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February 12, 2020 **VIA PRIVATE CARRIER**

Brian Dietz
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Subject: Vapor-Intrusion Investigation and Sub-Slab-Depressurization-System Operation,
Round 27 August 2019 Monitoring Report
Lockheed Martin Corporation – Middle River Complex
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Dietz,

For your review please find enclosed two hard copies with a CD of the above-referenced document. This report documents the second round of indoor air and sub-slab vapor monitoring for calendar year 2019 at the Lockheed Martin Middle River Complex in Middle River, Maryland. This report contains the Round 27 (August 2019) monitoring results for Buildings A, B, and C, and background sampling locations. This report also includes a status update of the two sub-slab-depressurization vapor-intrusion-mitigation systems originally installed at the Middle River Complex in 2008.

If possible, we respectfully request to receive MDE's document review comments by March 25, 2020.

Please let me know if you have any questions. My office phone is (301) 548-2209.

Sincerely,

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Project Lead, Environmental Remediation

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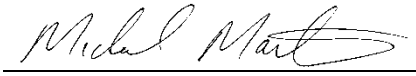
VAPOR INTRUSION INVESTIGATION AND SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, ROUND 27 AUGUST 2019 MONITORING REPORT LOCKHEED MARTIN MIDDLE RIVER COMPLEX 2323 EASTERN BOULEVARD MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

February 2020

Revision: 0



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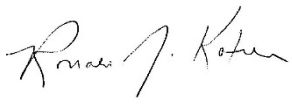

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ACRONYMS AND ABBREVIATIONS

AF	attenuation factor
ca	carcinogenic
CCTV	closed-circuit television
COC	chemical(s) of concern
DCA	dichloroethane
DCE	dichloroethene
DUP	duplicate
°F	degrees Fahrenheit
Freon 22	chlorodifluoromethane
GAC	granular activated-carbon
GC/MS	gas chromatograph/mass spectrometer
GC/PID	gas chromatograph/photoionization detector
HVAC	heating/ventilation/air conditioning
in. Hg	inch(es) of mercury
IA	indoor air
J	compound positively identified, but quantitation is estimated
lb(s)	pound(s)
lb(s)/day	pound(s) per day
lb(s)/month	pound(s) per month
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
$\mu g/m^3$	microgram(s) per cubic meter
mph	mile(s) per hour
MPL	mechanical prototype laboratory
MRAS	MRA Systems, Inc.
MRC	Middle River Complex
MST	Mission Systems & Training
MTBE	methyl tertiary-butyl ether
nc	noncarcinogenic

OSHA	Occupational Safety and Health Administration
PCE	tetrachloroethene
PEL	permissible exposure limit
RMS	Rotary and Mission Systems
RSL	regional screening-level
PVC	polyvinyl chloride
SSD	sub-slab depressurization
SSDS	sub-slab-depressurization system
SV	sub-slab vapor
Tetra Tech	Tetra Tech, Inc.
TCA	trichloroethane
TCE	trichloroethene
TMB	trimethylbenzene
TO-15	Toxic Organic-15 analytical method
U	not detected
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VI	vapor intrusion
VMP	vapor monitoring point
VOC	volatile organic compound

SECTION 1
INTRODUCTION

Tetra Tech, Inc., (Tetra Tech) has prepared this report on behalf of Lockheed Martin Corporation (Lockheed Martin) to document the second round of indoor air (IA) and sub-slab vapor (SV) monitoring for calendar year 2019 at the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland. This report contains the Round 27 (August 2019) monitoring results for Buildings A, B, and C, and background sampling locations. This report also includes a status update of the two sub-slab-depressurization (SSD) vapor-intrusion-mitigation systems originally installed at the Middle River Complex in 2008: one beneath the Building A plating shop and the other beneath the southern portion of the Building C basement. This monitoring is part of an ongoing investigation to evaluate whether volatile organic compounds (VOCs) in sub-slab vapors (associated with soil and groundwater chemicals of concern [COC] at the site) might be moving into indoor air at Middle River Complex facilities, and to evaluate whether subsurface vapor contamination remains at concentrations dictating continued operation of the sub-slab-depressurization mitigation system, or if a transition/exit strategy can be performed. The second monitoring round for calendar year 2019 continues investigations previously described in the reports listed in Table 1-1.

This report is organized into the following sections:

- Section 2—Round 27 Indoor-Air and Vapor-Intrusion Investigation: Briefly summarizes previous investigations and interim measures and describes the sampling methodology used for the current investigation round.
- Section 3—Round 27 Results: Presents the results of the August 2019 investigation.
- Section 4—Sub-Slab-Depressurization-System Data Analysis: Summarizes the operation and monitoring of the sub-slab-depressurization systems in Buildings A and C for the reporting period from April 1 to September 30, 2019.

- Section 5—Conclusions: Presents conclusions based on the Round 27 sampling results.
- Section 6—References: Lists the references used in this report.

Tables, figures, and appendices are at the end of the report body following Section 6.

SECTION 2
ROUND 27 INDOOR-AIR-QUALITY AND VAPOR-INTRUSION INVESTIGATION

This section briefly summarizes previous investigations and interim measures and describes the sampling methodology used in the current investigation round.

2.1 PREVIOUS INVESTIGATIONS AND INTERIM MEASURES

The indoor air (IA) and sub-slab vapor (SV) investigation described herein was initially designed to evaluate whether volatile organic compounds (VOCs) associated with soil and groundwater contamination at the site might be moving into IA at Middle River Complex (MRC) facilities. Tetra Tech, Inc. (Tetra Tech) industrial hygienists chose the initial sampling locations for Buildings A, B, and C during a 2006 site reconnaissance. Additional sampling locations were selected throughout program implementation based on previous IA and SV monitoring results, site conditions, and internal operations (Tetra Tech, 2017d).

Although IA results had predominantly been below risk-based screening levels after the first three rounds of sampling in February 2006, December 2006, and April 2007 (with one trichloroethene [TCE] exceedance in 109 samples [1]), two sub-slab depressurization (SSD) vapor intrusion mitigation systems (one beneath the former Building A plating shop and the other beneath the southern portion of the Building C basement) were installed at the MRC in 2008 (Tetra Tech, 2008d), based on elevated SV concentrations detected beneath the buildings. The Building A SSD system (SSDS) was expanded in 2010 (Tetra Tech, 2010c), in 2016 (Tetra Tech, 2016d), and again

[1]One TCE concentration (36 micrograms per cubic meter [µg/m^3]) out of 109 total samples (including duplicates) exceeded the previously used MDE indoor air screening level (25 µg/m^3). The exceedance was observed in the duplicate sample of a field-duplicate pair; TCE was not detected in the corresponding parent sample. Since then, the indoor air screening level has been reduced to 8.8 µg/m^3; even so, that result would have been the only exceedance.

A site-specific TCE screening-level of 35 µg/m^3 for indoor air has been derived for the Building A basement based on limited exposure potential in the basement. This screening level was approved by the Maryland Department of the Environment (MDE) in July 2017. However, the site-specific screening level for the basement does not represent a final risk-based indoor air cleanup criterion.

in 2017 (Tetra Tech, 2017f) after elevated SV concentrations were detected at additional locations. The Building C SSDS was expanded in 2012 (Tetra Tech, 2012c) and 2013 (Tetra Tech, 2013c) for similar reasons (elevated SV concentrations in the central portion of the basement). Subsequent rounds of IA sampling indicated that main floor contaminant concentrations in IA resulting from vapor intrusion (VI) were being controlled by the SSDSs.

Building A Vapor Assessment and Mitigation Optimization

However, recent investigations in Building A and the Building A basement have identified elevated TCE concentrations in SV, water (groundwater and water in sumps), and in basement IA. The following presents a list of subsequent VI investigations in Building A and the Building A basement from 2014–2018, followed by a more detailed description of each investigation:

(a.) portable gas-chromatograph/mass-spectrometer (GC/MS) surveys of IA and sub-slab air from within Building A basement floor features (e.g., sumps, drains) in February 2014 and April 2016 (Tetra Tech, 2014b, 2016b)

(b.) installation of three portable air-filtration units in January 2015 in the Building A basement to mitigate TCE exceedances in indoor air (Tetra Tech, 2016d)

(c.) installation and sampling of additional Vapor Pin™ vapor monitoring points (VMPs), including seven in the eastern wall of Building A basement, two in the Building A basement floor, and one beneath the main floor of Building A in March 2016 (Tetra Tech, 2016b)

(d.) collection of air and water samples from select floor features (i.e., sumps, drains) in Building A basement in May 2016 (Tetra Tech, 2016b, 2016c)

(e.) a continuous air-monitoring survey of SV and breathing-zone IA in the Building A basement over two months (February 24 to April 21, 2017) (Tetra Tech, 2017b)

(f.) a test to determine the effects resulting from covering select floor features (e.g., sumps and drains that had exhibited the highest TCE concentrations) on basement IA concentrations in March 2017 (Tetra Tech, 2017b)

(g.) flow testing in two sumps in the southern portion of Building A basement to determine the volume of water being discharged from each individual sump back to Lift Station #5 in March–May 2018; and sampling of water in Building A basement sumps in March 2018, including water from a sump (not previously sampled) in the utility corridor between Building A basement and the Drop Hammer Building; an assessment of the data obtained from this study sought to determine a constructible, cost-effective

solution that effectively controls water and vapor accumulation in the sumps (Tetra Tech, 2018e).

Elevated TCE concentrations detected in air within, and above, select floor features (e.g., sumps) in the Building A basement led to the installation (as an interim measure) of three additional air-purifying filters (for a total of six filters) in the basement in May 2017 (Tetra Tech, 2018b). The continuous air-monitoring survey also identified significant sources of IA contamination in the basement at sumps associated with abandoned and/or removed heaters (Tetra Tech, 2017b). In addition to the new air-purifying filters, additional activities were completed in the summer of 2017 in Building A and its basement to address the elevated VOC results in SV and sump water from several recent investigations. A closed-circuit television (CCTV) camera survey of floor features in the Building A basement, including the sumps in existing and former heating rooms, the air-duct network that runs behind the eastern basement wall, the storm-drain line that runs north/south under the basement floor, and the smaller floor drains, was conducted to determine their condition, identify possible breaches, and better understand their direction and design. The CCTV survey indicated that the underground network of floor drains, pipes, and manholes/sumps are interconnected. Floor drains that might have mitigated water infiltration in and near pits associated with former equipment in Building A appeared to be connected to nearby sumps and storm drains. Other floor drains appeared to have been abandoned, which is supported by information received while conducting historical interviews of on-site personnel (Tetra Tech, 2018b).

In March/April 2016 (Tetra Tech, 2016b) and March 2017 (Round 22), sampling location SV-175-A (Figure 2-1) on the Building A basement floor had the highest TCE concentrations (460,000 and 650,000 micrograms per cubic meter [$\mu g/m^3$], respectively). The maximum August 2017 (Round 23) SV TCE concentration (21,000 $\mu g/m^3$) was also detected at location SV-175-A. Location SV-175-A was removed from the sampling list and not sampled in February 2018 (Round 24) since consistently elevated TCE concentrations detected during previous sampling negated the need to continue collecting data from this location at that time. High TCE SV concentrations (2,500 $\mu g/m^3$ to 16,000 $\mu g/m^3$) were also noted at two locations (SV-171-A and SV-173-A) in the eastern wall of the Building A basement during 2016 (Tetra Tech, 2016b), at three locations (SV-170-A, SV-171-A, and SV-173-A) in the eastern wall of the Building A basement in

2017 (in both the March [Round 22] and August [Round 23] sampling), and at two locations (SV-171-A and SV-173-A) in the eastern wall of the Building A basement in February 2018 (Round 24).

These high TCE concentrations prompted a pilot test conducted on July 6, 2017; this test evaluated the feasibility of extracting vapors from within the basement duct system at former heater room A-9/sump HRS-5 (located immediately adjacent to SV-175-A, where the highest TCE concentrations have been detected historically) using the existing SSDS (Tetra Tech, 2018b). The pilot test was successful, HRS-5 was left connected to the SSDS, and the system continues to extract vapor from this sealed sump.

In July 2017 (Tetra Tech, 2017b), a FROG 4000™ gas-chromatograph/photoionization detector (GC/PID) survey of the main floor of Building A assessed whether TCE detected in indoor air near the basement sumps was migrating through air ducts connected to the sumps, and through the floor air-vents, to the main floor of Building A. TCE detections ranging from 32.8 µg/m^3 to 103.7 µg/m^3 were recorded in samples collected from inside the vents and in IA above the vents; therefore, in September 2017 each air vent on the main floor (regardless of screening results) was sealed using a vapor barrier and a bolted-down steel plate. Sealing these floor vents on the main floor of Building A closed off this exposure pathway and prevented further migration of TCE vapor from the basement. A subsequent FROG 4000™ survey in October 2017 verified seal integrity at the 42 air-vent locations and confirmed the absence of IA TCE near the vents. No TCE was detected in any IA sample collected; all results were non-detected (Tetra Tech, 2018c).

In January–May 2018, Tetra Tech conducted an inspection of the sump pumps in Building A basement and conducted flow testing in two sumps (SP1/SP1A and the utility corridor sump) in the southern portion of Building A to measure the volume of water being discharged (via polyvinyl chloride [PVC] piping) from each sump to sanitary sewer Lift Station #5. Water samples were also collected from sumps in Building A basement during this investigation. Information gained from the January–May 2018 studies was used to determine constructible, cost-effective solutions that control water and vapor accumulation in Building A basement sumps (Tetra Tech, 2018e). Mitigation strategies have been proposed and subsequently approved by Maryland Department of the Environment (MDE) (Tetra Tech, 2019), and will be implemented (starting in December 2019) with the abandonment of sump HRS-5. After monitoring for potential unintended consequences

(i.e., flooding of the basement), two additional sumps (HRS-6 and HRS-7) in the southern portion of Building A basement will be abandoned. There are no plans to mitigate sumps SP1/SP1A and the utility corridor sump.

The sump inspection determined that the pump in sumps SP1/SP1A was the only one in the target area (southern portion of Building A basement) that pumps a significant volume of water back to Lift Station #5, and subsequently the sanitary sewer system. Only a small amount of water (less than three gallons) was collected in the utility corridor sump over a two-month period. The respective TCE concentrations detected in sump water at SP1/SP1A during the last three sampling events were: 120 microgram(s) per liter (µg/L) and 2,700 µg/L in May 2016; 160 µg/L and 440 µg/L in March 2017; and 160 µg/L (SP1 only)[2] in March 2018. The TCE concentration detected in the utility corridor sump was 53 µg/L. These concentrations are two to three orders of magnitude higher than the TCE concentrations (2.3 µg/L and 2.6 µg/L) detected in water samples collected from Lift Station #5, indicating that dilution is likely occurring at the lift station due to the other discharged water it receives. Various pipes discharge into the lift station, including those carrying heating, ventilation, and air conditioning (HVAC) condensate water. This additional water is likely responsible for the apparent low concentration of TCE concentrations detected at Lift Station #5 as compared to the concentrations detected at the sumps.

2.2 INVESTIGATION PROCEDURES

The sampling plan for Round 27 was based on historical detections, information obtained during site reconnaissance, and a review of historical information and reports. IA and SV samples were collected from Buildings A, B, and C during Round 27 sampling. Relevant guidance from the United States Environmental Protection Agency [USEPA] (USEPA, 1996, 2004, 2012, and 2015) and the Maryland Department of the Environment [MDE] (MDE, 2006) was used to develop the investigation methodology.

[2]The only sample collected in March 2018 was from SP1, as the focus at that time was on that sump. Note that sumps SP1/SP1A are connected underground.

2.2.1 Sampling Approach

IA and SV sampling within Buildings A, B, and C was completed in accordance with the work plan for Rounds 24–29 (Tetra Tech, 2017d). Background outdoor air samples were collected from the same sampling locations as had been used for the previous Round 26 (Figure 2-2). Not all existing monitoring points inside the subject buildings were sampled during Round 27. As in previous rounds, samples were selectively collected in or adjacent to areas where contaminants had been detected previously, or in areas where contaminants are currently suspected of being present.

TCE has been targeted as a primary chemical of concern (COC); it has a history of use at the site; has been detected in groundwater and soil gas; can be toxic to human health depending upon the dose received and the duration and means of exposure; and is mobile in the environment. Historical sampling locations and the sub-slab VMPs sampled in Buildings A, B, and C during this round are shown in Figures 2-3, 2-4, and 2-5, respectively. IA sampling locations were co-located with most of the monitored SV sampling locations to evaluate IA and any possible relationship between SV and IA in Building A, B, and C.

Round 27 sampling was performed on August 14 and 15, 2019. Seventy-two samples (and eight duplicates) were collected using Summa® canisters as follows:

- four background ambient-air samples were collected at the same locations used in the previous round
- 35 IA samples (and four duplicates) from Buildings A, B, and C:
  - 15 IA samples (and two duplicates) from Building A
  - two IA samples from Building B
  - 18 IA samples (and two duplicates) from Building C
- 33 SV samples (and four duplicates) from Buildings A, B, and C:
  - 16 SV samples (and two duplicates) from Building A
  - two SV samples from Building B
  - 15 SV samples (and two duplicates) from Building C

- The "-A," "-B," and "-C" suffixes in the sampling location designations correspond with Buildings A, B, and C, respectively.

2.2.1.1 Building C Basement Machine Shop

Five IA samples from Building C (144-C, 145-C, 146-C, 150-C, and 152-C) were collected in the machine shop of the Lockheed Martin Rotary and Mission Systems (RMS) (formerly the Lockheed Martin Mission Systems & Training [MST] mechanical prototype laboratory [MPL]). Monitoring continues in this area because TCE was detected in IA at a concentration greater than its screening level during Round 15 (August 2013). The five sampling locations that provide data for possible worker-exposure areas within the MPL are:

- 144-C: machine shop area
- 145-C: cubicle area
- 146-C: kitchen area
- 150-C: kitchen area
- 152-C: machine shop area

2.2.1.2 Building A Basement

Five SV samples (three in the eastern wall of the Building A basement [170-A, 171-A, and 173-A], one in the Building A basement floor [174-A], and one beneath the main floor of Building A [168-A]), were collected during Round 27 to target possible TCE sources, including a former underground storage tank and vapor degreasers associated with former plating shop operations.

2.2.2 Sampling Procedures

Before SV sampling, the tubing for each VMP was purged of atmospheric air, allowing SV to enter the probe and tubing. Purging was performed by attaching the sample tubing to a low-flow sampling pump set to an approximate flow rate of 200 cubic centimeters per minute to minimize the potential mobilization of SV that could bias the sample. Three volumes (i.e., the volume of the sample probe and tube) were purged to ensure that collected samples were representative of SV conditions. IA samples were collected at standard breathing-zone levels as on-site conditions allowed (e.g., on a shelf, or top of cabinet); otherwise, IA samples were collected on the ground surface. Select samples were co-located with the corresponding SV sampling locations.

Each SV sample was collected over one hour and each IA sample was collected over an eight-hour period using preconditioned Summa® canisters to ensure subsurface equilibration and avoid high negative pressure that might mobilize SV and bias the IA results. The one-liter stainless-steel canisters were equipped with in-line particulate filters and integral controllers that control the rate of filling during sampling. SV samples were collected through Teflon® tubing attached to the stainless-steel Vapor Pins® or vapor implants. Each sampling location was routinely inspected during the sampling period to ensure appropriate operation of sampling devices, sample integrity, and to document conditions within the area that might affect results. Samples were collected by opening the valve on the canister, which allowed air to enter the canister at the rate set by the controller (a one-liter canister over a period of one hour [for SV] and over a period of eight hours [for IA]). Controllers were calibrated in the laboratory and shipped to the field with a sufficient flow rate that would maintain the necessary vacuum pressure in the Summa® canister for the one-hour and eight-hour sampling intervals. Samples were collected and analyzed for VOCs by USEPA Method Toxic Organic-15 (TO-15). SV samples were collected in accordance with standard operating procedures developed by the USEPA Environmental Response Team for soil vapor sampling (USEPA, 1996), and methodologies developed by the USEPA Office of Research and Development (USEPA, 2004). After sampling had been completed, each canister was closed and sent to an off-site laboratory (TestAmerica, Inc. in Knoxville, Tennessee) under proper chain of custody procedures.

2.2.3 Observations

The SSD systems in the Building C basement area and the Building A plating shop were shut down approximately 24 hours before sampling began. The SSD systems were restarted within one hour after sampling had been completed in Buildings A and C; this is consistent with previous monitoring episodes. The following observations were recorded during the August 2019 sampling:

- Mean outdoor ambient temperature during the sampling period was 79 degrees Fahrenheit (°F) on August 14, 2019 and 78°F on August 15, 2019. Barometric pressure increased slightly during the sampling period, from 29.63 inches of mercury (in. Hg) to 29.84 in. Hg. Wind direction on August 14 was from the west/northwest and on August 15 from the east/northeast, with average wind speed ranging from calm to 13 miles per hour (mph). Skies were mostly cloudy on August 14 and August 15, 2019.

- No precipitation (rain) was recorded on August 14 or August 15, 2019.

- Water was present in the Building B flush-mounted vault (shallow subsurface groundwater accumulation) at sampling locations 121-B and 140B, preventing sample collection. Alternate IA and SV samples were collected at nearby locations 101-B and 100-B, respectively.

- IA and SV samples from 118-A and SV sample from 139-A were collected in the bond-layup room (Building A production floor), where a positive-pressure air-conditioning system was operating. The door adjacent to 139-A was opened and closed frequently during sampling.

- The lid for sample location 081-A could not be removed because it had been painted over when the floor was painted; therefore, an SV sample was not collected at 081-A. A replacement SV sample was collected at nearby location 139-A.

- Sampling location 015-A is in the former plating shop area (Building A production floor). After the sampling round in August 2015, this area had undergone redevelopment and construction. A new floor has been installed, and this area is now an extension of the bond-layup room. IA and SV samples from 015-A were collected in this newly expanded bond-layup room (former plating shop), where a positive-pressure air-conditioning system was operating.

- Sampling locations 018-A, 093-A, 116-A, and 138-A were collected in the Building A basement. Samples from four locations in the basement were added to the sampling program in the work plan (Tetra Tech, 2017d) due to ongoing TCE VI investigation there. These include three additional sampling locations in the eastern wall (170-A, 171-A, and 173-A) and one in the floor (174-A).

- The air-purifying units in the Building A basement were operating when samples were collected.

- Several IA and SV samples (018-A, 021-A, 075-A, 078-A, 079-A, 081-A, 117-A, 118-A, 100-B, and 101-B) were collected near operating overhead ceiling fans and/or floor fans used to cool the building during warmer months.

- A paint and dangerous goods labeled cabinet was located near IA and SV sampling location 0136-A.

- Painting and copper shavings were being conducted near IA and SV sampling location 076-A.

- Painting and dust were located in the area of IA and SV sampling location 101-B.

- The IA and SV samples from 168-A were collected near the location of a former vapor degreaser on the main floor of Building A.

- IA and SV samples in Building C basement at locations 001-C and 004-C were collected approximately 70 feet from a bay door to the outside that was opened intermittently.

- Samples IA-144-C through IA-146-C, IA-150-C, and IA-152-C in Building C basement were collected in a positive-pressure, air-conditioned room (the RMS MPL machine shop).

- Building A is a one-story building, except for a basement corridor under an open-air loading dock on its western side. Roof vents approximately 50 feet above the work floor were open in Building A during Round 27 sampling. The large doors at the loading docks on the western side of the building were also open to allow carts, forklifts, personnel, and equipment to pass. Increased ventilation associated with open doors and roof vents might have affected concentrations in samples collected on the first floor of Building A. No personnel or other activities were observed in the Building A basement.

- The bay doors across the southern end of Building B were open during sampling. The automatic bay door at the southeastern corner of Building B was opened and closed quickly to allow carts and equipment to pass. The opening of the bay doors might affect concentrations in samples collected from the southernmost sampling locations (IA-100-B and IA-101-B). Open roof vents were also observed in Building B during sampling.

- The Building C basement is generally accessed via two automatic rolling doors on its eastern and southern sides. These doors open and close quickly to allow carts and forklifts to pass. The automatic rolling door approximately 40 feet east of sampling location 141-C was opened and closed intermittently during the day. The bay doors at the southern and southeastern sides of the Building C basement were open during the sampling period. This might have influenced IA concentrations in the samples collected from locations 001-C and 004-C.

- The most personnel and greatest activity were observed in Building B, in locations from the thrust-reverser assembly area in the southern portion of the building to the machining area in its central portion. Similar activity was observed in Building A, where activity was generally focused in the expanded bond-layup room (former plating shop area) and autoclave areas, and in the parts and assembly areas. No activity was observed in the southern portion of Building C. Light activity (three people) was observed in the machine shop area in Building C basement.

- The southern end of the Building C basement is mostly vacant, having been cleared of workstations and equipment by MRA Systems, Inc. (MRAS) (Note that ownership of MRAS was transferred from General Electric (GE) to Singapore Technologies Engineering, Ltd. (ST Engineering). Some materials are being temporarily stored in this area.

- The pressure gauges on most Summa® canisters responded instantaneously upon opening the valve by dropping to between -25 in. Hg and -30 in. Hg. Two pressure gauges (IA-145-C and IA-DUP2-C) had beginning pressures of less than - 25 in. Hg. The ending readings on pressure gauges of most Summa® canisters were between -3 in. Hg and -9 in. Hg when

sampling was complete. Despite these varied pressure readings and faulty gauges, all regulators operated properly and collected adequate sample volumes. Pressure readings for each Summa® canister are recorded on the chain of custody forms (Appendix A).

Samples were analyzed for the current target-compound list, last amended on February 12, 2012:

- 1,1,1-trichloroethane (1,1,1-TCA)
- 1,1,2-trichloroethane (1,1,2-TCA)
- 1,1-dichloroethane (1,1-DCA)
- 1,1-dichloroethene (1,1-DCE)
- 1,2,3-trimethylbenzene (1,2,3-TMB)
- 1,2,4-trichlorobenzene
- 1,2,4-trimethylbenzene (1,2,4-TMB)
- 1,2-dichloroethane (1,2-DCA)
- 1,3,5-trimethylbenzene (1,3,5-TMB)
- Benzene
- carbon tetrachloride
- chlorodifluoromethane (Freon 22)
- chloroform
- *cis*-1,2-dichloroethene (*cis*-1,2-DCE)
- dichlorodifluoromethane
- ethylbenzene
- methylene chloride
- methyl-tertiary-butyl ether (MTBE)
- naphthalene
- tetrachloroethene (PCE)
- toluene
- *trans*-1,2-dichloroethene (*trans*-1,2-DCE)
- trichloroethene (TCE)
- vinyl chloride (VC)
- xylenes (total)

All samples collected during Round 27 were submitted to TestAmerica in Knoxville, Tennessee, for analysis via GC/MS using cryogenic concentration (as described in Sections 9 and 10 of USEPA Method TO-15 [USEPA, 1999]). This method was used because of its low detection limits (in the parts-per-billion by volume range), and because it can quantify all VOCs of concern. TestAmerica is certified in USEPA Method TO-15 analysis and meets all quality assurance/quality control requirements specified in the TO-15 methodology.

All samples were stored at ambient temperatures and shipped to the laboratory via overnight carrier. All samples were submitted and analyzed within the method's specified 30-day holding time. All appropriate chain of custody documentation was completed for each sample (see Appendix A). A table listing TestAmerica's method detection limits is in Appendix B; Appendix C contains the laboratory analytical reports. Data-validation reports and supporting documentation are in Appendix D.

Validated analytical data were qualified in accordance with USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, 2017). Attaching data qualifiers to analytical results signifies a quality-control noncompliance. During Round 27, the following data qualifiers were applied to data after validation if applicable:

- *J*—indicates an estimated result below the reporting limit, or an estimated result greater than the reporting limit with a quality control nonconformance.
- *U*—indicates the chemical was not detected at the numerical detection limit (i.e., at the sample-specific quantitation limit).
- UJ—indicates the chemical was not detected at the (estimated) numerical detection limit (i.e., the sample-specific quantitation limit).

Field duplicate sampling results were evaluated based on the following criteria: a relative percent difference of less than or equal to 50% when both original and duplicate results were greater than the reporting limit, or a difference within two times the reporting limit when original and duplicate results were less than or equal to the reporting limit. Detected results for chlorodifluoromethane and methylene chloride in sample IA-088-C-27 and its corresponding duplicate were qualified as estimated (*J*) due to field duplicate precision, as were detected results for 1,1-DCE, ethylbenzene, and total xylenes in sample SV-102-C-27 and its corresponding duplicate (Appendix D). In addition, detected results for methylene chloride in sample SV-116-A-27 and its corresponding duplicate were qualified as estimated (*J*) due to field duplicate precision (Appendix D). No other results were qualified for field duplicate imprecision during Round 27. Original and field duplicate results were considered separately when evaluating exceedances; i.e., if an analyte's concentration in either the original or duplicate sample exceeded criteria, that exceedance is noted. In summary statistics (e.g., frequency of detection counts), field duplicate pairs were counted as one sample, and calculated averages were reported (e.g., in the "average of all values" calculation), as shown on Section 3 tables.

In addition to the results qualified for field duplicate imprecision, several other minor issues were identified during data validation. Some results were qualified as estimated (*J* or UJ, as applicable) for calibration noncompliance. Several detected results were also qualified as estimated (*J*) due to laboratory-identified chromatographic interference, laboratory control sample noncompliance, or uncertainty near the detection limit for detections less than the reporting limit. Additionally,

methylene chloride results in several samples were qualified as non-detected (*U*) or estimated (*J*) due to laboratory blank contamination. However, no major problems were identified during data validation.

2.3 OCTOBER 2019 RESAMPLES

The Building A SSDS was discovered offline during the September 23, 2019 system check, and based on the SSDS hour counter reading taken at that time, the system had not been operating since September 11, 2019. This prompted additional IA sampling at seven locations (015-A, 018-A, 021-A, 079-A, 117-A, 136-A, and 168-A) within or close to the radius of influence of the Building A SSDS on October 2, 2019. This resampling was conducted to determine the quality of IA in Building A and Building A Basement after the 12-day SSDS shutdown. Results of the October sampling are discussed separately in Section 3. During the October resampling event the following observations were recorded:

- A large fan was on and running inside the room when sample IA-018 was collected.
- A large fan (located about 20 feet away) was pointed in the general direction of IA-136, and that fan was turned on at some time during the eight-hour sample collection period.
- Workers were painting approximately 100 feet away from sampling location IA-117 when the Summa canister was picked up; the painting had started at some time after initial placement of the Summa® canister.

SECTION 3
ROUND 27 RESULTS

All analytical results for indoor air (IA) and background (ambient air) samples were compared to screening levels for industrial air; these levels are based on United States Environmental Protection Agency (USEPA) *Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites* (USEPA, 2019). Screening the chemicals of concern (COC) uses the lower of the carcinogenic (*ca*) or noncarcinogenic (*nc*) values. Carcinogenic values are based on a 1×10^{-5} (i.e., a one-in-100,000 probability) excess cancer-risk, whereas the noncarcinogenic values are based on a hazard quotient of 1 (i.e., the "no adverse effect" level). For samples collected in the Building A basement only, indoor air levels of trichloroethene (TCE) were compared to a Maryland Department of the Environment (MDE)-approved basement-specific screening level of 35 micrograms per cubic meter ($\mu g/m^3$), based on the limited exposure potential for workers entering the basement.

These risk benchmarks were selected in accordance with Maryland Department of the Environment (MDE) requirements. Analytical results were also compared to federal Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs). Alternate values, such as the "Threshold Limit Values" published by the American Council of Governmental Industrial Hygienists, were used for chemicals without published permissible exposure limits.

Sub-slab vapor (SV) sampling results were compared to SV screening values derived in accordance with the methods discussed in USEPA's *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Sources to Indoor Air* (USEPA, 2015), and were calculated by dividing indoor-air (IA) screening levels by a conservative attenuation factor (AF) of 0.03. The AF represents the adjustment applied to IA screening levels to account for concentration reductions due to diffusive, advective, and/or other attenuating mechanisms as vapor migrates from the sub-slab to IA. Simply stated, SV is expected to dilute upon movement into IA; the AF is the ratio of the IA concentration to its SV concentration under a conservative

vapor-intrusion (VI) scenario. The recommended AF in the 2015 USEPA guidance results in higher SV screening values than those used for sampling rounds before August 2012, when an earlier USEPA AF of 0.1 was used. USEPA further acknowledges that applying the AF of 0.03 to industrial buildings is conservative (i.e., more protective of human health and the environment), because the value was developed based on residential VI studies and does not account for industrial buildings that generally have thicker building slabs and stronger heating/ventilation/air-conditioning (HVAC) systems than residential homes.

3.1 ROUND 27 DATA ANALYSIS

The sampling-round designation (R27) is not included when identifying samples or sampling locations in the following text, because all data discussed in this section are from Round 27. For example, an IA sample collected from vapor monitoring point (VMP) 076 (e.g., sample IA-076-A-R27) is referred to as "076-A." If comparisons are made to specific samples from previous sampling rounds, they will be identified as such in the text or by using the round-designation suffix (e.g., R06 for Round 6).

Descriptive statistics for Round 27 IA and SV samples are shown in Tables 3-1 and 3-2, respectively. Summary statistics for TCE and naphthalene in IA over time are shown in Tables 3-3 and 3-4, respectively, and indicate that detected concentrations of TCE and naphthalene from Round 27 are less than or within the ranges of concentrations detected during previous sampling rounds. Figures 3-1, 3-2, and 3-3 show Round 27 exceedances in Buildings A, B, and C, respectively. The following chemicals were detected in Round 27 IA and/or SV samples at concentrations exceeding their respective MDE industrial risk-management benchmarks:

- IA—naphthalene and TCE
- SV—1,1-dichloroethane (1,1-DCA), TCE, and vinyl chloride (VC)

3.1.1 Building A

Tables 3-5 and 3-6 present the Building A IA and SV results, respectively. Locations with exceedances are shown in Figure 3-1. One detected IA concentration (9.3 µg/m^3) of TCE at location 093-A in the basement exceeded its project IA screening level of 8.8 µg/m^3, but was less than the basement-specific TCE screening level of 35 µg/m^3, and is therefore not an exceedance.

Additionally, one detected naphthalene IA concentration (4.3 µg/m^3) in the duplicate sample collected at 018-A was greater than its screening level (3.6 µg/m^3); however, naphthalene was not detected in the corresponding parent sample at 018-A.

TCE was the only analyte detected in SV at concentrations exceeded screening levels. TCE was detected in all Round 27 SV samples and exceeded its screening level (293 µg/m^3) in six samples; TCE is further discussed below.

3.1.1.1 TCE in Building A Basement

Beginning in Round 15 (August 2013), TCE has periodically been detected in IA in the Building A basement at concentrations greater than its project IA screening level (8.8 µg/m^3), including Round 17 (August–November 2014), Round 20 (February 2016), Round 22 (March 2017), Round 25 (August 2018), and Round 27 (August 2019). However, IA TCE concentrations have not exceeded the Building A basement-specific screening level for TCE (35 µg/m^3) approved by MDE in 2017. The basement screening-level was developed to account for reduced exposure potential in the basement, as compared to exposure on the main floor of Building A. Access to the Building A basement is controlled by management.

TCE was detected in IA at all four Building A basement sampling locations (018-A, 093-A, 138-A, and 174-A) in Round 27, but at concentrations less than its basement-specific screening level. Detected IA TCE concentrations were 3.9 µg/m^3 and 3.6 µg/m^3 in parent and duplicate samples (respectively) at location 018-A, 9.3 µg/m^3 at location 093-A, 5.1 µg/m^3 at location 138-A, and 8.2 µg/m^3 at location 174-A.

Note that this is the fifth VI sampling round since vapor extraction began at the HRS-5 sump. This sump has been identified as likely the primary contributor of TCE impacts to indoor air in the Building A basement. Vapor is now being extracted there continuously under normal sub-slab depressurization system (SSDS) operating conditions; however, per sampling protocol, the SSDS was temporarily shut down for approximately 24 hours before IA and SV sampling started, and restarted immediately after sampling had been completed.

TCE exceeded its SV screening level (293 µg/m^3) at four basement locations (170-A, 171-A, 173-A, and 174-A) in the central portion of Building A, near or within the radii of influence of the sub-slab depressurization (SSD) systems; exceedances were 340 µg/m^3 at 170-A, 2,200 µg/m^3 at 171-A, 10,000 µg/m^3 at 173-A, and 4,400 µg/m^3 at 174-A. Locations 170-A, 171-A, and 173-A are in the eastern wall of the Building A basement and 174-A is in the basement floor; these locations were added to the semiannual IA/SV sampling in Round 22. SV TCE concentrations at sampling locations 171-A and 173-A have been exceeding the screening level since Round 22. SV TCE concentrations at sampling locations 170-A and 174-A also exceeded the screening level in several previous sampling rounds since they have been added to the sampling program.

3.1.1.2 TCE in First Floor of Building A

TCE (0.21*J* µg/m^3) was detected in IA in only one of 11 Round 27 first-floor Building A samples at a concentration an order of magnitude below its IA screening level (8.8 µg/m^3).

SV TCE exceeded its screening level (293 µg/m^3) at only two first floor locations, 118-A (420 µg/m^3) and 136-A (500 µg/m^3), during Round 27. Location 118-A is in the central portion of Building A and within the radii of influence of the SSD systems. Location 118-A is within the bond-layup room, where a positive-pressure-air-conditioning system was operating at the time of sample collection. TCE SV exceedances have been consistently observed at this location (118-A) since Round 18. TCE SV concentrations at 118-A in Round 19 (900 µg/m^3), Round 20 (2,300 µg/m^3), Round 21 (890 µg/m^3), Round 22 (2,000 µg/m^3), Round 23 (690 µg/m^3), Round 24 (1,500 µg/m^3), Round 25 (590 µg/m^3), Round 26 (1,800 µg/m^3), and Round 27 (420 µg/m^3) are all at least one order of magnitude (i.e., a power of 10) less than the SV concentration detected in Round 18 (13,100 µg/m^3).

SV TCE exceedances were also noted at location 136-A (in the eastern portion of Building A, near the radius of influence of the SSD system) in Rounds 20 through 25. However, the SV TCE concentration at this location during Round 26 was 270 µg/m^3 (less than the SV screening level of 293 µg/m^3). SV TCE concentrations at SV 136-A in Round 21 (850 µg/m^3), Round 22 (300 µg/m^3), Round 23 (790 µg/m^3), Round 24 (380 µg/m^3), Round 25 (660 µg/m^3), Round 26 (270 µg/m^3), and Round 27 (500 µg/m^3) have decreased by a factor of approximately 100 since the SSDS was

expanded to this location in 2016, after a reported TCE-vapor concentration of 35,000 µg/m^3 during Round 20.

The SV TCE concentration at first floor location 168-A, added to the semiannual sampling in Round 22 (and located within the radii of influence of the SSD systems), was less than the screening level during Rounds 26 and 27, but exceedances were noted at this location during previous sampling rounds including Round 25. SV TCE concentrations at sampling location 168-A exceeded the screening level in Rounds 22 through 25 (22,000 µg/m^3 [in Round 22]; 8,300 µg/m^3 and 7,900 µg/m^3 [for original and duplicate, respectively, in Round 23]; 1,300 µg/m^3 [in Round 24]; and 950 µg/m^3 and 920 µg/m^3 [for original and duplicate, respectively, in Round 25]), but have notably decreased over time following the SSDS expansion. Concentrations at location 168-A during Round 26 and 27 were 180 µg/m^3 and 270 µg/m^3, respectively, and were less than the SV TCE screening level (293 µg/m^3).

3.1.2 Building B

Tables 3-7 and 3-8 present Building B IA and SV results, respectively. Sampling locations within Building B are shown on Figure 3-2. No IA or SV exceedances were noted during Round 27. Similarly, no exceedances were noted in Building B IA or SV samples during Rounds 19 through 26. During Round 18, only one slight naphthalene exceedance (4.2 µg/m^3) was detected in IA at location 140-B, and this concentration only marginally exceeded its screening level (3.6 µg/m^3). No exceedances were noted in Building B IA or in SV samples during Round 17. Prior IA naphthalene exceedances were noted at locations 140-B (6.5 µg/m^3) and 0-33B (4*J* µg/m^3) during Round 16 (February 2014), 033-B (5 µg/m^3) during Round 15 (August 2013), and 057-B (3.8 µg/m^3) during Round 6 (July 2009). Prior naphthalene exceedances of the SV screening level (120 µg/m^3) were noted at several locations during Rounds 6, 9, and during Rounds 11 through 15, with the most recent exceedances at locations 140-B (250 µg/m^3) and 123-Z (160 µg/m^3) during Round 15 (August 2013).

3.1.3 Building C

Tables 3-9 and 3-10 present Building C IA and SV results, respectively. All detected IA concentrations were less than their associated screening levels during Round 27.

TCE was detected in three of 18 IA samples, but at low concentrations (0.54*J* µg/m^3 to 1.1*J* µg/m^3) and less than its screening level (8.8 µg/m^3). TCE was detected at all 15 SV sampling locations, and TCE exceedances in SV were noted at four locations (Figure 3-3):

- 060-C (570 µg/m^3), in the east-central portion of Building C, and within the SSD radius of influence
- 102-C (1,200 µg/m^3 and 890 µg/m^3 in parent and duplicate samples, respectively), in the central portion of Building C near REC #31 (former Patriot plating line), and external to the SSDS radius of influence
- 133-C (620 µg/m^3) in the central portion of Building C, north of REC #31 (former Patriot plating line), and within in the SSD radius of influence
- 141-C (330 µg/m^3), south of the museum room and north of the machine shop, in the northeastern portion of Building C, and within the SSDS radius of influence

SV TCE concentrations at 102-C also exceeded its screening level during Rounds 22 through 26. In the previous three sampling rounds (Rounds 24, 25, and 26), SV TCE exceedances were also detected at locations 060-C and 133-C, and SV TCE exceedances were detected at location 141-C during Rounds 24 and 26.

Although an SV TCE exceedance was detected in the southern portion of Building C at location 001-C during Rounds 21 and 25, no exceedance at that location was detected during Rounds 22 through 24, or during Rounds 26 and 27. An SV TCE exceedance was detected at location 113-C, in the south-central portion of the building, during Round 21, but not during Rounds 22 through 27. SV TCE exceeded its screening level at location 126-C during Rounds 22 through 26, but not during Round 27. Note that some uncertainty exists regarding Round 27 SV results for locations 126-C and 149-C, as historical trends indicate that the SV data for these locations may have been mislabeled. This is further discussed as part of the VC discussion below. Regardless, Round 27 SV concentrations of TCE at both locations (3.7 µg/m^3 at 126-C, and 200 µg/m^3 at 149-C) were less than the screening level (293 µg/m^3). SV TCE exceedances at location 152-C, in the east-central portion of Building C, were noted during Rounds 22 and 23, but not during Rounds 24 through 27. SV TCE exceedances in Building C appear to be sporadic and do not follow an observable spatial pattern.

During Round 27, a sole VC exceedance (2,700 µg/m^3) of its screening level (933 µg/m^3) was detected in SV at location 149-C. SV exceedances of VC had not been detected at location 149-C during previous rounds of sampling; however, SV exceedances of VC have consistently been observed at location 126-C since Round 12, with recent concentrations as follows: Round 18 (1,310 µg/m^3), Round 19 (16,000 µg/m^3), Round 20 (3,100 µg/m^3), Round 21 (5,000 µg/m^3), Round 22 (2,600*J* µg/m^3), Round 23 (3,300 µg/m^3), Round 24 (2,700 µg/m^3), Round 25 (6,300 µg/m^3), and Round 26 (1,100 µg/m^3). VC exceedances in SV at location 126-C have occurred during recent sampling rounds (i.e., in Rounds 12–26). As mentioned previously, historical data, as compared to Round 27 data, appear to indicate that the SV samples for locations 149-C and 126-C may have been mislabeled (switched) during the current sampling round. Note that VC was not detected in IA during Rounds 12 through 27.

In addition to the screening level exceedances discussed above, SV exceedances of 1,1-DCA (2,900 µg/m^3 and 3,800 µg/m^3 in the parent and duplicate samples, respectively) were also detected at 102-C during Round 27 (the screening level is 2,567 µg/m^3). No Round 27 SV naphthalene concentrations exceeded its screening level in Building C; however, the naphthalene concentration detected in the duplicate sample at location 102-C (120 µg/m^3) was equal to its screening level (note that the naphthalene concentration in the parent sample at this location was 77 µg/m^3). Exceedances of 1,1-DCA and naphthalene in SV were noted at location 102-C during Round 22 (3,900 µg/m^3 for 1,1-DCA and 310 µg/m^3 for naphthalene), Round 23 (5,900 µg/m^3 for 1,1-DCA, and 180 µg/m^3 for naphthalene), Round 24 (5,600 µg/m^3 for 1,1-DCA and 180*J* µg/m^3 for naphthalene), Round 25 (7,900 µg/m^3 and 7,600 µg/m^3 for 1,1-DCA in parent and duplicate samples, respectively, and 280*J* µg/m^3 and 330*J* µg/m^3 for naphthalene in parent and duplicate samples, respectively), and Round 26 (4,800 µg/m^3 for 1,1-DCA and 210 µg/m^3 for naphthalene). No exceedances were detected during Round 21. Naphthalene and 1,1-DCA were not detected in IA during Round 27 but have been detected in IA in previous sampling rounds (i.e., in Rounds 10 and 11 for 1,1-DCA, and during Rounds 10, 11, 13 through 16, 18, 23, and 25 for naphthalene) at concentrations less than screening levels.

During Round 27, IA and SV concentrations of tetrachloroethene (PCE) did not exceed its screening levels; PCE detections in IA and SV have also been below its screening level in

Rounds 18 through 26. An IA exceedance of PCE (870 µg/m^3, as compared to its IA screening level of 180 µg/m^3) was detected at location 149-C in a Round 18 resample, collected because the TCE concentration at the same location approached, but did not exceed, its screening level in the original sample. Before Round 18, PCE had never been detected in IA or SV in Building C. PCE has not been detected above its detection limit in most SV samples collected at and near location 149-C over time, suggesting that the sole PCE exceedance in IA at location 149-C during Round 18 is anomalous, and possibly attributable to some IA source rather than to VI. PCE was not detected in IA or SV at 149-C during Round 27 but was detected in SV at 126-C with a low concentration (0.29*J* µg/m^3), less than its screening level (6,000 µg/m^3). As mentioned previously, historical data patterns indicate that the SV samples for locations 149-C and 126-C may have been mislabeled (i.e., switched) in the current sampling round.

3.2 BACKGROUND AMBIENT-AIR SAMPLES

Outdoor-air-quality (i.e., background) samples provide baseline concentrations for COC that can be compared to interior concentrations. Comparison to background indicates whether chemicals detected in IA are more likely associated with an exterior (i.e., background) or interior source (e.g., chemicals used in the workplace, or with past spills of chemicals absorbed to above-slab building materials, or sub-slab sources). Analytical results for Round 27 ambient (background) air samples are shown in Table 3-11. Figure 2-2 shows the background sampling locations used for Round 27; these locations are sufficiently far from site operations to avoid any possible site influence.

Table 3-12 lists chemicals detected in background samples and compares IA concentrations to the maximum detected background concentration. Nine VOCs were detected in background samples, and all chemicals detected in background samples were also detected in IA samples. All detected background concentrations are below their respective IA screening criteria. Table 3-12 evaluates whether chemical concentrations detected in IA are possibly due to interior sources, or if they simply reflect background conditions, using the following logic:

- When IA concentrations are equal to or less than background concentrations, IA concentrations likely reflect background conditions.

- When IA concentrations are greater than background concentrations and/or sub-slab concentrations, other interior sources are possibly contributing to IA concentrations.

- The presence of chlorinated degradation-products in IA samples (at concentrations less than those detected in SV samples), but not in background samples, suggests that sub-slab sources might contribute to these IA concentrations.

The chemicals exceeding screening levels in IA (i.e., TCE and naphthalene) were not detected in background samples; therefore, IA exceedances are likely due to indoor (or possibly SV) sources rather than being reflective of background conditions. However, IA detections of several chemicals at concentrations less than screening levels may be influenced by background. As presented in Table 3-12, chemicals with most of their IA detections below background (benzene and carbon tetrachloride) are likely influenced by ambient background contaminant sources. The remaining contaminants, detected in both ambient air and in IA, might be due to IA sources (and possibly VI to IA), and/or ambient background conditions. In any case, all background contaminants also detected in IA in Round 27 are below IA screening levels.

3.3 BUILDING A SSDS SHUTDOWN EVENT INDOOR AIR RESAMPLING

As noted in Section 2.3, the Building A SSDS was discovered offline during the September 23, 2019 system check, and according to the SSDS hour counter reading taken at that time, the system had not been operating since September 11, 2019. Resampling of seven IA locations within or close to the radius of influence of the Building A SSDS (i.e., locations 015-A, 018-A, 021-A, 079-A, 117-A, 136-A, and 168-A) took place on October 2, 2019; (Figure 3-4); these sampling results are in Table 3-13. Only one IA exceedance was detected: naphthalene (9.2 µg/m^3) at location 018-A exceeded its IA screening level of 3.6 µg/m^3. Note that a naphthalene exceedance (4.3 µg/m^3) was also noted at the same location (018-A) in August 2019.

SECTION 4
SUB-SLAB-DEPRESSURIZATION-SYSTEM DATA ANALYSIS

This section summarizes the operation and monitoring activities for the sub-slab-depressurization (SSD) systems (SSDS) in Buildings A and C for the reporting period from April 1 to September 30, 2019. A detailed account of these activities is in the October 16, 2019, remedial action progress report (Appendix E). The location and layout of the SSD systems, and associated sub-slab vapor (SV) extraction points and vapor monitoring points (VMPs), along with the process and instrumentation diagrams for the Building A and Building C SSD systems, are shown in Figures 1 through 5 of Appendix E. This section discusses SV sampling results, extraction points, system influent, vacuum influence, and SSDS performance.

4.1 SUB-SLAB VAPOR MONITORING POINTS

Tables 4-1 and 4-2 summarize the concentrations of target volatile organic compounds (VOCs) detected at SV monitoring points to date near the SSD systems in Building A (in the lay-up room [former plating shop on the main floor], basement, and eastern area [on main floor]), and in the Building C basement, respectively.

4.1.1 Building A

SV samples collected to date near the Building A SSDS are listed by location in Table 4-3. VMPs 015-A (on the main floor of Building A); 078-A, 079-A, and 136-A (in the eastern area of Building A); 168-A (in the northern area of Building A); and 093-A and 116-A (in the basement of Building A) were sampled in August 2019 (see Figure 2 in Appendix E).

VMPs 015-A (on the main floor of Building A) and 018-A (in the basement) had originally been scoped to be sampled regularly as part of the facility-wide semiannual SV and indoor-air (IA) monitoring program (see Figure 2 in Appendix E). However, VMP 018-A has not been sampled

since February 2014, because water regularly collects in its flush-mounted vault. Subsequently, VMPs 093-A and 116-A were added to the SSDS monitoring program.

The highest SV trichloroethene (TCE) concentrations detected at VMPs 015-A, 018-A, 079-A, 136-A, and 168-A before and after the Building A SSDS began operation are shown in Table 4-4. The concentrations detected at VMPs 015-A, 079-A, 136-A, and 168-A in August 2019 were at least one order of magnitude (i.e., 10 times) lower than the concentrations detected before SSDS extraction began operating in the area.

While a significant decline in TCE concentrations has been observed at 015-A, concentrations continue to fluctuate over time, with some apparent seasonal variation (higher in summer [August] as compared to winter [February]) since 2017. For example, TCE was detected at an estimated 2.3 micrograms per cubic meter ($\mu g/m^3$) in February 2017, at 51.5 $\mu g/m^3$ in August 2017, at 6.3 $\mu g/m^3$ in February 2018, at 73 $\mu g/m^3$ in August 2018, at 4 $\mu g/m^3$ in February 2019, and at 10 $\mu g/m^3$ during the August 2019 event (Figure 4-1). VOC-impacted groundwater likely provides a continuing source of VOCs to SV at 015-A. Similar fluctuations have also occurred at 018-A between August 2011 and February 2014.

VMPs 079-A and 136-A are near extraction points installed during the system expansion completed in April 2016. August 2019 results show that these locations have had more than a 90% decrease in total VOCs since the SSDS was expanded. Figure 4-2 shows that since August 2016, the summer (August) sampling results at these two points are higher than the winter (February) results, with what appears to be seasonal fluctuation.

VMP 168-A is near the system extraction point SSD-39-A, installed during the third-phase of system expansion completed in July 2017; this location continued to show VOC concentration decreases in August 2019 (TCE at 270 $\mu g/m^3$) as compared to concentrations in August 2018 (TCE at 950 $\mu g/m^3$) and before third-phase expansion in February 2017 (TCE at 22,000 $\mu g/m^3$) (see Table 4-1 and Figure 4-2). However, seasonal variation is also apparent at this point, as the August 2019 VOC concentrations were higher than the concentrations in February 2019.

Concentrations observed after SSDS startup were generally lower than concentrations detected

before the system began operation. VOC reductions at 018-A (in the basement, and last sampled in 2014 due to consistently high groundwater levels) might be more limited than those experienced at main floor VMPs, because the shallow groundwater table (typically less than one foot below the basement slab) possibly impedes vapor flow.

4.1.2 Building C

SV samples collected to date near the Building C SSD system are listed in Table 4-5. These points are within 100 feet of the Building C SSD-system extraction points in the basement; most[3] are within the vacuum influence of SSD-system operations. VMPs 001-C, SSD-4-C (in the southern basement area); and 060-C, 088-C, 113-C, 126-C, 133-C, 141-C 149-C, 152-C, 153-C, and 155-C (in the mid-basement area) were sampled in August 2019 (see Figure 4 in Appendix E).

The highest TCE concentrations in Building C were observed at VMPs 001-C, SSD-4-C, 060-C, 113-C, and 133-C before SSDS extraction began in those areas. The most recent concentrations are summarized in Table 4-6. August 2019 TCE concentrations are lower than the concentrations measured before SSD-system startup and are apparently reaching asymptotic levels after several years of vapor extraction in the area. The August 2019 TCE concentrations at VMPs 001-C, 060-C, 088-C, 113-C, 126-C[4], 133-C, 141-C, 149-C, 153-C, and 155-C were similar to the concentrations measured in the previous semiannual event (February 2019). TCE concentrations were higher at SSD-4-C (160 µg/m^3) and 152-C (150 µg/m^3) in August 2019 as compared to February 2019 concentrations (0.55 µg/m^3 and 49 µg/m^3, respectively) likely due to seasonal variation. Historical concentrations are presented in Table 4-2 and Figure 4-3.

Concentrations of vinyl chloride (VC) observed at 126-C (north of the SSDS extraction points) have also decreased since the SSD-system expansion (see Figure 4-4), but, as shown on Figure 4-4, VC concentrations in sub-slab vapor at 126-C have varied over time with what appears to be seasonal fluctuation; summer (August) sampling results are higher than the winter (February) results. VC has not been detected in SSDS influent samples or in groundwater samples collected from a nearby well pair (MW-88A/B).

[3]Locations 001-C, SSD-4-C, 060-C, 113-C, 127-C, 133-C, 135-C, 149-C, 152-C, 153-C, 155-C, and 156-C
[4]The laboratory results for 126-C and 149-C were erroneously switched by the laboratory.

4.2 SUB-SLAB VAPOR EXTRACTION POINTS

The Building A and Building C SV extraction points are not sampled as part of the semi-annual SSDS monitoring program, because the combined influent for the Building A system is sampled monthly, and the Building C system is sampled every two months (influent sampling results are presented in Section 4.4). Figure 2 in Appendix E shows the Building A extraction points (North, South, Basement North, and Basement South), horizontal extraction laterals, extraction pipe from basement sump HRS-5, and vertical extraction points in Building A (SSD-34-A, SSD-35-A, SSD-36-A, SSD-37-A, SSD-38-A, and SSD-39-A). Figure 4 in Appendix E shows the vertical extraction points in Building C: SSD-21-C, SSD-23-C, SSD-26-C, SSD-27-C, SSD-28-C, SSD-29-C, SSD-30-C, SSD-31-C, SSD-32-C, SSD-33-C, and SSD-34-C.

4.3 VACUUM INFLUENCE

Induced vacuum levels of target-area sub-slab VMPs over time are shown on the following figures in Appendix E: Figure 6 (Building A lay-up room and basement), Figure 7 (Building A eastern area), Figure 8 (Building C southern basement area), and Figure 9 (Building C mid-basement area). Representative vacuum measurements from the September 23, 2019 monitoring episode are indicated on plan views on Figures 10, 11, 12, and 13 of Appendix E. Vacuum influence associated with SSDS VMPs is checked biweekly. The target vacuum is 0.01 inches of water column or greater. (Note: negative vacuums at some points indicate pressure readings that are considered not influenced by the SSDS; pressure readings are likely due to undetermined local features.)

As indicated in the September 2019 progress report (Appendix E), extraction trenches near the Building A lay-up room induce a vacuum equal to or greater than 0.01 inches water column over an approximately 5,900-square-foot area; this area encompasses all SV monitoring points that had elevated VOC concentrations before system startup. The trenches in the Building A basement induce a vacuum over an approximately 2,000-square-foot area that encompasses three of the four VMPs used to measure the SSDS induced vacuum in the basement. The extraction wells in the eastern area of Building A induce a vacuum over an approximately 6,100-square-foot-area and encompass nine of 15 VMPs used to measure the SSDS induced vacuum in that area. Extraction point SSD-39-A in the western area of Building A is inducing vacuum at two nearby VMPs; the associated area of induced vacuum influence is approximately 880 square feet.

The Building C basement extraction wells induce vacuum influence over an approximately 3,800-square-foot area in the southern end of the basement, while the extraction wells in the mid-basement area induce vacuum influence over an approximately 32,900-square-foot area. In the mid-basement, 14 of 20 accessible monitoring points are within the target area shown to have vacuum influence.

SSD systems are performing as designed except for a lack of induced vacuum near SSD-136-A in the eastern area of Building A, as indicated by the lack of influence seen at 136-A-N and 162-A. However, TCE concentrations at 136-A and 136-A-N have both decreased more than 98% since the system was expanded in 2016.

4.4 INFLUENT-VAPOR SAMPLES

Influent-vapor samples are collected monthly to monitor the Building A SSDS operation, and once every two months to monitor the Building C SSDS operation. VOC concentrations at the granular activated-carbon (GAC) influent, midpoint (after the lead drum), and effluent (after the second drum) points are monitored to determine when the midpoint concentration reaches 50% of the influent; when the 50% breakthrough is reached, or at Tetra Tech's discretion with concurrence from Lockheed Martin Corporation (Lockheed Martin), the lead GAC drum is changed out. These samples also allow monitoring of influent-concentration trends over time. Samples are collected directly from all three sampling ports of both SSD systems by connecting a clean one-liter Summa® canister (batch certified) to the Teflon® tubing of each sampling port and opening the valve for approximately one minute. The samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica) in Knoxville, Tennessee for VOC analysis using United States Environmental Protection Agency (USEPA) Toxic Organic Method (TO-15).

Tables 4-7A and 4-7B summarize the influent-vapor concentrations of target VOCs in samples over time (from system startup in March 2008 through August 2019). These results are displayed graphically on Figures 14 and 15 in Appendix E. Tables 4-7A and 4-7B also provide average influent concentrations for the current (April–September 2019) and previous (October 2018–March 2019) six-month reporting periods. The six-month average-influent (total) VOC concentration during the current reporting period is slightly lower than the average-influent VOC

concentration during the previous semiannual reporting period in Building A (1,373 µg/m^3 versus 1,429 µg/m^3) and slightly higher in Building C (73 µg/m^3 versus 49 µg/m^3). Overall, influent VOC concentrations for both SSD-systems have been relatively stable or slowly decreasing since 2009 (see Figures 14 and 15 in Appendix E).

The goal of the SSD systems is to maintain a negative pressure below the slab (relative to the room space), thus minimizing VOC migration from the sub-slab soil into indoor air. VOC mass removal occurs by treatment of the vapor drawn out to maintain the vacuum.

VOC removal rates for SSDS influent mass in Building A ranged from 0.02 to 0.05 pounds per day (lbs/day); these rates are slightly lower than the removal rates observed in the previous semiannual reporting period (0.04 to 0.07 lbs/day). The Building A system has removed eight pounds (lbs) of VOCs during this reporting period, eight pounds during the previous reporting period, and has removed approximately 198 lbs since system startup in March 2008.

The VOC removal rate in Building C during the current reporting period was slightly higher than the previous reporting period, approximately 0.03 pounds per month (lbs/month) compared to 0.02 lbs/month. The Building C SSDS has removed 0.18 lbs of VOCs this reporting period, 0.12 lbs during the previous reporting period, and has removed 12.4 lbs since system startup in March 2008.

4.5 SYSTEM PERFORMANCE

In general, flow rates and induced vacuums for the SSD systems are performing as designed except for a lack of induced vacuum near SSD-136-A in the eastern area of Building A. We will continue to monitor system induced vacuum performance; however, some localized areas are likely to remain not amenable to induced vacuum, due to the heterogeneous structure of subsurface soil and water accumulation in the subsurface of these older structures. The induced-vacuum influence of the Building A system is over 5,900 square-feet on the main floor (encompassing the lay-up room), 2,000 square-feet in the basement, 6,100 square-feet in the northern and eastern areas, and 880 square feet in the western area. The induced-vacuum influence of the Building C SSDS extends over an approximately 3,800 square-foot area in the southern basement, and over approximately 32,900 square-feet in the mid-basement area.

SECTION 5
CONCLUSIONS

5.1 CONCLUSIONS

Tetra Tech, Inc., (Tetra Tech) has completed Round 27 of vapor-intrusion (VI) monitoring (the second of two scheduled in 2019) in Buildings A, B, and C at the Middle River Complex (MRC) (owned by LMC Properties, Inc.) in Middle River, Maryland. This ongoing investigation seeks to evaluate whether volatile organic compounds (VOCs) in sub-slab vapor (associated with soil and groundwater chemicals of concern [COC] at the site) might be moving into indoor air (IA) at the Middle River Complex facilities, and whether subsurface vapor contamination remains present at concentrations that dictate continued operation of the sub-slab-depressurization (SSD) vapor-intrusion-mitigation systems (or if a transition/exit strategy can be performed). The data set is composed of indoor air and sub-slab vapor (SV) samples collected in August 2019. Ambient air samples were also collected at four outdoor background locations around the perimeter of the Middle River Complex. Indoor air samples collected following the Building A sub-slab-depressurization shutdown event are also discussed separately from the Round 27 data. All data were validated to ensure compliance with analytical method requirements.

Indoor air data were compared to risk-based screening levels for industrial air set at the 1×10^{-5} (i.e., one-in-100,000 probability) risk level for carcinogens, or at a hazard quotient of 1 for noncarcinogens (as published in the United States Environmental Protection Agency [USEPA] *Regional Screening Levels for Chemical Contaminants at Superfund Sites* [USEPA, 2019]). For samples collected in the Building A basement only, indoor air levels of trichloroethene (TCE) were compared to a Maryland Department of the Environment-approved basement-specific screening level of 35 micrograms per cubic meter ($\mu g/m^3$), based on the limited exposure potential for workers entering the basement. Indoor air samples were also compared to federal Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs). Alternate values, such as the "Threshold Limit Values" published by the American Council of Governmental

Industrial Hygienists, were used for chemicals without published permissible exposure limits. SV data were compared to screening values derived using methods described in *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Sources to Indoor Air* (USEPA, 2015) by applying an attenuation factor of 0.03 to the indoor-air screening values.

Historically, trichloroethene and naphthalene have been the prevalent contaminants of concern in indoor air at this site. In Round 27, trichloroethene was not detected in indoor air in Building B, but was detected in indoor air in Buildings A and C. Trichloroethene was detected in eight of 35 indoor air samples collected during Round 27. Only one indoor air trichloroethene detection at a location in the Building A basement was greater than the (unadjusted for the basement) MDE screening level of 8.8 $\mu g/m^3$ (see plan view in Figure 5-1), but this concentration was less than the Building A basement-specific screening level (35 $\mu g/m^3$), and was therefore not an exceedance. The reduced trichloroethene indoor air concentrations in the Building A basement, as compared to previous years, are attributable to sealing and extracting vapors from basement sump HRS-5; this sump was connected to the Building A sub-slab-depressurization system in June 2017.

In Round 27, naphthalene was detected in only one of 35 indoor air samples at a concentration (4.3 $\mu g/m^3$) that exceeded its screening level (3.6 $\mu g/m^3$). This sole naphthalene detection occurred in a duplicate sample (location 018-A) in Building A; naphthalene was not detected in the corresponding parent sample. Sub-slab vapor naphthalene was detected in six of 33 samples. The maximum naphthalene sub-slab vapor concentration (detected in a duplicate sample at location 102-C) was approximately equal to the screening level (120 $\mu g/m^3$). The sub-slab vapor naphthalene concentration in the corresponding parent sample (77 $\mu g/m^3$) was less than the screening level. Naphthalene was not detected in indoor air in Buildings B or C.

5.1.1 Building A

Trichloroethene exceeded its screening level in sub-slab vapor during Round 27. Trichloroethene concentrations detected in Building A indoor air and sub-slab vapor are summarized below.

Basement

- Trichloroethene was detected in indoor air at all four Building A basement sampling locations, but at concentrations less than its basement-specific screening level (35 µg/m^3), which was derived to account for reduced potential exposure in the basement. At one of the basement locations (093-A), the indoor air trichloroethene concentration was greater than its (unadjusted for the basement) industrial worker screening level (8.8 µg/m^3). Historical indoor-air trichloroethene concentrations in the Building A basement samples have never exceeded the basement-specific screening level but have exceeded the industrial screening level.

- Trichloroethene was detected at concentrations greater than the sub-slab vapor screening level (293 µg/m^3) in vapor samples collected from behind the eastern basement wall at locations 170-A, 171-A, and 173-A, as well as in a sample collected from the Building A basement floor at location 174-A. Direct measurement of air above the sumps and of air trapped in the covered sumps indicates that the sumps and drains in the Building A basement are the sources of the trichloroethene.

- Information gained from the January–May 2018 studies was used to determine constructible, cost-effective solutions that control water and vapor accumulation in Building A basement sumps (Tetra Tech, 2018e). Mitigation strategies have been proposed and were subsequently approved by Maryland Department of the Environment (MDE) (Tetra Tech, 2019), and will be implemented starting (in December 2019) with the abandonment of sump HRS-5. Two additional sumps (HRS-6 and HRS-7) in the southern portion of Building A basement will be abandoned after they are monitored for unintended consequences (e.g., potential flooding of the basement). There are no plans for mitigation of sumps SP1/SP1A and the utility corridor sump.

Main floor

- A trichloroethene exceedance (420 µg/m^3) of its screening level (293 µg/m^3) was detected in sub-slab vapor at location 118-A in the bond layup room east of the former plating shop on the main floor, and at 136-A (500 µg/m^3) in the eastern area of Building A. Sample 118-A was collected where a positive-pressure air-conditioning system was operating. This sampling location is near the radii of influence of the sub-slab depressurization systems. Location 136-A is also located near the radii of influence of the SSD system. Indoor air concentrations of trichloroethene on the main floor of Building A were all less than the screening level.

The sub-slab-depressurization system in Building A appears to be operating as designed (except for limited vacuum influence in the SSD-136-A area) and appears to be effectively mitigating sub-slab vapor intrusion from known source areas of sub-slab vapor contamination, in concert with the indoor-air filtration units and control of vapor emissions from the sumps. Contaminants are constantly removed from soil vapor during system operation, and indoor air concentrations in the

main part of Building A (excluding the basement) rarely exceed screening values. Filter cartridges are changed-out quarterly; no other maintenance is required.

The Building A sub-slab-depressurization system was discovered offline during the September 23, 2019 system check. According to the system's hour counter reading taken at that time, it had not been operating since September 11, 2019 (or for at least 12 days). Resampling of seven indoor air locations within or close to the radius of influence of the Building A system (i.e., locations 015-A, 018-A, 021-A, 079-A, 117-A, 136-A, and 168-A) took place on October 2, 2019. Only one indoor air exceedance (naphthalene at 9.2 $\mu g/m^3$ [location 018-A]) of its indoor air screening level (3.6 $\mu g/m^3$) was detected. (Note that a naphthalene exceedance (4.3 $\mu g/m^3$) was also noted at the same location [018-A] in August 2019.) All other indoor air results collected from Building A following the unscheduled 12-day system shutdown were less than applicable screening levels.

Although basement occupancy is restricted, and screening levels related to restricted occupancy are not exceeded, this area will continue to be monitored as the sub-slab-depressurization system continues to operate. Figures 5-2A, 5-2B, and 5-2C show concentrations of trichloroethene and naphthalene in Building A in sub-slab vapor samples, in indoor air of the basement, and in indoor air on the first floor of the building (respectively). Direct measurement of air above the sumps and of air trapped in the covered sumps historically has indicated that the sumps and drains in the Building A basement have been the primary trichloroethene sources. Mitigation efforts including the abandonment of select sumps (HRS-5, HRS-6, and HRS-7) in the southern portion of the basement will be initiated in December 2019.

5.1.2 Building B

No exceedances were noted in the Building B indoor air or sub-slab vapor samples during Round 27. The most recent exceedance of the indoor air screening level was during Round 18, when one slight exceedance of naphthalene was detected (February 2015).

5.1.3 Building C

Trichloroethene was detected at concentrations below its screening level in three of 18 indoor air samples collected from Building C during Round 27. Sub-slab vapor exceedances of

trichloroethene (at concentrations ranging from 330 µg/m^3 to 1,200 µg/m^3) were detected at four locations in Round 27: at 060-C, in the east-central portion of Building C, and within the system's radius of influence; at 102-C, in the central portion of Building C near the former Patriot plating line and outside of the radius of influence of the Building C system; at 133-C, in the central portion of Building C, north of the former Patriot plating line, and within in the system's radius of influence; and at 141-C, south of the museum room and north of the machine shop, in the northeastern portion of Building C, within the radius of influence of the Building C system. These Round 27 exceedances in sub-slab vapor are consistent with those observed in other recent sampling rounds (e.g., Rounds 21 through 26).

Vinyl chloride was detected in sub-slab vapor at location 149-C at a concentration (2,700 µg/m^3) greater than its screening level (933 µg/m^3) during Round 27. However, during previous sampling (Rounds 18 through 26), vinyl chloride exceedances in sub-slab vapor have occurred at location 126-C and not at 149-C, indicating that sub-slab vapor results reported for these two sampling locations (126-C and 149-C) during Round 27 may have been swapped. Locations 126-C and 149-C are near each other in the northern portion of the Building C basement. Concentrations of vinyl chloride in sub-slab vapor at 126-C have decreased since the sub-slab depressurization system expansion, but have fluctuated over time. Vinyl chloride has not been detected in groundwater near 126-C, nor in indoor air, despite the presence of trichloroethene in nearby groundwater monitoring well MW-88A at concentrations up to 1,500 micrograms per liter (µg/L) in 2009.

Sub-slab vapor concentrations of 1,1-dichloroethane (2,900 µg/m^3 and 3,800 µg/m^3 in parent and duplicate samples, respectively) exceeded its screening level (2,567 µg/m^3) at location 102-C during Round 27. The maximum sub-slab vapor detection of naphthalene (120 µg/m^3 in a duplicate sample at location 102-C) was equal to (but did not exceed) its screening level during Round 27; the corresponding parent sample concentration (77 µg/m^3) was less than the screening level (120 µg/m^3). Sub-slab vapor concentrations of 1,1-dichloroethane and naphthalene exceeded their screening levels at location 102-C during other recent sampling rounds (e.g., Rounds 17, 18, 20, 22, 23, 24, 25, and 26). The sub-slab vapor concentrations of naphthalene and 1,1-dichloroethane in Building C do not appear to impact indoor air concentrations, as these analytes were either not

detected in indoor air or were detected at concentrations less than indoor air screening levels during previous sampling rounds.

In general, sub-slab vapor concentrations of volatile organic compounds have decreased in the southern basement area (SSD-4-C) of Building C since system startup in March 2008. Vapor monitoring points (060-C, 088-C, 113-C, 126-C, 133-C, and 135-C) in the mid-basement area also show lower concentrations, as compared to results before system expansion in May 2013.

The absence of any Building C indoor air screening-level exceedances for any compound suggests that vapor intrusion is likely not occurring. The sub-slab-depressurization system in Building C appears to be operating as designed, and appears to be effectively mitigating sub-slab vapor intrusion from known source areas of sub-slab vapor contamination. Figures 5-3A and 5-3B show Round 27 sub-slab vapor and indoor air concentrations (respectively) of 1,1-dichororethane, trichloroethene, and vinyl chloride in Building C.

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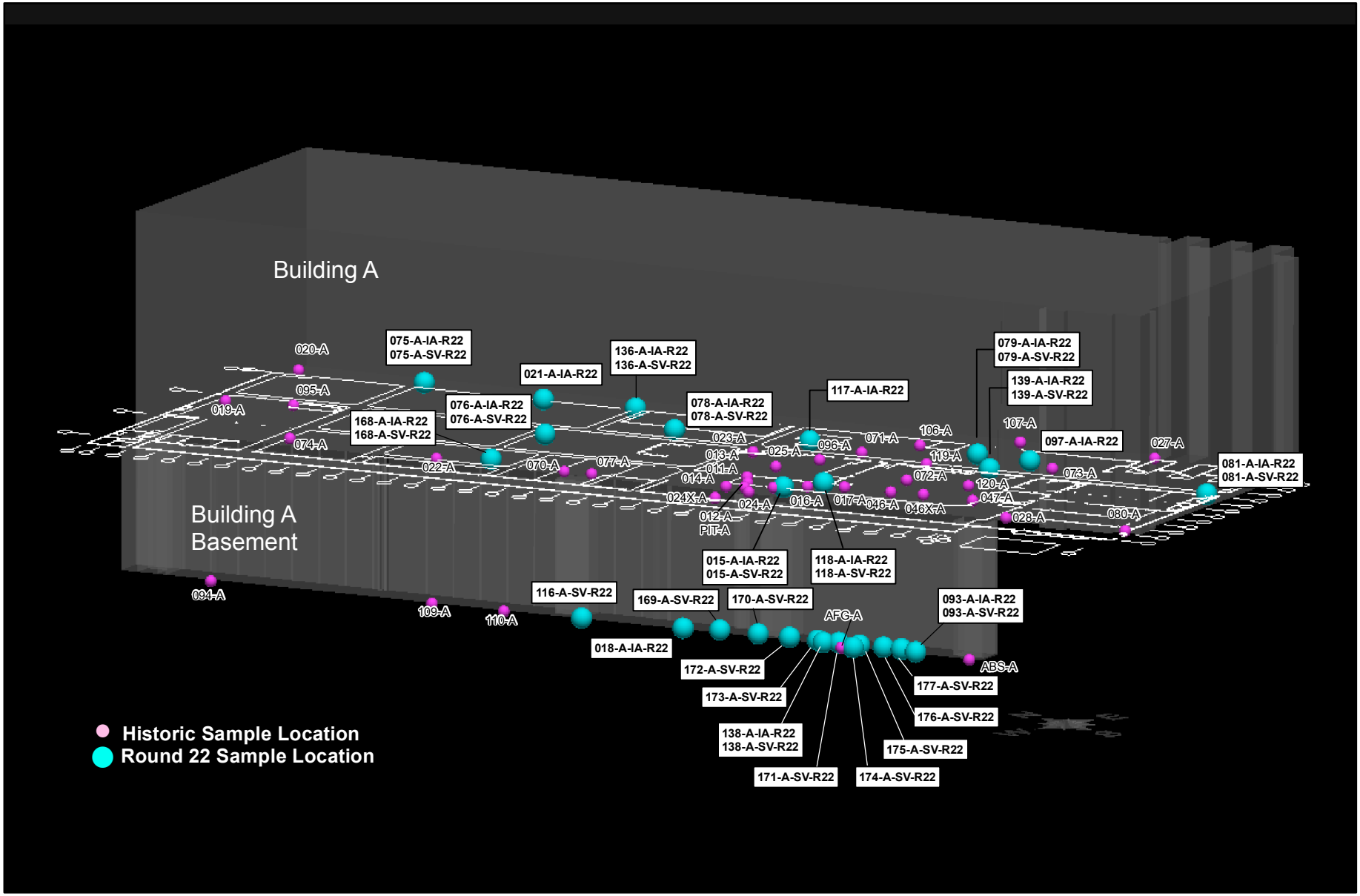
Figure 2-1
Indoor Air and Sub-Slab Vapor Monitoring Locations
for Building A, Round 22, March 2017



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MARTIN STATE AIRPORT

EASTERN AVENUE
EASTERN BOULEVARD
ATHLETIC FIELD
PARKING LOT NO. 4
CHESAPEAKE PLAZA
PARKING LOT NO. 5
BCK-4
BUILDING "G"
ASHLEY FURNITURE
PARKING LOT NO. 1
BUILDING "M"
BCK-1
BUILDING "P"
BUILDING "C"
BUILDING "B"
PROGRAM BUILDING
BUILDING "L"
BUILDING "A"
JOHNSON AND TOWERS
PARKING LOT NO. 2
VERTICAL LAUNCH SYSTEMS BUILDING
DARK HEAD COVE ROAD
FIRECOAT BUILDING
BCK-3
FOUR #2 FUEL OIL USTs ABANDONED IN PLACE
DROP HAMMER BUILDING ACTIVE FIRING RANGE
POWER HOUSE
DRUM STORAGE FACILITY
MAINTENANCE GARAGE
DIE STORAGE
HAZARDOUS WASTE STORAGE BUILDING
FLAME CUT
CONSERVATION BUILDING
FORMER BUILDING "D"
500,000-GAL WATER TANK
PRE PUMP BUILDING WITH 275-GAL DIESEL FUEL AST TRANSFER SHED
PARKING LOT NO. 3
BCK-2
FORMER 500-GAL UST
FORMER 500,000-GAL DIESEL FUEL AST
BCK-3 (HISTORICAL LOCATION)
TILLEY CHEMICAL COMPANY
SEWAGE TREATMENT PLANT
WATERFRONT LOT
CHESAPEAKE PARK PLAZA
VIBRATION TEST BUILDING
NORTH AMERICAN ELECTRIC
ASTs
FORMER ENGINE TEST BUILDING
FORMER HYDRAULIC TEST BUILDING
SEVEN 1,000-GAL. AVIATION FUEL USTs ABANDONED IN PLACE
FORMER RAMP TRAINING SCHOOL
FORMER RAMP SERVICE BUILDING
FORMER RAMP STORAGE BUILDING
FORMER COTTAGE
FORMER BOAT HOUSE
Cow Pen Creek
Dark Head Cove

FIGURE 2-2

AMBIENT AIR BACKGROUND SAMPLING LOCATIONS ROUND 27, AUGUST 2019

LEGEND

- BACKGROUND SAMPLING LOCATION
- HISTORICAL BACKGROUND SAMPLING LOCATION
- SURFACE WATER

IA - indoor air
BCK-3 moved due to discovery of TCE UST adjacent to historic sample location.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 200 400 Feet

N

DATE MODIFIED: 11/04/19

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\iaq_background_samples_rnd27.mxd)
11/04/19 JEE

Figure 2-3
Indoor Air and Sub-Slab Vapor Monitoring Locations
for Building A, Round 27, August 2019

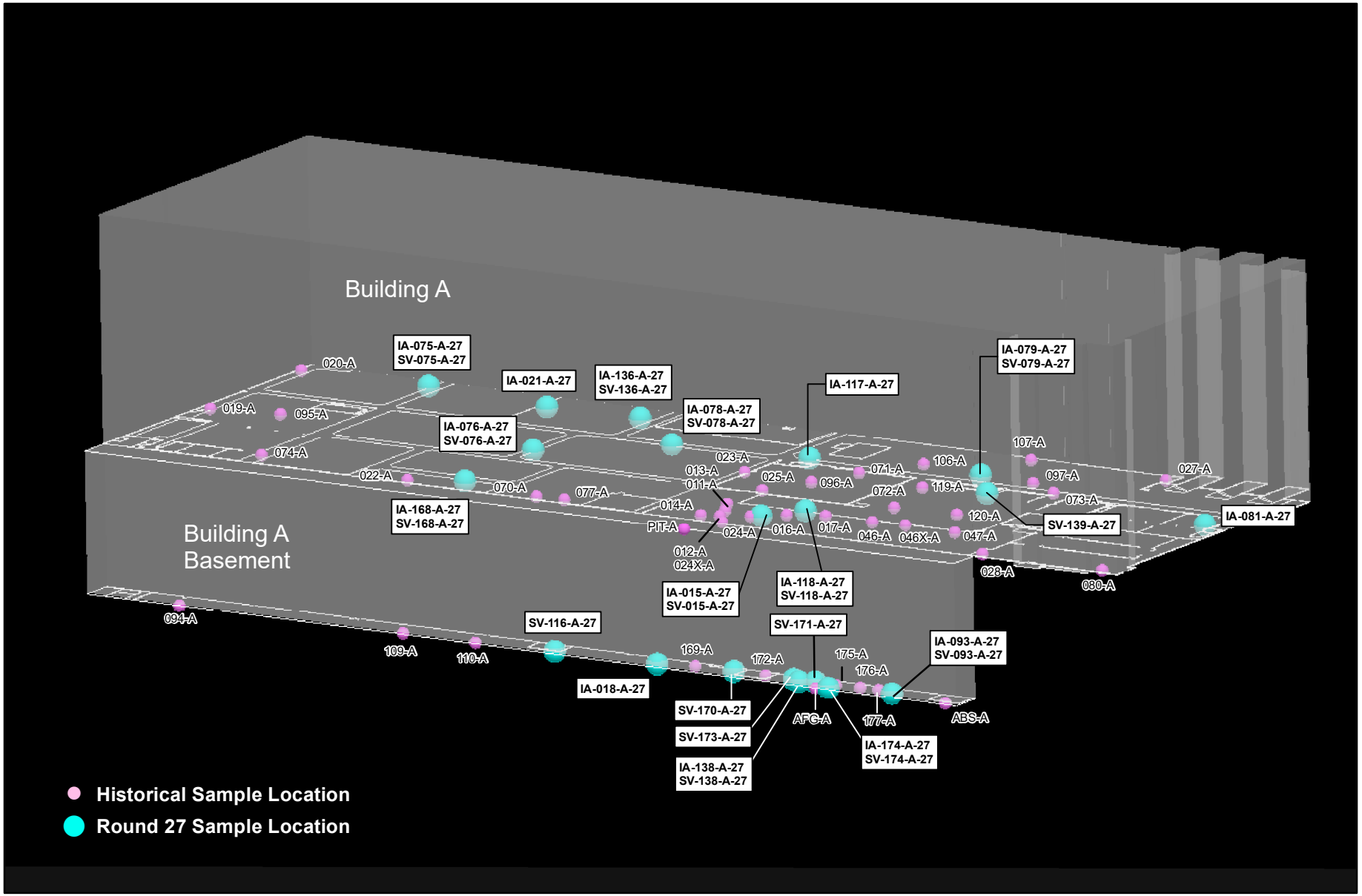

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Figure 2-4
Indoor Air and Sub-Slab Vapor Monitoring Locations
for Building B, Round 27, August 2019

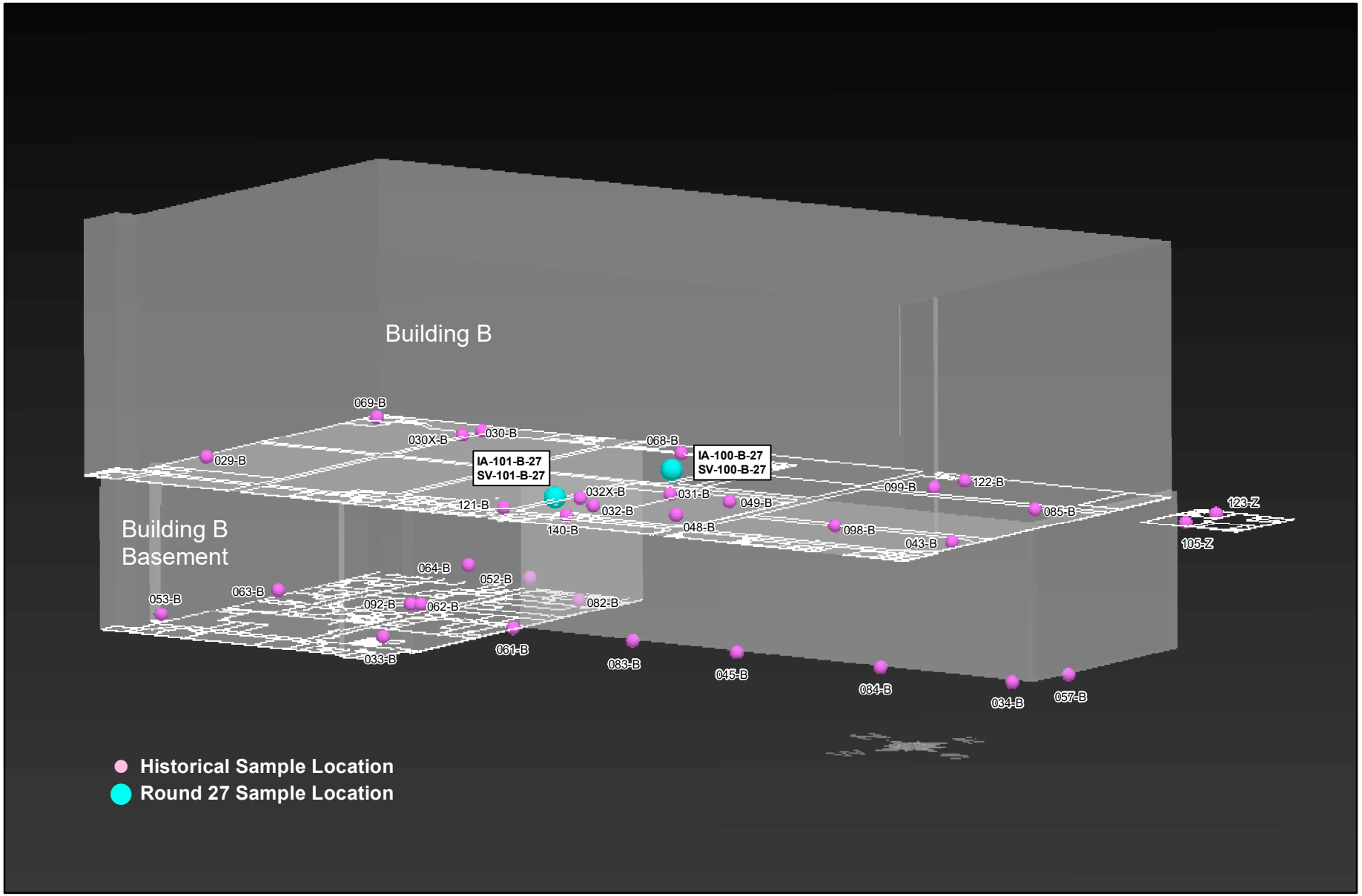

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Figure 2-5
Indoor Air and Sub-Slab Vapor Monitoring Locations
for Building C, Round 27, August 2019

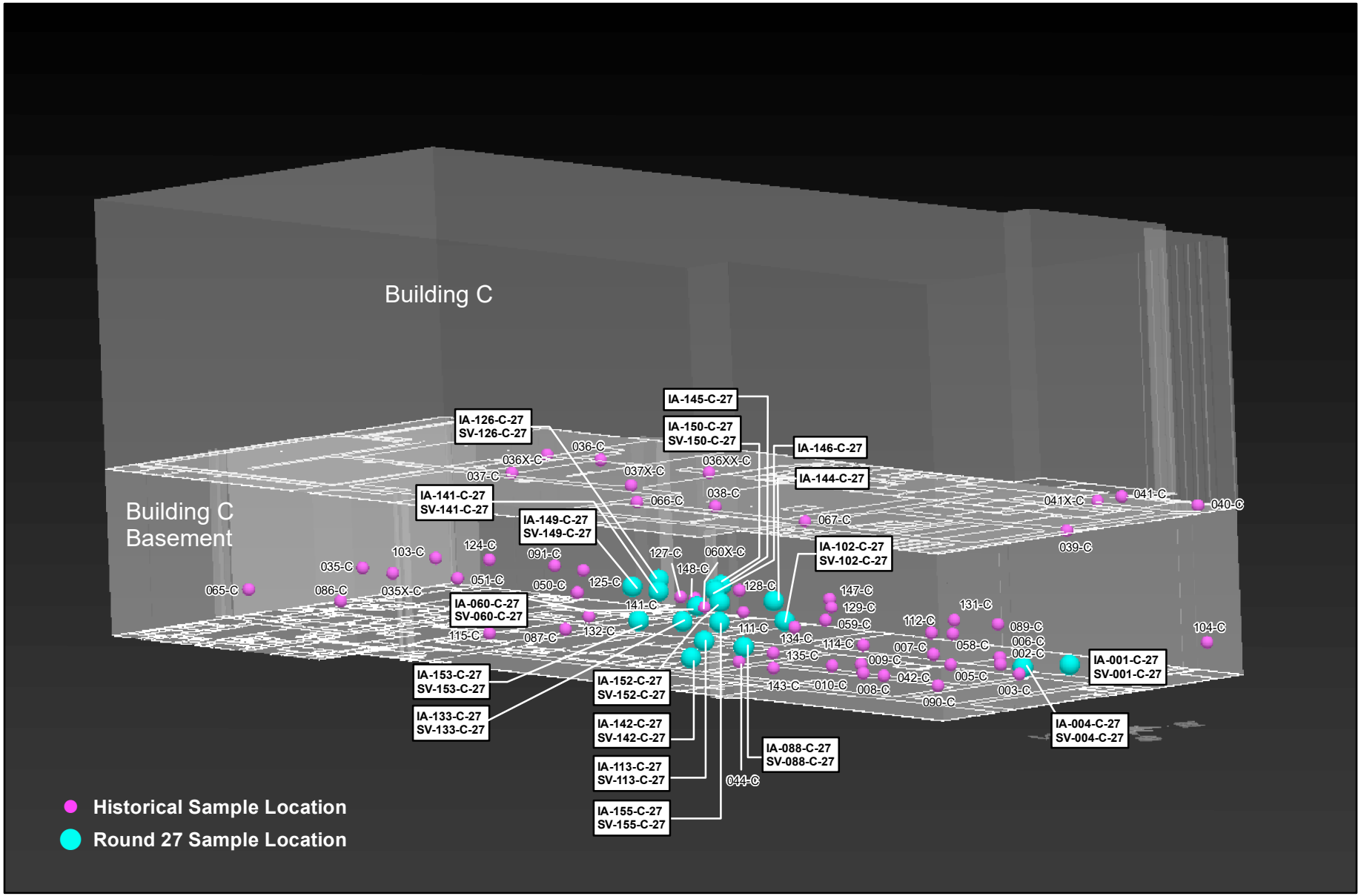

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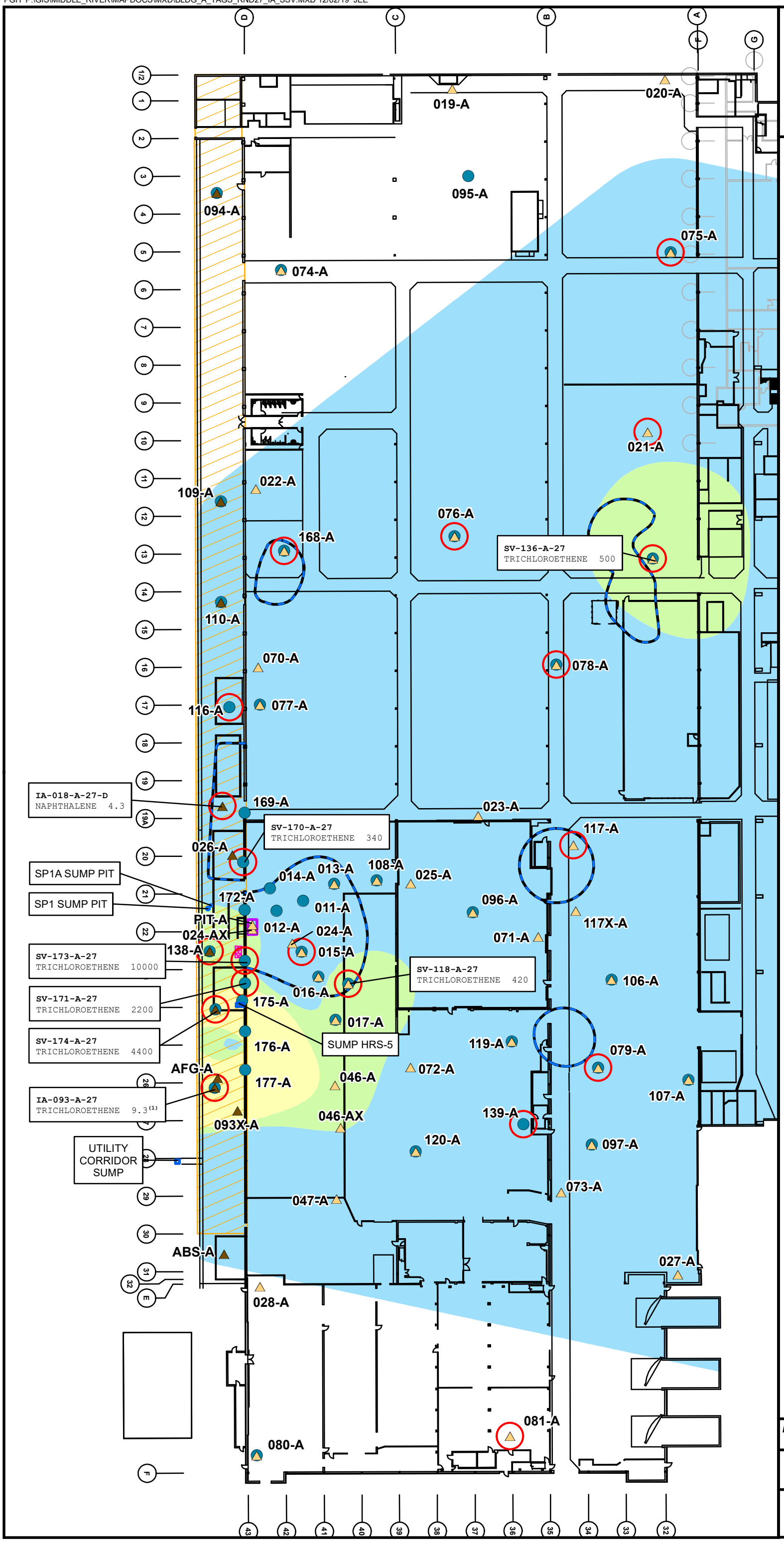
FIGURE 3-1

ROUND 27 INDOOR AIR AND/OR SUB-SLAB VAPOR SAMPLING RESULTS GREATER THAN SCREENING LEVELS BUILDING A



All results in microgram(s) per cubic meter ($\mu g/m^3$).

X - moved from original location once.

(1) - This location is in the basement. The IA TCE screening level for basement samples is 35 ug/m^3 based on reduced exposure potential in the basement. The screening level was approved by MDE in 2017.

Screening Levels Exceeded

Chemical	Indoor Air	Soil Vapor
Naphthalene	3.6	NA
Trichloroethene	8.8	293

NA – Not applicable

D - duplicate sample
IA - Indoor Air
SSD - Sub-slab Depressurization
SV - Soil Vapor
TCE - Trichloroethene

August 2019 Sub-Slab Vapor TCE Concentration

Lockheed Martin Middle River Complex
Middle River, Maryland

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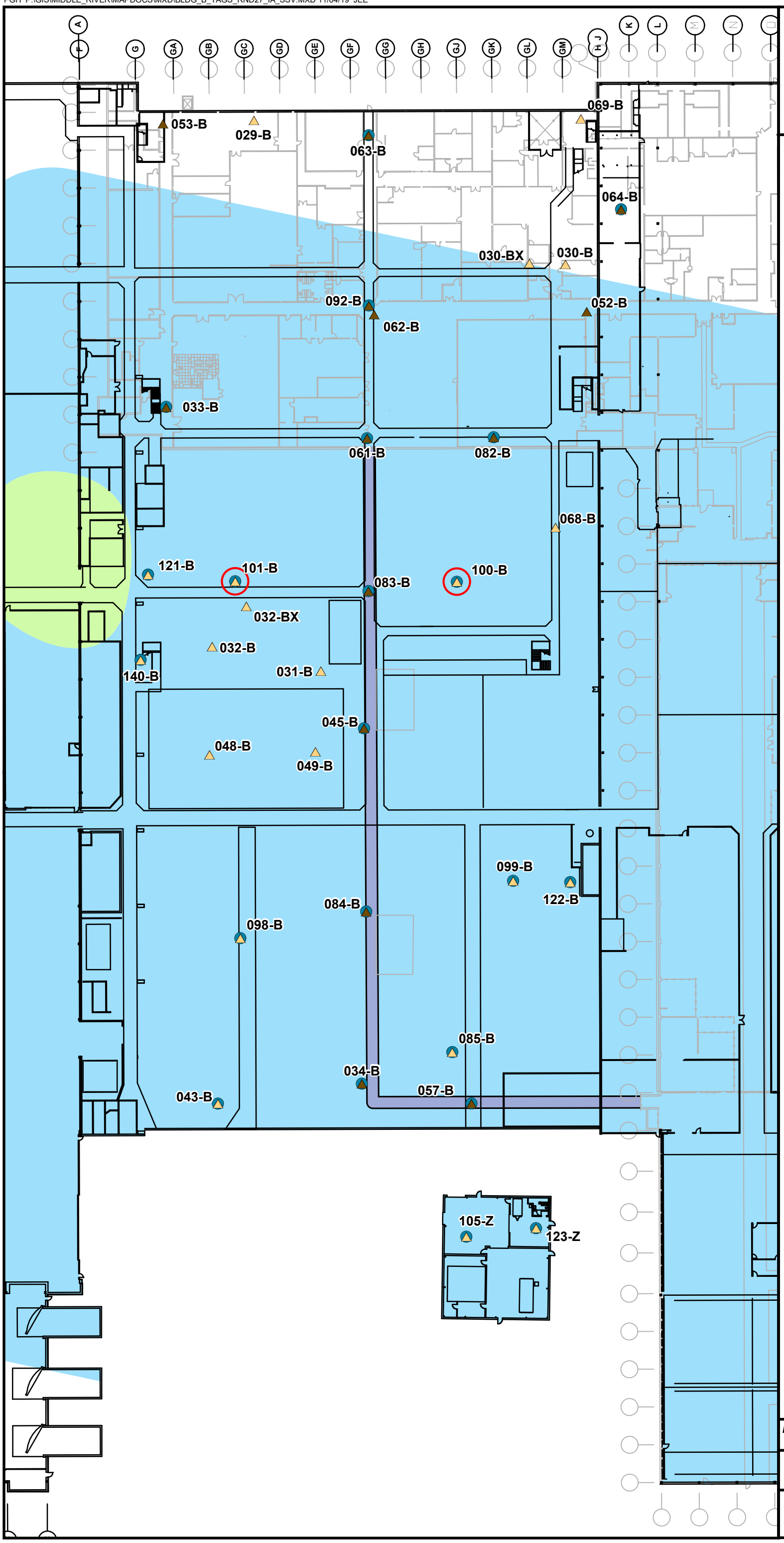
FIGURE 3-2

ROUND 27 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING RESULTS GREATER THAN SCREENING LEVELS BUILDING B



Legend

- IA, 1st Floor
- IA, Basement
- SV
- Round 27 Sampling Locations
- Buildings A, B and C
- Building B and C Basement
- Tunnel

X - moved from original location once.

IA - Indoor Air
SV - Soil Vapor
TCE - Trichloroethene

August 2019 Sub-Slab Vapor TCE Concentration

- 10000 ug/m3
- 1000 ug/m3
- 293 ug/m3
- 0.1 ug/m3

N

0 32 64 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
11/04/19	JEE

TETRA TECH

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FIGURE 3-3

ROUND 27 INDOOR AIR AND/OR SUB-SLAB VAPOR SAMPLING RESULTS GREATER THAN SCREENING LEVELS BUILDING C

065-C
035-C
103-C
035-CX
124-C
051-C
086-C
091-C
125-C
036-CX
050-C
126-C
SV-149-C-27
VINYL CHLORIDE 2700(1)
037-C
036-C
SV-141-C-27
TRICHLOROETHENE 330
150-C
145-C
151-C
127-C
146-C
128-C
132-C
148-C
115-C
SV-060-C-27
TRICHLOROETHENE 570
152-C
087-C
060-CX
037-CX
036-CXX
153-C
144-C
SV-133-C-27
TRICHLOROETHENE 620
111-C
147-C
154-C
156-C
155-C
066-C
129-C
SV-102-C-27
1,1-DICHLOROETHANE 2900
TRICHLOROETHENE 1200
SV-102-C-27-D
1,1-DICHLOROETHANE 3800
TRICHLOROETHENE 890
113-C
059-C
038-C
134-C
157-C
158-C
130-C
088-C
142-C
131-C
135-C
044-C
112-C
089-C
114-C
159-C
067-C
058-C
143-C
010-C
009-C
007-C
008-C
041-C
041-CX
005-C
006-C
042-C
002-C
004-C
040-C
001-C
003-C
090-C
039-C
104-C

Legend

- IA, 1st Floor
- IA, Basement
- SV
- Round 27 Sampling Locations
- SSD Radius of Influence
- Buildings A, B and C
- Building B and C Basement
- Tunnel
- SSD Treatment Unit

All results in microgram(s) per cubic meter (µg/m^3).

X - moved from original location once.

(1) - Historical data concentrations indicate that SV results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this). No SV exceedances were reported for 126-C during Round 27.

Screening Levels Exceeded

Chemical	Indoor Air	Soil Vapor
1,1-Dichloroethane	NA	2567
Trichloroethene	NA	293
Vinyl Chloride	NA	933

NA – Not applicable

D - duplicate sample
IA - Indoor Air
SSD - Sub-slab Depressurization
SV - Soil Vapor
TCE - Trichloroethene

August 2019 Sub-Slab Vapor TCE Concentration

- 10000 ug/m3
- 1000 ug/m3
- 293 ug/m3
- 0.1 ug/m3

N

0 32 64 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED: 12/02/19
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TETRA TECH

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FIGURE 3-4

OCTOBER 2019 INDOOR AIR SAMPLING RESULTS GREATER THAN SCREENING LEVELS BUILDING A

019-A
020-A
095-A
094-A
075-A
074-A
021-A
022-A
109-A
076-A
168-A
136-A
110-A
070-A
078-A
116-A
077-A
IA-018-A-27-RS_20191002
NAPHTHALENE 9.2
169-A
023-A
117-A
026-A
170-A
013-A
108-A
014-A
025-A
SP1A SUMP PIT
172-A
096-A
011-A
SP1 SUMP PIT
PIT-A
012-A
024-A
117X-A
024-AX
071-A
138-A
015-A
173-A
106-A
171-A
016-A
118-A
175-A
174-A
017-A
176-A
SUMP HRS-5
119-A
079-A
AFG-A
177-A
072-A
046-A
093-A
107-A
093X-A
046-AX
139-A
120-A
097-A
UTILITY CORRIDOR SUMP
073-A
047-A
ABS-A
027-A
028-A
080-A
081-A

Legend

- IA, 1st Floor
- IA, Basement
- SV
- October 2019 Sampling Locations
- Sump or Sump Pit
- SSD Radius of Influence
- Buildings A, B and C
- Building A Basement
- Building B and C Basement
- Excavation Area
- SSD Treatment Unit

All results in microgram(s) per cubic meter (µg/m^3).

X - moved from original location once.

Screening Levels Exceeded

Chemical	Indoor Air	Soil Vapor
Naphthalene	3.6	NA

NA – Not applicable

IA - Indoor Air
SSD - Sub-slab Depressurization
SV - Soil Vapor
TCE - Trichloroethene

August 2019 Sub-Slab Vapor TCE Concentration

- 10000 ug/m3
- 1000 ug/m3
- 293 ug/m3
- 0.1 ug/m3

N

0 32 64 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED: 12/02/19
CREATED BY: JEE

TETRA TECH

Figure 4-1
Sub-Slab Vapor VOC Concentrations at 015-A, Building A
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

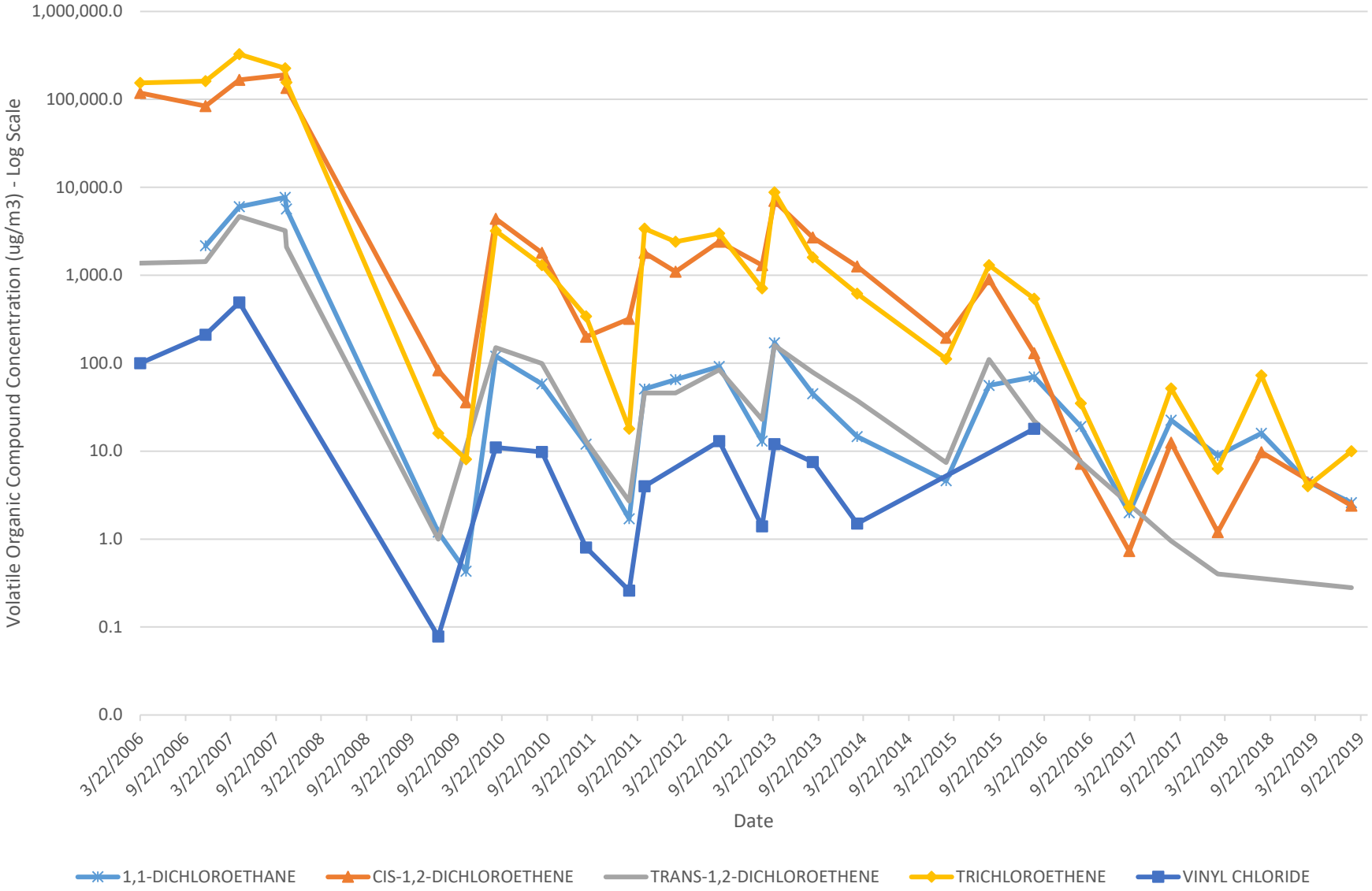


Figure 4-2
Sub-Slab Vapor TCE Concentrations at Monitoring Points Near SSD-System, Building A
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

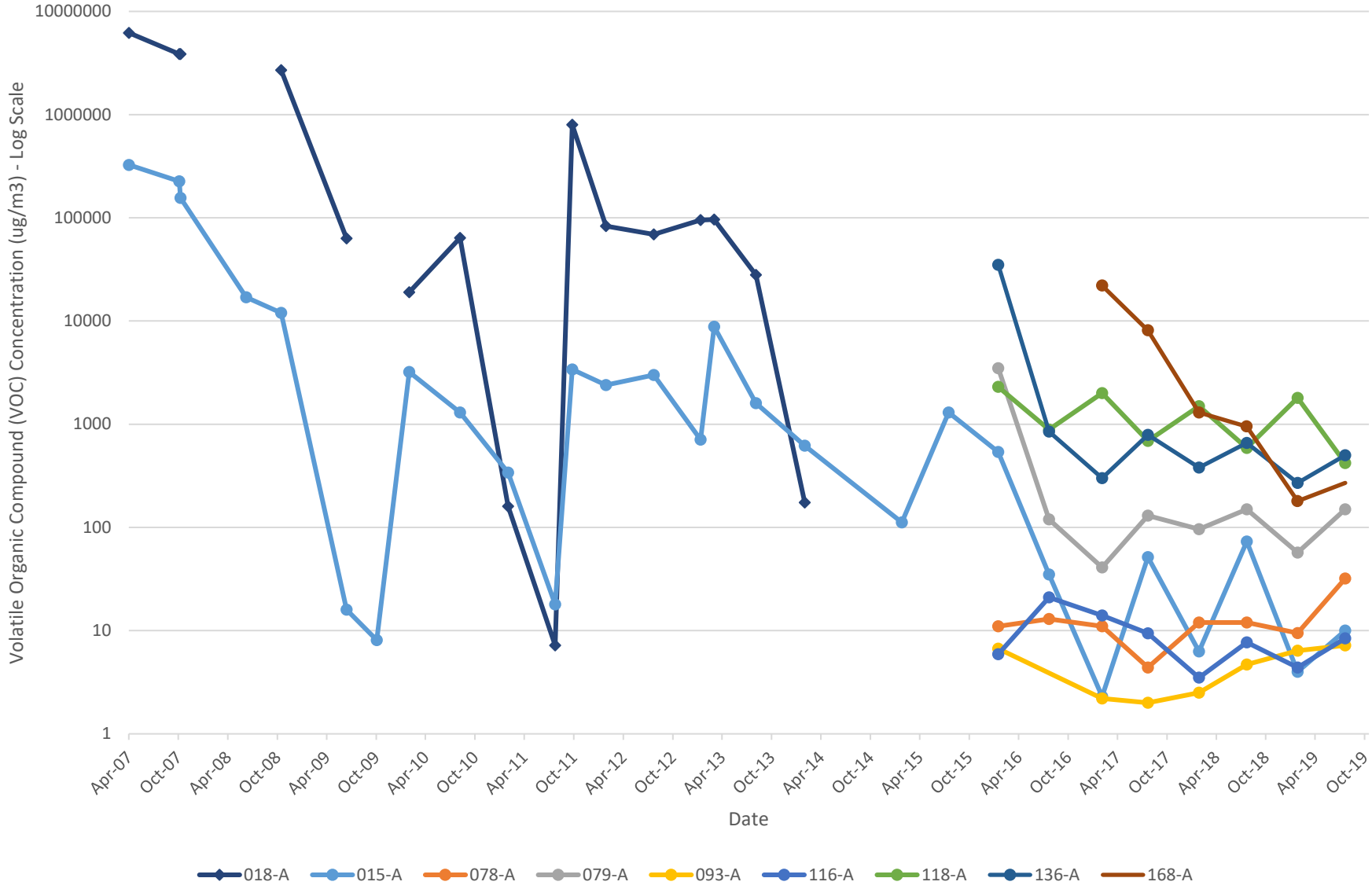


Figure 4-3
Sub-Slab Vapor TCE Concentrations at Monitoring Points Near SSD-System, Building C
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

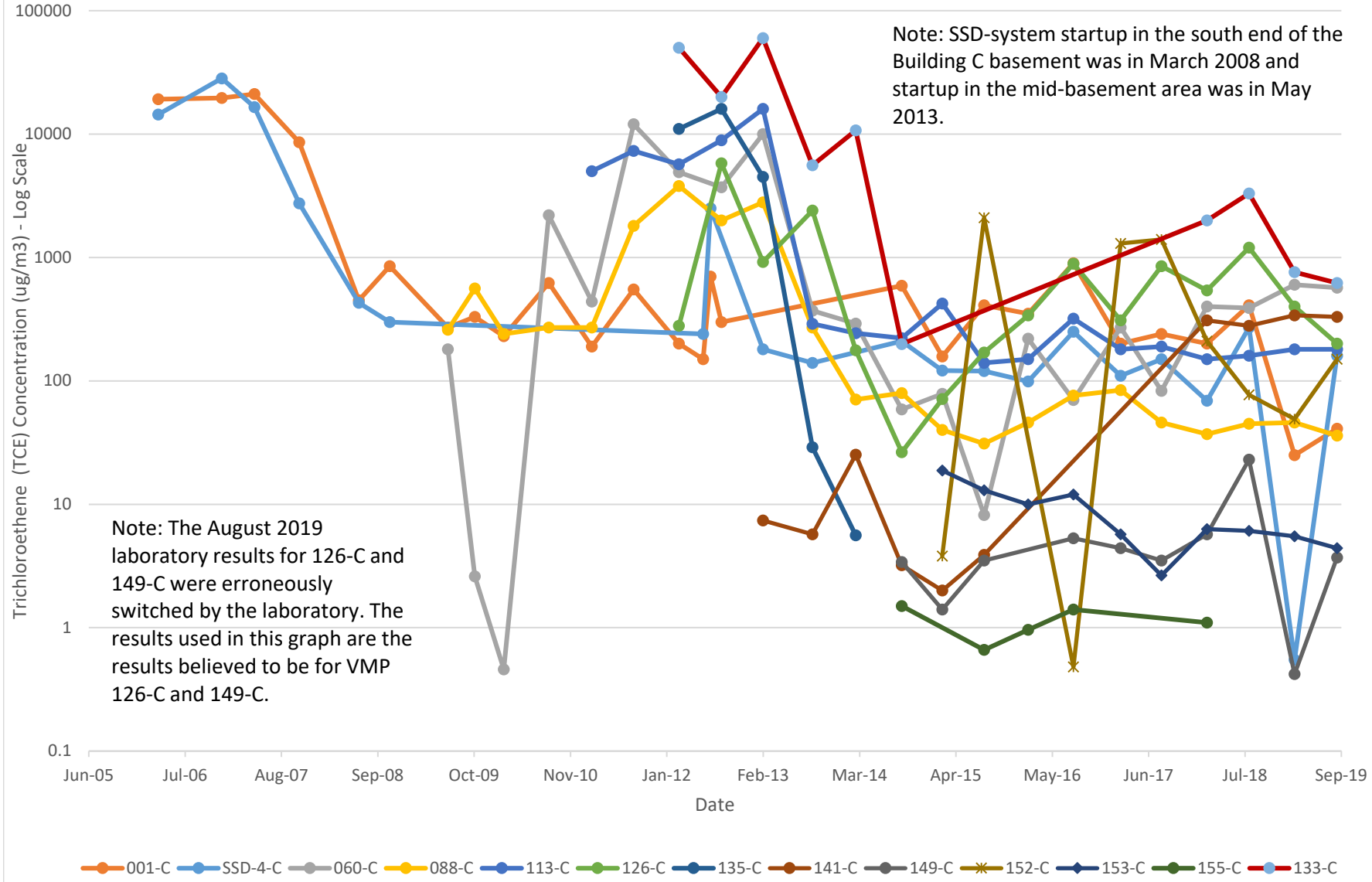
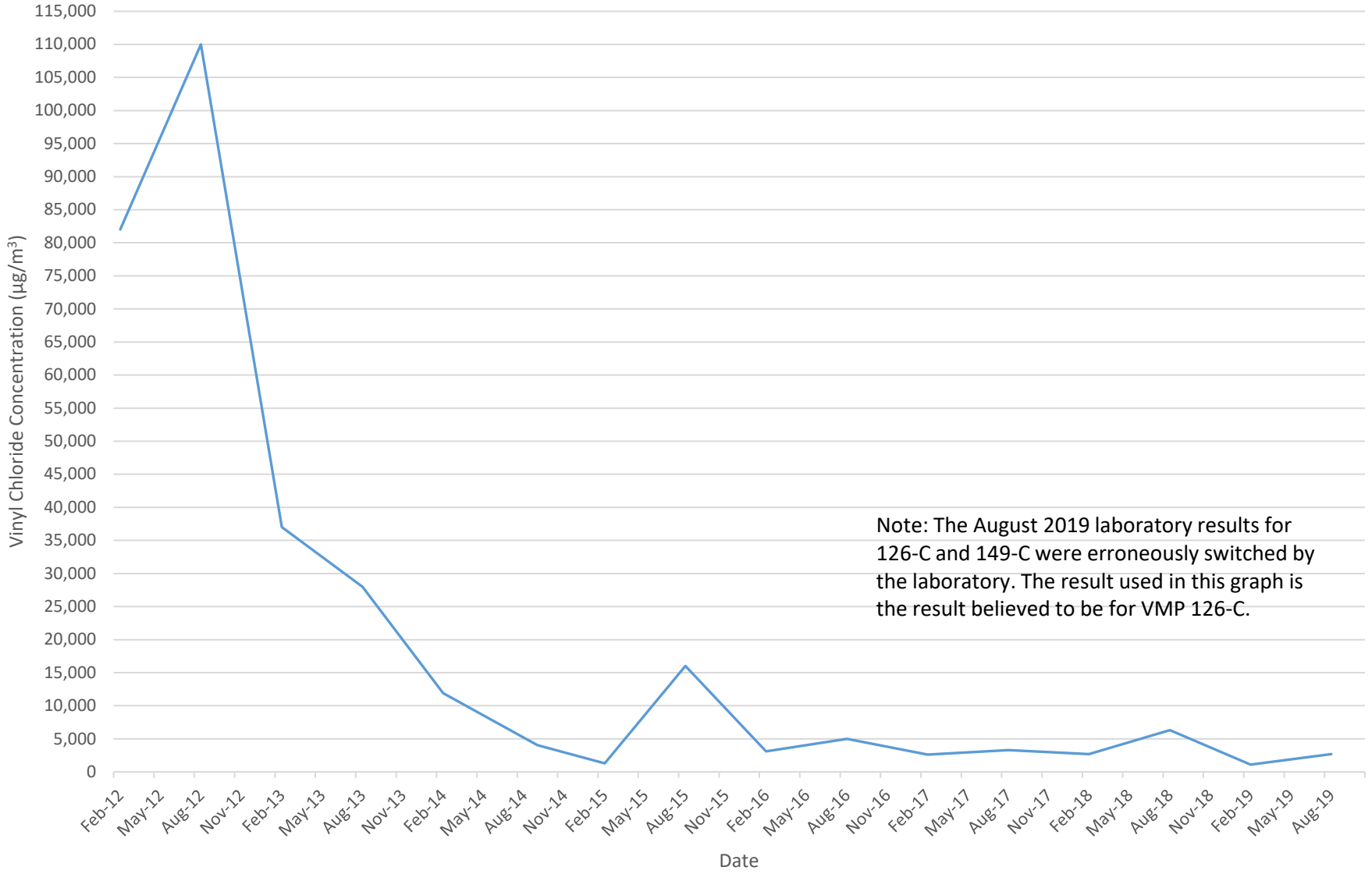


Figure 4-4
Sub-Slab Vapor Vinyl Chloride Concentrations at 126-C, Building C
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland



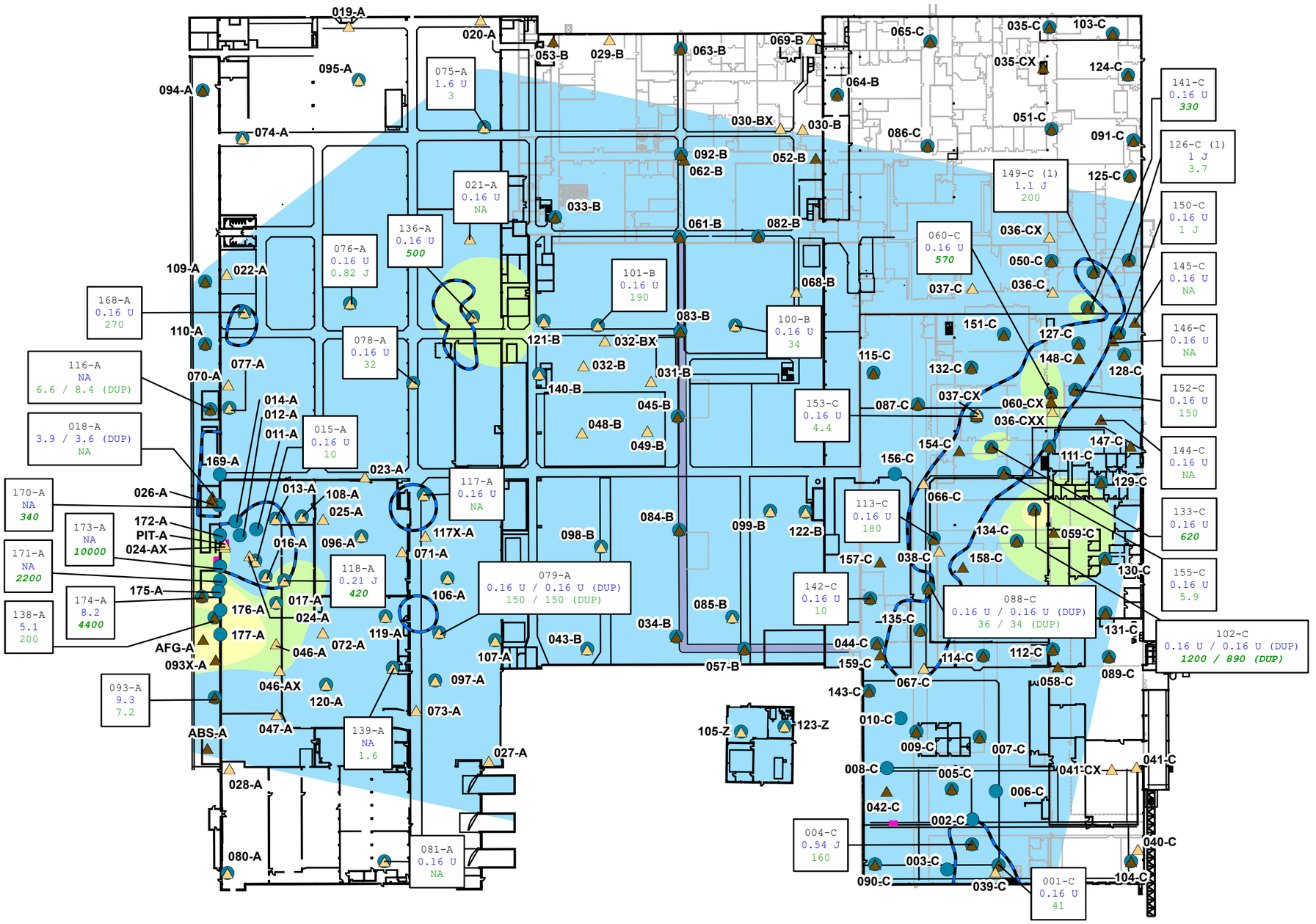


FIGURE 5-1

TRICHLOROETHENE SAMPLING RESULTS ROUND 27 BUILDINGS A, B AND C

Legend

- IA, 1st Floor
- IA, Basement
- SV
- SSD Treatment Unit
- SSD Radius of Influence
- Buildings A, B and C
- Building B and C Basement
- Tunnel
- NA — Indicates no indoor air results were collected.
- NA — Indicates no soil vapor results were collected.

(1) Historical data concentrations indicate that SV results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this).

All units in µg/m^3.
All location IDs begin with "AIR-."
DUP - Duplicate sample. IA - Indoor air.
J = Estimated value. NA - Not applicable.
SSD = Sub-slab Depressurization. SV - Sub-slab vapor.
TCE - Trichloroethene. U - Not detected.

ug/m3 - microgram per cubic meter.
X - moved from original location once.
XX - moved from original location twice.
Indoor air quality results shown in blue type.
Soil vapor results shown in green type.
Exceedances labeled in ***bold italicized*** print.

Screening Levels

Indoor Air	Soil Vapor
8.8	293

August 2019 Sub-Slab Vapor TCE Concentration

- 10000 ug/m3
- 1000 ug/m3
- 293 ug/m3
- 0.1 ug/m3

Lockheed Martin Middle River Complex
Middle River, Maryland

0 60 120 Feet

DATE MODIFIED: 11/26/19

CREATED BY: JEE

TETRA TECH

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11/26/19 -- JEE

Figure 5-2A
Concentrations of Select Chemicals from Round 27 - Building A - Sub-Slab Vapor

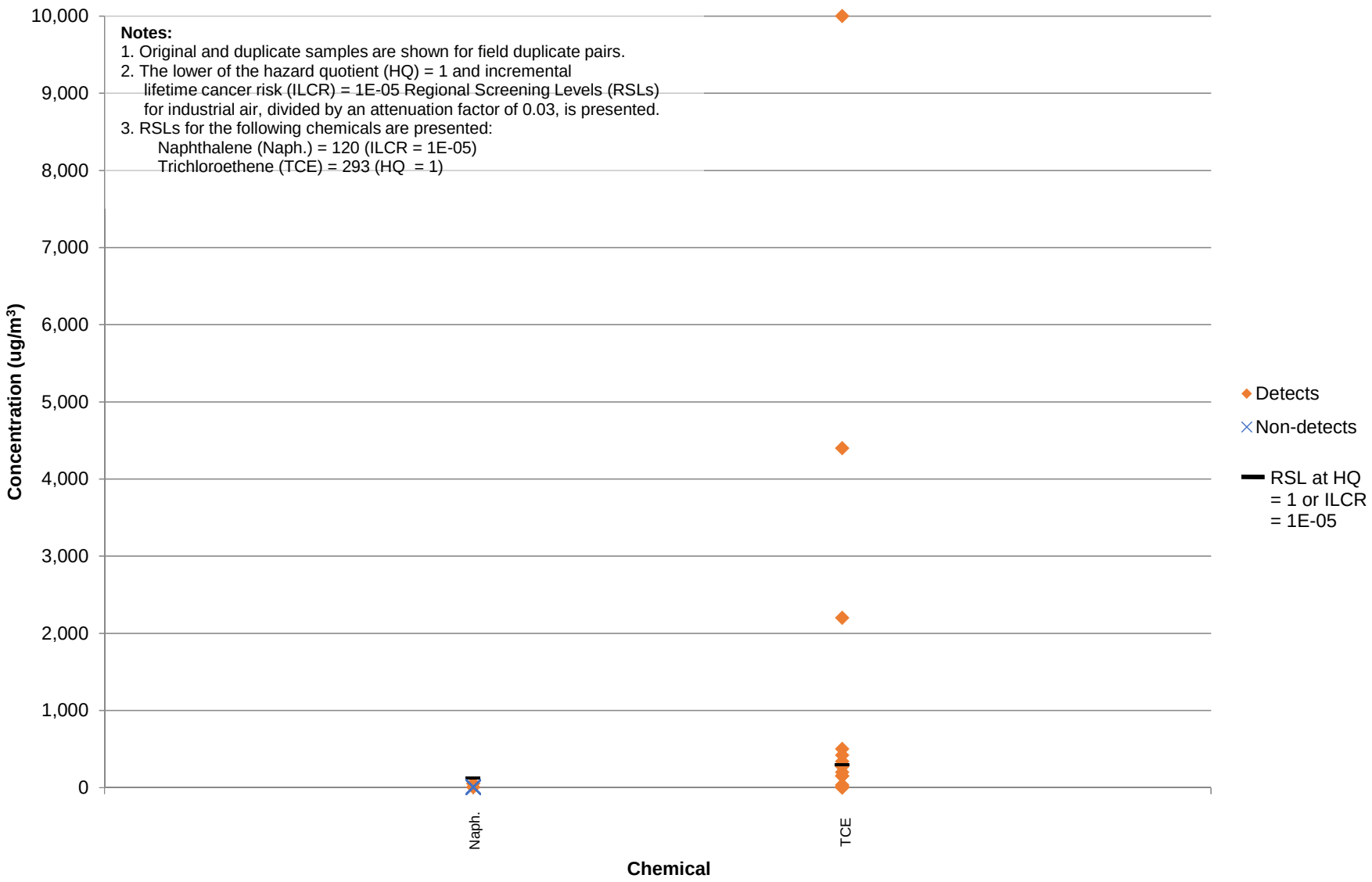


Figure 5-2B
Concentrations of Select Chemicals from Round 27 - Building A - Indoor Air - Basement

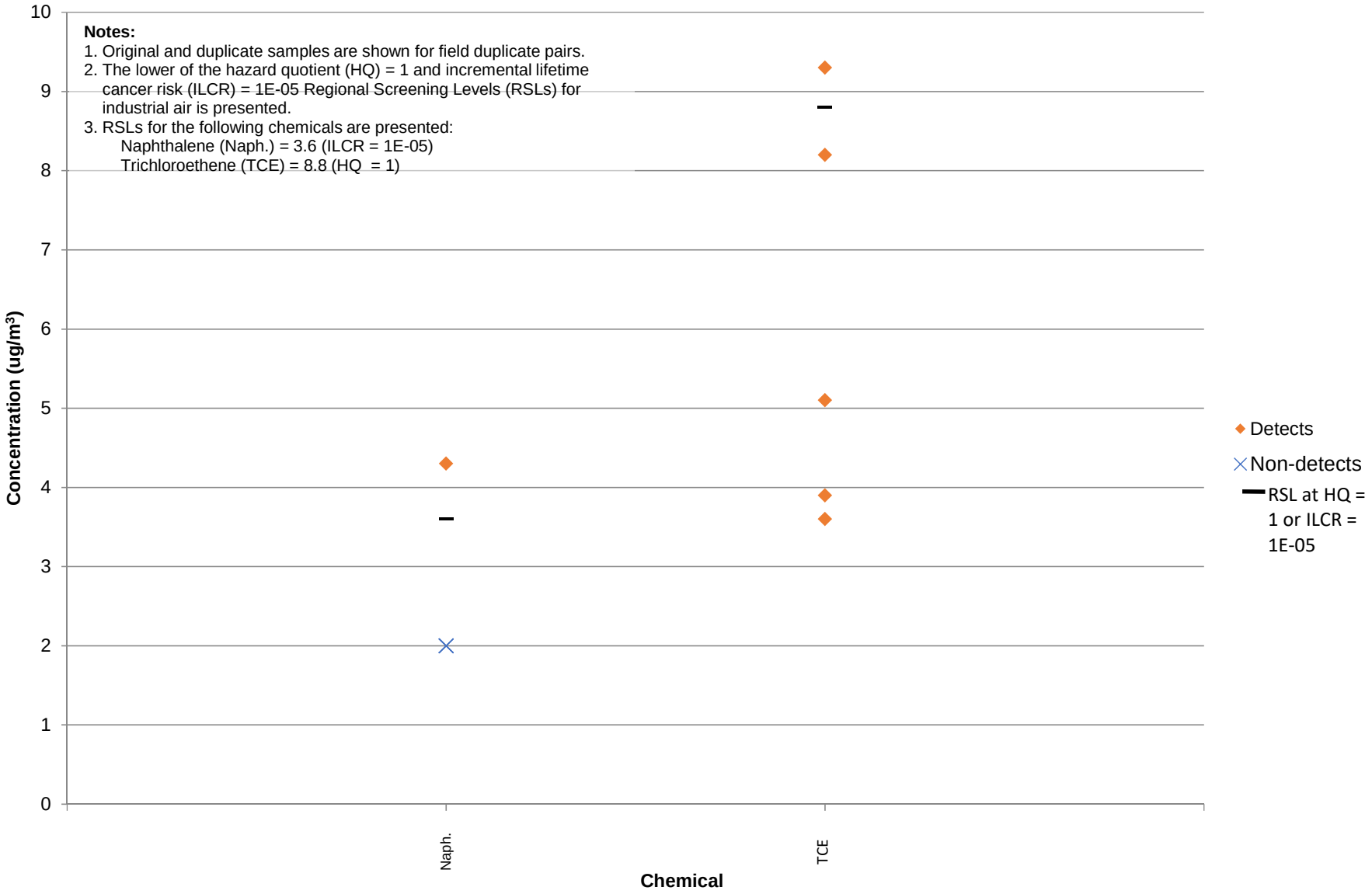
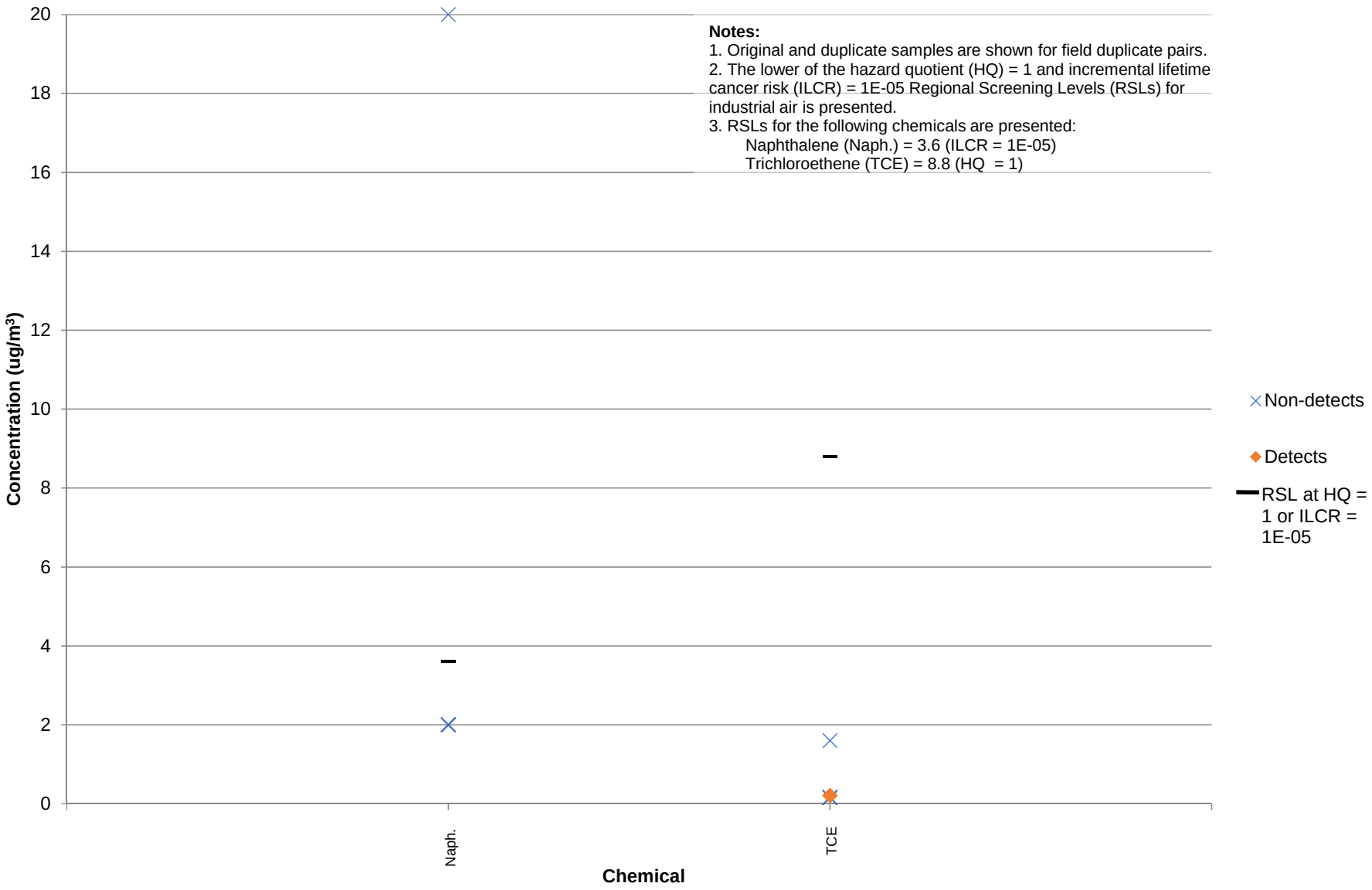


Figure 5-2C
Concentrations of Select Chemicals from Round 27 - Building A - Indoor Air - First Floor



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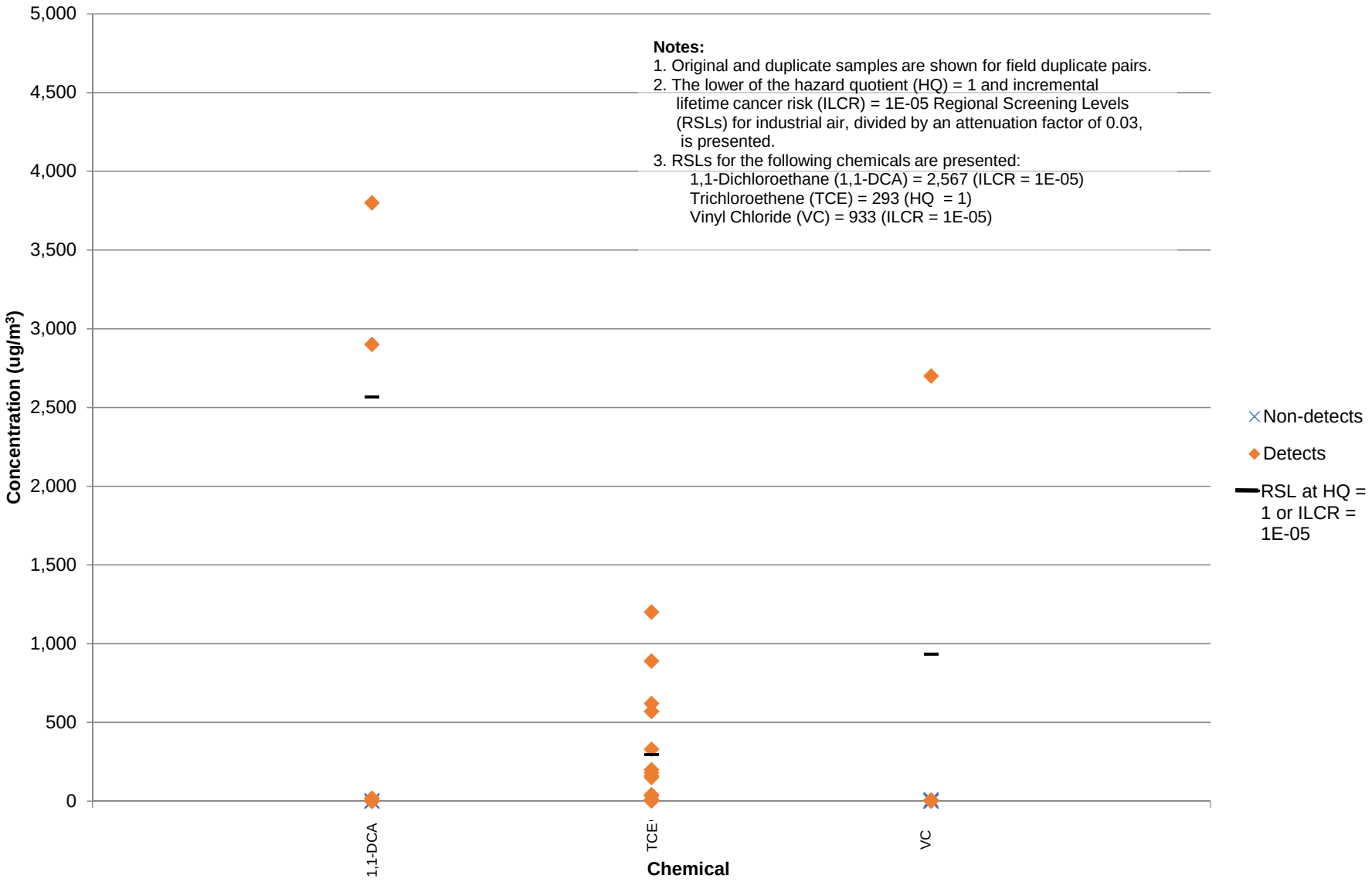
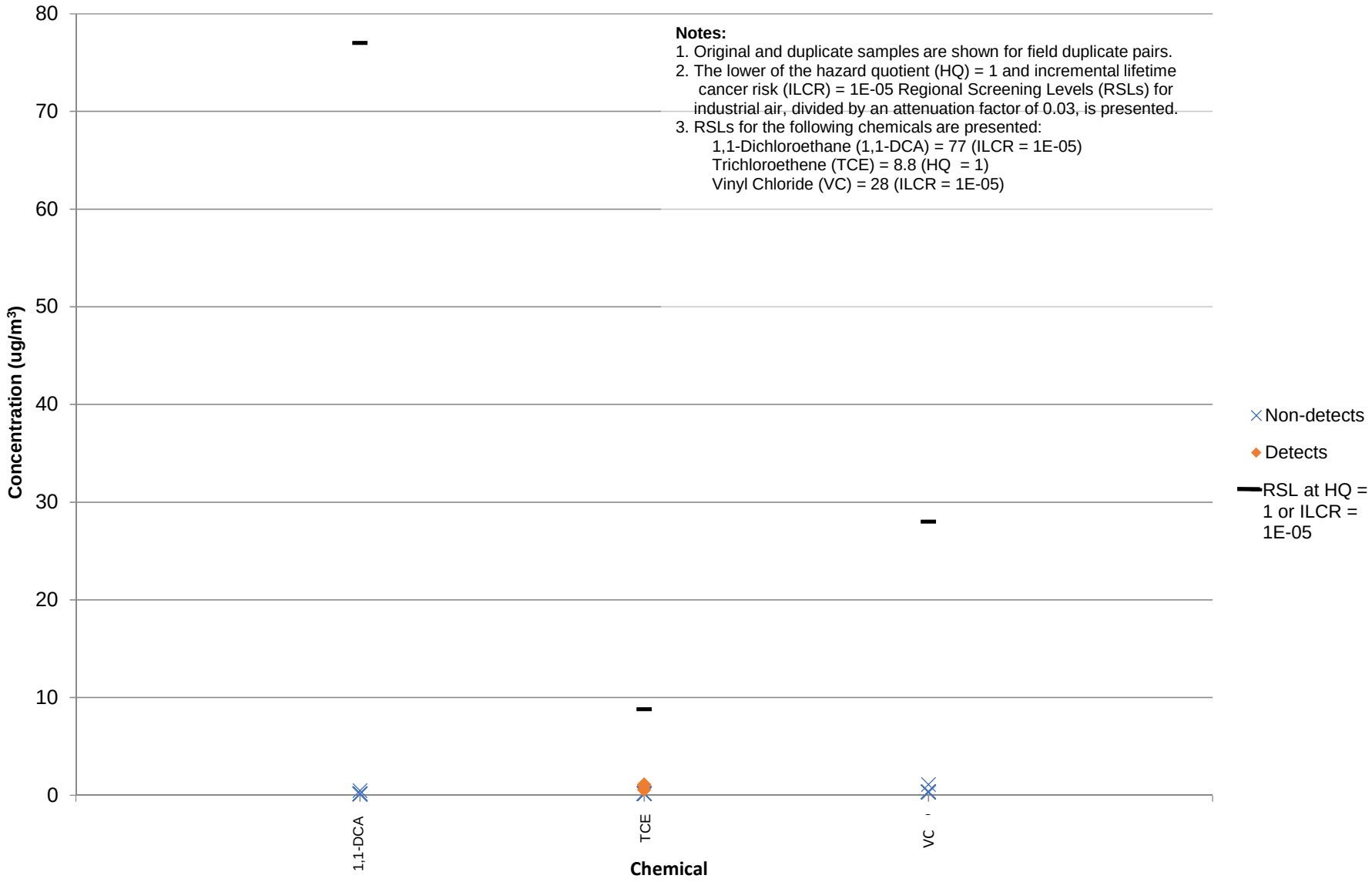


Figure 5-3B
Concentrations of Select Chemicals from Round 27 - Building C - Indoor Air - Basement



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Indoor-Air-Quality Investigation of Buildings A, B, C, and the (Vertical-Launch System) VLS (Facility), Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2007)
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Block I Building A Basement Monitoring Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2017b)
Vapor-Intrusion Investigation and Sub-Slab-Depressurization-System Operation March 2017 Monitoring Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2017c)

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Construction Report, Sub-Slab Depressurization System, Third-Phase Expansion—Building A, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland (Tetra Tech, 2017f)
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Block I Building A and Building A Basement Investigation Report—Summer 2017, Middle River Complex, Middle River, Maryland (Tetra Tech, 2018b)
Block I Building A Floor Air-Vent Sealing and Survey Report Middle River Complex, Middle River, Maryland (Tetra Tech, 2018c)
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Groundwater Leachate Management Block I Flow Testing and Additional Sump Sampling Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2018e)
Vapor-Intrusion Investigation and Sub-Slab-Depressurization-System Operation August 2018 Monitoring Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2018f)
Vapor-Intrusion Investigation and Sub-Slab-Depressurization-System Operation February 2019 Monitoring Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland (Tetra Tech, 2018g)

TABLE 3-1

DESCRIPTIVE STATISTICS OF INDOOR AIR QUALITY RESULTS, ALL BUILDINGS, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Parameter	Frequency of detection[1]	Minimum detected value[1]	Maximum detected value[1]	Sample of Maximum Concentration Detected	Location of Maximum Concentration Detected	Minimum non-detect value[2]	Maximum non-detect value[2]	Average of detected values[1]	Average of all values[1][3]	Standard deviation[1][3]	Average of detected background values	Maximum background value	Number of detects above maximum background value[1][4]	Adjusted USEPA RSL for industrial air[5]		Number of samples above adjusted industrial RSL[1][4]
Volatile Organic Compounds (µg/m^3)																
1,1-DICHLOROETHANE	2/35	0.18 J	0.2 J	IA-018-A-27	AIR-018-A	0.14	1.4	0.16	0.098	0.11	--	ND	2	77	ca	0
1,1-DICHLOROETHENE	4/35	1.5 J	1.7	IA-174-A-27	AIR-174-A	0.16	1.6	1.6	0.28	0.50	--	ND	4	880	nc	0
1,2,3-TRIMETHYLBENZENE	1/35	0.86 J	0.86 J	IA-152-C-27	AIR-152-C	0.88	8.8	0.86	0.60	0.69	--	ND	1	260	nc	0
1,2,4-TRIMETHYLBENZENE	11/35	0.56 J	2.6	IA-152-C-27	AIR-152-C	0.49	4.9	0.92	0.54	0.57	--	ND	11	260	nc	0
1,3,5-TRIMETHYLBENZENE	1/35	0.81 J	0.81 J	IA-152-C-27	AIR-152-C	0.54	5.4	0.81	0.37	0.43	--	ND	1	260	nc	0
BENZENE	32/35	0.31 J	0.74 J	IA-126-C-27	AIR-126-C	0.13	1.3	0.50	0.48	0.12	0.52	**0.58**	4	16	ca	0
CARBON TETRACHLORIDE	32/35	0.27 J	0.59 J	IA-093-A-27	AIR-093-A	0.22	2.2	0.40	0.41	0.15	0.40	**0.5**	4	20	ca	0
CHLORODIFLUOROMETHANE	33/35	0.86 J	38 J	IA-146-C-27	AIR-146-C	0.39	3.9	5.5	5.3	8.3	1.6	**1.8**	18	220000	nc	0
CHLOROFORM	32/35	0.19 J	0.89 J	IA-152-C-27	AIR-152-C	0.17	1.7	0.29	0.30	0.16	0.19	**0.21**	28	5.3	ca	0
CIS-1,2-DICHLOROETHENE	5/35	0.48 J	0.97 J	IA-138-A-27	AIR-138-A	0.2	2	0.76	0.23	0.28	--	ND	5	--	--	0
DICHLORODIFLUOROMETHANE	34/35	1.5 J	2.9	IA-155-C-27	AIR-155-C	3.5	3.5	2.1	2.1	0.35	1.7	**1.9**	23	440	nc	0
ETHYLBENZENE	31/35	0.35 J	3.7	IA-081-A-27	AIR-081-A	0.28	2.8	0.98	0.92	0.72	0.30	**0.3**	31	49	ca	0
METHYLENE CHLORIDE	26/35	6.4 J	340 J	IA-149-C-27	AIR-149-C	4.7	29	49	38	77	9.0	**10**	16	2600	nc	0
NAPHTHALENE	1/35	4.3	4.3	IA-018-A-27-D	AIR-018-A	2	20	2.7	1.4	1.6	--	ND	1	3.6	ca	1
TETRACHLOROETHENE	10/35	0.24 J	1 J	IA-079-A-27-D	AIR-079-A	0.24	2.4	0.38	0.23	0.22	--	ND	10	180	nc	0
TOLUENE	33/35	1.6 J	150	IA-081-A-27	AIR-081-A	1.5	1.5	26	25	38	2.4	**3.6**	23	22000	nc	0
TOTAL XYLENES	33/35	1.2 J	15	IA-081-A-27	AIR-081-A	0.52	5.2	4.5	4.3	3.0	1.1	**1.4**	31	440	nc	0
TRICHLOROETHENE	8/35	0.21 J	9.3	IA-093-A-27	AIR-093-A	0.16	1.6	3.7	0.92	2.2	--	ND	8	8.8	nc	1

A shaded maximum background value indicates that the maximum detected value from the site data exceeds the maximum background value.

A bolded chemical name/criterion indicates that its concentration exceeds background and the industrial air RSL based on an HQ of 0.1 or an ILCR of 1×10^{-6} (i.e., one-tenth of screening value listed).

A bolded/shaded chemical name/criterion indicates that its concentration exceeds background and the industrial air RSL based on an HQ of 1 or an ILCR of 1×10^{-5} (i.e., the screening value presented).

Footnotes:

1 - Sample and duplicate are considered two separate samples when determining the minimum and maximum concentrations but are considered one sample when determining frequency of detection, average, standard deviation, and the number of samples exceeding screening criteria.

2 - Values presented are sample-specific quantitation limits.

3 - One-half the detection limit was used to represent non-detected results in calculating the average of all results and the standard deviation.

4 - Exceedance counts are based on detected results only.

5 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2019. RSLs for carcinogens were adjusted to be based on a lifetime cancer risk of 1E-05. RSLs for noncarcinogens were not adjusted and represent a hazard quotient (HQ) of 1.

6 - Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL).

Definitions:

ca = screening value based on 1×10^{-5} carcinogenic risk

HQ - hazard quotient

ILCR - incremental lifetime cancer risk

J - estimated value

µg/m^3 - micrograms per cubic meter

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

NA - not applicable/not available

nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

ND - not detected

OSHA - Occupational Safety and Health Administration

PEL - permissable exposure limit

RSL - regional screening level

USEPA - United States Environmental Protection Agency

TABLE 3-2

DESCRIPTIVE STATISTICS OF SUB-SLAB VAPOR RESULTS, ALL BUILDINGS, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Parameter	Frequency of detection[1]	Minimum detected value[1]	Maximum detected value[1]	Sample of Maximum Concentration Detected	Location of Maximum Concentration Detected	Minimum non-detect value[3]	Maximum non-detect value[3]	Average of detected values[1]	Average of all values[1][4]	Standard deviation[1][4]	Adjusted USEPA RSL for industrial air [value divided by 0.03[5]]		Number of samples above adjusted industrial RSL[1][6]
Volatile Organic Compounds (µg/m^3)													
1,1,1-TRICHLOROETHANE	13/33	1.2 J	1800	SV-102-C-27	AIR-102-C	1	21	160	65	290	733,333	nc	0
1,1-DICHLOROETHANE	15/33	0.16 J	3800	SV-102-C-27-D	AIR-102-C	0.14	2.9	240	110	580	**2,567**	ca	1
1,1-DICHLOROETHENE	18/33	0.29 J	3100 J	SV-102-C-27	AIR-102-C	0.16	0.53	260	140	440	**29,333**	nc	0
1,2,3-TRIMETHYLBENZENE	6/33	1 J	14 J	SV-102-C-27-D	AIR-102-C	0.88	30	6.1	2.0	3.1	8,667	nc	0
1,2,4-TRIMETHYLBENZENE	20/33	0.69 J	17 J	SV-102-C-27-D	AIR-102-C	0.49	17	3.4	2.5	4.0	8,667	nc	0
1,2-DICHLOROETHANE	1/33	12	12	SV-113-C-27	AIR-113-C	0.2	6.9	12	0.65	2.1	157	ca	0
1,3,5-TRIMETHYLBENZENE	9/33	0.58 J	10 J	SV-102-C-27-D	AIR-102-C	0.54	18	4.4	1.7	2.7	8,667	nc	0
BENZENE	29/33	0.13 J	200	SV-149-C-27	AIR-149-C	0.13	1.2	7.8	6.9	35	**533**	ca	0
CARBON TETRACHLORIDE	27/33	0.24 J	31	SV-100-B-27	AIR-100-B	0.73	7.5	1.7	1.6	5.3	667	ca	0
CHLORODIFLUOROMETHANE	27/33	0.86 J	40 J	SV-150-C-27	AIR-150-C	0.39	13	6.7	5.8	8.9	7,333,333	nc	0
CHLOROFORM	28/33	0.2 J	38	SV-004-C-27	AIR-004-C	0.17	3.5	6.3	5.4	9.6	**177**	ca	0
CIS-1,2-DICHLOROETHENE	21/33	0.44 J	240	SV-174-A-27	AIR-174-A	0.2	0.66	44	28	63	--	--	0
DICHLORODIFLUOROMETHANE	29/33	1.6 J	6	SV-078-A-27	AIR-078-A	3.1	12	2.3	2.3	0.94	14,667	nc	0
ETHYLBENZENE	26/33	0.5 J	220 J	SV-102-C-27-D	AIR-102-C	0.28	2.6	12	9.4	31	**1,633**	ca	0
METHYLENE CHLORIDE	29/33	6.3 J	630 J	SV-126-C-27	AIR-126-C	25	190	69	65	120	86,667	nc	0
NAPHTHALENE	6/33	2.1	120	SV-102-C-27-D	AIR-102-C	2	41	28	7.1	19	**120**	ca	0
TETRACHLOROETHENE	22/33	0.25 J	85	SV-101-B-27	AIR-101-B	0.24	8	6.8	4.7	15	6,000	nc	0
TOLUENE	27/33	1.5 J	87	SV-076-A-27	AIR-076-A	1.5	50	11	9.9	17	733,333	nc	0
TOTAL XYLENES	28/33	1.1 J	2100 J	SV-102-C-27-D	AIR-102-C	0.52	4.7	87	74	290	**14,667**	nc	0
TRANS-1,2-DICHLOROETHENE	19/33	0.16 J	40	SV-149-C-27	AIR-149-C	0.14	1.3	4.3	2.5	7.2	--	--	0
TRICHLOROETHENE	33/33	0.82 J	10000	SV-173-A-27	AIR-173-A	--	--	670	670	1900	**293**	nc	10
VINYL CHLORIDE	6/33	0.57	2700	SV-149-C-27	AIR-149-C	0.33	11	450	83	470	**933**	ca	1

A bolded chemical name/criterion indicates that the maximum concentration exceeds the industrial air RSL divided by 0.03 based on an HQ of 0.1 or an ILCR of 1×10^{-6} (i.e., one-tenth the screening value presented).

A bolded/shaded chemical name/criterion indicates that the maximum concentration exceeds the industrial air RSL divided by 0.03 based on an HQ of 1 or an ILCR of 1×10^{-5} (i.e., the screening value presented).

Footnotes:

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations, but are considered one sample when determining frequency of detection, average, standard deviation, and the number of samples exceeding criteria.

2 - Historical data concentrations indicate that sub-slab vapor results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this).

3 - Values presented are sample-specific quantitation limits.

4 - One-half the detection limit was used to represent non-detected results in calculating the average of all results and the standard deviation.

5 - Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor 0.03, and correspond to a target cancer risk level of 1.0E-05 or a hazard quotient (HQ) of 1.

6 - Exceedance counts are based on detected results only.

Definitions:

-- = no criterion available

ca = screening value based on carcinogenic effects

HQ = hazard quotient

ILCR = incremental lifetime cancer risk

J = estimated value

NA = not available

nc = screening value based on noncarcinogenic effects

RSL = regional screening level

TABLE 3-3

SUMMARY STATISTICS FOR TRICHLOROETHENE CONCENTRATIONS IN INDOOR AIR
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Building level or background	Dataset	Minimum detected value[1]	Maximum detected value[1]	Sample date of maximum detected value	Minimum non-detect value[1][2]	Maximum non-detect value[1][2]	Average of all values[3][4]	Average of detected values[3]	Frequency of detection[1]	Number of detections > 8.8 µg/m³ [5][6]	95% UCL[3]
Basement	All Buildings 2006-August 2019	0.077 J	36 [7]	20071029	0.075	20	1.1	2.1	290/646	16	1.5
	All Buildings August 2019	0.54 J	9.3	20190815	0.16	0.16	1.4	4.1	7/22	0	2.5
	Building A 2006-August 2019	0.15 J	26.2	20140827	0.36	0.96	4.1	4.4	94/99	12	5.0
	Building A August 2019	3.6	9.3	20190815	-	-	6.6	6.6	4/4	0	NA[8]
	Building B 2006-September 2014[10]	0.078 J	2.5	20080328	0.075	2.7	0.60	0.68	55/80	0	0.69
	Building B August 2019	-	-	-	-	-	-	-	-	-	-
	Building C 2006-August 2019	0.077 J	36 [7]	20071029	0.075	20	0.59	1.3	141/467	4	0.81
	Building C August 2019	0.54 J	1.1 J	20190814	0.16	0.16	0.21	0.88	3/18	0	0.42
First Floor	All Buildings 2006-August 2019	0.081 J	34	20130829	0.075	12	0.99	1.7	187/425	5	1.4
	All Buildings August 2019	0.21 J	0.21 J	20190815	0.16	1.6	0.15	0.21	1/13	0	NA[9]
	Building A 2006-August 2019	0.086 J	34	20130829	0.075	12	1.1	1.9	142/308	5	1.6
	Building A August 2019	0.21 J	0.21 J	20190815	0.16	1.6	0.16	0.21	1/11	0	NA[9]
	Building B 2006-August 2019	0.081 J	5.1	20071102	0.075	11	0.74	0.85	38/95	0	0.55
	Building B August 2019	-	-	-	0.16	0.16	-	-	0/2	0	NA[8][9]
	Building C 2006-August 2008[10]	0.5 J	7.2	20070427	0.21	2.7	1.0	2.3	7/22	0	2.1
Background	2006-August 2019	0.48 J	11.9	20140902	0.075	2.7	0.56	2.8	11/98	1	0.24
	August 2019	-	-	-	0.16	0.16	-	-	0/4	0	NA[8][9]

All results are in µg/m³.

(1) The original sample and duplicate are considered as two separate samples when determining the minimum and maximum concentration and as one sample when determining the frequency of detection.

(2) Values presented are sample-specific quantitation limits.

(3) The average of the original sample and duplicate is used for determining the average of all values, average of detected values, and 95% UCL.

(4) One-half the detection limit was used to represent non-detected results in calculating the average of all results.

(5) Value is the non-carcinogenic industrial air regional screening level corresponding to HQ = 1 (USEPA, May 2019).

(6) Field duplicate pair samples are counted as one sample in determining the number of samples exceeding the screening level. The field duplicate pair is considered to exceed the screening level if either the original or duplicate sample is greater than the screening level.

(7) The maximum detected concentration (36 µg/m³) was detected in a duplicate sample, and the corresponding original sample concentration (0.75 µg/m³) is considerably less than the maximum concentration. Resampling at the same location found concentrations that were closer to the original sample concentration.

(8) There are less than five samples; therefore, a UCL is not presented.

(9) There are less than three detections; therefore, a UCL is not presented.

(10) There are no trichloroethene results for the Building B basement from the February 2019 sampling event.

(11) There are no trichloroethene results for the Building C first floor.

Definitions:

HQ - hazard quotient
J - estimated value
µg/m³ - micrograms per cubic meter
NA - not applicable/not available
UCL - upper confidence limit
USEPA - United States Environmental Protection Agency

TABLE 3-4

SUMMARY STATISTICS FOR NAPHTHALENE CONCENTRATIONS IN INDOOR AIR
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Building level or background	Dataset	Minimum detected value[1]	Maximum detected value[1]	Sample date of maximum detected value	Minimum non-detect value[1][2]	Maximum non-detect value[1][2]	Average of all values[3][4]	Average of detected values[3]	Frequency of detection[1]	Number of detections > 3.6 µg/m^3 [5][6]	95% UCL[3]
Basement	All Buildings 2006-August 2019	0.2 J	15	20160817	0.19	96.7	1.4	2.3	271/581	55	1.3
	All Buildings August 2019	4.3	4.3	20190815	2	6.7	1.2	2.7	1/22	1	NA[7]
	Building A 2006-August 2019	0.47 J	15	20160817	0.19	4	2.6	3.9	58/94	24	3.2
	Building A August 2019	4.3	4.3	20190815	2	2	1.4	2.7	1/4	1	NA[7][8]
	Building B 2006-August 2019	0.23 J	5	20130828	0.19	5.6	1.1	1.6	32/53	3	1.4
	Building B August 2019	-	-	-	-	-	-	-	-	-	-
	Building C 2006-August 2019	0.2 J	6.9	20140903	0.19	96.7	1.2	1.9	181/434	28	1.1
	Building C August 2019	-	-	-	2	6.7	-	-	0/18	0	NA[7]
First Floor[9]	All Buildings 2006-August 2019	0.19 J	12 J	20170817	0.19	31	1.1	1.5	106/325	8	0.80
	All Buildings August 2019	-	-	-	2	20	-	-	0/13	0	NA[7]
	Building A 2006-August 2019	0.19 J	12 J	20170817	0.19	31	0.99	1.5	80/257	6	0.83
	Building A August 2019	-	-	-	2	20	-	-	0/11	0	NA[7]
	Building B 2006-August 2019	0.26 J	6.5 J	20140226	0.19	24	1.5	1.5	26/68	2	1.1
	Building B August 2019	-	-	-	2	2	-	-	0/2	0	NA[7][8]
Background	2006-August 2019	0.2 J	8.1 J	20091028	0.19	3.8	0.82	1.5	24/82	1	0.87
	August 2019	-	-	-	2	2	-	-	0/4	0	NA[7][8]

All results are in µg/m^3.

(1) The original sample and duplicate are considered as two separate samples when determining the minimum and maximum concentration and as one sample when determining the frequency of detection.

(2) Values presented are sample-specific quantitation limits.

(3) The average of the original sample and duplicate is used for determining the average of all values, average of detected values, and 95% UCL.

(4) One-half the detection limit was used to represent non-detected results in calculating the average of all results.

(5) Value is the carcinogenic industrial air regional screening level corresponding to 1×10^{-5} risk level (USEPA, May 2019).

(6) Field duplicate pair samples are counted as one sample in determining the number of samples exceeding the screening level. The field duplicate pair is considered to exceed the screening level if either the original or duplicate sample is greater than the screening level.

(7) There are less than three detections; therefore, a UCL is not presented.

(8) There are less than five samples; therefore, a UCL is not presented.

(9) There are no naphthalene results for the Building C first floor from historical or February 2019 sampling events.

Definitions:

HQ - hazard quotient

ILCR - incremental lifetime cancer risk

J - estimated value

µg/m^3 - micrograms per cubic meter

UCL - upper confidence limit

USEPA - United States Environmental Protection Agency

A benchmark of 3.6 µg/m^3 corresponds to ILCR = 1×10^{-5}.

TABLE 3-5

INDOOR AIR SAMPLING RESULTS, BULIDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-015-A IA-015-A-27 20190815	AIR-018-A[(1)] IA-018-A-27 20190815	 IA-018-A-27-D 20190815	AIR-021-A IA-021-A-27 20190815	AIR-075-A IA-075-A-27 20190815	AIR-076-A IA-076-A-27 20190815
Volatile organic compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	10 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	1.9 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	**0.2 J**	0.14 U	0.14 U	1.4 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	**1.6**	**1.5 J**	0.16 U	1.6 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	8.8 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	24 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	0.49 U	0.49 U	0.49 U	4.9 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 U	0.2 U	2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	5.4 U	0.54 U
BENZENE	31,900	16	ca	**0.45 J**	**0.58 J**	**0.48 J**	**0.31 J**	1.3 U	**0.44 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.35 J**	**0.43 J**	**0.36 J**	**0.47 J**	2.2 U	**0.39 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**1.6**	**1.6**	**1.6**	**1.4**	3.9 U	**1.3 J**
CHLOROFORM	240,000	5.3	ca	**0.24 J**	**0.49 J**	**0.46 J**	**0.24 J**	1.7 U	**0.21 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	**0.89 J**	**0.95 J**	0.2 U	2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**2.7**	**2.3**	**2.2**	**1.6 J**	3.5 U	**2.3**
ETHYLBENZENE	435,000	49	ca	**0.49 J**	**0.37 J**	**0.43 J**	**1.1 J**	2.8 U	**0.7 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	9.4 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**7.1 J**	**7.1 J**	**9.5 J**	6.3 U	29 U	5.7 U
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	**4.3**	2 U	20 U	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	0.24 U	0.24 U	0.24 U	2.4 U	0.24 U
TOLUENE	754,000	22,000	nc	**18**	**5.3**	**5.8**	**46**	**24**	**27**
TOTAL XYLENES	435,000	440	nc	**2.5 J**	**1.7 J**	**2 J**	**5.7**	5.2 U	**3.3 J**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	**3.9**	**3.6**	0.16 U	1.6 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 UJ	0.33 UJ	0.33 UJ	0.33 U	3.3 U	0.33 UJ

Shaded cells indicate a concentration greater than the risk-based screening level.

Bolded cells indicate that the analyte is detected in the sample.

1-This location is in the basement, where the TCE screening level is 35 µg/m^3 (not 8.8 µg/m^3); and therefore not an exceedance.
The higher TCE screening level is based on reduced exposure potential to basement air, and was approved by MDE in 2017.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-5

INDOOR AIR SAMPLING RESULTS, BULIDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-078-A IA-078-A-27 20190815	AIR-079-A IA-079-A-27 20190815	AIR-079-A IA-079-A-27-D 20190815	AIR-081-A IA-081-A-27 20190815	AIR-093-A[(1)] IA-093-A-27 20190815	AIR-117-A IA-117-A-27 20190815
Volatile organic compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U	0.16 U	**1.6**	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	0.49 U	0.49 U	**0.56 J**	0.49 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.36 J**	**0.52 J**	**0.56 J**	**0.44 J**	**0.53 J**	**0.41 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.29 J**	**0.29 J**	**0.51 J**	**0.4 J**	**0.59 J**	**0.37 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**0.86 J**	**0.93 J**	**1.3 J**	**1.7**	0.39 U	**0.92 J**
CHLOROFORM	240,000	5.3	ca	**0.24 J**	**0.22 J**	**0.23 J**	**0.26 J**	**0.25 J**	**0.22 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	0.2 U	0.2 U	**0.48 J**	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.5 J**	**1.8 J**	**2.6**	**2.4**	**2.6**	**1.8 J**
ETHYLBENZENE	435,000	49	ca	**1.1 J**	**1.2 J**	**1.2 J**	**3.7**	**0.38 J**	**1.3 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**15 J**	**7.6 J**	**18 J**	**6.8 J**	**140 J**	**21 J**
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	2 U	2 U	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	0.24 U	**1 J**	0.24 U	**0.71 J**	0.24 U
TOLUENE	754,000	22,000	nc	**62**	**64**	**64**	**150**	**6.1**	**60**
TOTAL XYLENES	435,000	440	nc	**5**	**6.1**	**6.1**	**15**	**1.5 J**	**5.5**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U	0.16 U	0.16 U	**9.3**	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 UJ	0.33 UJ	0.33 U	0.33 UJ	0.33 U	0.33 UJ

Shaded cells indicate a concentration greater than the risk-based screening level.

Bolded cells indicate that the analyte is detected in the sample.

1-This location is in the basement, where the TCE screening level is 35 µg/m^3 (not 8.8 µg/m^3); and therefore not an exceedance.
The higher TCE screening level is based on reduced exposure potential to basement air, and was approved by MDE in 2017.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-5

INDOOR AIR SAMPLING RESULTS, BULIDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-118-A IA-118-A-27 20190815	AIR-136-A IA-136-A-27 20190815	AIR-138-A(1) IA-138-A-27 20190815	AIR-168-A IA-168-A-27 20190815	AIR-174-A(1) IA-174-A-27 20190815
Volatile organic compounds (µg/m^3)								
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	**0.18 J**	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	**1.6**	0.16 U	**1.7**
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.43 J**	**0.45 J**	**0.55 J**	**0.38 J**	**0.49 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.35 J**	**0.44 J**	**0.35 J**	**0.34 J**	**0.54 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**1.1 J**	**1.6**	**1.5**	**0.88 J**	**1.5**
CHLOROFORM	240,000	5.3	ca	**0.22 J**	**0.29 J**	**0.28 J**	0.17 U	**0.24 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	**0.97 J**	0.2 U	**0.66 J**
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.7 J**	**2.2**	**2.6**	**2**	**2.1**
ETHYLBENZENE	435,000	49	ca	**0.76 J**	**1.5 J**	**0.45 J**	**0.36 J**	0.28 U
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	6.3 U	6.1 U	6.6 U	**8.3 J**	**44 J**
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	2 U	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	**0.26 J**	0.24 U	**0.41 J**	0.24 U
TOLUENE	754,000	22,000	nc	**16**	**70**	**5.1**	**9.9**	**5.3**
TOTAL XYLENES	435,000	440	nc	**3.9**	**7.1**	**2 J**	**1.6 J**	**1.2 J**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	**0.21 J**	0.16 U	**5.1**	0.16 U	**8.2**
VINYL CHLORIDE	2,560	28	ca	0.33 UJ	0.33 UJ	0.33 UJ	0.33 UJ	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.

Bolded cells indicate that the analyte is detected in the sample.

1-This location is in the basement, where the TCE screening level is 35 µg/m^3 (not 8.8 µg/m^3); and therefore not an exceedance.
The higher TCE screening level is based on reduced exposure potential to basement air, and was approved by MDE in 2017.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-6

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-015-A SV-015-A-27 20190815	AIR-075-A SV-075-A-27 20190815	AIR-076-A SV-076-A-27 20190815	AIR-078-A SV-078-A-27 20190815	AIR-079-A SV-079-A-27 20190815	AIR-079-A SV-079-A-27-D 20190815	AIR-093-A SV-093-A-27 20190815
Volatile Organic Compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	733,333	nc	**1.2 J**	1 U	1 U	**2.8**	**1.3 J**	**1.4 J**	1 U
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	2,567	ca	**2.6**	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	**9.2**
1,1-DICHLOROETHENE	29,333	nc	**14**	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	**5.3**
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	**7.3**	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	0.49 U	**17**	**0.78 J**	**1.4 J**	**1.2 J**	**1.1 J**	0.49 U
1,2-DICHLOROETHANE	157	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	**8.9**	0.54 U	**0.58 J**	0.54 U	0.54 U	0.54 U
BENZENE	533	ca	**2.9**	0.13 U	**0.54 J**	**0.42 J**	**0.44 J**	**0.54 J**	**0.42 J**
CARBON TETRACHLORIDE	667	ca	**0.38 J**	**0.24 J**	**0.33 J**	**0.32 J**	**0.31 J**	**0.3 J**	**0.41 J**
CHLORODIFLUOROMETHANE	7,333,333	nc	**1.4**	**11**	**1.3 J**	**1.4**	**1.3 J**	**1.6**	0.39 U
CHLOROFORM	177	ca	**0.34 J**	**0.2 J**	0.17 U	**0.57 J**	**0.5 J**	**0.45 J**	**0.45 J**
CIS-1,2-DICHLOROETHENE	--	--	**2.4**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.79 J**
DICHLORODIFLUOROMETHANE	14,667	nc	**2.4**	**2.3**	**2**	**6.1**	**2.2**	**2.3**	**2.1**
ETHYLBENZENE	1633	ca	**30**	**0.79 J**	**1.1 J**	**0.77 J**	**0.92 J**	**0.77 J**	0.28 U
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	86,667	nc	**140 J**	**24 J**	**100 J**	**39 J**	**45 J**	**29 J**	**16 J**
NAPHTHALENE	120	ca	2 U	**53**	2 U	2 U	2 U	2 U	2 U
TETRACHLOROETHENE	6,000	nc	0.24 U	**0.49 J**	**0.91 J**	**2.1 J**	**18**	**19**	0.24 U
TOLUENE	733,333	nc	**13**	**7.9**	**87**	**26**	**5.9**	**5.3**	**2.6**
TOTAL XYLENES	14,667	nc	**64**	**5.5**	**5.6**	**5.4**	**5.6**	**5**	0.52 U
TRANS-1,2-DICHLOROETHENE	--	--	**0.28 J**	0.14 U	0.14 U	0.14 U	**0.51 J**	**0.56 J**	0.14 U
TRICHLOROETHENE	293	nc	**10**	**3**	**0.82 J**	**32**	**150**	**150**	**7.2**
VINYL CHLORIDE	933	ca	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.
-- = not available
µg/m^3 = micrograms per cubic meter
J = estimated value
U = nondetect
ca = screening value based on carcinogenic effects
nc = screening value based on noncarcinogenic effects
1 - Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.03, and correspond to a target cancer risk level of 1×10^{-5}.

TABLE 3-6

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-116-A SV-116-A-27 20190815	AIR-116-A SV-116-A-27-D 20190815	AIR-118-A SV-118-A-27 20190815	AIR-136-A SV-136-A-27 20190815	AIR-138-A SV-138-A-27 20190815	AIR-139-A SV-139-A-27 20190815	AIR-168-A SV-168-A-27 20190815
Volatile Organic Compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	733,333	nc	1 U	1 U	**3.6**	1 U	1 U	1 U	**13**
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	2,567	ca	0.14 U	0.14 U	**11**	0.14 U	**3.3**	0.14 U	**1.2 J**
1,1-DICHLOROETHENE	29,333	nc	**0.56 J**	**0.84 J**	**86**	**0.52 J**	**22**	0.16 U	**79**
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	0.88 U	**2.5**	0.88 U	0.88 U	**5.6**	0.88 U
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	0.49 U	0.49 U	**5.7**	**0.69 J**	0.49 U	**2.4**	**1.1 J**
1,2-DICHLOROETHANE	157	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	0.54 U	**3.9**	0.54 U	0.54 U	**6.6**	0.54 U
BENZENE	533	ca	**0.41 J**	**0.48 J**	**0.32 J**	**4**	**0.61 J**	**0.13 J**	**0.81 J**
CARBON TETRACHLORIDE	667	ca	**0.4 J**	**0.49 J**	**0.45 J**	**0.4 J**	**0.5 J**	**0.35 J**	**0.53 J**
CHLORODIFLUOROMETHANE	7,333,333	nc	**1.1 J**	**1.7**	**1.5**	**1.8**	**1.2 J**	**1.2 J**	**1.1 J**
CHLOROFORM	177	ca	**1.1 J**	**0.91 J**	**2.3**	**13**	**0.62 J**	0.17 U	**2.3**
CIS-1,2-DICHLOROETHENE	--	--	0.2 U	**0.44 J**	**45**	**2.8**	**14**	0.2 U	**0.76 J**
DICHLORODIFLUOROMETHANE	14,667	nc	**2.2**	**1.7 J**	**2.4**	**2.2**	**2.6**	**2.2**	**2.3**
ETHYLBENZENE	1633	ca	0.28 U	**0.53 J**	**6.4**	**0.95 J**	0.28 U	**4.4**	**0.55 J**
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	86,667	nc	**6.3 J**	**170 J**	**36 J**	**31 J**	**29 J**	**32 J**	**26 J**
NAPHTHALENE	120	ca	2 U	2 U	2 U	2 U	2 U	**3**	2 U
TETRACHLOROETHENE	6,000	nc	0.24 U	0.24 U	0.24 U	0.24 U	**1.5 J**	**5.7**	**0.88 J**
TOLUENE	733,333	nc	**2 J**	**5.3**	**3.3**	**25**	**1.5 J**	1.5 U	**4.5**
TOTAL XYLENES	14,667	nc	0.52 U	**2.6 J**	**58**	**4.4**	0.52 U	**37**	**3.1 J**
TRANS-1,2-DICHLOROETHENE	--	--	0.14 U	0.14 U	**4**	**0.41 J**	**0.49 J**	0.14 U	**0.2 J**
TRICHLOROETHENE	293	nc	**6.6**	**8.4**	**420**	**500**	**200**	**1.6**	**270**
VINYL CHLORIDE	933	ca	0.33 U	0.33 U	**0.57**	0.33 U	0.33 U	0.33 U	0.33 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.
-- = not available
µg/m^3 = micrograms per cubic meter
J = estimated value
U = nondetect
ca = screening value based on carcinogenic effects
nc = screening value based on noncarcinogenic effects
1 - Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.03, and correspond to a target cancer risk level of 1×10^{-5}.

TABLE 3-6

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING A, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-170-A SV-170-A-27 20190815	AIR-171-A SV-171-A-27 20190815	AIR-173-A SV-173-A-27 20190815	AIR-174-A SV-174-A-27 20190815
Volatile Organic Compounds (µg/m^3)						
1,1,1-TRICHLOROETHANE	733,333	nc	**6.2**	9.2 U	9.2 U	**160**
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	1.7 U	1.7 U	0.71 U
1,1-DICHLOROETHANE	2,567	ca	**1.8**	**8.5 J**	**27**	**84**
1,1-DICHLOROETHENE	29,333	nc	**49**	**250**	**580**	**900**
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	8 U	8 U	3.3 U
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	22 U	22 U	8.8 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	**0.93 J**	4.5 U	4.5 U	1.8 U
1,2-DICHLOROETHANE	157	ca	0.2 U	1.8 U	1.8 U	0.75 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	4.9 U	4.9 U	2 U
BENZENE	533	ca	**0.51 J**	1.2 U	1.2 U	**1.4 J**
CARBON TETRACHLORIDE	667	ca	**0.4 J**	2 U	2 U	0.82 U
CHLORODIFLUOROMETHANE	7,333,333	nc	**1.3 J**	3.5 U	3.5 U	1.4 U
CHLOROFORM	177	ca	**0.63 J**	**4.8 J**	**10 J**	**28**
CIS-1,2-DICHLOROETHENE	--	--	**10**	**52**	**180**	**240**
DICHLORODIFLUOROMETHANE	14,667	nc	**2.1**	3.1 U	3.1 U	**2.1 J**
ETHYLBENZENE	1633	ca	**1.4 J**	2.6 U	2.6 U	1 U
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	8.5 U	8.5 U	3.5 U
METHYLENE CHLORIDE	86,667	nc	**27 J**	53 U	**69 J**	25 U
NAPHTHALENE	120	ca	2 U	18 U	18 U	7.4 U
TETRACHLOROETHENE	6,000	nc	**0.78 J**	2.2 U	2.2 U	**2.5 J**
TOLUENE	733,333	nc	**1.5 J**	13 U	13 U	5.5 U
TOTAL XYLENES	14,667	nc	**15**	4.7 U	4.7 U	**4.4 J**
TRANS-1,2-DICHLOROETHENE	--	--	**0.38 J**	1.3 U	**6.6 J**	**13**
TRICHLOROETHENE	293	nc	**340**	**2200**	**10000**	**4400**
VINYL CHLORIDE	933	ca	0.33 U	3 U	3 U	1.2 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.
-- = not available
µg/m^3 = micrograms per cubic meter
J = estimated value
U = nondetect
ca = screening value based on carcinogenic effects
nc = screening value based on noncarcinogenic effects
1 - Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.03, and correspond to a target cancer risk level of 1×10^{-5}.

TABLE 3-7

INDOOR AIR SAMPLING RESULTS, BULIDING B, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-100-B IA-100-B-27 20190815	AIR-101-B IA-101-B-27 20190815
Volatile organic compounds (µg/m^3)					
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	**0.63 J**	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.52 J**	**0.52 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.33 J**	**0.35 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**2.4**	**2.7**
CHLOROFORM	240,000	5.3	ca	**0.27 J**	**0.35 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**2**	**1.8 J**
ETHYLBENZENE	435,000	49	ca	**2.4**	**1.7**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	5.9 U	5.6 U
NAPHTHALENE	50,000	3.6	ca	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	**0.24 J**	**0.39 J**
TOLUENE	754,000	22,000	nc	**130**	**95**
TOTAL XYLENES	435,000	440	nc	**10**	**8.7**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
USEPA = United States Environmental Protection Agency

TABLE 3-8

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING B, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-100-B SV-100-B-27 20190815	AIR-101-B SV-101-B-27 20190815
Volatile Organic Compounds (µg/m^3)				
1,1,1-TRICHLOROETHANE	733,333	nc	**2.4**	**250**
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U
1,1-DICHLOROETHANE	2,567	ca	0.14 U	0.14 U
1,1-DICHLOROETHENE	29,333	nc	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	8,667	nc	**1 J**	**6.4**
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	**1 J**	**13**
1,2-DICHLOROETHANE	157	ca	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	**7.2**
BENZENE	533	ca	**0.3 J**	**0.47 J**
CARBON TETRACHLORIDE	667	ca	**31**	**4.3**
CHLORODIFLUOROMETHANE	7,333,333	nc	**3.3**	**6.1 J**
CHLOROFORM	177	ca	**6.4**	**0.78 J**
CIS-1,2-DICHLOROETHENE	--	--	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	14,667	nc	**4.2**	**3.3**
ETHYLBENZENE	1633	ca	0.28 U	**0.57 J**
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U
METHYLENE CHLORIDE	86,667	nc	**31 J**	**13 J**
NAPHTHALENE	120	ca	2 U	**9.1**
TETRACHLOROETHENE	6,000	nc	**4.9**	**85**
TOLUENE	733,333	nc	**2.4**	**6.2**
TOTAL XYLENES	14,667	nc	**1.4 J**	**3.9**
TRANS-1,2-DICHLOROETHENE	--	--	0.14 U	0.14 U
TRICHLOROETHENE	293	nc	**34**	**190**
VINYL CHLORIDE	933	ca	0.33 U	0.33 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)

Shaded cells indicate a concentration greater than risk-based screening level.

Bolded cells indicate that the analyte is detected in the sample.

1 - Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.03, and correspond to a target cancer risk level of 1×10^{-5}.

-- = not available

ca = screening value based on carcinogenic effects

J = estimated value

nc = screening value based on noncarcinogenic effects

U = nondetect

TABLE 3-9

INDOOR AIR SAMPLING RESULTS, BULIDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-001-C IA-001-C-27 20190814	AIR-004-C IA-004-C-27 20190814	AIR-060-C IA-060-C-27 20190814	AIR-088-C IA-088-C-27 20190814	AIR-088-C IA-088-C-27-D 20190814
Volatile organic compounds (µg/m^3)								
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	0.49 U	0.49 U	**0.6 J**	**0.67 J**
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.63 J**	0.13 U	**0.44 J**	**0.51 J**	**0.55 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.27 J**	0.22 U	**0.32 J**	**0.47 J**	**0.43 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**1.5**	**1.9**	**4.2**	**3.1 J**	**6 J**
CHLOROFORM	240,000	5.3	ca	**0.24 J**	**0.19 J**	**0.26 J**	**0.42 J**	**0.24 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	**0.75 J**	0.2 U	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.7 J**	**1.6 J**	**2.1**	**1.7 J**	**2.8**
ETHYLBENZENE	435,000	49	ca	**0.35 J**	0.28 U	**0.39 J**	**0.78 J**	**0.71 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**11 J**	6.1 U	**8.8 J**	**190 J**	**54 J**
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	2 UJ	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TOLUENE	754,000	22,000	nc	**1.7 J**	1.5 U	**1.7 J**	**4**	**3**
TOTAL XYLENES	435,000	440	nc	**1.9 J**	0.52 U	**2 J**	**4.4**	**4**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	**0.54 J**	0.16 U	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1
-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-9

INDOOR AIR SAMPLING RESULTS, BULIDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-102-C IA-102-C-27 20190814	AIR-102-C IA-102-C-27-D 20190814	AIR-113-C IA-113-C-27 20190814	AIR-126-C IA-126-C-27 20190814	AIR-133-C IA-133-C-27 20190814	AIR-141-C IA-141-C-27 20190814
Volatile organic compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	**0.66 J**	**0.61 J**	**0.58 J**	0.49 U	**0.77 J**	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.5 J**	**0.42 J**	**0.58 J**	**0.74 J**	**0.61 J**	**0.46 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.51 J**	**0.41 J**	**0.46 J**	**0.29 J**	**0.46 J**	**0.37 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**4.6**	**5.2**	**3.7**	**1.5**	**3.9 J**	**3**
CHLOROFORM	240,000	5.3	ca	**0.31 J**	0.17 U	**0.35 J**	**0.31 J**	**0.33 J**	**0.26 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.6 J**	**1.9 J**	**1.9 J**	**2.2 J**	**2.1**	**2.1**
ETHYLBENZENE	435,000	49	ca	**0.7 J**	**0.6 J**	**0.67 J**	**1.6 J**	**0.66 J**	0.28 U
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**7.1 J**	4.7 U	**130 J**	**280 J**	**12 J**	**7.8 J**
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	2 U	2 U	2 UJ	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	**0.32 J**	**0.33 J**	**0.39 J**	0.24 U	0.24 U
TOLUENE	754,000	22,000	nc	**2.5**	**2.3**	**3.9**	**12**	**2.7**	1.5 U
TOTAL XYLENES	435,000	440	nc	**3.6**	**3.3 J**	**3.8**	**7.8**	**3.6**	**1.3 J**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U	0.16 U	**1 J**	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1
-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-9

INDOOR AIR SAMPLING RESULTS, BULIDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-142-C IA-142-C-27 20190814	AIR-144-C IA-144-C-27 20190814	AIR-145-C IA-145-C-27 20190814	AIR-146-C IA-146-C-27 20190814	AIR-149-C IA-149-C-27 20190814	AIR-150-C IA-150-C-27 20190814
Volatile organic compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U	3.4 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.64 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U	0.14 U	0.47 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U	0.16 U	0.53 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U	3 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U	7.9 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	**0.64 J**	**1.4 J**	0.49 U	0.49 U	1.6 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 UJ	0.2 UJ	0.2 U	0.68 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U	1.8 U	0.54 U
BENZENE	31,900	16	ca	**0.53 J**	**0.43 J**	**0.52 J**	**0.42 J**	0.43 U	**0.51 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.5 J**	**0.32 J**	**0.44 J**	**0.34 J**	0.74 U	**0.37 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**3.1**	**14 J**	**12**	**38 J**	**3.7 J**	**32 J**
CHLOROFORM	240,000	5.3	ca	**0.27 J**	**0.57 J**	**0.19 J**	**0.24 J**	0.57 U	**0.2 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.66 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.6 J**	**2**	**2.3**	**2.1**	**2.6 J**	**2.4**
ETHYLBENZENE	435,000	49	ca	**0.63 J**	**1.1 J**	**0.49 J**	**0.46 J**	**1.9 J**	**0.5 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U	3.1 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**14 J**	**9.8 J**	**11 J**	**9.8 J**	**340 J**	**13 J**
NAPHTHALENE	50,000	3.6	ca	2 U	2 UJ	2 UJ	2 U	6.7 U	2 U
TETRACHLOROETHENE	678,000	180	nc	**0.24 J**	0.24 U	0.24 U	0.24 U	0.79 U	0.24 U
TOLUENE	754,000	22,000	nc	**2.4**	**2.6**	**3.3**	**1.6 J**	**13**	**1.7 J**
TOTAL XYLENES	435,000	440	nc	**3.3 J**	**5.6**	**2.3 J**	**2.4 J**	**8.3 J**	**2.4 J**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U	0.46 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U	0.16 U	0.16 U	**1.1 J**	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U	0.33 U	0.33 U	1.1 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1
-- = not available
A = American Council of Governmental Industrial Hygenists Theshold Limit Value
J = estimated value
MDE = Maryland Department of the Environment
N = National Institute for Occupational Safety and Health Recommended Exposure Limit
OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-9

INDOOR AIR SAMPLING RESULTS, BULIDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL (µg/m^3)	Industrial Air Screening Level (µg/m^3)	Key	AIR-152-C IA-152-C-27 20190814	AIR-153-C IA-153-C-27 20190814	AIR-155-C IA-155-C-27 20190814
Volatile organic compounds (µg/m^3)						
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	**0.86 J**	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	**2.6**	**0.82 J**	**0.86 J**
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 UJ	0.2 UJ	0.2 UJ
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	**0.81 J**	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.57 J**	**0.47 J**	**0.63 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.46 J**	**0.38 J**	**0.46 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**16 J**	**4 J**	**8.1**
CHLOROFORM	240,000	5.3	ca	**0.89 J**	**0.27 J**	**0.29 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**2.5**	**1.9 J**	**2.9**
ETHYLBENZENE	435,000	49	ca	**1.3 J**	**0.57 J**	**0.85 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**23 J**	**6.4 J**	**13 J**
NAPHTHALENE	50,000	3.6	ca	2 UJ	2 UJ	2 UJ
TETRACHLOROETHENE	678,000	180	nc	0.24 U	0.24 U	0.24 U
TOLUENE	754,000	22,000	nc	**3.7**	**2.2 J**	**3.8**
TOTAL XYLENES	435,000	440	nc	**7.2**	**3.1 J**	**4.4**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019
ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk
nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1
-- = not available
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OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit
RSLs= Regional Screening Levels
U = not detected
UJ = non-detected value is estimated
USEPA = United States Environmental Protection Agency

TABLE 3-10

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-001-C SV-001-C-27 20190814	AIR-004-C SV-004-C-27 20190814	AIR-060-C SV-060-C-27 20190814	AIR-088-C SV-088-C-27 20190814	AIR-088-C SV-088-C-27-D 20190814	AIR-102-C SV-102-C-27 20190814	AIR-102-C SV-102-C-27-D 20190814
Volatile Organic Compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	733,333	nc	1 U	1 U	**19**	1 U	1 U	**1800**	**1500**
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	6.5 U	1.9 U
1,1-DICHLOROETHANE	2,567	ca	0.14 U	0.14 U	**16**	0.14 U	**0.16 J**	**2900**	**3800**
1,1-DICHLOROETHENE	29,333	nc	0.16 U	**0.5 J**	**3.7**	0.16 U	0.16 U	**3100 J**	**1600 J**
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	30 U	**14 J**
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	81 U	24 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	0.49 U	0.49 U	**1.8 J**	**0.89 J**	**0.88 J**	17 U	**17 J**
1,2-DICHLOROETHANE	157	ca	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	6.9 U	2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	0.54 U	**1.3 J**	0.54 U	0.54 U	18 U	**9.5 J**
BENZENE	533	ca	**0.21 J**	**0.28 J**	**0.95 J**	**0.45 J**	**0.47 J**	**4.9 J**	**4.6 J**
CARBON TETRACHLORIDE	667	ca	**0.34 J**	**0.33 J**	**0.4 J**	**0.41 J**	**0.29 J**	7.5 U	2.2 U
CHLORODIFLUOROMETHANE	7,333,333	nc	**1.8**	**0.86 J**	**14**	**4**	**3.5**	13 U	3.9 U
CHLOROFORM	177	ca	**0.66 J**	**38**	**14**	**0.42 J**	**0.51 J**	**34 J**	**30**
CIS-1,2-DICHLOROETHENE	--	--	**8.3**	**29**	**27**	**6.5**	**5.9**	**45 J**	**37**
DICHLORODIFLUOROMETHANE	14,667	nc	**1.6 J**	**2**	**1.9 J**	**1.7 J**	**1.7 J**	12 U	3.5 U
ETHYLBENZENE	1633	ca	**0.5 J**	**0.56 J**	**47**	**1.3 J**	**1.7 J**	**130 J**	**220 J**
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	32 U	9.4 U
METHYLENE CHLORIDE	86,667	nc	**7.3 J**	**13 J**	**21 J**	**11 J**	**13 J**	190 U	63 U
NAPHTHALENE	120	ca	**2.2**	2 U	2 U	2 U	**2.1**	**77**	**120**
TETRACHLOROETHENE	6,000	nc	**0.44 J**	**1.5 J**	**0.76 J**	0.24 U	**0.28 J**	8 U	2.4 U
TOLUENE	733,333	nc	1.5 U	**5.8**	**2.9**	**1.5 J**	**4.9**	50 U	**18 J**
TOTAL XYLENES	14,667	nc	**1.1 J**	**3.5**	**400**	**15**	**18**	**1200 J**	**2100 J**
TRANS-1,2-DICHLOROETHENE	--	--	**2.1**	**1.8**	**1.7**	**0.45 J**	**0.31 J**	**10 J**	**2.6 J**
TRICHLOROETHENE	293	nc	**41**	**160**	**570**	**36**	**34**	**1200**	**890**
VINYL CHLORIDE	933	ca	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	11 U	**6.6**

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

1-Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.3, and correspond to a target cancer risk level of 1×10^{-5}.
2 - Historical data concentrations indicate that sub-slab vapor results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this).

-- = not available
ca = screening value based on carcinogenic effects
J = estimated value
nc = screening value based on noncarcinogenic effects
U = nondetect
UJ = non-detected value is estimated

TABLE 3-10

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-113-C SV-113-C-27 20190814	AIR-126-C[(2)] SV-126-C-27 20190814	AIR-133-C SV-133-C-27 20190814	AIR-141-C SV-141-C-27 20190814	AIR-142-C SV-142-C-27 20190814	AIR-149-C[(2)] SV-149-C-27 20190814	AIR-150-C SV-150-C-27 20190814
Volatile Organic Compounds (µg/m^3)									
1,1,1-TRICHLOROETHANE	733,333	nc	1 U	1 U	3.4 U	1 U	1 U	21 U	1 U
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U	0.64 U	0.19 U	0.19 U	4 U	0.19 U
1,1-DICHLOROETHANE	2,567	ca	**0.26 J**	0.14 U	0.47 U	0.14 U	0.14 U	2.9 U	0.14 U
1,1-DICHLOROETHENE	29,333	nc	0.16 U	**0.29 J**	0.53 U	**2**	0.16 U	**240**	0.16 U
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	0.88 U	2.9 U	0.88 U	0.88 U	18 U	0.88 U
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U	7.9 U	2.4 U	2.4 U	49 U	2.4 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	**1.1 J**	**0.84 J**	1.6 U	0.49 U	0.49 U	10 U	**1.2 J**
1,2-DICHLOROETHANE	157	ca	**12**	0.2 U	0.67 U	0.2 U	0.2 U	4.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	0.54 U	0.54 U	1.8 U	0.54 U	0.54 U	11 U	**0.81 J**
BENZENE	533	ca	**0.16 J**	**1.1 J**	0.43 U	**1.4**	**0.28 J**	**200**	**0.94 J**
CARBON TETRACHLORIDE	667	ca	**0.36 J**	**0.45 J**	0.73 U	**0.29 J**	**0.46 J**	4.6 U	**0.37 J**
CHLORODIFLUOROMETHANE	7,333,333	nc	**5.1**	**4.2**	**3.5 J**	**31**	**2.2**	8.1 U	**40 J**
CHLOROFORM	177	ca	**1.3 J**	**0.46 J**	**10**	**1 J**	**5.4**	3.5 U	0.17 U
CIS-1,2-DICHLOROETHENE	--	--	**18**	**0.7 J**	0.66 U	**14**	0.2 U	**230**	0.2 U
DICHLORODIFLUOROMETHANE	14,667	nc	**1.6 J**	**2 J**	**1.7 J**	**1.8 J**	**1.7 J**	7.2 UJ	**1.8 J**
ETHYLBENZENE	1633	ca	**0.84 J**	**1.7 J**	0.94 U	**1.9**	**0.63 J**	**18 J**	**6.3**
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U	3.1 U	0.94 U	0.94 U	19 U	0.94 U
METHYLENE CHLORIDE	86,667	nc	**42 J**	**630 J**	**420 J**	**19 J**	**36 J**	96 U	**13 J**
NAPHTHALENE	120	ca	2 U	2 U	6.6 U	2 U	2 U	41 U	2 U
TETRACHLOROETHENE	6,000	nc	**0.25 J**	**0.29 J**	**10**	**7.3**	**0.99 J**	4.9 U	0.24 U
TOLUENE	733,333	nc	**3**	**15**	4.9 U	**2.1 J**	**1.9 J**	**45**	**10**
TOTAL XYLENES	14,667	nc	**4.3**	**7.9**	1.7 U	**12**	**4.6**	**49 J**	**38**
TRANS-1,2-DICHLOROETHENE	--	--	**0.26 J**	**0.16 J**	0.46 U	**2.6**	0.14 U	**40**	0.14 U
TRICHLOROETHENE	293	nc	**180**	**3.7**	**620**	**330**	**10**	**200**	**1 J**
VINYL CHLORIDE	933	ca	0.33 U	**6.8**	**4.1**	**0.62**	0.33 U	**2700**	0.33 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

1-Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.3, and correspond to a target cancer risk level of 1×10^{-5}.
2 - Historical data concentrations indicate that sub-slab vapor results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this).

-- = not available
ca = screening value based on carcinogenic effects
J = estimated value
nc = screening value based on noncarcinogenic effects
U = nondetect
UJ = non-detected value is estimated

TABLE 3-10

SUB-SLAB VAPOR SAMPLING RESULTS, BUILDING C, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	Target Shallow Soil Gas Concentration	Key	AIR-152-C SV-152-C-27 20190814	AIR-153-C SV-153-C-27 20190814	AIR-155-C SV-155-C-27 20190814
Volatile Organic Compounds (µg/m^3)					
1,1,1-TRICHLOROETHANE	733,333	nc	**2.8**	1 U	**7.9**
1,1,2-TRICHLOROETHANE	29	nc	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	2,567	ca	**0.43 J**	0.14 U	**19**
1,1-DICHLOROETHENE	29,333	nc	0.16 U	0.16 U	**8.4**
1,2,3-TRIMETHYLBENZENE	8,667	nc	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	293	nc	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	8,667	nc	**1.4 J**	**1.5 J**	**1.7 J**
1,2-DICHLOROETHANE	157	ca	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	8,667	nc	**0.8 J**	0.54 U	0.54 U
BENZENE	533	ca	**0.66 J**	**0.51 J**	**0.67 J**
CARBON TETRACHLORIDE	667	ca	**0.53 J**	**0.51 J**	**1.1 J**
CHLORODIFLUOROMETHANE	7,333,333	nc	**22**	**7.9**	**8.3**
CHLOROFORM	177	ca	**1.6 J**	0.17 U	**0.81 J**
CIS-1,2-DICHLOROETHENE	--	--	**6.9**	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	14,667	nc	**2**	**1.7 J**	**1.9 J**
ETHYLBENZENE	1633	ca	**1.2 J**	**0.8 J**	**2.1**
METHYL TERT-BUTYL ETHER	15,667	ca	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	86,667	nc	**16 J**	**24 J**	**15 J**
NAPHTHALENE	120	ca	2 U	2 U	2 U
TETRACHLOROETHENE	6,000	nc	0.24 U	**0.61 J**	**2.9**
TOLUENE	733,333	nc	**4.8**	**3.9**	**2.7**
TOTAL XYLENES	14,667	nc	**6.1**	**4.8**	**17**
TRANS-1,2-DICHLOROETHENE	--	--	**0.21 J**	0.14 U	0.14 U
TRICHLOROETHENE	293	nc	**150**	**4.4**	**5.9**
VINYL CHLORIDE	933	ca	0.33 U	0.33 U	0.33 U

Notes: All sample concentrations are in micrograms per cubic meter (µg/m^3)
Shaded cells indicate a concentration greater than risk-based screening level.
Bolded cells indicate that the analyte is detected in the sample.

1-Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values are equal to United States Environmental Protection Agency (USEPA) Industrial Air Screening Values divided by an attenuation factor of 0.3, and correspond to a target cancer risk level of 1×10^{-5}.
2 - Historical data concentrations indicate that sub-slab vapor results at locations 126-C and 149-C may have been swapped during Round 27. Results are presented as reported by the laboratory (i.e., the data were not altered to account for this).

-- = not available
ca = screening value based on carcinogenic effects
J = estimated value
nc = screening value based on noncarcinogenic effects
U = nondetect
UJ = non-detected value is estimated

TABLE 3-11

AMBIENT AIR (BACKGROUND) SAMPLING RESULTS, AUGUST 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL ($\mu g/m^3$)	Industrial Air Screening Level ($\mu g/m^3$)	Key	AIR-BCK-1 IA-BCK-1-27 20190814	AIR-BCK-2 IA-BCK-2-27 20190814	AIR-BCK-3 IA-BCK-3-27 20190814	AIR-BCK-4 IA-BCK-4-27 20190814
Volatile organic compounds ($\mu g/m^3$)							
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	0.16 U	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	0.49 U	0.49 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.58 J**	**0.56 J**	**0.48 J**	**0.47 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.5 J**	**0.26 J**	**0.47 J**	**0.35 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**1.6**	**1.7**	**1.3 J**	**1.8**
CHLOROFORM	240,000	5.3	ca	**0.21 J**	0.17 U	**0.18 J**	**0.19 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	0.2 U	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**1.8 J**	**1.5 J**	**1.6 J**	**1.9 J**
ETHYLBENZENE	435,000	49	ca	0.28 U	**0.3 J**	0.28 U	0.28 U
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	**7.9 J**	**10 J**	4.8 U	5 U
NAPHTHALENE	50,000	3.6	ca	2 U	2 U	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	0.24 U	0.24 U	0.24 U	0.24 U
TOLUENE	754,000	22,000	nc	**1.9 J**	**3.6**	1.5 U	**1.8 J**
TOTAL XYLENES	435,000	440	nc	**0.99 J**	**1.4 J**	**1 J**	0.52 U
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	0.16 U	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.33 U	0.33 U	0.33 U

All concentrations are in micrograms per cubic meter air ($\mu g/m^3$).

Shaded cells indicate a concentration greater than the risk-based screening level.

Bolded cells indicate analyte was detetected in background sample(s).

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2019

-- = not available

A = American Council of Governmental Industrial Hygienists Theshold Limit Value

ca = screening value based on 1×10^{-5} carcinogenic risk

J = estimated value

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

nc = screening value based on noncarcinogenic hazard quotient = 1

OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit

U = not detected

USEPA = United States Environmental Protection Agency

TABLE 3-12

ANALYTE CONCENTRATIONS IN BACKGROUND AIR SAMPLES COMPARED TO INDOOR AIR SAMPLES - AUGUST 2019 LOCKHEED MARTIN CORPORATION MIDDLE RIVER COMPLEX MIDDLE RIVER, MARYLAND

Analyte	Maximum Background Concentration ($\mu g/m^3$)	Maximum Indoor Air Sample Concentration ($\mu g/m^3$)[1]	Number of Indoor Air Samples with Detects[1]	Number of Indoor Air Detects < Background[1][2]	Number of Indoor Air Detects = Background[1][2]	Number of Indoor Air Detects > Background[1][2]
BENZENE	0.58	0.74	32	26	2	4
CARBON TETRACHLORIDE	0.5	0.59	32	27	1	4
CHLORODIFLUOROMETHANE	1.8	38	33	15	0	18
CHLOROFORM	0.21	0.89	32	3	1	28
DICHLORODIFLUOROMETHANE	1.9	2.9	34	8	3	23
ETHYLBENZENE	0.3	3.7	31	0	0	31
METHYLENE CHLORIDE	10	340	26	10	0	16
TOLUENE	3.6	150	33	10	0	23
TOTAL XYLENES	1.4	15	33	2	0	31

1 - The original sample and duplicate are considered as two separate samples when determining the minimum and maximum concentration, but are considered one sample when determining the number of samples with detects and the number of samples less than, equal to, or greater than background.

2 - If one sample in a duplicate pair was greater/equal to background and the other sample in the duplicate pair was less than background, the maximum detected concentration in the field duplicate pair was used to represent the field duplicate pair.

Four background samples and 35 indoor air samples were analyzed in Round 27.

TABLE 3-13

ADDITIONAL INDOOR AIR SAMPLING RESULTS, BULIDING A, OCTOBER 2019
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	OSHA PEL ($\mu g/m^3$)	Industrial Air Screening Level ($\mu g/m^3$)	Key	AIR-015-A IA-015-A-27-RS_20191002 20191002	AIR-018-A* IA-018-A-27-RS_20191002 20191002	AIR-021-A IA-021-A-27-RS_20191002 20191002	AIR-079-A IA-079-A-27-RS_20191002 20191002	AIR-117-A IA-117-A-27-RS_20191002 20191002	AIR-136-A IA-136-A-27-RS_20191002 20191002	AIR-168-A IA-168-A-27-RS_20191002 20191002
Volatile organic compounds ($\mu g/m^3$)										
1,1,1-TRICHLOROETHANE	1,900,000	22,000	nc	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	45,000	0.88	nc	0.19 U	0.038 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROETHANE	400,000	77	ca	0.14 U	**0.12 J**	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-DICHLOROETHENE	--	880	nc	0.16 U	**1.2**	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2,3-TRIMETHYLBENZENE	123,000[N]	260	nc	0.88 U	**0.18 J**	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
1,2,4-TRICHLOROBENZENE	40,000[N]	8.8	nc	2.4 U	0.47 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2,4-TRIMETHYLBENZENE	123,000[N]	260	nc	0.49 U	**0.59**	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-DICHLOROETHANE	198,360	4.7	ca	0.2 U	**0.065 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3,5-TRIMETHYLBENZENE	123,000[N]	260	nc	0.54 U	**0.2 J**	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BENZENE	31,900	16	ca	**0.88 J**	**0.78**	**0.47 J**	**0.54 J**	**0.5 J**	**0.47 J**	**0.54 J**
CARBON TETRACHLORIDE	62,900	20	ca	**0.39 J**	**0.47 J**	**0.45 J**	**0.48 J**	**0.44 J**	**0.46 J**	**0.45 J**
CHLORODIFLUOROMETHANE	3,540,000[N]	220,000	nc	**2.1**	**1.2**	**1.7**	**1.7**	**1.6**	**1.7**	**1.5**
CHLOROFORM	240,000	5.3	ca	**0.43 J**	**0.43**	**0.21 J**	**0.29 J**	**0.29 J**	**0.24 J**	**0.21 J**
CIS-1,2-DICHLOROETHENE	790,000	--	--	0.2 U	**0.95**	0.2 U	**0.25 J**	0.2 U	0.2 U	0.2 U
DICHLORODIFLUOROMETHANE	4,950,000	440	nc	**2.3**	**1.1**	**2.4**	**2.5**	**2.4**	**2.5**	**2.5**
ETHYLBENZENE	435,000	49	ca	**0.82 J**	**0.51**	**0.48 J**	**0.47 J**	**0.45 J**	**0.37 J**	**0.57 J**
METHYL TERT-BUTYL ETHER	180,000[A]	470	ca	0.94 U	0.19 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
METHYLENE CHLORIDE	87,000	2,600	nc	5.4 U	**2.1 J**	4.6 U	**9.1 J**	4.2 U	5.2 U	3.8 U
NAPHTHALENE	50,000	3.6	ca	2 U	**9.2**	2 U	2 U	2 U	2 U	2 U
TETRACHLOROETHENE	678,000	180	nc	**0.4 J**	**0.35 J**	**0.28 J**	**0.29 J**	**0.28 J**	**0.29 J**	**0.29 J**
TOLUENE	754,000	22,000	nc	**24**	**3.3**	**3.6**	**6.9**	**8.9**	**4.4**	**13**
TOTAL XYLENES	435,000	440	nc	**4.3**	**2.3**	**2.3 J**	**2.7 J**	**2.7 J**	**1.8 J**	**3.2 J**
TRANS-1,2-DICHLOROETHENE	790,000	--	--	0.14 U	0.028 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRICHLOROETHENE	537,000	8.8	nc	0.16 U	**2.5**	0.16 U	**0.45 J**	0.16 U	0.16 U	0.16 U
VINYL CHLORIDE	2,560	28	ca	0.33 U	0.066 U	0.33 U	**0.78**	0.33 U	0.33 U	0.33 U

Shaded cells indicate a concentration greater than the risk-based screening level.

Bolded cells indicate that the analyte is detected in the sample.

*This location is in the basement. The TCE screening level for basement samples is 35 ug/m^3 based on reduced exposure potential in the basement. The screening level was approved by MDE in 2017.

-- = not available

A = American Council of Governmental Industrial Hygenists Theshold Limit Value

J = estimated value

MDE = Maryland Department of the Environment

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

Industrial Air Screening Levels from USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2019

ca =carcinogenic screening values based on 1×10^{-5} carcinogenic risk

nc = noncarcinogenic screening values based on noncarcinogenic hazard quotient = 1

OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit

RSLs= Regional Screening Levels

U = not detected

USEPA = United States Environmental Protection Agency

TABLE 4-1

SUMMARY OF SUB-SLAB VAPOR VOC DETECTIONS NEAR SSDS, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Apr-07	Oct-07	Jul-08	Nov-08	Nov-07	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Oct-11	Feb-12	Aug-12	Feb-13	Mar-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
SSD-11-A	1,1-DICHLOROETHENE	NS	NS	3900	1900	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	BENZENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	CHLOROFORM	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	CIS-1,2-DICHLOROETHENE	NS	NS	79000	31000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	ETHYLBENZENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	METHYL TERT-BUTYL ETHER	NS	NS	-	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	TETRACHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	TOLUENE	NS	NS	500	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	TOTAL XYLENES	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	TRANS-1,2-DICHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	TRICHLOROETHENE	NS	NS	2800	850	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	VINYL CHLORIDE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-11-A	**TOTAL VOCs**	NS	NS	**86,200**	**33,750**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-11-A is also referenced as SV-11-A																													
SSD-12-A	1,1-DICHLOROETHENE	NS	NS	1800	9900	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	BENZENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	CARBON TETRACHLORIDE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	CHLOROFORM	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	CIS-1,2-DICHLOROETHENE	NS	NS	1200	2900	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	ETHYLBENZENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	METHYL TERT-BUTYL ETHER	NS	NS	-	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	TETRACHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	TOLUENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	TOTAL XYLENES	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	TRANS-1,2-DICHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	TRICHLOROETHENE	NS	NS	3500	6800	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	VINYL CHLORIDE	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-12-A	**TOTAL VOCs**	NS	NS	**6,500**	**19,600**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-12-A is also referenced as SV-12-A																													
SSD-13-A	1,1-DICHLOROETHANE	11000	NS	200	-	3400	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	BENZENE	-	NS	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	CHLOROFORM	64.5 J	NS	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	METHYL TERT-BUTYL ETHER	-	NS	NA	NA	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	TETRACHLOROETHENE	166 J	NS	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	TOLUENE	-	NS	-	170	1093	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	TOTAL XYLENES	-	NS	-	15	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	TRANS-1,2-DICHLOROETHENE	4650	NS	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	TRICHLOROETHENE	326000	NS	4700	46	806	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-13-A	VINYL CHLORIDE	549	NS	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SV-13-A	**TOTAL VOCs**	**634,430 J**	**NS**	**8,700**	**278**	**20,762**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-13-A is also referenced as SV-13-A																													
015-A	1,1,1-TRICHLOROETHANE	-	-	9800	2500	-	-	-	-	1200	380	-	1100	840	940	140	460	280	112	NS	45.6 J	1300	41 J	15	3	23.5	1.7 J	-	0.56 J	1.2 J
015-A	1,1-DICHLOROETHANE	6010	7690 J	320	480	5666 J	1.2	0.43 J	120	58	12	1.7	51	65 J	92	13	170	45	14.6	NS	4.6 J	56	70 J	19	3.05	22.5	2.7	16 J	4.5	2.6
015-A	1,1-DICHLOROETHENE	-	-	3400	6400	-	3.2	3.4	2800	1200	150	12	1100	780 J	1600	490	3100	1100 J	473	NS	71.4 J	1200	190	50	9.5	77	8.9	39	1.2 J	14
015-A	1,2,3-TRIMETHYLBENZENE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85	1.3	1.1	-	NS	-	13 J	-	-	-	-	-	-	-	-
015-A	1,2-DICHLOROETHANE	-	-	-	-	-	0.082 J	-	-	-	-	-	0.53	-	-	-	0.66	0.7	-	NS	-	-	-	-	-	-	-	-	-	-
015-A	1,3,5-TRIMETHYLBENZENE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.75	1	-	NS	-	12 J	-	-	-	-	-	-	-	-
015-A	BENZENE	-	-	-	-	-	-	-	-	-	0.4	-	-	1.1	-	-	0.32	0.49	0.64	NS	0.64	-	-	4 J	1.2 J	3.95	2.2	7.8 J	1.2 J	2.9
015-A	CARBON TETRACHLORIDE	-	-	-	-	-	0.48 J	-	-	-	-	0.64	0.96	-	-	0.77 J	-	0.83 J	-	NS	-	-	-	-	-	-	0.48 J	-	-	0.38 J
015-A	CHLORODIFLUOROMETHANE	-	-	-	-	-	-	-	-	6.5 J	-	-	-	4	3.4 J	-	0.93	1.7	5.8 J	NS	3 J	-	-	3.2 J	7.4	3.4	2.9	-	1.6	1.4
015-A	CHLOROFORM	109	-	-	-	-	0.46	-	6.1 J	5.5 J	0.9 J	1.1	5.2	1.4 J	23 J	6.8	26	19	93.6	NS	13.8 J	9.4 J	-	-	0.58 J	1.8	0.49 J	-	-	0.34 J
015-A	CIS-1,2-DICHLOROETHENE	167000	190312 J	7800	20000	134804 J	83	36	4400	1800	200	320	1800	1100 J	2400	1300	7000	2700	1260	NS	195	900	130	7.2 J	0.73 J	12.5	1.2 J	9.7 J	-	2.4
015-A	DICHLORODIFLUOROMETHANE	-	-	-	-	-	2.2	3.2 J	-	-	2	2.7	2.2	2.3 J	-	2.7	2.4	2.8	2.3 J	NS	2.2	7.2 J	-	-	2.1	2.05	3.5	-	2.5	2.4
015-A	ETHYLBENZENE	-	-	-	-	-	1.2	4.6	-	-	2	3.6	0.79	19 J	-	2.3 K	4.5	7.5	-	NS	1 J	18	40 J	3.5 J	-	17	0.99 J	60	0.68 J	30
015-A	M+P-XYLENES	-	-	-	-	-	3.3	11	-	-	-	20	4.1	-	-	8.8 J	23	47	3.1 J	NS	6.9 J	-	-	-	-	-	N/A	-	-	-
015-A	METHYL TERT-BUTYL ETHER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
015-A	METHYLENE CHLORIDE	-	-	-	-	-	0.94	-	-	-	-	0.92	0.6	-	-	0.74	-	0.99	31.6 J	NS	8.7	-	160 J	-	3.2 J	-	-	-	4.3 J	140 J
015-A	NAPHTHALENE	-	-	-	-	-	0.65 J	-	-	-	-	4	-	-	-	0.8	-	2.1 J	-	NS	2.1 J	-	-	-	-	-	-	-	-	-
015-A	O-XYLENE	-	-	-	-	-	1.2	2.9 J	-	-	-	7.9	1.8	-	-	8.5	8.8	10	1.6 J	NS	6.1 J	-	-	-	-	-	N/A	N/A	-	-
015-A	TETRACHLOROETHENE	98.5	-	-	-	-	0.26 J	-	-	-	-	-	1.4	-	-	-	1.2	3.9	-	NS	-	-	-	-	-	1.35	-	-	-	-
015-A	TOLUENE	14.8 J	-	-	480	-	64	210	10 J	14	27	28	15	440 J	11 J	14	160	240 J	7.1	NS	1.3	-	-	-	4.2	10.35	9.8	-	5.4	13
015-A	TOTAL XYLENES	-	-	-	310	-	-	-	-	-	10	-	-	120 J		-	-	-	-	NS	-	120	210	6.1 J	2.4 J	54	4.2	230	3.5	64
015-A	TRANS-1,2-DICHLOROETHENE	4660	3212 J	-	-	2101 J	1	-	150	99	13	2.7	46	46 J	84	23	160	79	37.7	NS	7.4 J	110	22 J	-	-	0.95	-	-	-	0.28 J
015-A	TRICHLOROETHENE	326000	225718 J	17000	12000	155853 J	16	8.1	3200	1300	340	18	3400	2400 J	3000	710	8800	1600	619	NS	112 J	1300	540 J	35	2.3	51.5	6.3	73	4	10
015-A	VINYL CHLORIDE	491	-	-	-	-	0.078 J	-	11 J	9.8	0.8	0.26	4	-	13	1.4	12	7.5 J	1.5 J	NS	-	-	-	-	-	-	-	-	-	-
015-A	**TOTAL VOCs**	**504,383 J**	**426,932 J**	**38,320**	**42,170**	**298,424 J**	**179 J**	**280 J**	**10,697 J**	**4,493 J**	**758 J**	**424**	**6,434**	**4,979 J**	**7,226 J**	**2,584 J**	**19,472**	**5,871 J**	**2,552 J**	NS	**482 J**	**5,046 J**	**1,403 J**	**143 J**	**40 J**	**282**	**45 J**	**436 J**	**29 J**	**285 J**

TABLE 4-1

SUMMARY OF SUB-SLAB VAPOR VOC DETECTIONS NEAR SSDS, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m³)	Apr-07	Oct-07	Jul-08	Nov-08	Nov-07	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Oct-11	Feb-12	Aug-12	Feb-13	Mar-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
SSD-16-A	1,1,1-TRICHLOROETHANE	NS	NS	67	420	NS	NS	NS	NS	5.7 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	1,1-DICHLOROETHANE	NS	NS	180	1400	NS	NS	NS	NS	52	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	1,1-DICHLOROETHENE	NS	NS	2100	18000	NS	NS	NS	NS	890	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	BENZENE	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	CARBON TETRACHLORIDE	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	CHLORODIFLUOROMETHANE	NS	NS	-	-	NS	NS	NS	NS	3.8 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	CHLOROFORM	NS	NS	-	-	NS	NS	NS	NS	2.5 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	CIS-1,2-DICHLOROETHENE	NS	NS	710	3000	NS	NS	NS	NS	110	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	METHYL TERT-BUTYL ETHER	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	TETRACHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	TOLUENE	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	TOTAL XYLENES	NS	NS	-	-	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	TRANS-1,2-DICHLOROETHENE	NS	NS	-	-	NS	NS	NS	NS	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	TRICHLOROETHENE	NS	NS	1300	3700	NS	NS	NS	NS	160	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	VINYL CHLORIDE	NS	NS	-	63	NS	NS	NS	NS	7.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-16-A	**TOTAL VOCs**	**NS**	**NS**	**4,357**	**26,583**	**NS**	**NS**	**NS**	**NS**	**1,242 J**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
Note: SSD-16-A is also referenced as 016-A																													
017-A	1,1-DICHLOROETHANE	-	-	NS	47	-	21	6.7	8.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	1,1-DICHLOROETHENE	-	-	NS	38	-	17	6	6.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	1,2-DICHLOROETHANE	-	-	NS		-	-	0.13 J	0.084 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	BENZENE	-	-	NS	-	-	0.59 J	0.41	0.14 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	CARBON TETRACHLORIDE	-	-	NS	-	-	0.57 J	0.53	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	CHLOROFORM	-	-	NS	78	-	81	27	7.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	CIS-1,2-DICHLOROETHENE	-	-	NS	8	-	6.2	2.4	1.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	DICHLORODIFLUOROMETHANE	-	-	NS	-	-	2.6	2.8	2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	ETHYLBENZENE	-	-	NS	-	-	-	3.3	0.13 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	M+P-XYLENES	-	-	NS		-	1.8	9.3	0.37	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	METHYL TERT-BUTYL ETHER	-	-	NS	NA	-	-	0.51 J	0.24 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	METHYLENE CHLORIDE	-	-	NS		-	43	2.5	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	O-XYLENE	-	-	NS		-	0.56 J	2	0.14 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	TETRACHLOROETHENE	-	-	NS	-	-	1.2 J	0.81	0.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	TOLUENE	-	-	NS	-	-	14	58	0.54	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	TOTAL XYLENES	-	-	NS	-	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	TRANS-1,2-DICHLOROETHENE	-	-	NS	-	-	0.52 J	0.2 J	0.18 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	TRICHLOROETHENE	-	-	NS	310	-	170	67	56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	VINYL CHLORIDE	-	-	NS	-	-	-	0.1 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
017-A	**TOTAL VOCs**	**-**	**-**	**NS**	**481**	**-**	**360 J**	**190 J**	**86 J**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
018-A	1,1,1-TRICHLOROETHANE	-	NA	NS	-	-	-	-	-	280 J	-	-	730	300 J	160 J	270	240 J	65 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	1,1-DICHLOROETHANE	78600	76901 J	NS	44000	76901 J	1100	-	280	660	3	-	2200	1300	1200	410	1400 J	430 J	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	1,1-DICHLOROETHENE	-	-	NS	1500000	-	43000	-	12000	32000	48	2.9	130000	69000	42000	54000	67000 J	24000 J	230	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	1,2,4-TRIMETHYLBENZENE	-	-	NS	-	-	-	-	-	-	-	-	-	-	-	-	0.85	0.75	1.7 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	1,2-DICHLOROETHANE	-	-	NS	-	-	-	-	-	750	-	-	62	-	-	44	29 J	7.4 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	1,3,5-TRIMETHYLBENZENE	-	-	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	BENZENE	-	-	NS	-	-	-	-	24000 J	-	1	0.58	7.8	-	-	23	10 J	2	0.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	CARBON TETRACHLORIDE	337	-	NS	-	-	-	-	-	-	-	-	6.7	-	-	7	2.7	3.5 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	CHLORODIFLUOROMETHANE	-	-	NS	-	-	-	-	-	-	-	-	-	-	-	-		2.6	8.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	CHLOROFORM	316	-	NS	-	-	-	-	-	-	0.6 J	0.65 J	14	-	-	15 J	8.3 J	2.9	1.7 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	CIS-1,2-DICHLOROETHENE	232000	249784 J	NS	170000	249784 J	4400	-	1400	3200	17	1.3	23000	6700	8200	3800	5200	1700 J	16.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	DICHLORODIFLUOROMETHANE	-	-	NS	-	-	-	-	150 J	-	2	2.5	2.2	-	-	2.8	2.4	3.3	2.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	ETHYLBENZENE	-	-	NS	-	-	-	-	8100 J	-	1	2.6	0.97	-	-		0.79	1.1	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	M+P-XYLENES	-	-	NS	-	-	-	-	28000 J	-	-	11	1.1 J	-	-	0.62 J	3.2 J	4	2 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	METHYL TERT-BUTYL ETHER	-	-	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	METHYLENE CHLORIDE	-	-	NS	-	-	520	-	-	-	-	0.81	-	-	-	-	-	1.7 J	19.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	NAPHTHALENE	-	-	NS	-	-	-	-	-	-	-	11 J	-	-	450 J		2.7 J	7.1	3.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	O-XYLENE	-	-	NS	-	-	-	-	3600 J	-	-	3.9	0.53 J	-	-	-	0.97	1.1	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	TETRACHLOROETHENE	4470	-	NS	-	-	-	-	-	-	-	-	120	-	-	110	64 J	17 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	TOLUENE	29.6 J	-	NS	-	-	300 J	-	1900 J	-	4	32	19	-	-	4.1	82 J	27 J	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	TOTAL XYLENES	-	-	NS	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	TRANS-1,2-DICHLOROETHENE	4160	-	NS	-	-	-	-	-	-	-	-	71	-		66	56 J	17 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	TRICHLOROETHENE	6200000	3869448 J	NS	2700000	3869448 J	63000	-	19000	64000	160	7.2	800000	83000	69000	95000	96000 J	28000 J	174	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	VINYL CHLORIDE	1850	-	NS	-	-	-	-	-	-	-	-	550	300 J	180 J	170	310 J	40	0.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
018-A	**TOTAL VOCs**	**6,521,763 J**	**4,196,133 J**	**NS**	**4,414,000**	**4,196,133 J**	**112,320 J**	**-**	**98,430 J**	**100,890 J**	**242 J**	**76 J**	**956,785 J**	**160,600 J**	**121,190 J**	**153,923 J**	**170,413 J**	**54,333 J**	**468 J**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**

TABLE 4-1

SUMMARY OF SUB-SLAB VAPOR VOC DETECTIONS NEAR SSDS, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m³)	Apr-07	Oct-07	Jul-08	Nov-08	Nov-07	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Oct-11	Feb-12	Aug-12	Feb-13	Mar-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
078-A	1,1,1-TRICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	0.58 J	2.8
078-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	-	-	-	-	-	-	-
078-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
078-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17	0.68 J	0.67 J	1.8 J	1.7 J	2.3	1 J	1.4 J
078-A	1,3,5-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	1.1 J	0.58 J
078-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	0.44 J	0.5 J	2.7	0.4 J	1.1 J	0.58 J	0.42 J
078-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	0.53 J	0.51 J	-	-	0.32 J
078-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.3 J	1.6	2.7	2.9	1.4 J	5.4	1 J	1.4
078-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1 J	-	0.65 J	0.48 J	0.71 J	-	0.57 J
078-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
078-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.8	3	2.5	2.1	1.9 J	2	2.3	6.1
078-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.95 J	1.1 J	-	1.8	1.4 J	1.9	0.75 J	0.77 J
078-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	4.2	2.8 J	-	4.9	4.2	3 J	39 J
078-A	TETRACHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.1 J
078-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.5	2.3	2.8	12	6.9	54	4.3	26
078-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.8	8.4	3 J	9.2	7	8.2	3.9	5.4
078-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
078-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11	13	11	4.4	12	12	9.5	32
078-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**46**	**35 J**	**26 J**	**38 J**	**39 J**	**92 J**	**28 J**	**119 J**
079-A	1,1,1-TRICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.2	0.83 J	1.7 J	1.3 J	1.1 J	0.72 J	1.4 J
079-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.0 J	0.70 J	2.2	1.7 J	1.8 J	-	1.2 J
079-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.78 J	0.51 J	0.95 J	0.41 J	0.84 J	-	0.54 J
079-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.31 J
079-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.6	3.4	2.5	20	2.5	1.7	1.6 J
079-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	0.80 J	-	0.78 J	0.4 J	0.51 J	-	0.50 J
079-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,400	-	-	-	-	-	-	-
079-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.7	2.1	2.1	2.9	2	2.4	2.3
079-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	10	0.87 J	5.8	3.3	1.6 J	-	0.92 J
079-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	3.5	2.5 J	-	4.9	8.3	4.4 J	45 J
079-A	NAPHTHALENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.0	-	-	-	-	-	-
079-A	TETRACHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.9 J	7.4	1.5 J	16	30	22	8.7	19
079-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	8.3	3.8	21	2.3	11	-	5.9
079-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	44	3.1 J	32	15	8	2.5 J	5.6
079-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	300	-	-	1 J	0.53 J	0.61 J	-	0.56 J
079-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,500	120	41	130	96	150	57	150
079-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3,810 J**	**204 J**	**60 J**	**216 J**	**179 J**	**210 J**	**77 J**	**235 J**
093-A	1,1,1-TRICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	0.37 J	-
093-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
093-A	1,1-DICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	0.97 J	9.2
093-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.98 J	0.85 J	0.30 J	0.89 J	1 J	0.53 J	1.3 J	5.3
093-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
093-A	1,3,5-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	0.72 J	-
093-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.71 J	0.42 J	0.6 J	0.78 J	0.8 J	1 J	0.65 J	0.42 J
093-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.47 J	-	0.54 J	0.66 J	-	-	0.41 J
093-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.1 J	1.3 J	1.7	2.1	1.4 J	3	1.2 J	-
093-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	0.8 J	-	0.86 J	-	0.45 J
093-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.69 J	0.52 J	-	0.79 J
093-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.6	2.6	1.9 J	1.7 J	2.6	2.1	2.3	2.1
093-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
093-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.7	-	2.3 J	-	-	3.5	3.8 J	16 J
093-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	5.8	-	2.5	-	2.6
093-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.2 J	-	-	-	1.2 J	-	-
093-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	-	-
093-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	-	2	2	2.5	4.7	6.3	7.2
093-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	**21**	**7 J**	**9 J**	**15 J**	**10 J**	**20 J**	**18 J**	**44 J**
116-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.86 J	-	-	-	-	-	-
116-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.7	0.42 J	-	0.34 J	1.4 J	0.28 J	0.84 J
116-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.94 J	-	0.63 J	-		-	-
116-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.62 J	0.48 J	0.4 J	0.71 J	0.5 J	1 J	0.81 J	0.48 J
116-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.5 J	0.54 J	0.55 J	0.56 J		-	0.49 J
116-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 J	1.3 J	18.0	2.3	1.3 J	2.9	1.2 J	1.7
116-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.39 J	2 J	0.7 J	1.5 J	0.82 J	7.7	1.7 J	1.1 J
116-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	0.68 J	-	0.44 J
116-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.7	2.4	2.0	2	2.6	2.1	2.4	2.2
116-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.1 J	-	-	-	-	-	0.53 J
116-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	3.4 J	2.4 J	26 J	-	5.9	3.2 J	170 J
116-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.5	-	11	-	3.4	-	2.0 J
116-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	4.6	-	-	-	-	-	-
116-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	7.7	-	-
116-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	21	14	9.4	3.5		4.4	6.6
116-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**11**	**42 J**	**38 J**	**54 J**	**10 J**	**33 J**	**14 J**	**186 J**

TABLE 4-1

SUMMARY OF SUB-SLAB VAPOR VOC DETECTIONS NEAR SSDS, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Apr-07	Oct-07	Jul-08	Nov-08	Nov-07	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Oct-11	Feb-12	Aug-12	Feb-13	Mar-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
118-A	1,1,1-TRICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	32	3.6
118-A	1,1-DICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	46	11
118-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	650	150	470.00	150	230	81	300	86
118-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	3.2 J	3.8	-	2.9	2.5
118-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10 J	3.80 J	13.00 J	5.1	9.6	-	7	5.7
118-A	1,3,5-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	4.6	3.9
118-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.6 J	-	0.97 J	0.32 J
118-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.51 J	-	-	0.45 J
118-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.8 J	-	4.2	4.1	3.6 J	1.1 J	1.5
118-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	7.8 J	3 J	2.6	3 J	1.7 J	2.3
118-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	190	70	120.0	60	91	39	180	45
118-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	2.2 J	2.9	3.7 J	2.3	2.4
118-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12 J	5.4 J	12.0 J	12	9.8	3.5 J	7.7	6.4
118-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	12 J	7.4	36 J
118-A	TETRACHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	0.99 J	-
118-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	6.5	2.4	-	4.2	3.3
118-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	110	49	120	95	91	31	72	58
118-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	5 J	10 J	6.2	8	3.8 J	12	4.0
118-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,300	890	2,000	690	1,500	590	1,800	420
118-A	VINYL CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	2.1	0.57
118-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3,286**	**1,176 J**	**2,753 J**	**1,037 J**	**1,956 J**	**771 J**	**2,483 J**	**692 J**
136-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.40	-	-	-	-	-
136-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.48 J	-	-	-	-	0.34 J	0.52 J
136-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.95 J	0.79 J	-	4.4	-	0.98 J	0.69 J
136-A	1,3,5-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-	1.1 J	-
136-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.8	1.4	2.7	2.0 J	3.4 J	2	4.0
136-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.51 J	-	-	-	-	0.40 J
136-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.0	2.4	3.7	1.7 J	-	2.6	1.8
136-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	330	50	7.8	20	8	-	8.8	13
136-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	4.5	1.2 J	4.2	1.8 J	16	1.3 J	2.8
136-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.5	2.2	2.2 J	2.9 J	3 J	2	2.2
136-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	1.6 J	3.1	-	5.4	3.6 J	5.1	0.95 J
136-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	5.9	2.5 J	-	-	-	3.6 J	31 J
136-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	13	9.7	12	50	12	200	25
136-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	7.9	15	1.2 J	33	-	23	4.4
136-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	0.56 J	-	-	-	-	-	0.41 J
136-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35,000	850 DL	300	790	380	660	270	500
136-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**35,330**	**941 J**	**349 J**	**836 J**	**489 J**	**698 J**	**521 J**	**587 J**
168-A	1,1,1-TRICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	59 J	22.5	9.3 J	16	4.8	13
168-A	1,1-DICHLOROETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70 J	14.5	3.6 J	3.4 J	1.3 J	1.2 J
168-A	1,1-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,900	3,000	500	340	50	79
168-A	1,2,3-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.88 J	-
168-A	1,2,4-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	3.8	1.1 J
168-A	1,3,5-TRIMETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	2.4 J	-
168-A	BENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.77 J	0.81 J
168-A	CARBON TETRACHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	0.51 J	0.53 J
168-A	CHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	1.5 J	1.6 J	1.3 J	1.1 J
168-A	CHLOROFORM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 J	19.5	3.6 J	4.5 J	1.2 J	2.3
168-A	CIS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	270	34.5	6.1 J	3.2 J	0.68 J	0.76 J
168-A	DICHLORODIFLUOROMETHANE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	3.5 J	3.7 J	2.4	2.3
168-A	ETHYLBENZENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	1.5 J	0.55 J
168-A	METHYLENE CHLORIDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	13 J	6.5 J	26 J
168-A	TETRACHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	0.88 J
168-A	TOLUENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	11	4.5
168-A	TOTAL XYLENES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	7.5	3.1 J
168-A	TRANS-1,2-DICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	0.20 J
168-A	TRICHLOROETHENE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22,000	8,100	1,300	950	180	270
168-A	**TOTAL VOCs**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**27,419 J**	**11,191**	**1,828 J**	**1,335 J**	**277 J**	**407 J**

Notes:

Data presented in this table is from sub-slab vapor samples.

VOC = volatile organic compound
SSDS = sub-slab depressurization system
µg/m^3 = micrograms per cubic meter
- = not detected (below reporting limit)
N/A = compound not reported
N/S = not sampled

J = estimated value
J+ = estimated value, may be biased high
K = value is biased high
NS = not sampled
N/A = sampling data for this location not previously included in this table

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m³)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
001-C	1,1,1-TRICHLOROETHANE	-	-	-	-	-	-	2.1	-	2.8	-	-	-	-	NS	NS	NS	2	-	1.5 J	0.43 J	2.2 J	-	0.88 J	-	-	-	-
001-C	1,1-DICHLOROETHANE	-	-	-	0.33	-	0.28	-	-	6.7	-	-	-	1.4	NS	NS	NS	5.8	-	-	-	-	-	-	-	-	-	-
001-C	1,1-DICHLOROETHENE	-	24	39	0.9	1	2.7	-	-	2.3	0.59	-	23	-	NS	NS	NS	-	-	-	0.45 J	-	-	-	-	0.69 J	-	-
001-C	1,2,4-TRIMETHYLBENZENE	-	-	-	-	-	-	-	-	-	-	-	-	-	NS	NS	NS	1.4	-	-	-	-	-	-	-	-	-	-
001-C	BENZENE	-	-	-	-	-	0.26	-	-	0.39	-	-	-	-	NS	NS	NS	-	0.81	-	0.41 J	-	-	-	-	0.42 J	-	0.21 J
001-C	CARBON TETRACHLORIDE	-	-	-	-	-	0.3	-	-	-	-	-	-	-	NS	NS	NS	-	-	-	-	-	-	0.57 J	-	-	-	0.34 J
001-C	CHLORODIFLUOROMETHANE	-	-	-	-	-	-	7.5	-	-	-	NA	NA	-	NS	NS	NS	6.3	1.8	7.9	2.1	2.8 J	2.1 J	2.3	1.5	1.9	1.2 J	1.8
001-C	CHLOROFORM	-	-	-	8.5	7.4	6.1	18	5	13	5.2	-	-	8.9	NS	NS	NS	16.3	3.4	14	13	24	4.7	4.8	3.0	6.8	0.52 J	0.66 J
001-C	CIS-1,2-DICHLOROETHENE	257714	1100	3300	270	230	300	360	120	250	100	110	1900	170	NS	NS	NS	251	64	130	110	230	74	77	72	110	8.3	8.3
001-C	DICHLORODIFLUOROMETHANE	-	-	-	2.4	2.2	0.87	-	2	2.6	3	-	-	-	NS	NS	NS	2.6	2.1	2.7 J	2.4	2.9 J	2.2 J	2	2.6	1.8 J	2.3	1.6 J
001-C	ETHYLBENZENE	-	-	-	0.67	-	0.45	-	-	6.6	-	-	-	-	NS	NS	NS	4.3	0.89 J	-	0.79 J	2.4 J	-	1.1 J	-	1.9	-	0.5 J
001-C	M+P-XYLENES	-	-	-	1.3	-	1	13	-	14	-	NA	NA	-	NS	NS	NS	4.8	0.98 J	-	-	-	-	-	-	-	-	-
001-C	METHYL TERT-BUTYL ETHER	-	NA	NA	-	-	-	-	1	-	-	-	-	-	NS	NS	NS	-	-	-	-	-	-	-	-	-	-	-
001-C	METHYLENE CHLORIDE	-	-	-	-	4.5	-	7.4	33	1.1	-	-	32	-	NS	NS	NS	-	-	-	2.9 J	-	-	-	2.9 J	6.3	3.9 J	7.3 J
001-C	NAPHTHALENE	-	-	-	1.6	-	2.9	-	-	3.1	-	-	-	-	NS	NS	NS	18.3	2.2 J	-	1.1	-	-	3.7	-	2.5 J	1.2	2.2
001-C	O-XYLENE	-	-	-	-	-	0.41	5.6	-	4	-	NA	NA	-	NS	NS	NS	2.5	-	-	-	-	-	-	N/A	-	-	-
001-C	TETRACHLOROETHENE	-	-	-	3.3	3	3.6	6.2	2	4.8	1.8	-	-	8.7	NS	NS	NS	7	-	4.2 J	2.6 J	8.8 J	4.1 J	2.6 J	1.7 J	4.1	-	0.44 J
001-C	TOLUENE	-	-	-	1.8	-	0.49	-	0.6	3.6	1.2	-	-	13	NS	NS	NS	3.2	1.2 J	-	-	-	-	18	-	-	-	-
001-C	TOTAL XYLENES	-	-	-	-	-	-	-	-	-	3.5	-	-	5.1	NS	NS	NS	-	-	-	-	-	-	2.1 J	-	2.5 J	-	1.1 J
001-C	TRANS-1,2-DICHLOROETHENE	3529	-	-	65	49	67	88	30	44	19	-	-	33	NS	NS	NS	45.7	13.5	32	24	60	20	16	15	20	1.9	2.1
001-C	TRICHLOROETHENE	8599	450	850	270	330	230	620	190	550	200	150	700	300	NS	NS	NS	591	158	410	350	900	200	240	200	410	25	41
001-C	VINYL CHLORIDE	-	58	40	-	-	1.4	-	-	-	-	-	14	-	NS	NS	NS	-	-	-	-	-	-	-	-	0.5 J	-	-
001-C	**TOTAL VOCs**	**269,842**	**1,632**	**4,229**	**626**	**627**	**618**	**1,128**	**384**	**909**	**334**	**260**	**2,669**	**540**	**NS**	**NS**	**NS**	**962**	**249 J**	**602**	**510 J**	**1,233 J**	**307 J**	**371 J**	**299 J**	**569 J**	**44 J**	**68 J**
SSD-2-C	BENZENE	NS	-	8.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	CHLOROFORM	NS	-	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	CIS-1,2-DICHLOROETHENE	NS	22	350	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	DICHLORODIFLUOROMETHANE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	ETHYLBENZENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	METHYL TERT-BUTYL ETHER	NS	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	TETRACHLOROETHENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	TOLUENE	NS	14	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	TOTAL XYLENES	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	TRANS-1,2-DICHLOROETHENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	TRICHLOROETHENE	NS	55	770	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	VINYL CHLORIDE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-2-C	**TOTAL VOCs**	NS	**91**	**1,146**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-2-C has been referenced as 002-C and SV-002-C																												
SSD-3-C	BENZENE	NS	64	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	CARBON TETRACHLORIDE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	CHLOROFORM	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	CIS-1,2-DICHLOROETHENE	NS	-	8.5	NS	NS	NS	NS	NS	NS	NS	-	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	ETHYLBENZENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	METHYL TERT-BUTYL ETHER	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	TETRACHLOROETHENE	NS	-	14	NS	NS	NS	NS	NS	NS	NS	-	58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	TOLUENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	TOTAL XYLENES	NS	-	-	NS	NS	NS	NS	NS	NS	NS	8.7	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	TRANS-1,2-DICHLOROETHENE	NS	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	TRICHLOROETHENE	NS	49	60	NS	NS	NS	NS	NS	NS	NS	49	310	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-3-C	**TOTAL VOCs**	NS	**113**	**83**	NS	NS	NS	NS	NS	NS	NS	**58**	**379**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-3-C has been referenced as 003-C and SV-003-C																												

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m³)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
SSD-4-C	1,1,1-TRICHLOROETHANE	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NS	NA	NA	NA	NA	NA	-	1.7 J	-	-	1.3 J	-
SSD-4-C	1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	-
SSD-4-C	1,1-DICHLOROETHENE	-	9.7	9.9	NS	NS	NS	NS	NS	NS	NS	-	-	NS	1.2	1.7	NS	-	1.1 J	0.8 J	-	0.69 J	0.37 J	0.88 J	-	0.76 J	1.3 J	0.5 J
SSD-4-C	1,2,3-TRIMETHYLBENZENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	0.6 J	2	NS	-	-	-	-	-	-	-	-	-	-	-
SSD-4-C	1,2,4-TRICHLOROBENZENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	-	-	NS	-	-	-	-	-	-	-	-	-	-	-
SSD-4-C	1,2,4-TRIMETHYLBENZENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	1	4.8	NS	-	-	-	-	-	-	-	-	-	-	-
SSD-4-C	1,3,5-TRIMETHYLBENZENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	-	1.5	NS	-	-	-	-	-	-	-	-	-	-	-
SSD-4-C	BENZENE		-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	0.62	-	NS	-	-	-	-	0.37 J	-	-	-	0.44 J	1.9	0.28 J
SSD-4-C	CARBON TETRACHLORIDE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	0.83 J	0.83 J	NS	-	-	-	-	3.4	-	2.9	-	0.55 J	-	0.33 J
SSD-4-C	CHLORODIFLUOROMETHANE	-	-	-	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	-	2.9	NS	26	1.6	2.1	0.99 J	1.7	1.8	-	1.1 J	1.5	1.1 J	0.86 J
SSD-4-C	CHLOROFORM	-	270	240	NS	NS	NS	NS	NS	NS	NS	33	46	NS	37	88	NS	34.3	15	4.7	5.9	20	4.3	180	5.5	200	-	38
SSD-4-C	CIS-1,2-DICHLOROETHENE	10705	650	520	NS	NS	NS	NS	NS	NS	NS	200	2500	NS	82	71	NS	80.4	57.2	47	39	79	38	45	22	51	-	29
SSD-4-C	DICHLORODIFLUOROMETHANE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	3.4	2.3	NS	-	2.1	2.3	2.3	2.6	2.1	2.1	2.7	2	2.3	2
SSD-4-C	ETHYLBENZENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	-	1.5 J	NS	-	-	-	-	-	-	-	-	-	2.6	0.56 J
SSD-4-C	M+P-XYLENES	-	-	-	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	1.3 K	3.6	NS	-	-	-	-	-	-	-	N/A	-	-	-
SSD-4-C	METHYL TERT-BUTYL ETHER	-	-	NA	NS	NS	NS	NS	NS	NS	NS	-	-	NS	-	-	NS	-	-	-	-	-	-	-	-	-	-	-
SSD-4-C	METHYLENE CHLORIDE	-	-	36	NS	NS	NS	NS	NS	NS	NS	-	-	NS	1.5	1.2	NS	145	3.5 J	-	-	5.7	2.8 J	-	2.7 J	3.1 J	8.2 J	13 J
SSD-4-C	NAPHTHALENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	12	4.4	NS	-	1.2 J	-	-	1.1	-	-	-	-	-	-
SSD-4-C	O-XYLENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	0.93	1.1	NS	-	-	-	-	-	-	-	N/A	-	-	-
SSD-4-C	TETRACHLOROETHENE	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	1.1	2.2 J	NS	-	-	0.79 J	1.3 J	2.4 J	0.91 J	2.5 J	8.7	2 J	0.91 J	1.5 J
SSD-4-C	TOLUENE	215	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	1.3	14	NS	9.6 J	1.1 J	-	-	-	-	4.3	-	-	7.8	5.8
SSD-4-C	TOTAL XYLENES	-	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	-	-	NS	-	-	-	-	-	-	-	-	-	19	3.5
SSD-4-C	TRANS-1,2-DICHLOROETHENE	139	-	-	NS	NS	NS	NS	NS	NS	NS	-	-	NS	8.5	20	NS	12.4 J	6.2	7.4	2.2	5.1	2	2.4	1.0 J	1.9	-	1.8
SSD-4-C	TRICHLOROETHENE	2741	430	300	NS	NS	NS	NS	NS	NS	NS	240	2500	NS	180	140	NS	210	121	120	99	250	110	150	69	270	0.55 J	160
SSD-4-C	VINYL CHLORIDE	-	16	13	NS	NS	NS	NS	NS	NS	NS	-	-	NS	0.47	0.65	NS	-	-	-	-	-	-	-	-	-	-	-
004-C	**TOTAL VOCs**	**13,800**	**1,376**	**1,119**	NS	NS	NS	NS	NS	NS	NS	**473**	**5,046**	NS	**334 J**	**364 J**	NS	**518 J**	**210 J**	**185**	**151 J**	**372 J**	**162 J**	**392 J**	**113 J**	**533 J**	**50 J**	**257 J**
Note: SSD-4-C has been referenced as 004-C and SV-004-C																												
SSD-5-C	1,1,1-TRICHLOROETHANE	NS	NS	-	-	-	-	4.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	1,1-DICHLOROETHANE	NS	NS	-	-	-	-	0.12 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	1,2-DICHLOROETHANE	NS	NS	-	0.27 J	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	BENZENE	NS	NS	-	0.86	0.36	0.22 J	0.39	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	CARBON TETRACHLORIDE	NS	NS	-	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	CARBON TETRACHLORIDE	NS	NS	-	0.4 J	0.44 J	0.29 J	0.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	CHLORODIFLUOROMETHANE	NS	NS	-	-	-	-	6.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	CHLOROFORM	NS	NS	15	15	8.5	5.9	13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	DICHLORODIFLUOROMETHANE	NS	NS	-	0.25 J	3.7	0.32 J	0.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	ETHYLBENZENE	NS	NS	-	1	0.24 J	-	0.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	M+P-XYLENES	NS	NS	-	3.3	0.65	0.24 J	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	METHYL TERT-BUTYL ETHER	NS	NS	NA	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	METHYLENE CHLORIDE	NS	NS	-	0.59 J	-	-	0.58 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	NAPHTHALENE	NS	NS	-	1.4	0.47 J	0.33 J	0.29 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	O-XYLENE	NS	NS	-	1.8	0.43	0.16 J	0.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	TETRACHLOROETHENE	NS	NS	64	94	66	48	110	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	TOLUENE	NS	NS	-	4.1	0.53	0.36	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	TOTAL XYLENES	NS	NS	-	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	TRICHLOROETHENE	NS	NS	-	1.5	0.94	0.81	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-5-C	**TOTAL VOCs**	NS	NS	79	**125 J**	**82 J**	**57**	**142 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-5-C has been referenced as 005-C and SV-005-C																												
SSD-6-C	BENZENE	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	CARBON TETRACHLORIDE	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	CHLOROFORM	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	DICHLORODIFLUOROMETHANE	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	ETHYLBENZENE	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	METHYL TERT-BUTYL ETHER	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	TETRACHLOROETHENE	NS	NS	42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	TOLUENE	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	TOTAL XYLENES	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SSD-6-C	**TOTAL VOCs**	NS	NS	**42**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Note: SSD-6-C has been referenced as 006-C and SV-006-C																												

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
																								-	-	-	-	-
060-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	-	-	-	14 J	4	33	17 J	NS	NS	9.5 J	19	19	-	0.95 J	7.9	0.76 J	51	3.9	23	11	23	29	33	19
060-C	1,1-DICHLOROETHANE	NS	NS	NS	8.5	0.29 J	-	87	21	250	120 J	NS	NS	74	43	6.9	2.3	1.8	3.1 J	0.69 J	6.8	3.2	7.6	4.5	9.3	8.3	18	16
060-C	1,1-DICHLOROETHENE	NS	NS	NS	-	-	-	3 J	2	17	12 J	NS	NS	4.6 J	22	7.4	0.86 J	-	-	-	0.86 J	-	1.2 J	-	2.1	1.7	5.1	3.7
060-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	-	NS	NS	-	6.8	1.5 J	0.91	1 J	-	-	-	1.2 J	-	-	-	-	-	-	-
060-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	64	NS	NS	-	9.5	5.4 J	3.2	4.3	3.8 J	1.5 J	4	5.2	1.2 J	-	1.6 J	2.2	-	1.8 J
060-C	1,2-DICHLOROETHANE	NS	NS	NS	-	-	-	-	-	-	-	NS	NS	-	-	0.53 J	-	-	-	-	-	-	-	-	-	-	-	-
060-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	19 J	NS	NS	-	14 J	5.8 J	2.2	1.7	2.7 J	0.94 J	3.1	4.2	1.1 J	-	0.85 J	0.99 J	0.93 J	1.3 J
060-C	BENZENE	NS	NS	NS	2.2 J	0.53	0.64	-	1	6.5	-	NS	NS	-	5.9	0.62	0.85	-	-	-	0.48 J	-	0.4 J	3.1	0.54 J	0.99 J	0.62 J	0.95 J
060-C	CARBON TETRACHLORIDE	NS	NS	NS	-	0.5 J	0.38 J	-	-	-	-	NS	NS	-	-	-	-	-	-	-	-	-	-	0.74 J	0.48 J	-	-	0.4 J
060-C	CHLORODIFLUOROMETHANE	NS	NS	NS	-	-	-	190	-	-	-	NS	NS	6 J	-	260	5.8 J	9.4	6.4	62	6.8	17	3.8	14	10	34	5.5	14
060-C	CHLOROFORM	NS	NS	NS	9.1	0.44	0.13 J	67	16	200	94 J	NS	NS	69	57	5	3.1	-	4.5	1.3 J	9.9	3.1	9.1	6.4	12	14	11	14
060-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	45	0.19 J	-	140	31	540	340 J	NS	NS	230	460 J	23	16.5	1.4	-	-	2.1	1.5 J	4	3.3	11	9.4	16	27
060-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	2.7 J	2.3	1.9	-	3	7.5	-	NS	NS	-	4	3.8	2.8	3	-	3	2.4	2.9	2	2.1	2.8	2	2.2	1.9 J
060-C	ETHYLBENZENE	NS	NS	NS	490	2.8	22	53	31	270	460 J	NS	NS	160	390 J	150 J	96.5	65	234	66	190	190	34	3.3	14	15	4.9	47
060-C	M+P-XYLENES	NS	NS	NS	2200	11	95	110	-	580	-	NS	NS	-	2800	650	561	250	1240	-	-	-	-	-	N/A	-	-	-
060-C	METHYLENE CHLORIDE	NS	NS	NS	-	-	-	12 J	-	10	-	NS	NS	-	5.8	3.4	10.7	70.9	6.7 J	4.4	2.5 J	11	3 J	-	4.9	7.5	3.3 J	21 J
060-C	NAPHTHALENE	NS	NS	NS	5.8 J	0.44 J	3.2	-	-	3	770 J	NS	NS	360 J	67	4.3 J	4.4	28.6 J	7.5 J	5	10	13	4.8	-	3.6 J	4.2 J	-	-
060-C	O-XYLENE	NS	NS	NS	670	5.8	40	130	-	720	-	NS	NS	-	1300	130	230	171	455	-	-	-	-	-	N/A	-	-	-
060-C	TETRACHLOROETHENE	NS	NS	NS	3.4 J	0.26 J	21	25 J	6	88	40 J	NS	NS	26 J	23	1.2 J	2.2	2.9	-	-	1 J	1.2 J	1.1 J	140	12	1.2 J	0.72 J	0.76 J
060-C	TOLUENE	NS	NS	NS	50	2.4	7	7.6 J	4	14	29 J	NS	NS	10 J	8	20	13.1	8.2	18.8	14	3.4	4.8	-	160	-	2.5	-	2.9
060-C	TOTAL XYLENES	NS	NS	NS	-	-	-	-	130	-	3100 J	NS	NS	2600	-	-	-	-	-	550	1000	1200 DL	310	4.1	120	130	46	400
060-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	2.1 J	-	-	17	5	61	38	NS	NS	24	18	3.5	1.1 J	-	-	-	1.1 J	0.96 J	0.83 J	1.1 J	0.99 J	1.2 J	1 J	1.7
060-C	TRICHLOROETHENE	NS	NS	NS	180	2.6	0.46	2200	440	12000	4900	NS	NS	3700	10000	370	291	58.6	78.5	8.2	220	70	270	83	400	390	600	570
060-C	VINYL CHLORIDE	NS	NS	NS	-	-	-	-	-	1.9	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
060-C	**TOTAL VOCs**	NS	NS	NS	**3,669 J**	**30 J**	**192 J**	**3,056 J**	**694**	**14,802**	**10,003 J**	NS	NS	**7,273 J**	**15,253 J**	**1,671 J**	**1,249 J**	**679 J**	**2,069 J**	**718**	**1,515 J**	**1,533 J**	**677 J**	**437 J**	**629 J**	**654 J**	**748 J**	**1,143 J**
088-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	-	-	-	0.54 J	0.6 J	0.89	-	NS	NS	-	-	0.67 J	-	-	-	0.93 J	-	1.3 J	-	-	-	-	-	-
088-C	1,1-DICHLOROETHANE	NS	NS	NS	0.2 J	0.32 J	-	-	0.14 J	0.74	-	NS	NS	-	-	-	0.66	1.6 J	-	0.22 J	-	0.23 J	-	-	-	0.26 J	-	0.16 J
088-C	1,1-DICHLOROETHENE	NS	NS	NS	0.2 J	0.43 J	0.13 J	-	-	1	3.3 J	NS	NS	-	1	0.52 J	-	-	-	-	-	-	-	-	-	-	-	-
088-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	30	NS	NS	-	2.9	3	1.1	1.5 J	-	1.6 J	-	1.5 J	1.1 J	1.7 J	-	-	-	-
088-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	39	NS	NS	-	5.4	5.4	1.8	2	-	1 J	-	1.8 J	0.67 J	2.2	0.68 J	1.1 J	-	0.89 J
088-C	1,2-DICHLOROETHANE	NS	NS	NS	-	-	-	-	-	-	-	NS	NS	-	-	0.62	-	-	-	-	-	-	-	-	-	-	-	-
088-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	-	-	-	-	-	-	11 J	NS	NS	-	1.1	1.7	-	-	-	-	-	0.69 J	-	1 J	-	-	-	-
088-C	BENZENE	NS	NS	NS	2.8	2	0.93	1.3	6	2.6	-	NS	NS	-	1.1	0.97	1.2	-	1.7	0.39 J	0.59 J	0.4 J	-	0.67 J	0.4 J	0.69 J	-	0.47 J
088-C	CARBON TETRACHLORIDE	NS	NS	NS	0.53 J	0.64 J	0.33 J	0.66 J	-	-	-	NS	NS	-	0.77 J	-	-	-	-	-	-	0.59 J	-	-	0.51 J	-	-	0.41 J
088-C	CHLORODIFLUOROMETHANE	NS	NS	NS	-	-	-	49	-	-	-	NS	NS	-	-	210	3.2	6.5	3.9	35	1.8	7.1	2.2	5.6	1.9	12	1.2 J	4.0
088-C	CHLOROFORM	NS	NS	NS	4.4	1.8 J	1.4	2.8	3	11	9.7 J	NS	NS	5.1 J	6.6	2.4	-	-	-	0.96 J	0.44 J	1.4 J	0.58 J	1.2 J	-	0.78 J	0.39 J	0.51 J
088-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	95	140	73	73	100	620	670	NS	NS	350	470	33	17.6	17.7	8.4	7.7	12	17	14	11	7.3	8.9 J	9.6	6.5
088-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	2.5	2.2	1.6	2.7	2	3.1	-	NS	NS	-	3.2	6.8	2.6	2.8	1.9 J	2.5	2.5	2.4	2	2.1	2.6	1.9 J	2.2	1.7 J
088-C	ETHYLBENZENE	NS	NS	NS	30	6.7	2.2	2.9	11	7.2	15 J	NS	NS	-	1.1	2.6 J	2.2	1.8	-	0.78 J	-	1.4 J	0.87 J	1.4 J	-	1.6 J	-	1.7 J
088-C	M+P-XYLENES	NS	NS	NS	110	30	11	14	-	23	-	NS	NS	-	5.5	11	10	8.7	1.9 J	-	-	-	-	-	N/A	-	-	-
088-C	METHYLENE CHLORIDE	NS	NS	NS	2.8	-	-	3.3 J	-	1.8	-	NS	NS	-	0.92	1.3	82.5	-	1.3 J	3.2 J	-	3.7	3.3 J	-	3.1 J	5.5	4.9 J	13 J
088-C	NAPHTHALENE	NS	NS	NS	17	3.5 J	1.7	3.2 J	0.9 J	3.7	540	NS	NS	290	61	15	22.3	61.7 J	4.4 J	5.4	1.8	4	1.2 J	1.7	1.1 J	1.9 J	-	2.1
088-C	O-XYLENE	NS	NS	NS	100	25	8.1	10	-	18	-	NS	NS	-	4.4	7.1	4.7	5.5	-	-	-	-	-	-	N/A	-	-	-
088-C	TETRACHLOROETHENE	NS	NS	NS	0.95 J	0.65 J	0.43 J	-	-	1.1	-	NS	NS	-	2.3	0.83 J	-	-	-	-	2.9	-	-	-	10	0.58 J	-	0.28 J
088-C	TOLUENE	NS	NS	NS	32	8	5.7	9.2	10	18	12 J	NS	NS	-	1.4	8.4	-	10.3	114	-	-	3.2	-	5.6	-	2.6	-	4.9
088-C	TOTAL XYLENES	NS	NS	NS	-	-	-	-	31	-	150	NS	NS	5 J	-	-	-	-	-	7.3	3.9	16	7.3	12	4	9.2	3.3 J	18
088-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	1.7	3	1.2	1.4 J	2	7.5	14 J	NS	NS	6.1 J	5.4	1.9	-	0.87 J	-	-	-	1 J	0.59 J	0.89 J	-	0.71 J	-	0.45 J
088-C	TRICHLOROETHENE	NS	NS	NS	260	560	240	270	270	1800	3800	NS	NS	2000	2800	270	70.6	79.8	40	31	46	76	84	46	37	45	46	36
088-C	VINYL CHLORIDE	NS	NS	NS	-	-	-	-	-	-	-	NS	NS	-	-	-	0.49	-	-	-	-	-	-	-	-	2.4	-	-
088-C	**TOTAL VOCs**	NS	NS	NS	**660 J**	**784 J**	**348 J**	**444 J**	**437 J**	**2,520**	**5,294 J**	NS	NS	**2,656 J**	**3,374 J**	**583 J**	**221**	**201 J**	**178 J**	**98**	**72 J**	**140 J**	**118 J**	**93 J**	**69 J**	**95 J**	**68 J**	**91 J**

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
111-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.98 J	-	NS	NS	NS	NS	NS	NS	NS	NS
111-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 J	0.76 J	NS	NS	NS	NS	NS	NS	NS	NS
111-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.6	30	NS	NS	NS	NS	NS	NS	NS	NS
111-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2	1.5 J	NS	NS	NS	NS	NS	NS	NS	NS
111-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.2 J	-	NS	NS	NS	NS	NS	NS	NS	NS
111-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.6	2.4	NS	NS	NS	NS	NS	NS	NS	NS
111-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.7	2.3	NS	NS	NS	NS	NS	NS	NS	NS
111-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3		NS	NS	NS	NS	NS	NS	NS	NS
111-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	37.4	5.3	NS	NS	NS	NS	NS	NS	NS	NS
111-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.9 J	1.1	NS	NS	NS	NS	NS	NS	NS	NS
111-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.7		NS	NS	NS	NS	NS	NS	NS	NS
111-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.9	4.9	NS	NS	NS	NS	NS	NS	NS	NS
111-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	18.4	9.4	NS	NS	NS	NS	NS	NS	NS	NS
111-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**84 J**	**58**	NS	NS	NS	NS	NS	NS	NS	NS
113-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	-	2.6	-	NS	NS	-	1.1 J	1.3 J	-	-	-	0.56 J	1.4 J	1 J	-	-	-	-	-	-
113-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	-	4.1	-	NS	NS	-	2.2 J	2.2 J	-	1.4 J	-	-	1.6	-	-	-	-	0.22 J	-	0.26 J
113-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	-	3.1	-	NS	NS	-	1.7	0.69 J	-	-	-	-	0.66 J	-	-	-	-	-	-	-
113-C	1,2-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
113-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	-	-	-	NS	NS	-	2.8 J	3 J	-	12.5	27.3	-	-	0.89 J	-	-	-	-	-	-
113-C	1,2,4-TRICHLOROBENZENE	NS	NS	NS	NS	NS	NS	NS	-	-	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
113-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	-	-	-	NS	NS	-	8.5 J	-	-	-	121	-	-	1.1 J	-	2.3	-	1.1 J	-	1.1 J
113-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	-	-	-	NS	NS	-	2.2 J	1.9 J	-	5.2	38.9	-	-	-	-	0.85 J	-	-	-	-
113-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	-	4.6	-	NS	NS	-	2 J	0.49 J	2.4	-	12.1	-	-	-	-	-	-	-	-	0.16 J
113-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	-	0.7	-	NS	NS	-	-	-	1.1	-	-	-	-	0.51 J	-	-	-	-	-	0.36 J
113-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	-	-	-	NS	NS	12 J	3.2	27	10.7 J	6.7	4.4	18	2.9	5.9	2.7	7.1	2.3	9 J	1.3 J	5.1
113-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	25	67	38	NS	NS	59	50 J	3 J	1.8	-	2.5	1.6 J	1.4 J	2.5	1.3 J	2.3	1.5 J	1.6 J	1.6 J	1.3 J
113-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	330	490	500	NS	NS	700	850 J	40	31.7 J	17.5	28.6	14	19	36	17	20	27	18	29	18
113-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	-	3.6	-	NS	NS	-	3.2	2.4 J	3.8 J	3.3	2.2	2.4	2.3	3	2.1	2	2.2	2.1	2.4	1.6 J
113-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	11	4.6	-	NS	NS	-	1.6 J	2.6 J	-	2.3	27.5	0.98 J	-	0.65 J	-	0.72 J	-	1.2 J	-	0.84 J
113-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	-	15	-	NS	NS	-	6.4 J	14 J	2.4 J	7.6	207	-	-	-	-	-	N/A	-	-	-
113-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	-	1.7	-	NS	NS	-	0.56	0.53 J	557 J	9.4	2.4 J	-	4.8	19	2.3 J	-	3.1 J	5.6	3 J	42 B
113-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	17 L	1600 J	64 J	NS	NS	30 J	51 J	47	3.7 J	233 J	27	1.4	-	3.1	-	-	-	1 J	-	-
113-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	-	7.8	-	NS	NS	-	2.5 J	4.5 J	0.83 J	4.7	80.2	-	-	-	-	-	N/A	-	-	-
113-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	9 J	20	14 J	NS	NS	21 J	15 J	0.69 J	-	1.8	1.4	-	-	-	-	-	-	-	-	0.25 J
113-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	16	8.4	15 J	NS	NS	16 J	3 J	7 J	6.1 J	7.3	51.1	-	-	2.3	-	9.9	-	-	-	3
113-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	79	-	-	NS	NS	-	-	-	-	-	-	5.3	2 J	4	2.7 J	5	2.4 J	4	2 J	4.3
113-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	-	8.3	-	NS	NS	-	5.2 J	0.6 J	-	-	-	-	-	-	-	-	-	-	-	0.26 J
113-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	5000	7300	5700	NS	NS	8900	16000 J	290	243 J	222	424	140	150	320	180	190	150	160	180	180
113-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	-	0.65	-	NS	NS	-	0.86	-	-	-	-	-	-	-	-	-	-	0.56	-	-
113-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	**5,487**	**9,542**	**6,331**	NS	NS	**9,738 J**	**17,013 J**	**449 J**	**865 J**	**535 J**	**1,058 J**	**184**	**186 J**	**400 J**	**208 J**	**240 J**	**189 J**	**204 J**	**219 J**	**271 J**
126-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	0.76 J	-
126-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	1300	680	720	199	80.4	104	330	500	1100	620	NA	540	980	230	240
126-C	1,2,4-TRICHLOROBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
126-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	5.5 J	5.8 J	-	1.4	-	-	-	-	-	3.1	-	-	-	-
126-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	29 J	NS	NS	-	-	6.2 J	4.3	1.7	2.1	-	-	-	-	4	1.4 J	-	0.86 J	-
126-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	-	1.1 J	-	-	-	-	-	-	1.7 J	0.69 J	-	1.1 J	-
126-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	86	NS	NS	270	250 J	300	88.4	29.3	40.6	120	150	290	110	300	210	280	130	200
126-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	22 J	1.2 J	-	-	-	-	-	-	-	-	3.6	1.2 J	5.2 J	0.48 J	-
126-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	20 J	NS	NS	-	-	-	-	5.3	-	6.5 J	-	-	-	-	1 J	-	0.56 J	-
126-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	2.3 J	0.84 J	-	-	-	-	-	-	1 J	0.62 J	-	-	-
126-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	350	NS	NS	900	560	740	205	74.2	83.1	250	290	530	190	370	300	490	160	230
126-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.96 J	0.55 J	1.5 J	3.1	1.3 J	-	-	-	-	1.8 J	2.9	-	1.6 J	-
126-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	72	NS	NS	220	8.7 J	13 J	3	1.1 J	0.81 J	6.4 J	-	-	-	4.8	1.5 J	54	2.3	18 J
126-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	18 J	15 J	13.4	3.9	3.6	-	-	-	-	-	N/A	-	-	-
126-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	4.2 J	3.1 J	9.2	-	1.4 J	-	-	-	-	-	-	23 J	2.5 J	-
126-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	250	NS	NS	380	200 J	100 J	70.6	152 J	25.7	11	-	28	-	6.7	1.9 J	-	1.2	-
126-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	11 J	14 J	5.7	1.8	1.5 J	-	-	-	-	-	N/A	-	-	-
126-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	-	-	1.2	-	-	-	-	-	0.94 J	11	-	2.6 J	-
126-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	54	NS	NS	110	19 J	45 J	14.7	20	19.6	23	-	-	-	120	13	41	39	45
126-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	350	NS	NS	1200	-	-	-	-	-	11 J	-	-	-	12	5.1	34 J	4.1	49 J
126-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	41 J	NS	NS	95	32 J	92	-	8.5	-	31	20 J	43	16	25	30	49	9.7	40
126-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	280	NS	NS	5800 J	920 J	2400	177	26.4	71.3	170	340	890	310	850	540	1200	400	200
126-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	82000	NS	NS	110000	37000	28000	11900	4030	1310 J	16000	3100	5000 DL	2600 J	3300	2700	6300	1100	2700
126-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**84,612 J**	NS	NS	**120,297 J**	**39,711 J**	**32,457 J**	**12,694 J**	**4,440 J**	**1,665 J**	**16,959**	**4,400 J**	**7,881 J**	**3,846 J**	**5,005 J**	**4,360 J**	**9,456 J**	**2,090 J**	**3,722 J**

Note: The August 2019 results for 126-C were mistakenly switched by the laboratory with the results for 149-C. The results in this table are the results believed to correspond to 126-C and 149-C.

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
127-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	268	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	25.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	2200	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	4000	NS	NS	NS	NS	NS	NS	0.91 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	1000 J	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	27.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	4.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	1.4 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	5.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	2.1 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	4300 J	NS	NS	NS	NS	NS	NS	5.9 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	2.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	5.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	2900 J	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	240000	NS	NS	NS	NS	NS	NS	410	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	1.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
127-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	###### J	NS	NS	NS	NS	NS	NS	**763 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
133-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	5.2	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	4.6 J	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	1.5 J	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.95	4.1 J	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	2.1	28 J	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,2-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.7	0.66	0.92	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.6 J	3.6	-	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	1.3	0.71	0.87	-	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	2.5	0.9 J	-	-	NS	NS	NS	NS	NS	NS	0.69 J	-	-	-
133-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	1500	NS	NS	290 J	-	440 J	4.4	12.7	NS	NS	NS	NS	NS	NS	5	28 J	2.8 J	3.5 J
133-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	83 J	NS	NS	-	43	8.3	6.7	-	NS	NS	NS	NS	NS	NS	8.8	61	13	10
133-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	33	2.5	8.7	-	NS	NS	NS	NS	NS	NS	0.66 J	-	-	-
133-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	130 J	NS	NS	-	-	2.8 J	3.2	4.3	NS	NS	NS	NS	NS	NS	2.9	-	2.6 J	1.7 J
133-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.93	2.5	-	1.2 J	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.93 J	9.6	2 J	4	NS	NS	NS	NS	NS	NS	N/A	-	-	-
133-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	2700 J	NS	NS	13000 J	-	0.74	20.2 J	-	NS	NS	NS	NS	NS	NS	3.4 J	-	7.1 J	420 J
133-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	2200	NS	NS	-	110	42 J	4.7	3.3 J	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.57 J	2.3	0.95 J	1.5	NS	NS	NS	NS	NS	NS	N/A	-	-	-
133-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	2200	NS	NS	740	1500	77	169	3.3 J	NS	NS	NS	NS	NS	NS	53	65	16	10
133-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	180 J	NS	NS	2400 J	1.3	9.2	5.5 J	5.1	NS	NS	NS	NS	NS	NS	-	-	-	-
133-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	170 J	NS	NS	-	-	-	-	-	NS	NS	NS	NS	NS	NS	2.1 J	-	-	-
133-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	25 L	3.1	3.6 J+	-	NS	NS	NS	NS	NS	NS	1.5 J	-	-	-
133-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	50000	NS	NS	20000	60000	5600	10700	199 J	NS	NS	NS	NS	NS	NS	2000	3300	760	620
133-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	0.57	-	-	NS	NS	NS	NS	NS	NS	-	-	-	4.1
133-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	**59,163 J**	NS	NS	**36,430 J**	**61,723 J**	**6,250 J**	**10,931 J**	**234 J**	NS	NS	NS	NS	NS	NS	**2,078 J**	**3,454 J**	**802 J**	**1,069 J**

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m³)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
135-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	0.78 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	-	3.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	81	NS	NS	-	4.1	2.1	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	1,2-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	-	0.49 J	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	27 J	NS	NS	-	1.2 J	1	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.75	1.1	0.33 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	52	1.7	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-		89	2.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	14 J	NS	NS	-	21	0.84	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	220	NS	NS	260	130	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	2.7	3.4	2.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	40 J	NS	NS	-	-	3	4.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	1.9	9.2	18.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.49 J	-	2.1 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	510	NS	NS	580	280	6.7	3.8 J	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	NS	-	0.66	4.8	4.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	22 J	NS	NS	-	11	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	49	NS	NS	-	0.61	7.7	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	210	NS	NS	-	-	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	15 J	NS	NS	-	3.9	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	11000	NS	NS	16000	4500	29	5.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
135-C	**TOTAL VOCs**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**12,188 J**	**NS**	**NS**	**16,840**	**5,010 J**	**161 J**	**46 J**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
141-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	0.44 J	1.7	-	-	0.69 J	NS	NS	NS	NS	3.1	2.6	1.9	2
141-C	1,2,3-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.1 J	-	-	-	-	-	NS	NS	NS	NS	-	-	-	-
141-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.5 J	1.9	-	1.5 J	-	-	NS	NS	NS	NS	-	0.83 J	-	-
141-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.9 J	-	-	-	-	-	NS	NS	NS	NS	-	-	-	-
141-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.58 J	-	0.88	-	0.96	-	NS	NS	NS	NS	1.1 J	1.1 J	1.4	1.4
141-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	0.64 J	-	-	-	-	NS	NS	NS	NS	0.66 J	-	-	0.29 J
141-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.7 J	3.4	2.6	19.9	2.7	90	NS	NS	NS	NS	6.2	13	4.2	31
141-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	NS	NS	NS	NS	-	-	-	1.0 J
141-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		0.73	2.2		-	0.72 J	NS	NS	NS	NS	12	13	11	14
141-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.7 J	2.3	2.3	2.7	2	2.3	NS	NS	NS	NS	2.7	1.9 J	2.3	1.8 J
141-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	48	1.9	2.2	2.6	-	1.2 J	NS	NS	NS	NS	-	3.3	0.85 J	1.9
141-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	250	10	11.6	10.3	1 J	-	NS	NS	NS	NS	N/A	-	-	-
141-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 J	1	39.1	1.4 J	1.8 J	7.5	NS	NS	NS	NS	3.4 J	3.2 J	3.3 J	19 J
141-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	170	1.7	4.1 J	1.5 J	-	-	NS	NS	NS	NS	-	-	-	-
141-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	62	2.4 J	3.7	4.6	-	-	NS	NS	NS	NS	N/A	-	-	-
141-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	1.5	-	-	NS	NS	NS	NS	22	4.4	9	7.3
141-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.7 J	15	3.7	5.2	2.4	33	NS	NS	NS	NS	-	-	-	2.1 J
141-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	12
141-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2.6
141-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.4 J	5.7	25.2	3.2	2	3.9	NS	NS	NS	NS	310	280	340	330
141-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	NS	NS	NS	NS	-	-	-	0.62
141-C	**TOTAL VOCs**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**560 J**	**47 J**	**99 J**	**54 J**	**13 J**	**139**	**NS**	**NS**	**NS**	**NS**	**361 J**	**323 J**	**383 J**	**426 J**
149-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	0.29 J
149-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.86 J	-	-	-	-	-	-
149-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 J	1.2 J	-	4		-	1.9	1.9 J	2.5	0.91 J	0.84 J
149-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.95 J	1.9	0.45 J	1.1 J	0.6 J	0.87 J	0.88 J	1.1 J	1.3	0.86 J	1.1 J
149-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.54 J	-	-	0.66 J	0.55 J	-	0.45 J
149-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8	11.7	11	3.5	3.7	0.88 J	4.8	2.3	5.3	1.6	4.2
149-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	0.7 J
149-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.84 J	-	0.85 J	11	1.9 J	-	0.46 J
149-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.4	4.6	2.3	2.4	2.7	2	2.1	2.9	1.9 J	2.3	2.0
149-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2	-	0.7 J	1.5 J	1.8	-	2.1	1.7 J	27	0.76 J	1.7 J
149-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.2	2.9 J	-	-	-	-	-	N/A	-	-	-
149-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.1 J	105	6.1	7.2	12	3.2 J	-	4.1	6.1	7.7	630 J
149-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.2 J	-	-	-	-	-	-	-	-	-	-
149-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.6	1.1 J	-	-	-	-	-	NA	-	-	-
149-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.6	-	-	-	0.57 J	-	-	-	0.7 J	0.97 J	-
149-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	21.1	23.5	5.9	13	7.4	5.3	97	14	15	44	15
149-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	12	2.6 J	15	8.7	14	3.2 J	7.9
149-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	0.16 J
149-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.4	1.4	3.5	-	5.3	4.4	3.5	5.7	23	0.42 J	3.7
149-C	VINYL CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	6.8
149-C	**TOTAL VOCs**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**59 J**	**153 J**	**30**	**33 J**	**48 J**	**19 J**	**128 J**	**54 J**	**99 J**	**63 J**	**675 J**

Note: Sample at location 141-C was collected in September 2013 rather than August 2013.

Note: The August 2019 results for 149-C were mistakenly switched by the laboratory with the results for 126-C. The results in this table are the results believed to correspond to 126-C and 149-C.

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
152-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.7	13 J	1.1 J	0.84 J	19 J	10	-	-	0.54 J	2.8
152-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	3.3 J	1.9	-	-	-	0.43 J
152-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.98 J	-	0.97 J	0.79 J	-	1.4 J	1.3 J	1.6 J	-	1.4 J
152-C	1,3,5-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-	-	0.80 J
152-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	-	1.5	1.3	-	0.84 J	0.95 J	0.78 J	1.1 J	0.66 J
152-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-	-	0.53 J
152-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.6	72	18	38	19	24	17	53	11 J	22
152-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	0.40 J	5.5 J	5.5	1.3 J	1.3 J	0.48 J	1.6 J
152-C	CIS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	41	37	7	3	2.9	6.9
152-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.6	-	2.5	2.8	-	1.8 J	2.6	2	2.3	2
152-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.89 J	-	0.75 J	1.8	-	1.1 J	1.1 J	23	-	1.2 J
152-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.1	-	-	-	-	-	N/A	-	-	-
152-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.89 J	-	4.1	12	-	-	7.1	6	4.2 J	16 J
152-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.4 J	-	-	5	-	-	-	-	-	-
152-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.1 J	-	-	-	-	-	N/A	-	-	-
152-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.2	-	-	-	-	0.96 J	7.1	0.56 J	-	-
152-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	15.1	-	4.3	5.5	-	5.9	4.5	7	-	4.8
152-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	7.9	-	6.6	6.3	8.5	2.2 J	6.1
152-C	TRANS-1,2-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-	-	0.21 J
152-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.8	2100	-	0.48 J	1300	1400	210	77	49	150
152-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46 J**	**2,185**	**33 J**	**77 J**	**1,388 J**	**1,497 J**	**266 J**	**184 J**	**74 J**	**217 J**
153-C	1,1,1-TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.57 J	-	-	N/A	-	-	-
153-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	0.98 J	0.81 J	1 J	0.83 J	0.64 J	1.9	0.74 J	2.3	-	1.5 J
153-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	2.3	1.4	0.86 J	0.38 J	-	0.8	-	0.48 J	-	0.51 J
153-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.49 J	-	-	0.57 J	0.5 J	-	0.51 J
153-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10.7	7.6	21	3	6.7	3.8	7.45	3.3	17	2.1	7.9
153-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	0.57 J	-	0.4175	-	-	-	-
153-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	2.3	2.5	2.7	2.6	1.9 J	1.95	3	1.9 J	2.4	1.7 J
153-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.8	-	1 J	1 J	1.6 J	-	1.2	-	3.7 J	-	0.8 J
153-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.9	2.3 J	-	-	-	-	-	N/A	-	-	-
153-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.97 J	1.7 J	4.1	-	15	2.7 J	-	3.1 J	3.6	3.7 J	24 J
153-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.5 J	1.1 J	-	-	-	-	-	1.6 J	-	-	-
153-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.6	0.92 J	-	-	-	-	-	N/A	-	-	-
153-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	-	0.62 J	-	2.9	-	0.455	0.62 J	0.58 J	-	0.61 J
153-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.6	56.9 J	3.5	-	4.9	2.6	11	-	2.7	-	3.9
153-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	-	-	-	11	1.9 J	5.95	3.6	7.3	0.65 J	4.8
153-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	18.8 J	13	10	12	5.7	2.65	6.3	6.1	5.5	4.4
153-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**42 J**	**95 J**	**48**	**19 J**	**60 J**	**19 J**	**34 J**	**23 J**	**46 J**	**14 J**	**51 J**
155-C	1,1-DICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1 J	19
155-C	1,1-DICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	360	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	0.56 J	8.4
155-C	1,1,1-TRICHLOROETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	0.96 J	-	-	2.3	-	0.54 J	7.9
155-C	1,2,4-TRIMETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.91 J	NS	-	-	-	-	1.9 J	0.85 J	1.3 J	-	1.7 J
155-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	-	0.48 J	0.79 J	0.37 J	0.79 J	0.46 J	0.67 J
155-C	CARBON TETRACHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	1.4 J	-	0.89 J	0.92 J		0.51 J	1.1 J
155-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.4	NS	22	4.4	5.7	2.9	14	5.3	20	1.8	8.3
155-C	CHLOROFORM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	1.7 J	-	1.2 J	0.7 J	1.2 J	-	0.81 J
155-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.9	NS	2.3	2.2	2.5	2	1.9 J	2.6	2.2	2.4	1.9 J
155-C	ETHYLBENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.4 J	NS	0.65 J	1.3 J	1.2 J	-	1.5 J	0.94 J	15	-	2.1
155-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.5	NS	-	-	-	-	-	N/A	-	-	-
155-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.4 J	NS	-	-	3.3 J	3.9 J	-	3 J	4.4	3.1 J	15 J
155-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 J	NS	-	-	2	-	-	-	-	-	-
155-C	O-XYLENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.1	NS	-	-	-	-	-	N/A	-	-	-
155-C	TETRACHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	5.7	-	1.1 J	2.4 J	0.58	-	2.9
155-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	11.2	NS	-	-	2.4	2.9	18	-	6.3	-	2.7
155-C	TOTAL XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-	NS	-	-	8.6	1.2 J	8.4	5.9	5.9	2.3 J	17
155-C	TRICHLOROETHENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.5 J	NS	0.66 J	0.96 J	1.4	-	-	1.1	-	-	5.9
155-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**39 J**	NS	**26**	**9 J**	**37 J**	**13 J**	**50 J**	**26 J**	**58 J**	**13 J**	**95 J**

TABLE 4-2

SUMMARY OF SUB-SLAB VOC DETECTIONS NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Location	VOC (µg/m^3)	Oct-07	Jul-08	Nov-08	Jul-09	Oct-09	Feb-10	Aug-10	Feb-11	Aug-11	Feb-12	Jun-12	Jul-12	Aug-12	Feb-13	Aug-13	Feb-14	Sep-14	Feb-15	Aug-15	Feb-16	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19	Aug-19
156-C	BENZENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.4	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	CHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.3	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	DICHLORODIFLUOROMETHANE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.1	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	M+P-XYLENES	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.6 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	METHYLENE CHLORIDE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	22.5	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	NAPHTHALENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	TOLUENE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.9	NS	NS	NS	NS	NS	NS	NS	NS	NS
156-C	**TOTAL VOCs**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
Data presented in this table is from sub-slab vapor samples.
µg/m^3 = micrograms per cubic meter
- = not detected (below reporting limit)
DL = diluted analysis
NA = compound not reported
NS = not sampled
NA = compound not reported
K = value is biased high
L = value is biased low
VOC = volatile organic compound
SSDS = sub-slab depressurization system

TABLE 4-3

SUB-SLAB MONITORING POINTS SAMPLED NEAR SSDS, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date	***Sub-Slab Vapor Monitoring Point***												
	SSD-11-A	***SSD-12-A***	***SSD-13-A***	***015-A***	***SSD-16-A***	***017-A***	***018-A***	***078-A***	***079-A***	***093-A***	***116-A***	***136-A***	***168-A***
April-07	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
October-07	-	-	✓	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
July-08	-	-	✓	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
November-08	-	-	✓	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
November-07	-	-	✓	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
July-09	✓	✓	✓	✓	✓	-	-	N/A	N/A	N/A	N/A	N/A	N/A
October-09	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
July-09	-	-	-	✓	-	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
October-09	-	-	-	✓	-	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
February-10	-	-	-	✓	✓	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
August-10	-	-	-	✓	-	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
February-11	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
August-11	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
October-11	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
February-12	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
August-12	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
February-13	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
March-13	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
August-13	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
February-14	-	-	-	✓	-	-	✓	N/A	N/A	N/A	N/A	N/A	N/A
September-14	-	-	-	-	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
February-15	-	-	-	✓	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
August-15	-	-	-	✓	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
February-16	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	N/A
August-16	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	N/A
February-17	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
August-17	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
February-18	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
August-18	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
February-19	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
August-19	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓

Notes:
- —point(s) not sampled.
N/A—point may have been sampled but the results were not applicable to the SSD-system.
Points with an “SSD” designation were installed and are monitored for the SSD-system.
Points without the SSD designation are used for the vapor-intrusion monitoring program.

TABLE 4-4

TRICHLOROETHENE CONCENTRATIONS BEFORE AND DURING SSDS OPERATION, BUILDING A
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Vapor Monitoring Point	*Before SSD-system operation**		*During SSD-system operation (most recent concentration)*	
	Date	*Sub-Slab Vapor Concentration ($\mu g/m^3$)*	*Date*	*Sub-Slab Vapor Concentration ($\mu g/m^3$)*
015 A	April 2007	326,000	August 2019	10
018 A	August 2010	64,000	February 2014	174
079-A	February 2016	3,500	August 2019	150
136-A	February 2016	35,300	August 2019	610
168-A	February 2017	22,000	August 2019	270

Notes:

*SSD-system startup for the main floor of Building A (015 A) was in March 2008, for the Building A basement (018 A) in October 2010, and April 2016 for the Building A eastern area (079-A and 136-A).
$\mu g/m^3$—microgram(s) per cubic meter air
SSD—sub-slab depressurization

TABLE 4-5

SUB-SLAB MONITORING POINTS SAMPLED NEAR SSDS, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date	***Sub-Slab Vapor Monitoring Point***																			
	001 C	***SSD-2-C***	***SSD-3-C***	***SSD-4-C***	***SSD-5-C***	***SSD-6-C***	***060-C***	***088-C***	***111-C***	***113-C***	***126-C***	***127-C***	***133-C***	***135-C***	***141-C***	***149-C***	***152-C***	***153-C***	***155-C***	***156-C***
Oct-07	✓	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul-08	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov-08	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul-09	✓	-	-	-	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
Oct-09	✓	-	-	-	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
Feb-10	✓	-	-	-	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	
Aug-10	✓	-	-	-	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
Feb-11	✓	-	-	-	-	-	✓	✓	-	✓	-	-	-	-	-	-	-	-	-	-
Aug-11	✓	-	-	-	-	-	✓	✓	-	✓	-	-	-	-	-	-	-	-	-	-
Feb-12	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓	✓	-	-	-	-	-	-
Jun-12	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul-12	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aug-12	✓	-	-	-	-	-	✓	✓	-	✓	✓	-	✓	✓	-	-	-	-	-	-
Feb-13	-	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	✓	✓	-	-	-	-	-
Aug-13	-	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	✓	✓	-	-	-	-	-
Feb-14	-	-	-	-	-	-	✓	✓	-	✓	✓	-	✓	✓	✓	-	-	-	-	-
Sep-14	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	✓	-	✓	✓	-	✓	✓	-
Feb-15	✓	-	-	✓	-	-	✓	✓	✓	✓	✓	-	-	-	✓	✓	✓	✓	-	✓
Aug-15	✓	-	-	✓	-	-	✓	✓	✓	✓	✓	-	-	-	✓	✓	✓	✓	✓	-
Feb-16	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	-	-	-	✓	✓	✓	✓	-
Aug-16	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	-	-	-	✓	✓	✓	✓	-
Feb-17	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	-	-	-	✓	✓	✓	✓	-
Aug-17	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	-	-	-	✓	✓	✓	✓	-
Feb-18	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	-	✓	✓	✓	✓	✓	-
Aug-18	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	-	✓	✓	✓	✓	✓	-
Feb-19	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	-	✓	✓	✓	✓	✓	-
Aug-18	✓	-	-	✓	-	-	✓	✓	-	✓	✓	-	✓	-	✓	✓	✓	✓	✓	-

Notes:
- —point(s) not sampled.
N/A—point may have been sampled but the results were not applicable to the SSD-system.
Points with an “SSD” designation were installed and are monitored for the SSD-system.
Points without the SSD designation are used for the vapor-intrusion monitoring program.

TABLE 4-6

TRICHLOROETHENE CONCENTRATIONS BEFORE AND DURING SSDS OPERATION, BUILDING C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Vapor Monitoring Point	*Before SSD-system operation**		*During SSD-system operation (most recent concentration)*	
	Date	*Sub-Slab Vapor Concentration ($\mu g/m^3$)*	*Date*	*Sub-Slab Vapor Concentration ($\mu g/m^3$)*
SOUTHERN BASEMENT AREA*				
001-C	March 2006	19,200	August 2019	41
SSD-4-C	December 2006	28,300	August 2019	160
MID-BASEMENT AREA*				
060 C	August 2011	12,000	August 2019	670
088 C	February 2012	3,800	August 2019	36
113 C	February 2013	16,000 J	August 2019	180
126 C	August 2012	5,800 J	August 2019	200
127-C	Not Sampled		September 2014	410
133 C	February 2013	60,000	August 2019	620
141-C	Not Sampled		August 2019	480
149-C	Not Sampled		August 2019	3.7
152-C	Not Sampled		August 2019	150
153-C	Not Sampled		August 2019	4.4
155-C	Not Sampled		August 2019	5.9

Notes:

*SSD-system startup in the south end of the Building C basement was in March 2008.

**SSD-system startup in the mid-basement area of Building C was in May 2013.

$\mu g/m^3$—microgram(s) per cubic meter air

J—estimated value

- = not detected (below reporting limit)

SSD—sub-slab depressurization

Table 4-7A
Summary of VOC Detections in SSDS Influent, Building A
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Building A - Influent Volatiles (µg/m^3)

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Mar-08	--	--	N/A	--	8,300	--	2,100	--	7,900	300	--	--	--	330	--	30,000	44,000	--	--	--	--	--	1,100	280	94,310
Apr-08	--	--	N/A	--	3,800	--	660	--	4,500	--	--	--	--	--	--	16,000	34,000	--	--	--	--	--	--	--	58,960
Apr-08	--	--	N/A	--	2,300	--	460	--	3,300	--	--	--	--	--	--	13,000	30,000	--	--	--	--	--	--	--	49,060
Apr-08	--	--	N/A	--	1,100	--	280	--	1,500	--	--	--	--	120	--	9,100	14,000	--	--	--	--	--	--	--	26,100
Apr-08	--	--	N/A	--	2,000	--	480	--	2,200	--	--	--	--	120	--	11,000	18,000	--	--	--	--	--	110	--	33,910
Apr-08	--	--	N/A	--	930	--	260	--	1,200	--	--	--	--	86	--	6,500	8,600	--	--	--	--	--	--	--	17,576
May-08	--	--	N/A	--	1,000	--	320	--	950	--	--	--	--	--	--	6,000	5,500	--	--	--	--	--	--	--	13,770
Jun-08	180	--	N/A	--	720	--	180	--	760	--	--	--	--	--	--	4,800	7,100	--	--	--	--	--	--	--	13,740
Jul-08	--	--	N/A	--	350	--	110	--	430	--	--	--	--	--	--	3,200	3,700	--	--	--	--	--	--	--	7,790
Aug-08	--	--	N/A	--	470	--	150	--	400	--	--	--	--	28	--	2,900	3,400	--	--	--	--	--	--	--	7,348
Sep-08	--	--	N/A	--	380	--	130	--	430	--	17	--	70	52	--	1,900	2,700	32	--	--	--	--	--	--	5,711
Nov-08	--	--	N/A	--	1,300	--	300	--	1,100	--	--	--	--	72	--	6,500	7,200	--	--	--	--	--	--	--	16,472
Dec-08	--	--	N/A	--	420	--	120	--	380	--	--	--	--	--	--	2,300	4,100	--	--	--	--	--	53	--	7,373
Jan-09	--	--	N/A	--	380	--	110	--	380	--	--	--	--	--	--	2,100	2,100	--	--	--	--	--	--	--	5,070
Feb-09	--	--	N/A	--	270	--	78	--	260	--	--	--	--	24	--	1,600	1,600	--	--	--	--	--	--	--	3,832
Mar-09	--	--	N/A	--	620	--	470	--	150	--	--	--	--	--	--	3,800	3,700	--	--	--	--	--	--	--	8,740
Apr-09	--	--	N/A	--	360	--	100	--	220	--	--	--	--	--	--	1,900	2,400	--	--	--	--	--	--	--	4,980
May-09	--	--	N/A	--	200	--	62	--	140	--	--	--	--	32	--	1,700	1,500	--	--	--	--	--	--	--	3,634
Jun-09	--	--	N/A	--	280	--	77	--	200	--	--	--	--	19	--	1,700	1,800	--	--	--	--	--	--	--	4,076
Jul-09	--	--	N/A	--	250	--	68	--	180	--	27	--	--	13	--	1,400	1,700	14	--	--	--	--	--	--	3,652
Aug-09	--	--	N/A	--	280	--	79	--	200	--	--	--	--	42	--	1,900	1,900	--	--	--	--	--	--	--	4,401
Sep-09	--	--	N/A	--	150	--	40	--	110	--	--	--	--	13	--	870	1,000	--	--	--	--	--	--	--	2,183
Oct-09	--	--	N/A	--	230	--	64	--	210	--	--	--	--	20	--	1,500	1,400	--	--	--	--	--	9.7	--	3,434
Nov-09	--	--	N/A	--	180	--	43	--	180	--	--	--	--	14	--	1,200	1,100	--	--	--	--	--	--	--	2,717
Dec-09	--	--	N/A	--	190	--	48	--	180	--	--	--	--	39	--	1,100	1,300	--	--	--	--	--	--	--	2,857
Jan-10	--	--	N/A	--	240	--	67	--	180	--	--	--	--	16	--	1,500	1,600	--	--	--	--	--	--	--	3,603
Feb-10	--	--	N/A	--	140	--	35	--	120	--	--	--	--	24	--	760	930	--	--	--	--	--	--	--	2,009
Mar-10	--	--	N/A	--	250	--	62	--	190	--	--	--	--	21	--	1,500	1,900	--	--	--	--	--	--	--	3,923
Apr-10	--	--	N/A	--	160	--	41	--	160	--	--	--	--	--	--	1,100	1,000	--	--	--	--	--	--	--	2,461
May-10	--	--	N/A	--	170	--	42	--	170	19	--	--	--	95	--	960	1,100	--	--	18	--	--	75	23	2,672
Jun-10	--	--	N/A	--	96	--	24	--	110	12	--	--	--	15	--	630	600	12	--	130	28	--	50	26	1,733
Jul-10	--	--	N/A	--	220	--	52	--	180	--	--	--	--	--	--	1,500	1,500	--	--	24	--	--	--	--	3,476
Aug-10	--	--	N/A	--	200	--	45	--	170	--	--	--	--	12	--	1,200	1,100	16	--	--	--	--	--	--	2,743
Sep-10	--	--	N/A	--	140	--	35	--	150	--	--	--	--	29	--	860	1,100	20	--	--	--	--	--	--	2,334
10/12/2010[a]	--	--	N/A	--	170	--	40	--	140	--	--	--	--	940	--	1,100	1,400	20	--	--	--	--	89	33	3,932
Nov-10	--	--	N/A	--	150	--	34	--	100	--	--	--	--	71	--	920	1,200	53	--	--	--	--	14	--	2,542
Dec-10	--	--	N/A	--	120	--	28	--	110	42	--	--	--	54	--	790	970	13	--	--	--	--	170	31	2,328
Jan-11	--	--	N/A	--	150	--	34	--	130	14	--	--	--	13	--	860	1,200	--	--	--	--	--	47	10	2,458
Feb-11	--	--	N/A	--	130	--	32	--	160	--	--	--	--	23	--	910	900	--	--	--	--	--	29	--	2,184
Mar-11	--	--	N/A	--	390	--	98	--	350	19	--	--	--	23	--	2,800	2,500	--	--	--	--	--	61	--	6,241
Apr-11	--	--	N/A	--	150	--	36	--	160	--	30	--	--	10	--	900	1,100	--	--	--	--	--	--	--	2,386
May-11	--	--	N/A	--	150	--	39	--	150	--	--	--	--	--	--	880	890	--	--	--	--	--	--	--	2,109
Jun-11	--	--	N/A	--	240	--	59	--	190	--	--	--	--	35	--	1,600	1,600	20	--	--	--	--	--	--	3,744
Jul-11	--	--	N/A	--	200	--	51	--	170	--	40	--	--	81	--	1,300	1,300	--	--	--	--	--	26	--	3,168
Aug-11	--	--	N/A	--	200	--	44	--	160	--	--	--	--	29	--	1,200	1,400	--	--	--	--	--	--	--	3,033
Sep-11	12	--	N/A	--	130	--	29	--	130	--	--	--	--	11	--	750	990	12	--	--	--	--	--	--	2,064
Oct-11	8.3	--	N/A	--	120	--	28	--	93	--	--	--	--	51	--	640	780	--	--	--	--	--	--	--	1,720
Nov-11	10	--	N/A	--	140	--	34	--	110	--	--	--	--	9.2	--	730	930	--	--	--	--	--	--	--	1,963
Dec-11	7.3	--	N/A	--	130	--	29	--	110	--	--	--	--	46	--	600	800	--	--	--	--	--	--	--	1,722
Jan-12	--	--	N/A	--	130	--	30	--	140	--	--	--	--	16	--	590	840	--	--	--	--	--	--	--	1,746
Feb-12	--	--	N/A	--	140	--	31	--	110	--	--	--	--	--	--	760	980	--	--	--	--	--	--	--	2,021
Mar-12	--	--	N/A	--	160	--	36	--	130	--	--	--	--	14	--	880	1,100	--	--	--	--	--	--	--	2,320
Apr-12	--	--	N/A	--	170	--	34	--	140	--	--	--	--	--	--	880	1,300	--	--	--	--	--	20	--	2,544
May-12	--	--	N/A	--	290	--	56	--	200	--	--	--	--	32	--	1,700	2,300	--	--	--	--	--	--	--	4,578
Jun-12	--	--	N/A	--	320	--	66	--	200	--	--	--	--	--	--	1,700	2,100	--	--	--	--	--	--	--	4,386
Jul-12	--	--	N/A	--	250	--	50	--	180	--	--	--	--	16	--	1,300	1,300	--	--	--	--	--	--	--	3,096
Aug-12	--	--	N/A	--	150	--	30	--	130	--	--	--	--	22	--	730	1,000	17	--	--	--	--	--	--	2,079
Sep-12	--	--	N/A	--	110	--	23	--	120	--	--	--	--	170	--	560	720	--	--	--	--	--	11	--	1,714
Oct-12	--	--	N/A	--	190	--	36	--	180	--	--	--	--	--	--	1,000	1,400	--	--	--	--	--	--	--	2,806
Nov-12	--	--	N/A	--	120	--	23	--	140	--	--	--	--	--	--	600	910	--	--	--	--	--	--	--	1,793
Dec-12	--	--	N/A	--	130	--	21	--	120	--	--	--	--	8	--	590	1,000	--	--	--	--	--	--	--	1,869

Building A - Influent Volatiles (µg/m^3)

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Jan-13	--	--	N/A	--	130	--	24	--	190	--	--	--	--	--	--	630	950	--	--	--	--	--	--	--	1,924
Feb-13	--	--	N/A	--	130	--	26	--	130	--	--	--	--	--	--	560	860	--	--	--	--	--	--	--	1,706
Mar-13	--	--	N/A	--	140	--	30	--	94	--	--	--	--	10	--	670	1,100	--	--	--	--	--	--	--	2,044
Apr-13	--	--	N/A	--	2,200	--	290	--	1,500	--	--	--	--	--	--	2,900	5,900	--	--	--	--	--	--	--	12,790
May-13	--	--	N/A	--	140	11	29	--	130	--	--	--	--	14	--	730	1,200	17	--	--	--	--	--	--	2,271
Jun-13	--	--	N/A	--	100	--	22	--	110	--	--	--	--	--	--	530	790	--	--	--	--	--	--	--	1,552
Jul-13	--	--	N/A	--	160	--	33	--	100	--	--	--	--	--	--	820	1,100	--	--	--	--	--	--	--	2,213
Aug-13	--	--	N/A	--	180	--	34	--	120	--	--	--	--	15	--	780	1,300	--	--	--	--	--	--	--	2,429
Sep-13	--	--	N/A	--	100	--	16	--	90	--	--	--	--	--	--	410	630	--	--	--	--	--	--	--	1,246
Oct-13	--	--	N/A	--	220	--	39	--	190	--	--	--	--	15	--	810	1,400	16	--	--	--	--	--	--	2,690
Nov-13	--	--	N/A	--	200	--	39	--	170	--	--	--	--	11	--	930	1,500	41	--	--	--	--	--	--	2,891
Dec-13	0.94	--	--	21.2	165	--	30.7	--	132	--	4.4	--	--	12.2	2.5	883	1,530	--	--	--	--	--	--	--	2,782
Jan-14	--	--	6.5	11.6	173	2.2	29.3	--	141	1.8	3.3	4.9	--	9,820	--	570	795	--	--	1.9	--	--	4.3	1.7	11,567
Feb-14	--	--	2.4	7.4	126	--	21.2	--	92.7	--	2.1	--	--	15.3	--	429	843	--	--	--	--	--	--	--	1,539
Mar-14	--	--	2.4	--	176	2.0	29.3	36.4	130	--	--	--	3.6	9.1	--	1,310	2,100	--	--	--	--	--	3.0	--	3,802
Apr-14	81.7	--	--	--	194	--	31.8	--	131	120	--	--	--	75.7	--	646	1,490	--	--	--	--	--	387	109	3,266
May-14	4.8	--	8.8	3.9	44.7	4.1	6.7	--	32.6	6.5	202	2.3 J	1.2	29.5	--	142	292	--	2.8	11.5	3.0	--	24.3	9.3	832
Jun-14	1,040	--	30.3	136	3,710	--	565	--	2,840	--	138	34.9 J	--	199	51.7	1,000 J	1,490	--	--	17.6 J	--	--	25.6 J	--	11,278
Jul-14	45.1	--	--	8.4 J	189	--	36.5	81.2	145	--	--	--	--	20.8 J	--	871	1,250	--	--	--	--	--	--	--	2,647
Aug-14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sep-14	51.1	1.1	1.0 J	54	416	4.7	104	--	323	--	0.67 J	--	2.3	8.8	8.1	1,290	3,250	--	--	2.3	0.83 J	1.5	1.5 J	1.1 J	5,522
Oct-14	46.6	--	--	--	89.0	--	16.1	--	69.8	--	17.3 J	--	--	--	--	480	819	NS	--	--	--	--	--	--	1,538
Nov-14	38.2	--	--	--	92.4	--	16.8	--	71	--	23.9 J	--	59.4	14.3 J	--	459	803	NS	--	--	--	--	--	--	1,578
Dec-14	34.3	--	--	11.8	77.6	--	18.8	--	68.6	--	19.4 J	--	--	41.5 J	--	428	741	NS	--	--	--	--	--	--	1,441
Jan-15	64.8	--	--	6.8	85.6	4.4	15.7	--	81	--	2 J	--	2.0	1.7	1.3	404	695	NS	--	--	--	--	0.90 J	--	1,365
Feb-15	1.5	--	3.7	--	8.5	--	--	--	6.5	1.9 J	46.9	4.1 J	--	13.5	--	17.0	22.4	NS	--	--	--	--	6.5	2.7	135
Mar-15	0.54	2.9	1.4	2.4	183	1.6	28.3	--	141	1.1 J	1.4 J	1.2 J	--	1.7	--	1,370	2,300	NS	--	--	--	--	4.1	1.3	4,042
Apr-15	0.73	0.78 J	2.1	7.1	147	2.2	22.7	--	112	--	3.5 J	2.7 J	0.87 J	2.7	--	617	1,090	NS	--	1.3 J	--	--	2.7 J	0.99 J	2,016
May-15	--	--	--	--	161	--	23 J	--	121	--	--	--	--	--	--	573	1,170	NS	--	--	--	--	--	--	2,048
Jun-15	--	--	--	--	143	--	19.4 J	33.4	105	133	--	--	--	--	--	536	1,110	NS	--	--	--	--	582	142	2,804
Jul-15	--	--	--	--	91	--	14	--	78	--	--	--	--	--	--	390	470	NS	--	--	--	--	N/A	N/A	1,043
Aug-15	12	--	1.3 J	2.4 J	82	2.8 J	16	--	63	--	--	--	--	12	1.4	400	590	NS	--	--	--	--	N/A	N/A	1,183
Sep-15	72	--	2.7 J	1.8 J	130	--	24	--	86	--	--	--	--	--	1.9 J	510	1,000	NS	--	--	--	--	N/A	N/A	1,828
Oct-15	78	--	1.5 J	--	130	--	24	--	91	--	--	--	--	--	2.0 J	560	900	NS	--	--	--	--	N/A	N/A	1,787
Nov-15	43	--	3.2 J	1.9 J	140	3.6	25	--	110	--	--	--	--	--	2.5 J	570	900	NS	--	--	--	--	N/A	N/A	1,799
Dec-15	34	--	3.2 J	1.4 J	120	3.2	23	--	83	--	--	--	--	--	1.8 J	490	830	NS	--	--	--	--	N/A	N/A	1,590
Jan-16	9.2	--	1.1 J	2.0	84	2.1	16	--	80	--	3 J	--	--	2.7	1.5 J	320	480	NS	--	--	--	--	N/A	N/A	1,002
Feb-16	2.6	--	1.0 J	1 J	100	2.4	20	0.60	82	--	--	--	--	--	1.6	550 EB	840	NS	--	--	--	--	N/A	N/A	1,601
Mar-16	36	0.49 J	7.9	1.5 J	130	2.4	25	0.70	98	--	2.8 J	--	0.64 J	5.3	2.0	680 E	1,300	NS	--	--	--	0.42	N/A	N/A	2,293
Apr-16	28	--	--	--	230	--	42	--	180	--	--	--	--	--	--	940	1,700	NS	--	--	--	--	N/A	N/A	3,120
Apr-16	--	--	--	--	90	--	18	--	68	--	--	--	--	--	--	490	950	NS	--	--	--	--	N/A	N/A	1,616
May-16	--	--	19.0	2 J	110	3.5 J	18	--	120	--	9	--	--	6.5	--	600 B	910	NS	--	--	--	--	N/A	N/A	1,798
Jun-16	31	--	63.0	--	150	--	26	--	140	--	--	--	--	--	3.6 J	670	1,100	NS	--	--	--	--	N/A	N/A	2,184
Jul-16	65	--	--	--	100	--	17	--	75	--	36	--	--	15	--	510	940	NS	--	--	--	--	N/A	N/A	1,758
Aug-16	20	--	--	--	92	--	17	--	68	--	--	--	--	--	--	460	860	NS	--	8.2 J	--	--	N/A	N/A	1,525
Sep-16	38	--	1.5 J	1.2 J	88	2.3 J	14	--	66	--	15	--	--	--	1.8 J	400	760	NS	--	--	--	--	N/A	N/A	1,388
Oct-16	--	--	1.7	--	81	--	14	--	68	--	--	--	--	--	--	410	630	NS	--	--	--	--	N/A	N/A	1,205
Nov-16	--	--	--	--	350	--	68	--	260	--	49 J	--	--	--	--	2,000	2,800	NS	--	--	--	--	N/A	N/A	5,527
Dec-16	11	--	2 J	--	95	3.1 J	17	--	120	--	--	--	--	--	2.5 J	600	710	NS	--	--	--	--	N/A	N/A	1,561
Jan-17	17	--	--	8.4 J	440	--	81	--	370	--	130	--	--	--	9.3 J	2,000	3,600	NS	--	--	--	--	N/A	N/A	6,656
Feb-17	33	--	--	6	110	3.7 J	19	--	100	--	--	--	--	--	2.1 J	660	1,100	NS	--	--	--	--	5.9 J*	N/A	2,040
Mar-17	21	--	--	2 J	100	3.3 J	21	--	110	--	--	--	8.5 J	--	2.2 J	590	1,000	NS	--	--	--	--	6.9 J*	N/A	1,865
Apr-17	15	--	--	1.3 J	65	--	10	--	71	--	--	--	--	--	--	370	680	NS	--	--	--	--	N/A	N/A	1,212
May-17	31	--	1.6 J	--	80	--	16	--	74	--	--	--	--	--	--	430	760	NS	--	--	--	--	N/A	N/A	1,393
Jun-17	10	--	--	3.4 J	69	--	13	--	66	--	13 JB	--	--	--	--	480	710	NS	--	--	--	--	N/A	N/A	1,364
Jul-17	25	--	7.2 J	--	94	--	20	--	120	--	--	--	--	--	4.6 J	450	1,400	NS	--	--	--	--	N/A	N/A	2,121
Aug-17	5 J	--	4.9 J	--	90	--	18	--	95	--	28 JB	--	--	--	--	480	940	NS	--	--	--	--	N/A	N/A	1,661
Sep-17	35	--	--	2.0	79	--	13	--	72	--	16 J	--	--	--	--	420	1,000	NS	--	--	--	--	N/A	N/A	1,637
Oct-17	22	ND	2.5 J	--	52	--	10	--	66	--	14 J	--	--	--	--	290	750	NS	--	--	--	--	N/A	N/A	1,207
Nov-17	4 J	ND	ND	--	83	--	17	--	88	--	--	--	--	--	--	550	1,100	NS	--	--	--	--	N/A	N/A	1,842
Dec-17	16	ND	1.5 J	--	75	3.4 J	15	--	92	--	--	--	--	--	--	500 B	990	NS	--	--	--	--	N/A	N/A	1,693

Table 4-7A
Summary of VOC Detections in SSDS Influent, Building A
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland
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Building A - Influent Volatiles (µg/m^3)

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Jan-18	**16**	**0.50 J**	**1.7**	**1.2 J**	**58**	2.00	**9**	--	**79**	**0.59 J**	--	--	**0.55 J**	**2.5 J**	**1.1 J**	**390**	**800**	NS	--	--	--	--	N/A	N/A	1,363
Feb-18	**16**	ND	**32**	--	**70**	**3.6 J**	**13**	--	**120**	--	**14 J**	--	--	--	--	**420**	**1,000**	NS	--	--	--	--	N/A	N/A	1,689
Mar-18	**22**	ND	**2.1 J**	--	**80**	3.60 **J**	**14**	--	**110**	--	--	--	--	--	--	**470**	**1,200**	NS	--	--	--	--	N/A	N/A	1,902
Apr-18	**10**	--	--	--	**67**	--	**13**	--	**89**	--	**12 J**	--	--	--	--	**430**	**860**	NS	--	--	--	--	N/A	N/A	1,481
May-18	**12**	--	**15**	**1.8 J**	**80**	**3.1 J**	**15**	--	**82**	--	**7.6 JB**	--	**2.9 J**	**17**	**1.5 J**	**460**	**870**	NS	--	--	--	--	N/A	N/A	1,568
Jun-18	**12**	--	**1.8 J**	**9.4**	**91**	**3.5 J**	**16**	--	**90**	--	--	--	--	--	**1.8 J**	**540**	**1,200**	NS	--	--	--	--	N/A	N/A	1,966
Jul-18	**66**	--	**4.0 J**	**19 J**	**140**	--	**25**	--	**140**	--	**40**	--	--	--	--	**890 B**	**1,800**	NS	--	--	--	--	N/A	N/A	3,124
Aug-18	**35**	--	**3.6 J**	**8.2 J**	**100**	--	**22**	--	**110**	--	--	--	--	--	--	**750**	**1,100**	NS	--	--	--	--	N/A	N/A	2,129
Sep-18	**14**	--	**3.5 J**	**18**	**79**	--	**15**	--	**72**	--	**13 JB**	--	--	--	--	**590 B**	**950**	NS	--	**5.8 J**	--	--	N/A	N/A	1,760
Oct-18	**5.9 J**	--	--	**3.9 J**	**58**	--	**12**	--	**56**	--	**12 J**	--	--	--	--	**430 B**	**800**	NS	--	--	--	--	N/A	N/A	1,378
Nov-18	**11**	--	--	**3.7 J**	**56**	**4.1**	**11**	--	**60**	--	--	--	--	--	--	**450**	**810**	NS	--	--	--	--	N/A	N/A	1,406
Dec-18	**6.3**	--	**2.7 J**	**3.7 J**	**77**	--	**17**	--	**110**	--	**18 JB**	--	--	--	--	**690**	**1,100**	NS	--	--	--	--	N/A	N/A	2,025
Jan-19	**11**	--	--	**2.1 J**	**46**	--	**10**	--	**55**	--	**12 J**	--	--	--	--	**330**	**700**	NS	--	--	--	--	N/A	N/A	1,166
Feb-19	**3.0 J**	--	--	**2.3 J**	**57**	--	**13**	--	**73**	--	--	--	--	--	--	**430**	**850**	NS	--	--	--	--	N/A	N/A	1,428
Mar-19	**4.4 J**	--	--	--	**48**	--	**11**	--	**60**	--	--	--	--	--	--	**330**	**720**	NS	--	--	--	--	N/A	N/A	1,173
Apr-19	**6.6**	--	**1.1 J**	**3.6**	**61**	**1.4 J**	**2.9**	--	**75**	--	**2.8 J**	--	**0.74 J**	**5.6**	**1.3 J**	**430**	**940**	NS	--	--	--	**0.47**	**2.8 J**	N/A	1,535
May-19	**9.1**	--	**1.1 J**	**3.1**	**61**	**2.3**	**12**	**0.54 J**	**70**	--	**5.7 J**	--	**0.56 J**	**6.4**	**1.2 J**	**430**	**870**	NS	--	--	--	--	**2.2 J**	N/A	1,475
Jun-19	**19**	--	**7.1**	**13**	**63**	**2.2 J**	**12**	--	**64**	--	--	--	--	--	**1.3 J**	**440**	**880**	NS	--	--	--	--	N/A	N/A	1,502
Jul-19	**58**	--	--	**1.6 J**	**57**	**2.9 J**	**11**	--	**65**	--	**14 J**	--	--	--	**1.4 J**	**440**	**760**	NS	--	--	--	--	N/A	N/A	1,411
Aug-19	**2.9 J**	--	--	**1.5 J**	**66**	**2.8 J**	**13**	--	**71**	--	**21 JB**	--	--	--	**1.6 J**	**460**	**830**	NS	--	--	--	--	N/A	N/A	1,470
Sep-19	**1.2 J**	--	--	**0.87 J**	**42**	**2.4 J**	**8.5**	--	**42**	--	**16 JB**	--	--	--	**1.2 J**	**220**	**510**	NS	--	--	--	--	N/A	N/A	844
Previous 6-Month Average Oct 2018-Mar 2019	**6.9 J**	**--**	**2.7 J**	**3.1 J**	**57**	**4.1 J**	**12**	**--**	**69**	**--**	**14 JB**	**--**	**--**	**--**	**--**	**443 B**	**830**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**1,429**
Current 6-Month Average Apr-Sep 2019	**16 J**	**--**	**3.1 J**	**3.9 J**	**58**	**2.3**	**9.9**	**--**	**65**	**--**	**11.9 JB**	**--**	**0.65 J**	**6.0 J**	**1.3 J**	**403**	**798**	**--**	**--**	**--**	**--**	**0.47**	**2.5 J**	**--**	**1,373**

* value reported is for total xylenes
-- - non-detect (below detection limit)
B - compound was found in the blank and sample
NA - not applicable/not analyzed
NS - not sampled
SSD - sub-slab depressurization
SV - soil vapor
D - duplicate
J - estimated value

* value reported is for total xylenes
-- - non-detect (below detection limit)
B - compound was found in the blank and sample
NA - not applicable/not analyzed
NS - not sampled
SSD - sub-slab depressurization
SV - soil vapor
D - duplicate
J - estimated value

Table 4-7B
Summary of VOC Detections in SSDS Influent, Building C
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Building C - Influent Volatiles (µg/m^3)																									
Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Mar-08	--	--	N/A	--	--	**25,000**	--	--	--	--	**320**	--	--	--	--	--	--	**550**	--	N/A	**990**	**740**	**2,100**	**1,100**	**370**	**31,170**
Apr-08	--	--	N/A	--	--	**2,700**	--	--	--	--	--	--	--	--	--	--	--	**84**	--	N/A	**63**	**56**	**320**	**65**	--	**3,288**
Apr-08	--	--	N/A	--	--	**6,600**	--	--	--	**32**	**44**	--	--	--	--	--	--	**440**	--	N/A	**180**	**170**	**690**	**180**	**68**	**8,404**
Apr-08	--	--	N/A	--	--	**4,100**	--	--	--	--	--	--	--	--	--	--	--	**600**	--	N/A	**73**	**61**	**370**	**48**	--	**5,252**
Apr-08	--	--	N/A	--	--	**2,900**	--	--	--	--	--	--	--	--	--	--	--	**670**	--	N/A	**69**	**55**	**190**	**34**	--	**3,918**
Apr-08	--	--	N/A	--	--	**2,600**	--	--	--	--	--	--	--	**28**	--	--	--	**750**	--	N/A	**85**	**70**	**130**	**32**	**17**	**3,712**
May-08	--	--	N/A	--	--	**1,600**	--	--	--	--	--	--	--	**17**	--	--	--	**650**	--	N/A	**65**	**51**	**41**	**15**	--	**2,439**
Jun-08	**7.4**	--	N/A	--	--	**300**	--	--	--	--	--	--	--	--	**110**	--	--	--	--	N/A	**23**	**19**	**8**	**9**	--	**476**
Jul-08	--	--	N/A	--	--	**1,300**	--	--	--	--	--	--	--	**14**	--	--	--	**440**	--	N/A	**45**	**36**	**35**	--	--	**1,870**
Aug-08	--	--	N/A	**16**	--	**410**	--	--	--	--	--	--	--	--	--	--	--	**58**	--	N/A	--	--	**13**	--	--	**497**
Sep-08	--	--	N/A	--	--	**730**	--	--	--	--	--	**18**	--	--	--	--	**13**	**130**	--	N/A	--	--	**20**	--	--	**911**
Nov-08	--	--	N/A	--	--	**390**	--	--	--	--	--	--	--	--	--	--	--	**110**	--	N/A	--	--	**17**	--	--	**517**
Dec-08	--	--	N/A	--	--	**420**	--	--	--	--	--	--	--	--	--	--	--	**150**	--	N/A	--	--	**22**	--	--	**592**
Jan-09	--	--	N/A	--	--	**810**	--	--	--	--	--	--	--	**170**	--	--	--	**580**	--	N/A	**37**	**29**	**38**	**17**	**14**	**1,695**
Feb-09	--	--	N/A	--	--	**630**	--	--	--	--	--	--	--	**140**	--	--	--	**270**	--	N/A	**39**	**34**	**25**	**16**	**12**	**1,166**
Mar-09	--	--	N/A	--	--	**460**	--	--	--	--	--	--	--	**160**	--	--	--	**350**	--	N/A	**62**	**51**	**16**	**14**	**13**	**1,126**
Apr-09	--	--	N/A	--	--	**200**	--	--	--	--	--	--	--	**46**	--	--	--	**86**	--	N/A	**19**	**16**	**6.1**	--	--	**373.1**
May-09	--	--	N/A	--	--	**210**	--	--	--	--	--	--	--	**24**	--	--	--	**79**	--	N/A	**14**	**14**	**5.7**	--	--	**346.7**
Jun-09	--	--	N/A	--	--	**190**	--	--	--	--	--	--	--	--	--	--	--	**58**	--	N/A	--	--	--	--	--	**248**
Jul-09	--	--	N/A	--	--	**150**	--	--	--	--	--	--	--	--	--	--	--	**55**	--	N/A	--	--	--	--	--	**205**
Aug-09	--	--	N/A	--	--	**720**	--	--	--	--	--	**17**	--	--	--	--	--	**160**	--	N/A	--	--	**13**	--	--	**910**
Sep-09	--	--	N/A	--	--	**39**	--	--	--	--	--	**110**	--	--	--	--	--	**16**	--	N/A	--	--	--	--	--	**165**
Oct-09	--	--	N/A	--	--	**200**	--	--	--	--	--	--	--	--	--	--	--	**64**	--	N/A	--	--	--	--	--	**264**
Nov-09	--	--	N/A	--	--	**190**	--	--	--	--	--	--	--	--	--	--	--	**75**	--	N/A	--	--	--	--	--	**265**
Dec-09	--	--	N/A	--	--	**96**	--	--	--	--	--	--	--	--	**26**	--	--	**45**	--	N/A	--	--	--	**8.7**	--	**176**
Jan-10	--	--	N/A	--	--	**140**	--	--	--	--	--	--	--	--	--	--	--	**57**	--	N/A	--	--	--	--	--	**197**
Feb-10	--	--	N/A	--	--	**100**	--	--	--	--	--	--	--	--	--	--	--	**37**	--	N/A	--	--	--	--	--	**137**
Mar-10	--	--	N/A	--	--	**87**	--	--	--	--	--	--	--	--	--	--	--	**33**	--	N/A	--	--	--	--	--	**120**
Apr-10	--	--	N/A	--	--	**110**	--	--	--	--	--	--	--	--	--	--	--	**39**	--	N/A	--	--	--	--	--	**149**
May-10	**58**	--	N/A	--	--	**65**	--	--	--	--	**38**	**--**	--	--	**220**	--	--	**22**	--	N/A	**25**	--	--	**140**	**39**	**607**
Jun-10	--	--	N/A	--	--	**72**	--	--	--	--	--	--	--	--	--	--	--	**25**	--	N/A	**83**	**17**	--	**30**	**17**	**244**
Jul-10	--	--	N/A	--	--	**68**	--	--	--	--	--	--	--	--	--	--	--	**34**	--	N/A	--	--	--	--	--	**102**
Aug-10	--	--	N/A	--	--	**100**	--	--	--	--	--	--	--	--	--	--	--	**31**	--	N/A	--	--	--	--	--	**131**
Sep-10	--	--	N/A	--	--	**70**	--	--	--	--	--	--	--	--	--	--	--	**33**	--	N/A	--	--	--	--	--	**103**
Oct-10	**10**	--	N/A	--	--	**160**	--	--	--	--	**11**	--	--	--	**130**	--	**110**	**70**	--	N/A	--	--	--	**23**	--	**513.5**
Nov-10	--	--	N/A	--	--	**65**	--	--	--	--	--	--	--	--	--	--	--	**35**	--	N/A	--	--	--	--	--	**100**
Dec-10	--	--	N/A	--	--	**120**	--	--	--	--	--	--	--	**19**	--	--	--	**89**	--	N/A	--	--	--	--	--	**228**
Jan-11	--	--	N/A	--	--	**160**	--	--	--	--	--	--	--	**94**	**7.7**	--	--	**250**	--	N/A	--	--	**9**	--	--	**520**
Feb-11	--	--	N/A	--	--	**180**	--	--	--	--	--	--	--	**120**	--	--	--	**270**	--	N/A	--	--	--	--	--	**570**
Mar-11	--	--	N/A	--	--	**170**	--	--	--	--	--	--	--	**110**	**34**	--	--	**180**	--	N/A	--	--	--	--	--	**494**
Apr-11	--	--	N/A	--	--	**130**	--	--	--	--	--	--	--	**37**	**10**	--	--	**90**	--	N/A	--	--	--	--	--	**267**
May-11	**8**	--	N/A	--	--	**100**	--	--	--	--	**16**	--	--	**19**	--	--	--	**82**	--	N/A	--	--	--	**9**	--	**234**
Jun-11	**26**	--	N/A	--	--	**97**	--	--	--	--	--	--	--	--	**14**	--	--	**63**	--	N/A	--	--	--	--	--	**200**
Jul-11	**20**	--	N/A	--	--	**74**	--	--	--	--	--	**37**	--	--	**62**	--	--	**26**	--	N/A	--	--	--	**21**	--	**240**
Aug-11	**14**	--	N/A	--	--	**76**	--	--	--	--	--	--	--	--	--	--	--	**34**	--	N/A	--	--	--	--	--	**124**
Sep-11	**10**	--	N/A	--	--	**22**	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	--	--	--	--	--	**32**
Oct-11	--	--	N/A	--	--	**38**	--	--	--	--	--	**27**	--	--	**20**	--	--	--	--	N/A	--	--	--	**11**	--	**96**
Nov-11	**12**	--	N/A	--	--	**45**	--	--	--	--	--	--	--	--	--	--	--	**16**	--	N/A	--	--	--	--	--	**73**
Dec-11	--	--	N/A	--	--	**62**	--	--	--	--	--	--	--	--	--	--	--	**21**	--	N/A	--	--	--	--	--	**83**

Table 4-7B
Summary of VOC Detections in SSDS Influent, Building C
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Building C - Influent Volatiles (µg/m^3)																									
Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Jan-12	--	--	N/A	--	--	55	--	--	--	--	--	--	--	--	--	--	--	21	--	N/A	--	--	--	--	--	76
Feb-12	--	--	N/A	--	--	76	--	--	--	--	--	--	--	--	--	--	--	43	--	N/A	--	--	--	--	--	119
Mar-12	--	--	N/A	--	--	93	--	--	--	--	--	--	--	16	--	--	--	58	--	N/A	--	--	--	--	--	167
Apr-12	--	--	N/A	--	--	64	--	--	--	--	--	--	--	16	--	--	--	56	--	N/A	--	--	--	--	--	136
May-12	--	--	N/A	--	--	72	--	--	--	--	--	--	--	20	9.8	--	--	65	--	N/A	--	--	--	--	--	167
Jun-12	--	--	N/A	--	--	71	--	--	--	--	--	--	--	17	--	--	--	50	--	N/A	--	--	--	--	--	138
Aug-12	--	--	N/A	--	--	39	--	--	--	--	--	--	--	--	--	--	--	19	--	N/A	--	--	--	--	--	58
Sep-12	--	--	N/A	--	--	41	--	--	--	--	--	--	--	--	23	--	--	22	--	N/A	--	--	--	--	--	86
Oct-12	--	--	N/A	--	--	95	--	--	--	--	--	--	--	--	--	--	--	45	--	N/A	--	--	--	--	--	140
Nov-12	--	--	N/A	--	--	18	--	--	--	--	--	--	--	--	--	--	--	270	--	N/A	--	--	--	31	16	335
Dec-12	--	--	N/A	--	--	70	--	--	--	--	--	--	--	22	--	--	--	91	--	N/A	--	--	5.3	--	--	188
Jan-13	--	--	N/A	--	--	66	--	--	--	--	--	--	--	42	--	--	--	110	--	N/A	--	--	--	--	--	218
Feb-13	--	--	N/A	--	--	49	--	--	--	--	--	--	--	29	--	--	--	91	--	N/A	--	--	--	--	--	169
Mar-13	--	--	N/A	--	--	60	--	--	--	--	--	--	--	45	--	--	--	100	--	N/A	--	--	--	--	--	205
Apr-13	--	--	N/A	--	--	44	--	--	--	--	--	--	--	21	--	--	--	52	--	N/A	--	--	--	--	--	117
May-13	--	--	N/A	--	--	120	--	--	--	--	--	--	--	--	--	--	--	2,900	--	N/A	--	--	--	80	--	3,100
Jun-13	--	--	N/A	--	--	10	--	--	--	--	--	--	--	--	--	--	--	460	50	N/A	--	--	--	31	15	566
Jul-13	12	--	N/A	--	12	--	--	--	--	--	9.4	--	--	--	--	--	--	290	16	N/A	11	--	--	43	23	416
Aug-13	--	--	N/A	--	--	--	--	--	--	--	--	20	--	--	--	--	--	210	18	N/A	--	--	--	20	11	279
Sep-13	--	--	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	150	--	N/A	--	--	--	--	--	150
Oct-13	14	--	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	200	16	N/A	--	--	--	20	10	260
Nov-13	13	--	N/A	--	--	18	--	--	--	--	9.8	--	--	--	--	--	--	280	--	N/A	--	--	--	45	24	390
Dec-13	6.3	--	--	--	N/A	13	6.6	--	--	--	7.3	4.1	33.9	5.4	4.0	--	--	228	N/A	--	4.8	2.4	--	30.4	16.1	362
Jan-14	13.7	--	4.7	--	N/A	5.7	--	--	--	--	10.3	3.4	22.6	5.6	49.6	--	--	298	N/A	5.5	17.8	--	--	49.1	19.3	505
Feb-14	1.8	--	4.5	--	N/A	2.3	2.2	--	--	--	2.1	--	5.3	2.2	2.7	--	--	157	N/A	--	2.8	--	--	8.9	4.7	197
Mar-14	9.1	--	3.0	3.2	N/A	4.9	2.2	--	--	--	5.9	--	11.5	3.3	6.0	--	--	261	N/A	1.6	6.0	3.0	--	25.3	12.3	358
Apr-14	10.0	--	7.1	--	N/A	7.0	--	--	--	--	67	--	12.1	5.1	50.7	--	6.6	266	N/A	--	6.9	--	--	218	67.4	724
May-14	11.8	1.2	5.8	1.5 J	N/A	7.6	2.9	--	--	--	4.7	1.2 J	12.7	3.6	30.6	--	--	236	N/A	2.1	6.8	3.5	--	20.9	11.3	364
Jun-14	12.8	--	--	2.7	N/A	2.7	2.1	--	--	--	4.1	24.5	13.1	23.1	11.6	--	--	154	N/A	6.1	18	6.1	--	27.0	12.1	320
Jul-14	14.4	0.77 J	11.2	5.6	N/A	4.1	1.4 J	--	--	0.88 J	6.3	147	16.9	7.1	5.7	0.81 J	--	183	N/A	2.8	7.3	4.7	--	19.4	9.8	449
Aug-14	10.8	1.7	N/A	66.2	1.5	4.7	--	7.6	--	4.8	7.5	--	20.6	7.0	5.0	--	33.6	289	N/A	N/A	7.8	3.9	--	30.2	16.0	518
Sep-14	8.0	1.1	5.6	--	N/A	5.3	2.9	7.0	--	--	2.9	0.76 J	31.2	2.1	3.4	--	37.9	124	N/A	2.1	5.4	2.1	--	17.2	10.8	270
Oct-14	6.6	1.2	10.1	0.98	N/A	6.6	2.0	6.1	2.7	3.0	3.2	2.1 J	13.3	2.7	5.1	0.71 J	38.6	137	N/A	2.6	4.7	2.0	--	15.8	9.5	277
Nov-14	5.2	--	7.5	--	N/A	5.7	2.3	3.5	--	--	3.2 J	6.0	10.5	5.4	4.3	--	22.6	111	N/A	3.5 J	5.4	3.2 J	--	11.0 J	6.4	217
Dec-14	5.3	--	8.1	1.3	N/A	7.0	2.8	1.9	--	--	3.2 J	3.3 J	8.7	7.8	5.0	1.6 J	9.1	106	N/A	3.6 J	4.7	3.7 J	--	8.6	5.8	198
Jan-15	6.2	--	8.3	1.7	N/A	5.9	3.1	--	--	--	1.2 J	2.5 J	3.1 J	2.8	3.1	--	3.0	87.5	N/A	1.2	5.5	2.0	--	4.8	2.9	145
Feb-15	5.6	--	3.8	0.94	N/A	4.6	--	--	--	--	1.3 J	0.61 J	2.3 J	1.7	3.7	--		75.3	N/A	--	3.8	1.7	--	5.3	3.2	114
Mar-15	5.3	2.8	4.0	0.82	N/A	3.7	1.5 J	--	--	--	1.3 J	0.62 J	3.0 J	2.1	2.5	--	0.94 J	80.5	N/A	0.97 J	4.0	1.7	--	4.4	2.9	123
Apr-15	6.5	1.1	4.6	1.2	N/A	3.6	1.8	2.0	--	1.1 J	2.0	--	6.1	2.3	2.3	--	14.6	107	N/A	1.5 J	5.8	2.4	--	8.0	4.3	178
May-15	6.1	--	10.4	--	N/A	2.6	2.3 J	1.7 J	--	--	5.3 J	4.0 J	7.8 J	2.1 J	5.2	--	14	128	N/A	5.1 J	10	5.3 J	--	13.3 J	6.5 J	230
Jun-15	7.4	1.2	8.3	1.0	N/A	4.0	--	4.9	--	--	2.5	6.3	14.4	3.2	4.3	--	32.1	132	N/A	3.7	11.1	4.9	--	11.4	7.1	260
Jul-15	3.2	--	6.6	4.9	N/A	--	--	3.2	--	--	--	--	--	--	2.5	--	22	20	N/A	--	--	--	--	N/A	N/A	62
Aug-15	5.1	2.1 J	15	0.74 J	N/A	2.7	2.4	5.9	--	2.0	1.3 J	--	--	1.1 J	15	--	45	41	N/A	--	2.0	0.8 J	--	N/A	N/A	142
Sep-15	8.0	1.3 J	12	1.10 J	N/A	2.4	2.3	7.7	--	2.8	2.0	8.7	--	1.2 J	6.2	--	58	73	N/A	1.1 J	3.5	1.3 J	--	N/A	N/A	193
Oct-15	5.5	--	3.3	--	N/A	0.7	2.1	2.0	--	1.0	0.6 J	3.4 J	--	--	8.7	--	18	14	N/A	--	1.2	--	--	N/A	N/A	60
Nov-15	5.1	0.7 J	8.6	0.93 J	N/A	2.3	3.2	3.7	--	1.4 J	1.2 J	3.4 J	--	3.5	3.0	--	32	50	N/A	--	2.1	0.9 J	--	N/A	N/A	122
Dec-15	4.5	0.6 J	14	0.51 J	N/A	2.1	2.4	1.5 J	--	0.5 J	0.6 J	2.4 J	--	0.9 J	3.9	--	14	43	N/A	--	1.9	--	--	N/A	N/A	93

Table 4-7B
Summary of VOC Detections in SSDS Influent, Building C
Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland

Building C - Influent Volatiles (µg/m^3)																									
Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1,-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	m-xylene & p-xylene	o-xylene	Total VOCs
Jan-16	**4.4**	--	**4.8**	**0.43 J**	N/A	**0.8**	**2.0**	**0.3 J**	--	--	--	**2.4 J**	--	**1.0 J**	**5.0**	--	**2**	**30**	N/A	--	**1.3**	--	--	N/A	N/A	**55**
Mar-16	**6.4**	**0.6 J**	**12**	**0.88 J**	N/A	**1.9**	**2.3**	**0.7 J**	--	**0.3 J**	**0.8 J**	**3.3 J**	--	**0.9 J**	**10**	--	**11**	**41**	N/A	--	**2.6**	**0.9 J**	--	N/A	N/A	**96**
May-16	**2.9**	**0.5 J**	**6.6**	**1.0 J**	N/A	**1.6**	**2.9**	**0.4 J**	--	**0.5 J**	**1.1 J**	**2.8 J**	--	**0.7 J**	**73**	--	**5.4 B**	**31**	N/A	--	**1.6 J**	--	--	N/A	N/A	**132**
Jul-16	**8.0**	**1.2 J**	**13**	**2.4**	N/A	**2.5**	**2.7**	**11**	--	**5.5**	**1.3 J**	**4.2**	--	**1.1 J**	**6.2**	--	**76.0 B**	**46**	N/A	**1.20 J**	**4.4**	**1.5 J**	--	N/A	N/A	**188**
Sep-16	**8.6**	**0.52 J**	**4**	**2.5**	N/A	**2.5**	**2.4**	**4.2**	--	**1.9**	**1.4 J**	**5.3**	--	**1.0 J**	**3.2**	--	**29**	**45**	N/A	**0.93 J**	**3.5**	**1.5 J**	--	N/A	N/A	**117**
Nov-16	**9.8**	**0.80 J**	**22**	**2.7**	N/A	**2.8**	**3.0**	**1.7**	--	**0.8 J**	**1.9**	**13**	--	**1.6 J**	**14**	--	**13**	**47**	N/A	**1.20 J**	**4.3**	**1.4 J**	--	**9.1 ***	N/A	**150**
Jan-17	**2.0**	--	**6.3**	**0.80 J**	N/A	**1.9**	**1.9 J**	--	--	--	**0.9 J**	**6.2**	--	**0.9 J**	**20**	--	**1.0 J**	**33**	N/A	--	**2.0**	**0.9 J**	--	**4.5 ***	N/A	**82**
Mar-17	**3.1**	**0.58 J**	**4.8**	**0.80 J**	N/A	**3.5**	**2.7**	**0.31 J**	--	--	**2.2**	**3.3 J**	--	**3.1**	**6.2**	--	**1.0 J**	**40**	N/A	--	**1.8 J**	--	--	**12 ***	N/A	**85**
May-17	**4.9**	**0.59 J**	**1.6**	**1.1 J**	N/A	**5.3**	**2.1**	**0.36 J**	--	--	**0.9 J**	**2.6 J**	--	**2.3 J**	**4.1**	**0.41 J**	**1.4 J**	**38**	N/A	--	**2.7**	**1.0 J**	--	**5.3 ***	N/A	**75**
Jul-17	**6.1**	**0.76 J**	**15.0**	**2.9**	N/A	**5.4**	**1.9 J**	**0.42 J**	--	--	**1.9**	**5.4**	**2.0**	**1.4 J**	**7.1**	--	**1.1 JB**	**31**	N/A	--	**2.5**	**0.9 J**	--	**7.0 ***	N/A	**93**
Sep-17	**6.5**	**0.90 J**	**2.7**	**1.5 J**	N/A	**2.3**	**1.8 J**	--	--	--	**0.91 J**	**5.9**	--	**0.67 J**	**5.6**	--	**1.1 J**	**38**	N/A	--	**3.5**	**1.5 J**	--	**3.7 ***	N/A	**77**
Nov-17	**4.8**	**0.55 J**	**4.1**	**1.0 J**	N/A	**3.2**	**2.2**	--	--	--	--	**5.0**	--	**1.4 J**	**2.8**	--	**0.66 J**	**43**	N/A	--	**2.2**	**0.9 J**	--	**2.5 J***	N/A	**74**
Jan-18	**6.4**	**0.60 J**	**11**	--	N/A	**2.7**	**2.2**	--	--	--	**0.74 J**	--	--	**2.5 J**	**4.2**	--	**1.7 J**	**33**	N/A	--	**2.6**	**1.0 J**	**0.54**	**4.8 J***	N/A	**74**
Mar-18	**1.1**	**0.57 J**	**4.5**	**0.63 J**	N/A	**4.9**	**2.0**	--	--	--	**0.70 J**	**2.5 J**	--	**5.0 J**	**2.8**	--	**0.44 J**	**47**	N/A	--	**2.6**	**1.0 J**	**0.54**	**3.3 J***	N/A	**80**
May-18	**3.5**	**0.56 J**	**3.4**	**2.4**	N/A	**4.7**	**2.5**	--	--	--	**1.0 J**	**2.8 J**	--	**3.6**	**17.0**	--	**0.49 J**	**32**	N/A	--	**4.0**	**1.6 J**	--	**5.9 J***	N/A	**85**
Jul-18	**4.9**	**0.68 J**	**6.4**	**5.5**	N/A	**2.9**	**1.7 J**	--	--	--	**0.79 J**	**65**	--	**1.0 J**	**8.3**	--	**1.50 JB**	**34**	N/A	--	**3.8**	**1.4 J**	--	**4.1 ***	N/A	**142**
Sep-18	**3.2**	**0.55 J**	**8**	**1.1 J**	N/A	**1.0**	**2.9**	--	--	--	**23.00**	3 **JB**	--	**0.7 J**	**6.2**	--	**0.5 JB**	**35**	N/A	**1.2 J**	**9.3**	**2.4 J**	--	**5.2 ***	N/A	**103**
Nov-19	**2.0**	--	**3.8**	--	N/A	**2.5**	**2.5**	--	--	--	**0.86 J**	**2.8 J**	--	**0.6 J**	**2.7**	--	--	**25**	N/A	--	**3.9**	**1.3 J**	--	**1.9 ***	N/A	**50**
Jan-19	**1.6**	--	**3.0**	--	N/A	**2.3**	**1.5 J**	--	--	--	**0.88 J**	**3.2 J**	--	**0.9 J**	**5.0**	--	--	**20**	N/A	--	**2.7**	**0.9 J**	--	**4.7 ***	N/A	**47**
Mar-19	**4.9**	**0.48 J**	**2.3**	--	N/A	**2.8**	**1.5 J**	--	--	--	**--**	**2.7 J**	--	**1.1 J**	**2.7**	--	**0.68 J**	**26**	N/A	--	**1.9 J**	**0.8 J**	--	**1.2 ***	N/A	**49**
May-19	**8.7**	--	**3.4**	**0.43 J**	N/A	**2.9**	**2.6**	--	--	--	**0.75 J**	**3.8 J**	--	**0.82 J**	**9.4**	--	--	**24**	N/A	**0.94 J**	**4.8**	**2.1**	--	**3.3 J***	N/A	**68**
Jul-19	**10**	**0.61 J**	**5.3**	**1.00 J**	N/A	**3.2**	**2.7**	--	--	--	**0.66 J**	**9.9**	--	**1.0 J**	**6.1**	**0.36 J**	--	**36**	N/A	--	**4.4**	**1.9 J**	--	**3.0 J***	N/A	**86**
Sep-19	**7.2**	**0.44 J**	**4.0**	**0.95 J**	N/A	**3.2**	**1.4 J**	--	--	--	**0.49 J**	**6.3 JB**	--	**0.58 J**	**2.8**	**0.38 J**	--	**28**	N/A	--	**3.7**	**1.6 J**	--	**2.6 J***	N/A	**64**
Previous 6-Month Average Oct 2018-Mar 2019	**2.8**	**0.5 J**	**3.0**	**--**	**NA**	**2.5**	**1.8 J**	**-- J**	**--**	**--**	**0.9 J**	**2.9 J**	**--**	**0.9 J**	**3.5**	**--**	**0.7 JB**	**23.7**	**NA**	**--**	**2.8**	**1.0 J**	**--**	**2.6 J***	**NA**	**49**
Current 6-Month Average Apr-Sep 2019	**8.6**	**0.5 J**	**4.2**	**0.8 J**	**NA**	**3.1**	**2.2 J**	**--**	**--**	**--**	**0.6 J**	**6.7 J**	**--**	**0.8 J**	**6.1**	**--**	**-- J**	**29.3**	**NA**	**--**	**4.3**	**1.9 J**	**--**	**3.0 J***	**NA**	**73**

* value reported is for total xylenes
-- - non-detect (below detection limit); not in total VOC calculation
B - compound was found in the blank and sample
D - duplicate

J - estimated value
NA - not applicable/not analyzed
SSD - sub-slab depressurization
SV - soil vapor

* value reported is for total xylenes
-- - non-detect (below detection limit); not in total VOC calculation
B - compound was found in the blank and sample
D - duplicate

J - estimated value
NA - not applicable/not analyzed
SSD - sub-slab depressurization
SV - soil vapor

APPENDICES

Appendix A—August/October 2019 Sample Log Sheets/Chain of Custody

Appendix B—Method Detection Limits

Appendix C—Laboratory Analytical Reports

Appendix D—Data Validation Reports

Appendix E—Remedial Action Progress Report #34: April 1 through September 30, 2019, Sub-Slab-Depressurization Systems, Buildings A and C, Lockheed Martin Middle River Complex

APPENDIX A—AUGUST/OCTOBER 2019
SAMPLE LOG SHEETS/CHAIN OF CUSTODY

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-001-C-27
SV Canister #:	11720
SV Regulator #:	7255
SV Start Time:	9:05 AM
SV Start Pressure:	-30
SV Stop Time:	10:24 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-001-C-27
IAQ Canister #:	09552
IAQ Regulator #:	11669
IAQ Start Time:	7:51 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:31 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

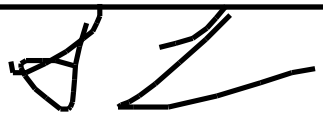
OBSERVATIONS / NOTES:

Original can for SV-001 damaged (-1 pressure)

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-004-C- 27
SV Canister #:	10746
SV Regulator #:	7168
SV Start Time:	9:12 AM
SV Start Pressure:	-26
SV Stop Time:	10:25 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-004-C- 27
IAQ Canister #:	09806
IAQ Regulator #:	10174
IAQ Start Time:	7:53 AM
IAQ Start Pressure:	-25
IAQ Stop Time:	4:32 PM
IAQ Stop Pressure:	1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

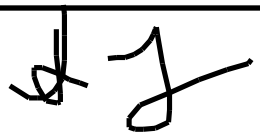
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-015-A- 27
SV Canister #:	10523
SV Regulator #:	11273
SV Start Time:	3:08 PM
SV Start Pressure:	-26
SV Stop Time:	4:12 PM
SV Stop Pressure:	1

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-015-A-27
IAQ Canister #:	9663
IAQ Regulator #:	8654
IAQ Start Time:	8:05 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:11 PM
IAQ Stop Pressure:	3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

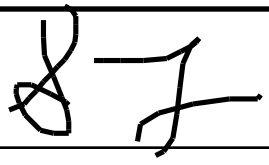
OBSERVATIONS / NOTES:

No fans nearby. The original SV sample had a start pressure of -25 and end pressure

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-018-A- 27
IAQ Canister #:	10748
IAQ Regulator #:	8740
IAQ Start Time:	7:42 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:53 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

Dup start pressure:-30, end pressure:-9, flow can: 8645, can#: 11839

OBSERVATIONS / NOTES:

Duplicate(DUP03) taken, Fan 5feet away

MS/MSD:

Duplicate ID: IA-DUP3-A-27

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-021-A- 27
IAQ Canister #:	11851
IAQ Regulator #:	8774
IAQ Start Time:	8:25 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:27 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

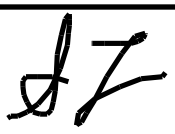
OBSERVATIONS / NOTES:

Fans nearby, sample canister is placed on top of lockers

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-060-C- 27
SV Canister #:	11741
SV Regulator #:	7648
SV Start Time:	9:40 PM
SV Start Pressure:	-30
SV Stop Time:	10:40 AM
SV Stop Pressure:	-7

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-060-C- 27
IAQ Canister #:	11726
IAQ Regulator #:	7107
IAQ Start Time:	8:09 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:40 PM
IAQ Stop Pressure:	-6

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

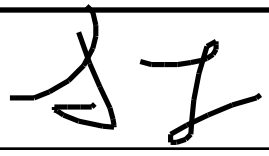
OBSERVATIONS / NOTES:

Can screen cracked on SV

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-075-A-27
SV Canister #:	11543
SV Regulator #:	7441
SV Start Time:	10:19 AM
SV Start Pressure:	-29
SV Stop Time:	11:43 PM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-075-A-27
IAQ Canister #:	11035
IAQ Regulator #:	7615
IAQ Start Time:	8:23 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:25 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Near desks, door opens and closes a lot and fans on nearby

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-076-A-27
SV Canister #:	10333
SV Regulator #:	8551
SV Start Time:	10:10 AM
SV Start Pressure:	-30
SV Stop Time:	11:37 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-076-A- 27
IAQ Canister #:	11753
IAQ Regulator #:	11500
IAQ Start Time:	8:17 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:22 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Copper shavings being drilled near this sample location, paint nearby and some water

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-078-A-27
SV Canister #:	11770
SV Regulator #:	10860
SV Start Time:	10:02 AM
SV Start Pressure:	-30
SV Stop Time:	11:30 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-078-A-27
IAQ Canister #:	11882
IAQ Regulator #:	8790
IAQ Start Time:	8:12 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:19 AM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

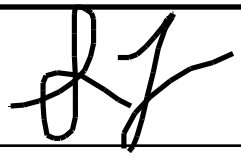
OBSERVATIONS / NOTES:

Overhead fans on above sampling area

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-079-A-27
SV Canister #:	11645
SV Regulator #:	7492
SV Start Time:	9:38 AM
SV Start Pressure:	-30
SV Stop Time:	11:17 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-079-A-27
IAQ Canister #:	11624
IAQ Regulator #:	10352
IAQ Start Time:	8:00 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:01 PM
IAQ Stop Pressure:	-5

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

IA Dup start pressure:-30, end pressure: -3. Can#: 11875, flow#: 09855. SV screen is

OBSERVATIONS / NOTES:

Overhead fan on. SV Dup start press:-30 end press:-1 can#:09636 flow#: 8137

MS/MSD:

Signature:



Duplicate ID: IA-DUP4-A-27 & SV-DUP4-A-27

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-081-A- 27
IAQ Canister #:	10345
IAQ Regulator #:	10304
IAQ Start Time:	7:56 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:00 PM
IAQ Stop Pressure:	-2

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Fan 10 feet away

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-088-C-27
IAQ Canister #:	11288
IAQ Regulator #:	11757
IAQ Start Time:	8:40 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:55 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

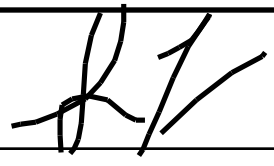
OBSERVATIONS / NOTES:

Dup. Start pressure:-24 End pressure: 0. Controller #:8837 Can ID: 11890

MS/MSD:

Duplicate ID: IA-DUP2-C-27

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-093-A-27
IAQ Canister #:	09797
IAQ Regulator #:	10160
IAQ Start Time:	7:49 AM
IAQ Start Pressure:	-27
IAQ Stop Time:	3:56 PM
IAQ Stop Pressure:	-2

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Humidifier 5feet away

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-100-B- 27
IAQ Canister #:	11884
IAQ Regulator #:	7617
IAQ Start Time:	8:29 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:30 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

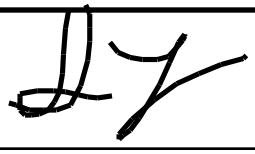
OBSERVATIONS / NOTES:

Sample can on desk, overhead fans on

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-101-B-27
IAQ Canister #:	11883
IAQ Regulator #:	7414
IAQ Start Time:	8:32 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:33 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

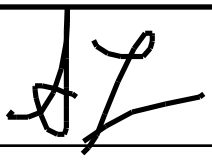
Blasting, paint and dust in the area

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-102-C-27
SV Canister #:	09660
SV Regulator #:	8134
SV Start Time:	9:21 AM
SV Start Pressure:	-30
SV Stop Time:	10:30 AM
SV Stop Pressure:	-2

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-102-C-27
IAQ Canister #:	11609
IAQ Regulator #:	8607
IAQ Start Time:	8:00 PM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:35 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

IA-DUP1-C-27 - start pressure:-30 canister#: 11889 regulator #: 8680

OBSERVATIONS / NOTES:

SV-DUP1-C-27 - start pressure: -30 end pressure : 0 can#:09665 reg#: 7652

MS/MSD:

Duplicate ID: SV-DUP1-C-27 and IA-DUP1-C-27

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-113-C-27
IAQ Canister #:	09583
IAQ Regulator #:	10593
IAQ Start Time:	8:37 AM
IAQ Start Pressure:	-27
IAQ Stop Time:	4:54 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-117-A-27
IAQ Canister #:	11639
IAQ Regulator #:	11937
IAQ Start Time:	8:10 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:17 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Overhead fans on

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-118-A-27
SV Canister #:	09553
SV Regulator #:	11517
SV Start Time:	9:53 AM
SV Start Pressure:	-28
SV Stop Time:	11:23 AM
SV Stop Pressure:	1

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-118-A-27
IAQ Canister #:	10335
IAQ Regulator #:	10468
IAQ Start Time:	8:04 AM
IAQ Start Pressure:	-29
IAQ Stop Time:	4:10 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

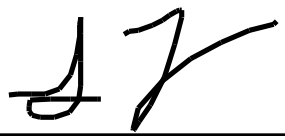
OBSERVATIONS / NOTES:

Overhead fan 20feet away

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-126-C 27
SV Canister #:	09580
SV Regulator #:	7367
SV Start Time:	10:04 AM
SV Start Pressure:	-30
SV Stop Time:	11:04 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-126-C- 27
IAQ Canister #:	11521
IAQ Regulator #:	10875
IAQ Start Time:	8:30 AM
IAQ Start Pressure:	-29
IAQ Stop Time:	4:51 PM
IAQ Stop Pressure:	-2

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

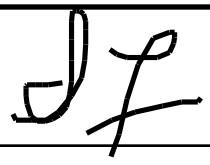
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-133-C-27
SV Canister #:	11616
SV Regulator #:	11921
SV Start Time:	9:30 AM
SV Start Pressure:	-29
SV Stop Time:	10:34 AM
SV Stop Pressure:	-2

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-133-C-27
IAQ Canister #:	11269
IAQ Regulator #:	7588
IAQ Start Time:	8:05 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:38 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

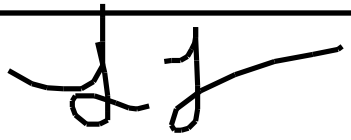
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-136-A- 27
IAQ Canister #:	11807
IAQ Regulator #:	09864
IAQ Start Time:	8:14 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:20 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Paint and dangerous goods cabinet directly next to sampling location

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-138-A- 27
IAQ Canister #:	10519
IAQ Regulator #:	6710
IAQ Start Time:	7:46 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:54 AM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Humidifier 2 feet away

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-141-C-27
SV Canister #:	09739
SV Regulator #:	7657
SV Start Time:	9:56 AM
SV Start Pressure:	-28
SV Stop Time:	10:58 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-141-C-27
IAQ Canister #:	10520
IAQ Regulator #:	7365
IAQ Start Time:	8:26 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:47 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-142-C-27
SV Canister #:	10493
SV Regulator #:	11306
SV Start Time:	10:15 AM
SV Start Pressure:	-30
SV Stop Time:	11:15 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-142-C-27
IAQ Canister #:	11774
IAQ Regulator #:	10439
IAQ Start Time:	8:45 AM
IAQ Start Pressure:	-25
IAQ Stop Time:	4:56 PM
IAQ Stop Pressure:	1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-144-C-27
IAQ Canister #:	11107
IAQ Regulator #:	09955
IAQ Start Time:	8:15 AM
IAQ Start Pressure:	-29
IAQ Stop Time:	4:41 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

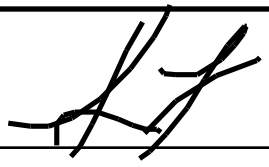
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-145-C-27
IAQ Canister #:	11495
IAQ Regulator #:	11423
IAQ Start Time:	8:21 AM
IAQ Start Pressure:	-12
IAQ Stop Time:	4:43 PM
IAQ Stop Pressure:	1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

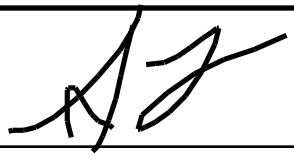
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-146-C-27
IAQ Canister #:	10841
IAQ Regulator #:	8689
IAQ Start Time:	8:25 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:45 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-149-C- 27
SV Canister #:	11811
SV Regulator #:	7650
SV Start Time:	10:02 AM
SV Start Pressure:	-30
SV Stop Time:	11:02 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-149-C- 27
IAQ Canister #:	11842
IAQ Regulator #:	11489
IAQ Start Time:	8:28 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:50 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

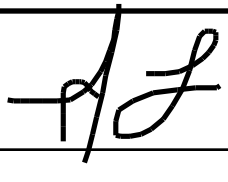
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-150-C- 27
SV Canister #:	11723
SV Regulator #:	11497
SV Start Time:	9:52 AM
SV Start Pressure:	-30
SV Stop Time:	10:55 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-150-C- 27
IAQ Canister #:	11877
IAQ Regulator #:	7421
IAQ Start Time:	8:23 AM
IAQ Start Pressure:	-28
IAQ Stop Time:	4:44 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-152-C-27
SV Canister #:	11554
SV Regulator #:	11976
SV Start Time:	9:50 AM
SV Start Pressure:	-29
SV Stop Time:	10:53 AM
SV Stop Pressure:	-3

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-152-C-27
IAQ Canister #:	11831
IAQ Regulator #:	8752
IAQ Start Time:	8:12 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:42 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-153-C- 27
SV Canister #:	11256
SV Regulator #:	7200
SV Start Time:	9:32 AM
SV Start Pressure:	-27
SV Stop Time:	10:37 AM
SV Stop Pressure:	-3

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-153-C- 27
IAQ Canister #:	11828
IAQ Regulator #:	11528
IAQ Start Time:	8:07 AM
IAQ Start Pressure:	-28
IAQ Stop Time:	4:39 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

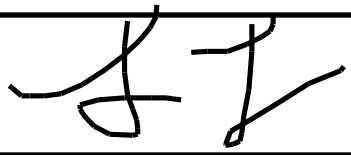
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-155-C-27
SV Canister #:	11830
SV Regulator #:	8924
SV Start Time:	9:26 AM
SV Start Pressure:	-30
SV Stop Time:	10:32 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-155-C-27
IAQ Canister #:	11716
IAQ Regulator #:	8964
IAQ Start Time:	8:03 AM
IAQ Start Pressure:	-26
IAQ Stop Time:	4:37 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☒ No
		☐ Yes ☐ No

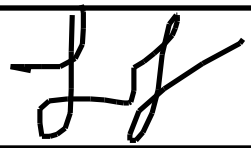
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 18, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-168-A-27
SV Canister #:	09741
SV Regulator #:	7426
SV Start Time:	10:13 AM
SV Start Pressure:	-25
SV Stop Time:	11:40 AM
SV Stop Pressure:	3

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-168-A-27
IAQ Canister #:	1135
IAQ Regulator #:	8701
IAQ Start Time:	8:20 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	4:23 PM
IAQ Stop Pressure:	-6

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

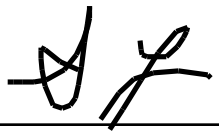
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-174-A- 27
SV Canister #:	11136
SV Regulator #:	12006
SV Start Time:	9:10 AM
SV Start Pressure:	-30
SV Stop Time:	11:06 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-174-A- 27
IAQ Canister #:	11860
IAQ Regulator #:	8713
IAQ Start Time:	7:47 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:55 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

Humidifier 2 feet away

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-BCK-1-27
IAQ Canister #:	11626
IAQ Regulator #:	10584
IAQ Start Time:	7:27 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:49 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☒ No

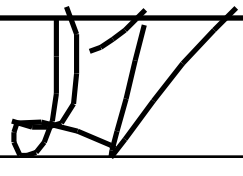
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-BCK-2- 27
IAQ Canister #:	11821
IAQ Regulator #:	8634
IAQ Start Time:	7:22 AM
IAQ Start Pressure:	-20
IAQ Stop Time:	3:44 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

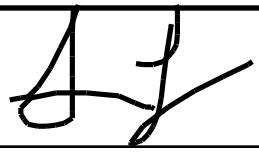
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-BCK-3- 27
IAQ Canister #:	10603
IAQ Regulator #:	7061
IAQ Start Time:	7:36 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:37 PM
IAQ Stop Pressure:	-1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

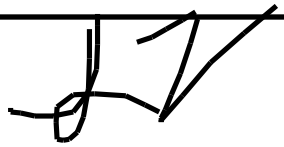
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-BCK-4- 27
IAQ Canister #:	11868
IAQ Regulator #:	7581
IAQ Start Time:	7:16 AM
IAQ Start Pressure:	-28
IAQ Stop Time:	3:34 PM
IAQ Stop Pressure:	0

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-015-A-27
SV Canister #:	10523
SV Regulator #:	11274
SV Start Time:	3:07 PM
SV Start Pressure:	-26
SV Stop Time:	4:12 PM
SV Stop Pressure:	1

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

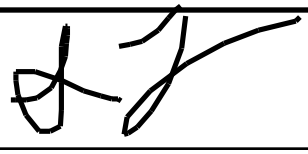
OBSERVATIONS / NOTES:

No fans. This is a redo, original can sample had a -20 pressure after 1hour

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-075-A- 27
SV Canister #:	11543
SV Regulator #:	7441
SV Start Time:	10:19 AM
SV Start Pressure:	-29
SV Stop Time:	11:43 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

One fan on nearby, right next to door

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-076-A- 27
SV Canister #:	10333
SV Regulator #:	8551
SV Start Time:	10:10 AM
SV Start Pressure:	-30
SV Stop Time:	11:37 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Sample next to copper shavings and fan. Some water I hole

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-078-A-27
SV Canister #:	11770
SV Regulator #:	10860
SV Start Time:	10:02 AM
SV Start Pressure:	-30
SV Stop Time:	11:30 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Overhead fans above

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-079-A-27
SV Canister #:	11645
SV Regulator #:	7492
SV Start Time:	9:38 AM
SV Start Pressure:	-30
SV Stop Time:	11:17 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

* screen is cracked, overhead fan is on

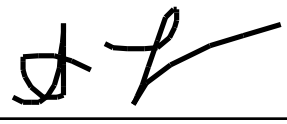
OBSERVATIONS / NOTES:

SV-DUP04-A-27 start pressure: -30 end pressure: -1, flow#: 8137, can#09636

MS/MSD:

Duplicate ID: SV-DUP04-A-27

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-088-C-27
SV Canister #:	11142
SV Regulator #:	11990
SV Start Time:	10:11 AM
SV Start Pressure:	-30
SV Stop Time:	11:11 AM
SV Stop Pressure:	-5

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

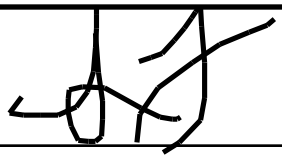
OBSERVATIONS / NOTES:

SV-DUP02-C-27 - start pressure: -30 stop pressure: -3 canister#: 10336 controller:

MS/MSD:

Duplicate ID: SV-DUP02-C-27

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-093-A- 27
SV Canister #:	11861
SV Regulator #:	7281
SV Start Time:	9:13 AM
SV Start Pressure:	-30
SV Stop Time:	11:08 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Humidifier is 5 feet away

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-100-B-27
SV Canister #:	11891
SV Regulator #:	11490
SV Start Time:	10:28 AM
SV Start Pressure:	-29
SV Stop Time:	11:47 AM
SV Stop Pressure:	1

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Fans on nearby/ painting nearby

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-101-B- 27
SV Canister #:	09735
SV Regulator #:	11922
SV Start Time:	10:28 AM
SV Start Pressure:	-29
SV Stop Time:	11:53 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

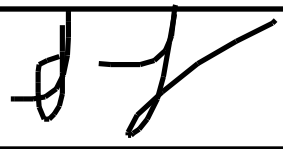
OBSERVATIONS / NOTES:

Fans on nearby

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-113-C- 27
SV Canister #:	11139
SV Regulator #:	11938
SV Start Time:	10:09 AM
SV Start Pressure:	-28
SV Stop Time:	11:09 AM
SV Stop Pressure:	-3

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

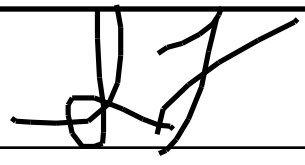
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-116-A-27
SV Canister #:	8136
SV Regulator #:	10796
SV Start Time:	8:56 AM
SV Start Pressure:	-30
SV Stop Time:	10:54 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

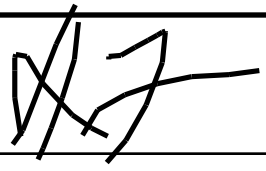
Dup: SV-DUP03-A-27 start pressure:-30 end pressure:0 flower : 8529 can#: 09586

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-126-C- 27
SV Canister #:	09580
SV Regulator #:	7367
SV Start Time:	10:04 AM
SV Start Pressure:	-30
SV Stop Time:	11:04 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

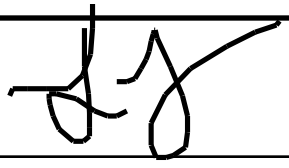
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-136-A-27
SV Canister #:	11773
SV Regulator #:	10292
SV Start Time:	10:05 AM
SV Start Pressure:	-28
SV Stop Time:	11:34 PM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

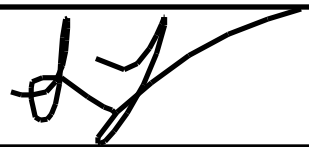
OBSERVATIONS / NOTES:

Paint mixing nearby, dangerous goods cabinet next to site

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-138-A- 27
SV Canister #:	09641
SV Regulator #:	10653
SV Start Time:	9:04 AM
SV Start Pressure:	-29
SV Stop Time:	11:02 AM
SV Stop Pressure:	2

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

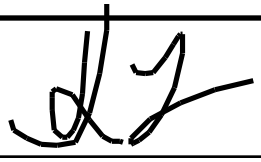
OBSERVATIONS / NOTES:

Humidifier next to sample

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-139-A-27
SV Canister #:	11138
SV Regulator #:	7679
SV Start Time:	9:50 AM
SV Start Pressure:	-30
SV Stop Time:	11:20 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

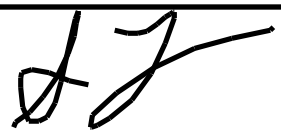
OBSERVATIONS / NOTES:

Next to an access door that opens a lot

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-141-C-27
SV Canister #:	09739
SV Regulator #:	7657
SV Start Time:	9:56 AM
SV Start Pressure:	-28
SV Stop Time:	10:58 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

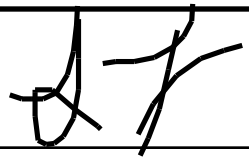
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-142-C-27
SV Canister #:	10493
SV Regulator #:	11306
SV Start Time:	10:15 AM
SV Start Pressure:	-30
SV Stop Time:	11:15 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-149-C-27
SV Canister #:	11811
SV Regulator #:	7650
SV Start Time:	10:02 AM
SV Start Pressure:	-30
SV Stop Time:	11:02 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

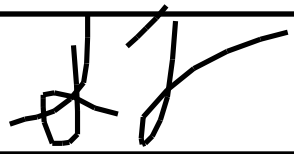
LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 14, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-150-C- 27
SV Canister #:	11723
SV Regulator #:	11497
SV Start Time:	9:52 AM
SV Start Pressure:	-30
SV Stop Time:	10:55 AM
SV Stop Pressure:	-4

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-168-A- 27
SV Canister #:	09741
SV Regulator #:	7426
SV Start Time:	10:13 AM
SV Start Pressure:	-25
SV Stop Time:	11:40 AM
SV Stop Pressure:	3

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-170-A- 27
SV Canister #:	11277
SV Regulator #:	7374
SV Start Time:	9:15 AM
SV Start Pressure:	-30
SV Stop Time:	11:10 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

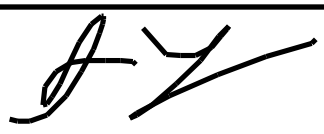
OBSERVATIONS / NOTES:

On bottom of stairwell, fire handle next to it

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-171-A- 27
SV Canister #:	11706
SV Regulator #:	8548
SV Start Time:	9:06 AM
SV Start Pressure:	-30
SV Stop Time:	11:04 PM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

Electric box on wall next to it

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-173-A-27
SV Canister #:	11885
SV Regulator #:	7074
SV Start Time:	9:02 AM
SV Start Pressure:	-30
SV Stop Time:	11:00 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

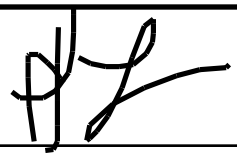
OBSERVATIONS / NOTES:

On wall, electric box next to it

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC AUGUST 2019 Round 27 IA/SV SAMPLE LOG SHEET

Date: August 15, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	SV-174-A-27
SV Canister #:	11136
SV Regulator #:	12006
SV Start Time:	9:10 PM
SV Start Pressure:	-30
SV Stop Time:	11:06 AM
SV Stop Pressure:	0

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	
IAQ Canister #:	
IAQ Regulator #:	
IAQ Start Time:	
IAQ Start Pressure:	
IAQ Stop Time:	
IAQ Stop Pressure:	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

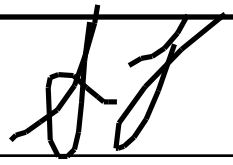
OBSERVATIONS / NOTES:

Humidifier 2feet away

MS/MSD:

Duplicate ID:

Signature:



TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-015-A-27-RS
IAQ Canister #:	10210
IAQ Regulator #:	11648
IAQ Start Time:	7:28 AM
IAQ Start Pressure:	-26
IAQ Stop Time:	3:35 PM
IAQ Stop Pressure:	2

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-018-A-27-RS
IAQ Canister #:	10190
IAQ Regulator #:	10145
IAQ Start Time:	7:22 AM
IAQ Start Pressure:	-32
IAQ Stop Time:	3:31 PM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

FAN RUNNING INSIDE ROOM

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-021-A-27-RS
IAQ Canister #:	10069
IAQ Regulator #:	11512
IAQ Start Time:	7:46 AM
IAQ Start Pressure:	-29
IAQ Stop Time:	3:46 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-079-A-27-RS
IAQ Canister #:	10369
IAQ Regulator #:	11815
IAQ Start Time:	7:56 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:56 AM
IAQ Stop Pressure:	-4

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-117-A-27-RS
IAQ Canister #:	11696
IAQ Regulator #:	11260
IAQ Start Time:	7:53 AM
IAQ Start Pressure:	-28
IAQ Stop Time:	3:53 PM
IAQ Stop Pressure:	1

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

When can was picked up, painting was being completed on a wall 100’ away.

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-136-A-27-RS
IAQ Canister #:	11561
IAQ Regulator #:	11238
IAQ Start Time:	7:50 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:50 PM
IAQ Stop Pressure:	-3

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

FAN BLOWING IN AREA

MS/MSD:

Duplicate ID:

Signature:

TETRA TECH

MRC OCTOBER 2019 Round 27
RESAMPLE IA
SAMPLE LOG SHEET

Date: October 2, 2019

SAMPLING DATA:

SOIL VAPOR SAMPLE

SV Sample ID:	
SV Canister #:	
SV Regulator #:	
SV Start Time:	
SV Start Pressure:	
SV Stop Time:	
SV Stop Pressure:	

INDOOR AIR QUALITY SAMPLE

IAQ Sample ID:	IA-168-A-27-RS
IAQ Canister #:	11997
IAQ Regulator #:	11272
IAQ Start Time:	7:43 AM
IAQ Start Pressure:	-30
IAQ Stop Time:	3:43 PM
IAQ Stop Pressure:	-5

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected
TO-15	1 Liter and 6 Liter Canisters	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

LOCATION:

OBSERVATIONS / NOTES:

MS/MSD:

Duplicate ID:

Signature:

Baltimore #201

Canister Samples Chain of Custody Record

140-16367 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR
Company Name: TETRA TECH INC	**Phone:** 301-528-3021	COC No: 8 of 9 COCs
Address: 20251 CENTURY BLVD, STE 200	**Email:** JENT.APANAVAGE@TETRATECH.COM	
City/State/Zip GERMANTOWN, MD, 20874	**Site Contact:** MULLIS/PRYOR	For Lab Use Only:
Phone: 301-528-3021	**Tel/Fax** 410-279-3700	Walk-in Client:
FAX:	**Analysis Turnaround Time**	Lab Sampling:
Project Name: MRC SV/IAQ Round 27	**Standard (Specific):** 10 DAYS	Job / SDG No.:
Site/Location: MRC, BALT, MD	**Rush (Specifiy):**	(See below for Add'l Items)
P O # 112ICO8388		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27	8/15/19	0742	8/15/19	1553	-30	-3	8740	10748	K								K						Can = 10748
IA-DUP3-A-27	"	0000	"	0000	-30	-9	8645	11839	K								K						
IA-138-A-27	"	0746	"	1554	-30	-3	6710	10519	K								K						
IA-174-A-27	"	0747	"	1555	-30	-4	8713	11860	K								K						
IA-093-A-27	"	0749	"	1556	-27	-2	10160	09797	K								K						
IA-081-A-27	"	0756	"	1600	-30	-2	10304	10345	K								K						
IA-079-A-27	"	0800	"	1601	-30	-5	10352	11624	K								K						
IA-DUP4-A-27	"	0000	"	0000	-30	-3	09855	11875	K								K						
IA-118-A-27	"	0804	"	1610	-29	0	10468	10335	K								K						
IA-015-A-27	"	0805	"	1611	-30	3	8654	09663	K								K						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes trk# 7760 0655 8549, 8273, Custody seal intact
KJ 8/17/19

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/30/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR	COC No: 4 of 4 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRATECH.COM		
City/State/Zip: GERMANTOWN, MD, 20874			For Lab Use Only:
Phone: 301-528-3021	**Site Contact:** MULLIS/PRYOR		Walk-in Client:
FAX:	**Tel/Fax** 410-279-3700		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		Job / SDG No.:
Site/Location: MRC, BALTIMORE, MD	**Standard (Specific):** 10 DAYS		(See below for Add'l Items)
P O # 112ICO8588	**Rush (Specifiy):**		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-117-A-27	8/15/19	0810	8/16/19	1617	-30	0	11937	11639	X								X						
IA-078-A-27	"	0812	"	1619	-30	-4	8790	11882	X								X						
IA-176-A-27	"	0814	"	1620	-30	-1	09864	11807	X								X						
IA-076-A-27	"	0817	"	1622	-30	-3	A500	11753	X								X						
IA-168-A-27	"	0820	"	1623	-30	-6	8701	11135	X								X						
IA-075-A-27	"	0823	"	1625	-30	0	7615	11035	X								X						
IA-021-A-27	"	0825	"	1627	-30	-3	8774	11851	X								X						
IA-100-B-27	"	0829	"	1630	-30	-4	7617	11884	X								X						
IA-101-B-27	"	0832	"	1633	-30	-1	7414	11883	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**	
Samples Relinquished by:	**Date / Time:** 8/16/19	**Received by:**	
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030	21 cans, 1 T, 20 flow
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

140-16369 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 3 of 9 COCs
Company Name: TETRA TECH INC		Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20		Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874				Walk-in Client:
Phone: 301-528-3021		Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:		Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27		Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, BCH, MD		Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC08388		Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-BCK-4-27	8/14/19	0716	8/14/19	1534	-28	0	7581	11868	X								X						
IA-BCK-2-27		0722		1544	-20	0	8634	11821	X								X						
IA-BCK-1-27		0727		1549	-30	-1	10584	11626	X								X						
IA-BCK-3-27		0736		1537	-30	-1	7061	10603	X								X						
IA-001-C-27		0751		1631	-30	-4	09552	11669	X								X						
IA-004-C-27		0753		1632	-25	1	10174	09806	X								X						
IA-102-C-27		0800		1635	-30	-4	8607	11609	X								X						
IA-OUP1-C-27		0000		0000	-30	-1	8680	11889	X								X						
IA-155-C-27		0803		1637	-26	-3	8464	11716	X								X						
IA-133-C-27		0805		1638	-30	-4	7588	11269	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Received @ ambient, 3 boxes, Fedex PO
trK#7760 0655 8170, Custody seal intact
" " 8376 KW 8/17/19
" " 8343

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by: [signature]	Date / Time: 8/16/19 1300	Received by: [signature]	
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] ETA 8/17/19 1630	2T, 24 flows, 24 cans
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSEN/OBRIEN/PRYOR	COC No: 4 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-3700		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	Analysis Turnaround Time		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Standard (Specific): 10 DAYS		
P O # 112ICOS388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-153-C-27	8/14/19	0807	8/14/19	1639	-28	0	11528	11828	X								X						
IA-060-C-27		0809		1640	-30	-6	7107	11726	X								X						
IA-152-C-27		0812		1642	-30	0	8752	11831	X								X						
IA-144-C-27		0815		1641	-29	-3	09955	11107	X								X						
IA-145-C-27		0821		1643	-12	1	11423	11495	X								X						
IA-146-C-27		0825		1645	-30	-1	8689	10841	X								X						
IA-150-C-27		0823		1644	-29	-0	7421	11877	X								X						
IA-141-C-27		0826		1647	-27	-2	7365	10520	X								X						
IA-149-C-27		0828		1650	-30	-4	11489	11842	X								X						
IA-126-C-27		0830		1651	-29	-2	10875	11521	X								X						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments: MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore
#201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PAYOR	COC No: 5 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: JIM.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PAYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Standard (Specific): 10 DAYS		
P O # 112IC08588	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-113-C-27	8/14/19	0837	8/14/19	1654	-27	0	10593	09583	X								X						
IA-088-C-27	↓	0840	↓	1655	-30	-4	11757	11258	X								X						
IA-DUP2-C-27	↓	0000	↓	0000	-24	0	8837	11890	X								X						
IA-142-C-27	↓	0845	↓	1656	-25	+1	10439	11774	X								X						

8/14/19

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

* NOT USED - Flow # 7420, Can # 11743 (8hr Can)

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** LA ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

140-16376 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 1 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 202	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, B.H, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC05388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-001-C-27	8/14/19	0905	8/14/19	1024	-30	0	7255	11720	X									X		X			
SV-004-C-27		0912		1025	-26	0	7168	10746	X									X					
SV-102-C-27		0921		1030	-30	-2	8134	09660	X									X					
SV-DUP1-C-27		0000		0000	-30	0	7652	09665	X									X					
SV-155-C-27		0926		1032	-30	-4	8924	11830	X									X					
SV-133-C-27		0930		1034	-29	-2	11921	11616	X									X					
SV-153-C-27		0932		1037	-27	-3	7200	11256	X									X					
SV-060-C-27		0940		1040	-30	-7	7648	11741	X									X					
SV-150-C-27		0952		1055	-30	-4	11497	11723	X									X					SV-150
SV-152-C-27		0950		1053	-29	-3	11976	11554	X									X					SV-152

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

CUSTODY SEALS INTACT
RECEIVED AMBIENT
BXD 8-16-19
FEDX# 776006558067 M SAT
17 CANS / 17 FLOWS IN

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by: Walt P	Date / Time: 8/16/19 1300	Received by: [signature]
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] EPA KNX 8-17-19 10:31
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/TAYLOR	COC No: 2 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/TAYLOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Rush (Specifiy):		
P O # 112ICO5388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-141-C-27	8/14/19	0956	8/14/19	1058	-28	-4	7657	09739	X									X					
SV-149-C-27		1002		1102	-30	-4	7650	11811	X									X					
SV-126-C-27		1004		1104	-30	-4	7367	09580	X									X					
SV-113-C-27		1009		1109	-28	-3	11938	11139	X									X					
SV-088-C-27		1011		1111	-30	-5	11990	11142	X									X					
SV-DUP02-C-27		0000		0000	-30	-3	11511	10336	X									X					
SV-142-C-27	↓	1015	↓	1113	-30	-4	11306	10493	X									X					
				8/14/19																			

Temperature (Fahrenheit)		
Start	Interior	Ambient
Stop		

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

* VOID → Control # 10436, Can # 11628 NOT USED, Pressure gauge incorrect

* VOID → Control # 7196, Can # 11279 NOT USED, pressure incorrect

Special Instructions/QC Requirements & Comments: * MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** EVANSVX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/ LARSON/ OBRIEN/ PRYOR	COC No: 6 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 22	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/ PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-379-3900		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Rush (Specify):		
P O # 112ICO9388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-116-A-27	8/15/19	0856	8/15/19	1054	-30	0	8136	10796	X									X					CUSTODY SEALS INTACT
SV-DUP03-A-27	"	0000	"	0000	-30	0	8529	09586	X									X					RECEIVED AMBIENT
SV-173-A-27	"	0902	"	1100	-30	0	7074	11885	X									X					SFD 8-19-19
SV-138-A-27	"	0904	"	1102	-29	2	10653	09641	X									X					FEDEX #
SV-171-A-27	"	0906	"	1104	-30	0	8548	11706	X									X					7760 0655 8067 M SAT
SV-174-A-27	"	0910	"	1106	-30	0	12006	11136	X									X					22 CANS / 23 FLOWS (R)
SV-093-A-27	"	0913	"	1108	-30	0	7281	11861	X									X					5 T's
SV-170-A-27	"	0915	"	1110	-30	0	7374	11277	X									X					
SV-079-A-27	"	0938	"	1117	-30	0	7492	11645	X									X					
SV-DUP04-A-27	"	0000	"	0000	-30	-1	8137	09636	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

140-16377 Chain of Custody

Special Instructions/QC Requirements & Comments: MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETAKWX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Apanavage	Samples Collected By: Mullis/Lawson/OBrien/Pryor	COC No: 7 of 9 COCs
Company Name: Tetra Tech Inc	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste 200	Email: Tony.Apanavage@tetratech.com		
City/State/Zip: Germantown, MD, 20874	Site Contact: Mullis/Pryor		For Lab Use Only:
Phone: 301-528-3021	Tel/Fax: 410-279-2700		Walk-in Client:
FAX:	Analysis Turnaround Time		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 Days		Job / SDG No.:
Site/Location: MRC, Balt., MD	Rush (Specifiy):		(See below for Add'l Items)
P O # 412IC08388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-139-A-27	8/15/19	0950	8/15/19	1120	-30	0	7679	11138	X									X					
SV-118-A-27		0953		1123	-28	1	09553	11517	X									X					
SV-015-A-27		1507		1612	-26	1	11273	10523	X									X					
SV-078-A-27		1002		1130	-30	0	10860	11770	X									X					
SV-136-A-27		1005		1134	-28	0	10292	11773	X									X					
SV-076-A-27		1010		1137	-30	0	8551	10333	X									X					
SV-168-A-27		1013		1140	-25	3	7426	09741	X									X					
SV-075-A-27		1019		1143	-29	0	7441	11543	X									X					
SV-100-B-27		1024		1147	-29	1	11490	11891	X									X					
SV-101-B-27		1028		1153	-29	0	11922	09735	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

11743
09814

Special Instructions/QC Requirements & Comments: ☆MRC Indoor Air/Soil Vapor Sampling Round 27 August 2019

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by:	Date / Time: 8/16/19 1300	Received by:
Relinquished by:	Date / Time: 8/16/19 1700	Received by: STA KWX 8-17-19 10:30
Lab Use Only: Shipper Name:	Opened by:	Condition:

Void: Flow Controller ID: 7075 & Canister ID: 09814

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

140-16893 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Martin	Samples Collected By: Mullis/O'Brien	COC No: 1 of 1 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste. 200	Email: mike.martin@tetratech.com		
City/State/Zip: Germantown, MD, 20874			For Lab Use Only:
Phone: 410-279-2700	Site Contact: Josh Mullis		Walk-in Client:
FAX: —	Tel/Fax 410-279-2700		Lab Sampling:
Project Name: MRC Indoor Air - Rush	Analysis Turnaround Time		
Site/Location: MRC Building A	Standard (Specific):		Job / SDG No.:
P O #	Rush (Specifiy): 5DAY TAT		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27-RS	10/2/19	0722	10/2/19	1531	-32	-4	10145	10190		X							X						
IA-015-A-27-RS		0728		1535	-26	2	11648	10210		X							X						
IA-168-A-27-RS		0743		1543	-30	-5	11272	11997		X							X						
IA-021-A-27-RS		0746		1546	-29	-3	11512	10069		X							X						
IA-176-A-27-RS		0750		1550	-30	-3	11238	11561		X							X						
IA-117-A-27-RS		0753		1553	-28	1	11260	11696		X							X						
IA-079-A-27-RS		0756		1556	-30	4	11815	10369		X							X						
					10/2/19																		

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes, Fedex Po trk# 7764 4701 0313, Custody seal intact 4700 9401 RT: 20.0° CT: 20.0°
KW 10/3/19

Special Instructions/QC Requirements & Comments: MRC Building A Emergency Resample 10/2/19

Samples Shipped by:	Date / Time: 10/2/19 1645	Samples Received by:	10/2/19 1645
Samples Relinquished by:	Date / Time: 10/2/19 1700	Received by: ETA 10/3/19 0930	
Relinquished by:	Date / Time:	Received by:	10 cans, 10 flows

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

APPENDIX B—METHOD DETECTION LIMITS

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

APPENDIX C—LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing TestAmerica

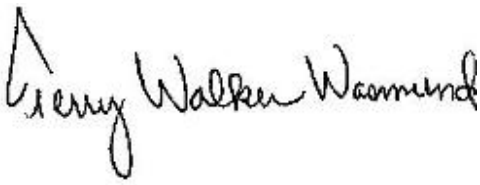
ANALYTICAL REPORT

Job Number: 140-16367-1

Job Description: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 2:40 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Ms. Michelle Woeber

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16367-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32704 exhibited % difference of > 30% for Vinyl chloride; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Vinyl chloride recovered outside control limits for the LCS associated with analytical batch 140-32704. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

Sample IA-075-A-27 (140-16367-16) was diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Can Certification Comments:
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.22	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.42		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.086	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.72		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.38	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.43	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.49	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.89	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.20	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.37	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.9		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.057	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.45		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.094	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.38	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.098	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.83		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.5		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.67		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.45	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.36	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.46	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.95	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP3-A-27 (Continued) Lab Sample ID: 140-16367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.5	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.43	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.5	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	4.3		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	2.04		TO 15 LL	Total/NA
Carbon tetrachloride	0.056	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
Chlorodifluoromethane	0.43		0.40	0.11	ppb v/v	2.04		TO 15 LL	Total/NA
Chloroform	0.058	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24	J	0.40	0.050	ppb v/v	2.04		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.40	0.070	ppb v/v	2.04		TO 15 LL	Total/NA
1,1-Dichloroethane	0.044	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
1,1-Dichloroethene	0.40		0.40	0.040	ppb v/v	2.04		TO 15 LL	Total/NA
Ethylbenzene	0.10	J	0.40	0.065	ppb v/v	2.04		TO 15 LL	Total/NA
Methylene Chloride	1.9	J B	2.0	0.80	ppb v/v	2.04		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	2.04		TO 15 LL	Total/NA
Trichloroethene	0.96		0.20	0.030	ppb v/v	2.04		TO 15 LL	Total/NA
Xylenes, Total	0.47	J	0.80	0.12	ppb v/v	2.04		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.55	J	1.3	0.13	ug/m3	2.04		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	2.04		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	2.04		TO 15 LL	Total/NA
Chloroform	0.28	J	2.0	0.17	ug/m3	2.04		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.97	J	1.6	0.20	ug/m3	2.04		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	2.04		TO 15 LL	Total/NA
1,1-Dichloroethane	0.18	J	1.6	0.14	ug/m3	2.04		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	2.04		TO 15 LL	Total/NA
Ethylbenzene	0.45	J	1.7	0.28	ug/m3	2.04		TO 15 LL	Total/NA
Methylene Chloride	6.6	J B	6.9	2.8	ug/m3	2.04		TO 15 LL	Total/NA
Toluene	5.1		2.3	1.5	ug/m3	2.04		TO 15 LL	Total/NA
Trichloroethene	5.1		1.1	0.16	ug/m3	2.04		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	2.04		TO 15 LL	Total/NA

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.086	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.43		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.17	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.44		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.5		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-174-A-27 (Continued) Lab Sample ID: 140-16367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.28	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.49	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.54	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.66	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.7		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	44	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	8.2		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.094	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.12	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.41		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.087	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	41	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.7		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.35	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.59	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.25	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.48	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.38	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	140	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.71	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.1		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	9.3		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.063	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.48		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.054	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-081-A-27 (Continued) Lab Sample ID: 140-16367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.85		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	40		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.11	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	3.7		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.8	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	150		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.56	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.26	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.28	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.2	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	17		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.93	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.6	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	64		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.080	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.38	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.047	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.53		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.28	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	5.3	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.15	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP4-A-27 (Continued) Lab Sample ID: 140-16367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	17		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.56	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.23	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	18	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.0	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	64		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.31	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.044	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.040	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.90		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.76	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	16		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.21	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.9		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.056	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.45		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.55		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.58	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-015-A-27 (Continued) Lab Sample ID: 140-16367-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.49	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	18		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.26	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	16		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.92	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	21	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	60		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.11	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.24	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.30	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.25	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	16		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.36	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.86	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-078-A-27 (Continued) Lab Sample ID: 140-16367-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	15	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	62		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.069	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.46		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.35	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	18		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.6		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.5	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.1	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.26	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	70		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	7.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.061	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.044	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	7.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.75	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.39	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.70	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.7	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	27		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-076-A-27 (Continued) Lab Sample ID: 140-16367-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.12	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.25	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.082	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.38	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.38	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.88	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.36	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	8.3	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.41	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	9.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.6	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	8.5	J B	20	8.0	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.3		6.0	3.9	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	29	J B	69	28	ug/m3	1		TO 15 LL	Total/NA
Toluene	24		23	15	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.098	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.31	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.25	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	12		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-021-A-27 (Continued) Lab Sample ID: 140-16367-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	46		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.7		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.67		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.54		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.7	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.036	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	36		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.9	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.24	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	130		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.63	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	10		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.76		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.40		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.058	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	25		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.35	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-101-B-27 (Continued) Lab Sample ID: 140-16367-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.7		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.6	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.39	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	95		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	8.7		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-018-A-27 **Lab Sample ID: 140-16367-1**
Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/19/19 14:11	1
Carbon tetrachloride	**0.068**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/19/19 14:11	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
cis-1,2-Dichloroethene	**0.22**	**J**	0.40	0.050	ppb v/v			08/19/19 14:11	1
Dichlorodifluoromethane	**0.46**		0.40	0.070	ppb v/v			08/19/19 14:11	1
1,1-Dichloroethane	**0.050**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 14:11	1
1,1-Dichloroethene	**0.42**		0.40	0.040	ppb v/v			08/19/19 14:11	1
Ethylbenzene	**0.086**	**J**	0.40	0.065	ppb v/v			08/19/19 14:11	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 14:11	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:11	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 14:11	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/19/19 14:11	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:11	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:11	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
Trichloroethene	**0.72**		0.20	0.030	ppb v/v			08/19/19 14:11	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:11	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 14:11	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:11	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 14:11	1
Xylenes, Total	**0.38**	**J**	0.80	0.12	ppb v/v			08/19/19 14:11	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/19/19 14:11	1
Carbon tetrachloride	**0.43**	**J**	2.5	0.22	ug/m3			08/19/19 14:11	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 14:11	1
Chloroform	**0.49**	**J**	2.0	0.17	ug/m3			08/19/19 14:11	1
cis-1,2-Dichloroethene	**0.89**	**J**	1.6	0.20	ug/m3			08/19/19 14:11	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 14:11	1
1,1-Dichloroethane	**0.20**	**J**	1.6	0.14	ug/m3			08/19/19 14:11	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 14:11	1
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/19/19 14:11	1
Ethylbenzene	**0.37**	**J**	1.7	0.28	ug/m3			08/19/19 14:11	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/19/19 14:11	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:11	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 14:11	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:11	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/19/19 14:11	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:11	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:11	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:11	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:11	1
Trichloroethene	**3.9**		1.1	0.16	ug/m3			08/19/19 14:11	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:11	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 14:11	1

Client Sample ID: IA-018-A-27 **Lab Sample ID: 140-16367-1**
Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:11	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 14:11	1
Xylenes, Total	**1.7**	**J**	3.5	0.52	ug/m3			08/19/19 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*08/19/19 14:11*	*1*

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/19/19 14:56	1
Carbon tetrachloride	**0.057**	**J**	0.40	0.035	ppb v/v			08/19/19 14:56	1
Chlorodifluoromethane	**0.45**		0.40	0.11	ppb v/v			08/19/19 14:56	1
Chloroform	**0.094**	**J**	0.40	0.035	ppb v/v			08/19/19 14:56	1
cis-1,2-Dichloroethene	**0.24**	**J**	0.40	0.050	ppb v/v			08/19/19 14:56	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/19/19 14:56	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 14:56	1
1,1-Dichloroethene	**0.38**	**J**	0.40	0.040	ppb v/v			08/19/19 14:56	1
Ethylbenzene	**0.098**	**J**	0.40	0.065	ppb v/v			08/19/19 14:56	1
Methylene Chloride	**2.7**	**B**	2.0	0.80	ppb v/v			08/19/19 14:56	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:56	1
Naphthalene	**0.83**		0.20	0.38	ppb v/v			08/19/19 14:56	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
Toluene	**1.5**		0.60	0.39	ppb v/v			08/19/19 14:56	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:56	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:56	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
Trichloroethene	**0.67**		0.20	0.030	ppb v/v			08/19/19 14:56	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:56	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 14:56	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:56	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 14:56	1
Xylenes, Total	**0.45**	**J**	0.80	0.12	ppb v/v			08/19/19 14:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/19/19 14:56	1
Carbon tetrachloride	**0.36**	**J**	2.5	0.22	ug/m3			08/19/19 14:56	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 14:56	1
Chloroform	**0.46**	**J**	2.0	0.17	ug/m3			08/19/19 14:56	1
cis-1,2-Dichloroethene	**0.95**	**J**	1.6	0.20	ug/m3			08/19/19 14:56	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/19/19 14:56	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 14:56	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 14:56	1
1,1-Dichloroethene	**1.5**	**J**	1.6	0.16	ug/m3			08/19/19 14:56	1
Ethylbenzene	**0.43**	**J**	1.7	0.28	ug/m3			08/19/19 14:56	1
Methylene Chloride	**9.5**	**B**	6.9	2.8	ug/m3			08/19/19 14:56	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:56	1
Naphthalene	**4.3**		1.0	2.0	ug/m3			08/19/19 14:56	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:56	1
Toluene	**5.8**		2.3	1.5	ug/m3			08/19/19 14:56	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:56	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:56	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:56	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:56	1
Trichloroethene	**3.6**		1.1	0.16	ug/m3			08/19/19 14:56	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:56	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 14:56	1

Client Sample ID: IA-DUP3-A-27 **Lab Sample ID: 140-16367-2**
Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:56	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 14:56	1
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*08/19/19 14:56*	*1*

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/19/19 15:41	2.04
Carbon tetrachloride	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Chlorodifluoromethane	**0.43**		0.40	0.11	ppb v/v			08/19/19 15:41	2.04
Chloroform	**0.058**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
cis-1,2-Dichloroethene	**0.24**	**J**	0.40	0.050	ppb v/v			08/19/19 15:41	2.04
Dichlorodifluoromethane	**0.52**		0.40	0.070	ppb v/v			08/19/19 15:41	2.04
1,1-Dichloroethane	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 15:41	2.04
1,1-Dichloroethene	**0.40**		0.40	0.040	ppb v/v			08/19/19 15:41	2.04
Ethylbenzene	**0.10**	**J**	0.40	0.065	ppb v/v			08/19/19 15:41	2.04
Methylene Chloride	**1.9**	**J B**	2.0	0.80	ppb v/v			08/19/19 15:41	2.04
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 15:41	2.04
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 15:41	2.04
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Toluene	**1.3**		0.60	0.39	ppb v/v			08/19/19 15:41	2.04
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 15:41	2.04
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 15:41	2.04
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Trichloroethene	**0.96**		0.20	0.030	ppb v/v			08/19/19 15:41	2.04
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 15:41	2.04
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 15:41	2.04
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 15:41	2.04
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 15:41	2.04
Xylenes, Total	**0.47**	**J**	0.80	0.12	ppb v/v			08/19/19 15:41	2.04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.55**	**J**	1.3	0.13	ug/m3			08/19/19 15:41	2.04
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 15:41	2.04
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/19/19 15:41	2.04
Chloroform	**0.28**	**J**	2.0	0.17	ug/m3			08/19/19 15:41	2.04
cis-1,2-Dichloroethene	**0.97**	**J**	1.6	0.20	ug/m3			08/19/19 15:41	2.04
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/19/19 15:41	2.04
1,1-Dichloroethane	**0.18**	**J**	1.6	0.14	ug/m3			08/19/19 15:41	2.04
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 15:41	2.04
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/19/19 15:41	2.04
Ethylbenzene	**0.45**	**J**	1.7	0.28	ug/m3			08/19/19 15:41	2.04
Methylene Chloride	**6.6**	**J B**	6.9	2.8	ug/m3			08/19/19 15:41	2.04
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 15:41	2.04
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 15:41	2.04
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 15:41	2.04
Toluene	**5.1**		2.3	1.5	ug/m3			08/19/19 15:41	2.04
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 15:41	2.04
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 15:41	2.04
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 15:41	2.04
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 15:41	2.04
Trichloroethene	**5.1**		1.1	0.16	ug/m3			08/19/19 15:41	2.04
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 15:41	2.04
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 15:41	2.04

Client Sample ID: IA-138-A-27 **Lab Sample ID: 140-16367-3**
Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 15:41	2.04
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 15:41	2.04
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 15:41	2.04

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 15:41*	*2.04*

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/21/19 17:09	1
Carbon tetrachloride	**0.086**	**J**	0.40	0.035	ppb v/v			08/21/19 17:09	1
Chlorodifluoromethane	**0.43**		0.40	0.11	ppb v/v			08/21/19 17:09	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/21/19 17:09	1
cis-1,2-Dichloroethene	**0.17**	**J**	0.40	0.050	ppb v/v			08/21/19 17:09	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/21/19 17:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 17:09	1
1,1-Dichloroethene	**0.44**		0.40	0.040	ppb v/v			08/21/19 17:09	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/21/19 17:09	1
Methylene Chloride	**13**	**B**	2.0	0.80	ppb v/v			08/21/19 17:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 17:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 17:09	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/21/19 17:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 17:09	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 17:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
Trichloroethene	**1.5**		0.20	0.030	ppb v/v			08/21/19 17:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 17:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 17:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 17:09	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 17:09	1
Xylenes, Total	**0.28**	**J**	0.80	0.12	ppb v/v			08/21/19 17:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.49**	**J**	1.3	0.13	ug/m3			08/21/19 17:09	1
Carbon tetrachloride	**0.54**	**J**	2.5	0.22	ug/m3			08/21/19 17:09	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/21/19 17:09	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/21/19 17:09	1
cis-1,2-Dichloroethene	**0.66**	**J**	1.6	0.20	ug/m3			08/21/19 17:09	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/21/19 17:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 17:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 17:09	1
1,1-Dichloroethene	**1.7**		1.6	0.16	ug/m3			08/21/19 17:09	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/21/19 17:09	1
Methylene Chloride	**44**	**B**	6.9	2.8	ug/m3			08/21/19 17:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 17:09	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 17:09	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 17:09	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/21/19 17:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 17:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 17:09	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 17:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 17:09	1
Trichloroethene	**8.2**		1.1	0.16	ug/m3			08/21/19 17:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 17:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 17:09	1

Client Sample ID: IA-174-A-27 **Lab Sample ID: 140-16367-4**
Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 17:09	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 17:09	1
Xylenes, Total	**1.2**	**J**	3.5	0.52	ug/m3			08/21/19 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 17:09*	*1*

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/22/19 00:34	1
Carbon tetrachloride	**0.094**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
Chlorodifluoromethane	ND		0.40	0.11	ppb v/v			08/22/19 00:34	1
Chloroform	**0.051**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
cis-1,2-Dichloroethene	**0.12**	**J**	0.40	0.050	ppb v/v			08/22/19 00:34	1
Dichlorodifluoromethane	**0.52**		0.40	0.070	ppb v/v			08/22/19 00:34	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 00:34	1
1,1-Dichloroethene	**0.41**		0.40	0.040	ppb v/v			08/22/19 00:34	1
Ethylbenzene	**0.087**	**J**	0.40	0.065	ppb v/v			08/22/19 00:34	1
Methylene Chloride	**41**	**B**	2.0	0.80	ppb v/v			08/22/19 00:34	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 00:34	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 00:34	1
Tetrachloroethene	**0.10**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/22/19 00:34	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 00:34	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 00:34	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
Trichloroethene	**1.7**		0.20	0.030	ppb v/v			08/22/19 00:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 00:34	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 00:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 00:34	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 00:34	1
Xylenes, Total	**0.35**	**J**	0.80	0.12	ppb v/v			08/22/19 00:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.53**	**J**	1.3	0.13	ug/m3			08/22/19 00:34	1
Carbon tetrachloride	**0.59**	**J**	2.5	0.22	ug/m3			08/22/19 00:34	1
Chlorodifluoromethane	ND		1.4	0.39	ug/m3			08/22/19 00:34	1
Chloroform	**0.25**	**J**	2.0	0.17	ug/m3			08/22/19 00:34	1
cis-1,2-Dichloroethene	**0.48**	**J**	1.6	0.20	ug/m3			08/22/19 00:34	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/22/19 00:34	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/22/19 00:34	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 00:34	1
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/22/19 00:34	1
Ethylbenzene	**0.38**	**J**	1.7	0.28	ug/m3			08/22/19 00:34	1
Methylene Chloride	**140**	**B**	6.9	2.8	ug/m3			08/22/19 00:34	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 00:34	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 00:34	1
Tetrachloroethene	**0.71**	**J**	2.7	0.24	ug/m3			08/22/19 00:34	1
Toluene	**6.1**		2.3	1.5	ug/m3			08/22/19 00:34	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/22/19 00:34	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 00:34	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 00:34	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 00:34	1
Trichloroethene	**9.3**		1.1	0.16	ug/m3			08/22/19 00:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 00:34	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 00:34	1

Client Sample ID: IA-093-A-27 **Lab Sample ID: 140-16367-5**
Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 00:34	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 00:34	1
Xylenes, Total	**1.5**	**J**	3.5	0.52	ug/m3			08/22/19 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/22/19 00:34*	*1*

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 17:49	1
Carbon tetrachloride	**0.063**	**J**	0.40	0.035	ppb v/v			08/19/19 17:49	1
Chlorodifluoromethane	**0.48**		0.40	0.11	ppb v/v			08/19/19 17:49	1
Chloroform	**0.054**	**J**	0.40	0.035	ppb v/v			08/19/19 17:49	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 17:49	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			08/19/19 17:49	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 17:49	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 17:49	1
Ethylbenzene	**0.85**		0.40	0.065	ppb v/v			08/19/19 17:49	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 17:49	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 17:49	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 17:49	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
Toluene	**40**		0.60	0.39	ppb v/v			08/19/19 17:49	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 17:49	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 17:49	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 17:49	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 17:49	1
1,2,4-Trimethylbenzene	**0.11**	**J**	0.40	0.10	ppb v/v			08/19/19 17:49	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 17:49	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 17:49	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/19/19 17:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 17:49	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/19/19 17:49	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/19/19 17:49	1
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/19/19 17:49	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 17:49	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/19/19 17:49	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 17:49	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 17:49	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 17:49	1
Ethylbenzene	**3.7**		1.7	0.28	ug/m3			08/19/19 17:49	1
Methylene Chloride	**6.8**	**B**	6.9	2.8	ug/m3			08/19/19 17:49	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 17:49	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 17:49	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 17:49	1
Toluene	**150**		2.3	1.5	ug/m3			08/19/19 17:49	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 17:49	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 17:49	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 17:49	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 17:49	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 17:49	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 17:49	1
1,2,4-Trimethylbenzene	**0.56**	**J**	2.0	0.49	ug/m3			08/19/19 17:49	1

Client Sample ID: IA-081-A-27 **Lab Sample ID: 140-16367-6**
Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 17:49	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 17:49	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/19/19 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 17:49*	*1*

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Date Collected: 08/15/19 16:01 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 18:32	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 18:32	1
Chlorodifluoromethane	**0.26**	**J**	0.40	0.11	ppb v/v			08/19/19 18:32	1
Chloroform	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 18:32	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 18:32	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 18:32	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 18:32	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 18:32	1
Ethylbenzene	**0.28**	**J**	0.40	0.065	ppb v/v			08/19/19 18:32	1
Methylene Chloride	**2.2**	**B**	2.0	0.80	ppb v/v			08/19/19 18:32	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 18:32	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 18:32	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
Toluene	**17**		0.60	0.39	ppb v/v			08/19/19 18:32	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 18:32	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 18:32	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 18:32	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 18:32	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 18:32	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 18:32	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 18:32	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/19/19 18:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 18:32	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/19/19 18:32	1
Chlorodifluoromethane	**0.93**	**J**	1.4	0.39	ug/m3			08/19/19 18:32	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 18:32	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 18:32	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 18:32	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 18:32	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 18:32	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 18:32	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/19/19 18:32	1
Methylene Chloride	**7.6**	**B**	6.9	2.8	ug/m3			08/19/19 18:32	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 18:32	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 18:32	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 18:32	1
Toluene	**64**		2.3	1.5	ug/m3			08/19/19 18:32	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 18:32	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 18:32	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 18:32	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 18:32	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 18:32	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 18:32	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 18:32	1

Client Sample ID: IA-079-A-27 **Lab Sample ID: 140-16367-7**
Date Collected: 08/15/19 16:01 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 18:32	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 18:32	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/19/19 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*08/19/19 18:32*	*1*

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/21/19 17:59	1
Carbon tetrachloride	**0.080**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
Chlorodifluoromethane	**0.38**	**J**	0.40	0.11	ppb v/v			08/21/19 17:59	1
Chloroform	**0.047**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 17:59	1
Dichlorodifluoromethane	**0.53**		0.40	0.070	ppb v/v			08/21/19 17:59	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 17:59	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 17:59	1
Ethylbenzene	**0.28**	**J**	0.40	0.065	ppb v/v			08/21/19 17:59	1
Methylene Chloride	**5.3**	**B**	2.0	0.80	ppb v/v			08/21/19 17:59	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 17:59	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 17:59	1
Tetrachloroethene	**0.15**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
Toluene	**17**		0.60	0.39	ppb v/v			08/21/19 17:59	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 17:59	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 17:59	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/21/19 17:59	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 17:59	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 17:59	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 17:59	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 17:59	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/21/19 17:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.56**	**J**	1.3	0.13	ug/m3			08/21/19 17:59	1
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/21/19 17:59	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/21/19 17:59	1
Chloroform	**0.23**	**J**	2.0	0.17	ug/m3			08/21/19 17:59	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 17:59	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/21/19 17:59	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 17:59	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 17:59	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 17:59	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/21/19 17:59	1
Methylene Chloride	**18**	**B**	6.9	2.8	ug/m3			08/21/19 17:59	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 17:59	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 17:59	1
Tetrachloroethene	**1.0**	**J**	2.7	0.24	ug/m3			08/21/19 17:59	1
Toluene	**64**		2.3	1.5	ug/m3			08/21/19 17:59	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 17:59	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 17:59	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 17:59	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 17:59	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/21/19 17:59	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 17:59	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 17:59	1

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 17:59	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 17:59	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/21/19 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/21/19 17:59*	*1*

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Date Collected: 08/15/19 16:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 19:58	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 19:58	1
Chlorodifluoromethane	**0.31**	**J**	0.40	0.11	ppb v/v			08/19/19 19:58	1
Chloroform	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 19:58	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 19:58	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/19/19 19:58	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 19:58	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 19:58	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/19/19 19:58	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 19:58	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 19:58	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 19:58	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
Toluene	**4.2**		0.60	0.39	ppb v/v			08/19/19 19:58	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 19:58	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 19:58	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
Trichloroethene	**0.040**	**J**	0.20	0.030	ppb v/v			08/19/19 19:58	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 19:58	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 19:58	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 19:58	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 19:58	1
Xylenes, Total	**0.90**		0.80	0.12	ppb v/v			08/19/19 19:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.43**	**J**	1.3	0.13	ug/m3			08/19/19 19:58	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 19:58	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/19/19 19:58	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 19:58	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 19:58	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/19/19 19:58	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 19:58	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 19:58	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 19:58	1
Ethylbenzene	**0.76**	**J**	1.7	0.28	ug/m3			08/19/19 19:58	1
Methylene Chloride	**6.3**	**J B**	6.9	2.8	ug/m3			08/19/19 19:58	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 19:58	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 19:58	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 19:58	1
Toluene	**16**		2.3	1.5	ug/m3			08/19/19 19:58	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 19:58	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 19:58	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 19:58	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 19:58	1
Trichloroethene	**0.21**	**J**	1.1	0.16	ug/m3			08/19/19 19:58	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 19:58	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 19:58	1

Client Sample ID: IA-118-A-27 **Lab Sample ID: 140-16367-9**
Date Collected: 08/15/19 16:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 19:58	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 19:58	1
Xylenes, Total	**3.9**		3.5	0.52	ug/m3			08/19/19 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 19:58*	*1*

Client Sample ID: IA-015-A-27 **Lab Sample ID: 140-16367-10**
Date Collected: 08/15/19 16:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 20:41	1
Carbon tetrachloride	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 20:41	1
Chlorodifluoromethane	**0.45**		0.40	0.11	ppb v/v			08/19/19 20:41	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/19/19 20:41	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 20:41	1
Dichlorodifluoromethane	**0.55**		0.40	0.070	ppb v/v			08/19/19 20:41	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 20:41	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 20:41	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/19/19 20:41	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 20:41	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 20:41	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 20:41	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
Toluene	**4.8**		0.60	0.39	ppb v/v			08/19/19 20:41	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 20:41	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 20:41	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 20:41	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 20:41	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 20:41	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 20:41	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 20:41	1
Xylenes, Total	**0.58**	**J**	0.80	0.12	ppb v/v			08/19/19 20:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/19/19 20:41	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 20:41	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 20:41	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 20:41	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 20:41	1
Dichlorodifluoromethane	**2.7**		2.0	0.35	ug/m3			08/19/19 20:41	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 20:41	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 20:41	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 20:41	1
Ethylbenzene	**0.49**	**J**	1.7	0.28	ug/m3			08/19/19 20:41	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/19/19 20:41	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 20:41	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 20:41	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 20:41	1
Toluene	**18**		2.3	1.5	ug/m3			08/19/19 20:41	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 20:41	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 20:41	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 20:41	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 20:41	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 20:41	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 20:41	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 20:41	1

Client Sample ID: IA-015-A-27 **Lab Sample ID: 140-16367-10**
Date Collected: 08/15/19 16:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 20:41	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 20:41	1
Xylenes, Total	**2.5**	**J**	3.5	0.52	ug/m3			08/19/19 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 20:41*	*1*

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Date Collected: 08/15/19 16:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/19/19 21:24	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/19/19 21:24	1
Chlorodifluoromethane	**0.26**	**J**	0.40	0.11	ppb v/v			08/19/19 21:24	1
Chloroform	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 21:24	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:24	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 21:24	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 21:24	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:24	1
Ethylbenzene	**0.30**	**J**	0.40	0.065	ppb v/v			08/19/19 21:24	1
Methylene Chloride	**6.0**	**B**	2.0	0.80	ppb v/v			08/19/19 21:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:24	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
Toluene	**16**		0.60	0.39	ppb v/v			08/19/19 21:24	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:24	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:24	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:24	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:24	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 21:24	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 21:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.41**	**J**	1.3	0.13	ug/m3			08/19/19 21:24	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/19/19 21:24	1
Chlorodifluoromethane	**0.92**	**J**	1.4	0.39	ug/m3			08/19/19 21:24	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 21:24	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:24	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 21:24	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 21:24	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:24	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/19/19 21:24	1
Methylene Chloride	**21**	**B**	6.9	2.8	ug/m3			08/19/19 21:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:24	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:24	1
Toluene	**60**		2.3	1.5	ug/m3			08/19/19 21:24	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:24	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:24	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:24	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:24	1

Client Sample ID: IA-117-A-27 **Lab Sample ID: 140-16367-11**
Date Collected: 08/15/19 16:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:24	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 21:24	1
Xylenes, Total	**5.5**		3.5	0.52	ug/m3			08/19/19 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 21:24*	*1*

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Date Collected: 08/15/19 16:14 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.11**	**J**	0.40	0.040	ppb v/v			08/19/19 22:07	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 22:07	1
Chlorodifluoromethane	**0.24**	**J**	0.40	0.11	ppb v/v			08/19/19 22:07	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/19/19 22:07	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:07	1
Dichlorodifluoromethane	**0.30**	**J**	0.40	0.070	ppb v/v			08/19/19 22:07	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:07	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:07	1
Ethylbenzene	**0.25**	**J**	0.40	0.065	ppb v/v			08/19/19 22:07	1
Methylene Chloride	**4.4**	**B**	2.0	0.80	ppb v/v			08/19/19 22:07	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:07	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:07	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
Toluene	**16**		0.60	0.39	ppb v/v			08/19/19 22:07	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:07	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:07	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:07	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 22:07	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:07	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 22:07	1
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/19/19 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.36**	**J**	1.3	0.13	ug/m3			08/19/19 22:07	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/19/19 22:07	1
Chlorodifluoromethane	**0.86**	**J**	1.4	0.39	ug/m3			08/19/19 22:07	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 22:07	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:07	1
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.35	ug/m3			08/19/19 22:07	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:07	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:07	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:07	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 22:07	1
Methylene Chloride	**15**	**B**	6.9	2.8	ug/m3			08/19/19 22:07	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:07	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:07	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 22:07	1
Toluene	**62**		2.3	1.5	ug/m3			08/19/19 22:07	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:07	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:07	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:07	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:07	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 22:07	1

Client Sample ID: IA-078-A-27 **Lab Sample ID: 140-16367-12**
Date Collected: 08/15/19 16:14 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:07	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 22:07	1
Xylenes, Total	**5.0**		3.5	0.52	ug/m3			08/19/19 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 22:07*	*1*

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 22:50	1
Carbon tetrachloride	**0.069**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
Chlorodifluoromethane	**0.46**		0.40	0.11	ppb v/v			08/19/19 22:50	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:50	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/19/19 22:50	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:50	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:50	1
Ethylbenzene	**0.35**	**J**	0.40	0.065	ppb v/v			08/19/19 22:50	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 22:50	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:50	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:50	1
Tetrachloroethene	**0.038**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
Toluene	**18**		0.60	0.39	ppb v/v			08/19/19 22:50	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:50	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:50	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:50	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:50	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 22:50	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:50	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 22:50	1
Xylenes, Total	**1.6**		0.80	0.12	ppb v/v			08/19/19 22:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/19/19 22:50	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			08/19/19 22:50	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 22:50	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			08/19/19 22:50	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:50	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/19/19 22:50	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:50	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:50	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:50	1
Ethylbenzene	**1.5**	**J**	1.7	0.28	ug/m3			08/19/19 22:50	1
Methylene Chloride	**6.1**	**J B**	6.9	2.8	ug/m3			08/19/19 22:50	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:50	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:50	1
Tetrachloroethene	**0.26**	**J**	2.7	0.24	ug/m3			08/19/19 22:50	1
Toluene	**70**		2.3	1.5	ug/m3			08/19/19 22:50	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:50	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:50	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:50	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:50	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:50	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:50	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 22:50	1

Client Sample ID: IA-136-A-27 **Lab Sample ID: 140-16367-13**
Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:50	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 22:50	1
Xylenes, Total	**7.1**		3.5	0.52	ug/m3			08/19/19 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*08/19/19 22:50*	*1*

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 23:32	1
Carbon tetrachloride	**0.061**	**J**	0.40	0.035	ppb v/v			08/19/19 23:32	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/19/19 23:32	1
Chloroform	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 23:32	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 23:32	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/19/19 23:32	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 23:32	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 23:32	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/19/19 23:32	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			08/19/19 23:32	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 23:32	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 23:32	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
Toluene	**7.3**		0.60	0.39	ppb v/v			08/19/19 23:32	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 23:32	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 23:32	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 23:32	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 23:32	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 23:32	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 23:32	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 23:32	1
Xylenes, Total	**0.75**	**J**	0.80	0.12	ppb v/v			08/19/19 23:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 23:32	1
Carbon tetrachloride	**0.39**	**J**	2.5	0.22	ug/m3			08/19/19 23:32	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/19/19 23:32	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			08/19/19 23:32	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 23:32	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 23:32	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 23:32	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 23:32	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 23:32	1
Ethylbenzene	**0.70**	**J**	1.7	0.28	ug/m3			08/19/19 23:32	1
Methylene Chloride	**5.7**	**J B**	6.9	2.8	ug/m3			08/19/19 23:32	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 23:32	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 23:32	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 23:32	1
Toluene	**27**		2.3	1.5	ug/m3			08/19/19 23:32	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 23:32	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 23:32	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 23:32	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 23:32	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 23:32	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 23:32	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 23:32	1

Client Sample ID: IA-076-A-27 **Lab Sample ID: 140-16367-14**
Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 23:32	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 23:32	1
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/19/19 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 23:32*	*1*

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.12**	**J**	0.40	0.040	ppb v/v			08/20/19 00:15	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 00:15	1
Chlorodifluoromethane	**0.25**	**J**	0.40	0.11	ppb v/v			08/20/19 00:15	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 00:15	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/20/19 00:15	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 00:15	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 00:15	1
Ethylbenzene	**0.082**	**J**	0.40	0.065	ppb v/v			08/20/19 00:15	1
Methylene Chloride	**2.4**	**B**	2.0	0.80	ppb v/v			08/20/19 00:15	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 00:15	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 00:15	1
Tetrachloroethene	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 00:15	1
Toluene	**2.6**		0.60	0.39	ppb v/v			08/20/19 00:15	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 00:15	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 00:15	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 00:15	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 00:15	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 00:15	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 00:15	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/20/19 00:15	1
Xylenes, Total	**0.38**	**J**	0.80	0.12	ppb v/v			08/20/19 00:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.38**	**J**	1.3	0.13	ug/m3			08/20/19 00:15	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 00:15	1
Chlorodifluoromethane	**0.88**	**J**	1.4	0.39	ug/m3			08/20/19 00:15	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 00:15	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 00:15	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/20/19 00:15	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 00:15	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 00:15	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 00:15	1
Ethylbenzene	**0.36**	**J**	1.7	0.28	ug/m3			08/20/19 00:15	1
Methylene Chloride	**8.3**	**B**	6.9	2.8	ug/m3			08/20/19 00:15	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 00:15	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 00:15	1
Tetrachloroethene	**0.41**	**J**	2.7	0.24	ug/m3			08/20/19 00:15	1
Toluene	**9.9**		2.3	1.5	ug/m3			08/20/19 00:15	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 00:15	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 00:15	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 00:15	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 00:15	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 00:15	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 00:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 00:15	1

Client Sample ID: IA-168-A-27 **Lab Sample ID: 140-16367-15**
Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 00:15	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/20/19 00:15	1
Xylenes, Total	**1.6**	**J**	3.5	0.52	ug/m3			08/20/19 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/20/19 00:15*	*1*

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Date Collected: 08/15/19 16:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.0	0.40	ppb v/v			08/19/19 20:44	1
Carbon tetrachloride	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Chlorodifluoromethane	ND		4.0	1.1	ppb v/v			08/19/19 20:44	1
Chloroform	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
cis-1,2-Dichloroethene	ND		4.0	0.50	ppb v/v			08/19/19 20:44	1
Dichlorodifluoromethane	ND		4.0	0.70	ppb v/v			08/19/19 20:44	1
1,1-Dichloroethane	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
1,2-Dichloroethane	ND		4.0	0.50	ppb v/v			08/19/19 20:44	1
1,1-Dichloroethene	ND		4.0	0.40	ppb v/v			08/19/19 20:44	1
Ethylbenzene	ND		4.0	0.65	ppb v/v			08/19/19 20:44	1
Methylene Chloride	**8.5**	**J B**	20	8.0	ppb v/v			08/19/19 20:44	1
Methyl tert-butyl ether	ND		20	2.6	ppb v/v			08/19/19 20:44	1
Naphthalene	ND		2.0	3.8	ppb v/v			08/19/19 20:44	1
Tetrachloroethene	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Toluene	**6.3**		6.0	3.9	ppb v/v			08/19/19 20:44	1
trans-1,2-Dichloroethene	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
1,2,4-Trichlorobenzene	ND		4.0	3.2	ppb v/v			08/19/19 20:44	1
1,1,1-Trichloroethane	ND		4.0	1.9	ppb v/v			08/19/19 20:44	1
1,1,2-Trichloroethane	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Trichloroethene	ND		2.0	0.30	ppb v/v			08/19/19 20:44	1
1,2,3-Trimethylbenzene	ND		4.0	1.8	ppb v/v			08/19/19 20:44	1
1,2,4-Trimethylbenzene	ND		4.0	1.0	ppb v/v			08/19/19 20:44	1
1,3,5-Trimethylbenzene	ND		4.0	1.1	ppb v/v			08/19/19 20:44	1
Vinyl chloride	ND		2.0	1.3	ppb v/v			08/19/19 20:44	1
Xylenes, Total	ND		8.0	1.2	ppb v/v			08/19/19 20:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		13	1.3	ug/m3			08/19/19 20:44	1
Carbon tetrachloride	ND		25	2.2	ug/m3			08/19/19 20:44	1
Chlorodifluoromethane	ND		14	3.9	ug/m3			08/19/19 20:44	1
Chloroform	ND		20	1.7	ug/m3			08/19/19 20:44	1
cis-1,2-Dichloroethene	ND		16	2.0	ug/m3			08/19/19 20:44	1
Dichlorodifluoromethane	ND		20	3.5	ug/m3			08/19/19 20:44	1
1,1-Dichloroethane	ND		16	1.4	ug/m3			08/19/19 20:44	1
1,2-Dichloroethane	ND		16	2.0	ug/m3			08/19/19 20:44	1
1,1-Dichloroethene	ND		16	1.6	ug/m3			08/19/19 20:44	1
Ethylbenzene	ND		17	2.8	ug/m3			08/19/19 20:44	1
Methylene Chloride	**29**	**J B**	69	28	ug/m3			08/19/19 20:44	1
Methyl tert-butyl ether	ND		72	9.4	ug/m3			08/19/19 20:44	1
Naphthalene	ND		10	20	ug/m3			08/19/19 20:44	1
Tetrachloroethene	ND		27	2.4	ug/m3			08/19/19 20:44	1
Toluene	**24**		23	15	ug/m3			08/19/19 20:44	1
trans-1,2-Dichloroethene	ND		16	1.4	ug/m3			08/19/19 20:44	1
1,2,4-Trichlorobenzene	ND		30	24	ug/m3			08/19/19 20:44	1
1,1,1-Trichloroethane	ND		22	10	ug/m3			08/19/19 20:44	1
1,1,2-Trichloroethane	ND		22	1.9	ug/m3			08/19/19 20:44	1
Trichloroethene	ND		11	1.6	ug/m3			08/19/19 20:44	1
1,2,3-Trimethylbenzene	ND		20	8.8	ug/m3			08/19/19 20:44	1
1,2,4-Trimethylbenzene	ND		20	4.9	ug/m3			08/19/19 20:44	1

Client Sample ID: IA-075-A-27 **Lab Sample ID: 140-16367-16**
Date Collected: 08/15/19 16:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		20	5.4	ug/m3			08/19/19 20:44	1
Vinyl chloride	ND		5.1	3.3	ug/m3			08/19/19 20:44	1
Xylenes, Total	ND		35	5.2	ug/m3			08/19/19 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 20:44*	*1*

Client Sample ID: IA-021-A-27 **Lab Sample ID: 140-16367-17**
Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.098**	**J**	0.40	0.040	ppb v/v			08/19/19 21:31	1
Carbon tetrachloride	**0.075**	**J**	0.40	0.035	ppb v/v			08/19/19 21:31	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/19/19 21:31	1
Chloroform	**0.048**	**J**	0.40	0.035	ppb v/v			08/19/19 21:31	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:31	1
Dichlorodifluoromethane	**0.31**	**J**	0.40	0.070	ppb v/v			08/19/19 21:31	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 21:31	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:31	1
Ethylbenzene	**0.25**	**J**	0.40	0.065	ppb v/v			08/19/19 21:31	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 21:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:31	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
Toluene	**12**		0.60	0.39	ppb v/v			08/19/19 21:31	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:31	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 21:31	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 21:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.31**	**J**	1.3	0.13	ug/m3			08/19/19 21:31	1
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/19/19 21:31	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/19/19 21:31	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 21:31	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:31	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/19/19 21:31	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 21:31	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:31	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 21:31	1
Methylene Chloride	**6.3**	**J B**	6.9	2.8	ug/m3			08/19/19 21:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:31	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:31	1
Toluene	**46**		2.3	1.5	ug/m3			08/19/19 21:31	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:31	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:31	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:31	1

Client Sample ID: IA-021-A-27 **Lab Sample ID: 140-16367-17**
Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 21:31	1
Xylenes, Total	**5.7**		3.5	0.52	ug/m3			08/19/19 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/19/19 21:31*	*1*

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 22:19	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
Chlorodifluoromethane	**0.67**		0.40	0.11	ppb v/v			08/19/19 22:19	1
Chloroform	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:19	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/19/19 22:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:19	1
Ethylbenzene	**0.54**		0.40	0.065	ppb v/v			08/19/19 22:19	1
Methylene Chloride	**1.7**	**J B**	2.0	0.80	ppb v/v			08/19/19 22:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:19	1
Tetrachloroethene	**0.036**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
Toluene	**36**		0.60	0.39	ppb v/v			08/19/19 22:19	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:19	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:19	1
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/19/19 22:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 22:19	1
Xylenes, Total	**2.4**		0.80	0.12	ppb v/v			08/19/19 22:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 22:19	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/19/19 22:19	1
Chlorodifluoromethane	**2.4**		1.4	0.39	ug/m3			08/19/19 22:19	1
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/19/19 22:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:19	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/19/19 22:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:19	1
Ethylbenzene	**2.4**		1.7	0.28	ug/m3			08/19/19 22:19	1
Methylene Chloride	**5.9**	**J B**	6.9	2.8	ug/m3			08/19/19 22:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:19	1
Tetrachloroethene	**0.24**	**J**	2.7	0.24	ug/m3			08/19/19 22:19	1
Toluene	**130**		2.3	1.5	ug/m3			08/19/19 22:19	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:19	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:19	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:19	1
1,2,4-Trimethylbenzene	**0.63**	**J**	2.0	0.49	ug/m3			08/19/19 22:19	1

Client Sample ID: IA-100-B-27 **Lab Sample ID: 140-16367-18**
Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 22:19	1
Xylenes, Total	**10**		3.5	0.52	ug/m3			08/19/19 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/19/19 22:19*	*1*

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 23:07	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
Chlorodifluoromethane	**0.76**		0.40	0.11	ppb v/v			08/19/19 23:07	1
Chloroform	**0.072**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 23:07	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 23:07	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 23:07	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 23:07	1
Ethylbenzene	**0.40**		0.40	0.065	ppb v/v			08/19/19 23:07	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			08/19/19 23:07	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 23:07	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 23:07	1
Tetrachloroethene	**0.058**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
Toluene	**25**		0.60	0.39	ppb v/v			08/19/19 23:07	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 23:07	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 23:07	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 23:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 23:07	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 23:07	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 23:07	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 23:07	1
Xylenes, Total	**2.0**		0.80	0.12	ppb v/v			08/19/19 23:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 23:07	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 23:07	1
Chlorodifluoromethane	**2.7**		1.4	0.39	ug/m3			08/19/19 23:07	1
Chloroform	**0.35**	**J**	2.0	0.17	ug/m3			08/19/19 23:07	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 23:07	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 23:07	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 23:07	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 23:07	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 23:07	1
Ethylbenzene	**1.7**		1.7	0.28	ug/m3			08/19/19 23:07	1
Methylene Chloride	**5.6**	**J B**	6.9	2.8	ug/m3			08/19/19 23:07	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 23:07	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 23:07	1
Tetrachloroethene	**0.39**	**J**	2.7	0.24	ug/m3			08/19/19 23:07	1
Toluene	**95**		2.3	1.5	ug/m3			08/19/19 23:07	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 23:07	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 23:07	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 23:07	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 23:07	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 23:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 23:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 23:07	1

Client Sample ID: IA-101-B-27 **Lab Sample ID: 140-16367-19**
Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 23:07	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 23:07	1
Xylenes, Total	**8.7**		3.5	0.52	ug/m3			08/19/19 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/19/19 23:07*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	BFB (60-140)						
140-16367-1	IA-018-A-27	103						
140-16367-2	IA-DUP3-A-27	104						
140-16367-3	IA-138-A-27	100						
140-16367-4	IA-174-A-27	91						
140-16367-5	IA-093-A-27	94						
140-16367-6	IA-081-A-27	100						
140-16367-7	IA-079-A-27	98						
140-16367-8	IA-DUP4-A-27	99						
140-16367-9	IA-118-A-27	92						
140-16367-10	IA-015-A-27	100						
140-16367-11	IA-117-A-27	100						
140-16367-12	IA-078-A-27	92						
140-16367-13	IA-136-A-27	101						
140-16367-14	IA-076-A-27	100						
140-16367-15	IA-168-A-27	99						
140-16367-16	IA-075-A-27	92						
140-16367-17	IA-021-A-27	96						
140-16367-18	IA-100-B-27	95						
140-16367-19	IA-101-B-27	94						
LCS 140-32704/1002	Lab Control Sample	101						
LCS 140-32744/1002	Lab Control Sample	107						
LCS 140-32829/1002	Lab Control Sample	91						
MB 140-32704/4	Method Blank	99						
MB 140-32744/4	Method Blank	90						
MB 140-32829/4	Method Blank	82						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32704/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 13:28	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 13:28	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 13:28	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 13:28	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 13:28	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 13:28	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 13:28	1
Methylene Chloride	0.215	J	0.40	0.16	ppb v/v			08/19/19 13:28	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 13:28	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 13:28	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 13:28	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 13:28	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 13:28	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 13:28	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 13:28	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 13:28	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 13:28	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 13:28	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 13:28	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 13:28	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 13:28	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 13:28	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 13:28	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 13:28	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 13:28	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 13:28	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 13:28	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 13:28	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 13:28	1
Methylene Chloride	0.745	J	1.4	0.56	ug/m3			08/19/19 13:28	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 13:28	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 13:28	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 13:28	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 13:28	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 13:28	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 13:28	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 13:28	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 13:28	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 13:28	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 13:28	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32704/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 13:28	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 13:28	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 13:28	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/19/19 13:28*	*1*

Lab Sample ID: LCS 140-32704/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.04		ppb v/v		102	70 - 130
Carbon tetrachloride	2.00	1.80		ppb v/v		90	70 - 130
Chlorodifluoromethane	2.00	2.42		ppb v/v		121	60 - 140
Chloroform	2.00	1.94		ppb v/v		97	70 - 130
cis-1,2-Dichloroethene	2.00	2.07		ppb v/v		104	70 - 130
Dichlorodifluoromethane	2.00	2.37		ppb v/v		119	60 - 140
1,1-Dichloroethane	2.00	2.02		ppb v/v		101	70 - 130
1,2-Dichloroethane	2.00	1.76		ppb v/v		88	70 - 130
1,1-Dichloroethene	2.00	2.01		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.89		ppb v/v		94	70 - 130
Methylene Chloride	2.00	2.05		ppb v/v		103	70 - 130
Methyl tert-butyl ether	2.00	1.75		ppb v/v		87	60 - 140
Naphthalene	2.00	1.56		ppb v/v		78	60 - 140
Tetrachloroethene	2.00	1.79		ppb v/v		89	70 - 130
Toluene	2.00	1.94		ppb v/v		97	70 - 130
trans-1,2-Dichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	2.00	1.62		ppb v/v		81	60 - 140
1,1,1-Trichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,1,2-Trichloroethane	2.00	1.90		ppb v/v		95	70 - 130
Trichloroethene	2.00	1.84		ppb v/v		92	70 - 130
1,2,3-Trimethylbenzene	2.00	1.44		ppb v/v		72	70 - 130
1,2,4-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,3,5-Trimethylbenzene	2.00	2.04		ppb v/v		102	70 - 130
Vinyl chloride	2.00	2.64	*	ppb v/v		132	70 - 130
Xylenes, Total	6.00	5.58		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.51		ug/m3		102	70 - 130
Carbon tetrachloride	13	11.3		ug/m3		90	70 - 130
Chlorodifluoromethane	7.1	8.56		ug/m3		121	60 - 140
Chloroform	9.8	9.47		ug/m3		97	70 - 130
cis-1,2-Dichloroethene	7.9	8.21		ug/m3		104	70 - 130
Dichlorodifluoromethane	9.9	11.7		ug/m3		119	60 - 140
1,1-Dichloroethane	8.1	8.17		ug/m3		101	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32704/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	7.11		ug/m3		88	70 - 130
1,1-Dichloroethene	7.9	7.97		ug/m3		101	70 - 130
Ethylbenzene	8.7	8.20		ug/m3		94	70 - 130
Methylene Chloride	6.9	7.13		ug/m3		103	70 - 130
Methyl tert-butyl ether	7.2	6.31		ug/m3		87	60 - 140
Naphthalene	10	8.17		ug/m3		78	60 - 140
Tetrachloroethene	14	12.1		ug/m3		89	70 - 130
Toluene	7.5	7.31		ug/m3		97	70 - 130
trans-1,2-Dichloroethene	7.9	8.17		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	15	12.0		ug/m3		81	60 - 140
1,1,1-Trichloroethane	11	10.0		ug/m3		92	70 - 130
1,1,2-Trichloroethane	11	10.4		ug/m3		95	70 - 130
Trichloroethene	11	9.90		ug/m3		92	70 - 130
1,2,3-Trimethylbenzene	9.8	7.08		ug/m3		72	70 - 130
1,2,4-Trimethylbenzene	9.8	8.50		ug/m3		86	70 - 130
1,3,5-Trimethylbenzene	9.8	10.0		ug/m3		102	70 - 130
Vinyl chloride	5.1	6.74	*	ug/m3		132	70 - 130
Xylenes, Total	26	24.2		ug/m3		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 18:12	1
Methylene Chloride	0.164	J	0.40	0.16	ppb v/v			08/19/19 18:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 18:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 18:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 18:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 18:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 18:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 18:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 18:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 18:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 18:12	1
Methylene Chloride	0.570	J	1.4	0.56	ug/m3			08/19/19 18:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 18:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 18:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 18:12	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 18:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 18:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 18:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 18:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 18:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 18:12*	*1*

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.893		ppb v/v		89	70 - 130
Carbon tetrachloride	1.00	0.969		ppb v/v		97	70 - 130
Chlorodifluoromethane	1.00	0.930		ppb v/v		93	60 - 140
Chloroform	1.00	0.986		ppb v/v		99	70 - 130
cis-1,2-Dichloroethene	1.00	0.918		ppb v/v		92	70 - 130
Dichlorodifluoromethane	1.00	1.16		ppb v/v		116	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	1.00	0.985		ppb v/v		98	70 - 130
1,2-Dichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1-Dichloroethene	1.00	0.804		ppb v/v		80	70 - 130
Ethylbenzene	1.00	0.939		ppb v/v		94	70 - 130
Methylene Chloride	1.00	0.886		ppb v/v		89	70 - 130
Methyl tert-butyl ether	1.00	0.998		ppb v/v		100	60 - 140
Naphthalene	1.00	0.929		ppb v/v		93	60 - 140
Tetrachloroethene	1.00	0.842		ppb v/v		84	70 - 130
Toluene	1.00	0.896		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	1.00	0.976		ppb v/v		98	70 - 130
1,2,4-Trichlorobenzene	1.00	0.891		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	1.00	0.927		ppb v/v		93	70 - 130
1,1,2-Trichloroethane	1.00	0.916		ppb v/v		92	70 - 130
Trichloroethene	1.00	0.867		ppb v/v		87	70 - 130
1,2,3-Trimethylbenzene	1.00	0.974		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	1.00	0.947		ppb v/v		95	70 - 130
1,3,5-Trimethylbenzene	1.00	0.953		ppb v/v		95	70 - 130
Vinyl chloride	1.00	0.986		ppb v/v		99	70 - 130
Xylenes, Total	3.00	2.79		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.85		ug/m3		89	70 - 130
Carbon tetrachloride	6.3	6.10		ug/m3		97	70 - 130
Chlorodifluoromethane	3.5	3.29		ug/m3		93	60 - 140
Chloroform	4.9	4.81		ug/m3		99	70 - 130
cis-1,2-Dichloroethene	4.0	3.64		ug/m3		92	70 - 130
Dichlorodifluoromethane	4.9	5.76		ug/m3		116	60 - 140
1,1-Dichloroethane	4.0	3.99		ug/m3		98	70 - 130
1,2-Dichloroethane	4.0	4.19		ug/m3		104	70 - 130
1,1-Dichloroethene	4.0	3.19		ug/m3		80	70 - 130
Ethylbenzene	4.3	4.08		ug/m3		94	70 - 130
Methylene Chloride	3.5	3.08		ug/m3		89	70 - 130
Methyl tert-butyl ether	3.6	3.60		ug/m3		100	60 - 140
Naphthalene	5.2	4.87		ug/m3		93	60 - 140
Tetrachloroethene	6.8	5.71		ug/m3		84	70 - 130
Toluene	3.8	3.37		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	4.0	3.87		ug/m3		98	70 - 130
1,2,4-Trichlorobenzene	7.4	6.61		ug/m3		89	60 - 140
1,1,1-Trichloroethane	5.5	5.06		ug/m3		93	70 - 130
1,1,2-Trichloroethane	5.5	5.00		ug/m3		92	70 - 130
Trichloroethene	5.4	4.66		ug/m3		87	70 - 130
1,2,3-Trimethylbenzene	4.9	4.79		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	4.9	4.66		ug/m3		95	70 - 130
1,3,5-Trimethylbenzene	4.9	4.69		ug/m3		95	70 - 130
Vinyl chloride	2.6	2.52		ug/m3		99	70 - 130
Xylenes, Total	13	12.1		ug/m3		93	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.91		ppb v/v		96	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		92	70 - 130
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.11		ug/m3		96	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		92	70 - 130
Chlorodifluoromethane	7.1	6.98		ug/m3		99	60 - 140
Chloroform	9.8	8.72		ug/m3		89	70 - 130
cis-1,2-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.90		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	7.45		ug/m3		92	70 - 130
1,2-Dichloroethane	8.1	5.88		ug/m3		73	70 - 130
1,1-Dichloroethene	7.9	8.38		ug/m3		106	70 - 130
Ethylbenzene	8.7	7.36		ug/m3		85	70 - 130
Methylene Chloride	6.9	6.15		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	5.97		ug/m3		83	60 - 140
Naphthalene	10	8.88		ug/m3		85	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.82		ug/m3		91	70 - 130
trans-1,2-Dichloroethene	7.9	8.50		ug/m3		107	70 - 130
1,2,4-Trichlorobenzene	15	12.5		ug/m3		84	60 - 140
1,1,1-Trichloroethane	11	8.88		ug/m3		81	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
1,2,3-Trimethylbenzene	9.8	8.49		ug/m3		86	70 - 130
1,2,4-Trimethylbenzene	9.8	8.31		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	8.93		ug/m3		91	70 - 130
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Xylenes, Total	26	22.1		ug/m3		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-1	IA-018-A-27	Total/NA	Air	TO 15 LL	
140-16367-2	IA-DUP3-A-27	Total/NA	Air	TO 15 LL	
140-16367-3	IA-138-A-27	Total/NA	Air	TO 15 LL	
140-16367-6	IA-081-A-27	Total/NA	Air	TO 15 LL	
140-16367-7	IA-079-A-27	Total/NA	Air	TO 15 LL	
140-16367-9	IA-118-A-27	Total/NA	Air	TO 15 LL	
140-16367-10	IA-015-A-27	Total/NA	Air	TO 15 LL	
140-16367-11	IA-117-A-27	Total/NA	Air	TO 15 LL	
140-16367-12	IA-078-A-27	Total/NA	Air	TO 15 LL	
140-16367-13	IA-136-A-27	Total/NA	Air	TO 15 LL	
140-16367-14	IA-076-A-27	Total/NA	Air	TO 15 LL	
140-16367-15	IA-168-A-27	Total/NA	Air	TO 15 LL	
MB 140-32704/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32704/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-16	IA-075-A-27	Total/NA	Air	TO 15 LL	
140-16367-17	IA-021-A-27	Total/NA	Air	TO 15 LL	
140-16367-18	IA-100-B-27	Total/NA	Air	TO 15 LL	
140-16367-19	IA-101-B-27	Total/NA	Air	TO 15 LL	
MB 140-32744/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32744/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-4	IA-174-A-27	Total/NA	Air	TO 15 LL	
140-16367-5	IA-093-A-27	Total/NA	Air	TO 15 LL	
140-16367-8	IA-DUP4-A-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: IA-018-A-27 — Lab Sample ID: 140-16367-1

Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 14:11	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-DUP3-A-27 — Lab Sample ID: 140-16367-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 14:56	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-138-A-27 — Lab Sample ID: 140-16367-3

Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.04	204 mL	500 mL	32704	08/19/19 15:41	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-174-A-27 — Lab Sample ID: 140-16367-4

Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 17:09	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-093-A-27 — Lab Sample ID: 140-16367-5

Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 00:34	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-081-A-27 — Lab Sample ID: 140-16367-6

Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 17:49	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-079-A-27 — Lab Sample ID: 140-16367-7

Date Collected: 08/15/19 16:01 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 18:32	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-DUP4-A-27 — Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 17:59	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-118-A-27 — Lab Sample ID: 140-16367-9

Date Collected: 08/15/19 16:10 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 19:58	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-015-A-27 — Lab Sample ID: 140-16367-10

Date Collected: 08/15/19 16:11 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 20:41	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-117-A-27 — Lab Sample ID: 140-16367-11

Date Collected: 08/15/19 16:17 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 21:24	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-078-A-27 — Lab Sample ID: 140-16367-12

Date Collected: 08/15/19 16:14 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 22:07	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-136-A-27 — Lab Sample ID: 140-16367-13

Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 22:50	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-076-A-27 — Lab Sample ID: 140-16367-14

Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 23:32	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-168-A-27 — Lab Sample ID: 140-16367-15

Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/20/19 00:15	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-075-A-27 — Lab Sample ID: 140-16367-16

Date Collected: 08/15/19 16:25 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	10 mL	500 mL	32744	08/19/19 20:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-021-A-27 — Lab Sample ID: 140-16367-17

Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 21:31	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-100-B-27 — Lab Sample ID: 140-16367-18

Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 22:19	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-101-B-27 — Lab Sample ID: 140-16367-19

Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 23:07	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32704/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32704	08/19/19 13:28	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32744/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 18:12	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32704/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32704	08/19/19 11:10	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32744/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 16:53	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-32829/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:
TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16367-1	IA-018-A-27	Air	08/15/19 15:53	08/17/19 10:30	Air Canister (1-Liter) #10748
140-16367-2	IA-DUP3-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11839
140-16367-3	IA-138-A-27	Air	08/15/19 15:54	08/17/19 10:30	Air Canister (1-Liter) #10519
140-16367-4	IA-174-A-27	Air	08/15/19 15:55	08/17/19 10:30	Air Canister (1-Liter) #11860
140-16367-5	IA-093-A-27	Air	08/15/19 15:56	08/17/19 10:30	Air Canister (1-Liter) #09797
140-16367-6	IA-081-A-27	Air	08/15/19 16:00	08/17/19 10:30	Air Canister (1-Liter) #10345
140-16367-7	IA-079-A-27	Air	08/15/19 16:01	08/17/19 10:30	Air Canister (1-Liter) #11624
140-16367-8	IA-DUP4-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11875
140-16367-9	IA-118-A-27	Air	08/15/19 16:10	08/17/19 10:30	Air Canister (1-Liter) #10335
140-16367-10	IA-015-A-27	Air	08/15/19 16:11	08/17/19 10:30	Air Canister (1-Liter) #09663
140-16367-11	IA-117-A-27	Air	08/15/19 16:17	08/17/19 10:30	Air Canister (1-Liter) #11639
140-16367-12	IA-078-A-27	Air	08/15/19 16:14	08/17/19 10:30	Air Canister (1-Liter) #11882
140-16367-13	IA-136-A-27	Air	08/15/19 16:20	08/17/19 10:30	Air Canister (1-Liter) #11807
140-16367-14	IA-076-A-27	Air	08/15/19 16:22	08/17/19 10:30	Air Canister (1-Liter) #11753
140-16367-15	IA-168-A-27	Air	08/15/19 16:23	08/17/19 10:30	Air Canister (1-Liter) #11135
140-16367-16	IA-075-A-27	Air	08/15/19 16:25	08/17/19 10:30	Air Canister (1-Liter) #11035
140-16367-17	IA-021-A-27	Air	08/15/19 16:27	08/17/19 10:30	Air Canister (1-Liter) #11851
140-16367-18	IA-100-B-27	Air	08/15/19 16:30	08/17/19 10:30	Air Canister (1-Liter) #11884
140-16367-19	IA-101-B-27	Air	08/15/19 16:33	08/17/19 10:30	Air Canister (1-Liter) #11883

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27	140-16367-1	103
IA-DUP3-A-27	140-16367-2	104
IA-138-A-27	140-16367-3	100
IA-174-A-27	140-16367-4	91
IA-093-A-27	140-16367-5	94
IA-081-A-27	140-16367-6	100
IA-079-A-27	140-16367-7	98
IA-DUP4-A-27	140-16367-8	99
IA-118-A-27	140-16367-9	92
IA-015-A-27	140-16367-10	100
IA-117-A-27	140-16367-11	100
IA-078-A-27	140-16367-12	92
IA-136-A-27	140-16367-13	101
IA-076-A-27	140-16367-14	100
IA-168-A-27	140-16367-15	99
IA-075-A-27	140-16367-16	92
IA-021-A-27	140-16367-17	96
IA-100-B-27	140-16367-18	95
IA-101-B-27	140-16367-19	94
	MB 140-32704/4	99
	MB 140-32744/4	90
	MB 140-32829/4	82
	LCS 140-32704/1002	101
	LCS 140-32744/1002	107
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH19A-LCS.d

Lab ID: LCS 140-32704/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.04	102	70-130	
Carbon tetrachloride	2.00	1.80	90	70-130	
Chlorodifluoromethane	2.00	2.42	121	60-140	
Chloroform	2.00	1.94	97	70-130	
cis-1,2-Dichloroethene	2.00	2.07	104	70-130	
Dichlorodifluoromethane	2.00	2.37	119	60-140	
1,1-Dichloroethane	2.00	2.02	101	70-130	
1,2-Dichloroethane	2.00	1.76	88	70-130	
1,1-Dichloroethene	2.00	2.01	101	70-130	
Ethylbenzene	2.00	1.89	94	70-130	
Methylene Chloride	2.00	2.05	103	70-130	
Methyl tert-butyl ether	2.00	1.75	87	60-140	
Naphthalene	2.00	1.56	78	60-140	
Tetrachloroethene	2.00	1.79	89	70-130	
Toluene	2.00	1.94	97	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.62	81	60-140	
1,1,1-Trichloroethane	2.00	1.84	92	70-130	
1,1,2-Trichloroethane	2.00	1.90	95	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.44	72	70-130	
1,2,4-Trimethylbenzene	2.00	1.73	86	70-130	
1,3,5-Trimethylbenzene	2.00	2.04	102	70-130	
Vinyl chloride	2.00	2.64	132	70-130	*
Xylenes, Total	6.00	5.58	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: G500BH19.D Lab Sample ID: MB 140-32704/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/19/2019 13:28

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32704/1002	GCCVH19A-LCS.d	08/19/2019 11:10
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019 14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019 14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019 15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019 17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019 18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019 19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019 20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019 21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019 22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019 22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019 23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019 00:15

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019 17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019 17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019 00:34

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019 20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019 21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019 22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019 23:07

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH19A.D BFB Injection Date: 08/19/2019

Instrument ID: MG BFB Injection Time: 10:37

Analysis Batch No.: 32704

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	95.0	
175	5.0 - 9.0 % of mass 174	6.9	(7.3) 1
176	95.0 - 101.0 % of mass 174	92.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32704/2	GCCVH19A.D	08/19/2019	11:10
	LCS 140-32704/1002	GCCVH19A-LCS .d	08/19/2019	11:10
	MB 140-32704/4	G500BH19.D	08/19/2019	13:28
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019	14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019	14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019	15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019	17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019	18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019	19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019	20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019	21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019	22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019	22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019	23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019	00:15

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019	17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019	17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019	00:34

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019	20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019	21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019	22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019	23:07

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32704/2 Date Analyzed: 08/19/2019 11:10

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH19A.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		639553	9.14	3637374	11.31	3201568	15.99
UPPER LIMIT		895374	9.47	5092324	11.64	4482195	16.32
LOWER LIMIT		383732	8.81	2182424	10.98	1920941	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32704/1002		639553	9.14	3637374	11.31	3201568	15.99
MB 140-32704/4		631196	9.14	3572704	11.31	3152905	15.99
140-16367-1	IA-018-A-27	555604	9.14	3126966	11.31	2783832	15.98
140-16367-2	IA-DUP3-A-27	609580	9.14	3489024	11.31	3082954	15.99
140-16367-3	IA-138-A-27	610525	9.14	3528279	11.31	3149068	15.99
140-16367-6	IA-081-A-27	634236	9.14	3176329	11.31	2958095	15.99
140-16367-7	IA-079-A-27	850205	9.14	4274753	11.31	3299959	15.98
140-16367-9	IA-118-A-27	862766	9.15	4013893	11.31	2976020	15.98
140-16367-10	IA-015-A-27	630191	9.15	3510555	11.31	3203955	15.98
140-16367-11	IA-117-A-27	815671	9.15	4235194	11.31	2962285	15.99
140-16367-12	IA-078-A-27	875616	9.14	4725665	11.31	4282764	15.98
140-16367-13	IA-136-A-27	627547	9.15	3378893	11.31	2937203	15.98
140-16367-14	IA-076-A-27	644653	9.15	3313641	11.31	2944757	15.98
140-16367-15	IA-168-A-27	745756	9.14	3977658	11.30	2859104	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16367-4	IA-174-A-27	259215	9.73	1273380	11.84	1061453	16.45
140-16367-8	IA-DUP4-A-27	207218	9.73	1011694	11.84	869388	16.45
140-16367-5	IA-093-A-27	213359	9.73	1014519	11.84	824581	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16367-16	IA-075-A-27	195644	8.56	1097664	10.78	876815	15.58
140-16367-17	IA-021-A-27	179614	8.56	1016605	10.78	896462	15.57
140-16367-18	IA-100-B-27	171496	8.54	994552	10.78	917494	15.57
140-16367-19	IA-101-B-27	192051	8.54	1094552	10.78	1034164	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.22	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.050	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.42		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.72		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.49	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.89	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.20	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.057	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.094	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.38	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.098	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.83		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.67		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.45	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.95	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.5	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.43	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.5	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	4.3		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.058	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.044	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.40		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.96		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.47	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.28	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.97	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.18	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.1		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.086	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.17	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.44		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	13	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.5		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.28	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.49	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.54	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.66	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	44	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.094	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.051	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.12	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.41		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.087	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	41	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.10	J	0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.7		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.35	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.59	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.25	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.48	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.38	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	140	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.71	J	2.7	0.24
108-88-3	Toluene	92.14	6.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	9.3		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.48		0.40	0.11
67-66-3	Chloroform	119.38	0.054	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.85		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	40		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.11	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	3.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.8	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	150		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.56	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.93	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.6	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.047	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	5.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.23	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	18	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.0	J	2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.040	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.90		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.76	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	16		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.21	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.58	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	18		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.92	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	60		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.11	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.30	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.36	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	62		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.35	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.038	J	0.40	0.035
108-88-3	Toluene	92.14	18		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.5	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.26	J	2.7	0.24
108-88-3	Toluene	92.14	70		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.061	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	7.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	27		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.12	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.25	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.082	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.060	J	0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.38	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.88	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.36	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.41	J	2.7	0.24
108-88-3	Toluene	92.14	9.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	ND		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	ND		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	1,1-Dichloroethane	98.96	ND		4.0	0.35
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	ND		4.0	0.40
100-41-4	Ethylbenzene	106.17	ND		4.0	0.65
75-09-2	Methylene Chloride	84.93	8.5	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	ND		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	6.3		6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	ND		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	ND		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		4.0	1.1
75-01-4	Vinyl chloride	62.50	ND		2.0	1.3
1330-20-7	Xylenes, Total	106.17	ND		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	ND		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	ND		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	1,1-Dichloroethane	98.96	ND		16	1.4
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	ND		16	1.6
100-41-4	Ethylbenzene	106.17	ND		17	2.8
75-09-2	Methylene Chloride	84.93	29	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	ND		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	24		23	15
156-60-5	trans-1,2-Dichloroethene	96.94	ND		16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	ND		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	ND		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		20	5.4
75-01-4	Vinyl chloride	62.50	ND		5.1	3.3
1330-20-7	Xylenes, Total	106.17	ND		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.098	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.048	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	12		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.31	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	46		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.67		0.40	0.11
67-66-3	Chloroform	119.38	0.055	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.54		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.036	J	0.40	0.035
108-88-3	Toluene	92.14	36		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.4		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.9	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	130		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.63	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	10		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.76		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.40		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	25		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	95		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	8.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

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SDG No.:

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ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

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Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

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SDG No.:

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ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	2.459		2.42	2.00	21.0	30.0
Propene	Ave	0.996	1.356		2.72	2.00	36.2*	30.0
Dichlorodifluoromethane	Ave	3.947	4.682		2.37	2.00	18.6	30.0
Chloromethane	Ave	0.2864	0.3737		2.61	2.00	30.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	3.136		2.79	2.00	39.7*	30.0
Acetaldehyde	Ave	0.3158	0.3422		10.8	10.0	8.3	30.0
Vinyl chloride	Ave	1.044	1.376		2.64	2.00	31.8*	30.0
1,3-Butadiene	Ave	0.7597	0.9737		2.56	2.00	28.2	30.0
Butane	Ave	1.492	1.852		2.48	2.00	24.2	30.0
Bromomethane	Ave	0.9503	1.217		2.56	2.00	28.0	30.0
Chloroethane	Ave	0.4643	0.5912		2.55	2.00	27.3	30.0
Ethanol	Ave	0.3217	0.2588		8.04	10.0	-19.6	30.0
Vinyl bromide	Ave	0.8333	1.068		2.56	2.00	28.2	30.0
2-Methylbutane	Ave	0.9463	1.014		2.14	2.00	7.2	30.0
Trichlorofluoromethane	Ave	3.185	2.934		1.84	2.00	-7.9	30.0
Acrolein	Ave	0.1381	0.1464		2.12	2.00	6.0	30.0
Acetonitrile	Ave	0.2308	0.1836		1.59	2.00	-20.4	30.0
Acetone	Ave	0.2705	0.2260		1.67	2.00	-16.5	30.0
Pentane	Ave	0.1347	0.1343		1.99	2.00	-0.3	30.0
Isopropyl alcohol	Ave	0.7723	0.7651		1.98	2.00	-0.9	30.0
Ethyl ether	Ave	0.5689	0.4818		1.69	2.00	-15.3	30.0
1,1-Dichloroethene	Ave	1.140	1.147		2.01	2.00	0.6	30.0
Acrylonitrile	Ave	0.5581	0.5517		1.98	2.00	-1.2	30.0
tert-Butyl alcohol	Ave	1.715	1.415		1.65	2.00	-17.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.481		1.99	2.00	-0.6	30.0
Methylene Chloride	Ave	1.108	1.138		2.05	2.00	2.7	30.0
3-Chloropropene	Ave	1.095	1.057		1.93	2.00	-3.4	30.0
Carbon disulfide	Ave	3.065	3.220		2.10	2.00	5.1	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.175		2.06	2.00	3.0	30.0
2-Methylpentane	Ave	2.358	2.227		1.89	2.00	-5.5	30.0
Methyl tert-butyl ether	Ave	3.072	2.687		1.75	2.00	-12.5	30.0
1,1-Dichloroethane	Ave	2.187	2.208		2.02	2.00	1.0	30.0
Vinyl acetate	Ave	2.107	2.076		1.97	2.00	-1.4	30.0
2-Butanone (MEK)	Ave	0.4337	0.3920		1.81	2.00	-9.6	30.0
Hexane	Ave	0.9137	0.9490		2.08	2.00	3.9	30.0
Isopropyl ether	Ave	2.914	2.767		1.90	2.00	-5.1	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.212		2.07	2.00	3.6	30.0
Ethyl acetate	Ave	1.876	1.642		1.75	2.00	-12.5	30.0
Chloroform	Ave	2.715	2.632		1.94	2.00	-3.0	30.0
Tert-butyl ethyl ether	Ave	3.293	2.813		1.71	2.00	-14.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.8653		1.79	2.00	-10.7	30.0
1,1,1-Trichloroethane	Ave	3.254	2.995		1.84	2.00	-7.9	30.0
1,2-Dichloroethane	Ave	0.3682	0.3233		1.76	2.00	-12.2	30.0
1-Butanol	Ave	0.0501	0.0421		1.68	2.00	-16.0	30.0
Benzene	Ave	0.5978	0.6092		2.04	2.00	1.9	30.0
Cyclohexane	Ave	0.1107	0.1080		1.95	2.00	-2.4	30.0
Carbon tetrachloride	Ave	0.6079	0.5481		1.80	2.00	-9.8	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1439		1.89	2.00	-5.5	30.0
Thiophene	Ave	0.3534	0.3484		1.97	2.00	-1.4	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.997		1.90	2.00	-5.0	30.0
Heptane	Ave	0.2329	0.2226		1.91	2.00	-4.4	30.0
1,2-Dichloropropane	Ave	0.2110	0.2037		1.93	2.00	-3.5	30.0
Trichloroethene	Ave	0.3335	0.3071		1.84	2.00	-7.9	30.0
Dibromomethane	Ave	0.2511	0.2423		1.93	2.00	-3.5	30.0
Bromodichloromethane	Ave	0.5049	0.4836		1.92	2.00	-4.2	30.0
1,4-Dioxane	Ave	0.0869	0.0653		1.50	2.00	-24.9	30.0
Methyl methacrylate	Ave	0.2246	0.1925		1.71	2.00	-14.3	30.0
Methylcyclohexane	Ave	0.4217	0.4824		2.29	2.00	14.4	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2514		1.55	2.00	-22.4	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3560		2.02	2.00	0.8	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3673		1.99	2.00	-0.5	30.0
Toluene	Ave	0.7865	0.7632		1.94	2.00	-3.0	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2193		1.90	2.00	-4.8	30.0
2-Hexanone	Ave	0.1912	0.1407		1.47	2.00	-26.5	30.0
Octane	Ave	0.2861	0.2936		2.05	2.00	2.6	30.0
Dibromochloromethane	Ave	0.5582	0.5481		1.96	2.00	-1.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4258		1.99	2.00	-0.4	30.0
Tetrachloroethene	Ave	0.3641	0.3257		1.79	2.00	-10.6	30.0
Chlorobenzene	Ave	0.6563	0.6531		1.99	2.00	-0.5	30.0
2,3-Dimethylheptane	Ave	0.7538	0.6494		1.72	2.00	-13.9	30.0
Ethylbenzene	Ave	1.041	0.9833		1.89	2.00	-5.6	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7707		3.78	4.00	-5.4	30.0
Nonane	Ave	0.5001	0.5065		2.03	2.00	1.3	30.0
Bromoform	Ave	0.5067	0.5018		1.98	2.00	-1.0	30.0
Styrene	Ave	0.5330	0.5481		2.06	2.00	2.8	30.0
o-Xylene	Ave	0.8833	0.7965		1.80	2.00	-9.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4820		1.87	2.00	-6.7	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1709		1.71	2.00	-14.7	30.0
Isopropylbenzene	Ave	1.202	1.086		1.81	2.00	-9.6	30.0
Propylbenzene	Ave	0.3368	0.3019		1.79	2.00	-10.4	30.0
2-Chlorotoluene	Ave	0.3248	0.3049		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.012		1.72	2.00	-14.2	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.5031		2.04	2.00	1.8	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4352		1.90	2.00	-4.8	30.0
Decane	Ave	0.6385	0.5940		1.86	2.00	-7.0	30.0
tert-Butylbenzene	Ave	1.121	0.9786		1.75	2.00	-12.7	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9076		1.73	2.00	-13.6	30.0
sec-Butylbenzene	Ave	1.470	1.307		1.78	2.00	-11.1	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.6802		1.84	2.00	-8.0	30.0
Benzyl chloride	Ave	0.8145	0.7938		1.95	2.00	-2.5	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.6823		1.83	2.00	-8.5	30.0
4-Isopropyltoluene	Ave	1.304	1.109		1.70	2.00	-14.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.6986		1.44	2.00	-27.9	30.0
Butylcyclohexane	Ave	0.8263	0.7549		1.83	2.00	-8.6	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.6379		1.83	2.00	-8.3	30.0
Indane	Ave	0.9576	0.8333		1.74	2.00	-13.0	30.0
Butylbenzene	Ave	1.167	1.024		1.75	2.00	-12.3	30.0
Indene	Ave	0.7987	0.6374		1.60	2.00	-20.2	30.0
Undecane	Ave	0.5181	0.5922		2.29	2.00	14.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2589		1.46	2.00	-26.9	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9438		1.53	2.00	-23.4	30.0
Dodecane	Ave	0.4081	0.3977		1.95	2.00	-2.5	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5010		1.62	2.00	-19.0	30.0
Naphthalene	Ave	1.275	0.9928		1.56	2.00	-22.1	30.0
Hexachlorobutadiene	Ave	0.6005	0.4695		1.56	2.00	-21.8	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4124		1.44	2.00	-27.8	30.0
2-Methylnaphthalene	Ave	0.4473	0.4660		2.08	2.00	4.2	50.0
1-Methylnaphthalene	Ave	0.4268	0.4434		2.08	2.00	3.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.7047		4.06	4.00	1.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.215	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.745	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32704/1002

Matrix: Air Lab File ID: GCCVH19A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.04		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.80		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.42		0.080	0.022
67-66-3	Chloroform	119.38	1.94		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.07		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.37		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	2.02		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.76		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.01		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.89		0.080	0.013
75-09-2	Methylene Chloride	84.93	2.05		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.75		0.40	0.052
91-20-3	Naphthalene	128.17	1.56		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.79		0.080	0.0070
108-88-3	Toluene	92.14	1.94		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.06		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.62		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.84		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.90		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.84		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.44		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.73		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.04		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.64		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.58		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32744/1002

Matrix: Air Lab File ID: RCCVH19X-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.893		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.969		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.930		0.080	0.022
67-66-3	Chloroform	119.38	0.986		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.918		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.16		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.985		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.04		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.804		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.939		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.886		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.998		0.40	0.052
91-20-3	Naphthalene	128.17	0.929		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.842		0.080	0.0070
108-88-3	Toluene	92.14	0.896		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.976		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.891		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.927		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.916		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.867		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.974		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.947		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.953		0.080	0.022
75-01-4	Vinyl chloride	62.50	0.986		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.79		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MG Start Date: 08/05/2019 14:36

Analysis Batch Number: 32317 End Date: 08/06/2019 03:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32317/1		08/05/2019 14:36	1	GBFBH05IC.D	RTX-5 0.32(mm)
IC 140-32317/2		08/05/2019 15:09	1	GH05ICLVL9.D	RTX-5 0.32(mm)
IC 140-32317/4		08/05/2019 16:33	1	GH05ICLVL10.D	RTX-5 0.32(mm)
IC 140-32317/7		08/05/2019 18:41	1	GH05ICLVL01.D	RTX-5 0.32(mm)
IC 140-32317/8		08/05/2019 19:23	1	GH05ICLVL02.D	RTX-5 0.32(mm)
140-15871-A-5 MDLV		08/05/2019 19:23	1		RTX-5 0.32(mm)
IC 140-32317/9		08/05/2019 20:05	1	GH05ICLVL03.D	RTX-5 0.32(mm)
140-15871-A-6 MDLV		08/05/2019 20:05	1		RTX-5 0.32(mm)
IC 140-32317/10		08/05/2019 20:47	1	GH05ICLVL04.D	RTX-5 0.32(mm)
140-15871-A-7 MDLV		08/05/2019 20:47	1		RTX-5 0.32(mm)
IC 140-32317/11		08/05/2019 21:30	1	GH05ICLVL05.D	RTX-5 0.32(mm)
140-15871-A-8 MDLV		08/05/2019 21:30	1		RTX-5 0.32(mm)
IC 140-32317/12		08/05/2019 22:16	1	GH05ICLVL06.D	RTX-5 0.32(mm)
ICIS 140-32317/13		08/05/2019 22:58	1	GH05ICLVL07.D	RTX-5 0.32(mm)
IC 140-32317/14		08/05/2019 23:41	1	GH05ICLVL8.D	RTX-5 0.32(mm)
ICV 140-32317/17		08/06/2019 01:46	1	GH05LCS.D	RTX-5 0.32(mm)
ZZZZZ		08/06/2019 03:17	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MG Start Date: 08/19/2019 10:37

Analysis Batch Number: 32704 End Date: 08/20/2019 08:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32704/1		08/19/2019 10:37	1	GBFBH19A.D	RTX-5 0.32(mm)
CCVIS 140-32704/2		08/19/2019 11:10	1	GCCVH19A.D	RTX-5 0.32(mm)
LCS 140-32704/1002		08/19/2019 11:10	1	GCCVH19A-LCS.d	RTX-5 0.32(mm)
MB 140-32704/4		08/19/2019 13:28	1	G500BH19.D	RTX-5 0.32(mm)
140-16367-1		08/19/2019 14:11	1	GH19P101.D	RTX-5 0.32(mm)
140-16367-2		08/19/2019 14:56	1	GH19P102.D	RTX-5 0.32(mm)
140-16367-3		08/19/2019 15:41	2.04	GH19P103.D	RTX-5 0.32(mm)
140-16367-6		08/19/2019 17:49	1	GH19P106.D	RTX-5 0.32(mm)
140-16367-7		08/19/2019 18:32	1	GH19P107.D	RTX-5 0.32(mm)
140-16367-9		08/19/2019 19:58	1	GH19P109.D	RTX-5 0.32(mm)
140-16367-10		08/19/2019 20:41	1	GH19P110.D	RTX-5 0.32(mm)
140-16367-11		08/19/2019 21:24	1	GH19P111.D	RTX-5 0.32(mm)
140-16367-12		08/19/2019 22:07	1	GH19P112.D	RTX-5 0.32(mm)
140-16367-13		08/19/2019 22:50	1	GH19P113.D	RTX-5 0.32(mm)
140-16367-14		08/19/2019 23:32	1	GH19P114.D	RTX-5 0.32(mm)
140-16367-15		08/20/2019 00:15	1	GH19P115.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 00:57	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 02:32	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 08:44	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 15:29	1		RTX-5 0.32(mm)
140-16367-4		08/21/2019 17:09	1	JH21P103.D	RTX-5 0.32(mm)
140-16367-8		08/21/2019 17:59	1	JH21P104.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 20:28	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 21:18	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:07	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:56	1		RTX-5 0.32(mm)
140-16367-5		08/22/2019 00:34	1	JH21P110.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 01:23	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:13	3.72		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 03:02	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 05:31	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MR Start Date: 08/19/2019 16:27

Analysis Batch Number: 32744 End Date: 08/20/2019 06:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32744/1		08/19/2019 16:27	1	RBFBH19X.D	RTX-5 0.32(mm)
CCVIS 140-32744/2		08/19/2019 16:53	1	RCCVH19X.D	RTX-5 0.32(mm)
LCS 140-32744/1002		08/19/2019 16:53	1	RCCVH19X-LCS.d	RTX-5 0.32(mm)
MB 140-32744/4		08/19/2019 18:12	1	R500BH19X.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:56	1		RTX-5 0.32(mm)
140-16367-16		08/19/2019 20:44	1	RH19P104.D	RTX-5 0.32(mm)
140-16367-17		08/19/2019 21:31	1	RH19P105.D	RTX-5 0.32(mm)
140-16367-18		08/19/2019 22:19	1	RH19P106.D	RTX-5 0.32(mm)
140-16367-19		08/19/2019 23:07	1	RH19P107.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:56	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 00:45	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 01:33	1.64		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 02:20	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 03:09	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 03:56	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 04:45	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 05:34	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 06:23	1		RTX-5 0.32(mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32704 Batch Start Date: 08/19/19 10:37 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00097	40MXISSURP 00004
BFB 140-32704/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32704/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32704/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-1	IA-018-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-2	IA-DUP3-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-3	IA-138-A-27	TO 15 LL	T	204 mL	500 mL	1	1		40 mL
140-16367-A-6	IA-081-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-7	IA-079-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-9	IA-118-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-10	IA-015-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-11	IA-117-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-12	IA-078-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-13	IA-136-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-14	IA-076-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-15	IA-168-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32704/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32704/1		TO 15 LL		40 mL					
CCVIS 140-32704/2		TO 15 LL							
MB 140-32704/4		TO 15 LL							
140-16367-A-1	IA-018-A-27	TO 15 LL	T						
140-16367-A-2	IA-DUP3-A-27	TO 15 LL	T						
140-16367-A-3	IA-138-A-27	TO 15 LL	T						
140-16367-A-6	IA-081-A-27	TO 15 LL	T						
140-16367-A-7	IA-079-A-27	TO 15 LL	T						
140-16367-A-9	IA-118-A-27	TO 15 LL	T						
140-16367-A-10	IA-015-A-27	TO 15 LL	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32704 Batch Start Date: 08/19/19 10:37 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16367-A-11	IA-117-A-27	TO 15 LL	T						
140-16367-A-12	IA-078-A-27	TO 15 LL	T						
140-16367-A-13	IA-136-A-27	TO 15 LL	T						
140-16367-A-14	IA-076-A-27	TO 15 LL	T						
140-16367-A-15	IA-168-A-27	TO 15 LL	T						
LCS 140-32704/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32744/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32744/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32744/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-16	IA-075-A-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
140-16367-A-17	IA-021-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-18	IA-100-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-19	IA-101-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32744/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32744/1		TO 15 LL		40 mL					
CCVIS 140-32744/2		TO 15 LL							
MB 140-32744/4		TO 15 LL							
140-16367-A-16	IA-075-A-27	TO 15 LL	T						
140-16367-A-17	IA-021-A-27	TO 15 LL	T						
140-16367-A-18	IA-100-B-27	TO 15 LL	T						
140-16367-A-19	IA-101-B-27	TO 15 LL	T						
LCS 140-32744/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-4	IA-174-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-8	IA-DUP4-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-5	IA-093-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16367-A-4	IA-174-A-27	TO 15 LL	T						
140-16367-A-8	IA-DUP4-A-27	TO 15 LL	T						
140-16367-A-5	IA-093-A-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16367-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16367-3	1	-12.2	0.59	0.59	3.1	1.21	1.21		2.04	2.04	08/17/19 15:08	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D				
Lims ID:	140-15955-A-1				
Client ID:	10500				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 07:00:30	ALS Bottle#:	13	Worklist Smp#:	26
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012293-026				
Misc. Info.:	10500				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	12-Jul-2019 05:43:43	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0309				
First Level Reviewer: khachitpongpanits		Date:	12-Jul-2019 18:45:22		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

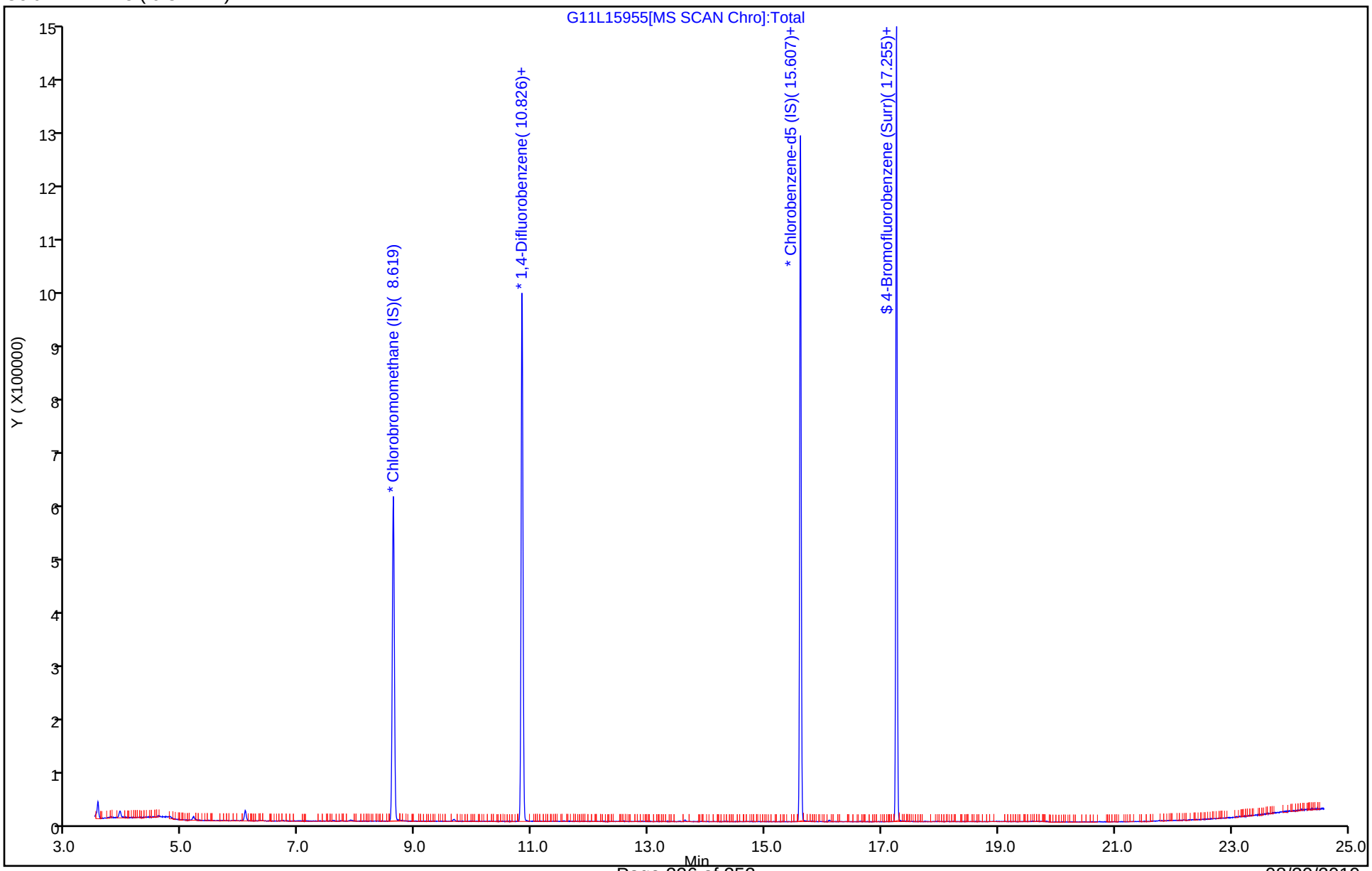
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D				
Lims ID:	140-16080-A-13				
Client ID:	09583				
Sample Type:	Client				
Inject. Date:	21-Jul-2019 04:24:30	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012391-021				
Misc. Info.:	09583				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12391.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Jul-2019 11:04:01	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0324				
First Level Reviewer: khachitpongpanits		Date:	22-Jul-2019 11:06:12		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.162	-0.011	94	216420	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.330	-0.011	97	1209463	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	94	1032396	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	78	745253	3.85	
7 Propene	41	3.834	3.834	0.000	98	43488	0.5290	
31 Methylene Chloride	84	6.552	6.552	0.000	98	14297	0.1665	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

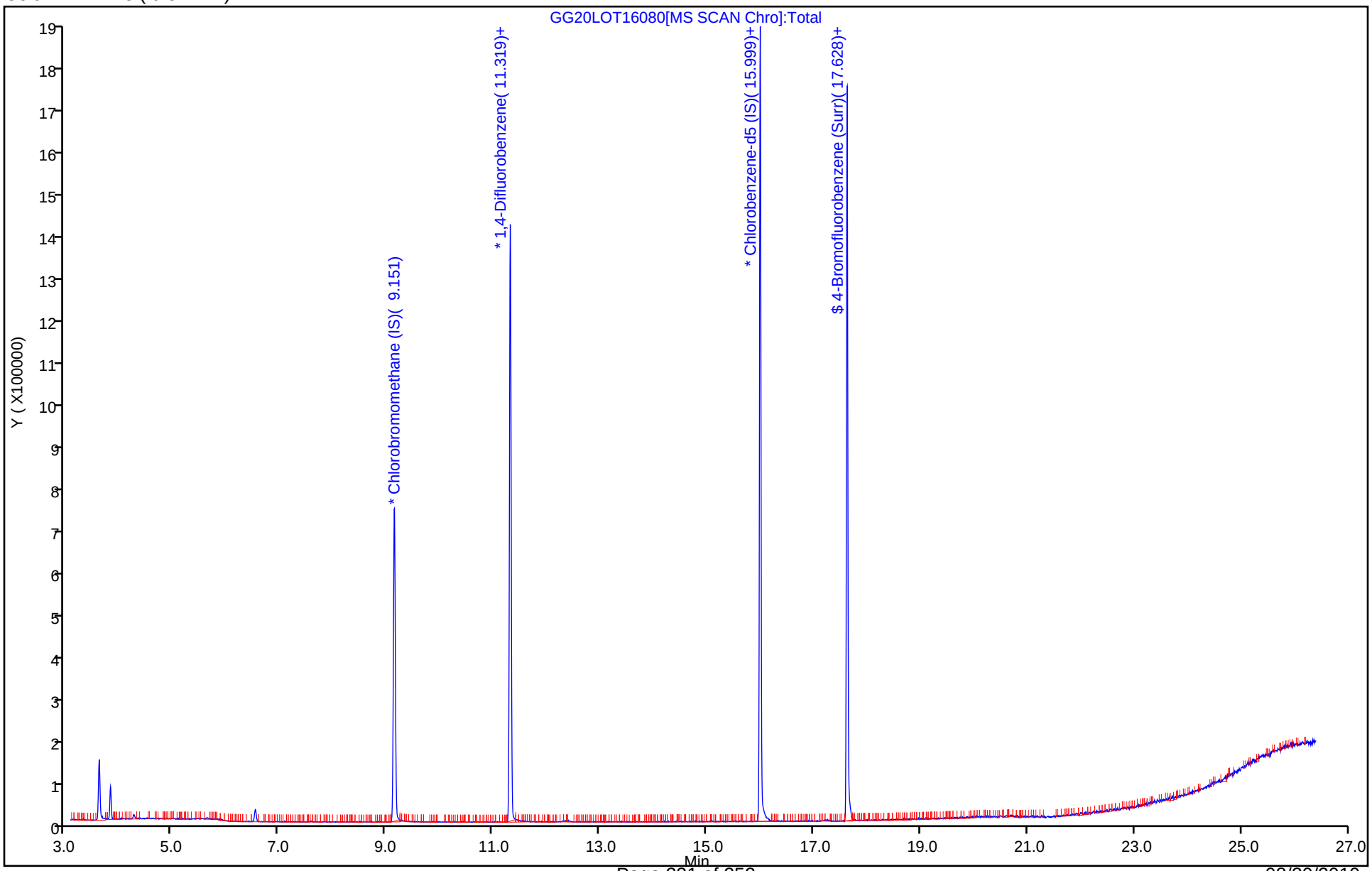
Report Date: 22-Jul-2019 11:06:12 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D

Injection Date:	21-Jul-2019 04:24:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16080-A-13	Lab Sample ID:	140-16080-13	Worklist Smp#:	21
Client ID:	09583				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Lims ID:	140-16090-A-16				
Client ID:	09814				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 05:42:30	ALS Bottle#:	2	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012392-025				
Misc. Info.:	09814				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Jul-2019 04:18:05	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0339				
First Level Reviewer: khachitpongpanits		Date:	23-Jul-2019 17:24:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.151	0.000	94	259488	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.324	0.000	97	1492987	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1296032	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	942339	3.88	
7 Propene	41	3.845	3.840	0.005	99	47088	0.4778	
31 Methylene Chloride	84	6.557	6.546	0.010	98	16683	0.1621	

Reagents:

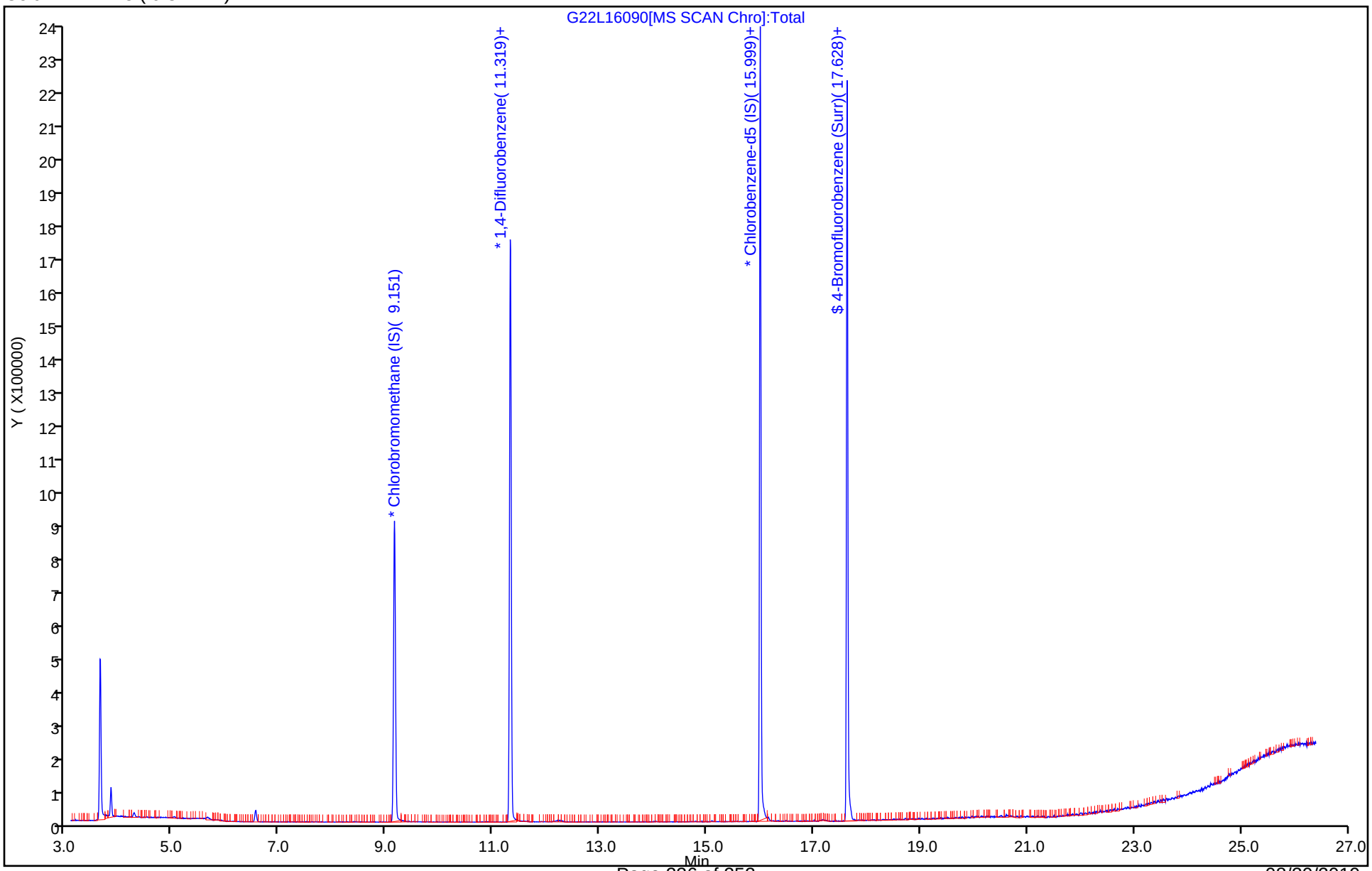
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 23-Jul-2019 17:24:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Injection Date:	23-Jul-2019 05:42:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16090-A-16	Lab Sample ID:	140-16090-16	Worklist Smp#:	25
Client ID:	09814				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND	*	1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND	*	2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D
Lims ID: 140-16112-A-4
Client ID: 10335
Sample Type: Client
Inject. Date: 24-Jul-2019 09:26:30 ALS Bottle#: 16 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012431-023
Misc. Info.: 10335
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 08:01:31 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: tajh Date: 24-Jul-2019 10:32:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.151	-0.006	94	219439	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.319	0.000	97	1272102	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1096012	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	798264	3.88	
7 Propene	41	3.839	3.832	0.005	99	44228	0.5306	
31 Methylene Chloride	84	6.546	6.543	0.000	98	20115	0.2311	
40 Hexane	56	8.391	8.391	-0.005	84	1694	0.0225	
47 1,1,1-Trichloroethane	97	10.208	10.196	0.006	94	4666	0.0248	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

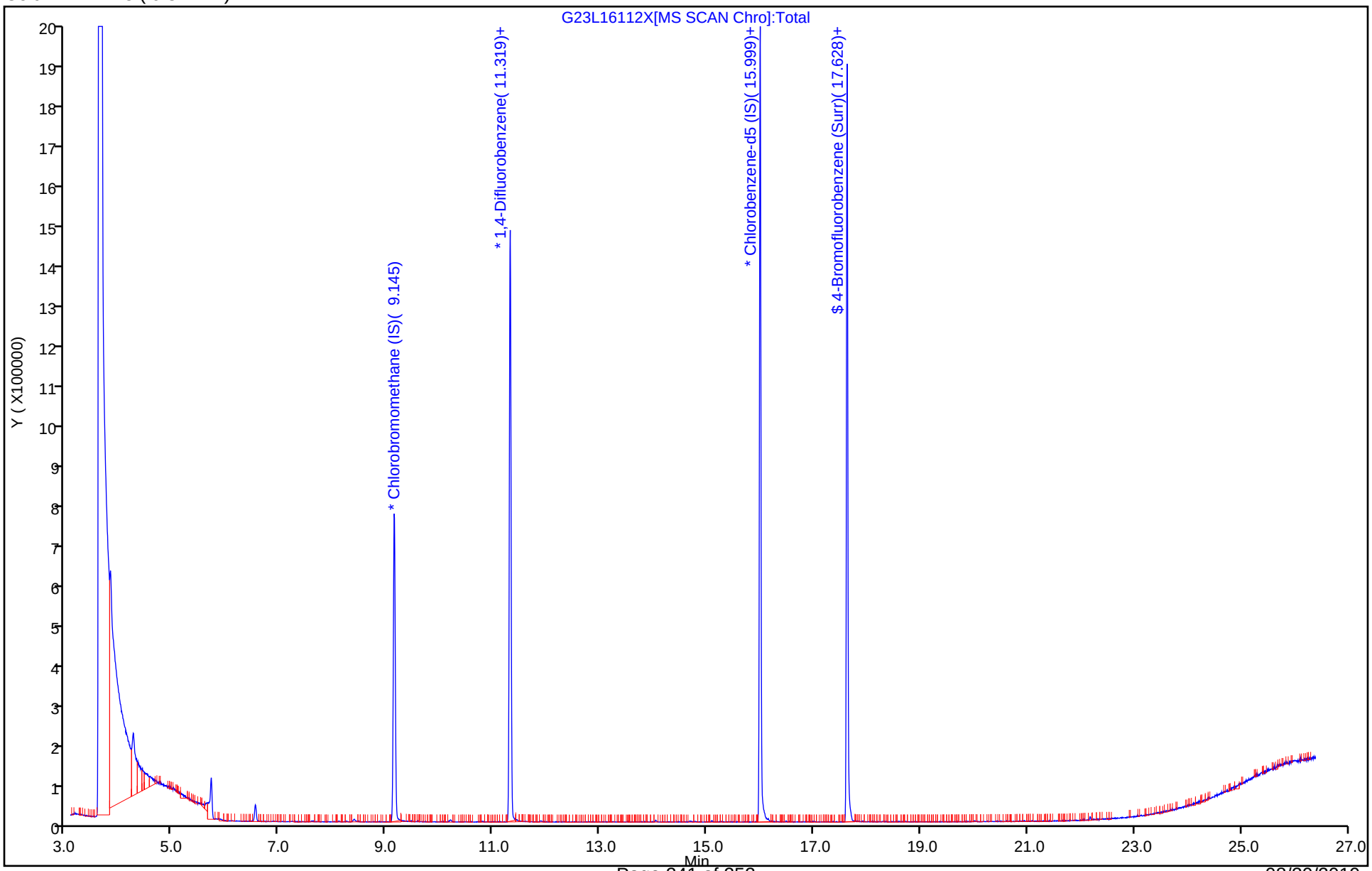
Report Date: 24-Jul-2019 10:32:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D

Injection Date:	24-Jul-2019 09:26:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	140-16112-A-4	Lab Sample ID:	140-16112-4	Worklist Smp#:	23
Client ID:	10335				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D
Lims ID: 140-16113-A-14
Client ID: 11713
Sample Type: Client
Inject. Date: 24-Jul-2019 05:30:30 ALS Bottle#: 8 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012440-025
Misc. Info.: 11713
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 17:11:05 Calib Date: 17-Jul-2019 02:30:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190716-12366.b\RG16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: khachitpongpanits Date: 24-Jul-2019 17:11:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.325	7.325	0.000	68	185440	4.00	
* 2 1,4-Difluorobenzene	114	9.380	9.385	-0.005	95	1017877	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.443	14.448	-0.005	91	867615	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.174	16.168	0.000	87	731505	4.12	
7 Propene	41	3.529	3.518	0.011	92	4705	0.1591	7
23 Isopropyl alcohol	45	4.737	4.699	0.038	63	2975	0.0625	
29 2-Methyl-2-propanol	59	5.179	5.136	0.043	91	2388	0.0197	
31 Methylene Chloride	84	5.287	5.292	-0.005	88	16812	0.2624	
40 Hexane	56	6.813	6.802	0.011	79	1478	0.0384	
47 1,1,1-Trichloroethane	97	8.274	8.280	-0.006	95	8702	0.0392	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

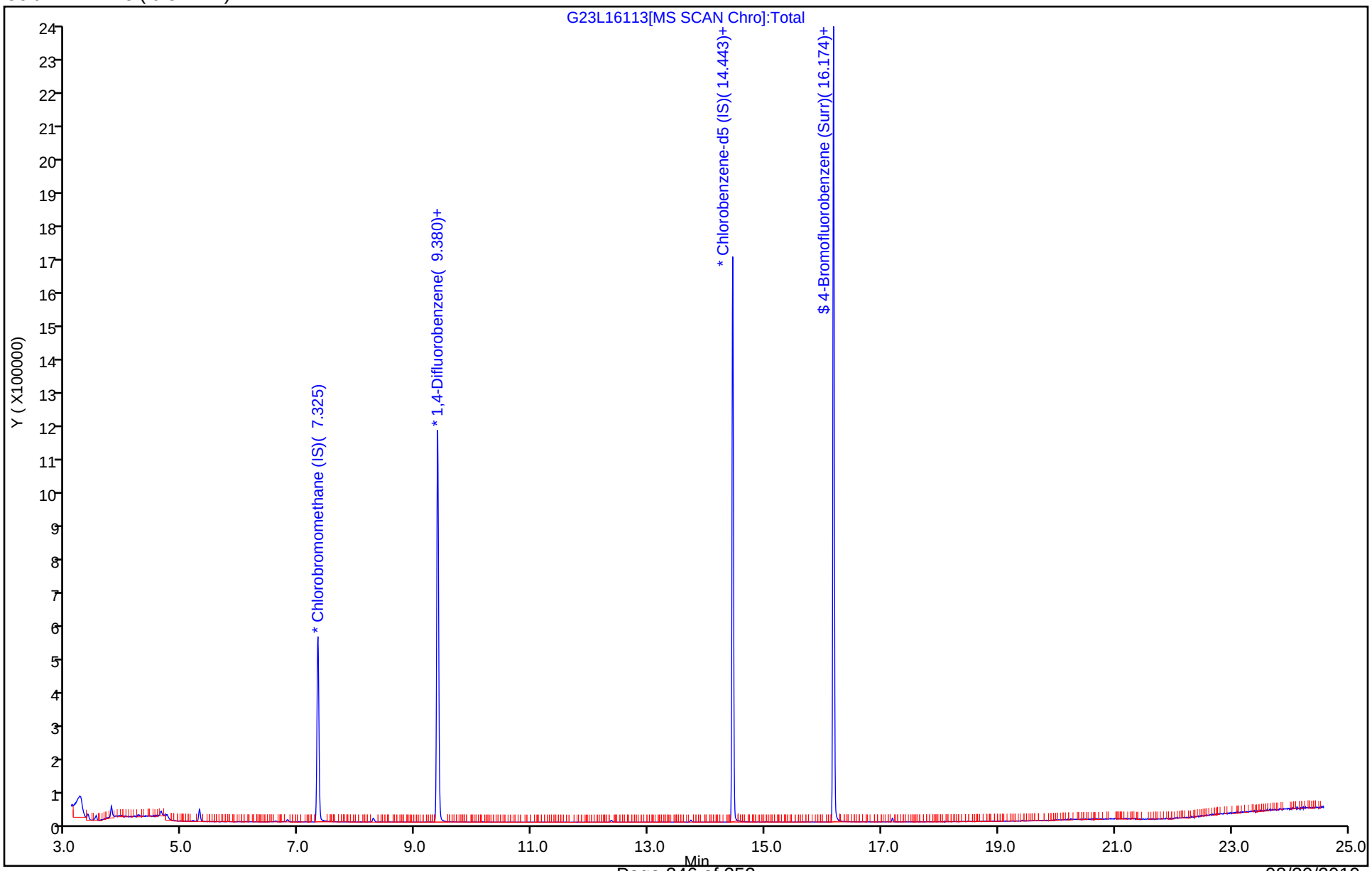
Report Date: 24-Jul-2019 17:11:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D

Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14	Worklist Smp#:	25
Client ID:	11713				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



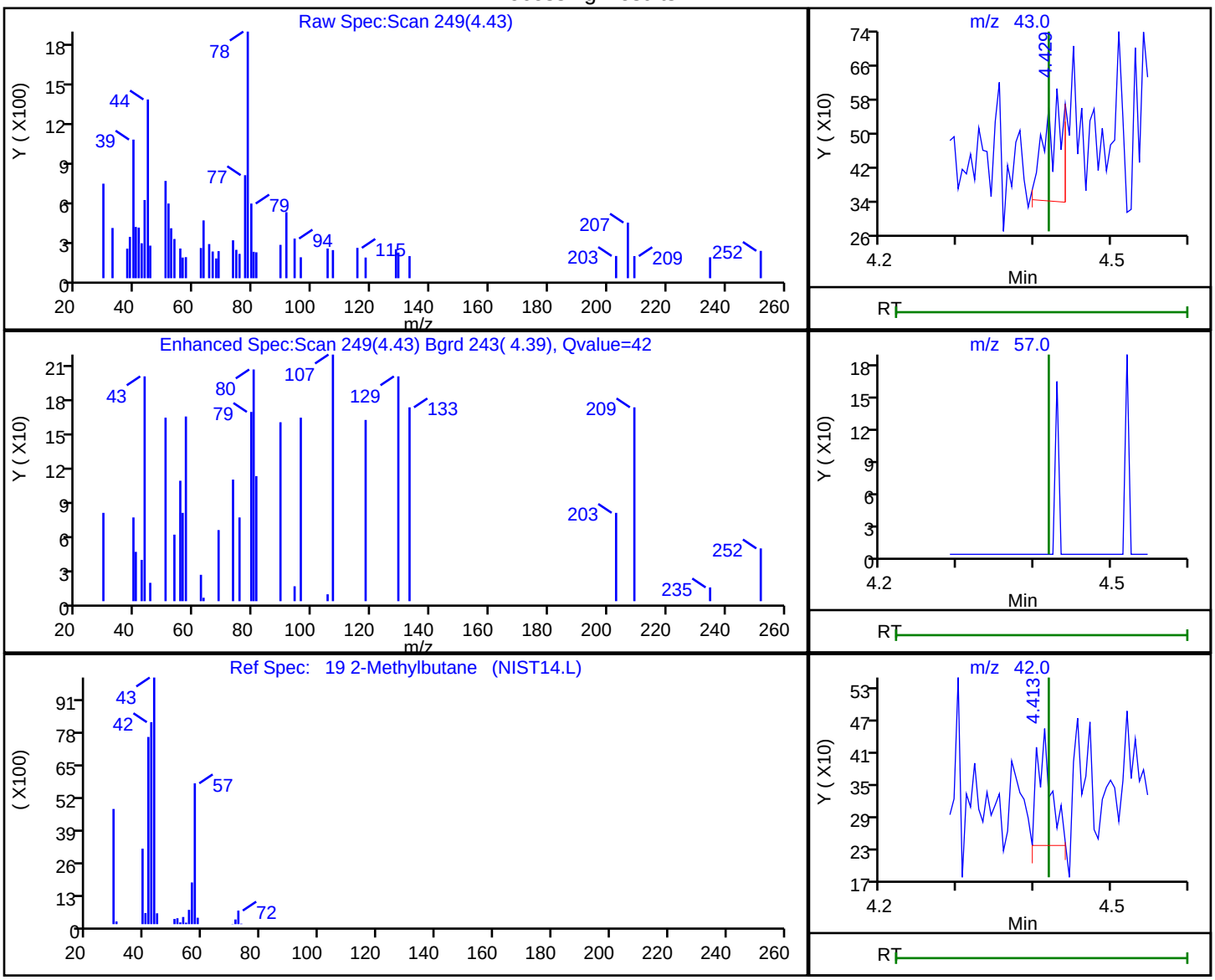
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D				
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR		
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14		
Client ID:	11713				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.43	43.00	413	0.013699
4.42	57.00	0	
4.41	42.00	258	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

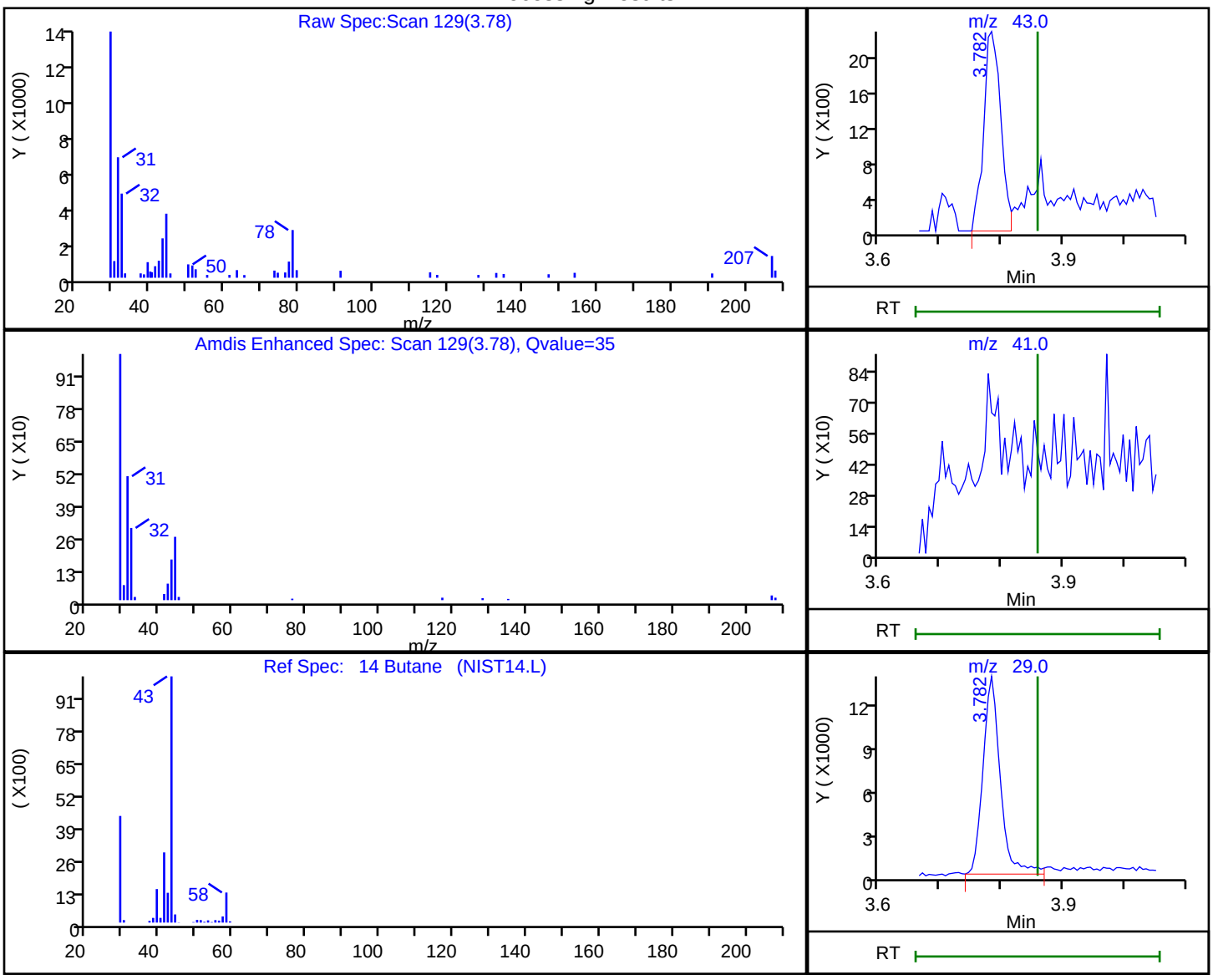
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D		
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14
Client ID:	11713		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.78	43.00	4307	0.097258
3.86	41.00	0	
3.78	29.00	26745	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

140-16367 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR
Company Name: TETRA TECH INC	Phone: 301-528-3021	COC No: 8 of 9 COCs
Address: 20251 CENTURY BLVD, STE 200	Email: JENY.APANAVAGE@TETRATECH.COM	
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR	For Lab Use Only: Walk-in Client:
Phone: 301-528-3021	Tel/Fax: 410-279-2700	Lab Sampling:
FAX:	Analysis Turnaround Time	Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS	(See below for Add'l Items)
Site/Location: MRC, BALT, MD	Rush (Specifiy):	
P O # 112ICO8388		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27	8/15/19	0742	8/15/19	1553	-30	-3	8740	10748	K								K						Can = 10748
IA-DUP3-A-27	"	0000	"	0000	-30	-9	8645	11839	K								K						
IA-138-A-27	"	0746	"	1554	-30	-3	6710	10519	K								K						
IA-174-A-27	"	0747	"	1555	-30	-4	8713	11860	K								K						
IA-093-A-27	"	0749	"	1556	-27	-2	10160	09797	K								K						
IA-081-A-27	"	0756	"	1600	-30	-2	10304	10345	K								K						
IA-079-A-27	"	0800	"	1601	-30	-5	10352	11624	K								K						
IA-DUP4-A-27	"	0000	"	0000	-30	-3	09855	11875	K								K						
IA-118-A-27	"	0804	"	1610	-29	0	10468	10335	K								K						
IA-015-A-27	"	0805	"	1611	-30	3	8654	09663	K								K						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes trk# 7760 0655 8549, 8273 Custody seal intact
KJ 8/17/19

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/30/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR	COC No: 4 of 4 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRATECH.COM		
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR		For Lab Use Only:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Walk-in Client:
FAX:	Analysis Turnaround Time		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		Job / SDG No.:
Site/Location: MRC, Balt, MD	Rush (Specifiy):		(See below for Add'l Items)
P O # 112ICO8588			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-117-A-27	8/15/19	0810	8/15/19	1617	-30	0	11937	11639	X								X						
IA-078-A-27	"	0812	"	1619	-30	-4	8790	11882	X								X						
IA-176-A-27	"	0814	"	1620	-30	-1	09864	11807	X								X						
IA-076-A-27	"	0817	"	1622	-30	-3	A500	11753	X								X						
IA-168-A-27	"	0820	"	1623	-30	-6	8701	11135	X								X						
IA-075-A-27	"	0823	"	1625	-30	0	7615	11035	X								X						
IA-021-A-27	"	0825	"	1627	-30	-3	8774	11851	X								X						
IA-100-B-27	"	0829	"	1630	-30	-4	7617	11884	X								X						
IA-101-B-27	"	0832	"	1633	-30	-1	7414	11883	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**	
Samples Relinquished by:	**Date / Time:** 8/16/19	**Received by:**	
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030	21 cans, 1 T, 20 flow
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** **16367**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400 2945 PM Instructions: _____

Sample Receiving Associate: _____ Date: 8/17/19

QA026R32.doc, 062719

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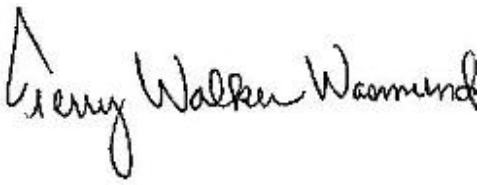
ANALYTICAL REPORT

Job Number: 140-16367-1

Job Description: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 2:45 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Amy Thomson

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16367-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32704 exhibited % difference of > 30% for Vinyl chloride; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Vinyl chloride recovered outside control limits for the LCS associated with analytical batch 140-32704. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

Sample IA-075-A-27 (140-16367-16) was diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Can Certification Comments:
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.22	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.42		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.086	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.72		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.38	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.43	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.49	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.89	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.20	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.37	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.9		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.057	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.45		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.094	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.38	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.098	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.83		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.5		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.67		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.45	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.36	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.46	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.95	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP3-A-27 (Continued) Lab Sample ID: 140-16367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.5	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.43	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.5	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	4.3		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	2.04		TO 15 LL	Total/NA
Carbon tetrachloride	0.056	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
Chlorodifluoromethane	0.43		0.40	0.11	ppb v/v	2.04		TO 15 LL	Total/NA
Chloroform	0.058	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24	J	0.40	0.050	ppb v/v	2.04		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.40	0.070	ppb v/v	2.04		TO 15 LL	Total/NA
1,1-Dichloroethane	0.044	J	0.40	0.035	ppb v/v	2.04		TO 15 LL	Total/NA
1,1-Dichloroethene	0.40		0.40	0.040	ppb v/v	2.04		TO 15 LL	Total/NA
Ethylbenzene	0.10	J	0.40	0.065	ppb v/v	2.04		TO 15 LL	Total/NA
Methylene Chloride	1.9	J B	2.0	0.80	ppb v/v	2.04		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	2.04		TO 15 LL	Total/NA
Trichloroethene	0.96		0.20	0.030	ppb v/v	2.04		TO 15 LL	Total/NA
Xylenes, Total	0.47	J	0.80	0.12	ppb v/v	2.04		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.55	J	1.3	0.13	ug/m3	2.04		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	2.04		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	2.04		TO 15 LL	Total/NA
Chloroform	0.28	J	2.0	0.17	ug/m3	2.04		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.97	J	1.6	0.20	ug/m3	2.04		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	2.04		TO 15 LL	Total/NA
1,1-Dichloroethane	0.18	J	1.6	0.14	ug/m3	2.04		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	2.04		TO 15 LL	Total/NA
Ethylbenzene	0.45	J	1.7	0.28	ug/m3	2.04		TO 15 LL	Total/NA
Methylene Chloride	6.6	J B	6.9	2.8	ug/m3	2.04		TO 15 LL	Total/NA
Toluene	5.1		2.3	1.5	ug/m3	2.04		TO 15 LL	Total/NA
Trichloroethene	5.1		1.1	0.16	ug/m3	2.04		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	2.04		TO 15 LL	Total/NA

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.086	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.43		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.17	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.44		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.5		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-174-A-27 (Continued) Lab Sample ID: 140-16367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.28	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.49	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.54	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.66	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.7		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	44	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	8.2		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.094	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.12	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.41		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.087	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	41	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.7		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.35	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.59	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.25	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.48	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.6		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.38	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	140	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.71	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.1		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	9.3		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.063	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.48		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.054	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-081-A-27 (Continued) Lab Sample ID: 140-16367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.85		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	40		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.11	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	3.7		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.8	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	150		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.56	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.26	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.28	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.2	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	17		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.93	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.6	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	64		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.080	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.38	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.047	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.53		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.28	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	5.3	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.15	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP4-A-27 (Continued) Lab Sample ID: 140-16367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	17		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.56	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.23	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	18	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.0	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	64		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.31	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.044	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.040	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.90		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.76	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	16		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.21	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.9		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.056	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.45		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.55		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.58	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-015-A-27 (Continued) Lab Sample ID: 140-16367-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.49	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	18		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.26	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	16		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.92	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.22	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	21	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	60		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.11	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.24	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.30	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.25	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	16		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.36	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.86	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-078-A-27 (Continued) Lab Sample ID: 140-16367-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	15	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	62		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.069	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.46		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.35	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	18		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.6		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.5	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.1	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.26	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	70		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	7.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.061	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.044	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	7.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.75	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.39	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.70	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.7	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	27		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-076-A-27 (Continued) Lab Sample ID: 140-16367-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.12	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.25	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.082	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.38	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.38	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.88	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.36	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	8.3	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.41	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	9.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.6	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	8.5	J B	20	8.0	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.3		6.0	3.9	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	29	J B	69	28	ug/m3	1		TO 15 LL	Total/NA
Toluene	24		23	15	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.098	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.31	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.25	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	12		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-021-A-27 (Continued) Lab Sample ID: 140-16367-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	46		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.7		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.67		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.54		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.7	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.036	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	36		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.9	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.24	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	130		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.63	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	10		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.76		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.40		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.058	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	25		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.35	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-101-B-27 (Continued) Lab Sample ID: 140-16367-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.7		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.6	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.39	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	95		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	8.7		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/19/19 14:11	1
Carbon tetrachloride	**0.068**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/19/19 14:11	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
cis-1,2-Dichloroethene	**0.22**	**J**	0.40	0.050	ppb v/v			08/19/19 14:11	1
Dichlorodifluoromethane	**0.46**		0.40	0.070	ppb v/v			08/19/19 14:11	1
1,1-Dichloroethane	**0.050**	**J**	0.40	0.035	ppb v/v			08/19/19 14:11	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 14:11	1
1,1-Dichloroethene	**0.42**		0.40	0.040	ppb v/v			08/19/19 14:11	1
Ethylbenzene	**0.086**	**J**	0.40	0.065	ppb v/v			08/19/19 14:11	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 14:11	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:11	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 14:11	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/19/19 14:11	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:11	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:11	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:11	1
Trichloroethene	**0.72**		0.20	0.030	ppb v/v			08/19/19 14:11	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:11	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 14:11	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:11	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 14:11	1
Xylenes, Total	**0.38**	**J**	0.80	0.12	ppb v/v			08/19/19 14:11	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/19/19 14:11	1
Carbon tetrachloride	**0.43**	**J**	2.5	0.22	ug/m3			08/19/19 14:11	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 14:11	1
Chloroform	**0.49**	**J**	2.0	0.17	ug/m3			08/19/19 14:11	1
cis-1,2-Dichloroethene	**0.89**	**J**	1.6	0.20	ug/m3			08/19/19 14:11	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 14:11	1
1,1-Dichloroethane	**0.20**	**J**	1.6	0.14	ug/m3			08/19/19 14:11	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 14:11	1
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/19/19 14:11	1
Ethylbenzene	**0.37**	**J**	1.7	0.28	ug/m3			08/19/19 14:11	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/19/19 14:11	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:11	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 14:11	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:11	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/19/19 14:11	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:11	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:11	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:11	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:11	1
Trichloroethene	**3.9**		1.1	0.16	ug/m3			08/19/19 14:11	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:11	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 14:11	1

Client Sample ID: IA-018-A-27 **Lab Sample ID: 140-16367-1**
Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:11	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 14:11	1
Xylenes, Total	**1.7**	**J**	3.5	0.52	ug/m3			08/19/19 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*08/19/19 14:11*	*1*

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/19/19 14:56	1
Carbon tetrachloride	**0.057**	**J**	0.40	0.035	ppb v/v			08/19/19 14:56	1
Chlorodifluoromethane	**0.45**		0.40	0.11	ppb v/v			08/19/19 14:56	1
Chloroform	**0.094**	**J**	0.40	0.035	ppb v/v			08/19/19 14:56	1
cis-1,2-Dichloroethene	**0.24**	**J**	0.40	0.050	ppb v/v			08/19/19 14:56	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/19/19 14:56	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 14:56	1
1,1-Dichloroethene	**0.38**	**J**	0.40	0.040	ppb v/v			08/19/19 14:56	1
Ethylbenzene	**0.098**	**J**	0.40	0.065	ppb v/v			08/19/19 14:56	1
Methylene Chloride	**2.7**	**B**	2.0	0.80	ppb v/v			08/19/19 14:56	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:56	1
Naphthalene	**0.83**		0.20	0.38	ppb v/v			08/19/19 14:56	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
Toluene	**1.5**		0.60	0.39	ppb v/v			08/19/19 14:56	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:56	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:56	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:56	1
Trichloroethene	**0.67**		0.20	0.030	ppb v/v			08/19/19 14:56	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:56	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 14:56	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:56	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 14:56	1
Xylenes, Total	**0.45**	**J**	0.80	0.12	ppb v/v			08/19/19 14:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/19/19 14:56	1
Carbon tetrachloride	**0.36**	**J**	2.5	0.22	ug/m3			08/19/19 14:56	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 14:56	1
Chloroform	**0.46**	**J**	2.0	0.17	ug/m3			08/19/19 14:56	1
cis-1,2-Dichloroethene	**0.95**	**J**	1.6	0.20	ug/m3			08/19/19 14:56	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/19/19 14:56	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 14:56	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 14:56	1
1,1-Dichloroethene	**1.5**	**J**	1.6	0.16	ug/m3			08/19/19 14:56	1
Ethylbenzene	**0.43**	**J**	1.7	0.28	ug/m3			08/19/19 14:56	1
Methylene Chloride	**9.5**	**B**	6.9	2.8	ug/m3			08/19/19 14:56	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:56	1
Naphthalene	**4.3**		1.0	2.0	ug/m3			08/19/19 14:56	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:56	1
Toluene	**5.8**		2.3	1.5	ug/m3			08/19/19 14:56	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:56	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:56	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:56	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:56	1
Trichloroethene	**3.6**		1.1	0.16	ug/m3			08/19/19 14:56	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:56	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 14:56	1

Client Sample ID: IA-DUP3-A-27 **Lab Sample ID: 140-16367-2**
Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:56	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 14:56	1
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*08/19/19 14:56*	*1*

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/19/19 15:41	2.04
Carbon tetrachloride	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Chlorodifluoromethane	**0.43**		0.40	0.11	ppb v/v			08/19/19 15:41	2.04
Chloroform	**0.058**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
cis-1,2-Dichloroethene	**0.24**	**J**	0.40	0.050	ppb v/v			08/19/19 15:41	2.04
Dichlorodifluoromethane	**0.52**		0.40	0.070	ppb v/v			08/19/19 15:41	2.04
1,1-Dichloroethane	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 15:41	2.04
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 15:41	2.04
1,1-Dichloroethene	**0.40**		0.40	0.040	ppb v/v			08/19/19 15:41	2.04
Ethylbenzene	**0.10**	**J**	0.40	0.065	ppb v/v			08/19/19 15:41	2.04
Methylene Chloride	**1.9**	**J B**	2.0	0.80	ppb v/v			08/19/19 15:41	2.04
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 15:41	2.04
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 15:41	2.04
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Toluene	**1.3**		0.60	0.39	ppb v/v			08/19/19 15:41	2.04
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 15:41	2.04
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 15:41	2.04
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 15:41	2.04
Trichloroethene	**0.96**		0.20	0.030	ppb v/v			08/19/19 15:41	2.04
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 15:41	2.04
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 15:41	2.04
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 15:41	2.04
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 15:41	2.04
Xylenes, Total	**0.47**	**J**	0.80	0.12	ppb v/v			08/19/19 15:41	2.04

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.55**	**J**	1.3	0.13	ug/m3			08/19/19 15:41	2.04
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 15:41	2.04
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/19/19 15:41	2.04
Chloroform	**0.28**	**J**	2.0	0.17	ug/m3			08/19/19 15:41	2.04
cis-1,2-Dichloroethene	**0.97**	**J**	1.6	0.20	ug/m3			08/19/19 15:41	2.04
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/19/19 15:41	2.04
1,1-Dichloroethane	**0.18**	**J**	1.6	0.14	ug/m3			08/19/19 15:41	2.04
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 15:41	2.04
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/19/19 15:41	2.04
Ethylbenzene	**0.45**	**J**	1.7	0.28	ug/m3			08/19/19 15:41	2.04
Methylene Chloride	**6.6**	**J B**	6.9	2.8	ug/m3			08/19/19 15:41	2.04
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 15:41	2.04
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 15:41	2.04
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 15:41	2.04
Toluene	**5.1**		2.3	1.5	ug/m3			08/19/19 15:41	2.04
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 15:41	2.04
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 15:41	2.04
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 15:41	2.04
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 15:41	2.04
Trichloroethene	**5.1**		1.1	0.16	ug/m3			08/19/19 15:41	2.04
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 15:41	2.04
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 15:41	2.04

Client Sample ID: IA-138-A-27 **Lab Sample ID: 140-16367-3**
Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 15:41	2.04
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 15:41	2.04
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 15:41	2.04

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 15:41*	*2.04*

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/21/19 17:09	1
Carbon tetrachloride	**0.086**	**J**	0.40	0.035	ppb v/v			08/21/19 17:09	1
Chlorodifluoromethane	**0.43**		0.40	0.11	ppb v/v			08/21/19 17:09	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/21/19 17:09	1
cis-1,2-Dichloroethene	**0.17**	**J**	0.40	0.050	ppb v/v			08/21/19 17:09	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/21/19 17:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 17:09	1
1,1-Dichloroethene	**0.44**		0.40	0.040	ppb v/v			08/21/19 17:09	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/21/19 17:09	1
Methylene Chloride	**13**	**B**	2.0	0.80	ppb v/v			08/21/19 17:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 17:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 17:09	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/21/19 17:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 17:09	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 17:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:09	1
Trichloroethene	**1.5**		0.20	0.030	ppb v/v			08/21/19 17:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 17:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 17:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 17:09	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 17:09	1
Xylenes, Total	**0.28**	**J**	0.80	0.12	ppb v/v			08/21/19 17:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.49**	**J**	1.3	0.13	ug/m3			08/21/19 17:09	1
Carbon tetrachloride	**0.54**	**J**	2.5	0.22	ug/m3			08/21/19 17:09	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/21/19 17:09	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/21/19 17:09	1
cis-1,2-Dichloroethene	**0.66**	**J**	1.6	0.20	ug/m3			08/21/19 17:09	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/21/19 17:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 17:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 17:09	1
1,1-Dichloroethene	**1.7**		1.6	0.16	ug/m3			08/21/19 17:09	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/21/19 17:09	1
Methylene Chloride	**44**	**B**	6.9	2.8	ug/m3			08/21/19 17:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 17:09	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 17:09	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 17:09	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/21/19 17:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 17:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 17:09	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 17:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 17:09	1
Trichloroethene	**8.2**		1.1	0.16	ug/m3			08/21/19 17:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 17:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 17:09	1

Client Sample ID: IA-174-A-27 **Lab Sample ID: 140-16367-4**
Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 17:09	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 17:09	1
Xylenes, Total	**1.2**	**J**	3.5	0.52	ug/m3			08/21/19 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 17:09*	*1*

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/22/19 00:34	1
Carbon tetrachloride	**0.094**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
Chlorodifluoromethane	ND		0.40	0.11	ppb v/v			08/22/19 00:34	1
Chloroform	**0.051**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
cis-1,2-Dichloroethene	**0.12**	**J**	0.40	0.050	ppb v/v			08/22/19 00:34	1
Dichlorodifluoromethane	**0.52**		0.40	0.070	ppb v/v			08/22/19 00:34	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 00:34	1
1,1-Dichloroethene	**0.41**		0.40	0.040	ppb v/v			08/22/19 00:34	1
Ethylbenzene	**0.087**	**J**	0.40	0.065	ppb v/v			08/22/19 00:34	1
Methylene Chloride	**41**	**B**	2.0	0.80	ppb v/v			08/22/19 00:34	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 00:34	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 00:34	1
Tetrachloroethene	**0.10**	**J**	0.40	0.035	ppb v/v			08/22/19 00:34	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/22/19 00:34	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 00:34	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 00:34	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 00:34	1
Trichloroethene	**1.7**		0.20	0.030	ppb v/v			08/22/19 00:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 00:34	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 00:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 00:34	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 00:34	1
Xylenes, Total	**0.35**	**J**	0.80	0.12	ppb v/v			08/22/19 00:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.53**	**J**	1.3	0.13	ug/m3			08/22/19 00:34	1
Carbon tetrachloride	**0.59**	**J**	2.5	0.22	ug/m3			08/22/19 00:34	1
Chlorodifluoromethane	ND		1.4	0.39	ug/m3			08/22/19 00:34	1
Chloroform	**0.25**	**J**	2.0	0.17	ug/m3			08/22/19 00:34	1
cis-1,2-Dichloroethene	**0.48**	**J**	1.6	0.20	ug/m3			08/22/19 00:34	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/22/19 00:34	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/22/19 00:34	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 00:34	1
1,1-Dichloroethene	**1.6**		1.6	0.16	ug/m3			08/22/19 00:34	1
Ethylbenzene	**0.38**	**J**	1.7	0.28	ug/m3			08/22/19 00:34	1
Methylene Chloride	**140**	**B**	6.9	2.8	ug/m3			08/22/19 00:34	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 00:34	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 00:34	1
Tetrachloroethene	**0.71**	**J**	2.7	0.24	ug/m3			08/22/19 00:34	1
Toluene	**6.1**		2.3	1.5	ug/m3			08/22/19 00:34	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/22/19 00:34	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 00:34	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 00:34	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 00:34	1
Trichloroethene	**9.3**		1.1	0.16	ug/m3			08/22/19 00:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 00:34	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 00:34	1

Client Sample ID: IA-093-A-27 **Lab Sample ID: 140-16367-5**
Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 00:34	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 00:34	1
Xylenes, Total	**1.5**	**J**	3.5	0.52	ug/m3			08/22/19 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/22/19 00:34*	*1*

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 17:49	1
Carbon tetrachloride	**0.063**	**J**	0.40	0.035	ppb v/v			08/19/19 17:49	1
Chlorodifluoromethane	**0.48**		0.40	0.11	ppb v/v			08/19/19 17:49	1
Chloroform	**0.054**	**J**	0.40	0.035	ppb v/v			08/19/19 17:49	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 17:49	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			08/19/19 17:49	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 17:49	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 17:49	1
Ethylbenzene	**0.85**		0.40	0.065	ppb v/v			08/19/19 17:49	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 17:49	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 17:49	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 17:49	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
Toluene	**40**		0.60	0.39	ppb v/v			08/19/19 17:49	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 17:49	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 17:49	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 17:49	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 17:49	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 17:49	1
1,2,4-Trimethylbenzene	**0.11**	**J**	0.40	0.10	ppb v/v			08/19/19 17:49	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 17:49	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 17:49	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/19/19 17:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 17:49	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/19/19 17:49	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/19/19 17:49	1
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/19/19 17:49	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 17:49	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/19/19 17:49	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 17:49	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 17:49	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 17:49	1
Ethylbenzene	**3.7**		1.7	0.28	ug/m3			08/19/19 17:49	1
Methylene Chloride	**6.8**	**B**	6.9	2.8	ug/m3			08/19/19 17:49	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 17:49	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 17:49	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 17:49	1
Toluene	**150**		2.3	1.5	ug/m3			08/19/19 17:49	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 17:49	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 17:49	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 17:49	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 17:49	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 17:49	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 17:49	1
1,2,4-Trimethylbenzene	**0.56**	**J**	2.0	0.49	ug/m3			08/19/19 17:49	1

Client Sample ID: IA-081-A-27 **Lab Sample ID: 140-16367-6**
Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 17:49	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 17:49	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/19/19 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 17:49*	*1*

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Date Collected: 08/15/19 16:01 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 18:32	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 18:32	1
Chlorodifluoromethane	**0.26**	**J**	0.40	0.11	ppb v/v			08/19/19 18:32	1
Chloroform	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 18:32	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 18:32	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 18:32	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 18:32	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 18:32	1
Ethylbenzene	**0.28**	**J**	0.40	0.065	ppb v/v			08/19/19 18:32	1
Methylene Chloride	**2.2**	**B**	2.0	0.80	ppb v/v			08/19/19 18:32	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 18:32	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 18:32	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
Toluene	**17**		0.60	0.39	ppb v/v			08/19/19 18:32	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 18:32	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 18:32	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:32	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 18:32	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 18:32	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 18:32	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 18:32	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 18:32	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/19/19 18:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 18:32	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/19/19 18:32	1
Chlorodifluoromethane	**0.93**	**J**	1.4	0.39	ug/m3			08/19/19 18:32	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 18:32	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 18:32	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 18:32	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 18:32	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 18:32	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 18:32	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/19/19 18:32	1
Methylene Chloride	**7.6**	**B**	6.9	2.8	ug/m3			08/19/19 18:32	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 18:32	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 18:32	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 18:32	1
Toluene	**64**		2.3	1.5	ug/m3			08/19/19 18:32	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 18:32	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 18:32	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 18:32	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 18:32	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 18:32	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 18:32	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 18:32	1

Client Sample ID: IA-079-A-27 **Lab Sample ID: 140-16367-7**
Date Collected: 08/15/19 16:01 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 18:32	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 18:32	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/19/19 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*08/19/19 18:32*	*1*

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/21/19 17:59	1
Carbon tetrachloride	**0.080**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
Chlorodifluoromethane	**0.38**	**J**	0.40	0.11	ppb v/v			08/21/19 17:59	1
Chloroform	**0.047**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 17:59	1
Dichlorodifluoromethane	**0.53**		0.40	0.070	ppb v/v			08/21/19 17:59	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 17:59	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 17:59	1
Ethylbenzene	**0.28**	**J**	0.40	0.065	ppb v/v			08/21/19 17:59	1
Methylene Chloride	**5.3**	**B**	2.0	0.80	ppb v/v			08/21/19 17:59	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 17:59	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 17:59	1
Tetrachloroethene	**0.15**	**J**	0.40	0.035	ppb v/v			08/21/19 17:59	1
Toluene	**17**		0.60	0.39	ppb v/v			08/21/19 17:59	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 17:59	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 17:59	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 17:59	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/21/19 17:59	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 17:59	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 17:59	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 17:59	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 17:59	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/21/19 17:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.56**	**J**	1.3	0.13	ug/m3			08/21/19 17:59	1
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/21/19 17:59	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/21/19 17:59	1
Chloroform	**0.23**	**J**	2.0	0.17	ug/m3			08/21/19 17:59	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 17:59	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/21/19 17:59	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 17:59	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 17:59	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 17:59	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/21/19 17:59	1
Methylene Chloride	**18**	**B**	6.9	2.8	ug/m3			08/21/19 17:59	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 17:59	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 17:59	1
Tetrachloroethene	**1.0**	**J**	2.7	0.24	ug/m3			08/21/19 17:59	1
Toluene	**64**		2.3	1.5	ug/m3			08/21/19 17:59	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 17:59	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 17:59	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 17:59	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 17:59	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/21/19 17:59	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 17:59	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 17:59	1

Client Sample ID: IA-DUP4-A-27 — Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 17:59	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 17:59	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/21/19 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/21/19 17:59*	*1*

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Date Collected: 08/15/19 16:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 19:58	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 19:58	1
Chlorodifluoromethane	**0.31**	**J**	0.40	0.11	ppb v/v			08/19/19 19:58	1
Chloroform	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 19:58	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 19:58	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/19/19 19:58	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 19:58	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 19:58	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/19/19 19:58	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 19:58	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 19:58	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 19:58	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
Toluene	**4.2**		0.60	0.39	ppb v/v			08/19/19 19:58	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 19:58	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 19:58	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:58	1
Trichloroethene	**0.040**	**J**	0.20	0.030	ppb v/v			08/19/19 19:58	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 19:58	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 19:58	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 19:58	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 19:58	1
Xylenes, Total	**0.90**		0.80	0.12	ppb v/v			08/19/19 19:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.43**	**J**	1.3	0.13	ug/m3			08/19/19 19:58	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 19:58	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/19/19 19:58	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 19:58	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 19:58	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/19/19 19:58	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 19:58	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 19:58	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 19:58	1
Ethylbenzene	**0.76**	**J**	1.7	0.28	ug/m3			08/19/19 19:58	1
Methylene Chloride	**6.3**	**J B**	6.9	2.8	ug/m3			08/19/19 19:58	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 19:58	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 19:58	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 19:58	1
Toluene	**16**		2.3	1.5	ug/m3			08/19/19 19:58	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 19:58	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 19:58	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 19:58	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 19:58	1
Trichloroethene	**0.21**	**J**	1.1	0.16	ug/m3			08/19/19 19:58	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 19:58	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 19:58	1

Client Sample ID: IA-118-A-27 **Lab Sample ID: 140-16367-9**
Date Collected: 08/15/19 16:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 19:58	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 19:58	1
Xylenes, Total	**3.9**		3.5	0.52	ug/m3			08/19/19 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 19:58*	*1*

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Date Collected: 08/15/19 16:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 20:41	1
Carbon tetrachloride	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 20:41	1
Chlorodifluoromethane	**0.45**		0.40	0.11	ppb v/v			08/19/19 20:41	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/19/19 20:41	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 20:41	1
Dichlorodifluoromethane	**0.55**		0.40	0.070	ppb v/v			08/19/19 20:41	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 20:41	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 20:41	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/19/19 20:41	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/19/19 20:41	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 20:41	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 20:41	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
Toluene	**4.8**		0.60	0.39	ppb v/v			08/19/19 20:41	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 20:41	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 20:41	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 20:41	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 20:41	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 20:41	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 20:41	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 20:41	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 20:41	1
Xylenes, Total	**0.58**	**J**	0.80	0.12	ppb v/v			08/19/19 20:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/19/19 20:41	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 20:41	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 20:41	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 20:41	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 20:41	1
Dichlorodifluoromethane	**2.7**		2.0	0.35	ug/m3			08/19/19 20:41	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 20:41	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 20:41	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 20:41	1
Ethylbenzene	**0.49**	**J**	1.7	0.28	ug/m3			08/19/19 20:41	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/19/19 20:41	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 20:41	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 20:41	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 20:41	1
Toluene	**18**		2.3	1.5	ug/m3			08/19/19 20:41	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 20:41	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 20:41	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 20:41	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 20:41	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 20:41	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 20:41	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 20:41	1

Client Sample ID: IA-015-A-27 **Lab Sample ID: 140-16367-10**
Date Collected: 08/15/19 16:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 20:41	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 20:41	1
Xylenes, Total	**2.5**	**J**	3.5	0.52	ug/m3			08/19/19 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 20:41*	*1*

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Date Collected: 08/15/19 16:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/19/19 21:24	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/19/19 21:24	1
Chlorodifluoromethane	**0.26**	**J**	0.40	0.11	ppb v/v			08/19/19 21:24	1
Chloroform	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 21:24	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:24	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 21:24	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 21:24	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:24	1
Ethylbenzene	**0.30**	**J**	0.40	0.065	ppb v/v			08/19/19 21:24	1
Methylene Chloride	**6.0**	**B**	2.0	0.80	ppb v/v			08/19/19 21:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:24	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
Toluene	**16**		0.60	0.39	ppb v/v			08/19/19 21:24	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:24	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:24	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:24	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:24	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:24	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 21:24	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 21:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.41**	**J**	1.3	0.13	ug/m3			08/19/19 21:24	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/19/19 21:24	1
Chlorodifluoromethane	**0.92**	**J**	1.4	0.39	ug/m3			08/19/19 21:24	1
Chloroform	**0.22**	**J**	2.0	0.17	ug/m3			08/19/19 21:24	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:24	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 21:24	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 21:24	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:24	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/19/19 21:24	1
Methylene Chloride	**21**	**B**	6.9	2.8	ug/m3			08/19/19 21:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:24	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:24	1
Toluene	**60**		2.3	1.5	ug/m3			08/19/19 21:24	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:24	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:24	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:24	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:24	1

Client Sample ID: IA-117-A-27 **Lab Sample ID: 140-16367-11**
Date Collected: 08/15/19 16:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:24	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 21:24	1
Xylenes, Total	**5.5**		3.5	0.52	ug/m3			08/19/19 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 21:24*	*1*

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Date Collected: 08/15/19 16:14 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.11**	**J**	0.40	0.040	ppb v/v			08/19/19 22:07	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/19/19 22:07	1
Chlorodifluoromethane	**0.24**	**J**	0.40	0.11	ppb v/v			08/19/19 22:07	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/19/19 22:07	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:07	1
Dichlorodifluoromethane	**0.30**	**J**	0.40	0.070	ppb v/v			08/19/19 22:07	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:07	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:07	1
Ethylbenzene	**0.25**	**J**	0.40	0.065	ppb v/v			08/19/19 22:07	1
Methylene Chloride	**4.4**	**B**	2.0	0.80	ppb v/v			08/19/19 22:07	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:07	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:07	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
Toluene	**16**		0.60	0.39	ppb v/v			08/19/19 22:07	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:07	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:07	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:07	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:07	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 22:07	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:07	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 22:07	1
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/19/19 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.36**	**J**	1.3	0.13	ug/m3			08/19/19 22:07	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/19/19 22:07	1
Chlorodifluoromethane	**0.86**	**J**	1.4	0.39	ug/m3			08/19/19 22:07	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 22:07	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:07	1
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.35	ug/m3			08/19/19 22:07	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:07	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:07	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:07	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 22:07	1
Methylene Chloride	**15**	**B**	6.9	2.8	ug/m3			08/19/19 22:07	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:07	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:07	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 22:07	1
Toluene	**62**		2.3	1.5	ug/m3			08/19/19 22:07	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:07	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:07	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:07	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:07	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 22:07	1

Client Sample ID: IA-078-A-27 **Lab Sample ID: 140-16367-12**
Date Collected: 08/15/19 16:14 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:07	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 22:07	1
Xylenes, Total	**5.0**		3.5	0.52	ug/m3			08/19/19 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 22:07*	*1*

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 22:50	1
Carbon tetrachloride	**0.069**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
Chlorodifluoromethane	**0.46**		0.40	0.11	ppb v/v			08/19/19 22:50	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:50	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/19/19 22:50	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:50	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:50	1
Ethylbenzene	**0.35**	**J**	0.40	0.065	ppb v/v			08/19/19 22:50	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 22:50	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:50	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:50	1
Tetrachloroethene	**0.038**	**J**	0.40	0.035	ppb v/v			08/19/19 22:50	1
Toluene	**18**		0.60	0.39	ppb v/v			08/19/19 22:50	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:50	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:50	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:50	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:50	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:50	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 22:50	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:50	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 22:50	1
Xylenes, Total	**1.6**		0.80	0.12	ppb v/v			08/19/19 22:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/19/19 22:50	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			08/19/19 22:50	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/19/19 22:50	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			08/19/19 22:50	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:50	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/19/19 22:50	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:50	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:50	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:50	1
Ethylbenzene	**1.5**	**J**	1.7	0.28	ug/m3			08/19/19 22:50	1
Methylene Chloride	**6.1**	**J B**	6.9	2.8	ug/m3			08/19/19 22:50	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:50	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:50	1
Tetrachloroethene	**0.26**	**J**	2.7	0.24	ug/m3			08/19/19 22:50	1
Toluene	**70**		2.3	1.5	ug/m3			08/19/19 22:50	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:50	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:50	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:50	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:50	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:50	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:50	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 22:50	1

Client Sample ID: IA-136-A-27 **Lab Sample ID: 140-16367-13**
Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:50	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 22:50	1
Xylenes, Total	**7.1**		3.5	0.52	ug/m3			08/19/19 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*08/19/19 22:50*	*1*

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 23:32	1
Carbon tetrachloride	**0.061**	**J**	0.40	0.035	ppb v/v			08/19/19 23:32	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/19/19 23:32	1
Chloroform	**0.044**	**J**	0.40	0.035	ppb v/v			08/19/19 23:32	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 23:32	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/19/19 23:32	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 23:32	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 23:32	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/19/19 23:32	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			08/19/19 23:32	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 23:32	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 23:32	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
Toluene	**7.3**		0.60	0.39	ppb v/v			08/19/19 23:32	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 23:32	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 23:32	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:32	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 23:32	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 23:32	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 23:32	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 23:32	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/19/19 23:32	1
Xylenes, Total	**0.75**	**J**	0.80	0.12	ppb v/v			08/19/19 23:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 23:32	1
Carbon tetrachloride	**0.39**	**J**	2.5	0.22	ug/m3			08/19/19 23:32	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/19/19 23:32	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			08/19/19 23:32	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 23:32	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 23:32	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 23:32	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 23:32	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 23:32	1
Ethylbenzene	**0.70**	**J**	1.7	0.28	ug/m3			08/19/19 23:32	1
Methylene Chloride	**5.7**	**J B**	6.9	2.8	ug/m3			08/19/19 23:32	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 23:32	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 23:32	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 23:32	1
Toluene	**27**		2.3	1.5	ug/m3			08/19/19 23:32	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 23:32	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 23:32	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 23:32	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 23:32	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 23:32	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 23:32	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 23:32	1

Client Sample ID: IA-076-A-27 **Lab Sample ID: 140-16367-14**
Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 23:32	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/19/19 23:32	1
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/19/19 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*08/19/19 23:32*	*1*

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.12**	**J**	0.40	0.040	ppb v/v			08/20/19 00:15	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 00:15	1
Chlorodifluoromethane	**0.25**	**J**	0.40	0.11	ppb v/v			08/20/19 00:15	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 00:15	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/20/19 00:15	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 00:15	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 00:15	1
Ethylbenzene	**0.082**	**J**	0.40	0.065	ppb v/v			08/20/19 00:15	1
Methylene Chloride	**2.4**	**B**	2.0	0.80	ppb v/v			08/20/19 00:15	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 00:15	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 00:15	1
Tetrachloroethene	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 00:15	1
Toluene	**2.6**		0.60	0.39	ppb v/v			08/20/19 00:15	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 00:15	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 00:15	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:15	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 00:15	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 00:15	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 00:15	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 00:15	1
Vinyl chloride	ND	*	0.20	0.13	ppb v/v			08/20/19 00:15	1
Xylenes, Total	**0.38**	**J**	0.80	0.12	ppb v/v			08/20/19 00:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.38**	**J**	1.3	0.13	ug/m3			08/20/19 00:15	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 00:15	1
Chlorodifluoromethane	**0.88**	**J**	1.4	0.39	ug/m3			08/20/19 00:15	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 00:15	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 00:15	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/20/19 00:15	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 00:15	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 00:15	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 00:15	1
Ethylbenzene	**0.36**	**J**	1.7	0.28	ug/m3			08/20/19 00:15	1
Methylene Chloride	**8.3**	**B**	6.9	2.8	ug/m3			08/20/19 00:15	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 00:15	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 00:15	1
Tetrachloroethene	**0.41**	**J**	2.7	0.24	ug/m3			08/20/19 00:15	1
Toluene	**9.9**		2.3	1.5	ug/m3			08/20/19 00:15	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 00:15	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 00:15	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 00:15	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 00:15	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 00:15	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 00:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 00:15	1

Client Sample ID: IA-168-A-27 **Lab Sample ID: 140-16367-15**
Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 00:15	1
Vinyl chloride	ND	*	0.51	0.33	ug/m3			08/20/19 00:15	1
Xylenes, Total	**1.6**	**J**	3.5	0.52	ug/m3			08/20/19 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/20/19 00:15*	*1*

Client Sample ID: IA-075-A-27 — Lab Sample ID: 140-16367-16

Date Collected: 08/15/19 16:25 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.0	0.40	ppb v/v			08/19/19 20:44	1
Carbon tetrachloride	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Chlorodifluoromethane	ND		4.0	1.1	ppb v/v			08/19/19 20:44	1
Chloroform	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
cis-1,2-Dichloroethene	ND		4.0	0.50	ppb v/v			08/19/19 20:44	1
Dichlorodifluoromethane	ND		4.0	0.70	ppb v/v			08/19/19 20:44	1
1,1-Dichloroethane	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
1,2-Dichloroethane	ND		4.0	0.50	ppb v/v			08/19/19 20:44	1
1,1-Dichloroethene	ND		4.0	0.40	ppb v/v			08/19/19 20:44	1
Ethylbenzene	ND		4.0	0.65	ppb v/v			08/19/19 20:44	1
Methylene Chloride	**8.5**	**J B**	20	8.0	ppb v/v			08/19/19 20:44	1
Methyl tert-butyl ether	ND		20	2.6	ppb v/v			08/19/19 20:44	1
Naphthalene	ND		2.0	3.8	ppb v/v			08/19/19 20:44	1
Tetrachloroethene	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Toluene	**6.3**		6.0	3.9	ppb v/v			08/19/19 20:44	1
trans-1,2-Dichloroethene	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
1,2,4-Trichlorobenzene	ND		4.0	3.2	ppb v/v			08/19/19 20:44	1
1,1,1-Trichloroethane	ND		4.0	1.9	ppb v/v			08/19/19 20:44	1
1,1,2-Trichloroethane	ND		4.0	0.35	ppb v/v			08/19/19 20:44	1
Trichloroethene	ND		2.0	0.30	ppb v/v			08/19/19 20:44	1
1,2,3-Trimethylbenzene	ND		4.0	1.8	ppb v/v			08/19/19 20:44	1
1,2,4-Trimethylbenzene	ND		4.0	1.0	ppb v/v			08/19/19 20:44	1
1,3,5-Trimethylbenzene	ND		4.0	1.1	ppb v/v			08/19/19 20:44	1
Vinyl chloride	ND		2.0	1.3	ppb v/v			08/19/19 20:44	1
Xylenes, Total	ND		8.0	1.2	ppb v/v			08/19/19 20:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		13	1.3	ug/m3			08/19/19 20:44	1
Carbon tetrachloride	ND		25	2.2	ug/m3			08/19/19 20:44	1
Chlorodifluoromethane	ND		14	3.9	ug/m3			08/19/19 20:44	1
Chloroform	ND		20	1.7	ug/m3			08/19/19 20:44	1
cis-1,2-Dichloroethene	ND		16	2.0	ug/m3			08/19/19 20:44	1
Dichlorodifluoromethane	ND		20	3.5	ug/m3			08/19/19 20:44	1
1,1-Dichloroethane	ND		16	1.4	ug/m3			08/19/19 20:44	1
1,2-Dichloroethane	ND		16	2.0	ug/m3			08/19/19 20:44	1
1,1-Dichloroethene	ND		16	1.6	ug/m3			08/19/19 20:44	1
Ethylbenzene	ND		17	2.8	ug/m3			08/19/19 20:44	1
Methylene Chloride	**29**	**J B**	69	28	ug/m3			08/19/19 20:44	1
Methyl tert-butyl ether	ND		72	9.4	ug/m3			08/19/19 20:44	1
Naphthalene	ND		10	20	ug/m3			08/19/19 20:44	1
Tetrachloroethene	ND		27	2.4	ug/m3			08/19/19 20:44	1
Toluene	**24**		23	15	ug/m3			08/19/19 20:44	1
trans-1,2-Dichloroethene	ND		16	1.4	ug/m3			08/19/19 20:44	1
1,2,4-Trichlorobenzene	ND		30	24	ug/m3			08/19/19 20:44	1
1,1,1-Trichloroethane	ND		22	10	ug/m3			08/19/19 20:44	1
1,1,2-Trichloroethane	ND		22	1.9	ug/m3			08/19/19 20:44	1
Trichloroethene	ND		11	1.6	ug/m3			08/19/19 20:44	1
1,2,3-Trimethylbenzene	ND		20	8.8	ug/m3			08/19/19 20:44	1
1,2,4-Trimethylbenzene	ND		20	4.9	ug/m3			08/19/19 20:44	1

Client Sample ID: IA-075-A-27 **Lab Sample ID: 140-16367-16**
Date Collected: 08/15/19 16:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		20	5.4	ug/m3			08/19/19 20:44	1
Vinyl chloride	ND		5.1	3.3	ug/m3			08/19/19 20:44	1
Xylenes, Total	ND		35	5.2	ug/m3			08/19/19 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/19/19 20:44*	*1*

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.098**	**J**	0.40	0.040	ppb v/v			08/19/19 21:31	1
Carbon tetrachloride	**0.075**	**J**	0.40	0.035	ppb v/v			08/19/19 21:31	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/19/19 21:31	1
Chloroform	**0.048**	**J**	0.40	0.035	ppb v/v			08/19/19 21:31	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:31	1
Dichlorodifluoromethane	**0.31**	**J**	0.40	0.070	ppb v/v			08/19/19 21:31	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 21:31	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:31	1
Ethylbenzene	**0.25**	**J**	0.40	0.065	ppb v/v			08/19/19 21:31	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			08/19/19 21:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:31	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
Toluene	**12**		0.60	0.39	ppb v/v			08/19/19 21:31	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:31	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:31	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 21:31	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 21:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.31**	**J**	1.3	0.13	ug/m3			08/19/19 21:31	1
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/19/19 21:31	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/19/19 21:31	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/19/19 21:31	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:31	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/19/19 21:31	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 21:31	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:31	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 21:31	1
Methylene Chloride	**6.3**	**J B**	6.9	2.8	ug/m3			08/19/19 21:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:31	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:31	1
Toluene	**46**		2.3	1.5	ug/m3			08/19/19 21:31	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:31	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:31	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:31	1

Client Sample ID: IA-021-A-27 **Lab Sample ID: 140-16367-17**
Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 21:31	1
Xylenes, Total	**5.7**		3.5	0.52	ug/m3			08/19/19 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/19/19 21:31*	*1*

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 22:19	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
Chlorodifluoromethane	**0.67**		0.40	0.11	ppb v/v			08/19/19 22:19	1
Chloroform	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 22:19	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/19/19 22:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 22:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 22:19	1
Ethylbenzene	**0.54**		0.40	0.065	ppb v/v			08/19/19 22:19	1
Methylene Chloride	**1.7**	**J B**	2.0	0.80	ppb v/v			08/19/19 22:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 22:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 22:19	1
Tetrachloroethene	**0.036**	**J**	0.40	0.035	ppb v/v			08/19/19 22:19	1
Toluene	**36**		0.60	0.39	ppb v/v			08/19/19 22:19	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 22:19	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 22:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 22:19	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 22:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 22:19	1
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/19/19 22:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 22:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 22:19	1
Xylenes, Total	**2.4**		0.80	0.12	ppb v/v			08/19/19 22:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 22:19	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/19/19 22:19	1
Chlorodifluoromethane	**2.4**		1.4	0.39	ug/m3			08/19/19 22:19	1
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/19/19 22:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 22:19	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/19/19 22:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 22:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 22:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 22:19	1
Ethylbenzene	**2.4**		1.7	0.28	ug/m3			08/19/19 22:19	1
Methylene Chloride	**5.9**	**J B**	6.9	2.8	ug/m3			08/19/19 22:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 22:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 22:19	1
Tetrachloroethene	**0.24**	**J**	2.7	0.24	ug/m3			08/19/19 22:19	1
Toluene	**130**		2.3	1.5	ug/m3			08/19/19 22:19	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 22:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 22:19	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 22:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 22:19	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 22:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 22:19	1
1,2,4-Trimethylbenzene	**0.63**	**J**	2.0	0.49	ug/m3			08/19/19 22:19	1

Client Sample ID: IA-100-B-27 **Lab Sample ID: 140-16367-18**
Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 22:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 22:19	1
Xylenes, Total	**10**		3.5	0.52	ug/m3			08/19/19 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/19/19 22:19*	*1*

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 23:07	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
Chlorodifluoromethane	**0.76**		0.40	0.11	ppb v/v			08/19/19 23:07	1
Chloroform	**0.072**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 23:07	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/19/19 23:07	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/19/19 23:07	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 23:07	1
Ethylbenzene	**0.40**		0.40	0.065	ppb v/v			08/19/19 23:07	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			08/19/19 23:07	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 23:07	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 23:07	1
Tetrachloroethene	**0.058**	**J**	0.40	0.035	ppb v/v			08/19/19 23:07	1
Toluene	**25**		0.60	0.39	ppb v/v			08/19/19 23:07	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 23:07	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 23:07	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 23:07	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 23:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 23:07	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 23:07	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 23:07	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 23:07	1
Xylenes, Total	**2.0**		0.80	0.12	ppb v/v			08/19/19 23:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 23:07	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/19/19 23:07	1
Chlorodifluoromethane	**2.7**		1.4	0.39	ug/m3			08/19/19 23:07	1
Chloroform	**0.35**	**J**	2.0	0.17	ug/m3			08/19/19 23:07	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 23:07	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/19/19 23:07	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 23:07	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/19/19 23:07	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 23:07	1
Ethylbenzene	**1.7**		1.7	0.28	ug/m3			08/19/19 23:07	1
Methylene Chloride	**5.6**	**J B**	6.9	2.8	ug/m3			08/19/19 23:07	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 23:07	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 23:07	1
Tetrachloroethene	**0.39**	**J**	2.7	0.24	ug/m3			08/19/19 23:07	1
Toluene	**95**		2.3	1.5	ug/m3			08/19/19 23:07	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 23:07	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 23:07	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 23:07	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 23:07	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 23:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 23:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 23:07	1

Client Sample ID: IA-101-B-27 **Lab Sample ID: 140-16367-19**
Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 23:07	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 23:07	1
Xylenes, Total	**8.7**		3.5	0.52	ug/m3			08/19/19 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/19/19 23:07*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	BFB (60-140)						
140-16367-1	IA-018-A-27	103						
140-16367-2	IA-DUP3-A-27	104						
140-16367-3	IA-138-A-27	100						
140-16367-4	IA-174-A-27	91						
140-16367-5	IA-093-A-27	94						
140-16367-6	IA-081-A-27	100						
140-16367-7	IA-079-A-27	98						
140-16367-8	IA-DUP4-A-27	99						
140-16367-9	IA-118-A-27	92						
140-16367-10	IA-015-A-27	100						
140-16367-11	IA-117-A-27	100						
140-16367-12	IA-078-A-27	92						
140-16367-13	IA-136-A-27	101						
140-16367-14	IA-076-A-27	100						
140-16367-15	IA-168-A-27	99						
140-16367-16	IA-075-A-27	92						
140-16367-17	IA-021-A-27	96						
140-16367-18	IA-100-B-27	95						
140-16367-19	IA-101-B-27	94						
LCS 140-32704/1002	Lab Control Sample	101						
LCS 140-32744/1002	Lab Control Sample	107						
LCS 140-32829/1002	Lab Control Sample	91						
MB 140-32704/4	Method Blank	99						
MB 140-32744/4	Method Blank	90						
MB 140-32829/4	Method Blank	82						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32704/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 13:28	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 13:28	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 13:28	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 13:28	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 13:28	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 13:28	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 13:28	1
Methylene Chloride	0.215	J	0.40	0.16	ppb v/v			08/19/19 13:28	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 13:28	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 13:28	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 13:28	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 13:28	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 13:28	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 13:28	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 13:28	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 13:28	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 13:28	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 13:28	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 13:28	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 13:28	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 13:28	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 13:28	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 13:28	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 13:28	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 13:28	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 13:28	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 13:28	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 13:28	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 13:28	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 13:28	1
Methylene Chloride	0.745	J	1.4	0.56	ug/m3			08/19/19 13:28	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 13:28	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 13:28	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 13:28	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 13:28	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 13:28	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 13:28	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 13:28	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 13:28	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 13:28	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 13:28	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32704/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 13:28	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 13:28	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 13:28	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*08/19/19 13:28*	*1*

Lab Sample ID: LCS 140-32704/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.04		ppb v/v		102	70 - 130
Carbon tetrachloride	2.00	1.80		ppb v/v		90	70 - 130
Chlorodifluoromethane	2.00	2.42		ppb v/v		121	60 - 140
Chloroform	2.00	1.94		ppb v/v		97	70 - 130
cis-1,2-Dichloroethene	2.00	2.07		ppb v/v		104	70 - 130
Dichlorodifluoromethane	2.00	2.37		ppb v/v		119	60 - 140
1,1-Dichloroethane	2.00	2.02		ppb v/v		101	70 - 130
1,2-Dichloroethane	2.00	1.76		ppb v/v		88	70 - 130
1,1-Dichloroethene	2.00	2.01		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.89		ppb v/v		94	70 - 130
Methylene Chloride	2.00	2.05		ppb v/v		103	70 - 130
Methyl tert-butyl ether	2.00	1.75		ppb v/v		87	60 - 140
Naphthalene	2.00	1.56		ppb v/v		78	60 - 140
Tetrachloroethene	2.00	1.79		ppb v/v		89	70 - 130
Toluene	2.00	1.94		ppb v/v		97	70 - 130
trans-1,2-Dichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	2.00	1.62		ppb v/v		81	60 - 140
1,1,1-Trichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,1,2-Trichloroethane	2.00	1.90		ppb v/v		95	70 - 130
Trichloroethene	2.00	1.84		ppb v/v		92	70 - 130
1,2,3-Trimethylbenzene	2.00	1.44		ppb v/v		72	70 - 130
1,2,4-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,3,5-Trimethylbenzene	2.00	2.04		ppb v/v		102	70 - 130
Vinyl chloride	2.00	2.64	*	ppb v/v		132	70 - 130
Xylenes, Total	6.00	5.58		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.51		ug/m3		102	70 - 130
Carbon tetrachloride	13	11.3		ug/m3		90	70 - 130
Chlorodifluoromethane	7.1	8.56		ug/m3		121	60 - 140
Chloroform	9.8	9.47		ug/m3		97	70 - 130
cis-1,2-Dichloroethene	7.9	8.21		ug/m3		104	70 - 130
Dichlorodifluoromethane	9.9	11.7		ug/m3		119	60 - 140
1,1-Dichloroethane	8.1	8.17		ug/m3		101	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32704/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	7.11		ug/m3		88	70 - 130
1,1-Dichloroethene	7.9	7.97		ug/m3		101	70 - 130
Ethylbenzene	8.7	8.20		ug/m3		94	70 - 130
Methylene Chloride	6.9	7.13		ug/m3		103	70 - 130
Methyl tert-butyl ether	7.2	6.31		ug/m3		87	60 - 140
Naphthalene	10	8.17		ug/m3		78	60 - 140
Tetrachloroethene	14	12.1		ug/m3		89	70 - 130
Toluene	7.5	7.31		ug/m3		97	70 - 130
trans-1,2-Dichloroethene	7.9	8.17		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	15	12.0		ug/m3		81	60 - 140
1,1,1-Trichloroethane	11	10.0		ug/m3		92	70 - 130
1,1,2-Trichloroethane	11	10.4		ug/m3		95	70 - 130
Trichloroethene	11	9.90		ug/m3		92	70 - 130
1,2,3-Trimethylbenzene	9.8	7.08		ug/m3		72	70 - 130
1,2,4-Trimethylbenzene	9.8	8.50		ug/m3		86	70 - 130
1,3,5-Trimethylbenzene	9.8	10.0		ug/m3		102	70 - 130
Vinyl chloride	5.1	6.74	*	ug/m3		132	70 - 130
Xylenes, Total	26	24.2		ug/m3		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 18:12	1
Methylene Chloride	0.164	J	0.40	0.16	ppb v/v			08/19/19 18:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 18:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 18:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 18:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 18:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 18:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 18:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 18:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 18:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 18:12	1
Methylene Chloride	0.570	J	1.4	0.56	ug/m3			08/19/19 18:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 18:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 18:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 18:12	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 18:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 18:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 18:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 18:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 18:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 18:12*	*1*

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.893		ppb v/v		89	70 - 130
Carbon tetrachloride	1.00	0.969		ppb v/v		97	70 - 130
Chlorodifluoromethane	1.00	0.930		ppb v/v		93	60 - 140
Chloroform	1.00	0.986		ppb v/v		99	70 - 130
cis-1,2-Dichloroethene	1.00	0.918		ppb v/v		92	70 - 130
Dichlorodifluoromethane	1.00	1.16		ppb v/v		116	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	1.00	0.985		ppb v/v		98	70 - 130
1,2-Dichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1-Dichloroethene	1.00	0.804		ppb v/v		80	70 - 130
Ethylbenzene	1.00	0.939		ppb v/v		94	70 - 130
Methylene Chloride	1.00	0.886		ppb v/v		89	70 - 130
Methyl tert-butyl ether	1.00	0.998		ppb v/v		100	60 - 140
Naphthalene	1.00	0.929		ppb v/v		93	60 - 140
Tetrachloroethene	1.00	0.842		ppb v/v		84	70 - 130
Toluene	1.00	0.896		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	1.00	0.976		ppb v/v		98	70 - 130
1,2,4-Trichlorobenzene	1.00	0.891		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	1.00	0.927		ppb v/v		93	70 - 130
1,1,2-Trichloroethane	1.00	0.916		ppb v/v		92	70 - 130
Trichloroethene	1.00	0.867		ppb v/v		87	70 - 130
1,2,3-Trimethylbenzene	1.00	0.974		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	1.00	0.947		ppb v/v		95	70 - 130
1,3,5-Trimethylbenzene	1.00	0.953		ppb v/v		95	70 - 130
Vinyl chloride	1.00	0.986		ppb v/v		99	70 - 130
Xylenes, Total	3.00	2.79		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.85		ug/m3		89	70 - 130
Carbon tetrachloride	6.3	6.10		ug/m3		97	70 - 130
Chlorodifluoromethane	3.5	3.29		ug/m3		93	60 - 140
Chloroform	4.9	4.81		ug/m3		99	70 - 130
cis-1,2-Dichloroethene	4.0	3.64		ug/m3		92	70 - 130
Dichlorodifluoromethane	4.9	5.76		ug/m3		116	60 - 140
1,1-Dichloroethane	4.0	3.99		ug/m3		98	70 - 130
1,2-Dichloroethane	4.0	4.19		ug/m3		104	70 - 130
1,1-Dichloroethene	4.0	3.19		ug/m3		80	70 - 130
Ethylbenzene	4.3	4.08		ug/m3		94	70 - 130
Methylene Chloride	3.5	3.08		ug/m3		89	70 - 130
Methyl tert-butyl ether	3.6	3.60		ug/m3		100	60 - 140
Naphthalene	5.2	4.87		ug/m3		93	60 - 140
Tetrachloroethene	6.8	5.71		ug/m3		84	70 - 130
Toluene	3.8	3.37		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	4.0	3.87		ug/m3		98	70 - 130
1,2,4-Trichlorobenzene	7.4	6.61		ug/m3		89	60 - 140
1,1,1-Trichloroethane	5.5	5.06		ug/m3		93	70 - 130
1,1,2-Trichloroethane	5.5	5.00		ug/m3		92	70 - 130
Trichloroethene	5.4	4.66		ug/m3		87	70 - 130
1,2,3-Trimethylbenzene	4.9	4.79		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	4.9	4.66		ug/m3		95	70 - 130
1,3,5-Trimethylbenzene	4.9	4.69		ug/m3		95	70 - 130
Vinyl chloride	2.6	2.52		ug/m3		99	70 - 130
Xylenes, Total	13	12.1		ug/m3		93	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002
Matrix: Air
Analysis Batch: 32744

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 140-32829/4
Matrix: Air
Analysis Batch: 32829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.91		ppb v/v		96	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		92	70 - 130
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			6.4	6.11		ug/m3		96	70 - 130		
Carbon tetrachloride			13	11.5		ug/m3		92	70 - 130		
Chlorodifluoromethane			7.1	6.98		ug/m3		99	60 - 140		
Chloroform			9.8	8.72		ug/m3		89	70 - 130		
cis-1,2-Dichloroethene			7.9	8.10		ug/m3		102	70 - 130		
Dichlorodifluoromethane			9.9	9.90		ug/m3		100	60 - 140		
1,1-Dichloroethane			8.1	7.45		ug/m3		92	70 - 130		
1,2-Dichloroethane			8.1	5.88		ug/m3		73	70 - 130		
1,1-Dichloroethene			7.9	8.38		ug/m3		106	70 - 130		
Ethylbenzene			8.7	7.36		ug/m3		85	70 - 130		
Methylene Chloride			6.9	6.15		ug/m3		89	70 - 130		
Methyl tert-butyl ether			7.2	5.97		ug/m3		83	60 - 140		
Naphthalene			10	8.88		ug/m3		85	60 - 140		
Tetrachloroethene			14	11.4		ug/m3		84	70 - 130		
Toluene			7.5	6.82		ug/m3		91	70 - 130		
trans-1,2-Dichloroethene			7.9	8.50		ug/m3		107	70 - 130		
1,2,4-Trichlorobenzene			15	12.5		ug/m3		84	60 - 140		
1,1,1-Trichloroethane			11	8.88		ug/m3		81	70 - 130		
1,1,2-Trichloroethane			11	10.3		ug/m3		94	70 - 130		
Trichloroethene			11	10.0		ug/m3		93	70 - 130		
1,2,3-Trimethylbenzene			9.8	8.49		ug/m3		86	70 - 130		
1,2,4-Trimethylbenzene			9.8	8.31		ug/m3		85	70 - 130		
1,3,5-Trimethylbenzene			9.8	8.93		ug/m3		91	70 - 130		
Vinyl chloride			5.1	6.26		ug/m3		122	70 - 130		
Xylenes, Total			26	22.1		ug/m3		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-1	IA-018-A-27	Total/NA	Air	TO 15 LL	
140-16367-2	IA-DUP3-A-27	Total/NA	Air	TO 15 LL	
140-16367-3	IA-138-A-27	Total/NA	Air	TO 15 LL	
140-16367-6	IA-081-A-27	Total/NA	Air	TO 15 LL	
140-16367-7	IA-079-A-27	Total/NA	Air	TO 15 LL	
140-16367-9	IA-118-A-27	Total/NA	Air	TO 15 LL	
140-16367-10	IA-015-A-27	Total/NA	Air	TO 15 LL	
140-16367-11	IA-117-A-27	Total/NA	Air	TO 15 LL	
140-16367-12	IA-078-A-27	Total/NA	Air	TO 15 LL	
140-16367-13	IA-136-A-27	Total/NA	Air	TO 15 LL	
140-16367-14	IA-076-A-27	Total/NA	Air	TO 15 LL	
140-16367-15	IA-168-A-27	Total/NA	Air	TO 15 LL	
MB 140-32704/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32704/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-16	IA-075-A-27	Total/NA	Air	TO 15 LL	
140-16367-17	IA-021-A-27	Total/NA	Air	TO 15 LL	
140-16367-18	IA-100-B-27	Total/NA	Air	TO 15 LL	
140-16367-19	IA-101-B-27	Total/NA	Air	TO 15 LL	
MB 140-32744/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32744/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16367-4	IA-174-A-27	Total/NA	Air	TO 15 LL	
140-16367-5	IA-093-A-27	Total/NA	Air	TO 15 LL	
140-16367-8	IA-DUP4-A-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: IA-018-A-27 — Lab Sample ID: 140-16367-1

Date Collected: 08/15/19 15:53 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 14:11	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-DUP3-A-27 — Lab Sample ID: 140-16367-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 14:56	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-138-A-27 — Lab Sample ID: 140-16367-3

Date Collected: 08/15/19 15:54 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.04	204 mL	500 mL	32704	08/19/19 15:41	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-174-A-27 — Lab Sample ID: 140-16367-4

Date Collected: 08/15/19 15:55 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 17:09	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-093-A-27 — Lab Sample ID: 140-16367-5

Date Collected: 08/15/19 15:56 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 00:34	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-081-A-27 — Lab Sample ID: 140-16367-6

Date Collected: 08/15/19 16:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 17:49	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-079-A-27 — Lab Sample ID: 140-16367-7

Date Collected: 08/15/19 16:01 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 18:32	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-DUP4-A-27 — Lab Sample ID: 140-16367-8

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 17:59	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-118-A-27 — Lab Sample ID: 140-16367-9

Date Collected: 08/15/19 16:10 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 19:58	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-015-A-27 — Lab Sample ID: 140-16367-10

Date Collected: 08/15/19 16:11 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 20:41	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-117-A-27 — Lab Sample ID: 140-16367-11

Date Collected: 08/15/19 16:17 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 21:24	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-078-A-27 — Lab Sample ID: 140-16367-12

Date Collected: 08/15/19 16:14 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 22:07	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-136-A-27 — Lab Sample ID: 140-16367-13

Date Collected: 08/15/19 16:20 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 22:50	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-076-A-27 — Lab Sample ID: 140-16367-14

Date Collected: 08/15/19 16:22 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/19/19 23:32	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-168-A-27 — Lab Sample ID: 140-16367-15

Date Collected: 08/15/19 16:23 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32704	08/20/19 00:15	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: IA-075-A-27 — Lab Sample ID: 140-16367-16

Date Collected: 08/15/19 16:25 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	10 mL	500 mL	32744	08/19/19 20:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-021-A-27 — Lab Sample ID: 140-16367-17

Date Collected: 08/15/19 16:27 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 21:31	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-100-B-27 — Lab Sample ID: 140-16367-18

Date Collected: 08/15/19 16:30 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 22:19	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-101-B-27 — Lab Sample ID: 140-16367-19

Date Collected: 08/15/19 16:33 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/19/19 23:07	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32704/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32704	08/19/19 13:28	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32744/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 18:12	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32704/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32704	08/19/19 11:10	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32744/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 16:53	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-32829/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16367-1	IA-018-A-27	Air	08/15/19 15:53	08/17/19 10:30	Air Canister (1-Liter) #10748
140-16367-2	IA-DUP3-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11839
140-16367-3	IA-138-A-27	Air	08/15/19 15:54	08/17/19 10:30	Air Canister (1-Liter) #10519
140-16367-4	IA-174-A-27	Air	08/15/19 15:55	08/17/19 10:30	Air Canister (1-Liter) #11860
140-16367-5	IA-093-A-27	Air	08/15/19 15:56	08/17/19 10:30	Air Canister (1-Liter) #09797
140-16367-6	IA-081-A-27	Air	08/15/19 16:00	08/17/19 10:30	Air Canister (1-Liter) #10345
140-16367-7	IA-079-A-27	Air	08/15/19 16:01	08/17/19 10:30	Air Canister (1-Liter) #11624
140-16367-8	IA-DUP4-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11875
140-16367-9	IA-118-A-27	Air	08/15/19 16:10	08/17/19 10:30	Air Canister (1-Liter) #10335
140-16367-10	IA-015-A-27	Air	08/15/19 16:11	08/17/19 10:30	Air Canister (1-Liter) #09663
140-16367-11	IA-117-A-27	Air	08/15/19 16:17	08/17/19 10:30	Air Canister (1-Liter) #11639
140-16367-12	IA-078-A-27	Air	08/15/19 16:14	08/17/19 10:30	Air Canister (1-Liter) #11882
140-16367-13	IA-136-A-27	Air	08/15/19 16:20	08/17/19 10:30	Air Canister (1-Liter) #11807
140-16367-14	IA-076-A-27	Air	08/15/19 16:22	08/17/19 10:30	Air Canister (1-Liter) #11753
140-16367-15	IA-168-A-27	Air	08/15/19 16:23	08/17/19 10:30	Air Canister (1-Liter) #11135
140-16367-16	IA-075-A-27	Air	08/15/19 16:25	08/17/19 10:30	Air Canister (1-Liter) #11035
140-16367-17	IA-021-A-27	Air	08/15/19 16:27	08/17/19 10:30	Air Canister (1-Liter) #11851
140-16367-18	IA-100-B-27	Air	08/15/19 16:30	08/17/19 10:30	Air Canister (1-Liter) #11884
140-16367-19	IA-101-B-27	Air	08/15/19 16:33	08/17/19 10:30	Air Canister (1-Liter) #11883

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27	140-16367-1	103
IA-DUP3-A-27	140-16367-2	104
IA-138-A-27	140-16367-3	100
IA-174-A-27	140-16367-4	91
IA-093-A-27	140-16367-5	94
IA-081-A-27	140-16367-6	100
IA-079-A-27	140-16367-7	98
IA-DUP4-A-27	140-16367-8	99
IA-118-A-27	140-16367-9	92
IA-015-A-27	140-16367-10	100
IA-117-A-27	140-16367-11	100
IA-078-A-27	140-16367-12	92
IA-136-A-27	140-16367-13	101
IA-076-A-27	140-16367-14	100
IA-168-A-27	140-16367-15	99
IA-075-A-27	140-16367-16	92
IA-021-A-27	140-16367-17	96
IA-100-B-27	140-16367-18	95
IA-101-B-27	140-16367-19	94
	MB 140-32704/4	99
	MB 140-32744/4	90
	MB 140-32829/4	82
	LCS 140-32704/1002	101
	LCS 140-32744/1002	107
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH19A-LCS.d

Lab ID: LCS 140-32704/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.04	102	70-130	
Carbon tetrachloride	2.00	1.80	90	70-130	
Chlorodifluoromethane	2.00	2.42	121	60-140	
Chloroform	2.00	1.94	97	70-130	
cis-1,2-Dichloroethene	2.00	2.07	104	70-130	
Dichlorodifluoromethane	2.00	2.37	119	60-140	
1,1-Dichloroethane	2.00	2.02	101	70-130	
1,2-Dichloroethane	2.00	1.76	88	70-130	
1,1-Dichloroethene	2.00	2.01	101	70-130	
Ethylbenzene	2.00	1.89	94	70-130	
Methylene Chloride	2.00	2.05	103	70-130	
Methyl tert-butyl ether	2.00	1.75	87	60-140	
Naphthalene	2.00	1.56	78	60-140	
Tetrachloroethene	2.00	1.79	89	70-130	
Toluene	2.00	1.94	97	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.62	81	60-140	
1,1,1-Trichloroethane	2.00	1.84	92	70-130	
1,1,2-Trichloroethane	2.00	1.90	95	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.44	72	70-130	
1,2,4-Trimethylbenzene	2.00	1.73	86	70-130	
1,3,5-Trimethylbenzene	2.00	2.04	102	70-130	
Vinyl chloride	2.00	2.64	132	70-130	*
Xylenes, Total	6.00	5.58	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: G500BH19.D Lab Sample ID: MB 140-32704/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/19/2019 13:28

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32704/1002	GCCVH19A-LCS.d	08/19/2019 11:10
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019 14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019 14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019 15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019 17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019 18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019 19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019 20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019 21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019 22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019 22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019 23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019 00:15

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019 17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019 17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019 00:34

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019 20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019 21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019 22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019 23:07

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH19A.D BFB Injection Date: 08/19/2019

Instrument ID: MG BFB Injection Time: 10:37

Analysis Batch No.: 32704

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	95.0	
175	5.0 - 9.0 % of mass 174	6.9	(7.3) 1
176	95.0 - 101.0 % of mass 174	92.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32704/2	GCCVH19A.D	08/19/2019	11:10
	LCS 140-32704/1002	GCCVH19A-LCS .d	08/19/2019	11:10
	MB 140-32704/4	G500BH19.D	08/19/2019	13:28
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019	14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019	14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019	15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019	17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019	18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019	19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019	20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019	21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019	22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019	22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019	23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019	00:15

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019	17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019	17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019	00:34

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019	20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019	21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019	22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019	23:07

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32704/2 Date Analyzed: 08/19/2019 11:10

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH19A.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		639553	9.14	3637374	11.31	3201568	15.99
UPPER LIMIT		895374	9.47	5092324	11.64	4482195	16.32
LOWER LIMIT		383732	8.81	2182424	10.98	1920941	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32704/1002		639553	9.14	3637374	11.31	3201568	15.99
MB 140-32704/4		631196	9.14	3572704	11.31	3152905	15.99
140-16367-1	IA-018-A-27	555604	9.14	3126966	11.31	2783832	15.98
140-16367-2	IA-DUP3-A-27	609580	9.14	3489024	11.31	3082954	15.99
140-16367-3	IA-138-A-27	610525	9.14	3528279	11.31	3149068	15.99
140-16367-6	IA-081-A-27	634236	9.14	3176329	11.31	2958095	15.99
140-16367-7	IA-079-A-27	850205	9.14	4274753	11.31	3299959	15.98
140-16367-9	IA-118-A-27	862766	9.15	4013893	11.31	2976020	15.98
140-16367-10	IA-015-A-27	630191	9.15	3510555	11.31	3203955	15.98
140-16367-11	IA-117-A-27	815671	9.15	4235194	11.31	2962285	15.99
140-16367-12	IA-078-A-27	875616	9.14	4725665	11.31	4282764	15.98
140-16367-13	IA-136-A-27	627547	9.15	3378893	11.31	2937203	15.98
140-16367-14	IA-076-A-27	644653	9.15	3313641	11.31	2944757	15.98
140-16367-15	IA-168-A-27	745756	9.14	3977658	11.30	2859104	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16367-4	IA-174-A-27	259215	9.73	1273380	11.84	1061453	16.45
140-16367-8	IA-DUP4-A-27	207218	9.73	1011694	11.84	869388	16.45
140-16367-5	IA-093-A-27	213359	9.73	1014519	11.84	824581	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16367-16	IA-075-A-27	195644	8.56	1097664	10.78	876815	15.58
140-16367-17	IA-021-A-27	179614	8.56	1016605	10.78	896462	15.57
140-16367-18	IA-100-B-27	171496	8.54	994552	10.78	917494	15.57
140-16367-19	IA-101-B-27	192051	8.54	1094552	10.78	1034164	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.22	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.050	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.42		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.72		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.49	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.89	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.20	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D
Lims ID: 140-16367-A-1
Client ID: IA-018-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 14:11:30 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-005
Misc. Info.: 140-16367-a-1
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:13:23 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:16:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	89	555604	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3126966	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	89	2783832	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	87	1999091	4.13	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	43	24880	0.0882	
8 Dichlorodifluoromethane	85	3.888	3.890	0.000	99	50170	0.0915	
27 1,1-Dichloroethene	96	6.175	6.174	0.000	98	13162	0.0831	
31 Methylene Chloride	84	6.536	6.536	0.000	94	63084	0.4097	
37 1,1-Dichloroethane	63	7.798	7.797	0.001	37	3037	0.0100	
42 cis-1,2-Dichloroethene	96	8.806	8.800	0.006	90	7289	0.0448	
44 Chloroform	83	9.151	9.151	0.000	28	7575	0.0201	
50 Benzene	78	10.774	10.779	-0.005	96	17024	0.0364	
52 Carbon tetrachloride	117	10.807	10.801	0.006	58	6426	0.0135	
58 Trichloroethene	130	12.014	12.014	0.000	96	37416	0.1435	
67 Toluene	91	14.031	14.036	-0.005	94	153837	0.2811	
78 Ethylbenzene	91	16.318	16.317	0.001	97	12400	0.0171	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	99	31964	0.0563	
83 o-Xylene	91	17.002	16.997	0.005	97	12588	0.0205	
S 124 Xylenes, Total	100				0		0.0768	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

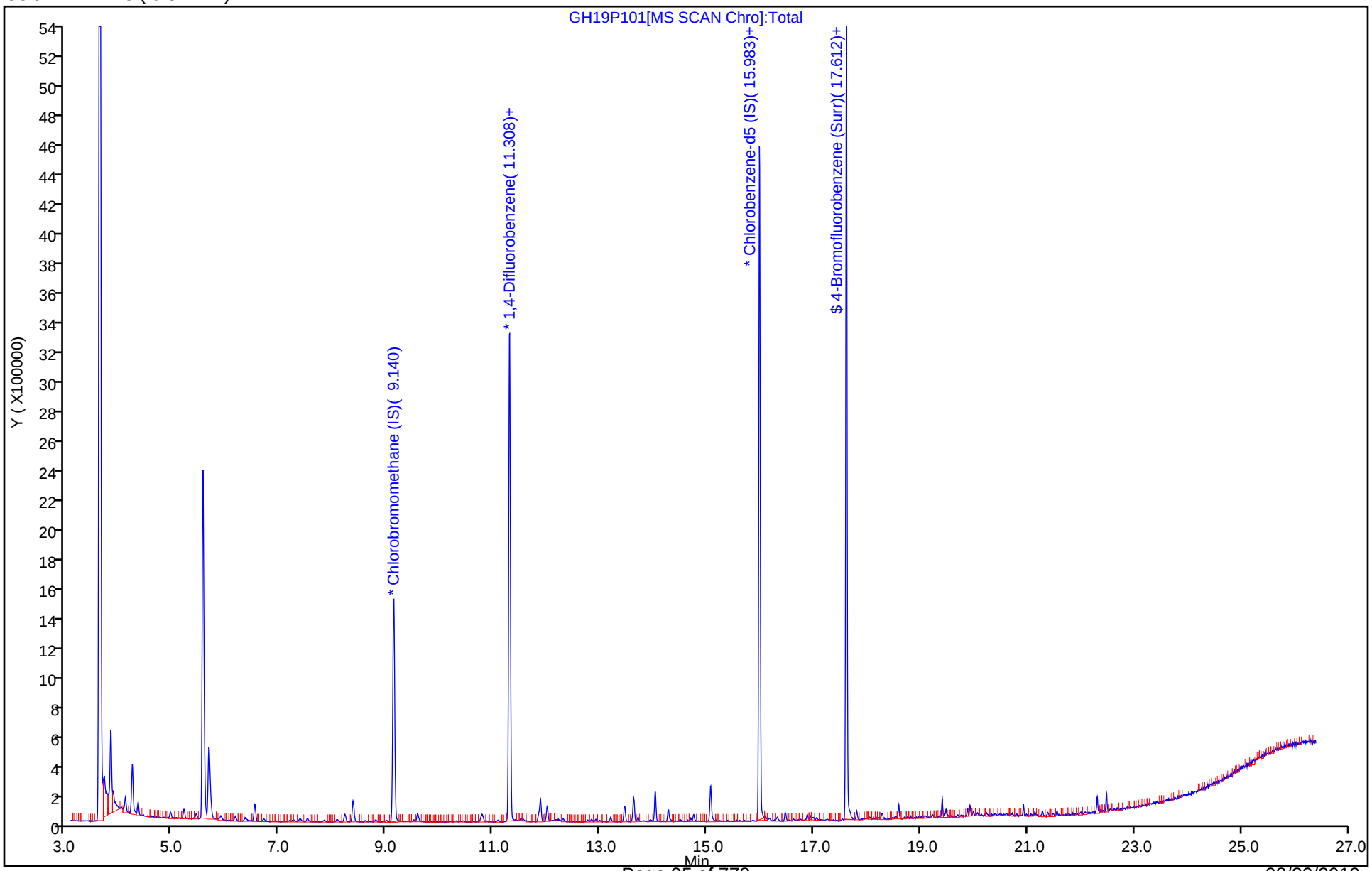
Report Date: 20-Aug-2019 10:16:02 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D

Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1	Worklist Smp#:	5
Client ID:	IA-018-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D				
Lims ID:	140-16367-A-1				
Client ID:	IA-018-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 14:11:30	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-005				
Misc. Info.:	140-16367-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:13:23	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:16:01		

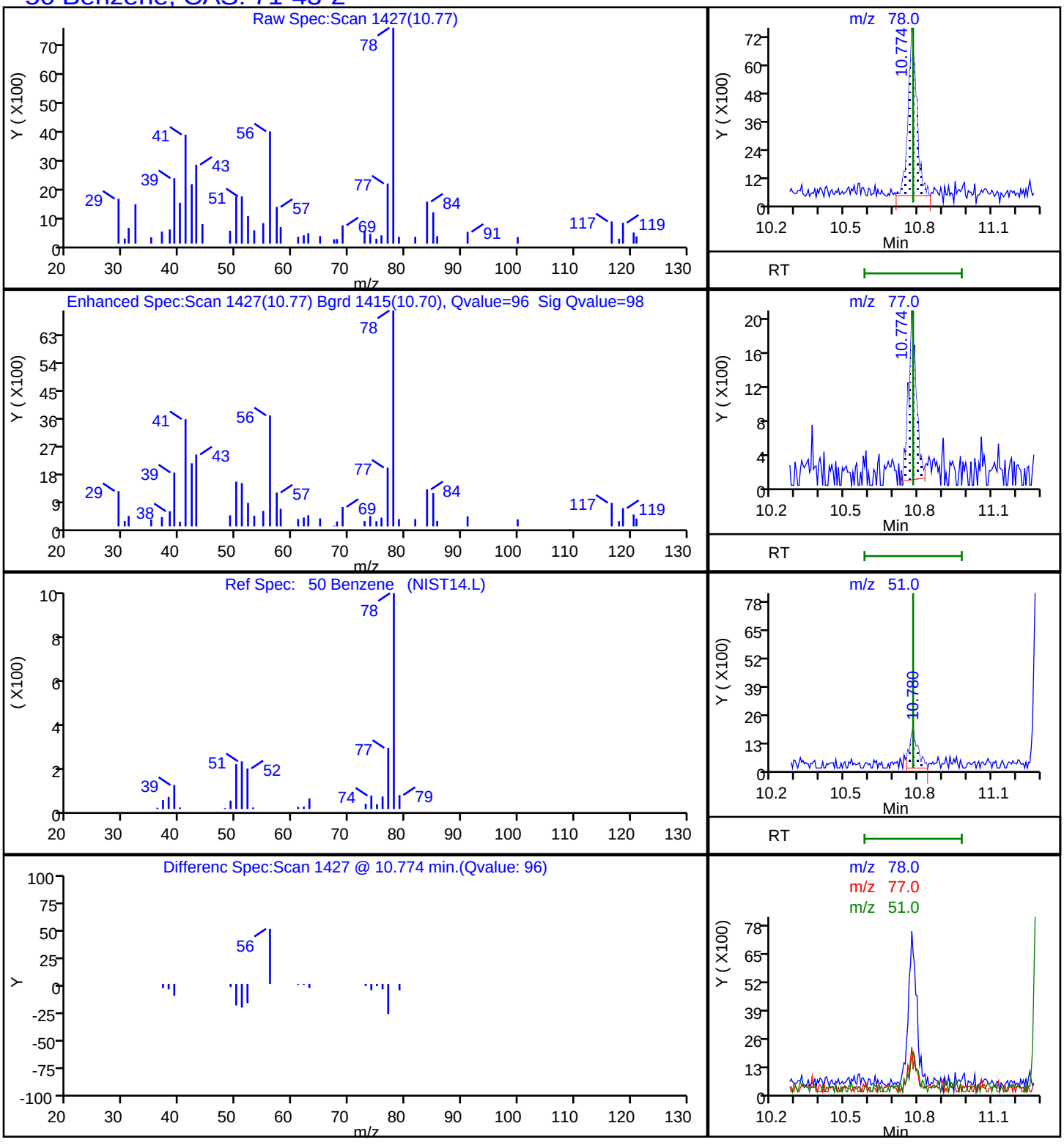
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.13	103.34

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D

Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

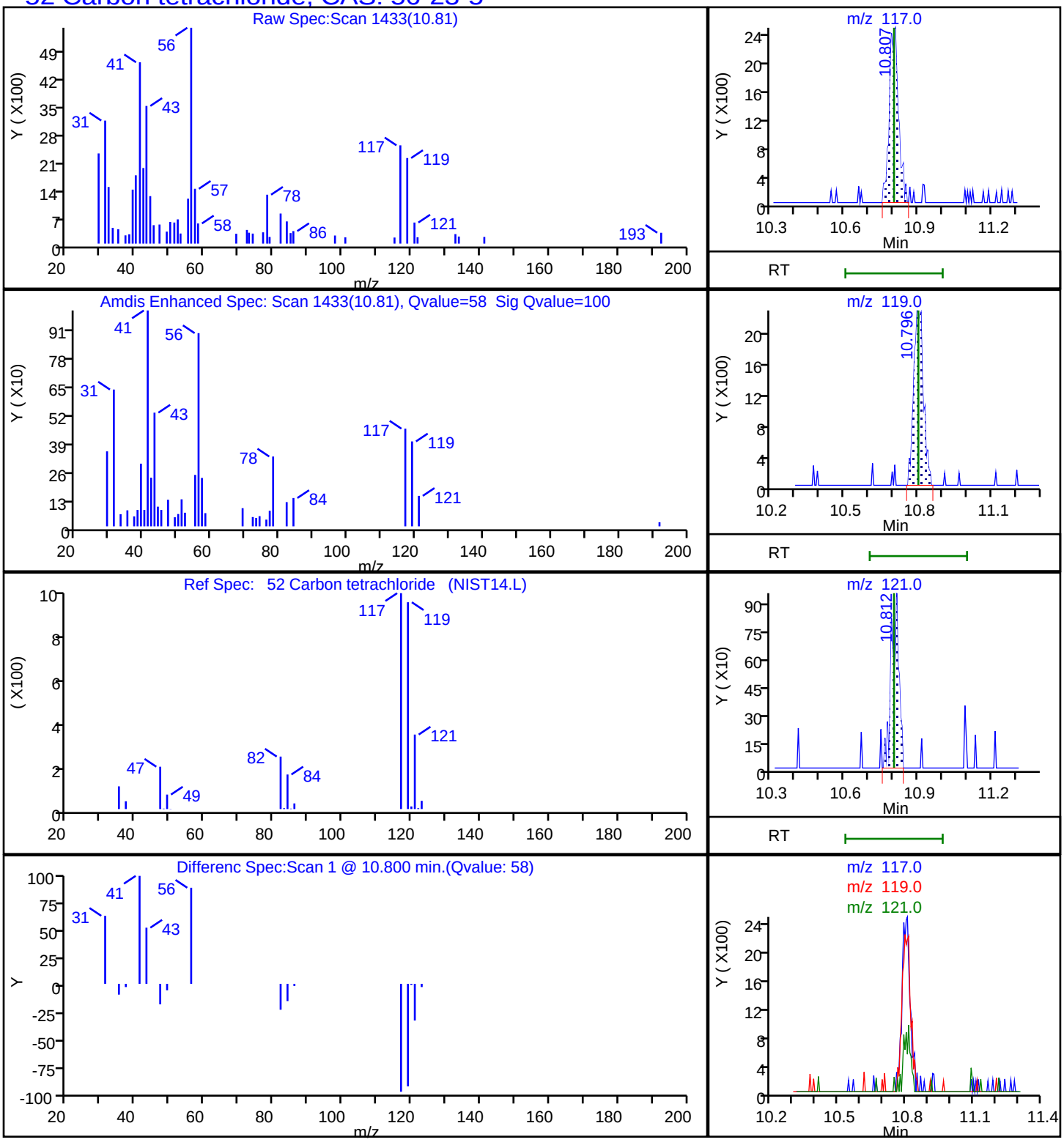


Report Date: 20-Aug-2019 10:16:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

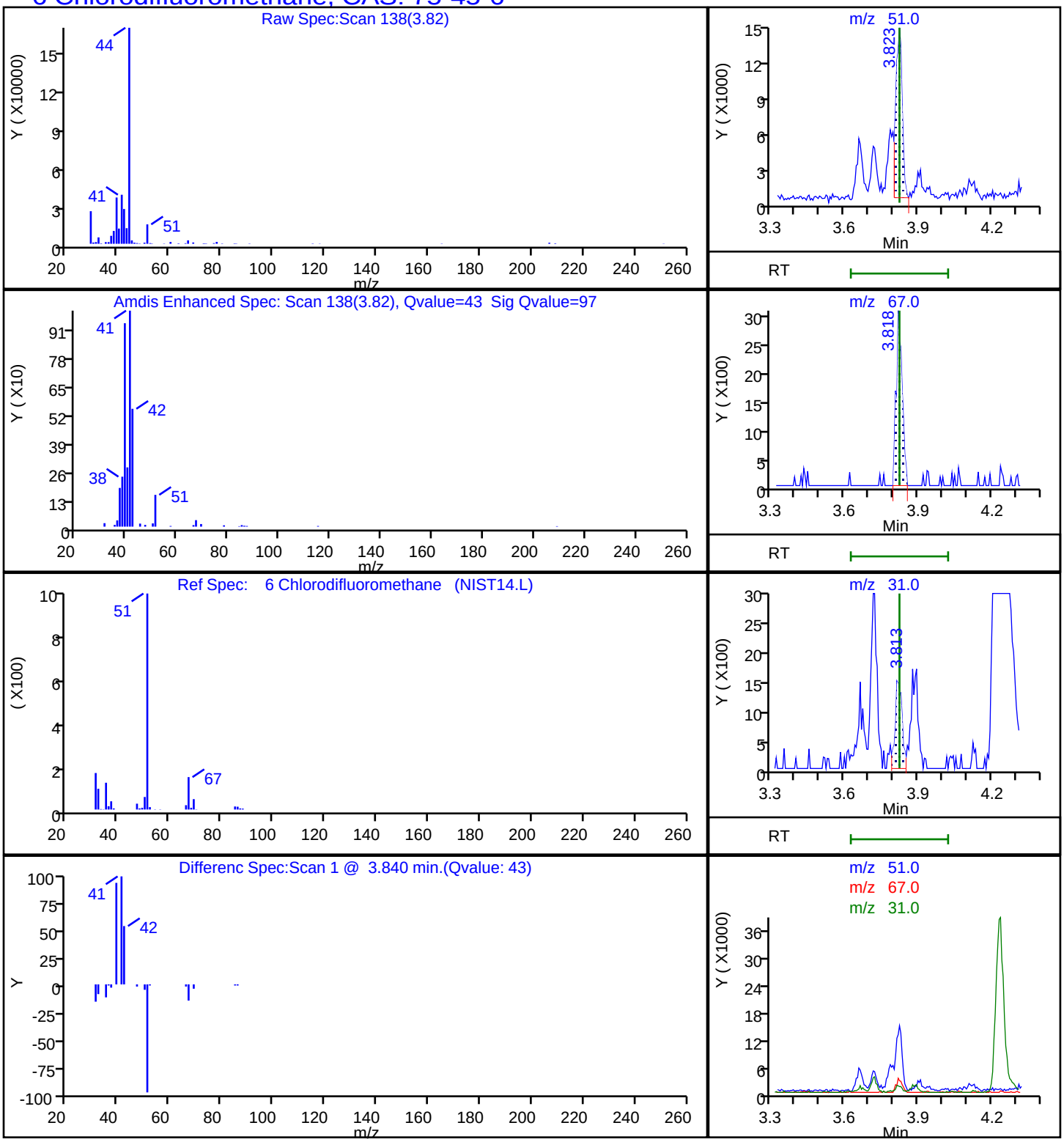
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

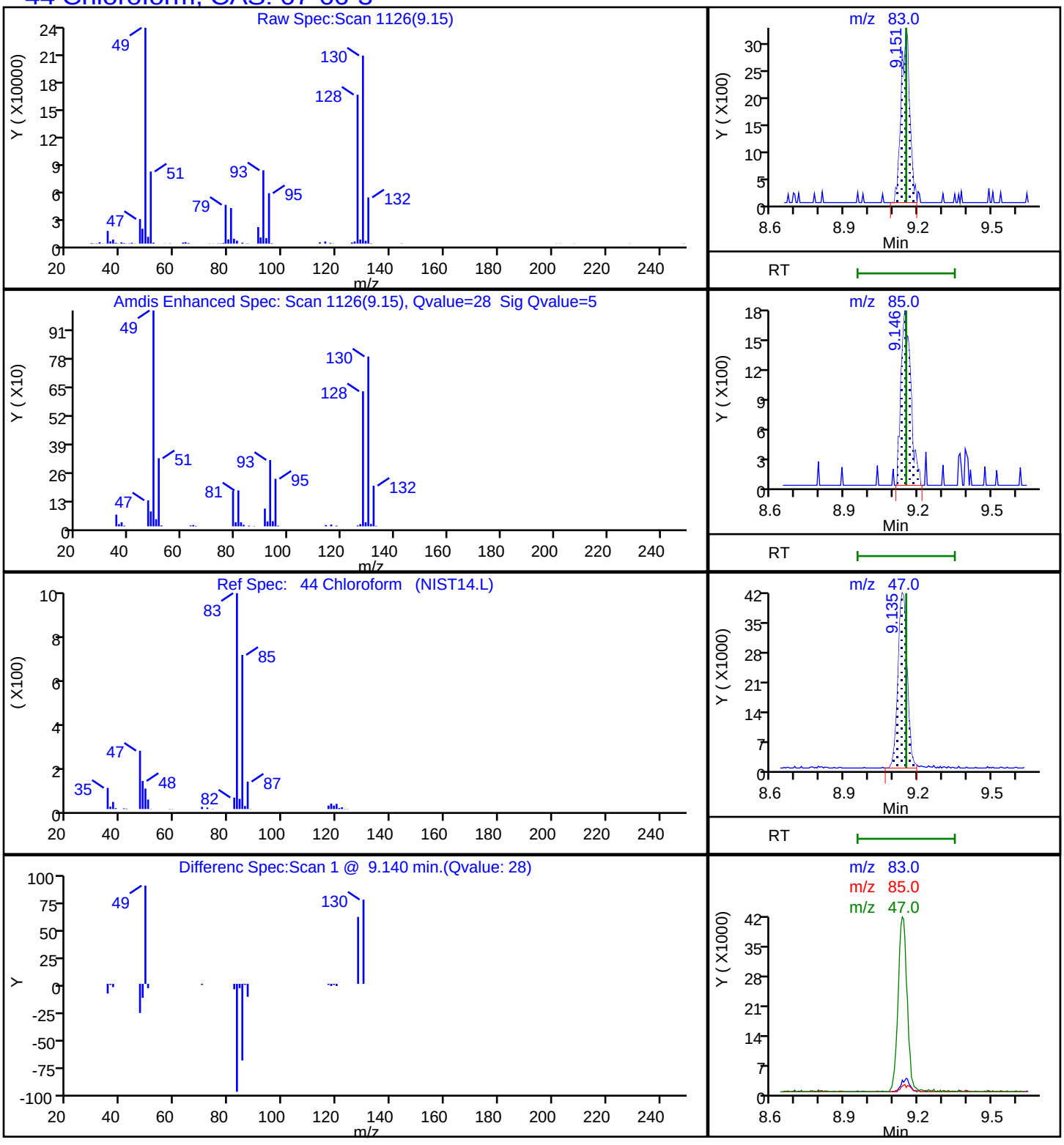


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D

Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

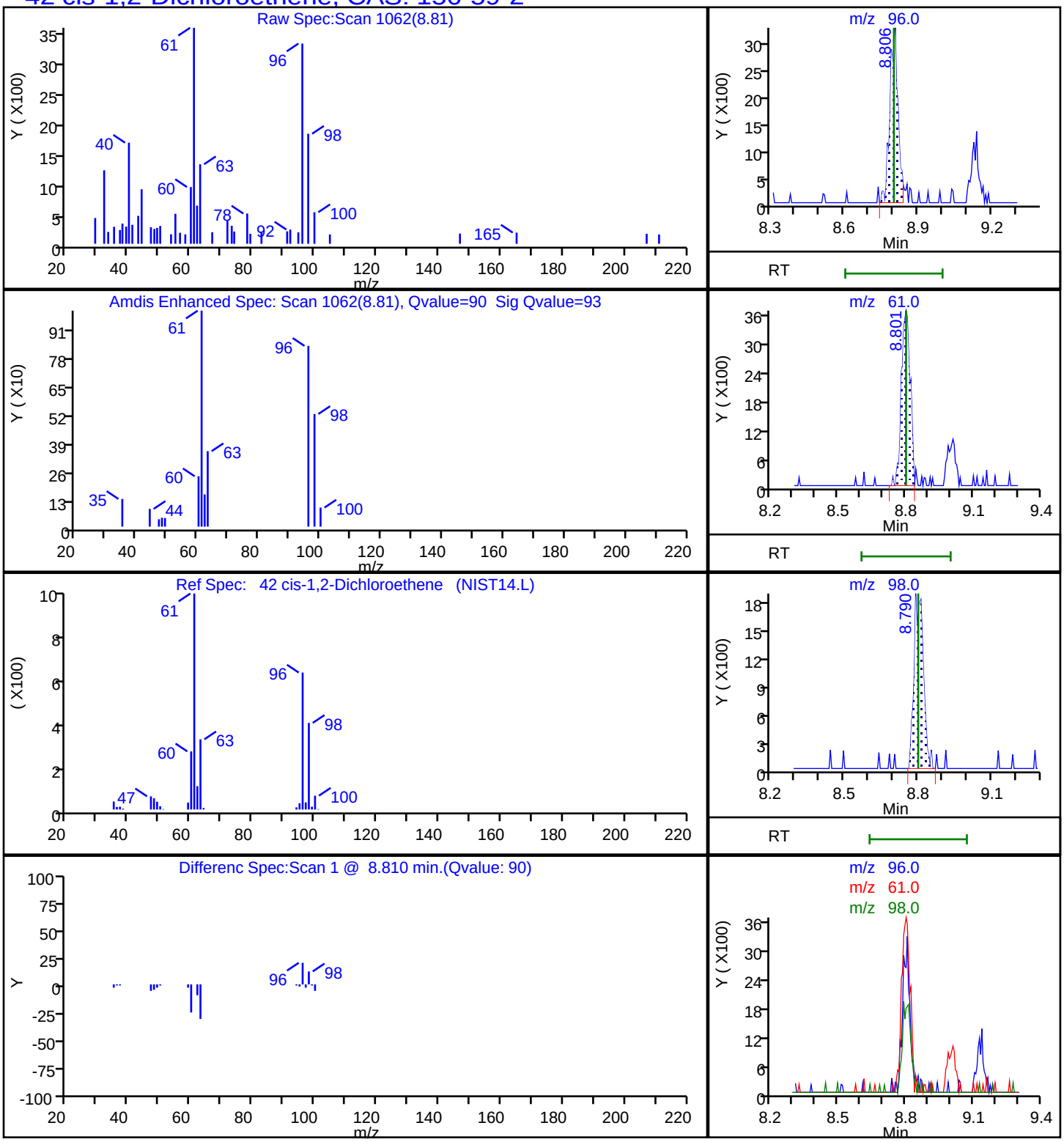


Report Date: 20-Aug-2019 10:16:02 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D				
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG		
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1		
Client ID:	IA-018-A-27				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

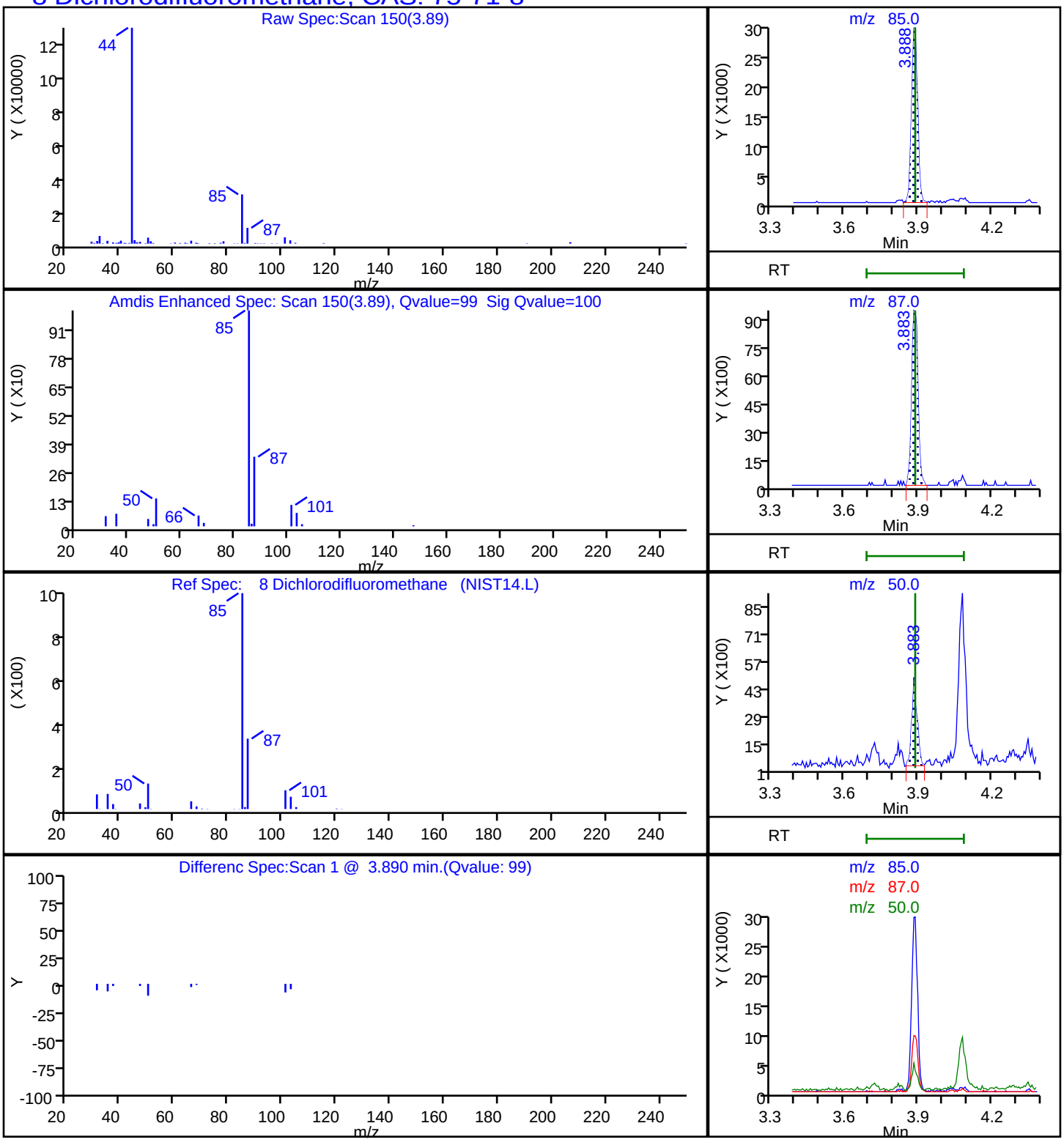
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



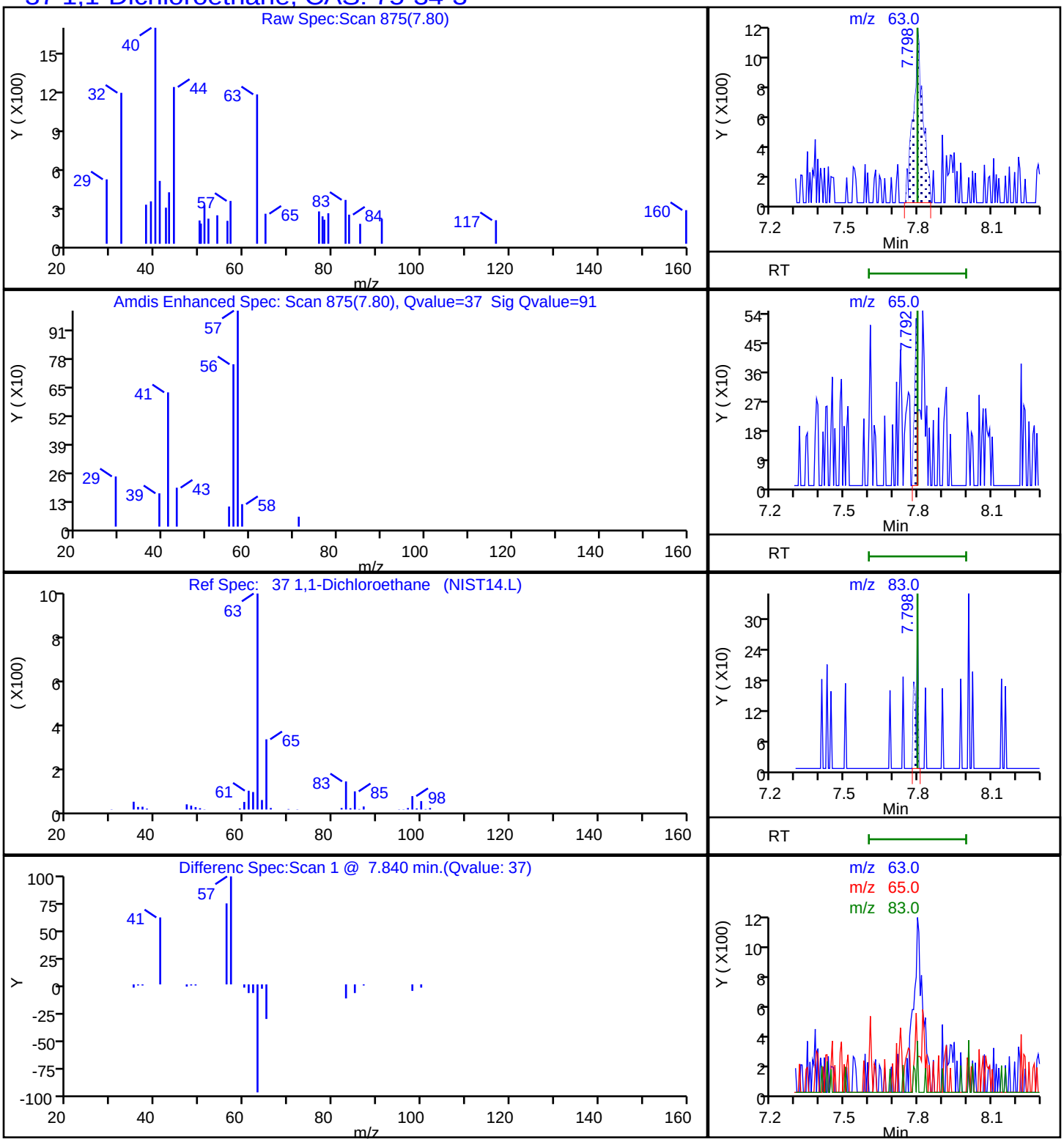
Report Date: 20-Aug-2019 10:16:02 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D

Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

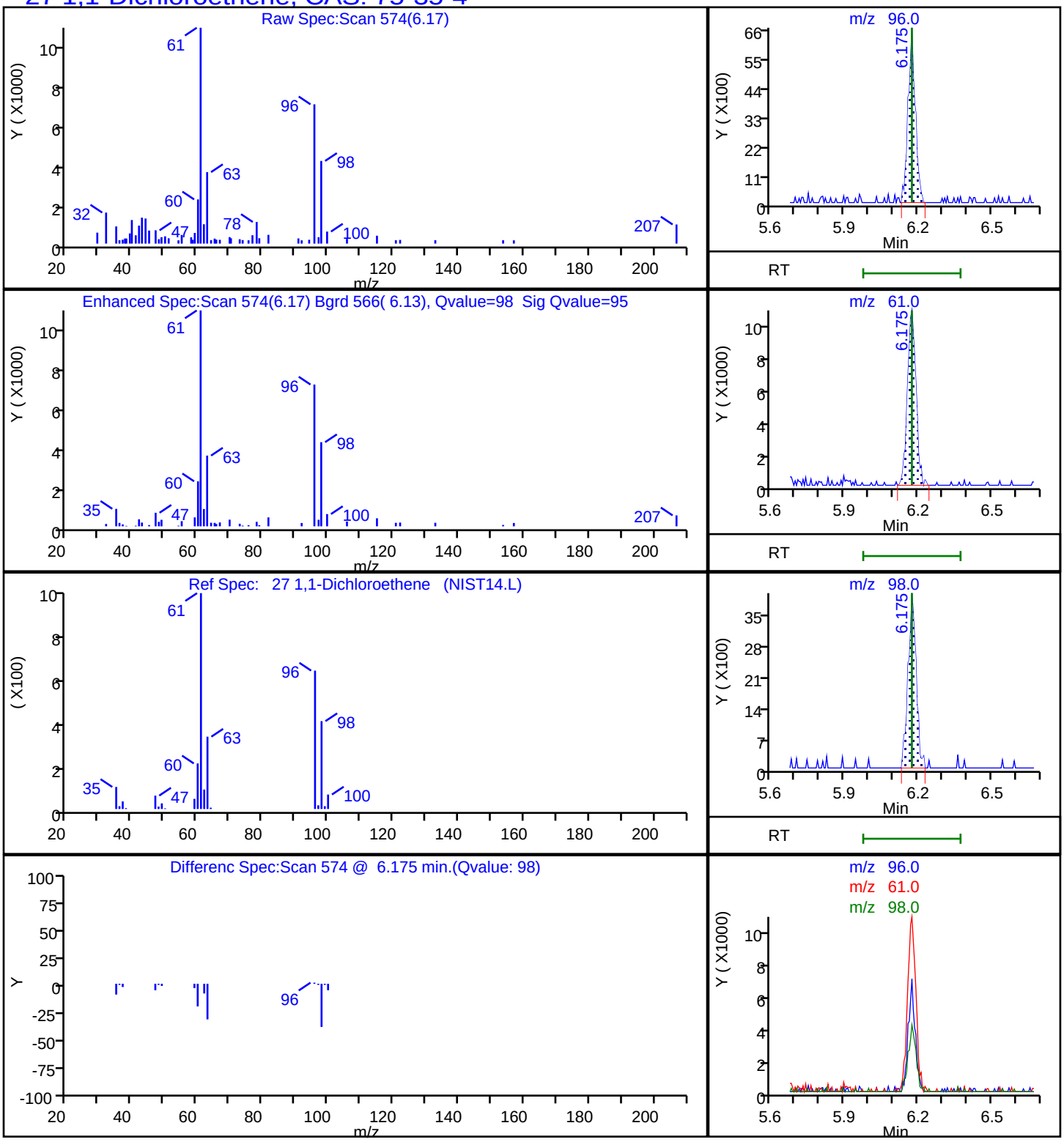


Report Date: 20-Aug-2019 10:16:02 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

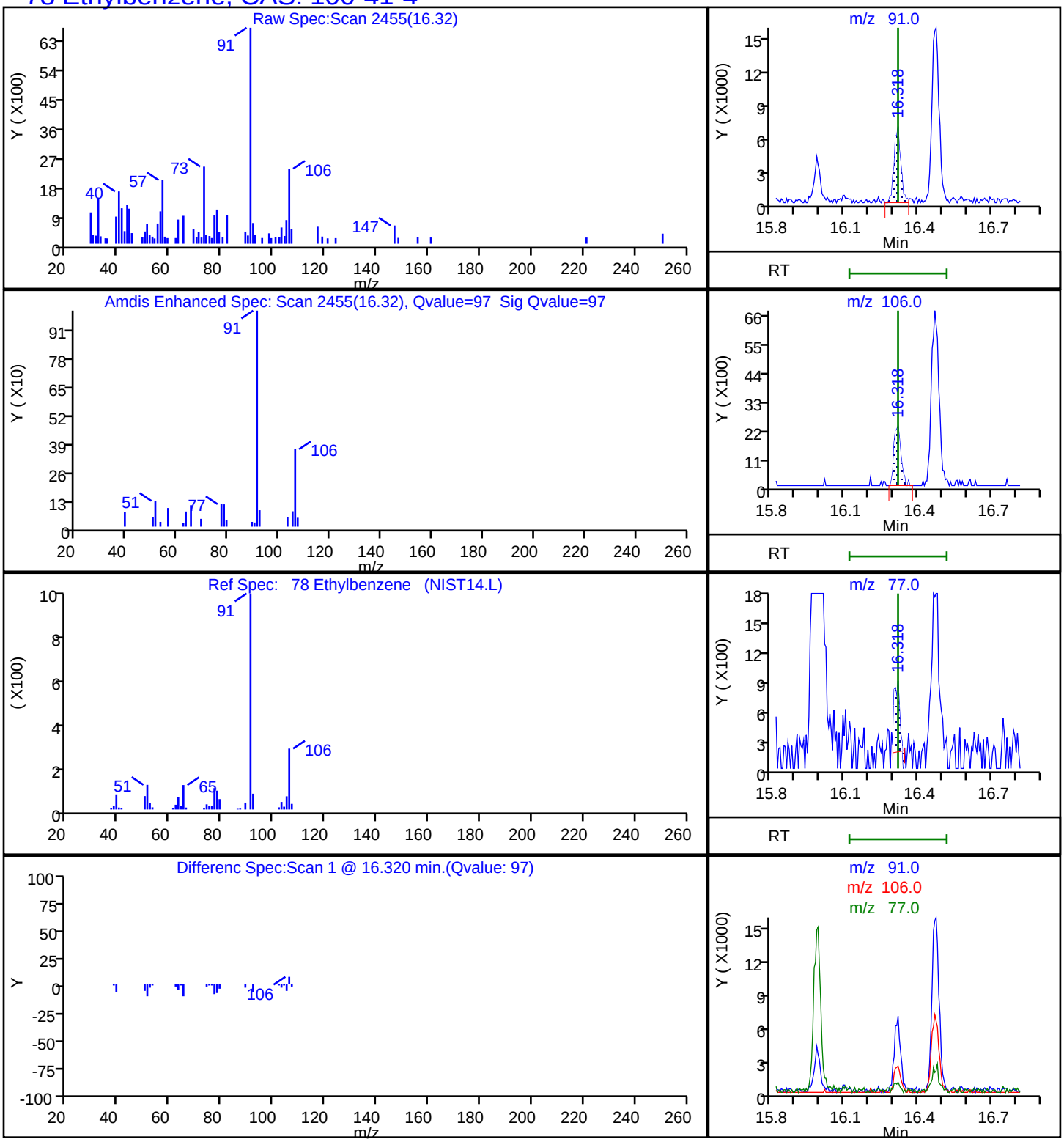
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

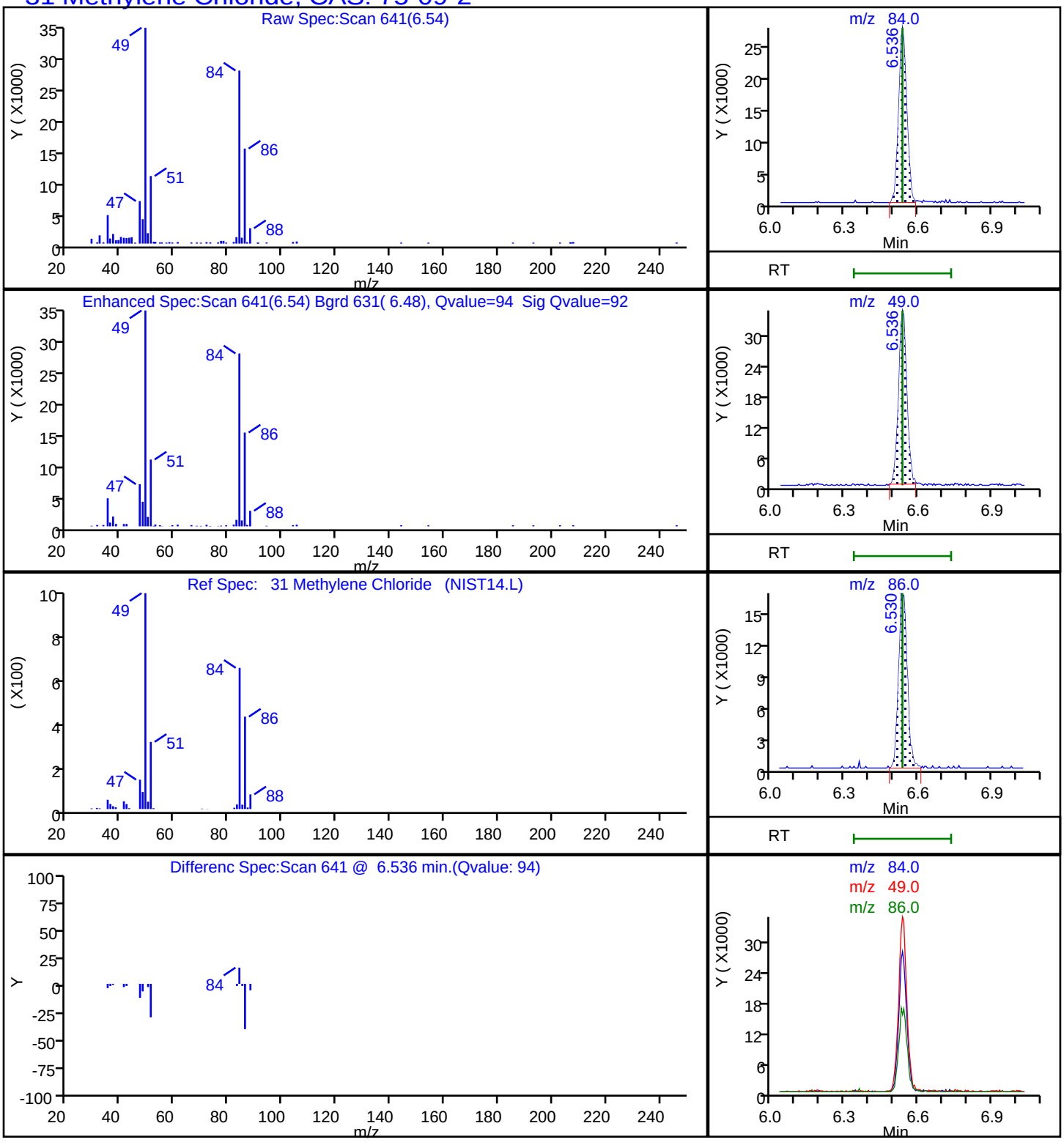
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

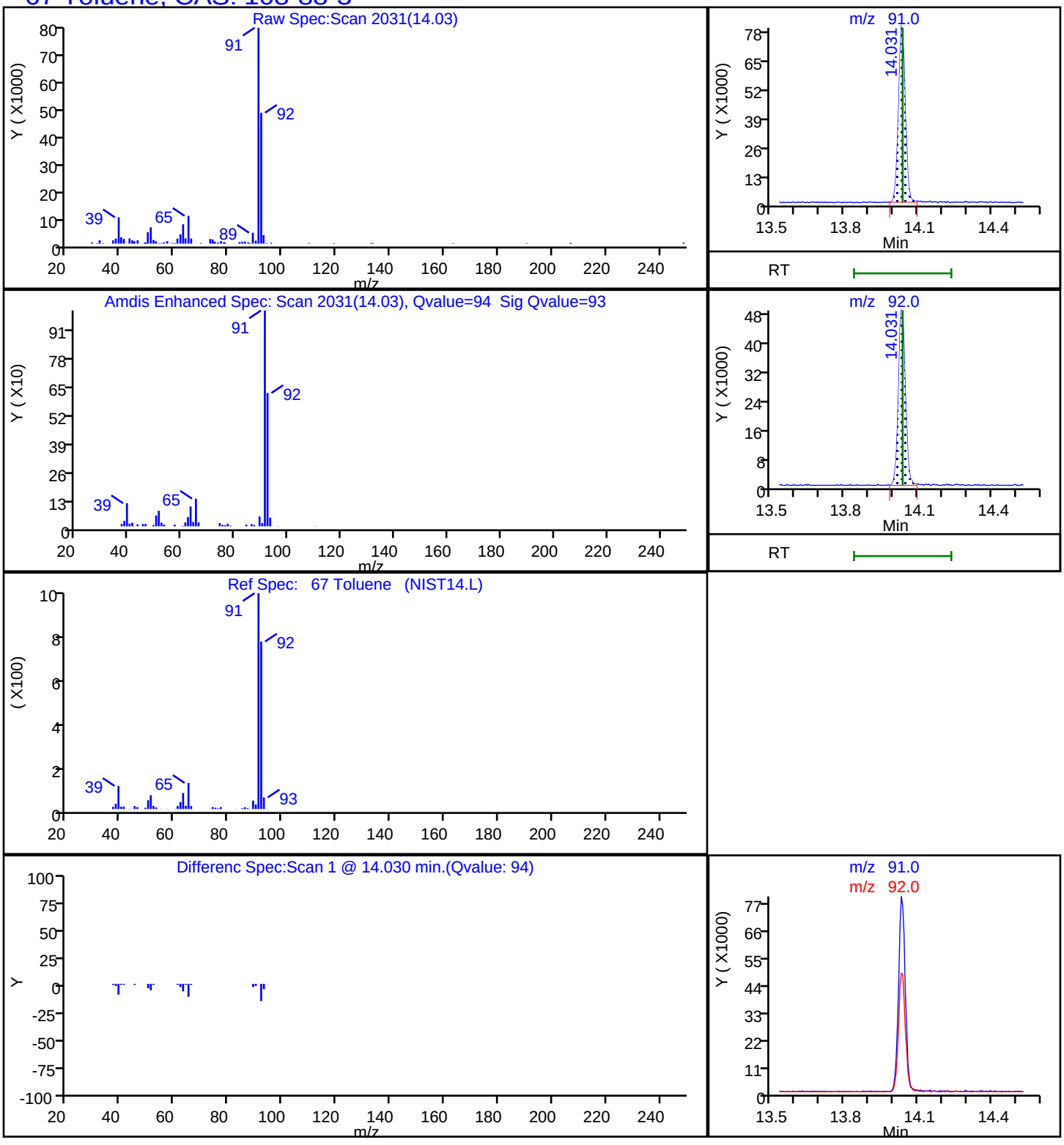
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

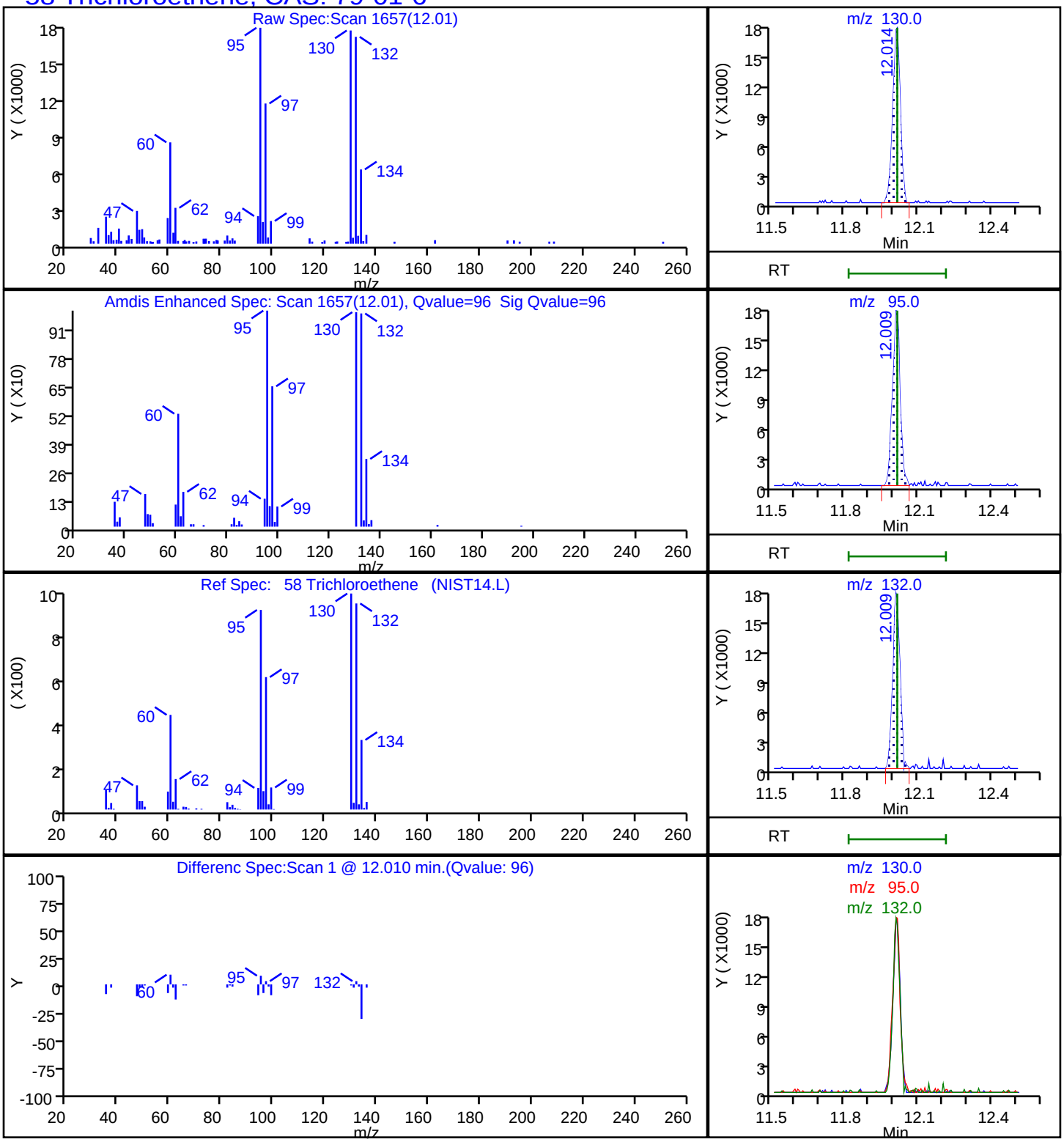


Report Date: 20-Aug-2019 10:16:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

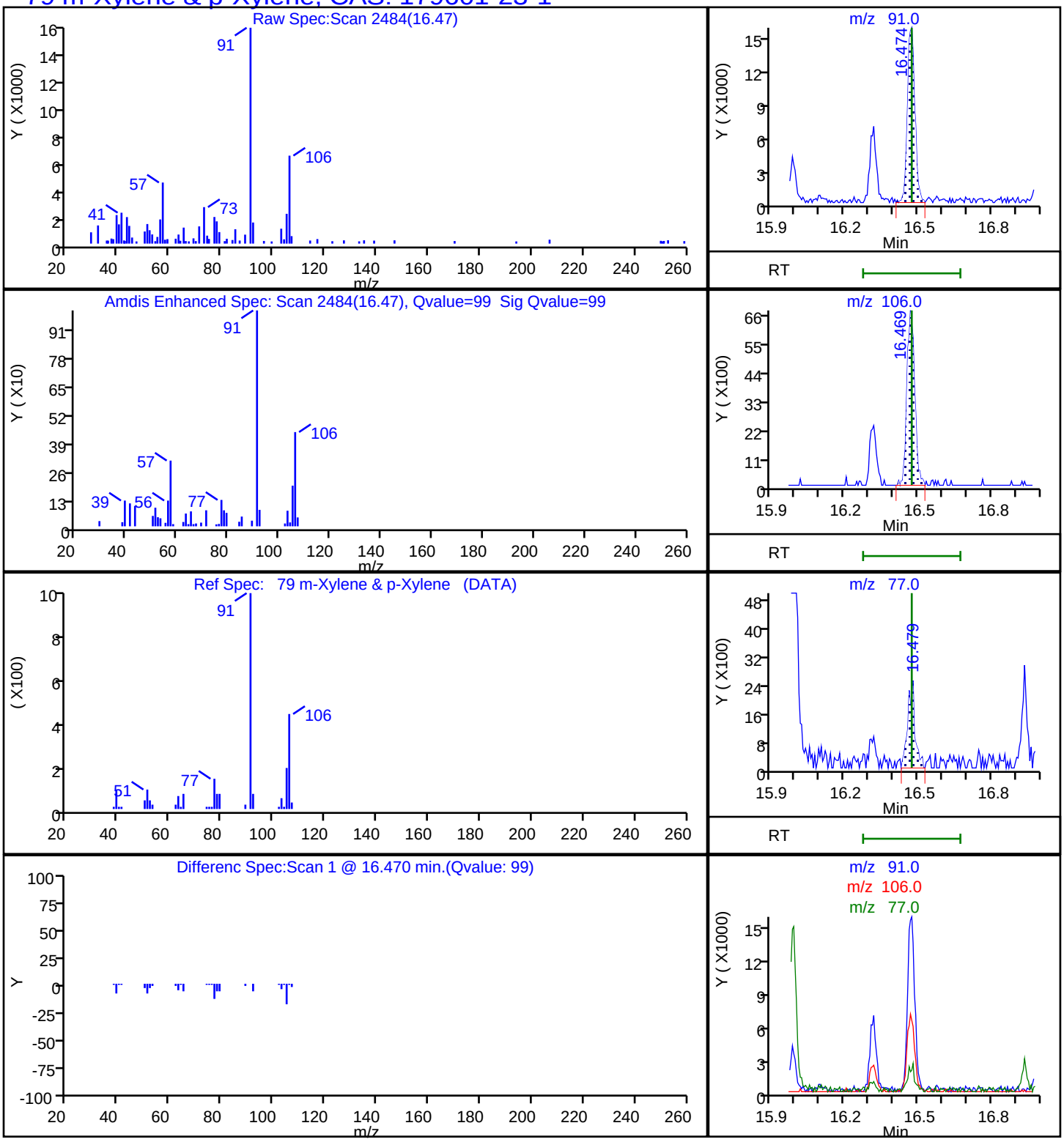


Report Date: 20-Aug-2019 10:16:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D		
Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



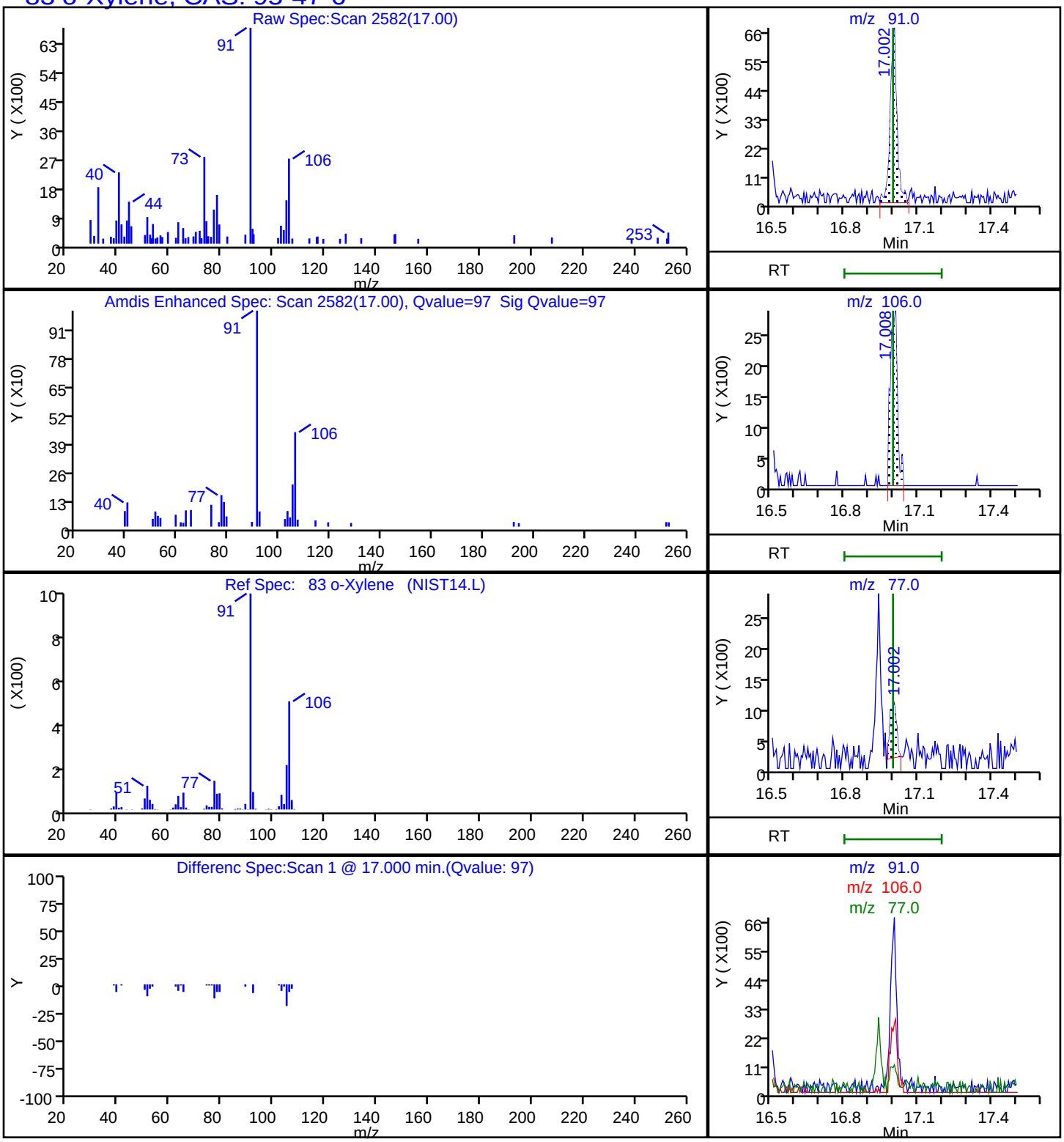
Report Date: 20-Aug-2019 10:16:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P101.D

Injection Date:	19-Aug-2019 14:11:30	Instrument ID:	MG
Lims ID:	140-16367-A-1	Lab Sample ID:	140-16367-1
Client ID:	IA-018-A-27		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.057	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.094	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.38	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.098	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.83		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.67		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.45	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.95	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.5	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.43	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.5	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	4.3		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D				
Lims ID:	140-16367-A-2				
Client ID:	IA-DUP3-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 14:56:30	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-006				
Misc. Info.:	140-16367-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:13:23	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:16:55		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	89	609580	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3489024	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.988	0.001	89	3082954	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	88	2222107	4.15	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	95	27965	0.0903	
8 Dichlorodifluoromethane	85	3.894	3.890	0.006	100	54447	0.0905	
27 1,1-Dichloroethene	96	6.175	6.174	0.000	96	13376	0.0770	
31 Methylene Chloride	84	6.547	6.536	0.011	94	91969	0.5444	
42 cis-1,2-Dichloroethene	96	8.806	8.800	0.006	94	8576	0.0481	
44 Chloroform	83	9.146	9.151	-0.005	67	7777	0.0188	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	94	5957	0.0120	
50 Benzene	78	10.774	10.779	-0.005	97	15787	0.0303	
52 Carbon tetrachloride	117	10.807	10.801	0.006	50	6064	0.0114	
58 Trichloroethene	130	12.009	12.014	-0.005	94	39031	0.1342	
67 Toluene	91	14.031	14.036	-0.005	95	187845	0.3099	
78 Ethylbenzene	91	16.318	16.317	0.001	99	15806	0.0197	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	41097	0.0654	
83 o-Xylene	91	16.997	16.997	0.000	96	15798	0.0232	
112 Naphthalene	128	21.284	21.278	0.006	99	162753	0.1657	
S 124 Xylenes, Total	100				0		0.0886	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

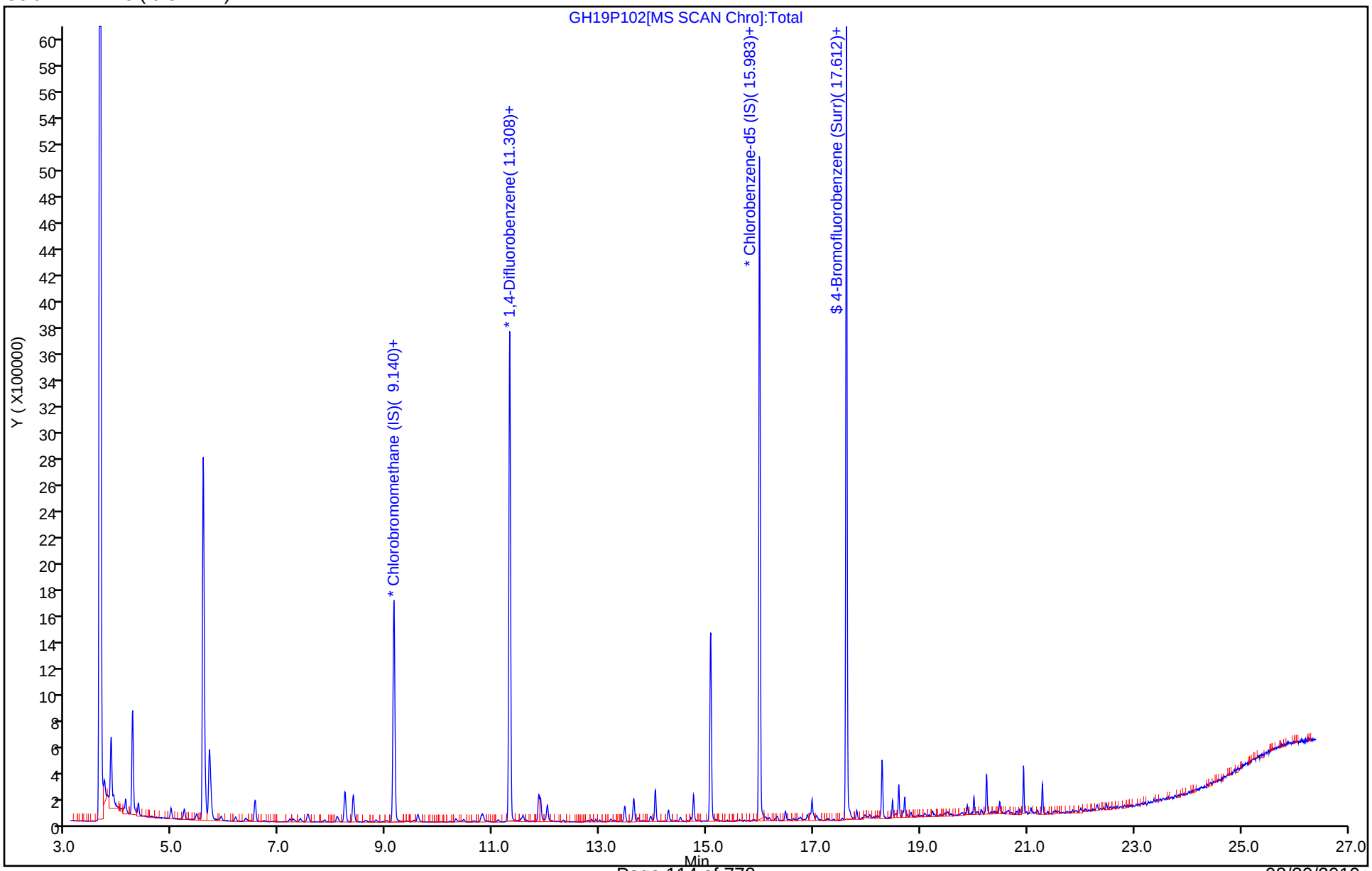
Report Date: 20-Aug-2019 10:16:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D

Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2	Worklist Smp#:	6
Client ID:	IA-DUP3-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D				
Lims ID:	140-16367-A-2				
Client ID:	IA-DUP3-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 14:56:30	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-006				
Misc. Info.:	140-16367-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:13:23	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:16:55		

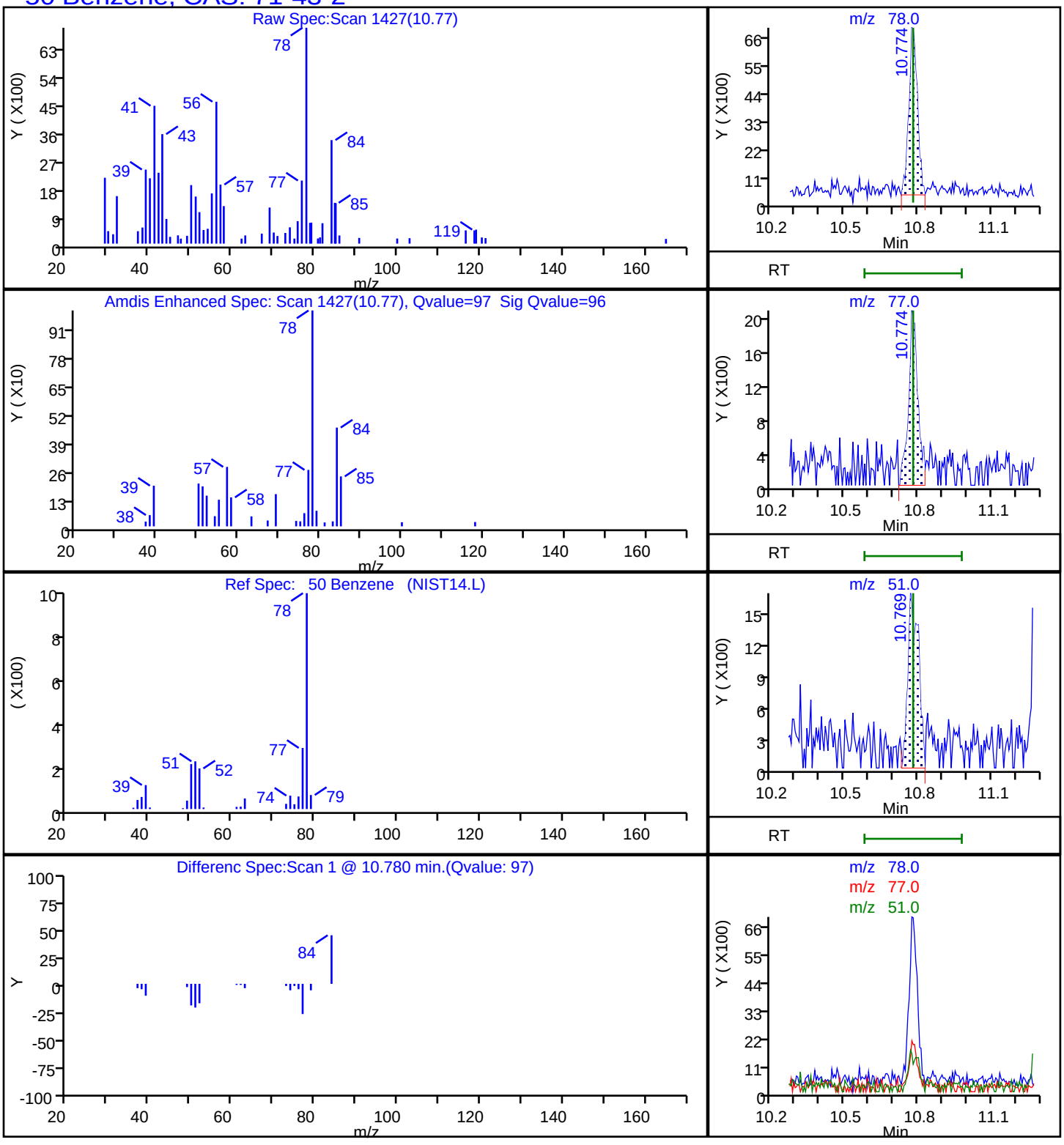
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.15	103.72

Report Date: 20-Aug-2019 10:16:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D				
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG		
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2		
Client ID:	IA-DUP3-A-27				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

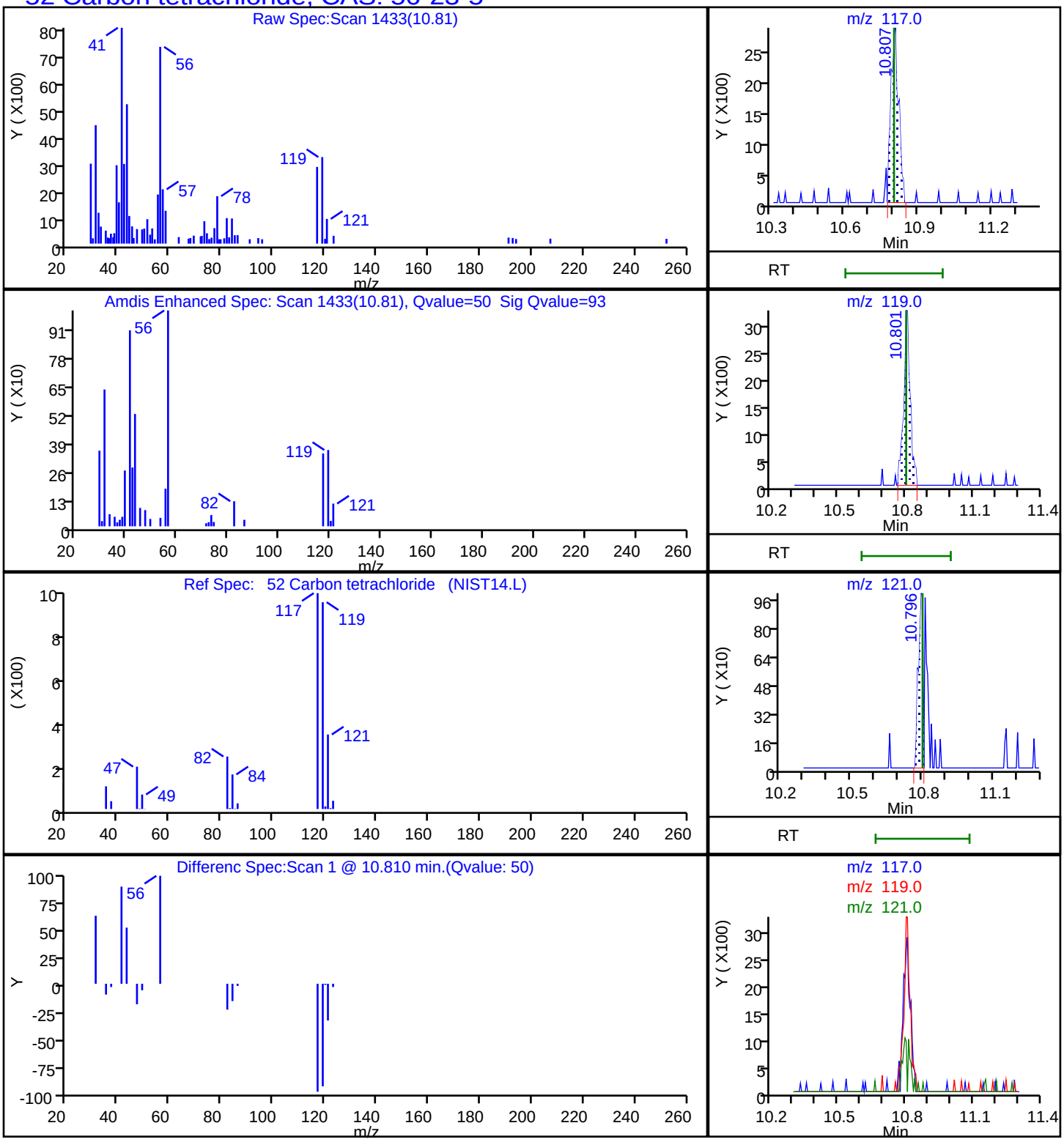
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

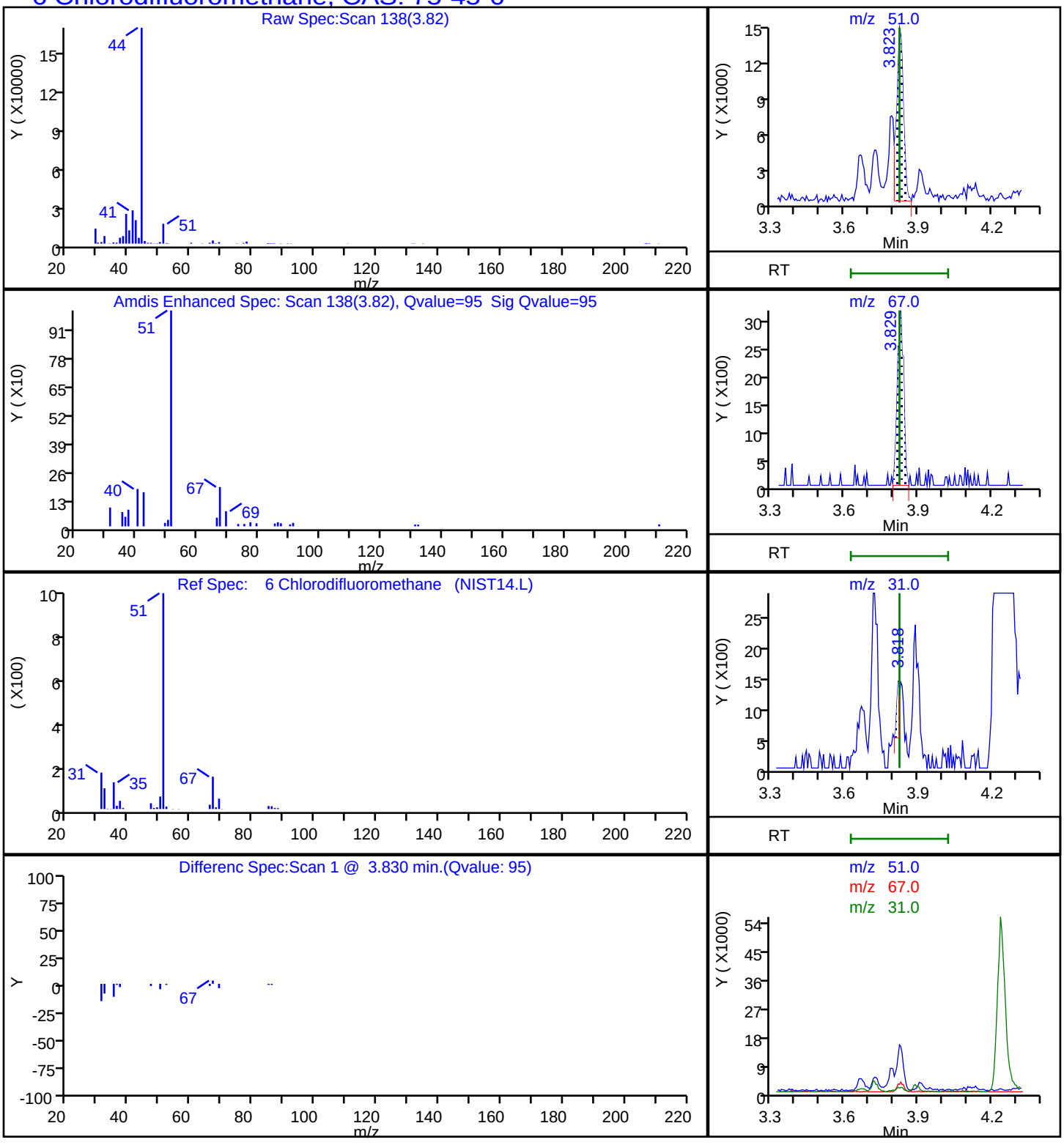
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

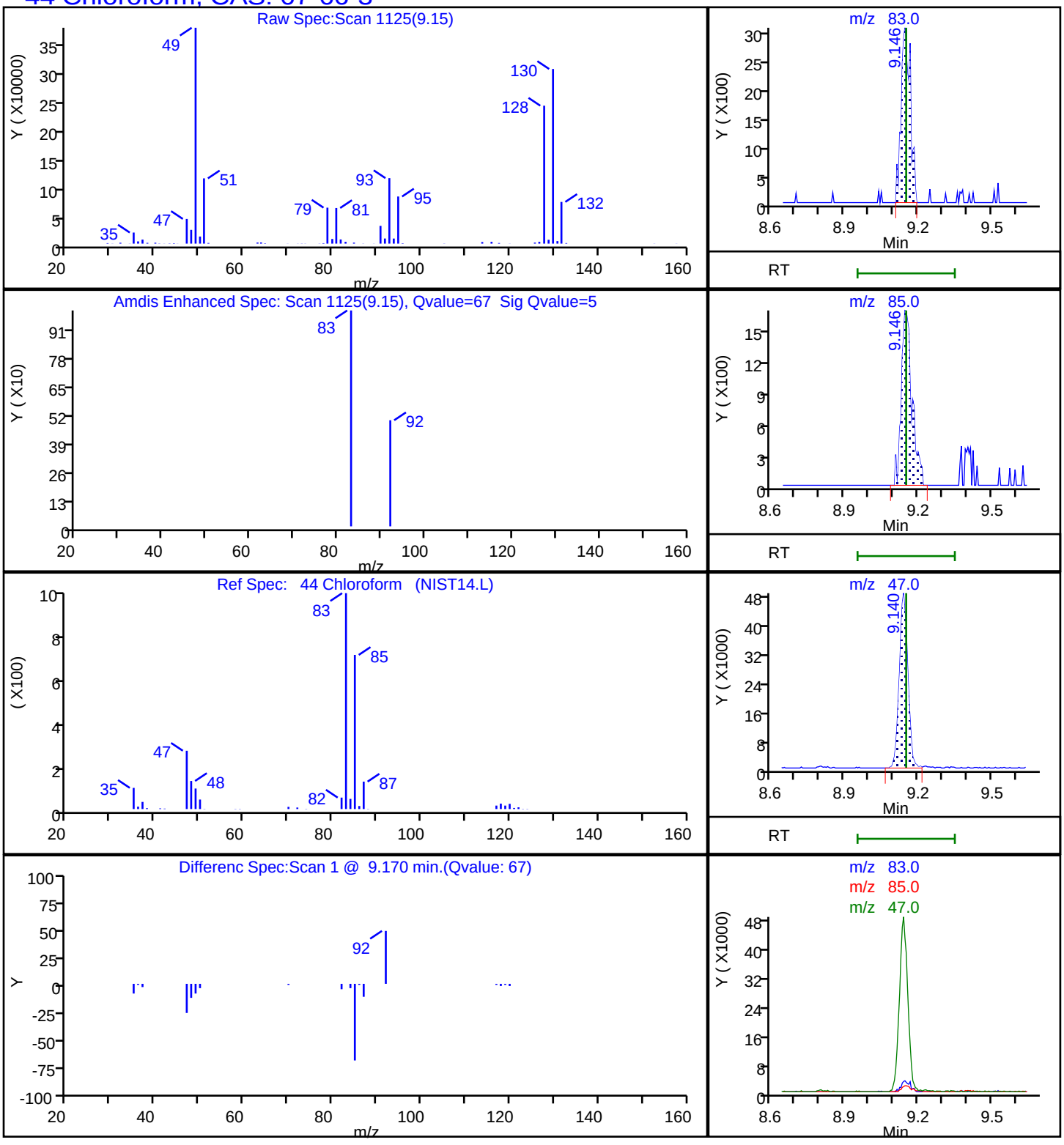
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

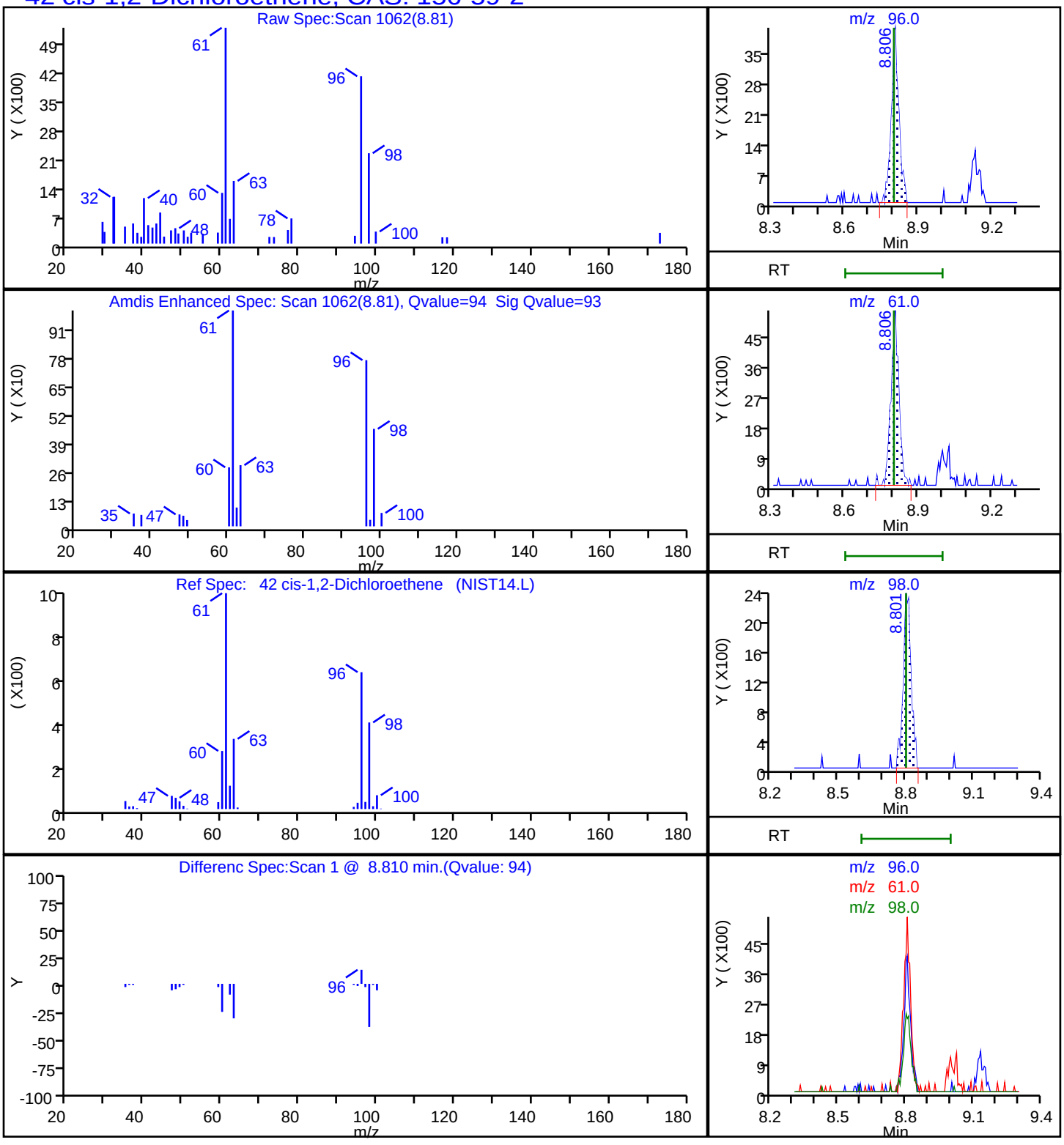
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

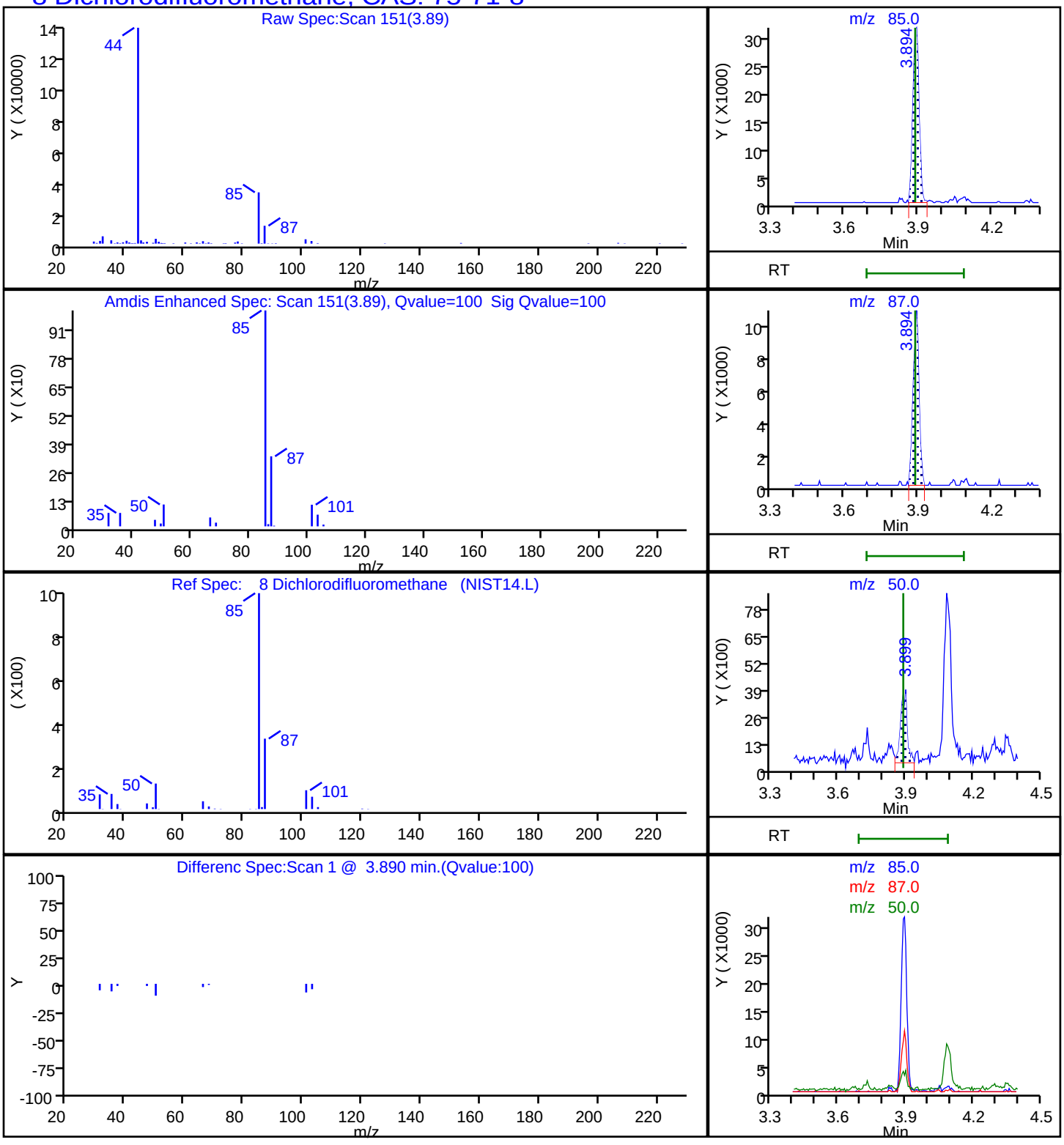
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

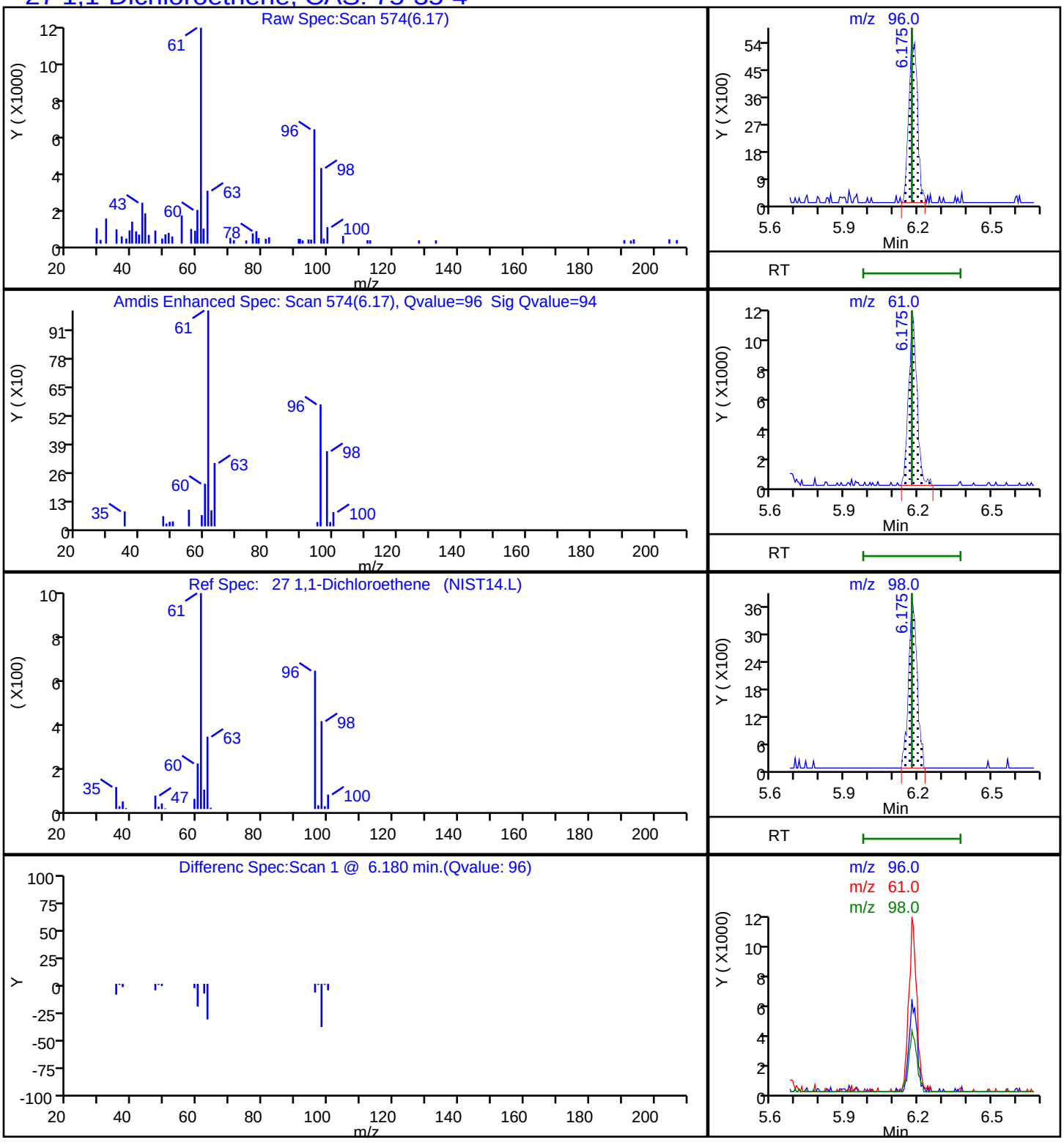
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

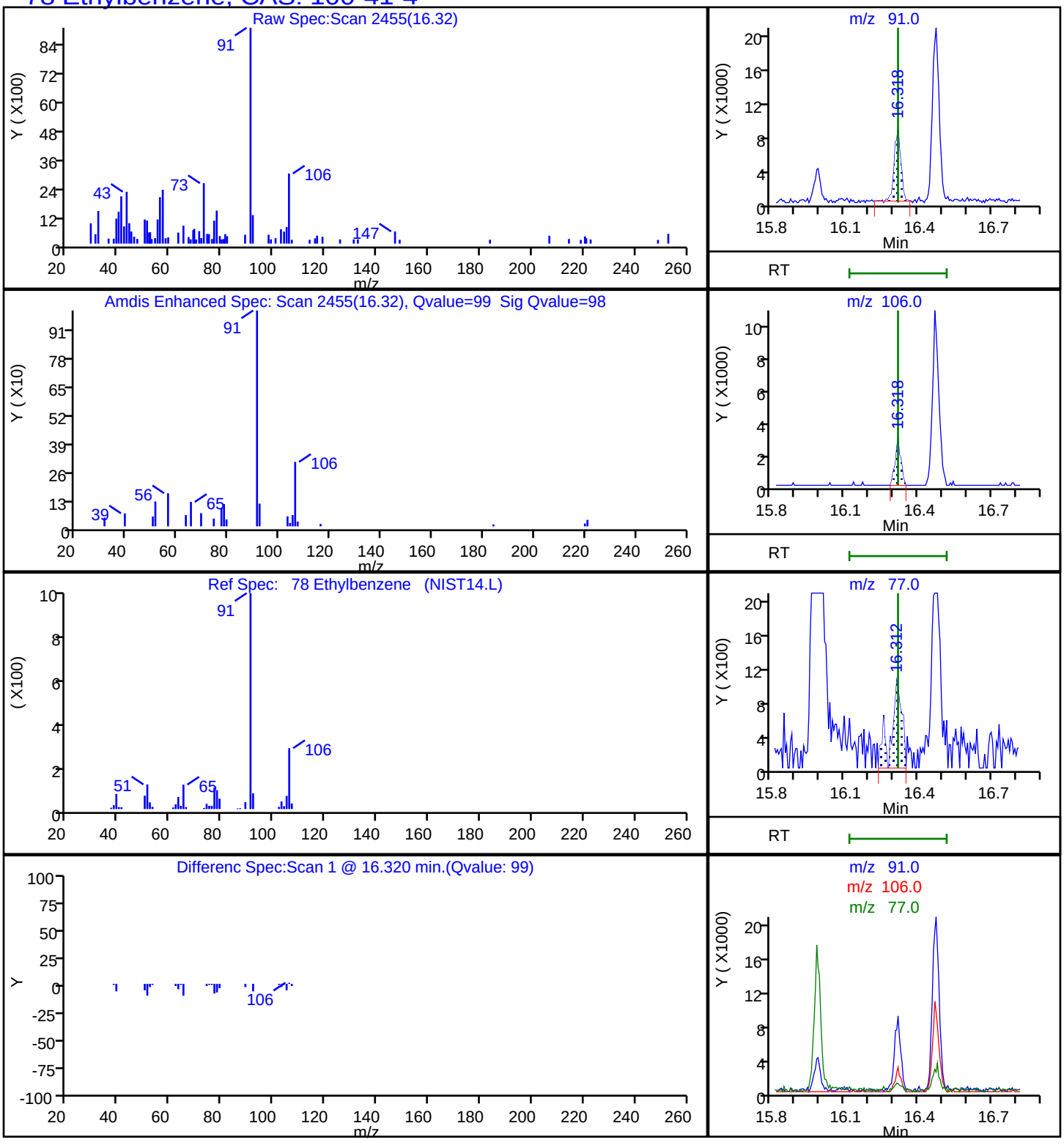
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

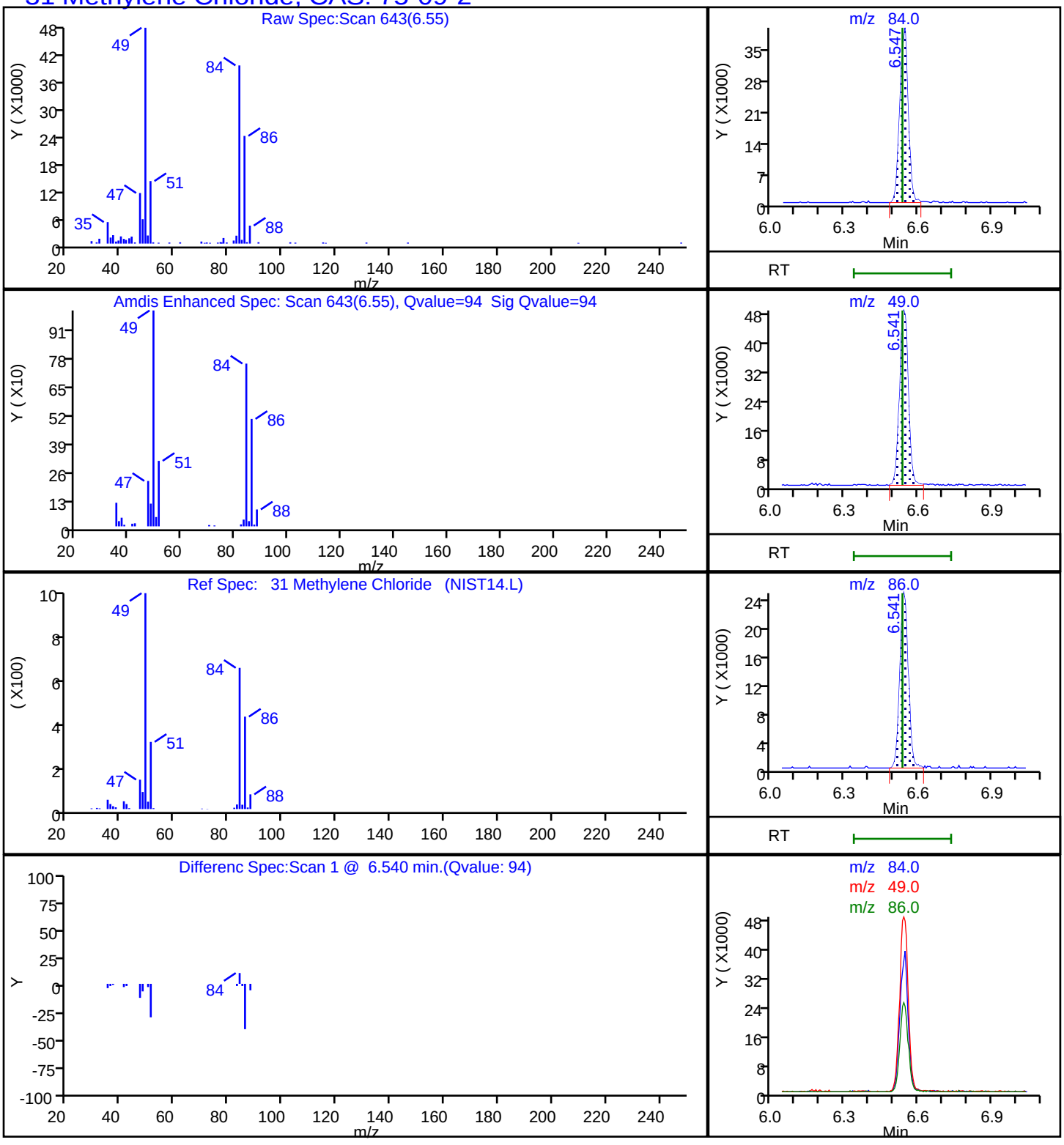
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

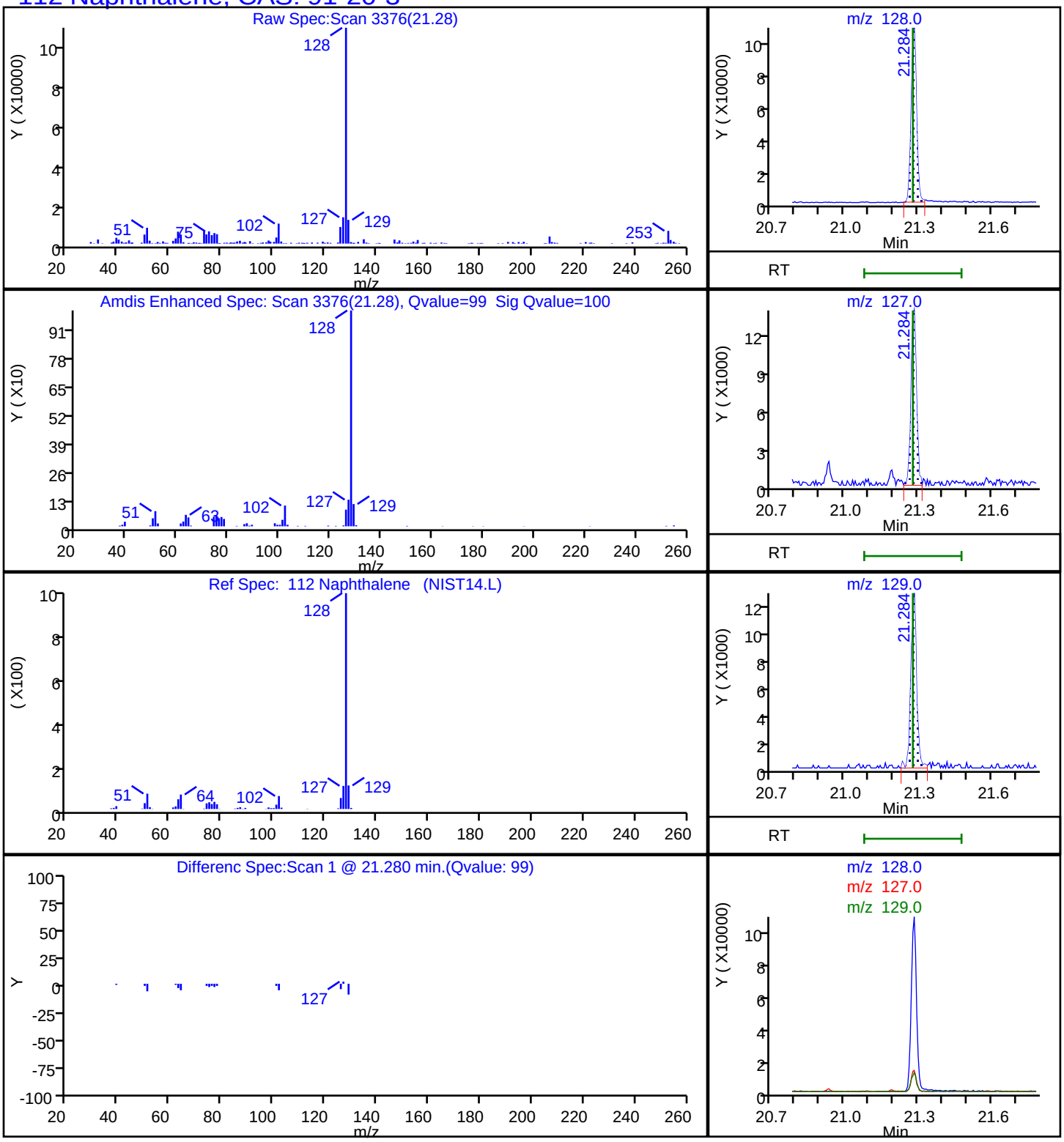
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

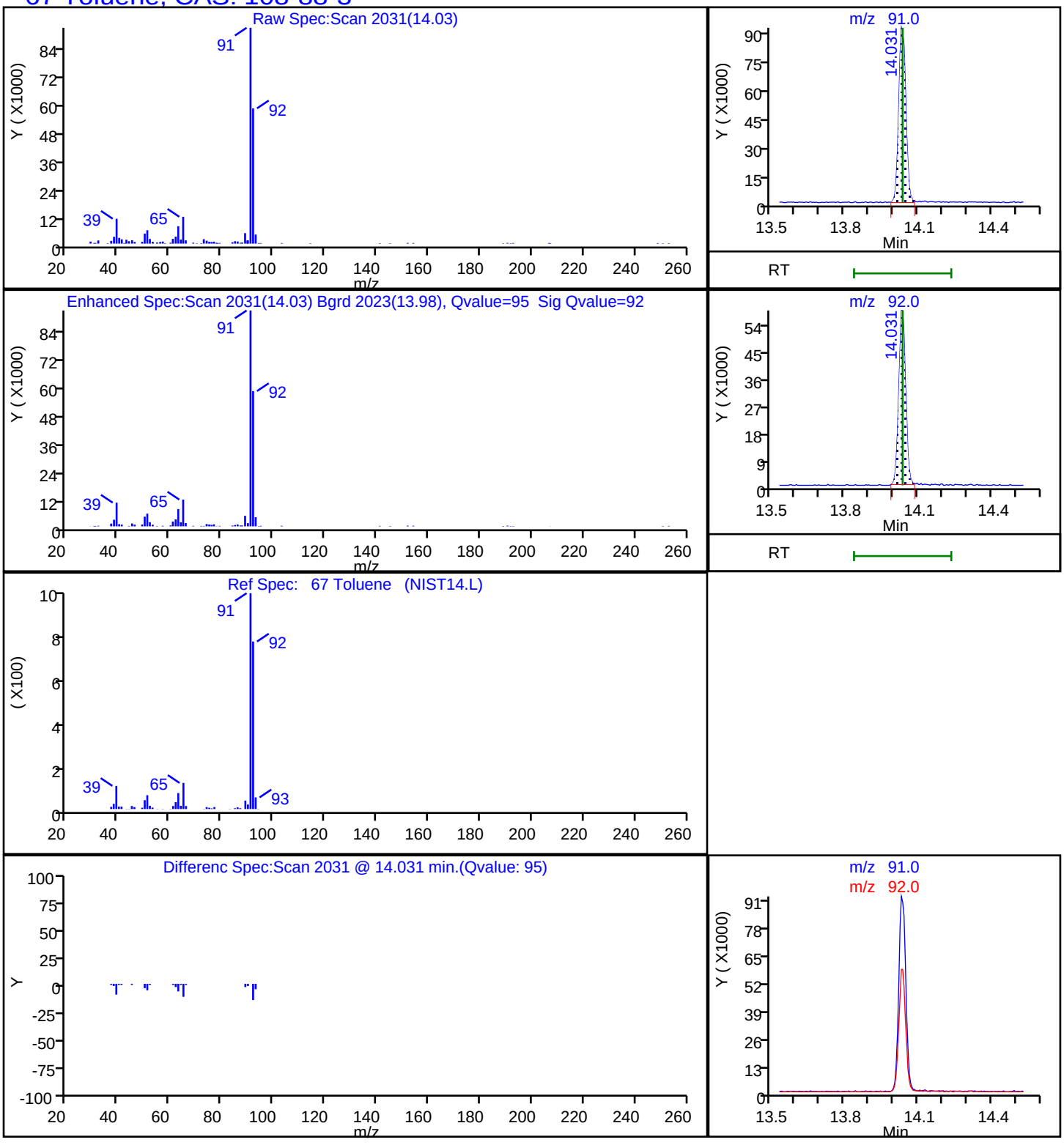
112 Naphthalene, CAS: 91-20-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

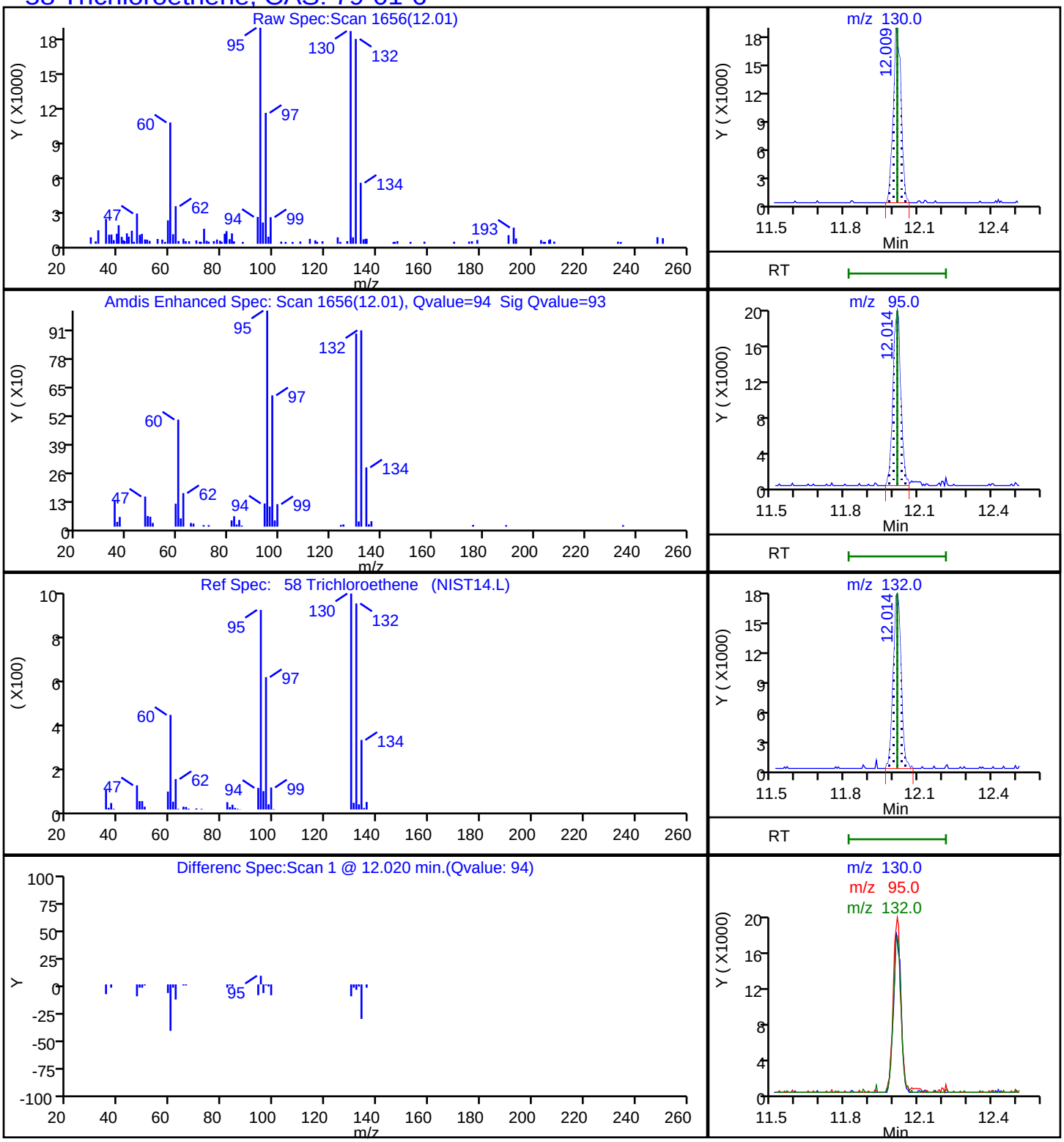


Report Date: 20-Aug-2019 10:16:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



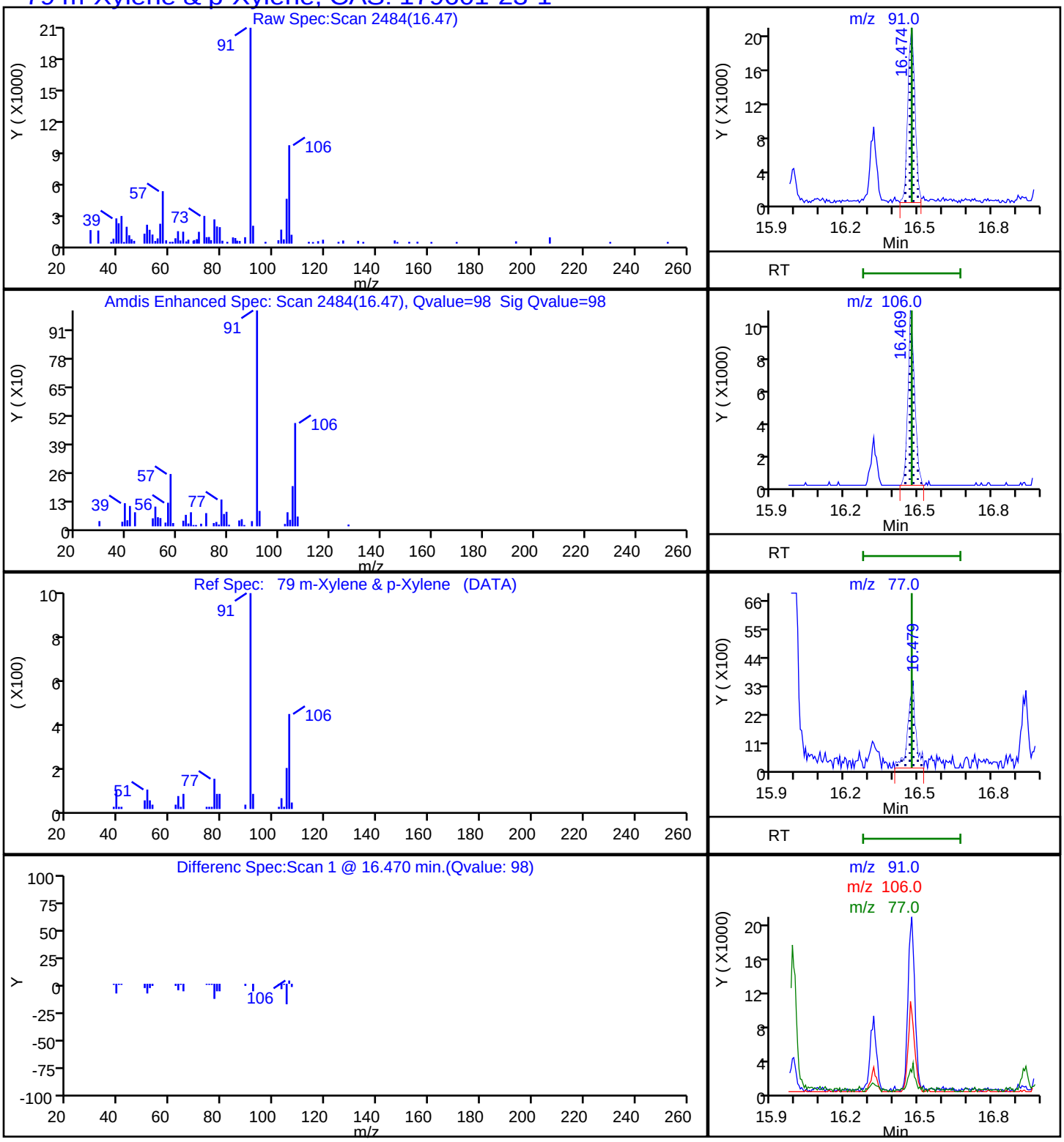
Report Date: 20-Aug-2019 10:16:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D

Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG		
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2		
Client ID:	IA-DUP3-A-27				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1

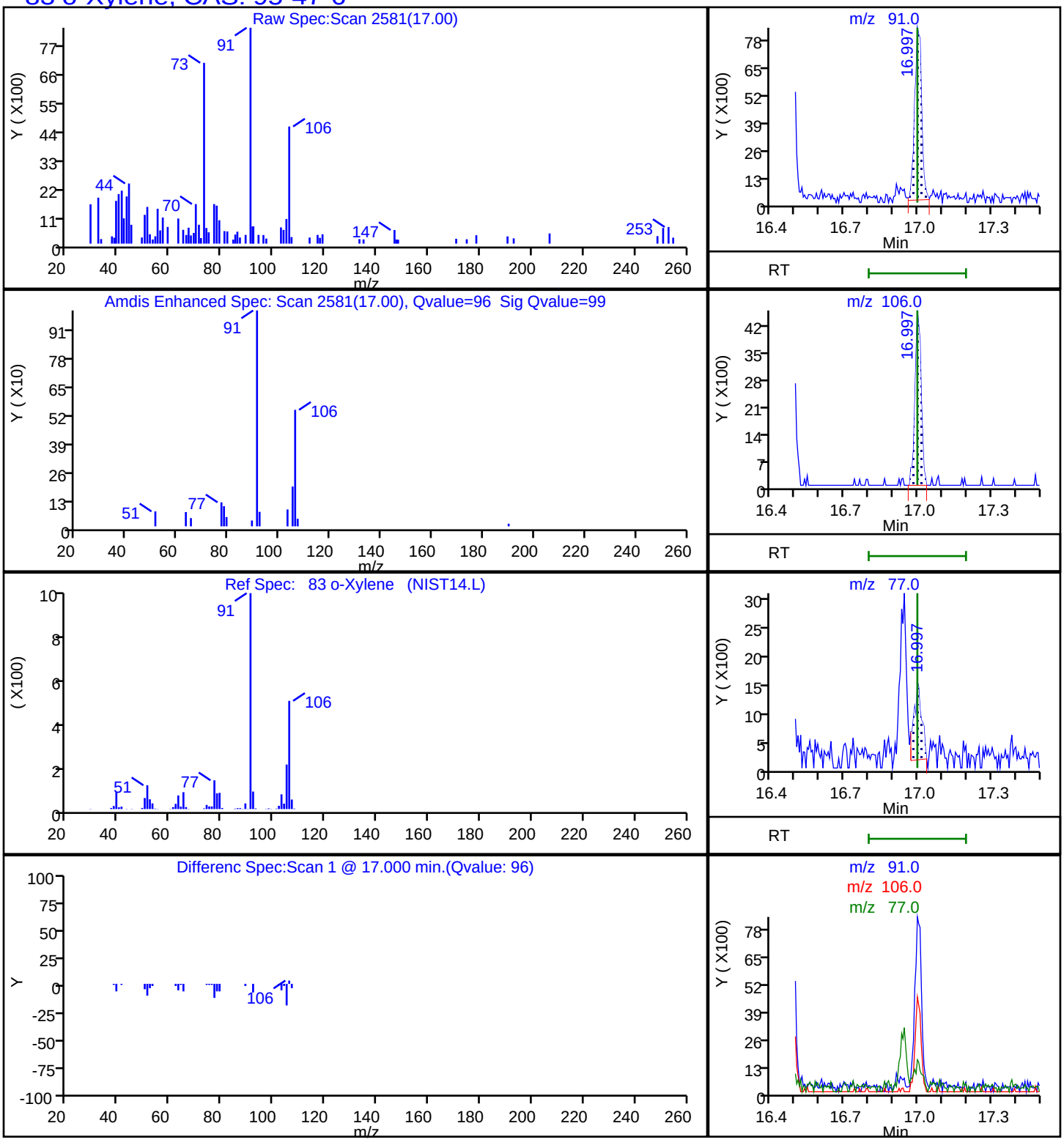


Report Date: 20-Aug-2019 10:16:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P102.D		
Injection Date:	19-Aug-2019 14:56:30	Instrument ID:	MG
Lims ID:	140-16367-A-2	Lab Sample ID:	140-16367-2
Client ID:	IA-DUP3-A-27		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.058	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.044	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.40		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.96		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.47	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.28	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.97	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.18	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.1		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D
Lims ID: 140-16367-A-3
Client ID: IA-138-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 15:41:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 2.0400
Sample Info: 140-0012745-007
Misc. Info.: 140-16367-a-3@2.04
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:13:23 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:18:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	88	610525	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3528279	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.988	0.001	88	3149068	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	89	2186495	4.00	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	95	26360	0.0850	
8 Dichlorodifluoromethane	85	3.893	3.890	0.005	99	62935	0.1045	
27 1,1-Dichloroethene	96	6.180	6.174	0.006	96	13938	0.0801	
31 Methylene Chloride	84	6.541	6.536	0.005	92	64153	0.3792	
37 1,1-Dichloroethane	63	7.792	7.797	-0.005	19	2917	0.008737	
42 cis-1,2-Dichloroethene	96	8.795	8.800	-0.005	94	8706	0.0487	
44 Chloroform	83	9.156	9.151	0.005	34	4793	0.0116	
50 Benzene	78	10.774	10.779	-0.005	95	18236	0.0346	
52 Carbon tetrachloride	117	10.801	10.801	0.000	69	6008	0.0112	
58 Trichloroethene	130	12.014	12.014	0.000	98	56239	0.1912	
67 Toluene	91	14.037	14.036	0.000	95	166346	0.2687	
78 Ethylbenzene	91	16.317	16.317	0.000	98	17131	0.0209	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	99	43554	0.0679	
83 o-Xylene	91	17.002	16.997	0.005	97	17777	0.0256	
112 Naphthalene	128	21.284	21.278	0.006	99	41417	0.0413	
S 124 Xylenes, Total	100				0		0.0934	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

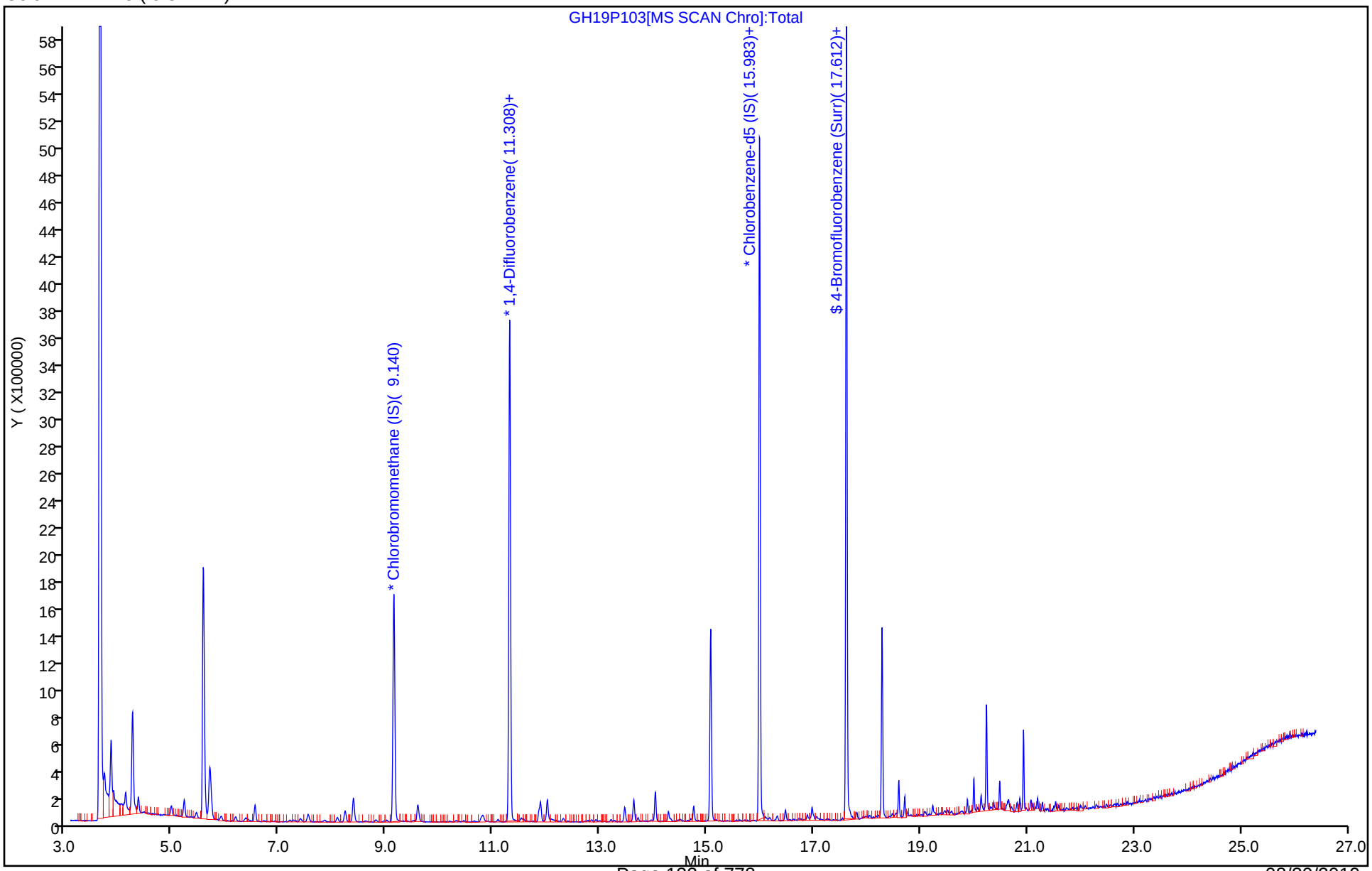
Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D

Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3	Worklist Smp#:	7
Client ID:	IA-138-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	2.0400	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

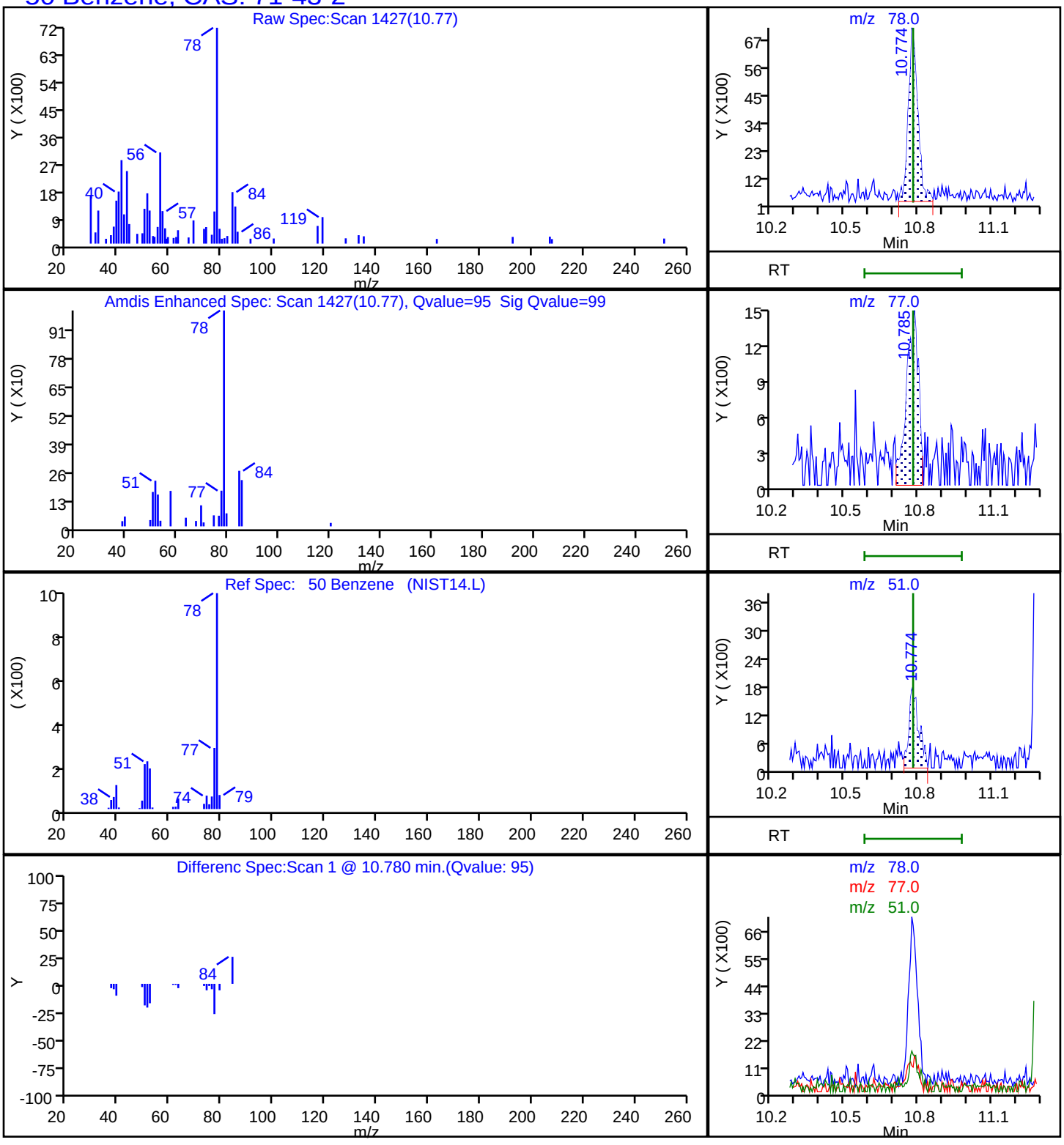
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D				
Lims ID:	140-16367-A-3				
Client ID:	IA-138-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 15:41:30	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400		
Sample Info:	140-0012745-007				
Misc. Info.:	140-16367-a-3@2.04				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:13:23	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:18:10		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.00	99.92

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

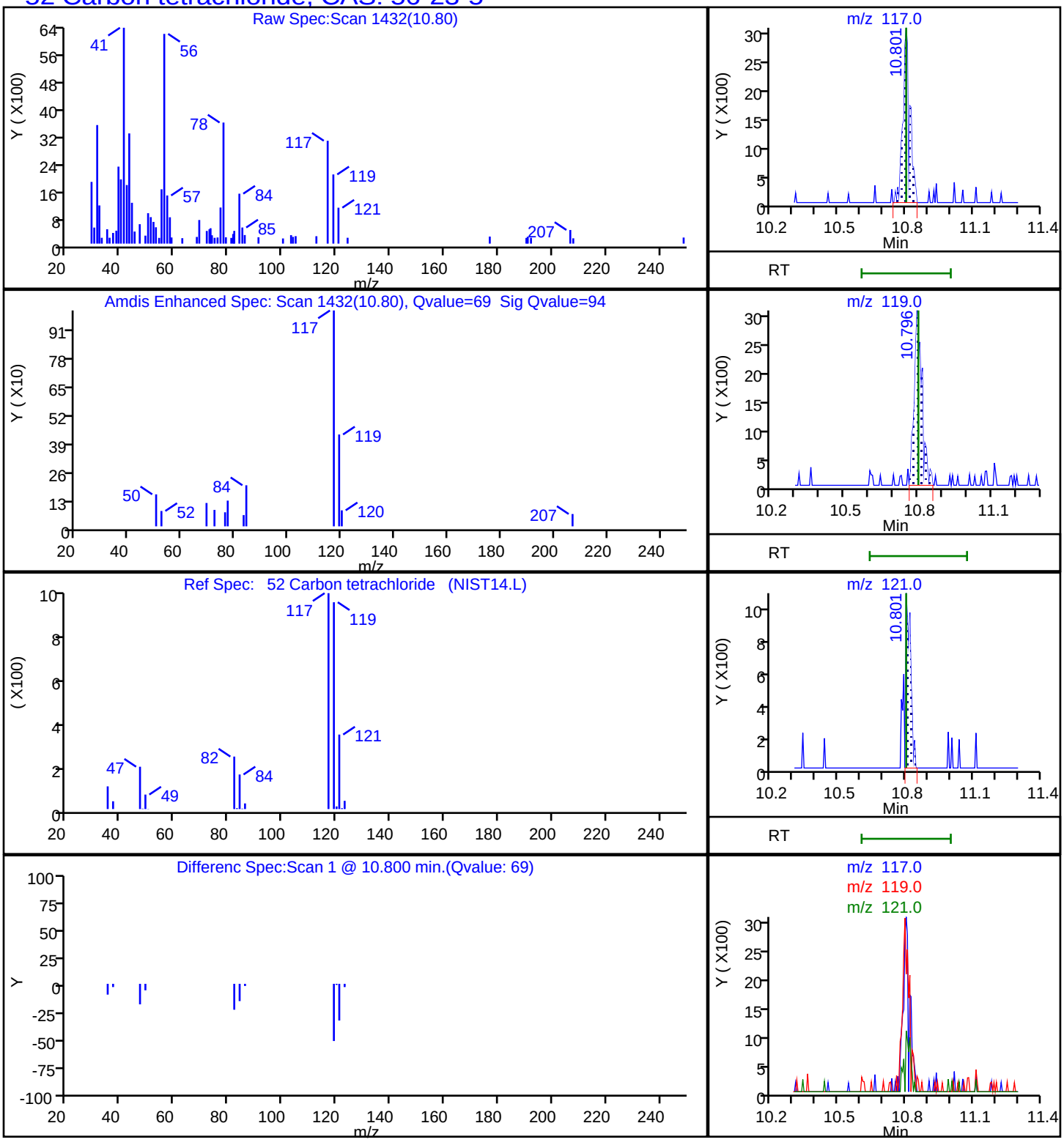
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

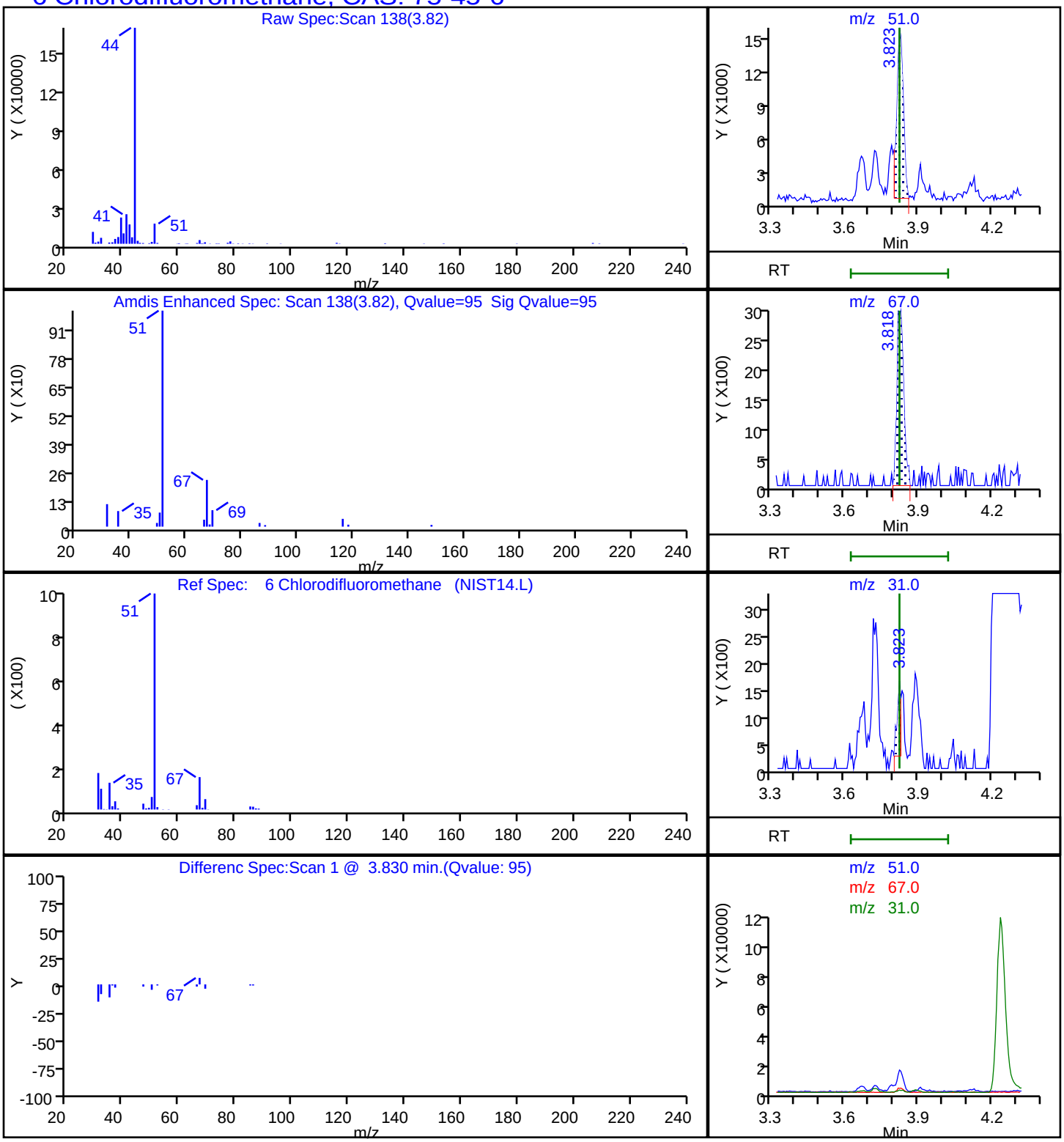


Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D				
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3		
Client ID:	IA-138-A-27				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

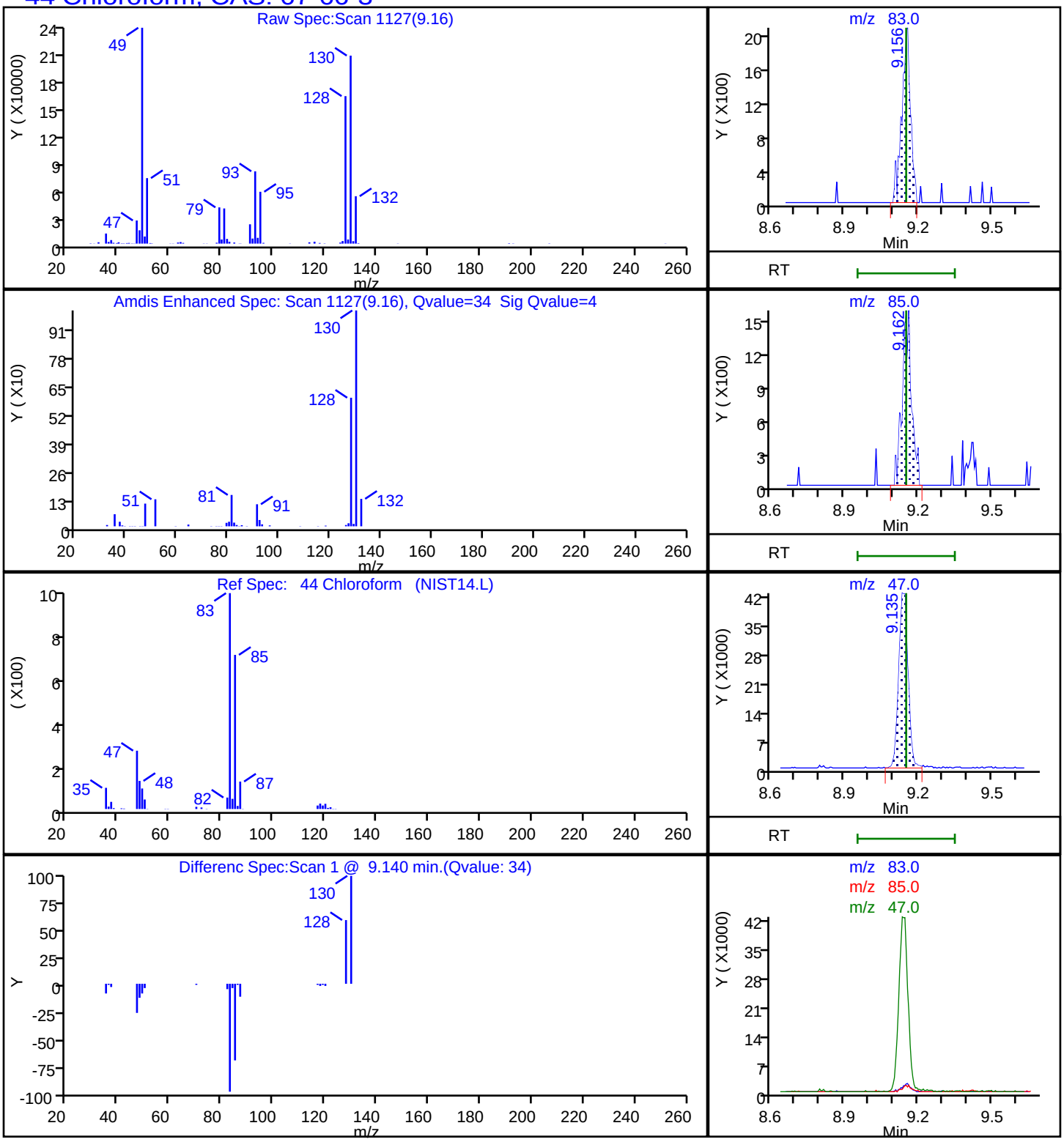
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

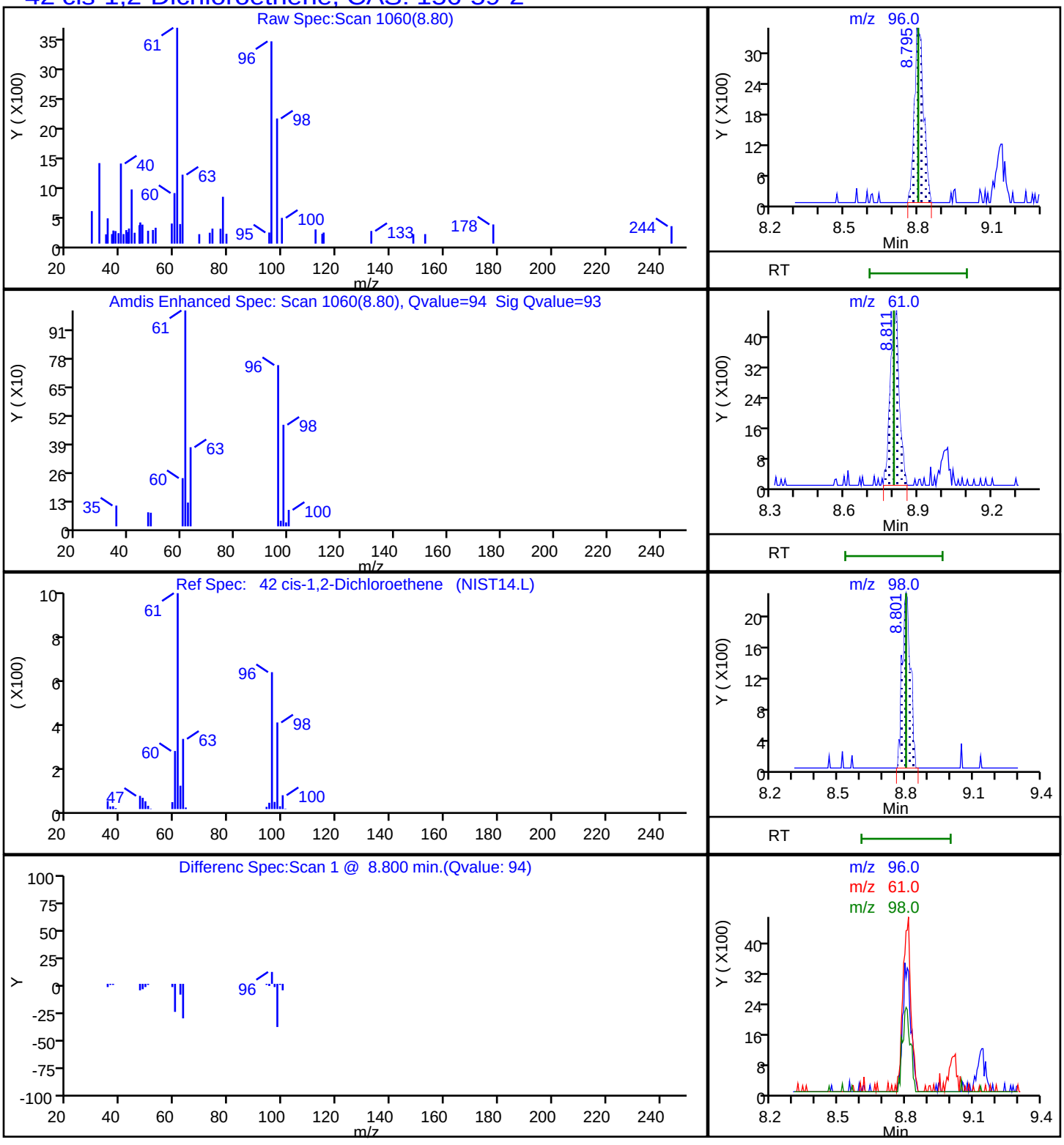
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

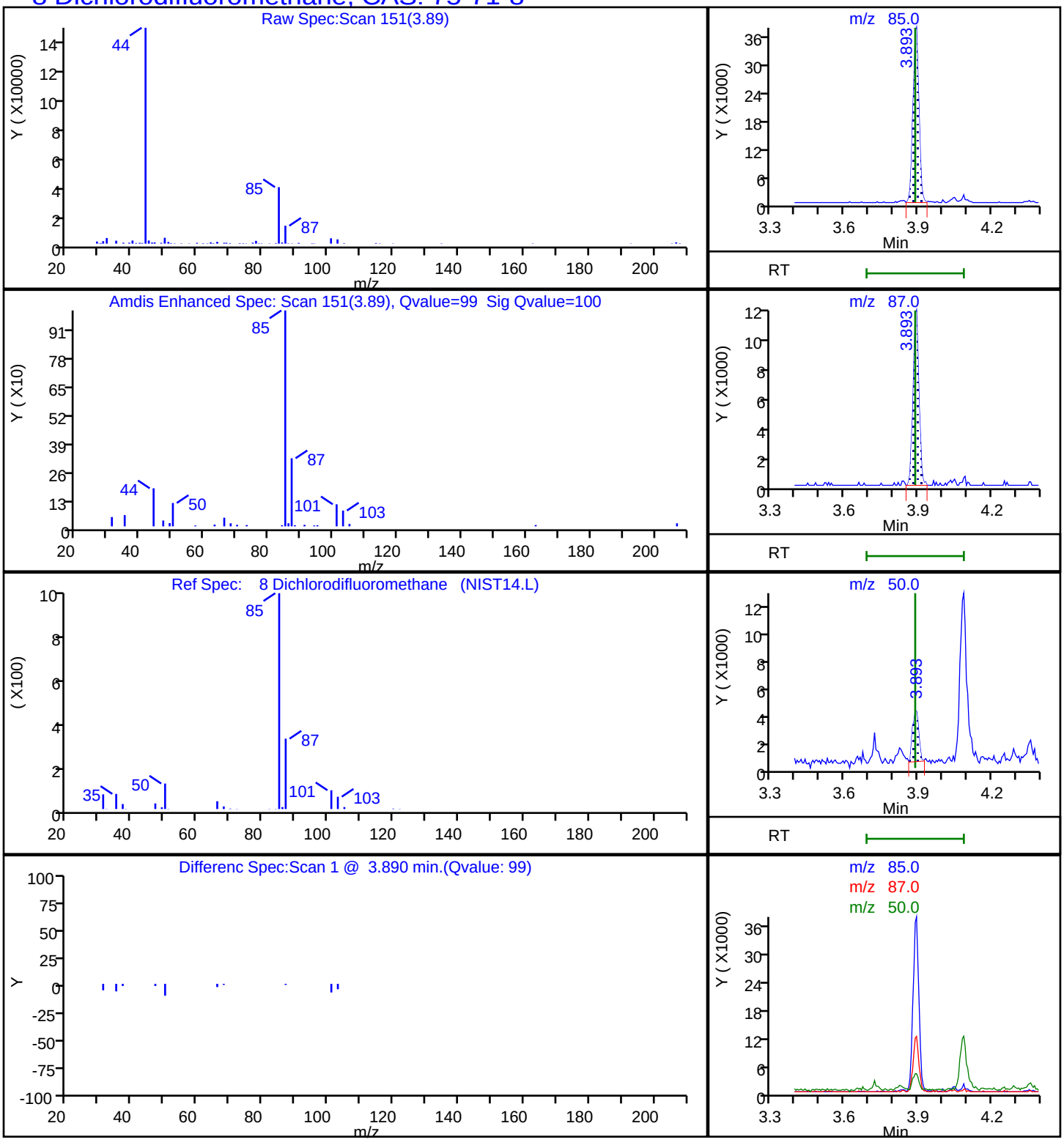


Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D				
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3		
Client ID:	IA-138-A-27				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

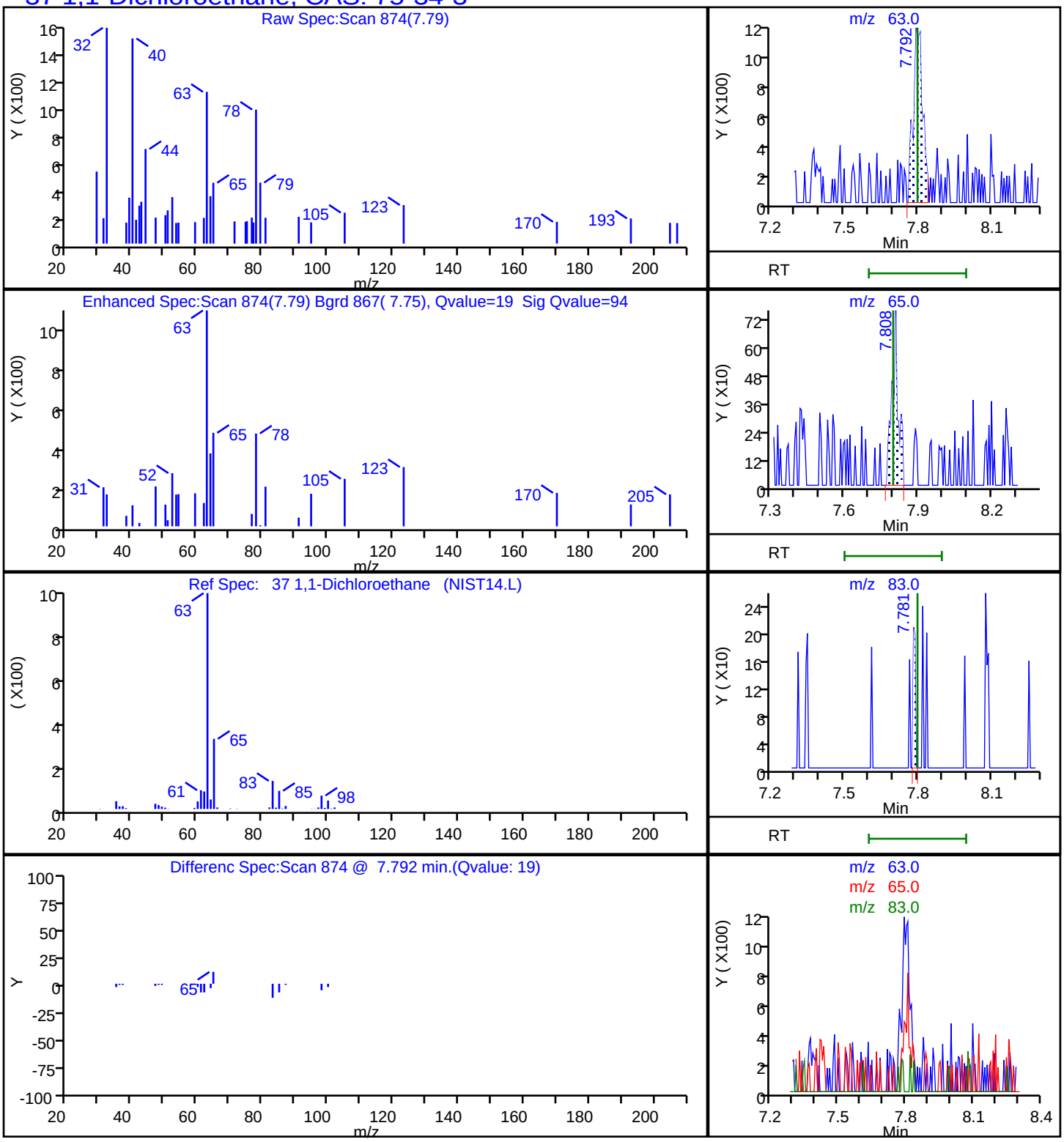


Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

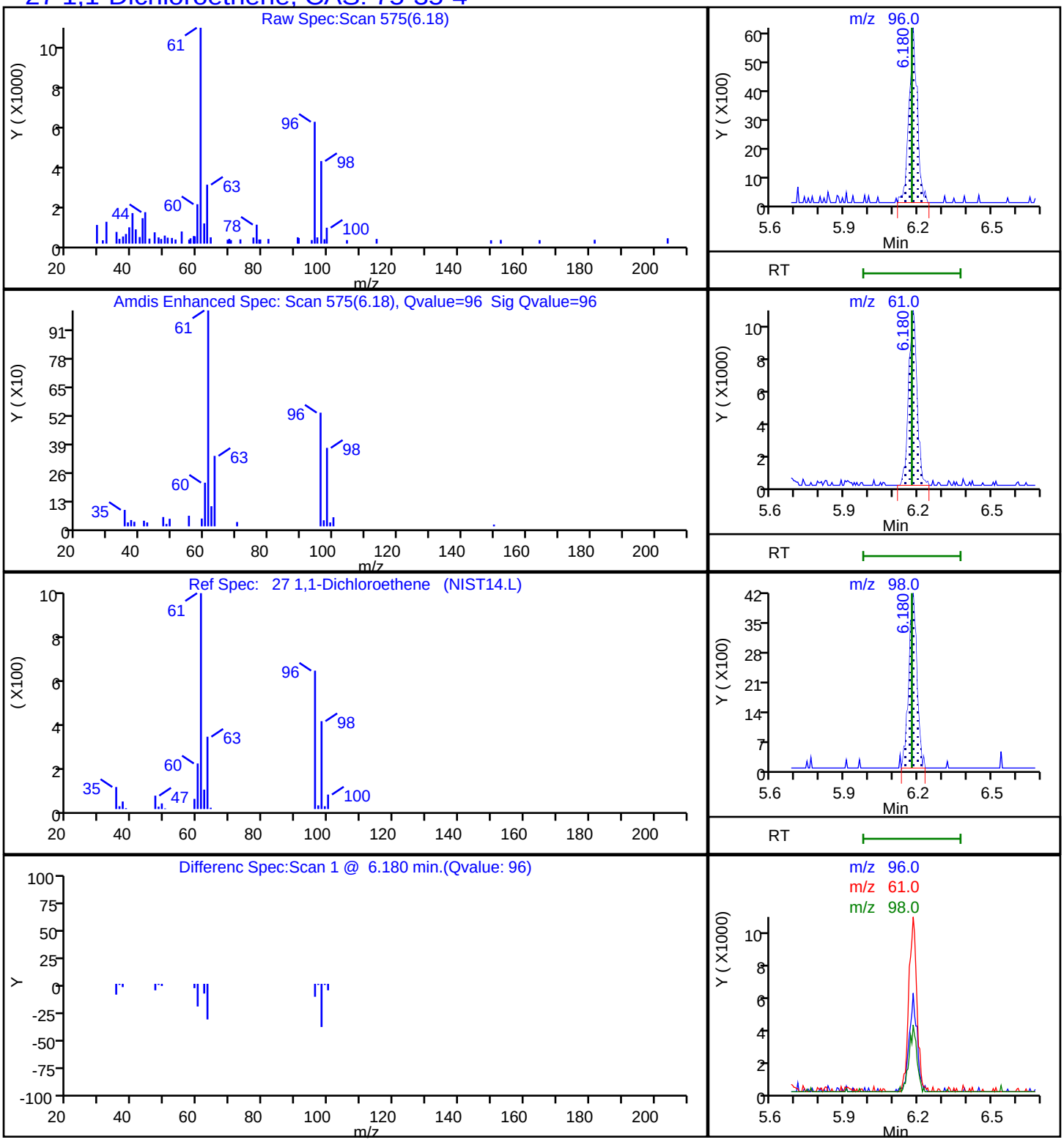
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4

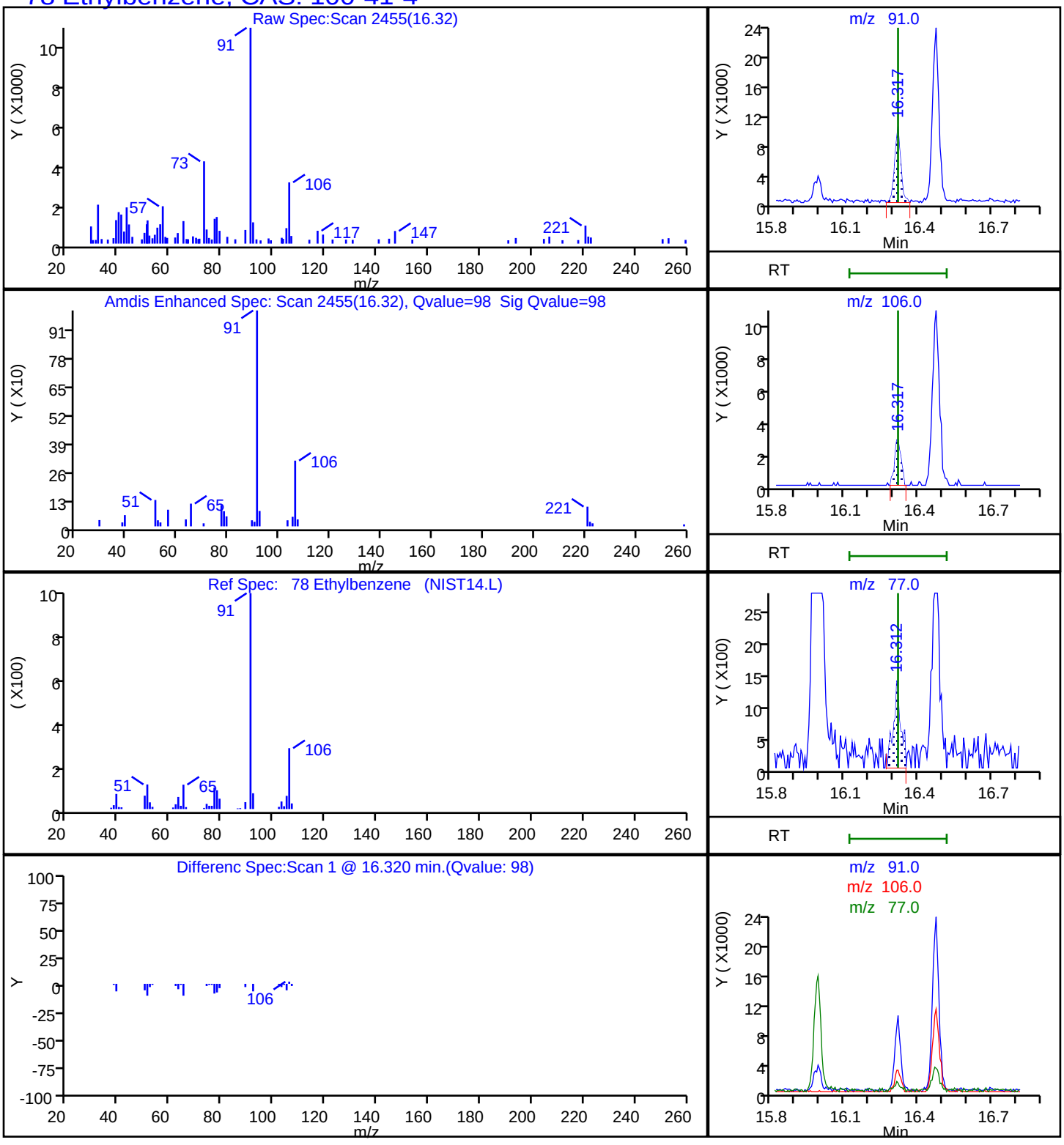


Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

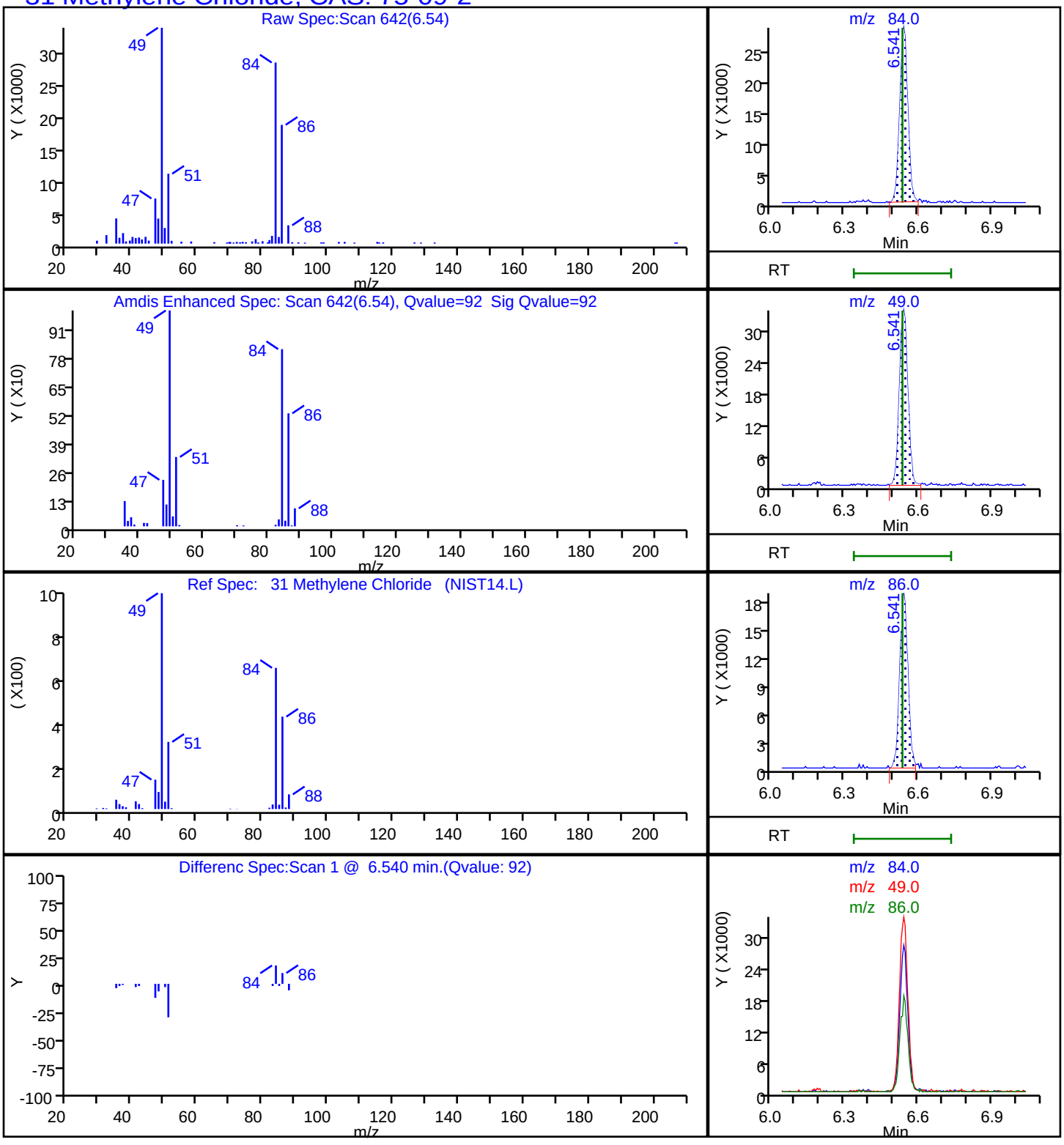
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

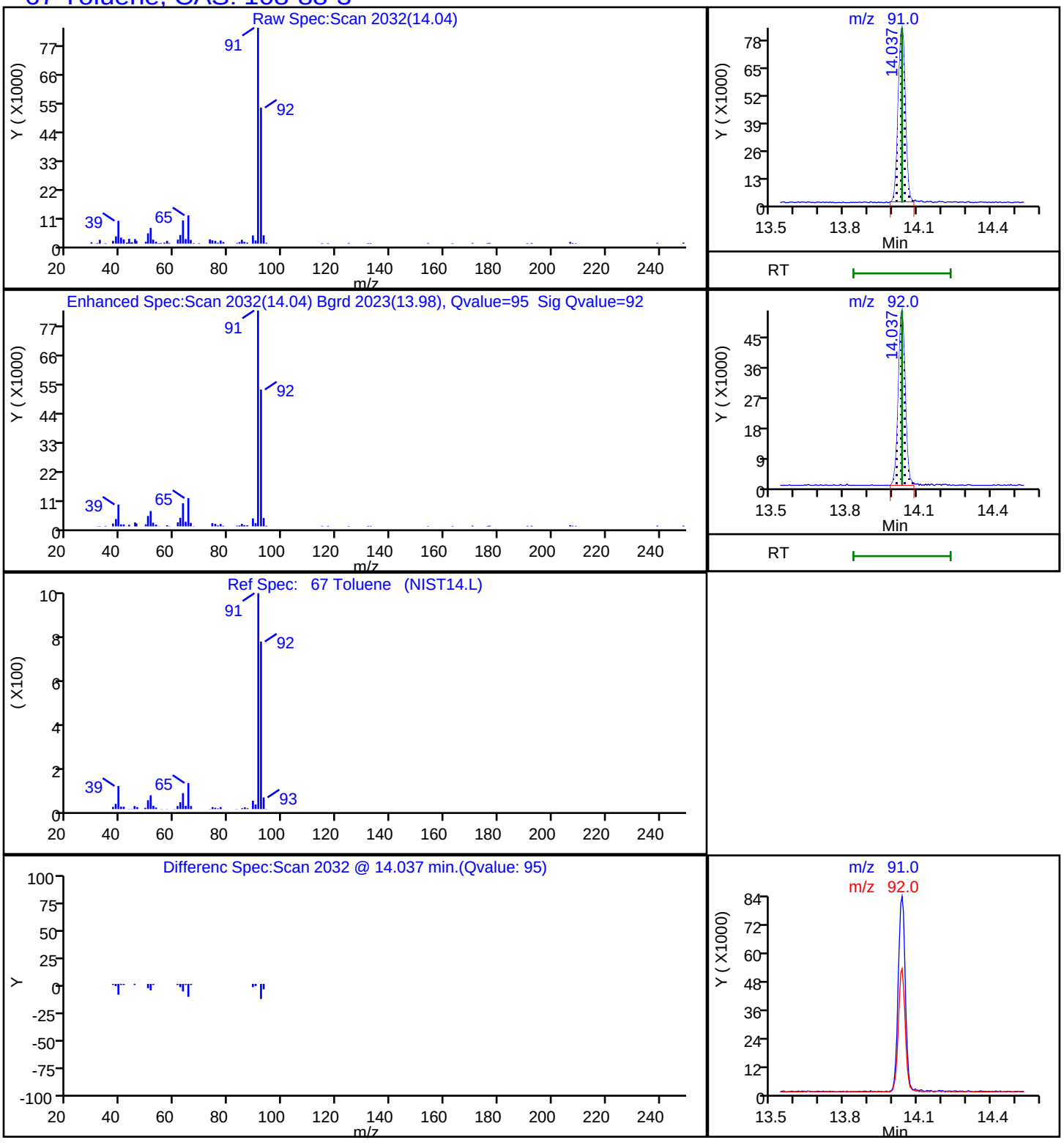
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



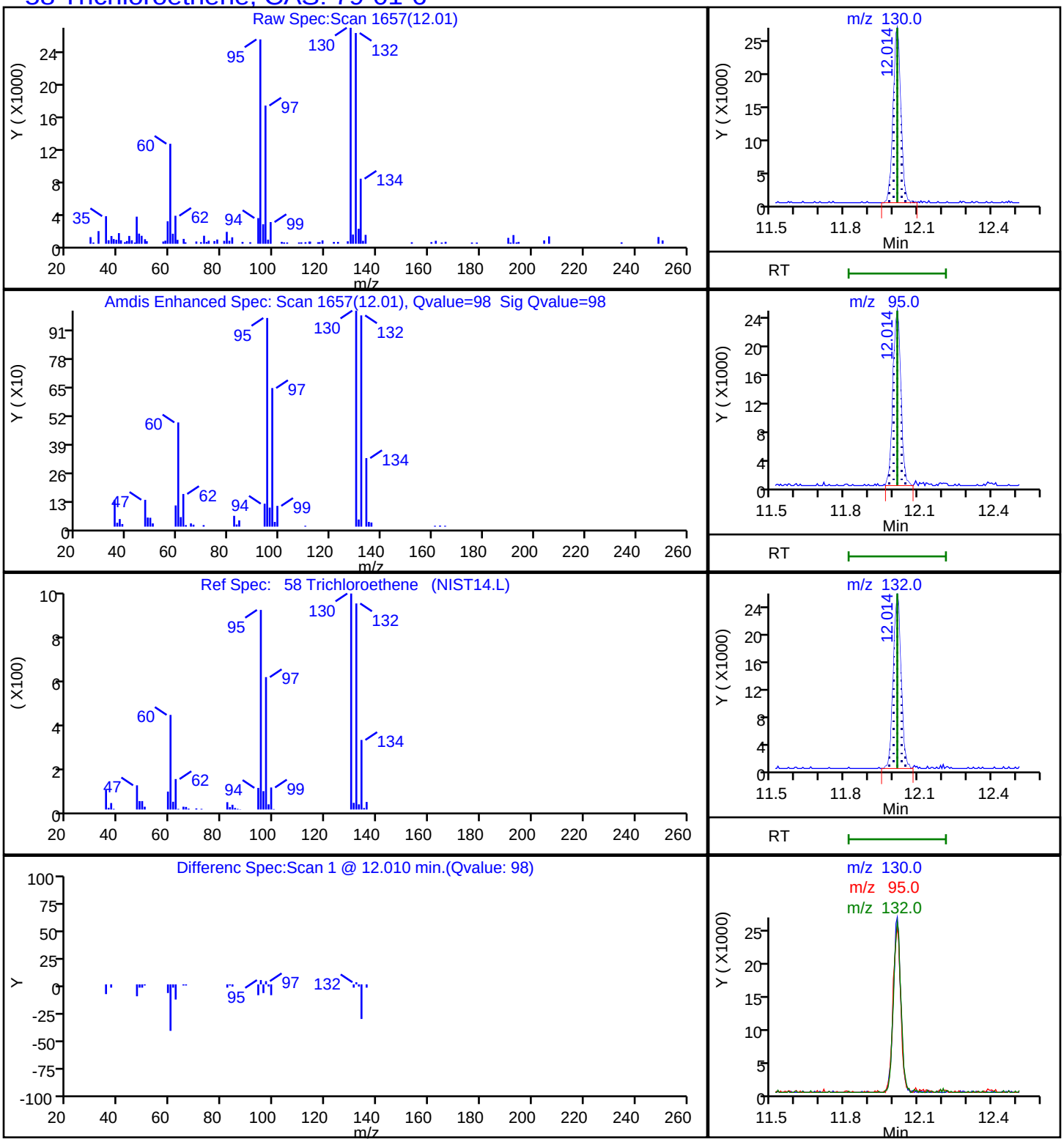
Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D

Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3		
Client ID:	IA-138-A-27				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

58 Trichloroethene, CAS: 79-01-6

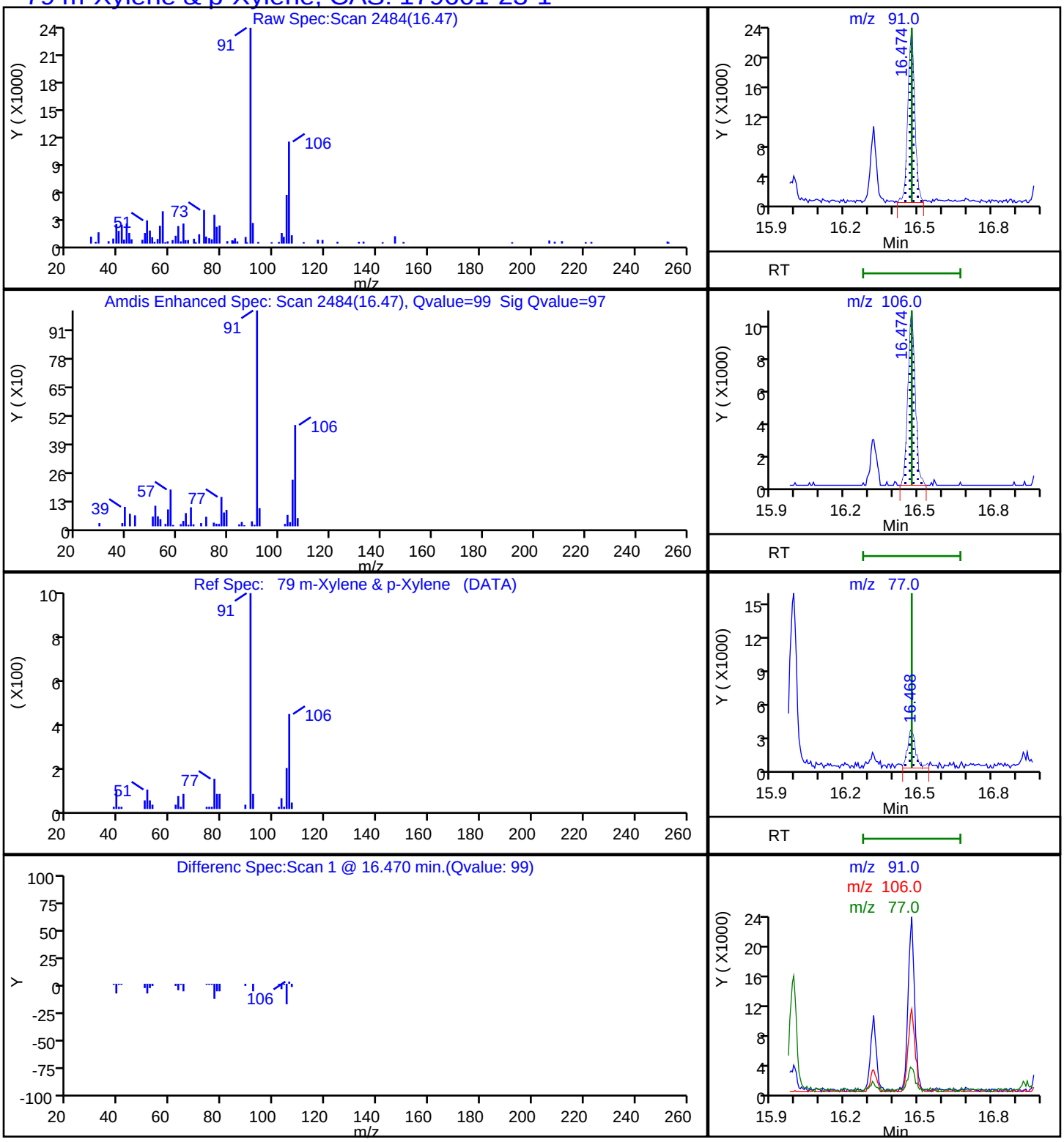


Report Date: 20-Aug-2019 10:18:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

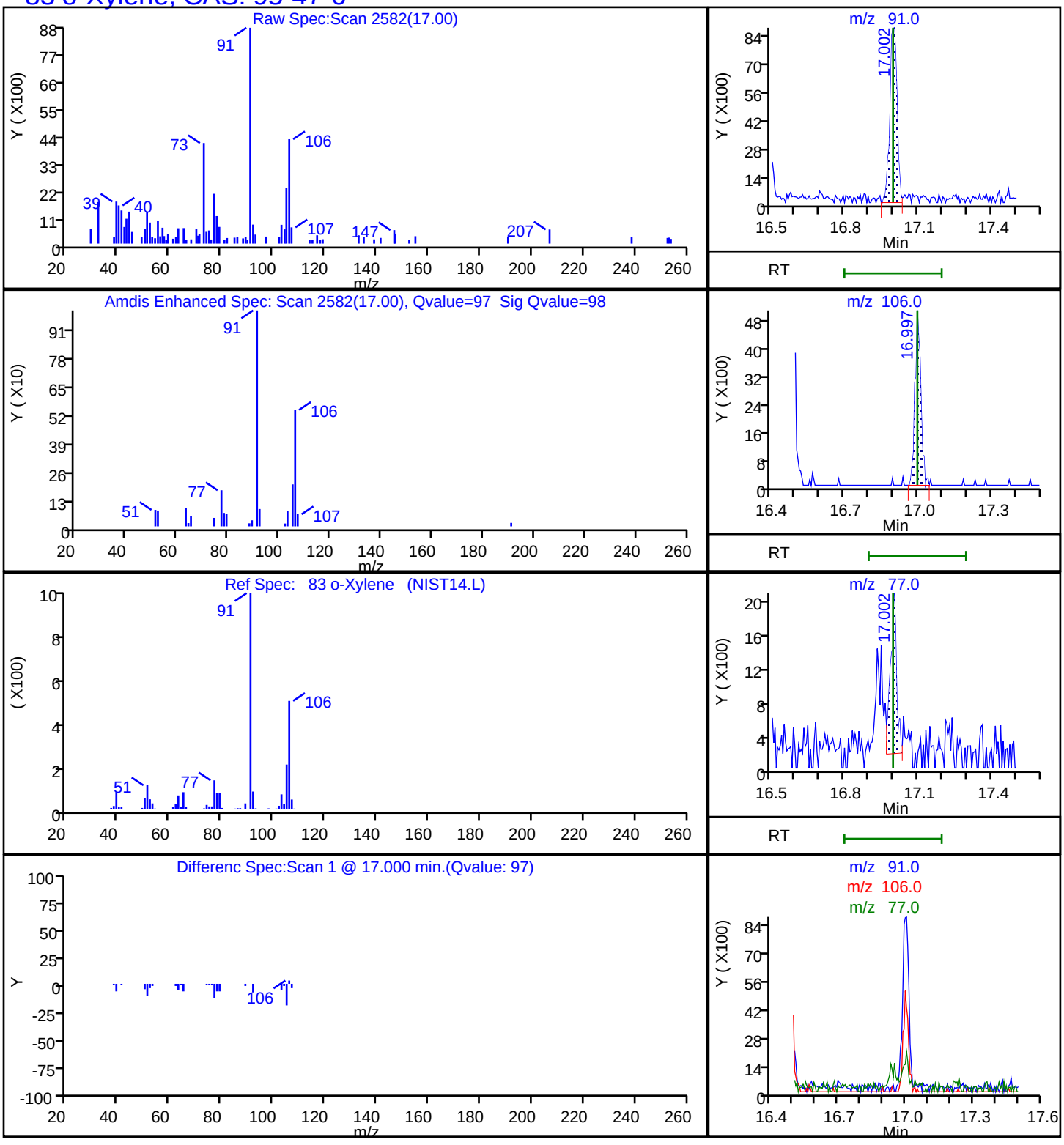
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P103.D		
Injection Date:	19-Aug-2019 15:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-3	Lab Sample ID:	140-16367-3
Client ID:	IA-138-A-27		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.0400
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.086	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.17	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.44		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	13	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.5		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.28	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.49	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.54	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.66	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	44	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D
Lims ID: 140-16367-A-4
Client ID: IA-174-A-27
Sample Type: Client
Inject. Date: 21-Aug-2019 17:09:30 ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-010
Misc. Info.: 140-16367-a-4
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 12:03:22 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:03:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.733	9.731	0.002	92	259215	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.840	-0.003	95	1273380	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.450	-0.003	87	1061453	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.041	-0.003	96	710534	3.64	
19 Chlorodifluoromethane	51	4.155	4.155	-0.003	35	6043	0.0853	M
21 Dichlorodifluoromethane	85	4.236	4.226	0.008	97	6891	0.0849	
40 1,1-Dichloroethene	96	6.683	6.684	-0.004	96	7020	0.0882	
44 Methylene Chloride	84	7.070	7.064	0.001	97	248994	2.55	
55 cis-1,2-Dichloroethene	96	9.384	9.379	0.002	92	2748	0.0335	
57 Chloroform	83	9.733	9.731	-0.004	27	2086	0.0099	
64 Benzene	78	11.336	11.329	0.002	75	7148	0.0306	
65 Carbon tetrachloride	117	11.358	11.350	0.002	82	3353	0.0171	
71 Trichloroethene	130	12.531	12.531	-0.003	96	32114	0.3050	
80 Toluene	91	14.516	14.508	0.002	93	72086	0.2811	
90 m-Xylene & p-Xylene	91	16.920	16.918	-0.004	96	10371	0.0409	
94 o-Xylene	91	17.447	17.445	-0.004	75	4429	0.0164	
122 Naphthalene	128	21.686	21.682	-0.004	98	15106	0.0555	
S 129 Xylenes, Total	100				0		0.0574	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

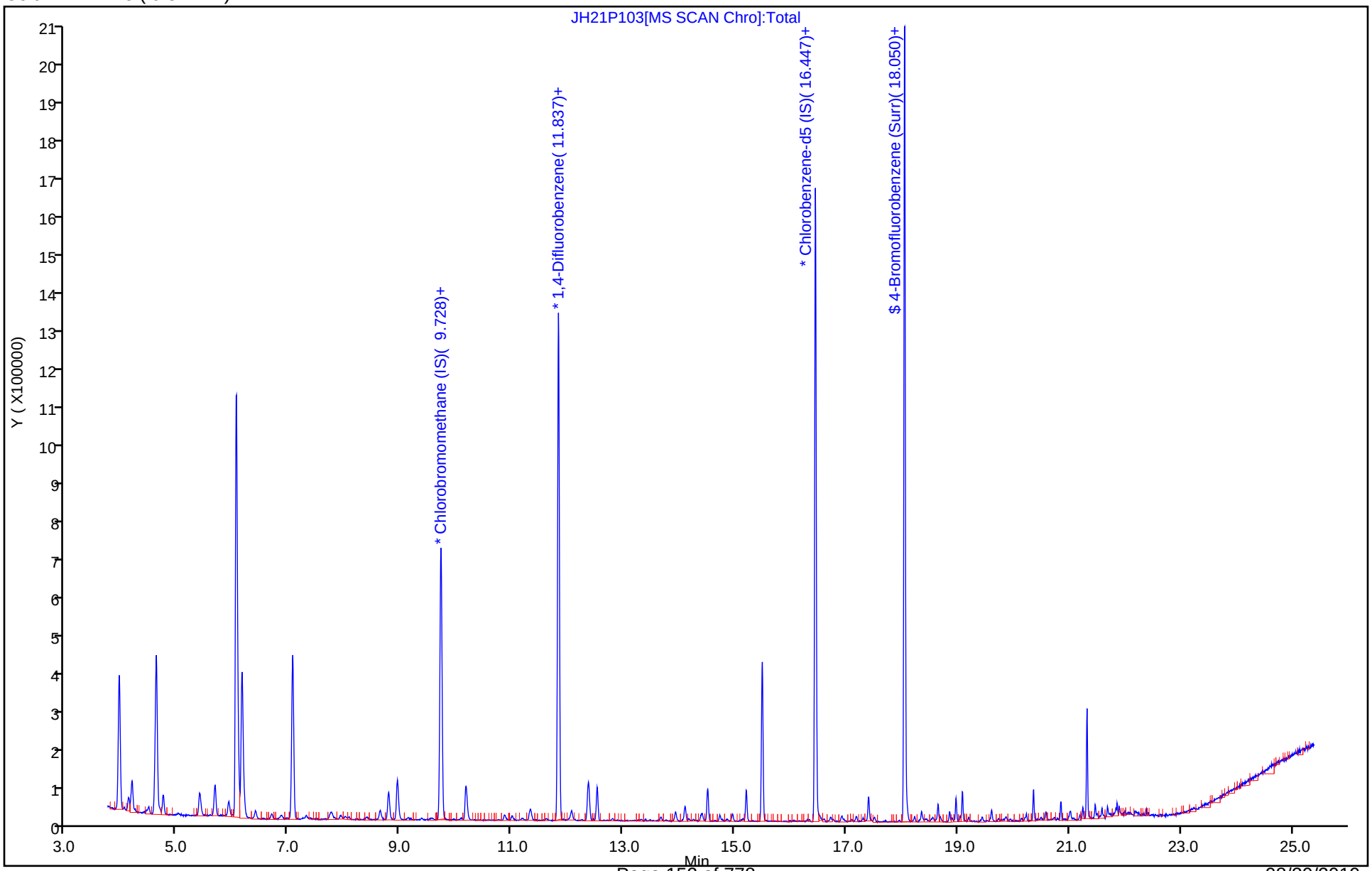
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 12:03:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4	Worklist Smp#:	10
Client ID:	IA-174-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Lims ID:	140-16367-A-4				
Client ID:	IA-174-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 17:09:30	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-010				
Misc. Info.:	140-16367-a-4				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:03:22	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:03:22

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.64	91.06

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D

Injection Date: 21-Aug-2019 17:09:30 Instrument ID: MJ

Lims ID: 140-16367-A-4 Lab Sample ID: 140-16367-4

Client ID: IA-174-A-27

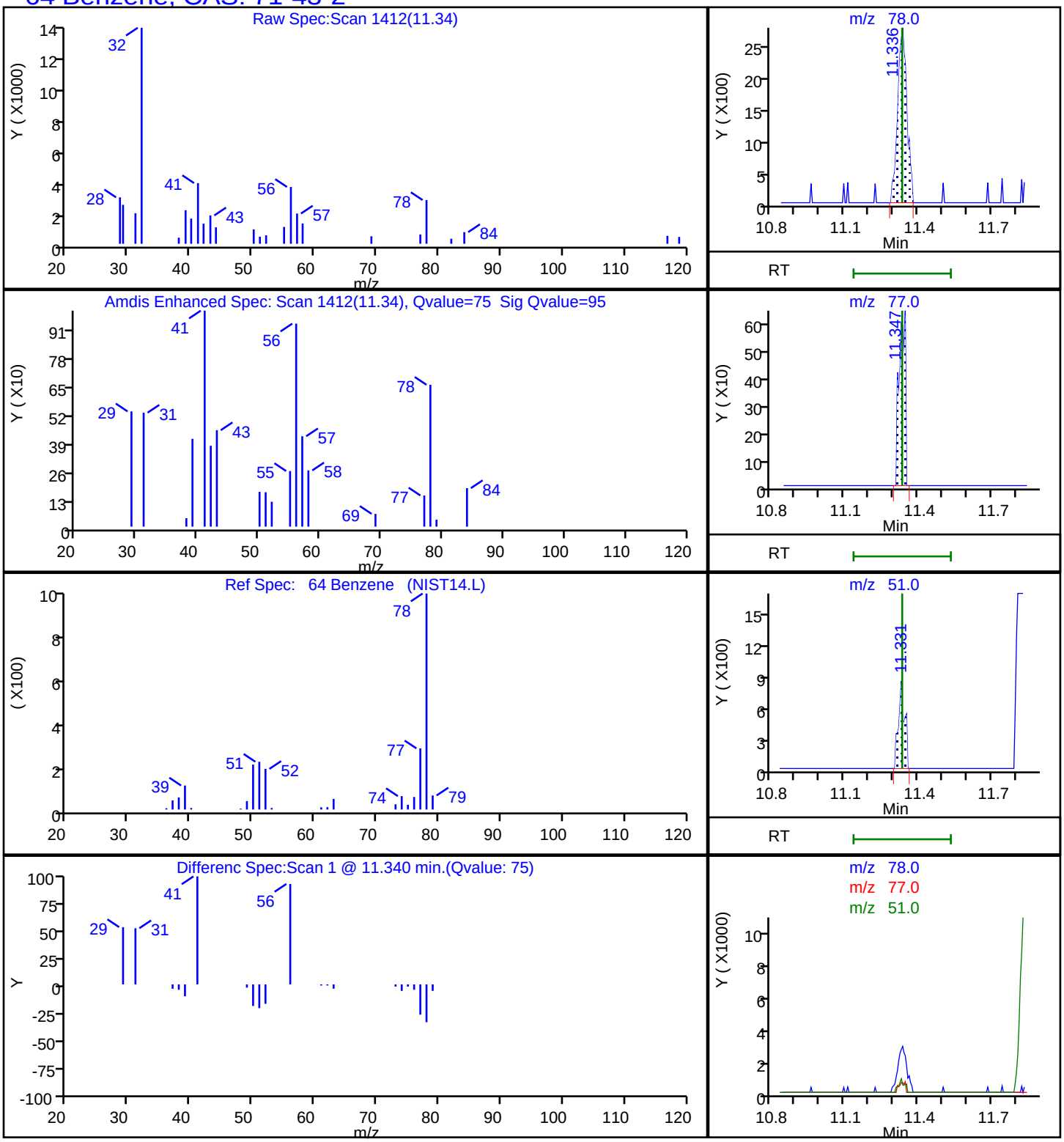
Operator ID: 007126 ALS Bottle#: 3 Worklist Smp#: 10

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

64 Benzene, CAS: 71-43-2

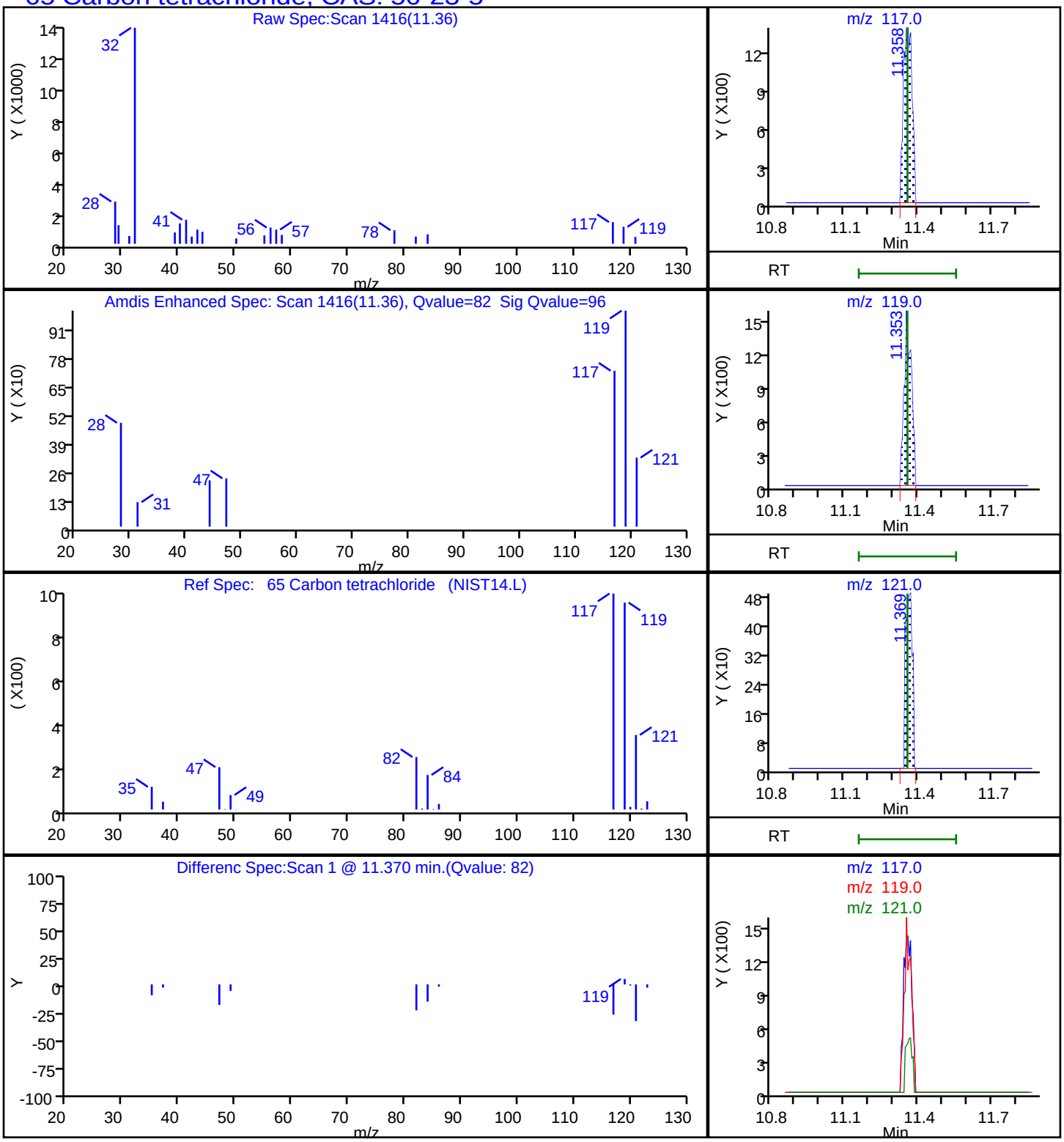


Report Date: 22-Aug-2019 12:03:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5

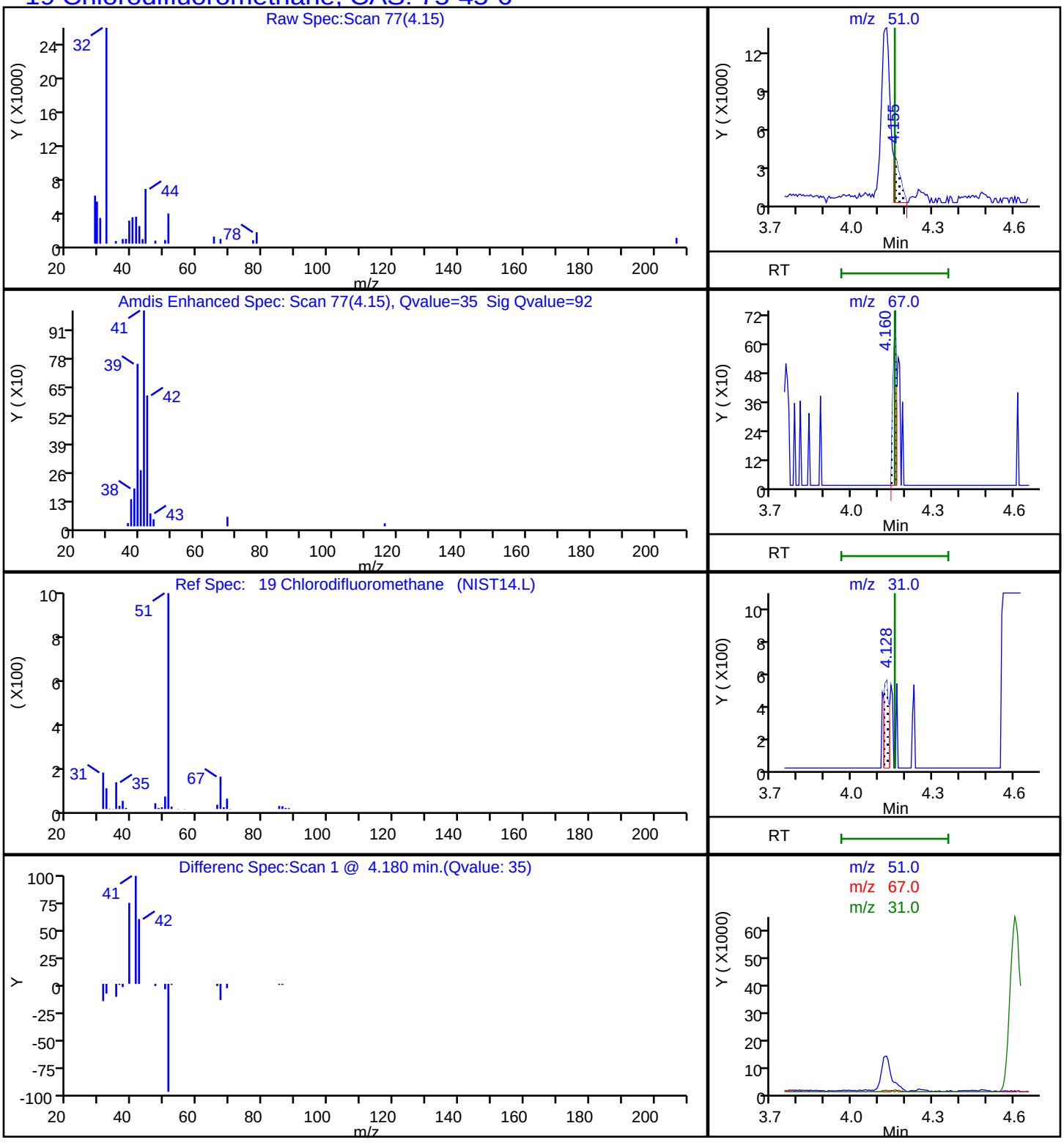


Report Date: 22-Aug-2019 12:03:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

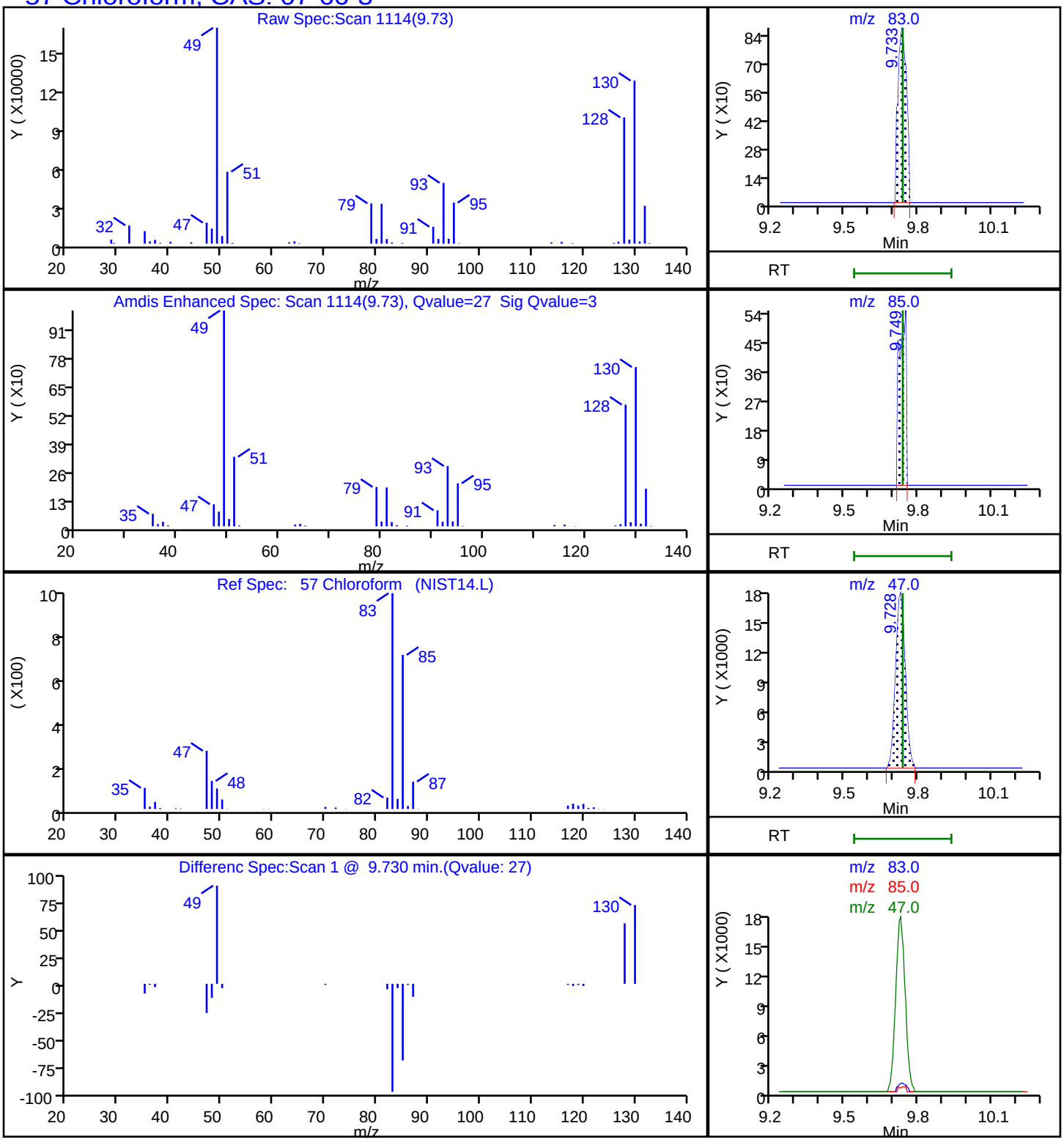


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D

Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4
Client ID:	IA-174-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

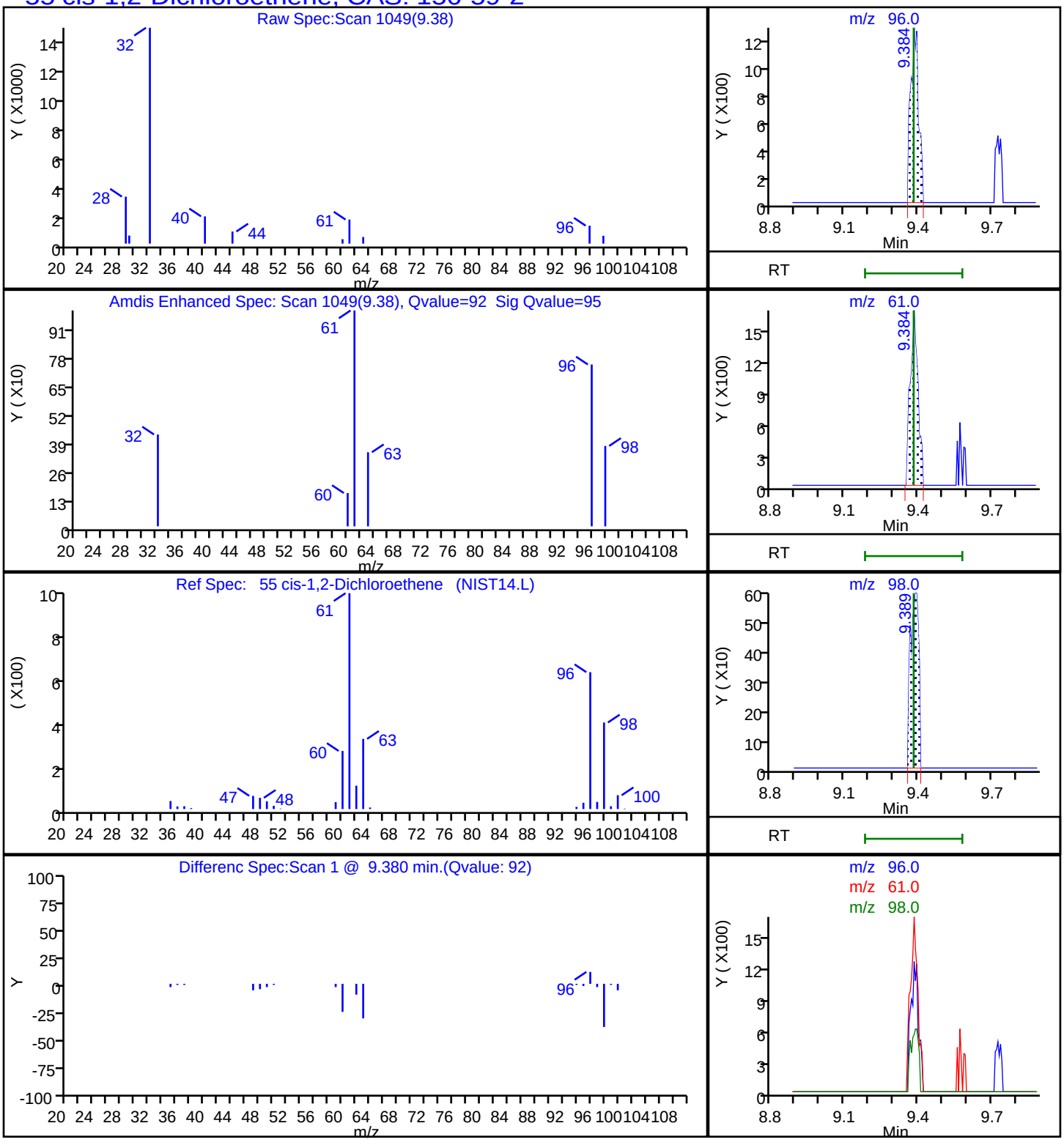


Report Date: 22-Aug-2019 12:03:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2

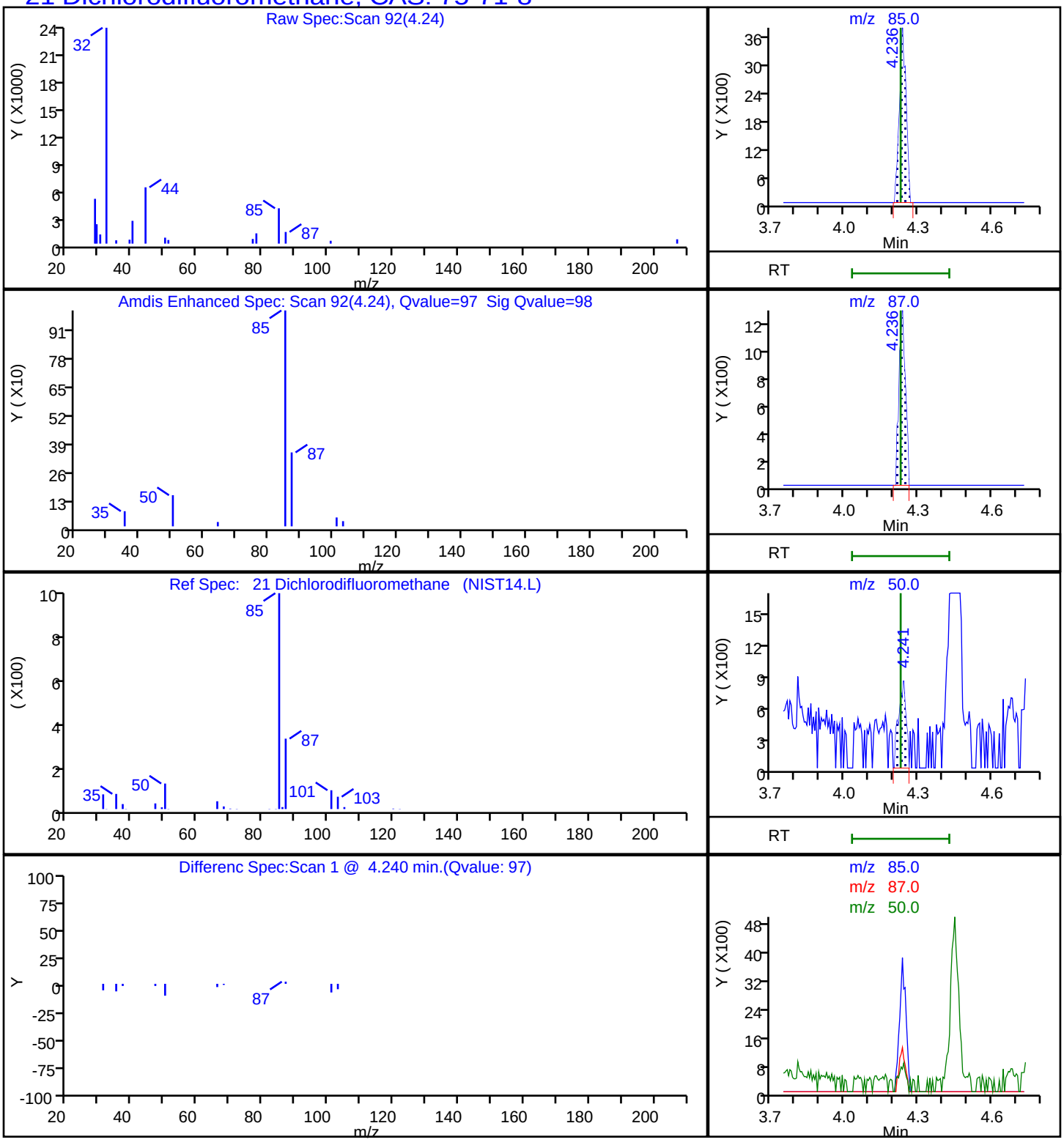


Report Date: 22-Aug-2019 12:03:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

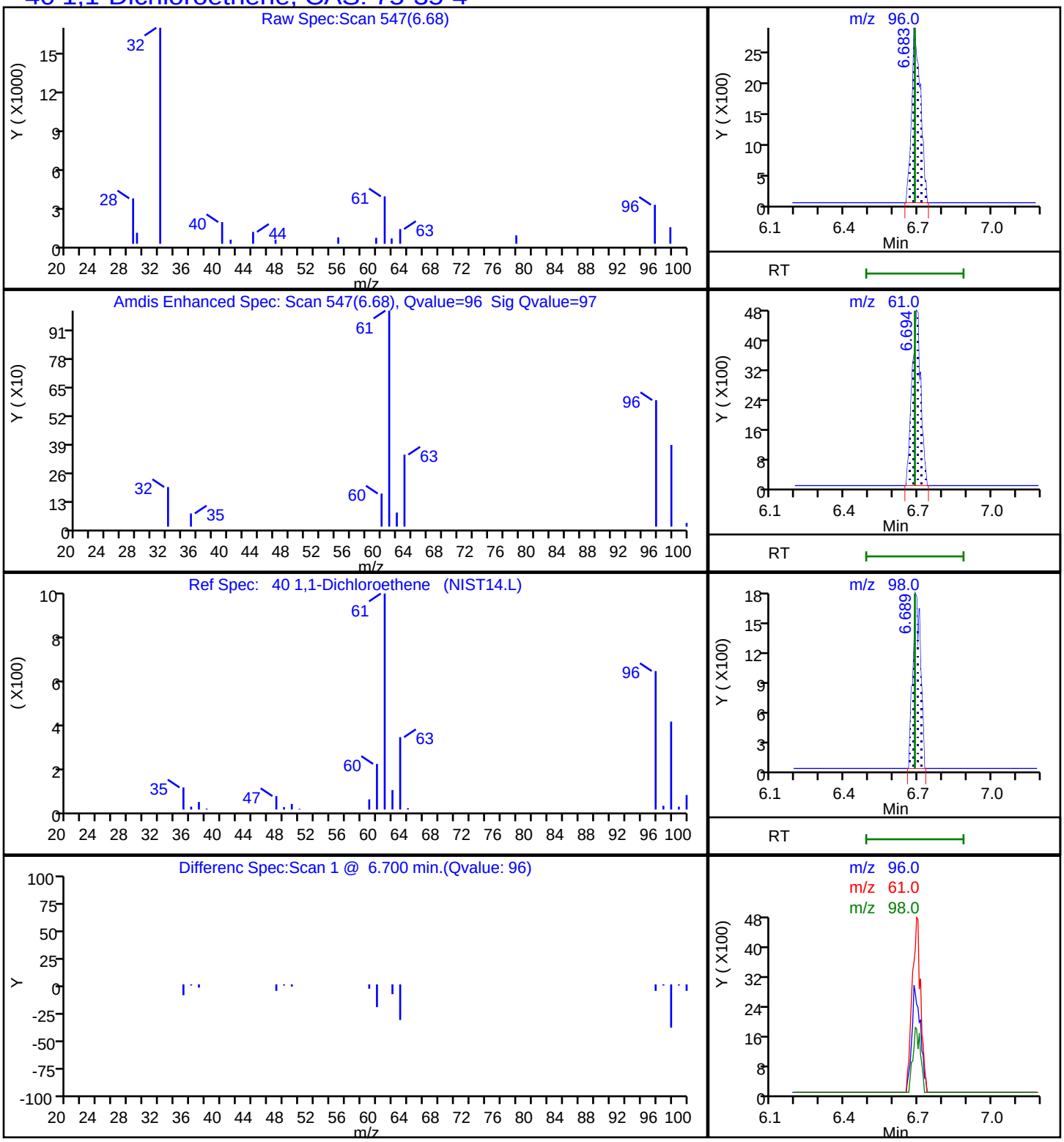
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D		
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4
Client ID:	IA-174-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

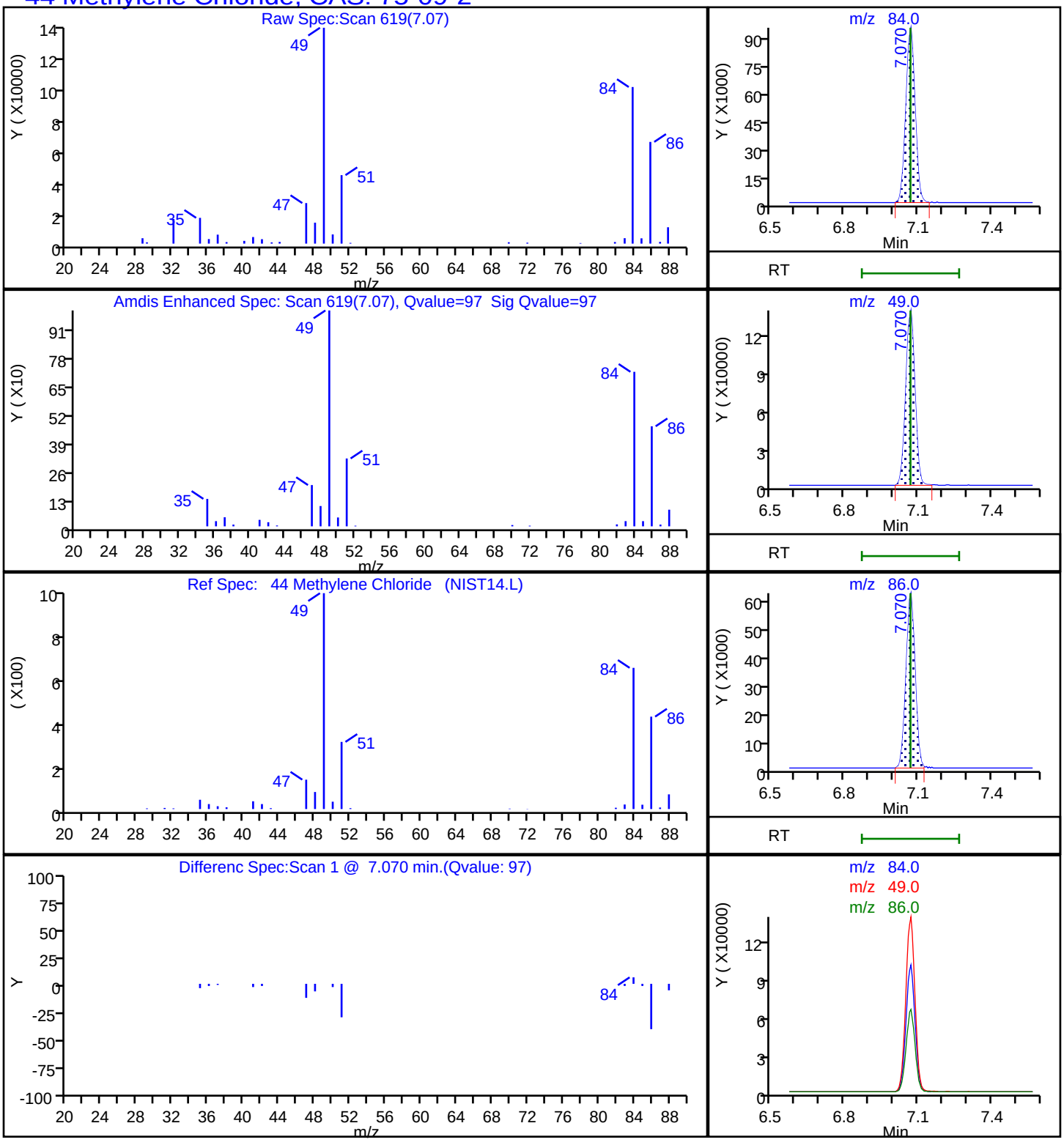


Report Date: 22-Aug-2019 12:03:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

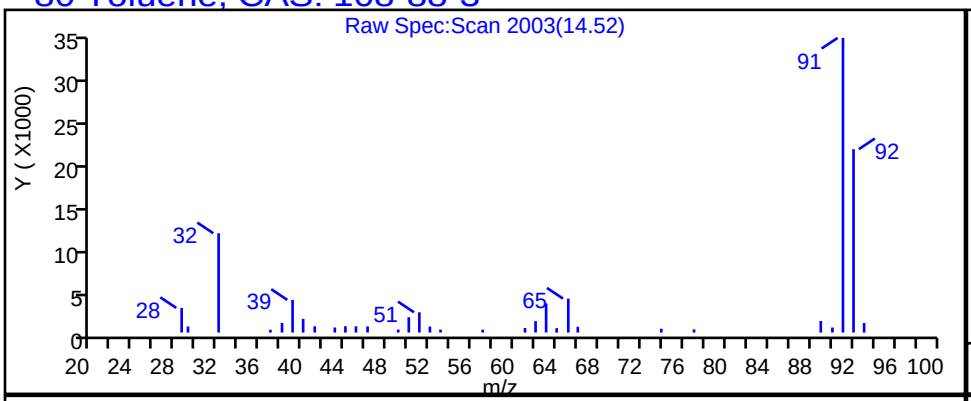
44 Methylene Chloride, CAS: 75-09-2

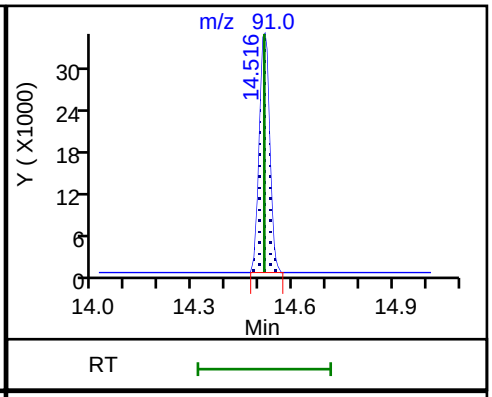


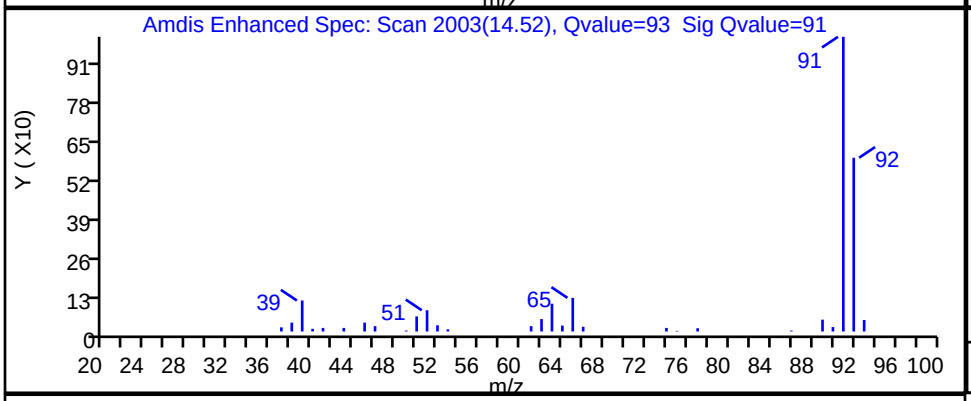
Eurofins TestAmerica, Knoxville

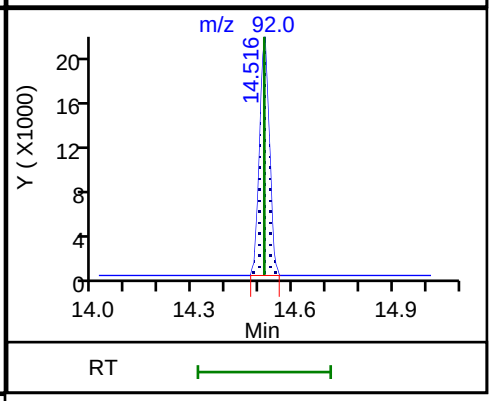
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D		
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4
Client ID:	IA-174-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

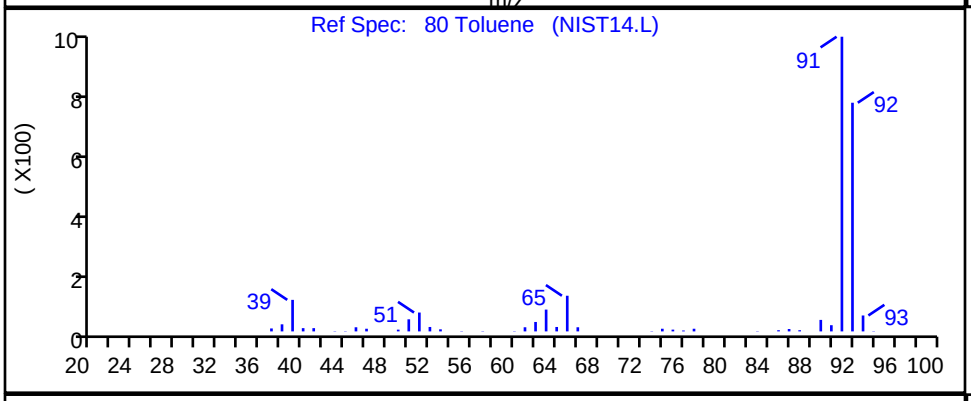
80 Toluene, CAS: 108-88-3

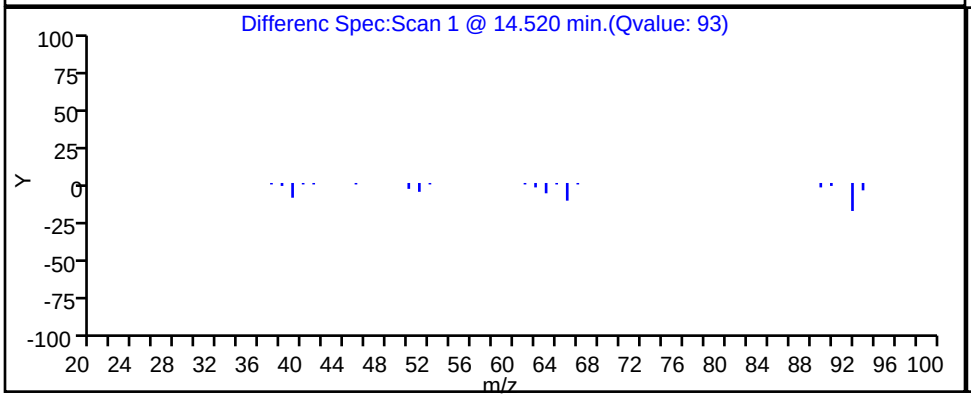


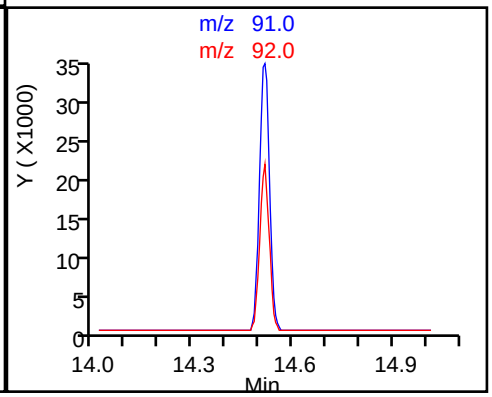












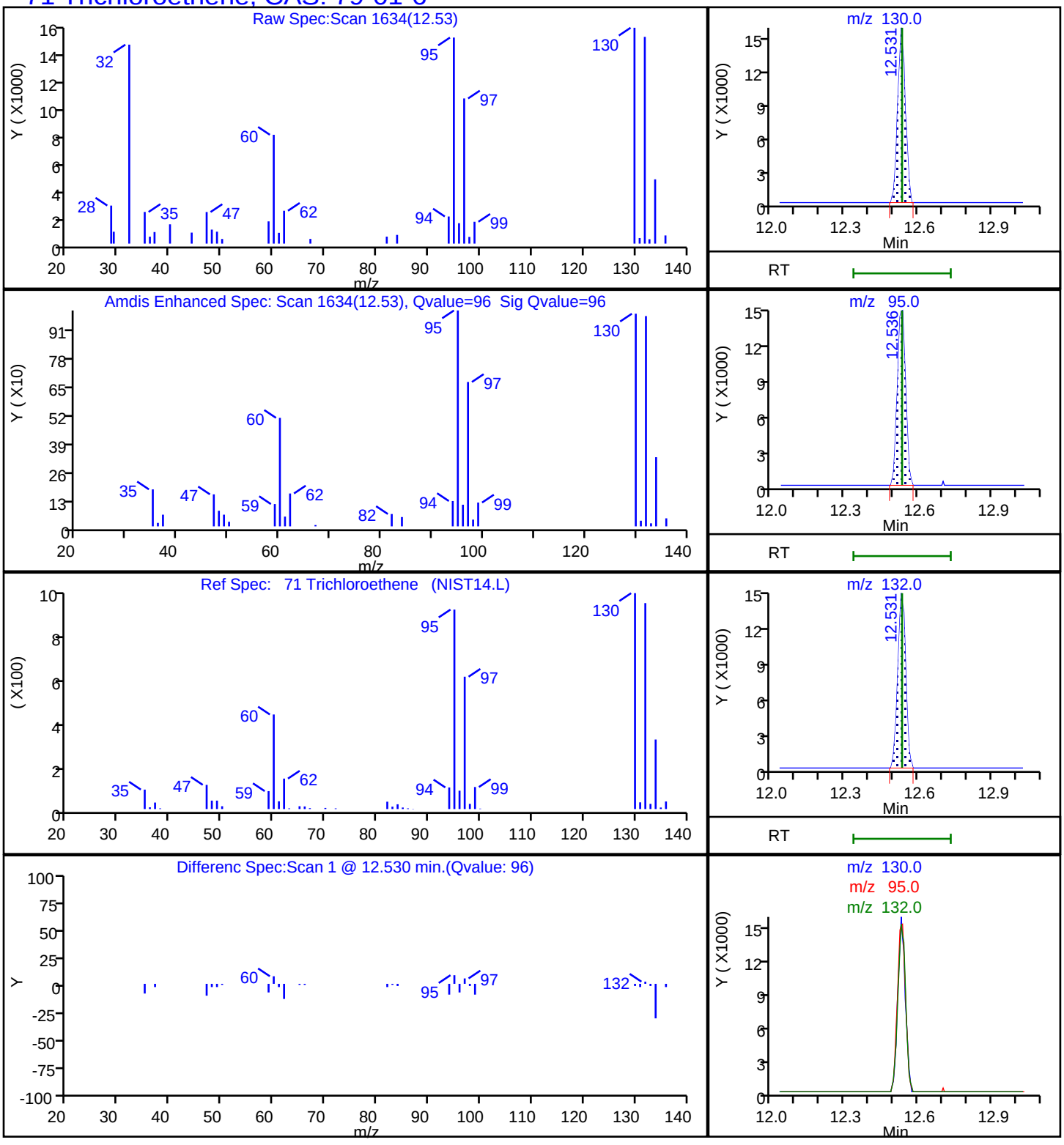
Report Date: 22-Aug-2019 12:03:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D

Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4
Client ID:	IA-174-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

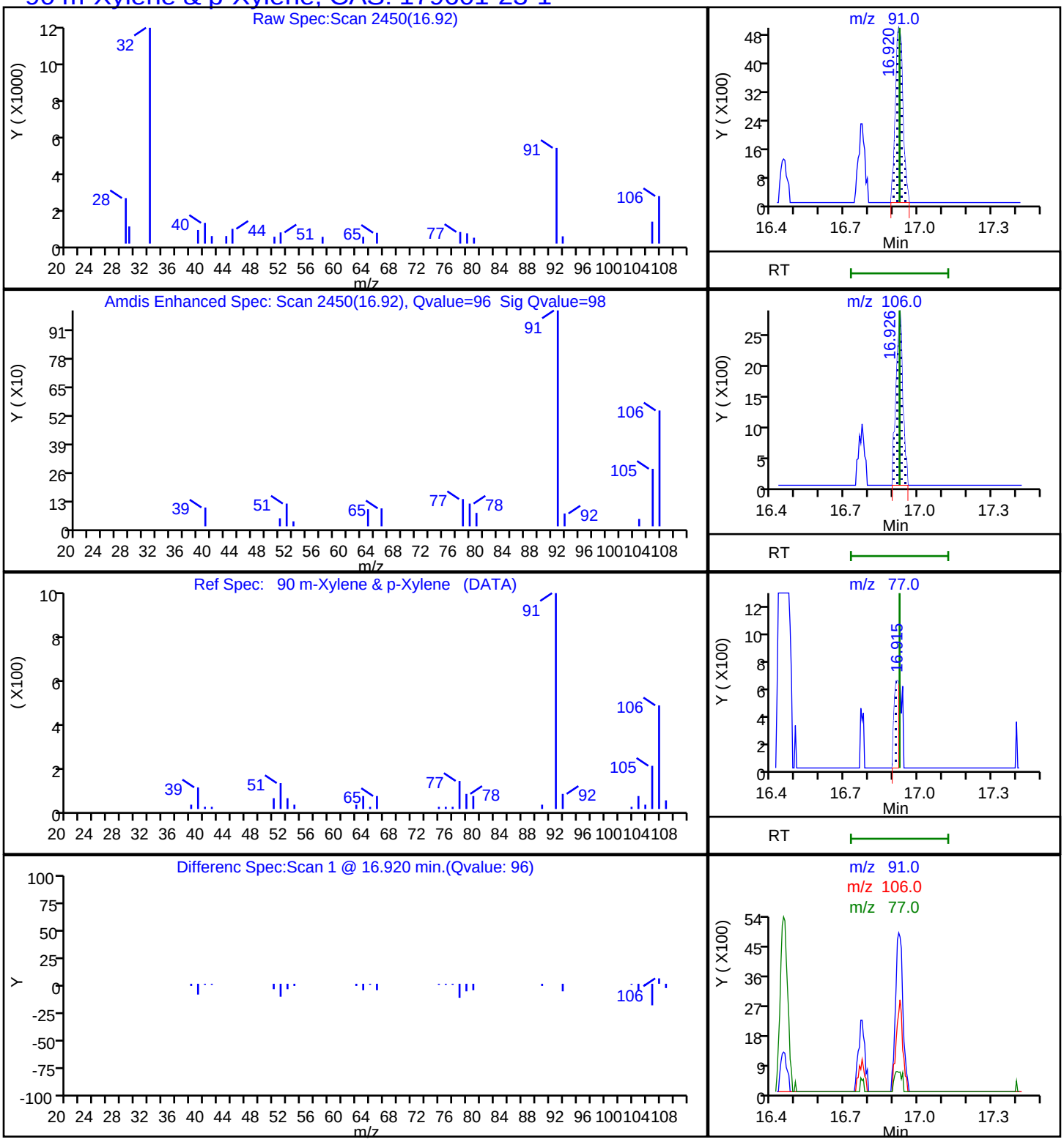
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

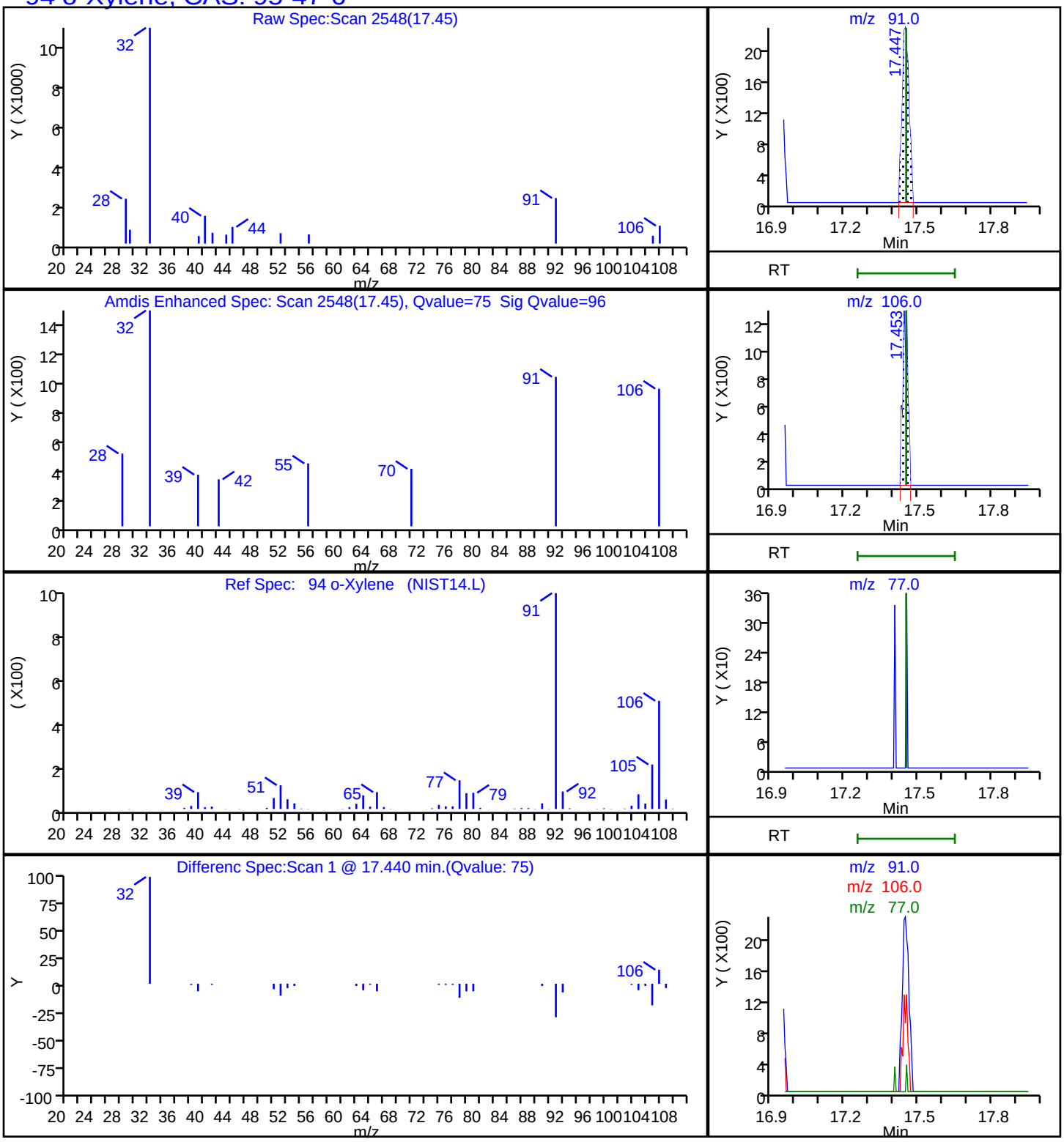
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D		
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4
Client ID:	IA-174-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Eurofins TestAmerica, Knoxville

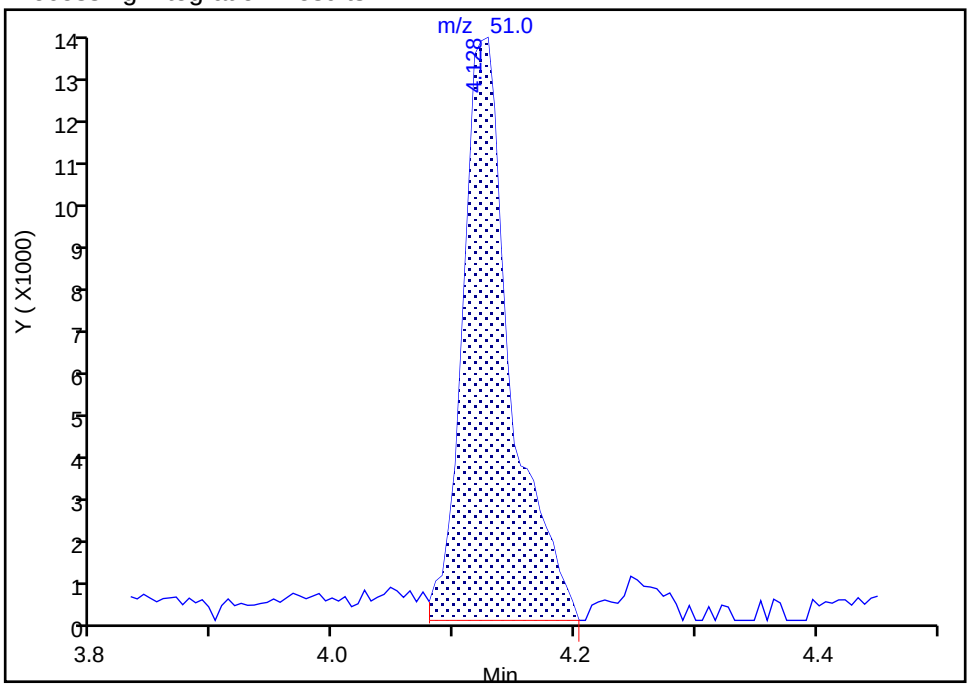
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P103.D				
Injection Date:	21-Aug-2019 17:09:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-4	Lab Sample ID:	140-16367-4		
Client ID:	IA-174-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

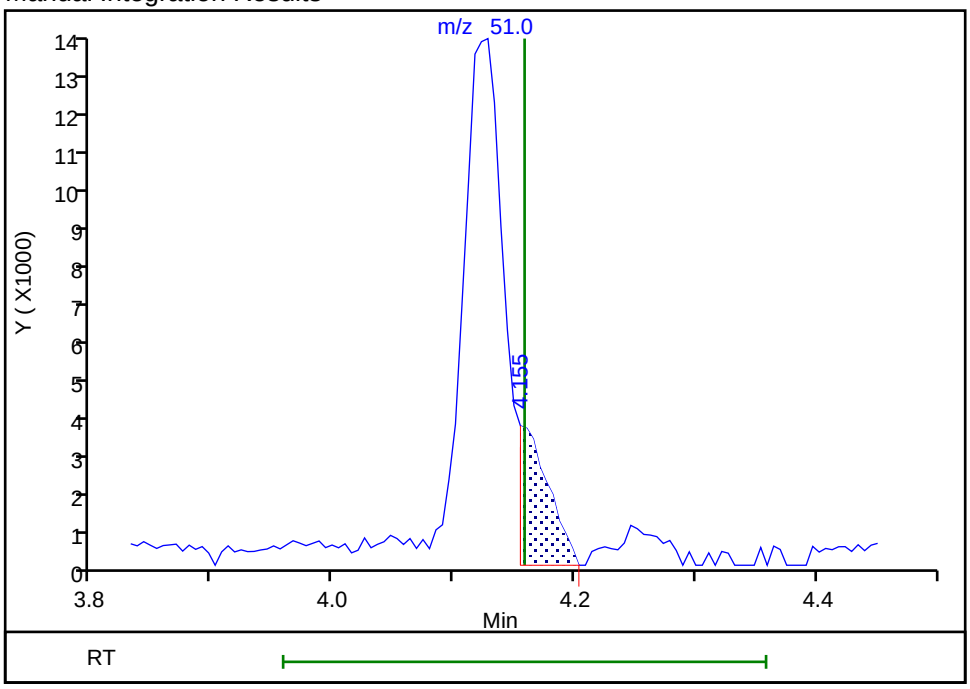
Processing Integration Results

RT: 4.13
Area: 36091
Amount: 0.509477
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 6043
Amount: 0.085306
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 22-Aug-2019 12:02:50
Audit Action: Split an Integrated Peak Audit Reason: Shouldering

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.094	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.051	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.12	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.41		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.087	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	41	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.10	J	0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.7		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.35	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.59	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.25	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.48	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.38	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	140	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.71	J	2.7	0.24
108-88-3	Toluene	92.14	6.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	9.3		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D
Lims ID: 140-16367-A-5
Client ID: IA-093-A-27
Sample Type: Client
Inject. Date: 22-Aug-2019 00:34:30 ALS Bottle#: 10 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-017
Misc. Info.: 140-16367-a-5
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Aug-2019 09:37:40 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:30:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.731	-0.005	91	213359	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.840	-0.005	95	1014519	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	87	824581	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.047	0.000	96	569636	3.76	
21 Dichlorodifluoromethane	85	4.234	4.225	0.006	97	6980	0.1045	
40 1,1-Dichloroethene	96	6.687	6.682	0.000	96	5310	0.0811	
44 Methylene Chloride	84	7.069	7.064	-0.001	96	660320	8.23	E
55 cis-1,2-Dichloroethene	96	9.371	9.375	-0.011	23	1633	0.0242	
57 Chloroform	83	9.731	9.730	-0.006	27	1769	0.0102	
64 Benzene	78	11.334	11.328	0.000	81	6154	0.0331	
65 Carbon tetrachloride	117	11.361	11.350	0.005	48	2925	0.0188	
71 Trichloroethene	130	12.529	12.527	-0.005	96	28885	0.3443	
80 Toluene	91	14.514	14.513	0.000	92	64514	0.3238	
86 Tetrachloroethene	129	15.633	15.632	0.000	86	1668	0.0208	
89 Ethylbenzene	91	16.762	16.767	-0.006	93	4452	0.0173	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.006	98	10104	0.0513	
94 o-Xylene	91	17.451	17.450	0.000	93	3897	0.0186	
S 129 Xylenes, Total	100				0		0.0700	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

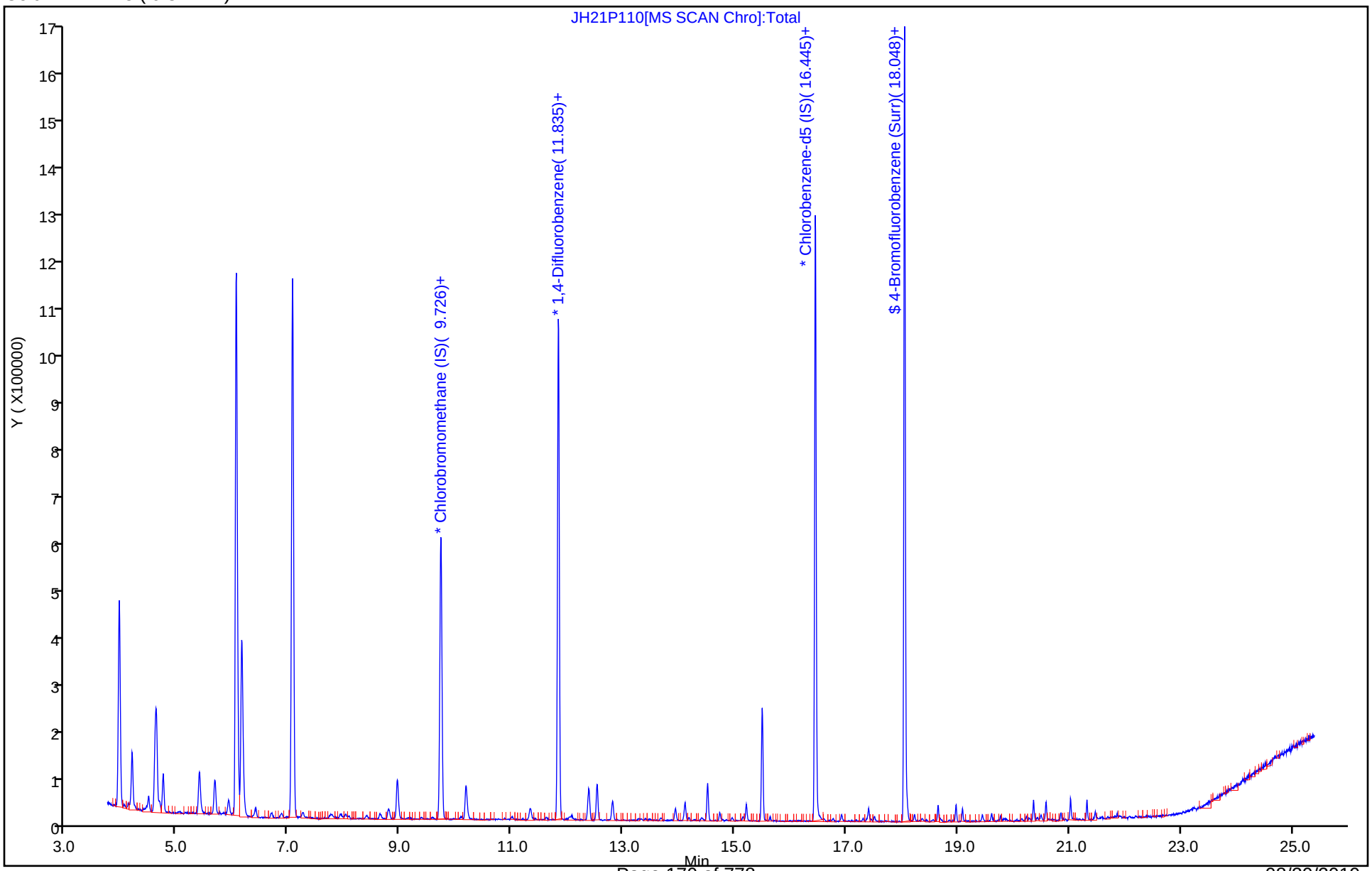
Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D

Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5	Worklist Smp#:	17
Client ID:	IA-093-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Lims ID:	140-16367-A-5				
Client ID:	IA-093-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 00:34:30	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-017				
Misc. Info.:	140-16367-a-5				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Aug-2019 09:37:40	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0326				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:30:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.76	93.97

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D

Injection Date: 22-Aug-2019 00:34:30 Instrument ID: MJ

Lims ID: 140-16367-A-5 Lab Sample ID: 140-16367-5

Client ID: IA-093-A-27

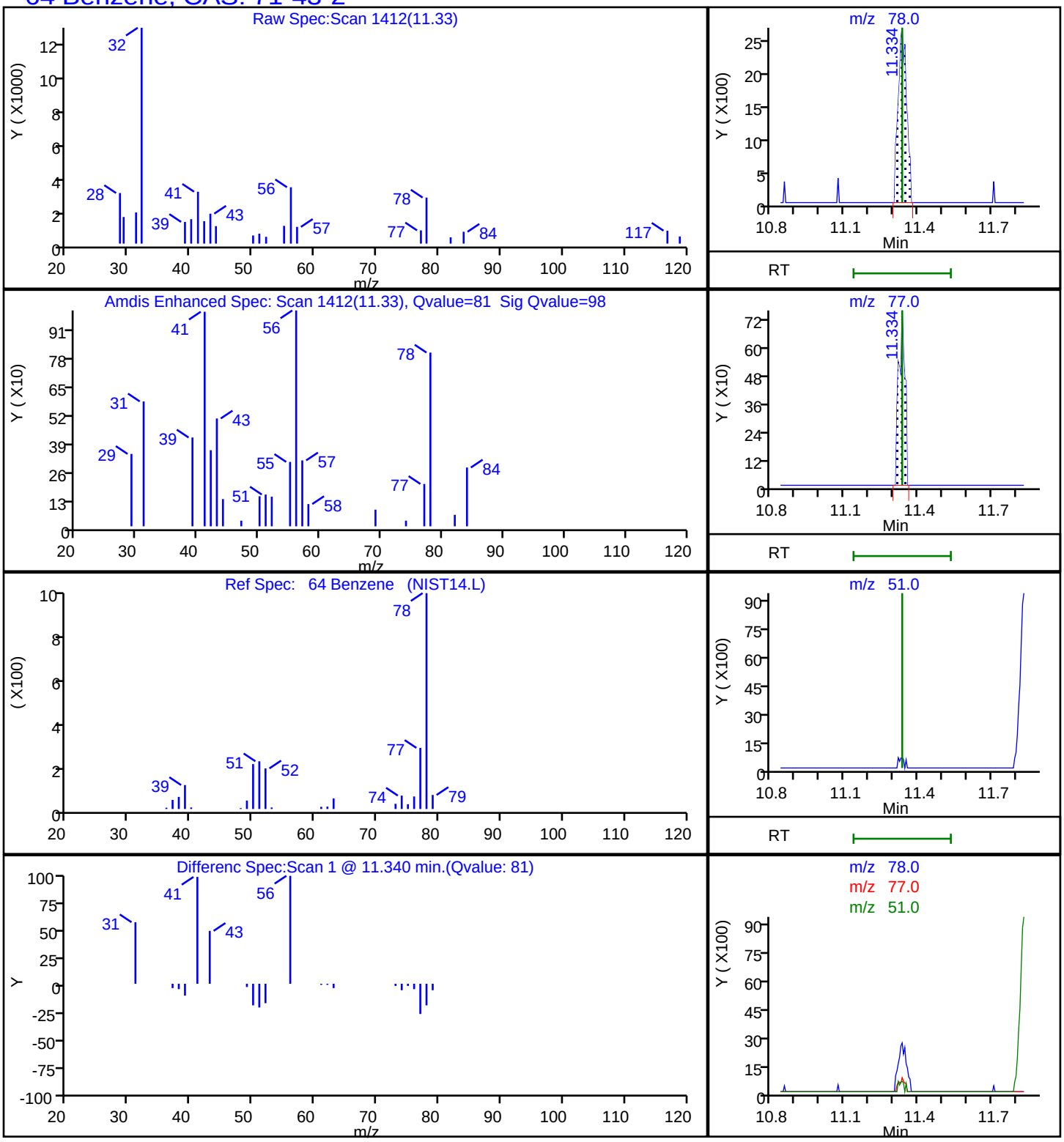
Operator ID: 007126 ALS Bottle#: 10 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

64 Benzene, CAS: 71-43-2

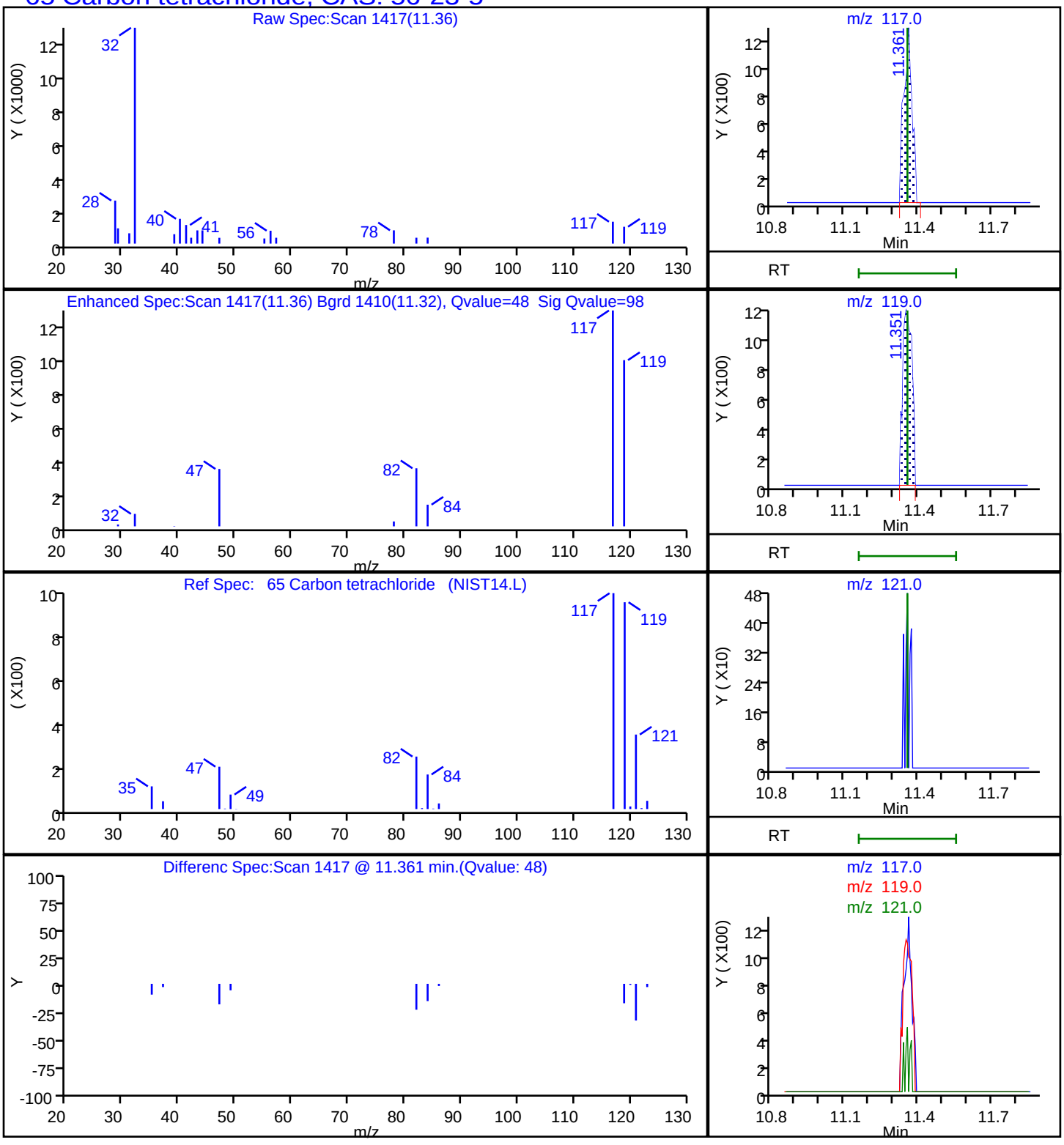


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5

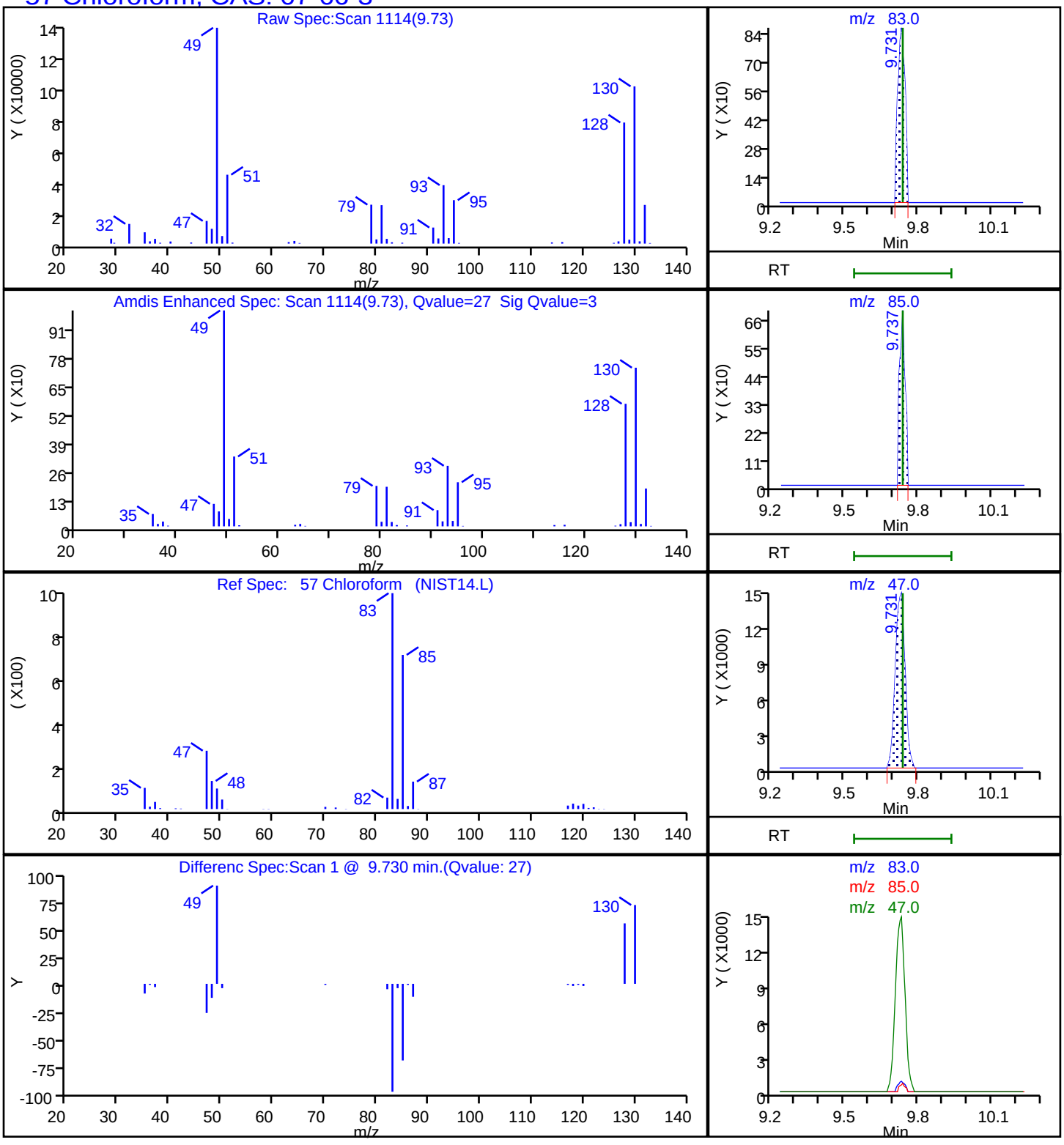


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D

Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5
Client ID:	IA-093-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

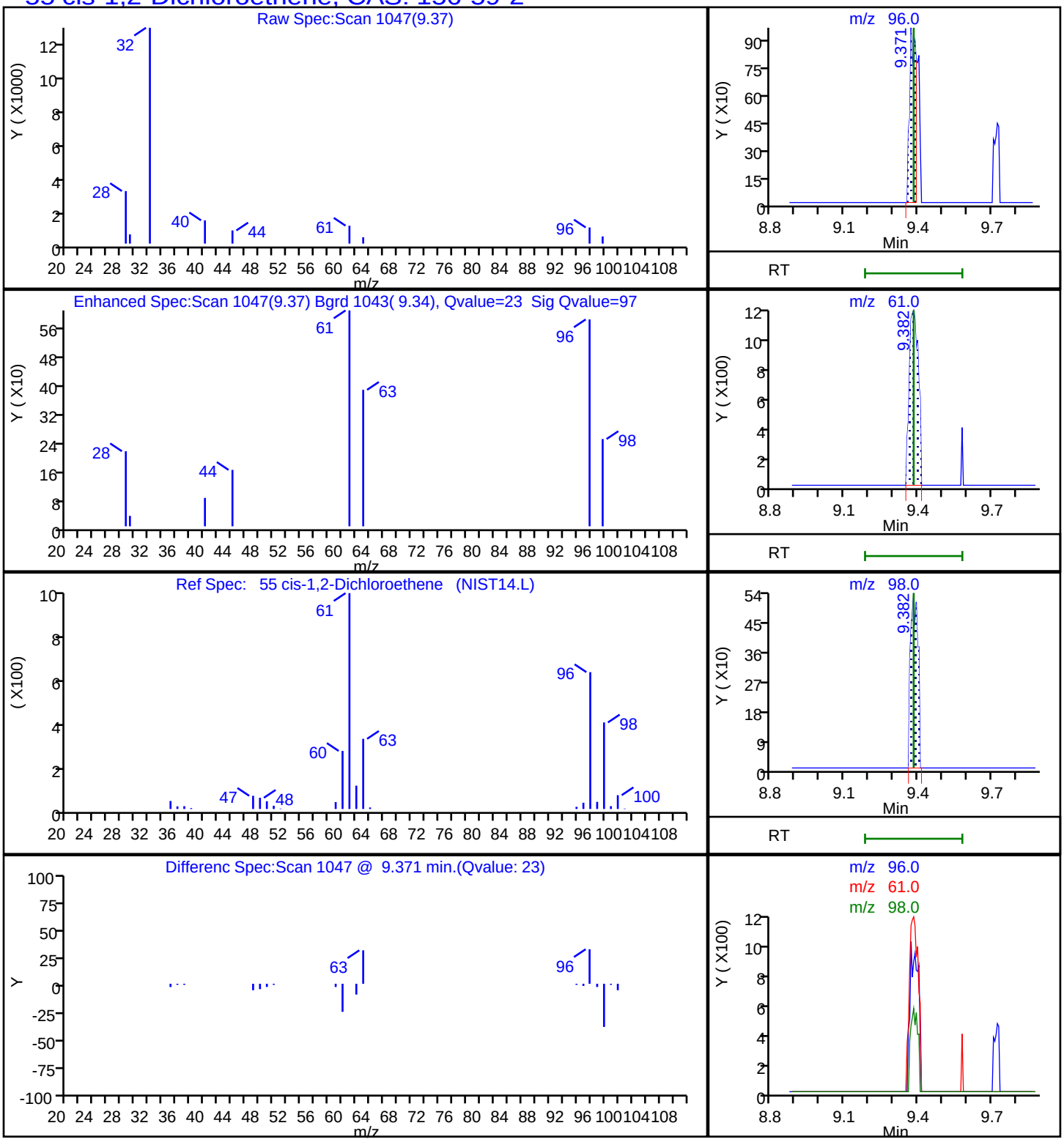
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2

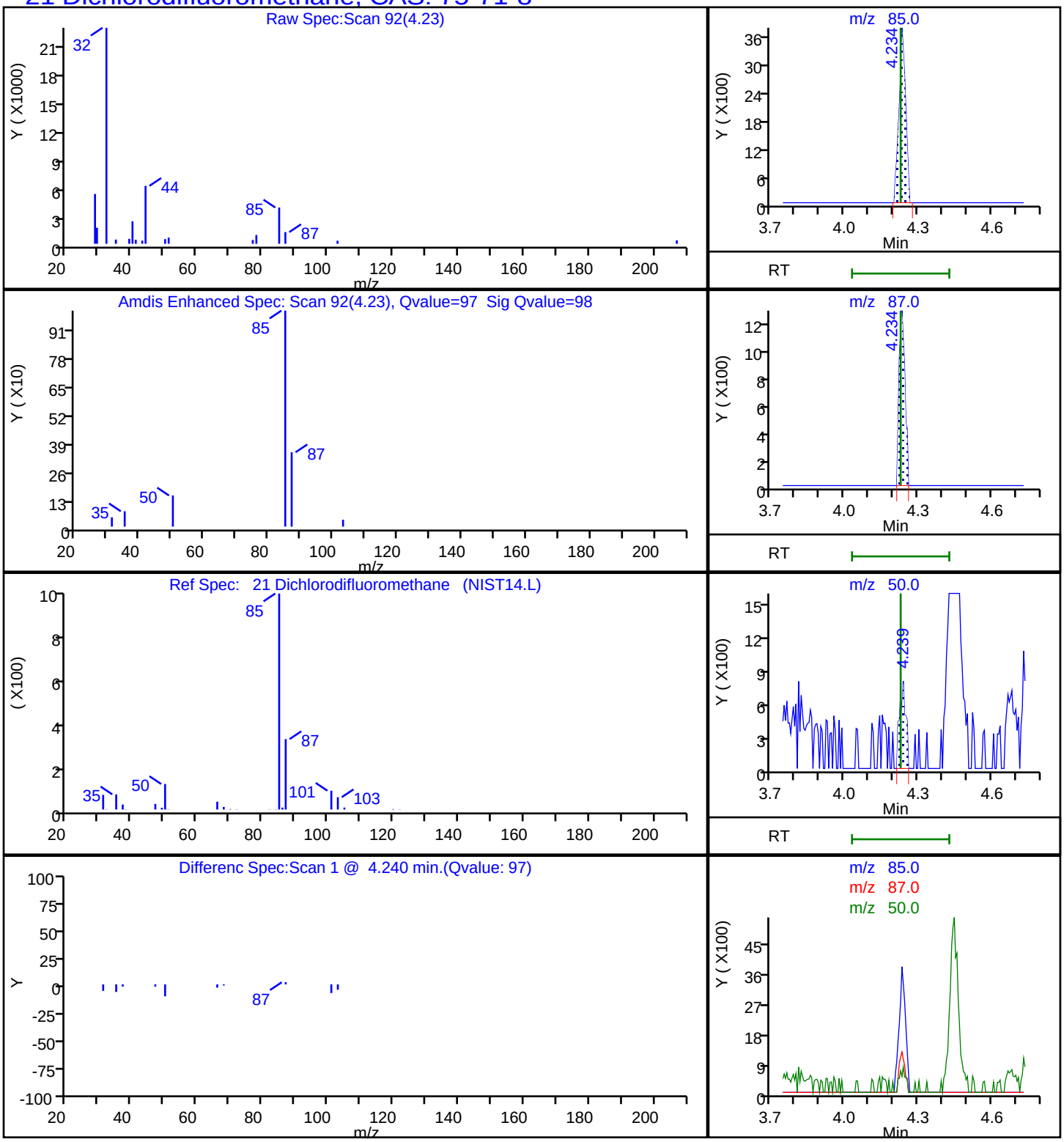


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

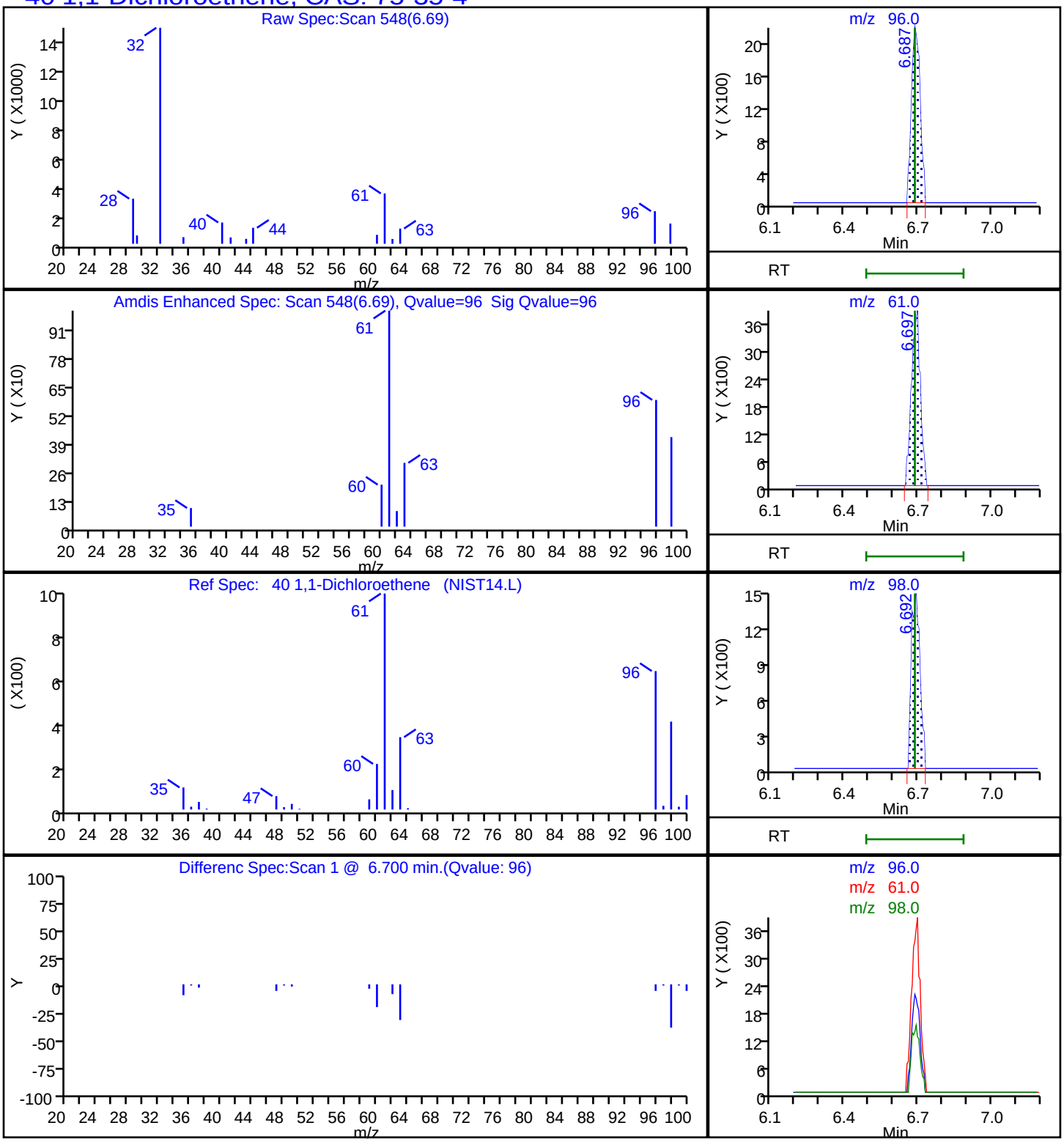
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D		
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5
Client ID:	IA-093-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

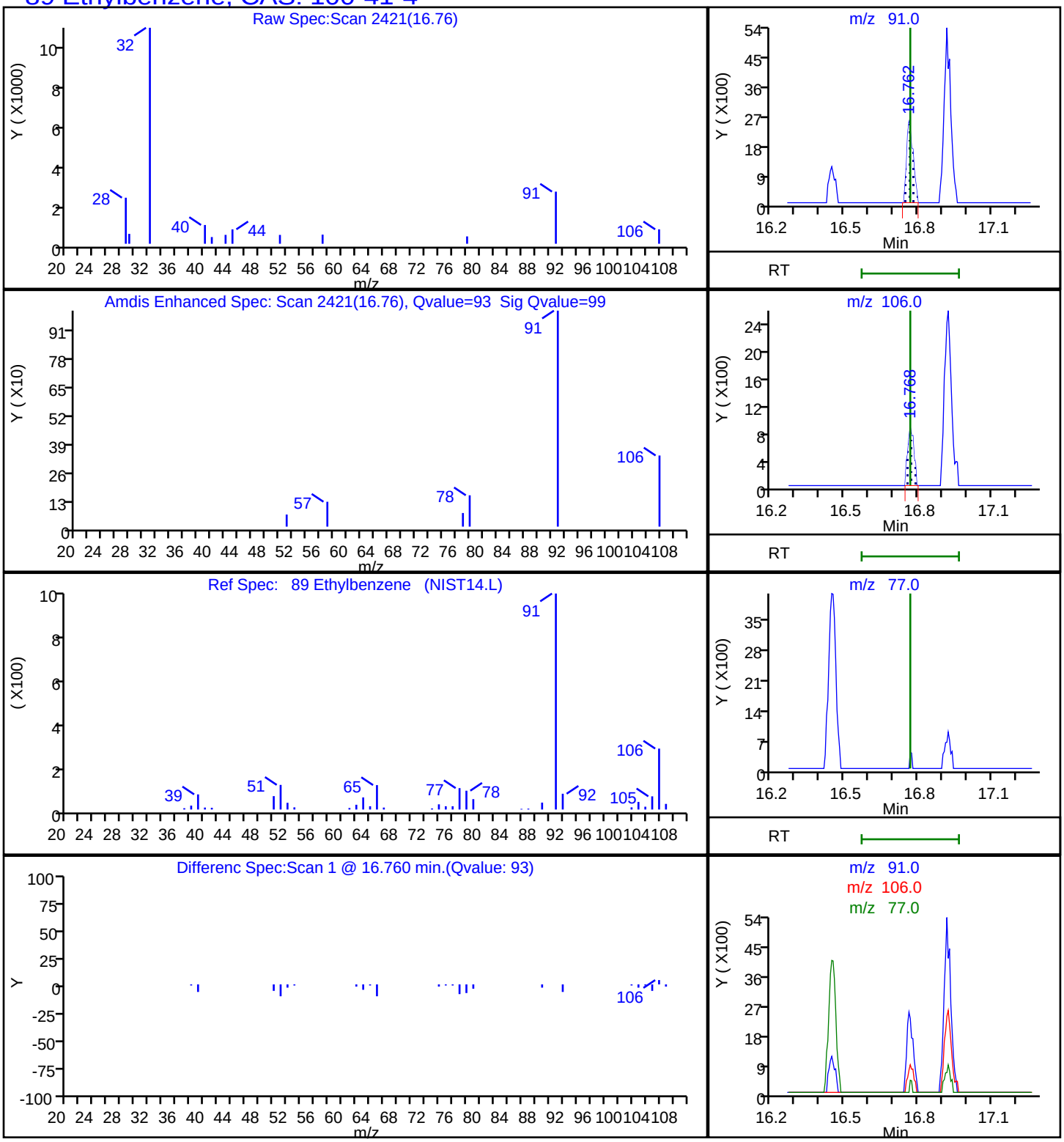


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D		
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5
Client ID:	IA-093-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

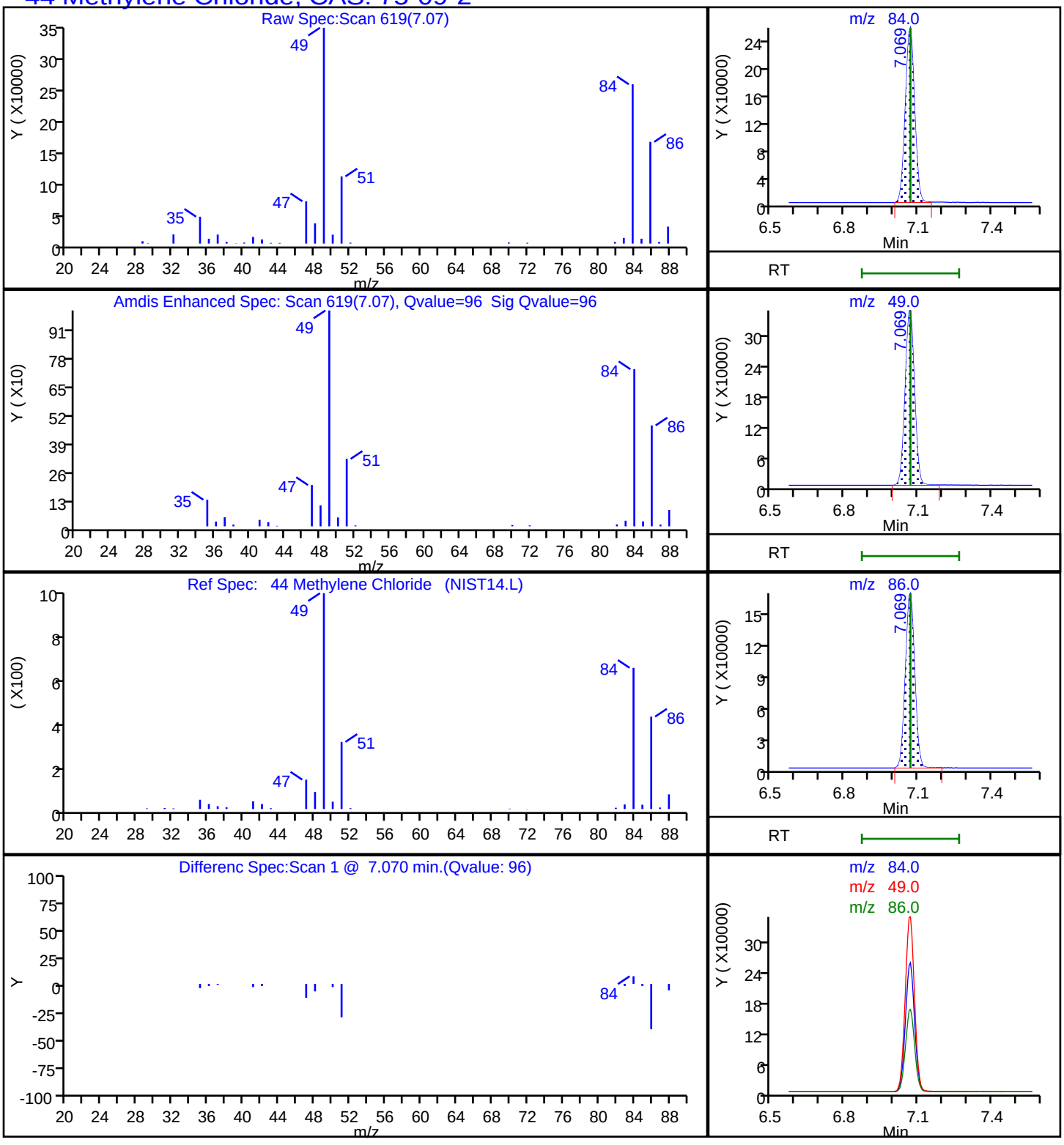


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D		
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5
Client ID:	IA-093-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

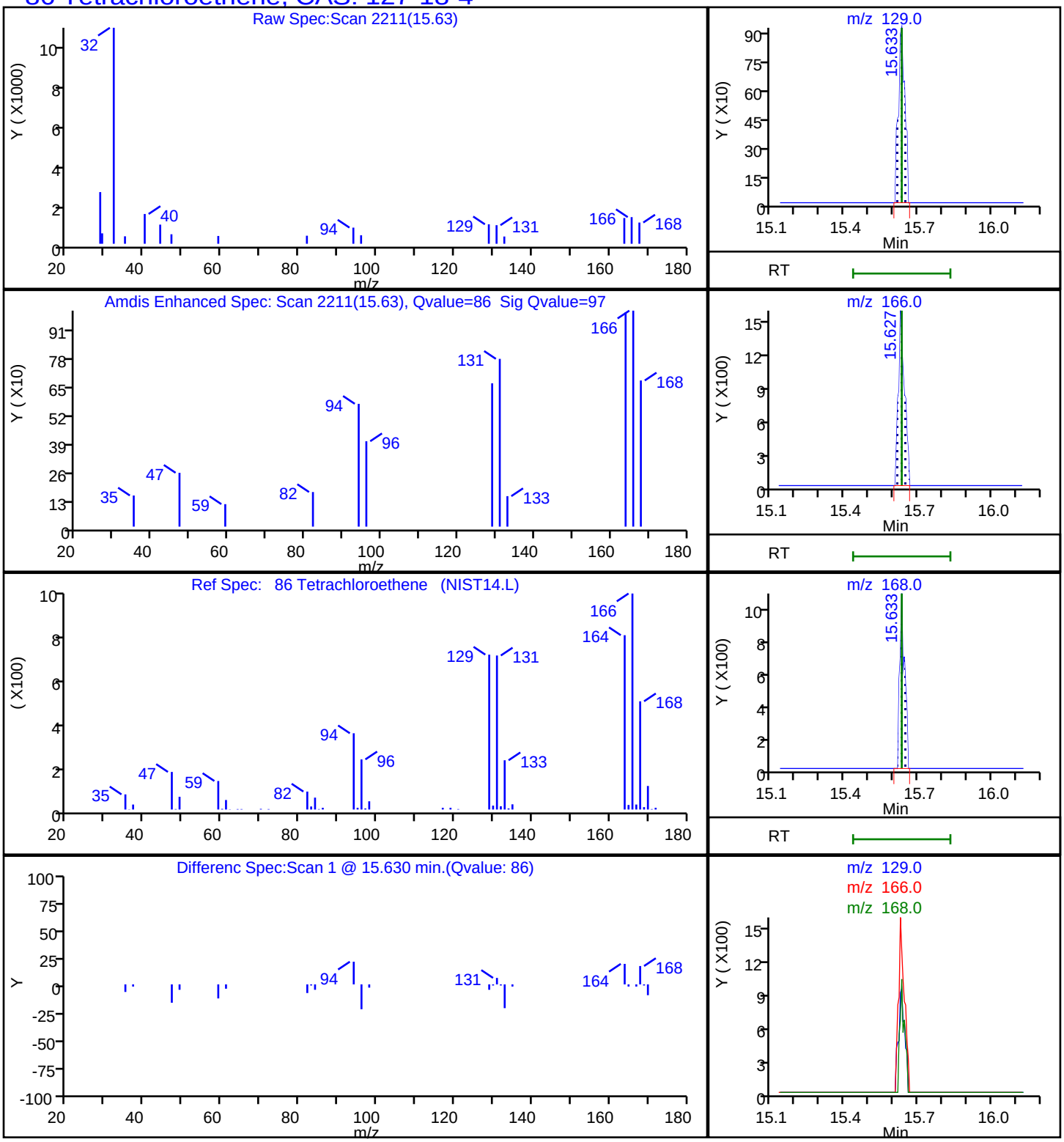
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

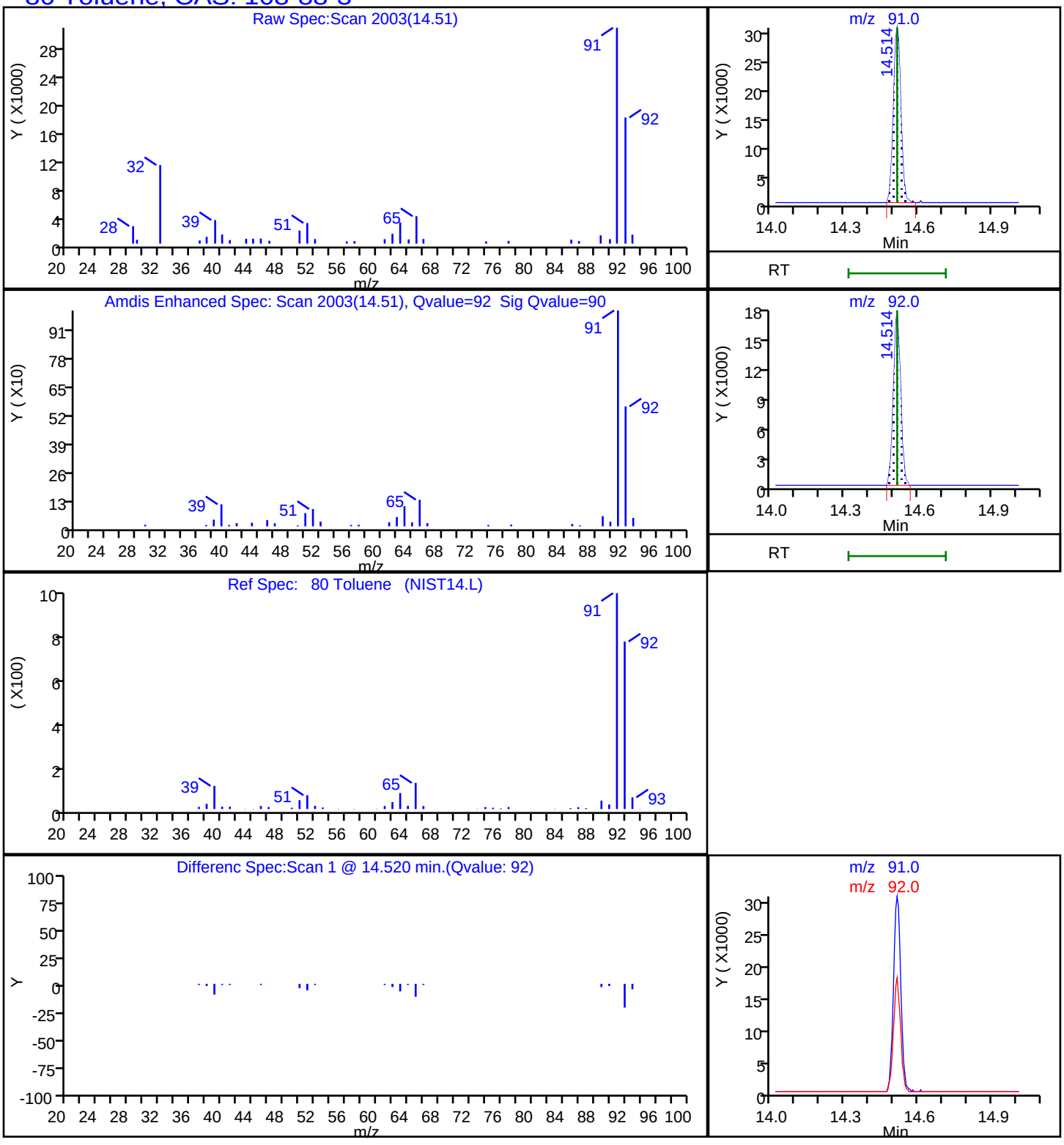
86 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

80 Toluene, CAS: 108-88-3

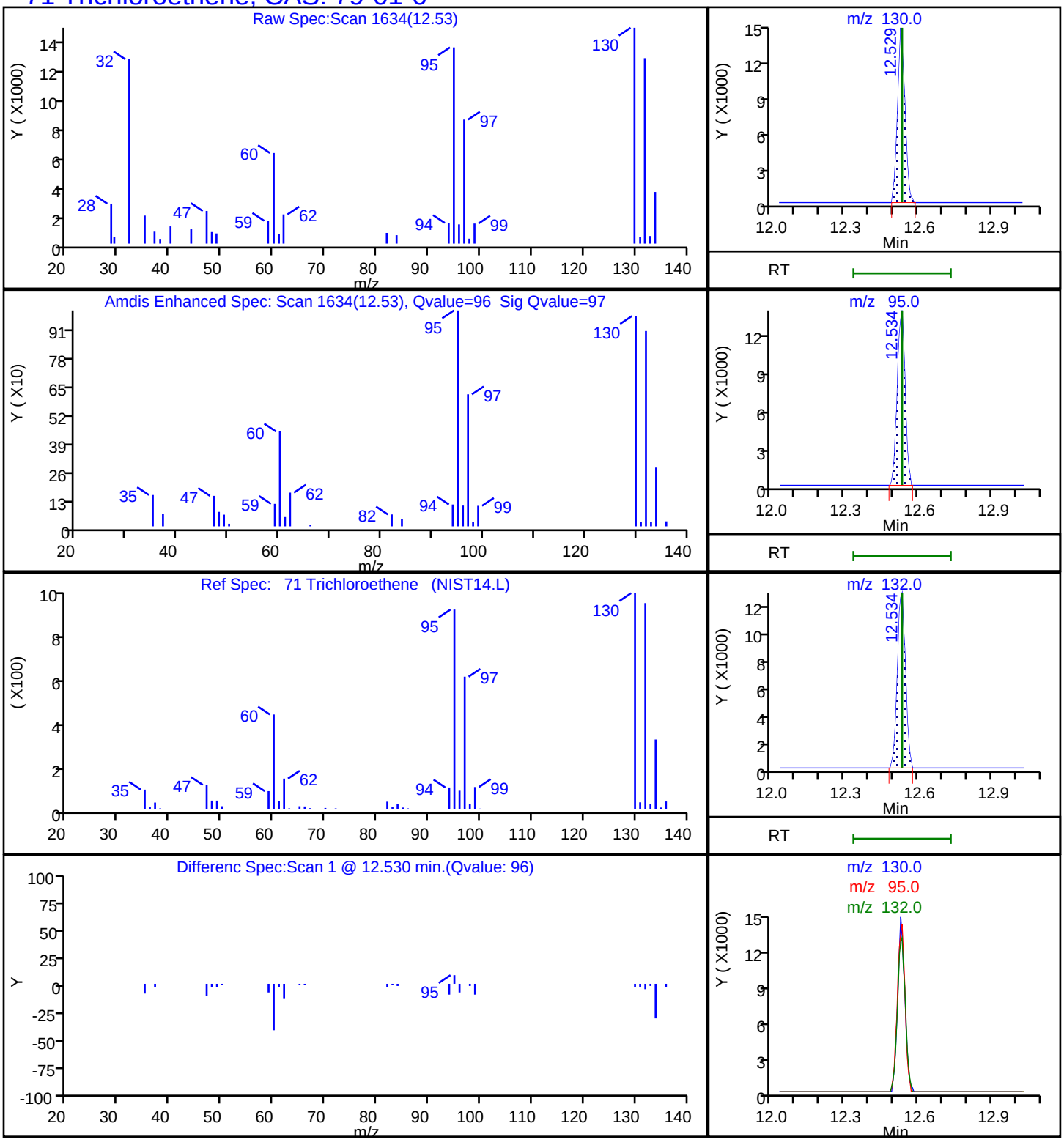


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D		
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5
Client ID:	IA-093-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

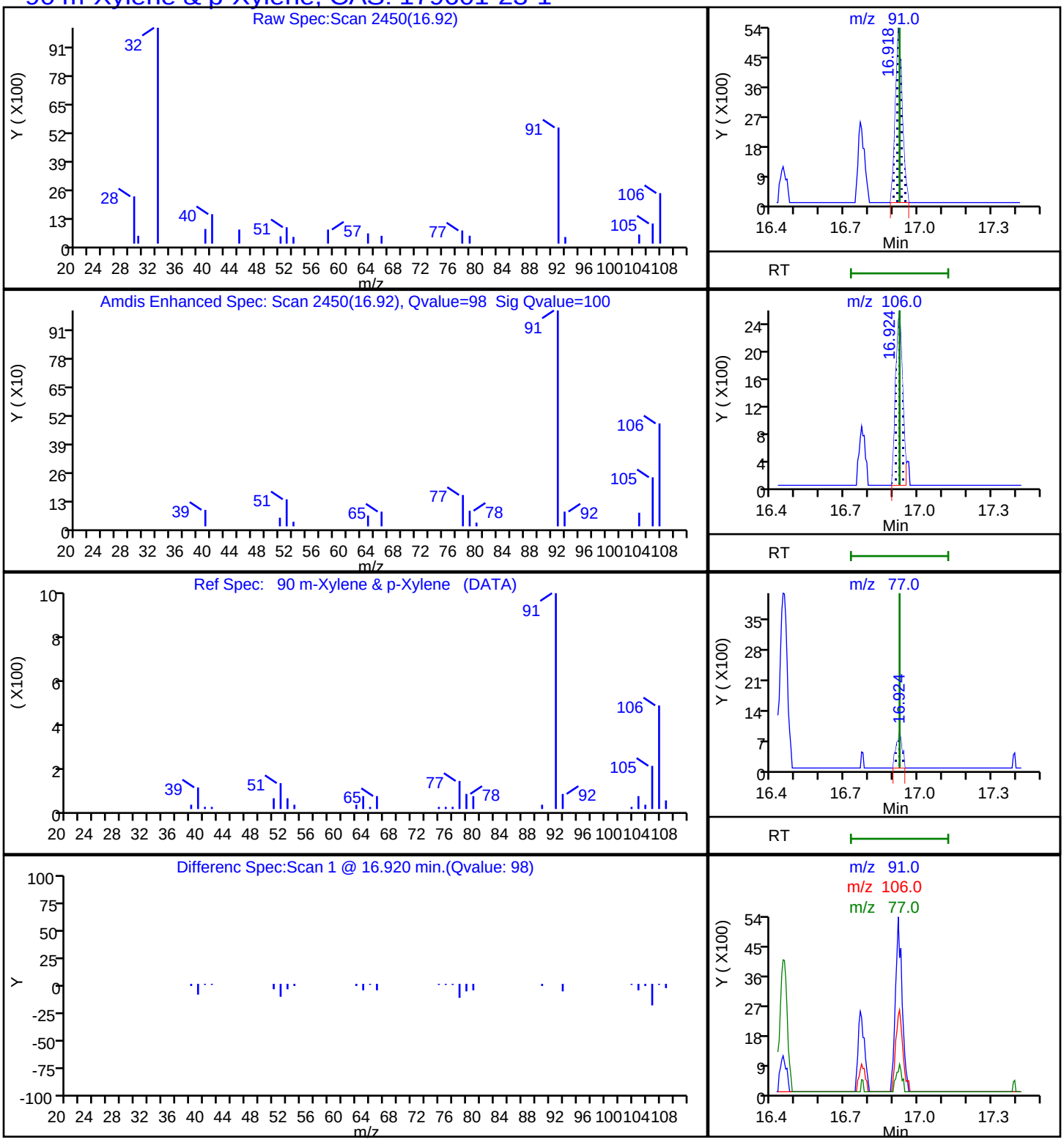


Report Date: 23-Aug-2019 09:38:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

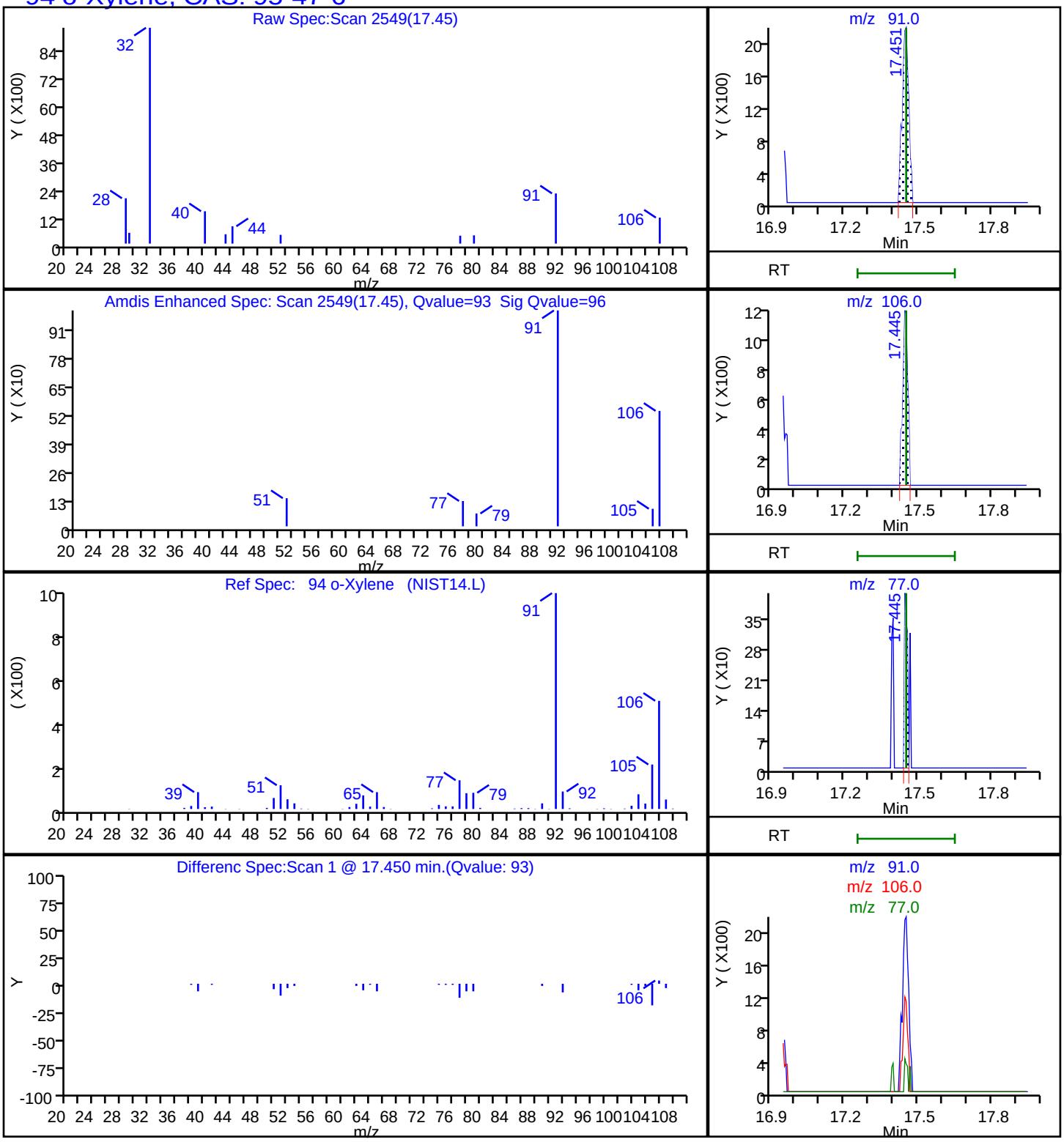
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



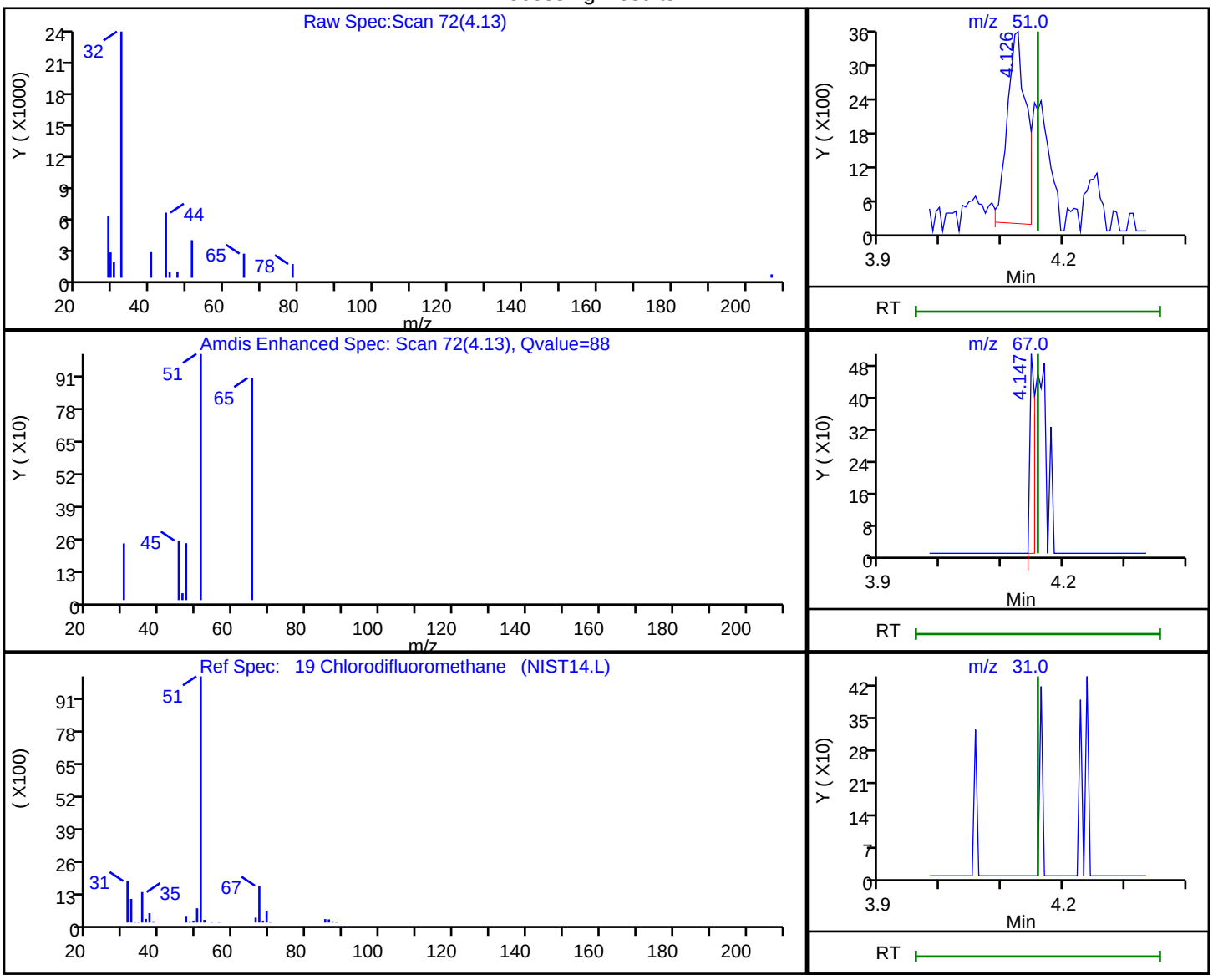
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D				
Injection Date:	22-Aug-2019 00:34:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-5	Lab Sample ID:	140-16367-5		
Client ID:	IA-093-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.13	51.00	7304	0.125267
4.15	67.00	290	
4.16	31.00	0	

Reviewer: tajh, 23-Aug-2019 09:37:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.48		0.40	0.11
67-66-3	Chloroform	119.38	0.054	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.85		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	40		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.11	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	3.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.8	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	150		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.56	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D
Lims ID: 140-16367-A-6
Client ID: IA-081-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 17:49:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-010
Misc. Info.: 140-16367-a-6
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:20:34 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:21:34

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	83	634236	4.00	
*	2 1,4-Difluorobenzene	114	11.308	11.308	0.000	94	3176329	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.988	0.001	88	2958095	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	92	2058115	4.00	
	6 Chlorodifluoromethane	51	3.823	3.823	0.000	94	30991	0.0962	
	8 Dichlorodifluoromethane	85	3.893	3.890	0.005	99	61860	0.0988	
	31 Methylene Chloride	84	6.547	6.536	0.010	90	69043	0.3928	
	44 Chloroform	83	9.156	9.151	0.005	32	4635	0.0108	
	50 Benzene	78	10.785	10.779	0.006	91	13149	0.0277	
	52 Carbon tetrachloride	117	10.806	10.801	0.005	49	6129	0.0127	
	67 Toluene	91	14.037	14.036	0.000	94	4647094	7.99	
	78 Ethylbenzene	91	16.312	16.317	-0.005	98	130353	0.1692	
	79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	336736	0.5586	
	83 o-Xylene	91	16.997	16.997	0.000	98	89799	0.1375	
	95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	96	17663	0.0227	
S	124 Xylenes, Total	100				0		0.6961	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

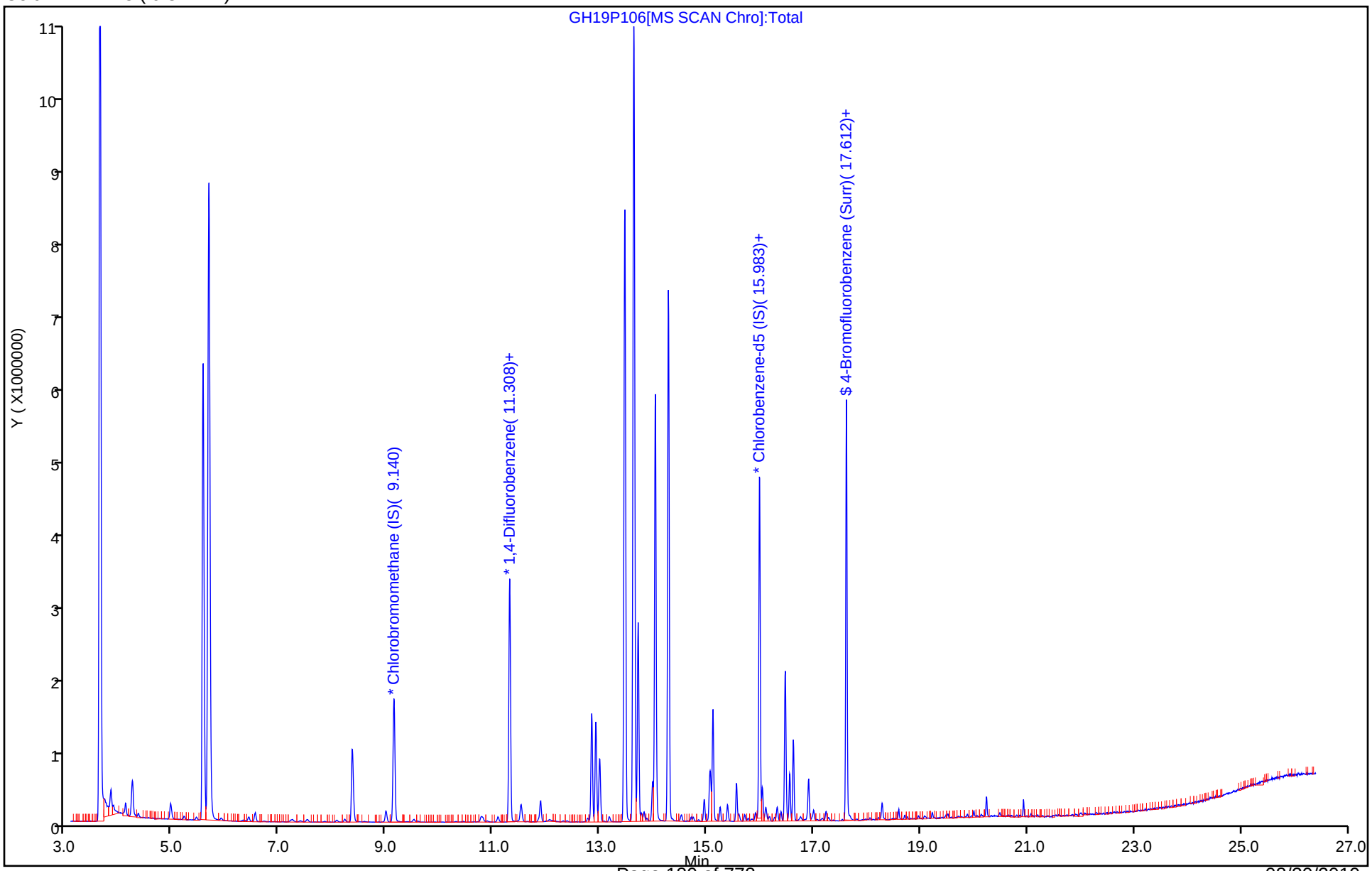
Report Date: 20-Aug-2019 10:21:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D

Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6	Worklist Smp#:	10
Client ID:	IA-081-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D				
Lims ID:	140-16367-A-6				
Client ID:	IA-081-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 17:49:30	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-010				
Misc. Info.:	140-16367-a-6				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:20:34	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:21:34		

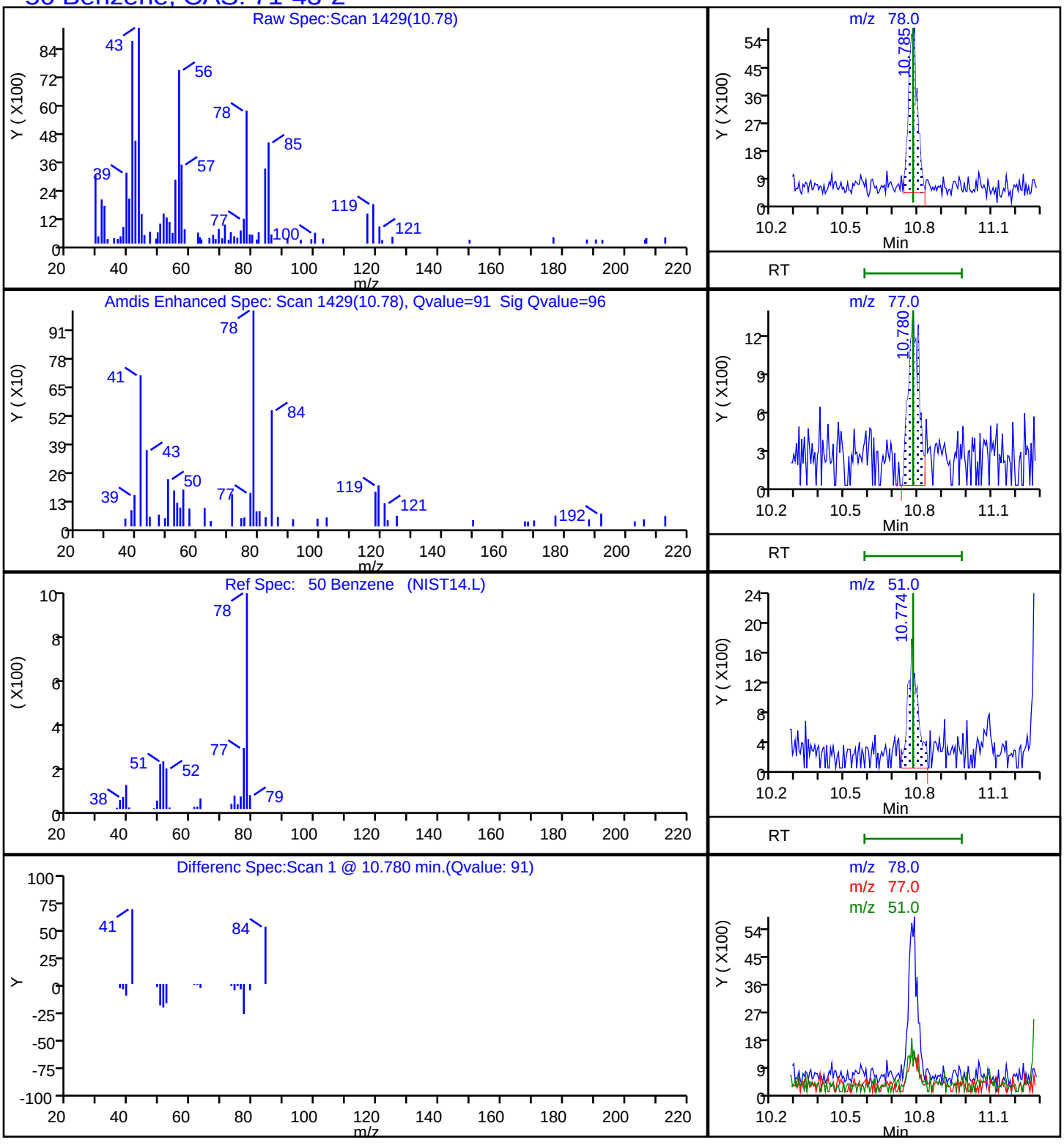
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.00	100.12

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D

Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

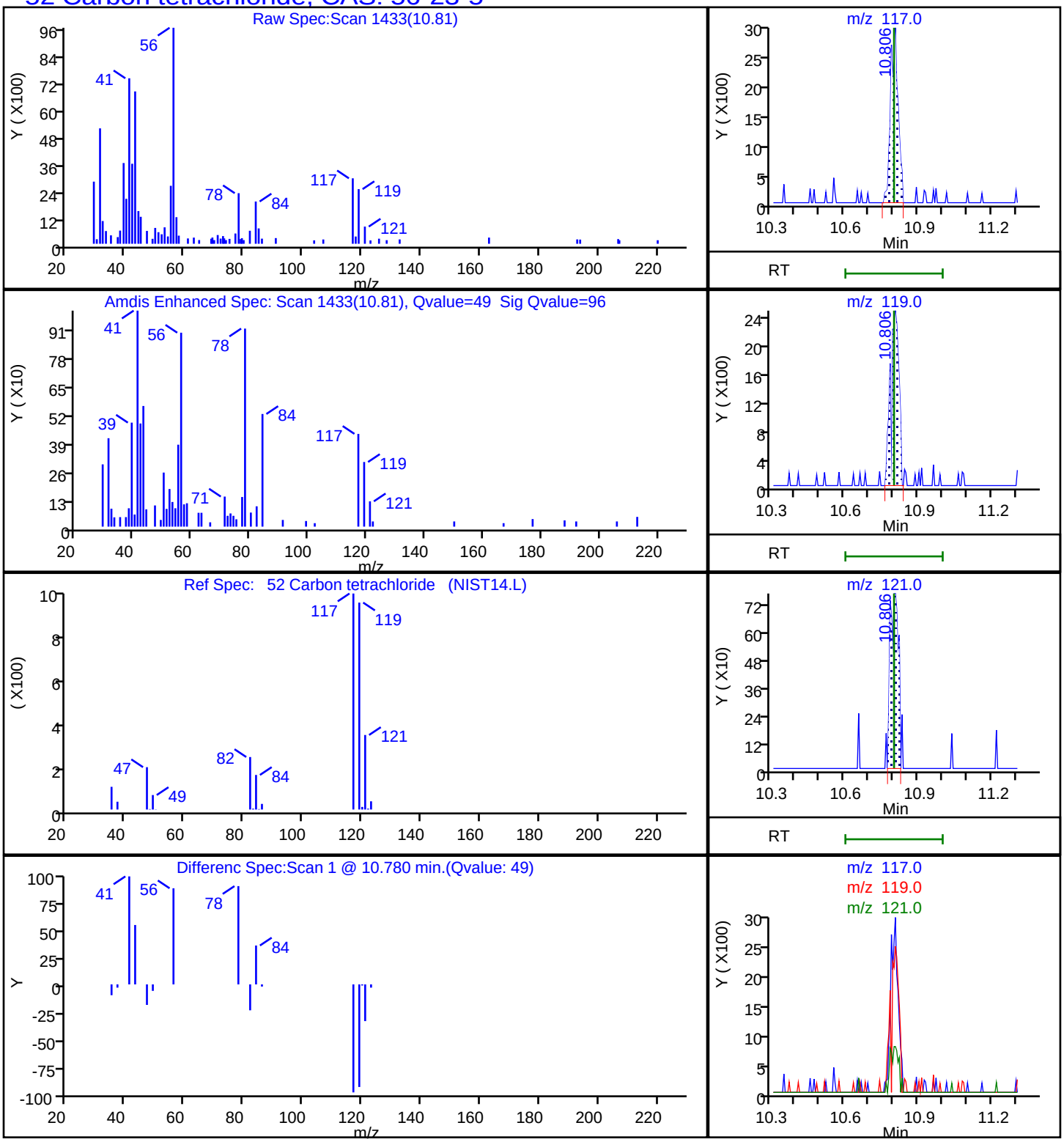


Report Date: 20-Aug-2019 10:21:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

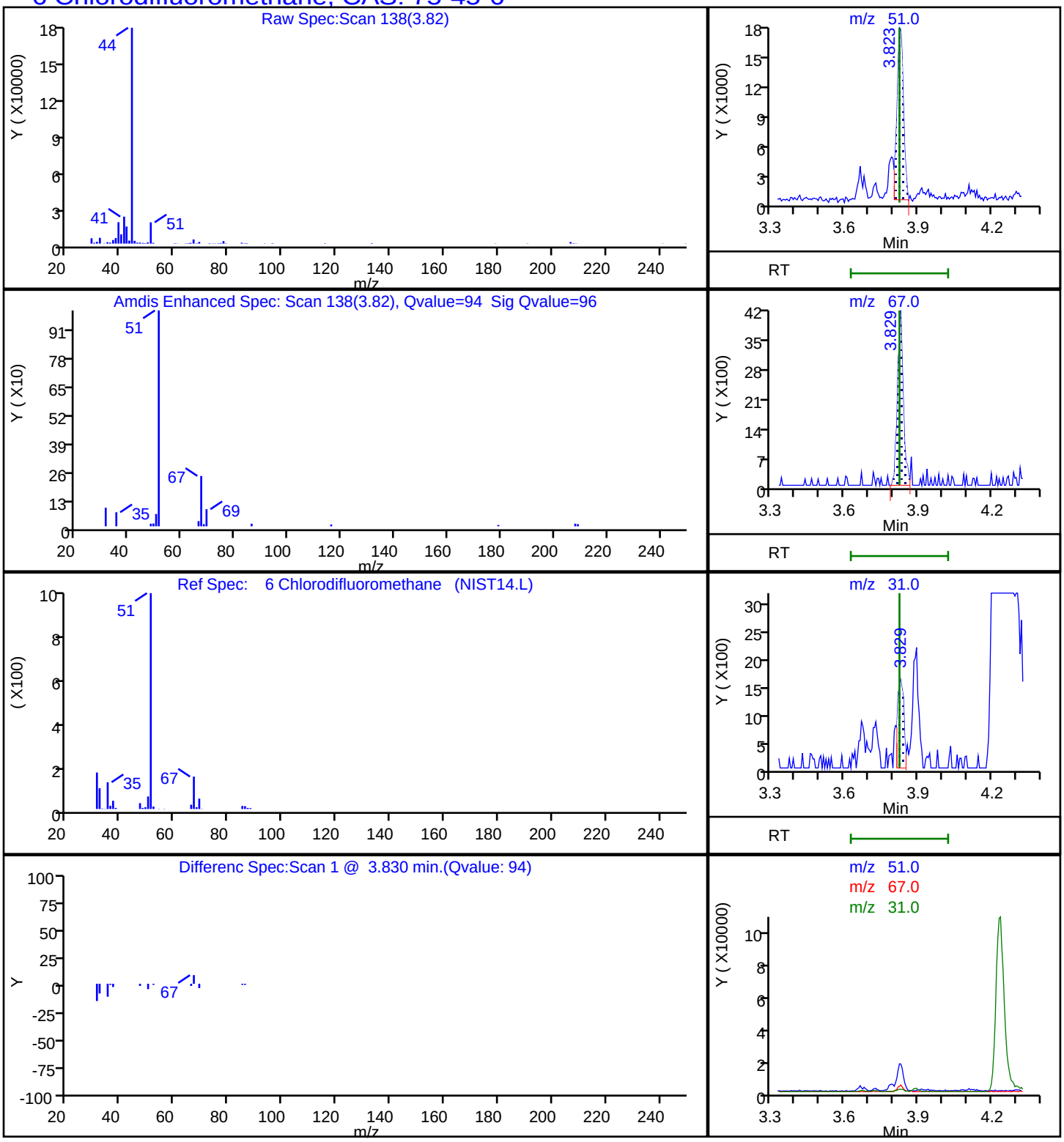
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

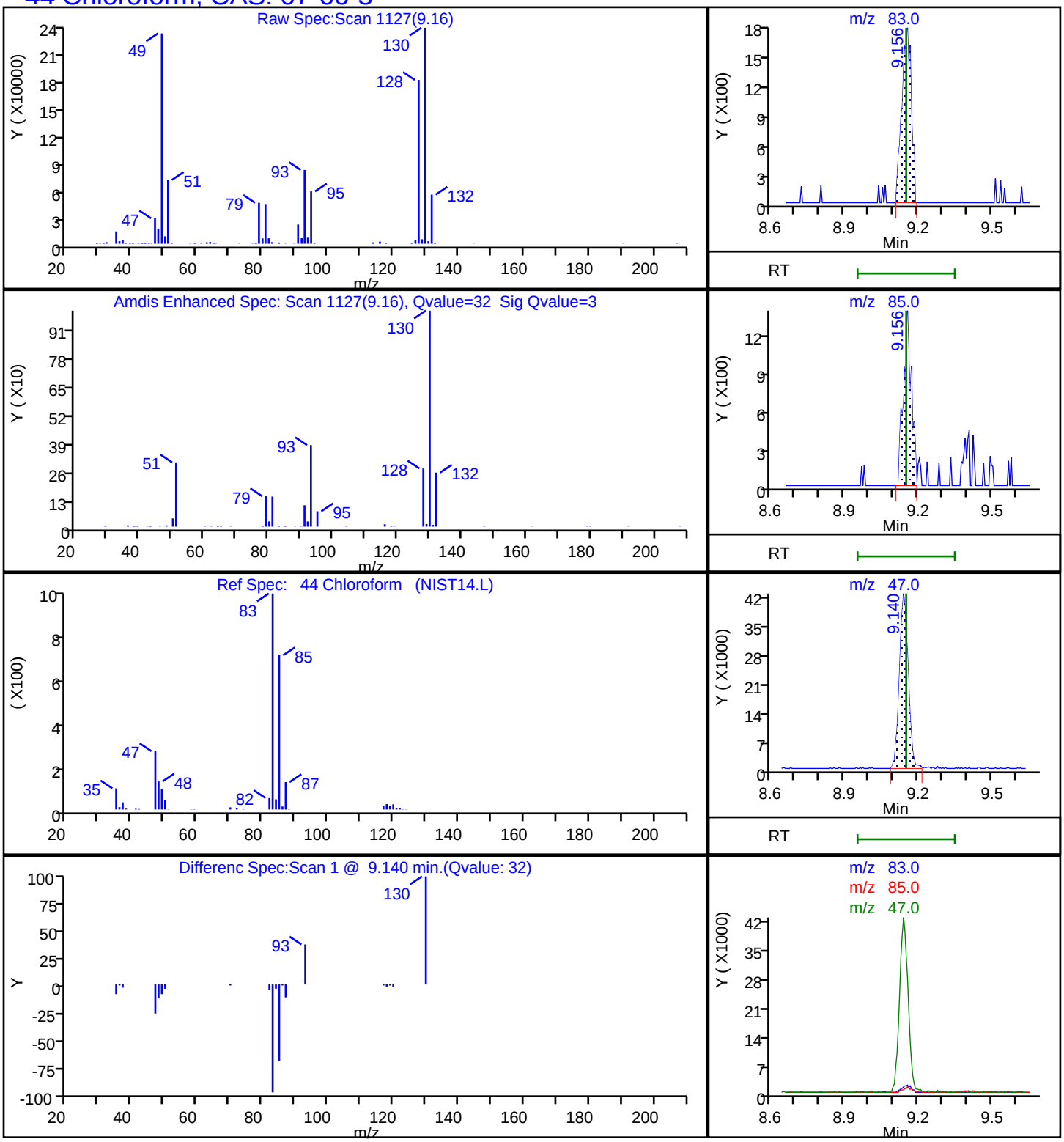
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

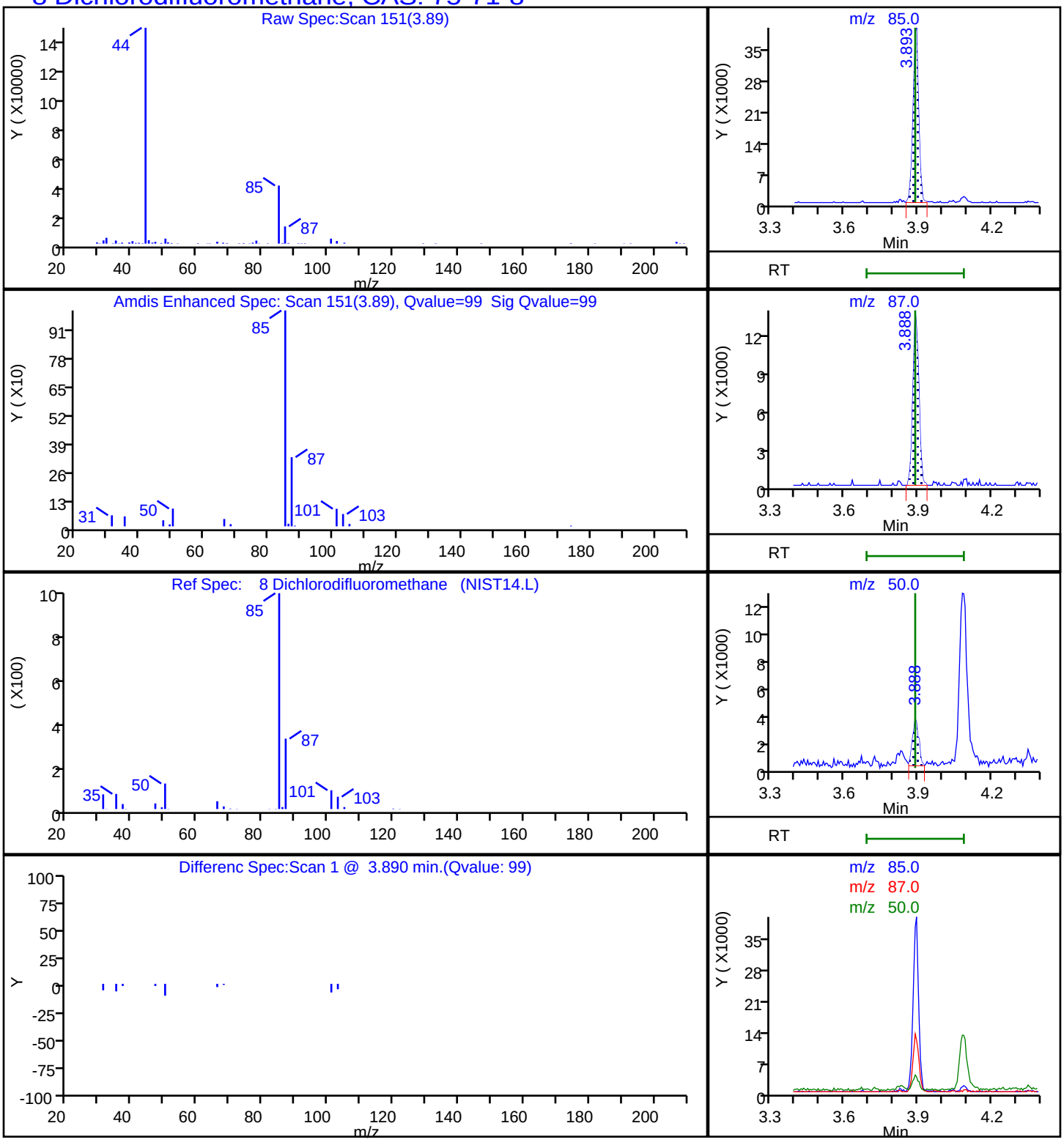
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



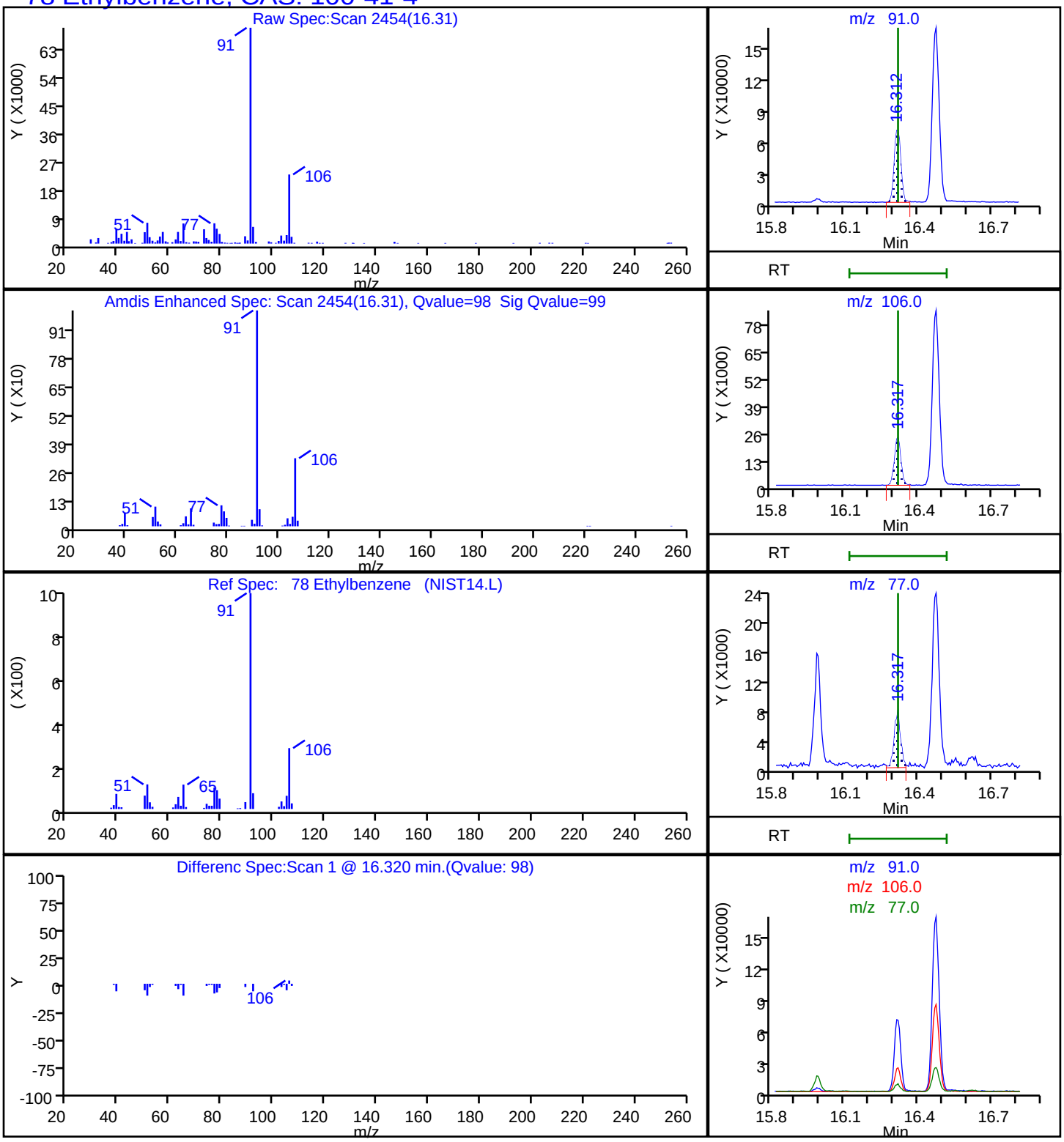
Report Date: 20-Aug-2019 10:21:35 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D

Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG		
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6		
Client ID:	IA-081-A-27				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

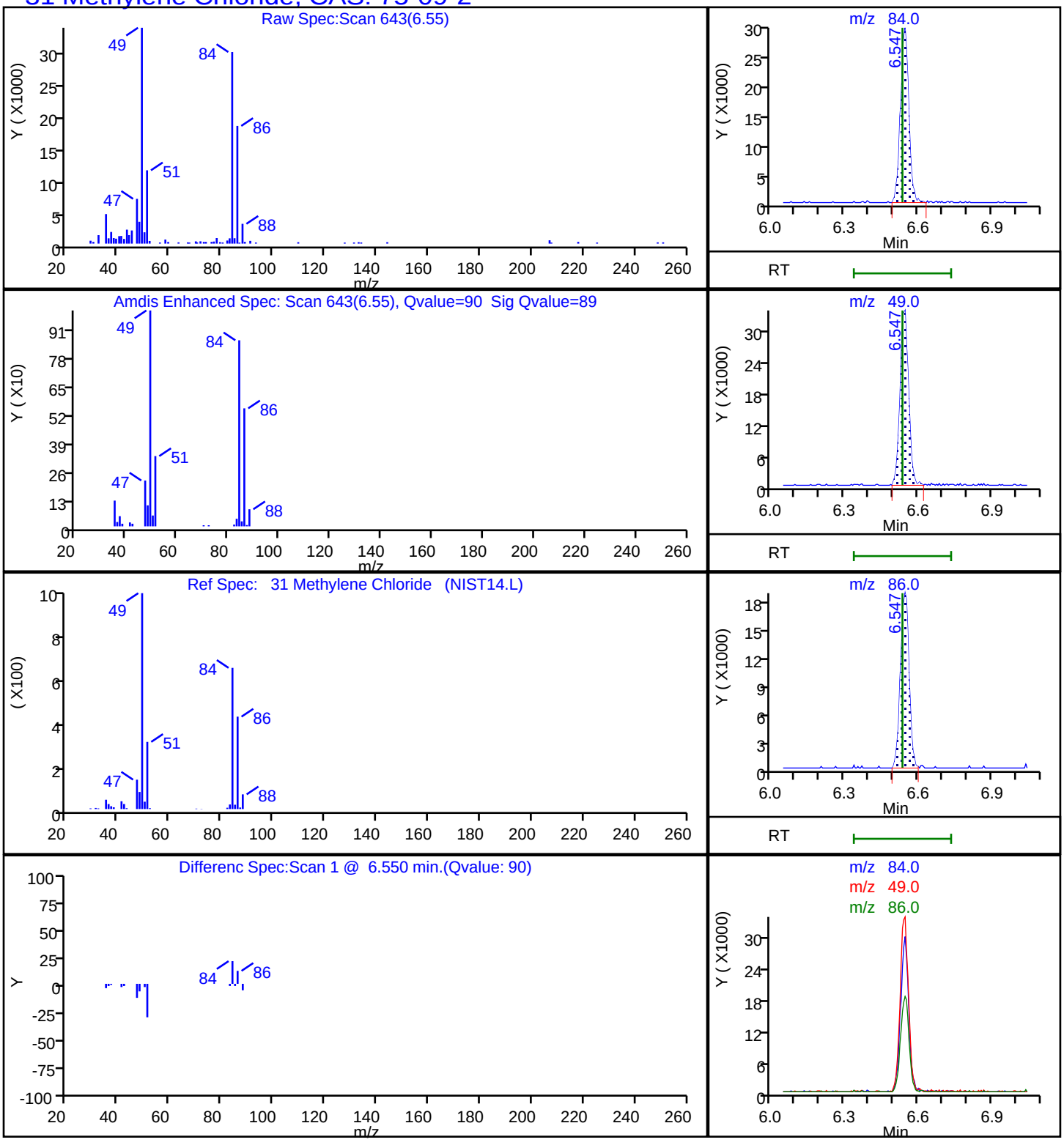
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

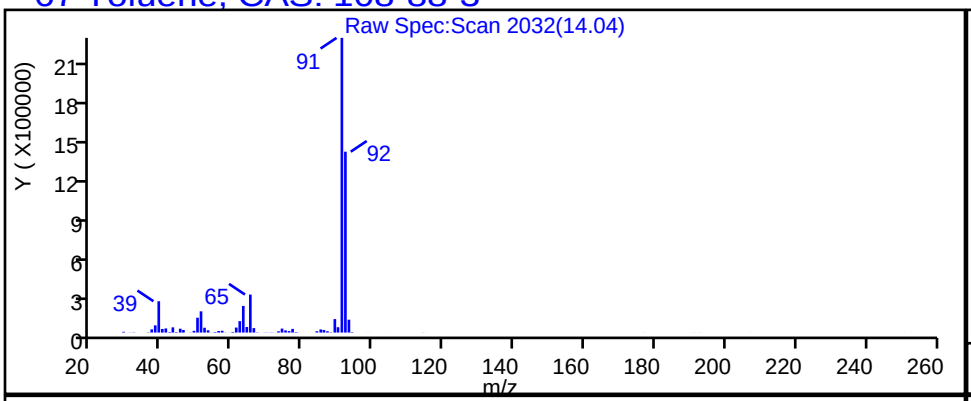
31 Methylene Chloride, CAS: 75-09-2

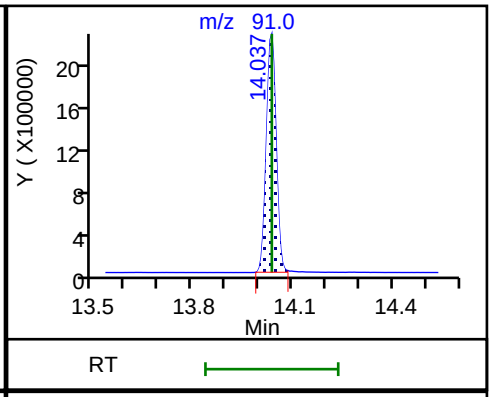


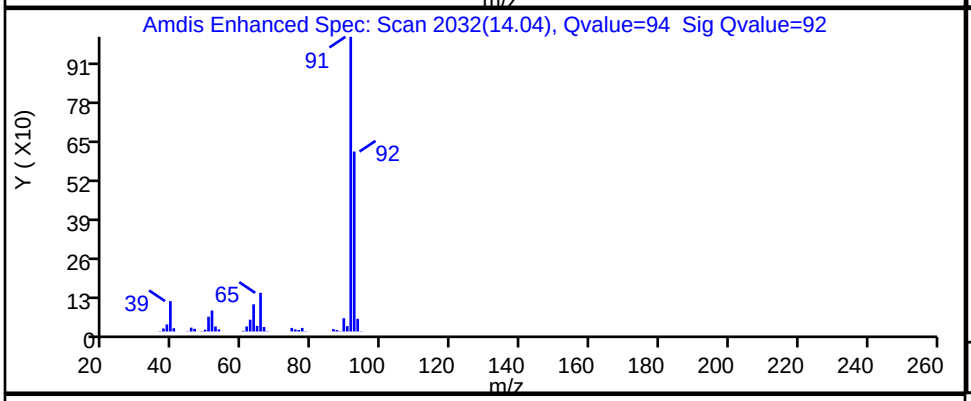
Eurofins TestAmerica, Knoxville

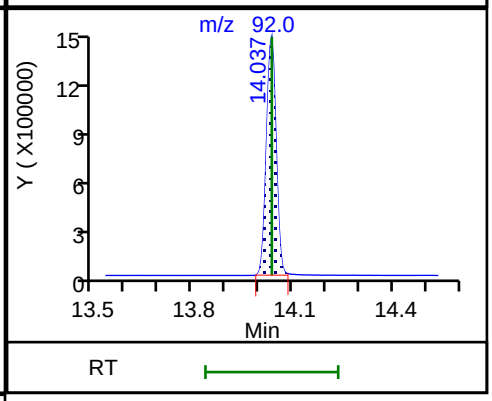
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

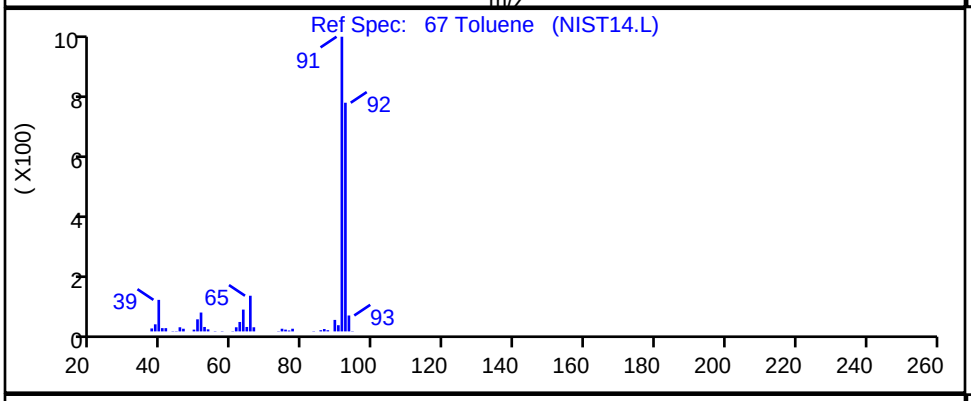
67 Toluene, CAS: 108-88-3

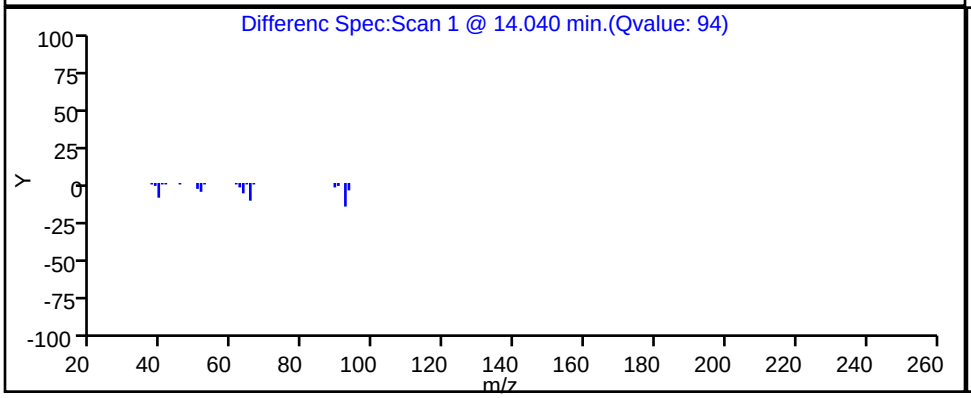


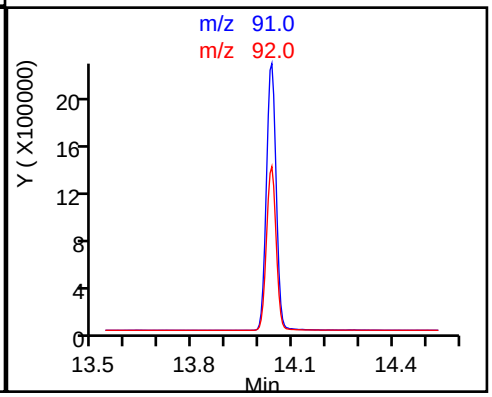








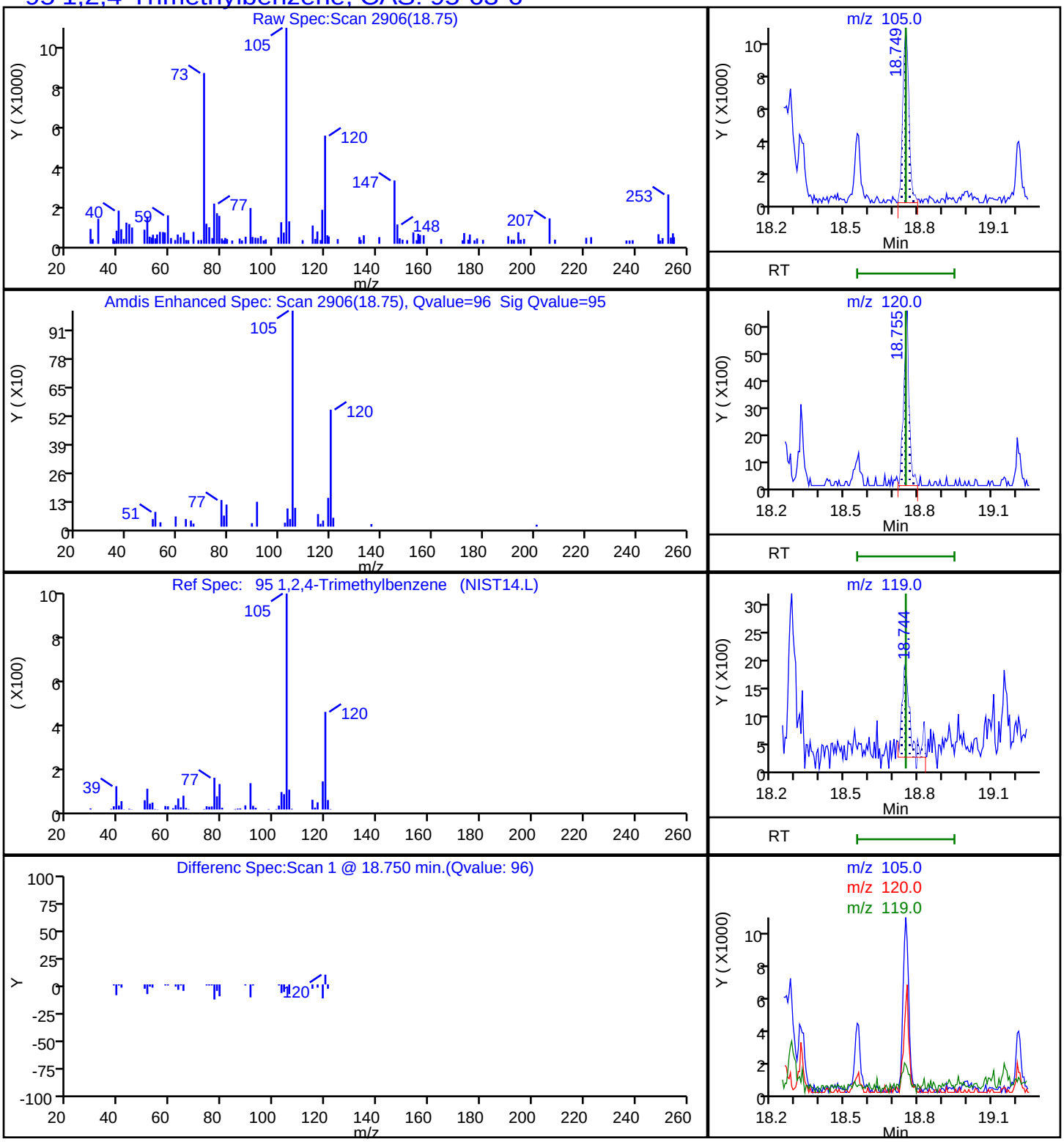




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

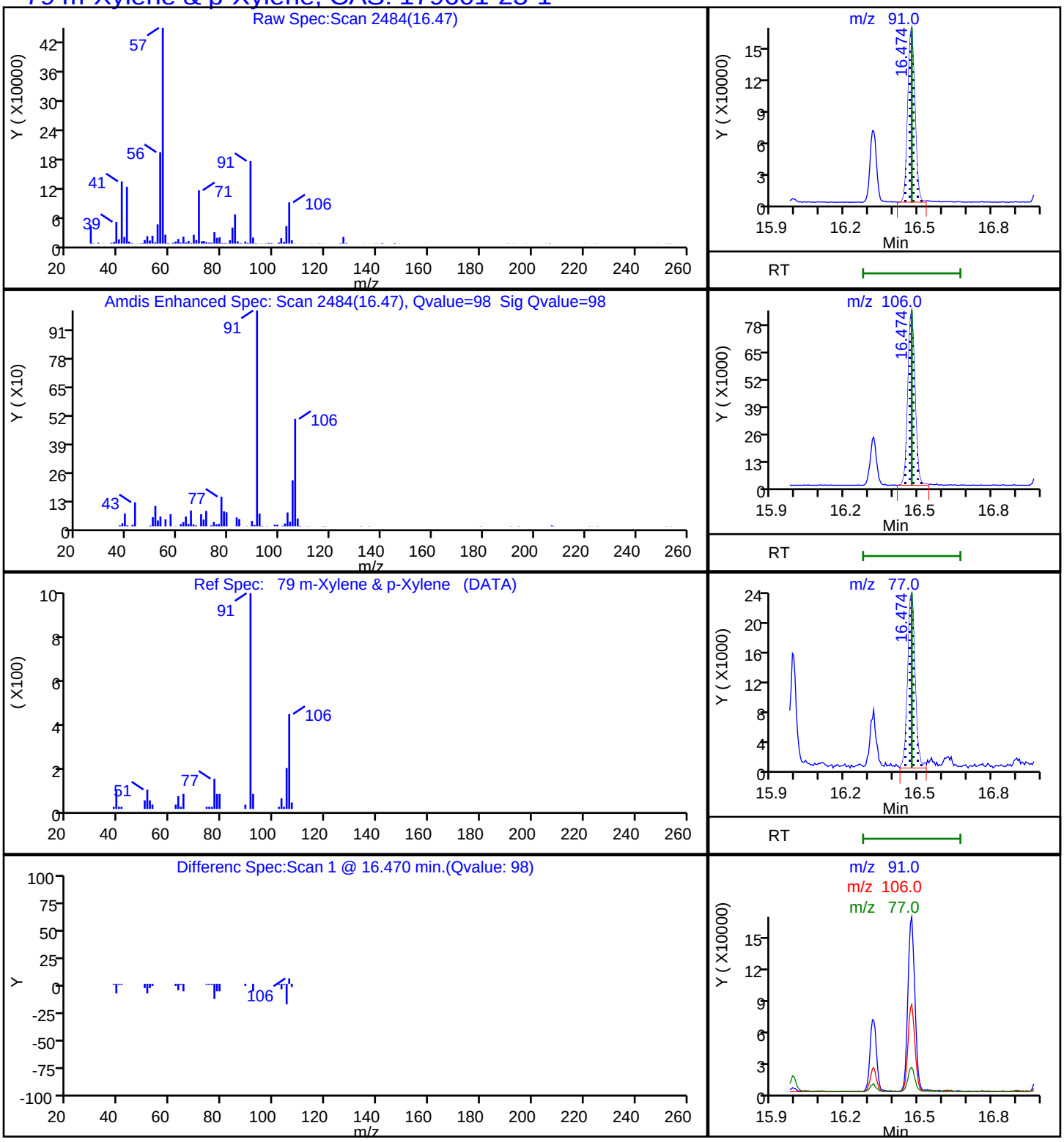
95 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D		
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



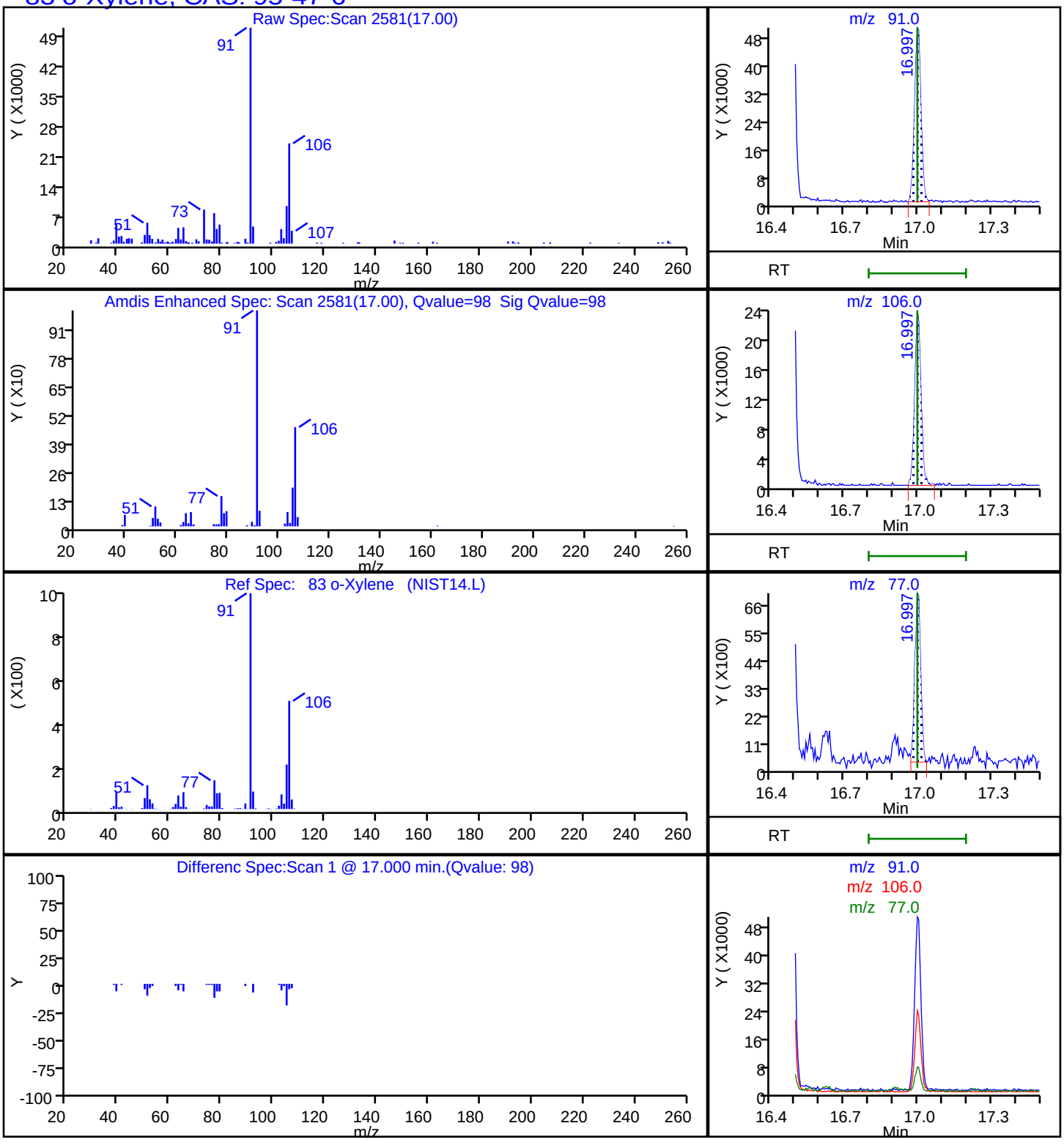
Report Date: 20-Aug-2019 10:21:35 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D

Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6
Client ID:	IA-081-A-27		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



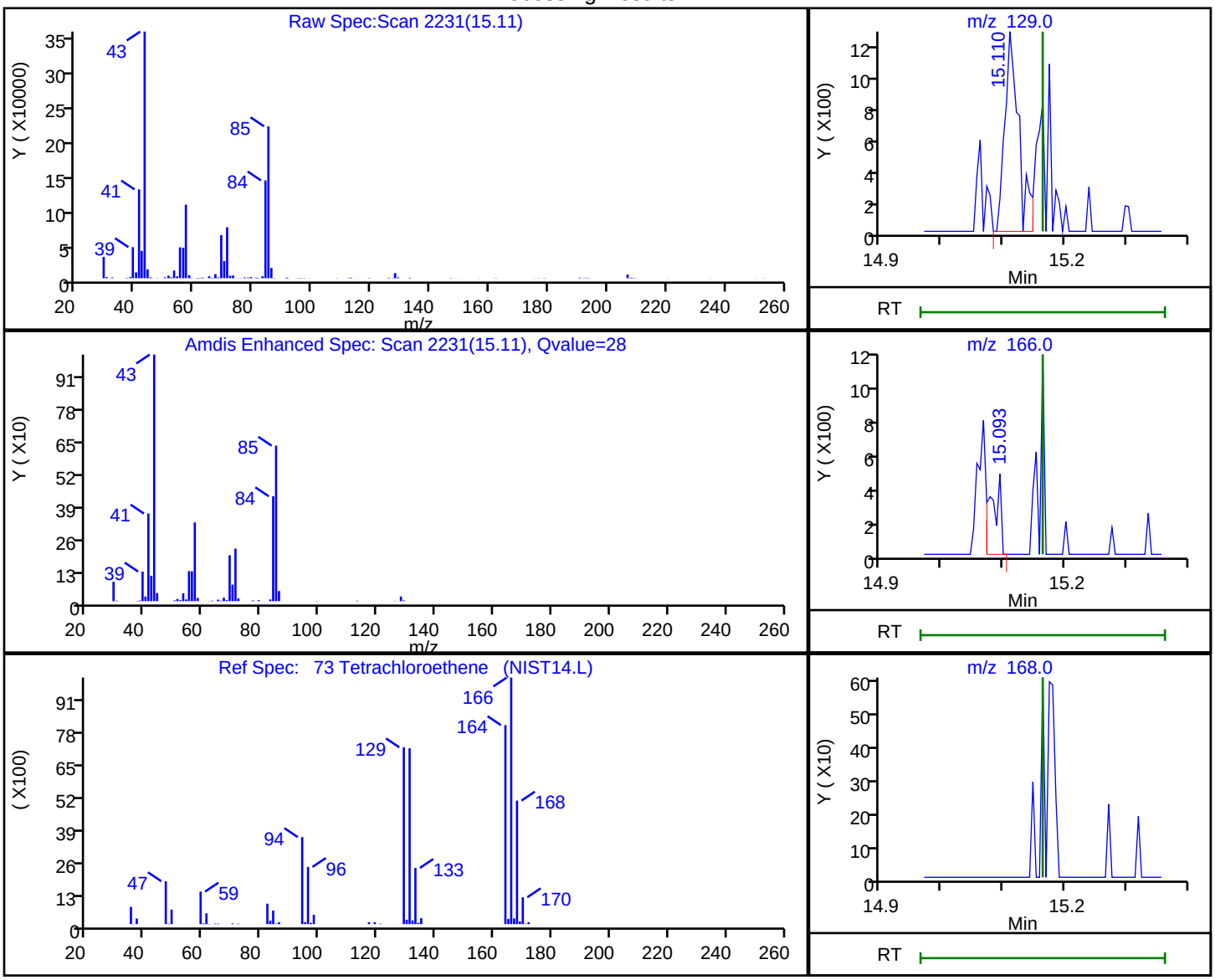
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D				
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG		
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6		
Client ID:	IA-081-A-27				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4

Processing Results



RT	Mass	Response	Amount
15.11	129.00	1974	0.007330
15.09	166.00	523	
15.16	168.00	0	

Reviewer: khachitpongpanits, 20-Aug-2019 10:20:23

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

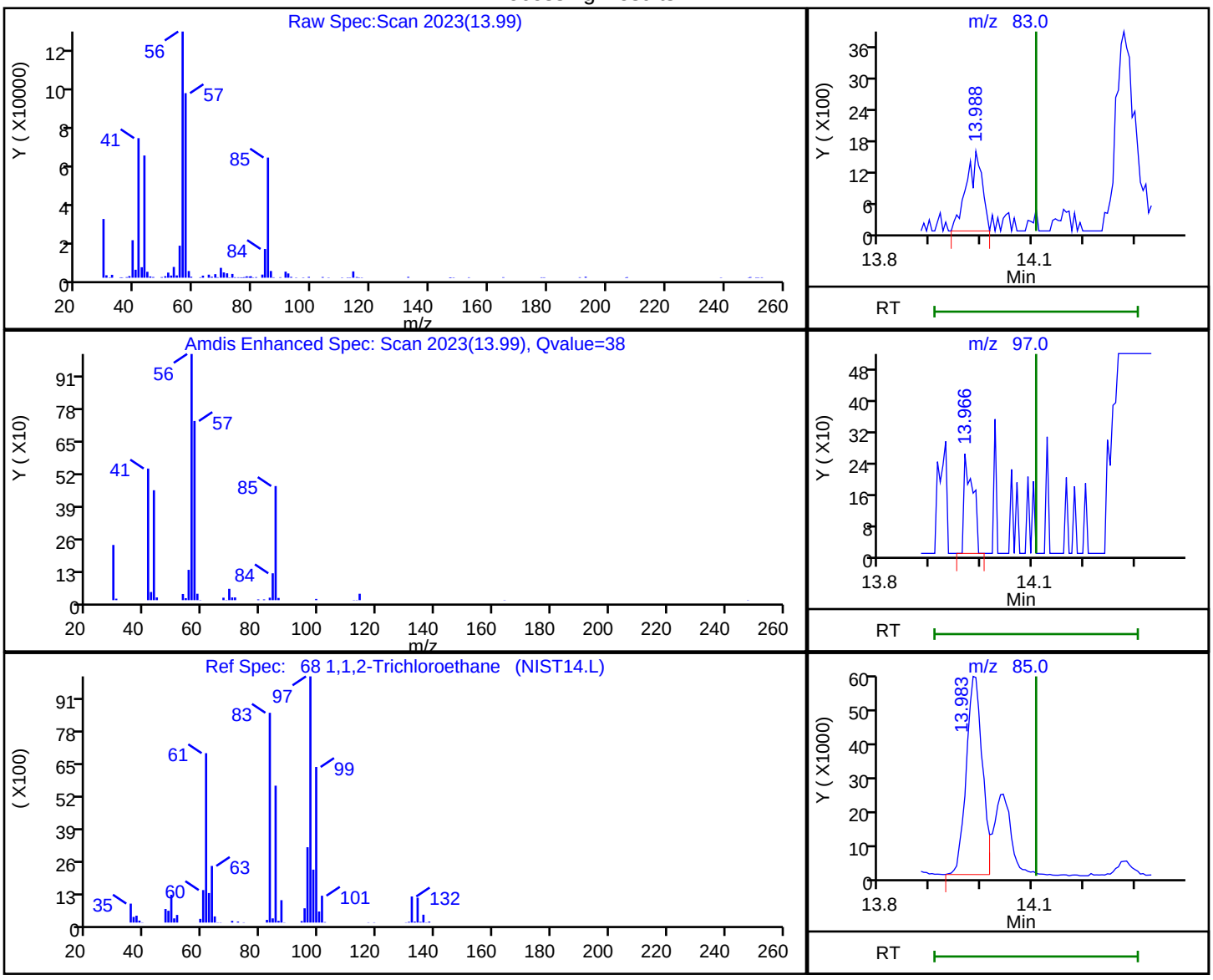
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P106.D				
Injection Date:	19-Aug-2019 17:49:30	Instrument ID:	MG		
Lims ID:	140-16367-A-6	Lab Sample ID:	140-16367-6		
Client ID:	IA-081-A-27				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.99	83.00	3329	0.019541
13.97	97.00	310	
13.98	85.00	131058	

Reviewer: khachitpongpanits, 20-Aug-2019 10:20:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.93	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.6	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D
Lims ID: 140-16367-A-7
Client ID: IA-079-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 18:32:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-011
Misc. Info.: 140-16367-a-7
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:22:21 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:23:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	81	850205	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	94	4274753	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	87	3299959	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	92	2239562	3.91	
6 Chlorodifluoromethane	51	3.829	3.829	0.006	44	22759	0.0527	a
8 Dichlorodifluoromethane	85	3.888	3.890	0.000	99	59857	0.0713	
31 Methylene Chloride	84	6.541	6.536	0.005	90	103591	0.4397	
44 Chloroform	83	9.151	9.151	0.000	33	5272	0.009136	
50 Benzene	78	10.774	10.779	-0.005	94	20909	0.0327	
52 Carbon tetrachloride	117	10.801	10.801	0.000	53	5956	0.009168	
67 Toluene	91	14.037	14.036	0.001	94	2190392	3.38	
78 Ethylbenzene	91	16.312	16.317	-0.005	98	48126	0.0560	
79 m-Xylene & p-Xylene	91	16.469	16.474	-0.005	97	145897	0.2170	
83 o-Xylene	91	16.997	16.997	0.000	99	44754	0.0614	
S 124 Xylenes, Total	100				0		0.2784	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

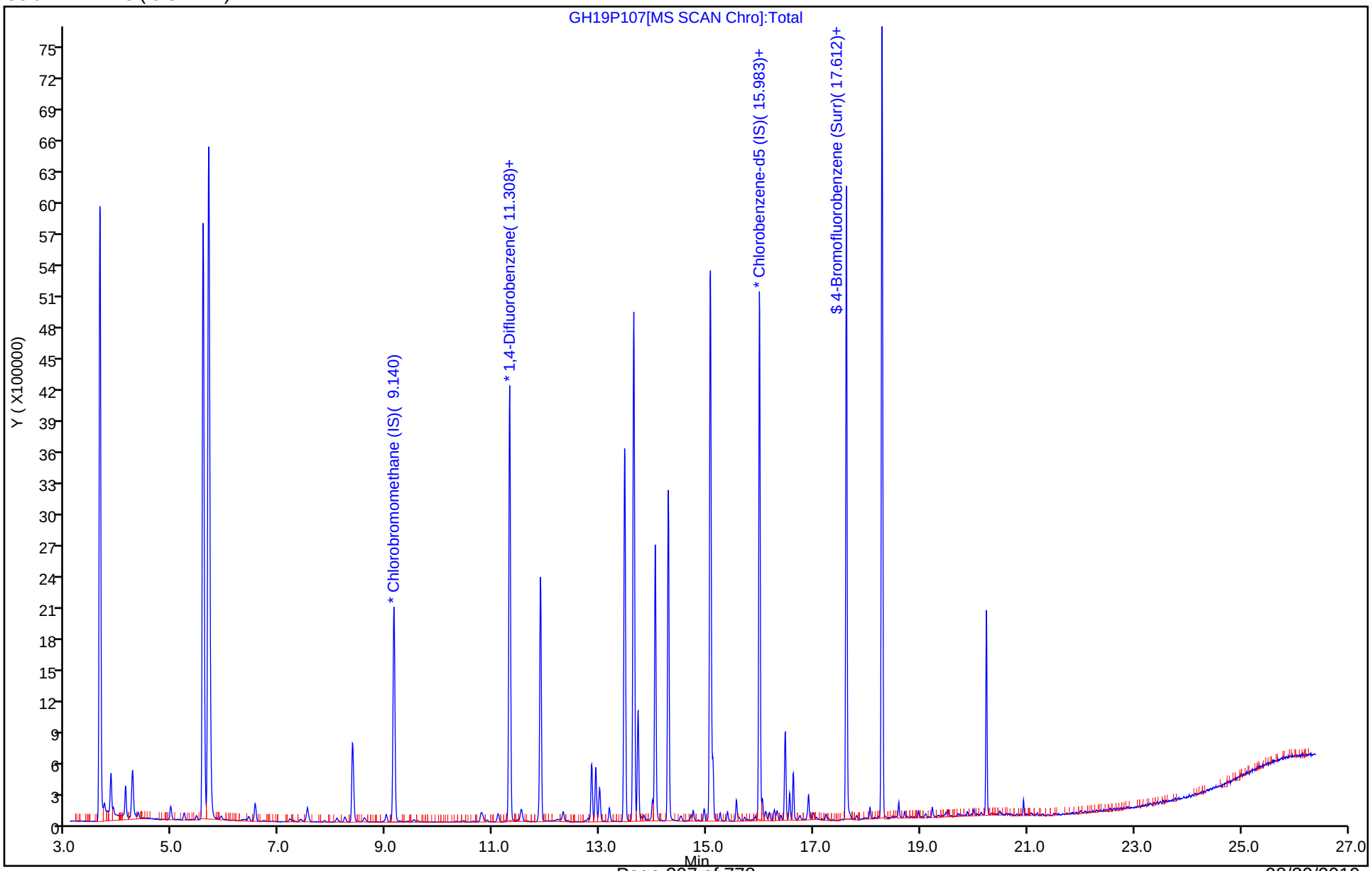
Report Date: 20-Aug-2019 10:23:39 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D

Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7	Worklist Smp#:	11
Client ID:	IA-079-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D				
Lims ID:	140-16367-A-7				
Client ID:	IA-079-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 18:32:30	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-011				
Misc. Info.:	140-16367-a-7				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:22:21	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:23:38		

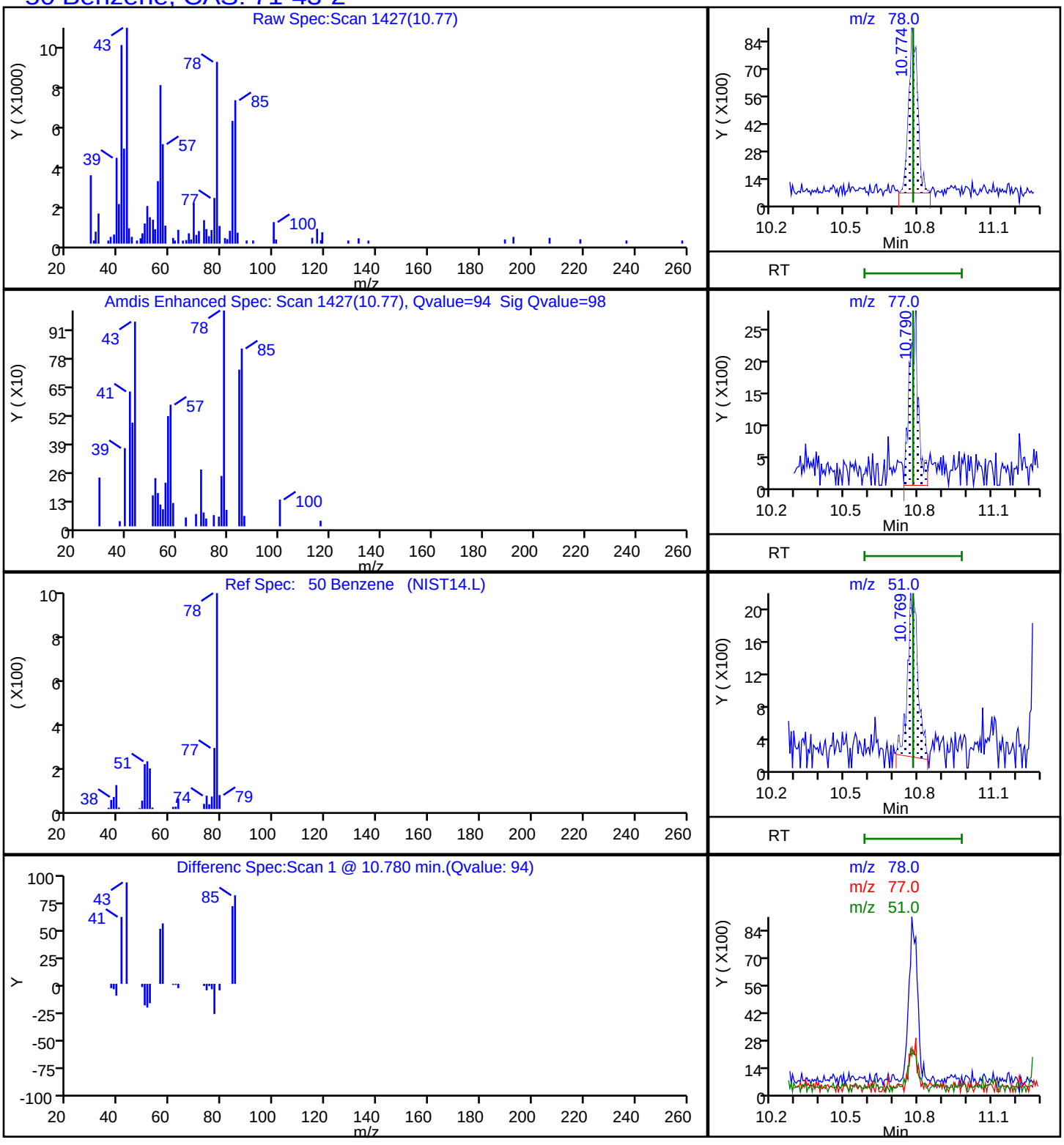
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.91	97.66

Report Date: 20-Aug-2019 10:23:39 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
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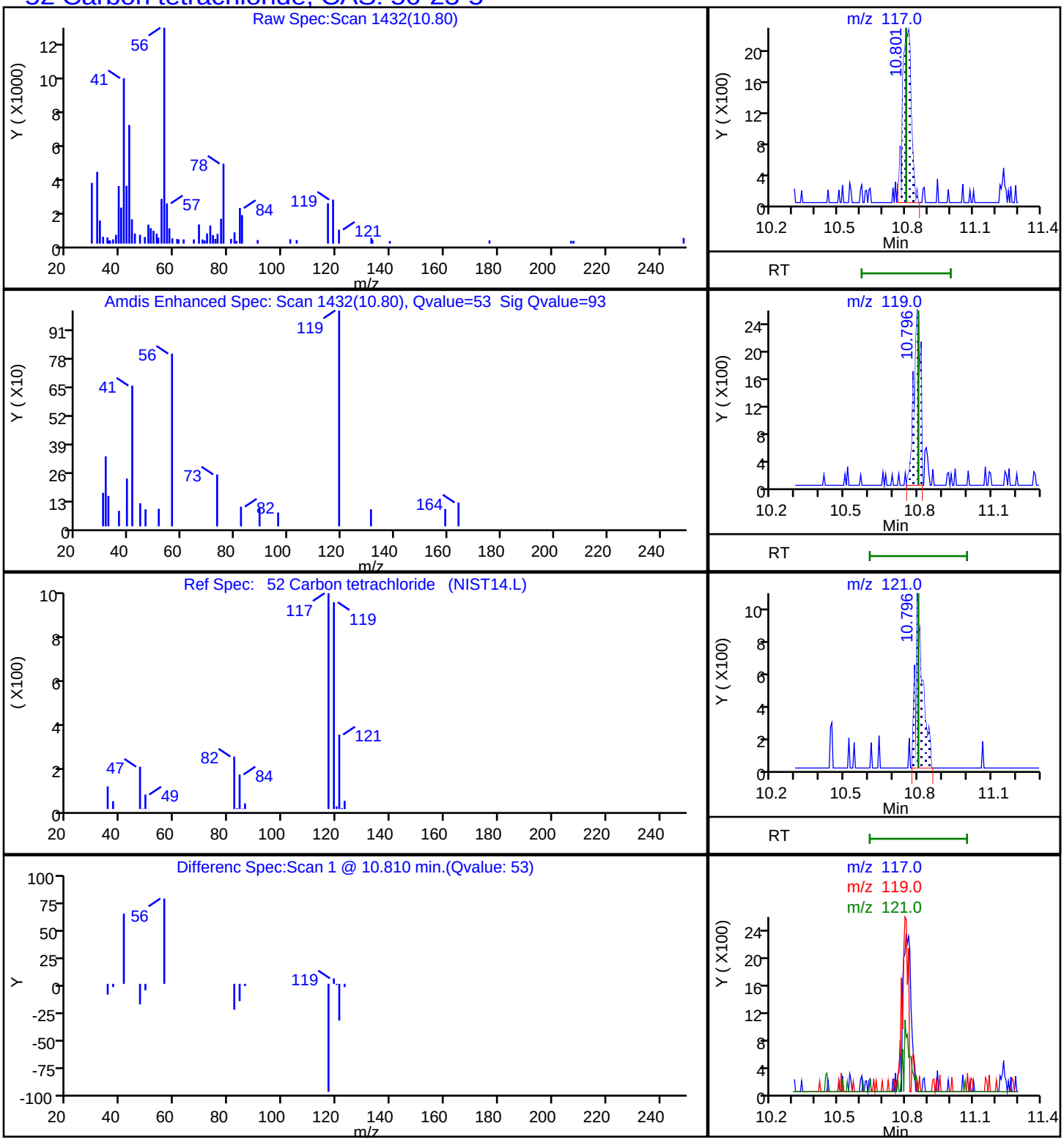
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

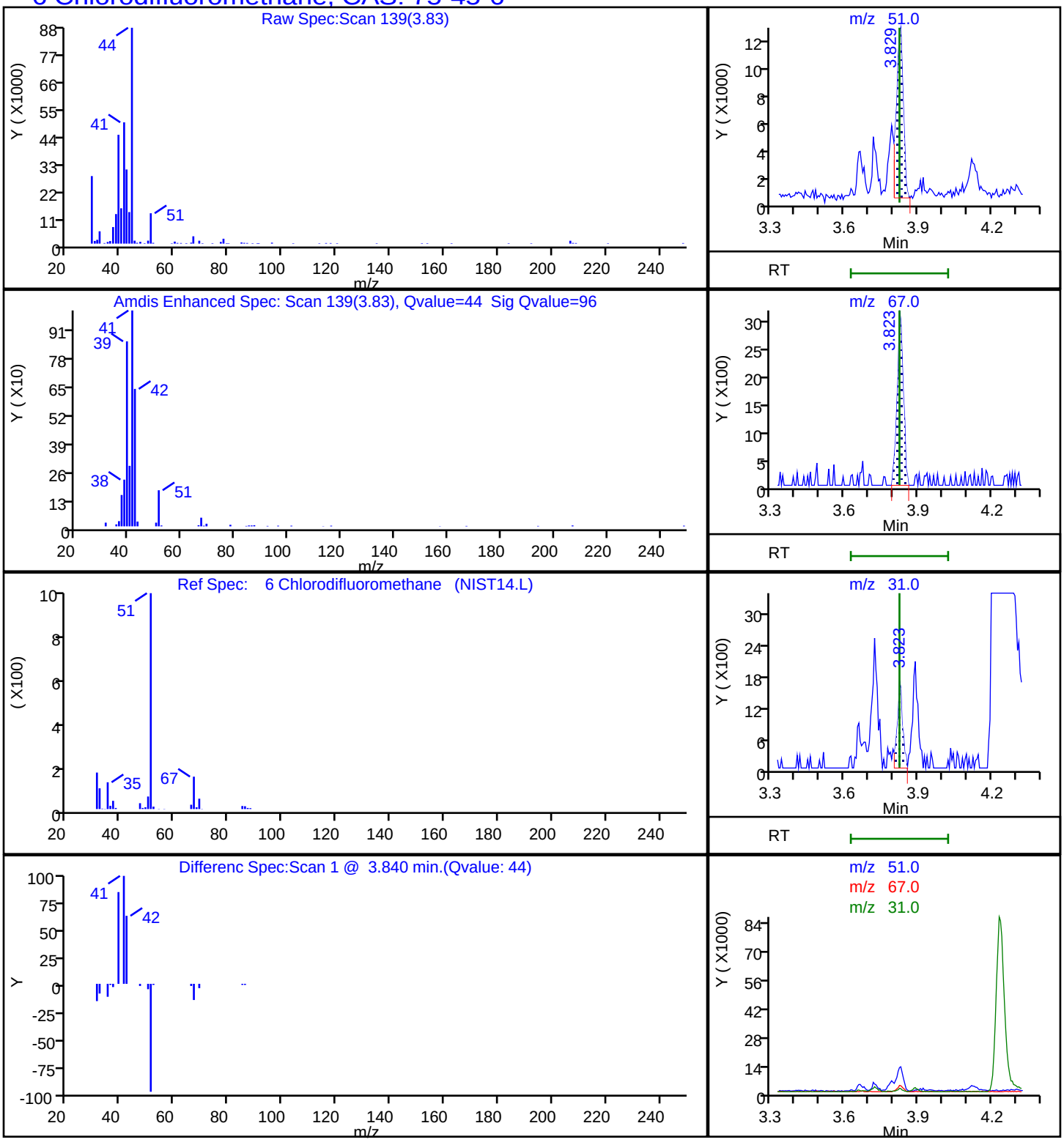
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
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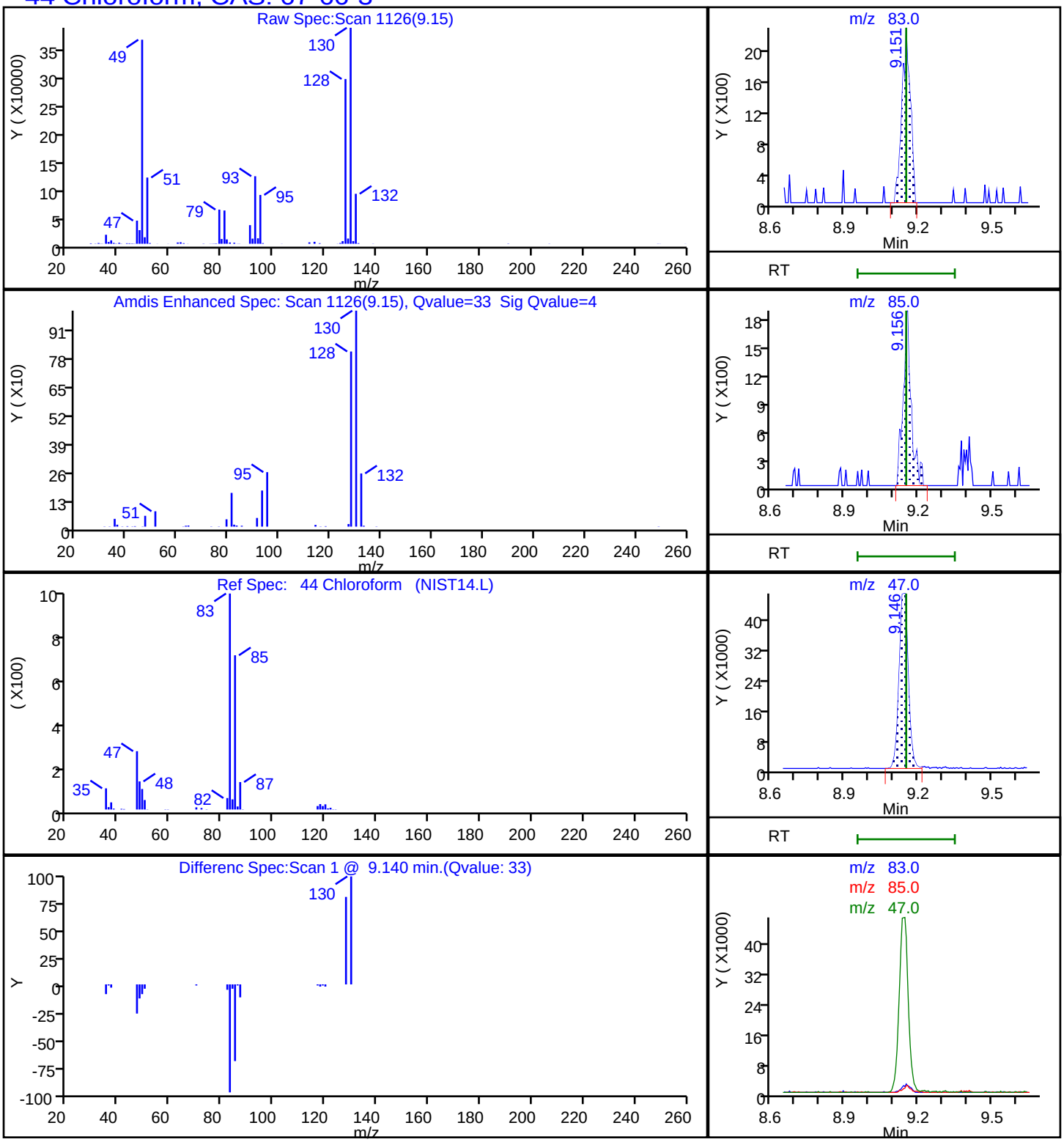
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
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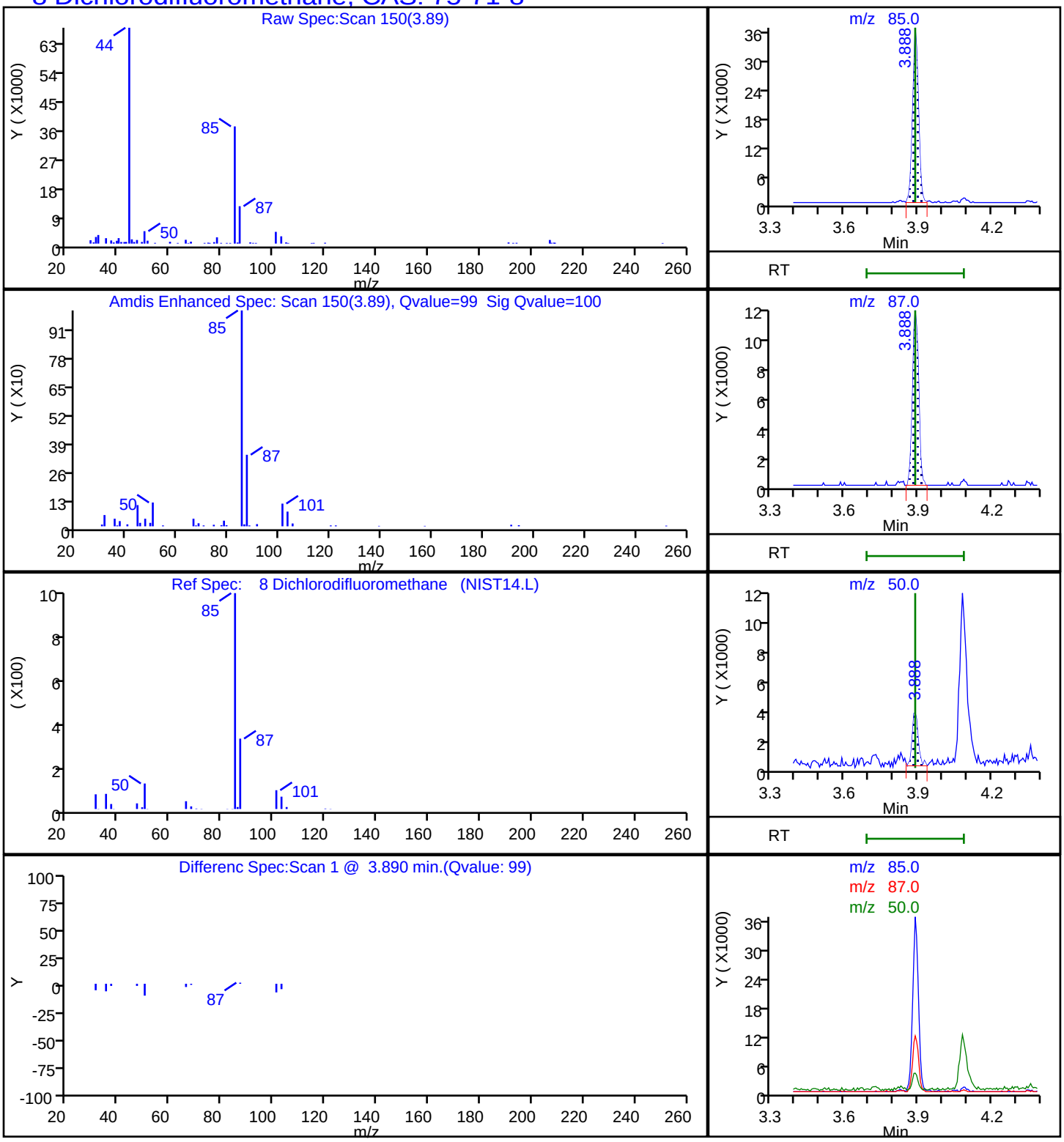
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



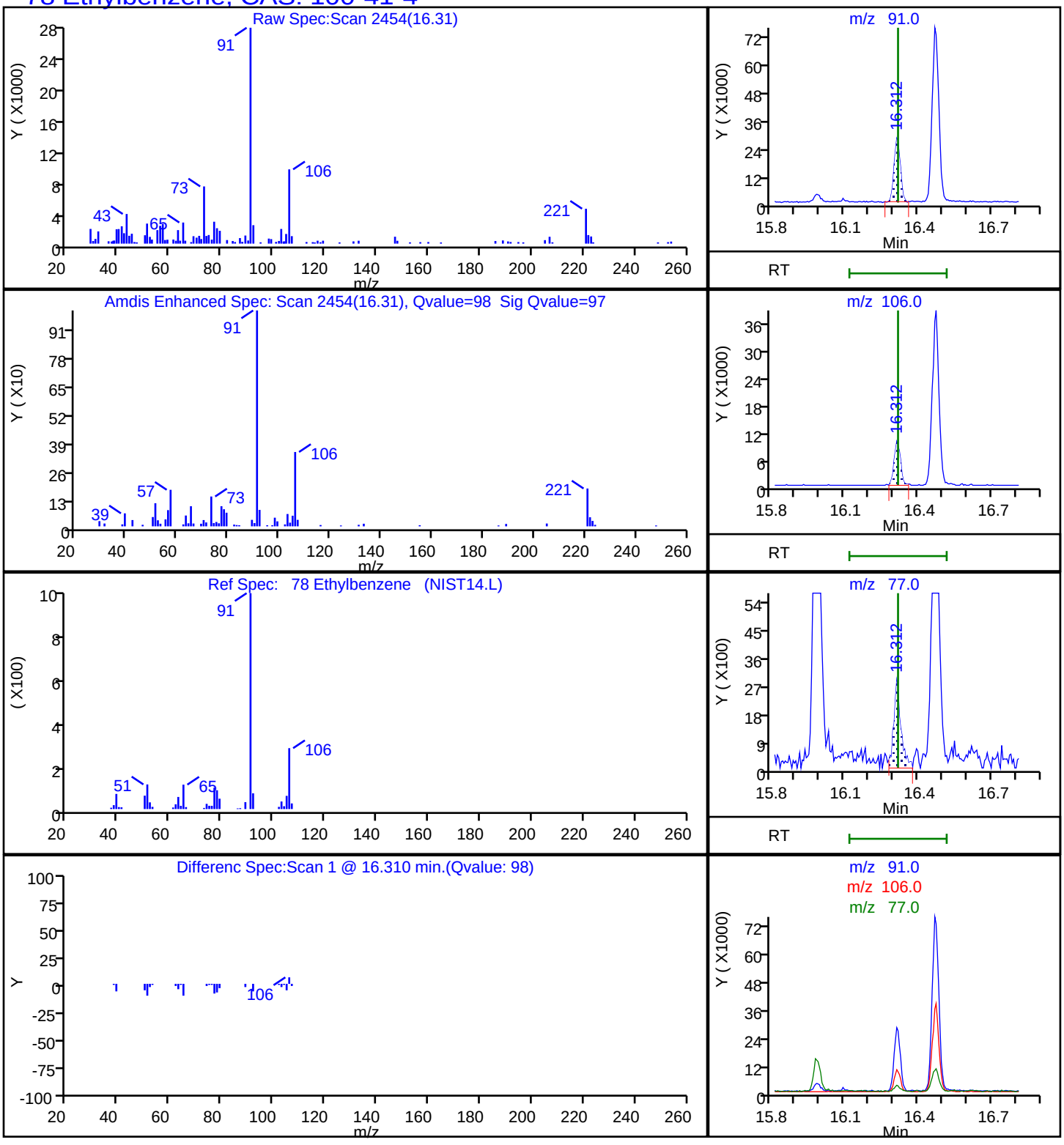
Report Date: 20-Aug-2019 10:23:39 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D

Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
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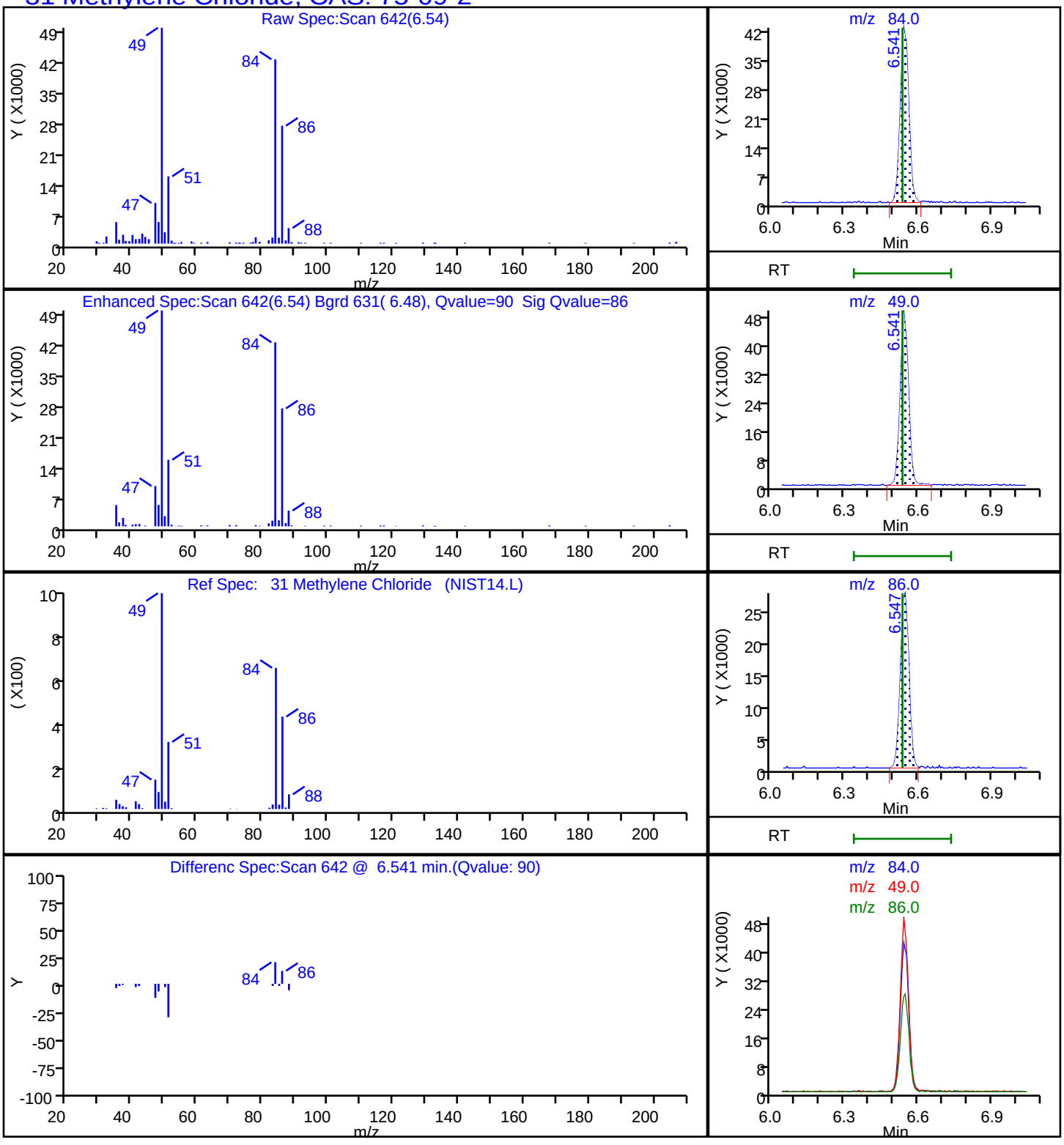
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

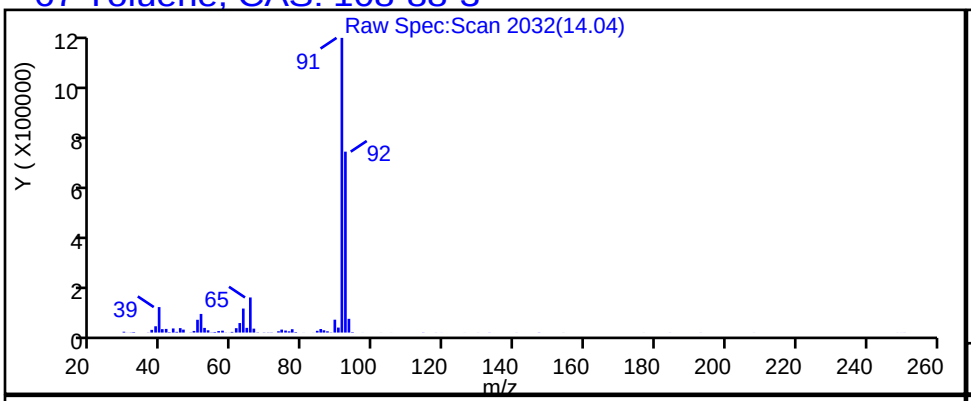
31 Methylene Chloride, CAS: 75-09-2

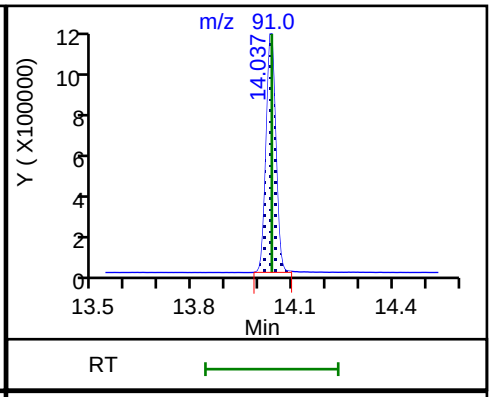


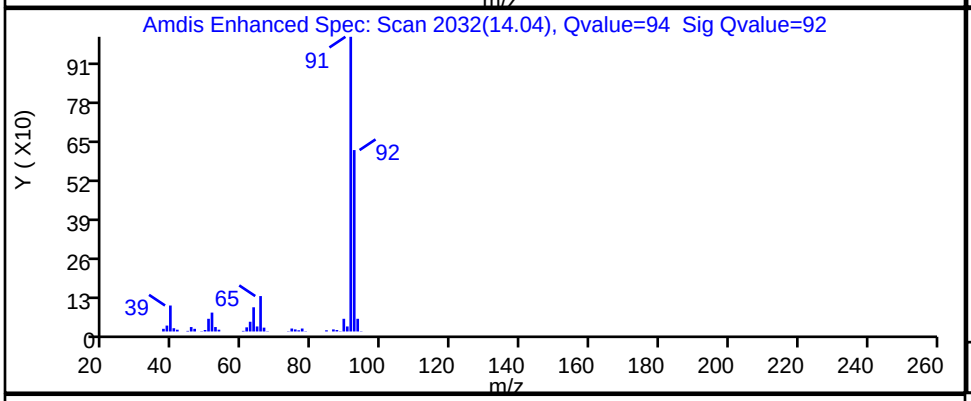
Eurofins TestAmerica, Knoxville

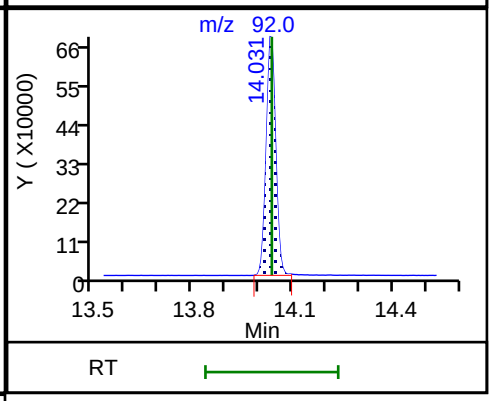
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

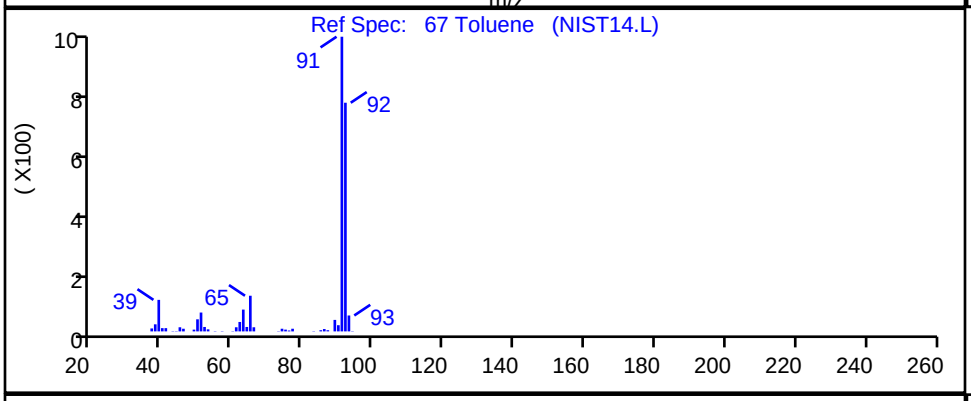
67 Toluene, CAS: 108-88-3

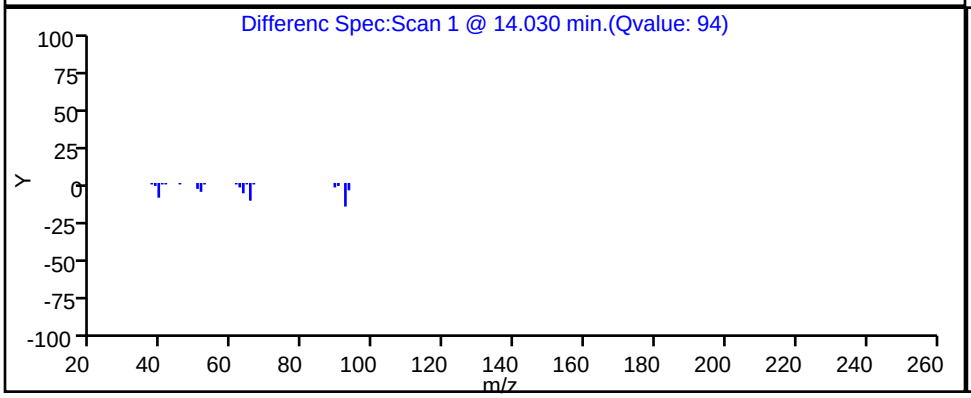


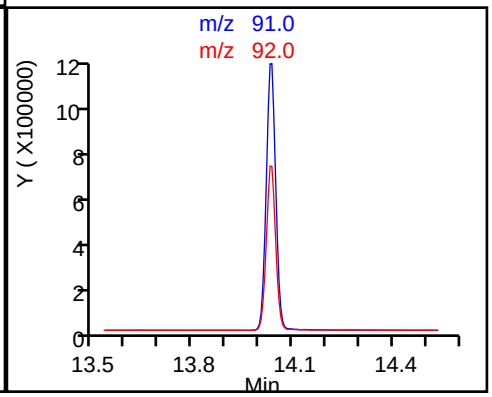








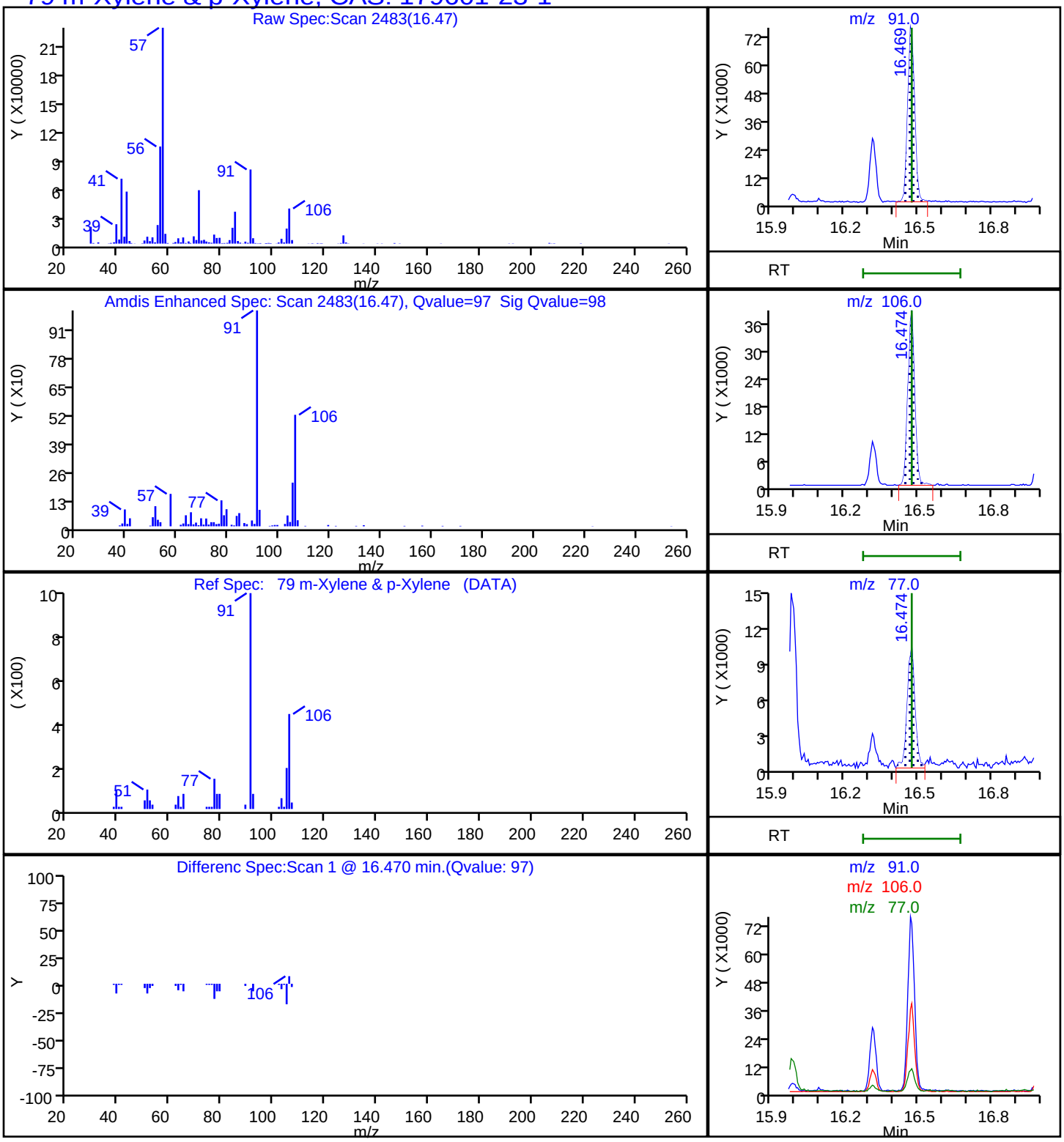




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D		
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



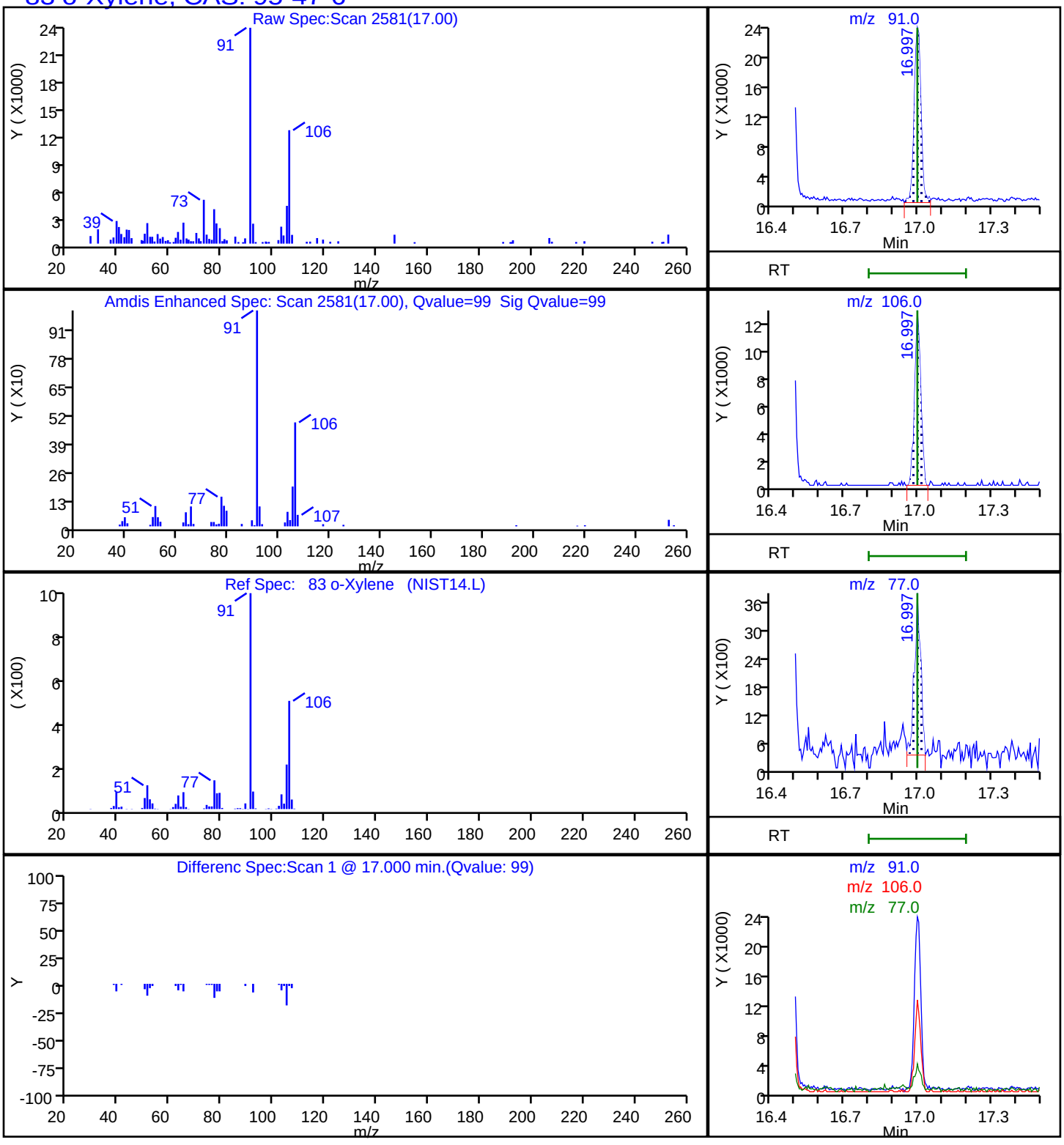
Report Date: 20-Aug-2019 10:23:39 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D

Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7
Client ID:	IA-079-A-27		
Operator ID:	7126	ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

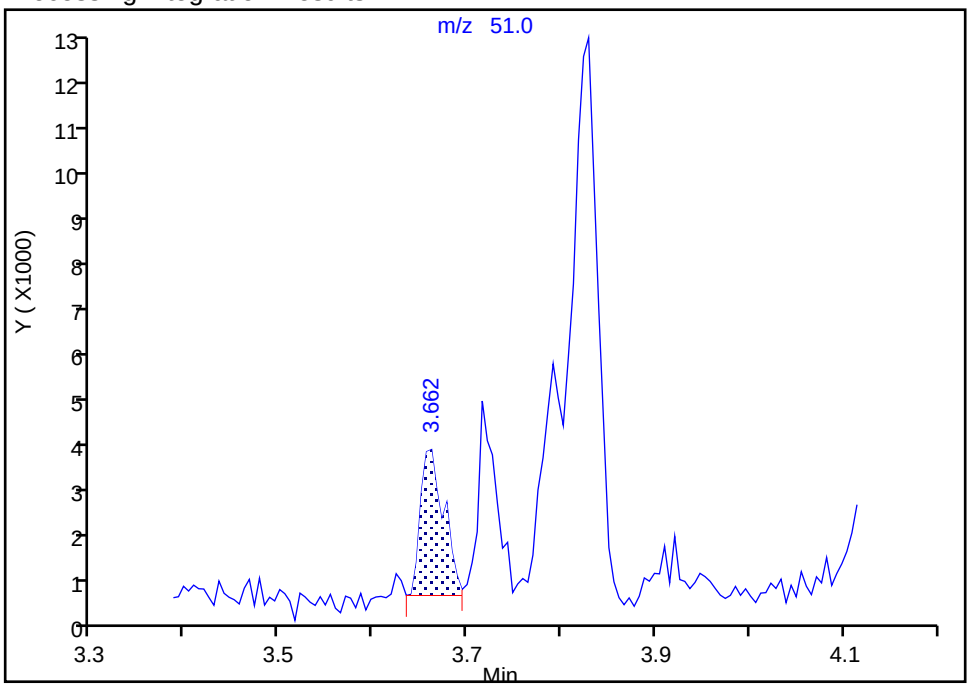
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D				
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7		
Client ID:	IA-079-A-27				
Operator ID:	7126	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

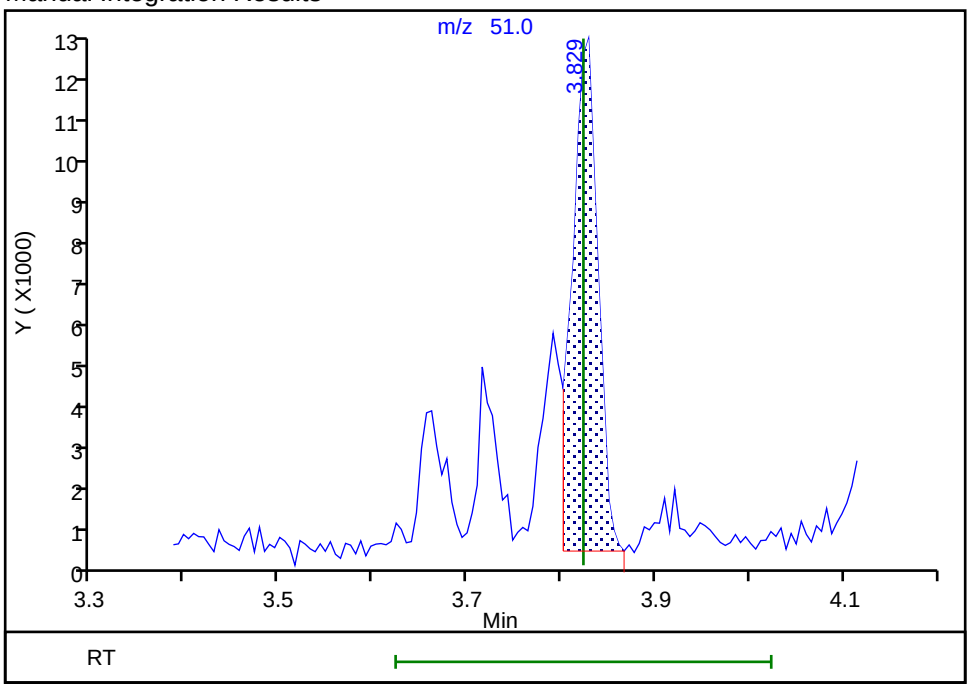
Processing Integration Results

RT: 3.66
Area: 5308
Amount: 0.012291
Amount Units: ppb v/v



Manual Integration Results

RT: 3.83
Area: 22759
Amount: 0.052701
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 10:21:47

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

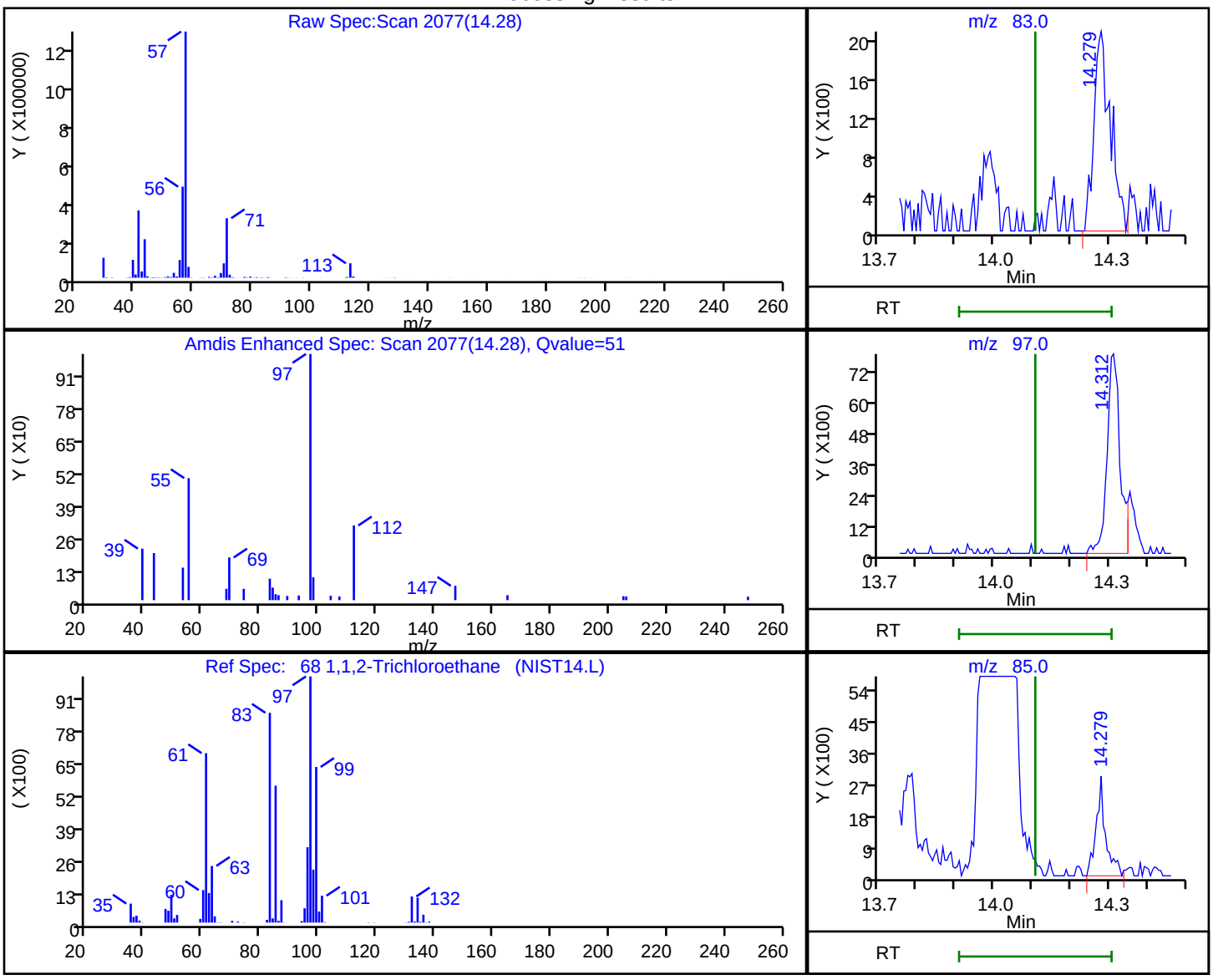
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P107.D				
Injection Date:	19-Aug-2019 18:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-7	Lab Sample ID:	140-16367-7		
Client ID:	IA-079-A-27				
Operator ID:	7126	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.28	83.00	6022	0.031687
14.31	97.00	18798	
14.28	85.00	4989	

Reviewer: khachitpongpanits, 20-Aug-2019 10:22:11

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.047	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	5.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.23	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	18	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.0	J	2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D
Lims ID: 140-16367-A-8
Client ID: IA-DUP4-A-27
Sample Type: Client
Inject. Date: 21-Aug-2019 17:59:30 ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-011
Misc. Info.: 140-16367-a-8
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 12:10:07 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:10:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	94	207218	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1011694	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.450	0.001	87	869388	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.041	0.000	96	633923	3.97	
19 Chlorodifluoromethane	51	4.164	4.164	0.006	40	4285	0.0757	a
21 Dichlorodifluoromethane	85	4.234	4.226	0.006	97	6908	0.1064	
44 Methylene Chloride	84	7.069	7.064	0.000	97	82884	1.06	
57 Chloroform	83	9.737	9.731	0.000	27	1593	0.009473	
64 Benzene	78	11.340	11.329	0.006	64	6529	0.0352	
65 Carbon tetrachloride	117	11.356	11.350	0.000	28	2498	0.0161	
80 Toluene	91	14.514	14.508	0.000	93	714879	3.40	
86 Tetrachloroethene	129	15.638	15.629	0.005	94	2587	0.0307	
89 Ethylbenzene	91	16.768	16.762	0.000	99	15372	0.0568	
90 m-Xylene & p-Xylene	91	16.924	16.918	0.000	98	44895	0.2163	
94 o-Xylene	91	17.446	17.445	-0.005	98	13037	0.0591	
S 129 Xylenes, Total	100				0		0.2754	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

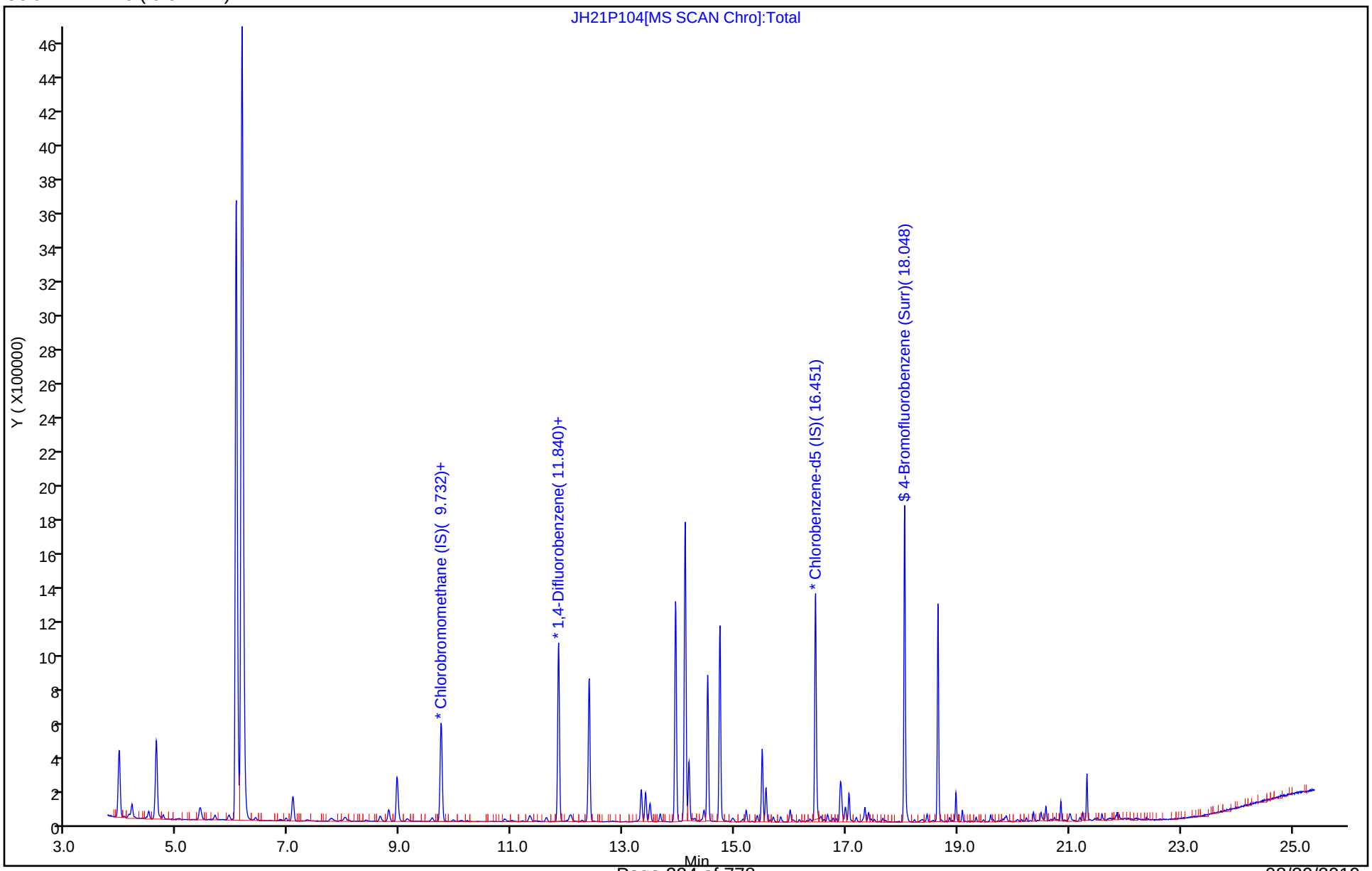
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 12:10:08 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8	Worklist Smp#:	11
Client ID:	IA-DUP4-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Lims ID:	140-16367-A-8				
Client ID:	IA-DUP4-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 17:59:30	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-011				
Misc. Info.:	140-16367-a-8				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:10:07	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

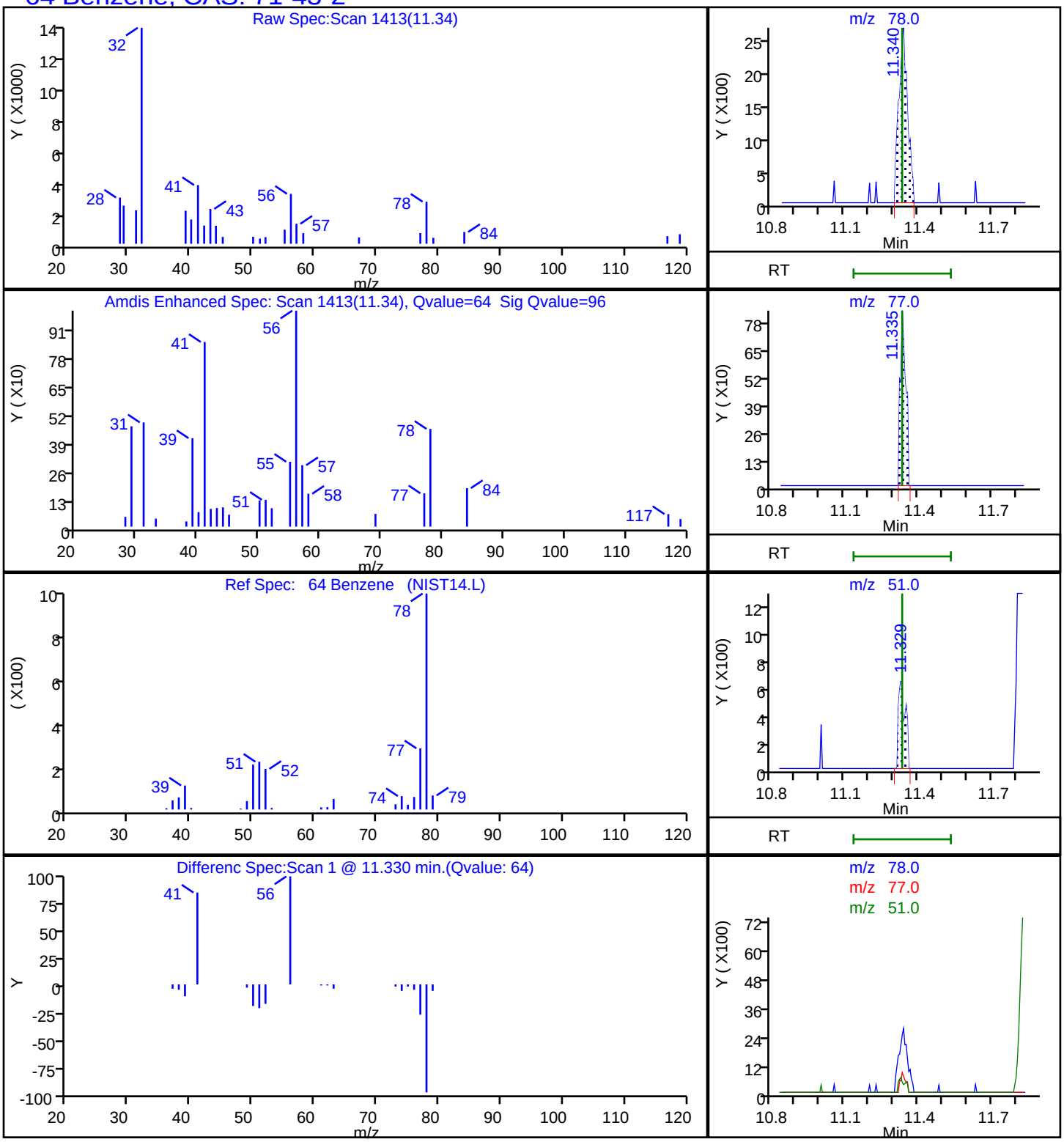
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:10:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.97	99.19

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



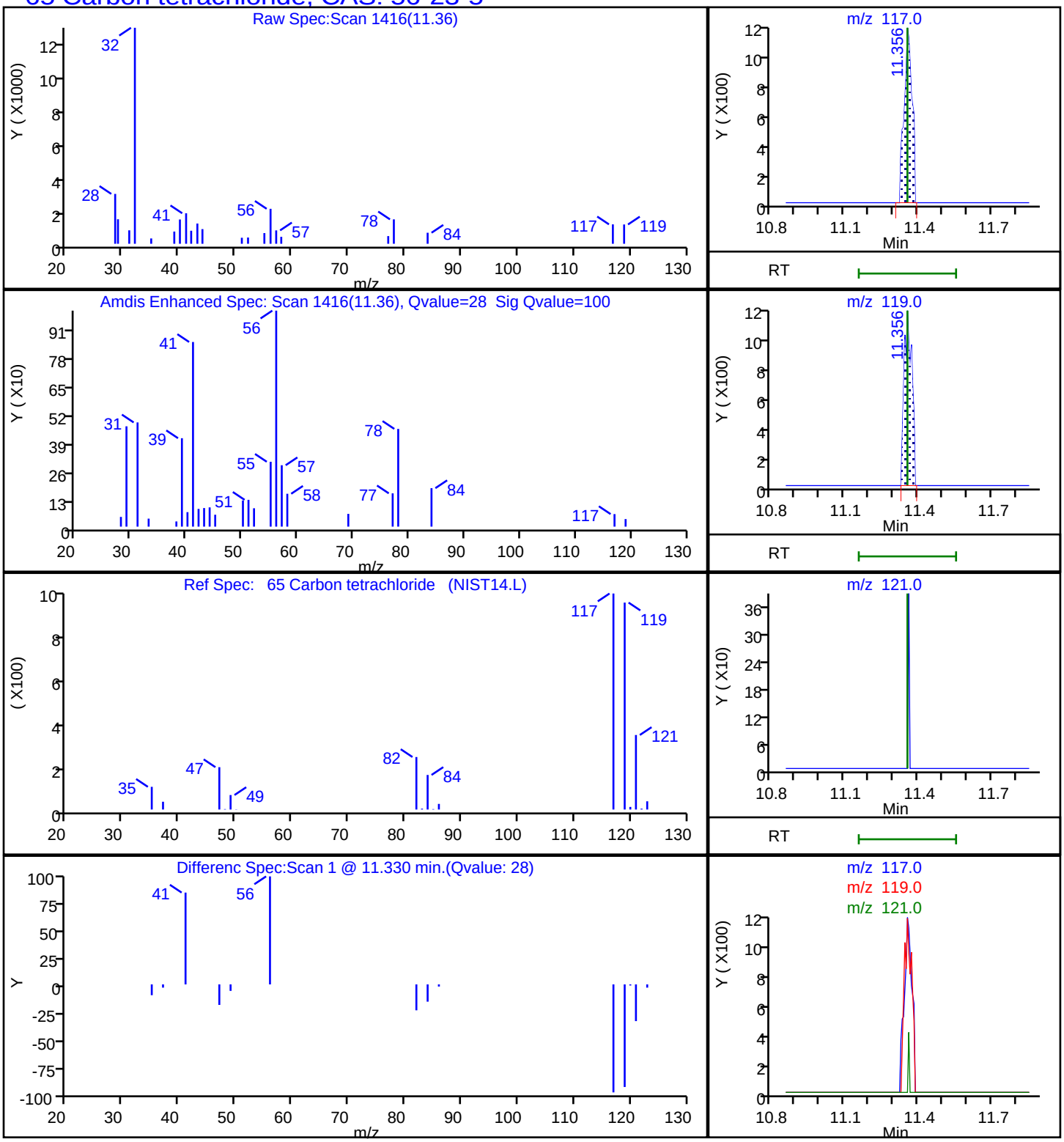
Report Date: 22-Aug-2019 12:10:08 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D

Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

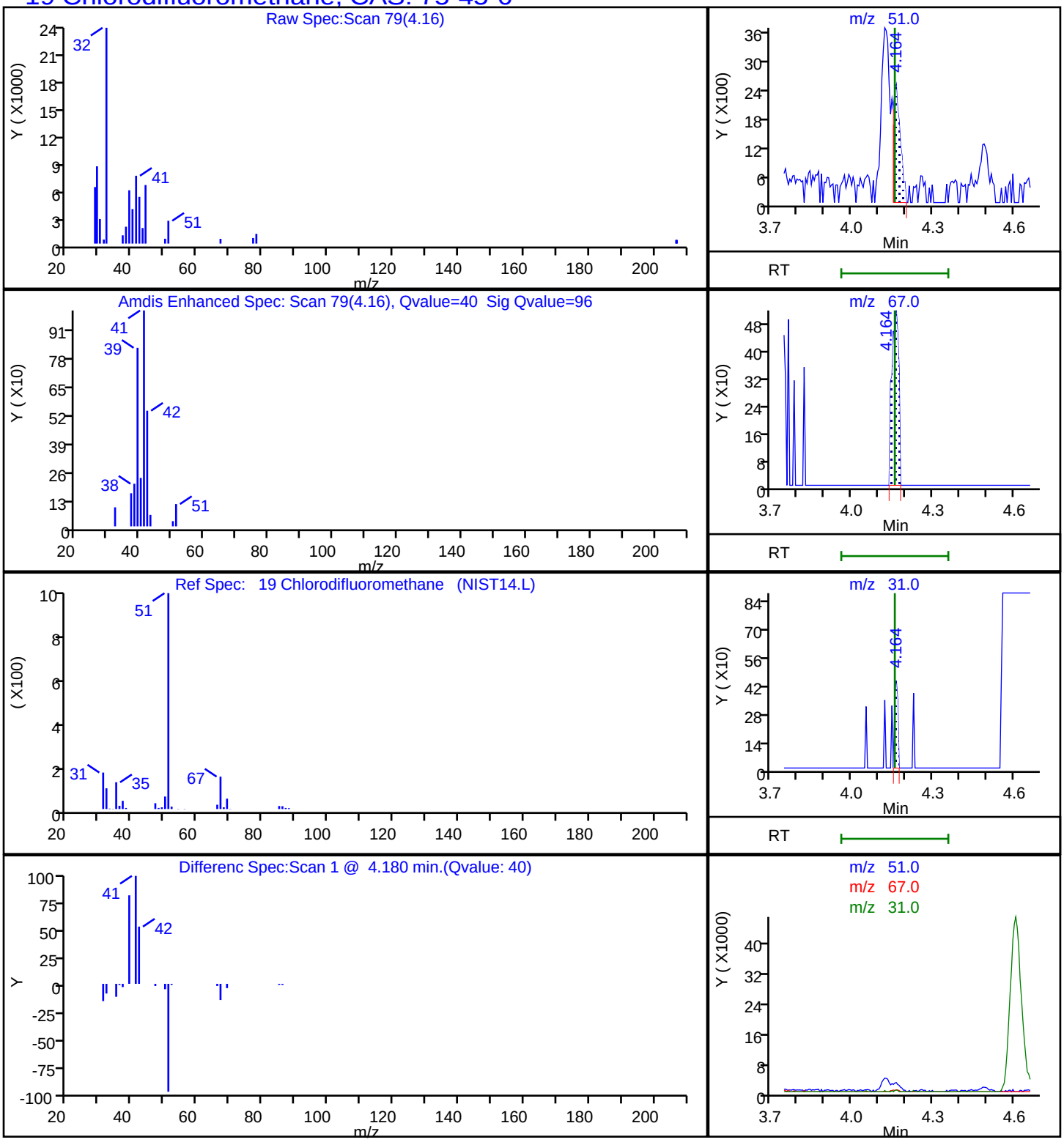
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

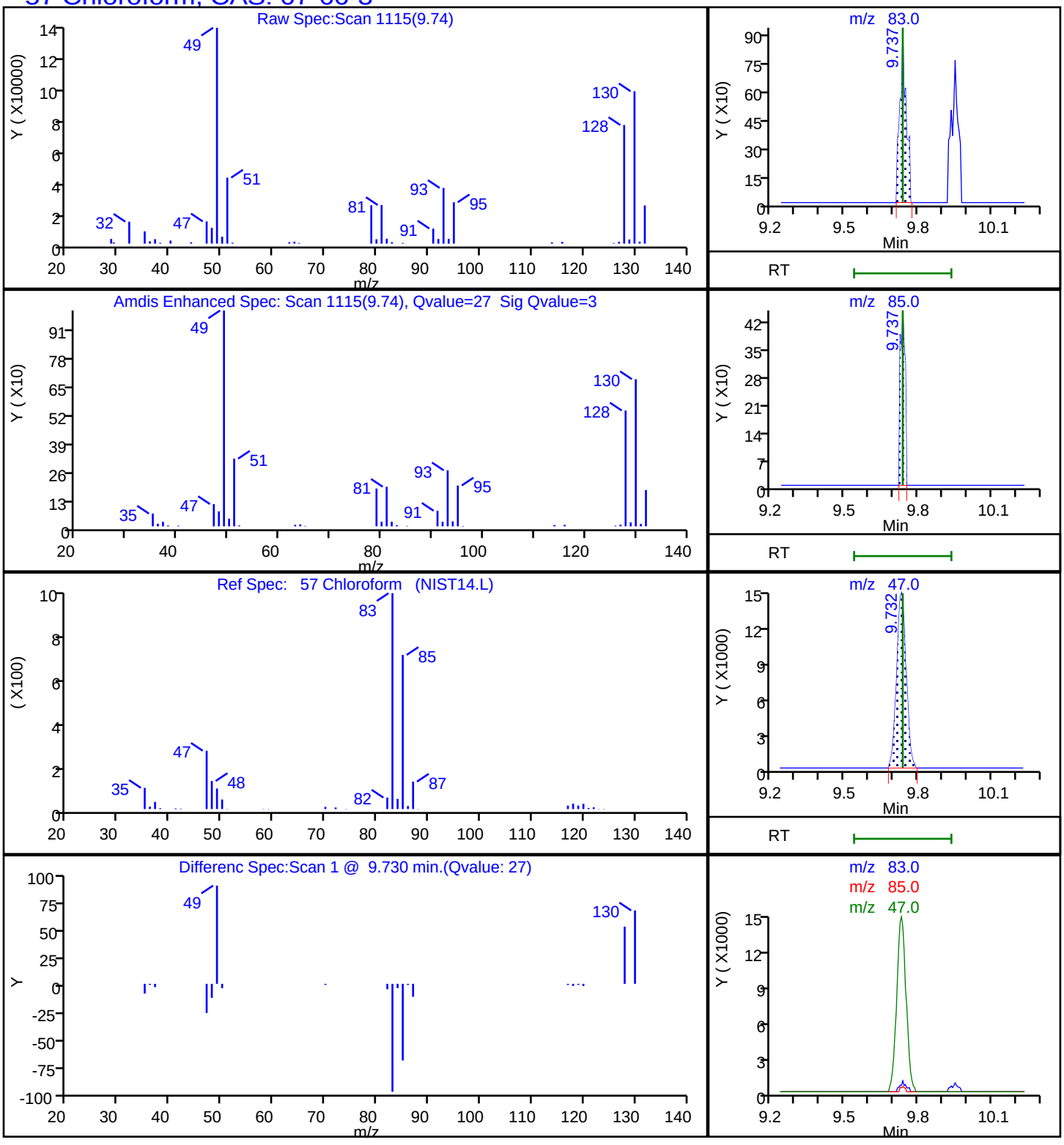
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

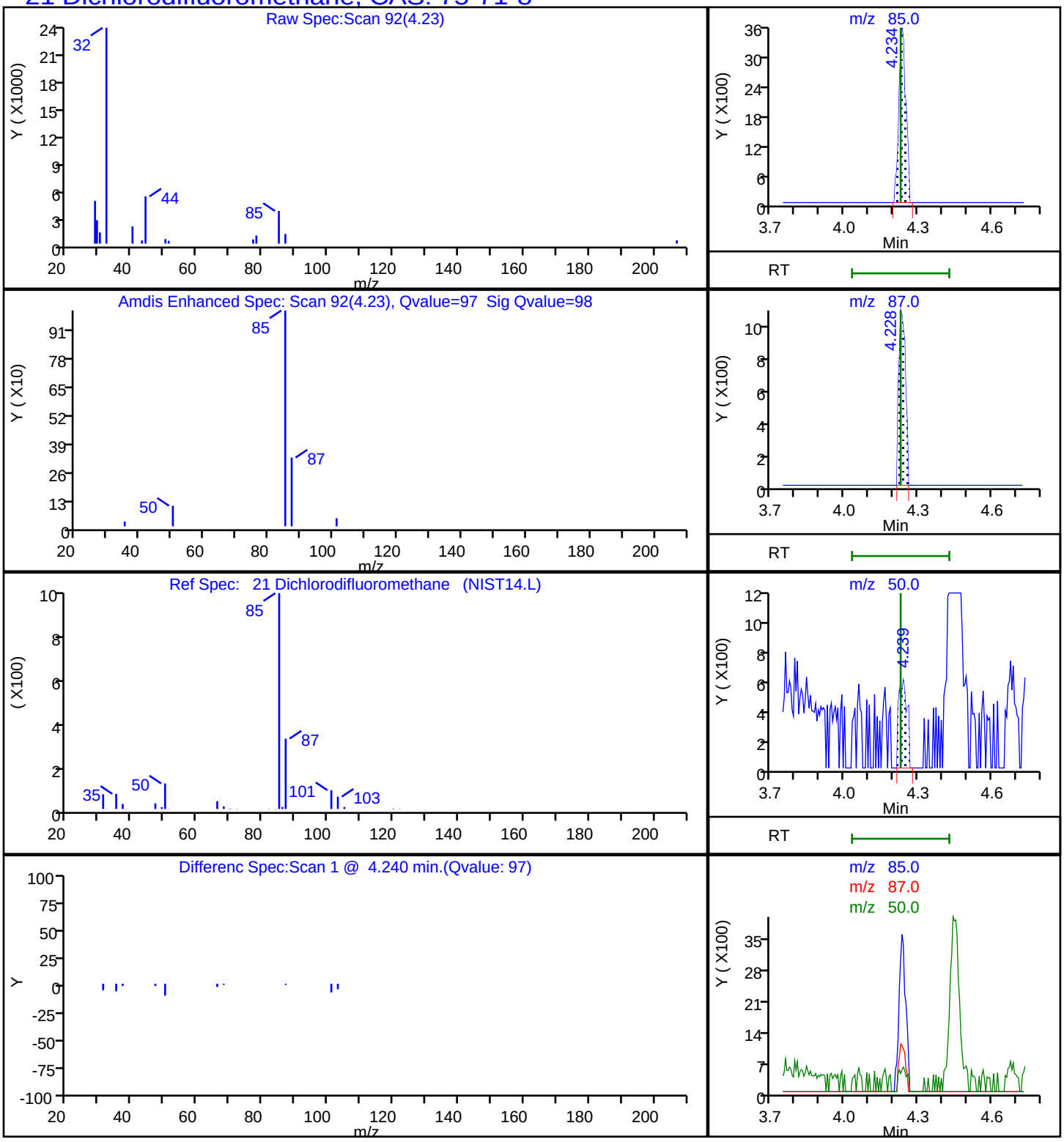


Report Date: 22-Aug-2019 12:10:08 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8		
Client ID:	IA-DUP4-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

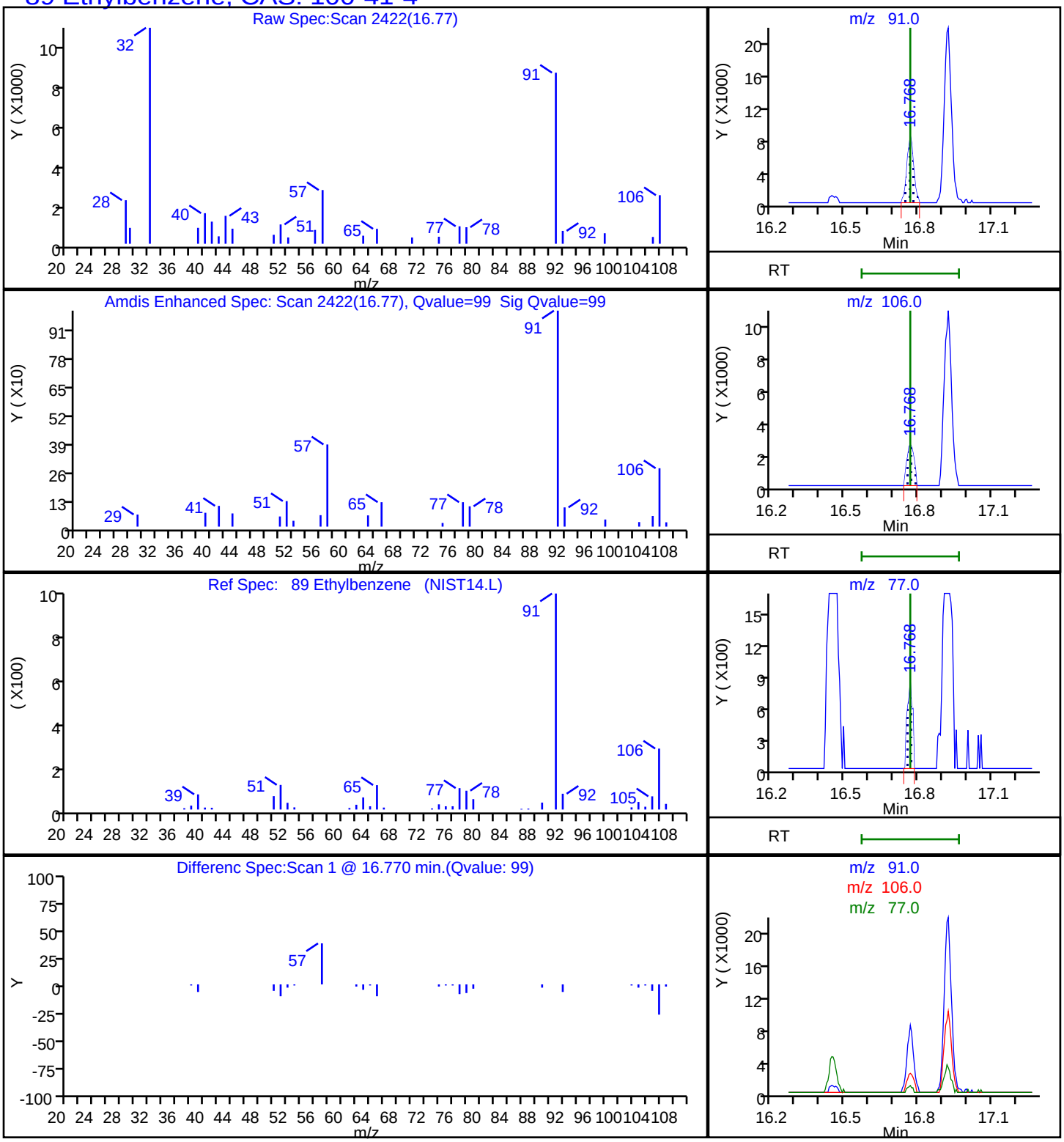
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

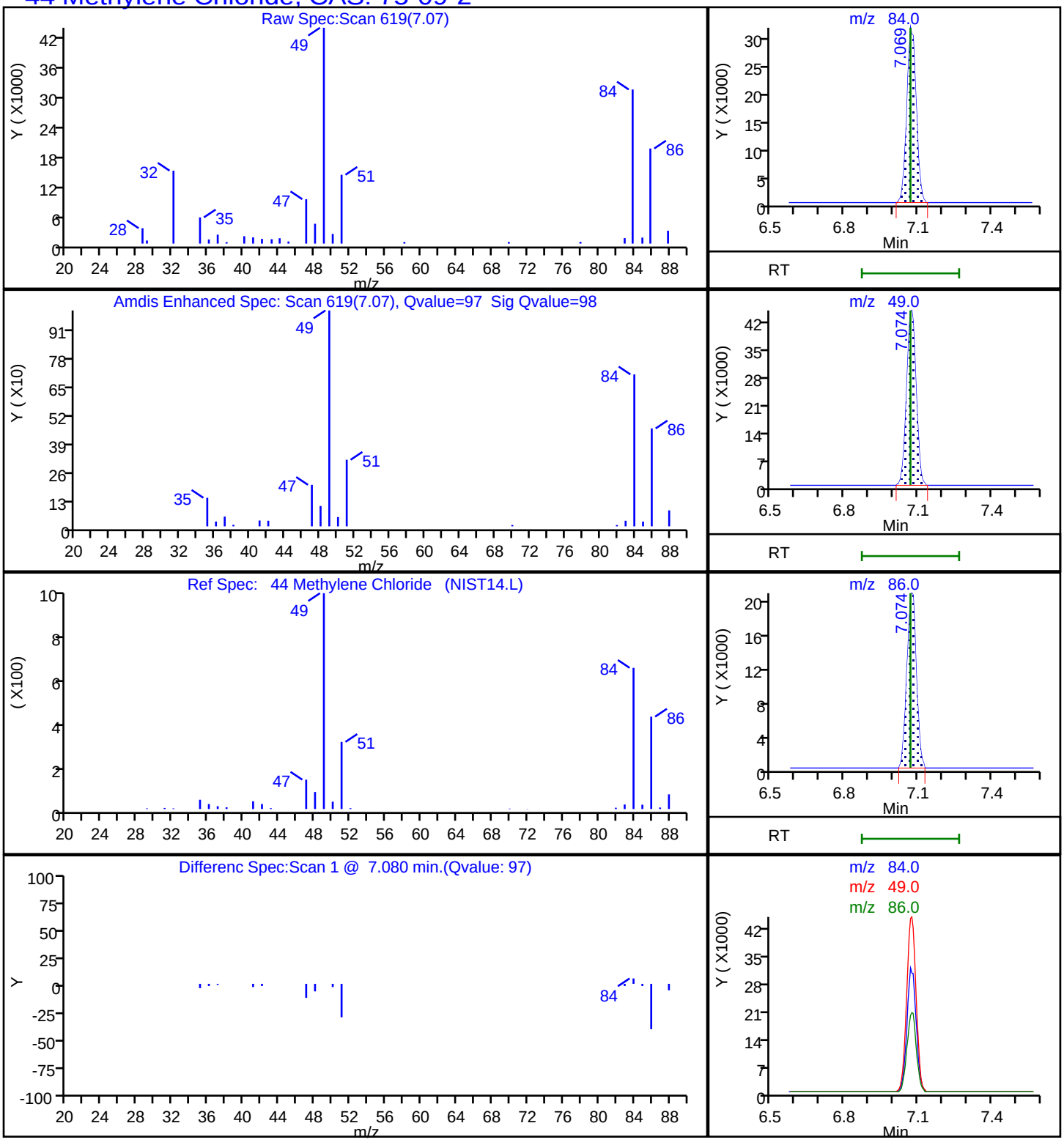
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

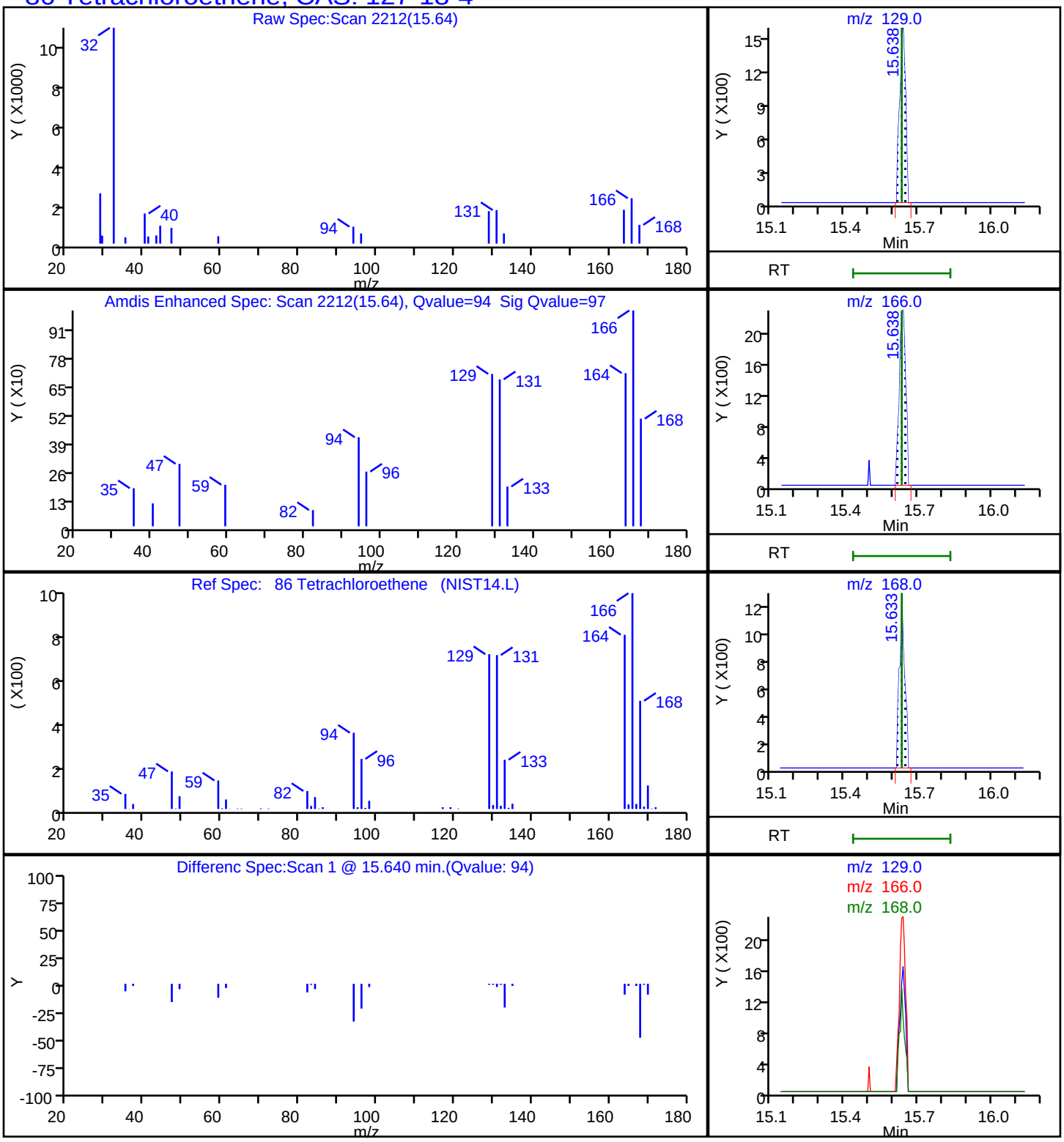
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4

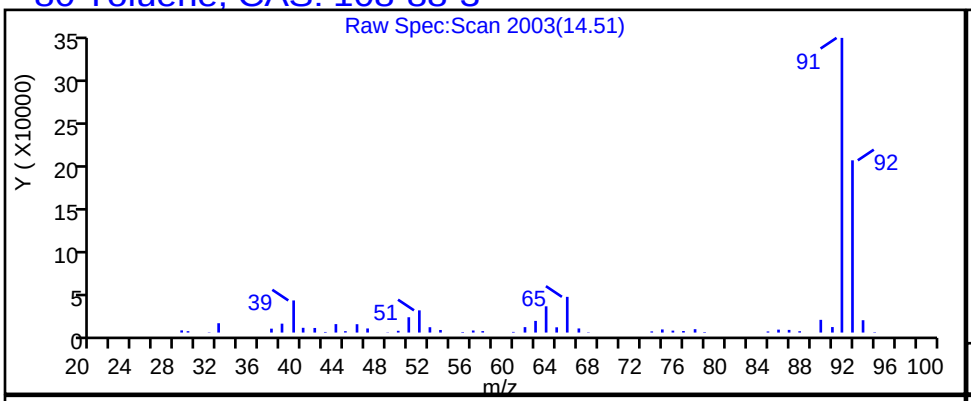


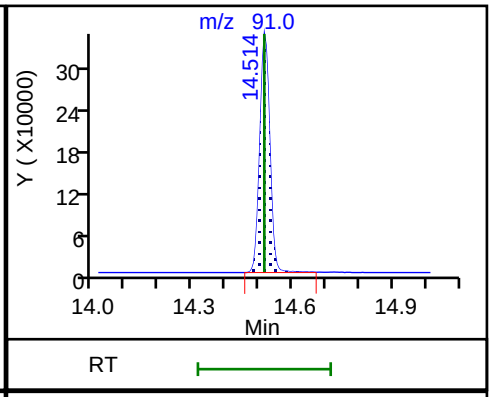
Report Date: 22-Aug-2019 12:10:08 Chrom Revision: 2.3 13-Aug-2019 08:14:14

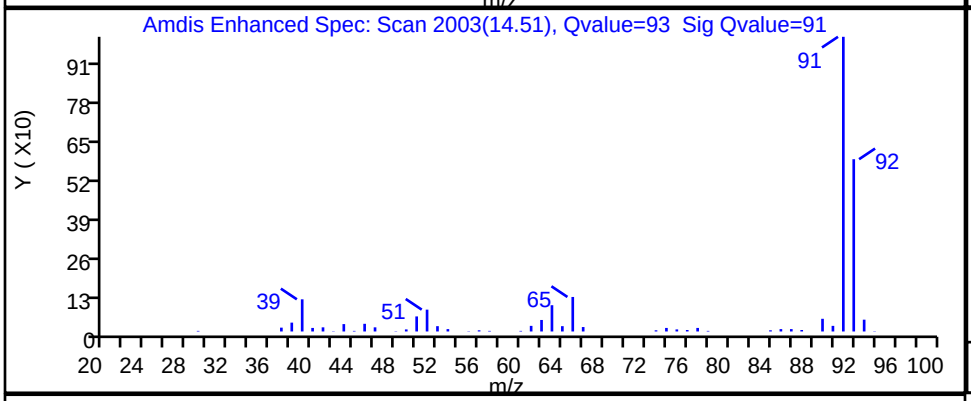
Eurofins TestAmerica, Knoxville

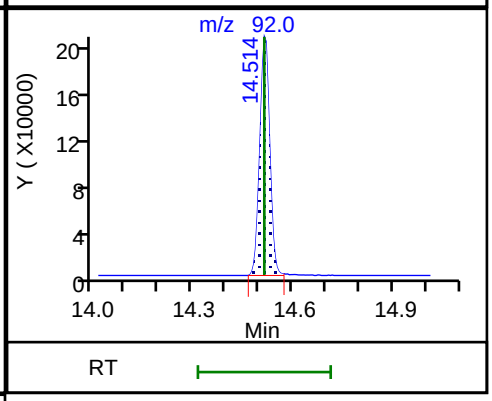
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

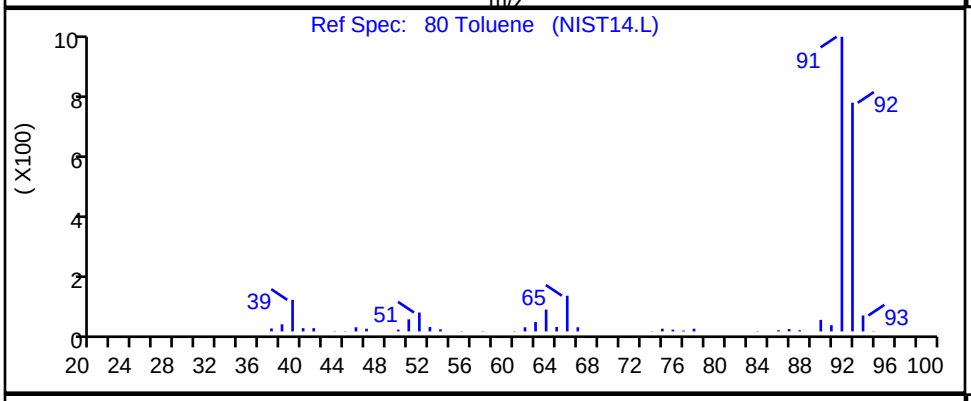
80 Toluene, CAS: 108-88-3

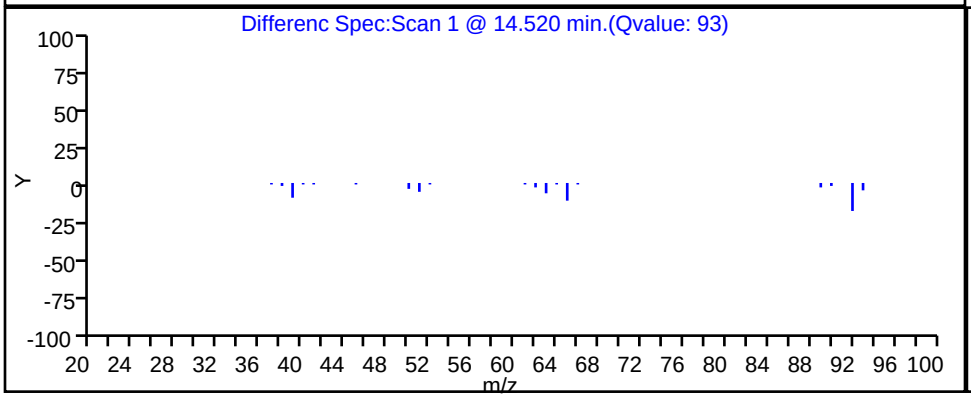


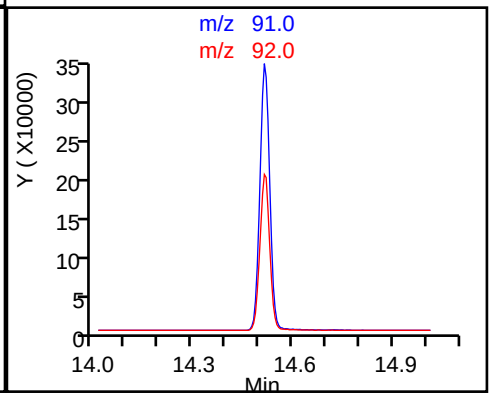










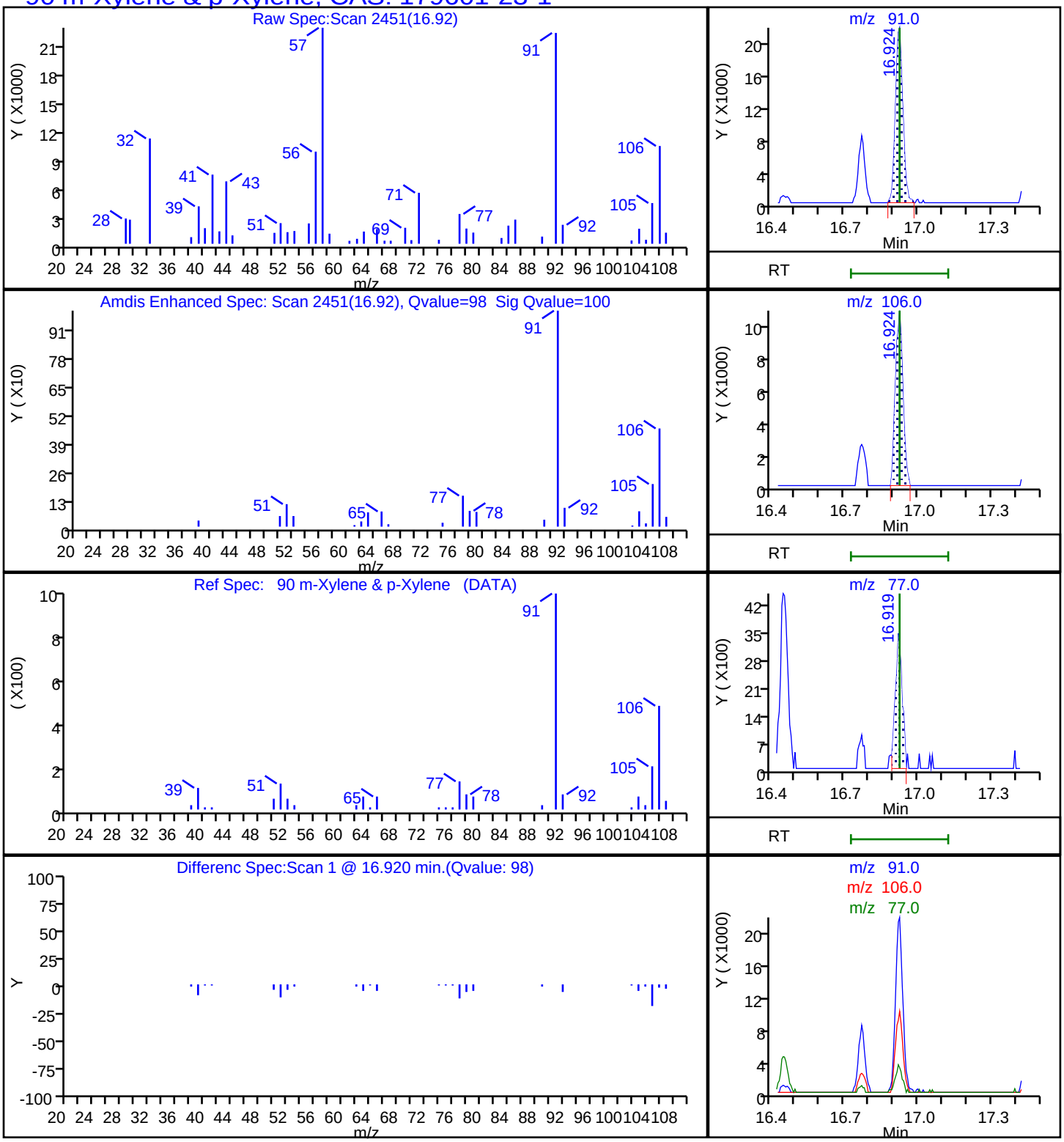


Report Date: 22-Aug-2019 12:10:08 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8		
Client ID:	IA-DUP4-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

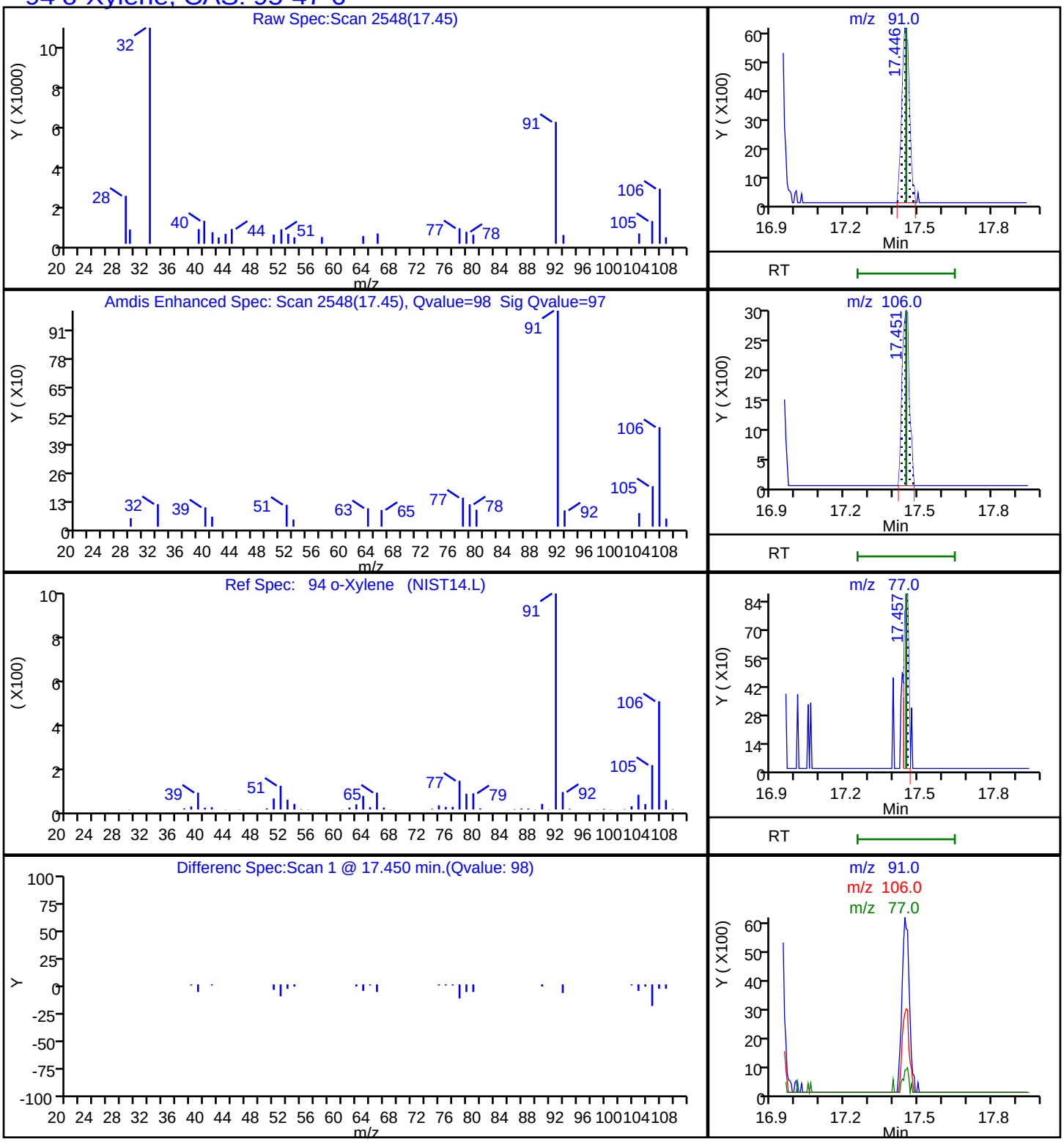
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D		
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8
Client ID:	IA-DUP4-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

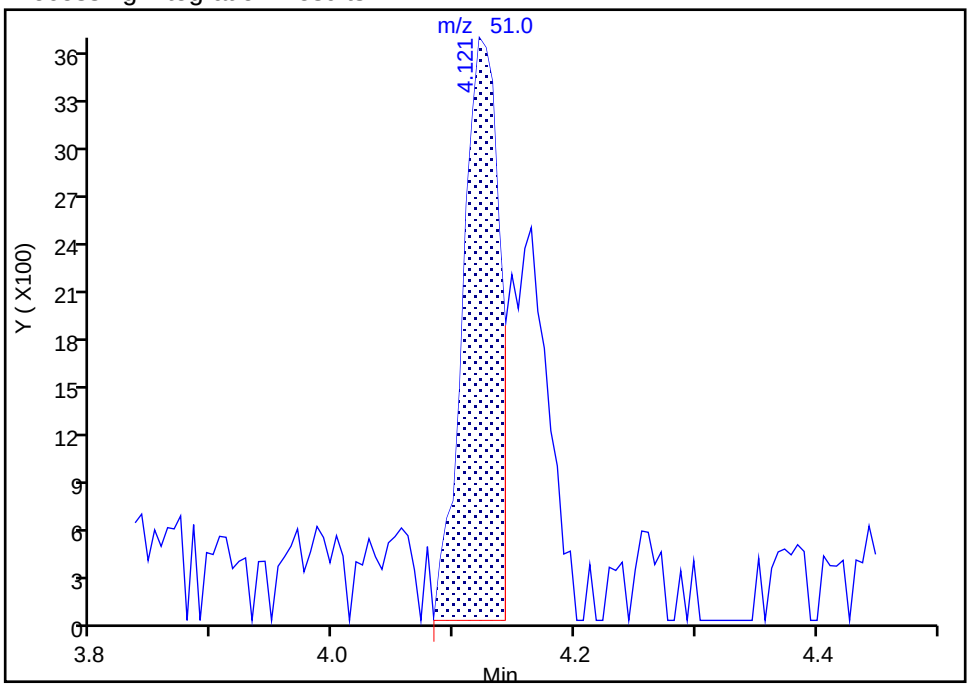
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8		
Client ID:	IA-DUP4-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

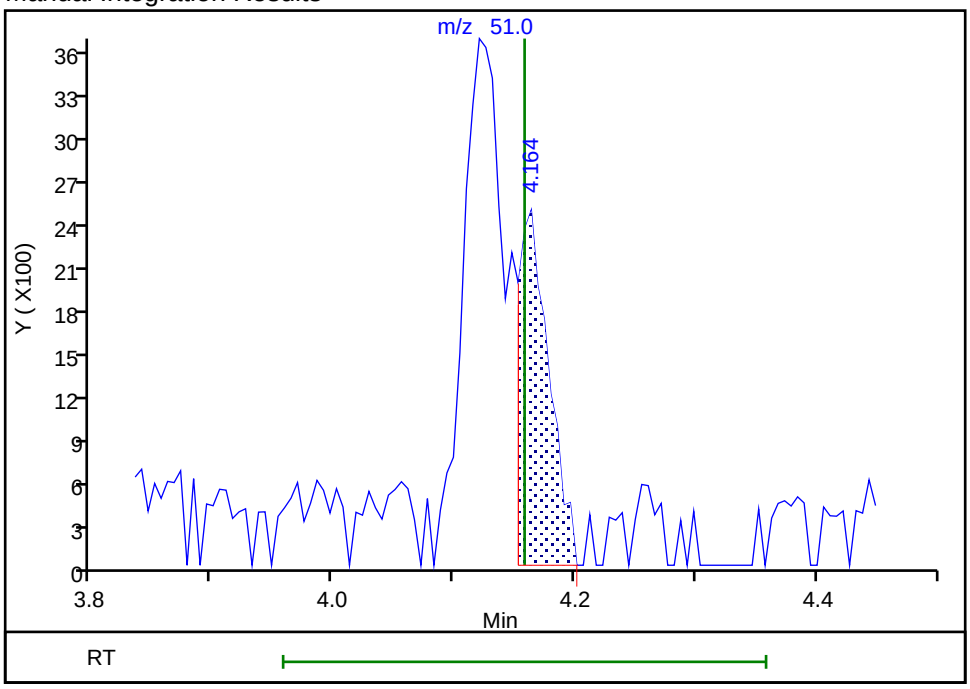
Processing Integration Results

RT: 4.12
Area: 7680
Amount: 0.135619
Amount Units: ppb v/v



Manual Integration Results

RT: 4.16
Area: 4285
Amount: 0.075668
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 22-Aug-2019 12:09:09

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

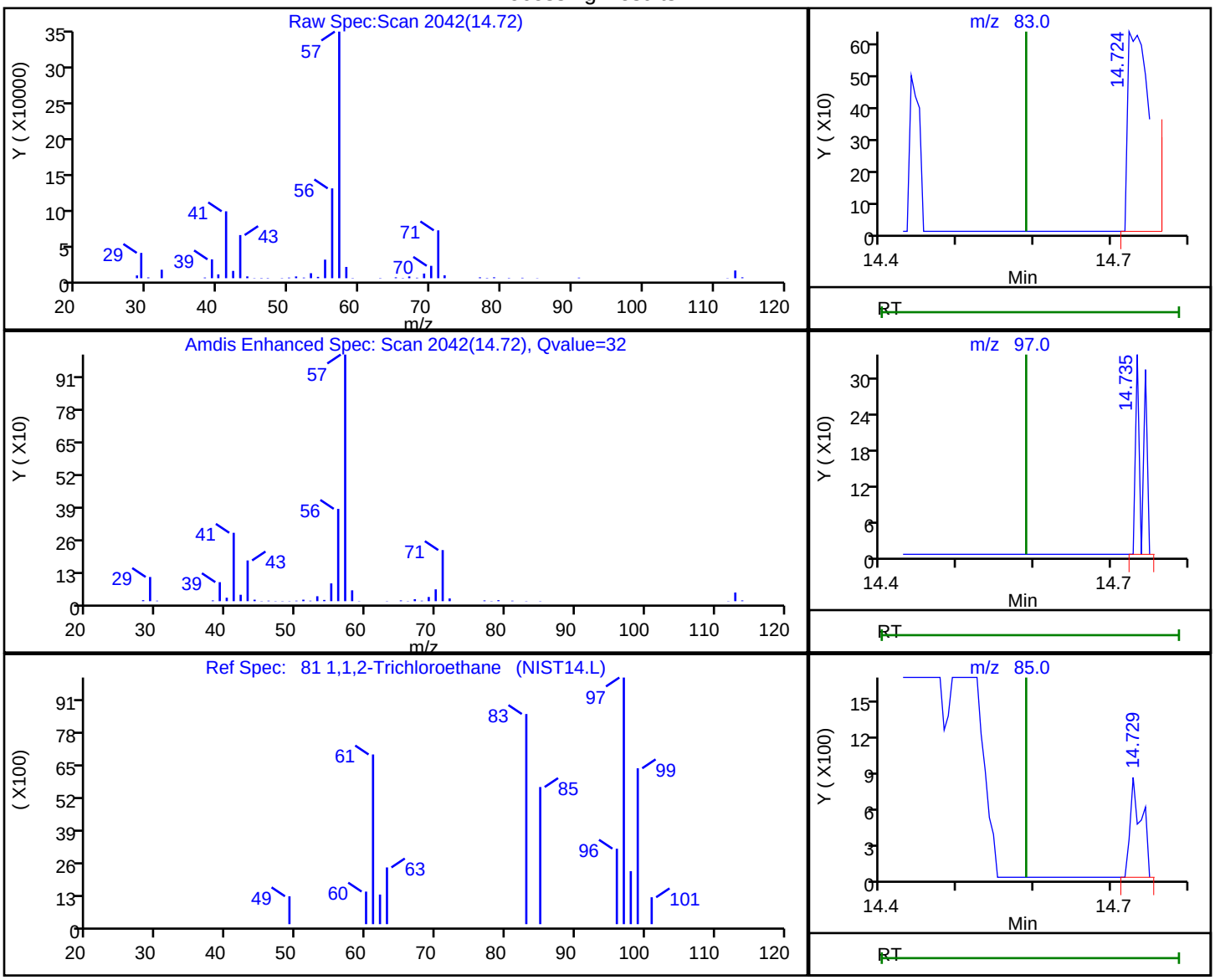
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8		
Client ID:	IA-DUP4-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

81 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.72	83.00	1168	0.017369
14.73	97.00	206	
14.73	85.00	870	

Reviewer: khachitpongpanits, 22-Aug-2019 12:09:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

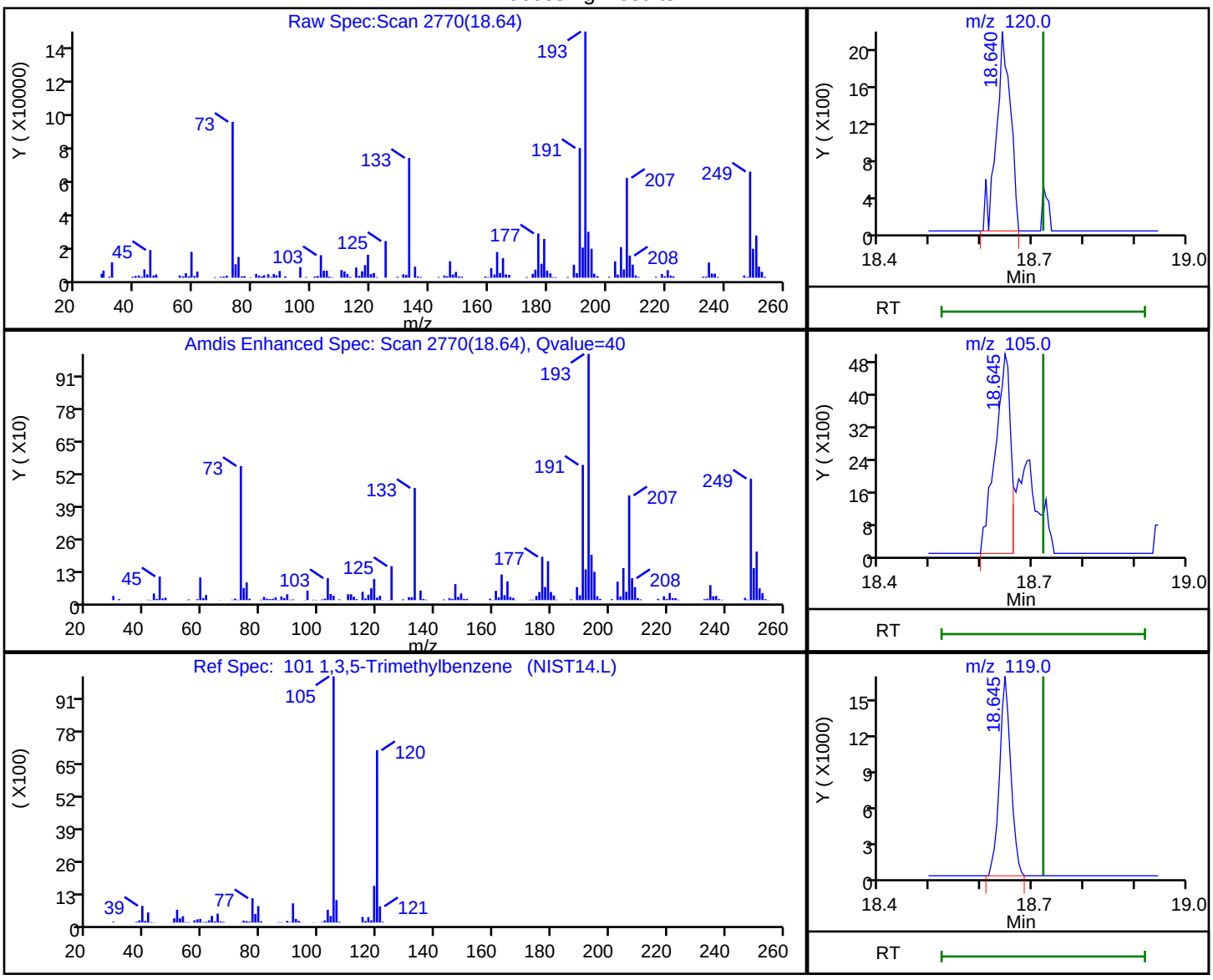
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P104.D				
Injection Date:	21-Aug-2019 17:59:30	Instrument ID:	MJ		
Lims ID:	140-16367-A-8	Lab Sample ID:	140-16367-8		
Client ID:	IA-DUP4-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.64	120.00	4065	0.035493
18.65	105.00	10307	
18.65	119.00	25001	

Reviewer: khachitpongpanits, 22-Aug-2019 12:10:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.040	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.90		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.76	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	16		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.21	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D
Lims ID: 140-16367-A-9
Client ID: IA-118-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 19:58:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-013
Misc. Info.: 140-16367-a-9
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:25:05 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:25:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.135	0.010	82	862766	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	94	4013893	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	87	2976020	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.611	17.612	-0.001	92	1892466	3.66	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	34	26754	0.0610	a
8 Dichlorodifluoromethane	85	3.883	3.890	-0.005	99	57913	0.0680	
31 Methylene Chloride	84	6.552	6.536	0.016	84	86246	0.3607	
44 Chloroform	83	9.162	9.151	0.011	32	5160	0.008812	
50 Benzene	78	10.785	10.779	0.006	59	16309	0.0272	
52 Carbon tetrachloride	117	10.806	10.801	0.005	55	6693	0.0110	
58 Trichloroethene	130	12.020	12.014	0.006	54	2665	0.007963	
67 Toluene	91	14.031	14.036	-0.005	94	495260	0.8464	
68 1,1,2-Trichloroethane	83	14.268	14.107	0.162	32	1163	0.006786	
78 Ethylbenzene	91	16.317	16.317	0.000	98	27130	0.0350	
79 m-Xylene & p-Xylene	91	16.468	16.474	-0.006	96	80812	0.1333	
83 o-Xylene	91	16.997	16.997	0.000	99	30098	0.0458	
S 124 Xylenes, Total	100				0		0.1791	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

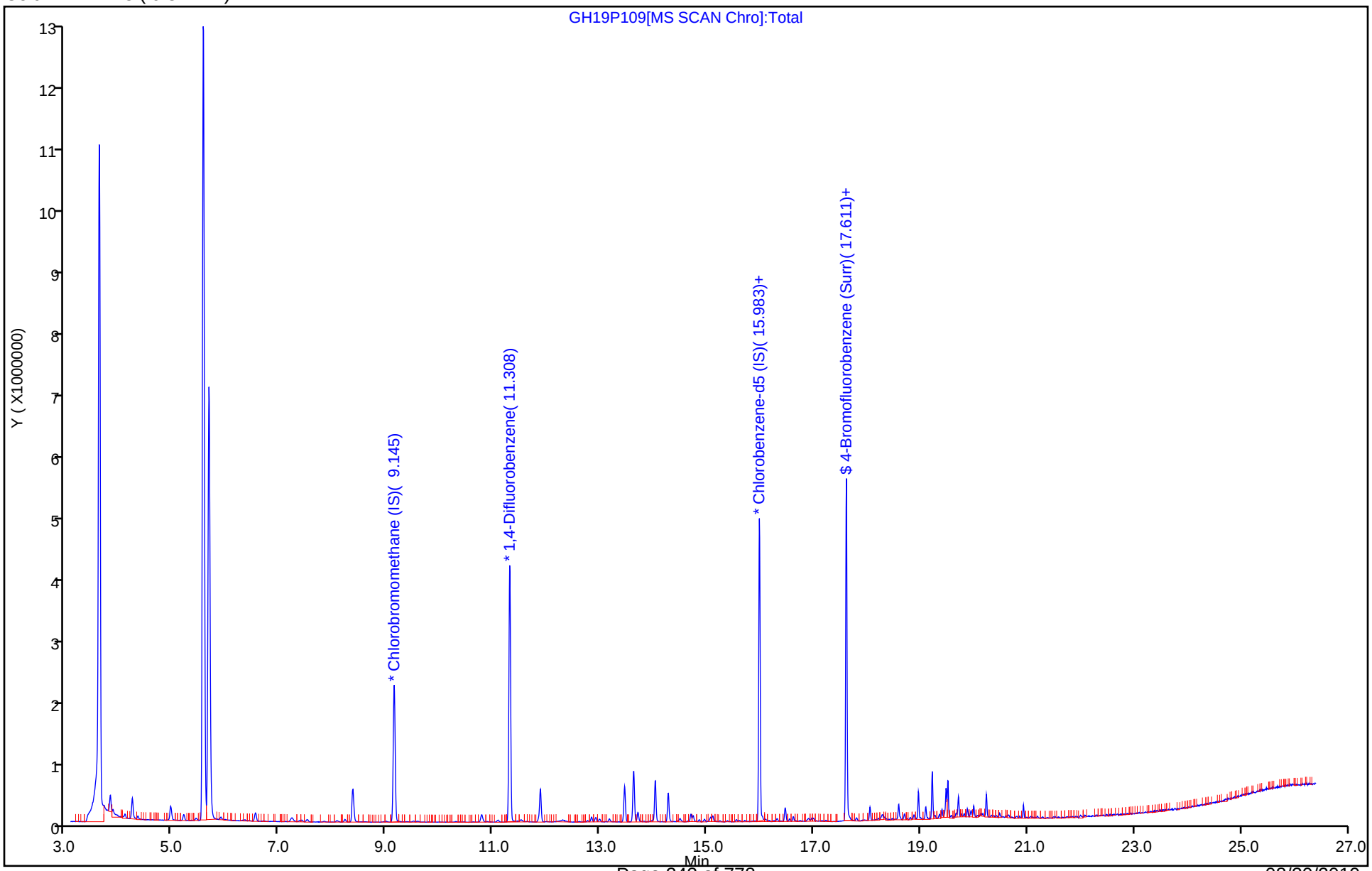
Report Date: 20-Aug-2019 10:25:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D

Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9	Worklist Smp#:	13
Client ID:	IA-118-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D				
Lims ID:	140-16367-A-9				
Client ID:	IA-118-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 19:58:30	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-013				
Misc. Info.:	140-16367-a-9				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:25:05	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:25:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.66	91.51

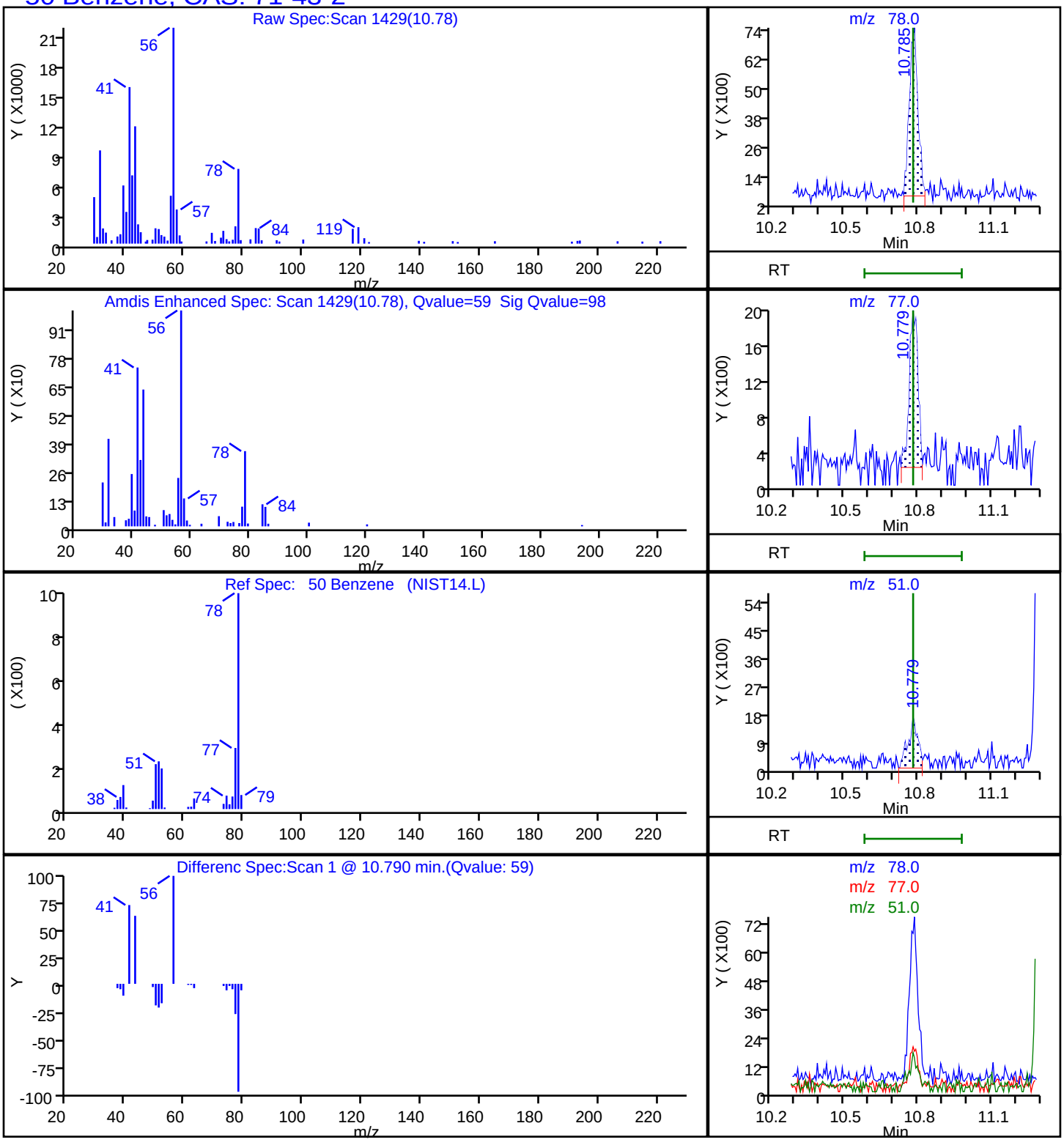
Report Date: 20-Aug-2019 10:25:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D

Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

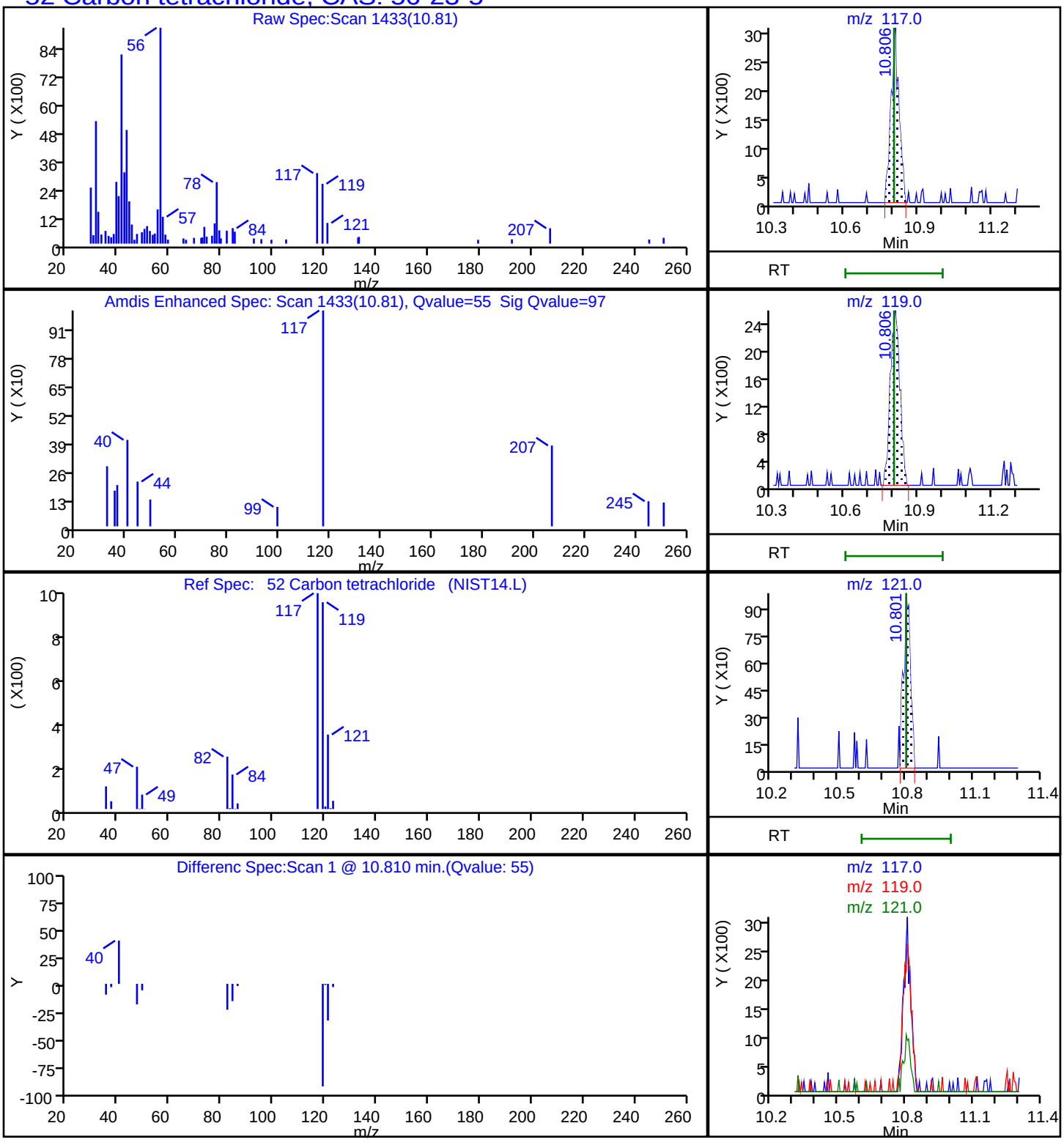
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D		
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 20-Aug-2019 10:25:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D

Injection Date: 19-Aug-2019 19:58:30 Instrument ID: MG

Lims ID: 140-16367-A-9 Lab Sample ID: 140-16367-9

Client ID: IA-118-A-27

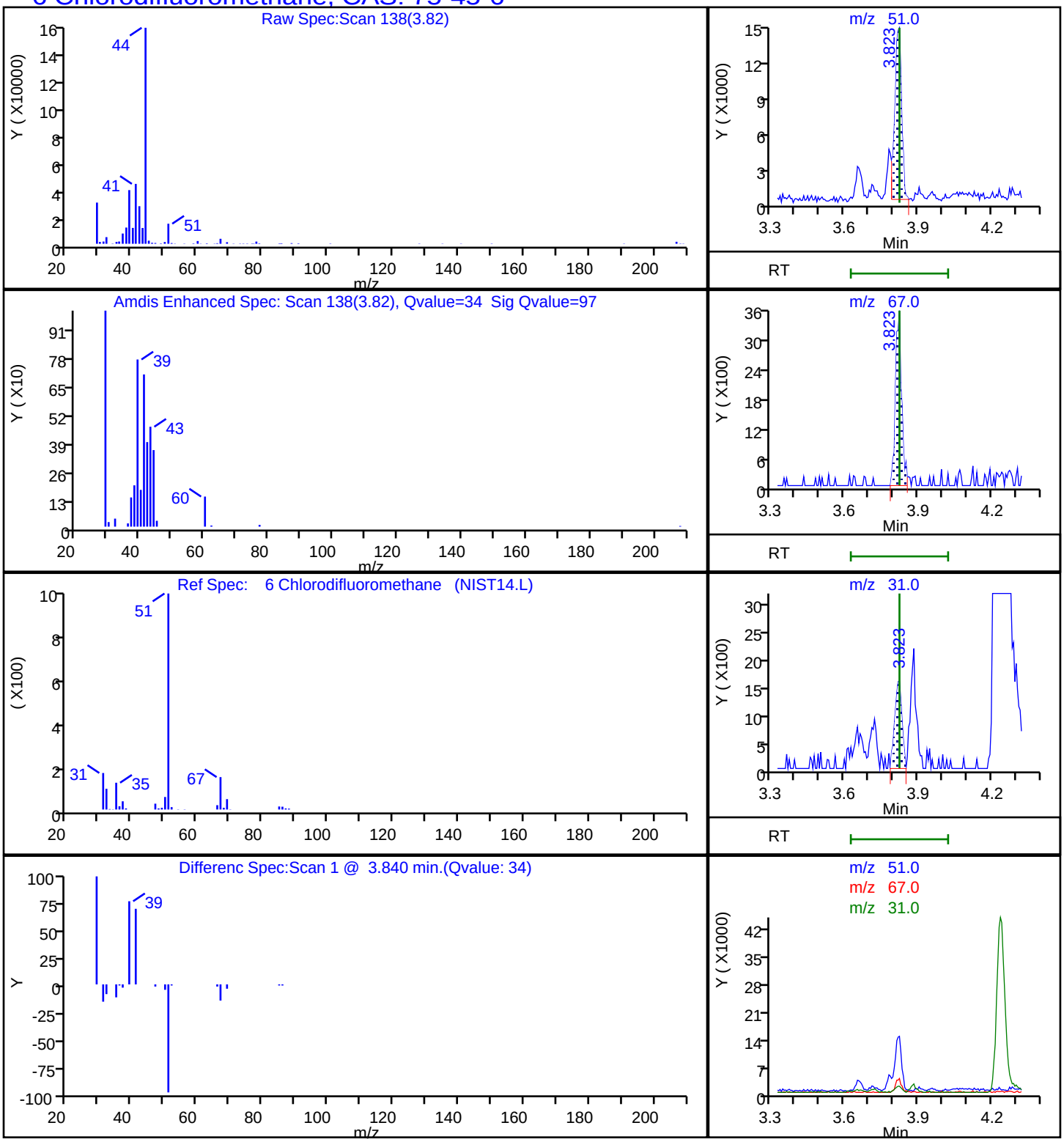
Operator ID: 7126 ALS Bottle#: 9 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

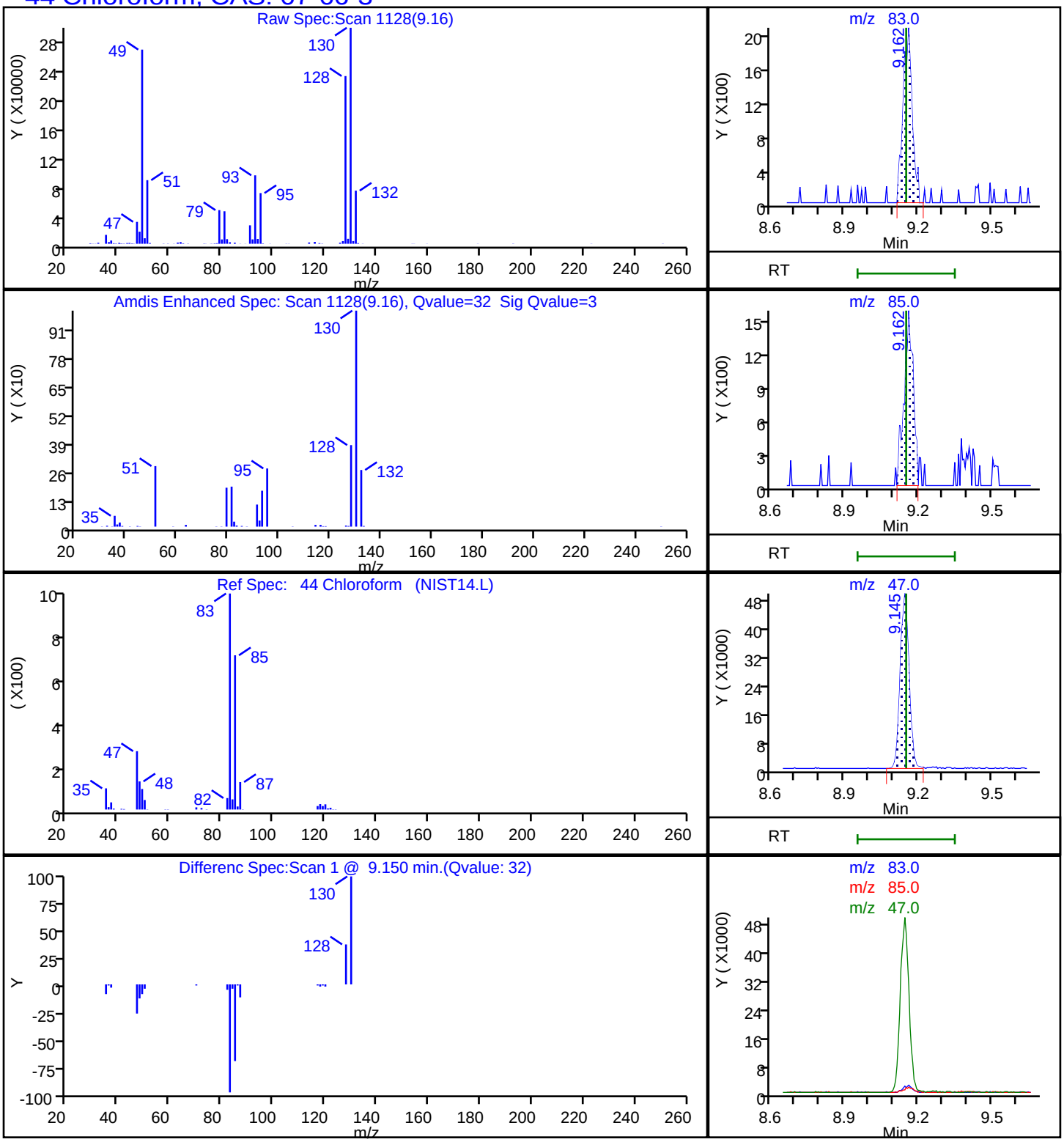
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D		
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

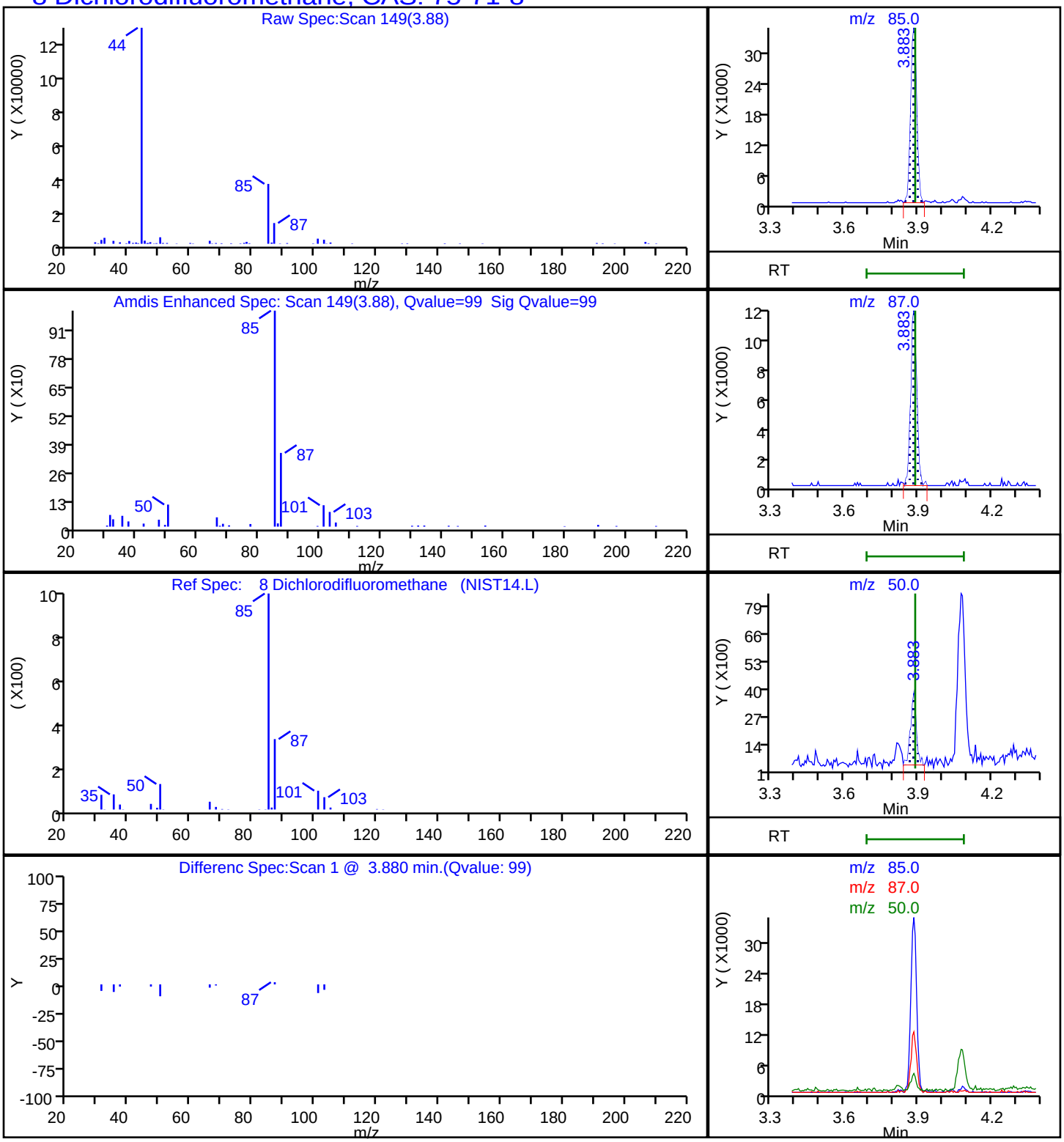
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D				
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG		
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9		
Client ID:	IA-118-A-27				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

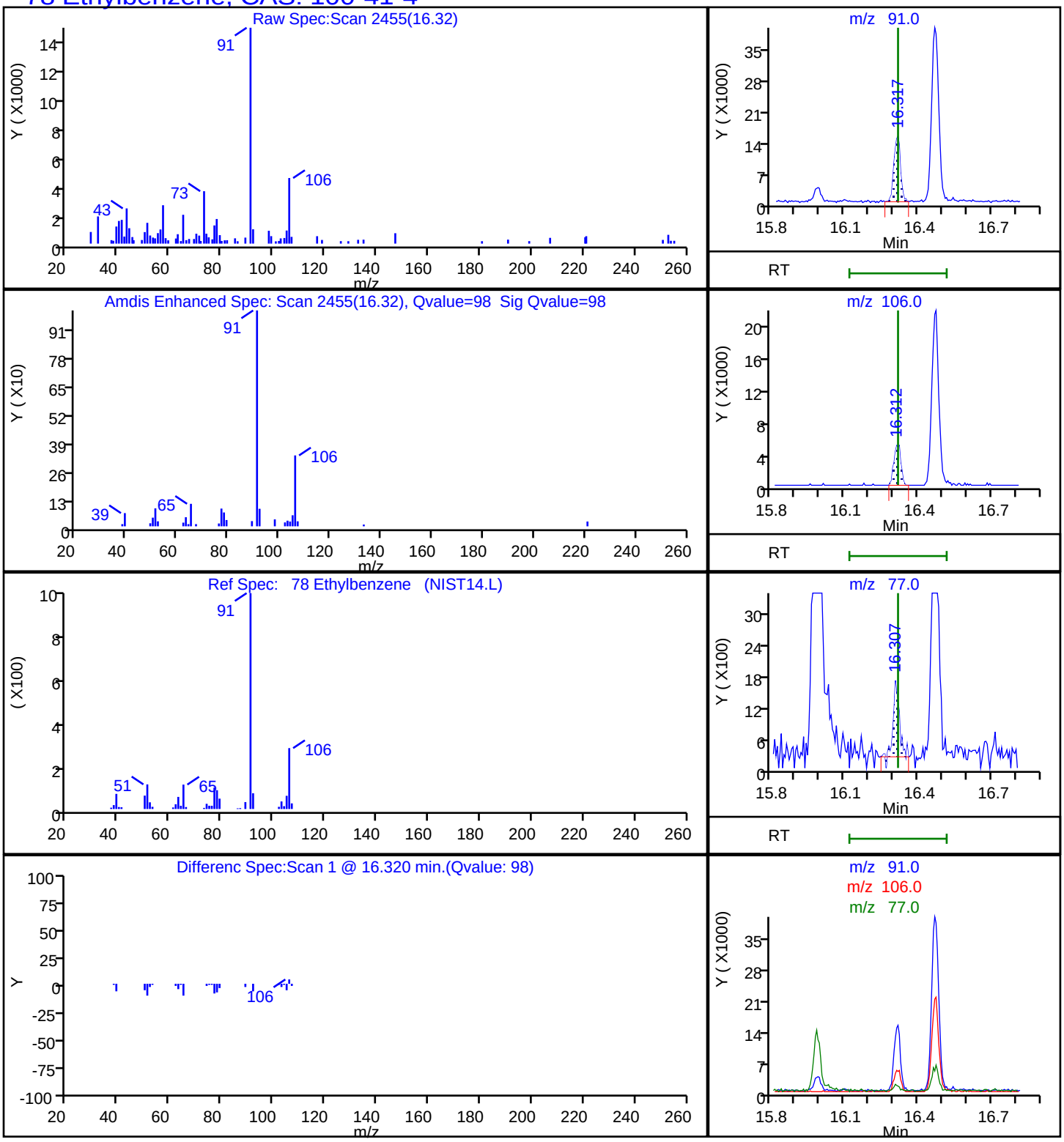


Report Date: 20-Aug-2019 10:25:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D				
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG		
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9		
Client ID:	IA-118-A-27				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

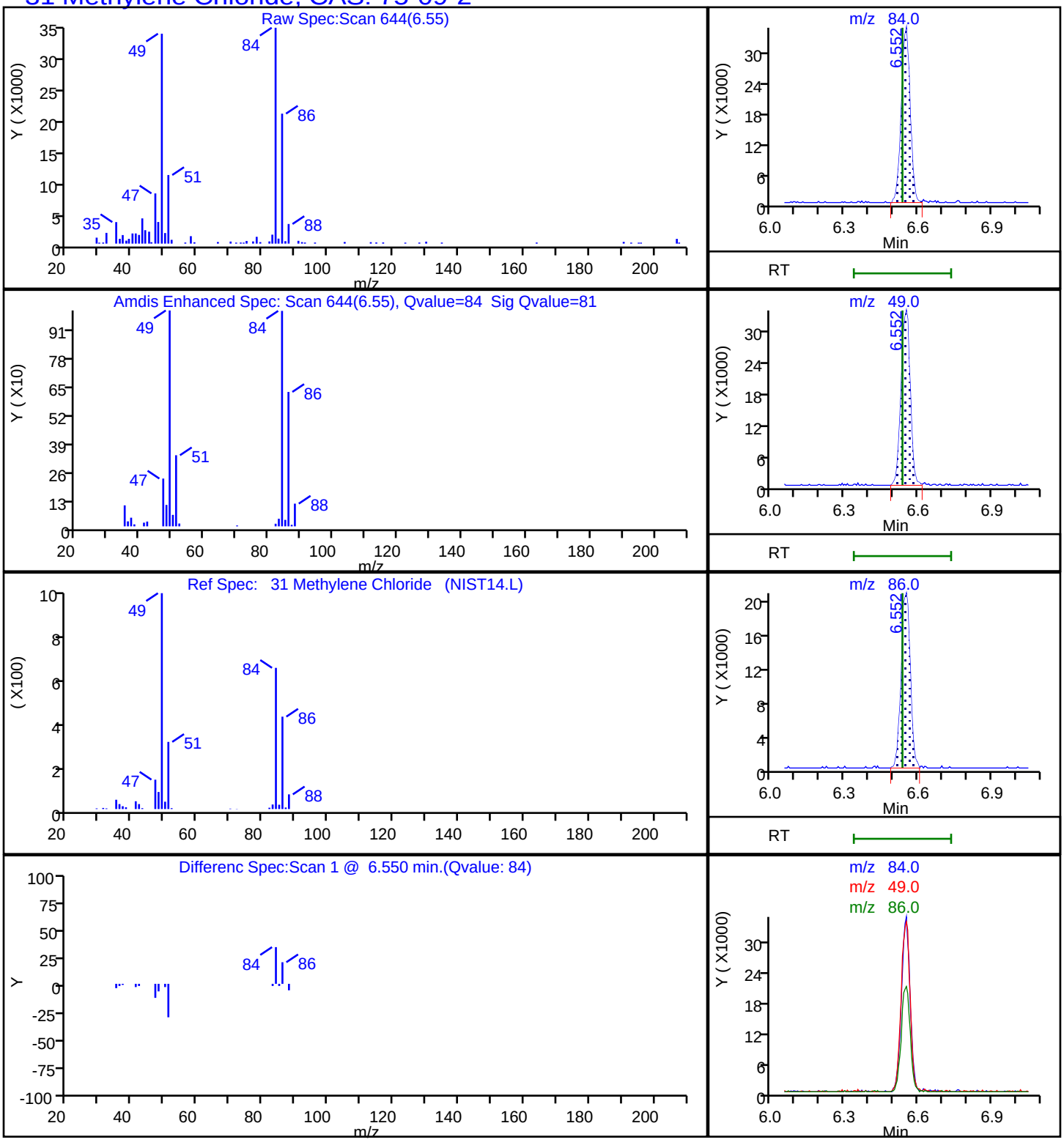
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D		
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

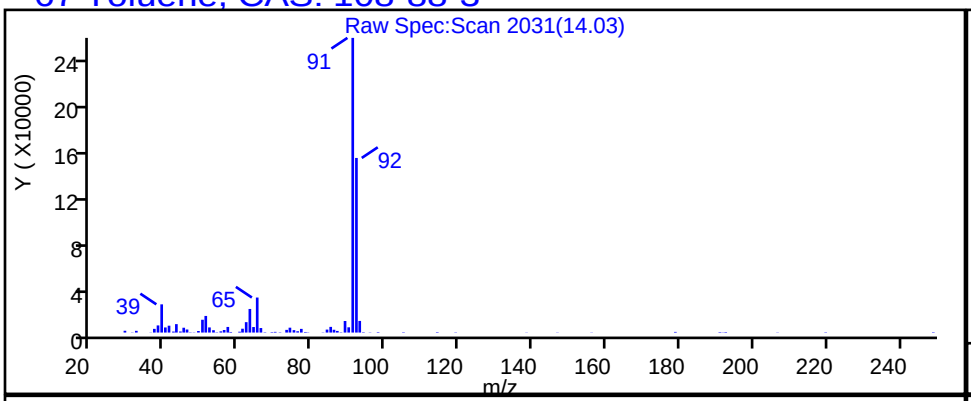
31 Methylene Chloride, CAS: 75-09-2

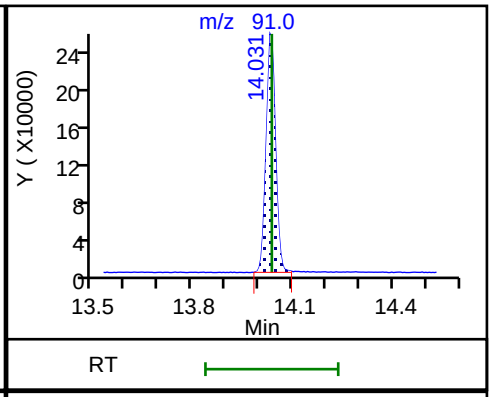


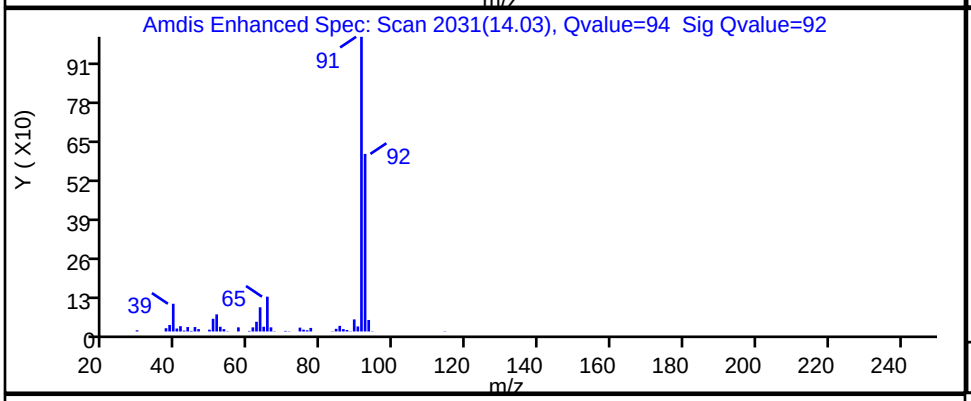
Eurofins TestAmerica, Knoxville

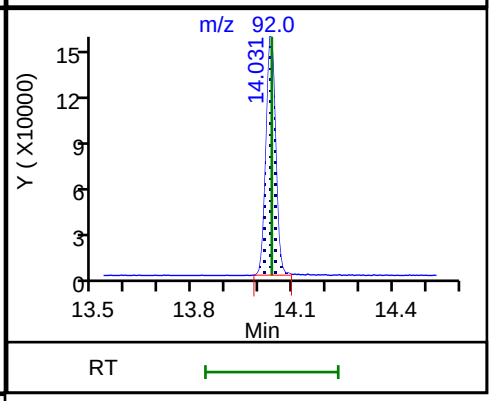
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D		
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

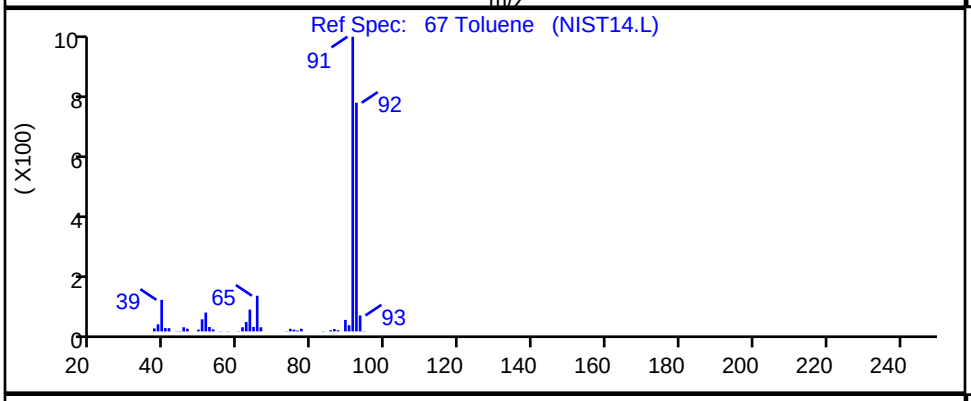
67 Toluene, CAS: 108-88-3

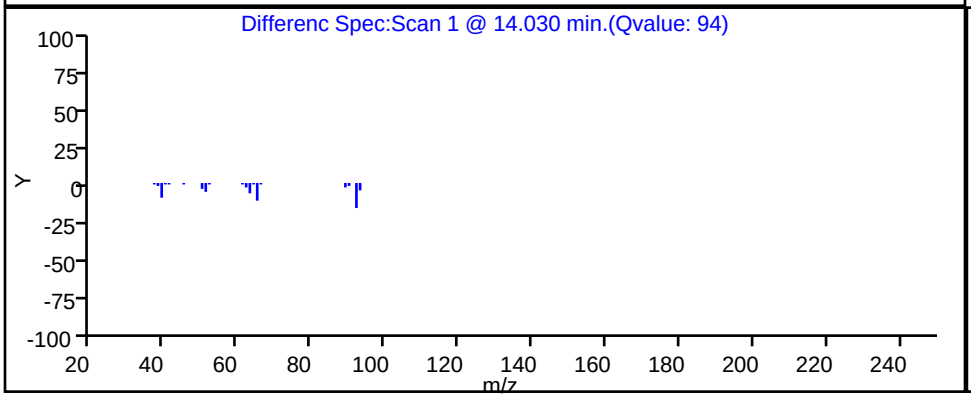


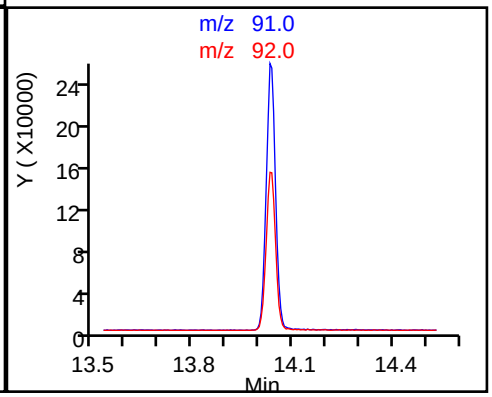










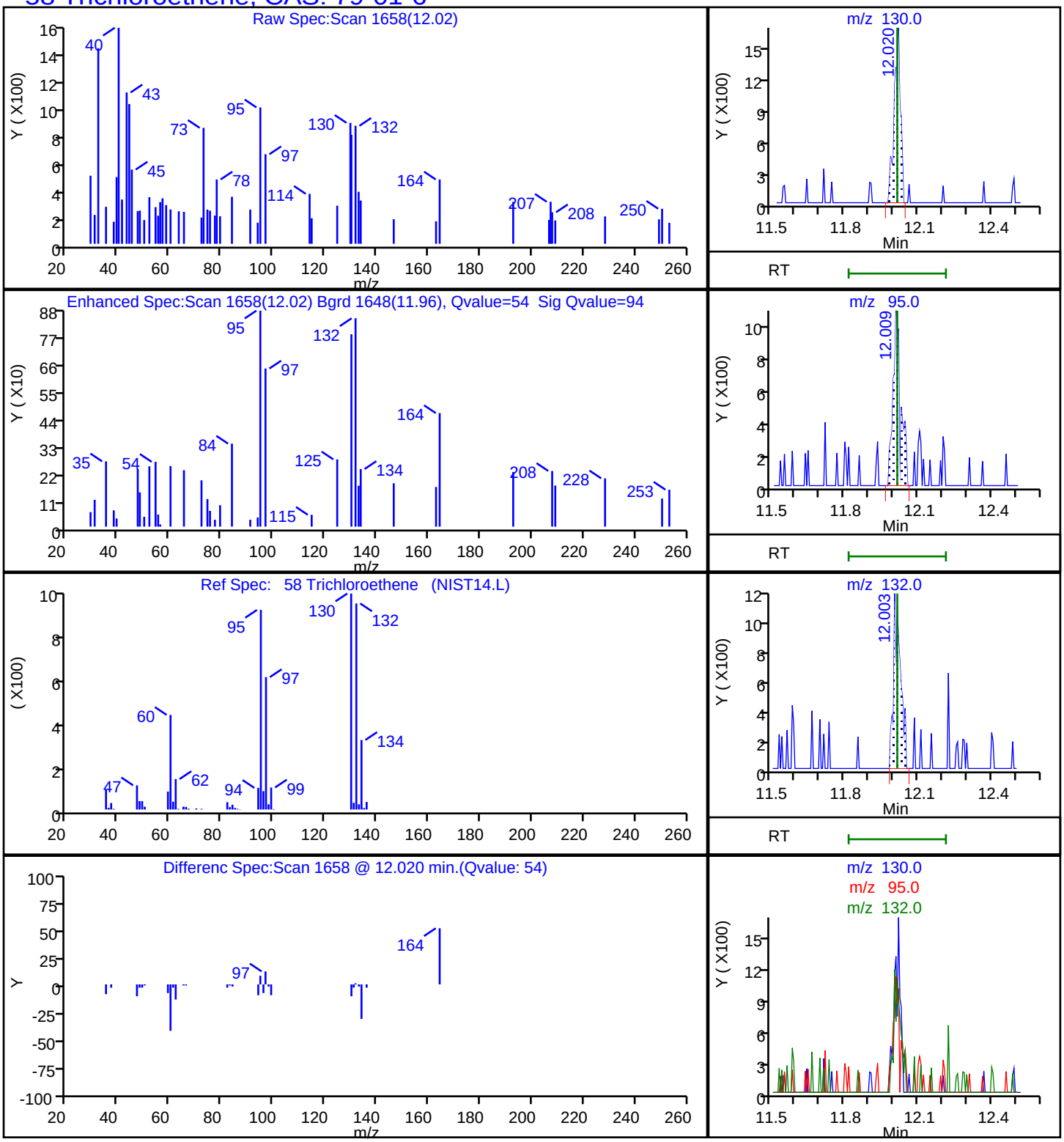


Report Date: 20-Aug-2019 10:25:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D		
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

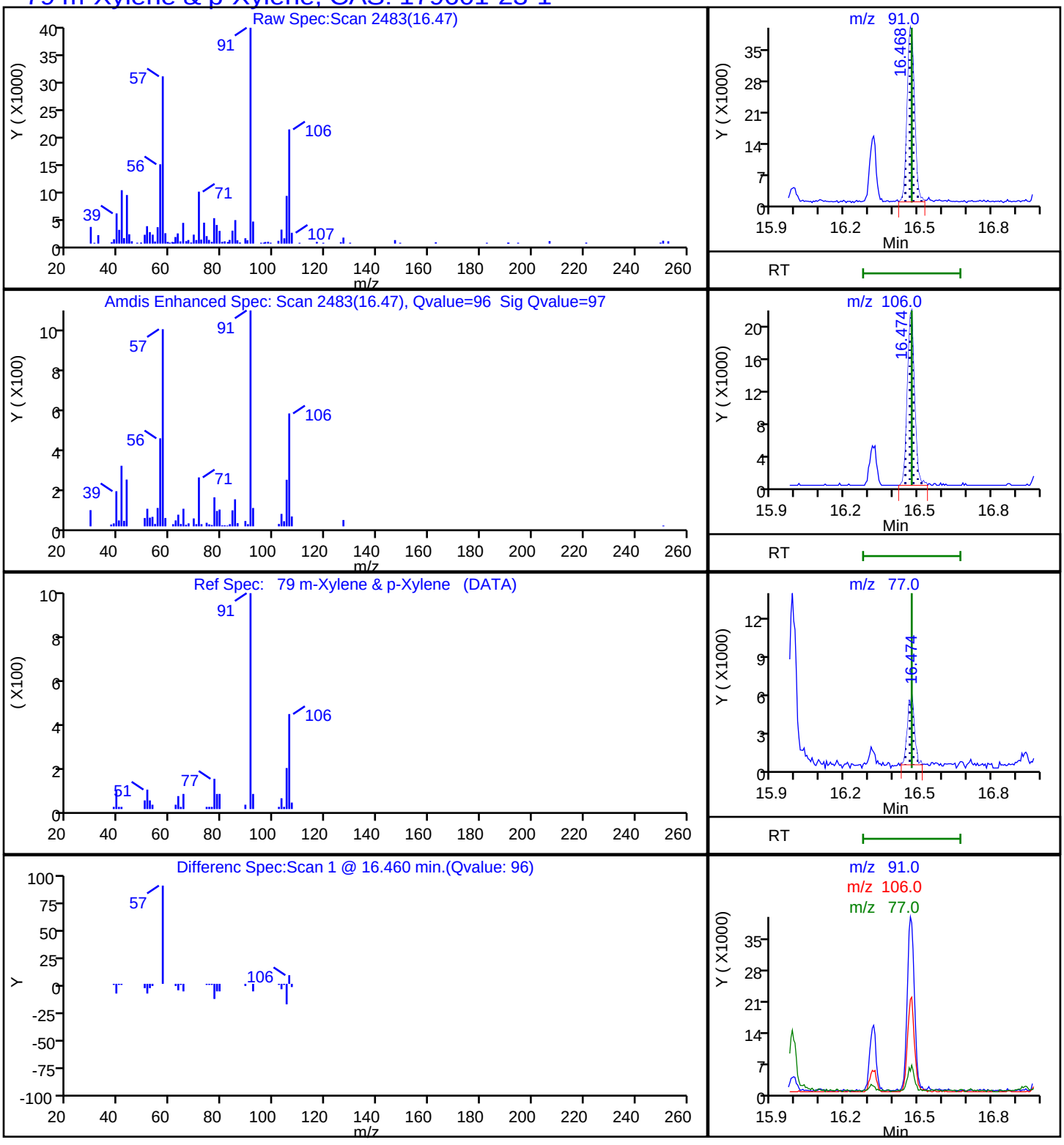


Report Date: 20-Aug-2019 10:25:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D				
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG		
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9		
Client ID:	IA-118-A-27				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1



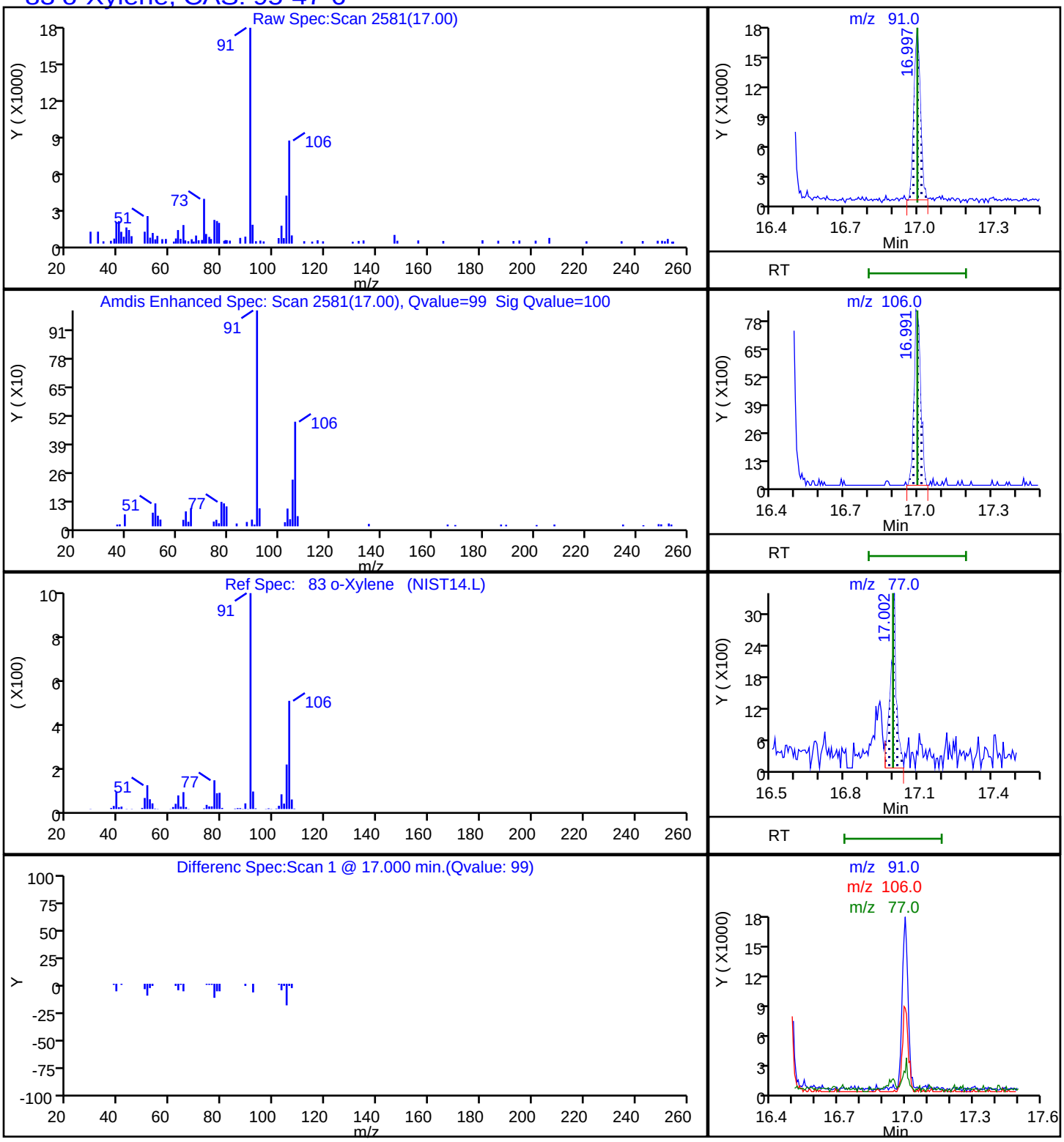
Report Date: 20-Aug-2019 10:25:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D

Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9
Client ID:	IA-118-A-27		
Operator ID:	7126	ALS Bottle#:	9 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

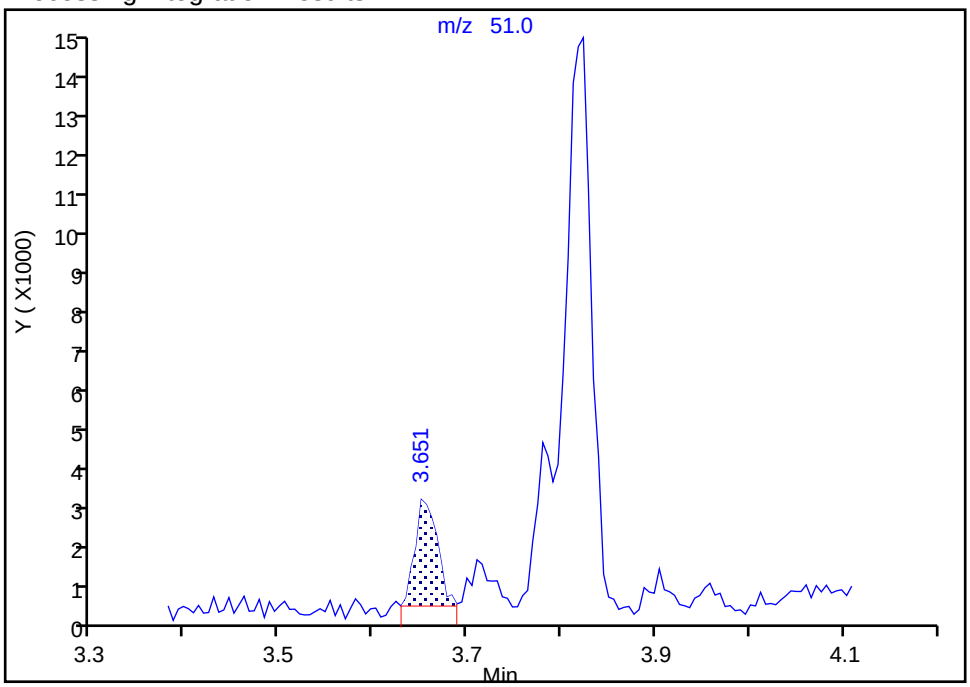
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P109.D				
Injection Date:	19-Aug-2019 19:58:30	Instrument ID:	MG		
Lims ID:	140-16367-A-9	Lab Sample ID:	140-16367-9		
Client ID:	IA-118-A-27				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

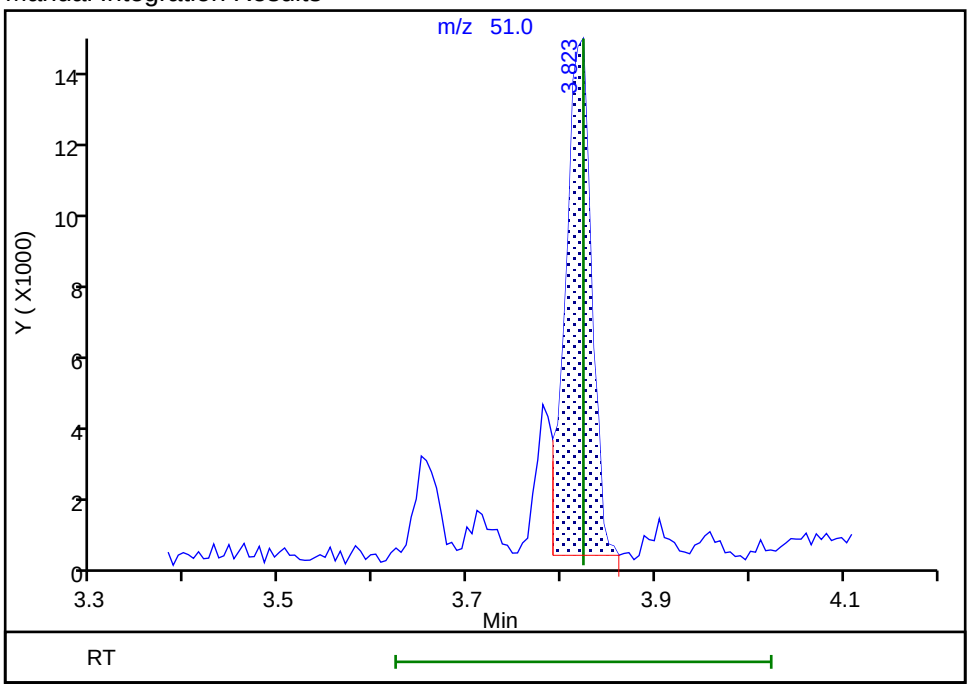
Processing Integration Results

RT: 3.65
Area: 4252
Amount: 0.009703
Amount Units: ppb v/v



Manual Integration Results

RT: 3.82
Area: 26754
Amount: 0.061049
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 10:24:29

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.58	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	18		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D
Lims ID: 140-16367-A-10
Client ID: IA-015-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 20:41:30 ALS Bottle#: 10 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-014
Misc. Info.: 140-16367-a-10
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:25:55 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:25:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.135	0.016	85	630191	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.308	0.005	94	3510555	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	88	3203955	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	90	2222172	3.99	
6 Chlorodifluoromethane	51	3.829	3.829	0.006	46	28742	0.0898	a
8 Dichlorodifluoromethane	85	3.893	3.890	0.005	99	67856	0.1091	
31 Methylene Chloride	84	6.557	6.536	0.021	92	71137	0.4073	
44 Chloroform	83	9.162	9.151	0.011	27	4251	0.0099	
50 Benzene	78	10.790	10.779	0.011	96	14721	0.0281	
52 Carbon tetrachloride	117	10.812	10.801	0.011	94	6004	0.0113	
67 Toluene	91	14.036	14.036	0.000	95	604908	0.9602	
78 Ethylbenzene	91	16.312	16.317	-0.005	98	18828	0.0226	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	54912	0.0841	
83 o-Xylene	91	16.997	16.997	0.000	97	23128	0.0327	
S 124 Xylenes, Total	100				0		0.1168	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

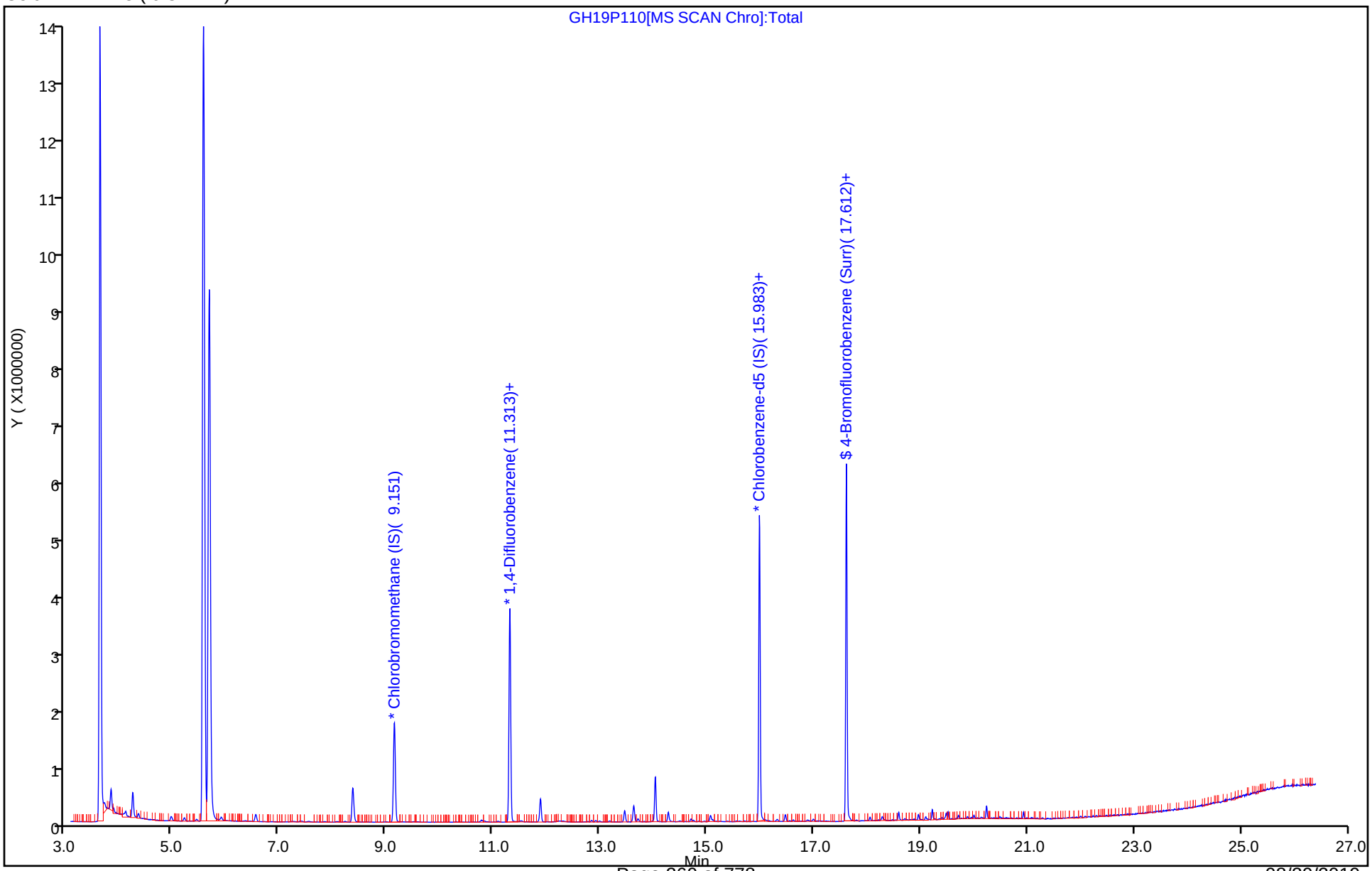
Report Date: 20-Aug-2019 10:25:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D

Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10	Worklist Smp#:	14
Client ID:	IA-015-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D				
Lims ID:	140-16367-A-10				
Client ID:	IA-015-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 20:41:30	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-014				
Misc. Info.:	140-16367-a-10				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:25:55	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:25:55

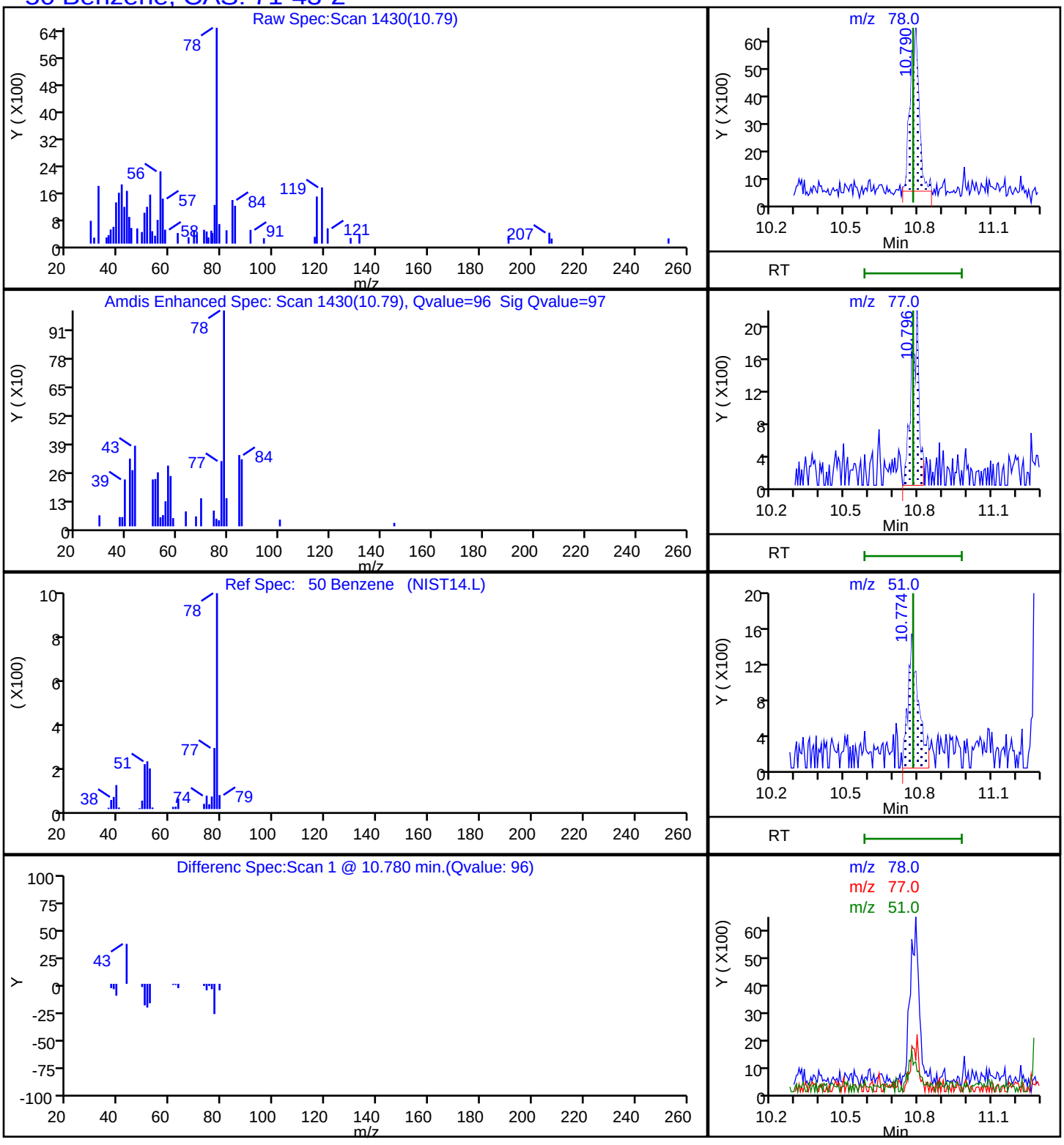
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.99	99.81

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D

Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

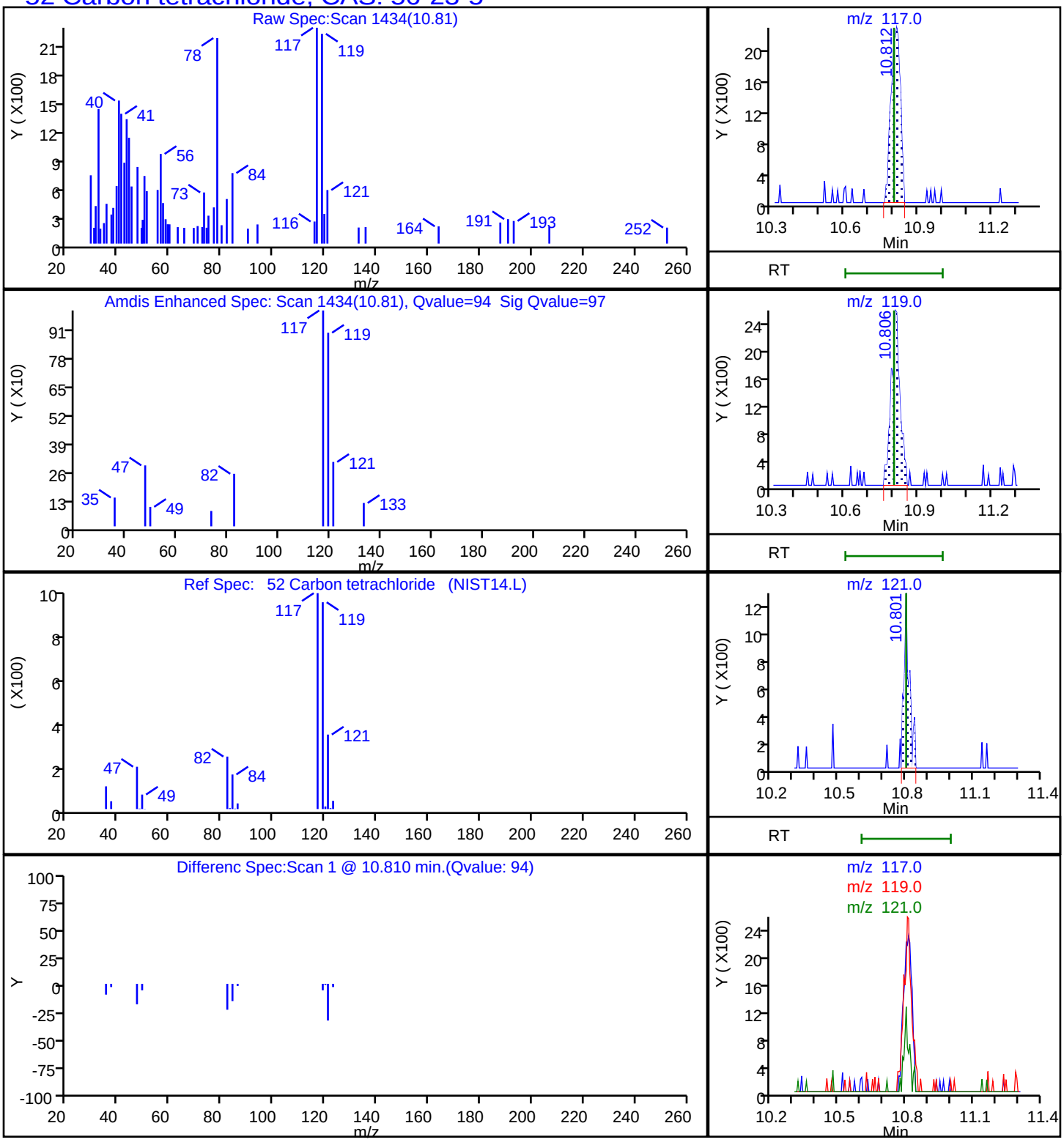
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

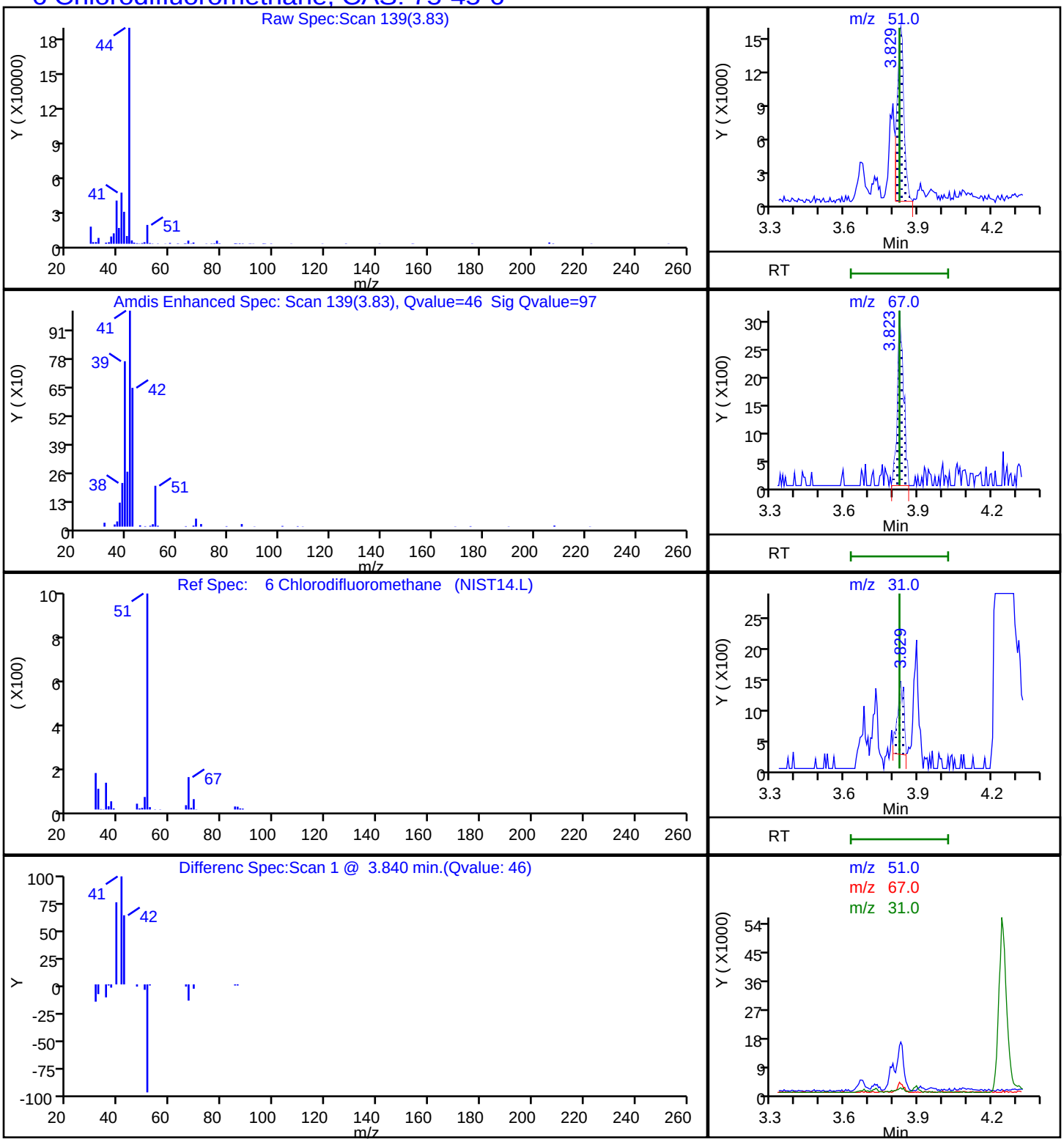
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D				
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10		
Client ID:	IA-015-A-27				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

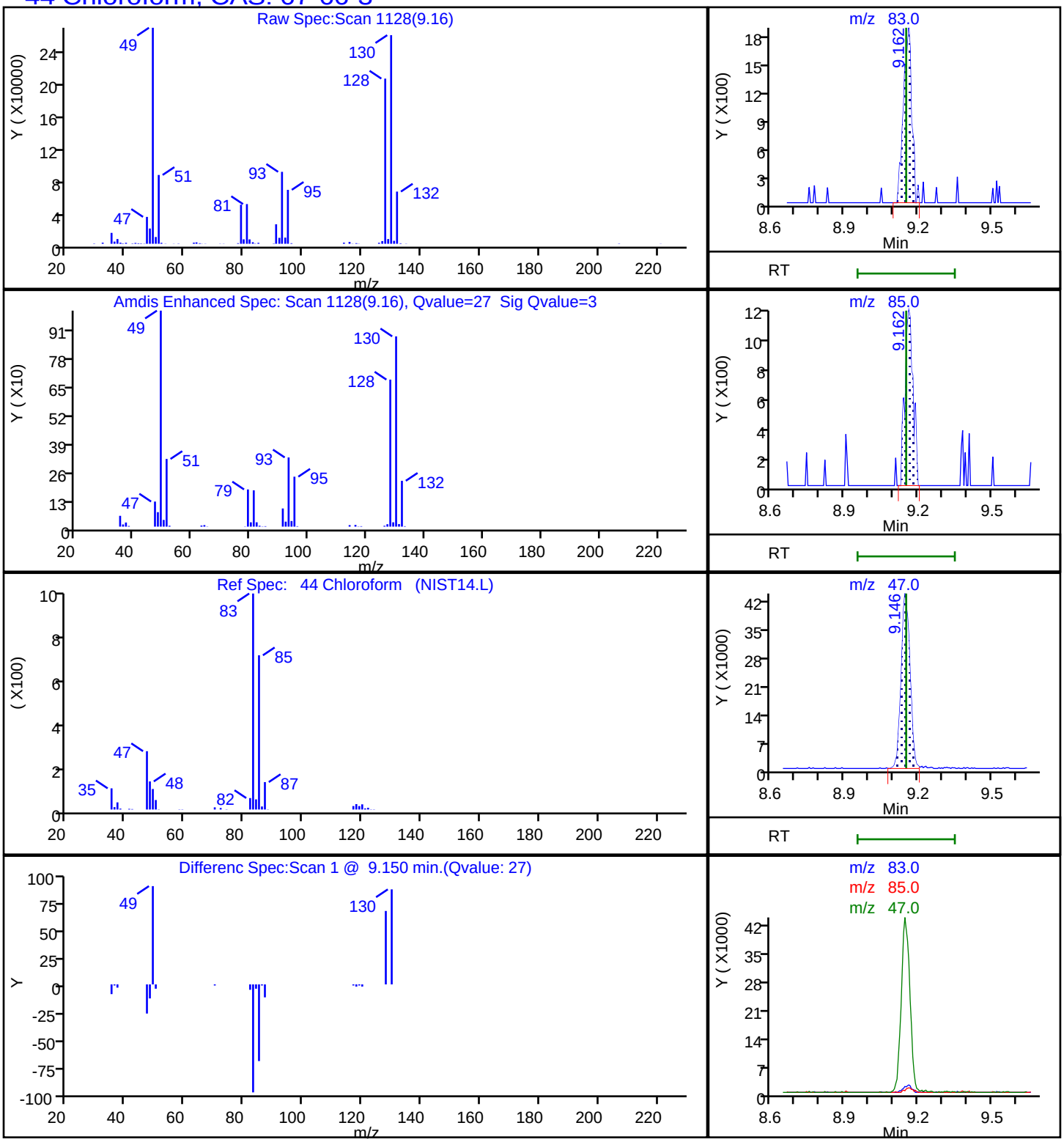


Report Date: 20-Aug-2019 10:25:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

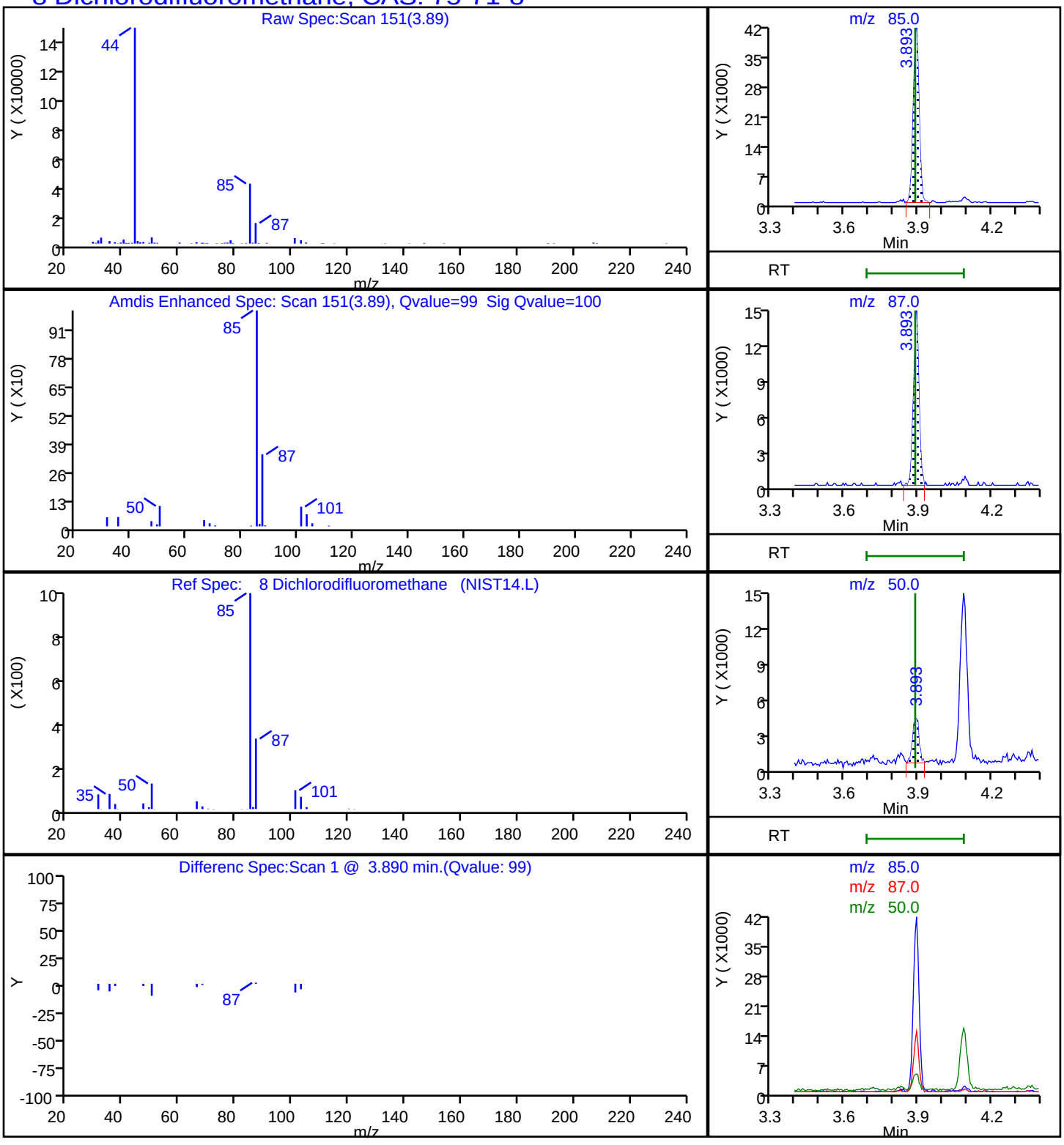
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

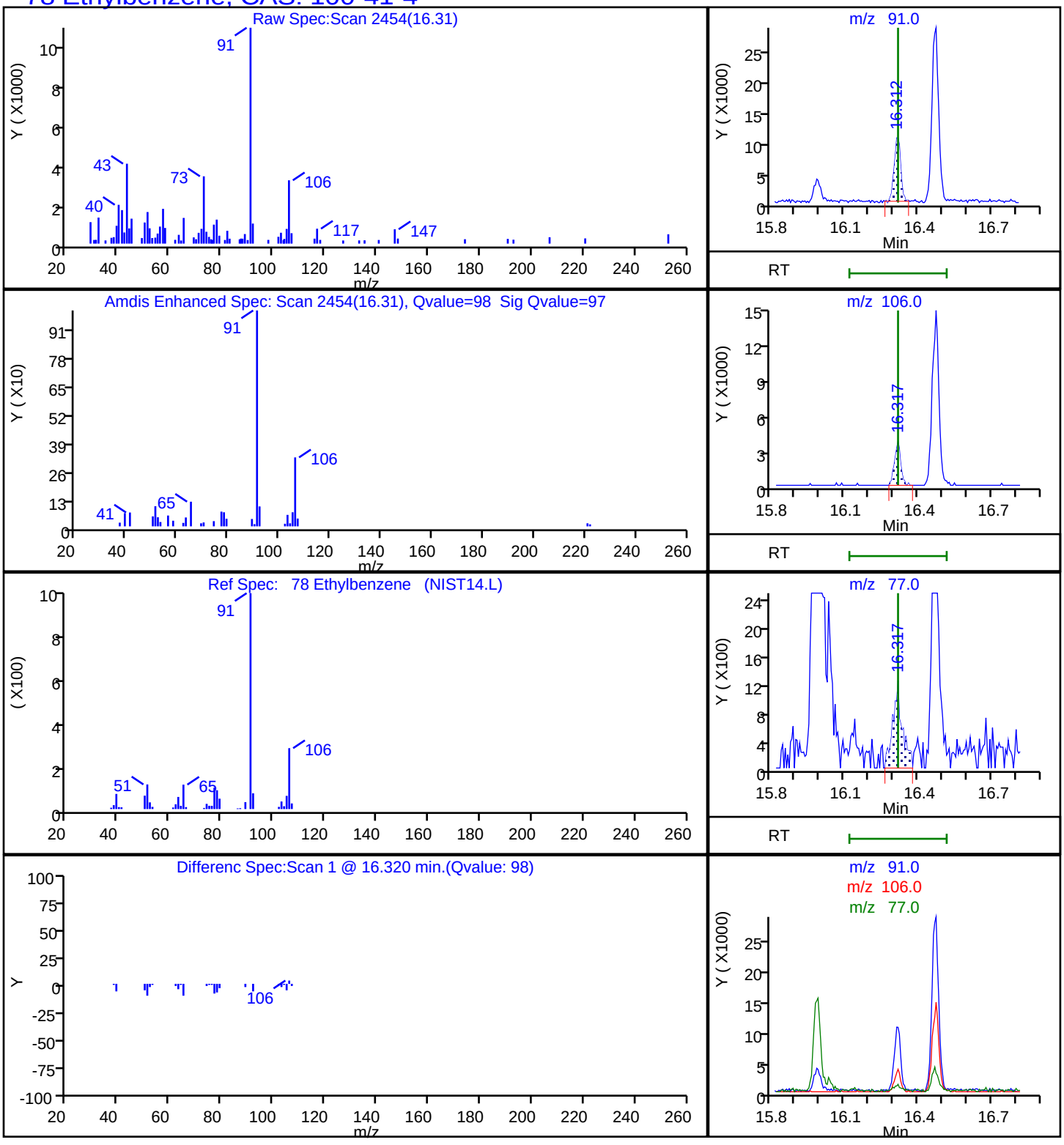
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

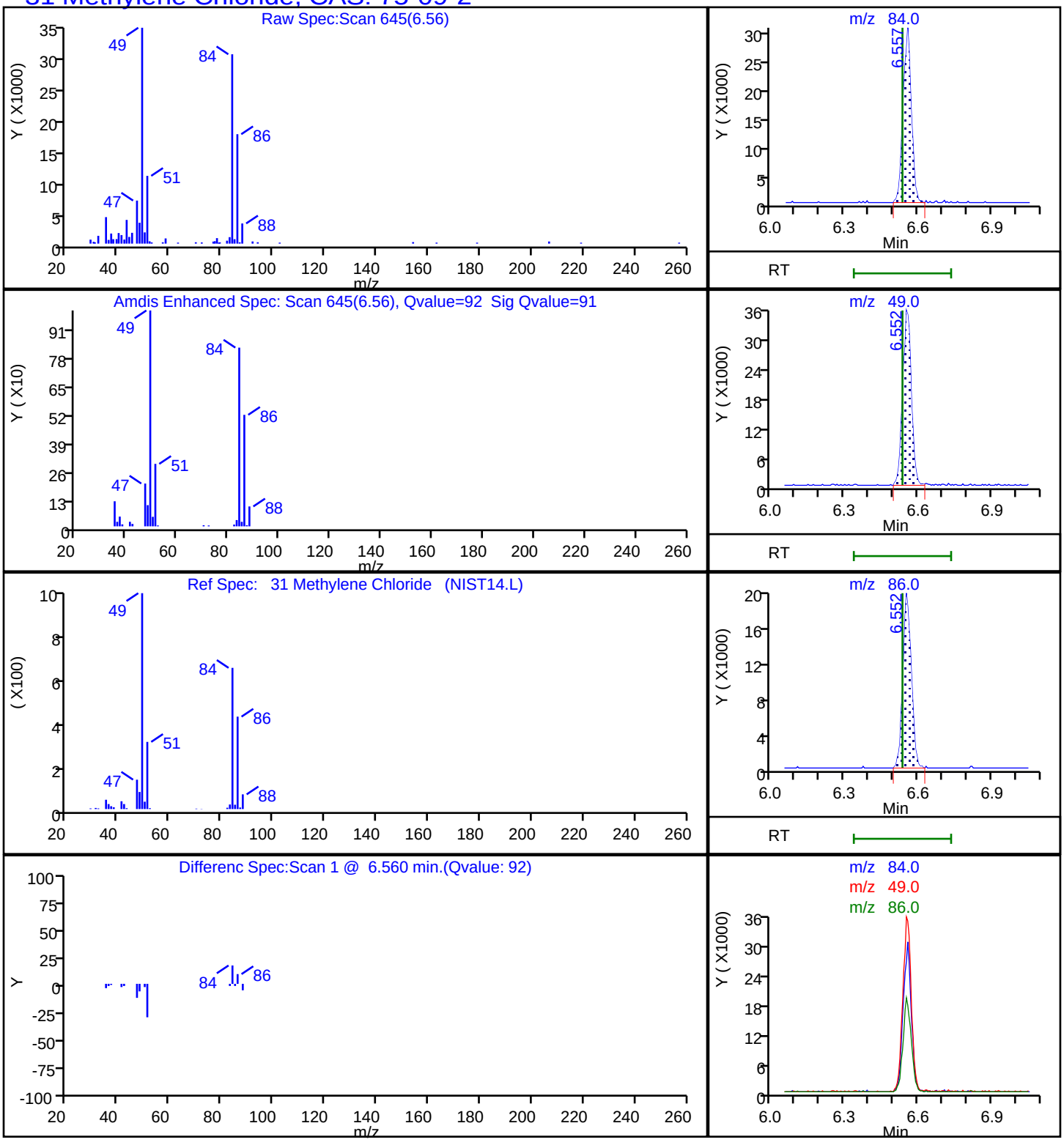
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

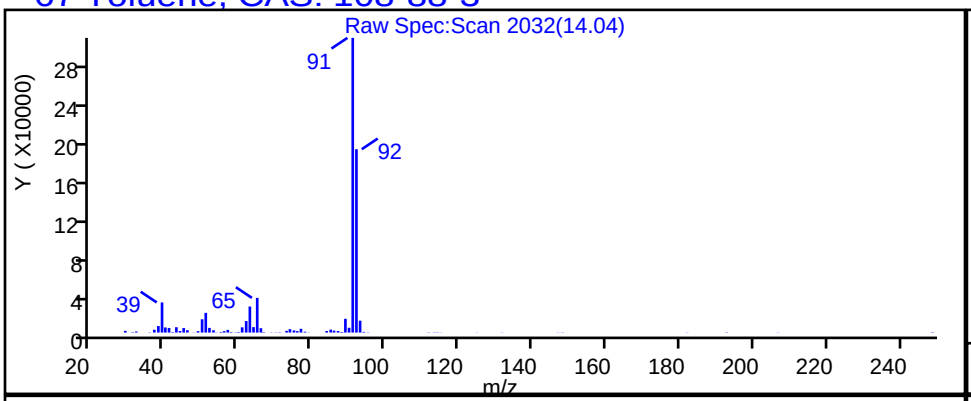
31 Methylene Chloride, CAS: 75-09-2

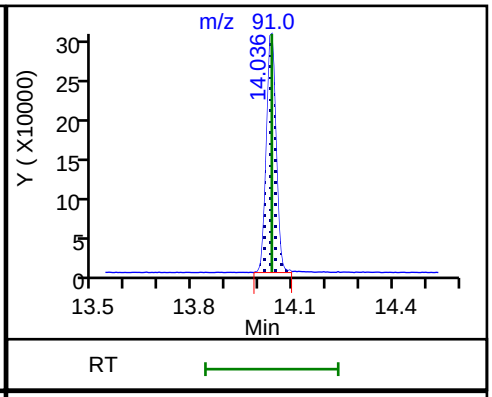


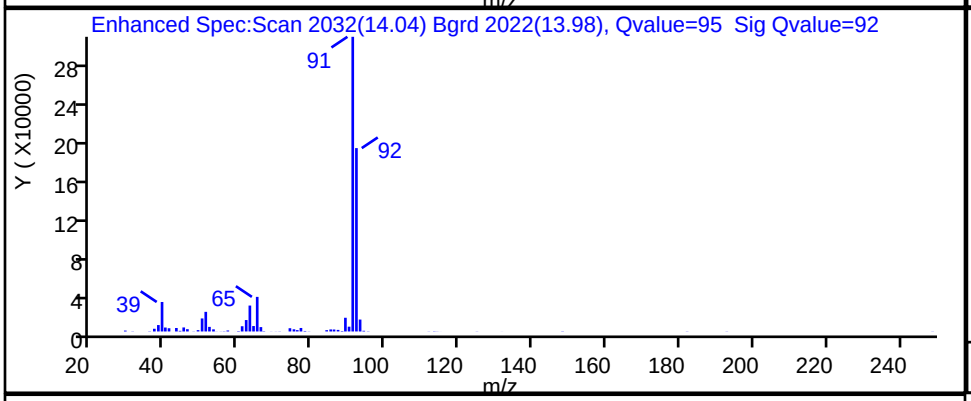
Eurofins TestAmerica, Knoxville

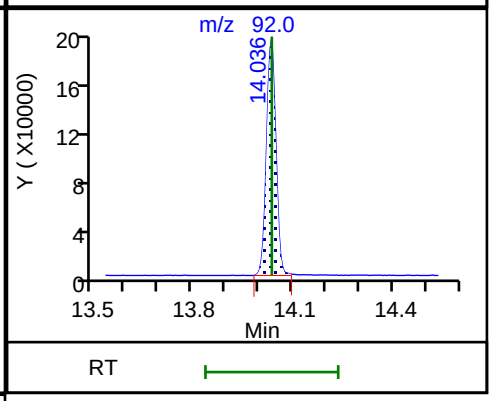
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

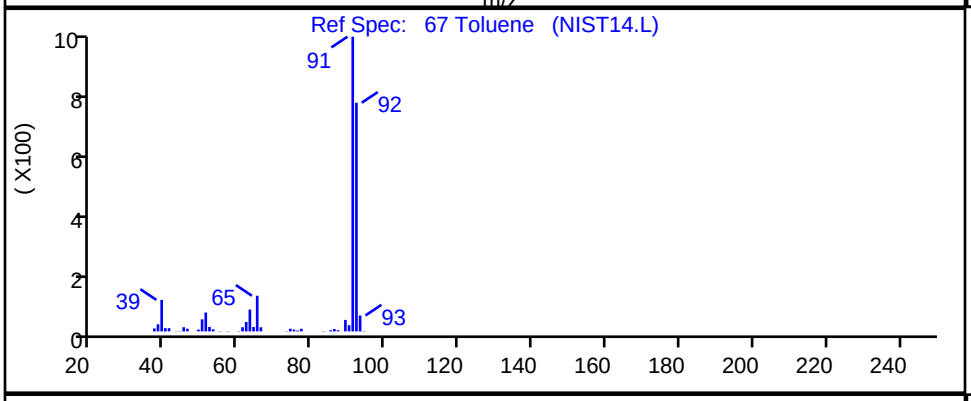
67 Toluene, CAS: 108-88-3

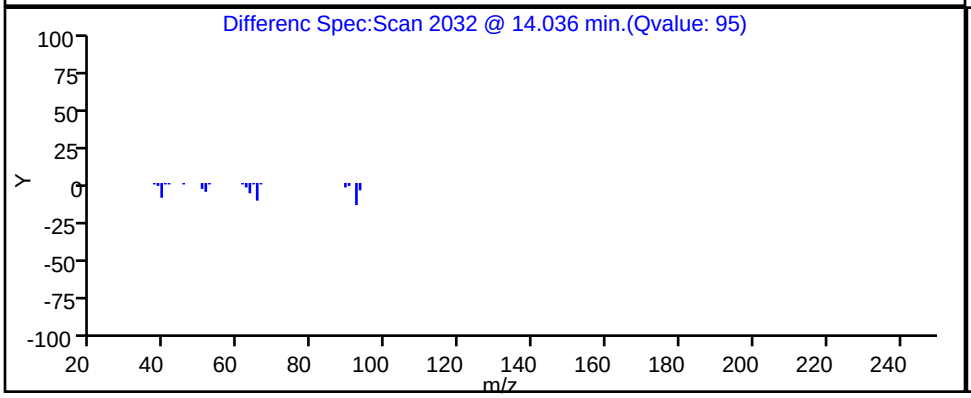


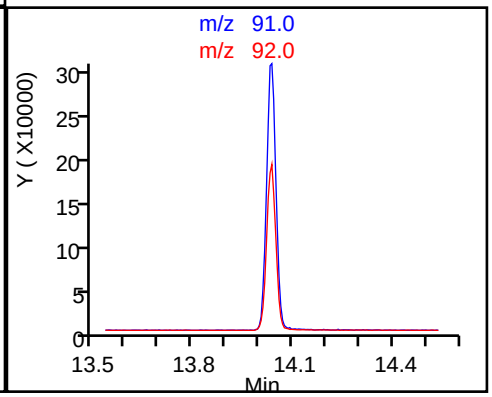










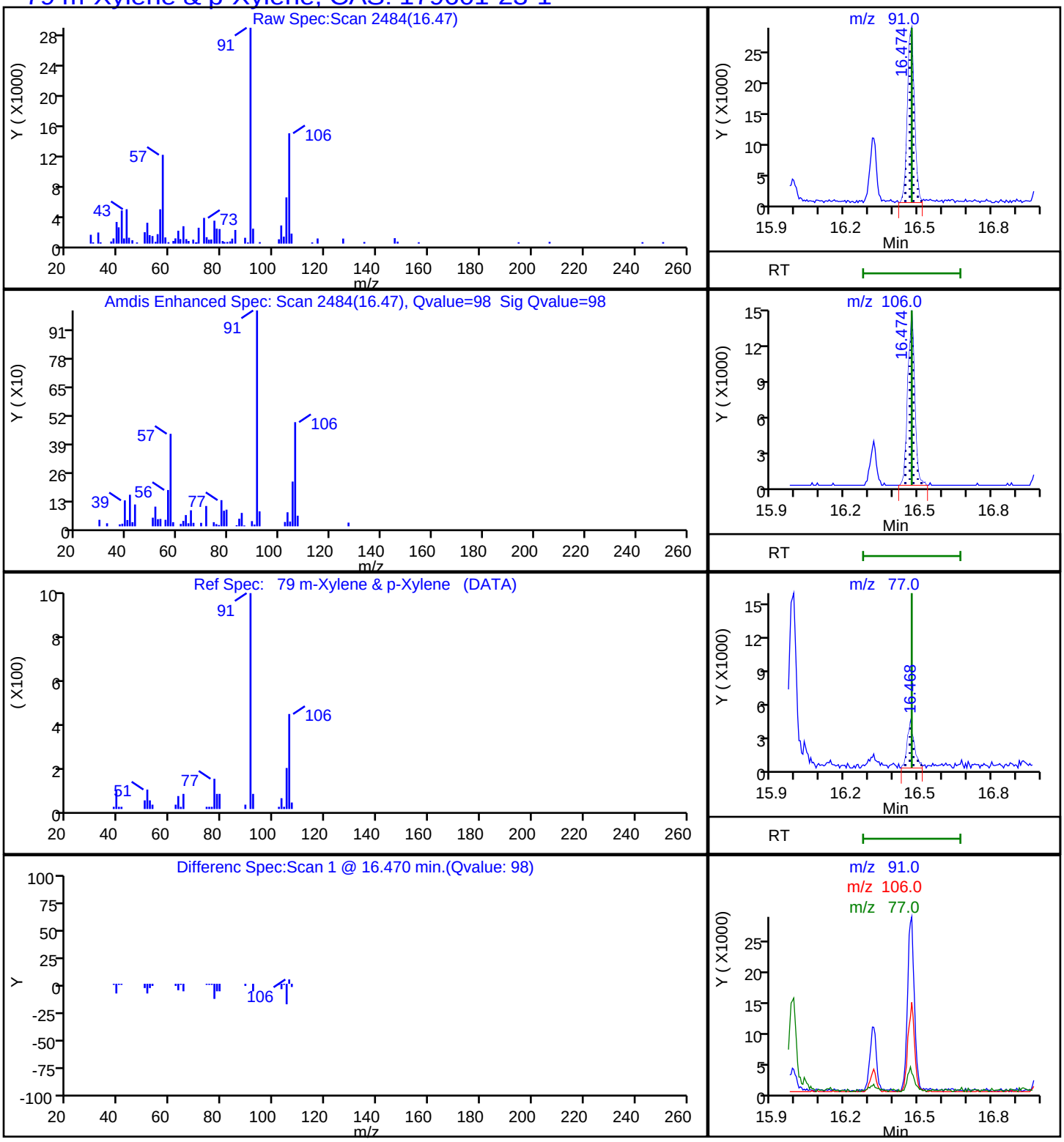


Report Date: 20-Aug-2019 10:25:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D				
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10		
Client ID:	IA-015-A-27				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1

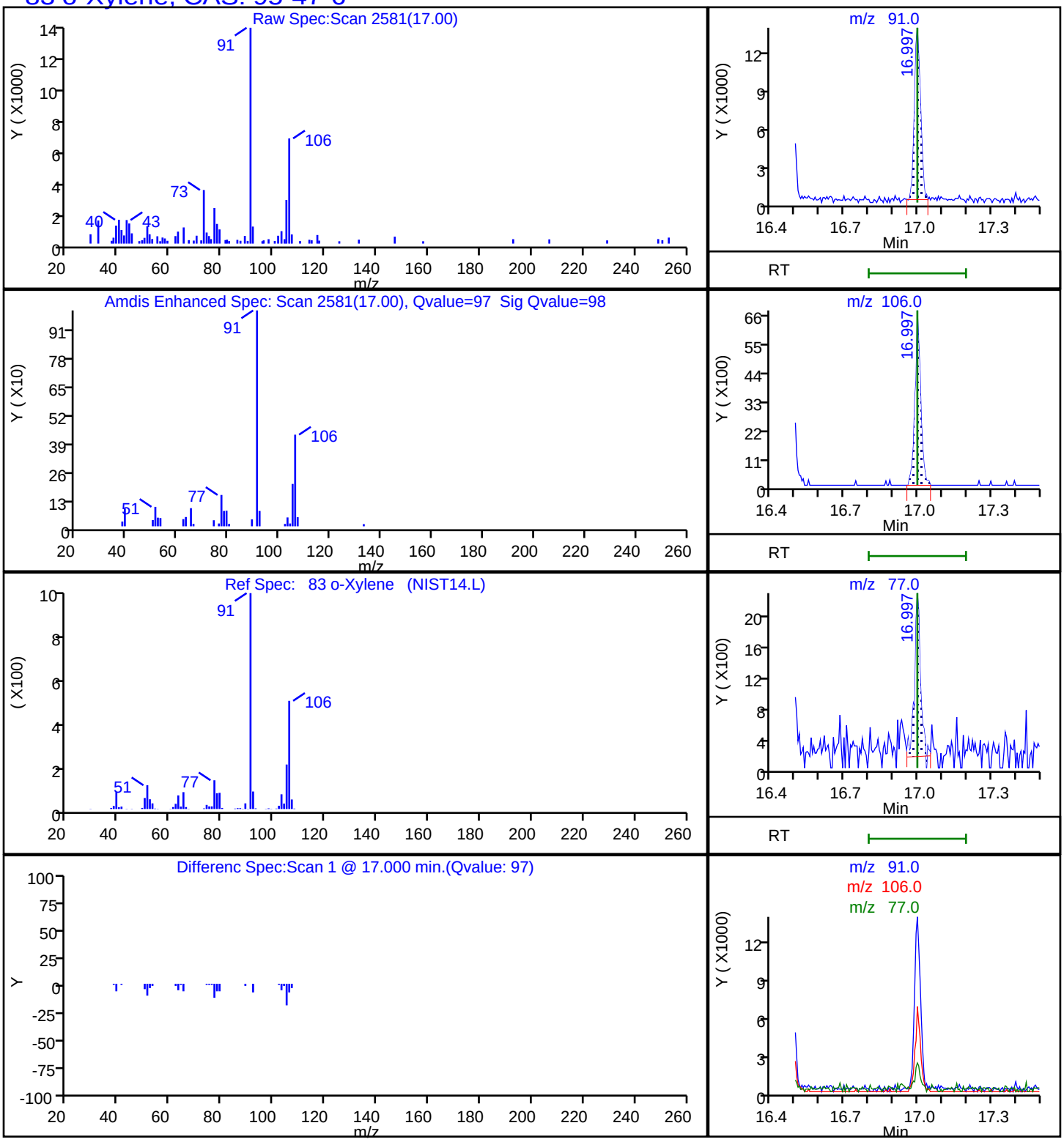


Report Date: 20-Aug-2019 10:25:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D		
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10
Client ID:	IA-015-A-27		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

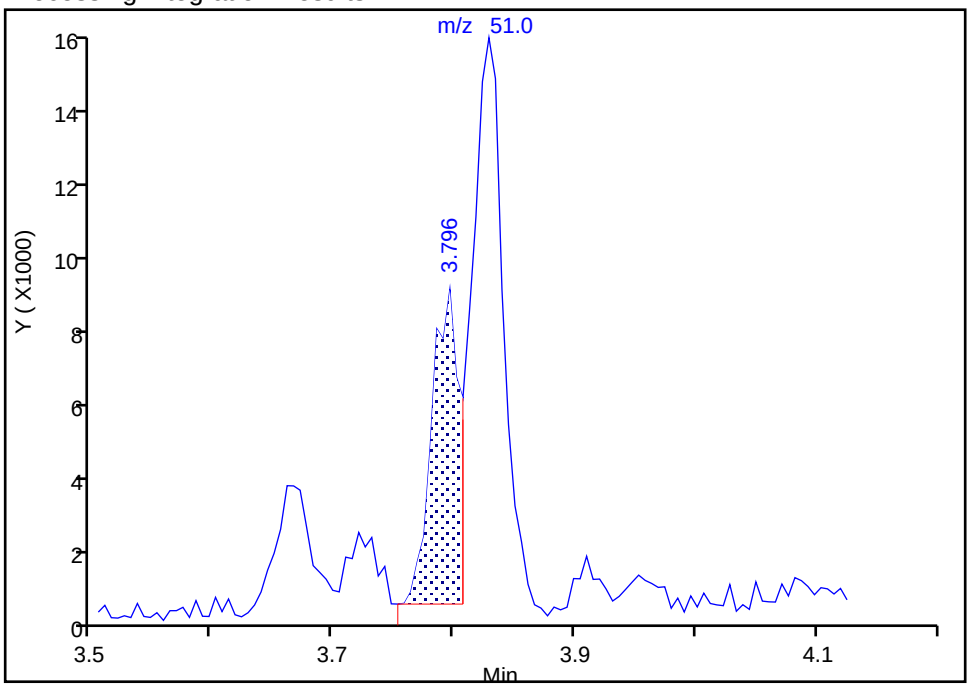
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P110.D				
Injection Date:	19-Aug-2019 20:41:30	Instrument ID:	MG		
Lims ID:	140-16367-A-10	Lab Sample ID:	140-16367-10		
Client ID:	IA-015-A-27				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

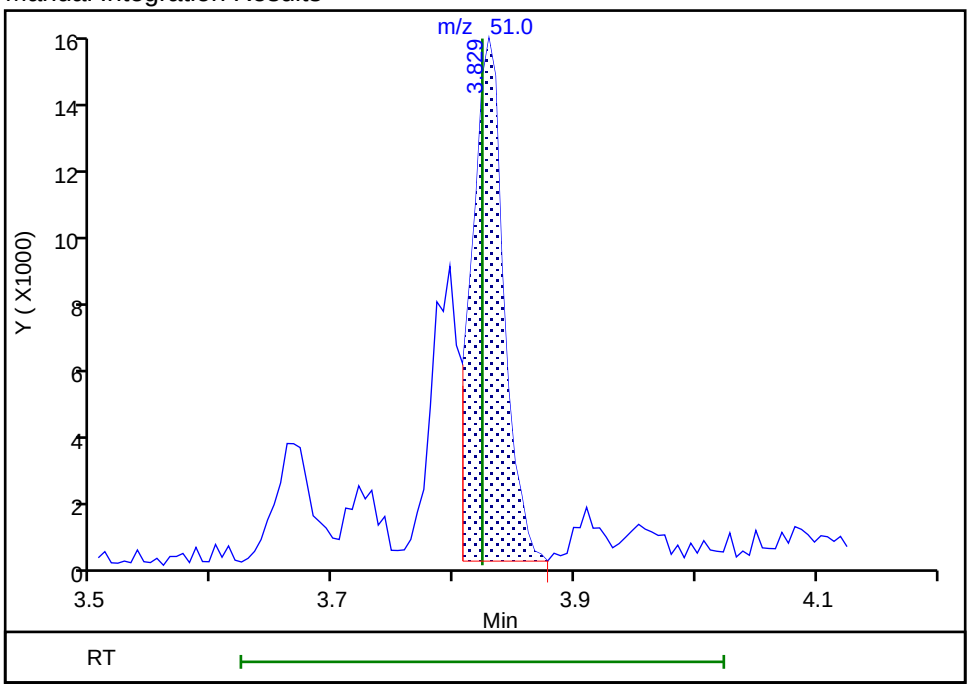
Processing Integration Results

RT: 3.80
Area: 13582
Amount: 0.042430
Amount Units: ppb v/v



Manual Integration Results

RT: 3.83
Area: 28742
Amount: 0.089791
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 10:25:19

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.92	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	60		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D
Lims ID: 140-16367-A-11
Client ID: IA-117-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 21:24:30 ALS Bottle#: 11 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-015
Misc. Info.: 140-16367-a-11
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:26:32 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:26:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.135	0.016	79	815671	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.308	0.005	94	4235194	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.988	0.001	86	2962285	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	94	2052662	3.99	
6 Chlorodifluoromethane	51	3.829	3.829	0.006	57	21454	0.0518	
8 Dichlorodifluoromethane	85	3.899	3.890	0.011	100	57451	0.0714	
31 Methylene Chloride	84	6.557	6.536	0.021	88	272617	1.21	
44 Chloroform	83	9.156	9.151	0.005	27	5084	0.009183	
50 Benzene	78	10.790	10.779	0.011	90	16389	0.0259	
52 Carbon tetrachloride	117	10.807	10.801	0.005	79	7628	0.0119	
67 Toluene	91	14.037	14.036	0.001	94	1850786	3.18	
78 Ethylbenzene	91	16.318	16.317	0.000	97	46493	0.0603	
79 m-Xylene & p-Xylene	91	16.468	16.474	-0.006	46	122937	0.2037	
83 o-Xylene	91	17.002	16.997	0.005	98	35037	0.0536	
S 124 Xylenes, Total	100				0		0.2572	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

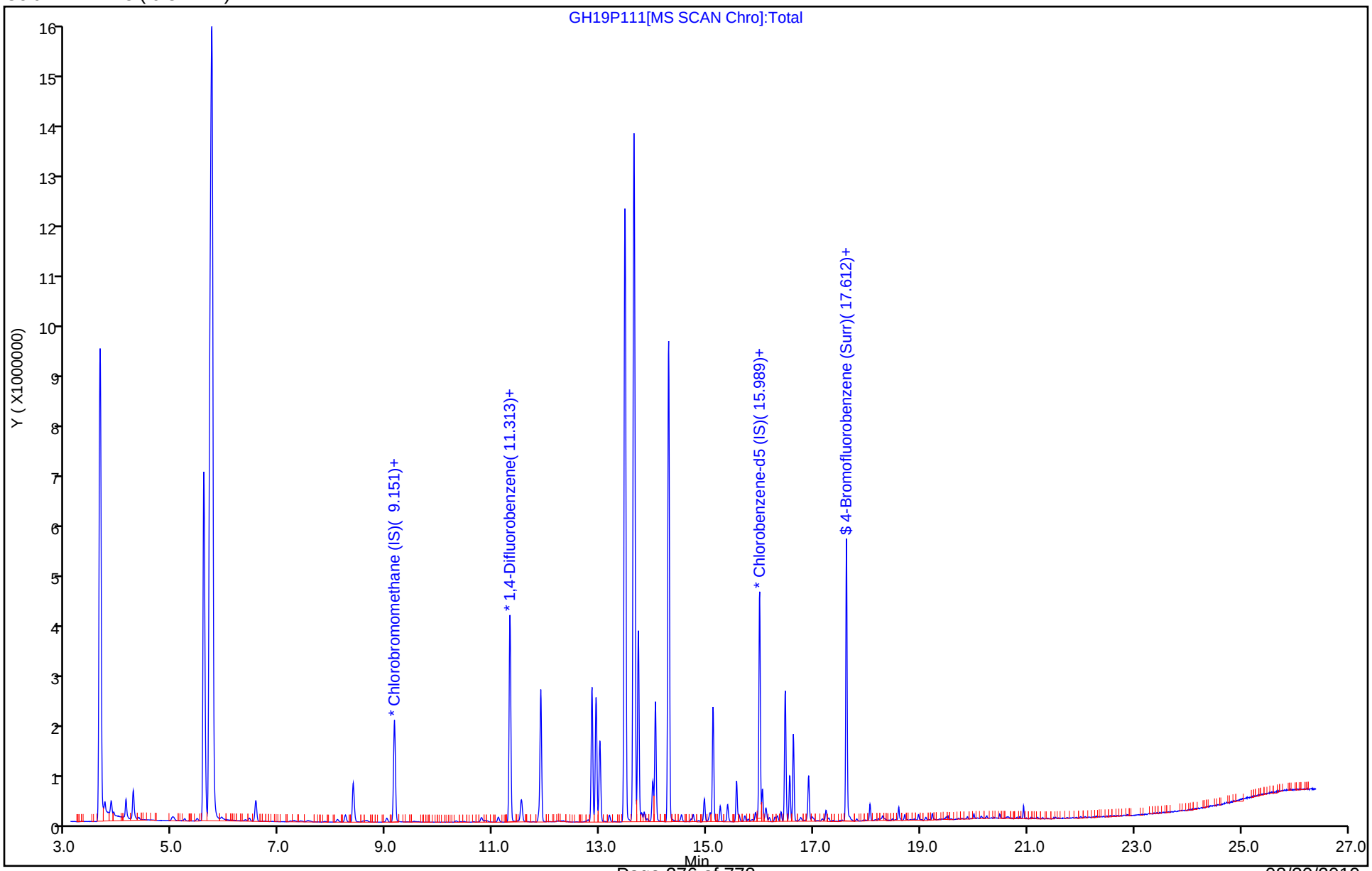
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11	Worklist Smp#:	15
Client ID:	IA-117-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D				
Lims ID:	140-16367-A-11				
Client ID:	IA-117-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 21:24:30	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-015				
Misc. Info.:	140-16367-a-11				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:26:32	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

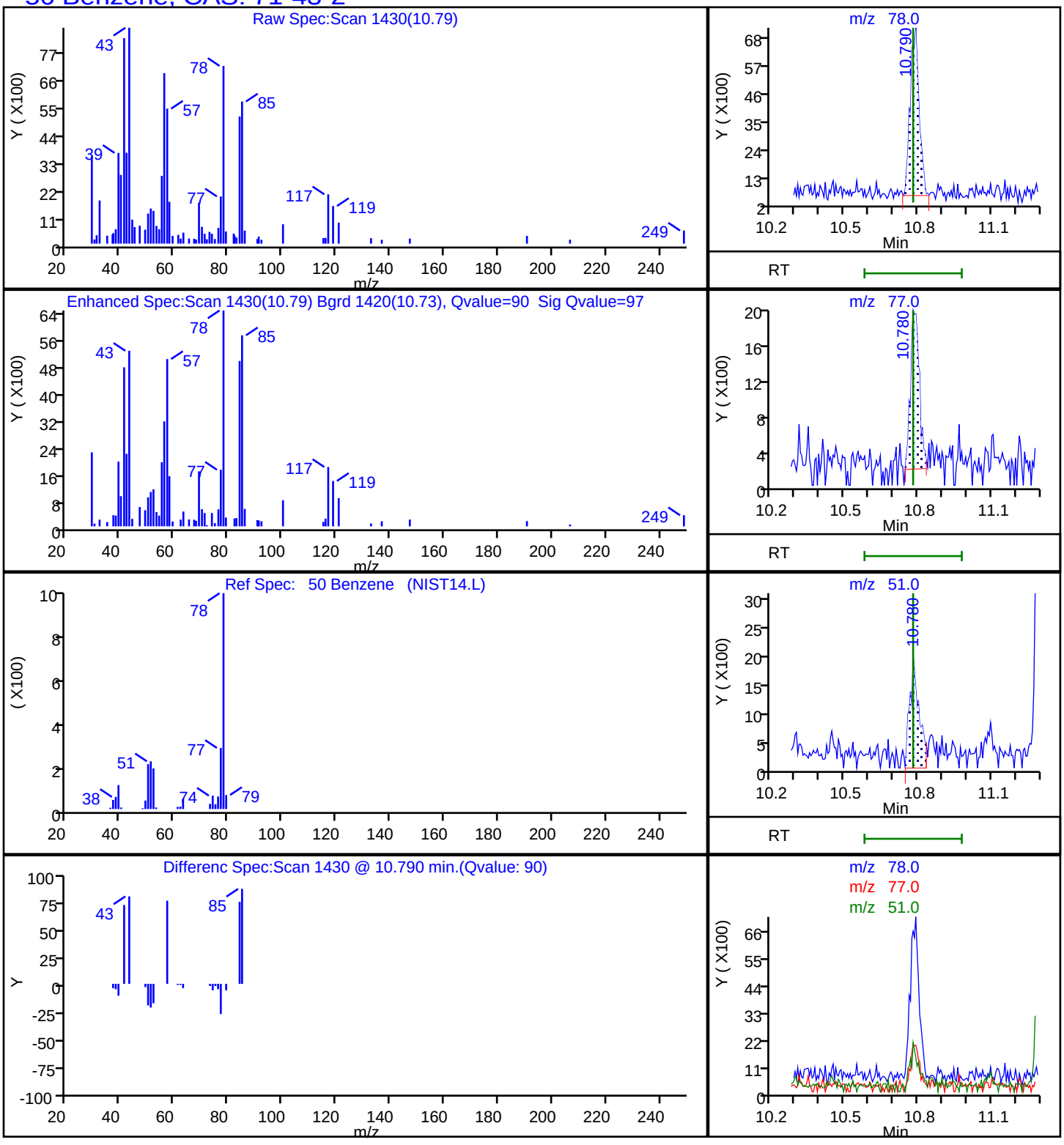
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:26:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.99	99.71

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D		
Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

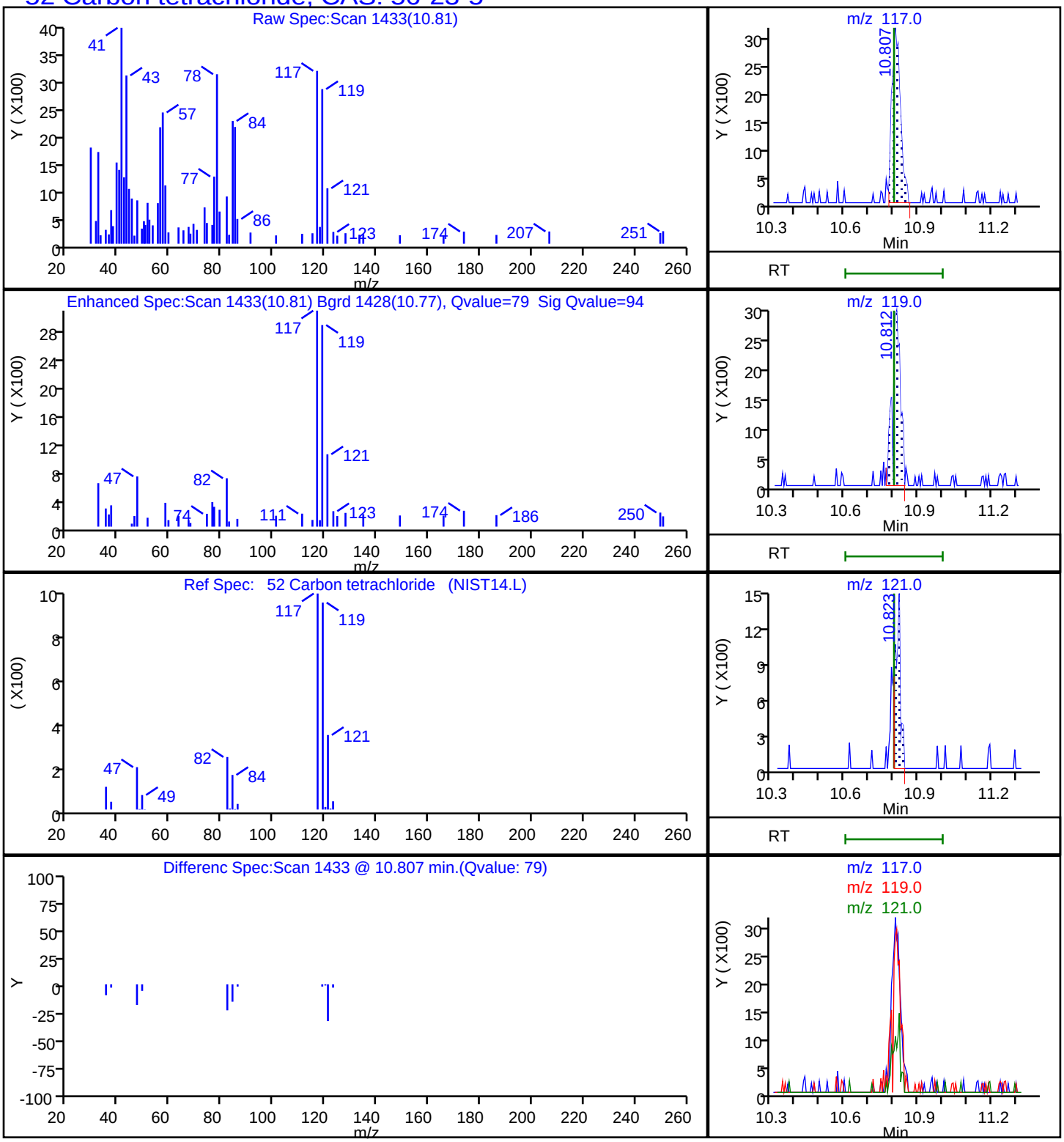


Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D				
Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG		
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11		
Client ID:	IA-117-A-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

52 Carbon tetrachloride, CAS: 56-23-5



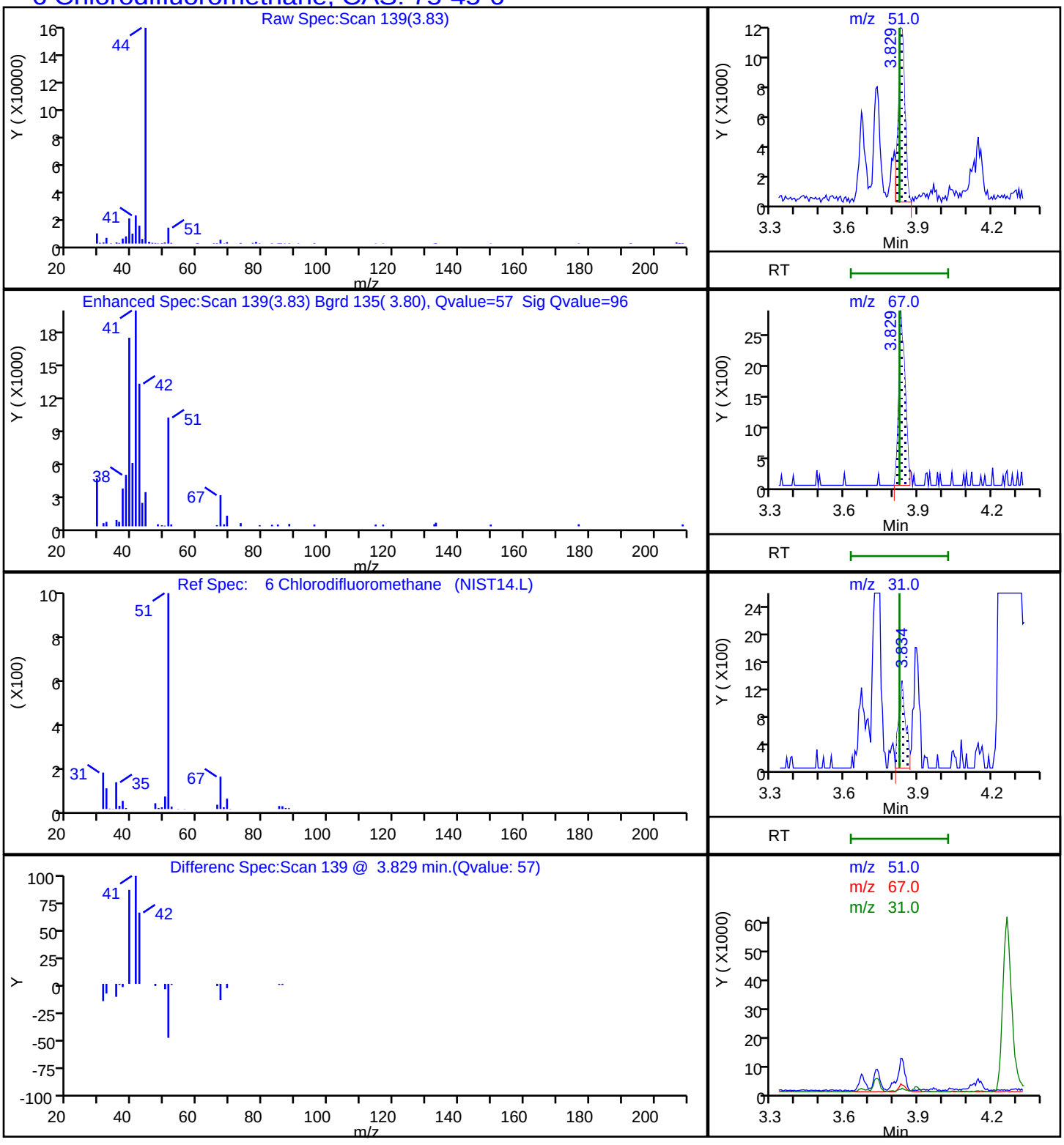
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG		
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11		
Client ID:	IA-117-A-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

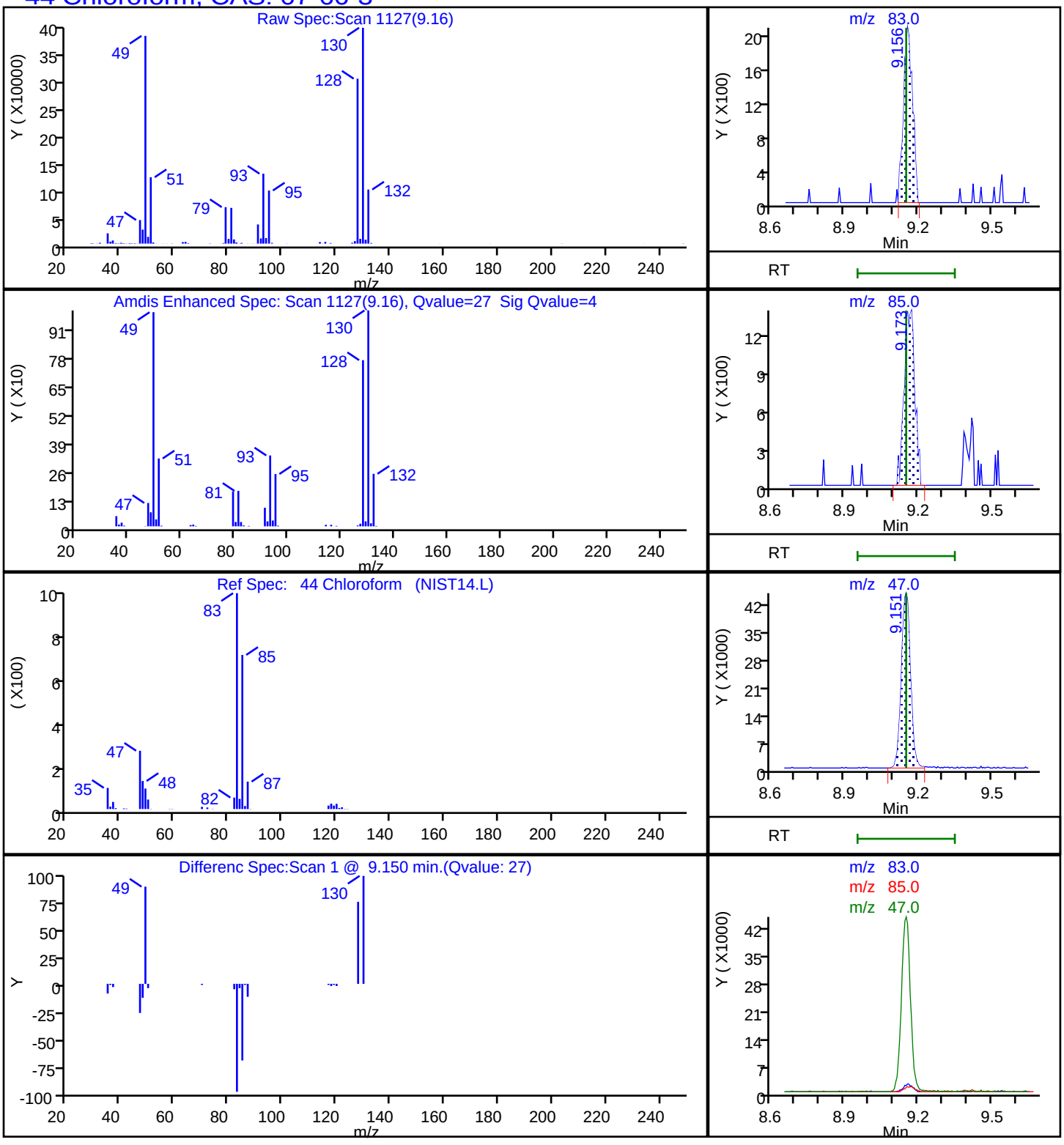


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



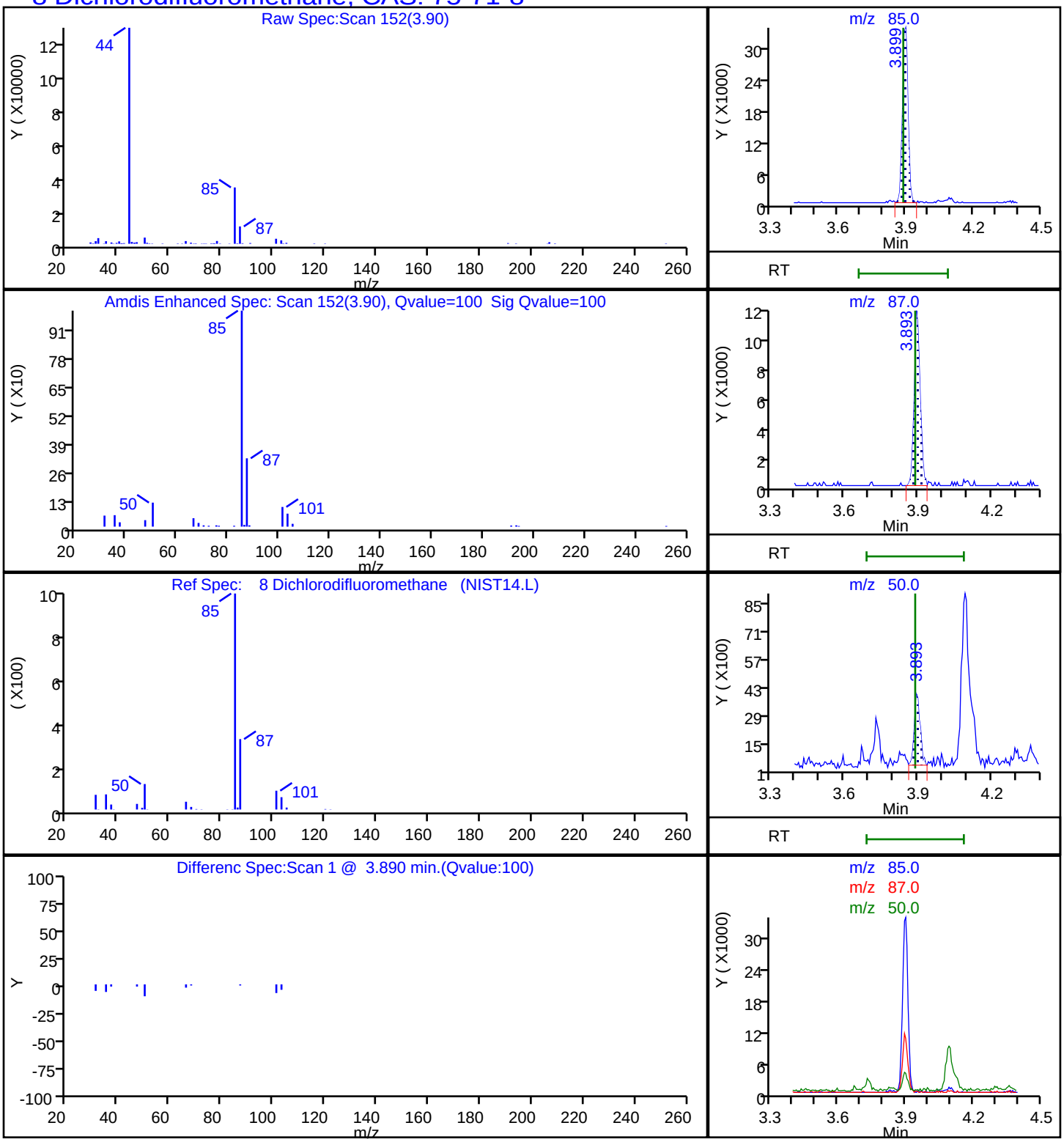
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG		
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11		
Client ID:	IA-117-A-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



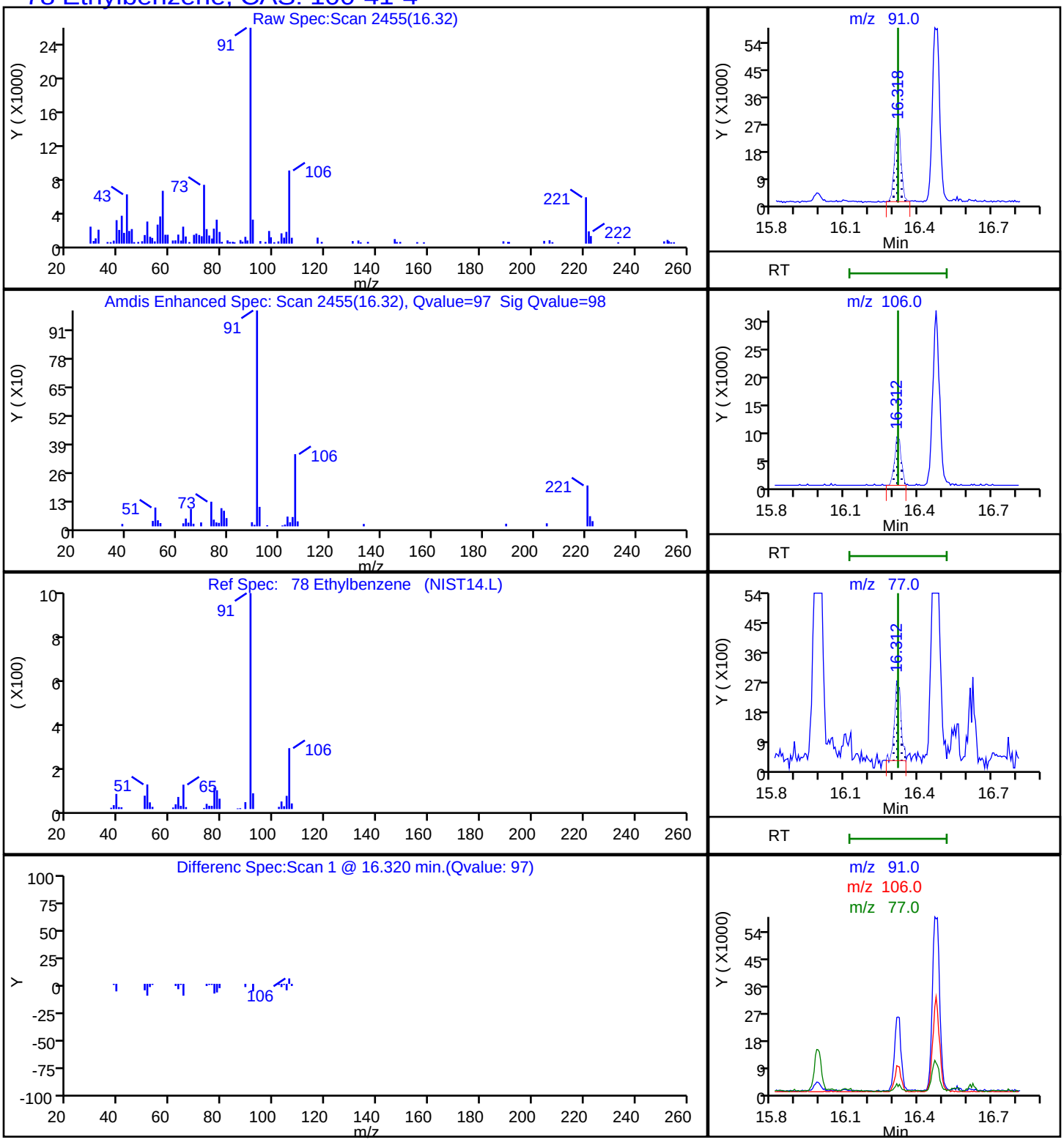
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



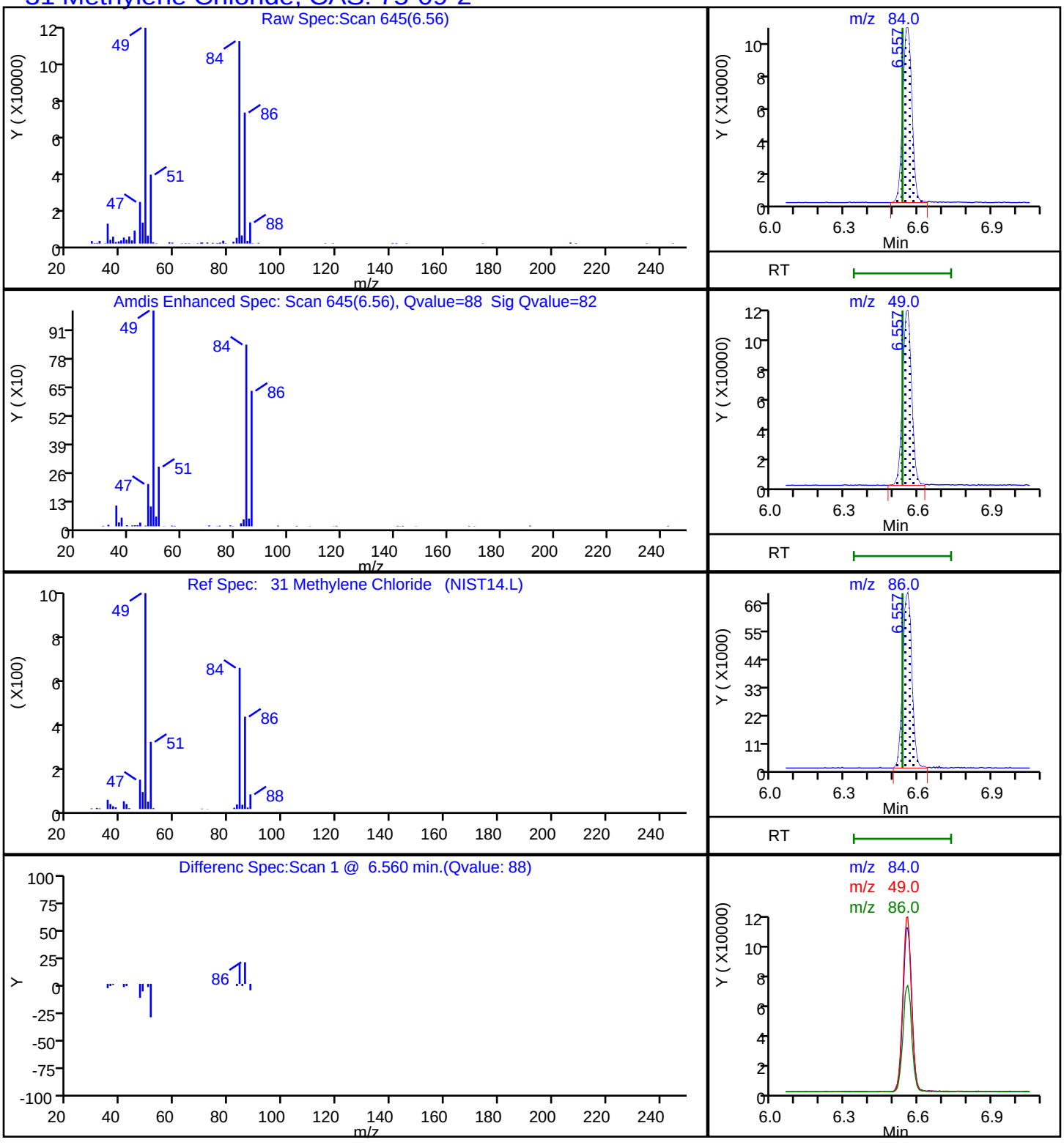
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

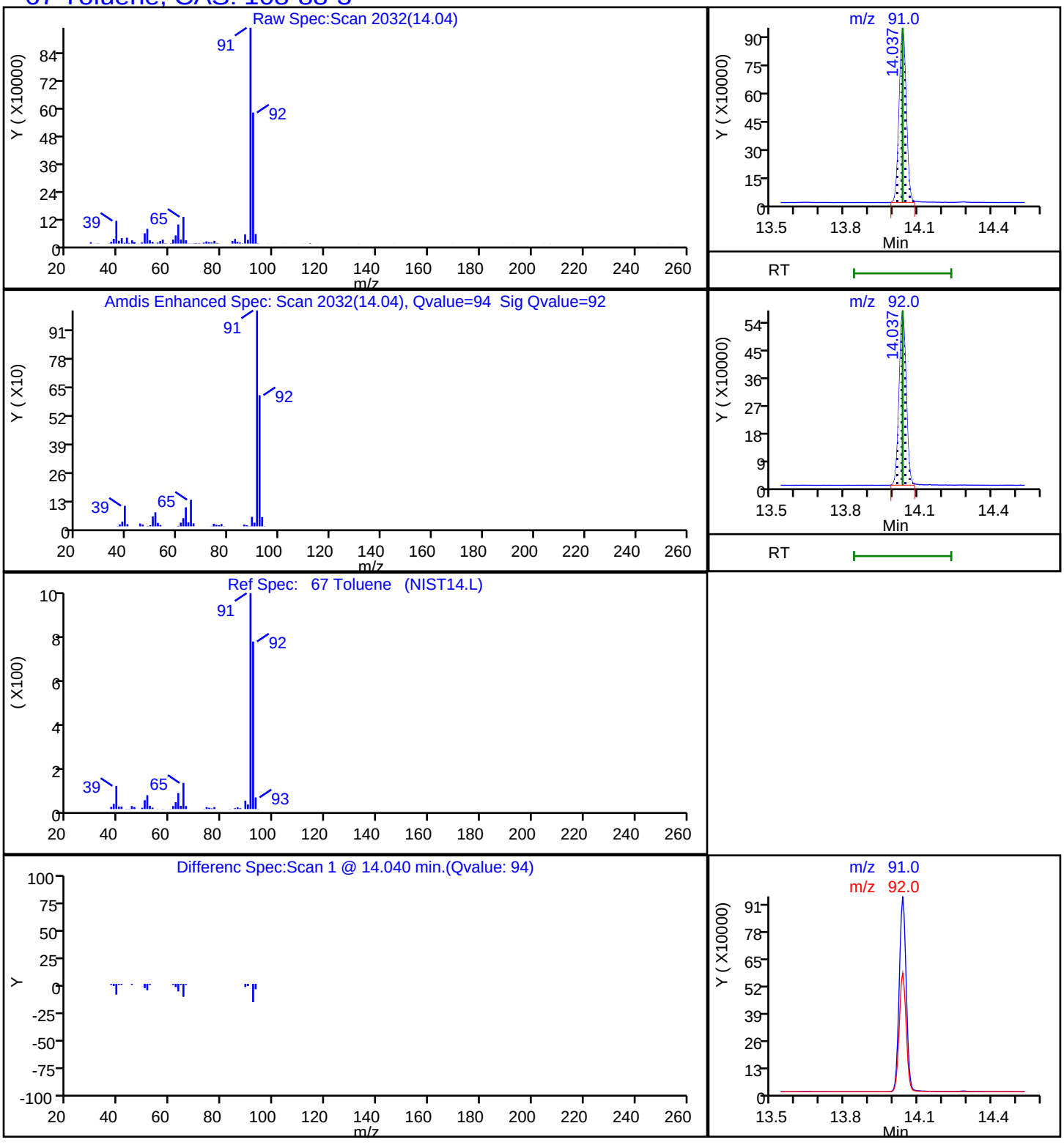
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D		
Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

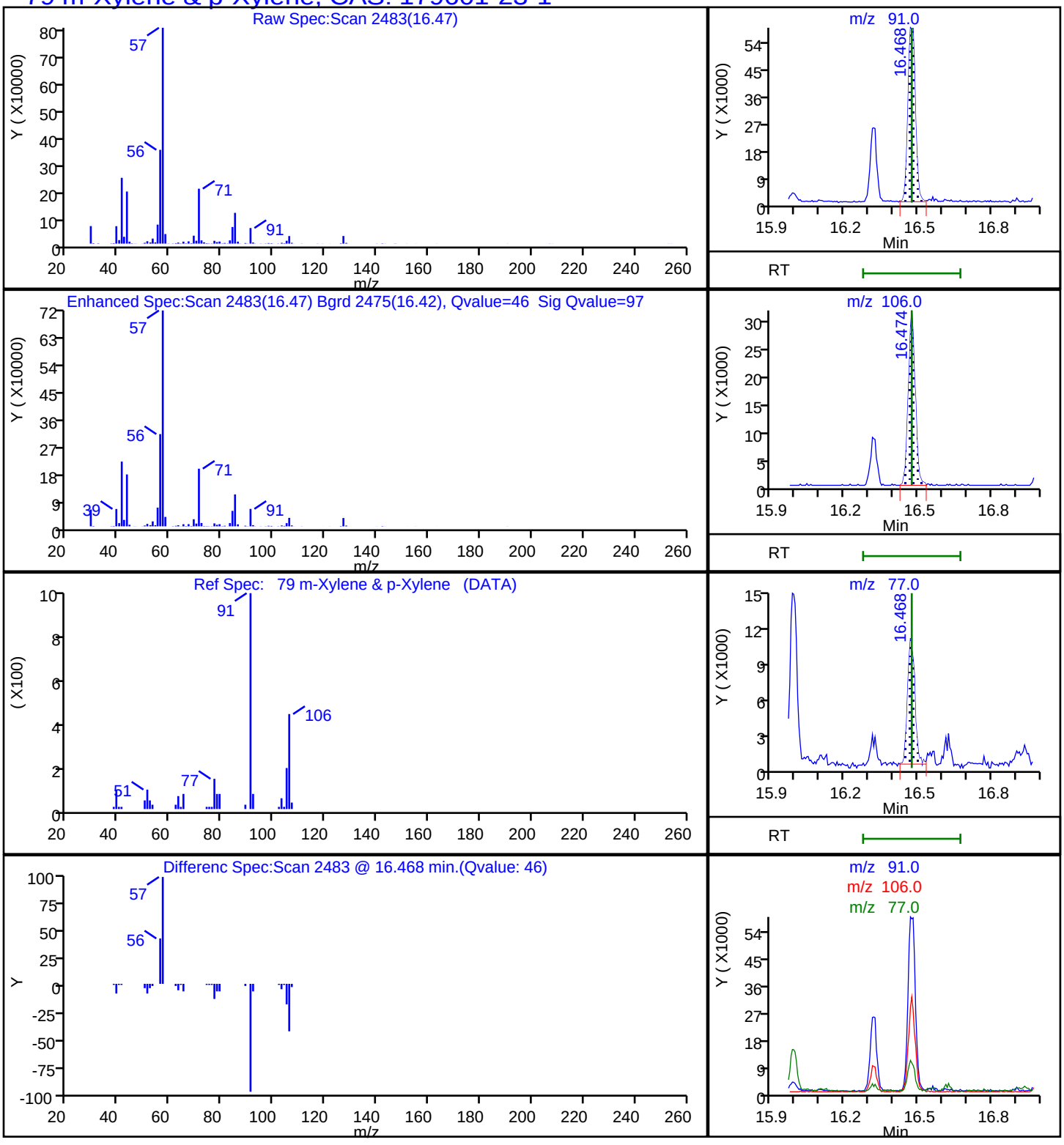
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D				
Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG		
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11		
Client ID:	IA-117-A-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1



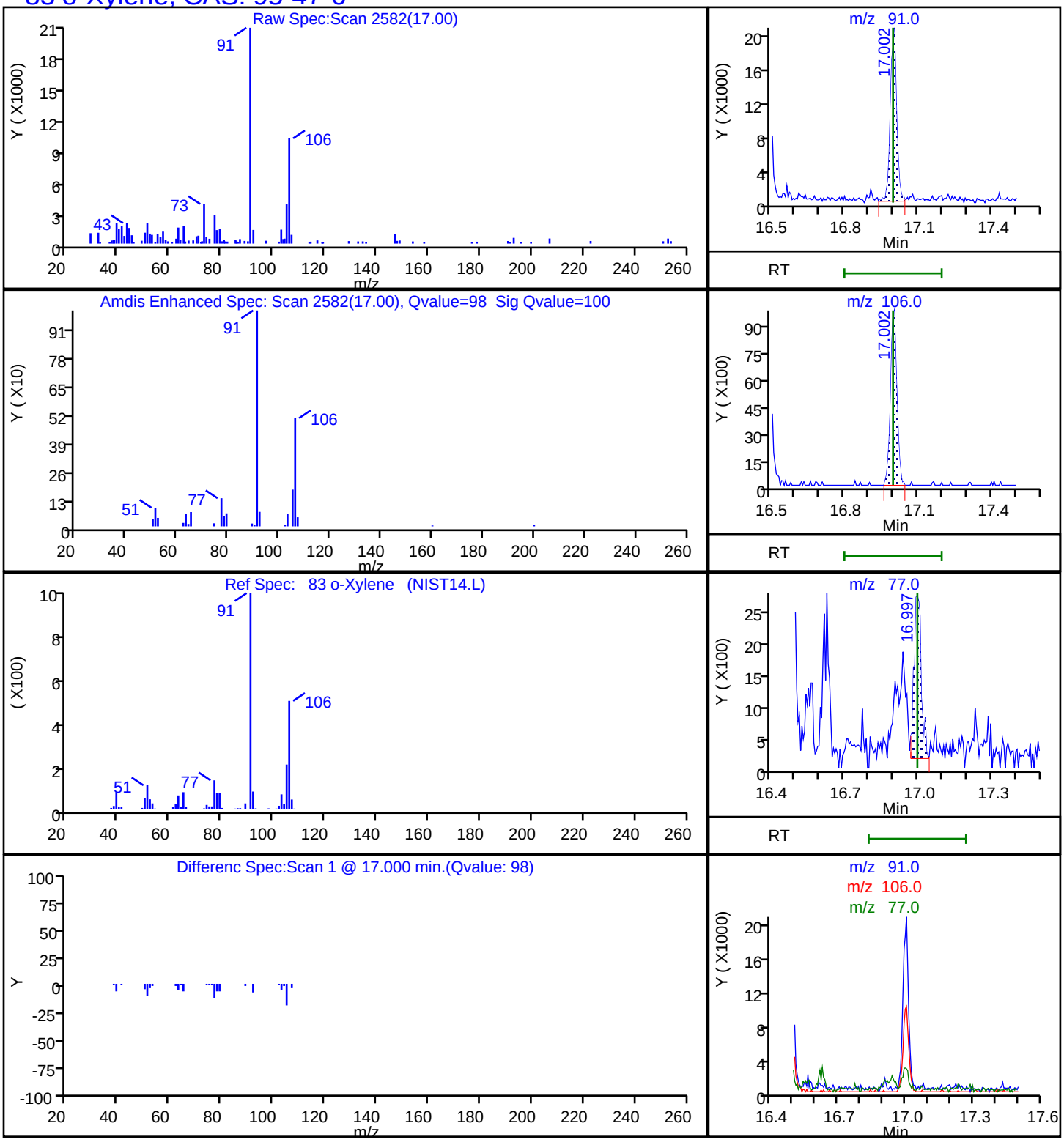
Report Date: 20-Aug-2019 10:26:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D

Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11
Client ID:	IA-117-A-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



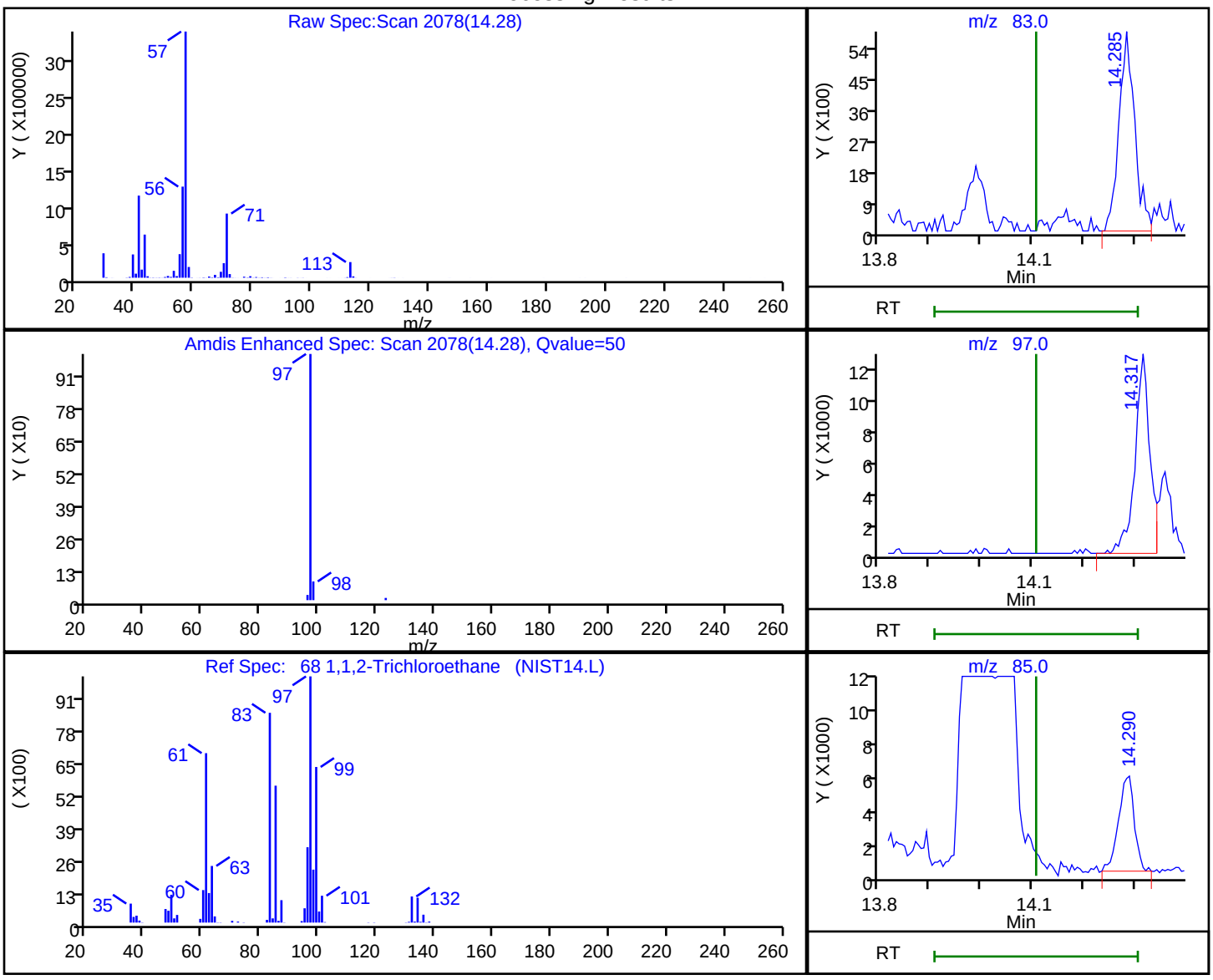
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P111.D				
Injection Date:	19-Aug-2019 21:24:30	Instrument ID:	MG		
Lims ID:	140-16367-A-11	Lab Sample ID:	140-16367-11		
Client ID:	IA-117-A-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.28	83.00	12573	0.073699
14.32	97.00	25595	
14.29	85.00	11652	

Reviewer: khachitpongpanits, 20-Aug-2019 10:26:17

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.11	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.30	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.36	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	62		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D
Lims ID: 140-16367-A-12
Client ID: IA-078-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 22:07:30 ALS Bottle#: 12 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-016
Misc. Info.: 140-16367-a-12
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Aug-2019 21:26:58 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:27:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	76	875616	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	93	4725665	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	85	4282764	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	96	2729799	3.67	
6 Chlorodifluoromethane	51	3.823	3.828	0.000	97	21678	0.0487	
8 Dichlorodifluoromethane	85	3.888	3.893	0.000	99	52283	0.0605	
31 Methylene Chloride	84	6.546	6.543	0.010	85	215519	0.8882	
44 Chloroform	83	9.151	9.162	0.000	34	5766	0.009702	
50 Benzene	78	10.779	10.779	0.000	84	16063	0.0227	
52 Carbon tetrachloride	117	10.801	10.801	0.000	39	6578	0.009159	
67 Toluene	91	14.031	14.032	-0.005	94	2777321	3.30	
78 Ethylbenzene	91	16.317	16.312	0.000	97	56199	0.0504	
79 m-Xylene & p-Xylene	91	16.468	16.468	-0.006	96	157490	0.1805	
83 o-Xylene	91	16.997	16.991	0.000	98	44983	0.0476	
S 124 Xylenes, Total	100				0		0.2280	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

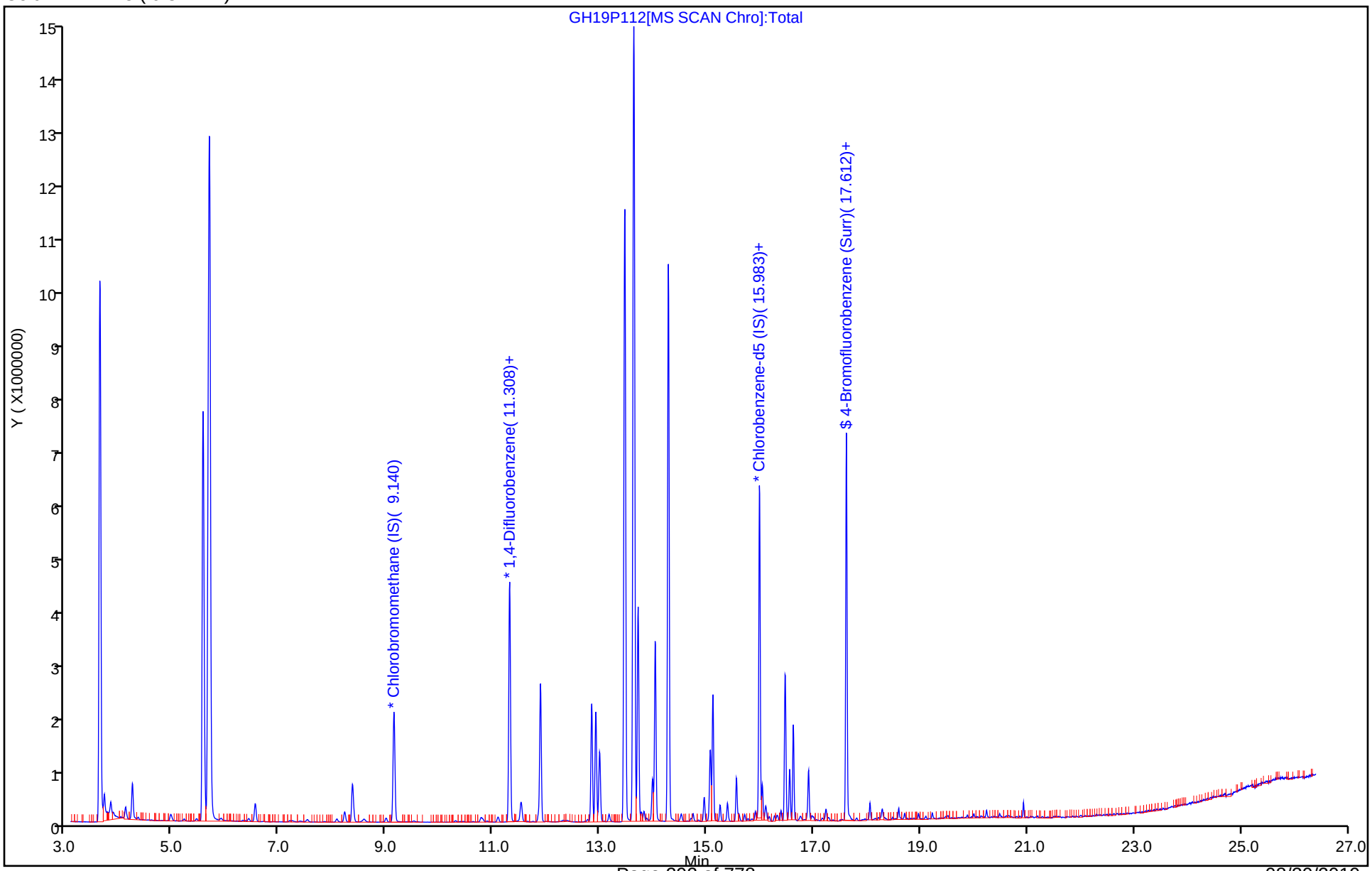
Report Date: 20-Aug-2019 10:27:30 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D

Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12	Worklist Smp#:	16
Client ID:	IA-078-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

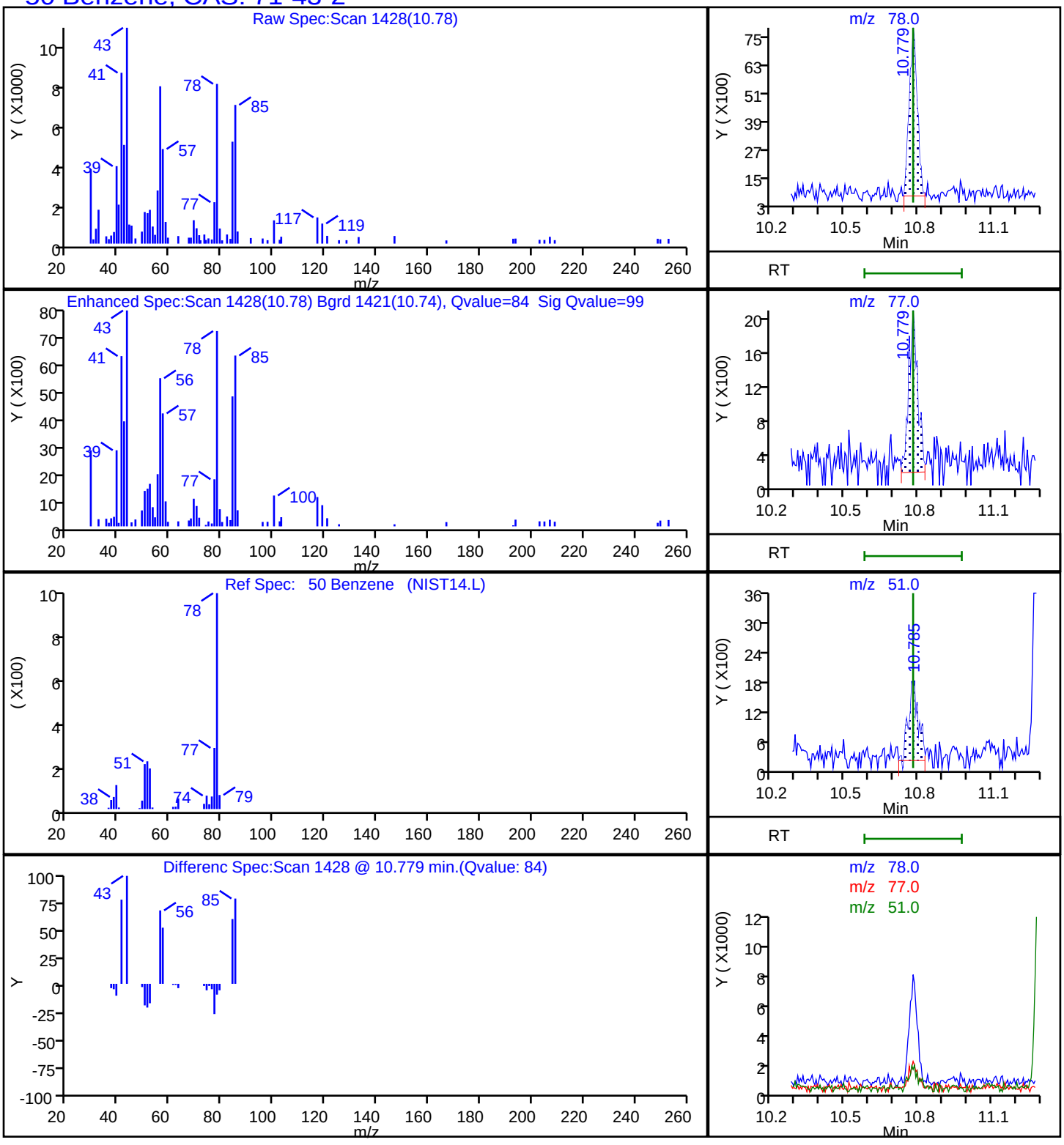
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D				
Lims ID:	140-16367-A-12				
Client ID:	IA-078-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 22:07:30	ALS Bottle#:	12	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-016				
Misc. Info.:	140-16367-a-12				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Aug-2019 21:26:58	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:27:30		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.67	91.72

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

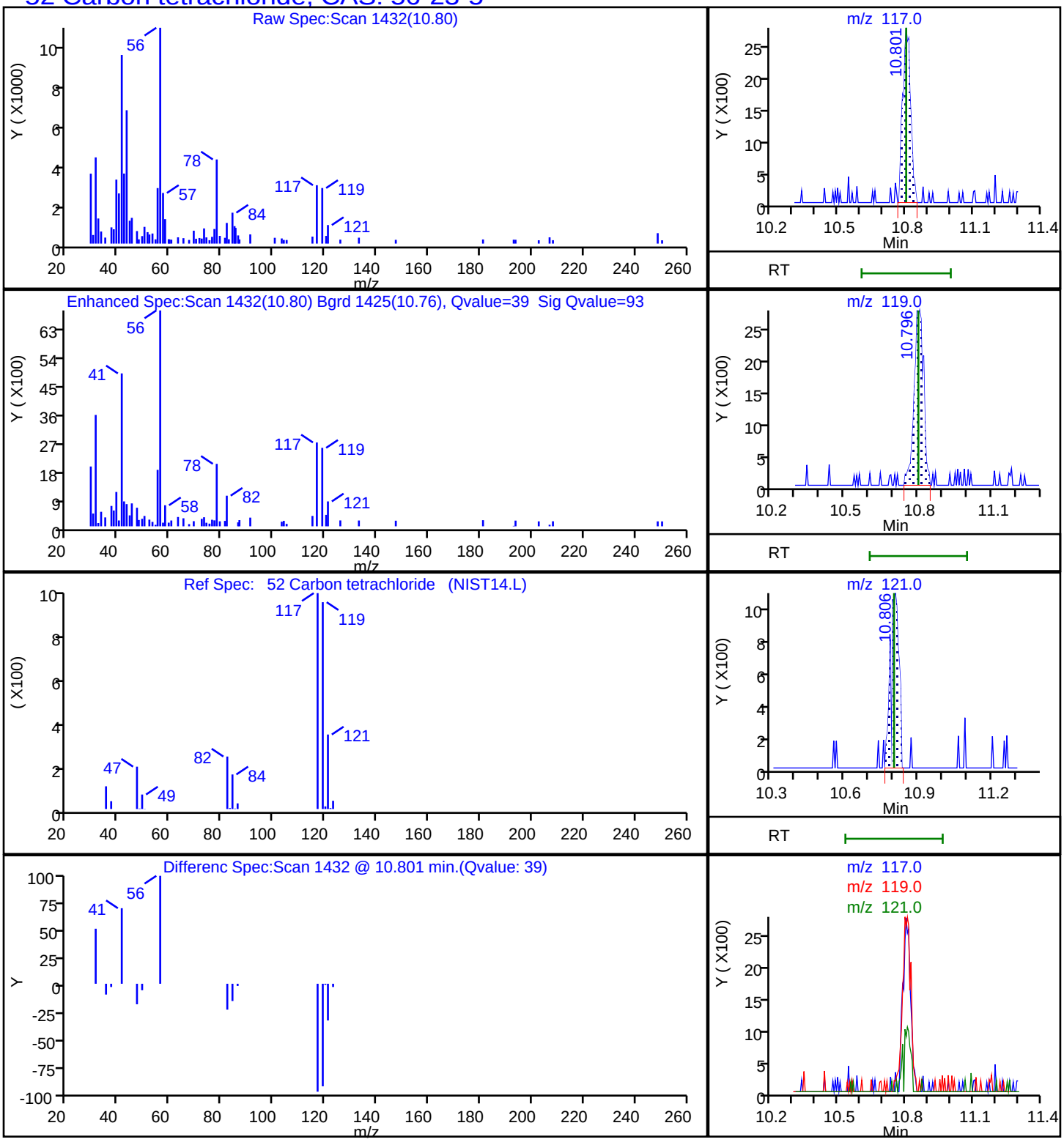
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

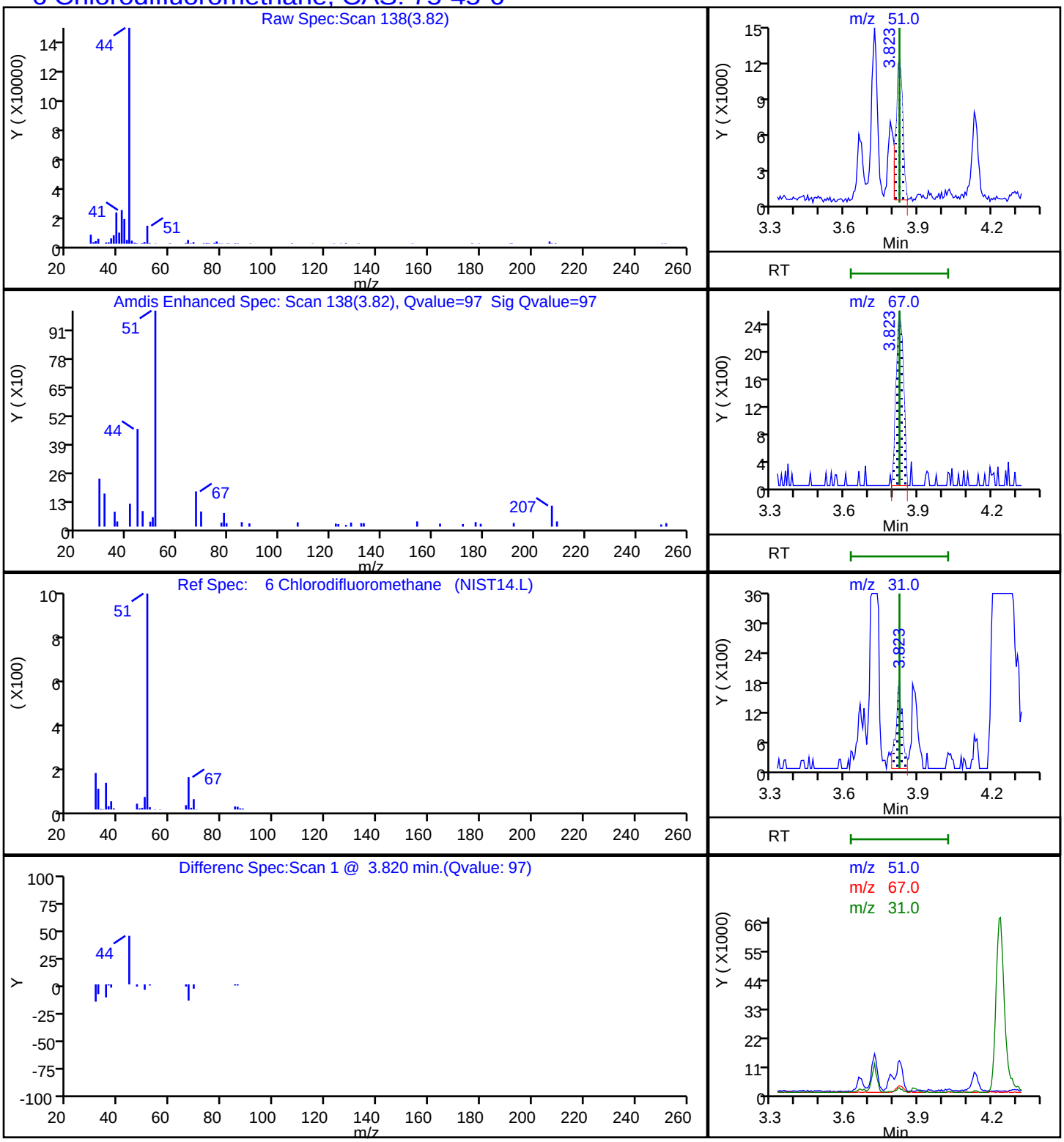


Report Date: 20-Aug-2019 10:27:30 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D				
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG		
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12		
Client ID:	IA-078-A-27				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

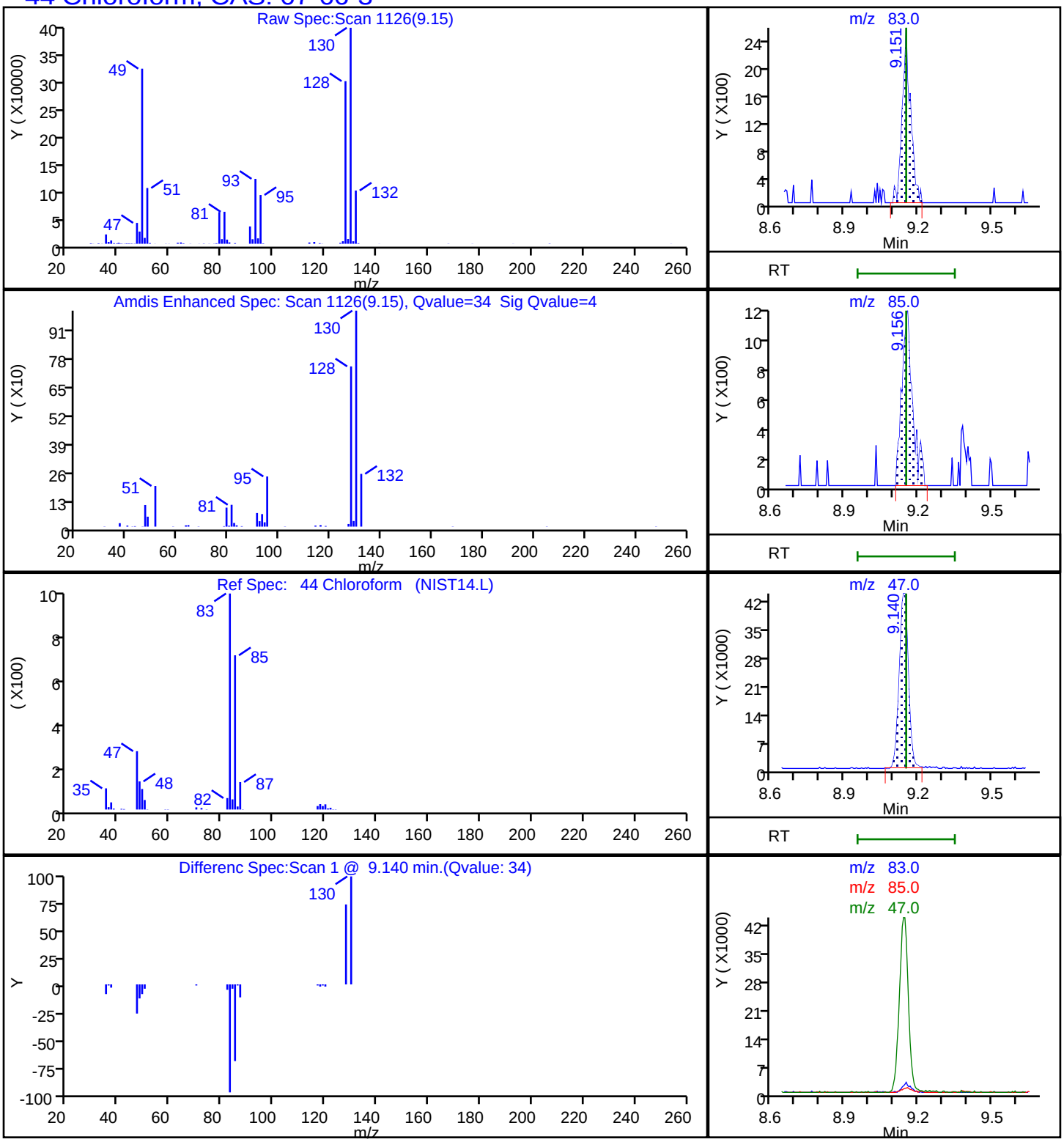
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

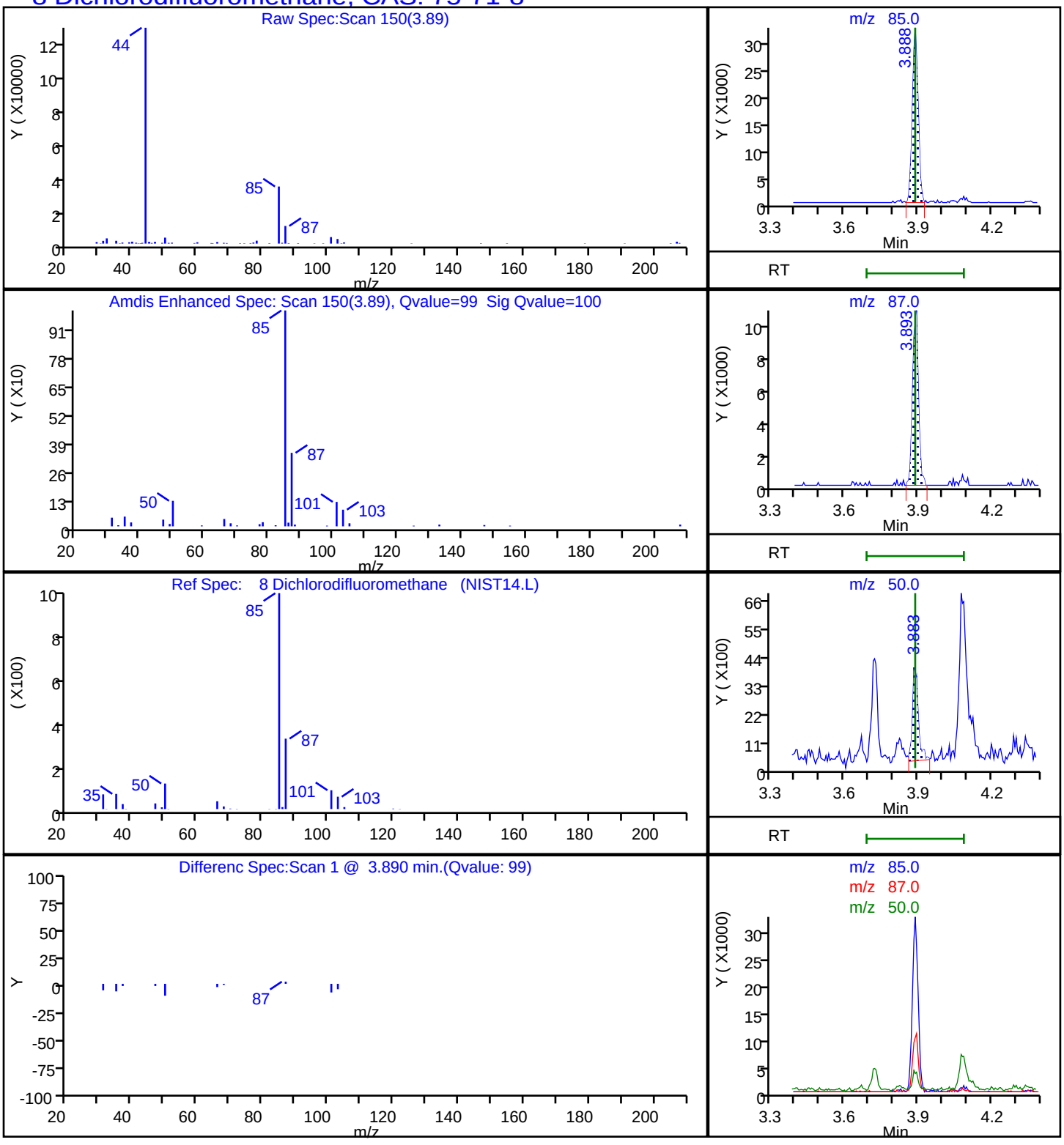
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D				
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG		
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12		
Client ID:	IA-078-A-27				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

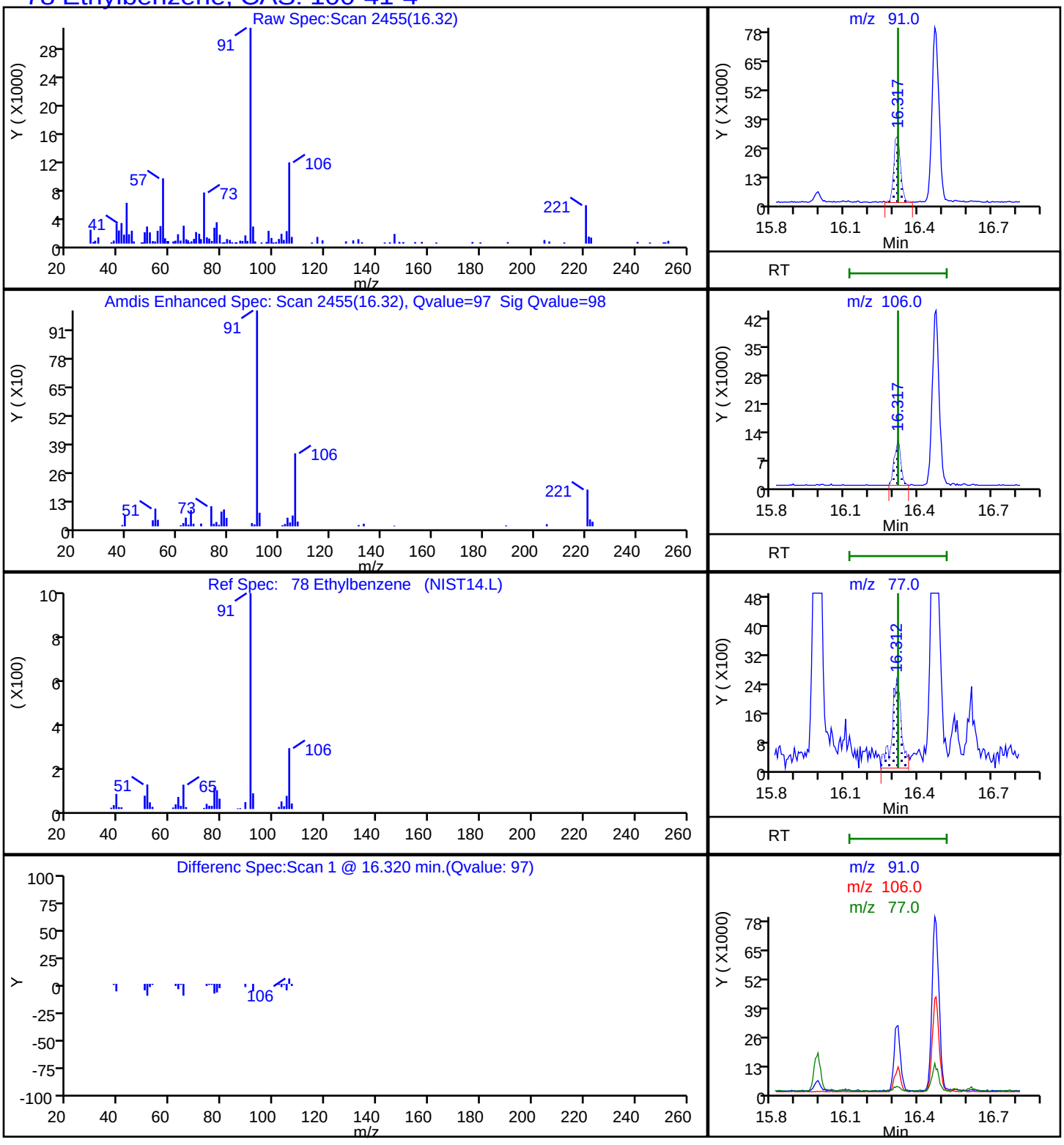


Report Date: 20-Aug-2019 10:27:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

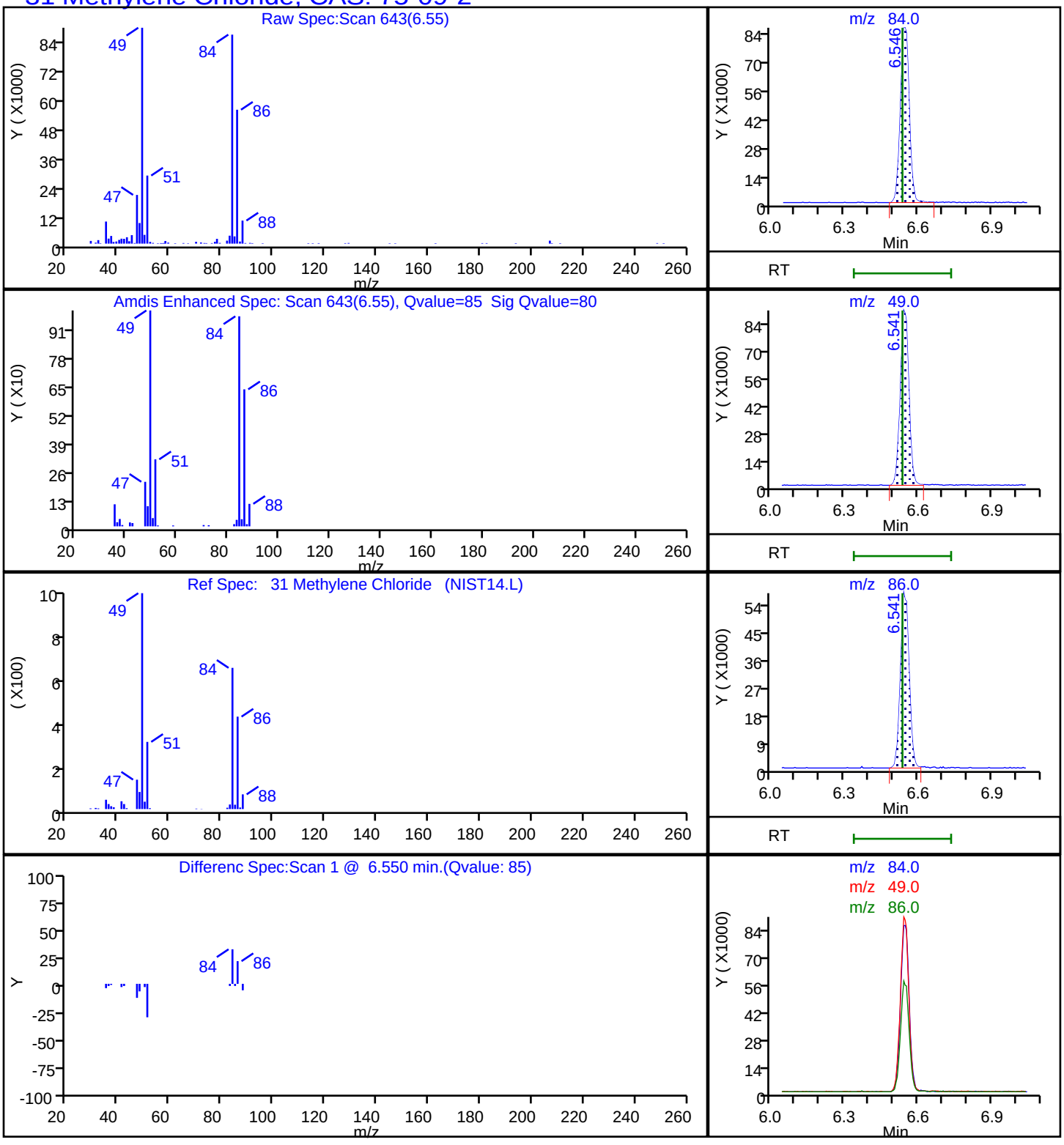
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

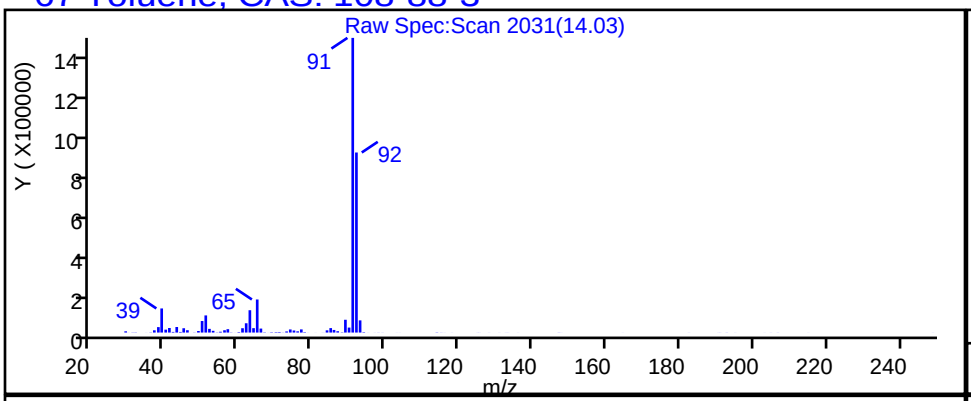


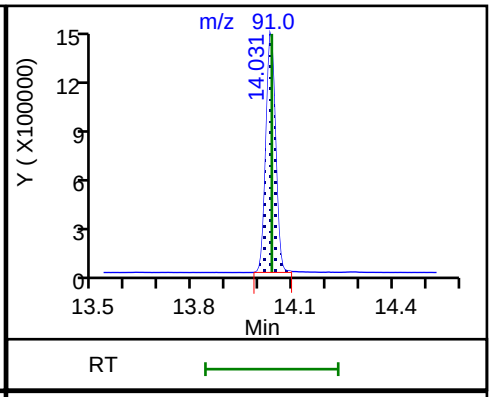
Report Date: 20-Aug-2019 10:27:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

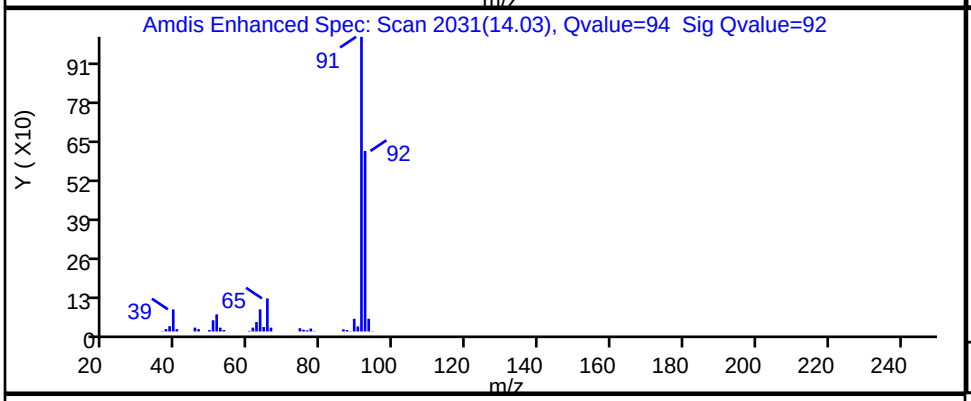
Eurofins TestAmerica, Knoxville

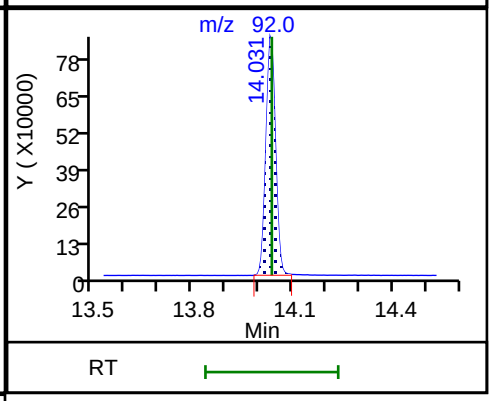
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

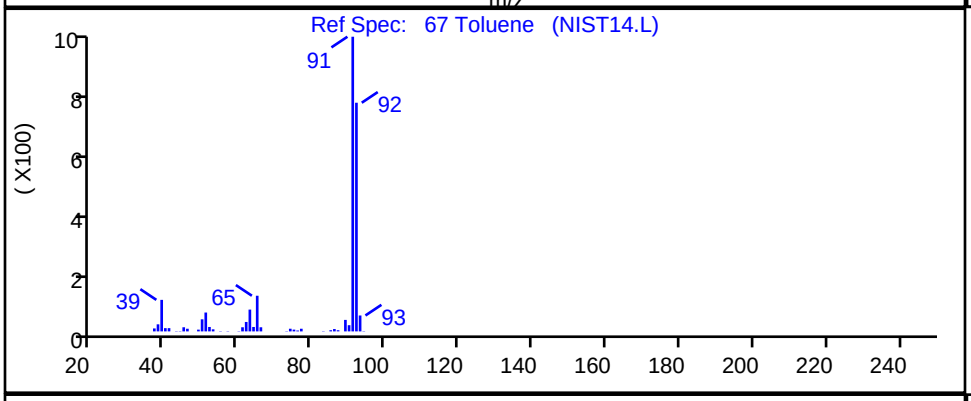
67 Toluene, CAS: 108-88-3

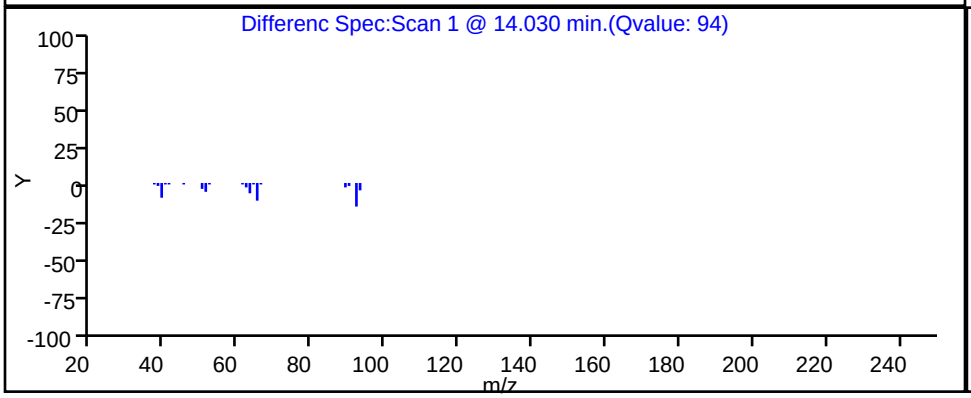


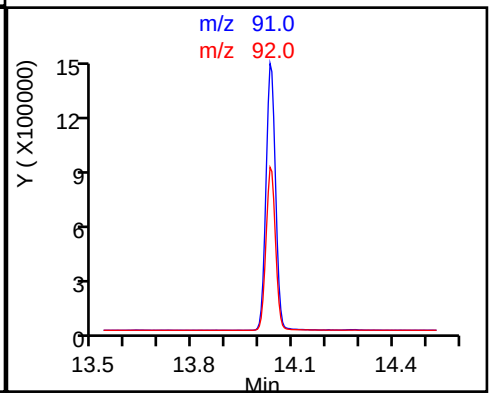








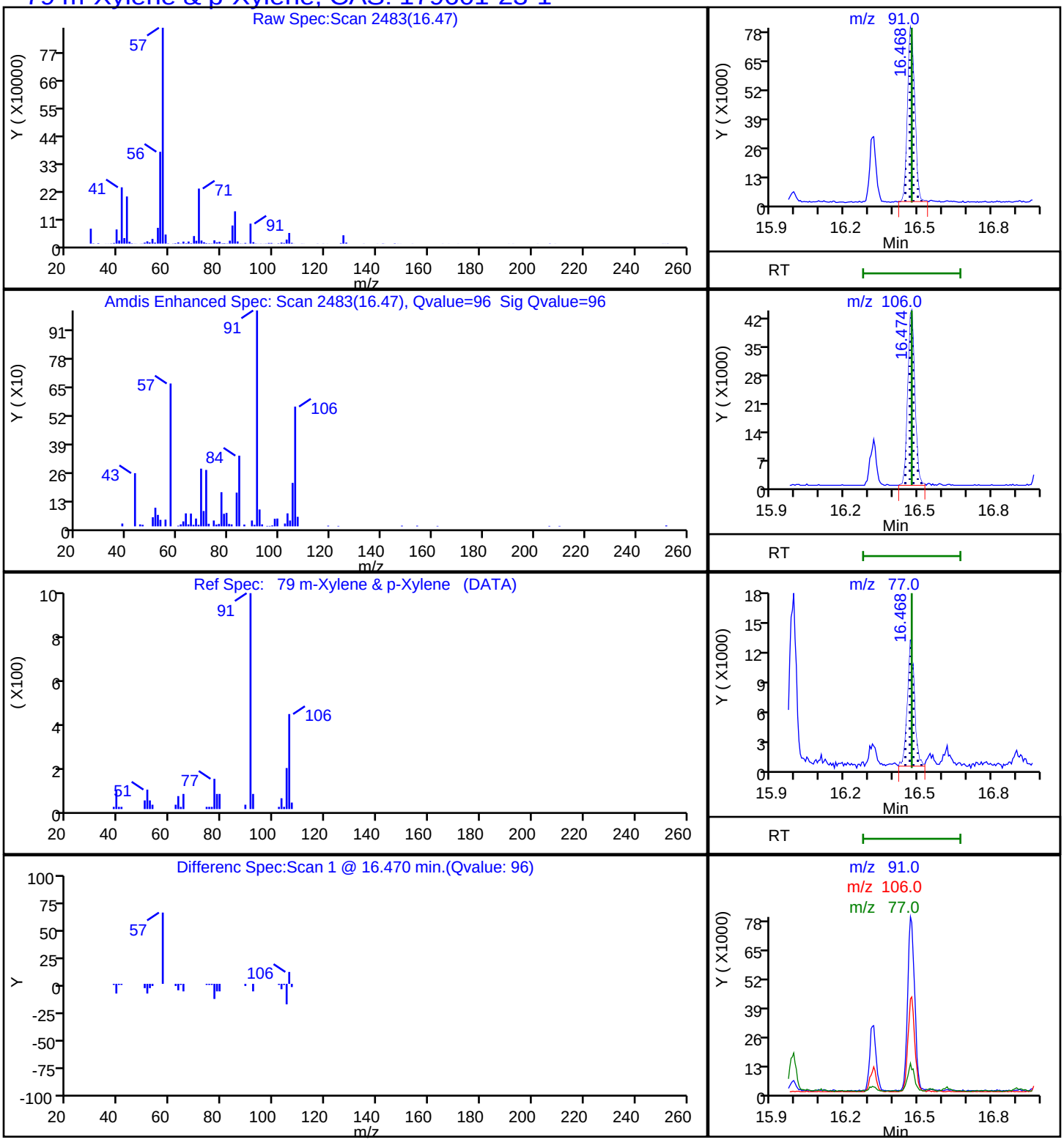




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1

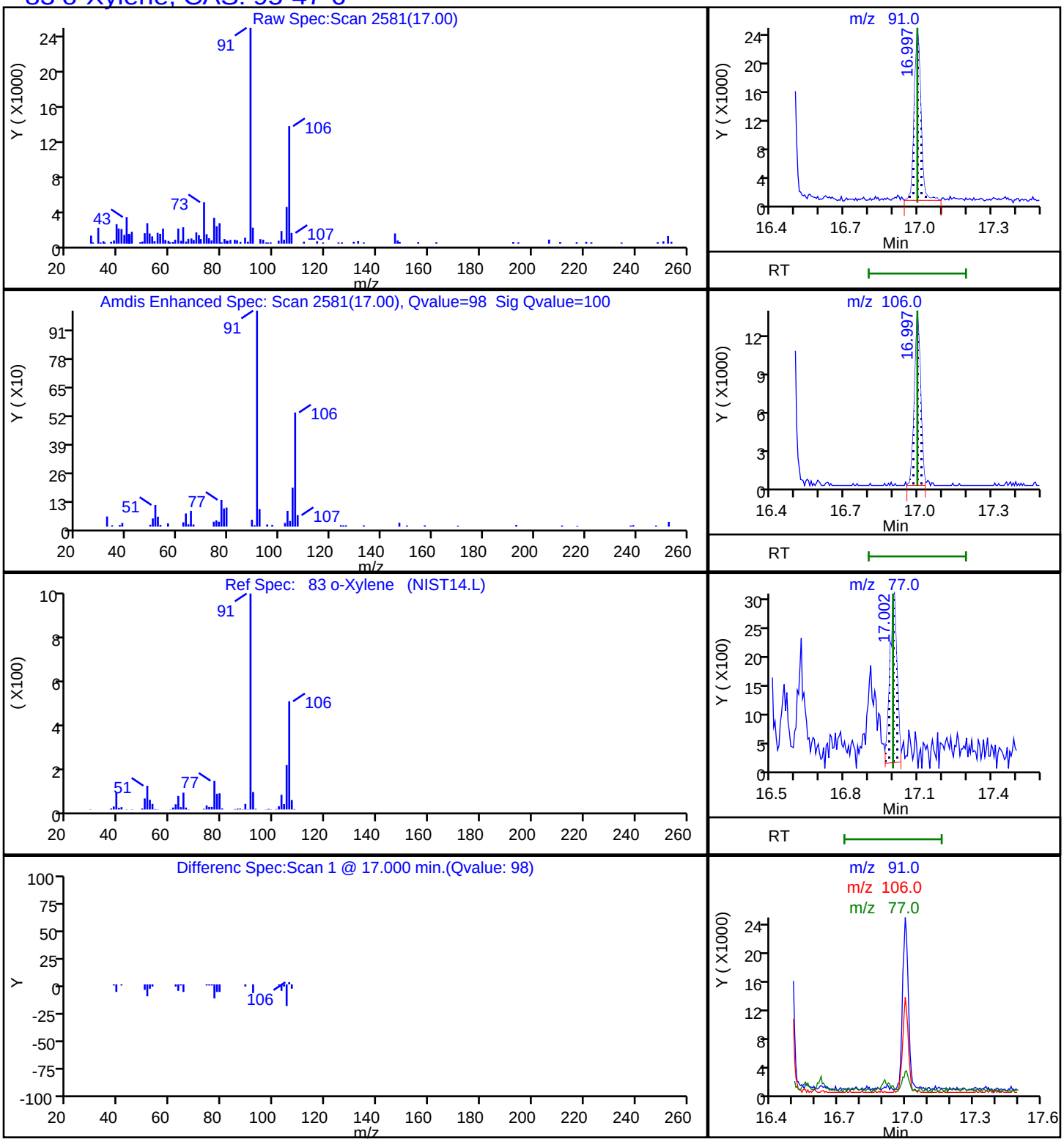


Report Date: 20-Aug-2019 10:27:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P112.D		
Injection Date:	19-Aug-2019 22:07:30	Instrument ID:	MG
Lims ID:	140-16367-A-12	Lab Sample ID:	140-16367-12
Client ID:	IA-078-A-27		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.35	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.038	J	0.40	0.035
108-88-3	Toluene	92.14	18		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.5	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.26	J	2.7	0.24
108-88-3	Toluene	92.14	70		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D
Lims ID: 140-16367-A-13
Client ID: IA-136-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 22:50:30 ALS Bottle#: 13 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-017
Misc. Info.: 140-16367-a-13
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Aug-2019 21:26:58 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:28:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.135	0.011	79	627547	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	94	3378893	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	87	2937203	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	93	2060096	4.04	
6 Chlorodifluoromethane	51	3.823	3.828	0.000	96	29455	0.0924	
8 Dichlorodifluoromethane	85	3.888	3.893	0.000	100	54017	0.0872	
31 Methylene Chloride	84	6.546	6.543	0.010	90	60891	0.3501	
44 Chloroform	83	9.146	9.162	-0.005	28	5084	0.0119	
50 Benzene	78	10.779	10.779	0.000	72	14224	0.0282	
52 Carbon tetrachloride	117	10.806	10.801	0.005	83	7121	0.0139	
67 Toluene	91	14.031	14.032	-0.005	94	2136649	3.70	
73 Tetrachloroethene	129	15.174	15.158	0.011	40	2051	0.007671	
78 Ethylbenzene	91	16.312	16.312	-0.005	98	52798	0.0690	
79 m-Xylene & p-Xylene	91	16.468	16.468	-0.006	97	151119	0.2525	
83 o-Xylene	91	16.997	16.991	0.000	97	44467	0.0686	
S 124 Xylenes, Total	100				0		0.3210	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

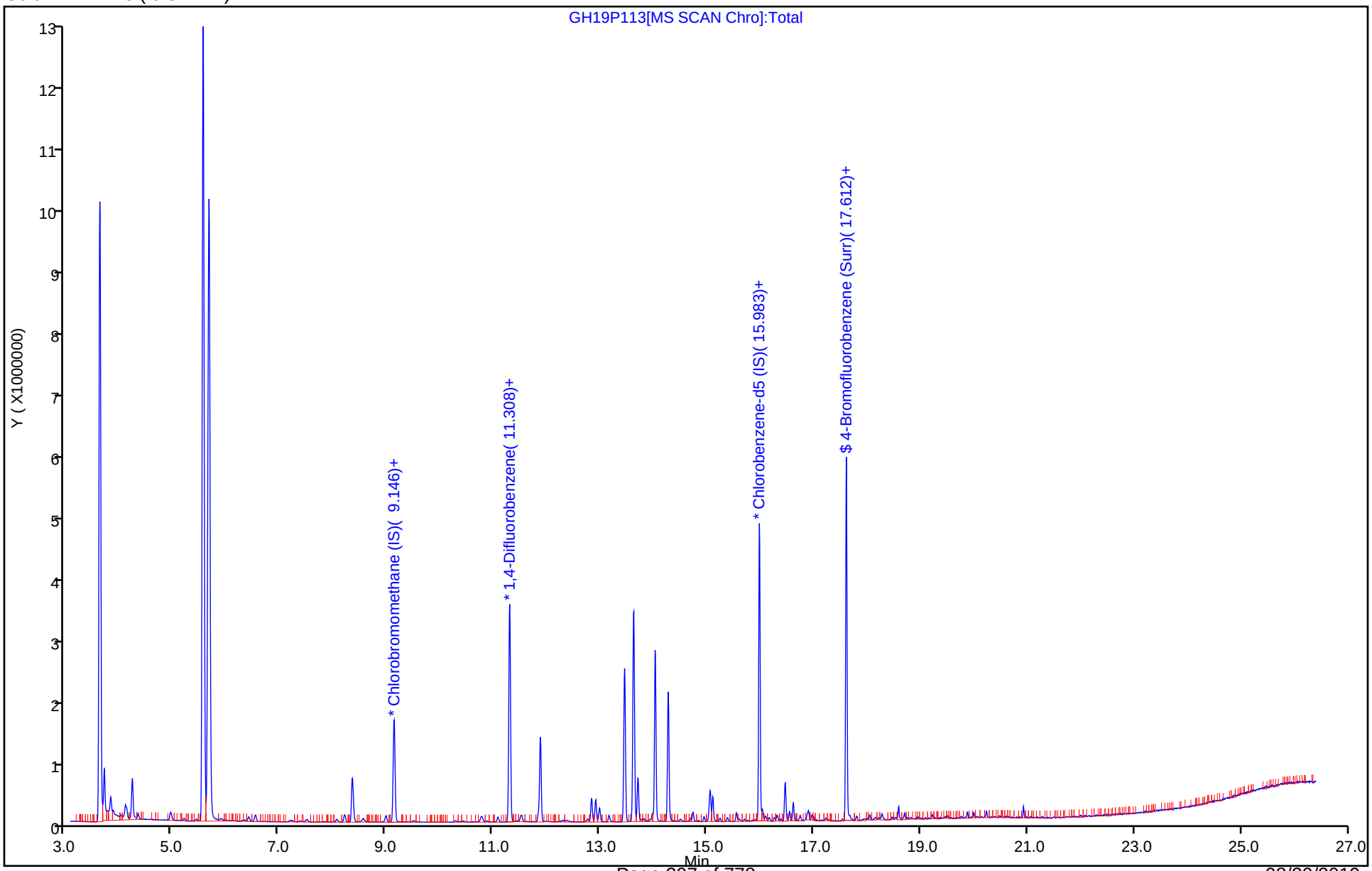
Report Date: 20-Aug-2019 10:28:14 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D

Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13	Worklist Smp#:	17
Client ID:	IA-136-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D				
Lims ID:	140-16367-A-13				
Client ID:	IA-136-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 22:50:30	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-017				
Misc. Info.:	140-16367-a-13				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Aug-2019 21:26:58	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:28:14		

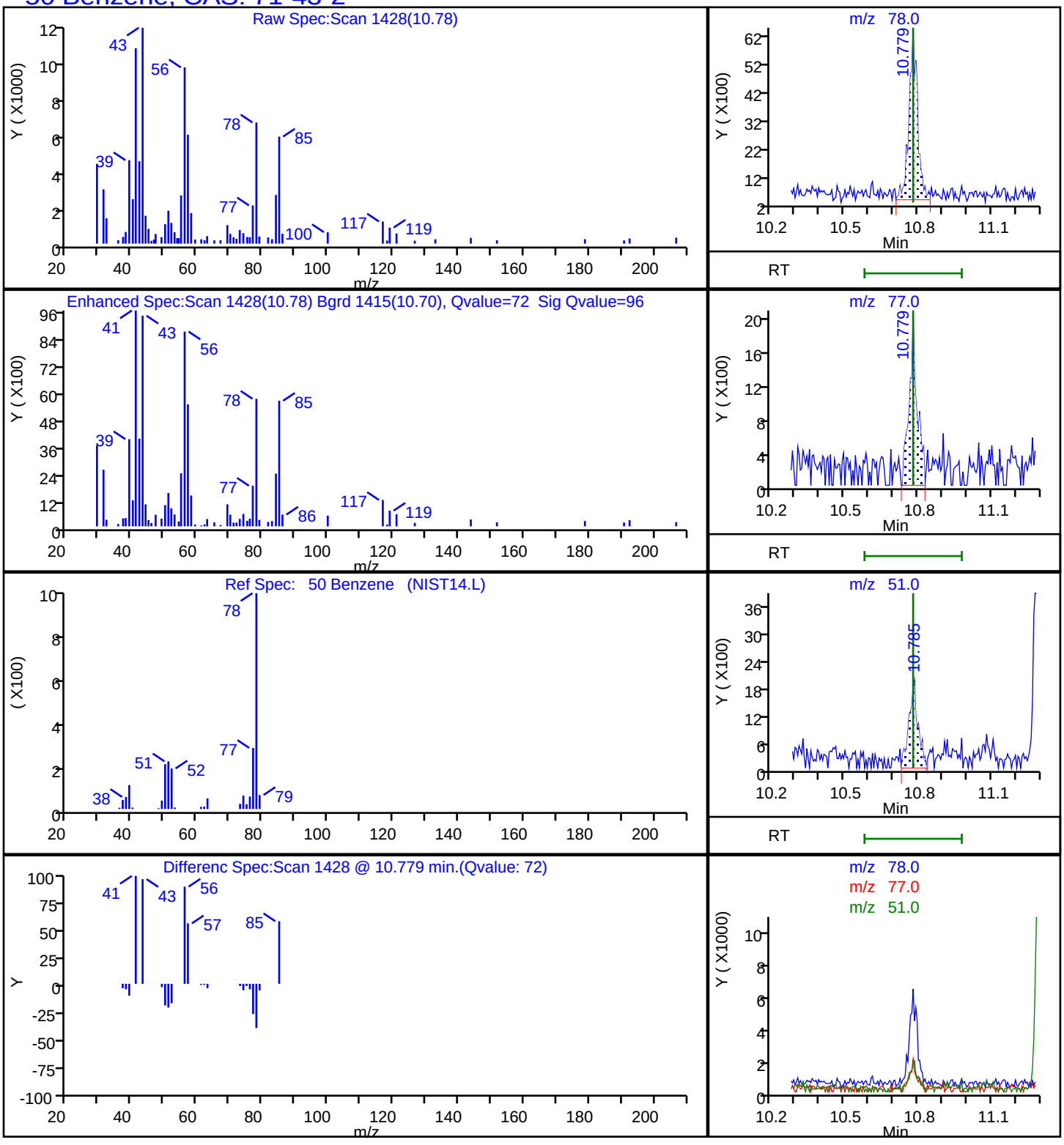
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.04	100.93

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D

Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 10:28:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D

Injection Date: 19-Aug-2019 22:50:30 Instrument ID: MG

Lims ID: 140-16367-A-13 Lab Sample ID: 140-16367-13

Client ID: IA-136-A-27

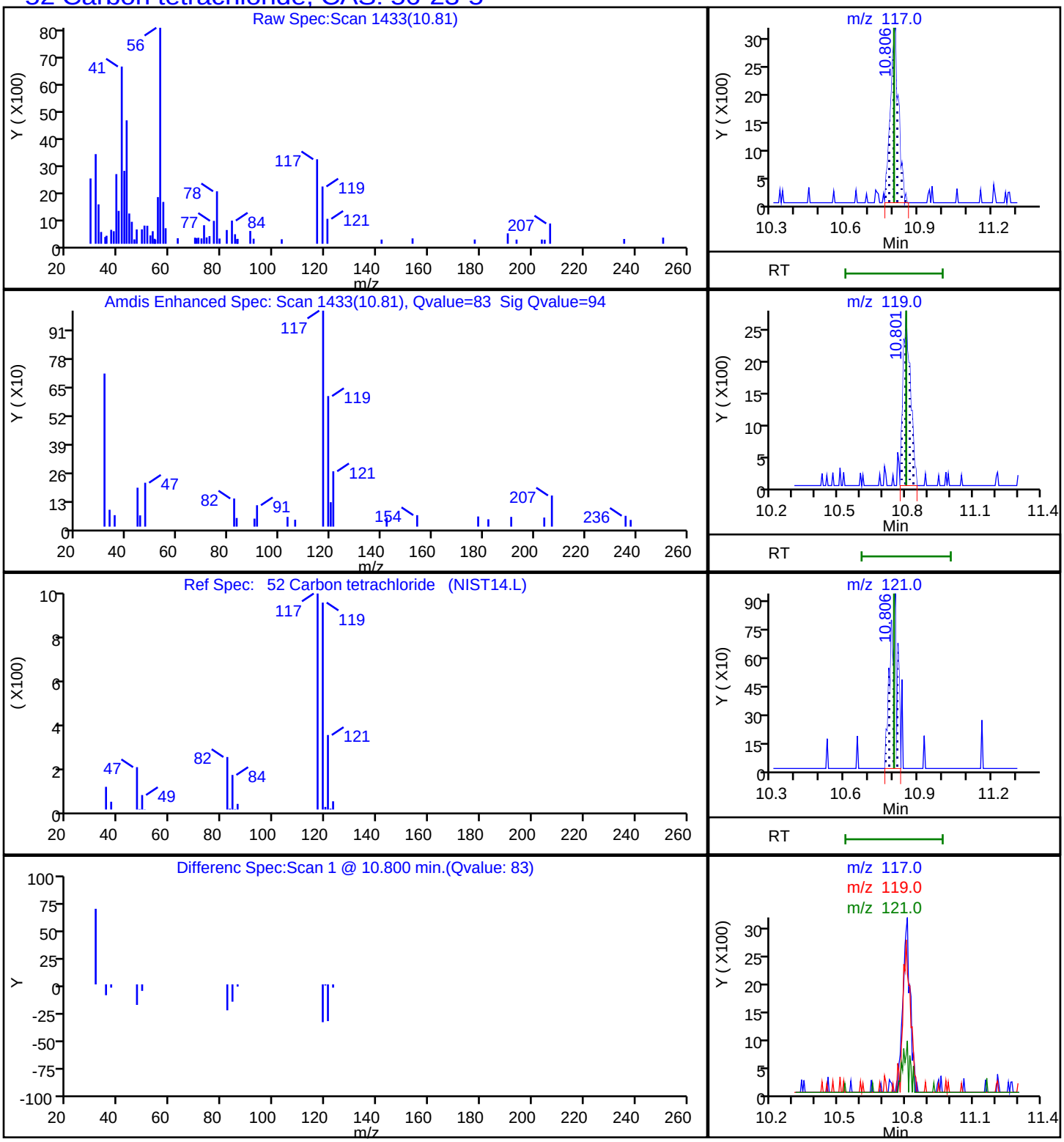
Operator ID: 7126 ALS Bottle#: 13 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

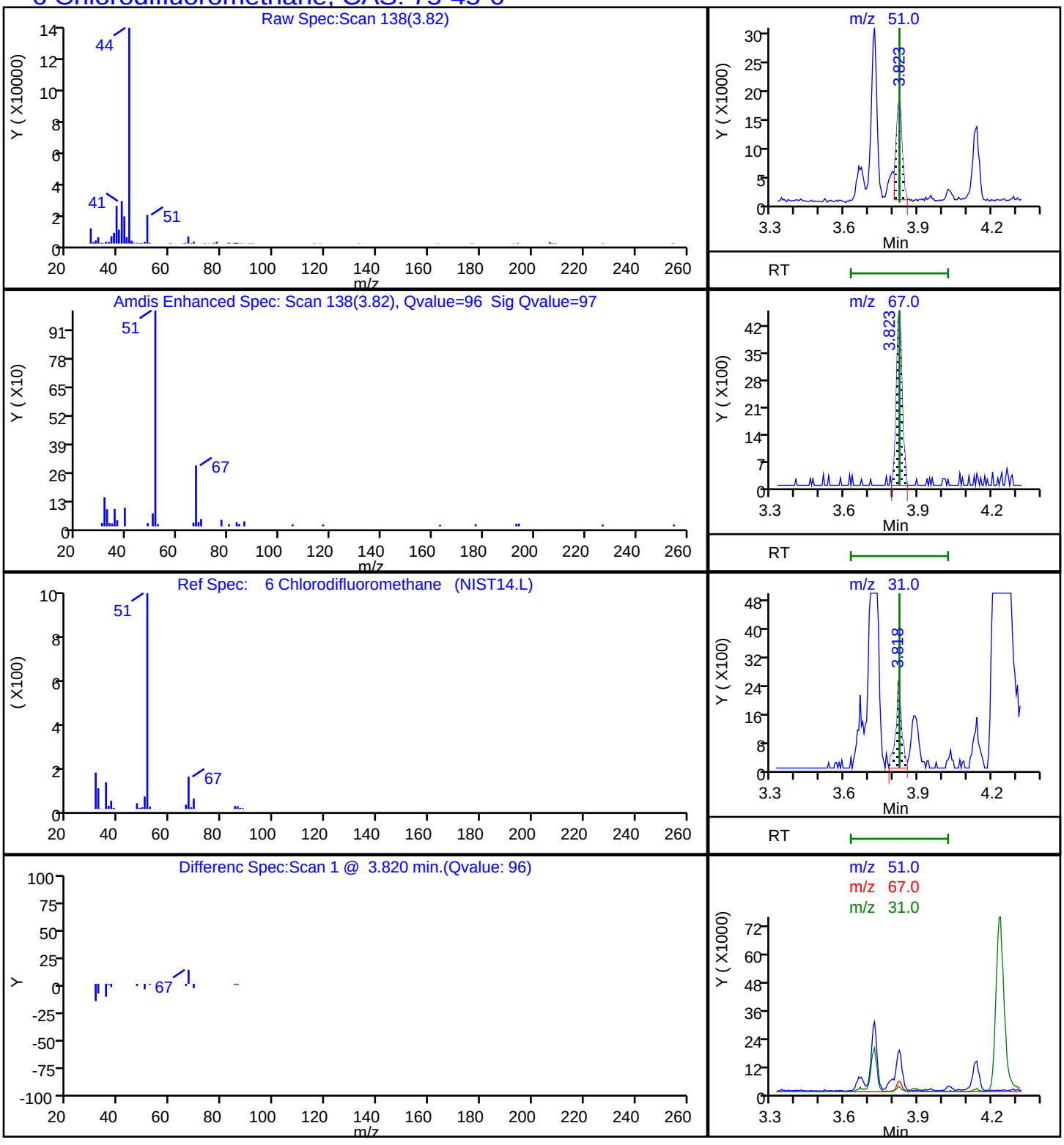


Report Date: 20-Aug-2019 10:28:14 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D				
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG		
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13		
Client ID:	IA-136-A-27				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

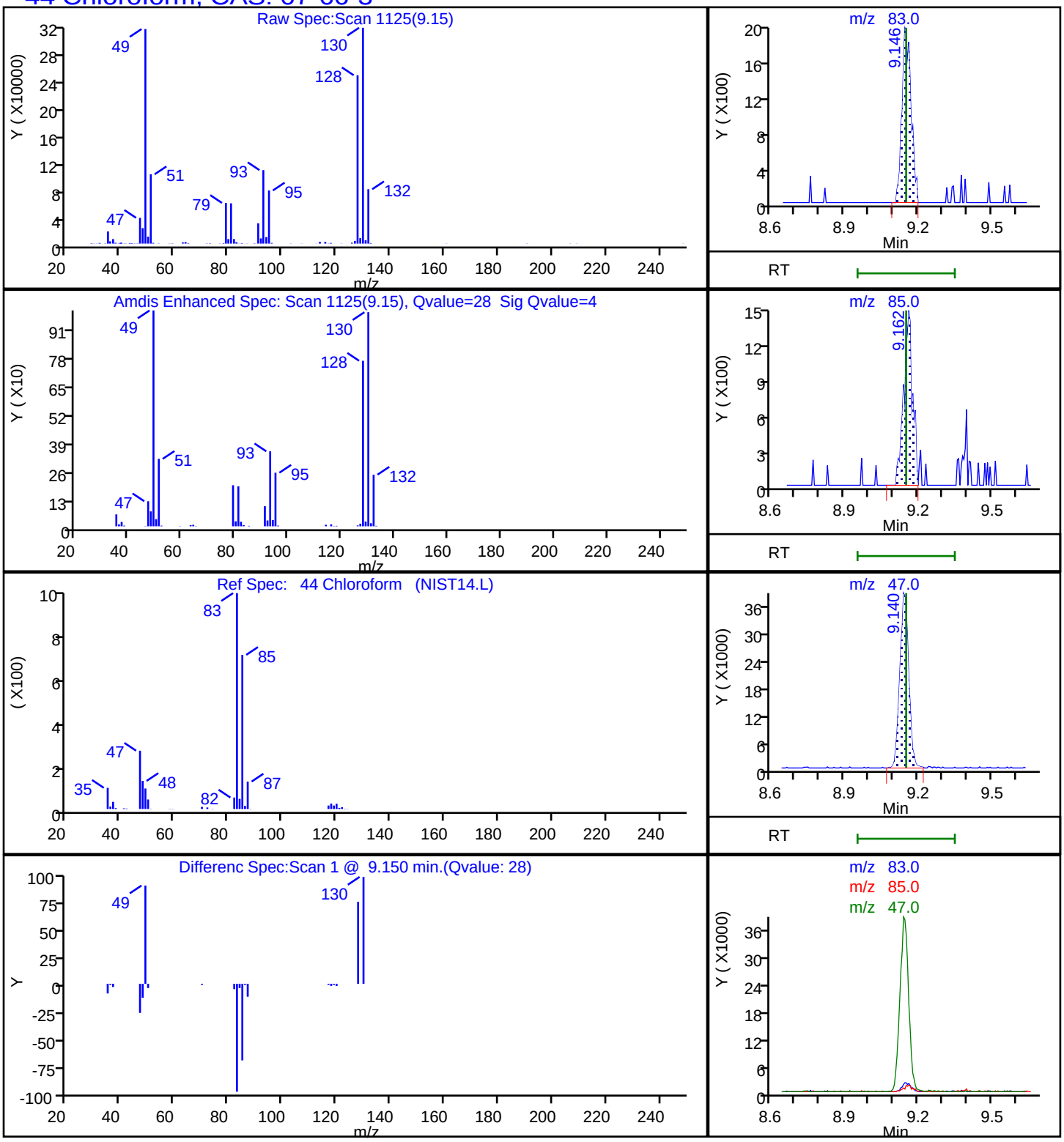


Report Date: 20-Aug-2019 10:28:14 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D		
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

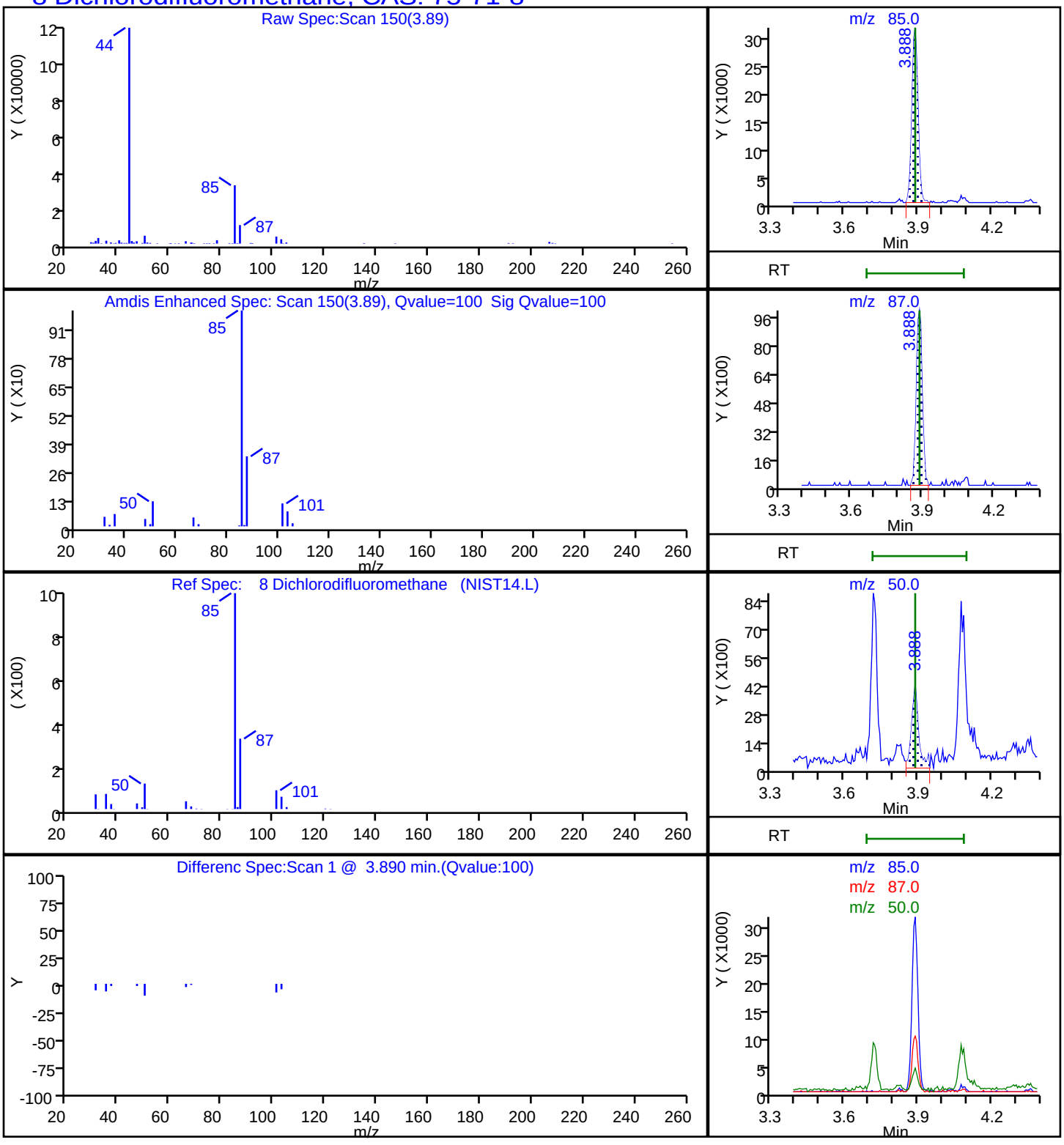
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D				
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG		
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13		
Client ID:	IA-136-A-27				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

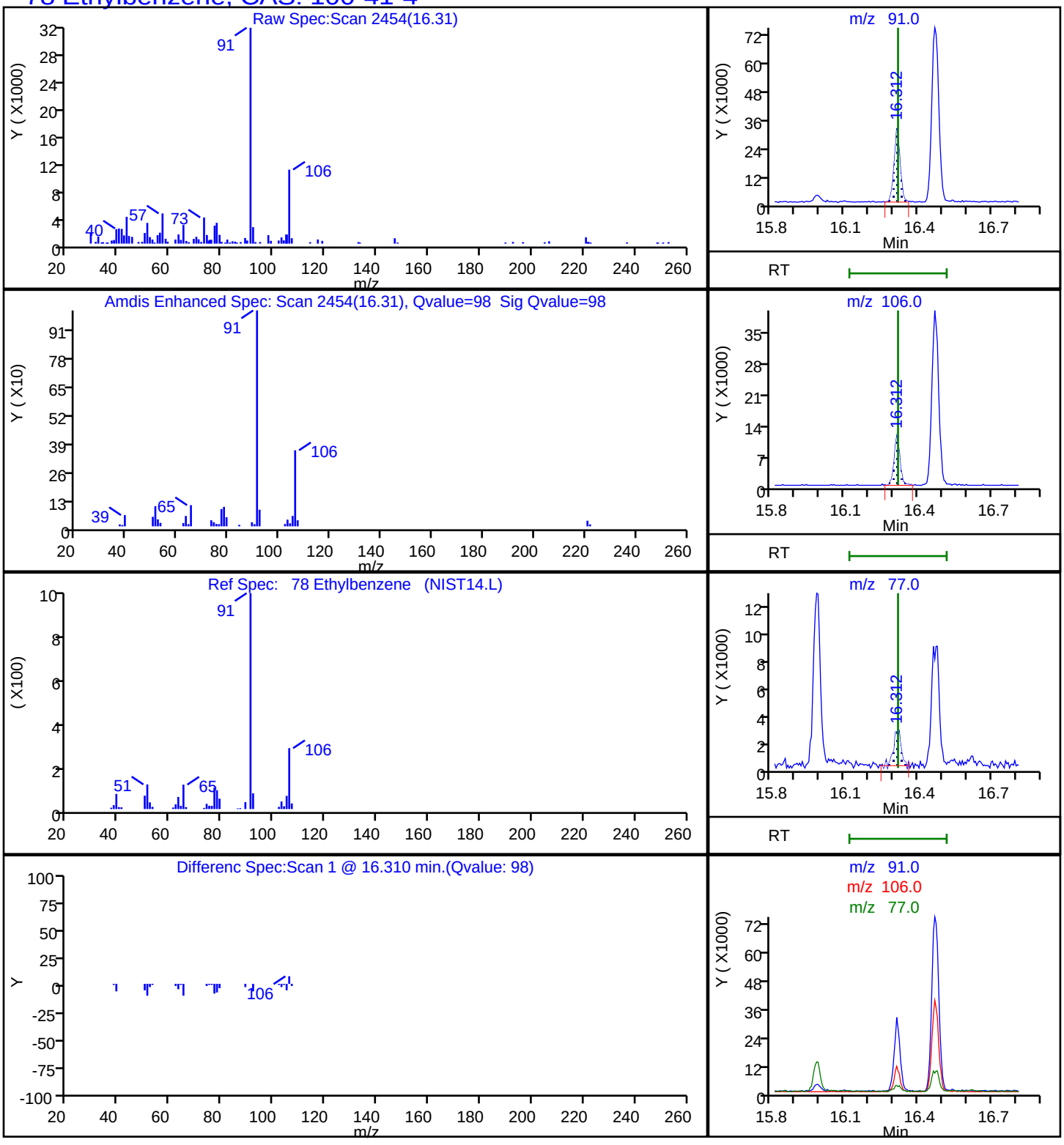


Report Date: 20-Aug-2019 10:28:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D		
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

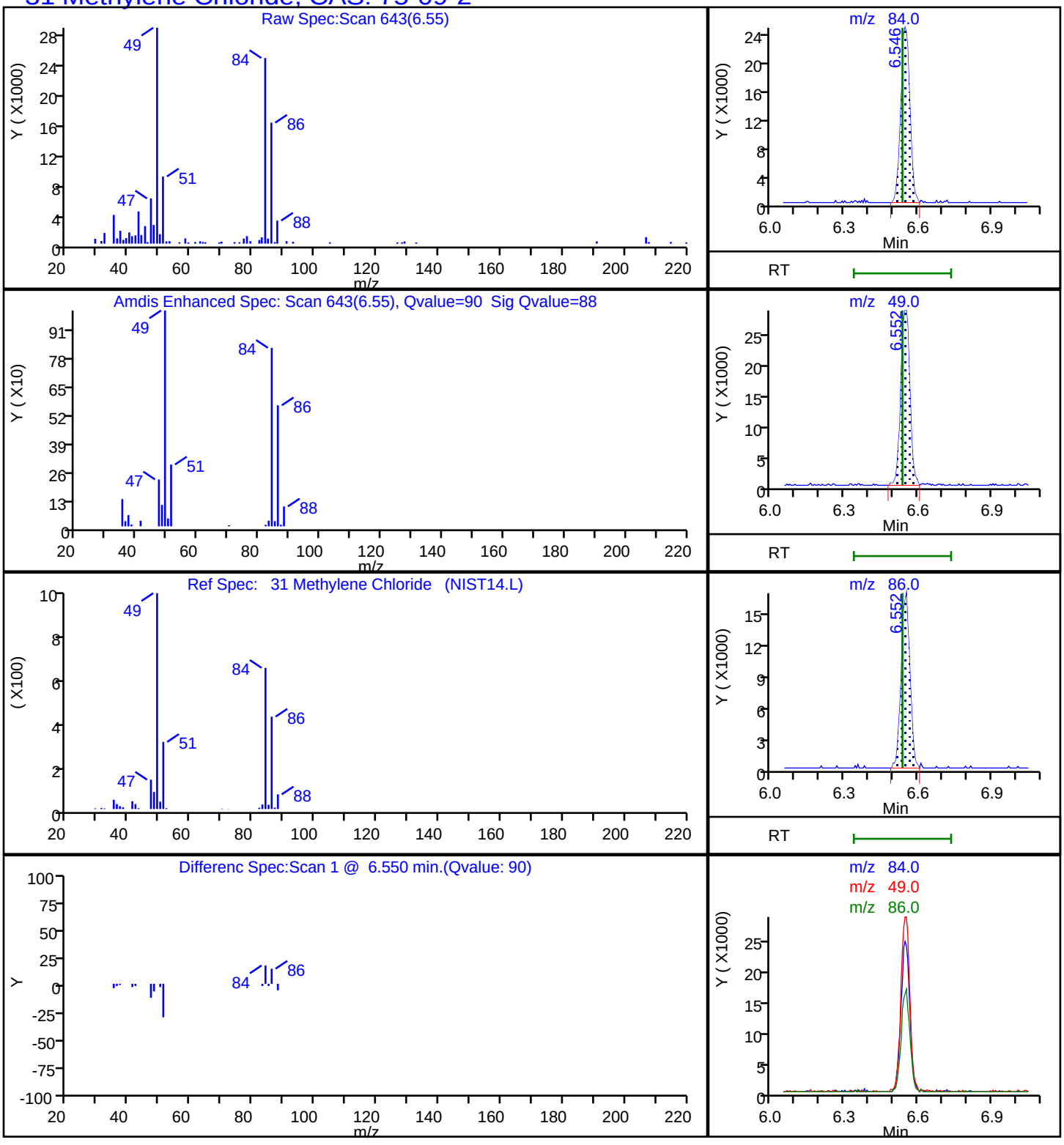
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D		
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

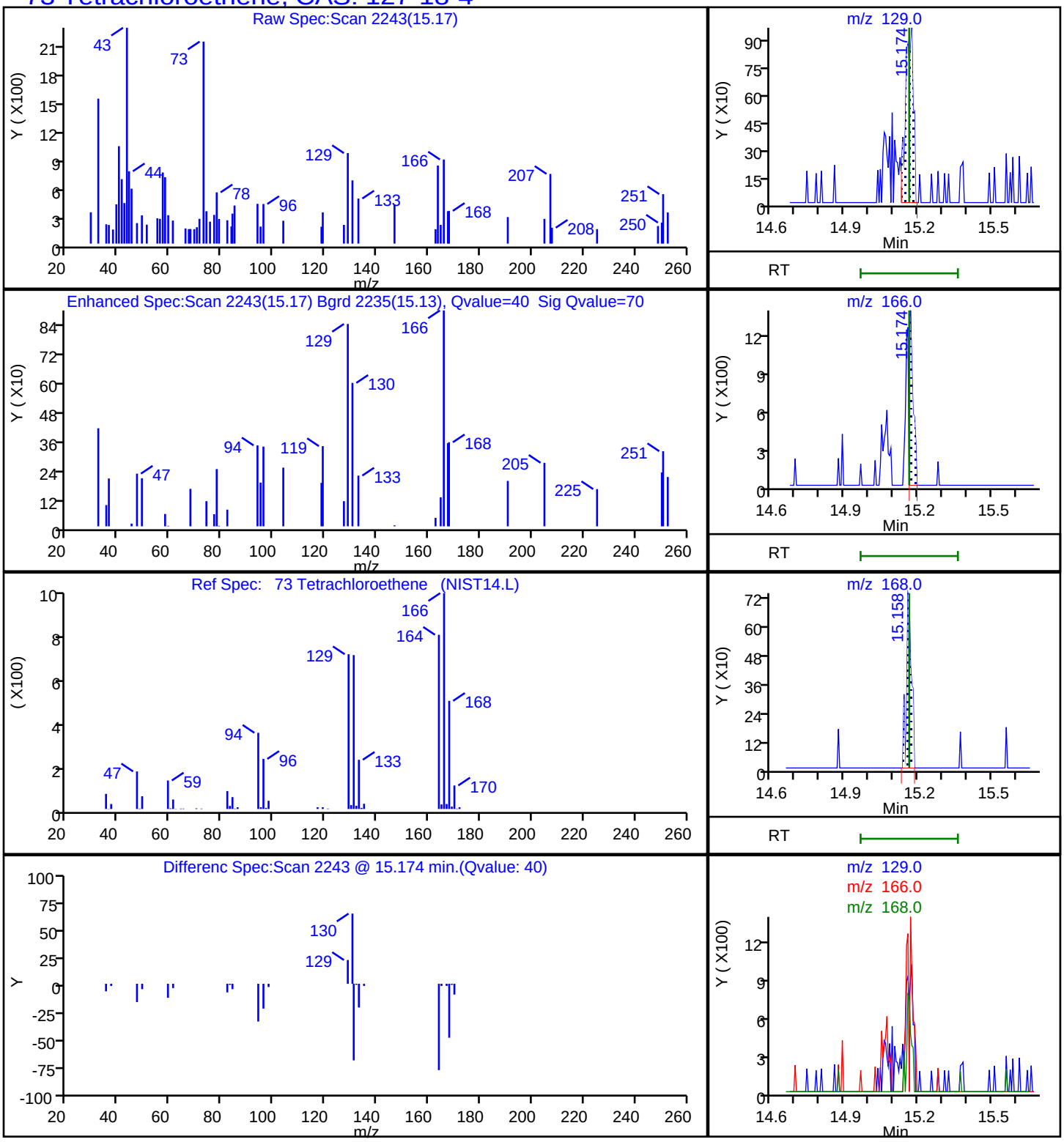
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D		
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

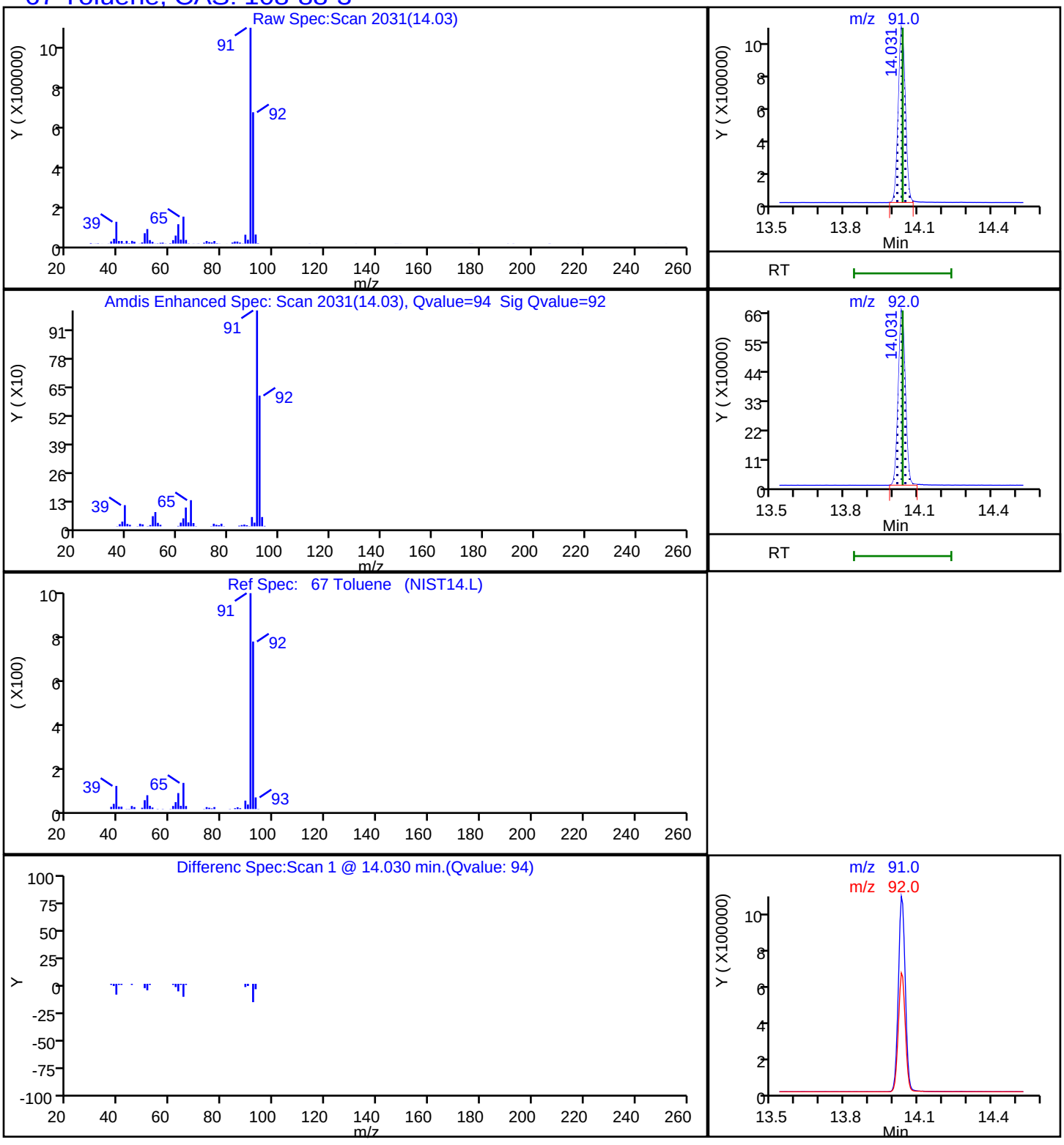
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D		
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13
Client ID:	IA-136-A-27		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

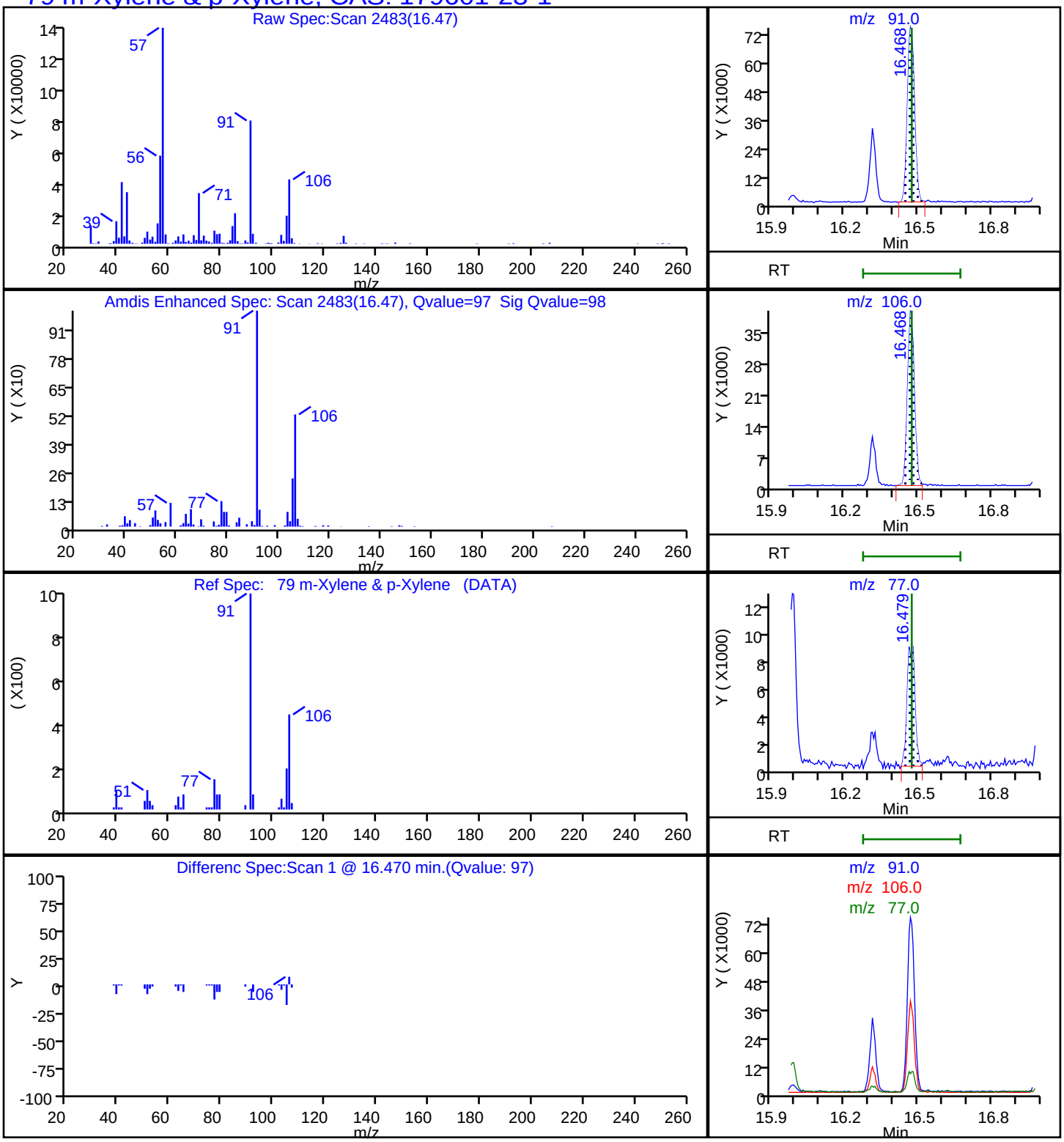


Report Date: 20-Aug-2019 10:28:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D				
Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG		
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13		
Client ID:	IA-136-A-27				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1



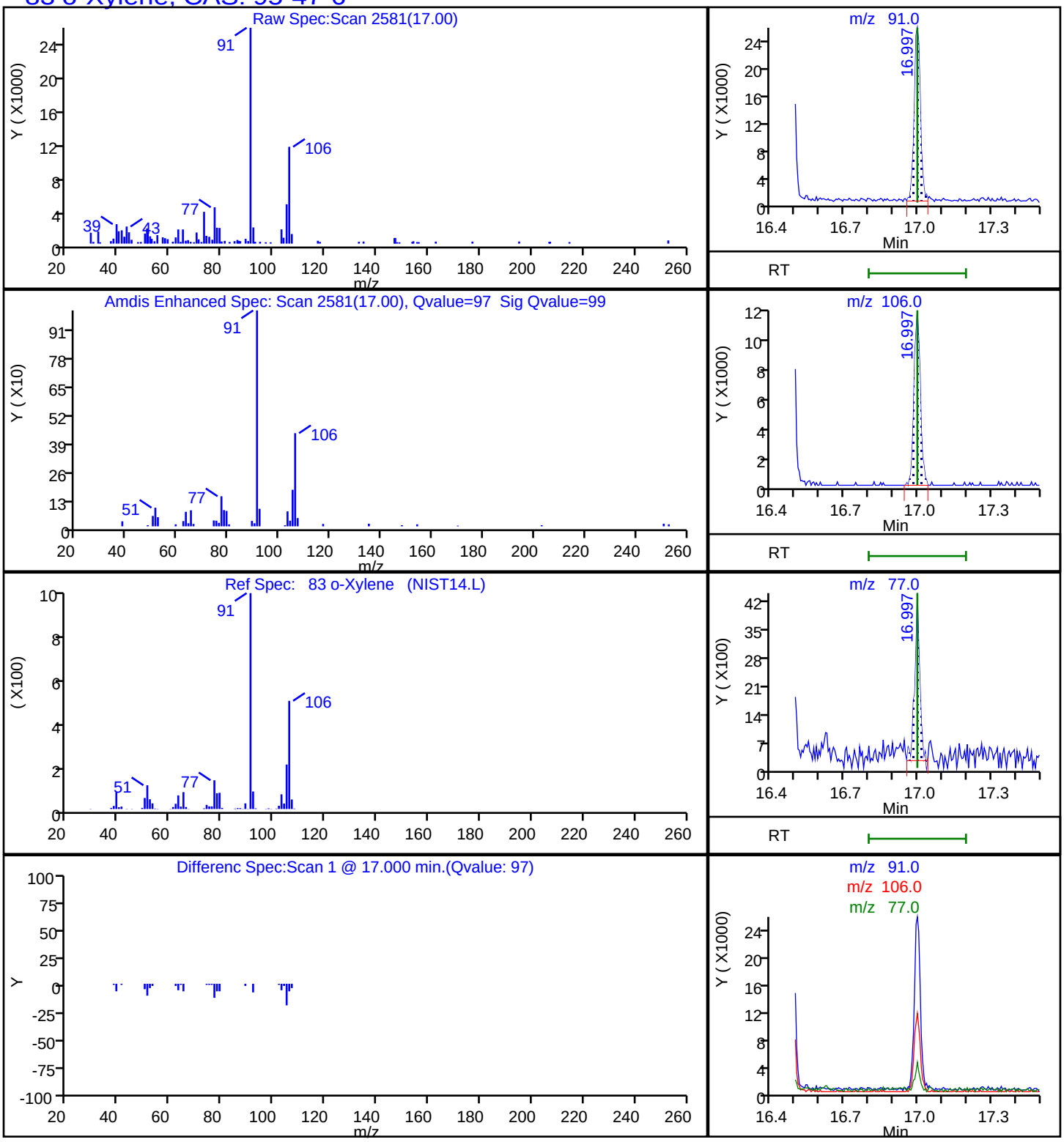
Report Date: 20-Aug-2019 10:28:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P113.D

Injection Date:	19-Aug-2019 22:50:30	Instrument ID:	MG		
Lims ID:	140-16367-A-13	Lab Sample ID:	140-16367-13		
Client ID:	IA-136-A-27				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.061	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	7.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	27		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D
Lims ID: 140-16367-A-14
Client ID: IA-076-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 23:32:30 ALS Bottle#: 14 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-018
Misc. Info.: 140-16367-a-14
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:11:49 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:11:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.135	0.016	81	644653	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.308	0.005	94	3313641	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	87	2944757	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	91	2051690	4.01	
6 Chlorodifluoromethane	51	3.829	3.826	0.006	40	24230	0.0740	
8 Dichlorodifluoromethane	85	3.888	3.890	0.000	100	59303	0.0932	
31 Methylene Chloride	84	6.552	6.540	0.016	91	58626	0.3282	
44 Chloroform	83	9.162	9.156	0.011	27	3823	0.008738	
50 Benzene	78	10.785	10.774	0.006	92	13615	0.0275	
52 Carbon tetrachloride	117	10.812	10.796	0.011	54	6169	0.0122	
67 Toluene	91	14.031	14.032	-0.005	94	843985	1.46	
78 Ethylbenzene	91	16.318	16.312	0.001	98	24683	0.0322	
79 m-Xylene & p-Xylene	91	16.474	16.468	0.000	55	69130	0.1152	
83 o-Xylene	91	16.997	16.991	0.000	97	22213	0.0342	
S 124 Xylenes, Total	100				0		0.1494	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

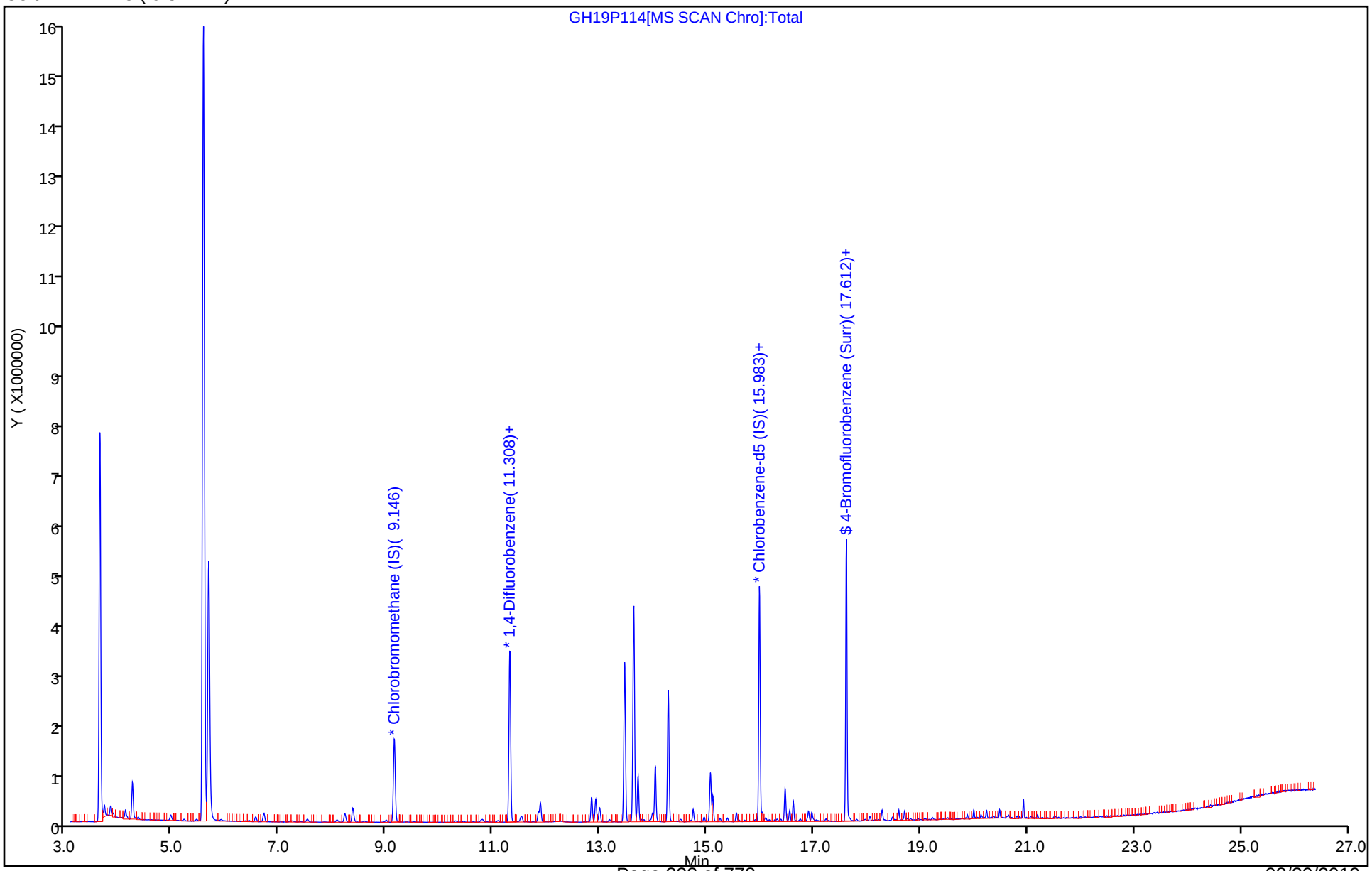
Report Date: 20-Aug-2019 12:11:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D

Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14	Worklist Smp#:	18
Client ID:	IA-076-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D				
Lims ID:	140-16367-A-14				
Client ID:	IA-076-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 23:32:30	ALS Bottle#:	14	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-018				
Misc. Info.:	140-16367-a-14				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:11:49	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:11:49

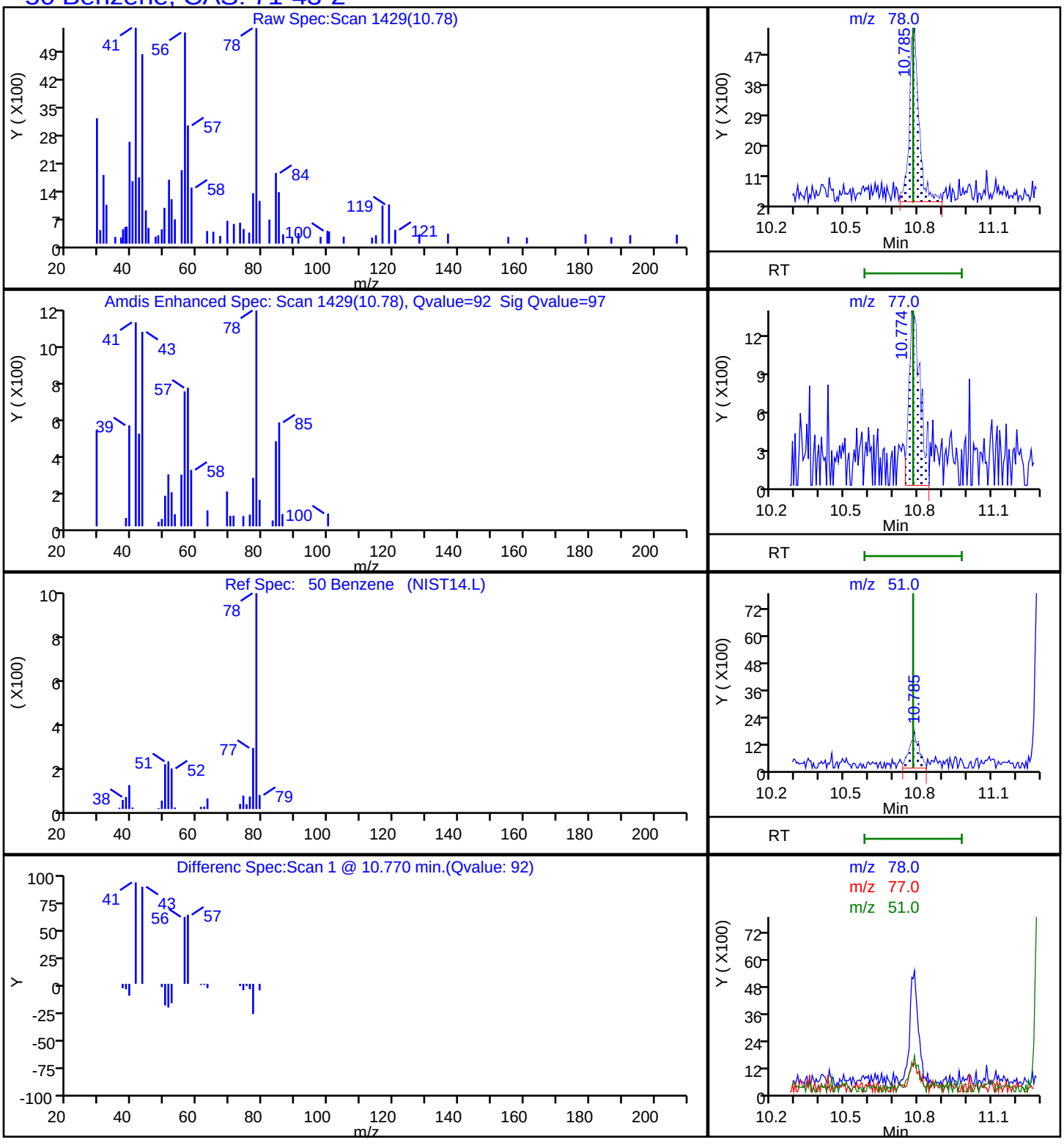
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.01	100.26

Report Date: 20-Aug-2019 12:11:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

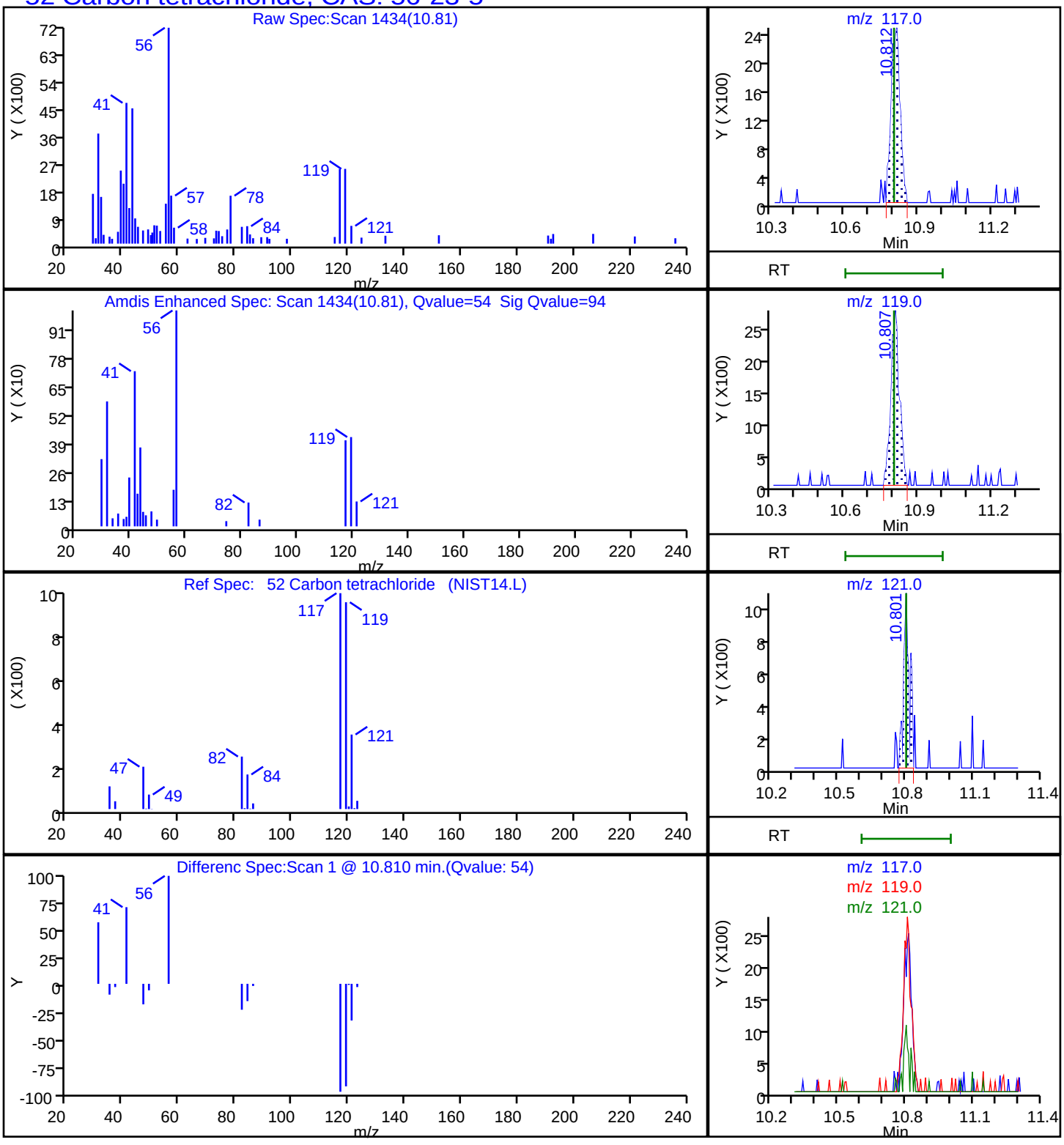
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

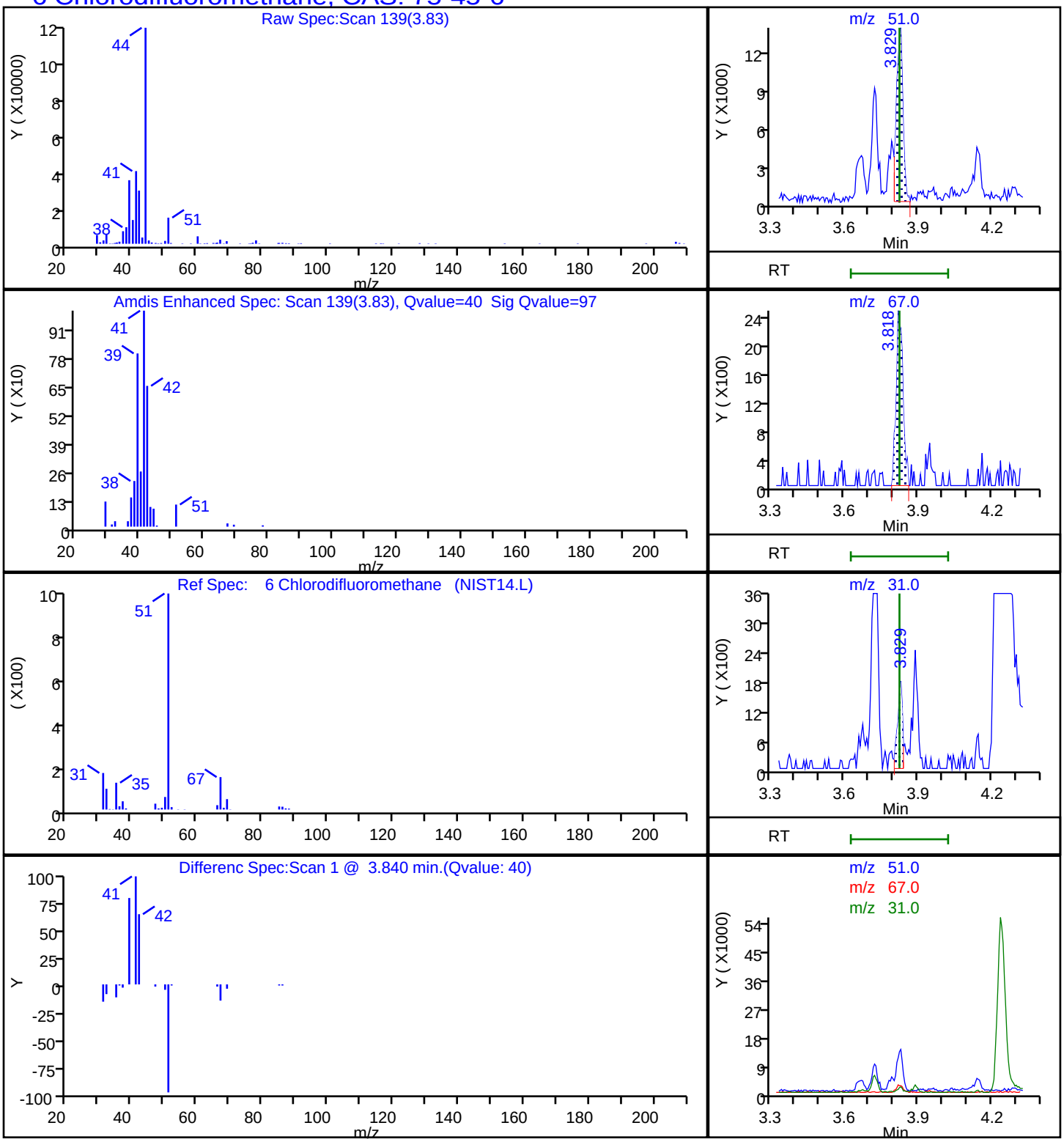


Report Date: 20-Aug-2019 12:11:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D				
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14		
Client ID:	IA-076-A-27				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

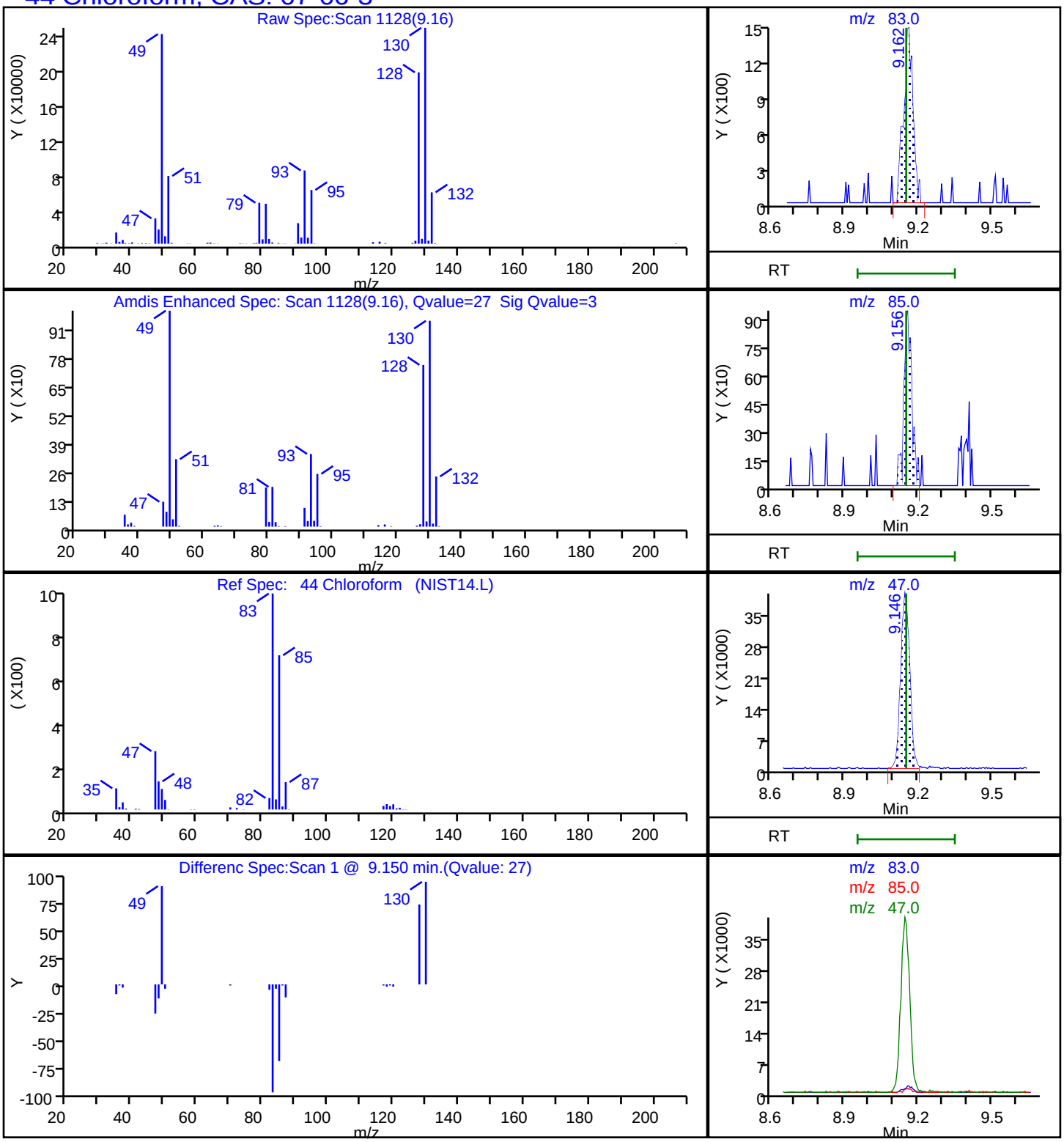
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

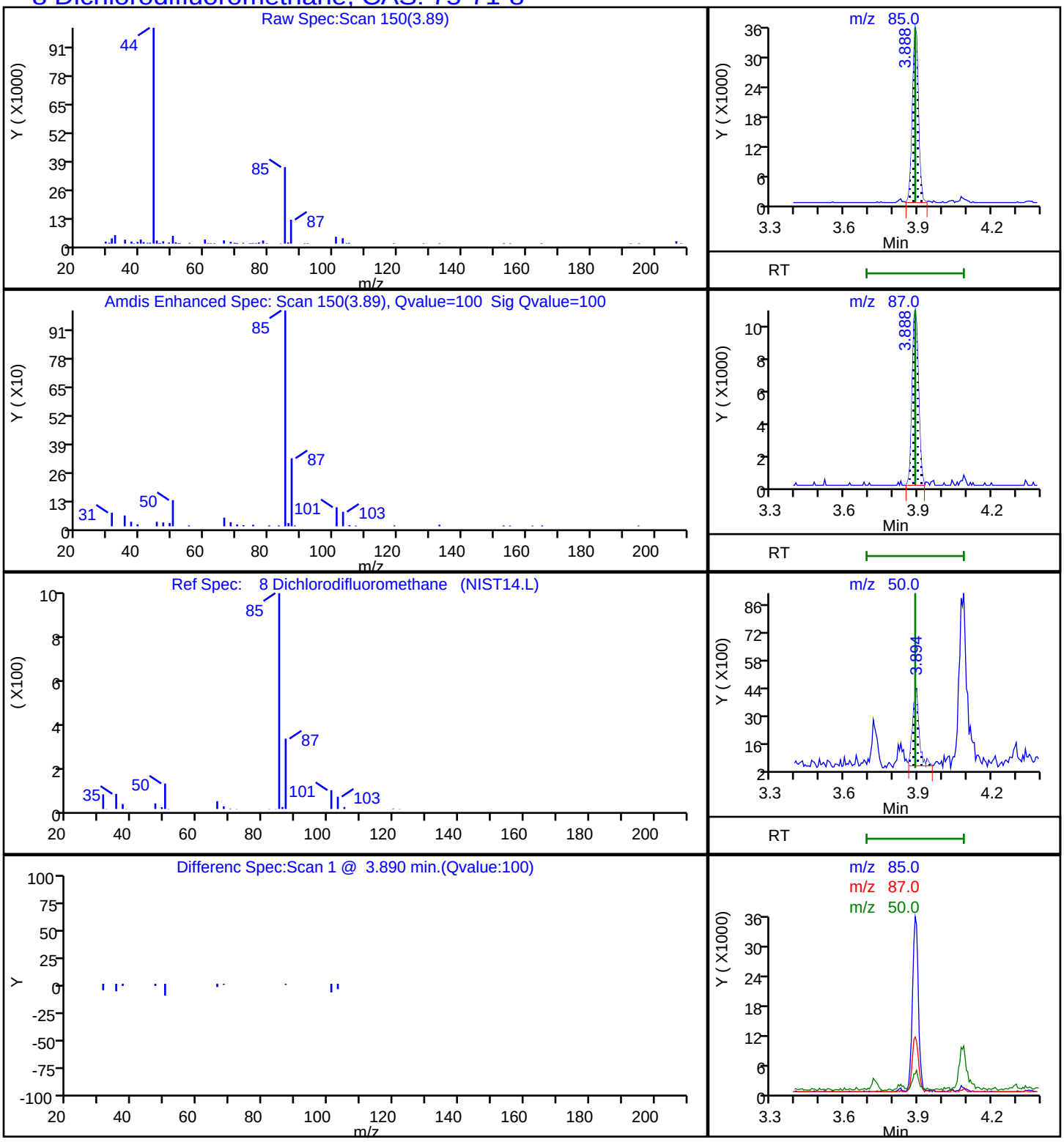


Report Date: 20-Aug-2019 12:11:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D				
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14		
Client ID:	IA-076-A-27				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

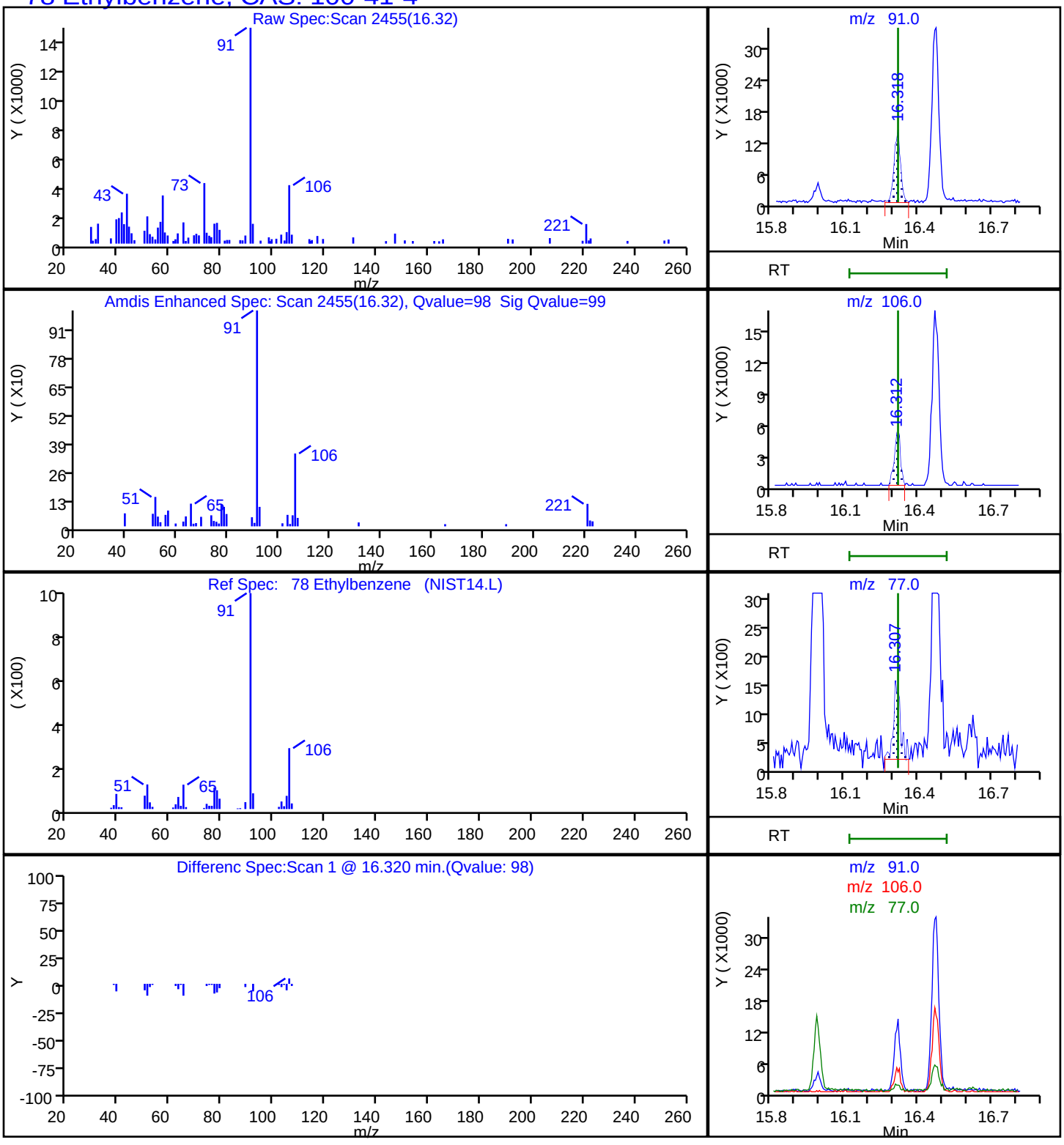


Report Date: 20-Aug-2019 12:11:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

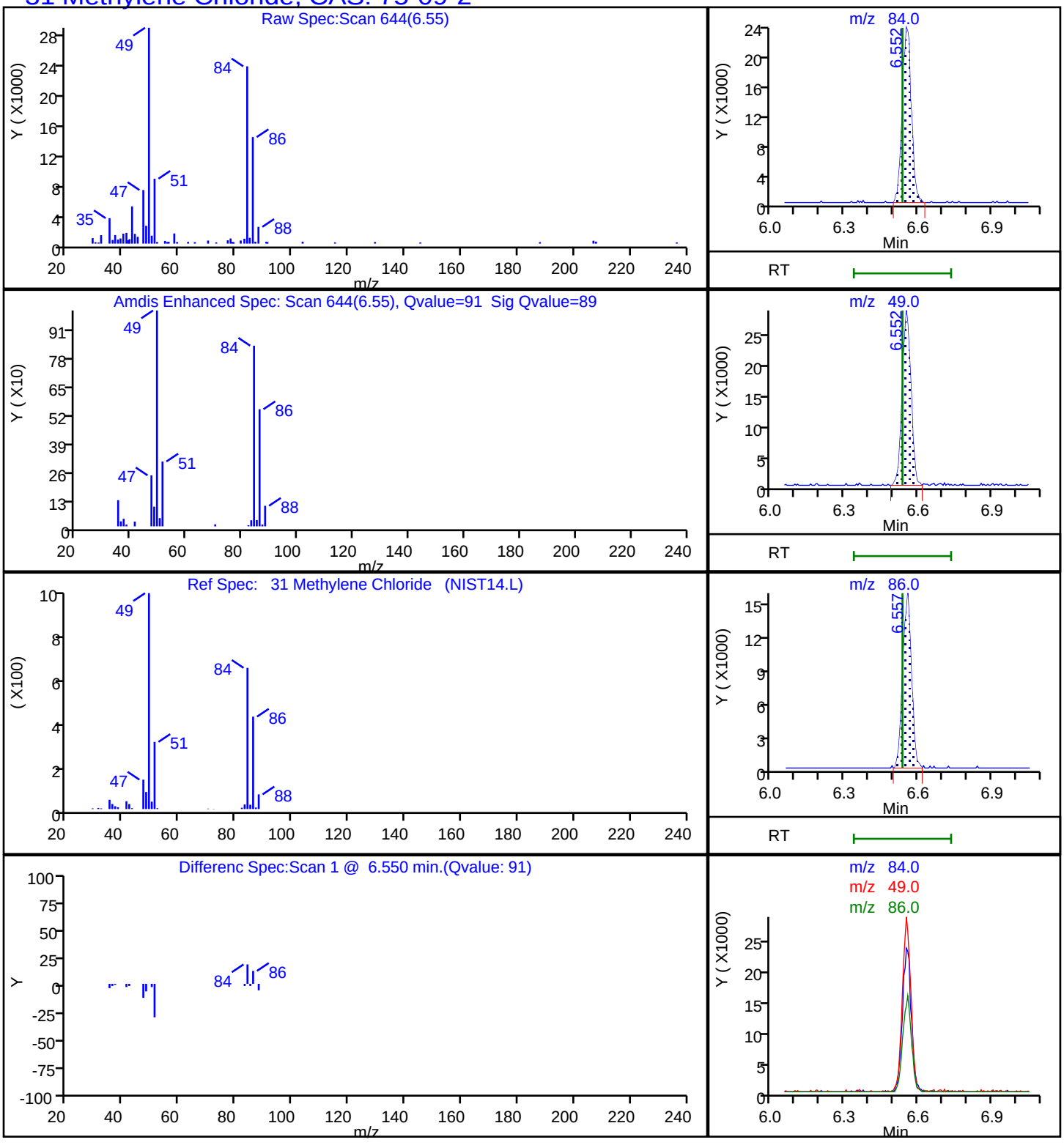
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D				
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14		
Client ID:	IA-076-A-27				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

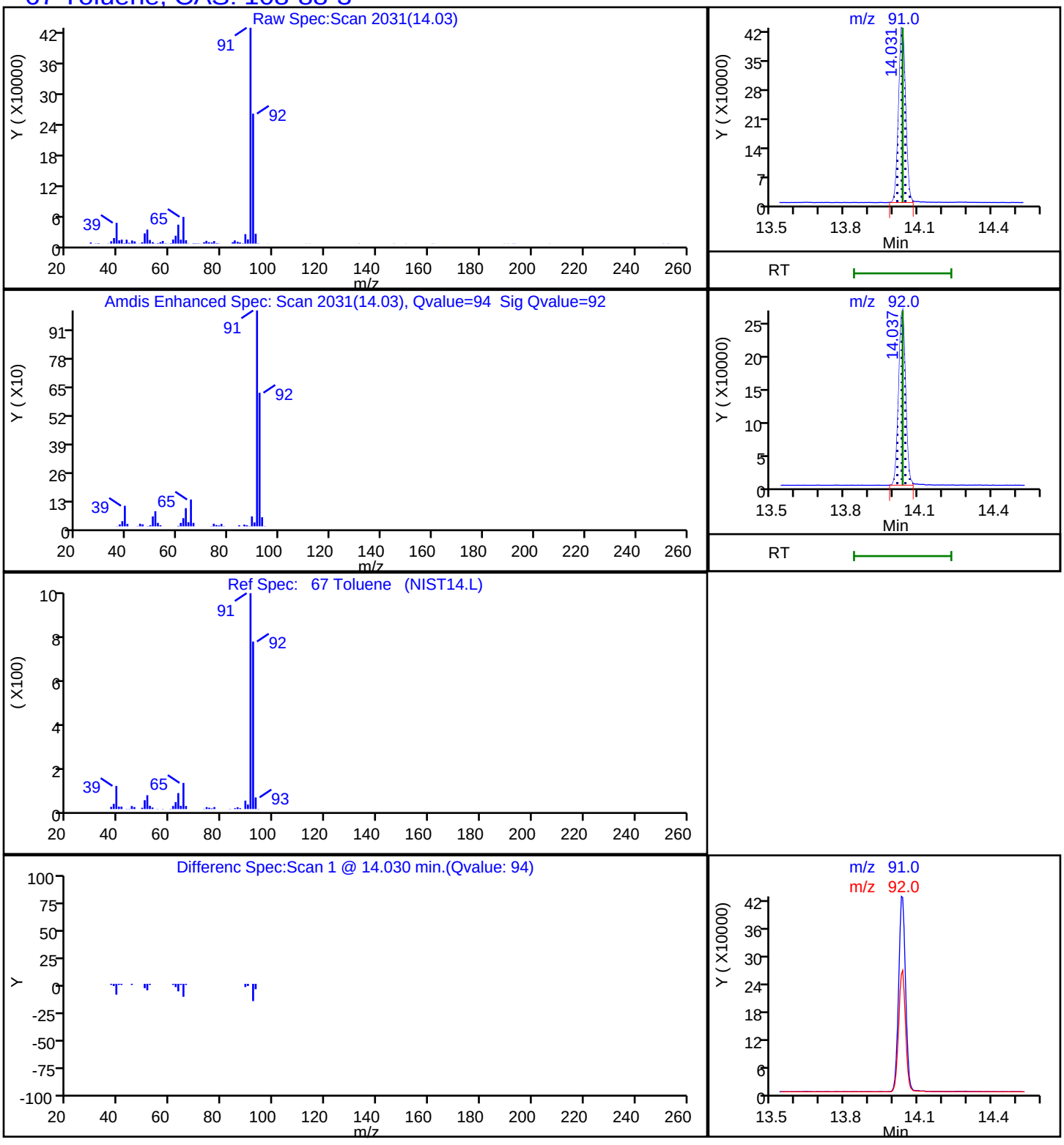
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

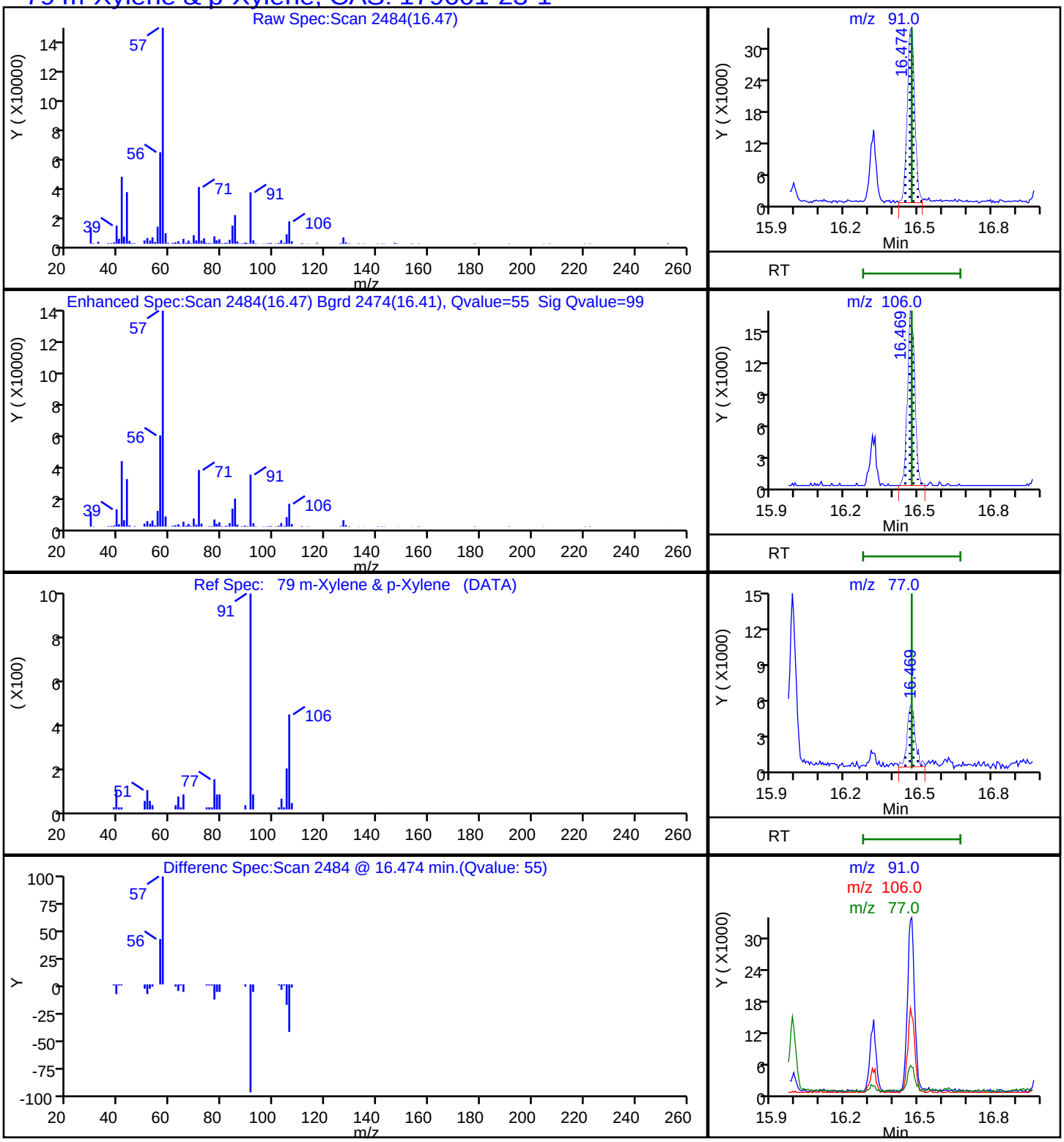
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

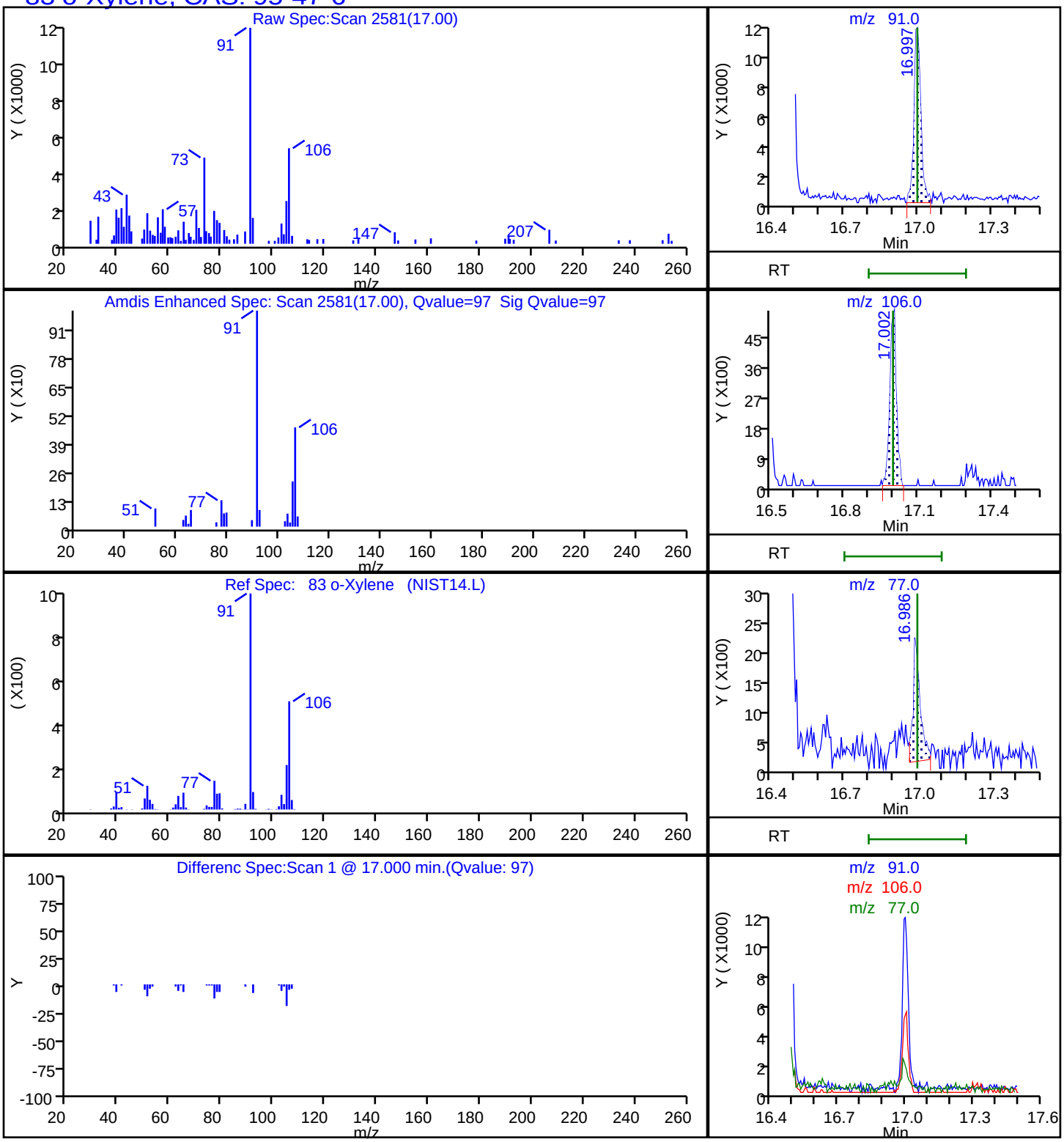
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D		
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14
Client ID:	IA-076-A-27		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



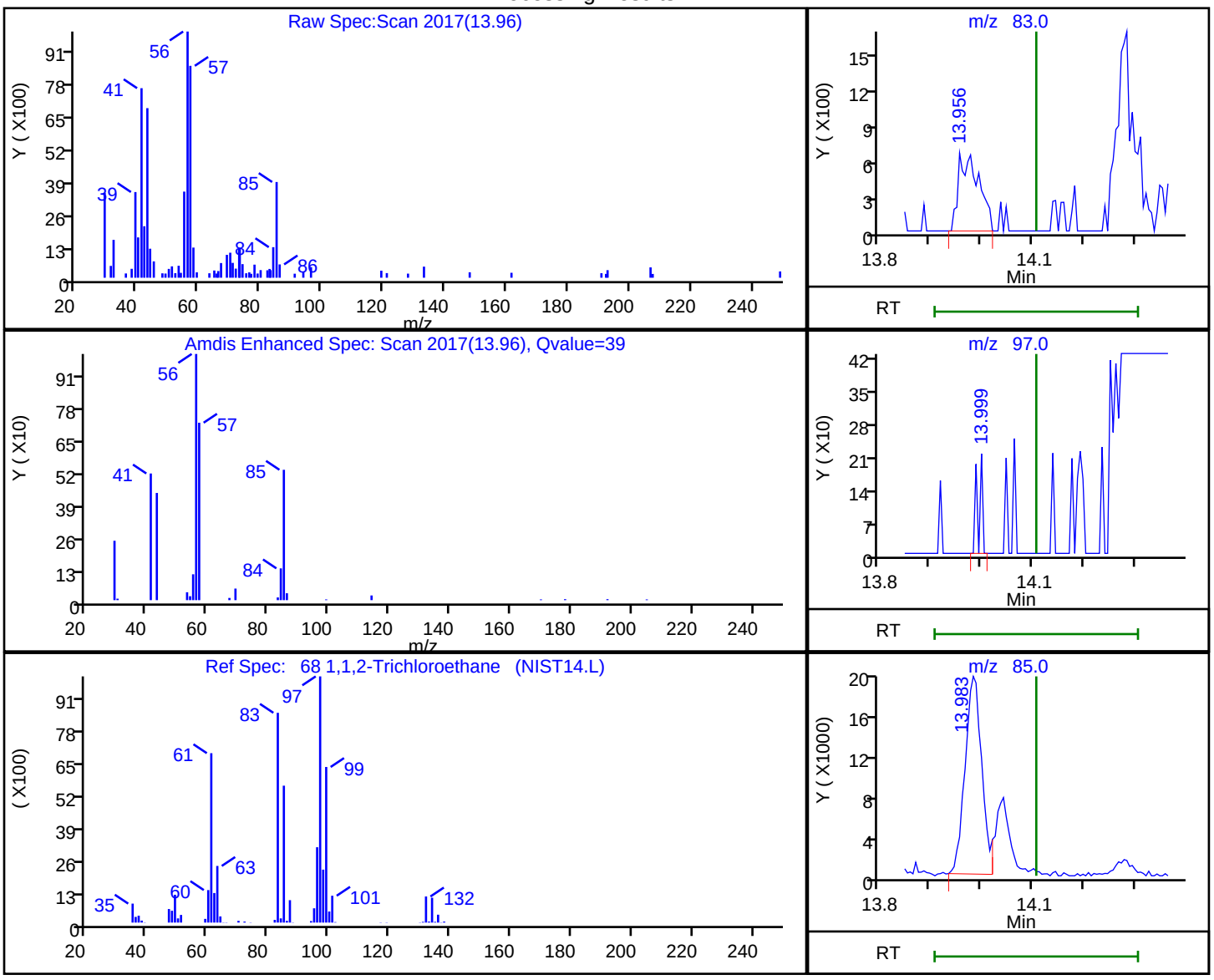
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P114.D				
Injection Date:	19-Aug-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-16367-A-14	Lab Sample ID:	140-16367-14		
Client ID:	IA-076-A-27				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.96	83.00	1809	0.010667
14.00	97.00	129	
13.98	85.00	44906	

Reviewer: khachitpongpanits, 20-Aug-2019 12:11:37

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.12	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.25	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.082	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.060	J	0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.38	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.88	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.36	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.41	J	2.7	0.24
108-88-3	Toluene	92.14	9.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D
Lims ID: 140-16367-A-15
Client ID: IA-168-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 00:15:30 ALS Bottle#: 15 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-019
Misc. Info.: 140-16367-a-15
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:11:49 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:12:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	80	745756	4.00	
* 2 1,4-Difluorobenzene	114	11.303	11.308	-0.005	94	3977658	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.988	-0.005	87	2859104	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	92	1964252	3.95	
6 Chlorodifluoromethane	51	3.818	3.826	-0.005	95	18767	0.0495	
8 Dichlorodifluoromethane	85	3.883	3.890	-0.005	99	58434	0.0794	
31 Methylene Chloride	84	6.541	6.540	0.005	89	98529	0.4768	
44 Chloroform	83	9.140	9.156	-0.011	27	3472	0.006860	
50 Benzene	78	10.780	10.774	0.001	96	14294	0.0240	
52 Carbon tetrachloride	117	10.801	10.796	0.000	78	6456	0.0107	
67 Toluene	91	14.031	14.032	-0.005	95	296583	0.5276	
73 Tetrachloroethene	129	15.158	15.158	-0.005	89	3142	0.0121	
78 Ethylbenzene	91	16.312	16.312	-0.005	97	12226	0.0164	
79 m-Xylene & p-Xylene	91	16.469	16.468	-0.005	88	32758	0.0562	
83 o-Xylene	91	17.002	16.991	0.005	95	12287	0.0195	
S 124 Xylenes, Total	100				0		0.0757	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

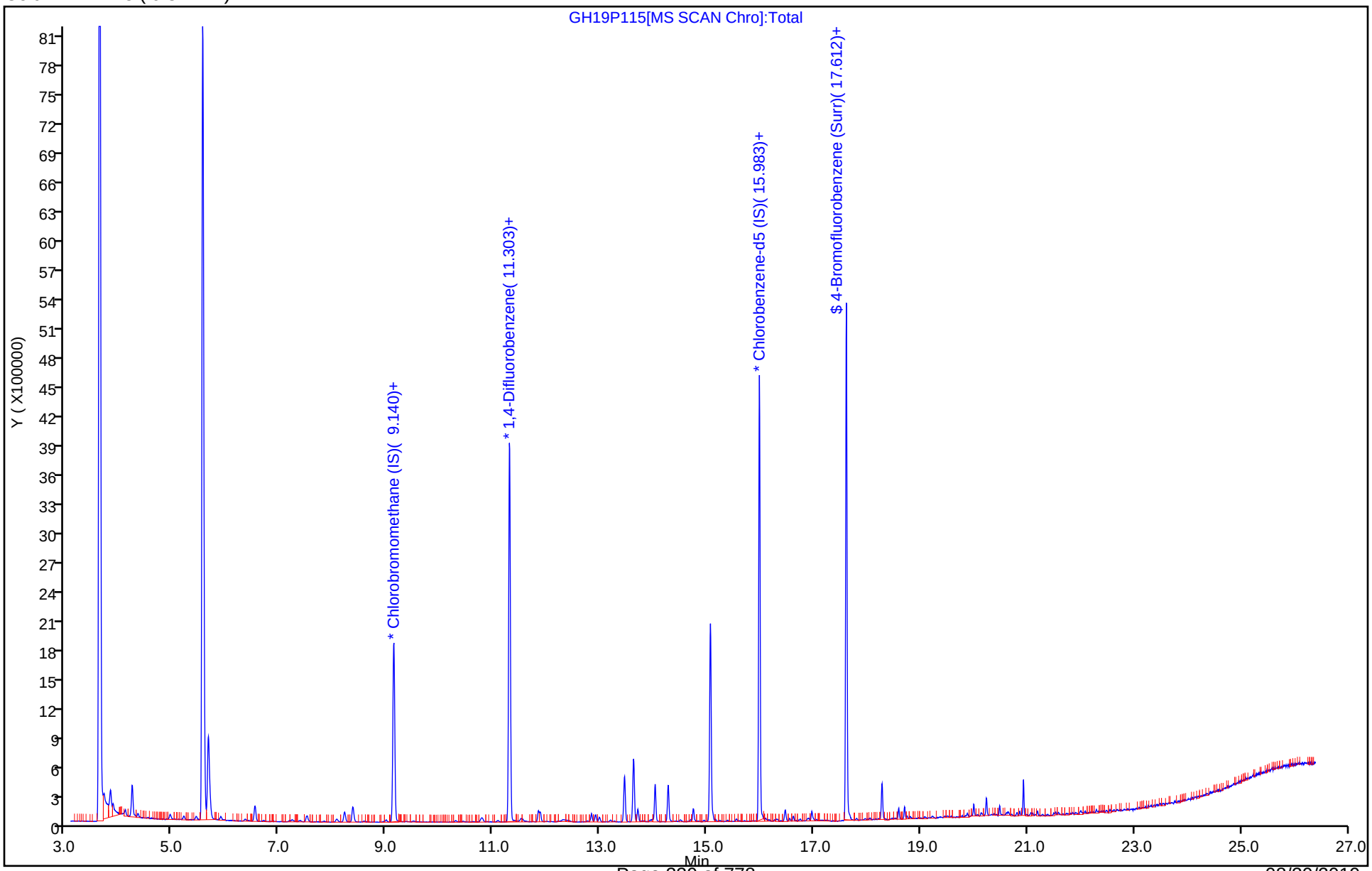
Report Date: 20-Aug-2019 12:12:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D

Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15	Worklist Smp#:	19
Client ID:	IA-168-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

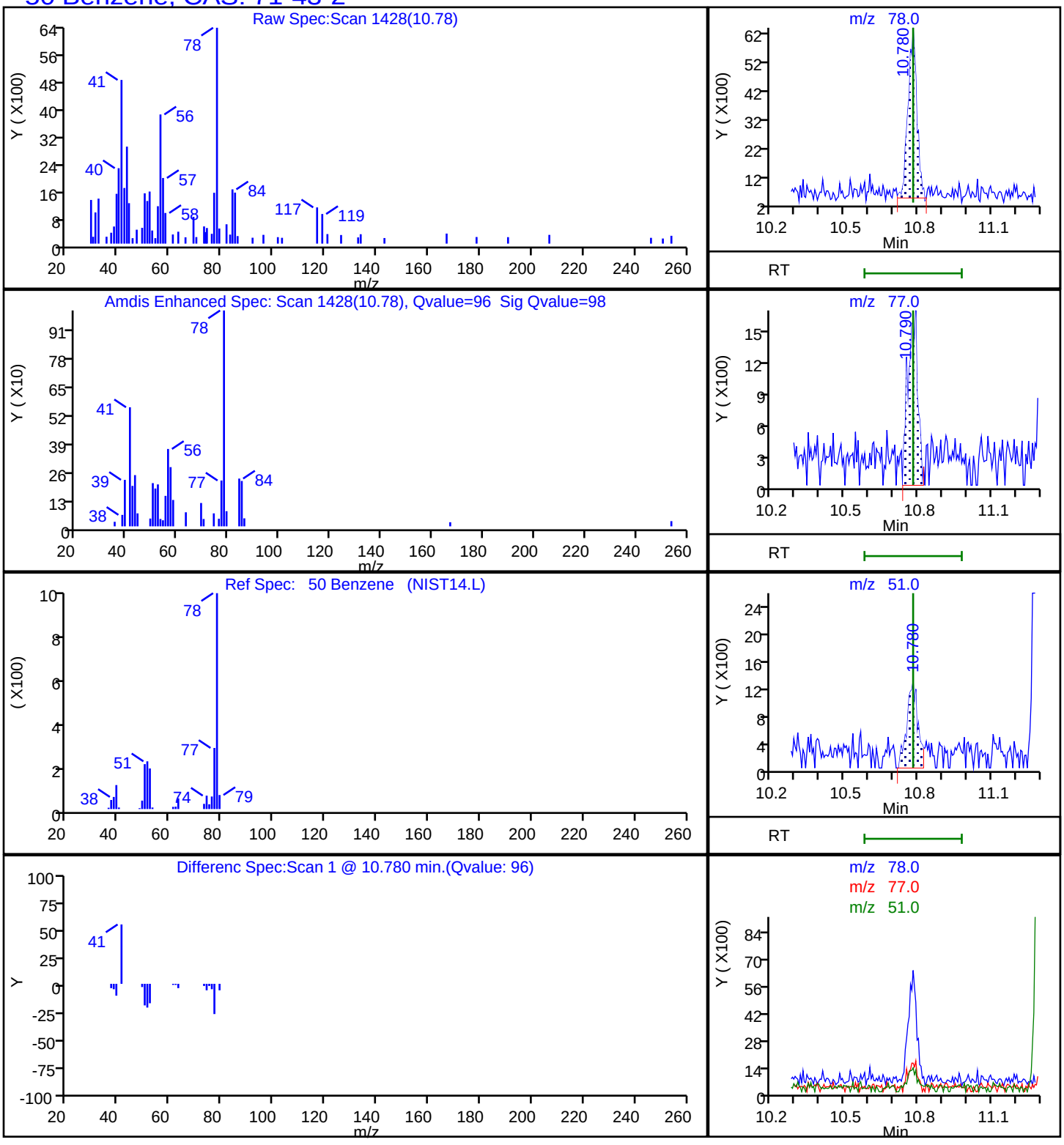
Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D				
Lims ID:	140-16367-A-15				
Client ID:	IA-168-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 00:15:30	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-019				
Misc. Info.:	140-16367-a-15				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:11:49	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:12:24		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.95	98.86

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

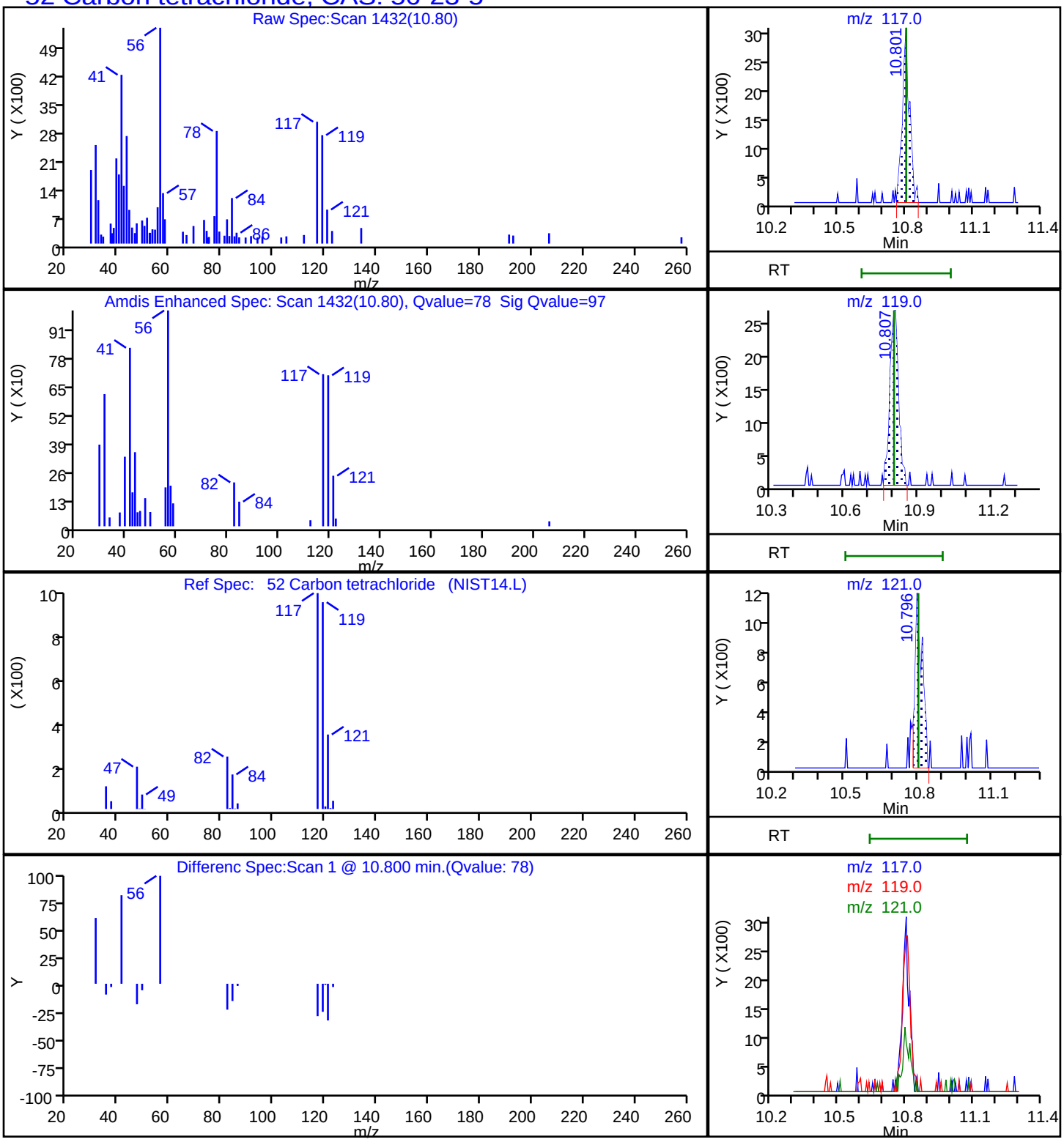


Report Date: 20-Aug-2019 12:12:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D				
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG		
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15		
Client ID:	IA-168-A-27				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

52 Carbon tetrachloride, CAS: 56-23-5

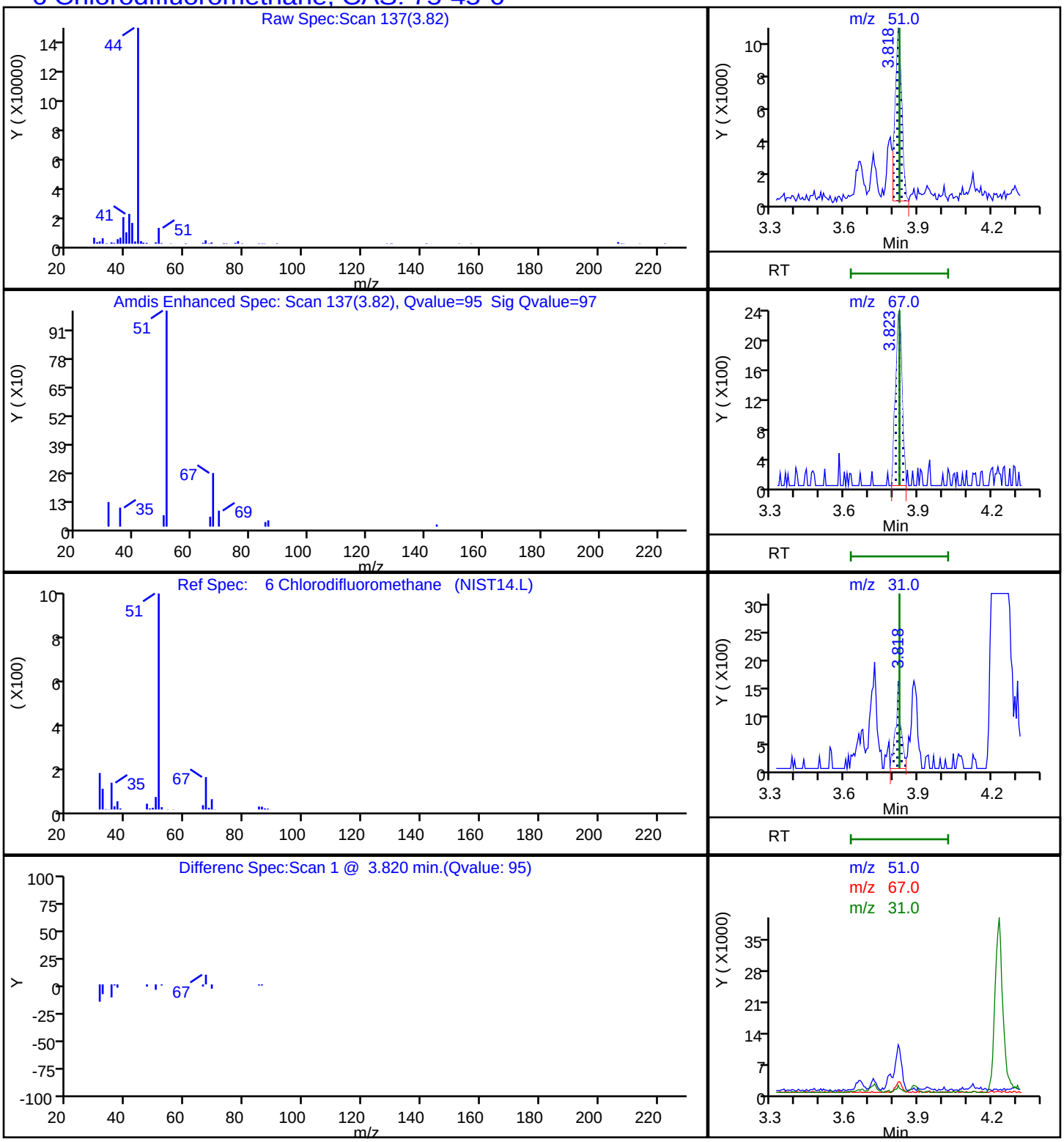


Report Date: 20-Aug-2019 12:12:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D				
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG		
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15		
Client ID:	IA-168-A-27				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

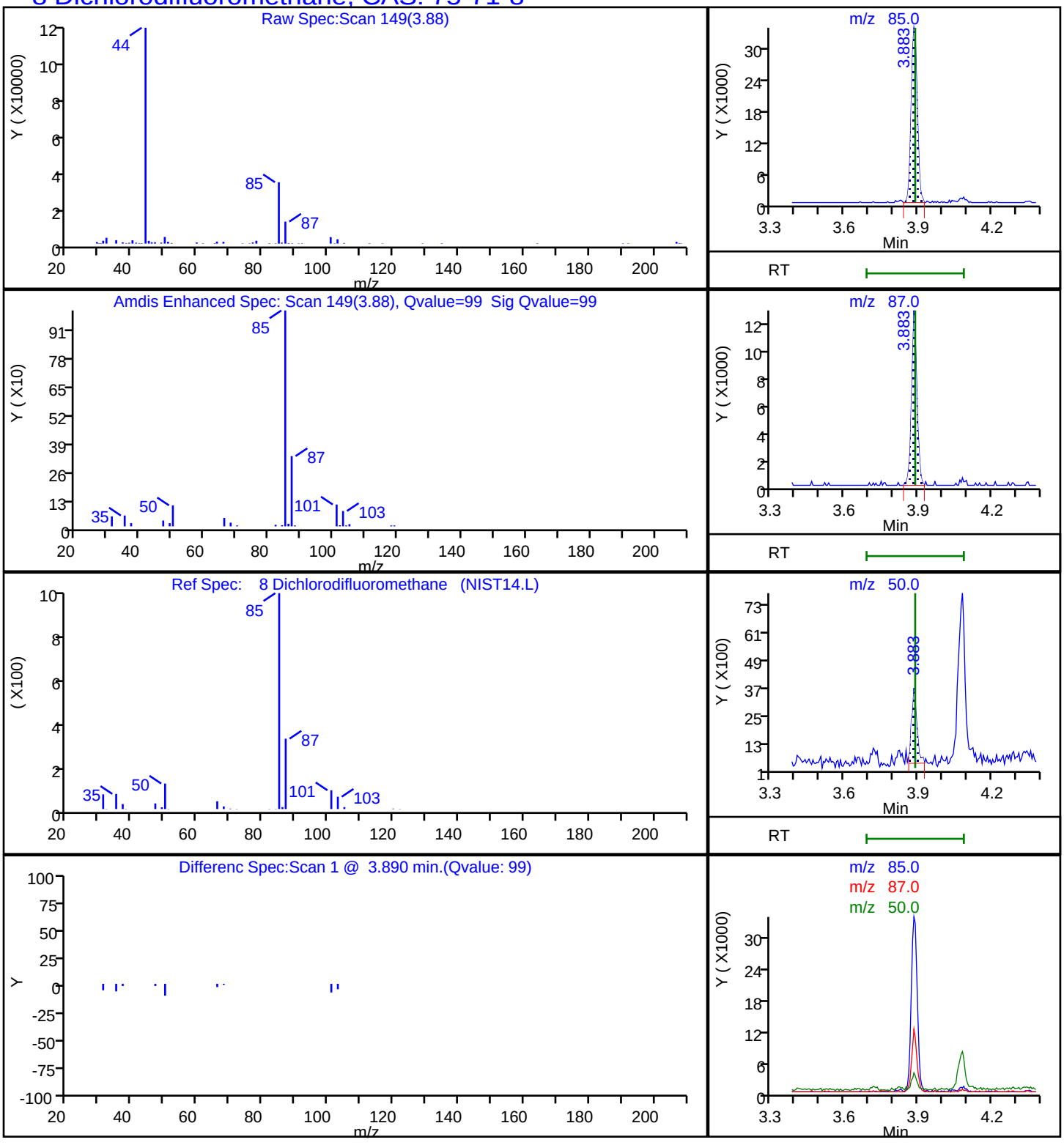


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D

Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG		
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15		
Client ID:	IA-168-A-27				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

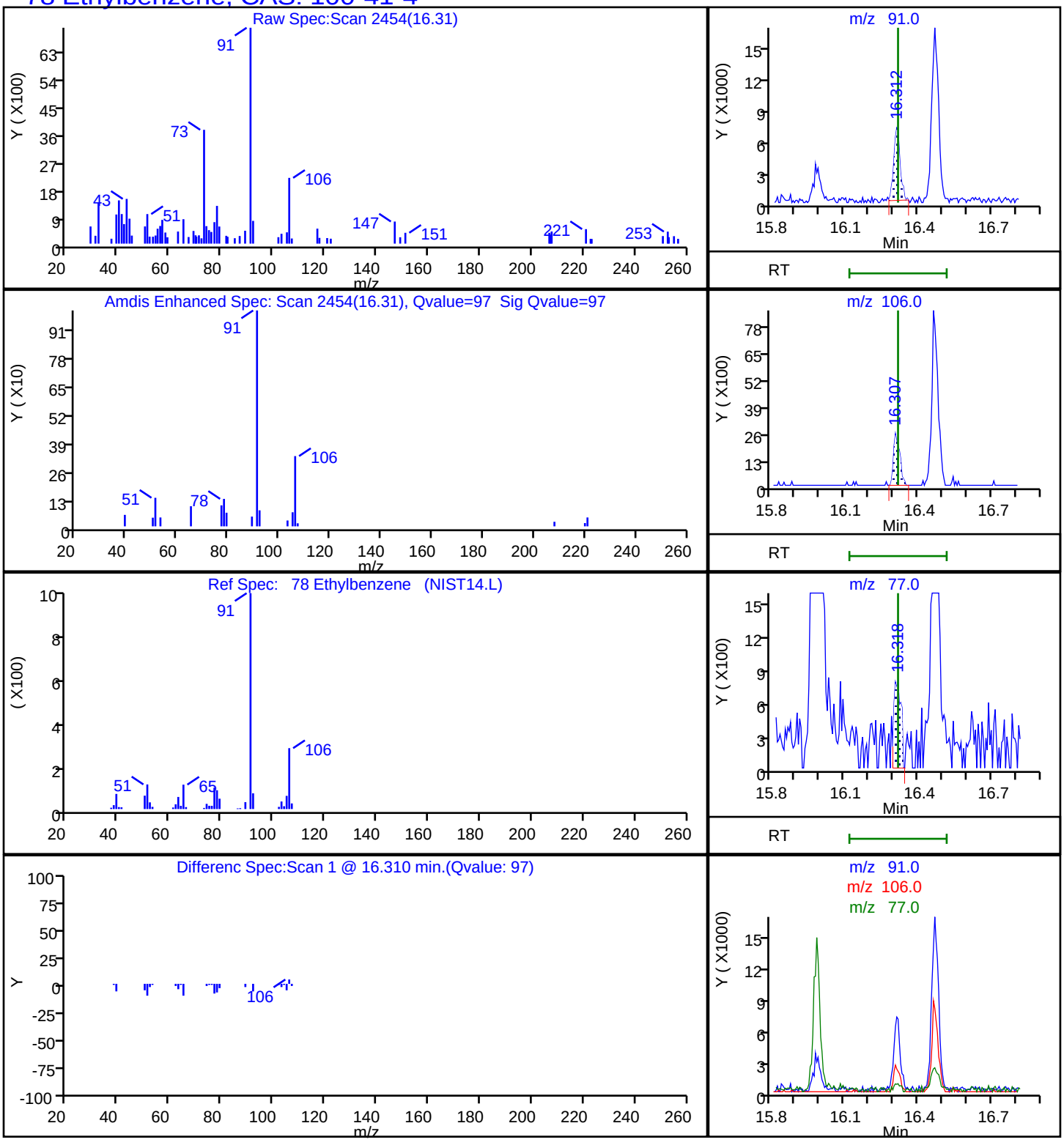
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

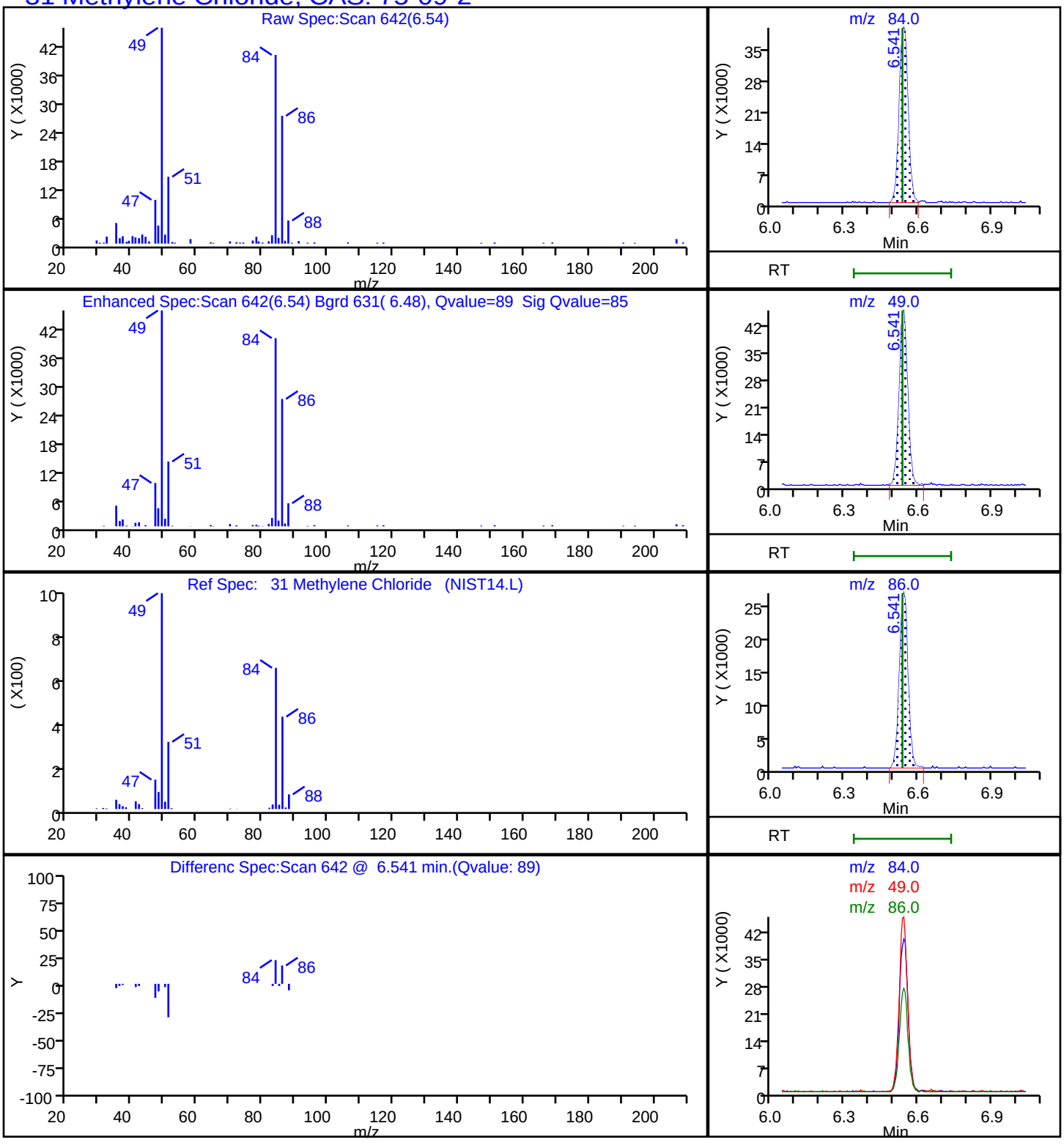
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

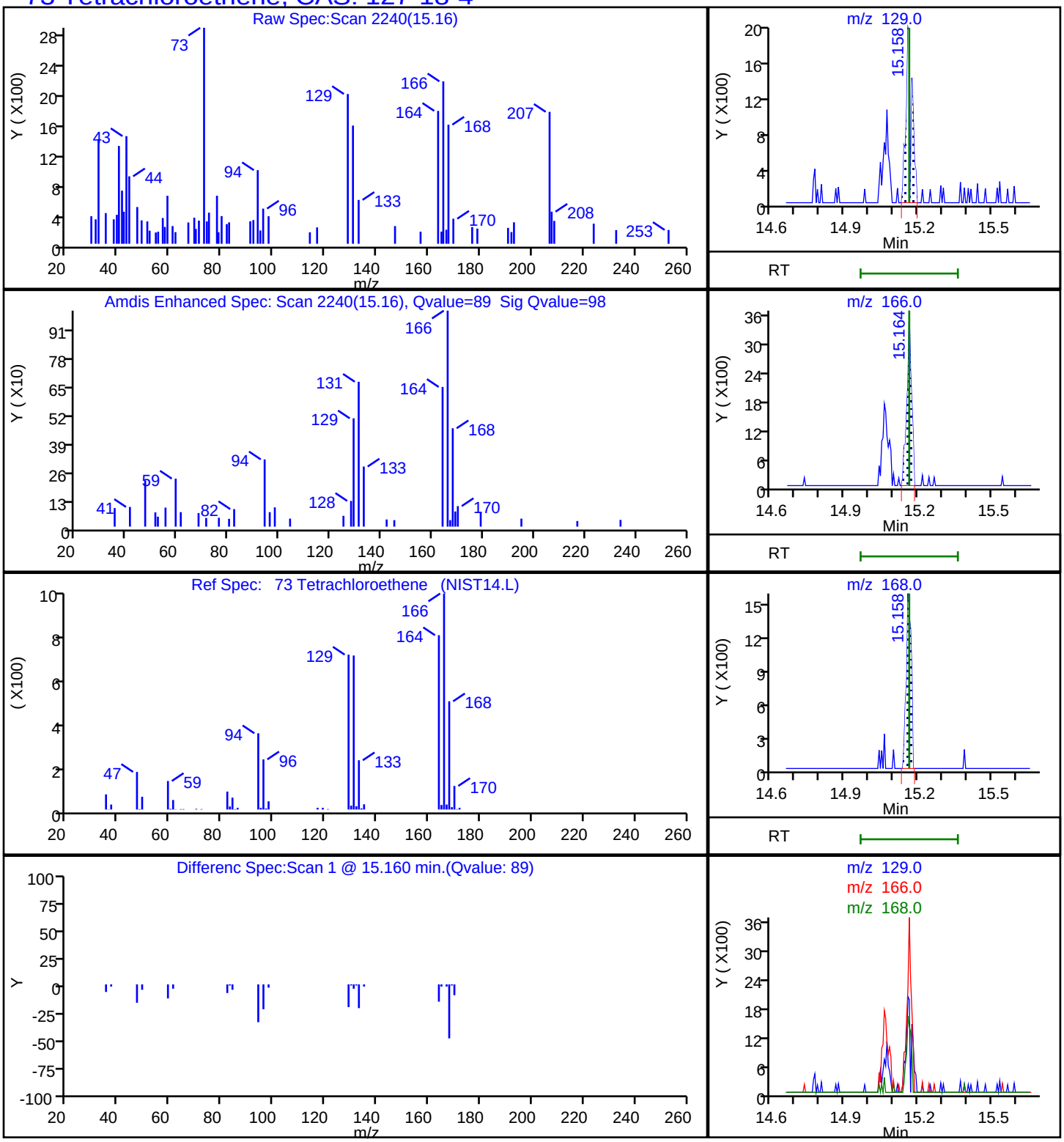
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

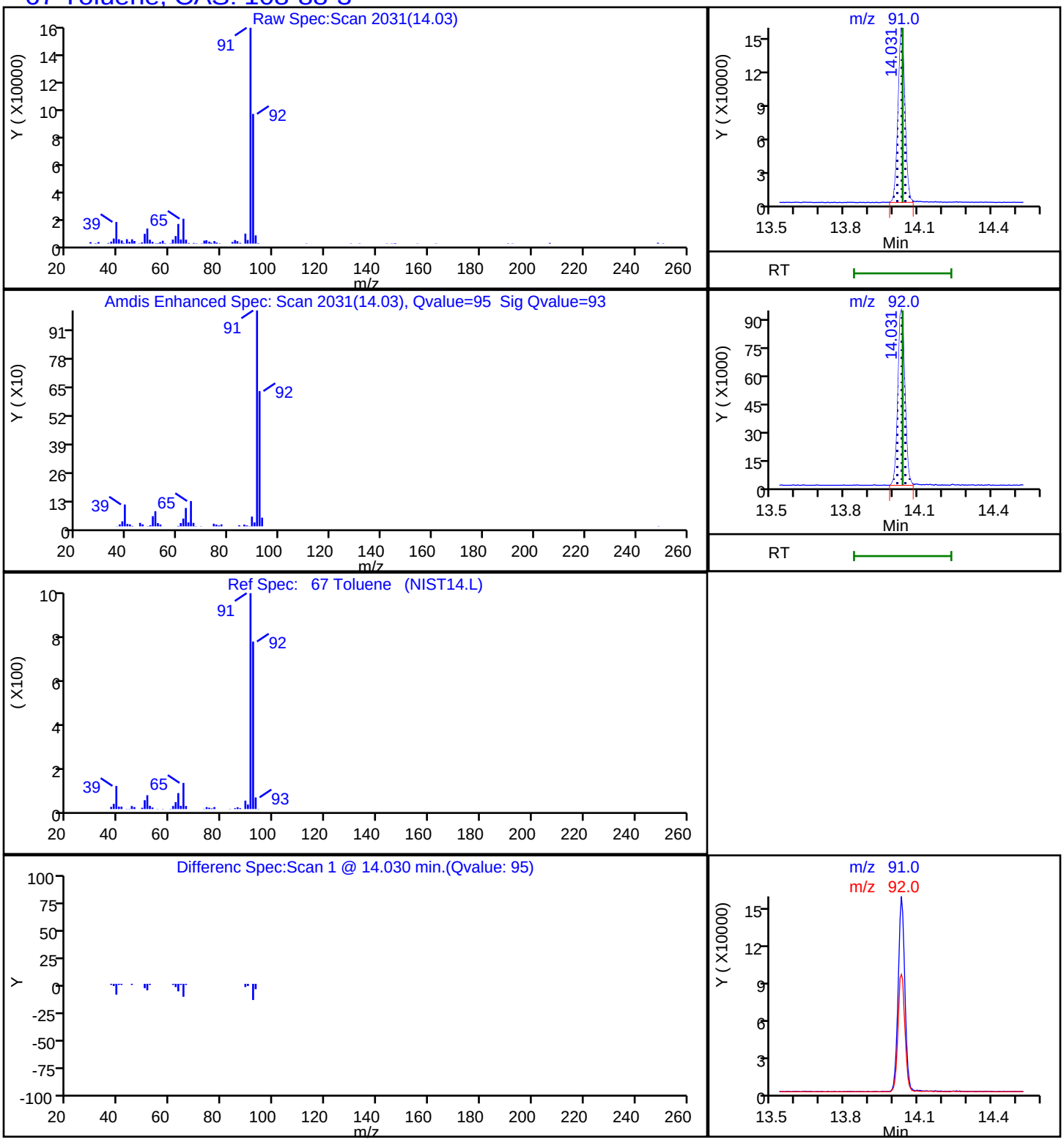
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

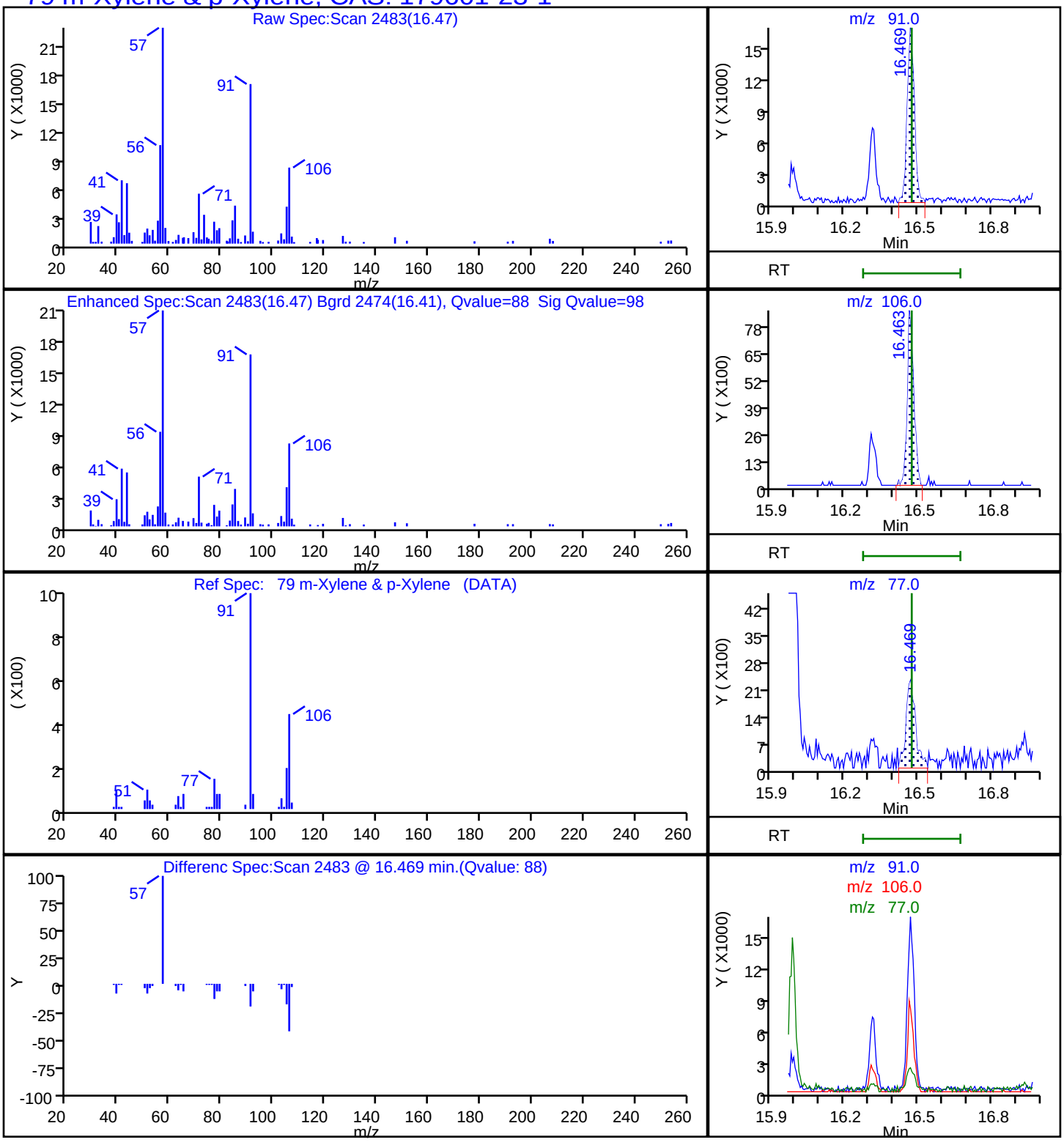
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D				
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG		
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15		
Client ID:	IA-168-A-27				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

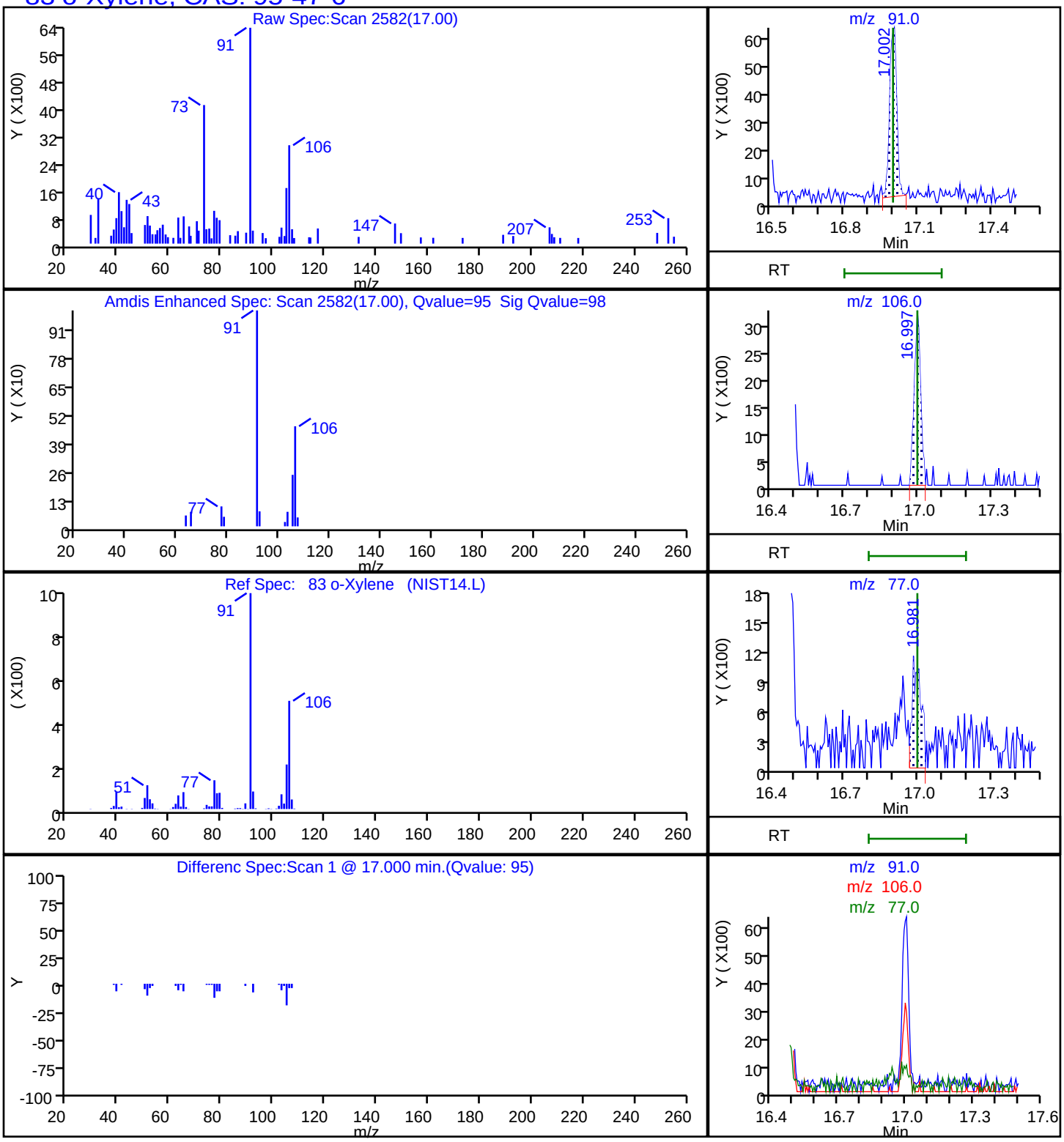
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GH19P115.D		
Injection Date:	20-Aug-2019 00:15:30	Instrument ID:	MG
Lims ID:	140-16367-A-15	Lab Sample ID:	140-16367-15
Client ID:	IA-168-A-27		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	ND		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	ND		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	1,1-Dichloroethane	98.96	ND		4.0	0.35
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	ND		4.0	0.40
100-41-4	Ethylbenzene	106.17	ND		4.0	0.65
75-09-2	Methylene Chloride	84.93	8.5	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	ND		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	6.3		6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	ND		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	ND		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		4.0	1.1
75-01-4	Vinyl chloride	62.50	ND		2.0	1.3
1330-20-7	Xylenes, Total	106.17	ND		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	ND		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	ND		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	1,1-Dichloroethane	98.96	ND		16	1.4
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	ND		16	1.6
100-41-4	Ethylbenzene	106.17	ND		17	2.8
75-09-2	Methylene Chloride	84.93	29	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	ND		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	24		23	15
156-60-5	trans-1,2-Dichloroethene	96.94	ND		16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	ND		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	ND		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		20	5.4
75-01-4	Vinyl chloride	62.50	ND		5.1	3.3
1330-20-7	Xylenes, Total	106.17	ND		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D
Lims ID: 140-16367-A-16
Client ID: IA-075-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 20:44:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-008
Misc. Info.: 140-16367-a-16
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:11:16 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:11:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.555	8.539	0.016	97	195644	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.771	0.011	96	1097664	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.576	0.000	90	876815	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	91	557046	3.68	
6 Chlorodifluoromethane	51	3.443	3.421	0.022	34	2779	0.0166	
31 Methylene Chloride	84	5.993	5.972	0.021	92	11698	0.1692	
67 Toluene	91	13.597	13.591	0.006	91	28566	0.1266	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

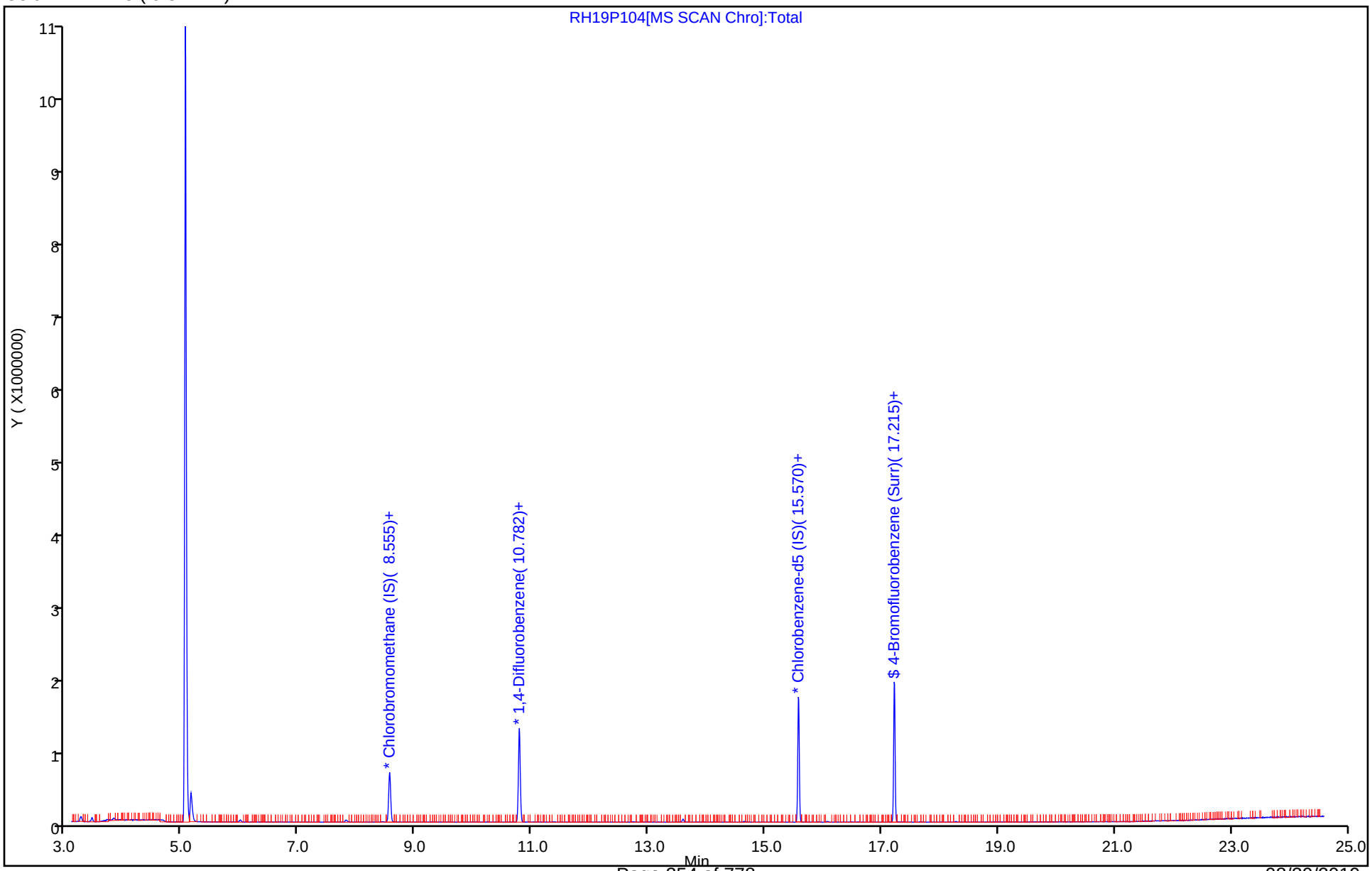
Report Date: 20-Aug-2019 13:11:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D

Injection Date:	19-Aug-2019 20:44:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16367-A-16	Lab Sample ID:	140-16367-16	Worklist Smp#:	8
Client ID:	IA-075-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D				
Lims ID:	140-16367-A-16				
Client ID:	IA-075-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 20:44:30	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-008				
Misc. Info.:	140-16367-a-16				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:11:16	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:11:16		

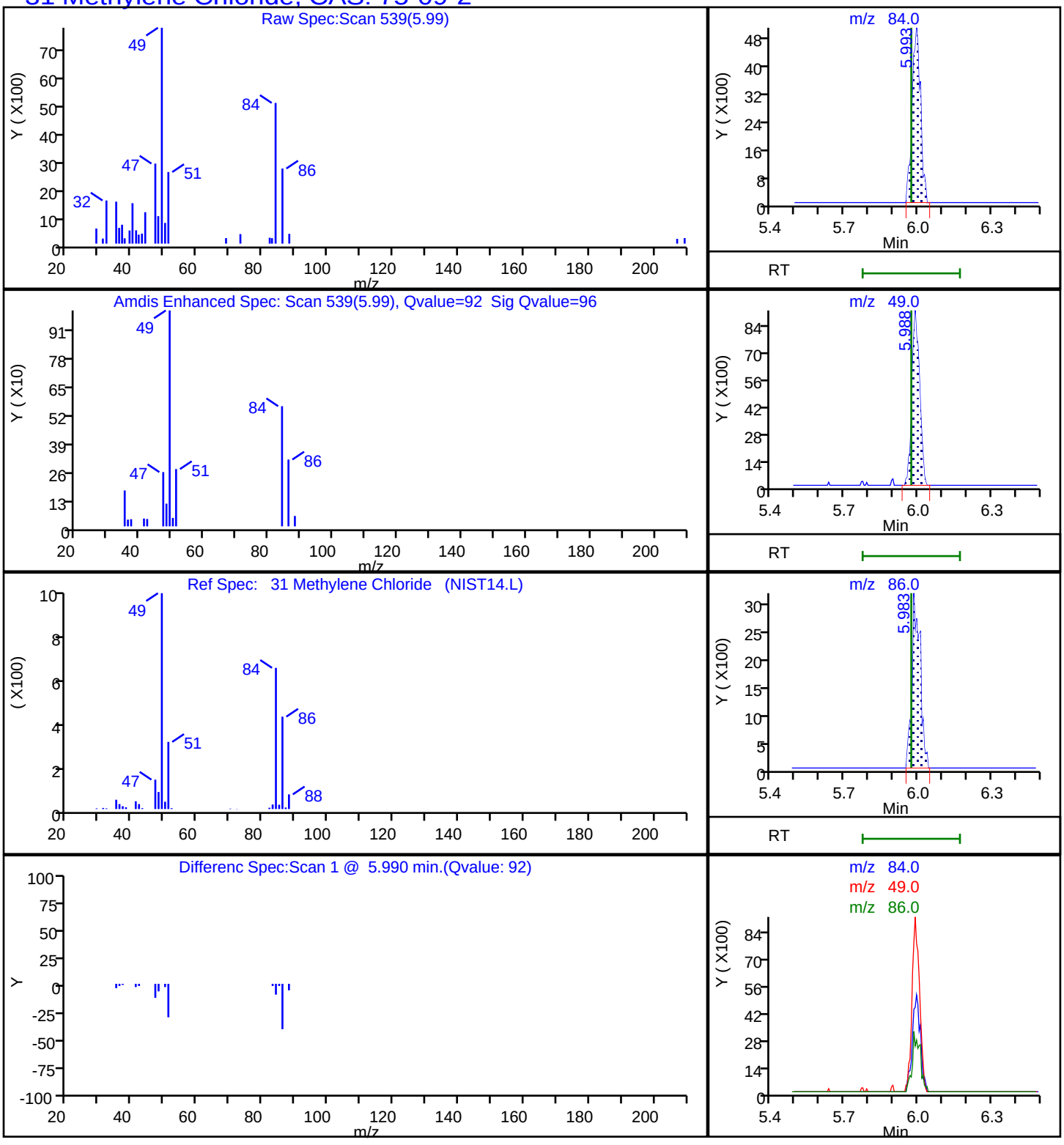
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.68	92.12

Report Date: 20-Aug-2019 13:11:18 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D		
Injection Date:	19-Aug-2019 20:44:30	Instrument ID:	MR
Lims ID:	140-16367-A-16	Lab Sample ID:	140-16367-16
Client ID:	IA-075-A-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

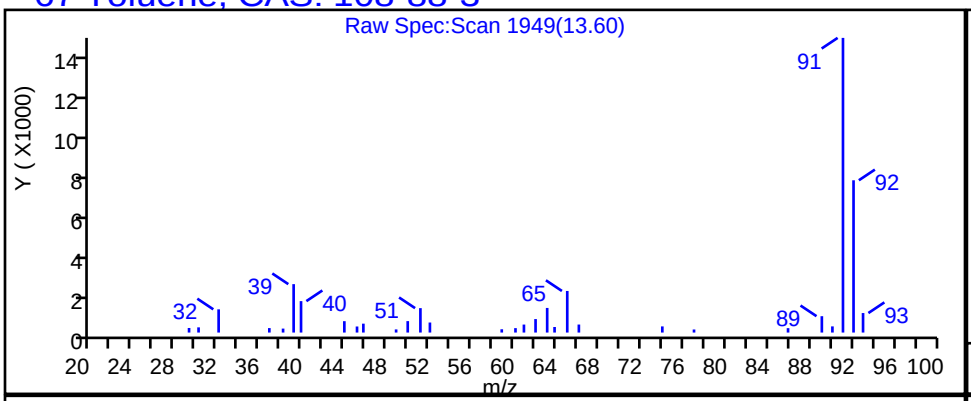


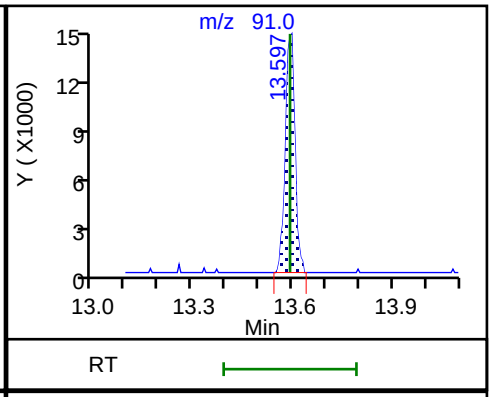
Report Date: 20-Aug-2019 13:11:18 Chrom Revision: 2.3 13-Aug-2019 08:14:14

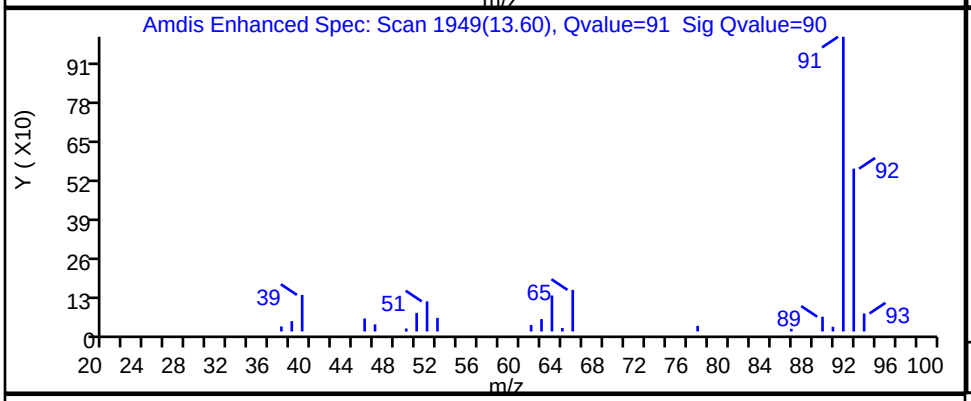
Eurofins TestAmerica, Knoxville

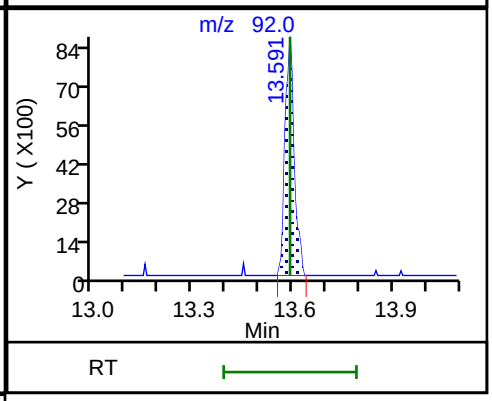
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D		
Injection Date:	19-Aug-2019 20:44:30	Instrument ID:	MR
Lims ID:	140-16367-A-16	Lab Sample ID:	140-16367-16
Client ID:	IA-075-A-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

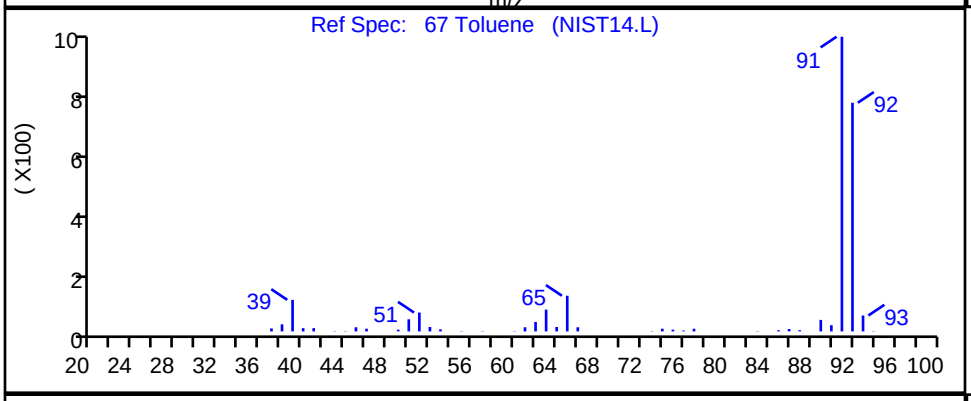
67 Toluene, CAS: 108-88-3

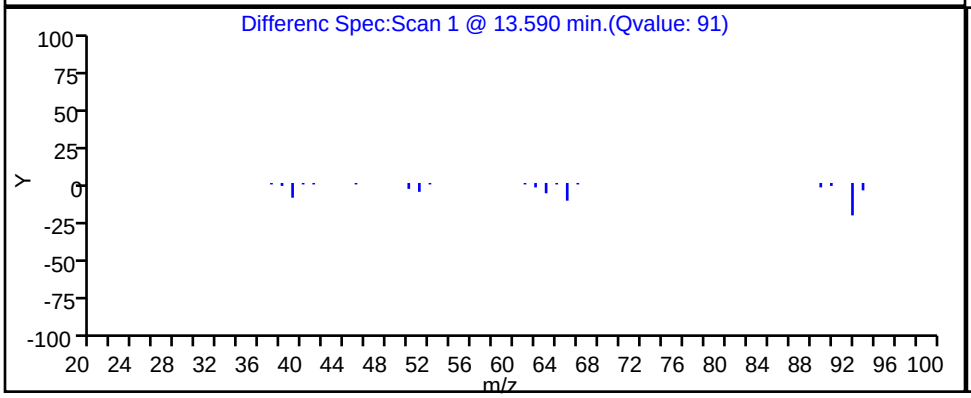


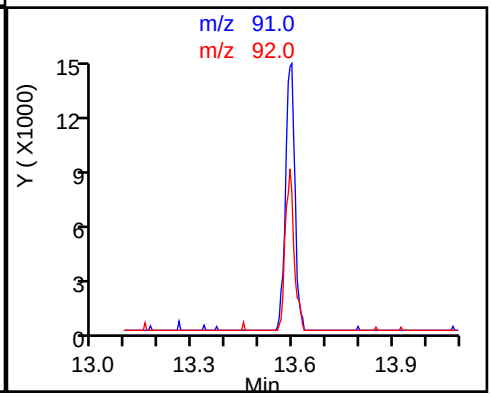












Eurofins TestAmerica, Knoxville

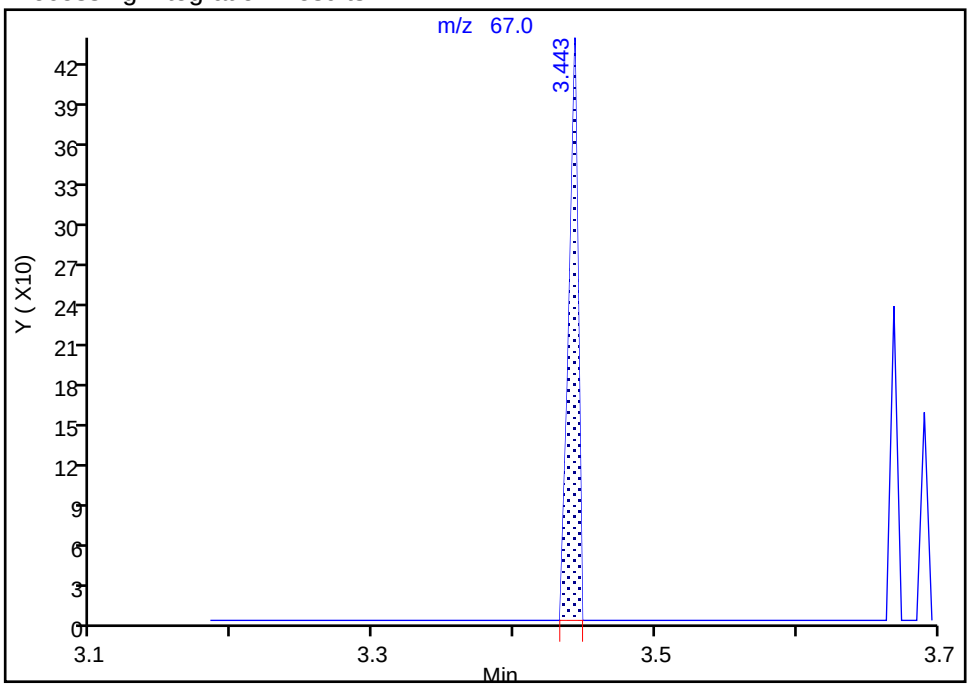
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D		
Injection Date:	19-Aug-2019 20:44:30	Instrument ID:	MR
Lims ID:	140-16367-A-16	Lab Sample ID:	140-16367-16
Client ID:	IA-075-A-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 2

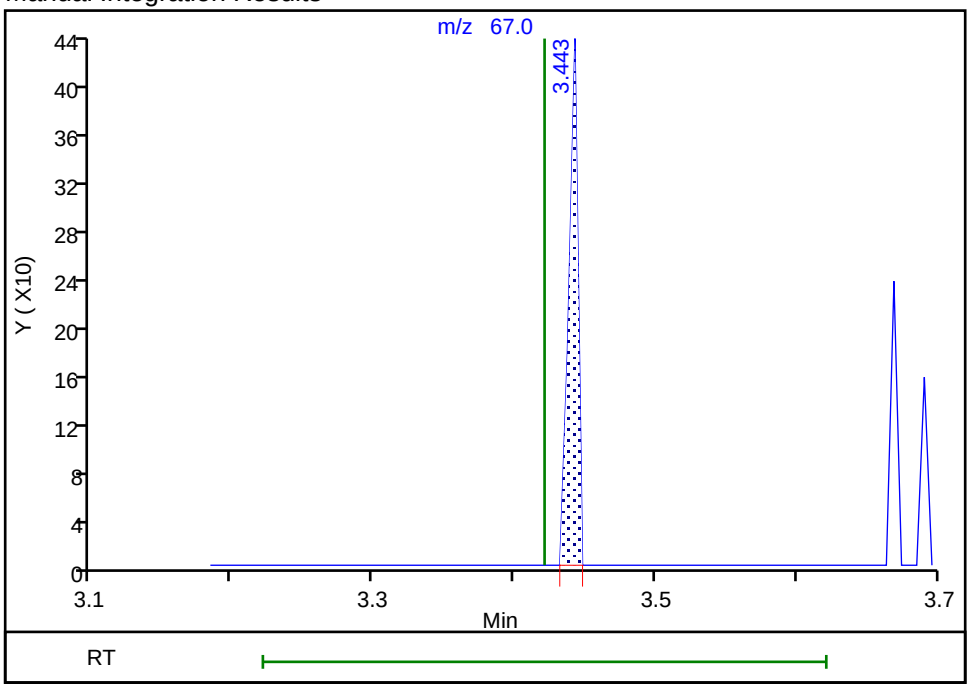
Processing Integration Results

RT: 3.44
Area: 197
Amount: 0.016624
Amount Units: ppb v/v



Manual Integration Results

RT: 3.44
Area: 197
Amount: 0.016624
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 13:09:48
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

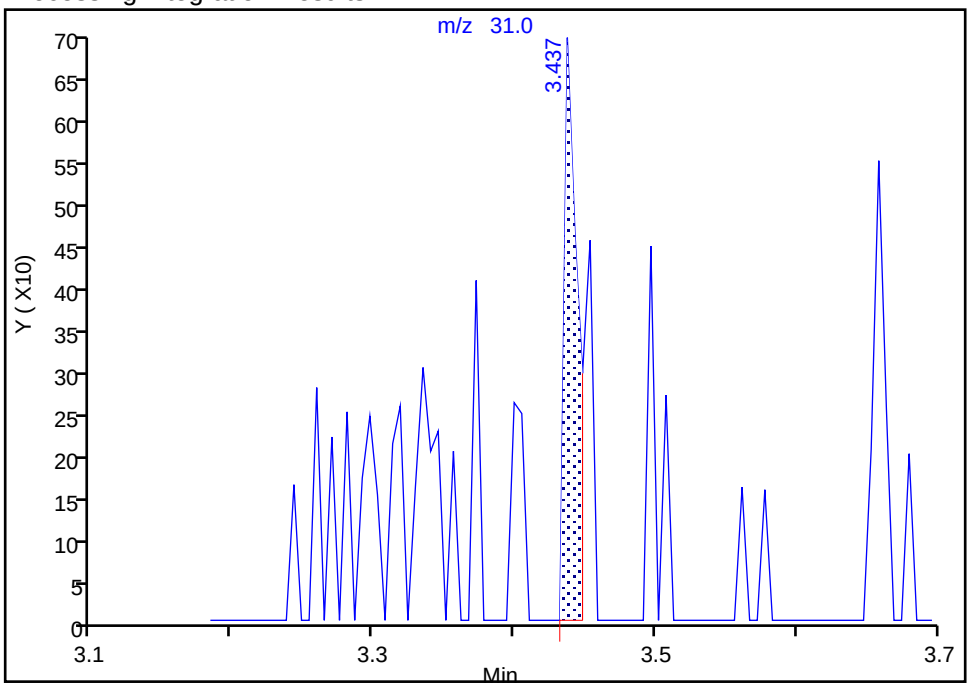
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P104.D				
Injection Date:	19-Aug-2019 20:44:30	Instrument ID:	MR		
Lims ID:	140-16367-A-16	Lab Sample ID:	140-16367-16		
Client ID:	IA-075-A-27				
Operator ID:		ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 3

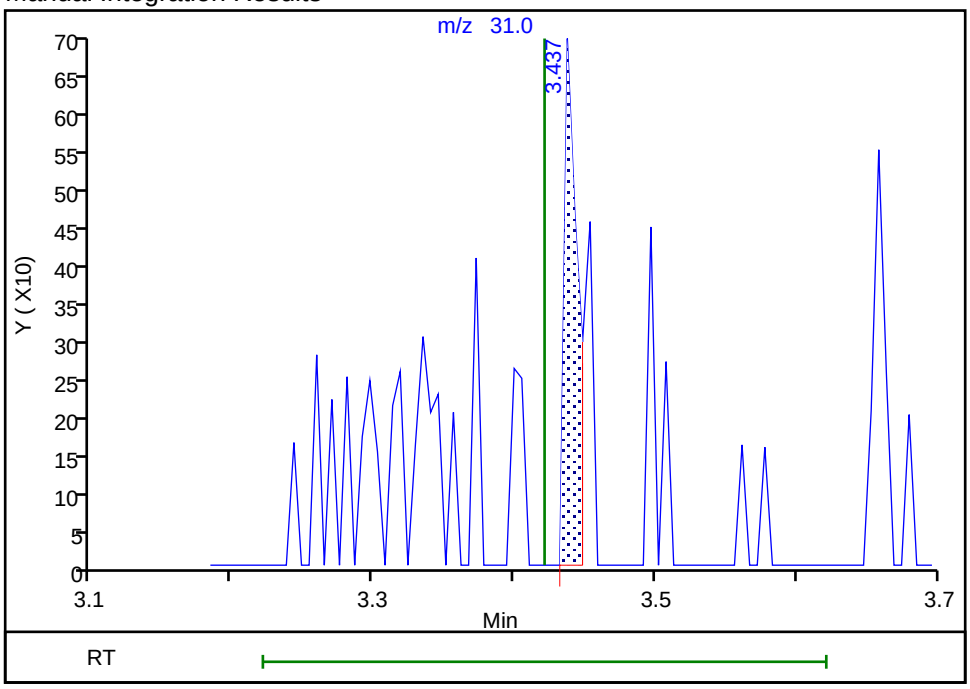
Processing Integration Results

RT: 3.44
Area: 470
Amount: 0.016624
Amount Units: ppb v/v



Manual Integration Results

RT: 3.44
Area: 470
Amount: 0.016624
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 13:09:48

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.098	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.048	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	12		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.31	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	46		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D
Lims ID: 140-16367-A-17
Client ID: IA-021-A-27
Sample Type: Client
Inject. Date: 19-Aug-2019 21:31:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-009
Misc. Info.: 140-16367-a-17
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:12:31 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:12:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.555	8.539	0.016	96	179614	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1016605	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	90	896462	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	91	594728	3.85	
6 Chlorodifluoromethane	51	3.426	3.423	0.005	97	12543	0.0817	
8 Dichlorodifluoromethane	85	3.486	3.488	0.000	97	8719	0.0628	
31 Methylene Chloride	84	5.988	5.976	0.016	95	22967	0.3618	
44 Chloroform	83	8.560	8.555	0.011	27	1455	0.009630	
49 Benzene	78	10.210	10.205	0.005	55	4028	0.0196	
52 Carbon tetrachloride	117	10.232	10.226	0.006	38	2473	0.0150	
67 Toluene	91	13.586	13.586	-0.005	93	563862	2.44	
76 Ethylbenzene	91	15.910	15.904	0.000	96	16166	0.0500	
77 m-Xylene & p-Xylene	91	16.066	16.066	-0.006	60	52872	0.2081	
80 o-Xylene	91	16.589	16.589	-0.006	93	16538	0.0620	
S 116 Xylenes, Total	100				0		0.2701	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

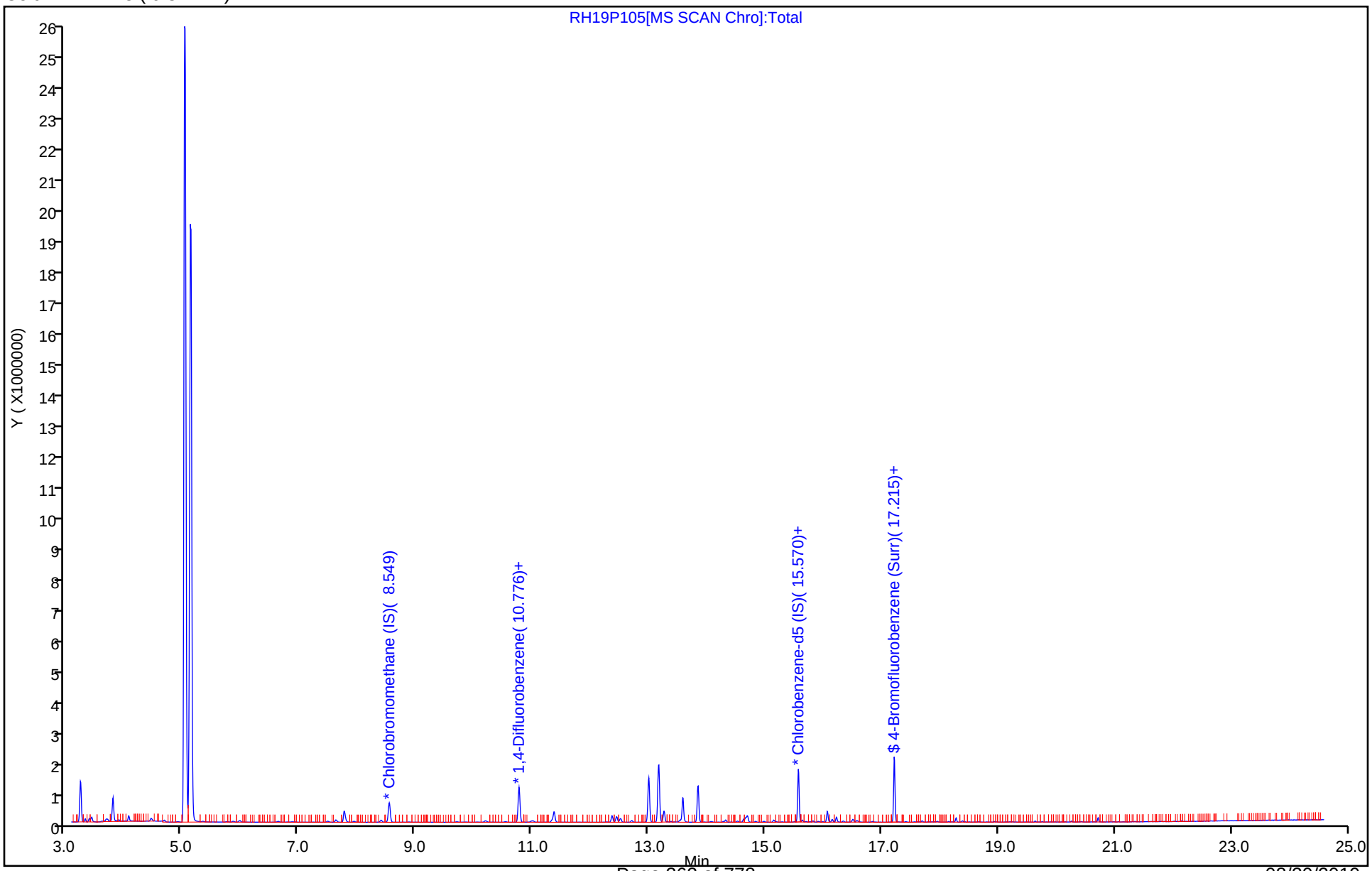
Report Date: 20-Aug-2019 13:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D

Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17	Worklist Smp#:	9
Client ID:	IA-021-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D				
Lims ID:	140-16367-A-17				
Client ID:	IA-021-A-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 21:31:30	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-009				
Misc. Info.:	140-16367-a-17				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:12:31	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:12:31		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.85	96.20

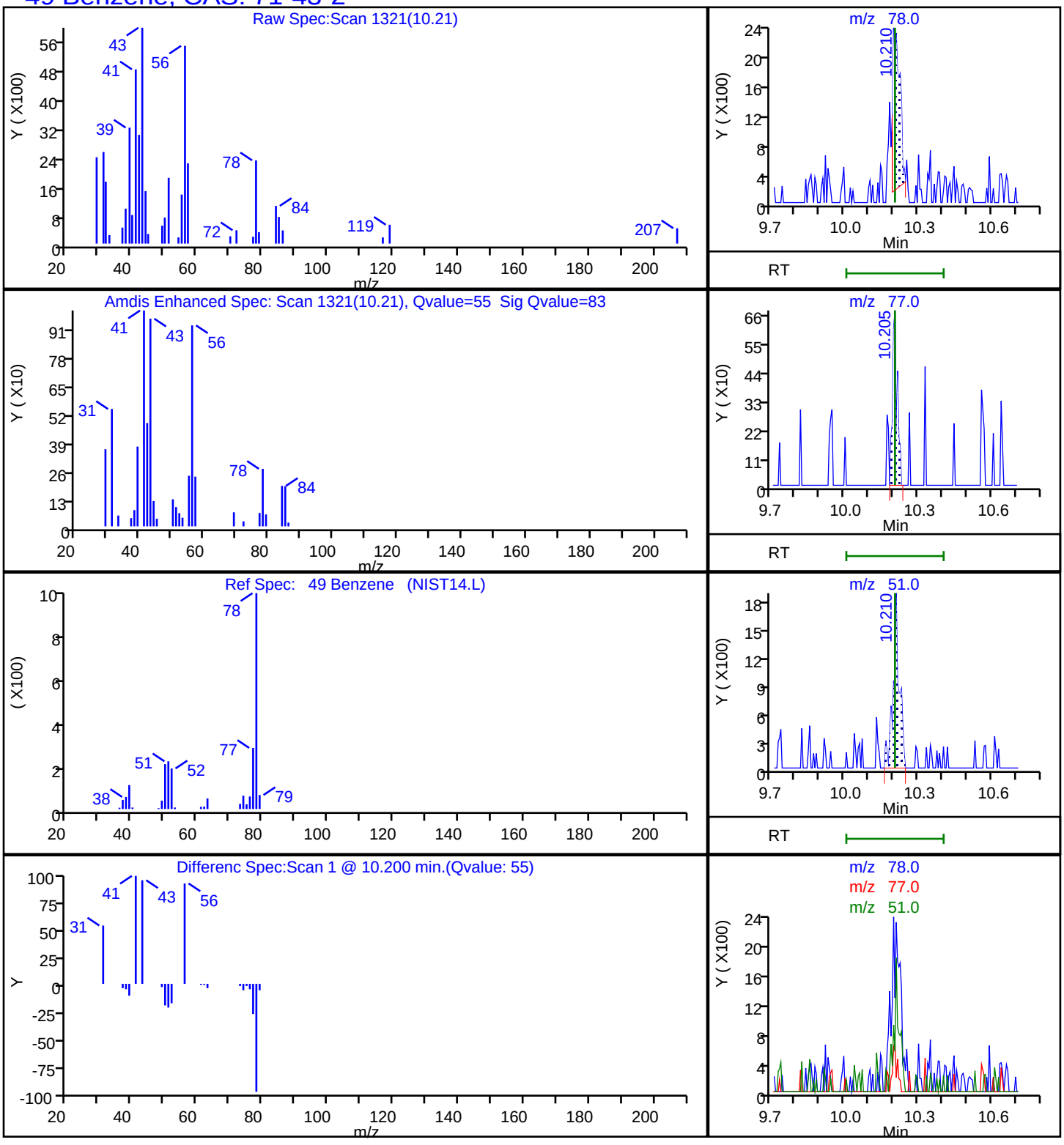
Report Date: 20-Aug-2019 13:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D

Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



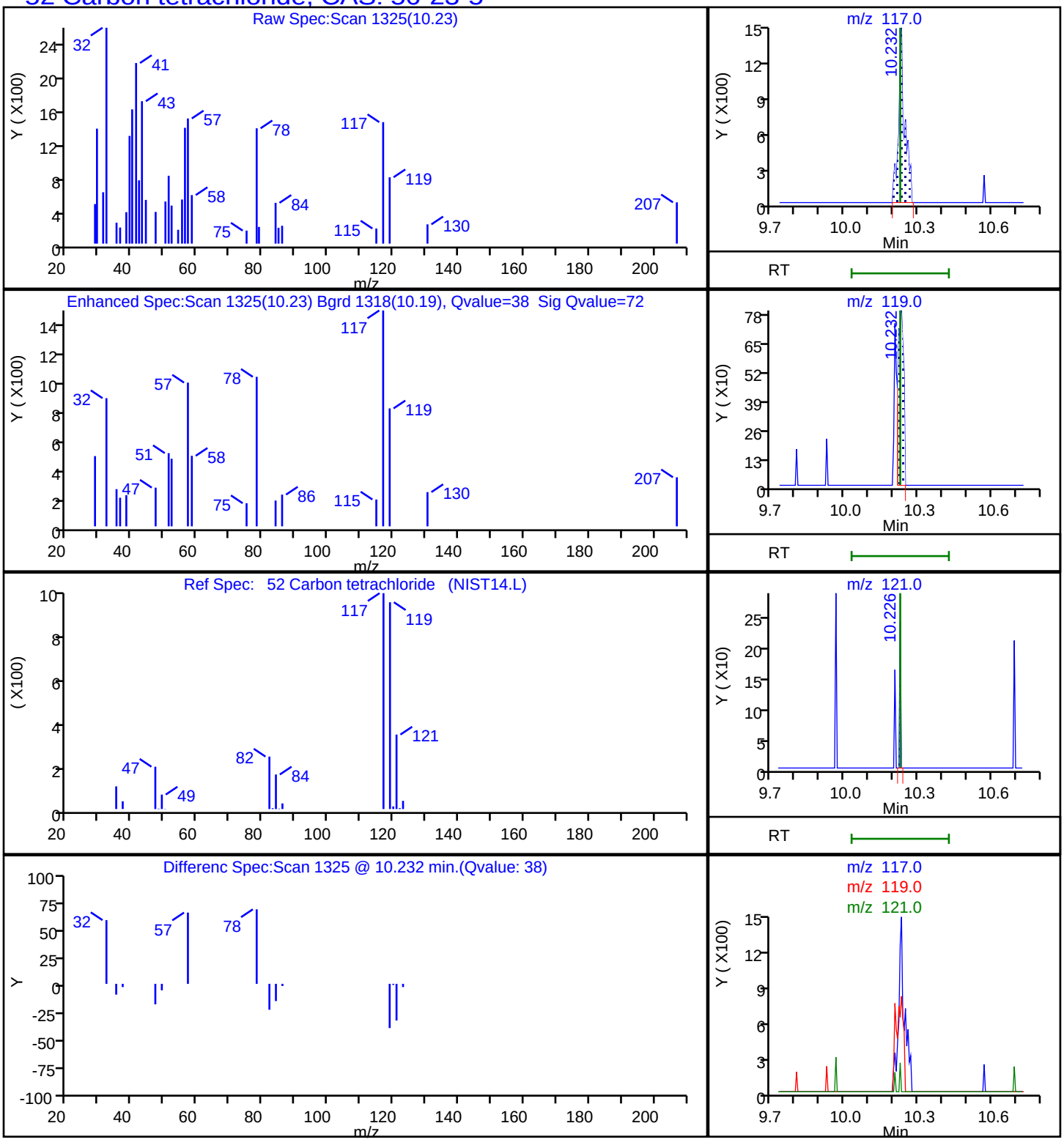
Report Date: 20-Aug-2019 13:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D

Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

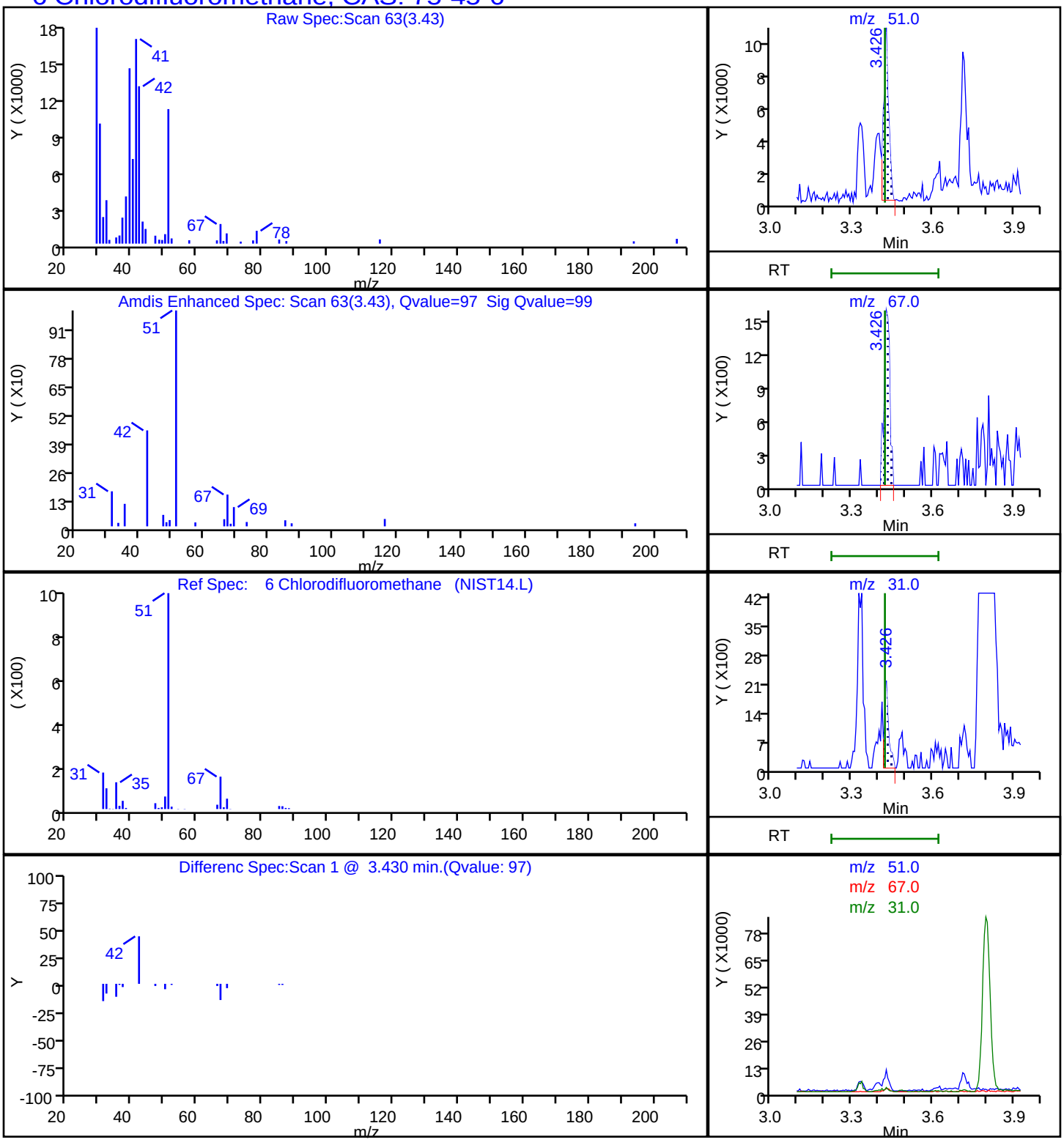
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

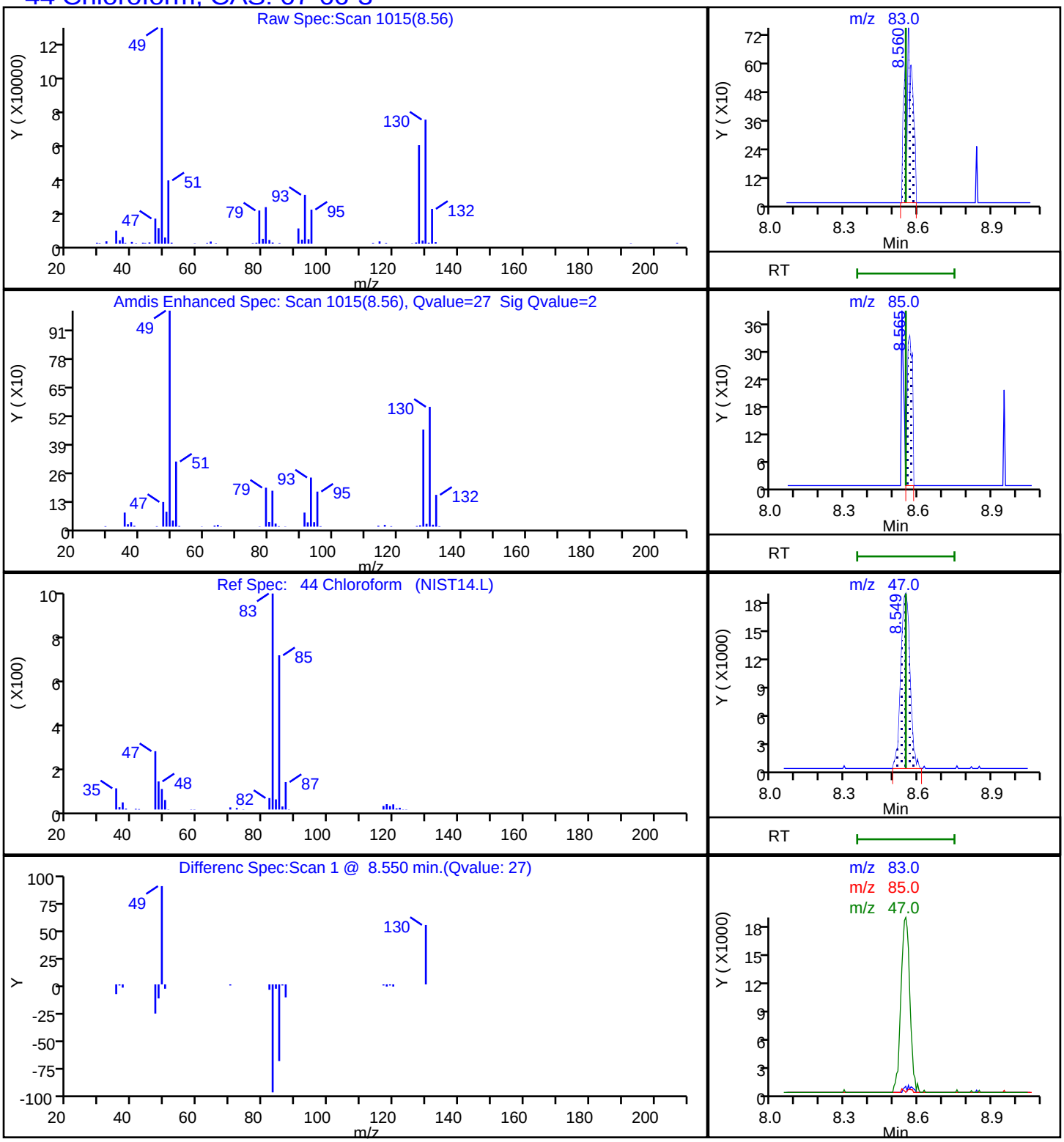
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



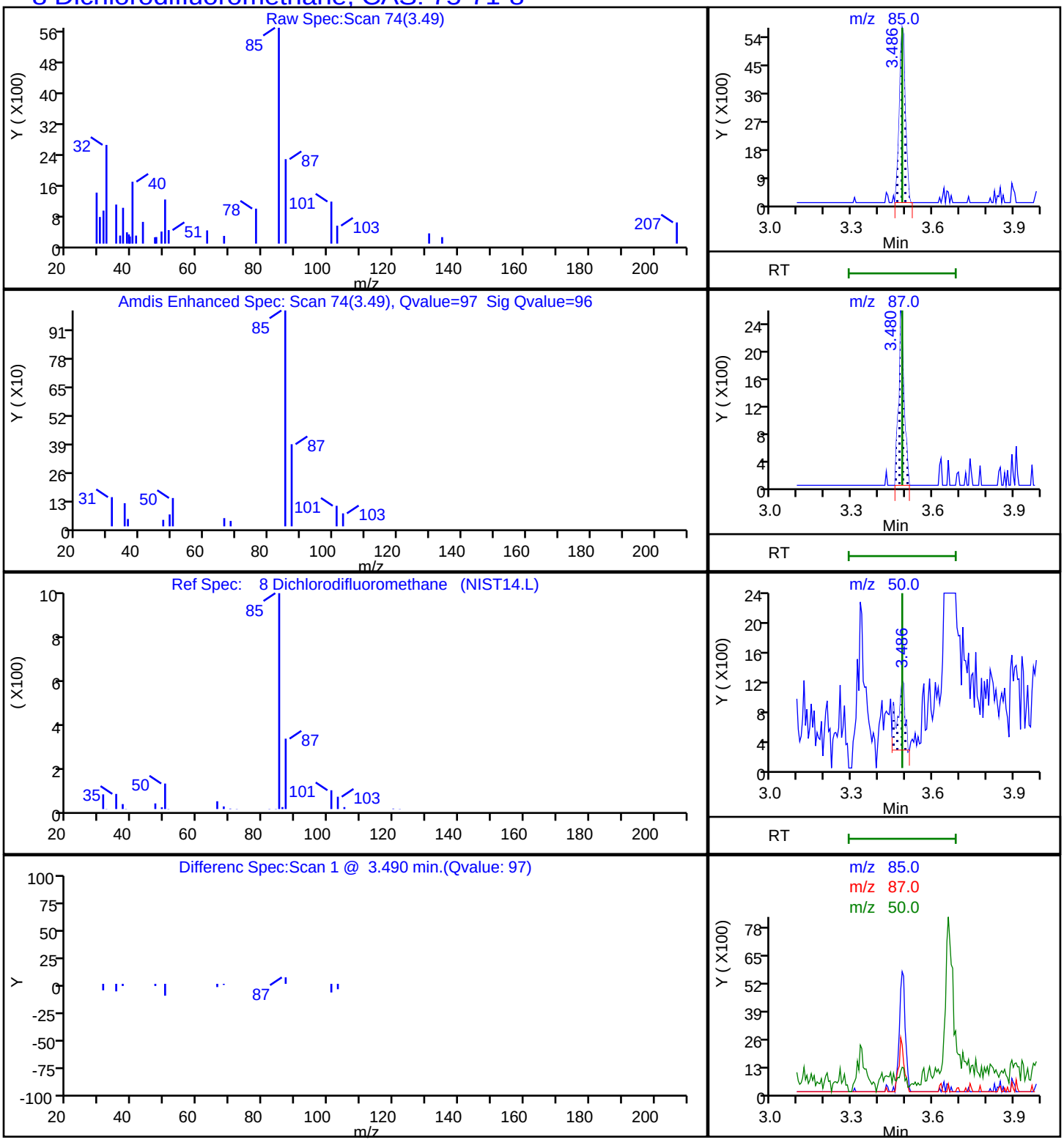
Report Date: 20-Aug-2019 13:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D

Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

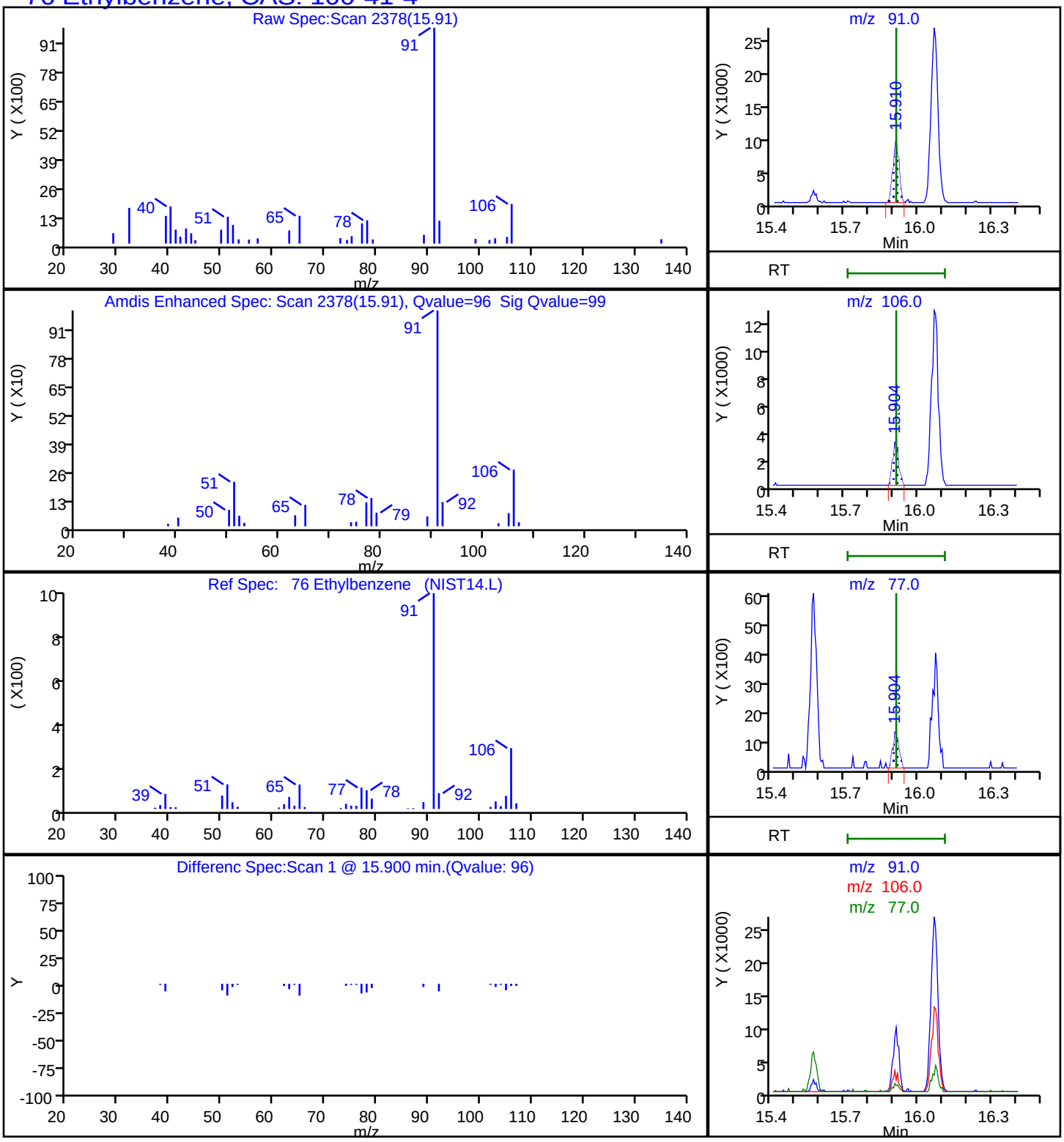
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

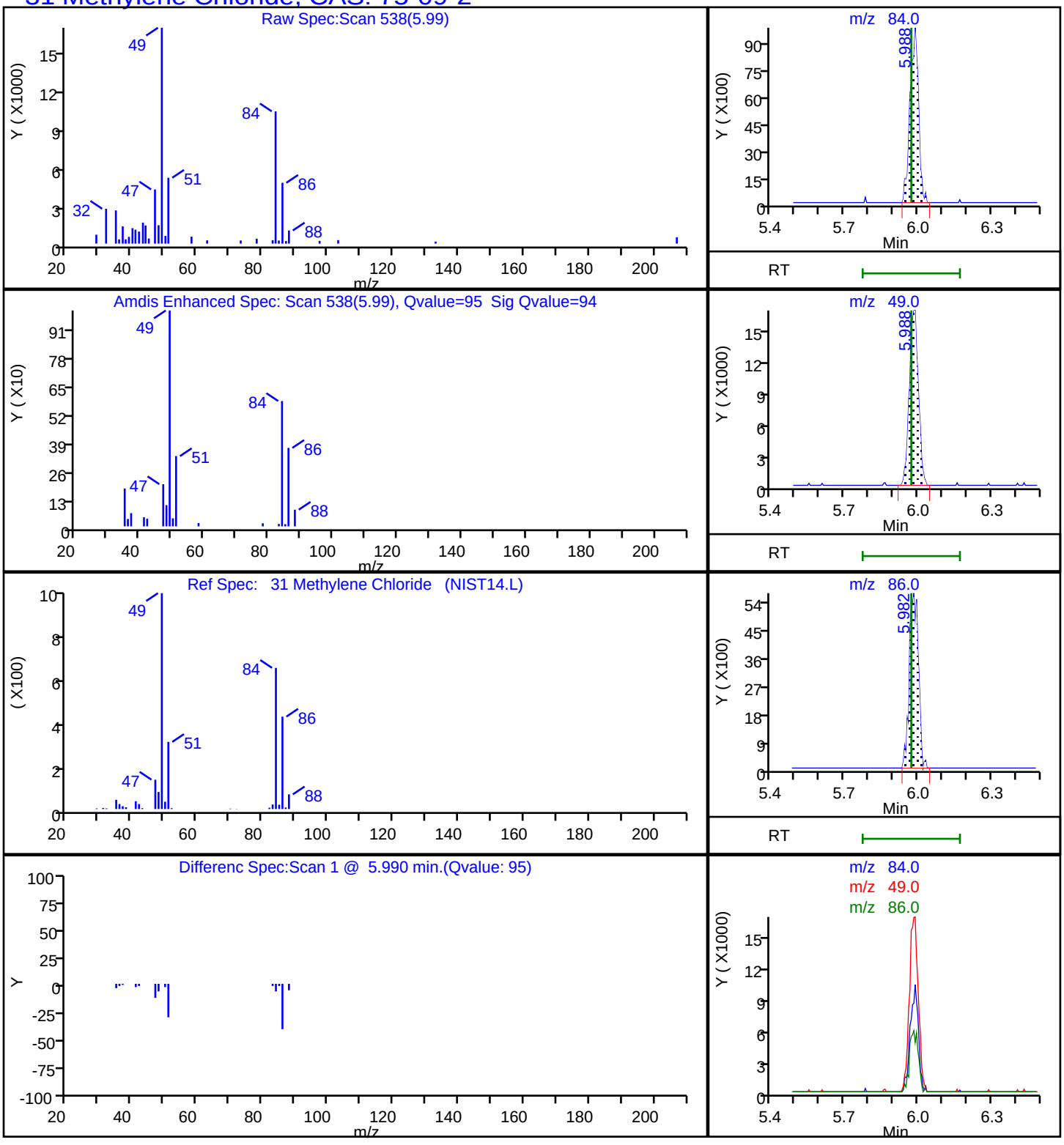
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

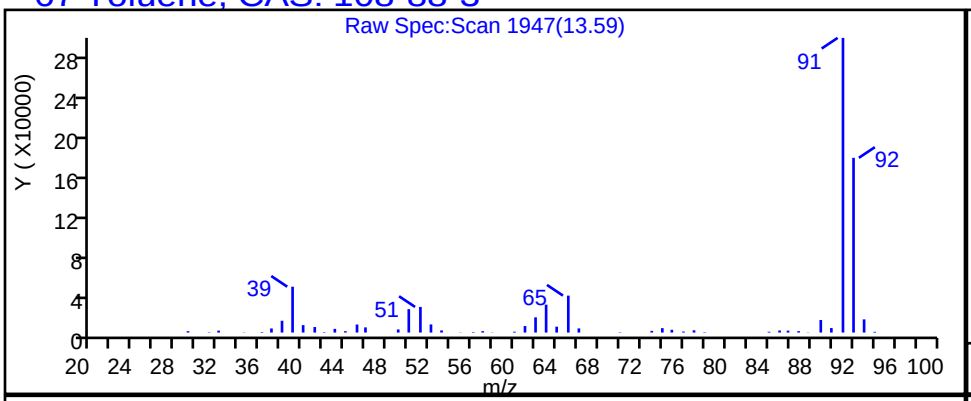


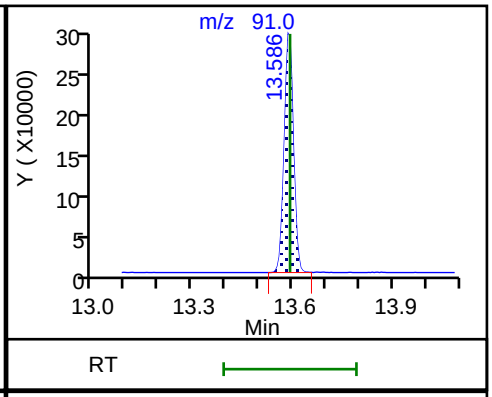
Report Date: 20-Aug-2019 13:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

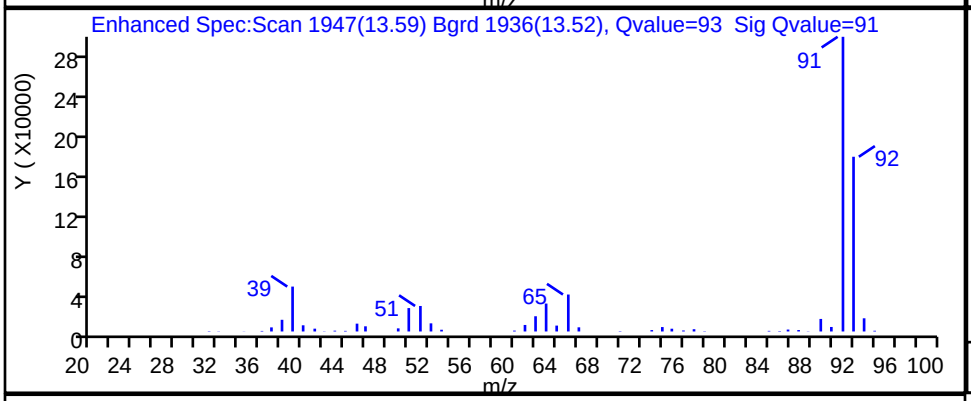
Eurofins TestAmerica, Knoxville

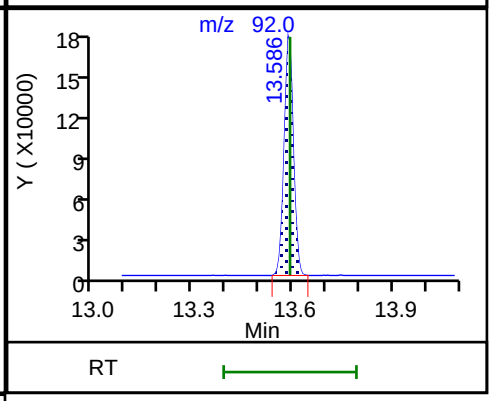
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

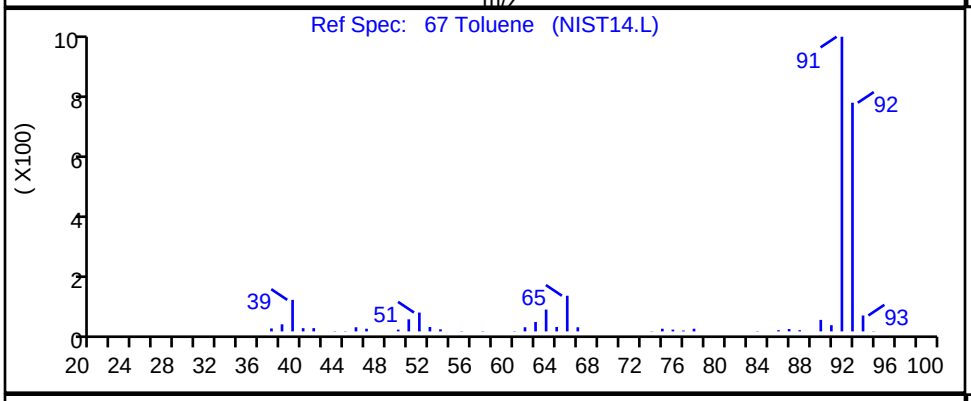
67 Toluene, CAS: 108-88-3

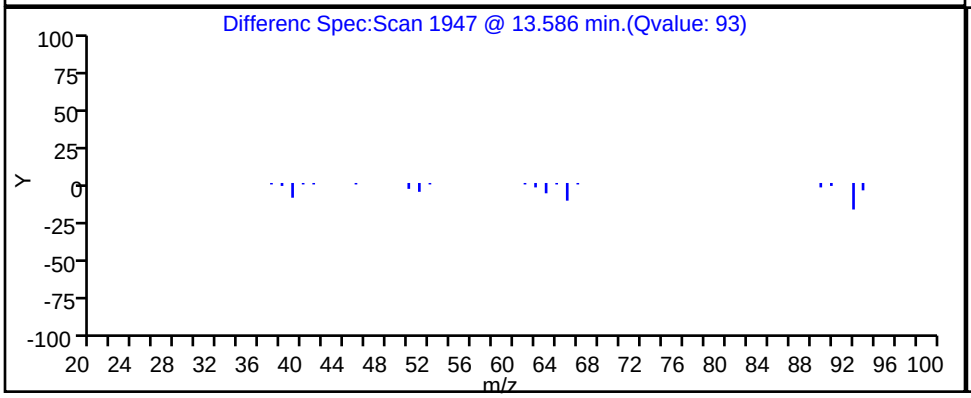


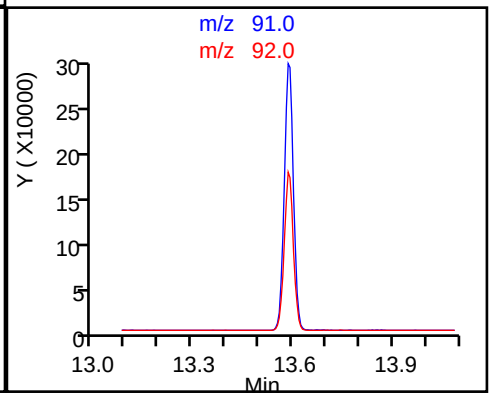










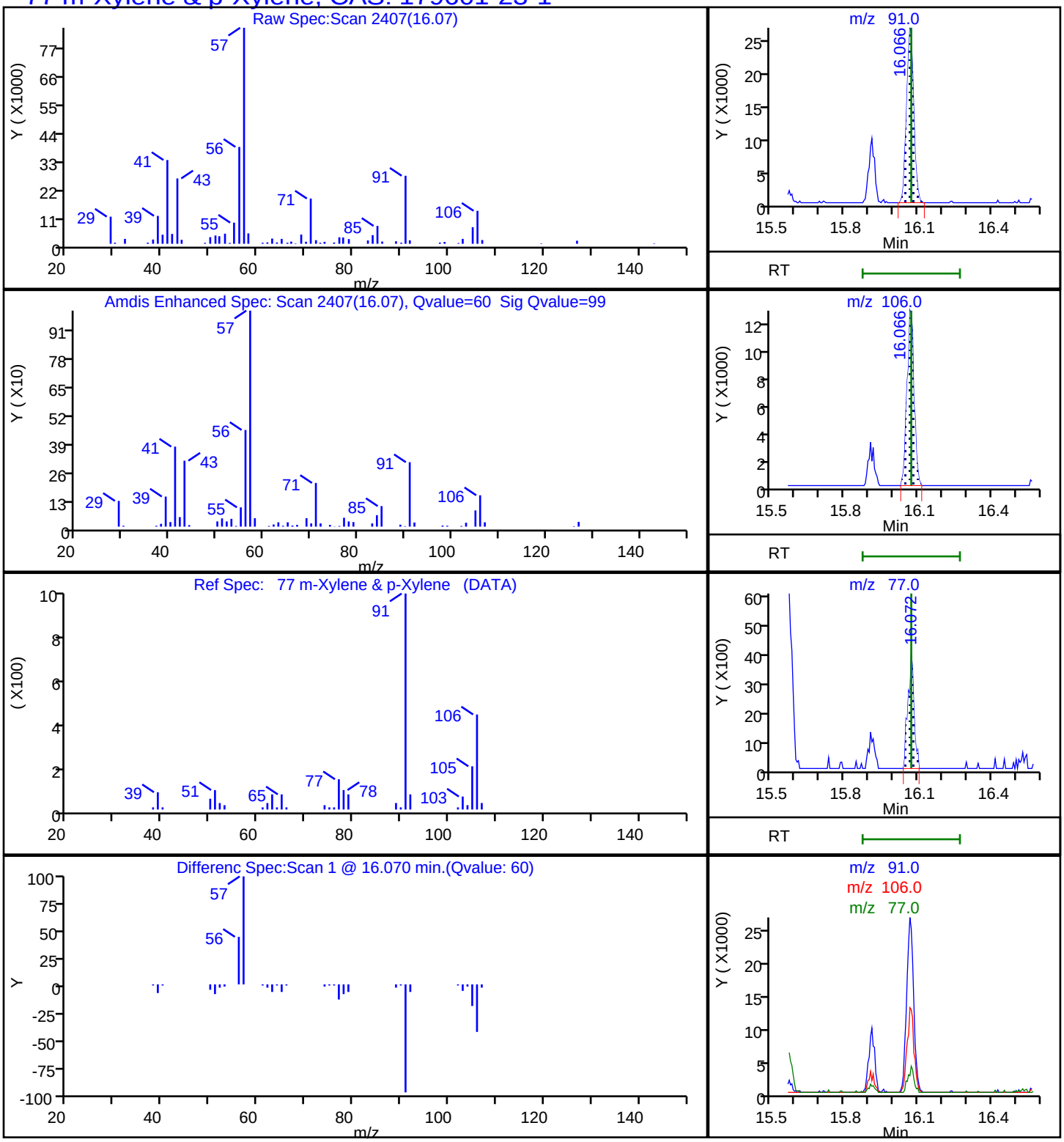


Report Date: 20-Aug-2019 13:12:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D		
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17
Client ID:	IA-021-A-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 20-Aug-2019 13:12:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D

Injection Date: 19-Aug-2019 21:31:30 Instrument ID: MR

Lims ID: 140-16367-A-17 Lab Sample ID: 140-16367-17

Client ID: IA-021-A-27

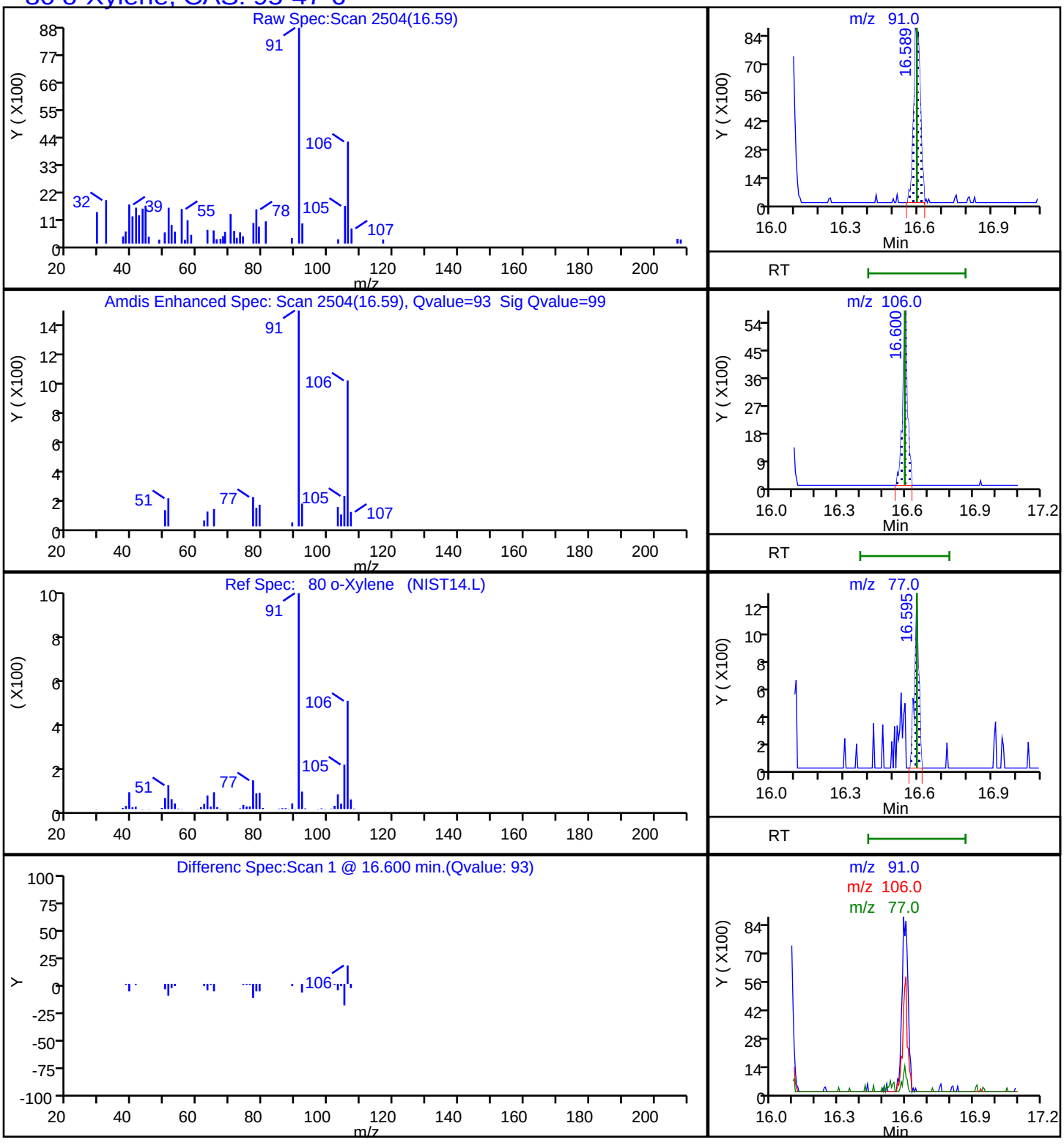
Operator ID: ALS Bottle#: 5 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



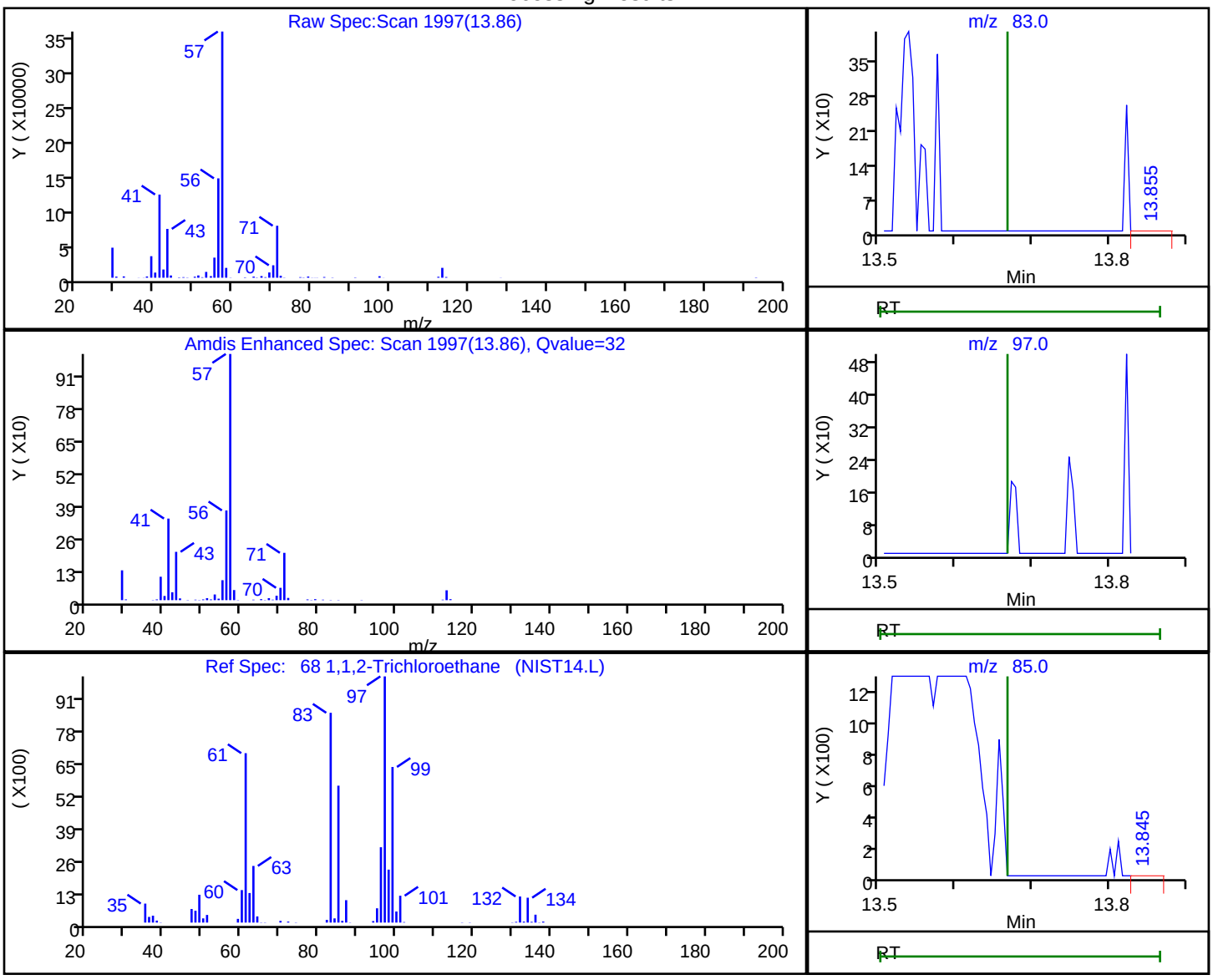
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P105.D				
Injection Date:	19-Aug-2019 21:31:30	Instrument ID:	MR		
Lims ID:	140-16367-A-17	Lab Sample ID:	140-16367-17		
Client ID:	IA-021-A-27				
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.86	83.00	1435	0.020069
13.87	97.00	7071	
13.84	85.00	842	

Reviewer: khachitpongpanits, 20-Aug-2019 13:12:17

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.67		0.40	0.11
67-66-3	Chloroform	119.38	0.055	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.54		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.036	J	0.40	0.035
108-88-3	Toluene	92.14	36		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.4		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.9	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	130		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.63	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	10		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D
Lims ID: 140-16367-A-18
Client ID: IA-100-B-27
Sample Type: Client
Inject. Date: 19-Aug-2019 22:19:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-010
Misc. Info.: 140-16367-a-18
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:13:09 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:13:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	96	171496	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	994552	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	90	917494	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	92	604045	3.82	
6 Chlorodifluoromethane	51	3.421	3.423	0.000	52	19718	0.1346	
8 Dichlorodifluoromethane	85	3.480	3.488	-0.006	97	10500	0.0792	
31 Methylene Chloride	84	5.977	5.976	0.005	96	20679	0.3411	
44 Chloroform	83	8.549	8.555	0.000	37	1574	0.0109	
49 Benzene	78	10.205	10.205	0.000	46	6535	0.0324	
52 Carbon tetrachloride	117	10.237	10.226	0.011	40	1709	0.0106	
67 Toluene	91	13.586	13.586	-0.005	93	1687207	7.15	
73 Tetrachloroethene	129	14.740	14.740	-0.005	15	686	0.007116	
76 Ethylbenzene	91	15.904	15.904	-0.006	99	35917	0.1085	
77 m-Xylene & p-Xylene	91	16.066	16.066	-0.006	95	96445	0.3709	
80 o-Xylene	91	16.600	16.589	0.005	97	26601	0.0974	
92 1,2,4-Trimethylbenzene	105	18.433	18.427	-0.001	96	9149	0.0257	
S 116 Xylenes, Total	100				0		0.4683	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

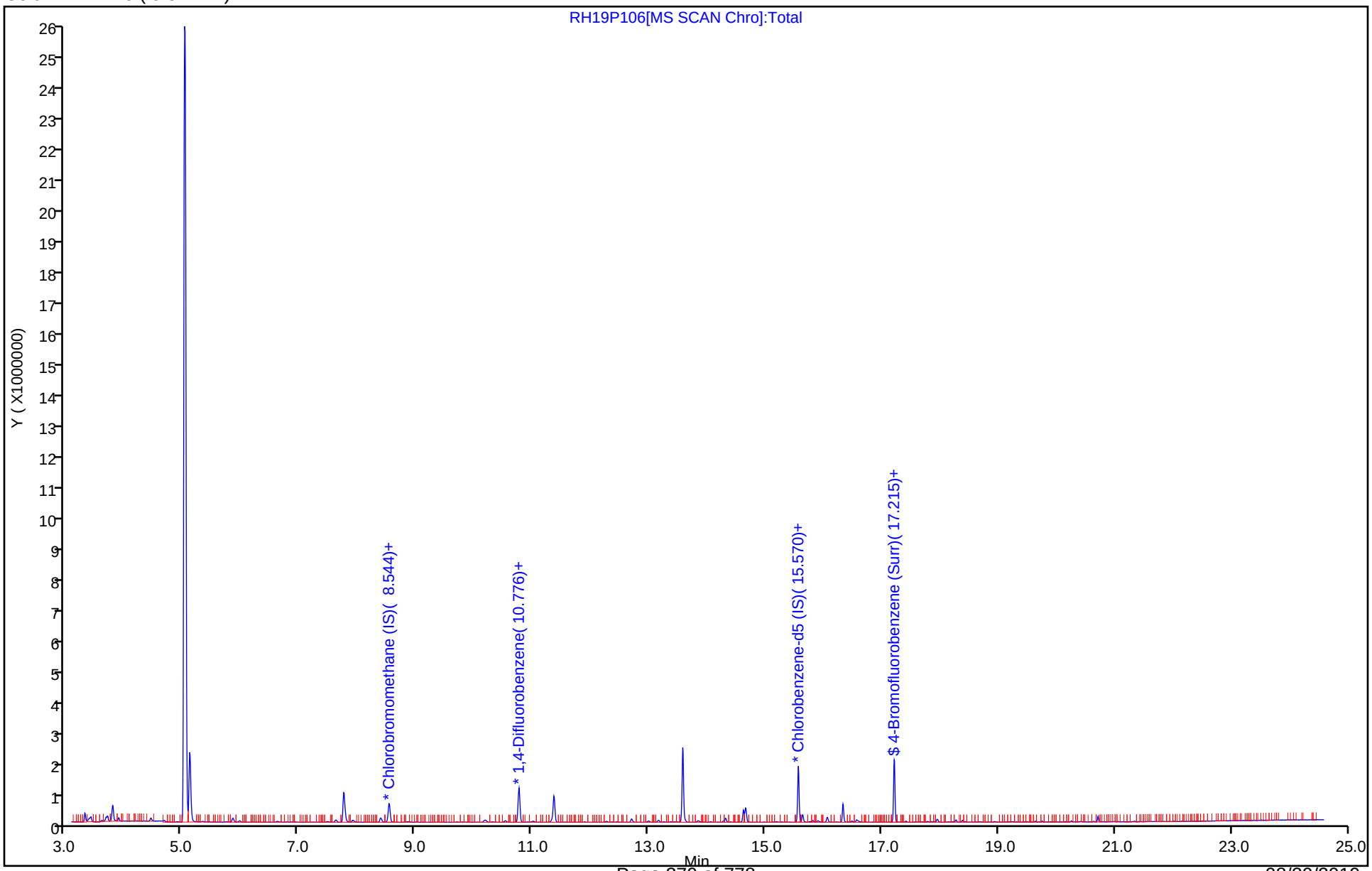
Report Date: 20-Aug-2019 13:13:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18	Worklist Smp#:	10
Client ID:	IA-100-B-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D				
Lims ID:	140-16367-A-18				
Client ID:	IA-100-B-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 22:19:30	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-010				
Misc. Info.:	140-16367-a-18				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:13:09	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:13:09		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.82	95.47

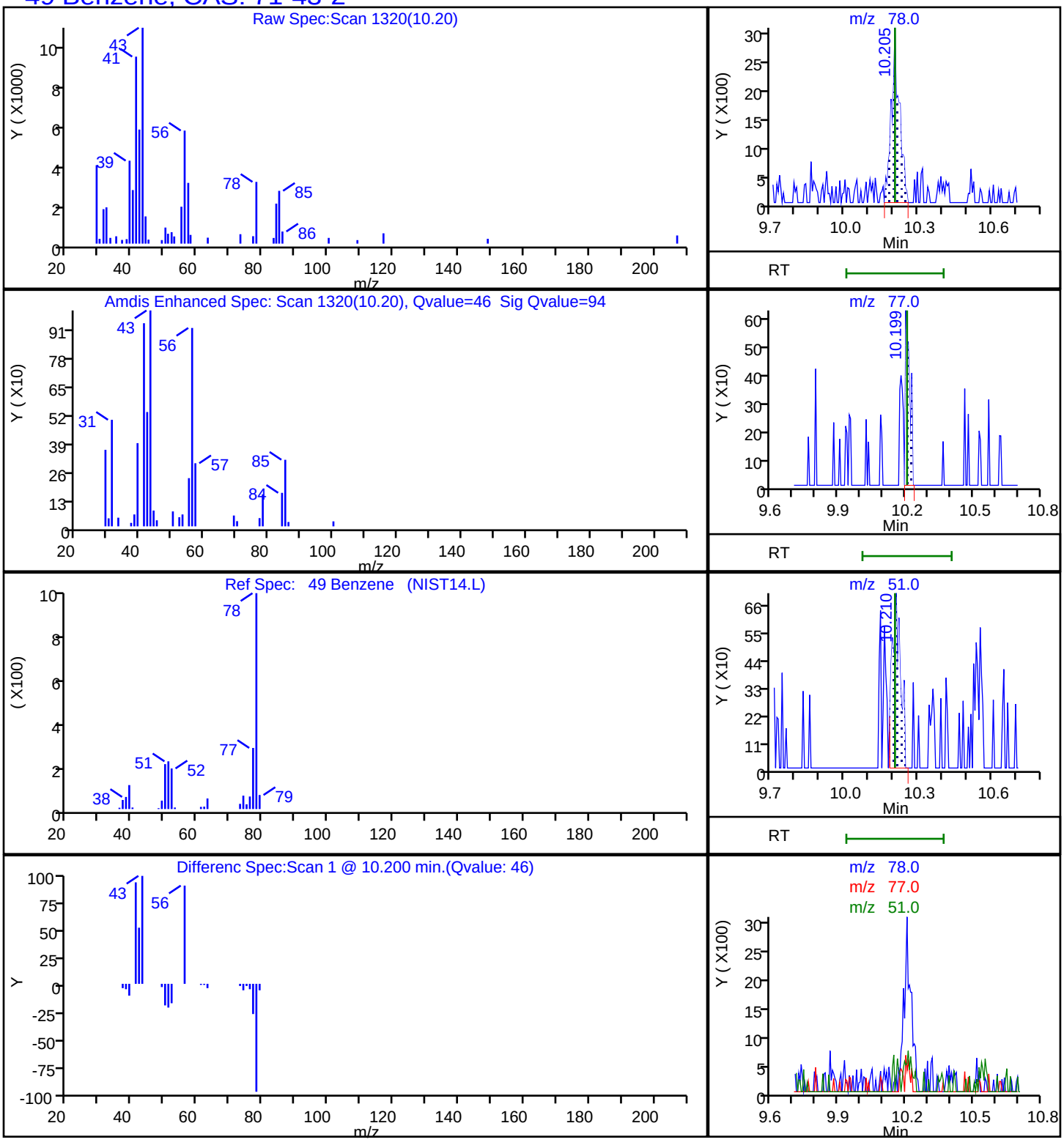
Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



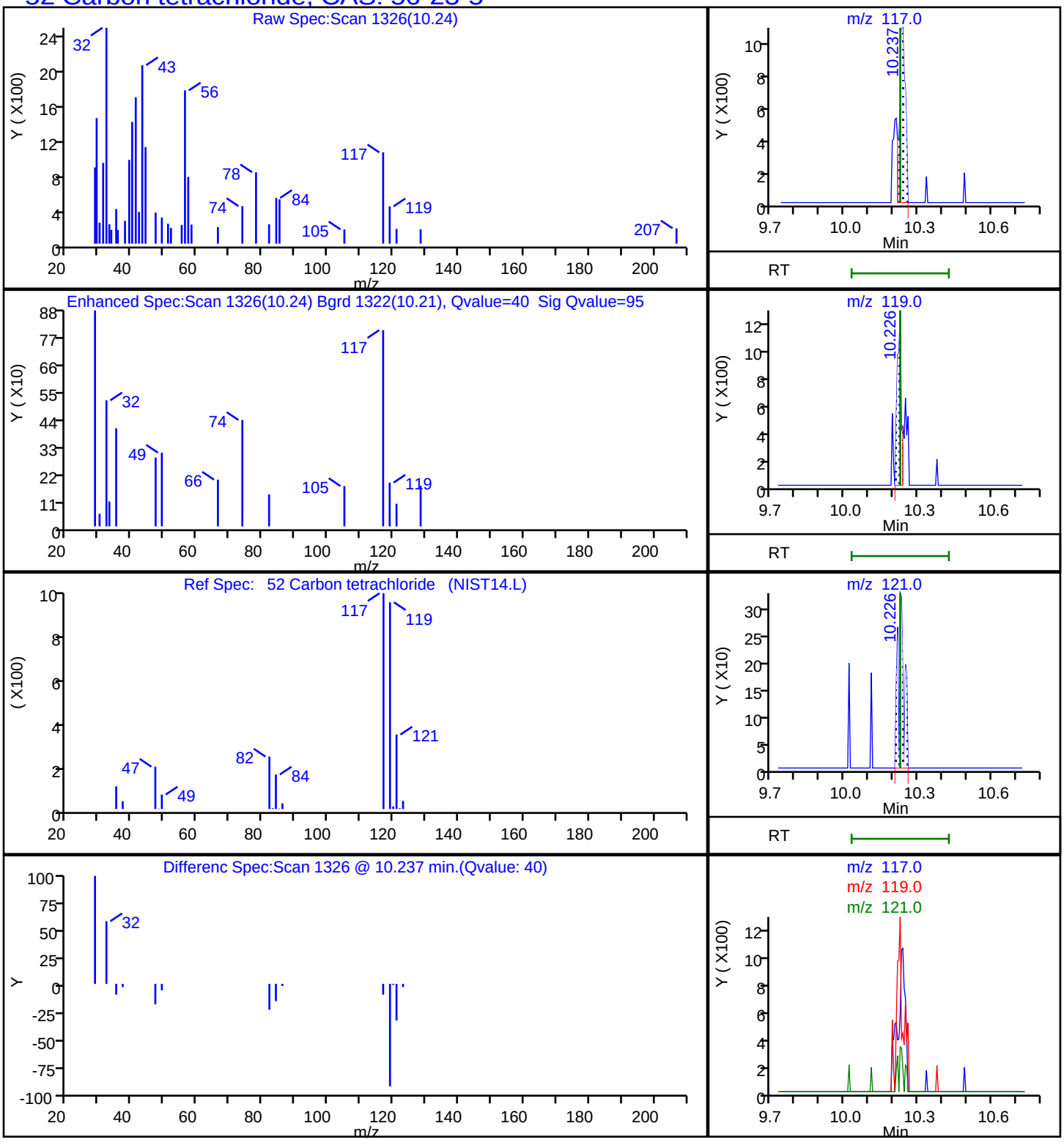
Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

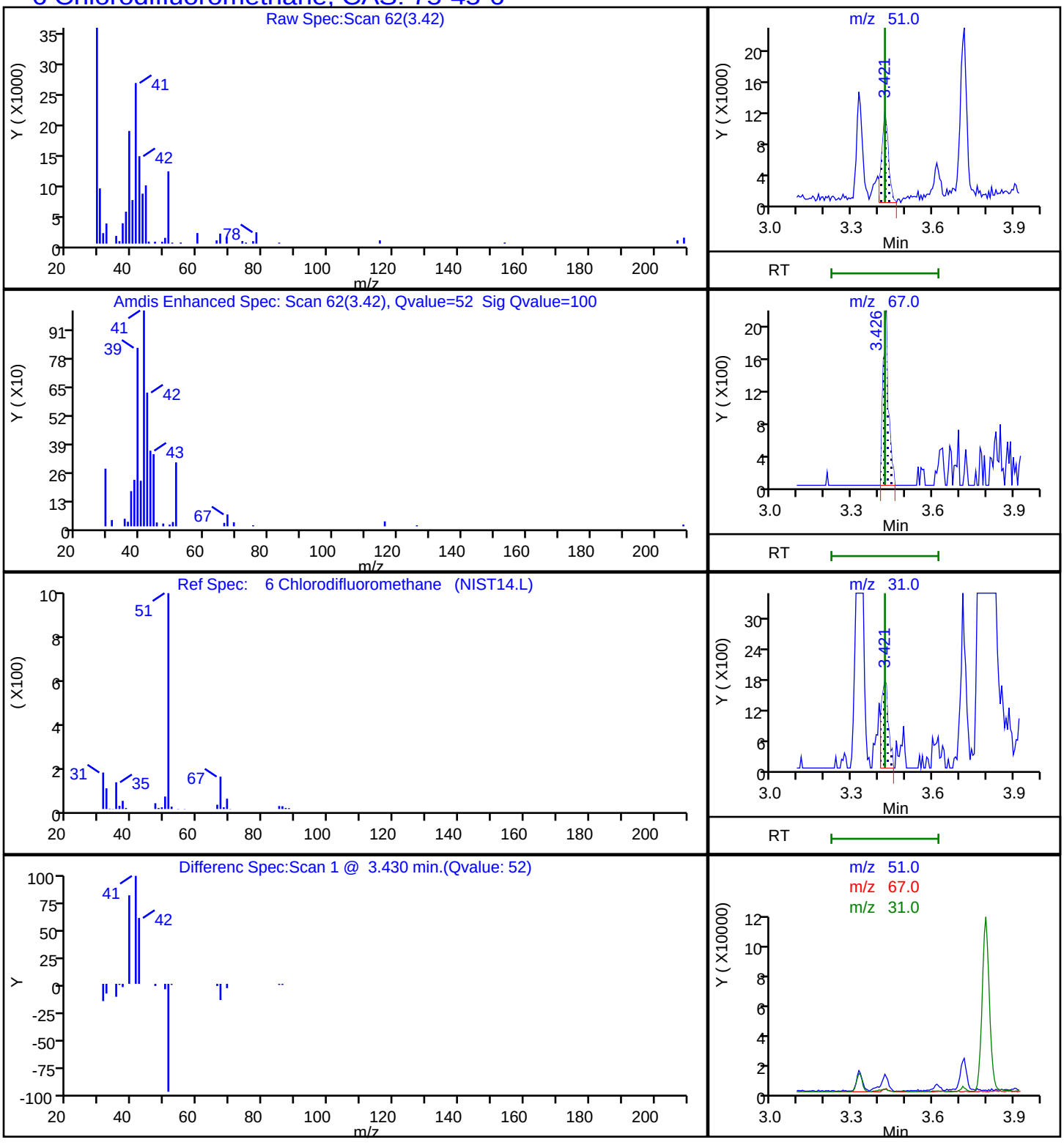
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

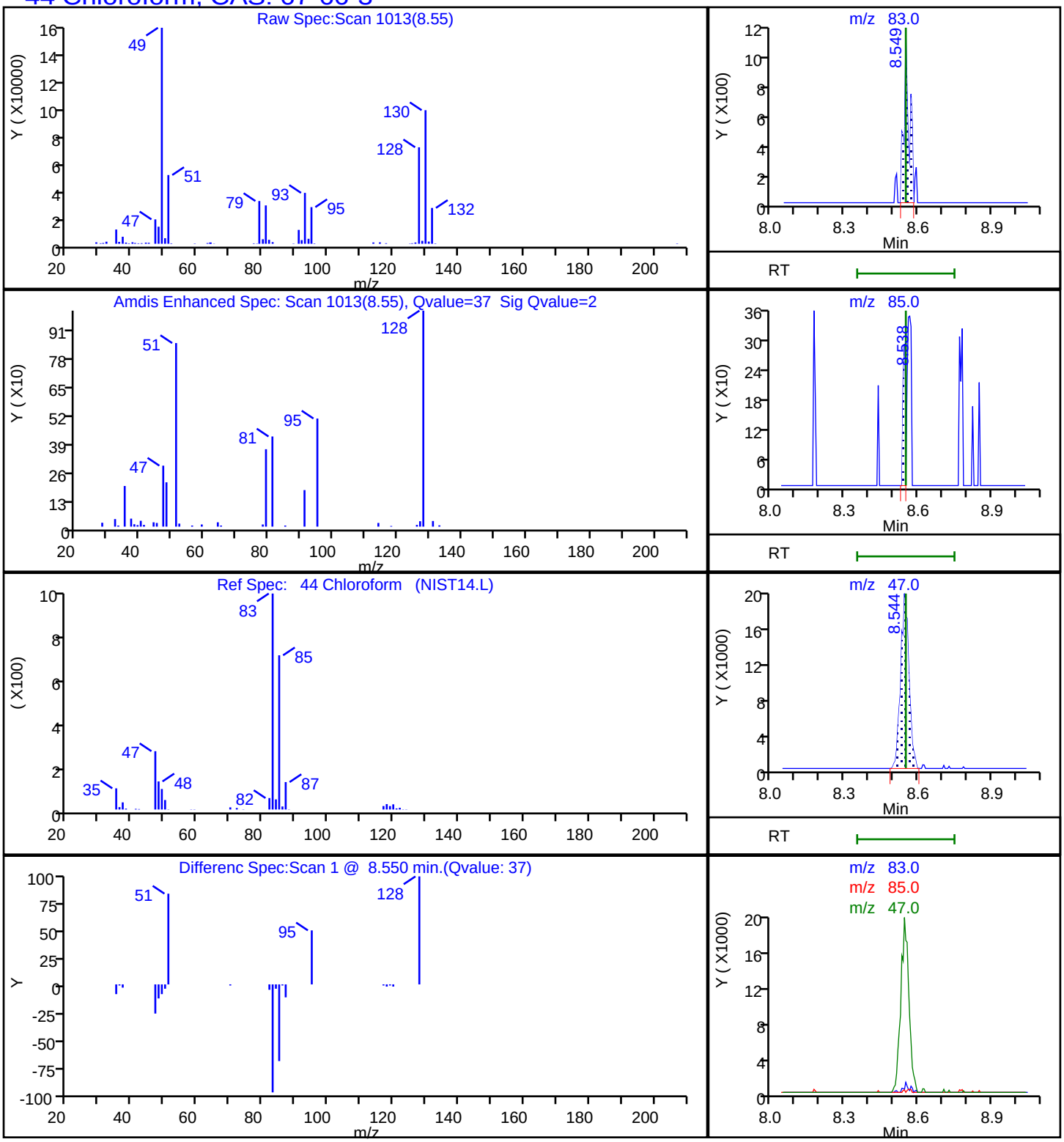
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

Injection Date: 19-Aug-2019 22:19:30 Instrument ID: MR

Lims ID: 140-16367-A-18 Lab Sample ID: 140-16367-18

Client ID: IA-100-B-27

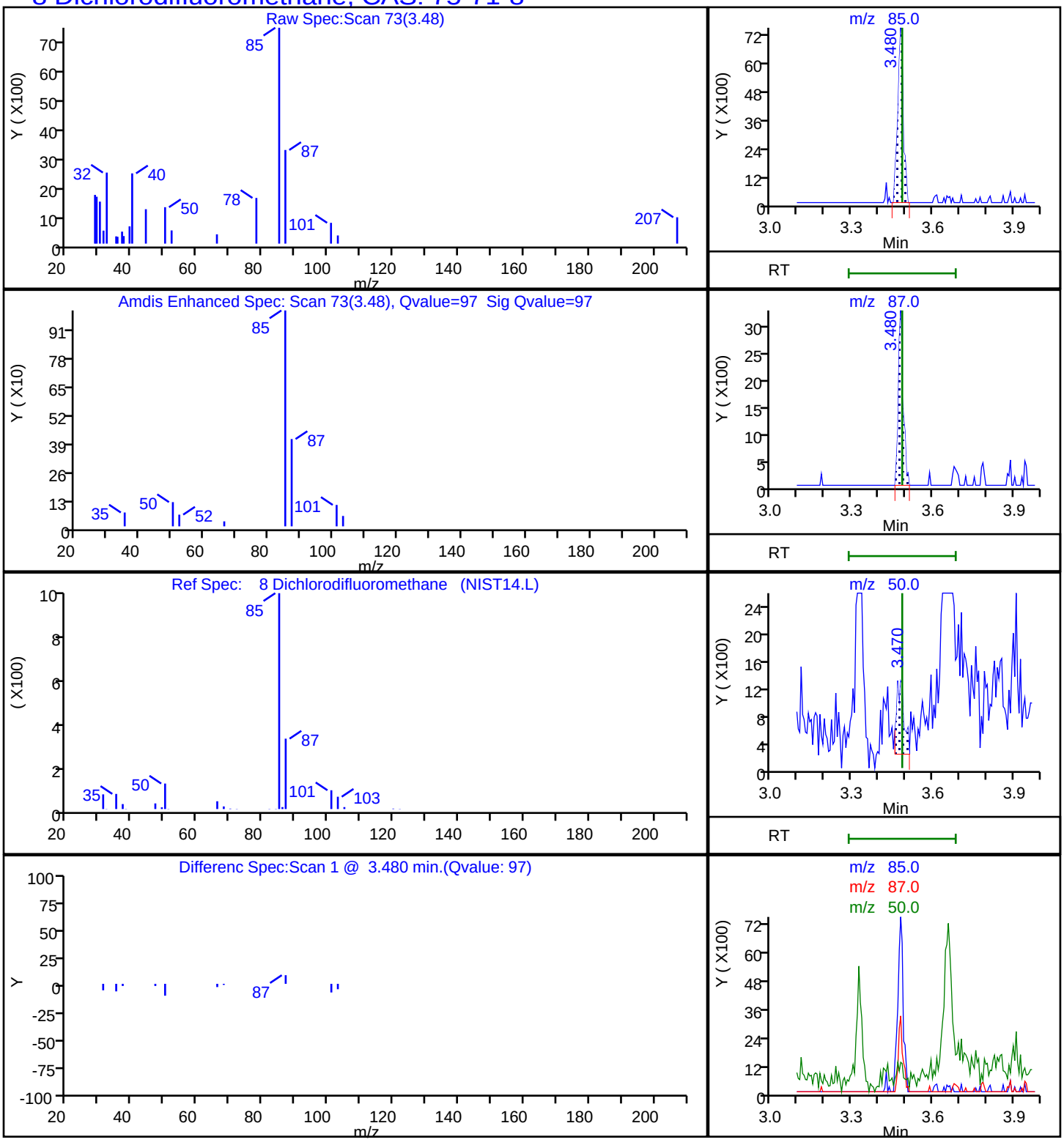
Operator ID: ALS Bottle#: 6 Worklist Smp#: 10

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



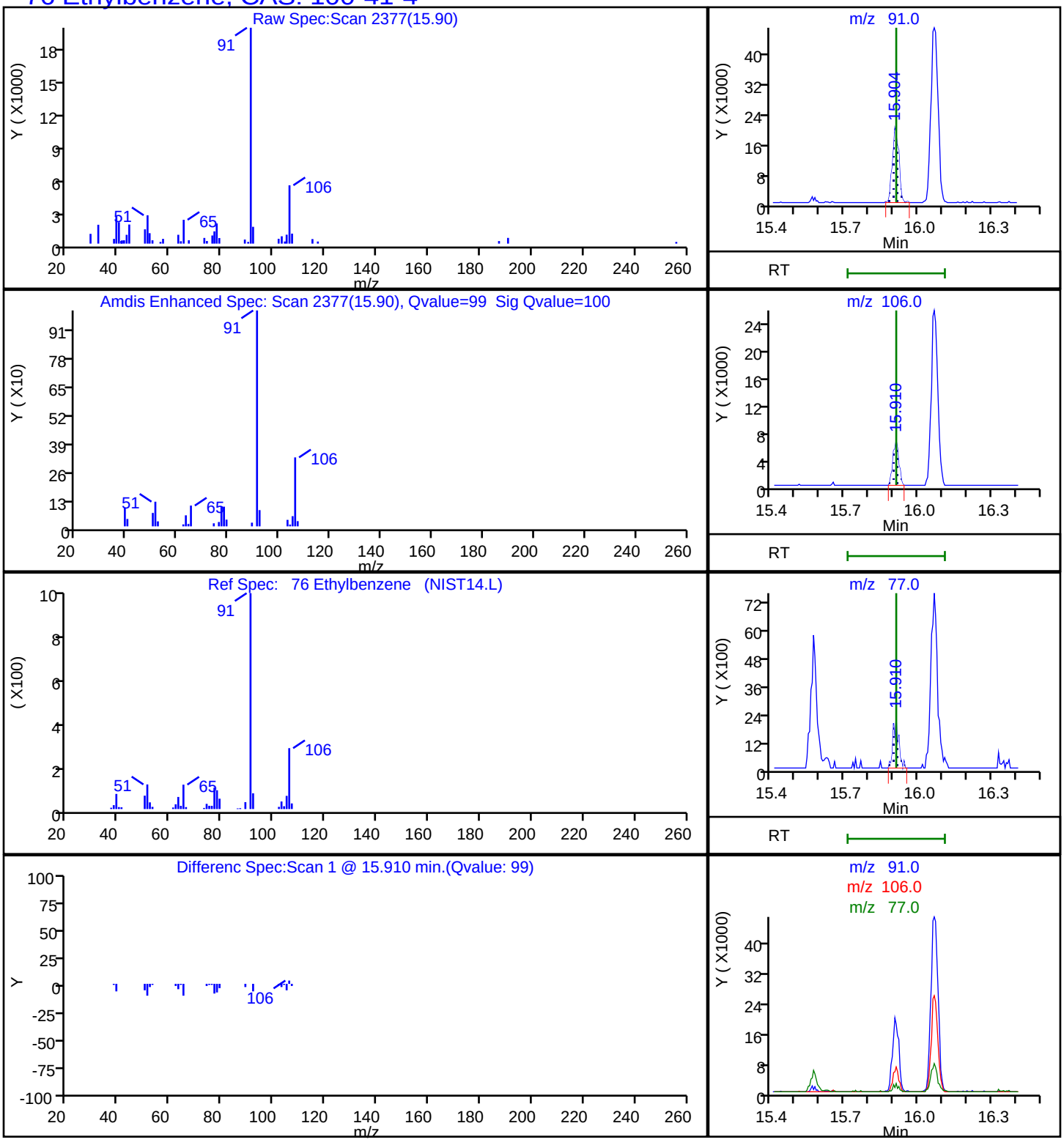
Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

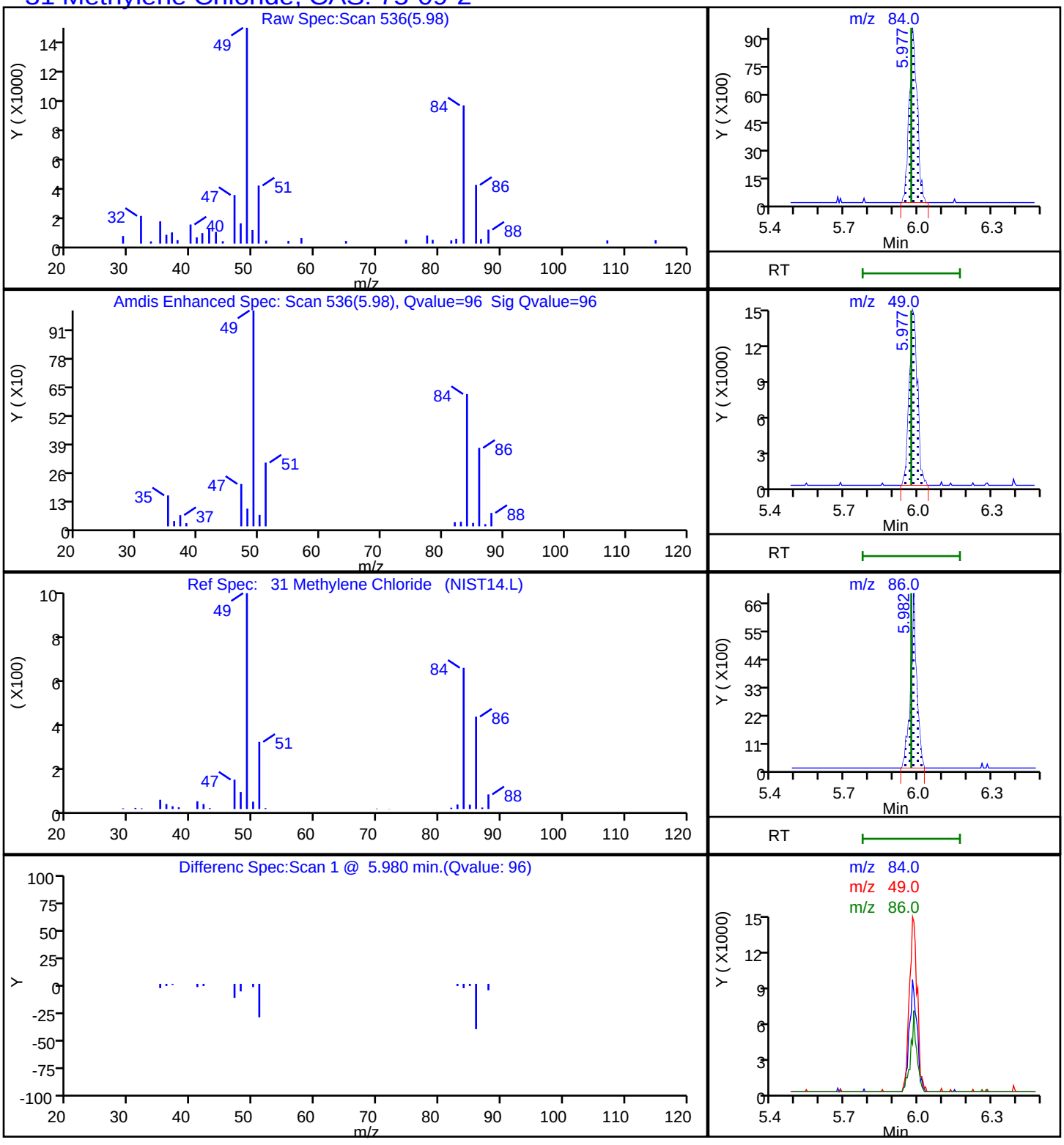


Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

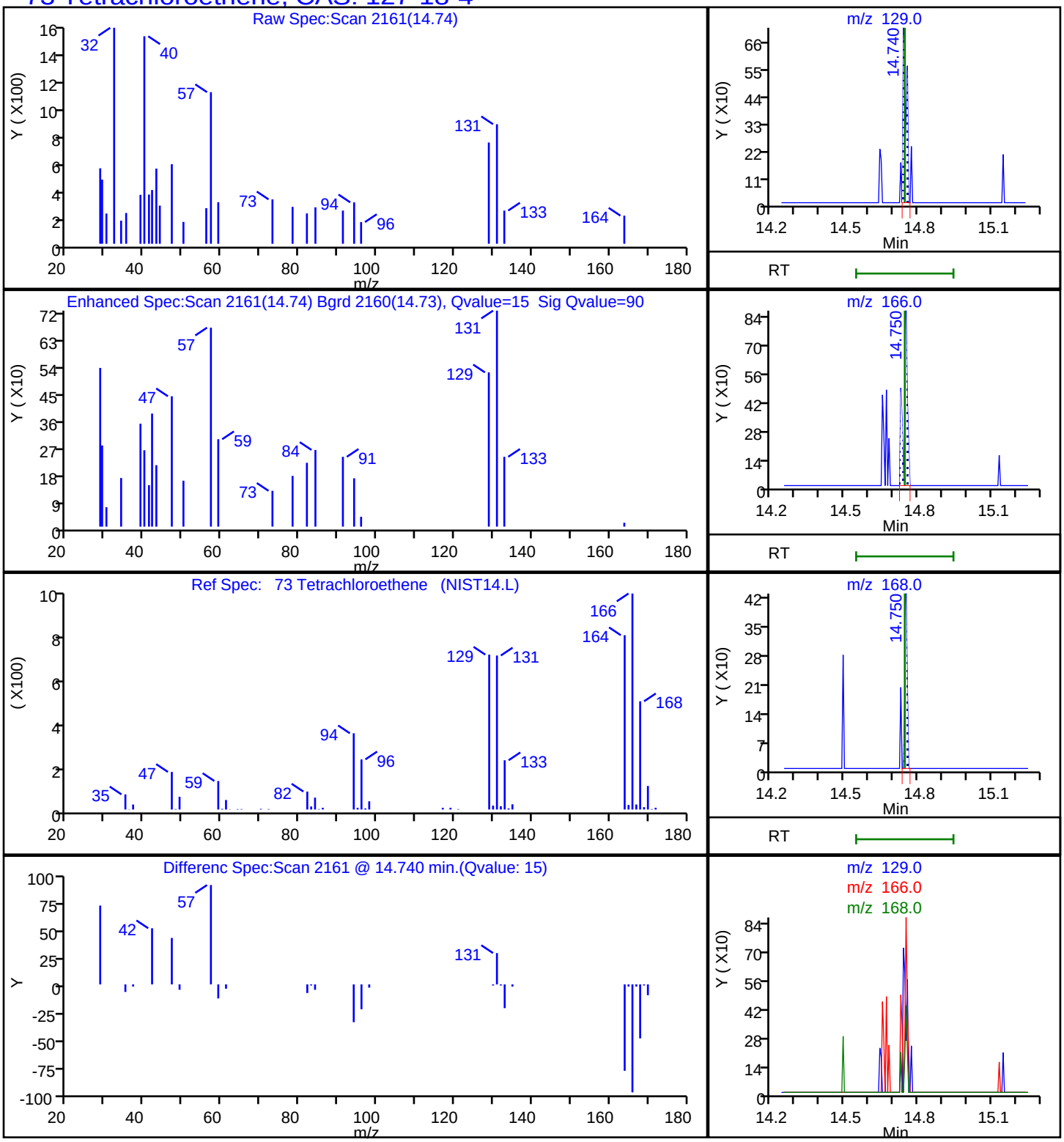


Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D				
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR		
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18		
Client ID:	IA-100-B-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4



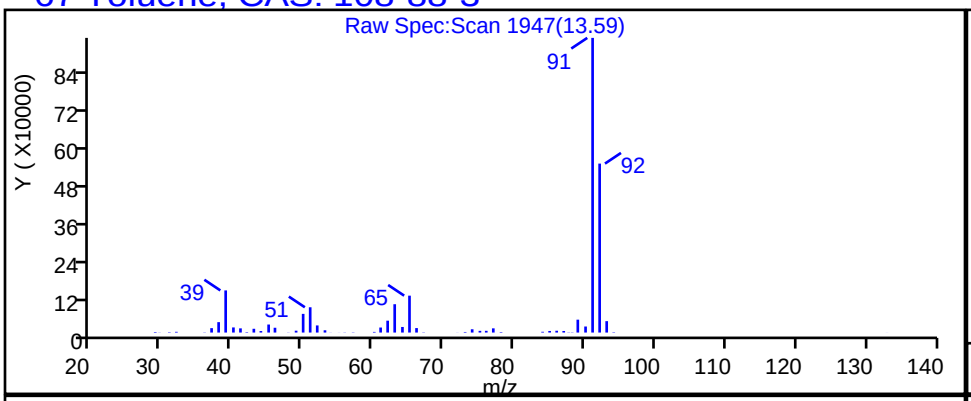
Report Date: 20-Aug-2019 13:13:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

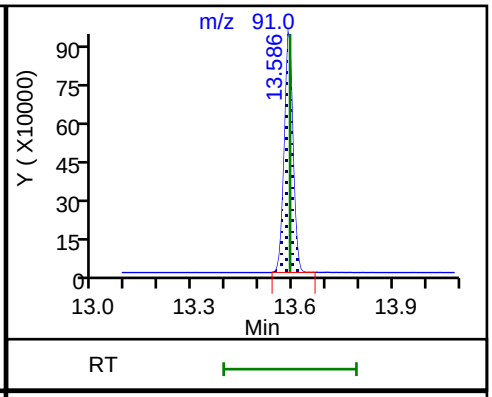
Eurofins TestAmerica, Knoxville

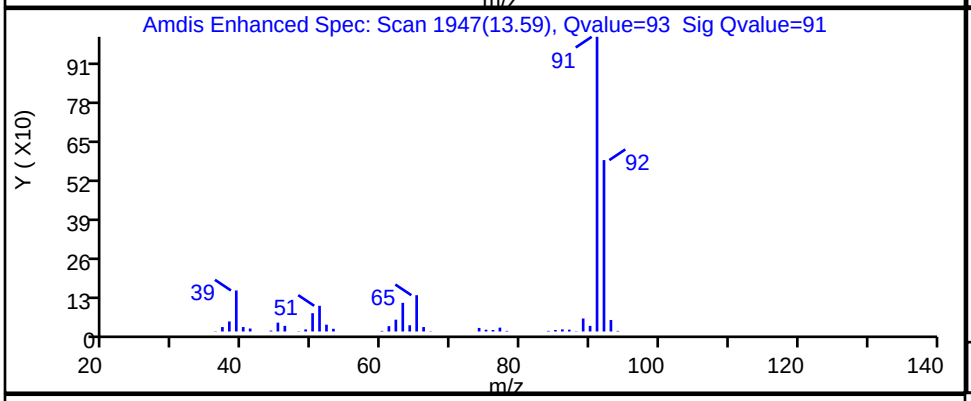
Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D

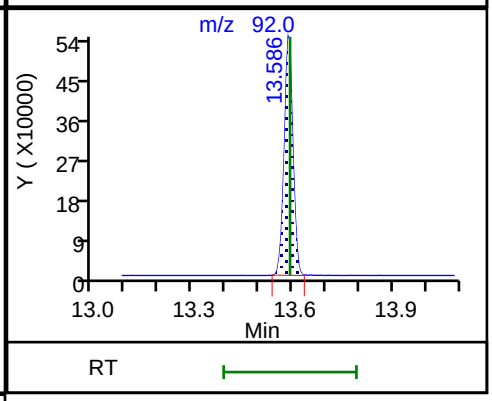
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

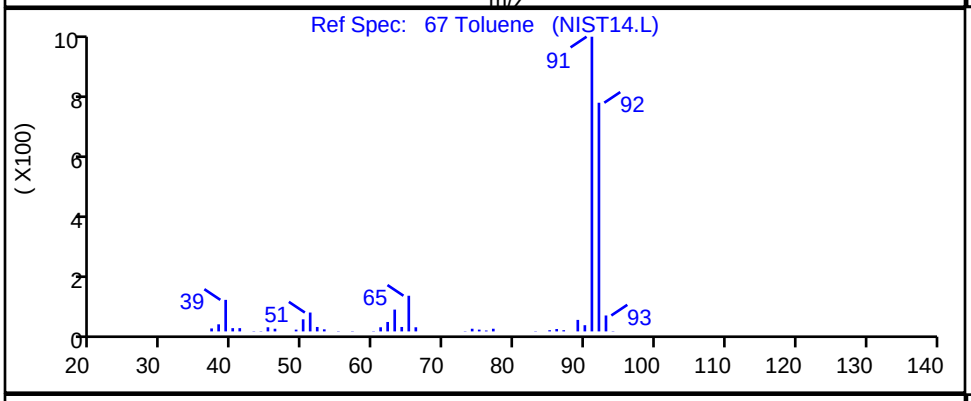
67 Toluene, CAS: 108-88-3

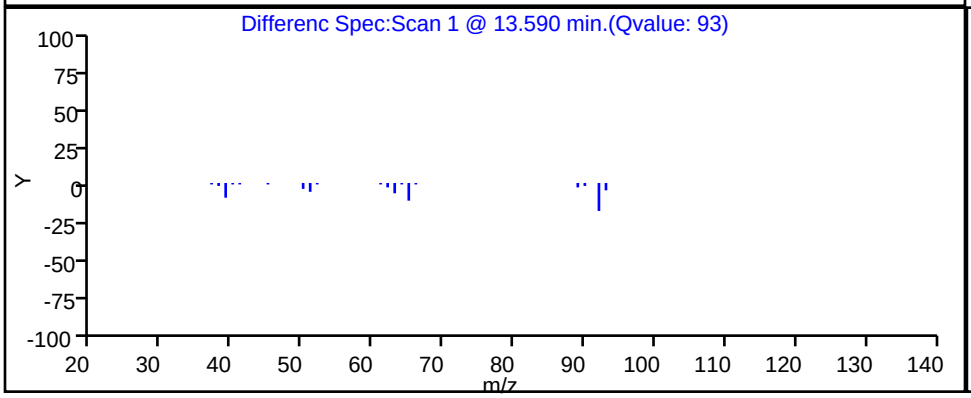


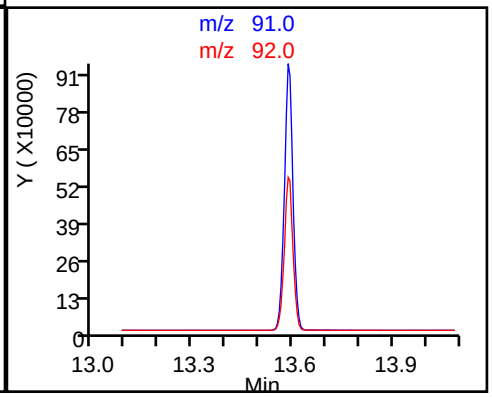








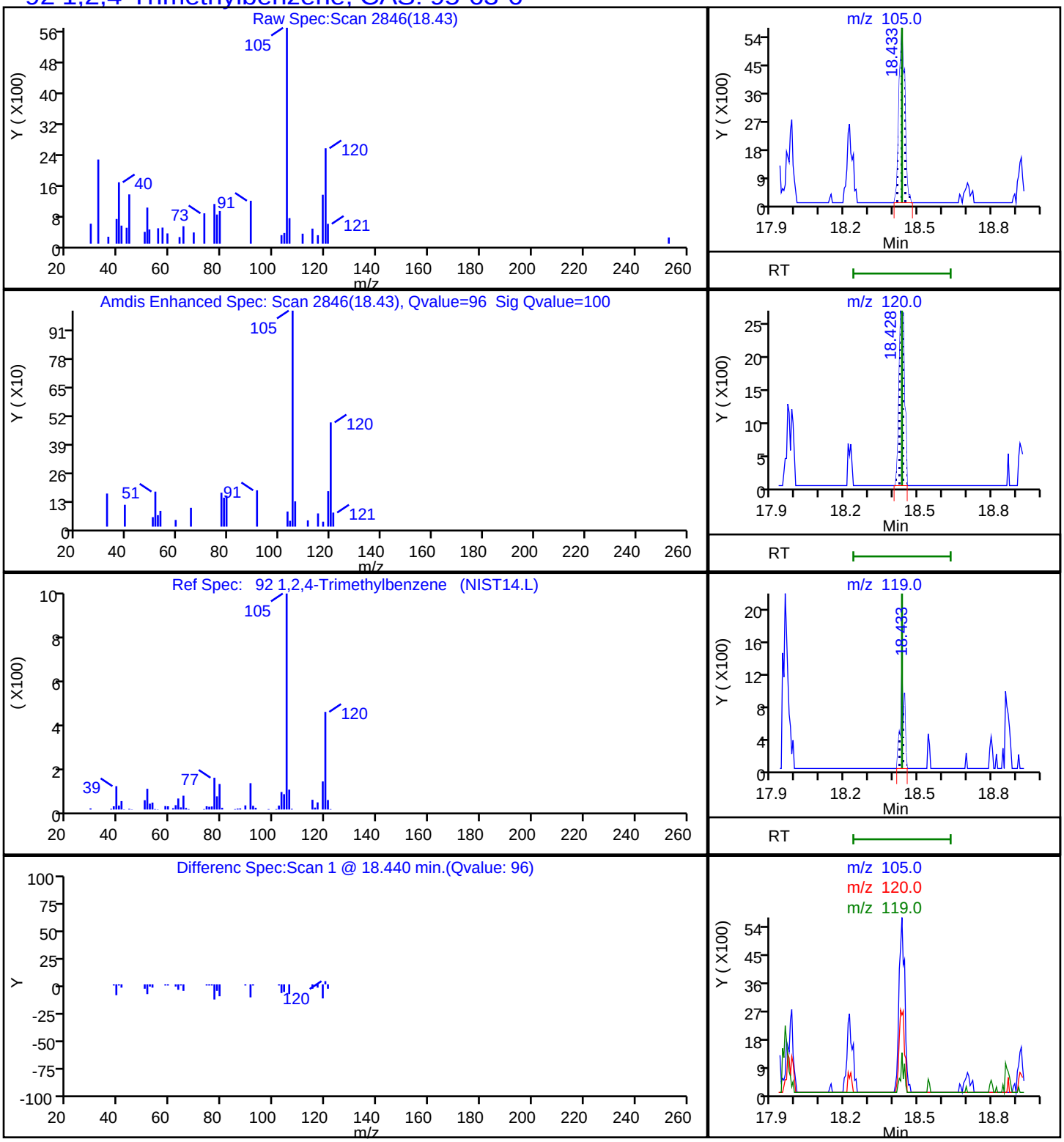




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

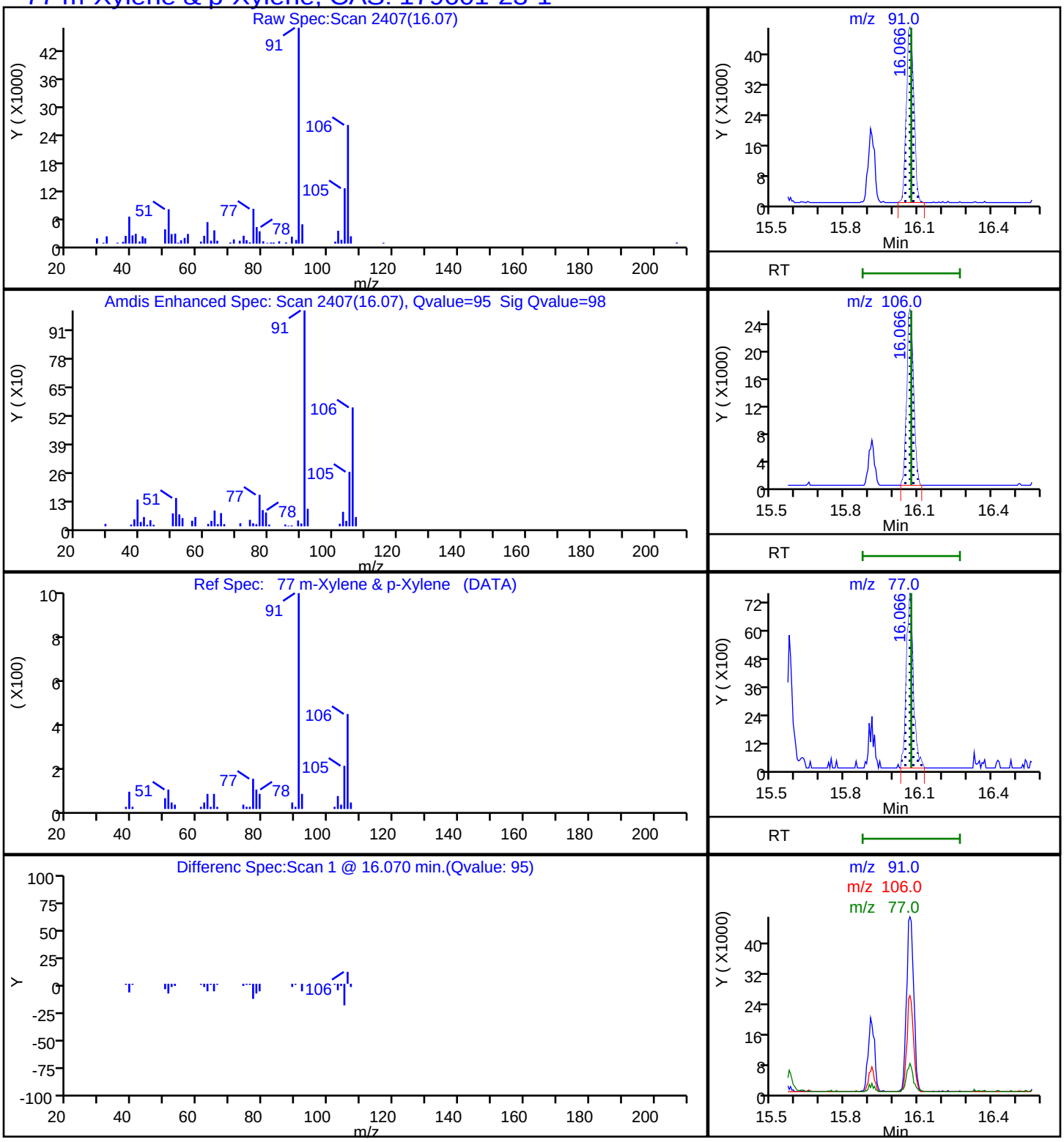
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

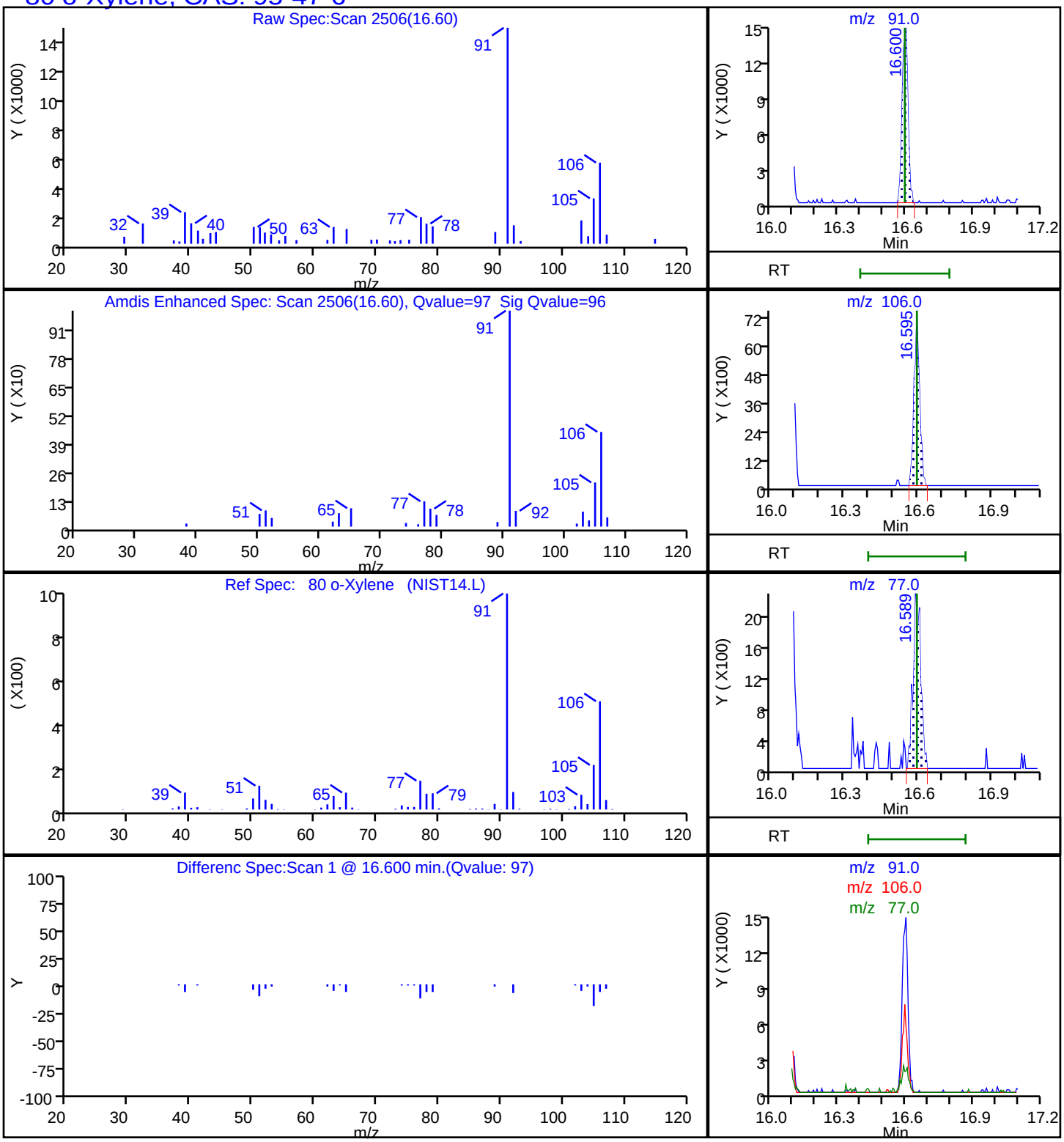
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D		
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18
Client ID:	IA-100-B-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



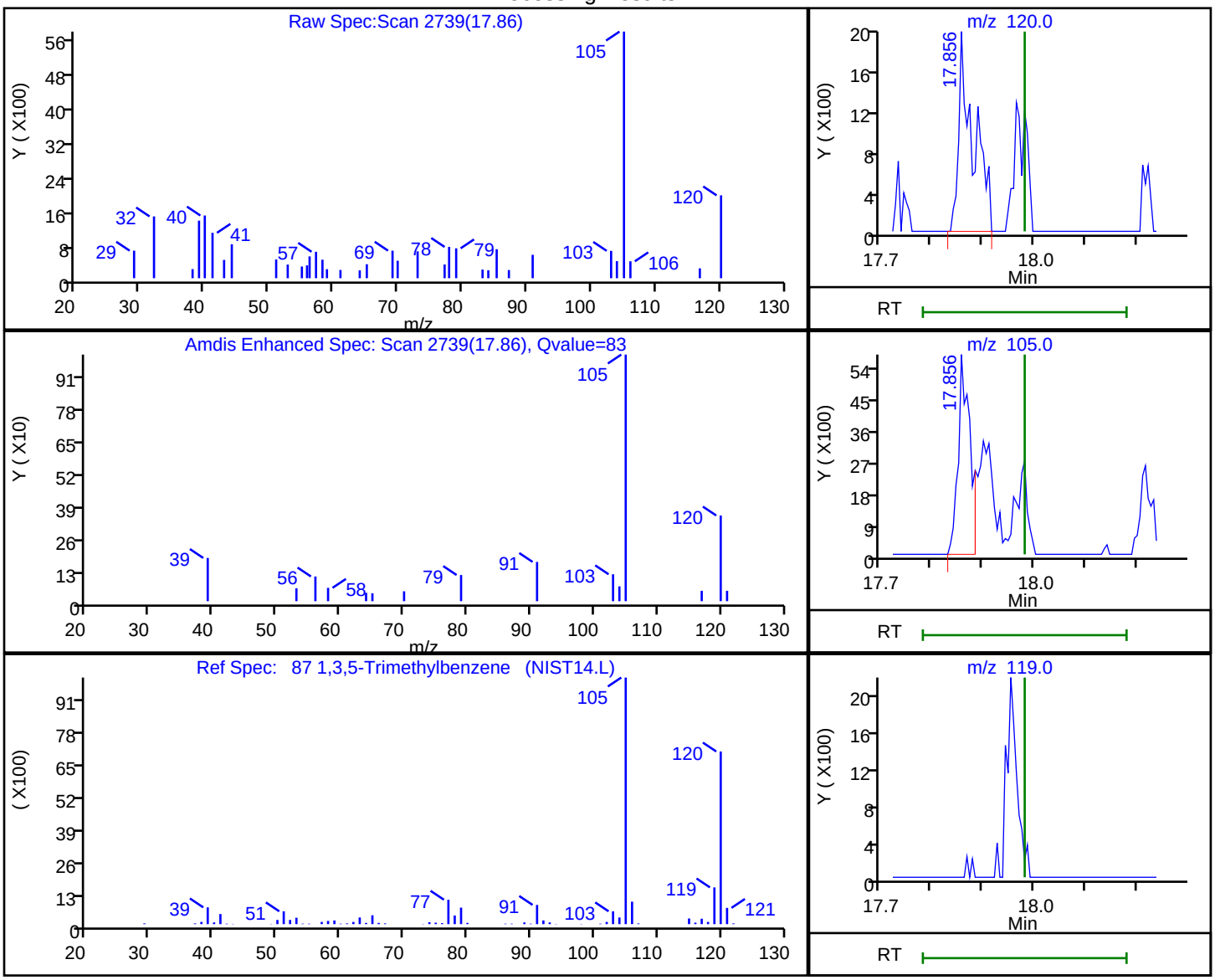
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P106.D				
Injection Date:	19-Aug-2019 22:19:30	Instrument ID:	MR		
Lims ID:	140-16367-A-18	Lab Sample ID:	140-16367-18		
Client ID:	IA-100-B-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
17.86	120.00	3833	0.024900
17.86	105.00	9282	
17.98	119.00	0	

Reviewer: khachitpongpanits, 20-Aug-2019 13:12:59

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.76		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.40		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	25		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	95		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	8.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D
Lims ID: 140-16367-A-19
Client ID: IA-101-B-27
Sample Type: Client
Inject. Date: 19-Aug-2019 23:07:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-011
Misc. Info.: 140-16367-a-19
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:13:09 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:13:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	192051	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1094552	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1034164	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	90	669985	3.76	
6 Chlorodifluoromethane	51	3.427	3.423	0.006	96	25102	0.1530	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	98	10665	0.0718	
31 Methylene Chloride	84	5.988	5.976	0.016	94	21969	0.3236	
44 Chloroform	83	8.555	8.555	0.006	28	2326	0.0144	
49 Benzene	78	10.199	10.205	-0.006	48	7272	0.0328	
52 Carbon tetrachloride	117	10.232	10.226	0.006	58	1949	0.0110	
67 Toluene	91	13.591	13.586	0.000	93	1339348	5.03	
73 Tetrachloroethene	129	14.740	14.740	-0.005	33	1257	0.0116	
76 Ethylbenzene	91	15.910	15.904	0.000	96	29589	0.0793	
77 m-Xylene & p-Xylene	91	16.066	16.066	-0.006	96	92061	0.3141	
80 o-Xylene	91	16.600	16.589	0.005	97	25316	0.0823	
S 116 Xylenes, Total	100				0		0.3964	

Reagents:

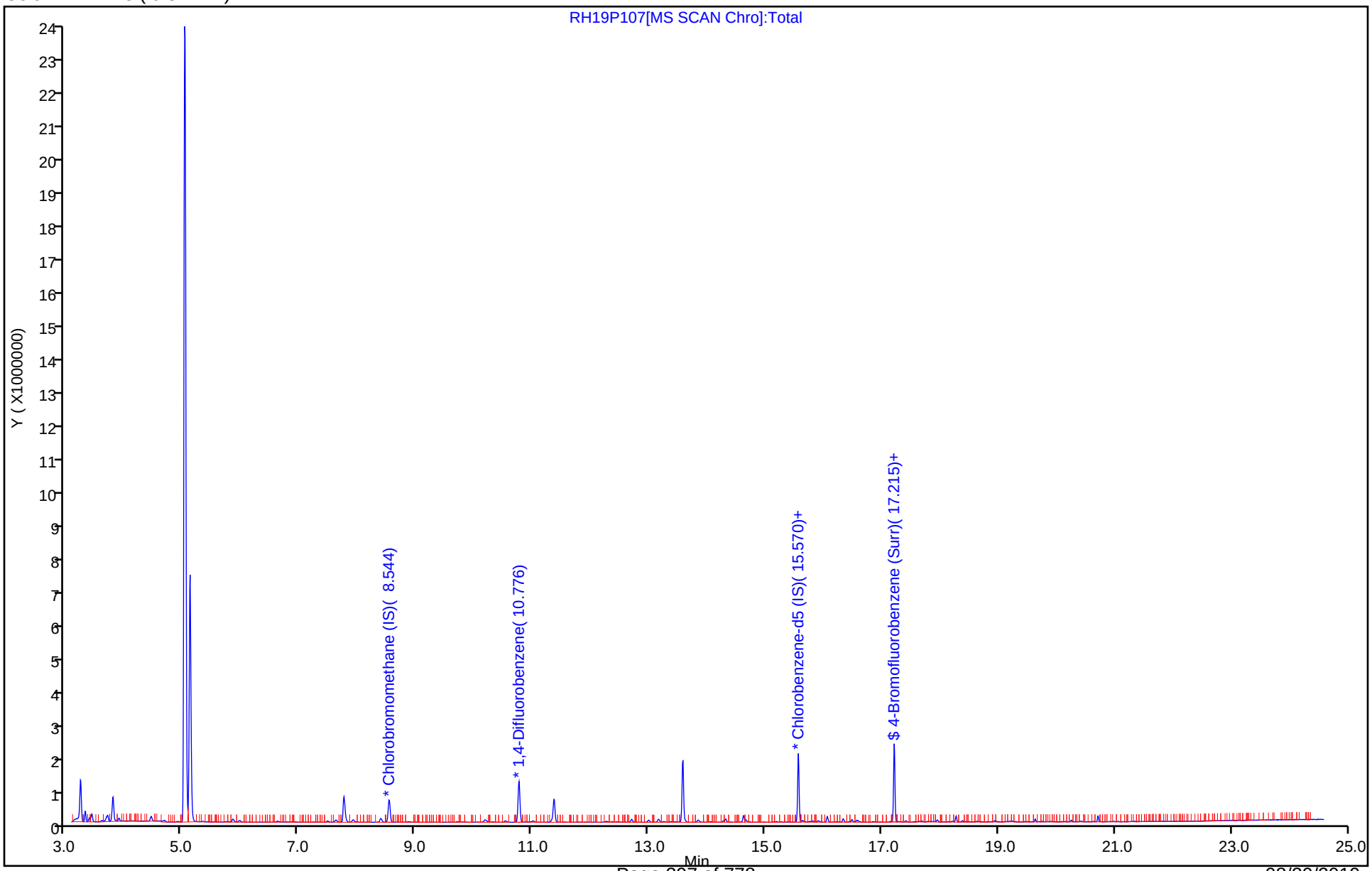
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 20-Aug-2019 13:13:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D				
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19	Worklist Smp#:	11
Client ID:	IA-101-B-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D				
Lims ID:	140-16367-A-19				
Client ID:	IA-101-B-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 23:07:30	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-011				
Misc. Info.:	140-16367-a-19				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:13:09	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:13:49		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.76	93.94

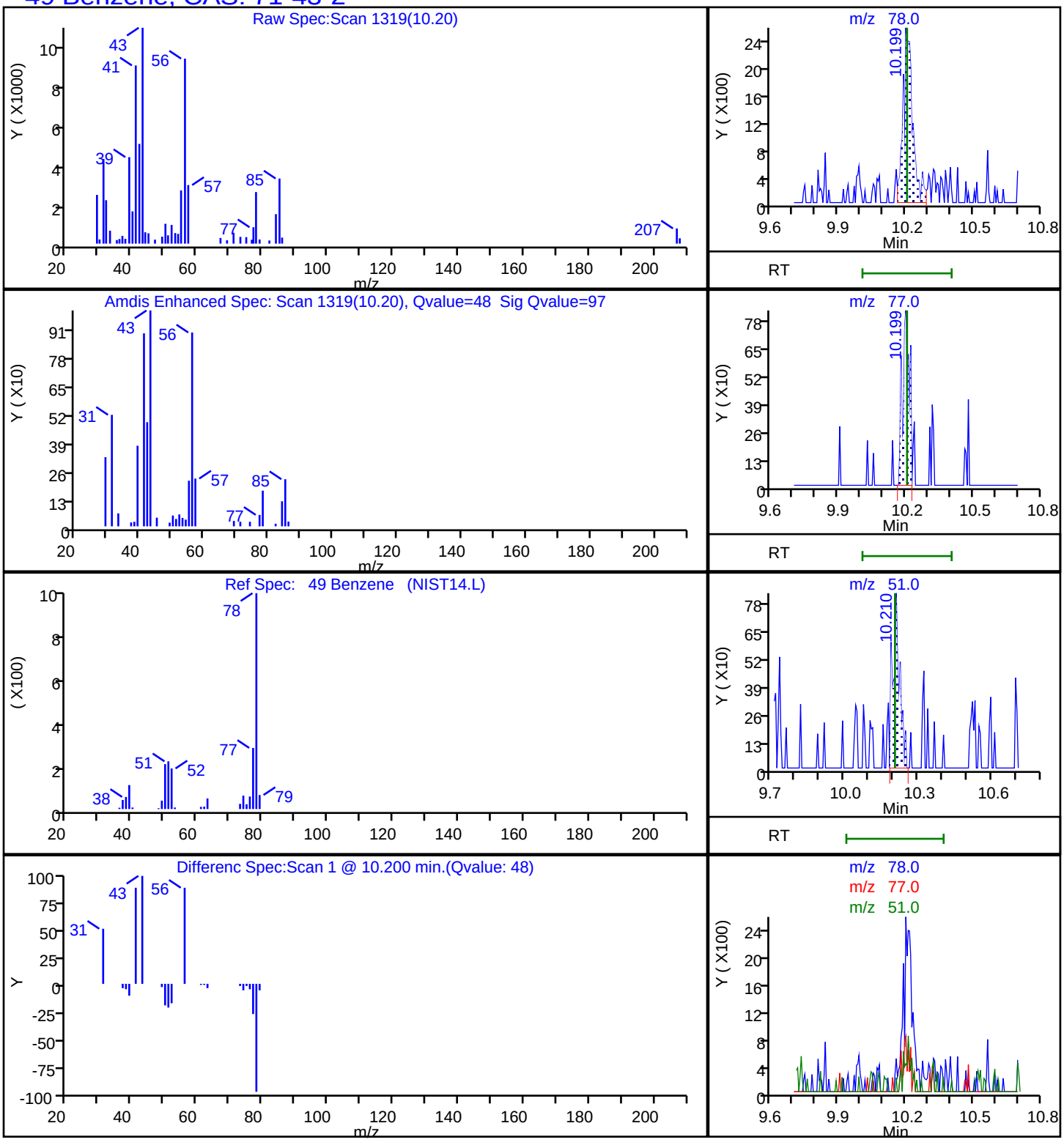
Report Date: 20-Aug-2019 13:13:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D

Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



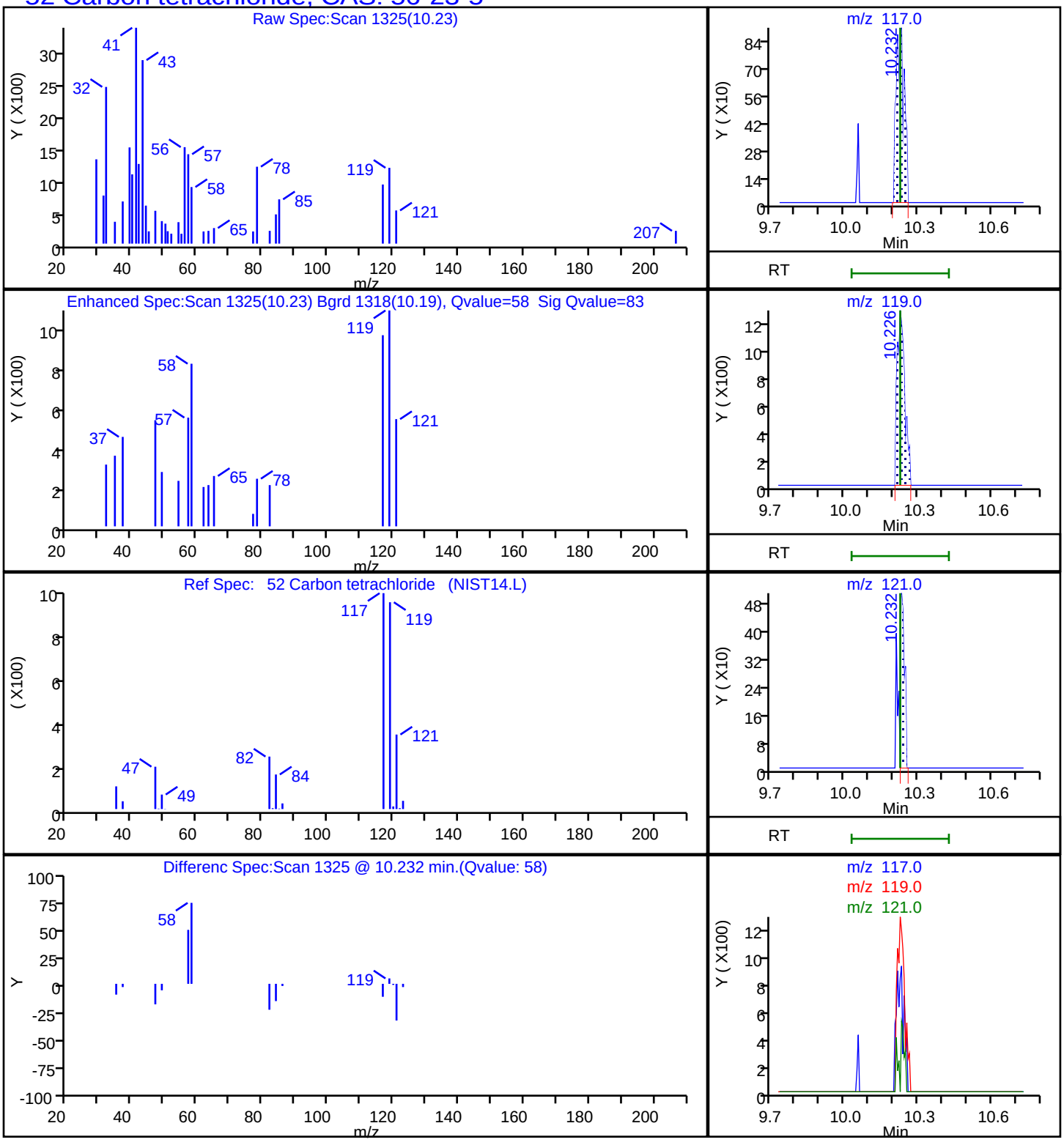
Report Date: 20-Aug-2019 13:13:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D

Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

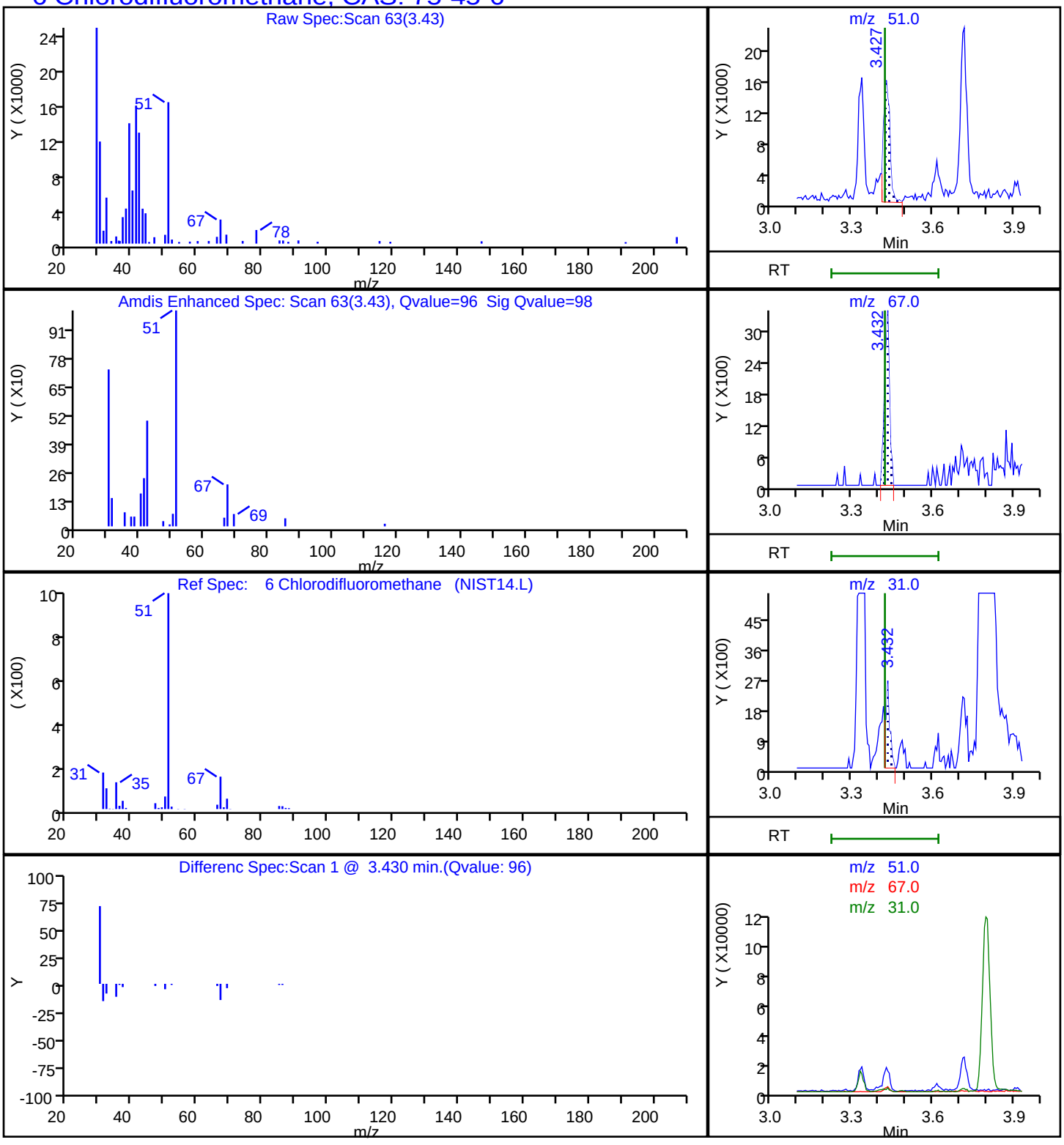
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D				
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR		
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19		
Client ID:	IA-101-B-27				
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

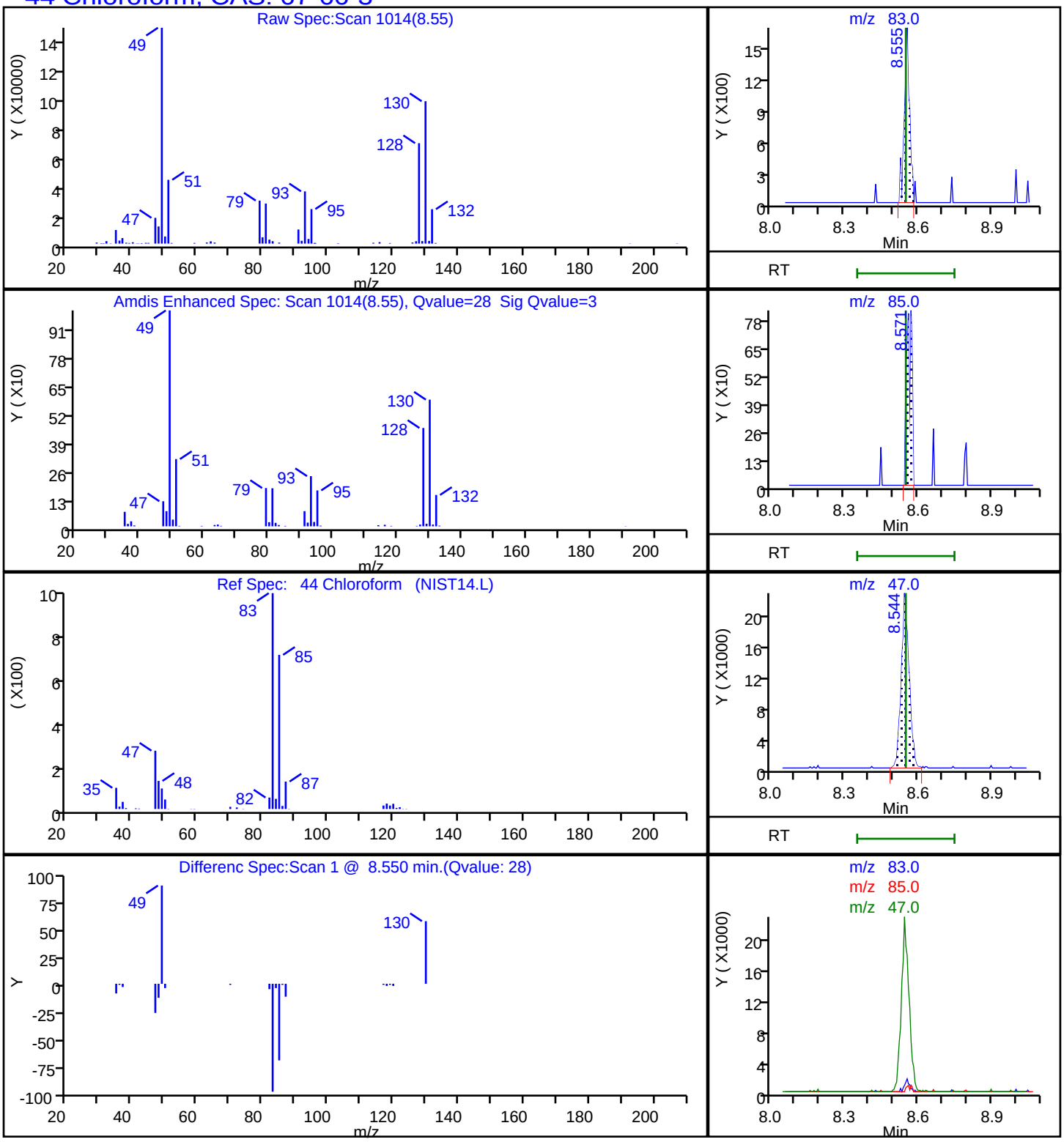
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D		
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



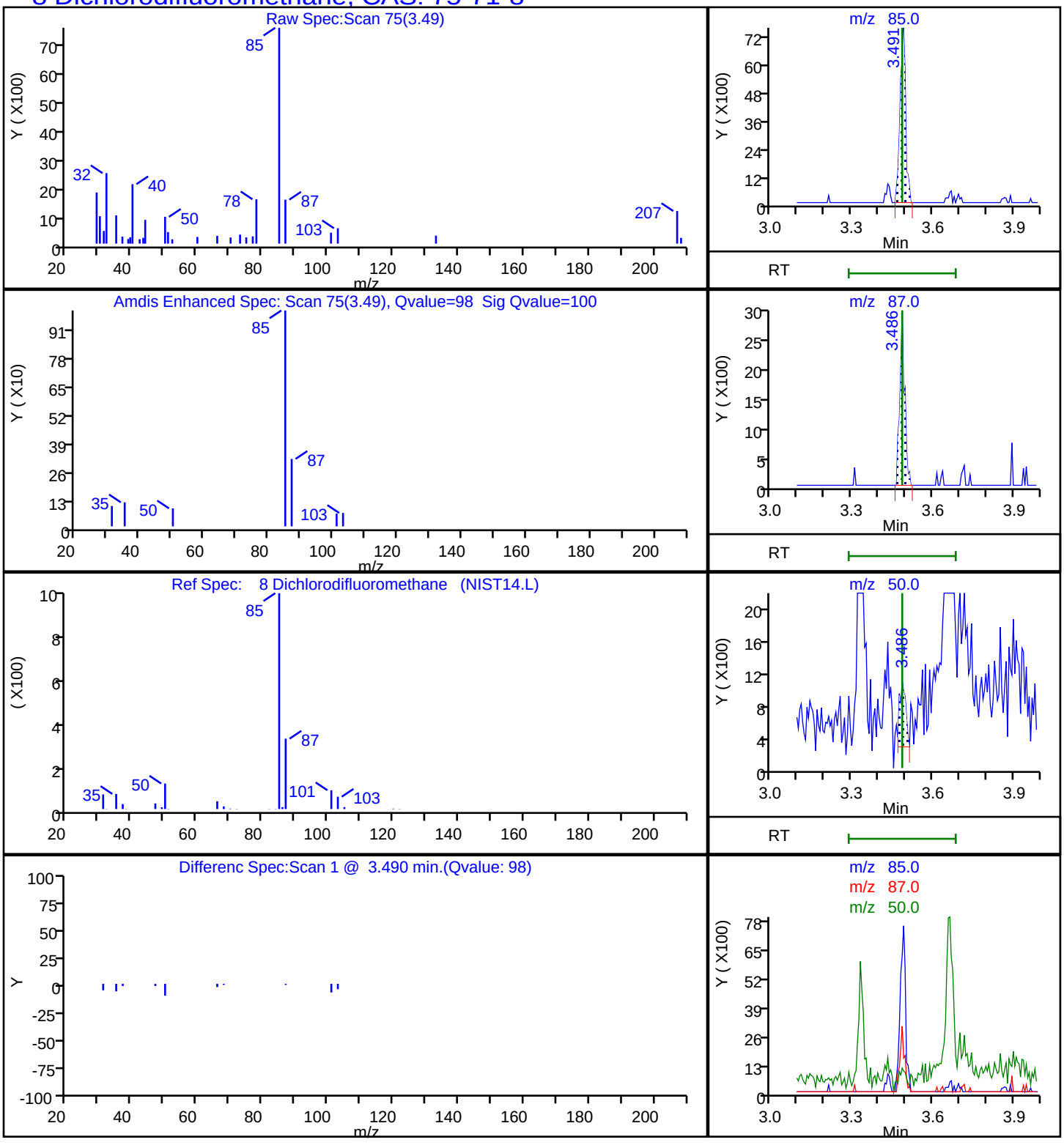
Report Date: 20-Aug-2019 13:13:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D

Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

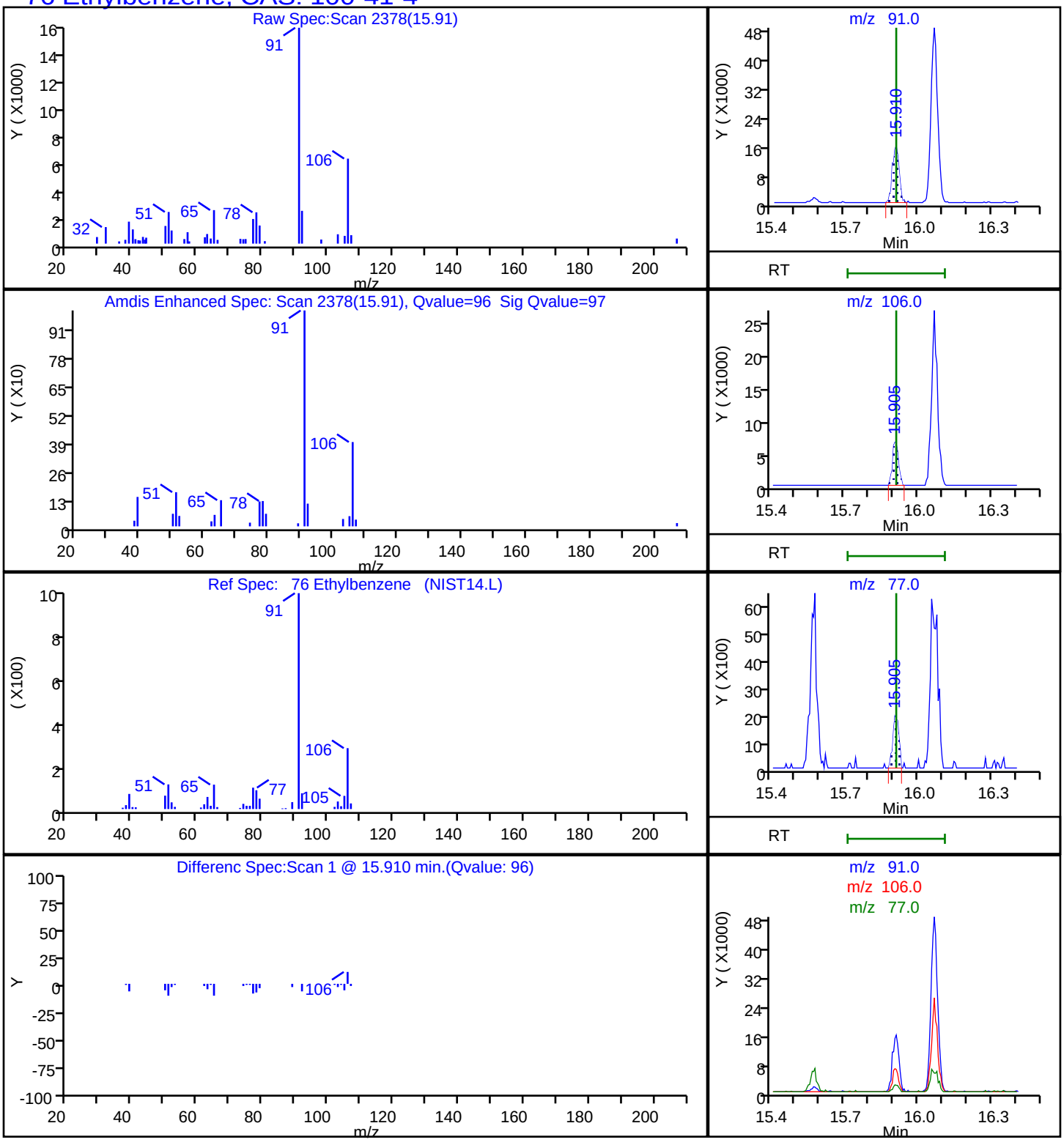
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D		
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



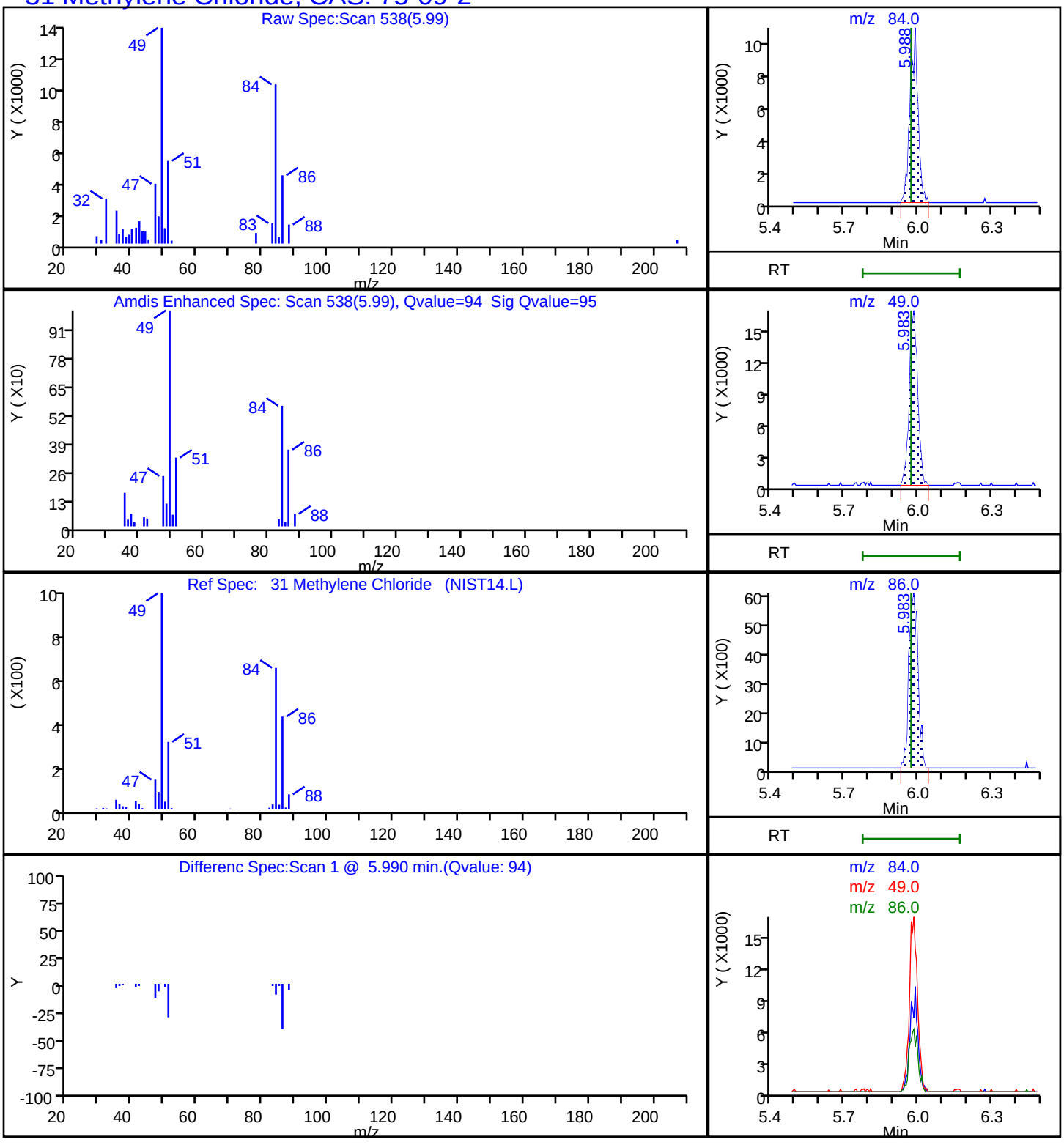
Report Date: 20-Aug-2019 13:13:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D

Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



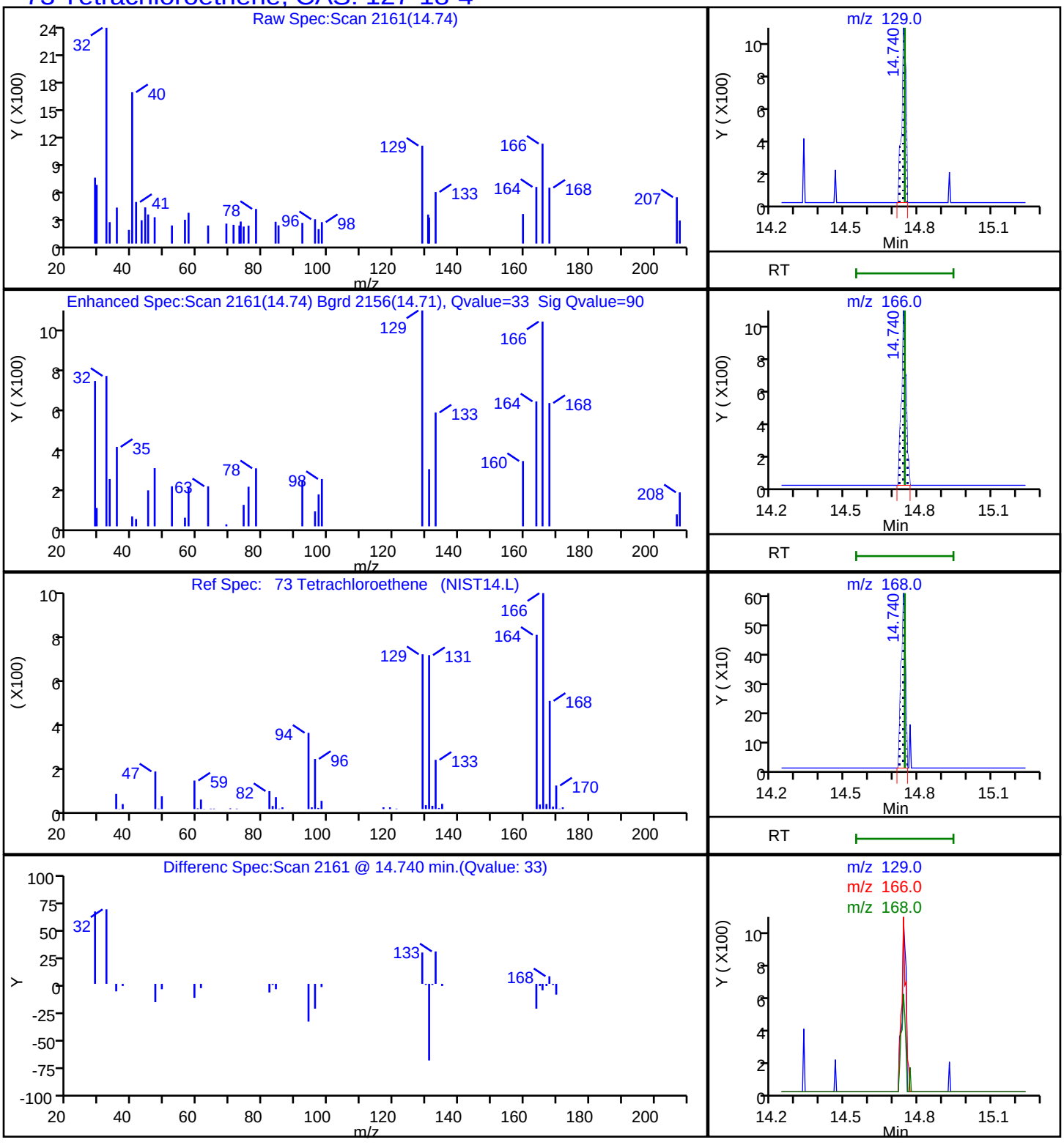
Report Date: 20-Aug-2019 13:13:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D

Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

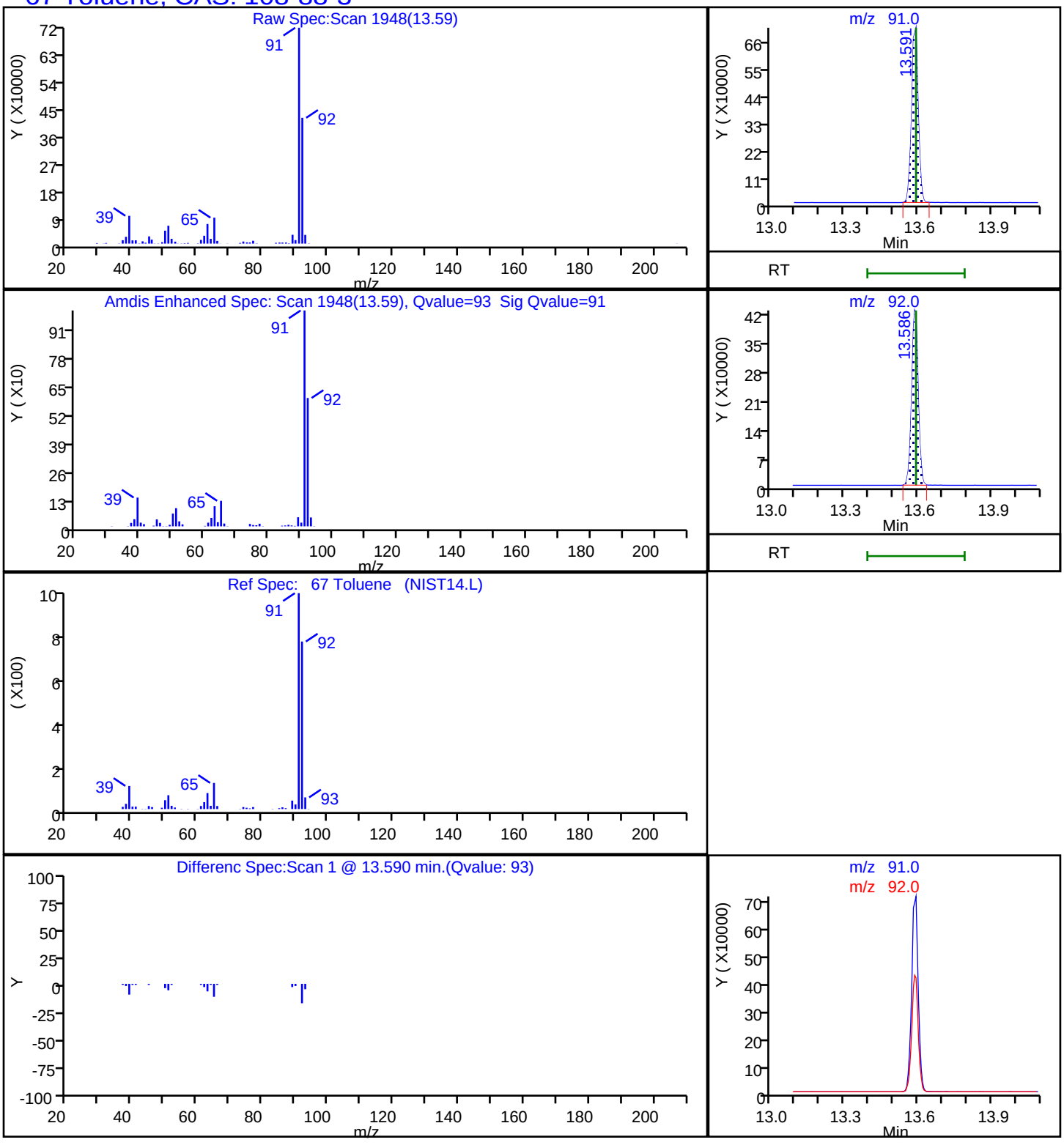
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D		
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

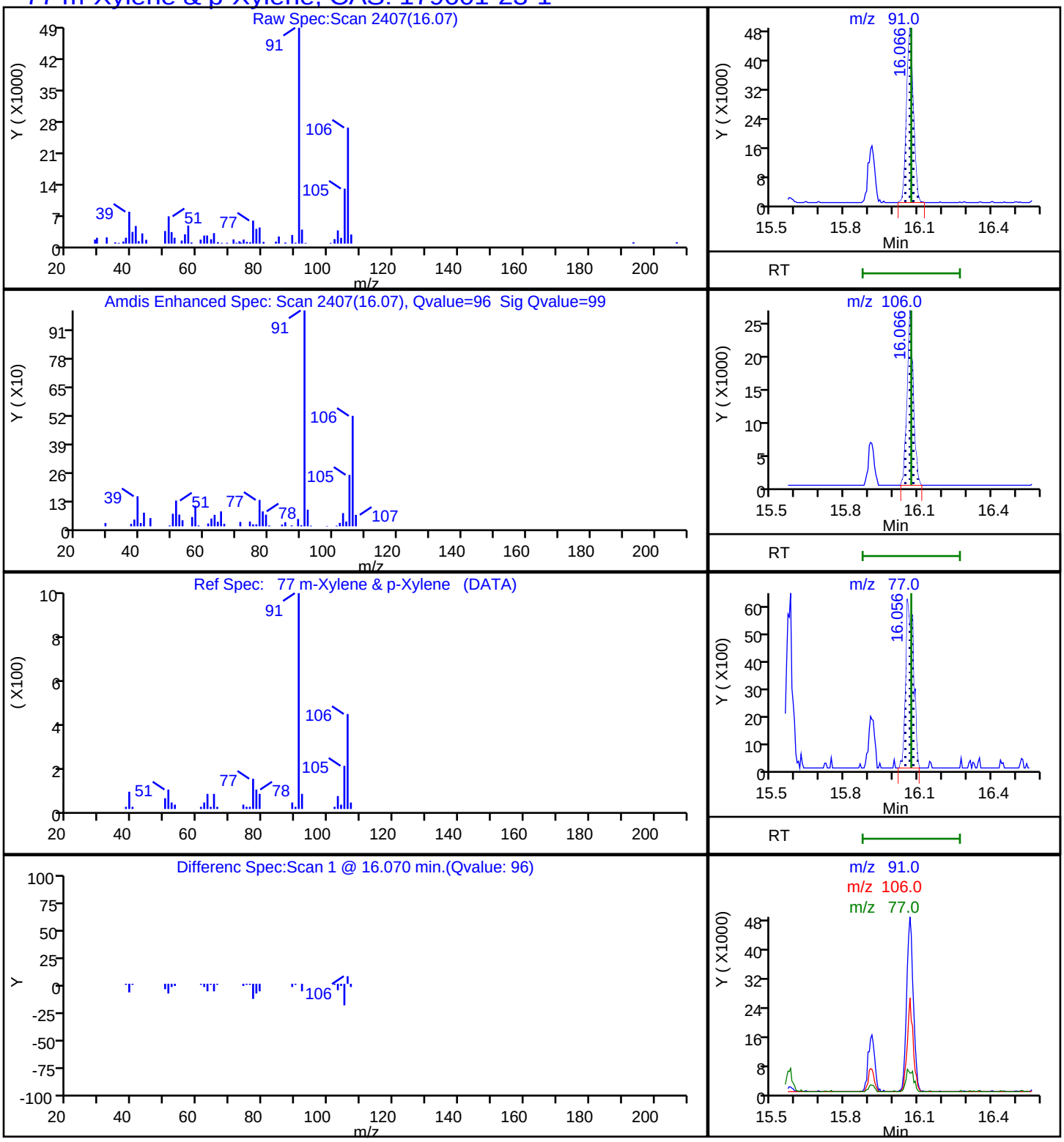


Report Date: 20-Aug-2019 13:13:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D		
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

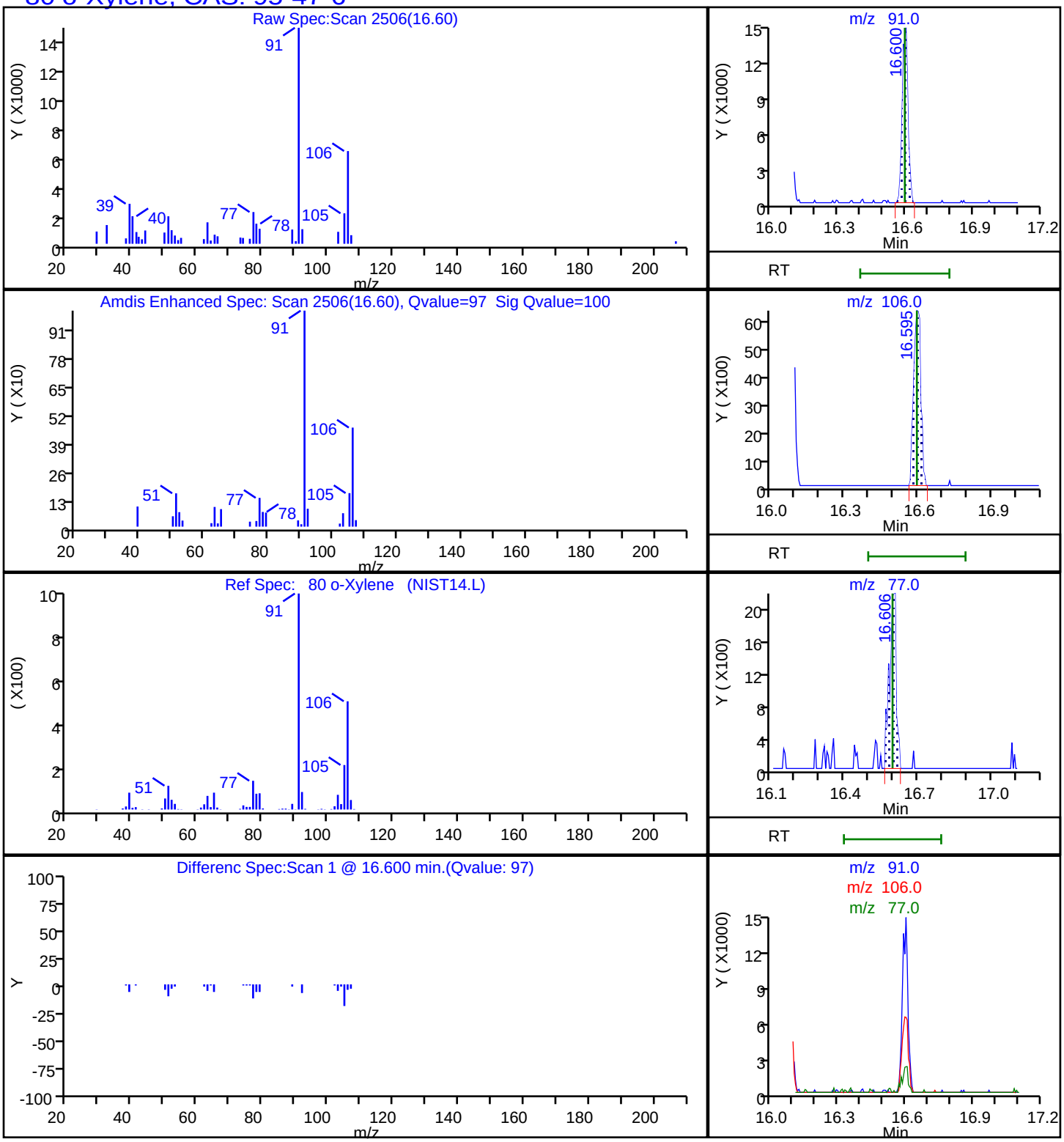
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P107.D		
Injection Date:	19-Aug-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16367-A-19	Lab Sample ID:	140-16367-19
Client ID:	IA-101-B-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 05-Aug-2019 15:09:30 ALS Bottle#: 3 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-002
Misc. Info.: 245075
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:28 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	87	451712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2473673	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2154864	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	93	1461274	4.00	3.90	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	1710736	8.00	7.46	
7 Propene	41	3.834	3.839	-0.005	95	770844	8.00	6.86	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	3306512	8.00	7.42	
9 Chloromethane	52	4.082	4.085	-0.003	97	222416	8.00	6.88	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	90	1793395	8.00	7.07	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	1374626	40.0	38.5	
12 Vinyl chloride	62	4.266	4.266	0.000	99	845319	8.00	7.17	
13 Butane	43	4.357	4.360	-0.003	82	1250581	8.00	7.42	
14 Butadiene	54	4.357	4.360	-0.003	72	660584	8.00	7.70	
15 Bromomethane	94	4.697	4.699	-0.002	97	793864	8.00	7.40	
16 Chloroethane	64	4.848	4.849	-0.001	92	401160	8.00	7.65	
17 Ethanol	31	4.961	4.983	-0.022	99	1504209	40.0	41.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	737450	8.00	7.84	
19 2-Methylbutane	43	5.220	5.219	0.001	89	822472	8.00	7.70	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	100	2830484	8.00	7.87	
21 Acrolein	56	5.463	5.472	-0.009	97	141090	8.00	9.05	
22 Acetonitrile	40	5.533	5.537	-0.004	97	243930	8.00	9.36	
23 Acetone	58	5.576	5.604	-0.028	100	768726	24.0	25.2	
24 Pentane	72	5.678	5.682	-0.004	94	120009	8.00	7.89	
25 Isopropyl alcohol	45	5.678	5.726	-0.048	93	2151424	24.0	24.7	
26 Ethyl ether	31	5.851	5.869	-0.018	93	551656	8.00	8.59	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	96	961786	8.00	7.47	
28 Acrylonitrile	53	6.293	6.304	-0.011	91	555382	8.00	8.81	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	2112949	8.00	7.50	
30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	1599691	8.00	8.26	
31 Methylene Chloride	84	6.546	6.545	0.001	95	849405	8.00	6.79	
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1009854	8.00	8.17	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.714	6.713	0.001	100	2725404	8.00	7.87	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	97	979238	8.00	7.60	
35 2-Methylpentane	43	7.393	7.393	0.000	91	1987860	8.00	7.47	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	2948147	8.00	8.50	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1925083	8.00	7.79	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	2242940	8.00	9.43	
40 Hexane	56	8.391	8.392	-0.001	90	800390	8.00	7.76	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	412248	8.00	8.42	
41 Isopropyl ether	45	8.552	8.569	-0.017	94	2770096	8.00	8.42	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	96	1050648	8.00	7.95	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	1884143	8.00	8.90	
44 Chloroform	83	9.162	9.157	0.005	97	2472840	8.00	8.07	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	3154212	8.00	8.48	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	915126	8.00	8.36	
47 1,1,1-Trichloroethane	97	10.203	10.198	0.004	95	2925648	8.00	7.96	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	99	1813560	8.00	7.96	
49 Cyclohexane	69	10.790	10.788	0.002	76	458824	8.00	6.70	
50 Benzene	78	10.790	10.788	0.002	98	2602460	8.00	7.04	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	3044571	8.00	8.10	
51 n-Butanol	31	10.758	10.822	-0.064	77	260359	8.00	8.41	
53 2,3-Dimethylpentane	71	10.904	10.900	0.004	88	686659	8.00	7.30	
54 Thiophene	84	11.065	11.057	0.008	97	1698039	8.00	7.77	
55 Isooctane	57	11.534	11.531	0.003	97	4508895	8.00	6.95	
56 n-Heptane	71	11.901	11.898	0.003	88	1058004	8.00	7.35	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	991233	8.00	7.60	
58 Trichloroethene	130	12.025	12.022	0.003	98	1507633	8.00	7.31	
59 Dibromomethane	93	12.111	12.108	0.003	92	1198582	8.00	7.72	
60 Dichlorobromomethane	83	12.252	12.249	0.003	99	2599570	8.00	8.33	
61 1,4-Dioxane	88	12.268	12.304	-0.036	89	355892	8.00	6.62	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1196941	8.00	8.62	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	1859316	8.00	7.13	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	1661149	8.00	8.47	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	1750155	8.00	8.02	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	1765828	8.00	8.88	
67 Toluene	91	14.047	14.046	0.001	94	3427935	8.00	8.09	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	98	971053	8.00	7.82	
69 2-Hexanone	58	14.500	14.514	-0.014	95	821892	8.00	7.98	
70 n-Octane	85	14.716	14.714	0.002	88	1194484	8.00	7.75	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	2731534	8.00	9.08	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1942792	8.00	8.43	
73 Tetrachloroethene	129	15.180	15.176	0.004	95	1448244	8.00	7.38	
75 Chlorobenzene	112	16.048	16.044	0.004	91	2554935	8.00	7.23	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	89	2603666	8.00	6.41	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	4591648	8.00	8.18	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	6873741	16.0	15.7	
80 n-Nonane	57	16.894	16.891	0.003	85	1974700	8.00	7.33	
81 Bromoform	173	16.943	16.943	0.000	94	2587360	8.00	9.48	
82 Styrene	104	16.954	16.951	0.003	97	2313599	8.00	8.06	
83 o-Xylene	91	17.013	17.012	0.001	98	3781529	8.00	7.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	2175269	8.00	7.82	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	96	889000	8.00	8.24	
86 Isopropylbenzene	105	17.595	17.592	0.003	97	5054165	8.00	7.80	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.000	99	1458598	8.00	8.04	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	1349589	8.00	7.71	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	5058724	8.00	7.96	
90 1,3,5-Trimethylbenzene	120	18.340	18.335	0.005	92	2101833	8.00	7.90	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	2211925	8.00	8.98	
93 n-Decane	57	18.609	18.606	0.003	95	2137953	8.00	6.22	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	4312361	8.00	7.14	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	3968365	8.00	7.02	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	5352154	8.00	6.76	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	2903324	8.00	7.29	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	3561090	8.00	8.12	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	2902889	8.00	7.22	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	96	5072526	8.00	7.22	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	4190174	8.00	8.22	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	2648672	8.00	5.95	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	3274469	8.00	6.35	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	96	2618202	8.00	6.99	
105 n-Butylbenzene	91	19.596	19.596	0.000	94	3820712	8.00	6.08	
106 Indene	116	19.601	19.598	0.003	84	2920360	8.00	6.79	
107 Undecane	57	19.893	19.893	0.000	91	2084469	8.00	7.47	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	1666153	8.00	8.73	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	4728508	8.00	7.12	
110 Dodecane	57	20.944	20.944	0.000	94	1769673	8.00	8.05	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	2608671	8.00	7.83	
112 Naphthalene	128	21.300	21.297	0.003	98	4986554	8.00	7.26	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	2597769	8.00	8.03	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	2232436	8.00	7.25	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	2760596	8.00	11.5	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	2543638	8.00	11.1	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	9972663	8.00	7.80	
S 123 1,2-Dichloroethene, Total	1				0		16.0	15.5	
S 124 Xylenes, Total	100				0		24.0	23.6	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

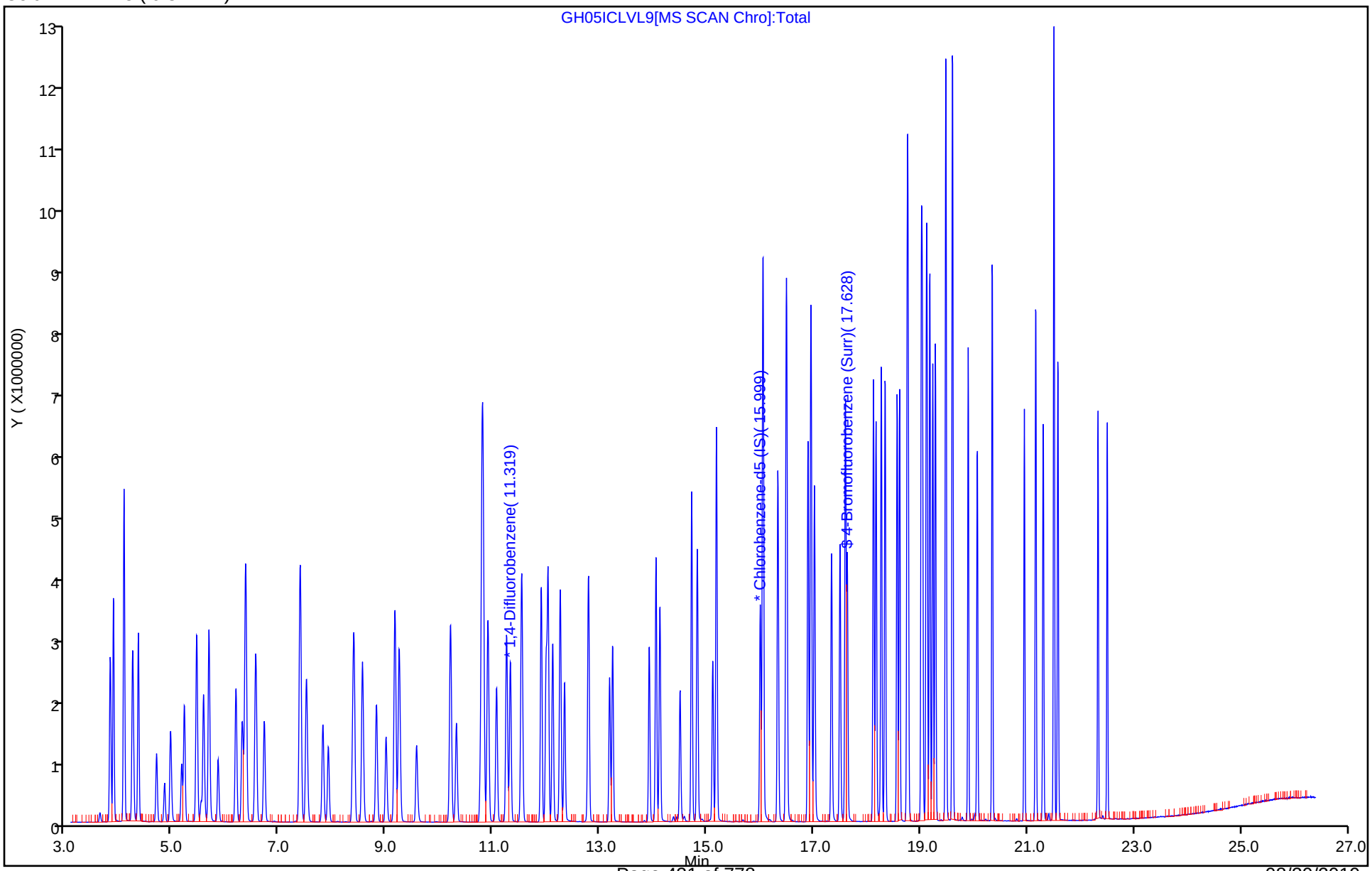
Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D

Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

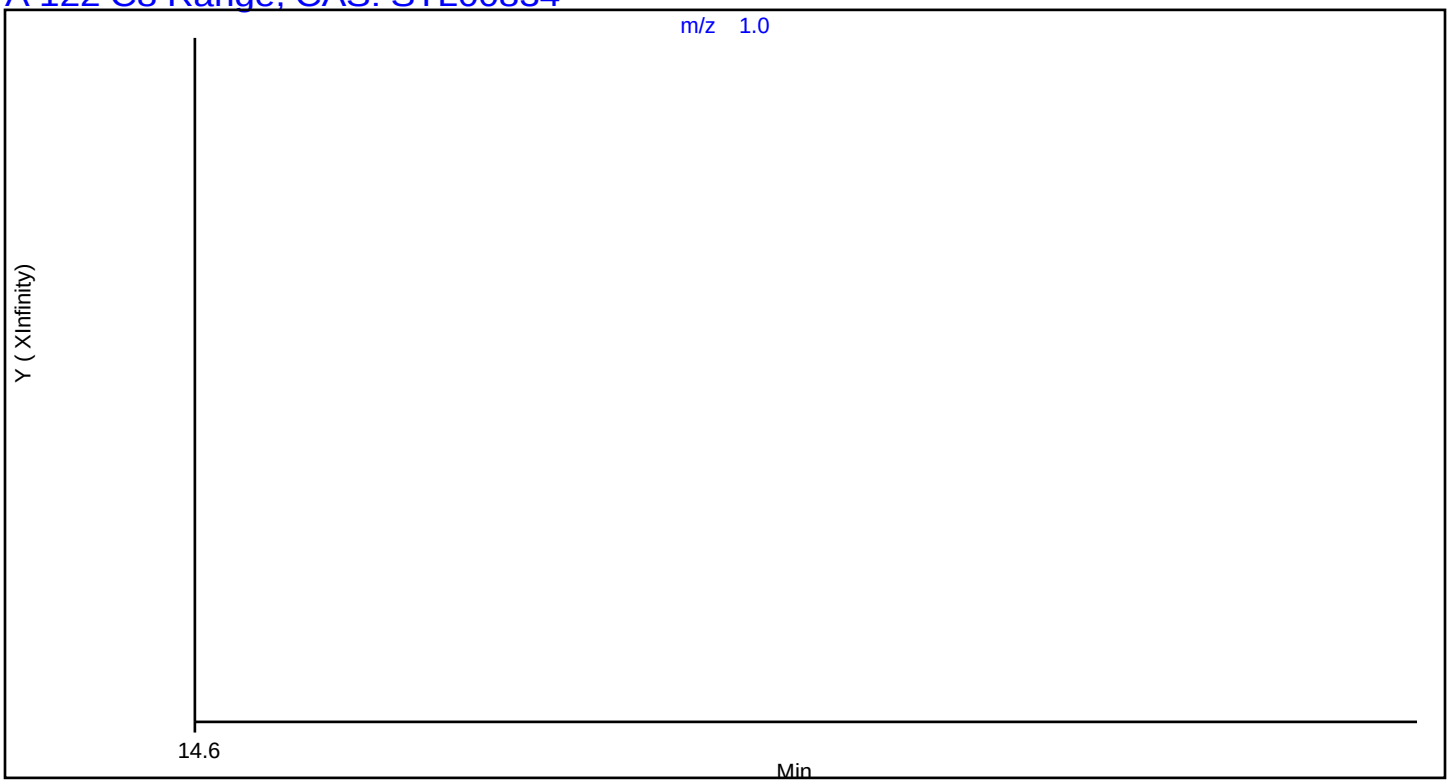


Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D				
Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 05-Aug-2019 16:33:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-004
Misc. Info.: 245074
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:44 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 05-Aug-2019 17:21:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	84	436852	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	94	2327802	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2072045	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.625	0.008	94	1314099	4.00	3.65	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	3413750	16.0	15.4	
7 Propene	41	3.839	3.839	0.000	96	1470598	16.0	13.5	
8 Dichlorodifluoromethane	85	3.893	3.891	0.002	100	6628673	16.0	15.4	
9 Chloromethane	52	4.082	4.085	-0.003	96	404402	16.0	12.9	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	96	3536586	16.0	14.4	
11 Acetaldehyde	44	4.249	4.261	-0.012	94	2344274	80.0	68.0	
12 Vinyl chloride	62	4.265	4.266	-0.001	100	1597085	16.0	14.0	
13 Butane	43	4.357	4.360	-0.003	82	2312485	16.0	14.2	
14 Butadiene	54	4.357	4.360	-0.003	72	1240321	16.0	14.9	
15 Bromomethane	94	4.697	4.699	-0.002	97	1593069	16.0	15.3	
16 Chloroethane	64	4.848	4.849	-0.001	92	775358	16.0	15.3	
17 Ethanol	31	4.966	4.983	-0.017	99	2765105	80.0	78.7	
18 Vinyl bromide	106	5.171	5.168	0.003	97	1469342	16.0	16.1	
19 2-Methylbutane	43	5.220	5.219	0.001	87	1509461	16.0	14.6	
20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	5652401	16.0	16.2	
21 Acrolein	56	5.468	5.472	-0.004	97	236667	16.0	15.7	
22 Acetonitrile	40	5.538	5.537	0.001	94	380086	16.0	15.1	
23 Acetone	58	5.581	5.604	-0.023	100	1191830	48.0	40.3	
24 Pentane	72	5.684	5.682	0.002	94	211194	16.0	14.4	
25 Isopropyl alcohol	45	5.689	5.726	-0.037	96	3856427	48.0	45.7	
26 Ethyl ether	31	5.851	5.869	-0.018	90	874287	16.0	14.1	
27 1,1-Dichloroethene	96	6.190	6.185	0.005	97	1887057	16.0	15.2	
28 Acrylonitrile	53	6.304	6.304	0.000	93	913756	16.0	15.0	
29 1,1,2-Trichloro-1,2,2-trif	101	6.368	6.365	0.003	93	3894500	16.0	14.3	
30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	2988690	16.0	16.0	
31 Methylene Chloride	84	6.552	6.545	0.007	93	1554645	16.0	12.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1801075	16.0	15.1	
33 Carbon disulfide	76	6.719	6.713	0.006	99	5213697	16.0	15.6	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	98	1787324	16.0	14.3	
35 2-Methylpentane	43	7.393	7.393	0.000	91	3287427	16.0	12.8	
36 Methyl tert-butyl ether	73	7.501	7.541	-0.040	95	4997147	16.0	14.9	
37 1,1-Dichloroethane	63	7.814	7.808	0.006	100	3481885	16.0	14.6	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	3544424	16.0	15.4	
40 Hexane	56	8.396	8.392	0.004	88	1353149	16.0	13.6	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	688610	16.0	14.5	
41 Isopropyl ether	45	8.558	8.569	-0.011	92	4448498	16.0	14.0	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	95	1957380	16.0	15.3	
43 Ethyl acetate	43	8.995	9.002	-0.008	99	2981386	16.0	14.6	
44 Chloroform	83	9.167	9.157	0.010	97	4468981	16.0	15.1	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	5188982	16.0	14.4	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	87	1479241	16.0	14.0	
47 1,1,1-Trichloroethane	97	10.202	10.198	0.004	94	5426403	16.0	15.3	
48 1,2-Dichloroethane	62	10.316	10.305	0.011	99	3322146	16.0	15.5	
49 Cyclohexane	69	10.790	10.788	0.002	80	708818	16.0	11.0	
50 Benzene	78	10.796	10.788	0.008	98	4041029	16.0	11.6	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	5441196	16.0	15.4	
51 n-Butanol	31	10.752	10.822	-0.070	79	457330	16.0	15.7	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	1144193	16.0	12.9	
54 Thiophene	84	11.065	11.057	0.008	96	3015307	16.0	14.7	
55 Isooctane	57	11.534	11.531	0.003	97	7197999	16.0	11.8	
56 n-Heptane	71	11.901	11.898	0.003	87	1720461	16.0	12.7	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	88	1535077	16.0	12.5	
58 Trichloroethene	130	12.030	12.022	0.008	97	2675360	16.0	13.8	
59 Dibromomethane	93	12.117	12.108	0.009	90	2107056	16.0	14.4	
60 Dichlorobromomethane	83	12.257	12.249	0.008	99	4486346	16.0	15.3	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	602252	16.0	11.9	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1868074	16.0	14.3	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	3054841	16.0	12.4	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	95	2937214	16.0	15.9	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	2978739	16.0	14.5	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	3066168	16.0	16.0	
67 Toluene	91	14.053	14.046	0.007	94	5640299	16.0	13.8	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	96	1577758	16.0	13.2	
69 2-Hexanone	58	14.500	14.514	-0.014	96	1484205	16.0	15.0	
70 n-Octane	85	14.716	14.714	0.002	86	1912459	16.0	12.9	
71 Chlorodibromomethane	129	14.824	14.818	0.006	97	4881466	16.0	16.9	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	3363399	16.0	15.2	
73 Tetrachloroethene	129	15.180	15.176	0.004	94	2458714	16.0	13.0	
75 Chlorobenzene	112	16.048	16.044	0.004	92	3953266	16.0	11.6	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	3521924	16.0	9.02	
78 Ethylbenzene	91	16.334	16.329	0.005	98	7288603	16.0	13.5	
79 m-Xylene & p-Xylene	91	16.495	16.488	0.007	99	10283215	32.0	24.4	
80 n-Nonane	57	16.894	16.891	0.003	82	2811123	16.0	10.9	
81 Bromoform	173	16.948	16.943	0.005	97	4458642	16.0	17.0	
82 Styrene	104	16.959	16.951	0.008	96	3390433	16.0	12.3	
83 o-Xylene	91	17.018	17.012	0.006	98	5806893	16.0	12.7	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.002	95	3245579	16.0	12.1	
85 1,2,3-Trichloropropane	110	17.498	17.489	0.009	94	1444098	16.0	13.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	97	7721441	16.0	12.4	
87 N-Propylbenzene	120	18.124	18.118	0.006	99	2263933	16.0	13.0	
88 2-Chlorotoluene	126	18.172	18.166	0.006	96	2118839	16.0	12.6	
89 4-Ethyltoluene	105	18.269	18.264	0.005	97	7560446	16.0	12.4	
90 1,3,5-Trimethylbenzene	120	18.339	18.335	0.004	92	3107751	16.0	12.1	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	89	3376616	16.0	14.3	
93 n-Decane	57	18.609	18.606	0.003	96	2784766	16.0	8.42	
94 tert-Butylbenzene	119	18.755	18.750	0.005	90	6236972	16.0	10.7	
95 1,2,4-Trimethylbenzene	105	18.771	18.763	0.008	96	5565578	16.0	10.2	
96 sec-Butylbenzene	105	19.019	19.014	0.005	96	7461784	16.0	9.80	
97 1,3-Dichlorobenzene	146	19.040	19.034	0.006	98	4320607	16.0	11.3	
98 Benzyl chloride	91	19.111	19.106	0.005	98	5005951	16.0	11.9	
99 1,4-Dichlorobenzene	146	19.127	19.119	0.008	95	4234206	16.0	11.0	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	95	7166043	16.0	10.6	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	5940721	16.0	12.1	
102 Butylcyclohexane	83	19.283	19.276	0.007	89	3436205	16.0	8.03	
103 2,3-Dihydroindene	117	19.477	19.470	0.007	93	4483614	16.0	9.04	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	95	3849848	16.0	10.7	
105 n-Butylbenzene	91	19.601	19.596	0.005	97	5132732	16.0	8.49	
106 Indene	116	19.601	19.598	0.003	90	4001471	16.0	9.67	
107 Undecane	57	19.892	19.893	-0.001	91	2637759	16.0	9.83	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	2473525	16.0	13.5	
109 1,2,4,5-Tetramethylbenzene	119	20.345	20.341	0.004	96	7095902	16.0	11.1	
110 Dodecane	57	20.944	20.944	0.000	89	2379982	16.0	11.3	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	4129061	16.0	12.9	
112 Naphthalene	128	21.300	21.297	0.003	98	7968446	16.0	12.1	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	4260397	16.0	13.7	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	3656173	16.0	12.4	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	4148243	16.0	17.9	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	3655105	16.0	16.5	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	15510497	16.0	12.6	
S 123 1,2-Dichloroethene, Total	1				0		32.0	29.6	
S 124 Xylenes, Total	100				0		48.0	37.0	

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

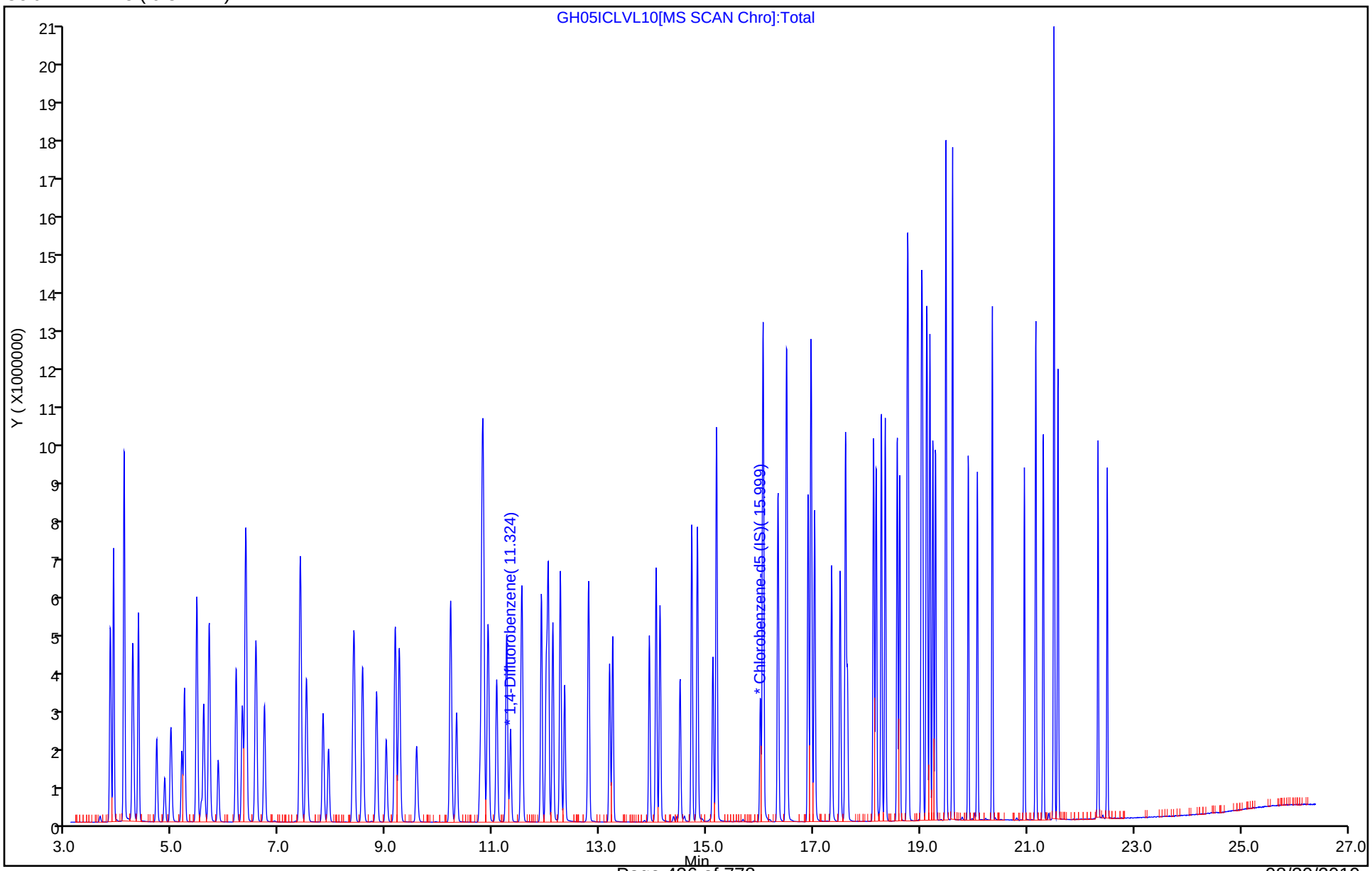
Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D

Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

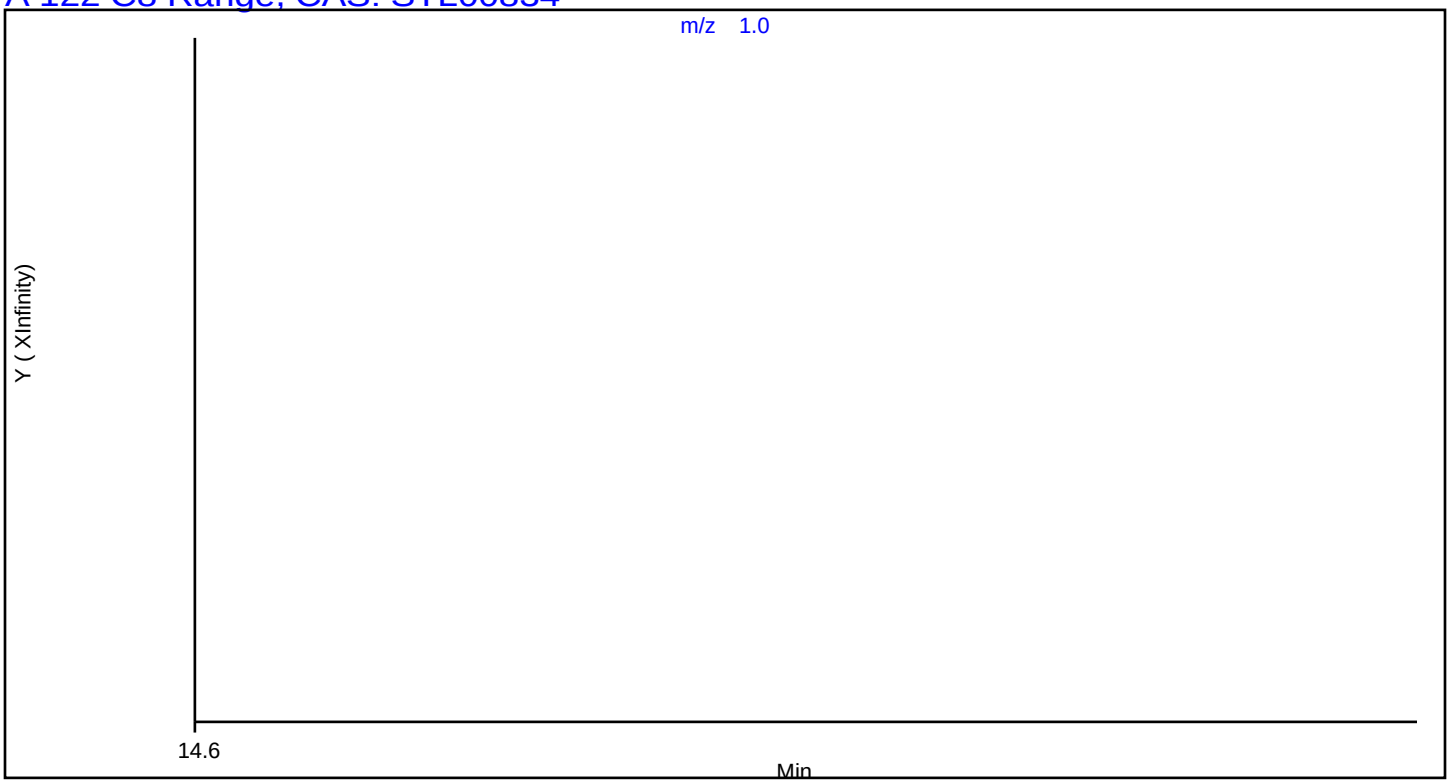


Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D				
Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Aug-2019 18:41:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-007
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:58 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:16:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.147	0.009	84	503396	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2696093	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	2370413	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	90	1675889	4.00	4.07	
6 Chlorodifluoromethane	51	3.845	3.826	0.019	39	4639	0.0200	0.0181	
7 Propene	41	3.856	3.839	0.017	96	47744	0.0200	0.3810	
8 Dichlorodifluoromethane	85	3.910	3.891	0.019	98	10373	0.0200	0.0209	
9 Chloromethane	52	4.104	4.085	0.019	55	1125	0.0200	0.0312	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.109	4.091	0.018	91	5686	0.0200	0.0201	
11 Acetaldehyde	44	4.303	4.261	0.042	91	8557	0.1000	0.2153	
12 Vinyl chloride	62	4.282	4.266	0.016	86	3255	0.0200	0.0248	
13 Butane	43	4.379	4.360	0.019	77	4892	0.0200	0.0261	
14 Butadiene	54	4.384	4.360	0.024	75	2010	0.0200	0.0210	
15 Bromomethane	94	4.724	4.699	0.025	64	2647	0.0200	0.0221	
16 Chloroethane	64	4.870	4.849	0.021	58	1559	0.0200	0.0267	
17 Ethanol	31	5.085	4.983	0.102	75	1843	0.1000	0.0455	
18 Vinyl bromide	106	5.182	5.168	0.014	57	2676	0.0200	0.0255	
19 2-Methylbutane	43	5.231	5.219	0.012	77	3108	0.0200	0.0261	
20 Trichlorofluoromethane	101	5.473	5.449	0.024	97	8334	0.0200	0.0208	
21 Acrolein	56	5.484	5.472	0.012	26	49	0.0200	0.002819	
23 Acetone	58	5.668	5.604	0.064	96	3377	0.0600	0.0992	
24 Pentane	72	5.711	5.682	0.029	77	494	0.0200	0.0292	
25 Isopropyl alcohol	45	5.867	5.726	0.141	94	5865	0.0600	0.0603	
26 Ethyl ether	31	5.878	5.869	0.009	27	248	0.0200	0.003464	
27 1,1-Dichloroethene	96	6.201	6.185	0.016	96	2843	0.0200	0.0198	
28 Acrylonitrile	53	6.358	6.304	0.054	64	1473	0.0200	0.0210	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.365	0.020	95	6606	0.0200	0.0210	
30 2-Methyl-2-propanol	59	6.568	6.376	0.192	42	3751	0.0200	0.0174	
31 Methylene Chloride	84	6.557	6.545	0.012	93	28622	0.0200	0.2052	
32 3-Chloro-1-propene	39	6.579	6.562	0.017	30	3937	0.0200	0.0286	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.719	6.713	0.006	78	8449	0.0200	0.0219	
34 trans-1,2-Dichloroethene	96	7.388	7.375	0.013	83	3184	0.0200	0.0222	
35 2-Methylpentane	43	7.420	7.393	0.027	84	6353	0.0200	0.0214	
36 Methyl tert-butyl ether	73	7.652	7.541	0.111	62	5429	0.0200	0.0140	
37 1,1-Dichloroethane	63	7.825	7.808	0.017	97	5975	0.0200	0.0217	
38 Vinyl acetate	43	7.965	7.921	0.044	93	3225	0.0200	0.0122	
40 Hexane	56	8.407	8.392	0.015	84	2589	0.0200	0.0225	
39 2-Butanone (MEK)	72	8.472	8.393	0.079	50	917	0.0200	0.0168	
42 cis-1,2-Dichloroethene	96	8.833	8.812	0.021	84	2993	0.0200	0.0203	
43 Ethyl acetate	43	8.952	9.002	-0.050	1	203	0.0200	0.000860	
44 Chloroform	83	9.167	9.157	0.010	28	7588	0.0200	0.0222	
45 Tert-butyl ethyl ether	59	9.351	9.270	0.081	85	4998	0.0200	0.0121	
46 Tetrahydrofuran	42	9.701	9.605	0.096	50	2156	0.0200	0.0177	
47 1,1,1-Trichloroethane	97	10.213	10.198	0.015	93	8172	0.0200	0.0200	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	77	5677	0.0200	0.0229	
49 Cyclohexane	69	10.807	10.788	0.018	65	2027	0.0200	0.0272	
50 Benzene	78	10.801	10.788	0.013	94	9905	0.0200	0.0246	
52 Carbon tetrachloride	117	10.828	10.811	0.017	76	6946	0.0200	0.0170	
51 n-Butanol	31	10.925	10.822	0.103	70	1648	0.0200	0.0488	
53 2,3-Dimethylpentane	71	10.914	10.900	0.014	85	2427	0.0200	0.0237	
54 Thiophene	84	11.055	11.057	-0.002	95	4301	0.0200	0.0181	
55 Isooctane	57	11.540	11.531	0.009	97	15152	0.0200	0.0214	
56 n-Heptane	71	11.912	11.898	0.014	81	3918	0.0200	0.0250	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	75	3728	0.0200	0.0262	
58 Trichloroethene	130	12.036	12.022	0.014	87	4559	0.0200	0.0203	
59 Dibromomethane	93	12.117	12.108	0.009	91	4130	0.0200	0.0244	
60 Dichlorobromomethane	83	12.262	12.249	0.013	95	6167	0.0200	0.0181	
61 1,4-Dioxane	88	12.397	12.304	0.093	1	636	0.0200	0.0109	
62 Methyl methacrylate	41	12.370	12.343	0.027	27	2350	0.0200	0.0155	
63 Methylcyclohexane	83	12.780	12.781	-0.001	91	6395	0.0200	0.0225	
64 4-Methyl-2-pentanone (MIBK	43	13.260	13.202	0.058	79	3756	0.0200	-0.0246	
65 cis-1,3-Dichloropropene	75	13.244	13.234	0.010	96	4963	0.0200	0.0209	
66 trans-1,3-Dichloropropene	75	13.929	13.919	0.010	95	3925	0.0200	0.0179	
67 Toluene	91	14.053	14.046	0.007	91	8854	0.0200	0.0190	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	92	2306	0.0200	0.0169	
69 2-Hexanone	58	14.554	14.514	0.040	90	1676	0.0200	0.0148	
70 n-Octane	85	14.716	14.714	0.002	85	3469	0.0200	0.0205	
71 Chlorodibromomethane	129	14.818	14.818	0.000	96	5178	0.0200	0.0157	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	4351	0.0200	0.0172	
73 Tetrachloroethene	129	15.180	15.176	0.004	90	4821	0.0200	0.0223	
75 Chlorobenzene	112	16.048	16.044	0.004	94	7876	0.0200	0.0202	
74 2,3-Dimethylheptane	43	16.059	16.052	0.007	86	8752	0.0200	0.0196	
78 Ethylbenzene	91	16.339	16.329	0.010	97	9958	0.0200	0.0161	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	98	16155	0.0400	0.0334	
80 n-Nonane	57	16.894	16.891	0.003	90	5240	0.0200	0.0177	
82 Styrene	104	16.954	16.951	0.003	94	3945	0.0200	0.0125	
83 o-Xylene	91	17.008	17.012	-0.004	96	7264	0.0200	0.0139	
84 1,1,2,2-Tetrachloroethane	83	17.342	17.334	0.008	91	4379	0.0200	0.0143	
85 1,2,3-Trichloropropane	110	17.482	17.489	-0.007	89	1821	0.0200	0.0153	
86 Isopropylbenzene	105	17.596	17.592	0.004	87	9713	0.0200	0.0136	
87 N-Propylbenzene	120	18.113	18.118	-0.005	99	3060	0.0200	0.0153	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	94	3403	0.0200	0.0177	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
89 4-Ethyltoluene	105	18.270	18.264	0.006	98	11438	0.0200	0.0164	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	91	4046	0.0200	0.0138	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	78	3169	0.0200	0.0117	
93 n-Decane	57	18.609	18.606	0.003	94	6429	0.0200	0.0170	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	9325	0.0200	0.0140	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	9370	0.0200	0.0151	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	13227	0.0200	0.0152	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	93	9138	0.0200	0.0209	
98 Benzyl chloride	91	19.111	19.106	0.005	96	7709	0.0200	0.0160	
99 1,4-Dichlorobenzene	146	19.122	19.119	0.003	93	9440	0.0200	0.0214	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	93	9956	0.0200	0.0129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	96	9424	0.0200	-0.0269	
102 Butylcyclohexane	83	19.278	19.276	0.002	89	8516	0.0200	0.0174	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	92	10739	0.0200	0.0189	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	7703	0.0200	0.0187	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	9276	0.0200	0.0134	
106 Indene	116	19.601	19.598	0.003	83	7955	0.0200	0.0168	
107 Undecane	57	19.893	19.893	0.000	90	6993	0.0200	0.0228	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	78	2463	0.0200	0.0117	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	94	11610	0.0200	0.0159	
110 Dodecane	57	20.944	20.944	0.000	96	7087	0.0200	0.0293	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	11162	0.0200	0.0304	
112 Naphthalene	128	21.300	21.297	0.003	98	23386	0.0200	0.0310	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	86	7011	0.0200	0.0197	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	92	12351	0.0200	0.0365	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	22376	0.0200	0.0844	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	97	28876	0.0200	0.1142	
A 122 C8 Range	1	14.711	(14.668-14.754)		0	35633	0.0200	0.0253	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0425	
S 124 Xylenes, Total	100				0		0.0600	0.0473	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

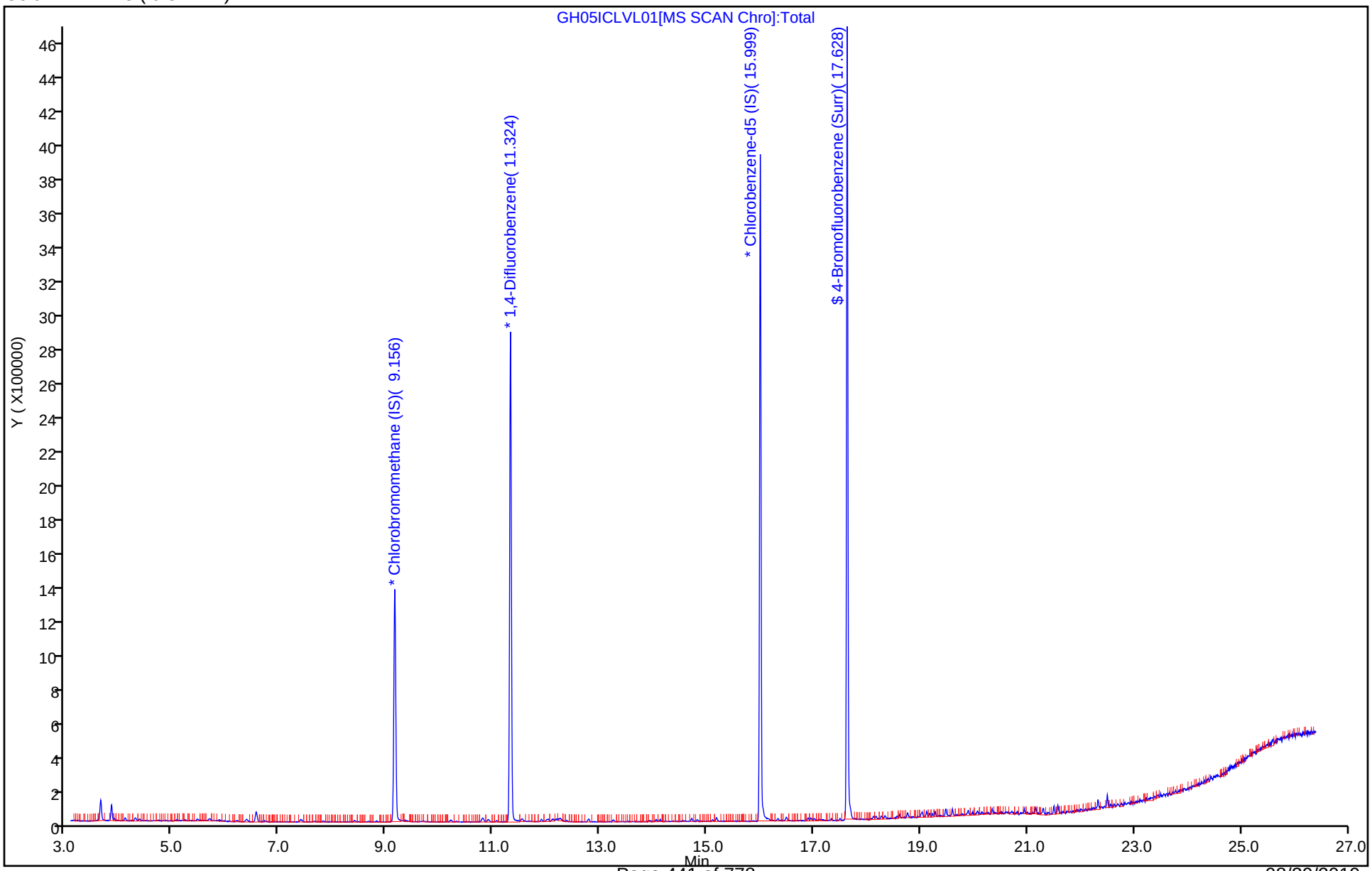
Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D

Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

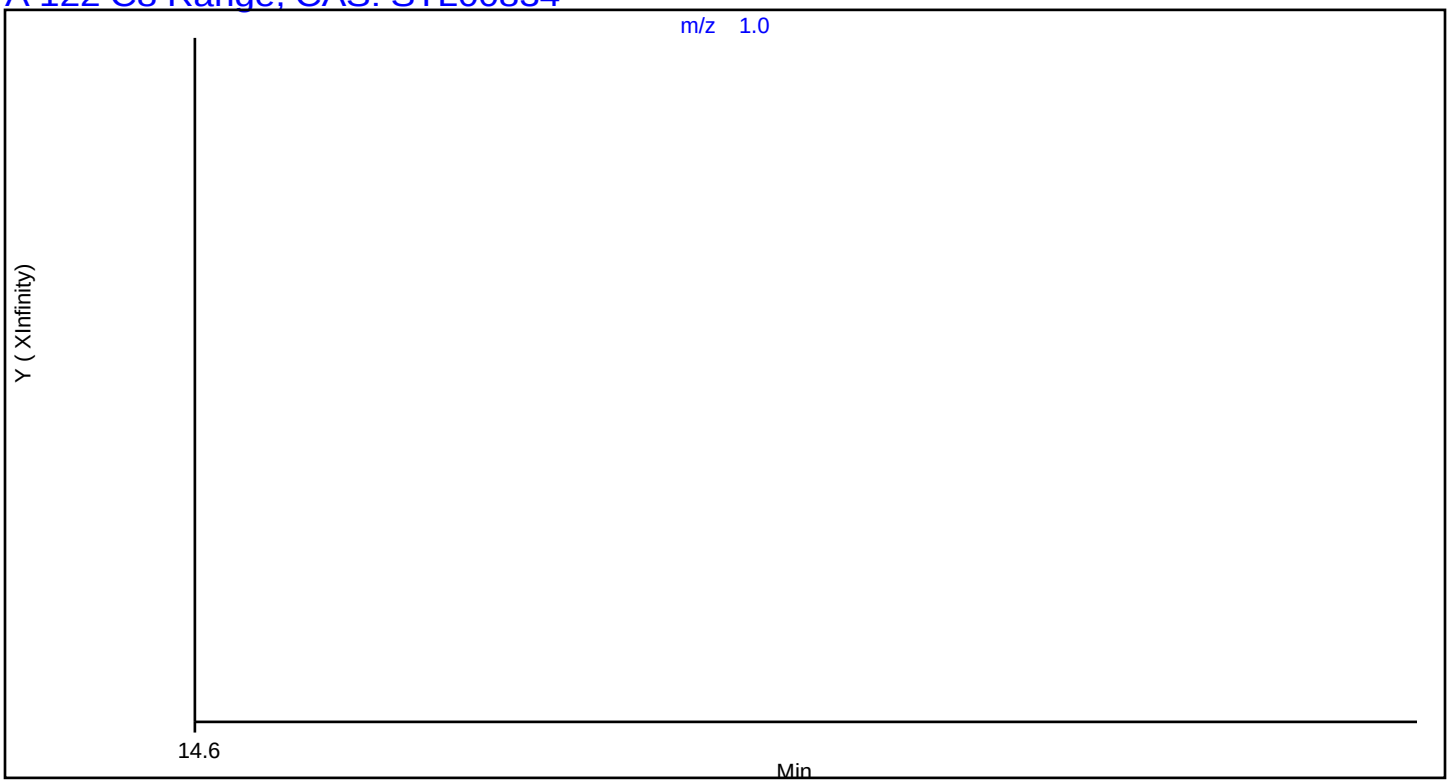


Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D				
Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Aug-2019 19:23:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-008
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:09 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:18:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	482772	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2397205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2207916	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	91	1583394	4.00	4.13	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	44	11229	0.0400	0.0458	
7 Propene	41	3.839	3.839	0.000	97	54550	0.0400	0.4539	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	98	20271	0.0400	0.0426	
9 Chloromethane	52	4.088	4.085	0.003	60	2094	0.0400	0.0606	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	88	12377	0.0400	0.0457	
11 Acetaldehyde	44	4.271	4.261	0.010	94	16177	0.2000	0.4244	
12 Vinyl chloride	62	4.260	4.266	-0.006	49	5569	0.0400	0.0442	
13 Butane	43	4.357	4.360	-0.003	82	8400	0.0400	0.0467	
14 Butadiene	54	4.363	4.360	0.003	77	3760	0.0400	0.0410	
15 Bromomethane	94	4.691	4.699	-0.008	95	5860	0.0400	0.0511	
16 Chloroethane	64	4.842	4.849	-0.007	92	2583	0.0400	0.0461	
17 Ethanol	31	4.999	4.983	0.016	98	8546	0.2000	0.2201	
18 Vinyl bromide	106	5.166	5.168	-0.002	85	3350	0.0400	0.0333	
19 2-Methylbutane	43	5.220	5.219	0.001	88	6528	0.0400	0.0572	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	15499	0.0400	0.0403	
21 Acrolein	56	5.495	5.472	0.023	50	2102	0.0400	0.1261	
22 Acetonitrile	40	5.538	5.537	0.001	7	1959	0.0400	0.0703	
23 Acetone	58	5.635	5.604	0.031	98	5697	0.1200	0.1745	
24 Pentane	72	5.667	5.682	-0.015	88	716	0.0400	0.0441	
25 Isopropyl alcohol	45	5.765	5.726	0.039	86	5933	0.1200	0.0637	
26 Ethyl ether	31	5.899	5.869	0.030	84	3373	0.0400	0.0491	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	99	6820	0.0400	0.0496	
28 Acrylonitrile	53	6.298	6.304	-0.006	71	2836	0.0400	0.0421	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	13044	0.0400	0.0433	
30 2-Methyl-2-propanol	59	6.455	6.376	0.079	93	9562	0.0400	0.0462	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	31135	0.0400	0.2327	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	41	5777	0.0400	0.0437	
33 Carbon disulfide	76	6.719	6.713	0.006	99	15924	0.0400	0.0431	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	92	6348	0.0400	0.0461	
35 2-Methylpentane	43	7.393	7.393	0.000	90	12086	0.0400	0.0425	
36 Methyl tert-butyl ether	73	7.582	7.541	0.041	94	13012	0.0400	0.0351	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	99	11175	0.0400	0.0423	
38 Vinyl acetate	43	7.932	7.921	0.011	100	8908	0.0400	0.0350	
40 Hexane	56	8.391	8.392	-0.001	88	4994	0.0400	0.0453	
39 2-Butanone (MEK)	72	8.423	8.393	0.030	63	2836	0.0400	0.0542	
41 Isopropyl ether	45	8.606	8.569	0.037	97	13349	0.0400	0.0380	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	6151	0.0400	0.0435	
43 Ethyl acetate	43	9.038	9.002	0.036	99	8456	0.0400	0.0374	
44 Chloroform	83	9.151	9.157	-0.006	28	14008	0.0400	0.0428	
45 Tert-butyl ethyl ether	59	9.307	9.270	0.037	96	14864	0.0400	0.0374	
46 Tetrahydrofuran	42	9.652	9.605	0.047	90	4833	0.0400	0.0413	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	94	15594	0.0400	0.0397	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	98	9325	0.0400	0.0423	
49 Cyclohexane	69	10.790	10.788	0.002	73	2652	0.0400	0.0400	
50 Benzene	78	10.779	10.788	-0.009	98	18589	0.0400	0.0519	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	90	15371	0.0400	0.0422	
51 n-Butanol	31	10.925	10.822	0.103	69	337	0.0400	0.0112	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	5253	0.0400	0.0576	
54 Thiophene	84	11.054	11.057	-0.003	92	10109	0.0400	0.0477	
55 Isooctane	57	11.534	11.531	0.003	97	28411	0.0400	0.0452	
56 n-Heptane	71	11.896	11.898	-0.002	86	5956	0.0400	0.0427	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	84	6335	0.0400	0.0501	
58 Trichloroethene	130	12.014	12.022	-0.008	94	8720	0.0400	0.0436	
59 Dibromomethane	93	12.101	12.108	-0.007	88	6468	0.0400	0.0430	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	92	11428	0.0400	0.0378	
61 1,4-Dioxane	88	12.349	12.304	0.045	61	2396	0.0400	0.0460	
62 Methyl methacrylate	41	12.354	12.343	0.011	94	3820	0.0400	0.0284	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	11761	0.0400	0.0465	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.202	0.020	90	9462	0.0400	0.007723	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	92	8379	0.0400	0.0396	
66 trans-1,3-Dichloropropene	75	13.912	13.919	-0.007	96	7827	0.0400	0.0384	
67 Toluene	91	14.053	14.046	0.007	95	16916	0.0400	0.0390	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	93	5515	0.0400	0.0434	
69 2-Hexanone	58	14.538	14.514	0.024	93	4506	0.0400	0.0427	
70 n-Octane	85	14.716	14.714	0.002	89	7087	0.0400	0.0449	
71 Chlorodibromomethane	129	14.813	14.818	-0.005	95	9163	0.0400	0.0297	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	94	8811	0.0400	0.0373	
73 Tetrachloroethene	129	15.174	15.176	-0.002	93	8734	0.0400	0.0435	
75 Chlorobenzene	112	16.042	16.044	-0.002	90	15314	0.0400	0.0423	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	17137	0.0400	0.0412	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	22256	0.0400	0.0387	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	35105	0.0800	0.0780	
80 n-Nonane	57	16.889	16.891	-0.002	87	11562	0.0400	0.0419	
81 Bromoform	173	16.943	16.943	0.000	72	7804	0.0400	0.0279	
82 Styrene	104	16.948	16.951	-0.003	92	10396	0.0400	0.0353	
83 o-Xylene	91	17.008	17.012	-0.004	98	18816	0.0400	0.0386	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.003	95	11164	0.0400	0.0392	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	3959	0.0400	0.0358	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	94	25366	0.0400	0.0382	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	6796	0.0400	0.0366	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	7294	0.0400	0.0407	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	97	22791	0.0400	0.0350	
90 1,3,5-Trimethylbenzene	120	18.329	18.335	-0.006	92	10004	0.0400	0.0367	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	88	7865	0.0400	0.0312	
93 n-Decane	57	18.604	18.606	-0.002	93	14677	0.0400	0.0416	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	21637	0.0400	0.0350	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	21744	0.0400	0.0375	
96 sec-Butylbenzene	105	19.014	19.014	0.000	99	30473	0.0400	0.0375	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	97	17973	0.0400	0.0440	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	16301	0.0400	0.0363	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	16568	0.0400	0.0402	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	25424	0.0400	0.0353	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	21872	0.0400	-0.001666	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	18898	0.0400	0.0414	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	20597	0.0400	0.0390	
104 1,2-Dichlorobenzene	146	19.467	19.472	-0.005	84	14692	0.0400	0.0383	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	25020	0.0400	0.0389	
106 Indene	116	19.596	19.598	-0.002	81	16014	0.0400	0.0363	
107 Undecane	57	19.893	19.893	0.000	95	15784	0.0400	0.0552	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	88	5408	0.0400	0.0277	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	95	27454	0.0400	0.0404	
110 Dodecane	57	20.944	20.944	0.000	95	15672	0.0400	0.0696	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	17630	0.0400	0.0516	
112 Naphthalene	128	21.300	21.297	0.003	98	36456	0.0400	0.0518	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	15384	0.0400	0.0464	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	18232	0.0400	0.0578	
115 2-Methylnaphthalene	142	22.325	22.325	-0.001	97	27146	0.0400	0.1099	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	32737	0.0400	0.1390	
A 122 C8 Range	1	14.705	(14.657-14.754)		0	60839	0.0400	0.0465	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0896	
S 124 Xylenes, Total	100				0		0.1200	0.1166	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

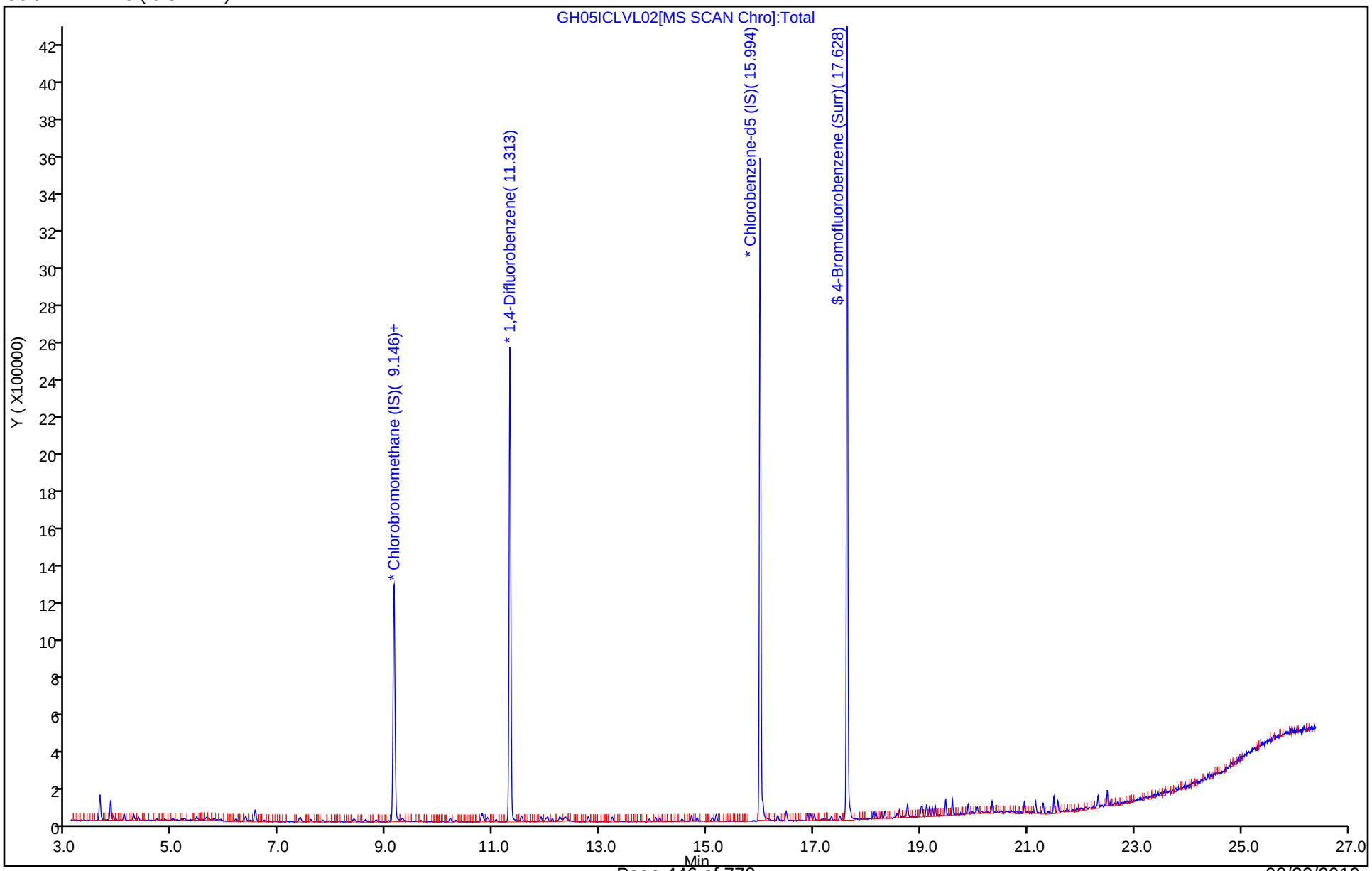
Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D

Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

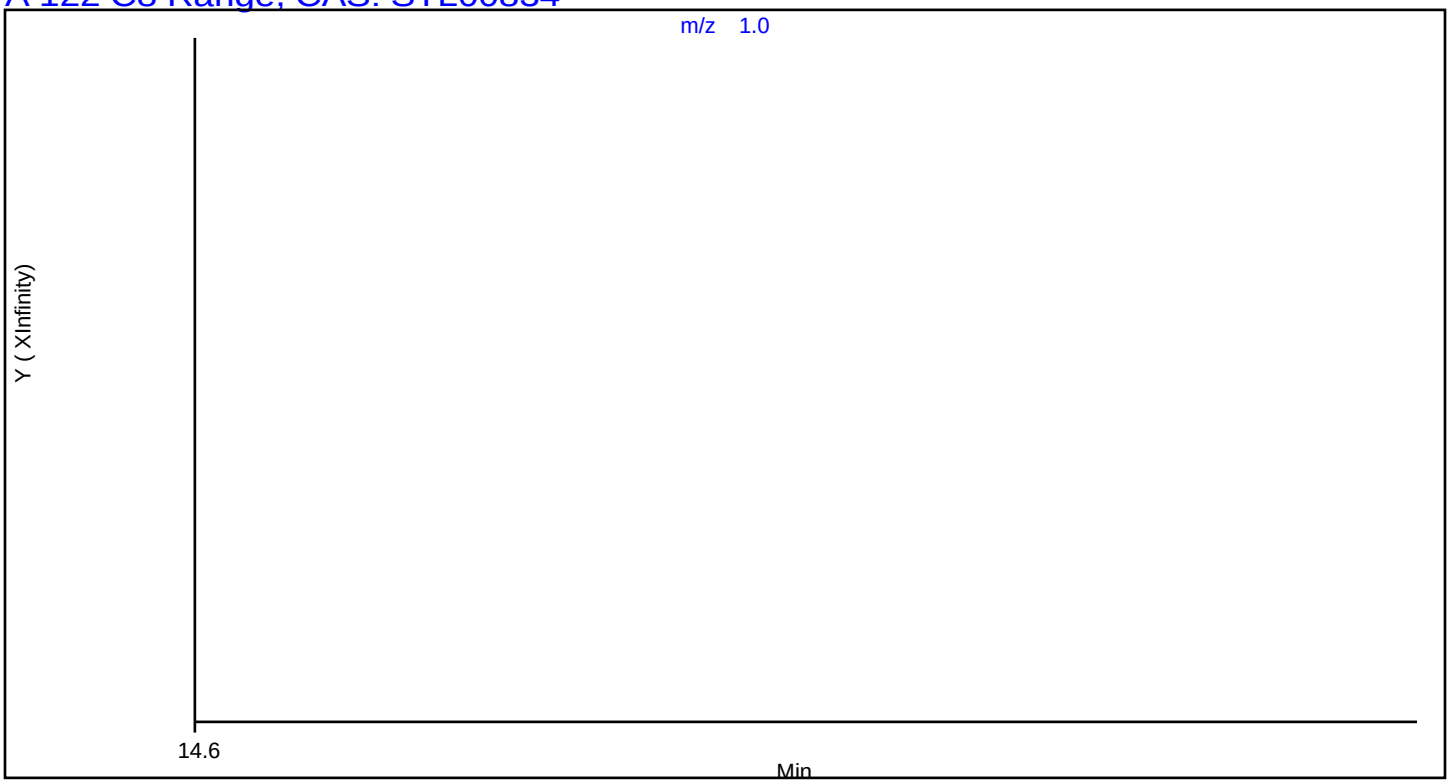


Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D				
Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Aug-2019 20:05:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-009
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:10:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	485074	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2275482	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	1993384	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1397416	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	77	20155	0.0800	0.0818	
7 Propene	41	3.839	3.839	0.000	96	56169	0.0800	0.4652	
8 Dichlorodifluoromethane	85	3.893	3.891	0.002	99	38252	0.0800	0.0799	
9 Chloromethane	52	4.087	4.085	0.002	53	4268	0.0800	0.1229	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	90	22040	0.0800	0.0809	
11 Acetaldehyde	44	4.271	4.261	0.010	94	28184	0.4000	0.7359	
12 Vinyl chloride	62	4.265	4.266	-0.001	51	10115	0.0800	0.0799	
13 Butane	43	4.362	4.360	0.002	81	15528	0.0800	0.0858	
14 Butadiene	54	4.357	4.360	-0.003	76	7695	0.0800	0.0835	
15 Bromomethane	94	4.702	4.699	0.003	94	9506	0.0800	0.0825	
16 Chloroethane	64	4.853	4.849	0.004	89	4628	0.0800	0.0822	
17 Ethanol	31	4.988	4.983	0.005	92	8178	0.4000	0.2096	
18 Vinyl bromide	106	5.171	5.168	0.003	90	8701	0.0800	0.0861	
19 2-Methylbutane	43	5.220	5.219	0.001	87	10969	0.0800	0.0956	
20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	29279	0.0800	0.0758	
21 Acrolein	56	5.473	5.472	0.001	53	3448	0.0800	0.2059	
22 Acetonitrile	40	5.538	5.537	0.001	80	2293	0.0800	0.0819	
23 Acetone	58	5.619	5.604	0.015	99	13952	0.2400	0.4253	
24 Pentane	72	5.700	5.682	0.018	86	1424	0.0800	0.0872	
25 Isopropyl alcohol	45	5.748	5.726	0.022	98	25117	0.2400	0.2682	
26 Ethyl ether	31	5.888	5.869	0.019	87	5869	0.0800	0.0851	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	95	10955	0.0800	0.0792	
28 Acrylonitrile	53	6.314	6.304	0.010	80	6165	0.0800	0.0911	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	24086	0.0800	0.0796	
30 2-Methyl-2-propanol	59	6.368	6.376	-0.008	39	279	0.0800	0.001342	
31 Methylene Chloride	84	6.546	6.545	0.001	95	35982	0.0800	0.2677	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	11032	0.0800	0.0831	
33 Carbon disulfide	76	6.714	6.713	0.001	98	28845	0.0800	0.0776	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	96	10482	0.0800	0.0757	
35 2-Methylpentane	43	7.388	7.393	-0.005	93	24678	0.0800	0.0863	
36 Methyl tert-butyl ether	73	7.566	7.541	0.025	94	32407	0.0800	0.0870	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	21834	0.0800	0.0823	
38 Vinyl acetate	43	7.921	7.921	0.000	99	19565	0.0800	0.0766	
40 Hexane	56	8.391	8.392	-0.001	89	9014	0.0800	0.0813	
39 2-Butanone (MEK)	72	8.401	8.393	0.008	98	6125	0.0800	0.1165	
41 Isopropyl ether	45	8.590	8.569	0.021	96	32748	0.0800	0.0927	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	92	11194	0.0800	0.0788	
43 Ethyl acetate	43	9.027	9.002	0.025	98	20750	0.0800	0.0912	
44 Chloroform	83	9.156	9.157	-0.001	92	25301	0.0800	0.0768	
45 Tert-butyl ethyl ether	59	9.291	9.270	0.021	94	34262	0.0800	0.0858	
46 Tetrahydrofuran	42	9.631	9.605	0.026	84	10783	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	93	32613	0.0800	0.0827	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	98	16034	0.0800	0.0765	
49 Cyclohexane	69	10.774	10.788	-0.014	70	5664	0.0800	0.0899	
50 Benzene	78	10.785	10.788	-0.003	97	31709	0.0800	0.0932	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	96	28324	0.0800	0.0819	
51 n-Butanol	31	10.855	10.822	0.033	69	3348	0.0800	0.1175	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	87	7931	0.0800	0.0916	
54 Thiophene	84	11.054	11.057	-0.003	95	16607	0.0800	0.0826	
55 Isooctane	57	11.529	11.531	-0.002	96	54294	0.0800	0.0910	
56 n-Heptane	71	11.901	11.898	0.003	87	11553	0.0800	0.0872	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	11379	0.0800	0.0948	
58 Trichloroethene	130	12.020	12.022	-0.002	95	16423	0.0800	0.0866	
59 Dibromomethane	93	12.106	12.108	-0.002	87	11862	0.0800	0.0830	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	23380	0.0800	0.0814	
61 1,4-Dioxane	88	12.327	12.304	0.023	74	4545	0.0800	0.0919	
62 Methyl methacrylate	41	12.349	12.343	0.006	94	11652	0.0800	0.0912	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	22506	0.0800	0.0938	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.202	0.015	95	22222	0.0800	0.0815	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	96	15241	0.0800	0.0759	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	14929	0.0800	0.0811	
67 Toluene	91	14.042	14.046	-0.004	95	33590	0.0800	0.0857	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	10086	0.0800	0.0879	
69 2-Hexanone	58	14.527	14.514	0.013	95	10527	0.0800	0.1105	
70 n-Octane	85	14.710	14.714	-0.004	88	12903	0.0800	0.0905	
71 Chlorodibromomethane	129	14.818	14.818	0.000	94	18912	0.0800	0.0680	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	16489	0.0800	0.0774	
73 Tetrachloroethene	129	15.174	15.176	-0.002	91	15990	0.0800	0.0881	
75 Chlorobenzene	112	16.042	16.044	-0.002	82	29816	0.0800	0.0912	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	93	35633	0.0800	0.0948	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	47492	0.0800	0.0915	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	100	75367	0.1600	0.1855	
80 n-Nonane	57	16.889	16.891	-0.002	87	22670	0.0800	0.0910	
81 Bromoform	173	16.943	16.943	0.000	53	13171	0.0800	0.0522	
82 Styrene	104	16.948	16.951	-0.003	98	21427	0.0800	0.0807	
83 o-Xylene	91	17.008	17.012	-0.004	97	39635	0.0800	0.0900	
84 1,1,2,2-Tetrachloroethane	83	17.336	17.334	0.002	98	24048	0.0800	0.0935	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	95	9770	0.0800	0.0978	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	96	57014	0.0800	0.0952	
87 N-Propylbenzene	120	18.113	18.118	-0.005	98	15620	0.0800	0.0931	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	14661	0.0800	0.0906	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	57587	0.0800	0.0980	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	24908	0.0800	0.1012	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	18349	0.0800	0.0805	
93 n-Decane	57	18.609	18.606	0.003	93	31130	0.0800	0.0978	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	54550	0.0800	0.0977	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	51351	0.0800	0.0981	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	72823	0.0800	0.0994	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	32567	0.0800	0.0884	
98 Benzyl chloride	91	19.105	19.106	-0.001	96	38098	0.0800	0.0939	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	36226	0.0800	0.0974	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	64942	0.0800	0.0999	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	50176	0.0800	0.0632	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	39366	0.0800	0.0956	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	46910	0.0800	0.0983	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	35966	0.0800	0.1038	
105 n-Butylbenzene	91	19.590	19.596	-0.006	97	60804	0.0800	0.1046	
106 Indene	116	19.601	19.598	0.003	84	38081	0.0800	0.0957	
107 Undecane	57	19.892	19.893	-0.001	93	37946	0.0800	0.1470	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	17478	0.0800	0.0990	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	66175	0.0800	0.1077	
110 Dodecane	57	20.944	20.944	0.000	96	34163	0.0800	0.1680	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	33145	0.0800	0.1075	
112 Naphthalene	128	21.294	21.297	-0.003	99	77307	0.0800	0.1217	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	21486	0.0800	0.0718	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	93	33405	0.0800	0.1173	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	45882	0.0800	0.2058	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	50300	0.0800	0.2365	
A 122 C8 Range	1	14.716	(14.668-14.764)		0	130441	0.0800	0.1103	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1546	
S 124 Xylenes, Total	100				0		0.2400	0.2756	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

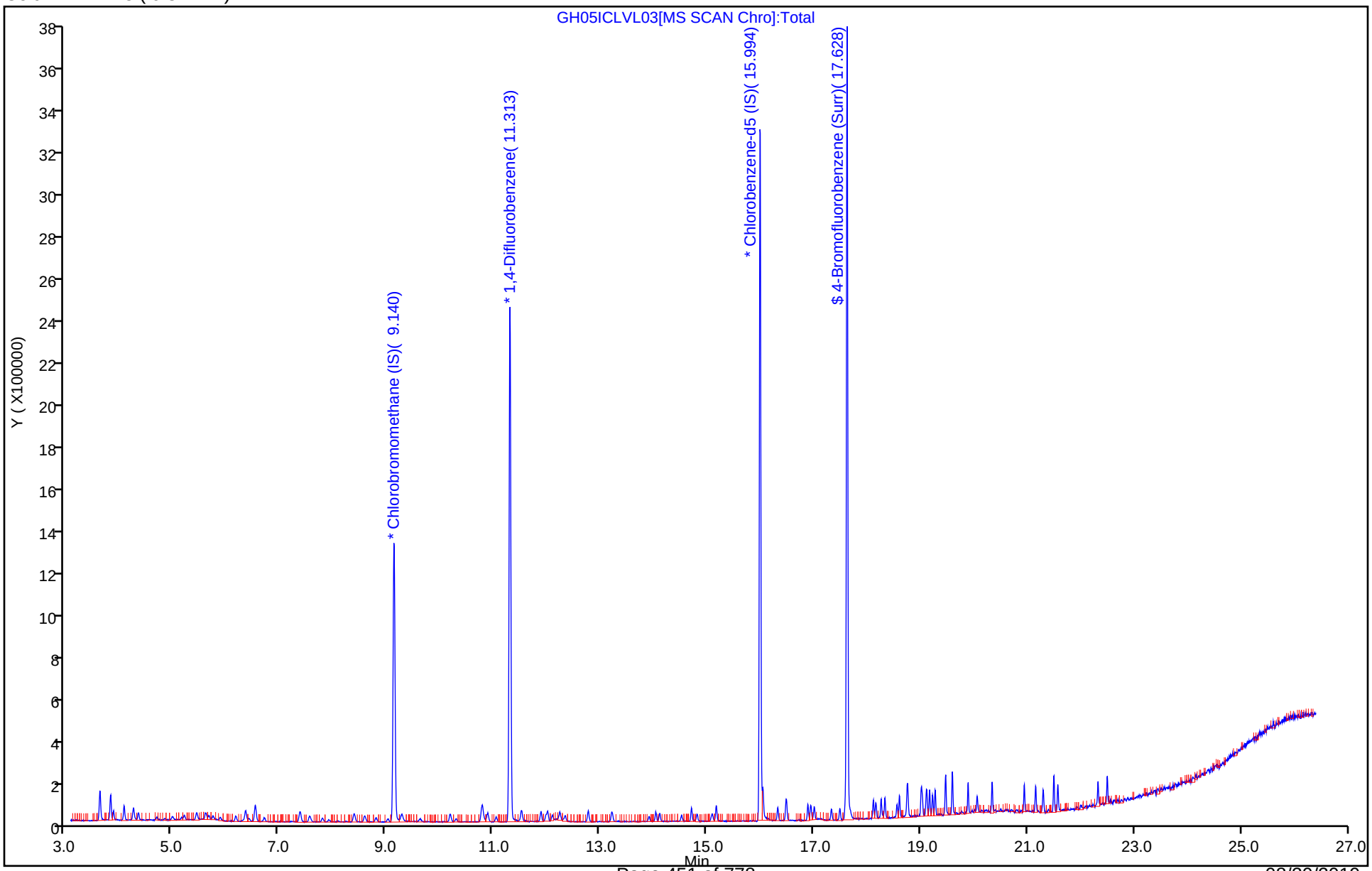
Report Date: 08-Aug-2019 11:05:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D

Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

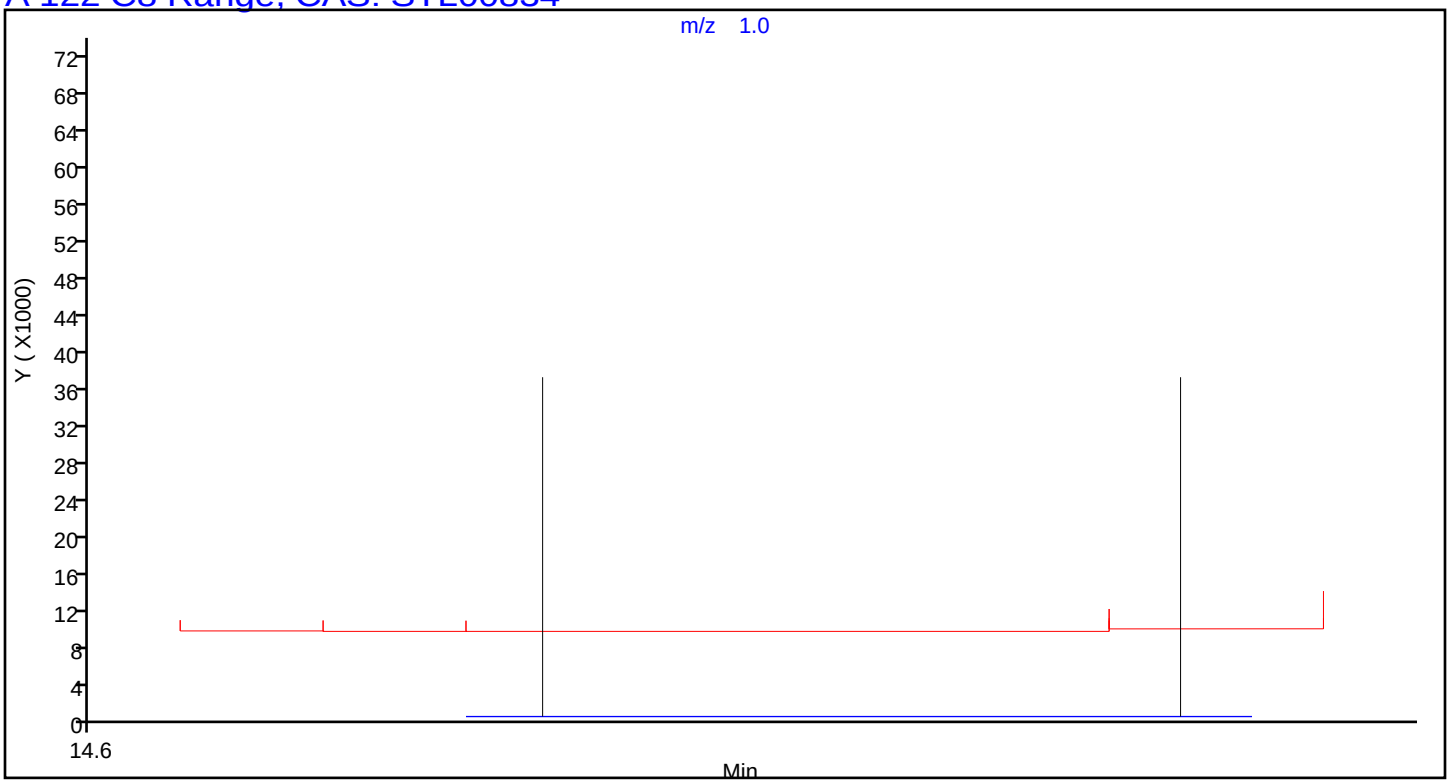


Report Date: 08-Aug-2019 11:05:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D				
Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Aug-2019 20:47:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-010
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:33 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:17:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	463991	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2062287	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	1864303	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1332067	4.00	4.11	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	95	43674	0.1600	0.1853	
7 Propene	41	3.839	3.839	0.000	96	66692	0.1600	0.5774	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	82655	0.1600	0.1805	
9 Chloromethane	52	4.077	4.085	-0.008	52	6860	0.1600	0.2065	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	92	45952	0.1600	0.1764	
11 Acetaldehyde	44	4.260	4.261	-0.001	95	32700	0.8000	0.8926	
12 Vinyl chloride	62	4.265	4.266	-0.001	74	21311	0.1600	0.1759	
13 Butane	43	4.357	4.360	-0.003	83	30690	0.1600	0.1773	
14 Butadiene	54	4.357	4.360	-0.003	70	15170	0.1600	0.1722	
15 Bromomethane	94	4.691	4.699	-0.008	94	19987	0.1600	0.1813	
16 Chloroethane	64	4.848	4.849	-0.001	93	9559	0.1600	0.1775	
17 Ethanol	31	4.983	4.983	0.000	98	34755	0.8000	0.9314	
18 Vinyl bromide	106	5.155	5.168	-0.013	97	17369	0.1600	0.1797	
19 2-Methylbutane	43	5.214	5.219	-0.005	90	20372	0.1600	0.1856	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	99	64158	0.1600	0.1736	
21 Acrolein	56	5.473	5.472	0.001	38	3102	0.1600	0.1936	
22 Acetonitrile	40	5.543	5.537	0.006	78	5733	0.1600	0.2142	
23 Acetone	58	5.608	5.604	0.004	100	18945	0.4800	0.6037	
24 Pentane	72	5.673	5.682	-0.009	96	3439	0.1600	0.2202	
25 Isopropyl alcohol	45	5.732	5.726	0.006	98	53127	0.4800	0.5930	
26 Ethyl ether	31	5.878	5.869	0.009	93	11079	0.1600	0.1679	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	23053	0.1600	0.1743	
28 Acrylonitrile	53	6.304	6.304	0.000	86	10005	0.1600	0.1545	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.365	-0.007	95	50455	0.1600	0.1743	
30 2-Methyl-2-propanol	59	6.390	6.376	0.014	95	40836	0.1600	0.2053	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	44923	0.1600	0.3494	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.552	6.562	-0.010	94	22705	0.1600	0.1788	
33 Carbon disulfide	76	6.703	6.713	-0.010	99	62846	0.1600	0.1768	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	96	22858	0.1600	0.1727	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	51137	0.1600	0.1870	
36 Methyl tert-butyl ether	73	7.544	7.541	0.003	95	65422	0.1600	0.1836	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	41560	0.1600	0.1638	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	38914	0.1600	0.1592	
40 Hexane	56	8.380	8.392	-0.012	85	20583	0.1600	0.1942	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	85	10171	0.1600	0.2022	
41 Isopropyl ether	45	8.579	8.569	0.010	94	60985	0.1600	0.1804	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	22936	0.1600	0.1689	
43 Ethyl acetate	43	9.016	9.002	0.014	98	39531	0.1600	0.1817	
44 Chloroform	83	9.151	9.157	-0.006	33	53830	0.1600	0.1709	
45 Tert-butyl ethyl ether	59	9.275	9.270	0.005	94	70720	0.1600	0.1852	
46 Tetrahydrofuran	42	9.609	9.605	0.004	93	21964	0.1600	0.1954	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	63703	0.1600	0.1688	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	33979	0.1600	0.1790	
49 Cyclohexane	69	10.779	10.788	-0.009	77	13114	0.1600	0.2298	
50 Benzene	78	10.785	10.788	-0.003	97	60976	0.1600	0.1978	
52 Carbon tetrachloride	117	10.801	10.811	-0.010	94	59505	0.1600	0.1899	
51 n-Butanol	31	10.828	10.822	0.006	45	6821	0.1600	0.2642	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	16080	0.1600	0.2049	
54 Thiophene	84	11.054	11.057	-0.003	95	34034	0.1600	0.1868	
55 Isooctane	57	11.529	11.531	-0.002	97	111708	0.1600	0.2065	
56 n-Heptane	71	11.890	11.898	-0.008	91	24842	0.1600	0.2069	
57 1,2-Dichloropropane	63	11.977	11.986	-0.009	79	20718	0.1600	0.1904	
58 Trichloroethene	130	12.020	12.022	-0.002	96	35132	0.1600	0.2043	
59 Dibromomethane	93	12.106	12.108	-0.002	90	24369	0.1600	0.1882	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	46669	0.1600	0.1793	
61 1,4-Dioxane	88	12.311	12.304	0.007	88	9942	0.1600	0.2218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	23616	0.1600	0.2039	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	45690	0.1600	0.2102	
64 4-Methyl-2-pentanone (MIBK	43	13.206	13.202	0.004	97	42641	0.1600	0.2198	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	96	32629	0.1600	0.1792	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	30260	0.1600	0.1759	
67 Toluene	91	14.042	14.046	-0.004	94	65839	0.1600	0.1796	
68 1,1,2-Trichloroethane	83	14.112	14.118	-0.006	97	20707	0.1600	0.1929	
69 2-Hexanone	58	14.511	14.514	-0.003	94	18953	0.1600	0.2126	
70 n-Octane	85	14.710	14.714	-0.004	90	24732	0.1600	0.1855	
71 Chlorodibromomethane	129	14.818	14.818	0.000	95	41432	0.1600	0.1592	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	34998	0.1600	0.1756	
73 Tetrachloroethene	129	15.174	15.176	-0.002	95	33441	0.1600	0.1970	
75 Chlorobenzene	112	16.042	16.044	-0.002	91	58808	0.1600	0.1922	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	70725	0.1600	0.2013	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	95193	0.1600	0.1961	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	154203	0.3200	0.4059	
80 n-Nonane	57	16.889	16.891	-0.002	90	48543	0.1600	0.2083	
81 Bromoform	173	16.938	16.943	-0.005	94	37003	0.1600	0.1567	
82 Styrene	104	16.948	16.951	-0.003	97	45045	0.1600	0.1813	
83 o-Xylene	91	17.013	17.012	0.001	97	84470	0.1600	0.2052	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	50351	0.1600	0.2092	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	97	18714	0.1600	0.2004	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	92	115484	0.1600	0.2061	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	32515	0.1600	0.2072	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	97	29848	0.1600	0.1971	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	98	115144	0.1600	0.2095	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	48012	0.1600	0.2085	
92 Alpha Methyl Styrene	118	18.555	18.561	-0.006	82	36594	0.1600	0.1717	
93 n-Decane	57	18.604	18.606	-0.002	92	62826	0.1600	0.2111	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	108229	0.1600	0.2072	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	103573	0.1600	0.2116	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	140174	0.1600	0.2045	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	98	69116	0.1600	0.2006	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	79164	0.1600	0.2085	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	69868	0.1600	0.2009	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	129393	0.1600	0.2129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	106789	0.1600	0.1997	
102 Butylcyclohexane	83	19.272	19.276	-0.004	94	80763	0.1600	0.2097	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	94383	0.1600	0.2115	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	94	71080	0.1600	0.2193	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	121537	0.1600	0.2235	
106 Indene	116	19.596	19.598	-0.002	78	77351	0.1600	0.2078	
107 Undecane	57	19.893	19.893	0.000	93	70210	0.1600	0.2908	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	30729	0.1600	0.1861	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	124331	0.1600	0.2164	
110 Dodecane	57	20.944	20.944	0.000	95	64002	0.1600	0.3365	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	55860	0.1600	0.1937	
112 Naphthalene	128	21.295	21.297	-0.002	99	122533	0.1600	0.2062	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	61353	0.1600	0.2192	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	55841	0.1600	0.2097	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	97	58455	0.1600	0.2804	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	63205	0.1600	0.3177	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	221820	0.1600	0.2006	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3416	
S 124 Xylenes, Total	100				0		0.4800	0.6111	

Reagents:

40L5DQP_00012	Amount Added: 80.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

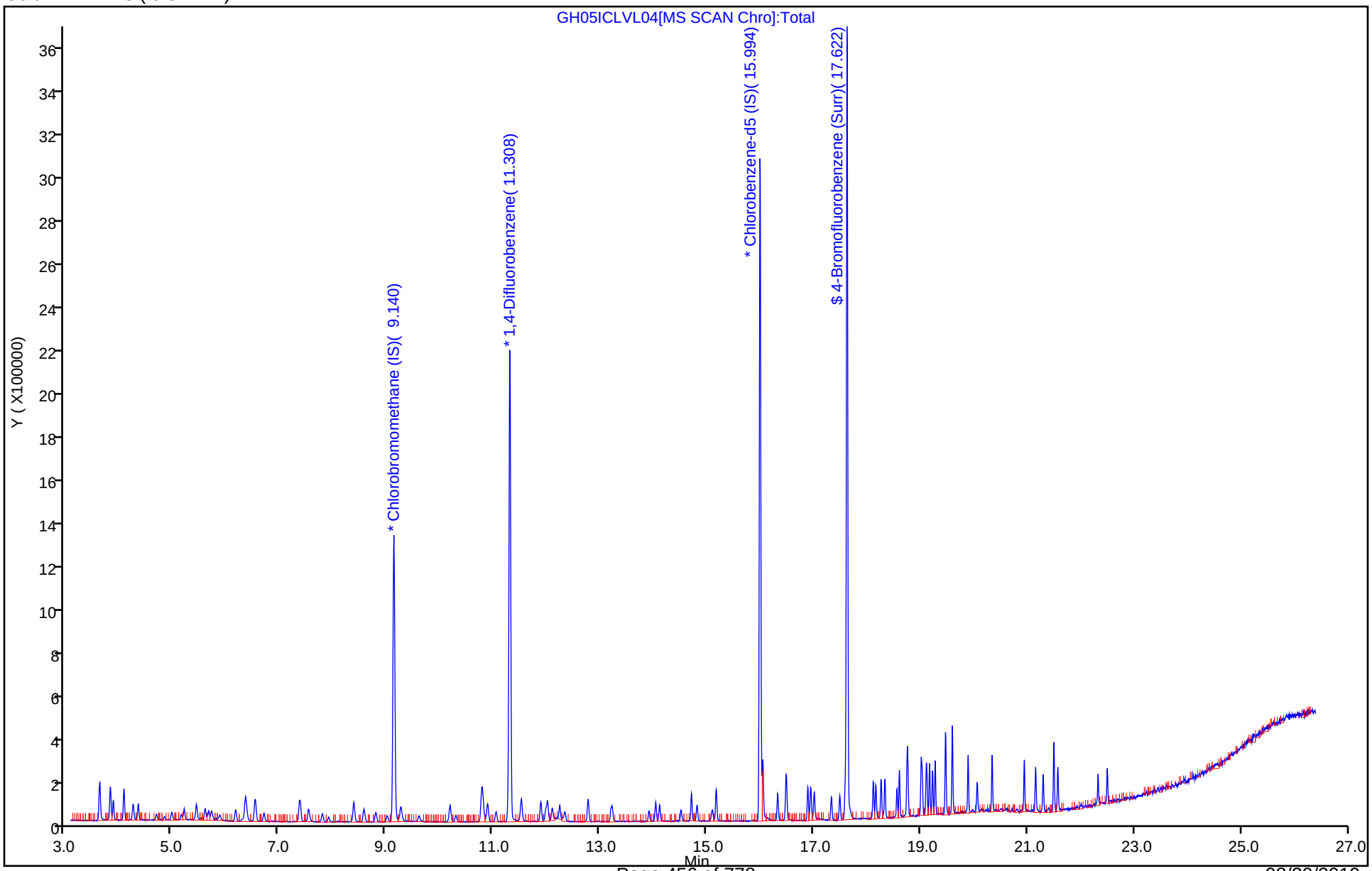
Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D

Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

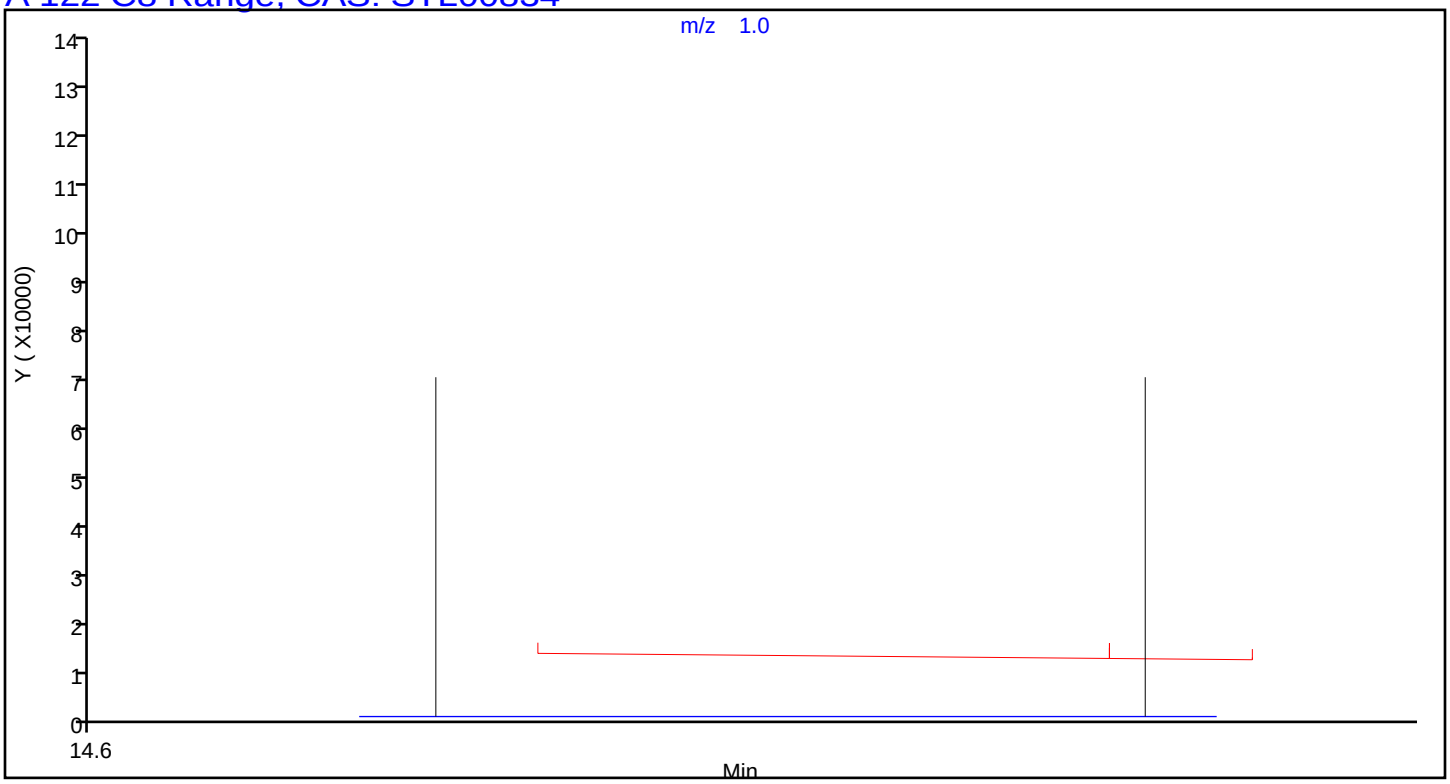


Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D				
Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Aug-2019 21:30:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-011
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:49 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:16:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.147	-0.002	86	482012	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2685242	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	2421756	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1736106	4.00	4.13	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	98658	0.4000	0.4030	
7 Propene	41	3.834	3.839	-0.005	96	93102	0.4000	0.7759	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	189623	0.4000	0.3987	
9 Chloromethane	52	4.087	4.085	0.002	53	16334	0.4000	0.4733	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	109276	0.4000	0.4039	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	92892	2.00	2.44	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	49646	0.4000	0.3944	
13 Butane	43	4.357	4.360	-0.003	83	70814	0.4000	0.3939	
14 Butadiene	54	4.357	4.360	-0.003	71	37768	0.4000	0.4126	
15 Bromomethane	94	4.702	4.699	0.003	96	46317	0.4000	0.4045	
16 Chloroethane	64	4.842	4.849	-0.007	93	23095	0.4000	0.4128	
17 Ethanol	31	4.977	4.983	-0.006	99	75469	2.00	1.95	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	39681	0.4000	0.3952	
19 2-Methylbutane	43	5.220	5.219	0.001	92	43427	0.4000	0.3808	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	153029	0.4000	0.3987	
21 Acrolein	56	5.479	5.472	0.007	69	6947	0.4000	0.4175	
22 Acetonitrile	40	5.549	5.537	0.012	98	10348	0.4000	0.3721	
23 Acetone	58	5.603	5.604	-0.001	100	45565	1.20	1.40	
24 Pentane	72	5.678	5.682	-0.004	99	7179	0.4000	0.4424	
25 Isopropyl alcohol	45	5.721	5.726	-0.005	97	105605	1.20	1.13	
26 Ethyl ether	31	5.872	5.869	0.003	92	30603	0.4000	0.4464	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	95	51669	0.4000	0.3761	
28 Acrylonitrile	53	6.298	6.304	-0.006	94	26372	0.4000	0.3921	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	121174	0.4000	0.4028	
30 2-Methyl-2-propanol	59	6.379	6.376	0.003	96	74946	0.4000	0.3626	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	77107	0.4000	0.5773	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	53903	0.4000	0.4086	
33 Carbon disulfide	76	6.714	6.713	0.001	99	148089	0.4000	0.4010	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	53641	0.4000	0.3900	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	118675	0.4000	0.4177	
36 Methyl tert-butyl ether	73	7.533	7.541	-0.008	95	146739	0.4000	0.3964	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	109237	0.4000	0.4144	
38 Vinyl acetate	43	7.921	7.921	0.000	99	105231	0.4000	0.4145	
40 Hexane	56	8.391	8.392	-0.001	76	45077	0.4000	0.4094	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	84	21738	0.4000	0.4159	
41 Isopropyl ether	45	8.568	8.569	-0.001	94	143561	0.4000	0.4088	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	57870	0.4000	0.4102	
43 Ethyl acetate	43	9.011	9.002	0.009	98	91929	0.4000	0.4067	
44 Chloroform	83	9.151	9.157	-0.006	51	135314	0.4000	0.4136	
45 Tert-butyl ethyl ether	59	9.264	9.270	-0.006	94	162243	0.4000	0.4089	
46 Tetrahydrofuran	42	9.604	9.605	-0.001	90	48513	0.4000	0.4154	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	161683	0.4000	0.4124	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	95386	0.4000	0.3859	
49 Cyclohexane	69	10.785	10.788	-0.003	71	27598	0.4000	0.3714	
50 Benzene	78	10.785	10.788	-0.003	96	169359	0.4000	0.4220	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	154448	0.4000	0.3785	
51 n-Butanol	31	10.817	10.822	-0.005	69	13289	0.4000	0.3954	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	88	40576	0.4000	0.3972	
54 Thiophene	84	11.054	11.057	-0.003	98	93958	0.4000	0.3961	
55 Isooctane	57	11.529	11.531	-0.002	97	283998	0.4000	0.4032	
56 n-Heptane	71	11.890	11.898	-0.008	89	63065	0.4000	0.4034	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	57441	0.4000	0.4055	
58 Trichloroethene	130	12.014	12.022	-0.008	96	82347	0.4000	0.3678	
59 Dibromomethane	93	12.106	12.108	-0.002	91	64841	0.4000	0.3846	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	97	132443	0.4000	0.3907	
61 1,4-Dioxane	88	12.300	12.304	-0.004	79	19834	0.4000	0.3398	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	55721	0.4000	0.3695	
63 Methylcyclohexane	83	12.775	12.781	-0.006	94	112759	0.4000	0.3983	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.202	-0.001	95	73496	0.4000	0.3046	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	97	94583	0.4000	0.3990	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	86203	0.4000	0.3857	
67 Toluene	91	14.042	14.046	-0.004	93	192263	0.4000	0.4038	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	54263	0.4000	0.3891	
69 2-Hexanone	58	14.511	14.514	-0.003	94	33428	0.4000	0.2887	
70 n-Octane	85	14.710	14.714	-0.004	90	67037	0.4000	0.3871	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	120240	0.4000	0.3558	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	100	99501	0.4000	0.3843	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	82558	0.4000	0.3745	
75 Chlorobenzene	112	16.042	16.044	-0.002	93	163168	0.4000	0.4106	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	92	183187	0.4000	0.4014	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	262802	0.4000	0.4168	
79 m-Xylene & p-Xylene	91	16.484	16.488	-0.004	99	418810	0.8000	0.8487	
80 n-Nonane	57	16.889	16.891	-0.002	90	126710	0.4000	0.4185	
81 Bromoform	173	16.943	16.943	0.000	94	109007	0.4000	0.3553	
82 Styrene	104	16.948	16.951	-0.003	98	133694	0.4000	0.4143	
83 o-Xylene	91	17.013	17.012	0.001	98	206900	0.4000	0.3869	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	123660	0.4000	0.3956	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	97	45252	0.4000	0.3730	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	93	288284	0.4000	0.3960	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	79322	0.4000	0.3891	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	77331	0.4000	0.3932	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	281615	0.4000	0.3945	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	115462	0.4000	0.3859	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	87	100044	0.4000	0.3613	
93 n-Decane	57	18.604	18.606	-0.002	93	153552	0.4000	0.3972	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	95	268979	0.4000	0.3964	
95 1,2,4-Trimethylbenzene	105	18.765	18.763	0.002	96	242624	0.4000	0.3817	
96 sec-Butylbenzene	105	19.013	19.014	-0.001	98	350396	0.4000	0.3936	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	176506	0.4000	0.3943	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	195591	0.4000	0.3966	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	175218	0.4000	0.3879	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	303580	0.4000	0.3845	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	248613	0.4000	0.3926	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	202219	0.4000	0.4042	
103 2,3-Dihydroindene	117	19.466	19.470	-0.004	93	229968	0.4000	0.3967	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	171061	0.4000	0.4063	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	277154	0.4000	0.3924	
106 Indene	116	19.596	19.598	-0.002	94	190258	0.4000	0.3934	
107 Undecane	57	19.892	19.893	-0.001	93	156878	0.4000	0.5002	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	95	73294	0.4000	0.3417	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	258532	0.4000	0.3464	
110 Dodecane	57	20.944	20.944	0.000	96	107502	0.4000	0.4351	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	127013	0.4000	0.3391	
112 Naphthalene	128	21.294	21.297	-0.003	99	246489	0.4000	0.3194	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	139670	0.4000	0.3841	
114 1,2,3-Trichlorobenzene	180	21.569	21.572	-0.003	94	104909	0.4000	0.3033	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	99	88366	0.4000	0.3263	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	89896	0.4000	0.3479	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	598323	0.4000	0.4166	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.8003	
S 124 Xylenes, Total	100				0		1.20	1.24	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

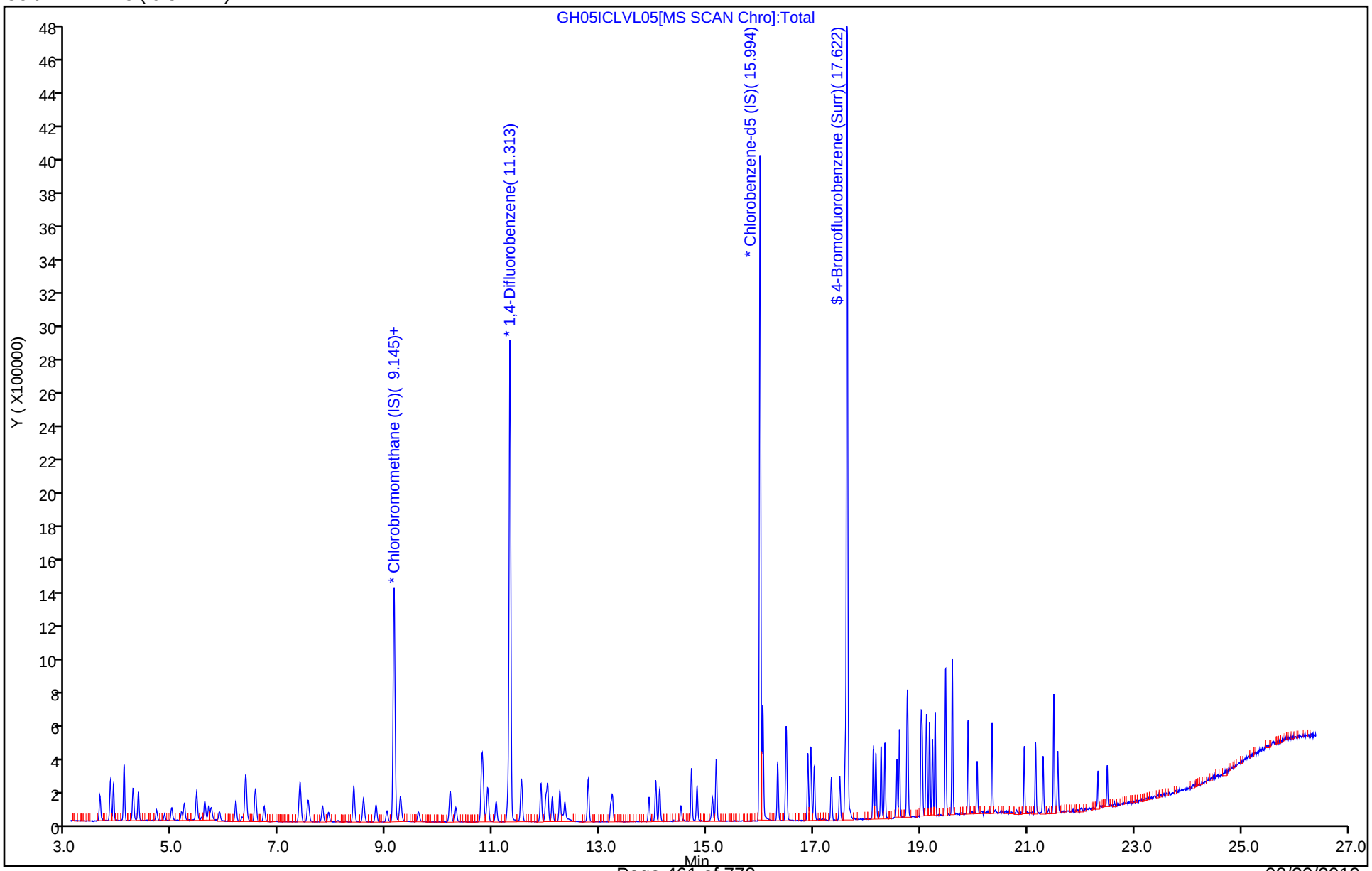
Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D

Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

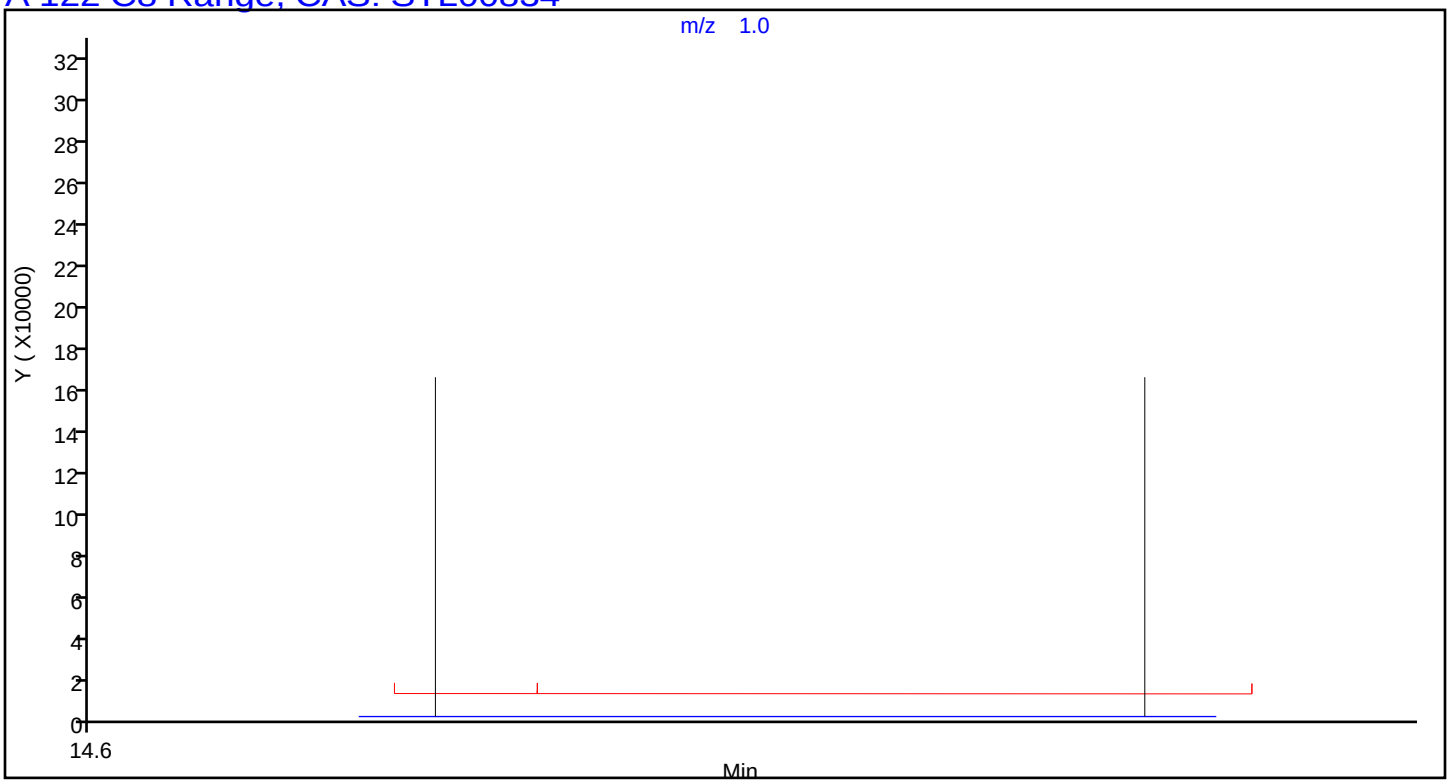


Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D				
Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Aug-2019 22:16:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-012
Misc. Info.: 245273
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:02 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:13:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	86	487685	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2553258	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2386492	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	93	1693688	4.00	4.09	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	246667	1.00	1.00	
7 Propene	41	3.839	3.839	0.000	96	158639	1.00	1.31	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	483918	1.00	1.01	
9 Chloromethane	52	4.082	4.085	-0.003	57	35516	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	288577	1.00	1.05	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	190926	5.00	4.96	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	122540	1.00	0.9623	
13 Butane	43	4.357	4.360	-0.003	83	180868	1.00	0.99	
14 Butadiene	54	4.357	4.360	-0.003	71	92822	1.00	1.00	
15 Bromomethane	94	4.697	4.699	-0.002	97	115754	1.00	1.00	
16 Chloroethane	64	4.848	4.849	-0.001	95	56216	1.00	0.99	
17 Ethanol	31	4.961	4.983	-0.022	99	178614	5.00	4.55	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	101538	1.00	1.00	
19 2-Methylbutane	43	5.220	5.219	0.001	88	114036	1.00	0.9884	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	98	390456	1.00	1.01	
21 Acrolein	56	5.463	5.472	-0.009	98	15503	1.00	0.9208	
22 Acetonitrile	40	5.533	5.537	-0.004	98	27290	1.00	0.9699	
23 Acetone	58	5.587	5.604	-0.017	100	91668	3.00	2.78	
24 Pentane	72	5.678	5.682	-0.004	96	18090	1.00	1.10	
25 Isopropyl alcohol	45	5.694	5.726	-0.032	93	256655	3.00	2.73	
26 Ethyl ether	31	5.862	5.869	-0.007	90	65045	1.00	0.9377	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	135168	1.00	0.9724	
28 Acrylonitrile	53	6.293	6.304	-0.011	93	63395	1.00	0.9316	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	96	306378	1.00	1.01	
30 2-Methyl-2-propanol	59	6.352	6.376	-0.024	95	178772	1.00	0.8550	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	146176	1.00	1.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	95	131925	1.00	0.9883	
33 Carbon disulfide	76	6.714	6.713	0.001	99	379039	1.00	1.01	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	135666	1.00	0.9750	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	294862	1.00	1.03	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	346158	1.00	0.9243	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	263784	1.00	0.9891	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	243472	1.00	0.9479	
40 Hexane	56	8.396	8.392	0.004	88	114287	1.00	1.03	
39 2-Butanone (MEK)	72	8.380	8.393	-0.013	96	47510	1.00	0.8984	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	331939	1.00	0.9343	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	135269	1.00	0.9477	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	199113	1.00	0.8707	
44 Chloroform	83	9.156	9.157	-0.001	96	324608	1.00	0.9807	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	95	370752	1.00	0.9235	
46 Tetrahydrofuran	42	9.582	9.605	-0.023	88	103852	1.00	0.8789	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	96	388592	1.00	0.9796	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	226363	1.00	0.9631	
49 Cyclohexane	69	10.790	10.788	0.002	77	71834	1.00	1.02	
50 Benzene	78	10.785	10.788	-0.003	97	402752	1.00	1.06	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	395039	1.00	1.02	
51 n-Butanol	31	10.806	10.822	-0.016	48	31242	1.00	0.9775	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	97512	1.00	1.00	
54 Thiophene	84	11.054	11.057	-0.003	96	228095	1.00	1.01	
55 Isooctane	57	11.524	11.531	-0.007	98	669441	1.00	1.00	
56 n-Heptane	71	11.896	11.898	-0.002	88	149939	1.00	1.01	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	135272	1.00	1.00	
58 Trichloroethene	130	12.020	12.022	-0.002	96	205666	1.00	0.9661	
59 Dibromomethane	93	12.106	12.108	-0.002	95	160258	1.00	1.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	333891	1.00	1.04	
61 1,4-Dioxane	88	12.278	12.304	-0.026	91	45605	1.00	0.8218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	94	127335	1.00	0.8880	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	271241	1.00	1.01	
64 4-Methyl-2-pentanone (MIBK	43	13.190	13.202	-0.012	96	193142	1.00	0.9164	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	229501	1.00	1.02	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	209941	1.00	0.9531	
67 Toluene	91	14.042	14.046	-0.004	94	453010	1.00	0.9654	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	99	130717	1.00	0.9511	
69 2-Hexanone	58	14.506	14.514	-0.008	93	94111	1.00	0.8248	
70 n-Octane	85	14.716	14.714	0.002	89	172691	1.00	1.01	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	324681	1.00	0.9749	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	253874	1.00	1.00	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	202403	1.00	0.9316	
75 Chlorobenzene	112	16.042	16.044	-0.002	92	389910	1.00	1.00	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	91	435613	1.00	0.9685	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	599681	1.00	0.9651	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	966570	2.00	1.99	
80 n-Nonane	57	16.889	16.891	-0.002	91	300204	1.00	1.01	
81 Bromoform	173	16.943	16.943	0.000	95	303372	1.00	1.00	
82 Styrene	104	16.948	16.951	-0.003	98	325846	1.00	1.02	
83 o-Xylene	91	17.013	17.012	0.001	98	506239	1.00	0.9607	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	296089	1.00	0.9611	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	112173	1.00	0.9383	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	681562	1.00	0.9501	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	190451	1.00	0.9479	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	184067	1.00	0.9497	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	679340	1.00	0.9657	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	283628	1.00	0.9621	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	261798	1.00	0.9594	
93 n-Decane	57	18.604	18.606	-0.002	93	372039	1.00	0.9766	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	626116	1.00	0.9362	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	582954	1.00	0.9306	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	836987	1.00	0.9540	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	435441	1.00	0.9872	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	468018	1.00	0.9631	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	441981	1.00	0.99	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	702381	1.00	0.9027	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	585330	1.00	1.00	
102 Butylcyclohexane	83	19.272	19.276	-0.004	93	484667	1.00	0.9831	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	548117	1.00	0.9594	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	419606	1.00	1.01	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	635099	1.00	0.9125	
106 Indene	116	19.596	19.598	-0.002	82	460501	1.00	0.9663	
107 Undecane	57	19.893	19.893	-0.001	94	352838	1.00	1.14	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	98	189969	1.00	0.8987	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	620680	1.00	0.8440	
110 Dodecane	57	20.944	20.944	0.000	96	255850	1.00	1.05	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	301840	1.00	0.8177	
112 Naphthalene	128	21.295	21.297	-0.002	99	619621	1.00	0.8147	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	320011	1.00	0.8932	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	255330	1.00	0.7492	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	100	196801	1.00	0.7374	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	194294	1.00	0.7630	
A 122 C8 Range	1	14.705	(14.647-14.764)		0	1446999	1.00	1.02	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.92	
S 124 Xylenes, Total	100				0		3.00	2.95	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

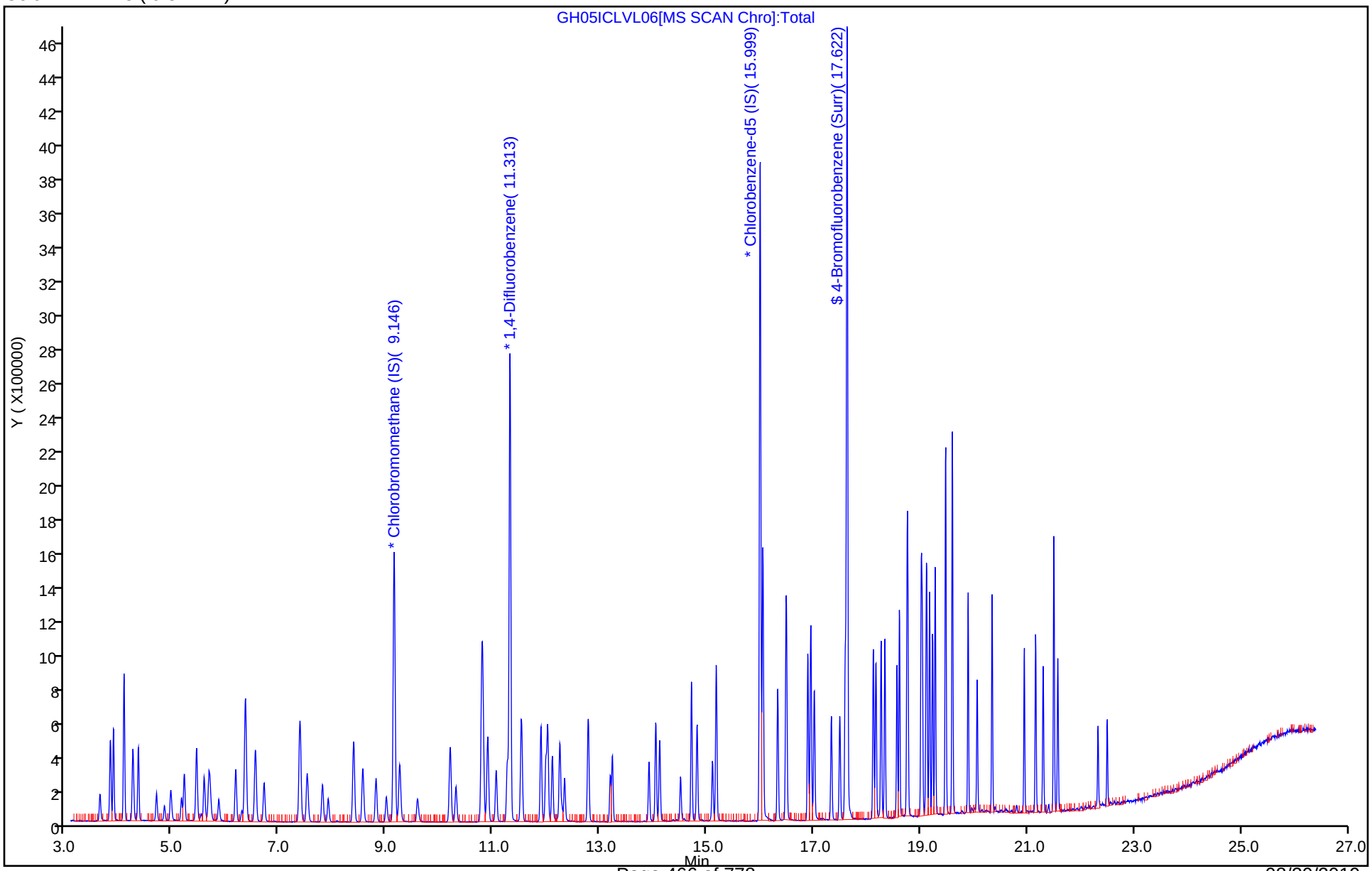
Report Date: 08-Aug-2019 11:06:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D

Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

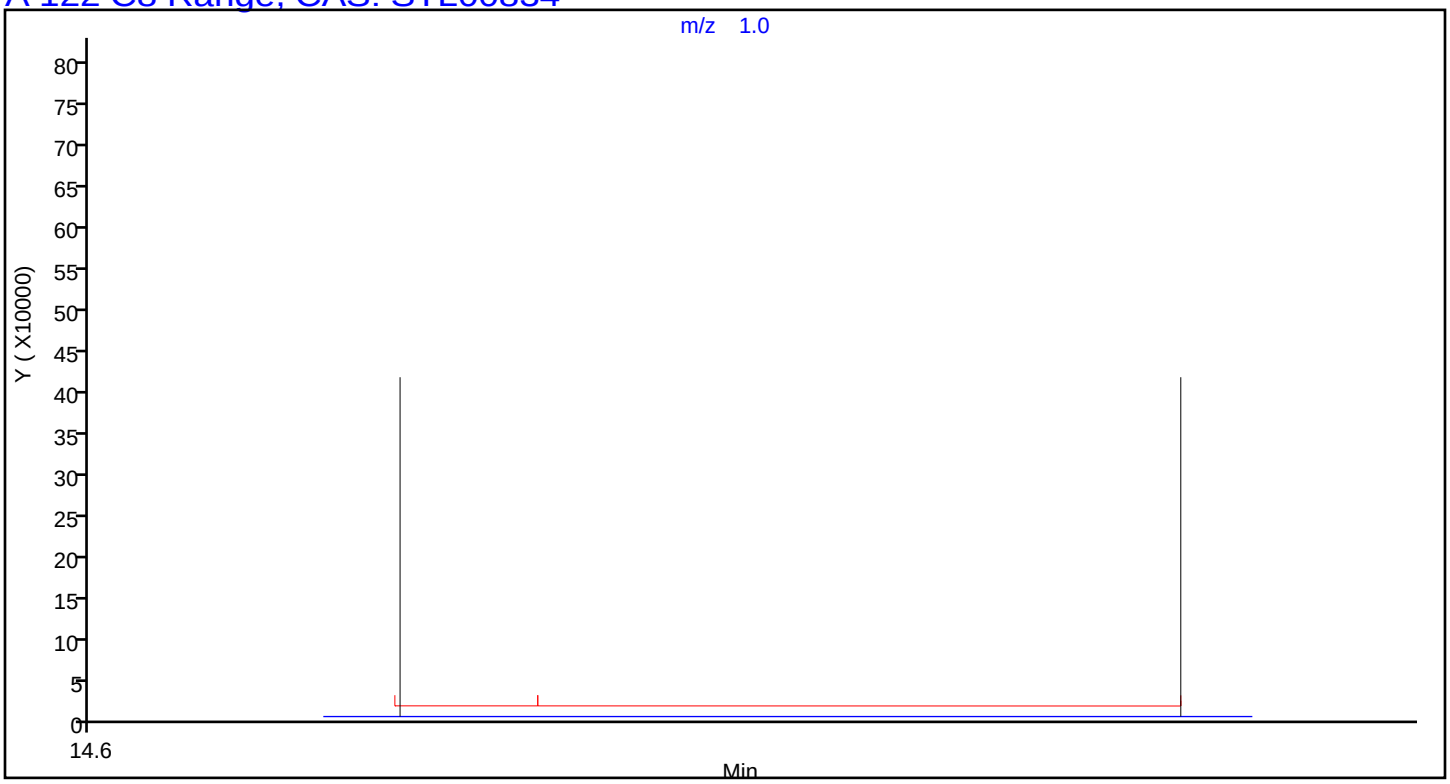
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D				
Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	007126	ALS Bottle#:	9	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 05-Aug-2019 22:58:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-013
Misc. Info.: 245077
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:16 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 08-Aug-2019 09:54:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	85	498889	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2835428	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2531405	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1775500	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	505376	2.00	1.99	
7 Propene	41	3.834	3.839	-0.005	96	269532	2.00	2.17	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1004548	2.00	2.04	
9 Chloromethane	52	4.082	4.085	-0.003	97	69360	2.00	1.94	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	89	586746	2.00	2.10	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	394630	10.0	10.0	
12 Vinyl chloride	62	4.260	4.266	-0.006	99	249592	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	361983	2.00	1.95	
14 Butadiene	54	4.357	4.360	-0.003	71	190360	2.00	2.01	
15 Bromomethane	94	4.692	4.699	-0.007	98	236529	2.00	2.00	
16 Chloroethane	64	4.843	4.849	-0.006	94	116908	2.00	2.02	
17 Ethanol	31	4.956	4.983	-0.027	98	405411	10.0	10.1	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	211252	2.00	2.03	
19 2-Methylbutane	43	5.215	5.219	-0.004	89	226978	2.00	1.92	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	100	793533	2.00	2.00	
21 Acrolein	56	5.463	5.472	-0.009	95	33184	2.00	1.93	
22 Acetonitrile	40	5.527	5.537	-0.010	98	61225	2.00	2.13	
23 Acetone	58	5.581	5.604	-0.023	100	189815	6.00	5.63	
24 Pentane	72	5.678	5.682	-0.004	95	33318	2.00	1.98	
25 Isopropyl alcohol	45	5.689	5.726	-0.037	92	571687	6.00	5.94	
26 Ethyl ether	31	5.856	5.869	-0.013	92	138967	2.00	1.96	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	272518	2.00	1.92	
28 Acrylonitrile	53	6.288	6.304	-0.016	94	140721	2.00	2.02	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	625843	2.00	2.01	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	94	404096	2.00	1.89	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	268413	2.00	1.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	264084	2.00	1.93	
33 Carbon disulfide	76	6.708	6.713	-0.005	99	762533	2.00	1.99	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	98	276739	2.00	1.94	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	582509	2.00	1.98	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	745830	2.00	1.95	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	538283	2.00	1.97	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	530203	2.00	2.02	
40 Hexane	56	8.391	8.392	-0.001	90	227104	2.00	1.99	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	105914	2.00	1.96	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	705829	2.00	1.94	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	95	287485	2.00	1.97	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	455292	2.00	1.95	
44 Chloroform	83	9.157	9.157	-0.001	96	675276	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	808985	2.00	1.97	
46 Tetrahydrofuran	42	9.572	9.605	-0.033	89	230500	2.00	1.91	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	824853	2.00	2.03	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	477830	2.00	1.83	
49 Cyclohexane	69	10.785	10.788	-0.003	81	142693	2.00	1.82	
50 Benzene	78	10.785	10.788	-0.003	97	821203	2.00	1.94	
52 Carbon tetrachloride	117	10.807	10.811	-0.004	97	839197	2.00	1.95	
51 n-Butanol	31	10.790	10.822	-0.032	68	66485	2.00	1.87	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	206018	2.00	1.91	
54 Thiophene	84	11.055	11.057	-0.002	95	479200	2.00	1.91	
55 Isooctane	57	11.529	11.531	-0.002	97	1342251	2.00	1.80	
56 n-Heptane	71	11.896	11.898	-0.002	88	305057	2.00	1.85	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	283363	2.00	1.89	
58 Trichloroethene	130	12.020	12.022	-0.002	98	441732	2.00	1.87	
59 Dibromomethane	93	12.106	12.108	-0.002	92	336220	2.00	1.89	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	713523	2.00	1.99	
61 1,4-Dioxane	88	12.273	12.304	-0.031	92	100718	2.00	1.63	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	301502	2.00	1.89	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	558969	2.00	1.87	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	412149	2.00	1.80	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	95	494209	2.00	1.97	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	473163	2.00	2.03	
67 Toluene	91	14.042	14.046	-0.004	92	974154	2.00	1.96	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	277228	2.00	1.90	
69 2-Hexanone	58	14.500	14.514	-0.014	94	204660	2.00	1.69	
70 n-Octane	85	14.711	14.714	-0.003	88	354754	2.00	1.96	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	729086	2.00	2.06	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	556280	2.00	2.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	425087	2.00	1.84	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	827346	2.00	1.99	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	90	884406	2.00	1.85	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1333571	2.00	2.02	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	2080126	4.00	4.03	
80 n-Nonane	57	16.889	16.891	-0.002	87	630721	2.00	1.99	
81 Bromoform	173	16.943	16.943	0.000	94	710116	2.00	2.21	
82 Styrene	104	16.948	16.951	-0.003	98	738865	2.00	2.19	
83 o-Xylene	91	17.013	17.012	0.001	98	1091980	2.00	1.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	637564	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	242207	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1459434	2.00	1.92	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	411131	2.00	1.93	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	406356	2.00	1.98	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1452472	2.00	1.95	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	599259	2.00	1.92	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	602874	2.00	2.08	
93 n-Decane	57	18.604	18.606	-0.002	93	741699	2.00	1.84	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1334314	2.00	1.88	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	1225884	2.00	1.84	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1726234	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	918520	2.00	1.96	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1035763	2.00	2.01	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	95	928649	2.00	1.97	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1539685	2.00	1.87	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	1246166	2.00	2.05	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	956144	2.00	1.83	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1113701	2.00	1.84	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	91	865203	2.00	1.97	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1334040	2.00	1.81	
106 Indene	116	19.596	19.598	-0.002	90	967517	2.00	1.91	
107 Undecane	57	19.893	19.893	0.000	93	730107	2.00	2.23	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	431473	2.00	1.92	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1363668	2.00	1.75	
110 Dodecane	57	20.944	20.944	0.000	96	533935	2.00	2.07	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	94	671652	2.00	1.72	
112 Naphthalene	128	21.295	21.297	-0.002	99	1338267	2.00	1.66	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	724710	2.00	1.91	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	564307	2.00	1.56	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	556936	2.00	1.97	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	534510	2.00	1.98	
A 122 C8 Range	1	14.716	(14.658-14.775)		0	2938358	2.00	1.96	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.91	
S 124 Xylenes, Total	100				0		6.00	5.99	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

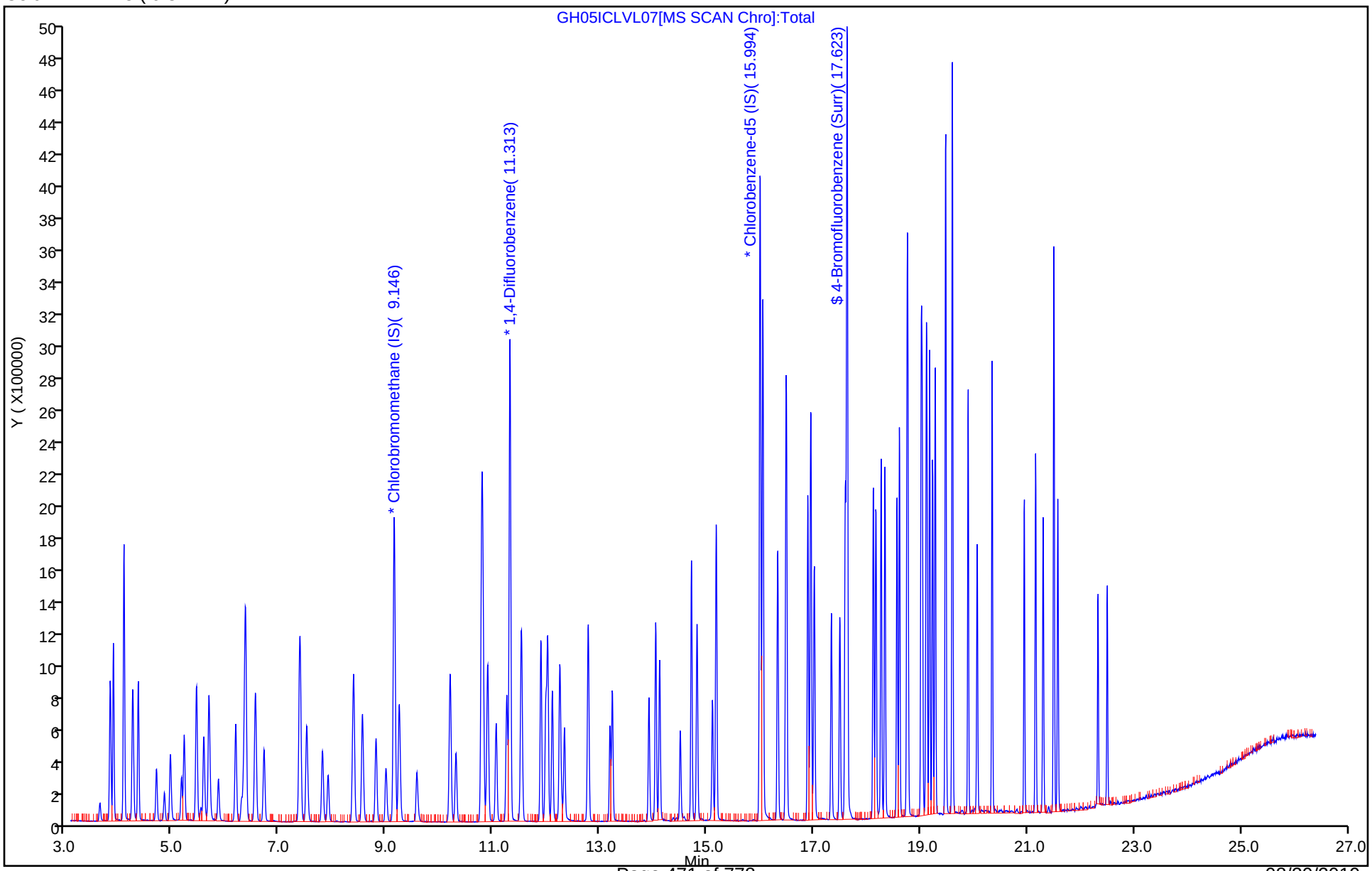
Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D

Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

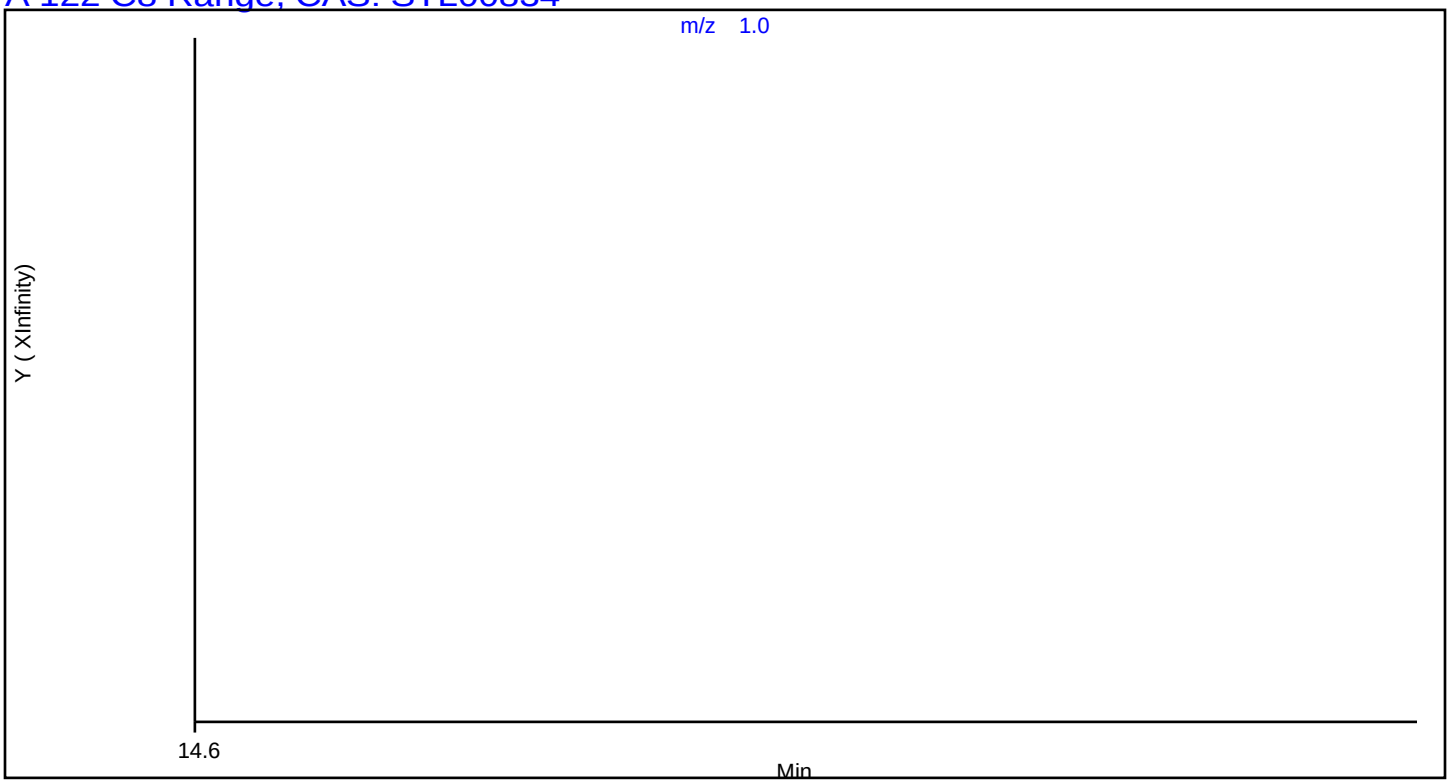


Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D				
Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 05-Aug-2019 23:41:30 ALS Bottle#: 3 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-014
Misc. Info.: 245076
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:30 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	90	513676	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.317	0.002	95	2745418	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	87	2468315	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.003	93	1651663	4.00	3.85	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	965849	4.00	3.70	
7 Propene	41	3.840	3.839	0.001	96	463444	4.00	3.62	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1949658	4.00	3.85	
9 Chloromethane	52	4.082	4.085	-0.003	96	128137	4.00	3.48	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	95	1140759	4.00	3.96	
11 Acetaldehyde	44	4.244	4.261	-0.017	95	695166	20.0	17.1	
12 Vinyl chloride	62	4.266	4.266	0.000	99	473502	4.00	3.53	
13 Butane	43	4.357	4.360	-0.003	82	678714	4.00	3.54	
14 Butadiene	54	4.357	4.360	-0.003	72	358899	4.00	3.68	
15 Bromomethane	94	4.697	4.699	-0.002	98	460553	4.00	3.77	
16 Chloroethane	64	4.848	4.849	-0.001	94	218525	4.00	3.67	
17 Ethanol	31	4.956	4.983	-0.027	99	761701	20.0	18.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	417570	4.00	3.90	
19 2-Methylbutane	43	5.215	5.219	-0.004	88	421997	4.00	3.47	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	1569298	4.00	3.84	
21 Acrolein	56	5.457	5.472	-0.015	96	68152	4.00	3.84	
22 Acetonitrile	40	5.533	5.537	-0.004	95	109495	4.00	3.69	
23 Acetone	58	5.581	5.604	-0.023	100	343813	12.0	9.90	
24 Pentane	72	5.673	5.682	-0.009	81	63374	4.00	3.66	
25 Isopropyl alcohol	45	5.673	5.726	-0.053	77	1119666	12.0	11.3	
26 Ethyl ether	31	5.851	5.869	-0.018	90	263626	4.00	3.61	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	98	549765	4.00	3.75	
28 Acrylonitrile	53	6.288	6.304	-0.016	93	267903	4.00	3.74	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	1197286	4.00	3.74	
30 2-Methyl-2-propanol	59	6.309	6.376	-0.067	94	864303	4.00	3.92	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	486021	4.00	3.41	
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	96	509026	4.00	3.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.713	-0.005	99	1499860	4.00	3.81	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	99	554110	4.00	3.78	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	1089314	4.00	3.60	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	1392455	4.00	3.53	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1018782	4.00	3.63	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	987752	4.00	3.65	
40 Hexane	56	8.391	8.392	-0.001	91	425515	4.00	3.63	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	97	191292	4.00	3.43	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	1288871	4.00	3.44	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	569244	4.00	3.79	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	811274	4.00	3.37	
44 Chloroform	83	9.156	9.157	-0.001	96	1311051	4.00	3.76	
45 Tert-butyl ethyl ether	59	9.237	9.270	-0.033	94	1484302	4.00	3.51	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	419284	4.00	3.37	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	94	1578895	4.00	3.78	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	926487	4.00	3.67	
49 Cyclohexane	69	10.785	10.788	-0.003	75	265054	4.00	3.49	
50 Benzene	78	10.785	10.788	-0.003	98	1498256	4.00	3.65	
52 Carbon tetrachloride	117	10.812	10.811	0.001	98	1628520	4.00	3.90	
51 n-Butanol	31	10.763	10.822	-0.059	79	146442	4.00	4.26	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	377248	4.00	3.61	
54 Thiophene	84	11.060	11.057	0.003	96	925464	4.00	3.82	
55 Isooctane	57	11.529	11.531	-0.002	97	2463502	4.00	3.42	
56 n-Heptane	71	11.896	11.898	-0.002	89	573413	4.00	3.59	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	538612	4.00	3.72	
58 Trichloroethene	130	12.020	12.022	-0.002	98	862077	4.00	3.77	
59 Dibromomethane	93	12.106	12.108	-0.002	92	648015	4.00	3.76	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	1396397	4.00	4.03	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	197428	4.00	3.31	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	528755	4.00	3.43	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	1048798	4.00	3.62	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	853850	4.00	3.90	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	957323	4.00	3.95	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	899946	4.00	3.95	
67 Toluene	91	14.042	14.046	-0.004	94	1894853	4.00	3.90	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	530558	4.00	3.73	
69 2-Hexanone	58	14.495	14.514	-0.019	96	455335	4.00	3.86	
70 n-Octane	85	14.716	14.714	0.002	88	688088	4.00	3.90	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	1471952	4.00	4.27	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1071436	4.00	4.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	841268	4.00	3.74	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	1525179	4.00	3.77	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	89	1537758	4.00	3.31	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	2492968	4.00	3.88	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	3855580	8.00	7.67	
80 n-Nonane	57	16.889	16.891	-0.002	85	1133522	4.00	3.67	
81 Bromoform	173	16.943	16.943	0.000	96	1404549	4.00	4.49	
82 Styrene	104	16.954	16.951	0.003	98	1374089	4.00	4.18	
83 o-Xylene	91	17.013	17.012	0.001	98	2040159	4.00	3.74	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	1126153	4.00	3.53	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	447403	4.00	3.62	
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	2722769	4.00	3.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.001	99	770068	4.00	3.71	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	759079	4.00	3.79	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	2605654	4.00	3.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	1079158	4.00	3.54	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	1133355	4.00	4.02	
93 n-Decane	57	18.604	18.606	-0.002	94	1250578	4.00	3.17	
94 tert-Butylbenzene	119	18.750	18.750	0.000	91	2351607	4.00	3.40	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	2146687	4.00	3.31	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	3015388	4.00	3.32	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	1691446	4.00	3.71	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1812134	4.00	3.61	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	1692663	4.00	3.68	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	2699782	4.00	3.35	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	2181596	4.00	3.71	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	1645586	4.00	3.23	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1918858	4.00	3.25	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	1526639	4.00	3.56	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	2208828	4.00	3.07	
106 Indene	116	19.596	19.598	-0.002	91	1660484	4.00	3.37	
107 Undecane	57	19.893	19.893	0.000	92	1210490	4.00	3.79	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	831656	4.00	3.80	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	2487349	4.00	3.27	
110 Dodecane	57	20.944	20.944	0.000	95	1126091	4.00	4.47	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	-0.001	95	1295535	4.00	3.39	
112 Naphthalene	128	21.295	21.297	-0.002	99	2485523	4.00	3.16	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	1364630	4.00	3.68	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	1141200	4.00	3.24	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	1007749	4.00	3.65	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	1013536	4.00	3.85	
A 122 C8 Range	1	14.716	(14.652-14.792)		0	5498095	4.00	3.76	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.57	
S 124 Xylenes, Total	100				0		12.0	11.4	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

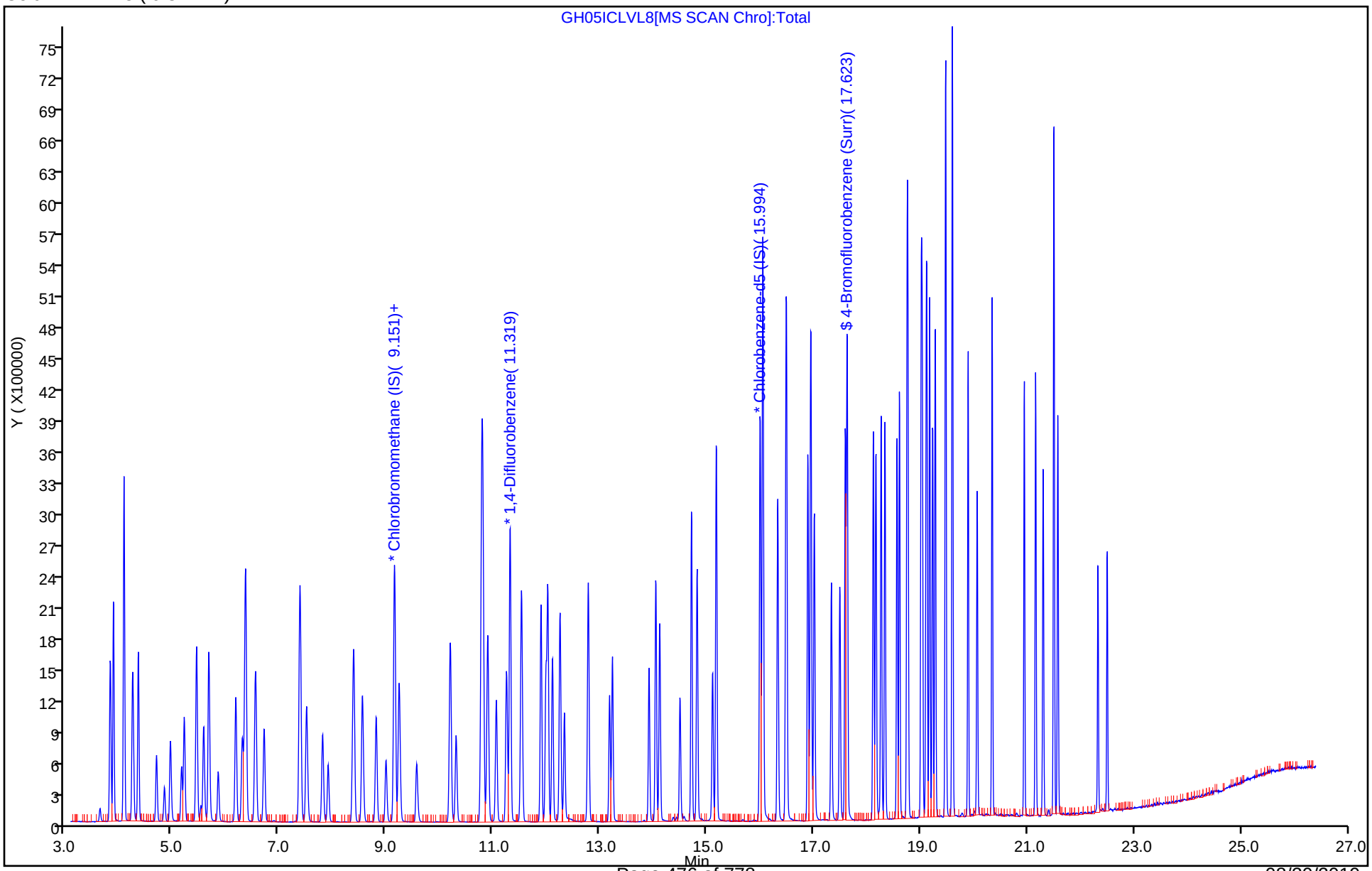
Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

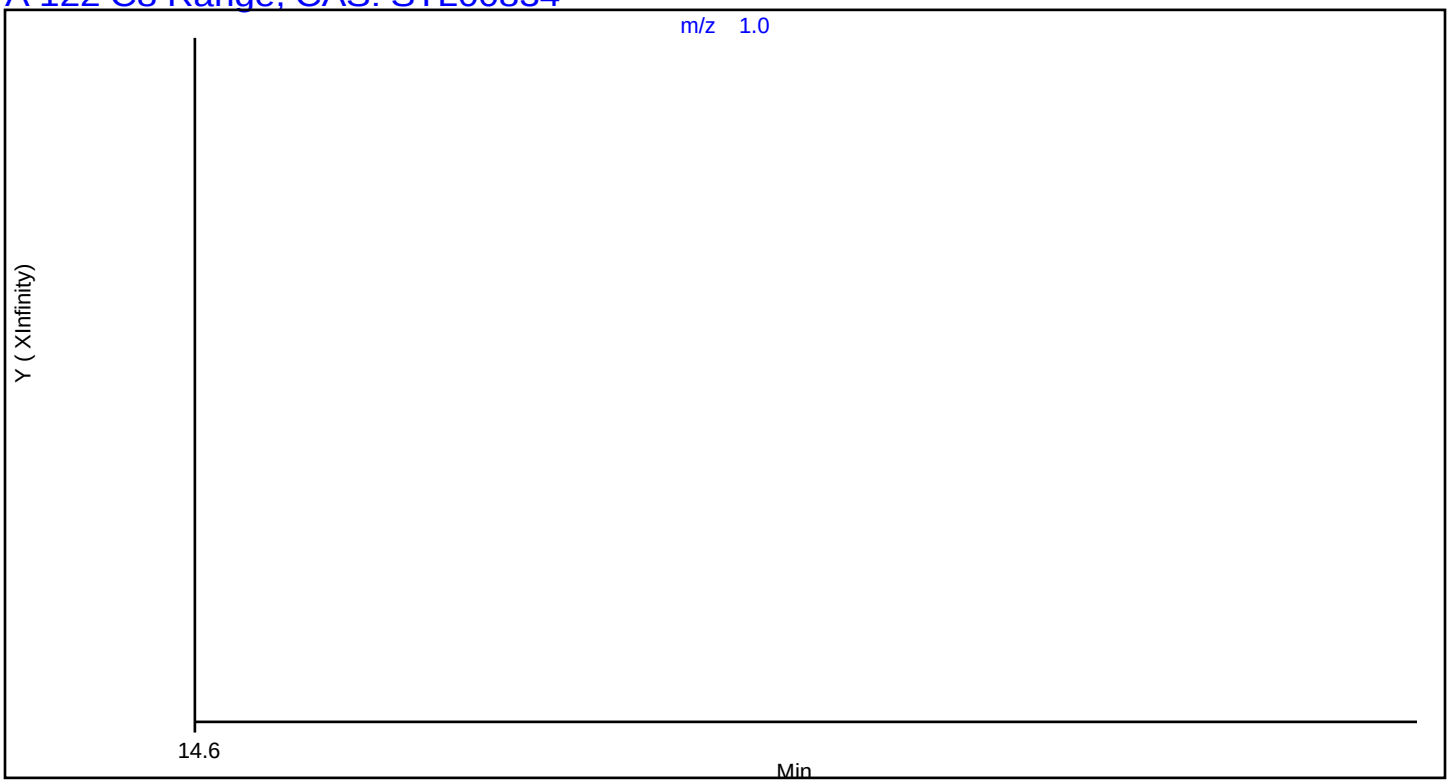


Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-Jul-2019 20:27:30 ALS Bottle#: 13 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-004
Misc. Info.: 231544
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:23 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:08:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	96	314272	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.845	11.841	0.004	96	1591131	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	91	1435997	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	92	1116210	4.00	4.23	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	746436	8.00	8.69	
20 Propene	41	4.168	4.169	-0.001	97	452211	8.00	7.27	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	785524	8.00	7.98	
22 Chloromethane	52	4.443	4.441	0.002	100	261290	8.00	8.23	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	47	104932	8.00	7.68	
24 Acetaldehyde	44	4.615	4.617	-0.002	93	1644486	40.0	40.2	
25 Vinyl chloride	62	4.642	4.642	0.000	99	896725	8.00	8.40	
26 Butane	43	4.739	4.739	0.000	84	1362610	8.00	8.27	
27 Butadiene	54	4.739	4.741	-0.002	69	668537	8.00	8.28	
28 Bromomethane	94	5.115	5.117	-0.002	98	788699	8.00	8.39	
29 Chloroethane	64	5.277	5.275	0.002	93	397472	8.00	8.46	
30 Ethanol	31	5.384	5.386	-0.002	98	1803133	40.0	42.5	
31 Vinyl bromide	106	5.621	5.618	0.003	98	741427	8.00	8.51	
32 2-Methylbutane	43	5.669	5.669	0.000	90	914602	8.00	8.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	2750738	8.00	8.09	
34 Acrolein	56	5.933	5.930	0.003	96	174522	8.00	8.46	
35 Acetonitrile	40	6.008	6.004	0.004	97	281228	8.00	8.61	
36 Acetone	58	6.051	6.061	-0.010	99	880002	24.0	24.3	
38 Pentane	72	6.154	6.155	-0.001	95	108908	8.00	8.39	
37 Isopropyl alcohol	45	6.148	6.155	-0.007	93	2777741	24.0	26.4	
39 Ethyl ether	31	6.336	6.345	-0.009	91	980136	8.00	8.39	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	799265	8.00	8.29	
41 Acrylonitrile	53	6.804	6.802	0.002	91	559160	8.00	8.67	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	96	1515640	8.00	9.33	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	1829502	8.00	8.16	
44 Methylene Chloride	84	7.068	7.067	0.001	97	890951	8.00	7.53	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	97	900716	8.00	8.22	
46 Carbon disulfide	76	7.251	7.248	0.003	100	2412730	8.00	8.20	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	93	802422	8.00	8.33	
48 2-Methylpentane	43	7.929	7.928	0.001	95	2100541	8.00	7.91	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	2268816	8.00	8.82	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	1771492	8.00	8.25	
51 Vinyl acetate	43	8.461	8.461	0.000	100	2352362	8.00	8.63	
52 2-Butanone (MEK)	72	8.935	8.943	-0.008	98	348079	8.00	8.21	
53 Hexane	56	8.951	8.948	0.003	80	698498	8.00	8.08	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	2819575	8.00	8.58	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	847712	8.00	8.53	
56 Ethyl acetate	43	9.559	9.566	-0.007	98	1936281	8.00	8.57	
57 Chloroform	83	9.742	9.735	0.007	97	2105679	8.00	8.26	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	2711408	8.00	8.86	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	955418	8.00	8.45	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	96	2279639	8.00	8.31	
61 1,2-Dichloroethane	62	10.877	10.873	0.004	98	1568177	8.00	8.58	
62 n-Butanol	31	11.275	11.296	-0.021	94	378008	8.00	8.69	
63 Cyclohexane	69	11.339	11.337	0.002	93	412685	8.00	8.43	
64 Benzene	78	11.345	11.340	0.005	98	2422180	8.00	8.31	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	1624278	8.00	6.65	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	91	564569	8.00	8.59	
67 Thiophene	84	11.608	11.604	0.004	98	1436912	8.00	8.67	
68 Isooctane	57	12.044	12.041	0.003	97	4299338	8.00	8.27	
69 n-Heptane	71	12.394	12.392	0.002	94	866442	8.00	8.64	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	86	1063615	8.00	8.69	
71 Trichloroethene	130	12.539	12.537	0.002	91	1291545	8.00	9.82	
72 Dibromomethane	93	12.630	12.627	0.003	96	1189178	8.00	8.76	
73 Dichlorobromomethane	83	12.765	12.761	0.004	99	2271588	8.00	8.76	
74 1,4-Dioxane	88	12.776	12.787	-0.011	92	324076	8.00	9.50	
75 Methyl methacrylate	41	12.824	12.827	-0.003	89	1279199	8.00	8.96	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	1516089	8.00	8.49	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	2103846	8.00	9.43	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	1653644	8.00	9.10	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	98	1595731	8.00	9.02	
80 Toluene	91	14.524	14.519	0.005	92	3008163	8.00	8.67	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	96	950196	8.00	8.55	
82 2-Hexanone	58	14.949	14.956	-0.007	92	986384	8.00	9.71	
83 n-Octane	85	15.153	15.154	-0.001	95	917763	8.00	8.62	
84 Chlorodibromomethane	129	15.293	15.290	0.003	97	2141207	8.00	8.91	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	1796171	8.00	8.88	
86 Tetrachloroethene	129	15.643	15.637	0.006	96	1182555	8.00	8.48	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	95	3223031	8.00	7.91	
88 Chlorobenzene	112	16.504	16.501	0.003	90	2361273	8.00	8.51	
89 Ethylbenzene	91	16.778	16.773	0.005	100	4015925	8.00	8.98	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	6295808	16.0	18.4	
91 n-Nonane	57	17.311	17.307	0.004	92	2122316	8.00	8.55	
92 Styrene	104	17.397	17.392	0.005	98	2294329	8.00	9.37	
93 Bromoform	173	17.402	17.398	0.004	96	2392675	8.00	9.30	
94 o-Xylene	91	17.456	17.453	0.003	98	3316892	8.00	9.10	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	1948236	8.00	7.67	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	648112	8.00	8.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.015	18.012	0.003	98	4239905	8.00	8.91	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	1148202	8.00	9.04	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	1109333	8.00	9.03	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	4296952	8.00	9.06	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	1702428	8.00	9.00	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	1785812	8.00	9.15	
103 n-Decane	57	18.978	18.974	0.004	91	2689224	8.00	8.57	
104 tert-Butylbenzene	119	19.134	19.133	0.001	89	3853173	8.00	8.84	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	3728010	8.00	8.87	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	5162536	8.00	8.75	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	2584149	8.00	8.83	
108 Benzyl chloride	91	19.489	19.487	0.002	97	3429055	8.00	9.52	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	92	2591316	8.00	8.76	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	4365177	8.00	8.79	
111 1,2,3-Trimethylbenzene	105	19.608	19.603	0.005	99	3630969	8.00	8.81	
112 Butylcyclohexane	83	19.645	19.642	0.003	91	3052992	8.00	8.56	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	3375076	8.00	8.83	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	2504407	8.00	8.70	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	4494512	8.00	8.74	
116 Indene	116	19.973	19.974	-0.001	88	2859932	8.00	8.72	
117 Undecane	57	20.237	20.235	0.002	95	3006478	8.00	8.47	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	1301047	8.00	9.08	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	4041015	8.00	9.03	
120 Dodecane	57	21.324	21.323	0.001	93	2734198	8.00	9.06	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	1991130	8.00	8.47	
122 Naphthalene	128	21.695	21.693	0.002	99	2833111	8.00	7.70	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	94	2425829	8.00	8.56	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	1549901	8.00	8.35	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	861791	8.00	8.57	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	1031248	8.00	8.56	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	9605151	8.00	8.43	
S 129 Xylenes, Total	100				0		24.0	27.5	
S 130 1,2-Dichloroethene, Total	1				0		16.0	16.9	

Reagents:

40L9DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

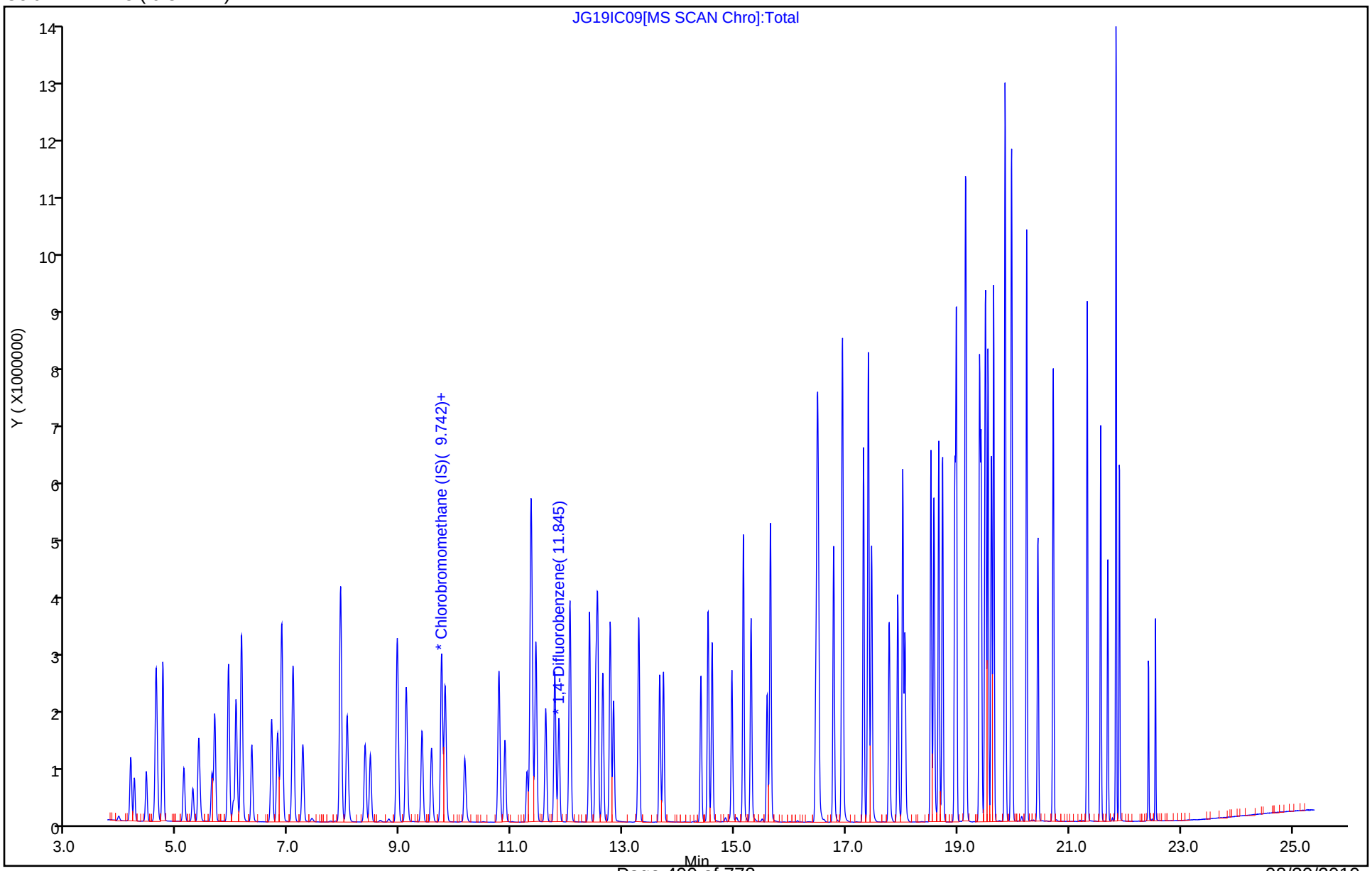
Report Date: 24-Jul-2019 11:35:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D

Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

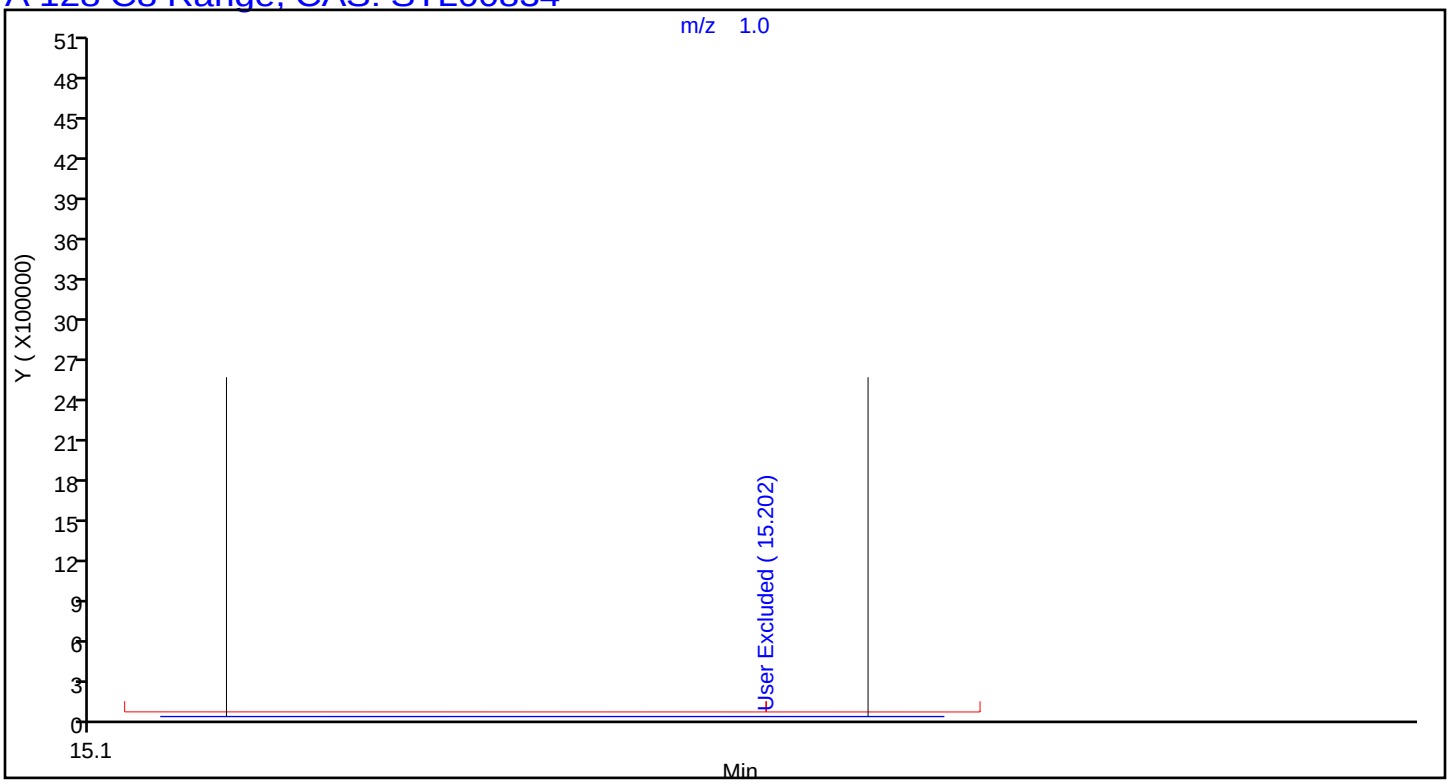
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D				
Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	13	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 19-Jul-2019 22:08:30 ALS Bottle#: 15 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-006
Misc. Info.: 231543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 14:31:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	93	345636	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.850	11.841	0.009	96	1832536	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.461	16.453	0.007	89	1681549	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.058	18.052	0.006	91	1240000	4.00	4.01	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	999266	16.0	10.6	
20 Propene	41	4.168	4.169	-0.001	97	592182	16.0	8.66	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	1499187	16.0	13.8	
22 Chloromethane	52	4.443	4.441	0.002	100	462523	16.0	13.2	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	46	175417	16.0	11.7	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	2825329	80.0	62.8	
25 Vinyl chloride	62	4.642	4.642	0.000	99	1689141	16.0	14.4	
26 Butane	43	4.739	4.739	0.000	84	2603044	16.0	14.4	
27 Butadiene	54	4.739	4.741	-0.002	69	1270467	16.0	14.3	
28 Bromomethane	94	5.121	5.117	0.004	98	1514422	16.0	14.6	
29 Chloroethane	64	5.277	5.275	0.002	95	770102	16.0	14.9	
30 Ethanol	31	5.390	5.386	0.004	99	3044070	80.0	65.3	
31 Vinyl bromide	106	5.621	5.618	0.003	97	1459967	16.0	15.2	
32 2-Methylbutane	43	5.669	5.669	0.000	90	1778006	16.0	14.2	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	5466655	16.0	14.6	
34 Acrolein	56	5.933	5.930	0.003	98	314601	16.0	13.9	
35 Acetonitrile	40	6.008	6.004	0.004	97	539412	16.0	15.0	
36 Acetone	58	6.057	6.061	-0.004	100	1556512	48.0	39.1	
38 Pentane	72	6.159	6.155	0.004	92	218971	16.0	15.3	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	75	4474624	48.0	38.7	
39 Ethyl ether	31	6.336	6.345	-0.009	90	1842593	16.0	14.3	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	1581117	16.0	14.9	
41 Acrylonitrile	53	6.810	6.802	0.008	92	1066284	16.0	15.0	
42 2-Methyl-2-propanol	59	6.799	6.814	-0.015	96	2352259	16.0	13.2	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	3609413	16.0	14.6	
44 Methylene Chloride	84	7.073	7.067	0.006	97	1420525	16.0	10.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	96	1865781	16.0	15.5	
46 Carbon disulfide	76	7.251	7.248	0.003	100	4778388	16.0	14.8	
47 trans-1,2-Dichloroethene	96	7.929	7.922	0.007	93	1559714	16.0	14.7	
48 2-Methylpentane	43	7.934	7.928	0.006	94	4040646	16.0	13.8	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	4294511	16.0	15.2	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	3431571	16.0	14.5	
51 Vinyl acetate	43	8.467	8.461	0.006	100	4347628	16.0	14.5	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	98	640120	16.0	13.7	
53 Hexane	56	8.951	8.948	0.003	81	1355833	16.0	14.3	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	5240908	16.0	14.5	
55 cis-1,2-Dichloroethene	96	9.392	9.384	0.008	98	1644734	16.0	15.1	
56 Ethyl acetate	43	9.564	9.566	-0.002	98	3675059	16.0	14.8	
57 Chloroform	83	9.747	9.735	0.012	97	4117234	16.0	14.7	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	5081493	16.0	15.1	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	1801950	16.0	14.5	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	97	4497945	16.0	14.9	
61 1,2-Dichloroethane	62	10.882	10.873	0.009	98	3115023	16.0	14.8	
62 n-Butanol	31	11.280	11.296	-0.016	94	580553	16.0	11.6	
63 Cyclohexane	69	11.339	11.337	0.002	93	811291	16.0	14.4	
64 Benzene	78	11.350	11.340	0.010	98	4679288	16.0	13.9	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	4751427	16.0	16.9	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	90	1085296	16.0	14.3	
67 Thiophene	84	11.614	11.604	0.010	98	2776968	16.0	14.5	
68 Isooctane	57	12.049	12.041	0.008	96	8281518	16.0	13.8	
69 n-Heptane	71	12.399	12.392	0.007	94	1681680	16.0	14.6	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	2056985	16.0	14.6	
71 Trichloroethene	130	12.544	12.537	0.007	93	2209989	16.0	14.6	
72 Dibromomethane	93	12.636	12.627	0.009	96	2348328	16.0	15.0	
73 Dichlorobromomethane	83	12.770	12.761	0.009	99	4508733	16.0	15.1	
74 1,4-Dioxane	88	12.776	12.787	-0.011	91	537847	16.0	13.7	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	2475502	16.0	15.0	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	2972213	16.0	14.5	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.662	-0.004	99	3439475	16.0	13.4	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	3240398	16.0	15.5	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	97	3180285	16.0	15.4	
80 Toluene	91	14.524	14.519	0.005	92	5839733	16.0	14.4	
81 1,1,2-Trichloroethane	83	14.599	14.591	0.008	95	1873801	16.0	14.4	
82 2-Hexanone	58	14.954	14.956	-0.002	92	1569231	16.0	13.2	
83 n-Octane	85	15.159	15.154	0.005	93	1786512	16.0	14.3	
84 Chlorodibromomethane	129	15.299	15.290	0.009	98	4340906	16.0	15.4	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	3574771	16.0	15.1	
86 Tetrachloroethene	129	15.643	15.637	0.006	94	2373157	16.0	14.5	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	94	6097229	16.0	12.8	
88 Chlorobenzene	112	16.504	16.501	0.003	90	4719682	16.0	14.5	
89 Ethylbenzene	91	16.778	16.773	0.005	100	7725788	16.0	14.8	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	12055501	32.0	30.0	
91 n-Nonane	57	17.316	17.307	0.009	91	4150063	16.0	14.3	
92 Styrene	104	17.397	17.392	0.005	98	4622861	16.0	16.1	
93 Bromoform	173	17.402	17.398	0.004	97	5062797	16.0	16.8	
94 o-Xylene	91	17.461	17.453	0.008	98	6347222	16.0	14.9	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	4342084	16.0	14.6	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	97	1267571	16.0	15.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.021	18.012	0.009	98	8162742	16.0	14.6	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	2260539	16.0	15.2	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	2193658	16.0	15.2	
100 4-Ethyltoluene	105	18.666	18.658	0.008	97	8353268	16.0	15.0	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	3349699	16.0	15.1	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	3635031	16.0	15.9	
103 n-Decane	57	18.978	18.974	0.004	93	5075517	16.0	13.8	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	7496594	16.0	15.2	
106 sec-Butylbenzene	105	19.398	19.389	0.009	96	10008232	16.0	14.5	
107 1,3-Dichlorobenzene	146	19.425	19.419	0.006	98	5278679	16.0	15.4	
108 Benzyl chloride	91	19.495	19.487	0.008	97	7139166	16.0	16.9	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	91	5369180	16.0	15.5	
110 4-Isopropyltoluene	119	19.548	19.542	0.006	96	8636742	16.0	14.9	
111 1,2,3-Trimethylbenzene	105	19.607	19.603	0.004	98	7267371	16.0	15.1	
112 Butylcyclohexane	83	19.651	19.642	0.009	91	5944213	16.0	14.2	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	6866158	16.0	15.3	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	5170636	16.0	15.3	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	8885564	16.0	14.8	
116 Indene	116	19.979	19.974	0.005	89	6055240	16.0	15.8	
117 Undecane	57	20.237	20.235	0.002	94	5651121	16.0	13.6	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	2569818	16.0	15.3	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	8007424	16.0	15.3	
120 Dodecane	57	21.324	21.323	0.001	93	3757386	16.0	10.6	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	4126184	16.0	15.0	
122 Naphthalene	128	21.695	21.693	0.002	98	5776864	16.0	13.4	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	93	4683877	16.0	14.1	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	2955030	16.0	13.6	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	99	948200	16.0	8.05	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	977205	16.0	6.92	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	18748187	16.0	14.0	
S 129 Xylenes, Total	100				0		48.0	44.9	
S 130 1,2-Dichloroethene, Total	1				0		32.0	29.8	

Reagents:

40L10DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

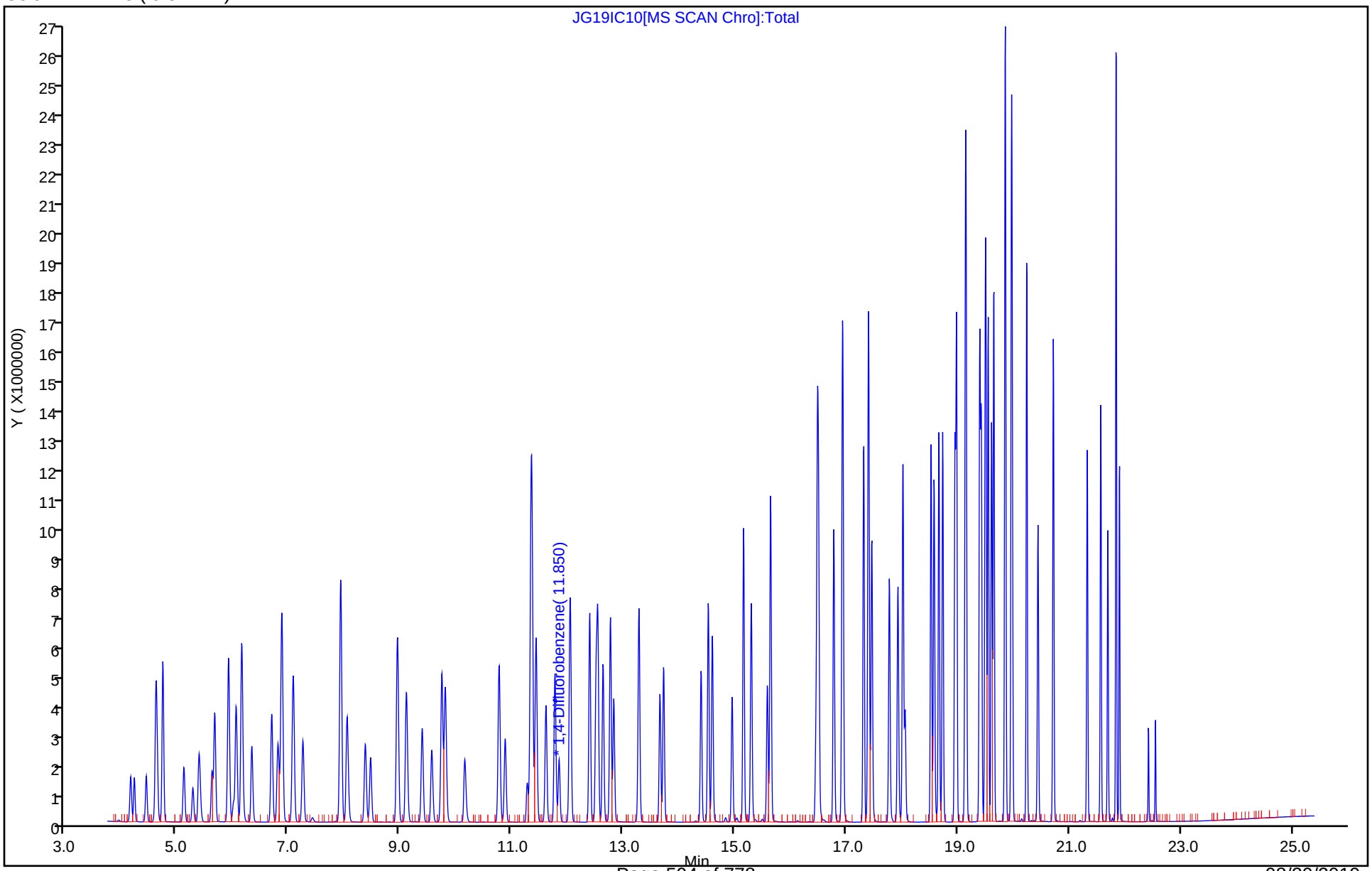
Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D

Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	6
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

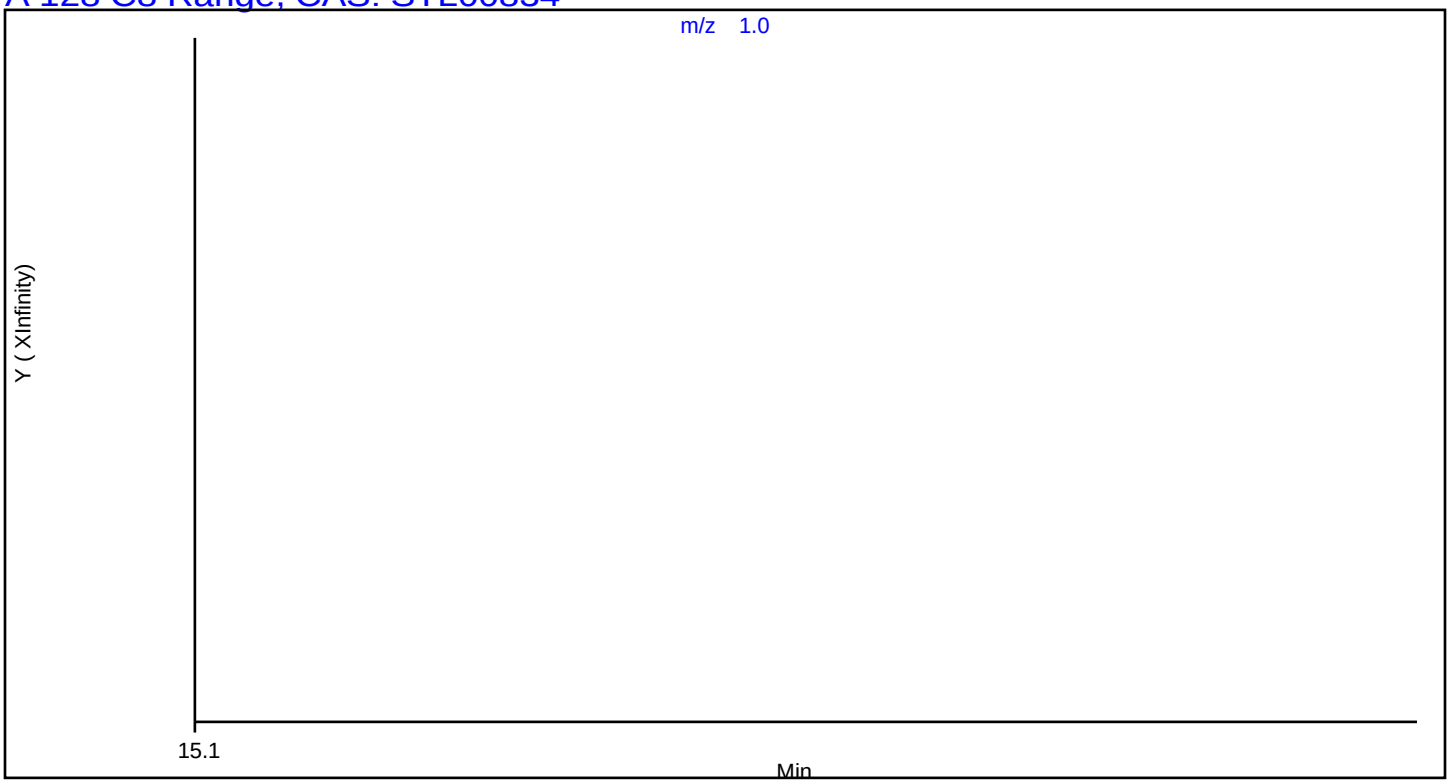


Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



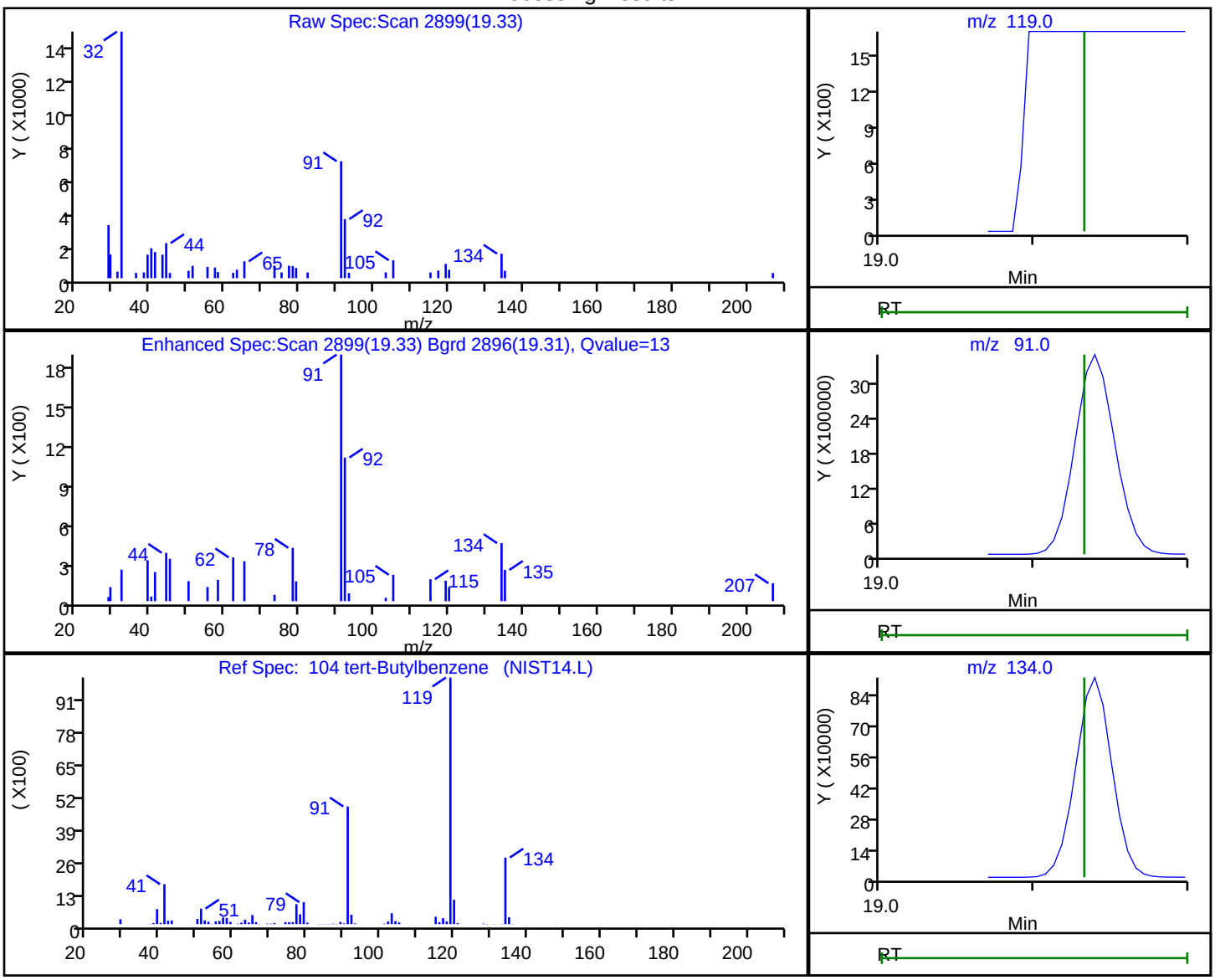
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

104 tert-Butylbenzene, CAS: 98-06-6

Processing Results



RT	Mass	Response	Amount
19.33	119.00	187	0.000418
19.13	91.00	0	
19.13	134.00	0	

Reviewer: tajh, 22-Jul-2019 18:08:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Jul-2019 00:39:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-009
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:38 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:21:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.731	-0.002	97	313712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.841	-0.004	97	1627560	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.453	16.453	0.000	91	1405662	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.051	18.052	-0.001	89	991098	4.00	3.84	
19 Chlorodifluoromethane	51	4.150	4.155	-0.005	34	2189	0.0200	0.0255	
20 Propene	41	4.172	4.169	0.003	96	17804	0.0200	0.2867	
21 Dichlorodifluoromethane	85	4.225	4.228	-0.003	85	2169	0.0200	0.0221	
22 Chloromethane	52	4.441	4.441	0.000	86	1131	0.0200	0.0357	
24 Acetaldehyde	44	4.618	4.617	0.001	90	11538	0.1000	0.2826	
25 Vinyl chloride	62	4.645	4.642	0.003	86	2330	0.0200	0.0219	
26 Butane	43	4.736	4.739	-0.003	83	4322	0.0200	0.0263	
27 Butadiene	54	4.747	4.741	0.006	60	2150	0.0200	0.0267	
28 Bromomethane	94	5.118	5.117	0.001	87	2266	0.0200	0.0241	
29 Chloroethane	64	5.280	5.275	0.005	19	820	0.0200	0.0175	
30 Ethanol	31	5.387	5.386	0.001	98	7537	0.1000	0.1781	
31 Vinyl bromide	106	5.613	5.618	-0.005	58	2050	0.0200	0.0236	
32 2-Methylbutane	43	5.673	5.669	0.004	80	2930	0.0200	0.0259	
33 Trichlorofluoromethane	101	5.915	5.916	-0.001	95	7213	0.0200	0.0213	
36 Acetone	58	6.076	6.061	0.015	73	2491	0.0600	0.0690	
37 Isopropyl alcohol	45	6.167	6.155	0.012	73	8813	0.0600	0.0840	
39 Ethyl ether	31	6.361	6.345	0.016	1	453	0.0200	0.003886	
40 1,1-Dichloroethene	96	6.695	6.690	0.005	90	2044	0.0200	0.0212	
41 Acrylonitrile	53	6.808	6.802	0.006	51	628	0.0200	0.009754	
42 2-Methyl-2-propanol	59	6.840	6.814	0.026	50	2672	0.0200	0.0165	
43 1,1,2-Trichloro-1,2,2-trif	101	6.872	6.873	-0.001	92	4632	0.0200	0.0207	
44 Methylene Chloride	84	7.066	7.067	-0.001	97	16987	0.0200	0.1439	
45 3-Chloro-1-propene	39	7.082	7.081	0.001	26	2522	0.0200	0.0231	
46 Carbon disulfide	76	7.243	7.248	-0.005	92	6498	0.0200	0.0221	
47 trans-1,2-Dichloroethene	96	7.916	7.922	-0.006	93	1890	0.0200	0.0196	
48 2-Methylpentane	43	7.932	7.928	0.004	94	7408	0.0200	0.0280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
49 Methyl tert-butyl ether	73	8.099	8.066	0.033	39	3753	0.0200	0.0146	
50 1,1-Dichloroethane	63	8.362	8.363	-0.001	95	4424	0.0200	0.0206	
51 Vinyl acetate	43	8.459	8.461	-0.002	63	4359	0.0200	0.0160	
53 Hexane	56	8.943	8.948	-0.005	81	2077	0.0200	0.0241	
54 Isopropyl ether	45	9.132	9.118	0.014	95	5328	0.0200	0.0162	
55 cis-1,2-Dichloroethene	96	9.390	9.384	0.006	77	1970	0.0200	0.0199	
56 Ethyl acetate	43	9.573	9.566	0.007	90	3872	0.0200	0.0172	
57 Chloroform	83	9.729	9.735	-0.006	31	5814	0.0200	0.0228	
58 Tert-butyl ethyl ether	59	9.836	9.817	0.019	89	4288	0.0200	0.0140	
59 Tetrahydrofuran	42	10.207	10.176	0.031	51	2162	0.0200	0.0192	
60 1,1,1-Trichloroethane	97	10.767	10.767	0.000	93	5753	0.0200	0.0210	
61 1,2-Dichloroethane	62	10.869	10.873	-0.004	92	3702	0.0200	0.0198	
62 n-Butanol	31	11.321	11.296	0.025	55	3821	0.0200	0.0859	
63 Cyclohexane	69	11.326	11.337	-0.011	77	1154	0.0200	0.0231	
64 Benzene	78	11.337	11.340	-0.003	95	7093	0.0200	0.0238	
65 Carbon tetrachloride	117	11.359	11.361	-0.002	93	4218	0.0200	0.0169	
66 2,3-Dimethylpentane	71	11.434	11.430	0.004	87	1248	0.0200	0.0186	
67 Thiophene	84	11.595	11.604	-0.009	89	3464	0.0200	0.0204	
68 Isooctane	57	12.042	12.041	0.001	96	12538	0.0200	0.0236	
69 n-Heptane	71	12.397	12.392	0.005	88	2222	0.0200	0.0217	
70 1,2-Dichloropropane	63	12.504	12.505	-0.001	80	2412	0.0200	0.0193	
71 Trichloroethene	130	12.537	12.537	0.000	90	2786	0.0200	0.0207	
72 Dibromomethane	93	12.623	12.627	-0.004	90	2816	0.0200	0.0203	
73 Dichlorobromomethane	83	12.752	12.761	-0.009	94	5568	0.0200	0.0210	
75 Methyl methacrylate	41	12.833	12.827	0.006	74	3650	0.0200	0.0250	
76 Methylcyclohexane	83	13.279	13.277	0.002	91	3834	0.0200	0.0210	
77 4-Methyl-2-pentanone (MIBK	43	13.677	13.662	0.015	91	5569	0.0200	0.0244	
78 cis-1,3-Dichloropropene	75	13.715	13.718	-0.003	87	3577	0.0200	0.0192	
79 trans-1,3-Dichloropropene	75	14.387	14.390	-0.003	92	2599	0.0200	0.0150	
80 Toluene	91	14.522	14.519	0.003	91	6575	0.0200	0.0194	
81 1,1,2-Trichloroethane	83	14.592	14.591	0.001	88	1827	0.0200	0.0168	
82 2-Hexanone	58	14.963	14.956	0.007	87	1686	0.0200	0.0170	
83 n-Octane	85	15.151	15.154	-0.003	87	2054	0.0200	0.0197	
84 Chlorodibromomethane	129	15.286	15.290	-0.004	95	4650	0.0200	0.0198	
85 Ethylene Dibromide	107	15.576	15.579	-0.003	96	4044	0.0200	0.0204	
86 Tetrachloroethene	129	15.635	15.637	-0.002	87	2956	0.0200	0.0217	
87 2,3-Dimethylheptane	43	16.474	16.478	-0.004	93	11576	0.0200	0.0290	
88 Chlorobenzene	112	16.501	16.501	0.000	83	5493	0.0200	0.0202	
89 Ethylbenzene	91	16.770	16.773	-0.003	97	7777	0.0200	0.0178	
90 m-Xylene & p-Xylene	91	16.921	16.929	-0.008	97	12370	0.0400	0.0369	
91 n-Nonane	57	17.308	17.307	0.001	90	5038	0.0200	0.0207	
92 Styrene	104	17.394	17.392	0.002	87	4123	0.0200	0.0172	
93 Bromoform	173	17.400	17.398	0.002	88	4481	0.0200	0.0178	
94 o-Xylene	91	17.454	17.453	0.001	95	5775	0.0200	0.0162	
95 1,1,2,2-Tetrachloroethane	83	17.766	17.769	-0.003	93	4273	0.0200	0.0172	
96 1,2,3-Trichloropropane	110	17.922	17.923	-0.001	94	1138	0.0200	0.0161	
97 Isopropylbenzene	105	18.013	18.012	0.001	87	7286	0.0200	0.0156	
98 N-Propylbenzene	120	18.513	18.517	-0.004	97	2069	0.0200	0.0166	
99 2-Chlorotoluene	126	18.572	18.572	0.000	95	2142	0.0200	0.0178	
100 4-Ethyltoluene	105	18.659	18.658	0.001	95	8496	0.0200	0.0183	
101 1,3,5-Trimethylbenzene	120	18.723	18.726	-0.003	91	3135	0.0200	0.0169	
102 Alpha Methyl Styrene	118	18.944	18.948	-0.004	84	3087	0.0200	0.0162	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
103 n-Decane	57	18.976	18.974	0.002	88	5340	0.0200	0.0174	
104 tert-Butylbenzene	119	19.132	19.133	-0.001	84	6713	0.0200	0.0157	
105 1,2,4-Trimethylbenzene	105	19.143	19.146	-0.003	75	6858	0.0200	0.0167	
106 sec-Butylbenzene	105	19.390	19.389	0.001	96	8913	0.0200	0.0154	
107 1,3-Dichlorobenzene	146	19.417	19.419	-0.002	95	7001	0.0200	0.0244	
108 Benzyl chloride	91	19.487	19.487	0.000	95	7763	0.0200	0.0220	
109 1,4-Dichlorobenzene	146	19.498	19.501	-0.003	86	7220	0.0200	0.0249	
110 4-Isopropyltoluene	119	19.541	19.542	-0.001	95	7857	0.0200	0.0162	
111 1,2,3-Trimethylbenzene	105	19.600	19.603	-0.003	96	7214	0.0200	0.0179	
112 Butylcyclohexane	83	19.638	19.642	-0.004	81	6127	0.0200	0.0176	
113 2,3-Dihydroindene	117	19.842	19.846	-0.004	91	7559	0.0200	0.0202	
114 1,2-Dichlorobenzene	146	19.847	19.851	-0.004	88	6415	0.0200	0.0228	
115 n-Butylbenzene	91	19.960	19.958	0.002	96	9491	0.0200	0.0189	
116 Indene	116	19.971	19.974	-0.003	88	6716	0.0200	0.0209	
117 Undecane	57	20.235	20.235	0.000	91	5853	0.0200	0.0169	
118 1,2-Dibromo-3-Chloropropan	157	20.439	20.438	0.001	87	2912	0.0200	0.0208	
119 1,2,4,5-Tetramethylbenzene	119	20.714	20.713	0.001	95	8404	0.0200	0.0192	
120 Dodecane	57	21.327	21.323	0.004	87	7479	0.0200	0.0253	
121 1,2,4-Trichlorobenzene	180	21.563	21.565	-0.002	92	9727	0.0200	0.0423	
122 Naphthalene	128	21.693	21.693	0.000	98	13915	0.0200	0.0386	
123 Hexachlorobutadiene	225	21.838	21.841	-0.003	94	5884	0.0200	0.0212	
124 1,2,3-Trichlorobenzene	180	21.902	21.900	0.002	92	8062	0.0200	0.0444	
125 2-Methylnaphthalene	142	22.424	22.424	0.000	96	11130	0.0200	0.1131	
126 1-Methylnaphthalene	142	22.548	22.549	-0.001	98	11702	0.0200	0.0992	
A 128 C8 Range	1	15.161	(15.134-15.188)		0	24948	0.0200	0.0224	
S 129 Xylenes, Total	100				0		0.0600	0.0530	
S 130 1,2-Dichloroethene, Total	1				0		0.0400	0.0395	

Reagents:

40L1-3DQP_00015	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

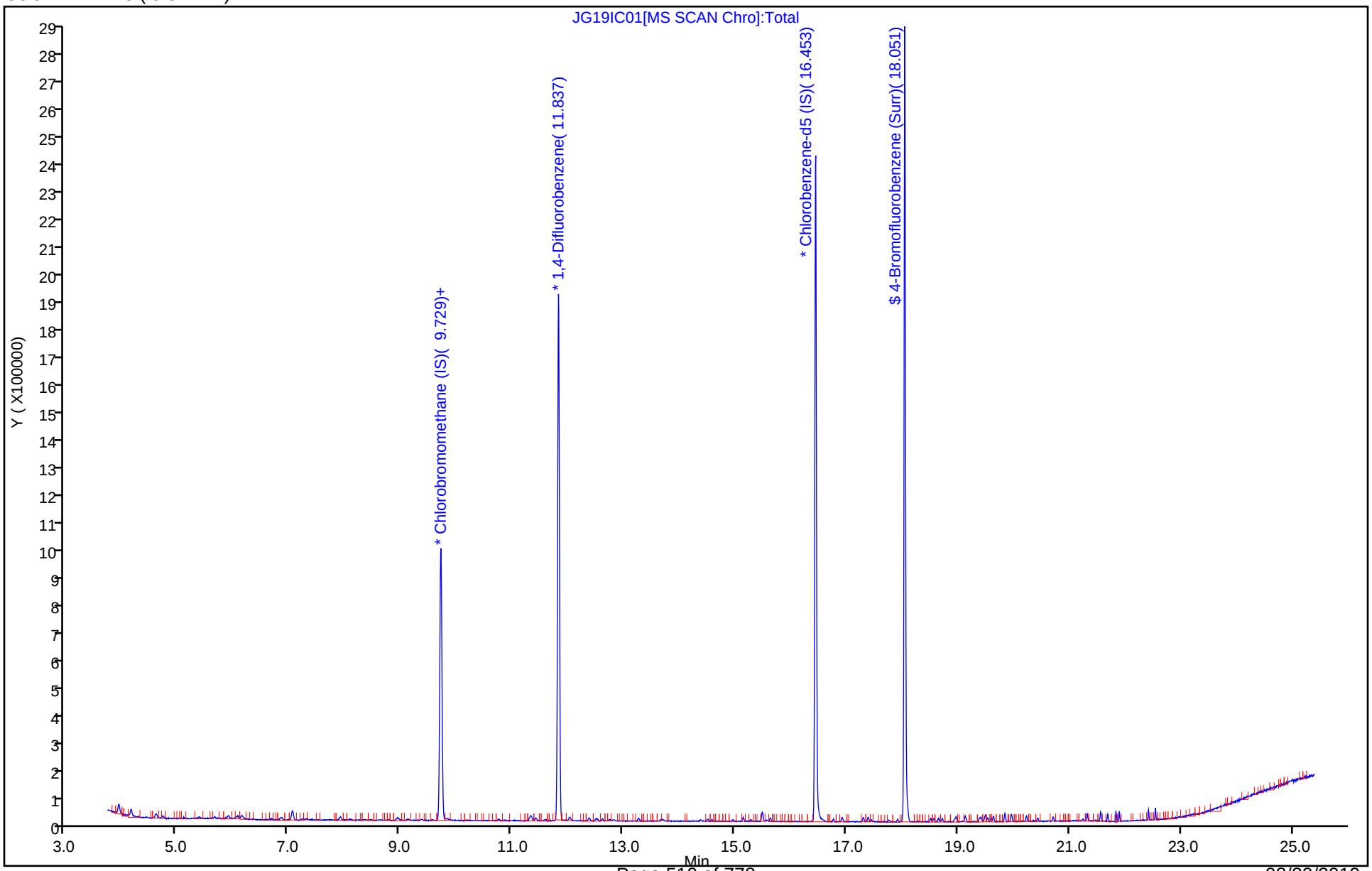
Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D

Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

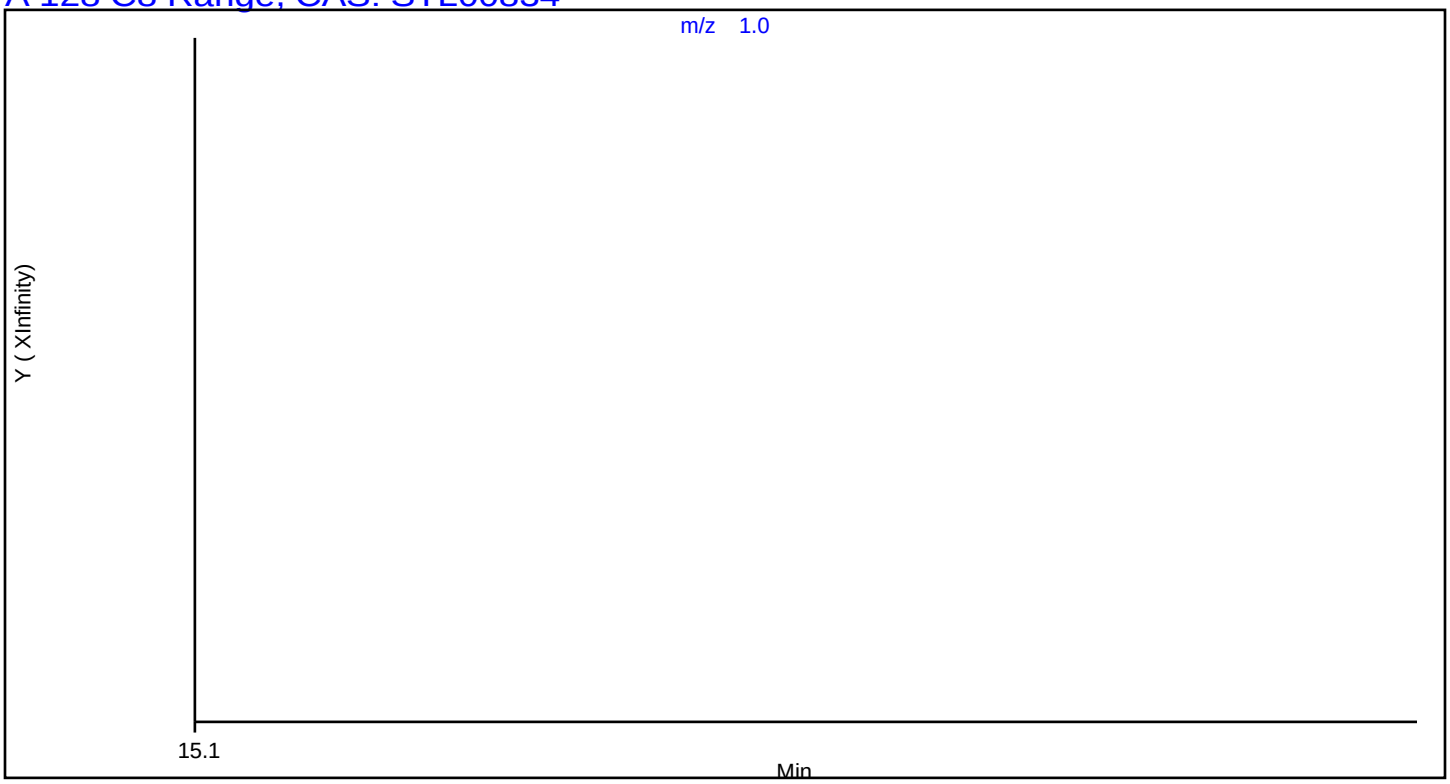


Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



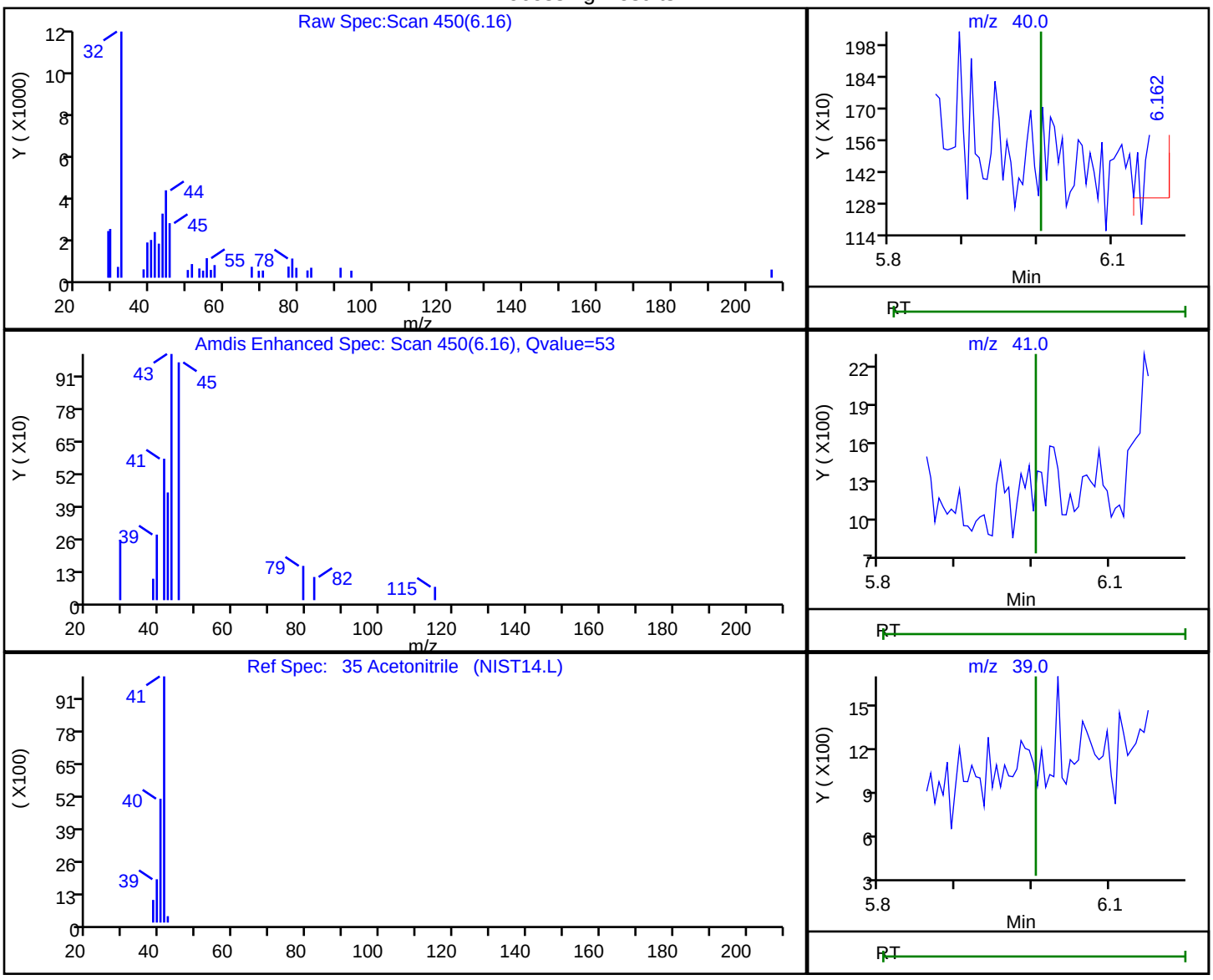
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

35 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.16	40.00	498	0.015280
6.16	41.00	4839	
6.16	39.00	1269	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:34

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

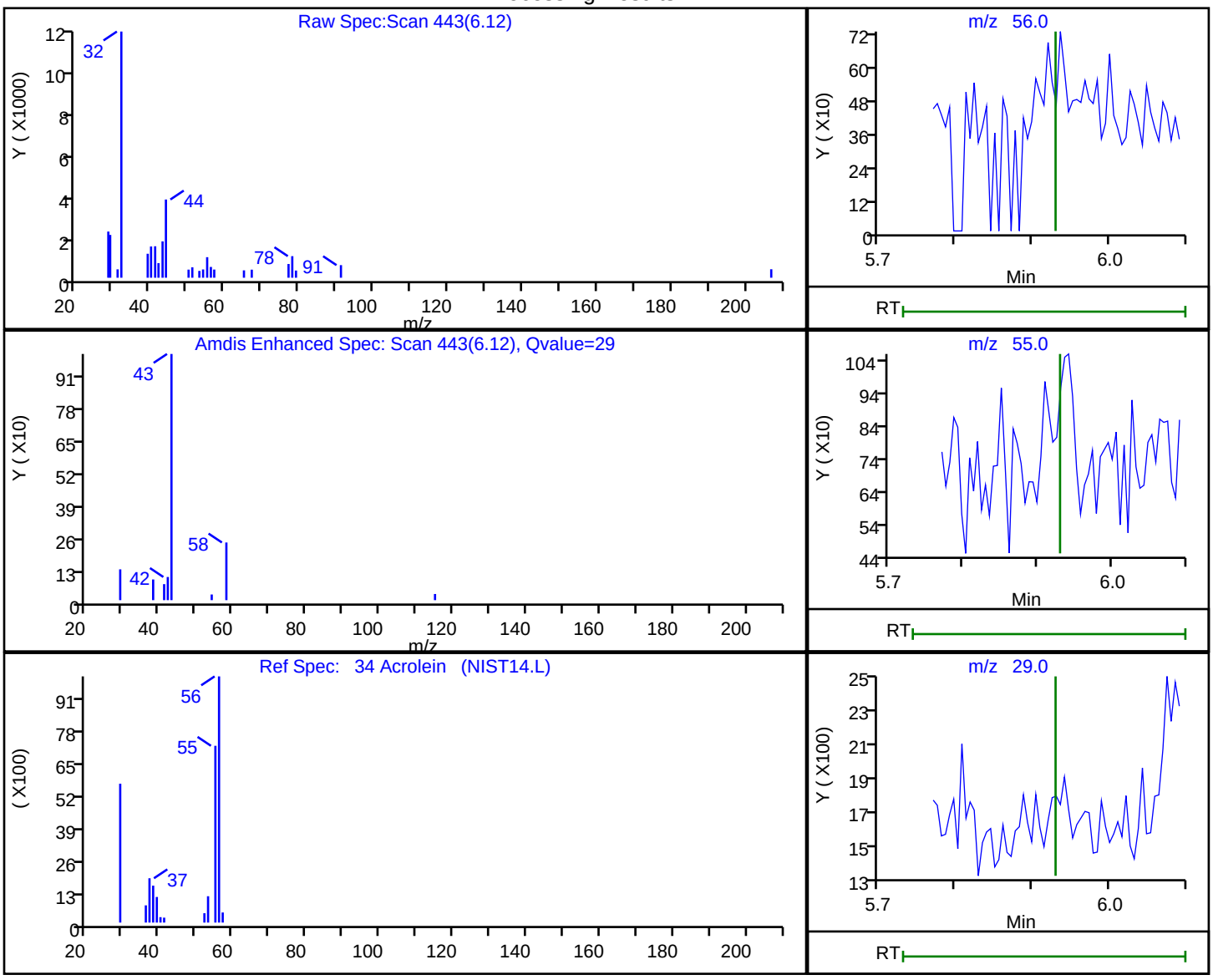
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
6.12	56.00	1445	0.070207
6.12	55.00	363	
5.93	29.00	0	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Jul-2019 01:29:30 ALS Bottle#: 1 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-010
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:44 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	97	308133	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.844	11.841	0.003	97	1576675	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1365319	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	89	967517	4.00	3.86	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	91	2936	0.0400	0.0349	
20 Propene	41	4.179	4.169	0.010	96	12962	0.0400	0.2125	
21 Dichlorodifluoromethane	85	4.243	4.228	0.015	96	3489	0.0400	0.0362	
22 Chloromethane	52	4.448	4.441	0.007	96	1894	0.0400	0.0609	
24 Acetaldehyde	44	4.625	4.617	0.008	94	18791	0.2000	0.4685	
25 Vinyl chloride	62	4.652	4.642	0.010	95	3946	0.0400	0.0377	
26 Butane	43	4.749	4.739	0.010	84	6602	0.0400	0.0409	
27 Butadiene	54	4.749	4.741	0.008	73	3557	0.0400	0.0449	
28 Bromomethane	94	5.126	5.117	0.009	89	4074	0.0400	0.0442	
29 Chloroethane	64	5.282	5.275	0.007	21	1857	0.0400	0.0403	
30 Ethanol	31	5.405	5.386	0.019	99	12906	0.2000	0.3105	
31 Vinyl bromide	106	5.626	5.618	0.008	94	3454	0.0400	0.0404	
32 2-Methylbutane	43	5.680	5.669	0.011	86	5939	0.0400	0.0533	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	97	13212	0.0400	0.0396	
34 Acrolein	56	5.938	5.930	0.008	25	2511	0.0400	0.1242	
35 Acetonitrile	40	6.008	6.004	0.004	57	1998	0.0400	0.0624	
36 Acetone	58	6.078	6.061	0.017	97	3590	0.1200	0.1012	
37 Isopropyl alcohol	45	6.196	6.155	0.041	92	16701	0.1200	0.1621	
39 Ethyl ether	31	6.357	6.345	0.012	56	1938	0.0400	0.0169	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	89	3774	0.0400	0.0399	
41 Acrylonitrile	53	6.804	6.802	0.002	69	2368	0.0400	0.0374	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	67	5845	0.0400	0.0367	
43 1,1,2-Trichloro-1,2,2-trif	101	6.879	6.873	0.006	91	9393	0.0400	0.0427	
44 Methylene Chloride	84	7.073	7.067	0.006	96	18590	0.0400	0.1604	
45 3-Chloro-1-propene	39	7.094	7.081	0.013	33	2590	0.0400	0.0241	
46 Carbon disulfide	76	7.250	7.248	0.002	96	11849	0.0400	0.0411	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
47 trans-1,2-Dichloroethene	96	7.934	7.922	0.012	86	3780	0.0400	0.0400	
48 2-Methylpentane	43	7.934	7.928	0.006	93	12084	0.0400	0.0464	
49 Methyl tert-butyl ether	73	8.100	8.066	0.034	95	8298	0.0400	0.0329	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	96	8410	0.0400	0.0399	
51 Vinyl acetate	43	8.466	8.461	0.005	98	9068	0.0400	0.0339	
52 2-Butanone (MEK)	72	8.961	8.943	0.018	80	1567	0.0400	0.0377	
53 Hexane	56	8.956	8.948	0.008	87	3869	0.0400	0.0457	
54 Isopropyl ether	45	9.149	9.118	0.031	94	10936	0.0400	0.0339	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	97	3754	0.0400	0.0385	
56 Ethyl acetate	43	9.590	9.566	0.024	94	8442	0.0400	0.0381	
57 Chloroform	83	9.730	9.735	-0.005	35	10551	0.0400	0.0422	
58 Tert-butyl ethyl ether	59	9.849	9.817	0.032	95	9805	0.0400	0.0327	
59 Tetrahydrofuran	42	10.209	10.176	0.033	90	4322	0.0400	0.0390	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	96	10466	0.0400	0.0389	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	95	7029	0.0400	0.0388	
62 n-Butanol	31	11.328	11.296	0.032	64	4606	0.0400	0.1069	
63 Cyclohexane	69	11.350	11.337	0.013	77	2068	0.0400	0.0427	
64 Benzene	78	11.333	11.340	-0.007	94	12412	0.0400	0.0430	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	86	8069	0.0400	0.0333	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	91	2480	0.0400	0.0381	
67 Thiophene	84	11.602	11.604	-0.002	92	6684	0.0400	0.0407	
68 Isooctane	57	12.044	12.041	0.003	96	21744	0.0400	0.0422	
69 n-Heptane	71	12.399	12.392	0.007	94	3833	0.0400	0.0386	
70 1,2-Dichloropropane	63	12.506	12.505	0.001	83	4584	0.0400	0.0378	
71 Trichloroethene	130	12.538	12.537	0.001	86	4953	0.0400	0.0380	
72 Dibromomethane	93	12.630	12.627	0.003	93	5398	0.0400	0.0401	
73 Dichlorobromomethane	83	12.764	12.761	0.003	97	9823	0.0400	0.0382	
74 1,4-Dioxane	88	12.818	12.787	0.031	40	1115	0.0400	0.0330	
75 Methyl methacrylate	41	12.834	12.827	0.007	82	6370	0.0400	0.0450	
76 Methylcyclohexane	83	13.275	13.277	-0.002	93	7431	0.0400	0.0420	
77 4-Methyl-2-pentanone (MIBK	43	13.679	13.662	0.017	97	11558	0.0400	0.0523	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	96	7013	0.0400	0.0390	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	94	5860	0.0400	0.0348	
80 Toluene	91	14.518	14.519	-0.001	92	13283	0.0400	0.0403	
81 1,1,2-Trichloroethane	83	14.593	14.591	0.002	92	4182	0.0400	0.0396	
82 2-Hexanone	58	14.965	14.956	0.009	89	3677	0.0400	0.0381	
83 n-Octane	85	15.153	15.154	-0.001	96	4356	0.0400	0.0430	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	95	8394	0.0400	0.0367	
85 Ethylene Dibromide	107	15.583	15.579	0.004	96	7415	0.0400	0.0385	
86 Tetrachloroethene	129	15.637	15.637	0.000	91	5396	0.0400	0.0407	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	80	18995	0.0400	0.0490	
88 Chlorobenzene	112	16.503	16.501	0.002	95	10571	0.0400	0.0401	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	15849	0.0400	0.0373	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	23792	0.0800	0.0730	
91 n-Nonane	57	17.305	17.307	-0.002	90	9676	0.0400	0.0410	
92 Styrene	104	17.391	17.392	-0.001	95	8335	0.0400	0.0358	
93 Bromoform	173	17.401	17.398	0.003	85	8155	0.0400	0.0333	
94 o-Xylene	91	17.455	17.453	0.002	96	12875	0.0400	0.0371	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	95	8806	0.0400	0.0365	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	94	2238	0.0400	0.0326	
97 Isopropylbenzene	105	18.015	18.012	0.003	87	17319	0.0400	0.0383	
98 N-Propylbenzene	120	18.515	18.517	-0.002	97	4134	0.0400	0.0342	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	4391	0.0400	0.0376	
100 4-Ethyltoluene	105	18.660	18.658	0.002	98	17321	0.0400	0.0384	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	5642	0.0400	0.0314	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	86	6248	0.0400	0.0337	
103 n-Decane	57	18.972	18.974	-0.002	89	11227	0.0400	0.0376	
104 tert-Butylbenzene	119	19.134	19.133	0.001	86	13508	0.0400	0.0326	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	94	13691	0.0400	0.0343	
106 sec-Butylbenzene	105	19.387	19.389	-0.003	97	19199	0.0400	0.0342	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	95	11083	0.0400	0.0398	
108 Benzyl chloride	91	19.483	19.487	-0.004	95	12687	0.0400	0.0371	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	89	12077	0.0400	0.0429	
110 4-Isopropyltoluene	119	19.543	19.542	0.000	96	16591	0.0400	0.0351	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	14103	0.0400	0.0360	
112 Butylcyclohexane	83	19.639	19.642	-0.003	86	12855	0.0400	0.0379	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	91	13091	0.0400	0.0360	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.003	84	11041	0.0400	0.0403	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	17973	0.0400	0.0368	
116 Indene	116	19.973	19.974	-0.001	87	11518	0.0400	0.0369	
117 Undecane	57	20.236	20.235	0.001	91	11900	0.0400	0.0353	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	90	5172	0.0400	0.0380	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	95	16233	0.0400	0.0382	
120 Dodecane	57	21.323	21.323	0.000	90	13291	0.0400	0.0463	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	11614	0.0400	0.0520	
122 Naphthalene	128	21.694	21.693	0.001	98	19371	0.0400	0.0554	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	10353	0.0400	0.0384	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	93	10581	0.0400	0.0600	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	9794	0.0400	0.1025	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	95	10896	0.0400	0.0951	
A 128 C8 Range	1	15.150	(15.125-15.201)		0	48233	0.0400	0.0445	
S 129 Xylenes, Total	100				0		0.1200	0.1101	
S 130 1,2-Dichloroethene, Total	1				0		0.0800	0.0785	

Reagents:

40L1-3DQP_00015	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D

Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

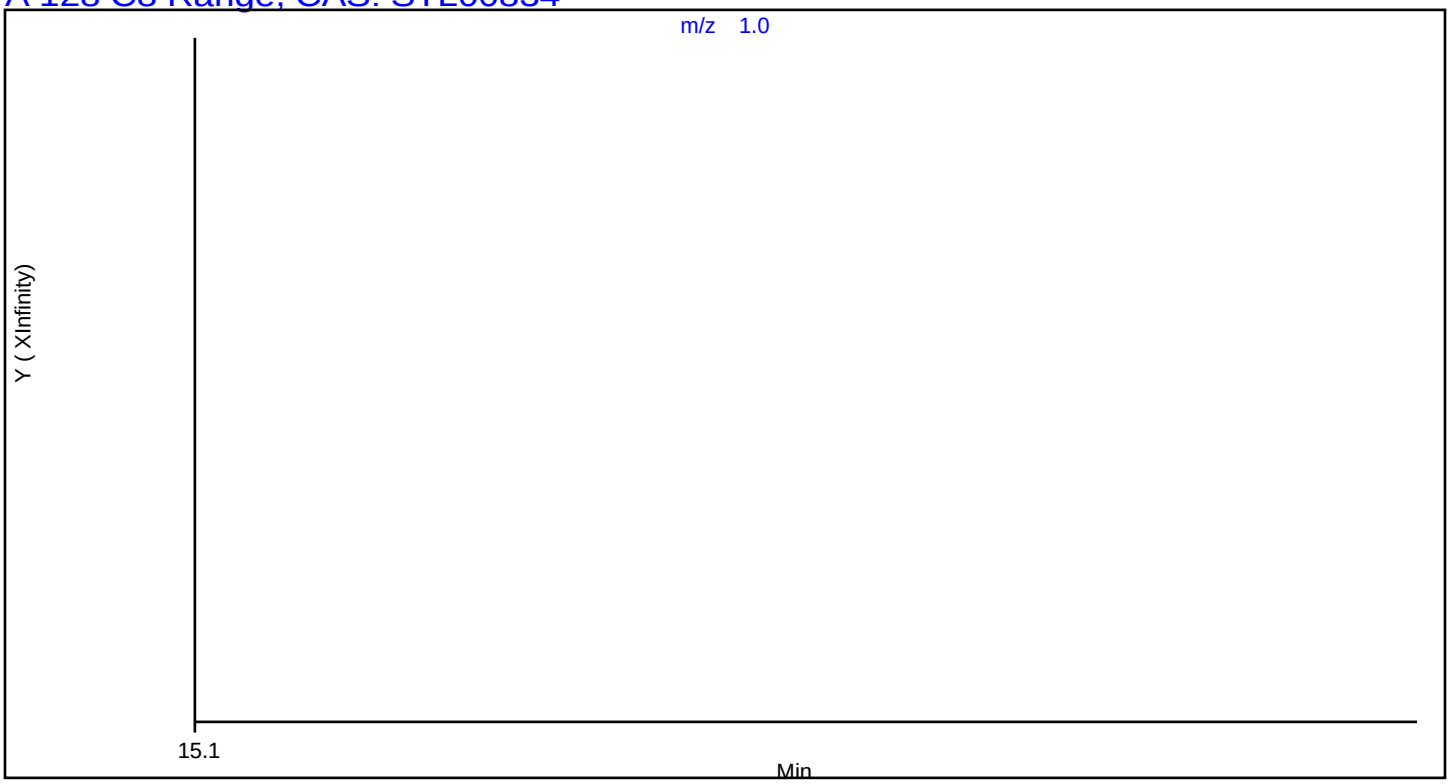


Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D				
Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Jul-2019 02:19:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-011
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:51 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	295878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1557979	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1339170	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	969175	4.00	3.94	
19 Chlorodifluoromethane	51	4.163	4.155	0.008	49	9400	0.0800	0.1163	
20 Propene	41	4.168	4.169	-0.001	97	24573	0.0800	0.4196	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	99	9823	0.0800	0.1060	
22 Chloromethane	52	4.437	4.441	-0.004	97	3201	0.0800	0.1071	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.444	0.009	48	1285	0.0800	0.0999	
24 Acetaldehyde	44	4.625	4.617	0.008	94	40868	0.4000	1.06	
25 Vinyl chloride	62	4.647	4.642	0.005	96	8041	0.0800	0.0800	
26 Butane	43	4.744	4.739	0.005	86	15268	0.0800	0.0984	
27 Butadiene	54	4.744	4.741	0.003	67	6693	0.0800	0.0880	
28 Bromomethane	94	5.115	5.117	-0.002	97	7368	0.0800	0.0832	
29 Chloroethane	64	5.276	5.275	0.001	95	3754	0.0800	0.0848	
30 Ethanol	31	5.406	5.386	0.020	97	24890	0.4000	0.6235	
31 Vinyl bromide	106	5.621	5.618	0.003	95	6832	0.0800	0.0833	
32 2-Methylbutane	43	5.664	5.669	-0.005	89	9935	0.0800	0.0929	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	99	25357	0.0800	0.0792	
34 Acrolein	56	5.933	5.930	0.003	27	3864	0.0800	0.1991	
35 Acetonitrile	40	6.008	6.004	0.004	88	2977	0.0800	0.0969	
36 Acetone	58	6.073	6.061	0.012	99	17804	0.2400	0.5227	
38 Pentane	72	6.153	6.155	-0.002	95	769	0.0800	0.0629	
37 Isopropyl alcohol	45	6.186	6.155	0.031	93	29426	0.2400	0.2974	
39 Ethyl ether	31	6.368	6.345	0.023	91	10953	0.0800	0.0996	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	91	7143	0.0800	0.0787	
41 Acrylonitrile	53	6.804	6.802	0.002	94	4815	0.0800	0.0793	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	95	11655	0.0800	0.0762	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.873	0.012	92	17504	0.0800	0.0829	
44 Methylene Chloride	84	7.068	7.067	0.001	97	20978	0.0800	0.1884	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	89	4800	0.0800	0.0465	
46 Carbon disulfide	76	7.251	7.248	0.003	96	22693	0.0800	0.0820	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	92	7079	0.0800	0.0780	
48 2-Methylpentane	43	7.934	7.928	0.006	94	21608	0.0800	0.0865	
49 Methyl tert-butyl ether	73	8.090	8.066	0.024	96	19276	0.0800	0.0796	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	98	16257	0.0800	0.0804	
51 Vinyl acetate	43	8.466	8.461	0.005	100	21643	0.0800	0.0843	
52 2-Butanone (MEK)	72	8.956	8.943	0.013	85	3867	0.0800	0.0969	
53 Hexane	56	8.956	8.948	0.008	70	6927	0.0800	0.0851	
54 Isopropyl ether	45	9.139	9.118	0.021	95	25508	0.0800	0.0824	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	96	7489	0.0800	0.0801	
56 Ethyl acetate	43	9.580	9.566	0.014	97	19451	0.0800	0.0915	
57 Chloroform	83	9.736	9.735	0.001	41	19433	0.0800	0.0809	
58 Tert-butyl ethyl ether	59	9.838	9.817	0.021	97	22975	0.0800	0.0797	
59 Tetrahydrofuran	42	10.199	10.176	0.023	92	9466	0.0800	0.0890	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	98	21221	0.0800	0.0821	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	14289	0.0800	0.0799	
62 n-Butanol	31	11.334	11.296	0.038	60	6570	0.0800	0.1543	
63 Cyclohexane	69	11.339	11.337	0.002	78	3879	0.0800	0.0810	
64 Benzene	78	11.339	11.340	-0.001	95	23431	0.0800	0.0821	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	15712	0.0800	0.0657	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	90	5203	0.0800	0.0808	
67 Thiophene	84	11.608	11.604	0.004	96	12792	0.0800	0.0788	
68 Isooctane	57	12.038	12.041	-0.003	96	41834	0.0800	0.0822	
69 n-Heptane	71	12.393	12.392	0.001	95	8011	0.0800	0.0816	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	9663	0.0800	0.0806	
71 Trichloroethene	130	12.539	12.537	0.002	90	9792	0.0800	0.0760	
72 Dibromomethane	93	12.625	12.627	-0.002	94	10330	0.0800	0.0777	
73 Dichlorobromomethane	83	12.765	12.761	0.004	98	19545	0.0800	0.0770	
74 1,4-Dioxane	88	12.813	12.787	0.026	83	2253	0.0800	0.0675	
75 Methyl methacrylate	41	12.835	12.827	0.008	88	13074	0.0800	0.0935	
76 Methylcyclohexane	83	13.281	13.277	0.004	91	14186	0.0800	0.0811	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.662	0.012	97	20616	0.0800	0.0944	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	96	12965	0.0800	0.0729	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	95	11970	0.0800	0.0726	
80 Toluene	91	14.518	14.519	-0.001	92	26319	0.0800	0.0813	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	94	8519	0.0800	0.0822	
82 2-Hexanone	58	14.970	14.956	0.014	90	6704	0.0800	0.0708	
83 n-Octane	85	15.158	15.154	0.004	95	8125	0.0800	0.0818	
84 Chlorodibromomethane	129	15.293	15.290	0.003	95	16503	0.0800	0.0737	
85 Ethylene Dibromide	107	15.583	15.579	0.004	99	13835	0.0800	0.0733	
86 Tetrachloroethene	129	15.632	15.637	-0.005	91	10387	0.0800	0.0799	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	92	34084	0.0800	0.0897	
88 Chlorobenzene	112	16.503	16.501	0.002	91	21091	0.0800	0.0815	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	33817	0.0800	0.0811	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	51906	0.1600	0.1624	
91 n-Nonane	57	17.305	17.307	-0.002	91	18648	0.0800	0.0806	
92 Styrene	104	17.391	17.392	-0.001	97	17412	0.0800	0.0762	
93 Bromoform	173	17.396	17.398	-0.002	93	16013	0.0800	0.0667	
94 o-Xylene	91	17.450	17.453	-0.003	97	25861	0.0800	0.0761	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	97	19464	0.0800	0.0822	
96 1,2,3-Trichloropropane	110	17.918	17.923	-0.005	96	5213	0.0800	0.0774	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	90	36474	0.0800	0.0822	
98 N-Propylbenzene	120	18.521	18.517	0.004	97	8913	0.0800	0.0752	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	8964	0.0800	0.0782	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	35480	0.0800	0.0802	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	13741	0.0800	0.0779	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	13291	0.0800	0.0730	
103 n-Decane	57	18.973	18.974	-0.001	90	24361	0.0800	0.0832	
104 tert-Butylbenzene	119	19.134	19.133	0.001	87	31655	0.0800	0.0778	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	95	29703	0.0800	0.0758	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	42596	0.0800	0.0774	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	21575	0.0800	0.0790	
108 Benzyl chloride	91	19.484	19.487	-0.003	96	23634	0.0800	0.0704	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	89	21946	0.0800	0.0796	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	35725	0.0800	0.0771	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	31632	0.0800	0.0823	
112 Butylcyclohexane	83	19.645	19.642	0.003	89	26215	0.0800	0.0788	
113 2,3-Dihydroindene	117	19.849	19.846	0.003	91	27282	0.0800	0.0765	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	83	21348	0.0800	0.0795	
115 n-Butylbenzene	91	19.957	19.958	-0.001	97	38745	0.0800	0.0808	
116 Indene	116	19.973	19.974	-0.001	86	22568	0.0800	0.0738	
117 Undecane	57	20.237	20.235	0.002	92	26082	0.0800	0.0788	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	89	9511	0.0800	0.0712	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	30517	0.0800	0.0731	
120 Dodecane	57	21.323	21.323	0.000	90	22571	0.0800	0.0802	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	16676	0.0800	0.0761	
122 Naphthalene	128	21.695	21.693	0.002	98	26972	0.0800	0.0786	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	21001	0.0800	0.0795	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	14610	0.0800	0.0845	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	97	7799	0.0800	0.0832	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	9565	0.0800	0.0851	
A 128 C8 Range	1	15.163	(15.125-15.201)		0	85223	0.0800	0.0802	
S 129 Xylenes, Total	100				0		0.2400	0.2384	
S 130 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00015	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

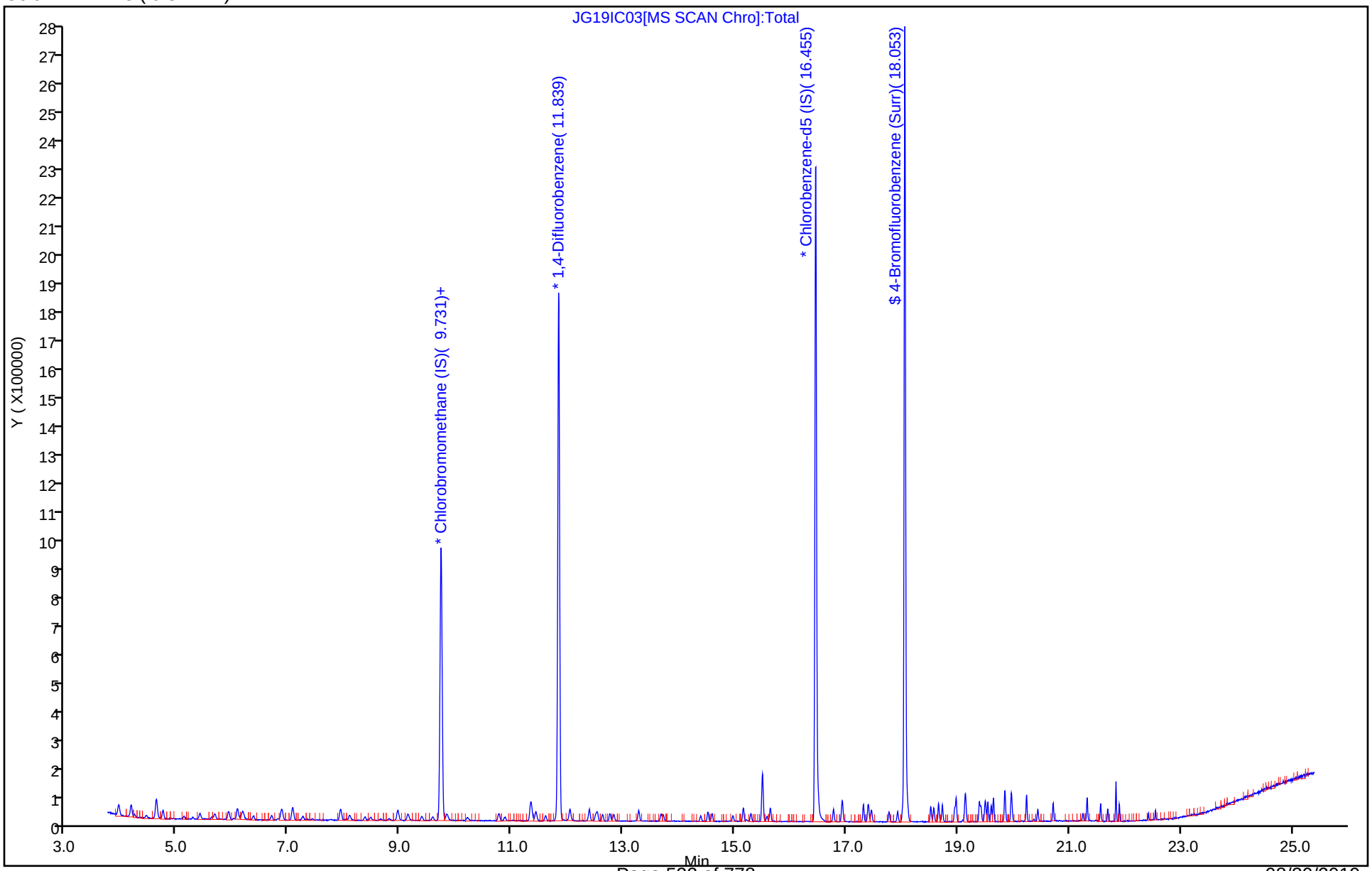
Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D

Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

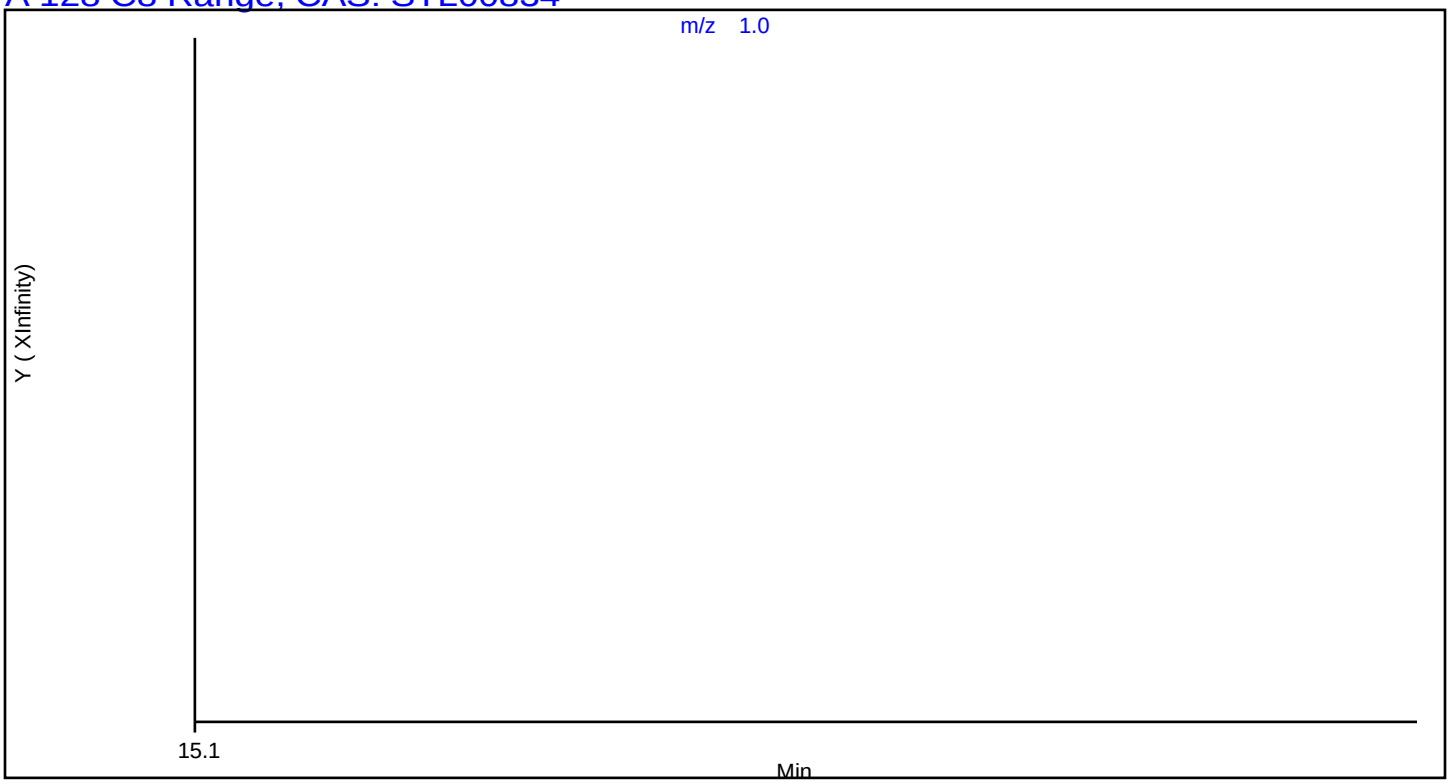


Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D				
Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Jul-2019 03:08:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-012
Misc. Info.: 231549
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:10:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.731	-0.006	97	296576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1525139	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1322052	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.052	-0.005	89	956228	4.00	3.94	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	60	11766	0.1600	0.1452	
20 Propene	41	4.168	4.169	-0.001	96	23040	0.1600	0.3925	
21 Dichlorodifluoromethane	85	4.233	4.228	0.005	98	14967	0.1600	0.1611	
22 Chloromethane	52	4.443	4.441	0.002	99	5364	0.1600	0.1791	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.444	0.004	48	2212	0.1600	0.1715	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	61302	0.8000	1.59	
25 Vinyl chloride	62	4.636	4.642	-0.006	98	15377	0.1600	0.1526	
26 Butane	43	4.733	4.739	-0.006	86	24969	0.1600	0.1605	
27 Butadiene	54	4.738	4.741	-0.003	67	12247	0.1600	0.1607	
28 Bromomethane	94	5.115	5.117	-0.002	96	14514	0.1600	0.1635	
29 Chloroethane	64	5.271	5.275	-0.004	83	6682	0.1600	0.1507	
30 Ethanol	31	5.379	5.386	-0.007	98	35944	0.8000	0.8983	
31 Vinyl bromide	106	5.615	5.618	-0.003	93	12262	0.1600	0.1491	
32 2-Methylbutane	43	5.669	5.669	0.000	89	17850	0.1600	0.1666	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	50064	0.1600	0.1561	
34 Acrolein	56	5.927	5.930	-0.003	27	5184	0.1600	0.2664	
35 Acetonitrile	40	6.003	6.004	-0.001	98	4156	0.1600	0.1349	
36 Acetone	58	6.062	6.061	0.001	99	32175	0.4800	0.9425	
38 Pentane	72	6.159	6.155	0.004	77	1905	0.1600	0.1554	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	83	53056	0.4800	0.5350	
39 Ethyl ether	31	6.342	6.345	-0.003	89	19260	0.1600	0.1748	
40 1,1-Dichloroethene	96	6.686	6.690	-0.004	93	14176	0.1600	0.1558	
41 Acrylonitrile	53	6.799	6.802	-0.003	85	10232	0.1600	0.1681	
42 2-Methyl-2-propanol	59	6.820	6.814	0.006	90	25495	0.1600	0.1663	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	94	32378	0.1600	0.1530	
44 Methylene Chloride	84	7.062	7.067	-0.005	97	27618	0.1600	0.2475	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	19027	0.1600	0.1840	
46 Carbon disulfide	76	7.245	7.248	-0.003	99	45848	0.1600	0.1652	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	94	14854	0.1600	0.1633	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	40379	0.1600	0.1612	
49 Methyl tert-butyl ether	73	8.068	8.066	0.002	96	38103	0.1600	0.1569	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	99	33200	0.1600	0.1638	
51 Vinyl acetate	43	8.461	8.461	0.000	100	41821	0.1600	0.1625	
52 2-Butanone (MEK)	72	8.945	8.943	0.002	84	7703	0.1600	0.1926	
53 Hexane	56	8.945	8.948	-0.003	70	13185	0.1600	0.1617	
54 Isopropyl ether	45	9.123	9.118	0.005	95	49024	0.1600	0.1581	
55 cis-1,2-Dichloroethene	96	9.376	9.384	-0.008	98	14886	0.1600	0.1588	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	32163	0.1600	0.1509	
57 Chloroform	83	9.731	9.735	-0.004	31	38772	0.1600	0.1611	
58 Tert-butyl ethyl ether	59	9.817	9.817	0.000	97	43590	0.1600	0.1509	
59 Tetrahydrofuran	42	10.183	10.176	0.006	91	16818	0.1600	0.1577	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	41786	0.1600	0.1614	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	28555	0.1600	0.1631	
62 n-Butanol	31	11.301	11.296	0.005	92	8706	0.1600	0.2089	
63 Cyclohexane	69	11.334	11.337	-0.003	71	7692	0.1600	0.1640	
64 Benzene	78	11.339	11.340	-0.001	97	46811	0.1600	0.1676	
65 Carbon tetrachloride	117	11.355	11.361	-0.006	96	41847	0.1600	0.1787	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	91	10044	0.1600	0.1594	
67 Thiophene	84	11.603	11.604	-0.001	97	25688	0.1600	0.1617	
68 Isooctane	57	12.038	12.041	-0.003	97	82779	0.1600	0.1661	
69 n-Heptane	71	12.388	12.392	-0.004	95	15220	0.1600	0.1583	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	19141	0.1600	0.1632	
71 Trichloroethene	130	12.533	12.537	-0.004	91	20397	0.1600	0.1617	
72 Dibromomethane	93	12.619	12.627	-0.008	95	20254	0.1600	0.1557	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	39256	0.1600	0.1580	
74 1,4-Dioxane	88	12.797	12.787	0.010	94	4891	0.1600	0.1496	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	20482	0.1600	0.1496	
76 Methylcyclohexane	83	13.270	13.277	-0.007	92	27810	0.1600	0.1625	
77 4-Methyl-2-pentanone (MIBK	43	13.663	13.662	0.001	98	34261	0.1600	0.1603	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	98	27046	0.1600	0.1553	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	24792	0.1600	0.1522	
80 Toluene	91	14.513	14.519	-0.006	91	52729	0.1600	0.1651	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	93	16524	0.1600	0.1616	
82 2-Hexanone	58	14.954	14.956	-0.002	90	14439	0.1600	0.1544	
83 n-Octane	85	15.153	15.154	-0.001	95	15603	0.1600	0.1592	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	33832	0.1600	0.1529	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	29806	0.1600	0.1600	
86 Tetrachloroethene	129	15.637	15.637	0.000	92	19915	0.1600	0.1552	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	64525	0.1600	0.1720	
88 Chlorobenzene	112	16.503	16.501	0.002	93	41482	0.1600	0.1623	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	66571	0.1600	0.1617	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	101976	0.3200	0.3231	
91 n-Nonane	57	17.305	17.307	-0.002	94	36144	0.1600	0.1582	
92 Styrene	104	17.391	17.392	-0.001	97	34466	0.1600	0.1529	
93 Bromoform	173	17.391	17.398	-0.007	88	32899	0.1600	0.1389	
94 o-Xylene	91	17.450	17.453	-0.003	97	52962	0.1600	0.1578	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	38078	0.1600	0.1628	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	10297	0.1600	0.1548	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	97	69310	0.1600	0.1582	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	18439	0.1600	0.1576	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	98	17231	0.1600	0.1524	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	69152	0.1600	0.1584	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	26393	0.1600	0.1515	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	25226	0.1600	0.1404	
103 n-Decane	57	18.973	18.974	-0.001	89	46275	0.1600	0.1602	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	89	60245	0.1600	0.1500	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	58741	0.1600	0.1518	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	82990	0.1600	0.1527	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	41427	0.1600	0.1537	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	38889	0.1600	0.1173	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	40588	0.1600	0.1490	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	67309	0.1600	0.1472	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	58340	0.1600	0.1537	
112 Butylcyclohexane	83	19.640	19.642	-0.002	89	51968	0.1600	0.1583	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	53750	0.1600	0.1527	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	93	41224	0.1600	0.1556	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	70396	0.1600	0.1488	
116 Indene	116	19.973	19.974	-0.001	88	43463	0.1600	0.1439	
117 Undecane	57	20.231	20.235	-0.004	93	49489	0.1600	0.1515	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	89	17756	0.1600	0.1347	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	57413	0.1600	0.1394	
120 Dodecane	57	21.323	21.323	0.000	91	42424	0.1600	0.1526	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	30585	0.1600	0.1413	
122 Naphthalene	128	21.689	21.693	-0.004	98	48485	0.1600	0.1431	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	40231	0.1600	0.1542	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	94	26384	0.1600	0.1545	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	14014	0.1600	0.1514	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	97	17082	0.1600	0.1539	
A 128 C8 Range	1	15.158	(15.120-15.195)		0	168585	0.1600	0.1607	
S 129 Xylenes, Total	100				0		0.4800	0.4809	
S 130 1,2-Dichloroethene, Total	1				0		0.3200	0.3221	

Reagents:

40L4DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

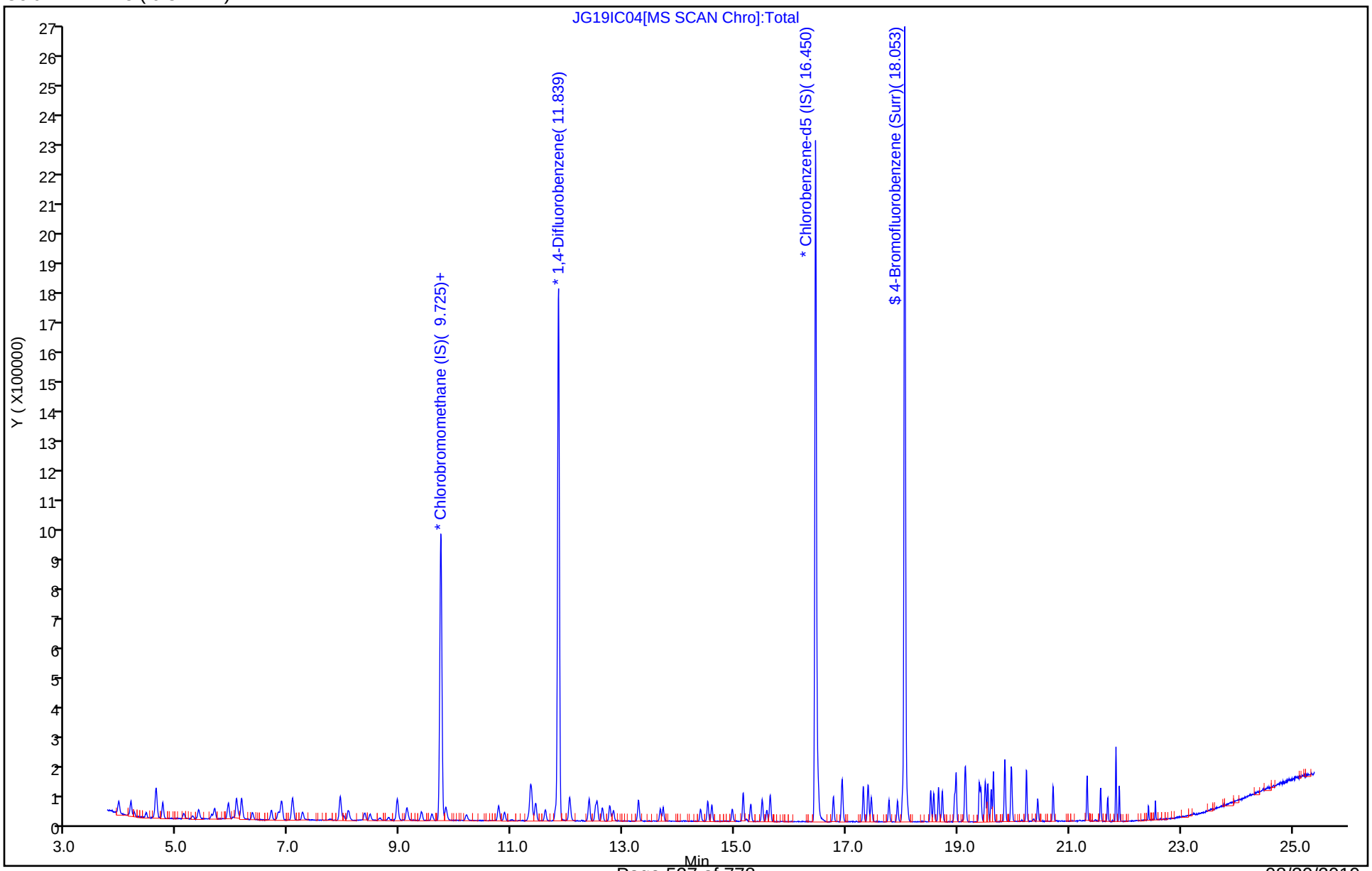
Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D

Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



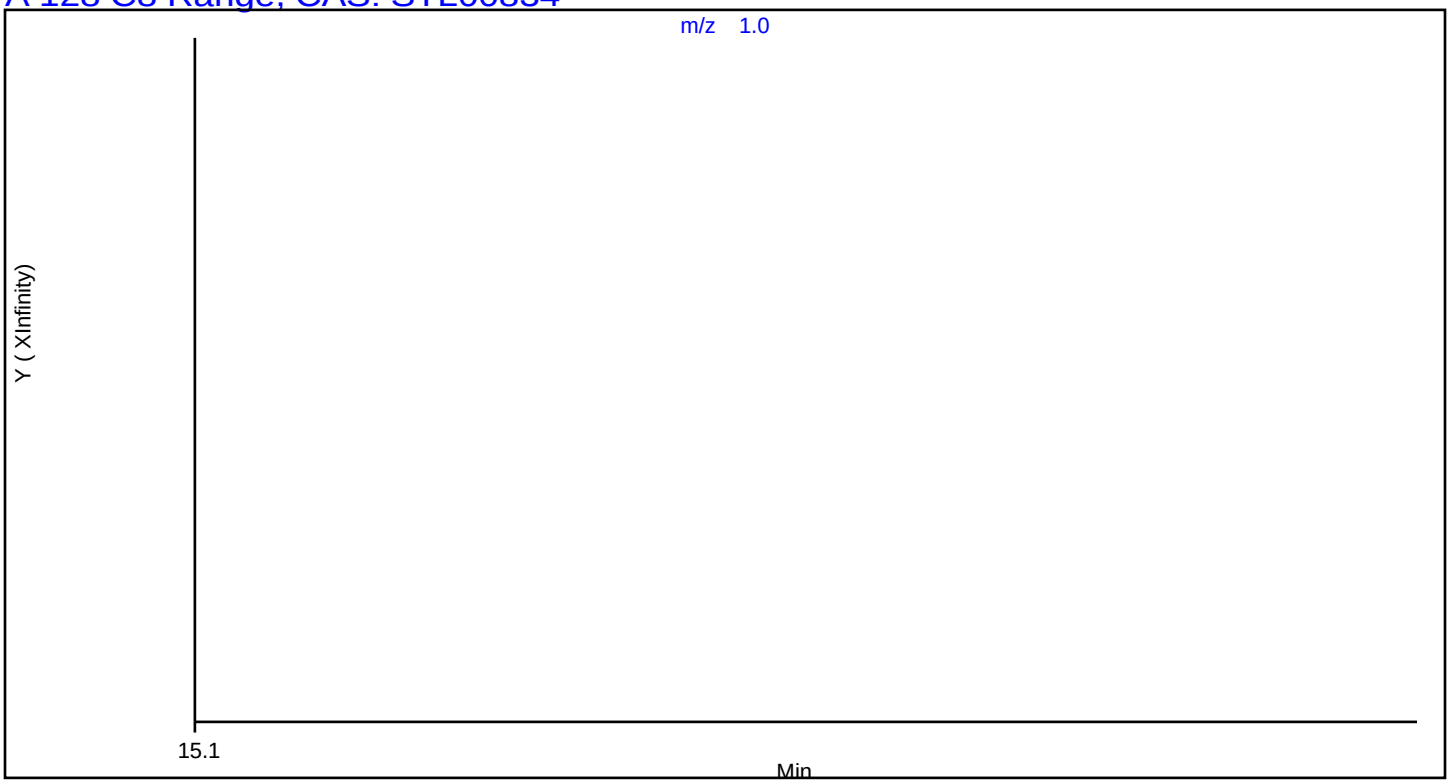
08/30/2019

Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D				
Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Jul-2019 03:58:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-013
Misc. Info.: 231548
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:11:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	96	287860	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1514422	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.453	-0.004	92	1303933	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	94	960029	4.00	4.01	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	97	25664	0.4000	0.3262	
20 Propene	41	4.168	4.169	-0.001	97	29865	0.4000	0.5241	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	100	32988	0.4000	0.3659	
22 Chloromethane	52	4.437	4.441	-0.004	99	11820	0.4000	0.4065	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.444	-0.002	48	4984	0.4000	0.3981	
24 Acetaldehyde	44	4.620	4.617	0.003	92	102533	2.00	2.74	
25 Vinyl chloride	62	4.641	4.642	-0.001	99	38122	0.4000	0.3897	
26 Butane	43	4.738	4.739	-0.001	85	60060	0.4000	0.3979	
27 Butadiene	54	4.738	4.741	-0.003	69	28897	0.4000	0.3906	
28 Bromomethane	94	5.115	5.117	-0.002	97	33566	0.4000	0.3896	
29 Chloroethane	64	5.276	5.275	0.001	85	17457	0.4000	0.4056	
30 Ethanol	31	5.378	5.386	-0.008	99	77636	2.00	2.00	
31 Vinyl bromide	106	5.620	5.618	0.002	96	31635	0.4000	0.3962	
32 2-Methylbutane	43	5.669	5.669	0.000	91	41208	0.4000	0.3962	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	125032	0.4000	0.4016	
34 Acrolein	56	5.927	5.930	-0.003	26	8429	0.4000	0.4463	
35 Acetonitrile	40	6.002	6.004	-0.002	97	13678	0.4000	0.4574	
36 Acetone	58	6.056	6.061	-0.005	99	53289	1.20	1.61	
38 Pentane	72	6.158	6.155	0.003	93	4736	0.4000	0.3981	
37 Isopropyl alcohol	45	6.142	6.155	-0.013	83	106236	1.20	1.10	
39 Ethyl ether	31	6.346	6.345	0.001	89	46127	0.4000	0.4312	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	35931	0.4000	0.4067	
41 Acrylonitrile	53	6.804	6.802	0.002	70	24063	0.4000	0.4073	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	95	50767	0.4000	0.3411	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	94	81162	0.4000	0.3951	
44 Methylene Chloride	84	7.067	7.067	0.000	96	46376	0.4000	0.4282	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	96	42725	0.4000	0.4258	
46 Carbon disulfide	76	7.250	7.248	0.002	99	108114	0.4000	0.4014	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	35303	0.4000	0.3999	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	101723	0.4000	0.4183	
49 Methyl tert-butyl ether	73	8.062	8.066	-0.004	96	93799	0.4000	0.3979	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	99	79247	0.4000	0.4029	
51 Vinyl acetate	43	8.461	8.461	0.000	100	102808	0.4000	0.4116	
52 2-Butanone (MEK)	72	8.939	8.943	-0.004	85	16234	0.4000	0.4182	
53 Hexane	56	8.945	8.948	-0.003	71	32898	0.4000	0.4156	
54 Isopropyl ether	45	9.111	9.118	-0.007	96	122430	0.4000	0.4067	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	98	36813	0.4000	0.4046	
56 Ethyl acetate	43	9.558	9.566	-0.008	98	83654	0.4000	0.4043	
57 Chloroform	83	9.730	9.735	-0.005	94	94081	0.4000	0.4027	
58 Tert-butyl ethyl ether	59	9.805	9.817	-0.012	98	111905	0.4000	0.3992	
59 Tetrahydrofuran	42	10.171	10.176	-0.005	92	41979	0.4000	0.4056	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	100739	0.4000	0.4008	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	68517	0.4000	0.3941	
62 n-Butanol	31	11.296	11.296	0.000	93	14337	0.4000	0.3464	
63 Cyclohexane	69	11.339	11.337	0.002	71	18560	0.4000	0.3985	
64 Benzene	78	11.339	11.340	-0.001	97	109508	0.4000	0.3948	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	95	93006	0.4000	0.3999	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	92	24680	0.4000	0.3945	
67 Thiophene	84	11.602	11.604	-0.002	97	61762	0.4000	0.3915	
68 Isooctane	57	12.038	12.041	-0.003	97	195788	0.4000	0.3957	
69 n-Heptane	71	12.388	12.392	-0.004	95	37671	0.4000	0.3945	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	46483	0.4000	0.3990	
71 Trichloroethene	130	12.533	12.537	-0.004	90	48185	0.4000	0.3847	
72 Dibromomethane	93	12.624	12.627	-0.003	93	50718	0.4000	0.3926	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	95484	0.4000	0.3870	
74 1,4-Dioxane	88	12.786	12.787	-0.001	96	11915	0.4000	0.3670	
75 Methyl methacrylate	41	12.823	12.827	-0.004	88	54685	0.4000	0.4023	
76 Methylcyclohexane	83	13.275	13.277	-0.002	90	65931	0.4000	0.3880	
77 4-Methyl-2-pentanone (MIBK	43	13.662	13.662	0.000	99	74371	0.4000	0.3504	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	99	66204	0.4000	0.3829	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	61866	0.4000	0.3852	
80 Toluene	91	14.518	14.519	-0.001	92	125493	0.4000	0.3984	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	94	39029	0.4000	0.3870	
82 2-Hexanone	58	14.954	14.956	-0.002	91	31698	0.4000	0.3436	
83 n-Octane	85	15.153	15.154	-0.001	96	38072	0.4000	0.3938	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	84022	0.4000	0.3851	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	97	71880	0.4000	0.3913	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	48787	0.4000	0.3855	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	152008	0.4000	0.4109	
88 Chlorobenzene	112	16.497	16.501	-0.004	91	99536	0.4000	0.3949	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	160080	0.4000	0.3943	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	244225	0.8000	0.7847	
91 n-Nonane	57	17.310	17.307	0.003	93	88275	0.4000	0.3918	
92 Styrene	104	17.390	17.392	-0.002	97	84261	0.4000	0.3789	
93 Bromoform	173	17.396	17.398	-0.002	95	85044	0.4000	0.3640	
94 o-Xylene	91	17.450	17.453	-0.003	97	131150	0.4000	0.3962	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	92559	0.4000	0.4013	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	25000	0.4000	0.3810	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	92	167478	0.4000	0.3876	
98 N-Propylbenzene	120	18.520	18.517	0.003	98	43871	0.4000	0.3802	
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	43746	0.4000	0.3922	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	165010	0.4000	0.3832	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	90	65324	0.4000	0.3803	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	65400	0.4000	0.3689	
103 n-Decane	57	18.972	18.974	-0.002	89	113266	0.4000	0.3974	
104 tert-Butylbenzene	119	19.133	19.133	0.000	89	149859	0.4000	0.3784	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	146313	0.4000	0.3833	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	208334	0.4000	0.3888	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	98243	0.4000	0.3697	
108 Benzyl chloride	91	19.488	19.487	0.001	97	113819	0.4000	0.3481	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	96865	0.4000	0.3606	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	175502	0.4000	0.3892	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	98	147741	0.4000	0.3947	
112 Butylcyclohexane	83	19.639	19.642	-0.003	90	126456	0.4000	0.3906	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	132695	0.4000	0.3822	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	96019	0.4000	0.3674	
115 n-Butylbenzene	91	19.956	19.958	-0.002	97	184104	0.4000	0.3945	
116 Indene	116	19.973	19.974	-0.001	91	111455	0.4000	0.3742	
117 Undecane	57	20.236	20.235	0.001	93	126770	0.4000	0.3934	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	92	45955	0.4000	0.3534	
119 1,2,4,5-Tetramethylbenzene	119	20.715	20.713	0.002	96	155714	0.4000	0.3832	
120 Dodecane	57	21.323	21.323	0.000	91	93805	0.4000	0.3421	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	66283	0.4000	0.3106	
122 Naphthalene	128	21.694	21.693	0.001	98	106779	0.4000	0.3195	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	93985	0.4000	0.3653	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	94	56334	0.4000	0.3344	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	21173	0.4000	0.2319	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	97	24357	0.4000	0.2226	
A 128 C8 Range	1	15.163	(15.120-15.206)		0	412584	0.4000	0.3986	
S 129 Xylenes, Total	100				0		1.20	1.18	
S 130 1,2-Dichloroethene, Total	1				0		0.8000	0.8045	

Reagents:

40L5DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

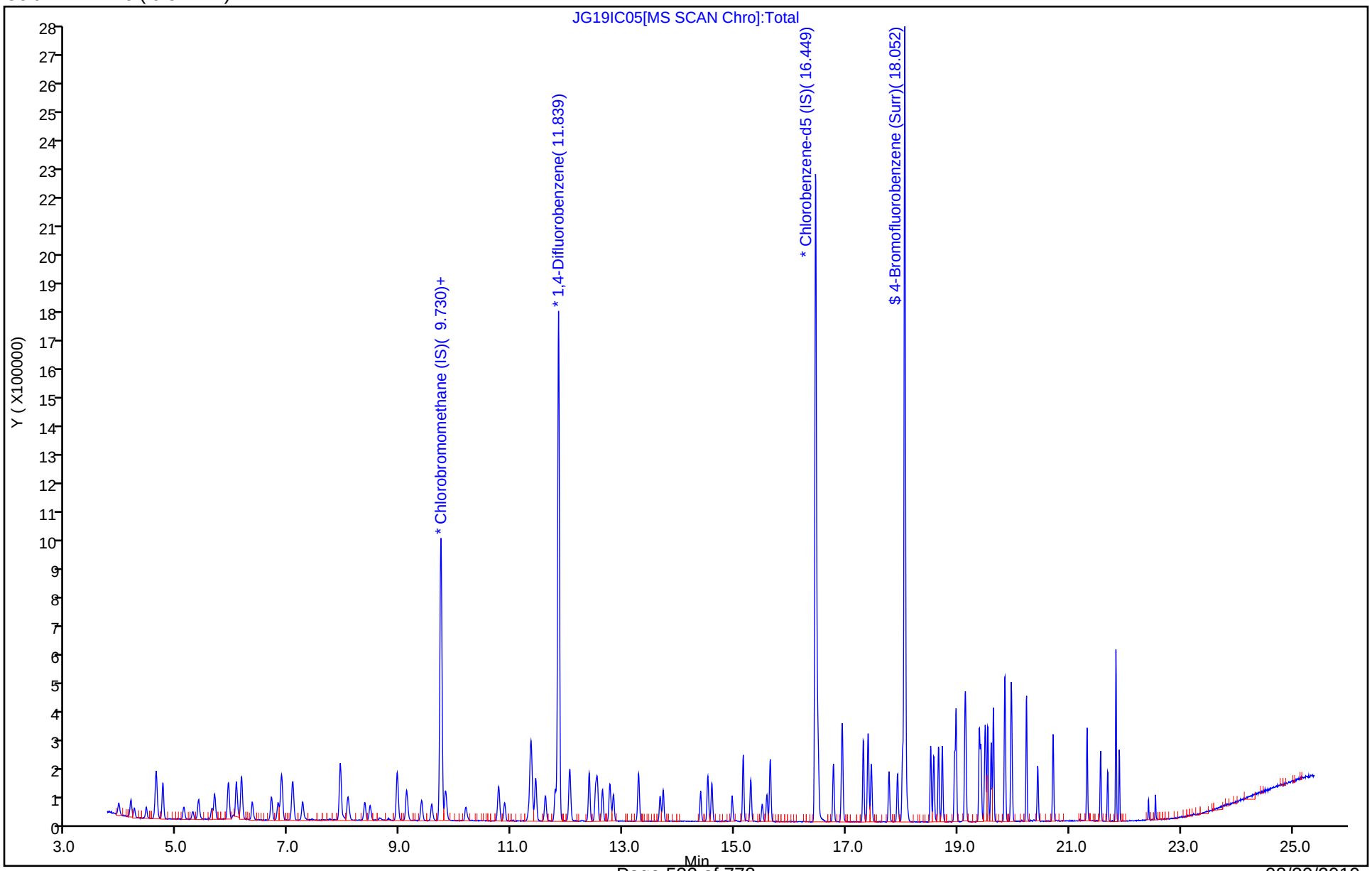
Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D

Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

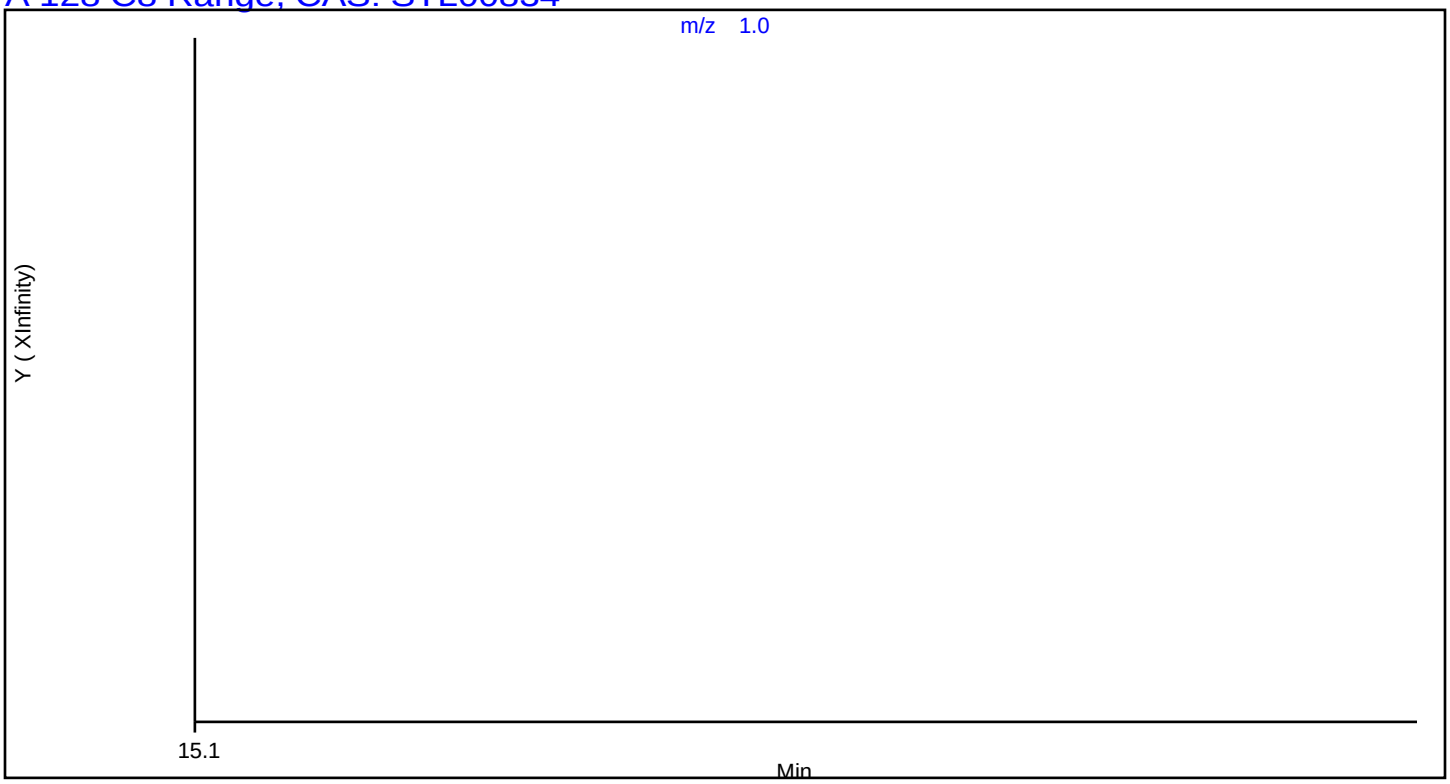


Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Jul-2019 04:48:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-014
Misc. Info.: 231547
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:14 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 11:59:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	275638	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1436209	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1244130	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	926278	4.00	4.05	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	69702	1.00	0.9253	
20 Propene	41	4.169	4.169	0.000	98	59192	1.00	1.08	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	83071	1.00	0.9623	
22 Chloromethane	52	4.438	4.441	-0.003	100	27769	1.00	1.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	48	11411	1.00	0.9518	
24 Acetaldehyde	44	4.610	4.617	-0.007	92	197908	5.00	5.52	
25 Vinyl chloride	62	4.637	4.642	-0.005	99	93320	1.00	1.00	
26 Butane	43	4.739	4.739	0.000	85	146719	1.00	1.02	
27 Butadiene	54	4.739	4.741	-0.002	68	68261	1.00	0.9635	
28 Bromomethane	94	5.115	5.117	-0.002	97	78978	1.00	0.9574	
29 Chloroethane	64	5.271	5.275	-0.004	87	39592	1.00	0.9606	
30 Ethanol	31	5.379	5.386	-0.007	98	192417	5.00	5.17	
31 Vinyl bromide	106	5.616	5.618	-0.002	97	74384	1.00	0.9730	
32 2-Methylbutane	43	5.664	5.669	-0.005	91	96302	1.00	0.9670	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	301033	1.00	1.01	
34 Acrolein	56	5.922	5.930	-0.008	93	19989	1.00	1.11	
35 Acetonitrile	40	5.998	6.004	-0.006	97	30044	1.00	1.05	
36 Acetone	58	6.057	6.061	-0.004	99	106237	3.00	3.35	
38 Pentane	72	6.154	6.155	-0.001	95	10942	1.00	0.9607	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	94	285574	3.00	3.10	
39 Ethyl ether	31	6.337	6.345	-0.008	89	107243	1.00	1.05	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	82349	1.00	0.9735	
41 Acrylonitrile	53	6.799	6.802	-0.003	93	58884	1.00	1.04	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	97	149308	1.00	1.05	
43 1,1,2-Trichloro-1,2,2-trif	101	6.869	6.873	-0.004	95	192673	1.00	0.9796	
44 Methylene Chloride	84	7.063	7.067	-0.004	96	88979	1.00	0.8580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	102639	1.00	1.07	
46 Carbon disulfide	76	7.246	7.248	-0.002	100	254625	1.00	0.9872	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	91	84422	1.00	1.00	
48 2-Methylpentane	43	7.924	7.928	-0.004	95	235268	1.00	1.01	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	235531	1.00	1.04	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	100	185591	1.00	0.9854	
51 Vinyl acetate	43	8.456	8.461	-0.005	100	250126	1.00	1.05	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	95	38700	1.00	1.04	
53 Hexane	56	8.946	8.948	-0.002	73	75679	1.00	1.00	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	301826	1.00	1.05	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	98	85468	1.00	0.9809	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	203568	1.00	1.03	
57 Chloroform	83	9.731	9.735	-0.004	50	218488	1.00	0.9767	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	98	278520	1.00	1.04	
59 Tetrahydrofuran	42	10.167	10.176	-0.009	92	102525	1.00	1.03	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	234252	1.00	0.9732	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	164559	1.00	1.00	
62 n-Butanol	31	11.280	11.296	-0.016	93	40227	1.00	1.03	
63 Cyclohexane	69	11.334	11.337	-0.003	68	43594	1.00	0.9871	
64 Benzene	78	11.340	11.340	0.000	97	257566	1.00	0.9791	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	249189	1.00	1.13	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	92	59251	1.00	1.00	
67 Thiophene	84	11.603	11.604	-0.001	98	147708	1.00	0.9872	
68 Isooctane	57	12.039	12.041	-0.002	96	468977	1.00	1.00	
69 n-Heptane	71	12.389	12.392	-0.004	95	89663	1.00	0.99	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	110558	1.00	1.00	
71 Trichloroethene	130	12.534	12.537	-0.003	92	114328	1.00	0.9626	
72 Dibromomethane	93	12.625	12.627	-0.002	93	122397	1.00	1.00	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	229761	1.00	0.9820	
74 1,4-Dioxane	88	12.781	12.787	-0.006	97	31384	1.00	1.02	
75 Methyl methacrylate	41	12.824	12.827	-0.003	88	133533	1.00	1.04	
76 Methylcyclohexane	83	13.276	13.277	-0.001	93	159061	1.00	0.9870	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	207313	1.00	1.03	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	99	165289	1.00	1.01	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	158402	1.00	1.03	
80 Toluene	91	14.519	14.519	0.000	92	306473	1.00	1.02	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	95	98749	1.00	1.03	
82 2-Hexanone	58	14.949	14.956	-0.007	91	95548	1.00	1.09	
83 n-Octane	85	15.154	15.154	0.000	96	91561	1.00	0.99	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	214363	1.00	1.03	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	176750	1.00	1.01	
86 Tetrachloroethene	129	15.632	15.637	-0.005	93	119436	1.00	0.9891	
87 2,3-Dimethylheptane	43	16.477	16.478	-0.001	94	361751	1.00	1.02	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	241644	1.00	1.00	
89 Ethylbenzene	91	16.773	16.773	0.000	100	404167	1.00	1.04	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	621917	2.00	2.09	
91 n-Nonane	57	17.305	17.307	-0.002	94	219047	1.00	1.02	
92 Styrene	104	17.391	17.392	-0.001	97	218682	1.00	1.03	
93 Bromoform	173	17.397	17.398	-0.001	95	217537	1.00	0.9757	
94 o-Xylene	91	17.451	17.453	-0.002	97	332666	1.00	1.05	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	235263	1.00	1.07	
96 1,2,3-Trichloropropane	110	17.919	17.923	-0.004	97	65354	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	98	426827	1.00	1.04	
98 N-Propylbenzene	120	18.516	18.517	-0.001	98	113652	1.00	1.03	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	109844	1.00	1.03	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	429956	1.00	1.05	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	168435	1.00	1.03	
102 Alpha Methyl Styrene	118	18.946	18.948	-0.002	84	176468	1.00	1.04	
103 n-Decane	57	18.973	18.974	-0.001	89	288216	1.00	1.06	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	88	386592	1.00	1.02	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	379144	1.00	1.04	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	536445	1.00	1.05	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	259520	1.00	1.02	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	320685	1.00	1.03	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	258631	1.00	1.01	
110 4-Isopropyltoluene	119	19.538	19.542	-0.004	96	451475	1.00	1.05	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	385477	1.00	1.08	
112 Butylcyclohexane	83	19.640	19.642	-0.002	90	331972	1.00	1.07	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	358478	1.00	1.08	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	255350	1.00	1.02	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	482850	1.00	1.08	
116 Indene	116	19.974	19.974	0.000	96	304611	1.00	1.07	
117 Undecane	57	20.232	20.235	-0.003	93	337616	1.00	1.10	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	92	132338	1.00	1.07	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	421150	1.00	1.09	
120 Dodecane	57	21.324	21.323	0.001	92	325888	1.00	1.25	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	94	212510	1.00	1.04	
122 Naphthalene	128	21.695	21.693	0.002	98	340855	1.00	1.07	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	269796	1.00	1.10	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	183380	1.00	1.14	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	98	104984	1.00	1.21	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	129712	1.00	1.24	
A 128 C8 Range	1	15.148	(15.121-15.207)		0	1013087	1.00	1.03	
S 129 Xylenes, Total	100				0		3.00	3.15	
S 130 1,2-Dichloroethene, Total	1				0		2.00	1.98	

Reagents:

40L6DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

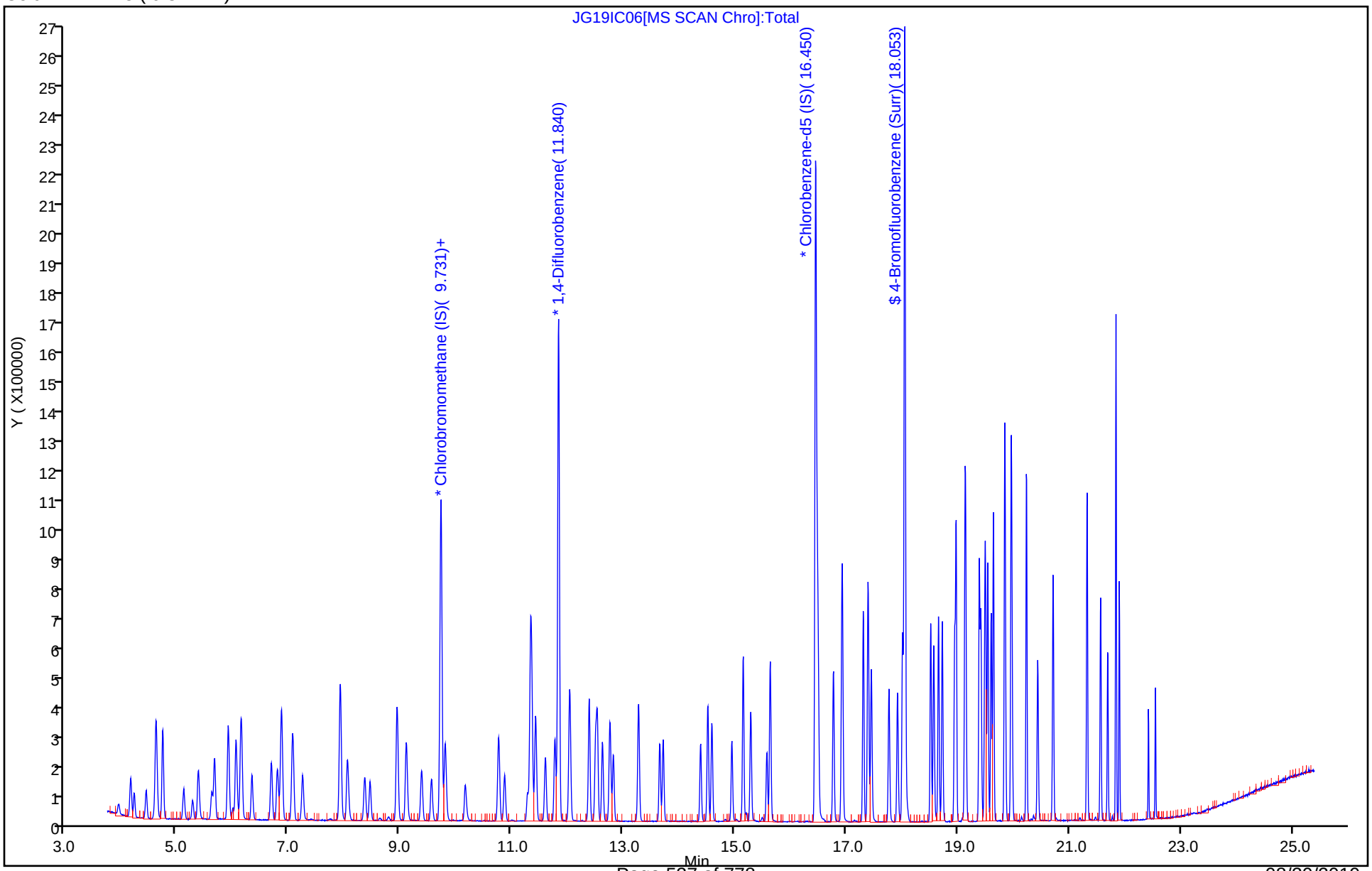
Report Date: 24-Jul-2019 11:36:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D

Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

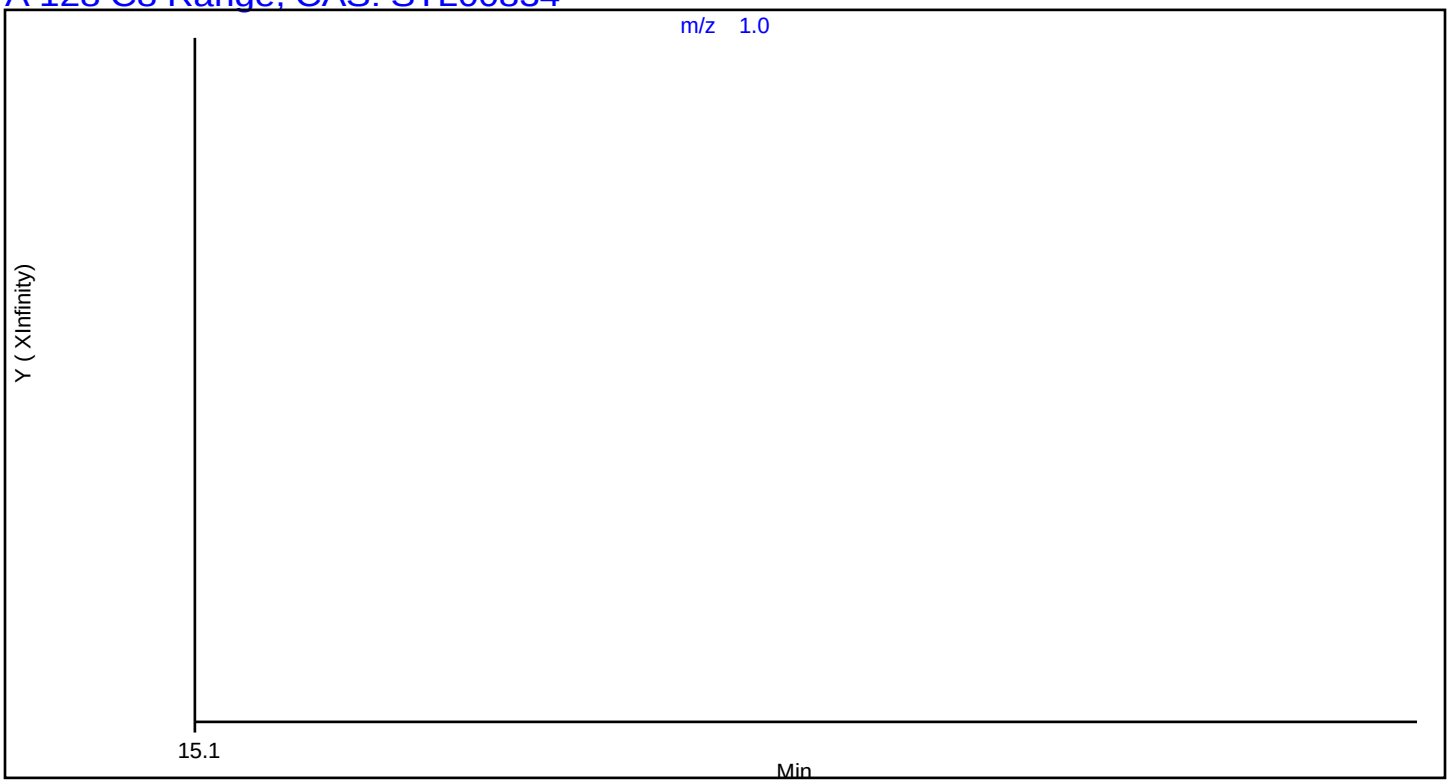


Report Date: 24-Jul-2019 11:36:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D				
Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 20-Jul-2019 05:37:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-015
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:22 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:03:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	95	285692	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.841	11.841	0.000	97	1484056	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.453	-0.002	92	1253354	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.049	18.052	-0.004	89	913593	4.00	3.97	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	118045	2.00	1.51	
20 Propene	41	4.164	4.169	-0.005	97	83916	2.00	1.48	
21 Dichlorodifluoromethane	85	4.229	4.228	0.001	100	181786	2.00	2.03	
22 Chloromethane	52	4.444	4.441	0.003	100	58261	2.00	2.02	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.444	4.444	0.000	48	25059	2.00	2.02	
24 Acetaldehyde	44	4.616	4.617	-0.001	92	322907	10.0	8.68	
25 Vinyl chloride	62	4.638	4.642	-0.004	99	209135	2.00	2.15	
26 Butane	43	4.740	4.739	0.001	85	320866	2.00	2.14	
27 Butadiene	54	4.740	4.741	-0.001	68	153622	2.00	2.09	
28 Bromomethane	94	5.116	5.117	-0.001	98	179541	2.00	2.10	
29 Chloroethane	64	5.272	5.275	-0.003	89	89853	2.00	2.10	
30 Ethanol	31	5.374	5.386	-0.012	99	411685	10.0	10.7	
31 Vinyl bromide	106	5.617	5.618	-0.001	97	165932	2.00	2.09	
32 2-Methylbutane	43	5.670	5.669	0.001	90	212490	2.00	2.06	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	649561	2.00	2.10	
34 Acrolein	56	5.929	5.930	-0.001	96	34623	2.00	1.85	
35 Acetonitrile	40	6.004	6.004	0.000	98	54608	2.00	1.84	
36 Acetone	58	6.052	6.061	-0.009	99	175926	6.00	5.35	
38 Pentane	72	6.155	6.155	-0.001	95	25557	2.00	2.16	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	93	646180	6.00	6.76	
39 Ethyl ether	31	6.337	6.345	-0.008	90	196183	2.00	1.85	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	186040	2.00	2.12	
41 Acrylonitrile	53	6.795	6.802	-0.007	91	109873	2.00	1.87	
42 2-Methyl-2-propanol	59	6.784	6.814	-0.030	96	349531	2.00	2.37	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.873	-0.003	95	427819	2.00	2.10	
44 Methylene Chloride	84	7.064	7.067	-0.003	96	182263	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.074	7.081	-0.007	97	228907	2.00	2.30	
46 Carbon disulfide	76	7.247	7.248	-0.001	100	558271	2.00	2.09	
47 trans-1,2-Dichloroethene	96	7.919	7.922	-0.003	96	187576	2.00	2.14	
48 2-Methylpentane	43	7.930	7.928	0.002	95	511215	2.00	2.12	
49 Methyl tert-butyl ether	73	8.048	8.066	-0.018	97	465475	2.00	1.99	
50 1,1-Dichloroethane	63	8.360	8.363	-0.003	99	424178	2.00	2.17	
51 Vinyl acetate	43	8.457	8.461	-0.004	100	460683	2.00	1.86	
52 2-Butanone (MEK)	72	8.936	8.943	-0.007	96	74085	2.00	1.92	
53 Hexane	56	8.941	8.948	-0.007	80	165538	2.00	2.11	
54 Isopropyl ether	45	9.108	9.118	-0.010	97	608074	2.00	2.04	
55 cis-1,2-Dichloroethene	96	9.382	9.384	-0.002	99	197127	2.00	2.18	
56 Ethyl acetate	43	9.560	9.566	-0.006	98	413396	2.00	2.01	
57 Chloroform	83	9.737	9.735	0.002	95	498664	2.00	2.15	
58 Tert-butyl ethyl ether	59	9.802	9.817	-0.015	97	575937	2.00	2.07	
59 Tetrahydrofuran	42	10.157	10.176	-0.019	92	201024	2.00	1.96	
60 1,1,1-Trichloroethane	97	10.765	10.767	-0.002	96	532500	2.00	2.13	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	375540	2.00	2.20	
62 n-Butanol	31	11.276	11.296	-0.020	95	89549	2.00	2.21	
63 Cyclohexane	69	11.335	11.337	-0.002	74	96593	2.00	2.12	
64 Benzene	78	11.340	11.340	0.000	98	581894	2.00	2.14	
65 Carbon tetrachloride	117	11.362	11.361	0.001	98	566222	2.00	2.48	
66 2,3-Dimethylpentane	71	11.432	11.430	0.002	91	134278	2.00	2.19	
67 Thiophene	84	11.604	11.604	0.000	97	337291	2.00	2.18	
68 Isooctane	57	12.040	12.041	-0.001	97	1037335	2.00	2.14	
69 n-Heptane	71	12.389	12.392	-0.003	94	203240	2.00	2.17	
70 1,2-Dichloropropane	63	12.502	12.505	-0.003	87	249044	2.00	2.18	
71 Trichloroethene	130	12.535	12.537	-0.002	92	262510	2.00	2.14	
72 Dibromomethane	93	12.626	12.627	-0.001	94	275575	2.00	2.18	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	532485	2.00	2.20	
74 1,4-Dioxane	88	12.771	12.787	-0.016	96	70857	2.00	2.23	
75 Methyl methacrylate	41	12.820	12.827	-0.007	88	272224	2.00	2.04	
76 Methylcyclohexane	83	13.277	13.277	0.000	91	356575	2.00	2.14	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	481925	2.00	2.32	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	371122	2.00	2.19	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	335403	2.00	2.17	
80 Toluene	91	14.520	14.519	0.001	92	616281	2.00	2.04	
81 1,1,2-Trichloroethane	83	14.590	14.591	-0.001	95	207313	2.00	2.14	
82 2-Hexanone	58	14.950	14.956	-0.006	91	219816	2.00	2.48	
83 n-Octane	85	15.154	15.154	0.000	95	204704	2.00	2.20	
84 Chlorodibromomethane	129	15.289	15.290	-0.001	97	477997	2.00	2.28	
85 Ethylene Dibromide	107	15.579	15.579	0.000	98	389612	2.00	2.21	
86 Tetrachloroethene	129	15.639	15.637	0.001	93	265632	2.00	2.18	
87 2,3-Dimethylheptane	43	16.478	16.478	0.000	94	757889	2.00	2.13	
88 Chlorobenzene	112	16.499	16.501	-0.002	90	515968	2.00	2.13	
89 Ethylbenzene	91	16.774	16.773	0.001	100	806819	2.00	2.07	
90 m-Xylene & p-Xylene	91	16.930	16.929	0.001	99	1270566	4.00	4.25	
91 n-Nonane	57	17.306	17.307	-0.001	94	465939	2.00	2.15	
92 Styrene	104	17.392	17.392	0.000	97	455653	2.00	2.13	
93 Bromoform	173	17.398	17.398	0.000	95	512843	2.00	2.28	
94 o-Xylene	91	17.451	17.453	-0.002	97	676455	2.00	2.13	
95 1,1,2,2-Tetrachloroethane	83	17.769	17.769	0.000	98	494603	2.00	2.23	
96 1,2,3-Trichloropropane	110	17.925	17.923	0.002	97	133722	2.00	2.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.011	18.012	-0.001	98	870746	2.00	2.10	
98 N-Propylbenzene	120	18.517	18.517	0.000	98	233784	2.00	2.11	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	227474	2.00	2.12	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	895533	2.00	2.16	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	353526	2.00	2.14	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	377525	2.00	2.22	
103 n-Decane	57	18.974	18.974	0.000	89	591844	2.00	2.16	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	815324	2.00	2.14	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	98	792960	2.00	2.16	
106 sec-Butylbenzene	105	19.388	19.389	-0.001	98	1128469	2.00	2.19	
107 1,3-Dichlorobenzene	146	19.415	19.419	-0.004	98	547572	2.00	2.14	
108 Benzyl chloride	91	19.485	19.487	-0.002	97	735170	2.00	2.34	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	94	549492	2.00	2.13	
110 4-Isopropyltoluene	119	19.539	19.542	-0.003	97	960667	2.00	2.22	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	811374	2.00	2.26	
112 Butylcyclohexane	83	19.641	19.642	-0.001	91	682027	2.00	2.19	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	93	741820	2.00	2.22	
114 1,2-Dichlorobenzene	146	19.851	19.851	0.000	95	540039	2.00	2.15	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	1016889	2.00	2.27	
116 Indene	116	19.974	19.974	0.000	91	642582	2.00	2.24	
117 Undecane	57	20.233	20.235	-0.002	93	696186	2.00	2.25	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	94	304127	2.00	2.43	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	924317	2.00	2.37	
120 Dodecane	57	21.319	21.323	-0.004	92	682968	2.00	2.59	
121 1,2,4-Trichlorobenzene	180	21.567	21.565	0.002	93	452405	2.00	2.21	
122 Naphthalene	128	21.690	21.693	-0.003	98	722961	2.00	2.25	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	94	535851	2.00	2.17	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	381083	2.00	2.35	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	252943	2.00	2.88	
126 1-Methylnaphthalene	142	22.546	22.549	-0.003	99	300466	2.00	2.86	
A 128 C8 Range	1	15.164	(15.111-15.218)		0	2208887	2.00	2.22	
S 129 Xylenes, Total	100				0		6.00	6.37	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.32	

Reagents:

40L8DQP_00011	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

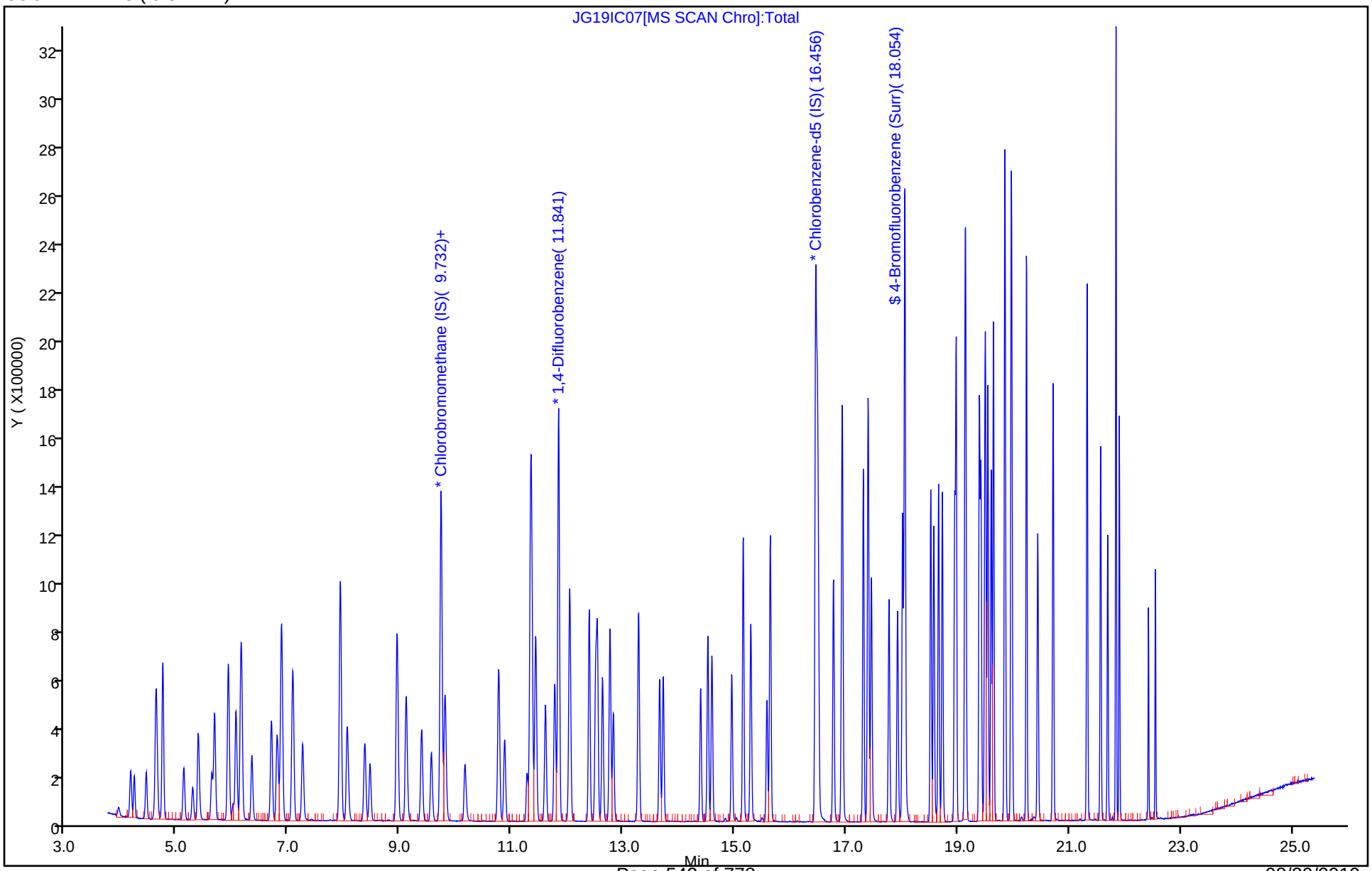
Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D

Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



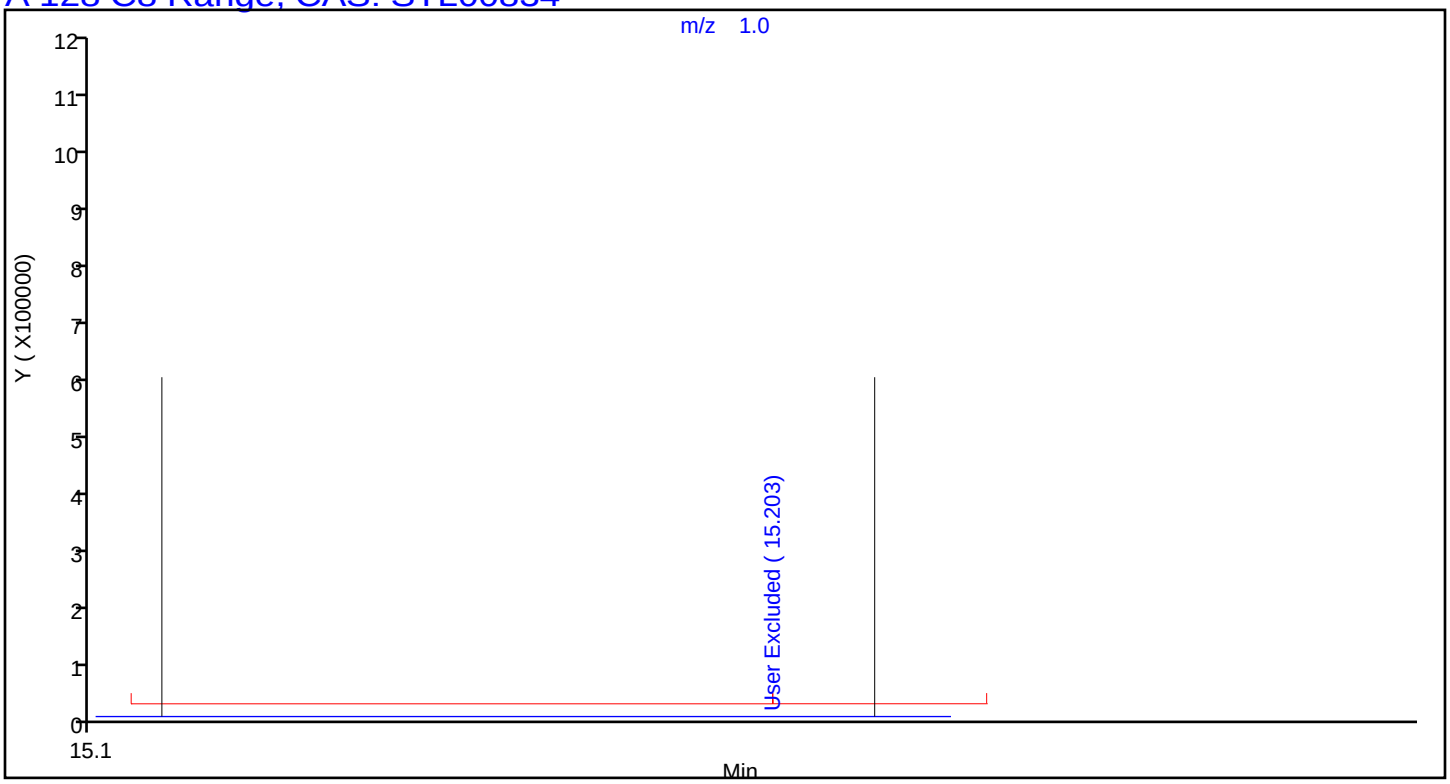
08/30/2019

Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D				
Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Jul-2019 06:27:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-016
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 24-Jul-2019 10:50:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	95	305209	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1573202	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.454	16.453	0.001	91	1405182	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	90	1076887	4.00	4.17	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	352408	4.00	4.23	
20 Propene	41	4.162	4.169	-0.007	98	230605	4.00	3.82	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	385477	4.00	4.03	
22 Chloromethane	52	4.437	4.441	-0.004	100	123458	4.00	4.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.437	4.444	-0.007	92	54998	4.00	4.14	
24 Acetaldehyde	44	4.609	4.617	-0.008	93	691533	20.0	17.4	
25 Vinyl chloride	62	4.636	4.642	-0.006	99	421064	4.00	4.06	
26 Butane	43	4.733	4.739	-0.006	84	630660	4.00	3.94	
27 Butadiene	54	4.733	4.741	-0.008	69	308014	4.00	3.93	
28 Bromomethane	94	5.115	5.117	-0.002	98	363015	4.00	3.97	
29 Chloroethane	64	5.271	5.275	-0.004	89	179467	4.00	3.93	
30 Ethanol	31	5.373	5.386	-0.013	98	737472	20.0	17.9	
31 Vinyl bromide	106	5.615	5.618	-0.003	97	335660	4.00	3.97	
32 2-Methylbutane	43	5.663	5.669	-0.006	90	402954	4.00	3.65	
33 Trichlorofluoromethane	101	5.911	5.916	-0.005	99	1305209	4.00	3.95	
34 Acrolein	56	5.927	5.930	-0.003	98	74502	4.00	3.72	
35 Acetonitrile	40	5.997	6.004	-0.007	96	110573	4.00	3.49	
36 Acetone	58	6.045	6.061	-0.016	99	347231	12.0	9.88	
38 Pentane	72	6.147	6.155	-0.008	97	48180	4.00	3.82	
37 Isopropyl alcohol	45	6.131	6.155	-0.024	96	1099732	12.0	10.8	
39 Ethyl ether	31	6.330	6.345	-0.015	90	414082	4.00	3.65	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	361448	4.00	3.86	
41 Acrylonitrile	53	6.798	6.802	-0.004	93	235232	4.00	3.76	
42 2-Methyl-2-propanol	59	6.782	6.814	-0.032	96	590968	4.00	3.74	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	96	830656	4.00	3.81	
44 Methylene Chloride	84	7.062	7.067	-0.005	96	337568	4.00	2.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	97	421573	4.00	3.96	
46 Carbon disulfide	76	7.245	7.248	-0.003	100	1095624	4.00	3.84	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	364761	4.00	3.90	
48 2-Methylpentane	43	7.923	7.928	-0.005	95	971683	4.00	3.77	
49 Methyl tert-butyl ether	73	8.046	8.066	-0.020	97	941368	4.00	3.77	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	100	768735	4.00	3.69	
51 Vinyl acetate	43	8.455	8.461	-0.006	100	998045	4.00	3.77	
52 2-Butanone (MEK)	72	8.934	8.943	-0.009	96	142067	4.00	3.45	
53 Hexane	56	8.945	8.948	-0.003	80	312844	4.00	3.73	
54 Isopropyl ether	45	9.101	9.118	-0.017	96	1175996	4.00	3.68	
55 cis-1,2-Dichloroethene	96	9.380	9.384	-0.004	98	367352	4.00	3.81	
56 Ethyl acetate	43	9.553	9.566	-0.013	98	806524	4.00	3.68	
57 Chloroform	83	9.736	9.735	0.001	96	909968	4.00	3.67	
58 Tert-butyl ethyl ether	59	9.800	9.817	-0.017	97	1116586	4.00	3.76	
59 Tetrahydrofuran	42	10.155	10.176	-0.021	92	400597	4.00	3.65	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	991646	4.00	3.72	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	677290	4.00	3.75	
62 n-Butanol	31	11.269	11.296	-0.027	94	152659	4.00	3.55	
63 Cyclohexane	69	11.339	11.337	0.002	77	187159	4.00	3.87	
64 Benzene	78	11.339	11.340	-0.001	98	1043178	4.00	3.62	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	98	1090465	4.00	4.51	
66 2,3-Dimethylpentane	71	11.430	11.430	0.000	91	245152	4.00	3.77	
67 Thiophene	84	11.602	11.604	-0.002	98	614522	4.00	3.75	
68 Isooctane	57	12.038	12.041	-0.003	96	1894159	4.00	3.69	
69 n-Heptane	71	12.388	12.392	-0.004	95	372781	4.00	3.76	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	87	454813	4.00	3.76	
71 Trichloroethene	130	12.538	12.537	0.001	94	479951	4.00	3.69	
72 Dibromomethane	93	12.630	12.627	0.003	95	509254	4.00	3.79	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	977581	4.00	3.81	
74 1,4-Dioxane	88	12.770	12.787	-0.017	92	131050	4.00	3.89	
75 Methyl methacrylate	41	12.818	12.827	-0.009	89	531980	4.00	3.77	
76 Methylcyclohexane	83	13.275	13.277	-0.002	92	654802	4.00	3.71	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	809261	4.00	3.67	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	98	702648	4.00	3.91	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	672142	4.00	3.88	
80 Toluene	91	14.518	14.519	-0.001	92	1261809	4.00	3.72	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	96	408402	4.00	3.76	
82 2-Hexanone	58	14.948	14.956	-0.008	91	369071	4.00	3.71	
83 n-Octane	85	15.153	15.154	-0.001	95	387857	4.00	3.72	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	935330	4.00	3.98	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	98	756741	4.00	3.82	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	499480	4.00	3.66	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	1432753	4.00	3.59	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	1006543	4.00	3.71	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	1635567	4.00	3.74	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	2589354	8.00	7.72	
91 n-Nonane	57	17.304	17.307	-0.003	93	914349	4.00	3.77	
92 Styrene	104	17.391	17.392	-0.002	97	934523	4.00	3.90	
93 Bromoform	173	17.396	17.398	-0.002	97	1065944	4.00	4.23	
94 o-Xylene	91	17.450	17.453	-0.003	97	1371043	4.00	3.84	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	979510	4.00	3.94	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	269148	4.00	3.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	98	1761169	4.00	3.78	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	476994	4.00	3.84	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	468749	4.00	3.90	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	1803676	4.00	3.89	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	711101	4.00	3.84	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	763807	4.00	4.00	
103 n-Decane	57	18.972	18.974	-0.002	90	1167002	4.00	3.80	
104 tert-Butylbenzene	119	19.133	19.133	0.000	90	1612357	4.00	3.78	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	1587508	4.00	3.86	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	2223634	4.00	3.85	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	1111022	4.00	3.88	
108 Benzyl chloride	91	19.488	19.487	0.001	97	1469564	4.00	4.17	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	1113121	4.00	3.85	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	1860896	4.00	3.83	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	99	1583203	4.00	3.93	
112 Butylcyclohexane	83	19.645	19.642	0.002	90	1353618	4.00	3.88	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	1463048	4.00	3.91	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	1081773	4.00	3.84	
115 n-Butylbenzene	91	19.957	19.958	-0.002	97	1966095	4.00	3.91	
116 Indene	116	19.973	19.974	-0.001	89	1289190	4.00	4.02	
117 Undecane	57	20.236	20.235	0.001	94	1324167	4.00	3.81	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	94	593312	4.00	4.23	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	1734202	4.00	3.96	
120 Dodecane	57	21.323	21.323	0.000	93	1005845	4.00	3.40	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	871856	4.00	3.79	
122 Naphthalene	128	21.694	21.693	0.001	99	1361853	4.00	3.78	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	1079215	4.00	3.89	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	95	675575	4.00	3.72	
125 2-Methylnaphthalene	142	22.420	22.424	-0.004	98	282062	4.00	2.87	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	100	319864	4.00	2.71	
A 128 C8 Range	1	15.163	(15.114-15.211)		0	4158008	4.00	3.73	
S 129 Xylenes, Total	100				0		12.0	11.6	
S 130 1,2-Dichloroethene, Total	1				0		8.00	7.70	

Reagents:

40L8DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

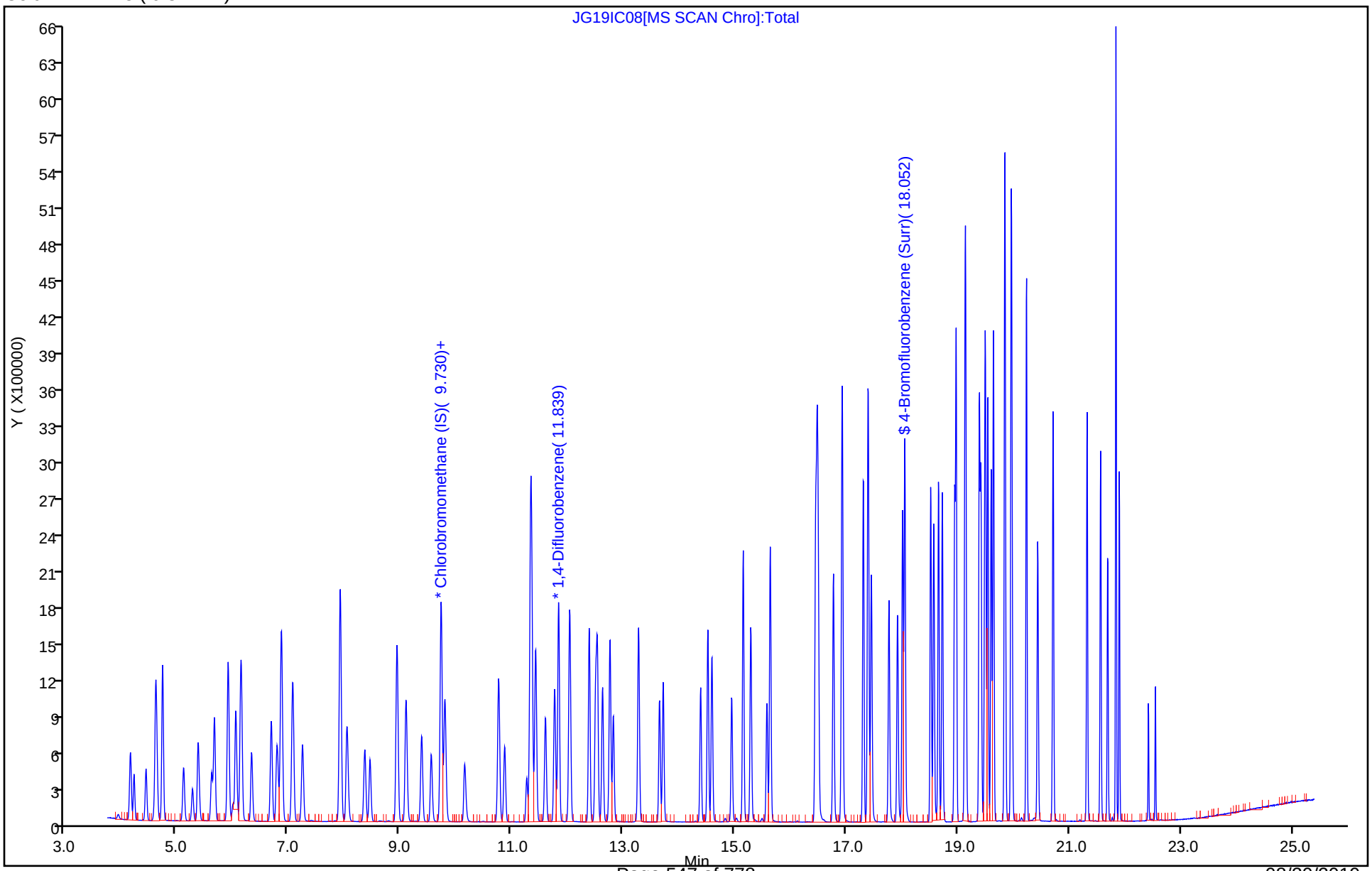
Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

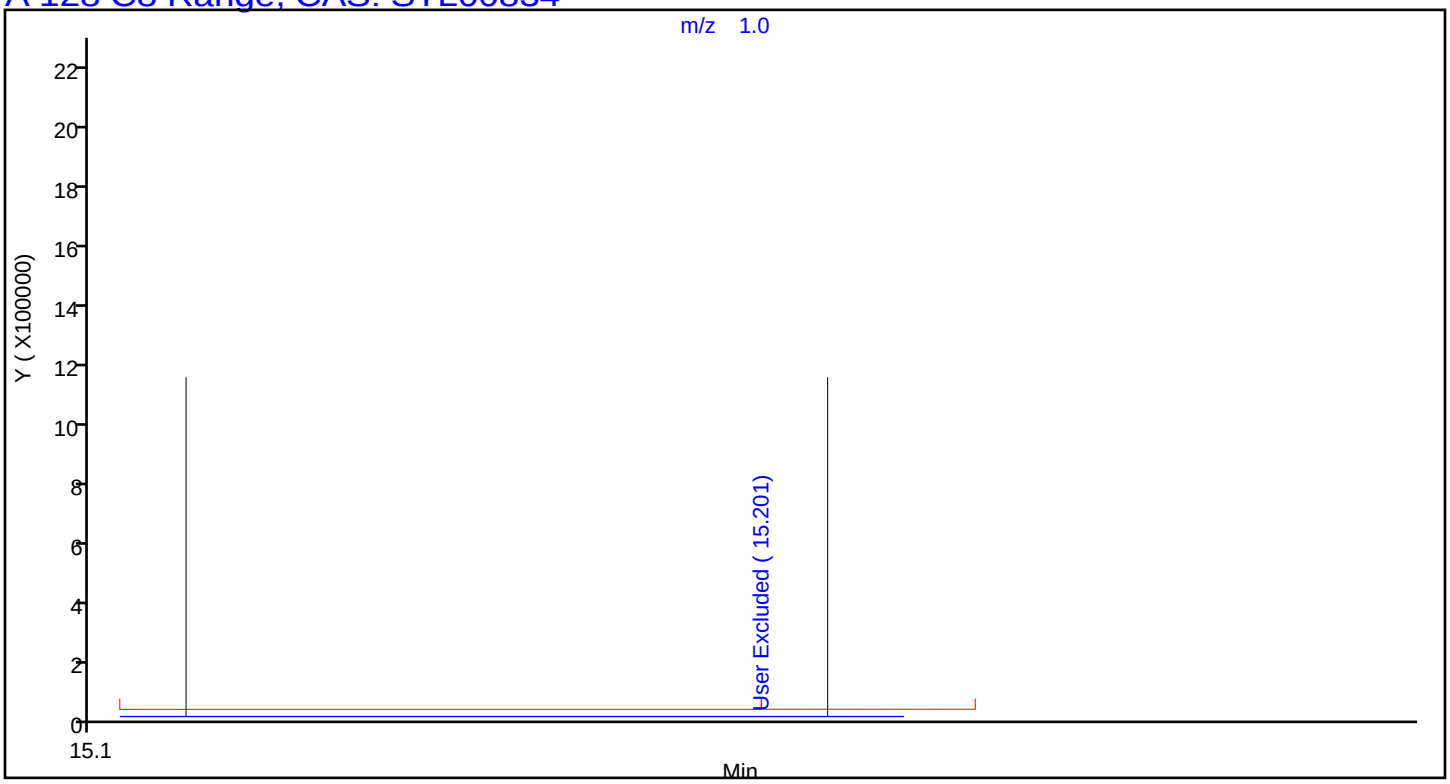


Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Aug-2019 13:33:30 ALS Bottle#: 14 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:25 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:41:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	96	286023	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.787	10.781	0.006	95	1651770	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1519455	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	93	1104916	4.00	4.22	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	1686652	8.00	6.90	
7 Propene	41	3.443	3.439	0.004	97	929137	8.00	6.85	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	1563912	8.00	7.07	
9 Chloromethane	52	3.669	3.665	0.004	75	192525	8.00	5.79	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	89	752994	8.00	6.71	
11 Acetaldehyde	44	3.815	3.817	-0.002	95	1258946	40.0	32.4	
12 Vinyl chloride	62	3.831	3.831	0.000	99	625941	8.00	5.95	
13 Butadiene	54	3.917	3.913	0.004	71	495518	8.00	6.49	
14 Butane	43	3.912	3.914	-0.002	84	936426	8.00	5.79	
15 Bromomethane	94	4.230	4.227	0.003	96	565685	8.00	6.34	
16 Chloroethane	64	4.359	4.359	0.000	91	257658	8.00	5.98	
17 Ethanol	31	4.462	4.464	-0.002	98	1413331	40.0	36.4	
18 Vinyl bromide	106	4.656	4.656	0.000	98	557199	8.00	7.48	
19 2-Methylbutane	43	4.699	4.699	0.000	93	798505	8.00	6.62	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	2275267	8.00	8.28	
20 Acrolein	56	4.931	4.936	-0.005	97	262118	8.00	7.71	
24 Acetonitrile	40	5.001	5.001	0.000	98	409722	8.00	8.09	
22 Acetone	58	5.044	5.057	-0.013	99	1102801	24.0	23.2	
25 Pentane	72	5.141	5.138	0.003	95	144745	8.00	7.96	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	3831142	24.0	23.8	
26 Ethyl ether	31	5.303	5.319	-0.016	90	1173779	8.00	7.90	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	95	784721	8.00	7.98	
28 Acrylonitrile	53	5.740	5.738	0.002	91	655074	8.00	8.83	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.021	96	1626595	8.00	8.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	1736390	8.00	8.49	
31 Methylene Chloride	84	5.983	5.978	0.005	96	694114	8.00	6.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	910177	8.00	8.09	
33 Carbon disulfide	76	6.134	6.133	0.001	99	2217616	8.00	8.57	
34 trans-1,2-Dichloroethene	96	6.797	6.788	0.009	98	864916	8.00	8.37	
35 2-Methylpentane	43	6.802	6.803	-0.001	97	2270807	8.00	8.28	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	2381188	8.00	8.54	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	1613695	8.00	8.23	
38 Vinyl acetate	43	7.331	7.328	0.003	100	2922060	8.00	8.54	
40 Hexane	56	7.800	7.796	0.004	78	705905	8.00	7.86	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	415513	8.00	7.92	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	3490545	8.00	8.19	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	903782	8.00	7.72	
43 Ethyl acetate	43	8.404	8.416	-0.012	98	2470352	8.00	8.15	
44 Chloroform	83	8.566	8.560	0.006	97	1952914	8.00	8.12	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	2939694	8.00	8.29	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	1194324	8.00	7.89	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	95	2171599	8.00	8.21	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	1336641	8.00	8.41	
50 n-Butanol	31	10.172	10.195	-0.023	89	529427	8.00	8.38	
51 Cyclohexane	69	10.210	10.210	0.000	89	431615	8.00	8.22	
49 Benzene	78	10.216	10.214	0.002	98	2831483	8.00	8.46	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	2471477	8.00	9.24	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	623415	8.00	8.27	
54 Thiophene	84	10.501	10.499	0.002	97	1481750	8.00	8.74	
55 Isooctane	57	10.997	10.995	0.002	98	4723123	8.00	8.45	
57 n-Heptane	71	11.391	11.387	0.004	95	1003783	8.00	8.60	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	88	1098818	8.00	8.52	
58 Trichloroethene	130	11.515	11.509	0.006	96	1272523	8.00	8.65	
59 Dibromomethane	93	11.601	11.595	0.006	95	1192726	8.00	8.74	
60 Dichlorobromomethane	83	11.752	11.746	0.006	98	2266175	8.00	9.15	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	439902	8.00	8.56	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	1602463	8.00	8.73	
63 Methylcyclohexane	83	12.292	12.288	0.004	93	1674440	8.00	8.70	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	2849090	8.00	8.70	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	97	1747199	8.00	9.04	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	98	1701957	8.00	9.01	
67 Toluene	91	13.597	13.593	0.004	93	3319430	8.00	8.49	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	1043886	8.00	8.61	
69 2-Hexanone	58	14.060	14.066	-0.006	90	1286641	8.00	8.89	
71 n-Octane	85	14.292	14.288	0.004	97	1087004	8.00	8.49	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	2602812	8.00	9.68	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	2118211	8.00	9.11	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	1347530	8.00	8.44	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	2756890	8.00	8.48	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	95	4021656	8.00	8.27	
76 Ethylbenzene	91	15.915	15.914	0.001	99	4848427	8.00	8.84	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	7462791	16.0	17.3	
81 n-Nonane	57	16.498	16.494	0.004	96	2439907	8.00	8.65	
78 Bromoform	173	16.530	16.525	0.005	96	2883880	8.00	12.0	
79 Styrene	104	16.546	16.543	0.003	99	2757815	8.00	9.30	
80 o-Xylene	91	16.606	16.602	0.004	99	3912982	8.00	8.65	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	2910298	8.00	9.14	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	930012	8.00	9.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	5876884	8.00	8.76	
85 N-Propylbenzene	120	17.749	17.745	0.004	99	1575530	8.00	9.24	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	1431553	8.00	8.81	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	6128184	8.00	9.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	2299646	8.00	9.02	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	2518203	8.00	10.3	
90 n-Decane	57	18.283	18.280	0.003	90	3340916	8.00	8.60	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	5297311	8.00	8.89	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	5278660	8.00	8.94	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	7686620	8.00	9.06	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	3534620	8.00	8.79	
96 Benzyl chloride	91	18.800	18.796	0.004	98	4731103	8.00	10.3	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	3569735	8.00	8.99	
97 4-Isopropyltoluene	119	18.876	18.871	0.005	97	6237349	8.00	9.10	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	5201556	8.00	8.95	
99 Butylcyclohexane	83	18.984	18.981	0.003	93	3867887	8.00	8.90	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	5013200	8.00	9.50	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	3650807	8.00	9.31	
102 Indene	116	19.318	19.314	0.004	90	4657904	8.00	9.78	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	6555104	8.00	9.29	
104 Undecane	57	19.641	19.638	0.003	95	4030320	8.00	8.80	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	2064543	8.00	10.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	6095231	8.00	9.27	
107 Dodecane	57	20.715	20.714	0.001	95	3951977	8.00	8.88	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	3415518	8.00	9.11	
109 Naphthalene	128	21.065	21.064	0.001	99	6971398	8.00	9.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	3455578	8.00	9.28	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	3191028	8.00	9.25	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	2133624	8.00	9.60	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	1853907	8.00	8.69	
A 115 C8 Range	1	14.292	(14.244-14.341)		0	11144655	8.00	8.60	
S 116 Xylenes, Total	100				0		24.0	26.0	
S 117 1,2-Dichloroethene, Total	1				0		16.0	16.1	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

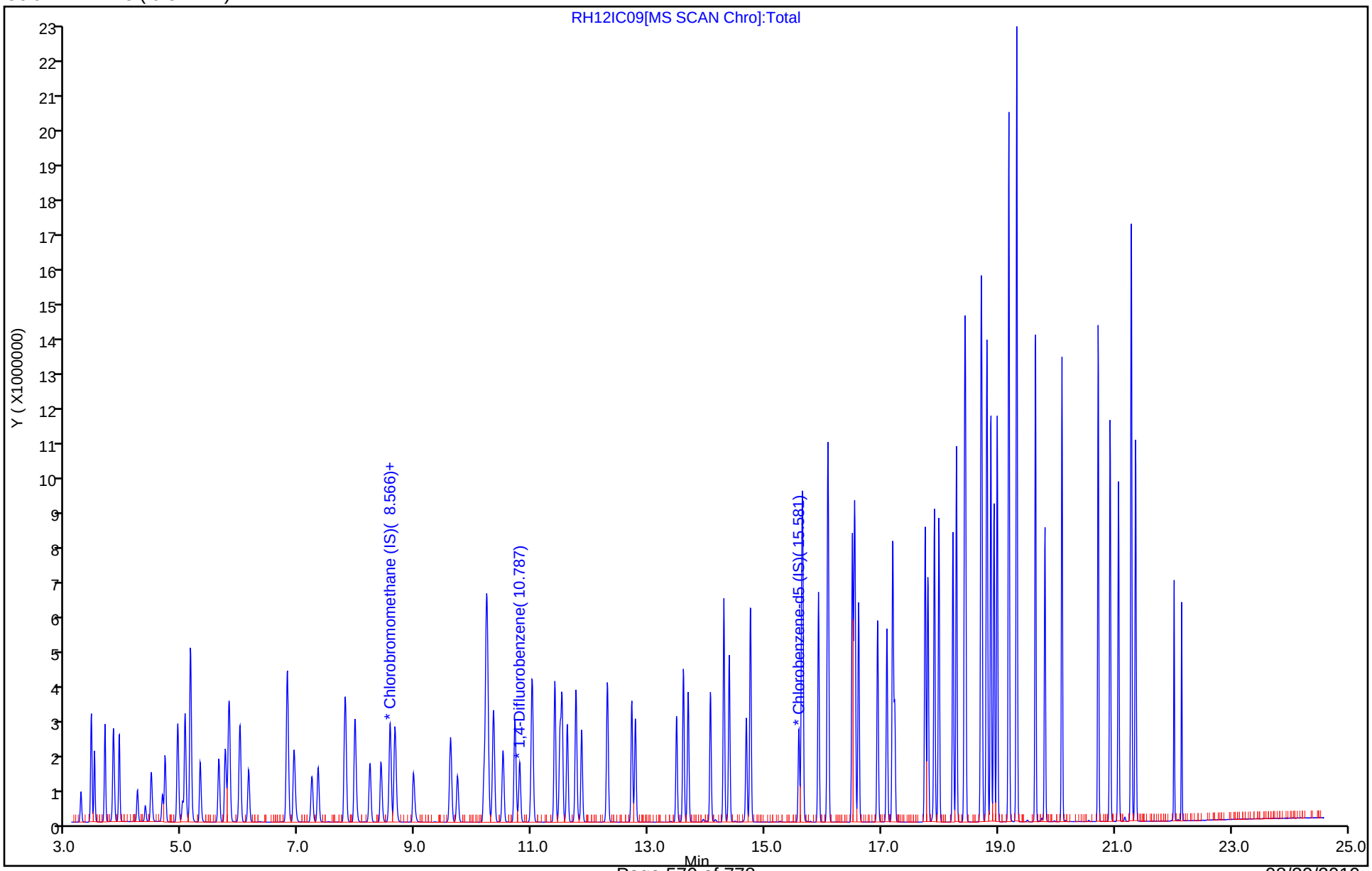
Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D

Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

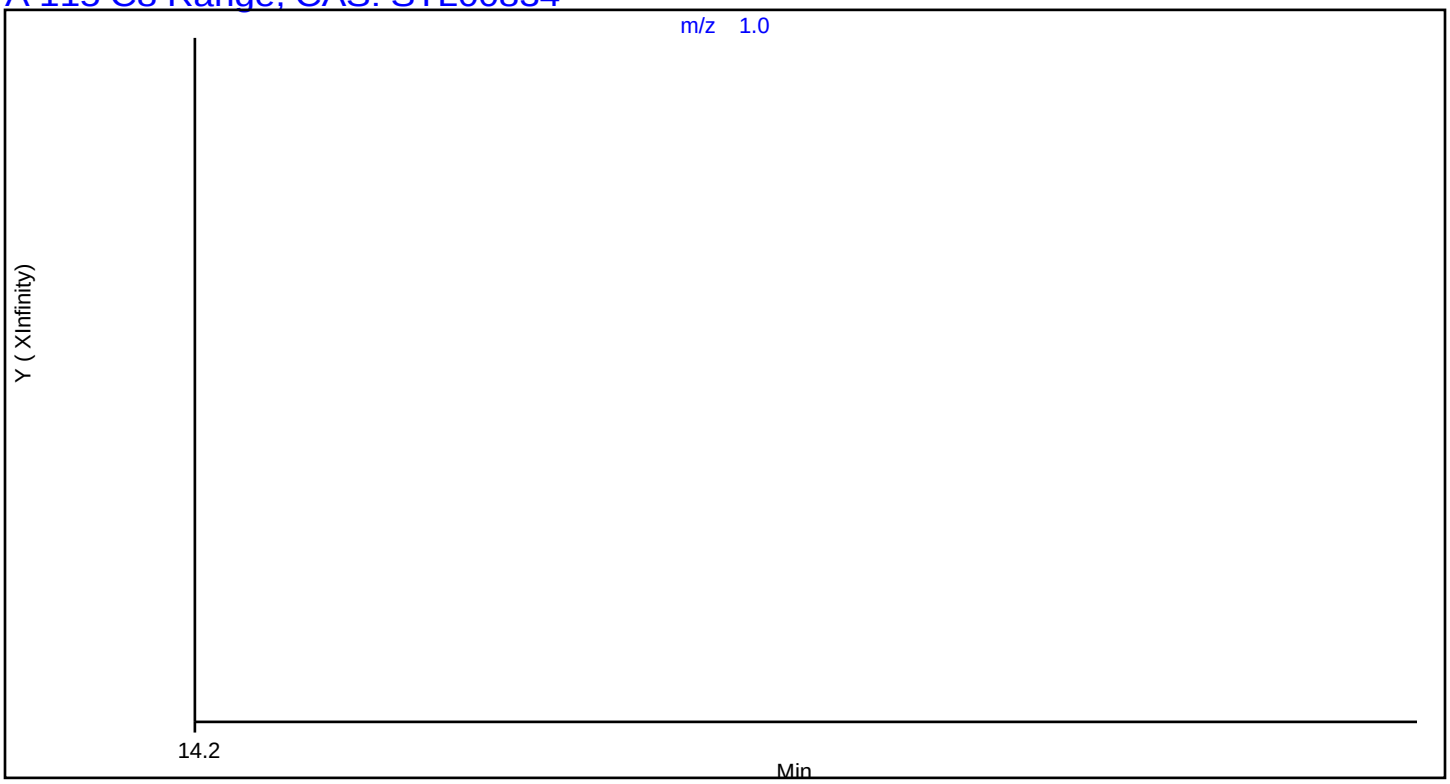


Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D				
Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	14	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 12-Aug-2019 15:13:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:32 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:39:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	98	331072	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.792	10.781	0.011	95	1796412	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1698772	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.226	17.221	0.005	94	1189880	4.00	4.06	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	3868393	16.0	13.7	
7 Propene	41	3.437	3.439	-0.002	99	2119366	16.0	13.5	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	3393984	16.0	13.3	
9 Chloromethane	52	3.664	3.665	-0.001	98	474731	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	1659392	16.0	12.8	
11 Acetaldehyde	44	3.809	3.817	-0.008	99	2832336	80.0	63.1	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	1441332	16.0	11.8	
13 Butadiene	54	3.912	3.913	-0.001	70	1166818	16.0	13.2	
14 Butane	43	3.912	3.914	-0.002	84	2251310	16.0	12.0	
15 Bromomethane	94	4.225	4.227	-0.002	96	1282109	16.0	12.4	
16 Chloroethane	64	4.359	4.359	0.000	92	604347	16.0	12.1	
17 Ethanol	31	4.467	4.464	0.003	99	3128166	80.0	69.6	
18 Vinyl bromide	106	4.656	4.656	0.000	97	1213472	16.0	14.1	
19 2-Methylbutane	43	4.705	4.699	0.005	92	1570512	16.0	11.2	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	4973718	16.0	15.6	
20 Acrolein	56	4.931	4.936	-0.005	98	585189	16.0	14.9	
24 Acetonitrile	40	5.006	5.001	0.005	98	902567	16.0	15.4	
22 Acetone	58	5.044	5.057	-0.013	99	2425956	48.0	44.2	
25 Pentane	72	5.136	5.138	-0.002	96	328949	16.0	15.6	
23 Isopropyl alcohol	45	5.147	5.149	-0.002	94	8514512	48.0	45.8	
26 Ethyl ether	31	5.303	5.319	-0.016	89	2610293	16.0	15.2	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	1715585	16.0	15.1	
28 Acrylonitrile	53	5.740	5.738	0.002	92	1448282	16.0	16.9	
29 2-Methyl-2-propanol	59	5.734	5.756	-0.022	96	3602839	16.0	15.7	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	3875490	16.0	16.4	
31 Methylene Chloride	84	5.982	5.978	0.004	96	1527458	16.0	13.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	95	1990321	16.0	15.3	
33 Carbon disulfide	76	6.133	6.133	0.000	100	4787033	16.0	16.0	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	1909632	16.0	16.0	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	4932630	16.0	15.5	
36 Methyl tert-butyl ether	73	6.910	6.934	-0.024	98	5191938	16.0	16.1	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	100	3451875	16.0	15.2	
38 Vinyl acetate	43	7.331	7.328	0.003	100	6358946	16.0	16.1	
40 Hexane	56	7.800	7.796	0.004	76	1582904	16.0	15.2	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	96	932661	16.0	15.4	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	7654437	16.0	15.5	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	95	1979693	16.0	14.6	
43 Ethyl acetate	43	8.409	8.416	-0.007	98	5400752	16.0	15.4	
44 Chloroform	83	8.571	8.560	0.011	98	4317049	16.0	15.5	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	96	6547011	16.0	16.0	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	93	2611278	16.0	14.9	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	94	4880217	16.0	15.9	
48 1,2-Dichloroethane	62	9.725	9.715	0.010	97	2896923	16.0	16.8	
50 n-Butanol	31	10.172	10.195	-0.023	66	1165521	16.0	17.0	
51 Cyclohexane	69	10.210	10.210	0.000	90	965096	16.0	16.9	
49 Benzene	78	10.216	10.214	0.002	97	6064258	16.0	16.7	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	5417313	16.0	18.6	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	1400003	16.0	17.1	
54 Thiophene	84	10.507	10.499	0.008	97	3335042	16.0	18.1	
55 Isooctane	57	11.003	10.995	0.008	98	10552510	16.0	17.4	
57 n-Heptane	71	11.396	11.387	0.009	94	2260833	16.0	17.8	
56 1,2-Dichloropropane	63	11.483	11.474	0.009	88	2458224	16.0	17.5	
58 Trichloroethene	130	11.515	11.509	0.006	96	2831772	16.0	17.7	
59 Dibromomethane	93	11.607	11.595	0.012	95	2629232	16.0	17.7	
60 Dichlorobromomethane	83	11.752	11.746	0.006	99	4971763	16.0	18.5	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	948586	16.0	17.0	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	3510561	16.0	17.6	
63 Methylcyclohexane	83	12.292	12.288	0.004	92	3734439	16.0	17.8	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	6323240	16.0	17.7	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	97	3911560	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.483	13.476	0.007	98	3868417	16.0	18.3	
67 Toluene	91	13.597	13.593	0.004	93	7282658	16.0	16.7	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	2245491	16.0	16.6	
69 2-Hexanone	58	14.060	14.066	-0.006	90	2871804	16.0	17.8	
71 n-Octane	85	14.292	14.288	0.004	96	2355321	16.0	16.4	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	5765814	16.0	19.2	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	4618343	16.0	17.8	
73 Tetrachloroethene	129	14.750	14.743	0.007	97	3052980	16.0	17.1	
74 Chlorobenzene	112	15.629	15.625	0.004	95	6391037	16.0	17.6	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	96	8293349	16.0	15.3	
76 Ethylbenzene	91	15.915	15.914	0.001	98	10423433	16.0	17.0	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	16680293	32.0	34.6	
81 n-Nonane	57	16.498	16.494	0.004	93	5441512	16.0	17.2	
78 Bromoform	173	16.530	16.525	0.005	97	6776174	16.0	25.2	
79 Styrene	104	16.546	16.543	0.003	99	6253157	16.0	18.9	
80 o-Xylene	91	16.605	16.602	0.003	99	8457498	16.0	16.7	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	6308078	16.0	17.7	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	1986065	16.0	17.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.193	17.187	0.006	96	12785204	16.0	17.0	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	3495935	16.0	18.3	e
86 2-Chlorotoluene	126	17.743	17.786	-0.043	97	2409758	16.0	13.3	e
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	12995264	16.0	17.4	e
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	5654785	16.0	20.7	
90 n-Decane	57	18.282	18.280	0.002	91	7099206	16.0	16.3	
91 tert-Butylbenzene	119	18.428	18.424	0.004	93	11832444	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	11579192	16.0	17.5	
94 sec-Butylbenzene	105	18.703	18.702	0.001	96	15544600	16.0	16.4	e
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	7935738	16.0	17.6	
96 Benzyl chloride	91	18.800	18.796	0.004	98	10790181	16.0	20.9	
95 1,4-Dichlorobenzene	146	18.816	18.810	0.006	95	8073237	16.0	18.2	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	13328935	16.0	17.4	e
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	11619317	16.0	17.9	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	8415289	16.0	17.3	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	10583764	16.0	17.9	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	7779620	16.0	17.7	
102 Indene	116	19.318	19.314	0.004	91	9949397	16.0	18.7	
103 n-Butylbenzene	91	19.323	19.318	0.005	98	13056864	16.0	16.6	e
104 Undecane	57	19.641	19.638	0.003	96	8319839	16.0	16.2	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	4656553	16.0	21.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	12471722	16.0	17.0	e
107 Dodecane	57	20.714	20.714	0.000	96	7339718	16.0	14.7	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	7089441	16.0	16.9	
109 Naphthalene	128	21.065	21.064	0.001	98	13497509	16.0	15.6	e
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	6466368	16.0	15.5	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	6241103	16.0	16.2	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	3791560	16.0	15.3	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	3107373	16.0	13.0	
A 115 C8 Range	1	14.297	(14.244-14.341)		0	23278410	16.0	16.5	
S 116 Xylenes, Total	100				0		48.0	51.4	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.6	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

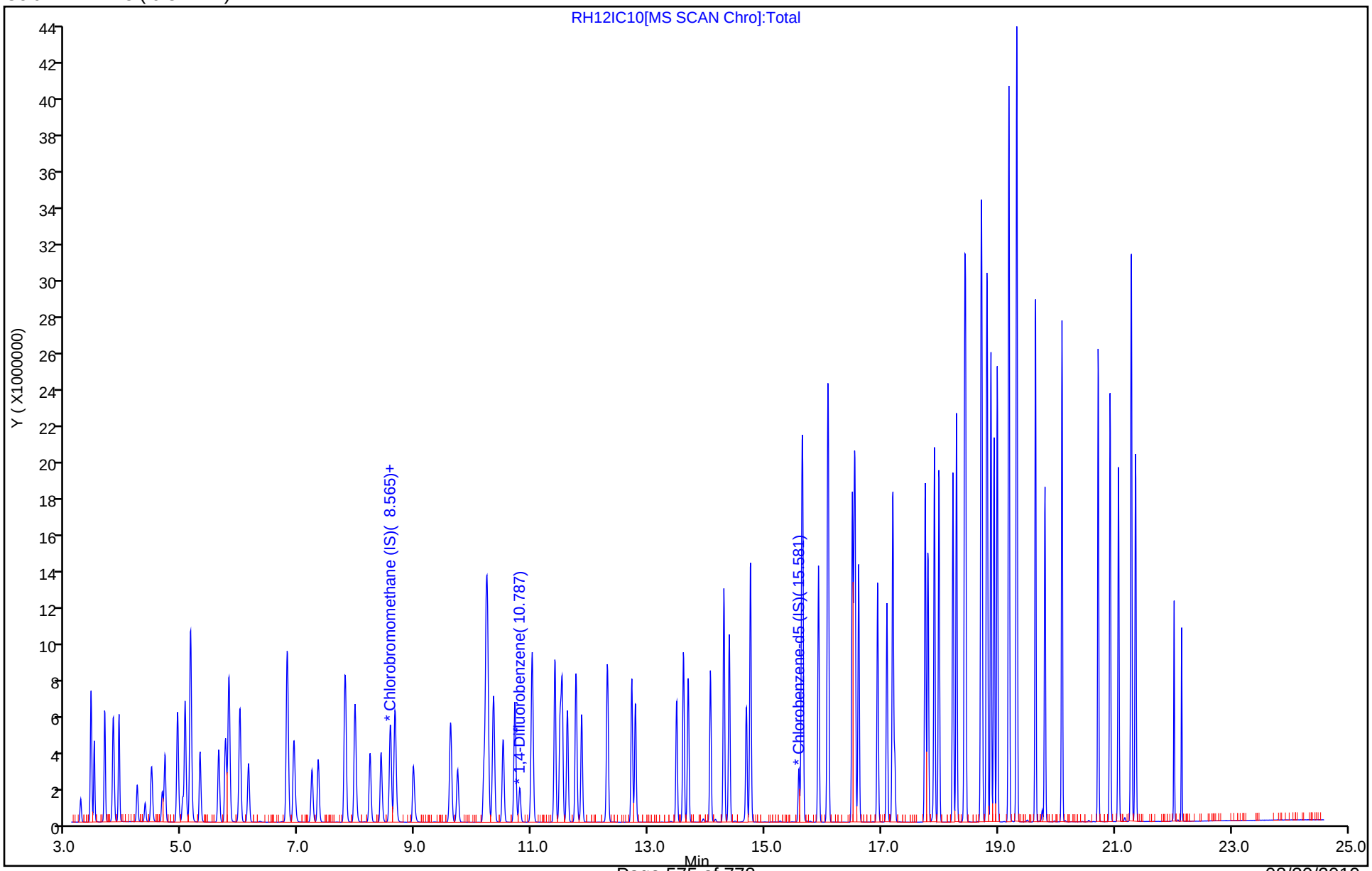
Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D

Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

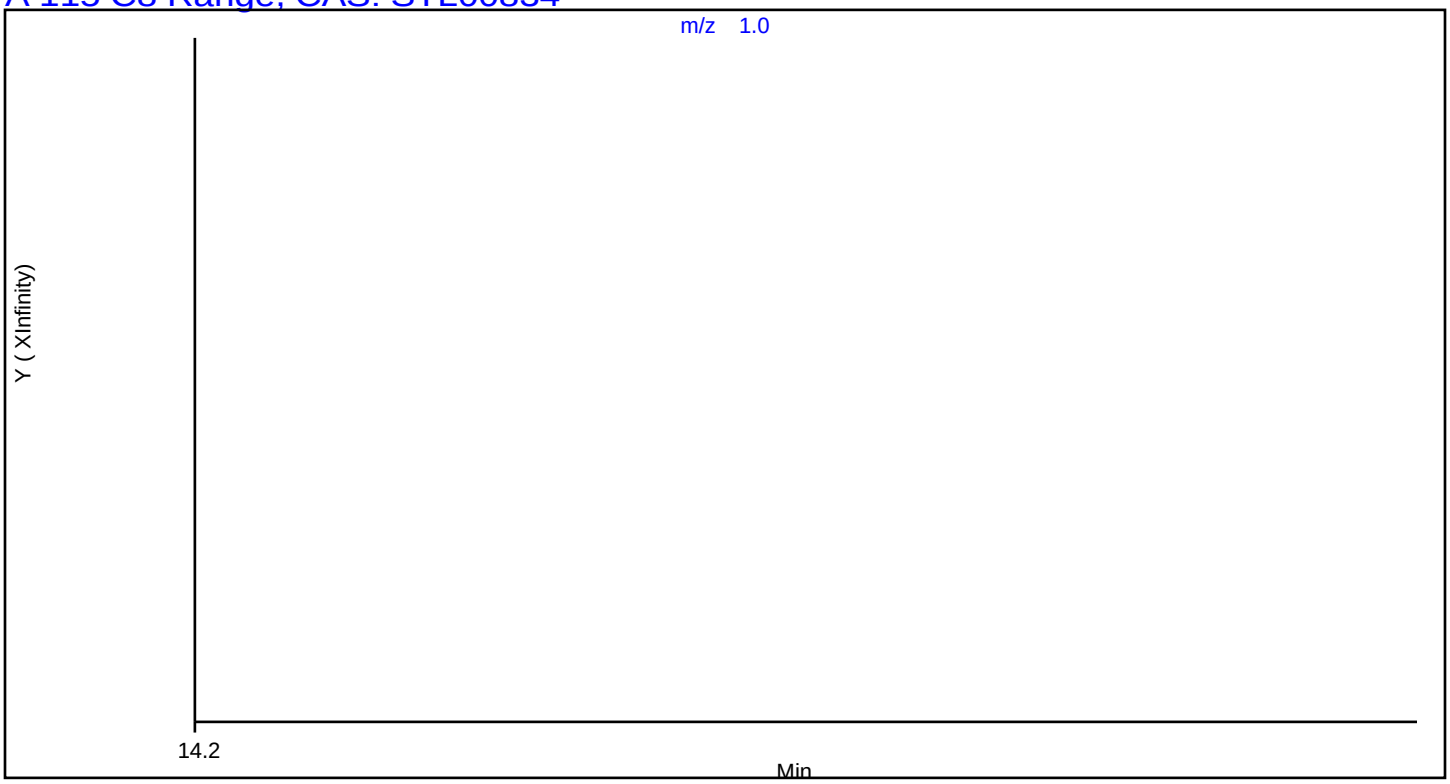


Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D				
Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Aug-2019 17:38:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:39 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	273227	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1657156	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1399213	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	930526	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	35	6169	0.0200	0.0264	
7 Propene	41	3.443	3.439	0.004	98	35147	0.0200	0.2714	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	93	6166	0.0200	0.0292	
9 Chloromethane	52	3.669	3.665	0.004	62	1201	0.0200	0.0378	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	78	5499	0.0200	0.0513	
11 Acetaldehyde	44	3.820	3.817	0.003	98	18977	0.1000	0.5120	
12 Vinyl chloride	62	3.836	3.831	0.005	31	2580	0.0200	0.0257	
13 Butadiene	54	3.907	3.913	-0.006	1	965	0.0200	0.0132	
14 Butane	43	3.917	3.914	0.003	79	5369	0.0200	0.0347	
15 Bromomethane	94	4.235	4.227	0.008	66	2455	0.0200	0.0288	
16 Chloroethane	64	4.354	4.359	-0.005	49	1273	0.0200	0.0309	
17 Ethanol	31	4.478	4.464	0.014	84	7056	0.1000	0.1902	
18 Vinyl bromide	106	4.667	4.656	0.011	29	1260	0.0200	0.0177	
19 2-Methylbutane	43	4.699	4.699	0.000	30	1403	0.0200	0.0122	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	97	5883	0.0200	0.0224	
20 Acrolein	56	4.953	4.936	0.017	35	2463	0.0200	0.0758	
24 Acetonitrile	40	4.990	5.001	-0.011	44	809	0.0200	0.0167	
22 Acetone	58	5.077	5.057	0.020	98	6860	0.0600	0.1513	
23 Isopropyl alcohol	45	5.174	5.149	0.025	90	11087	0.0600	0.0722	
26 Ethyl ether	31	5.341	5.319	0.022	40	3392	0.0200	0.0239	
27 1,1-Dichloroethene	96	5.643	5.626	0.017	26	2637	0.0200	0.0281	
28 Acrylonitrile	53	5.751	5.738	0.013	58	1333	0.0200	0.0188	
29 2-Methyl-2-propanol	59	5.805	5.756	0.049	79	4955	0.0200	0.0262	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	89	4101	0.0200	0.0210	
31 Methylene Chloride	84	5.983	5.978	0.005	97	13935	0.0200	0.1443	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	27	4618	0.0200	0.0429	
33 Carbon disulfide	76	6.128	6.133	-0.005	93	5847	0.0200	0.0237	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	86	2604	0.0200	0.0264	
35 2-Methylpentane	43	6.797	6.803	-0.006	84	7187	0.0200	0.0274	
36 Methyl tert-butyl ether	73	6.937	6.934	0.003	1	462	0.0200	0.001735	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	52	4013	0.0200	0.0214	
38 Vinyl acetate	43	7.325	7.328	-0.003	77	7381	0.0200	0.0226	
40 Hexane	56	7.800	7.796	0.004	52	1891	0.0200	0.0220	
39 2-Butanone (MEK)	72	7.843	7.797	0.046	33	1428	0.0200	0.0285	
41 Isopropyl ether	45	8.010	7.978	0.032	96	8726	0.0200	0.0214	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	31	2563	0.0200	0.0229	
43 Ethyl acetate	43	8.431	8.416	0.015	65	7334	0.0200	0.0253	
44 Chloroform	83	8.549	8.560	-0.011	27	5750	0.0200	0.0250	
45 Tert-butyl ethyl ether	59	8.711	8.665	0.046	42	6434	0.0200	0.0190	
46 Tetrahydrofuran	42	8.992	8.988	0.004	1	138	0.0200	0.000954	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	65	5135	0.0200	0.0203	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	45	4314	0.0200	0.0271	
50 n-Butanol	31	10.232	10.195	0.037	62	2174	0.0200	0.0343	
51 Cyclohexane	69	10.210	10.210	0.000	74	1435	0.0200	0.0272	
49 Benzene	78	10.221	10.214	0.007	92	8633	0.0200	0.0257	
52 Carbon tetrachloride	117	10.237	10.233	0.004	74	5735	0.0200	0.0214	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	88	1703	0.0200	0.0225	
54 Thiophene	84	10.501	10.499	0.002	6	1619	0.0200	0.009518	
55 Isooctane	57	10.992	10.995	-0.003	80	6405	0.0200	0.0114	
57 n-Heptane	71	11.386	11.387	-0.001	91	2945	0.0200	0.0252	
56 1,2-Dichloropropane	63	11.472	11.474	-0.002	55	4135	0.0200	0.0320	
58 Trichloroethene	130	11.504	11.509	-0.005	64	3253	0.0200	0.0220	
59 Dibromomethane	93	11.591	11.595	-0.004	86	3434	0.0200	0.0251	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	57	5155	0.0200	0.0208	
61 1,4-Dioxane	88	11.823	11.781	0.042	39	903	0.0200	0.0175	
62 Methyl methacrylate	41	11.855	11.850	0.005	37	4095	0.0200	0.0222	
63 Methylcyclohexane	83	12.286	12.288	-0.002	84	4324	0.0200	0.0224	
64 4-Methyl-2-pentanone (MIBK	43	12.739	12.718	0.021	92	7697	0.0200	0.0234	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	83	5183	0.0200	0.0267	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	37	3504	0.0200	0.0201	
67 Toluene	91	13.597	13.593	0.004	94	9203	0.0200	0.0256	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	94	2738	0.0200	0.0245	
69 2-Hexanone	58	14.077	14.066	0.011	85	2554	0.0200	0.0192	
71 n-Octane	85	14.281	14.288	-0.007	94	3106	0.0200	0.0263	
70 Chlorodibromomethane	129	14.379	14.379	-0.001	95	5540	0.0200	0.0224	
72 Ethylene Dibromide	107	14.675	14.674	0.001	85	4741	0.0200	0.0221	
73 Tetrachloroethene	129	14.745	14.743	0.002	89	3610	0.0200	0.0246	
74 Chlorobenzene	112	15.630	15.625	0.005	83	7184	0.0200	0.0240	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	9947	0.0200	0.0222	
76 Ethylbenzene	91	15.915	15.914	0.001	97	12124	0.0200	0.0240	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	94	17297	0.0400	0.0436	
81 n-Nonane	57	16.498	16.494	0.004	92	5561	0.0200	0.0214	
78 Bromoform	173	16.525	16.525	0.000	72	4269	0.0200	0.0193	
79 Styrene	104	16.546	16.543	0.003	76	4130	0.0200	0.0151	
80 o-Xylene	91	16.600	16.602	-0.002	95	9841	0.0200	0.0236	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	94	7091	0.0200	0.0242	
83 1,2,3-Trichloropropane	110	17.080	17.086	-0.006	88	2219	0.0200	0.0239	
84 Isopropylbenzene	105	17.183	17.187	-0.004	84	14868	0.0200	0.0241	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	3076	0.0200	0.0196	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 2-Chlorotoluene	126	17.797	17.786	0.011	94	2915	0.0200	0.0195	
88 4-Ethyltoluene	105	17.905	17.902	0.003	97	12586	0.0200	0.0204	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	87	4843	0.0200	0.0206	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	4065	0.0200	0.0181	
90 n-Decane	57	18.277	18.280	-0.003	88	6600	0.0200	0.0185	
91 tert-Butylbenzene	119	18.428	18.424	0.004	94	10200	0.0200	0.0186	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	78	10364	0.0200	0.0191	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	98	15444	0.0200	0.0198	
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	91	7920	0.0200	0.0214	
96 Benzyl chloride	91	18.789	18.796	-0.007	81	7779	0.0200	0.0183	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	89	7186	0.0200	0.0197	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	12499	0.0200	0.0198	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	93	10609	0.0200	0.0198	
99 Butylcyclohexane	83	18.984	18.981	0.003	77	7059	0.0200	0.0176	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	9400	0.0200	0.0193	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	7298	0.0200	0.0202	
102 Indene	116	19.313	19.314	-0.001	79	7584	0.0200	0.0173	
103 n-Butylbenzene	91	19.318	19.318	0.000	93	12293	0.0200	0.0189	
104 Undecane	57	19.636	19.638	-0.002	87	7662	0.0200	0.0182	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	81	3485	0.0200	0.0197	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	12243	0.0200	0.0202	
107 Dodecane	57	20.709	20.714	-0.005	81	6880	0.0200	0.0168	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	91	7729	0.0200	0.0224	
109 Naphthalene	128	21.060	21.064	-0.004	98	15438	0.0200	0.0217	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	89	7410	0.0200	0.0216	
111 1,2,3-Trichlorobenzene	180	21.351	21.356	-0.005	93	9298	0.0200	0.0293	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	97	6448	0.0200	0.0315	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	96	7979	0.0200	0.0406	
A 115 C8 Range	1	14.300	(14.260-14.325)		0	34007	0.0200	0.0262	
S 116 Xylenes, Total	100				0		0.0600	0.0673	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0493	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

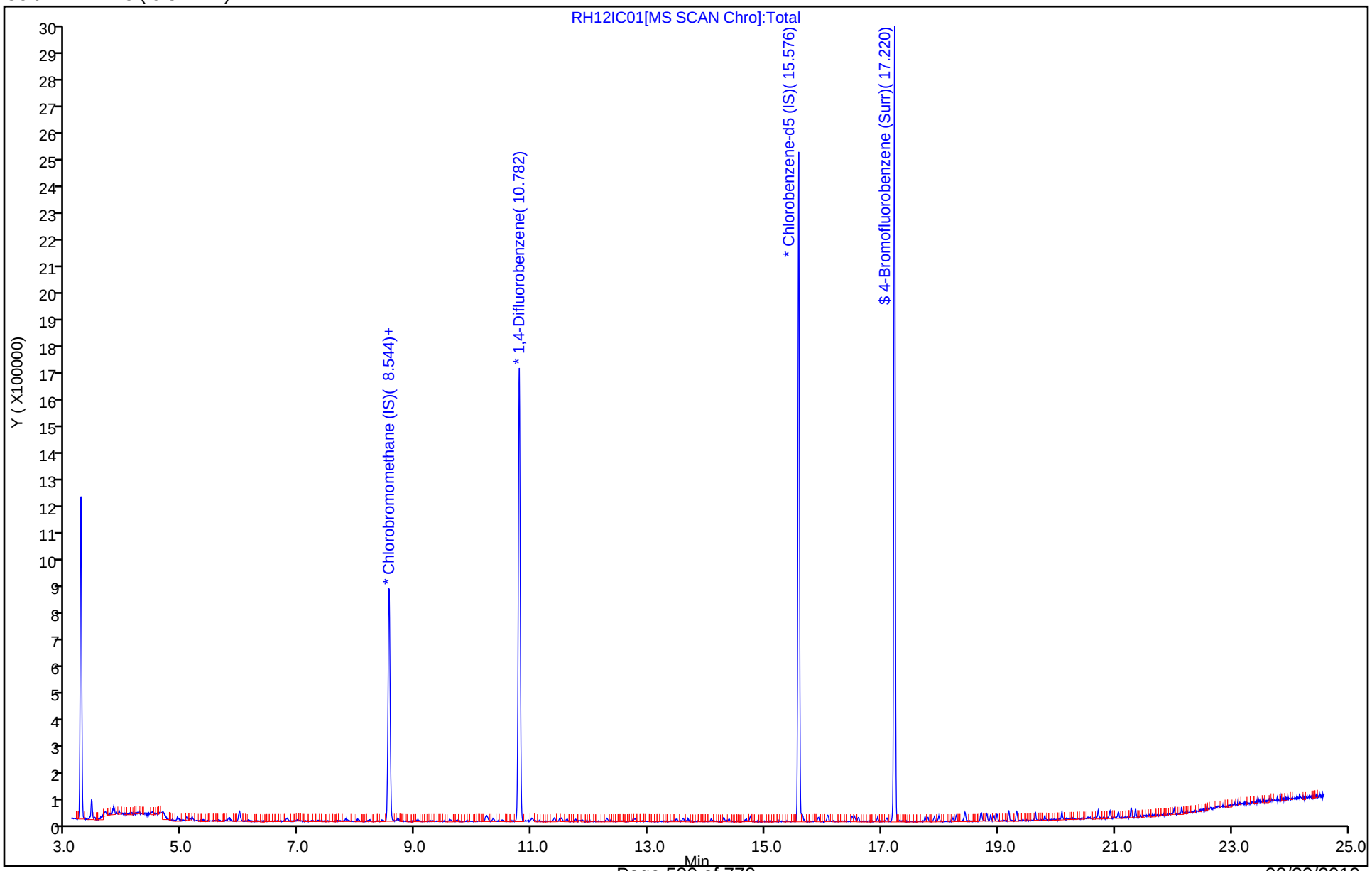
Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D

Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

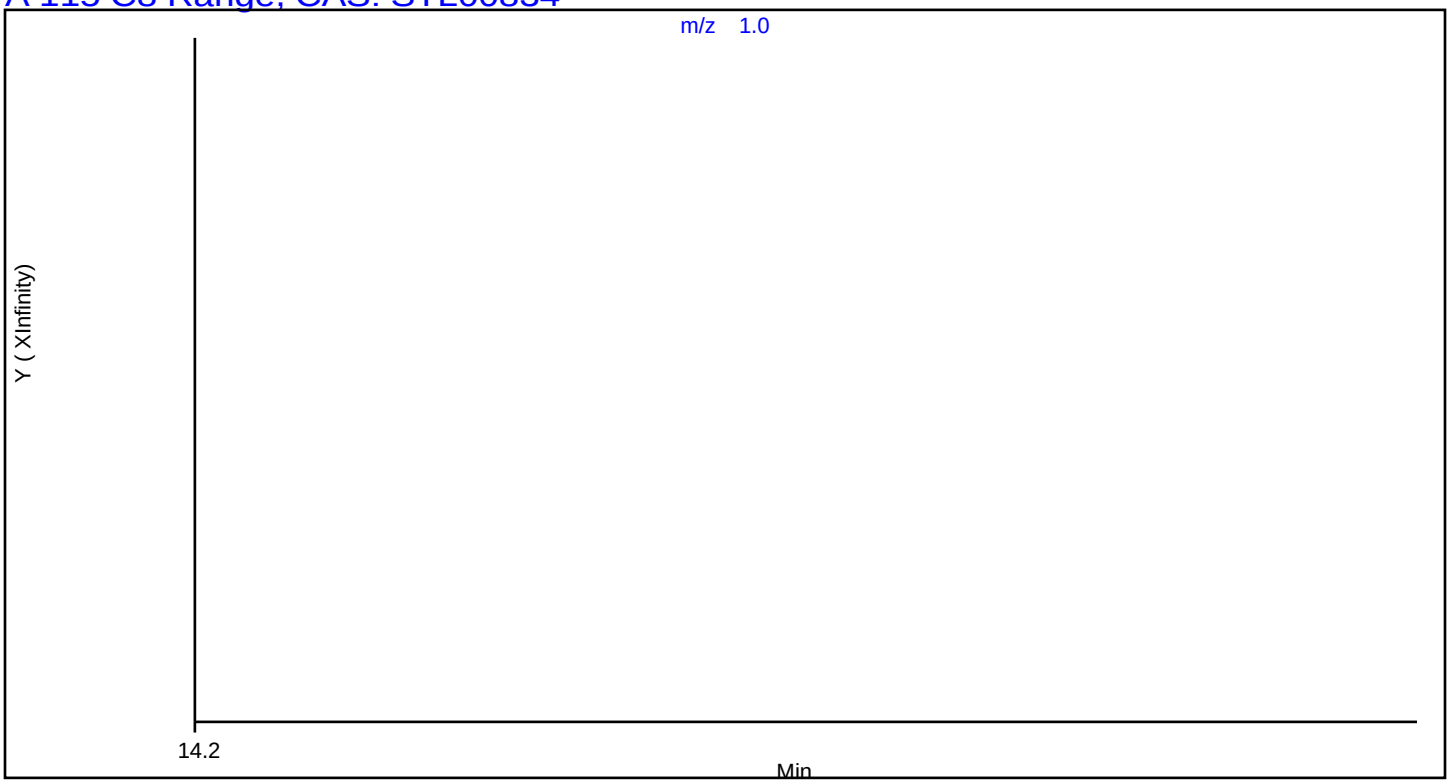


Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D				
Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Aug-2019 18:26:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:44 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:49:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	240951	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.777	10.781	-0.004	95	1473828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1287037	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	875394	4.00	3.95	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	48	9535	0.0400	0.0463	
7 Propene	41	3.432	3.439	-0.007	97	36666	0.0400	0.3210	
8 Dichlorodifluoromethane	85	3.481	3.489	-0.008	90	9042	0.0400	0.0485	
9 Chloromethane	52	3.659	3.665	-0.006	95	3186	0.0400	0.1138	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.659	3.669	-0.010	83	7157	0.0400	0.0758	
11 Acetaldehyde	44	3.820	3.817	0.003	92	22643	0.2000	0.6927	
12 Vinyl chloride	62	3.837	3.831	0.006	39	4572	0.0400	0.0516	
13 Butadiene	54	3.907	3.913	-0.006	68	4317	0.0400	0.0671	
14 Butane	43	3.912	3.914	-0.002	80	6815	0.0400	0.0500	
15 Bromomethane	94	4.230	4.227	0.003	87	3387	0.0400	0.0451	
16 Chloroethane	64	4.354	4.359	-0.005	49	1717	0.0400	0.0473	
17 Ethanol	31	4.467	4.464	0.003	74	6705	0.2000	0.2050	
18 Vinyl bromide	106	4.656	4.656	0.000	63	4274	0.0400	0.0681	
19 2-Methylbutane	43	4.689	4.699	-0.010	76	6141	0.0400	0.0604	
21 Trichlorofluoromethane	101	4.910	4.915	-0.005	97	8941	0.0400	0.0386	
20 Acrolein	56	4.931	4.936	-0.005	41	3875	0.0400	0.1352	
24 Acetonitrile	40	5.007	5.001	0.006	69	535	0.0400	0.0125	
22 Acetone	58	5.071	5.057	0.014	99	10977	0.1200	0.2746	
25 Pentane	72	5.142	5.138	0.004	3	364	0.0400	0.0238	
23 Isopropyl alcohol	45	5.163	5.149	0.014	91	17979	0.1200	0.1328	
26 Ethyl ether	31	5.325	5.319	0.006	76	4956	0.0400	0.0396	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	89	4055	0.0400	0.0489	
28 Acrylonitrile	53	5.735	5.738	-0.003	71	2350	0.0400	0.0376	
29 2-Methyl-2-propanol	59	5.778	5.756	0.022	76	7739	0.0400	0.0463	
30 1,1,2-Trichloro-1,2,2-trif	101	5.805	5.798	0.007	90	4530	0.0400	0.0263	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	14484	0.0400	0.1701	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.990	-0.013	36	6566	0.0400	0.0692	
33 Carbon disulfide	76	6.123	6.133	-0.010	63	8103	0.0400	0.0372	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	61	3809	0.0400	0.0437	
35 2-Methylpentane	43	6.808	6.803	0.005	95	11454	0.0400	0.0496	
36 Methyl tert-butyl ether	73	6.964	6.934	0.030	53	5614	0.0400	0.0239	
37 1,1-Dichloroethane	63	7.207	7.217	-0.010	9	7026	0.0400	0.0425	
38 Vinyl acetate	43	7.331	7.328	0.003	99	12777	0.0400	0.0443	
40 Hexane	56	7.795	7.796	-0.001	82	3187	0.0400	0.0421	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	83	1847	0.0400	0.0418	
41 Isopropyl ether	45	8.005	7.978	0.027	97	15231	0.0400	0.0424	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	91	4771	0.0400	0.0484	
43 Ethyl acetate	43	8.431	8.416	0.015	88	12131	0.0400	0.0475	
44 Chloroform	83	8.555	8.560	-0.005	28	9330	0.0400	0.0460	
45 Tert-butyl ethyl ether	59	8.684	8.665	0.019	94	12225	0.0400	0.0409	
46 Tetrahydrofuran	42	9.029	8.988	0.041	93	5933	0.0400	0.0465	
47 1,1,1-Trichloroethane	97	9.596	9.597	-0.001	89	10000	0.0400	0.0449	
48 1,2-Dichloroethane	62	9.720	9.715	0.005	46	5704	0.0400	0.0402	
50 n-Butanol	31	10.221	10.195	0.026	62	2845	0.0400	0.0505	
51 Cyclohexane	69	10.216	10.210	0.006	75	2105	0.0400	0.0449	
49 Benzene	78	10.210	10.214	-0.004	92	12714	0.0400	0.0426	
52 Carbon tetrachloride	117	10.237	10.233	0.004	82	8340	0.0400	0.0349	
53 2,3-Dimethylpentane	71	10.318	10.330	-0.012	87	2071	0.0400	0.0308	
54 Thiophene	84	10.502	10.499	0.003	86	2007	0.0400	0.0133	
55 Isooctane	57	10.987	10.995	-0.008	76	9874	0.0400	0.0198	
57 n-Heptane	71	11.380	11.387	-0.007	90	3898	0.0400	0.0374	
56 1,2-Dichloropropane	63	11.461	11.474	-0.013	62	4493	0.0400	0.0391	
58 Trichloroethene	130	11.510	11.509	0.001	87	4791	0.0400	0.0365	
59 Dibromomethane	93	11.591	11.595	-0.004	93	5749	0.0400	0.0472	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	92	8337	0.0400	0.0377	
61 1,4-Dioxane	88	11.796	11.781	0.015	27	1378	0.0400	0.0300	
62 Methyl methacrylate	41	11.850	11.850	0.000	50	6839	0.0400	0.0418	
63 Methylcyclohexane	83	12.286	12.288	-0.002	83	6242	0.0400	0.0364	
64 4-Methyl-2-pentanone (MIBK	43	12.729	12.718	0.011	75	11686	0.0400	0.0400	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	49	6968	0.0400	0.0404	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	96	6602	0.0400	0.0412	
67 Toluene	91	13.591	13.593	-0.002	94	11848	0.0400	0.0358	
68 1,1,2-Trichloroethane	83	13.683	13.674	0.009	89	4096	0.0400	0.0399	
69 2-Hexanone	58	14.077	14.066	0.011	88	4082	0.0400	0.0333	
71 n-Octane	85	14.292	14.288	0.004	92	4629	0.0400	0.0427	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	7768	0.0400	0.0341	
72 Ethylene Dibromide	107	14.675	14.674	0.001	93	7387	0.0400	0.0375	
73 Tetrachloroethene	129	14.735	14.743	-0.008	89	5547	0.0400	0.0410	
74 Chlorobenzene	112	15.619	15.625	-0.006	37	10958	0.0400	0.0398	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	16859	0.0400	0.0409	
76 Ethylbenzene	91	15.915	15.914	0.001	99	17826	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	95	25689	0.0800	0.0704	
81 n-Nonane	57	16.492	16.494	-0.002	91	9320	0.0400	0.0390	
78 Bromoform	173	16.519	16.525	-0.006	93	6218	0.0400	0.0305	
79 Styrene	104	16.546	16.543	0.003	93	8344	0.0400	0.0332	
80 o-Xylene	91	16.600	16.602	-0.002	97	14039	0.0400	0.0367	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	9624	0.0400	0.0357	
83 1,2,3-Trichloropropane	110	17.075	17.086	-0.011	92	2896	0.0400	0.0339	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.187	-0.004	87	22539	0.0400	0.0397	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	4793	0.0400	0.0332	
86 2-Chlorotoluene	126	17.781	17.786	-0.005	95	4980	0.0400	0.0362	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	21180	0.0400	0.0374	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	7772	0.0400	0.0360	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	6125	0.0400	0.0296	
90 n-Decane	57	18.277	18.280	-0.003	86	12151	0.0400	0.0369	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	19707	0.0400	0.0390	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	94	18855	0.0400	0.0377	
94 sec-Butylbenzene	105	18.703	18.702	0.001	98	27584	0.0400	0.0384	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	14076	0.0400	0.0413	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	13242	0.0400	0.0339	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	89	12727	0.0400	0.0379	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	22669	0.0400	0.0391	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	16683	0.0400	0.0339	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	13926	0.0400	0.0378	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	92	15512	0.0400	0.0347	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	12106	0.0400	0.0365	
102 Indene	116	19.318	19.314	0.004	74	13962	0.0400	0.0346	
103 n-Butylbenzene	91	19.318	19.318	0.000	95	25040	0.0400	0.0419	
104 Undecane	57	19.636	19.638	-0.002	92	13911	0.0400	0.0358	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	85	4732	0.0400	0.0291	
106 1,2,4,5-Tetramethylbenzene	119	20.095	20.094	0.001	96	21801	0.0400	0.0391	
107 Dodecane	57	20.715	20.714	0.001	88	12479	0.0400	0.0331	
108 1,2,4-Trichlorobenzene	180	20.925	20.920	0.005	94	11775	0.0400	0.0371	
109 Naphthalene	128	21.065	21.064	0.001	99	26992	0.0400	0.0412	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	93	12204	0.0400	0.0387	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	90	10787	0.0400	0.0369	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	96	7027	0.0400	0.0373	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	10180	0.0400	0.0563	
A 115 C8 Range	1	14.282	(14.249-14.314)		0	50038	0.0400	0.0433	
S 116 Xylenes, Total	100				0		0.1200	0.1071	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0921	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

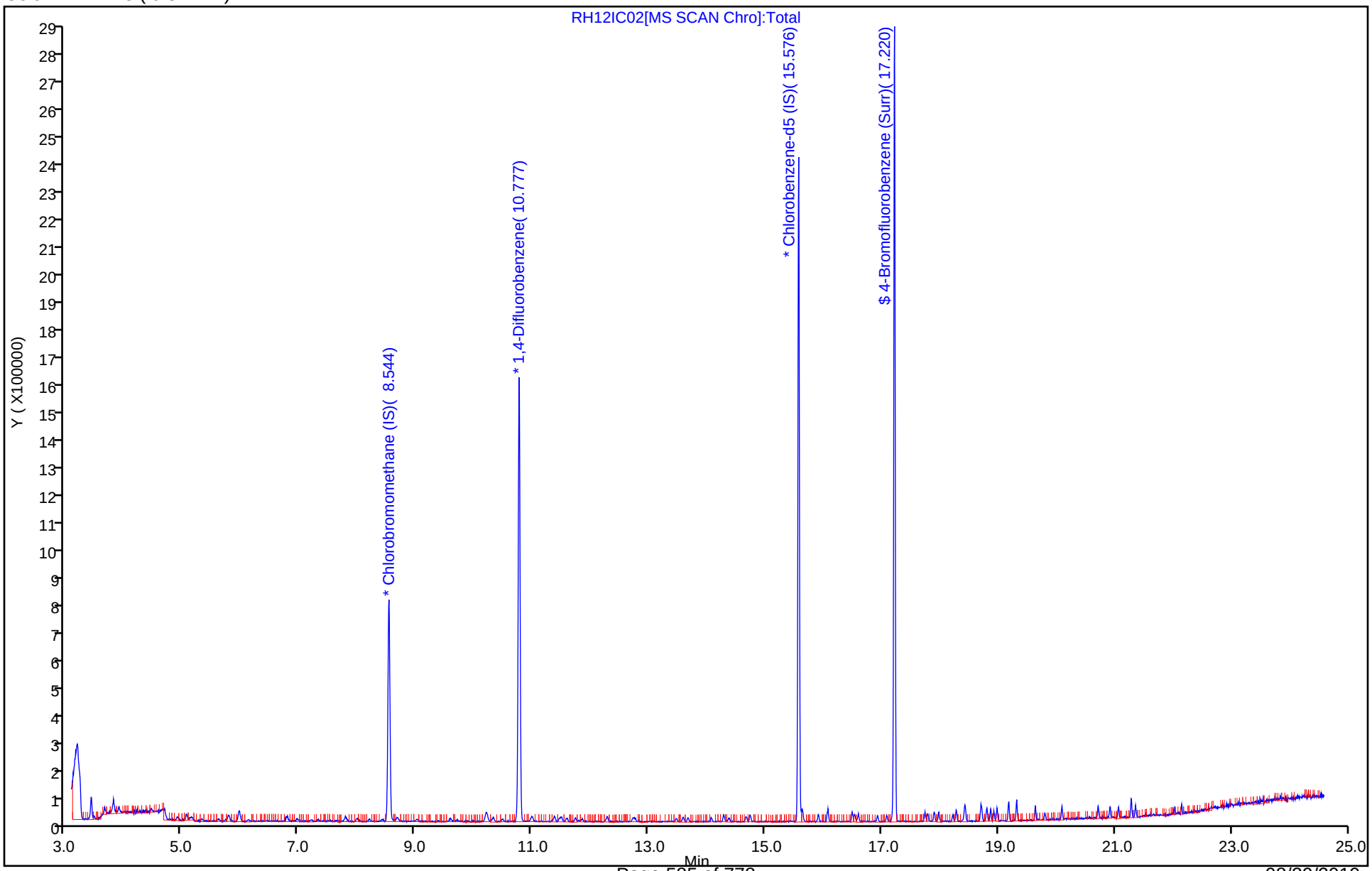
Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D

Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

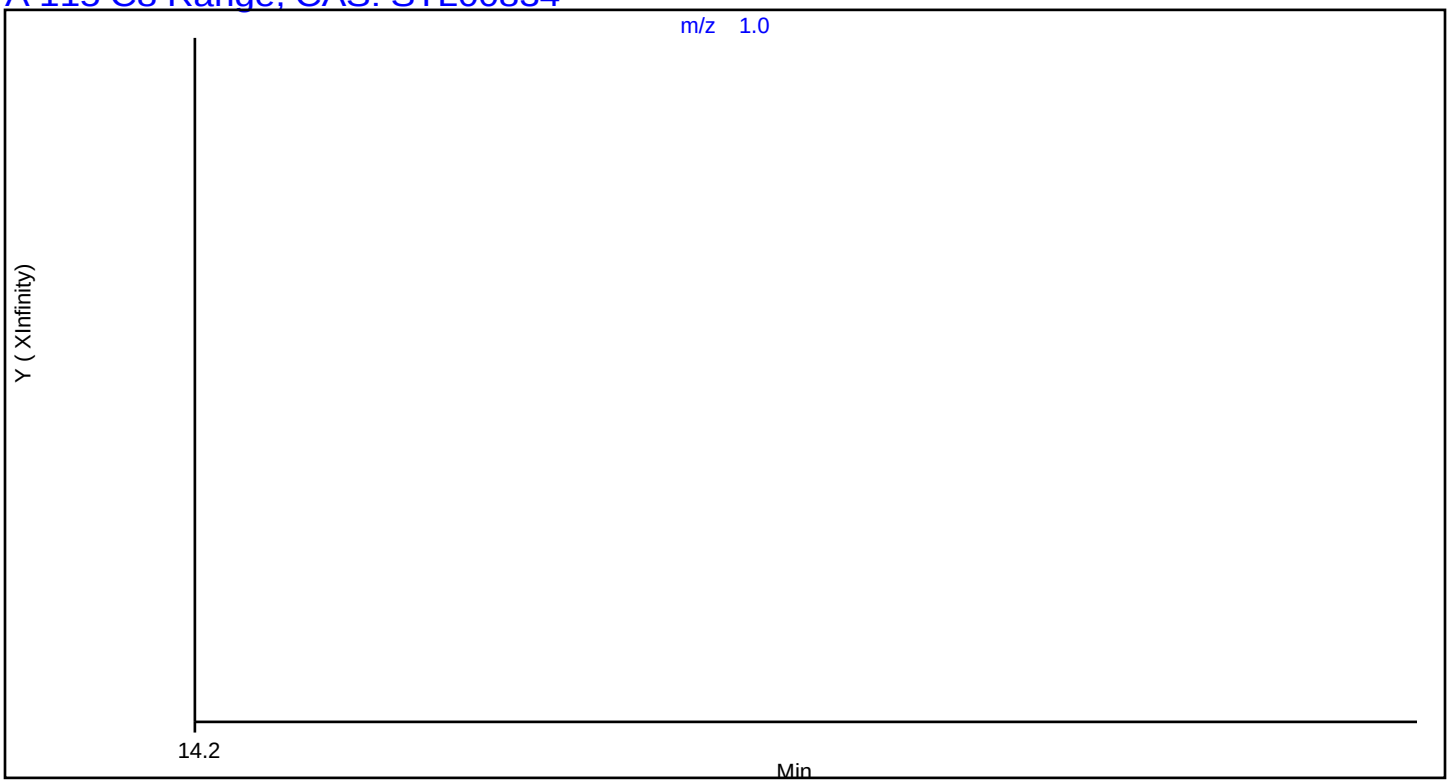


Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D				
Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Aug-2019 19:15:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:50 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:39:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.551	-0.007	97	238260	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1462098	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1307797	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	871146	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	84	17104	0.0800	0.0840	
7 Propene	41	3.448	3.439	0.009	98	40013	0.0800	0.3543	
8 Dichlorodifluoromethane	85	3.497	3.489	0.008	99	13627	0.0800	0.0740	
9 Chloromethane	52	3.669	3.665	0.004	93	4474	0.0800	0.1616	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	8302	0.0800	0.0889	
11 Acetaldehyde	44	3.826	3.817	0.009	99	53243	0.4000	1.65	
12 Vinyl chloride	62	3.836	3.831	0.005	36	8343	0.0800	0.0951	
13 Butadiene	54	3.917	3.913	0.004	64	7432	0.0800	0.1168	
14 Butane	43	3.917	3.914	0.003	88	14738	0.0800	0.1094	
15 Bromomethane	94	4.225	4.227	-0.002	71	8093	0.0800	0.1089	
16 Chloroethane	64	4.359	4.359	0.000	69	4278	0.0800	0.1192	
17 Ethanol	31	4.462	4.464	-0.002	41	8773	0.4000	0.2713	
18 Vinyl bromide	106	4.661	4.656	0.005	87	6047	0.0800	0.0975	
19 2-Methylbutane	43	4.699	4.699	0.000	88	10330	0.0800	0.1027	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	98	18776	0.0800	0.0820	
20 Acrolein	56	4.953	4.936	0.017	56	5537	0.0800	0.1954	
24 Acetonitrile	40	5.007	5.001	0.005	88	2524	0.0800	0.0598	
22 Acetone	58	5.071	5.057	0.014	99	18045	0.2400	0.4565	
23 Isopropyl alcohol	45	5.163	5.149	0.014	96	30173	0.2400	0.2254	
26 Ethyl ether	31	5.335	5.319	0.016	81	10342	0.0800	0.0835	
27 1,1-Dichloroethene	96	5.632	5.626	0.006	94	6464	0.0800	0.0789	
28 Acrylonitrile	53	5.740	5.738	0.002	67	3782	0.0800	0.0612	
29 2-Methyl-2-propanol	59	5.783	5.756	0.027	83	14220	0.0800	0.0861	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	12898	0.0800	0.0757	
31 Methylene Chloride	84	5.983	5.978	0.005	96	17663	0.0800	0.2097	
32 3-Chloro-1-propene	39	5.993	5.990	0.003	72	8996	0.0800	0.0959	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.139	6.133	0.006	98	16332	0.0800	0.0758	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	90	5797	0.0800	0.0673	
35 2-Methylpentane	43	6.808	6.803	0.005	92	17316	0.0800	0.0758	
36 Methyl tert-butyl ether	73	6.959	6.934	0.025	95	15453	0.0800	0.0666	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	98	12145	0.0800	0.0743	
38 Vinyl acetate	43	7.341	7.328	0.013	99	20932	0.0800	0.0734	
40 Hexane	56	7.794	7.796	-0.002	72	6114	0.0800	0.0817	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	96	4367	0.0800	0.0999	
41 Isopropyl ether	45	7.994	7.978	0.016	96	27616	0.0800	0.0778	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	92	8632	0.0800	0.0885	
43 Ethyl acetate	43	8.431	8.416	0.015	96	19988	0.0800	0.0791	
44 Chloroform	83	8.555	8.560	-0.005	29	16201	0.0800	0.0808	
45 Tert-butyl ethyl ether	59	8.679	8.665	0.014	96	22608	0.0800	0.0766	
46 Tetrahydrofuran	42	9.018	8.988	0.030	93	11583	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	96	17062	0.0800	0.0774	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	92	11547	0.0800	0.0821	
50 n-Butanol	31	10.210	10.195	0.015	68	4413	0.0800	0.0789	
51 Cyclohexane	69	10.216	10.210	0.006	74	2617	0.0800	0.0563	
49 Benzene	78	10.216	10.214	0.002	93	21586	0.0800	0.0729	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	86	15774	0.0800	0.0666	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	90	5547	0.0800	0.0832	
54 Thiophene	84	10.501	10.499	0.002	90	8334	0.0800	0.0555	
55 Isooctane	57	10.992	10.995	-0.003	97	36777	0.0800	0.0743	
57 n-Heptane	71	11.391	11.387	0.004	93	8204	0.0800	0.0794	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	64	9787	0.0800	0.0858	
58 Trichloroethene	130	11.515	11.509	0.006	91	10022	0.0800	0.0770	
59 Dibromomethane	93	11.596	11.595	0.001	91	9109	0.0800	0.0754	
60 Dichlorobromomethane	83	11.747	11.746	0.001	95	15440	0.0800	0.0704	
61 1,4-Dioxane	88	11.806	11.781	0.025	49	3473	0.0800	0.0763	
62 Methyl methacrylate	41	11.855	11.850	0.005	90	12240	0.0800	0.0753	
63 Methylcyclohexane	83	12.297	12.288	0.009	86	12553	0.0800	0.0737	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	97	22225	0.0800	0.0766	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	94	12719	0.0800	0.0743	
66 trans-1,3-Dichloropropene	75	13.467	13.476	-0.009	92	11493	0.0800	0.0707	
67 Toluene	91	13.591	13.593	-0.002	95	25408	0.0800	0.0755	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	7791	0.0800	0.0747	
69 2-Hexanone	58	14.071	14.066	0.005	90	8340	0.0800	0.0670	
71 n-Octane	85	14.281	14.288	-0.007	95	8484	0.0800	0.0770	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	14768	0.0800	0.0638	
72 Ethylene Dibromide	107	14.675	14.674	0.001	95	13260	0.0800	0.0663	
73 Tetrachloroethene	129	14.740	14.743	-0.003	84	10036	0.0800	0.0730	
74 Chlorobenzene	112	15.629	15.625	0.004	94	19939	0.0800	0.0713	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	32761	0.0800	0.0783	
76 Ethylbenzene	91	15.915	15.914	0.001	99	33477	0.0800	0.0709	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	96	54397	0.1600	0.1468	
81 n-Nonane	57	16.498	16.494	0.004	93	16849	0.0800	0.0694	
78 Bromoform	173	16.525	16.525	0.000	93	12693	0.0800	0.0612	
79 Styrene	104	16.541	16.543	-0.002	94	16365	0.0800	0.0641	
80 o-Xylene	91	16.606	16.602	0.004	98	26230	0.0800	0.0674	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	97	18858	0.0800	0.0688	
83 1,2,3-Trichloropropane	110	17.096	17.086	0.010	95	5924	0.0800	0.0682	
84 Isopropylbenzene	105	17.188	17.187	0.001	93	40179	0.0800	0.0696	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	98	9798	0.0800	0.0667	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	10534	0.0800	0.0753	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	42363	0.0800	0.0736	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	15853	0.0800	0.0722	
89 Alpha Methyl Styrene	118	18.218	18.223	-0.005	88	13366	0.0800	0.0635	
90 n-Decane	57	18.283	18.280	0.003	89	25144	0.0800	0.0752	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	89	35611	0.0800	0.0694	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	37839	0.0800	0.0744	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	53220	0.0800	0.0729	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	25042	0.0800	0.0723	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	25427	0.0800	0.0640	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	27287	0.0800	0.0799	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	96	42494	0.0800	0.0721	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	36284	0.0800	0.0725	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	27467	0.0800	0.0734	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33349	0.0800	0.0734	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	24634	0.0800	0.0730	
102 Indene	116	19.312	19.314	-0.002	98	27720	0.0800	0.0676	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	43509	0.0800	0.0717	
104 Undecane	57	19.641	19.638	0.003	93	27220	0.0800	0.0690	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	87	10162	0.0800	0.0614	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	96	39484	0.0800	0.0698	
107 Dodecane	57	20.714	20.714	0.000	90	26195	0.0800	0.0684	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	92	24678	0.0800	0.0765	
109 Naphthalene	128	21.065	21.064	0.001	99	53409	0.0800	0.0802	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	91	23134	0.0800	0.0722	
111 1,2,3-Trichlorobenzene	180	21.362	21.356	0.006	93	21407	0.0800	0.0721	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	93	12987	0.0800	0.0679	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	17746	0.0800	0.0966	
A 115 C8 Range	1	14.287	(14.249-14.325)		0	90033	0.0800	0.0785	
S 116 Xylenes, Total	100				0		0.2400	0.2142	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1558	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

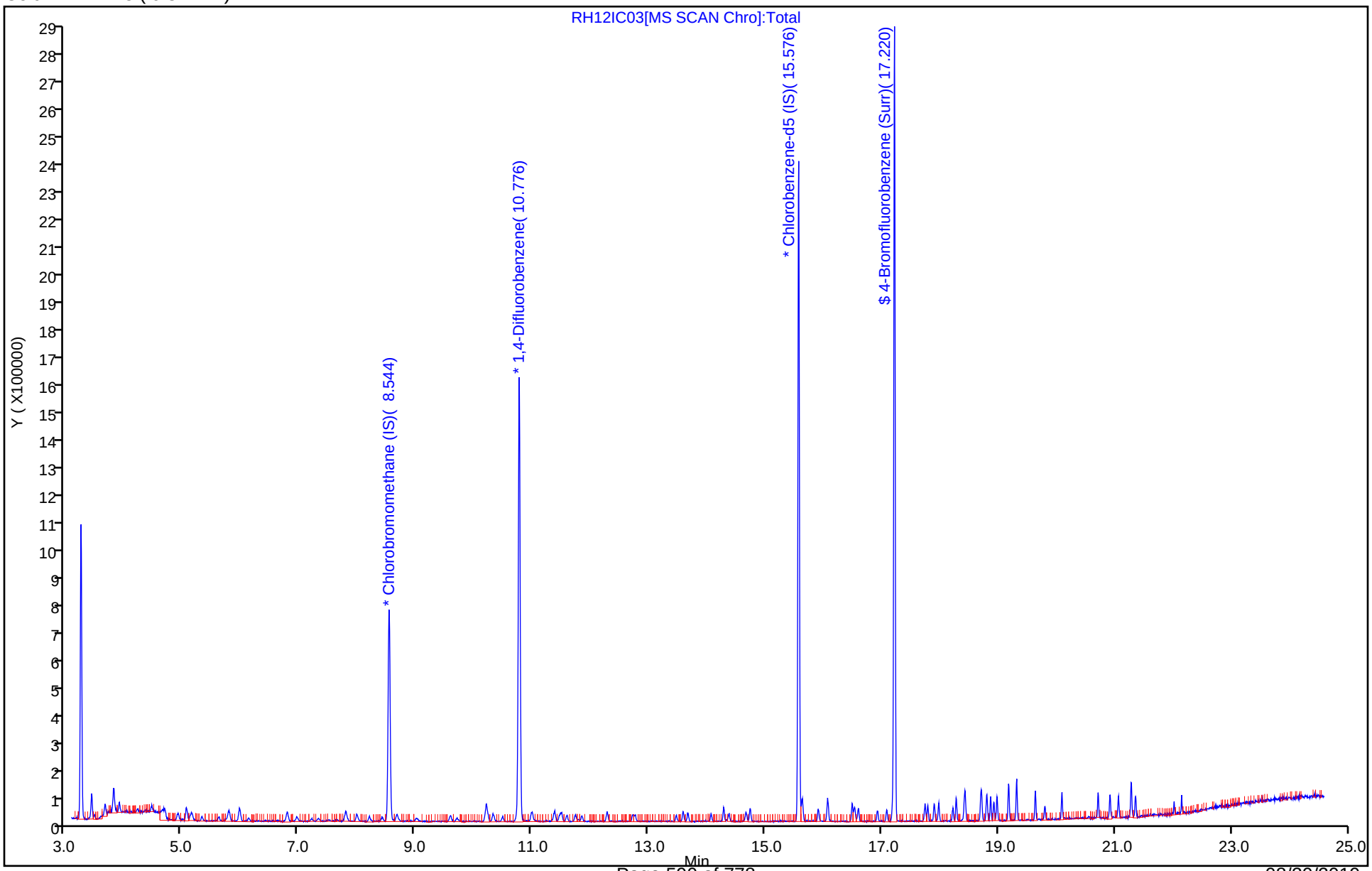
Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D

Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

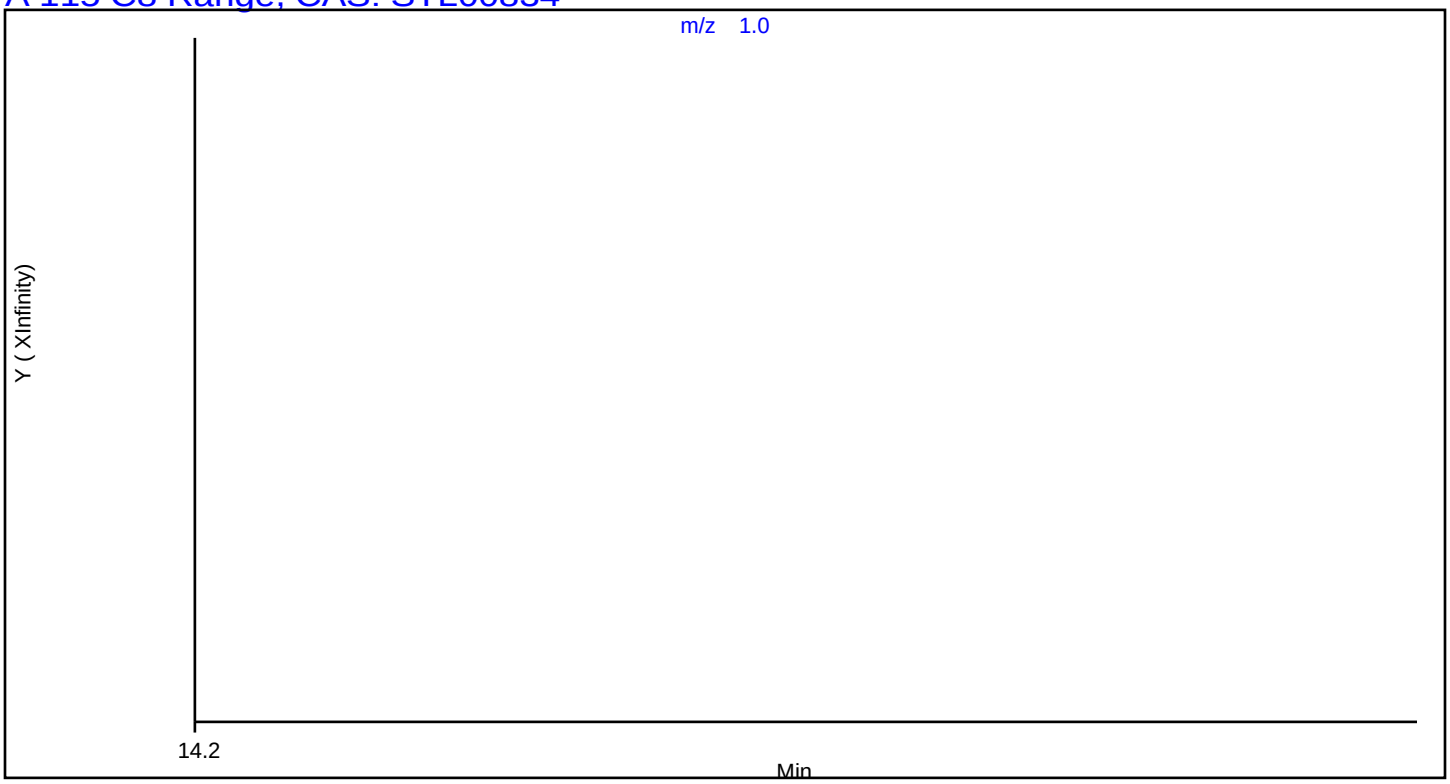


Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D				
Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Aug-2019 20:04:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 09:00:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	234467	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1479080	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1297368	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	880719	4.00	3.94	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	89	37149	0.1600	0.1854	
7 Propene	41	3.443	3.439	0.004	99	52426	0.1600	0.4717	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	98	31157	0.1600	0.1719	
9 Chloromethane	52	3.664	3.665	-0.001	76	5807	0.1600	0.2132	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.675	3.669	0.006	89	18423	0.1600	0.2004	
11 Acetaldehyde	44	3.820	3.817	0.003	91	65296	0.8000	2.05	
12 Vinyl chloride	62	3.836	3.831	0.005	90	16277	0.1600	0.1886	
13 Butadiene	54	3.912	3.913	-0.001	65	13809	0.1600	0.2205	
14 Butane	43	3.912	3.914	-0.002	86	27416	0.1600	0.2068	
15 Bromomethane	94	4.230	4.227	0.003	88	12536	0.1600	0.1714	
16 Chloroethane	64	4.359	4.359	0.000	86	6308	0.1600	0.1786	
17 Ethanol	31	4.467	4.464	0.003	97	39287	0.8000	1.23	
18 Vinyl bromide	106	4.651	4.656	-0.005	88	11256	0.1600	0.1844	
19 2-Methylbutane	43	4.705	4.699	0.006	93	21554	0.1600	0.2179	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	37252	0.1600	0.1654	
20 Acrolein	56	4.936	4.936	0.000	26	5363	0.1600	0.1923	
24 Acetonitrile	40	4.996	5.001	-0.005	90	465	0.1600	0.0112	
22 Acetone	58	5.066	5.057	0.009	98	30505	0.4800	0.7843	
25 Pentane	72	5.136	5.138	-0.002	94	3095	0.1600	0.2078	
23 Isopropyl alcohol	45	5.157	5.149	0.008	97	56079	0.4800	0.4256	
26 Ethyl ether	31	5.330	5.319	0.011	87	20465	0.1600	0.1680	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	98	12986	0.1600	0.1611	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	7796	0.1600	0.1281	
29 2-Methyl-2-propanol	59	5.767	5.756	0.011	92	24598	0.1600	0.1513	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	26227	0.1600	0.1565	
31 Methylene Chloride	84	5.977	5.978	-0.001	92	19470	0.1600	0.2349	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.999	5.990	0.009	84	14010	0.1600	0.1518	
33 Carbon disulfide	76	6.139	6.133	0.006	96	32055	0.1600	0.1511	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	95	12429	0.1600	0.1466	
35 2-Methylpentane	43	6.808	6.803	0.005	96	38166	0.1600	0.1697	
36 Methyl tert-butyl ether	73	6.953	6.934	0.019	96	35352	0.1600	0.1547	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	98	26688	0.1600	0.1660	
38 Vinyl acetate	43	7.325	7.328	-0.003	99	43790	0.1600	0.1561	
40 Hexane	56	7.794	7.796	-0.002	71	13205	0.1600	0.1794	
39 2-Butanone (MEK)	72	7.805	7.797	0.008	93	8064	0.1600	0.1874	
41 Isopropyl ether	45	7.983	7.978	0.005	98	56542	0.1600	0.1619	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	94	14471	0.1600	0.1508	
43 Ethyl acetate	43	8.431	8.416	0.015	97	39652	0.1600	0.1595	
44 Chloroform	83	8.560	8.560	0.000	30	32871	0.1600	0.1667	
45 Tert-butyl ethyl ether	59	8.673	8.665	0.008	96	45874	0.1600	0.1578	
46 Tetrahydrofuran	42	9.002	8.988	0.014	93	18911	0.1600	0.1524	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	33477	0.1600	0.1544	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	96	20976	0.1600	0.1474	
50 n-Butanol	31	10.205	10.195	0.010	58	7490	0.1600	0.1324	
51 Cyclohexane	69	10.216	10.210	0.006	72	7444	0.1600	0.1583	
49 Benzene	78	10.210	10.214	-0.004	95	49431	0.1600	0.1650	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	92	35862	0.1600	0.1497	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	10204	0.1600	0.1512	
54 Thiophene	84	10.496	10.499	-0.003	94	22379	0.1600	0.1474	
55 Isooctane	57	10.997	10.995	0.002	96	76319	0.1600	0.1525	
57 n-Heptane	71	11.386	11.387	-0.001	95	15423	0.1600	0.1476	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	80	16693	0.1600	0.1446	
58 Trichloroethene	130	11.510	11.509	0.001	93	18870	0.1600	0.1432	
59 Dibromomethane	93	11.591	11.595	-0.004	94	19319	0.1600	0.1581	
60 Dichlorobromomethane	83	11.747	11.746	0.001	97	32327	0.1600	0.1458	
61 1,4-Dioxane	88	11.785	11.781	0.004	66	7162	0.1600	0.1556	
62 Methyl methacrylate	41	11.855	11.850	0.005	87	25315	0.1600	0.1540	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	25069	0.1600	0.1455	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	98	42380	0.1600	0.1445	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	95	21987	0.1600	0.1270	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.004	93	21440	0.1600	0.1329	
67 Toluene	91	13.591	13.593	-0.002	92	52282	0.1600	0.1566	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	15946	0.1600	0.1541	
69 2-Hexanone	58	14.076	14.066	0.010	91	19028	0.1600	0.1540	
71 n-Octane	85	14.287	14.288	-0.001	97	15835	0.1600	0.1448	
70 Chlorodibromomethane	129	14.384	14.379	0.005	96	28895	0.1600	0.1259	
72 Ethylene Dibromide	107	14.675	14.674	0.001	35	29180	0.1600	0.1470	
73 Tetrachloroethene	129	14.740	14.743	-0.003	93	18774	0.1600	0.1377	
74 Chlorobenzene	112	15.629	15.625	0.004	94	41497	0.1600	0.1495	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	94	62008	0.1600	0.1493	
76 Ethylbenzene	91	15.915	15.914	0.001	98	67987	0.1600	0.1452	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	103834	0.3200	0.2824	
81 n-Nonane	57	16.492	16.494	-0.002	95	34376	0.1600	0.1427	
78 Bromoform	173	16.519	16.525	-0.006	95	27703	0.1600	0.1347	
79 Styrene	104	16.546	16.543	0.003	98	33105	0.1600	0.1307	
80 o-Xylene	91	16.600	16.602	-0.002	99	55761	0.1600	0.1444	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	38115	0.1600	0.1402	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	95	12861	0.1600	0.1492	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	87644	0.1600	0.1530	
85 N-Propylbenzene	120	17.749	17.745	0.004	98	21522	0.1600	0.1478	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	22221	0.1600	0.1602	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	88453	0.1600	0.1549	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	33519	0.1600	0.1540	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	27551	0.1600	0.1320	
90 n-Decane	57	18.283	18.280	0.002	87	50084	0.1600	0.1510	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	75576	0.1600	0.1485	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	75679	0.1600	0.1501	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	109309	0.1600	0.1510	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	51771	0.1600	0.1508	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	51323	0.1600	0.1303	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	48412	0.1600	0.1429	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	91852	0.1600	0.1570	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	98	78777	0.1600	0.1588	
99 Butylcyclohexane	83	18.984	18.981	0.003	90	58727	0.1600	0.1582	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	66472	0.1600	0.1475	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	92	52296	0.1600	0.1562	
102 Indene	116	19.312	19.314	-0.002	87	55161	0.1600	0.1357	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	92403	0.1600	0.1534	
104 Undecane	57	19.636	19.638	-0.002	94	62883	0.1600	0.1608	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	86	20360	0.1600	0.1240	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	86274	0.1600	0.1537	
107 Dodecane	57	20.714	20.714	0.000	91	59374	0.1600	0.1562	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	48894	0.1600	0.1527	
109 Naphthalene	128	21.065	21.064	0.001	100	96013	0.1600	0.1453	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	93	49887	0.1600	0.1569	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	46799	0.1600	0.1588	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	21893	0.1600	0.1154	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	27080	0.1600	0.1486	
A 115 C8 Range	1	14.298	(14.260-14.335)		0	176098	0.1600	0.1518	
S 116 Xylenes, Total	100				0		0.4800	0.4268	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.2974	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

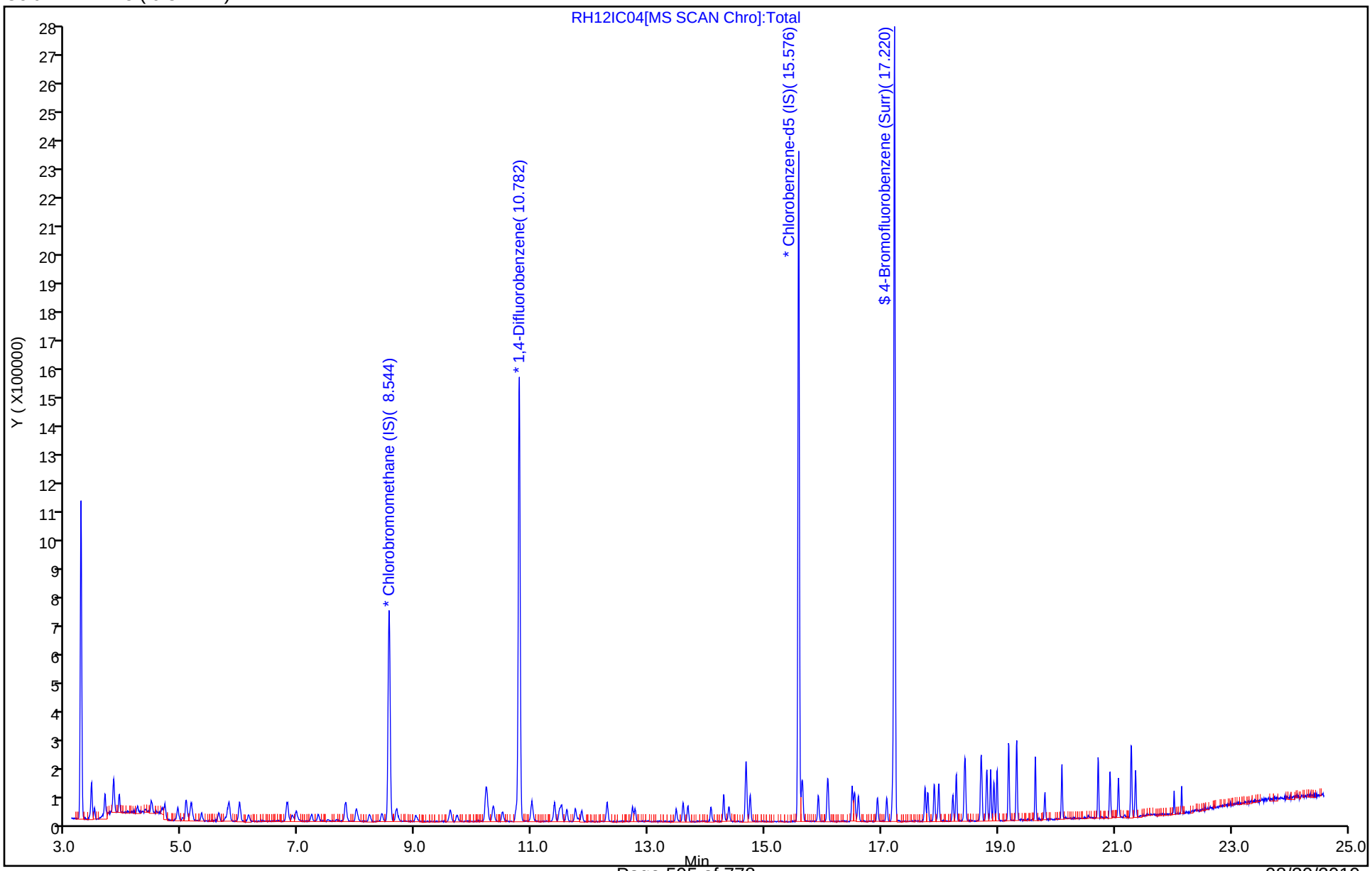
Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D

Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

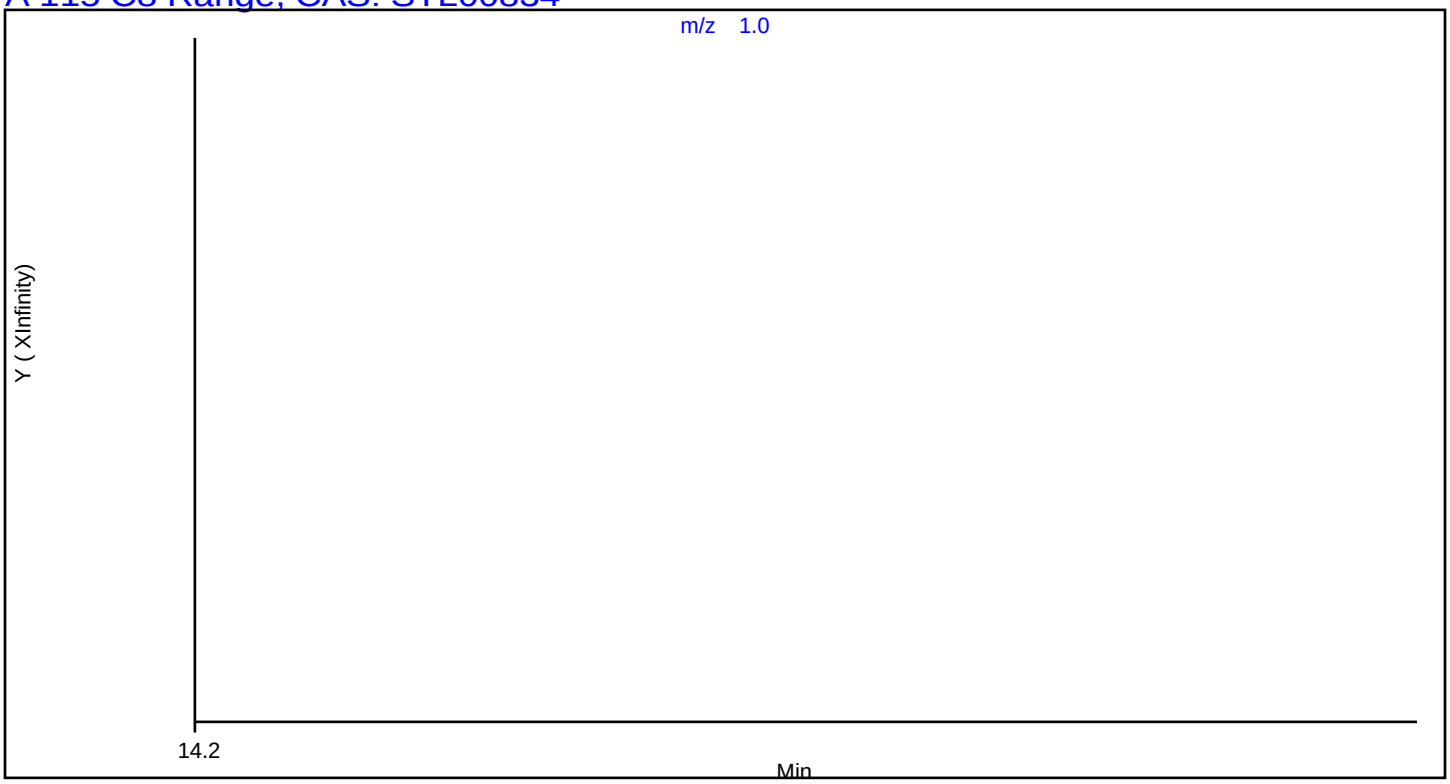


Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D				
Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Aug-2019 20:53:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:02 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	254726	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1567669	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	88	1372435	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	94	942631	4.00	3.98	
6 Chlorodifluoromethane	51	3.426	3.430	-0.004	97	92941	0.4000	0.4270	
7 Propene	41	3.437	3.439	-0.002	97	81472	0.4000	0.6747	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	83727	0.4000	0.4252	
9 Chloromethane	52	3.664	3.665	-0.001	87	15278	0.4000	0.5163	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	41905	0.4000	0.4195	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	98077	2.00	2.84	
12 Vinyl chloride	62	3.825	3.831	-0.006	98	36795	0.4000	0.3924	
13 Butadiene	54	3.912	3.913	-0.001	65	30573	0.4000	0.4494	
14 Butane	43	3.912	3.914	-0.002	85	60089	0.4000	0.4171	
15 Bromomethane	94	4.219	4.227	-0.008	96	25893	0.4000	0.3259	
16 Chloroethane	64	4.359	4.359	0.000	85	13196	0.4000	0.3439	
17 Ethanol	31	4.456	4.464	-0.008	99	80407	2.00	2.33	
18 Vinyl bromide	106	4.656	4.656	0.000	91	24652	0.4000	0.3716	
19 2-Methylbutane	43	4.694	4.699	-0.005	91	48082	0.4000	0.4473	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	94313	0.4000	0.3854	
20 Acrolein	56	4.931	4.936	-0.005	92	12417	0.4000	0.4099	
24 Acetonitrile	40	5.001	5.001	0.000	99	18073	0.4000	0.4007	
22 Acetone	58	5.055	5.057	-0.002	99	55059	1.20	1.30	
25 Pentane	72	5.141	5.138	0.003	95	6812	0.4000	0.4209	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	156113	1.20	1.09	
26 Ethyl ether	31	5.319	5.319	0.000	89	49563	0.4000	0.3745	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	97	30801	0.4000	0.3516	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	16277	0.4000	0.2463	
29 2-Methyl-2-propanol	59	5.756	5.756	0.000	95	65062	0.4000	0.3684	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	92	64689	0.4000	0.3553	
31 Methylene Chloride	84	5.977	5.978	-0.001	94	37926	0.4000	0.4212	
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	83	37437	0.4000	0.3735	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.133	6.133	0.000	99	82401	0.4000	0.3576	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	96	36589	0.4000	0.3974	
35 2-Methylpentane	43	6.802	6.803	-0.001	95	88849	0.4000	0.3637	
36 Methyl tert-butyl ether	73	6.931	6.934	-0.003	96	98345	0.4000	0.3962	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	100	63504	0.4000	0.3636	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	115947	0.4000	0.3804	
40 Hexane	56	7.800	7.796	0.004	65	29832	0.4000	0.3730	
39 2-Butanone (MEK)	72	7.794	7.797	-0.003	87	18300	0.4000	0.3915	
41 Isopropyl ether	45	7.972	7.978	-0.006	98	145384	0.4000	0.3832	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	39820	0.4000	0.3818	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	105906	0.4000	0.3922	
44 Chloroform	83	8.555	8.560	-0.005	40	83858	0.4000	0.3914	
45 Tert-butyl ethyl ether	59	8.657	8.665	-0.008	97	121332	0.4000	0.3843	
46 Tetrahydrofuran	42	8.991	8.988	0.003	95	51707	0.4000	0.3835	
47 1,1,1-Trichloroethane	97	9.590	9.597	-0.007	95	86648	0.4000	0.3678	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	96	53780	0.4000	0.3566	
50 n-Butanol	31	10.199	10.195	0.004	76	22459	0.4000	0.3746	
51 Cyclohexane	69	10.210	10.210	0.000	75	19248	0.4000	0.3861	
49 Benzene	78	10.215	10.214	0.001	96	119776	0.4000	0.3773	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	88467	0.4000	0.3485	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	91	25882	0.4000	0.3619	
54 Thiophene	84	10.496	10.499	-0.003	96	61784	0.4000	0.3839	
55 Isooctane	57	10.997	10.995	0.002	97	201320	0.4000	0.3796	
57 n-Heptane	71	11.380	11.387	-0.007	95	41187	0.4000	0.3718	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	43914	0.4000	0.3589	
58 Trichloroethene	130	11.504	11.509	-0.005	95	51621	0.4000	0.3697	
59 Dibromomethane	93	11.590	11.595	-0.005	91	45649	0.4000	0.3524	
60 Dichlorobromomethane	83	11.741	11.746	-0.005	96	82518	0.4000	0.3512	
61 1,4-Dioxane	88	11.779	11.781	-0.002	93	17072	0.4000	0.3498	
62 Methyl methacrylate	41	11.849	11.850	-0.001	87	61427	0.4000	0.3527	
63 Methylcyclohexane	83	12.281	12.288	-0.007	90	67432	0.4000	0.3693	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	96	115648	0.4000	0.3720	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	65841	0.4000	0.3589	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	60682	0.4000	0.3555	
67 Toluene	91	13.591	13.593	-0.002	92	134911	0.4000	0.3821	
68 1,1,2-Trichloroethane	83	13.667	13.674	-0.007	96	41040	0.4000	0.3749	
69 2-Hexanone	58	14.060	14.066	-0.006	90	46424	0.4000	0.3552	
71 n-Octane	85	14.287	14.288	-0.001	97	42413	0.4000	0.3666	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	82751	0.4000	0.3408	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	76615	0.4000	0.3649	
73 Tetrachloroethene	129	14.745	14.743	0.002	95	52332	0.4000	0.3629	
74 Chlorobenzene	112	15.619	15.625	-0.006	93	113301	0.4000	0.3858	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	173853	0.4000	0.3958	
76 Ethylbenzene	91	15.915	15.914	0.001	98	192887	0.4000	0.3894	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	300469	0.8000	0.7725	
81 n-Nonane	57	16.492	16.494	-0.002	94	99362	0.4000	0.3898	
78 Bromoform	173	16.525	16.525	0.000	95	84238	0.4000	0.3873	
79 Styrene	104	16.535	16.543	-0.008	98	105671	0.4000	0.3945	
80 o-Xylene	91	16.600	16.602	-0.002	99	160961	0.4000	0.3941	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	113804	0.4000	0.3956	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	91	36511	0.4000	0.4004	
84 Isopropylbenzene	105	17.188	17.187	0.001	94	235069	0.4000	0.3879	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.749	17.745	0.004	98	56029	0.4000	0.3636	
86 2-Chlorotoluene	126	17.786	17.786	0.000	98	57011	0.4000	0.3884	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	214068	0.4000	0.3544	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	91	83282	0.4000	0.3617	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	86	76630	0.4000	0.3471	
90 n-Decane	57	18.277	18.280	-0.003	86	128610	0.4000	0.3666	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	195971	0.4000	0.3640	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	193483	0.4000	0.3627	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	284972	0.4000	0.3720	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	125204	0.4000	0.3447	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	139012	0.4000	0.3336	
95 1,4-Dichlorobenzene	146	18.805	18.810	-0.005	93	128566	0.4000	0.3586	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	221539	0.4000	0.3580	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	94	190536	0.4000	0.3630	
99 Butylcyclohexane	83	18.978	18.981	-0.003	90	143647	0.4000	0.3658	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	172831	0.4000	0.3626	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	128507	0.4000	0.3629	
102 Indene	116	19.312	19.314	-0.002	89	141407	0.4000	0.3287	
103 n-Butylbenzene	91	19.318	19.318	0.000	96	224277	0.4000	0.3519	
104 Undecane	57	19.636	19.638	-0.002	90	145831	0.4000	0.3524	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	92	55688	0.4000	0.3206	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	207789	0.4000	0.3499	
107 Dodecane	57	20.714	20.714	0.000	92	138196	0.4000	0.3437	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	118995	0.4000	0.3513	
109 Naphthalene	128	21.065	21.064	0.001	99	238247	0.4000	0.3407	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	119241	0.4000	0.3545	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	122976	0.4000	0.3946	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	61224	0.4000	0.3050	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	97	65295	0.4000	0.3388	
A 115 C8 Range	1	14.284	(14.249-14.335)		0	459073	0.4000	0.3733	
S 116 Xylenes, Total	100				0		1.20	1.17	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.7792	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

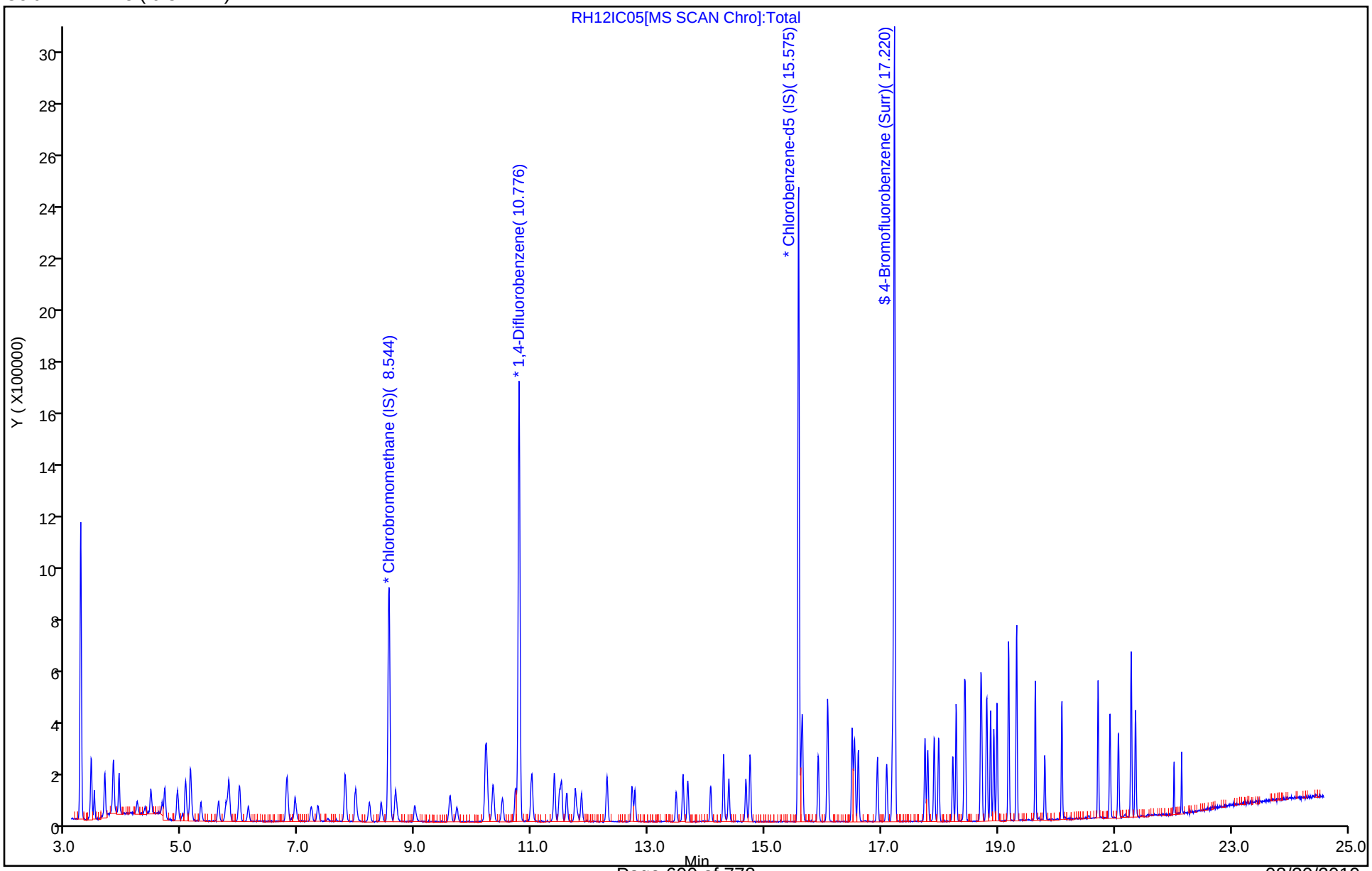
Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D

Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

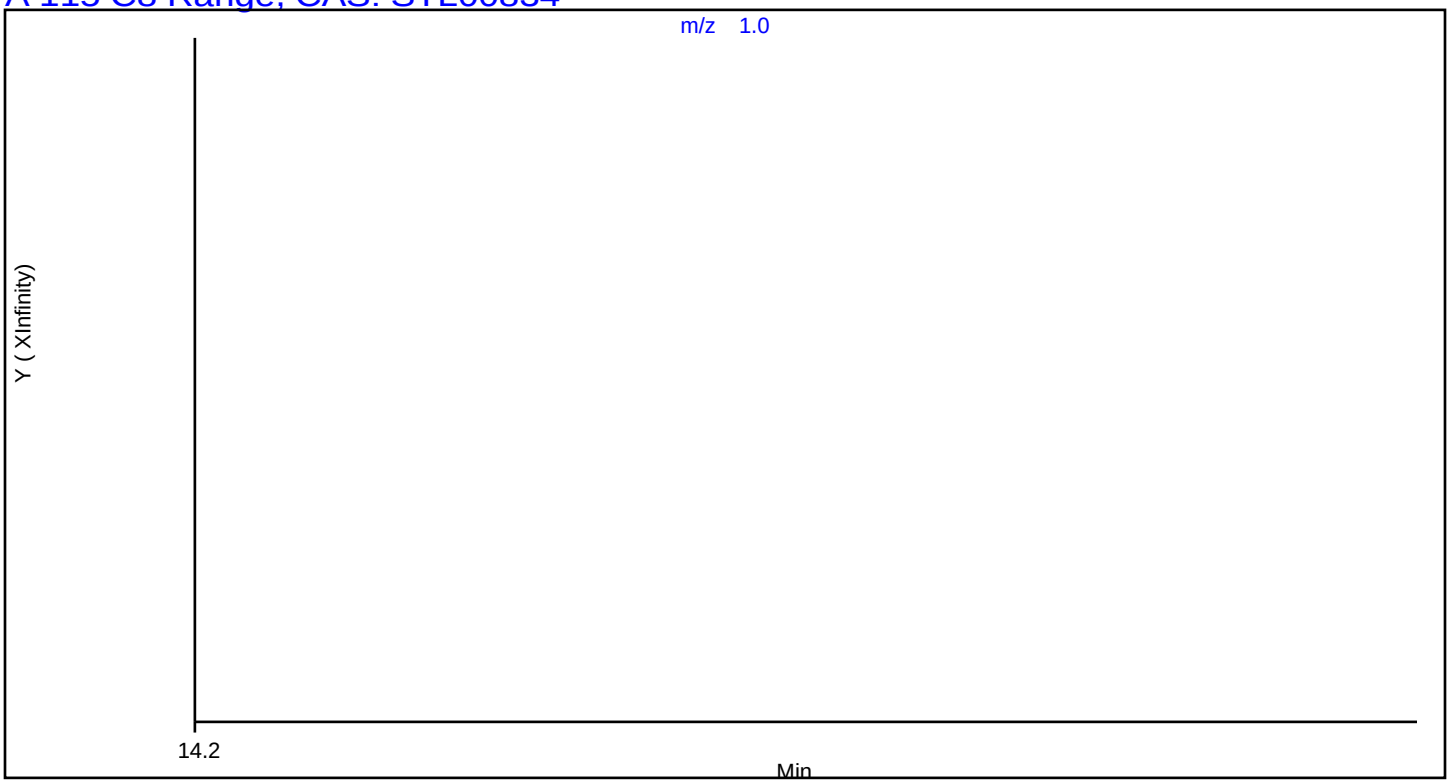


Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D				
Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Aug-2019 21:41:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:08 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:33:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	275742	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1650362	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1463744	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	1017939	4.00	4.03	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	234758	1.00	1.00	
7 Propene	41	3.443	3.439	0.004	98	163993	1.00	1.25	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	213046	1.00	1.00	
9 Chloromethane	52	3.664	3.665	-0.001	90	32588	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	104417	1.00	0.9657	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	199152	5.00	5.32	
12 Vinyl chloride	62	3.831	3.831	0.000	99	87680	1.00	0.8639	
13 Butadiene	54	3.917	3.913	0.004	67	70305	1.00	0.9547	
14 Butane	43	3.917	3.914	0.003	86	134910	1.00	0.8652	
15 Bromomethane	94	4.230	4.227	0.003	98	78476	1.00	0.9125	
16 Chloroethane	64	4.359	4.359	0.000	90	36301	1.00	0.8739	
17 Ethanol	31	4.457	4.464	-0.007	98	197485	5.00	5.28	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	71900	1.00	1.00	
19 2-Methylbutane	43	4.699	4.699	0.000	96	112317	1.00	0.9653	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	256609	1.00	0.9688	
20 Acrolein	56	4.936	4.936	0.000	95	31359	1.00	0.9562	
24 Acetonitrile	40	5.001	5.001	0.000	96	44589	1.00	0.9132	
22 Acetone	58	5.050	5.057	-0.007	99	140239	3.00	3.07	
25 Pentane	72	5.141	5.138	0.003	73	16387	1.00	0.9353	
23 Isopropyl alcohol	45	5.136	5.149	-0.013	83	434704	3.00	2.81	
26 Ethyl ether	31	5.314	5.319	-0.005	89	139716	1.00	0.9752	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	91670	1.00	0.9667	
28 Acrylonitrile	53	5.729	5.738	-0.009	67	76620	1.00	1.07	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.022	96	187436	1.00	0.9805	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	96	195830	1.00	0.99	
31 Methylene Chloride	84	5.977	5.978	-0.001	96	97104	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	94	106755	1.00	0.9838	
33 Carbon disulfide	76	6.139	6.133	0.006	100	260082	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	97	97862	1.00	0.9818	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	265535	1.00	1.00	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	268658	1.00	1.00	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	183745	1.00	0.9720	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	333540	1.00	1.01	
40 Hexane	56	7.789	7.796	-0.007	73	85998	1.00	0.99	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	95	46530	1.00	0.9195	
41 Isopropyl ether	45	7.967	7.978	-0.011	98	421247	1.00	1.03	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	110184	1.00	0.9761	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	297217	1.00	1.02	
44 Chloroform	83	8.555	8.560	-0.005	96	228386	1.00	0.9847	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	97	345723	1.00	1.01	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	95	147538	1.00	1.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	253956	1.00	1.00	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	160490	1.00	1.01	
50 n-Butanol	31	10.178	10.195	-0.017	86	56795	1.00	0.8998	
51 Cyclohexane	69	10.199	10.210	-0.011	79	50611	1.00	0.9643	
49 Benzene	78	10.210	10.214	-0.004	97	317673	1.00	0.9504	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	95	265046	1.00	0.99	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	74081	1.00	0.9839	
54 Thiophene	84	10.491	10.499	-0.008	97	177597	1.00	1.05	
55 Isooctane	57	10.992	10.995	-0.003	98	546926	1.00	0.9795	
57 n-Heptane	71	11.386	11.387	-0.001	95	114914	1.00	0.9855	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	86	123265	1.00	0.9570	
58 Trichloroethene	130	11.504	11.509	-0.005	98	148333	1.00	1.01	
59 Dibromomethane	93	11.591	11.595	-0.004	95	132070	1.00	0.9685	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	97	241765	1.00	0.9773	
61 1,4-Dioxane	88	11.769	11.781	-0.012	96	49723	1.00	0.9679	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	176236	1.00	0.9611	
63 Methylcyclohexane	83	12.286	12.288	-0.002	94	192630	1.00	1.00	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	315351	1.00	0.9635	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	194636	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.003	98	174816	1.00	0.9602	
67 Toluene	91	13.591	13.593	-0.002	92	381611	1.00	1.01	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	114417	1.00	0.9800	
69 2-Hexanone	58	14.060	14.066	-0.006	90	136287	1.00	0.9778	
71 n-Octane	85	14.287	14.288	-0.001	97	124478	1.00	1.01	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	96	250080	1.00	0.9657	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	97	227684	1.00	1.02	
73 Tetrachloroethene	129	14.740	14.743	-0.003	96	148518	1.00	0.9656	
74 Chlorobenzene	112	15.624	15.625	-0.001	94	316604	1.00	1.01	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	473323	1.00	1.01	
76 Ethylbenzene	91	15.910	15.914	-0.004	99	523426	1.00	0.99	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	824444	2.00	1.99	
81 n-Nonane	57	16.492	16.494	-0.002	95	270114	1.00	0.99	
78 Bromoform	173	16.525	16.525	0.000	95	259604	1.00	1.12	
79 Styrene	104	16.541	16.543	-0.002	99	295221	1.00	1.03	
80 o-Xylene	91	16.600	16.602	-0.002	98	434181	1.00	1.00	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.930	-0.006	99	311891	1.00	1.02	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	94	98558	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	646729	1.00	1.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	168614	1.00	1.03	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	161679	1.00	1.03	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	655801	1.00	1.02	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	248480	1.00	1.01	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	88	241958	1.00	1.03	
90 n-Decane	57	18.277	18.280	-0.003	88	371710	1.00	0.99	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	575935	1.00	1.00	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	568798	1.00	1.00	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	99	826217	1.00	1.01	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	375723	1.00	0.9698	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	437373	1.00	0.9842	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	94	372557	1.00	0.9744	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	676095	1.00	1.02	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	582945	1.00	1.04	
99 Butylcyclohexane	83	18.978	18.981	-0.003	93	437506	1.00	1.04	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	511702	1.00	1.01	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	368079	1.00	0.9746	
102 Indene	116	19.313	19.314	-0.002	95	450393	1.00	0.9817	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	691666	1.00	1.02	
104 Undecane	57	19.636	19.638	-0.002	94	450245	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	95	190182	1.00	1.03	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	648777	1.00	1.02	
107 Dodecane	57	20.715	20.714	0.001	92	445044	1.00	1.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	353265	1.00	0.9778	
109 Naphthalene	128	21.065	21.064	0.001	99	784592	1.00	1.05	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	342754	1.00	0.9555	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	323470	1.00	0.9731	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	200876	1.00	0.9383	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	198072	1.00	0.9635	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	1278165	1.00	0.9872	
S 116 Xylenes, Total	100				0		3.00	2.98	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.96	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

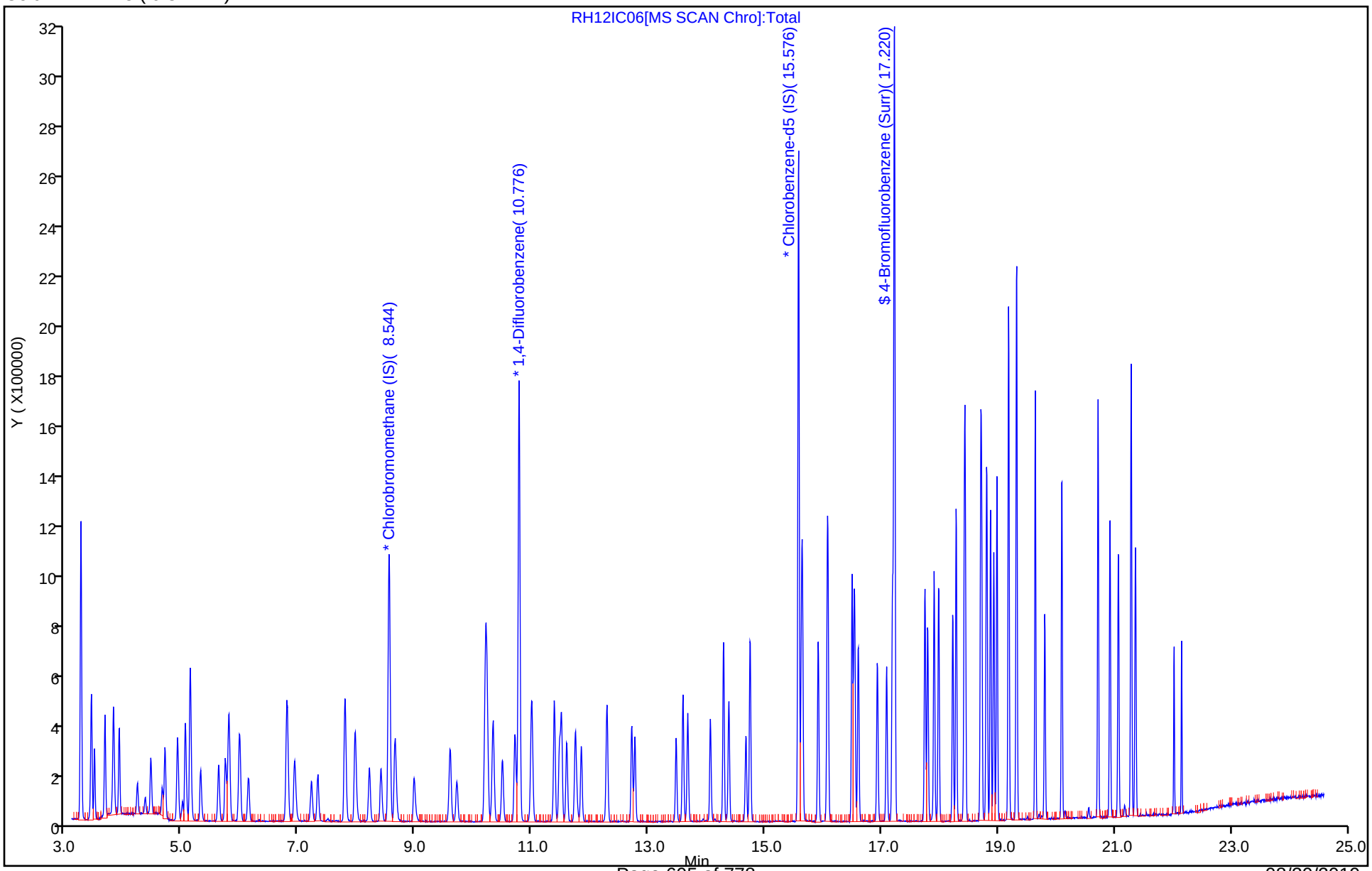
Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D

Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

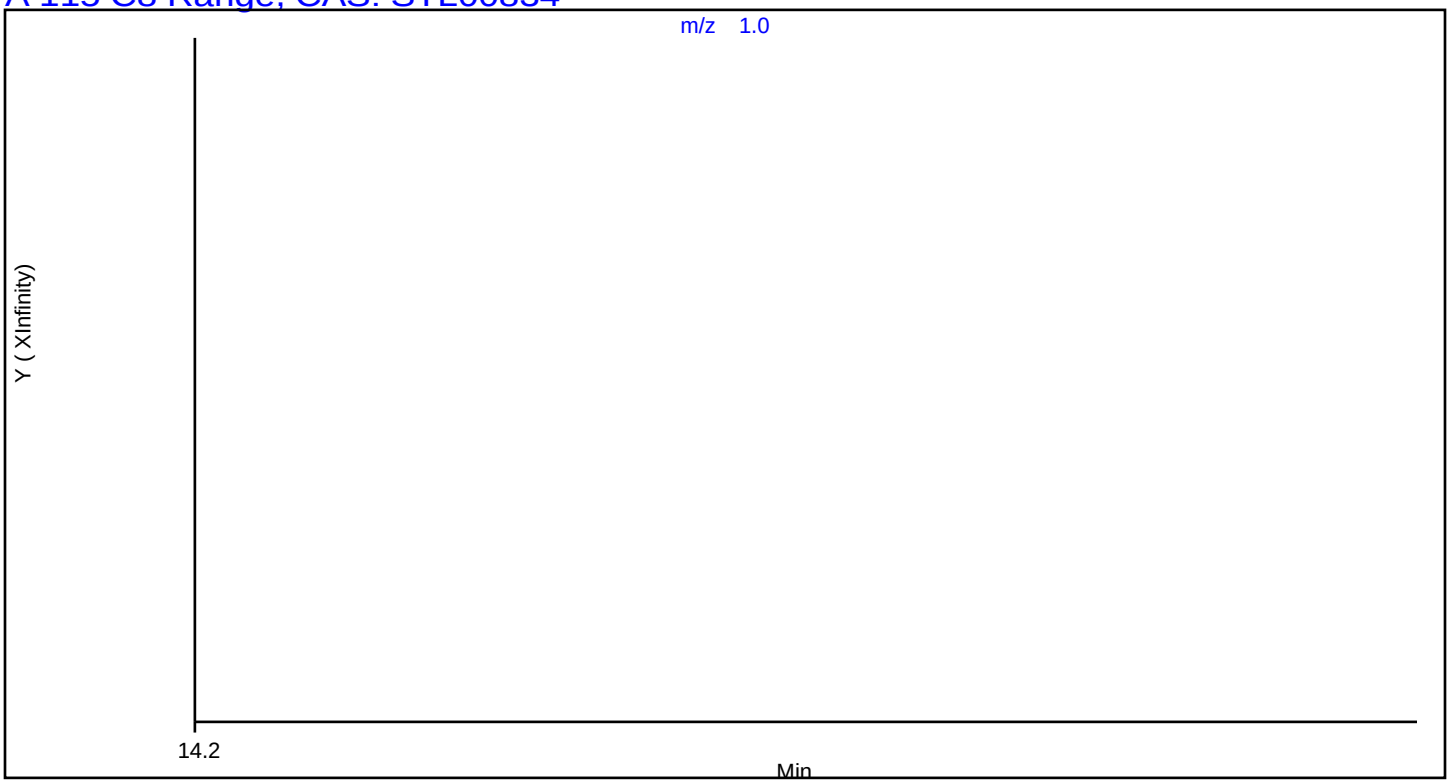


Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D				
Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 12-Aug-2019 22:32:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-013
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:14 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:25:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	316194	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.781	10.781	0.000	95	1831413	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	89	1574740	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1087615	4.00	4.01	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	489629	2.00	1.81	
7 Propene	41	3.437	3.439	-0.002	98	311708	2.00	2.08	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	436605	2.00	1.79	
9 Chloromethane	52	3.664	3.665	-0.001	90	67802	2.00	1.85	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	86	248334	2.00	2.00	
11 Acetaldehyde	44	3.815	3.817	-0.002	100	453602	10.0	10.6	
12 Vinyl chloride	62	3.831	3.831	0.000	99	211260	2.00	1.82	
13 Butadiene	54	3.917	3.913	0.004	70	166727	2.00	1.97	
14 Butane	43	3.917	3.914	0.003	84	314498	2.00	1.76	
15 Bromomethane	94	4.224	4.227	-0.003	97	177814	2.00	1.80	
16 Chloroethane	64	4.365	4.359	0.006	93	84809	2.00	1.78	
17 Ethanol	31	4.467	4.464	0.003	98	459971	10.0	10.7	
18 Vinyl bromide	106	4.656	4.656	0.000	97	166629	2.00	2.02	
19 2-Methylbutane	43	4.704	4.699	0.005	93	245568	2.00	1.84	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	608995	2.00	2.00	
20 Acrolein	56	4.931	4.936	-0.005	98	71916	2.00	1.91	
24 Acetonitrile	40	5.001	5.001	0.000	99	113950	2.00	2.04	
22 Acetone	58	5.049	5.057	-0.008	99	316226	6.00	6.03	
25 Pentane	72	5.141	5.138	0.003	96	40997	2.00	2.04	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	1105765	6.00	6.22	
26 Ethyl ether	31	5.314	5.319	-0.005	90	335934	2.00	2.04	
27 1,1-Dichloroethene	96	5.626	5.626	0.000	98	220013	2.00	2.02	
28 Acrylonitrile	53	5.740	5.738	0.002	58	175197	2.00	2.14	
29 2-Methyl-2-propanol	59	5.740	5.756	-0.016	95	447503	2.00	2.04	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	480563	2.00	2.13	
31 Methylene Chloride	84	5.971	5.978	-0.007	96	207664	2.00	1.86	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	247852	2.00	1.99	
33 Carbon disulfide	76	6.133	6.133	0.000	100	607331	2.00	2.12	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	245990	2.00	2.15	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	626319	2.00	2.07	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	662650	2.00	2.15	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	443627	2.00	2.05	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	782313	2.00	2.07	
40 Hexane	56	7.794	7.796	-0.002	74	199557	2.00	2.01	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	116007	2.00	2.00	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	967613	2.00	2.05	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	251302	2.00	1.94	
43 Ethyl acetate	43	8.403	8.416	-0.013	98	678344	2.00	2.02	
44 Chloroform	83	8.565	8.560	0.005	96	527634	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.651	8.665	-0.014	96	795966	2.00	2.03	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	93	336823	2.00	2.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	579894	2.00	1.98	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	352032	2.00	2.00	
50 n-Butanol	31	10.183	10.195	-0.012	85	140726	2.00	2.01	
51 Cyclohexane	69	10.204	10.210	-0.006	83	113375	2.00	1.95	
49 Benzene	78	10.215	10.214	0.001	97	729307	2.00	1.97	
52 Carbon tetrachloride	117	10.231	10.233	-0.002	96	601170	2.00	2.03	
53 2,3-Dimethylpentane	71	10.334	10.330	0.004	93	168847	2.00	2.02	
54 Thiophene	84	10.496	10.499	-0.003	96	401568	2.00	2.14	
55 Isooctane	57	10.992	10.995	-0.003	98	1251451	2.00	2.02	
57 n-Heptane	71	11.385	11.387	-0.002	95	257286	2.00	1.99	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	284844	2.00	1.99	
58 Trichloroethene	130	11.504	11.509	-0.005	95	316261	2.00	1.94	
59 Dibromomethane	93	11.596	11.595	0.001	96	296383	2.00	1.96	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	540886	2.00	1.97	
61 1,4-Dioxane	88	11.768	11.781	-0.013	97	115604	2.00	2.03	
62 Methyl methacrylate	41	11.849	11.850	-0.001	90	409718	2.00	2.01	
63 Methylcyclohexane	83	12.286	12.288	-0.002	91	425455	2.00	1.99	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	729869	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	431545	2.00	2.01	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	410349	2.00	2.09	
67 Toluene	91	13.591	13.593	-0.002	93	854782	2.00	2.11	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	257761	2.00	2.05	
69 2-Hexanone	58	14.060	14.066	-0.006	90	311563	2.00	2.08	
71 n-Octane	85	14.287	14.288	-0.001	97	270992	2.00	2.04	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	588398	2.00	2.11	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	502874	2.00	2.09	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	320049	2.00	1.93	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	674887	2.00	2.00	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	1047970	2.00	2.08	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1180642	2.00	2.08	
77 m-Xylene & p-Xylene	91	16.071	16.074	-0.003	98	1828793	4.00	4.10	
81 n-Nonane	57	16.492	16.494	-0.002	96	597670	2.00	2.04	
78 Bromoform	173	16.524	16.525	-0.001	96	602865	2.00	2.42	
79 Styrene	104	16.541	16.543	-0.002	98	648614	2.00	2.11	
80 o-Xylene	91	16.600	16.602	-0.002	98	945150	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	679085	2.00	2.06	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	213681	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1394055	2.00	2.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	380530	2.00	2.15	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	345097	2.00	2.05	
88 4-Ethyltoluene	105	17.899	17.902	-0.003	99	1459843	2.00	2.11	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	92	548438	2.00	2.08	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	95	556967	2.00	2.20	
90 n-Decane	57	18.282	18.280	0.002	87	841732	2.00	2.09	
91 tert-Butylbenzene	119	18.422	18.424	-0.002	93	1266574	2.00	2.05	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	97	1265159	2.00	2.07	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1818636	2.00	2.07	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	823821	2.00	1.98	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	1036549	2.00	2.17	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	825864	2.00	2.01	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1450854	2.00	2.04	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	1247184	2.00	2.07	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	943389	2.00	2.09	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	1132215	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	82	806766	2.00	1.99	
102 Indene	116	19.312	19.314	-0.002	91	1024994	2.00	2.08	
103 n-Butylbenzene	91	19.318	19.318	0.000	99	1506674	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	94	997760	2.00	2.10	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	425196	2.00	2.13	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1412707	2.00	2.07	
107 Dodecane	57	20.714	20.714	0.000	93	1029333	2.00	2.23	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	759967	2.00	1.96	
109 Naphthalene	128	21.065	21.064	0.001	99	1612650	2.00	2.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	776012	2.00	2.01	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727177	2.00	2.03	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	552616	2.00	2.40	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	524544	2.00	2.37	
A 115 C8 Range	1	14.279	(14.238-14.346)		0	2875636	2.00	2.00	
S 116 Xylenes, Total	100				0		6.00	6.11	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.09	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

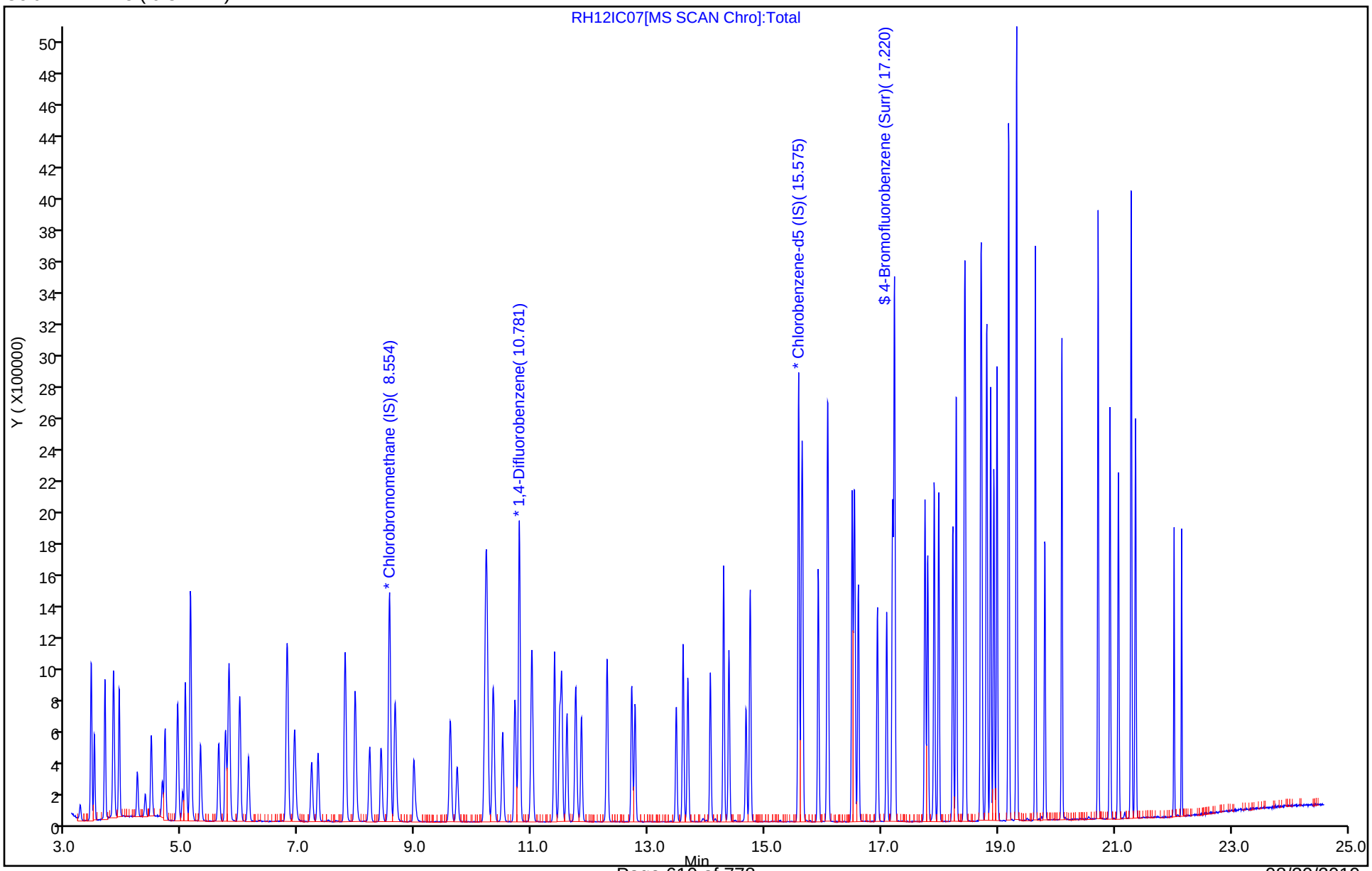
Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D

Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

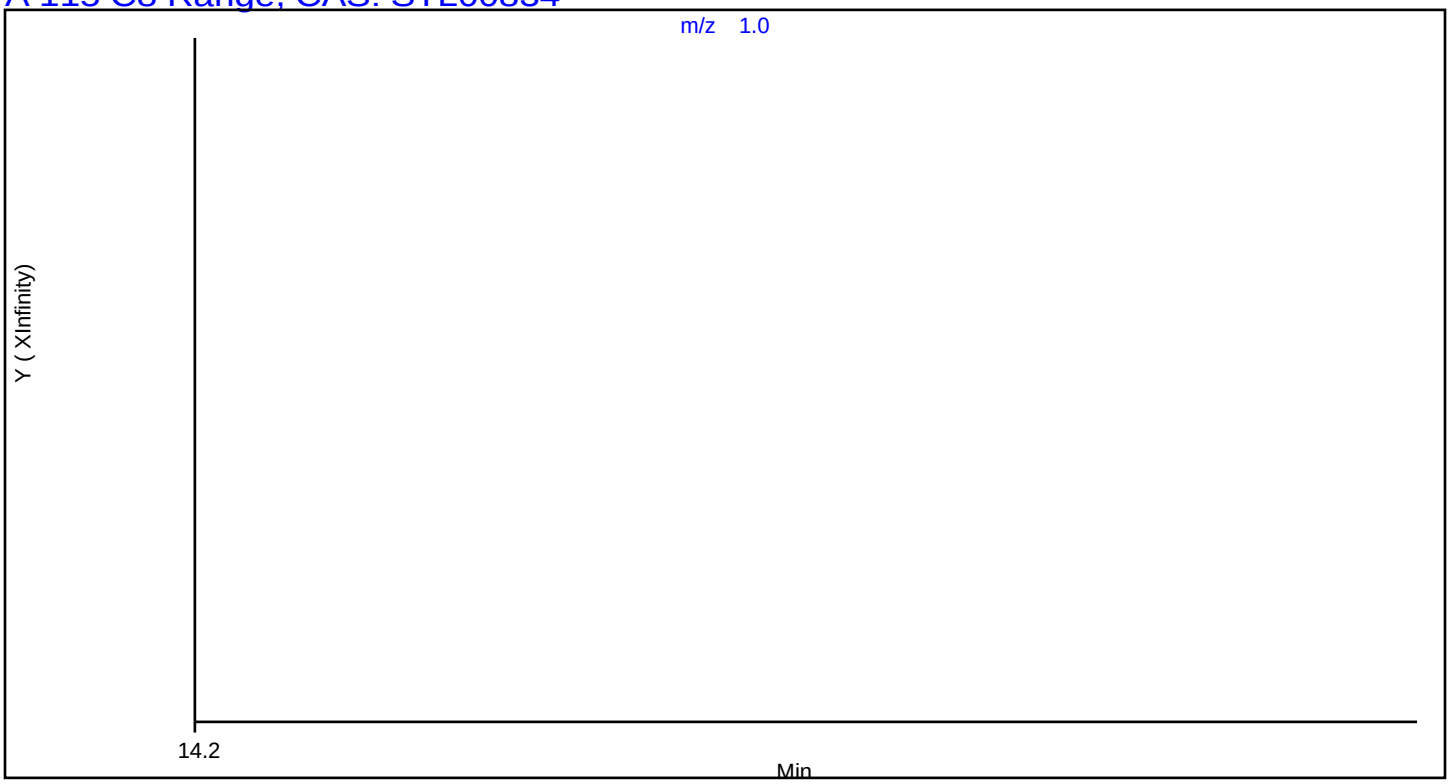


Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D				
Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Aug-2019 23:20:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:20 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	321233	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1837540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1634867	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1153368	4.00	4.09	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	97	1038164	4.00	3.78	
7 Propene	41	3.432	3.439	-0.007	98	612203	4.00	4.02	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	941193	4.00	3.79	
9 Chloromethane	52	3.664	3.665	-0.001	99	140377	4.00	3.76	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	495086	4.00	3.93	
11 Acetaldehyde	44	3.815	3.817	-0.002	99	749118	20.0	17.2	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	390377	4.00	3.30	
13 Butadiene	54	3.912	3.913	-0.001	69	315900	4.00	3.68	
14 Butane	43	3.912	3.914	-0.002	84	601193	4.00	3.31	
15 Bromomethane	94	4.219	4.227	-0.008	94	325261	4.00	3.25	
16 Chloroethane	64	4.359	4.359	0.000	91	149002	4.00	3.08	
17 Ethanol	31	4.457	4.464	-0.007	98	811380	20.0	18.6	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	291926	4.00	3.49	
19 2-Methylbutane	43	4.699	4.699	0.000	94	444864	4.00	3.28	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	1268687	4.00	4.11	
20 Acrolein	56	4.926	4.936	-0.010	98	148082	4.00	3.88	
24 Acetonitrile	40	4.996	5.001	-0.005	97	248929	4.00	4.38	
22 Acetone	58	5.044	5.057	-0.013	99	638695	12.0	12.0	
25 Pentane	72	5.125	5.138	-0.013	68	83201	4.00	4.08	
23 Isopropyl alcohol	45	5.131	5.149	-0.018	84	2244654	12.0	12.4	
26 Ethyl ether	31	5.303	5.319	-0.016	89	691635	4.00	4.14	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	436351	4.00	3.95	
28 Acrylonitrile	53	5.735	5.738	-0.004	91	363112	4.00	4.36	
29 2-Methyl-2-propanol	59	5.729	5.756	-0.027	96	934472	4.00	4.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	958858	4.00	4.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	399350	4.00	3.52	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	95	491788	4.00	3.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.133	-0.005	99	1208336	4.00	4.16	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	97	489823	4.00	4.22	
35 2-Methylpentane	43	6.797	6.803	-0.006	97	1282861	4.00	4.16	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	1330133	4.00	4.25	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	894337	4.00	4.06	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	1598765	4.00	4.16	
40 Hexane	56	7.794	7.796	-0.002	76	400434	4.00	3.97	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	97	231513	4.00	3.93	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	1932735	4.00	4.04	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	506769	4.00	3.85	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	1395118	4.00	4.10	
44 Chloroform	83	8.566	8.560	0.006	97	1090897	4.00	4.04	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	1649006	4.00	4.14	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	684785	4.00	4.03	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	1190165	4.00	4.01	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	97	740042	4.00	4.19	
50 n-Butanol	31	10.178	10.195	-0.017	87	295549	4.00	4.21	
51 Cyclohexane	69	10.205	10.210	-0.005	84	239599	4.00	4.10	
49 Benzene	78	10.216	10.214	0.002	98	1512569	4.00	4.06	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	1301234	4.00	4.37	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	340329	4.00	4.06	
54 Thiophene	84	10.496	10.499	-0.003	96	819107	4.00	4.34	
55 Isooctane	57	10.997	10.995	0.002	98	2580622	4.00	4.15	
57 n-Heptane	71	11.386	11.387	-0.001	95	546078	4.00	4.21	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	593910	4.00	4.14	
58 Trichloroethene	130	11.510	11.509	0.001	96	679471	4.00	4.15	
59 Dibromomethane	93	11.596	11.595	0.001	95	632141	4.00	4.16	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	1178556	4.00	4.28	
61 1,4-Dioxane	88	11.763	11.781	-0.018	95	248953	4.00	4.35	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	861534	4.00	4.22	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	892859	4.00	4.17	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	98	1521901	4.00	4.18	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	98	913127	4.00	4.25	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	885988	4.00	4.36	
67 Toluene	91	13.597	13.593	0.004	93	1776875	4.00	4.22	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	99	547625	4.00	4.20	
69 2-Hexanone	58	14.060	14.066	-0.006	89	668912	4.00	4.30	
71 n-Octane	85	14.292	14.288	0.004	97	568804	4.00	4.13	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	1309608	4.00	4.53	
72 Ethylene Dibromide	107	14.675	14.674	0.001	97	1092982	4.00	4.37	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	693690	4.00	4.04	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	1461212	4.00	4.18	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	2223594	4.00	4.25	
76 Ethylbenzene	91	15.915	15.914	0.001	98	2538724	4.00	4.30	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	4001961	8.00	8.64	
81 n-Nonane	57	16.492	16.494	-0.002	96	1327887	4.00	4.37	
78 Bromoform	173	16.525	16.525	0.000	97	1422909	4.00	5.49	
79 Styrene	104	16.541	16.543	-0.002	98	1449351	4.00	4.54	
80 o-Xylene	91	16.600	16.602	-0.002	99	2019938	4.00	4.15	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	1491704	4.00	4.35	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	469621	4.00	4.32	
84 Isopropylbenzene	105	17.188	17.187	0.001	95	3033081	4.00	4.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	790107	4.00	4.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	715846	4.00	4.09	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	3091126	4.00	4.30	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	1155375	4.00	4.21	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	1222128	4.00	4.65	
90 n-Decane	57	18.283	18.280	0.003	87	1777720	4.00	4.25	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	2742434	4.00	4.28	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	97	2756637	4.00	4.34	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	3969502	4.00	4.35	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	1782763	4.00	4.12	
96 Benzyl chloride	91	18.800	18.796	0.004	97	2244471	4.00	4.52	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	1782054	4.00	4.17	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3163292	4.00	4.29	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2606254	4.00	4.17	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	1994481	4.00	4.26	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2425370	4.00	4.27	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	1757169	4.00	4.17	
102 Indene	116	19.313	19.314	-0.002	90	2201908	4.00	4.30	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	3226973	4.00	4.25	
104 Undecane	57	19.636	19.638	-0.002	95	2100599	4.00	4.26	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	97	956590	4.00	4.62	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	3062915	4.00	4.33	
107 Dodecane	57	20.715	20.714	0.001	93	2157082	4.00	4.50	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	1638588	4.00	4.06	
109 Naphthalene	128	21.065	21.064	0.001	99	3144071	4.00	3.77	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	96	1748268	4.00	4.36	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	1545006	4.00	4.16	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	677421	4.00	2.83	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	717771	4.00	3.13	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	5900294	4.00	4.09	
S 116 Xylenes, Total	100				0		12.0	12.8	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.07	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

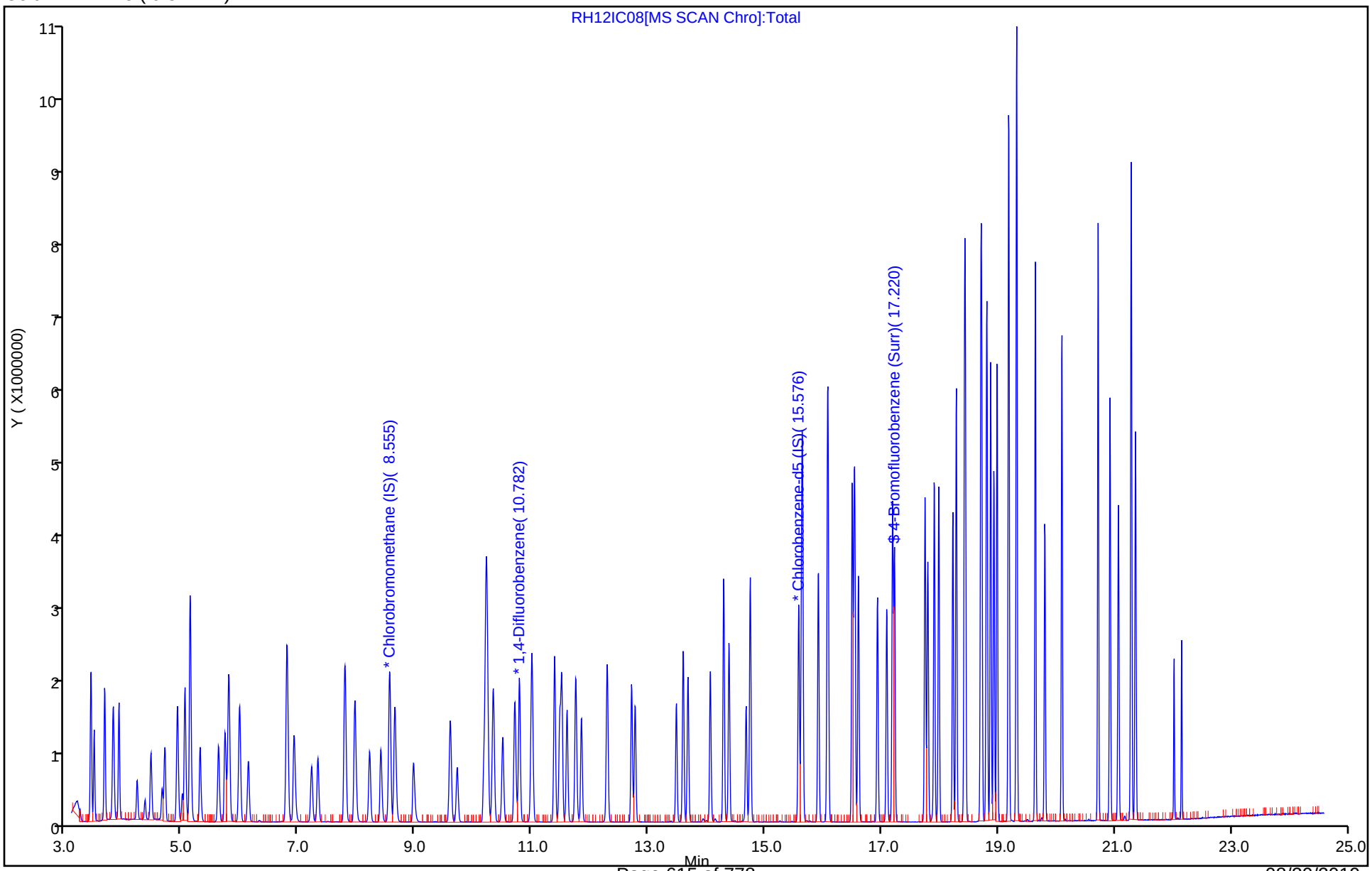
Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

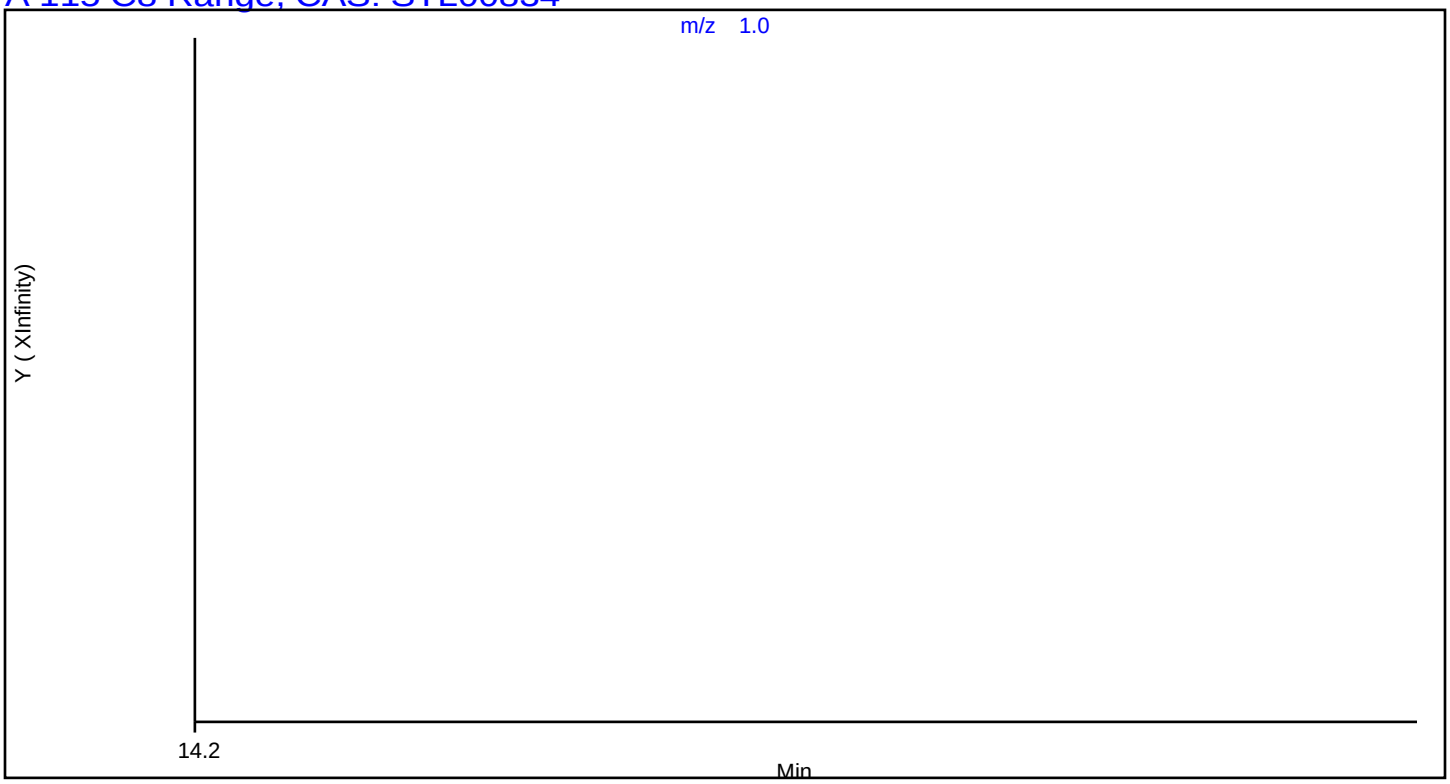


Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Aug-2019 01:46:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-017
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 14:01:26 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0310

First Level Reviewer: liul Date: 08-Aug-2019 14:01:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	489315	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	94	2460270	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	88	2289950	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1575637	4.00	3.96	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	96	488556	2.00	1.97	
7 Propene	41	3.840	3.839	0.001	96	251206	2.00	2.06	
8 Dichlorodifluoromethane	85	3.894	3.891	0.003	100	995132	2.00	2.06	
9 Chloromethane	52	4.082	4.085	-0.003	97	66671	2.00	1.90	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	89	588824	2.00	2.14	
11 Acetaldehyde	44	4.255	4.261	-0.006	91	266464	10.0	6.90	
12 Vinyl chloride	62	4.266	4.266	0.000	99	245218	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	352535	2.00	1.93	
14 Butadiene	54	4.357	4.360	-0.003	69	173846	2.00	1.87	
15 Bromomethane	94	4.697	4.699	-0.002	98	226647	2.00	1.95	
16 Chloroethane	64	4.848	4.849	-0.001	95	108684	2.00	1.91	
17 Ethanol	31	4.967	4.983	-0.016	98	264160	10.0	6.71	
18 Vinyl bromide	106	5.166	5.168	-0.002	96	218694	2.00	2.15	
19 2-Methylbutane	43	5.220	5.219	0.001	89	222377	2.00	1.92	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	802062	2.00	2.06	
21 Acrolein	56	5.468	5.472	-0.004	97	30703	2.00	1.82	
22 Acetonitrile	40	5.533	5.537	-0.004	98	39256	2.00	1.39	
23 Acetone	58	5.587	5.604	-0.017	100	48389	2.00	1.46	
24 Pentane	72	5.678	5.682	-0.004	96	34558	2.00	2.10	
25 Isopropyl alcohol	45	5.695	5.726	-0.031	94	217323	2.00	2.30	
26 Ethyl ether	31	5.862	5.869	-0.007	90	108869	2.00	1.56	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	273951	2.00	1.96	
28 Acrylonitrile	53	6.299	6.304	-0.005	94	107166	2.00	1.57	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	601551	2.00	1.97	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	95	414115	2.00	1.97	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	254639	2.00	1.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	247156	2.00	1.85	
33 Carbon disulfide	76	6.714	6.713	0.001	99	750779	2.00	2.00	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	99	274522	2.00	1.97	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	501052	2.00	1.74	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	587885	2.00	1.56	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	481046	2.00	1.80	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	376362	2.00	1.46	
40 Hexane	56	8.396	8.392	0.004	90	208038	2.00	1.86	
39 2-Butanone (MEK)	72	8.375	8.393	-0.018	98	78398	2.00	1.48	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	561675	2.00	1.58	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	276247	2.00	1.93	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	315013	2.00	1.37	
44 Chloroform	83	9.157	9.157	-0.001	96	621081	2.00	1.87	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	93	594016	2.00	1.47	
46 Tetrahydrofuran	42	9.577	9.605	-0.028	88	170766	2.00	1.44	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	740690	2.00	1.86	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	429233	2.00	1.90	
49 Cyclohexane	69	10.785	10.788	-0.003	79	135174	2.00	1.99	
50 Benzene	78	10.785	10.788	-0.003	97	744293	2.00	2.02	
52 Carbon tetrachloride	117	10.812	10.811	0.001	97	792237	2.00	2.12	
51 n-Butanol	31	10.785	10.822	-0.037	51	67370	2.00	2.19	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	89	180321	2.00	1.93	
54 Thiophene	84	11.055	11.057	-0.002	95	430542	2.00	1.98	
55 Isooctane	57	11.529	11.531	-0.002	97	1222219	2.00	1.89	
56 n-Heptane	71	11.890	11.898	-0.008	89	283963	2.00	1.98	
57 1,2-Dichloropropane	63	11.988	11.986	0.002	84	238206	2.00	1.84	
58 Trichloroethene	130	12.020	12.022	-0.002	98	420601	2.00	2.05	
59 Dibromomethane	93	12.106	12.108	-0.002	92	309292	2.00	2.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	645655	2.00	2.08	
61 1,4-Dioxane	88	12.279	12.304	-0.025	90	92281	2.00	1.73	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	212031	2.00	1.53	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	622284	2.00	2.40	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	403647	2.00	2.04	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	405924	2.00	1.87	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	366604	2.00	1.73	
67 Toluene	91	14.042	14.046	-0.004	94	815778	2.00	1.81	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	226200	2.00	1.72	
69 2-Hexanone	58	14.506	14.514	-0.008	95	209595	2.00	1.91	
70 n-Octane	85	14.711	14.714	-0.003	90	348608	2.00	2.13	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	662242	2.00	2.07	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	99	459872	2.00	1.88	
73 Tetrachloroethene	129	15.174	15.176	-0.002	97	412171	2.00	1.98	
75 Chlorobenzene	112	16.048	16.044	0.004	94	718490	2.00	1.91	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	715895	2.00	1.66	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1026339	2.00	1.72	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	1647623	4.00	3.53	
80 n-Nonane	57	16.889	16.891	-0.002	86	545977	2.00	1.91	
81 Bromoform	173	16.943	16.943	0.000	96	591919	2.00	2.04	
82 Styrene	104	16.948	16.951	-0.003	98	555145	2.00	1.82	
83 o-Xylene	91	17.008	17.012	-0.004	99	842230	2.00	1.67	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	485625	2.00	1.64	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	188272	2.00	1.64	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1192211	2.00	1.73	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	325016	2.00	1.69	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	340708	2.00	1.83	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1064941	2.00	1.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	526211	2.00	1.86	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	456216	2.00	1.74	
93 n-Decane	57	18.604	18.606	-0.002	94	602277	2.00	1.65	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1046750	2.00	1.63	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	958801	2.00	1.60	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1361439	2.00	1.62	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	752858	2.00	1.78	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	820460	2.00	1.76	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	753358	2.00	1.76	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1190444	2.00	1.59	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	737047	2.00	1.32	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	781266	2.00	1.65	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	879547	2.00	1.60	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	88	704588	2.00	1.77	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1067884	2.00	1.60	
106 Indene	116	19.596	19.598	-0.002	90	659271	2.00	1.44	
107 Undecane	57	19.893	19.893	0.000	93	580386	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	302450	2.00	1.49	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1123670	2.00	1.59	
110 Dodecane	57	20.944	20.944	0.000	96	494419	2.00	2.12	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	95	611666	2.00	1.73	
112 Naphthalene	128	21.295	21.297	-0.002	99	1252073	2.00	1.72	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	560237	2.00	1.63	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	562298	2.00	1.72	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	751467	2.00	2.93	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	701583	2.00	2.87	
A 122 C8 Range	1	14.721	(14.652-14.792)		0	2770126	2.00	2.04	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.90	
S 124 Xylenes, Total	100				0		6.00	5.20	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

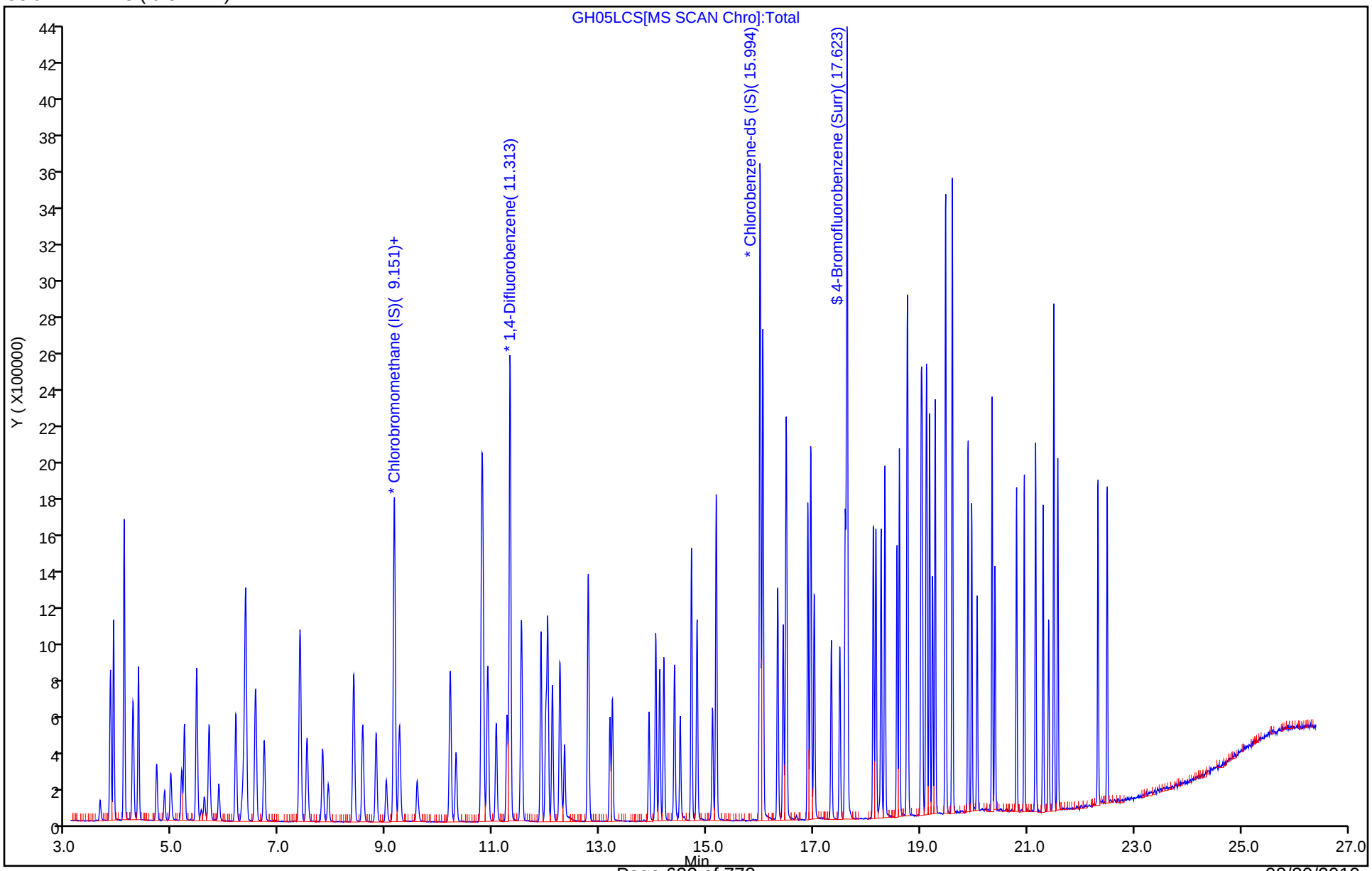
Report Date: 08-Aug-2019 14:01:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D

Injection Date:	06-Aug-2019 01:46:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	2.459		2.42	2.00	21.0	30.0
Propene	Ave	0.996	1.356		2.72	2.00	36.2*	30.0
Dichlorodifluoromethane	Ave	3.947	4.682		2.37	2.00	18.6	30.0
Chloromethane	Ave	0.2864	0.3737		2.61	2.00	30.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	3.136		2.79	2.00	39.7*	30.0
Acetaldehyde	Ave	0.3158	0.3422		10.8	10.0	8.3	30.0
Vinyl chloride	Ave	1.044	1.376		2.64	2.00	31.8*	30.0
1,3-Butadiene	Ave	0.7597	0.9737		2.56	2.00	28.2	30.0
Butane	Ave	1.492	1.852		2.48	2.00	24.2	30.0
Bromomethane	Ave	0.9503	1.217		2.56	2.00	28.0	30.0
Chloroethane	Ave	0.4643	0.5912		2.55	2.00	27.3	30.0
Ethanol	Ave	0.3217	0.2588		8.04	10.0	-19.6	30.0
Vinyl bromide	Ave	0.8333	1.068		2.56	2.00	28.2	30.0
2-Methylbutane	Ave	0.9463	1.014		2.14	2.00	7.2	30.0
Trichlorofluoromethane	Ave	3.185	2.934		1.84	2.00	-7.9	30.0
Acrolein	Ave	0.1381	0.1464		2.12	2.00	6.0	30.0
Acetonitrile	Ave	0.2308	0.1836		1.59	2.00	-20.4	30.0
Acetone	Ave	0.2705	0.2260		1.67	2.00	-16.5	30.0
Pentane	Ave	0.1347	0.1343		1.99	2.00	-0.3	30.0
Isopropyl alcohol	Ave	0.7723	0.7651		1.98	2.00	-0.9	30.0
Ethyl ether	Ave	0.5689	0.4818		1.69	2.00	-15.3	30.0
1,1-Dichloroethene	Ave	1.140	1.147		2.01	2.00	0.6	30.0
Acrylonitrile	Ave	0.5581	0.5517		1.98	2.00	-1.2	30.0
tert-Butyl alcohol	Ave	1.715	1.415		1.65	2.00	-17.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.481		1.99	2.00	-0.6	30.0
Methylene Chloride	Ave	1.108	1.138		2.05	2.00	2.7	30.0
3-Chloropropene	Ave	1.095	1.057		1.93	2.00	-3.4	30.0
Carbon disulfide	Ave	3.065	3.220		2.10	2.00	5.1	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.175		2.06	2.00	3.0	30.0
2-Methylpentane	Ave	2.358	2.227		1.89	2.00	-5.5	30.0
Methyl tert-butyl ether	Ave	3.072	2.687		1.75	2.00	-12.5	30.0
1,1-Dichloroethane	Ave	2.187	2.208		2.02	2.00	1.0	30.0
Vinyl acetate	Ave	2.107	2.076		1.97	2.00	-1.4	30.0
2-Butanone (MEK)	Ave	0.4337	0.3920		1.81	2.00	-9.6	30.0
Hexane	Ave	0.9137	0.9490		2.08	2.00	3.9	30.0
Isopropyl ether	Ave	2.914	2.767		1.90	2.00	-5.1	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.212		2.07	2.00	3.6	30.0
Ethyl acetate	Ave	1.876	1.642		1.75	2.00	-12.5	30.0
Chloroform	Ave	2.715	2.632		1.94	2.00	-3.0	30.0
Tert-butyl ethyl ether	Ave	3.293	2.813		1.71	2.00	-14.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.8653		1.79	2.00	-10.7	30.0
1,1,1-Trichloroethane	Ave	3.254	2.995		1.84	2.00	-7.9	30.0
1,2-Dichloroethane	Ave	0.3682	0.3233		1.76	2.00	-12.2	30.0
1-Butanol	Ave	0.0501	0.0421		1.68	2.00	-16.0	30.0
Benzene	Ave	0.5978	0.6092		2.04	2.00	1.9	30.0
Cyclohexane	Ave	0.1107	0.1080		1.95	2.00	-2.4	30.0
Carbon tetrachloride	Ave	0.6079	0.5481		1.80	2.00	-9.8	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1439		1.89	2.00	-5.5	30.0
Thiophene	Ave	0.3534	0.3484		1.97	2.00	-1.4	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.997		1.90	2.00	-5.0	30.0
Heptane	Ave	0.2329	0.2226		1.91	2.00	-4.4	30.0
1,2-Dichloropropane	Ave	0.2110	0.2037		1.93	2.00	-3.5	30.0
Trichloroethene	Ave	0.3335	0.3071		1.84	2.00	-7.9	30.0
Dibromomethane	Ave	0.2511	0.2423		1.93	2.00	-3.5	30.0
Bromodichloromethane	Ave	0.5049	0.4836		1.92	2.00	-4.2	30.0
1,4-Dioxane	Ave	0.0869	0.0653		1.50	2.00	-24.9	30.0
Methyl methacrylate	Ave	0.2246	0.1925		1.71	2.00	-14.3	30.0
Methylcyclohexane	Ave	0.4217	0.4824		2.29	2.00	14.4	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2514		1.55	2.00	-22.4	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3560		2.02	2.00	0.8	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3673		1.99	2.00	-0.5	30.0
Toluene	Ave	0.7865	0.7632		1.94	2.00	-3.0	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2193		1.90	2.00	-4.8	30.0
2-Hexanone	Ave	0.1912	0.1407		1.47	2.00	-26.5	30.0
Octane	Ave	0.2861	0.2936		2.05	2.00	2.6	30.0
Dibromochloromethane	Ave	0.5582	0.5481		1.96	2.00	-1.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4258		1.99	2.00	-0.4	30.0
Tetrachloroethene	Ave	0.3641	0.3257		1.79	2.00	-10.6	30.0
Chlorobenzene	Ave	0.6563	0.6531		1.99	2.00	-0.5	30.0
2,3-Dimethylheptane	Ave	0.7538	0.6494		1.72	2.00	-13.9	30.0
Ethylbenzene	Ave	1.041	0.9833		1.89	2.00	-5.6	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7707		3.78	4.00	-5.4	30.0
Nonane	Ave	0.5001	0.5065		2.03	2.00	1.3	30.0
Bromoform	Ave	0.5067	0.5018		1.98	2.00	-1.0	30.0
Styrene	Ave	0.5330	0.5481		2.06	2.00	2.8	30.0
o-Xylene	Ave	0.8833	0.7965		1.80	2.00	-9.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4820		1.87	2.00	-6.7	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1709		1.71	2.00	-14.7	30.0
Isopropylbenzene	Ave	1.202	1.086		1.81	2.00	-9.6	30.0
Propylbenzene	Ave	0.3368	0.3019		1.79	2.00	-10.4	30.0
2-Chlorotoluene	Ave	0.3248	0.3049		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.012		1.72	2.00	-14.2	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.5031		2.04	2.00	1.8	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4352		1.90	2.00	-4.8	30.0
Decane	Ave	0.6385	0.5940		1.86	2.00	-7.0	30.0
tert-Butylbenzene	Ave	1.121	0.9786		1.75	2.00	-12.7	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9076		1.73	2.00	-13.6	30.0
sec-Butylbenzene	Ave	1.470	1.307		1.78	2.00	-11.1	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.6802		1.84	2.00	-8.0	30.0
Benzyl chloride	Ave	0.8145	0.7938		1.95	2.00	-2.5	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.6823		1.83	2.00	-8.5	30.0
4-Isopropyltoluene	Ave	1.304	1.109		1.70	2.00	-14.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.6986		1.44	2.00	-27.9	30.0
Butylcyclohexane	Ave	0.8263	0.7549		1.83	2.00	-8.6	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.6379		1.83	2.00	-8.3	30.0
Indane	Ave	0.9576	0.8333		1.74	2.00	-13.0	30.0
Butylbenzene	Ave	1.167	1.024		1.75	2.00	-12.3	30.0
Indene	Ave	0.7987	0.6374		1.60	2.00	-20.2	30.0
Undecane	Ave	0.5181	0.5922		2.29	2.00	14.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2589		1.46	2.00	-26.9	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9438		1.53	2.00	-23.4	30.0
Dodecane	Ave	0.4081	0.3977		1.95	2.00	-2.5	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5010		1.62	2.00	-19.0	30.0
Naphthalene	Ave	1.275	0.9928		1.56	2.00	-22.1	30.0
Hexachlorobutadiene	Ave	0.6005	0.4695		1.56	2.00	-21.8	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4124		1.44	2.00	-27.8	30.0
2-Methylnaphthalene	Ave	0.4473	0.4660		2.08	2.00	4.2	50.0
1-Methylnaphthalene	Ave	0.4268	0.4434		2.08	2.00	3.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.7047		4.06	4.00	1.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GCCVH19A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Aug-2019 11:10:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012744-006
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:12:47 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:12:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.135	9.135	0.000	88	639553	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3637374	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.988	15.988	0.000	88	3201568	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	91	2256059	4.00	4.06	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	786369	2.00	2.42	
7 Propene	41	3.834	3.834	0.000	98	433654	2.00	2.72	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1497186	2.00	2.37	
9 Chloromethane	52	4.082	4.082	0.000	98	119507	2.00	2.61	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	90	1002789	2.00	2.79	
11 Acetaldehyde	44	4.249	4.249	0.000	100	547074	10.0	10.8	
12 Vinyl chloride	62	4.260	4.260	0.000	98	440126	2.00	2.64	
13 Butane	43	4.352	4.352	0.000	84	592331	2.00	2.48	
14 Butadiene	54	4.352	4.352	0.000	69	311367	2.00	2.56	
15 Bromomethane	94	4.691	4.691	0.000	99	389015	2.00	2.56	
16 Chloroethane	64	4.842	4.842	0.000	97	189046	2.00	2.55	
17 Ethanol	31	4.950	4.950	0.000	97	413749	10.0	8.04	
18 Vinyl bromide	106	5.161	5.161	0.000	98	341527	2.00	2.56	
19 2-Methylbutane	43	5.214	5.214	0.000	88	324344	2.00	2.14	
20 Trichlorofluoromethane	101	5.436	5.436	0.000	100	938376	2.00	1.84	
21 Acrolein	56	5.457	5.457	0.000	96	46798	2.00	2.12	
22 Acetonitrile	40	5.527	5.527	0.000	99	58719	2.00	1.59	
23 Acetone	58	5.581	5.581	0.000	100	72272	2.00	1.67	
24 Pentane	72	5.673	5.673	0.000	97	42947	2.00	1.99	
25 Isopropyl alcohol	45	5.684	5.684	0.000	93	244673	2.00	1.98	
26 Ethyl ether	31	5.851	5.851	0.000	92	154061	2.00	1.69	
27 1,1-Dichloroethene	96	6.174	6.174	0.000	97	366655	2.00	2.01	
28 Acrylonitrile	53	6.288	6.288	0.000	93	176409	2.00	1.98	
30 2-Methyl-2-propanol	59	6.325	6.325	0.000	95	452416	2.00	1.65	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.358	0.000	98	793340	2.00	1.99	
31 Methylene Chloride	84	6.536	6.536	0.000	93	363986	2.00	2.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.552	6.552	0.000	97	338118	2.00	1.93	
33 Carbon disulfide	76	6.708	6.708	0.000	99	1029777	2.00	2.10	
34 trans-1,2-Dichloroethene	96	7.366	7.366	0.000	98	375824	2.00	2.06	
35 2-Methylpentane	43	7.388	7.388	0.000	91	712223	2.00	1.89	
36 Methyl tert-butyl ether	73	7.506	7.506	0.000	96	859307	2.00	1.75	
37 1,1-Dichloroethane	63	7.797	7.797	0.000	100	706211	2.00	2.02	
38 Vinyl acetate	43	7.905	7.905	0.000	100	663997	2.00	1.97	
39 2-Butanone (MEK)	72	8.364	8.364	0.000	97	125348	2.00	1.81	
40 Hexane	56	8.380	8.380	0.000	91	303460	2.00	2.08	
41 Isopropyl ether	45	8.547	8.547	0.000	95	884683	2.00	1.90	
42 cis-1,2-Dichloroethene	96	8.800	8.800	0.000	94	387727	2.00	2.07	
43 Ethyl acetate	43	8.984	8.984	0.000	99	525019	2.00	1.75	
44 Chloroform	83	9.151	9.151	0.000	96	841738	2.00	1.94	
45 Tert-butyl ethyl ether	59	9.237	9.237	0.000	94	899469	2.00	1.71	
46 Tetrahydrofuran	42	9.566	9.566	0.000	88	276715	2.00	1.79	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	88	957777	2.00	1.84	
48 1,2-Dichloroethane	62	10.294	10.294	0.000	99	587939	2.00	1.76	
51 n-Butanol	31	10.774	10.774	0.000	67	76500	2.00	1.68	
49 Cyclohexane	69	10.779	10.779	0.000	76	196446	2.00	1.95	
50 Benzene	78	10.779	10.779	0.000	96	1107887	2.00	2.04	
52 Carbon tetrachloride	117	10.801	10.801	0.000	97	996723	2.00	1.80	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	89	261664	2.00	1.89	
54 Thiophene	84	11.049	11.049	0.000	94	633595	2.00	1.97	
55 Isooctane	57	11.524	11.524	0.000	98	1812647	2.00	1.90	
56 n-Heptane	71	11.890	11.890	0.000	88	404842	2.00	1.91	
57 1,2-Dichloropropane	63	11.977	11.977	0.000	85	370520	2.00	1.93	
58 Trichloroethene	130	12.014	12.014	0.000	98	558484	2.00	1.84	
59 Dibromomethane	93	12.101	12.101	0.000	96	440580	2.00	1.93	
60 Dichlorobromomethane	83	12.241	12.241	0.000	99	879592	2.00	1.92	
61 1,4-Dioxane	88	12.268	12.268	0.000	88	118795	2.00	1.50	
62 Methyl methacrylate	41	12.327	12.327	0.000	95	350121	2.00	1.71	
63 Methylcyclohexane	83	12.769	12.769	0.000	95	877335	2.00	2.29	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.179	0.000	96	457291	2.00	1.55	
65 cis-1,3-Dichloropropene	75	13.222	13.222	0.000	94	647520	2.00	2.02	
66 trans-1,3-Dichloropropene	75	13.907	13.907	0.000	98	587956	2.00	1.99	
67 Toluene	91	14.036	14.036	0.000	94	1221775	2.00	1.94	
68 1,1,2-Trichloroethane	83	14.107	14.107	0.000	99	351094	2.00	1.90	
69 2-Hexanone	58	14.489	14.489	0.000	95	225159	2.00	1.47	
70 n-Octane	85	14.705	14.705	0.000	89	470015	2.00	2.05	
71 Chlorodibromomethane	129	14.808	14.808	0.000	97	877412	2.00	1.96	
72 Ethylene Dibromide	107	15.093	15.093	0.000	98	681533	2.00	1.99	
73 Tetrachloroethene	129	15.163	15.163	0.000	96	521373	2.00	1.79	
75 Chlorobenzene	112	16.032	16.032	0.000	92	1045490	2.00	1.99	
74 2,3-Dimethylheptane	43	16.037	16.037	0.000	90	1039544	2.00	1.72	
78 Ethylbenzene	91	16.317	16.317	0.000	98	1574048	2.00	1.89	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	2467499	4.00	3.78	
80 n-Nonane	57	16.878	16.878	0.000	86	810712	2.00	2.03	
81 Bromoform	173	16.927	16.927	0.000	94	803232	2.00	1.98	
82 Styrene	104	16.938	16.938	0.000	98	877375	2.00	2.06	
83 o-Xylene	91	16.997	16.997	0.000	98	1274939	2.00	1.80	
84 1,1,2,2-Tetrachloroethane	83	17.315	17.315	0.000	100	771531	2.00	1.87	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	97	273525	2.00	1.71	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.579	17.579	0.000	96	1739148	2.00	1.81	
87 N-Propylbenzene	120	18.102	18.102	0.000	99	483255	2.00	1.79	
88 2-Chlorotoluene	126	18.151	18.151	0.000	97	487996	2.00	1.88	
89 4-Ethyltoluene	105	18.248	18.248	0.000	98	1619224	2.00	1.72	
90 1,3,5-Trimethylbenzene	120	18.318	18.318	0.000	93	805292	2.00	2.04	
92 Alpha Methyl Styrene	118	18.544	18.544	0.000	89	696665	2.00	1.90	
93 n-Decane	57	18.593	18.593	0.000	93	950886	2.00	1.86	
94 tert-Butylbenzene	119	18.739	18.739	0.000	91	1566440	2.00	1.75	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	96	1452826	2.00	1.73	
96 sec-Butylbenzene	105	18.997	18.997	0.000	98	2092232	2.00	1.78	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	98	1088855	2.00	1.84	
98 Benzyl chloride	91	19.089	19.089	0.000	98	1270620	2.00	1.95	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	94	1092228	2.00	1.83	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1775816	2.00	1.70	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	99	1118224	2.00	1.44	
102 Butylcyclohexane	83	19.262	19.262	0.000	95	1208349	2.00	1.83	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1333988	2.00	1.74	
104 1,2-Dichlorobenzene	146	19.456	19.456	0.000	85	1021054	2.00	1.83	
105 n-Butylbenzene	91	19.580	19.580	0.000	98	1638461	2.00	1.75	
106 Indene	116	19.585	19.585	0.000	94	1020311	2.00	1.60	
107 Undecane	57	19.876	19.876	0.000	94	948018	2.00	2.29	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	99	414369	2.00	1.46	
109 1,2,4,5-Tetramethylbenzene	119	20.329	20.329	0.000	97	1510807	2.00	1.53	
110 Dodecane	57	20.928	20.928	0.000	97	636640	2.00	1.95	
111 1,2,4-Trichlorobenzene	180	21.144	21.144	0.000	94	801963	2.00	1.62	
112 Naphthalene	128	21.278	21.278	0.000	99	1589328	2.00	1.56	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	751536	2.00	1.56	
114 1,2,3-Trichlorobenzene	180	21.559	21.559	0.000	95	660099	2.00	1.44	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	100	745939	2.00	2.08	
116 1-Methylnaphthalene	142	22.481	22.481	0.000	100	709837	2.00	2.08	
A 122 C8 Range	1	14.710	(14.647-14.754)		0	3816312	2.00	2.01	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.13	
S 124 Xylenes, Total	100				0		6.00	5.59	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

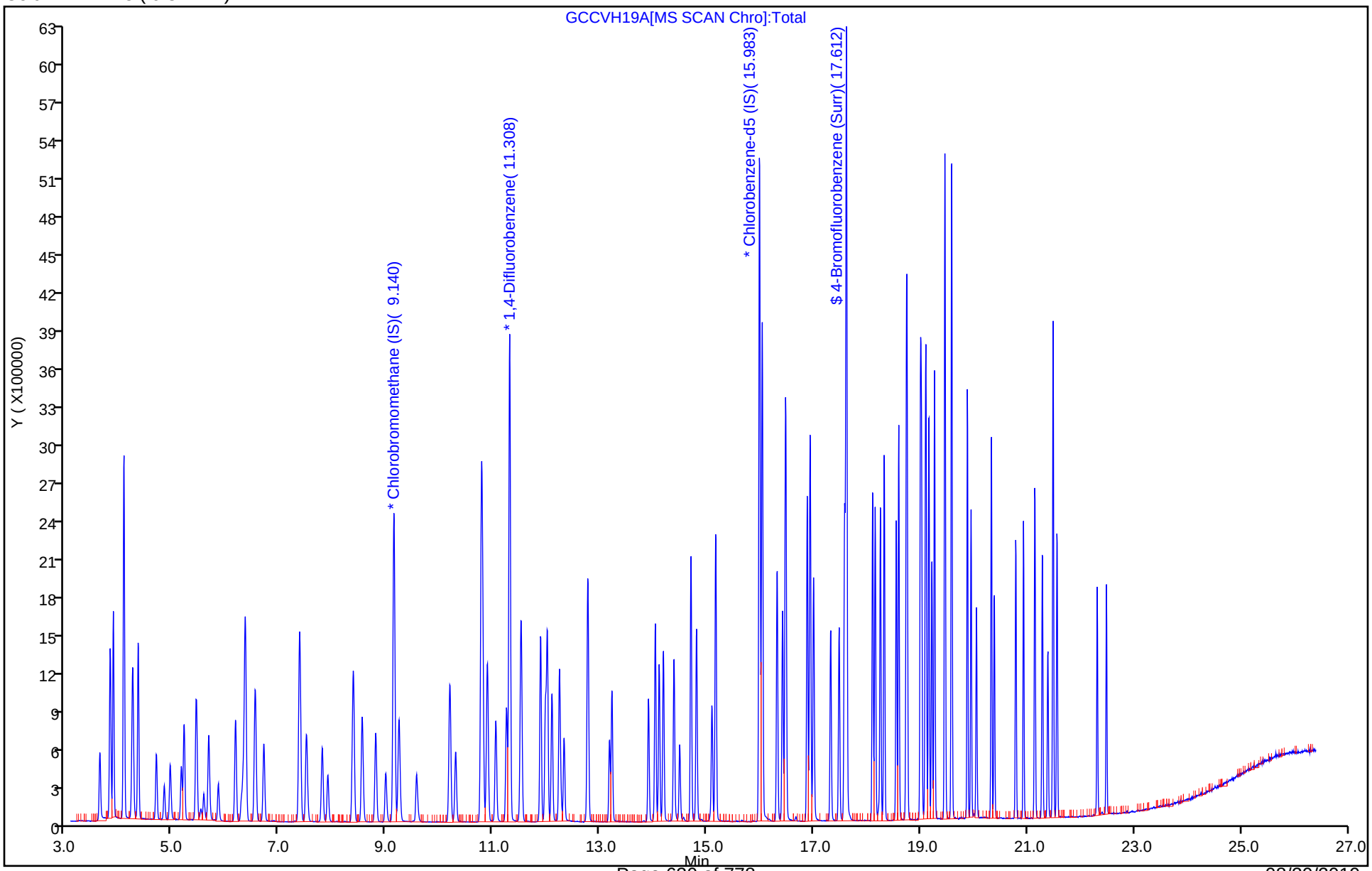
Report Date: 20-Aug-2019 10:12:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GCCVH19A.D

Injection Date:	19-Aug-2019 11:10:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Jul-2019 12:28:30 ALS Bottle#: 10 Worklist Smp#: 30
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-029
Misc. Info.: 231539(S94)
Operator ID: 403648 Instrument ID: MJ
Sublist:

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:38:33 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 13:14:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	95	274664	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1422205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.456	16.453	0.003	91	1231744	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.054	18.052	0.002	89	937163	4.00	4.14	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	130636	2.00	1.74	
20 Propene	41	4.169	4.169	0.000	97	91061	2.00	1.67	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	161912	2.00	1.88	
22 Chloromethane	52	4.438	4.441	-0.003	100	52048	2.00	1.88	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.444	0.005	48	22866	2.00	1.91	
24 Acetaldehyde	44	4.621	4.617	0.004	92	256331	10.0	7.17	
25 Vinyl chloride	62	4.643	4.642	0.001	99	189280	2.00	2.03	
26 Butane	43	4.739	4.739	0.000	85	295045	2.00	2.05	
27 Butadiene	54	4.745	4.741	0.004	67	135553	2.00	1.92	
28 Bromomethane	94	5.116	5.117	-0.001	98	157964	2.00	1.92	
29 Chloroethane	64	5.283	5.275	0.008	89	80362	2.00	1.96	
30 Ethanol	31	5.385	5.386	-0.001	98	274147	10.0	7.40	
31 Vinyl bromide	106	5.622	5.618	0.004	97	158319	2.00	2.08	
32 2-Methylbutane	43	5.670	5.669	0.001	92	203035	2.00	2.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	581099	2.00	1.96	
34 Acrolein	56	5.928	5.930	-0.002	26	38584	2.00	2.14	
35 Acetonitrile	40	6.004	6.004	0.000	96	45265	2.00	1.59	
36 Acetone	58	6.063	6.061	0.002	99	49838	2.00	1.58	
38 Pentane	72	6.160	6.155	0.005	96	23125	2.00	2.04	
37 Isopropyl alcohol	45	6.149	6.155	-0.006	94	223972	2.00	2.44	
39 Ethyl ether	31	6.342	6.345	-0.003	89	173794	2.00	1.70	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	166820	2.00	1.98	
41 Acrylonitrile	53	6.805	6.802	0.003	54	92949	2.00	1.65	
42 2-Methyl-2-propanol	59	6.805	6.814	-0.009	95	278687	2.00	1.96	
43 1,1,2-Trichloro-1,2,2-trif	101	6.875	6.873	0.002	95	363927	2.00	1.86	
44 Methylene Chloride	84	7.069	7.067	0.002	96	158646	2.00	1.54	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	97	171950	2.00	1.80	
46 Carbon disulfide	76	7.252	7.248	0.004	100	503733	2.00	1.96	
47 trans-1,2-Dichloroethene	96	7.924	7.922	0.002	93	155665	2.00	1.85	
48 2-Methylpentane	43	7.929	7.928	0.001	95	388446	2.00	1.67	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	368158	2.00	1.64	
50 1,1-Dichloroethane	63	8.365	8.363	0.002	100	315408	2.00	1.68	
51 Vinyl acetate	43	8.462	8.461	0.001	100	373043	2.00	1.57	
52 2-Butanone (MEK)	72	8.941	8.943	-0.002	95	59334	2.00	1.60	
53 Hexane	56	8.946	8.948	-0.002	77	132378	2.00	1.75	
54 Isopropyl ether	45	9.113	9.118	-0.005	96	485926	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	154488	2.00	1.78	
56 Ethyl acetate	43	9.559	9.566	-0.007	97	310905	2.00	1.57	
57 Chloroform	83	9.737	9.735	0.002	96	373034	2.00	1.67	
58 Tert-butyl ethyl ether	59	9.807	9.817	-0.010	97	418746	2.00	1.57	
59 Tetrahydrofuran	42	10.162	10.176	-0.014	92	159172	2.00	1.61	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	400840	2.00	1.67	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	278292	2.00	1.70	
62 n-Butanol	31	11.286	11.296	-0.010	64	74175	2.00	1.91	
63 Cyclohexane	69	11.340	11.337	0.003	73	78867	2.00	1.80	
64 Benzene	78	11.340	11.340	0.000	97	438518	2.00	1.68	
65 Carbon tetrachloride	117	11.361	11.361	0.000	96	454012	2.00	2.08	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	90	100308	2.00	1.71	
67 Thiophene	84	11.604	11.604	0.000	97	245342	2.00	1.66	
68 Isooctane	57	12.039	12.041	-0.002	97	808269	2.00	1.74	
69 n-Heptane	71	12.394	12.392	0.002	95	153802	2.00	1.72	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	87	185370	2.00	1.69	
71 Trichloroethene	130	12.540	12.537	0.003	93	200047	2.00	1.70	
72 Dibromomethane	93	12.631	12.627	0.004	94	215885	2.00	1.78	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	398744	2.00	1.72	
74 1,4-Dioxane	88	12.782	12.787	-0.005	95	54123	2.00	1.78	
75 Methyl methacrylate	41	12.825	12.827	-0.002	88	209117	2.00	1.64	
76 Methylcyclohexane	83	13.277	13.277	0.000	92	334376	2.00	2.10	
77 4-Methyl-2-pentanone (MIBK	43	13.659	13.662	-0.004	99	359756	2.00	1.80	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	285639	2.00	1.76	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	269835	2.00	1.78	
80 Toluene	91	14.519	14.519	0.000	92	520816	2.00	1.75	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	94	168159	2.00	1.77	
82 2-Hexanone	58	14.950	14.956	-0.006	91	165032	2.00	1.89	
83 n-Octane	85	15.154	15.154	0.000	96	160766	2.00	1.76	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	362042	2.00	1.76	
85 Ethylene Dibromide	107	15.579	15.579	0.000	97	308281	2.00	1.78	
86 Tetrachloroethene	129	15.638	15.637	0.001	93	206298	2.00	1.73	
87 2,3-Dimethylheptane	43	16.483	16.478	0.005	94	549502	2.00	1.57	
88 Chlorobenzene	112	16.499	16.501	-0.002	91	419046	2.00	1.76	
89 Ethylbenzene	91	16.773	16.773	0.000	100	650469	2.00	1.70	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	1027384	4.00	3.49	
91 n-Nonane	57	17.311	17.307	0.004	94	382913	2.00	1.80	
92 Styrene	104	17.392	17.392	0.000	97	362854	2.00	1.73	
93 Bromoform	173	17.397	17.398	-0.001	94	356750	2.00	1.62	
94 o-Xylene	91	17.456	17.453	0.003	97	529548	2.00	1.69	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	391296	2.00	1.80	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	105524	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.016	18.012	0.004	98	695973	2.00	1.70	
98 N-Propylbenzene	120	18.522	18.517	0.005	98	188998	2.00	1.73	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	194678	2.00	1.85	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	674463	2.00	1.66	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	315405	2.00	1.94	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	293576	2.00	1.75	
103 n-Decane	57	18.973	18.974	-0.001	89	487884	2.00	1.81	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	636933	2.00	1.70	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	96	622242	2.00	1.73	
106 sec-Butylbenzene	105	19.393	19.389	0.004	98	893172	2.00	1.76	
107 1,3-Dichlorobenzene	146	19.420	19.419	0.001	98	451945	2.00	1.80	
108 Benzyl chloride	91	19.490	19.487	0.003	97	564628	2.00	1.83	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	91	452286	2.00	1.78	
110 4-Isopropyltoluene	119	19.544	19.542	0.002	98	743286	2.00	1.75	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	462780	2.00	1.31	
112 Butylcyclohexane	83	19.646	19.642	0.004	90	533083	2.00	1.74	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	92	557324	2.00	1.70	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	432238	2.00	1.75	
115 n-Butylbenzene	91	19.963	19.958	0.005	97	816521	2.00	1.85	
116 Indene	116	19.974	19.974	0.000	88	433186	2.00	1.54	
117 Undecane	57	20.238	20.235	0.003	94	556918	2.00	1.83	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	93	164906	2.00	1.34	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	677306	2.00	1.76	
120 Dodecane	57	21.324	21.323	0.001	92	564912	2.00	2.18	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	368640	2.00	1.83	
122 Naphthalene	128	21.695	21.693	0.002	98	590000	2.00	1.87	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	443133	2.00	1.82	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	328156	2.00	2.06	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	236290	2.00	2.74	
126 1-Methylnaphthalene	142	22.551	22.549	0.002	99	220463	2.00	2.13	
A 128 C8 Range	1	15.169	(15.114-15.211)		0	1770809	2.00	1.81	
S 129 Xylenes, Total	100				0		6.00	5.19	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.63	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

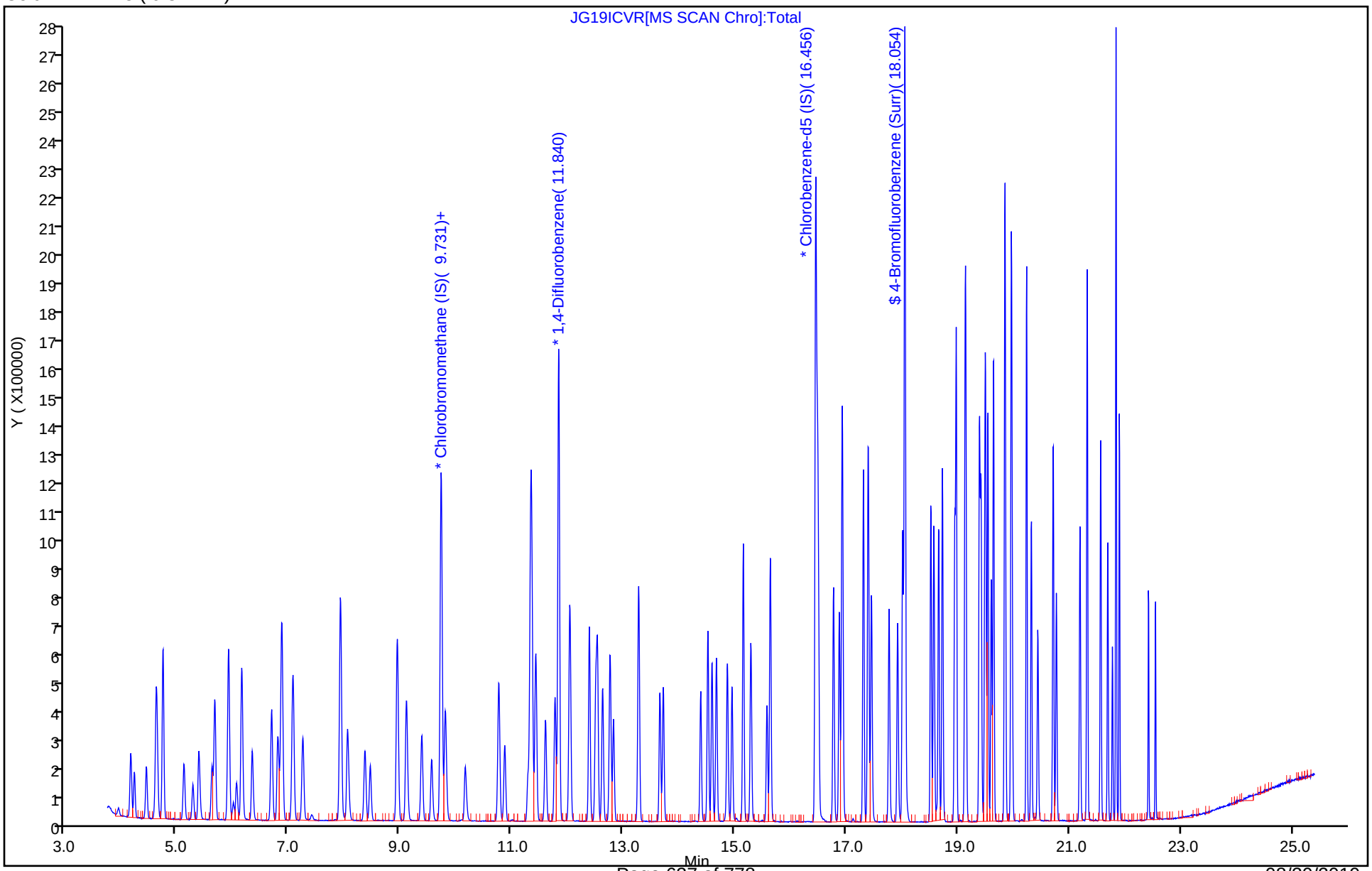
Report Date: 24-Jul-2019 11:38:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D

Injection Date:	20-Jul-2019 12:28:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	30
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

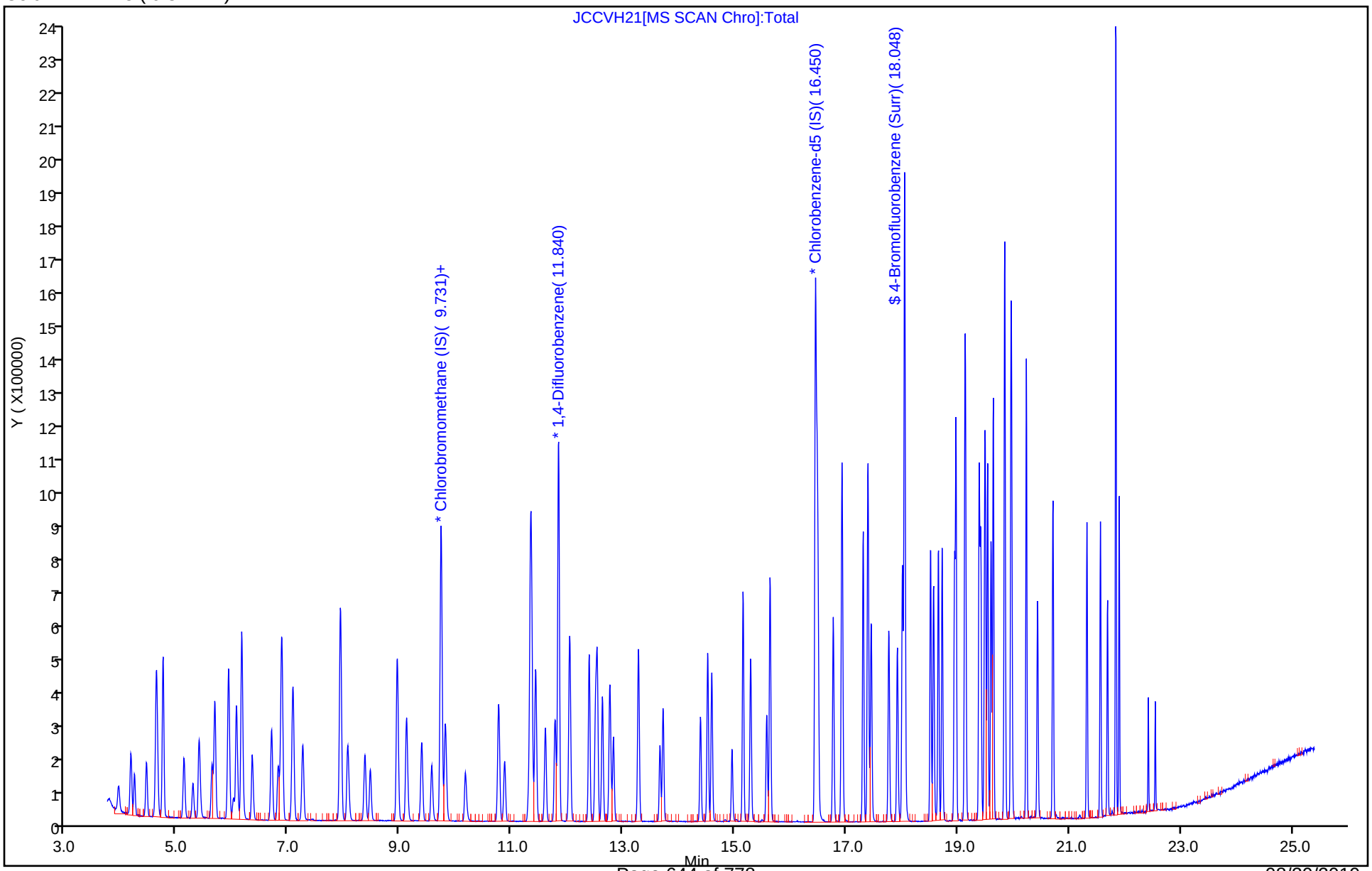
Report Date: 22-Aug-2019 11:07:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-Aug-2019 00:56:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 12:53:23 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0318

First Level Reviewer: liul Date: 15-Aug-2019 12:53:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.551	-0.013	97	280567	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1667707	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1428519	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	985825	4.00	4.00	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	496839	2.00	2.07	
7 Propene	41	3.437	3.439	-0.002	99	290502	2.00	2.18	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	523962	2.00	2.42	
9 Chloromethane	52	3.664	3.665	-0.001	63	52984	2.00	1.63	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	325648	2.00	2.96	
11 Acetaldehyde	44	3.809	3.817	-0.008	97	353288	10.0	9.28	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	188121	2.00	1.82	
13 Butadiene	54	3.906	3.913	-0.007	69	142421	2.00	1.90	
14 Butane	43	3.912	3.914	-0.002	84	275227	2.00	1.73	
15 Bromomethane	94	4.219	4.227	-0.008	97	165432	2.00	1.89	
16 Chloroethane	64	4.354	4.359	-0.005	93	77012	2.00	1.82	
17 Ethanol	31	4.451	4.464	-0.013	98	340620	10.0	8.94	
18 Vinyl bromide	106	4.651	4.656	-0.005	98	156532	2.00	2.14	
19 2-Methylbutane	43	4.699	4.699	0.000	92	212214	2.00	1.79	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	578470	2.00	2.15	
20 Acrolein	56	4.926	4.936	-0.010	96	74819	2.00	2.24	
24 Acetonitrile	40	4.990	5.001	-0.011	97	106694	2.00	2.15	
22 Acetone	58	5.055	5.057	-0.002	99	108340	2.00	2.33	
25 Pentane	72	5.125	5.138	-0.013	95	35398	2.00	1.99	
23 Isopropyl alcohol	45	5.130	5.149	-0.019	93	411672	2.00	2.61	
26 Ethyl ether	31	5.308	5.319	-0.011	88	326546	2.00	2.24	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	196958	2.00	2.04	
28 Acrylonitrile	53	5.734	5.738	-0.004	61	167417	2.00	2.30	
29 2-Methyl-2-propanol	59	5.724	5.756	-0.032	96	421667	2.00	2.17	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	95	437530	2.00	2.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	95	188455	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	95	250779	2.00	2.27	
33 Carbon disulfide	76	6.128	6.133	-0.005	99	552247	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	98	223824	2.00	2.21	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	542597	2.00	2.02	
36 Methyl tert-butyl ether	73	6.921	6.934	-0.013	97	603760	2.00	2.21	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	99	422805	2.00	2.20	
38 Vinyl acetate	43	7.320	7.328	-0.008	100	773683	2.00	2.30	
40 Hexane	56	7.794	7.796	-0.002	74	188439	2.00	2.14	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	108774	2.00	2.11	
41 Isopropyl ether	45	7.956	7.978	-0.022	97	941717	2.00	2.25	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	238996	2.00	2.08	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	622964	2.00	2.09	
44 Chloroform	83	8.560	8.560	0.000	96	515510	2.00	2.18	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	721045	2.00	2.07	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	94	327339	2.00	2.20	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	557226	2.00	2.15	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	353401	2.00	2.20	
50 n-Butanol	31	10.178	10.195	-0.017	90	142474	2.00	2.23	
51 Cyclohexane	69	10.199	10.210	-0.011	76	113450	2.00	2.14	
49 Benzene	78	10.210	10.214	-0.004	96	743588	2.00	2.20	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	96	598112	2.00	2.21	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	154719	2.00	2.03	
54 Thiophene	84	10.491	10.499	-0.009	96	376935	2.00	2.20	
55 Isooctane	57	10.992	10.995	-0.003	98	1225374	2.00	2.17	
57 n-Heptane	71	11.386	11.387	-0.001	95	252526	2.00	2.14	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	89	279428	2.00	2.15	
58 Trichloroethene	130	11.504	11.509	-0.005	96	314349	2.00	2.12	
59 Dibromomethane	93	11.596	11.595	0.001	95	303422	2.00	2.20	
60 Dichlorobromomethane	83	11.747	11.746	0.001	98	544985	2.00	2.18	
61 1,4-Dioxane	88	11.763	11.781	-0.018	97	115096	2.00	2.22	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	391081	2.00	2.11	
63 Methylcyclohexane	83	12.286	12.288	-0.002	93	511159	2.00	2.63	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	97	707381	2.00	2.14	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	441227	2.00	2.26	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	415560	2.00	2.34	
67 Toluene	91	13.591	13.593	-0.002	93	854006	2.00	2.32	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	259635	2.00	2.28	
69 2-Hexanone	58	14.055	14.066	-0.011	90	322895	2.00	2.37	
71 n-Octane	85	14.287	14.288	-0.001	98	269357	2.00	2.24	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	584492	2.00	2.31	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	498804	2.00	2.28	
73 Tetrachloroethene	129	14.745	14.743	0.002	94	323404	2.00	2.15	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	692514	2.00	2.27	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	937319	2.00	2.05	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1169380	2.00	2.27	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	1874676	4.00	4.63	
81 n-Nonane	57	16.492	16.494	-0.002	96	612738	2.00	2.31	
78 Bromoform	173	16.525	16.525	0.000	97	583215	2.00	2.58	
79 Styrene	104	16.541	16.543	-0.002	98	653467	2.00	2.34	
80 o-Xylene	91	16.600	16.602	-0.002	98	946514	2.00	2.23	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	699256	2.00	2.34	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	95	220875	2.00	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1412873	2.00	2.24	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	368693	2.00	2.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	353641	2.00	2.31	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	1357626	2.00	2.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	609824	2.00	2.54	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	535601	2.00	2.33	
90 n-Decane	57	18.277	18.280	-0.003	87	825560	2.00	2.26	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	1246898	2.00	2.23	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	1263074	2.00	2.27	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1840044	2.00	2.31	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	98	800949	2.00	2.12	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	1061175	2.00	2.45	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	817135	2.00	2.19	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1429517	2.00	2.22	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	899194	2.00	1.65	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	883622	2.00	2.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	1109919	2.00	2.24	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	801739	2.00	2.18	
102 Indene	116	19.312	19.314	-0.002	89	859159	2.00	1.92	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1500703	2.00	2.26	
104 Undecane	57	19.636	19.638	-0.002	95	977429	2.00	2.27	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	345164	2.00	1.91	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1325179	2.00	2.14	
107 Dodecane	57	20.714	20.714	0.000	92	959397	2.00	2.29	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	749549	2.00	2.13	
109 Naphthalene	128	21.065	21.064	0.001	99	1577721	2.00	2.17	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	742725	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727565	2.00	2.24	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	619722	2.00	2.97	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	585758	2.00	2.92	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	2869701	2.00	2.19	
S 116 Xylenes, Total	100				0		6.00	6.86	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.29	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

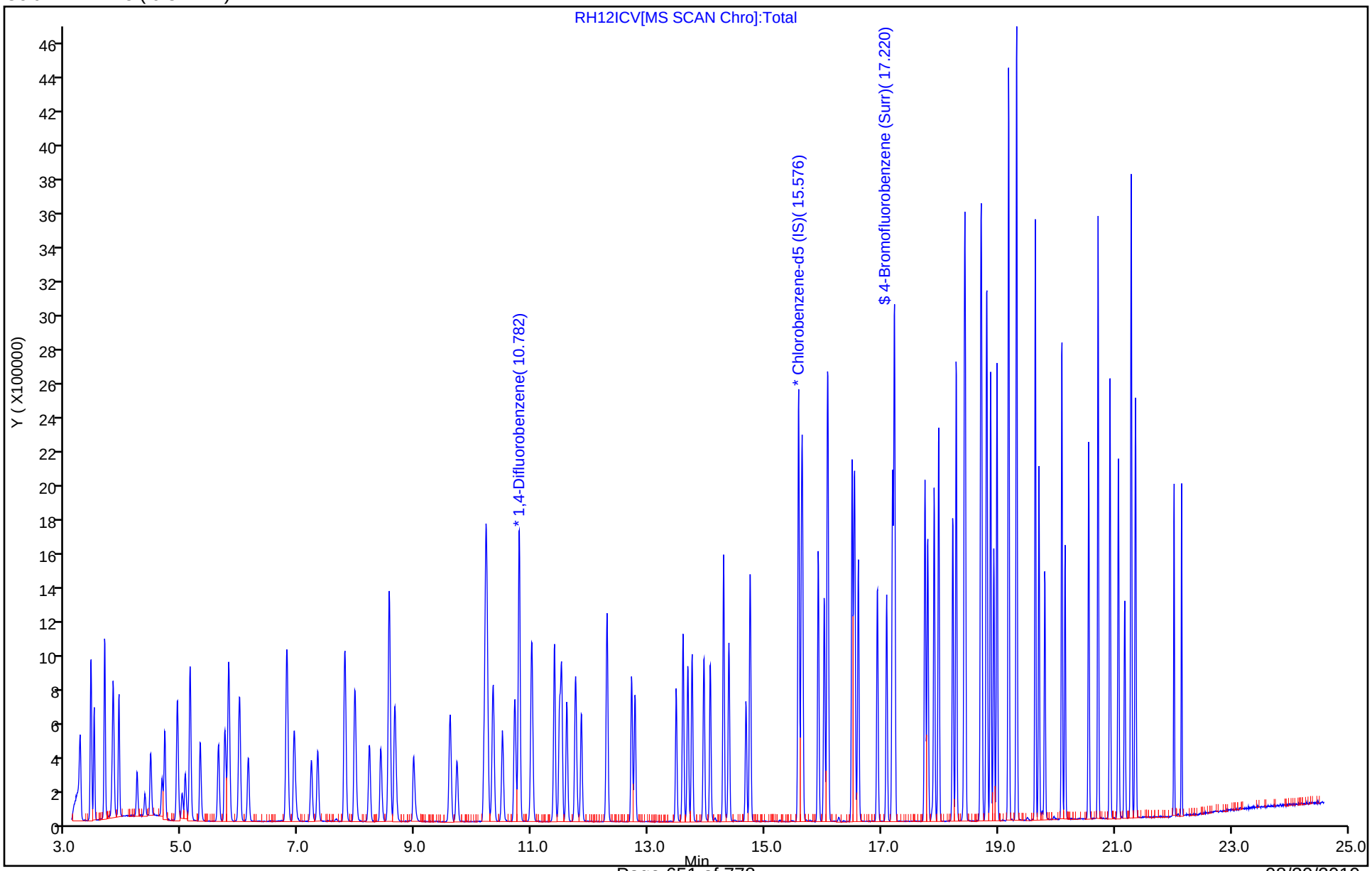
Report Date: 15-Aug-2019 12:53:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D

Injection Date:	13-Aug-2019 00:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Aug-2019 16:53:30 ALS Bottle#: 16 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-002
Misc. Info.: P93
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:05:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:05:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	95	191498	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1094127	4.00	4.00	s
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.576	0.000	89	966925	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	93	710498	4.00	4.26	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	98	152133	1.00	0.9298	
7 Propene	41	3.432	3.432	0.000	97	101351	1.00	1.12	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	172283	1.00	1.16	
9 Chloromethane	52	3.664	3.664	0.000	62	29319	1.00	1.32	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	137303	1.00	1.83	
11 Acetaldehyde	44	3.810	3.810	0.000	96	165514	5.00	6.37	
12 Vinyl chloride	62	3.826	3.826	0.000	98	69518	1.00	0.9863	
14 Butane	43	3.907	3.907	0.000	83	124546	1.00	1.15	
13 Butadiene	54	3.907	3.907	0.000	71	66076	1.00	1.29	
15 Bromomethane	94	4.219	4.219	0.000	95	58999	1.00	0.9878	
16 Chloroethane	64	4.354	4.354	0.000	83	28026	1.00	0.9716	
17 Ethanol	31	4.451	4.451	0.000	98	178877	5.00	6.88	
18 Vinyl bromide	106	4.645	4.645	0.000	95	50428	1.00	1.01	
19 2-Methylbutane	43	4.688	4.688	0.000	90	93584	1.00	1.16	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	98	160403	1.00	0.8720	
20 Acrolein	56	4.915	4.915	0.000	66	17588	1.00	0.7722	
24 Acetonitrile	40	4.996	4.996	0.000	98	27955	1.00	0.8244	
22 Acetone	58	5.039	5.039	0.000	99	76215	3.00	2.40	
25 Pentane	72	5.125	5.125	0.000	69	9285	1.00	0.7631	
23 Isopropyl alcohol	45	5.125	5.125	0.000	82	287661	3.00	2.67	
26 Ethyl ether	31	5.303	5.303	0.000	87	84015	1.00	0.8444	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	52974	1.00	0.8044	
28 Acrylonitrile	53	5.729	5.729	0.000	57	46299	1.00	0.9317	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	120639	1.00	0.9087	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	121554	1.00	0.8882	
31 Methylene Chloride	84	5.972	5.972	0.000	92	59965	1.00	0.8859	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.977	0.000	95	79904	1.00	1.06	
33 Carbon disulfide	76	6.123	6.123	0.000	98	154560	1.00	0.8922	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	96	67571	1.00	0.9761	
35 2-Methylpentane	43	6.792	6.792	0.000	95	180816	1.00	0.9844	
36 Methyl tert-butyl ether	73	6.926	6.926	0.000	96	186177	1.00	1.00	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	129290	1.00	0.9848	
38 Vinyl acetate	43	7.315	7.315	0.000	100	223073	1.00	0.9736	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	89	32176	1.00	0.9156	
40 Hexane	56	7.784	7.784	0.000	69	56463	1.00	0.9390	
41 Isopropyl ether	45	7.956	7.956	0.000	96	280420	1.00	0.9832	
42 cis-1,2-Dichloroethene	96	8.210	8.210	0.000	96	71987	1.00	0.9182	
43 Ethyl acetate	43	8.404	8.404	0.000	97	200418	1.00	0.9873	
44 Chloroform	83	8.549	8.549	0.000	47	158827	1.00	0.9860	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	230354	1.00	0.9705	
46 Tetrahydrofuran	42	8.965	8.965	0.000	92	96568	1.00	0.9526	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	97	164126	1.00	0.9266	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	108970	1.00	1.04	
50 n-Butanol	31	10.173	10.173	0.000	90	37663	1.00	0.9000	
51 Cyclohexane	69	10.194	10.194	0.000	77	29174	1.00	0.8385	
49 Benzene	78	10.205	10.205	0.000	96	197830	1.00	0.8928	
52 Carbon tetrachloride	117	10.226	10.226	0.000	95	171667	1.00	0.9690	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	90	45435	1.00	0.9102	
54 Thiophene	84	10.480	10.480	0.000	94	106922	1.00	0.9520	
55 Isooctane	57	10.992	10.992	0.000	96	331670	1.00	0.8960	
57 n-Heptane	71	11.386	11.386	0.000	95	66301	1.00	0.8576	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	77627	1.00	0.9091	
58 Trichloroethene	130	11.504	11.504	0.000	94	84527	1.00	0.8674	
59 Dibromomethane	93	11.591	11.591	0.000	95	82168	1.00	0.9089	
60 Dichlorobromomethane	83	11.742	11.742	0.000	97	147130	1.00	0.8971	
61 1,4-Dioxane	88	11.763	11.763	0.000	93	31050	1.00	0.9116	
62 Methyl methacrylate	41	11.839	11.839	0.000	88	111353	1.00	0.9160	
63 Methylcyclohexane	83	12.281	12.281	0.000	87	110259	1.00	0.8652	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	96	199181	1.00	0.9180	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	116234	1.00	0.9079	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	94	110968	1.00	0.9227	
67 Toluene	91	13.591	13.591	0.000	93	222768	1.00	0.8955	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	70612	1.00	0.9156	
69 2-Hexanone	58	14.060	14.060	0.000	88	81904	1.00	0.8896	
71 n-Octane	85	14.292	14.292	0.000	97	69323	1.00	0.8505	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	144991	1.00	0.8476	
72 Ethylene Dibromide	107	14.670	14.670	0.000	93	136333	1.00	0.9216	
73 Tetrachloroethene	129	14.745	14.745	0.000	94	85526	1.00	0.8418	
74 Chlorobenzene	112	15.619	15.619	0.000	88	185357	1.00	0.8959	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	300449	1.00	0.9708	
76 Ethylbenzene	91	15.910	15.910	0.000	99	327609	1.00	0.9388	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	504828	2.00	1.84	
81 n-Nonane	57	16.492	16.492	0.000	93	165424	1.00	0.9211	
78 Bromoform	173	16.525	16.525	0.000	93	143600	1.00	0.9370	
79 Styrene	104	16.541	16.541	0.000	97	174490	1.00	0.9246	
80 o-Xylene	91	16.595	16.595	0.000	98	273158	1.00	0.9494	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	97	194566	1.00	0.9600	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	93	59611	1.00	0.9280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.183	0.000	96	394740	1.00	0.9245	
85 N-Propylbenzene	120	17.743	17.743	0.000	99	106513	1.00	0.9812	
86 2-Chlorotoluene	126	17.792	17.792	0.000	98	98316	1.00	0.9507	
88 4-Ethyltoluene	105	17.900	17.900	0.000	98	404426	1.00	0.9504	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	154611	1.00	0.9530	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	87	149030	1.00	0.9582	
90 n-Decane	57	18.277	18.277	0.000	86	231600	1.00	0.9370	
91 tert-Butylbenzene	119	18.423	18.423	0.000	92	352897	1.00	0.9304	
92 1,2,4-Trimethylbenzene	105	18.434	18.434	0.000	96	356104	1.00	0.9474	
94 sec-Butylbenzene	105	18.703	18.703	0.000	98	524326	1.00	0.9715	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	97	236890	1.00	0.9256	
96 Benzyl chloride	91	18.795	18.795	0.000	97	276569	1.00	0.9421	
95 1,4-Dichlorobenzene	146	18.806	18.806	0.000	95	239199	1.00	0.9470	
97 4-Isopropyltoluene	119	18.865	18.865	0.000	96	417892	1.00	0.9584	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	99	360091	1.00	0.9737	
99 Butylcyclohexane	83	18.978	18.978	0.000	89	271079	1.00	0.9799	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	93	331349	1.00	0.9868	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	82	238770	1.00	0.9570	
102 Indene	116	19.313	19.313	0.000	91	286976	1.00	0.9469	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	455268	1.00	1.01	
104 Undecane	57	19.636	19.636	0.000	92	296174	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	105867	1.00	0.8652	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	97	410842	1.00	0.9820	
107 Dodecane	57	20.715	20.715	0.000	90	292307	1.00	1.03	
108 1,2,4-Trichlorobenzene	180	20.920	20.920	0.000	92	212551	1.00	0.8906	
109 Naphthalene	128	21.060	21.060	0.000	99	457877	1.00	0.9295	
110 Hexachlorobutadiene	225	21.281	21.281	0.000	94	226558	1.00	0.9561	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	217020	1.00	0.9883	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	95	144599	1.00	1.02	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	147137	1.00	1.08	
A 115 C8 Range	1	14.292	(14.244-14.330)		0	814397	1.00	0.9487	
S 116 Xylenes, Total	100				0		3.00	2.79	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.89	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

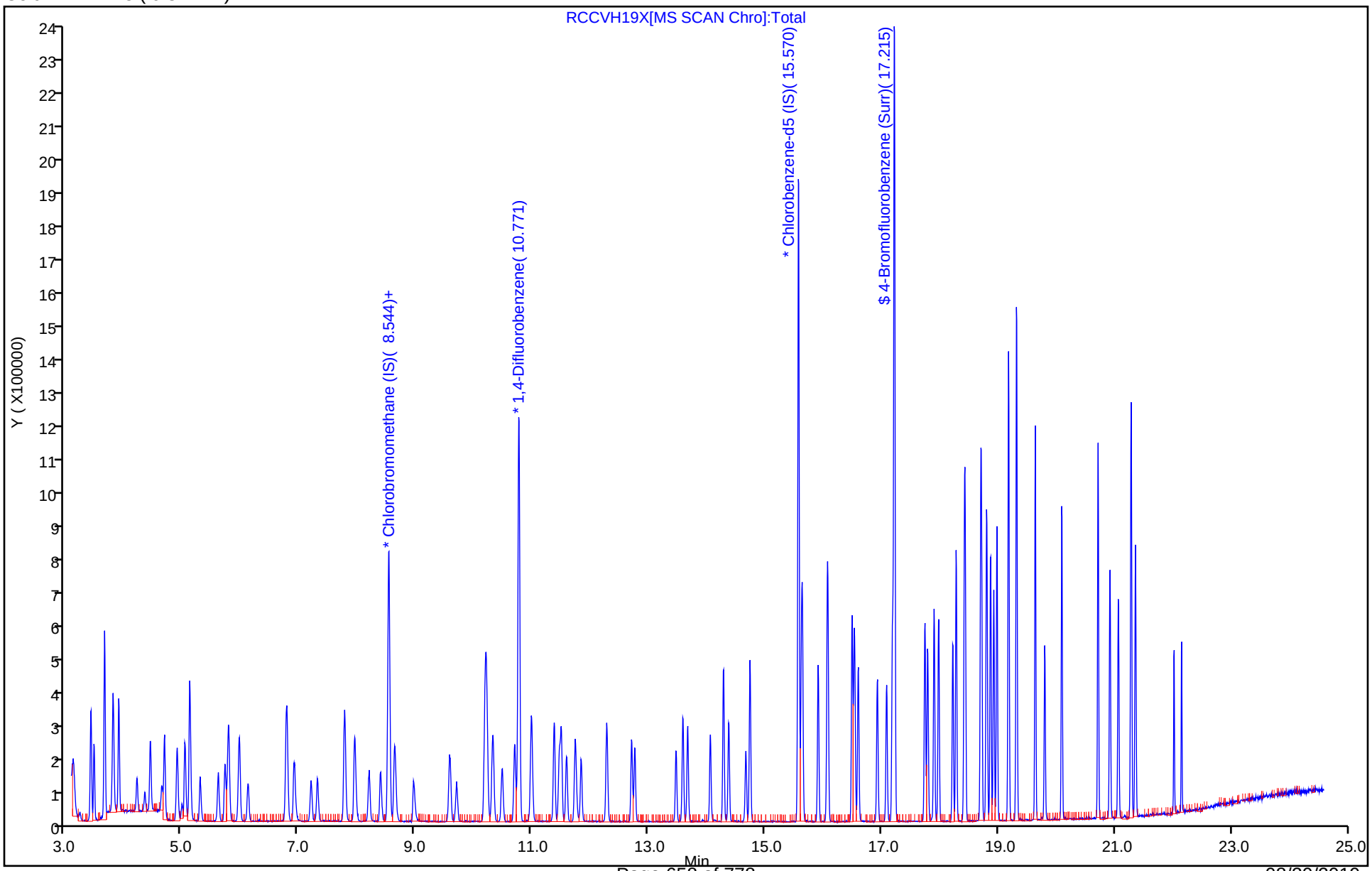
Report Date: 20-Aug-2019 13:05:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X.D

Injection Date:	19-Aug-2019 16:53:30	Instrument ID:	MR	Operator ID:	
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	05-Aug-2019 14:36:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012602-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Aug-2019 11:04:18	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.235	5.235	0.000	0	1223297	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

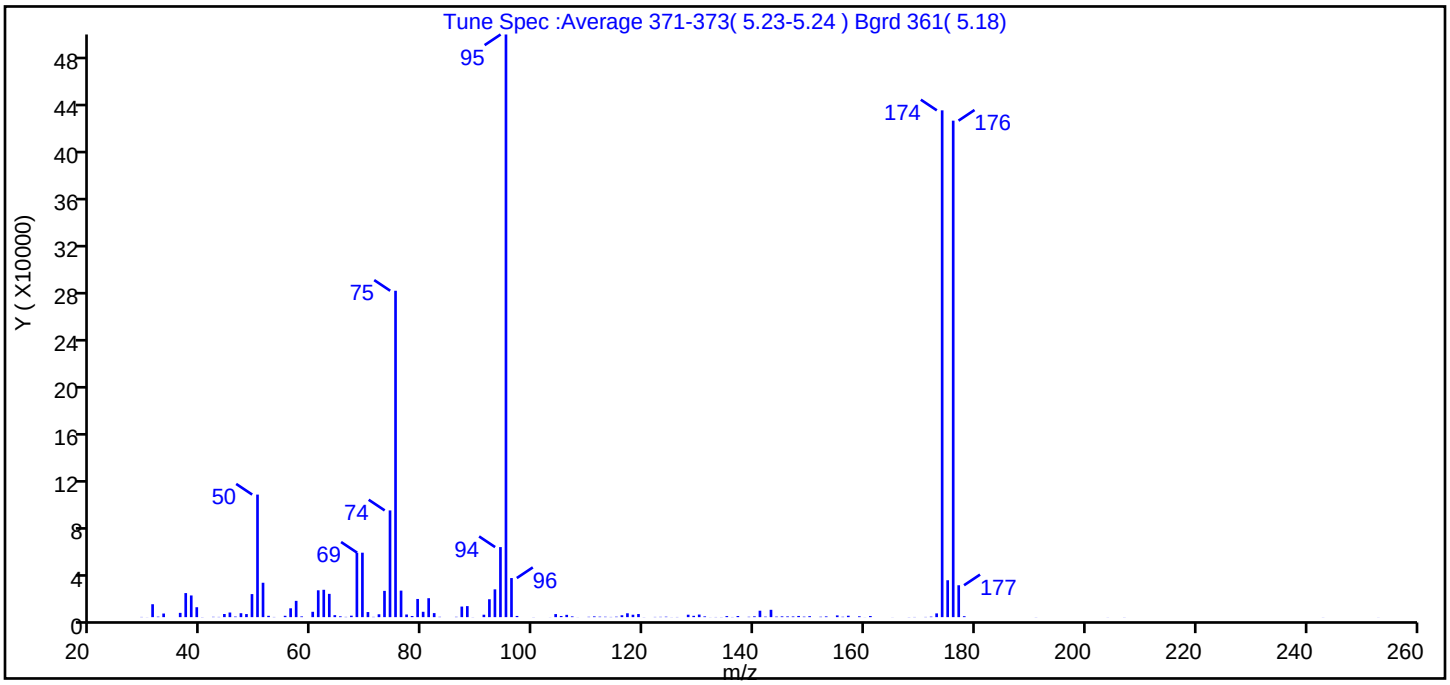
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D
Injection Date: 05-Aug-2019 14:36:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	56.0
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	87.0
175	5 to 9% of m/z 174	6.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	85.2 (98.0)
177	5 to 9% of m/z 176	5.5 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D\MG_TO15.rslt\spectra.d
Injection Date: 05-Aug-2019 14:36:30
Spectrum: Tune Spec :Average 371-373(5.23-5.24) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

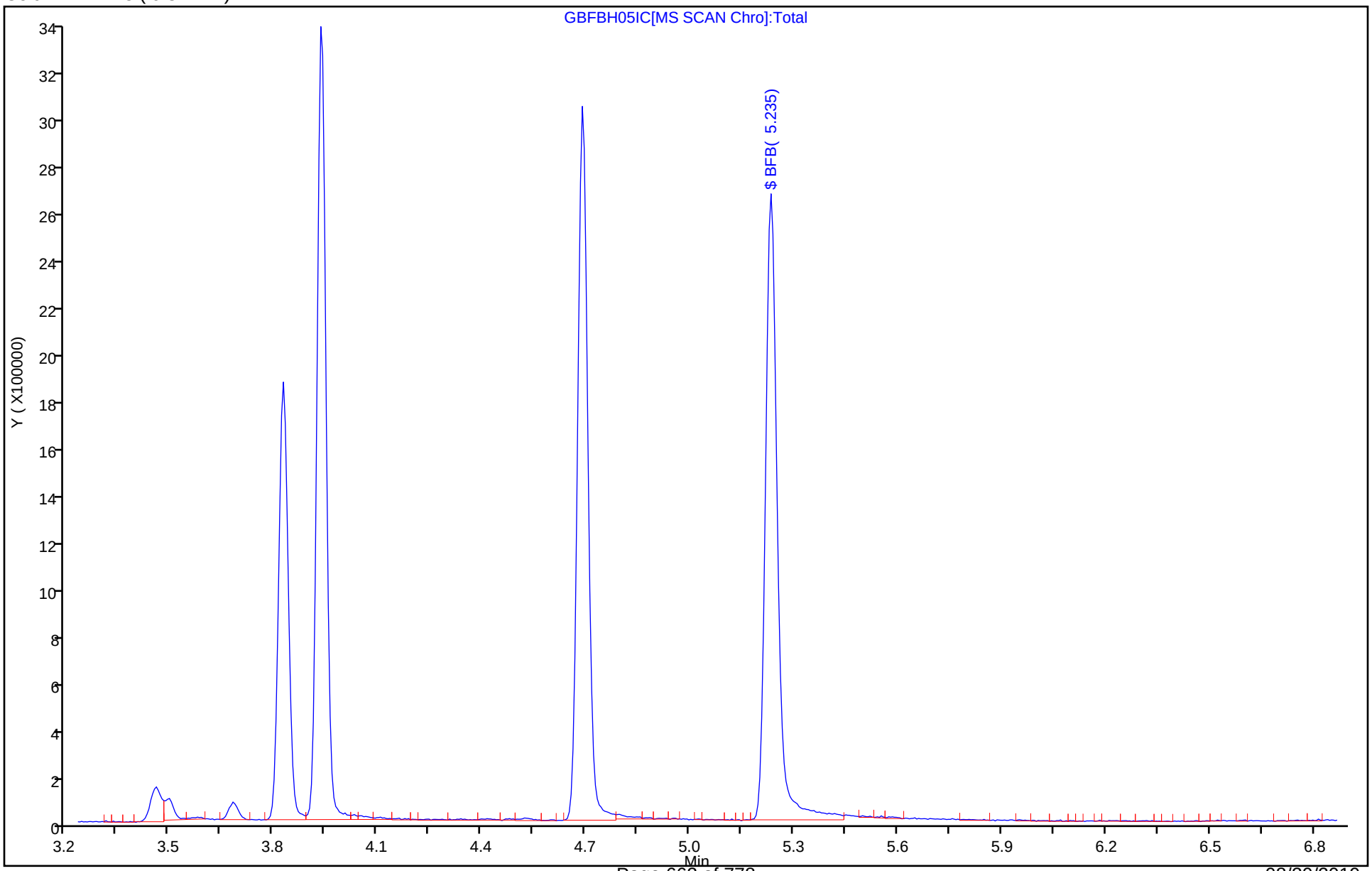
Report Date: 08-Aug-2019 11:04:22 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D

Injection Date:	05-Aug-2019 14:36:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GBFBH19A.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Aug-2019 10:37:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:07:48	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 10:07:48		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.219	5.219	0.000	0	2389846	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

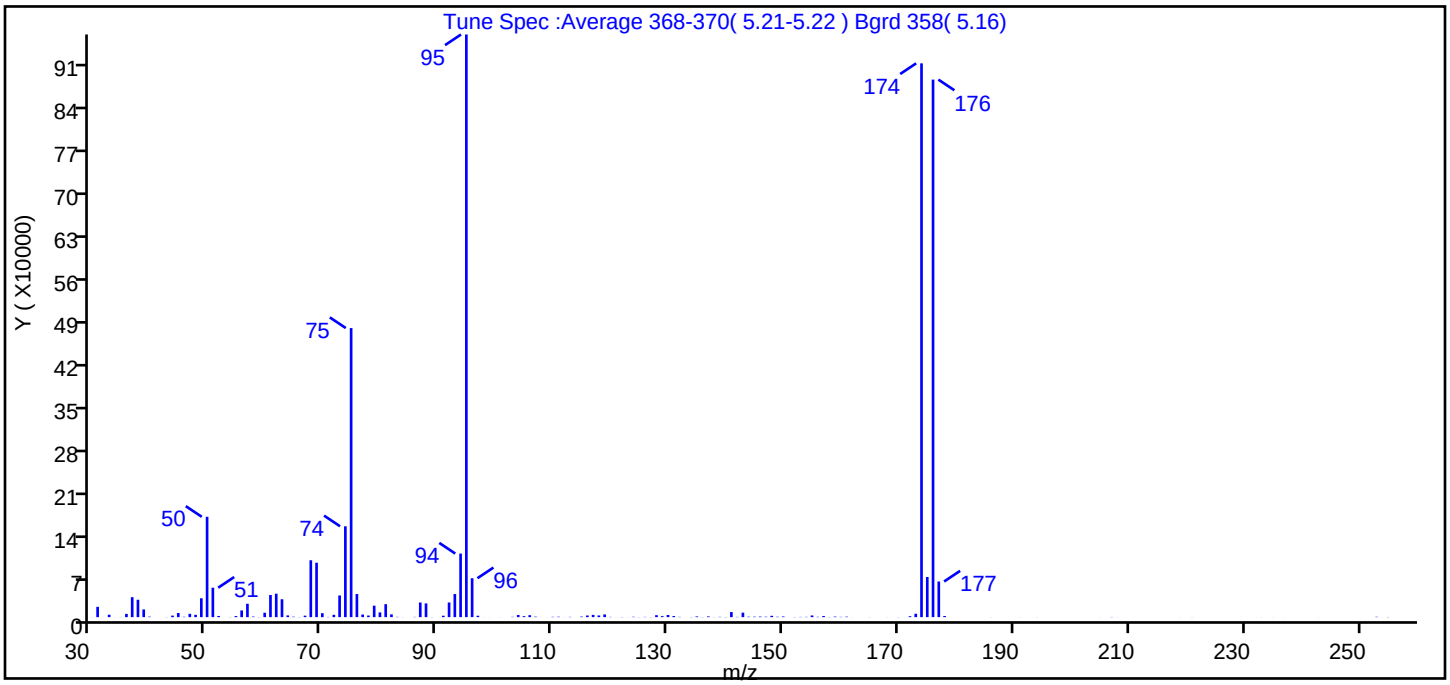
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GBFBH19A.D
Injection Date: 19-Aug-2019 10:37:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.2
75	30 to 60% of m/z 95	49.6
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.6 (0.6)
174	50 to 120% of m/z 95	95.0
175	5 to 9% of m/z 174	6.9 (7.3)
176	Greater than 95% but less than 101% of m/z 174	92.3 (97.1)
177	5 to 9% of m/z 176	6.1 (6.6)

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GBFBH19A.D\MG_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 10:37:30
Spectrum: Tune Spec :Average 368-370(5.21-5.22) Bgrd 358(5.16)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 150

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	119	71.00	354	113.00	444	154.00	476
31.00	16904	72.00	3858	115.00	917	155.00	2751
33.00	4000	73.00	35584	116.00	2710	156.00	534
34.00	74	74.00	149120	117.00	3658	157.00	1804
35.00	125	75.00	474432	118.00	2740	158.00	274
36.00	5376	76.00	37952	119.00	4449	159.00	893
37.00	32784	77.00	4293	120.00	406	160.00	448
38.00	28536	78.00	2665	121.00	115	161.00	808
39.00	12637	79.00	18824	122.00	255	162.00	58
40.00	821	80.00	7769	123.00	119	165.00	152
42.00	15	81.00	21304	124.00	576	168.00	103
43.00	216	82.00	4569	125.00	204	170.00	217
44.00	2513	83.00	447	126.00	400	172.00	1491
45.00	6773	84.00	130	127.00	219	173.00	5596
46.00	620	86.00	389	128.00	3235	174.00	908864
47.00	5495	87.00	24056	129.00	1637	175.00	65904
48.00	3774	88.00	22536	130.00	3570	176.00	882176
49.00	30952	89.00	223	131.00	1795	177.00	58488
50.00	164672	91.00	2317	132.00	408	178.00	1901
51.00	48304	92.00	24056	134.00	252	186.00	119
52.00	1941	93.00	37944	135.00	1193	191.00	128
54.00	205	94.00	104328	136.00	234	194.00	125
55.00	1787	95.00	956224	137.00	1241	195.00	12
56.00	10977	96.00	63880	138.00	172	205.00	59
57.00	22000	97.00	2307	139.00	478	207.00	291
58.00	917	98.00	84	140.00	236	208.00	116
59.00	255	99.00	57	141.00	8316	219.00	61
60.00	7263	101.00	102	142.00	419	221.00	119
61.00	36376	103.00	472	143.00	7357	232.00	64
62.00	38496	104.00	3505	144.00	696	233.00	78
63.00	29400	105.00	1566	145.00	764	235.00	71
64.00	2830	106.00	3237	146.00	935	237.00	52
65.00	702	107.00	795	147.00	704	243.00	56

Report Date: 20-Aug-2019 10:07:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GBFBH19A.D\MG_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 10:37:30
Spectrum: Tune Spec :Average 368-370(5.21-5.22) Bgrd 358(5.16)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 150

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	239	108.00	55	148.00	2180	253.00	562
67.00	2427	109.00	62	149.00	626	254.00	62
68.00	93352	110.00	525	150.00	1087	255.00	281
69.00	89280	111.00	683	152.00	265		
70.00	6458	112.00	84	153.00	399		

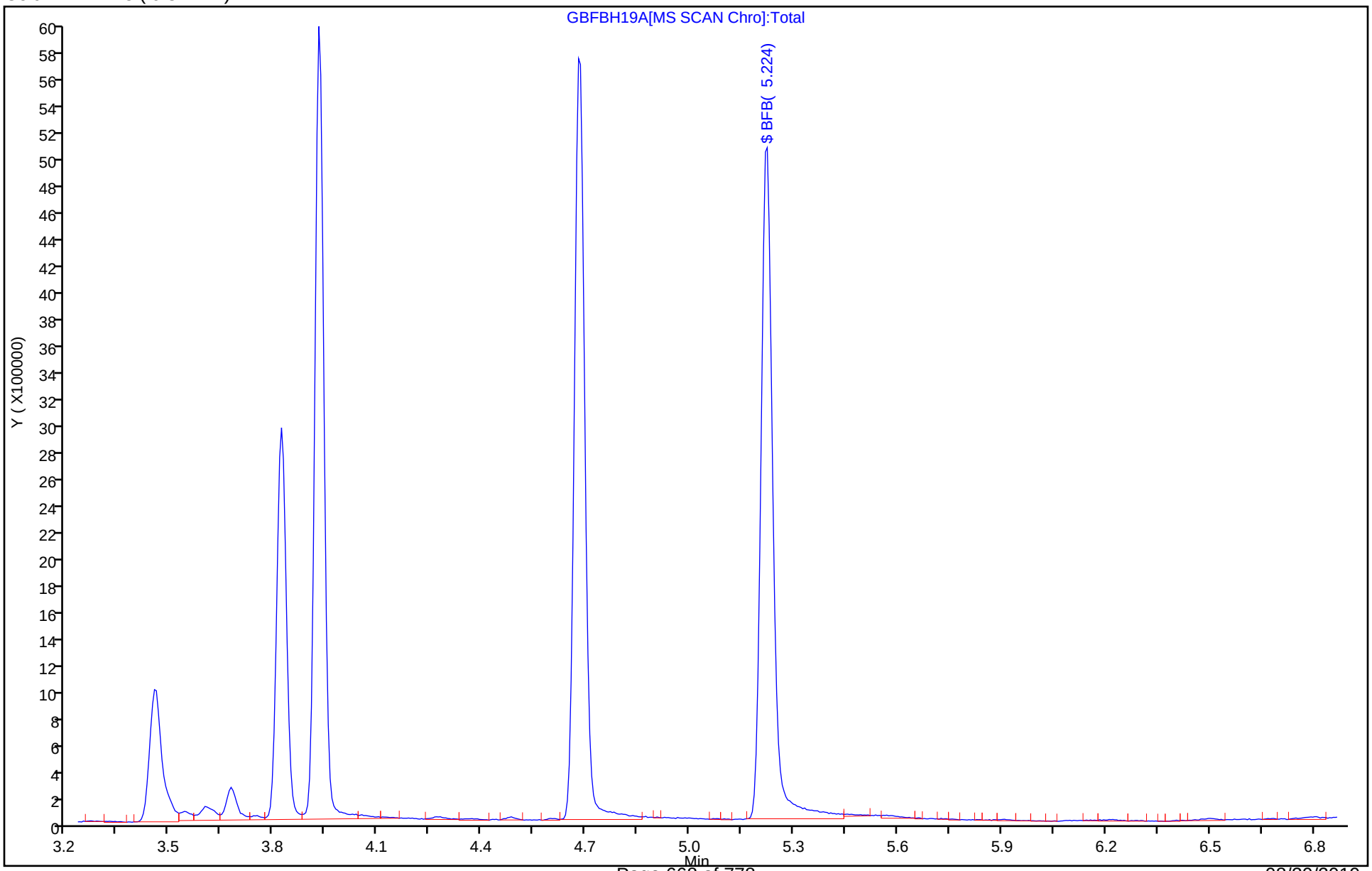
Report Date: 20-Aug-2019 10:07:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GBFBH19A.D

Injection Date:	19-Aug-2019 10:37:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Jul-2019 19:07:30	ALS Bottle#:	16	Worklist Smp#:	2
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012415-002				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	24-Jul-2019 11:38:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: barlozhetskayaa		Date:	19-Jul-2019 19:39:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.306	4.306	0.000	0	828399	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

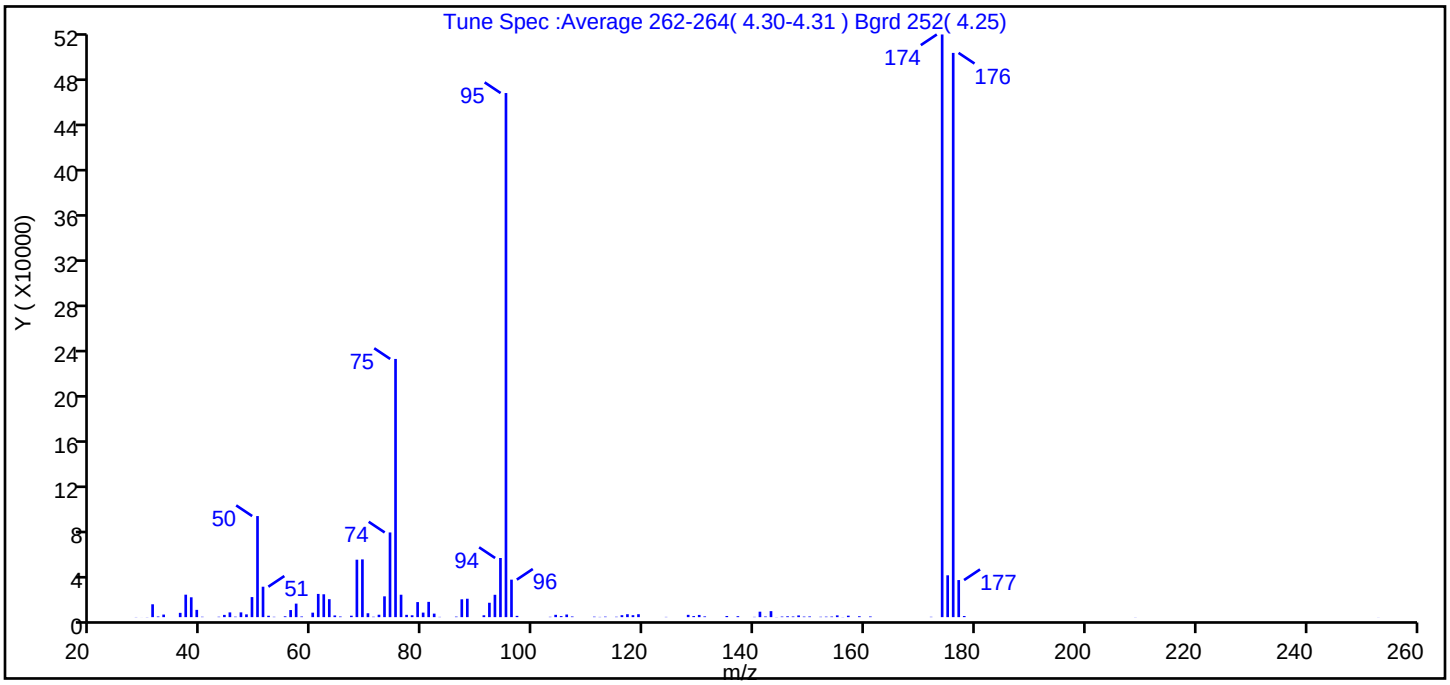
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D
Injection Date: 19-Jul-2019 19:07:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 2
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.3
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	111.2
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (96.8)
177	5 to 9% of m/z 176	7.1 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D\MJ_TO15.rslt\spectra.d
Injection Date: 19-Jul-2019 19:07:30
Spectrum: Tune Spec :Average 262-264(4.30-4.31) Bgrd 252(4.25)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	136	61.00	20664	93.00	19888	142.00	589
29.00	33	62.00	20344	94.00	52616	143.00	5335
30.00	124	63.00	15980	95.00	466240	144.00	128
31.00	11442	64.00	1511	96.00	33360	145.00	519
32.00	551	65.00	548	97.00	1139	146.00	752
33.00	2289	67.00	1272	103.00	298	147.00	574
36.00	3821	68.00	51096	104.00	2073	148.00	1517
37.00	19992	69.00	51384	105.00	928	149.00	484
38.00	17656	70.00	3470	106.00	2342	150.00	613
39.00	6478	71.00	354	107.00	574	152.00	331
40.00	335	72.00	2145	111.00	415	153.00	436
43.00	347	73.00	18504	112.00	206	154.00	525
44.00	2006	74.00	75344	113.00	447	155.00	1569
45.00	4220	75.00	229696	115.00	350	156.00	116
46.00	421	76.00	19944	116.00	1745	157.00	1286
47.00	4244	77.00	2052	117.00	2600	159.00	779
48.00	2466	78.00	1644	118.00	1746	161.00	584
49.00	17832	79.00	13400	119.00	2613	172.00	287
50.00	89920	80.00	4033	124.00	216	174.00	518336
51.00	27072	81.00	13591	128.00	2051	175.00	37224
52.00	1237	82.00	3133	129.00	948	176.00	501952
53.00	303	83.00	224	130.00	1963	177.00	32984
55.00	757	86.00	469	131.00	670	178.00	989
56.00	6316	87.00	15895	135.00	1018	209.00	101
57.00	12036	88.00	16370	137.00	844	253.00	64
58.00	555	91.00	1643	140.00	248		
60.00	3991	92.00	12801	141.00	4852		

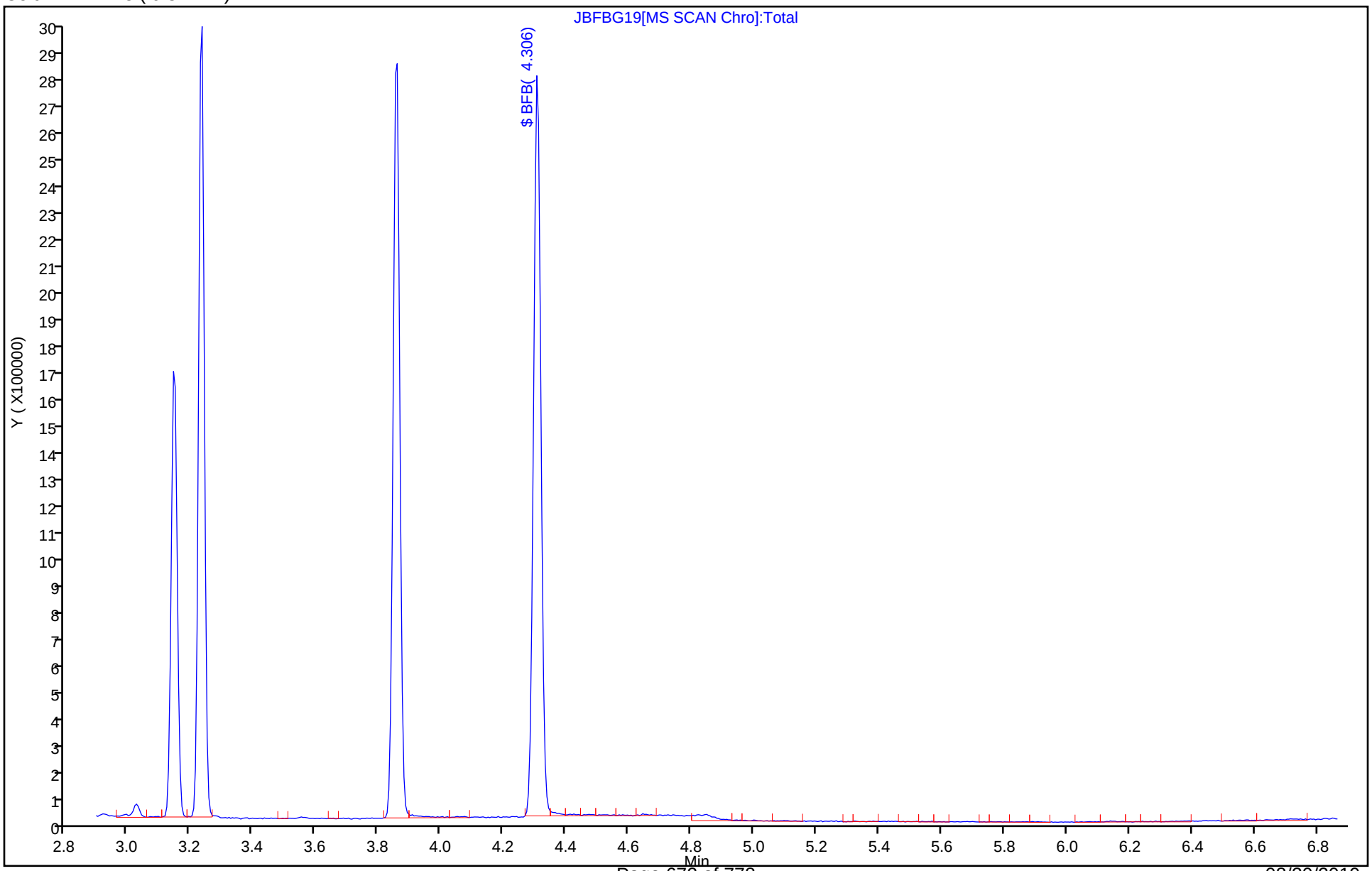
Report Date: 24-Jul-2019 11:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D

Injection Date:	19-Jul-2019 19:07:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Aug-2019 09:15:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:06:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 11:06:11		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.330	4.330	0.000	0	691629	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

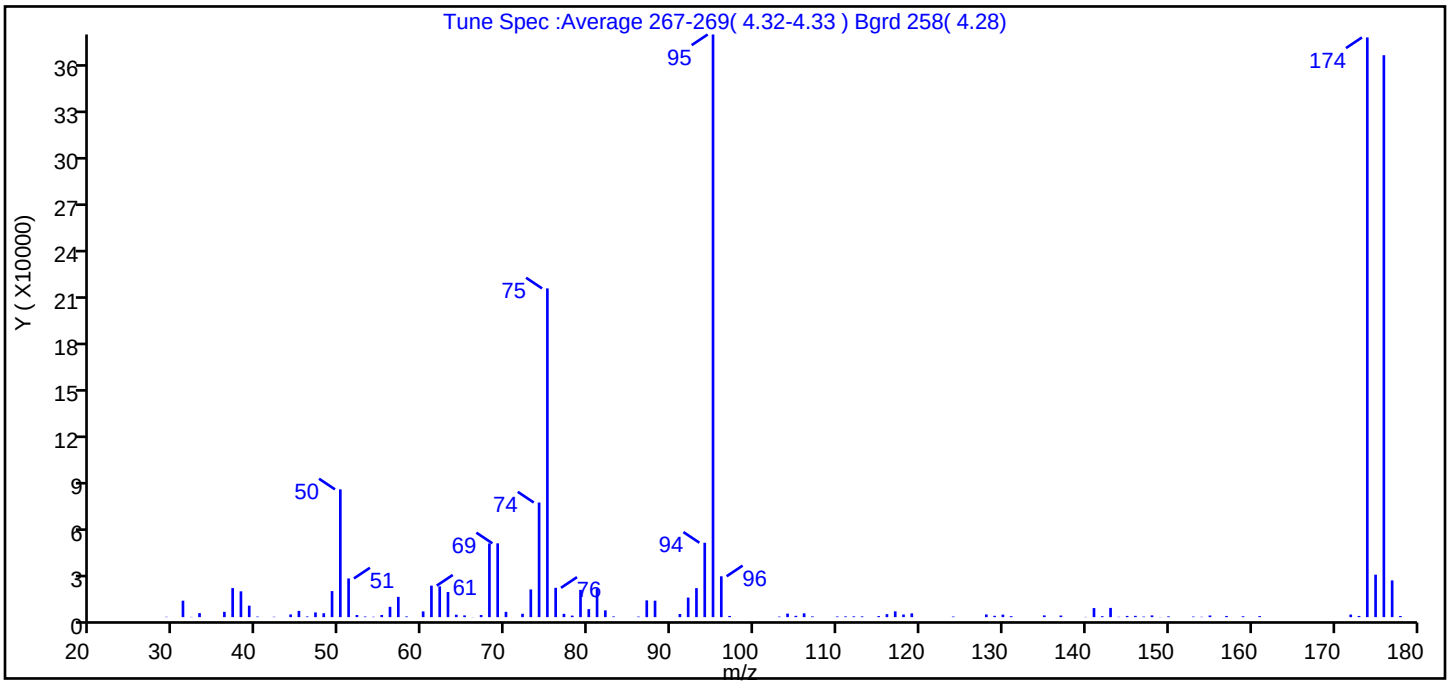
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D
Injection Date: 21-Aug-2019 09:15:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.9
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	99.5
175	5 to 9% of m/z 174	7.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	96.4 (96.9)
177	5 to 9% of m/z 176	6.3 (6.5)

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D\MJ_TO15.rslt\spectra.d
Injection Date: 21-Aug-2019 09:15:30
Spectrum: Tune Spec :Average 267-269(4.32-4.33) Bgrd 258(4.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	219	61.00	20424	92.00	12675	137.00	1048
31.00	10677	62.00	19944	93.00	18808	140.00	147
32.00	161	63.00	16285	94.00	48232	141.00	5882
33.00	2612	64.00	1567	95.00	377728	142.00	617
36.00	3432	65.00	1131	96.00	26488	143.00	5993
37.00	18848	66.00	101	97.00	779	144.00	223
38.00	16736	67.00	1378	103.00	349	145.00	790
39.00	7436	68.00	47776	104.00	2297	146.00	850
40.00	357	69.00	47856	105.00	872	147.00	352
42.00	239	70.00	3446	106.00	2480	148.00	1132
44.00	1736	72.00	2182	107.00	469	149.00	116
45.00	4065	73.00	17960	110.00	438	150.00	487
46.00	440	74.00	74312	111.00	488	153.00	361
47.00	3056	75.00	213120	112.00	501	154.00	221
48.00	2518	76.00	19008	113.00	491	155.00	1071
49.00	16896	77.00	2159	115.00	666	157.00	771
50.00	82832	78.00	995	116.00	1929	159.00	570
51.00	25096	79.00	17688	117.00	3766	161.00	660
52.00	1384	80.00	5209	118.00	1714	172.00	1667
53.00	407	81.00	18216	119.00	2466	173.00	770
54.00	246	82.00	4392	124.00	391	174.00	375808
55.00	1414	83.00	445	128.00	1733	175.00	27528
56.00	6701	86.00	341	129.00	869	176.00	364288
57.00	13140	87.00	10867	130.00	1649	177.00	23824
58.00	461	88.00	10681	131.00	623	178.00	717
60.00	3739	91.00	2039	135.00	1129		

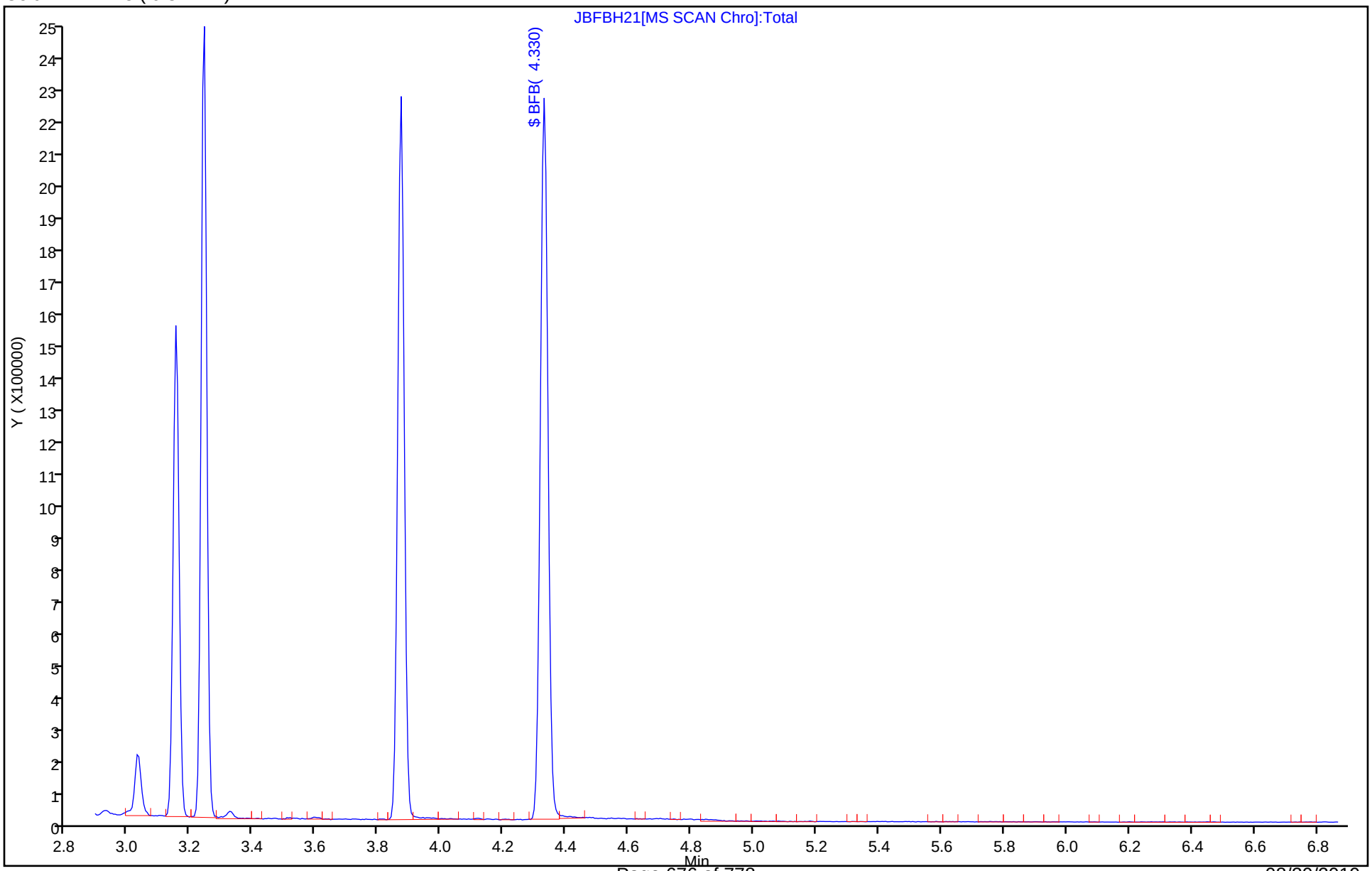
Report Date: 22-Aug-2019 11:06:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D

Injection Date:	21-Aug-2019 09:15:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	12-Aug-2019 13:04:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012700-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Aug-2019 10:42:21	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				
First Level Reviewer: tajh		Date:	13-Aug-2019 08:29:07		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.124	6.124	0.000	0	861667	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

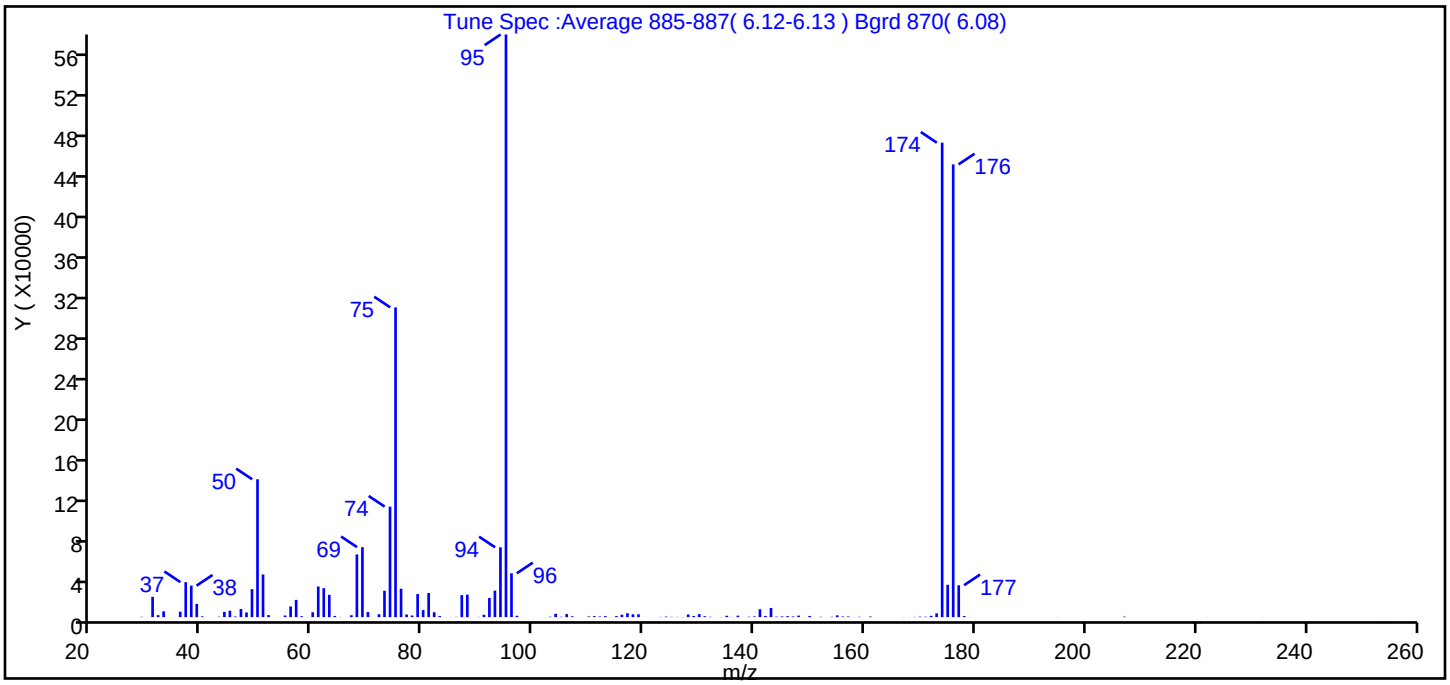
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Injection Date: 12-Aug-2019 13:04:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.7
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.7 (0.8)
174	50 to 120% of m/z 95	81.4
175	5 to 9% of m/z 174	5.6 (6.8)
176	Greater than 95% but less than 101% of m/z 174	77.7 (95.4)
177	5 to 9% of m/z 176	5.5 (7.0)

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	314	67.00	1865	107.00	807	146.00	967
31.00	19936	68.00	61744	110.00	659	147.00	651
32.00	1974	69.00	68888	111.00	971	148.00	1520
33.00	5717	70.00	5076	112.00	604	149.00	48
34.00	38	72.00	2904	113.00	1020	150.00	1173
35.00	51	73.00	25936	114.00	71	152.00	361
36.00	5387	74.00	108784	115.00	1038	153.00	41
37.00	34456	75.00	304896	116.00	2434	154.00	351
38.00	31016	76.00	28008	117.00	3832	155.00	1782
39.00	13052	77.00	2595	118.00	2790	156.00	605
40.00	759	78.00	1581	119.00	2773	157.00	617
43.00	402	79.00	22768	121.00	48	158.00	99
44.00	5203	80.00	6953	123.00	234	159.00	371
45.00	6314	81.00	23760	124.00	596	161.00	619
46.00	658	82.00	4804	125.00	296	166.00	41
47.00	8049	83.00	1058	126.00	229	167.00	131
48.00	4635	84.00	62	127.00	144	168.00	90
49.00	27576	85.00	111	128.00	2630	169.00	215
50.00	135680	86.00	272	129.00	1132	170.00	531
51.00	42000	87.00	21680	130.00	2976	171.00	447
52.00	2022	88.00	22152	131.00	916	172.00	1277
53.00	50	90.00	235	132.00	346	173.00	3743
55.00	1631	91.00	2363	133.00	34	174.00	467008
56.00	10495	92.00	18880	134.00	105	175.00	31856
57.00	16984	93.00	26120	135.00	1369	176.00	445632
58.00	880	94.00	68728	136.00	142	177.00	31408
59.00	109	95.00	573504	137.00	1446	178.00	1058
60.00	4824	96.00	43160	139.00	367	179.00	61
61.00	30200	97.00	1360	140.00	691	195.00	95
62.00	28504	102.00	113	141.00	7746	207.00	531
63.00	21960	103.00	453	142.00	1157	222.00	104
64.00	1194	104.00	3311	143.00	9053	232.00	73
65.00	210	105.00	379	144.00	487	254.00	76

Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	37	106.00	3012	145.00	701		

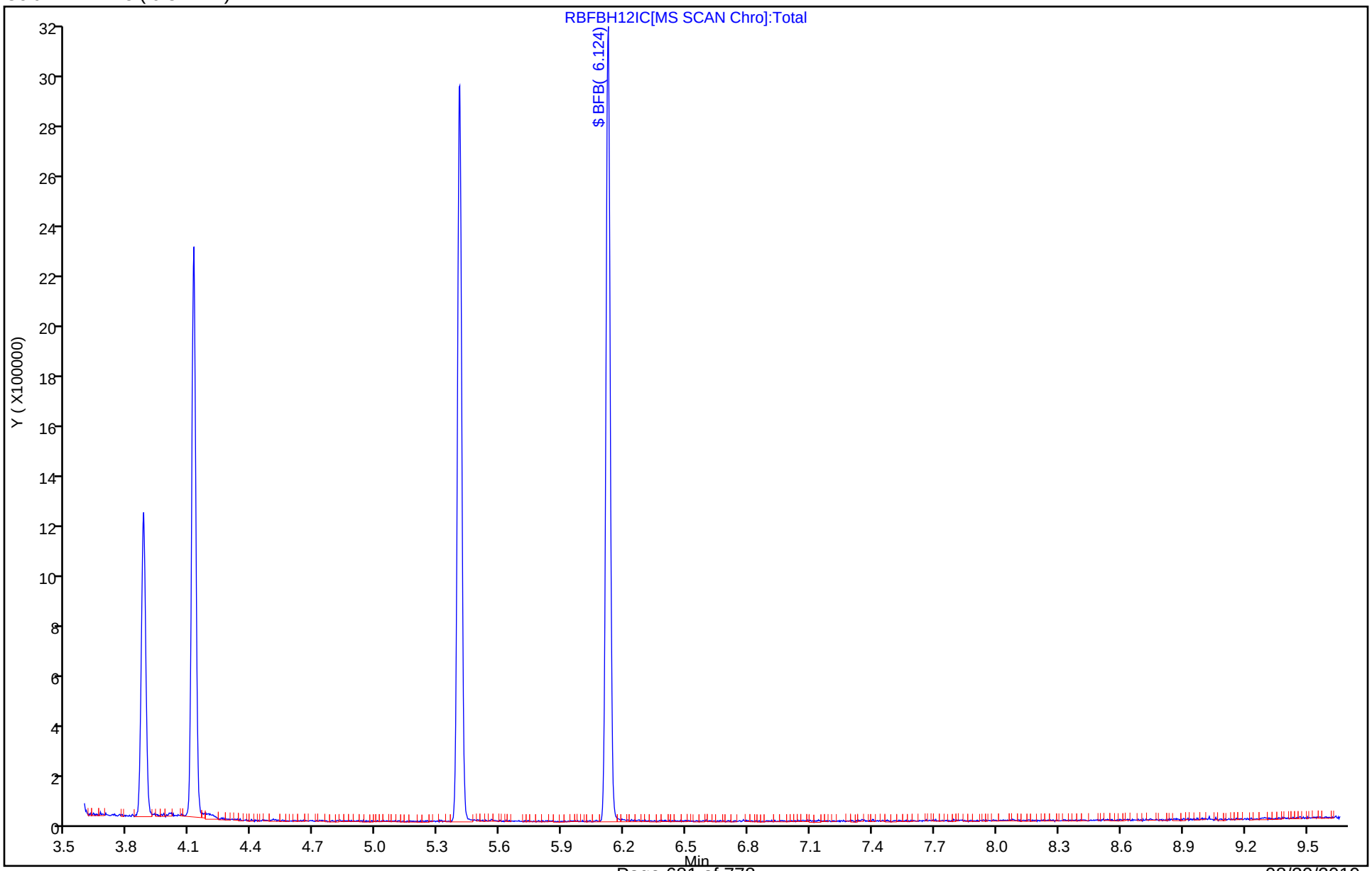
Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D

Injection Date:	12-Aug-2019 13:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Aug-2019 16:27:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-001
Misc. Info.: BFB
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:03:40 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:03:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.118	6.118	0.000	0	536850	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

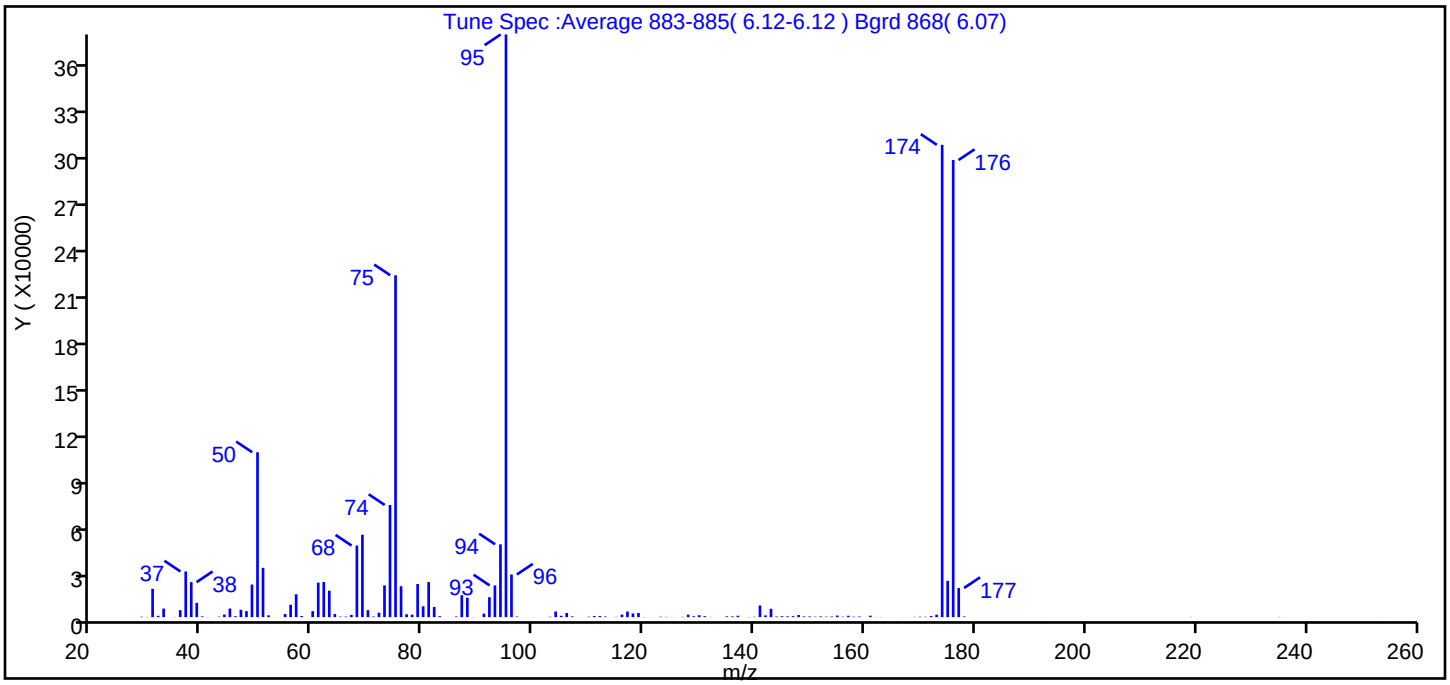
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D
Injection Date: 19-Aug-2019 16:27:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	28.3
75	30 to 60% of m/z 95	58.7
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	81.1
175	5 to 9% of m/z 174	6.2 (7.7)
176	Greater than 95% but less than 101% of m/z 174	78.5 (96.8)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D\MR_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 16:27:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 868(6.07)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	283	65.00	346	106.00	2703	148.00	1383
30.00	93	66.00	360	107.00	507	149.00	457
31.00	18280	67.00	1448	110.00	283	150.00	431
32.00	858	68.00	46152	111.00	710	151.00	298
33.00	5539	69.00	53144	112.00	720	152.00	465
35.00	108	70.00	4505	113.00	408	153.00	305
36.00	4497	71.00	387	115.00	195	154.00	383
37.00	29464	72.00	2860	116.00	1649	155.00	1014
38.00	22576	73.00	20480	117.00	3631	156.00	260
39.00	9215	74.00	72344	118.00	2368	157.00	916
40.00	492	75.00	220480	119.00	2730	158.00	305
41.00	93	76.00	19944	120.00	116	159.00	392
43.00	316	77.00	1856	122.00	49	161.00	930
44.00	1678	78.00	1595	123.00	269	162.00	50
45.00	5566	79.00	21392	124.00	190	163.00	93
46.00	611	80.00	6978	125.00	111	165.00	42
47.00	4750	81.00	22624	127.00	207	167.00	73
48.00	3859	82.00	6596	128.00	1617	169.00	171
49.00	21024	83.00	625	129.00	567	170.00	305
50.00	106344	86.00	429	130.00	1233	171.00	245
51.00	31784	87.00	14157	131.00	635	172.00	714
52.00	1170	88.00	12514	132.00	135	173.00	1589
53.00	56	89.00	90	135.00	499	174.00	304576
54.00	33	91.00	2271	136.00	474	175.00	23416
55.00	2032	92.00	12832	137.00	909	176.00	294784
56.00	8016	93.00	20472	139.00	145	177.00	18800
57.00	14749	94.00	46952	140.00	230	178.00	438
58.00	691	95.00	375744	141.00	7534	193.00	41
59.00	16	96.00	27496	142.00	1105	219.00	139
60.00	3848	97.00	376	143.00	5426	235.00	152
61.00	22240	100.00	55	144.00	396	236.00	48
62.00	22648	103.00	264	145.00	585	241.00	57
63.00	17064	104.00	3645	146.00	515	253.00	50

Report Date: 20-Aug-2019 13:03:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D\MR_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 16:27:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 868(6.07)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y
64.00	2003	105.00	873	147.00	630	255.00	42

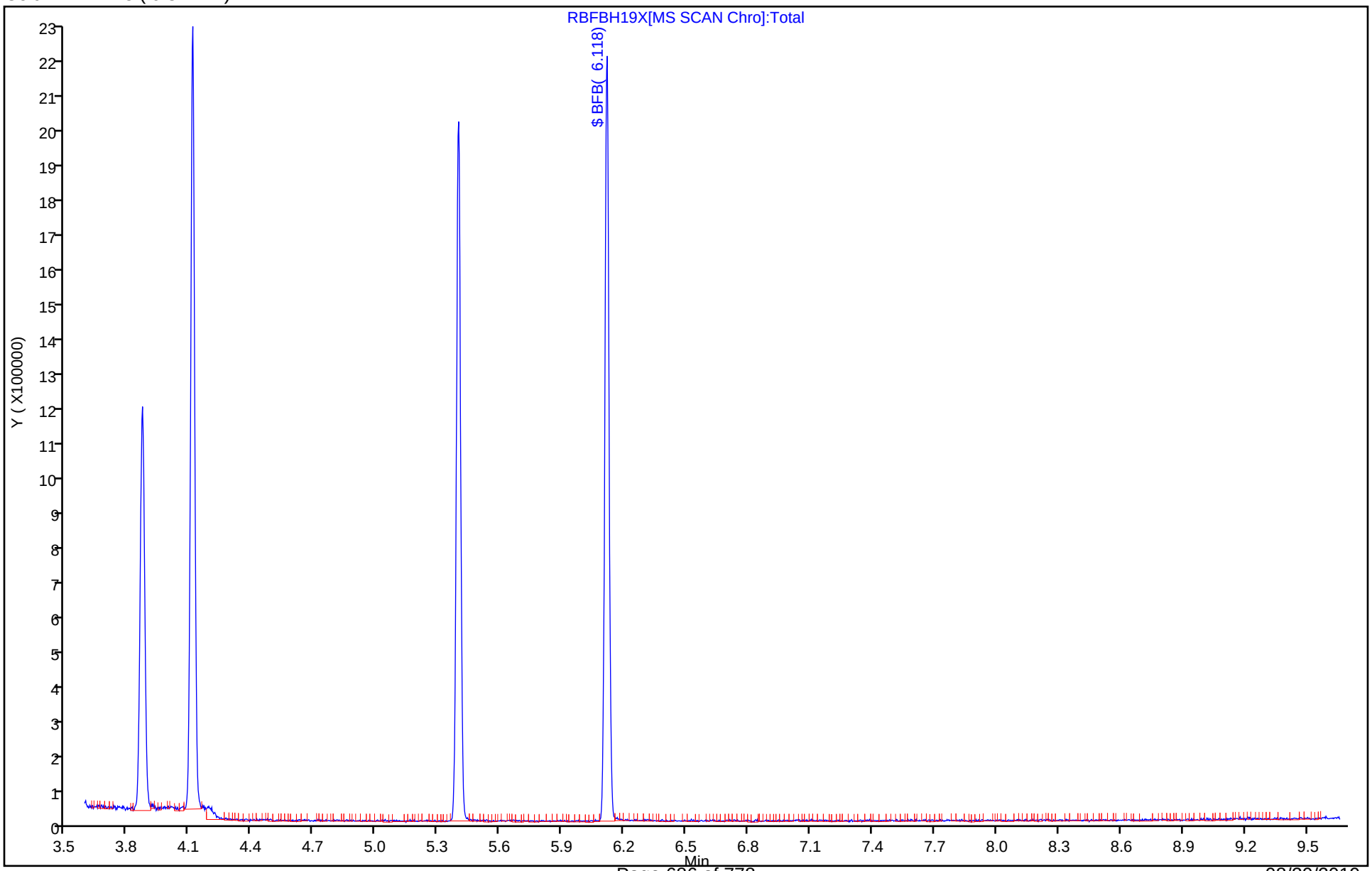
Report Date: 20-Aug-2019 13:03:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D

Injection Date:	19-Aug-2019 16:27:30	Instrument ID:	MR	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.215	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.745	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\G500BH19.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2019 13:28:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012745-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:13:23 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:14:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.135	0.005	86	631196	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3572704	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.988	0.001	88	3152905	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	89	2167900	4.00	3.96	
31 Methylene Chloride	84	6.536	6.536	0.000	93	37525		0.2145	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

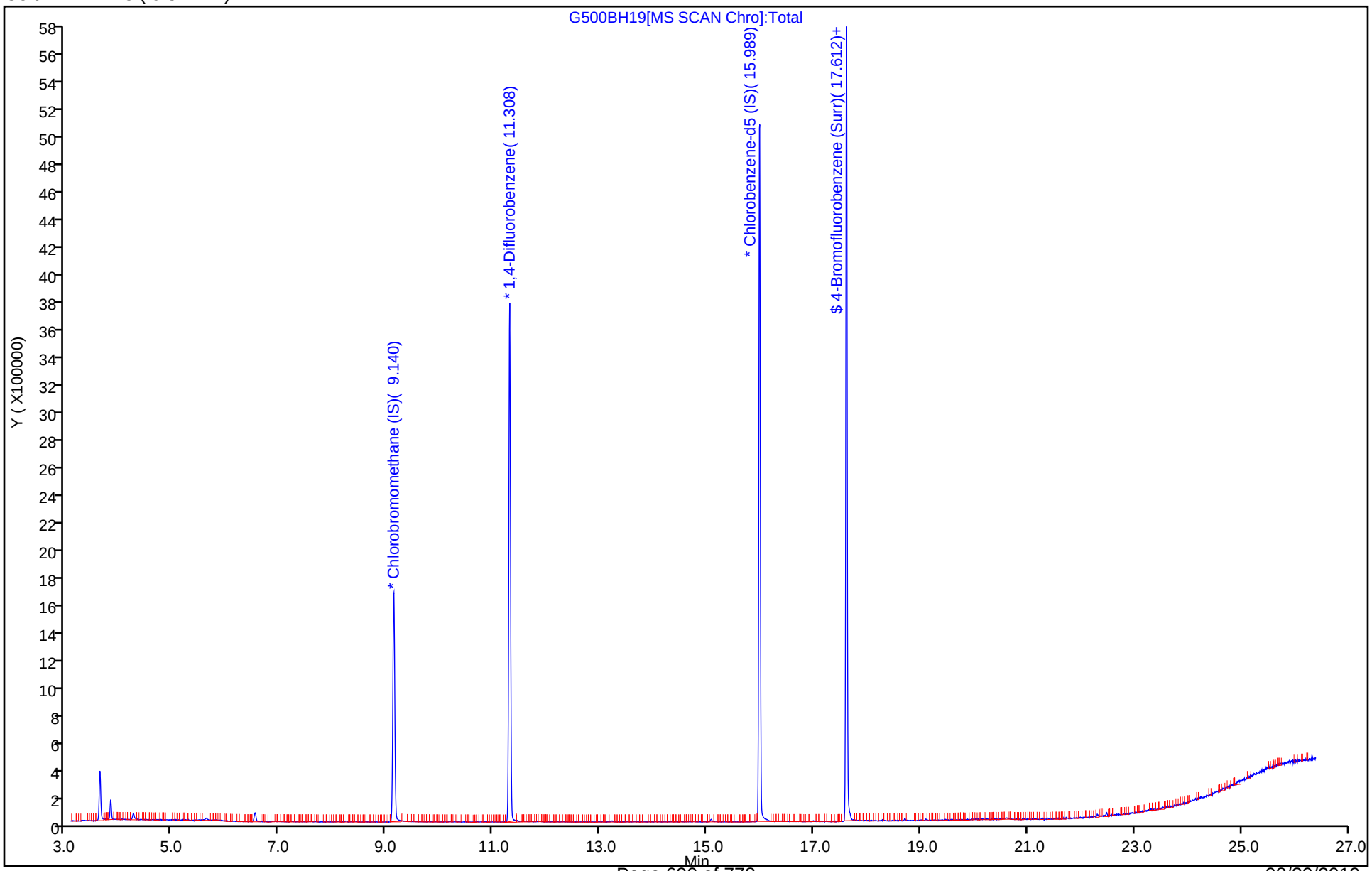
Report Date: 20-Aug-2019 10:14:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\G500BH19.D

Injection Date:	19-Aug-2019 13:28:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\G500BH19.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-Aug-2019 13:28:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012745-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:13:23	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:14:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.96	98.95

Report Date: 20-Aug-2019 10:14:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\G500BH19.D

Injection Date: 19-Aug-2019 13:28:30 Instrument ID: MG

Lims ID: mb

Client ID:

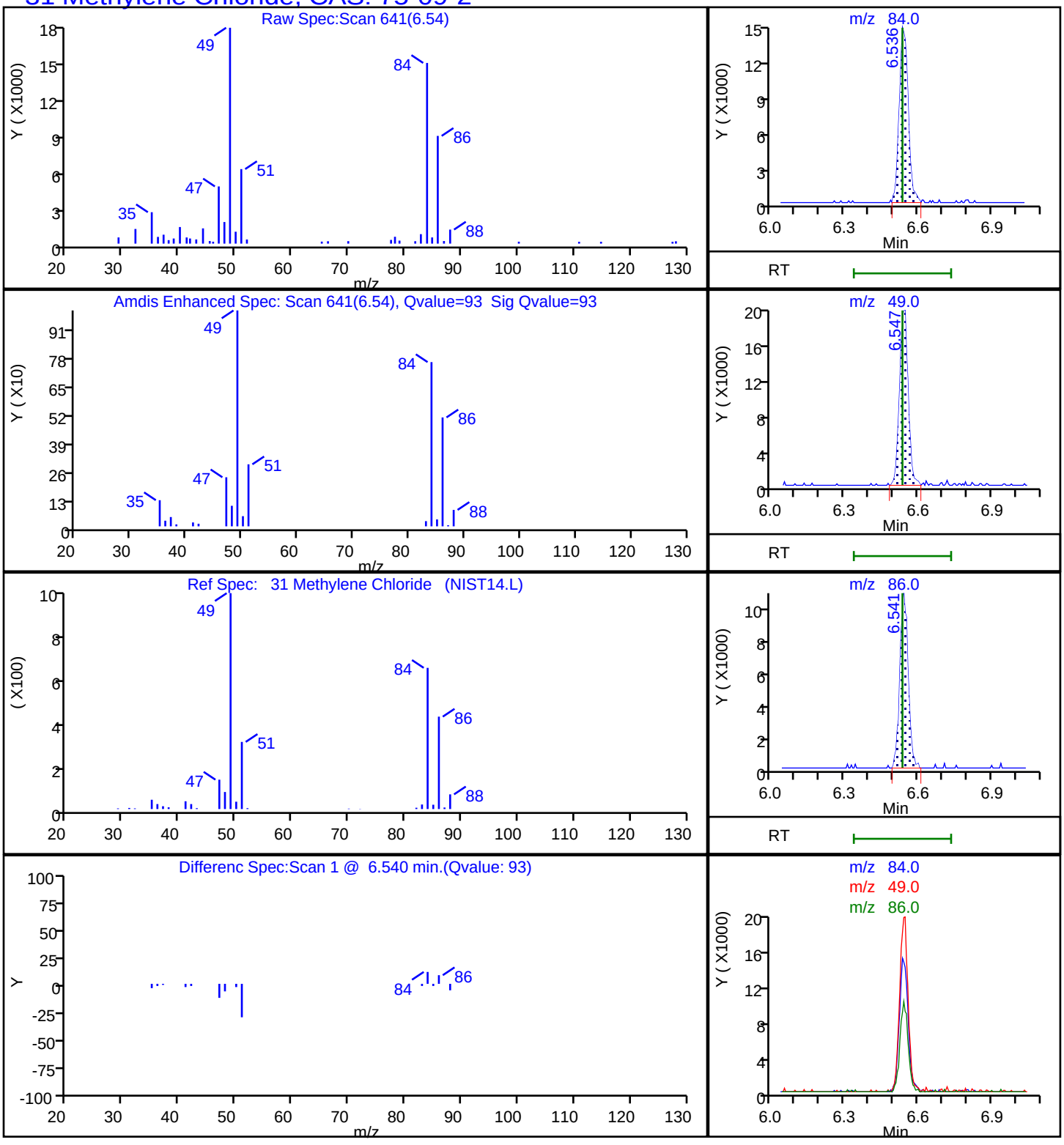
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2019 18:12:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:06:53 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:06:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	191497	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1120833	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1035798	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	92	645258	4.00	3.61	
7 Propene	41	3.443	3.432	0.011	98	26696		0.2941	7
31 Methylene Chloride	84	5.972	5.972	0.000	94	11105		0.1641	
47 1,1,1-Trichloroethane	97	9.579	9.585	-0.006	28	4489		0.0253	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

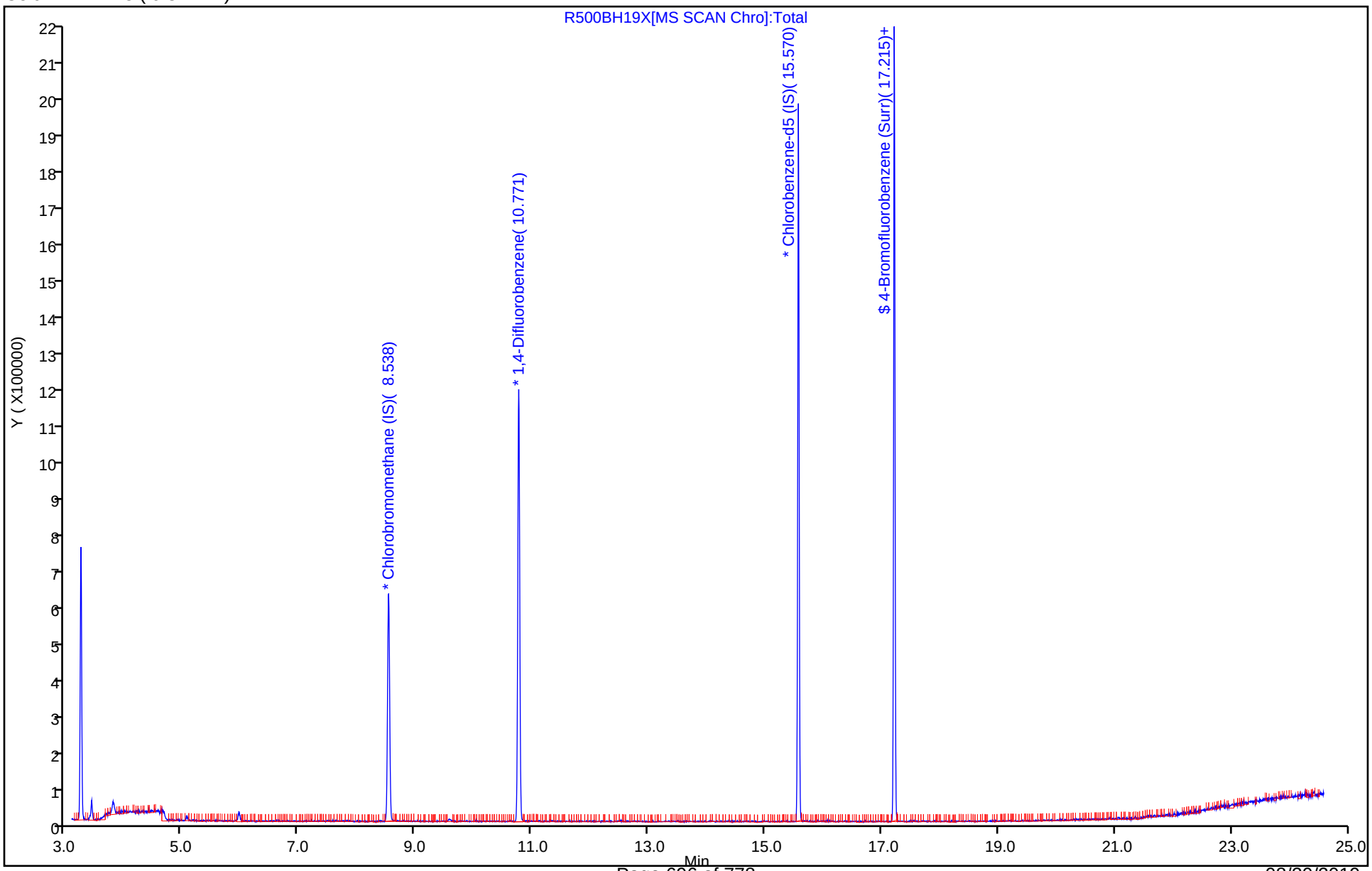
Report Date: 20-Aug-2019 13:06:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D

Injection Date:	19-Aug-2019 18:12:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

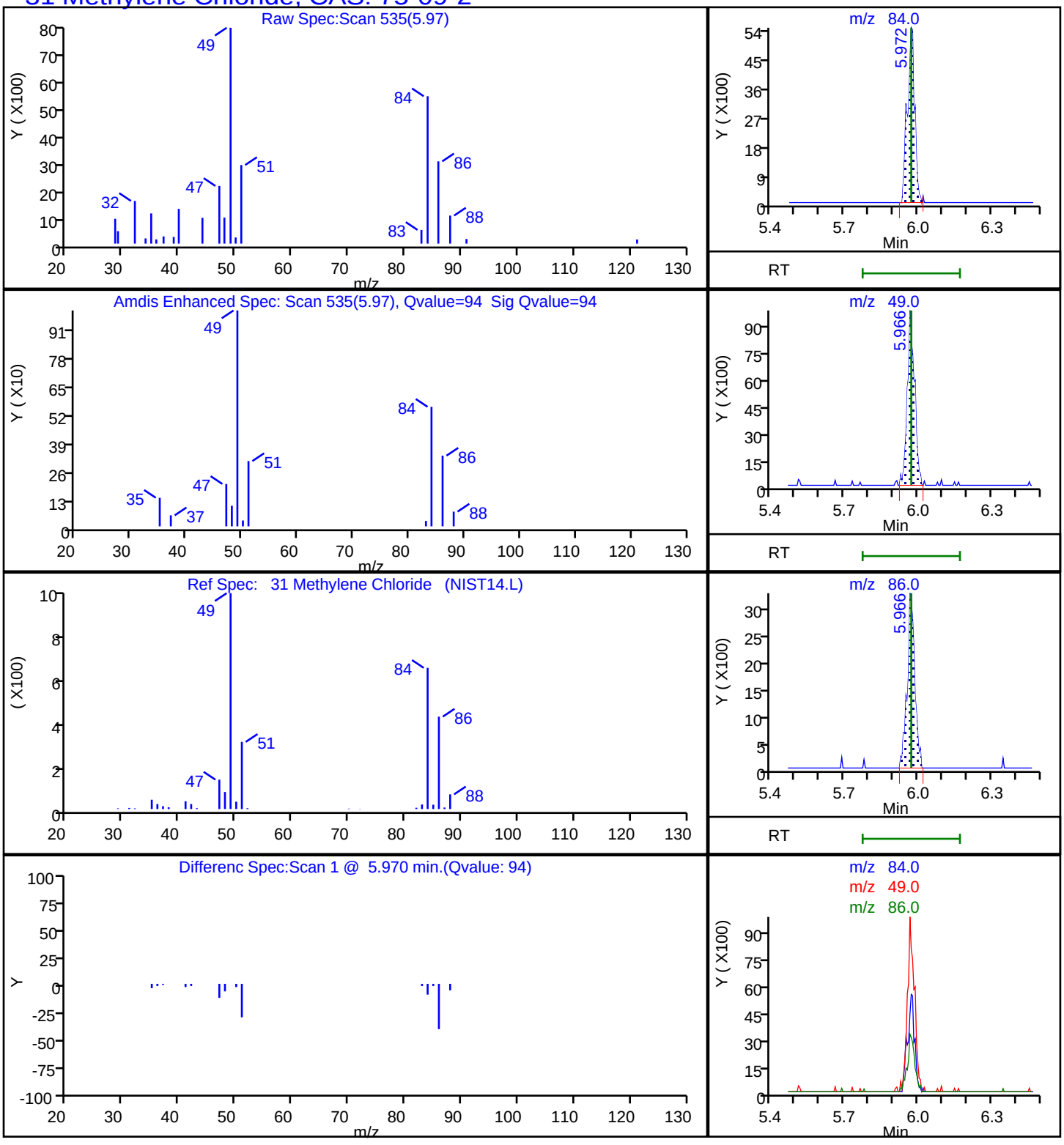
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-Aug-2019 18:12:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:06:53	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:06:53		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.61	90.33

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D
Injection Date: 19-Aug-2019 18:12:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Aug-2019 12:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 11:07:57		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.720	9.731	-0.011	93	253739	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.840	-0.006	95	1276524	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	88	1050767	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	95	635663	4.00	3.29	
20 Propene	41	4.163	4.174	-0.011	98	26573		0.5291	
44 Methylene Chloride	84	7.063	7.069	-0.006	97	16593		0.1738	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

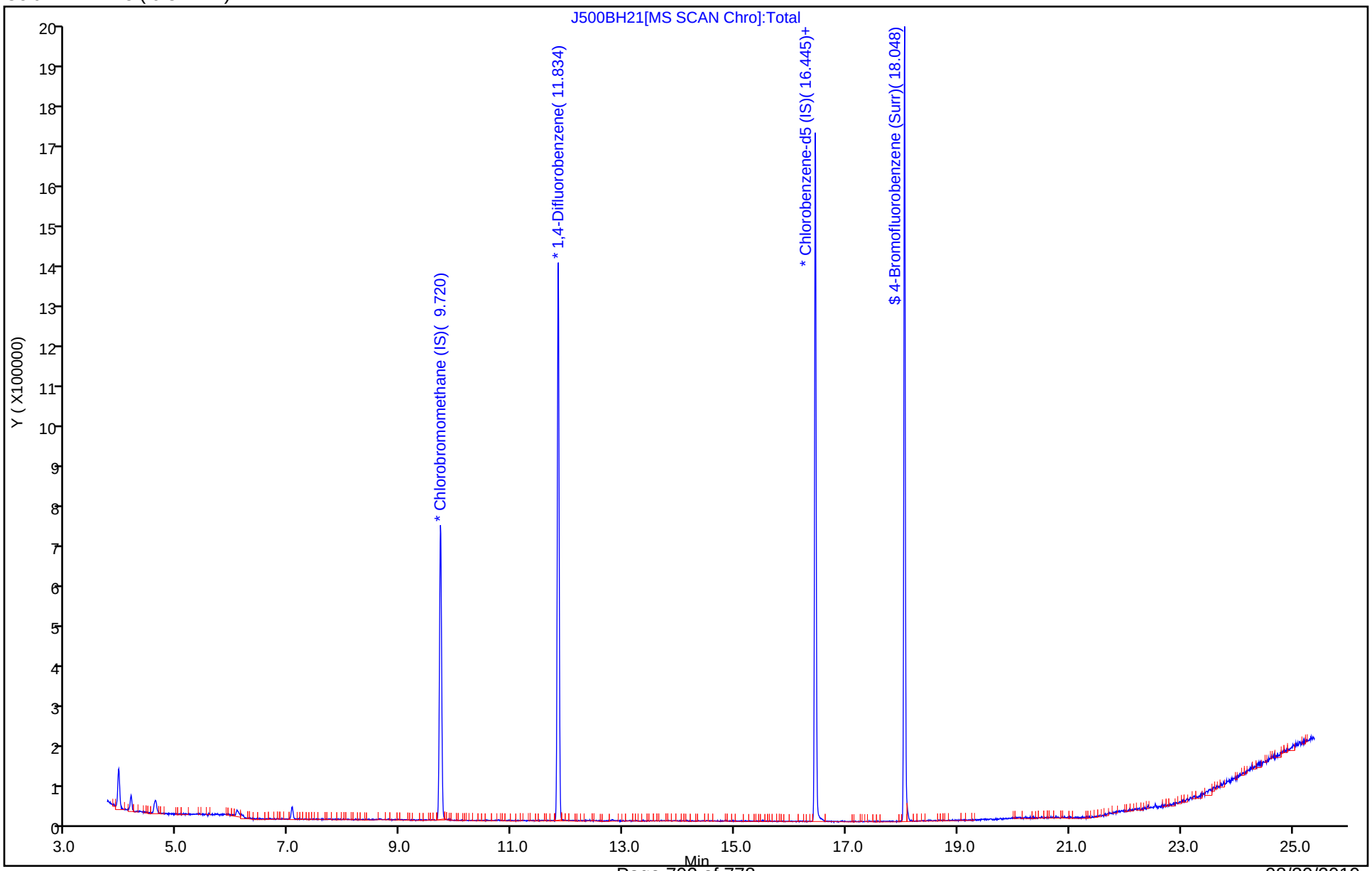
Report Date: 22-Aug-2019 11:07:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D

Injection Date:	21-Aug-2019 12:47:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Aug-2019 12:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.29	82.29

Report Date: 22-Aug-2019 11:07:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D

Injection Date: 21-Aug-2019 12:47:30 Instrument ID: MJ

Lims ID: mb

Client ID:

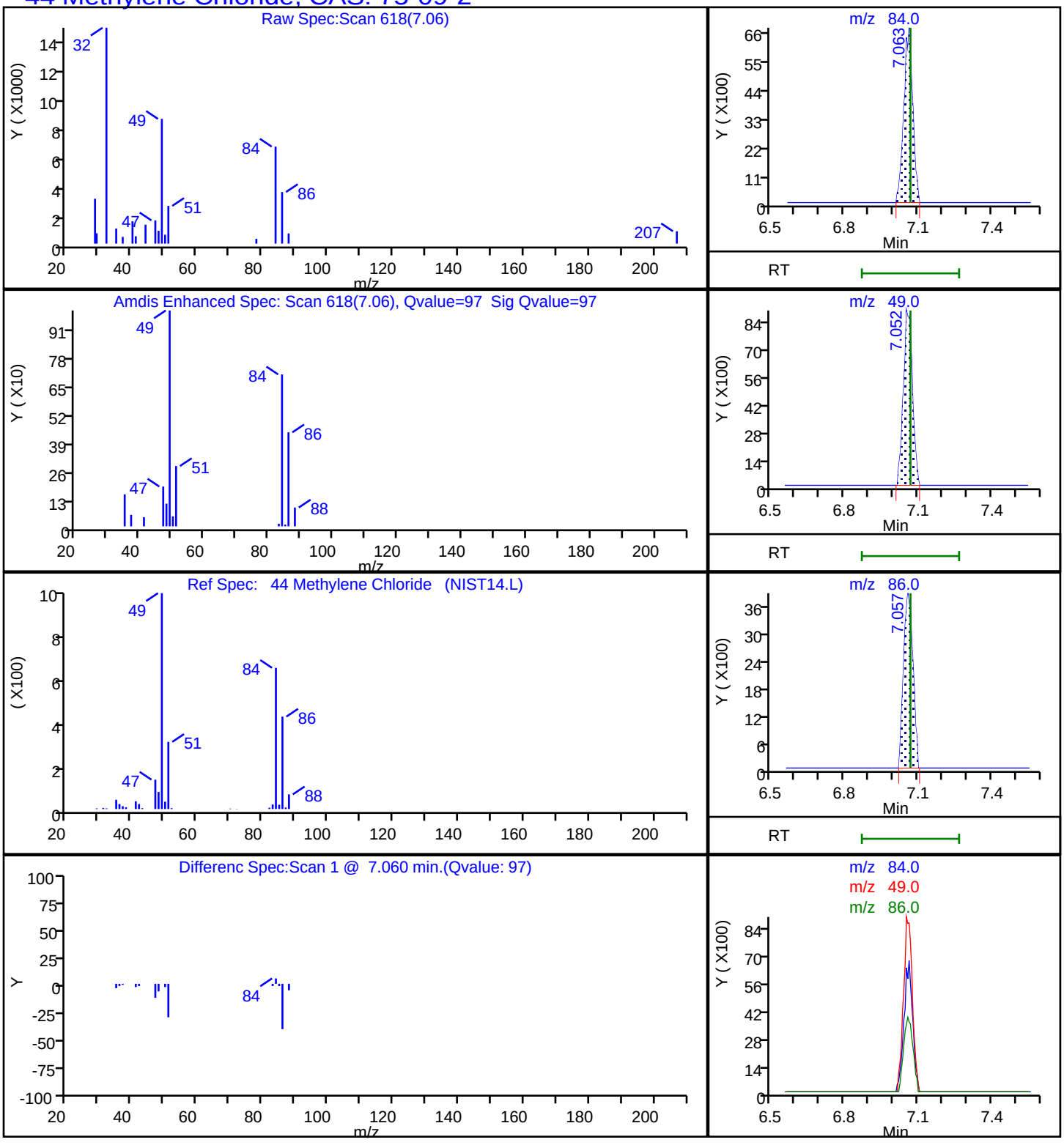
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32704/1002

Matrix: Air Lab File ID: GCCVH19A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.04		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.80		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.42		0.080	0.022
67-66-3	Chloroform	119.38	1.94		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.07		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.37		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	2.02		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.76		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.01		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.89		0.080	0.013
75-09-2	Methylene Chloride	84.93	2.05		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.75		0.40	0.052
91-20-3	Naphthalene	128.17	1.56		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.79		0.080	0.0070
108-88-3	Toluene	92.14	1.94		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.06		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.62		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.84		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.90		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.84		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.44		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.73		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.04		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.64		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.58		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GCCVH19A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2019 11:10:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012744-006
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 10:12:47 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:12:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.135	9.135	0.000	88	639553	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.308	11.308	0.000	95	3637374	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.988	15.988	0.000	88	3201568	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	91	2256059	4.00	4.06	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	786369	2.00	2.42	
7 Propene	41	3.834	3.834	0.000	98	433654	2.00	2.72	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1497186	2.00	2.37	
9 Chloromethane	52	4.082	4.082	0.000	98	119507	2.00	2.61	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	90	1002789	2.00	2.79	
11 Acetaldehyde	44	4.249	4.249	0.000	100	547074	10.0	10.8	
12 Vinyl chloride	62	4.260	4.260	0.000	98	440126	2.00	2.64	
13 Butane	43	4.352	4.352	0.000	84	592331	2.00	2.48	
14 Butadiene	54	4.352	4.352	0.000	69	311367	2.00	2.56	
15 Bromomethane	94	4.691	4.691	0.000	99	389015	2.00	2.56	
16 Chloroethane	64	4.842	4.842	0.000	97	189046	2.00	2.55	
17 Ethanol	31	4.950	4.950	0.000	97	413749	10.0	8.04	
18 Vinyl bromide	106	5.161	5.161	0.000	98	341527	2.00	2.56	
19 2-Methylbutane	43	5.214	5.214	0.000	88	324344	2.00	2.14	
20 Trichlorofluoromethane	101	5.436	5.436	0.000	100	938376	2.00	1.84	
21 Acrolein	56	5.457	5.457	0.000	96	46798	2.00	2.12	
22 Acetonitrile	40	5.527	5.527	0.000	99	58719	2.00	1.59	
23 Acetone	58	5.581	5.581	0.000	100	72272	2.00	1.67	
24 Pentane	72	5.673	5.673	0.000	97	42947	2.00	1.99	
25 Isopropyl alcohol	45	5.684	5.684	0.000	93	244673	2.00	1.98	
26 Ethyl ether	31	5.851	5.851	0.000	92	154061	2.00	1.69	
27 1,1-Dichloroethene	96	6.174	6.174	0.000	97	366655	2.00	2.01	
28 Acrylonitrile	53	6.288	6.288	0.000	93	176409	2.00	1.98	
30 2-Methyl-2-propanol	59	6.325	6.325	0.000	95	452416	2.00	1.65	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.358	0.000	98	793340	2.00	1.99	
31 Methylene Chloride	84	6.536	6.536	0.000	93	363986	2.00	2.05	
32 3-Chloro-1-propene	39	6.552	6.552	0.000	97	338118	2.00	1.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.708	0.000	99	1029777	2.00	2.10	
34 trans-1,2-Dichloroethene	96	7.366	7.366	0.000	98	375824	2.00	2.06	
35 2-Methylpentane	43	7.388	7.388	0.000	91	712223	2.00	1.89	
36 Methyl tert-butyl ether	73	7.506	7.506	0.000	96	859307	2.00	1.75	
37 1,1-Dichloroethane	63	7.797	7.797	0.000	100	706211	2.00	2.02	
38 Vinyl acetate	43	7.905	7.905	0.000	100	663997	2.00	1.97	
39 2-Butanone (MEK)	72	8.364	8.364	0.000	97	125348	2.00	1.81	
40 Hexane	56	8.380	8.380	0.000	91	303460	2.00	2.08	
41 Isopropyl ether	45	8.547	8.547	0.000	95	884683	2.00	1.90	
42 cis-1,2-Dichloroethene	96	8.800	8.800	0.000	94	387727	2.00	2.07	
43 Ethyl acetate	43	8.984	8.984	0.000	99	525019	2.00	1.75	
44 Chloroform	83	9.151	9.151	0.000	96	841738	2.00	1.94	
45 Tert-butyl ethyl ether	59	9.237	9.237	0.000	94	899469	2.00	1.71	
46 Tetrahydrofuran	42	9.566	9.566	0.000	88	276715	2.00	1.79	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	88	957777	2.00	1.84	
48 1,2-Dichloroethane	62	10.294	10.294	0.000	99	587939	2.00	1.76	
51 n-Butanol	31	10.774	10.774	0.000	67	76500	2.00	1.68	
49 Cyclohexane	69	10.779	10.779	0.000	76	196446	2.00	1.95	
50 Benzene	78	10.779	10.779	0.000	96	1107887	2.00	2.04	
52 Carbon tetrachloride	117	10.801	10.801	0.000	97	996723	2.00	1.80	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	89	261664	2.00	1.89	
54 Thiophene	84	11.049	11.049	0.000	94	633595	2.00	1.97	
55 Isooctane	57	11.524	11.524	0.000	98	1812647	2.00	1.90	
56 n-Heptane	71	11.890	11.890	0.000	88	404842	2.00	1.91	
57 1,2-Dichloropropane	63	11.977	11.977	0.000	85	370520	2.00	1.93	
58 Trichloroethene	130	12.014	12.014	0.000	98	558484	2.00	1.84	
59 Dibromomethane	93	12.101	12.101	0.000	96	440580	2.00	1.93	
60 Dichlorobromomethane	83	12.241	12.241	0.000	99	879592	2.00	1.92	
61 1,4-Dioxane	88	12.268	12.268	0.000	88	118795	2.00	1.50	
62 Methyl methacrylate	41	12.327	12.327	0.000	95	350121	2.00	1.71	
63 Methylcyclohexane	83	12.769	12.769	0.000	95	877335	2.00	2.29	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.179	0.000	96	457291	2.00	1.55	
65 cis-1,3-Dichloropropene	75	13.222	13.222	0.000	94	647520	2.00	2.02	
66 trans-1,3-Dichloropropene	75	13.907	13.907	0.000	98	587956	2.00	1.99	
67 Toluene	91	14.036	14.036	0.000	94	1221775	2.00	1.94	
68 1,1,2-Trichloroethane	83	14.107	14.107	0.000	99	351094	2.00	1.90	
69 2-Hexanone	58	14.489	14.489	0.000	95	225159	2.00	1.47	
70 n-Octane	85	14.705	14.705	0.000	89	470015	2.00	2.05	
71 Chlorodibromomethane	129	14.808	14.808	0.000	97	877412	2.00	1.96	
72 Ethylene Dibromide	107	15.093	15.093	0.000	98	681533	2.00	1.99	
73 Tetrachloroethene	129	15.163	15.163	0.000	96	521373	2.00	1.79	
75 Chlorobenzene	112	16.032	16.032	0.000	92	1045490	2.00	1.99	
74 2,3-Dimethylheptane	43	16.037	16.037	0.000	90	1039544	2.00	1.72	
78 Ethylbenzene	91	16.317	16.317	0.000	98	1574048	2.00	1.89	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	2467499	4.00	3.78	
80 n-Nonane	57	16.878	16.878	0.000	86	810712	2.00	2.03	
81 Bromoform	173	16.927	16.927	0.000	94	803232	2.00	1.98	
82 Styrene	104	16.938	16.938	0.000	98	877375	2.00	2.06	
83 o-Xylene	91	16.997	16.997	0.000	98	1274939	2.00	1.80	
84 1,1,2,2-Tetrachloroethane	83	17.315	17.315	0.000	100	771531	2.00	1.87	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	97	273525	2.00	1.71	
86 Isopropylbenzene	105	17.579	17.579	0.000	96	1739148	2.00	1.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.102	18.102	0.000	99	483255	2.00	1.79	
88 2-Chlorotoluene	126	18.151	18.151	0.000	97	487996	2.00	1.88	
89 4-Ethyltoluene	105	18.248	18.248	0.000	98	1619224	2.00	1.72	
90 1,3,5-Trimethylbenzene	120	18.318	18.318	0.000	93	805292	2.00	2.04	
92 Alpha Methyl Styrene	118	18.544	18.544	0.000	89	696665	2.00	1.90	
93 n-Decane	57	18.593	18.593	0.000	93	950886	2.00	1.86	
94 tert-Butylbenzene	119	18.739	18.739	0.000	91	1566440	2.00	1.75	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	96	1452826	2.00	1.73	
96 sec-Butylbenzene	105	18.997	18.997	0.000	98	2092232	2.00	1.78	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	98	1088855	2.00	1.84	
98 Benzyl chloride	91	19.089	19.089	0.000	98	1270620	2.00	1.95	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	94	1092228	2.00	1.83	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1775816	2.00	1.70	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	99	1118224	2.00	1.44	
102 Butylcyclohexane	83	19.262	19.262	0.000	95	1208349	2.00	1.83	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1333988	2.00	1.74	
104 1,2-Dichlorobenzene	146	19.456	19.456	0.000	85	1021054	2.00	1.83	
105 n-Butylbenzene	91	19.580	19.580	0.000	98	1638461	2.00	1.75	
106 Indene	116	19.585	19.585	0.000	94	1020311	2.00	1.60	
107 Undecane	57	19.876	19.876	0.000	94	948018	2.00	2.29	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	99	414369	2.00	1.46	
109 1,2,4,5-Tetramethylbenzene	119	20.329	20.329	0.000	97	1510807	2.00	1.53	
110 Dodecane	57	20.928	20.928	0.000	97	636640	2.00	1.95	
111 1,2,4-Trichlorobenzene	180	21.144	21.144	0.000	94	801963	2.00	1.62	
112 Naphthalene	128	21.278	21.278	0.000	99	1589328	2.00	1.56	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	751536	2.00	1.56	
114 1,2,3-Trichlorobenzene	180	21.559	21.559	0.000	95	660099	2.00	1.44	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	100	745939	2.00	2.08	
116 1-Methylnaphthalene	142	22.481	22.481	0.000	100	709837	2.00	2.08	
A 122 C8 Range	1	14.710	(14.647-14.754)		0	3816312	2.00	2.01	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.13	
S 124 Xylenes, Total	100				0		6.00	5.59	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

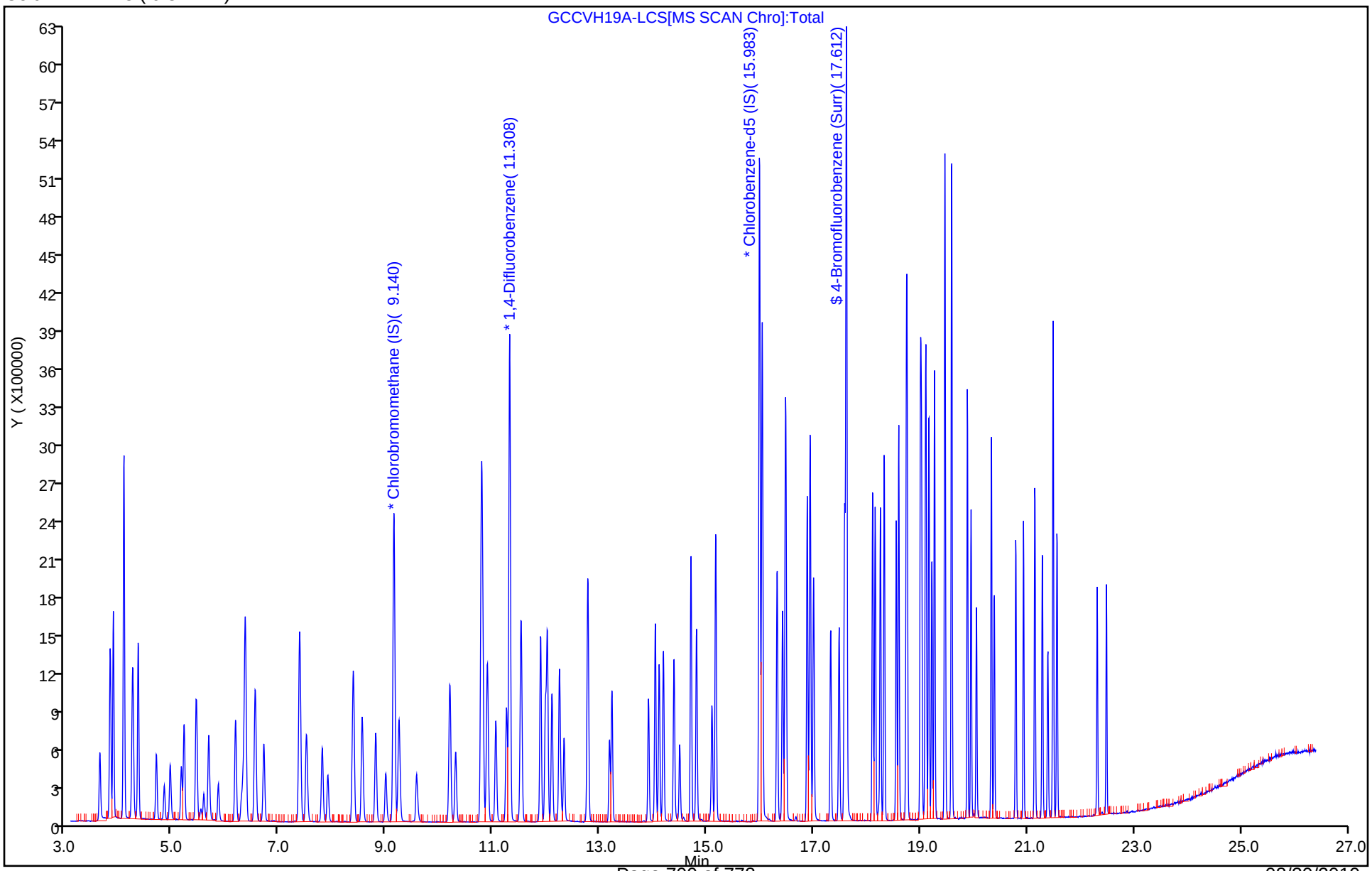
Report Date: 20-Aug-2019 10:12:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190815-12745.b\GCCVH19A-LCS.d

Injection Date:	19-Aug-2019 11:10:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\GCCVH19A-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-Aug-2019 11:10:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012744-006				
Misc. Info.:	S97				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190815-12745.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 10:12:47	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 10:12:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.06	101.40

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32744/1002

Matrix: Air Lab File ID: RCCVH19X-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.893		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.969		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.930		0.080	0.022
67-66-3	Chloroform	119.38	0.986		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.918		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.16		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.985		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.04		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.804		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.939		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.886		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.998		0.40	0.052
91-20-3	Naphthalene	128.17	0.929		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.842		0.080	0.0070
108-88-3	Toluene	92.14	0.896		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.976		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.891		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.927		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.916		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.867		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.974		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.947		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.953		0.080	0.022
75-01-4	Vinyl chloride	62.50	0.986		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.79		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2019 16:53:30 ALS Bottle#: 16 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-002
Misc. Info.: P93
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:05:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:05:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	95	191498	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1094127	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.576	0.000	89	966925	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	93	710498	4.00	4.26	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	98	152133	1.00	0.9298	
7 Propene	41	3.432	3.432	0.000	97	101351	1.00	1.12	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	172283	1.00	1.16	
9 Chloromethane	52	3.664	3.664	0.000	62	29319	1.00	1.32	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	137303	1.00	1.83	
11 Acetaldehyde	44	3.810	3.810	0.000	96	165514	5.00	6.37	
12 Vinyl chloride	62	3.826	3.826	0.000	98	69518	1.00	0.9863	
14 Butane	43	3.907	3.907	0.000	83	124546	1.00	1.15	
13 Butadiene	54	3.907	3.907	0.000	71	66076	1.00	1.29	
15 Bromomethane	94	4.219	4.219	0.000	95	58999	1.00	0.9878	
16 Chloroethane	64	4.354	4.354	0.000	83	28026	1.00	0.9716	
17 Ethanol	31	4.451	4.451	0.000	98	178877	5.00	6.88	
18 Vinyl bromide	106	4.645	4.645	0.000	95	50428	1.00	1.01	
19 2-Methylbutane	43	4.688	4.688	0.000	90	93584	1.00	1.16	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	98	160403	1.00	0.8720	
20 Acrolein	56	4.915	4.915	0.000	66	17588	1.00	0.7722	
24 Acetonitrile	40	4.996	4.996	0.000	98	27955	1.00	0.8244	
22 Acetone	58	5.039	5.039	0.000	99	76215	3.00	2.40	
25 Pentane	72	5.125	5.125	0.000	69	9285	1.00	0.7631	
23 Isopropyl alcohol	45	5.125	5.125	0.000	82	287661	3.00	2.67	
26 Ethyl ether	31	5.303	5.303	0.000	87	84015	1.00	0.8444	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	52974	1.00	0.8044	
28 Acrylonitrile	53	5.729	5.729	0.000	57	46299	1.00	0.9317	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	120639	1.00	0.9087	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	121554	1.00	0.8882	
31 Methylene Chloride	84	5.972	5.972	0.000	92	59965	1.00	0.8859	
32 3-Chloro-1-propene	39	5.977	5.977	0.000	95	79904	1.00	1.06	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.123	6.123	0.000	98	154560	1.00	0.8922	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	96	67571	1.00	0.9761	
35 2-Methylpentane	43	6.792	6.792	0.000	95	180816	1.00	0.9844	
36 Methyl tert-butyl ether	73	6.926	6.926	0.000	96	186177	1.00	1.00	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	129290	1.00	0.9848	
38 Vinyl acetate	43	7.315	7.315	0.000	100	223073	1.00	0.9736	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	89	32176	1.00	0.9156	
40 Hexane	56	7.784	7.784	0.000	69	56463	1.00	0.9390	
41 Isopropyl ether	45	7.956	7.956	0.000	96	280420	1.00	0.9832	
42 cis-1,2-Dichloroethene	96	8.210	8.210	0.000	96	71987	1.00	0.9182	
43 Ethyl acetate	43	8.404	8.404	0.000	97	200418	1.00	0.9873	
44 Chloroform	83	8.549	8.549	0.000	47	158827	1.00	0.9860	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	230354	1.00	0.9705	
46 Tetrahydrofuran	42	8.965	8.965	0.000	92	96568	1.00	0.9526	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	97	164126	1.00	0.9266	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	108970	1.00	1.04	
50 n-Butanol	31	10.173	10.173	0.000	90	37663	1.00	0.9000	
51 Cyclohexane	69	10.194	10.194	0.000	77	29174	1.00	0.8385	
49 Benzene	78	10.205	10.205	0.000	96	197830	1.00	0.8928	
52 Carbon tetrachloride	117	10.226	10.226	0.000	95	171667	1.00	0.9690	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	90	45435	1.00	0.9102	
54 Thiophene	84	10.480	10.480	0.000	94	106922	1.00	0.9520	
55 Isooctane	57	10.992	10.992	0.000	96	331670	1.00	0.8960	
57 n-Heptane	71	11.386	11.386	0.000	95	66301	1.00	0.8576	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	77627	1.00	0.9091	
58 Trichloroethene	130	11.504	11.504	0.000	94	84527	1.00	0.8674	
59 Dibromomethane	93	11.591	11.591	0.000	95	82168	1.00	0.9089	
60 Dichlorobromomethane	83	11.742	11.742	0.000	97	147130	1.00	0.8971	
61 1,4-Dioxane	88	11.763	11.763	0.000	93	31050	1.00	0.9116	
62 Methyl methacrylate	41	11.839	11.839	0.000	88	111353	1.00	0.9160	
63 Methylcyclohexane	83	12.281	12.281	0.000	87	110259	1.00	0.8652	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	96	199181	1.00	0.9180	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	116234	1.00	0.9079	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	94	110968	1.00	0.9227	
67 Toluene	91	13.591	13.591	0.000	93	222768	1.00	0.8955	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	70612	1.00	0.9156	
69 2-Hexanone	58	14.060	14.060	0.000	88	81904	1.00	0.8896	
71 n-Octane	85	14.292	14.292	0.000	97	69323	1.00	0.8505	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	144991	1.00	0.8476	
72 Ethylene Dibromide	107	14.670	14.670	0.000	93	136333	1.00	0.9216	
73 Tetrachloroethene	129	14.745	14.745	0.000	94	85526	1.00	0.8418	
74 Chlorobenzene	112	15.619	15.619	0.000	88	185357	1.00	0.8959	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	300449	1.00	0.9708	
76 Ethylbenzene	91	15.910	15.910	0.000	99	327609	1.00	0.9388	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	504828	2.00	1.84	
81 n-Nonane	57	16.492	16.492	0.000	93	165424	1.00	0.9211	
78 Bromoform	173	16.525	16.525	0.000	93	143600	1.00	0.9370	
79 Styrene	104	16.541	16.541	0.000	97	174490	1.00	0.9246	
80 o-Xylene	91	16.595	16.595	0.000	98	273158	1.00	0.9494	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	97	194566	1.00	0.9600	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	93	59611	1.00	0.9280	
84 Isopropylbenzene	105	17.183	17.183	0.000	96	394740	1.00	0.9245	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.743	0.000	99	106513	1.00	0.9812	
86 2-Chlorotoluene	126	17.792	17.792	0.000	98	98316	1.00	0.9507	
88 4-Ethyltoluene	105	17.900	17.900	0.000	98	404426	1.00	0.9504	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	154611	1.00	0.9530	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	87	149030	1.00	0.9582	
90 n-Decane	57	18.277	18.277	0.000	86	231600	1.00	0.9370	
91 tert-Butylbenzene	119	18.423	18.423	0.000	92	352897	1.00	0.9304	
92 1,2,4-Trimethylbenzene	105	18.434	18.434	0.000	96	356104	1.00	0.9474	
94 sec-Butylbenzene	105	18.703	18.703	0.000	98	524326	1.00	0.9715	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	97	236890	1.00	0.9256	
96 Benzyl chloride	91	18.795	18.795	0.000	97	276569	1.00	0.9421	
95 1,4-Dichlorobenzene	146	18.806	18.806	0.000	95	239199	1.00	0.9470	
97 4-Isopropyltoluene	119	18.865	18.865	0.000	96	417892	1.00	0.9584	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	99	360091	1.00	0.9737	
99 Butylcyclohexane	83	18.978	18.978	0.000	89	271079	1.00	0.9799	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	93	331349	1.00	0.9868	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	82	238770	1.00	0.9570	
102 Indene	116	19.313	19.313	0.000	91	286976	1.00	0.9469	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	455268	1.00	1.01	
104 Undecane	57	19.636	19.636	0.000	92	296174	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	105867	1.00	0.8652	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	97	410842	1.00	0.9820	
107 Dodecane	57	20.715	20.715	0.000	90	292307	1.00	1.03	
108 1,2,4-Trichlorobenzene	180	20.920	20.920	0.000	92	212551	1.00	0.8906	
109 Naphthalene	128	21.060	21.060	0.000	99	457877	1.00	0.9295	
110 Hexachlorobutadiene	225	21.281	21.281	0.000	94	226558	1.00	0.9561	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	217020	1.00	0.9883	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	95	144599	1.00	1.02	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	147137	1.00	1.08	
A 115 C8 Range	1	14.292	(14.244-14.330)		0	814397	1.00	0.9487	
S 116 Xylenes, Total	100				0		3.00	2.79	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.89	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

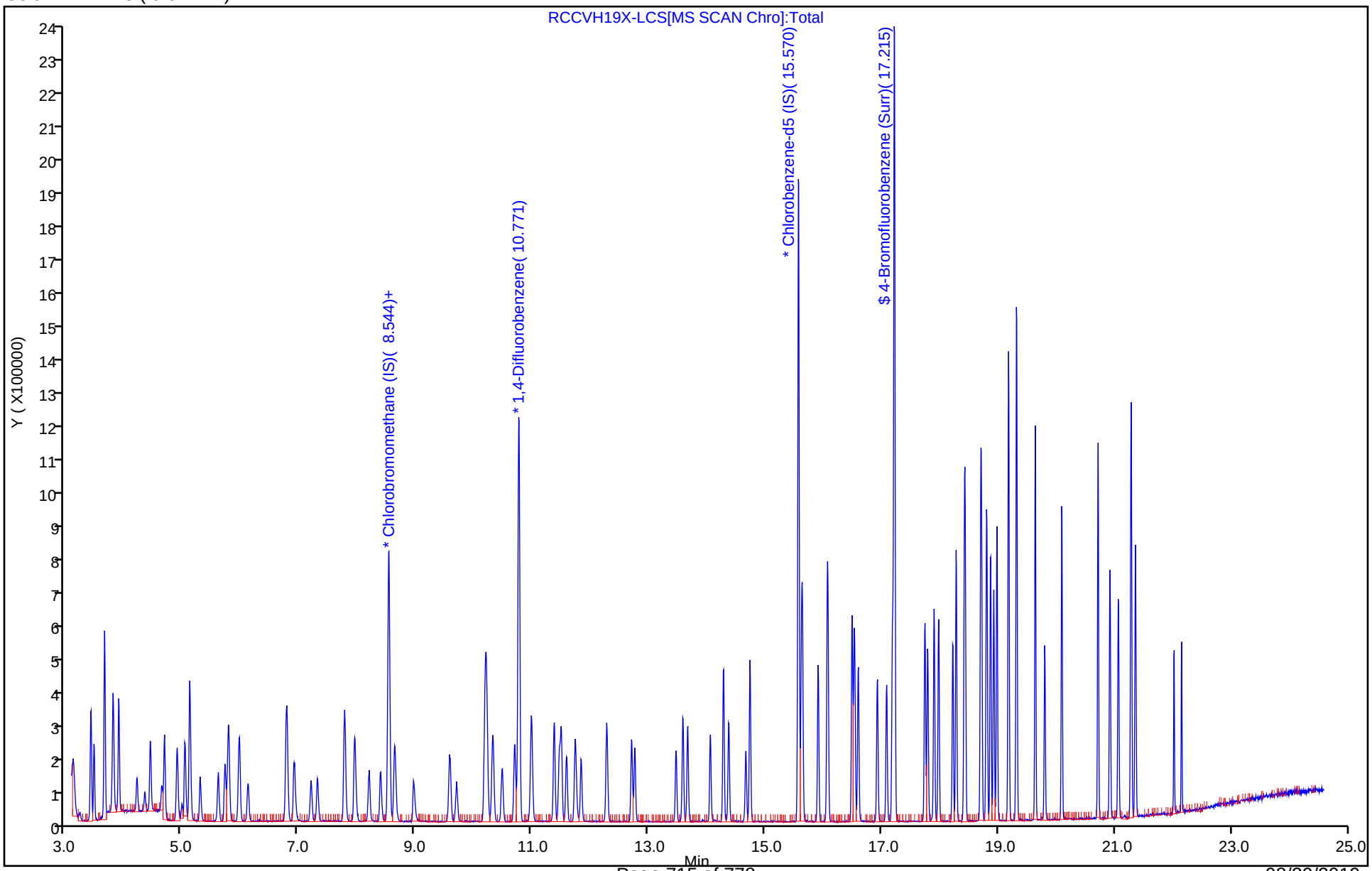
Report Date: 20-Aug-2019 13:05:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d

Injection Date:	19-Aug-2019 16:53:30	Instrument ID:	MR	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-Aug-2019 16:53:30	ALS Bottle#:	16	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-002				
Misc. Info.:	P93				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:05:55	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:05:55		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.26	106.55

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

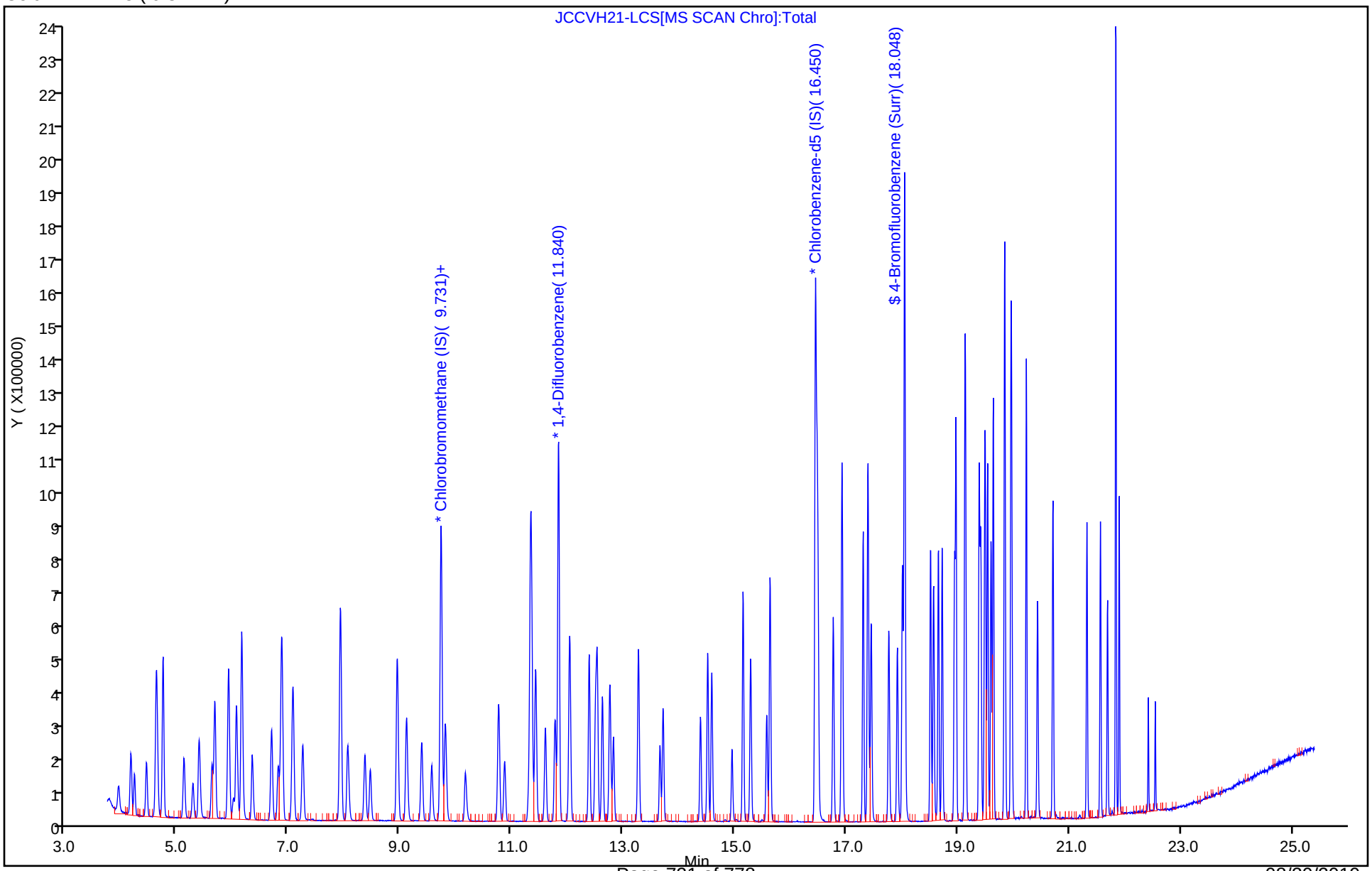
Report Date: 22-Aug-2019 11:07:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Aug-2019 09:44:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-002				
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.66	91.46

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

190719.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	21.5	7/19/2019	7:07:02 PM
BLK	16 - 201 mL	21.2	7/19/2019	7:36:56 PM
IC09	12 - 201 mL	9.5	7/19/2019	8:27:42 PM
BLK	14 - 201 mL	21.2	7/19/2019	9:18:14 PM
IC10	15 - 200 mL	29.4	7/19/2019	10:08:35 PM
BLK	16 - 201 mL	21	7/19/2019	10:59:16 PM
BLK	16 - 200 mL	19.6	7/19/2019	11:49:51 PM
IC01	1 - 51 mL	29.1	7/20/2019	12:39:37 AM
IC02	1 - 101 mL	28.6	7/20/2019	1:29:09 AM
IC03	1 - 201 mL	27.7	7/20/2019	2:19:01 AM
IC04	2 - 201 mL	23.5	7/20/2019	3:08:19 AM
IC05	3 - 202 mL	26.1	7/20/2019	3:58:27 AM
IC06	4 - 201 mL	29.8	7/20/2019	4:47:59 AM
IC07	5 - 101 mL	24.9	7/20/2019	5:37:55 AM
IC08	5 - 201 mL	23.3	7/20/2019	6:27:23 AM
BLK	6 - 201 mL	20.4	7/20/2019	7:17:39 AM
ICV	7 - 101 mL	25.2	7/20/2019	8:08:17 AM
LCS	8 - 101 mL	32.7	7/20/2019	8:59:34 AM
BLK	16 - 501 mL	19.9	7/20/2019	9:55:04 AM
MB	16 - 501 mL	19.4	7/20/2019	10:51:09 AM
ICV	10 - 101 mL	17.6	7/20/2019	12:28:34 PM

MJ ICAL WL 12415

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	7/28/19	Instrument:	HJ	Chrom WL #:	12415	TALS Batch & Event #	TO14/15: 31858 / 2054	DOD5: 31861 / 2057
							DOD: 31859 / 2055	OHIO: 31860 / 2056

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA	In ICV	NA
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	NA	→	→		NA		→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA	→	→		NA		→
19. Is the intercept less than the RL for each curve? [F6]	NA	→	→		NA		→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA	→	na		NA	→	na
21. Is low point RSE ≤ 50 %? Meets 50 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: [signature] 7/28/19

2nd Level Reviewer/Date: AVS 7/24/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL		✓			na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	NA	→	→		✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na				

Analyst/date: AS 7/24/19

Comments: UR 8, # 19, 20, 104, 1+2 methylnapl. Meets

2nd Level Reviewer/date: 07/24/19

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MG Start Date: 08/05/2019 14:36

Analysis Batch Number: 32317 End Date: 08/06/2019 03:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32317/1		08/05/2019 14:36	1	GBFBH05IC.D	RTX-5 0.32(mm)
IC 140-32317/2		08/05/2019 15:09	1	GH05ICLVL9.D	RTX-5 0.32(mm)
IC 140-32317/4		08/05/2019 16:33	1	GH05ICLVL10.D	RTX-5 0.32(mm)
IC 140-32317/7		08/05/2019 18:41	1	GH05ICLVL01.D	RTX-5 0.32(mm)
IC 140-32317/8		08/05/2019 19:23	1	GH05ICLVL02.D	RTX-5 0.32(mm)
140-15871-A-5 MDLV		08/05/2019 19:23	1		RTX-5 0.32(mm)
IC 140-32317/9		08/05/2019 20:05	1	GH05ICLVL03.D	RTX-5 0.32(mm)
140-15871-A-6 MDLV		08/05/2019 20:05	1		RTX-5 0.32(mm)
IC 140-32317/10		08/05/2019 20:47	1	GH05ICLVL04.D	RTX-5 0.32(mm)
140-15871-A-7 MDLV		08/05/2019 20:47	1		RTX-5 0.32(mm)
IC 140-32317/11		08/05/2019 21:30	1	GH05ICLVL05.D	RTX-5 0.32(mm)
140-15871-A-8 MDLV		08/05/2019 21:30	1		RTX-5 0.32(mm)
IC 140-32317/12		08/05/2019 22:16	1	GH05ICLVL06.D	RTX-5 0.32(mm)
ICIS 140-32317/13		08/05/2019 22:58	1	GH05ICLVL07.D	RTX-5 0.32(mm)
IC 140-32317/14		08/05/2019 23:41	1	GH05ICLVL8.D	RTX-5 0.32(mm)
ICV 140-32317/17		08/06/2019 01:46	1	GH05LCS.D	RTX-5 0.32(mm)
ZZZZZ		08/06/2019 03:17	1		RTX-5 0.32(mm)

190805.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	19.4	8/5/2019	2:36:00 PM
LVL9	6 - 201 mL	32	8/5/2019	3:09:17 PM
BLK	16 - 101 mL	19.3	8/5/2019	3:51:18 PM
LVL10	7 - 201 mL	28.7	8/5/2019	4:33:52 PM
BLK	16 - 101 mL	18.7	8/5/2019	5:15:59 PM
BLK	16 - 101 mL	18.4	8/5/2019	5:58:39 PM
LVL01	1 - 51 mL	33.2	8/5/2019	6:41:08 PM
LVL02	1 - 101 mL	33	8/5/2019	7:23:13 PM
LVL03	1 - 201 mL	32.9	8/5/2019	8:05:19 PM
LVL04	2 - 80 mL	31.9	8/5/2019	8:47:48 PM
LVL05	2 - 200 mL	30.9	8/5/2019	9:30:55 PM
LVL06	3 - 200 mL	32.9	8/5/2019	10:16:08 PM
LVL07	4 - 200 mL	32.5	8/5/2019	10:58:44 PM
LVL08	5 - 200 mL	33.2	8/5/2019	11:41:12 PM
BLK	16 - 101 mL	18.6	8/6/2019	12:23:05 AM
ICV	14 - 100 mL	32.7	8/6/2019	1:05:01 AM
LCS	15 - 100 mL	32.4	8/6/2019	1:46:49 AM
BLK	16 - 501 mL	18.3	8/6/2019	2:32:16 AM
BLK	16 - 501 mL	18.2	8/6/2019	3:17:47 AM

MG WL ICAL 12602

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/5/19	Instrument:	MG	Chrom WL #:	12602	TALS Batch & Event #	TO14/15: 2077 / 32317	DOD5: 2078 / 32365
							DOD: 2080 / 32367	OHIO: 2079 / 32366

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	IN ICV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% 123 TMBz 31% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓	123TMBz Quad fit low. fit OH + MIBK.	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	na	✓		✓	ns	ns
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	na	✓		✓	ns	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	na	✓	and MIBK	✓	ns	ns
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	na	na		✓	ns	na
21. Is low point RSE ≤ 50 %? MeCl2 0.4 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓
Analyst/Date: 8/6/19	linear MIBK, 123TMBz,			2nd Level Reviewer/Date: 8/8/19			

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ne				ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/6/19 – 8/8/19	2nd Level Reviewer/date: 8/8/19
Comments: MeCl2 @ 0.4 RL	Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/12/19	Instrument:	MR	Chrom WL #:	12700	TALS Batch & Event #	TO14/15: 2089 / 32571	DOD5: 2090 / 32572
							DOD: 2092 / 32574	OHIO: 2091 / 32573

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	pts removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		na
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	in ICV	na
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	na	→	→		na	→	→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	na	→	→		na	→	→
19. Is the intercept less than the RL for each curve? [F6]	na	→	→		na	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	na	→	na		na	na	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? #10 ↑ICV must be ND [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 8/13/19 **2nd Level Reviewer/Date:** 08/14/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	na	→			na	→	→
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/15/19	2nd Level Reviewer/date: 08/15/19
Comments: 12 Dichloro-1,1,22- tetra fluoroethane must be ND- ↑ in ICV.	Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MG Start Date: 08/19/2019 10:37

Analysis Batch Number: 32704 End Date: 08/20/2019 08:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32704/1		08/19/2019 10:37	1	GBFBH19A.D	RTX-5 0.32(mm)
CCVIS 140-32704/2		08/19/2019 11:10	1	GCCVH19A.D	RTX-5 0.32(mm)
LCS 140-32704/1002		08/19/2019 11:10	1	GCCVH19A-LCS.d	RTX-5 0.32(mm)
MB 140-32704/4		08/19/2019 13:28	1	G500BH19.D	RTX-5 0.32(mm)
140-16367-1		08/19/2019 14:11	1	GH19P101.D	RTX-5 0.32(mm)
140-16367-2		08/19/2019 14:56	1	GH19P102.D	RTX-5 0.32(mm)
140-16367-3		08/19/2019 15:41	2.04	GH19P103.D	RTX-5 0.32(mm)
140-16367-6		08/19/2019 17:49	1	GH19P106.D	RTX-5 0.32(mm)
140-16367-7		08/19/2019 18:32	1	GH19P107.D	RTX-5 0.32(mm)
140-16367-9		08/19/2019 19:58	1	GH19P109.D	RTX-5 0.32(mm)
140-16367-10		08/19/2019 20:41	1	GH19P110.D	RTX-5 0.32(mm)
140-16367-11		08/19/2019 21:24	1	GH19P111.D	RTX-5 0.32(mm)
140-16367-12		08/19/2019 22:07	1	GH19P112.D	RTX-5 0.32(mm)
140-16367-13		08/19/2019 22:50	1	GH19P113.D	RTX-5 0.32(mm)
140-16367-14		08/19/2019 23:32	1	GH19P114.D	RTX-5 0.32(mm)
140-16367-15		08/20/2019 00:15	1	GH19P115.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 00:57	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 02:32	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 08:44	1		RTX-5 0.32(mm)

190819.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
CCV	1 - 100 mL	26.5	8/19/2019	9:34:39 AM
BFB	16 - 101 mL	22.9	8/19/2019	10:37:07 AM
CCV	1 - 101 mL	26.3	8/19/2019	11:10:25 AM
DNU	16 - 20 mL	23.5	8/19/2019	12:51:12 PM
BLK	16 - 501 mL	22.8	8/19/2019	1:28:40 PM
16367-01	1 - 100 mL	4.4	8/19/2019	2:11:23 PM
16367-02	2 - 101 mL	7.3	8/19/2019	2:56:17 PM
16367-03	3 - 206 mL	9.4	8/19/2019	3:41:37 PM
16367-04	4 - 101 mL	6.2	8/19/2019	4:24:49 PM
16367-05	5 - 100 mL	5.6	8/19/2019	5:07:14 PM
16367-06	6 - 101 mL	6.8	8/19/2019	5:49:30 PM
16367-07	7 - 100 mL	2.4	8/19/2019	6:32:53 PM
16367-08	8 - 101 mL	5.2	8/19/2019	7:15:05 PM
16367-09	9 - 101 mL	5.9	8/19/2019	7:58:26 PM
16367-10	10 - 101 mL	6.3	8/19/2019	8:41:02 PM
16367-11	11 - 101 mL	6.8	8/19/2019	9:24:46 PM
16367-12	12 - 101 mL	1.1	8/19/2019	10:07:05 PM
16367-13	13 - 100 mL	5	8/19/2019	10:50:02 PM
16367-14	14 - 100 mL	4.2	8/19/2019	11:32:20 PM
16367-15	15 - 101 mL	1.1	8/20/2019	12:15:09 AM
16367-15	15 - 101 mL	1.1	8/20/2019	12:57:24 AM
BLK	16 - 500 mL	20.7	8/20/2019	1:44:50 AM
LOT	1 - 501 mL	21.8	8/20/2019	2:32:12 AM
BLK	16 - 501 mL	18.5	8/20/2019	8:44:01 AM

MG WL 12745

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MG 8/19/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12745	CCAL Batch #	32704		
ICAL Chrom WL #	12602	ICAL Batch # / Event #	32317 / 2077	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Vinyl chloride	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,4,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date Sopharra Kh. 8/20/2019		**2nd Level Reviewer/date** 08/21/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	☐ ICAL – Range Exceeded; Minimum Dilution	NA
Chrom Review	**1st**	**If No, why is data reportable?**	**2nd**
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	☐ [Failed TO-14A, but passes TO-15] (NCM#)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19248) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	☐ Air Analysis - Air Sample Transfer to Canister (NCM#)	✓
25. Sample analyses done within analytical holding time?	✓	☐ Holding Time – Received w/Insufficient Time (NCM#) ☐ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	☑ Marginal Exceedances - Within ME Limits and Random; Report (NCM# 19249) ☐ LCS/LCSD - %R High (NCM#)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	<5X RL	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32704/4 **200 mL blank ID:** =	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Analyst: Suphawan Kh.	Date: 8/20/2019	2nd Level Reviewer :	Date: 08/22/19
Comments:		**Comments:**	

Example Calculation: 140-10367-3 Toluene

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

0.268658 x 900 x 2.04 = 1.34

704

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MR Start Date: 08/19/2019 16:27

Analysis Batch Number: 32744 End Date: 08/20/2019 06:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32744/1		08/19/2019 16:27	1	RBFBH19X.D	RTX-5 0.32(mm)
CCVIS 140-32744/2		08/19/2019 16:53	1	RCCVH19X.D	RTX-5 0.32(mm)
LCS 140-32744/1002		08/19/2019 16:53	1	RCCVH19X-LCS.d	RTX-5 0.32(mm)
MB 140-32744/4		08/19/2019 18:12	1	R500BH19X.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:56	1		RTX-5 0.32(mm)
140-16367-16		08/19/2019 20:44	1	RH19P104.D	RTX-5 0.32(mm)
140-16367-17		08/19/2019 21:31	1	RH19P105.D	RTX-5 0.32(mm)
140-16367-18		08/19/2019 22:19	1	RH19P106.D	RTX-5 0.32(mm)
140-16367-19		08/19/2019 23:07	1	RH19P107.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:56	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 00:45	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 01:33	1.64		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 02:20	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 03:09	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 03:56	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 04:45	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 05:34	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 06:23	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/19/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12759	CCAL Batch #	32744		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	32571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		✓
6. Has the RT been updated to the method?	✓		✓
Analyst/date Supharom Kh. 8/20/2019		**2nd Level Reviewer/date**	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ Mscr	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	☐ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason 140-16767-16 / NT	N	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☑ (2) Reporting Limit – Dilution, Non-Target (NCM# 19255) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		✓
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) □ LCS/LCSD - %R High (NCM#)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-92344/4 **200 mL blank ID:**	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Analyst: Suphawan Ph. **Date:** 8/20/2019	**2nd Level Reviewer :** ✓ **Date:** 08/21/19
Comments:	**Comments:**
1st Level Use 20 8/20/19 SA	
Example Calculation: 140-16367-16 Toluene	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
$0.126633 \times \frac{500}{10} \times 1.0 = 6.33$	

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 15:29	1		RTX-5 0.32(mm)
140-16367-4		08/21/2019 17:09	1	JH21P103.D	RTX-5 0.32(mm)
140-16367-8		08/21/2019 17:59	1	JH21P104.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 20:28	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 21:18	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:07	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:56	1		RTX-5 0.32(mm)
140-16367-5		08/22/2019 00:34	1	JH21P110.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 01:23	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:13	3.72		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 03:02	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 05:31	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

190821.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	20.9	8/21/2019	9:15:15 AM
CCV	5 - 100 mL	28.5	8/21/2019	9:44:27 AM
LCSD	5 - 100 mL	28.3	8/21/2019	10:53:05 AM
DNU	16 - 101 mL	21	8/21/2019	12:16:56 PM
MB	16 - 500 mL	20.4	8/21/2019	12:47:42 PM
DNU	STD- 50 mL	11	8/21/2019	2:59:43 PM
16369-23	1 - 100 mL	3.5	8/21/2019	3:29:21 PM
16369-24	2 - 101 mL	3.7	8/21/2019	4:19:09 PM
16367-04	3 - 101 mL	3.5	8/21/2019	5:09:48 PM
16367-08	4 - 100 mL	3.3	8/21/2019	5:59:06 PM
DRY	STD- 200 mL	10.6	8/21/2019	6:48:23 PM
16377-02	5 - 101 mL	5.6	8/21/2019	7:38:25 PM
16377-03	6 - 11 mL	9.5	8/21/2019	8:28:31 PM
16377-05	7 - 11 mL	9.5	8/21/2019	9:18:33 PM
16377-12	8 - 30 mL	6.8	8/21/2019	10:07:46 PM
16377-13	9 - 31 mL	3.6	8/21/2019	10:56:26 PM
DRY	STD- 200 mL	10.2	8/21/2019	11:44:49 PM
16367-05	10 - 100 mL	3.4	8/22/2019	12:34:33 AM
16377-04	11 - 101 mL	3.8	8/22/2019	1:23:36 AM
16377-06	12 - 102 mL	8	8/22/2019	2:12:58 AM
16377-07	13 - 100 mL	3.5	8/22/2019	3:02:22 AM
DRY	STD- 200 mL	9.7	8/22/2019	3:51:49 AM
16377-08	14 - 101 mL	5	8/22/2019	4:41:34 AM
16377-08	14 - 100 mL	3.5	8/22/2019	5:31:12 AM
16363-01	15 - 11 mL	11	8/22/2019	6:20:59 AM
16388-03	16 - 21 mL	8.8	8/22/2019	7:10:54 AM

MJ WL 12793

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/21/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12793	CCAL Batch #	32829		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Sophonna H 8/23/2019		**2nd Level Reviewer/date** 08/23/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32829/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		MS
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?		Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphaporn Kh. **Date:** 8/23/2019	**2nd Level Reviewer:** ✓ **Date:** 08/26/19
Comments:	**Comments:**
Example Calculation: 140-16377-5 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
8.844193 x 500 / 11 x 1.0 = 402.01	

MS017r46, 2/22/2019

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32704 Batch Start Date: 08/19/19 10:37 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00097	40MXISSURP 00004
BFB 140-32704/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32704/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32704/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-1	IA-018-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-2	IA-DUP3-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-3	IA-138-A-27	TO 15 LL	T	204 mL	500 mL	1	1		40 mL
140-16367-A-6	IA-081-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-7	IA-079-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-9	IA-118-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-10	IA-015-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-11	IA-117-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-12	IA-078-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-13	IA-136-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-14	IA-076-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-15	IA-168-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32704/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003
BFB 140-32704/1		TO 15 LL		40 mL
CCVIS 140-32704/2		TO 15 LL		
MB 140-32704/4		TO 15 LL		
140-16367-A-1	IA-018-A-27	TO 15 LL	T	
140-16367-A-2	IA-DUP3-A-27	TO 15 LL	T	
140-16367-A-3	IA-138-A-27	TO 15 LL	T	
140-16367-A-6	IA-081-A-27	TO 15 LL	T	
140-16367-A-7	IA-079-A-27	TO 15 LL	T	
140-16367-A-9	IA-118-A-27	TO 15 LL	T	
140-16367-A-10	IA-015-A-27	TO 15 LL	T	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32704 Batch Start Date: 08/19/19 10:37 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16367-A-11	IA-117-A-27	TO 15 LL	T						
140-16367-A-12	IA-078-A-27	TO 15 LL	T						
140-16367-A-13	IA-136-A-27	TO 15 LL	T						
140-16367-A-14	IA-076-A-27	TO 15 LL	T						
140-16367-A-15	IA-168-A-27	TO 15 LL	T						
LCS 140-32704/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32744/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32744/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32744/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-16	IA-075-A-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
140-16367-A-17	IA-021-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-18	IA-100-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-19	IA-101-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32744/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32744/1		TO 15 LL		40 mL					
CCVIS 140-32744/2		TO 15 LL							
MB 140-32744/4		TO 15 LL							
140-16367-A-16	IA-075-A-27	TO 15 LL	T						
140-16367-A-17	IA-021-A-27	TO 15 LL	T						
140-16367-A-18	IA-100-B-27	TO 15 LL	T						
140-16367-A-19	IA-101-B-27	TO 15 LL	T						
LCS 140-32744/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16367-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16367-A-4	IA-174-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-8	IA-DUP4-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16367-A-5	IA-093-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16367-A-4	IA-174-A-27	TO 15 LL	T						
140-16367-A-8	IA-DUP4-A-27	TO 15 LL	T						
140-16367-A-5	IA-093-A-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16367-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16367-3	1	-12.2	0.59	0.59	3.1	1.21	1.21		2.04	2.04	08/17/19 15:08	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D				
Lims ID:	140-15955-A-1				
Client ID:	10500				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 07:00:30	ALS Bottle#:	13	Worklist Smp#:	26
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012293-026				
Misc. Info.:	10500				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	12-Jul-2019 05:43:43	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0309				
First Level Reviewer: khachitpongpanits		Date:	12-Jul-2019 18:45:22		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

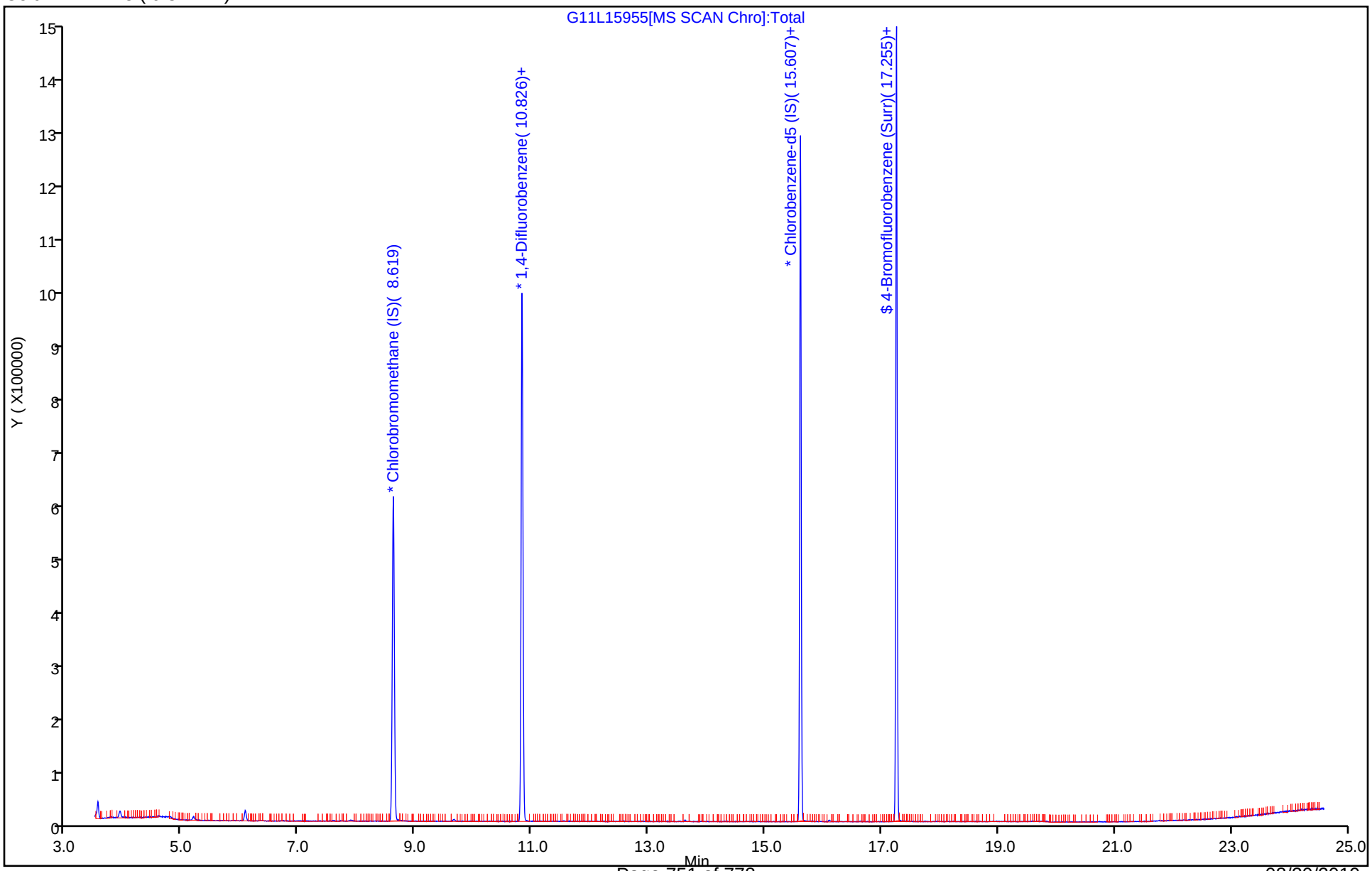
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D
Lims ID: 140-16080-A-13
Client ID: 09583
Sample Type: Client
Inject. Date: 21-Jul-2019 04:24:30 ALS Bottle#: 1 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012391-021
Misc. Info.: 09583
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Jul-2019 11:04:01 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: khachitpongpanits Date: 22-Jul-2019 11:06:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.162	-0.011	94	216420	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.330	-0.011	97	1209463	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	94	1032396	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	78	745253	3.85	
7 Propene	41	3.834	3.834	0.000	98	43488	0.5290	
31 Methylene Chloride	84	6.552	6.552	0.000	98	14297	0.1665	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

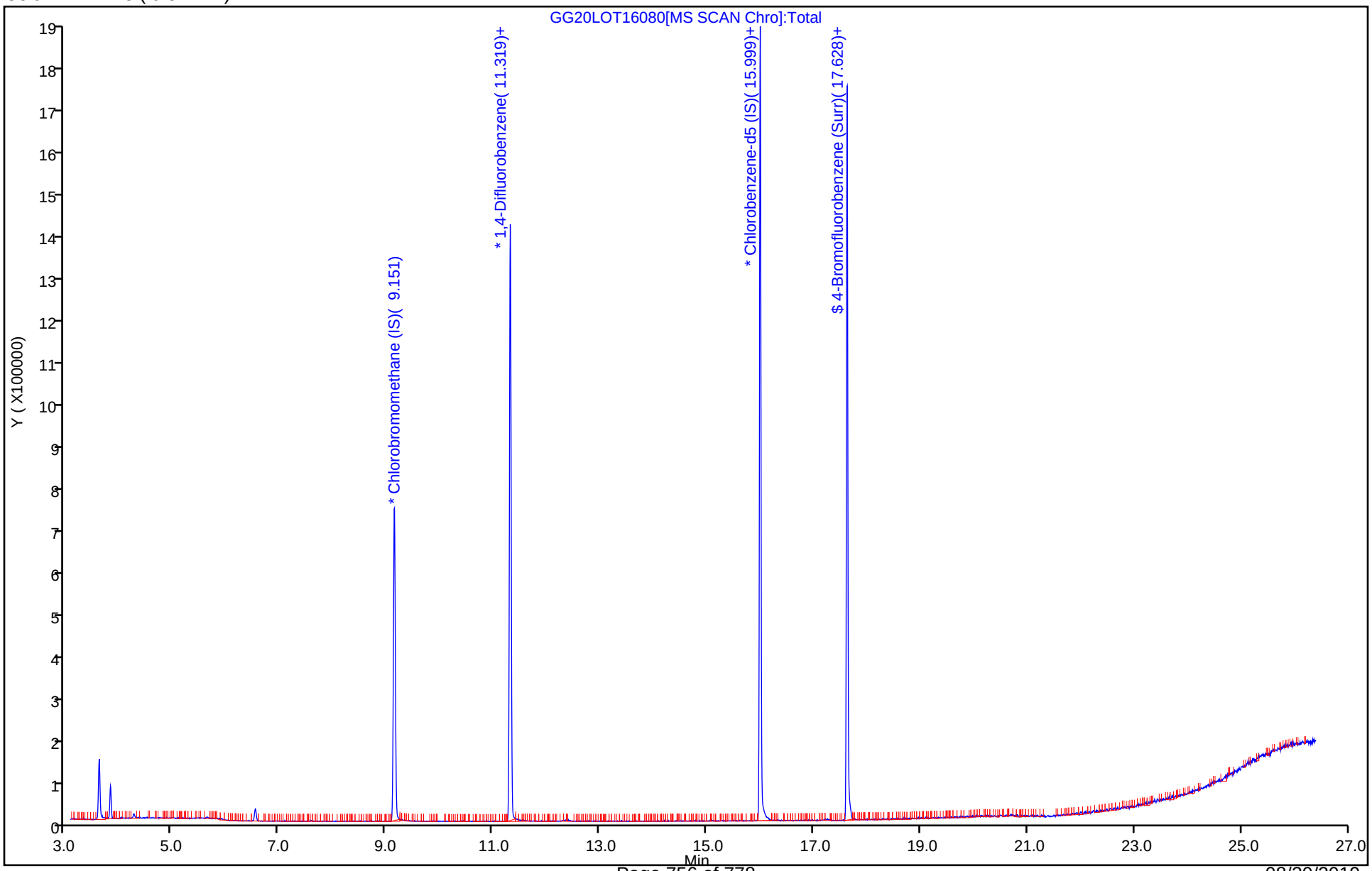
Report Date: 22-Jul-2019 11:06:12 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D

Injection Date:	21-Jul-2019 04:24:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16080-A-13	Lab Sample ID:	140-16080-13	Worklist Smp#:	21
Client ID:	09583				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Lims ID:	140-16090-A-16				
Client ID:	09814				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 05:42:30	ALS Bottle#:	2	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012392-025				
Misc. Info.:	09814				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Jul-2019 04:18:05	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0339				
First Level Reviewer: khachitpongpanits		Date:	23-Jul-2019 17:24:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.151	0.000	94	259488	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.324	0.000	97	1492987	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1296032	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	942339	3.88	
7 Propene	41	3.845	3.840	0.005	99	47088	0.4778	
31 Methylene Chloride	84	6.557	6.546	0.010	98	16683	0.1621	

Reagents:

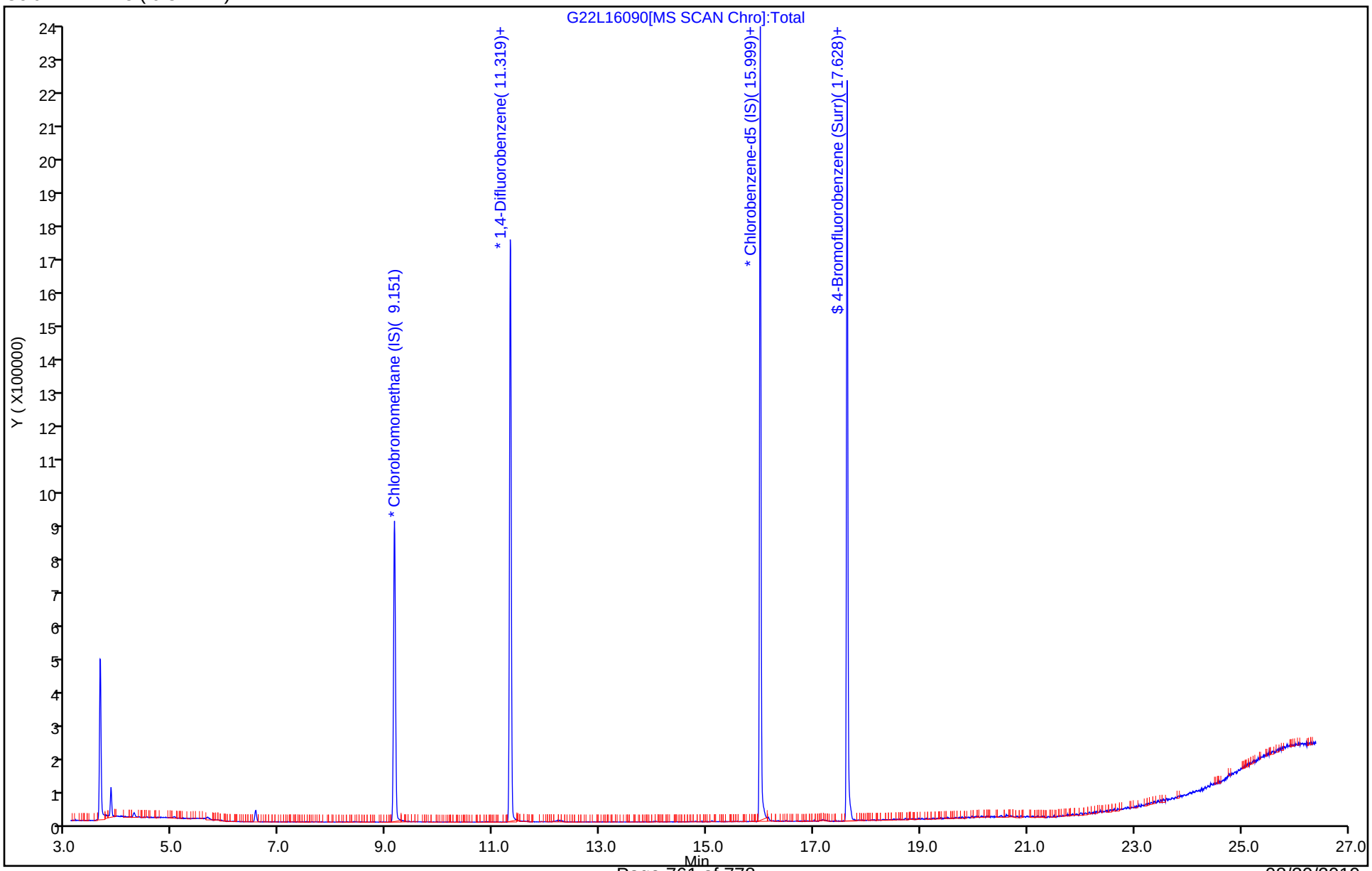
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 23-Jul-2019 17:24:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Injection Date:	23-Jul-2019 05:42:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16090-A-16	Lab Sample ID:	140-16090-16	Worklist Smp#:	25
Client ID:	09814				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND	*	1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND	*	2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D
Lims ID: 140-16112-A-4
Client ID: 10335
Sample Type: Client
Inject. Date: 24-Jul-2019 09:26:30 ALS Bottle#: 16 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012431-023
Misc. Info.: 10335
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 08:01:31 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: tajh Date: 24-Jul-2019 10:32:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.151	-0.006	94	219439	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.319	0.000	97	1272102	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1096012	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	798264	3.88	
7 Propene	41	3.839	3.832	0.005	99	44228	0.5306	
31 Methylene Chloride	84	6.546	6.543	0.000	98	20115	0.2311	
40 Hexane	56	8.391	8.391	-0.005	84	1694	0.0225	
47 1,1,1-Trichloroethane	97	10.208	10.196	0.006	94	4666	0.0248	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

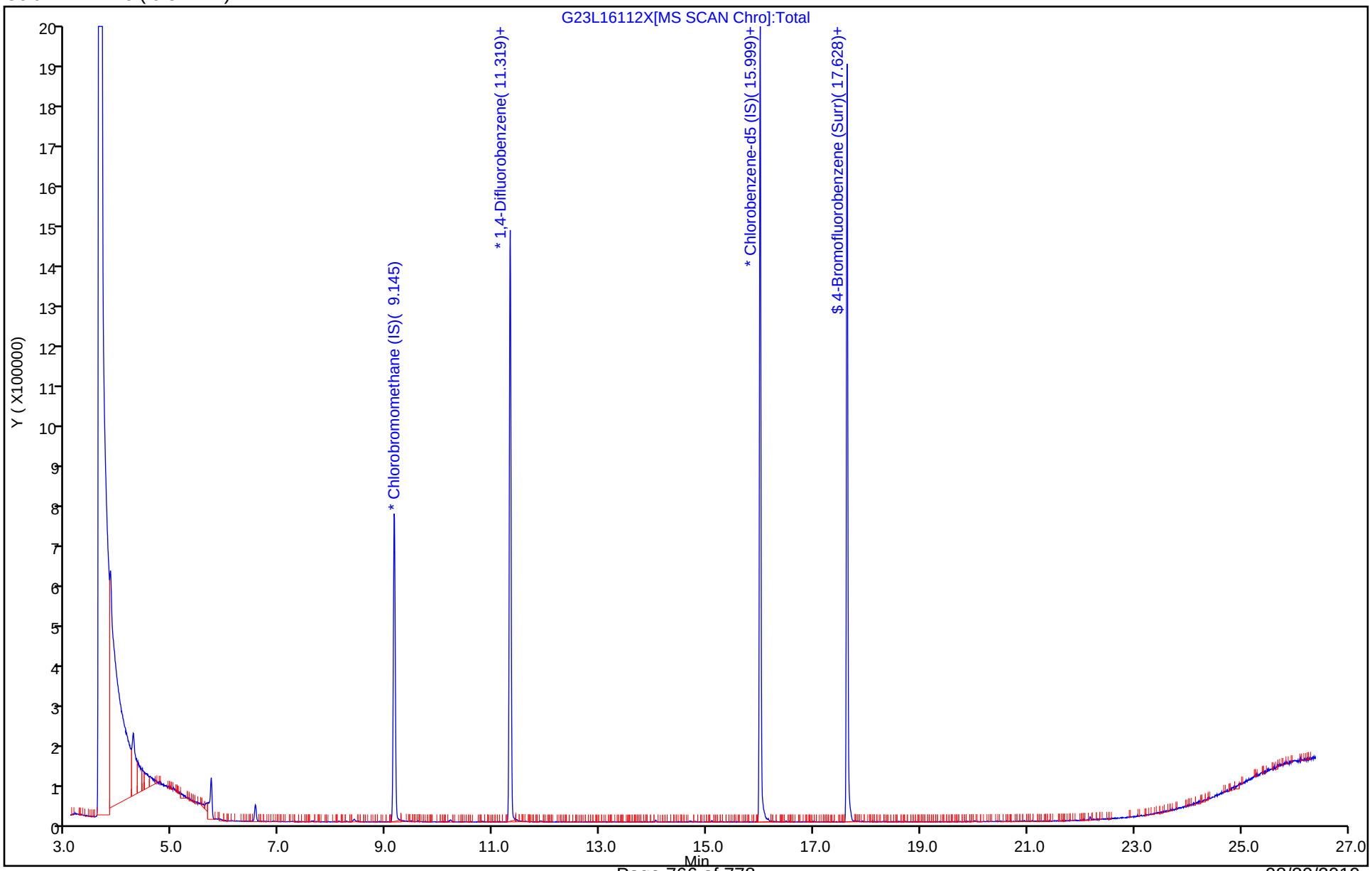
Report Date: 24-Jul-2019 10:32:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D

Injection Date:	24-Jul-2019 09:26:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	140-16112-A-4	Lab Sample ID:	140-16112-4	Worklist Smp#:	23
Client ID:	10335				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D
Lims ID: 140-16113-A-14
Client ID: 11713
Sample Type: Client
Inject. Date: 24-Jul-2019 05:30:30 ALS Bottle#: 8 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012440-025
Misc. Info.: 11713
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 17:11:05 Calib Date: 17-Jul-2019 02:30:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190716-12366.b\RG16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: khachitpongpanits Date: 24-Jul-2019 17:11:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.325	7.325	0.000	68	185440	4.00	
* 2 1,4-Difluorobenzene	114	9.380	9.385	-0.005	95	1017877	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.443	14.448	-0.005	91	867615	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.174	16.168	0.000	87	731505	4.12	
7 Propene	41	3.529	3.518	0.011	92	4705	0.1591	7
23 Isopropyl alcohol	45	4.737	4.699	0.038	63	2975	0.0625	
29 2-Methyl-2-propanol	59	5.179	5.136	0.043	91	2388	0.0197	
31 Methylene Chloride	84	5.287	5.292	-0.005	88	16812	0.2624	
40 Hexane	56	6.813	6.802	0.011	79	1478	0.0384	
47 1,1,1-Trichloroethane	97	8.274	8.280	-0.006	95	8702	0.0392	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

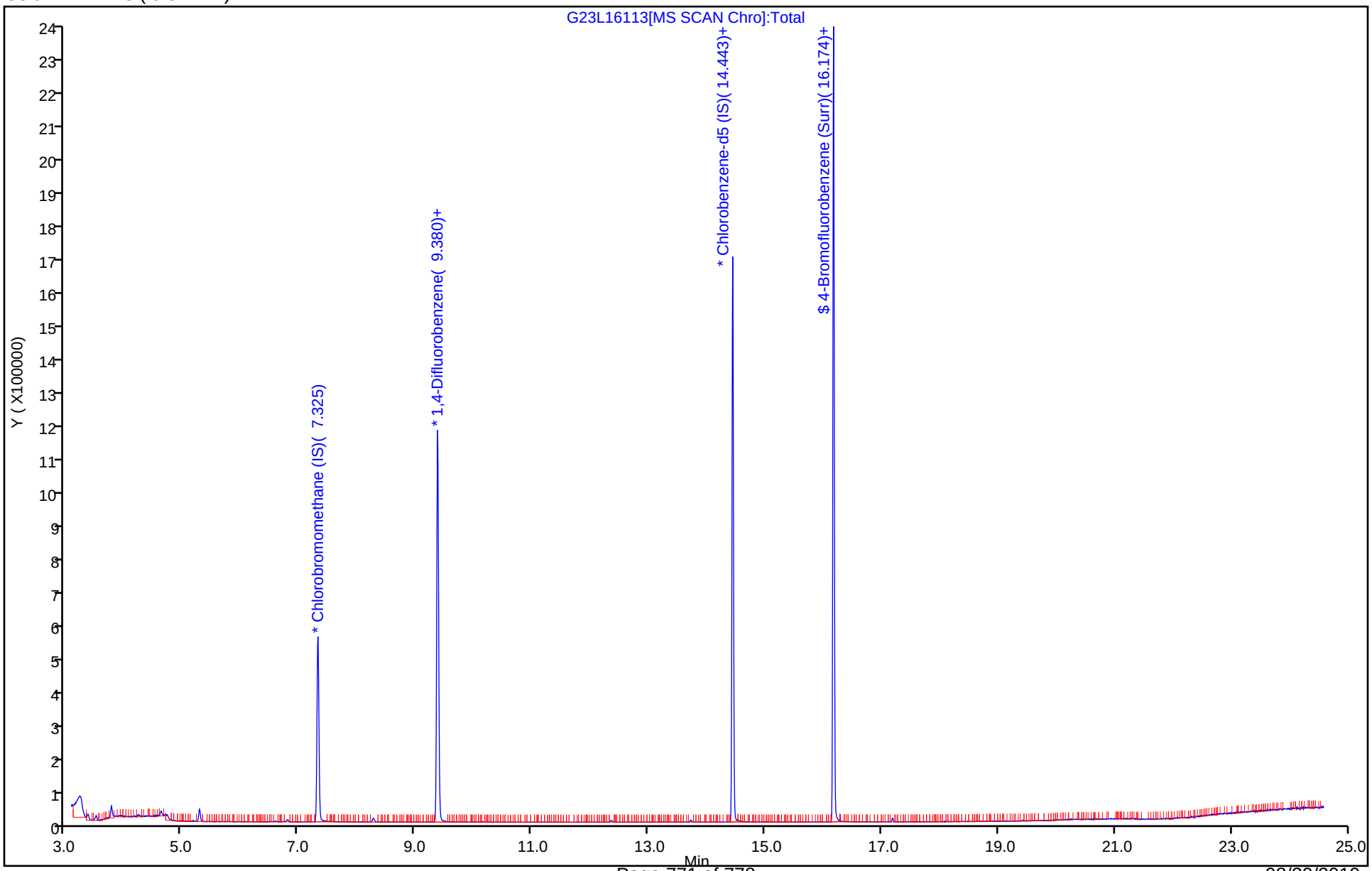
Report Date: 24-Jul-2019 17:11:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D

Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14	Worklist Smp#:	25
Client ID:	11713				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



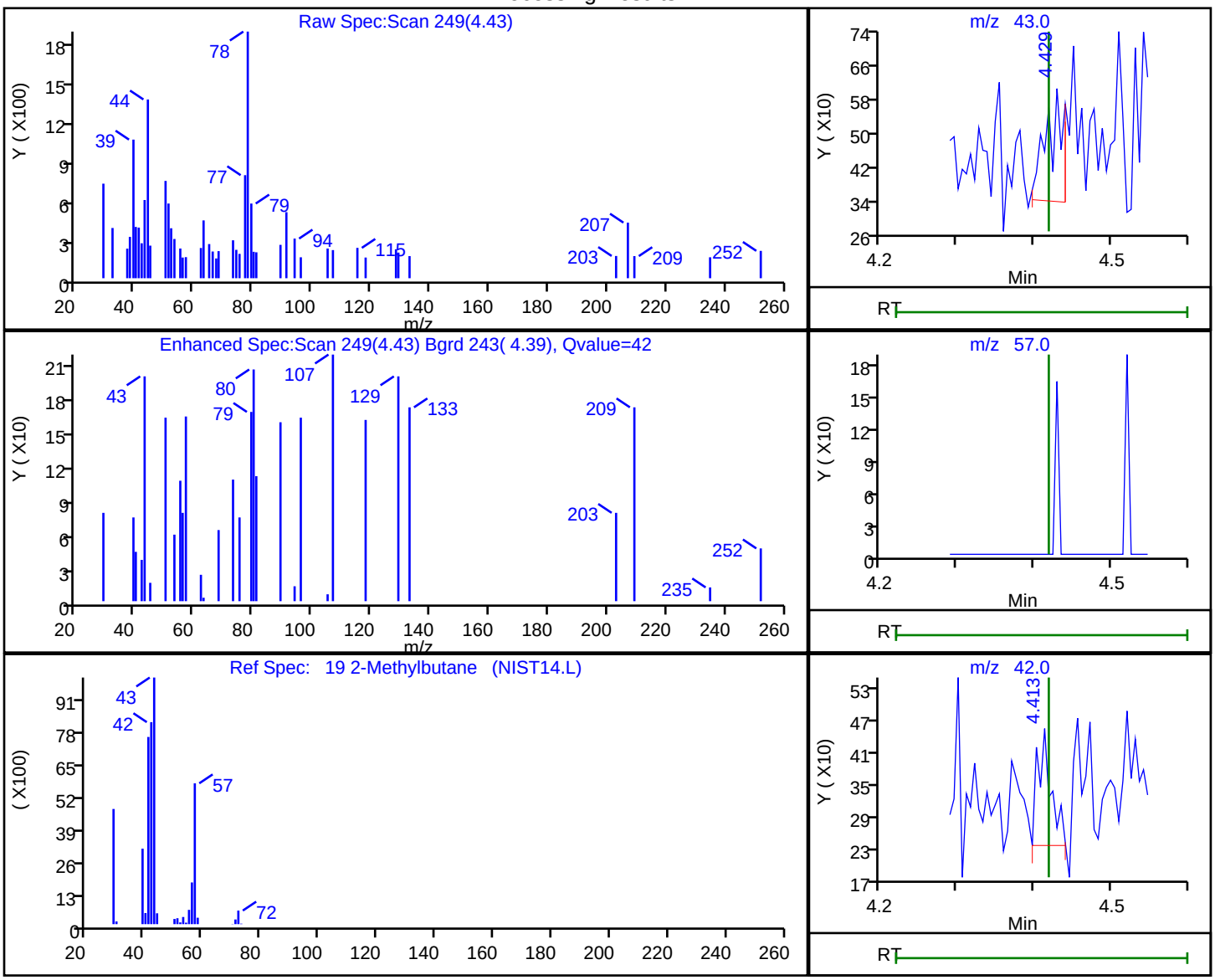
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D				
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR		
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14		
Client ID:	11713				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.43	43.00	413	0.013699
4.42	57.00	0	
4.41	42.00	258	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

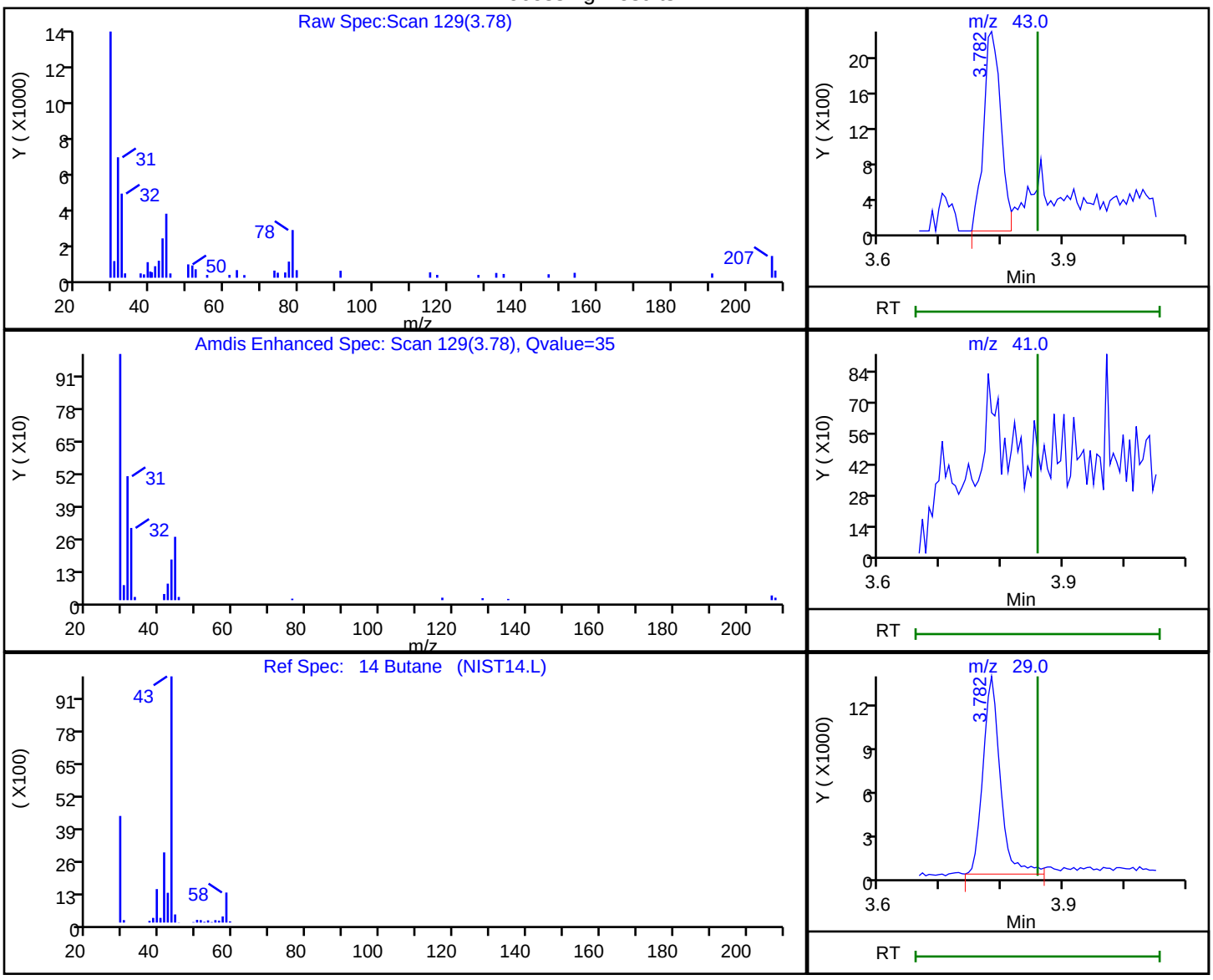
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D		
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14
Client ID:	11713		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.78	43.00	4307	0.097258
3.86	41.00	0	
3.78	29.00	26745	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Baltimore #201

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

140-16367 Chain of Custody

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR	COC No: 8 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 200	Email: JIM.APANAVAGE@TETRATECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, BALT, MD	Rush (Specifiy):		
P O # 112ICO8388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27	8/15/19	0742	8/15/19	1553	-30	-3	8740	10748	X								X						Can = 10748
IA-DUP3-A-27	"	0000	"	0000	-30	-9	8645	11839	X								X						
IA-138-A-27	"	0746	"	1554	-30	-3	6710	10519	X								X						
IA-174-A-27	"	0747	"	1555	-30	-4	8713	11860	X								X						
IA-093-A-27	"	0749	"	1556	-27	-2	10160	09797	X								X						
IA-081-A-27	"	0756	"	1600	-30	-2	10304	10345	X								X						
IA-079-A-27	"	0800	"	1601	-30	-5	10352	11624	X								X						
IA-DUP4-A-27	"	0000	"	0000	-30	-3	09855	11875	X								X						
IA-118-A-27	"	0804	"	1610	-29	0	10468	10335	X								X						
IA-015-A-27	"	0805	"	1611	-30	3	8654	09663	X								X						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes trk# 7760 0655 8549, 8273, Custody seal intact
KJ 8/17/19

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/30/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: ARANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No:
Company Name:	TETRA TECH INC	Phone: 301-528-3021		4 of 4 COCs
Address:	20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM		
City/State/Zip	GERMANTOWN, MD, 20874			For Lab Use Only:
Phone:	301-528-3021	Site Contact: MULLIS/PRYOR		Walk-in Client:
FAX:		Tel/Fax 410-279-3700		Lab Sampling:
Project Name:	MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location:	MRC, Balt, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O #	112ICO8588	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-117-A-27	8/15/19	0810	8/15/19	1617	-30	0	11937	11639	X								X						
IA-078-A-27	"	0812	"	1619	-30	-4	8790	11882	X								X						
IA-176-A-27	"	0814	"	1620	-30	-1	09864	11807	X								X						
IA-076-A-27	"	0817	"	1622	-30	-3	8500	11753	X								X						
IA-168-A-27	"	0820	"	1623	-30	-6	8701	11135	X								X						
IA-075-A-27	"	0823	"	1625	-30	0	7615	11035	X								X						
IA-021-A-27	"	0825	"	1627	-30	-3	8774	11851	X								X						
IA-100-B-27	"	0829	"	1630	-30	-4	7617	11884	X								X						
IA-101-B-27	"	0832	"	1633	-30	-1	7414	11883	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:		Date / Time:	Samples Received by:
Samples Relinquished by:		Date / Time: 8/16/19	Received by:
Relinquished by:		Date / Time: 8/16/19 1700	Received by: GTA 8/17/19 1030
Lab Use Only:	Shipper Name:	Opened by:	Condition:

21 cans, 1T, 20 flow

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** **16367**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400 2945 PM Instructions: _____

Sample Receiving Associate: _____ Date: 8/17/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/17/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
BKK	140-16367-A-1	10748	16112	B	1	-2.3	15:00	
BKK	140-16367-A-2	11839	16112	B	1	-1.0	15:01	
BKK	140-16367-A-3	10519	16080	B	1	-12.2	15:02	+3.1
BKK	140-16367-A-4	11860	16112	B	1	-3.4	15:03	
BKK	140-16367-A-5	09797	16090	B	1	-4.1	15:04	
BKK	140-16367-A-6	10345	16090	B	1	0.0	15:05	
BKK	140-16367-A-7	11624	15955	B	1	-4.6	15:06	
BKK	140-16367-A-8	11875	16112	B	1	-4.3	15:07	
BKK	140-16367-A-9	10335	16112	B	1	-1.4	15:08	
BKK	140-16367-A-10	09663	16080	B	1	-1.8	15:09	
BKK	140-16367-A-11	11639	16112	B	1	-2.5	15:10	
BKK	140-16367-A-12	11882	16080	B	1	-5.0	15:11	
BKK	140-16367-A-13	11807	16090	B	1	-3.9	15:12	
BKK	140-16367-A-14	11753	16113	B	1	-3.8	15:13	
BKK	140-16367-A-15	11135	16080	B	1	-6.2	15:14	
BKK	140-16367-A-16	11035	16090	B	1	0.0	15:15	
BKK	140-16367-A-17	11851	16090	B	1	-3.2	15:16	
BKK	140-16367-A-18	11884	16080	B	1	-4.6	15:17	
BKK	140-16367-A-19	11883	16080	B	1	-3.5	15:18	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

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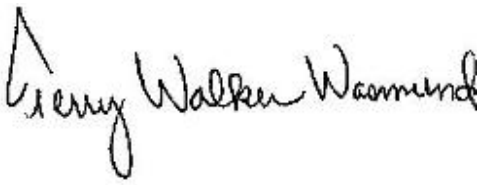
ANALYTICAL REPORT

Job Number: 140-16369-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:14 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Ms. Michelle Woeber

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16369-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32312 exhibited % difference of > 30% for 1,2-Dichloroethane and Naphthalene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Analyte 1,2-Dichloroethane recovered outside control limits for the LCS associated with analytical batch 140-32312. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.52		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.48	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.0	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.8	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1.64		TO 15 LL	Total/NA
Carbon tetrachloride	0.041	J	0.40	0.035	ppb v/v	1.64		TO 15 LL	Total/NA
Chlorodifluoromethane	0.49		0.40	0.11	ppb v/v	1.64		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.31	J	0.40	0.070	ppb v/v	1.64		TO 15 LL	Total/NA
Ethylbenzene	0.070	J	0.40	0.065	ppb v/v	1.64		TO 15 LL	Total/NA
Methylene Chloride	2.9	B	2.0	0.80	ppb v/v	1.64		TO 15 LL	Total/NA
Toluene	0.96		0.60	0.39	ppb v/v	1.64		TO 15 LL	Total/NA
Xylenes, Total	0.31	J	0.80	0.12	ppb v/v	1.64		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.56	J	1.3	0.13	ug/m3	1.64		TO 15 LL	Total/NA
Carbon tetrachloride	0.26	J	2.5	0.22	ug/m3	1.64		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1.64		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.35	ug/m3	1.64		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	1.7	0.28	ug/m3	1.64		TO 15 LL	Total/NA
Methylene Chloride	10	B	6.9	2.8	ug/m3	1.64		TO 15 LL	Total/NA
Toluene	3.6		2.3	1.5	ug/m3	1.64		TO 15 LL	Total/NA
Xylenes, Total	1.4	J	3.5	0.52	ug/m3	1.64		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.080	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.3	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.50	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.23	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-BCK-1-27 (Continued) Lab Sample ID: 140-16369-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.9	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.9	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	0.99	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.036	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.24	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.18	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.8	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.20	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.42		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.081	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.2	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.43	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.63	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.27	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.35	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.9	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	0.54		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.19	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.7	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.10	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.9		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.75	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.1	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.54	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.081	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.66		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.82		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.31	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.70	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.5		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.66	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.066	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.14	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.61		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP1-C-27 (Continued) Lab Sample ID: 140-16369-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.75	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.2		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.60	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.7	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.32	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.61	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.20	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.59		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.63	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.9		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.85	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.86	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.19	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.4		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.71		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.16	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.84		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-133-C-27 (Continued) Lab Sample ID: 140-16369-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.61	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.9	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.33	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.66	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	12		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.77	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.056	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.9	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.57	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.17	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.71	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.38	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.4	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.2	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.82	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1.55		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1.55		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.40	0.11	ppb v/v	1.55		TO 15 LL	Total/NA
Chloroform	0.053	J	0.40	0.035	ppb v/v	1.55		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43		0.40	0.070	ppb v/v	1.55		TO 15 LL	Total/NA
Ethylbenzene	0.090	J	0.40	0.065	ppb v/v	1.55		TO 15 LL	Total/NA
Methylene Chloride	2.5		2.0	0.80	ppb v/v	1.55		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1.55		TO 15 LL	Total/NA
Xylenes, Total	0.46	J	0.80	0.12	ppb v/v	1.55		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1.55		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1.55		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-060-C-27 (Continued) Lab Sample ID: 140-16369-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	4.2		1.4	0.39	ug/m3	1.55		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1.55		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1.55		TO 15 LL	Total/NA
Ethylbenzene	0.39	J	1.7	0.28	ug/m3	1.55		TO 15 LL	Total/NA
Methylene Chloride	8.8		6.9	2.8	ug/m3	1.55		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1.55		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	1.55		TO 15 LL	Total/NA

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.074	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.5	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.18	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.29	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.7		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.99		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.18	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.52		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.17	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.7		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.57	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	16	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.89	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	23		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.86	J	2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.6		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.81	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	7.2		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.8	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.26	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.68		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.28	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-144-C-27 (Continued) Lab Sample ID: 140-16369-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	14	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.57	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.040	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.1		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.88		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.53	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	12		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.49	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.054	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.43	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.56	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	38	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-146-C-27 (Continued) — Lab Sample ID: 140-16369-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.46	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.6	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-150-C-27 — Lab Sample ID: 140-16369-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	9.2	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.55	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	32	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.20	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.50	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-141-C-27 — Lab Sample ID: 140-16369-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.84		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.30	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.46	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-149-C-27 — Lab Sample ID: 140-16369-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.1	J	1.3	0.37	ppb v/v	1.67		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-149-C-27 (Continued) Lab Sample ID: 140-16369-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.52	J	1.3	0.23	ppb v/v	1.67		TO 15 LL	Total/NA
Ethylbenzene	0.44	J	1.3	0.22	ppb v/v	1.67		TO 15 LL	Total/NA
Methylene Chloride	98	B	6.7	2.7	ppb v/v	1.67		TO 15 LL	Total/NA
Toluene	3.6		2.0	1.3	ppb v/v	1.67		TO 15 LL	Total/NA
Trichloroethene	0.21	J	0.67	0.10	ppb v/v	1.67		TO 15 LL	Total/NA
Xylenes, Total	1.9	J	2.7	0.40	ppb v/v	1.67		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	3.7	J	4.7	1.3	ug/m3	1.67		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6	J	6.6	1.2	ug/m3	1.67		TO 15 LL	Total/NA
Ethylbenzene	1.9	J	5.8	0.94	ug/m3	1.67		TO 15 LL	Total/NA
Methylene Chloride	340	B	23	9.3	ug/m3	1.67		TO 15 LL	Total/NA
Toluene	13		7.6	4.9	ug/m3	1.67		TO 15 LL	Total/NA
Trichloroethene	1.1	J	3.6	0.54	ug/m3	1.67		TO 15 LL	Total/NA
Xylenes, Total	8.3	J	12	1.7	ug/m3	1.67		TO 15 LL	Total/NA

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	0.40	0.040	ppb v/v	2.87		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	2.87		TO 15 LL	Total/NA
Chloroform	0.062	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	2.87		TO 15 LL	Total/NA
Ethylbenzene	0.36	J	0.40	0.065	ppb v/v	2.87		TO 15 LL	Total/NA
Methylene Chloride	80	B	2.0	0.80	ppb v/v	2.87		TO 15 LL	Total/NA
Tetrachloroethene	0.058	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Toluene	3.1		0.60	0.39	ppb v/v	2.87		TO 15 LL	Total/NA
Trichloroethene	0.19	J	0.20	0.030	ppb v/v	2.87		TO 15 LL	Total/NA
Xylenes, Total	1.8		0.80	0.12	ppb v/v	2.87		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.74	J	1.3	0.13	ug/m3	2.87		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	2.87		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	2.87		TO 15 LL	Total/NA
Chloroform	0.31	J	2.0	0.17	ug/m3	2.87		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	2.87		TO 15 LL	Total/NA
Ethylbenzene	1.6	J	1.7	0.28	ug/m3	2.87		TO 15 LL	Total/NA
Methylene Chloride	280	B	6.9	2.8	ug/m3	2.87		TO 15 LL	Total/NA
Tetrachloroethene	0.39	J	2.7	0.24	ug/m3	2.87		TO 15 LL	Total/NA
Toluene	12		2.3	1.5	ug/m3	2.87		TO 15 LL	Total/NA
Trichloroethene	1.0	J	1.1	0.16	ug/m3	2.87		TO 15 LL	Total/NA
Xylenes, Total	7.8		3.5	0.52	ug/m3	2.87		TO 15 LL	Total/NA

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1.45		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Chlorodifluoromethane	1.0		0.40	0.11	ppb v/v	1.45		TO 15 LL	Total/NA
Chloroform	0.072	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1.45		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1.45		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-113-C-27 (Continued) Lab Sample ID: 140-16369-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	38	B	2.0	0.80	ppb v/v	1.45		TO 15 LL	Total/NA
Tetrachloroethene	0.048	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1.45		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1.45		TO 15 LL	Total/NA
Xylenes, Total	0.87		0.80	0.12	ppb v/v	1.45		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1.45		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1.45		TO 15 LL	Total/NA
Chlorodifluoromethane	3.7		1.4	0.39	ug/m3	1.45		TO 15 LL	Total/NA
Chloroform	0.35	J	2.0	0.17	ug/m3	1.45		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1.45		TO 15 LL	Total/NA
Ethylbenzene	0.67	J	1.7	0.28	ug/m3	1.45		TO 15 LL	Total/NA
Methylene Chloride	130	B	6.9	2.8	ug/m3	1.45		TO 15 LL	Total/NA
Tetrachloroethene	0.33	J	2.7	0.24	ug/m3	1.45		TO 15 LL	Total/NA
Toluene	3.9		2.3	1.5	ug/m3	1.45		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.58	J	2.0	0.49	ug/m3	1.45		TO 15 LL	Total/NA
Xylenes, Total	3.8		3.5	0.52	ug/m3	1.45		TO 15 LL	Total/NA

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1.53		TO 15 LL	Total/NA
Carbon tetrachloride	0.074	J	0.40	0.035	ppb v/v	1.53		TO 15 LL	Total/NA
Chlorodifluoromethane	0.87		0.40	0.11	ppb v/v	1.53		TO 15 LL	Total/NA
Chloroform	0.086	J	0.40	0.035	ppb v/v	1.53		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1.53		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1.53		TO 15 LL	Total/NA
Methylene Chloride	56	B	2.0	0.80	ppb v/v	1.53		TO 15 LL	Total/NA
Toluene	1.1		0.60	0.39	ppb v/v	1.53		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1.53		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1.53		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1.53		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1.53		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		1.4	0.39	ug/m3	1.53		TO 15 LL	Total/NA
Chloroform	0.42	J	2.0	0.17	ug/m3	1.53		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1.53		TO 15 LL	Total/NA
Ethylbenzene	0.78	J	1.7	0.28	ug/m3	1.53		TO 15 LL	Total/NA
Methylene Chloride	190	B	6.9	2.8	ug/m3	1.53		TO 15 LL	Total/NA
Toluene	4.0		2.3	1.5	ug/m3	1.53		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.60	J	2.0	0.49	ug/m3	1.53		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1.53		TO 15 LL	Total/NA

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.56		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP2-C-27 (Continued) Lab Sample ID: 140-16369-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.79		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.14	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.93		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.55	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.43	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.71	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	54	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.0		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.67	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1.89		TO 15 LL	Total/NA
Carbon tetrachloride	0.079	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Chlorodifluoromethane	0.87		0.40	0.11	ppb v/v	1.89		TO 15 LL	Total/NA
Chloroform	0.056	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1.89		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1.89		TO 15 LL	Total/NA
Methylene Chloride	4.0	B	2.0	0.80	ppb v/v	1.89		TO 15 LL	Total/NA
Tetrachloroethene	0.035	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Toluene	0.65		0.60	0.39	ppb v/v	1.89		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1.89		TO 15 LL	Total/NA
Xylenes, Total	0.77	J	0.80	0.12	ppb v/v	1.89		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53	J	1.3	0.13	ug/m3	1.89		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1.89		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		1.4	0.39	ug/m3	1.89		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1.89		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1.89		TO 15 LL	Total/NA
Ethylbenzene	0.63	J	1.7	0.28	ug/m3	1.89		TO 15 LL	Total/NA
Methylene Chloride	14	B	6.9	2.8	ug/m3	1.89		TO 15 LL	Total/NA
Tetrachloroethene	0.24	J	2.7	0.24	ug/m3	1.89		TO 15 LL	Total/NA
Toluene	2.4		2.3	1.5	ug/m3	1.89		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.64	J	2.0	0.49	ug/m3	1.89		TO 15 LL	Total/NA
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1.89		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Date Collected: 08/14/19 15:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 00:45	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/20/19 00:45	1
Chlorodifluoromethane	**0.52**		0.40	0.11	ppb v/v			08/20/19 00:45	1
Chloroform	**0.038**	**J**	0.40	0.035	ppb v/v			08/20/19 00:45	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 00:45	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 00:45	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 00:45	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 00:45	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 00:45	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 00:45	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 00:45	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 00:45	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
Toluene	**0.48**	**J**	0.60	0.39	ppb v/v			08/20/19 00:45	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 00:45	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 00:45	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 00:45	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 00:45	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 00:45	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 00:45	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 00:45	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 00:45	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/20/19 00:45	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/20/19 00:45	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 00:45	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/20/19 00:45	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 00:45	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 00:45	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 00:45	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 00:45	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 00:45	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 00:45	1
Methylene Chloride	**5.0**	**J B**	6.9	2.8	ug/m3			08/20/19 00:45	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 00:45	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 00:45	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 00:45	1
Toluene	**1.8**	**J**	2.3	1.5	ug/m3			08/20/19 00:45	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 00:45	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 00:45	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 00:45	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 00:45	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 00:45	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 00:45	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 00:45	1

Client Sample ID: IA-BCK-4-27 **Lab Sample ID: 140-16369-1**
Date Collected: 08/14/19 15:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 00:45	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 00:45	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 00:45*	*1*

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Date Collected: 08/14/19 15:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/20/19 01:33	1.64
Carbon tetrachloride	**0.041**	**J**	0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Chlorodifluoromethane	**0.49**		0.40	0.11	ppb v/v			08/20/19 01:33	1.64
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 01:33	1.64
Dichlorodifluoromethane	**0.31**	**J**	0.40	0.070	ppb v/v			08/20/19 01:33	1.64
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 01:33	1.64
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 01:33	1.64
Ethylbenzene	**0.070**	**J**	0.40	0.065	ppb v/v			08/20/19 01:33	1.64
Methylene Chloride	**2.9**	**B**	2.0	0.80	ppb v/v			08/20/19 01:33	1.64
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 01:33	1.64
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 01:33	1.64
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Toluene	**0.96**		0.60	0.39	ppb v/v			08/20/19 01:33	1.64
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 01:33	1.64
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 01:33	1.64
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 01:33	1.64
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 01:33	1.64
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 01:33	1.64
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 01:33	1.64
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 01:33	1.64
Xylenes, Total	**0.31**	**J**	0.80	0.12	ppb v/v			08/20/19 01:33	1.64

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.56**	**J**	1.3	0.13	ug/m3			08/20/19 01:33	1.64
Carbon tetrachloride	**0.26**	**J**	2.5	0.22	ug/m3			08/20/19 01:33	1.64
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/20/19 01:33	1.64
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 01:33	1.64
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 01:33	1.64
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.35	ug/m3			08/20/19 01:33	1.64
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 01:33	1.64
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 01:33	1.64
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 01:33	1.64
Ethylbenzene	**0.30**	**J**	1.7	0.28	ug/m3			08/20/19 01:33	1.64
Methylene Chloride	**10**	**B**	6.9	2.8	ug/m3			08/20/19 01:33	1.64
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 01:33	1.64
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 01:33	1.64
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 01:33	1.64
Toluene	**3.6**		2.3	1.5	ug/m3			08/20/19 01:33	1.64
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 01:33	1.64
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 01:33	1.64
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 01:33	1.64
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 01:33	1.64
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 01:33	1.64
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 01:33	1.64
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 01:33	1.64

Client Sample ID: IA-BCK-2-27 **Lab Sample ID: 140-16369-2**
Date Collected: 08/14/19 15:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 01:33	1.64
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 01:33	1.64
Xylenes, Total	**1.4**	**J**	3.5	0.52	ug/m3			08/20/19 01:33	1.64

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 01:33*	*1.64*

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Date Collected: 08/14/19 15:49 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/20/19 02:20	1
Carbon tetrachloride	**0.080**	**J**	0.40	0.035	ppb v/v			08/20/19 02:20	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/20/19 02:20	1
Chloroform	**0.043**	**J**	0.40	0.035	ppb v/v			08/20/19 02:20	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 02:20	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/20/19 02:20	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 02:20	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 02:20	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 02:20	1
Methylene Chloride	**2.3**	**B**	2.0	0.80	ppb v/v			08/20/19 02:20	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 02:20	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 02:20	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
Toluene	**0.50**	**J**	0.60	0.39	ppb v/v			08/20/19 02:20	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 02:20	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 02:20	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 02:20	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 02:20	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 02:20	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 02:20	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 02:20	1
Xylenes, Total	**0.23**	**J**	0.80	0.12	ppb v/v			08/20/19 02:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/20/19 02:20	1
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/20/19 02:20	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/20/19 02:20	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			08/20/19 02:20	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 02:20	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/20/19 02:20	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 02:20	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 02:20	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 02:20	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 02:20	1
Methylene Chloride	**7.9**	**B**	6.9	2.8	ug/m3			08/20/19 02:20	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 02:20	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 02:20	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 02:20	1
Toluene	**1.9**	**J**	2.3	1.5	ug/m3			08/20/19 02:20	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 02:20	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 02:20	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 02:20	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 02:20	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 02:20	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 02:20	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 02:20	1

Client Sample ID: IA-BCK-1-27 **Lab Sample ID: 140-16369-3**
Date Collected: 08/14/19 15:49 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 02:20	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 02:20	1
Xylenes, Total	**0.99**	**J**	3.5	0.52	ug/m3			08/20/19 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 02:20*	*1*

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Date Collected: 08/14/19 15:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 03:09	1
Carbon tetrachloride	**0.075**	**J**	0.40	0.035	ppb v/v			08/20/19 03:09	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/20/19 03:09	1
Chloroform	**0.036**	**J**	0.40	0.035	ppb v/v			08/20/19 03:09	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 03:09	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 03:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 03:09	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 03:09	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 03:09	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 03:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 03:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 03:09	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 03:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 03:09	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 03:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 03:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 03:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 03:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 03:09	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 03:09	1
Xylenes, Total	**0.24**	**J**	0.80	0.12	ppb v/v			08/20/19 03:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/20/19 03:09	1
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/20/19 03:09	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/20/19 03:09	1
Chloroform	**0.18**	**J**	2.0	0.17	ug/m3			08/20/19 03:09	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 03:09	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 03:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 03:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 03:09	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 03:09	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 03:09	1
Methylene Chloride	**4.8**	**J B**	6.9	2.8	ug/m3			08/20/19 03:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 03:09	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 03:09	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 03:09	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 03:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 03:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 03:09	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 03:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 03:09	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 03:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 03:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 03:09	1

Client Sample ID: IA-BCK-3-27 **Lab Sample ID: 140-16369-4**
Date Collected: 08/14/19 15:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 03:09	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 03:09	1
Xylenes, Total	**1.0**	**J**	3.5	0.52	ug/m3			08/20/19 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/20/19 03:09*	*1*

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Date Collected: 08/14/19 16:31 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.20**	**J**	0.40	0.040	ppb v/v			08/20/19 03:56	1
Carbon tetrachloride	**0.043**	**J**	0.40	0.035	ppb v/v			08/20/19 03:56	1
Chlorodifluoromethane	**0.42**		0.40	0.11	ppb v/v			08/20/19 03:56	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/20/19 03:56	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 03:56	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/20/19 03:56	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 03:56	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 03:56	1
Ethylbenzene	**0.081**	**J**	0.40	0.065	ppb v/v			08/20/19 03:56	1
Methylene Chloride	**3.2**	**B**	2.0	0.80	ppb v/v			08/20/19 03:56	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 03:56	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 03:56	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/20/19 03:56	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 03:56	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 03:56	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 03:56	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 03:56	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 03:56	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 03:56	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 03:56	1
Xylenes, Total	**0.43**	**J**	0.80	0.12	ppb v/v			08/20/19 03:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.63**	**J**	1.3	0.13	ug/m3			08/20/19 03:56	1
Carbon tetrachloride	**0.27**	**J**	2.5	0.22	ug/m3			08/20/19 03:56	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/20/19 03:56	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/20/19 03:56	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 03:56	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/20/19 03:56	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 03:56	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 03:56	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 03:56	1
Ethylbenzene	**0.35**	**J**	1.7	0.28	ug/m3			08/20/19 03:56	1
Methylene Chloride	**11**	**B**	6.9	2.8	ug/m3			08/20/19 03:56	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 03:56	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 03:56	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 03:56	1
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/20/19 03:56	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 03:56	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 03:56	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 03:56	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 03:56	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 03:56	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 03:56	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 03:56	1

Client Sample ID: IA-001-C-27 **Lab Sample ID: 140-16369-5**
Date Collected: 08/14/19 16:31 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 03:56	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 03:56	1
Xylenes, Total	**1.9**	**J**	3.5	0.52	ug/m3			08/20/19 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/20/19 03:56*	*1*

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Date Collected: 08/14/19 16:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40	0.040	ppb v/v			08/20/19 04:45	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Chlorodifluoromethane	**0.54**		0.40	0.11	ppb v/v			08/20/19 04:45	1
Chloroform	**0.038**	**J**	0.40	0.035	ppb v/v			08/20/19 04:45	1
cis-1,2-Dichloroethene	**0.19**	**J**	0.40	0.050	ppb v/v			08/20/19 04:45	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 04:45	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 04:45	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 04:45	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 04:45	1
Methylene Chloride	**1.7**	**J B**	2.0	0.80	ppb v/v			08/20/19 04:45	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 04:45	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 04:45	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 04:45	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 04:45	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 04:45	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Trichloroethene	**0.10**	**J**	0.20	0.030	ppb v/v			08/20/19 04:45	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 04:45	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 04:45	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 04:45	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 04:45	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 04:45	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ug/m3			08/20/19 04:45	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			08/20/19 04:45	1
Chlorodifluoromethane	**1.9**		1.4	0.39	ug/m3			08/20/19 04:45	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/20/19 04:45	1
cis-1,2-Dichloroethene	**0.75**	**J**	1.6	0.20	ug/m3			08/20/19 04:45	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 04:45	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 04:45	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 04:45	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 04:45	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 04:45	1
Methylene Chloride	**6.1**	**J B**	6.9	2.8	ug/m3			08/20/19 04:45	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 04:45	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 04:45	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 04:45	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 04:45	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 04:45	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 04:45	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 04:45	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 04:45	1
Trichloroethene	**0.54**	**J**	1.1	0.16	ug/m3			08/20/19 04:45	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 04:45	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 04:45	1

Client Sample ID: IA-004-C-27 **Lab Sample ID: 140-16369-6**
Date Collected: 08/14/19 16:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 04:45	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 04:45	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 04:45*	*1*

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Date Collected: 08/14/19 16:35 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/20/19 05:34	1
Carbon tetrachloride	**0.081**	**J**	0.40	0.035	ppb v/v			08/20/19 05:34	1
Chlorodifluoromethane	**1.3**		0.40	0.11	ppb v/v			08/20/19 05:34	1
Chloroform	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 05:34	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 05:34	1
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/20/19 05:34	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 05:34	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 05:34	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/20/19 05:34	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/20/19 05:34	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 05:34	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 05:34	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
Toluene	**0.66**		0.60	0.39	ppb v/v			08/20/19 05:34	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 05:34	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 05:34	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 05:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 05:34	1
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/20/19 05:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 05:34	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 05:34	1
Xylenes, Total	**0.82**		0.80	0.12	ppb v/v			08/20/19 05:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.50**	**J**	1.3	0.13	ug/m3			08/20/19 05:34	1
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/20/19 05:34	1
Chlorodifluoromethane	**4.6**		1.4	0.39	ug/m3			08/20/19 05:34	1
Chloroform	**0.31**	**J**	2.0	0.17	ug/m3			08/20/19 05:34	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 05:34	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 05:34	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 05:34	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 05:34	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 05:34	1
Ethylbenzene	**0.70**	**J**	1.7	0.28	ug/m3			08/20/19 05:34	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/20/19 05:34	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 05:34	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 05:34	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 05:34	1
Toluene	**2.5**		2.3	1.5	ug/m3			08/20/19 05:34	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 05:34	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 05:34	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 05:34	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 05:34	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 05:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 05:34	1
1,2,4-Trimethylbenzene	**0.66**	**J**	2.0	0.49	ug/m3			08/20/19 05:34	1

Client Sample ID: IA-102-C-27 **Lab Sample ID: 140-16369-7**
Date Collected: 08/14/19 16:35 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 05:34	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 05:34	1
Xylenes, Total	**3.6**		3.5	0.52	ug/m3			08/20/19 05:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 05:34*	*1*

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 06:23	1
Carbon tetrachloride	**0.066**	**J**	0.40	0.035	ppb v/v			08/20/19 06:23	1
Chlorodifluoromethane	**1.5**		0.40	0.11	ppb v/v			08/20/19 06:23	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 06:23	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 06:23	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 06:23	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 06:23	1
Ethylbenzene	**0.14**	**J**	0.40	0.065	ppb v/v			08/20/19 06:23	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 06:23	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 06:23	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 06:23	1
Tetrachloroethene	**0.048**	**J**	0.40	0.035	ppb v/v			08/20/19 06:23	1
Toluene	**0.61**		0.60	0.39	ppb v/v			08/20/19 06:23	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 06:23	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 06:23	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 06:23	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 06:23	1
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/20/19 06:23	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 06:23	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 06:23	1
Xylenes, Total	**0.75**	**J**	0.80	0.12	ppb v/v			08/20/19 06:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 06:23	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/20/19 06:23	1
Chlorodifluoromethane	**5.2**		1.4	0.39	ug/m3			08/20/19 06:23	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 06:23	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 06:23	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 06:23	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 06:23	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 06:23	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 06:23	1
Ethylbenzene	**0.60**	**J**	1.7	0.28	ug/m3			08/20/19 06:23	1
Methylene Chloride	**4.7**	**J B**	6.9	2.8	ug/m3			08/20/19 06:23	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 06:23	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 06:23	1
Tetrachloroethene	**0.32**	**J**	2.7	0.24	ug/m3			08/20/19 06:23	1
Toluene	**2.3**		2.3	1.5	ug/m3			08/20/19 06:23	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 06:23	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 06:23	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 06:23	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 06:23	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 06:23	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 06:23	1
1,2,4-Trimethylbenzene	**0.61**	**J**	2.0	0.49	ug/m3			08/20/19 06:23	1

Client Sample ID: IA-DUP1-C-27 **Lab Sample ID: 140-16369-8**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 06:23	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 06:23	1
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/20/19 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 06:23*	*1*

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Date Collected: 08/14/19 16:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.20**	**J**	0.40	0.040	ppb v/v			08/19/19 13:38	1
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/19/19 13:38	1
Chlorodifluoromethane	**2.3**		0.40	0.11	ppb v/v			08/19/19 13:38	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 13:38	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 13:38	1
Dichlorodifluoromethane	**0.59**		0.40	0.070	ppb v/v			08/19/19 13:38	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 13:38	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 13:38	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			08/19/19 13:38	1
Methylene Chloride	**3.8**		2.0	0.80	ppb v/v			08/19/19 13:38	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 13:38	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 13:38	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
Toluene	**1.0**		0.60	0.39	ppb v/v			08/19/19 13:38	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 13:38	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 13:38	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 13:38	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 13:38	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/19/19 13:38	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 13:38	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 13:38	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/19/19 13:38	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.63**	**J**	1.3	0.13	ug/m3			08/19/19 13:38	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 13:38	1
Chlorodifluoromethane	**8.1**		1.4	0.39	ug/m3			08/19/19 13:38	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			08/19/19 13:38	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 13:38	1
Dichlorodifluoromethane	**2.9**		2.0	0.35	ug/m3			08/19/19 13:38	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 13:38	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 13:38	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 13:38	1
Ethylbenzene	**0.85**	**J**	1.7	0.28	ug/m3			08/19/19 13:38	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/19/19 13:38	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 13:38	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 13:38	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 13:38	1
Toluene	**3.8**		2.3	1.5	ug/m3			08/19/19 13:38	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 13:38	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 13:38	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 13:38	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 13:38	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 13:38	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 13:38	1
1,2,4-Trimethylbenzene	**0.86**	**J**	2.0	0.49	ug/m3			08/19/19 13:38	1

Client Sample ID: IA-155-C-27 **Lab Sample ID: 140-16369-9**
Date Collected: 08/14/19 16:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 13:38	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 13:38	1
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/19/19 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/19/19 13:38*	*1*

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Date Collected: 08/14/19 16:38 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.19**	**J**	0.40	0.040	ppb v/v			08/19/19 14:28	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			08/19/19 14:28	1
Chlorodifluoromethane	**1.1**	**CI**	0.40	0.11	ppb v/v			08/19/19 14:28	1
Chloroform	**0.068**	**J**	0.40	0.035	ppb v/v			08/19/19 14:28	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 14:28	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/19/19 14:28	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 14:28	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 14:28	1
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/19/19 14:28	1
Methylene Chloride	**3.4**		2.0	0.80	ppb v/v			08/19/19 14:28	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:28	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 14:28	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
Toluene	**0.71**		0.60	0.39	ppb v/v			08/19/19 14:28	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:28	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:28	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 14:28	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:28	1
1,2,4-Trimethylbenzene	**0.16**	**J**	0.40	0.10	ppb v/v			08/19/19 14:28	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:28	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 14:28	1
Xylenes, Total	**0.84**		0.80	0.12	ppb v/v			08/19/19 14:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.61**	**J**	1.3	0.13	ug/m3			08/19/19 14:28	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 14:28	1
Chlorodifluoromethane	**3.9**	**CI**	1.4	0.39	ug/m3			08/19/19 14:28	1
Chloroform	**0.33**	**J**	2.0	0.17	ug/m3			08/19/19 14:28	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 14:28	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/19/19 14:28	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 14:28	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 14:28	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 14:28	1
Ethylbenzene	**0.66**	**J**	1.7	0.28	ug/m3			08/19/19 14:28	1
Methylene Chloride	**12**		6.9	2.8	ug/m3			08/19/19 14:28	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:28	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 14:28	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:28	1
Toluene	**2.7**		2.3	1.5	ug/m3			08/19/19 14:28	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:28	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:28	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:28	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:28	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 14:28	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:28	1
1,2,4-Trimethylbenzene	**0.77**	**J**	2.0	0.49	ug/m3			08/19/19 14:28	1

Client Sample ID: IA-133-C-27 **Lab Sample ID: 140-16369-10**
Date Collected: 08/14/19 16:38 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:28	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 14:28	1
Xylenes, Total	**3.6**		3.5	0.52	ug/m3			08/19/19 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/19/19 14:28*	*1*

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Date Collected: 08/14/19 16:39 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/19/19 16:08	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 16:08	1
Chlorodifluoromethane	**1.1**	**CI**	0.40	0.11	ppb v/v			08/19/19 16:08	1
Chloroform	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 16:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 16:08	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/19/19 16:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 16:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 16:08	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/19/19 16:08	1
Methylene Chloride	**1.9**	**J**	2.0	0.80	ppb v/v			08/19/19 16:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 16:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 16:08	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
Toluene	**0.57**	**J**	0.60	0.39	ppb v/v			08/19/19 16:08	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 16:08	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 16:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 16:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 16:08	1
1,2,4-Trimethylbenzene	**0.17**	**J**	0.40	0.10	ppb v/v			08/19/19 16:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 16:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 16:08	1
Xylenes, Total	**0.71**	**J**	0.80	0.12	ppb v/v			08/19/19 16:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/19/19 16:08	1
Carbon tetrachloride	**0.38**	**J**	2.5	0.22	ug/m3			08/19/19 16:08	1
Chlorodifluoromethane	**4.0**	**CI**	1.4	0.39	ug/m3			08/19/19 16:08	1
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/19/19 16:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 16:08	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/19/19 16:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 16:08	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 16:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 16:08	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			08/19/19 16:08	1
Methylene Chloride	**6.4**	**J**	6.9	2.8	ug/m3			08/19/19 16:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 16:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 16:08	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 16:08	1
Toluene	**2.2**	**J**	2.3	1.5	ug/m3			08/19/19 16:08	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 16:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 16:08	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 16:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 16:08	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 16:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 16:08	1
1,2,4-Trimethylbenzene	**0.82**	**J**	2.0	0.49	ug/m3			08/19/19 16:08	1

Client Sample ID: IA-153-C-27 **Lab Sample ID: 140-16369-11**
Date Collected: 08/14/19 16:39 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 16:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 16:08	1
Xylenes, Total	**3.1**	**J**	3.5	0.52	ug/m3			08/19/19 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 16:08*	*1*

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Date Collected: 08/14/19 16:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 16:57	1.55
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Chlorodifluoromethane	**1.2**		0.40	0.11	ppb v/v			08/19/19 16:57	1.55
Chloroform	**0.053**	**J**	0.40	0.035	ppb v/v			08/19/19 16:57	1.55
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 16:57	1.55
Dichlorodifluoromethane	**0.43**		0.40	0.070	ppb v/v			08/19/19 16:57	1.55
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 16:57	1.55
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 16:57	1.55
Ethylbenzene	**0.090**	**J**	0.40	0.065	ppb v/v			08/19/19 16:57	1.55
Methylene Chloride	**2.5**		2.0	0.80	ppb v/v			08/19/19 16:57	1.55
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 16:57	1.55
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 16:57	1.55
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/19/19 16:57	1.55
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 16:57	1.55
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 16:57	1.55
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 16:57	1.55
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 16:57	1.55
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 16:57	1.55
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 16:57	1.55
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 16:57	1.55
Xylenes, Total	**0.46**	**J**	0.80	0.12	ppb v/v			08/19/19 16:57	1.55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 16:57	1.55
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/19/19 16:57	1.55
Chlorodifluoromethane	**4.2**		1.4	0.39	ug/m3			08/19/19 16:57	1.55
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/19/19 16:57	1.55
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 16:57	1.55
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/19/19 16:57	1.55
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 16:57	1.55
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 16:57	1.55
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 16:57	1.55
Ethylbenzene	**0.39**	**J**	1.7	0.28	ug/m3			08/19/19 16:57	1.55
Methylene Chloride	**8.8**		6.9	2.8	ug/m3			08/19/19 16:57	1.55
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 16:57	1.55
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 16:57	1.55
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 16:57	1.55
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/19/19 16:57	1.55
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 16:57	1.55
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 16:57	1.55
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 16:57	1.55
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 16:57	1.55
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 16:57	1.55
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 16:57	1.55
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 16:57	1.55

Client Sample ID: IA-060-C-27 **Lab Sample ID: 140-16369-12**
Date Collected: 08/14/19 16:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 16:57	1.55
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 16:57	1.55
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 16:57	1.55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/19/19 16:57*	*1.55*

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Date Collected: 08/14/19 16:42 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/19/19 18:36	1
Carbon tetrachloride	**0.074**	**J**	0.40	0.035	ppb v/v			08/19/19 18:36	1
Chlorodifluoromethane	**4.5**	**CI**	0.40	0.11	ppb v/v			08/19/19 18:36	1
Chloroform	**0.18**	**J**	0.40	0.035	ppb v/v			08/19/19 18:36	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 18:36	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			08/19/19 18:36	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 18:36	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 18:36	1
Ethylbenzene	**0.29**	**J**	0.40	0.065	ppb v/v			08/19/19 18:36	1
Methylene Chloride	**6.7**		2.0	0.80	ppb v/v			08/19/19 18:36	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 18:36	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 18:36	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
Toluene	**0.99**		0.60	0.39	ppb v/v			08/19/19 18:36	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 18:36	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 18:36	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 18:36	1
1,2,3-Trimethylbenzene	**0.18**	**J**	0.40	0.18	ppb v/v			08/19/19 18:36	1
1,2,4-Trimethylbenzene	**0.52**		0.40	0.10	ppb v/v			08/19/19 18:36	1
1,3,5-Trimethylbenzene	**0.17**	**J**	0.40	0.11	ppb v/v			08/19/19 18:36	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 18:36	1
Xylenes, Total	**1.7**		0.80	0.12	ppb v/v			08/19/19 18:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.57**	**J**	1.3	0.13	ug/m3			08/19/19 18:36	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 18:36	1
Chlorodifluoromethane	**16**	**CI**	1.4	0.39	ug/m3			08/19/19 18:36	1
Chloroform	**0.89**	**J**	2.0	0.17	ug/m3			08/19/19 18:36	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 18:36	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			08/19/19 18:36	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 18:36	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 18:36	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 18:36	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/19/19 18:36	1
Methylene Chloride	**23**		6.9	2.8	ug/m3			08/19/19 18:36	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 18:36	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 18:36	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 18:36	1
Toluene	**3.7**		2.3	1.5	ug/m3			08/19/19 18:36	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 18:36	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 18:36	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 18:36	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 18:36	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 18:36	1
1,2,3-Trimethylbenzene	**0.86**	**J**	2.0	0.88	ug/m3			08/19/19 18:36	1
1,2,4-Trimethylbenzene	**2.6**		2.0	0.49	ug/m3			08/19/19 18:36	1

Client Sample ID: IA-152-C-27 **Lab Sample ID: 140-16369-13**
Date Collected: 08/14/19 16:42 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.81**	**J**	2.0	0.54	ug/m3			08/19/19 18:36	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 18:36	1
Xylenes, Total	**7.2**		3.5	0.52	ug/m3			08/19/19 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 18:36*	*1*

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Date Collected: 08/14/19 16:41 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/19/19 19:25	1
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/19/19 19:25	1
Chlorodifluoromethane	**3.8**	**CI**	0.40	0.11	ppb v/v			08/19/19 19:25	1
Chloroform	**0.12**	**J**	0.40	0.035	ppb v/v			08/19/19 19:25	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 19:25	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/19/19 19:25	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 19:25	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 19:25	1
Ethylbenzene	**0.26**	**J**	0.40	0.065	ppb v/v			08/19/19 19:25	1
Methylene Chloride	**2.8**		2.0	0.80	ppb v/v			08/19/19 19:25	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 19:25	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 19:25	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
Toluene	**0.68**		0.60	0.39	ppb v/v			08/19/19 19:25	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 19:25	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 19:25	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 19:25	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 19:25	1
1,2,4-Trimethylbenzene	**0.28**	**J**	0.40	0.10	ppb v/v			08/19/19 19:25	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 19:25	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 19:25	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 19:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.43**	**J**	1.3	0.13	ug/m3			08/19/19 19:25	1
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/19/19 19:25	1
Chlorodifluoromethane	**14**	**CI**	1.4	0.39	ug/m3			08/19/19 19:25	1
Chloroform	**0.57**	**J**	2.0	0.17	ug/m3			08/19/19 19:25	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 19:25	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/19/19 19:25	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 19:25	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 19:25	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 19:25	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 19:25	1
Methylene Chloride	**9.8**		6.9	2.8	ug/m3			08/19/19 19:25	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 19:25	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 19:25	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 19:25	1
Toluene	**2.6**		2.3	1.5	ug/m3			08/19/19 19:25	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 19:25	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 19:25	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 19:25	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 19:25	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 19:25	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 19:25	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/19/19 19:25	1

Client Sample ID: IA-144-C-27 **Lab Sample ID: 140-16369-14**
Date Collected: 08/14/19 16:41 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 19:25	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 19:25	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/19/19 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 19:25*	*1*

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Date Collected: 08/14/19 16:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 21:04	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			08/19/19 21:04	1
Chlorodifluoromethane	**3.5**		0.40	0.11	ppb v/v			08/19/19 21:04	1
Chloroform	**0.040**	**J**	0.40	0.035	ppb v/v			08/19/19 21:04	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:04	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/19/19 21:04	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 21:04	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:04	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/19/19 21:04	1
Methylene Chloride	**3.1**		2.0	0.80	ppb v/v			08/19/19 21:04	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:04	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:04	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
Toluene	**0.88**		0.60	0.39	ppb v/v			08/19/19 21:04	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:04	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:04	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:04	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:04	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:04	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:04	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 21:04	1
Xylenes, Total	**0.53**	**J**	0.80	0.12	ppb v/v			08/19/19 21:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 21:04	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			08/19/19 21:04	1
Chlorodifluoromethane	**12**		1.4	0.39	ug/m3			08/19/19 21:04	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/19/19 21:04	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:04	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 21:04	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:04	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 21:04	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:04	1
Ethylbenzene	**0.49**	**J**	1.7	0.28	ug/m3			08/19/19 21:04	1
Methylene Chloride	**11**		6.9	2.8	ug/m3			08/19/19 21:04	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:04	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:04	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:04	1
Toluene	**3.3**		2.3	1.5	ug/m3			08/19/19 21:04	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:04	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:04	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:04	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:04	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:04	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:04	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:04	1

Client Sample ID: IA-145-C-27 — Lab Sample ID: 140-16369-15

Date Collected: 08/14/19 16:43 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:04	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 21:04	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			08/19/19 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 21:04*	*1*

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Date Collected: 08/14/19 16:45 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 11:30	1
Carbon tetrachloride	**0.054**	**J**	0.40	0.035	ppb v/v			08/20/19 11:30	1
Chlorodifluoromethane	**11**	**CI**	0.40	0.11	ppb v/v			08/20/19 11:30	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/20/19 11:30	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 11:30	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/20/19 11:30	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 11:30	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 11:30	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/20/19 11:30	1
Methylene Chloride	**2.8**		2.0	0.80	ppb v/v			08/20/19 11:30	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 11:30	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 11:30	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
Toluene	**0.43**	**J**	0.60	0.39	ppb v/v			08/20/19 11:30	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 11:30	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 11:30	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 11:30	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 11:30	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 11:30	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 11:30	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 11:30	1
Xylenes, Total	**0.56**	**J**	0.80	0.12	ppb v/v			08/20/19 11:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 11:30	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 11:30	1
Chlorodifluoromethane	**38**	**CI**	1.4	0.39	ug/m3			08/20/19 11:30	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/20/19 11:30	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 11:30	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/20/19 11:30	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 11:30	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 11:30	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 11:30	1
Ethylbenzene	**0.46**	**J**	1.7	0.28	ug/m3			08/20/19 11:30	1
Methylene Chloride	**9.8**		6.9	2.8	ug/m3			08/20/19 11:30	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 11:30	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 11:30	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 11:30	1
Toluene	**1.6**	**J**	2.3	1.5	ug/m3			08/20/19 11:30	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 11:30	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 11:30	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 11:30	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 11:30	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 11:30	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 11:30	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 11:30	1

Client Sample ID: IA-146-C-27 **Lab Sample ID: 140-16369-16**
Date Collected: 08/14/19 16:45 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 11:30	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 11:30	1
Xylenes, Total	**2.4**	**J**	3.5	0.52	ug/m3			08/20/19 11:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 11:30*	*1*

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Date Collected: 08/14/19 16:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/20/19 12:19	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/20/19 12:19	1
Chlorodifluoromethane	**9.2**	**CI**	0.40	0.11	ppb v/v			08/20/19 12:19	1
Chloroform	**0.041**	**J**	0.40	0.035	ppb v/v			08/20/19 12:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 12:19	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			08/20/19 12:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 12:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 12:19	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			08/20/19 12:19	1
Methylene Chloride	**3.9**		2.0	0.80	ppb v/v			08/20/19 12:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 12:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 12:19	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/20/19 12:19	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 12:19	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 12:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 12:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 12:19	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 12:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 12:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 12:19	1
Xylenes, Total	**0.55**	**J**	0.80	0.12	ppb v/v			08/20/19 12:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/20/19 12:19	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 12:19	1
Chlorodifluoromethane	**32**	**CI**	1.4	0.39	ug/m3			08/20/19 12:19	1
Chloroform	**0.20**	**J**	2.0	0.17	ug/m3			08/20/19 12:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 12:19	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 12:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 12:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 12:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 12:19	1
Ethylbenzene	**0.50**	**J**	1.7	0.28	ug/m3			08/20/19 12:19	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/20/19 12:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 12:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 12:19	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 12:19	1
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/20/19 12:19	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 12:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 12:19	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 12:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 12:19	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 12:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 12:19	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 12:19	1

Client Sample ID: IA-150-C-27 **Lab Sample ID: 140-16369-17**
Date Collected: 08/14/19 16:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 12:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 12:19	1
Xylenes, Total	**2.4**	**J**	3.5	0.52	ug/m3			08/20/19 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/20/19 12:19*	*1*

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 13:08	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 13:08	1
Chlorodifluoromethane	**0.84**		0.40	0.11	ppb v/v			08/20/19 13:08	1
Chloroform	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 13:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 13:08	1
Dichlorodifluoromethane	**0.43**		0.40	0.070	ppb v/v			08/20/19 13:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 13:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 13:08	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 13:08	1
Methylene Chloride	**2.2**		2.0	0.80	ppb v/v			08/20/19 13:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 13:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 13:08	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 13:08	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 13:08	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 13:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 13:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 13:08	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 13:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 13:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 13:08	1
Xylenes, Total	**0.30**	**J**	0.80	0.12	ppb v/v			08/20/19 13:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.46**	**J**	1.3	0.13	ug/m3			08/20/19 13:08	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 13:08	1
Chlorodifluoromethane	**3.0**		1.4	0.39	ug/m3			08/20/19 13:08	1
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/20/19 13:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 13:08	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/20/19 13:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 13:08	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 13:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 13:08	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 13:08	1
Methylene Chloride	**7.8**		6.9	2.8	ug/m3			08/20/19 13:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 13:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 13:08	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 13:08	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 13:08	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 13:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 13:08	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 13:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 13:08	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 13:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 13:08	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 13:08	1

Client Sample ID: IA-141-C-27 — Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 13:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 13:08	1
Xylenes, Total	**1.3**	**J**	3.5	0.52	ug/m3			08/20/19 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 13:08*	*1*

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ppb v/v			08/24/19 04:23	1.67
Carbon tetrachloride	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Chlorodifluoromethane	**1.1**	**J**	1.3	0.37	ppb v/v			08/24/19 04:23	1.67
Chloroform	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
cis-1,2-Dichloroethene	ND		1.3	0.17	ppb v/v			08/24/19 04:23	1.67
Dichlorodifluoromethane	**0.52**	**J**	1.3	0.23	ppb v/v			08/24/19 04:23	1.67
1,1-Dichloroethane	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
1,2-Dichloroethane	ND		1.3	0.17	ppb v/v			08/24/19 04:23	1.67
1,1-Dichloroethene	ND		1.3	0.13	ppb v/v			08/24/19 04:23	1.67
Ethylbenzene	**0.44**	**J**	1.3	0.22	ppb v/v			08/24/19 04:23	1.67
Methylene Chloride	**98**	**B**	6.7	2.7	ppb v/v			08/24/19 04:23	1.67
Methyl tert-butyl ether	ND		6.7	0.87	ppb v/v			08/24/19 04:23	1.67
Naphthalene	ND		0.67	1.3	ppb v/v			08/24/19 04:23	1.67
Tetrachloroethene	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Toluene	**3.6**		2.0	1.3	ppb v/v			08/24/19 04:23	1.67
trans-1,2-Dichloroethene	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
1,2,4-Trichlorobenzene	ND		1.3	1.1	ppb v/v			08/24/19 04:23	1.67
1,1,1-Trichloroethane	ND		1.3	0.62	ppb v/v			08/24/19 04:23	1.67
1,1,2-Trichloroethane	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Trichloroethene	**0.21**	**J**	0.67	0.10	ppb v/v			08/24/19 04:23	1.67
1,2,3-Trimethylbenzene	ND		1.3	0.60	ppb v/v			08/24/19 04:23	1.67
1,2,4-Trimethylbenzene	ND		1.3	0.33	ppb v/v			08/24/19 04:23	1.67
1,3,5-Trimethylbenzene	ND		1.3	0.37	ppb v/v			08/24/19 04:23	1.67
Vinyl chloride	ND		0.67	0.43	ppb v/v			08/24/19 04:23	1.67
Xylenes, Total	**1.9**	**J**	2.7	0.40	ppb v/v			08/24/19 04:23	1.67

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.3	0.43	ug/m3			08/24/19 04:23	1.67
Carbon tetrachloride	ND		8.4	0.74	ug/m3			08/24/19 04:23	1.67
Chlorodifluoromethane	**3.7**	**J**	4.7	1.3	ug/m3			08/24/19 04:23	1.67
Chloroform	ND		6.5	0.57	ug/m3			08/24/19 04:23	1.67
cis-1,2-Dichloroethene	ND		5.3	0.66	ug/m3			08/24/19 04:23	1.67
Dichlorodifluoromethane	**2.6**	**J**	6.6	1.2	ug/m3			08/24/19 04:23	1.67
1,1-Dichloroethane	ND		5.4	0.47	ug/m3			08/24/19 04:23	1.67
1,2-Dichloroethane	ND		5.4	0.68	ug/m3			08/24/19 04:23	1.67
1,1-Dichloroethene	ND		5.3	0.53	ug/m3			08/24/19 04:23	1.67
Ethylbenzene	**1.9**	**J**	5.8	0.94	ug/m3			08/24/19 04:23	1.67
Methylene Chloride	**340**	**B**	23	9.3	ug/m3			08/24/19 04:23	1.67
Methyl tert-butyl ether	ND		24	3.1	ug/m3			08/24/19 04:23	1.67
Naphthalene	ND		3.5	6.7	ug/m3			08/24/19 04:23	1.67
Tetrachloroethene	ND		9.1	0.79	ug/m3			08/24/19 04:23	1.67
Toluene	**13**		7.6	4.9	ug/m3			08/24/19 04:23	1.67
trans-1,2-Dichloroethene	ND		5.3	0.46	ug/m3			08/24/19 04:23	1.67
1,2,4-Trichlorobenzene	ND		9.9	7.9	ug/m3			08/24/19 04:23	1.67
1,1,1-Trichloroethane	ND		7.3	3.4	ug/m3			08/24/19 04:23	1.67
1,1,2-Trichloroethane	ND		7.3	0.64	ug/m3			08/24/19 04:23	1.67
Trichloroethene	**1.1**	**J**	3.6	0.54	ug/m3			08/24/19 04:23	1.67
1,2,3-Trimethylbenzene	ND		6.6	3.0	ug/m3			08/24/19 04:23	1.67
1,2,4-Trimethylbenzene	ND		6.6	1.6	ug/m3			08/24/19 04:23	1.67

Client Sample ID: IA-149-C-27 **Lab Sample ID: 140-16369-19**
Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		6.6	1.8	ug/m3			08/24/19 04:23	1.67
Vinyl chloride	ND		1.7	1.1	ug/m3			08/24/19 04:23	1.67
Xylenes, Total	**8.3**	**J**	12	1.7	ug/m3			08/24/19 04:23	1.67

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/24/19 04:23*	*1.67*

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.23**	**J**	0.40	0.040	ppb v/v			08/23/19 15:21	2.87
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/23/19 15:21	2.87
Chloroform	**0.062**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 15:21	2.87
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/23/19 15:21	2.87
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 15:21	2.87
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 15:21	2.87
Ethylbenzene	**0.36**	**J**	0.40	0.065	ppb v/v			08/23/19 15:21	2.87
Methylene Chloride	**80**	**B**	2.0	0.80	ppb v/v			08/23/19 15:21	2.87
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 15:21	2.87
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 15:21	2.87
Tetrachloroethene	**0.058**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Toluene	**3.1**		0.60	0.39	ppb v/v			08/23/19 15:21	2.87
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 15:21	2.87
1,1,1-Trichloroethane	ND		0.40	0.18	ppb v/v			08/23/19 15:21	2.87
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Trichloroethene	**0.19**	**J**	0.20	0.030	ppb v/v			08/23/19 15:21	2.87
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 15:21	2.87
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/23/19 15:21	2.87
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 15:21	2.87
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 15:21	2.87
Xylenes, Total	**1.8**		0.80	0.12	ppb v/v			08/23/19 15:21	2.87

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.74**	**J**	1.3	0.13	ug/m3			08/23/19 15:21	2.87
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/23/19 15:21	2.87
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/23/19 15:21	2.87
Chloroform	**0.31**	**J**	2.0	0.17	ug/m3			08/23/19 15:21	2.87
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 15:21	2.87
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/23/19 15:21	2.87
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 15:21	2.87
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 15:21	2.87
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 15:21	2.87
Ethylbenzene	**1.6**	**J**	1.7	0.28	ug/m3			08/23/19 15:21	2.87
Methylene Chloride	**280**	**B**	6.9	2.8	ug/m3			08/23/19 15:21	2.87
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 15:21	2.87
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 15:21	2.87
Tetrachloroethene	**0.39**	**J**	2.7	0.24	ug/m3			08/23/19 15:21	2.87
Toluene	**12**		2.3	1.5	ug/m3			08/23/19 15:21	2.87
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 15:21	2.87
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 15:21	2.87
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 15:21	2.87
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 15:21	2.87
Trichloroethene	**1.0**	**J**	1.1	0.16	ug/m3			08/23/19 15:21	2.87
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 15:21	2.87
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/23/19 15:21	2.87

Client Sample ID: IA-126-C-27 **Lab Sample ID: 140-16369-20**
Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 15:21	2.87
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 15:21	2.87
Xylenes, Total	**7.8**		3.5	0.52	ug/m3			08/23/19 15:21	2.87

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/23/19 15:21*	*2.87*

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/23/19 16:08	1.45
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Chlorodifluoromethane	**1.0**		0.40	0.11	ppb v/v			08/23/19 16:08	1.45
Chloroform	**0.072**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 16:08	1.45
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/23/19 16:08	1.45
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 16:08	1.45
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 16:08	1.45
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/23/19 16:08	1.45
Methylene Chloride	**38**	**B**	2.0	0.80	ppb v/v			08/23/19 16:08	1.45
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 16:08	1.45
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 16:08	1.45
Tetrachloroethene	**0.048**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Toluene	**1.0**		0.60	0.39	ppb v/v			08/23/19 16:08	1.45
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 16:08	1.45
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 16:08	1.45
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 16:08	1.45
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 16:08	1.45
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/23/19 16:08	1.45
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 16:08	1.45
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 16:08	1.45
Xylenes, Total	**0.87**		0.80	0.12	ppb v/v			08/23/19 16:08	1.45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/23/19 16:08	1.45
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/23/19 16:08	1.45
Chlorodifluoromethane	**3.7**		1.4	0.39	ug/m3			08/23/19 16:08	1.45
Chloroform	**0.35**	**J**	2.0	0.17	ug/m3			08/23/19 16:08	1.45
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 16:08	1.45
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/23/19 16:08	1.45
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 16:08	1.45
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 16:08	1.45
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 16:08	1.45
Ethylbenzene	**0.67**	**J**	1.7	0.28	ug/m3			08/23/19 16:08	1.45
Methylene Chloride	**130**	**B**	6.9	2.8	ug/m3			08/23/19 16:08	1.45
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 16:08	1.45
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 16:08	1.45
Tetrachloroethene	**0.33**	**J**	2.7	0.24	ug/m3			08/23/19 16:08	1.45
Toluene	**3.9**		2.3	1.5	ug/m3			08/23/19 16:08	1.45
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 16:08	1.45
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 16:08	1.45
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 16:08	1.45
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 16:08	1.45
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 16:08	1.45
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 16:08	1.45
1,2,4-Trimethylbenzene	**0.58**	**J**	2.0	0.49	ug/m3			08/23/19 16:08	1.45

Client Sample ID: IA-113-C-27 **Lab Sample ID: 140-16369-21**
Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 16:08	1.45
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 16:08	1.45
Xylenes, Total	**3.8**		3.5	0.52	ug/m3			08/23/19 16:08	1.45

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/23/19 16:08*	*1.45*

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/23/19 16:57	1.53
Carbon tetrachloride	**0.074**	**J**	0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Chlorodifluoromethane	**0.87**		0.40	0.11	ppb v/v			08/23/19 16:57	1.53
Chloroform	**0.086**	**J**	0.40	0.035	ppb v/v			08/23/19 16:57	1.53
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 16:57	1.53
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/23/19 16:57	1.53
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 16:57	1.53
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 16:57	1.53
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/23/19 16:57	1.53
Methylene Chloride	**56**	**B**	2.0	0.80	ppb v/v			08/23/19 16:57	1.53
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 16:57	1.53
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 16:57	1.53
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Toluene	**1.1**		0.60	0.39	ppb v/v			08/23/19 16:57	1.53
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 16:57	1.53
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 16:57	1.53
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 16:57	1.53
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 16:57	1.53
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/23/19 16:57	1.53
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 16:57	1.53
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 16:57	1.53
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/23/19 16:57	1.53

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/23/19 16:57	1.53
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/23/19 16:57	1.53
Chlorodifluoromethane	**3.1**		1.4	0.39	ug/m3			08/23/19 16:57	1.53
Chloroform	**0.42**	**J**	2.0	0.17	ug/m3			08/23/19 16:57	1.53
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 16:57	1.53
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 16:57	1.53
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 16:57	1.53
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 16:57	1.53
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 16:57	1.53
Ethylbenzene	**0.78**	**J**	1.7	0.28	ug/m3			08/23/19 16:57	1.53
Methylene Chloride	**190**	**B**	6.9	2.8	ug/m3			08/23/19 16:57	1.53
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 16:57	1.53
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 16:57	1.53
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/23/19 16:57	1.53
Toluene	**4.0**		2.3	1.5	ug/m3			08/23/19 16:57	1.53
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 16:57	1.53
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 16:57	1.53
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 16:57	1.53
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 16:57	1.53
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 16:57	1.53
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 16:57	1.53
1,2,4-Trimethylbenzene	**0.60**	**J**	2.0	0.49	ug/m3			08/23/19 16:57	1.53

Client Sample ID: IA-088-C-27 **Lab Sample ID: 140-16369-22**
Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 16:57	1.53
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 16:57	1.53
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/23/19 16:57	1.53

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/23/19 16:57*	*1.53*

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/21/19 15:29	1
Carbon tetrachloride	**0.068**	**J**	0.40	0.035	ppb v/v			08/21/19 15:29	1
Chlorodifluoromethane	**1.7**		0.40	0.11	ppb v/v			08/21/19 15:29	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/21/19 15:29	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 15:29	1
Dichlorodifluoromethane	**0.56**		0.40	0.070	ppb v/v			08/21/19 15:29	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 15:29	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 15:29	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/21/19 15:29	1
Methylene Chloride	**16**	**B**	2.0	0.80	ppb v/v			08/21/19 15:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 15:29	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 15:29	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
Toluene	**0.79**		0.60	0.39	ppb v/v			08/21/19 15:29	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 15:29	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 15:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/21/19 15:29	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 15:29	1
1,2,4-Trimethylbenzene	**0.14**	**J**	0.40	0.10	ppb v/v			08/21/19 15:29	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 15:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 15:29	1
Xylenes, Total	**0.93**		0.80	0.12	ppb v/v			08/21/19 15:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.55**	**J**	1.3	0.13	ug/m3			08/21/19 15:29	1
Carbon tetrachloride	**0.43**	**J**	2.5	0.22	ug/m3			08/21/19 15:29	1
Chlorodifluoromethane	**6.0**		1.4	0.39	ug/m3			08/21/19 15:29	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/21/19 15:29	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 15:29	1
Dichlorodifluoromethane	**2.8**		2.0	0.35	ug/m3			08/21/19 15:29	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 15:29	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 15:29	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 15:29	1
Ethylbenzene	**0.71**	**J**	1.7	0.28	ug/m3			08/21/19 15:29	1
Methylene Chloride	**54**	**B**	6.9	2.8	ug/m3			08/21/19 15:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 15:29	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 15:29	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 15:29	1
Toluene	**3.0**		2.3	1.5	ug/m3			08/21/19 15:29	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 15:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 15:29	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 15:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 15:29	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/21/19 15:29	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 15:29	1
1,2,4-Trimethylbenzene	**0.67**	**J**	2.0	0.49	ug/m3			08/21/19 15:29	1

Client Sample ID: IA-DUP2-C-27 **Lab Sample ID: 140-16369-23**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 15:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 15:29	1
Xylenes, Total	**4.0**		3.5	0.52	ug/m3			08/21/19 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/21/19 15:29*	*1*

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Date Collected: 08/14/19 16:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/23/19 17:48	1.89
Carbon tetrachloride	**0.079**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Chlorodifluoromethane	**0.87**		0.40	0.11	ppb v/v			08/23/19 17:48	1.89
Chloroform	**0.056**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 17:48	1.89
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/23/19 17:48	1.89
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 17:48	1.89
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 17:48	1.89
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/23/19 17:48	1.89
Methylene Chloride	**4.0**	**B**	2.0	0.80	ppb v/v			08/23/19 17:48	1.89
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 17:48	1.89
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 17:48	1.89
Tetrachloroethene	**0.035**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Toluene	**0.65**		0.60	0.39	ppb v/v			08/23/19 17:48	1.89
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 17:48	1.89
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 17:48	1.89
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 17:48	1.89
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 17:48	1.89
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/23/19 17:48	1.89
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 17:48	1.89
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 17:48	1.89
Xylenes, Total	**0.77**	**J**	0.80	0.12	ppb v/v			08/23/19 17:48	1.89

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.53**	**J**	1.3	0.13	ug/m3			08/23/19 17:48	1.89
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/23/19 17:48	1.89
Chlorodifluoromethane	**3.1**		1.4	0.39	ug/m3			08/23/19 17:48	1.89
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/23/19 17:48	1.89
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 17:48	1.89
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/23/19 17:48	1.89
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 17:48	1.89
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 17:48	1.89
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 17:48	1.89
Ethylbenzene	**0.63**	**J**	1.7	0.28	ug/m3			08/23/19 17:48	1.89
Methylene Chloride	**14**	**B**	6.9	2.8	ug/m3			08/23/19 17:48	1.89
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 17:48	1.89
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 17:48	1.89
Tetrachloroethene	**0.24**	**J**	2.7	0.24	ug/m3			08/23/19 17:48	1.89
Toluene	**2.4**		2.3	1.5	ug/m3			08/23/19 17:48	1.89
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 17:48	1.89
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 17:48	1.89
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 17:48	1.89
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 17:48	1.89
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 17:48	1.89
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 17:48	1.89
1,2,4-Trimethylbenzene	**0.64**	**J**	2.0	0.49	ug/m3			08/23/19 17:48	1.89

Client Sample ID: IA-142-C-27 **Lab Sample ID: 140-16369-24**
Date Collected: 08/14/19 16:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 17:48	1.89
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 17:48	1.89
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/23/19 17:48	1.89

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/23/19 17:48*	*1.89*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (60-140)							
140-16369-1	IA-BCK-4-27	91							
140-16369-2	IA-BCK-2-27	91							
140-16369-3	IA-BCK-1-27	93							
140-16369-4	IA-BCK-3-27	95							
140-16369-5	IA-001-C-27	95							
140-16369-6	IA-004-C-27	91							
140-16369-7	IA-102-C-27	93							
140-16369-8	IA-DUP1-C-27	93							
140-16369-9	IA-155-C-27	91							
140-16369-10	IA-133-C-27	94							
140-16369-11	IA-153-C-27	90							
140-16369-12	IA-060-C-27	87							
140-16369-13	IA-152-C-27	89							
140-16369-14	IA-144-C-27	89							
140-16369-15	IA-145-C-27	89							
140-16369-16	IA-146-C-27	88							
140-16369-17	IA-150-C-27	92							
140-16369-18	IA-141-C-27	89							
140-16369-19	IA-149-C-27	88							
140-16369-20	IA-126-C-27	88							
140-16369-21	IA-113-C-27	90							
140-16369-22	IA-088-C-27	92							
140-16369-23	IA-DUP2-C-27	88							
140-16369-24	IA-142-C-27	88							
LCS 140-32312/1002	Lab Control Sample	90							
LCS 140-32744/1002	Lab Control Sample	107							
LCS 140-32828/1002	Lab Control Sample	93							
LCS 140-32829/1002	Lab Control Sample	91							
LCS 140-32868/1002	Lab Control Sample	94							
MB 140-32312/4	Method Blank	87							
MB 140-32744/4	Method Blank	90							
MB 140-32828/4	Method Blank	88							
MB 140-32829/4	Method Blank	82							
MB 140-32868/4	Method Blank	87							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32312/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 11:44	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 11:44	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 11:44	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 11:44	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 11:44	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 11:44	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 11:44	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/19/19 11:44	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 11:44	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 11:44	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 11:44	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 11:44	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 11:44	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 11:44	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 11:44	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 11:44	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 11:44	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 11:44	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 11:44	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 11:44	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 11:44	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 11:44	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 11:44	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 11:44	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 11:44	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 11:44	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 11:44	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 11:44	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 11:44	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/19/19 11:44	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 11:44	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 11:44	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 11:44	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 11:44	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 11:44	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 11:44	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 11:44	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 11:44	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 11:44	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 11:44	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32312/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 11:44	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 11:44	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 11:44	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/19/19 11:44*	*1*

Lab Sample ID: LCS 140-32312/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	1.74		ppb v/v		87	60 - 140
Chloroform	2.00	1.61		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.91		ppb v/v		95	70 - 130
Dichlorodifluoromethane	2.00	2.08		ppb v/v		104	60 - 140
1,1-Dichloroethane	2.00	1.65		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.37	*	ppb v/v		68	70 - 130
1,1-Dichloroethene	2.00	2.15		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.60		ppb v/v		80	70 - 130
Methylene Chloride	2.00	1.71		ppb v/v		85	70 - 130
Methyl tert-butyl ether	2.00	1.60		ppb v/v		80	60 - 140
Naphthalene	2.00	1.30		ppb v/v		65	60 - 140
Tetrachloroethene	2.00	1.71		ppb v/v		86	70 - 130
Toluene	2.00	1.77		ppb v/v		89	70 - 130
trans-1,2-Dichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	2.00	1.44		ppb v/v		72	60 - 140
1,1,1-Trichloroethane	2.00	1.48		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.78		ppb v/v		89	70 - 130
Trichloroethene	2.00	1.84		ppb v/v		92	70 - 130
1,2,3-Trimethylbenzene	2.00	1.53		ppb v/v		76	70 - 130
1,2,4-Trimethylbenzene	2.00	1.51		ppb v/v		76	70 - 130
1,3,5-Trimethylbenzene	2.00	1.63		ppb v/v		82	70 - 130
Vinyl chloride	2.00	2.35		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.80		ppb v/v		80	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.68		ug/m3		89	70 - 130
Carbon tetrachloride	13	10.9		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	6.15		ug/m3		87	60 - 140
Chloroform	9.8	7.87		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.56		ug/m3		95	70 - 130
Dichlorodifluoromethane	9.9	10.3		ug/m3		104	60 - 140
1,1-Dichloroethane	8.1	6.66		ug/m3		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32312/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	5.53	*	ug/m3		68	70 - 130
1,1-Dichloroethene	7.9	8.53		ug/m3		108	70 - 130
Ethylbenzene	8.7	6.97		ug/m3		80	70 - 130
Methylene Chloride	6.9	5.93		ug/m3		85	70 - 130
Methyl tert-butyl ether	7.2	5.76		ug/m3		80	60 - 140
Naphthalene	10	6.84		ug/m3		65	60 - 140
Tetrachloroethene	14	11.6		ug/m3		86	70 - 130
Toluene	7.5	6.68		ug/m3		89	70 - 130
trans-1,2-Dichloroethene	7.9	8.18		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	15	10.7		ug/m3		72	60 - 140
1,1,1-Trichloroethane	11	8.08		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.72		ug/m3		89	70 - 130
Trichloroethene	11	9.91		ug/m3		92	70 - 130
1,2,3-Trimethylbenzene	9.8	7.51		ug/m3		76	70 - 130
1,2,4-Trimethylbenzene	9.8	7.44		ug/m3		76	70 - 130
1,3,5-Trimethylbenzene	9.8	8.01		ug/m3		82	70 - 130
Vinyl chloride	5.1	6.02		ug/m3		118	70 - 130
Xylenes, Total	26	20.8		ug/m3		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 18:12	1
Methylene Chloride	0.164	J	0.40	0.16	ppb v/v			08/19/19 18:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 18:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 18:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 18:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 18:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 18:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 18:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 18:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 18:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 18:12	1
Methylene Chloride	0.570	J	1.4	0.56	ug/m3			08/19/19 18:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 18:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 18:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 18:12	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 18:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 18:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 18:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 18:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 18:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 18:12*	*1*

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.893		ppb v/v		89	70 - 130
Carbon tetrachloride	1.00	0.969		ppb v/v		97	70 - 130
Chlorodifluoromethane	1.00	0.930		ppb v/v		93	60 - 140
Chloroform	1.00	0.986		ppb v/v		99	70 - 130
cis-1,2-Dichloroethene	1.00	0.918		ppb v/v		92	70 - 130
Dichlorodifluoromethane	1.00	1.16		ppb v/v		116	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	1.00	0.985		ppb v/v		98	70 - 130
1,2-Dichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1-Dichloroethene	1.00	0.804		ppb v/v		80	70 - 130
Ethylbenzene	1.00	0.939		ppb v/v		94	70 - 130
Methylene Chloride	1.00	0.886		ppb v/v		89	70 - 130
Methyl tert-butyl ether	1.00	0.998		ppb v/v		100	60 - 140
Naphthalene	1.00	0.929		ppb v/v		93	60 - 140
Tetrachloroethene	1.00	0.842		ppb v/v		84	70 - 130
Toluene	1.00	0.896		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	1.00	0.976		ppb v/v		98	70 - 130
1,2,4-Trichlorobenzene	1.00	0.891		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	1.00	0.927		ppb v/v		93	70 - 130
1,1,2-Trichloroethane	1.00	0.916		ppb v/v		92	70 - 130
Trichloroethene	1.00	0.867		ppb v/v		87	70 - 130
1,2,3-Trimethylbenzene	1.00	0.974		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	1.00	0.947		ppb v/v		95	70 - 130
1,3,5-Trimethylbenzene	1.00	0.953		ppb v/v		95	70 - 130
Vinyl chloride	1.00	0.986		ppb v/v		99	70 - 130
Xylenes, Total	3.00	2.79		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.85		ug/m3		89	70 - 130
Carbon tetrachloride	6.3	6.10		ug/m3		97	70 - 130
Chlorodifluoromethane	3.5	3.29		ug/m3		93	60 - 140
Chloroform	4.9	4.81		ug/m3		99	70 - 130
cis-1,2-Dichloroethene	4.0	3.64		ug/m3		92	70 - 130
Dichlorodifluoromethane	4.9	5.76		ug/m3		116	60 - 140
1,1-Dichloroethane	4.0	3.99		ug/m3		98	70 - 130
1,2-Dichloroethane	4.0	4.19		ug/m3		104	70 - 130
1,1-Dichloroethene	4.0	3.19		ug/m3		80	70 - 130
Ethylbenzene	4.3	4.08		ug/m3		94	70 - 130
Methylene Chloride	3.5	3.08		ug/m3		89	70 - 130
Methyl tert-butyl ether	3.6	3.60		ug/m3		100	60 - 140
Naphthalene	5.2	4.87		ug/m3		93	60 - 140
Tetrachloroethene	6.8	5.71		ug/m3		84	70 - 130
Toluene	3.8	3.37		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	4.0	3.87		ug/m3		98	70 - 130
1,2,4-Trichlorobenzene	7.4	6.61		ug/m3		89	60 - 140
1,1,1-Trichloroethane	5.5	5.06		ug/m3		93	70 - 130
1,1,2-Trichloroethane	5.5	5.00		ug/m3		92	70 - 130
Trichloroethene	5.4	4.66		ug/m3		87	70 - 130
1,2,3-Trimethylbenzene	4.9	4.79		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	4.9	4.66		ug/m3		95	70 - 130
1,3,5-Trimethylbenzene	4.9	4.69		ug/m3		95	70 - 130
Vinyl chloride	2.6	2.52		ug/m3		99	70 - 130
Xylenes, Total	13	12.1		ug/m3		93	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		60 - 140

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 10:41	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/20/19 10:41	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 10:41	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 10:41	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 10:41	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 10:41	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 10:41	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 10:41	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 10:41	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 10:41	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/20/19 10:41	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 10:41	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 10:41	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 10:41	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 10:41	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 10:41	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 10:41	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 10:41*	*1*

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.79		ppb v/v		90	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.02		ppb v/v		101	60 - 140
Chloroform	2.00	1.62		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.88		ppb v/v		94	70 - 130
Dichlorodifluoromethane	2.00	2.05		ppb v/v		102	60 - 140
1,1-Dichloroethane	2.00	1.64		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.41		ppb v/v		70	70 - 130
1,1-Dichloroethene	2.00	2.02		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.66		ppb v/v		83	70 - 130
Methylene Chloride	2.00	1.59		ppb v/v		79	70 - 130
Methyl tert-butyl ether	2.00	1.52		ppb v/v		76	60 - 140
Naphthalene	2.00	1.66		ppb v/v		83	60 - 140
Tetrachloroethene	2.00	1.69		ppb v/v		84	70 - 130
Toluene	2.00	1.79		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trichlorobenzene	2.00	1.77		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	2.00	1.47		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.80		ppb v/v		90	70 - 130
Trichloroethene	2.00	1.88		ppb v/v		94	70 - 130
1,2,3-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,2,4-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,3,5-Trimethylbenzene	2.00	1.74		ppb v/v		87	70 - 130
Vinyl chloride	2.00	2.36		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.93		ppb v/v		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.73		ug/m3		90	70 - 130
Carbon tetrachloride	13	11.0		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.15		ug/m3		101	60 - 140
Chloroform	9.8	7.90		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.46		ug/m3		94	70 - 130
Dichlorodifluoromethane	9.9	10.1		ug/m3		102	60 - 140
1,1-Dichloroethane	8.1	6.65		ug/m3		82	70 - 130
1,2-Dichloroethane	8.1	5.69		ug/m3		70	70 - 130
1,1-Dichloroethene	7.9	8.02		ug/m3		101	70 - 130
Ethylbenzene	8.7	7.22		ug/m3		83	70 - 130
Methylene Chloride	6.9	5.51		ug/m3		79	70 - 130
Methyl tert-butyl ether	7.2	5.49		ug/m3		76	60 - 140
Naphthalene	10	8.70		ug/m3		83	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.75		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	7.9	7.93		ug/m3		100	70 - 130
1,2,4-Trichlorobenzene	15	13.2		ug/m3		89	60 - 140
1,1,1-Trichloroethane	11	8.04		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.85		ug/m3		90	70 - 130
Trichloroethene	11	10.1		ug/m3		94	70 - 130
1,2,3-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,2,4-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,3,5-Trimethylbenzene	9.8	8.58		ug/m3		87	70 - 130
Vinyl chloride	5.1	6.04		ug/m3		118	70 - 130
Xylenes, Total	26	21.4		ug/m3		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*

Lab Sample ID: MB 140-32829/4
Matrix: Air
Analysis Batch: 32829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			2.00	1.91		ppb v/v		96	70 - 130		
Carbon tetrachloride			2.00	1.83		ppb v/v		92	70 - 130		

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.11		ug/m3		96	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		92	70 - 130
Chlorodifluoromethane	7.1	6.98		ug/m3		99	60 - 140
Chloroform	9.8	8.72		ug/m3		89	70 - 130
cis-1,2-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.90		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	7.45		ug/m3		92	70 - 130
1,2-Dichloroethane	8.1	5.88		ug/m3		73	70 - 130
1,1-Dichloroethene	7.9	8.38		ug/m3		106	70 - 130
Ethylbenzene	8.7	7.36		ug/m3		85	70 - 130
Methylene Chloride	6.9	6.15		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	5.97		ug/m3		83	60 - 140
Naphthalene	10	8.88		ug/m3		85	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.82		ug/m3		91	70 - 130
trans-1,2-Dichloroethene	7.9	8.50		ug/m3		107	70 - 130
1,2,4-Trichlorobenzene	15	12.5		ug/m3		84	60 - 140
1,1,1-Trichloroethane	11	8.88		ug/m3		81	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
1,2,3-Trimethylbenzene	9.8	8.49		ug/m3		86	70 - 130
1,2,4-Trimethylbenzene	9.8	8.31		ug/m3		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	9.8	8.93		ug/m3		91	70 - 130
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Xylenes, Total	26	22.1		ug/m3		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-9	IA-155-C-27	Total/NA	Air	TO 15 LL	
140-16369-10	IA-133-C-27	Total/NA	Air	TO 15 LL	
140-16369-11	IA-153-C-27	Total/NA	Air	TO 15 LL	
140-16369-12	IA-060-C-27	Total/NA	Air	TO 15 LL	
140-16369-13	IA-152-C-27	Total/NA	Air	TO 15 LL	
140-16369-14	IA-144-C-27	Total/NA	Air	TO 15 LL	
140-16369-15	IA-145-C-27	Total/NA	Air	TO 15 LL	
MB 140-32312/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32312/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-1	IA-BCK-4-27	Total/NA	Air	TO 15 LL	
140-16369-2	IA-BCK-2-27	Total/NA	Air	TO 15 LL	
140-16369-3	IA-BCK-1-27	Total/NA	Air	TO 15 LL	
140-16369-4	IA-BCK-3-27	Total/NA	Air	TO 15 LL	
140-16369-5	IA-001-C-27	Total/NA	Air	TO 15 LL	
140-16369-6	IA-004-C-27	Total/NA	Air	TO 15 LL	
140-16369-7	IA-102-C-27	Total/NA	Air	TO 15 LL	
140-16369-8	IA-DUP1-C-27	Total/NA	Air	TO 15 LL	
MB 140-32744/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32744/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-16	IA-146-C-27	Total/NA	Air	TO 15 LL	
140-16369-17	IA-150-C-27	Total/NA	Air	TO 15 LL	
140-16369-18	IA-141-C-27	Total/NA	Air	TO 15 LL	
MB 140-32828/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32828/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-23	IA-DUP2-C-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-19	IA-149-C-27	Total/NA	Air	TO 15 LL	
140-16369-20	IA-126-C-27	Total/NA	Air	TO 15 LL	
140-16369-21	IA-113-C-27	Total/NA	Air	TO 15 LL	
140-16369-22	IA-088-C-27	Total/NA	Air	TO 15 LL	
140-16369-24	IA-142-C-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: IA-BCK-4-27 — Lab Sample ID: 140-16369-1

Date Collected: 08/14/19 15:34 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 00:45	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-2-27 — Lab Sample ID: 140-16369-2

Date Collected: 08/14/19 15:44 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.64	164 mL	500 mL	32744	08/20/19 01:33	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-1-27 — Lab Sample ID: 140-16369-3

Date Collected: 08/14/19 15:49 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 02:20	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-3-27 — Lab Sample ID: 140-16369-4

Date Collected: 08/14/19 15:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 03:09	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-001-C-27 — Lab Sample ID: 140-16369-5

Date Collected: 08/14/19 16:31 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 03:56	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-004-C-27 — Lab Sample ID: 140-16369-6

Date Collected: 08/14/19 16:32 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 04:45	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-102-C-27 — Lab Sample ID: 140-16369-7

Date Collected: 08/14/19 16:35 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 05:34	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-DUP1-C-27 — Lab Sample ID: 140-16369-8

Date Collected: 08/14/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 06:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-155-C-27 — Lab Sample ID: 140-16369-9

Date Collected: 08/14/19 16:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 13:38	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-133-C-27 — Lab Sample ID: 140-16369-10

Date Collected: 08/14/19 16:38 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 14:28	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-153-C-27 — Lab Sample ID: 140-16369-11

Date Collected: 08/14/19 16:39 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 16:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-060-C-27 — Lab Sample ID: 140-16369-12

Date Collected: 08/14/19 16:40 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.55	155 mL	500 mL	32312	08/19/19 16:57	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-152-C-27 — Lab Sample ID: 140-16369-13

Date Collected: 08/14/19 16:42 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 18:36	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-144-C-27 — Lab Sample ID: 140-16369-14

Date Collected: 08/14/19 16:41 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 19:25	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-145-C-27 — Lab Sample ID: 140-16369-15

Date Collected: 08/14/19 16:43 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 21:04	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-146-C-27 — Lab Sample ID: 140-16369-16

Date Collected: 08/14/19 16:45 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 11:30	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-150-C-27 — Lab Sample ID: 140-16369-17

Date Collected: 08/14/19 16:44 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 12:19	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-141-C-27 — Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 13:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-149-C-27 — Lab Sample ID: 140-16369-19

Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.67	50 mL	500 mL	32868	08/24/19 04:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-126-C-27 — Lab Sample ID: 140-16369-20

Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.87	287 mL	500 mL	32868	08/23/19 15:21	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-113-C-27 — Lab Sample ID: 140-16369-21

Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.45	145 mL	500 mL	32868	08/23/19 16:08	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-088-C-27 — Lab Sample ID: 140-16369-22

Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.53	153 mL	500 mL	32868	08/23/19 16:57	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-DUP2-C-27 — Lab Sample ID: 140-16369-23

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 15:29	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-142-C-27 — Lab Sample ID: 140-16369-24

Date Collected: 08/14/19 16:56 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.89	189 mL	500 mL	32868	08/23/19 17:48	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32312/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32312	08/19/19 11:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32744/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 18:12	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32828/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 10:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32312/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32312	08/19/19 10:15	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32744/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 16:53	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32828/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 09:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32829/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16369-1	IA-BCK-4-27	Air	08/14/19 15:34	08/17/19 10:30	Air Canister (1-Liter) #11868
140-16369-2	IA-BCK-2-27	Air	08/14/19 15:44	08/17/19 10:30	Air Canister (1-Liter) #11821
140-16369-3	IA-BCK-1-27	Air	08/14/19 15:49	08/17/19 10:30	Air Canister (1-Liter) #11626
140-16369-4	IA-BCK-3-27	Air	08/14/19 15:37	08/17/19 10:30	Air Canister (1-Liter) #10603
140-16369-5	IA-001-C-27	Air	08/14/19 16:31	08/17/19 10:30	Air Canister (1-Liter) #11669
140-16369-6	IA-004-C-27	Air	08/14/19 16:32	08/17/19 10:30	Air Canister (1-Liter) #09806
140-16369-7	IA-102-C-27	Air	08/14/19 16:35	08/17/19 10:30	Air Canister (1-Liter) #11609
140-16369-8	IA-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11889
140-16369-9	IA-155-C-27	Air	08/14/19 16:37	08/17/19 10:30	Air Canister (1-Liter) #11716
140-16369-10	IA-133-C-27	Air	08/14/19 16:38	08/17/19 10:30	Air Canister (1-Liter) #11269
140-16369-11	IA-153-C-27	Air	08/14/19 16:39	08/17/19 10:30	Air Canister (1-Liter) #11828
140-16369-12	IA-060-C-27	Air	08/14/19 16:40	08/17/19 10:30	Air Canister (1-Liter) #11726
140-16369-13	IA-152-C-27	Air	08/14/19 16:42	08/17/19 10:30	Air Canister (1-Liter) #11831
140-16369-14	IA-144-C-27	Air	08/14/19 16:41	08/17/19 10:30	Air Canister (1-Liter) #11107
140-16369-15	IA-145-C-27	Air	08/14/19 16:43	08/17/19 10:30	Air Canister (1-Liter) #11495
140-16369-16	IA-146-C-27	Air	08/14/19 16:45	08/17/19 10:30	Air Canister (1-Liter) #10841
140-16369-17	IA-150-C-27	Air	08/14/19 16:44	08/17/19 10:30	Air Canister (1-Liter) #11877
140-16369-18	IA-141-C-27	Air	08/14/19 16:47	08/17/19 10:30	Air Canister (1-Liter) #10520
140-16369-19	IA-149-C-27	Air	08/14/19 16:50	08/17/19 10:30	Air Canister (1-Liter) #11842
140-16369-20	IA-126-C-27	Air	08/14/19 16:51	08/17/19 10:30	Air Canister (1-Liter) #11521
140-16369-21	IA-113-C-27	Air	08/14/19 16:54	08/17/19 10:30	Air Canister (1-Liter) #09583
140-16369-22	IA-088-C-27	Air	08/14/19 16:55	08/17/19 10:30	Air Canister (1-Liter) #11288
140-16369-23	IA-DUP2-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11890
140-16369-24	IA-142-C-27	Air	08/14/19 16:56	08/17/19 10:30	Air Canister (1-Liter) #11774

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-BCK-4-27	140-16369-1	91
IA-BCK-2-27	140-16369-2	91
IA-BCK-1-27	140-16369-3	93
IA-BCK-3-27	140-16369-4	95
IA-001-C-27	140-16369-5	95
IA-004-C-27	140-16369-6	91
IA-102-C-27	140-16369-7	93
IA-DUP1-C-27	140-16369-8	93
IA-155-C-27	140-16369-9	91
IA-133-C-27	140-16369-10	94
IA-153-C-27	140-16369-11	90
IA-060-C-27	140-16369-12	87
IA-152-C-27	140-16369-13	89
IA-144-C-27	140-16369-14	89
IA-145-C-27	140-16369-15	89
IA-146-C-27	140-16369-16	88
IA-150-C-27	140-16369-17	92
IA-141-C-27	140-16369-18	89
IA-149-C-27	140-16369-19	88
IA-126-C-27	140-16369-20	88
IA-113-C-27	140-16369-21	90
IA-088-C-27	140-16369-22	92
IA-DUP2-C-27	140-16369-23	88
IA-142-C-27	140-16369-24	88
	MB 140-32312/4	87
	MB 140-32744/4	90
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	LCS 140-32312/1002	90
	LCS 140-32744/1002	107
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
	LCS 140-32868/1002	94

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH19-LCS.d

Lab ID: LCS 140-32312/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	1.74	87	60-140	
Chloroform	2.00	1.61	81	70-130	
cis-1,2-Dichloroethene	2.00	1.91	95	70-130	
Dichlorodifluoromethane	2.00	2.08	104	60-140	
1,1-Dichloroethane	2.00	1.65	82	70-130	
1,2-Dichloroethane	2.00	1.37	68	70-130	*
1,1-Dichloroethene	2.00	2.15	108	70-130	
Ethylbenzene	2.00	1.60	80	70-130	
Methylene Chloride	2.00	1.71	85	70-130	
Methyl tert-butyl ether	2.00	1.60	80	60-140	
Naphthalene	2.00	1.30	65	60-140	
Tetrachloroethene	2.00	1.71	86	70-130	
Toluene	2.00	1.77	89	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.44	72	60-140	
1,1,1-Trichloroethane	2.00	1.48	74	70-130	
1,1,2-Trichloroethane	2.00	1.78	89	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.53	76	70-130	
1,2,4-Trimethylbenzene	2.00	1.51	76	70-130	
1,3,5-Trimethylbenzene	2.00	1.63	82	70-130	
Vinyl chloride	2.00	2.35	118	70-130	
Xylenes, Total	6.00	4.80	80	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH19.D Lab Sample ID: MB 140-32312/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/19/2019 11:44

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019 10:15
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019 13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019 14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019 16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019 16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019 18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019 19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019 21:04

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019 11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019 12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019 13:08

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019 15:29

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019 00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019 01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019 02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019 03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019 03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019 04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019 05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019 06:23

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019 15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019 16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019 16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019 17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019 04:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH19.D BFB Injection Date: 08/19/2019

Instrument ID: MJ BFB Injection Time: 09:45

Analysis Batch No.: 32312

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	113.7	
175	5.0 - 9.0 % of mass 174	8.2	(7.2) 1
176	95.0 - 101.0 % of mass 174	110.9	(97.5) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32312/2	JCCVH19.D	08/19/2019	10:15
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019	10:15
	MB 140-32312/4	J500BH19.D	08/19/2019	11:44
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019	13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019	14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019	16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019	16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019	18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019	19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019	21:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019	11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019	12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019	13:08

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019	15:29

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019	00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019	01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019	02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019	03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019	03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019	04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019	05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019	06:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019	15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019	16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019	16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019	17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019	04:23

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32312/2 Date Analyzed: 08/19/2019 10:15

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH19.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		449719	9.73	2264250	11.84	1915029	16.45
UPPER LIMIT		629607	10.06	3169950	12.17	2681041	16.78
LOWER LIMIT		269831	9.40	1358550	11.51	1149017	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32312/1002		449719	9.73	2264250	11.84	1915029	16.45
MB 140-32312/4		376501	9.73	1931768	11.83	1640713	16.45
140-16369-9	IA-155-C-27	314845	9.73	1598492	11.84	1307685	16.45
140-16369-10	IA-133-C-27	328260	9.73	1636673	11.84	1369046	16.45
140-16369-11	IA-153-C-27	356922	9.73	1810163	11.84	1509196	16.45
140-16369-12	IA-060-C-27	296115	9.73	1476200	11.84	1220147	16.45
140-16369-13	IA-152-C-27	304754	9.73	1531005	11.83	1289056	16.45
140-16369-14	IA-144-C-27	312863	9.73	1595180	11.84	1315583	16.45
140-16369-15	IA-145-C-27	308741	9.72	1565329	11.84	1329051	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16369-16	IA-146-C-27	260773	9.72	1345334	11.83	1134392	16.44
140-16369-17	IA-150-C-27	218122	9.72	1086231	11.83	942060	16.44
140-16369-18	IA-141-C-27	215768	9.72	1085393	11.84	944601	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16369-23	IA-DUP2-C-27	247260	9.73	1244334	11.84	1061794	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16369-1	IA-BCK-4-27	212519	8.54	1298236	10.77	1158908	15.57
140-16369-2	IA-BCK-2-27	214324	8.54	1234247	10.77	1120245	15.57
140-16369-3	IA-BCK-1-27	185274	8.53	1054763	10.77	927536	15.57
140-16369-4	IA-BCK-3-27	188454	8.54	1107214	10.78	960224	15.58
140-16369-5	IA-001-C-27	185708	8.54	1064055	10.78	957202	15.57
140-16369-6	IA-004-C-27	206990	8.54	1208387	10.78	1035374	15.57
140-16369-7	IA-102-C-27	201680	8.54	1166843	10.77	1040423	15.57
140-16369-8	IA-DUP1-C-27	214615	8.54	1268610	10.77	1158840	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16369-20	IA-126-C-27	217435	8.53	1225846	10.77	1052503	15.57
140-16369-21	IA-113-C-27	197634	8.54	1179705	10.77	949761	15.57
140-16369-22	IA-088-C-27	198157	8.54	1171916	10.77	930567	15.57
140-16369-24	IA-142-C-27	225566	8.54	1255085	10.77	1086776	15.57
140-16369-19	IA-149-C-27	177587	8.54	995979	10.78	834416	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.52		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.48	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.0	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.8	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.041	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.070	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.31	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.26	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.30	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	10	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.50	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.23	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.9	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	0.99	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.036	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.24	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.18	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	4.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.043	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.42		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.081	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.43	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.27	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.35	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.9	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.54		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.10	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.9		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.75	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.54	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.3		0.40	0.11
67-66-3	Chloroform	119.38	0.064	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.66		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.82		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.6		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.66	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.066	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.5		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	0.61		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.2		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.60	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.32	J	2.7	0.24
108-88-3	Toluene	92.14	2.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.61	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.59		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.1		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.9		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.85	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.86	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.068	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.4		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.71		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.84		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.9	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.33	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.66	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	12		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.77	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.57	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.71	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.4	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.2	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.82	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.090	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.46	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.39	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.5	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.18	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.29	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.7		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.99		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.52		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.7		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.57	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	16	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.89	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	23		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	0.86	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.6		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.2		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.8	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.68		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.28	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.5		0.40	0.11
67-66-3	Chloroform	119.38	0.040	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.88		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.53	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	12		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.054	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.43	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.56	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	38	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.46	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.6	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	9.2	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.55	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	32	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.84		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.30	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.46	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.0		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.3	0.37
67-66-3	Chloroform	119.38	ND		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.52	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	0.44	J	1.3	0.22
75-09-2	Methylene Chloride	84.93	98	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	ND		1.3	0.12
108-88-3	Toluene	92.14	3.6		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	0.21	J	0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	ND		0.67	0.43
1330-20-7	Xylenes, Total	106.17	1.9	J	2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.74
75-45-6	Chlorodifluoromethane	86.47	3.7	J	4.7	1.3
67-66-3	Chloroform	119.38	ND		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	2.6	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.68
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	1.9	J	5.8	0.94
75-09-2	Methylene Chloride	84.93	340	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.7
127-18-4	Tetrachloroethene	165.83	ND		9.1	0.79
108-88-3	Toluene	92.14	13		7.6	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	1.1	J	3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	3.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	ND		1.7	1.1
1330-20-7	Xylenes, Total	106.17	8.3	J	12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.23	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.062	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.36	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	80	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	3.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.18
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.74	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.6	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	280	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	12		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	38	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.87		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.67	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	130	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.33	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.58	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.086	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	56	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.78	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	190	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.60	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	16	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.79		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.93		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.0		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.8		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.71	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	54	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.67	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.035	J	0.40	0.035
108-88-3	Toluene	92.14	0.65		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.77	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	14	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.64	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9502		1.74	2.00	-13.1	30.0
Propene	Ave	0.7918	0.6822		1.72	2.00	-13.8	30.0
Dichlorodifluoromethane	Ave	1.253	1.300		2.08	2.00	3.8	30.0
Chloromethane	Ave	0.4041	0.4344		2.15	2.00	7.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2330		2.68	2.00	33.9*	30.0
Acetaldehyde	Ave	0.5207	0.5174		9.94	10.0	-0.6	30.0
Vinyl chloride	Ave	1.359	1.600		2.35	2.00	17.7	30.0
1,3-Butadiene	Ave	1.028	1.187		2.31	2.00	15.4	30.0
Butane	Ave	2.098	2.224		2.12	2.00	6.0	30.0
Bromomethane	Ave	1.197	1.529		2.55	2.00	27.7	30.0
Chloroethane	Ave	0.5981	0.7300		2.44	2.00	22.0	30.0
Ethanol	Ave	0.5397	0.4652		8.62	10.0	-13.8	30.0
Vinyl bromide	Ave	1.109	1.405		2.53	2.00	26.7	30.0
2-Methylbutane	Ave	1.445	1.593		2.20	2.00	10.2	30.0
Trichlorofluoromethane	Ave	4.326	4.166		1.93	2.00	-3.7	30.0
Acrolein	Ave	0.2624	0.2944		2.24	2.00	12.2	30.0
Acetonitrile	Ave	0.4156	0.4201		2.02	2.00	1.1	30.0
Acetone	Ave	0.4604	0.4690		6.11	6.00	1.8	30.0
Isopropyl alcohol	Ave	1.338	1.100		4.93	6.00	-17.8	30.0
Pentane	Ave	0.1653	0.2072		2.51	2.00	25.4	30.0
Ethyl ether	Ave	1.486	1.172		1.58	2.00	-21.1	30.0
1,1-Dichloroethene	Ave	1.228	1.320		2.15	2.00	7.6	30.0
Acrylonitrile	Ave	0.8209	0.7341		1.79	2.00	-10.6	30.0
tert-Butyl alcohol	Ave	2.068	1.348		1.30	2.00	-34.8*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.857		2.00	2.00	0.1	30.0
Methylene Chloride	Ave	1.505	1.285		1.71	2.00	-14.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.3	30.0
Carbon disulfide	Ave	3.743	3.799		2.03	2.00	1.5	30.0
2-Methylpentane	Ave	3.379	2.825		1.67	2.00	-16.4	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.265		2.06	2.00	3.1	30.0
Methyl tert-butyl ether	Ave	3.276	2.617		1.60	2.00	-20.1	30.0
1,1-Dichloroethane	Ave	2.733	2.248		1.65	2.00	-17.7	30.0
Vinyl acetate	Ave	3.471	2.656		1.53	2.00	-23.5	30.0
2-Butanone (MEK)	Ave	0.5394	0.4392		1.63	2.00	-18.6	30.0
Hexane	Ave	1.100	0.9156		1.66	2.00	-16.8	30.0
Isopropyl ether	Ave	4.183	3.079		1.47	2.00	-26.4	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.205		1.91	2.00	-4.7	30.0
Ethyl acetate	Ave	2.875	2.074		1.44	2.00	-27.9	30.0
Chloroform	Ave	3.246	2.617		1.61	2.00	-19.4	30.0
Tert-butyl ethyl ether	Ave	3.896	2.850		1.46	2.00	-26.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.026		1.43	2.00	-28.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.587		1.48	2.00	-25.9	30.0
1,2-Dichloroethane	Ave	0.4592	0.3138		1.37	2.00	-31.7*	30.0
1-Butanol	Ave	0.1093	0.0522		0.955	2.00	-52.3*	30.0
Cyclohexane	Ave	0.1230	0.1078		1.75	2.00	-12.4	30.0
Benzene	Ave	0.7326	0.6517		1.78	2.00	-11.1	30.0
Carbon tetrachloride	Ave	0.6143	0.5331		1.74	2.00	-13.2	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1500		1.82	2.00	-9.2	30.0
Thiophene	Ave	0.4167	0.3744		1.80	2.00	-10.2	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.039		1.59	2.00	-20.5	30.0
Heptane	Ave	0.2522	0.2160		1.71	2.00	-14.4	30.0
1,2-Dichloropropane	Ave	0.3077	0.2579		1.68	2.00	-16.2	30.0
Trichloroethene	Ave	0.3308	0.3051		1.84	2.00	-7.8	30.0
Dibromomethane	Ave	0.3412	0.2853		1.67	2.00	-16.4	30.0
Bromodichloromethane	Ave	0.6516	0.5003		1.54	2.00	-23.2	30.0
1,4-Dioxane	Ave	0.0858	0.0640		1.49	2.00	-25.4	30.0
Methyl methacrylate	Ave	0.3591	0.2331		1.30	2.00	-35.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3895		1.74	2.00	-13.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3064		1.09	2.00	-45.3*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3733		1.63	2.00	-18.3	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3889		1.58	2.00	-21.1	30.0
Toluene	Ave	0.9664	0.8569		1.77	2.00	-11.3	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2755		1.78	2.00	-11.0	30.0
2-Hexanone	Ave	0.2830	0.1689		1.19	2.00	-40.3*	30.0
Octane	Ave	0.2966	0.2571		1.73	2.00	-13.3	30.0
Dibromochloromethane	Ave	0.6693	0.5830		1.74	2.00	-12.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4906		1.74	2.00	-12.9	30.0
Tetrachloroethene	Ave	0.3882	0.3320		1.71	2.00	-14.5	30.0
2,3-Dimethylheptane	Ave	1.135	0.8448		1.49	2.00	-25.6	30.0
Chlorobenzene	Ave	0.7731	0.6854		1.77	2.00	-11.4	30.0
Ethylbenzene	Ave	1.245	0.999		1.60	2.00	-19.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7729		3.24	4.00	-19.1	30.0
Nonane	Ave	0.6911	0.5341		1.55	2.00	-22.7	30.0
Styrene	Ave	0.6822	0.5827		1.71	2.00	-14.6	30.0
Bromoform	Ave	0.7168	0.6859		1.91	2.00	-4.3	30.0
o-Xylene	Ave	1.015	0.7943		1.56	2.00	-21.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6059		1.71	2.00	-14.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1521		1.51	2.00	-24.4	30.0
Isopropylbenzene	Ave	1.326	1.052		1.59	2.00	-20.6	30.0
Propylbenzene	Ave	0.3540	0.2943		1.66	2.00	-16.9	30.0
2-Chlorotoluene	Ave	0.3422	0.2896		1.69	2.00	-15.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.059		1.60	2.00	-19.8	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4295		1.63	2.00	-18.5	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4491		1.65	2.00	-17.4	30.0
Decane	Ave	0.8742	0.6385		1.46	2.00	-27.0	30.0
tert-Butylbenzene	Ave	1.215	0.9255		1.52	2.00	-23.8	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.8866		1.51	2.00	-24.3	30.0
sec-Butylbenzene	Ave	1.644	1.288		1.57	2.00	-21.7	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.6734		1.65	2.00	-17.4	30.0
Benzyl chloride	Ave	1.003	0.7356		1.47	2.00	-26.7	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.6687		1.62	2.00	-18.8	30.0
4-Isopropyltoluene	Ave	1.383	1.054		1.52	2.00	-23.8	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.8772		1.53	2.00	-23.6	30.0
Butylcyclohexane	Ave	0.9932	0.7927		1.60	2.00	-20.2	30.0
Indane	Ave	1.065	0.8594		1.61	2.00	-19.3	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.6478		1.62	2.00	-19.2	30.0
Butylbenzene	Ave	1.432	1.079		1.51	2.00	-24.6	30.0
Indene	Ave	0.9137	0.7205		1.58	2.00	-21.1	30.0
Undecane	Ave	0.9884	0.6819		1.38	2.00	-31.0*	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3198		1.60	2.00	-19.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.8734		1.40	2.00	-29.9	30.0
Dodecane	Ave	0.8410	0.4419		1.05	2.00	-47.5*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.4727		1.44	2.00	-27.8	30.0
Naphthalene	Ave	1.025	0.6687		1.30	2.00	-34.8*	30.0
Hexachlorobutadiene	Ave	0.7893	0.6461		1.64	2.00	-18.1	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.3386		1.31	2.00	-34.5*	30.0
2-Methylnaphthalene	Ave	0.2801	0.1344		0.960	2.00	-52.0*	50.0
1-Methylnaphthalene	Ave	0.3357	0.1184		0.706	2.00	-64.7*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6617		3.60	4.00	-10.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32312/1002

Matrix: Air Lab File ID: JCCVH19-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 10:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.78		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.74		0.080	0.022
67-66-3	Chloroform	119.38	1.61		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.91		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.08		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.65		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.37		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.15		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.60		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.71		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.60		0.40	0.052
91-20-3	Naphthalene	128.17	1.30		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.71		0.080	0.0070
108-88-3	Toluene	92.14	1.77		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.06		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.44		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.48		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.78		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.84		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.53		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.51		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.63		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.35		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.80		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32744/1002

Matrix: Air Lab File ID: RCCVH19X-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.893		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.969		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.930		0.080	0.022
67-66-3	Chloroform	119.38	0.986		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.918		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.16		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.985		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.04		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.804		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.939		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.886		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.998		0.40	0.052
91-20-3	Naphthalene	128.17	0.929		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.842		0.080	0.0070
108-88-3	Toluene	92.14	0.896		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.976		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.891		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.927		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.916		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.867		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.974		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.947		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.953		0.080	0.022
75-01-4	Vinyl chloride	62.50	0.986		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.79		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32828/1002

Matrix: Air Lab File ID: JCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.79		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.02		0.080	0.022
67-66-3	Chloroform	119.38	1.62		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.88		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.05		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.64		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.41		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.66		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.59		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.52		0.40	0.052
91-20-3	Naphthalene	128.17	1.66		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.69		0.080	0.0070
108-88-3	Toluene	92.14	1.79		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.00		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.77		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.47		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.80		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.88		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.62		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.62		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.74		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.36		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.93		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/19/2019 09:45

Analysis Batch Number: 32312 End Date: 08/19/2019 21:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32312/1		08/19/2019 09:45	1	JBFBH19.D	RTX-5 0.32(mm)
CCVIS 140-32312/2		08/19/2019 10:15	1	JCCVH19.D	RTX-5 0.32(mm)
LCS 140-32312/1002		08/19/2019 10:15	1	JCCVH19-LCS.d	RTX-5 0.32(mm)
MB 140-32312/4		08/19/2019 11:44	1	J500BH19.D	RTX-5 0.32(mm)
140-16369-9		08/19/2019 13:38	1	JH19P101.D	RTX-5 0.32(mm)
140-16369-10		08/19/2019 14:28	1	JH19P102.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 15:18	1		RTX-5 0.32(mm)
140-16369-11		08/19/2019 16:08	1	JH19P104.D	RTX-5 0.32(mm)
140-16369-12		08/19/2019 16:57	1.55	JH19P105.D	RTX-5 0.32(mm)
140-16369-13		08/19/2019 18:36	1	JH19P107.D	RTX-5 0.32(mm)
140-16369-14		08/19/2019 19:25	1	JH19P108.D	RTX-5 0.32(mm)
140-16369-15		08/19/2019 21:04	1	JH19P110.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/20/2019 08:38

Analysis Batch Number: 32828 End Date: 08/21/2019 04:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32828/1		08/20/2019 08:38	1	JBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32828/2		08/20/2019 09:08	1	JCCVH20.D	RTX-5 0.32(mm)
LCS 140-32828/1002		08/20/2019 09:08	1	JCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32828/4		08/20/2019 10:41	1	J500BH20.D	RTX-5 0.32(mm)
140-16369-16		08/20/2019 11:30	1	JH20P211.D	RTX-5 0.32(mm)
140-16369-17		08/20/2019 12:19	1	JH20P213.D	RTX-5 0.32(mm)
140-16369-18		08/20/2019 13:08	1	JH20P214.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 14:06	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 15:39	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 16:29	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 17:19	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:08	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:57	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 19:46	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:36	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 21:24	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 22:14	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:02	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:52	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 00:41	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 01:31	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 02:20	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 03:10	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:00	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:50	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
140-16369-23		08/21/2019 15:29	1	JH21P101.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:09	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:59	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 20:28	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 21:18	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:07	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:56	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 00:34	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 01:23	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:13	3.72		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 03:02	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 05:31	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/19/2019 16:27

Analysis Batch Number: 32744 End Date: 08/20/2019 06:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32744/1		08/19/2019 16:27	1	RBFBH19X.D	RTX-5 0.32(mm)
CCVIS 140-32744/2		08/19/2019 16:53	1	RCCVH19X.D	RTX-5 0.32(mm)
LCS 140-32744/1002		08/19/2019 16:53	1	RCCVH19X-LCS.d	RTX-5 0.32(mm)
MB 140-32744/4		08/19/2019 18:12	1	R500BH19X.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:56	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 20:44	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 21:31	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 22:19	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:07	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:56	1		RTX-5 0.32(mm)
140-16369-1		08/20/2019 00:45	1	RH19P108.D	RTX-5 0.32(mm)
140-16369-2		08/20/2019 01:33	1.64	RH19P109.D	RTX-5 0.32(mm)
140-16369-3		08/20/2019 02:20	1	RH19P110.D	RTX-5 0.32(mm)
140-16369-4		08/20/2019 03:09	1	RH19P111.D	RTX-5 0.32(mm)
140-16369-5		08/20/2019 03:56	1	RH19P112.D	RTX-5 0.32(mm)
140-16369-6		08/20/2019 04:45	1	RH19P113.D	RTX-5 0.32(mm)
140-16369-7		08/20/2019 05:34	1	RH19P114.D	RTX-5 0.32(mm)
140-16369-8		08/20/2019 06:23	1	RH19P115.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
140-16369-20		08/23/2019 15:21	2.87	RH23P102.D	RTX-5 0.32(mm)
140-16369-21		08/23/2019 16:08	1.45	RH23P103.D	RTX-5 0.32(mm)
140-16369-22		08/23/2019 16:57	1.53	RH23P104.D	RTX-5 0.32(mm)
140-16369-24		08/23/2019 17:48	1.89	RH23P105.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 18:36	1		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 19:23	3.64		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 21:47	1.76		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 22:35	5.03		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 00:10	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:00	4.15		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:50	1.52		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
140-16369-19		08/24/2019 04:23	1.67	RH23P101R.D	RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32312 Batch Start Date: 08/19/19 09:45 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32312/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32312/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32312/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-9	IA-155-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-10	IA-133-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-11	IA-153-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-12	IA-060-C-27	TO 15 LL	T	155 mL	500 mL	1	1		40 mL
140-16369-A-13	IA-152-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-14	IA-144-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-15	IA-145-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32312/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32312/1		TO 15 LL		40 mL					
CCVIS 140-32312/2		TO 15 LL							
MB 140-32312/4		TO 15 LL							
140-16369-A-9	IA-155-C-27	TO 15 LL	T						
140-16369-A-10	IA-133-C-27	TO 15 LL	T						
140-16369-A-11	IA-153-C-27	TO 15 LL	T						
140-16369-A-12	IA-060-C-27	TO 15 LL	T						
140-16369-A-13	IA-152-C-27	TO 15 LL	T						
140-16369-A-14	IA-144-C-27	TO 15 LL	T						
140-16369-A-15	IA-145-C-27	TO 15 LL	T						
LCS 140-32312/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32312 Batch Start Date: 08/19/19 09:45 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32744/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32744/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32744/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-1	IA-BCK-4-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-2	IA-BCK-2-27	TO 15 LL	T	164 mL	500 mL	1	1		40 mL
140-16369-A-3	IA-BCK-1-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-4	IA-BCK-3-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-5	IA-001-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-6	IA-004-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-7	IA-102-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-8	IA-DUP1-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32744/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32744/1		TO 15 LL		40 mL					
CCVIS 140-32744/2		TO 15 LL							
MB 140-32744/4		TO 15 LL							
140-16369-A-1	IA-BCK-4-27	TO 15 LL	T						
140-16369-A-2	IA-BCK-2-27	TO 15 LL	T						
140-16369-A-3	IA-BCK-1-27	TO 15 LL	T						
140-16369-A-4	IA-BCK-3-27	TO 15 LL	T						
140-16369-A-5	IA-001-C-27	TO 15 LL	T						
140-16369-A-6	IA-004-C-27	TO 15 LL	T						
140-16369-A-7	IA-102-C-27	TO 15 LL	T						
140-16369-A-8	IA-DUP1-C-27	TO 15 LL	T						
LCS 140-32744/1002		TO 15 LL							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32828/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32828/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32828/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-16	IA-146-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-17	IA-150-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-18	IA-141-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32828/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32828/1		TO 15 LL		40 mL					
CCVIS 140-32828/2		TO 15 LL							
MB 140-32828/4		TO 15 LL							
140-16369-A-16	IA-146-C-27	TO 15 LL	T						
140-16369-A-17	IA-150-C-27	TO 15 LL	T						
140-16369-A-18	IA-141-C-27	TO 15 LL	T						
LCS 140-32828/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-23	IA-DUP2-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16369-A-23	IA-DUP2-C-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-20	IA-126-C-27	TO 15 LL	T	287 mL	500 mL	1	1		40 mL
140-16369-A-21	IA-113-C-27	TO 15 LL	T	145 mL	500 mL	1	1		40 mL
140-16369-A-22	IA-088-C-27	TO 15 LL	T	153 mL	500 mL	1	1		40 mL
140-16369-A-24	IA-142-C-27	TO 15 LL	T	189 mL	500 mL	1	1		40 mL
140-16369-A-19	IA-149-C-27	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16369-A-20	IA-126-C-27	TO 15 LL	T						
140-16369-A-21	IA-113-C-27	TO 15 LL	T						
140-16369-A-22	IA-088-C-27	TO 15 LL	T						
140-16369-A-24	IA-142-C-27	TO 15 LL	T						
140-16369-A-19	IA-149-C-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16369-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16369-2	1	-8.3	0.72	0.72	2.7	1.18	1.18		1.64	1.64	08/19/19 11:55	Taj, Holly M
140-16369-12	1	-6.9	0.77	0.77	2.8	1.19	1.19		1.55	1.55	08/19/19 11:57	Taj, Holly M
140-16369-19	1	-7.7	0.74	0.74	3.5	1.24	1.24		1.67	1.67	08/23/19 11:44	Taj, Holly M
140-16369-20	1	-8.2	0.73	0.73	15.9	2.08	2.08		2.87	2.87	08/23/19 11:41	Taj, Holly M
140-16369-21	1	-4.7	0.84	0.84	3.3	1.22	1.22		1.45	1.45	08/23/19 11:44	Taj, Holly M
140-16369-22	1	-5.9	0.80	0.80	3.4	1.23	1.23		1.53	1.53	08/23/19 11:43	Taj, Holly M
140-16369-24	1	-9.1	0.70	0.70	4.6	1.31	1.31		1.89	1.89	08/23/19 11:42	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D				
Lims ID:	140-15955-A-1				
Client ID:	10500				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 07:00:30	ALS Bottle#:	13	Worklist Smp#:	26
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012293-026				
Misc. Info.:	10500				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	12-Jul-2019 05:43:43	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0309				
First Level Reviewer: khachitpongpanits		Date:	12-Jul-2019 18:45:22		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

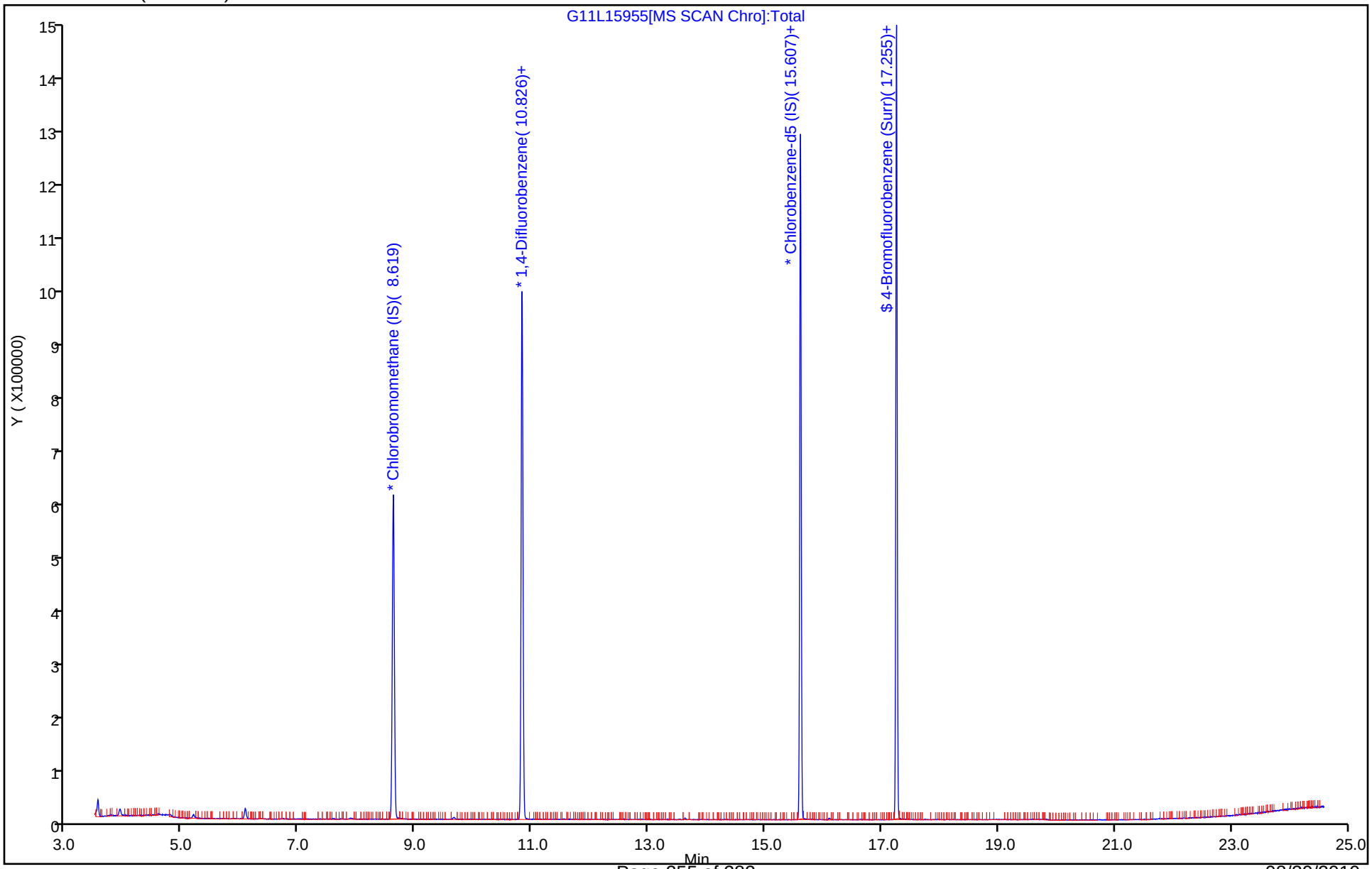
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D
Lims ID: 140-16080-A-13
Client ID: 09583
Sample Type: Client
Inject. Date: 21-Jul-2019 04:24:30 ALS Bottle#: 1 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012391-021
Misc. Info.: 09583
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Jul-2019 11:04:01 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: khachitpongpanits Date: 22-Jul-2019 11:06:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.162	-0.011	94	216420	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.330	-0.011	97	1209463	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	94	1032396	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	78	745253	3.85	
7 Propene	41	3.834	3.834	0.000	98	43488	0.5290	
31 Methylene Chloride	84	6.552	6.552	0.000	98	14297	0.1665	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

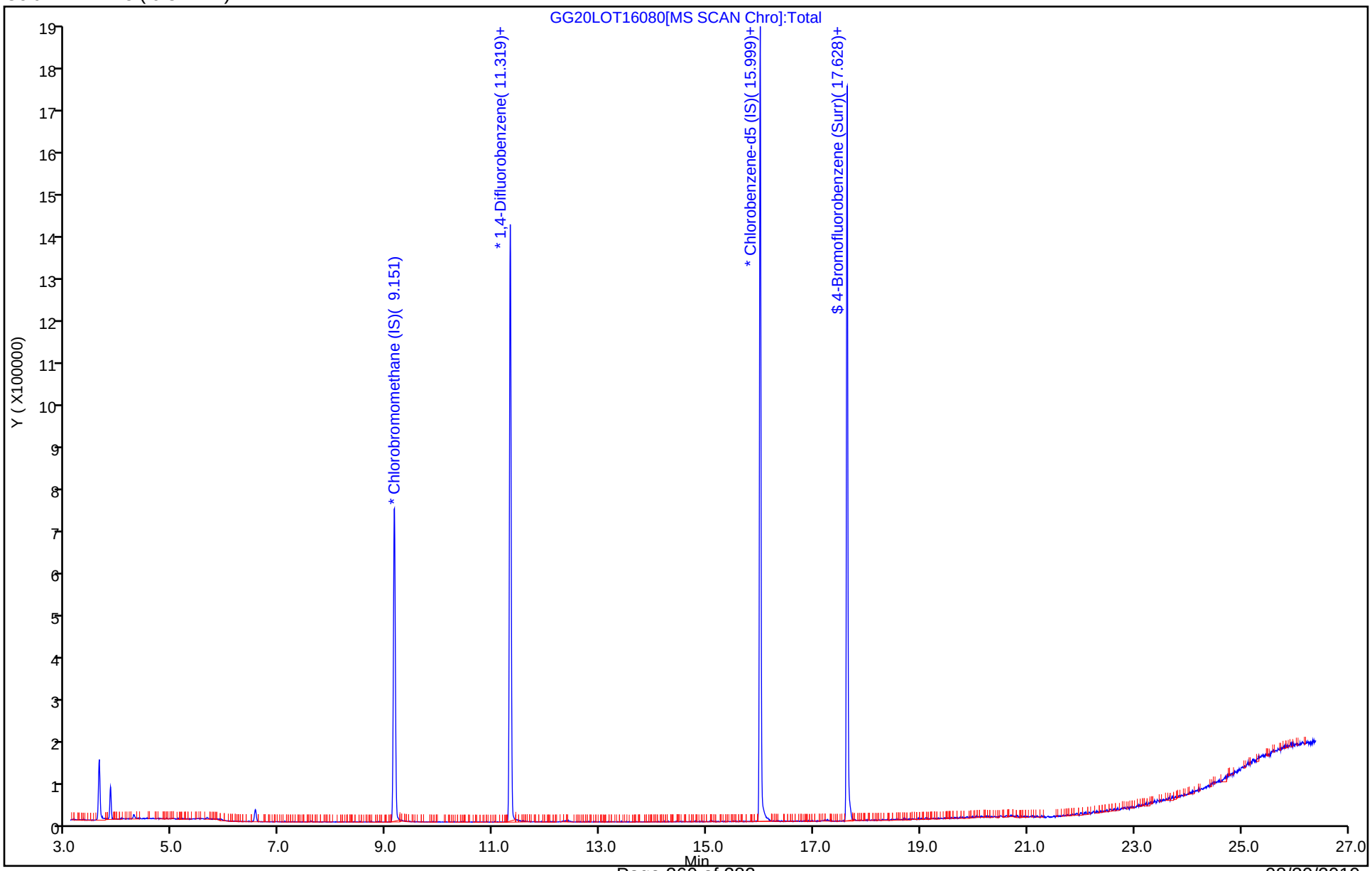
Report Date: 22-Jul-2019 11:06:12 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D

Injection Date:	21-Jul-2019 04:24:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16080-A-13	Lab Sample ID:	140-16080-13	Worklist Smp#:	21
Client ID:	09583				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Lims ID:	140-16090-A-16				
Client ID:	09814				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 05:42:30	ALS Bottle#:	2	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012392-025				
Misc. Info.:	09814				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Jul-2019 04:18:05	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0339				
First Level Reviewer: khachitpongpanits		Date:	23-Jul-2019 17:24:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.151	0.000	94	259488	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.324	0.000	97	1492987	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1296032	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	942339	3.88	
7 Propene	41	3.845	3.840	0.005	99	47088	0.4778	
31 Methylene Chloride	84	6.557	6.546	0.010	98	16683	0.1621	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

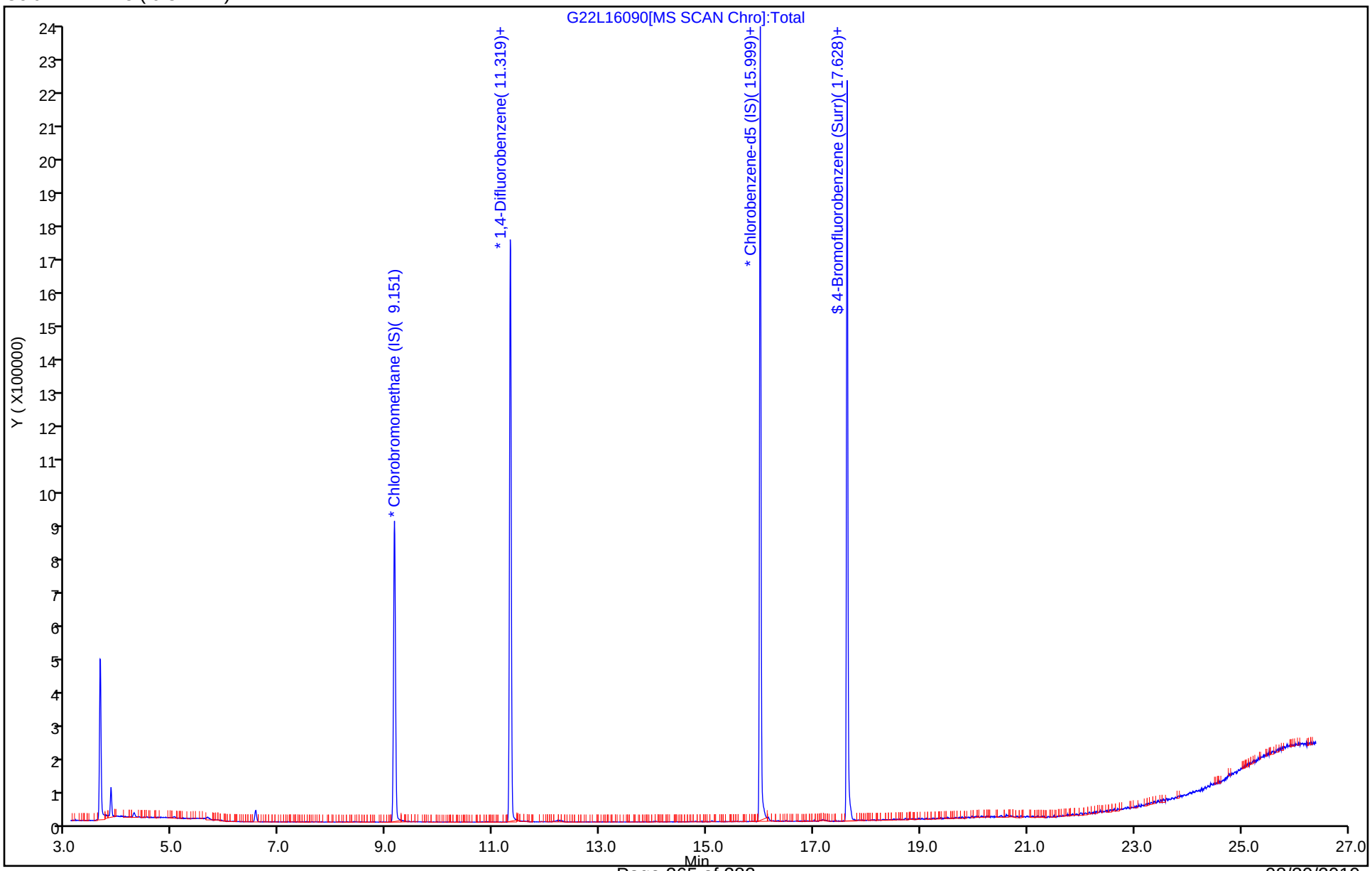
Report Date: 23-Jul-2019 17:24:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D

Injection Date:	23-Jul-2019 05:42:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16090-A-16	Lab Sample ID:	140-16090-16	Worklist Smp#:	25
Client ID:	09814				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND	*	1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND	*	2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D
Lims ID: 140-16112-A-4
Client ID: 10335
Sample Type: Client
Inject. Date: 24-Jul-2019 09:26:30 ALS Bottle#: 16 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012431-023
Misc. Info.: 10335
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 08:01:31 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: tajh Date: 24-Jul-2019 10:32:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.151	-0.006	94	219439	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.319	0.000	97	1272102	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1096012	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	798264	3.88	
7 Propene	41	3.839	3.832	0.005	99	44228	0.5306	
31 Methylene Chloride	84	6.546	6.543	0.000	98	20115	0.2311	
40 Hexane	56	8.391	8.391	-0.005	84	1694	0.0225	
47 1,1,1-Trichloroethane	97	10.208	10.196	0.006	94	4666	0.0248	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

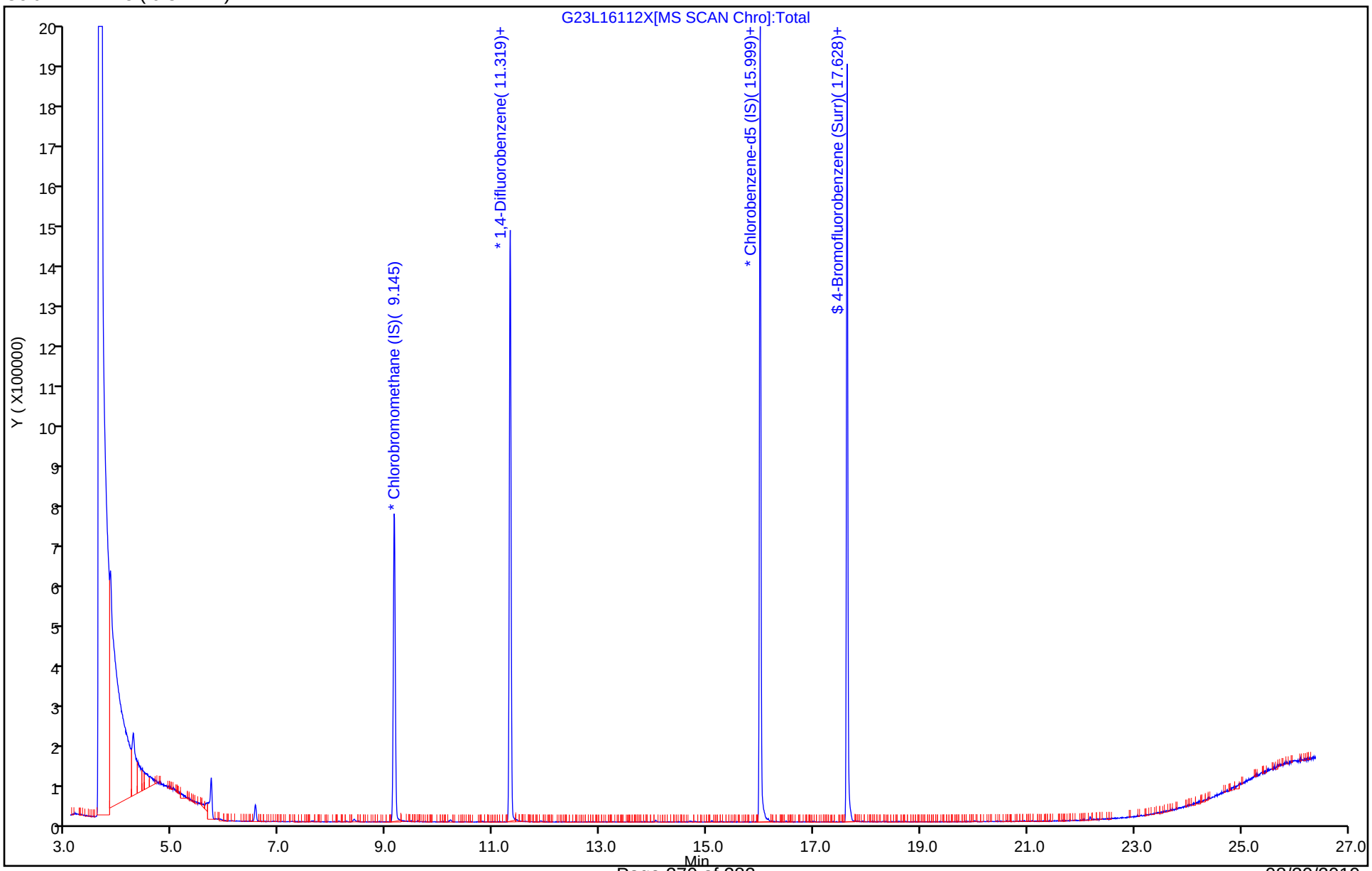
Report Date: 24-Jul-2019 10:32:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D

Injection Date:	24-Jul-2019 09:26:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	140-16112-A-4	Lab Sample ID:	140-16112-4	Worklist Smp#:	23
Client ID:	10335				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D
Lims ID: 140-16113-A-14
Client ID: 11713
Sample Type: Client
Inject. Date: 24-Jul-2019 05:30:30 ALS Bottle#: 8 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012440-025
Misc. Info.: 11713
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 17:11:05 Calib Date: 17-Jul-2019 02:30:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190716-12366.b\RG16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: khachitpongpanits Date: 24-Jul-2019 17:11:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.325	7.325	0.000	68	185440	4.00	
* 2 1,4-Difluorobenzene	114	9.380	9.385	-0.005	95	1017877	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.443	14.448	-0.005	91	867615	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.174	16.168	0.000	87	731505	4.12	
7 Propene	41	3.529	3.518	0.011	92	4705	0.1591	7
23 Isopropyl alcohol	45	4.737	4.699	0.038	63	2975	0.0625	
29 2-Methyl-2-propanol	59	5.179	5.136	0.043	91	2388	0.0197	
31 Methylene Chloride	84	5.287	5.292	-0.005	88	16812	0.2624	
40 Hexane	56	6.813	6.802	0.011	79	1478	0.0384	
47 1,1,1-Trichloroethane	97	8.274	8.280	-0.006	95	8702	0.0392	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

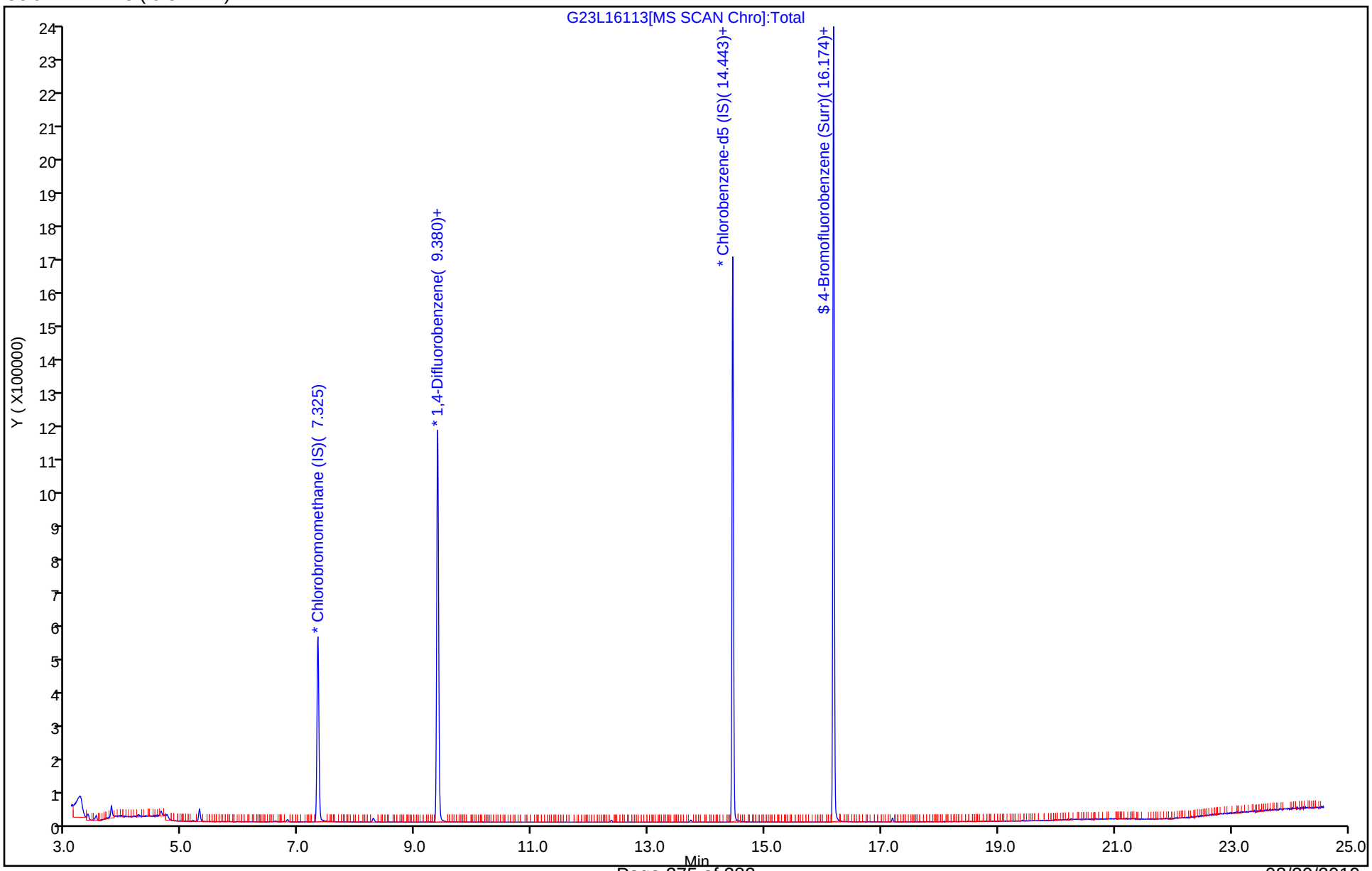
Report Date: 24-Jul-2019 17:11:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D

Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14	Worklist Smp#:	25
Client ID:	11713				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



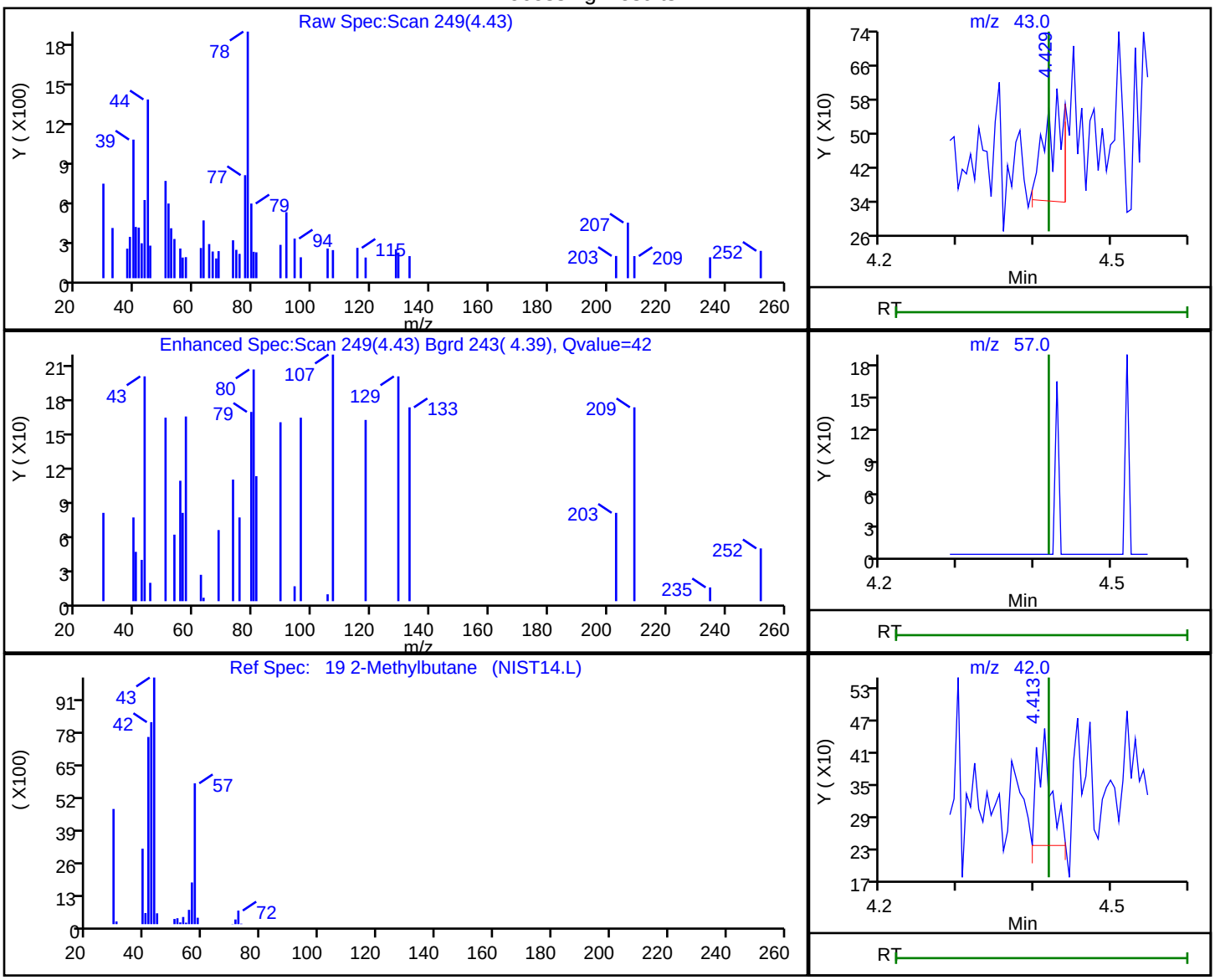
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D				
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR		
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14		
Client ID:	11713				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.43	43.00	413	0.013699
4.42	57.00	0	
4.41	42.00	258	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

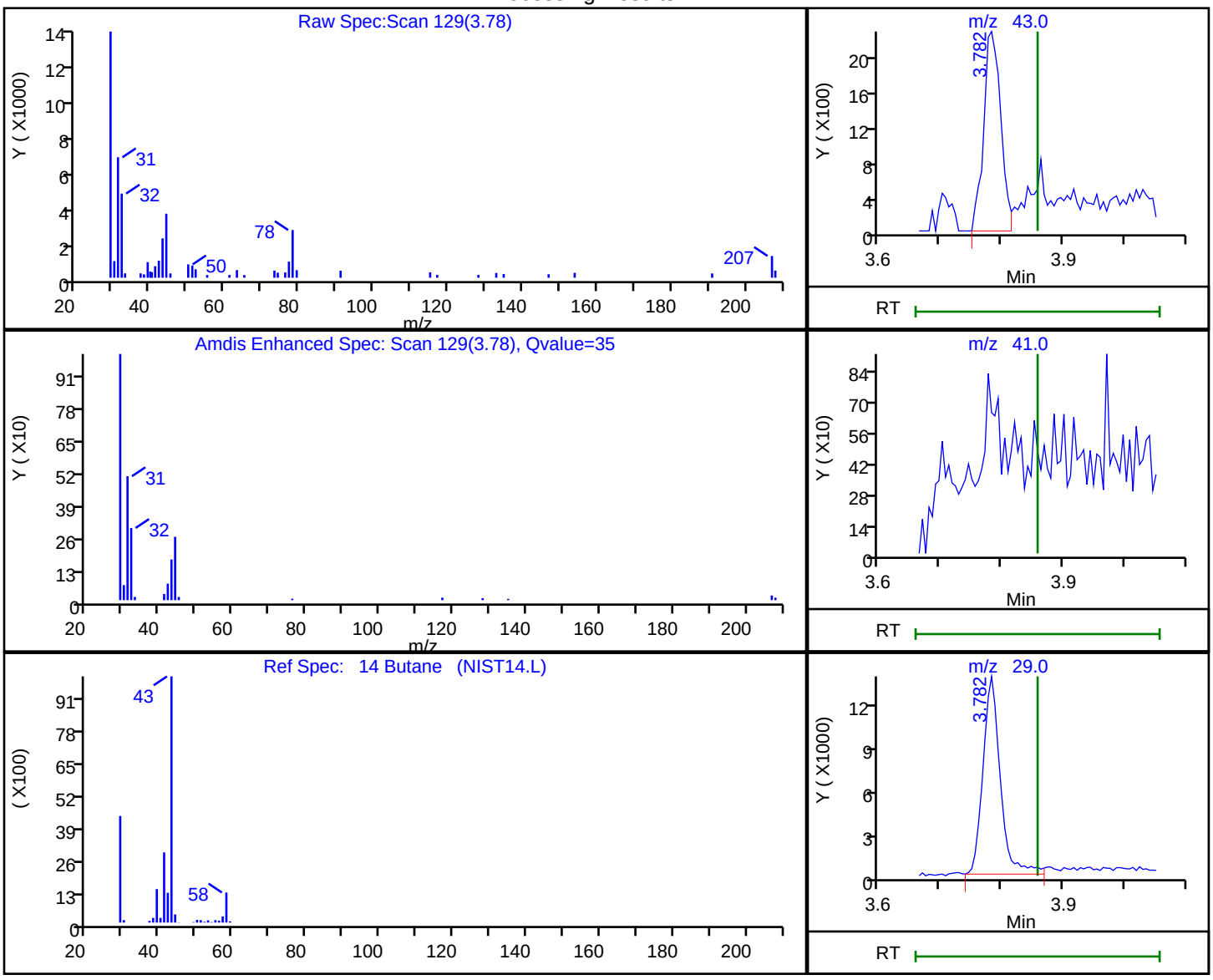
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D		
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14
Client ID:	11713		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.78	43.00	4307	0.097258
3.86	41.00	0	
3.78	29.00	26745	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

140-16369 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 3 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, BCH, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC08388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-BCK-4-27	8/14/19	0716	8/14/19	1534	-28	0	7581	11868	X								X						
IA-BCK-2-27		0722		1544	-20	0	8634	11821	X								X						
IA-BCK-1-27		0727		1549	-30	-1	10584	11626	X								X						
IA-BCK-3-27		0736		1537	-30	-1	7061	10603	X								X						
IA-001-C-27		0751		1631	-30	-4	09552	11669	X								X						
IA-004-C-27		0753		1632	-25	1	10174	09806	X								X						
IA-102-C-27		0800		1635	-30	-4	8607	11609	X								X						
IA-OUP1-C-27		0000		0000	-30	-1	8680	11889	X								X						
IA-155-C-27		0803		1637	-26	-3	8464	11716	X								X						
IA-133-C-27		0805		1638	-30	-4	7588	11269	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Received @ ambient, 3 boxes, Fedex PO
trK#7760 0655 8170, Custody seal intact
" " 8376 KW 8/17/19
" " 8343

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by: [signature]	Date / Time: 8/16/19 1300	Received by: [signature]	
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] ETA 8/17/19 1630	2T, 24 flows, 24 cans
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

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TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSEN/OBRIEN/PRYOR	COC No: 4 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Lab Sampling:
FAX:	Analysis Turnaround Time		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Rush (Specifiy):		
P O # 112ICOS388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-153-C-27	8/14/19	0807	8/14/19	1639	-28	0	11528	11828	X								X						
IA-060-C-27	"	0809	"	1640	-30	-6	7107	11726	X								X						
IA-152-C-27	"	0812	"	1642	-30	0	8752	11831	X								X						
IA-144-C-27	"	0815	"	1641	-29	-3	089955	11107	X								X						
IA-145-C-27	"	0821	"	1643	-12	1	11423	11495	X								X						
IA-146-C-27	"	0825	"	1645	-30	-1	8689	10841	X								X						
IA-150-C-27	"	0823	"	1644	-29	-2	7421	11877	X								X						
IA-141-C-27	"	0826	"	1647	-27	-2	7365	10520	X								X						
IA-149-C-27	"	0828	"	1650	-30	-4	11489	11842	X								X						
IA-126-C-27	"	0830	"	1651	-29	-2	10875	11521	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore
#201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PAYOR	COC No: 5 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 200	Email: JIM.APANAVAGE@TETRATECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PAYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		(See below for Add'l Items)
Site/Location: MRC, Bel Air, MD	Standard (Specific): 10 DAYS		
P O # 112IC08588	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-113-C-27	8/14/19	0837	8/14/19	1654	-27	0	10593	09583	X								X						
IA-088-C-27	↓	0845	↓	1655	-30	-4	11757	11258	X								X						
IA-DUP2-C-27	↓	0000	↓	0000	-24	0	8837	11890	X								X						
IA-142-C-27	↓	0845	↓	1656	-25	+1	10439	11774	X								X						

8/14/19

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

* NOT USED - Flow # 7420, Can # 11743 (8hr Can)

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** LA ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16369

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400295 PM Instructions: _____

Sample Receiving Associate: _____ Date: 8/17/19

QA026R32.doc, 062719

08/30/2019

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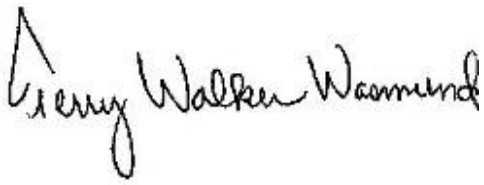
ANALYTICAL REPORT

Job Number: 140-16369-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:20 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Amy Thomson

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16369-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32312 exhibited % difference of > 30% for 1,2-Dichloroethane and Naphthalene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Analyte 1,2-Dichloroethane recovered outside control limits for the LCS associated with analytical batch 140-32312. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.52		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.48	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.0	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.8	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1.64		TO 15 LL	Total/NA
Carbon tetrachloride	0.041	J	0.40	0.035	ppb v/v	1.64		TO 15 LL	Total/NA
Chlorodifluoromethane	0.49		0.40	0.11	ppb v/v	1.64		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.31	J	0.40	0.070	ppb v/v	1.64		TO 15 LL	Total/NA
Ethylbenzene	0.070	J	0.40	0.065	ppb v/v	1.64		TO 15 LL	Total/NA
Methylene Chloride	2.9	B	2.0	0.80	ppb v/v	1.64		TO 15 LL	Total/NA
Toluene	0.96		0.60	0.39	ppb v/v	1.64		TO 15 LL	Total/NA
Xylenes, Total	0.31	J	0.80	0.12	ppb v/v	1.64		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.56	J	1.3	0.13	ug/m3	1.64		TO 15 LL	Total/NA
Carbon tetrachloride	0.26	J	2.5	0.22	ug/m3	1.64		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1.64		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.35	ug/m3	1.64		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	1.7	0.28	ug/m3	1.64		TO 15 LL	Total/NA
Methylene Chloride	10	B	6.9	2.8	ug/m3	1.64		TO 15 LL	Total/NA
Toluene	3.6		2.3	1.5	ug/m3	1.64		TO 15 LL	Total/NA
Xylenes, Total	1.4	J	3.5	0.52	ug/m3	1.64		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.080	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.3	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.50	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.23	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-BCK-1-27 (Continued) Lab Sample ID: 140-16369-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.9	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.9	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	0.99	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.036	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.24	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.18	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.8	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.20	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.42		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.050	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.081	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.2	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.43	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.63	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.27	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.35	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.9	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	0.54		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.19	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.7	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.10	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.9		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.75	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.1	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.54	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.081	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.66		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.82		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.31	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.70	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.5		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.66	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.066	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.14	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.4	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.61		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP1-C-27 (Continued) Lab Sample ID: 140-16369-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.75	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.2		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.60	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.7	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.32	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.61	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.20	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.59		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.63	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.9		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.85	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.86	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.19	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.4		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.71		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.16	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.84		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-133-C-27 (Continued) Lab Sample ID: 140-16369-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.61	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.9	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.33	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.66	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	12		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.77	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.056	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.9	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.57	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.17	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.71	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.38	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.4	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.2	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.82	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1.55		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1.55		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.40	0.11	ppb v/v	1.55		TO 15 LL	Total/NA
Chloroform	0.053	J	0.40	0.035	ppb v/v	1.55		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43		0.40	0.070	ppb v/v	1.55		TO 15 LL	Total/NA
Ethylbenzene	0.090	J	0.40	0.065	ppb v/v	1.55		TO 15 LL	Total/NA
Methylene Chloride	2.5		2.0	0.80	ppb v/v	1.55		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1.55		TO 15 LL	Total/NA
Xylenes, Total	0.46	J	0.80	0.12	ppb v/v	1.55		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1.55		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1.55		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-060-C-27 (Continued) Lab Sample ID: 140-16369-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	4.2		1.4	0.39	ug/m3	1.55		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1.55		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1.55		TO 15 LL	Total/NA
Ethylbenzene	0.39	J	1.7	0.28	ug/m3	1.55		TO 15 LL	Total/NA
Methylene Chloride	8.8		6.9	2.8	ug/m3	1.55		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1.55		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	1.55		TO 15 LL	Total/NA

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.074	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.5	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.18	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.29	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.7		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.99		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.18	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.52		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.17	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.7		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.57	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	16	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.89	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	23		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.86	J	2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.6		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.81	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	7.2		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.8	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.26	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.68		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.28	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-144-C-27 (Continued) Lab Sample ID: 140-16369-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	14	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.57	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.040	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.1		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.88		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.53	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	12		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.19	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.49	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.054	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.43	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.56	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	38	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-146-C-27 (Continued) Lab Sample ID: 140-16369-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.46	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.6	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	9.2	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.46	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.55	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	32	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.20	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.50	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.7	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.84		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.30	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.46	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.26	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.8		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.1	J	1.3	0.37	ppb v/v	1.67		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-149-C-27 (Continued) Lab Sample ID: 140-16369-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.52	J	1.3	0.23	ppb v/v	1.67		TO 15 LL	Total/NA
Ethylbenzene	0.44	J	1.3	0.22	ppb v/v	1.67		TO 15 LL	Total/NA
Methylene Chloride	98	B	6.7	2.7	ppb v/v	1.67		TO 15 LL	Total/NA
Toluene	3.6		2.0	1.3	ppb v/v	1.67		TO 15 LL	Total/NA
Trichloroethene	0.21	J	0.67	0.10	ppb v/v	1.67		TO 15 LL	Total/NA
Xylenes, Total	1.9	J	2.7	0.40	ppb v/v	1.67		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	3.7	J	4.7	1.3	ug/m3	1.67		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6	J	6.6	1.2	ug/m3	1.67		TO 15 LL	Total/NA
Ethylbenzene	1.9	J	5.8	0.94	ug/m3	1.67		TO 15 LL	Total/NA
Methylene Chloride	340	B	23	9.3	ug/m3	1.67		TO 15 LL	Total/NA
Toluene	13		7.6	4.9	ug/m3	1.67		TO 15 LL	Total/NA
Trichloroethene	1.1	J	3.6	0.54	ug/m3	1.67		TO 15 LL	Total/NA
Xylenes, Total	8.3	J	12	1.7	ug/m3	1.67		TO 15 LL	Total/NA

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	0.40	0.040	ppb v/v	2.87		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	2.87		TO 15 LL	Total/NA
Chloroform	0.062	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	2.87		TO 15 LL	Total/NA
Ethylbenzene	0.36	J	0.40	0.065	ppb v/v	2.87		TO 15 LL	Total/NA
Methylene Chloride	80	B	2.0	0.80	ppb v/v	2.87		TO 15 LL	Total/NA
Tetrachloroethene	0.058	J	0.40	0.035	ppb v/v	2.87		TO 15 LL	Total/NA
Toluene	3.1		0.60	0.39	ppb v/v	2.87		TO 15 LL	Total/NA
Trichloroethene	0.19	J	0.20	0.030	ppb v/v	2.87		TO 15 LL	Total/NA
Xylenes, Total	1.8		0.80	0.12	ppb v/v	2.87		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.74	J	1.3	0.13	ug/m3	2.87		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	2.87		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	2.87		TO 15 LL	Total/NA
Chloroform	0.31	J	2.0	0.17	ug/m3	2.87		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	2.87		TO 15 LL	Total/NA
Ethylbenzene	1.6	J	1.7	0.28	ug/m3	2.87		TO 15 LL	Total/NA
Methylene Chloride	280	B	6.9	2.8	ug/m3	2.87		TO 15 LL	Total/NA
Tetrachloroethene	0.39	J	2.7	0.24	ug/m3	2.87		TO 15 LL	Total/NA
Toluene	12		2.3	1.5	ug/m3	2.87		TO 15 LL	Total/NA
Trichloroethene	1.0	J	1.1	0.16	ug/m3	2.87		TO 15 LL	Total/NA
Xylenes, Total	7.8		3.5	0.52	ug/m3	2.87		TO 15 LL	Total/NA

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18	J	0.40	0.040	ppb v/v	1.45		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Chlorodifluoromethane	1.0		0.40	0.11	ppb v/v	1.45		TO 15 LL	Total/NA
Chloroform	0.072	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1.45		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1.45		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-113-C-27 (Continued) Lab Sample ID: 140-16369-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	38	B	2.0	0.80	ppb v/v	1.45		TO 15 LL	Total/NA
Tetrachloroethene	0.048	J	0.40	0.035	ppb v/v	1.45		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1.45		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1.45		TO 15 LL	Total/NA
Xylenes, Total	0.87		0.80	0.12	ppb v/v	1.45		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.3	0.13	ug/m3	1.45		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1.45		TO 15 LL	Total/NA
Chlorodifluoromethane	3.7		1.4	0.39	ug/m3	1.45		TO 15 LL	Total/NA
Chloroform	0.35	J	2.0	0.17	ug/m3	1.45		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1.45		TO 15 LL	Total/NA
Ethylbenzene	0.67	J	1.7	0.28	ug/m3	1.45		TO 15 LL	Total/NA
Methylene Chloride	130	B	6.9	2.8	ug/m3	1.45		TO 15 LL	Total/NA
Tetrachloroethene	0.33	J	2.7	0.24	ug/m3	1.45		TO 15 LL	Total/NA
Toluene	3.9		2.3	1.5	ug/m3	1.45		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.58	J	2.0	0.49	ug/m3	1.45		TO 15 LL	Total/NA
Xylenes, Total	3.8		3.5	0.52	ug/m3	1.45		TO 15 LL	Total/NA

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1.53		TO 15 LL	Total/NA
Carbon tetrachloride	0.074	J	0.40	0.035	ppb v/v	1.53		TO 15 LL	Total/NA
Chlorodifluoromethane	0.87		0.40	0.11	ppb v/v	1.53		TO 15 LL	Total/NA
Chloroform	0.086	J	0.40	0.035	ppb v/v	1.53		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1.53		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1.53		TO 15 LL	Total/NA
Methylene Chloride	56	B	2.0	0.80	ppb v/v	1.53		TO 15 LL	Total/NA
Toluene	1.1		0.60	0.39	ppb v/v	1.53		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12	J	0.40	0.10	ppb v/v	1.53		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1.53		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1.53		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	2.5	0.22	ug/m3	1.53		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		1.4	0.39	ug/m3	1.53		TO 15 LL	Total/NA
Chloroform	0.42	J	2.0	0.17	ug/m3	1.53		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1.53		TO 15 LL	Total/NA
Ethylbenzene	0.78	J	1.7	0.28	ug/m3	1.53		TO 15 LL	Total/NA
Methylene Chloride	190	B	6.9	2.8	ug/m3	1.53		TO 15 LL	Total/NA
Toluene	4.0		2.3	1.5	ug/m3	1.53		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.60	J	2.0	0.49	ug/m3	1.53		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1.53		TO 15 LL	Total/NA

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.068	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.56		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-DUP2-C-27 (Continued) Lab Sample ID: 140-16369-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.79		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.14	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.93		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.55	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.43	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.71	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	54	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.0		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.67	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1.89		TO 15 LL	Total/NA
Carbon tetrachloride	0.079	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Chlorodifluoromethane	0.87		0.40	0.11	ppb v/v	1.89		TO 15 LL	Total/NA
Chloroform	0.056	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1.89		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1.89		TO 15 LL	Total/NA
Methylene Chloride	4.0	B	2.0	0.80	ppb v/v	1.89		TO 15 LL	Total/NA
Tetrachloroethene	0.035	J	0.40	0.035	ppb v/v	1.89		TO 15 LL	Total/NA
Toluene	0.65		0.60	0.39	ppb v/v	1.89		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.40	0.10	ppb v/v	1.89		TO 15 LL	Total/NA
Xylenes, Total	0.77	J	0.80	0.12	ppb v/v	1.89		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53	J	1.3	0.13	ug/m3	1.89		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1.89		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		1.4	0.39	ug/m3	1.89		TO 15 LL	Total/NA
Chloroform	0.27	J	2.0	0.17	ug/m3	1.89		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1.89		TO 15 LL	Total/NA
Ethylbenzene	0.63	J	1.7	0.28	ug/m3	1.89		TO 15 LL	Total/NA
Methylene Chloride	14	B	6.9	2.8	ug/m3	1.89		TO 15 LL	Total/NA
Tetrachloroethene	0.24	J	2.7	0.24	ug/m3	1.89		TO 15 LL	Total/NA
Toluene	2.4		2.3	1.5	ug/m3	1.89		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.64	J	2.0	0.49	ug/m3	1.89		TO 15 LL	Total/NA
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1.89		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Date Collected: 08/14/19 15:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 00:45	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/20/19 00:45	1
Chlorodifluoromethane	**0.52**		0.40	0.11	ppb v/v			08/20/19 00:45	1
Chloroform	**0.038**	**J**	0.40	0.035	ppb v/v			08/20/19 00:45	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 00:45	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 00:45	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 00:45	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 00:45	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 00:45	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 00:45	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 00:45	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 00:45	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
Toluene	**0.48**	**J**	0.60	0.39	ppb v/v			08/20/19 00:45	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 00:45	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 00:45	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 00:45	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 00:45	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 00:45	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 00:45	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 00:45	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 00:45	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 00:45	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/20/19 00:45	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/20/19 00:45	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 00:45	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/20/19 00:45	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 00:45	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 00:45	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 00:45	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 00:45	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 00:45	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 00:45	1
Methylene Chloride	**5.0**	**J B**	6.9	2.8	ug/m3			08/20/19 00:45	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 00:45	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 00:45	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 00:45	1
Toluene	**1.8**	**J**	2.3	1.5	ug/m3			08/20/19 00:45	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 00:45	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 00:45	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 00:45	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 00:45	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 00:45	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 00:45	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 00:45	1

Client Sample ID: IA-BCK-4-27 **Lab Sample ID: 140-16369-1**
Date Collected: 08/14/19 15:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 00:45	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 00:45	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 00:45*	*1*

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Date Collected: 08/14/19 15:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/20/19 01:33	1.64
Carbon tetrachloride	**0.041**	**J**	0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Chlorodifluoromethane	**0.49**		0.40	0.11	ppb v/v			08/20/19 01:33	1.64
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 01:33	1.64
Dichlorodifluoromethane	**0.31**	**J**	0.40	0.070	ppb v/v			08/20/19 01:33	1.64
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 01:33	1.64
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 01:33	1.64
Ethylbenzene	**0.070**	**J**	0.40	0.065	ppb v/v			08/20/19 01:33	1.64
Methylene Chloride	**2.9**	**B**	2.0	0.80	ppb v/v			08/20/19 01:33	1.64
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 01:33	1.64
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 01:33	1.64
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Toluene	**0.96**		0.60	0.39	ppb v/v			08/20/19 01:33	1.64
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 01:33	1.64
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 01:33	1.64
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 01:33	1.64
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 01:33	1.64
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 01:33	1.64
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 01:33	1.64
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 01:33	1.64
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 01:33	1.64
Xylenes, Total	**0.31**	**J**	0.80	0.12	ppb v/v			08/20/19 01:33	1.64

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.56**	**J**	1.3	0.13	ug/m3			08/20/19 01:33	1.64
Carbon tetrachloride	**0.26**	**J**	2.5	0.22	ug/m3			08/20/19 01:33	1.64
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/20/19 01:33	1.64
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 01:33	1.64
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 01:33	1.64
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.35	ug/m3			08/20/19 01:33	1.64
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 01:33	1.64
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 01:33	1.64
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 01:33	1.64
Ethylbenzene	**0.30**	**J**	1.7	0.28	ug/m3			08/20/19 01:33	1.64
Methylene Chloride	**10**	**B**	6.9	2.8	ug/m3			08/20/19 01:33	1.64
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 01:33	1.64
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 01:33	1.64
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 01:33	1.64
Toluene	**3.6**		2.3	1.5	ug/m3			08/20/19 01:33	1.64
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 01:33	1.64
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 01:33	1.64
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 01:33	1.64
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 01:33	1.64
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 01:33	1.64
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 01:33	1.64
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 01:33	1.64

Client Sample ID: IA-BCK-2-27 **Lab Sample ID: 140-16369-2**
Date Collected: 08/14/19 15:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 01:33	1.64
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 01:33	1.64
Xylenes, Total	**1.4**	**J**	3.5	0.52	ug/m3			08/20/19 01:33	1.64

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 01:33*	*1.64*

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Date Collected: 08/14/19 15:49 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/20/19 02:20	1
Carbon tetrachloride	**0.080**	**J**	0.40	0.035	ppb v/v			08/20/19 02:20	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/20/19 02:20	1
Chloroform	**0.043**	**J**	0.40	0.035	ppb v/v			08/20/19 02:20	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 02:20	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/20/19 02:20	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 02:20	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 02:20	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 02:20	1
Methylene Chloride	**2.3**	**B**	2.0	0.80	ppb v/v			08/20/19 02:20	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 02:20	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 02:20	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
Toluene	**0.50**	**J**	0.60	0.39	ppb v/v			08/20/19 02:20	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 02:20	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 02:20	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 02:20	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 02:20	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 02:20	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 02:20	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 02:20	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 02:20	1
Xylenes, Total	**0.23**	**J**	0.80	0.12	ppb v/v			08/20/19 02:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/20/19 02:20	1
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/20/19 02:20	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/20/19 02:20	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			08/20/19 02:20	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 02:20	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/20/19 02:20	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 02:20	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 02:20	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 02:20	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 02:20	1
Methylene Chloride	**7.9**	**B**	6.9	2.8	ug/m3			08/20/19 02:20	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 02:20	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 02:20	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 02:20	1
Toluene	**1.9**	**J**	2.3	1.5	ug/m3			08/20/19 02:20	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 02:20	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 02:20	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 02:20	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 02:20	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 02:20	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 02:20	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 02:20	1

Client Sample ID: IA-BCK-1-27 **Lab Sample ID: 140-16369-3**
Date Collected: 08/14/19 15:49 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 02:20	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 02:20	1
Xylenes, Total	**0.99**	**J**	3.5	0.52	ug/m3			08/20/19 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 02:20*	*1*

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Date Collected: 08/14/19 15:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 03:09	1
Carbon tetrachloride	**0.075**	**J**	0.40	0.035	ppb v/v			08/20/19 03:09	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/20/19 03:09	1
Chloroform	**0.036**	**J**	0.40	0.035	ppb v/v			08/20/19 03:09	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 03:09	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 03:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 03:09	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 03:09	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 03:09	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 03:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 03:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 03:09	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 03:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 03:09	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 03:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:09	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 03:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 03:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 03:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 03:09	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 03:09	1
Xylenes, Total	**0.24**	**J**	0.80	0.12	ppb v/v			08/20/19 03:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/20/19 03:09	1
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/20/19 03:09	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/20/19 03:09	1
Chloroform	**0.18**	**J**	2.0	0.17	ug/m3			08/20/19 03:09	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 03:09	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 03:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 03:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 03:09	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 03:09	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 03:09	1
Methylene Chloride	**4.8**	**J B**	6.9	2.8	ug/m3			08/20/19 03:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 03:09	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 03:09	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 03:09	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 03:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 03:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 03:09	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 03:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 03:09	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 03:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 03:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 03:09	1

Client Sample ID: IA-BCK-3-27 **Lab Sample ID: 140-16369-4**
Date Collected: 08/14/19 15:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 03:09	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 03:09	1
Xylenes, Total	**1.0**	**J**	3.5	0.52	ug/m3			08/20/19 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/20/19 03:09*	*1*

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Date Collected: 08/14/19 16:31 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.20**	**J**	0.40	0.040	ppb v/v			08/20/19 03:56	1
Carbon tetrachloride	**0.043**	**J**	0.40	0.035	ppb v/v			08/20/19 03:56	1
Chlorodifluoromethane	**0.42**		0.40	0.11	ppb v/v			08/20/19 03:56	1
Chloroform	**0.050**	**J**	0.40	0.035	ppb v/v			08/20/19 03:56	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 03:56	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/20/19 03:56	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 03:56	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 03:56	1
Ethylbenzene	**0.081**	**J**	0.40	0.065	ppb v/v			08/20/19 03:56	1
Methylene Chloride	**3.2**	**B**	2.0	0.80	ppb v/v			08/20/19 03:56	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 03:56	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 03:56	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/20/19 03:56	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 03:56	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 03:56	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 03:56	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 03:56	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 03:56	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 03:56	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 03:56	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 03:56	1
Xylenes, Total	**0.43**	**J**	0.80	0.12	ppb v/v			08/20/19 03:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.63**	**J**	1.3	0.13	ug/m3			08/20/19 03:56	1
Carbon tetrachloride	**0.27**	**J**	2.5	0.22	ug/m3			08/20/19 03:56	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/20/19 03:56	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/20/19 03:56	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 03:56	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/20/19 03:56	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 03:56	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 03:56	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 03:56	1
Ethylbenzene	**0.35**	**J**	1.7	0.28	ug/m3			08/20/19 03:56	1
Methylene Chloride	**11**	**B**	6.9	2.8	ug/m3			08/20/19 03:56	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 03:56	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 03:56	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 03:56	1
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/20/19 03:56	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 03:56	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 03:56	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 03:56	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 03:56	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 03:56	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 03:56	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 03:56	1

Client Sample ID: IA-001-C-27 **Lab Sample ID: 140-16369-5**
Date Collected: 08/14/19 16:31 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 03:56	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 03:56	1
Xylenes, Total	**1.9**	**J**	3.5	0.52	ug/m3			08/20/19 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*08/20/19 03:56*	*1*

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Date Collected: 08/14/19 16:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40	0.040	ppb v/v			08/20/19 04:45	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Chlorodifluoromethane	**0.54**		0.40	0.11	ppb v/v			08/20/19 04:45	1
Chloroform	**0.038**	**J**	0.40	0.035	ppb v/v			08/20/19 04:45	1
cis-1,2-Dichloroethene	**0.19**	**J**	0.40	0.050	ppb v/v			08/20/19 04:45	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 04:45	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 04:45	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 04:45	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 04:45	1
Methylene Chloride	**1.7**	**J B**	2.0	0.80	ppb v/v			08/20/19 04:45	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 04:45	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 04:45	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 04:45	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 04:45	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 04:45	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 04:45	1
Trichloroethene	**0.10**	**J**	0.20	0.030	ppb v/v			08/20/19 04:45	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 04:45	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 04:45	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 04:45	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 04:45	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 04:45	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ug/m3			08/20/19 04:45	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			08/20/19 04:45	1
Chlorodifluoromethane	**1.9**		1.4	0.39	ug/m3			08/20/19 04:45	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/20/19 04:45	1
cis-1,2-Dichloroethene	**0.75**	**J**	1.6	0.20	ug/m3			08/20/19 04:45	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 04:45	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 04:45	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 04:45	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 04:45	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 04:45	1
Methylene Chloride	**6.1**	**J B**	6.9	2.8	ug/m3			08/20/19 04:45	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 04:45	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 04:45	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 04:45	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 04:45	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 04:45	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 04:45	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 04:45	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 04:45	1
Trichloroethene	**0.54**	**J**	1.1	0.16	ug/m3			08/20/19 04:45	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 04:45	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 04:45	1

Client Sample ID: IA-004-C-27 **Lab Sample ID: 140-16369-6**
Date Collected: 08/14/19 16:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 04:45	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 04:45	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 04:45*	*1*

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Date Collected: 08/14/19 16:35 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/20/19 05:34	1
Carbon tetrachloride	**0.081**	**J**	0.40	0.035	ppb v/v			08/20/19 05:34	1
Chlorodifluoromethane	**1.3**		0.40	0.11	ppb v/v			08/20/19 05:34	1
Chloroform	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 05:34	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 05:34	1
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/20/19 05:34	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 05:34	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 05:34	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/20/19 05:34	1
Methylene Chloride	**2.0**	**B**	2.0	0.80	ppb v/v			08/20/19 05:34	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 05:34	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 05:34	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
Toluene	**0.66**		0.60	0.39	ppb v/v			08/20/19 05:34	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 05:34	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 05:34	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 05:34	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 05:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 05:34	1
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/20/19 05:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 05:34	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 05:34	1
Xylenes, Total	**0.82**		0.80	0.12	ppb v/v			08/20/19 05:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.50**	**J**	1.3	0.13	ug/m3			08/20/19 05:34	1
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/20/19 05:34	1
Chlorodifluoromethane	**4.6**		1.4	0.39	ug/m3			08/20/19 05:34	1
Chloroform	**0.31**	**J**	2.0	0.17	ug/m3			08/20/19 05:34	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 05:34	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 05:34	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 05:34	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 05:34	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 05:34	1
Ethylbenzene	**0.70**	**J**	1.7	0.28	ug/m3			08/20/19 05:34	1
Methylene Chloride	**7.1**	**B**	6.9	2.8	ug/m3			08/20/19 05:34	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 05:34	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 05:34	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 05:34	1
Toluene	**2.5**		2.3	1.5	ug/m3			08/20/19 05:34	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 05:34	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 05:34	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 05:34	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 05:34	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 05:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 05:34	1
1,2,4-Trimethylbenzene	**0.66**	**J**	2.0	0.49	ug/m3			08/20/19 05:34	1

Client Sample ID: IA-102-C-27 **Lab Sample ID: 140-16369-7**
Date Collected: 08/14/19 16:35 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 05:34	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 05:34	1
Xylenes, Total	**3.6**		3.5	0.52	ug/m3			08/20/19 05:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 05:34*	*1*

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 06:23	1
Carbon tetrachloride	**0.066**	**J**	0.40	0.035	ppb v/v			08/20/19 06:23	1
Chlorodifluoromethane	**1.5**		0.40	0.11	ppb v/v			08/20/19 06:23	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 06:23	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 06:23	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 06:23	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 06:23	1
Ethylbenzene	**0.14**	**J**	0.40	0.065	ppb v/v			08/20/19 06:23	1
Methylene Chloride	**1.4**	**J B**	2.0	0.80	ppb v/v			08/20/19 06:23	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 06:23	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 06:23	1
Tetrachloroethene	**0.048**	**J**	0.40	0.035	ppb v/v			08/20/19 06:23	1
Toluene	**0.61**		0.60	0.39	ppb v/v			08/20/19 06:23	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 06:23	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 06:23	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 06:23	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 06:23	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 06:23	1
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/20/19 06:23	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 06:23	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 06:23	1
Xylenes, Total	**0.75**	**J**	0.80	0.12	ppb v/v			08/20/19 06:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 06:23	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/20/19 06:23	1
Chlorodifluoromethane	**5.2**		1.4	0.39	ug/m3			08/20/19 06:23	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 06:23	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 06:23	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 06:23	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 06:23	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 06:23	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 06:23	1
Ethylbenzene	**0.60**	**J**	1.7	0.28	ug/m3			08/20/19 06:23	1
Methylene Chloride	**4.7**	**J B**	6.9	2.8	ug/m3			08/20/19 06:23	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 06:23	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 06:23	1
Tetrachloroethene	**0.32**	**J**	2.7	0.24	ug/m3			08/20/19 06:23	1
Toluene	**2.3**		2.3	1.5	ug/m3			08/20/19 06:23	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 06:23	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 06:23	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 06:23	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 06:23	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 06:23	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 06:23	1
1,2,4-Trimethylbenzene	**0.61**	**J**	2.0	0.49	ug/m3			08/20/19 06:23	1

Client Sample ID: IA-DUP1-C-27 **Lab Sample ID: 140-16369-8**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 06:23	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 06:23	1
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/20/19 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 06:23*	*1*

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Date Collected: 08/14/19 16:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.20**	**J**	0.40	0.040	ppb v/v			08/19/19 13:38	1
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/19/19 13:38	1
Chlorodifluoromethane	**2.3**		0.40	0.11	ppb v/v			08/19/19 13:38	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 13:38	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 13:38	1
Dichlorodifluoromethane	**0.59**		0.40	0.070	ppb v/v			08/19/19 13:38	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 13:38	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 13:38	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			08/19/19 13:38	1
Methylene Chloride	**3.8**		2.0	0.80	ppb v/v			08/19/19 13:38	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 13:38	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 13:38	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
Toluene	**1.0**		0.60	0.39	ppb v/v			08/19/19 13:38	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 13:38	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 13:38	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 13:38	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 13:38	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 13:38	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/19/19 13:38	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 13:38	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 13:38	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/19/19 13:38	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.63**	**J**	1.3	0.13	ug/m3			08/19/19 13:38	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 13:38	1
Chlorodifluoromethane	**8.1**		1.4	0.39	ug/m3			08/19/19 13:38	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			08/19/19 13:38	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 13:38	1
Dichlorodifluoromethane	**2.9**		2.0	0.35	ug/m3			08/19/19 13:38	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 13:38	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 13:38	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 13:38	1
Ethylbenzene	**0.85**	**J**	1.7	0.28	ug/m3			08/19/19 13:38	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/19/19 13:38	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 13:38	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 13:38	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 13:38	1
Toluene	**3.8**		2.3	1.5	ug/m3			08/19/19 13:38	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 13:38	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 13:38	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 13:38	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 13:38	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 13:38	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 13:38	1
1,2,4-Trimethylbenzene	**0.86**	**J**	2.0	0.49	ug/m3			08/19/19 13:38	1

Client Sample ID: IA-155-C-27 **Lab Sample ID: 140-16369-9**
Date Collected: 08/14/19 16:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 13:38	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 13:38	1
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/19/19 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/19/19 13:38*	*1*

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Date Collected: 08/14/19 16:38 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.19**	**J**	0.40	0.040	ppb v/v			08/19/19 14:28	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			08/19/19 14:28	1
Chlorodifluoromethane	**1.1**	**CI**	0.40	0.11	ppb v/v			08/19/19 14:28	1
Chloroform	**0.068**	**J**	0.40	0.035	ppb v/v			08/19/19 14:28	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 14:28	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/19/19 14:28	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 14:28	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 14:28	1
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/19/19 14:28	1
Methylene Chloride	**3.4**		2.0	0.80	ppb v/v			08/19/19 14:28	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 14:28	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 14:28	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
Toluene	**0.71**		0.60	0.39	ppb v/v			08/19/19 14:28	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 14:28	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 14:28	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 14:28	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 14:28	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 14:28	1
1,2,4-Trimethylbenzene	**0.16**	**J**	0.40	0.10	ppb v/v			08/19/19 14:28	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 14:28	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 14:28	1
Xylenes, Total	**0.84**		0.80	0.12	ppb v/v			08/19/19 14:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.61**	**J**	1.3	0.13	ug/m3			08/19/19 14:28	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 14:28	1
Chlorodifluoromethane	**3.9**	**CI**	1.4	0.39	ug/m3			08/19/19 14:28	1
Chloroform	**0.33**	**J**	2.0	0.17	ug/m3			08/19/19 14:28	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 14:28	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/19/19 14:28	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 14:28	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 14:28	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 14:28	1
Ethylbenzene	**0.66**	**J**	1.7	0.28	ug/m3			08/19/19 14:28	1
Methylene Chloride	**12**		6.9	2.8	ug/m3			08/19/19 14:28	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 14:28	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 14:28	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 14:28	1
Toluene	**2.7**		2.3	1.5	ug/m3			08/19/19 14:28	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 14:28	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 14:28	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 14:28	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 14:28	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 14:28	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 14:28	1
1,2,4-Trimethylbenzene	**0.77**	**J**	2.0	0.49	ug/m3			08/19/19 14:28	1

Client Sample ID: IA-133-C-27 **Lab Sample ID: 140-16369-10**
Date Collected: 08/14/19 16:38 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 14:28	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 14:28	1
Xylenes, Total	**3.6**		3.5	0.52	ug/m3			08/19/19 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/19/19 14:28*	*1*

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Date Collected: 08/14/19 16:39 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/19/19 16:08	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/19/19 16:08	1
Chlorodifluoromethane	**1.1**	**CI**	0.40	0.11	ppb v/v			08/19/19 16:08	1
Chloroform	**0.056**	**J**	0.40	0.035	ppb v/v			08/19/19 16:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 16:08	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/19/19 16:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 16:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 16:08	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/19/19 16:08	1
Methylene Chloride	**1.9**	**J**	2.0	0.80	ppb v/v			08/19/19 16:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 16:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 16:08	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
Toluene	**0.57**	**J**	0.60	0.39	ppb v/v			08/19/19 16:08	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 16:08	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 16:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:08	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 16:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 16:08	1
1,2,4-Trimethylbenzene	**0.17**	**J**	0.40	0.10	ppb v/v			08/19/19 16:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 16:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 16:08	1
Xylenes, Total	**0.71**	**J**	0.80	0.12	ppb v/v			08/19/19 16:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/19/19 16:08	1
Carbon tetrachloride	**0.38**	**J**	2.5	0.22	ug/m3			08/19/19 16:08	1
Chlorodifluoromethane	**4.0**	**CI**	1.4	0.39	ug/m3			08/19/19 16:08	1
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/19/19 16:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 16:08	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/19/19 16:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 16:08	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 16:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 16:08	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			08/19/19 16:08	1
Methylene Chloride	**6.4**	**J**	6.9	2.8	ug/m3			08/19/19 16:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 16:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 16:08	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 16:08	1
Toluene	**2.2**	**J**	2.3	1.5	ug/m3			08/19/19 16:08	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 16:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 16:08	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 16:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 16:08	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 16:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 16:08	1
1,2,4-Trimethylbenzene	**0.82**	**J**	2.0	0.49	ug/m3			08/19/19 16:08	1

Client Sample ID: IA-153-C-27 **Lab Sample ID: 140-16369-11**
Date Collected: 08/14/19 16:39 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 16:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 16:08	1
Xylenes, Total	**3.1**	**J**	3.5	0.52	ug/m3			08/19/19 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 16:08*	*1*

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Date Collected: 08/14/19 16:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/19/19 16:57	1.55
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Chlorodifluoromethane	**1.2**		0.40	0.11	ppb v/v			08/19/19 16:57	1.55
Chloroform	**0.053**	**J**	0.40	0.035	ppb v/v			08/19/19 16:57	1.55
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 16:57	1.55
Dichlorodifluoromethane	**0.43**		0.40	0.070	ppb v/v			08/19/19 16:57	1.55
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 16:57	1.55
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 16:57	1.55
Ethylbenzene	**0.090**	**J**	0.40	0.065	ppb v/v			08/19/19 16:57	1.55
Methylene Chloride	**2.5**		2.0	0.80	ppb v/v			08/19/19 16:57	1.55
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 16:57	1.55
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 16:57	1.55
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/19/19 16:57	1.55
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 16:57	1.55
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 16:57	1.55
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 16:57	1.55
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 16:57	1.55
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 16:57	1.55
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 16:57	1.55
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 16:57	1.55
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 16:57	1.55
Xylenes, Total	**0.46**	**J**	0.80	0.12	ppb v/v			08/19/19 16:57	1.55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/19/19 16:57	1.55
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/19/19 16:57	1.55
Chlorodifluoromethane	**4.2**		1.4	0.39	ug/m3			08/19/19 16:57	1.55
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/19/19 16:57	1.55
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 16:57	1.55
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/19/19 16:57	1.55
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 16:57	1.55
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 16:57	1.55
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 16:57	1.55
Ethylbenzene	**0.39**	**J**	1.7	0.28	ug/m3			08/19/19 16:57	1.55
Methylene Chloride	**8.8**		6.9	2.8	ug/m3			08/19/19 16:57	1.55
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 16:57	1.55
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 16:57	1.55
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 16:57	1.55
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/19/19 16:57	1.55
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 16:57	1.55
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 16:57	1.55
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 16:57	1.55
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 16:57	1.55
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 16:57	1.55
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 16:57	1.55
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 16:57	1.55

Client Sample ID: IA-060-C-27 **Lab Sample ID: 140-16369-12**
Date Collected: 08/14/19 16:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 16:57	1.55
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 16:57	1.55
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			08/19/19 16:57	1.55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/19/19 16:57*	*1.55*

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Date Collected: 08/14/19 16:42 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/19/19 18:36	1
Carbon tetrachloride	**0.074**	**J**	0.40	0.035	ppb v/v			08/19/19 18:36	1
Chlorodifluoromethane	**4.5**	**CI**	0.40	0.11	ppb v/v			08/19/19 18:36	1
Chloroform	**0.18**	**J**	0.40	0.035	ppb v/v			08/19/19 18:36	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 18:36	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			08/19/19 18:36	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 18:36	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 18:36	1
Ethylbenzene	**0.29**	**J**	0.40	0.065	ppb v/v			08/19/19 18:36	1
Methylene Chloride	**6.7**		2.0	0.80	ppb v/v			08/19/19 18:36	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 18:36	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 18:36	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
Toluene	**0.99**		0.60	0.39	ppb v/v			08/19/19 18:36	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 18:36	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 18:36	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 18:36	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 18:36	1
1,2,3-Trimethylbenzene	**0.18**	**J**	0.40	0.18	ppb v/v			08/19/19 18:36	1
1,2,4-Trimethylbenzene	**0.52**		0.40	0.10	ppb v/v			08/19/19 18:36	1
1,3,5-Trimethylbenzene	**0.17**	**J**	0.40	0.11	ppb v/v			08/19/19 18:36	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 18:36	1
Xylenes, Total	**1.7**		0.80	0.12	ppb v/v			08/19/19 18:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.57**	**J**	1.3	0.13	ug/m3			08/19/19 18:36	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/19/19 18:36	1
Chlorodifluoromethane	**16**	**CI**	1.4	0.39	ug/m3			08/19/19 18:36	1
Chloroform	**0.89**	**J**	2.0	0.17	ug/m3			08/19/19 18:36	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 18:36	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			08/19/19 18:36	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 18:36	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 18:36	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 18:36	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/19/19 18:36	1
Methylene Chloride	**23**		6.9	2.8	ug/m3			08/19/19 18:36	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 18:36	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 18:36	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 18:36	1
Toluene	**3.7**		2.3	1.5	ug/m3			08/19/19 18:36	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 18:36	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 18:36	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 18:36	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 18:36	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 18:36	1
1,2,3-Trimethylbenzene	**0.86**	**J**	2.0	0.88	ug/m3			08/19/19 18:36	1
1,2,4-Trimethylbenzene	**2.6**		2.0	0.49	ug/m3			08/19/19 18:36	1

Client Sample ID: IA-152-C-27 **Lab Sample ID: 140-16369-13**
Date Collected: 08/14/19 16:42 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.81**	**J**	2.0	0.54	ug/m3			08/19/19 18:36	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 18:36	1
Xylenes, Total	**7.2**		3.5	0.52	ug/m3			08/19/19 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 18:36*	*1*

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Date Collected: 08/14/19 16:41 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/19/19 19:25	1
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/19/19 19:25	1
Chlorodifluoromethane	**3.8**	**CI**	0.40	0.11	ppb v/v			08/19/19 19:25	1
Chloroform	**0.12**	**J**	0.40	0.035	ppb v/v			08/19/19 19:25	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 19:25	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/19/19 19:25	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 19:25	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 19:25	1
Ethylbenzene	**0.26**	**J**	0.40	0.065	ppb v/v			08/19/19 19:25	1
Methylene Chloride	**2.8**		2.0	0.80	ppb v/v			08/19/19 19:25	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 19:25	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 19:25	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
Toluene	**0.68**		0.60	0.39	ppb v/v			08/19/19 19:25	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 19:25	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 19:25	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 19:25	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 19:25	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 19:25	1
1,2,4-Trimethylbenzene	**0.28**	**J**	0.40	0.10	ppb v/v			08/19/19 19:25	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 19:25	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 19:25	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/19/19 19:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.43**	**J**	1.3	0.13	ug/m3			08/19/19 19:25	1
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/19/19 19:25	1
Chlorodifluoromethane	**14**	**CI**	1.4	0.39	ug/m3			08/19/19 19:25	1
Chloroform	**0.57**	**J**	2.0	0.17	ug/m3			08/19/19 19:25	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 19:25	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/19/19 19:25	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 19:25	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 19:25	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 19:25	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/19/19 19:25	1
Methylene Chloride	**9.8**		6.9	2.8	ug/m3			08/19/19 19:25	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 19:25	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 19:25	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 19:25	1
Toluene	**2.6**		2.3	1.5	ug/m3			08/19/19 19:25	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 19:25	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 19:25	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 19:25	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 19:25	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 19:25	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 19:25	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/19/19 19:25	1

Client Sample ID: IA-144-C-27 **Lab Sample ID: 140-16369-14**
Date Collected: 08/14/19 16:41 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 19:25	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 19:25	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/19/19 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 19:25*	*1*

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Date Collected: 08/14/19 16:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/19/19 21:04	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			08/19/19 21:04	1
Chlorodifluoromethane	**3.5**		0.40	0.11	ppb v/v			08/19/19 21:04	1
Chloroform	**0.040**	**J**	0.40	0.035	ppb v/v			08/19/19 21:04	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/19/19 21:04	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/19/19 21:04	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
1,2-Dichloroethane	ND	*	0.40	0.050	ppb v/v			08/19/19 21:04	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/19/19 21:04	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/19/19 21:04	1
Methylene Chloride	**3.1**		2.0	0.80	ppb v/v			08/19/19 21:04	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/19/19 21:04	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/19/19 21:04	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
Toluene	**0.88**		0.60	0.39	ppb v/v			08/19/19 21:04	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/19/19 21:04	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/19/19 21:04	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/19/19 21:04	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/19/19 21:04	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/19/19 21:04	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/19/19 21:04	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/19/19 21:04	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/19/19 21:04	1
Xylenes, Total	**0.53**	**J**	0.80	0.12	ppb v/v			08/19/19 21:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**	**J**	1.3	0.13	ug/m3			08/19/19 21:04	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			08/19/19 21:04	1
Chlorodifluoromethane	**12**		1.4	0.39	ug/m3			08/19/19 21:04	1
Chloroform	**0.19**	**J**	2.0	0.17	ug/m3			08/19/19 21:04	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/19/19 21:04	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/19/19 21:04	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/19/19 21:04	1
1,2-Dichloroethane	ND	*	1.6	0.20	ug/m3			08/19/19 21:04	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/19/19 21:04	1
Ethylbenzene	**0.49**	**J**	1.7	0.28	ug/m3			08/19/19 21:04	1
Methylene Chloride	**11**		6.9	2.8	ug/m3			08/19/19 21:04	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/19/19 21:04	1
Naphthalene	ND		1.0	2.0	ug/m3			08/19/19 21:04	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/19/19 21:04	1
Toluene	**3.3**		2.3	1.5	ug/m3			08/19/19 21:04	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/19/19 21:04	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/19/19 21:04	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/19/19 21:04	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/19/19 21:04	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/19/19 21:04	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/19/19 21:04	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/19/19 21:04	1

Client Sample ID: IA-145-C-27 **Lab Sample ID: 140-16369-15**
Date Collected: 08/14/19 16:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/19/19 21:04	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/19/19 21:04	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			08/19/19 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/19/19 21:04*	*1*

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Date Collected: 08/14/19 16:45 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 11:30	1
Carbon tetrachloride	**0.054**	**J**	0.40	0.035	ppb v/v			08/20/19 11:30	1
Chlorodifluoromethane	**11**	**CI**	0.40	0.11	ppb v/v			08/20/19 11:30	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/20/19 11:30	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 11:30	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/20/19 11:30	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 11:30	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 11:30	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/20/19 11:30	1
Methylene Chloride	**2.8**		2.0	0.80	ppb v/v			08/20/19 11:30	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 11:30	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 11:30	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
Toluene	**0.43**	**J**	0.60	0.39	ppb v/v			08/20/19 11:30	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 11:30	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 11:30	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 11:30	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 11:30	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 11:30	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 11:30	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 11:30	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 11:30	1
Xylenes, Total	**0.56**	**J**	0.80	0.12	ppb v/v			08/20/19 11:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 11:30	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 11:30	1
Chlorodifluoromethane	**38**	**CI**	1.4	0.39	ug/m3			08/20/19 11:30	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/20/19 11:30	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 11:30	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/20/19 11:30	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 11:30	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 11:30	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 11:30	1
Ethylbenzene	**0.46**	**J**	1.7	0.28	ug/m3			08/20/19 11:30	1
Methylene Chloride	**9.8**		6.9	2.8	ug/m3			08/20/19 11:30	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 11:30	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 11:30	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 11:30	1
Toluene	**1.6**	**J**	2.3	1.5	ug/m3			08/20/19 11:30	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 11:30	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 11:30	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 11:30	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 11:30	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 11:30	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 11:30	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 11:30	1

Client Sample ID: IA-146-C-27 **Lab Sample ID: 140-16369-16**
Date Collected: 08/14/19 16:45 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 11:30	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 11:30	1
Xylenes, Total	**2.4**	**J**	3.5	0.52	ug/m3			08/20/19 11:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 11:30*	*1*

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Date Collected: 08/14/19 16:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/20/19 12:19	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/20/19 12:19	1
Chlorodifluoromethane	**9.2**	**CI**	0.40	0.11	ppb v/v			08/20/19 12:19	1
Chloroform	**0.041**	**J**	0.40	0.035	ppb v/v			08/20/19 12:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 12:19	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			08/20/19 12:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 12:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 12:19	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			08/20/19 12:19	1
Methylene Chloride	**3.9**		2.0	0.80	ppb v/v			08/20/19 12:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 12:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 12:19	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
Toluene	**0.46**	**J**	0.60	0.39	ppb v/v			08/20/19 12:19	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 12:19	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 12:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:19	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 12:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 12:19	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 12:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 12:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 12:19	1
Xylenes, Total	**0.55**	**J**	0.80	0.12	ppb v/v			08/20/19 12:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/20/19 12:19	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 12:19	1
Chlorodifluoromethane	**32**	**CI**	1.4	0.39	ug/m3			08/20/19 12:19	1
Chloroform	**0.20**	**J**	2.0	0.17	ug/m3			08/20/19 12:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 12:19	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 12:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 12:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 12:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 12:19	1
Ethylbenzene	**0.50**	**J**	1.7	0.28	ug/m3			08/20/19 12:19	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/20/19 12:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 12:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 12:19	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 12:19	1
Toluene	**1.7**	**J**	2.3	1.5	ug/m3			08/20/19 12:19	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 12:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 12:19	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 12:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 12:19	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 12:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 12:19	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 12:19	1

Client Sample ID: IA-150-C-27 **Lab Sample ID: 140-16369-17**
Date Collected: 08/14/19 16:44 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 12:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 12:19	1
Xylenes, Total	**2.4**	**J**	3.5	0.52	ug/m3			08/20/19 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/20/19 12:19*	*1*

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 13:08	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 13:08	1
Chlorodifluoromethane	**0.84**		0.40	0.11	ppb v/v			08/20/19 13:08	1
Chloroform	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 13:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 13:08	1
Dichlorodifluoromethane	**0.43**		0.40	0.070	ppb v/v			08/20/19 13:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 13:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 13:08	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 13:08	1
Methylene Chloride	**2.2**		2.0	0.80	ppb v/v			08/20/19 13:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 13:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 13:08	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 13:08	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 13:08	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 13:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:08	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/20/19 13:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 13:08	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 13:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 13:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 13:08	1
Xylenes, Total	**0.30**	**J**	0.80	0.12	ppb v/v			08/20/19 13:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.46**	**J**	1.3	0.13	ug/m3			08/20/19 13:08	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 13:08	1
Chlorodifluoromethane	**3.0**		1.4	0.39	ug/m3			08/20/19 13:08	1
Chloroform	**0.26**	**J**	2.0	0.17	ug/m3			08/20/19 13:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 13:08	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/20/19 13:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 13:08	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 13:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 13:08	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 13:08	1
Methylene Chloride	**7.8**		6.9	2.8	ug/m3			08/20/19 13:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 13:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 13:08	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 13:08	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 13:08	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 13:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 13:08	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 13:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 13:08	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/20/19 13:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 13:08	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 13:08	1

Client Sample ID: IA-141-C-27 — Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 13:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 13:08	1
Xylenes, Total	**1.3**	**J**	3.5	0.52	ug/m3			08/20/19 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 13:08*	*1*

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ppb v/v			08/24/19 04:23	1.67
Carbon tetrachloride	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Chlorodifluoromethane	**1.1**	**J**	1.3	0.37	ppb v/v			08/24/19 04:23	1.67
Chloroform	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
cis-1,2-Dichloroethene	ND		1.3	0.17	ppb v/v			08/24/19 04:23	1.67
Dichlorodifluoromethane	**0.52**	**J**	1.3	0.23	ppb v/v			08/24/19 04:23	1.67
1,1-Dichloroethane	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
1,2-Dichloroethane	ND		1.3	0.17	ppb v/v			08/24/19 04:23	1.67
1,1-Dichloroethene	ND		1.3	0.13	ppb v/v			08/24/19 04:23	1.67
Ethylbenzene	**0.44**	**J**	1.3	0.22	ppb v/v			08/24/19 04:23	1.67
Methylene Chloride	**98**	**B**	6.7	2.7	ppb v/v			08/24/19 04:23	1.67
Methyl tert-butyl ether	ND		6.7	0.87	ppb v/v			08/24/19 04:23	1.67
Naphthalene	ND		0.67	1.3	ppb v/v			08/24/19 04:23	1.67
Tetrachloroethene	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Toluene	**3.6**		2.0	1.3	ppb v/v			08/24/19 04:23	1.67
trans-1,2-Dichloroethene	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
1,2,4-Trichlorobenzene	ND		1.3	1.1	ppb v/v			08/24/19 04:23	1.67
1,1,1-Trichloroethane	ND		1.3	0.62	ppb v/v			08/24/19 04:23	1.67
1,1,2-Trichloroethane	ND		1.3	0.12	ppb v/v			08/24/19 04:23	1.67
Trichloroethene	**0.21**	**J**	0.67	0.10	ppb v/v			08/24/19 04:23	1.67
1,2,3-Trimethylbenzene	ND		1.3	0.60	ppb v/v			08/24/19 04:23	1.67
1,2,4-Trimethylbenzene	ND		1.3	0.33	ppb v/v			08/24/19 04:23	1.67
1,3,5-Trimethylbenzene	ND		1.3	0.37	ppb v/v			08/24/19 04:23	1.67
Vinyl chloride	ND		0.67	0.43	ppb v/v			08/24/19 04:23	1.67
Xylenes, Total	**1.9**	**J**	2.7	0.40	ppb v/v			08/24/19 04:23	1.67

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.3	0.43	ug/m3			08/24/19 04:23	1.67
Carbon tetrachloride	ND		8.4	0.74	ug/m3			08/24/19 04:23	1.67
Chlorodifluoromethane	**3.7**	**J**	4.7	1.3	ug/m3			08/24/19 04:23	1.67
Chloroform	ND		6.5	0.57	ug/m3			08/24/19 04:23	1.67
cis-1,2-Dichloroethene	ND		5.3	0.66	ug/m3			08/24/19 04:23	1.67
Dichlorodifluoromethane	**2.6**	**J**	6.6	1.2	ug/m3			08/24/19 04:23	1.67
1,1-Dichloroethane	ND		5.4	0.47	ug/m3			08/24/19 04:23	1.67
1,2-Dichloroethane	ND		5.4	0.68	ug/m3			08/24/19 04:23	1.67
1,1-Dichloroethene	ND		5.3	0.53	ug/m3			08/24/19 04:23	1.67
Ethylbenzene	**1.9**	**J**	5.8	0.94	ug/m3			08/24/19 04:23	1.67
Methylene Chloride	**340**	**B**	23	9.3	ug/m3			08/24/19 04:23	1.67
Methyl tert-butyl ether	ND		24	3.1	ug/m3			08/24/19 04:23	1.67
Naphthalene	ND		3.5	6.7	ug/m3			08/24/19 04:23	1.67
Tetrachloroethene	ND		9.1	0.79	ug/m3			08/24/19 04:23	1.67
Toluene	**13**		7.6	4.9	ug/m3			08/24/19 04:23	1.67
trans-1,2-Dichloroethene	ND		5.3	0.46	ug/m3			08/24/19 04:23	1.67
1,2,4-Trichlorobenzene	ND		9.9	7.9	ug/m3			08/24/19 04:23	1.67
1,1,1-Trichloroethane	ND		7.3	3.4	ug/m3			08/24/19 04:23	1.67
1,1,2-Trichloroethane	ND		7.3	0.64	ug/m3			08/24/19 04:23	1.67
Trichloroethene	**1.1**	**J**	3.6	0.54	ug/m3			08/24/19 04:23	1.67
1,2,3-Trimethylbenzene	ND		6.6	3.0	ug/m3			08/24/19 04:23	1.67
1,2,4-Trimethylbenzene	ND		6.6	1.6	ug/m3			08/24/19 04:23	1.67

Client Sample ID: IA-149-C-27 **Lab Sample ID: 140-16369-19**
Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		6.6	1.8	ug/m3			08/24/19 04:23	1.67
Vinyl chloride	ND		1.7	1.1	ug/m3			08/24/19 04:23	1.67
Xylenes, Total	**8.3**	**J**	12	1.7	ug/m3			08/24/19 04:23	1.67

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/24/19 04:23*	*1.67*

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.23**	**J**	0.40	0.040	ppb v/v			08/23/19 15:21	2.87
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/23/19 15:21	2.87
Chloroform	**0.062**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 15:21	2.87
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/23/19 15:21	2.87
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 15:21	2.87
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 15:21	2.87
Ethylbenzene	**0.36**	**J**	0.40	0.065	ppb v/v			08/23/19 15:21	2.87
Methylene Chloride	**80**	**B**	2.0	0.80	ppb v/v			08/23/19 15:21	2.87
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 15:21	2.87
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 15:21	2.87
Tetrachloroethene	**0.058**	**J**	0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Toluene	**3.1**		0.60	0.39	ppb v/v			08/23/19 15:21	2.87
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 15:21	2.87
1,1,1-Trichloroethane	ND		0.40	0.18	ppb v/v			08/23/19 15:21	2.87
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 15:21	2.87
Trichloroethene	**0.19**	**J**	0.20	0.030	ppb v/v			08/23/19 15:21	2.87
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 15:21	2.87
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/23/19 15:21	2.87
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 15:21	2.87
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 15:21	2.87
Xylenes, Total	**1.8**		0.80	0.12	ppb v/v			08/23/19 15:21	2.87

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.74**	**J**	1.3	0.13	ug/m3			08/23/19 15:21	2.87
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/23/19 15:21	2.87
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/23/19 15:21	2.87
Chloroform	**0.31**	**J**	2.0	0.17	ug/m3			08/23/19 15:21	2.87
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 15:21	2.87
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/23/19 15:21	2.87
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 15:21	2.87
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 15:21	2.87
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 15:21	2.87
Ethylbenzene	**1.6**	**J**	1.7	0.28	ug/m3			08/23/19 15:21	2.87
Methylene Chloride	**280**	**B**	6.9	2.8	ug/m3			08/23/19 15:21	2.87
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 15:21	2.87
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 15:21	2.87
Tetrachloroethene	**0.39**	**J**	2.7	0.24	ug/m3			08/23/19 15:21	2.87
Toluene	**12**		2.3	1.5	ug/m3			08/23/19 15:21	2.87
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 15:21	2.87
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 15:21	2.87
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 15:21	2.87
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 15:21	2.87
Trichloroethene	**1.0**	**J**	1.1	0.16	ug/m3			08/23/19 15:21	2.87
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 15:21	2.87
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/23/19 15:21	2.87

Client Sample ID: IA-126-C-27 **Lab Sample ID: 140-16369-20**
Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 15:21	2.87
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 15:21	2.87
Xylenes, Total	**7.8**		3.5	0.52	ug/m3			08/23/19 15:21	2.87

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/23/19 15:21*	*2.87*

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.18**	**J**	0.40	0.040	ppb v/v			08/23/19 16:08	1.45
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Chlorodifluoromethane	**1.0**		0.40	0.11	ppb v/v			08/23/19 16:08	1.45
Chloroform	**0.072**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 16:08	1.45
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/23/19 16:08	1.45
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 16:08	1.45
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 16:08	1.45
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/23/19 16:08	1.45
Methylene Chloride	**38**	**B**	2.0	0.80	ppb v/v			08/23/19 16:08	1.45
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 16:08	1.45
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 16:08	1.45
Tetrachloroethene	**0.048**	**J**	0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Toluene	**1.0**		0.60	0.39	ppb v/v			08/23/19 16:08	1.45
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 16:08	1.45
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 16:08	1.45
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:08	1.45
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 16:08	1.45
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 16:08	1.45
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/23/19 16:08	1.45
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 16:08	1.45
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 16:08	1.45
Xylenes, Total	**0.87**		0.80	0.12	ppb v/v			08/23/19 16:08	1.45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**	**J**	1.3	0.13	ug/m3			08/23/19 16:08	1.45
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/23/19 16:08	1.45
Chlorodifluoromethane	**3.7**		1.4	0.39	ug/m3			08/23/19 16:08	1.45
Chloroform	**0.35**	**J**	2.0	0.17	ug/m3			08/23/19 16:08	1.45
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 16:08	1.45
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/23/19 16:08	1.45
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 16:08	1.45
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 16:08	1.45
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 16:08	1.45
Ethylbenzene	**0.67**	**J**	1.7	0.28	ug/m3			08/23/19 16:08	1.45
Methylene Chloride	**130**	**B**	6.9	2.8	ug/m3			08/23/19 16:08	1.45
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 16:08	1.45
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 16:08	1.45
Tetrachloroethene	**0.33**	**J**	2.7	0.24	ug/m3			08/23/19 16:08	1.45
Toluene	**3.9**		2.3	1.5	ug/m3			08/23/19 16:08	1.45
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 16:08	1.45
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 16:08	1.45
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 16:08	1.45
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 16:08	1.45
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 16:08	1.45
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 16:08	1.45
1,2,4-Trimethylbenzene	**0.58**	**J**	2.0	0.49	ug/m3			08/23/19 16:08	1.45

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 16:08	1.45
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 16:08	1.45
Xylenes, Total	**3.8**		3.5	0.52	ug/m3			08/23/19 16:08	1.45

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/23/19 16:08*	*1.45*

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/23/19 16:57	1.53
Carbon tetrachloride	**0.074**	**J**	0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Chlorodifluoromethane	**0.87**		0.40	0.11	ppb v/v			08/23/19 16:57	1.53
Chloroform	**0.086**	**J**	0.40	0.035	ppb v/v			08/23/19 16:57	1.53
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 16:57	1.53
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/23/19 16:57	1.53
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 16:57	1.53
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 16:57	1.53
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/23/19 16:57	1.53
Methylene Chloride	**56**	**B**	2.0	0.80	ppb v/v			08/23/19 16:57	1.53
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 16:57	1.53
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 16:57	1.53
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Toluene	**1.1**		0.60	0.39	ppb v/v			08/23/19 16:57	1.53
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 16:57	1.53
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 16:57	1.53
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 16:57	1.53
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 16:57	1.53
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 16:57	1.53
1,2,4-Trimethylbenzene	**0.12**	**J**	0.40	0.10	ppb v/v			08/23/19 16:57	1.53
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 16:57	1.53
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 16:57	1.53
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/23/19 16:57	1.53

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/23/19 16:57	1.53
Carbon tetrachloride	**0.47**	**J**	2.5	0.22	ug/m3			08/23/19 16:57	1.53
Chlorodifluoromethane	**3.1**		1.4	0.39	ug/m3			08/23/19 16:57	1.53
Chloroform	**0.42**	**J**	2.0	0.17	ug/m3			08/23/19 16:57	1.53
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 16:57	1.53
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 16:57	1.53
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 16:57	1.53
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 16:57	1.53
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 16:57	1.53
Ethylbenzene	**0.78**	**J**	1.7	0.28	ug/m3			08/23/19 16:57	1.53
Methylene Chloride	**190**	**B**	6.9	2.8	ug/m3			08/23/19 16:57	1.53
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 16:57	1.53
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 16:57	1.53
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/23/19 16:57	1.53
Toluene	**4.0**		2.3	1.5	ug/m3			08/23/19 16:57	1.53
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 16:57	1.53
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 16:57	1.53
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 16:57	1.53
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 16:57	1.53
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 16:57	1.53
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 16:57	1.53
1,2,4-Trimethylbenzene	**0.60**	**J**	2.0	0.49	ug/m3			08/23/19 16:57	1.53

Client Sample ID: IA-088-C-27 **Lab Sample ID: 140-16369-22**
Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 16:57	1.53
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 16:57	1.53
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/23/19 16:57	1.53

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/23/19 16:57*	*1.53*

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/21/19 15:29	1
Carbon tetrachloride	**0.068**	**J**	0.40	0.035	ppb v/v			08/21/19 15:29	1
Chlorodifluoromethane	**1.7**		0.40	0.11	ppb v/v			08/21/19 15:29	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			08/21/19 15:29	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 15:29	1
Dichlorodifluoromethane	**0.56**		0.40	0.070	ppb v/v			08/21/19 15:29	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 15:29	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 15:29	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			08/21/19 15:29	1
Methylene Chloride	**16**	**B**	2.0	0.80	ppb v/v			08/21/19 15:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 15:29	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 15:29	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
Toluene	**0.79**		0.60	0.39	ppb v/v			08/21/19 15:29	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 15:29	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 15:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 15:29	1
Trichloroethene	ND		0.20	0.030	ppb v/v			08/21/19 15:29	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 15:29	1
1,2,4-Trimethylbenzene	**0.14**	**J**	0.40	0.10	ppb v/v			08/21/19 15:29	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 15:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 15:29	1
Xylenes, Total	**0.93**		0.80	0.12	ppb v/v			08/21/19 15:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.55**	**J**	1.3	0.13	ug/m3			08/21/19 15:29	1
Carbon tetrachloride	**0.43**	**J**	2.5	0.22	ug/m3			08/21/19 15:29	1
Chlorodifluoromethane	**6.0**		1.4	0.39	ug/m3			08/21/19 15:29	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			08/21/19 15:29	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 15:29	1
Dichlorodifluoromethane	**2.8**		2.0	0.35	ug/m3			08/21/19 15:29	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 15:29	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 15:29	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 15:29	1
Ethylbenzene	**0.71**	**J**	1.7	0.28	ug/m3			08/21/19 15:29	1
Methylene Chloride	**54**	**B**	6.9	2.8	ug/m3			08/21/19 15:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 15:29	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 15:29	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 15:29	1
Toluene	**3.0**		2.3	1.5	ug/m3			08/21/19 15:29	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 15:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 15:29	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 15:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 15:29	1
Trichloroethene	ND		1.1	0.16	ug/m3			08/21/19 15:29	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 15:29	1
1,2,4-Trimethylbenzene	**0.67**	**J**	2.0	0.49	ug/m3			08/21/19 15:29	1

Client Sample ID: IA-DUP2-C-27 **Lab Sample ID: 140-16369-23**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 15:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 15:29	1
Xylenes, Total	**4.0**		3.5	0.52	ug/m3			08/21/19 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/21/19 15:29*	*1*

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Date Collected: 08/14/19 16:56 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/23/19 17:48	1.89
Carbon tetrachloride	**0.079**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Chlorodifluoromethane	**0.87**		0.40	0.11	ppb v/v			08/23/19 17:48	1.89
Chloroform	**0.056**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 17:48	1.89
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/23/19 17:48	1.89
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 17:48	1.89
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 17:48	1.89
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			08/23/19 17:48	1.89
Methylene Chloride	**4.0**	**B**	2.0	0.80	ppb v/v			08/23/19 17:48	1.89
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 17:48	1.89
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 17:48	1.89
Tetrachloroethene	**0.035**	**J**	0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Toluene	**0.65**		0.60	0.39	ppb v/v			08/23/19 17:48	1.89
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 17:48	1.89
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 17:48	1.89
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 17:48	1.89
Trichloroethene	ND		0.20	0.030	ppb v/v			08/23/19 17:48	1.89
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 17:48	1.89
1,2,4-Trimethylbenzene	**0.13**	**J**	0.40	0.10	ppb v/v			08/23/19 17:48	1.89
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 17:48	1.89
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 17:48	1.89
Xylenes, Total	**0.77**	**J**	0.80	0.12	ppb v/v			08/23/19 17:48	1.89

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.53**	**J**	1.3	0.13	ug/m3			08/23/19 17:48	1.89
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/23/19 17:48	1.89
Chlorodifluoromethane	**3.1**		1.4	0.39	ug/m3			08/23/19 17:48	1.89
Chloroform	**0.27**	**J**	2.0	0.17	ug/m3			08/23/19 17:48	1.89
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 17:48	1.89
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/23/19 17:48	1.89
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 17:48	1.89
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 17:48	1.89
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 17:48	1.89
Ethylbenzene	**0.63**	**J**	1.7	0.28	ug/m3			08/23/19 17:48	1.89
Methylene Chloride	**14**	**B**	6.9	2.8	ug/m3			08/23/19 17:48	1.89
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 17:48	1.89
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 17:48	1.89
Tetrachloroethene	**0.24**	**J**	2.7	0.24	ug/m3			08/23/19 17:48	1.89
Toluene	**2.4**		2.3	1.5	ug/m3			08/23/19 17:48	1.89
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 17:48	1.89
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 17:48	1.89
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 17:48	1.89
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 17:48	1.89
Trichloroethene	ND		1.1	0.16	ug/m3			08/23/19 17:48	1.89
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 17:48	1.89
1,2,4-Trimethylbenzene	**0.64**	**J**	2.0	0.49	ug/m3			08/23/19 17:48	1.89

Client Sample ID: IA-142-C-27 — Lab Sample ID: 140-16369-24

Date Collected: 08/14/19 16:56 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 17:48	1.89
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 17:48	1.89
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			08/23/19 17:48	1.89

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/23/19 17:48*	*1.89*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16369-1	IA-BCK-4-27	91								
140-16369-2	IA-BCK-2-27	91								
140-16369-3	IA-BCK-1-27	93								
140-16369-4	IA-BCK-3-27	95								
140-16369-5	IA-001-C-27	95								
140-16369-6	IA-004-C-27	91								
140-16369-7	IA-102-C-27	93								
140-16369-8	IA-DUP1-C-27	93								
140-16369-9	IA-155-C-27	91								
140-16369-10	IA-133-C-27	94								
140-16369-11	IA-153-C-27	90								
140-16369-12	IA-060-C-27	87								
140-16369-13	IA-152-C-27	89								
140-16369-14	IA-144-C-27	89								
140-16369-15	IA-145-C-27	89								
140-16369-16	IA-146-C-27	88								
140-16369-17	IA-150-C-27	92								
140-16369-18	IA-141-C-27	89								
140-16369-19	IA-149-C-27	88								
140-16369-20	IA-126-C-27	88								
140-16369-21	IA-113-C-27	90								
140-16369-22	IA-088-C-27	92								
140-16369-23	IA-DUP2-C-27	88								
140-16369-24	IA-142-C-27	88								
LCS 140-32312/1002	Lab Control Sample	90								
LCS 140-32744/1002	Lab Control Sample	107								
LCS 140-32828/1002	Lab Control Sample	93								
LCS 140-32829/1002	Lab Control Sample	91								
LCS 140-32868/1002	Lab Control Sample	94								
MB 140-32312/4	Method Blank	87								
MB 140-32744/4	Method Blank	90								
MB 140-32828/4	Method Blank	88								
MB 140-32829/4	Method Blank	82								
MB 140-32868/4	Method Blank	87								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32312/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 11:44	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 11:44	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 11:44	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 11:44	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 11:44	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 11:44	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 11:44	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/19/19 11:44	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 11:44	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 11:44	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 11:44	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 11:44	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 11:44	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 11:44	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 11:44	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 11:44	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 11:44	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 11:44	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 11:44	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 11:44	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 11:44	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 11:44	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 11:44	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 11:44	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 11:44	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 11:44	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 11:44	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 11:44	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 11:44	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 11:44	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/19/19 11:44	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 11:44	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 11:44	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 11:44	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 11:44	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 11:44	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 11:44	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 11:44	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 11:44	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 11:44	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 11:44	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32312/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 11:44	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 11:44	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 11:44	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/19/19 11:44*	*1*

Lab Sample ID: LCS 140-32312/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	1.74		ppb v/v		87	60 - 140
Chloroform	2.00	1.61		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.91		ppb v/v		95	70 - 130
Dichlorodifluoromethane	2.00	2.08		ppb v/v		104	60 - 140
1,1-Dichloroethane	2.00	1.65		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.37	*	ppb v/v		68	70 - 130
1,1-Dichloroethene	2.00	2.15		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.60		ppb v/v		80	70 - 130
Methylene Chloride	2.00	1.71		ppb v/v		85	70 - 130
Methyl tert-butyl ether	2.00	1.60		ppb v/v		80	60 - 140
Naphthalene	2.00	1.30		ppb v/v		65	60 - 140
Tetrachloroethene	2.00	1.71		ppb v/v		86	70 - 130
Toluene	2.00	1.77		ppb v/v		89	70 - 130
trans-1,2-Dichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	2.00	1.44		ppb v/v		72	60 - 140
1,1,1-Trichloroethane	2.00	1.48		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.78		ppb v/v		89	70 - 130
Trichloroethene	2.00	1.84		ppb v/v		92	70 - 130
1,2,3-Trimethylbenzene	2.00	1.53		ppb v/v		76	70 - 130
1,2,4-Trimethylbenzene	2.00	1.51		ppb v/v		76	70 - 130
1,3,5-Trimethylbenzene	2.00	1.63		ppb v/v		82	70 - 130
Vinyl chloride	2.00	2.35		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.80		ppb v/v		80	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.68		ug/m3		89	70 - 130
Carbon tetrachloride	13	10.9		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	6.15		ug/m3		87	60 - 140
Chloroform	9.8	7.87		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.56		ug/m3		95	70 - 130
Dichlorodifluoromethane	9.9	10.3		ug/m3		104	60 - 140
1,1-Dichloroethane	8.1	6.66		ug/m3		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32312/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	5.53	*	ug/m3		68	70 - 130
1,1-Dichloroethene	7.9	8.53		ug/m3		108	70 - 130
Ethylbenzene	8.7	6.97		ug/m3		80	70 - 130
Methylene Chloride	6.9	5.93		ug/m3		85	70 - 130
Methyl tert-butyl ether	7.2	5.76		ug/m3		80	60 - 140
Naphthalene	10	6.84		ug/m3		65	60 - 140
Tetrachloroethene	14	11.6		ug/m3		86	70 - 130
Toluene	7.5	6.68		ug/m3		89	70 - 130
trans-1,2-Dichloroethene	7.9	8.18		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	15	10.7		ug/m3		72	60 - 140
1,1,1-Trichloroethane	11	8.08		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.72		ug/m3		89	70 - 130
Trichloroethene	11	9.91		ug/m3		92	70 - 130
1,2,3-Trimethylbenzene	9.8	7.51		ug/m3		76	70 - 130
1,2,4-Trimethylbenzene	9.8	7.44		ug/m3		76	70 - 130
1,3,5-Trimethylbenzene	9.8	8.01		ug/m3		82	70 - 130
Vinyl chloride	5.1	6.02		ug/m3		118	70 - 130
Xylenes, Total	26	20.8		ug/m3		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/19/19 18:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/19/19 18:12	1
Methylene Chloride	0.164	J	0.40	0.16	ppb v/v			08/19/19 18:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/19/19 18:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/19/19 18:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/19/19 18:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/19/19 18:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32744/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/19/19 18:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/19/19 18:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/19/19 18:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/19/19 18:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/19/19 18:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/19/19 18:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/19/19 18:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/19/19 18:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/19/19 18:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/19/19 18:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/19/19 18:12	1
Methylene Chloride	0.570	J	1.4	0.56	ug/m3			08/19/19 18:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/19/19 18:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/19/19 18:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/19/19 18:12	1
Toluene	ND		0.45	0.29	ug/m3			08/19/19 18:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/19/19 18:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/19/19 18:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/19/19 18:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/19/19 18:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/19/19 18:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/19/19 18:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/19/19 18:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/19/19 18:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/19/19 18:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/19/19 18:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/19/19 18:12*	*1*

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.893		ppb v/v		89	70 - 130
Carbon tetrachloride	1.00	0.969		ppb v/v		97	70 - 130
Chlorodifluoromethane	1.00	0.930		ppb v/v		93	60 - 140
Chloroform	1.00	0.986		ppb v/v		99	70 - 130
cis-1,2-Dichloroethene	1.00	0.918		ppb v/v		92	70 - 130
Dichlorodifluoromethane	1.00	1.16		ppb v/v		116	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	1.00	0.985		ppb v/v		98	70 - 130
1,2-Dichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1-Dichloroethene	1.00	0.804		ppb v/v		80	70 - 130
Ethylbenzene	1.00	0.939		ppb v/v		94	70 - 130
Methylene Chloride	1.00	0.886		ppb v/v		89	70 - 130
Methyl tert-butyl ether	1.00	0.998		ppb v/v		100	60 - 140
Naphthalene	1.00	0.929		ppb v/v		93	60 - 140
Tetrachloroethene	1.00	0.842		ppb v/v		84	70 - 130
Toluene	1.00	0.896		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	1.00	0.976		ppb v/v		98	70 - 130
1,2,4-Trichlorobenzene	1.00	0.891		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	1.00	0.927		ppb v/v		93	70 - 130
1,1,2-Trichloroethane	1.00	0.916		ppb v/v		92	70 - 130
Trichloroethene	1.00	0.867		ppb v/v		87	70 - 130
1,2,3-Trimethylbenzene	1.00	0.974		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	1.00	0.947		ppb v/v		95	70 - 130
1,3,5-Trimethylbenzene	1.00	0.953		ppb v/v		95	70 - 130
Vinyl chloride	1.00	0.986		ppb v/v		99	70 - 130
Xylenes, Total	3.00	2.79		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.85		ug/m3		89	70 - 130
Carbon tetrachloride	6.3	6.10		ug/m3		97	70 - 130
Chlorodifluoromethane	3.5	3.29		ug/m3		93	60 - 140
Chloroform	4.9	4.81		ug/m3		99	70 - 130
cis-1,2-Dichloroethene	4.0	3.64		ug/m3		92	70 - 130
Dichlorodifluoromethane	4.9	5.76		ug/m3		116	60 - 140
1,1-Dichloroethane	4.0	3.99		ug/m3		98	70 - 130
1,2-Dichloroethane	4.0	4.19		ug/m3		104	70 - 130
1,1-Dichloroethene	4.0	3.19		ug/m3		80	70 - 130
Ethylbenzene	4.3	4.08		ug/m3		94	70 - 130
Methylene Chloride	3.5	3.08		ug/m3		89	70 - 130
Methyl tert-butyl ether	3.6	3.60		ug/m3		100	60 - 140
Naphthalene	5.2	4.87		ug/m3		93	60 - 140
Tetrachloroethene	6.8	5.71		ug/m3		84	70 - 130
Toluene	3.8	3.37		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	4.0	3.87		ug/m3		98	70 - 130
1,2,4-Trichlorobenzene	7.4	6.61		ug/m3		89	60 - 140
1,1,1-Trichloroethane	5.5	5.06		ug/m3		93	70 - 130
1,1,2-Trichloroethane	5.5	5.00		ug/m3		92	70 - 130
Trichloroethene	5.4	4.66		ug/m3		87	70 - 130
1,2,3-Trimethylbenzene	4.9	4.79		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	4.9	4.66		ug/m3		95	70 - 130
1,3,5-Trimethylbenzene	4.9	4.69		ug/m3		95	70 - 130
Vinyl chloride	2.6	2.52		ug/m3		99	70 - 130
Xylenes, Total	13	12.1		ug/m3		93	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32744/1002
Matrix: Air
Analysis Batch: 32744

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 140-32828/4
Matrix: Air
Analysis Batch: 32828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 10:41	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/20/19 10:41	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 10:41	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 10:41	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 10:41	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 10:41	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 10:41	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 10:41	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 10:41	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 10:41	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/20/19 10:41	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 10:41	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 10:41	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 10:41	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 10:41	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 10:41	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 10:41	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 10:41*	*1*

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.79		ppb v/v		90	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.02		ppb v/v		101	60 - 140
Chloroform	2.00	1.62		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.88		ppb v/v		94	70 - 130
Dichlorodifluoromethane	2.00	2.05		ppb v/v		102	60 - 140
1,1-Dichloroethane	2.00	1.64		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.41		ppb v/v		70	70 - 130
1,1-Dichloroethene	2.00	2.02		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.66		ppb v/v		83	70 - 130
Methylene Chloride	2.00	1.59		ppb v/v		79	70 - 130
Methyl tert-butyl ether	2.00	1.52		ppb v/v		76	60 - 140
Naphthalene	2.00	1.66		ppb v/v		83	60 - 140
Tetrachloroethene	2.00	1.69		ppb v/v		84	70 - 130
Toluene	2.00	1.79		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trichlorobenzene	2.00	1.77		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	2.00	1.47		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.80		ppb v/v		90	70 - 130
Trichloroethene	2.00	1.88		ppb v/v		94	70 - 130
1,2,3-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,2,4-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,3,5-Trimethylbenzene	2.00	1.74		ppb v/v		87	70 - 130
Vinyl chloride	2.00	2.36		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.93		ppb v/v		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.73		ug/m3		90	70 - 130
Carbon tetrachloride	13	11.0		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.15		ug/m3		101	60 - 140
Chloroform	9.8	7.90		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.46		ug/m3		94	70 - 130
Dichlorodifluoromethane	9.9	10.1		ug/m3		102	60 - 140
1,1-Dichloroethane	8.1	6.65		ug/m3		82	70 - 130
1,2-Dichloroethane	8.1	5.69		ug/m3		70	70 - 130
1,1-Dichloroethene	7.9	8.02		ug/m3		101	70 - 130
Ethylbenzene	8.7	7.22		ug/m3		83	70 - 130
Methylene Chloride	6.9	5.51		ug/m3		79	70 - 130
Methyl tert-butyl ether	7.2	5.49		ug/m3		76	60 - 140
Naphthalene	10	8.70		ug/m3		83	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.75		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	7.9	7.93		ug/m3		100	70 - 130
1,2,4-Trichlorobenzene	15	13.2		ug/m3		89	60 - 140
1,1,1-Trichloroethane	11	8.04		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.85		ug/m3		90	70 - 130
Trichloroethene	11	10.1		ug/m3		94	70 - 130
1,2,3-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,2,4-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,3,5-Trimethylbenzene	9.8	8.58		ug/m3		87	70 - 130
Vinyl chloride	5.1	6.04		ug/m3		118	70 - 130
Xylenes, Total	26	21.4		ug/m3		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*

Lab Sample ID: MB 140-32829/4
Matrix: Air
Analysis Batch: 32829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.91		ppb v/v		96	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		92	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.11		ug/m3		96	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		92	70 - 130
Chlorodifluoromethane	7.1	6.98		ug/m3		99	60 - 140
Chloroform	9.8	8.72		ug/m3		89	70 - 130
cis-1,2-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.90		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	7.45		ug/m3		92	70 - 130
1,2-Dichloroethane	8.1	5.88		ug/m3		73	70 - 130
1,1-Dichloroethene	7.9	8.38		ug/m3		106	70 - 130
Ethylbenzene	8.7	7.36		ug/m3		85	70 - 130
Methylene Chloride	6.9	6.15		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	5.97		ug/m3		83	60 - 140
Naphthalene	10	8.88		ug/m3		85	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.82		ug/m3		91	70 - 130
trans-1,2-Dichloroethene	7.9	8.50		ug/m3		107	70 - 130
1,2,4-Trichlorobenzene	15	12.5		ug/m3		84	60 - 140
1,1,1-Trichloroethane	11	8.88		ug/m3		81	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
1,2,3-Trimethylbenzene	9.8	8.49		ug/m3		86	70 - 130
1,2,4-Trimethylbenzene	9.8	8.31		ug/m3		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	9.8	8.93		ug/m3		91	70 - 130
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Xylenes, Total	26	22.1		ug/m3		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-9	IA-155-C-27	Total/NA	Air	TO 15 LL	
140-16369-10	IA-133-C-27	Total/NA	Air	TO 15 LL	
140-16369-11	IA-153-C-27	Total/NA	Air	TO 15 LL	
140-16369-12	IA-060-C-27	Total/NA	Air	TO 15 LL	
140-16369-13	IA-152-C-27	Total/NA	Air	TO 15 LL	
140-16369-14	IA-144-C-27	Total/NA	Air	TO 15 LL	
140-16369-15	IA-145-C-27	Total/NA	Air	TO 15 LL	
MB 140-32312/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32312/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-1	IA-BCK-4-27	Total/NA	Air	TO 15 LL	
140-16369-2	IA-BCK-2-27	Total/NA	Air	TO 15 LL	
140-16369-3	IA-BCK-1-27	Total/NA	Air	TO 15 LL	
140-16369-4	IA-BCK-3-27	Total/NA	Air	TO 15 LL	
140-16369-5	IA-001-C-27	Total/NA	Air	TO 15 LL	
140-16369-6	IA-004-C-27	Total/NA	Air	TO 15 LL	
140-16369-7	IA-102-C-27	Total/NA	Air	TO 15 LL	
140-16369-8	IA-DUP1-C-27	Total/NA	Air	TO 15 LL	
MB 140-32744/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32744/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-16	IA-146-C-27	Total/NA	Air	TO 15 LL	
140-16369-17	IA-150-C-27	Total/NA	Air	TO 15 LL	
140-16369-18	IA-141-C-27	Total/NA	Air	TO 15 LL	
MB 140-32828/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32828/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-23	IA-DUP2-C-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16369-19	IA-149-C-27	Total/NA	Air	TO 15 LL	
140-16369-20	IA-126-C-27	Total/NA	Air	TO 15 LL	
140-16369-21	IA-113-C-27	Total/NA	Air	TO 15 LL	
140-16369-22	IA-088-C-27	Total/NA	Air	TO 15 LL	
140-16369-24	IA-142-C-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: IA-BCK-4-27 — Lab Sample ID: 140-16369-1

Date Collected: 08/14/19 15:34 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 00:45	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-2-27 — Lab Sample ID: 140-16369-2

Date Collected: 08/14/19 15:44 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.64	164 mL	500 mL	32744	08/20/19 01:33	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-1-27 — Lab Sample ID: 140-16369-3

Date Collected: 08/14/19 15:49 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 02:20	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-BCK-3-27 — Lab Sample ID: 140-16369-4

Date Collected: 08/14/19 15:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 03:09	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-001-C-27 — Lab Sample ID: 140-16369-5

Date Collected: 08/14/19 16:31 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 03:56	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-004-C-27 — Lab Sample ID: 140-16369-6

Date Collected: 08/14/19 16:32 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 04:45	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-102-C-27 — Lab Sample ID: 140-16369-7

Date Collected: 08/14/19 16:35 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 05:34	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-DUP1-C-27 — Lab Sample ID: 140-16369-8

Date Collected: 08/14/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32744	08/20/19 06:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-155-C-27 — Lab Sample ID: 140-16369-9

Date Collected: 08/14/19 16:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 13:38	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-133-C-27 — Lab Sample ID: 140-16369-10

Date Collected: 08/14/19 16:38 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 14:28	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-153-C-27 — Lab Sample ID: 140-16369-11

Date Collected: 08/14/19 16:39 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 16:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-060-C-27 — Lab Sample ID: 140-16369-12

Date Collected: 08/14/19 16:40 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.55	155 mL	500 mL	32312	08/19/19 16:57	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-152-C-27 — Lab Sample ID: 140-16369-13

Date Collected: 08/14/19 16:42 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 18:36	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-144-C-27 — Lab Sample ID: 140-16369-14

Date Collected: 08/14/19 16:41 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 19:25	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-145-C-27 — Lab Sample ID: 140-16369-15

Date Collected: 08/14/19 16:43 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32312	08/19/19 21:04	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-146-C-27 — Lab Sample ID: 140-16369-16

Date Collected: 08/14/19 16:45 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 11:30	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-150-C-27 — Lab Sample ID: 140-16369-17

Date Collected: 08/14/19 16:44 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 12:19	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-141-C-27 — Lab Sample ID: 140-16369-18

Date Collected: 08/14/19 16:47 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 13:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-149-C-27 — Lab Sample ID: 140-16369-19

Date Collected: 08/14/19 16:50 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.67	50 mL	500 mL	32868	08/24/19 04:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-126-C-27 — Lab Sample ID: 140-16369-20

Date Collected: 08/14/19 16:51 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.87	287 mL	500 mL	32868	08/23/19 15:21	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-113-C-27 — Lab Sample ID: 140-16369-21

Date Collected: 08/14/19 16:54 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.45	145 mL	500 mL	32868	08/23/19 16:08	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-088-C-27 — Lab Sample ID: 140-16369-22

Date Collected: 08/14/19 16:55 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.53	153 mL	500 mL	32868	08/23/19 16:57	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-DUP2-C-27 — Lab Sample ID: 140-16369-23

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/21/19 15:29	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: IA-142-C-27 — Lab Sample ID: 140-16369-24

Date Collected: 08/14/19 16:56 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.89	189 mL	500 mL	32868	08/23/19 17:48	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32312/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32312	08/19/19 11:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32744/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 18:12	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32828/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 10:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32312/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32312	08/19/19 10:15	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32744/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32744	08/19/19 16:53	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32828/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 09:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32829/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16369-1	IA-BCK-4-27	Air	08/14/19 15:34	08/17/19 10:30	Air Canister (1-Liter) #11868
140-16369-2	IA-BCK-2-27	Air	08/14/19 15:44	08/17/19 10:30	Air Canister (1-Liter) #11821
140-16369-3	IA-BCK-1-27	Air	08/14/19 15:49	08/17/19 10:30	Air Canister (1-Liter) #11626
140-16369-4	IA-BCK-3-27	Air	08/14/19 15:37	08/17/19 10:30	Air Canister (1-Liter) #10603
140-16369-5	IA-001-C-27	Air	08/14/19 16:31	08/17/19 10:30	Air Canister (1-Liter) #11669
140-16369-6	IA-004-C-27	Air	08/14/19 16:32	08/17/19 10:30	Air Canister (1-Liter) #09806
140-16369-7	IA-102-C-27	Air	08/14/19 16:35	08/17/19 10:30	Air Canister (1-Liter) #11609
140-16369-8	IA-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11889
140-16369-9	IA-155-C-27	Air	08/14/19 16:37	08/17/19 10:30	Air Canister (1-Liter) #11716
140-16369-10	IA-133-C-27	Air	08/14/19 16:38	08/17/19 10:30	Air Canister (1-Liter) #11269
140-16369-11	IA-153-C-27	Air	08/14/19 16:39	08/17/19 10:30	Air Canister (1-Liter) #11828
140-16369-12	IA-060-C-27	Air	08/14/19 16:40	08/17/19 10:30	Air Canister (1-Liter) #11726
140-16369-13	IA-152-C-27	Air	08/14/19 16:42	08/17/19 10:30	Air Canister (1-Liter) #11831
140-16369-14	IA-144-C-27	Air	08/14/19 16:41	08/17/19 10:30	Air Canister (1-Liter) #11107
140-16369-15	IA-145-C-27	Air	08/14/19 16:43	08/17/19 10:30	Air Canister (1-Liter) #11495
140-16369-16	IA-146-C-27	Air	08/14/19 16:45	08/17/19 10:30	Air Canister (1-Liter) #10841
140-16369-17	IA-150-C-27	Air	08/14/19 16:44	08/17/19 10:30	Air Canister (1-Liter) #11877
140-16369-18	IA-141-C-27	Air	08/14/19 16:47	08/17/19 10:30	Air Canister (1-Liter) #10520
140-16369-19	IA-149-C-27	Air	08/14/19 16:50	08/17/19 10:30	Air Canister (1-Liter) #11842
140-16369-20	IA-126-C-27	Air	08/14/19 16:51	08/17/19 10:30	Air Canister (1-Liter) #11521
140-16369-21	IA-113-C-27	Air	08/14/19 16:54	08/17/19 10:30	Air Canister (1-Liter) #09583
140-16369-22	IA-088-C-27	Air	08/14/19 16:55	08/17/19 10:30	Air Canister (1-Liter) #11288
140-16369-23	IA-DUP2-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11890
140-16369-24	IA-142-C-27	Air	08/14/19 16:56	08/17/19 10:30	Air Canister (1-Liter) #11774

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-BCK-4-27	140-16369-1	91
IA-BCK-2-27	140-16369-2	91
IA-BCK-1-27	140-16369-3	93
IA-BCK-3-27	140-16369-4	95
IA-001-C-27	140-16369-5	95
IA-004-C-27	140-16369-6	91
IA-102-C-27	140-16369-7	93
IA-DUP1-C-27	140-16369-8	93
IA-155-C-27	140-16369-9	91
IA-133-C-27	140-16369-10	94
IA-153-C-27	140-16369-11	90
IA-060-C-27	140-16369-12	87
IA-152-C-27	140-16369-13	89
IA-144-C-27	140-16369-14	89
IA-145-C-27	140-16369-15	89
IA-146-C-27	140-16369-16	88
IA-150-C-27	140-16369-17	92
IA-141-C-27	140-16369-18	89
IA-149-C-27	140-16369-19	88
IA-126-C-27	140-16369-20	88
IA-113-C-27	140-16369-21	90
IA-088-C-27	140-16369-22	92
IA-DUP2-C-27	140-16369-23	88
IA-142-C-27	140-16369-24	88
	MB 140-32312/4	87
	MB 140-32744/4	90
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	LCS 140-32312/1002	90
	LCS 140-32744/1002	107
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
	LCS 140-32868/1002	94

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH19-LCS.d

Lab ID: LCS 140-32312/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	1.74	87	60-140	
Chloroform	2.00	1.61	81	70-130	
cis-1,2-Dichloroethene	2.00	1.91	95	70-130	
Dichlorodifluoromethane	2.00	2.08	104	60-140	
1,1-Dichloroethane	2.00	1.65	82	70-130	
1,2-Dichloroethane	2.00	1.37	68	70-130	*
1,1-Dichloroethene	2.00	2.15	108	70-130	
Ethylbenzene	2.00	1.60	80	70-130	
Methylene Chloride	2.00	1.71	85	70-130	
Methyl tert-butyl ether	2.00	1.60	80	60-140	
Naphthalene	2.00	1.30	65	60-140	
Tetrachloroethene	2.00	1.71	86	70-130	
Toluene	2.00	1.77	89	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.44	72	60-140	
1,1,1-Trichloroethane	2.00	1.48	74	70-130	
1,1,2-Trichloroethane	2.00	1.78	89	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.53	76	70-130	
1,2,4-Trimethylbenzene	2.00	1.51	76	70-130	
1,3,5-Trimethylbenzene	2.00	1.63	82	70-130	
Vinyl chloride	2.00	2.35	118	70-130	
Xylenes, Total	6.00	4.80	80	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH19.D Lab Sample ID: MB 140-32312/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/19/2019 11:44

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019 10:15
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019 13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019 14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019 16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019 16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019 18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019 19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019 21:04

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019 11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019 12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019 13:08

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019 15:29

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019 00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019 01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019 02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019 03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019 03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019 04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019 05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019 06:23

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019 15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019 16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019 16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019 17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019 04:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH19.D BFB Injection Date: 08/19/2019

Instrument ID: MJ BFB Injection Time: 09:45

Analysis Batch No.: 32312

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	113.7	
175	5.0 - 9.0 % of mass 174	8.2	(7.2) 1
176	95.0 - 101.0 % of mass 174	110.9	(97.5) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32312/2	JCCVH19.D	08/19/2019	10:15
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019	10:15
	MB 140-32312/4	J500BH19.D	08/19/2019	11:44
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019	13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019	14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019	16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019	16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019	18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019	19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019	21:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019	11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019	12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019	13:08

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019	15:29

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019	00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019	01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019	02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019	03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019	03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019	04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019	05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019	06:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019	15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019	16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019	16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019	17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019	04:23

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32312/2 Date Analyzed: 08/19/2019 10:15

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH19.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		449719	9.73	2264250	11.84	1915029	16.45
UPPER LIMIT		629607	10.06	3169950	12.17	2681041	16.78
LOWER LIMIT		269831	9.40	1358550	11.51	1149017	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32312/1002		449719	9.73	2264250	11.84	1915029	16.45
MB 140-32312/4		376501	9.73	1931768	11.83	1640713	16.45
140-16369-9	IA-155-C-27	314845	9.73	1598492	11.84	1307685	16.45
140-16369-10	IA-133-C-27	328260	9.73	1636673	11.84	1369046	16.45
140-16369-11	IA-153-C-27	356922	9.73	1810163	11.84	1509196	16.45
140-16369-12	IA-060-C-27	296115	9.73	1476200	11.84	1220147	16.45
140-16369-13	IA-152-C-27	304754	9.73	1531005	11.83	1289056	16.45
140-16369-14	IA-144-C-27	312863	9.73	1595180	11.84	1315583	16.45
140-16369-15	IA-145-C-27	308741	9.72	1565329	11.84	1329051	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16369-16	IA-146-C-27	260773	9.72	1345334	11.83	1134392	16.44
140-16369-17	IA-150-C-27	218122	9.72	1086231	11.83	942060	16.44
140-16369-18	IA-141-C-27	215768	9.72	1085393	11.84	944601	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16369-23	IA-DUP2-C-27	247260	9.73	1244334	11.84	1061794	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16369-1	IA-BCK-4-27	212519	8.54	1298236	10.77	1158908	15.57
140-16369-2	IA-BCK-2-27	214324	8.54	1234247	10.77	1120245	15.57
140-16369-3	IA-BCK-1-27	185274	8.53	1054763	10.77	927536	15.57
140-16369-4	IA-BCK-3-27	188454	8.54	1107214	10.78	960224	15.58
140-16369-5	IA-001-C-27	185708	8.54	1064055	10.78	957202	15.57
140-16369-6	IA-004-C-27	206990	8.54	1208387	10.78	1035374	15.57
140-16369-7	IA-102-C-27	201680	8.54	1166843	10.77	1040423	15.57
140-16369-8	IA-DUP1-C-27	214615	8.54	1268610	10.77	1158840	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16369-20	IA-126-C-27	217435	8.53	1225846	10.77	1052503	15.57
140-16369-21	IA-113-C-27	197634	8.54	1179705	10.77	949761	15.57
140-16369-22	IA-088-C-27	198157	8.54	1171916	10.77	930567	15.57
140-16369-24	IA-142-C-27	225566	8.54	1255085	10.77	1086776	15.57
140-16369-19	IA-149-C-27	177587	8.54	995979	10.78	834416	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.52		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.48	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.0	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.8	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D
Lims ID: 140-16369-A-1
Client ID: IA-BCK-4-27
Sample Type: Client
Inject. Date: 20-Aug-2019 00:45:30 ALS Bottle#: 8 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-013
Misc. Info.: 140-16369-a-1
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:13:09 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:14:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	97	212519	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1298236	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1158908	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	91	728402	3.65	
6 Chlorodifluoromethane	51	3.432	3.423	0.011	96	18781	0.1034	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	97	12397	0.0755	
31 Methylene Chloride	84	5.977	5.976	0.005	96	21709	0.2890	
44 Chloroform	83	8.549	8.555	0.000	28	1376	0.007697	
49 Benzene	78	10.215	10.205	0.010	75	7733	0.0294	
52 Carbon tetrachloride	117	10.221	10.226	-0.005	38	2330	0.0111	
67 Toluene	91	13.591	13.586	0.000	90	28820	0.0967	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

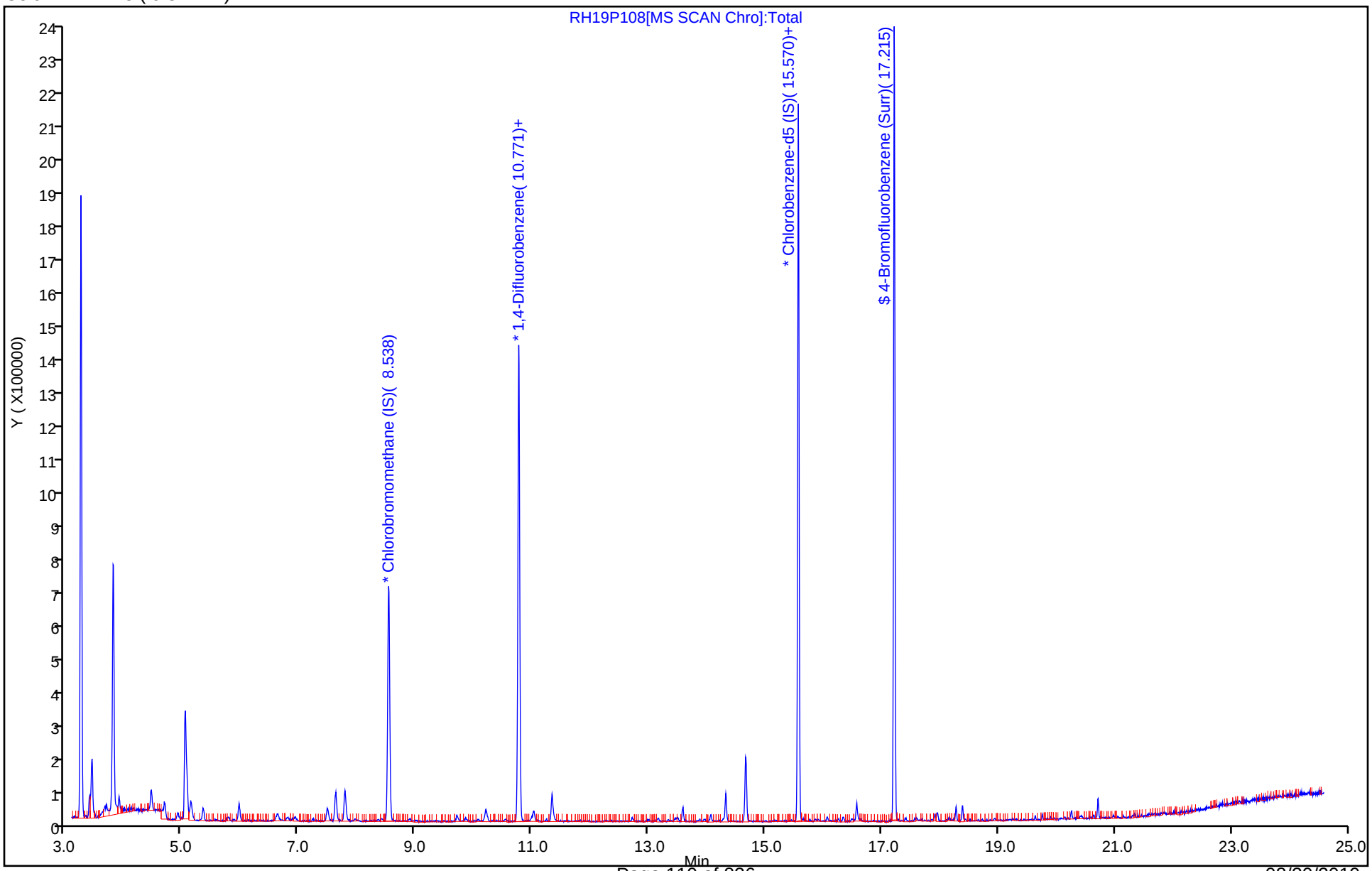
Report Date: 20-Aug-2019 13:14:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D

Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1	Worklist Smp#:	13
Client ID:	IA-BCK-4-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D				
Lims ID:	140-16369-A-1				
Client ID:	IA-BCK-4-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 00:45:30	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-013				
Misc. Info.:	140-16369-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:13:09	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:14:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.65	91.14

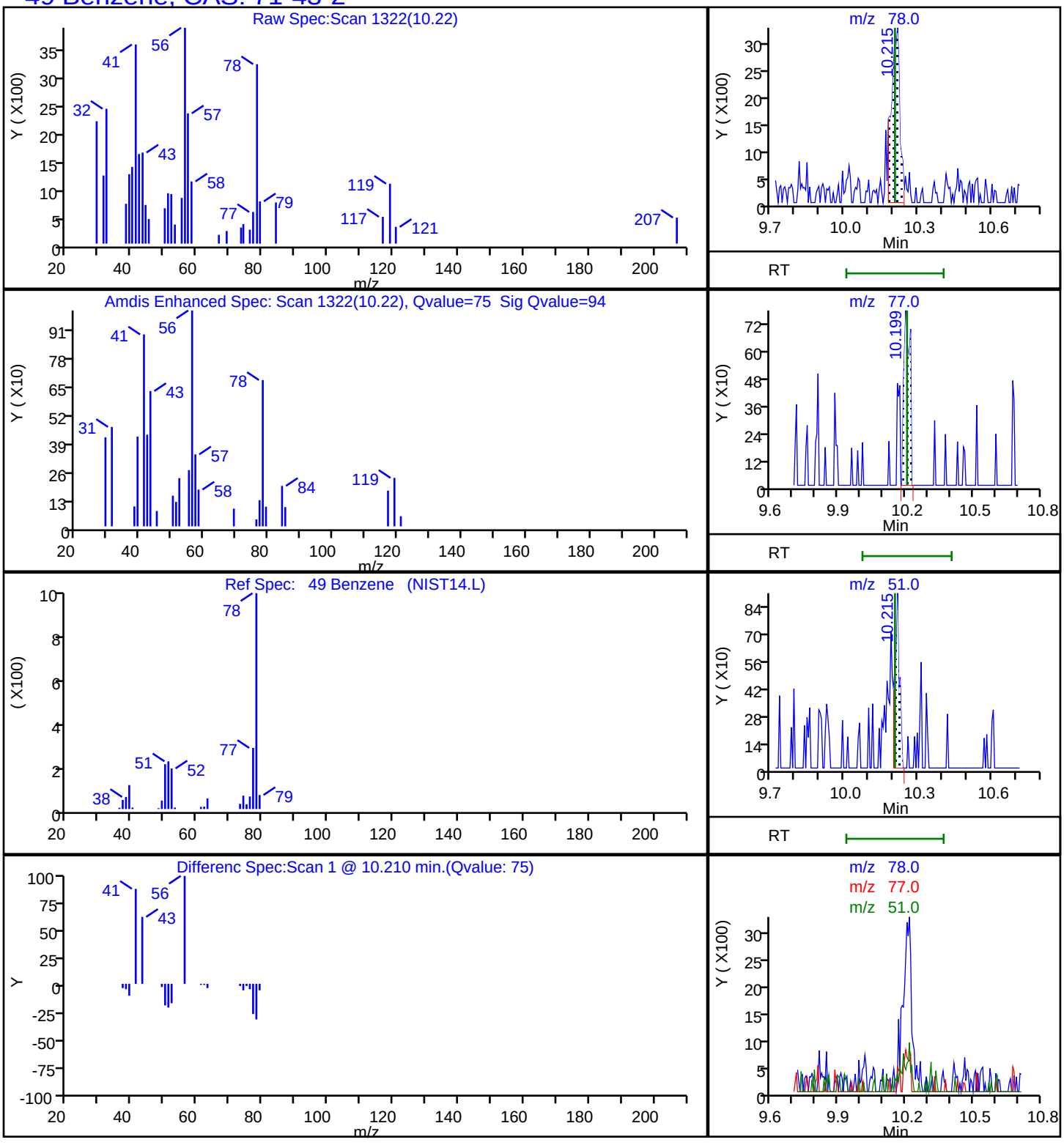
Report Date: 20-Aug-2019 13:14:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D

Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1
Client ID:	IA-BCK-4-27		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

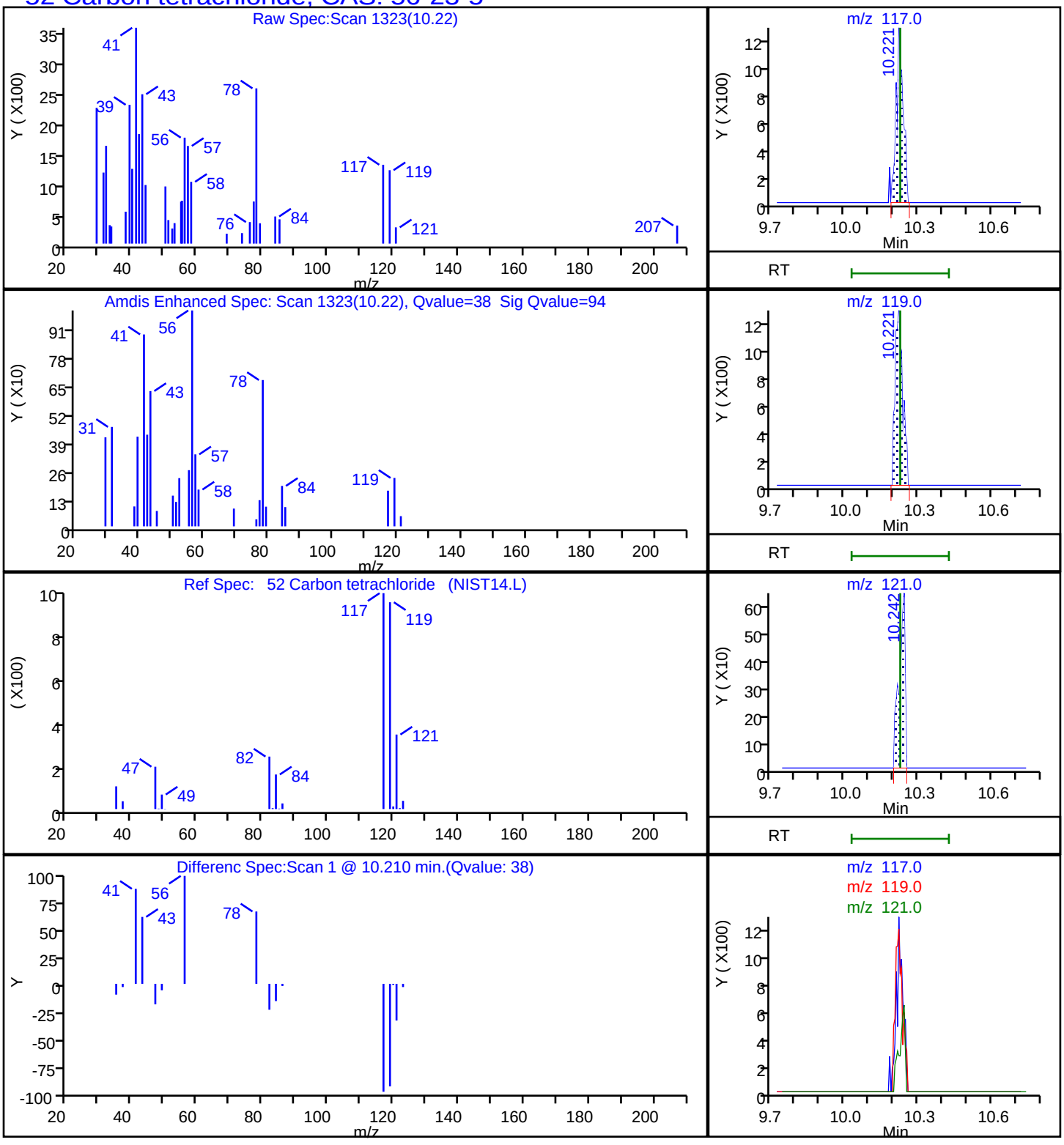
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D		
Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1
Client ID:	IA-BCK-4-27		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

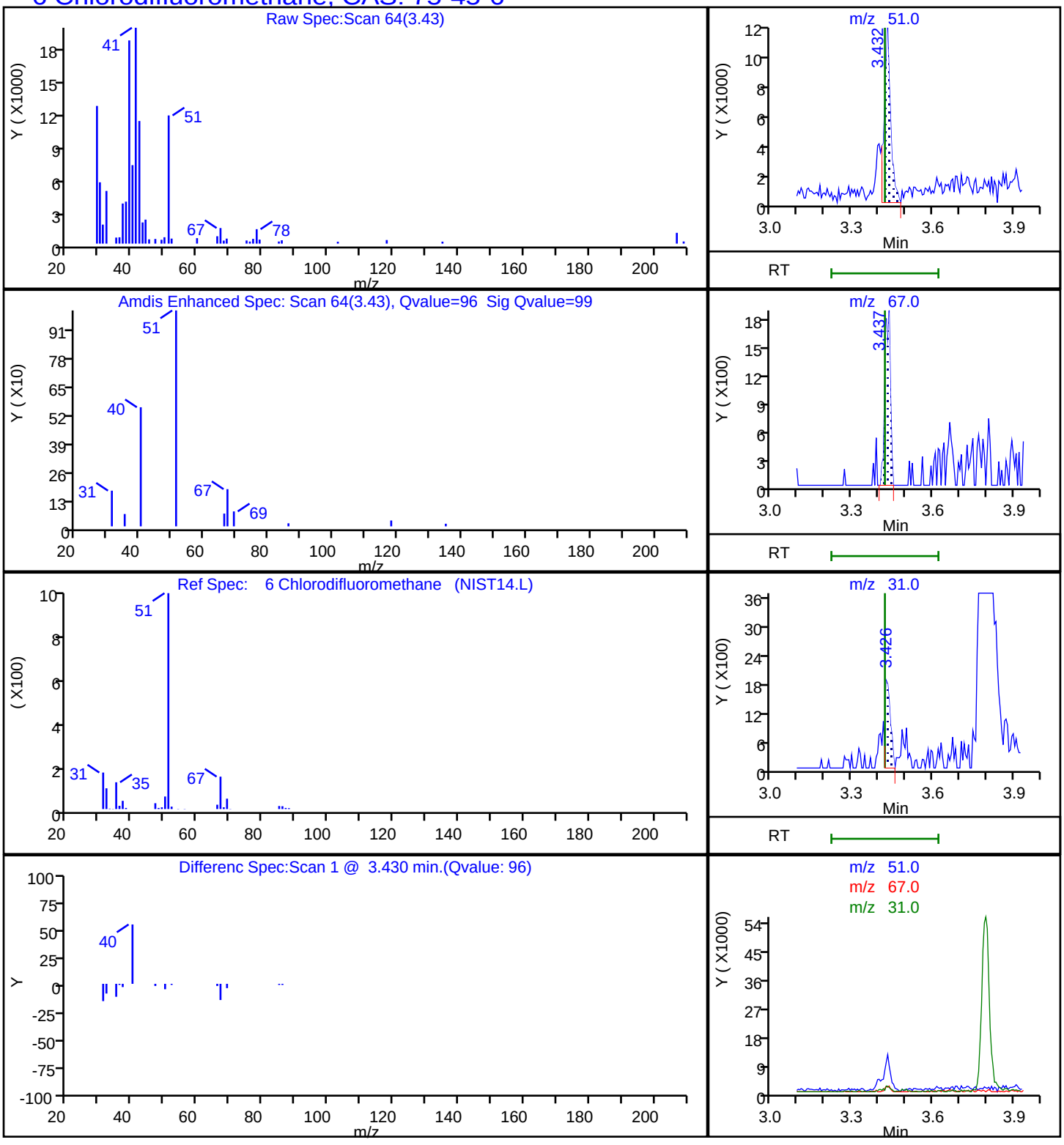
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D				
Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR		
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1		
Client ID:	IA-BCK-4-27				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

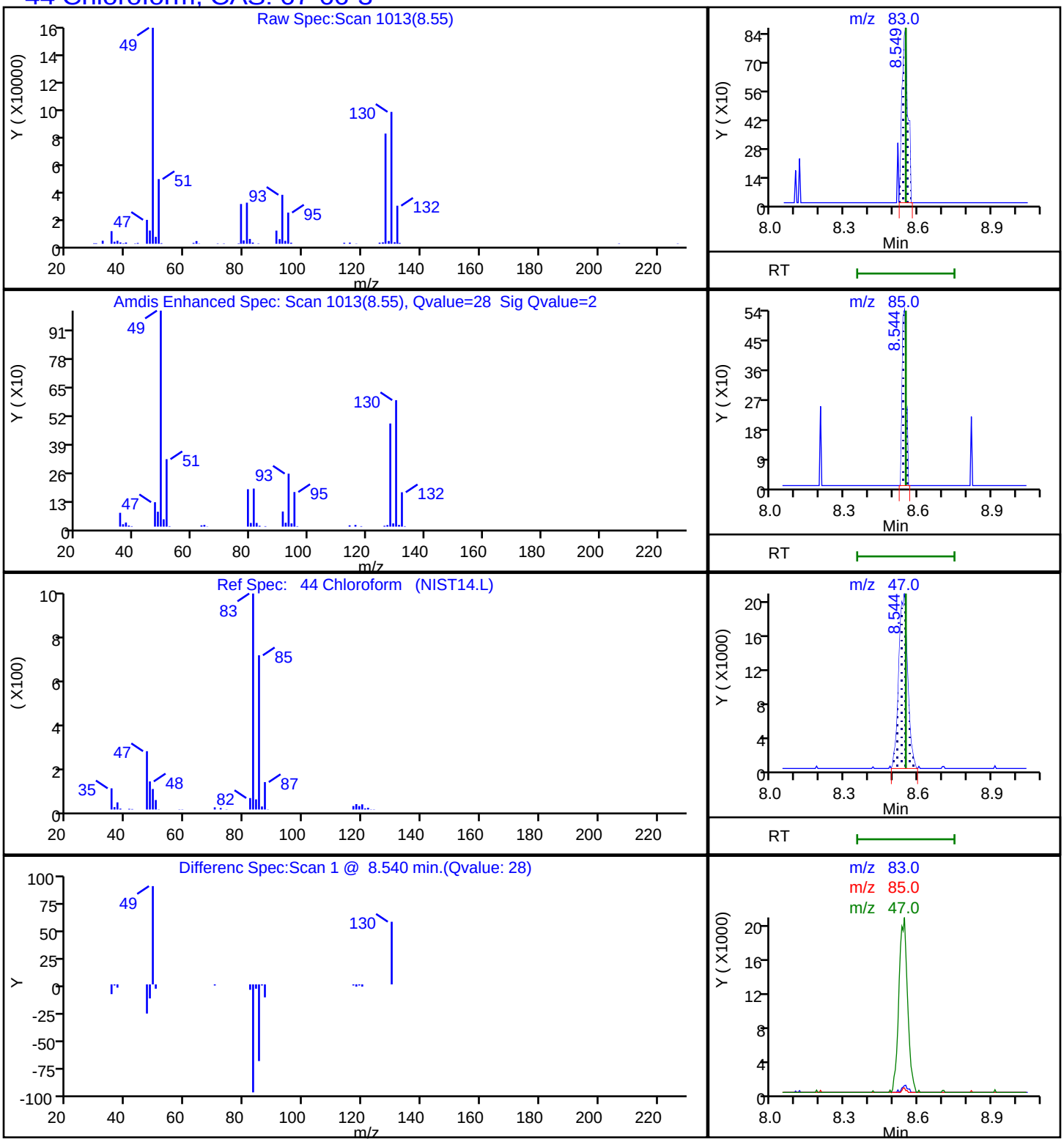


Report Date: 20-Aug-2019 13:14:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D		
Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1
Client ID:	IA-BCK-4-27		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



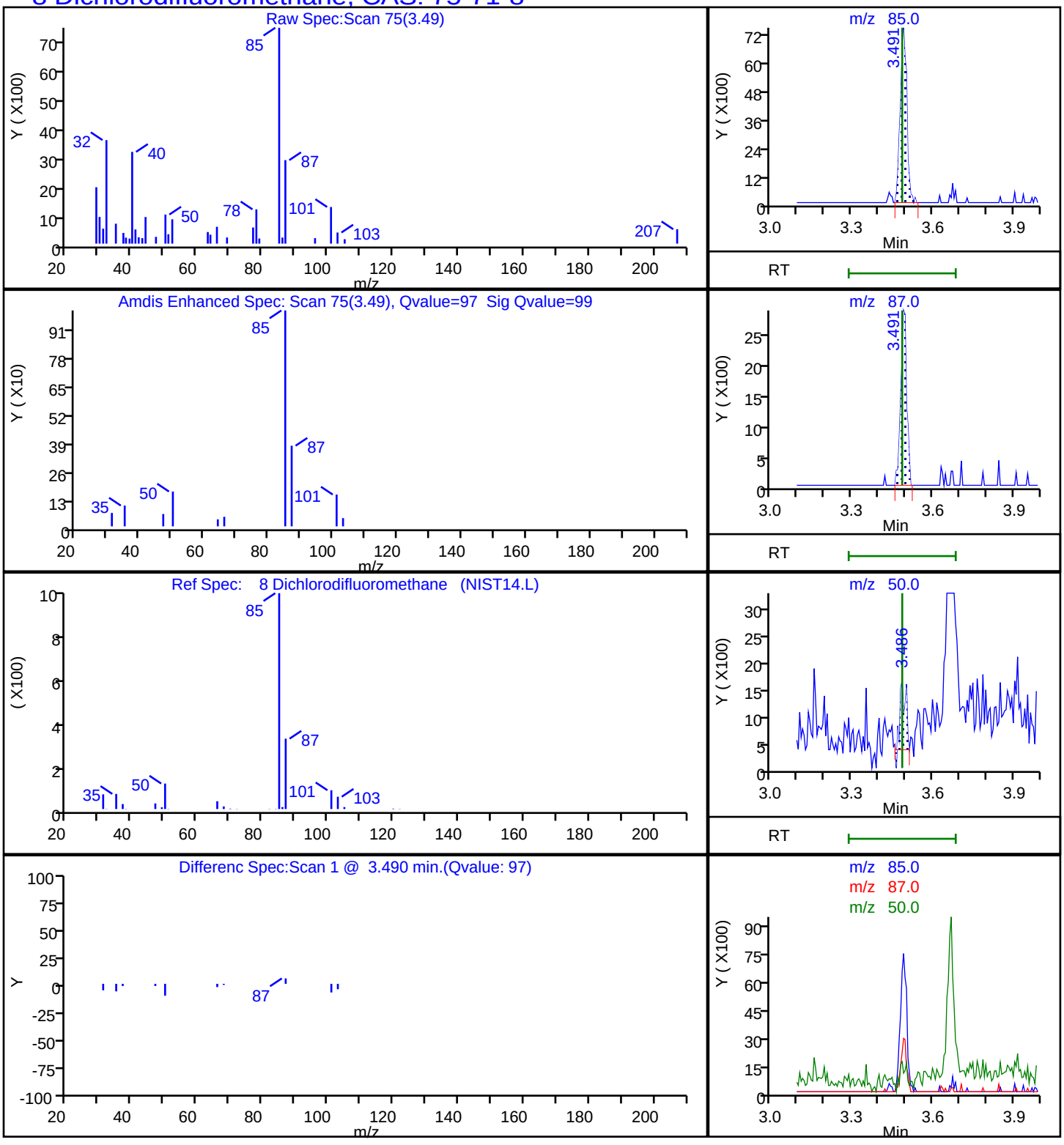
Report Date: 20-Aug-2019 13:14:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D

Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR		
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1		
Client ID:	IA-BCK-4-27				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



Report Date: 20-Aug-2019 13:14:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D

Injection Date: 20-Aug-2019 00:45:30 Instrument ID: MR

Lims ID: 140-16369-A-1 Lab Sample ID: 140-16369-1

Client ID: IA-BCK-4-27

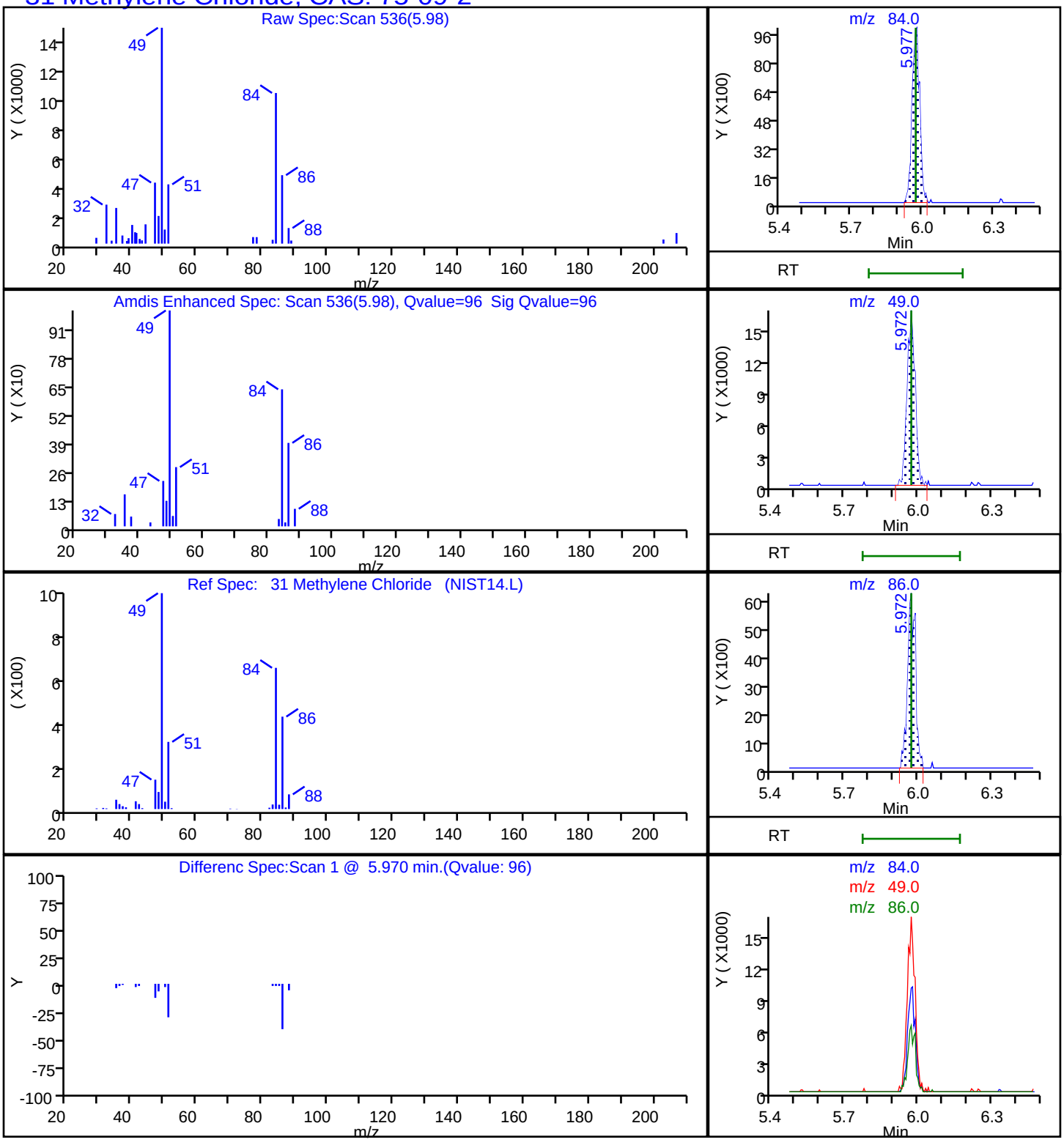
Operator ID: ALS Bottle#: 8 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2

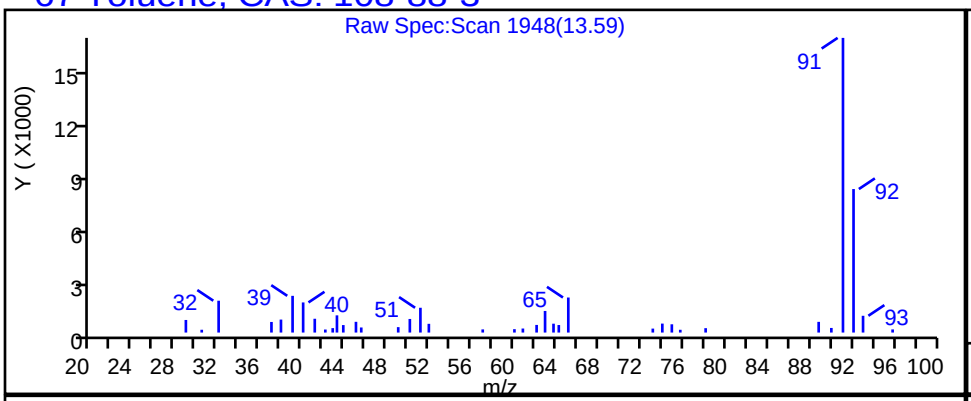


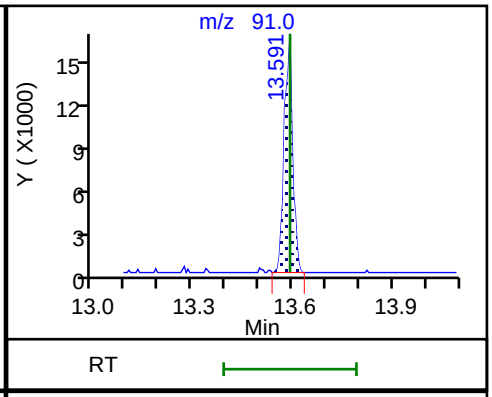
Report Date: 20-Aug-2019 13:14:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

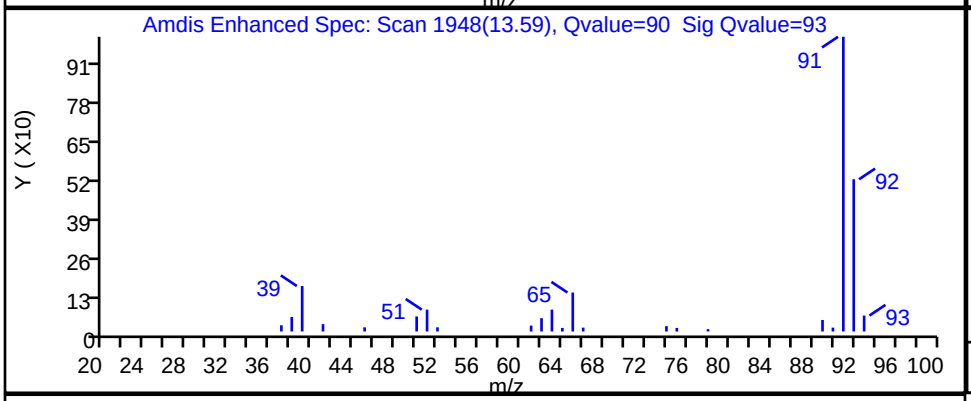
Eurofins TestAmerica, Knoxville

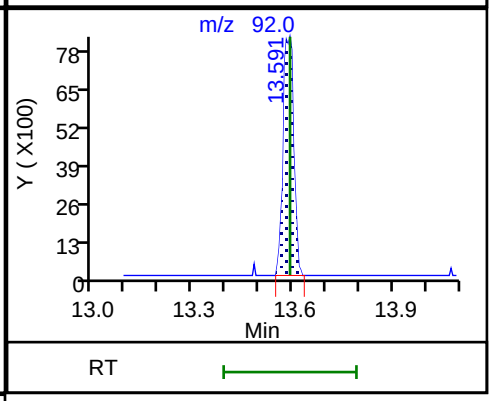
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P108.D				
Injection Date:	20-Aug-2019 00:45:30	Instrument ID:	MR		
Lims ID:	140-16369-A-1	Lab Sample ID:	140-16369-1		
Client ID:	IA-BCK-4-27				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

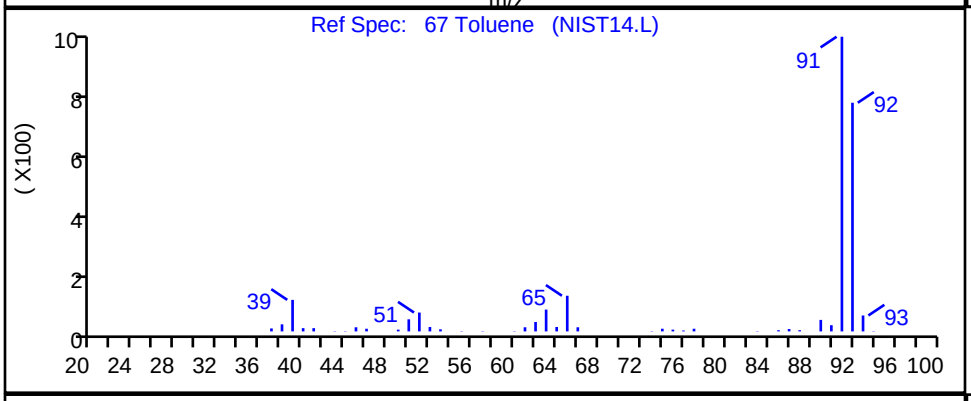
67 Toluene, CAS: 108-88-3

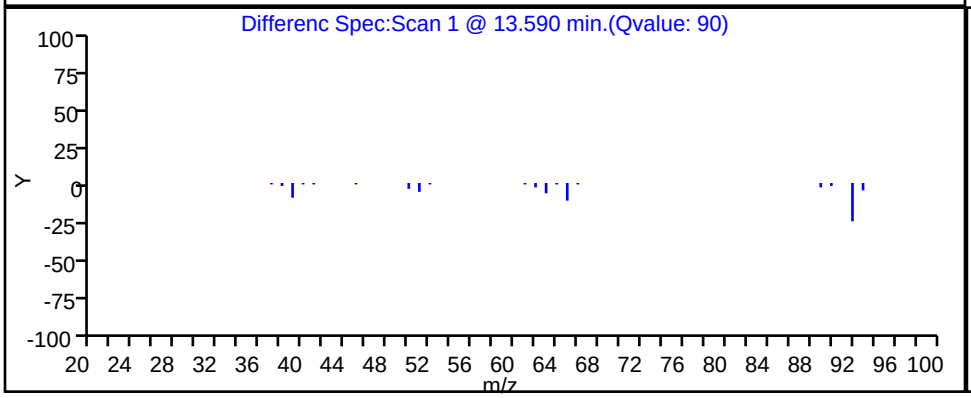


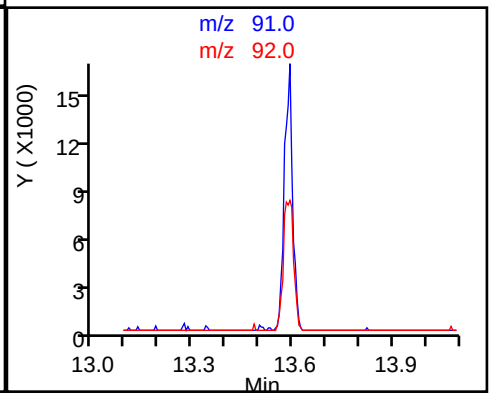












FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.041	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.070	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.31	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.26	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.30	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	10	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D
Lims ID: 140-16369-A-2
Client ID: IA-BCK-2-27
Sample Type: Client
Inject. Date: 20-Aug-2019 01:33:30 ALS Bottle#: 9 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.6400
Sample Info: 140-0012759-014
Misc. Info.: 140-16369-a-2@1.64
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:13:09 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:15:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	214324	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1234247	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1120245	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	94	704243	3.65	
6 Chlorodifluoromethane	51	3.427	3.423	0.006	51	18114	0.0989	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	99	10274	0.0620	
31 Methylene Chloride	84	5.972	5.976	0.000	93	44680	0.5898	
44 Chloroform	83	8.549	8.555	0.000	33	1172	0.006501	
49 Benzene	78	10.199	10.205	-0.006	64	8832	0.0353	
52 Carbon tetrachloride	117	10.232	10.226	0.006	15	1650	0.008256	
67 Toluene	91	13.591	13.586	0.000	90	55349	0.1920	
76 Ethylbenzene	91	15.910	15.904	0.000	36	5626	0.0139	
77 m-Xylene & p-Xylene	91	16.072	16.066	0.000	95	13845	0.0436	
80 o-Xylene	91	16.595	16.589	0.000	93	6208	0.0186	
S 116 Xylenes, Total	100				0		0.0622	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

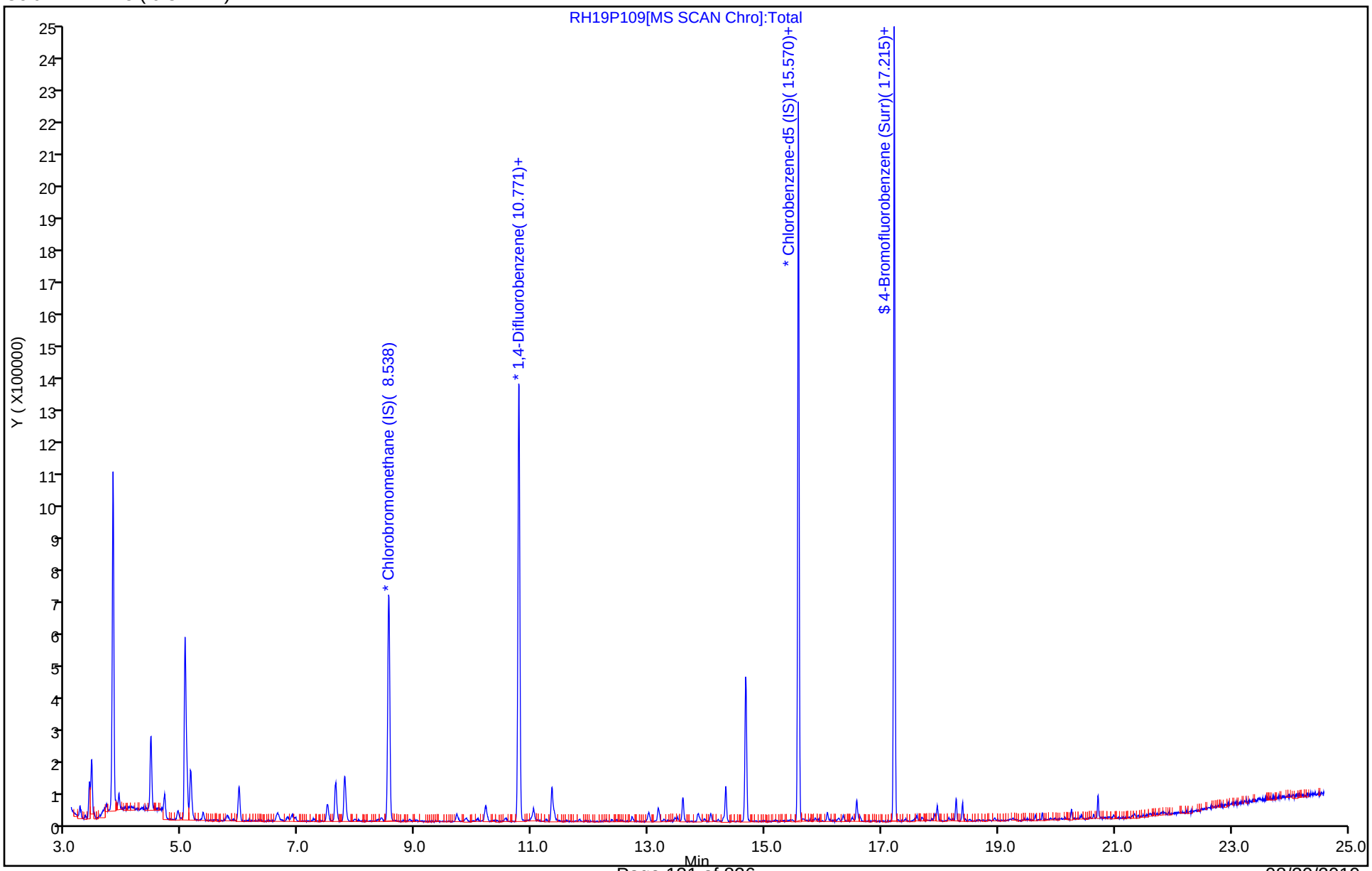
Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D

Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2	Worklist Smp#:	14
Client ID:	IA-BCK-2-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.6400	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D				
Lims ID:	140-16369-A-2				
Client ID:	IA-BCK-2-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 01:33:30	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400		
Sample Info:	140-0012759-014				
Misc. Info.:	140-16369-a-2@1.64				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:13:09	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 13:15:41		

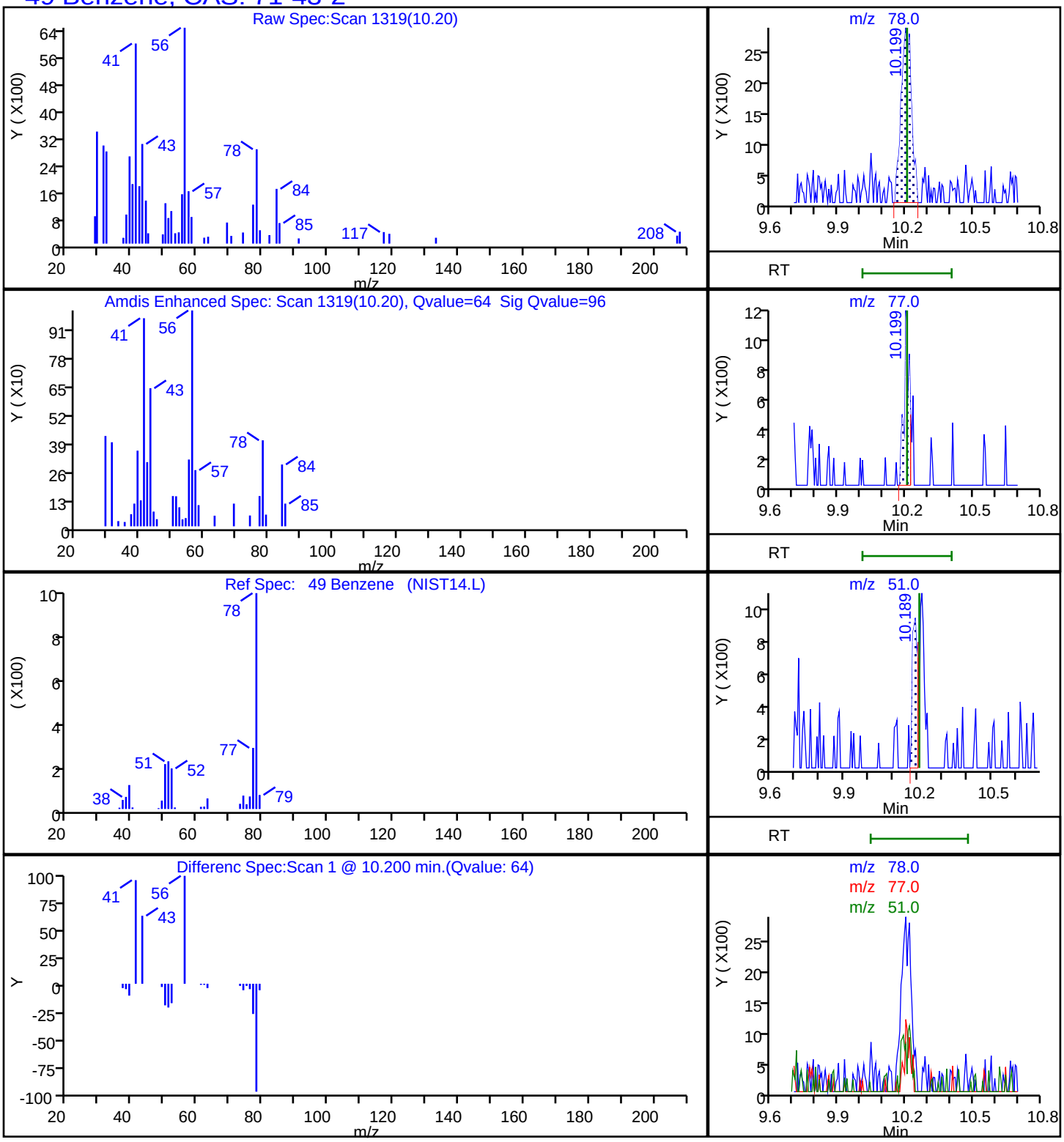
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.65	91.16

Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

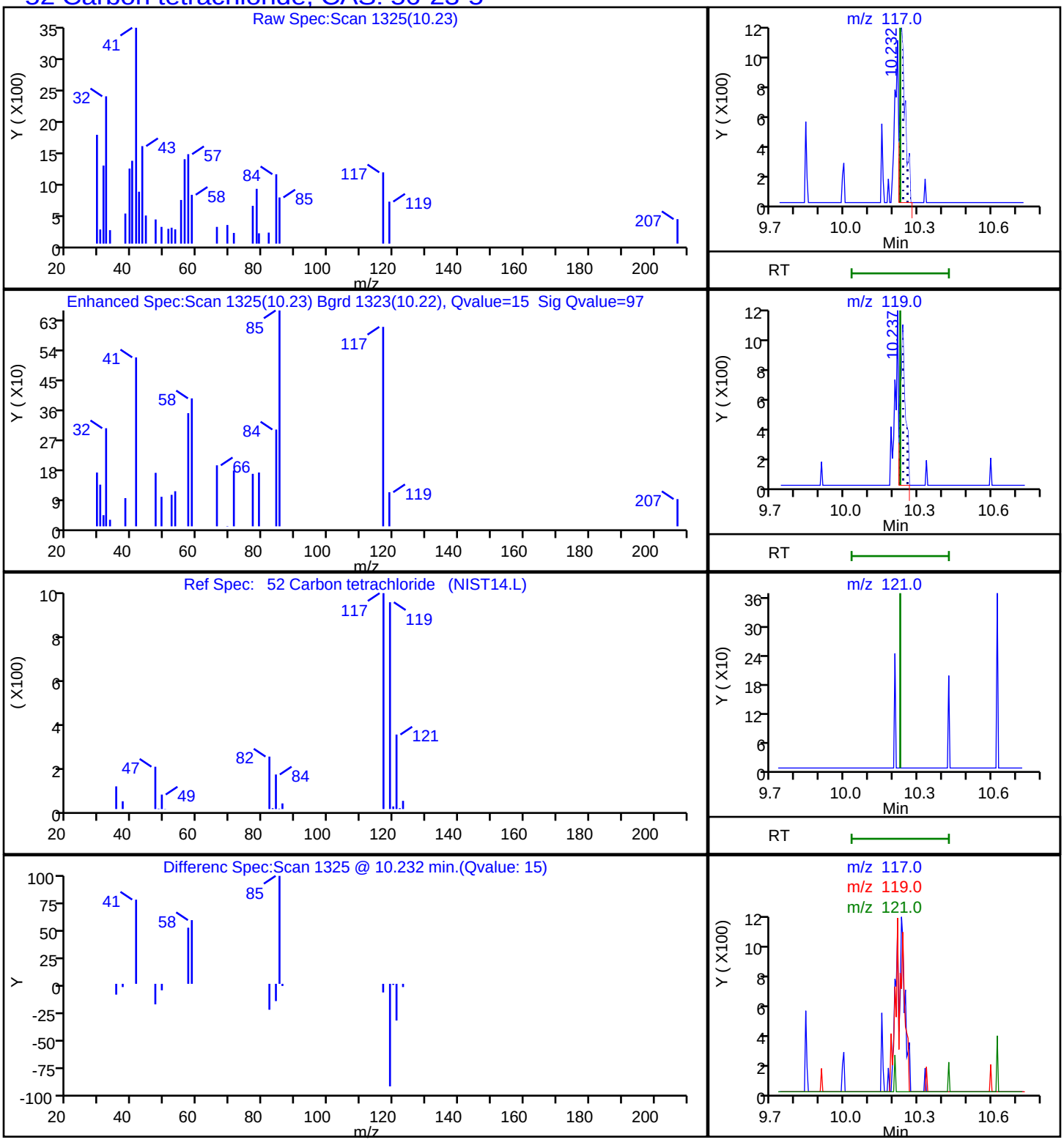
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

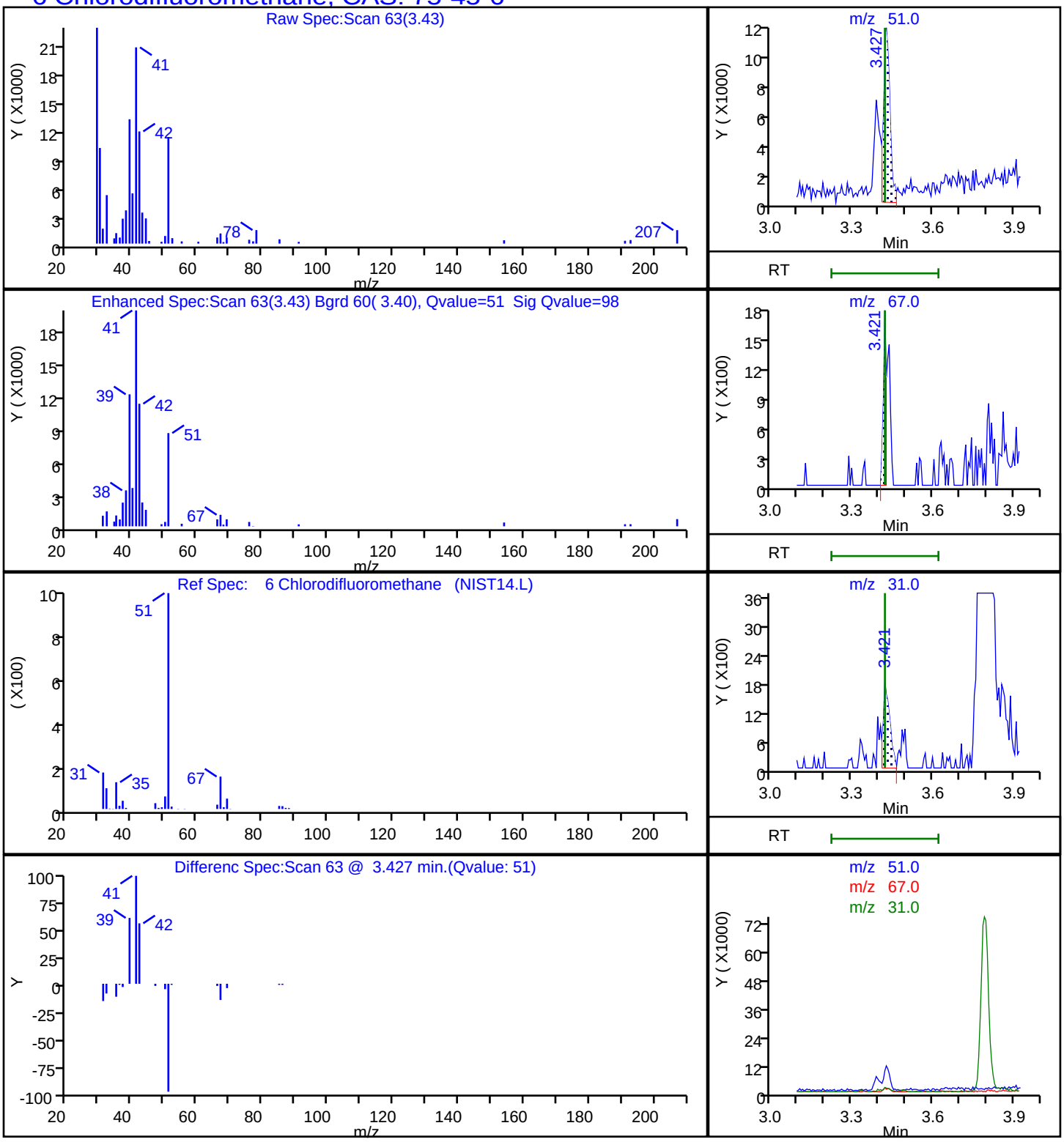


Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D				
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR		
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2		
Client ID:	IA-BCK-2-27				
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

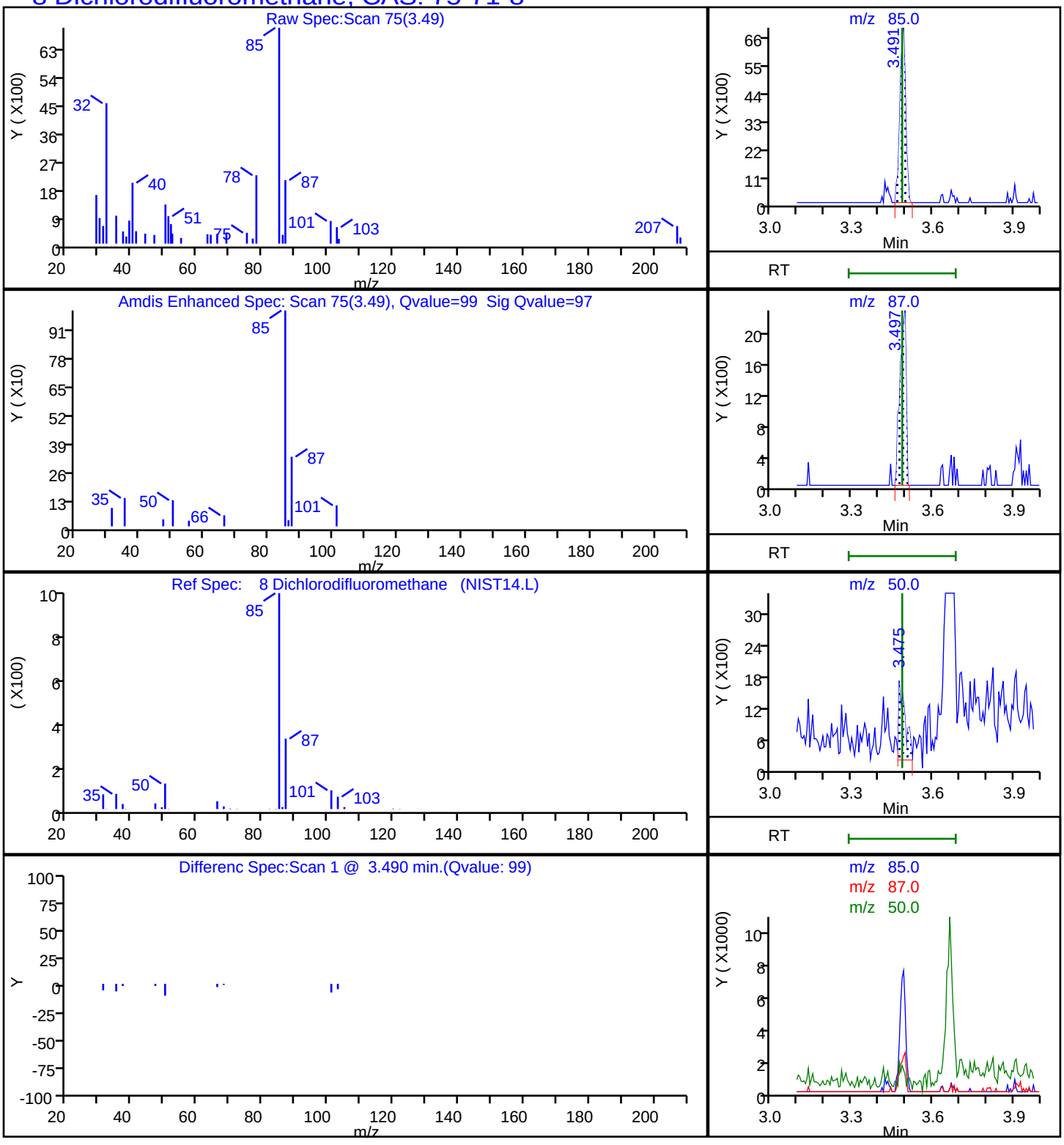
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

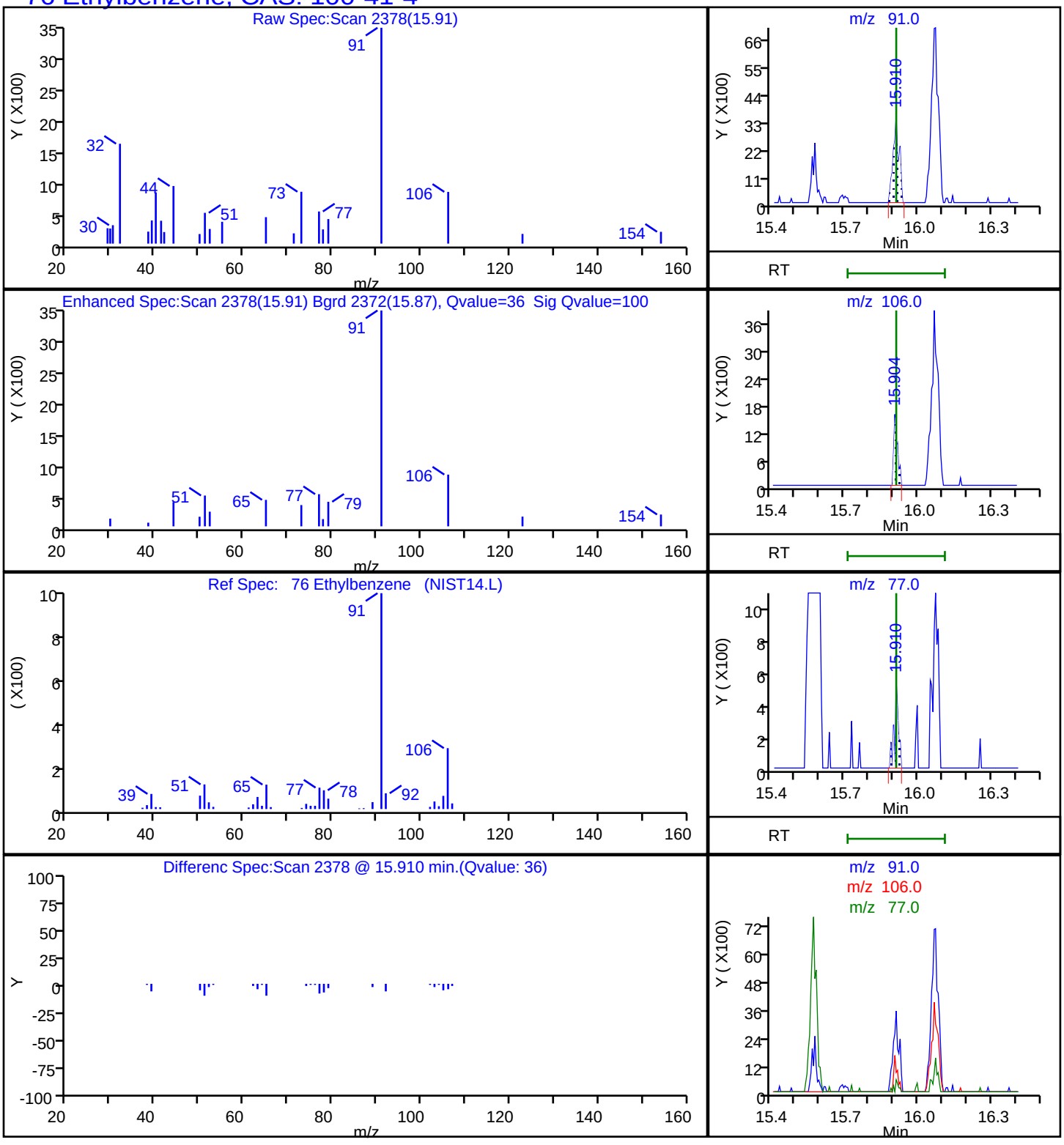


Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D

Injection Date: 20-Aug-2019 01:33:30 Instrument ID: MR

Lims ID: 140-16369-A-2 Lab Sample ID: 140-16369-2

Client ID: IA-BCK-2-27

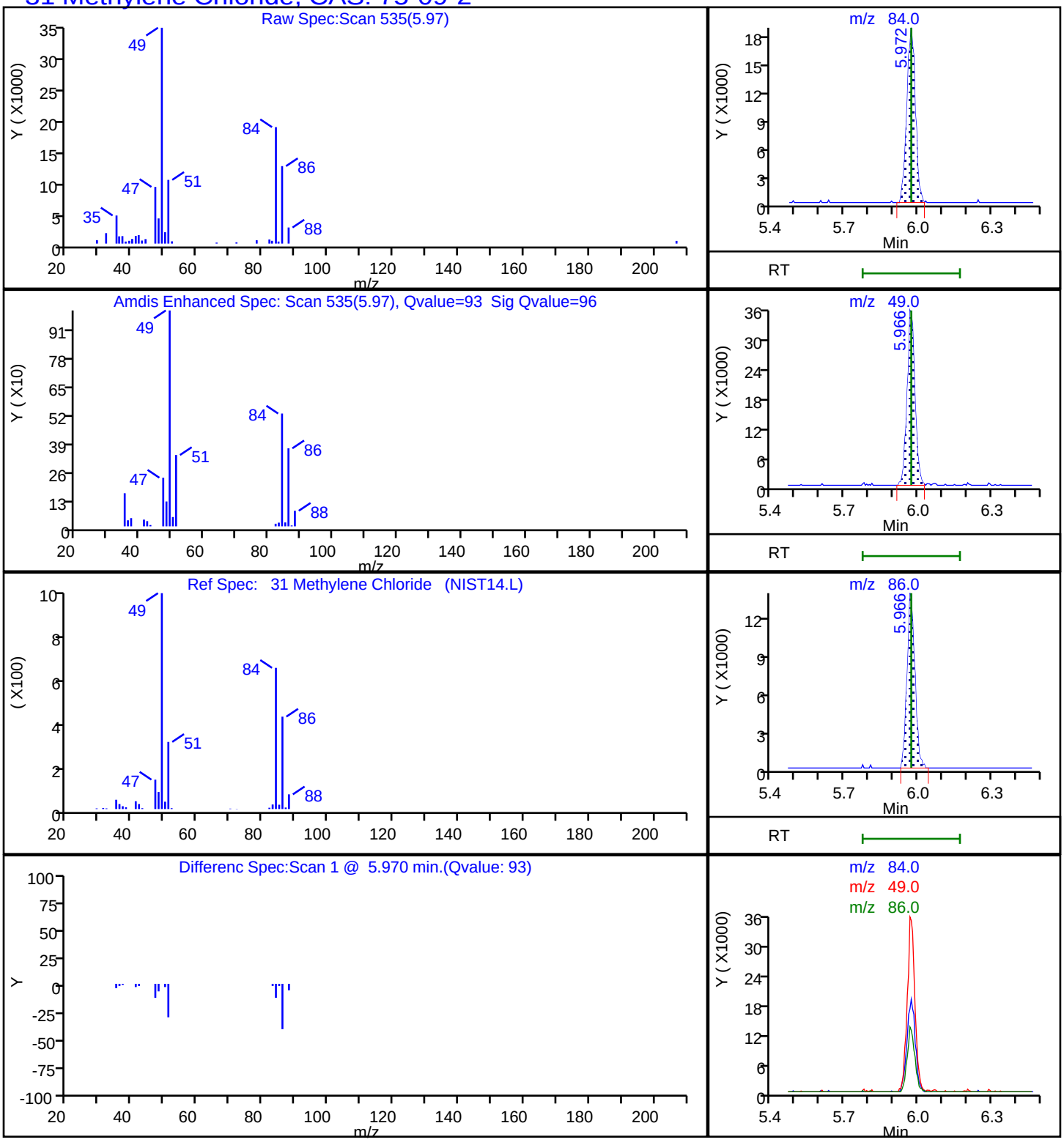
Operator ID: ALS Bottle#: 9 Worklist Smp#: 14

Purge Vol: 500.000 mL Dil. Factor: 1.6400

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

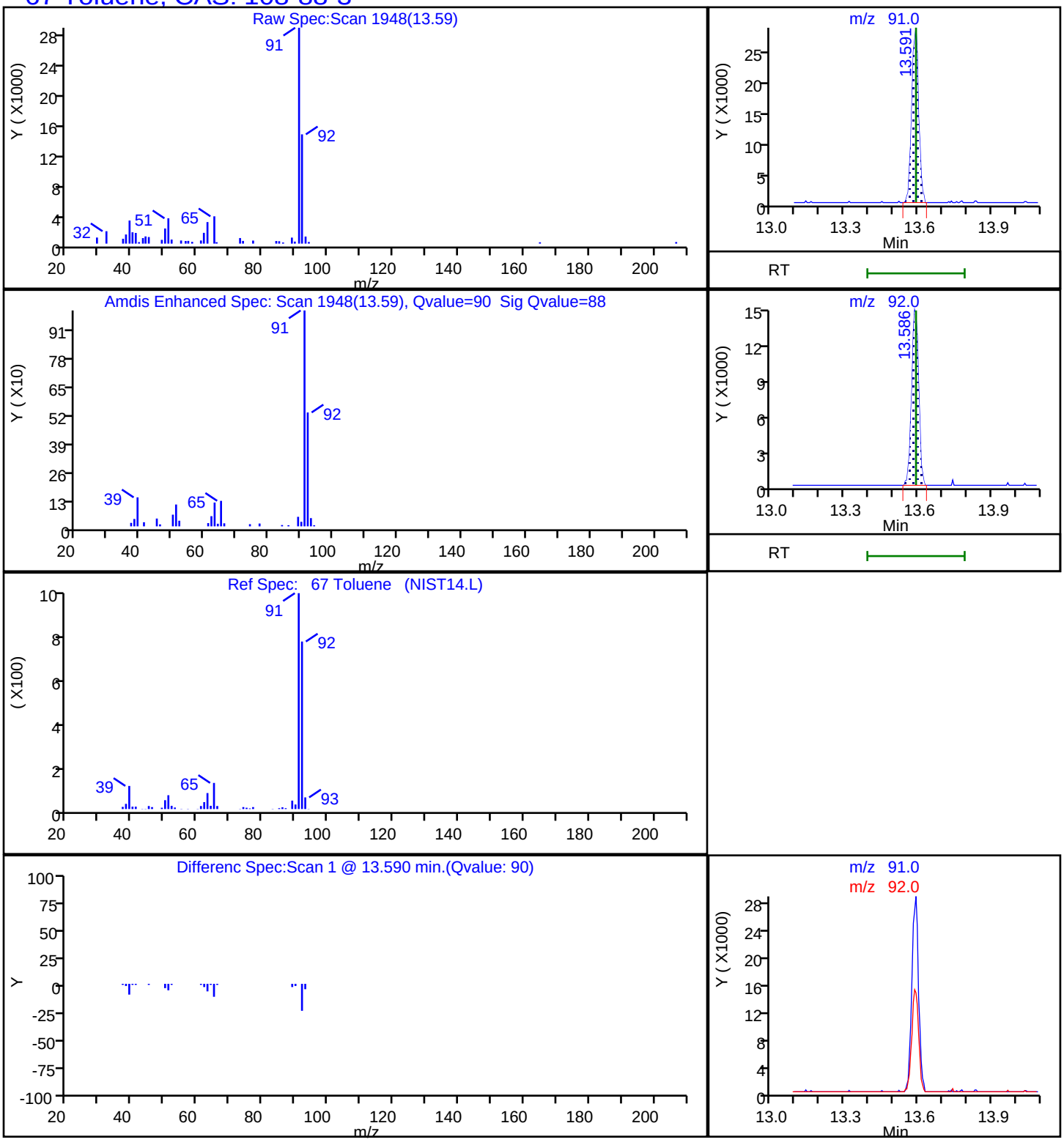
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

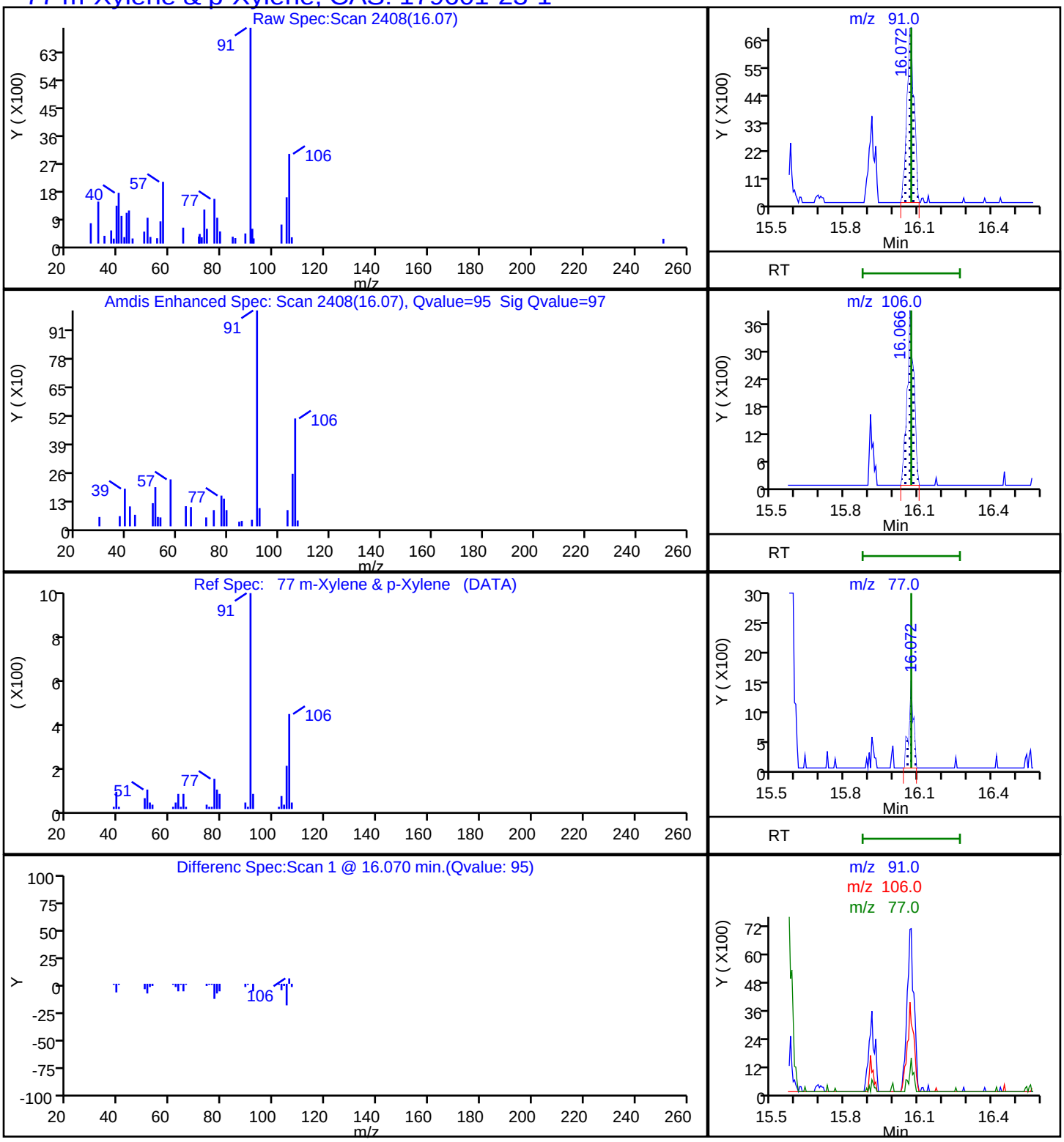


Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D		
Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



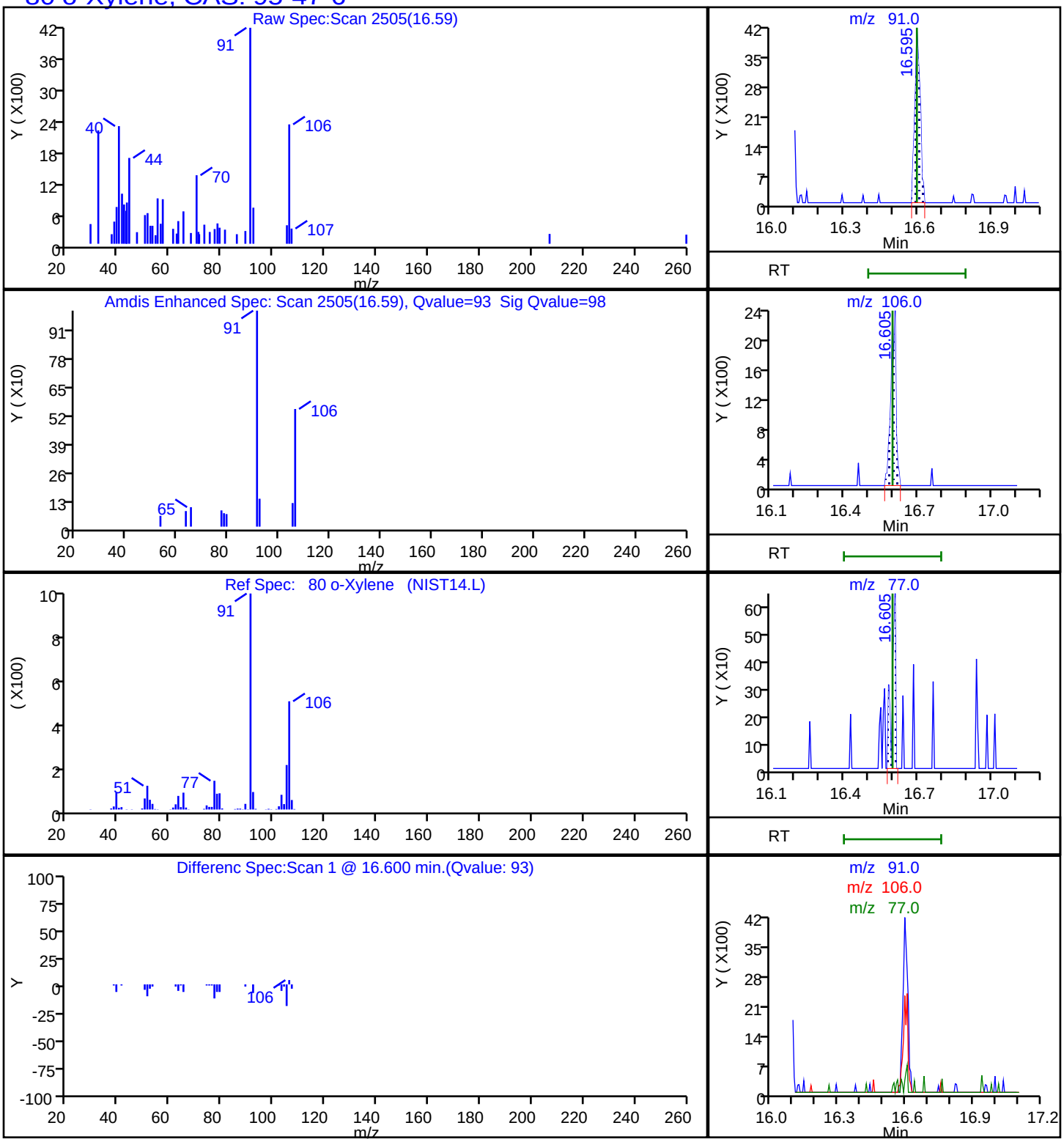
Report Date: 20-Aug-2019 13:15:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P109.D

Injection Date:	20-Aug-2019 01:33:30	Instrument ID:	MR
Lims ID:	140-16369-A-2	Lab Sample ID:	140-16369-2
Client ID:	IA-BCK-2-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.50	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.23	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.9	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	0.99	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D
Lims ID: 140-16369-A-3
Client ID: IA-BCK-1-27
Sample Type: Client
Inject. Date: 20-Aug-2019 02:20:30 ALS Bottle#: 10 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-015
Misc. Info.: 140-16369-a-3
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 01:01:07 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 14:17:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	185274	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1054763	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	90	927536	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	93	593025	3.71	
6 Chlorodifluoromethane	51	3.421	3.419	0.000	54	13883	0.0877	
8 Dichlorodifluoromethane	85	3.481	3.484	-0.005	99	10154	0.0709	
31 Methylene Chloride	84	5.966	5.968	-0.006	93	29649	0.4527	
44 Chloroform	83	8.544	8.544	-0.005	27	1348	0.008650	
49 Benzene	78	10.194	10.205	-0.011	87	7724	0.0362	
52 Carbon tetrachloride	117	10.237	10.226	0.011	41	2716	0.0159	
67 Toluene	91	13.586	13.587	-0.005	91	23765	0.0996	
77 m-Xylene & p-Xylene	91	16.072	16.066	0.000	92	7639	0.0291	
80 o-Xylene	91	16.595	16.589	0.000	79	4359	0.0158	
S 116 Xylenes, Total	100				0		0.0449	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

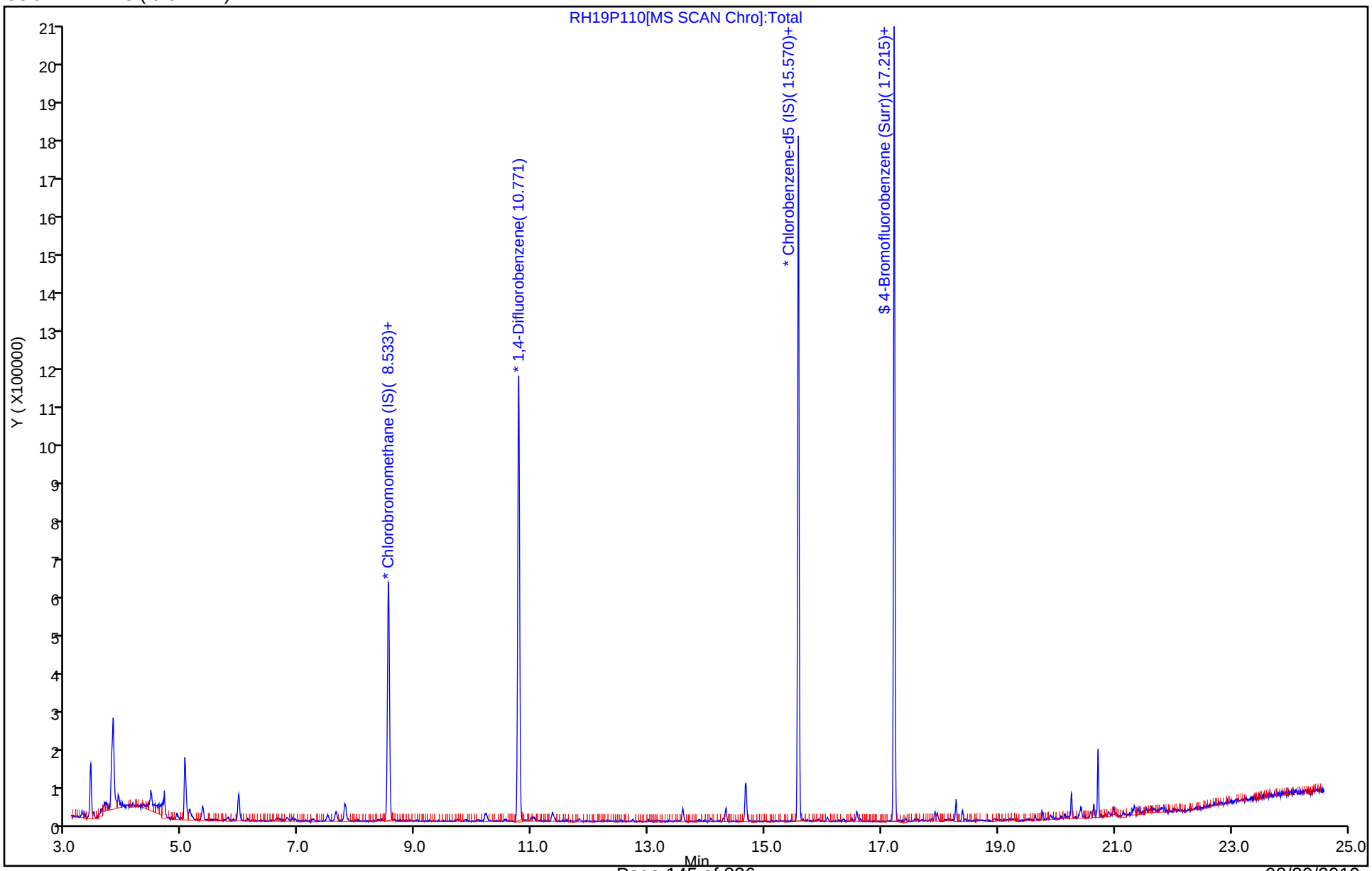
Report Date: 20-Aug-2019 14:17:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D

Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3	Worklist Smp#:	15
Client ID:	IA-BCK-1-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D				
Lims ID:	140-16369-A-3				
Client ID:	IA-BCK-1-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 02:20:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-015				
Misc. Info.:	140-16369-a-3				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 01:01:07	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 14:17:33

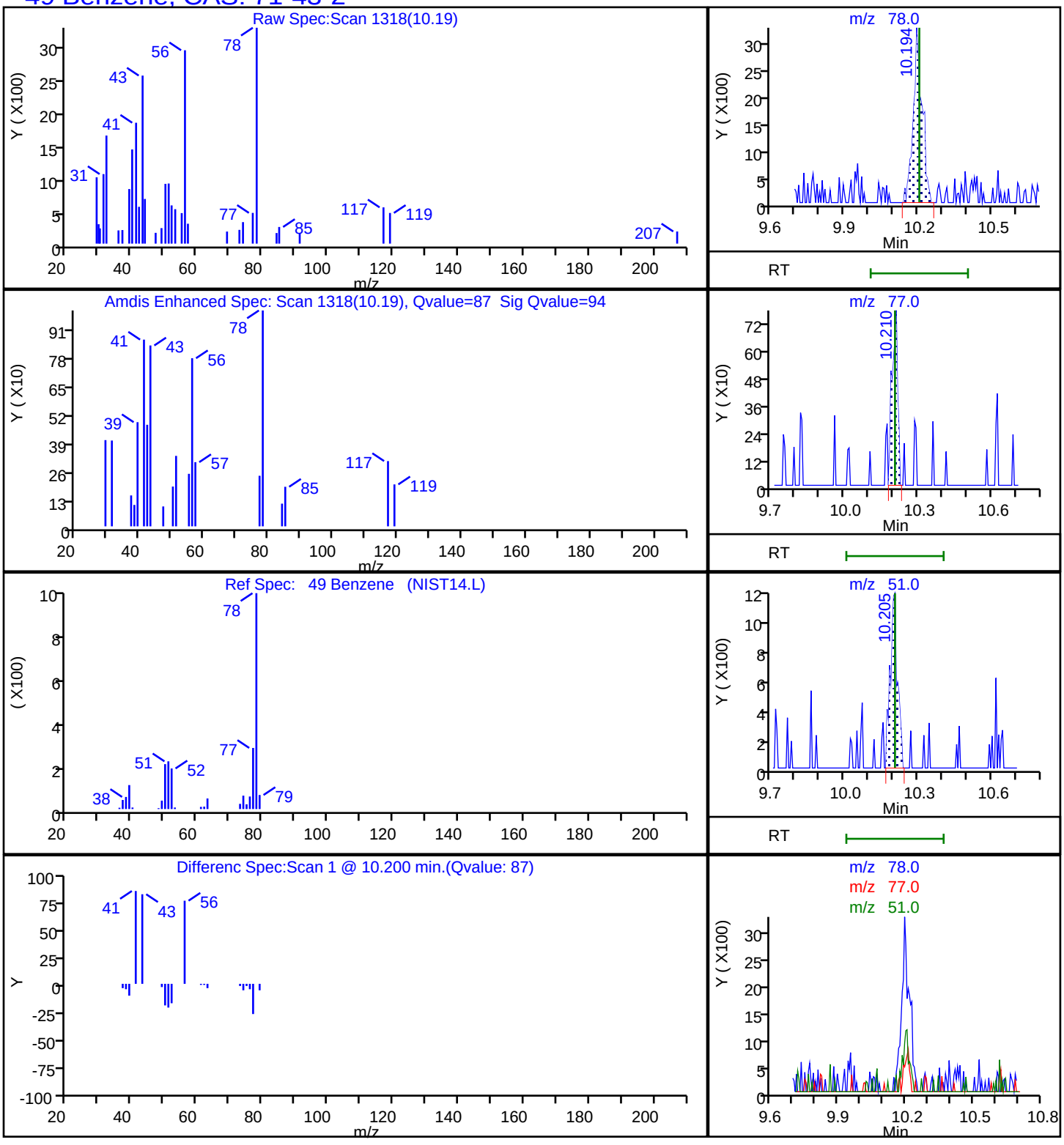
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.71	92.71

Report Date: 20-Aug-2019 14:17:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D		
Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D		
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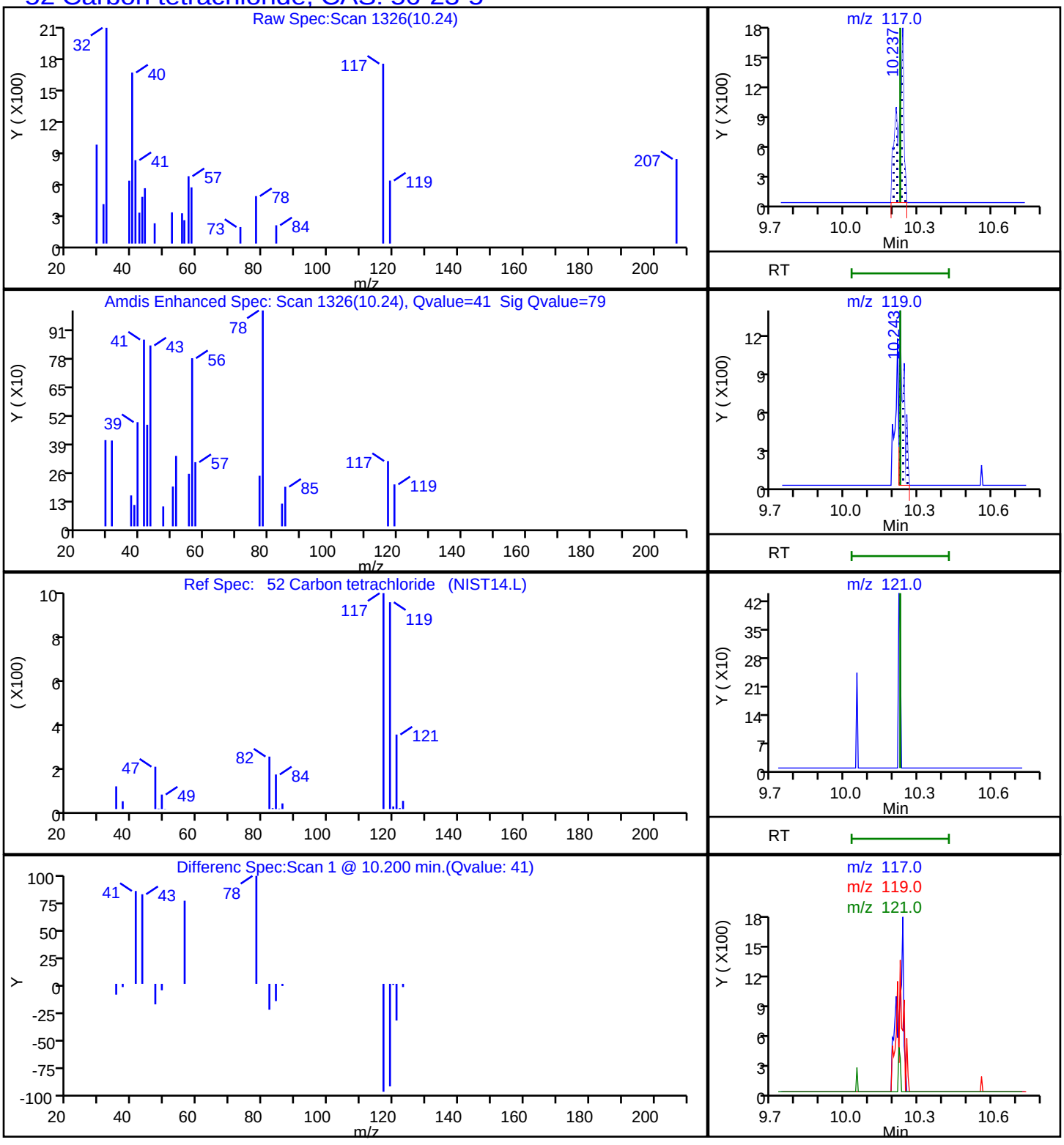
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

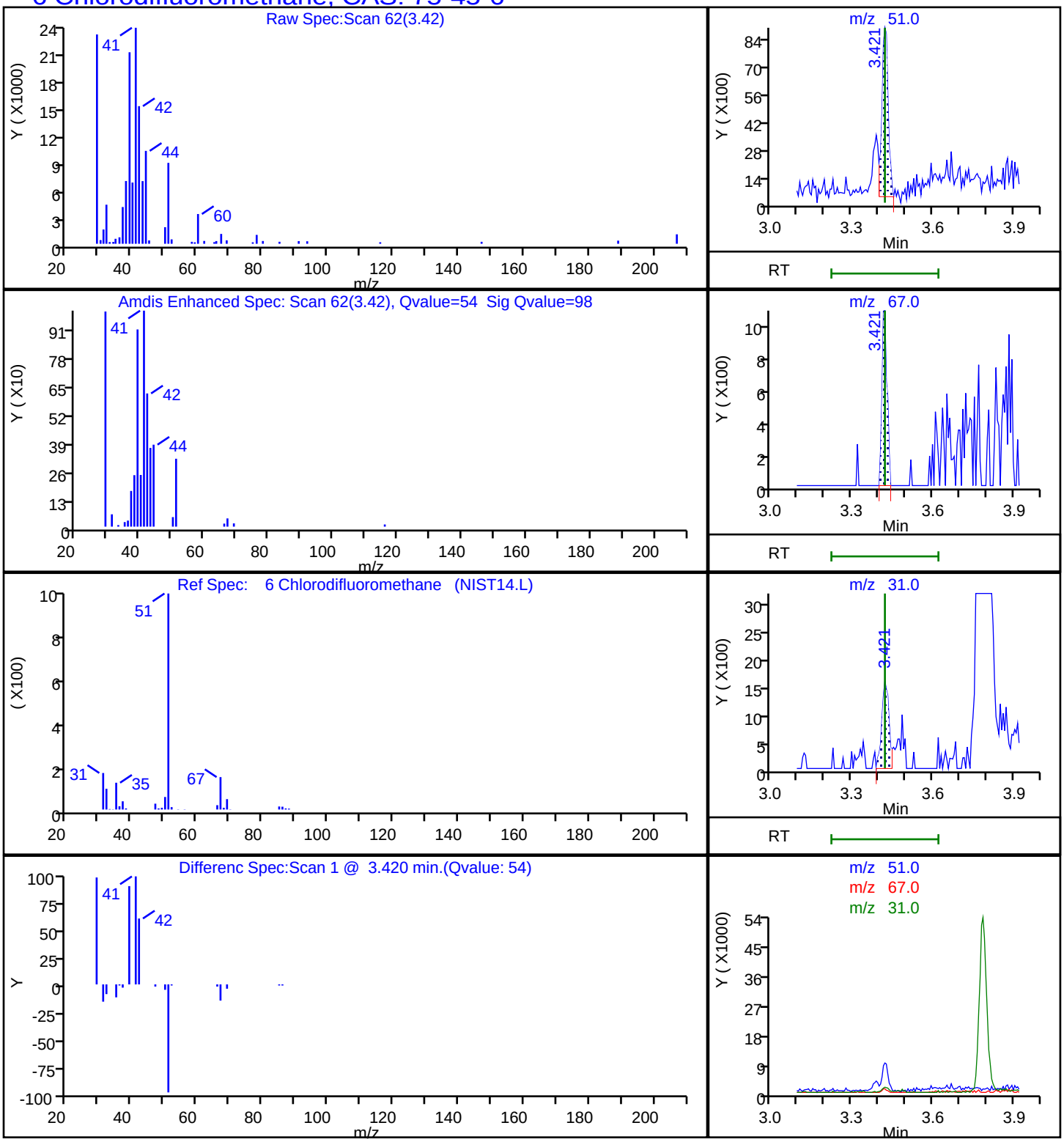


Report Date: 20-Aug-2019 14:17:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D				
Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR		
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3		
Client ID:	IA-BCK-1-27				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

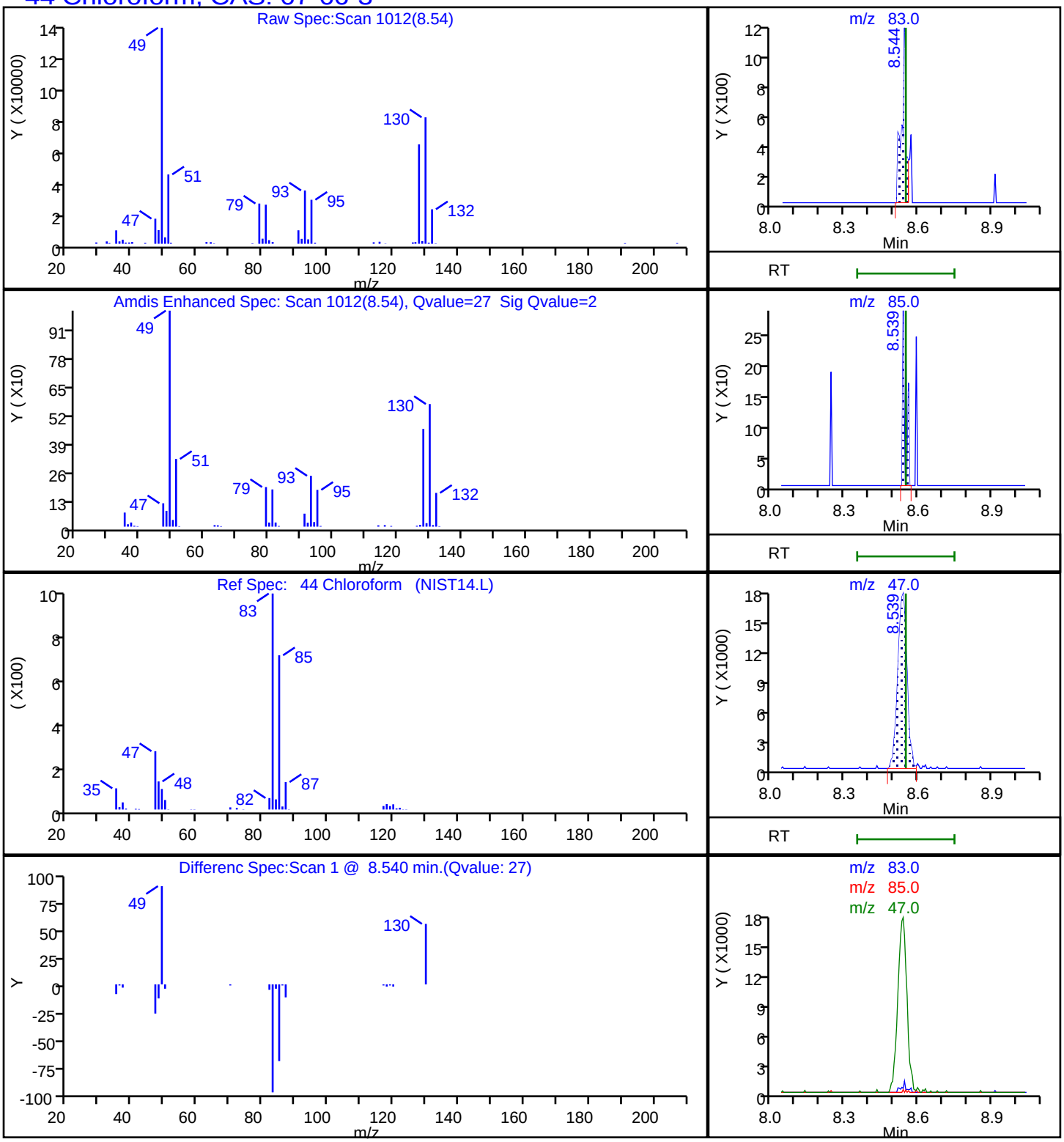


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D

Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D

Injection Date: 20-Aug-2019 02:20:30 Instrument ID: MR

Lims ID: 140-16369-A-3 Lab Sample ID: 140-16369-3

Client ID: IA-BCK-1-27

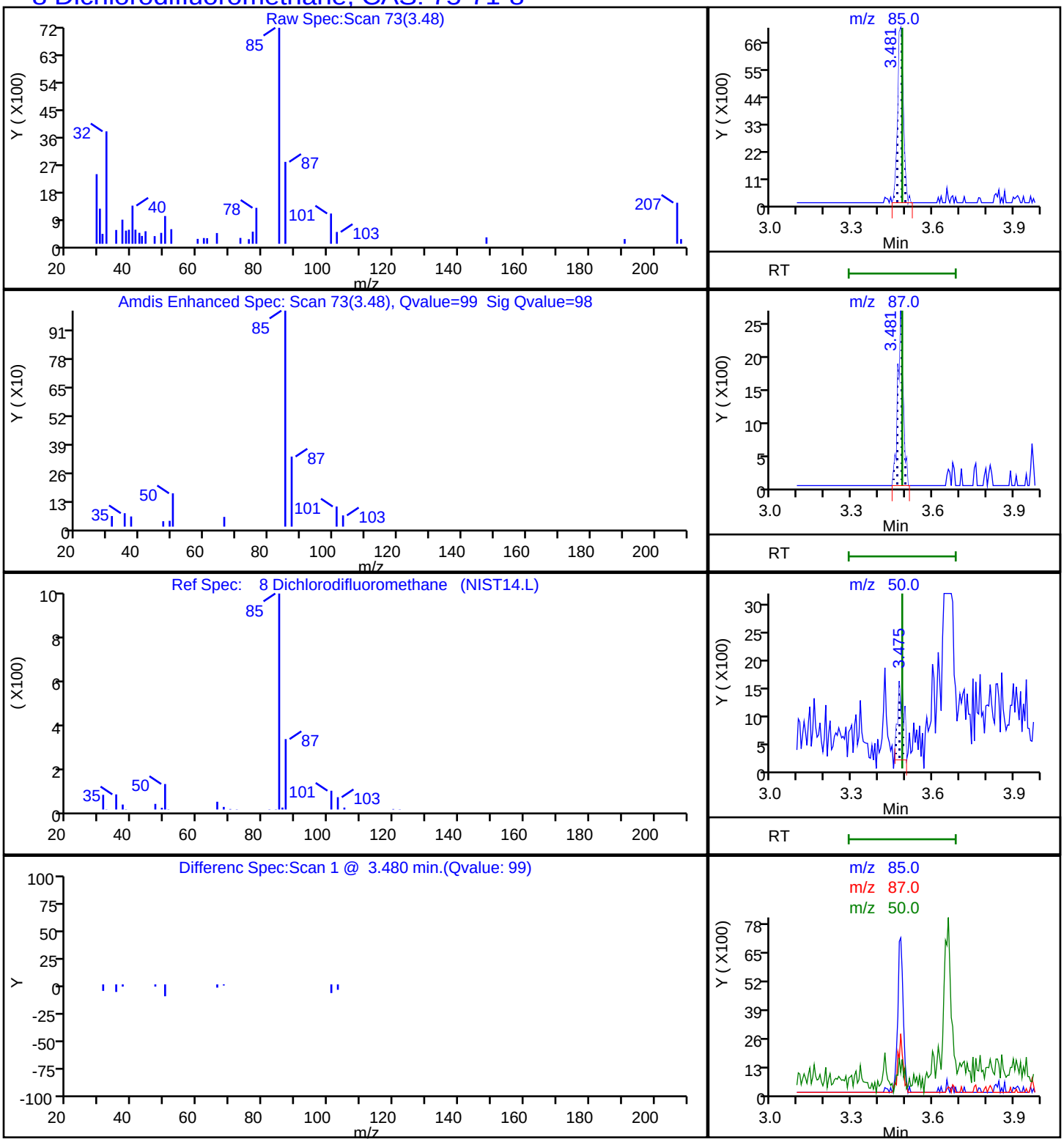
Operator ID: ALS Bottle#: 10 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

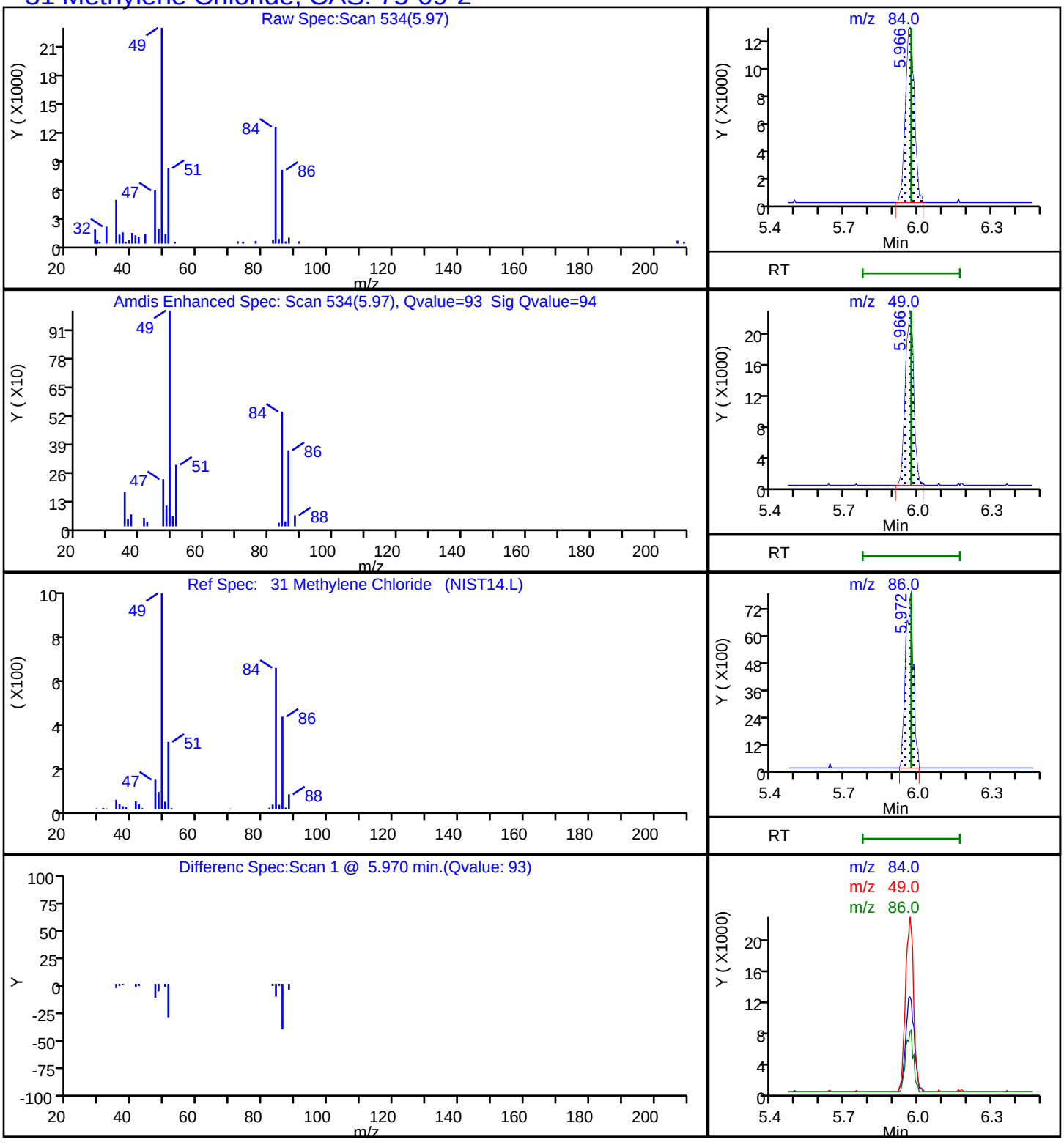


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D

Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

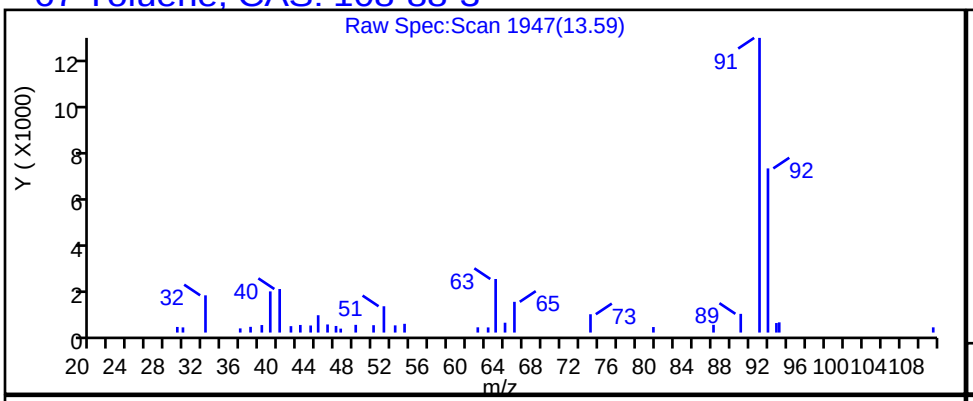


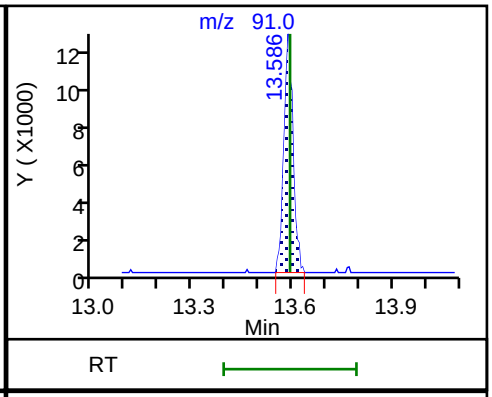
Report Date: 20-Aug-2019 14:17:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

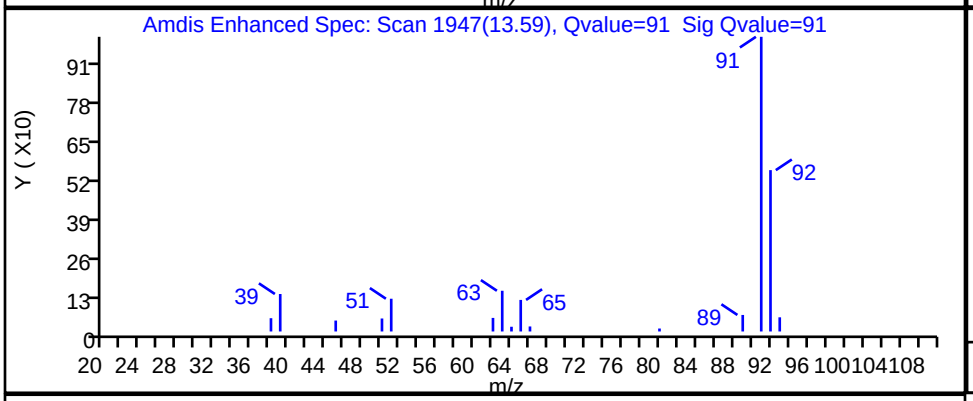
Eurofins TestAmerica, Knoxville

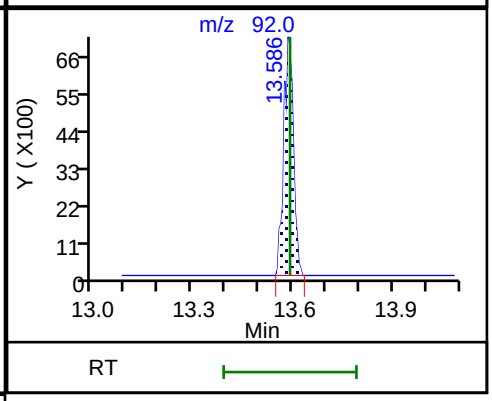
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D		
Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

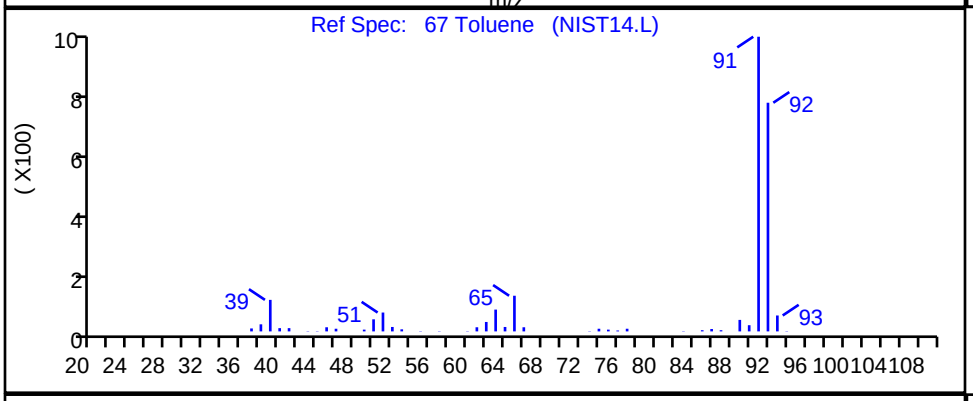
67 Toluene, CAS: 108-88-3

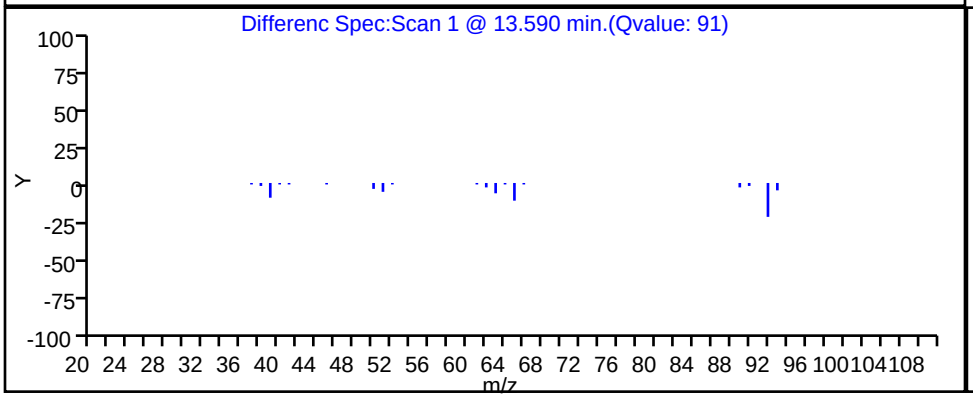


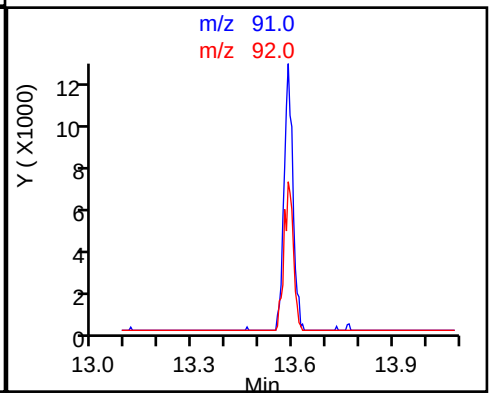










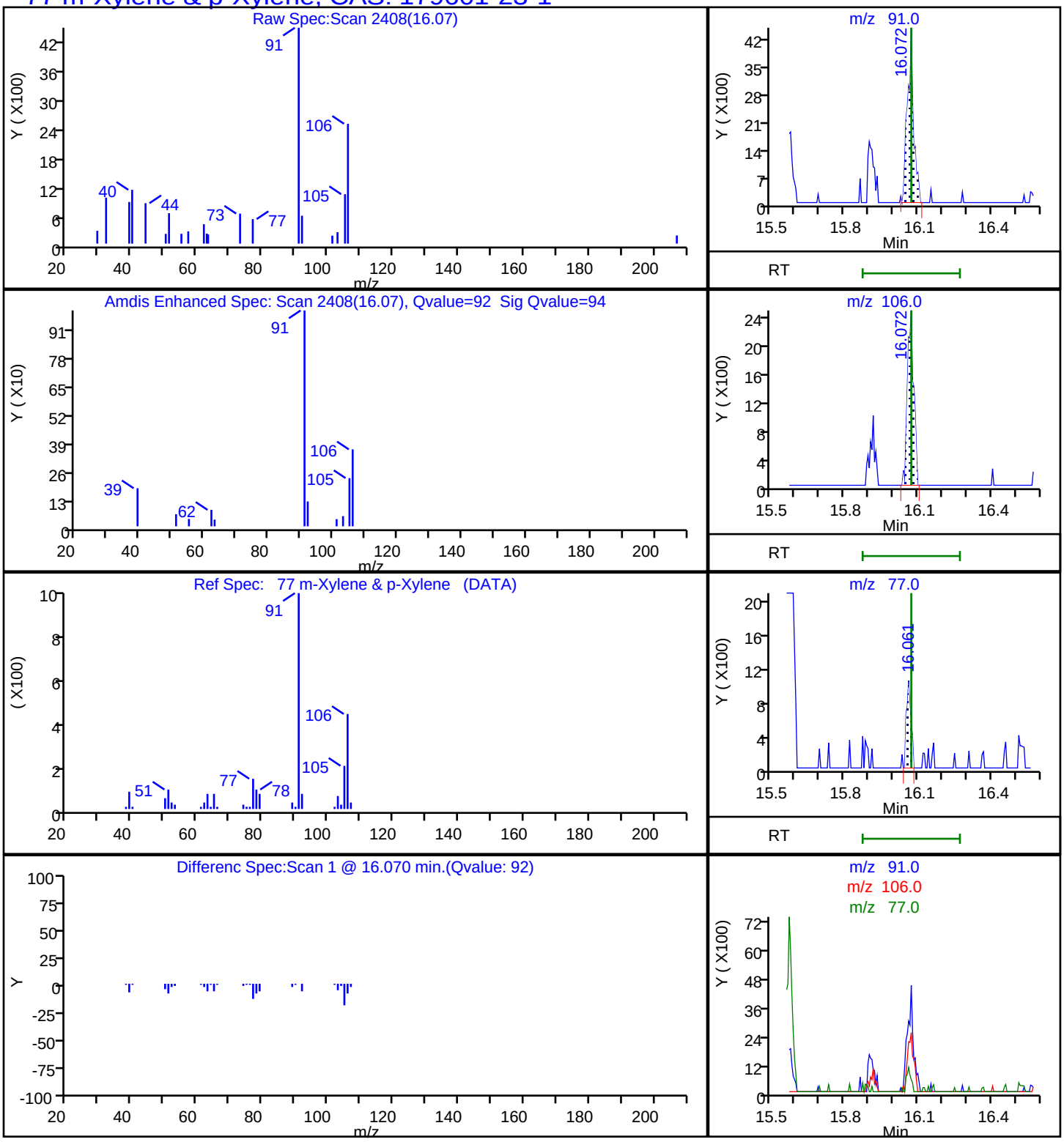


Report Date: 20-Aug-2019 14:17:34 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D		
Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

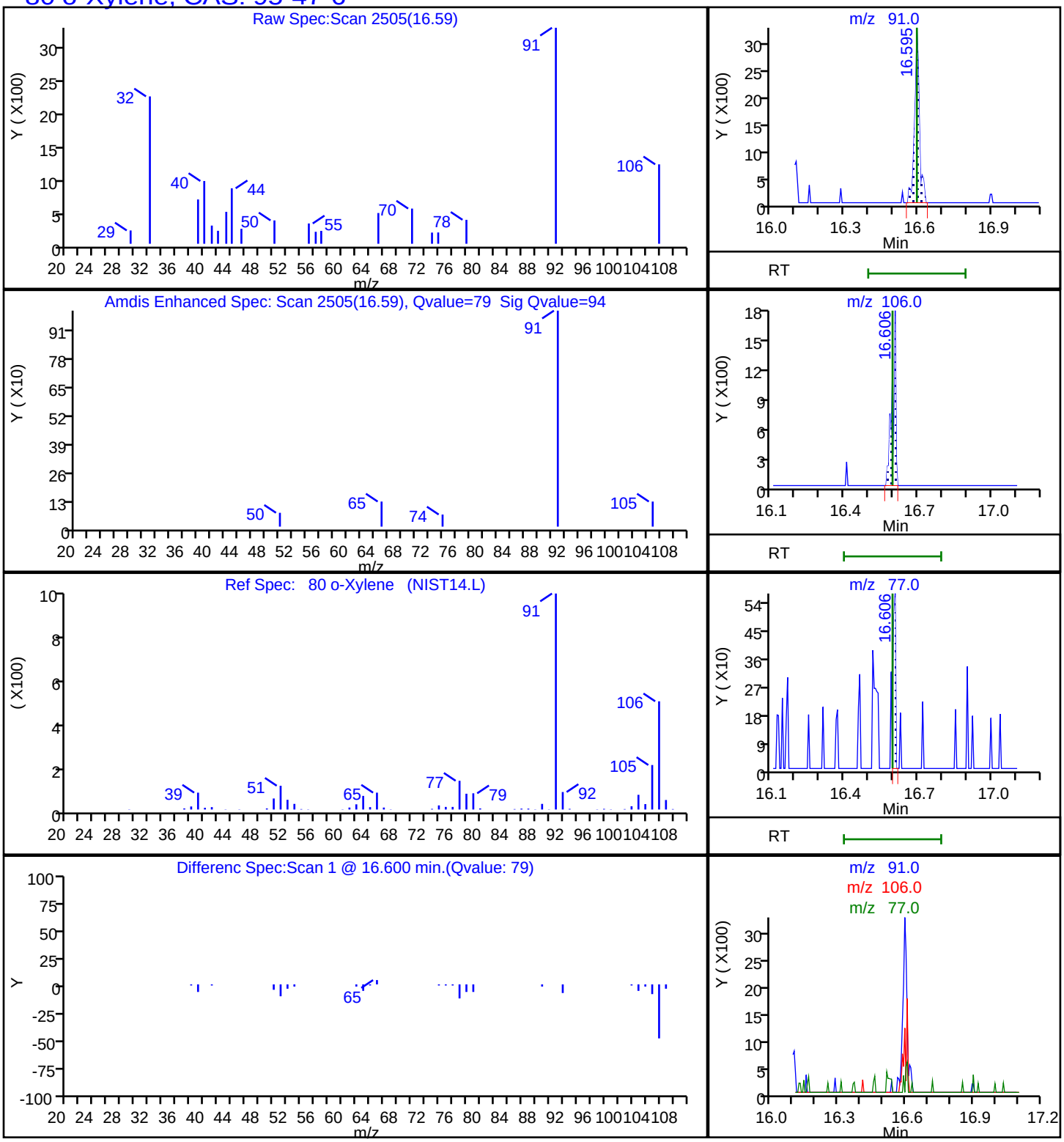
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P110.D		
Injection Date:	20-Aug-2019 02:20:30	Instrument ID:	MR
Lims ID:	140-16369-A-3	Lab Sample ID:	140-16369-3
Client ID:	IA-BCK-1-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.036	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.24	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.18	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	4.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D
Lims ID: 140-16369-A-4
Client ID: IA-BCK-3-27
Sample Type: Client
Inject. Date: 20-Aug-2019 03:09:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-016
Misc. Info.: 140-16369-a-4
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 01:48:00 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 15:16:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	188454	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1107214	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.576	-0.001	89	960224	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	91	626322	3.78	
6 Chlorodifluoromethane	51	3.432	3.423	0.011	64	12007	0.0746	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	86	9581	0.0658	
31 Methylene Chloride	84	5.972	5.975	0.000	95	18343	0.2754	
44 Chloroform	83	8.555	8.555	0.006	27	1147	0.007236	
49 Benzene	78	10.215	10.210	0.010	83	6762	0.0302	
52 Carbon tetrachloride	117	10.226	10.231	0.000	36	2694	0.0150	
67 Toluene	91	13.596	13.591	0.005	93	18653	0.0755	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	94	8778	0.0323	
80 o-Xylene	91	16.600	16.595	0.005	92	4385	0.0153	
S 116 Xylenes, Total	100				0		0.0476	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

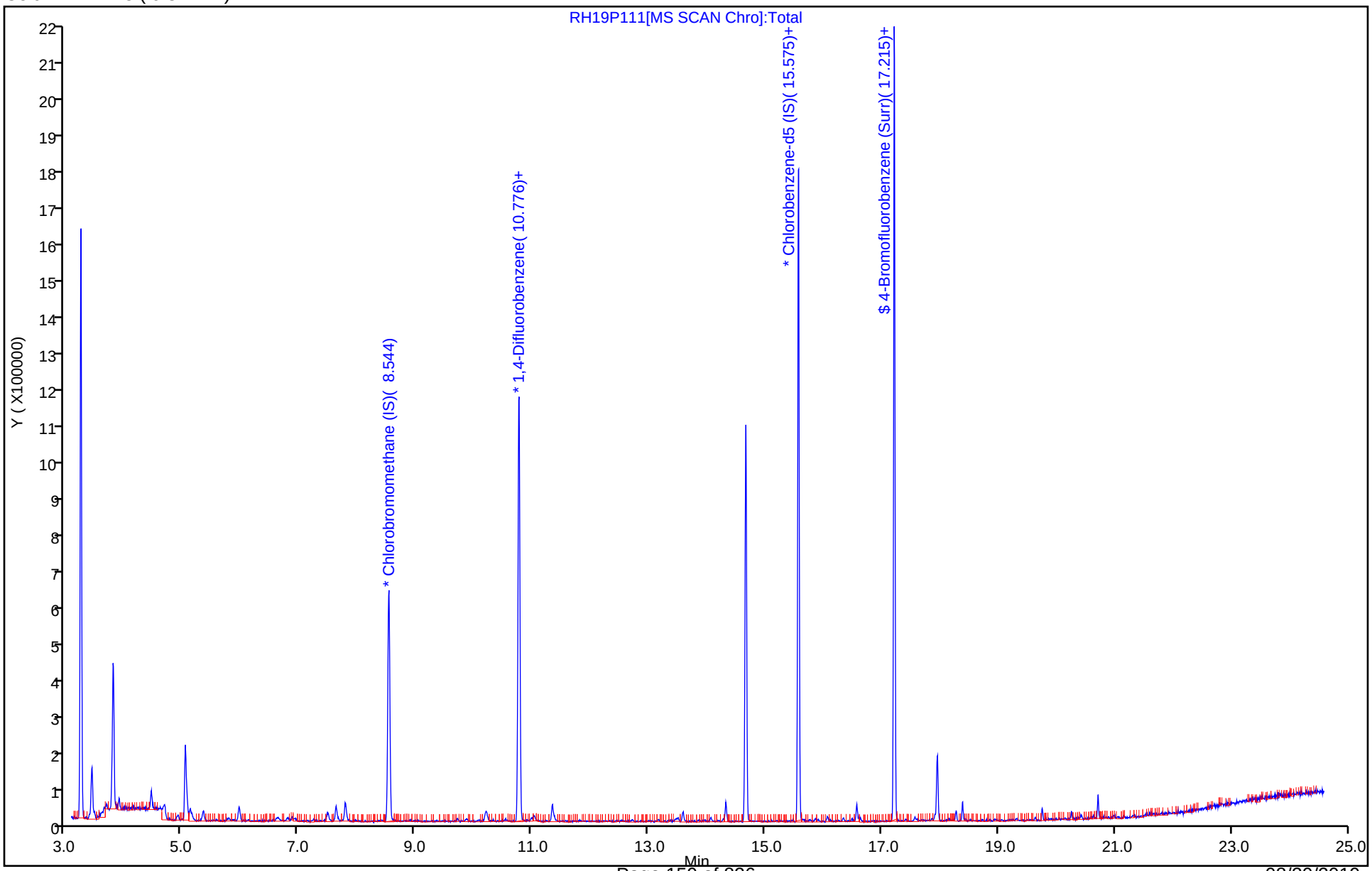
Report Date: 20-Aug-2019 15:16:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D

Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4	Worklist Smp#:	16
Client ID:	IA-BCK-3-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D				
Lims ID:	140-16369-A-4				
Client ID:	IA-BCK-3-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 03:09:30	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-016				
Misc. Info.:	140-16369-a-4				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 01:48:00	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 15:16:10

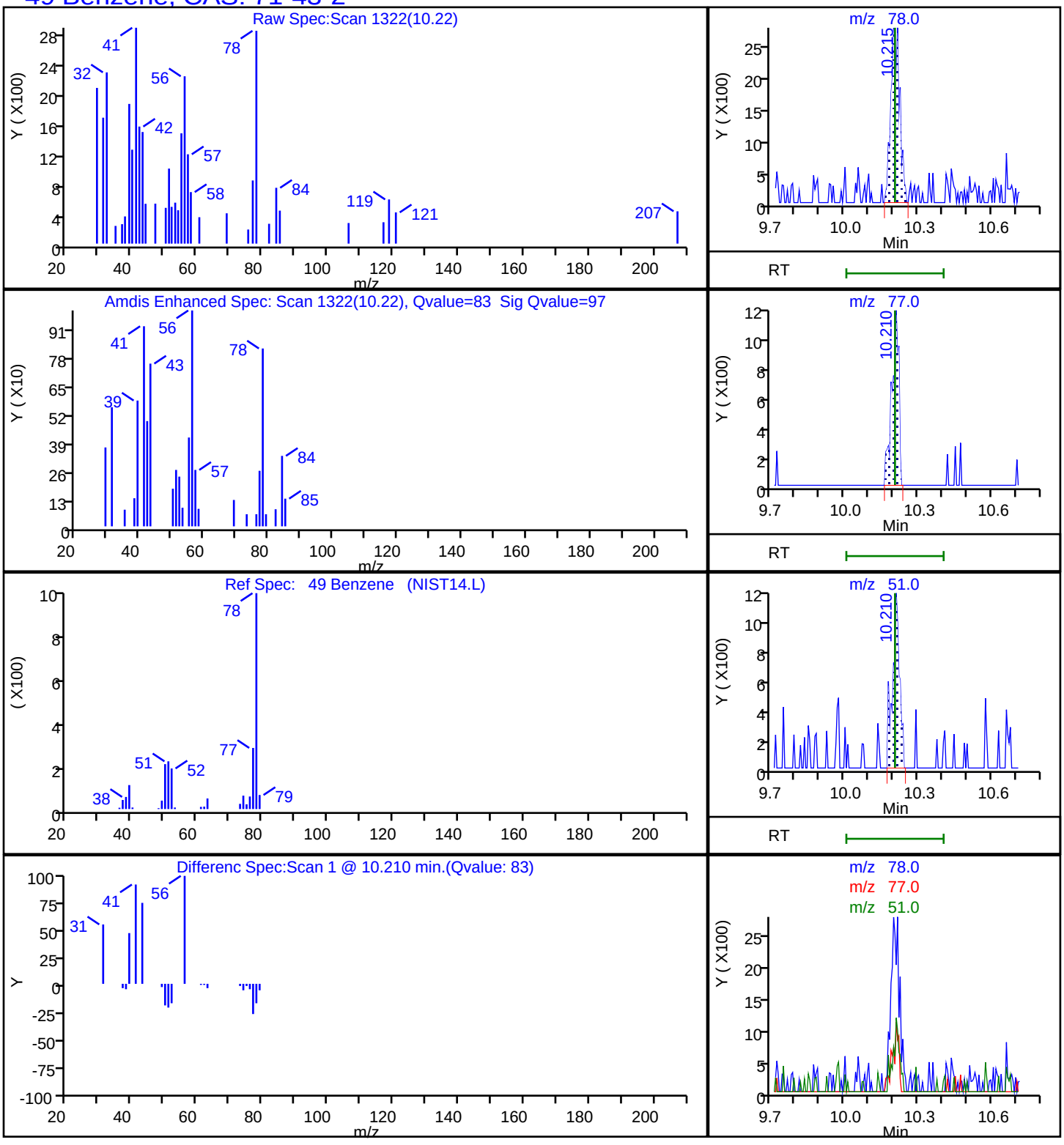
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.58

Report Date: 20-Aug-2019 15:16:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
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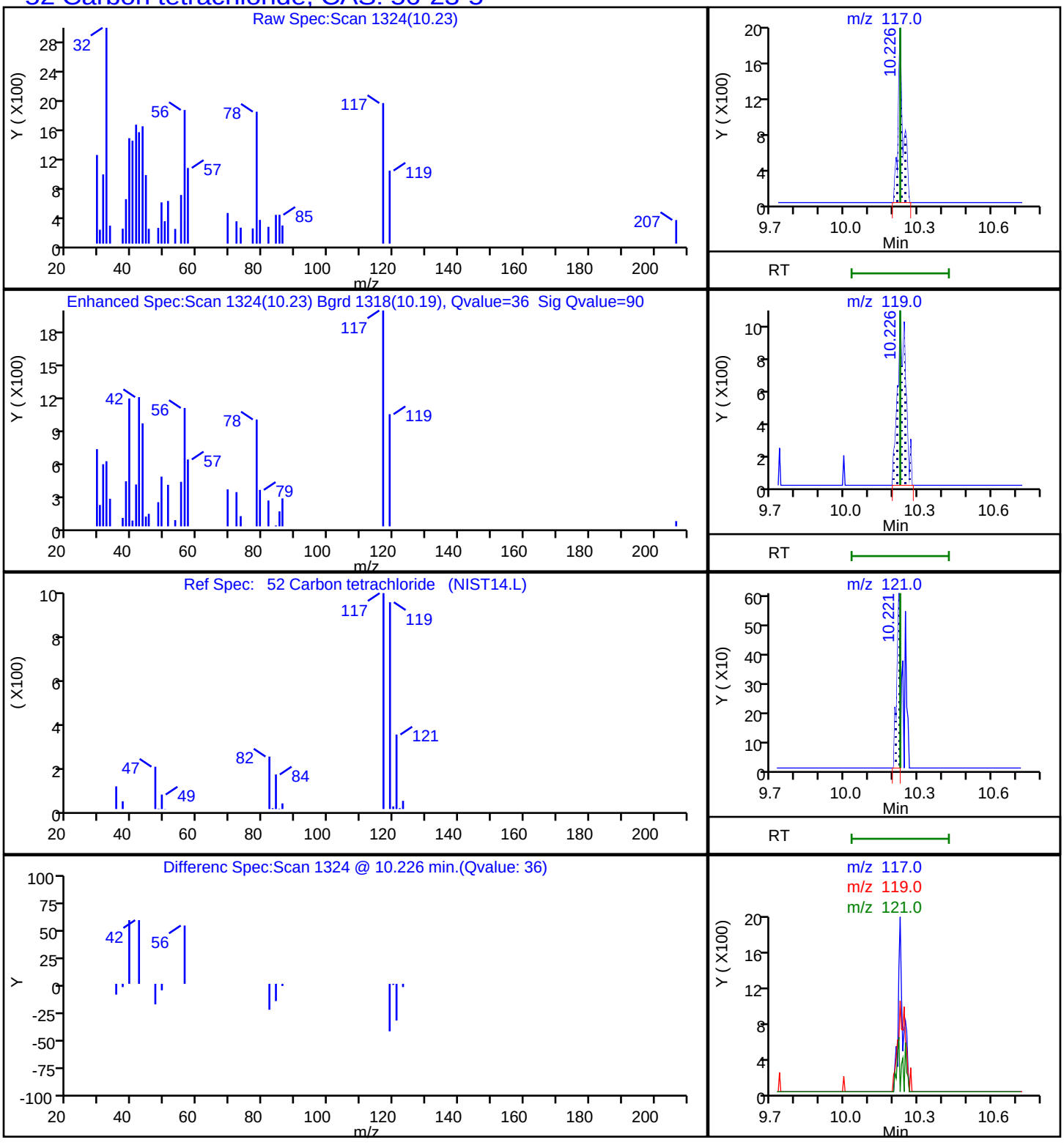
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

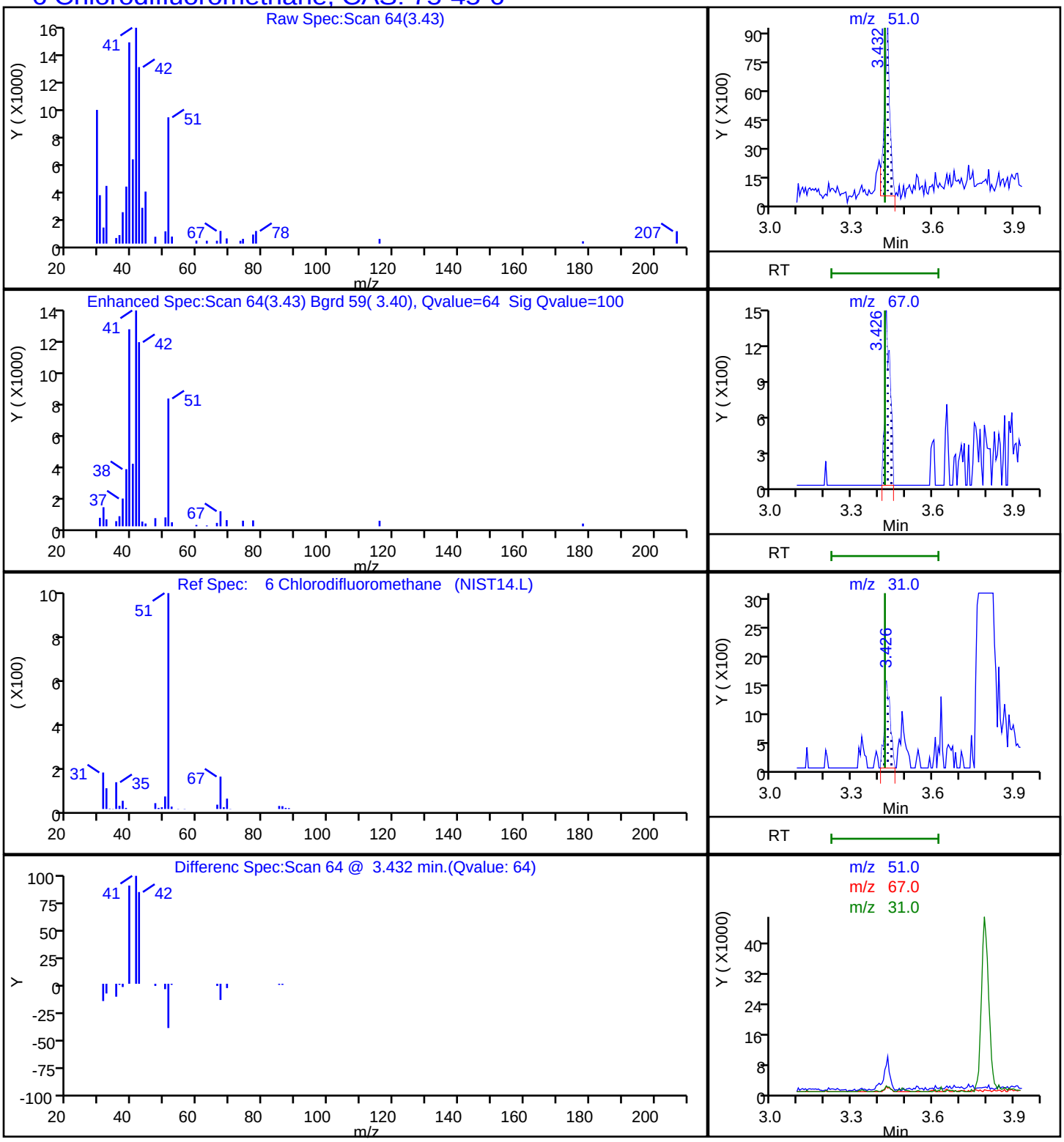
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

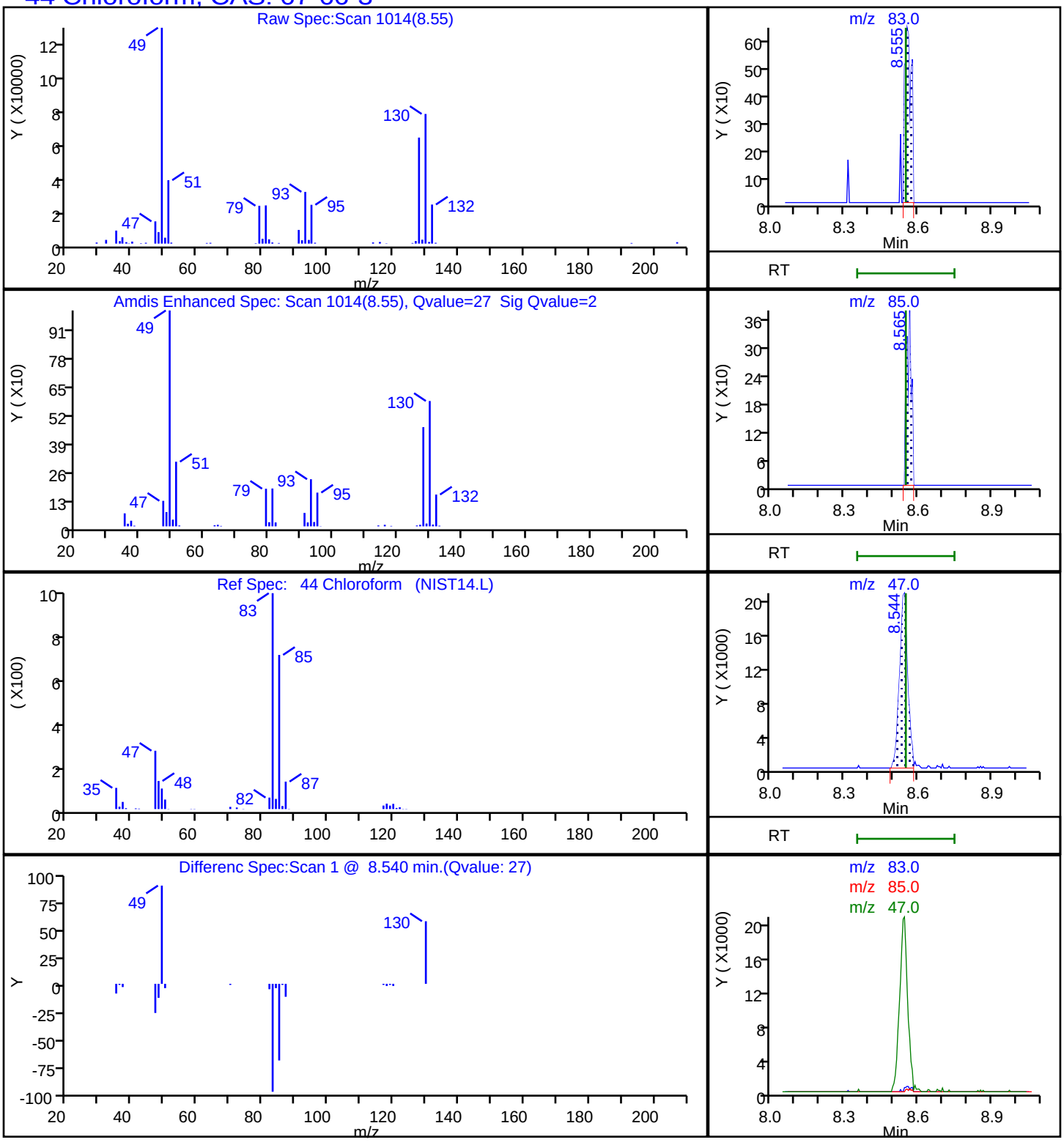
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Report Date: 20-Aug-2019 15:16:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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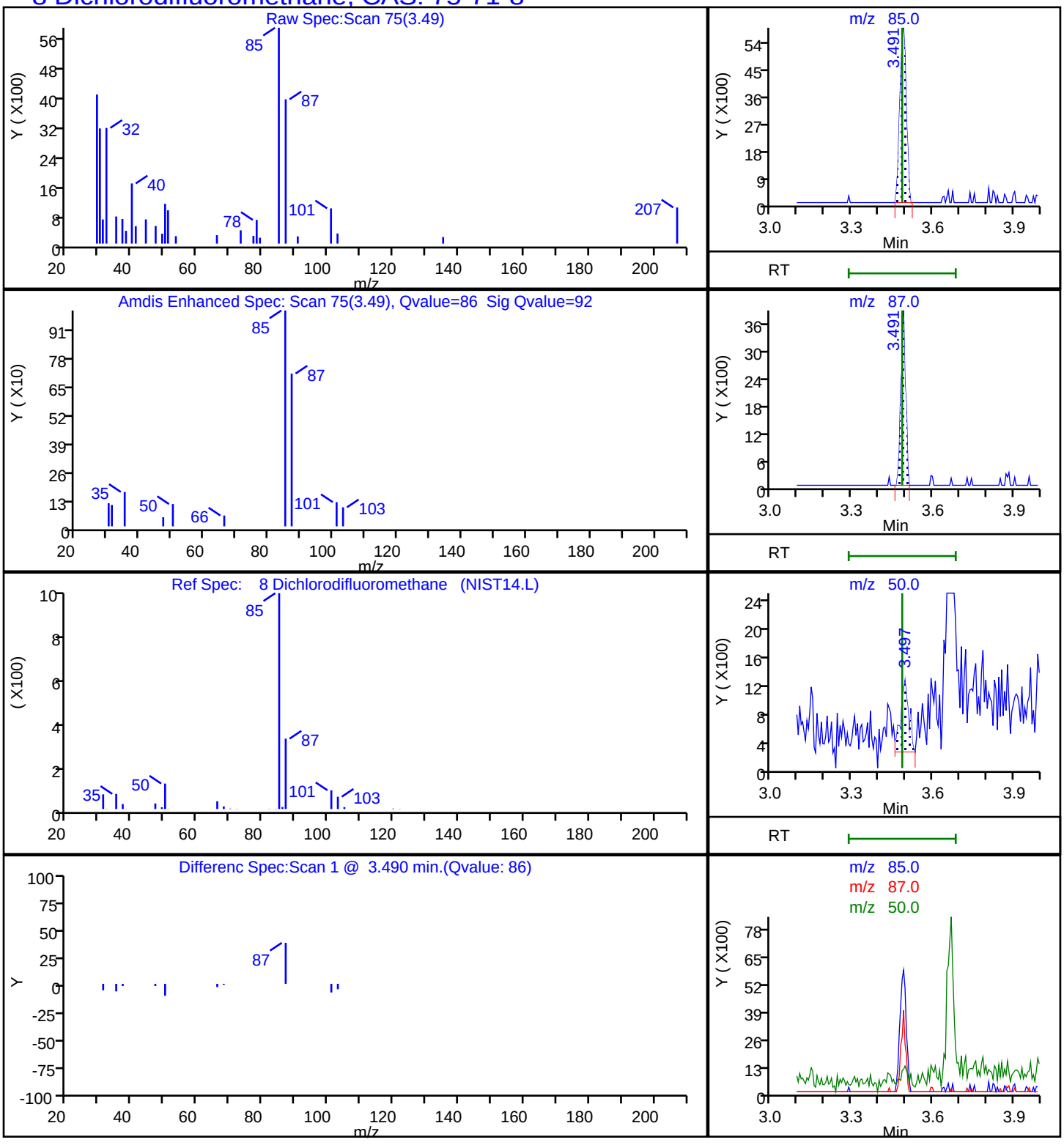
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

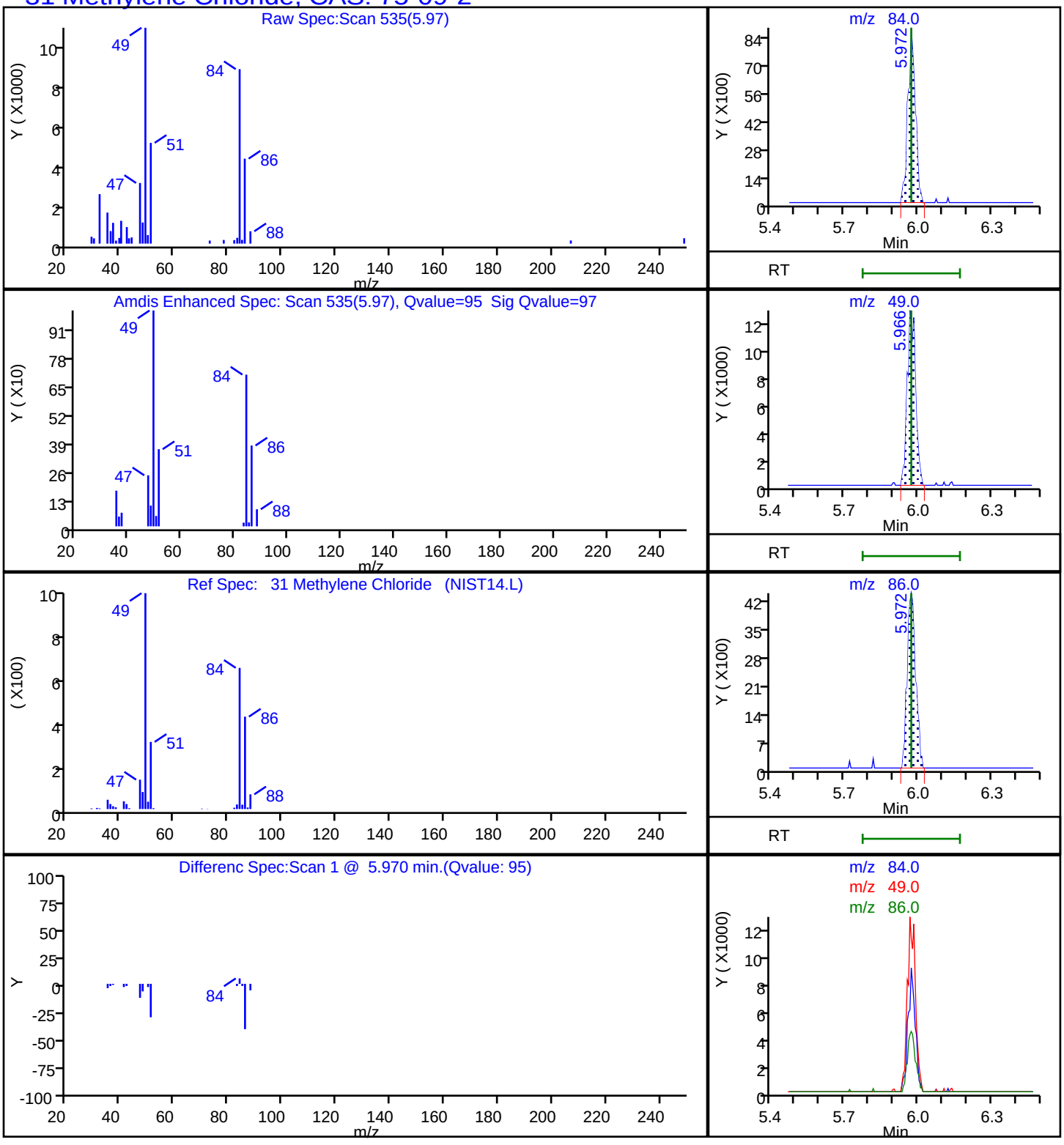


Report Date: 20-Aug-2019 15:16:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

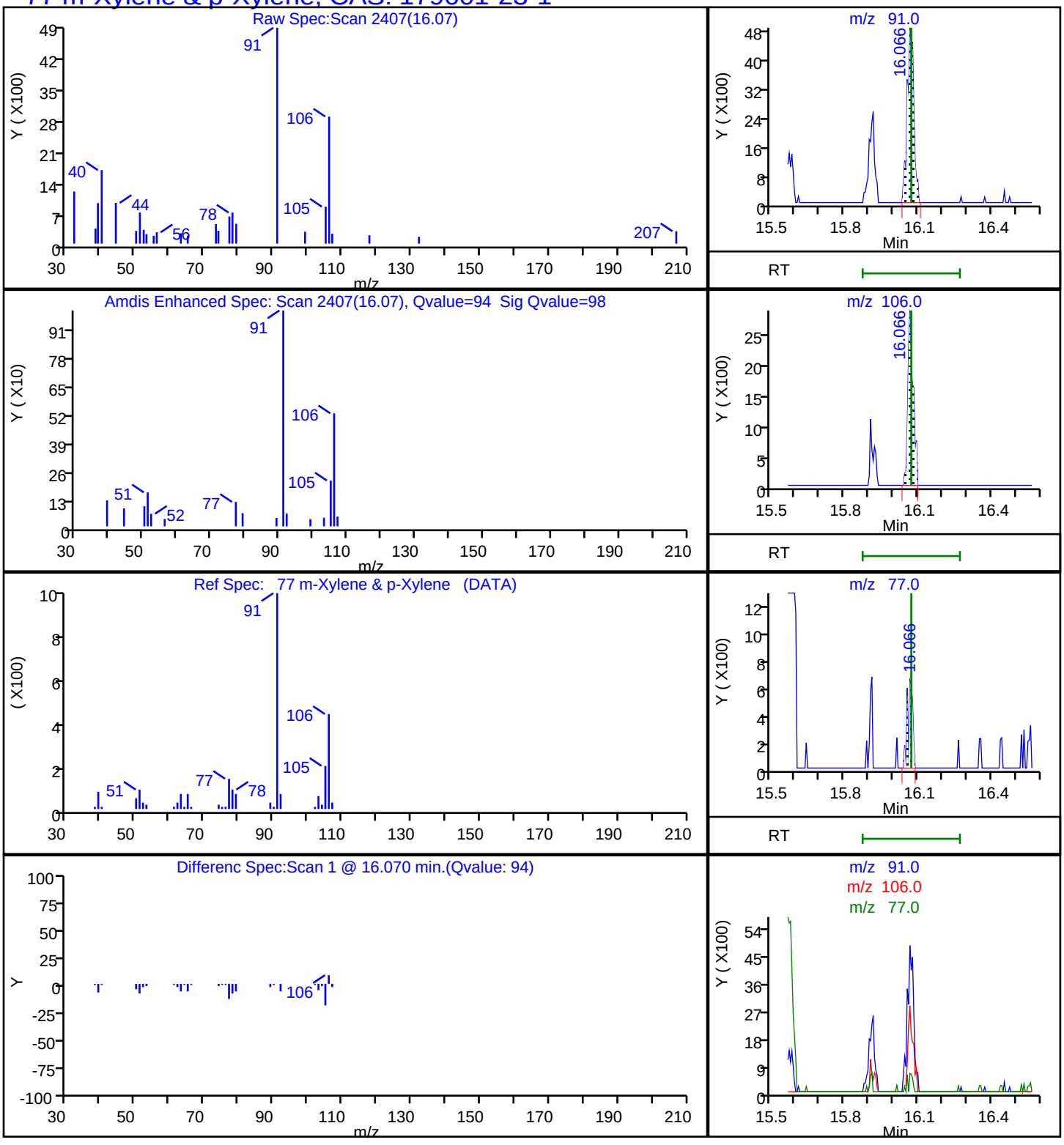


Report Date: 20-Aug-2019 15:16:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

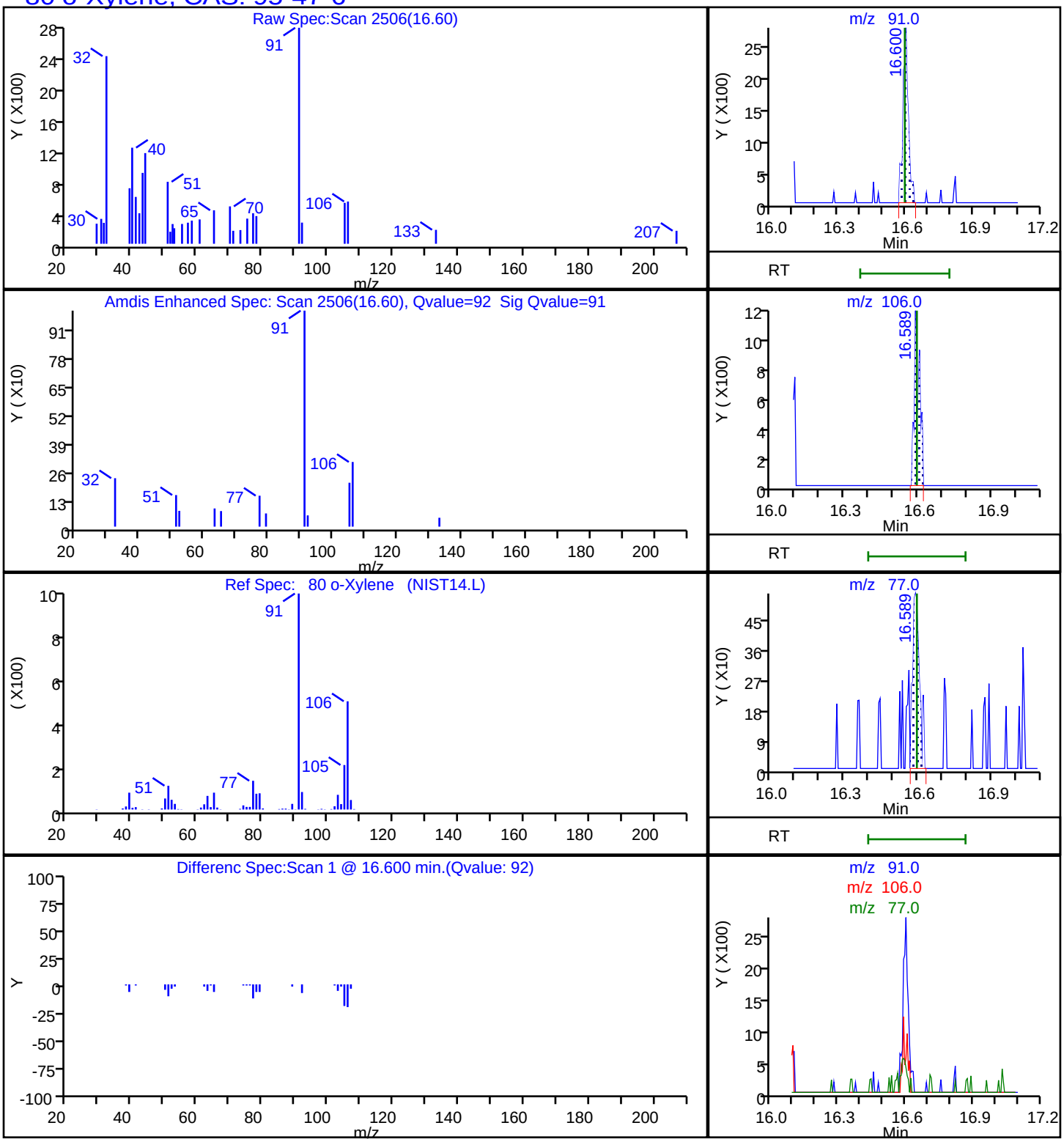
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P111.D		
Injection Date:	20-Aug-2019 03:09:30	Instrument ID:	MR
Lims ID:	140-16369-A-4	Lab Sample ID:	140-16369-4
Client ID:	IA-BCK-3-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.043	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.42		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.081	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.43	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.27	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.35	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.9	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D
Lims ID: 140-16369-A-5
Client ID: IA-001-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 03:56:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-017
Misc. Info.: 140-16369-a-5
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 02:35:59 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 15:42:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	185708	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1064055	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	90	957202	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	91	626097	3.79	
6 Chlorodifluoromethane	51	3.432	3.423	0.011	93	13189	0.0831	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	99	9738	0.0678	
31 Methylene Chloride	84	5.966	5.975	-0.006	93	42326	0.6448	
44 Chloroform	83	8.555	8.555	0.006	27	1559	0.0100	
49 Benzene	78	10.199	10.210	-0.006	64	8470	0.0393	
52 Carbon tetrachloride	117	10.242	10.231	0.016	33	1475	0.008561	
67 Toluene	91	13.591	13.586	0.000	93	22746	0.0924	
76 Ethylbenzene	91	15.915	15.904	0.005	95	5592	0.0162	
77 m-Xylene & p-Xylene	91	16.072	16.066	0.000	96	14924	0.0550	
80 o-Xylene	91	16.600	16.589	0.005	90	8287	0.0291	
S 116 Xylenes, Total	100				0		0.0841	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

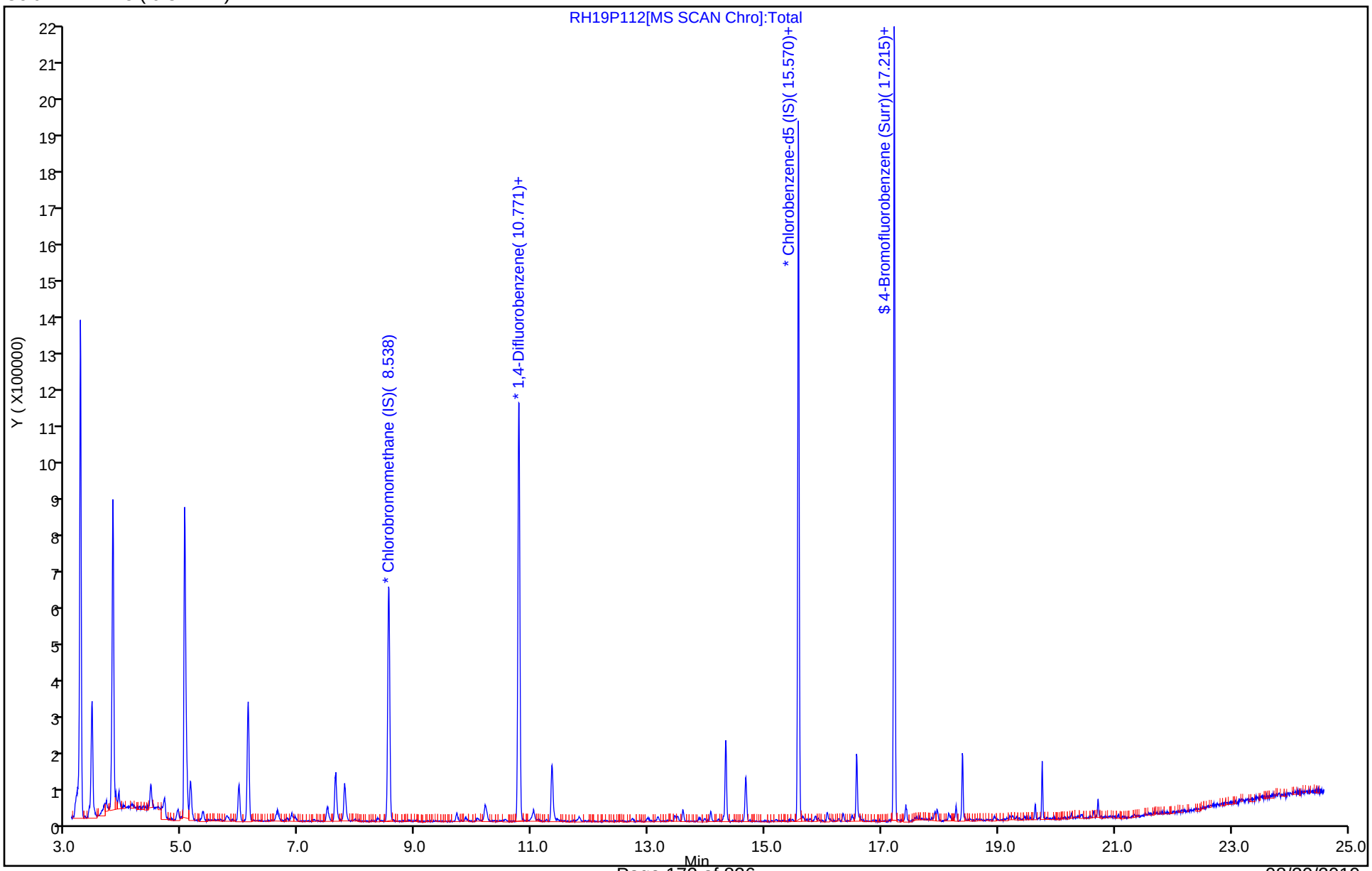
Report Date: 20-Aug-2019 15:42:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D

Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5	Worklist Smp#:	17
Client ID:	IA-001-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D				
Lims ID:	140-16369-A-5				
Client ID:	IA-001-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 03:56:30	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-017				
Misc. Info.:	140-16369-a-5				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 02:35:59	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 15:42:49		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.79	94.85

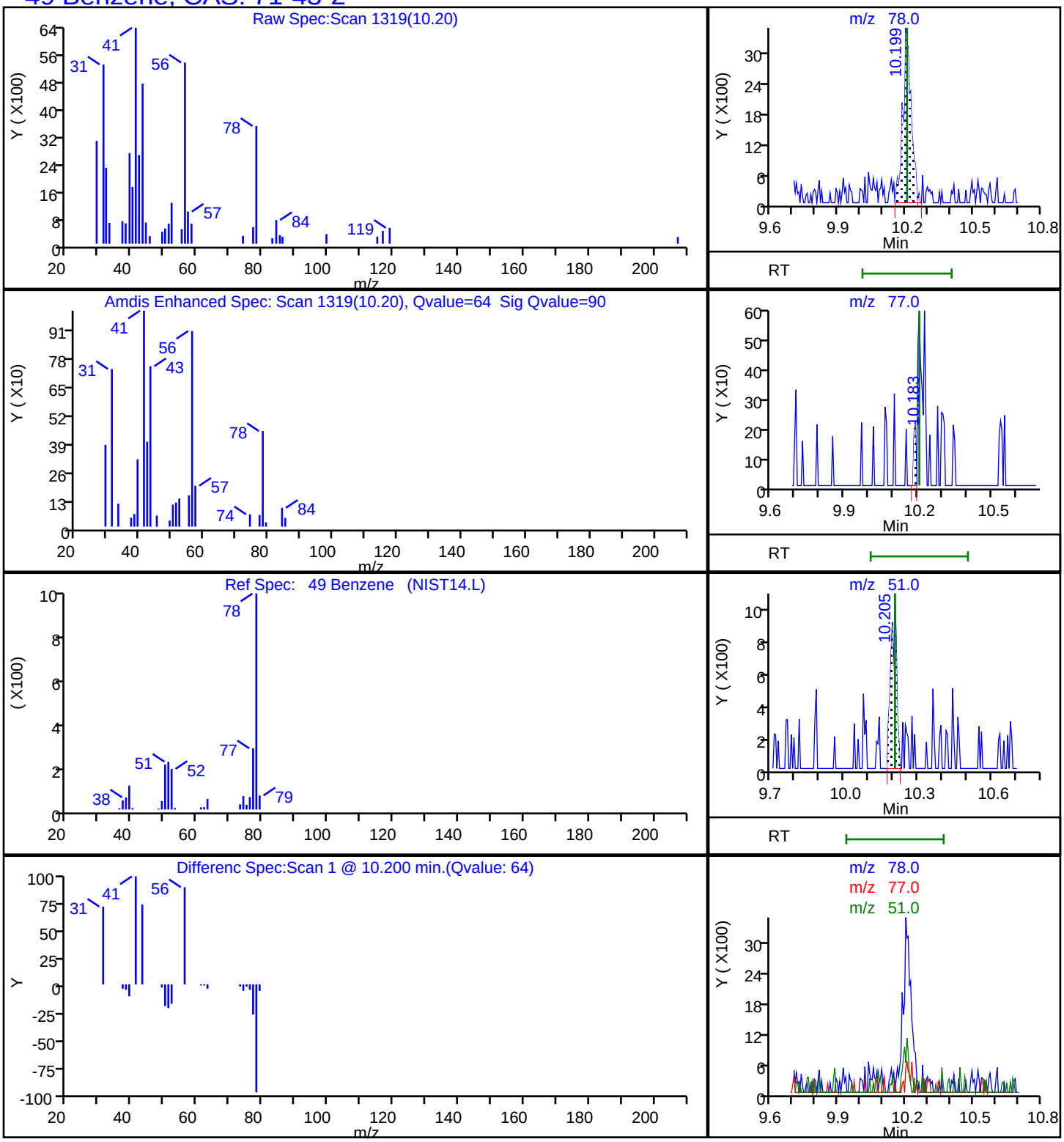
Report Date: 20-Aug-2019 15:42:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D

Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2

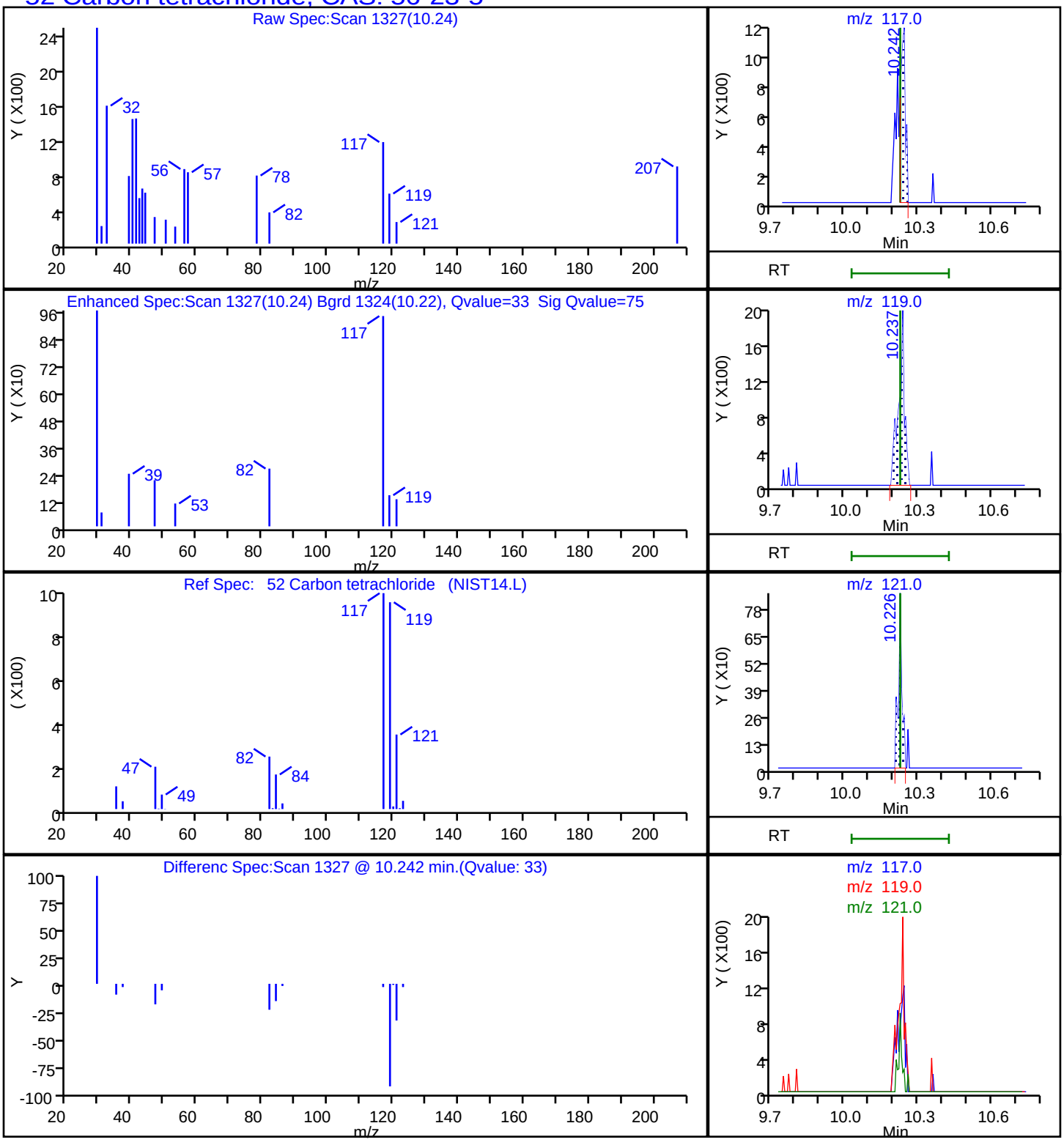


Report Date: 20-Aug-2019 15:42:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 20-Aug-2019 15:42:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D

Injection Date: 20-Aug-2019 03:56:30 Instrument ID: MR

Lims ID: 140-16369-A-5 Lab Sample ID: 140-16369-5

Client ID: IA-001-C-27

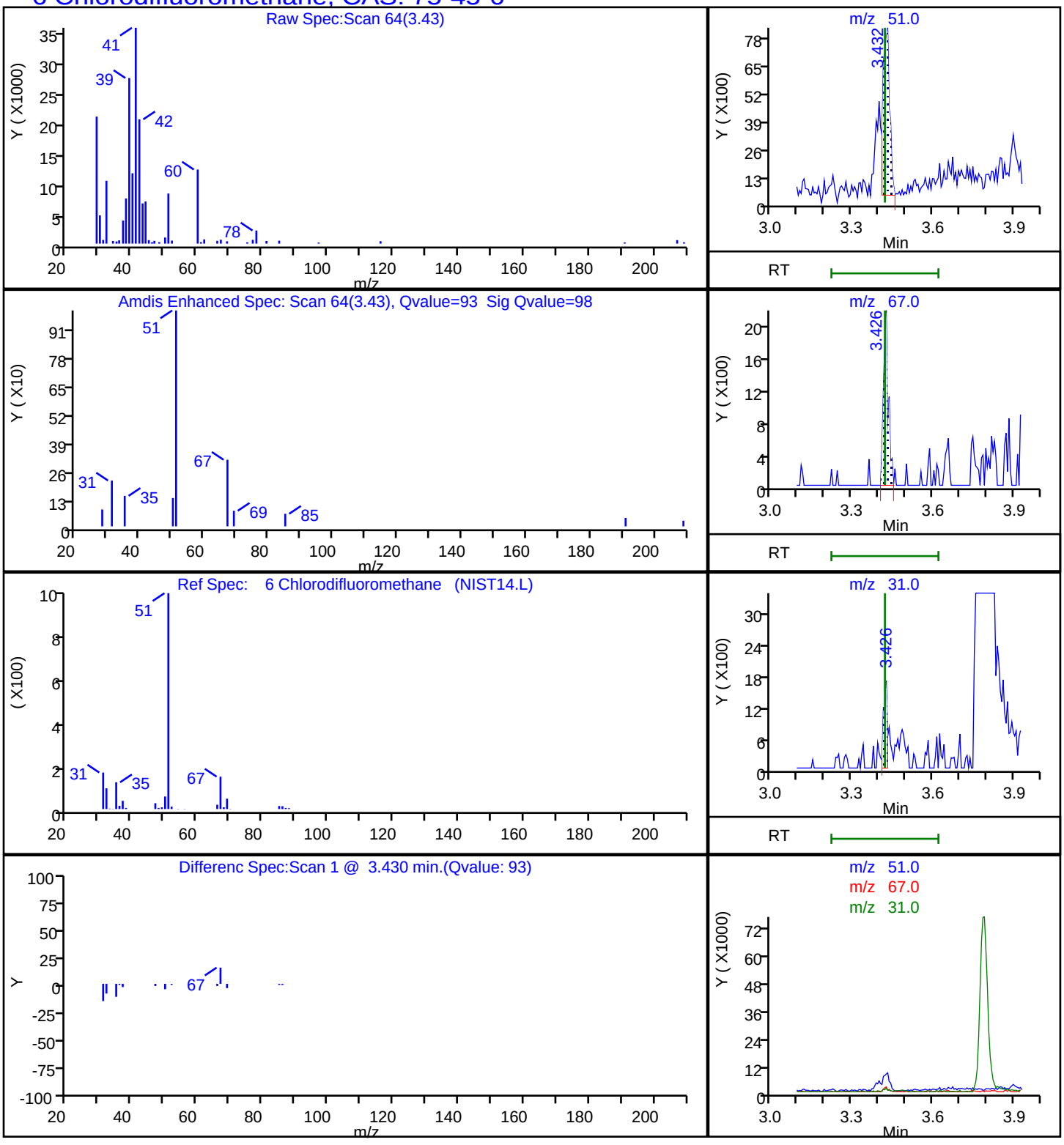
Operator ID: ALS Bottle#: 12 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

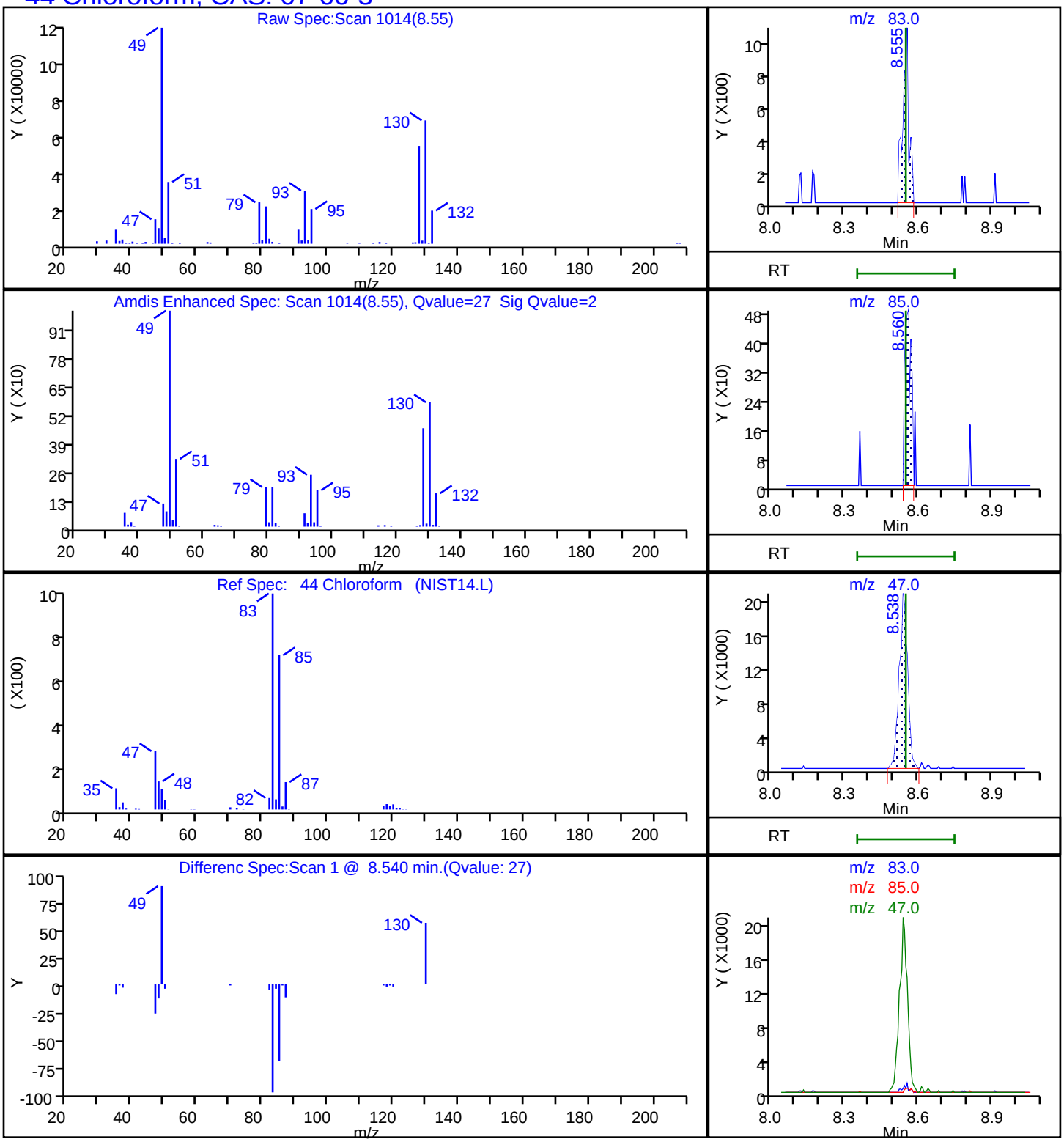
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

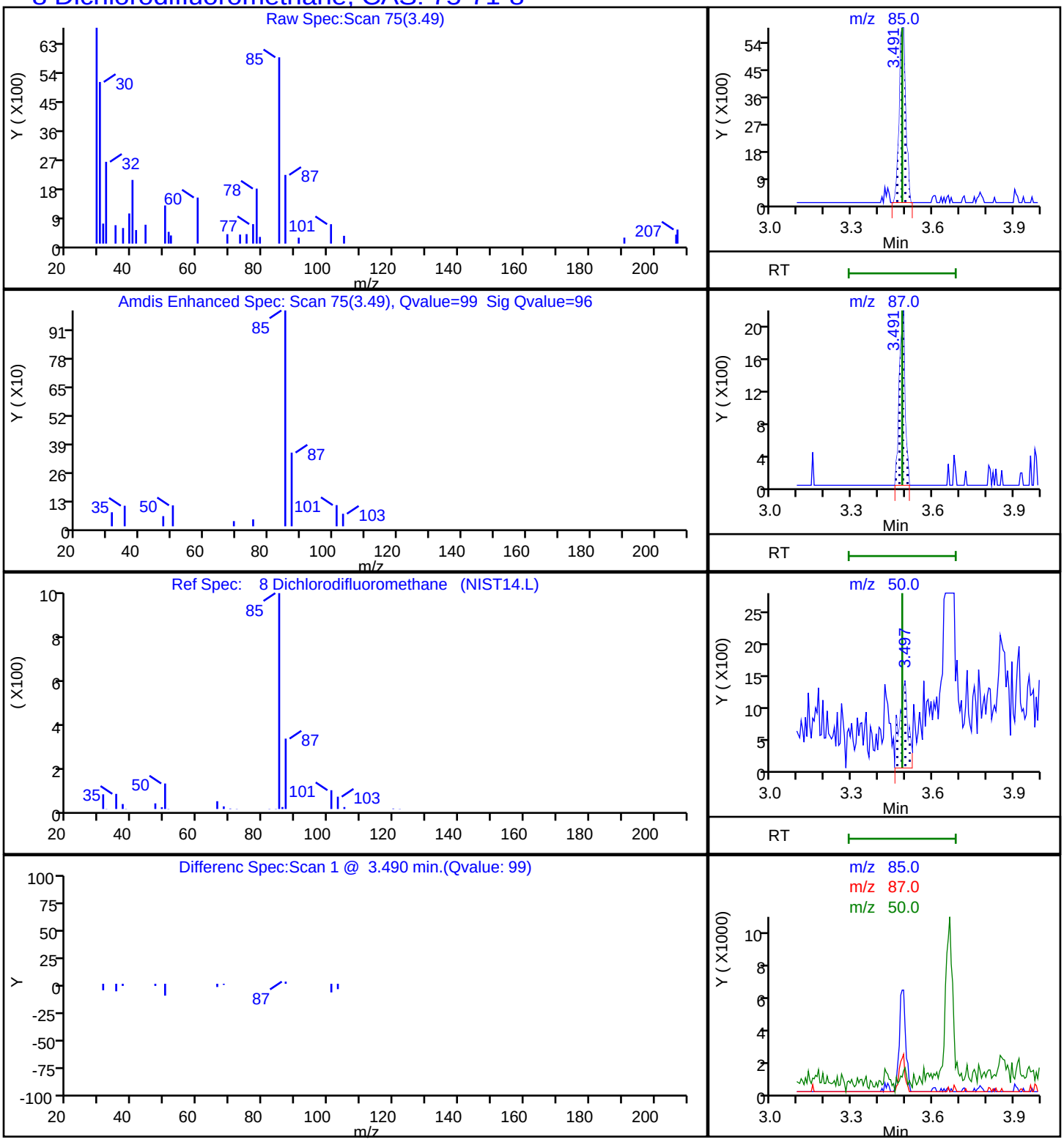
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



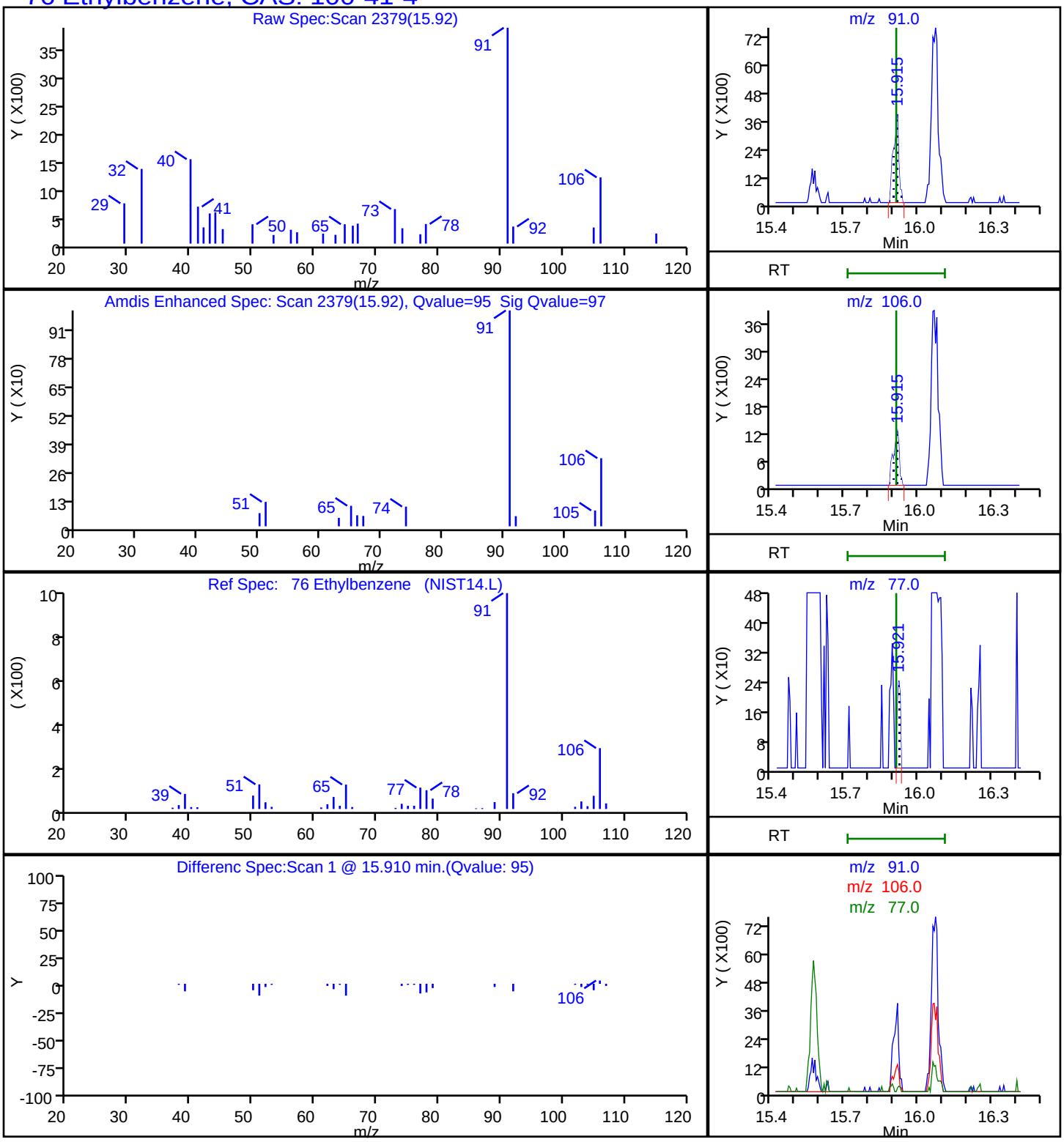
Report Date: 20-Aug-2019 15:42:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D

Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

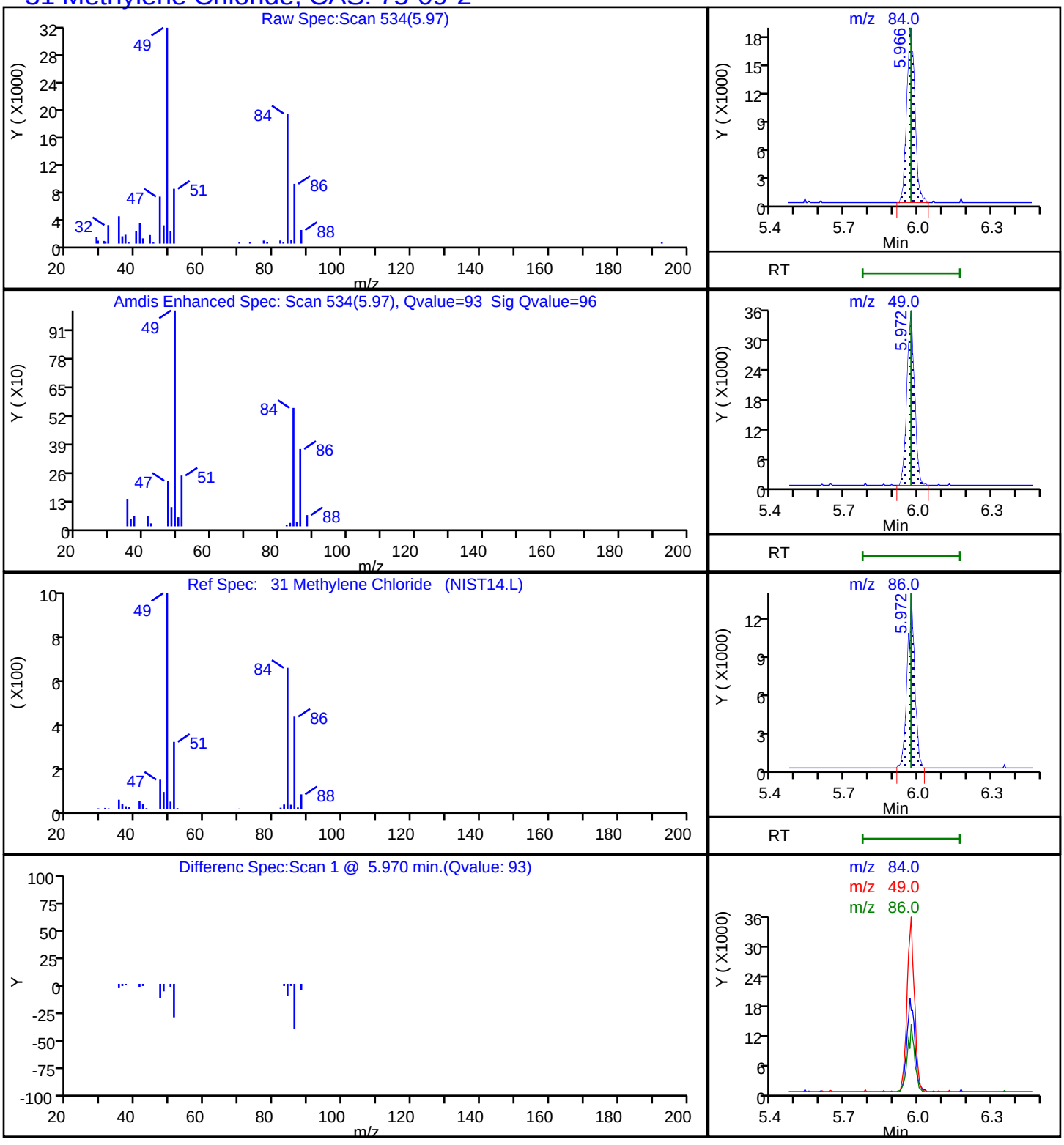
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

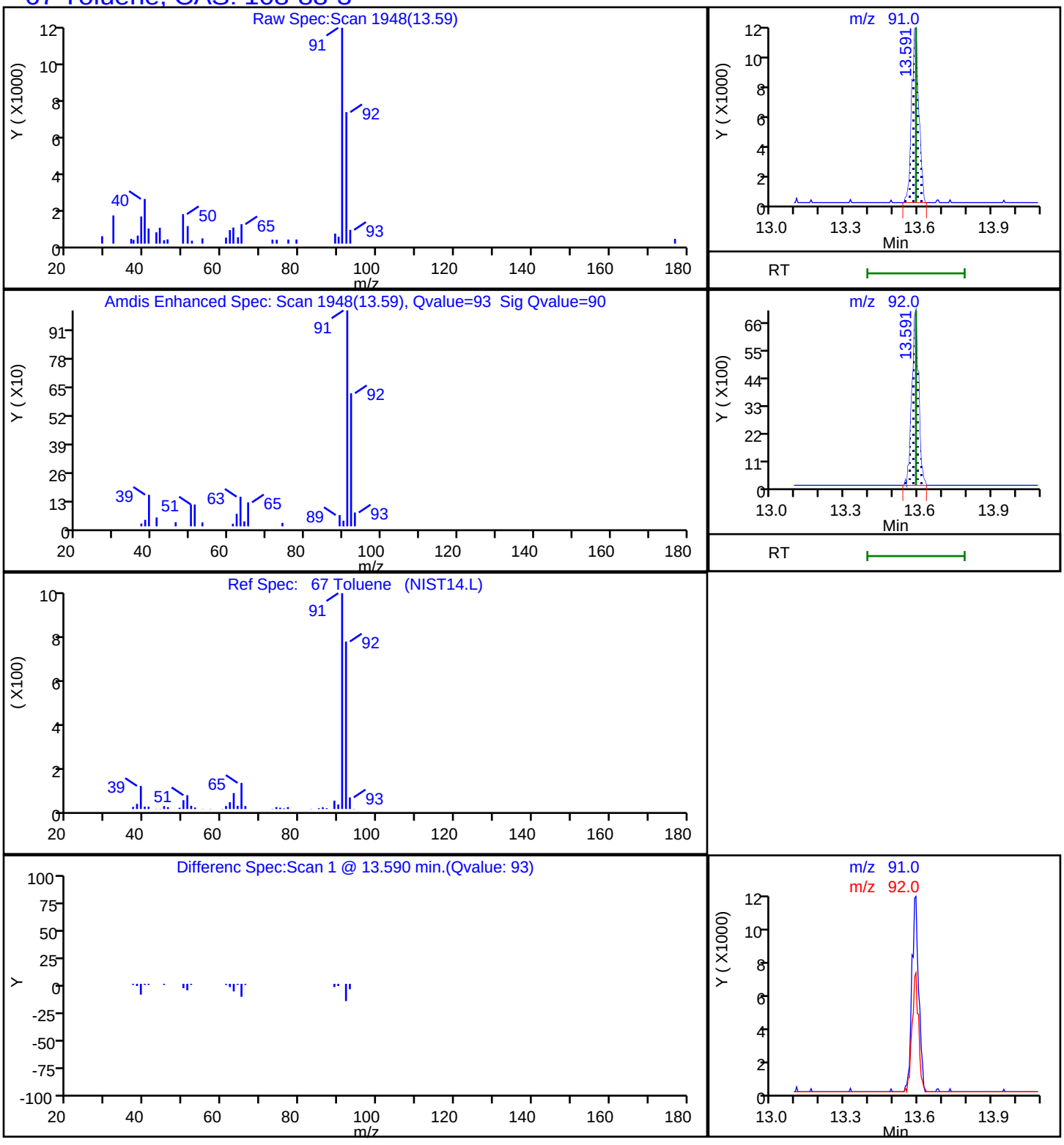
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

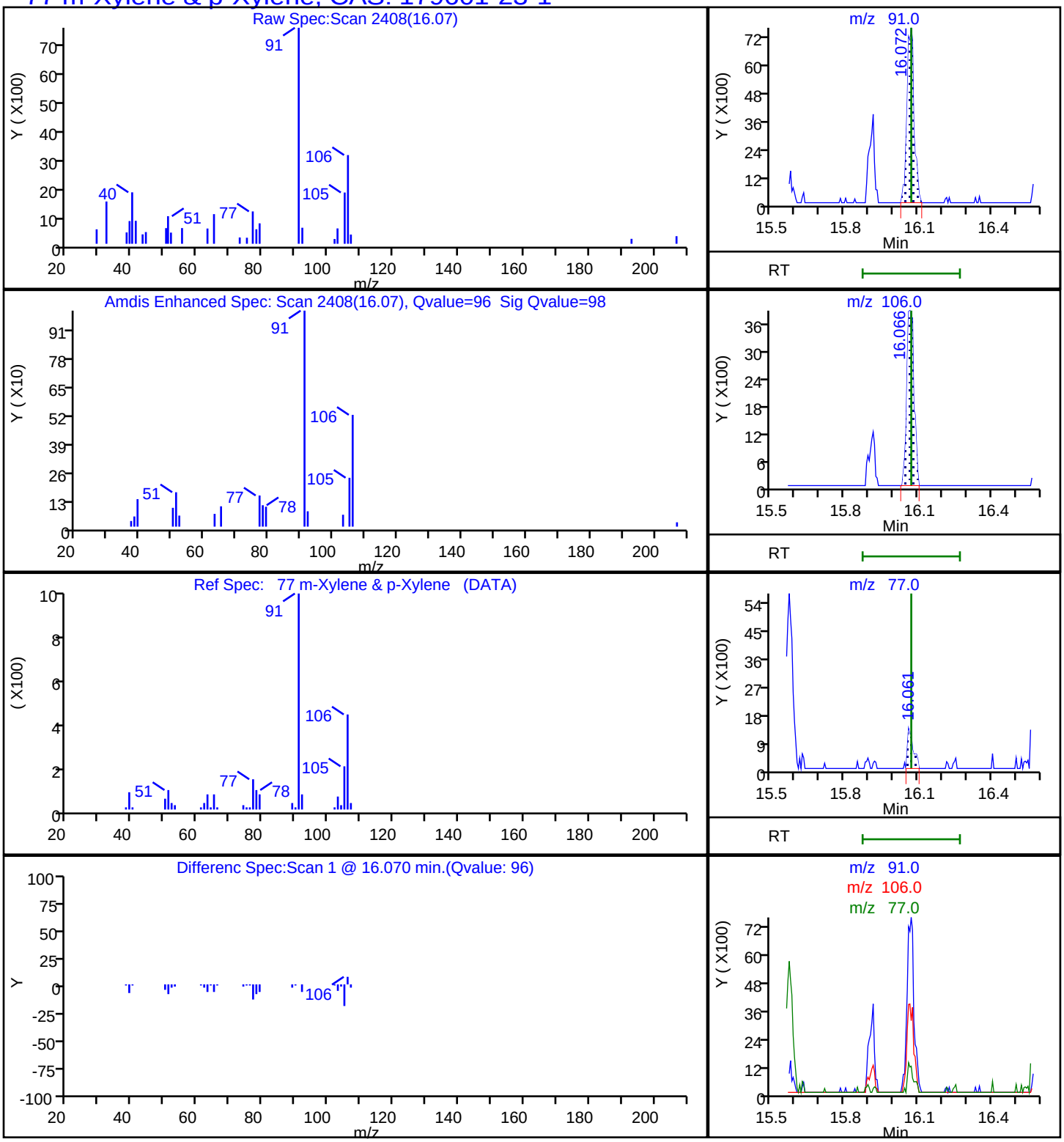
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

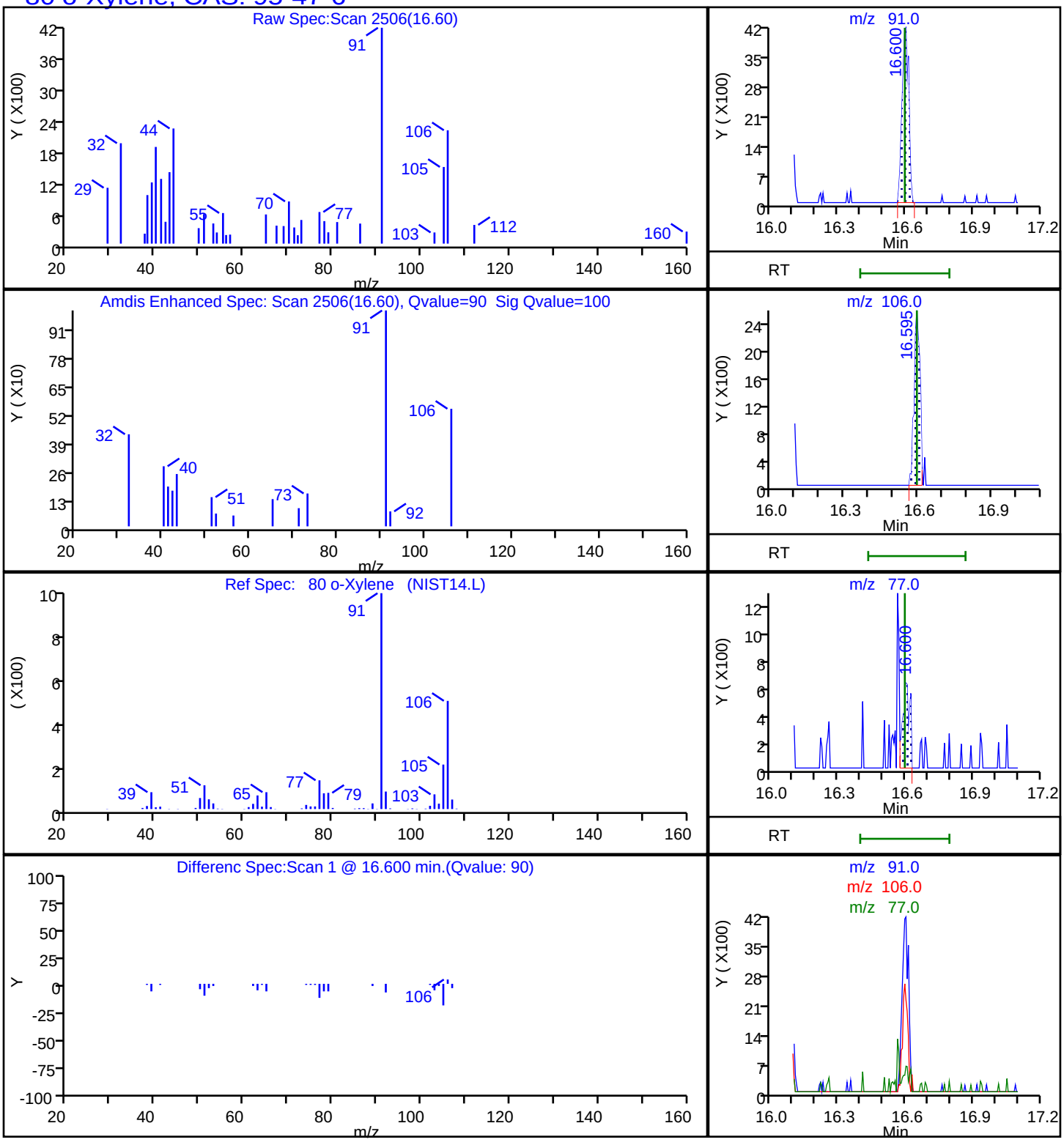
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P112.D		
Injection Date:	20-Aug-2019 03:56:30	Instrument ID:	MR
Lims ID:	140-16369-A-5	Lab Sample ID:	140-16369-5
Client ID:	IA-001-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.54		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.10	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.9		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.75	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.54	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D				
Lims ID:	140-16369-A-6				
Client ID:	IA-004-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 04:45:30	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-018				
Misc. Info.:	140-16369-a-6				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 03:25:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 16:46:23		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	206990	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1208387	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1035374	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.214	0.000	93	651690	3.65	
6 Chlorodifluoromethane	51	3.432	3.423	0.011	96	19259	0.1089	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	96	10518	0.0657	
31 Methylene Chloride	84	5.972	5.976	0.000	96	25581	0.3496	
42 cis-1,2-Dichloroethene	96	8.204	8.215	-0.006	75	3198	0.0377	
44 Chloroform	83	8.549	8.555	0.000	35	1336	0.007673	
58 Trichloroethene	130	11.504	11.510	0.000	45	2156	0.0200	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

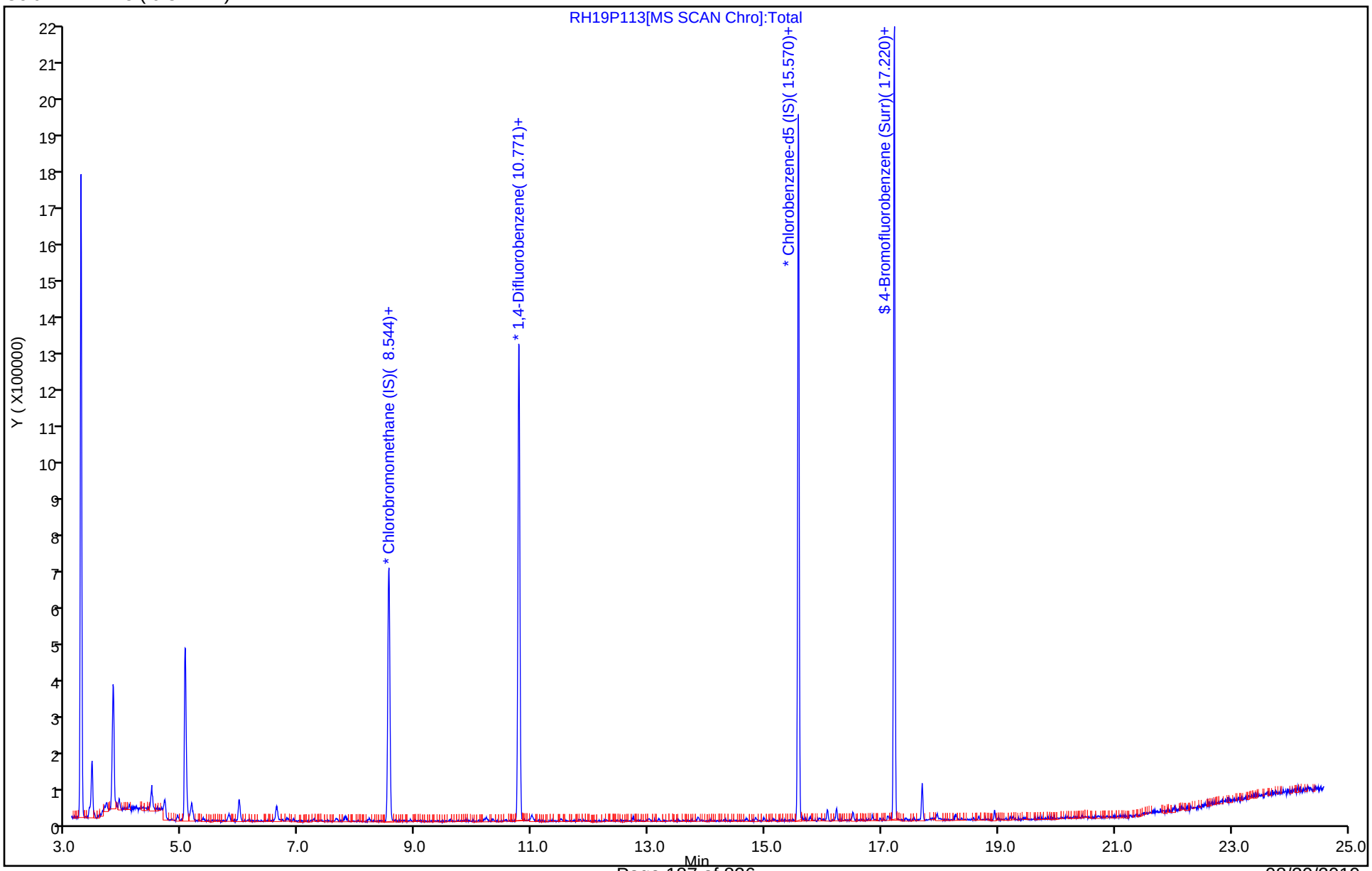
Report Date: 20-Aug-2019 16:46:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D

Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6	Worklist Smp#:	18
Client ID:	IA-004-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D				
Lims ID:	140-16369-A-6				
Client ID:	IA-004-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 04:45:30	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-018				
Misc. Info.:	140-16369-a-6				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 03:25:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 16:46:23

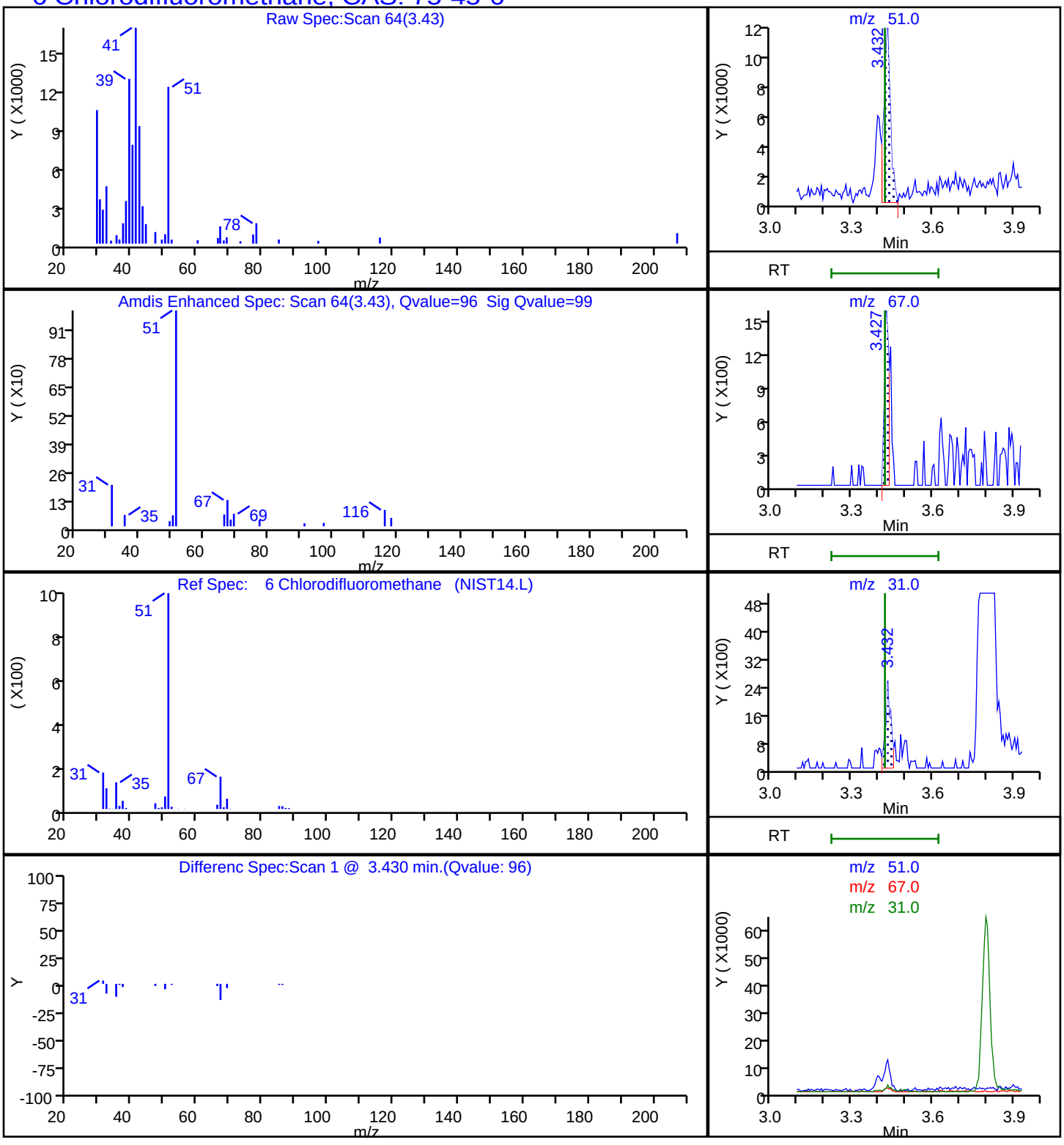
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.65	91.27

Report Date: 20-Aug-2019 16:46:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D				
Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR		
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6		
Client ID:	IA-004-C-27				
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6



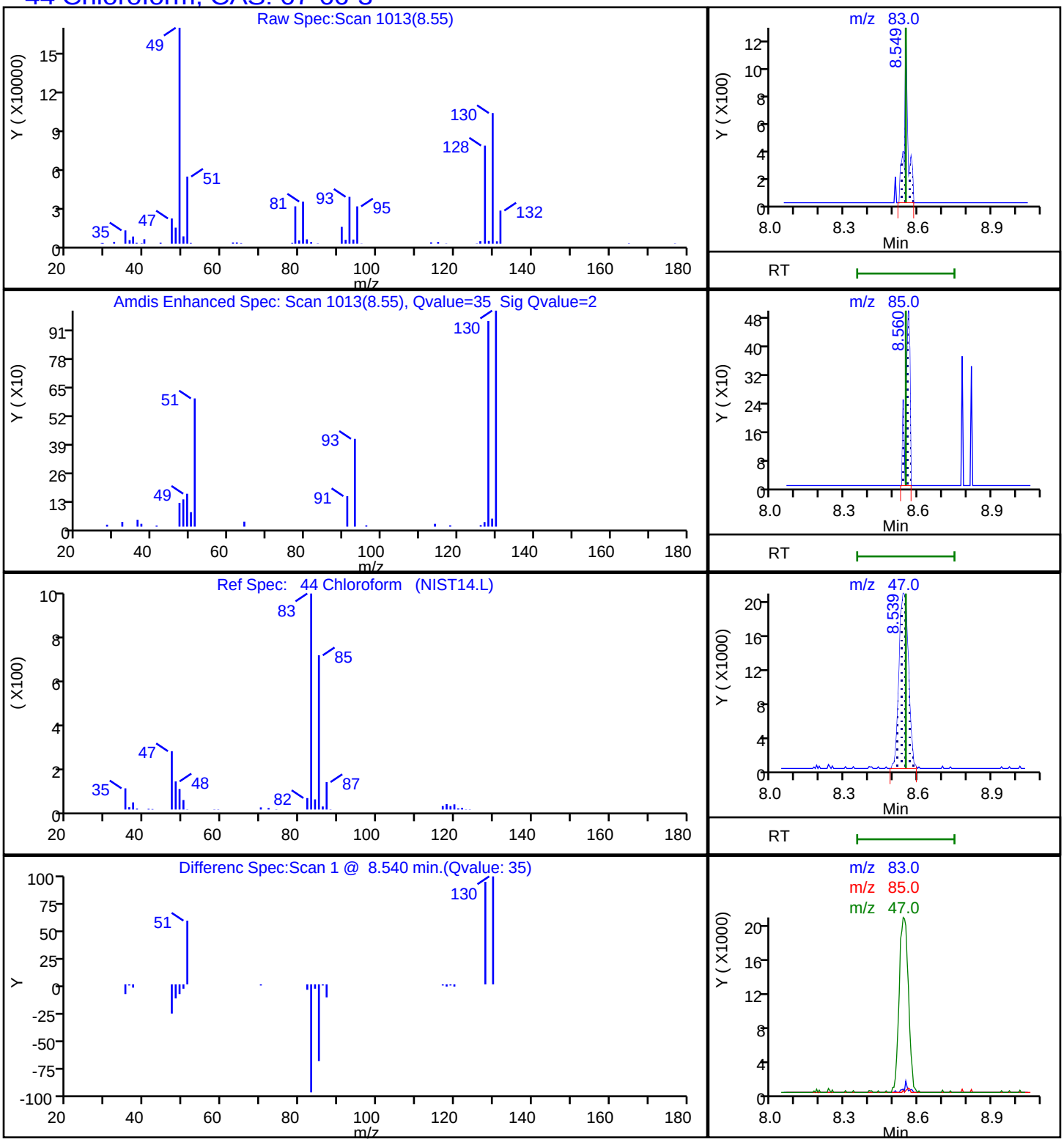
Report Date: 20-Aug-2019 16:46:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D

Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6
Client ID:	IA-004-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

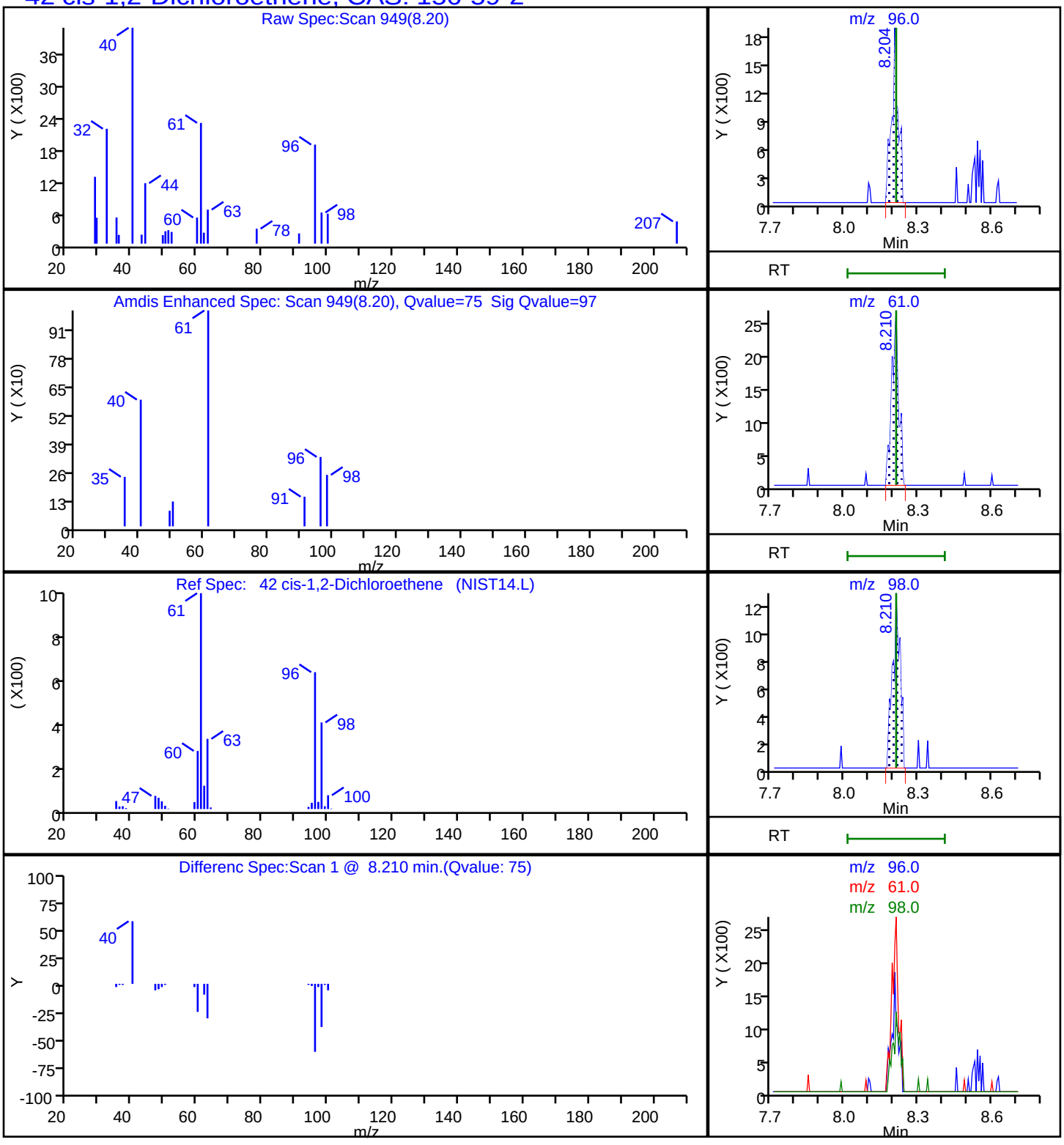
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D		
Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6
Client ID:	IA-004-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2



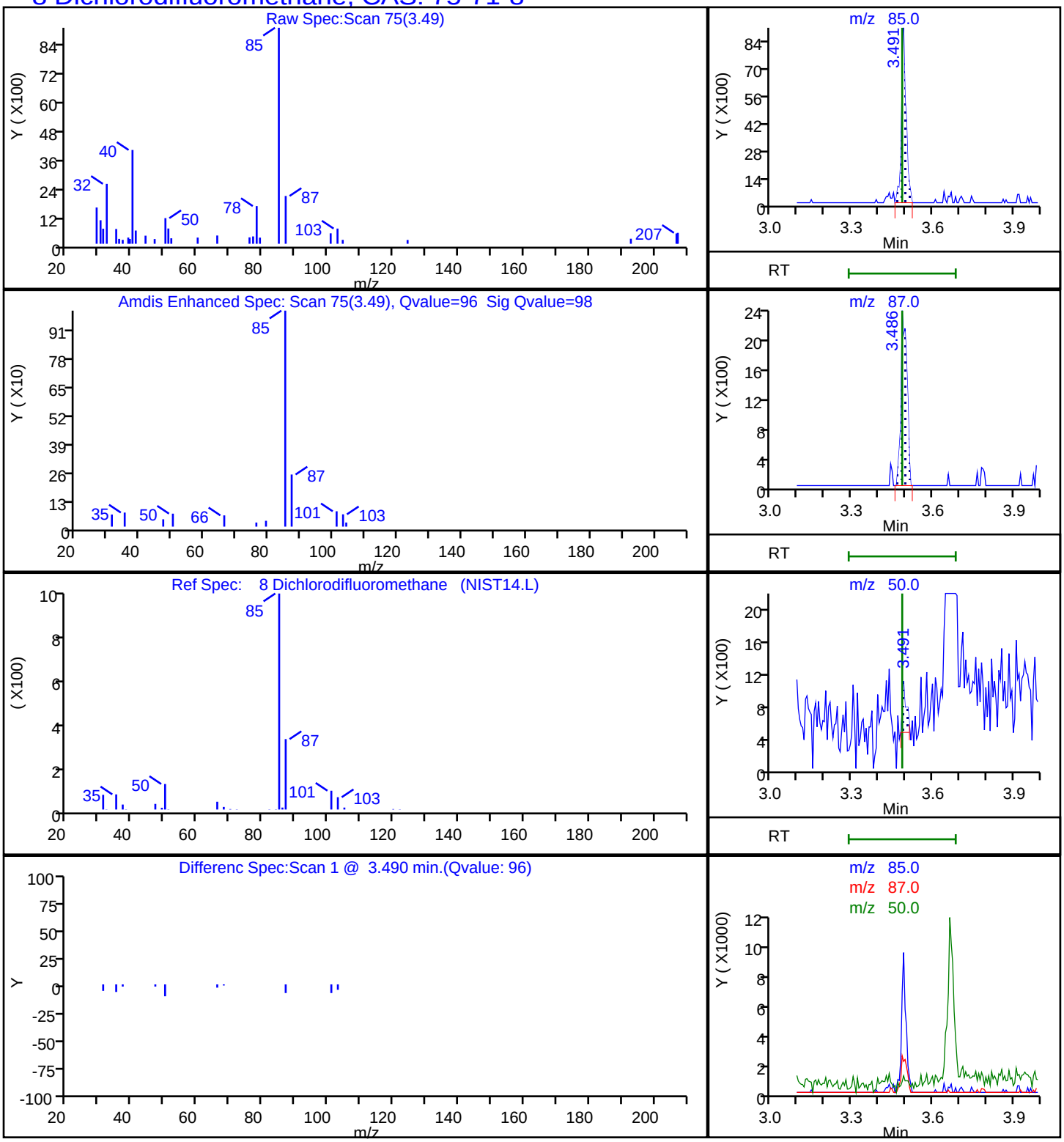
Report Date: 20-Aug-2019 16:46:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D

Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6
Client ID:	IA-004-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

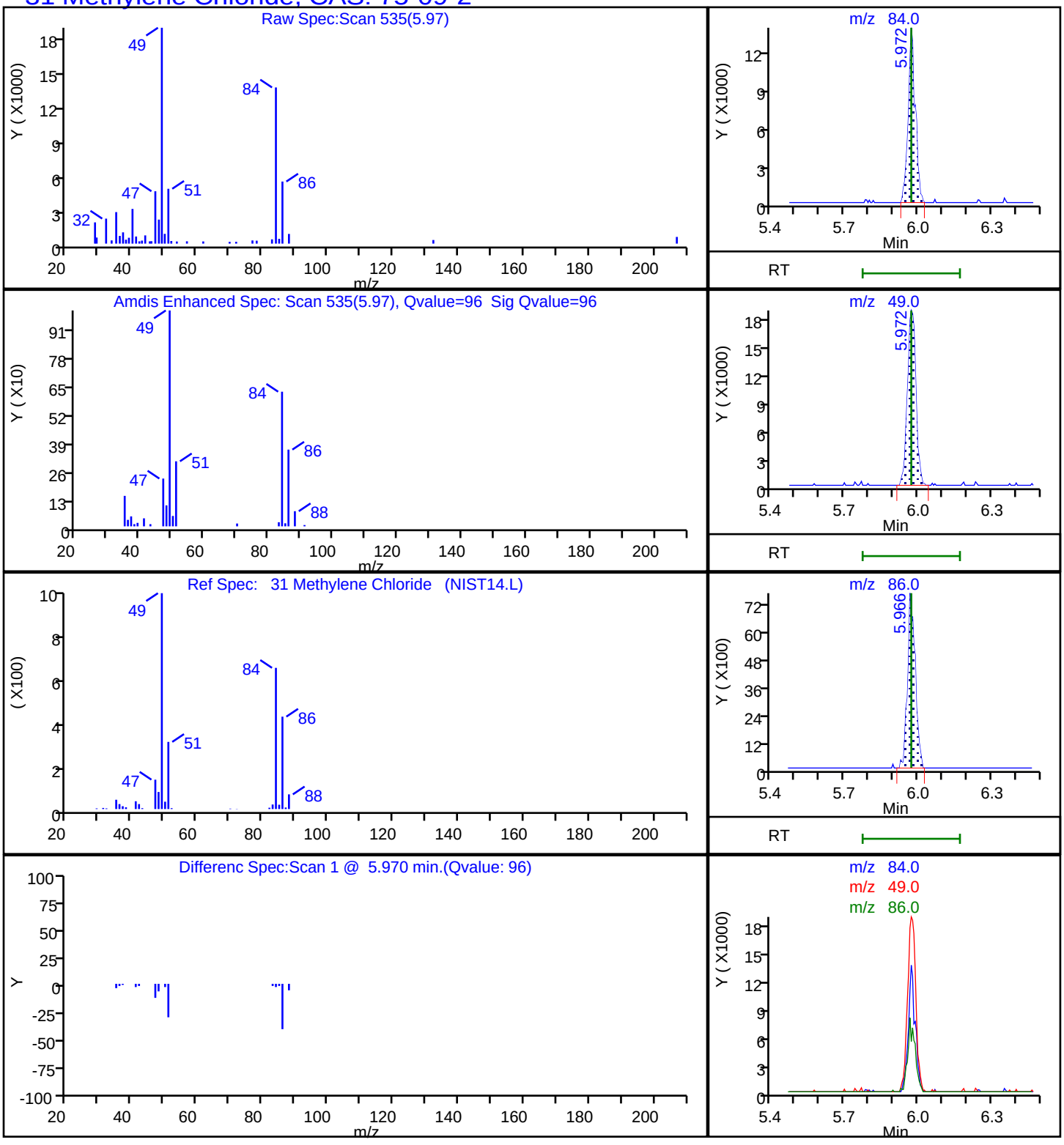
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D		
Injection Date:	20-Aug-2019 04:45:30	Instrument ID:	MR
Lims ID:	140-16369-A-6	Lab Sample ID:	140-16369-6
Client ID:	IA-004-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

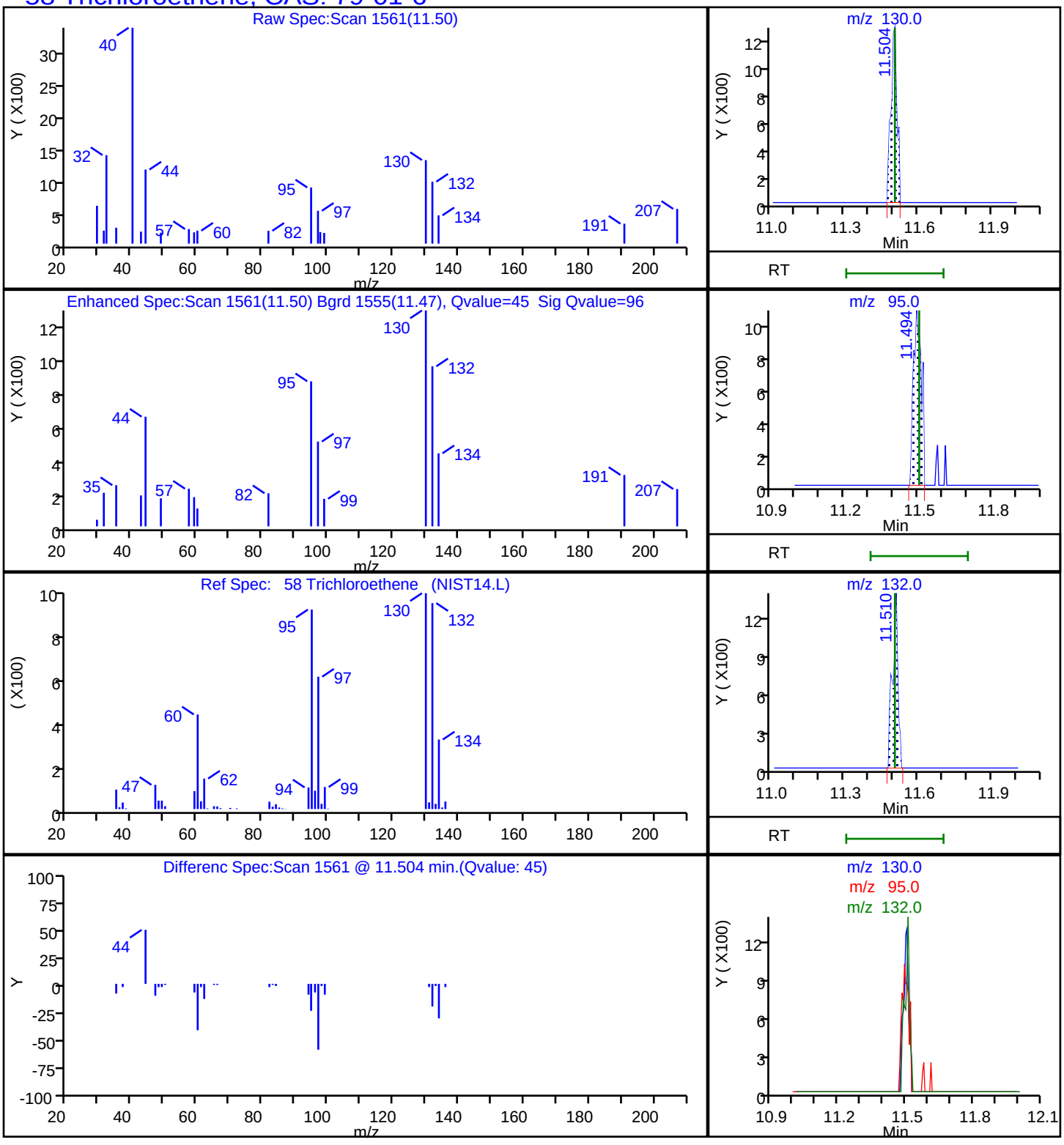
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P113.D
Injection Date: 20-Aug-2019 04:45:30 Instrument ID: MR
Lims ID: 140-16369-A-6 Lab Sample ID: 140-16369-6
Client ID: IA-004-C-27
Operator ID: ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.3		0.40	0.11
67-66-3	Chloroform	119.38	0.064	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.66		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.82		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.6		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.66	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D
Lims ID: 140-16369-A-7
Client ID: IA-102-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 05:34:30 ALS Bottle#: 14 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-019
Misc. Info.: 140-16369-a-7
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 17:21:30 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 17:21:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	201680	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1166843	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1040423	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	91	664741	3.71	
6 Chlorodifluoromethane	51	3.432	3.421	0.011	96	45219	0.2624	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	96	9852	0.0632	
31 Methylene Chloride	84	5.972	5.972	0.000	94	29027	0.4072	
44 Chloroform	83	8.544	8.549	-0.005	27	2186	0.0129	
49 Benzene	78	10.205	10.205	0.000	61	7379	0.0312	M
52 Carbon tetrachloride	117	10.221	10.226	-0.005	36	3042	0.0161	
67 Toluene	91	13.586	13.587	-0.005	91	35221	0.1316	
73 Tetrachloroethene	129	14.734	14.740	-0.011	23	745	0.006814	
76 Ethylbenzene	91	15.910	15.904	0.000	95	12141	0.0323	
77 m-Xylene & p-Xylene	91	16.061	16.066	-0.011	96	35411	0.1201	
80 o-Xylene	91	16.600	16.589	0.005	83	13667	0.0441	
92 1,2,4-Trimethylbenzene	105	18.428	18.427	-0.006	95	10915	0.0270	
S 116 Xylenes, Total	100				0		0.1642	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

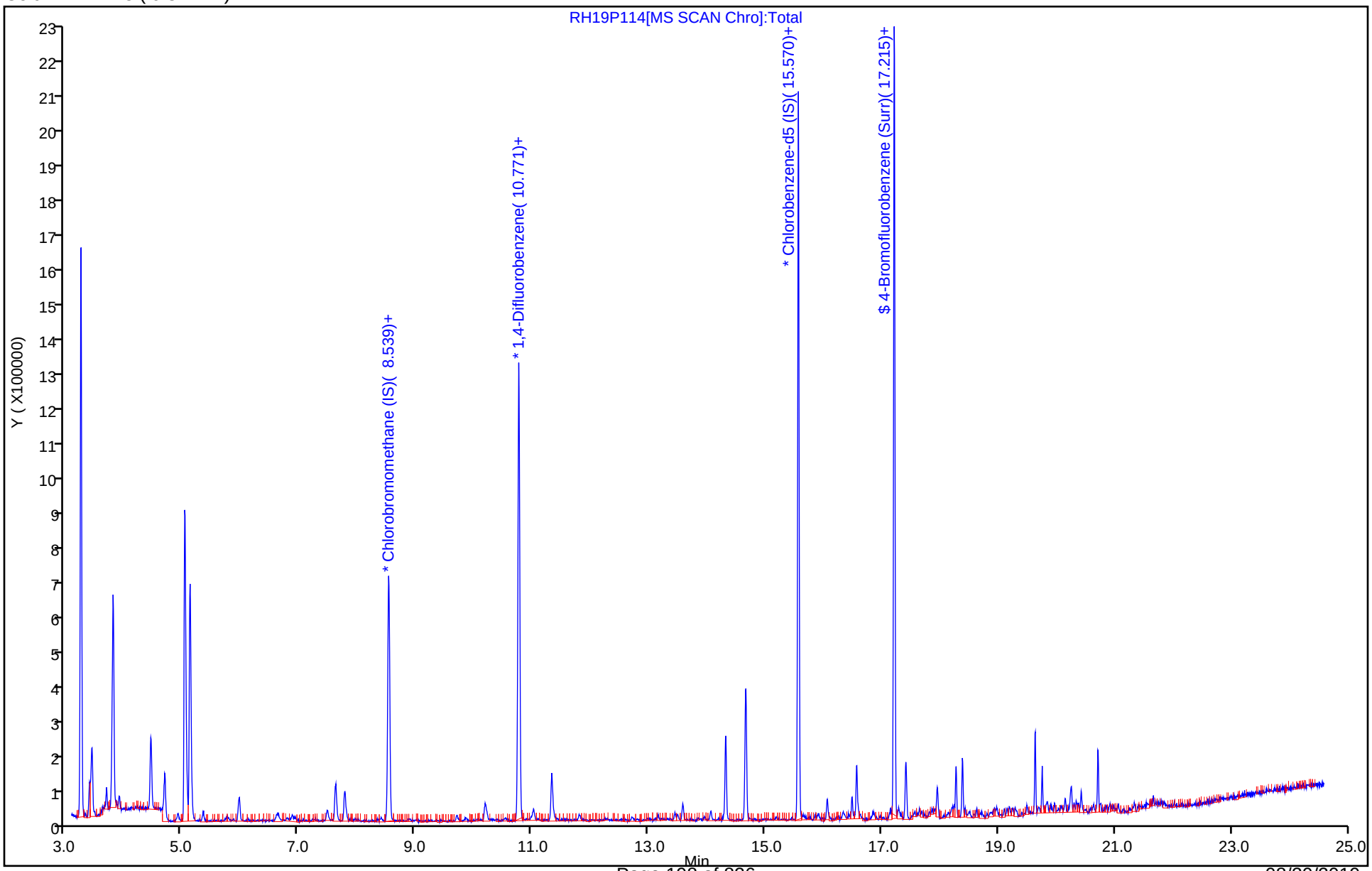
Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D

Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7	Worklist Smp#:	19
Client ID:	IA-102-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D				
Lims ID:	140-16369-A-7				
Client ID:	IA-102-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 05:34:30	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-019				
Misc. Info.:	140-16369-a-7				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 17:21:30	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 17:21:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.71	92.65

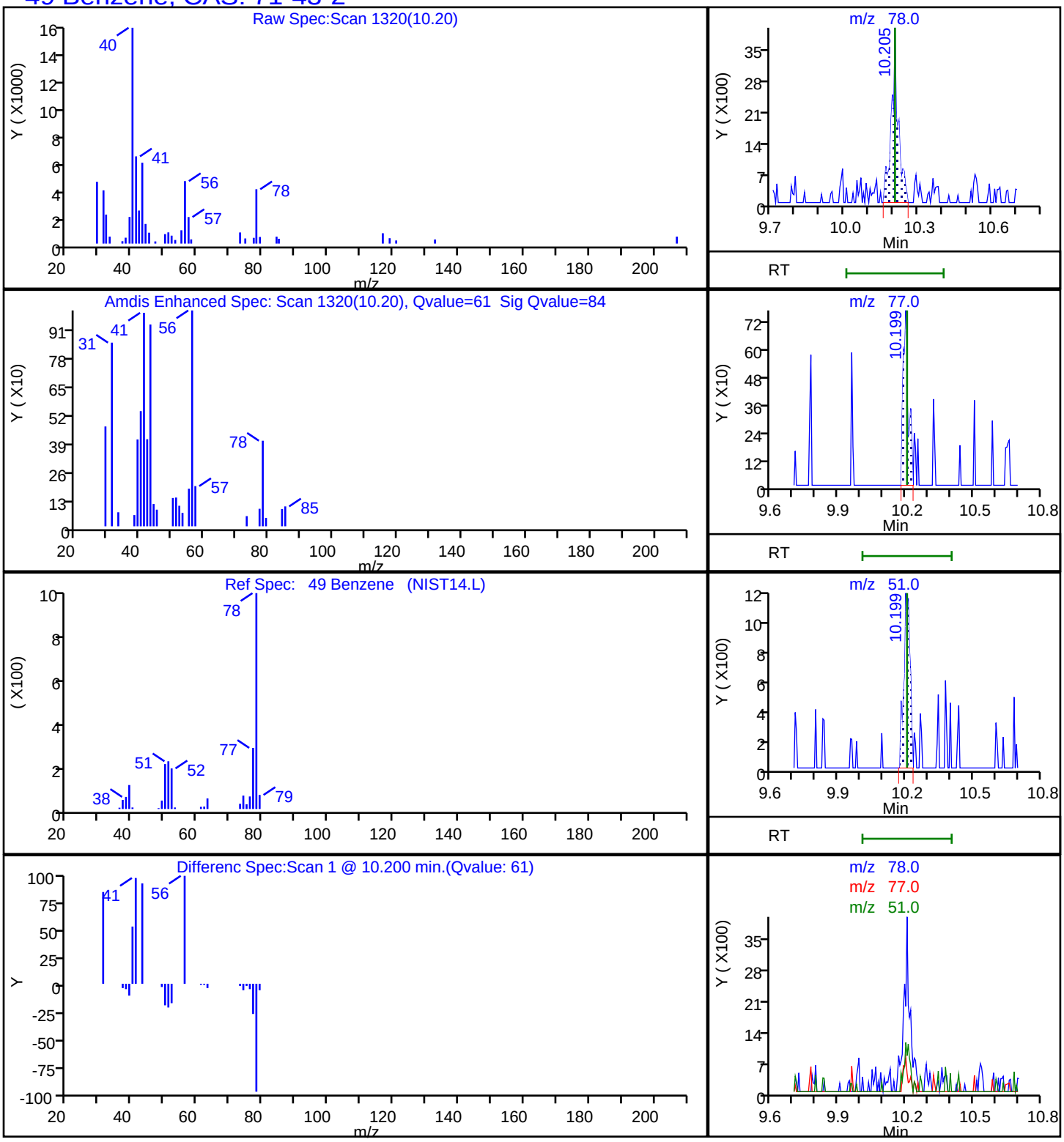
Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D

Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



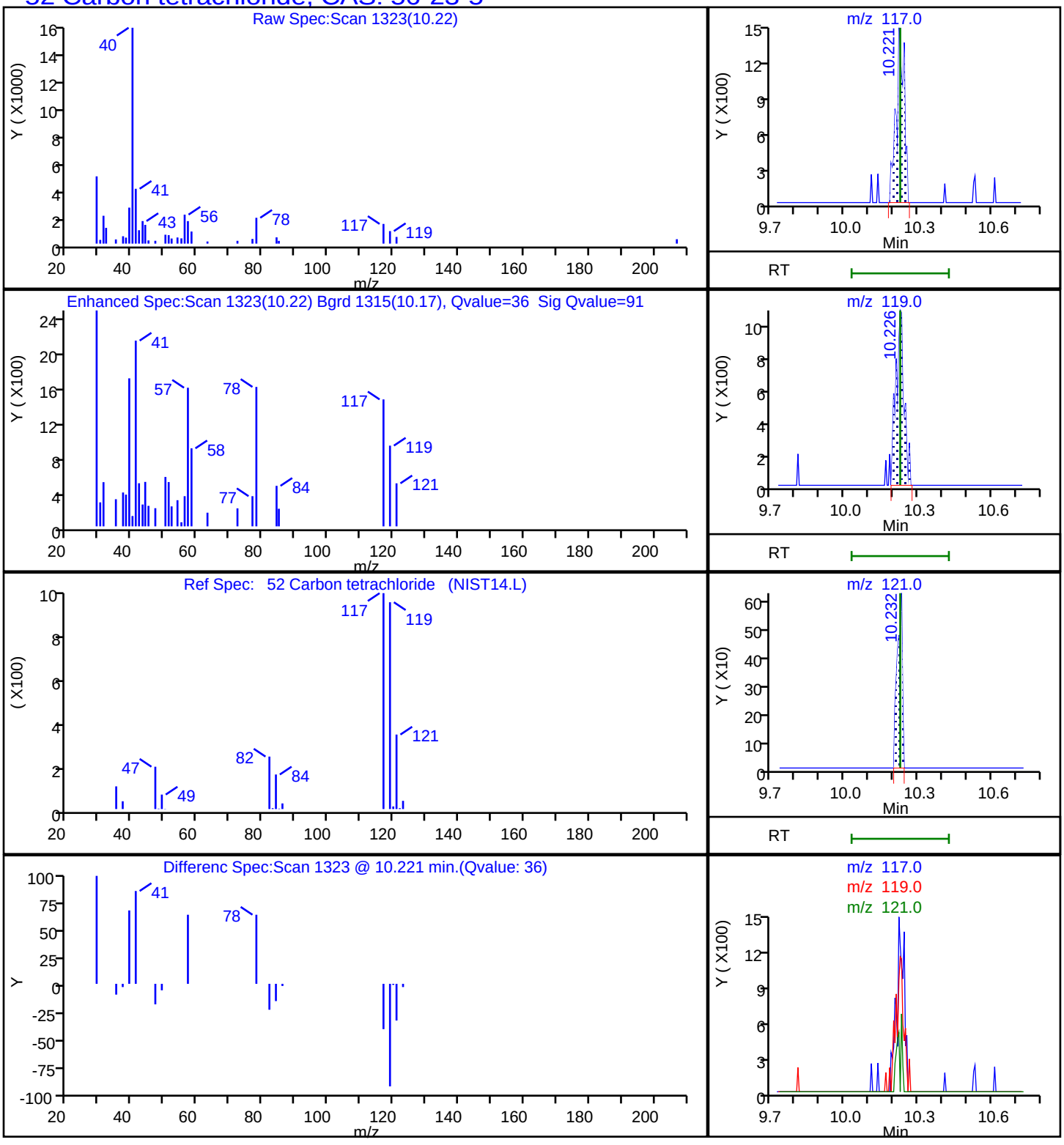
Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D

Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

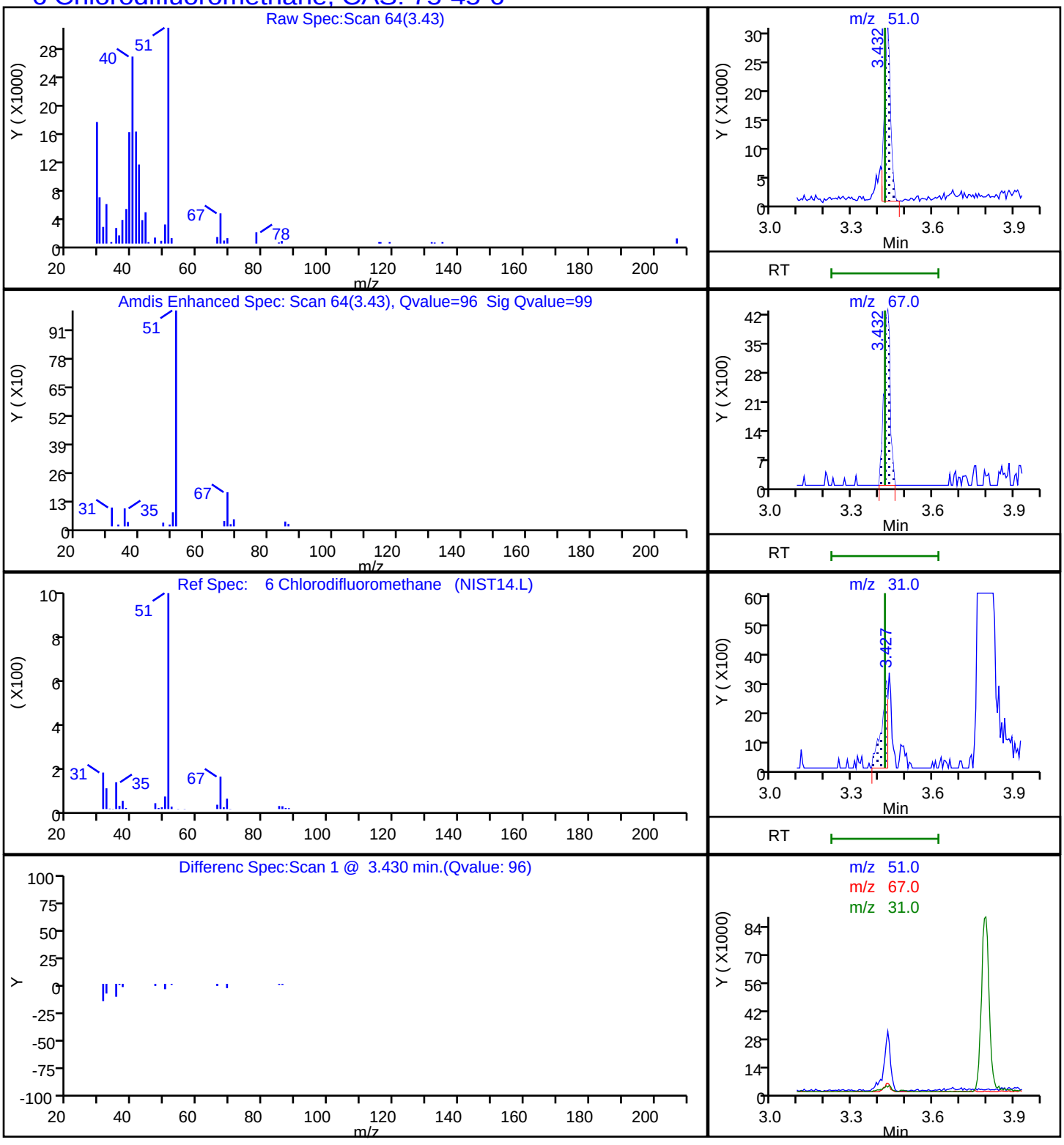


Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



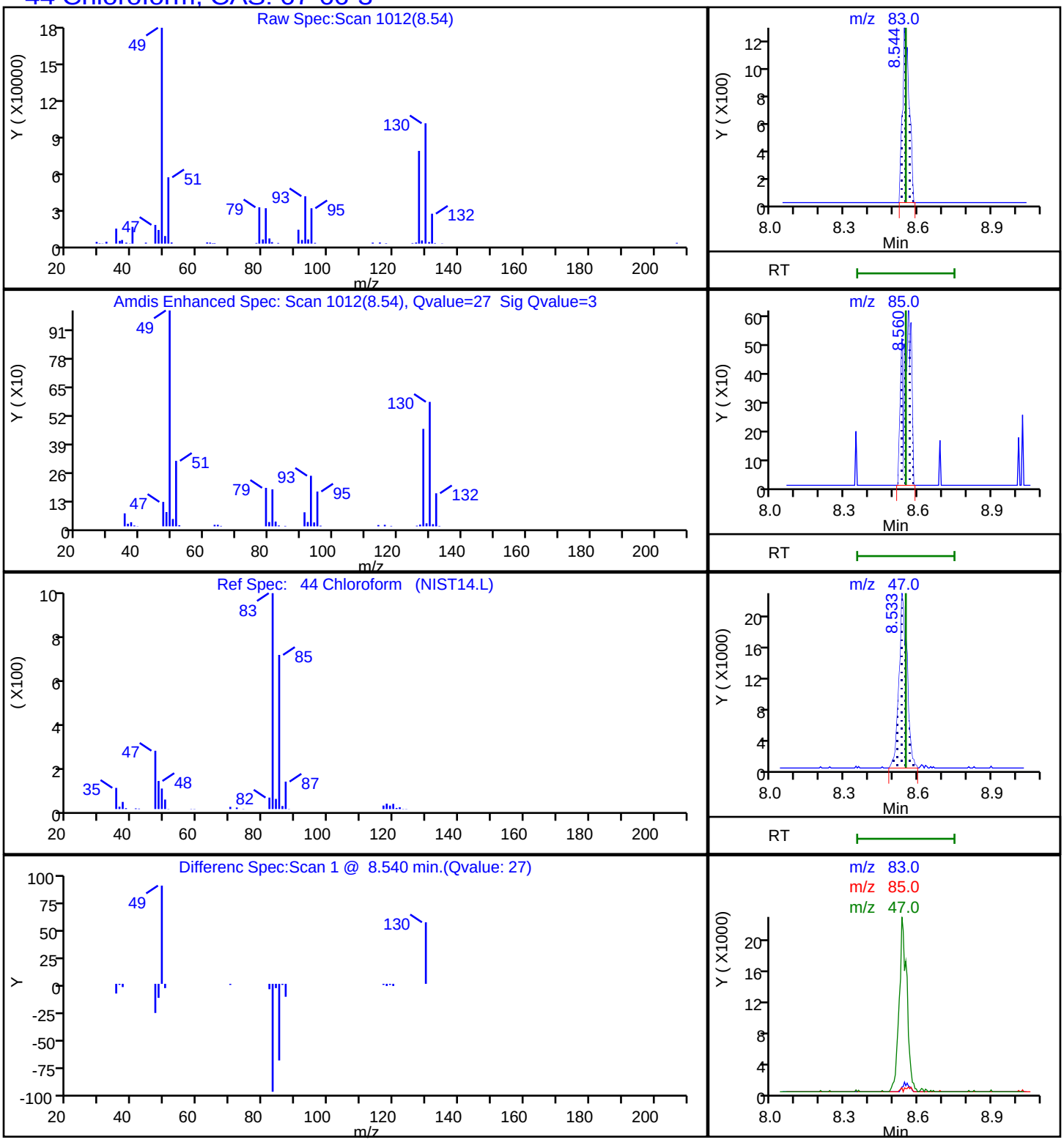
Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D

Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

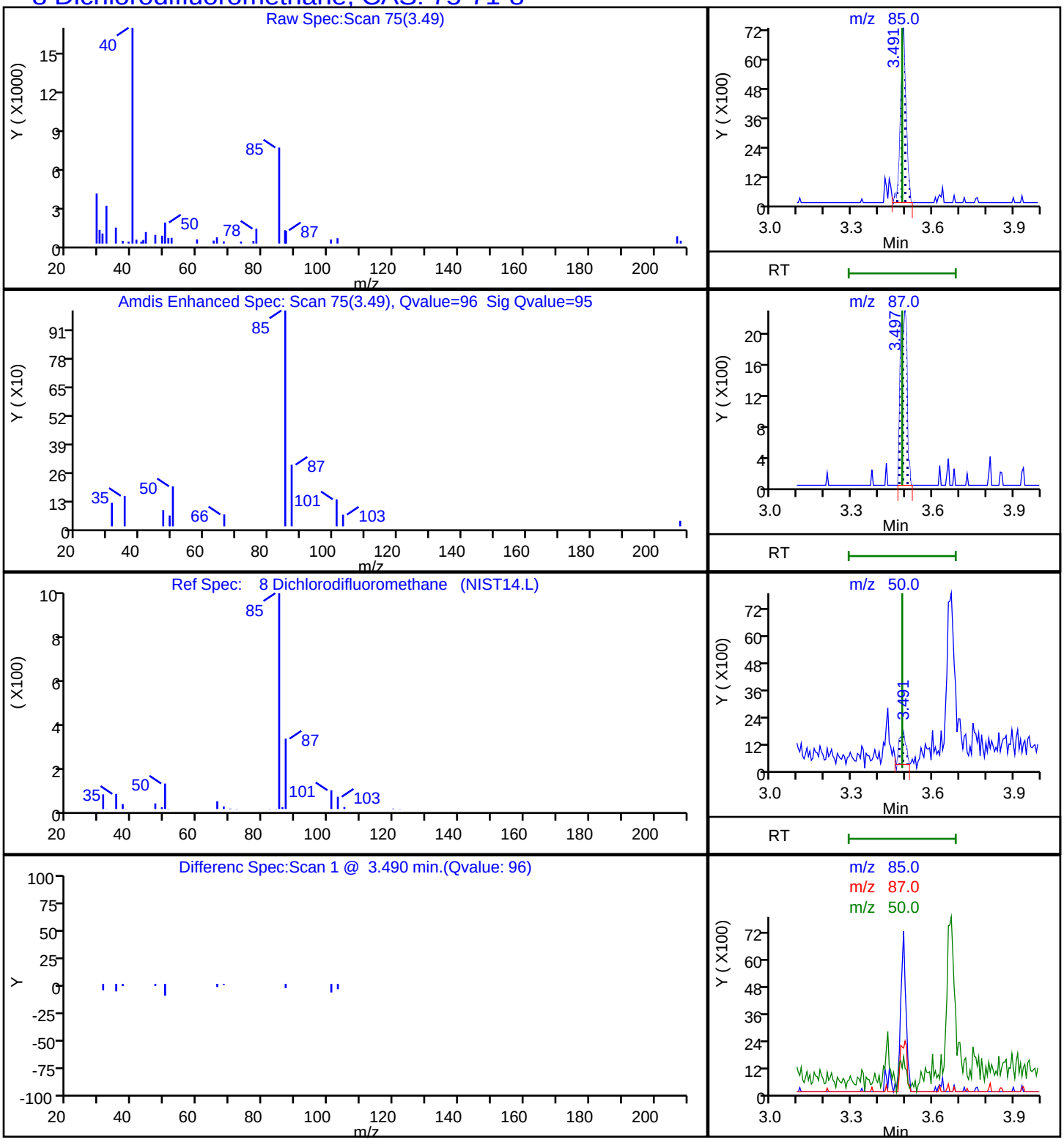
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

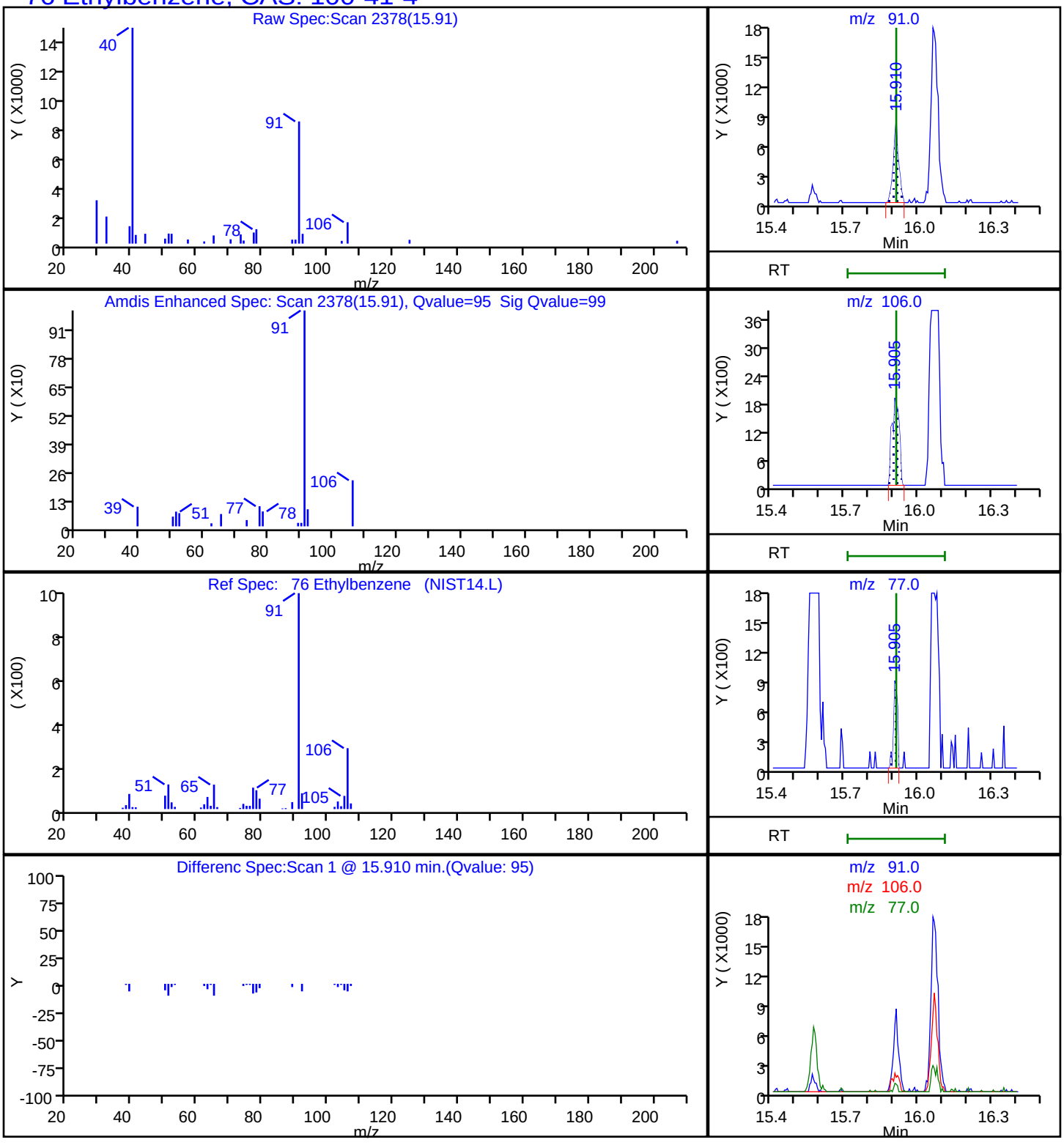
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



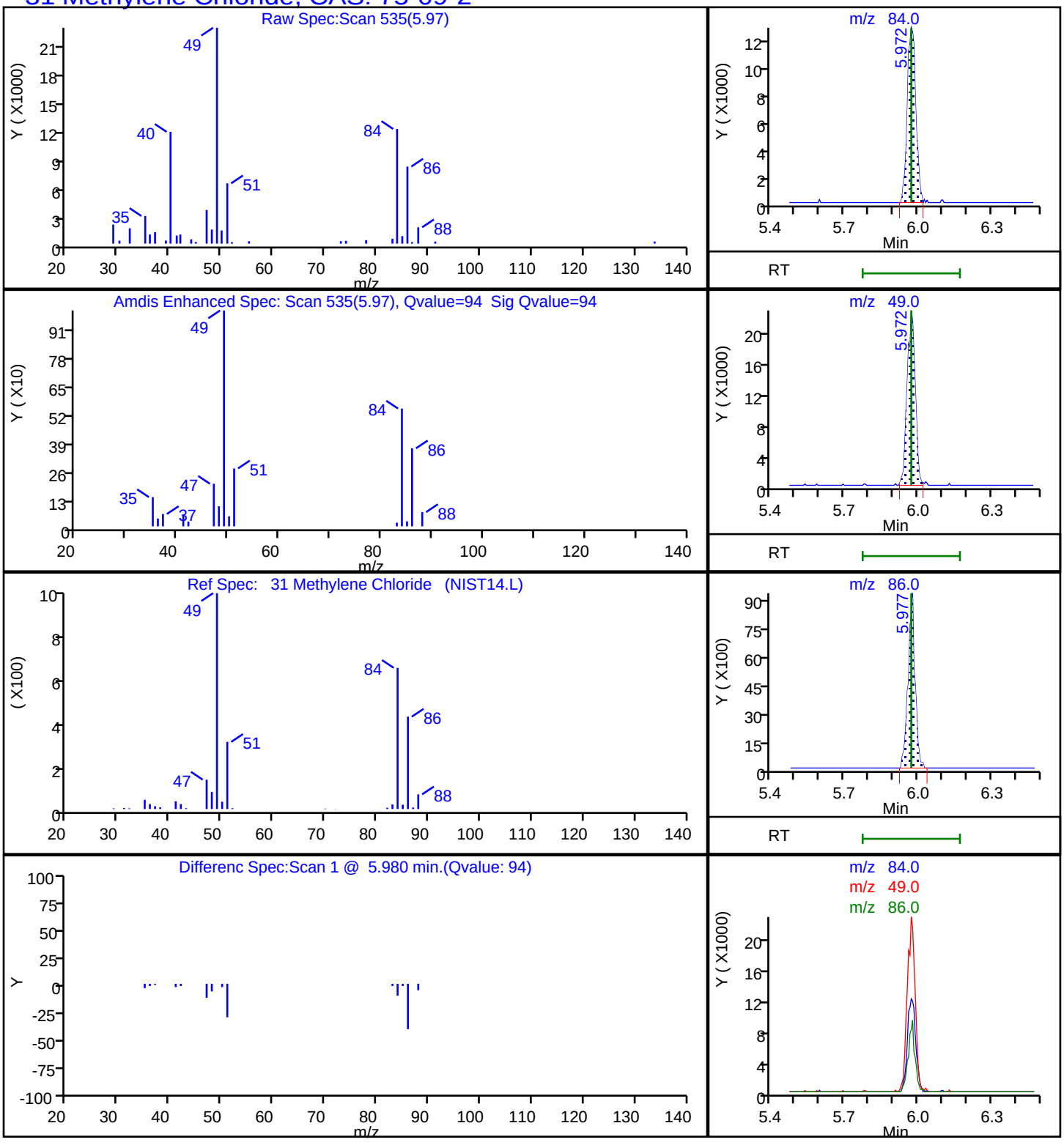
Report Date: 20-Aug-2019 17:21:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D

Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

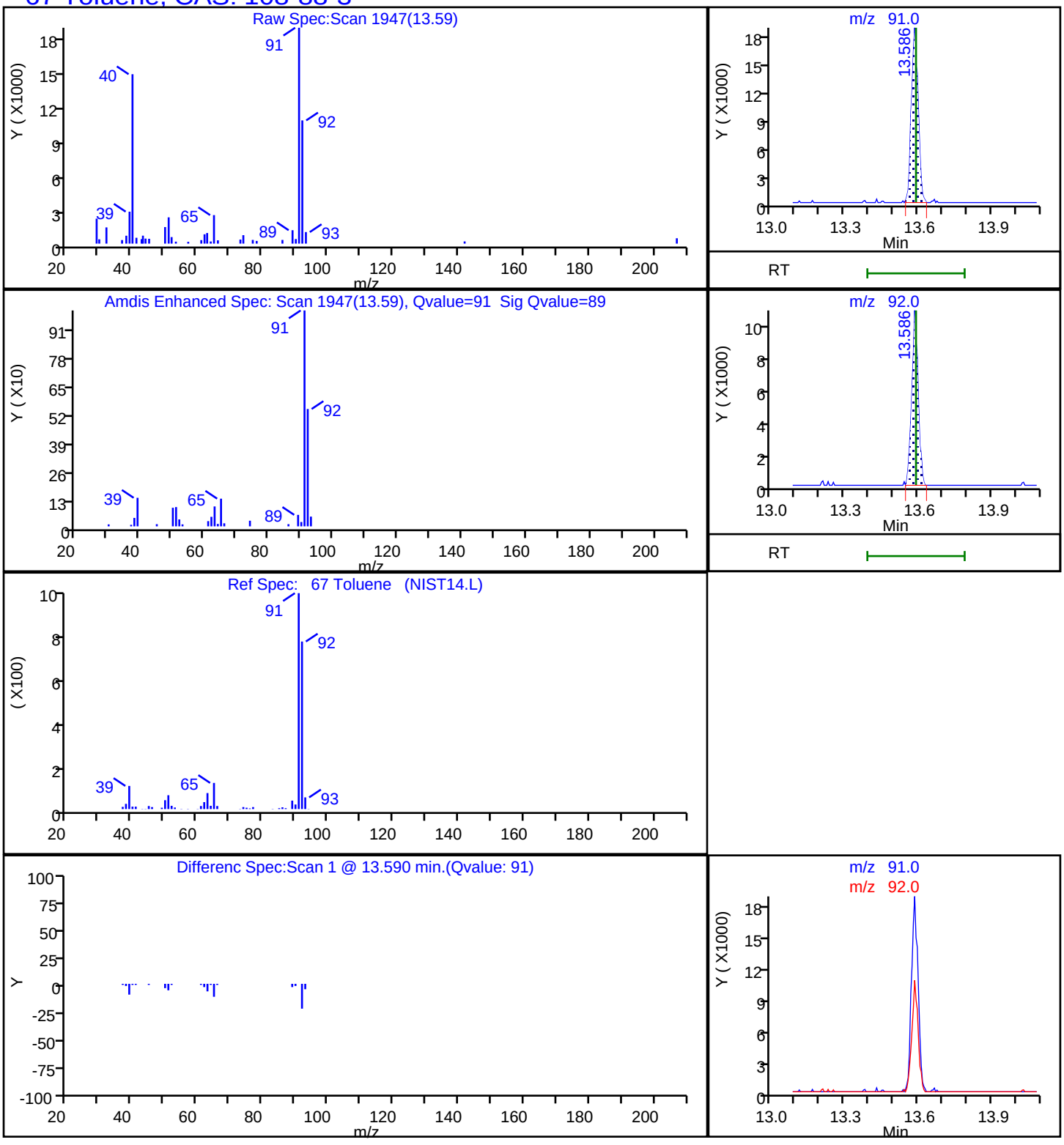
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

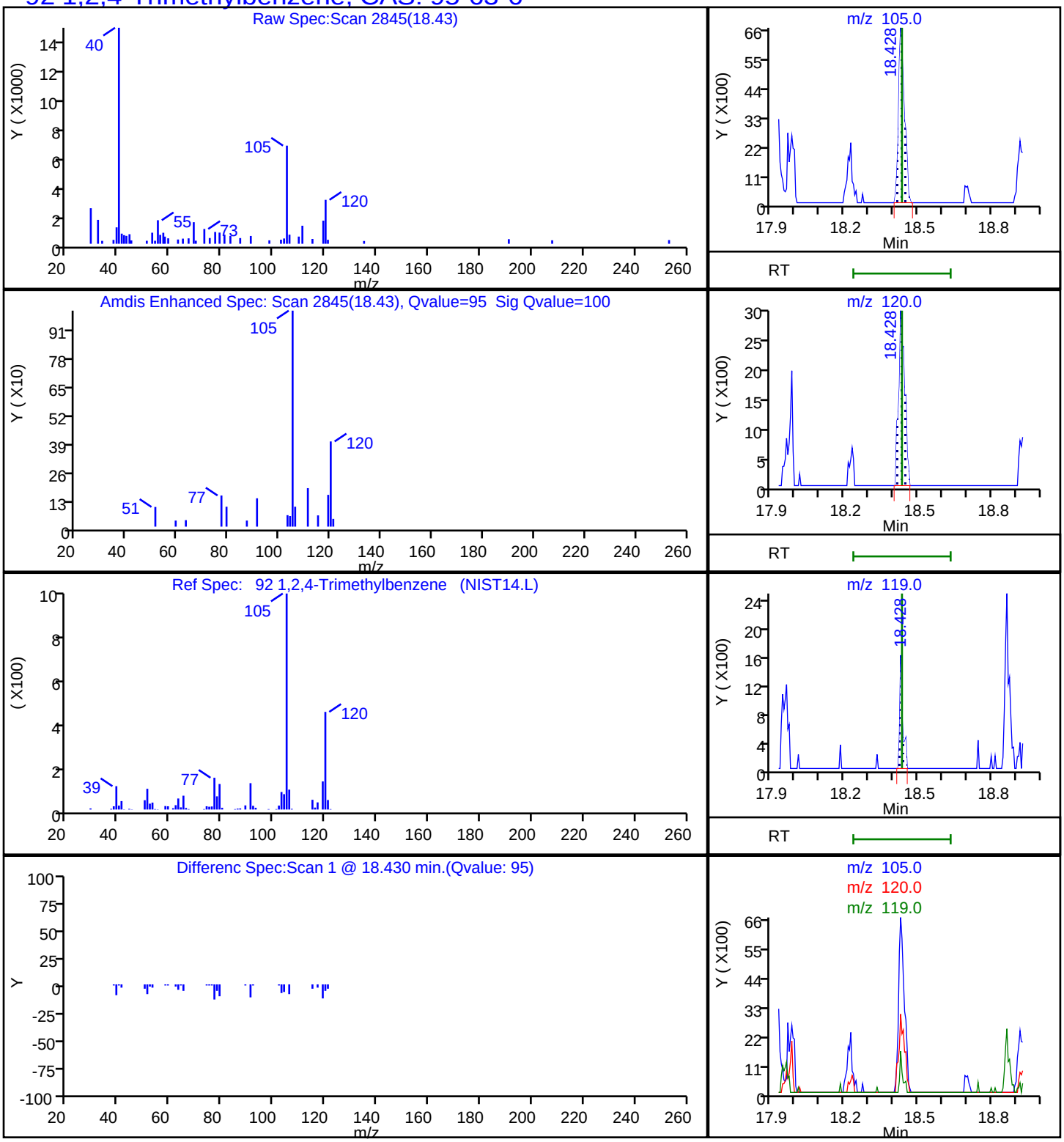
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

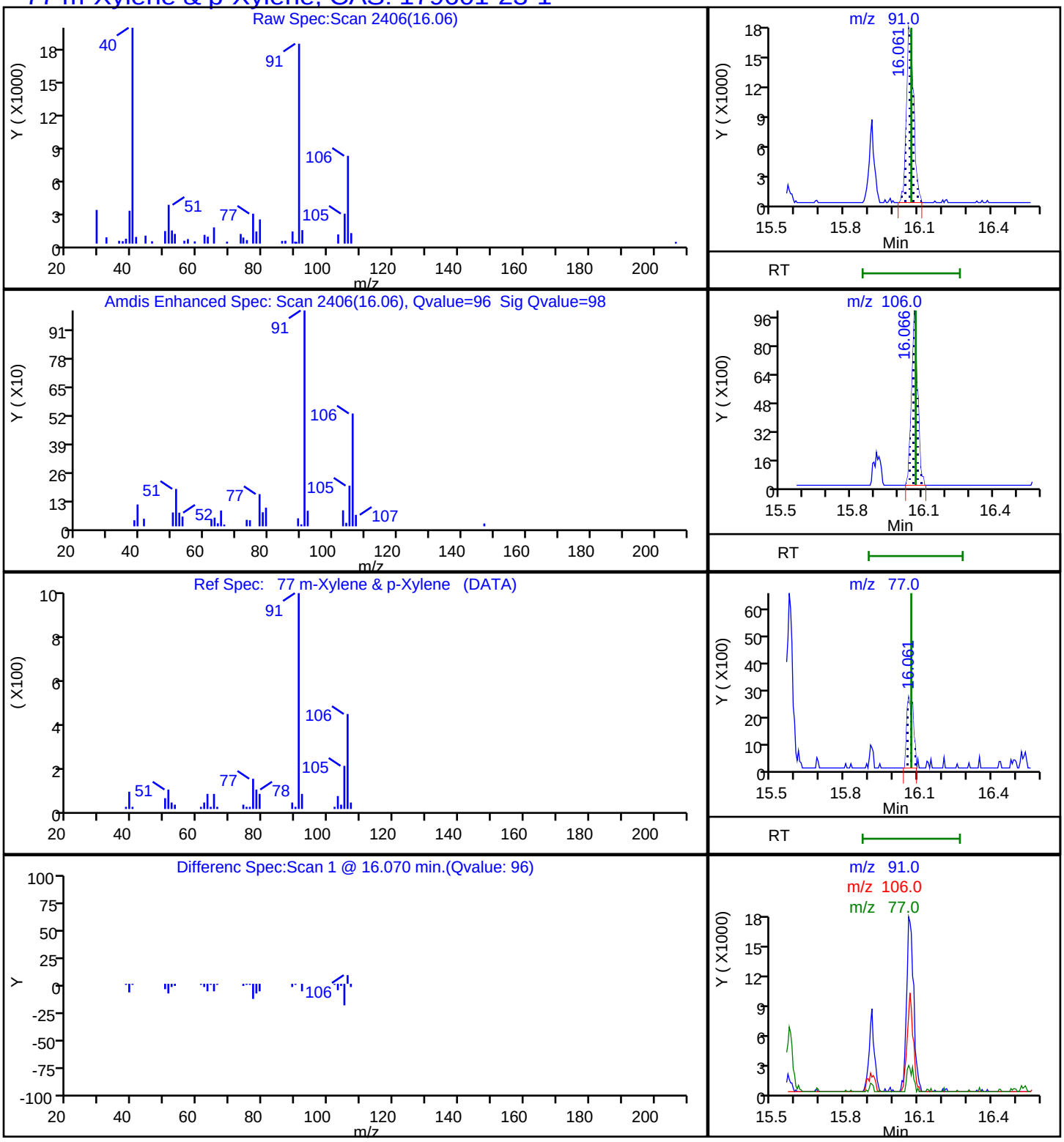
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

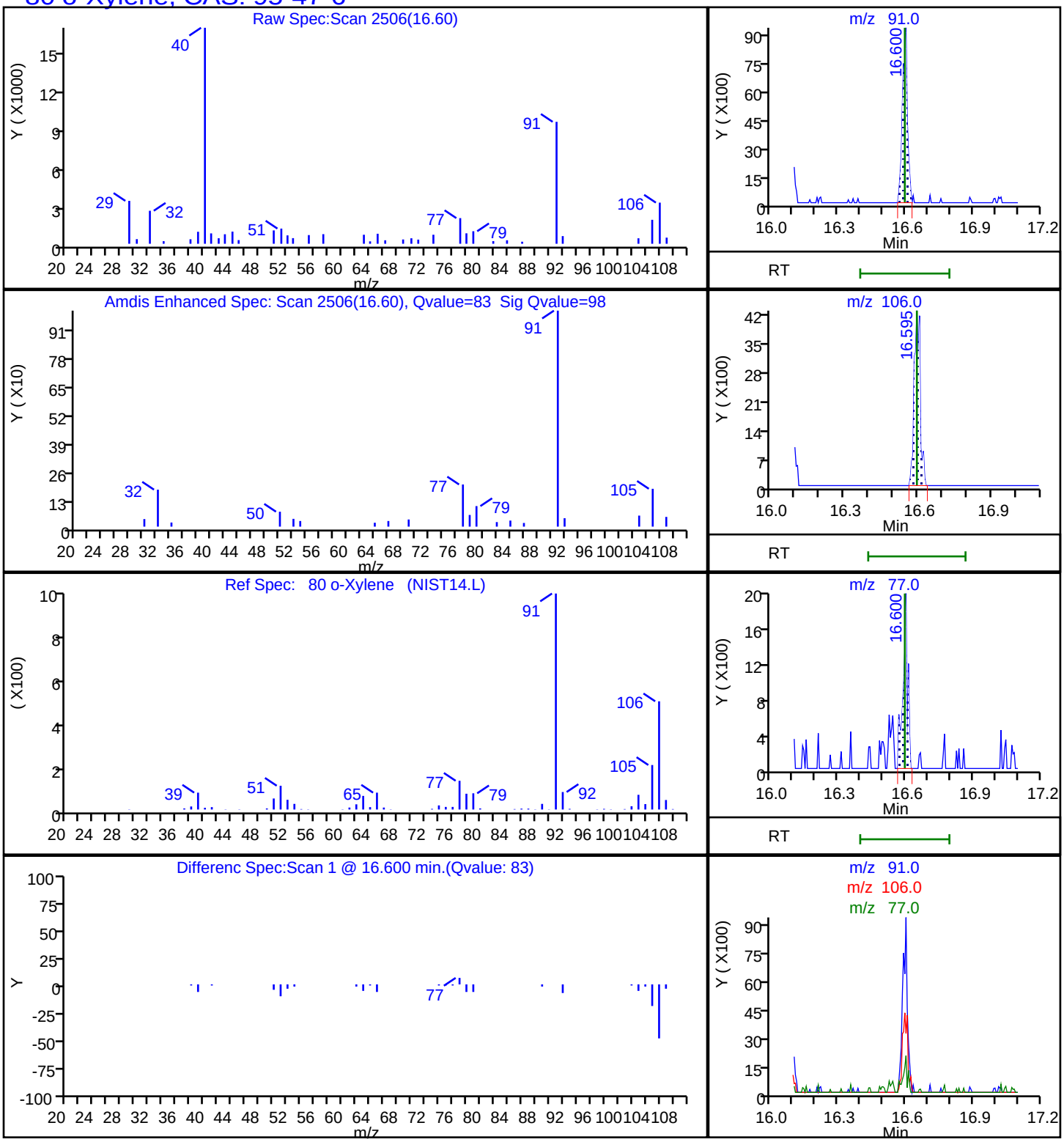
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

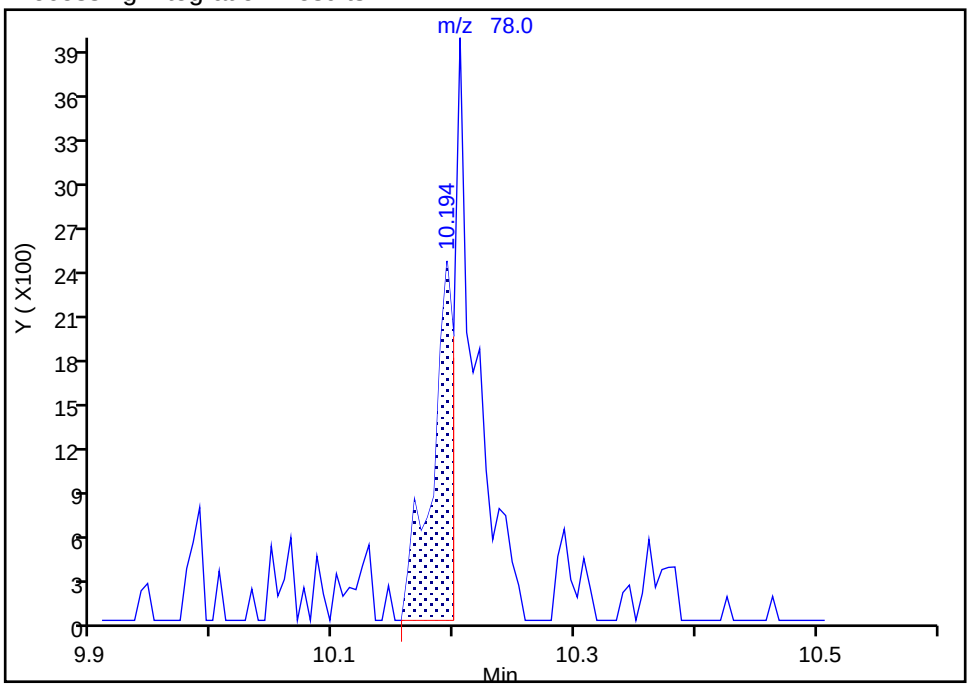
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P114.D		
Injection Date:	20-Aug-2019 05:34:30	Instrument ID:	MR
Lims ID:	140-16369-A-7	Lab Sample ID:	140-16369-7
Client ID:	IA-102-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2

Signal: 1

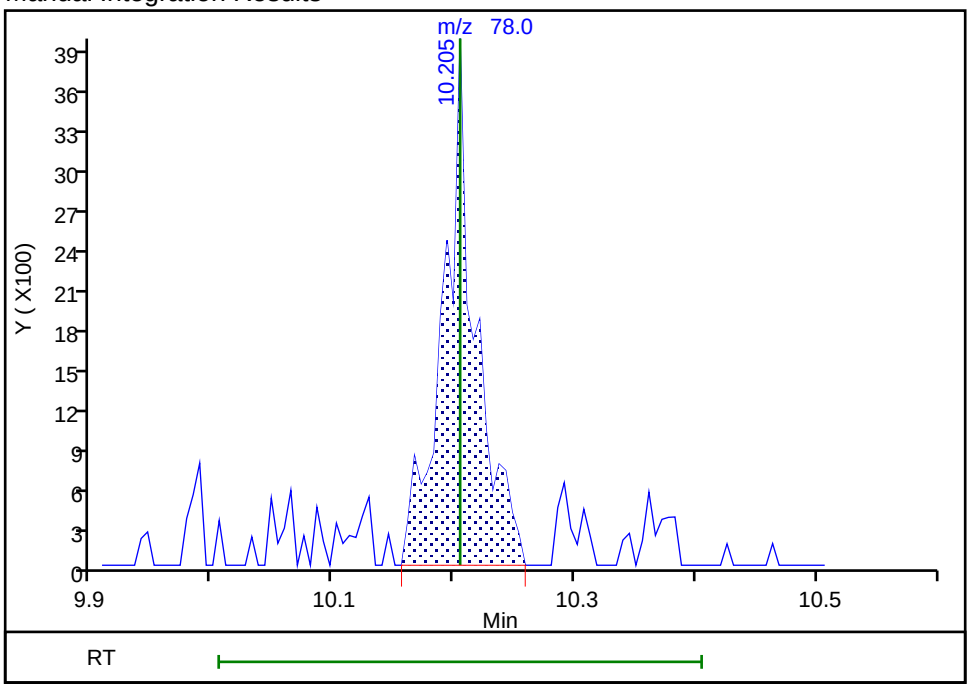
Processing Integration Results

RT: 10.19
Area: 3108
Amount: 0.013152
Amount Units: ppb v/v



Manual Integration Results

RT: 10.20
Area: 7379
Amount: 0.031225
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 17:21:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.066	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.5		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	0.61		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.2		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.60	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.32	J	2.7	0.24
108-88-3	Toluene	92.14	2.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.61	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D
Lims ID: 140-16369-A-8
Client ID: IA-DUP1-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 06:23:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-020
Misc. Info.: 140-16369-a-8
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 05:03:54 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 20-Aug-2019 09:29:16

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	214615	4.00	
*	2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1268610	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1158840	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	91	746175	3.73	
	6 Chlorodifluoromethane	51	3.432	3.423	0.011	96	53530	0.2919	
	8 Dichlorodifluoromethane	85	3.497	3.488	0.011	99	12482	0.0752	
	31 Methylene Chloride	84	5.977	5.976	0.005	95	20571	0.2712	
	49 Benzene	78	10.194	10.205	-0.011	55	6737	0.0262	
	52 Carbon tetrachloride	117	10.221	10.226	-0.005	25	2694	0.0131	
	67 Toluene	91	13.586	13.586	-0.005	90	36194	0.1214	
	73 Tetrachloroethene	129	14.751	14.740	0.006	72	1164	0.009559	
	76 Ethylbenzene	91	15.910	15.904	0.000	97	11520	0.0275	
	77 m-Xylene & p-Xylene	91	16.066	16.066	-0.006	98	33973	0.1034	
	80 o-Xylene	91	16.595	16.589	0.000	97	16051	0.0465	
	92 1,2,4-Trimethylbenzene	105	18.439	18.427	0.005	95	11240	0.0250	
S	116 Xylenes, Total	100				0		0.1500	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

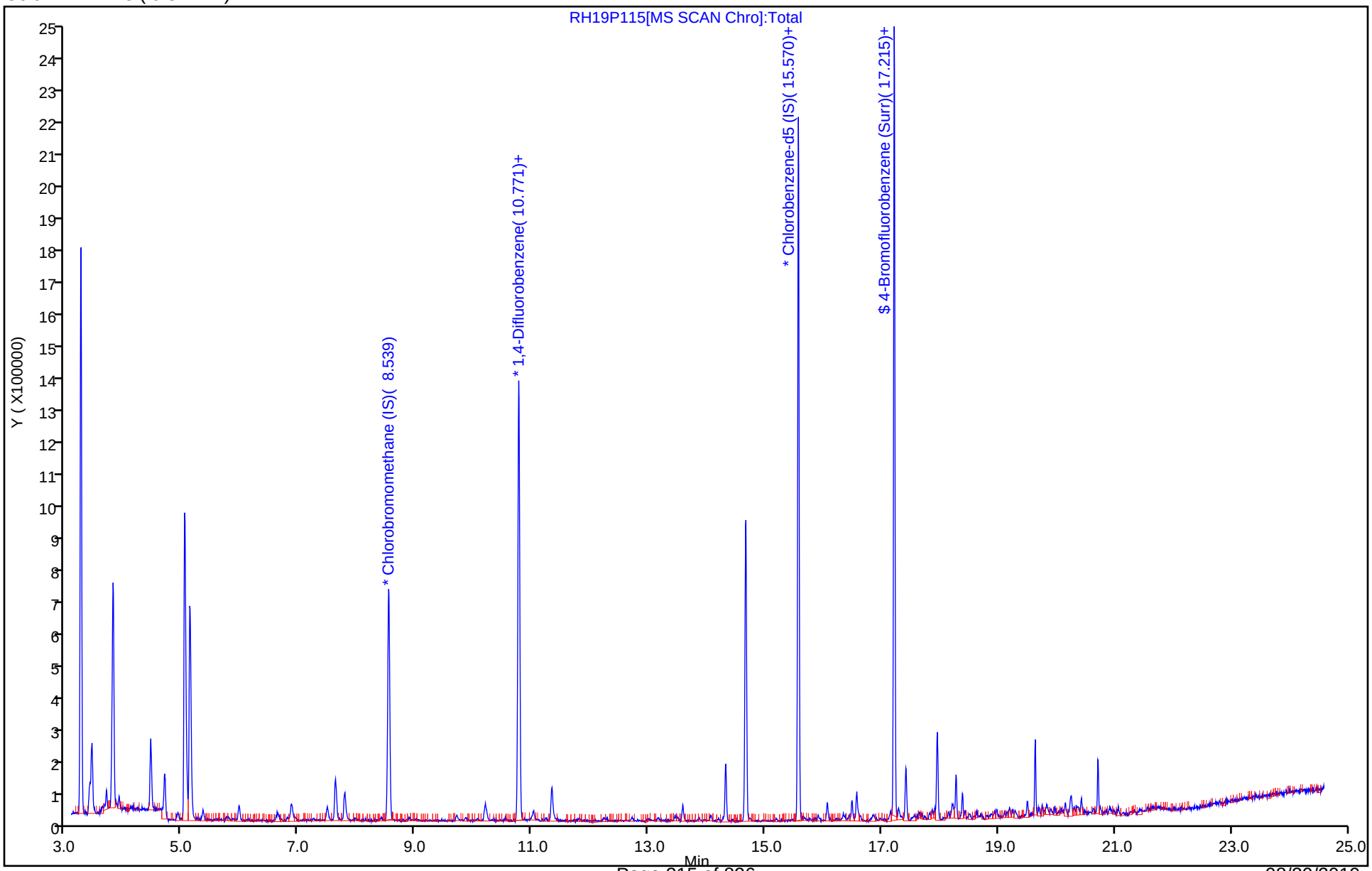
Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8	Worklist Smp#:	20
Client ID:	IA-DUP1-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D				
Lims ID:	140-16369-A-8				
Client ID:	IA-DUP1-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 06:23:30	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-020				
Misc. Info.:	140-16369-a-8				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 05:03:54	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: tajh		Date:	20-Aug-2019 09:29:16		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.73	93.37

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date: 20-Aug-2019 06:23:30 Instrument ID: MR

Lims ID: 140-16369-A-8 Lab Sample ID: 140-16369-8

Client ID: IA-DUP1-C-27

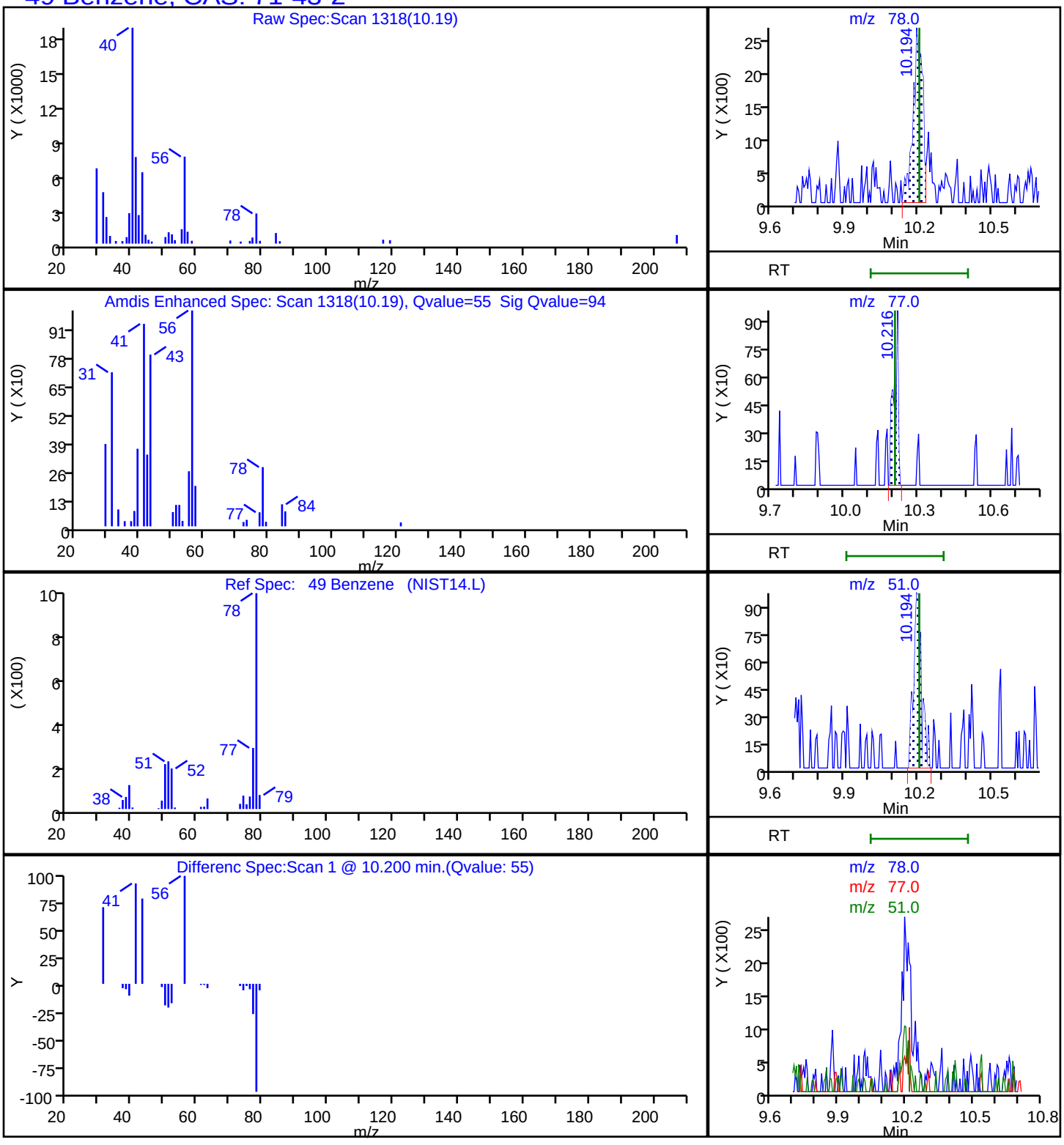
Operator ID: ALS Bottle#: 15 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

49 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date: 20-Aug-2019 06:23:30 Instrument ID: MR

Lims ID: 140-16369-A-8 Lab Sample ID: 140-16369-8

Client ID: IA-DUP1-C-27

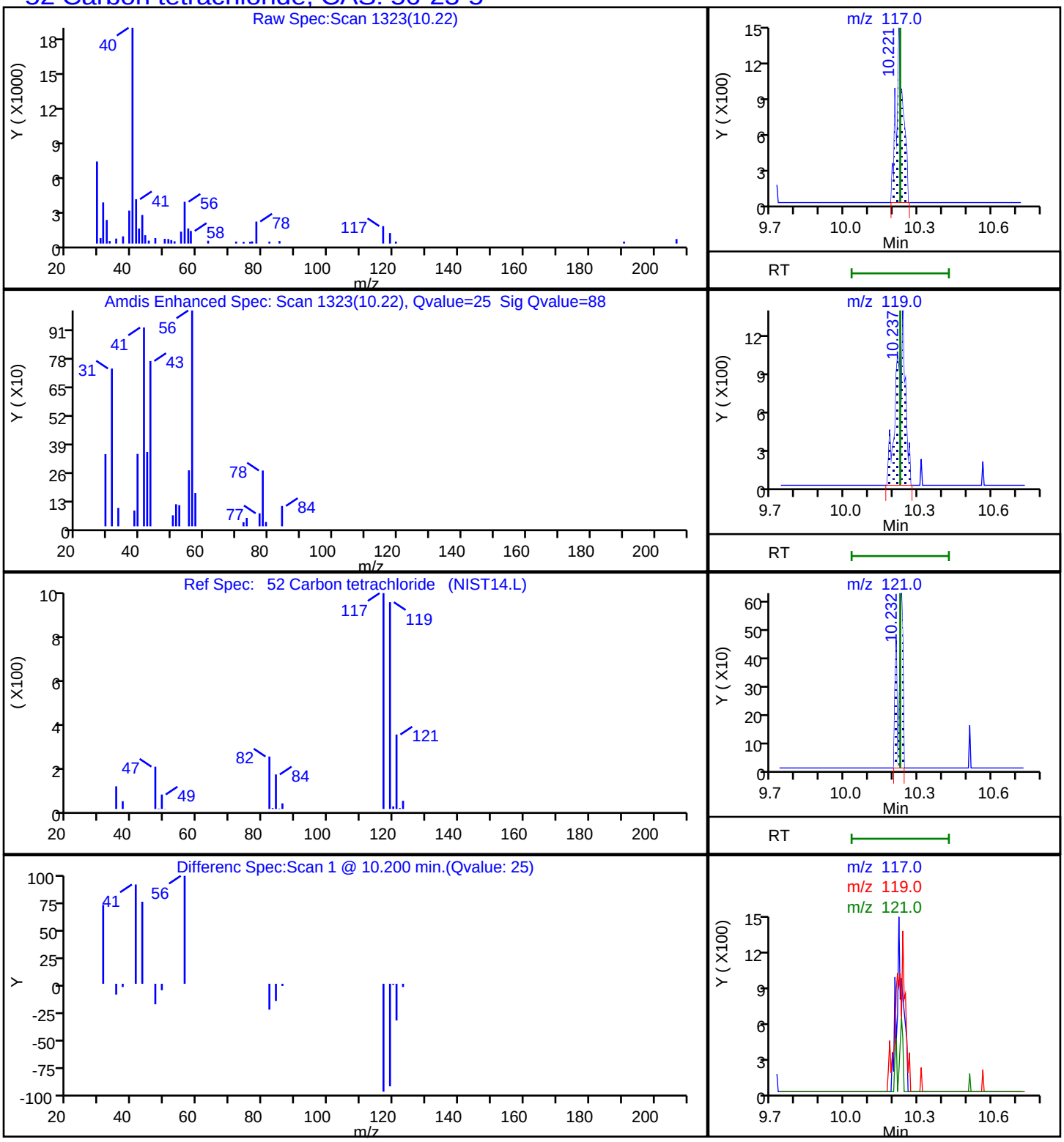
Operator ID: ALS Bottle#: 15 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

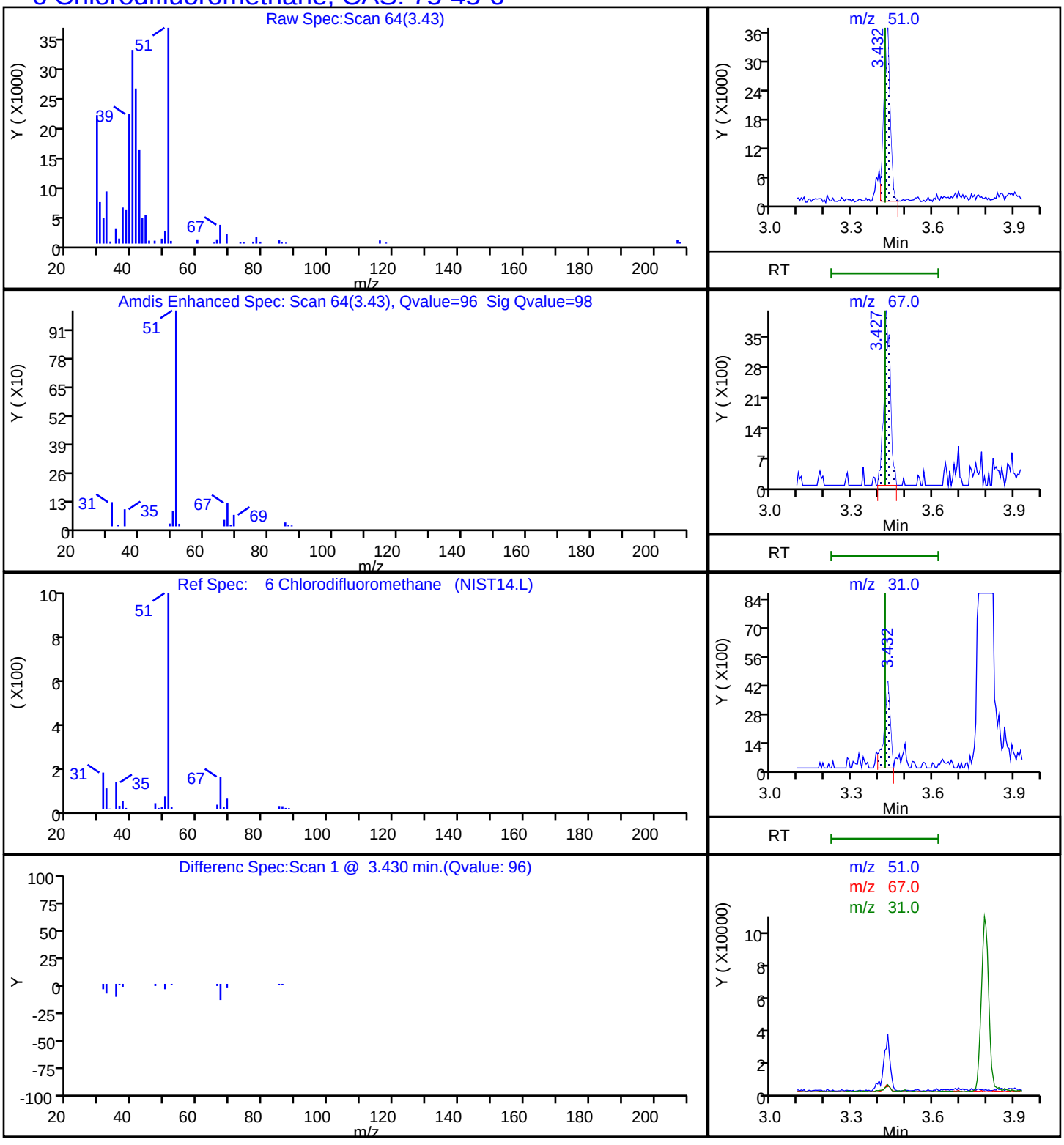
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date: 20-Aug-2019 06:23:30 Instrument ID: MR

Lims ID: 140-16369-A-8 Lab Sample ID: 140-16369-8

Client ID: IA-DUP1-C-27

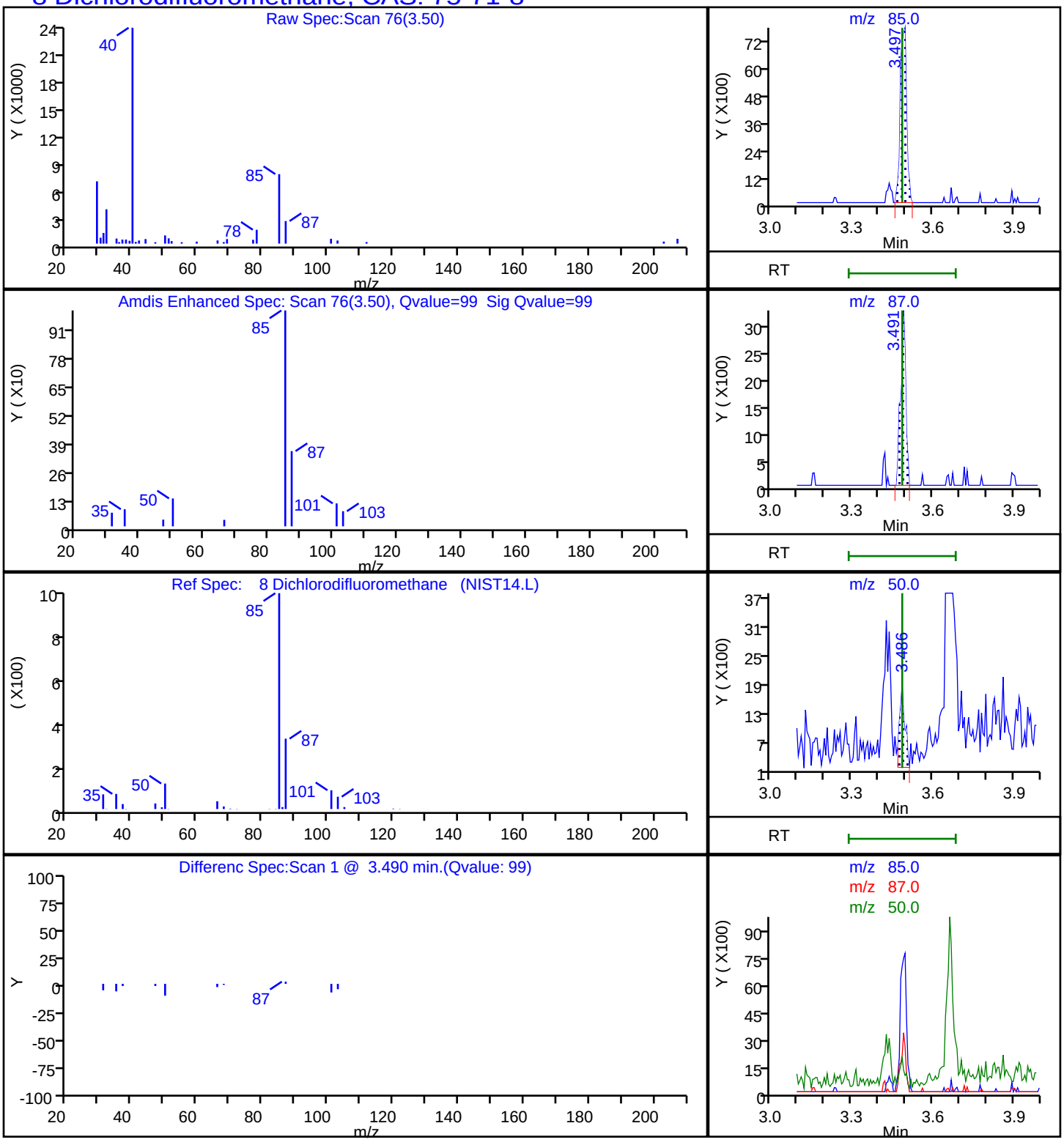
Operator ID: ALS Bottle#: 15 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

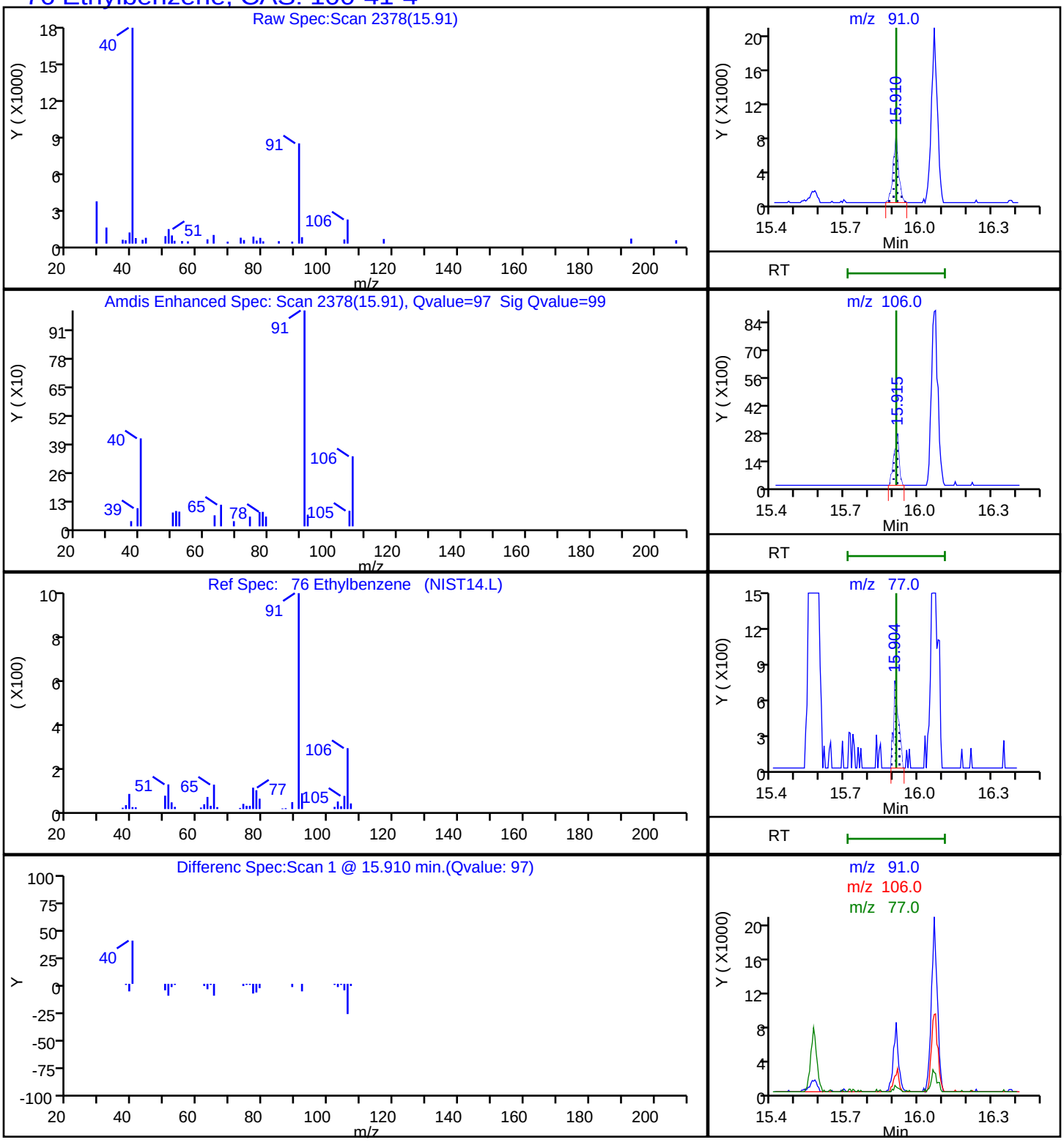


Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



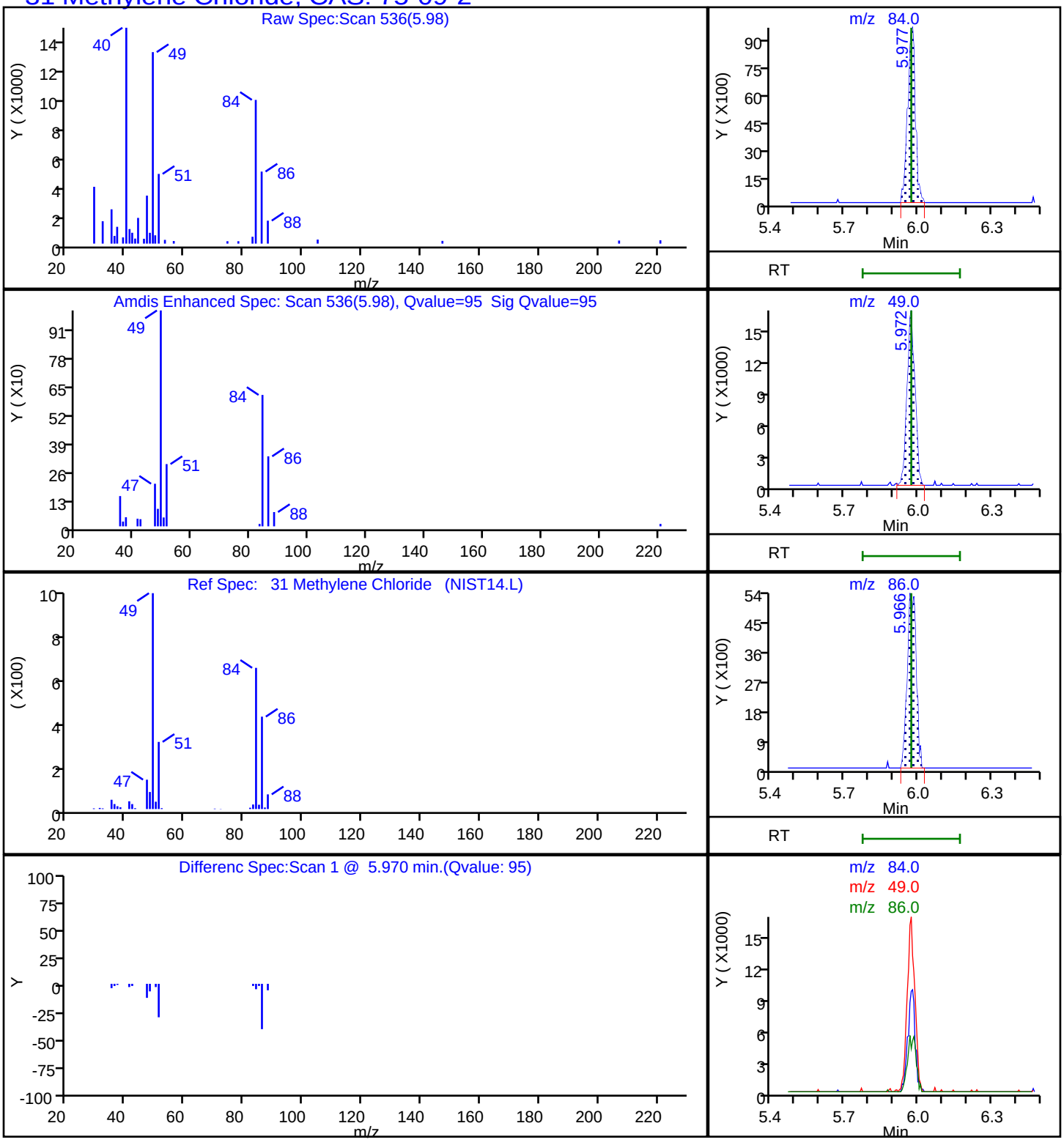
Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D

Injection Date: 20-Aug-2019 06:23:30 Instrument ID: MR

Lims ID: 140-16369-A-8 Lab Sample ID: 140-16369-8

Client ID: IA-DUP1-C-27

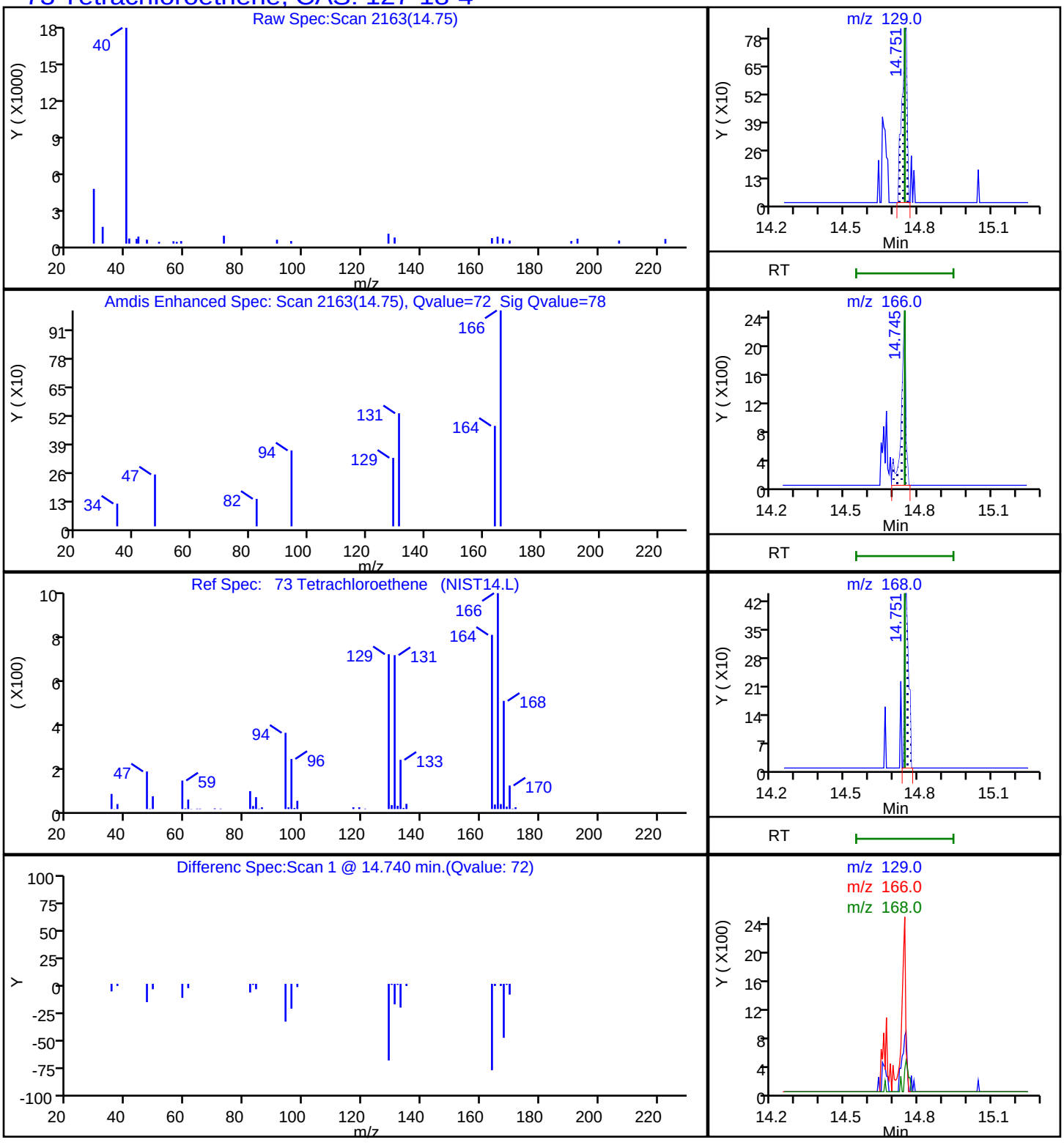
Operator ID: ALS Bottle#: 15 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

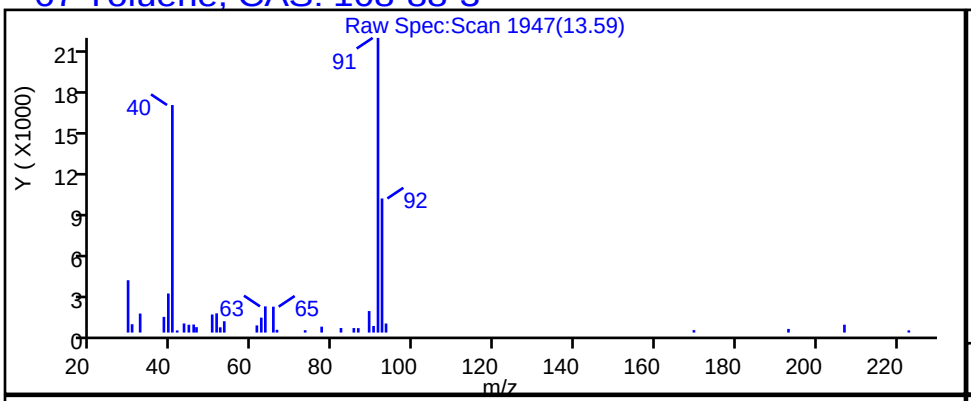


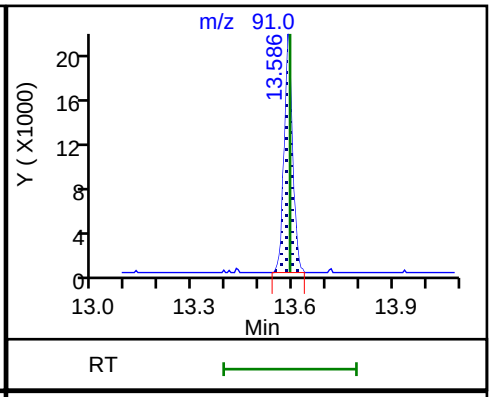
Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

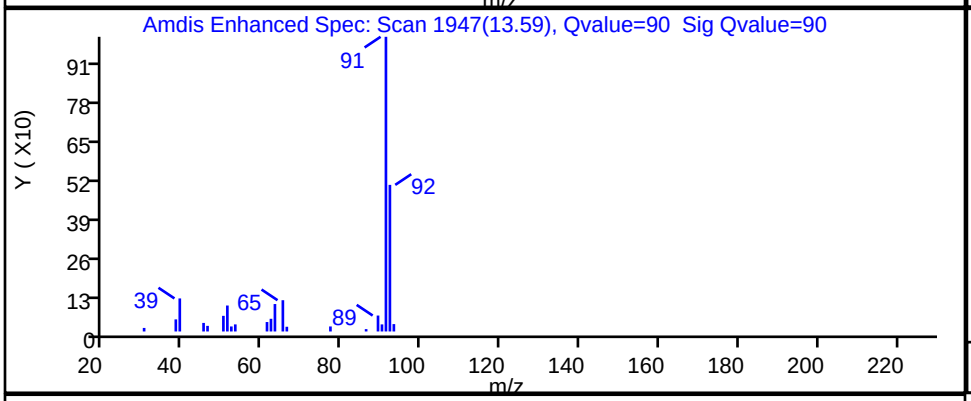
Eurofins TestAmerica, Knoxville

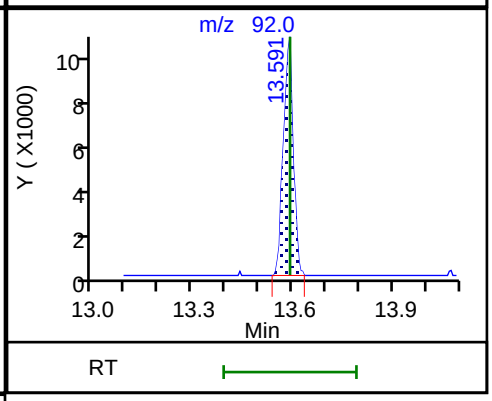
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

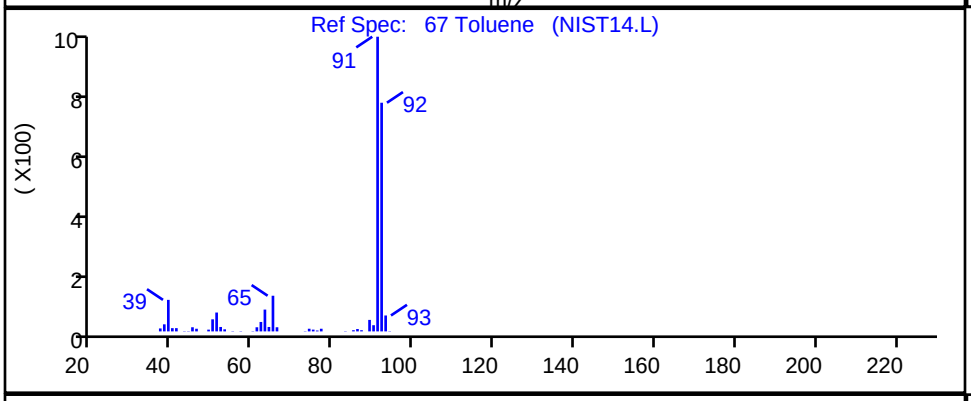
67 Toluene, CAS: 108-88-3

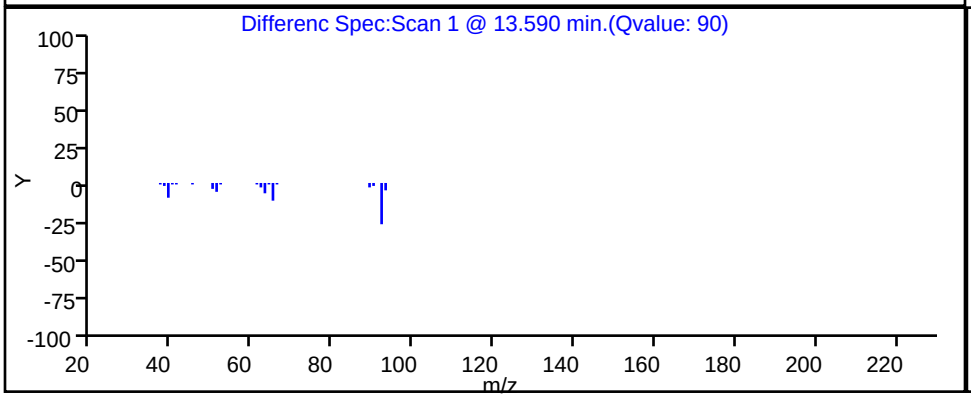


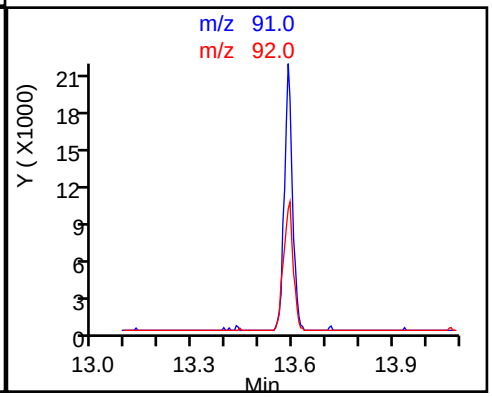










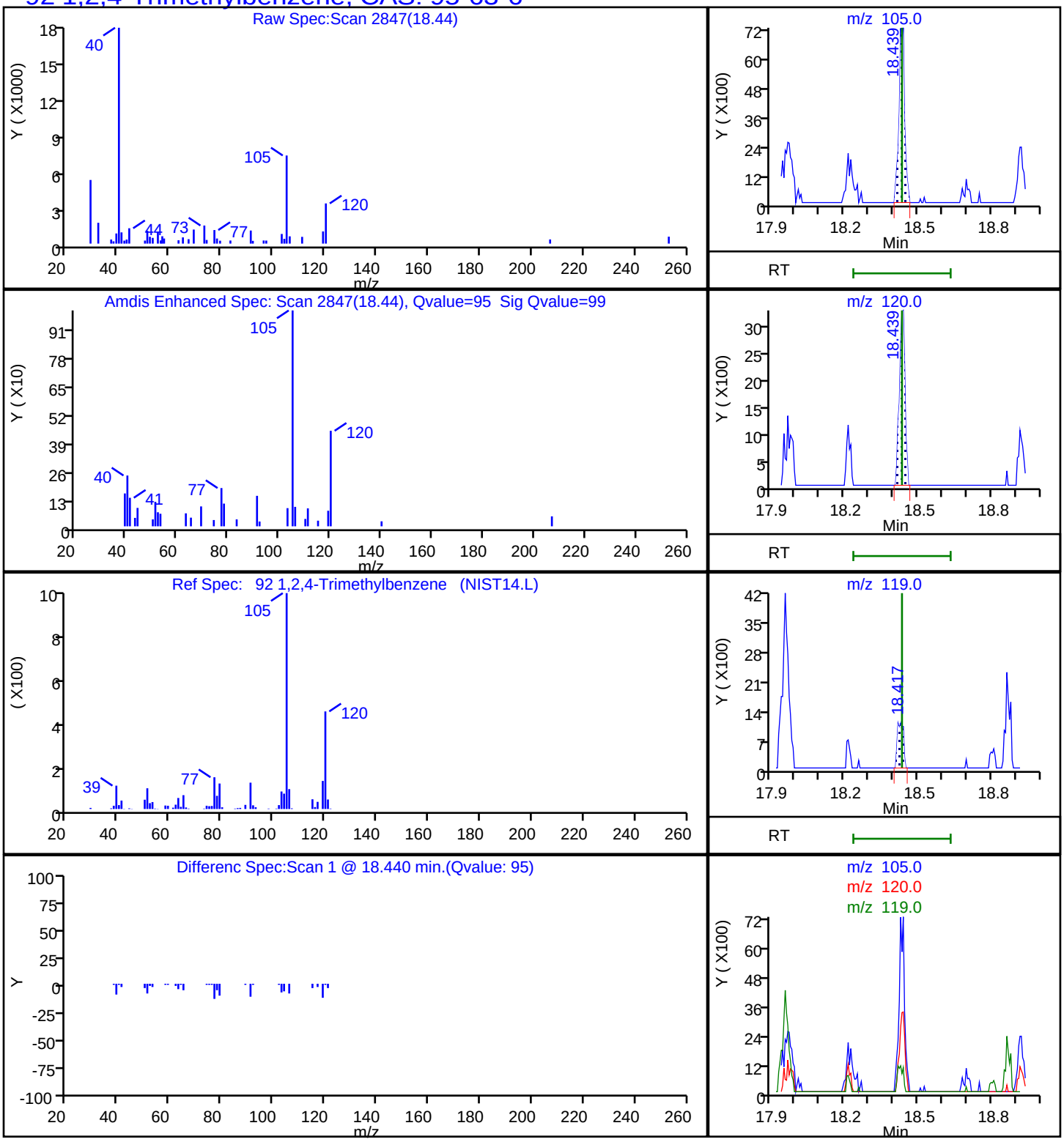


Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

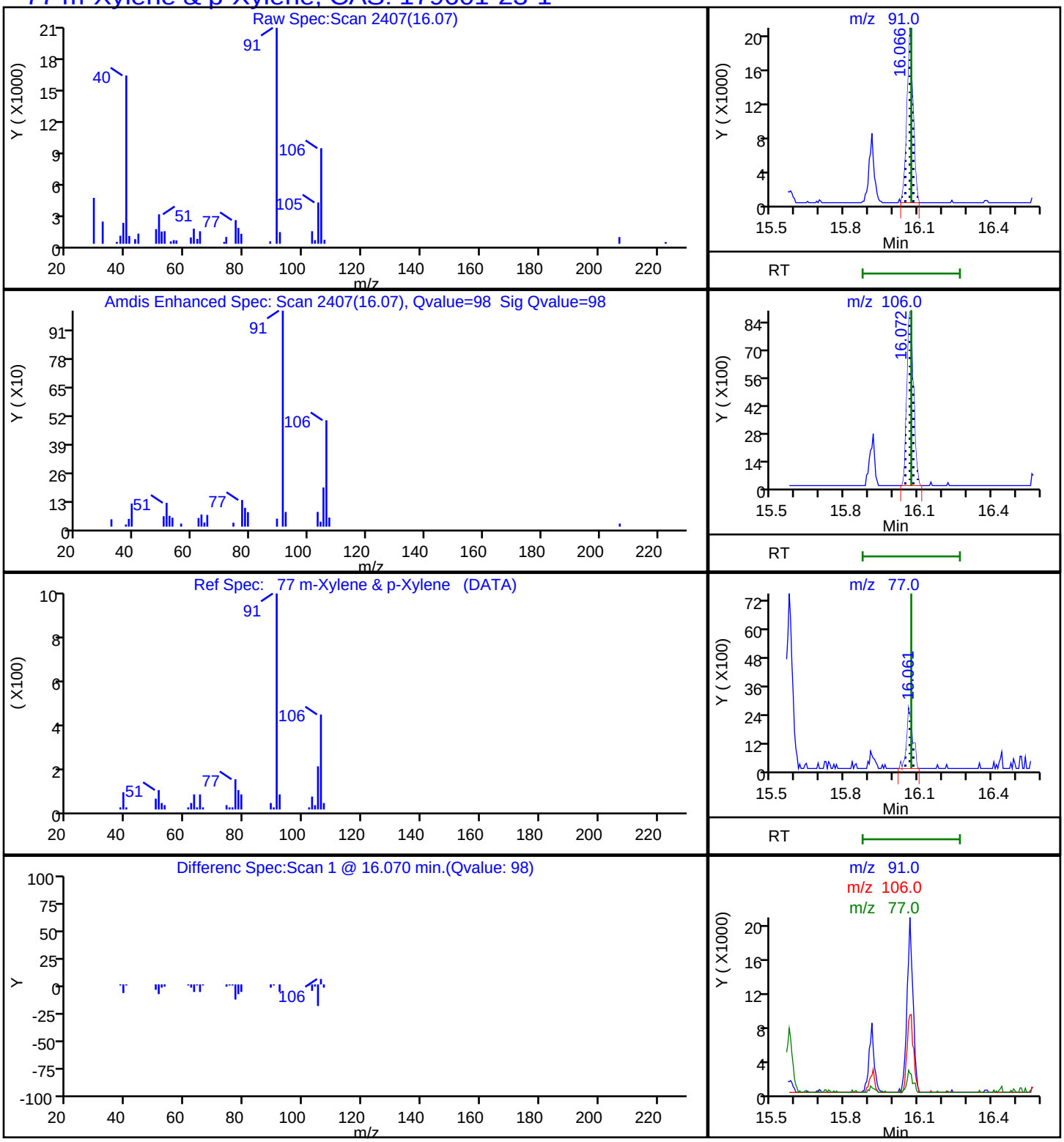


Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

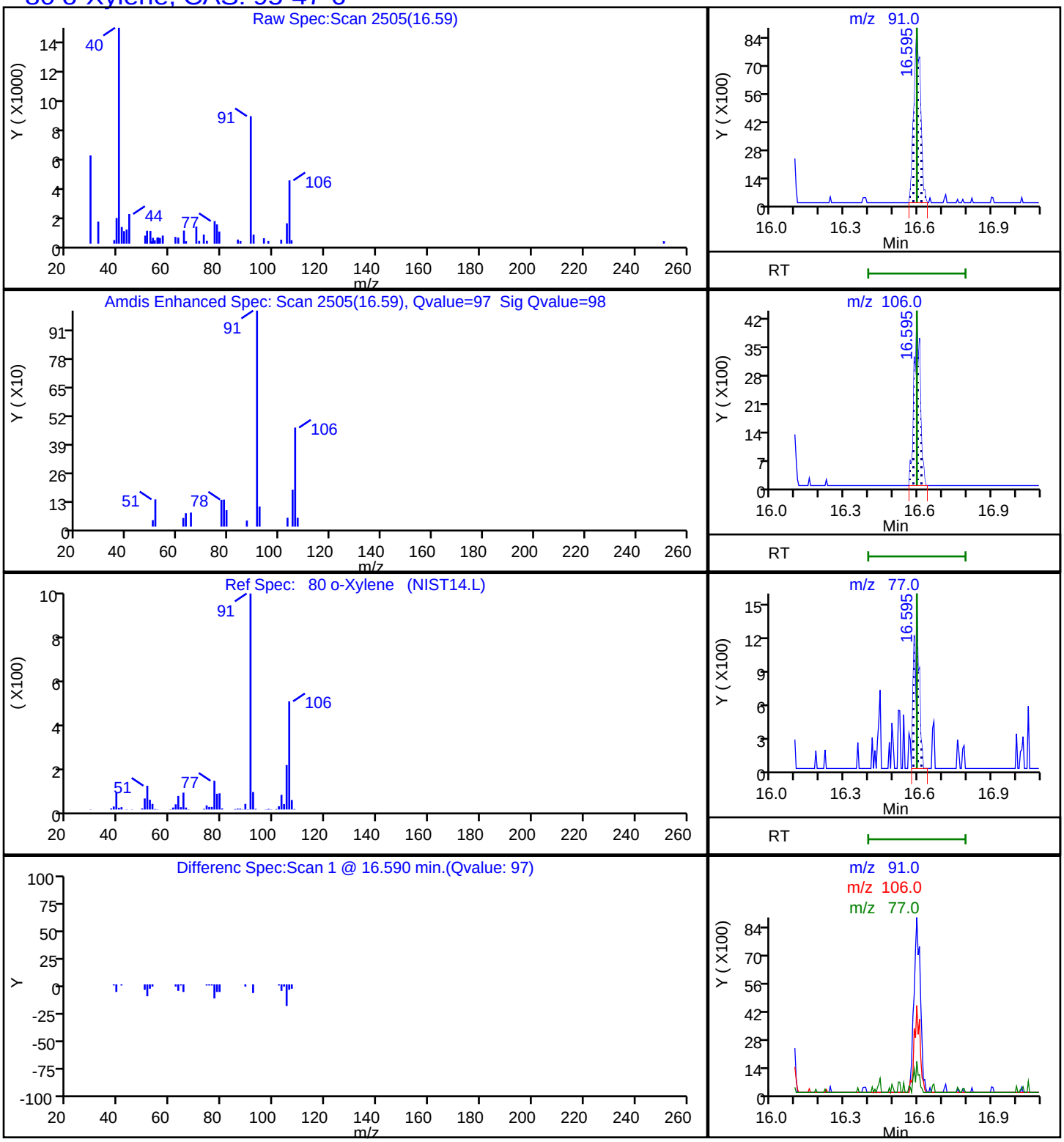


Report Date: 20-Aug-2019 09:29:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RH19P115.D		
Injection Date:	20-Aug-2019 06:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-8	Lab Sample ID:	140-16369-8
Client ID:	IA-DUP1-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.59		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.1		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.9		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.85	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.86	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D
Lims ID: 140-16369-A-9
Client ID: IA-155-C-27
Sample Type: Client
Inject. Date: 19-Aug-2019 13:38:30 ALS Bottle#: 1 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012597-006
Misc. Info.: 140-16369-a-9
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:26:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:28:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	93	314845	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	1598492	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	87	1307685	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	873571	3.63	
19 Chlorodifluoromethane	51	4.152	4.152	-0.005	96	39381	0.4577	M
21 Dichlorodifluoromethane	85	4.233	4.227	0.006	98	11728	0.1189	
44 Methylene Chloride	84	7.057	7.062	-0.005	96	89310	0.7539	
57 Chloroform	83	9.736	9.731	0.006	32	3048	0.0119	
64 Benzene	78	11.339	11.339	0.000	94	11530	0.0394	
65 Carbon tetrachloride	117	11.350	11.350	-0.005	85	3555	0.0145	
80 Toluene	91	14.513	14.513	0.000	92	63915	0.2023	
89 Ethylbenzene	91	16.772	16.767	0.005	97	15849	0.0389	
90 m-Xylene & p-Xylene	91	16.917	16.923	-0.006	99	43780	0.1403	
94 o-Xylene	91	17.450	17.450	0.000	97	21198	0.0639	
105 1,2,4-Trimethylbenzene	105	19.145	19.145	0.001	97	13409	0.0350	
122 Naphthalene	128	21.689	21.689	0.000	98	13806	0.0412	
S 129 Xylenes, Total	100				0		0.2041	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

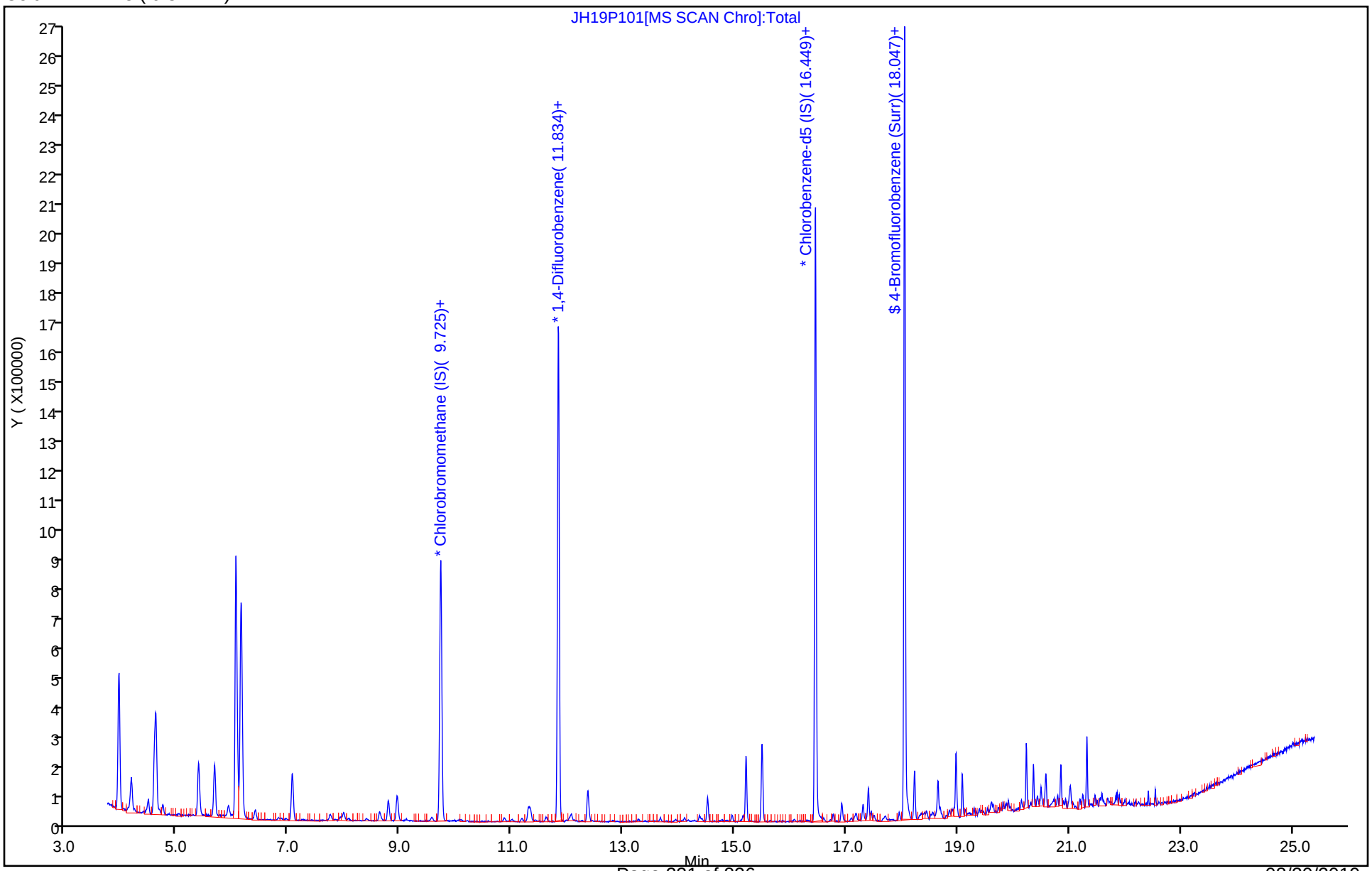
Report Date: 20-Aug-2019 12:28:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D

Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9	Worklist Smp#:	6
Client ID:	IA-155-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D				
Lims ID:	140-16369-A-9				
Client ID:	IA-155-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 13:38:30	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-006				
Misc. Info.:	140-16369-a-9				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:26:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

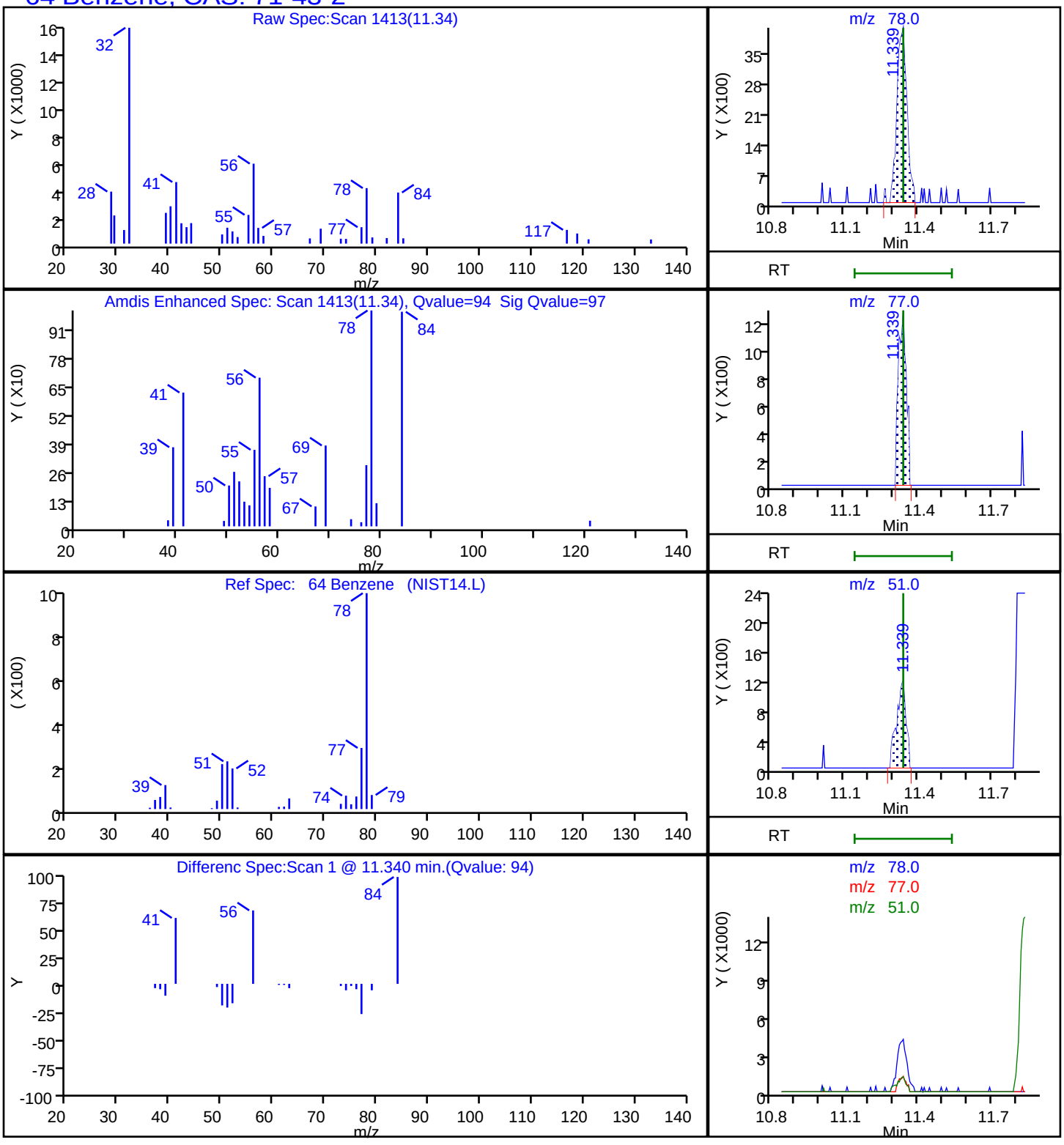
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:28:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.63	90.87

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

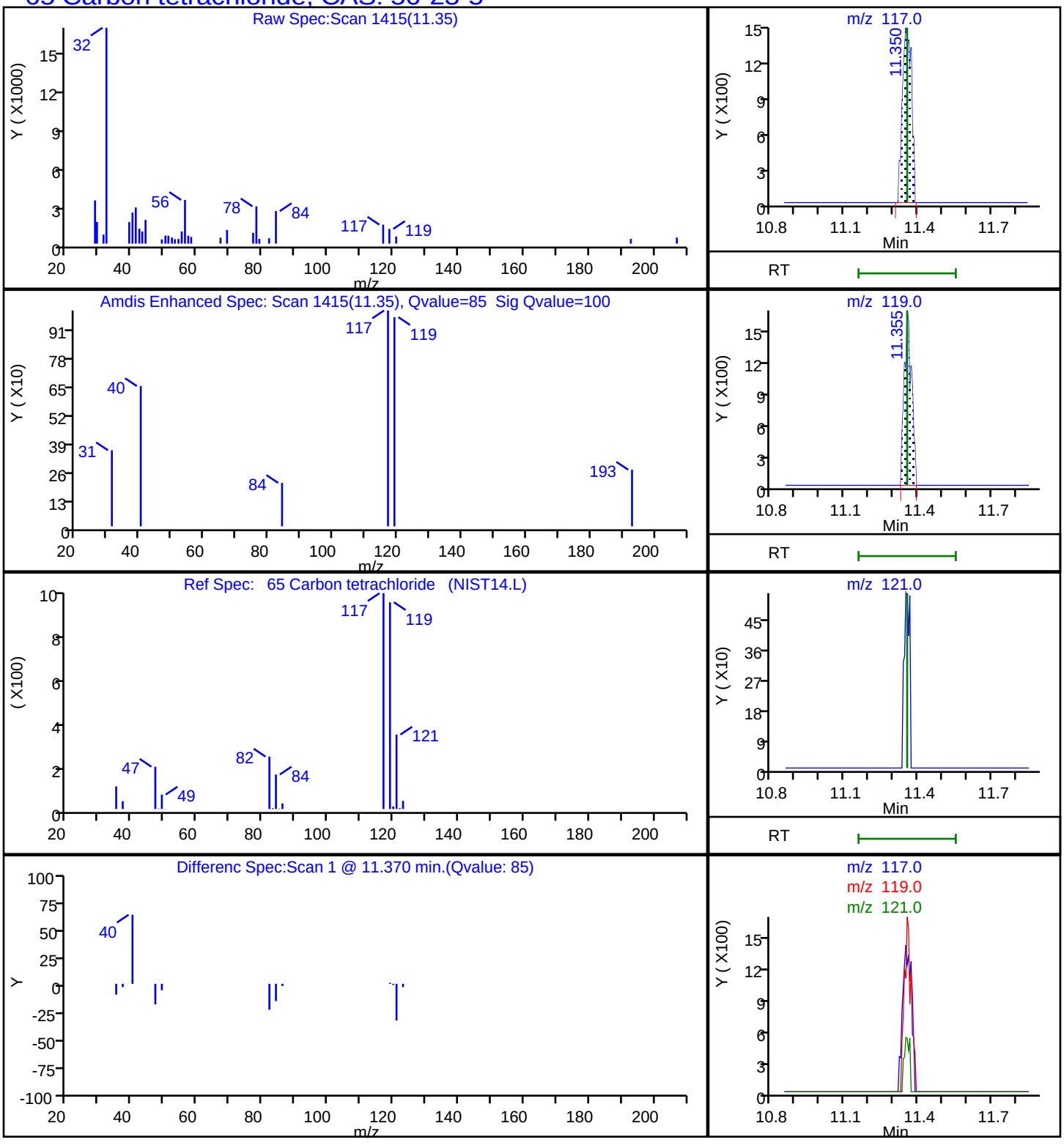
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

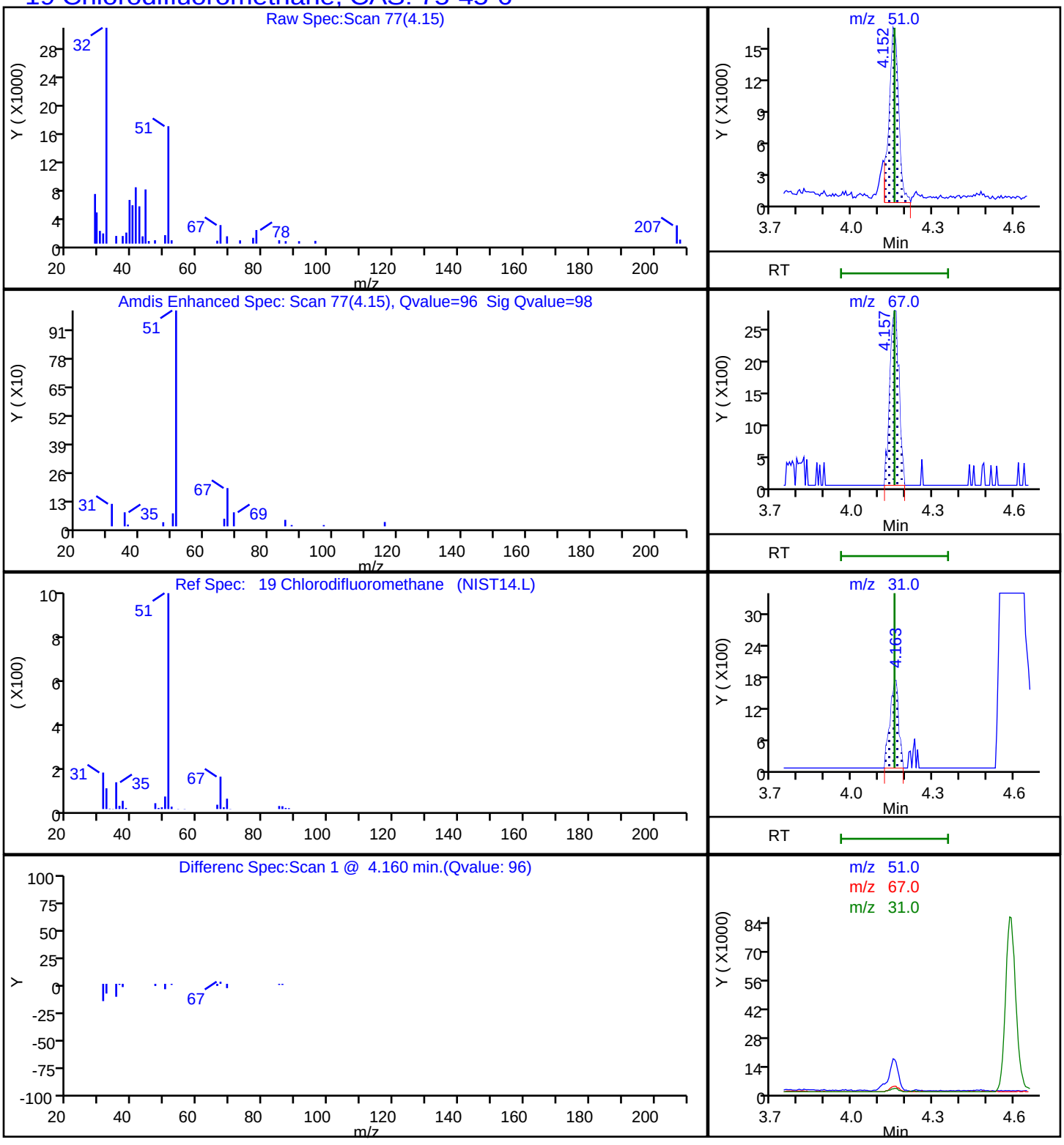
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

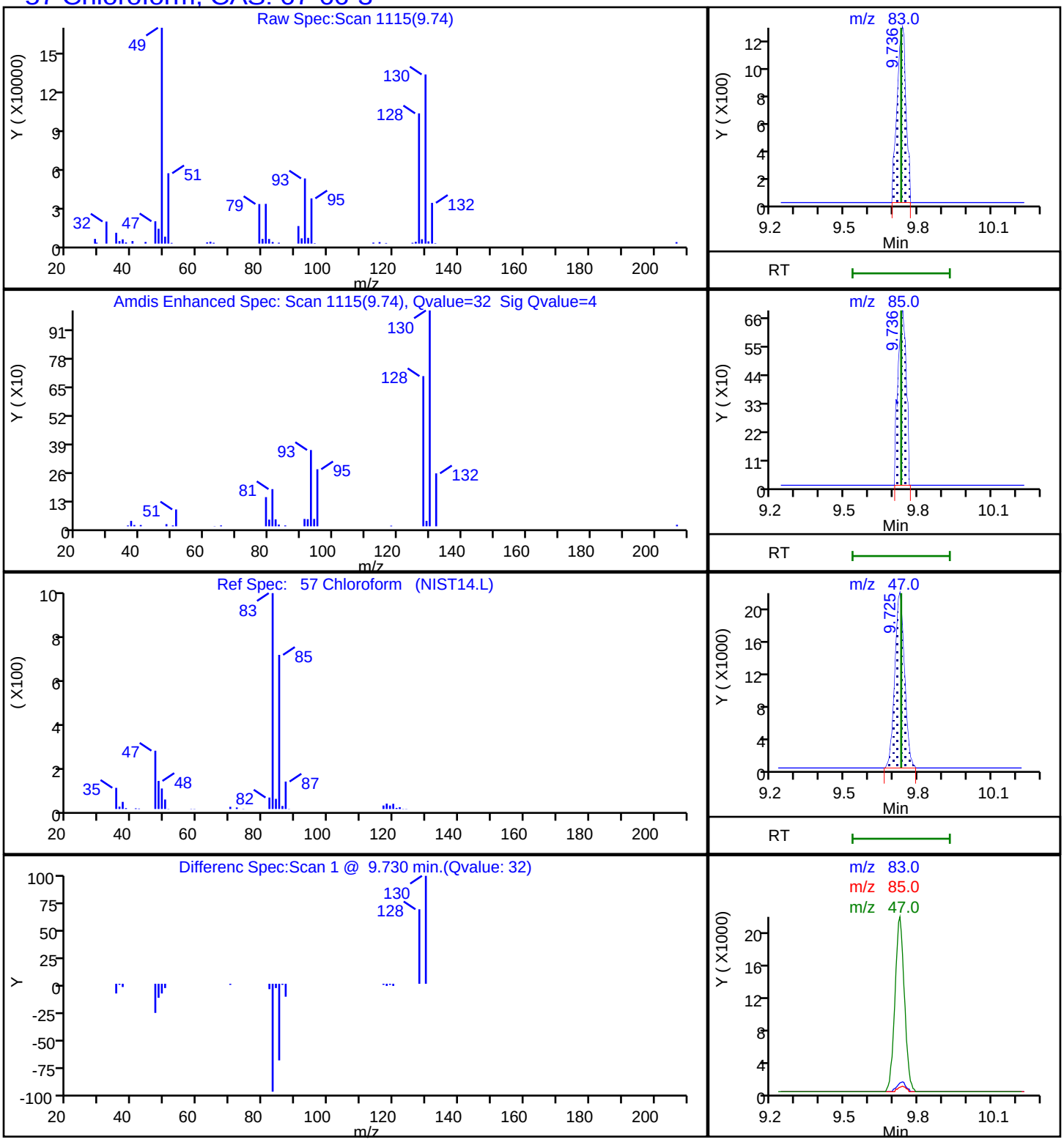
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

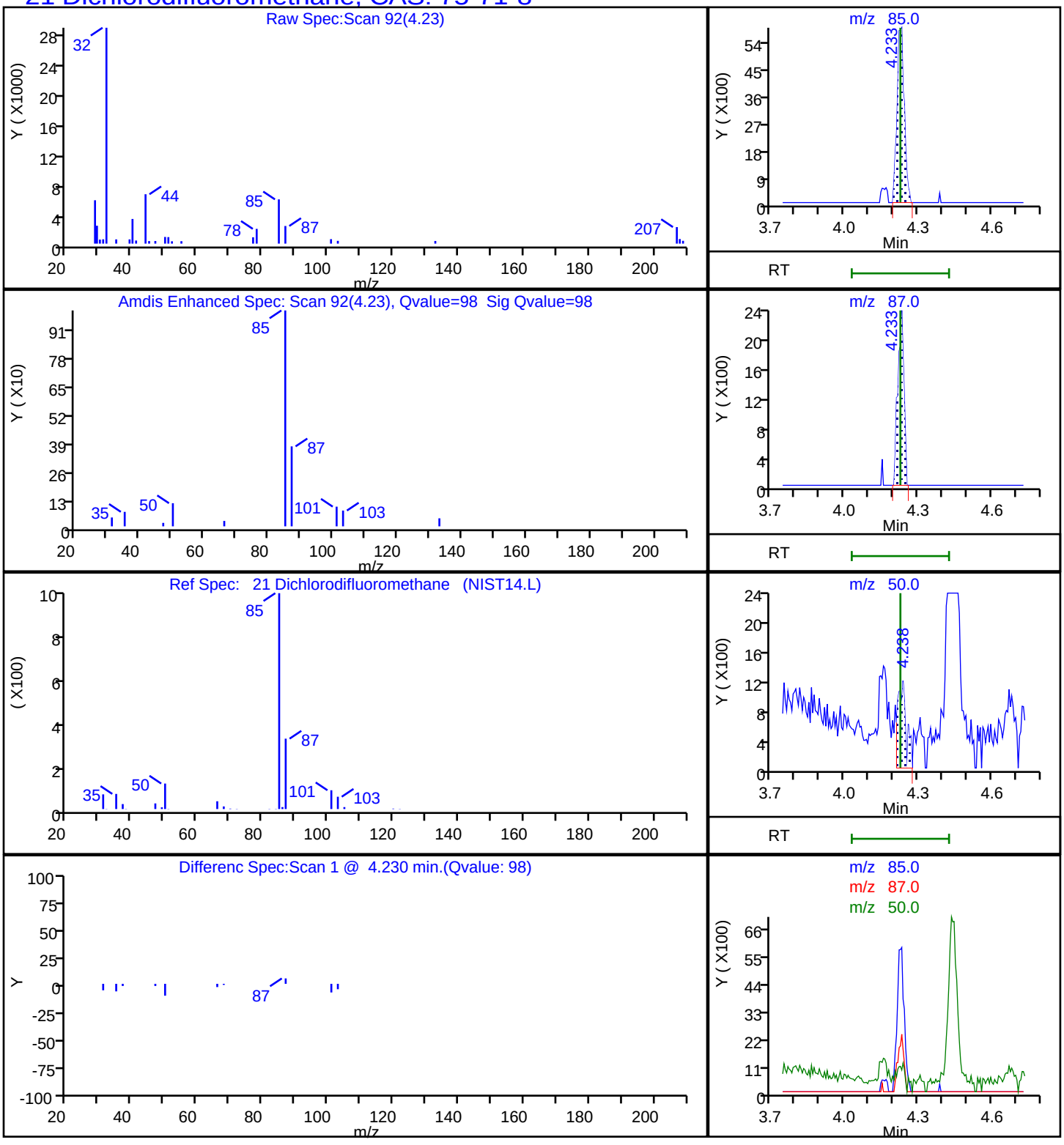


Report Date: 20-Aug-2019 12:28:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D				
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9		
Client ID:	IA-155-C-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

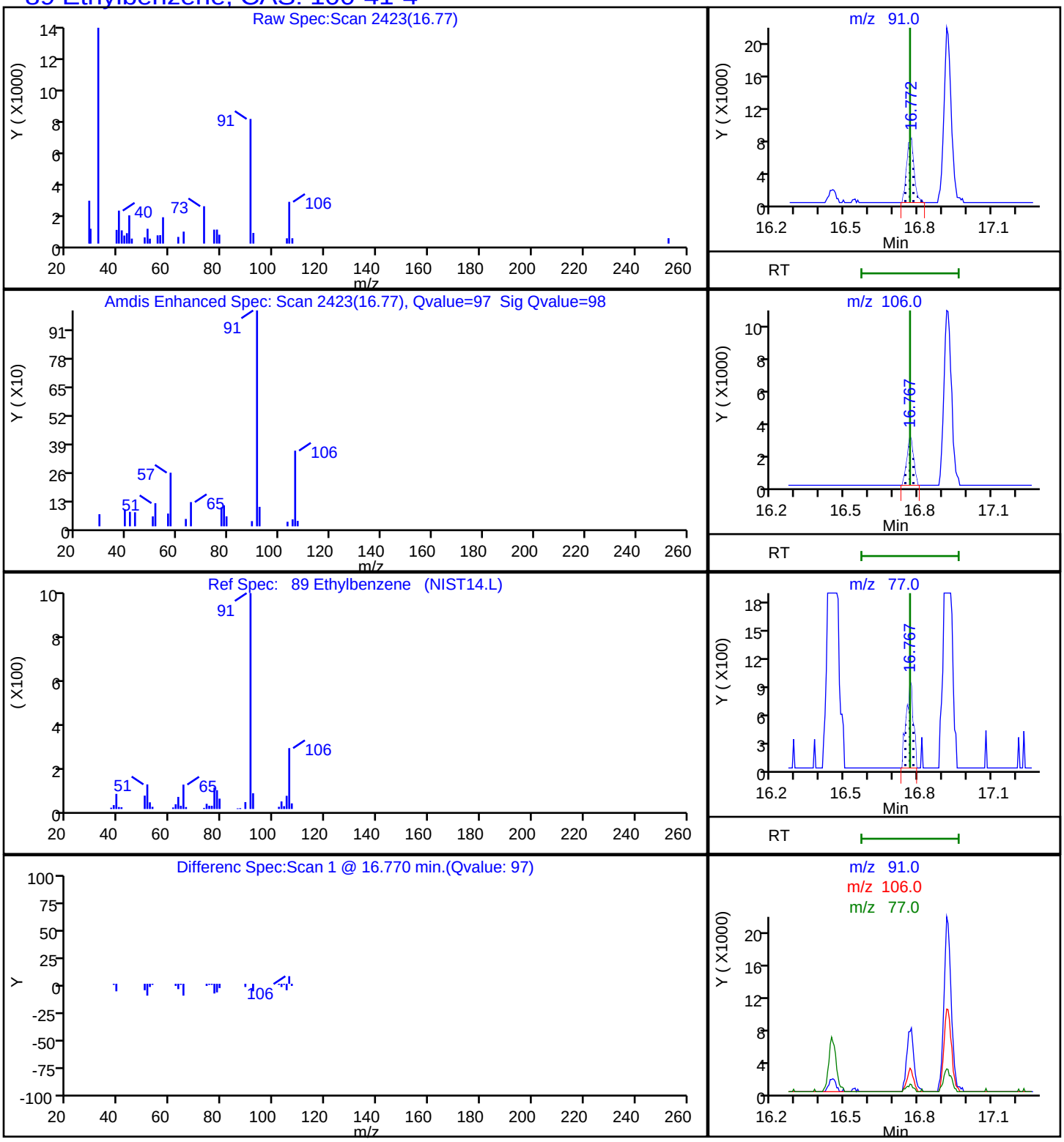
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

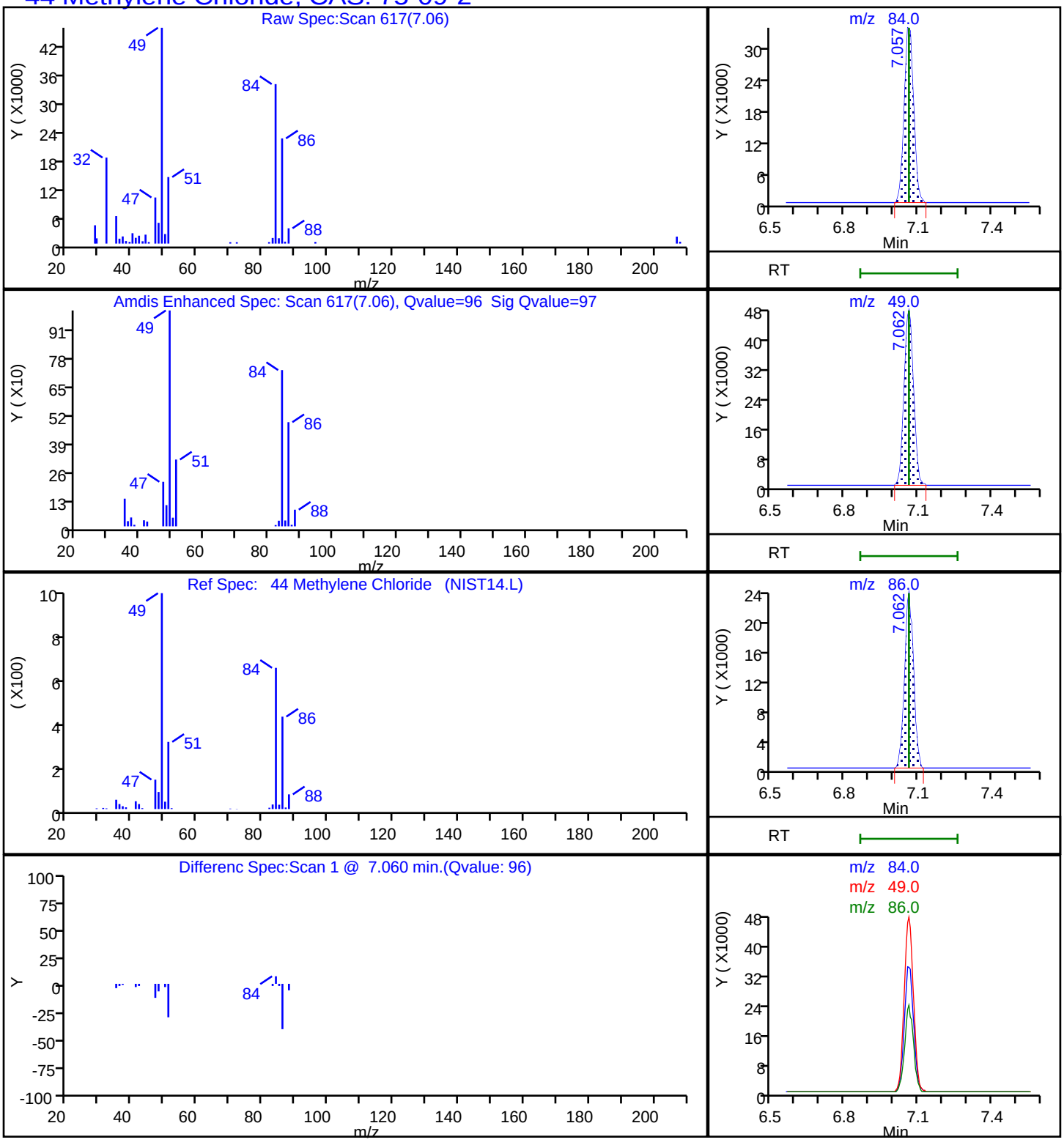
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2



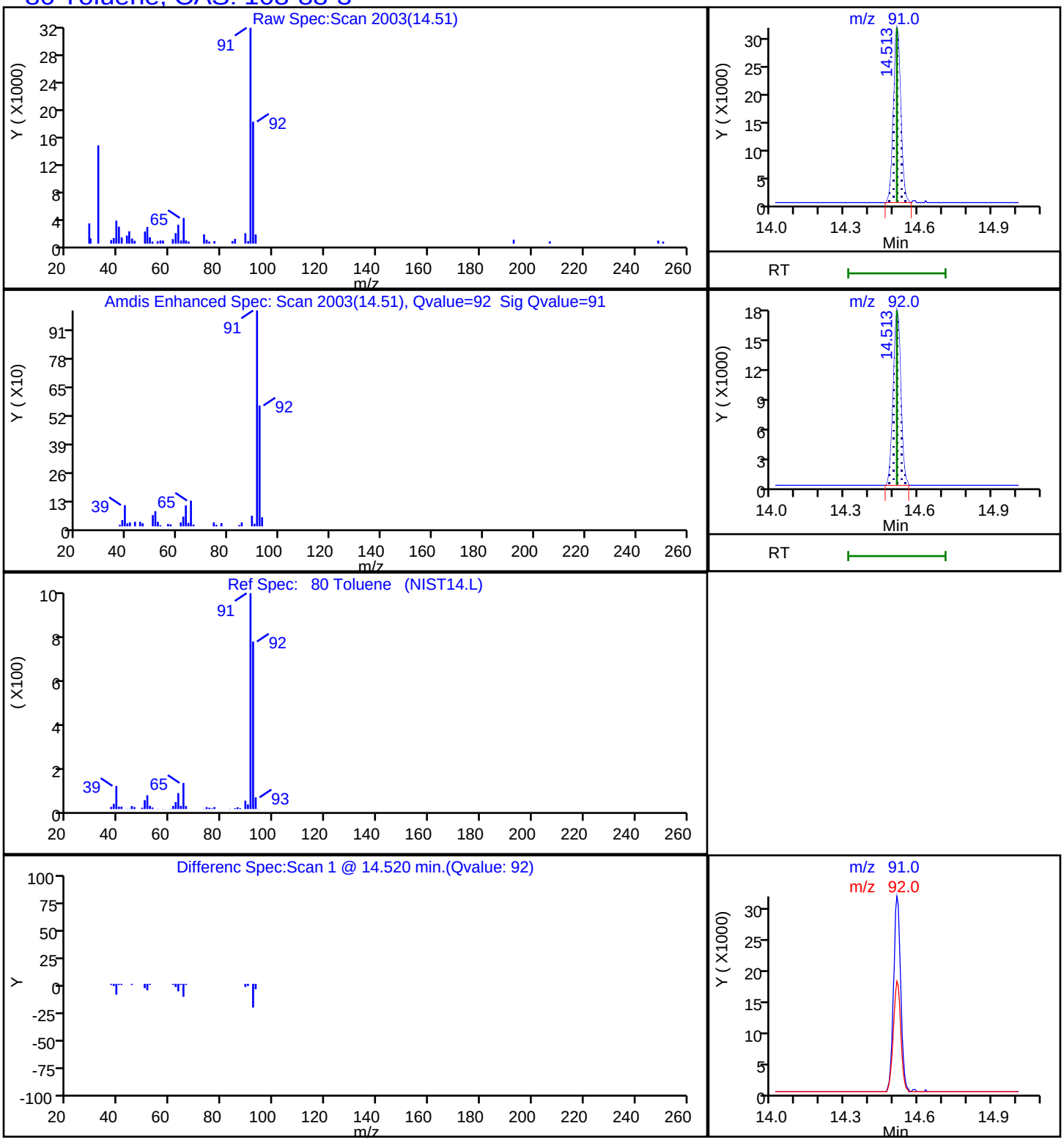
Report Date: 20-Aug-2019 12:28:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D

Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 Toluene, CAS: 108-88-3

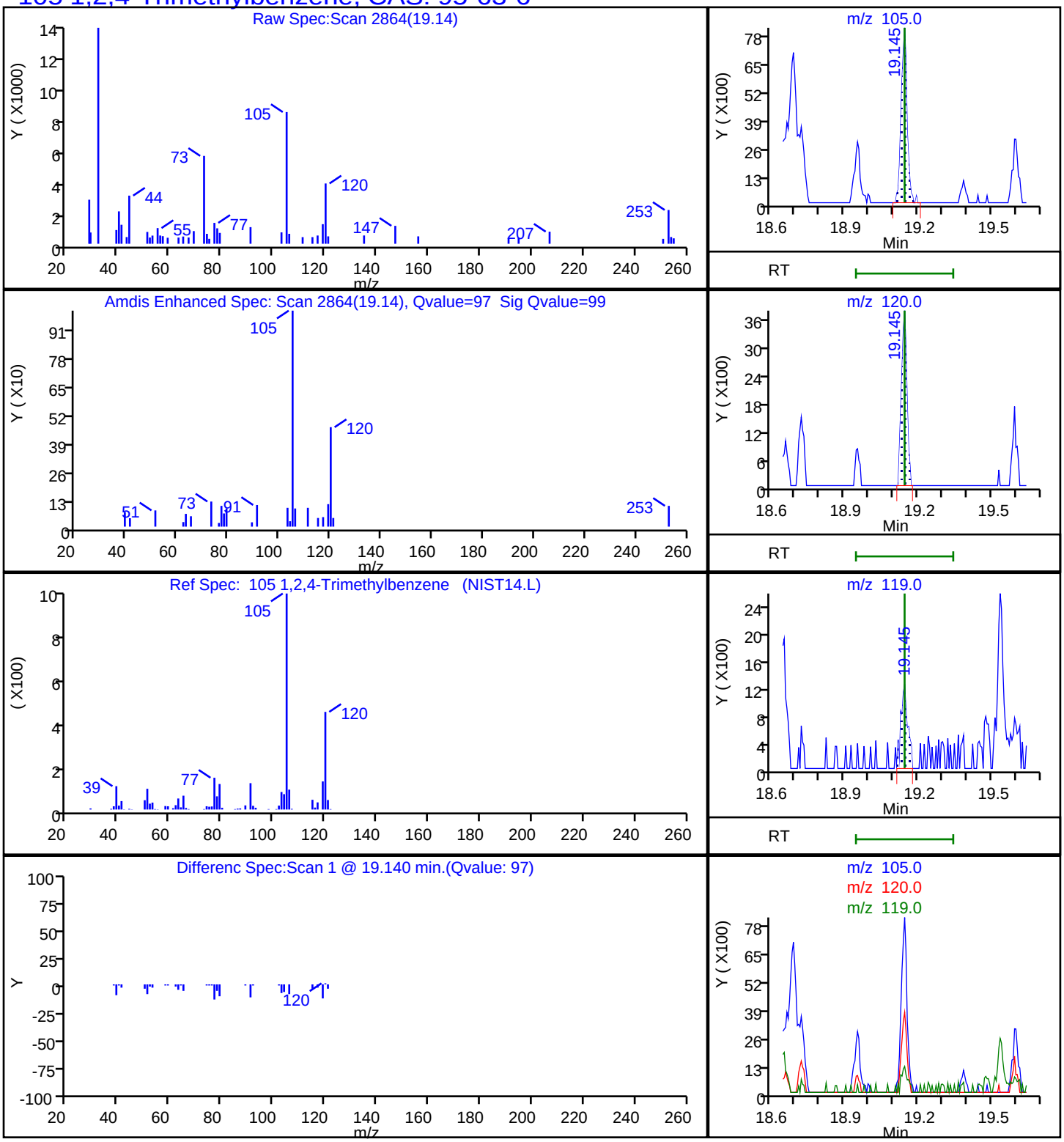


Report Date: 20-Aug-2019 12:28:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D				
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9		
Client ID:	IA-155-C-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

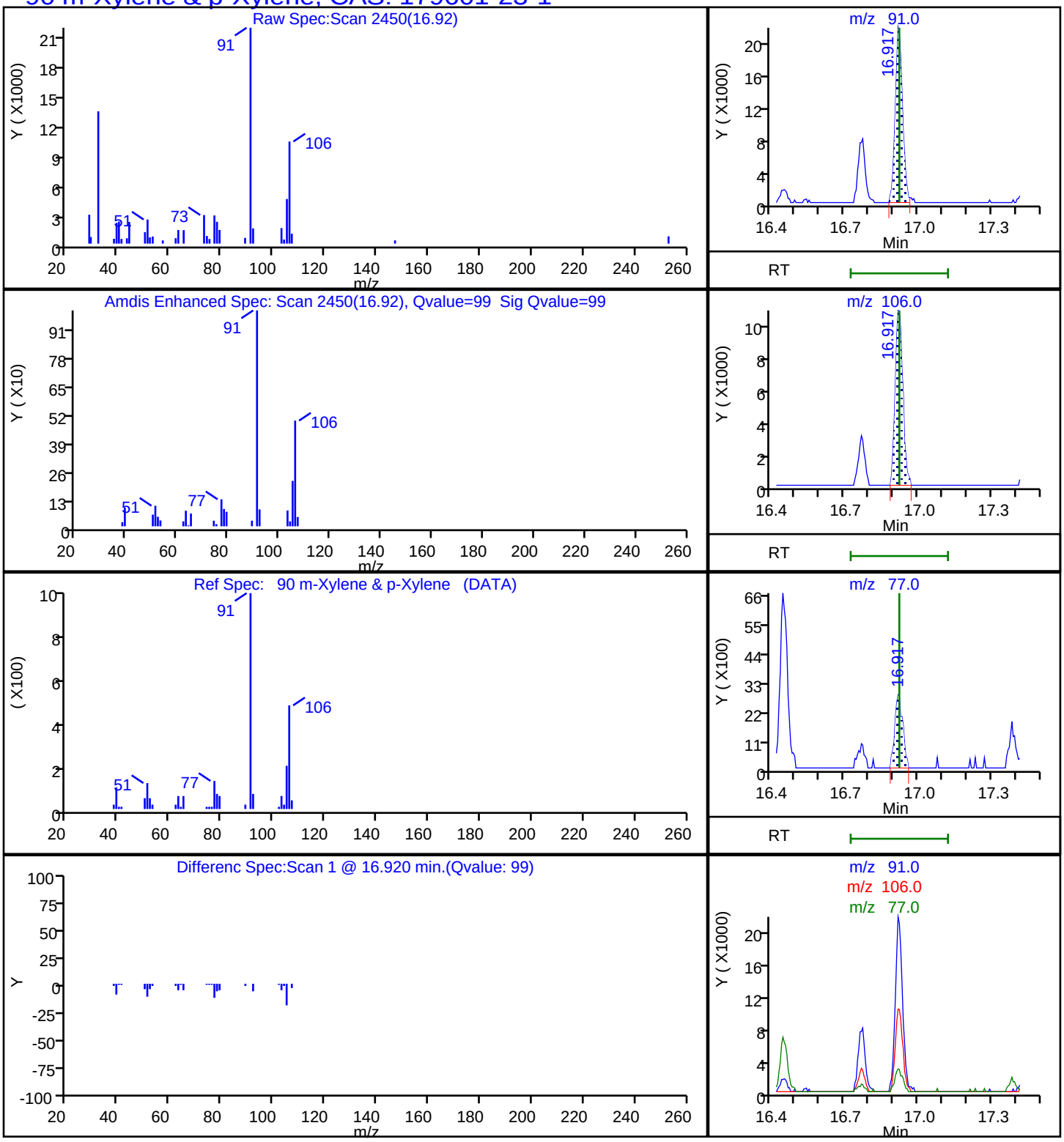
105 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D		
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

90 m-Xylene & p-Xylene, CAS: 179601-23-1



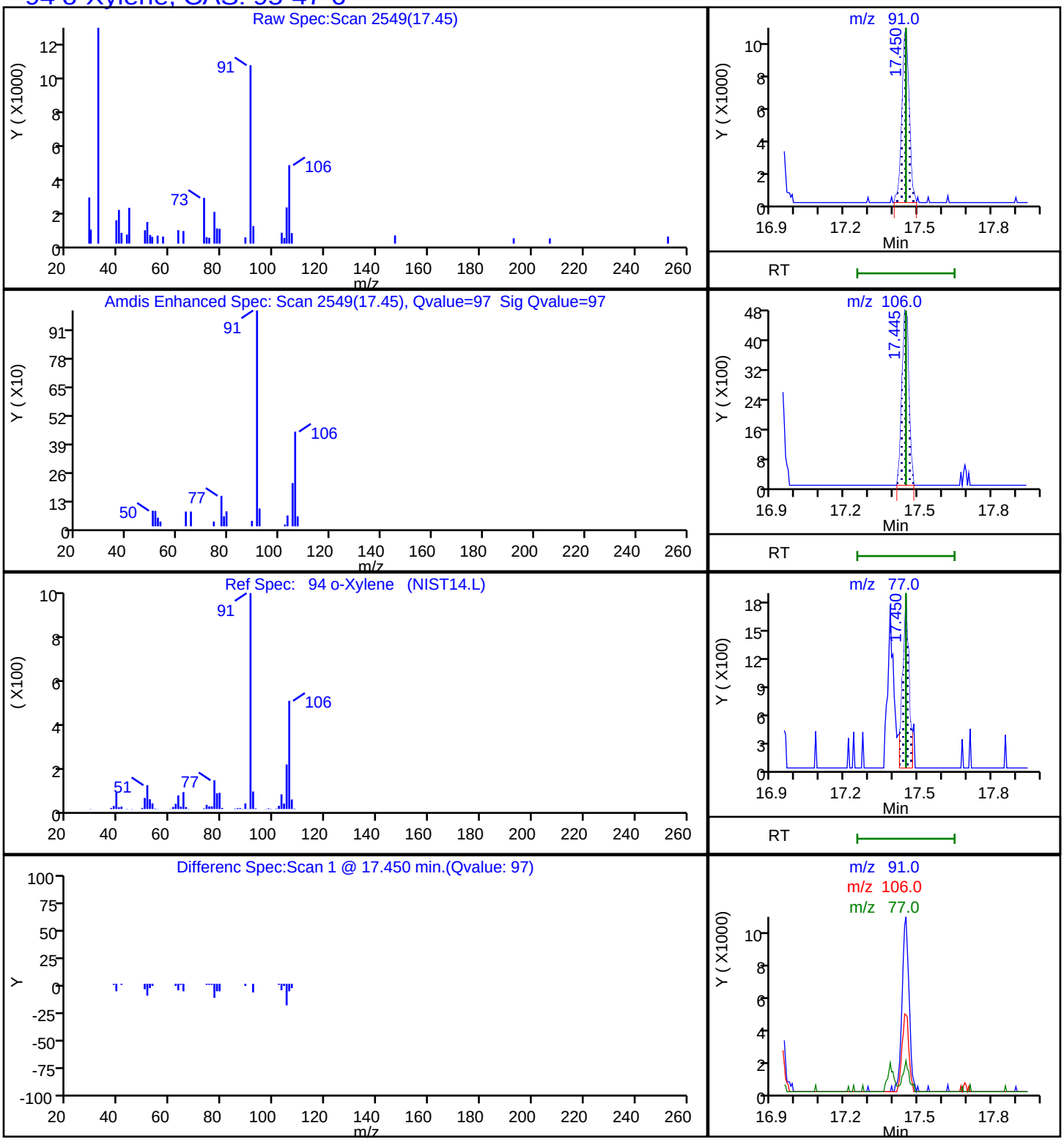
Report Date: 20-Aug-2019 12:28:07 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D

Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9
Client ID:	IA-155-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

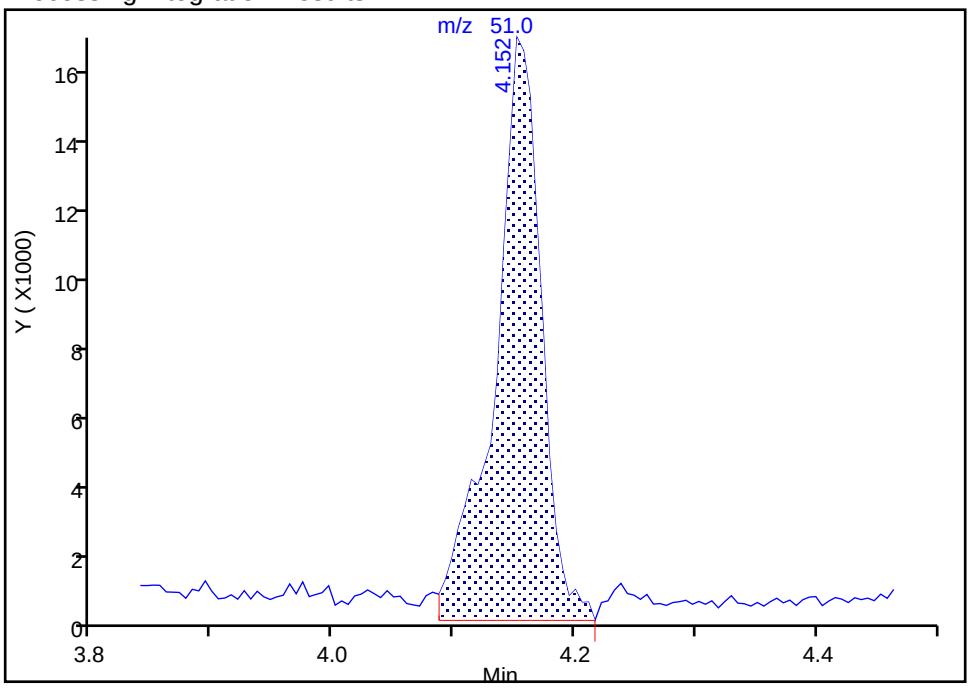
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P101.D				
Injection Date:	19-Aug-2019 13:38:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-9	Lab Sample ID:	140-16369-9		
Client ID:	IA-155-C-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

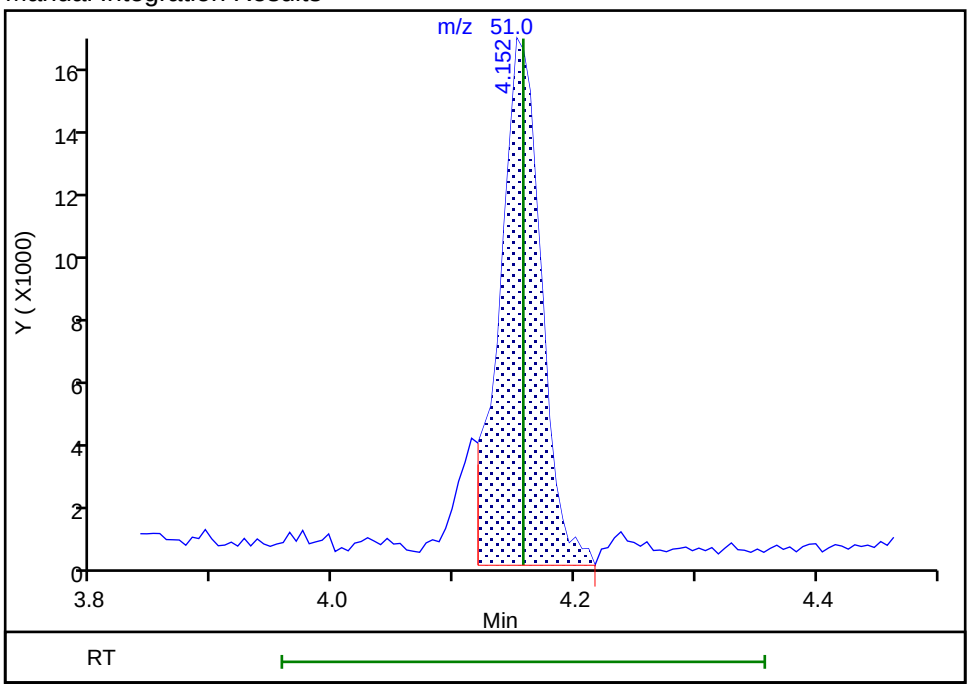
Processing Integration Results

RT: 4.15
Area: 43708
Amount: 0.507984
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 39381
Amount: 0.457695
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 12:26:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.068	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.4		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.71		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.84		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.9	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.33	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.66	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	12		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.77	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Lims ID:	140-16369-A-10				
Client ID:	IA-133-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 14:28:30	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-007				
Misc. Info.:	140-16369-a-10				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:26:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:29:19		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.728	9.725	0.003	92	328260	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.839	-0.002	95	1636673	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.449	-0.002	88	1369046	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.047	-0.002	96	942475	3.75	
19 Chlorodifluoromethane	51	4.155	4.152	-0.002	96	19827	0.2210	
21 Dichlorodifluoromethane	85	4.225	4.227	-0.002	97	8735	0.0850	
44 Methylene Chloride	84	7.060	7.062	-0.002	96	83568	0.6766	
57 Chloroform	83	9.734	9.731	0.004	65	3600	0.0135	
64 Benzene	78	11.331	11.339	-0.008	95	11370	0.0379	
65 Carbon tetrachloride	117	11.358	11.350	0.003	74	3667	0.0146	
80 Toluene	91	14.516	14.513	0.003	93	47101	0.1424	
89 Ethylbenzene	91	16.770	16.767	0.003	97	12953	0.0304	
90 m-Xylene & p-Xylene	91	16.921	16.923	-0.002	99	38293	0.1172	
94 o-Xylene	91	17.448	17.450	-0.002	97	17461	0.0502	
105 1,2,4-Trimethylbenzene	105	19.137	19.145	-0.007	97	12599	0.0314	
122 Naphthalene	128	21.687	21.689	-0.002	98	13633	0.0389	
S 129 Xylenes, Total	100				0		0.1674	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

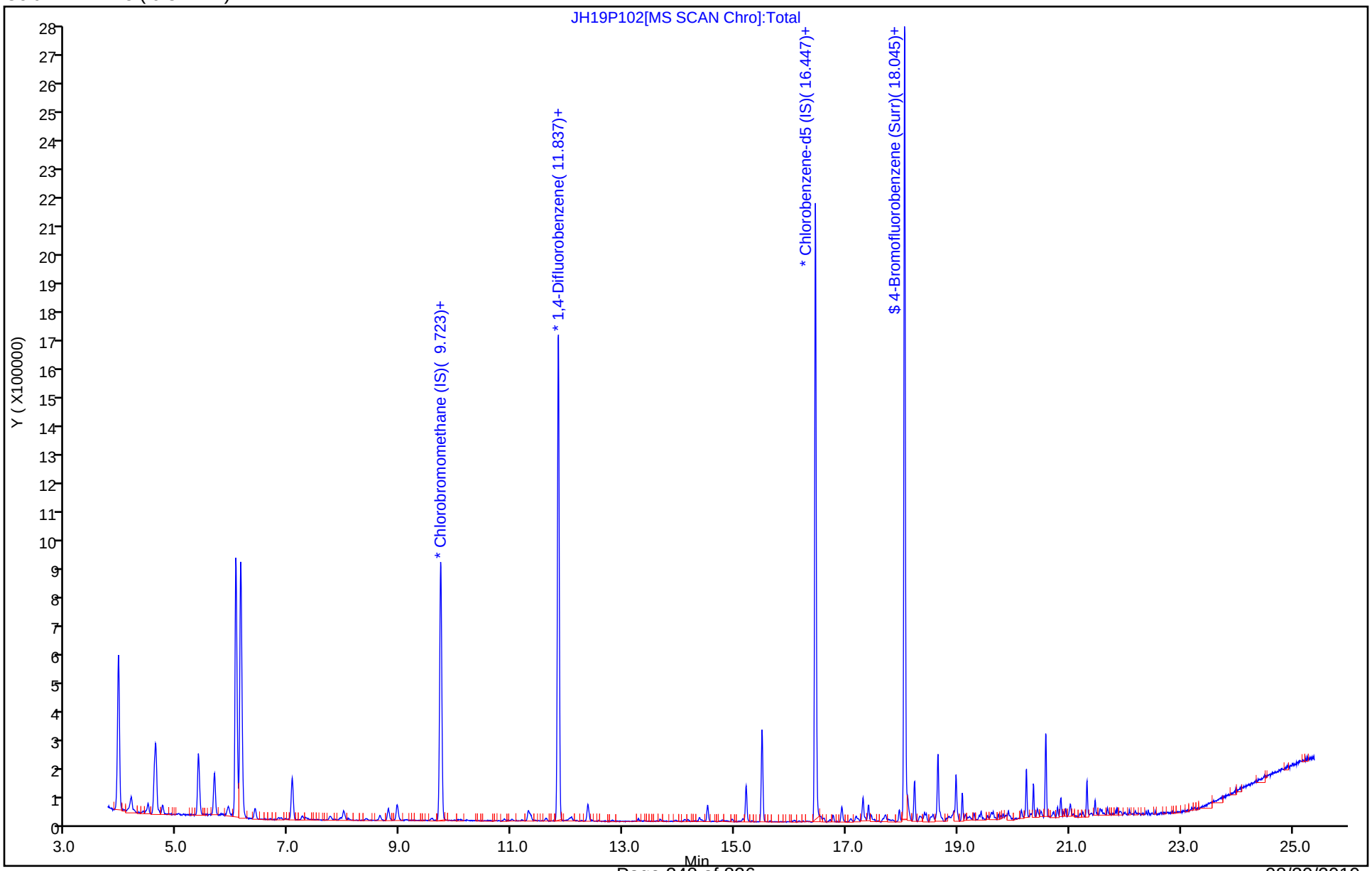
Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D

Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10	Worklist Smp#:	7
Client ID:	IA-133-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Lims ID:	140-16369-A-10				
Client ID:	IA-133-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 14:28:30	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-007				
Misc. Info.:	140-16369-a-10				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:26:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

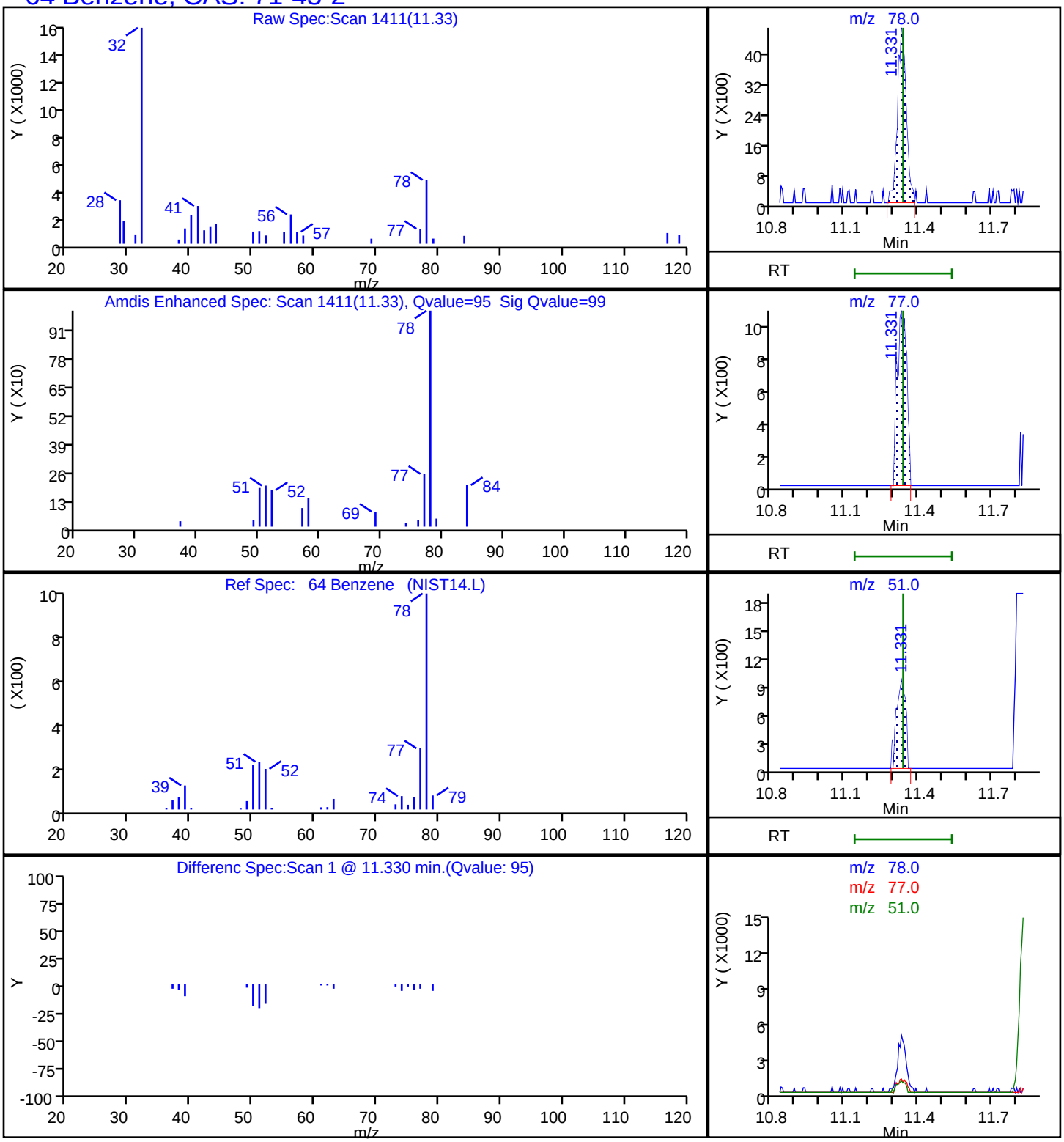
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:29:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.75	93.64

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D		
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10
Client ID:	IA-133-C-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D

Injection Date: 19-Aug-2019 14:28:30 Instrument ID: MJ

Lims ID: 140-16369-A-10 Lab Sample ID: 140-16369-10

Client ID: IA-133-C-27

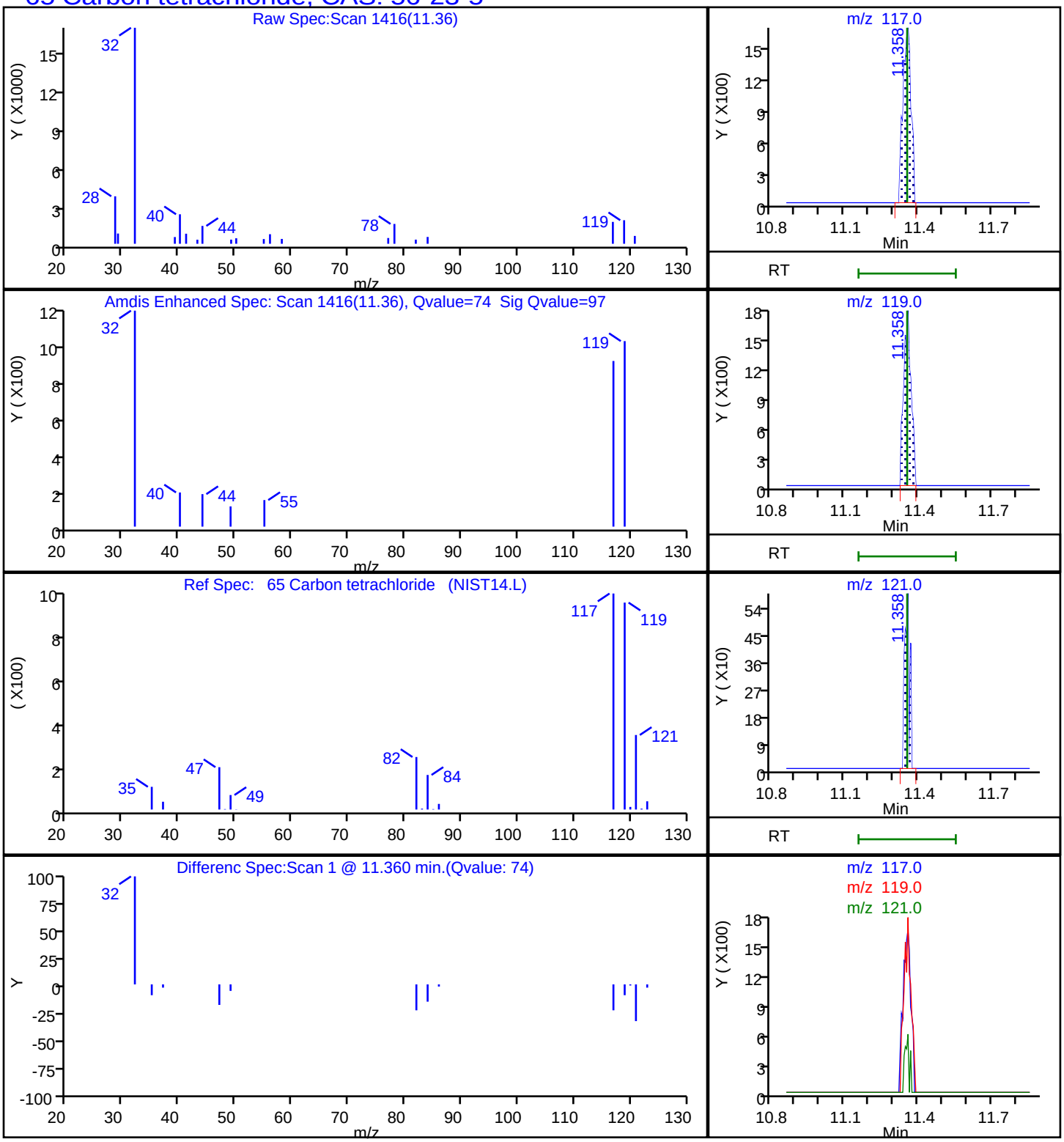
Operator ID: 007126 ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5



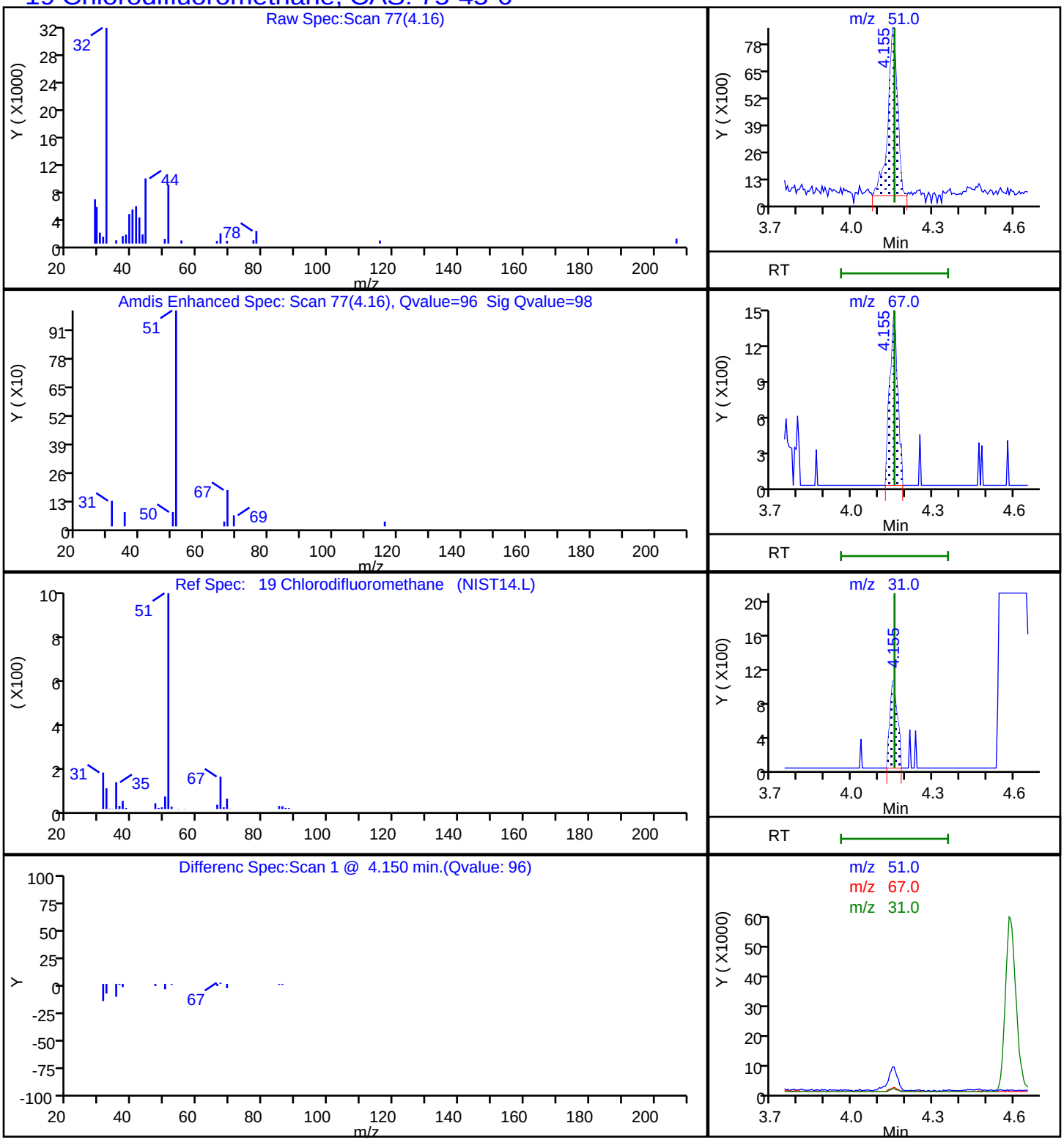
Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D

Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



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Eurofins TestAmerica, Knoxville

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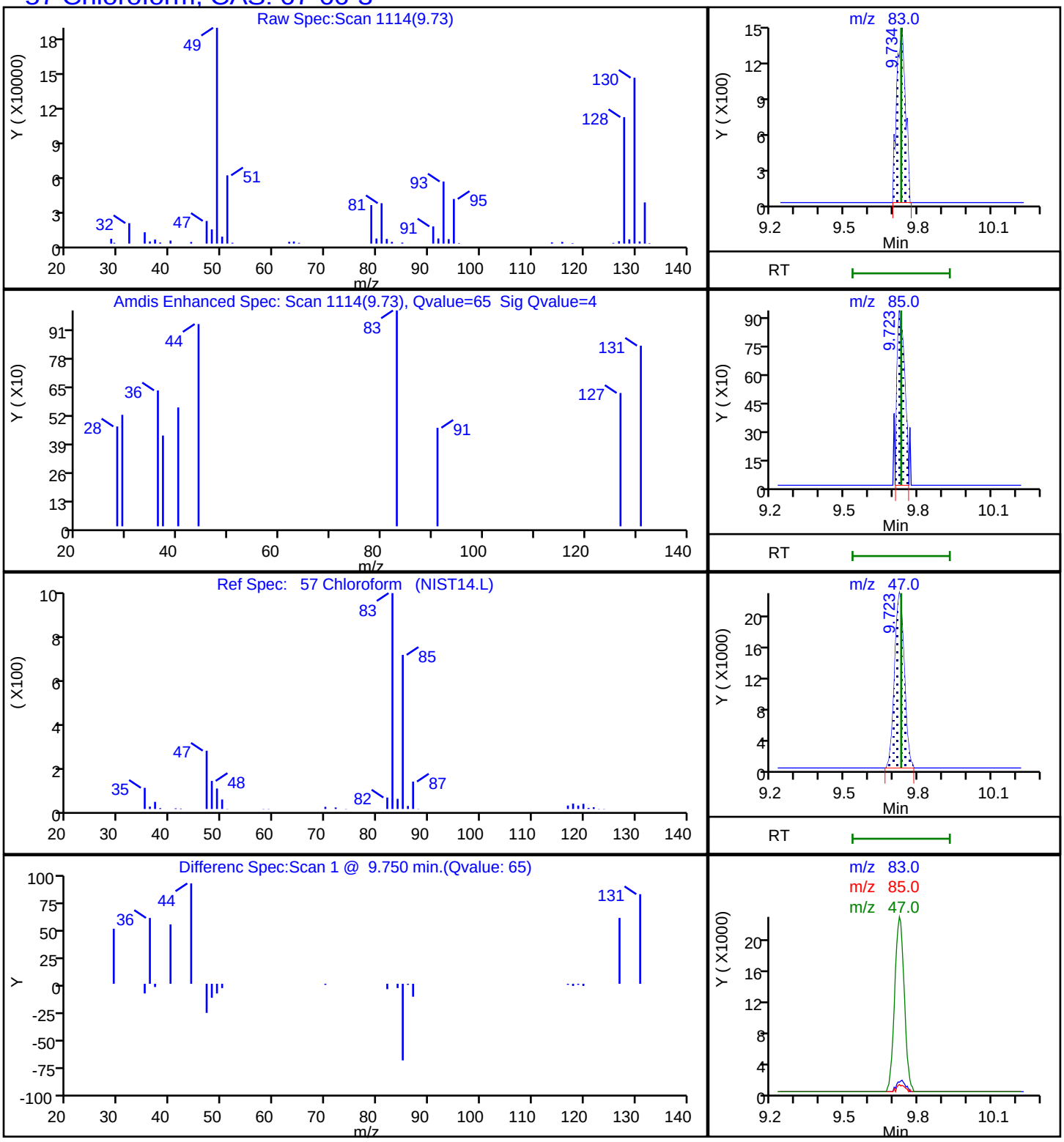
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

57 Chloroform, CAS: 67-66-3



Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D

Injection Date: 19-Aug-2019 14:28:30 Instrument ID: MJ

Lims ID: 140-16369-A-10 Lab Sample ID: 140-16369-10

Client ID: IA-133-C-27

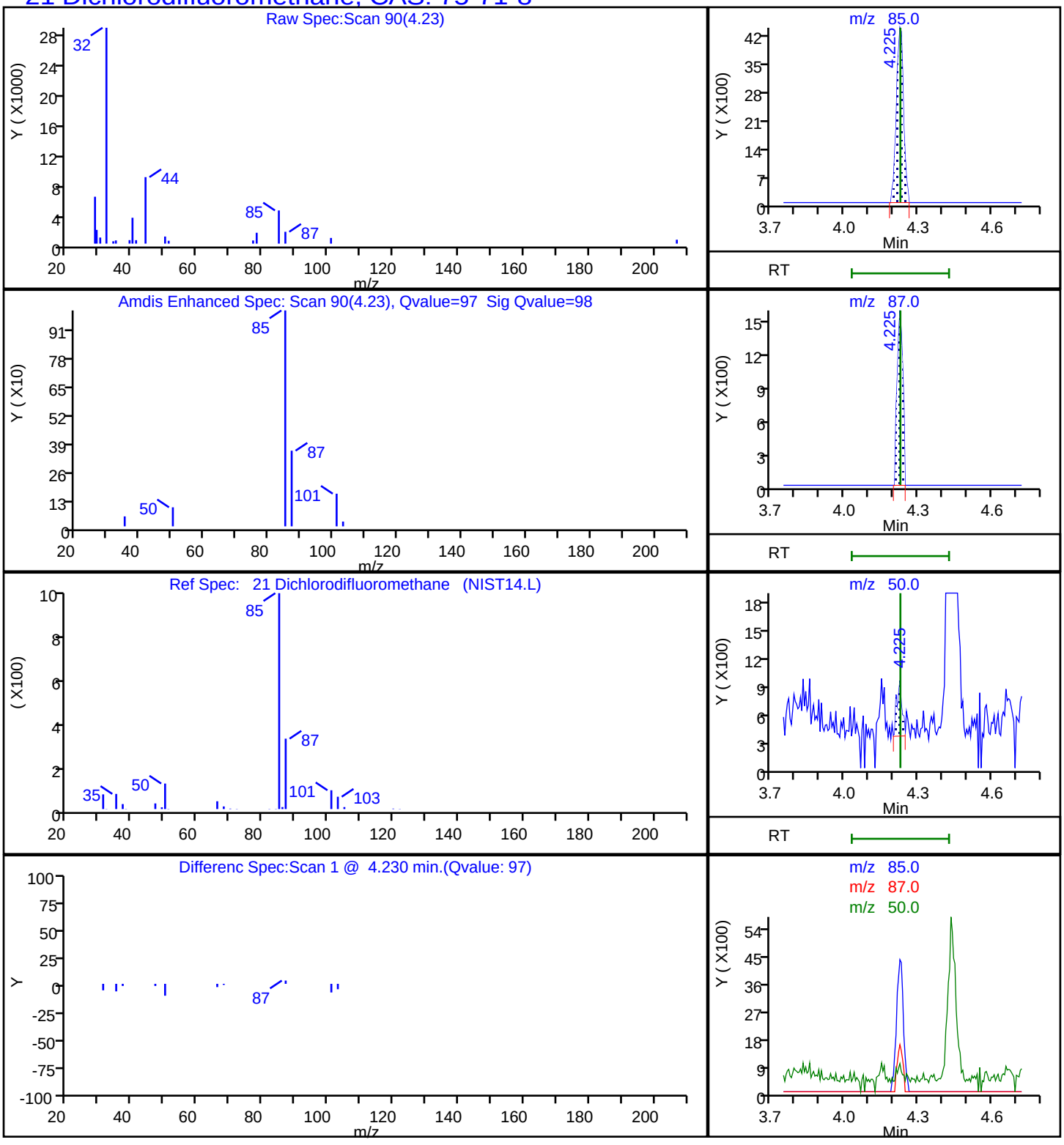
Operator ID: 007126 ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

21 Dichlorodifluoromethane, CAS: 75-71-8

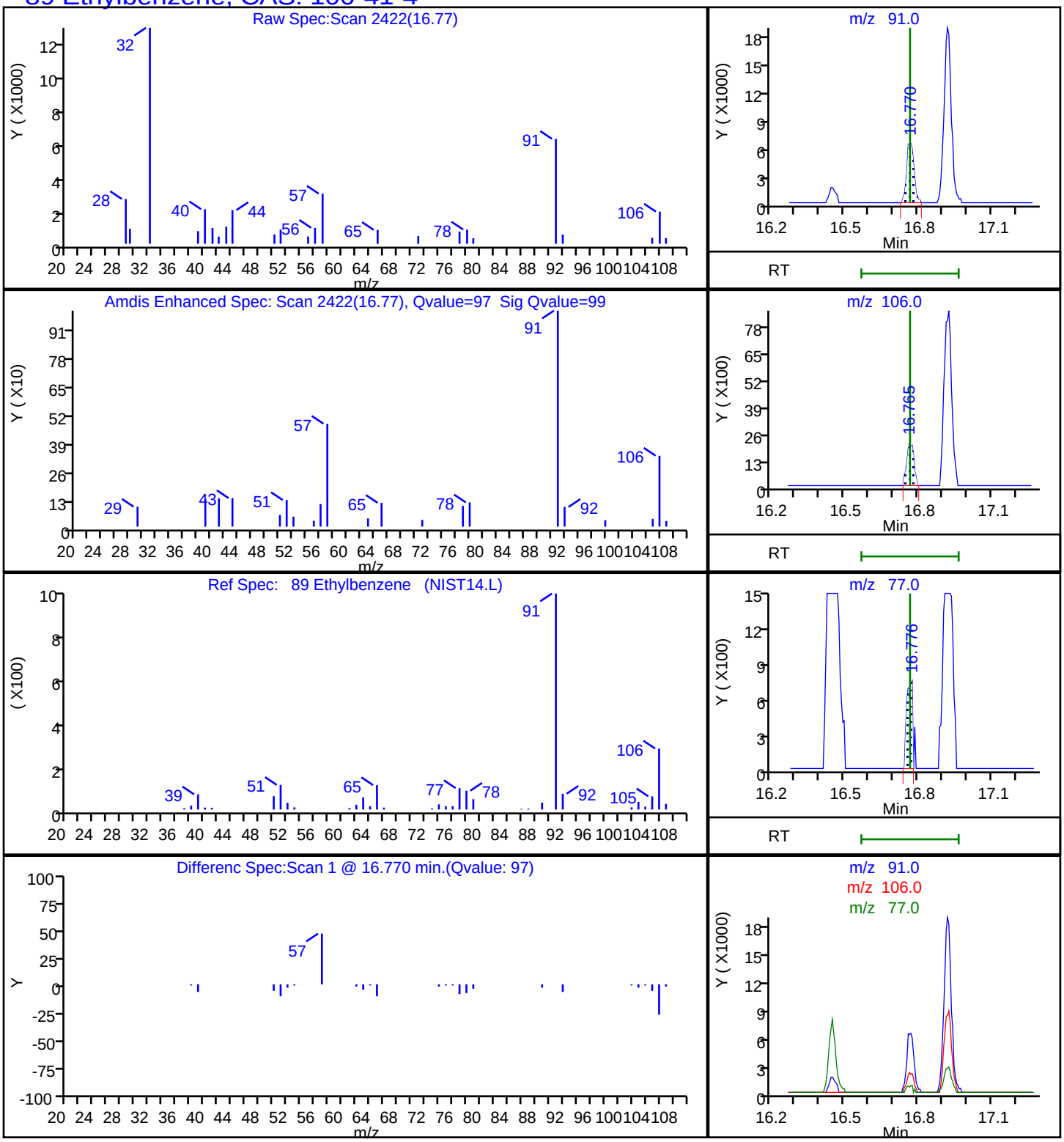


Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

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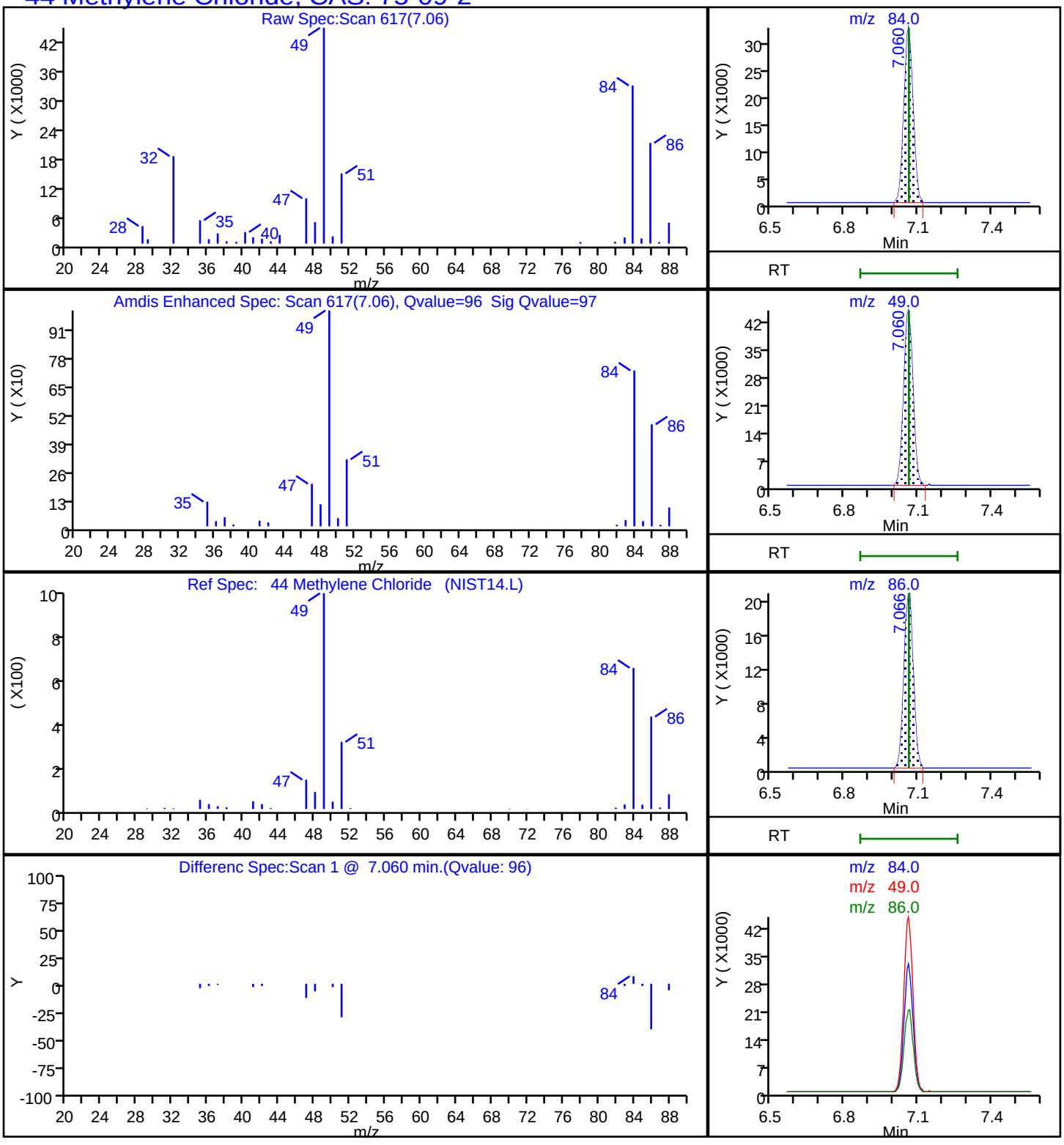
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2



Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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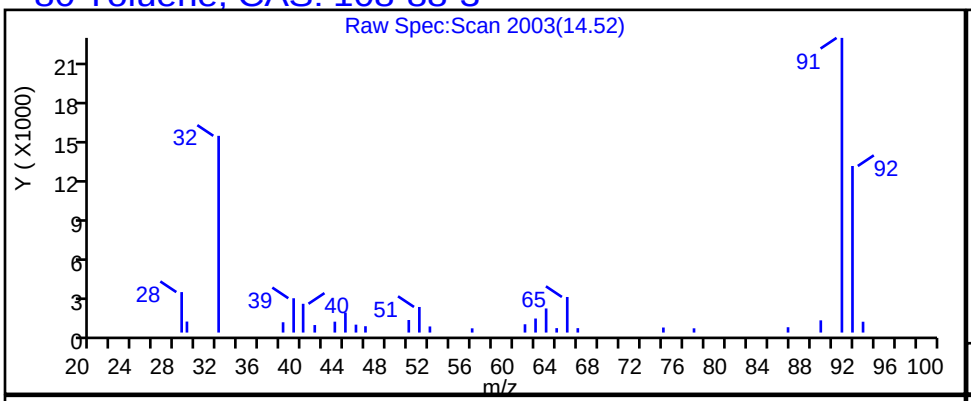
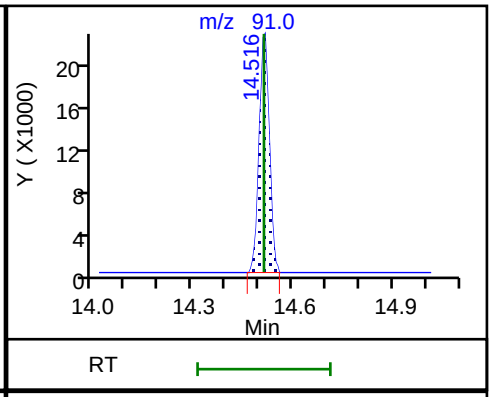
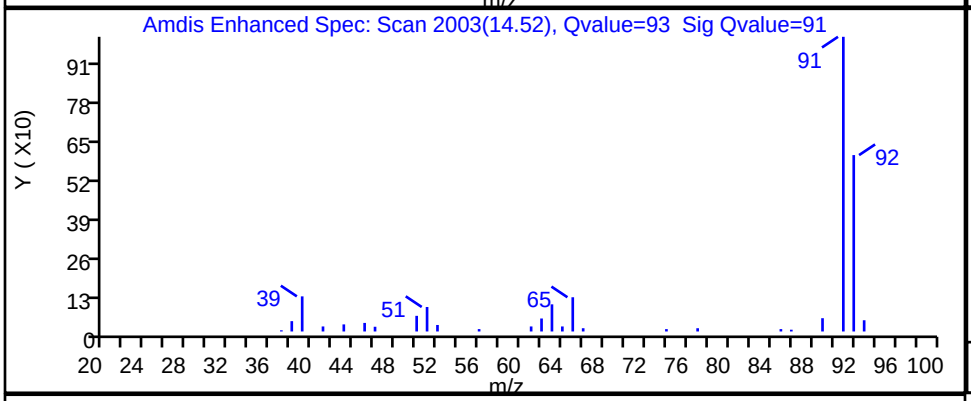
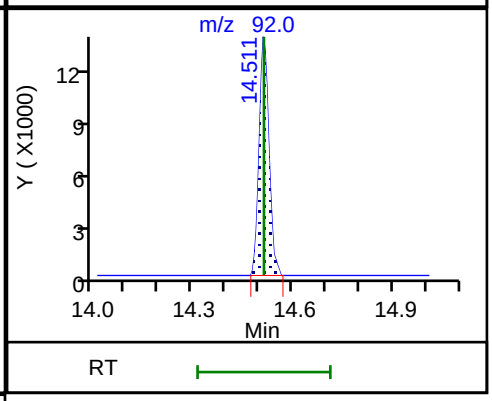
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10
Client ID:	IA-133-C-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

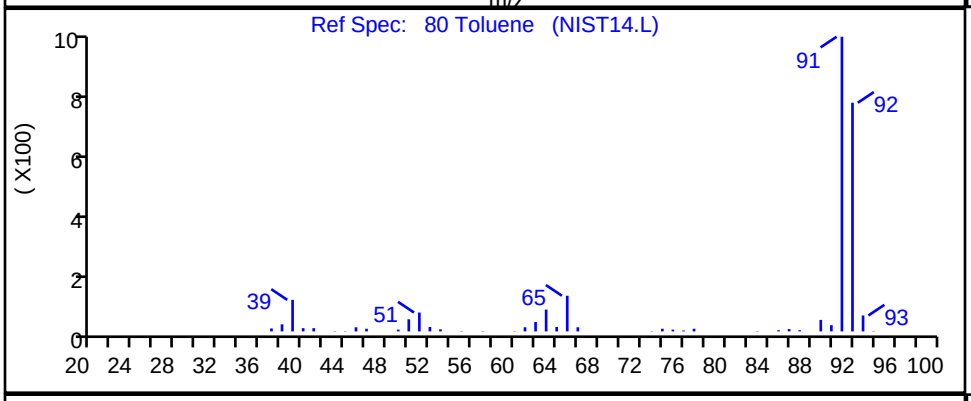
80 Toluene, CAS: 108-88-3

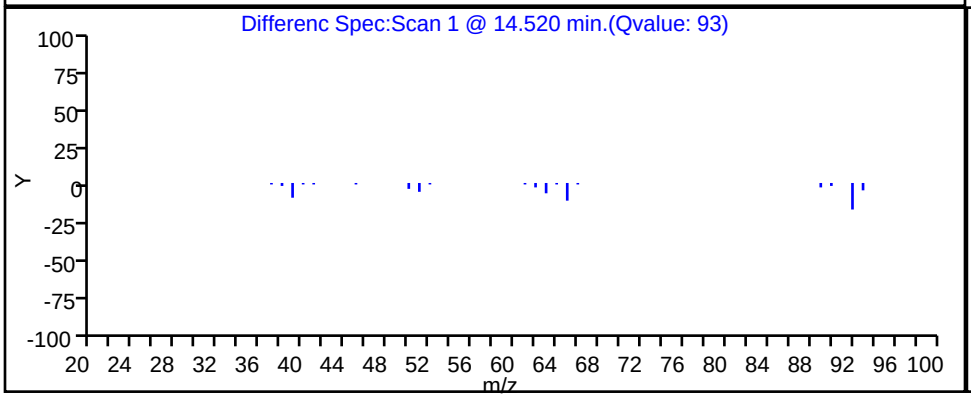


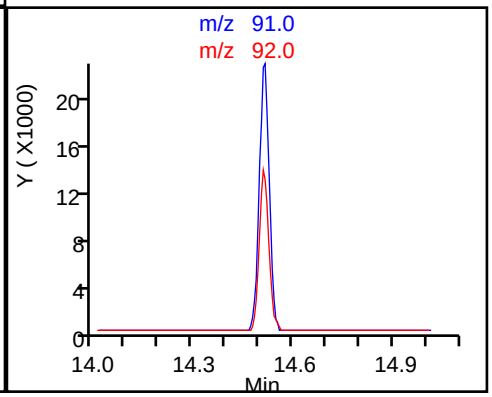










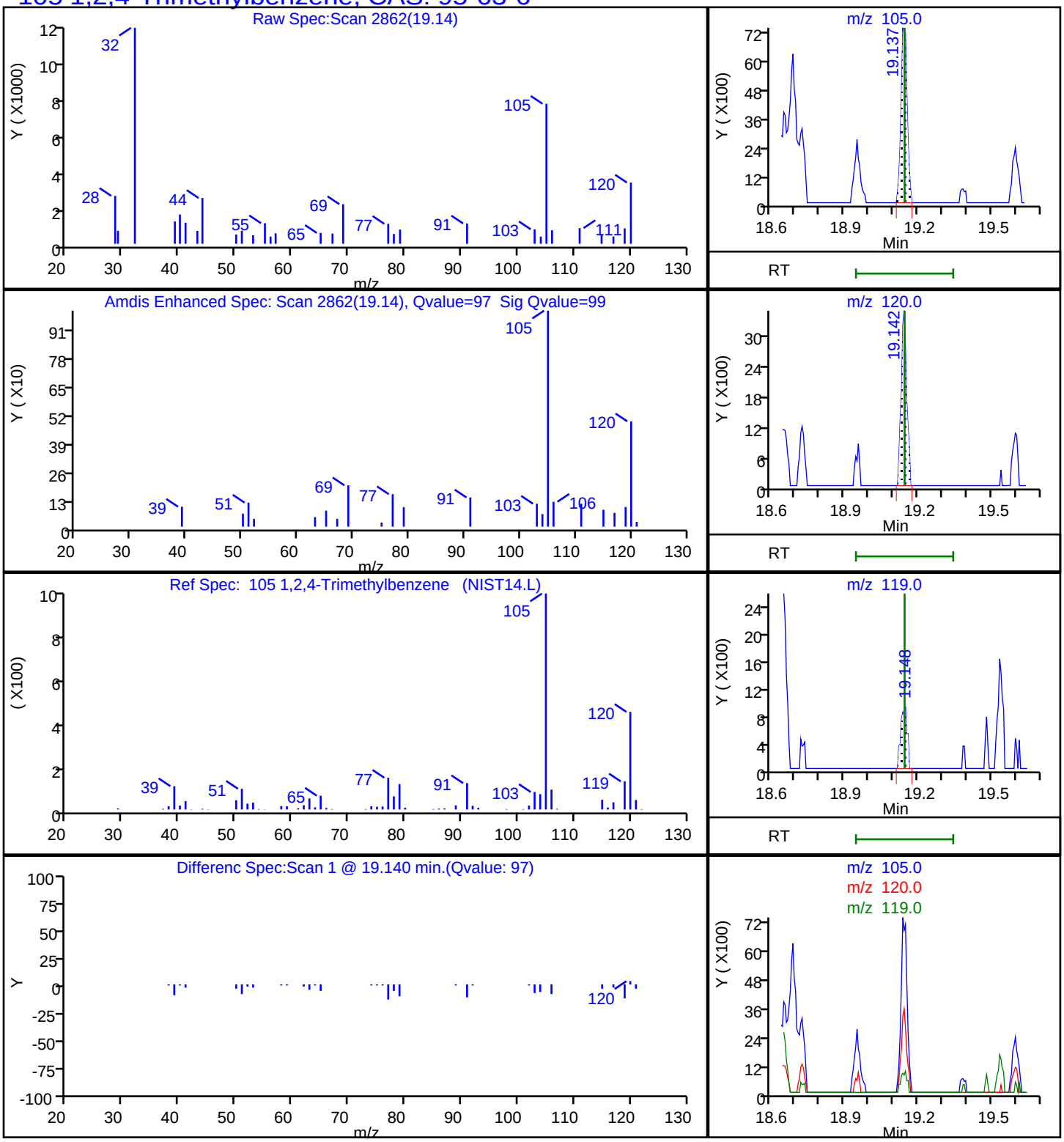


Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

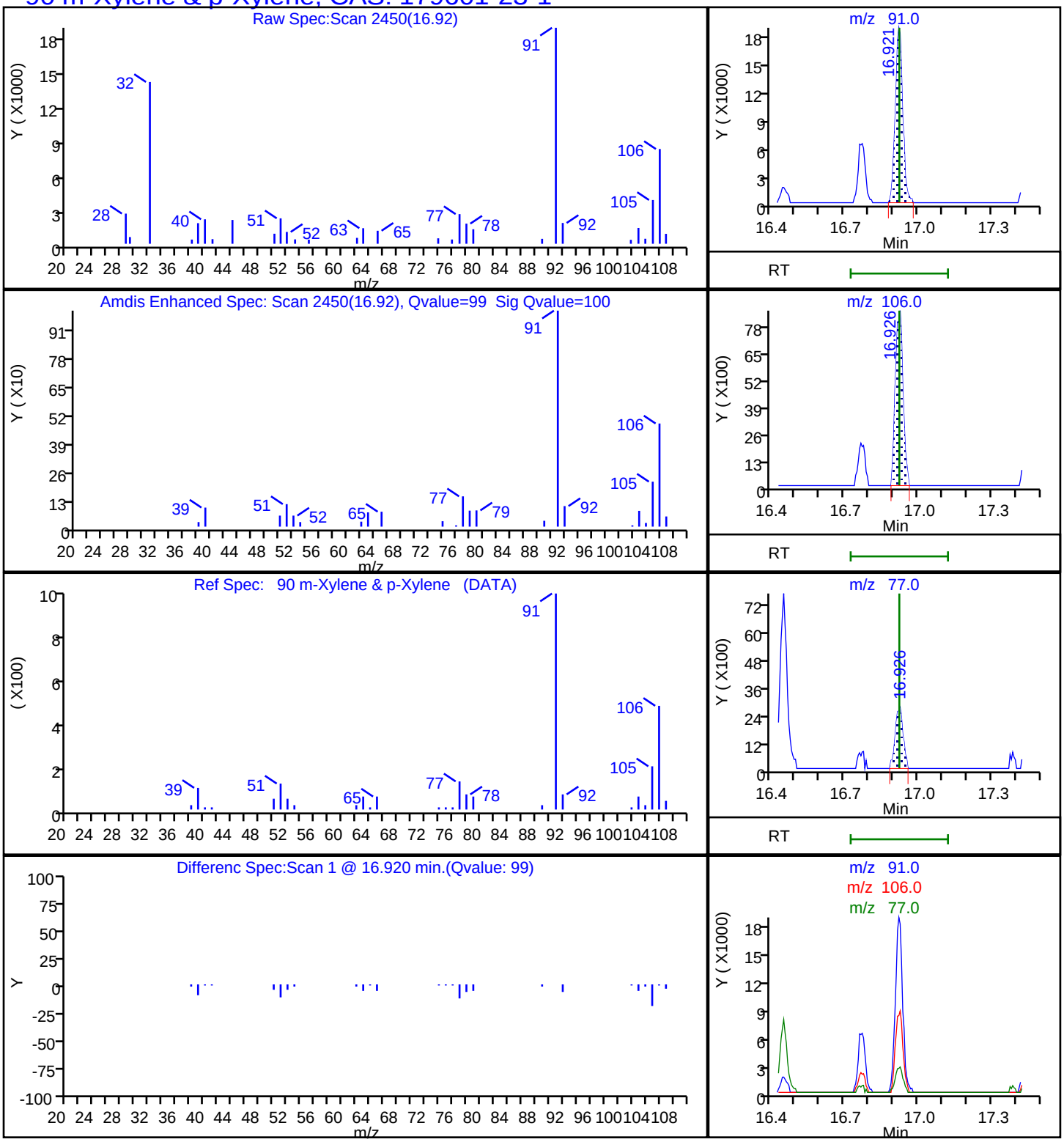


Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

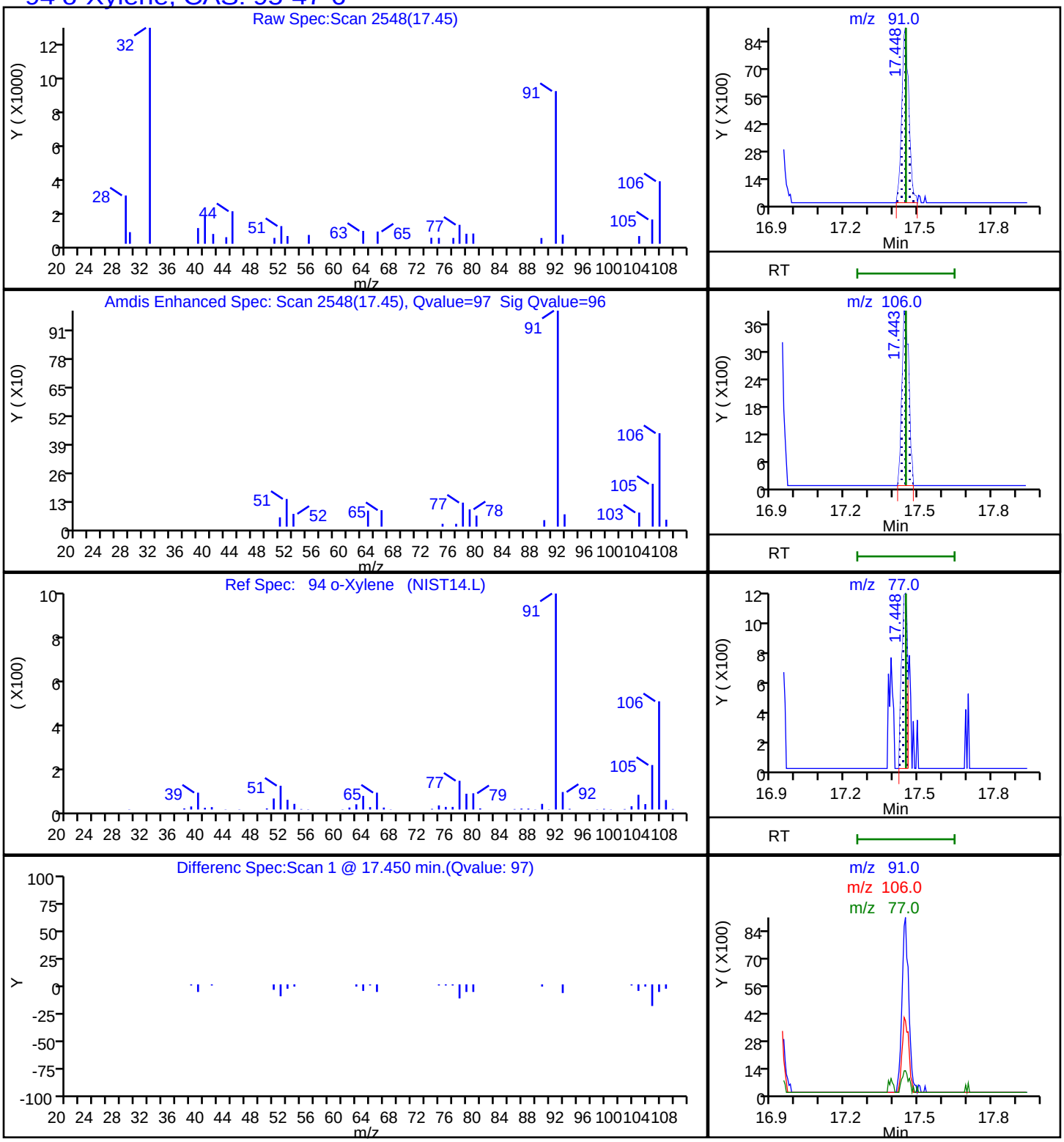


Report Date: 20-Aug-2019 12:29:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P102.D				
Injection Date:	19-Aug-2019 14:28:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-10	Lab Sample ID:	140-16369-10		
Client ID:	IA-133-C-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.57	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.71	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.4	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.2	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.82	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
Lims ID:	140-16369-A-11				
Client ID:	IA-153-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 16:08:30	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-009				
Misc. Info.:	140-16369-a-11				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:31:14	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:32:24		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.725	0.004	92	356922	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.839	-0.002	95	1810163	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.448	16.449	-0.001	88	1509196	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.047	-0.002	96	1003977	3.62	
19 Chlorodifluoromethane	51	4.161	4.152	0.004	95	22194	0.2275	
21 Dichlorodifluoromethane	85	4.231	4.227	0.004	96	8506	0.0761	
44 Methylene Chloride	84	7.060	7.062	-0.002	96	49728	0.3703	
57 Chloroform	83	9.723	9.731	-0.007	27	3234	0.0112	
64 Benzene	78	11.326	11.339	-0.013	96	9797	0.0295	
65 Carbon tetrachloride	117	11.359	11.350	0.004	67	3338	0.0120	
80 Toluene	91	14.511	14.513	-0.002	94	41621	0.1142	
89 Ethylbenzene	91	16.770	16.767	0.003	97	12245	0.0261	
90 m-Xylene & p-Xylene	91	16.916	16.923	-0.007	98	35885	0.0996	
94 o-Xylene	91	17.454	17.450	0.004	97	16346	0.0427	
105 1,2,4-Trimethylbenzene	105	19.137	19.145	-0.007	98	14714	0.0333	
122 Naphthalene	128	21.687	21.689	-0.002	98	18816	0.0487	
S 129 Xylenes, Total	100				0		0.1423	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

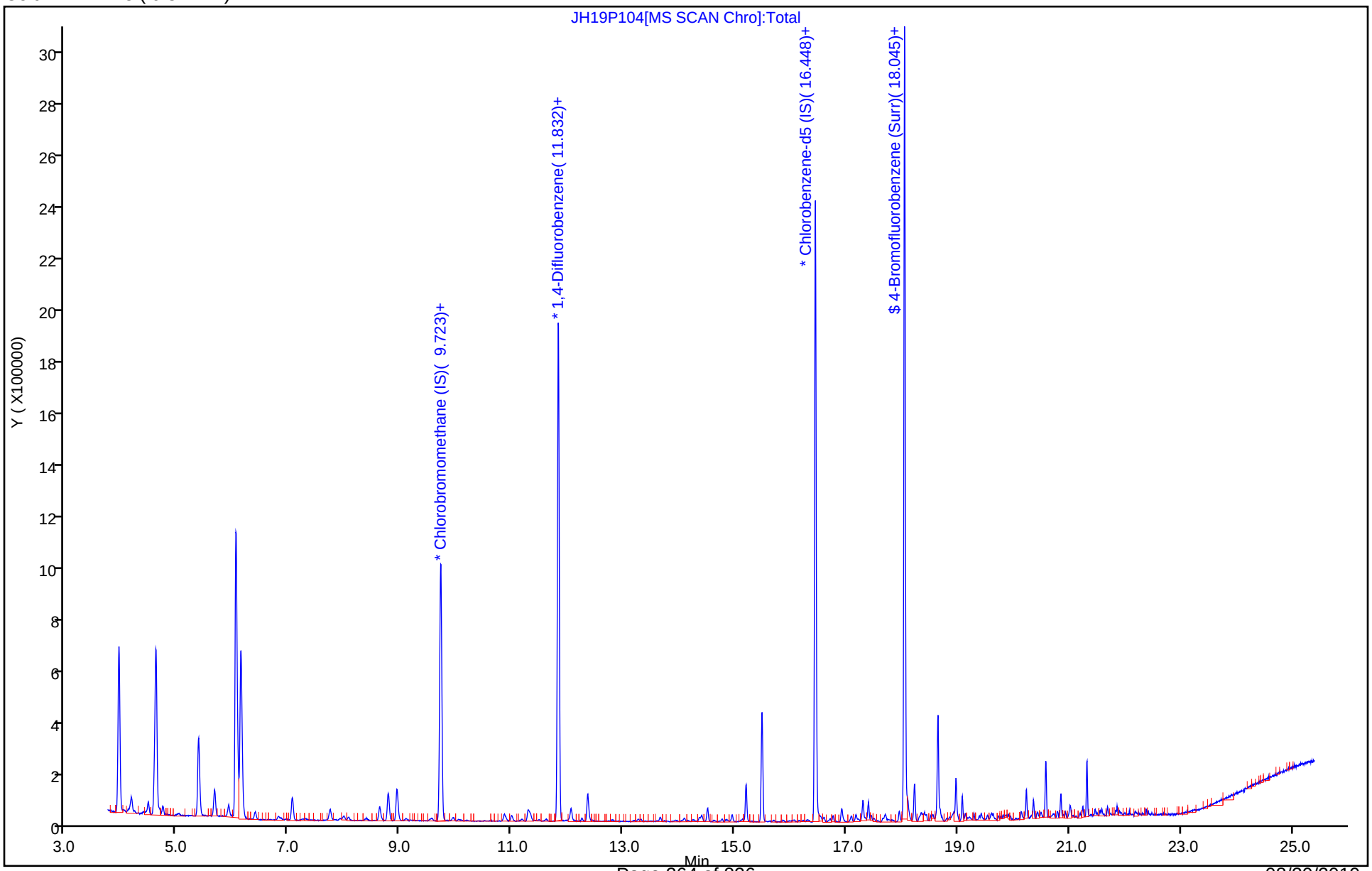
Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D

Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11	Worklist Smp#:	9
Client ID:	IA-153-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
Lims ID:	140-16369-A-11				
Client ID:	IA-153-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 16:08:30	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-009				
Misc. Info.:	140-16369-a-11				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:31:14	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

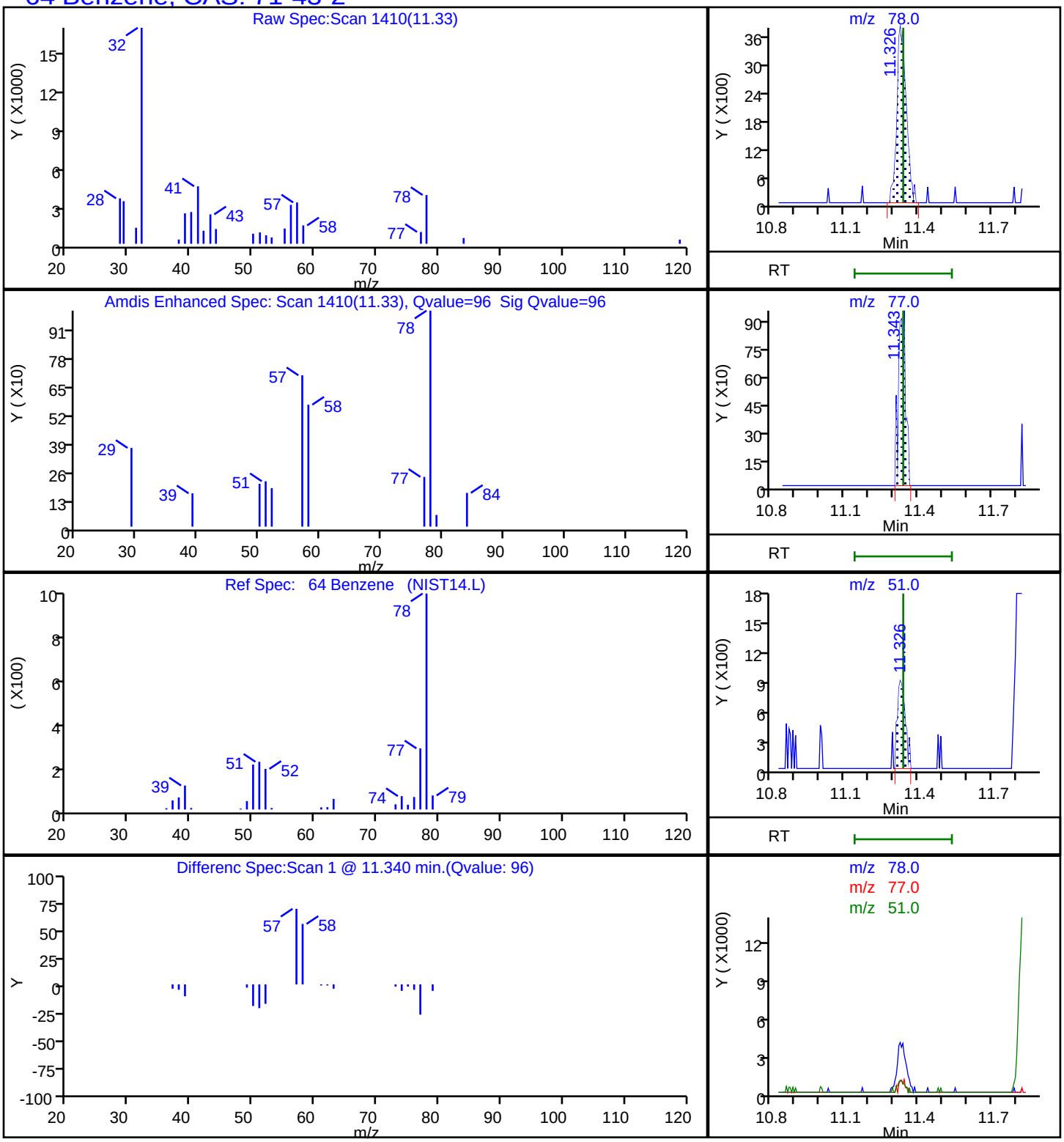
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:32:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.62	90.49

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D		
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
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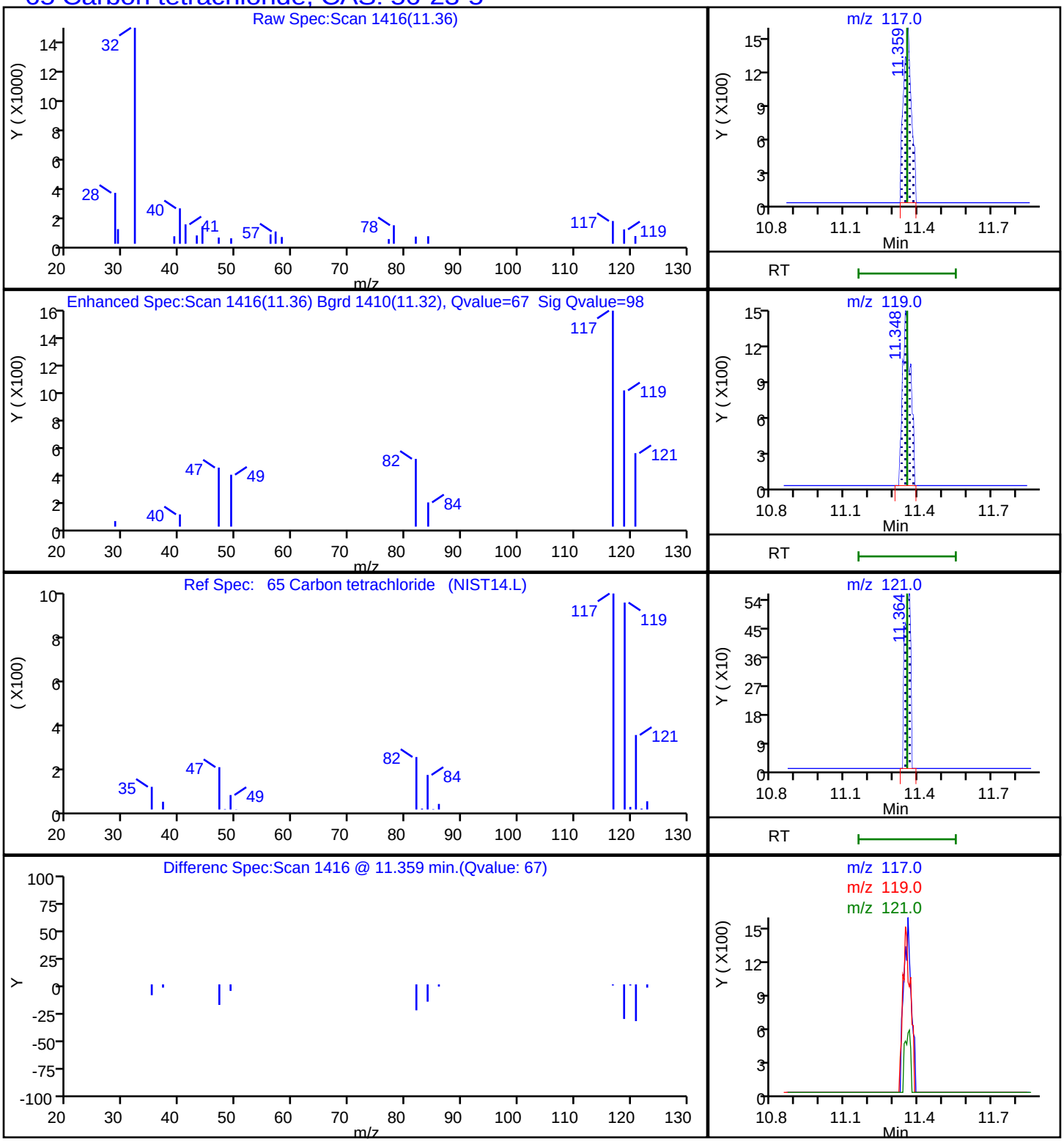
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11		
Client ID:	IA-153-C-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
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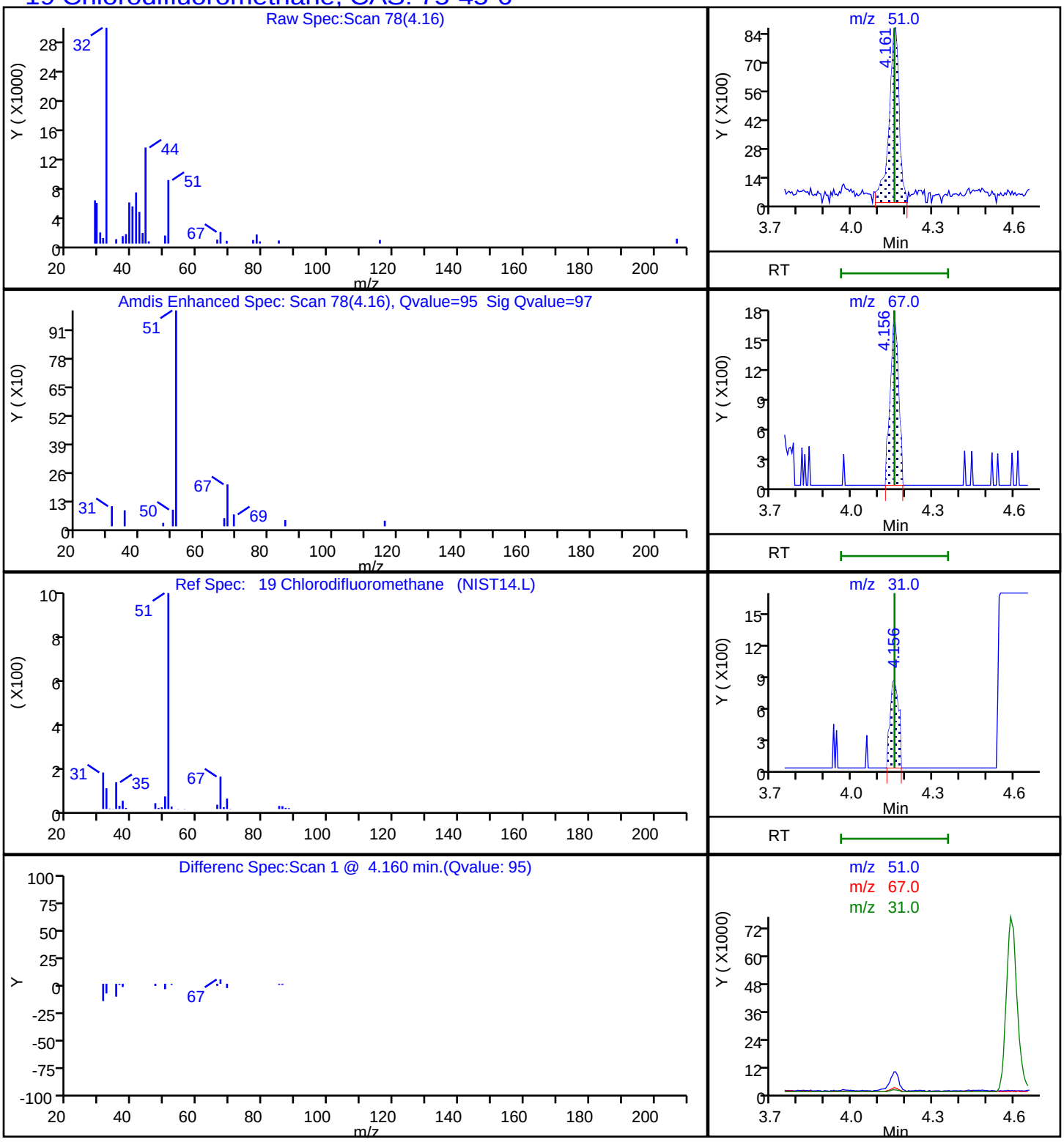
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11		
Client ID:	IA-153-C-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

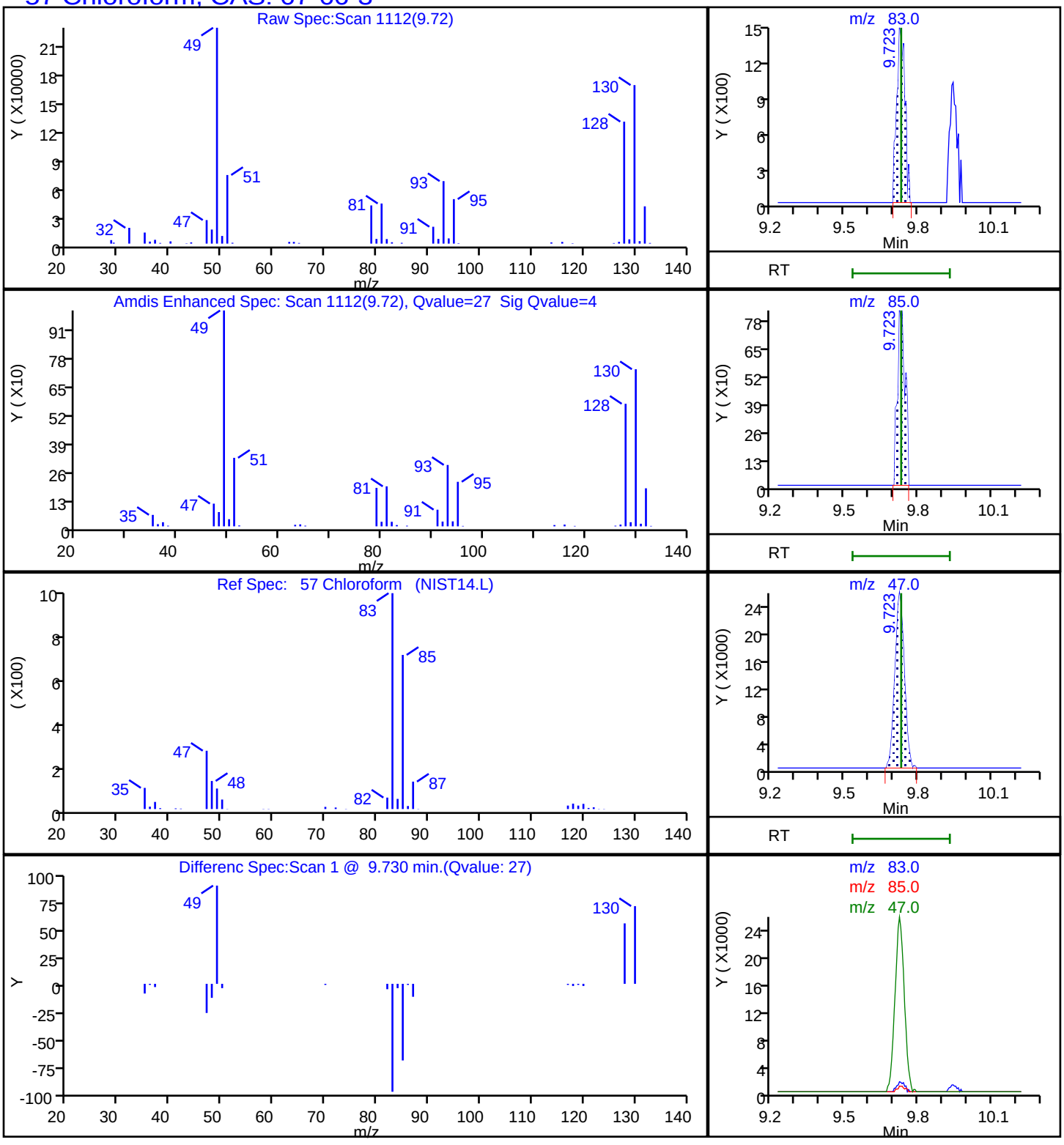


Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D		
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3



Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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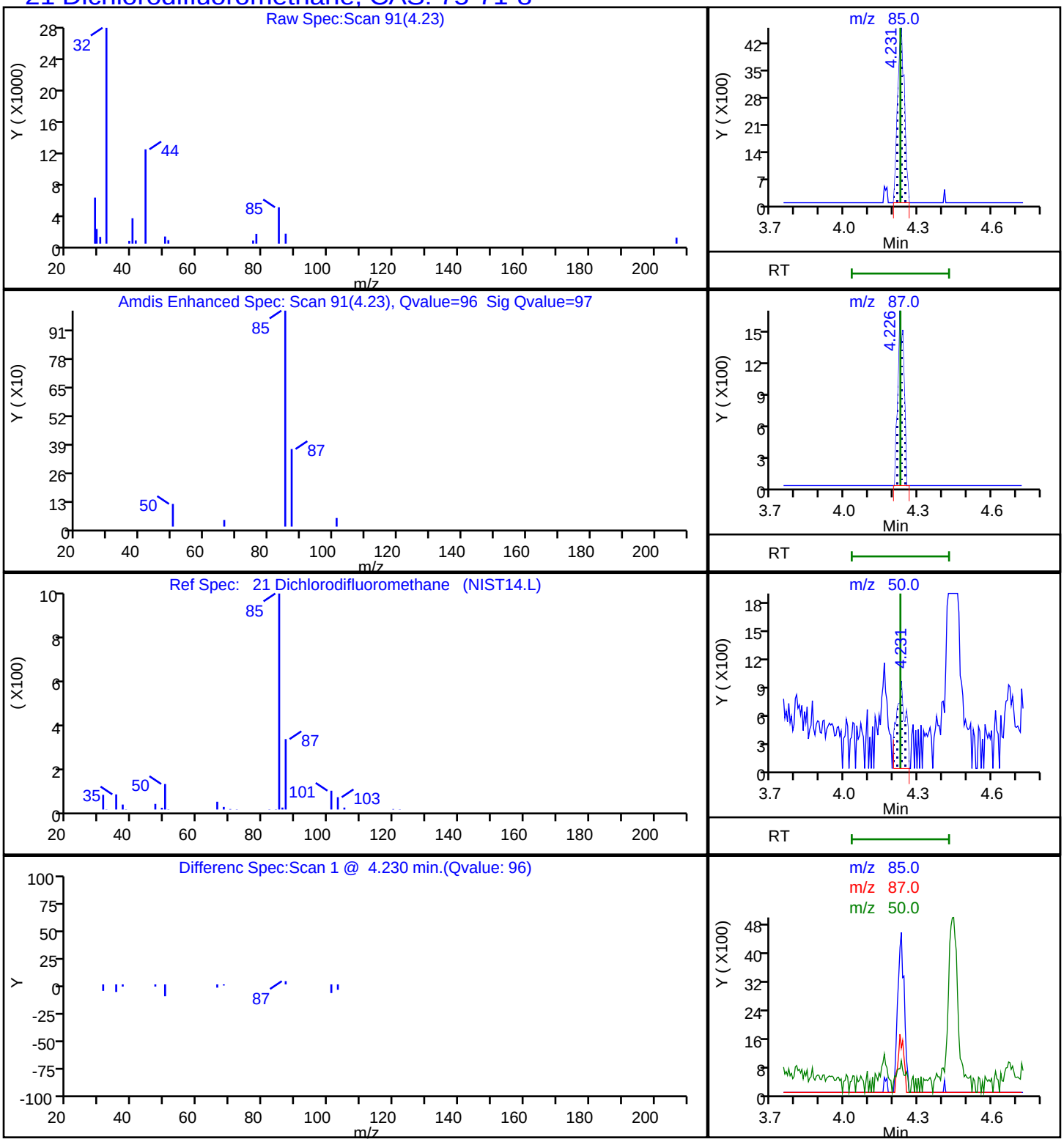
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11		
Client ID:	IA-153-C-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

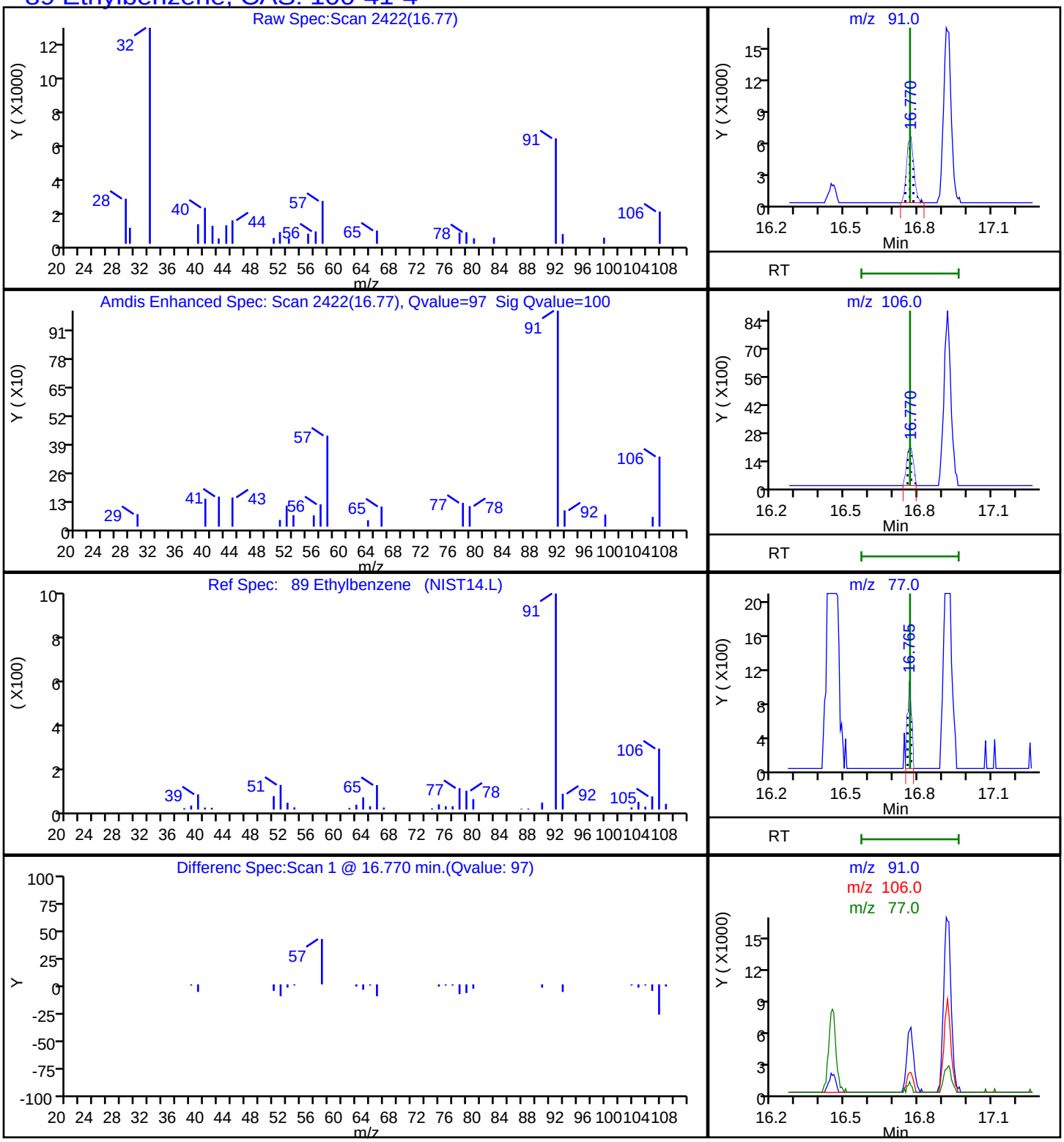


Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D		
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

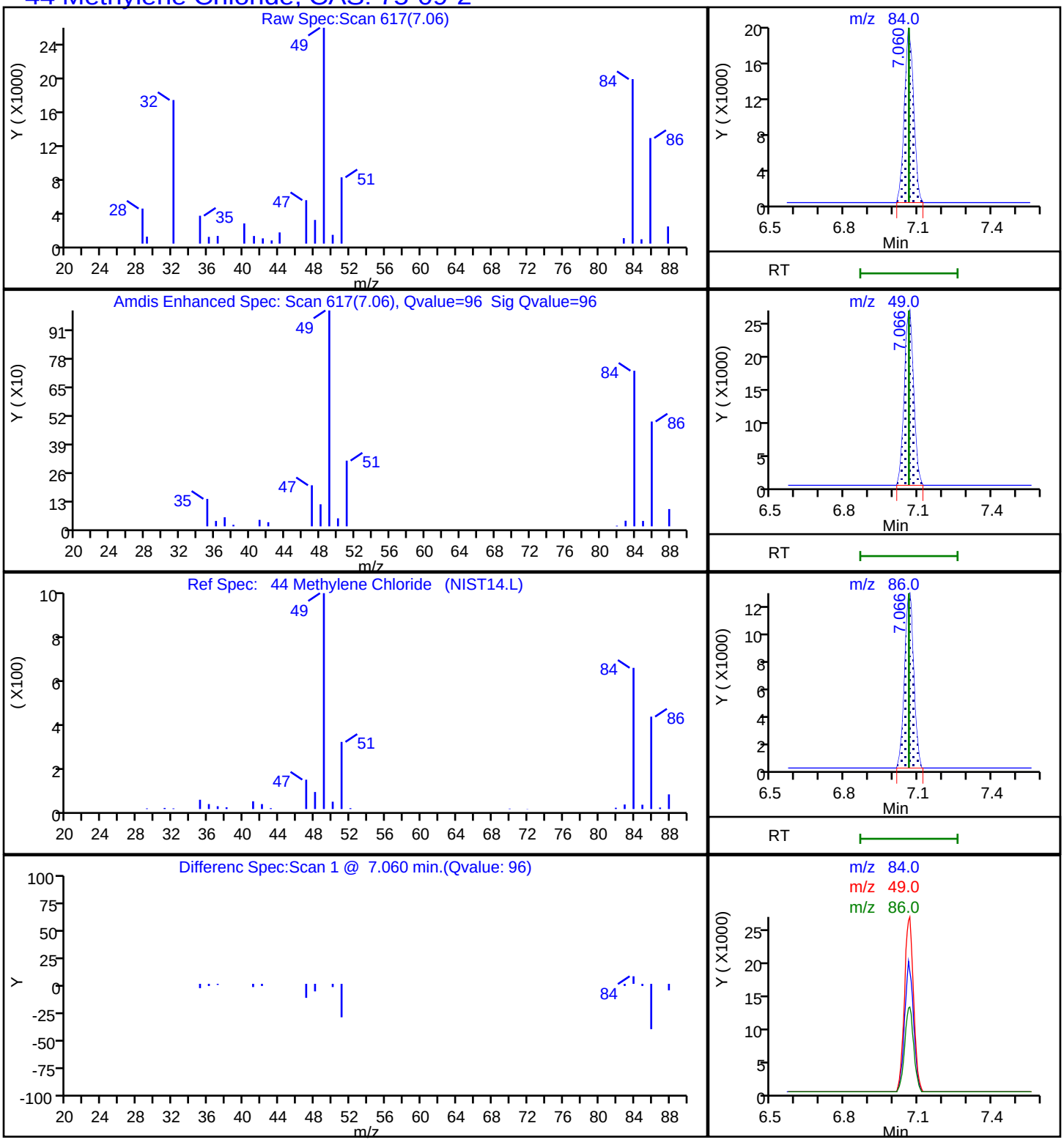


Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11		
Client ID:	IA-153-C-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2



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Eurofins TestAmerica, Knoxville

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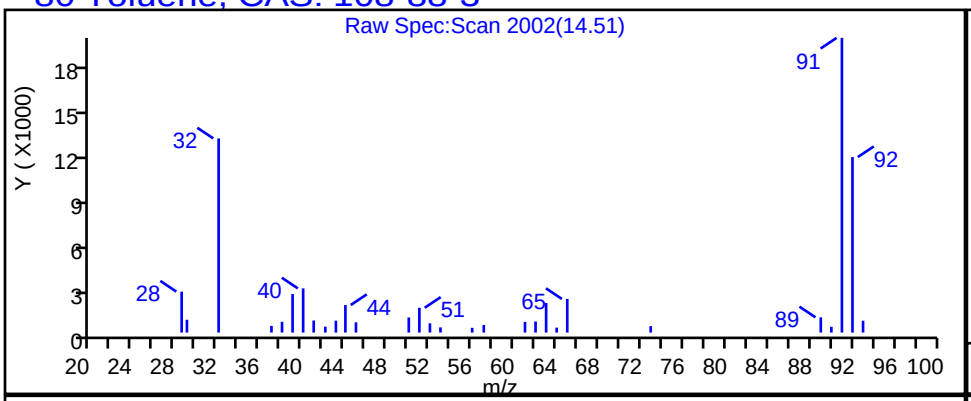
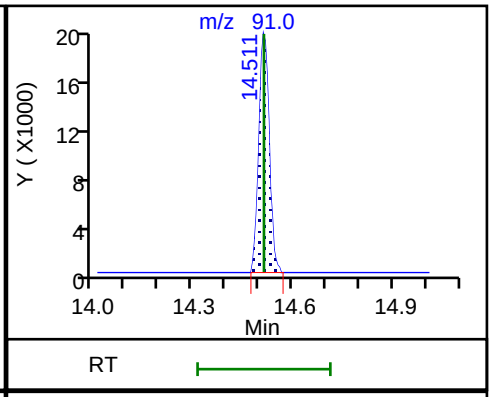
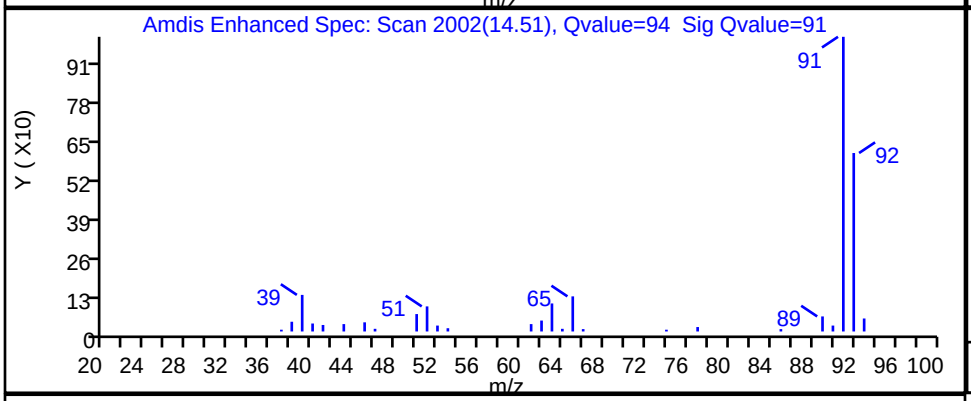
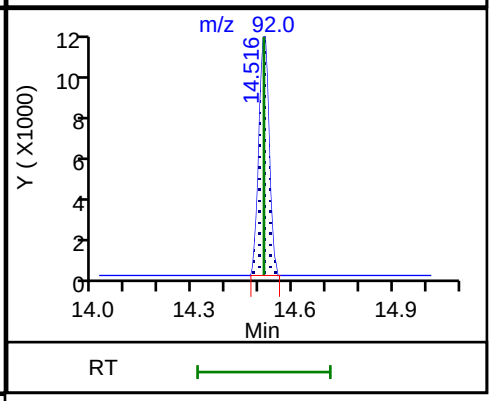
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

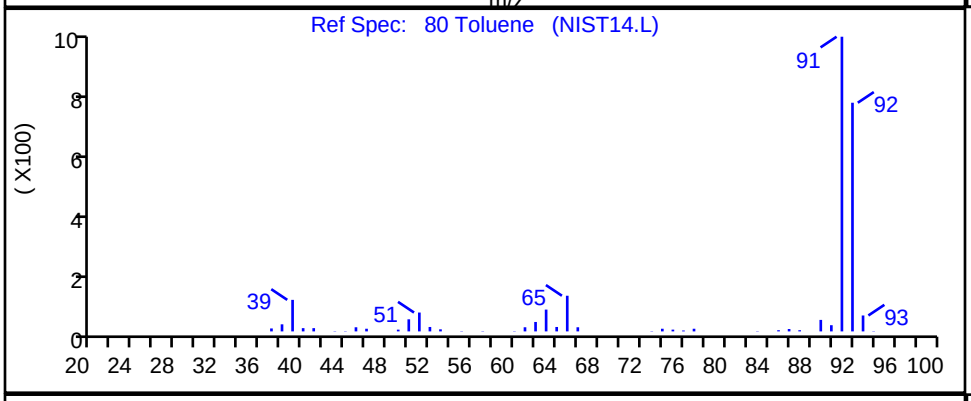
80 Toluene, CAS: 108-88-3

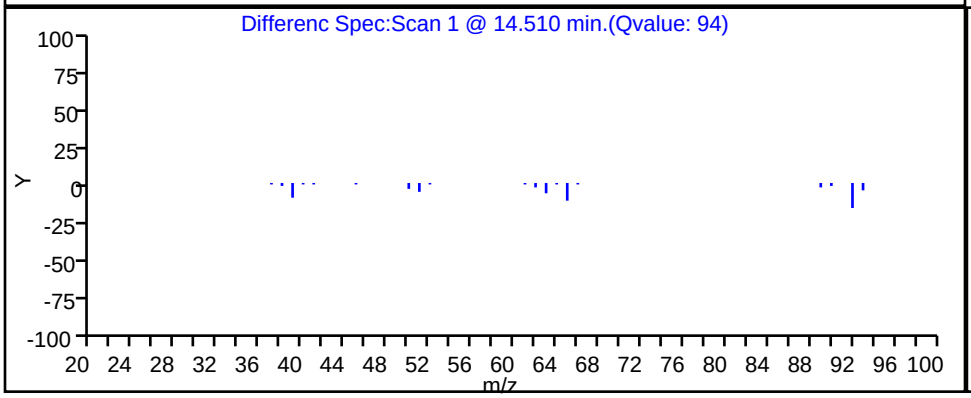


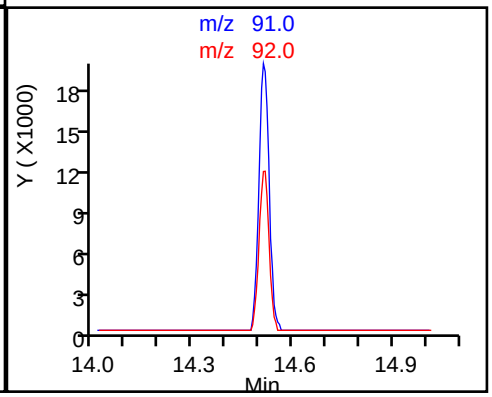










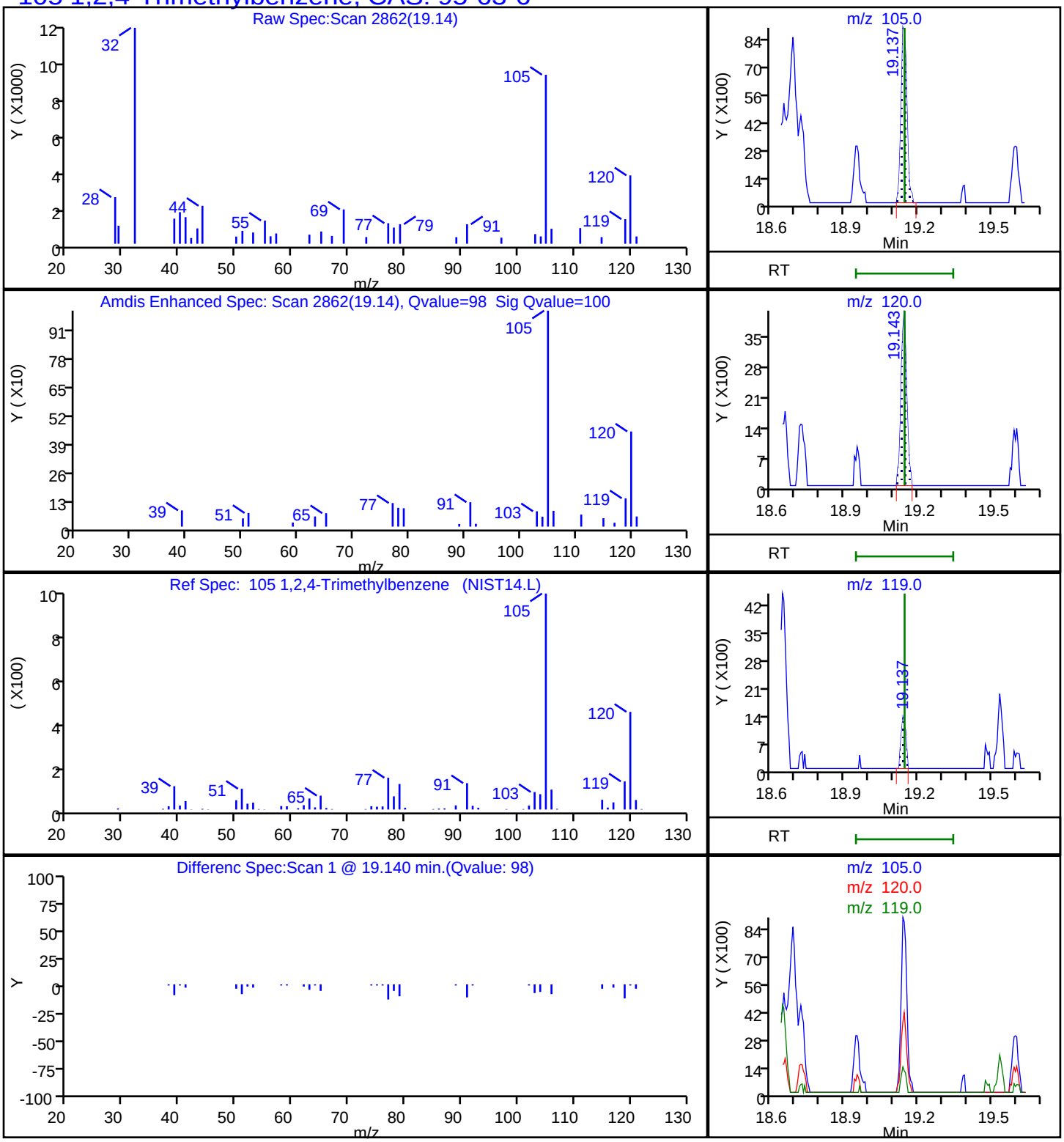


Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D		
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

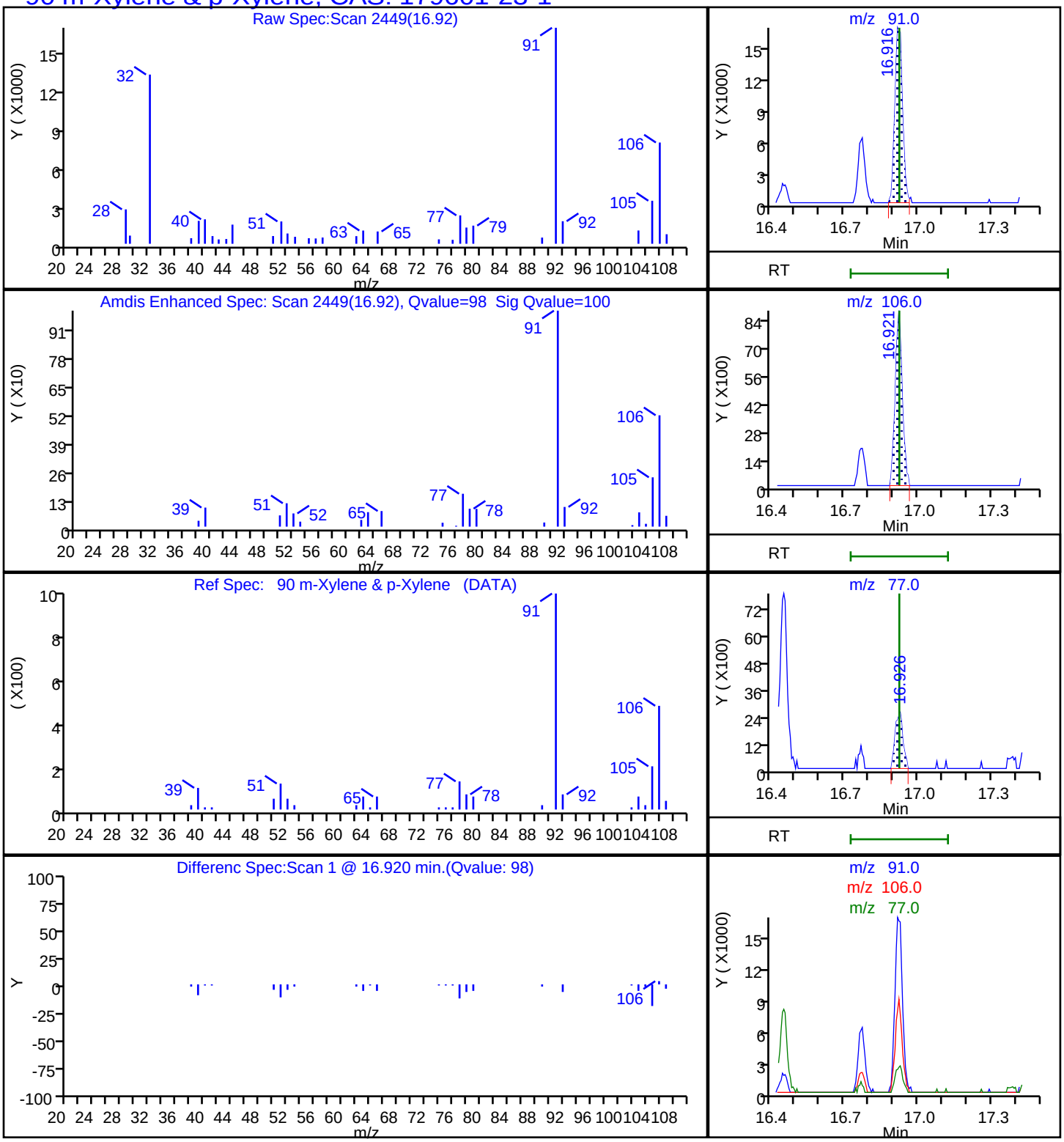
105 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D				
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11		
Client ID:	IA-153-C-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

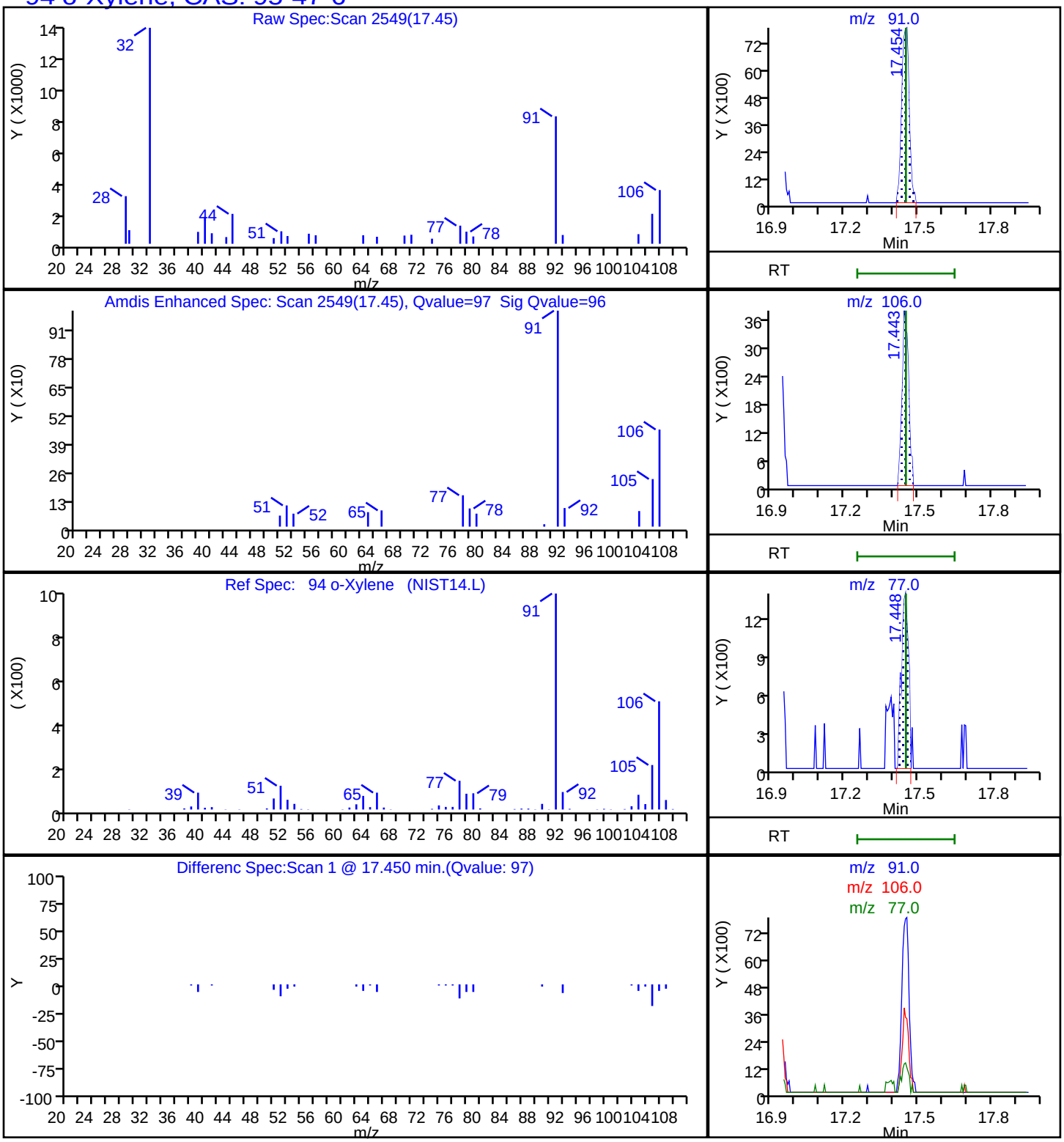


Report Date: 20-Aug-2019 12:32:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P104.D		
Injection Date:	19-Aug-2019 16:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-11	Lab Sample ID:	140-16369-11
Client ID:	IA-153-C-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.090	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.46	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.39	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
Lims ID:	140-16369-A-12				
Client ID:	IA-060-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 16:57:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Sample Info:	140-0012597-010				
Misc. Info.:	140-16369-a-12@1.55				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:31:14	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:33:18		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.725	0.001	93	296115	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	95	1476200	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	88	1220147	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.047	0.001	96	783853	3.50	
19 Chlorodifluoromethane	51	4.153	4.152	-0.004	96	19083	0.2358	
21 Dichlorodifluoromethane	85	4.228	4.227	0.001	97	7922	0.0854	
44 Methylene Chloride	84	7.063	7.062	0.001	96	56281	0.5052	
57 Chloroform	83	9.726	9.731	-0.004	27	2526	0.0105	
64 Benzene	78	11.334	11.339	-0.005	96	7419	0.0274	
65 Carbon tetrachloride	117	11.356	11.350	0.001	86	2314	0.0102	
80 Toluene	91	14.514	14.513	0.001	91	26951	0.0914	
89 Ethylbenzene	91	16.768	16.767	0.001	96	6831	0.0180	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	98	18700	0.0642	
94 o-Xylene	91	17.445	17.450	-0.005	94	8867	0.0286	
S 129 Xylenes, Total	100				0		0.0928	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

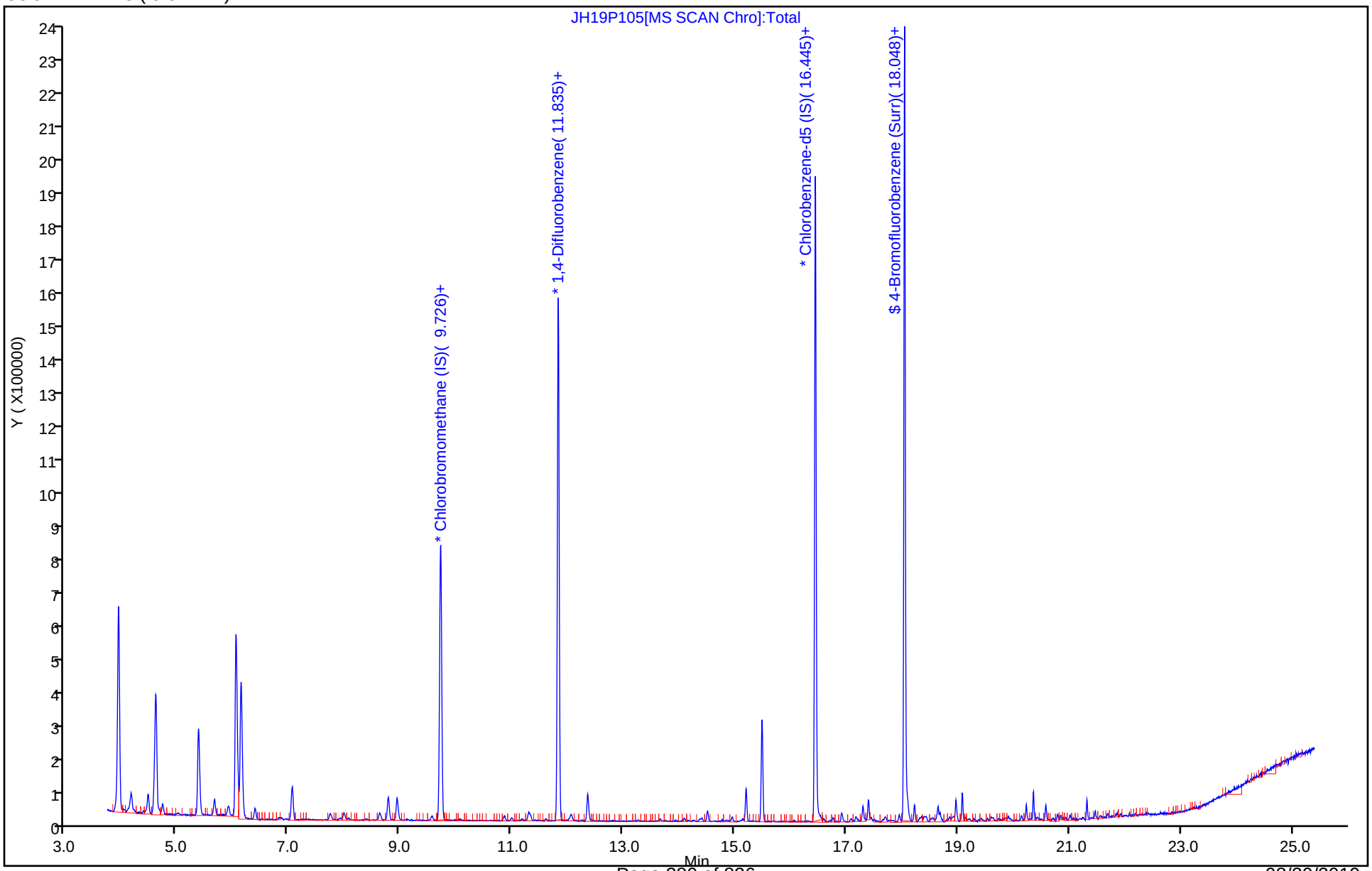
Report Date: 20-Aug-2019 12:33:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D

Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12	Worklist Smp#:	10
Client ID:	IA-060-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.5500	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
Lims ID:	140-16369-A-12				
Client ID:	IA-060-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 16:57:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Sample Info:	140-0012597-010				
Misc. Info.:	140-16369-a-12@1.55				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:31:14	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

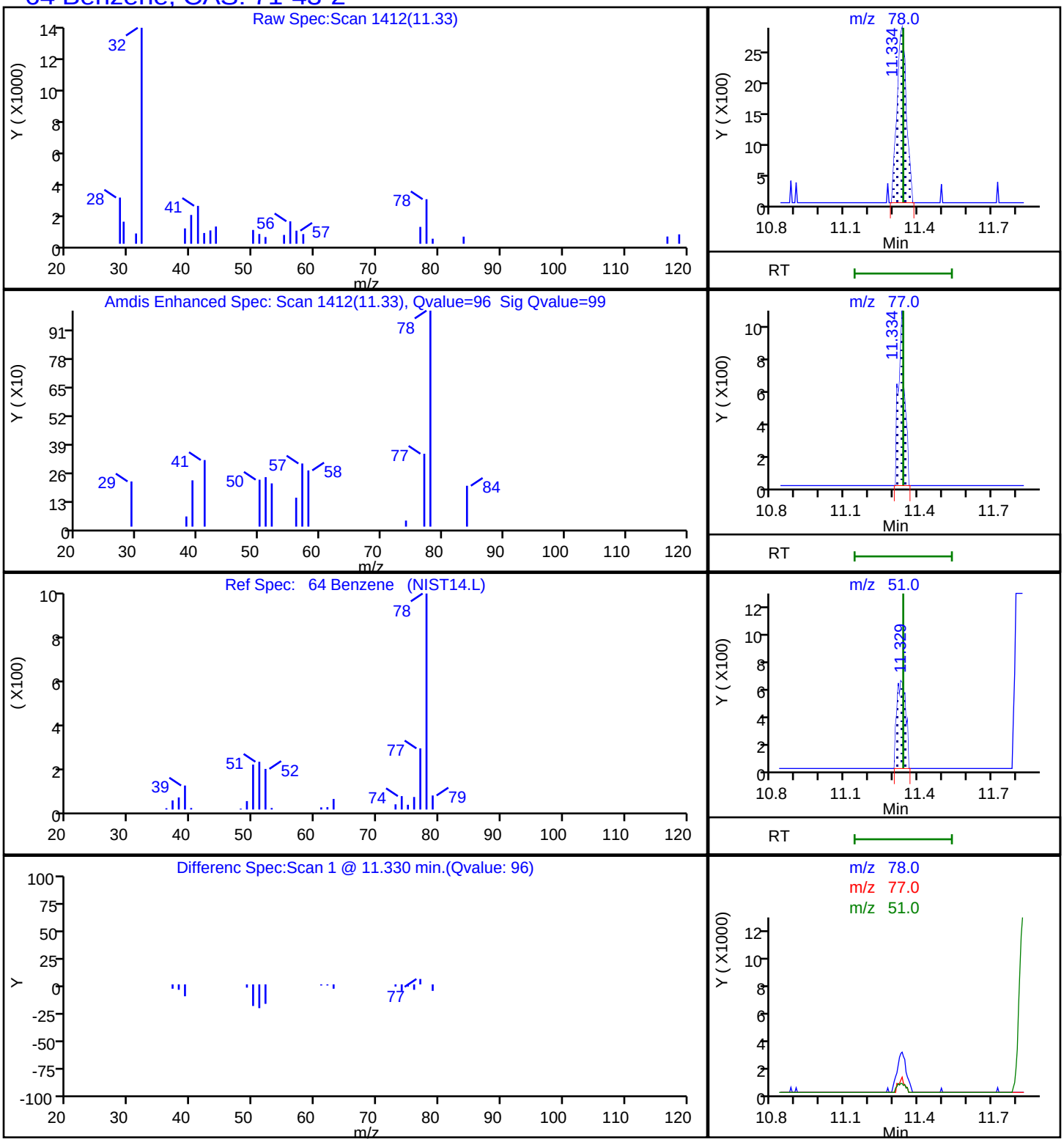
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:33:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.50	87.39

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D		
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12
Client ID:	IA-060-C-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

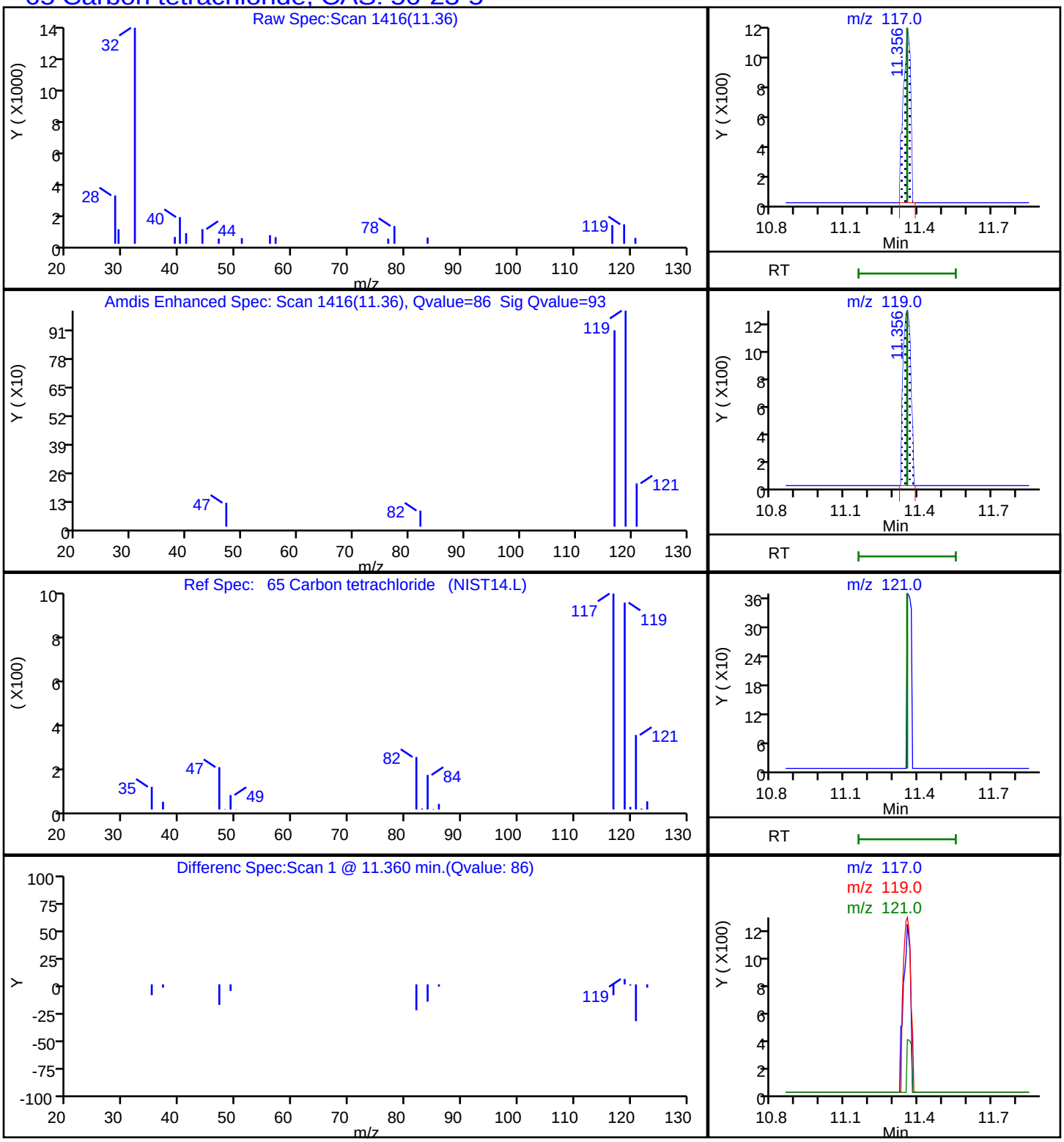


Report Date: 20-Aug-2019 12:33:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12		
Client ID:	IA-060-C-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5

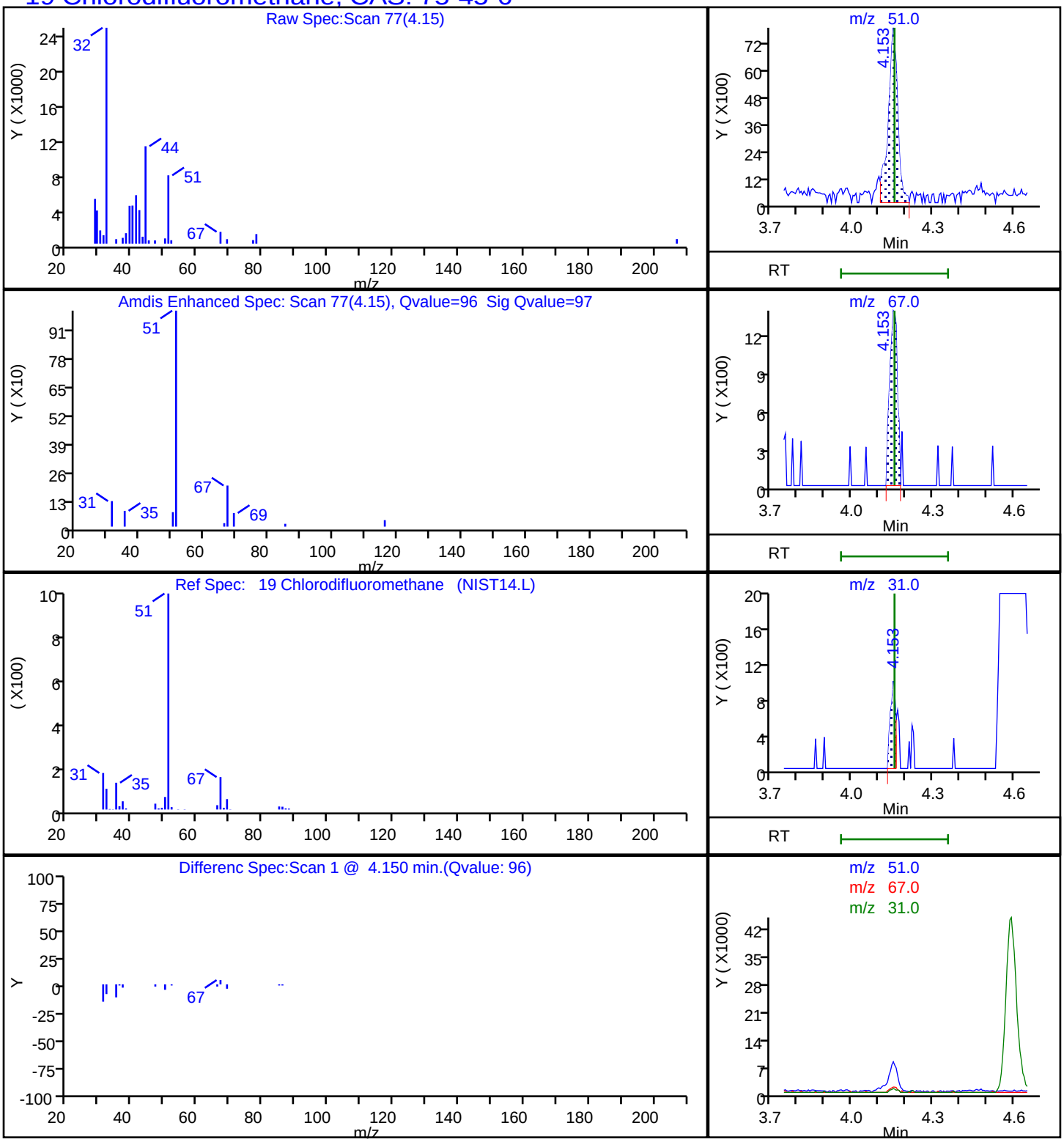


Report Date: 20-Aug-2019 12:33:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12		
Client ID:	IA-060-C-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

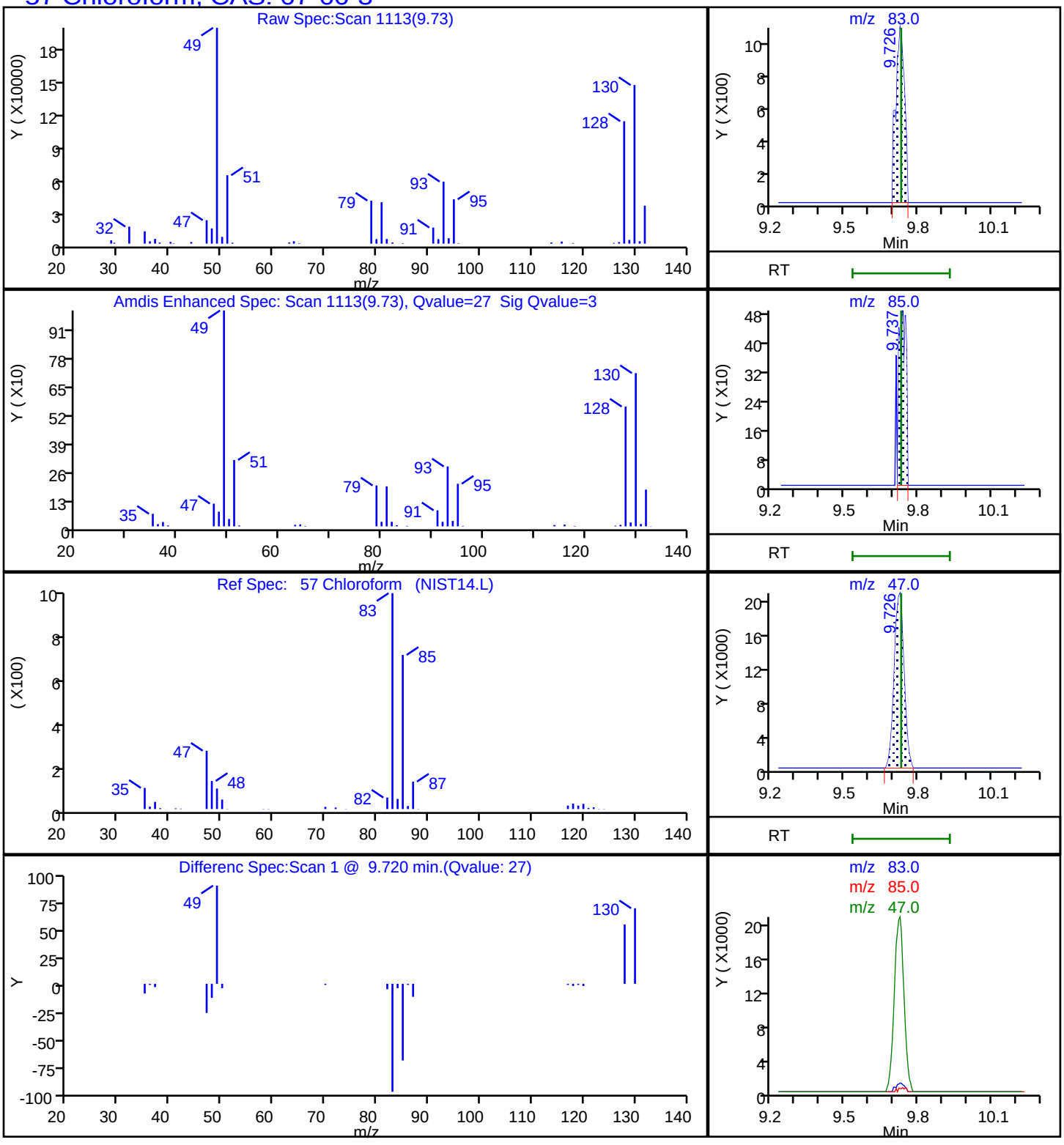
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D		
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12
Client ID:	IA-060-C-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

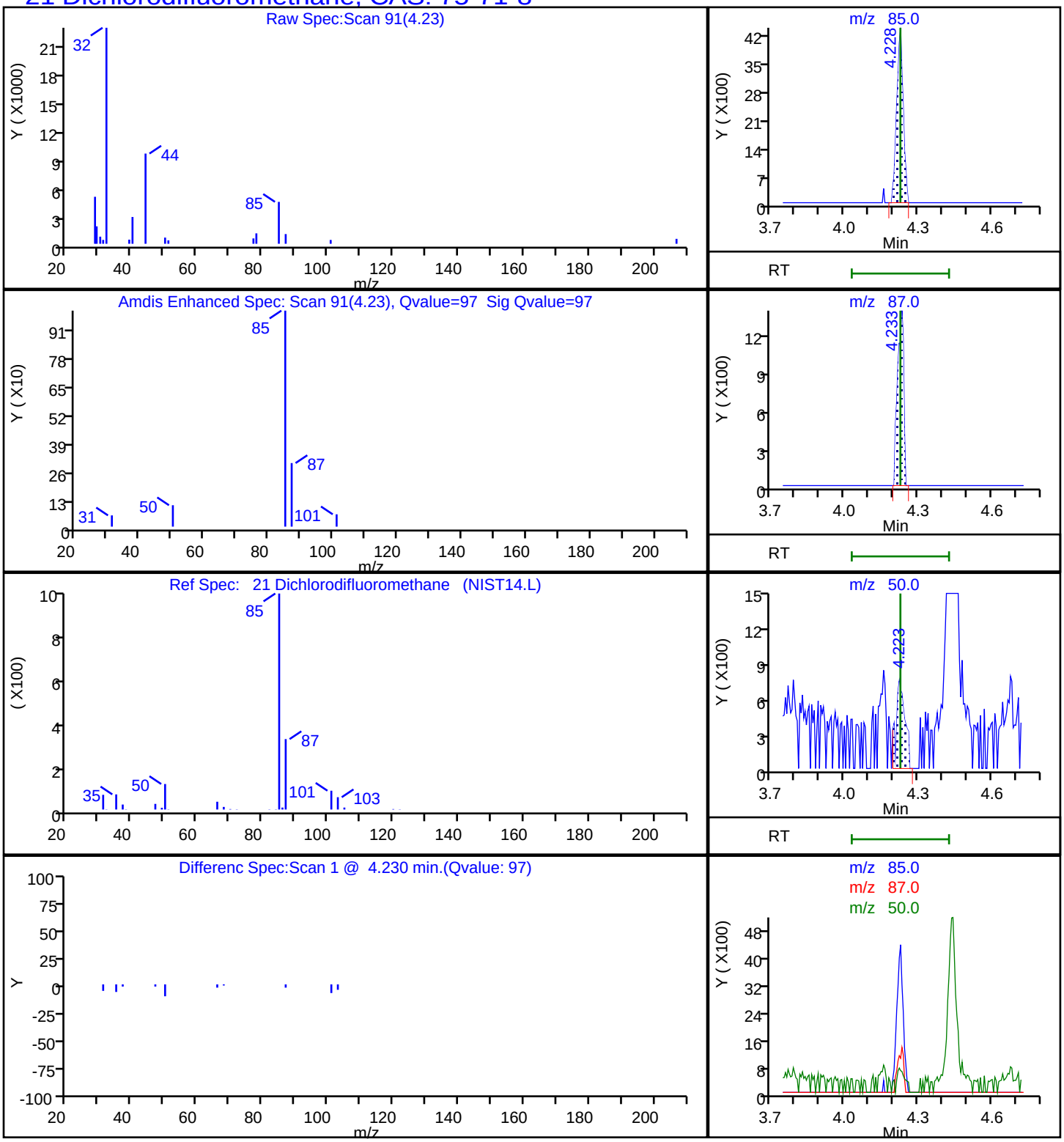


Report Date: 20-Aug-2019 12:33:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12		
Client ID:	IA-060-C-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

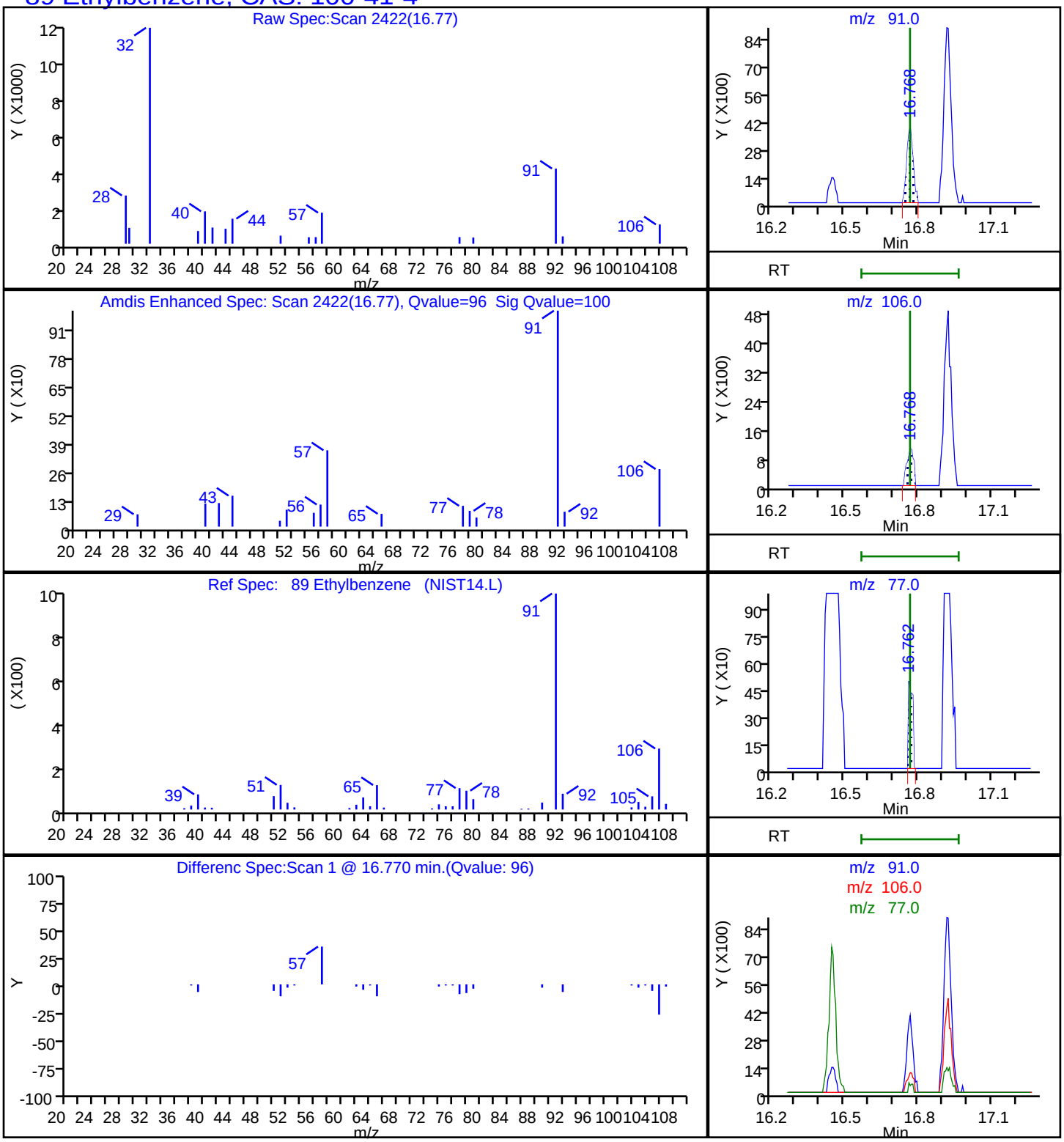
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D		
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12
Client ID:	IA-060-C-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

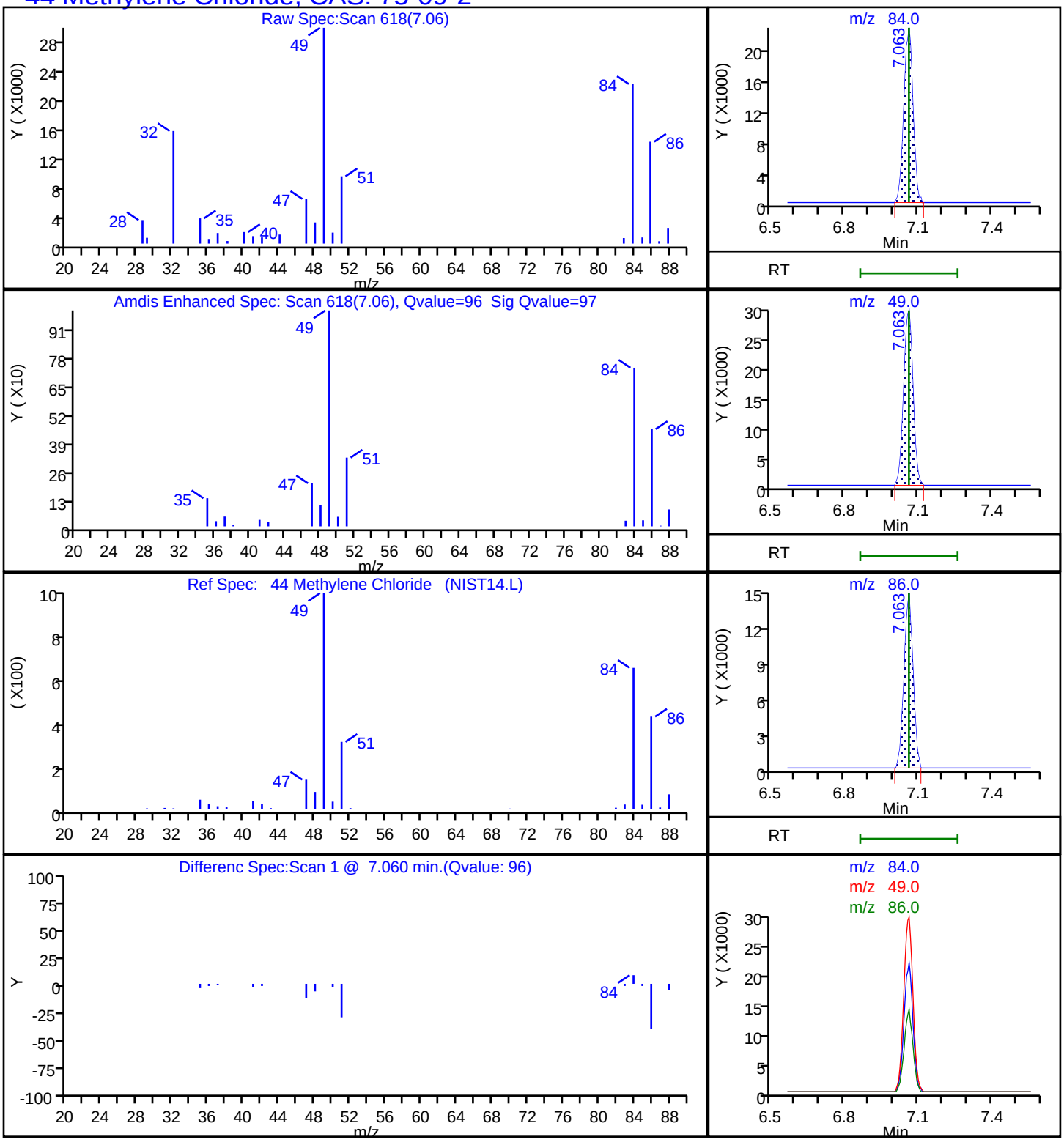
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D		
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12
Client ID:	IA-060-C-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

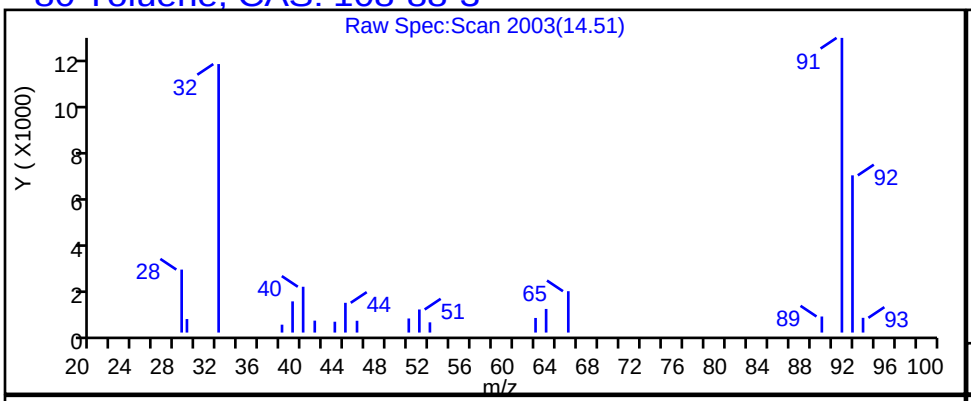


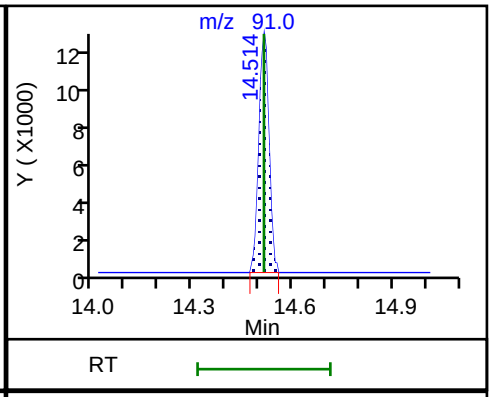
Report Date: 20-Aug-2019 12:33:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

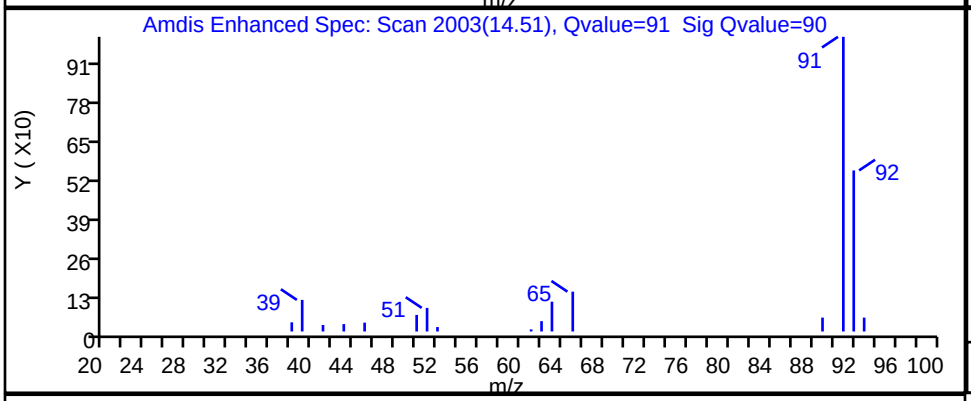
Eurofins TestAmerica, Knoxville

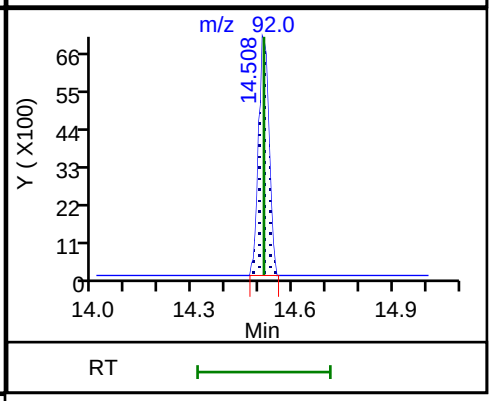
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D		
Injection Date:	19-Aug-2019 16:57:30	Instrument ID:	MJ
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12
Client ID:	IA-060-C-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

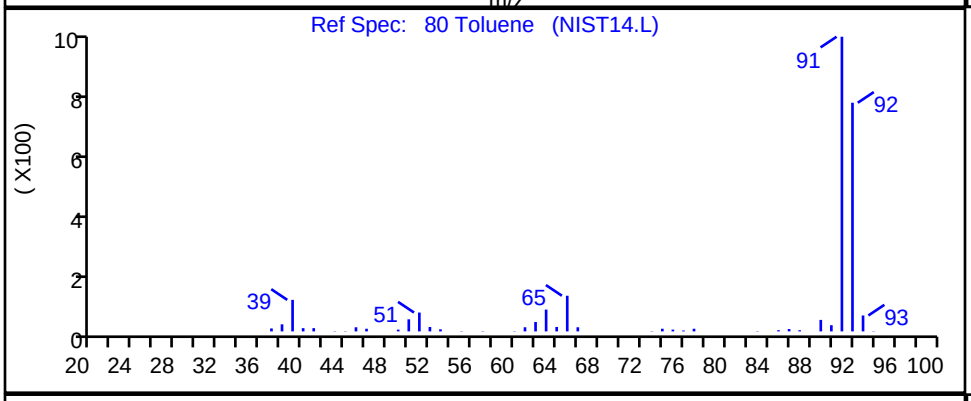
80 Toluene, CAS: 108-88-3

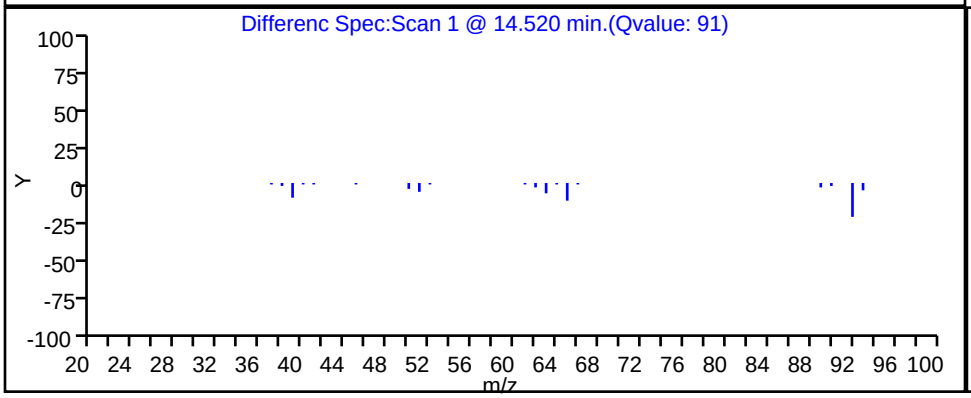


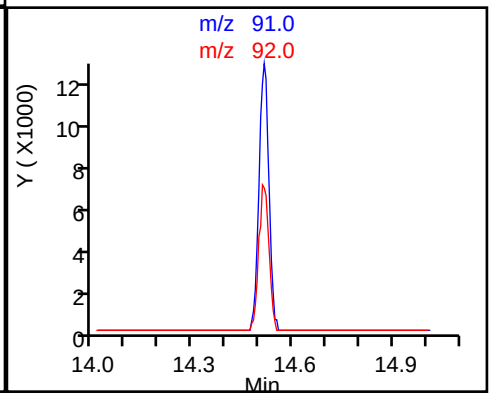












Eurofins TestAmerica, Knoxville

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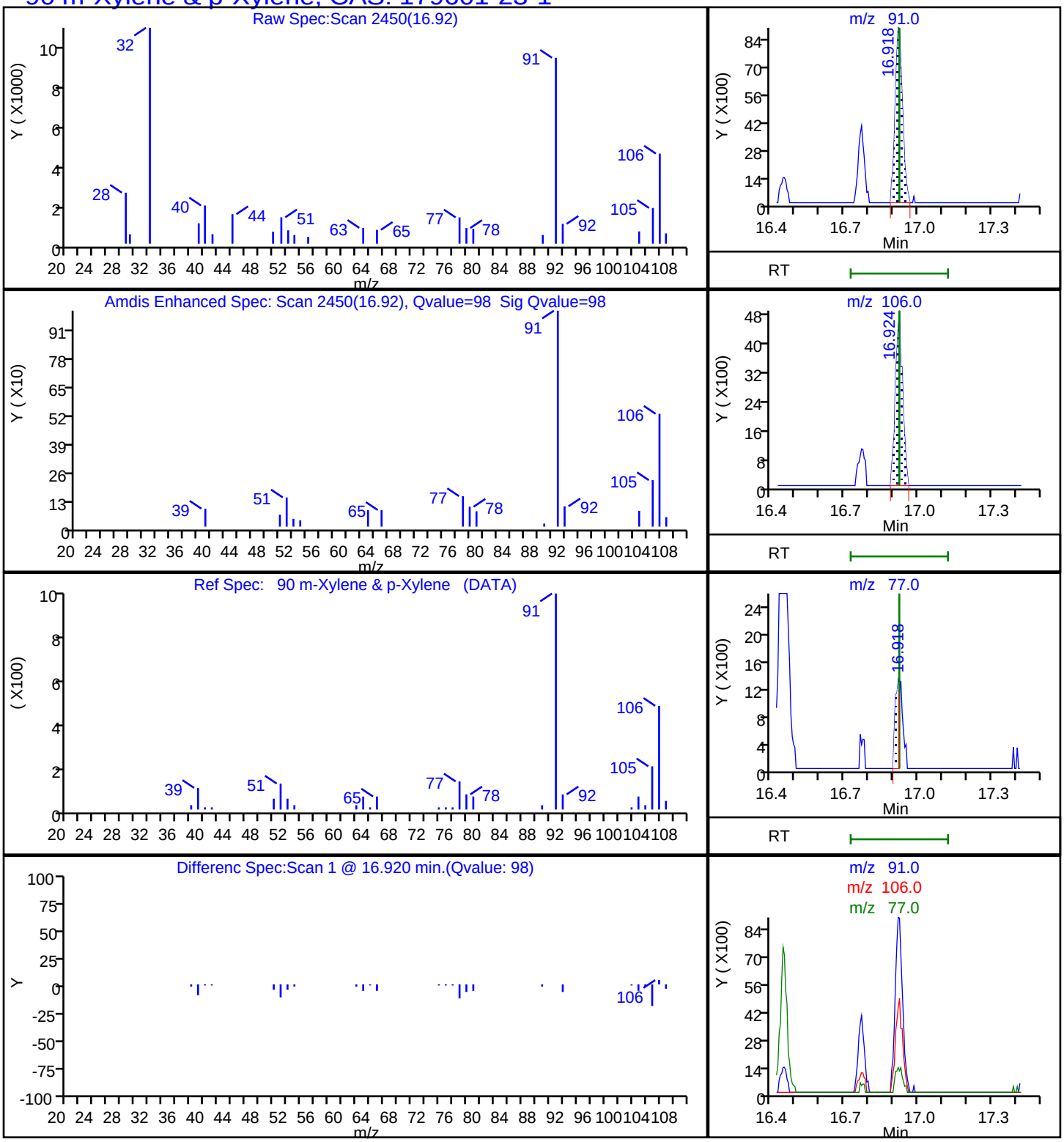
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12		
Client ID:	IA-060-C-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 20-Aug-2019 12:33:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P105.D				
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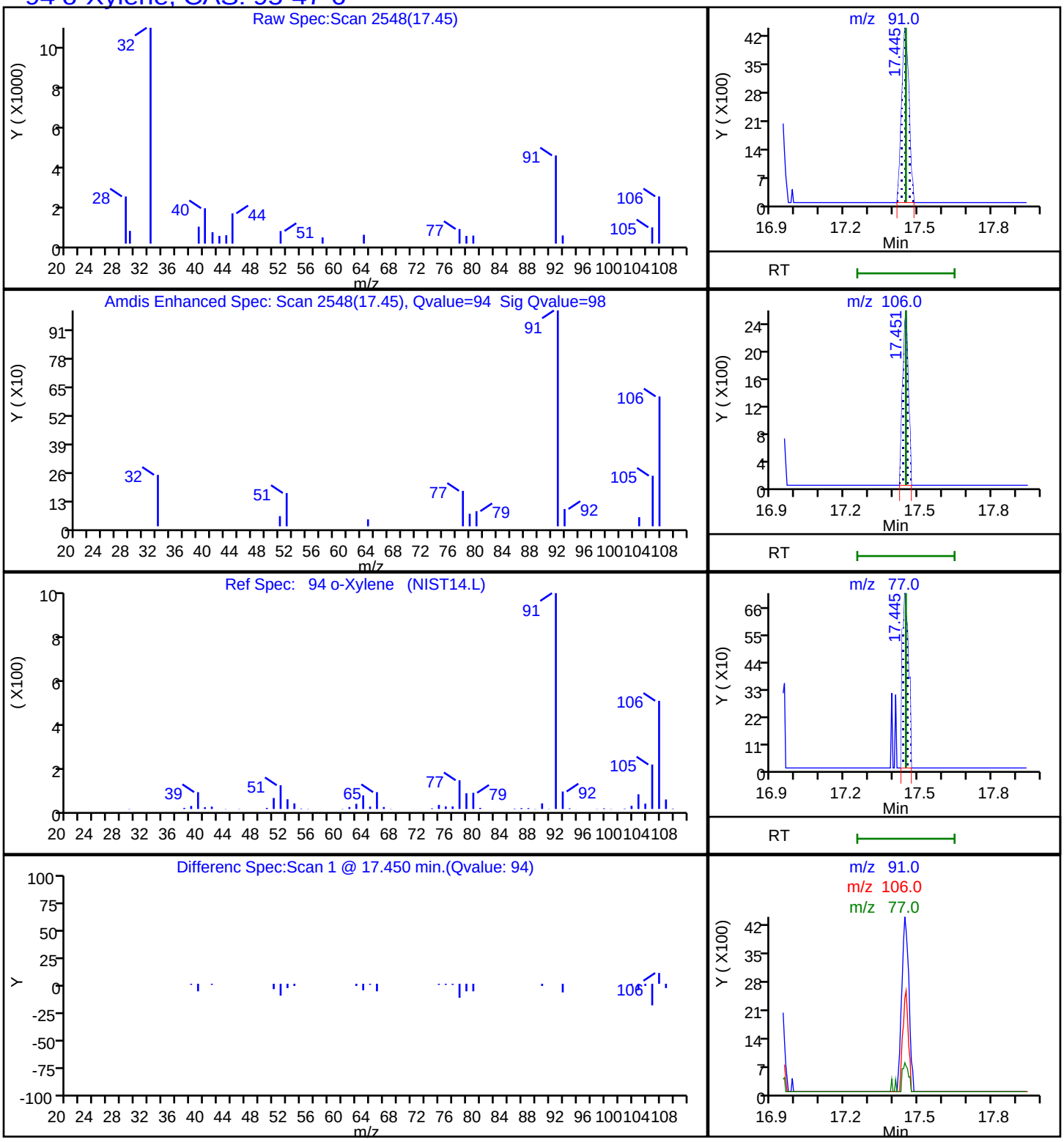
Lims ID:	140-16369-A-12	Lab Sample ID:	140-16369-12		
Client ID:	IA-060-C-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.5500		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.5	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.18	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.29	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.7		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.99		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.52		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.7		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.57	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	16	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.89	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	23		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	0.86	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.6		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.2		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Lims ID:	140-16369-A-13				
Client ID:	IA-152-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 18:36:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-012				
Misc. Info.:	140-16369-a-13				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:37:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:37:04		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	91	304754	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1531005	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	1289056	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	839957	3.55	
19 Chlorodifluoromethane	51	4.157	4.152	0.000	97	75668	0.9086	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	97	9576	0.1003	
44 Methylene Chloride	84	7.062	7.062	0.000	96	153962	1.34	
57 Chloroform	83	9.730	9.731	0.000	28	9001	0.0364	
64 Benzene	78	11.333	11.339	-0.006	79	9928	0.0354	
65 Carbon tetrachloride	117	11.360	11.350	0.005	89	3476	0.0148	
80 Toluene	91	14.513	14.513	0.000	93	61967	0.1990	
89 Ethylbenzene	91	16.767	16.767	0.000	97	23437	0.0584	
90 m-Xylene & p-Xylene	91	16.917	16.923	-0.006	99	70870	0.2303	
94 o-Xylene	91	17.445	17.450	-0.005	97	29807	0.0911	
101 1,3,5-Trimethylbenzene	120	18.719	18.725	-0.006	89	5621	0.0331	
105 1,2,4-Trimethylbenzene	105	19.144	19.145	0.000	98	39581	0.1049	
111 1,2,3-Trimethylbenzene	105	19.596	19.602	-0.006	95	12993	0.0351	
122 Naphthalene	128	21.689	21.689	0.000	98	15850	0.0480	
S 129 Xylenes, Total	100				0		0.3214	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

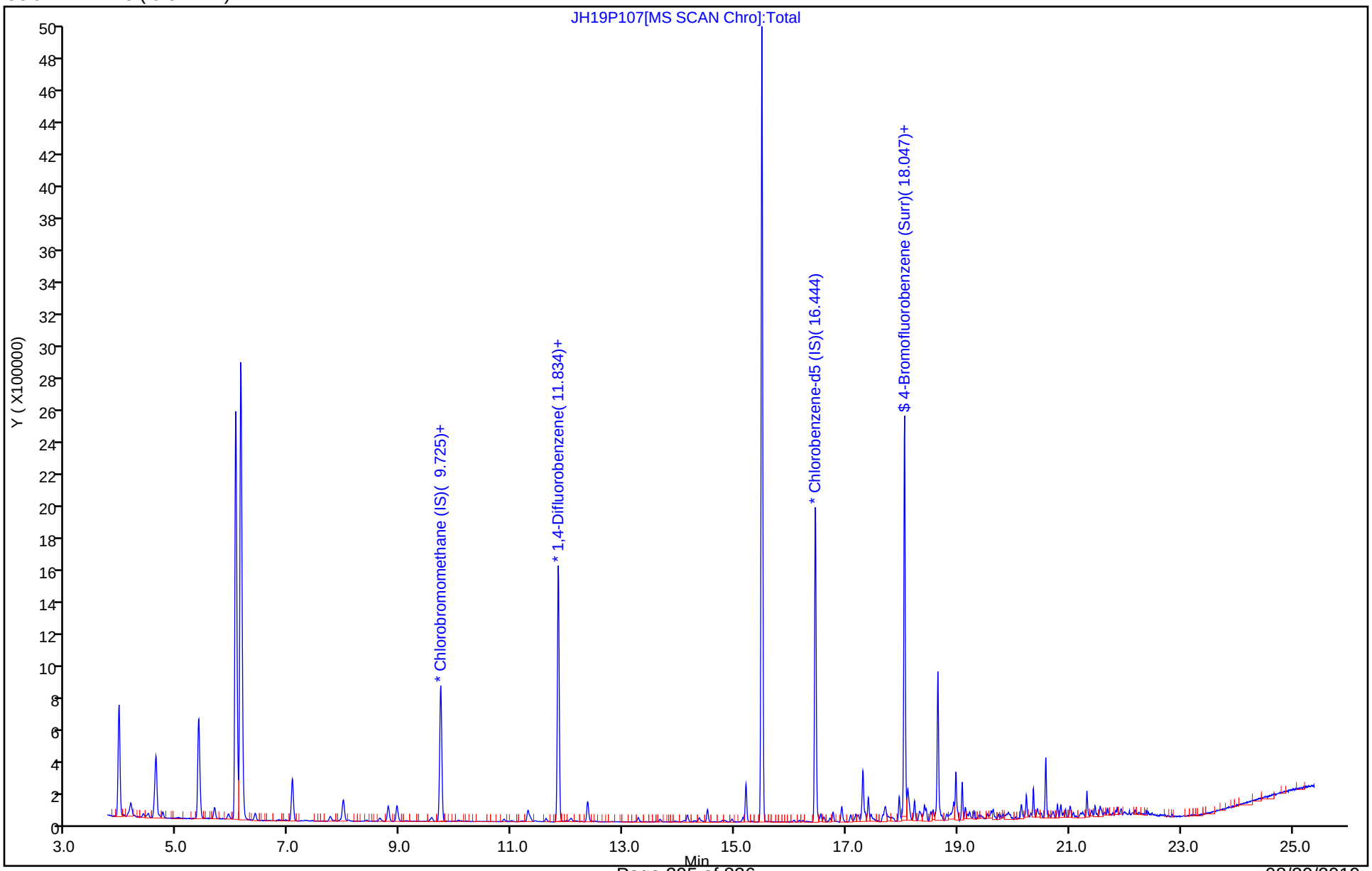
Report Date: 20-Aug-2019 12:37:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D

Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13	Worklist Smp#:	12
Client ID:	IA-152-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Lims ID:	140-16369-A-13				
Client ID:	IA-152-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 18:36:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-012				
Misc. Info.:	140-16369-a-13				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:37:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

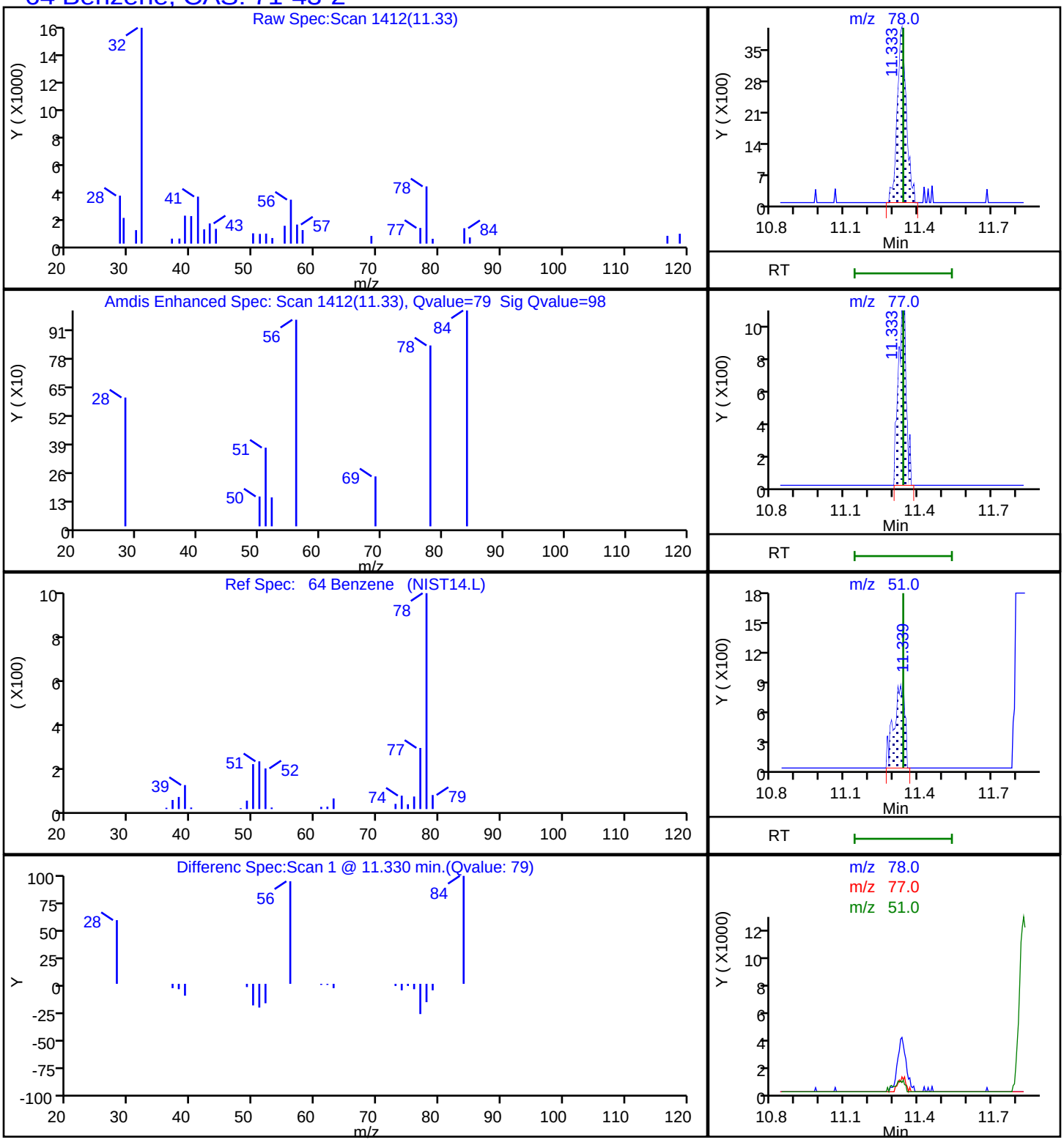
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:37:04

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.55	88.64

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 12:37:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D

Injection Date: 19-Aug-2019 18:36:30 Instrument ID: MJ

Lims ID: 140-16369-A-13 Lab Sample ID: 140-16369-13

Client ID: IA-152-C-27

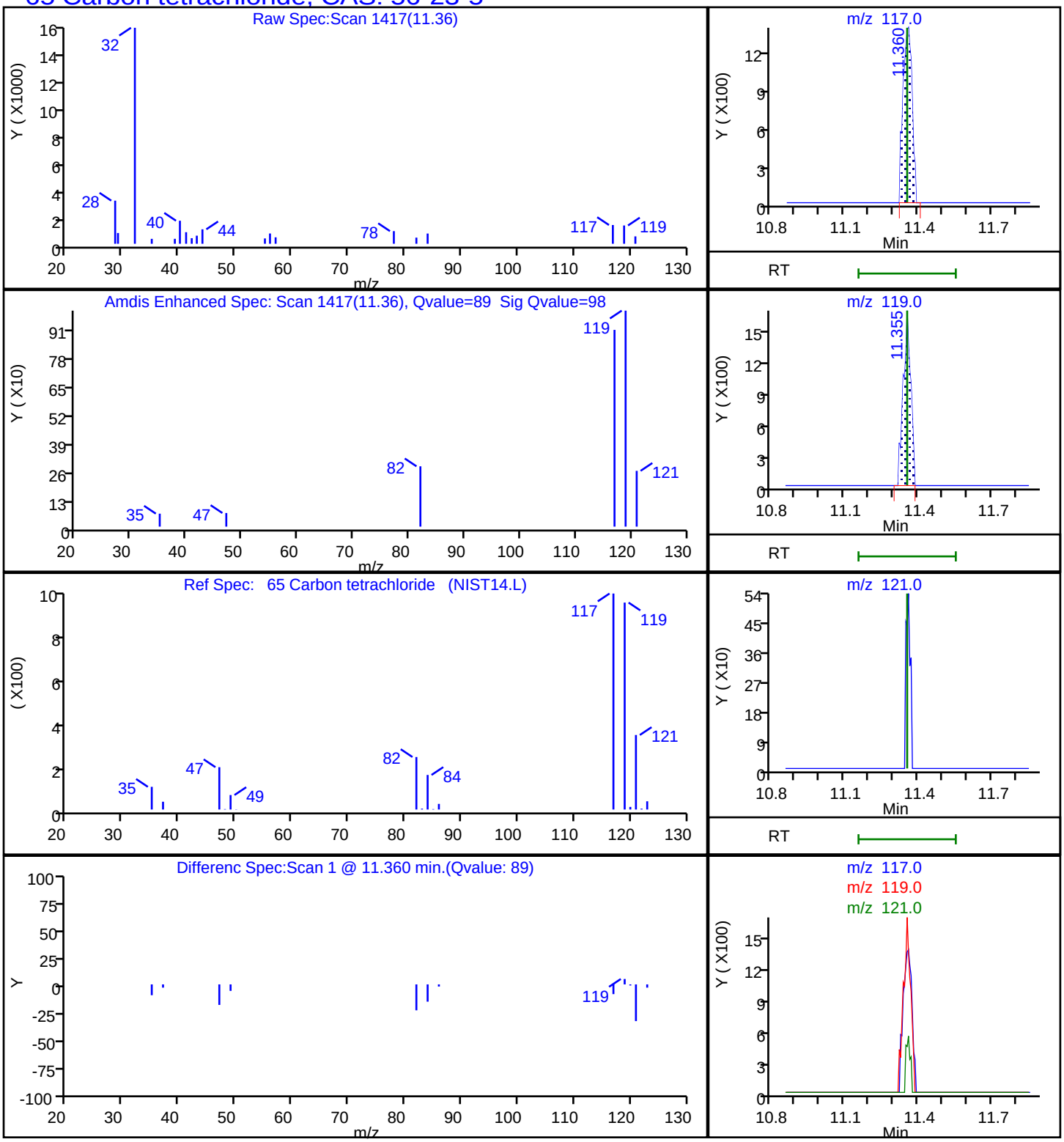
Operator ID: 007126 ALS Bottle#: 7 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5

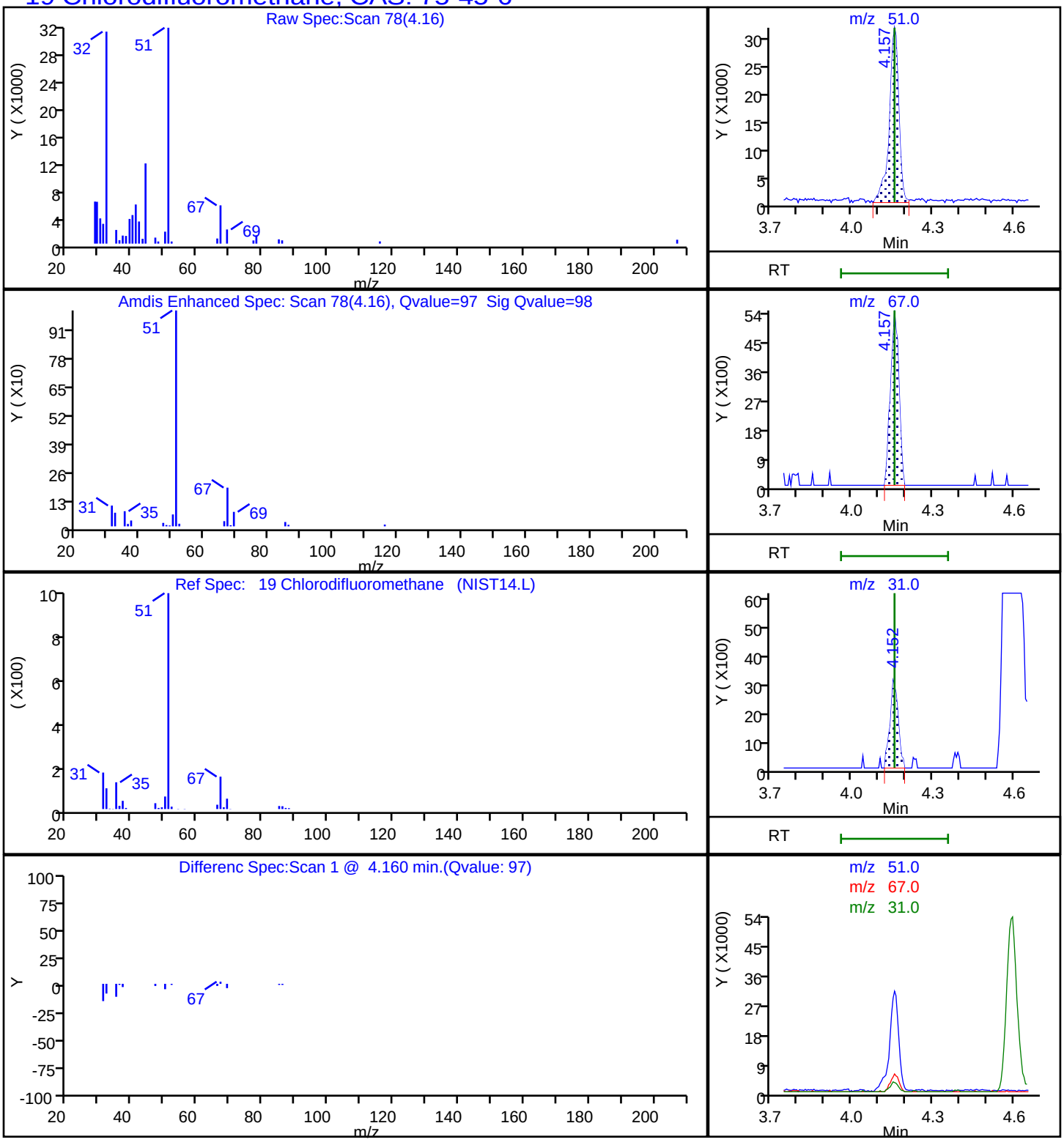


Report Date: 20-Aug-2019 12:37:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13		
Client ID:	IA-152-C-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

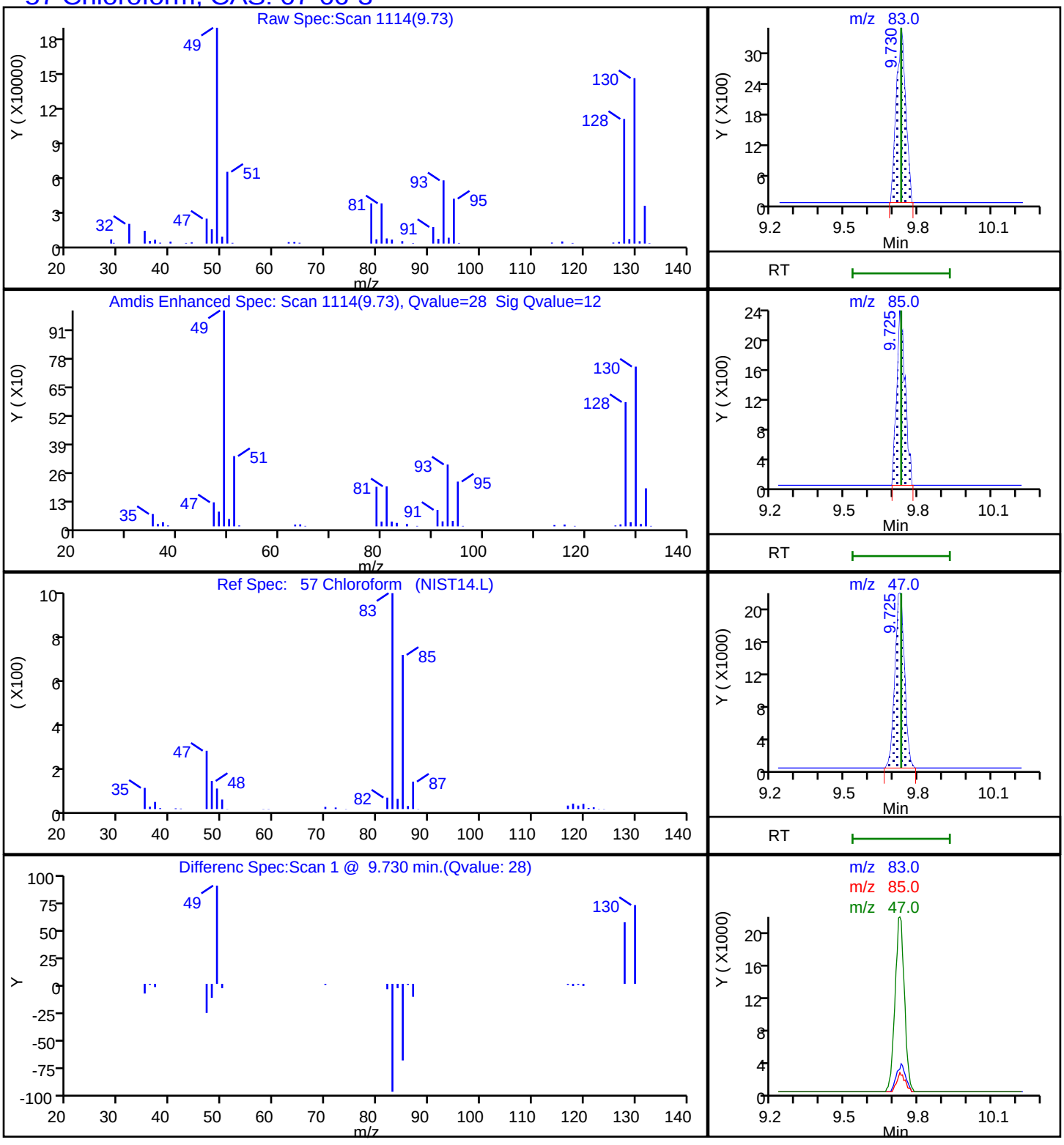
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

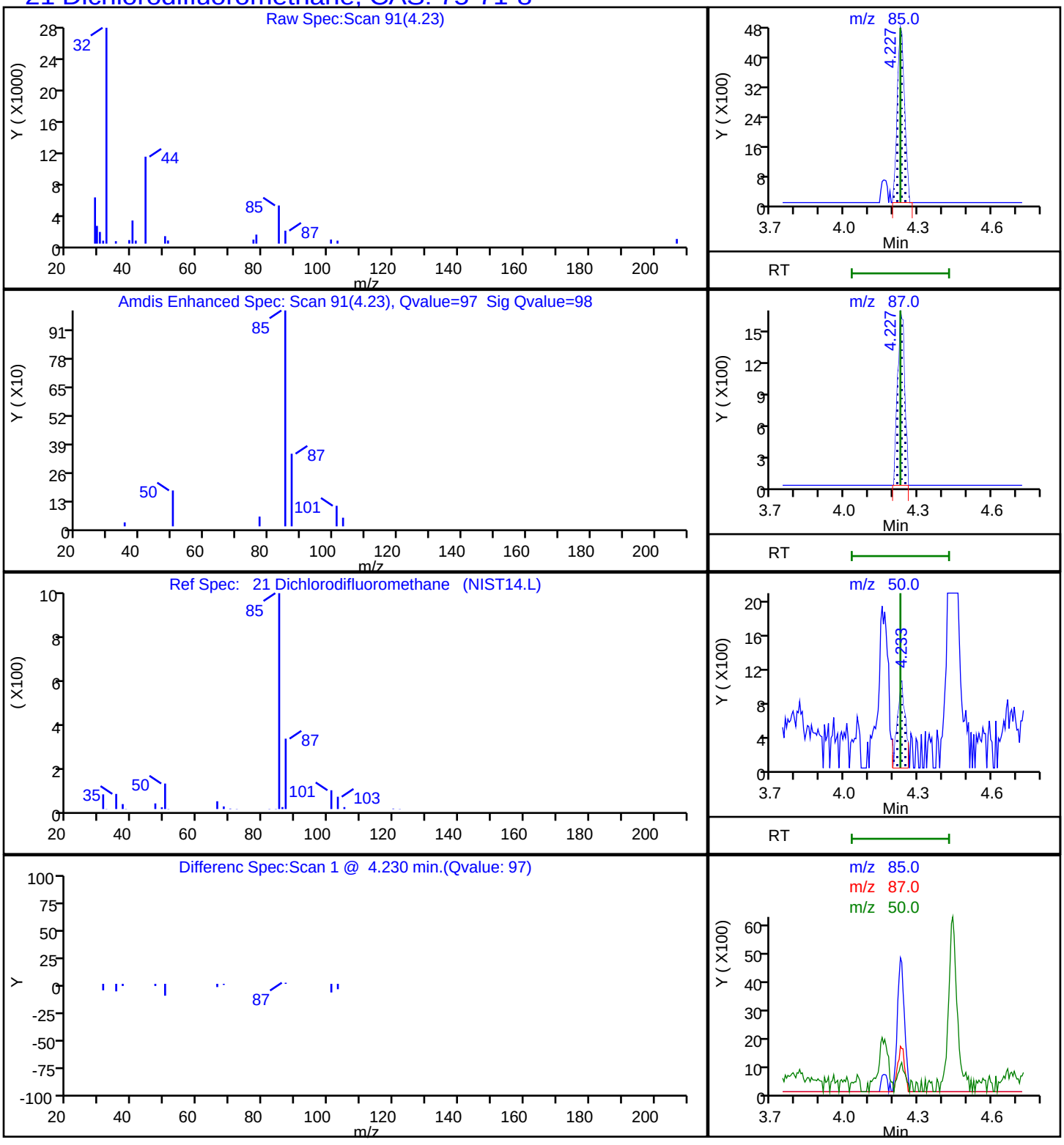


Report Date: 20-Aug-2019 12:37:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

21 Dichlorodifluoromethane, CAS: 75-71-8

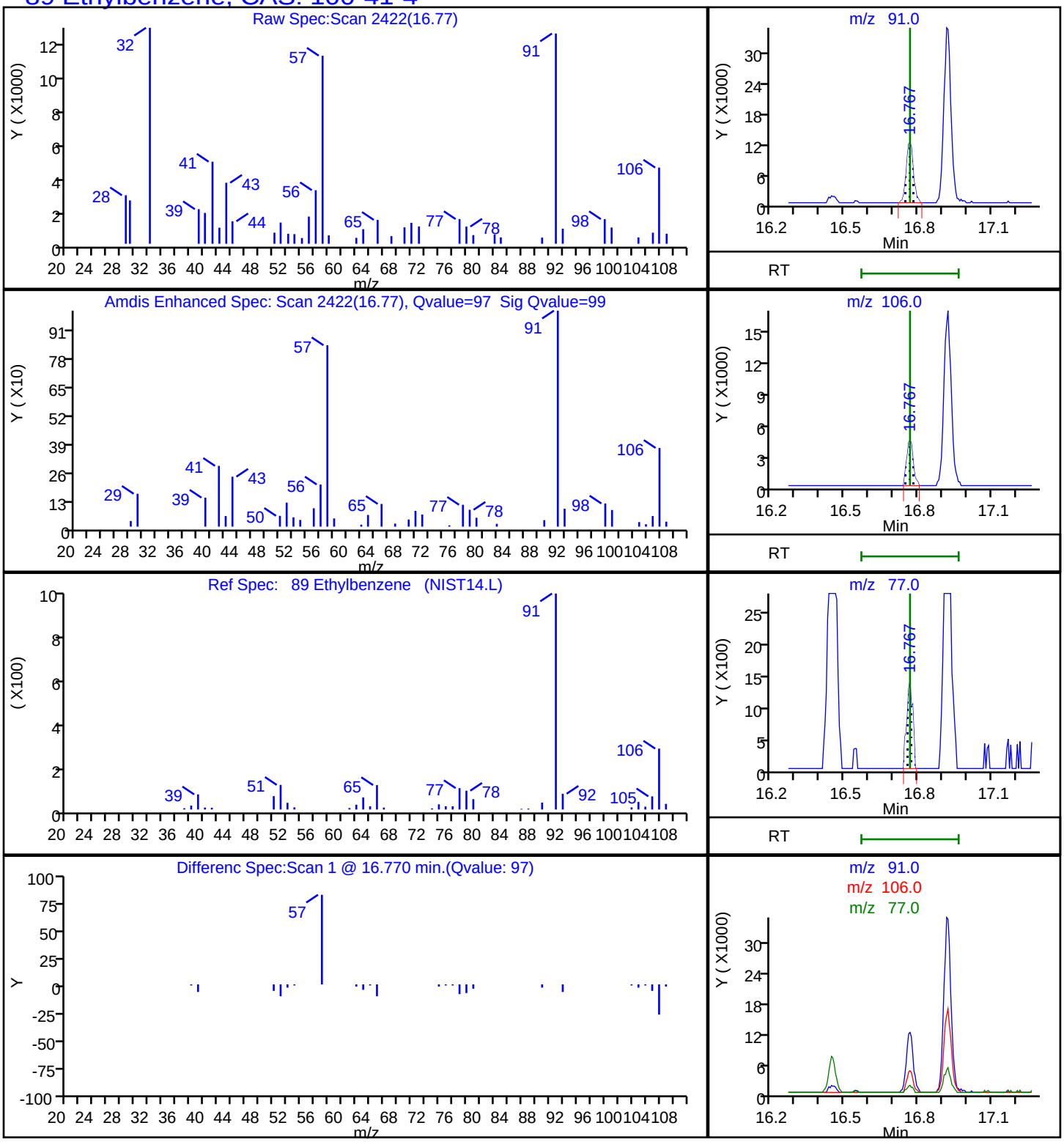


Report Date: 20-Aug-2019 12:37:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

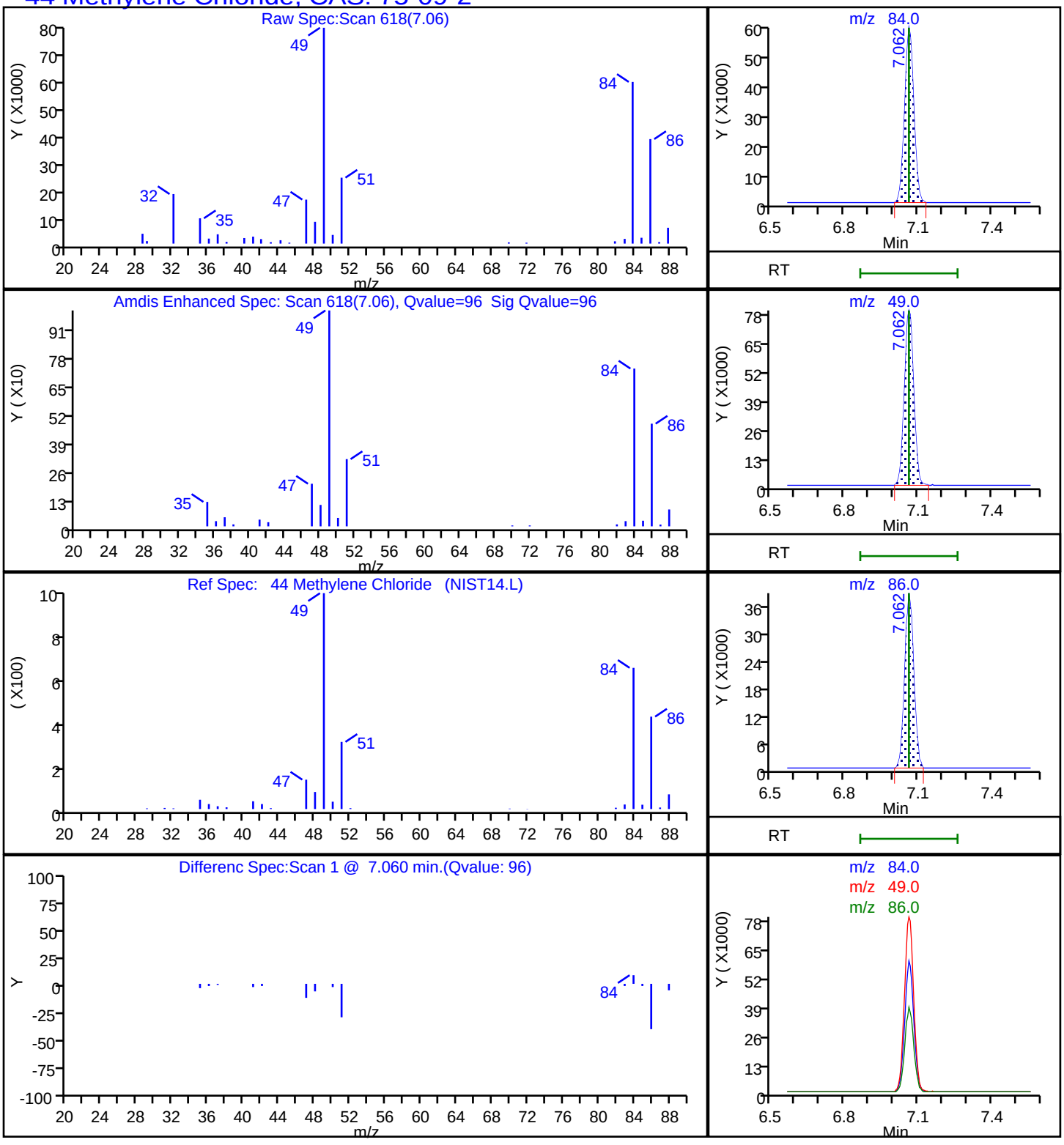


Report Date: 20-Aug-2019 12:37:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13		
Client ID:	IA-152-C-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

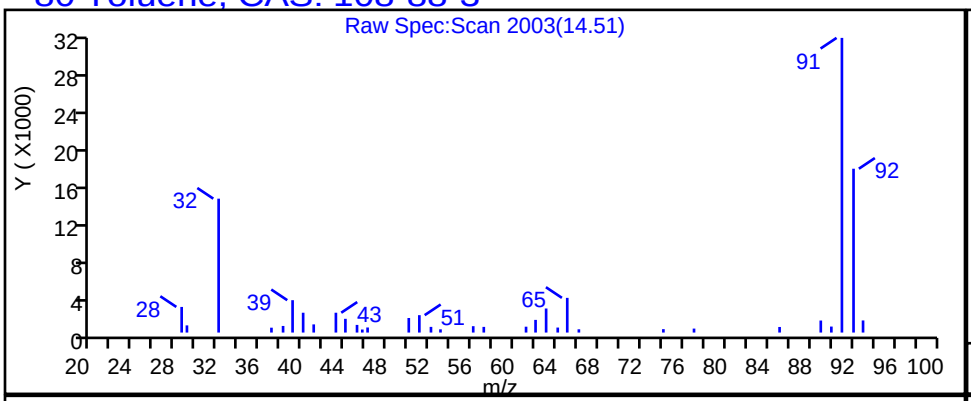
44 Methylene Chloride, CAS: 75-09-2

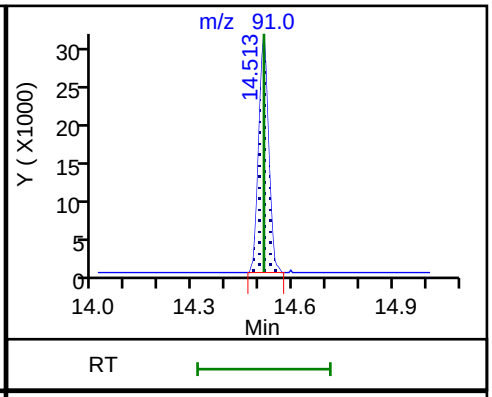


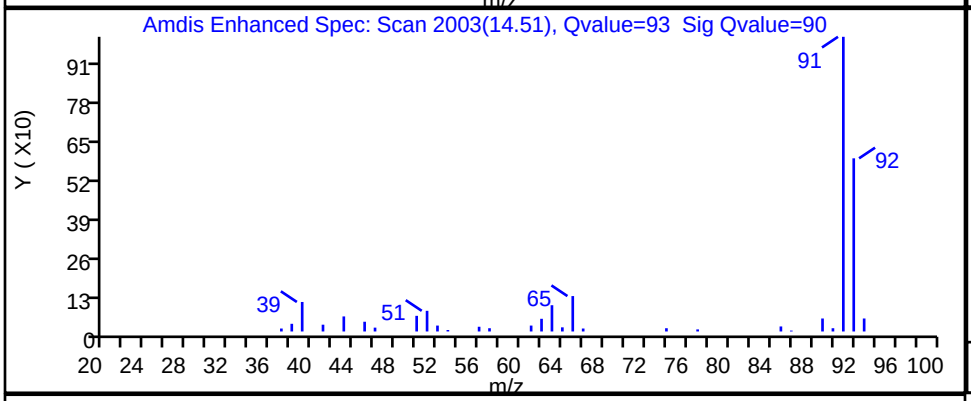
Eurofins TestAmerica, Knoxville

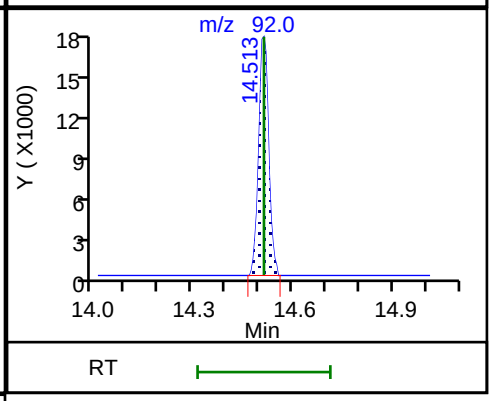
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

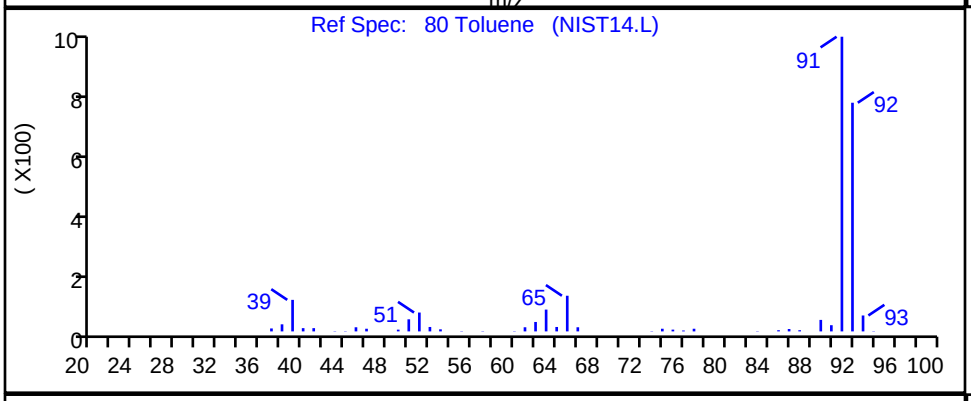
80 Toluene, CAS: 108-88-3

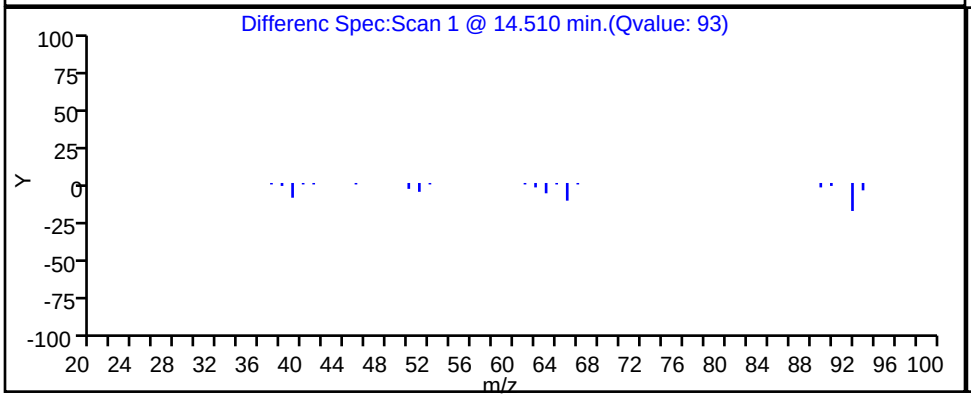


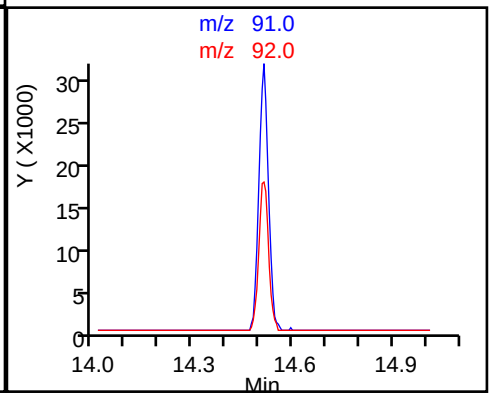








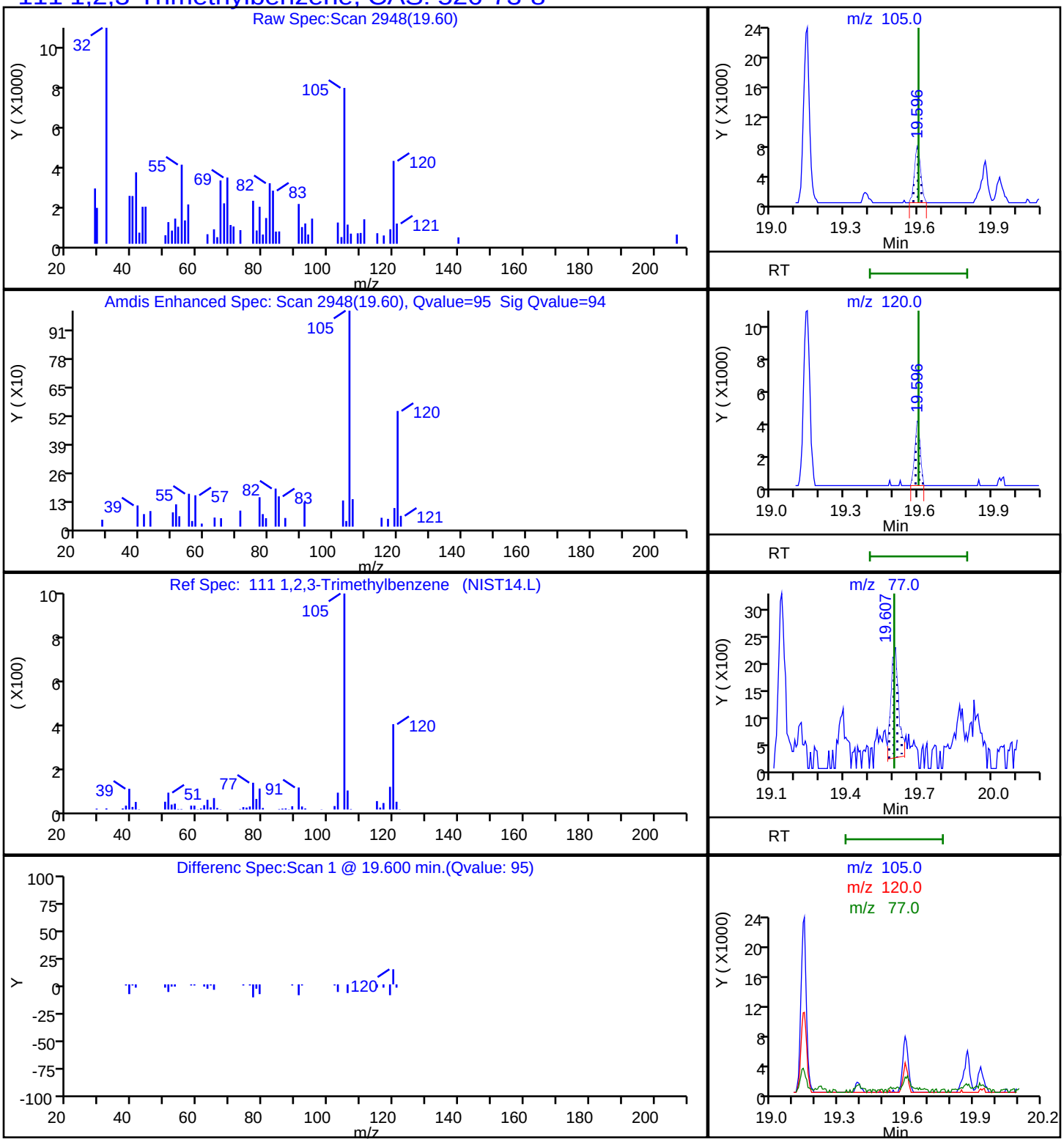




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

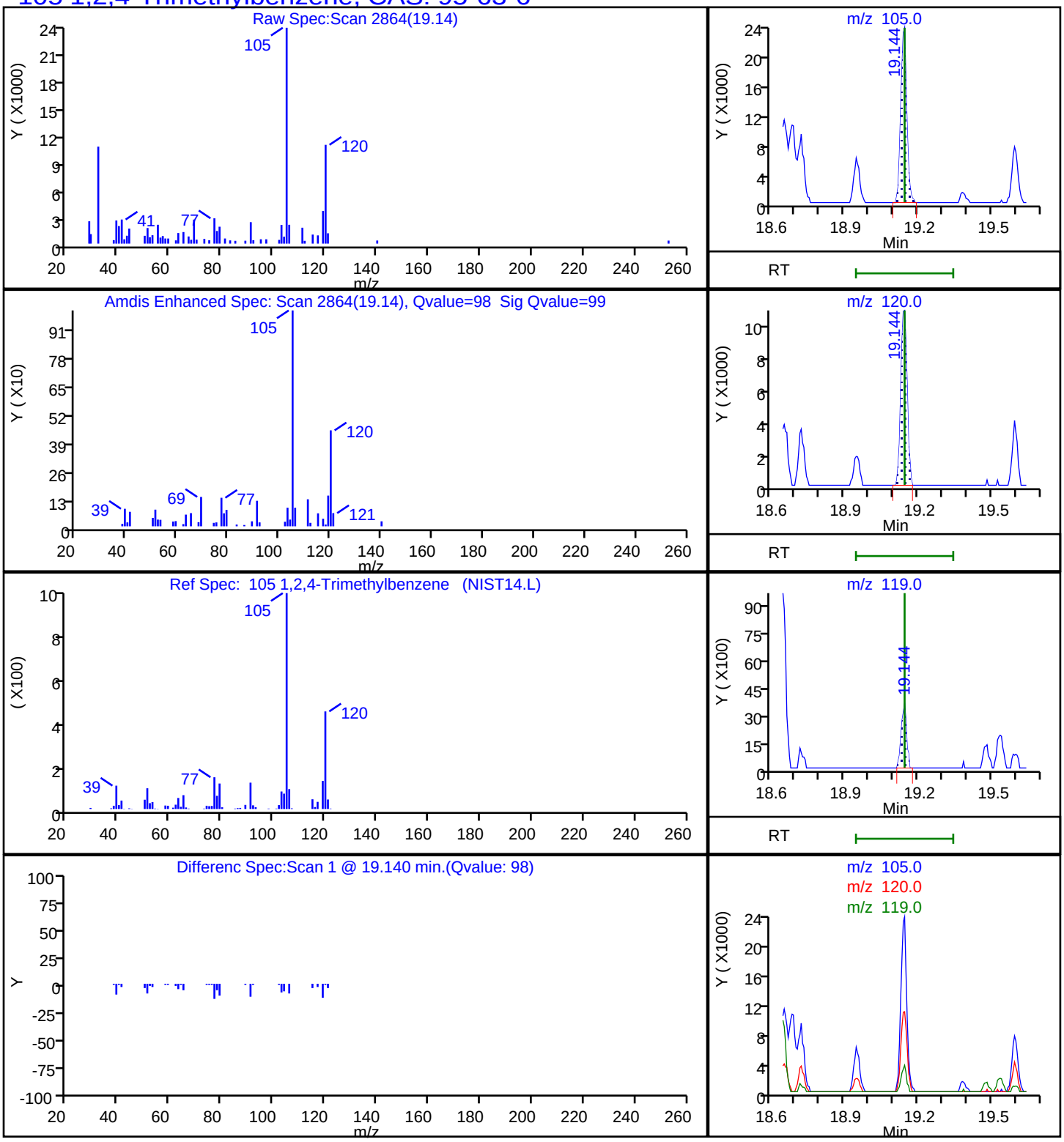


Report Date: 20-Aug-2019 12:37:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

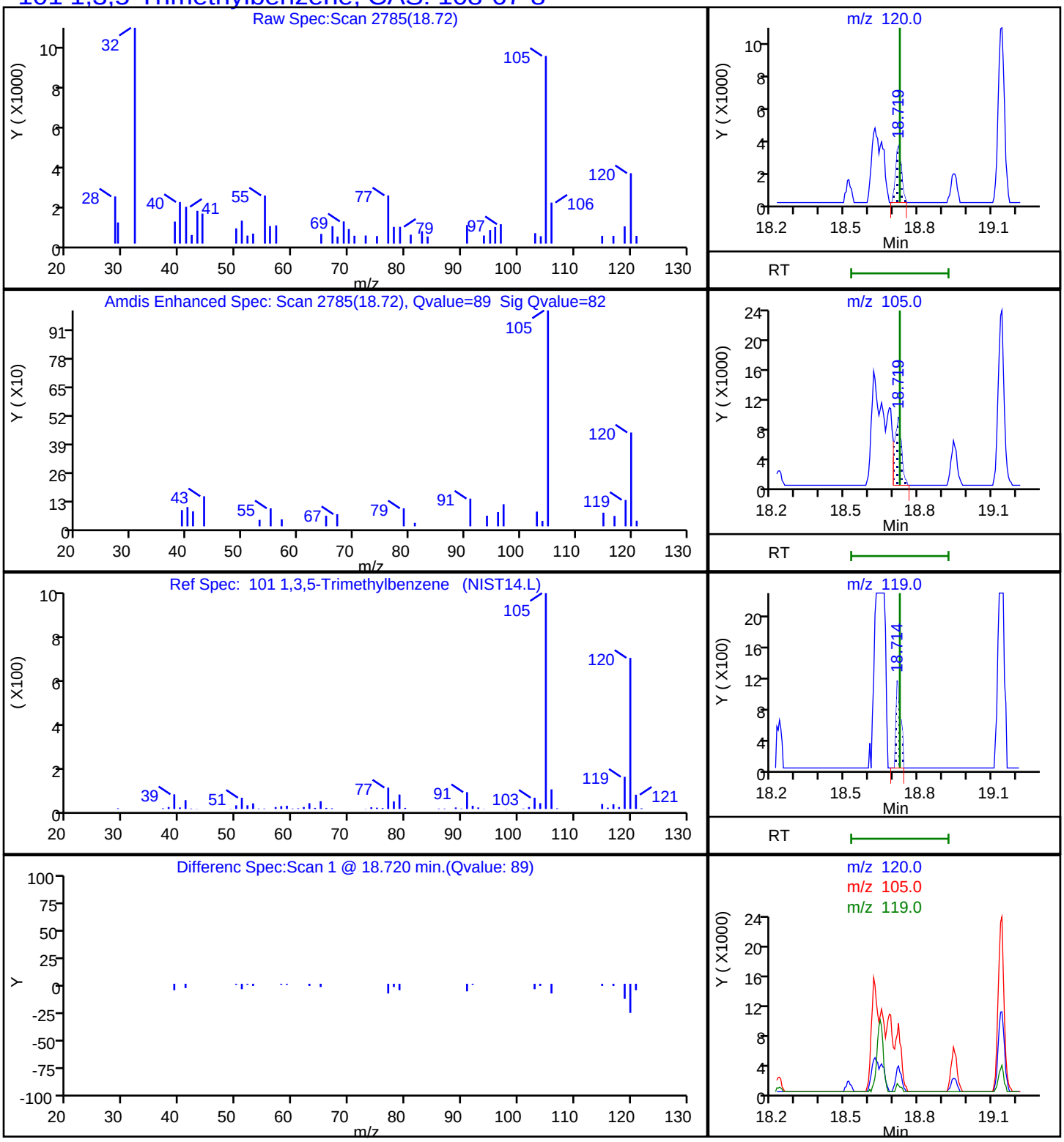


Report Date: 20-Aug-2019 12:37:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

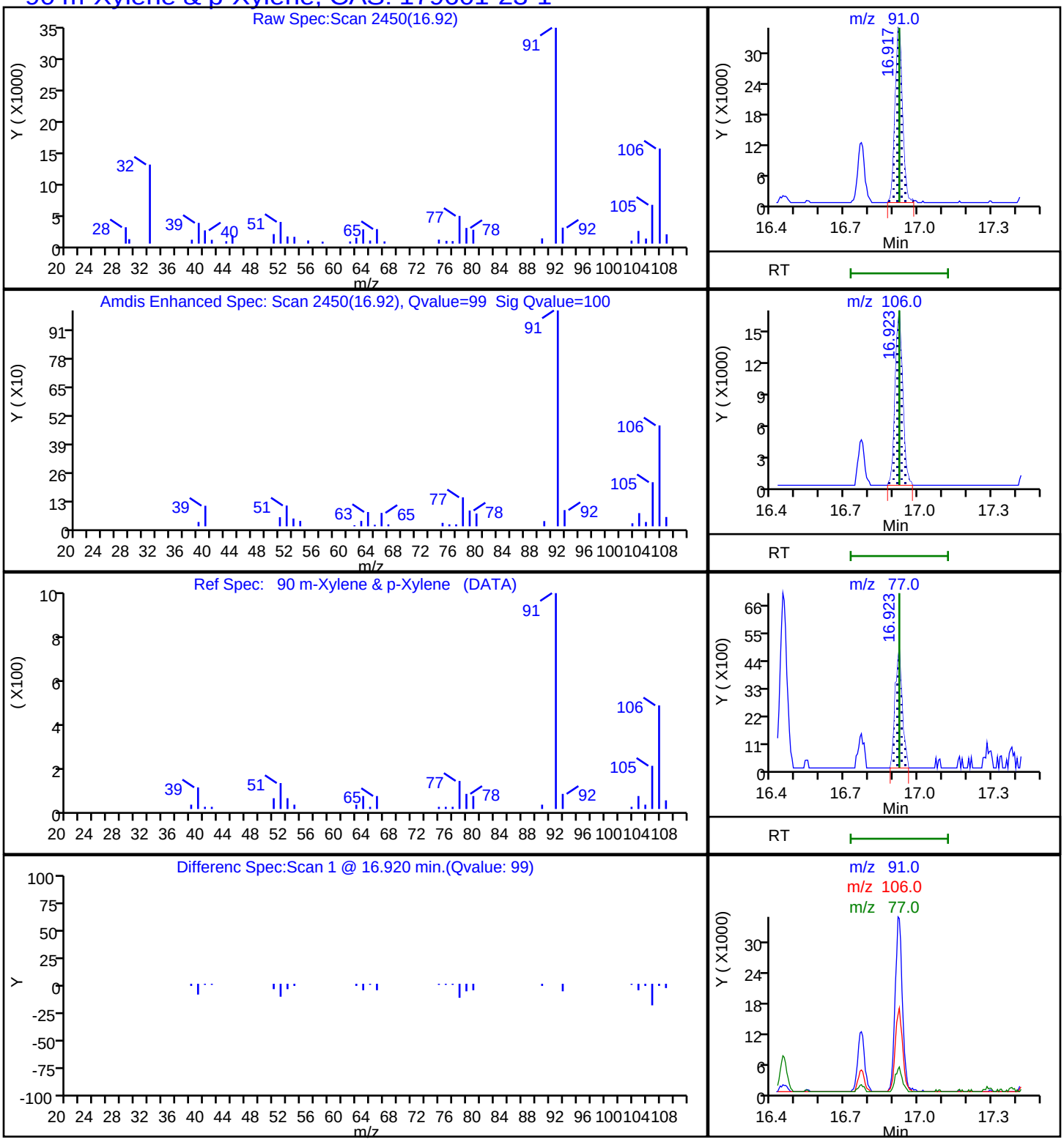


Report Date: 20-Aug-2019 12:37:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13		
Client ID:	IA-152-C-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

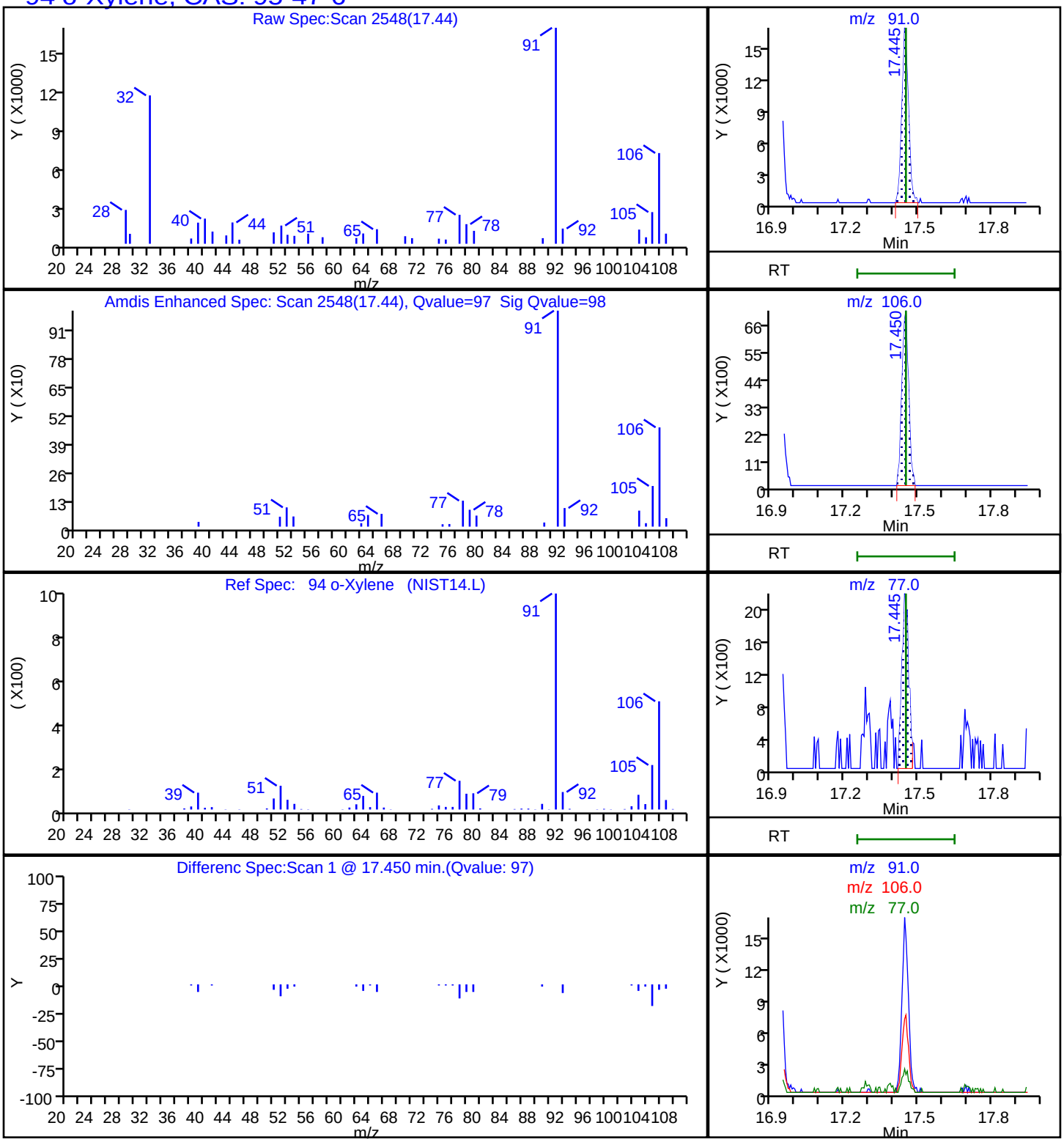


Report Date: 20-Aug-2019 12:37:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D		
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13
Client ID:	IA-152-C-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



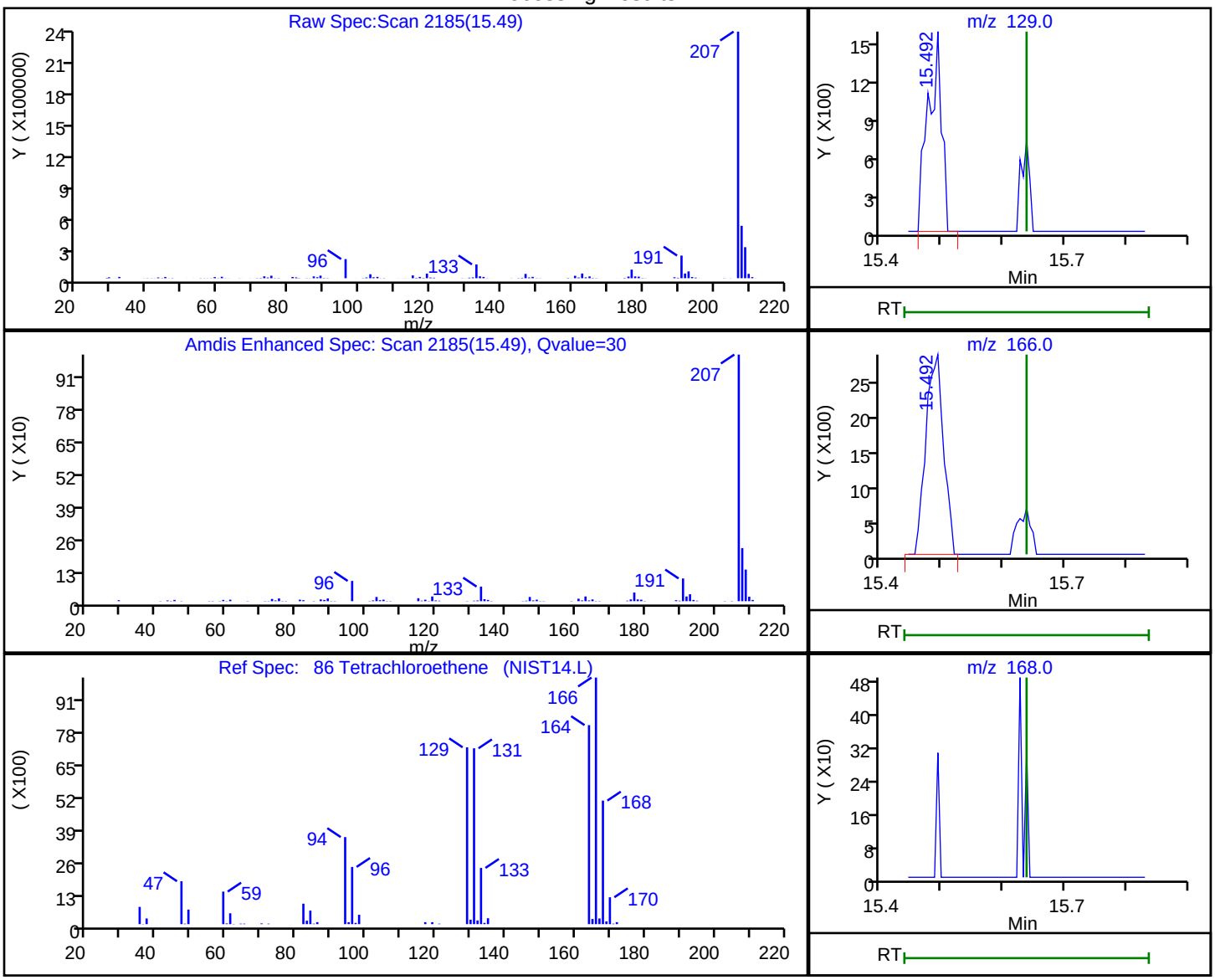
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P107.D				
Injection Date:	19-Aug-2019 18:36:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-13	Lab Sample ID:	140-16369-13		
Client ID:	IA-152-C-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

86 Tetrachloroethene, CAS: 127-18-4

Processing Results



RT	Mass	Response	Amount
15.49	129.00	2281	0.018232
15.49	166.00	5762	
15.64	168.00	0	

Reviewer: khachitpongpanits, 20-Aug-2019 12:36:42

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.8	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.68		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.28	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Lims ID:	140-16369-A-14				
Client ID:	IA-144-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 19:25:30	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-013				
Misc. Info.:	140-16369-a-14				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:37:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:37:40		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.725	0.007	92	312863	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	95	1595180	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	88	1315583	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	96	861461	3.56	
19 Chlorodifluoromethane	51	4.164	4.152	0.007	97	65740	0.7689	
21 Dichlorodifluoromethane	85	4.234	4.227	0.007	98	7938	0.0810	
44 Methylene Chloride	84	7.069	7.062	0.007	97	66486	0.5648	
57 Chloroform	83	9.732	9.731	0.002	33	5916	0.0233	
64 Benzene	78	11.335	11.339	-0.004	96	7884	0.0270	
65 Carbon tetrachloride	117	11.356	11.350	0.001	40	2475	0.0101	
80 Toluene	91	14.514	14.513	0.001	93	43351	0.1364	
89 Ethylbenzene	91	16.768	16.767	0.001	98	21180	0.0517	
90 m-Xylene & p-Xylene	91	16.919	16.923	-0.005	99	59219	0.1886	
94 o-Xylene	91	17.446	17.450	-0.004	98	24028	0.0719	
105 1,2,4-Trimethylbenzene	105	19.140	19.145	-0.004	98	21942	0.0570	
S 129 Xylenes, Total	100				0		0.2605	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

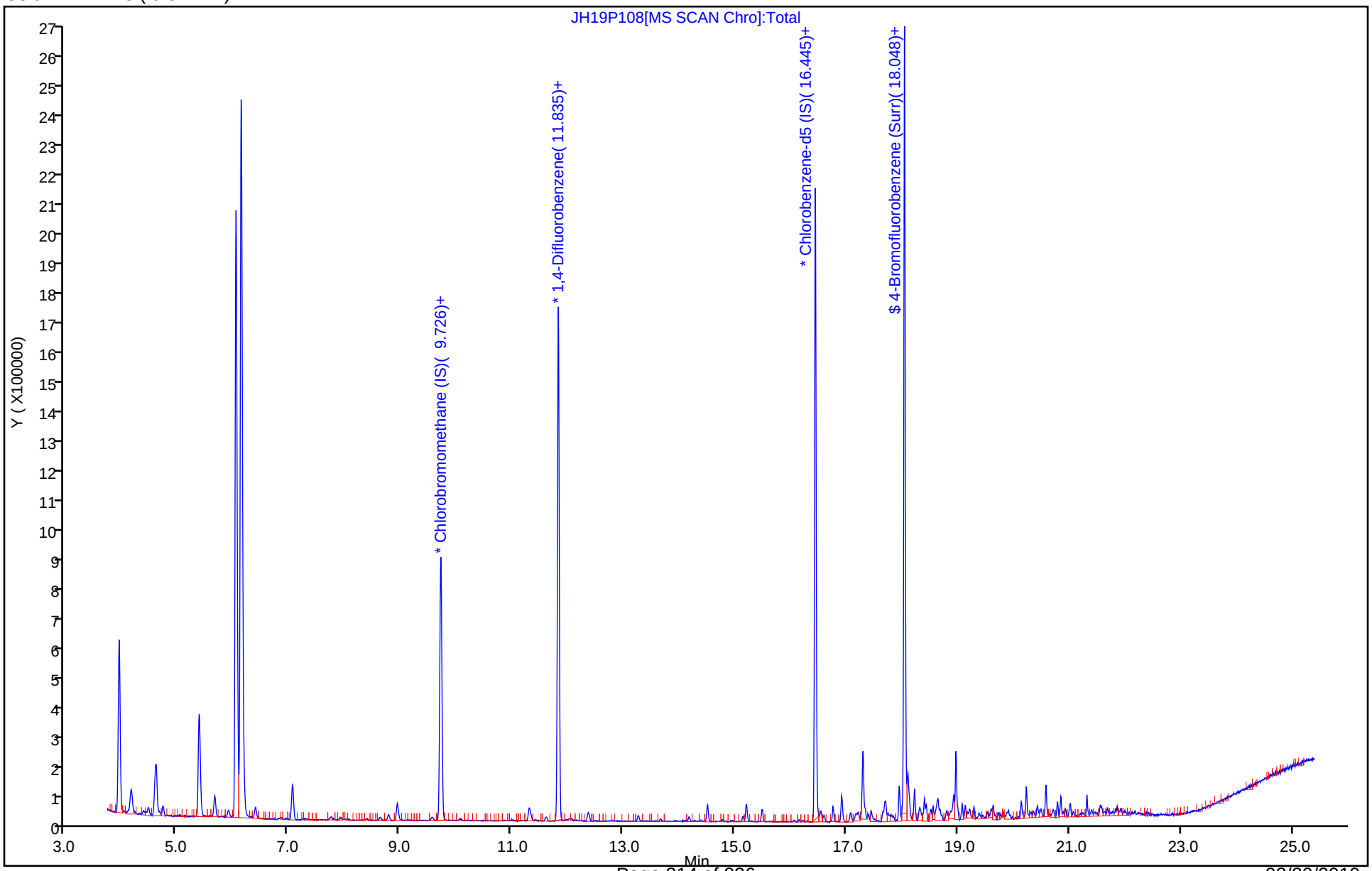
Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D

Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14	Worklist Smp#:	13
Client ID:	IA-144-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

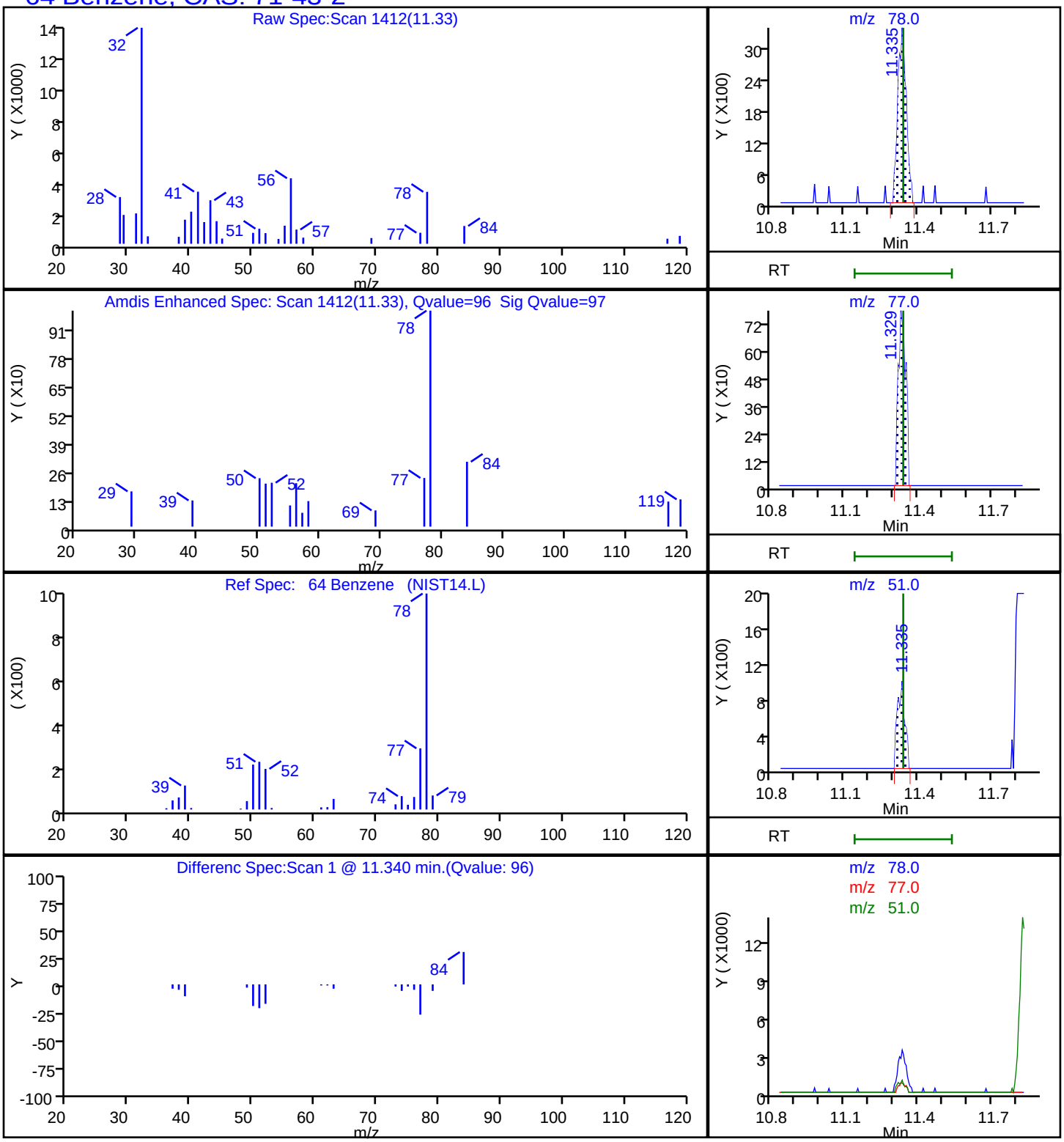
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Lims ID:	140-16369-A-14				
Client ID:	IA-144-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 19:25:30	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-013				
Misc. Info.:	140-16369-a-14				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:37:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:37:40		

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.56	89.07

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

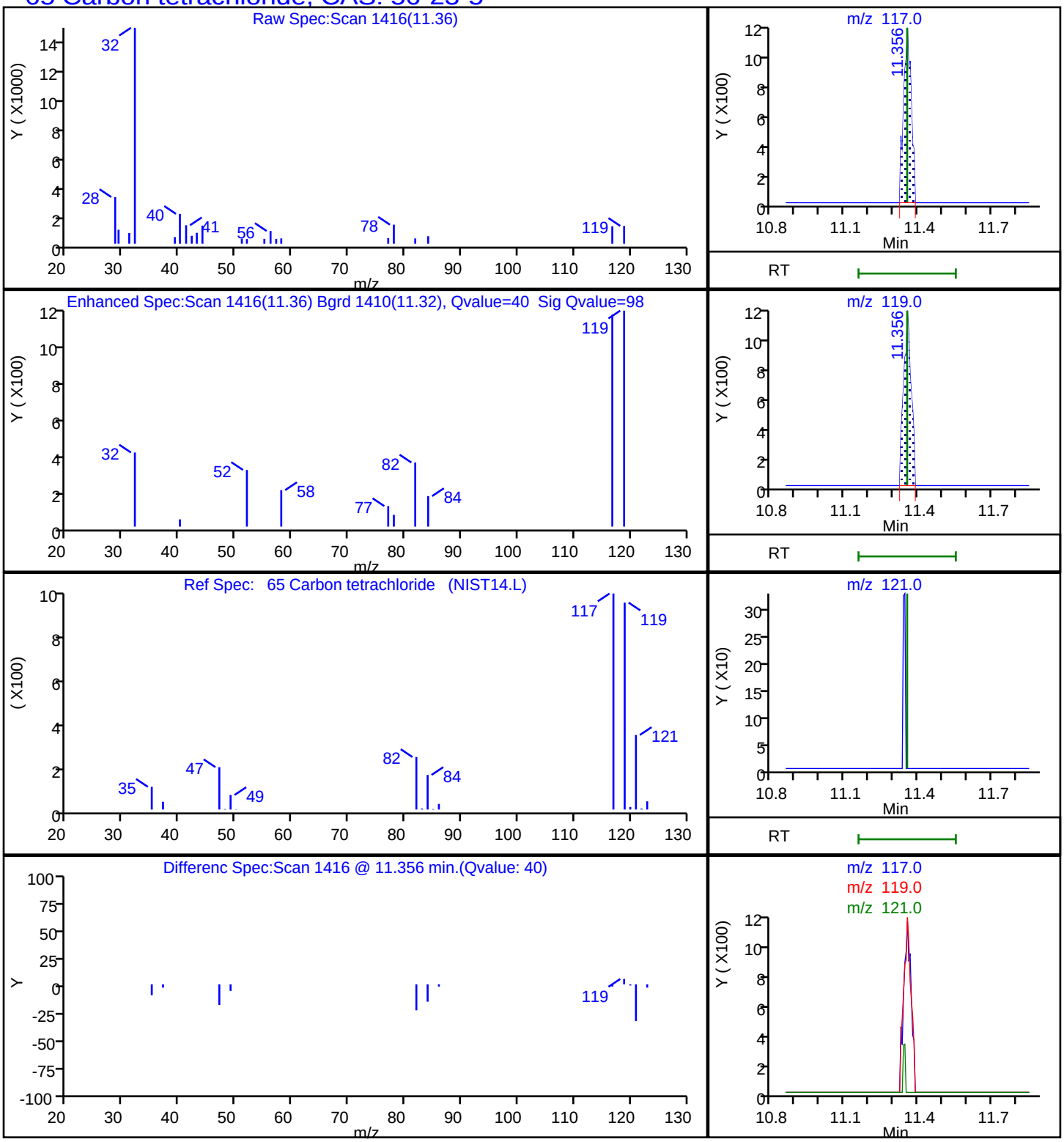
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5

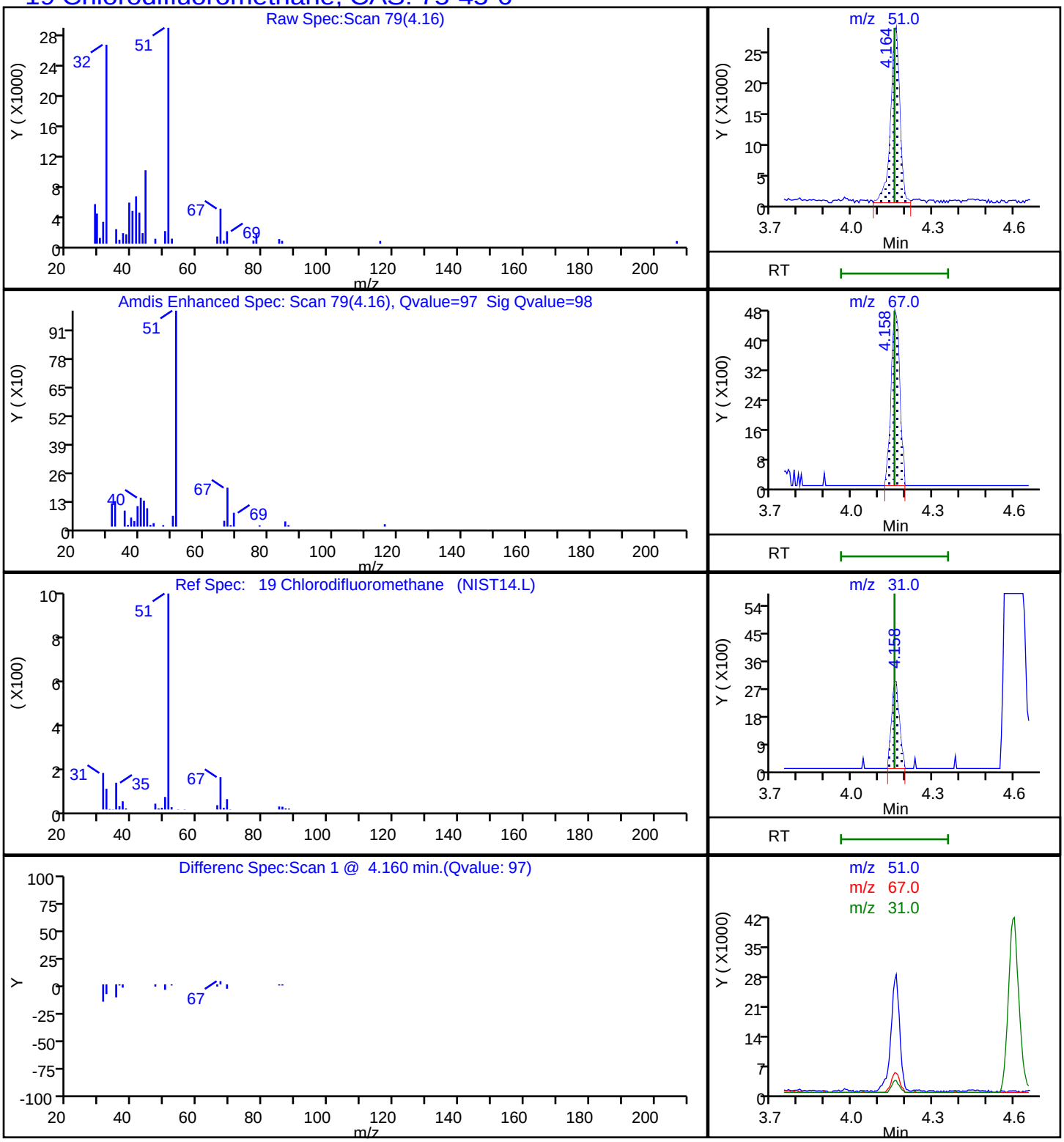


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

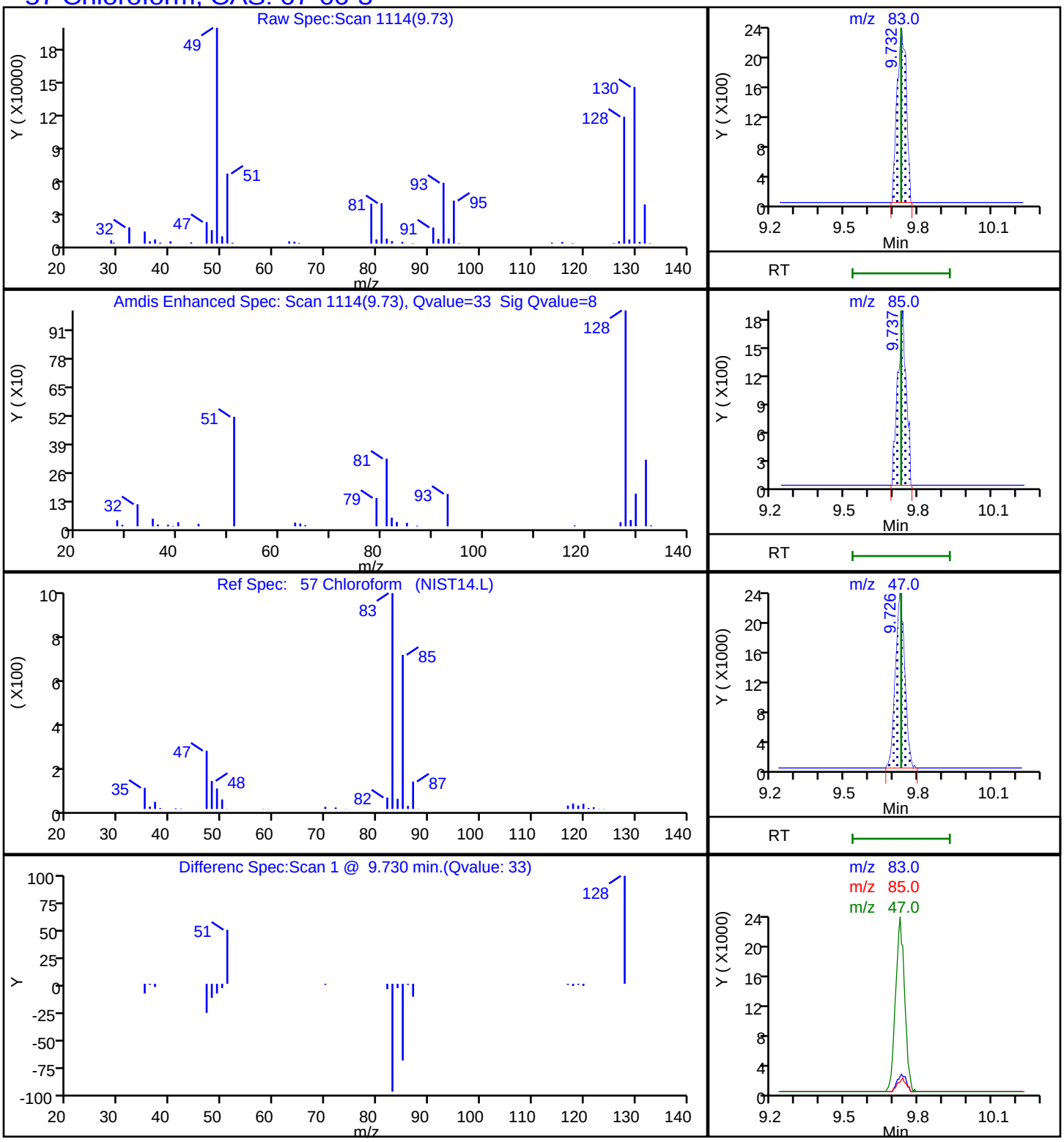
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D		
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14
Client ID:	IA-144-C-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

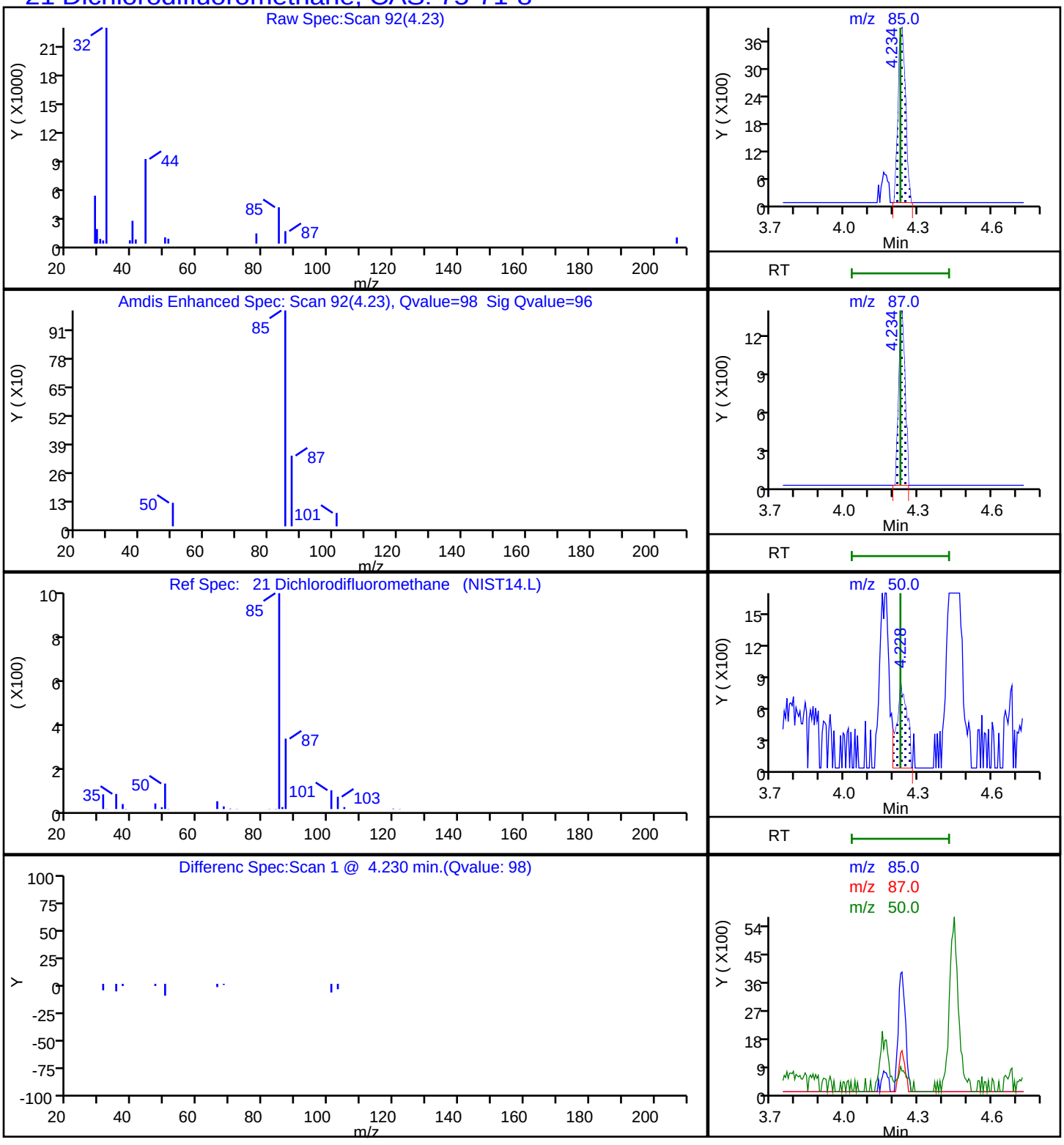


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

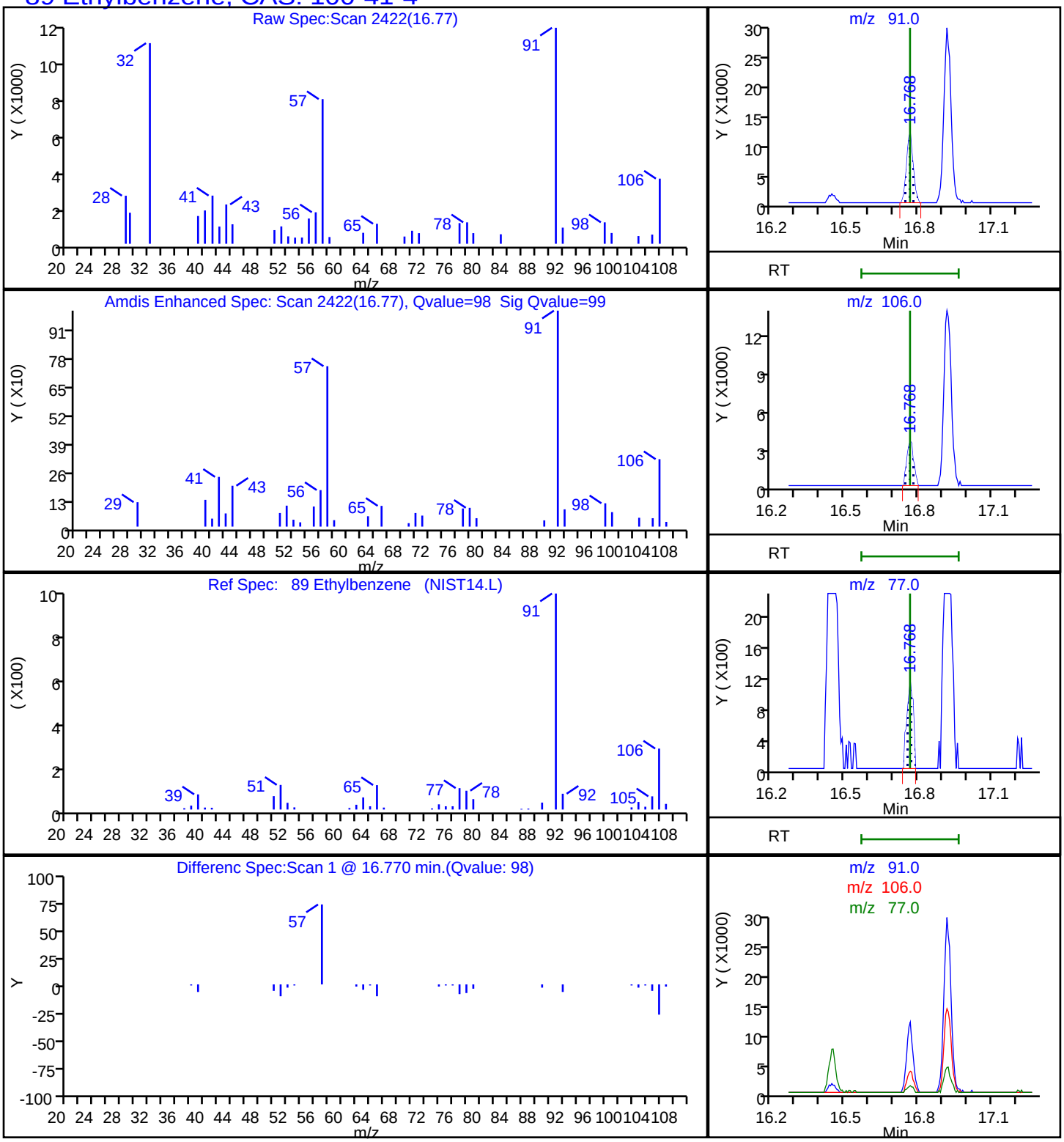


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

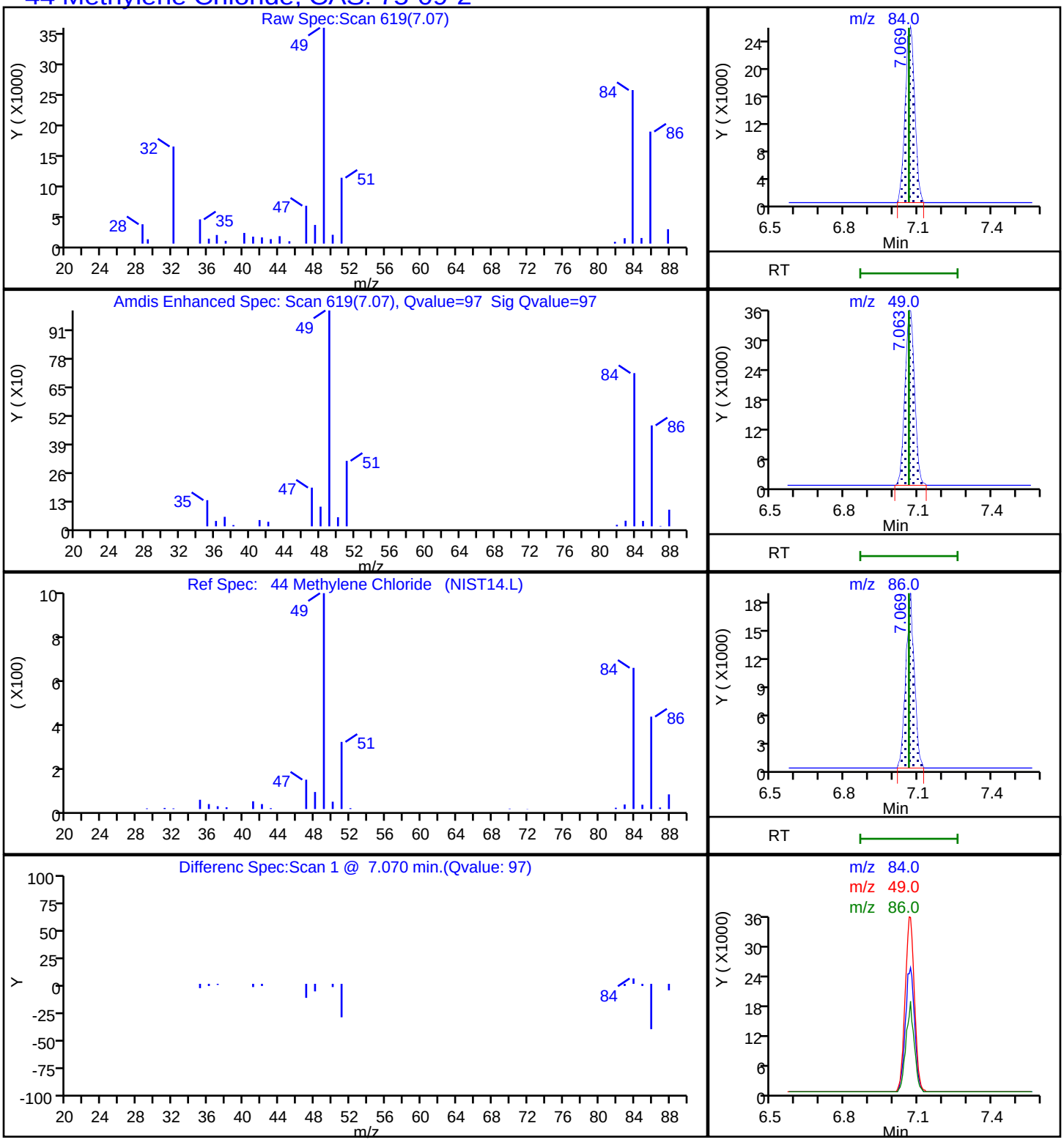
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

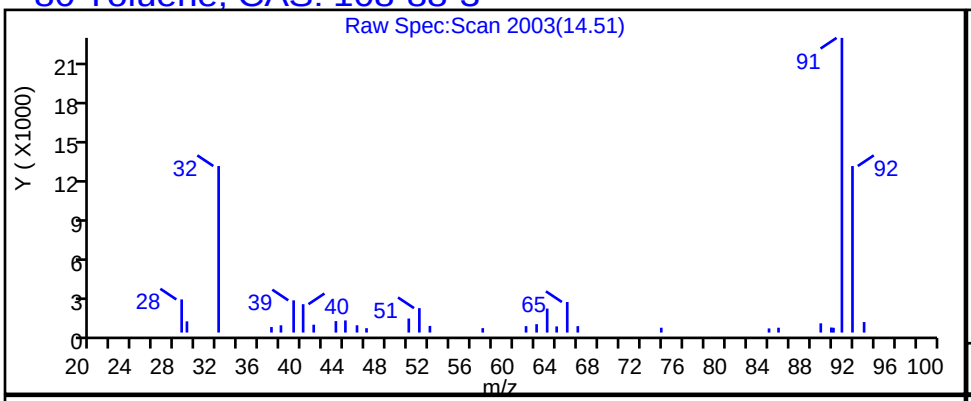
44 Methylene Chloride, CAS: 75-09-2

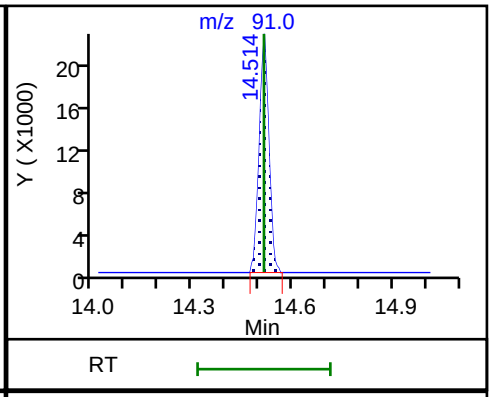


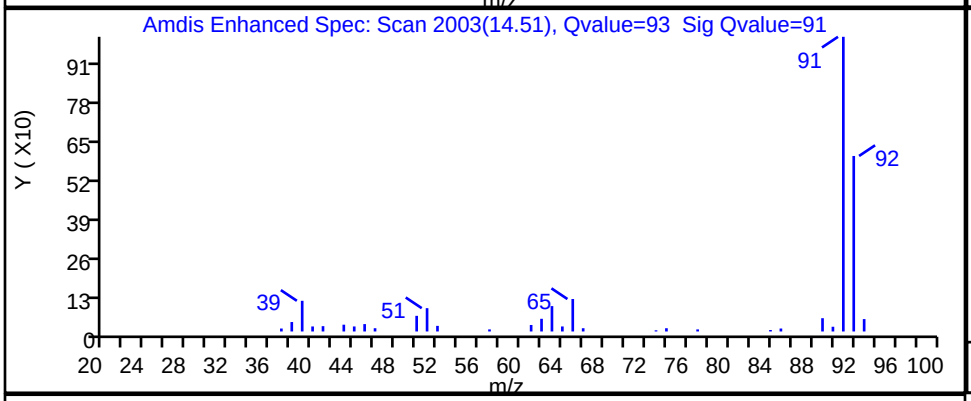
Eurofins TestAmerica, Knoxville

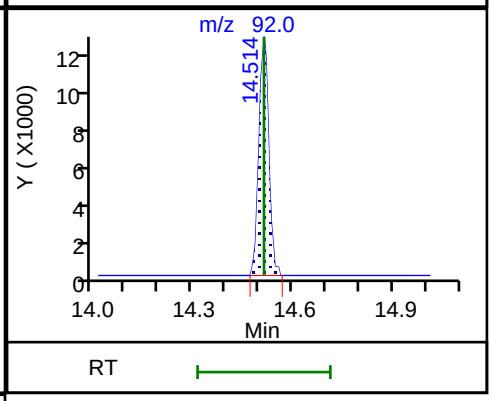
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D		
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14
Client ID:	IA-144-C-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

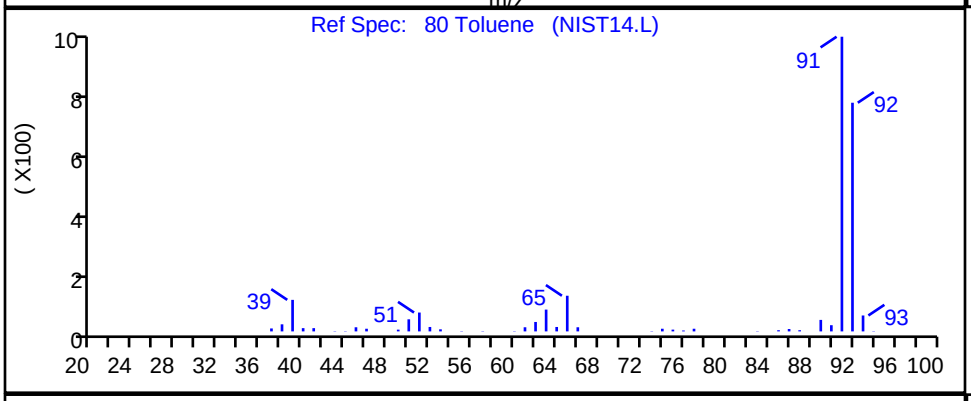
80 Toluene, CAS: 108-88-3

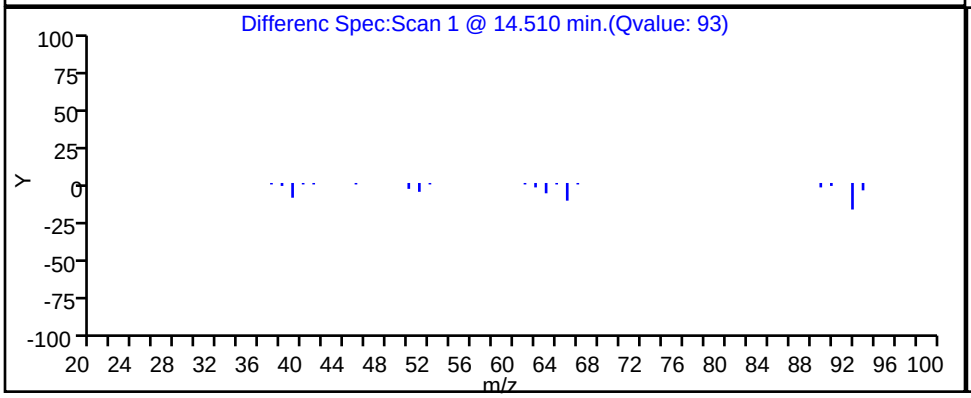


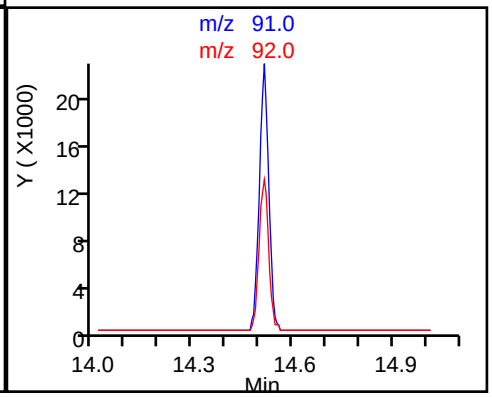










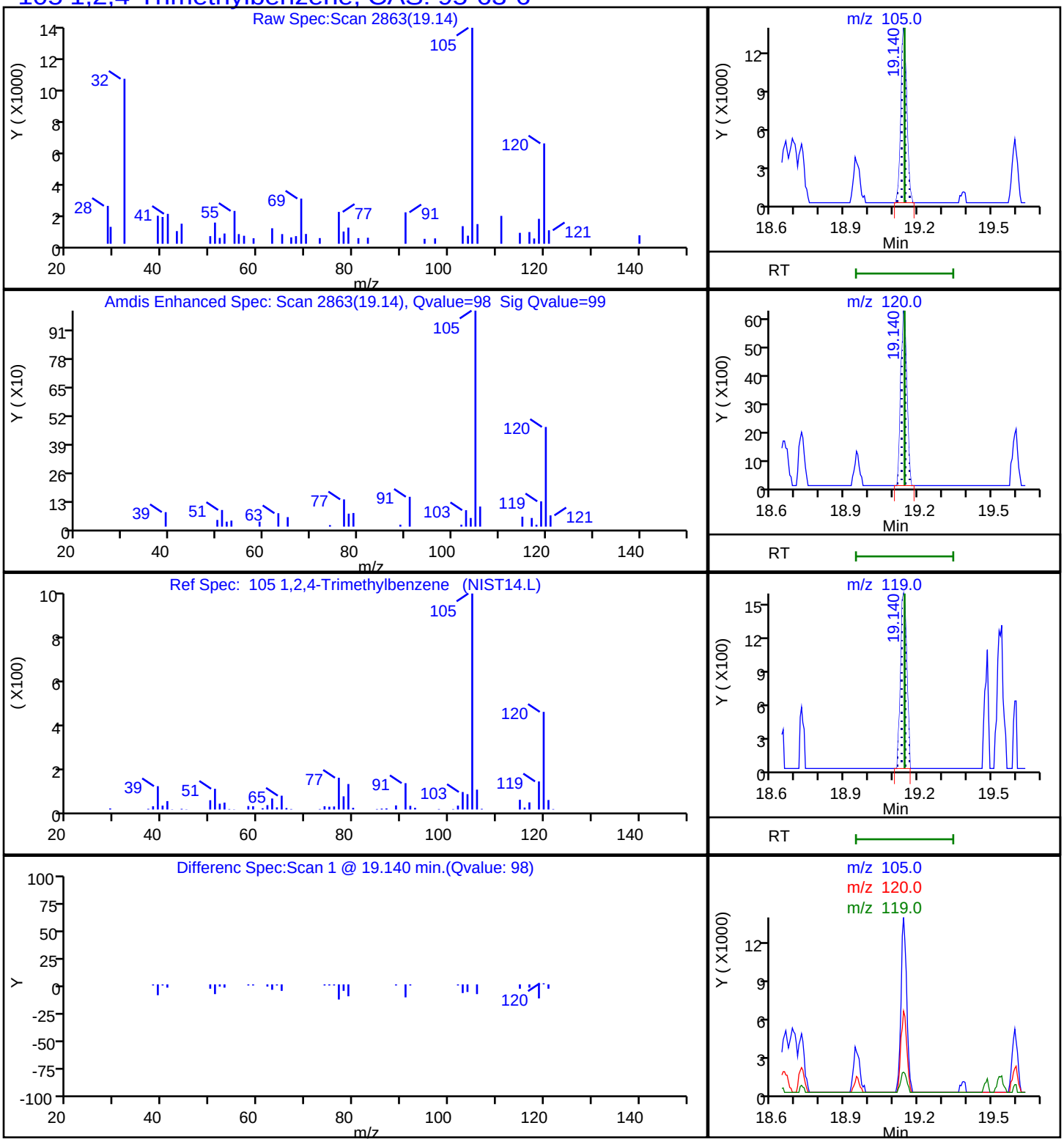


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

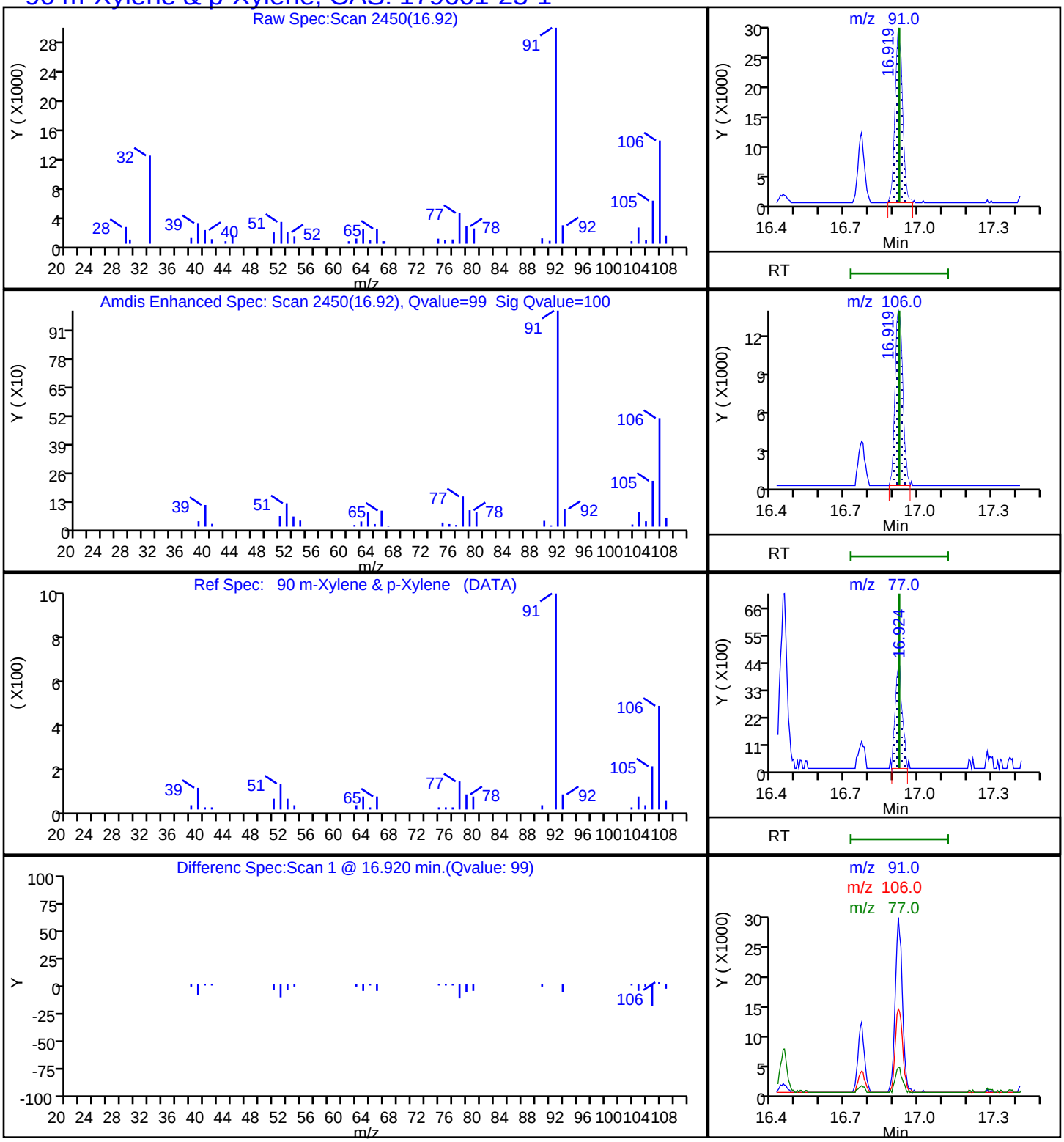


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

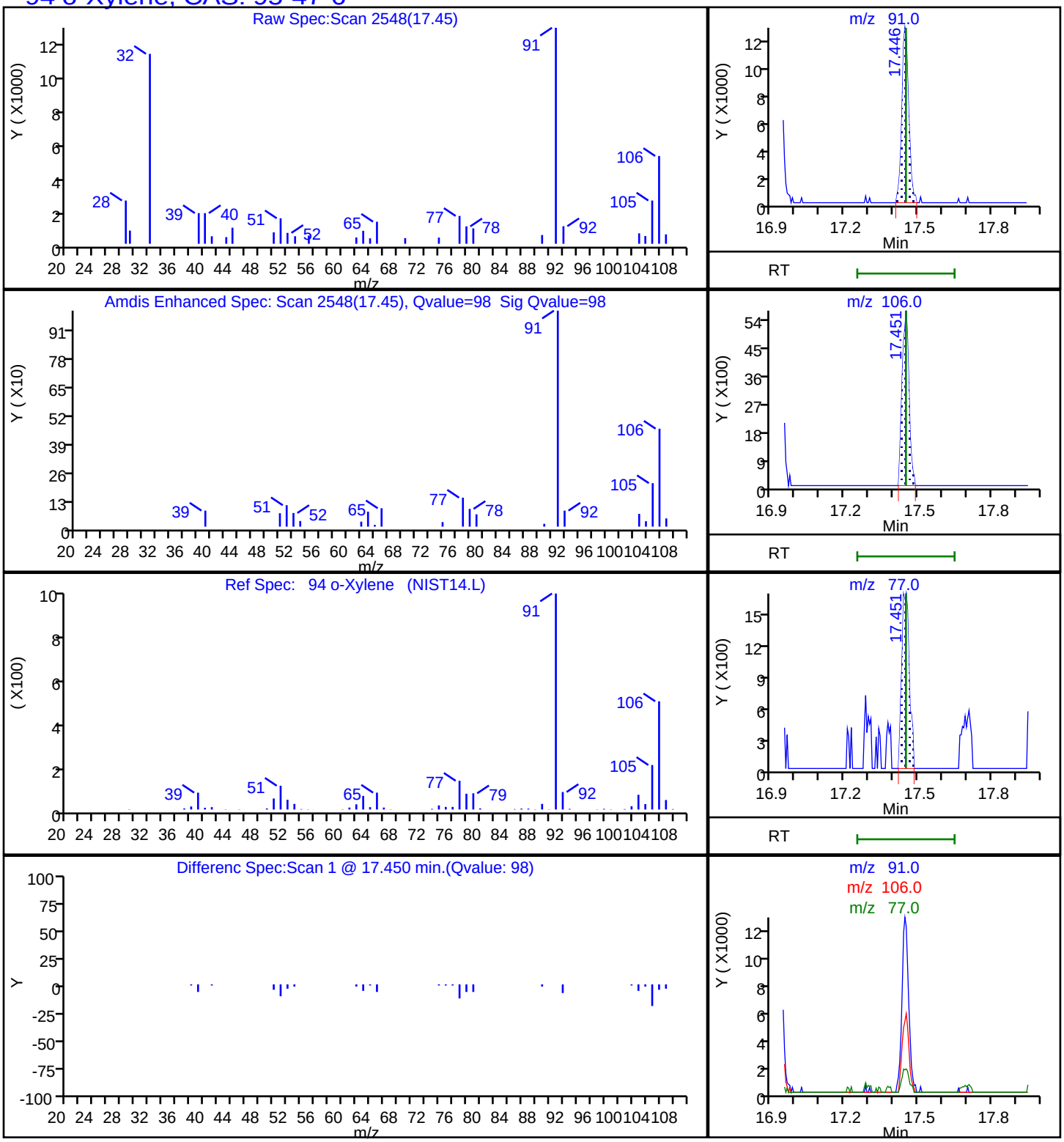


Report Date: 20-Aug-2019 12:37:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P108.D				
Injection Date:	19-Aug-2019 19:25:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-14	Lab Sample ID:	140-16369-14		
Client ID:	IA-144-C-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.5		0.40	0.11
67-66-3	Chloroform	119.38	0.040	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.88		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.53	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	12		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Lims ID:	140-16369-A-15				
Client ID:	IA-145-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 21:04:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-015				
Misc. Info.:	140-16369-a-15				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:39:37	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:39:37		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.725	-0.004	92	308741	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	95	1565329	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	88	1329051	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	96	865365	3.54	
19 Chlorodifluoromethane	51	4.159	4.159	0.001	96	59146	0.7010	M
21 Dichlorodifluoromethane	85	4.228	4.227	0.001	97	9093	0.0940	
44 Methylene Chloride	84	7.063	7.062	0.001	97	71310	0.6139	
57 Chloroform	83	9.732	9.731	0.002	40	1998	0.007974	
64 Benzene	78	11.329	11.339	-0.010	96	9391	0.0328	
65 Carbon tetrachloride	117	11.351	11.350	-0.004	67	3396	0.0141	
80 Toluene	91	14.514	14.513	0.001	93	56731	0.1767	
89 Ethylbenzene	91	16.763	16.767	-0.004	98	9353	0.0226	
90 m-Xylene & p-Xylene	91	16.919	16.923	-0.004	98	24365	0.0768	
94 o-Xylene	91	17.446	17.450	-0.004	98	10252	0.0304	
S 129 Xylenes, Total	100				0		0.1072	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

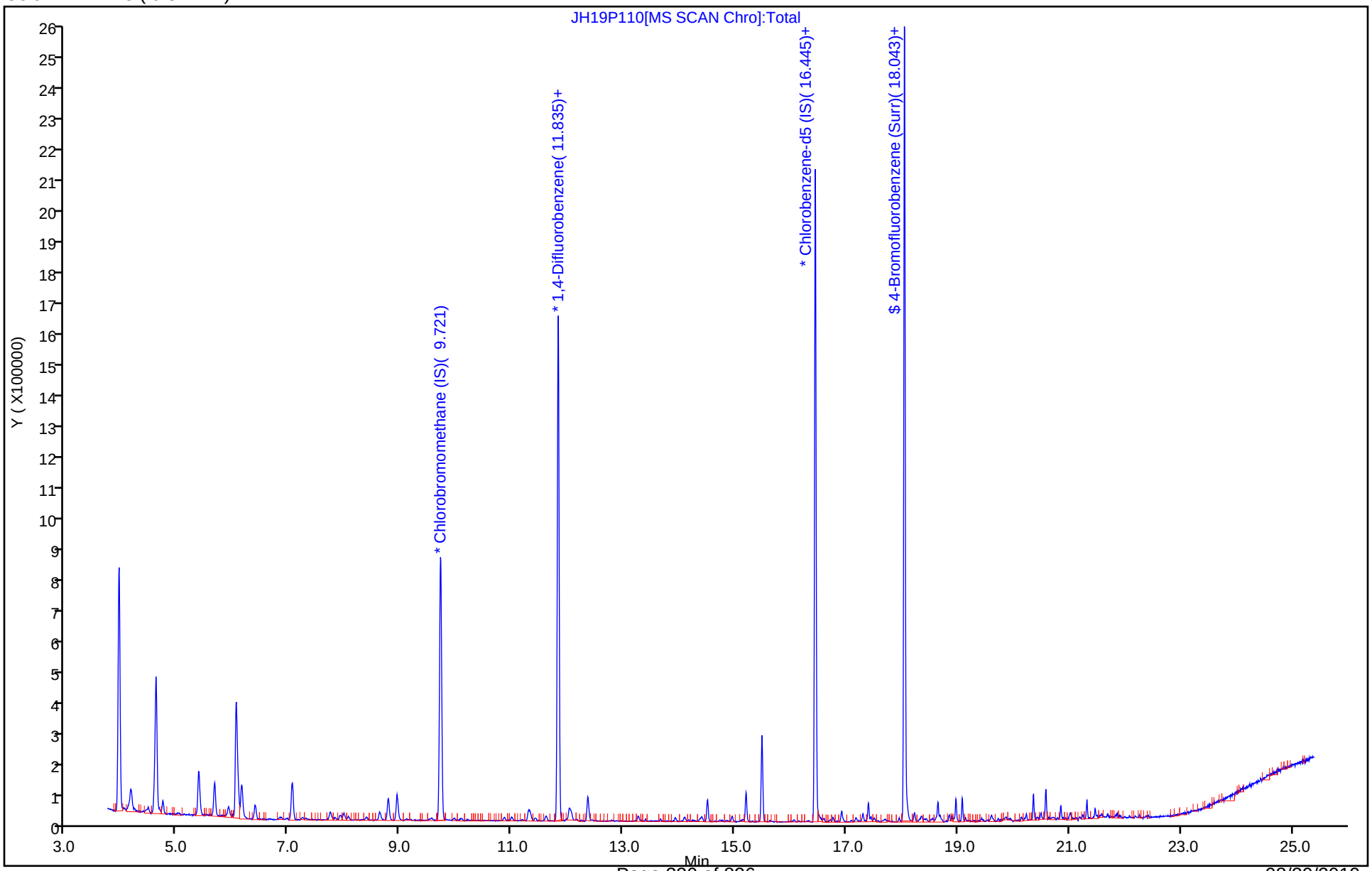
Report Date: 20-Aug-2019 12:39:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D

Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15	Worklist Smp#:	15
Client ID:	IA-145-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Lims ID:	140-16369-A-15				
Client ID:	IA-145-C-27				
Sample Type:	Client				
Inject. Date:	19-Aug-2019 21:04:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-015				
Misc. Info.:	140-16369-a-15				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:39:37	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

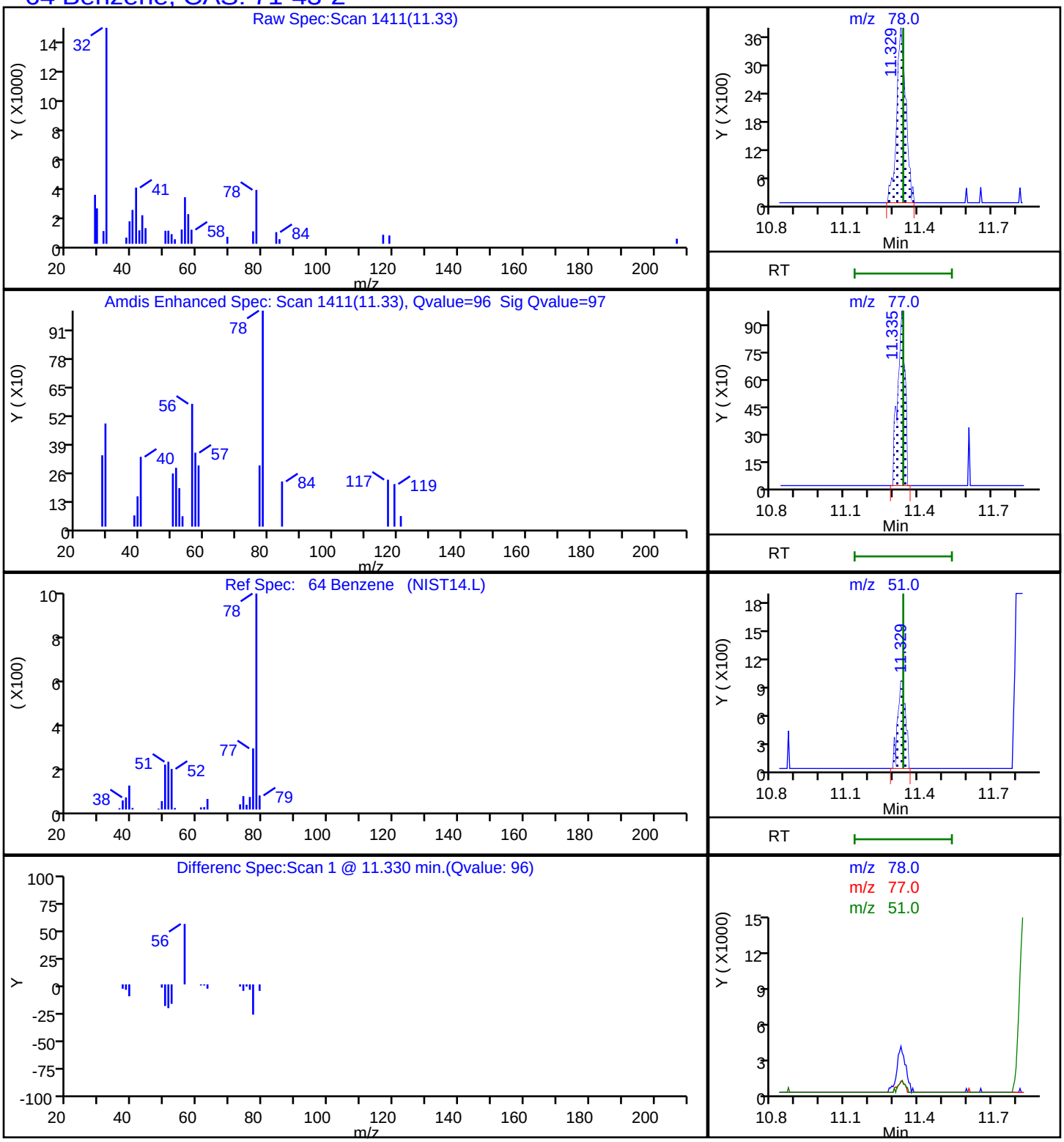
First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:39:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.54	88.57

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D		
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15
Client ID:	IA-145-C-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Report Date: 20-Aug-2019 12:39:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D

Injection Date: 19-Aug-2019 21:04:30 Instrument ID: MJ

Lims ID: 140-16369-A-15 Lab Sample ID: 140-16369-15

Client ID: IA-145-C-27

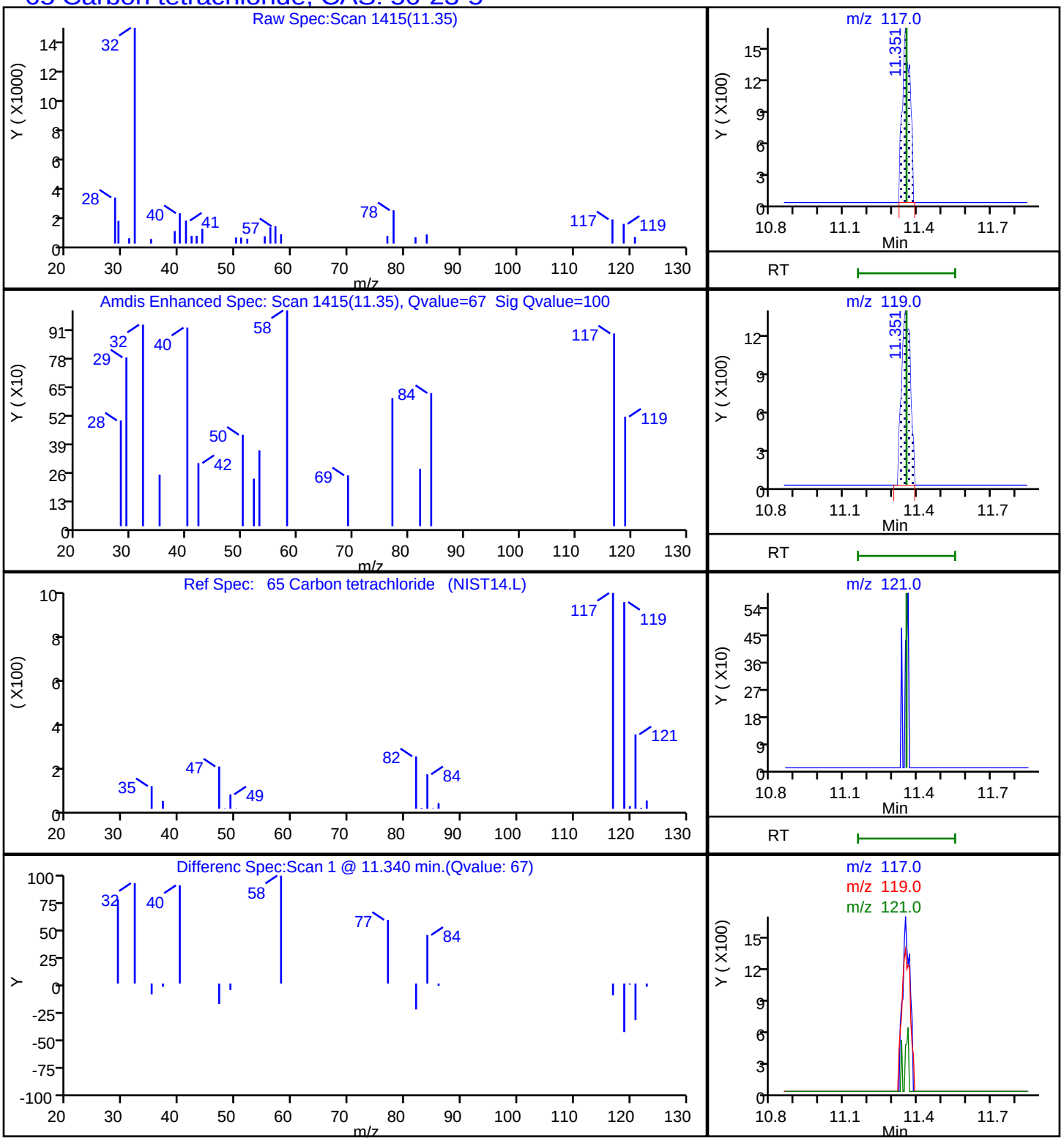
Operator ID: 007126 ALS Bottle#: 10 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5

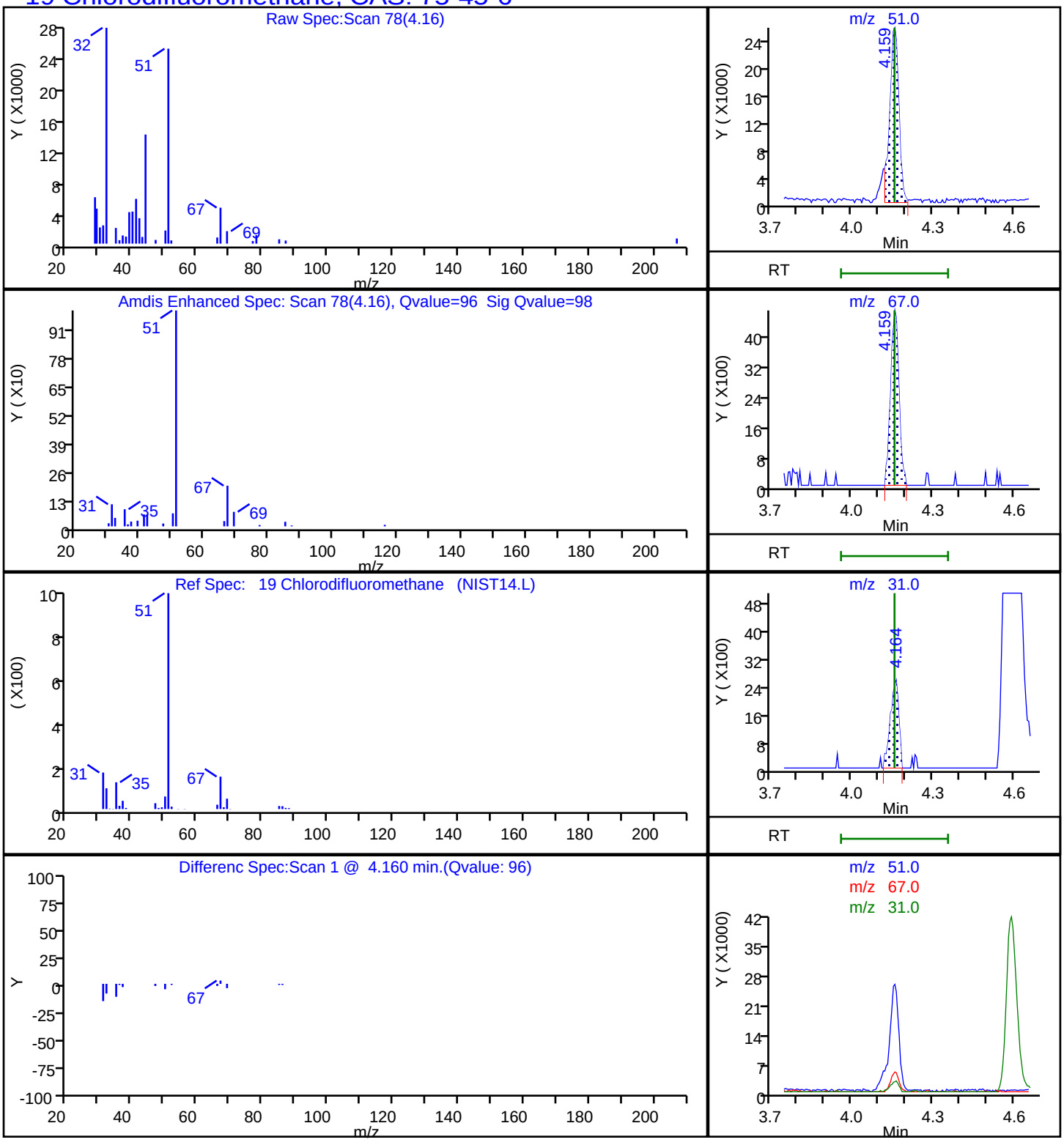


Report Date: 20-Aug-2019 12:39:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



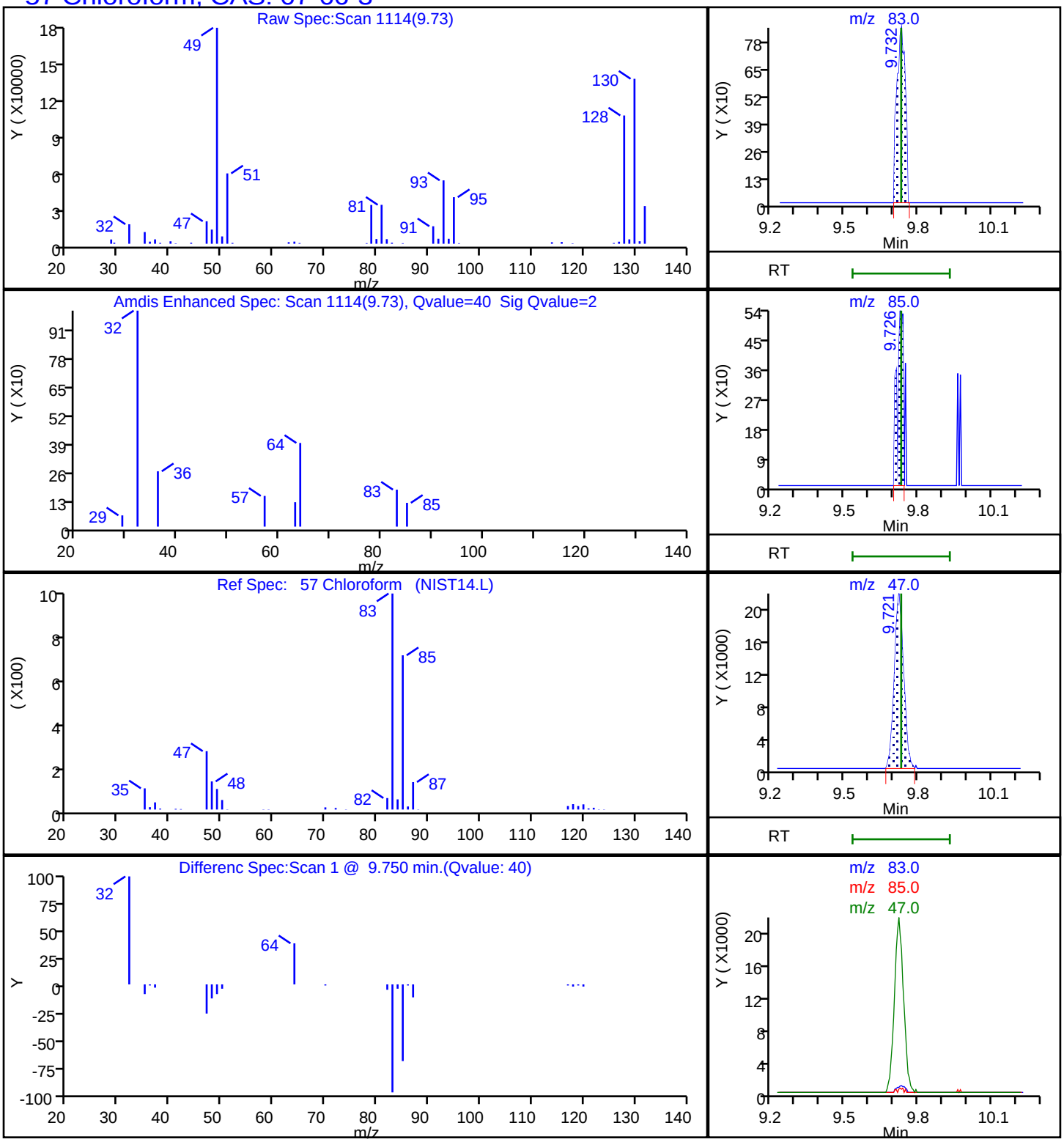
Report Date: 20-Aug-2019 12:39:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D

Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

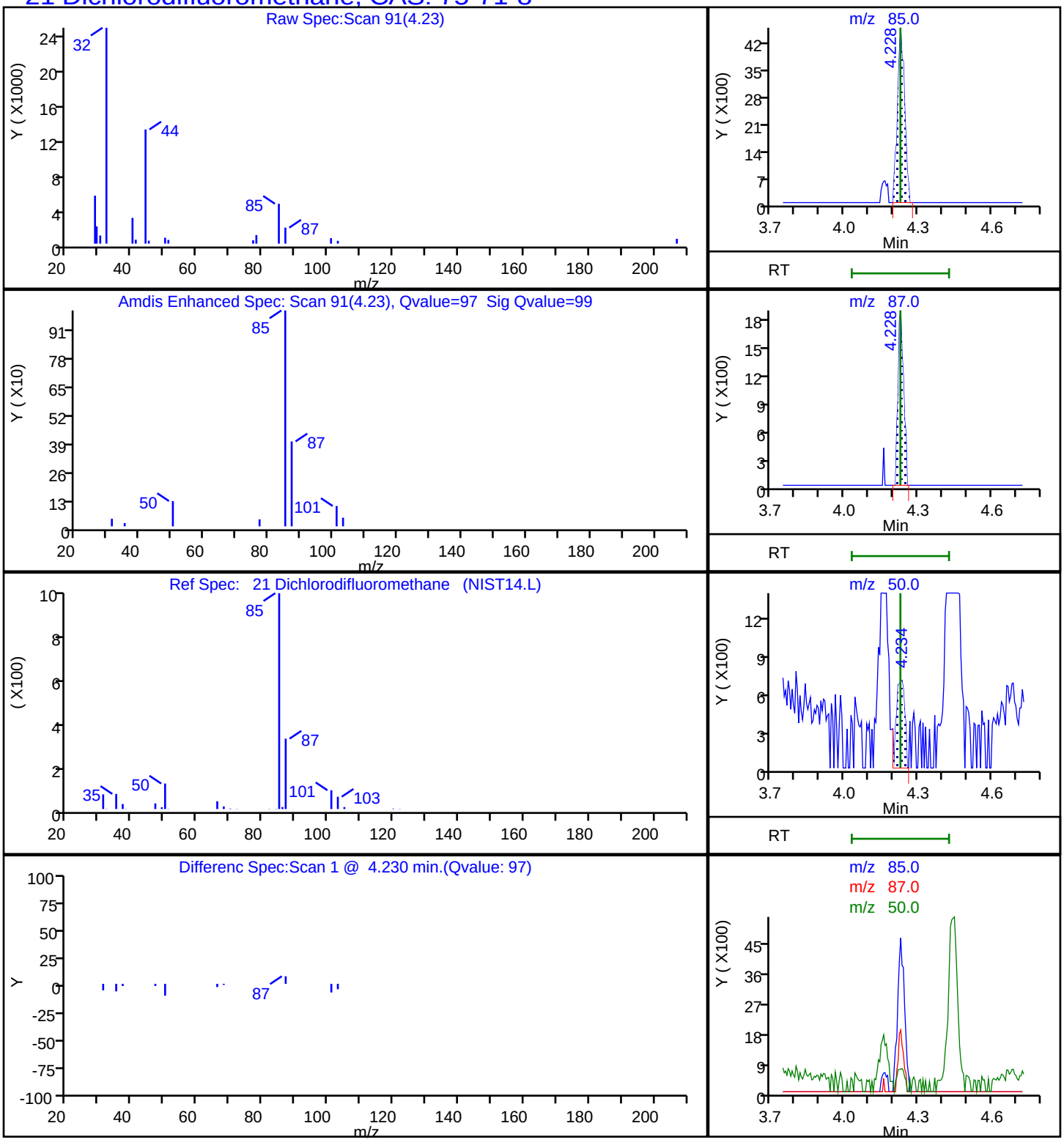
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D		
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15
Client ID:	IA-145-C-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

21 Dichlorodifluoromethane, CAS: 75-71-8

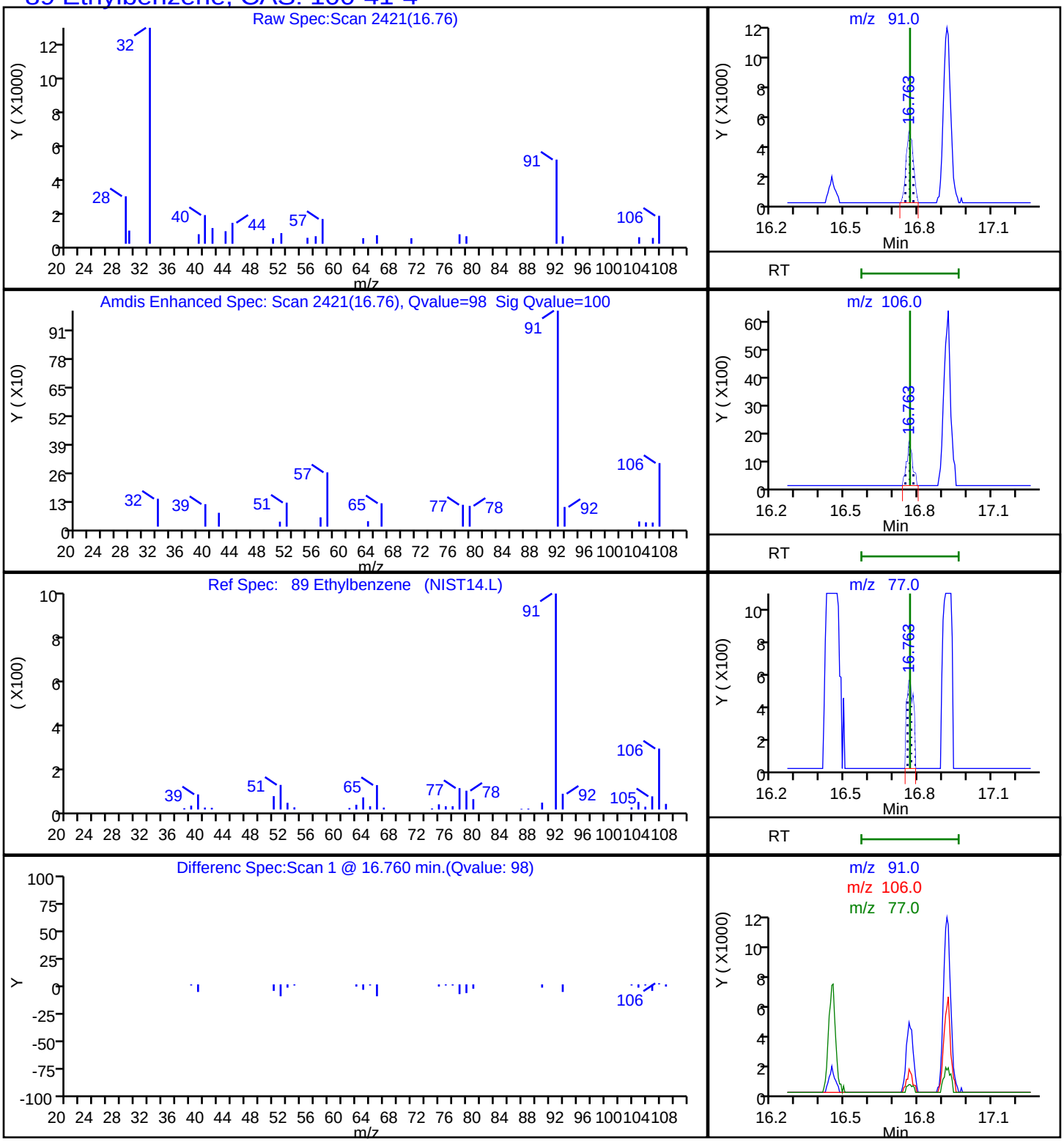


Report Date: 20-Aug-2019 12:39:38 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

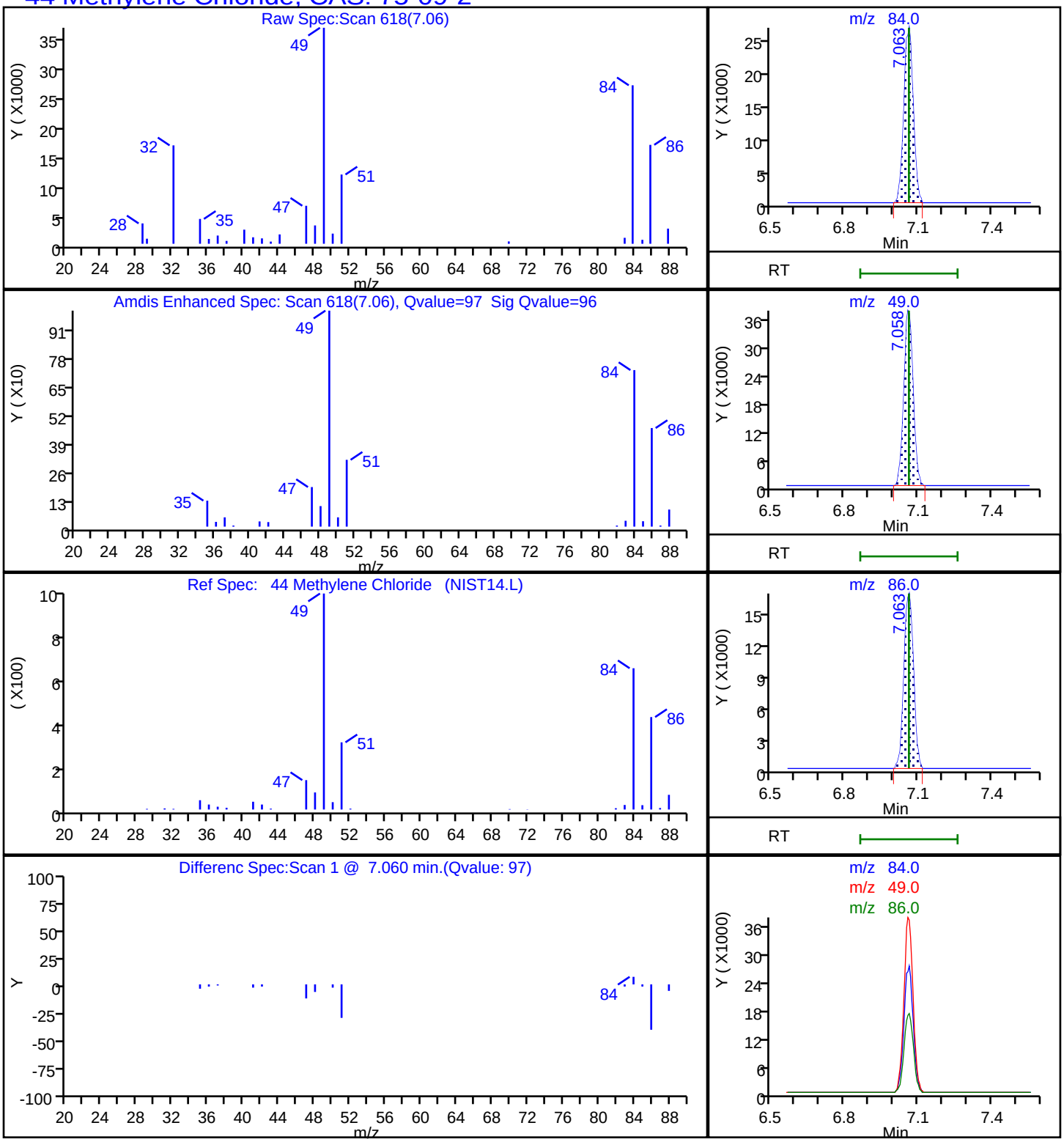
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2

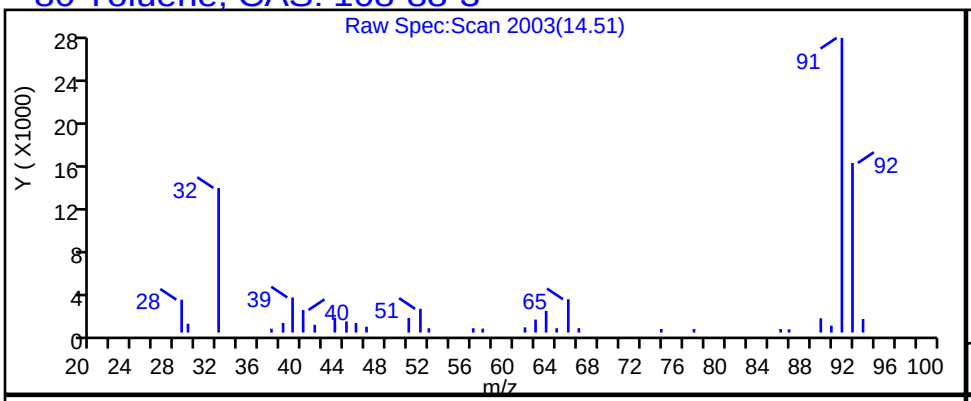


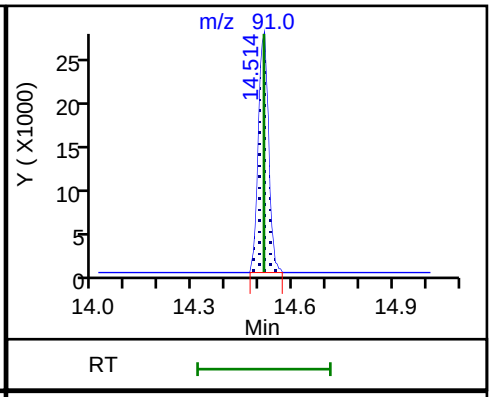
Report Date: 20-Aug-2019 12:39:38 Chrom Revision: 2.3 13-Aug-2019 08:14:14

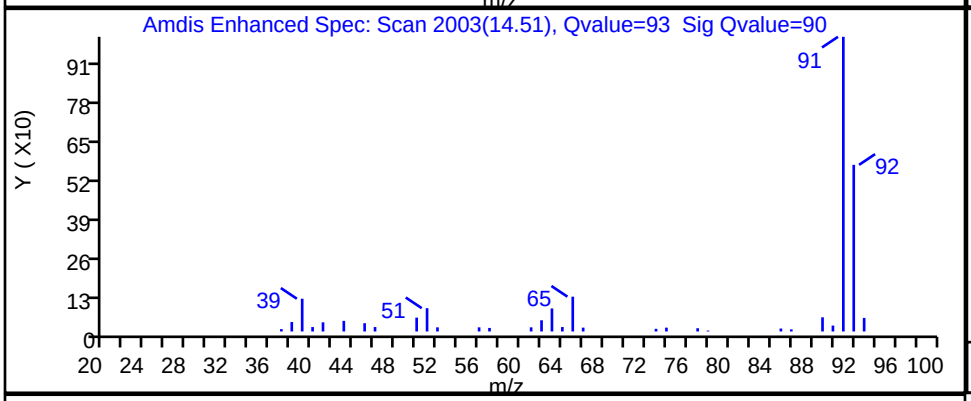
Eurofins TestAmerica, Knoxville

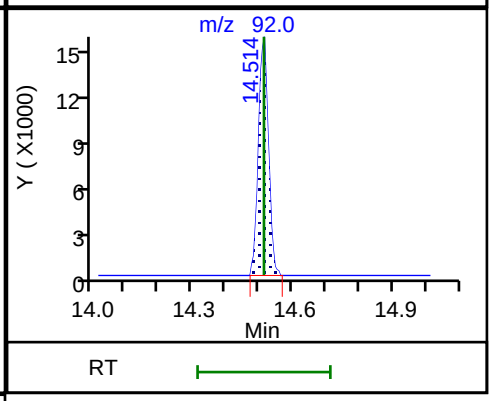
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

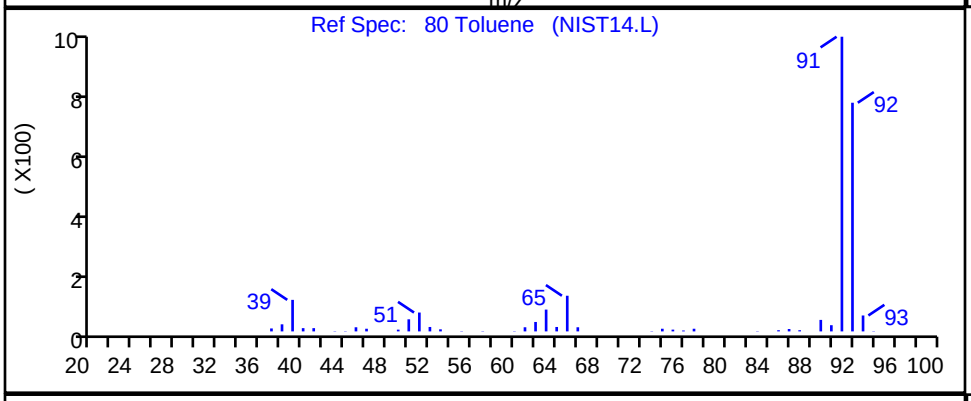
80 Toluene, CAS: 108-88-3

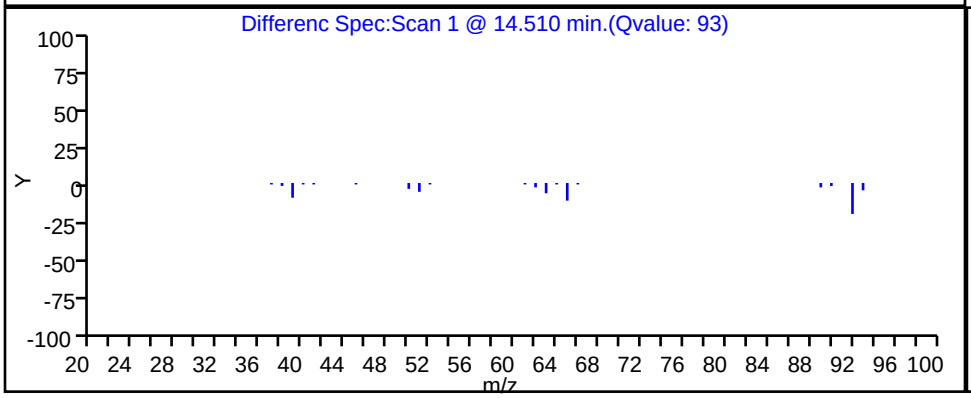


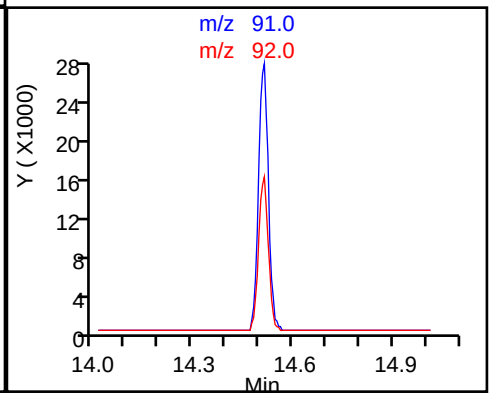










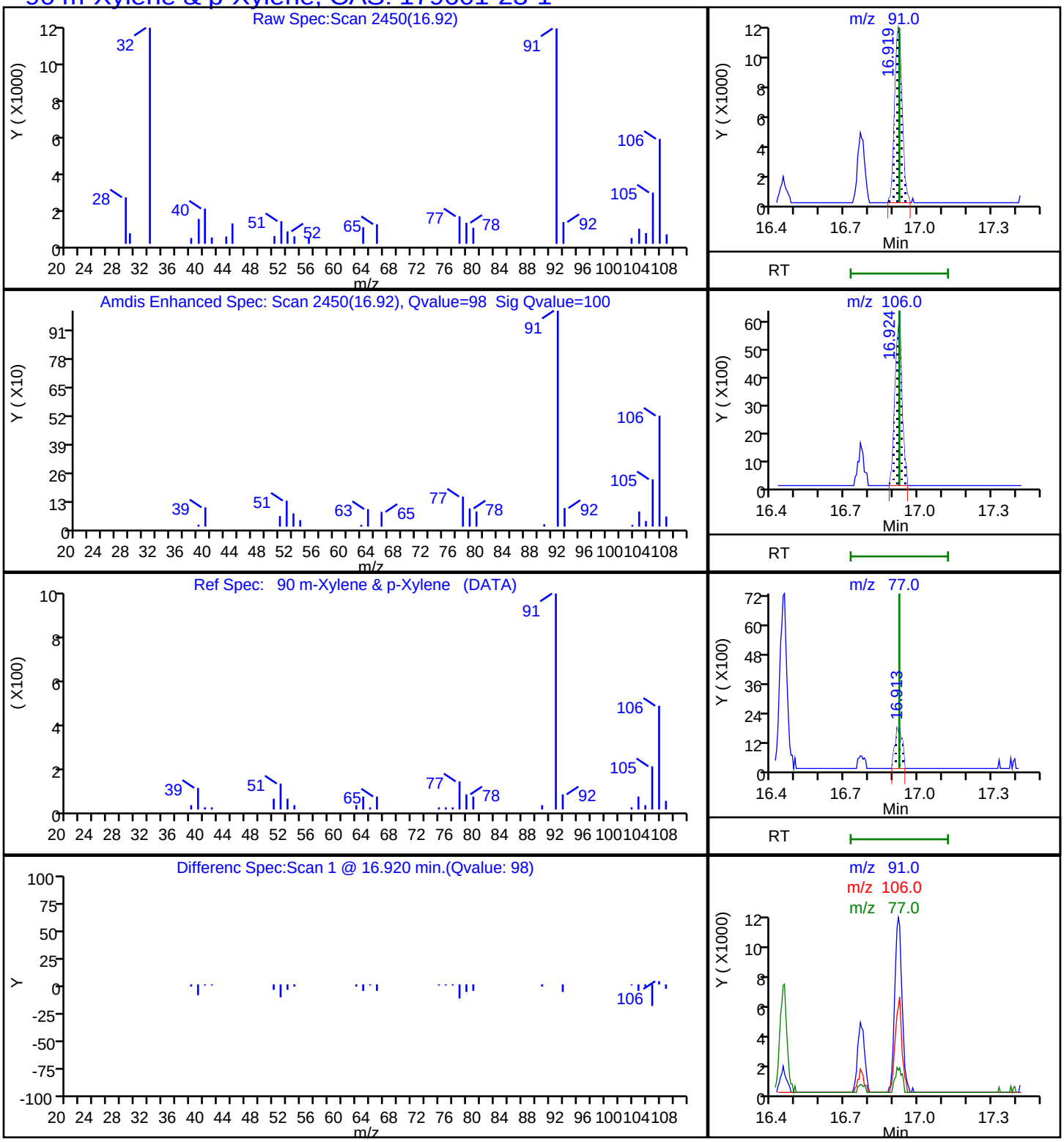


Report Date: 20-Aug-2019 12:39:38 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

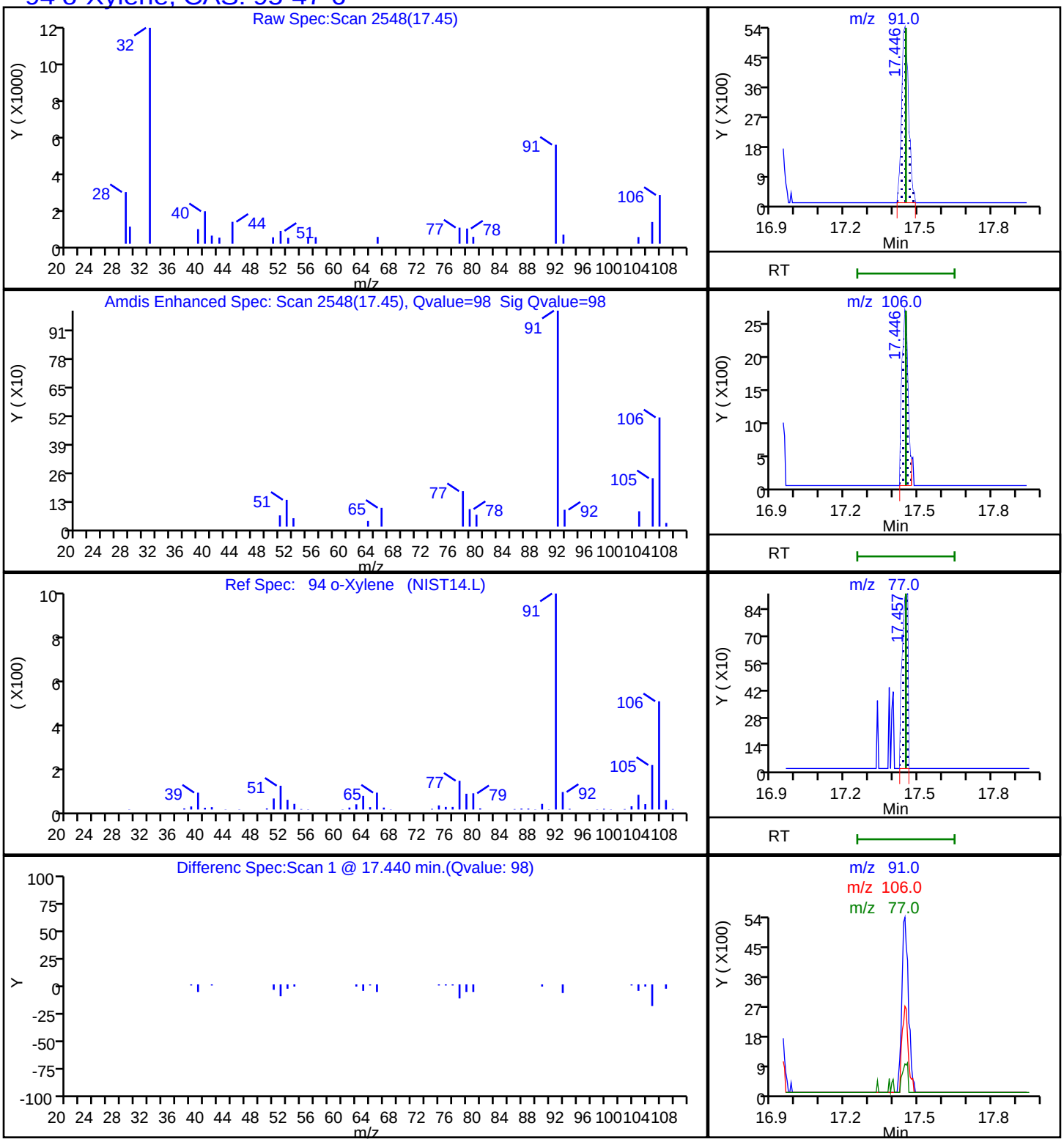
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



Eurofins TestAmerica, Knoxville

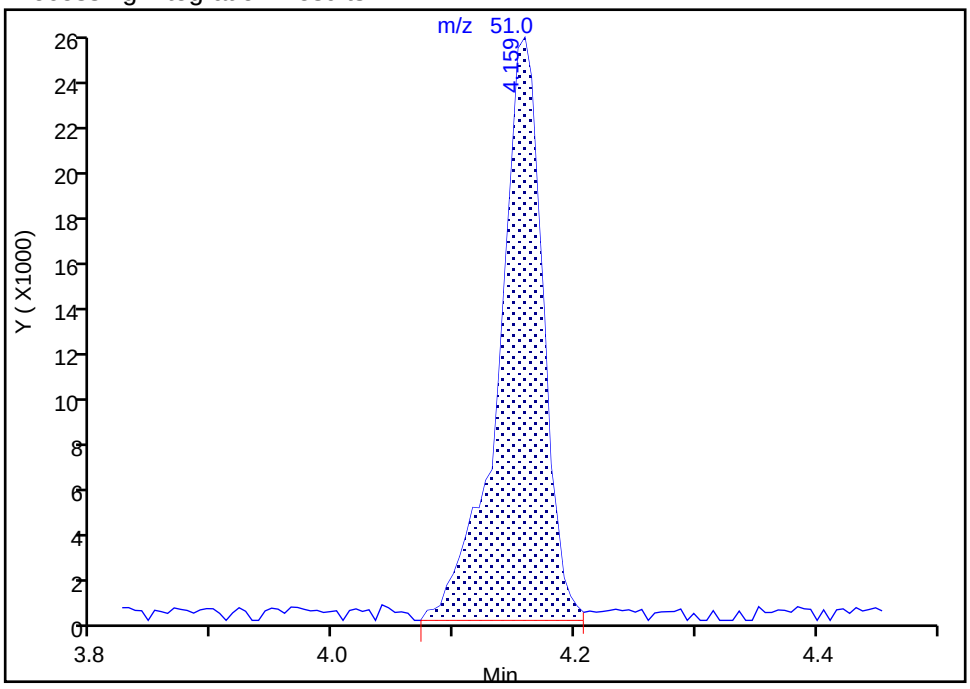
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JH19P110.D				
Injection Date:	19-Aug-2019 21:04:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-15	Lab Sample ID:	140-16369-15		
Client ID:	IA-145-C-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

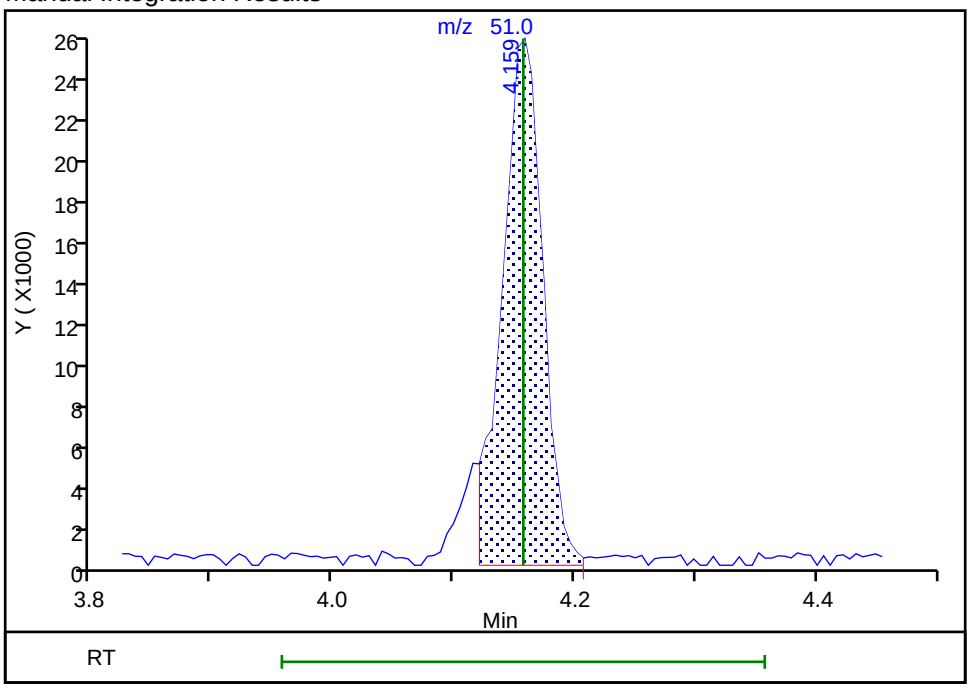
Processing Integration Results

RT: 4.16
Area: 64447
Amount: 0.763826
Amount Units: ppb v/v



Manual Integration Results

RT: 4.16
Area: 59146
Amount: 0.700999
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 12:39:05
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.054	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.43	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.56	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	38	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.46	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.6	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Lims ID:	140-16369-A-16				
Client ID:	IA-146-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 11:30:30	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-005				
Misc. Info.:	140-16369-a-16				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:18:56		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.720	9.725	-0.005	93	260773	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1345334	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.449	-0.005	87	1134392	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	730137	3.50	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	151204	2.12	
21 Dichlorodifluoromethane	85	4.233	4.227	0.006	45	6815	0.0834	
44 Methylene Chloride	84	7.062	7.062	0.000	97	55421	0.5649	
57 Chloroform	83	9.731	9.730	0.001	27	2088	0.009866	
64 Benzene	78	11.334	11.333	0.001	93	6549	0.0266	
65 Carbon tetrachloride	117	11.361	11.349	0.006	37	2228	0.0108	
80 Toluene	91	14.508	14.508	-0.005	94	23365	0.0853	
89 Ethylbenzene	91	16.767	16.767	0.000	96	7445	0.0211	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	99	21764	0.0804	
94 o-Xylene	91	17.445	17.450	-0.005	97	8930	0.0310	
S 129 Xylenes, Total	100				0		0.1114	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

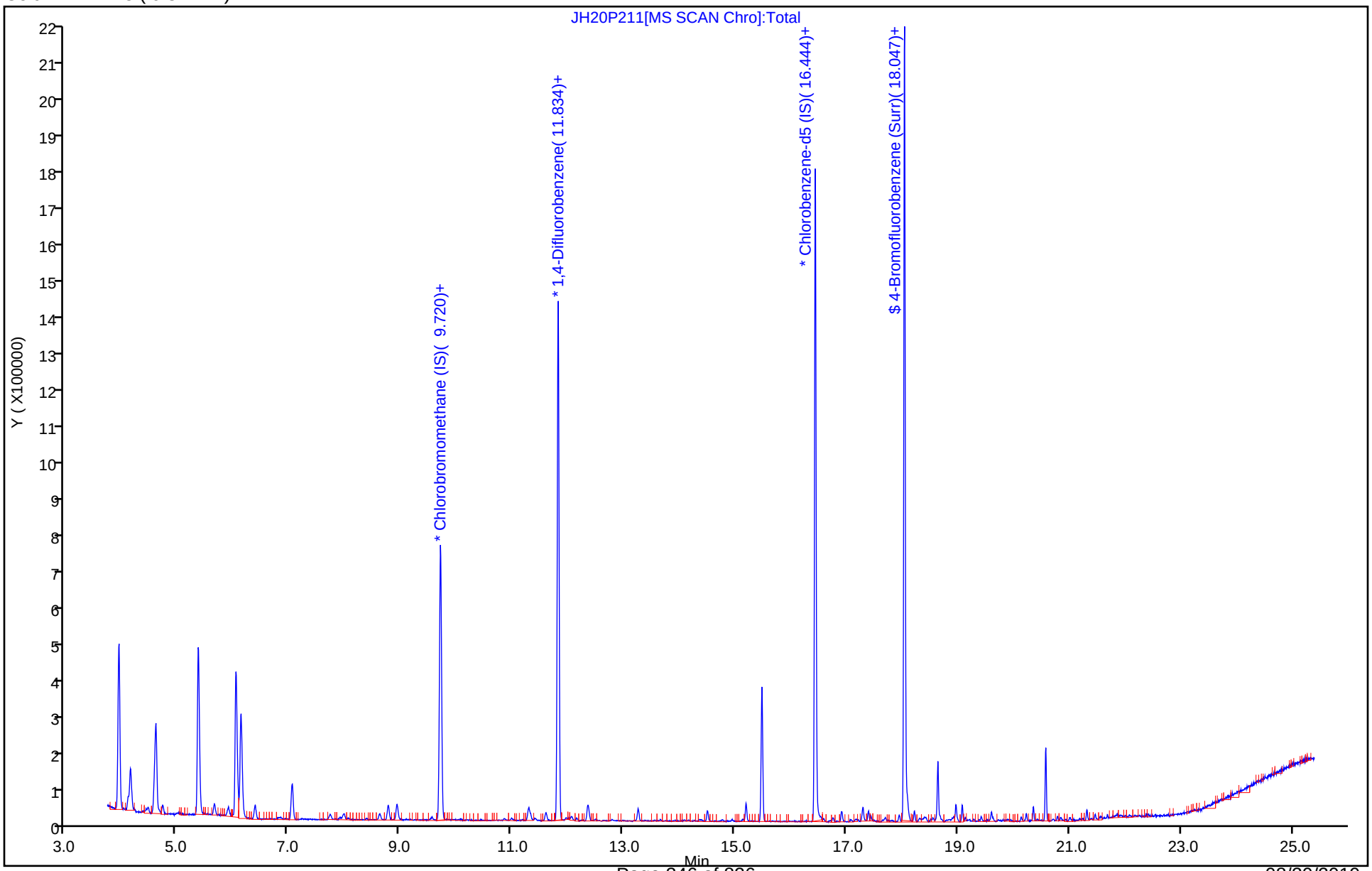
Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D

Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16	Worklist Smp#:	5
Client ID:	IA-146-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Lims ID:	140-16369-A-16				
Client ID:	IA-146-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 11:30:30	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-005				
Misc. Info.:	140-16369-a-16				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

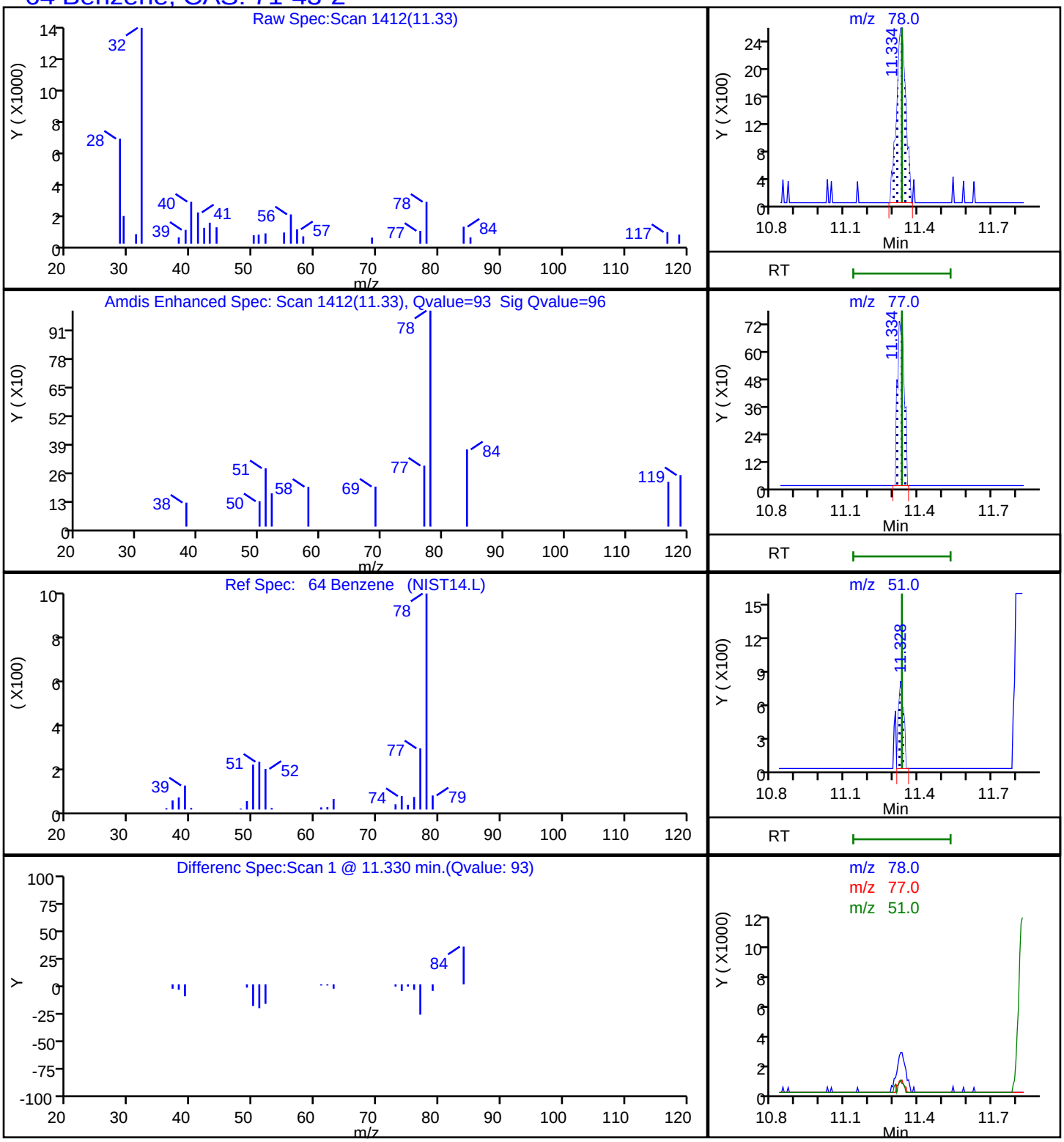
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:18:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.50	87.55

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D		
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16
Client ID:	IA-146-C-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

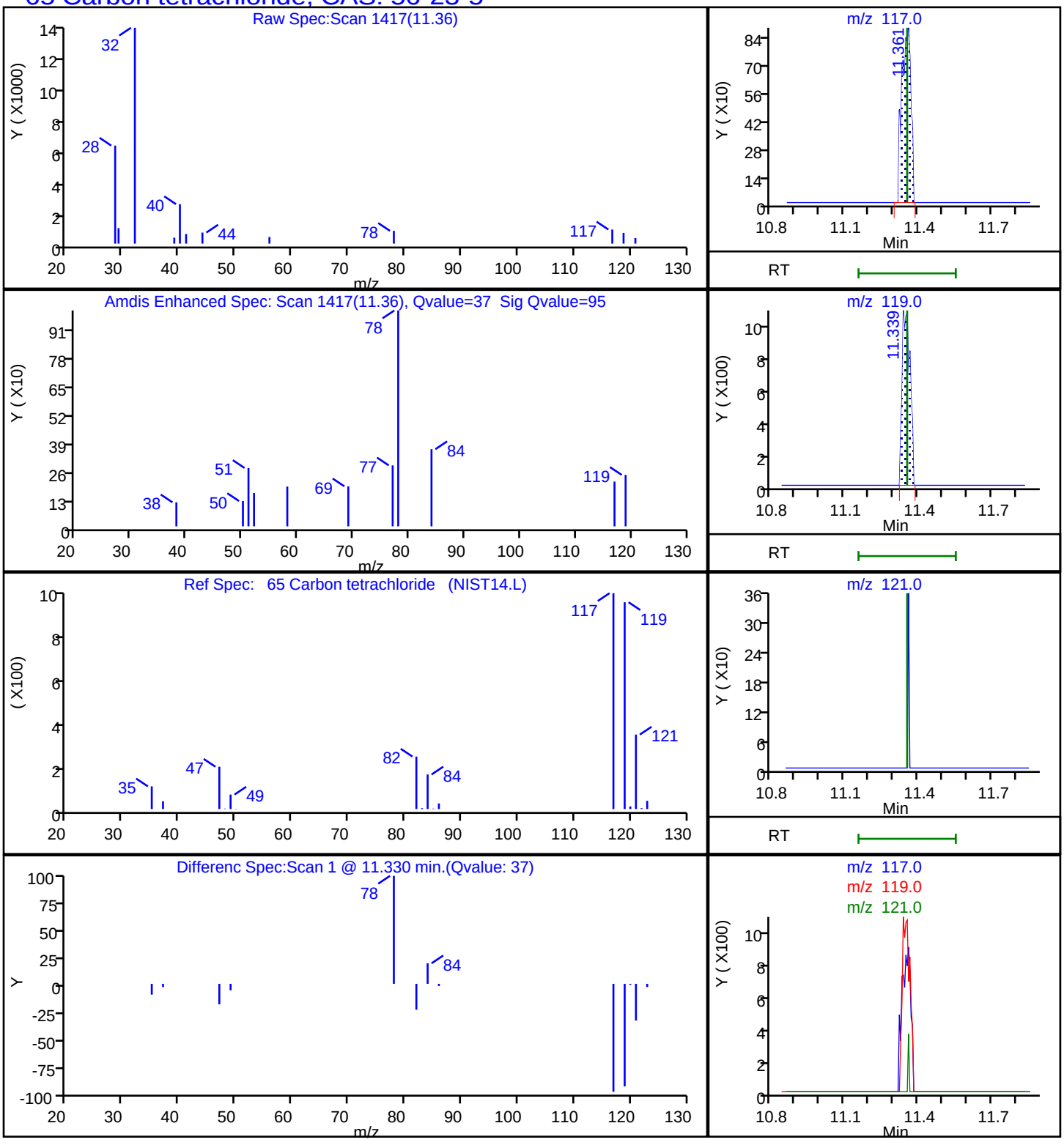


Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D		
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16
Client ID:	IA-146-C-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5

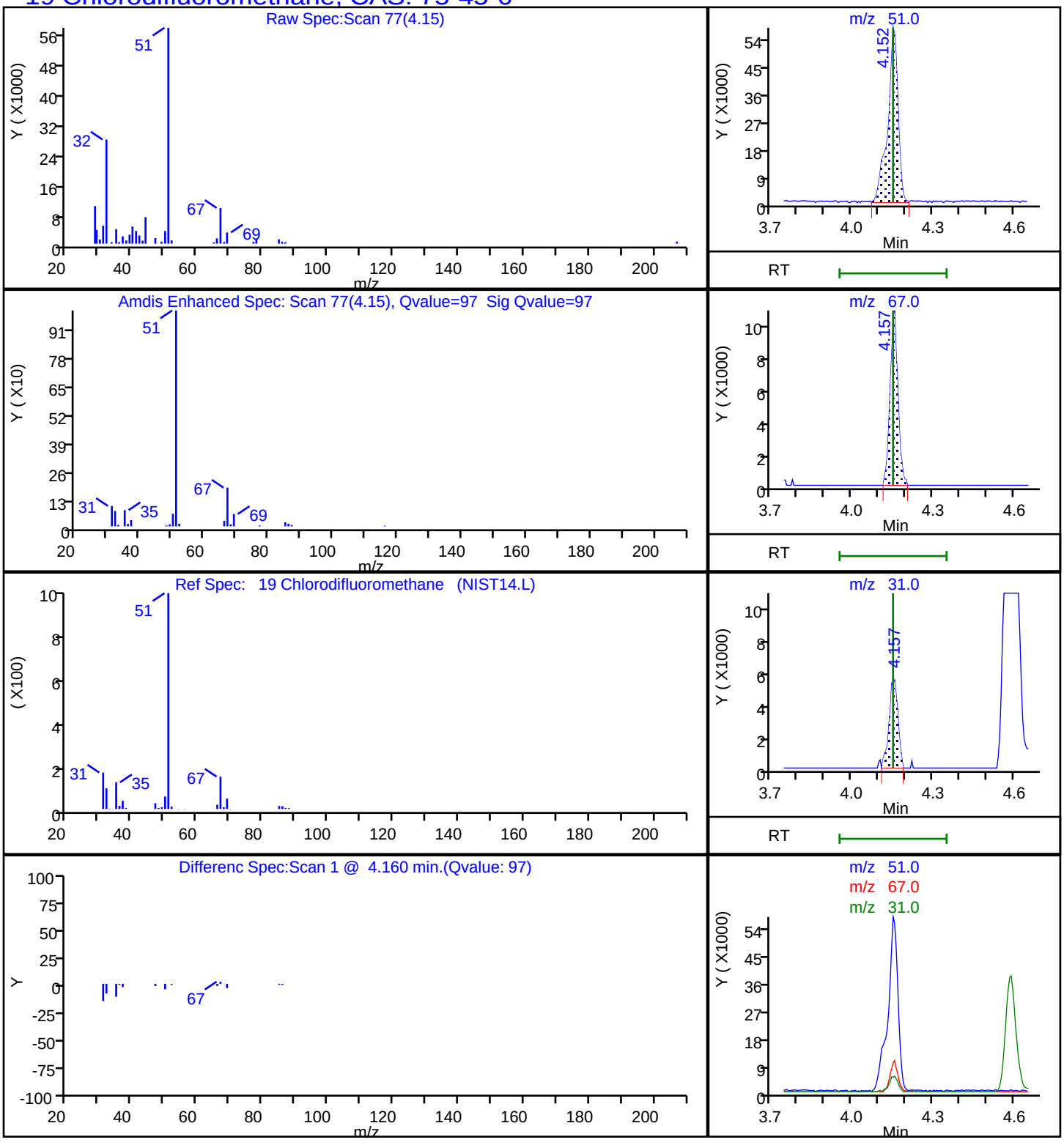


Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



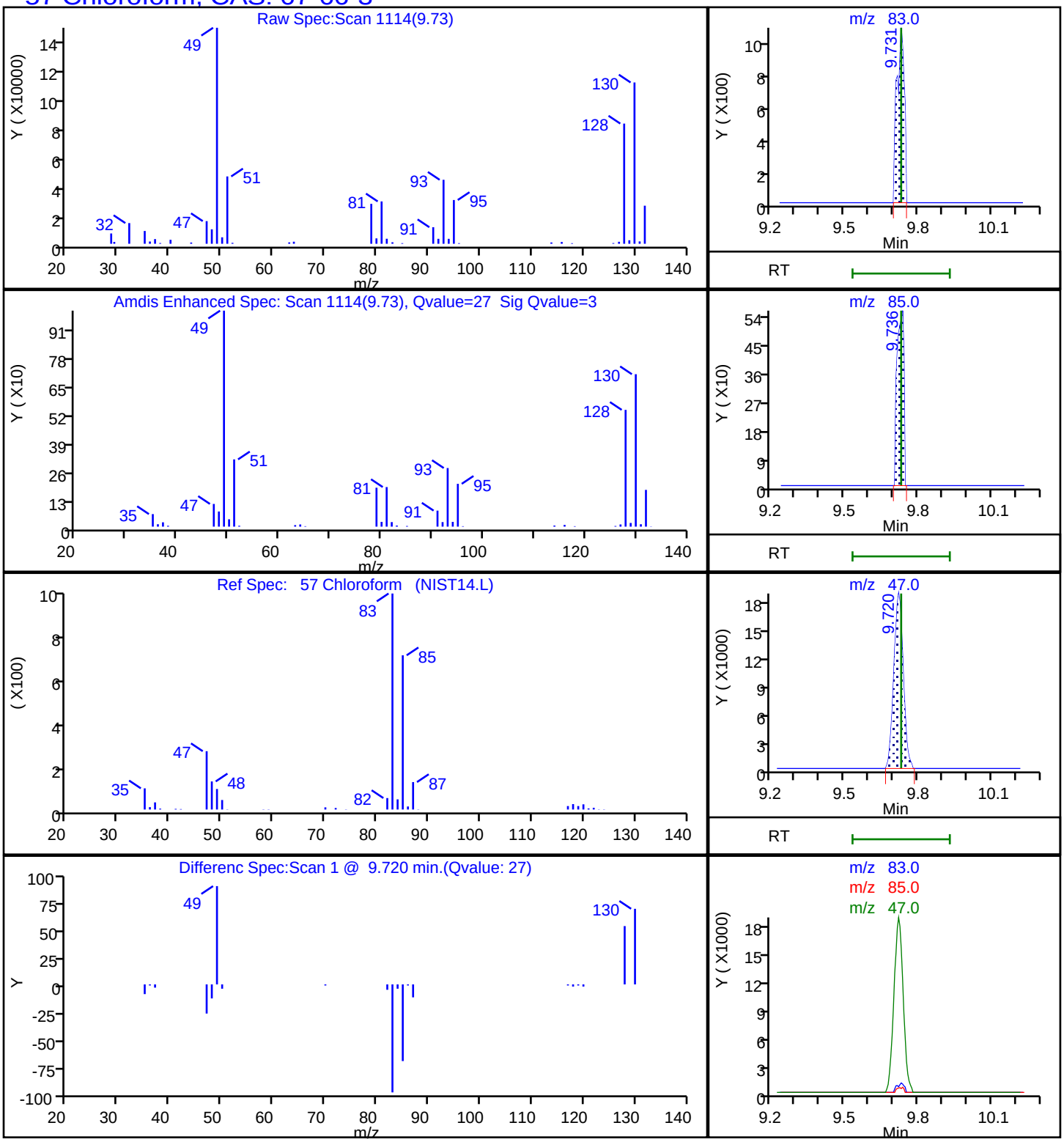
Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D

Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16
Client ID:	IA-146-C-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

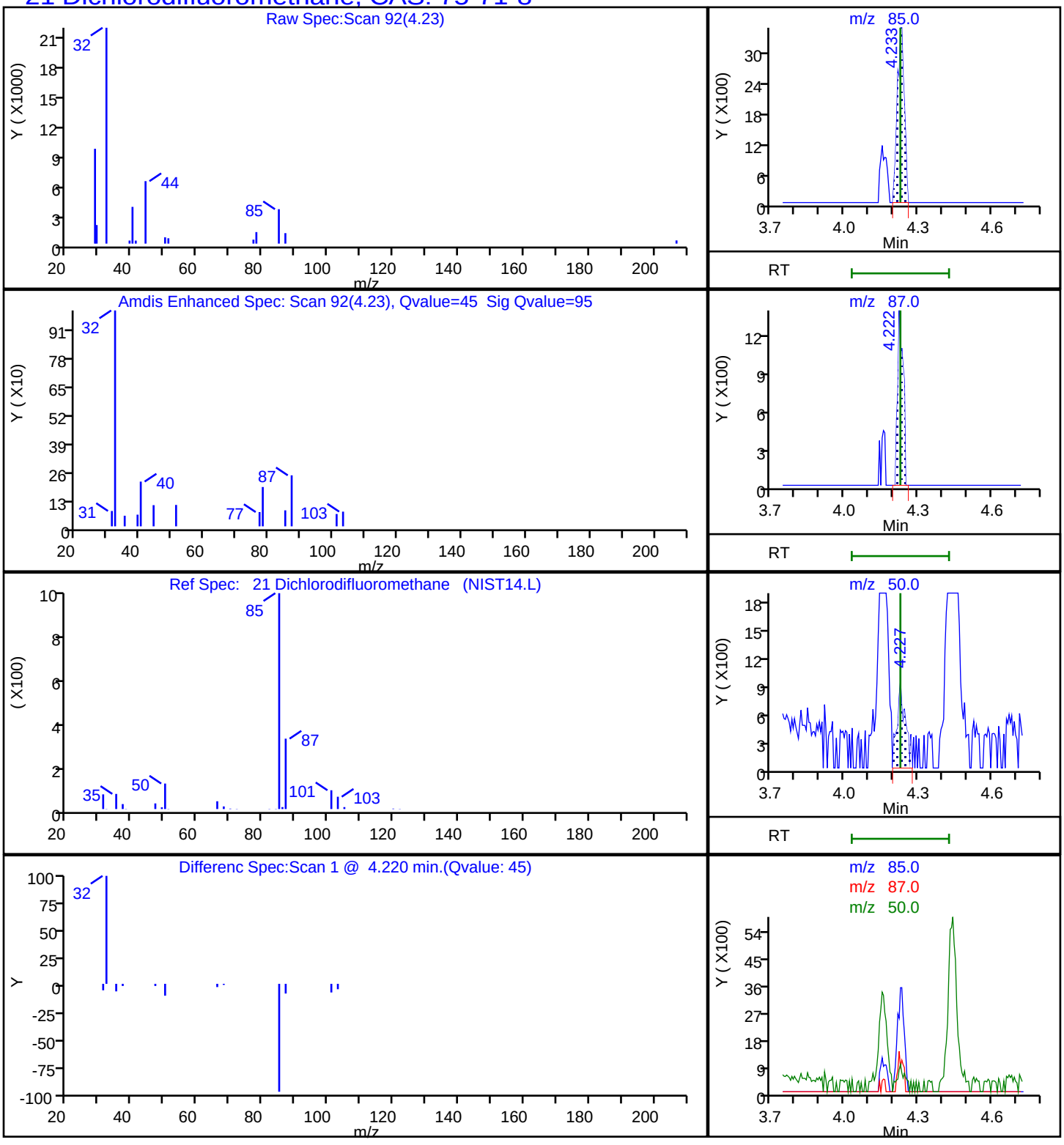
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

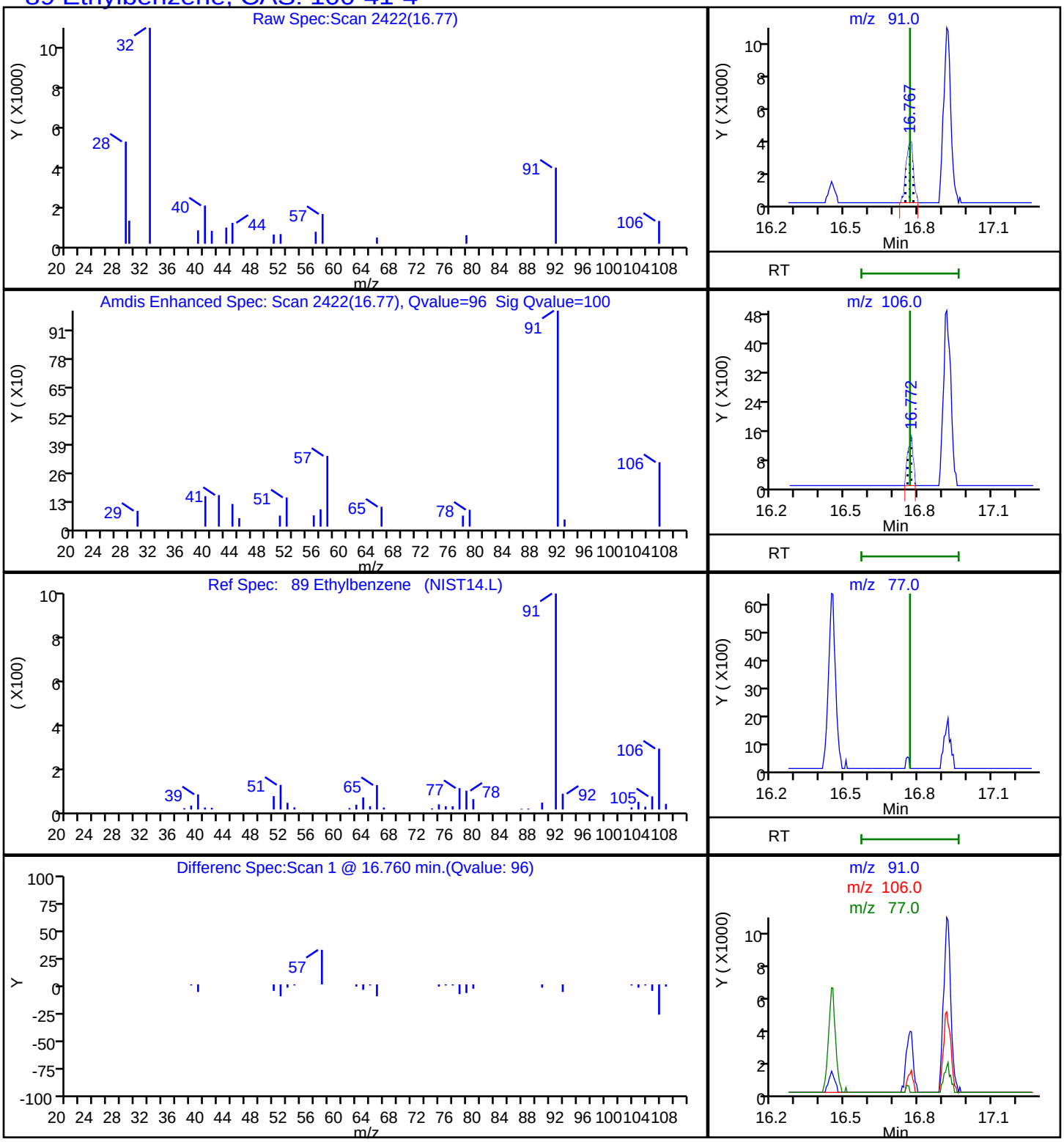


Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

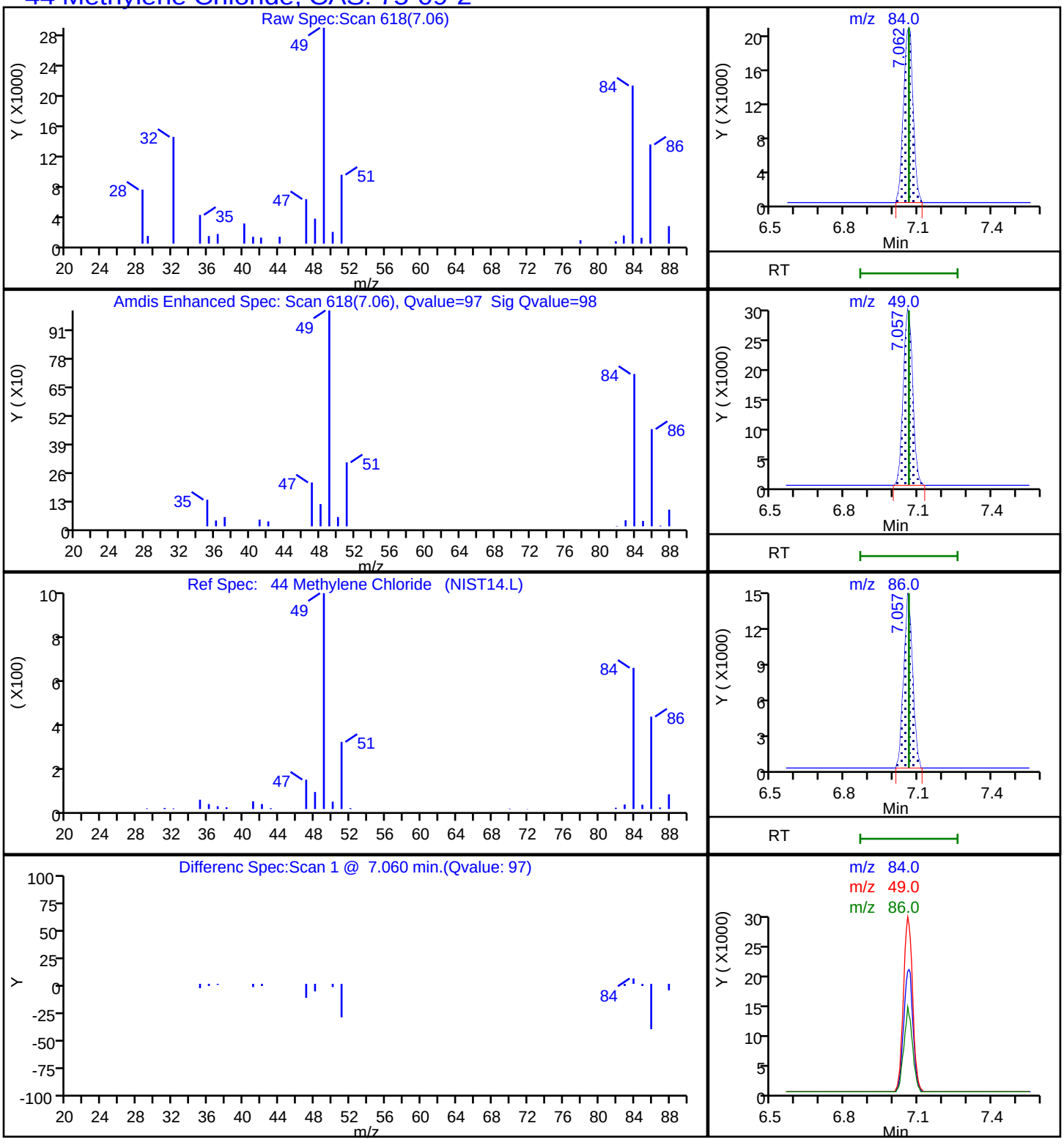


Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

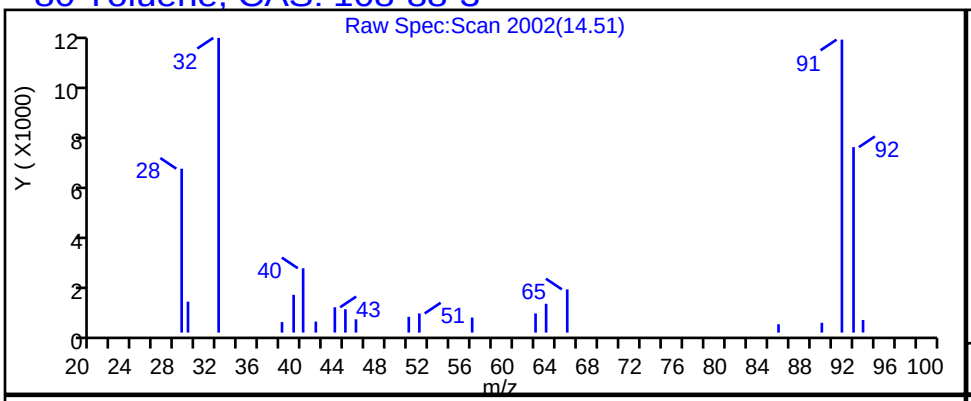
44 Methylene Chloride, CAS: 75-09-2

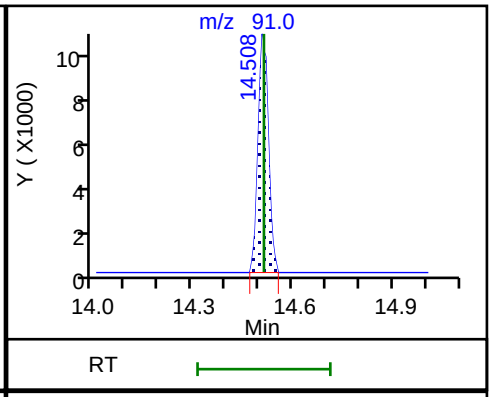


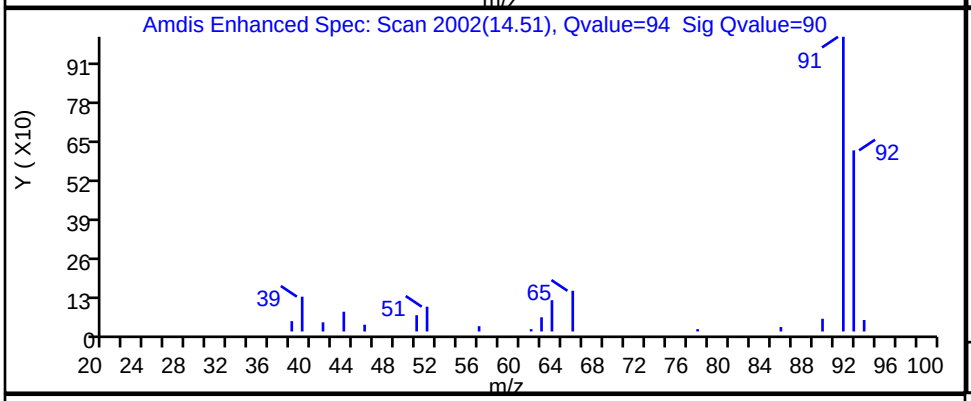
Eurofins TestAmerica, Knoxville

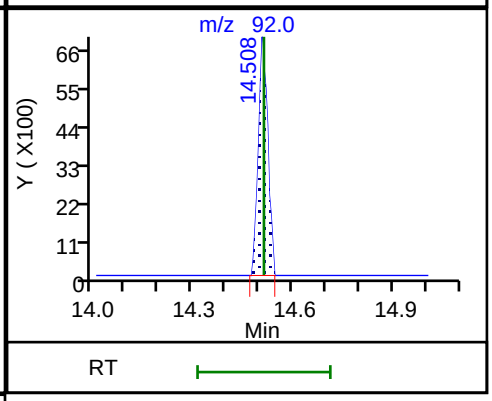
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D		
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16
Client ID:	IA-146-C-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

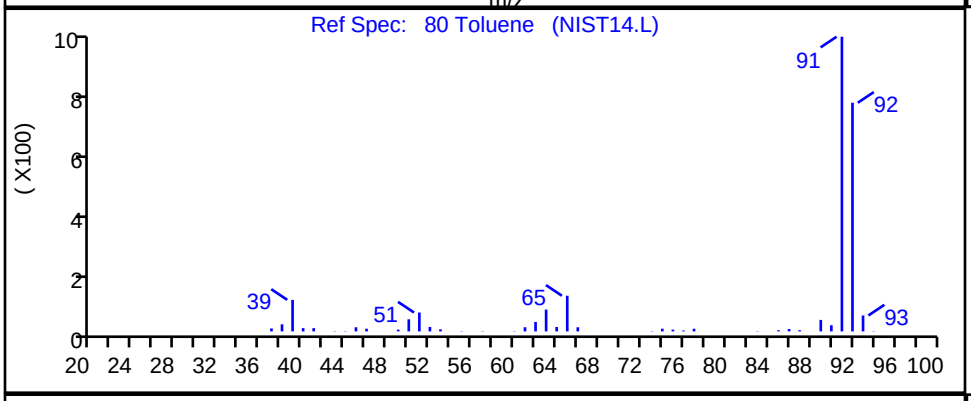
80 Toluene, CAS: 108-88-3

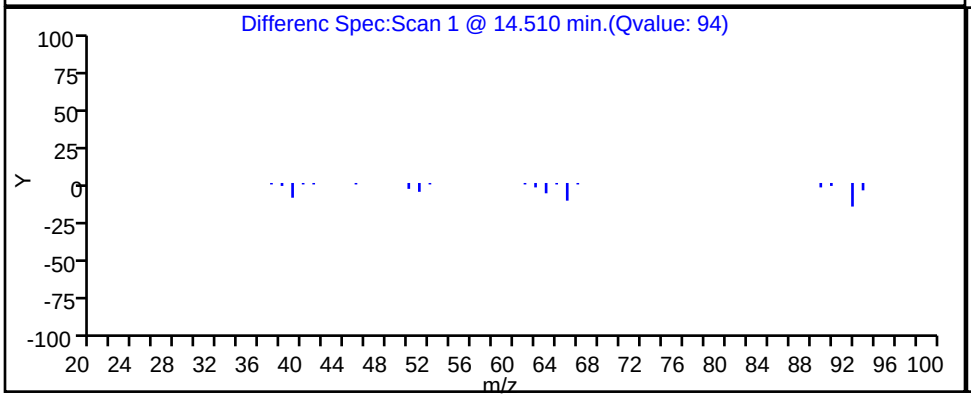


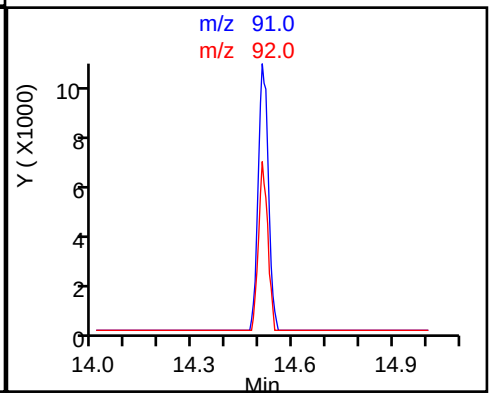










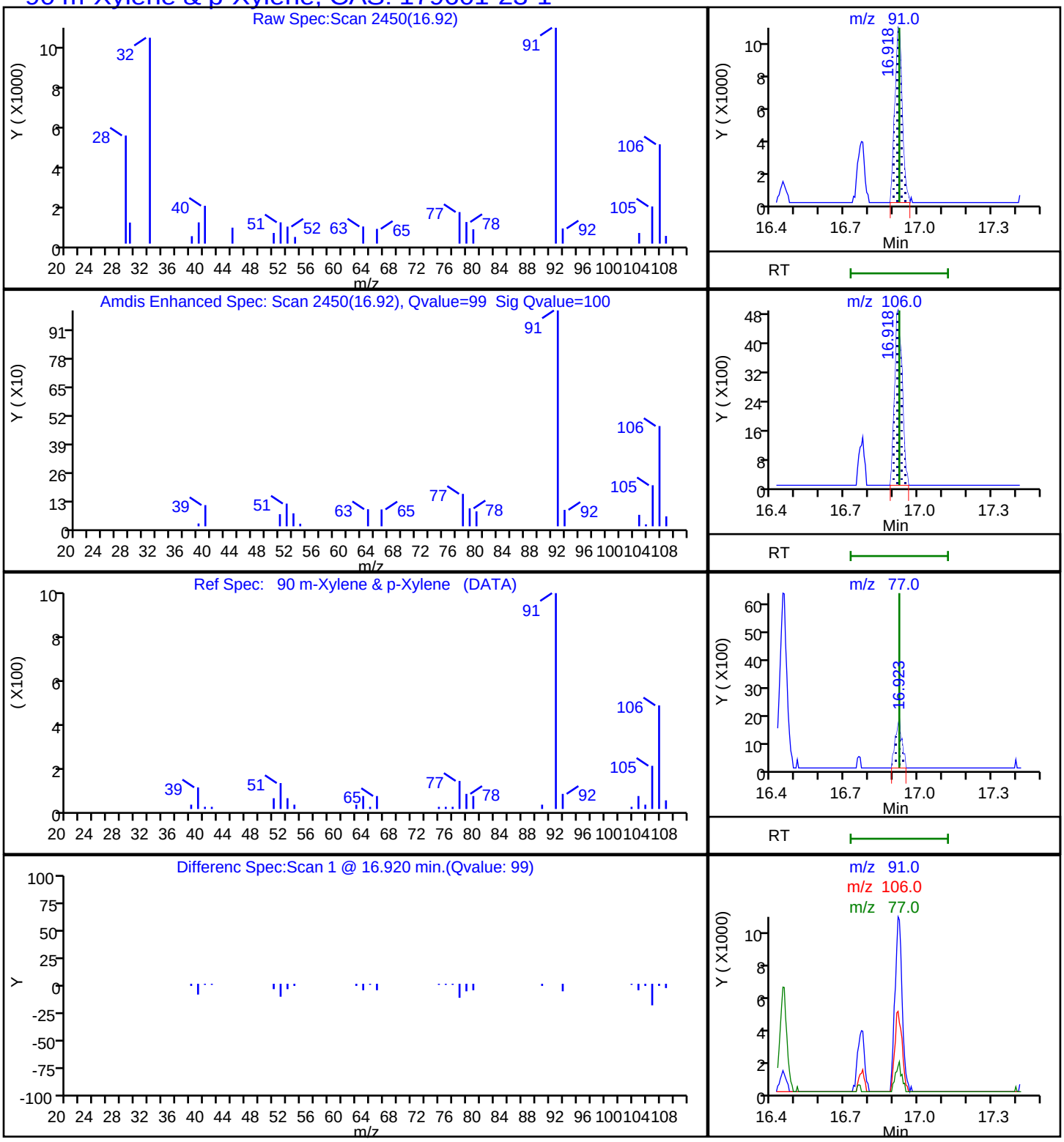


Report Date: 21-Aug-2019 12:18:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

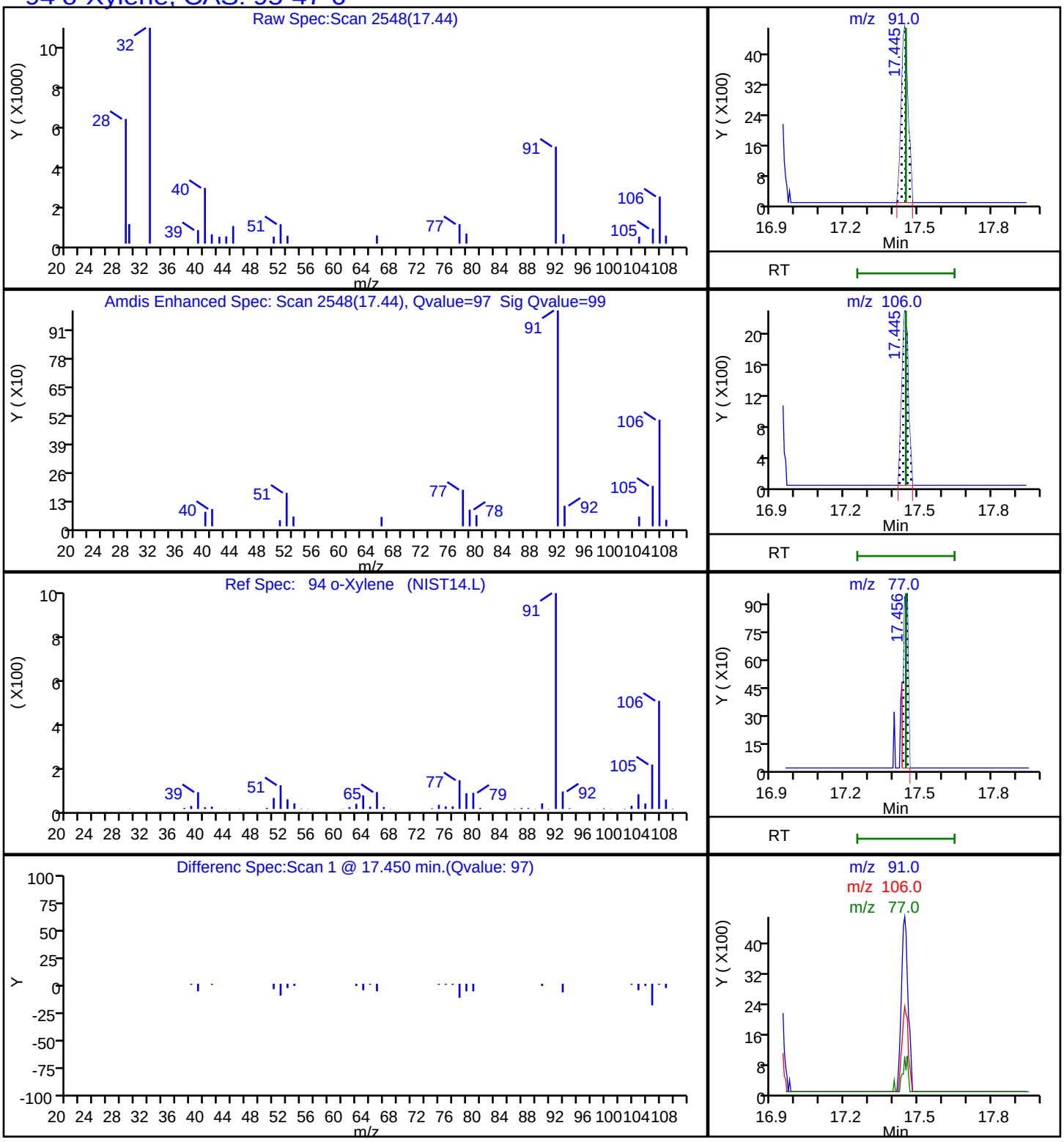
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P211.D				
Injection Date:	20-Aug-2019 11:30:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-16	Lab Sample ID:	140-16369-16		
Client ID:	IA-146-C-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	9.2	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.55	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	32	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Lims ID:	140-16369-A-17				
Client ID:	IA-150-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 12:19:30	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-006				
Misc. Info.:	140-16369-a-17				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:19:26		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.720	9.725	-0.005	93	218122	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1086231	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.449	-0.005	88	942060	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.042	18.047	-0.005	96	633913	3.66	
19 Chlorodifluoromethane	51	4.157	4.152	0.005	97	109241	1.83	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	96	6518	0.0954	
44 Methylene Chloride	84	7.062	7.062	0.000	97	63284	0.7711	
57 Chloroform	83	9.725	9.730	-0.005	27	1446	0.008169	
64 Benzene	78	11.328	11.333	-0.005	89	6302	0.0317	
65 Carbon tetrachloride	117	11.355	11.349	0.000	55	1975	0.0118	
80 Toluene	91	14.513	14.508	0.000	90	20868	0.0917	
89 Ethylbenzene	91	16.761	16.767	-0.006	97	6788	0.0231	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	98	17724	0.0788	
94 o-Xylene	91	17.439	17.450	-0.011	97	7807	0.0326	
S 129 Xylenes, Total	100				0		0.1115	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

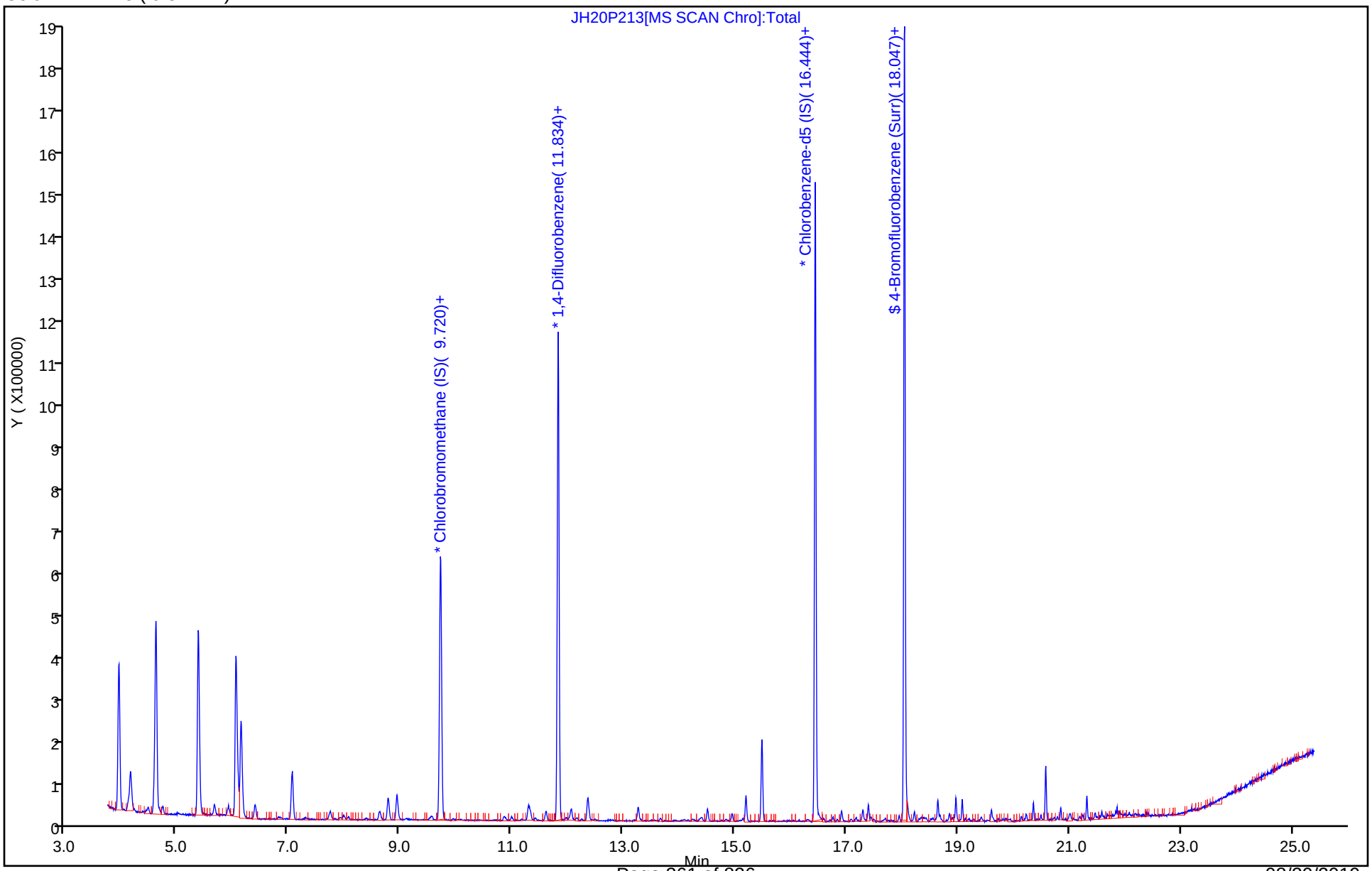
Report Date: 21-Aug-2019 12:19:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D

Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17	Worklist Smp#:	6
Client ID:	IA-150-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Lims ID:	140-16369-A-17				
Client ID:	IA-150-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 12:19:30	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-006				
Misc. Info.:	140-16369-a-17				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:19:26

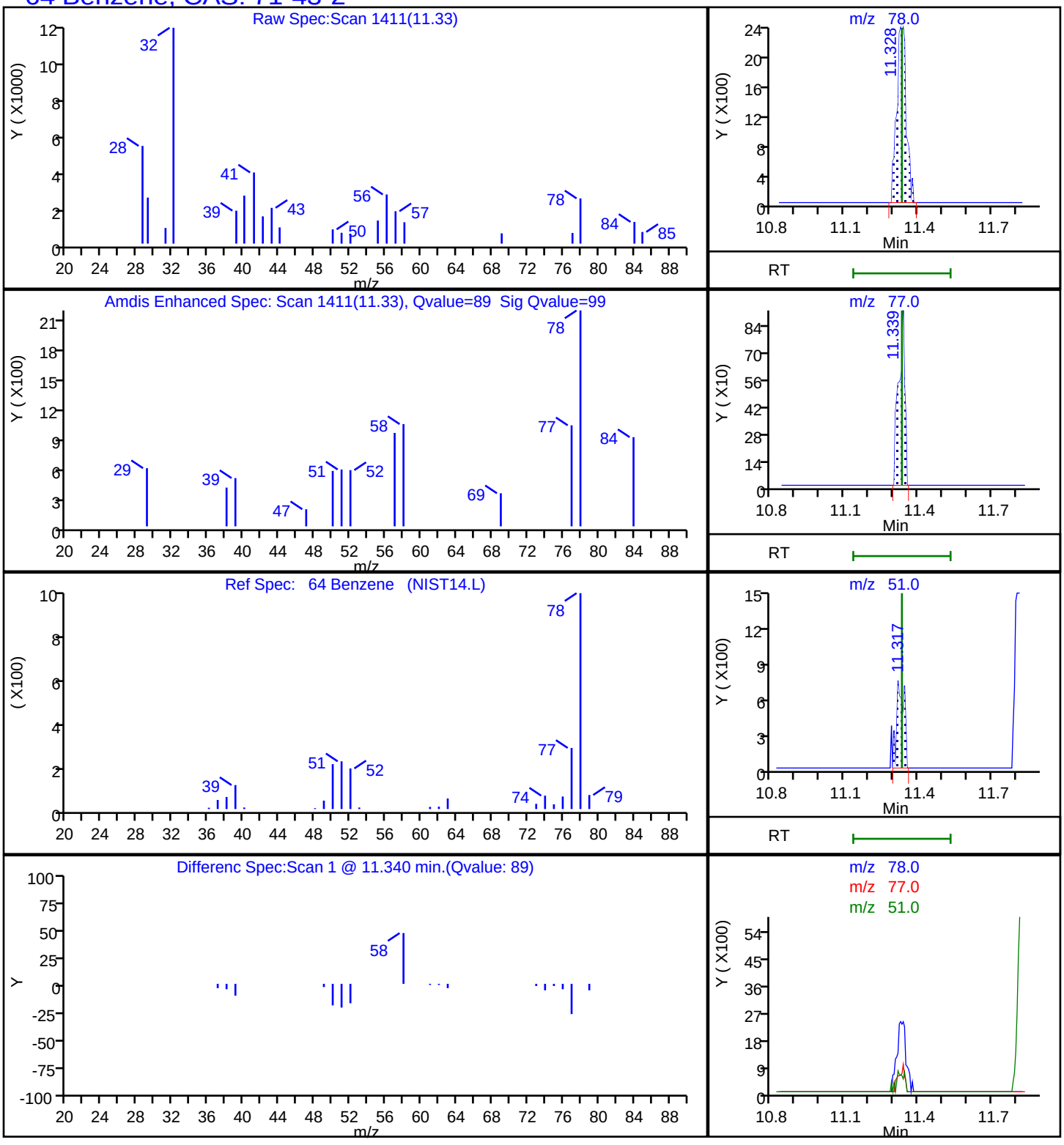
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.66	91.53

Report Date: 21-Aug-2019 12:19:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17		
Client ID:	IA-150-C-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

64 Benzene, CAS: 71-43-2



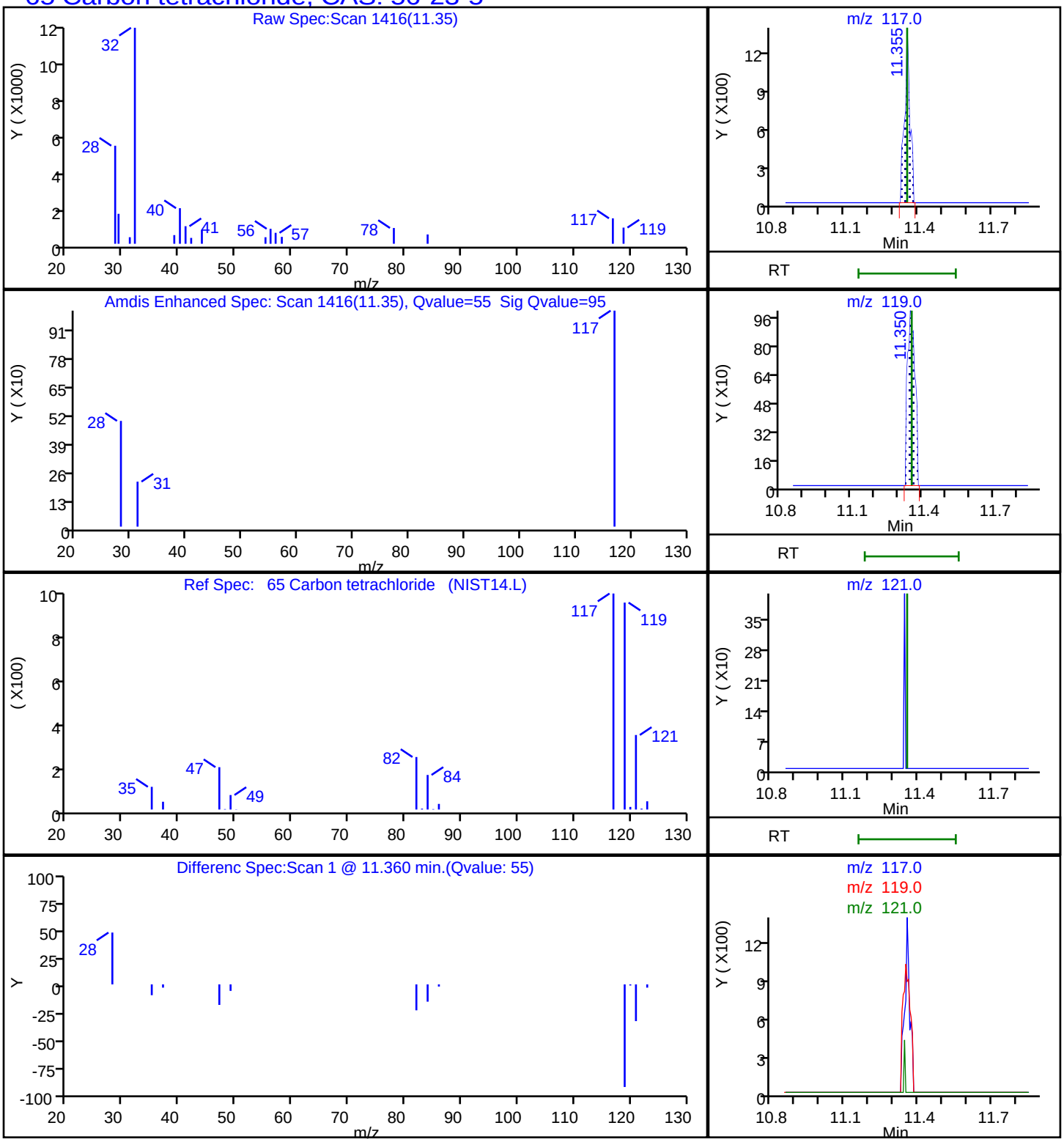
Report Date: 21-Aug-2019 12:19:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D

Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17		
Client ID:	IA-150-C-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

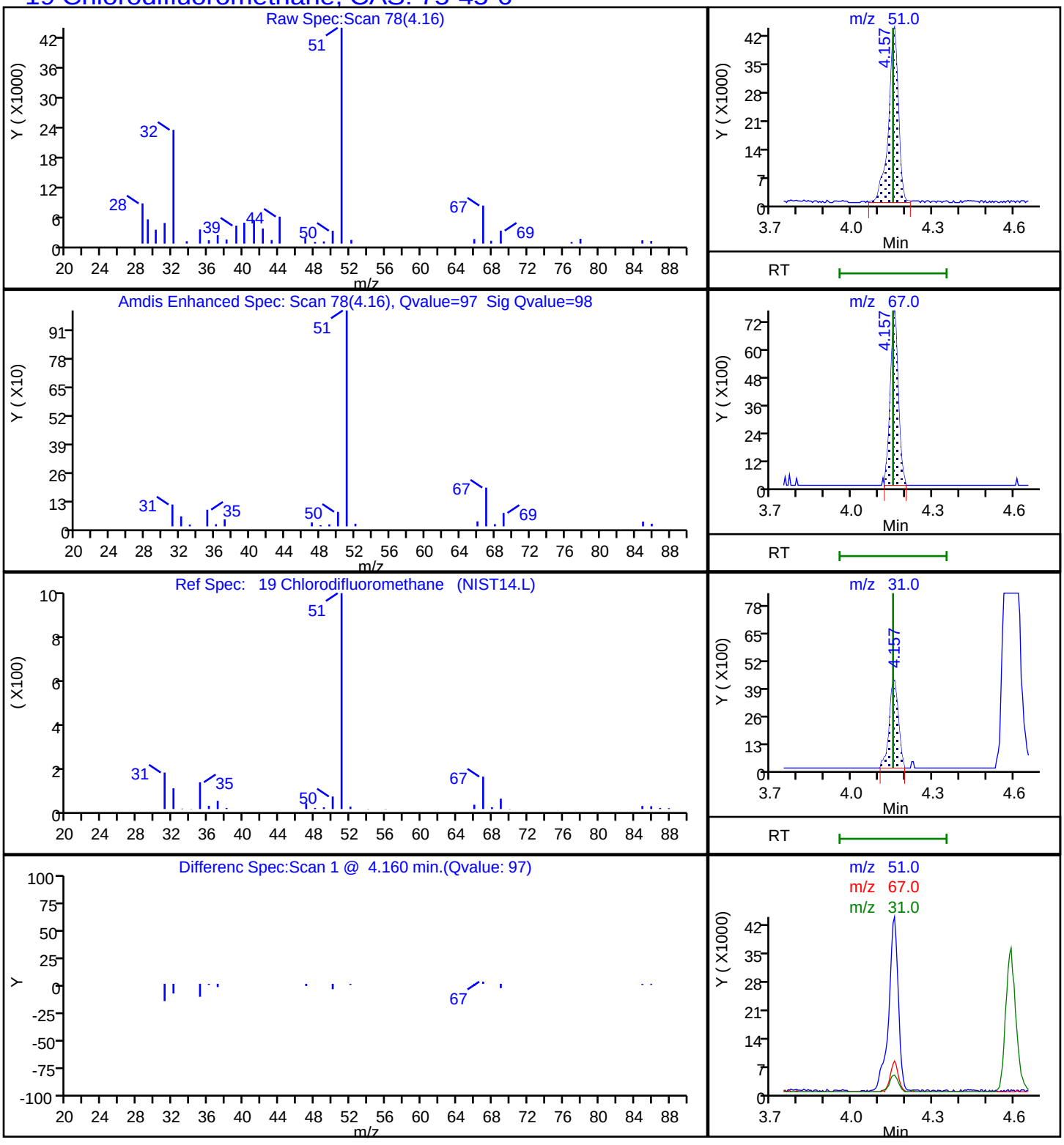
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17		
Client ID:	IA-150-C-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

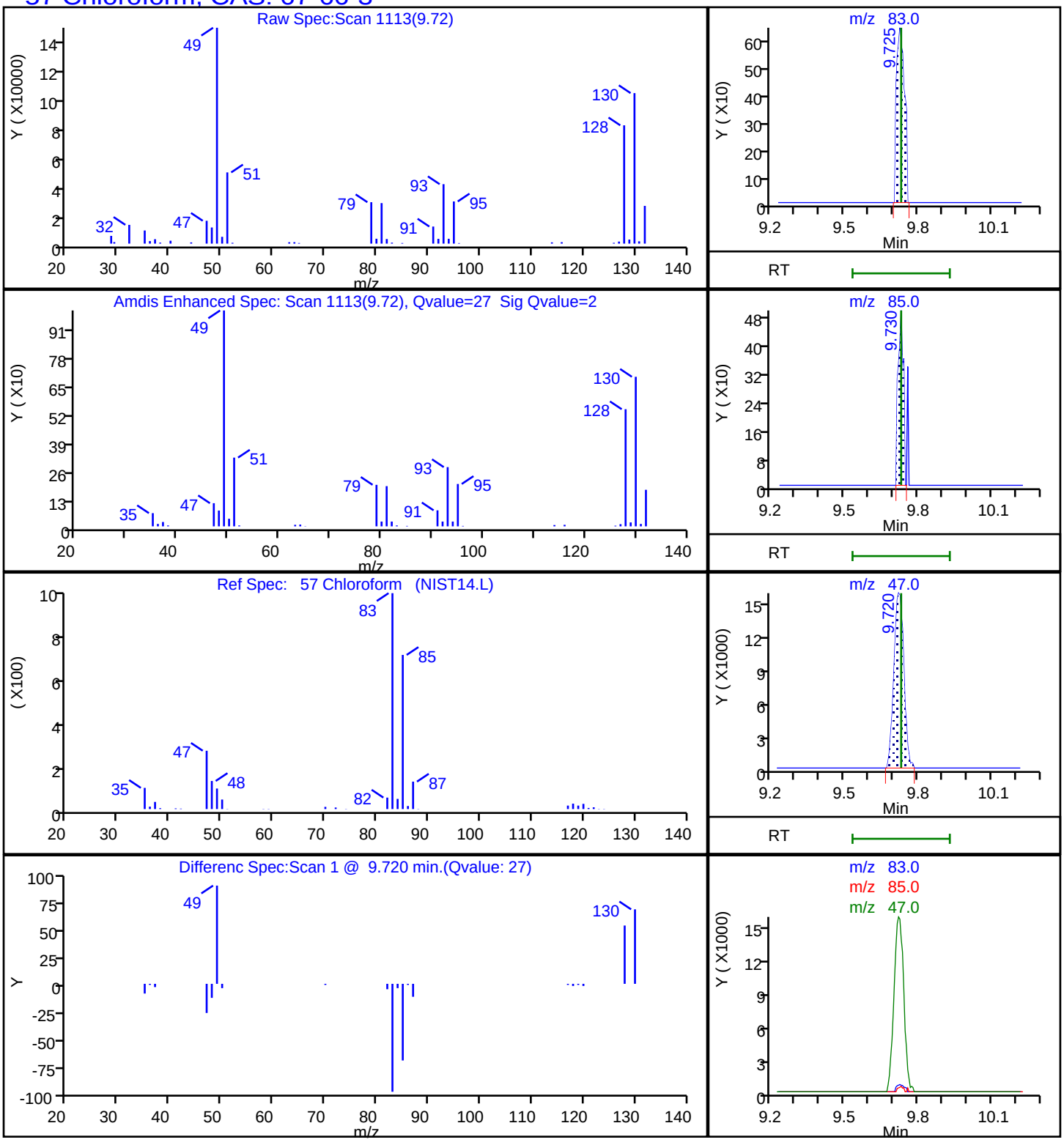


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D

Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17
Client ID:	IA-150-C-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

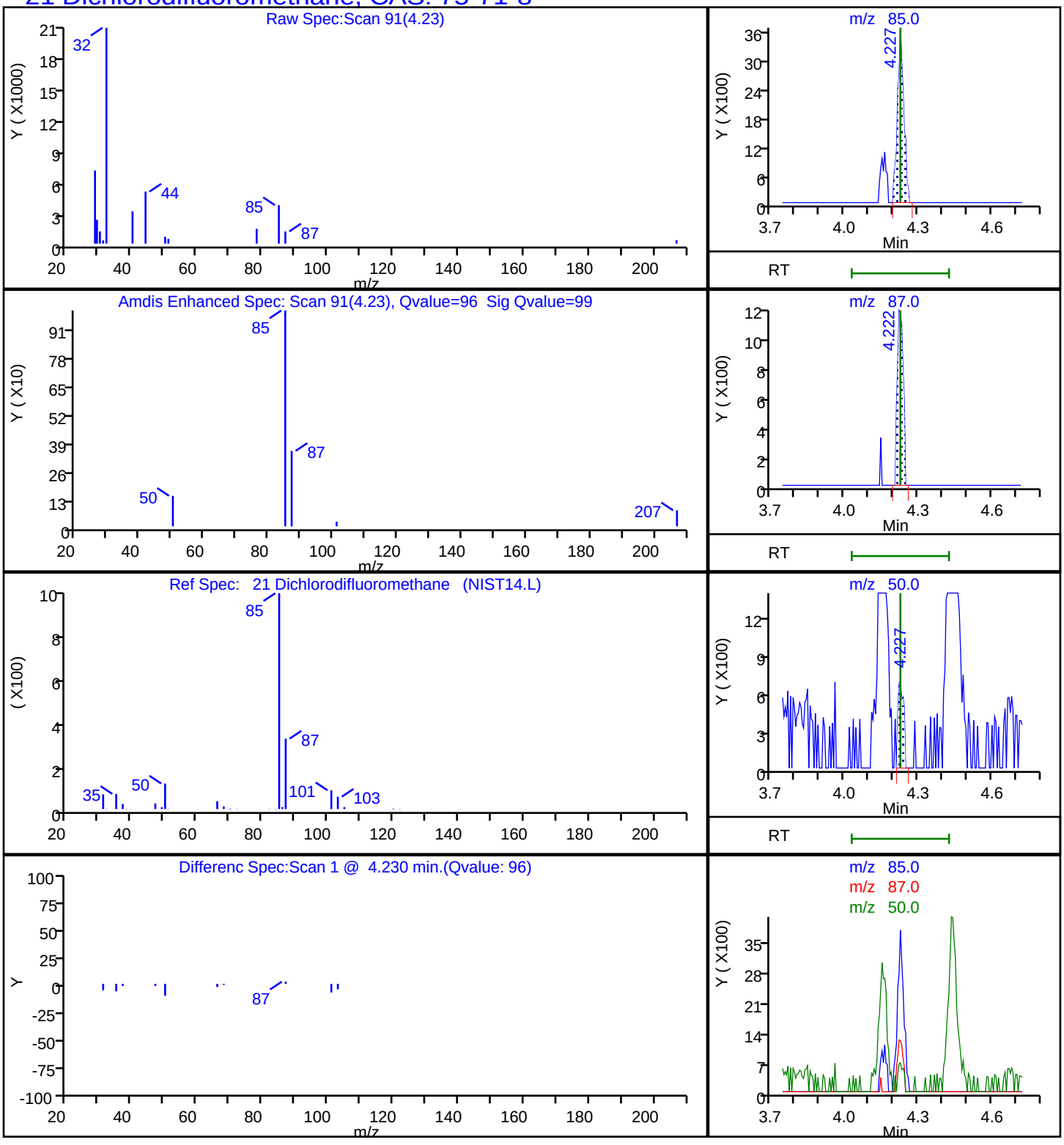


Report Date: 21-Aug-2019 12:19:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17		
Client ID:	IA-150-C-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

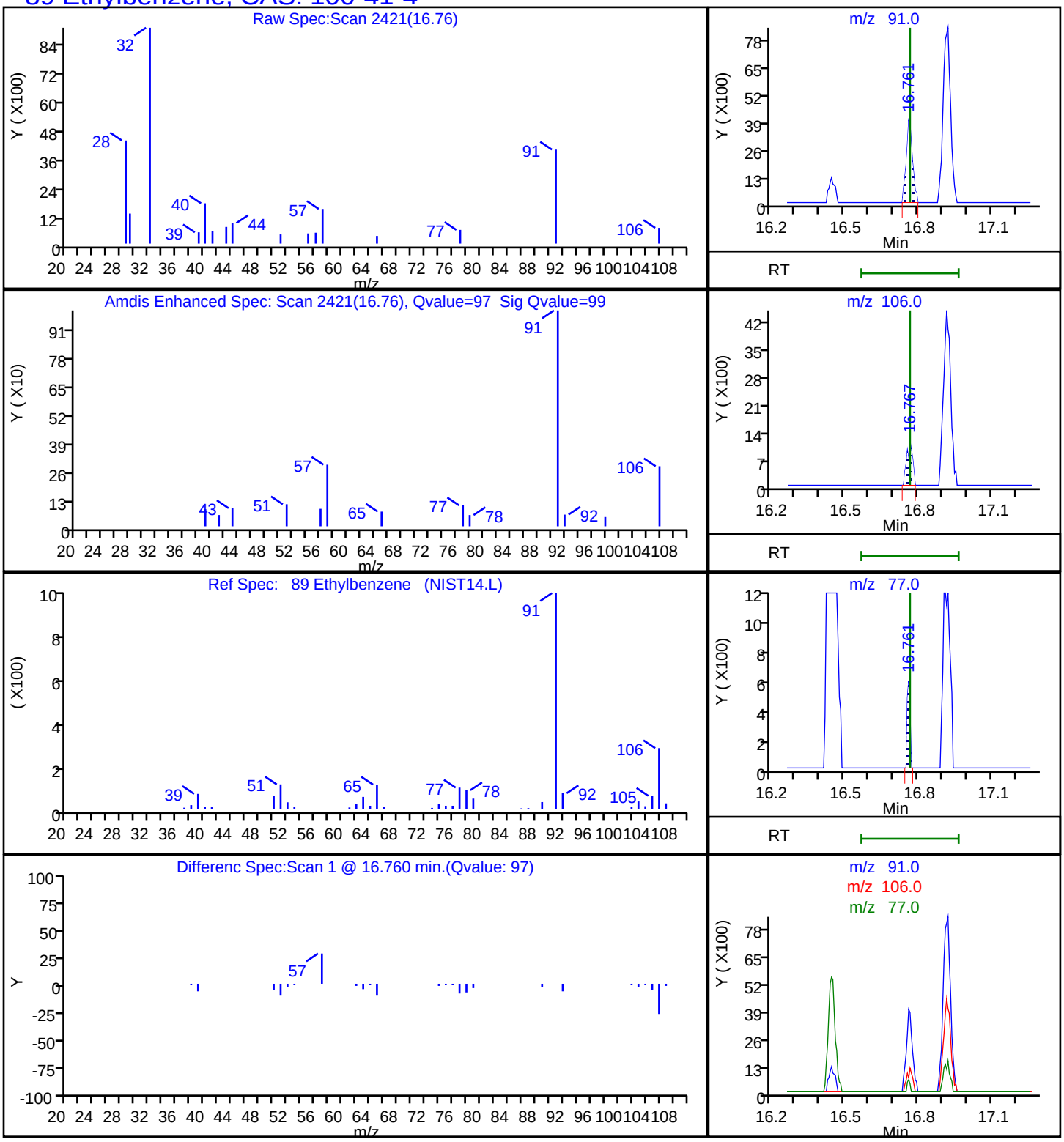
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D		
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17
Client ID:	IA-150-C-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

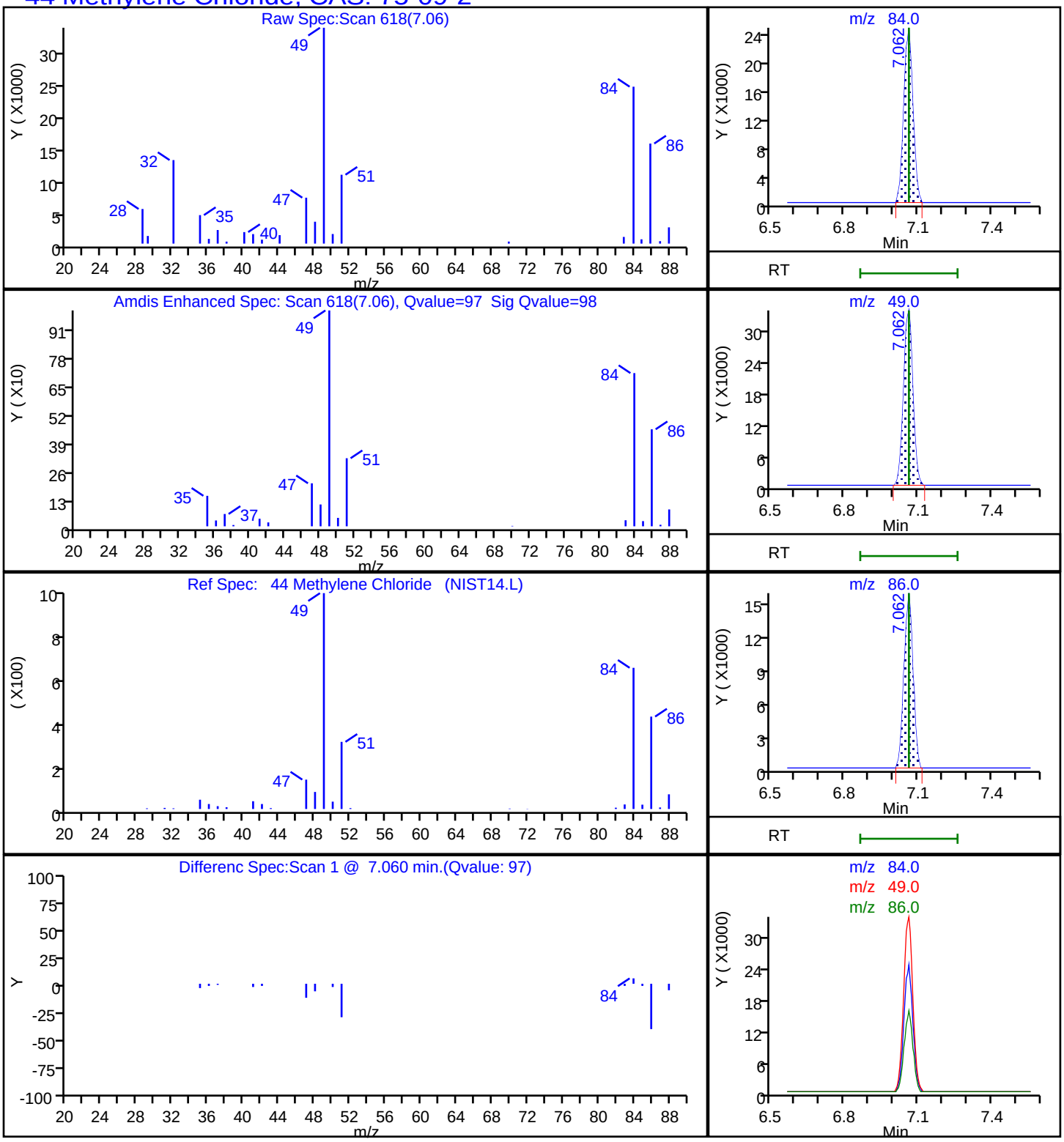
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D		
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17
Client ID:	IA-150-C-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

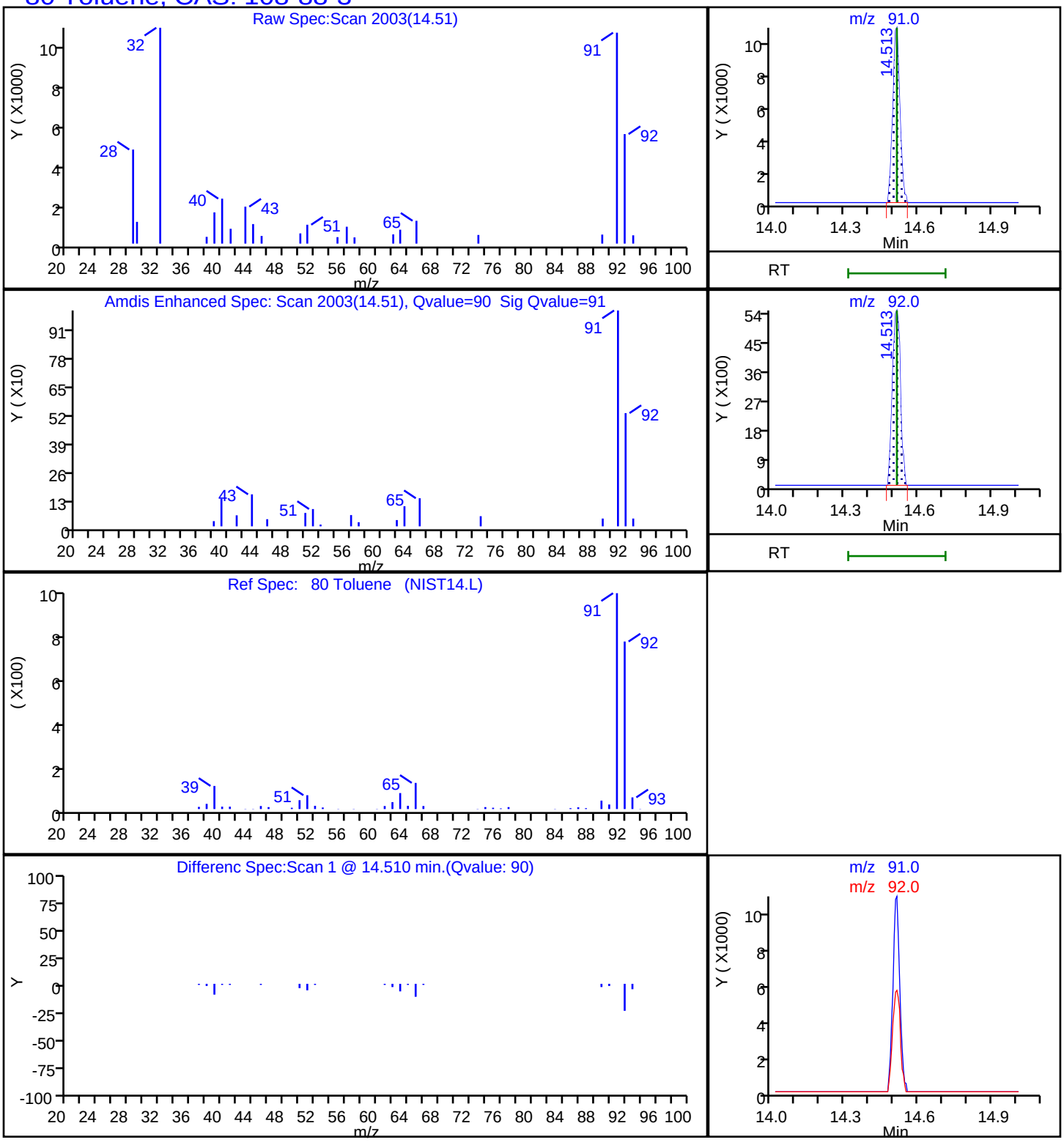
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D		
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17
Client ID:	IA-150-C-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 Toluene, CAS: 108-88-3

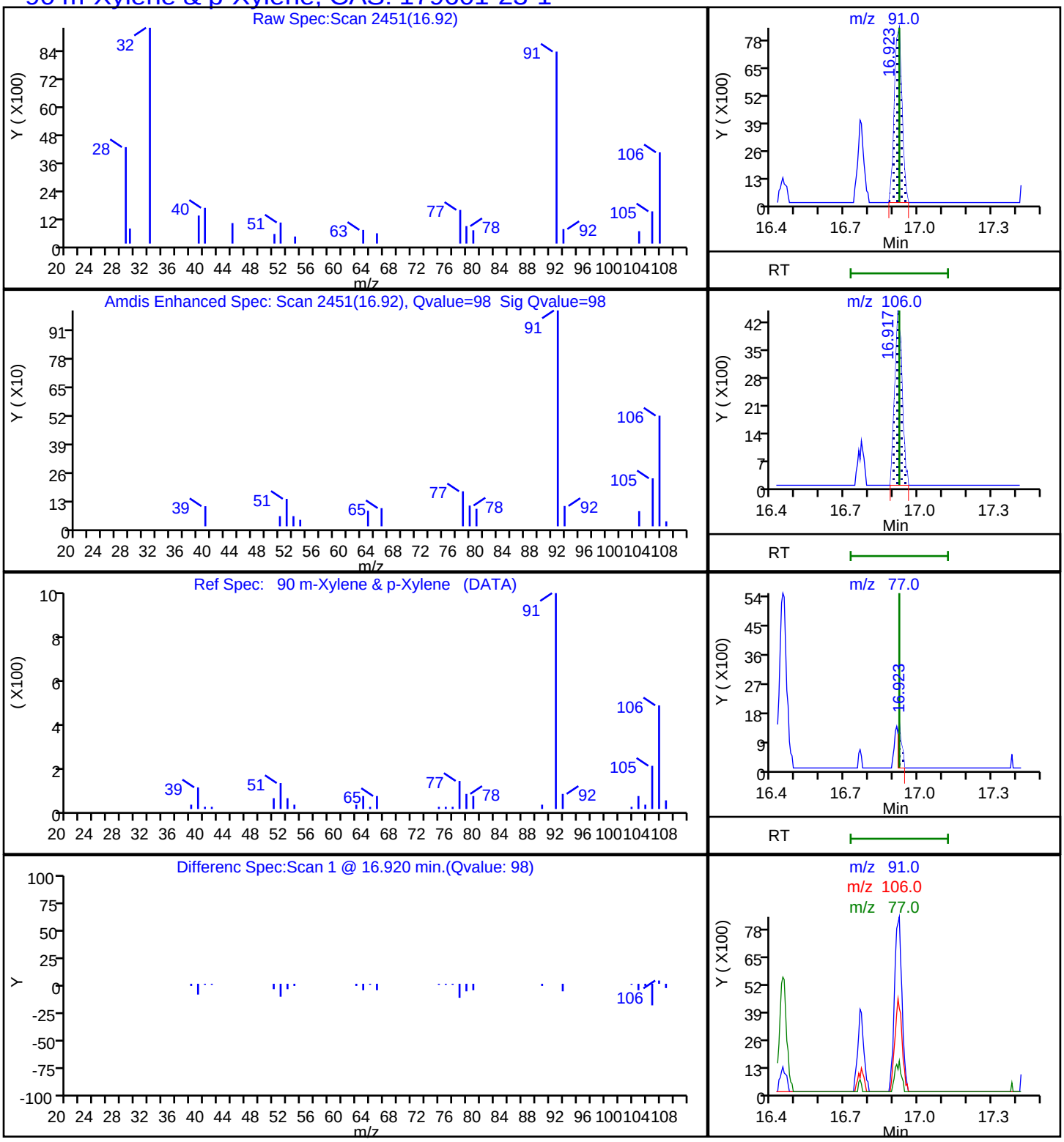


Report Date: 21-Aug-2019 12:19:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D				
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17		
Client ID:	IA-150-C-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

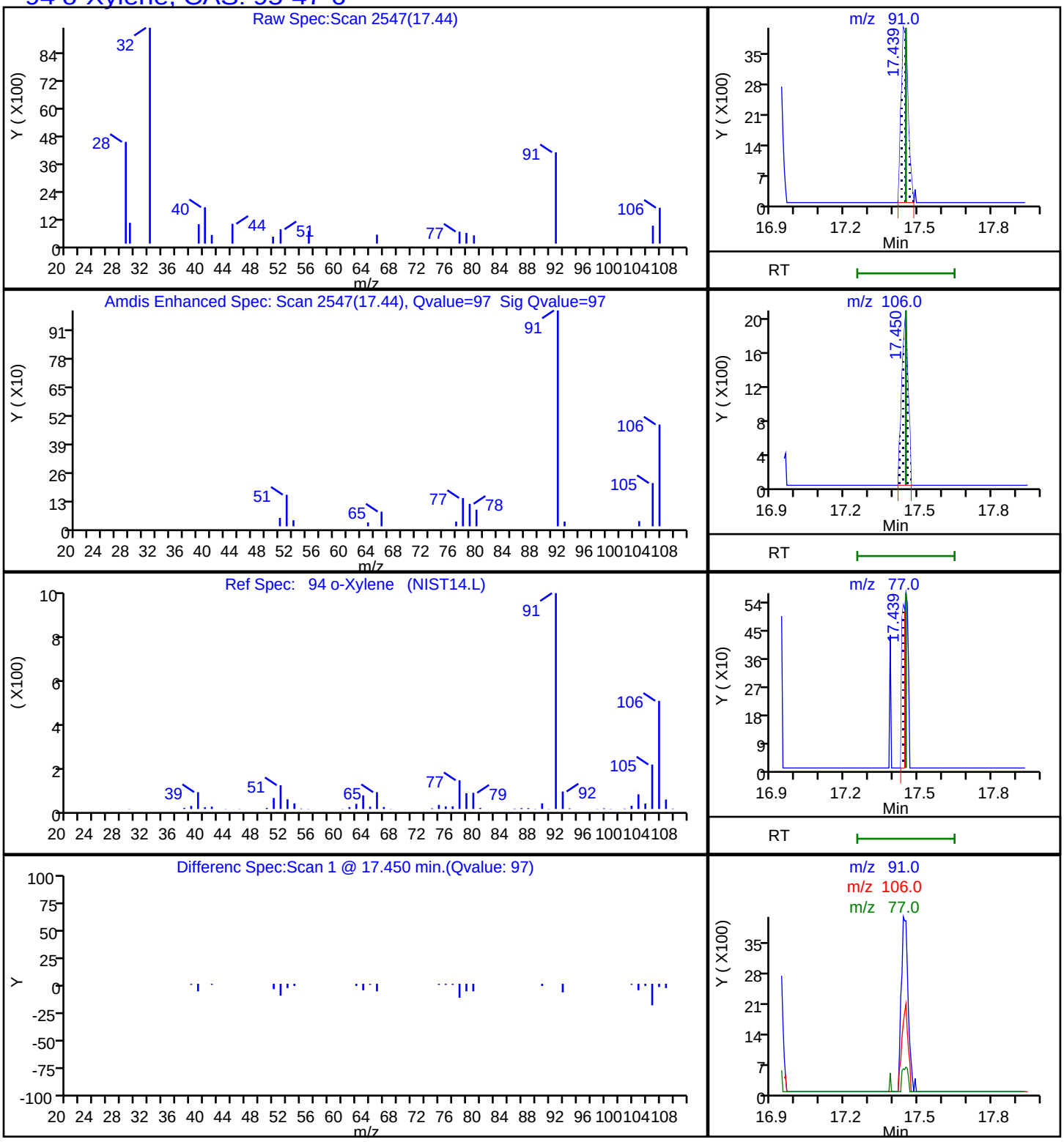
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P213.D		
Injection Date:	20-Aug-2019 12:19:30	Instrument ID:	MJ
Lims ID:	140-16369-A-17	Lab Sample ID:	140-16369-17
Client ID:	IA-150-C-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.84		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.30	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.46	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.0		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D				
Lims ID:	140-16369-A-18				
Client ID:	IA-141-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 13:08:30	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-007				
Misc. Info.:	140-16369-a-18				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:19:54		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.722	9.725	-0.003	95	215768	4.00	
* 2 1,4-Difluorobenzene	114	11.836	11.839	-0.003	95	1085393	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.449	-0.002	88	944601	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.044	18.047	-0.003	96	619557	3.57	
19 Chlorodifluoromethane	51	4.154	4.152	0.002	92	9857	0.1672	
21 Dichlorodifluoromethane	85	4.230	4.227	0.003	95	5844	0.0865	
44 Methylene Chloride	84	7.065	7.062	0.003	97	36286	0.4470	
57 Chloroform	83	9.733	9.730	0.003	33	1848	0.0106	
64 Benzene	78	11.336	11.333	0.003	90	5673	0.0285	
65 Carbon tetrachloride	117	11.352	11.349	-0.003	90	1986	0.0119	
80 Toluene	91	14.515	14.508	0.002	94	14109	0.0618	
90 m-Xylene & p-Xylene	91	16.920	16.923	-0.003	98	9649	0.0428	
94 o-Xylene	91	17.453	17.450	0.002	86	4359	0.0182	
S 129 Xylenes, Total	100				0		0.0610	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

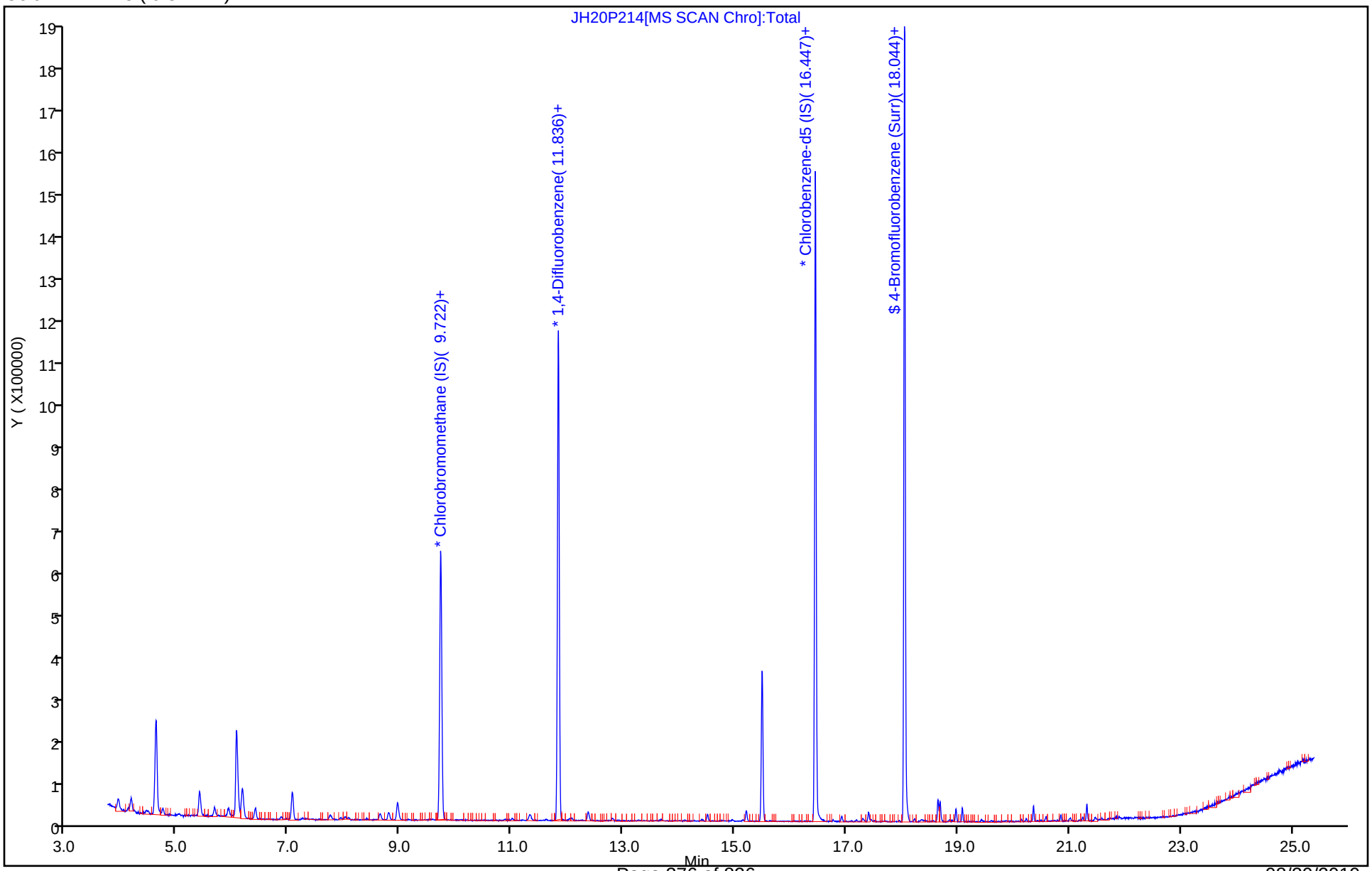
Report Date: 21-Aug-2019 12:19:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D

Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18	Worklist Smp#:	7
Client ID:	IA-141-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D				
Lims ID:	140-16369-A-18				
Client ID:	IA-141-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 13:08:30	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-007				
Misc. Info.:	140-16369-a-18				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:19:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.57	89.22

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D

Injection Date: 20-Aug-2019 13:08:30 Instrument ID: MJ

Lims ID: 140-16369-A-18 Lab Sample ID: 140-16369-18

Client ID: IA-141-C-27

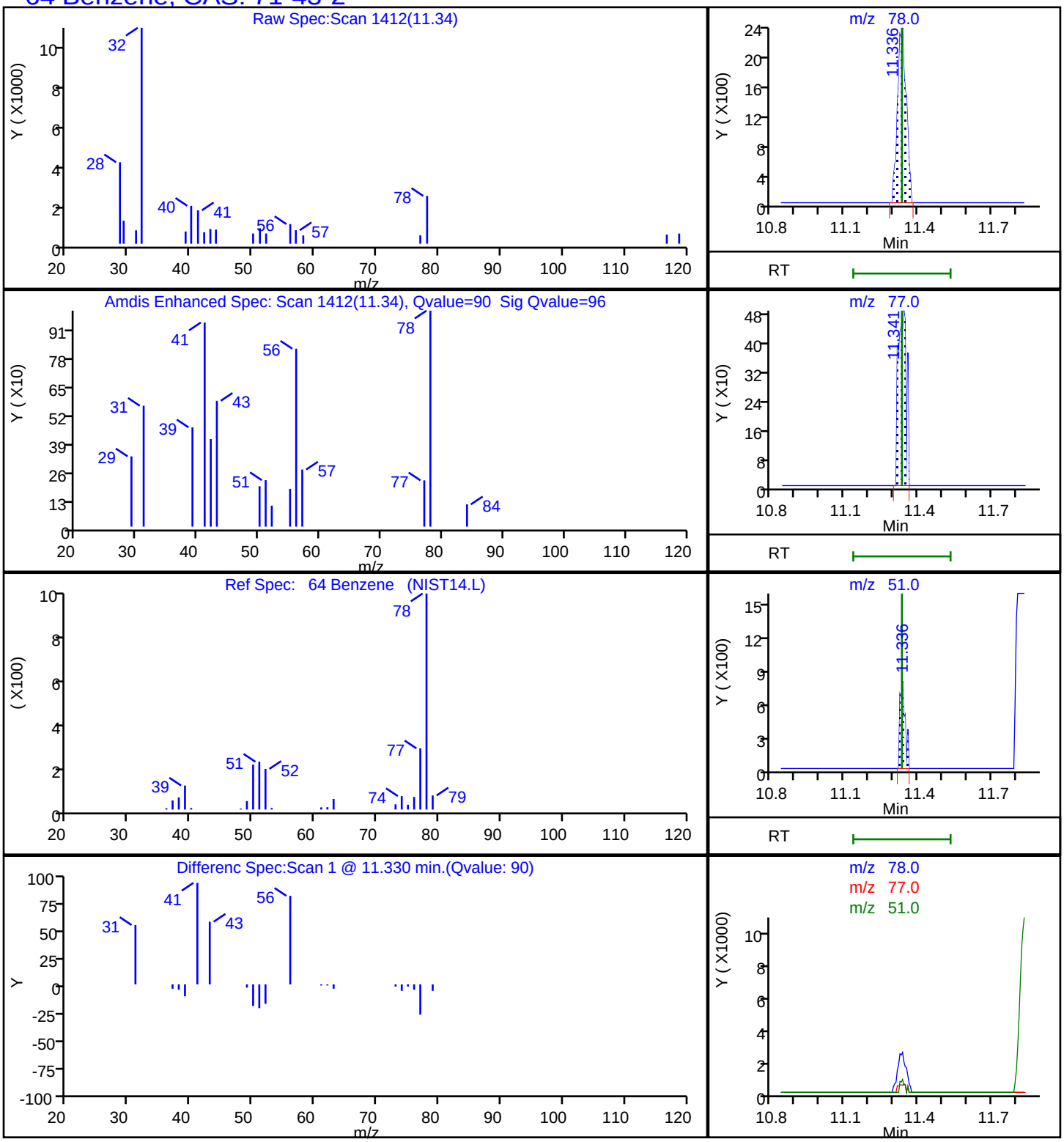
Operator ID: 007126 ALS Bottle#: 14 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

64 Benzene, CAS: 71-43-2

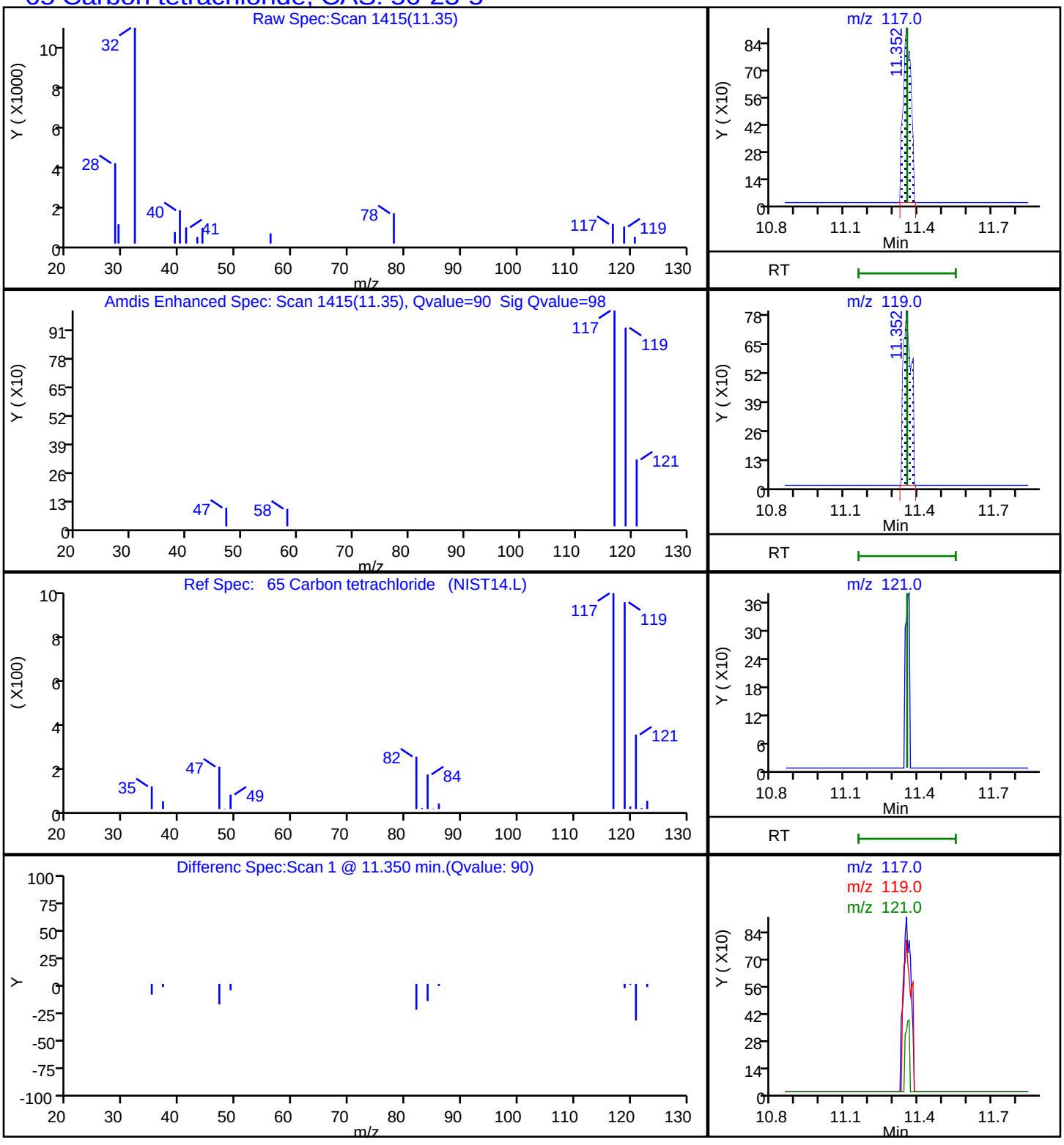


Report Date: 21-Aug-2019 12:19:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D				
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18		
Client ID:	IA-141-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

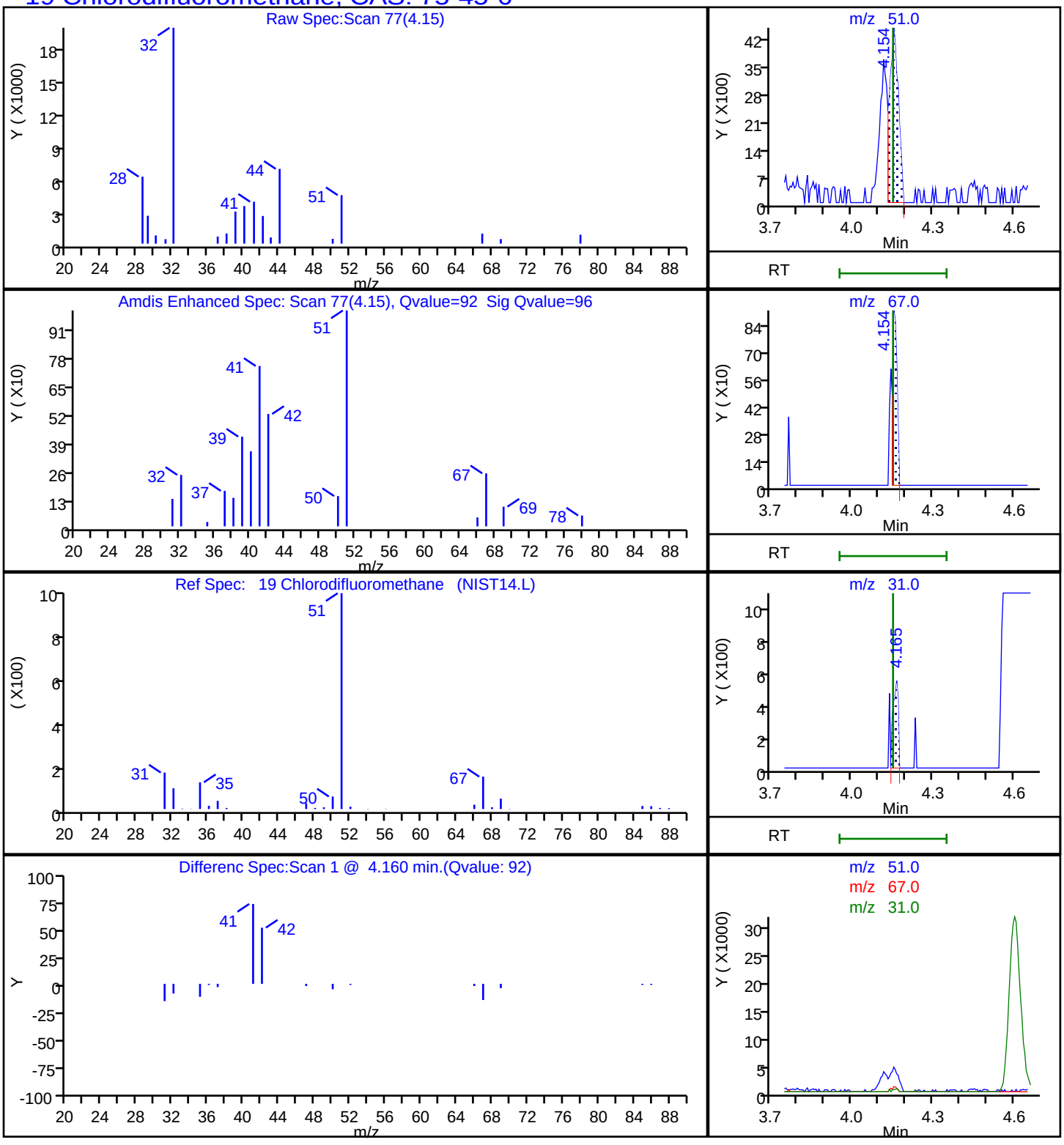
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D		
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18
Client ID:	IA-141-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6



Report Date: 21-Aug-2019 12:19:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D

Injection Date: 20-Aug-2019 13:08:30 Instrument ID: MJ

Lims ID: 140-16369-A-18 Lab Sample ID: 140-16369-18

Client ID: IA-141-C-27

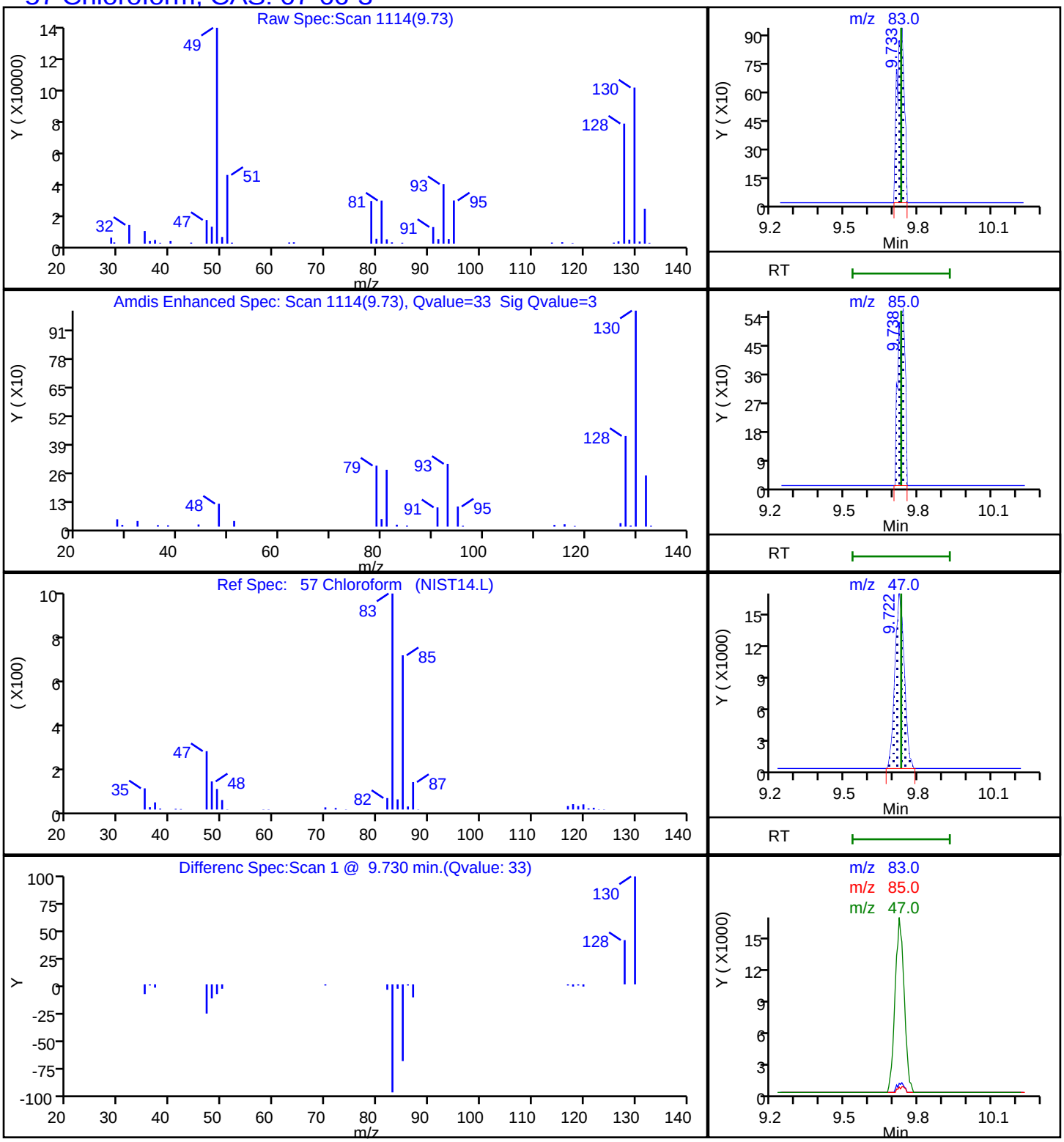
Operator ID: 007126 ALS Bottle#: 14 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

57 Chloroform, CAS: 67-66-3

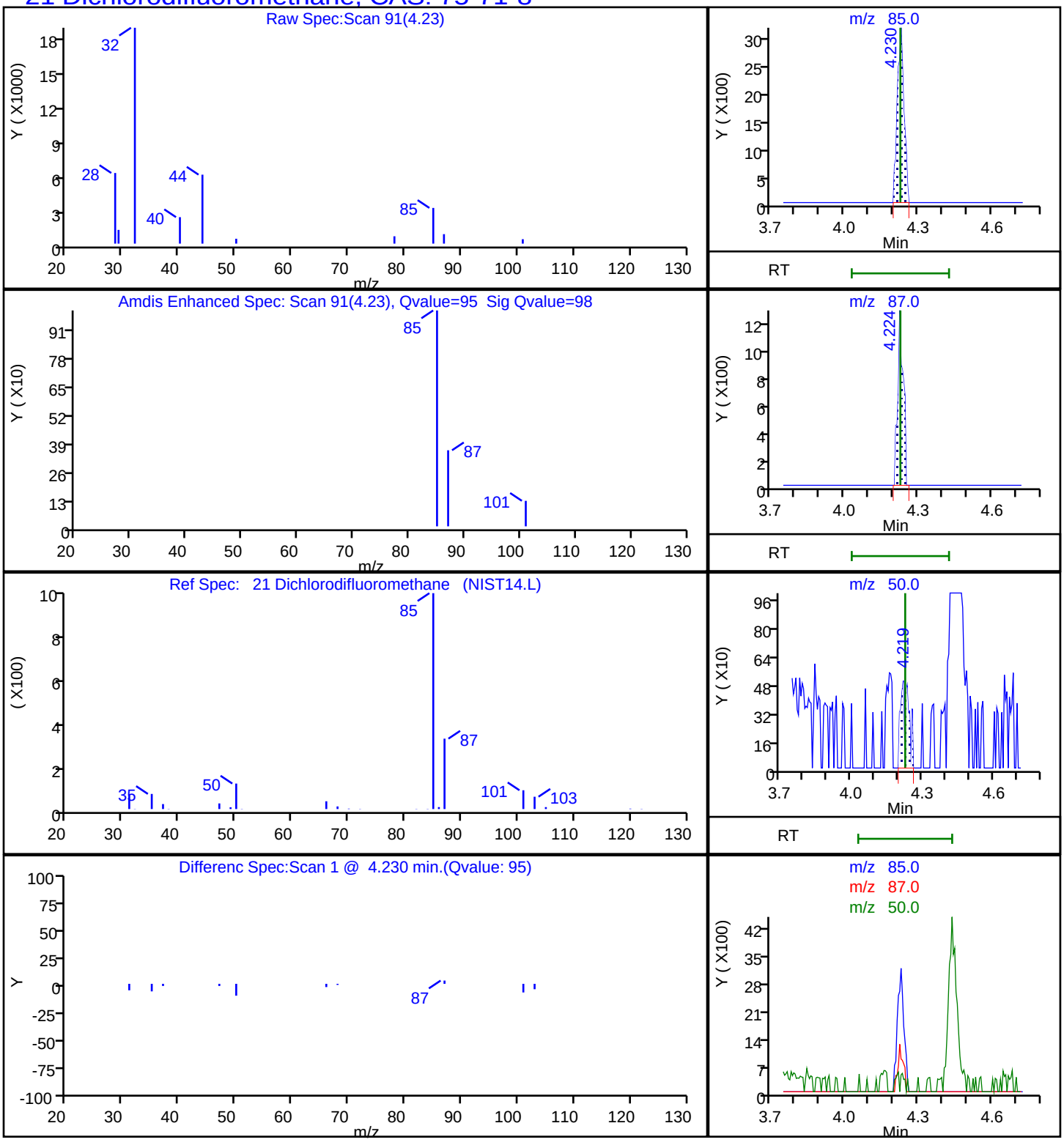


Report Date: 21-Aug-2019 12:19:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D				
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18		
Client ID:	IA-141-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

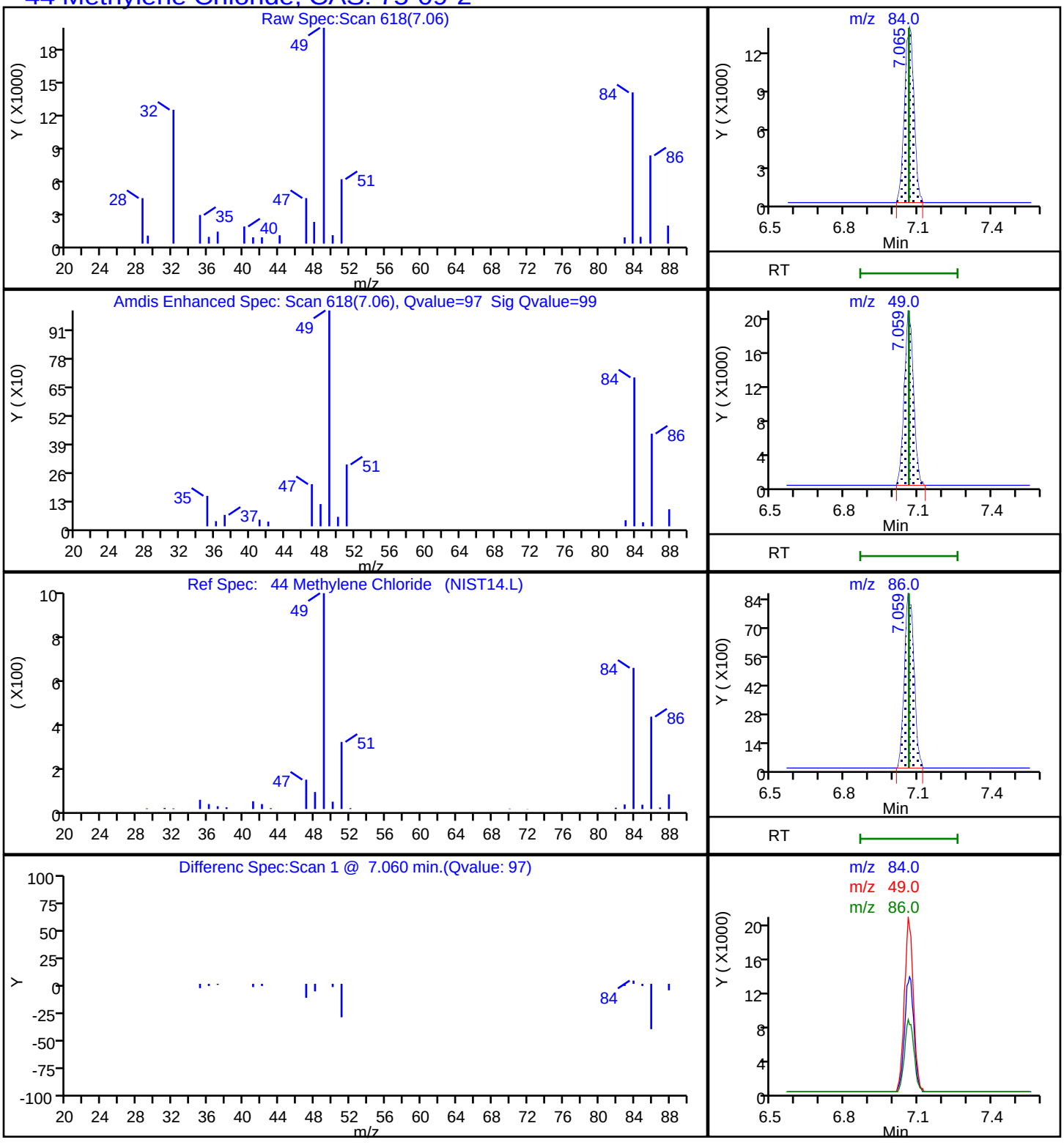


Report Date: 21-Aug-2019 12:19:55 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D		
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18
Client ID:	IA-141-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

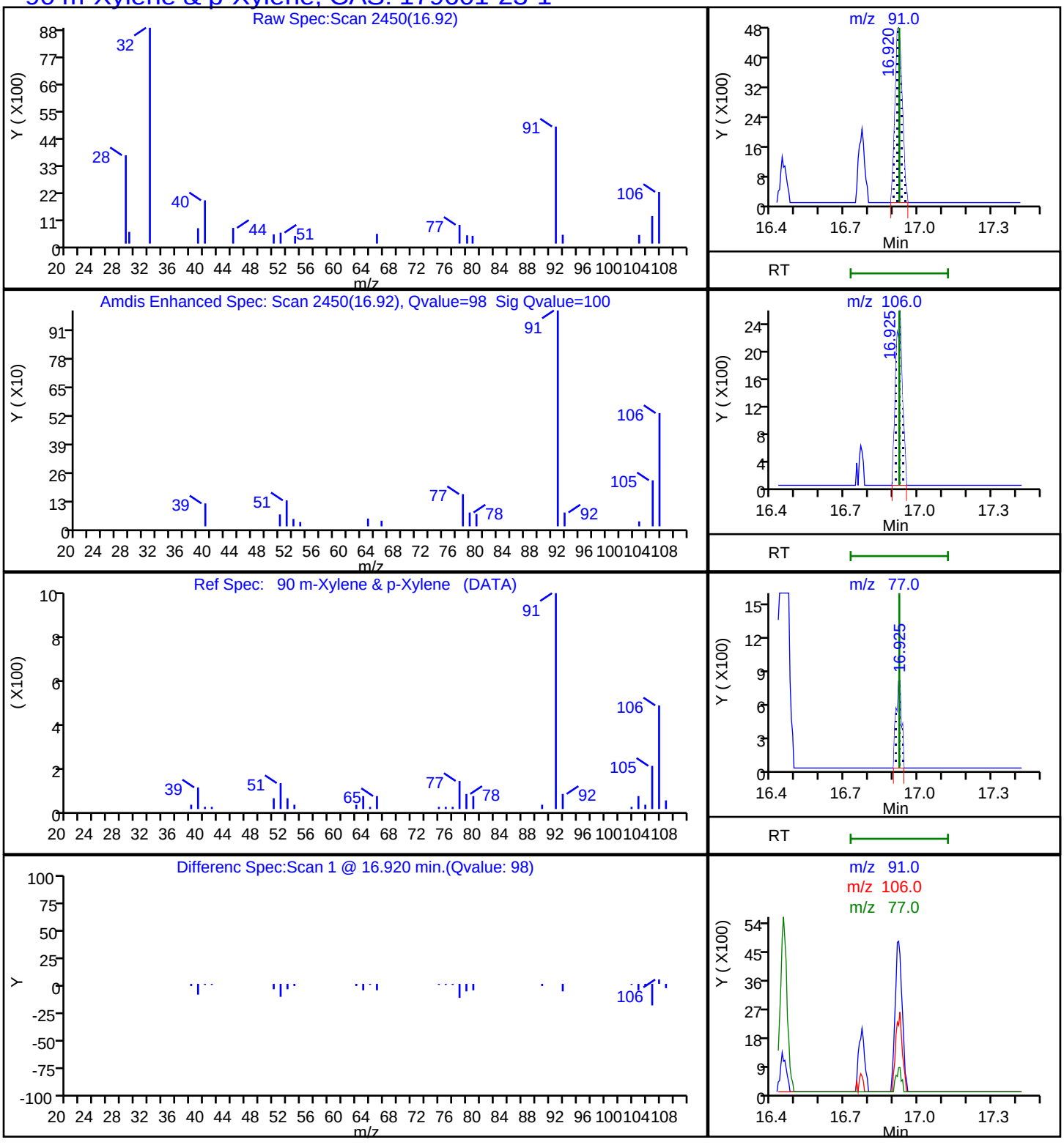
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D				
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18		
Client ID:	IA-141-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

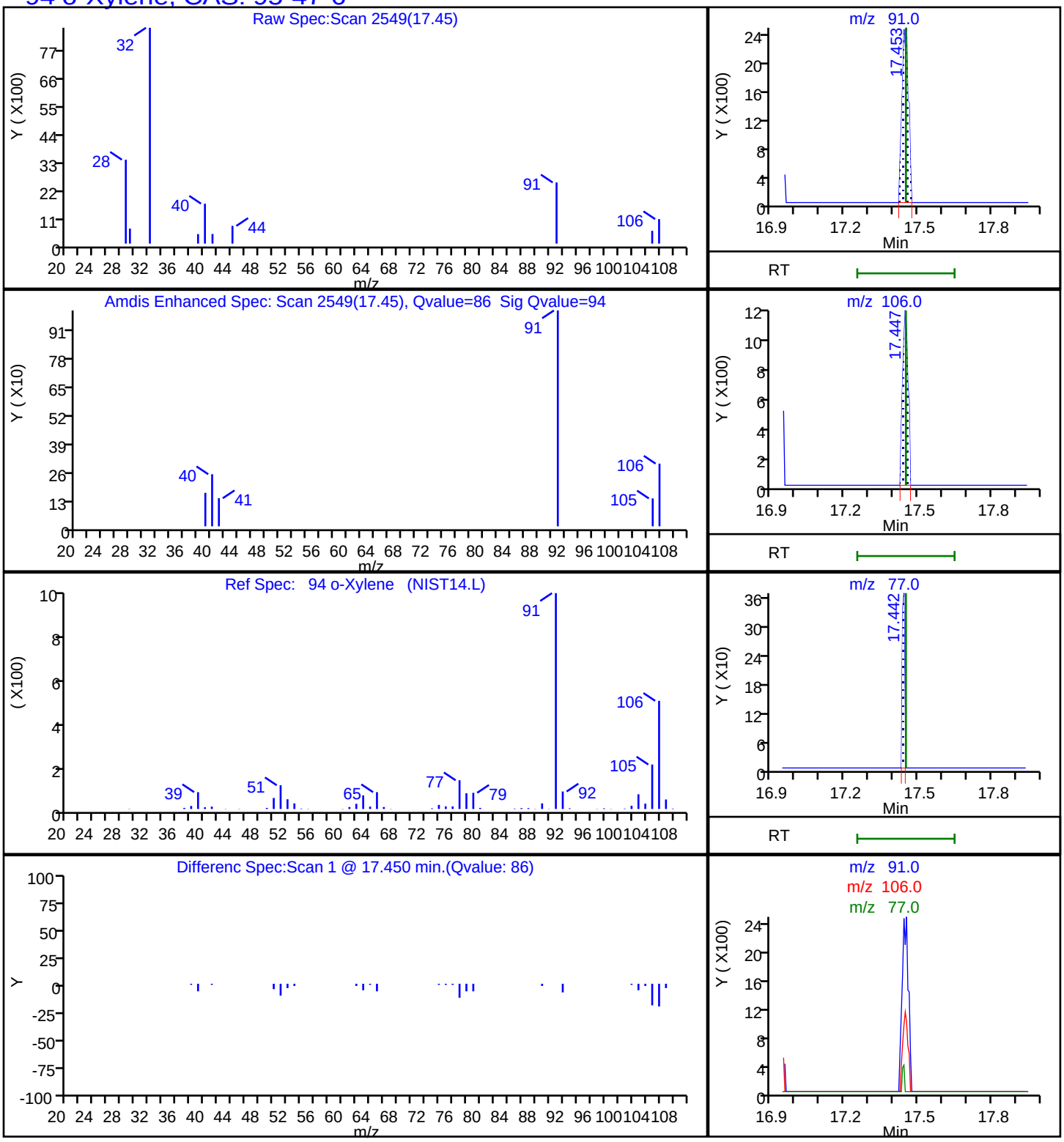
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P214.D		
Injection Date:	20-Aug-2019 13:08:30	Instrument ID:	MJ
Lims ID:	140-16369-A-18	Lab Sample ID:	140-16369-18
Client ID:	IA-141-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.3	0.37
67-66-3	Chloroform	119.38	ND		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.52	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	0.44	J	1.3	0.22
75-09-2	Methylene Chloride	84.93	98	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	ND		1.3	0.12
108-88-3	Toluene	92.14	3.6		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	0.21	J	0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	ND		0.67	0.43
1330-20-7	Xylenes, Total	106.17	1.9	J	2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.74
75-45-6	Chlorodifluoromethane	86.47	3.7	J	4.7	1.3
67-66-3	Chloroform	119.38	ND		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	2.6	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.68
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	1.9	J	5.8	0.94
75-09-2	Methylene Chloride	84.93	340	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.7
127-18-4	Tetrachloroethene	165.83	ND		9.1	0.79
108-88-3	Toluene	92.14	13		7.6	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	1.1	J	3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	3.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	ND		1.7	1.1
1330-20-7	Xylenes, Total	106.17	8.3	J	12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D
Lims ID: 140-16369-A-19
Client ID: IA-149-C-27
Sample Type: Client
Inject. Date: 24-Aug-2019 04:23:30 ALS Bottle#: 1 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.6700
Sample Info: 140-0012811-025
Misc. Info.: 140-16369-a-19@1.67
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:59:05 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:59:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	177587	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	995979	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	834416	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.209	17.231	-0.022	94	505258	3.51	
6 Chlorodifluoromethane	51	3.421	3.421	-0.006	35	9597	0.0632	M
8 Dichlorodifluoromethane	85	3.486	3.488	0.000	96	4259	0.0310	
31 Methylene Chloride	84	5.972	5.966	0.006	95	368727	5.87	
58 Trichloroethene	130	11.499	11.499	0.000	45	1115	0.0126	
67 Toluene	91	13.586	13.586	0.000	93	45773	0.2132	
76 Ethylbenzene	91	15.905	15.905	-0.001	96	7855	0.0261	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	95	19874	0.0840	
80 o-Xylene	91	16.595	16.595	0.000	64	7504	0.0302	
S 116 Xylenes, Total	100				0		0.1143	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

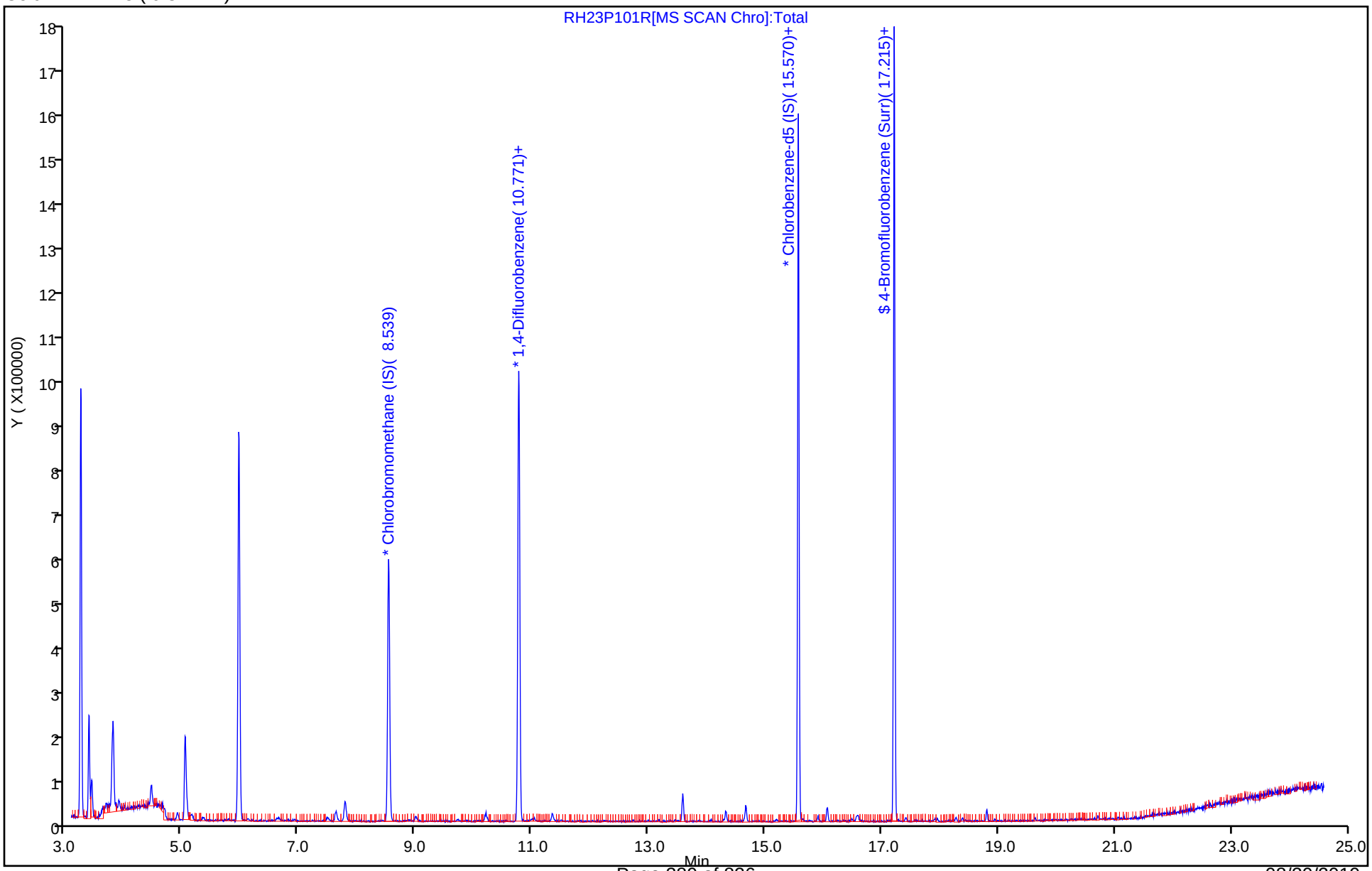
Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D

Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19	Worklist Smp#:	25
Client ID:	IA-149-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.6700	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D				
Lims ID:	140-16369-A-19				
Client ID:	IA-149-C-27				
Sample Type:	Client				
Inject. Date:	24-Aug-2019 04:23:30	ALS Bottle#:	1	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700		
Sample Info:	140-0012811-025				
Misc. Info.:	140-16369-a-19@1.67				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:59:05	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:59:05		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.51	87.81

Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D

Injection Date: 24-Aug-2019 04:23:30 Instrument ID: MR

Lims ID: 140-16369-A-19 Lab Sample ID: 140-16369-19

Client ID: IA-149-C-27

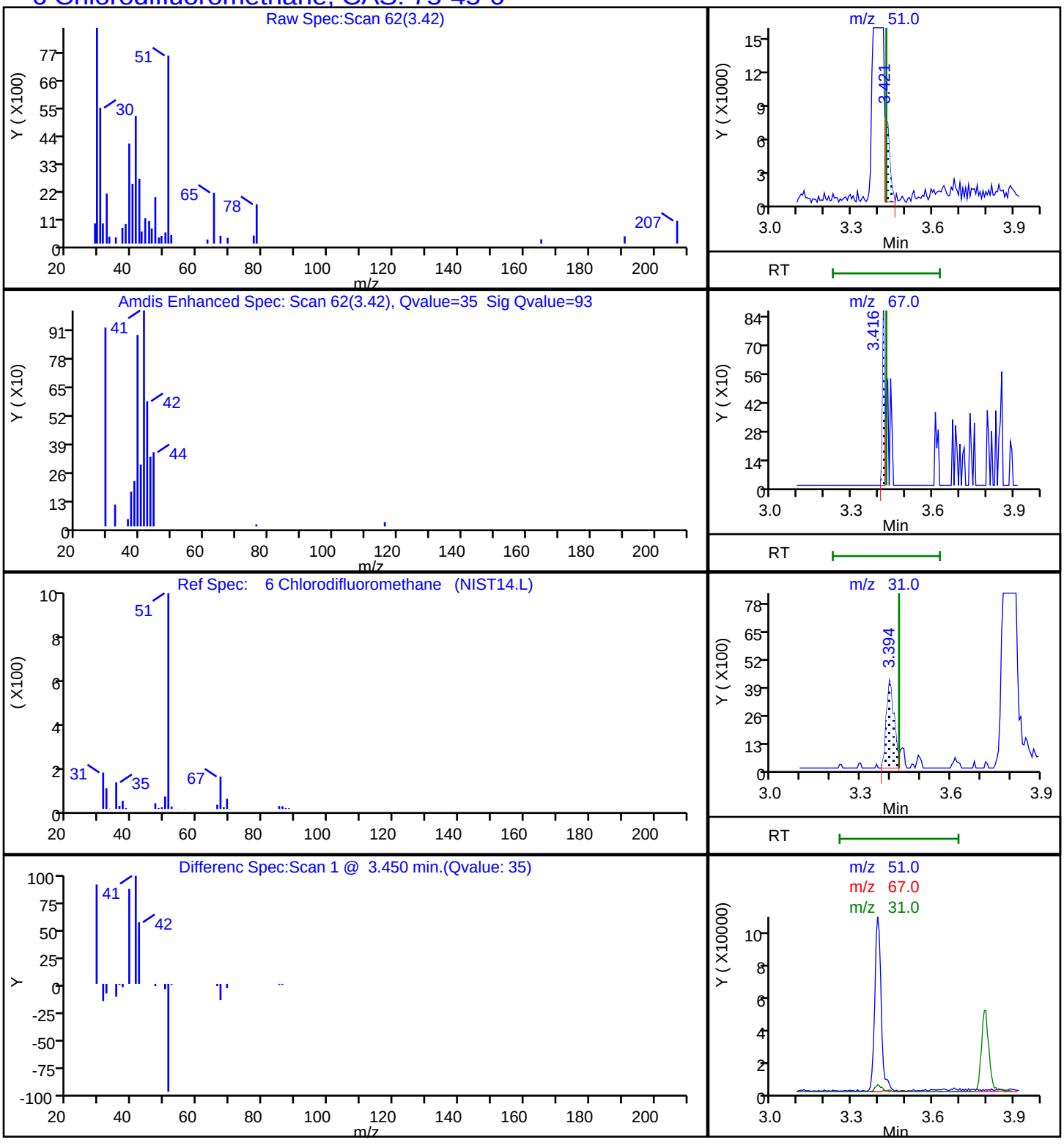
Operator ID: ALS Bottle#: 1 Worklist Smp#: 25

Purge Vol: 500.000 mL Dil. Factor: 1.6700

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



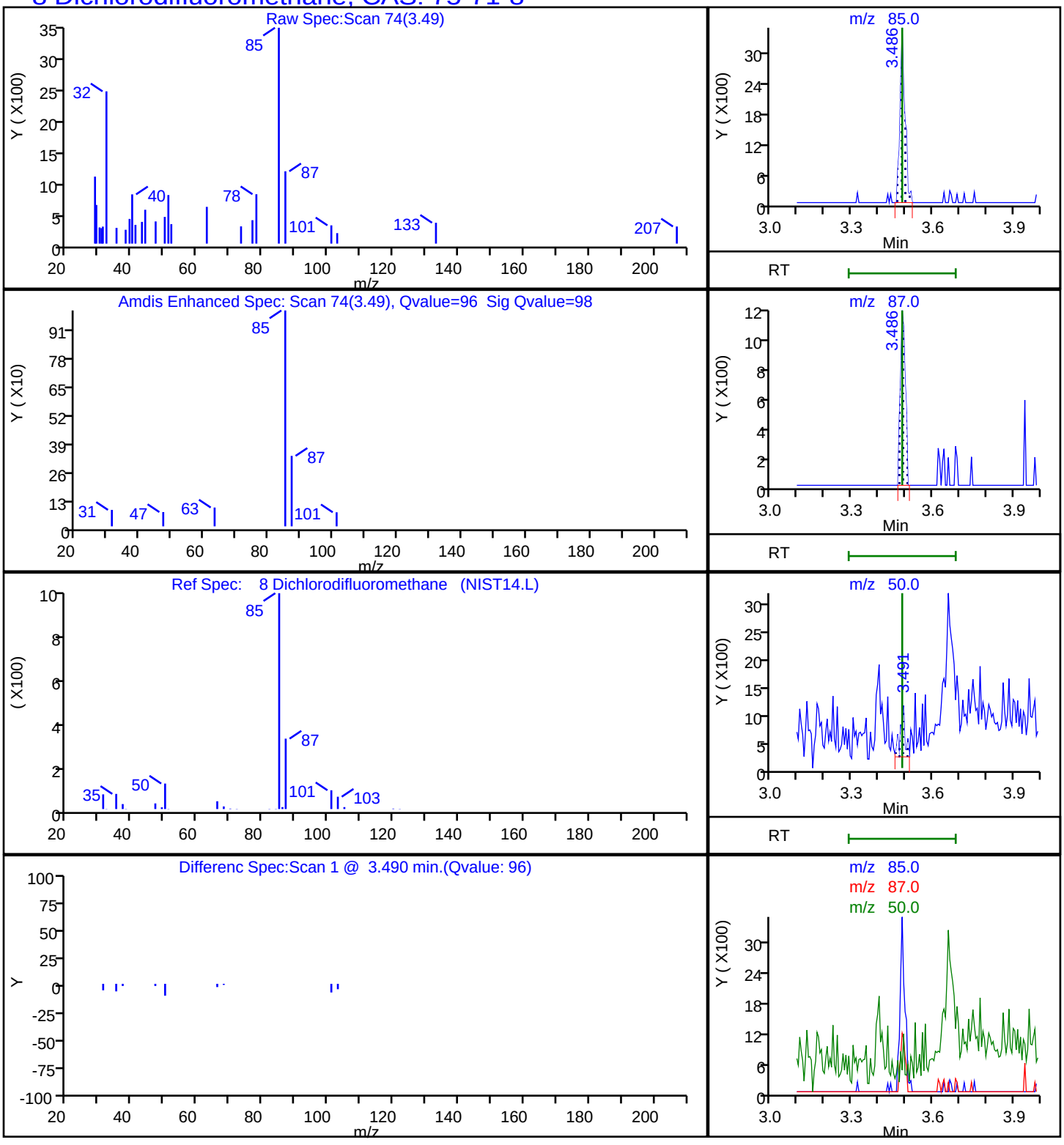
Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D

Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

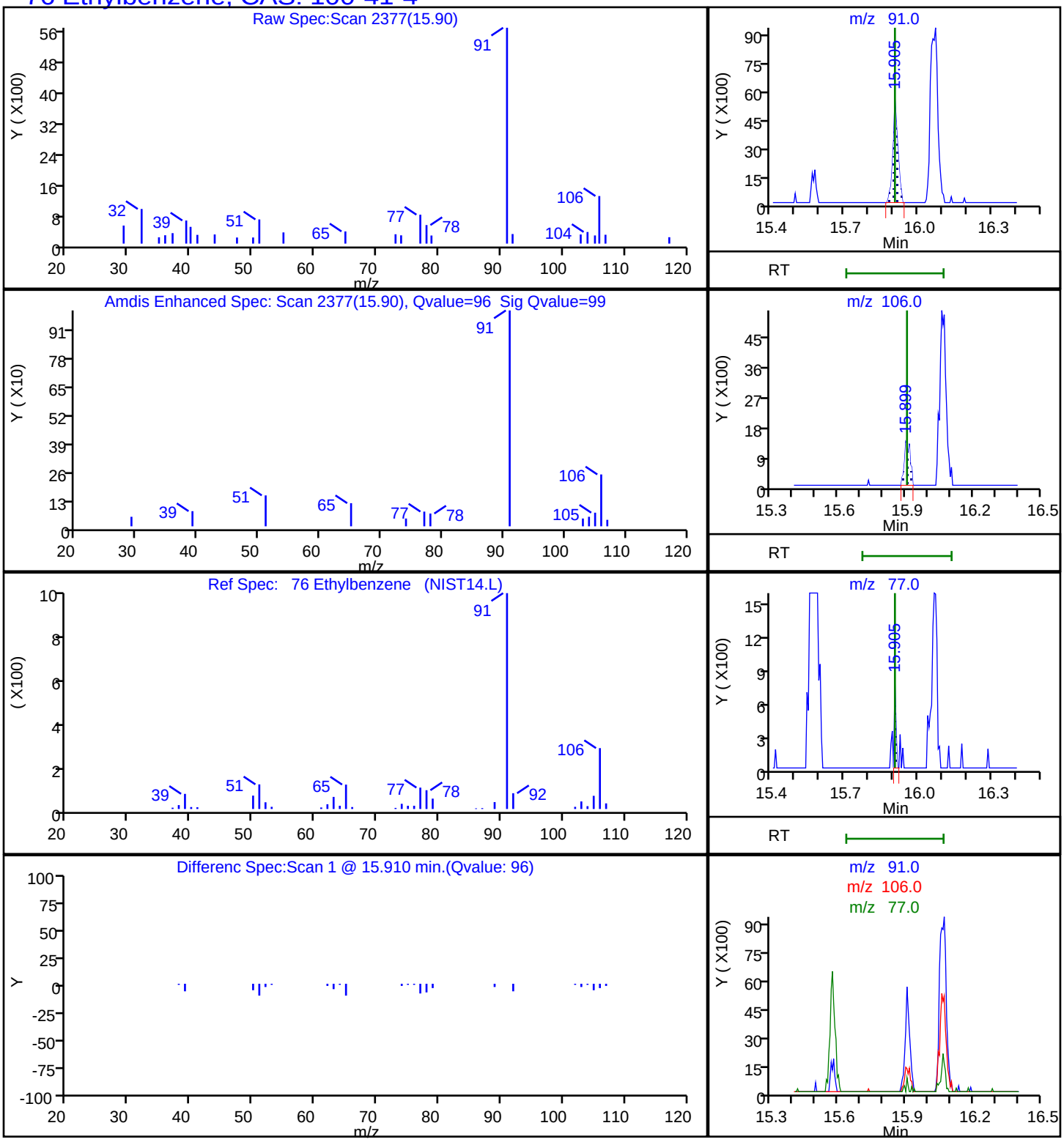
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D		
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

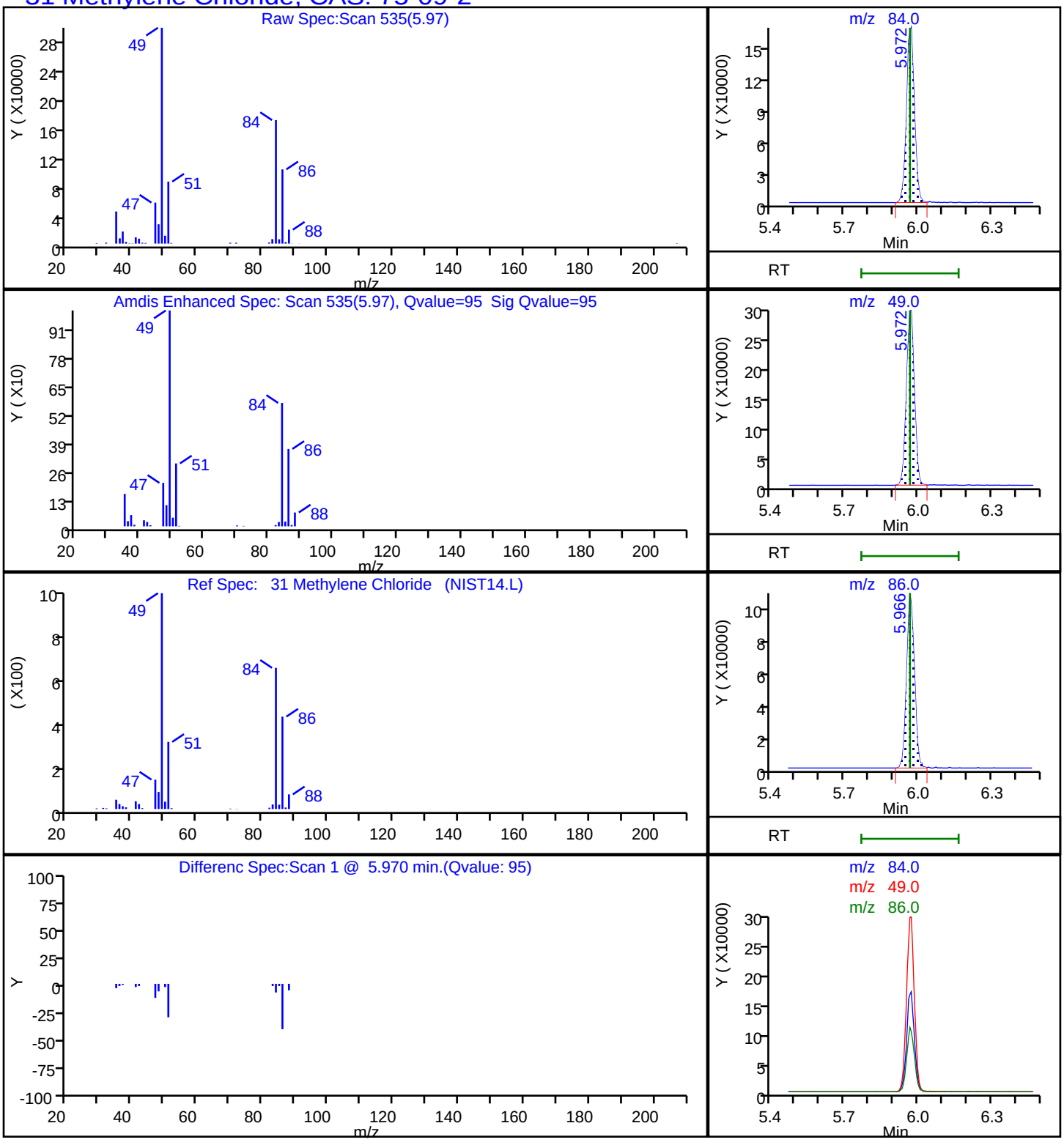


Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D		
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

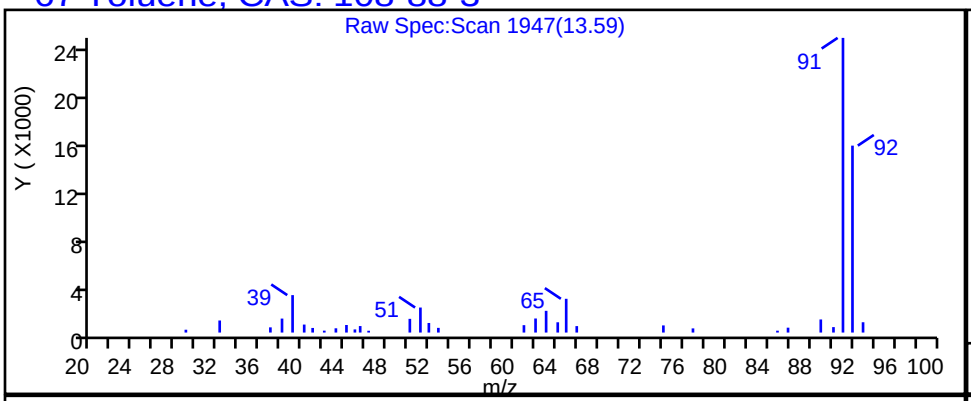


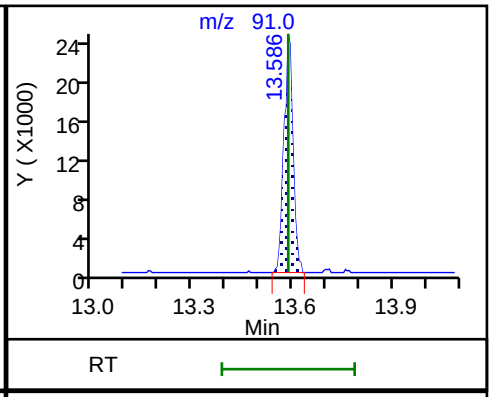
Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

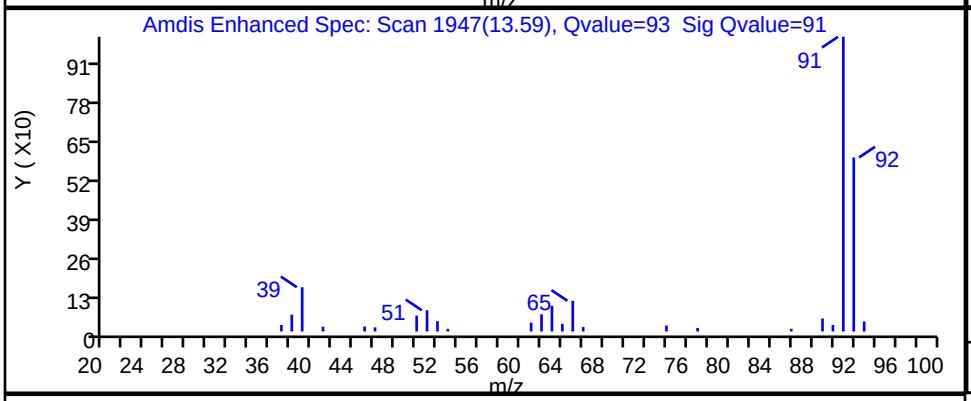
Eurofins TestAmerica, Knoxville

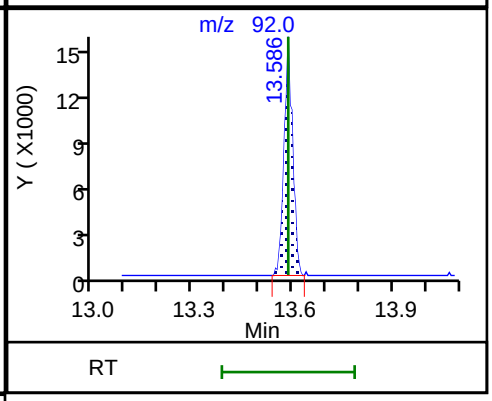
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D		
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

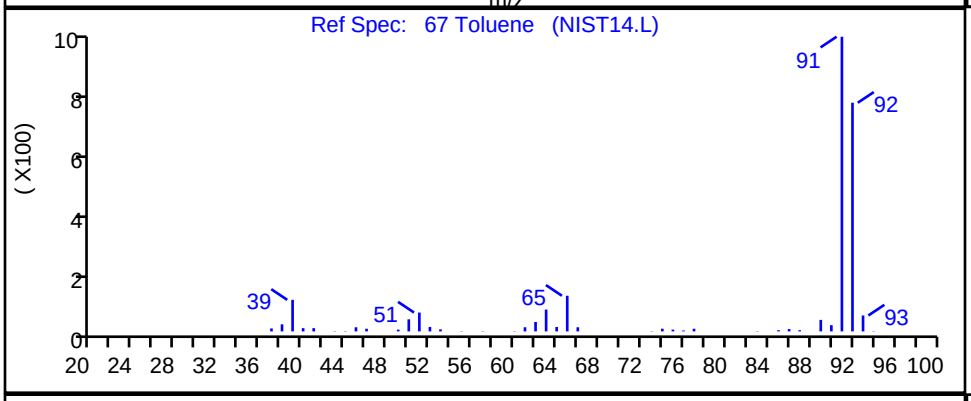
67 Toluene, CAS: 108-88-3

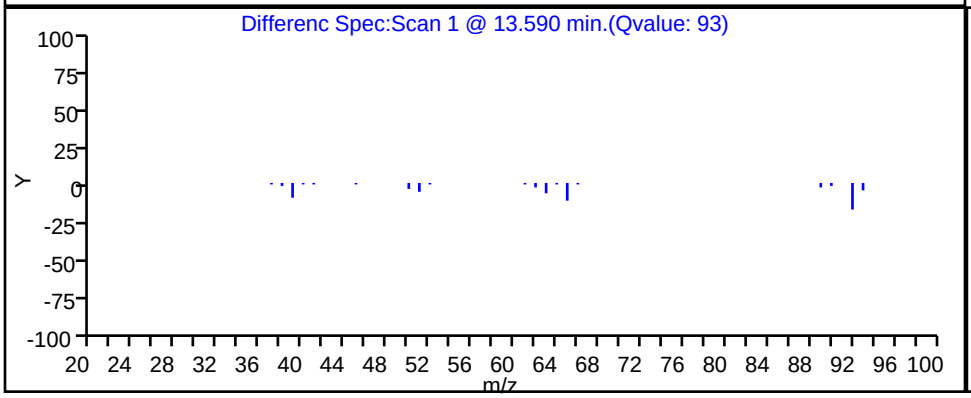


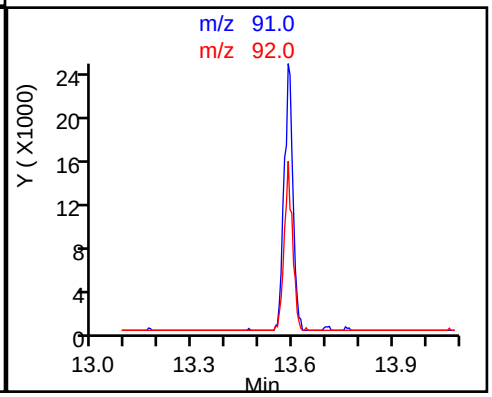












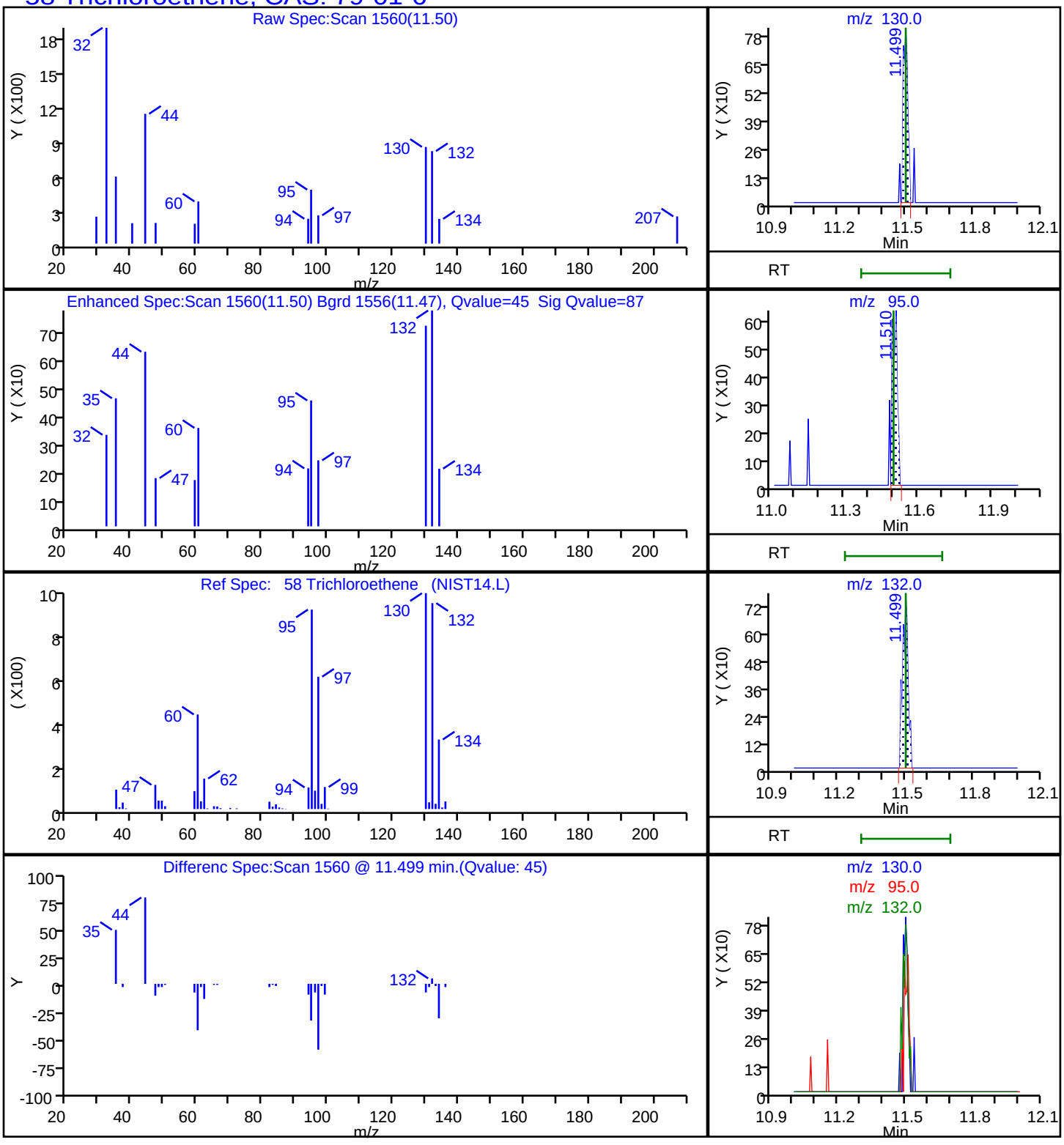
Report Date: 26-Aug-2019 13:59:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D

Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

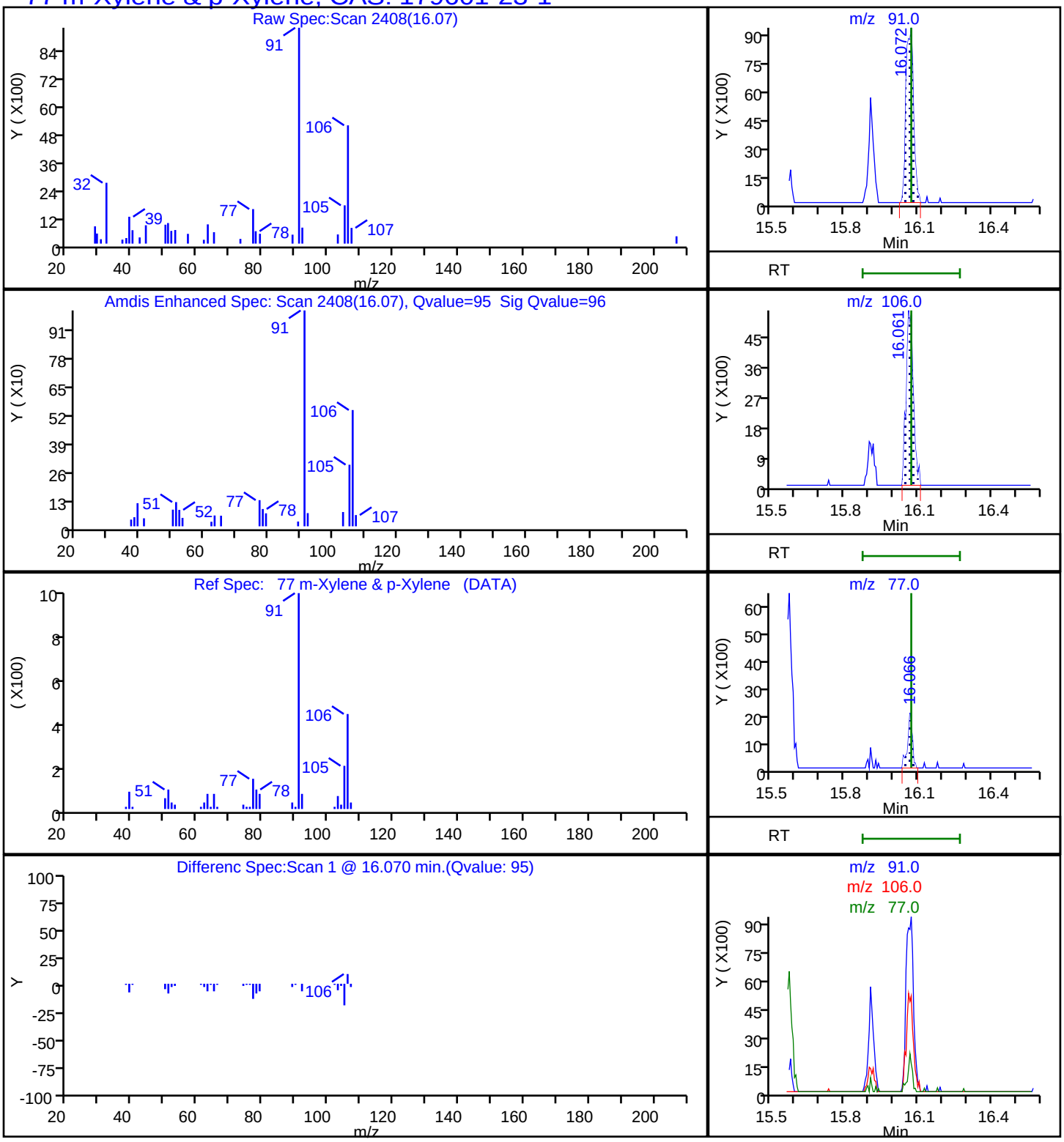
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D		
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

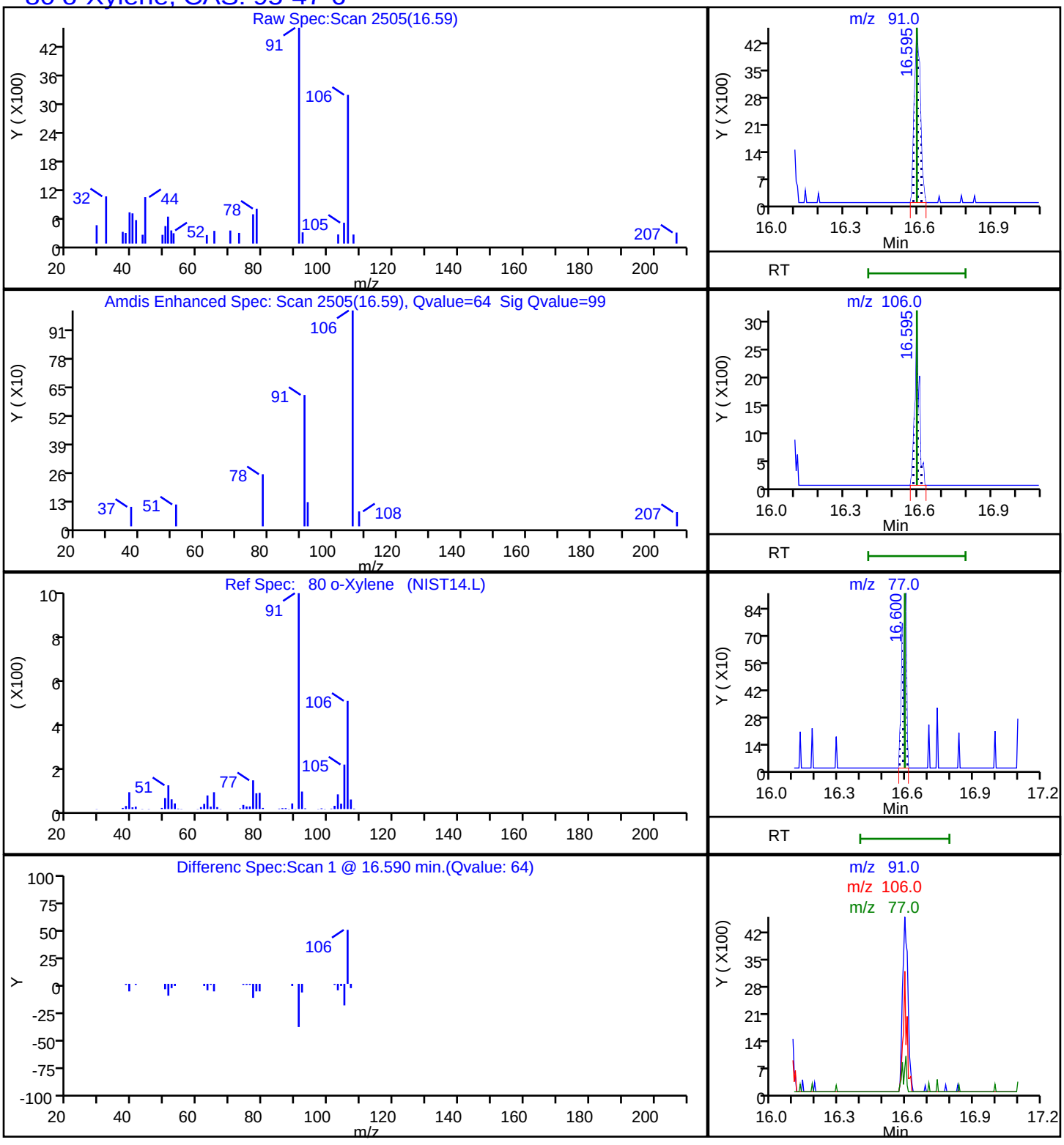
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D		
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19
Client ID:	IA-149-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

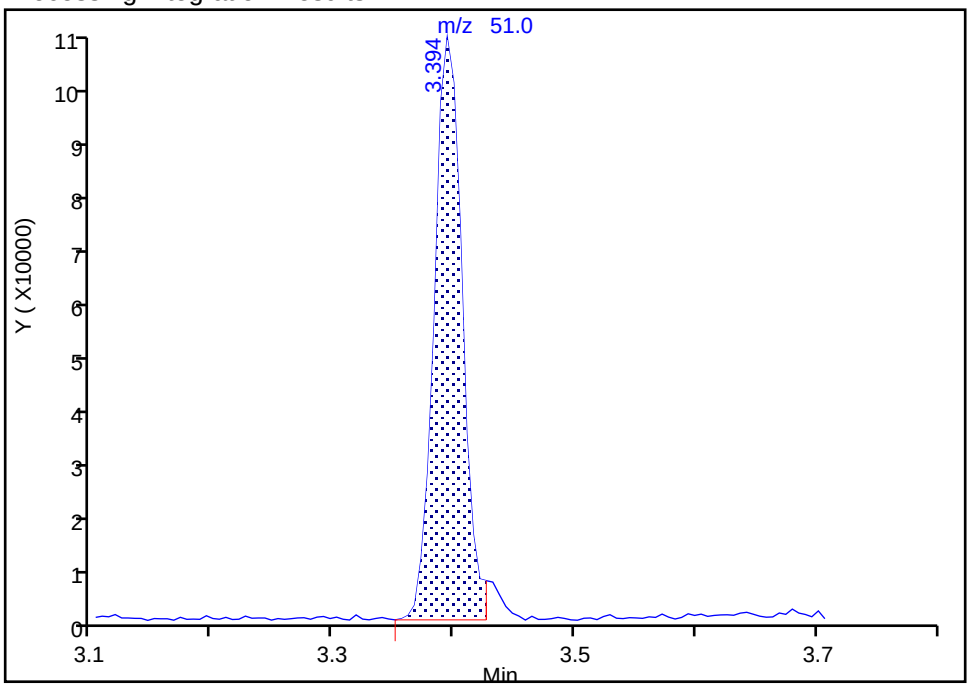
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D				
Injection Date:	24-Aug-2019 04:23:30	Instrument ID:	MR		
Lims ID:	140-16369-A-19	Lab Sample ID:	140-16369-19		
Client ID:	IA-149-C-27				
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.6700		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

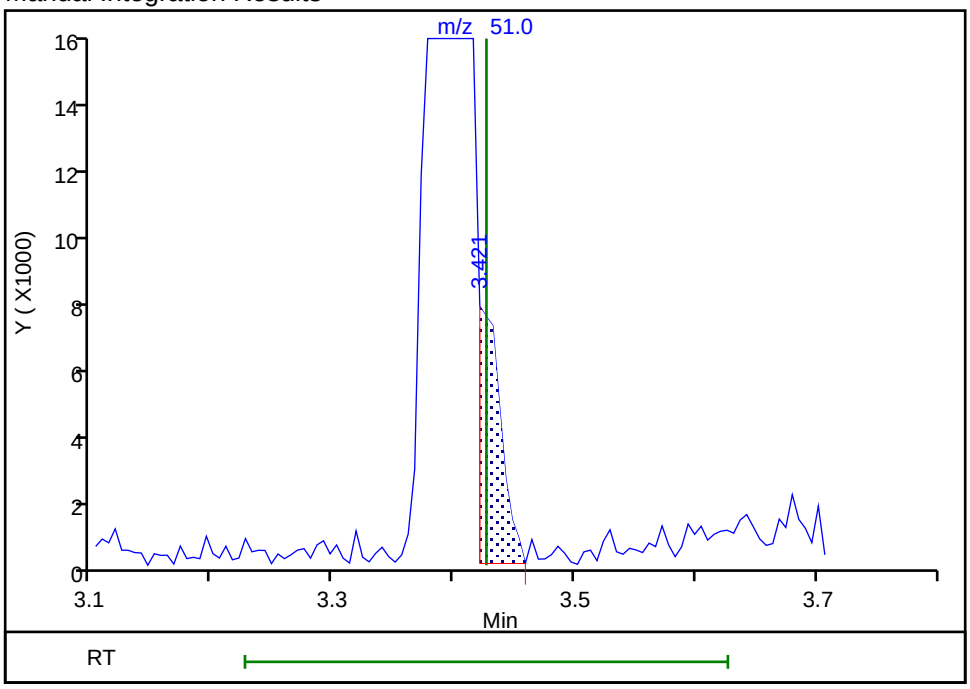
Processing Integration Results

RT: 3.39
Area: 165479
Amount: 1.090551
Amount Units: ppb v/v



Manual Integration Results

RT: 3.42
Area: 9597
Amount: 0.063247
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Aug-2019 13:58:29

Audit Action: Split an Integrated Peak Audit Reason: Shouldering

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.23	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.062	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.36	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	80	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	3.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.18
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.74	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.6	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	280	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	12		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D
Lims ID: 140-16369-A-20
Client ID: IA-126-C-27
Sample Type: Client
Inject. Date: 23-Aug-2019 15:21:30 ALS Bottle#: 2 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 2.8700
Sample Info: 140-0012811-007
Misc. Info.: 140-16369-a-20@2.87
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:01:46 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:01:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	98	217435	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1225846	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1052503	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	639469	3.52	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	35	15389	0.0828	M
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	99	14884	0.0885	
31 Methylene Chloride	84	5.966	5.966	0.000	96	1233561	16.1	E
44 Chloroform	83	8.544	8.555	-0.005	27	2285	0.0125	
47 1,1,1-Trichloroethane	97	9.601	9.596	0.011	93	6315	0.0314	
49 Benzene	78	10.210	10.205	0.005	80	11445	0.0461	
52 Carbon tetrachloride	117	10.237	10.221	0.016	34	1810	0.009119	
58 Trichloroethene	130	11.504	11.499	0.005	85	4215	0.0386	
67 Toluene	91	13.586	13.586	0.000	92	169205	0.6249	
73 Tetrachloroethene	129	14.740	14.734	0.006	32	1273	0.0115	
76 Ethylbenzene	91	15.910	15.905	0.005	98	27480	0.0723	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	98	77181	0.2588	
80 o-Xylene	91	16.595	16.595	0.000	98	30484	0.0973	
109 Naphthalene	128	21.065	21.065	0.000	98	21956	0.0409	
S 116 Xylenes, Total	100				0		0.3561	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

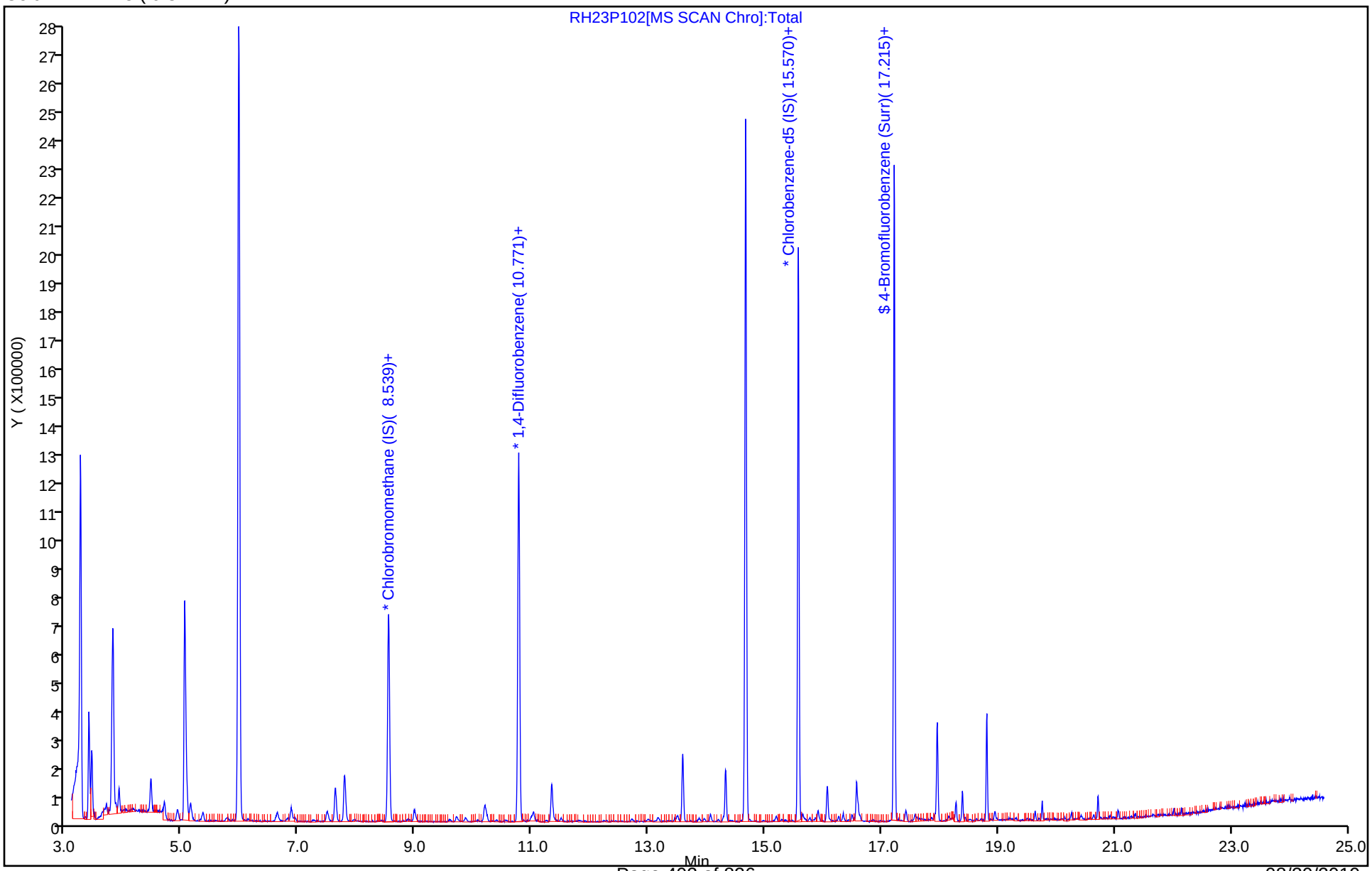
Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20	Worklist Smp#:	7
Client ID:	IA-126-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	2.8700	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D				
Lims ID:	140-16369-A-20				
Client ID:	IA-126-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 15:21:30	ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700		
Sample Info:	140-0012811-007				
Misc. Info.:	140-16369-a-20@2.87				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:01:46		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.52	88.10

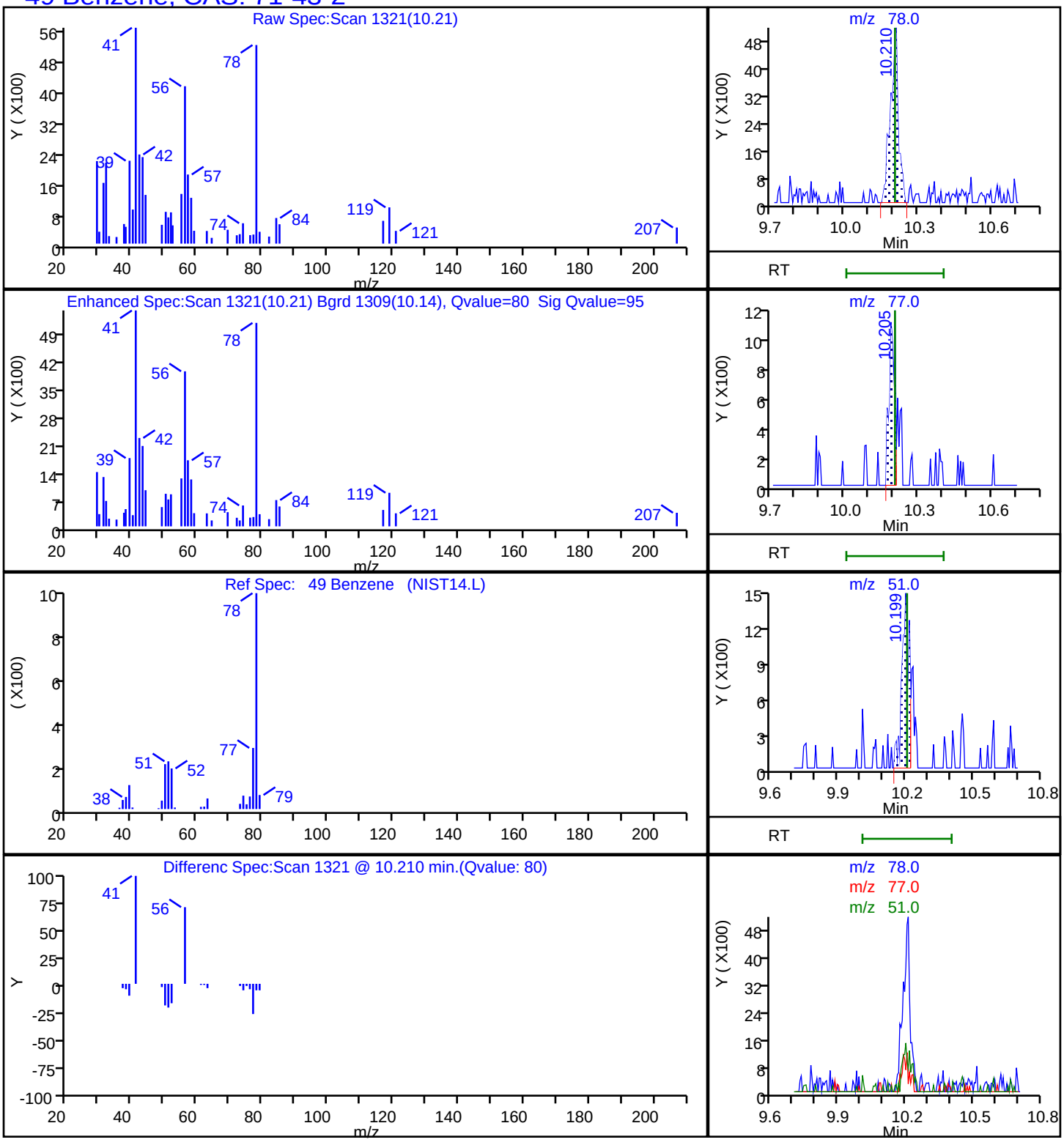
Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



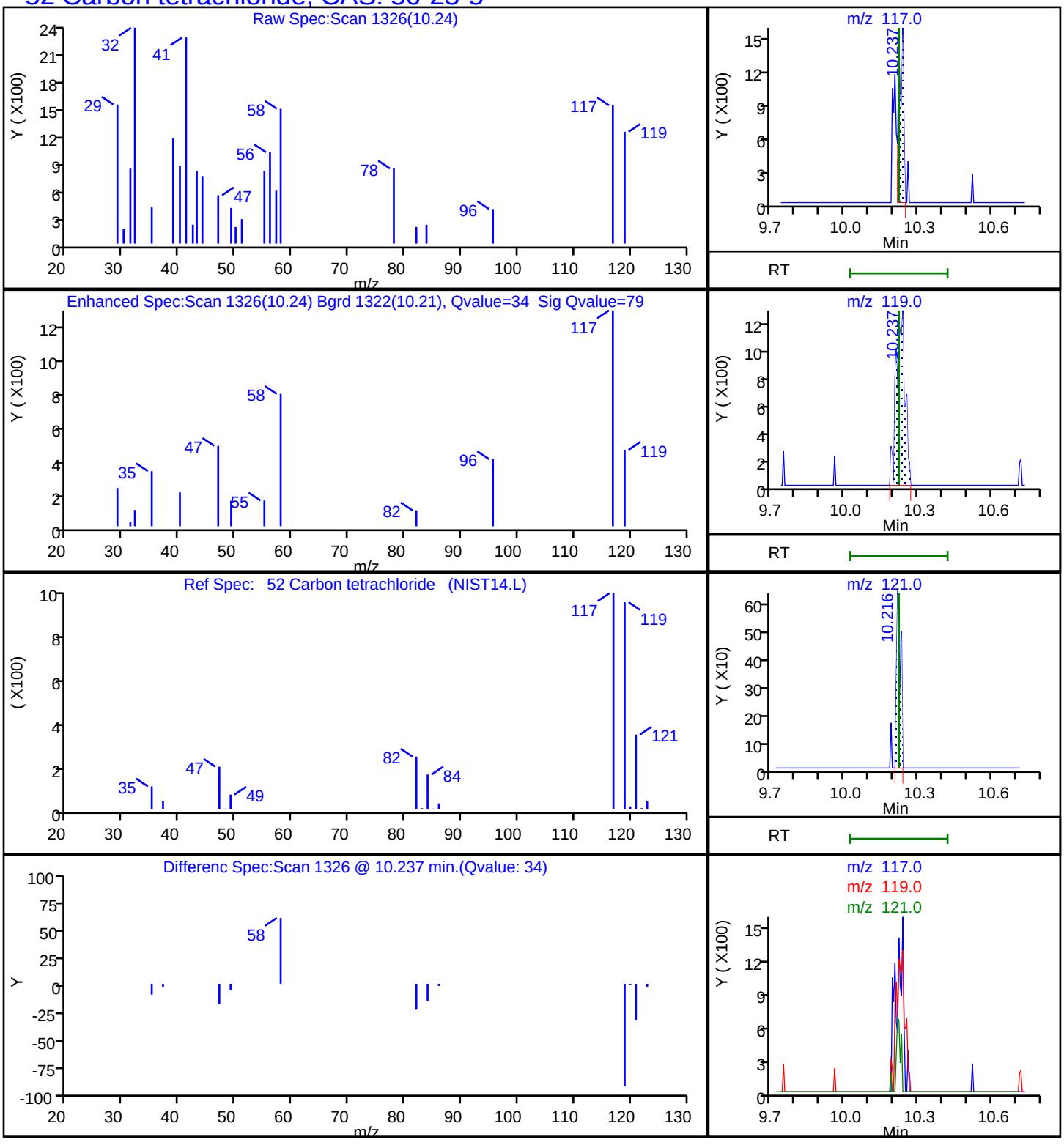
Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date: 23-Aug-2019 15:21:30 Instrument ID: MR

Lims ID: 140-16369-A-20 Lab Sample ID: 140-16369-20

Client ID: IA-126-C-27

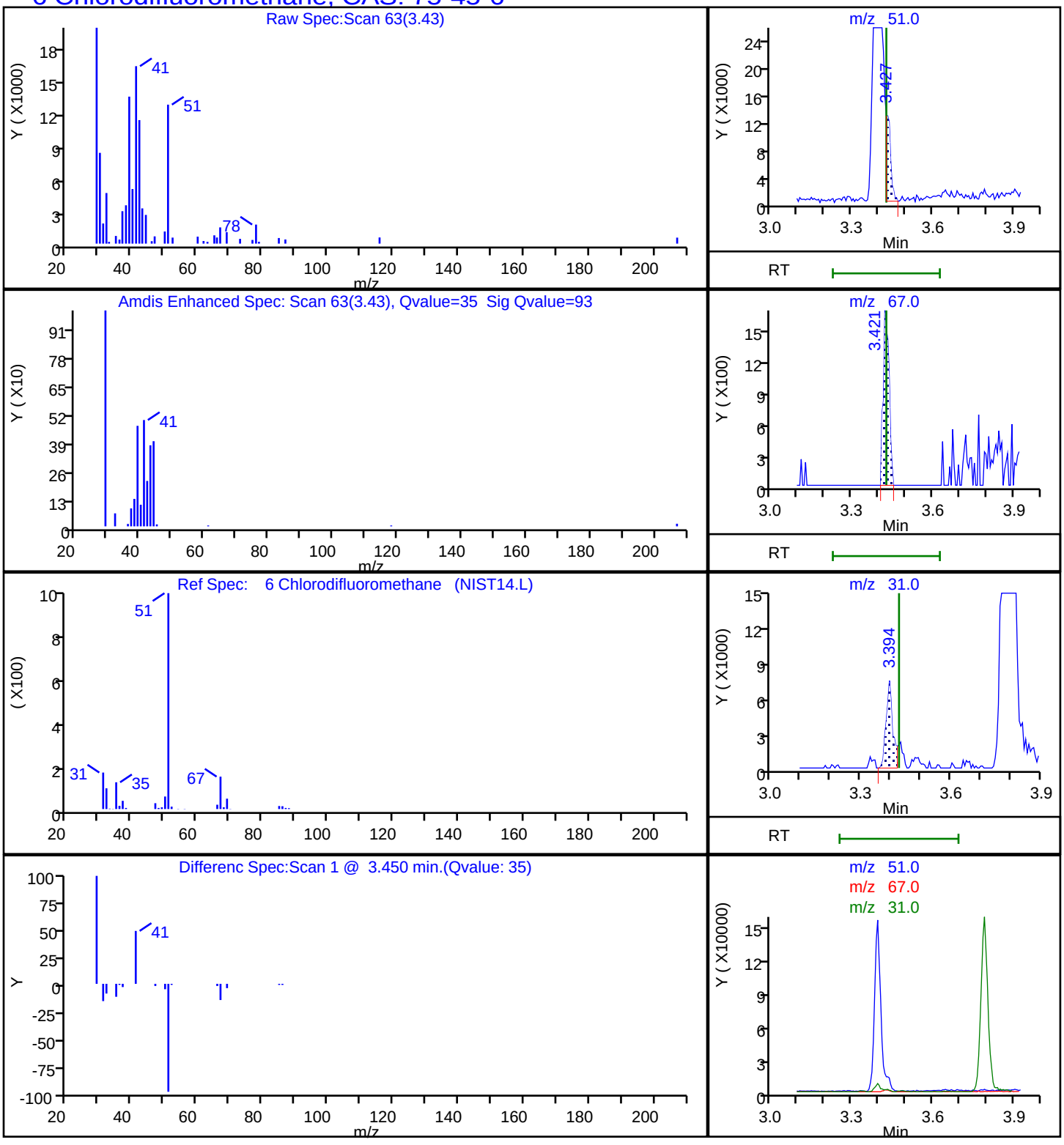
Operator ID: ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 2.8700

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date: 23-Aug-2019 15:21:30 Instrument ID: MR

Lims ID: 140-16369-A-20 Lab Sample ID: 140-16369-20

Client ID: IA-126-C-27

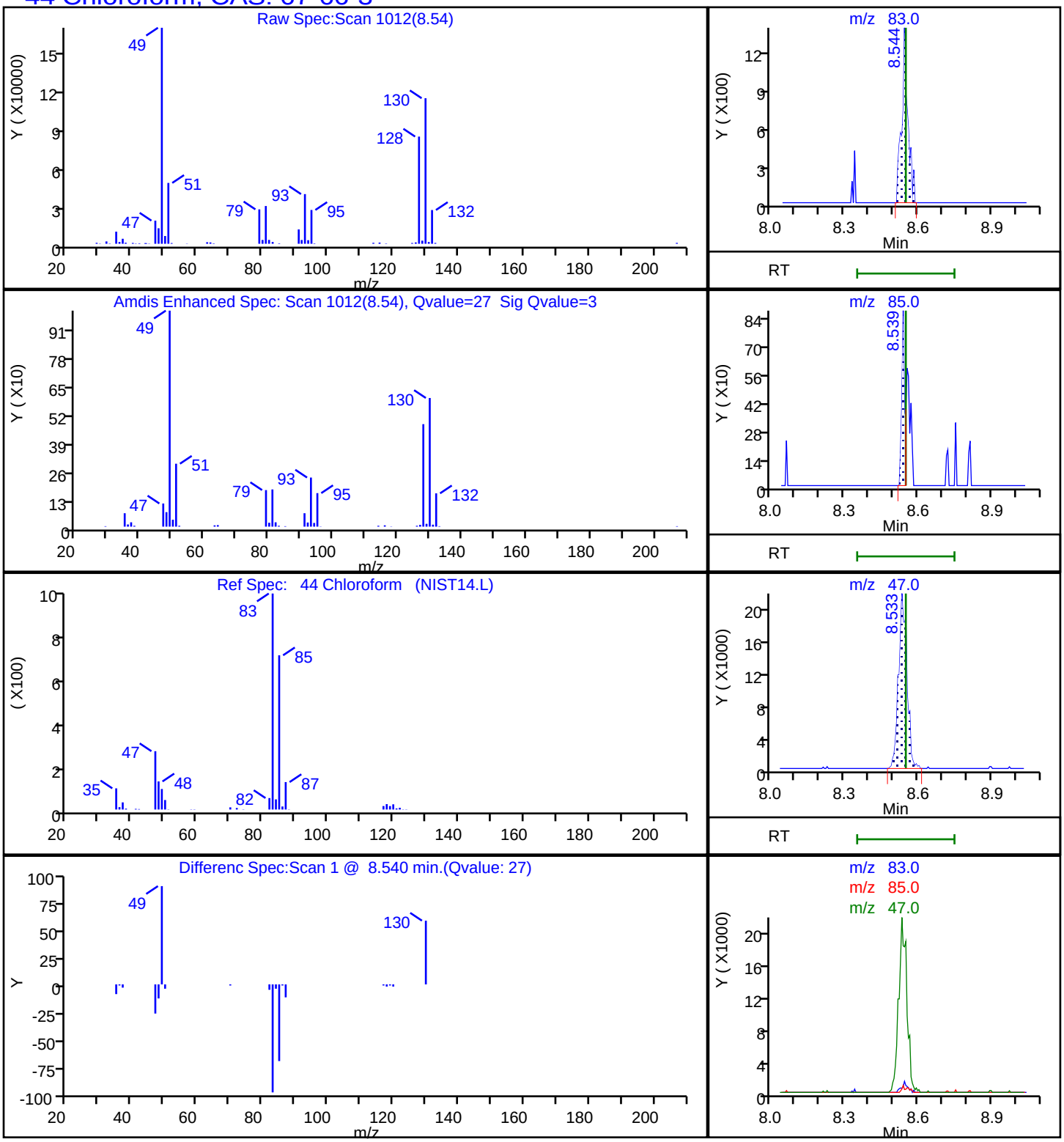
Operator ID: ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 2.8700

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3



Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date: 23-Aug-2019 15:21:30 Instrument ID: MR

Lims ID: 140-16369-A-20 Lab Sample ID: 140-16369-20

Client ID: IA-126-C-27

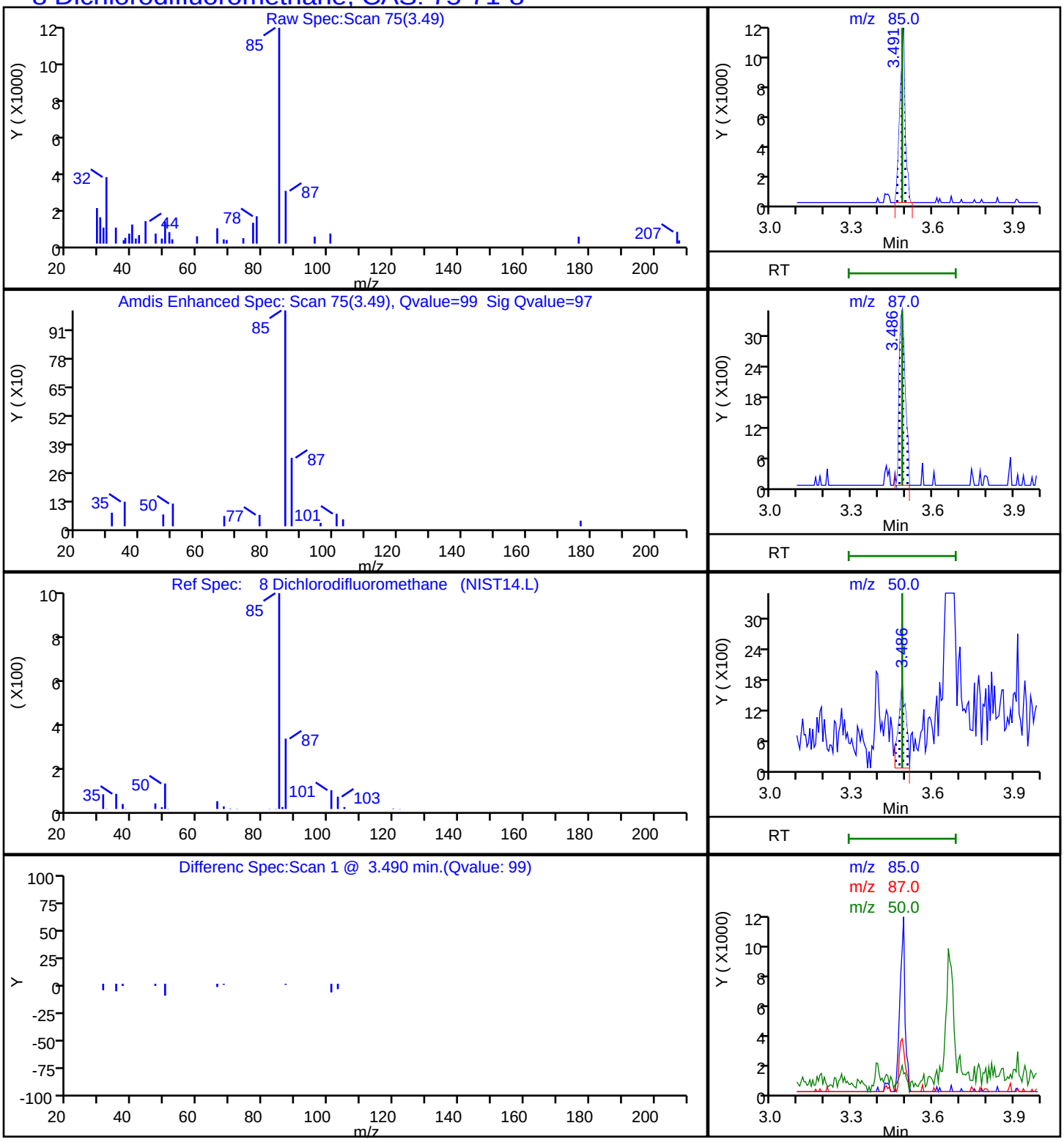
Operator ID: ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 2.8700

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date: 23-Aug-2019 15:21:30 Instrument ID: MR

Lims ID: 140-16369-A-20 Lab Sample ID: 140-16369-20

Client ID: IA-126-C-27

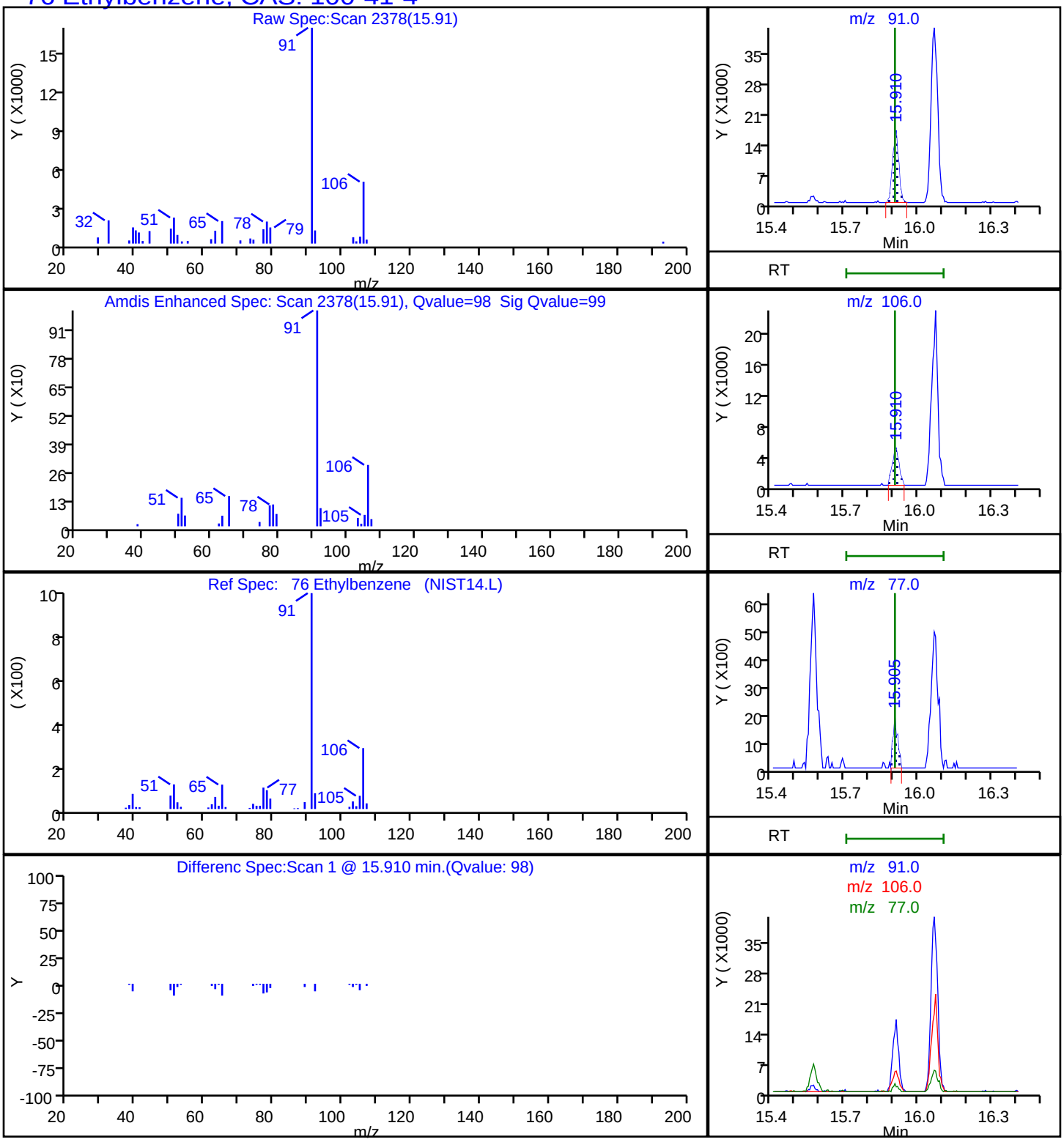
Operator ID: ALS Bottle#: 2 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 2.8700

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

76 Ethylbenzene, CAS: 100-41-4

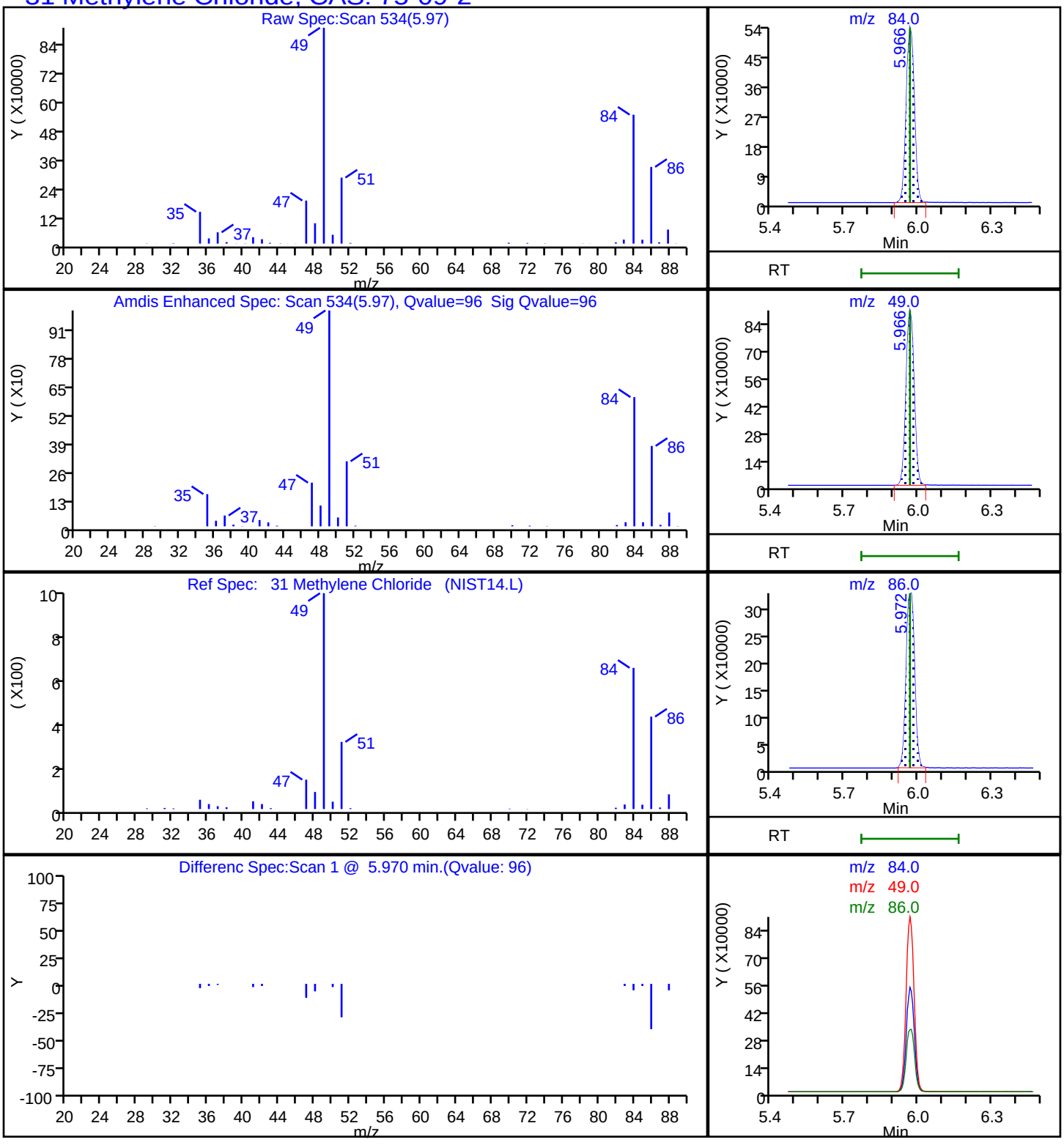


Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D		
Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



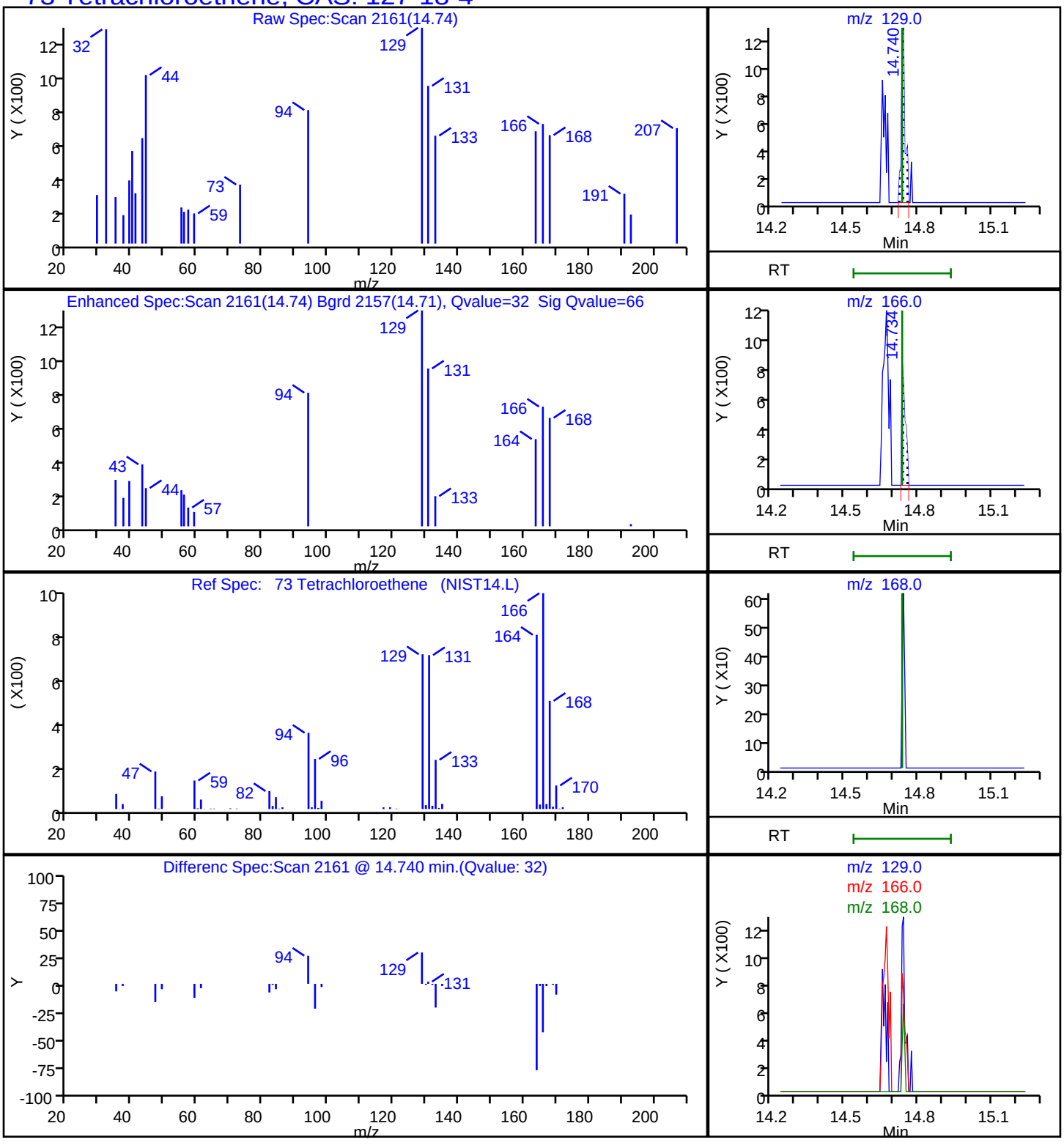
Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

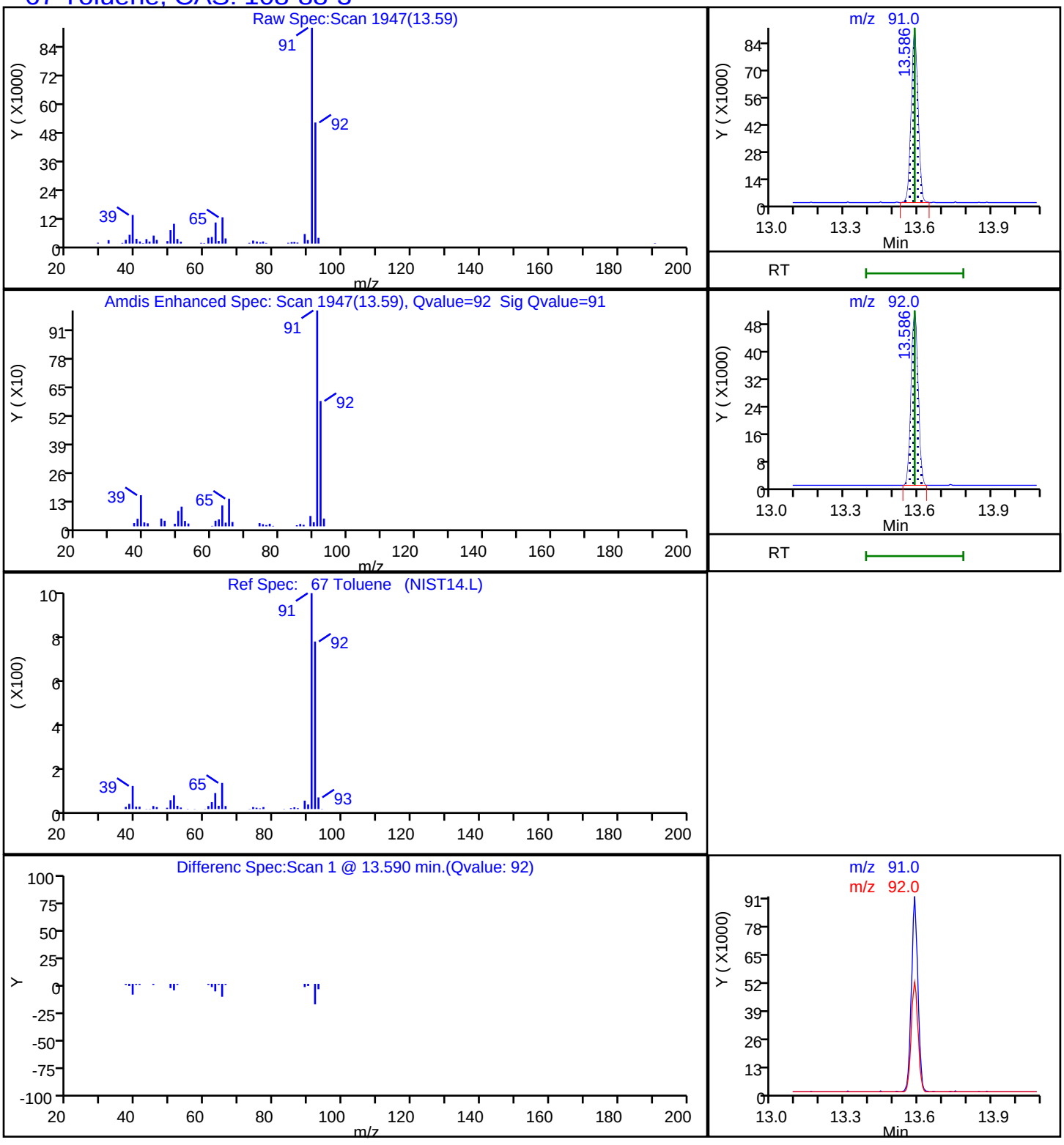


Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D		
Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



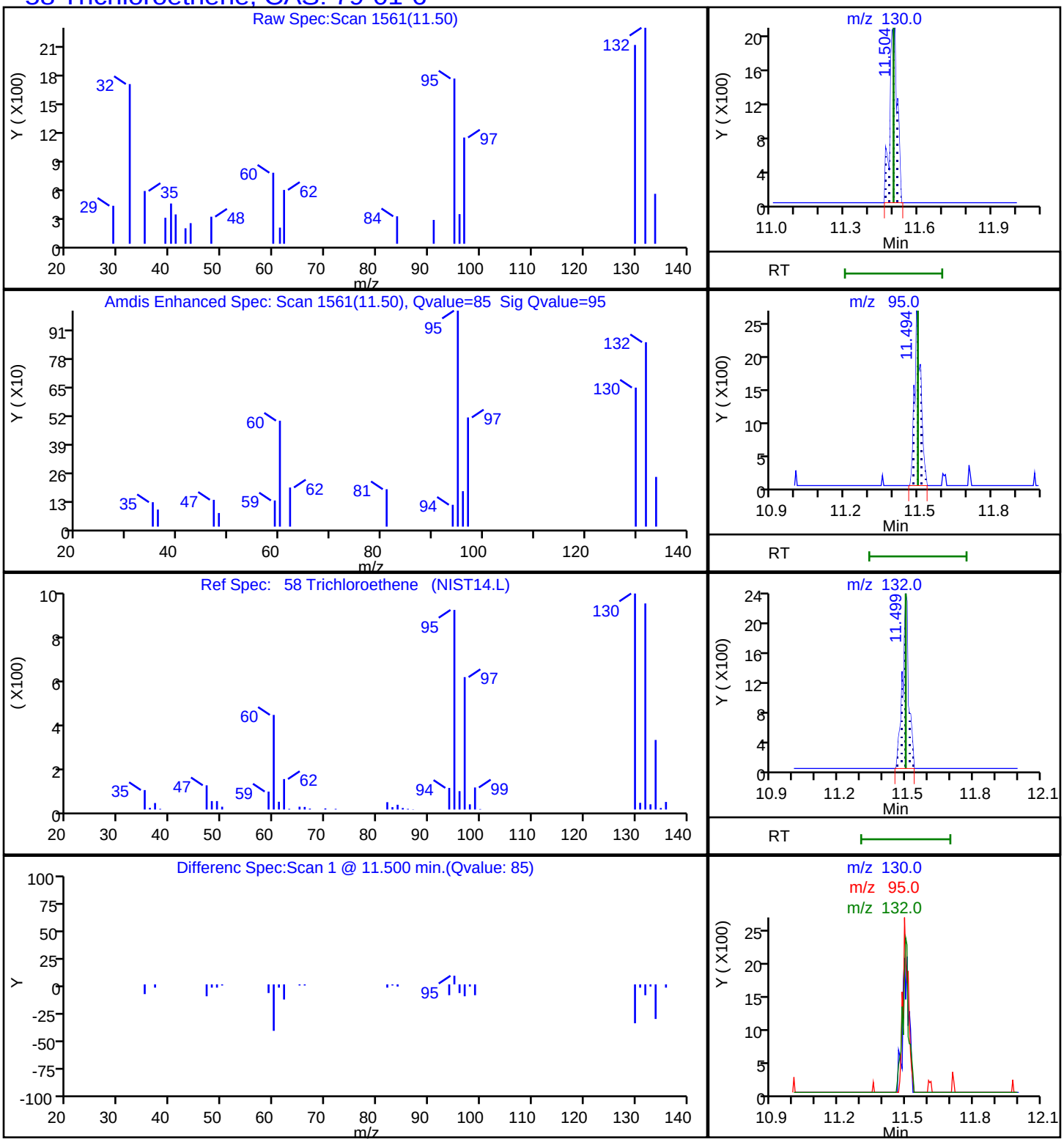
Report Date: 26-Aug-2019 14:01:48 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D

Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

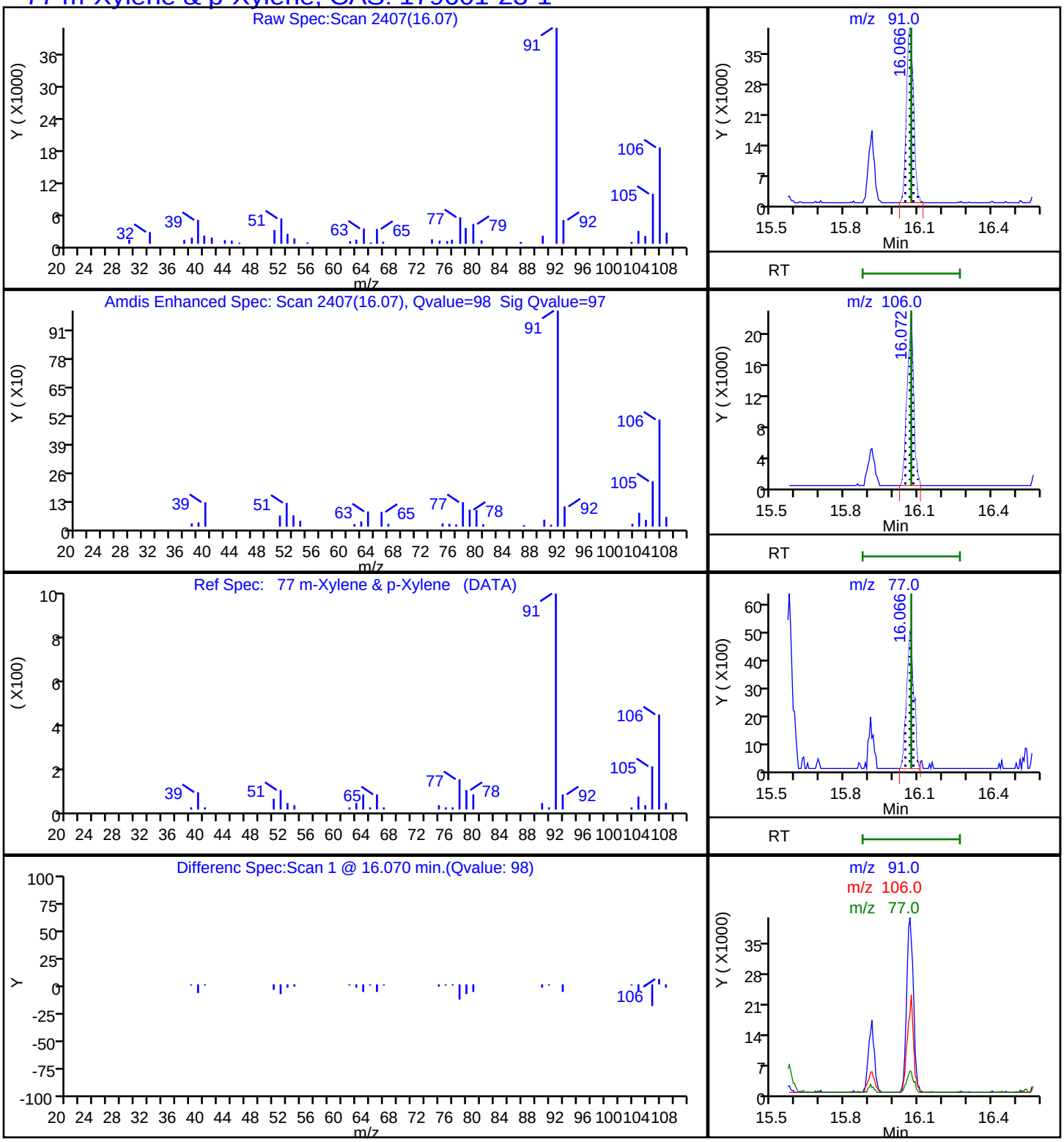
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D		
Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

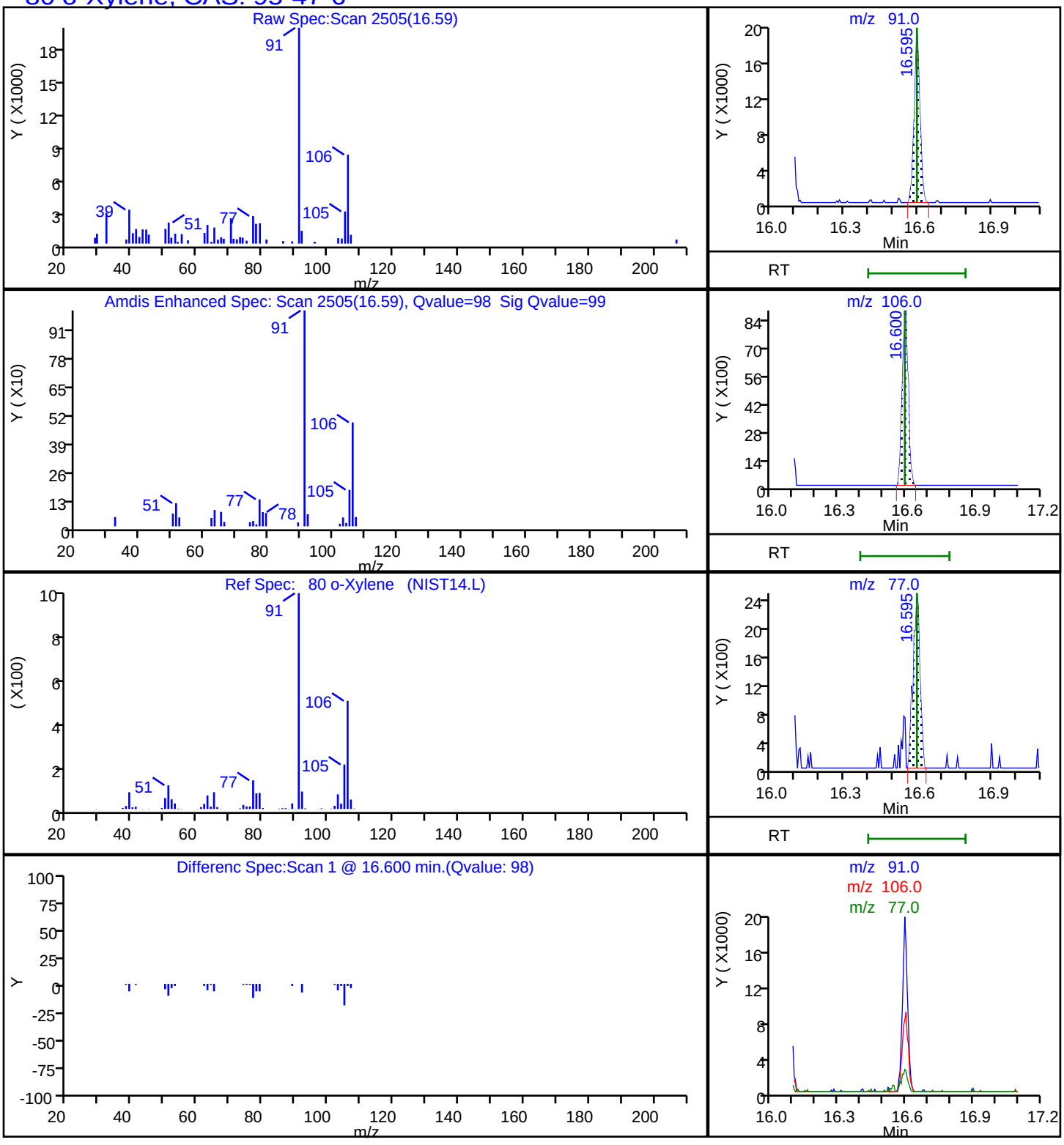
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D		
Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20
Client ID:	IA-126-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

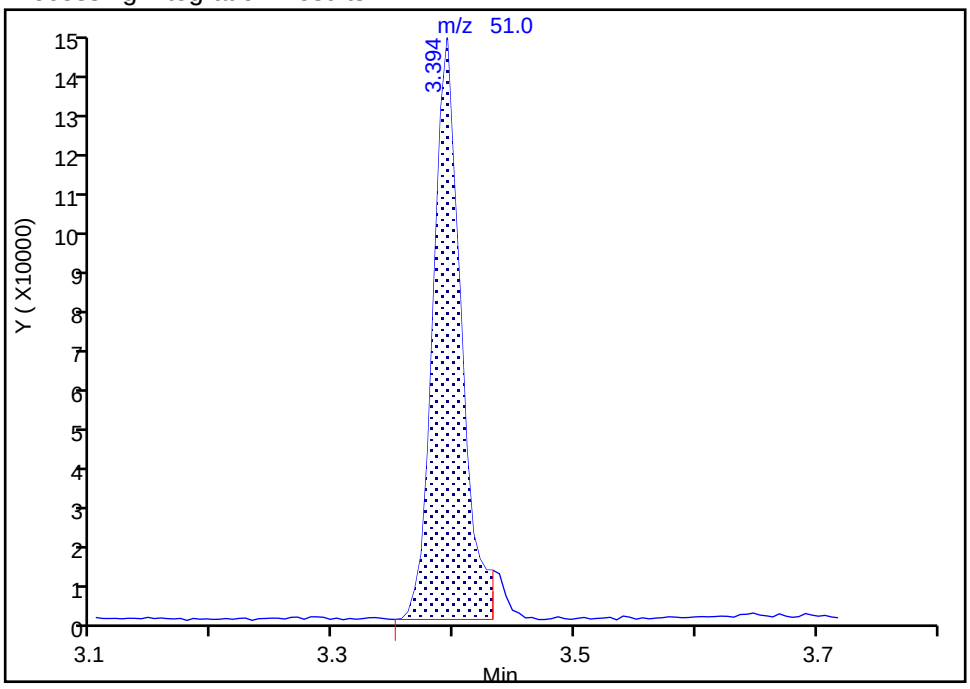
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P102.D				
Injection Date:	23-Aug-2019 15:21:30	Instrument ID:	MR		
Lims ID:	140-16369-A-20	Lab Sample ID:	140-16369-20		
Client ID:	IA-126-C-27				
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	2.8700		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

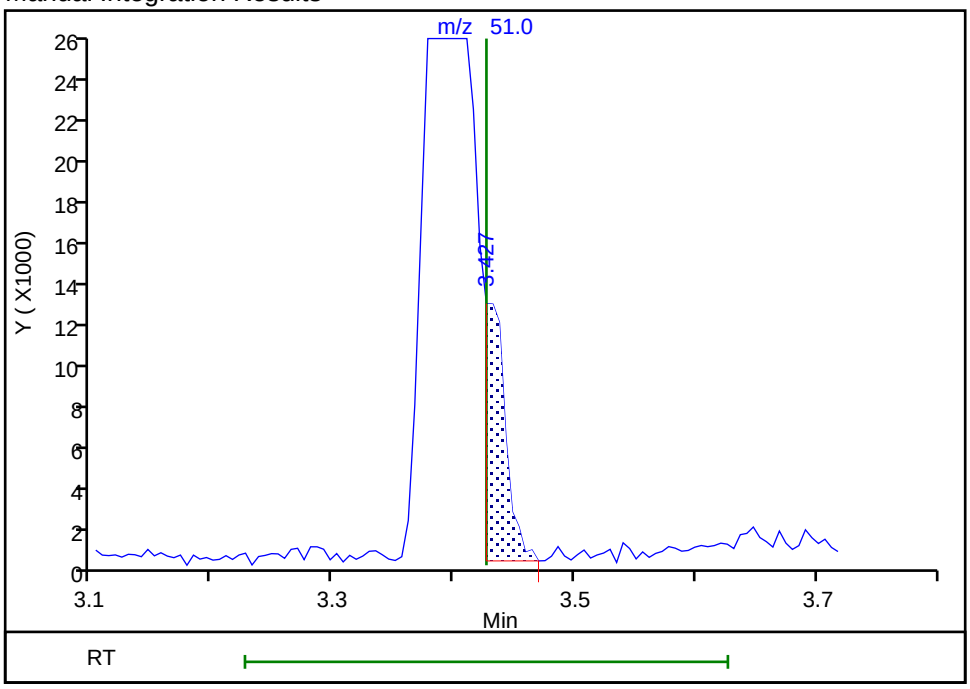
Processing Integration Results

RT: 3.39
Area: 237216
Amount: 1.276818
Amount Units: ppb v/v



Manual Integration Results

RT: 3.43
Area: 15389
Amount: 0.082831
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Aug-2019 14:00:58

Audit Action: Split an Integrated Peak Audit Reason: Shouldering

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	38	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.87		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.67	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	130	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.33	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.58	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D				
Lims ID:	140-16369-A-21				
Client ID:	IA-113-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 16:08:30	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500		
Sample Info:	140-0012811-008				
Misc. Info.:	140-16369-a-21@1.45				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:05:13		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	98	197634	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.771	-0.005	95	1179705	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	949761	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	592728	3.62	
6 Chlorodifluoromethane	51	3.421	3.427	-0.006	78	35286	0.2090	
8 Dichlorodifluoromethane	85	3.481	3.488	-0.005	96	11698	0.0766	
31 Methylene Chloride	84	5.966	5.966	0.000	96	525755	7.53	
44 Chloroform	83	8.544	8.555	-0.005	27	2404	0.0145	
49 Benzene	78	10.189	10.205	-0.016	63	8716	0.0365	
52 Carbon tetrachloride	117	10.237	10.221	0.016	25	2766	0.0145	
67 Toluene	91	13.586	13.586	0.000	92	51144	0.2093	
73 Tetrachloroethene	129	14.740	14.734	0.006	40	965	0.009669	
76 Ethylbenzene	91	15.905	15.905	0.000	98	10557	0.0308	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	33690	0.1252	
80 o-Xylene	91	16.595	16.595	0.000	93	13573	0.0480	
92 1,2,4-Trimethylbenzene	105	18.428	18.450	-0.022	92	8734	0.0237	
S 116 Xylenes, Total	100				0		0.1732	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

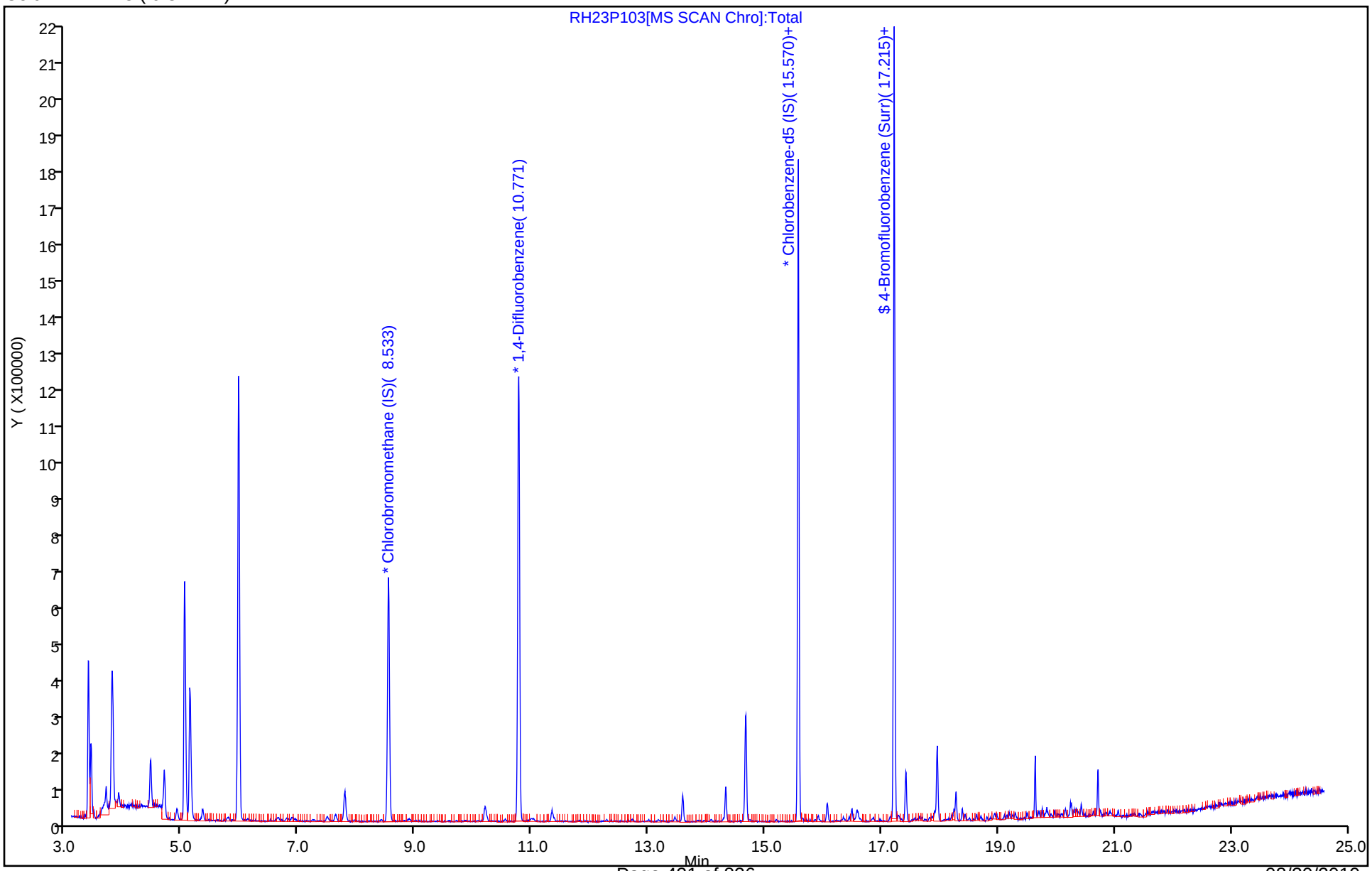
Report Date: 26-Aug-2019 14:05:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D

Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21	Worklist Smp#:	8
Client ID:	IA-113-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.4500	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

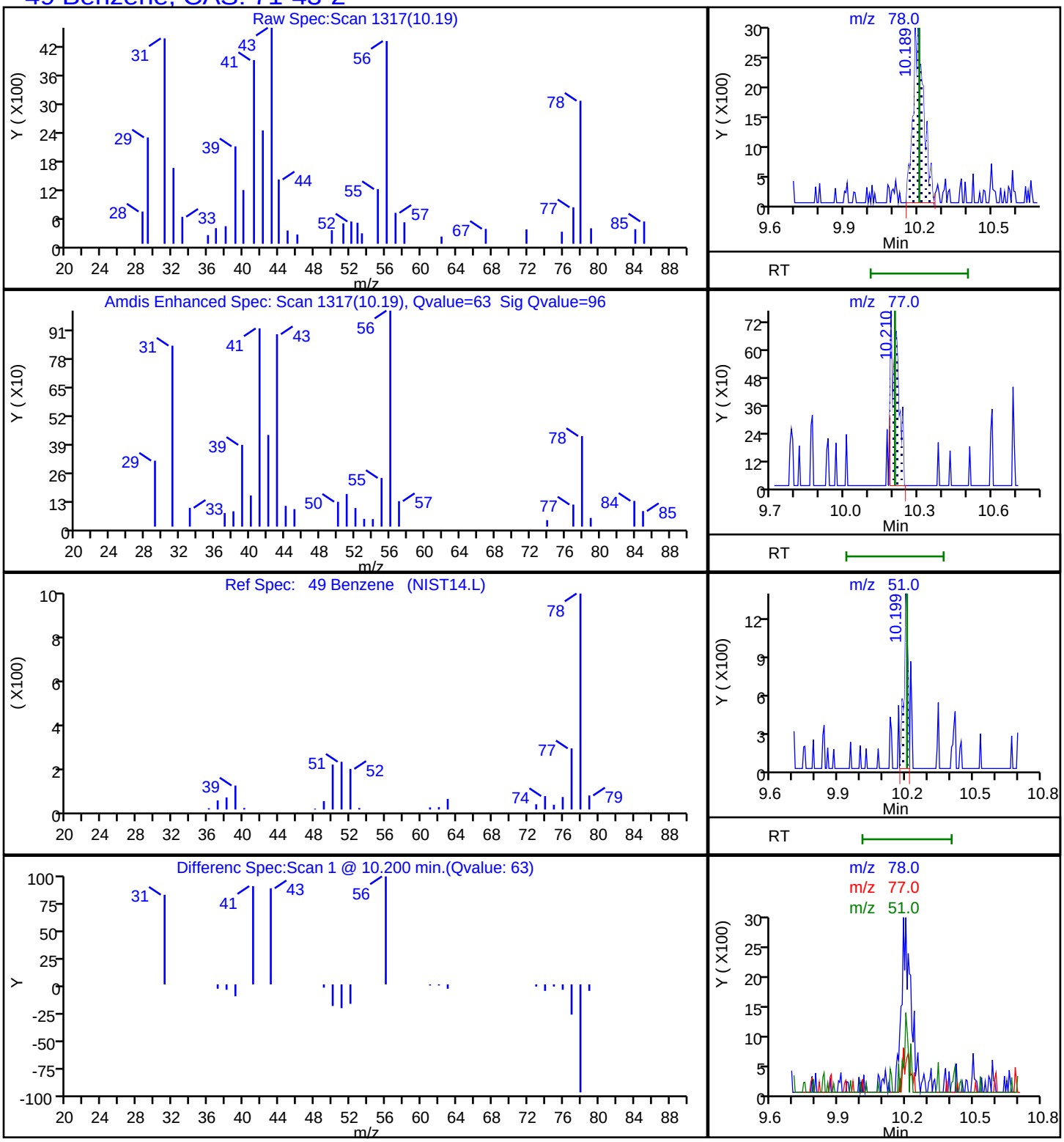
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D				
Lims ID:	140-16369-A-21				
Client ID:	IA-113-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 16:08:30	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500		
Sample Info:	140-0012811-008				
Misc. Info.:	140-16369-a-21@1.45				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:05:13		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.62	90.50

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D

Injection Date: 23-Aug-2019 16:08:30 Instrument ID: MR

Lims ID: 140-16369-A-21 Lab Sample ID: 140-16369-21

Client ID: IA-113-C-27

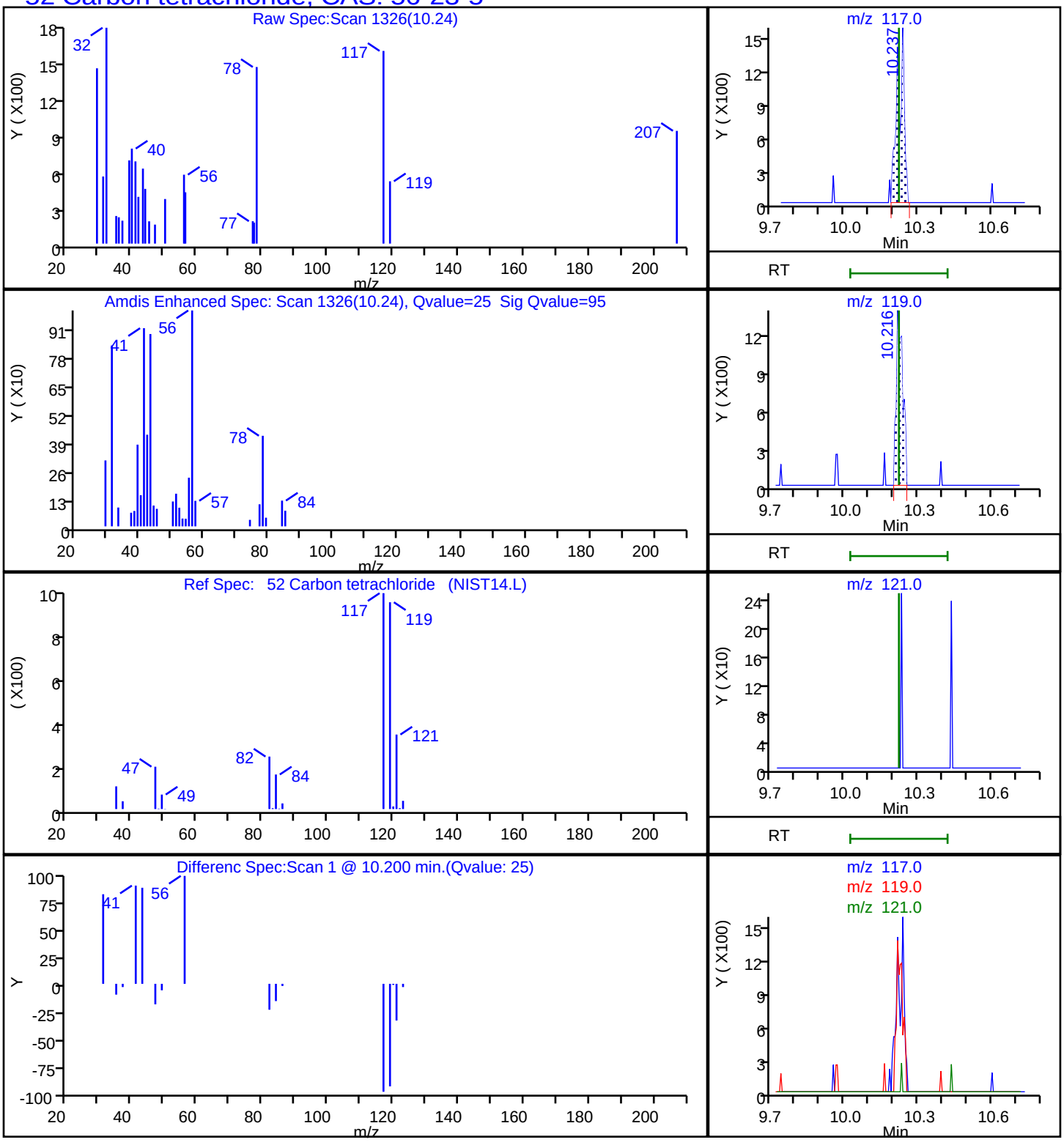
Operator ID: ALS Bottle#: 3 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.4500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

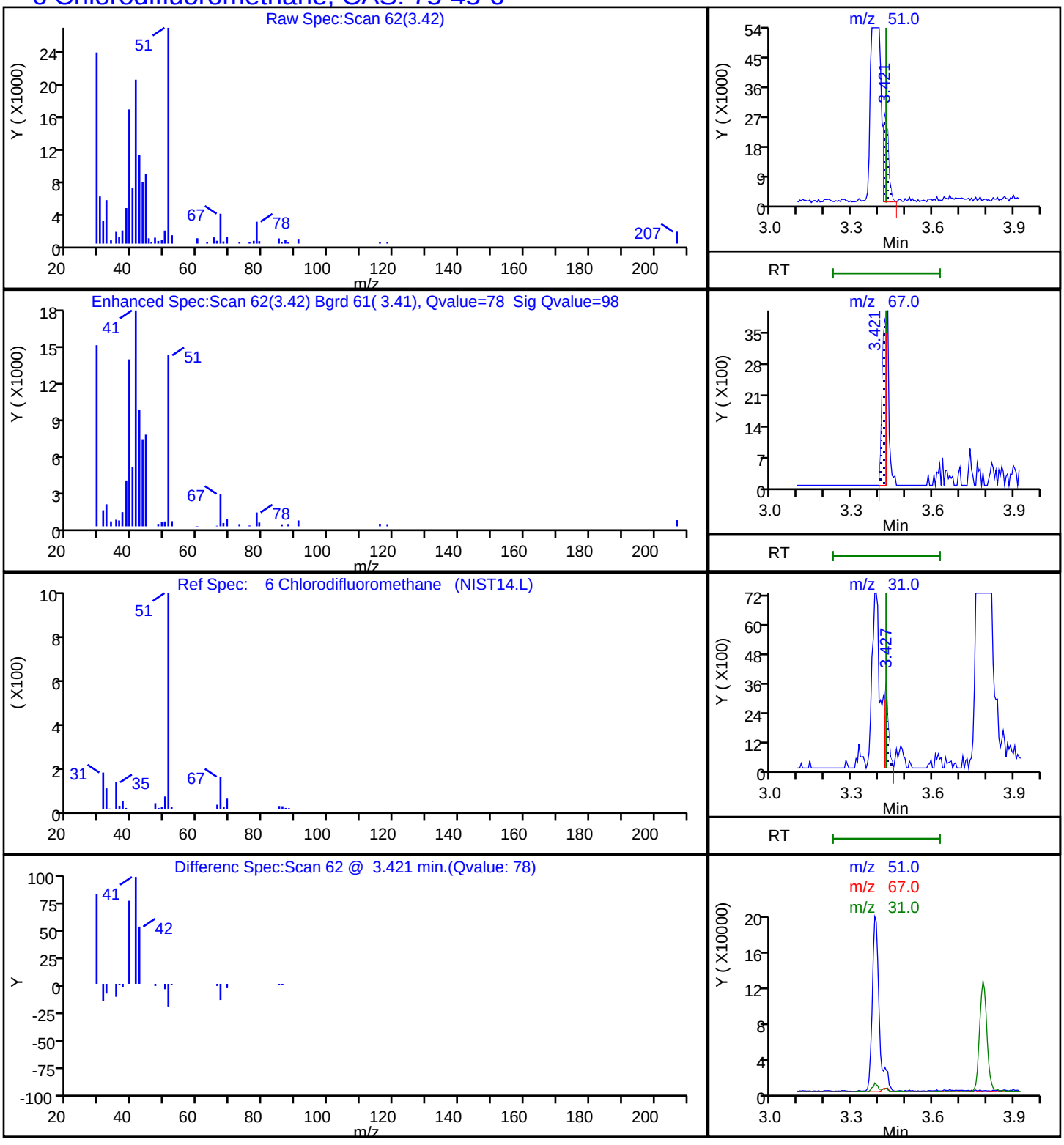
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D

Injection Date: 23-Aug-2019 16:08:30 Instrument ID: MR

Lims ID: 140-16369-A-21 Lab Sample ID: 140-16369-21

Client ID: IA-113-C-27

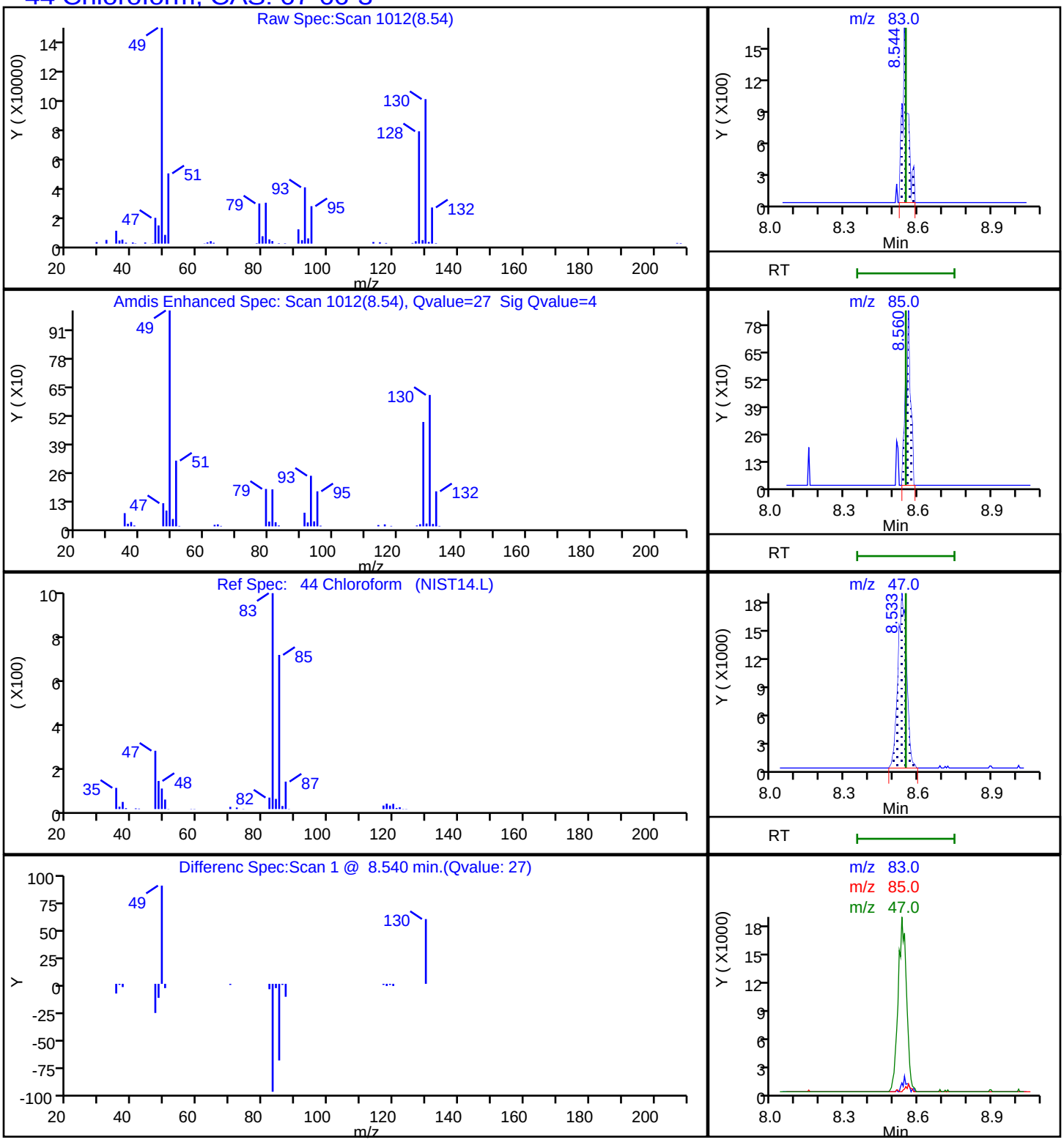
Operator ID: ALS Bottle#: 3 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.4500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D

Injection Date: 23-Aug-2019 16:08:30 Instrument ID: MR

Lims ID: 140-16369-A-21 Lab Sample ID: 140-16369-21

Client ID: IA-113-C-27

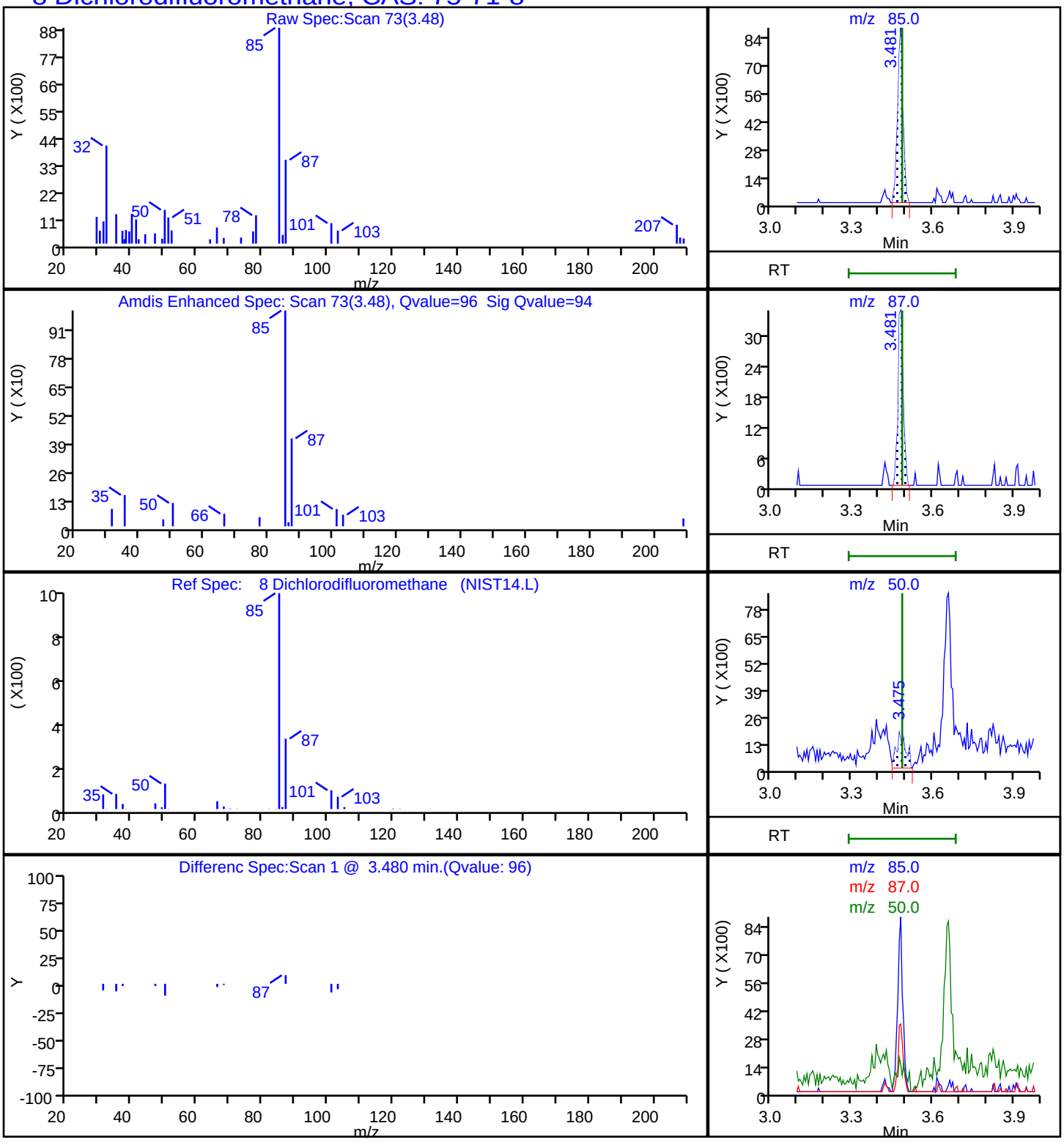
Operator ID: ALS Bottle#: 3 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.4500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

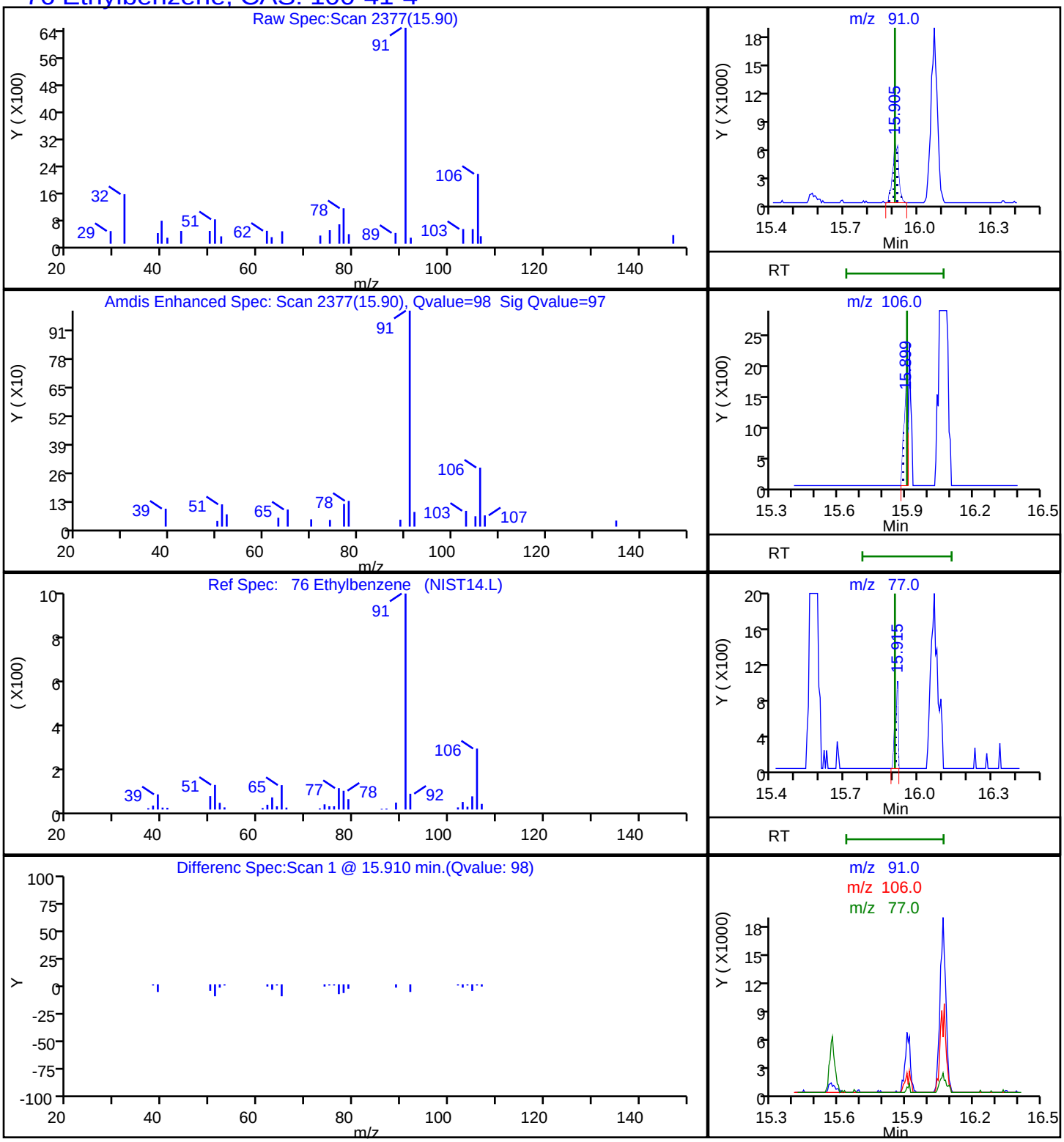
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

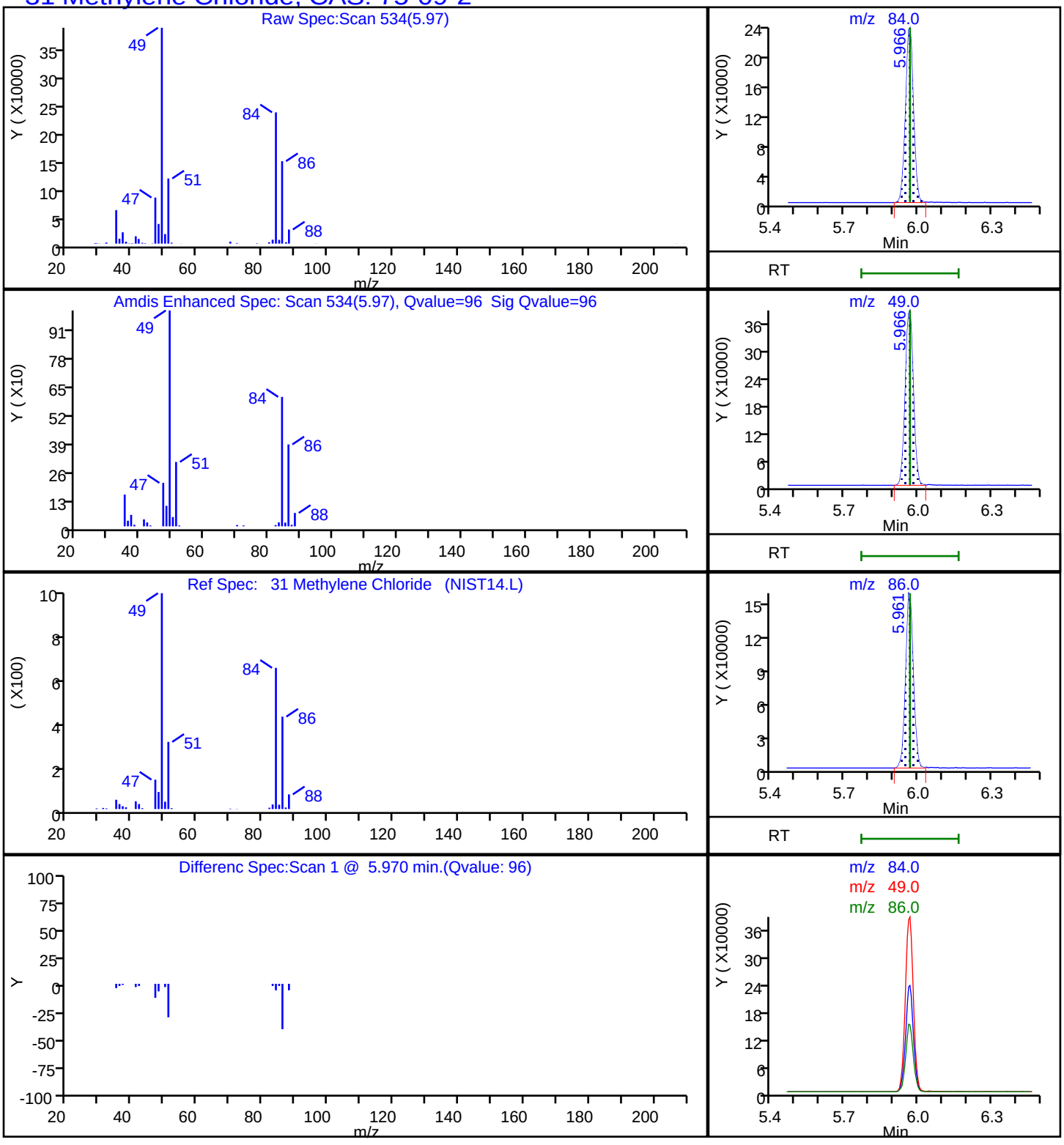
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

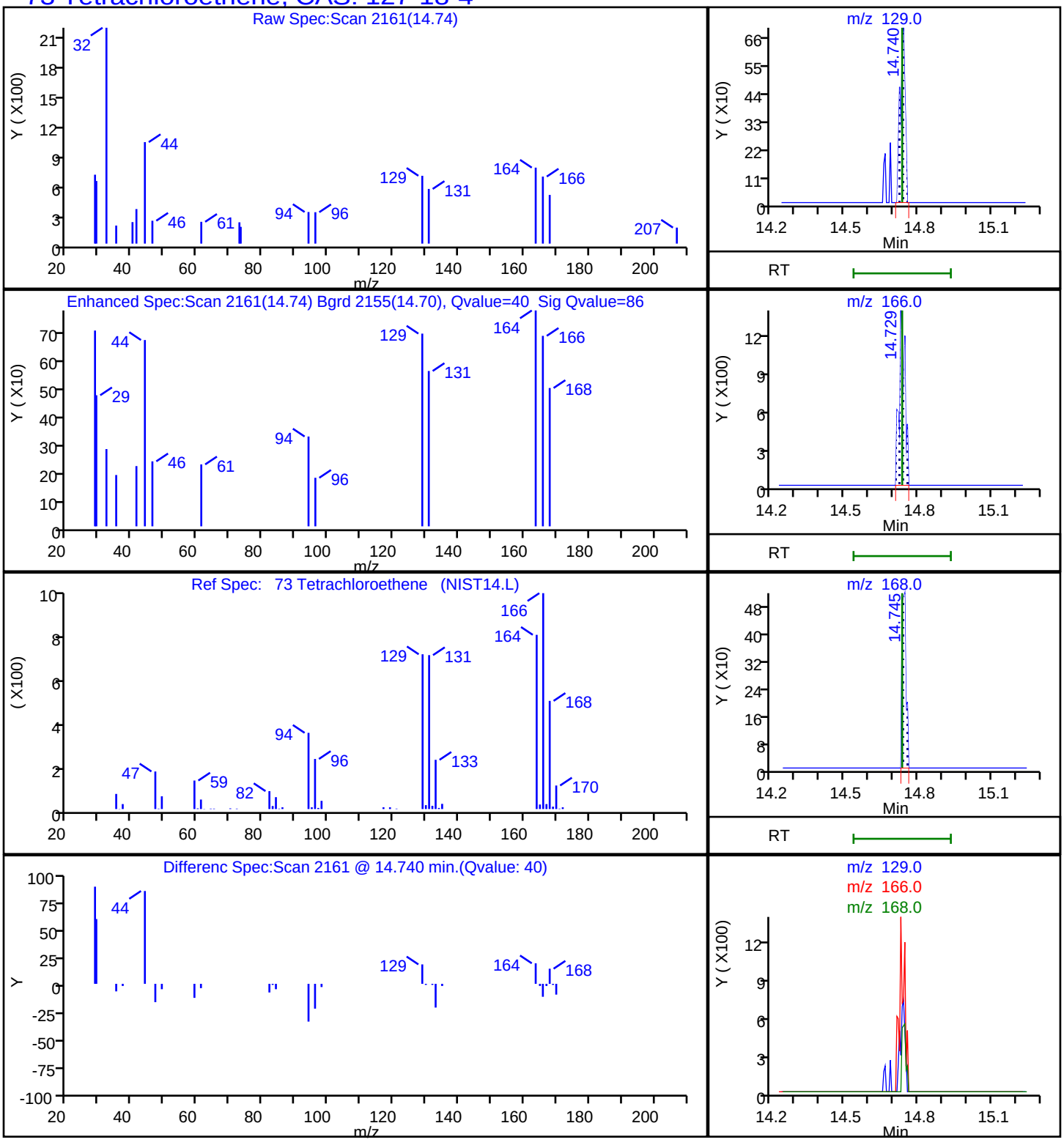
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

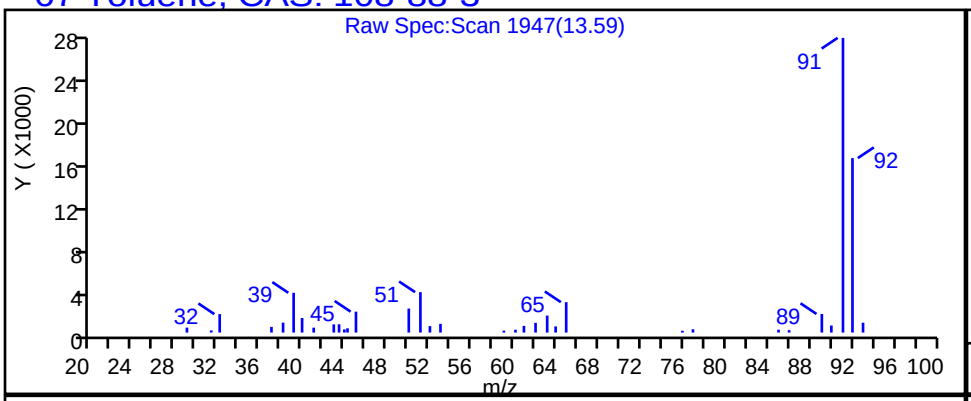


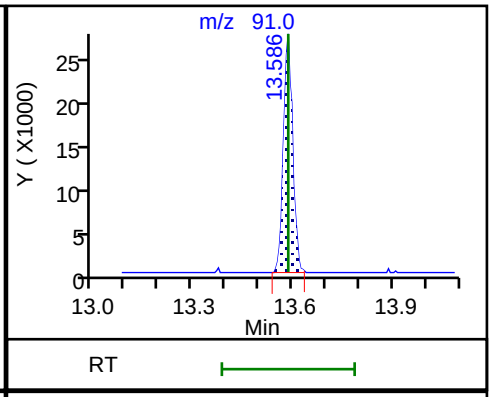
Report Date: 26-Aug-2019 14:05:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

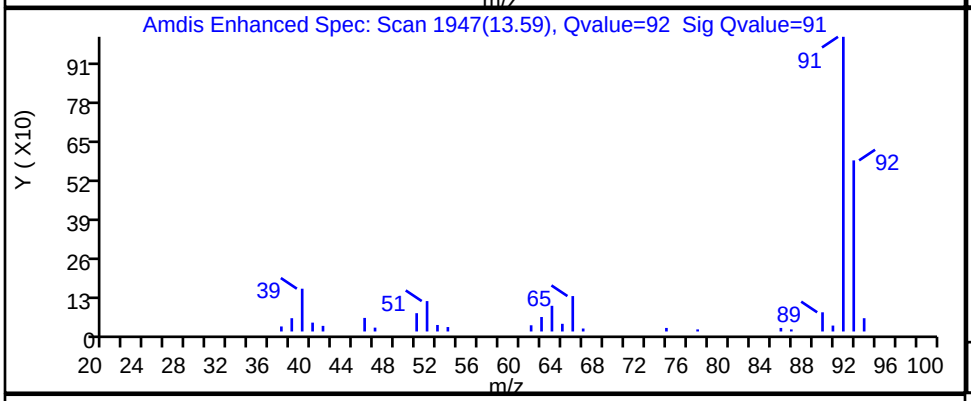
Eurofins TestAmerica, Knoxville

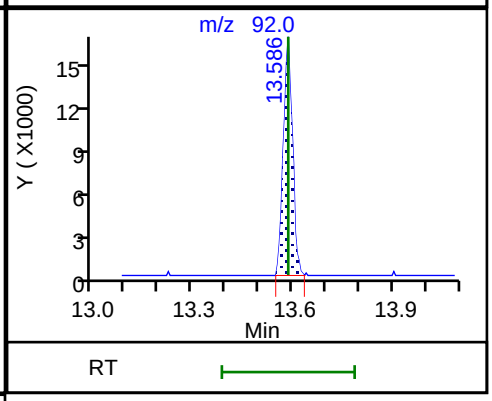
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

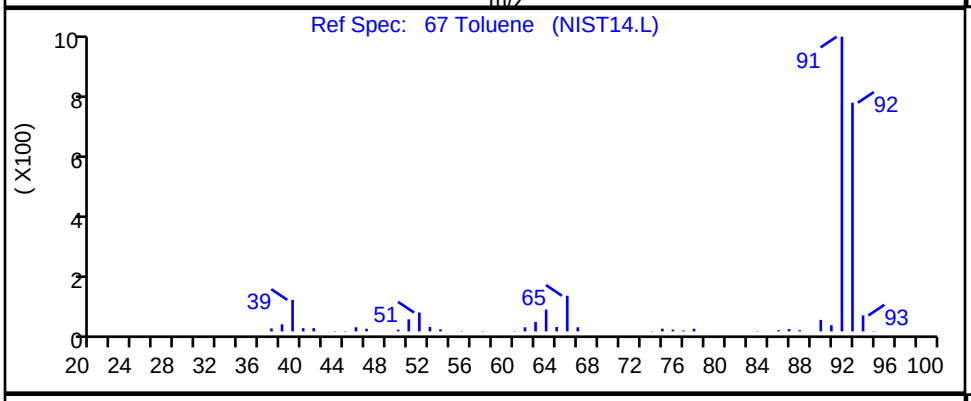
67 Toluene, CAS: 108-88-3

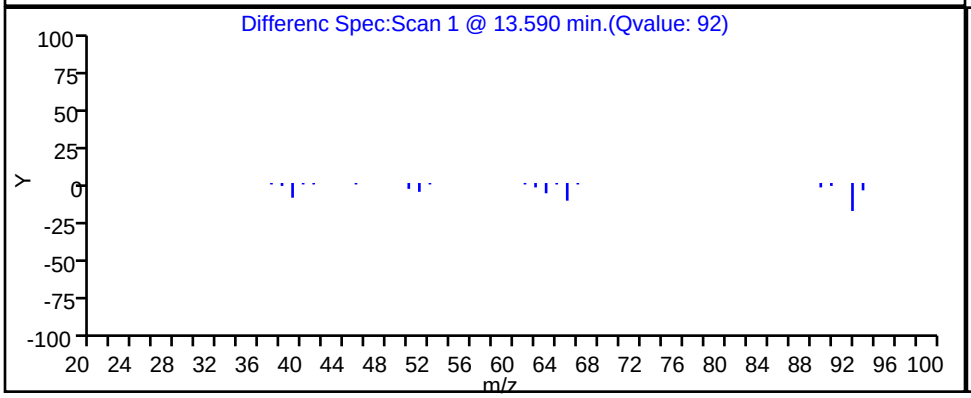


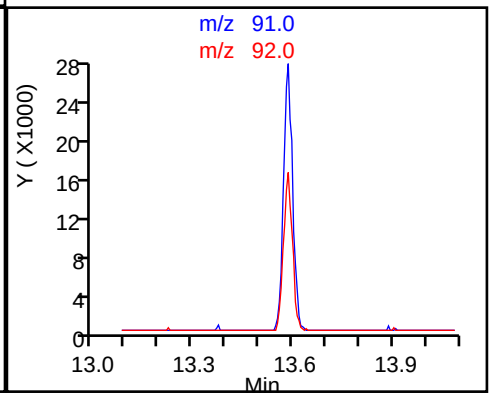








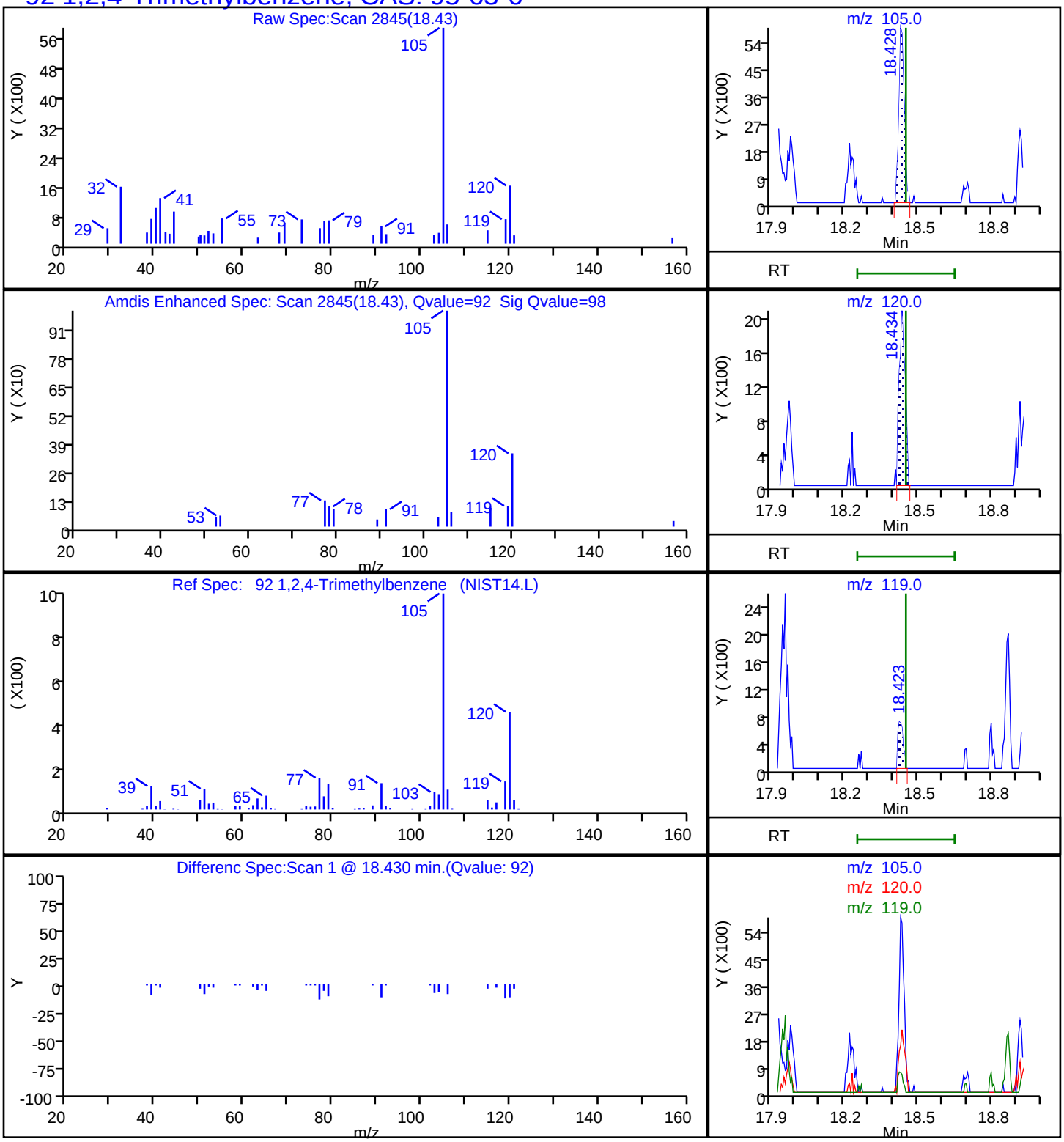




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

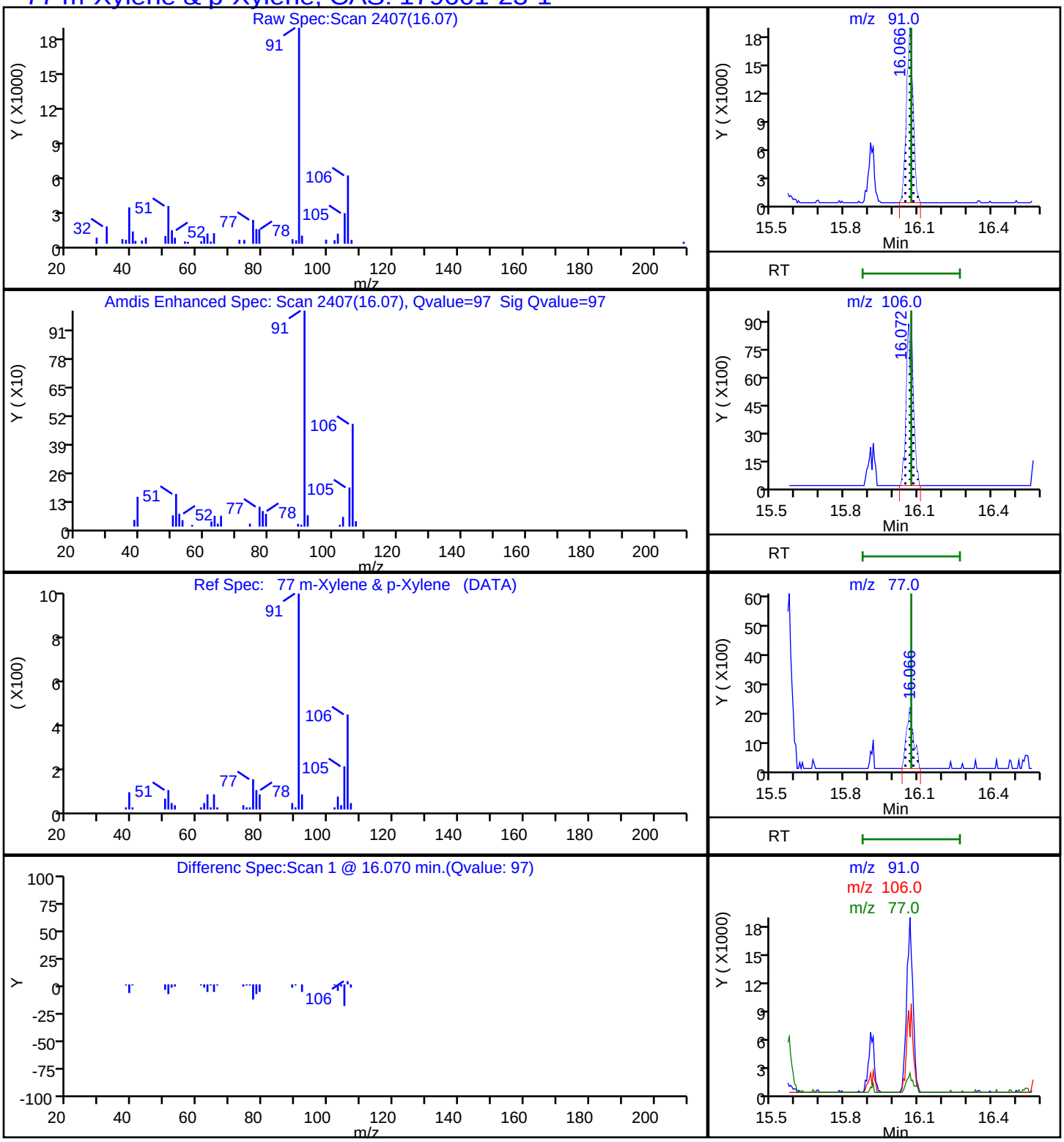
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

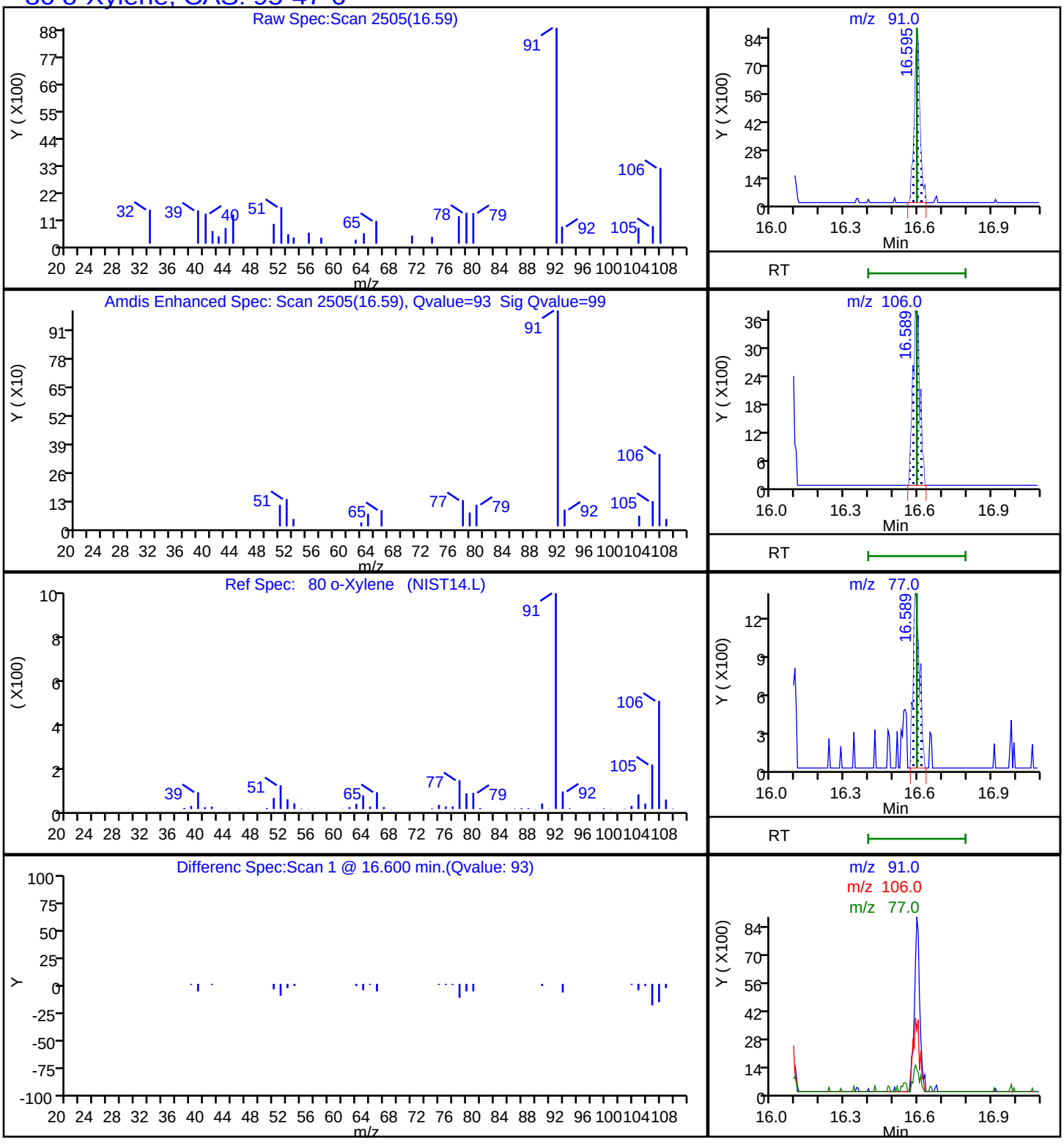
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P103.D		
Injection Date:	23-Aug-2019 16:08:30	Instrument ID:	MR
Lims ID:	140-16369-A-21	Lab Sample ID:	140-16369-21
Client ID:	IA-113-C-27		
Operator ID:		ALS Bottle#:	3 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.4500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.086	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	56	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.78	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	190	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.60	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D				
Lims ID:	140-16369-A-22				
Client ID:	IA-088-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 16:57:30	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300		
Sample Info:	140-0012811-009				
Misc. Info.:	140-16369-a-22@1.53				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:07:10		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	-0.001	97	198157	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1171916	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	930567	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	588446	3.67	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	81	29405	0.1737	
8 Dichlorodifluoromethane	85	3.480	3.488	-0.006	96	10781	0.0704	
31 Methylene Chloride	84	5.966	5.966	0.000	96	779542	11.1	
44 Chloroform	83	8.544	8.555	-0.005	28	2866	0.0172	
49 Benzene	78	10.199	10.205	-0.006	68	7583	0.0319	
52 Carbon tetrachloride	117	10.216	10.221	-0.005	38	2811	0.0148	
67 Toluene	91	13.586	13.586	0.000	92	51423	0.2148	
76 Ethylbenzene	91	15.910	15.905	0.005	95	12097	0.0360	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	37936	0.1438	
80 o-Xylene	91	16.600	16.595	0.005	95	16064	0.0580	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	92	8894	0.0246	
S 116 Xylenes, Total	100				0		0.2019	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

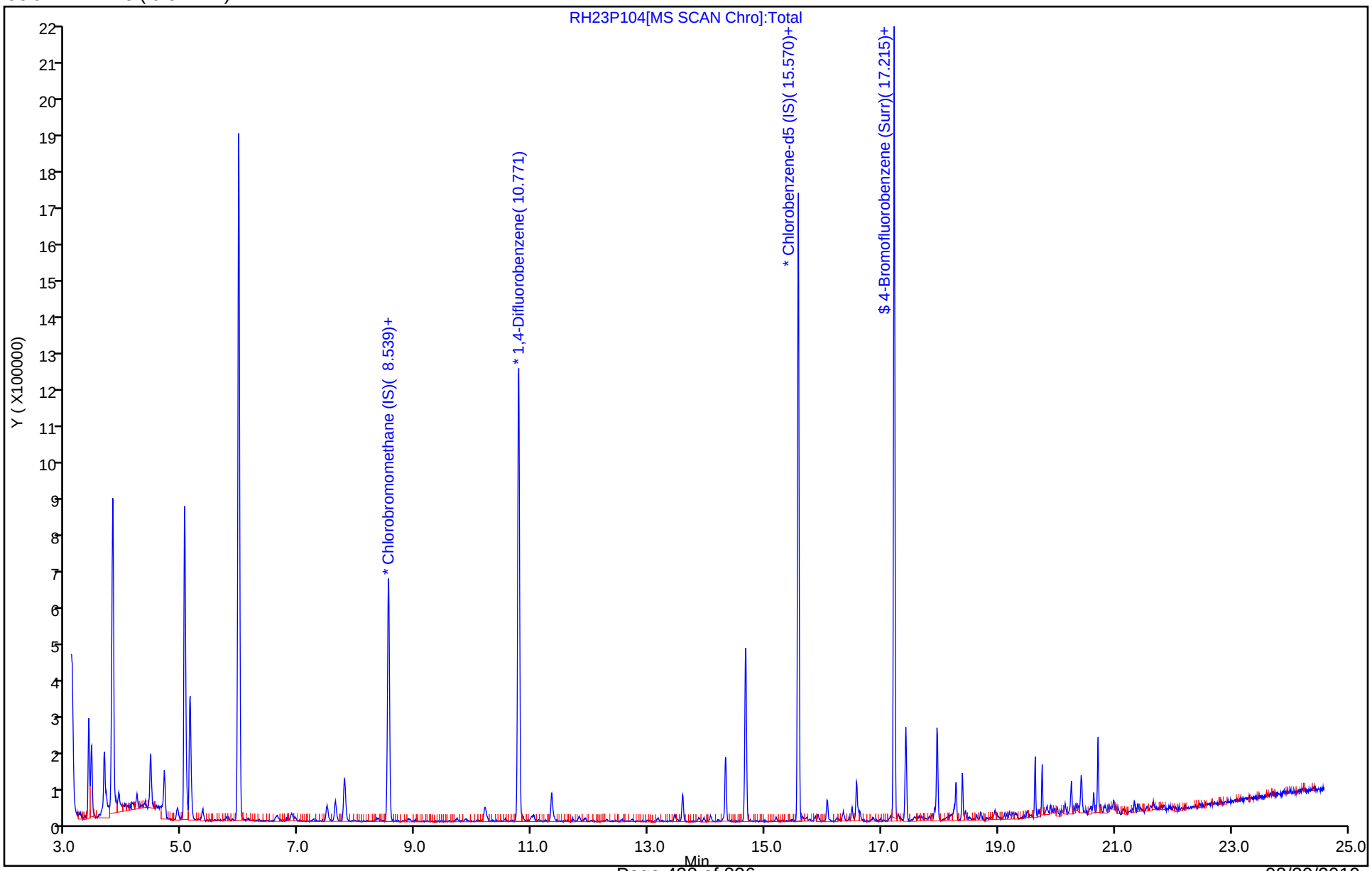
Report Date: 26-Aug-2019 14:07:11 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D

Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22	Worklist Smp#:	9
Client ID:	IA-088-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.5300	ALS Bottle#:	4
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

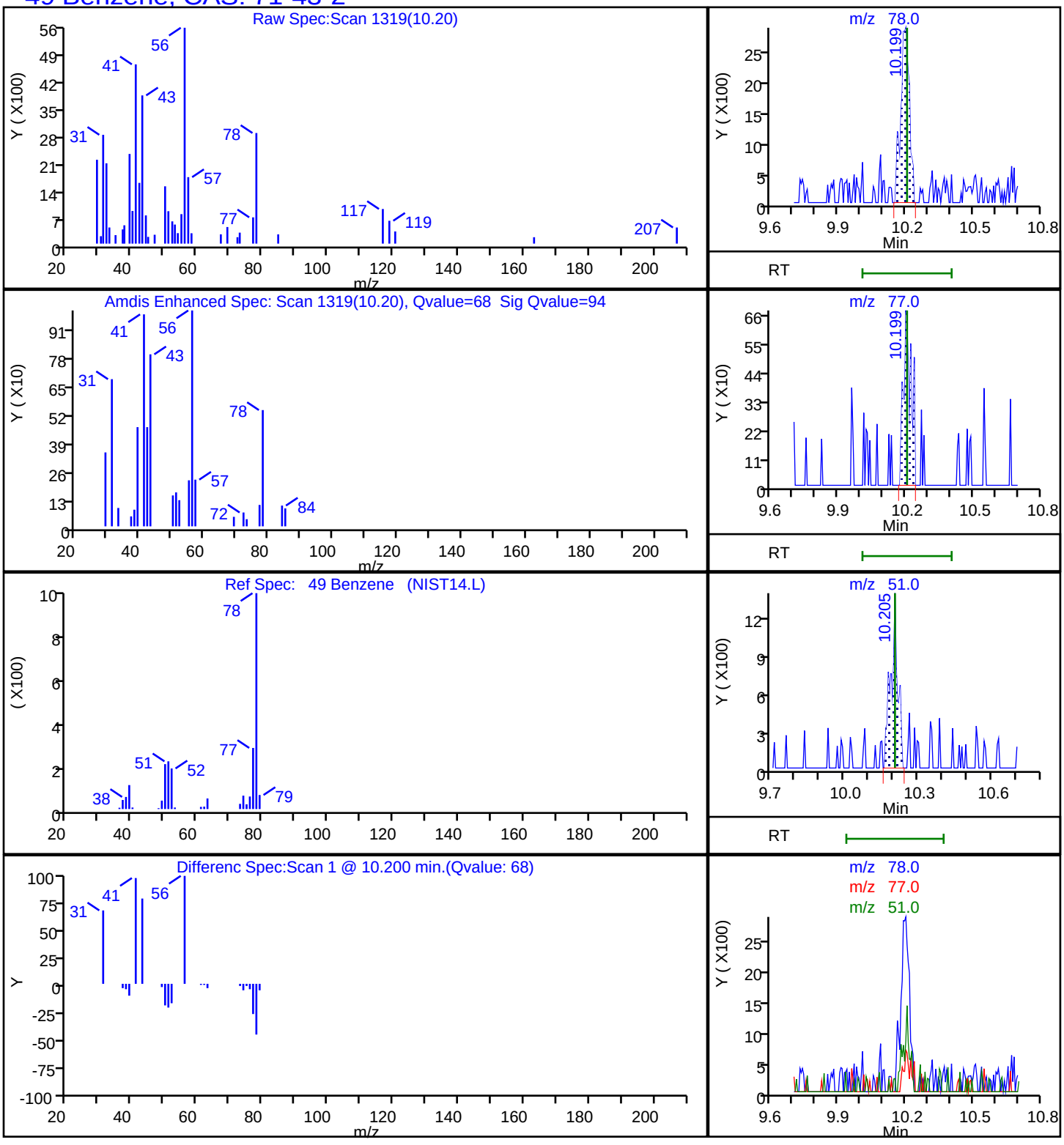
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D				
Lims ID:	140-16369-A-22				
Client ID:	IA-088-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 16:57:30	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300		
Sample Info:	140-0012811-009				
Misc. Info.:	140-16369-a-22@1.53				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:07:10		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.67	91.70

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
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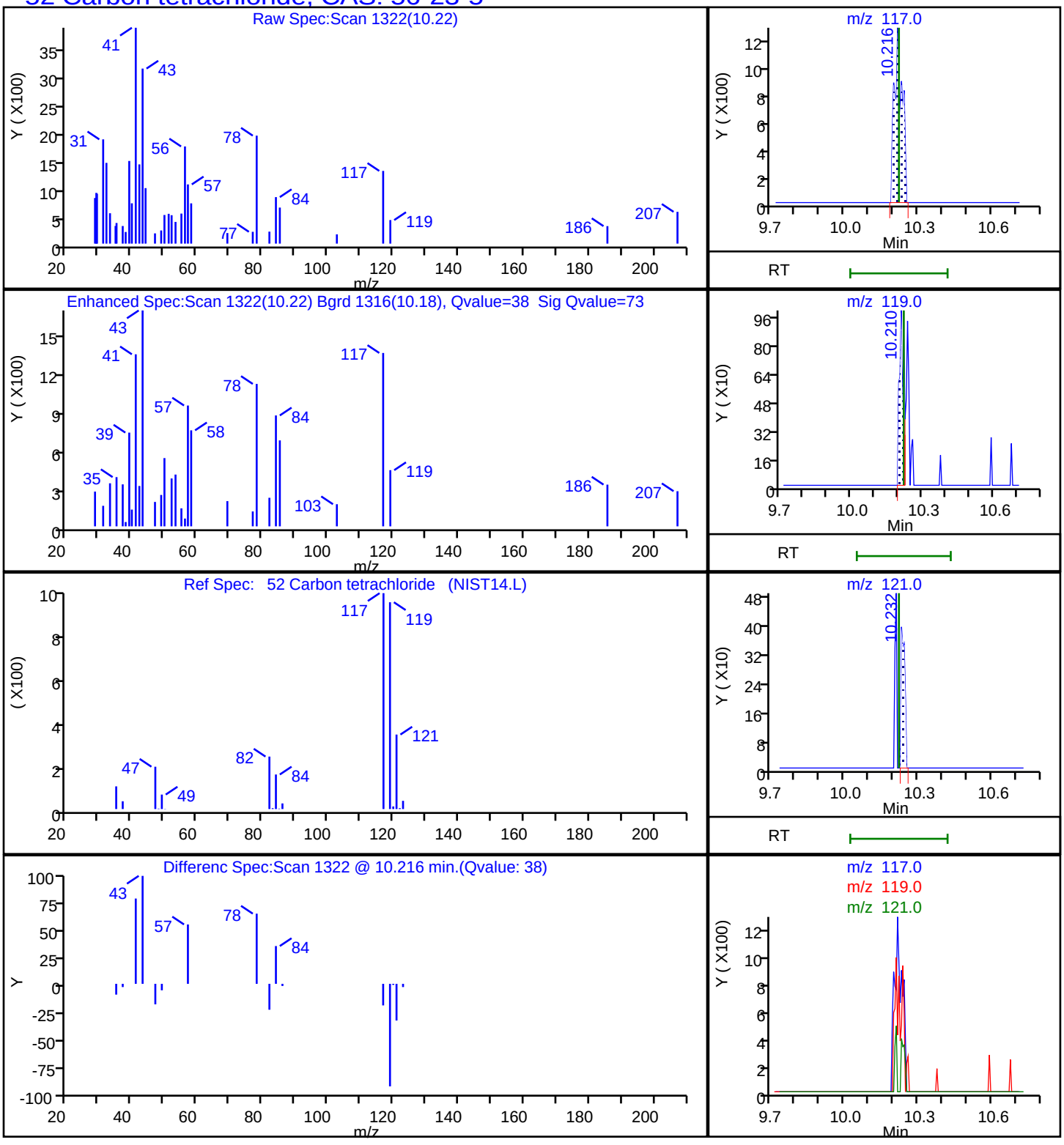
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

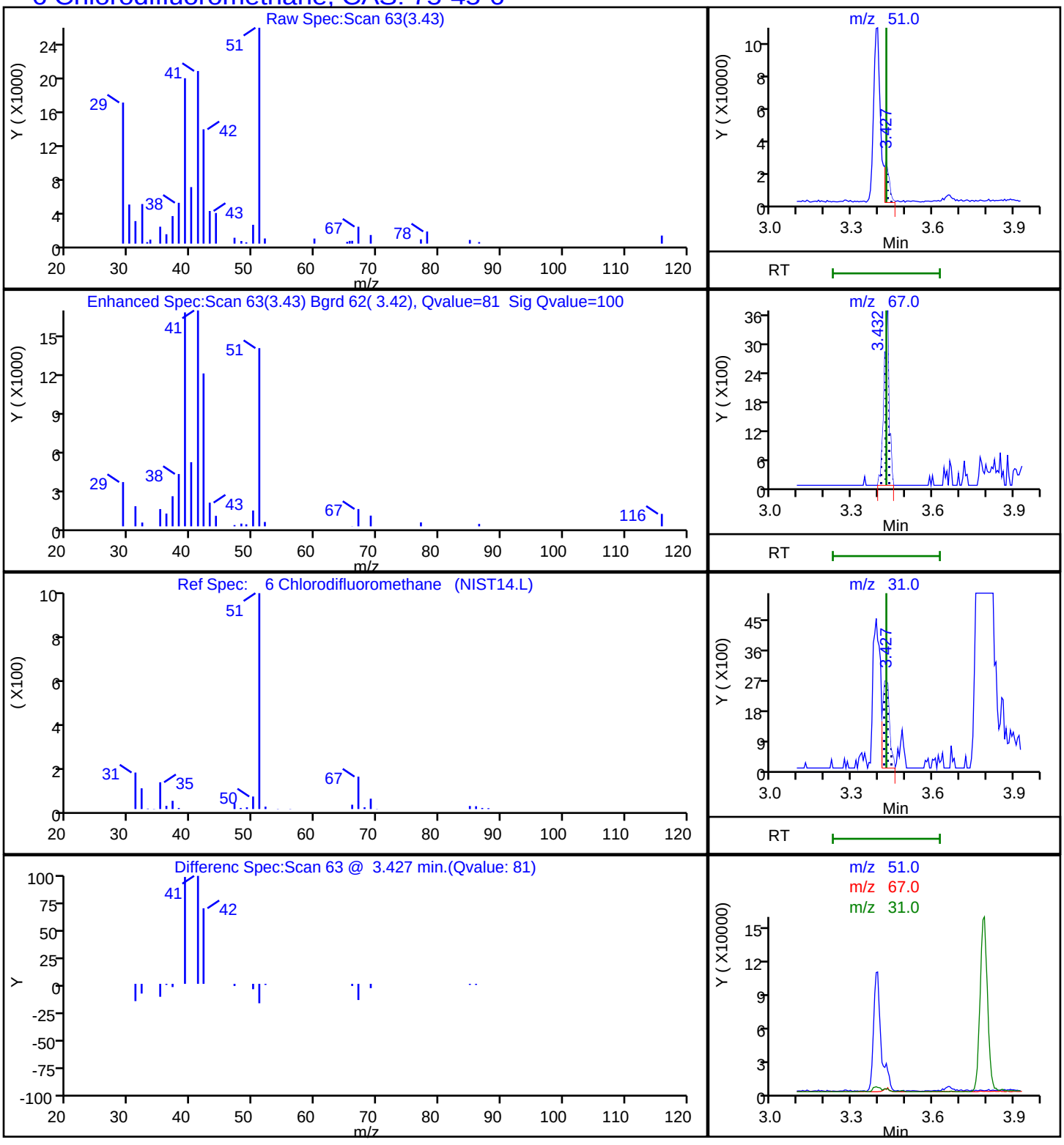
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D

Injection Date: 23-Aug-2019 16:57:30 Instrument ID: MR

Lims ID: 140-16369-A-22 Lab Sample ID: 140-16369-22

Client ID: IA-088-C-27

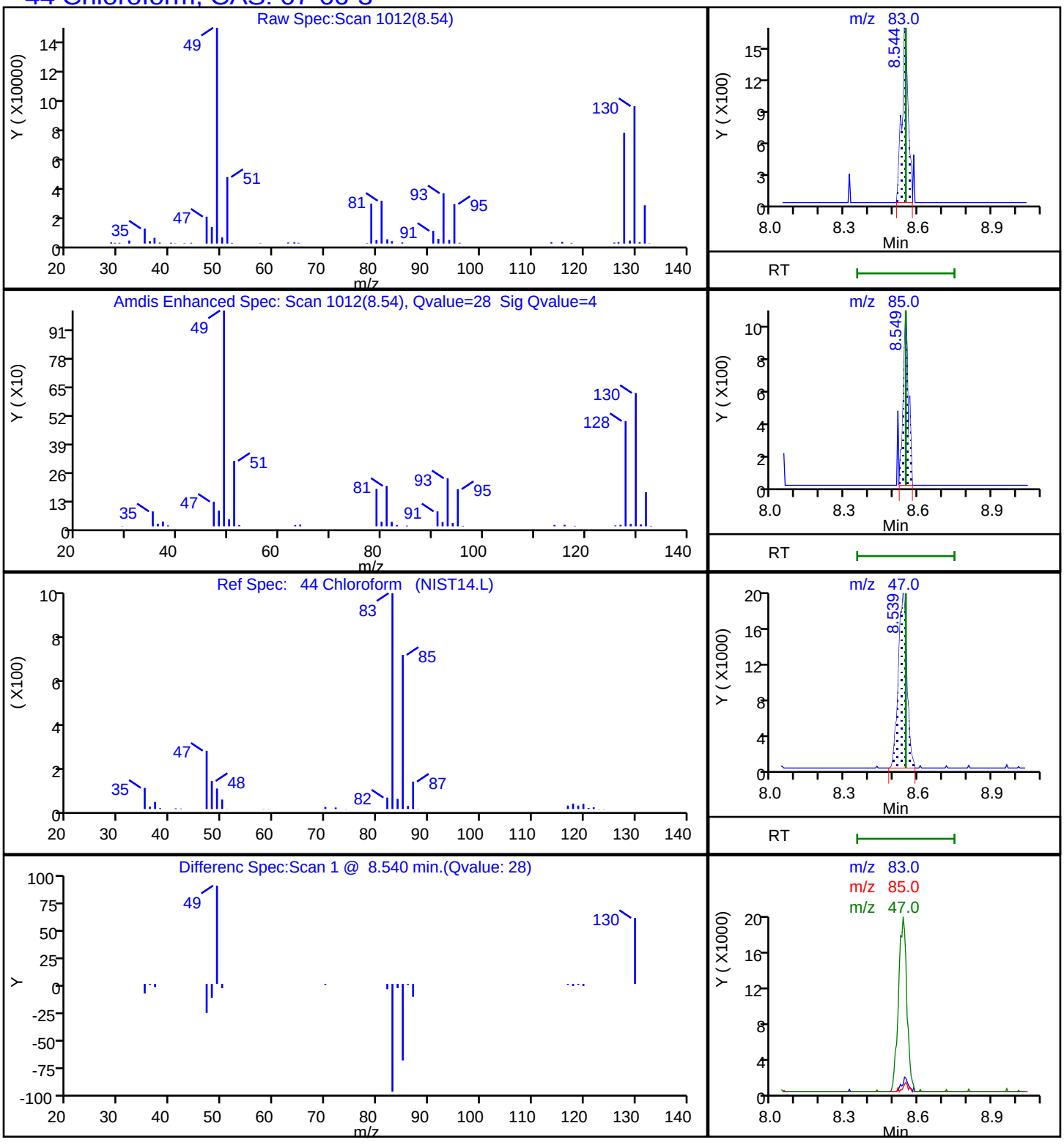
Operator ID: ALS Bottle#: 4 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.5300

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3

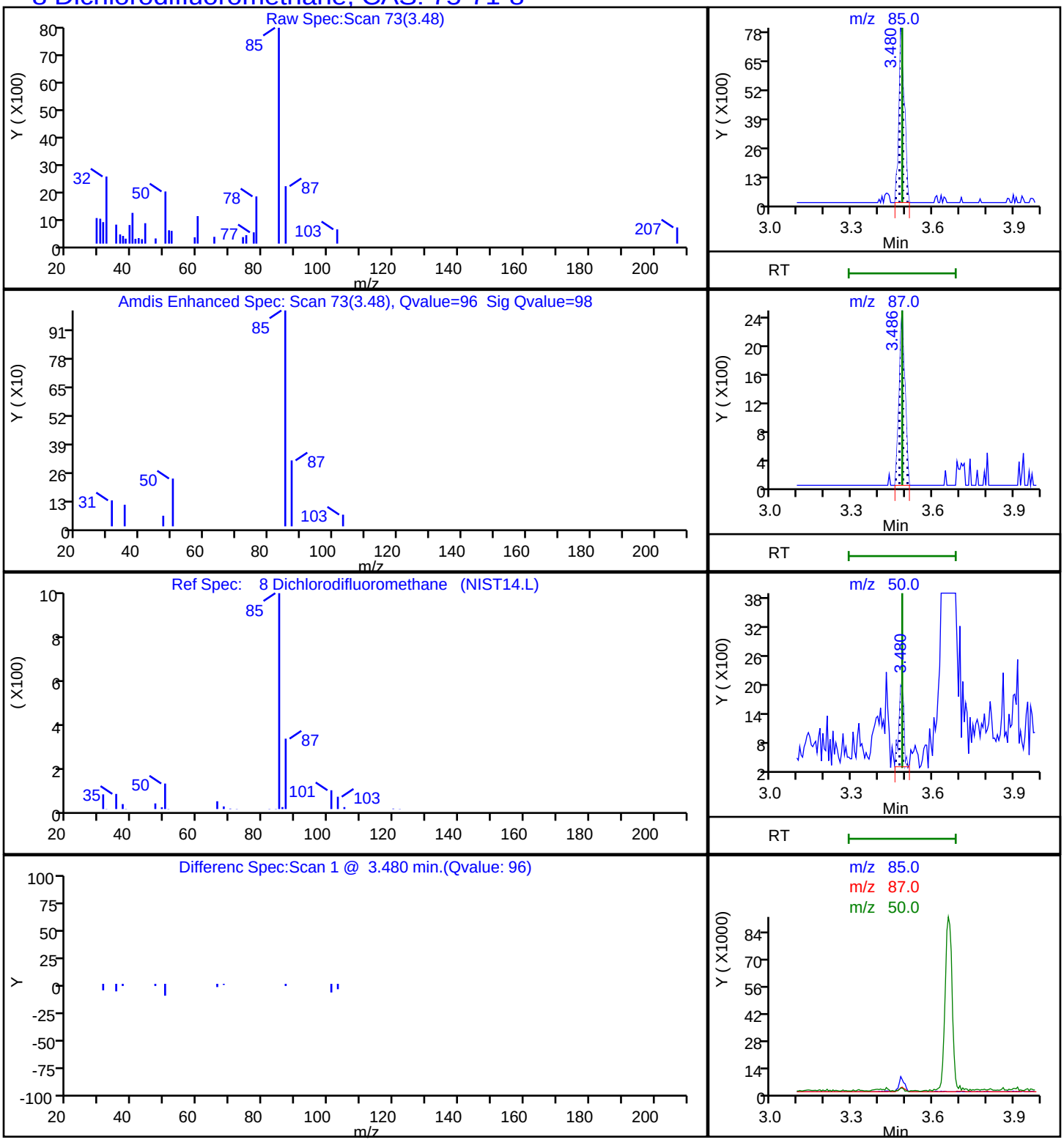


Report Date: 26-Aug-2019 14:07:11 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

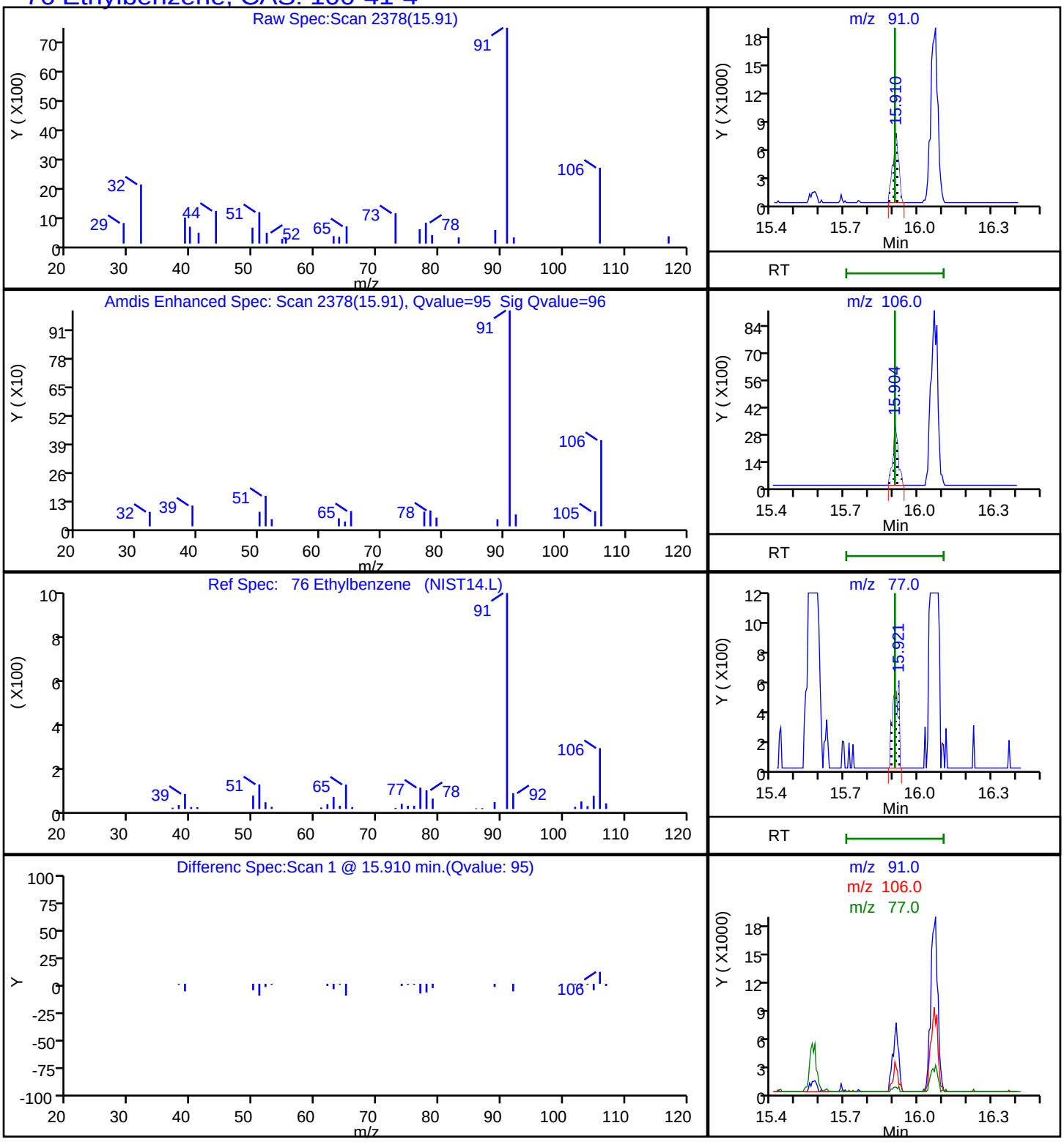


Report Date: 26-Aug-2019 14:07:11 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



Report Date: 26-Aug-2019 14:07:11 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D

Injection Date: 23-Aug-2019 16:57:30 Instrument ID: MR

Lims ID: 140-16369-A-22 Lab Sample ID: 140-16369-22

Client ID: IA-088-C-27

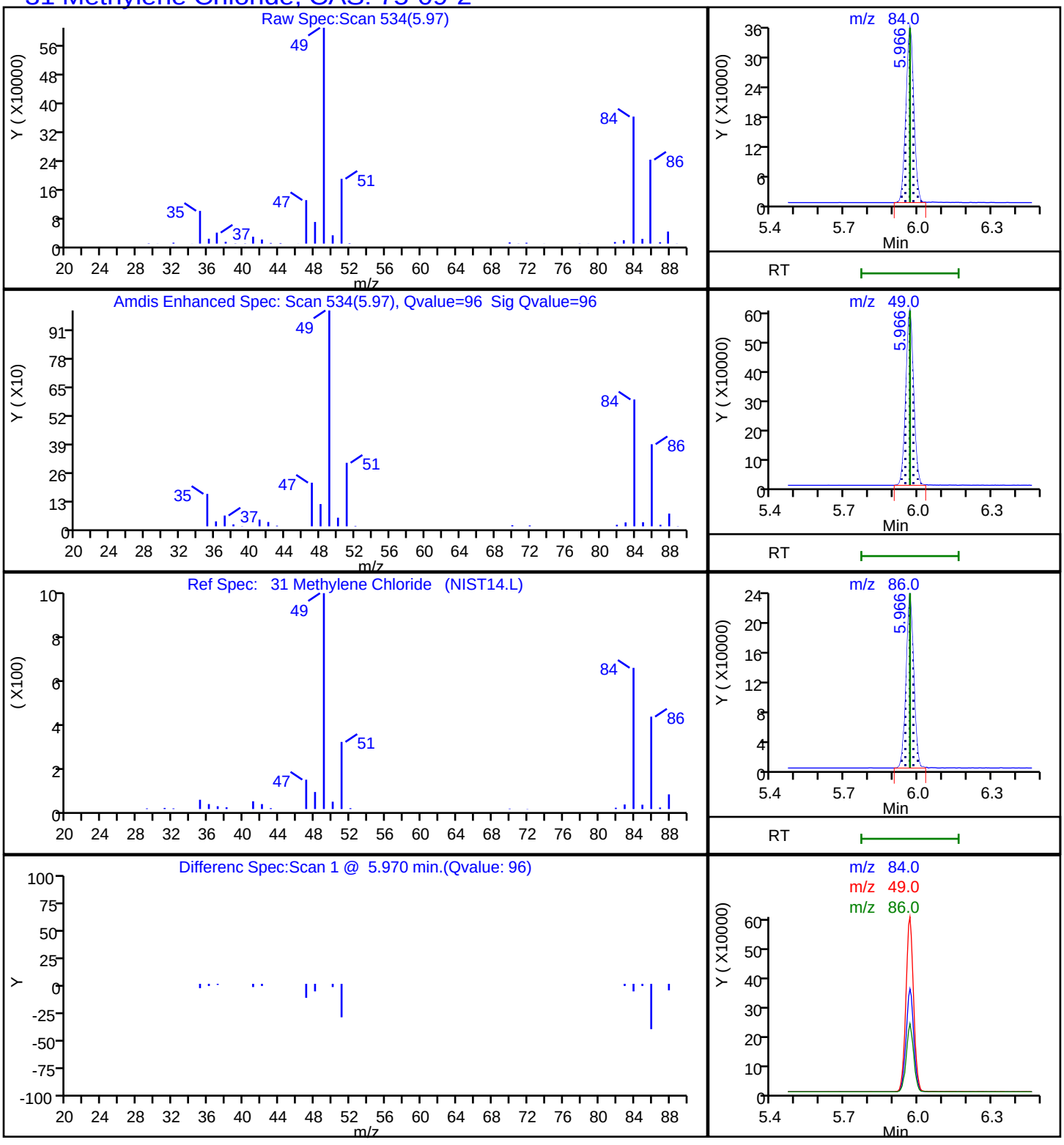
Operator ID: ALS Bottle#: 4 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.5300

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

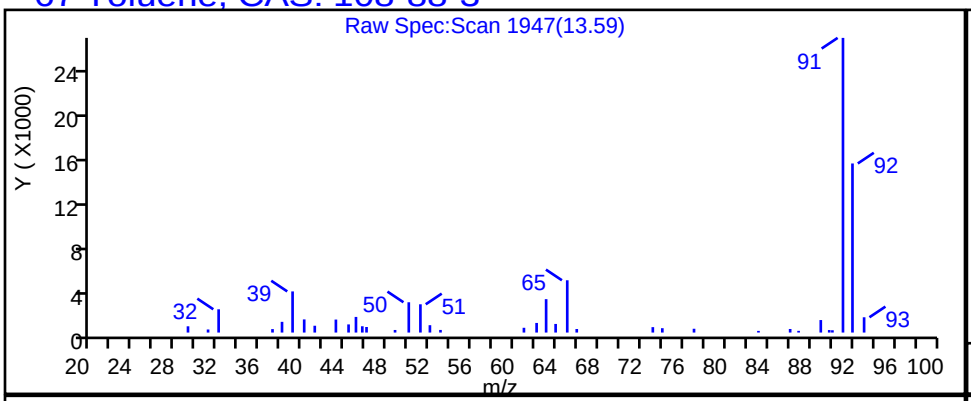
31 Methylene Chloride, CAS: 75-09-2

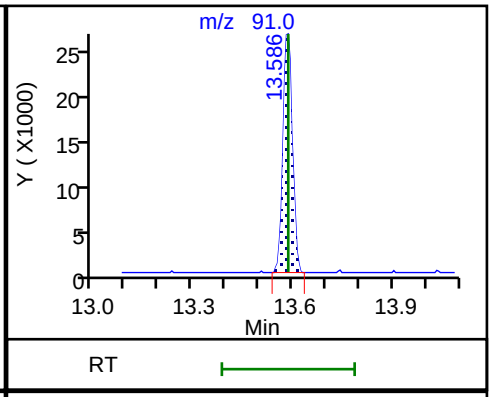


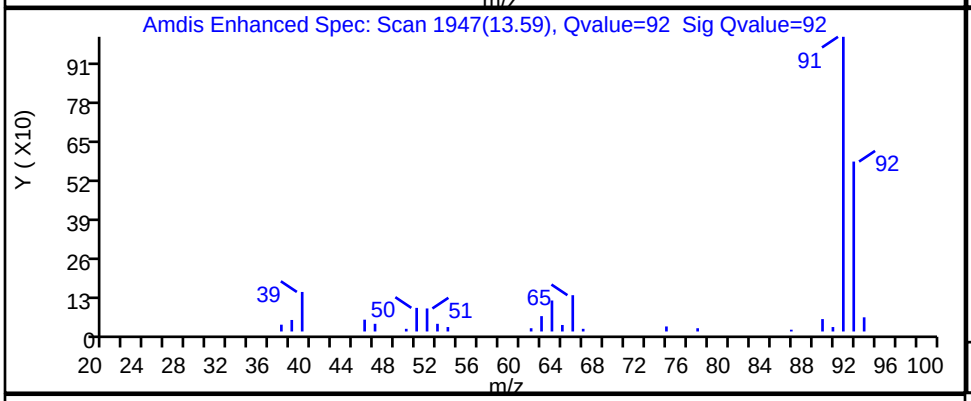
Eurofins TestAmerica, Knoxville

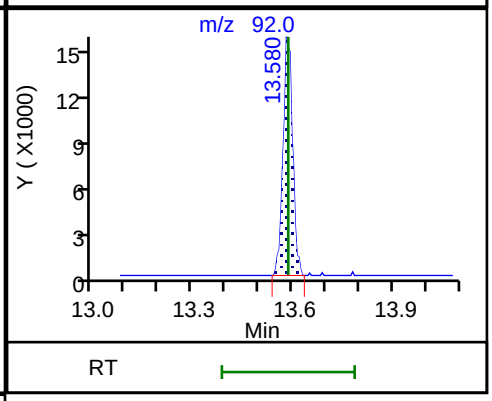
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

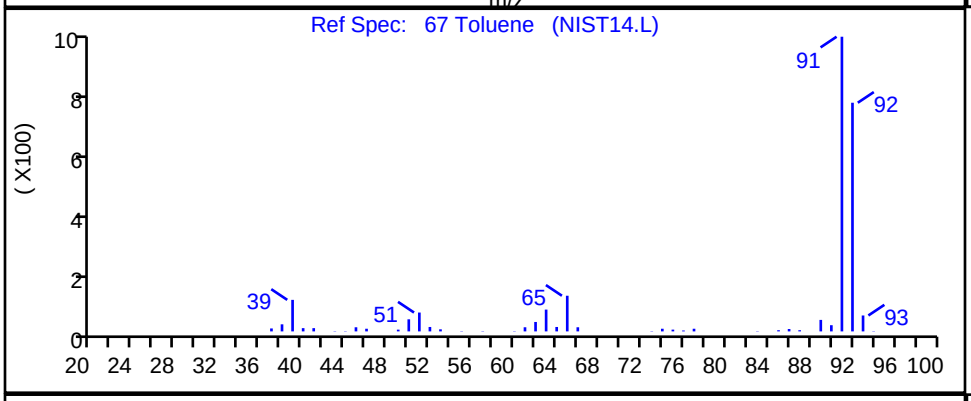
67 Toluene, CAS: 108-88-3

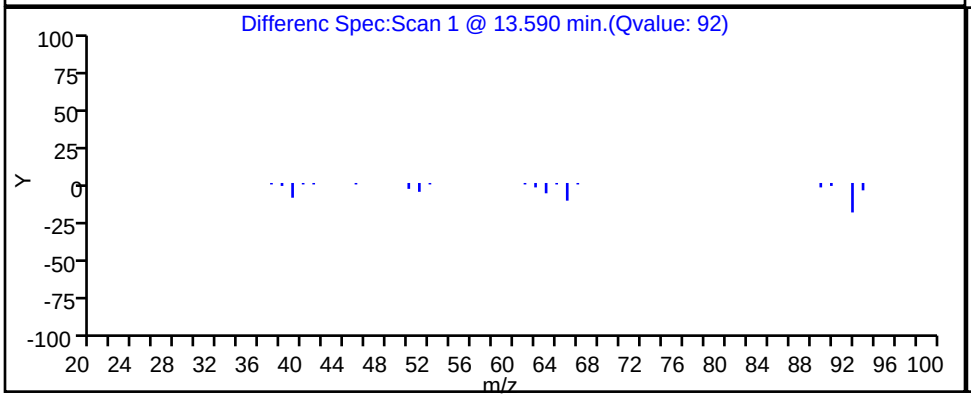


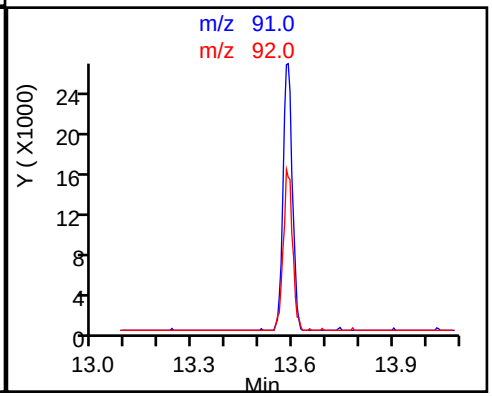












Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D

Injection Date: 23-Aug-2019 16:57:30 Instrument ID: MR

Lims ID: 140-16369-A-22 Lab Sample ID: 140-16369-22

Client ID: IA-088-C-27

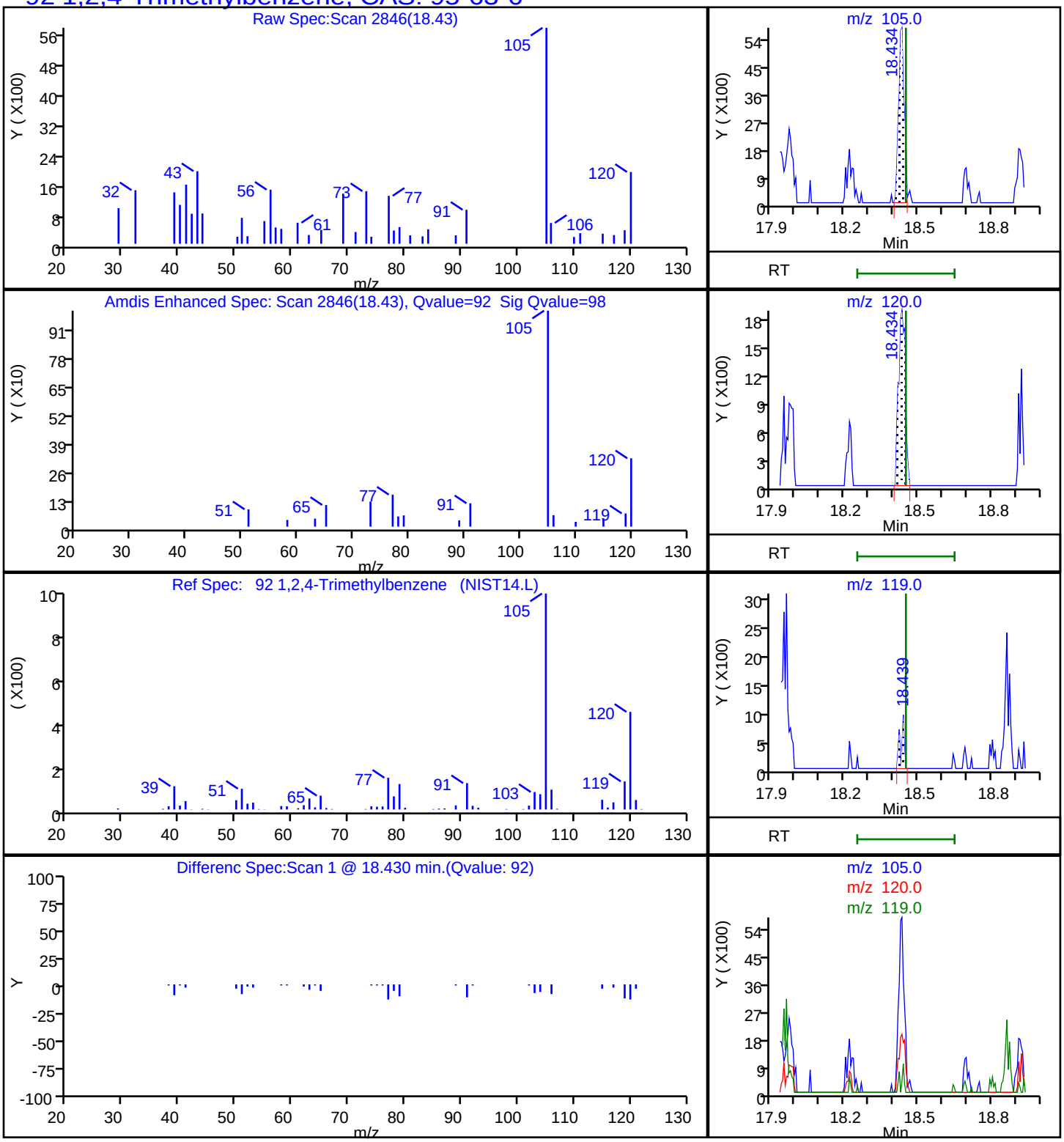
Operator ID: ALS Bottle#: 4 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.5300

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

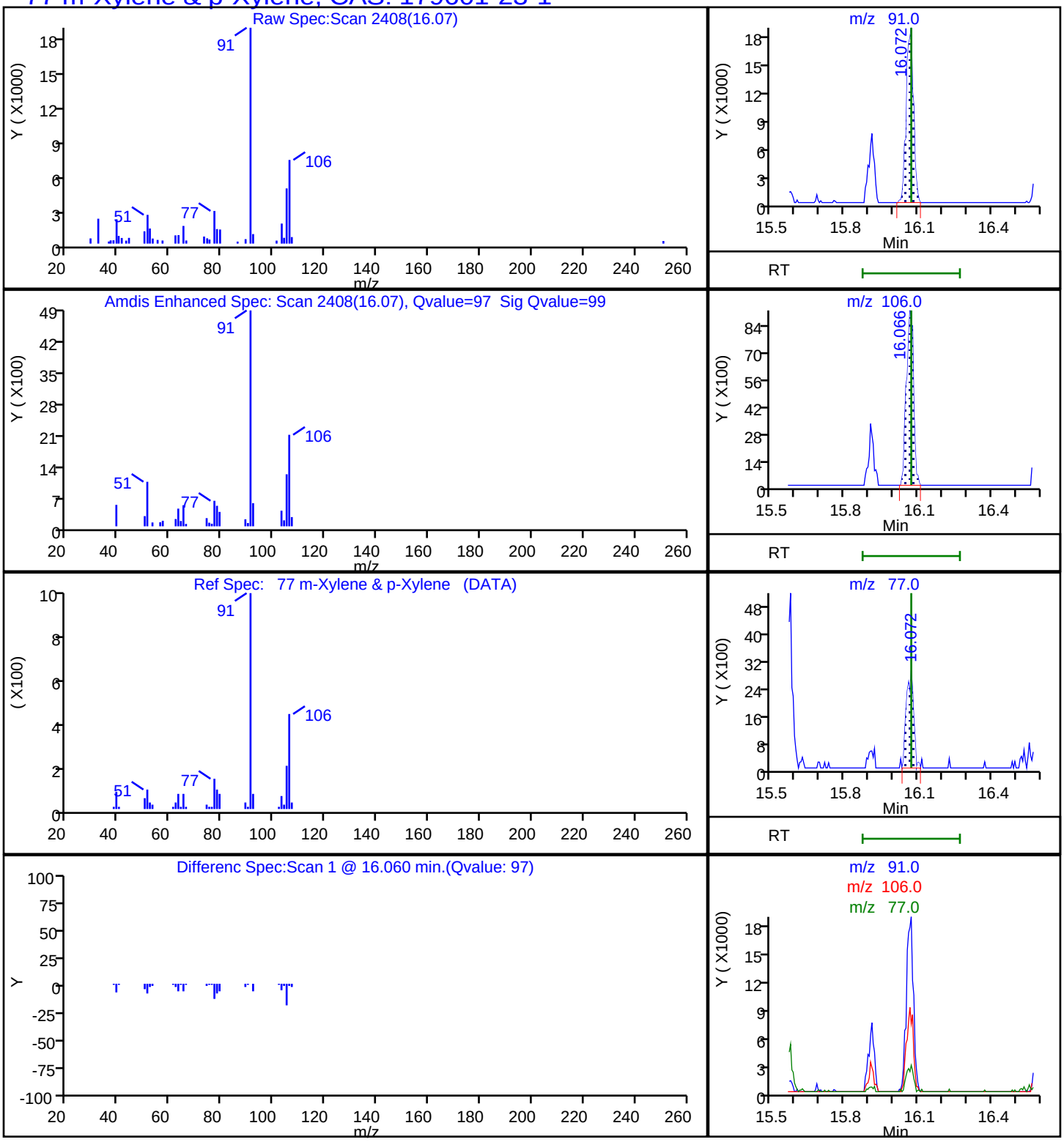


Report Date: 26-Aug-2019 14:07:11 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D		
Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

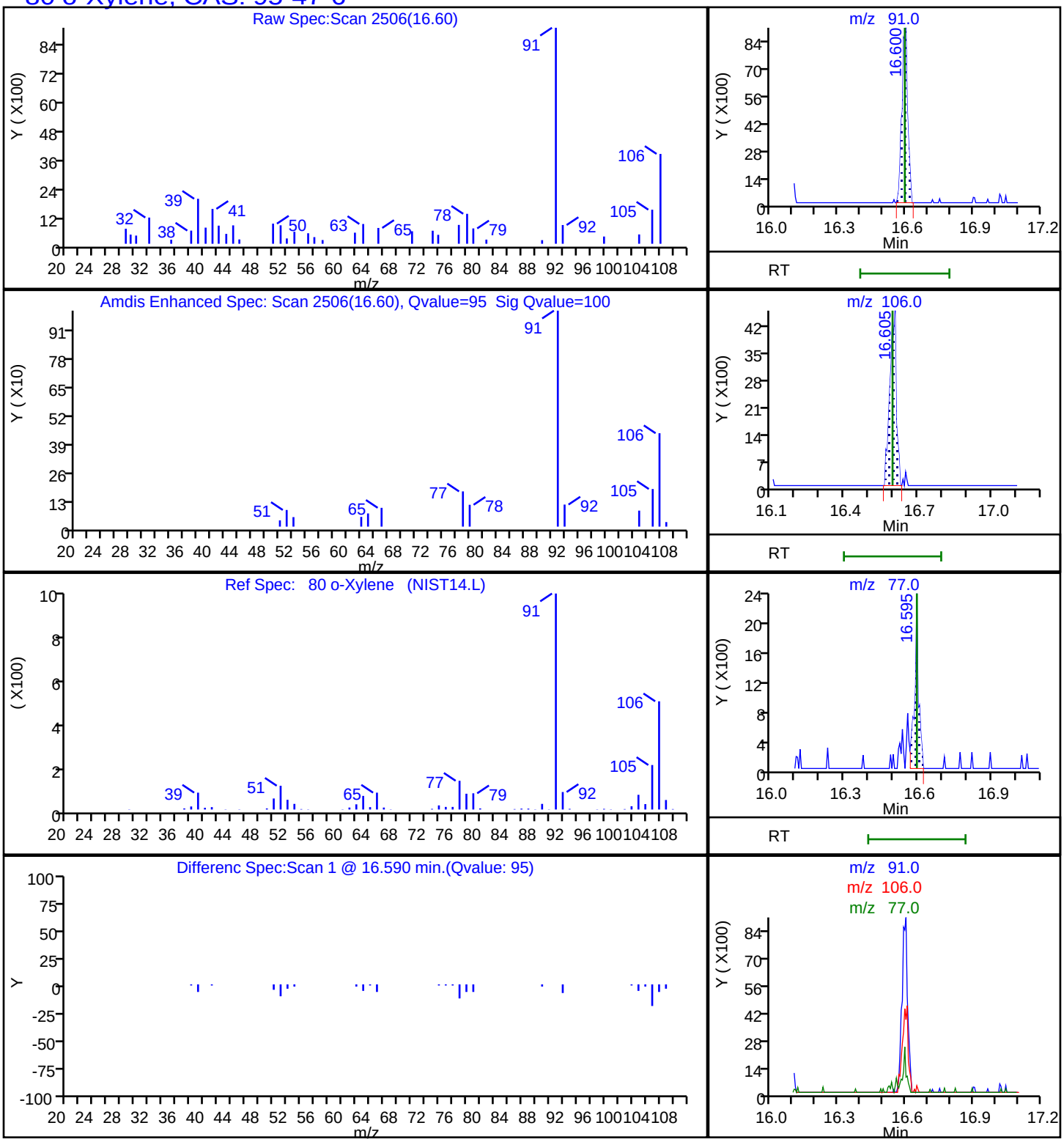


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P104.D

Injection Date:	23-Aug-2019 16:57:30	Instrument ID:	MR
Lims ID:	140-16369-A-22	Lab Sample ID:	140-16369-22
Client ID:	IA-088-C-27		
Operator ID:		ALS Bottle#:	4 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	16	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.79		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.93		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.0		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.8		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.71	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	54	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.67	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D
Lims ID: 140-16369-A-23
Client ID: IA-DUP2-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 15:29:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-008
Misc. Info.: 140-16369-a-23
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:12:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:12:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.731	-0.002	93	247260	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.840	-0.003	95	1244334	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.448	16.450	-0.002	90	1061794	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.048	-0.003	96	683055	3.50	
19 Chlorodifluoromethane	51	4.156	4.158	-0.002	97	22810	0.3376	
21 Dichlorodifluoromethane	85	4.231	4.223	0.003	98	8688	0.1122	
44 Methylene Chloride	84	7.066	7.069	-0.003	96	289991	3.12	
57 Chloroform	83	9.739	9.726	0.002	32	1948	0.009708	
64 Benzene	78	11.342	11.329	0.008	94	7886	0.0346	
65 Carbon tetrachloride	117	11.369	11.351	0.013	35	2609	0.0137	
80 Toluene	91	14.516	14.514	0.002	93	40398	0.1575	
89 Ethylbenzene	91	16.765	16.768	-0.003	97	10863	0.0329	
90 m-Xylene & p-Xylene	91	16.921	16.924	-0.003	99	32576	0.1285	
94 o-Xylene	91	17.448	17.451	-0.003	97	15689	0.0582	
105 1,2,4-Trimethylbenzene	105	19.143	19.133	0.003	96	8524	0.0274	
122 Naphthalene	128	21.687	21.690	-0.003	97	9938	0.0365	
S 129 Xylenes, Total	100				0		0.1867	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

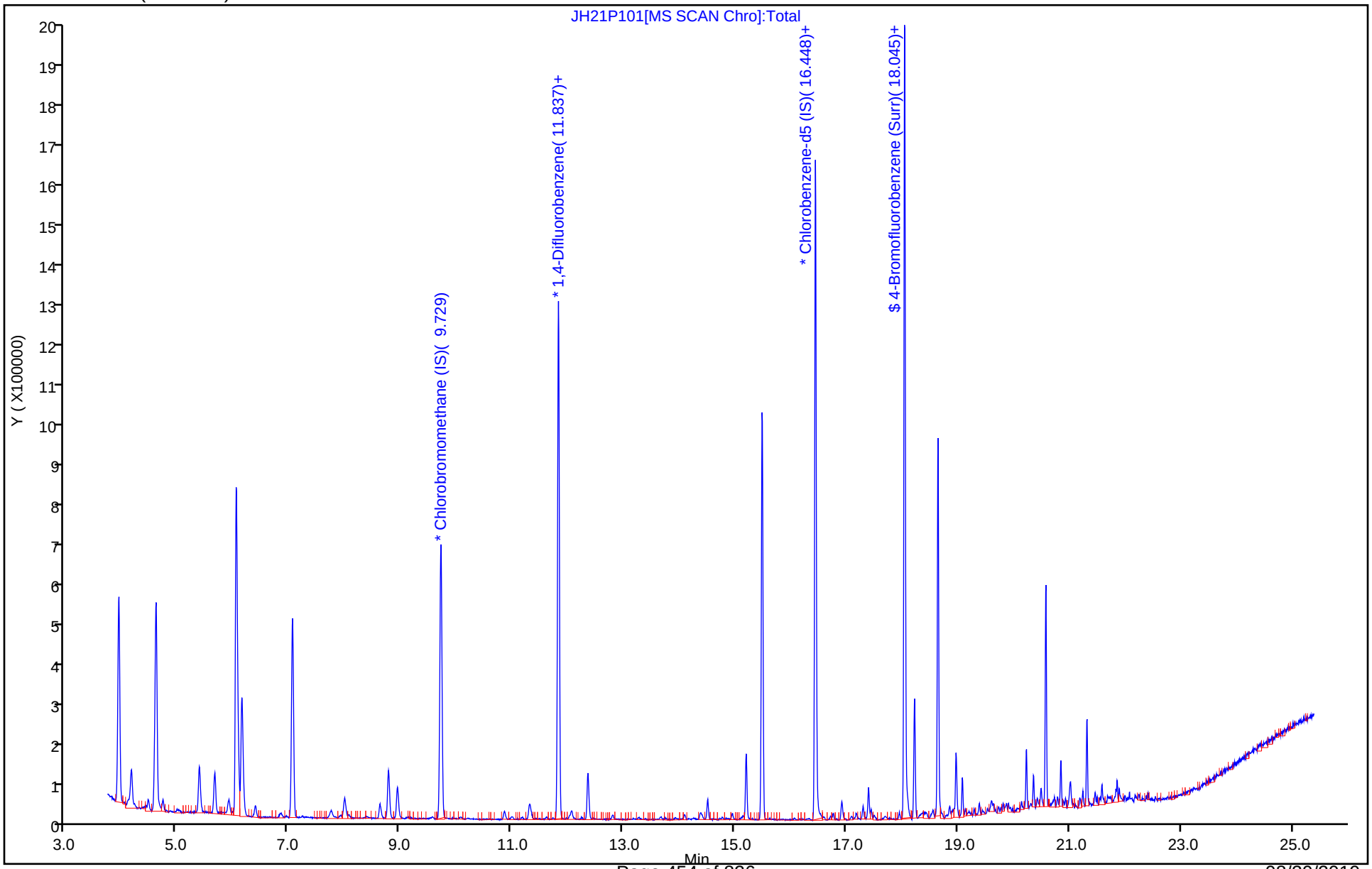
Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D

Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23	Worklist Smp#:	8
Client ID:	IA-DUP2-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D				
Lims ID:	140-16369-A-23				
Client ID:	IA-DUP2-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 15:29:30	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-008				
Misc. Info.:	140-16369-a-23				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:12:31	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:12:31

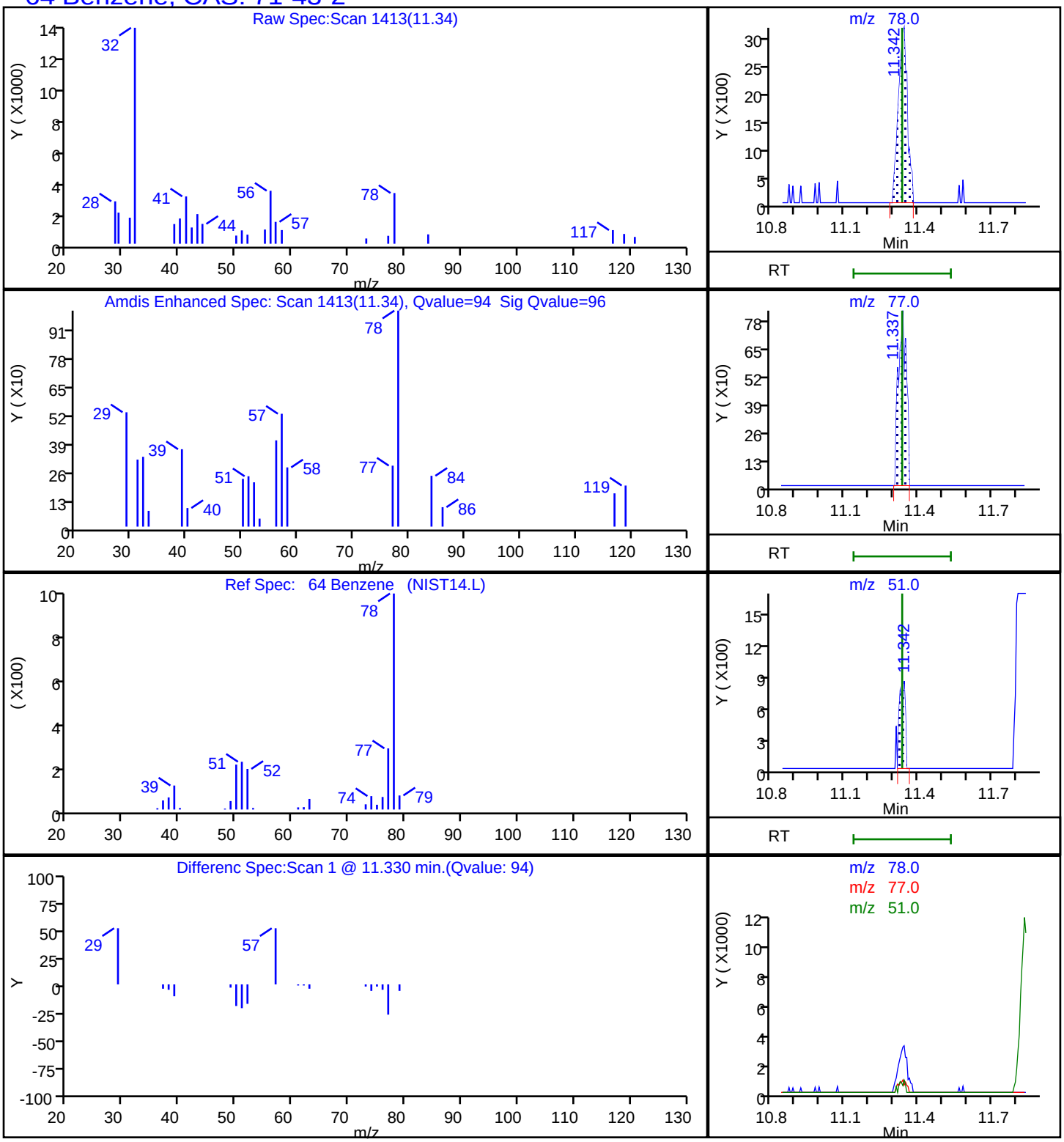
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.50	87.51

Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D

Injection Date: 21-Aug-2019 15:29:30 Instrument ID: MJ

Lims ID: 140-16369-A-23 Lab Sample ID: 140-16369-23

Client ID: IA-DUP2-C-27

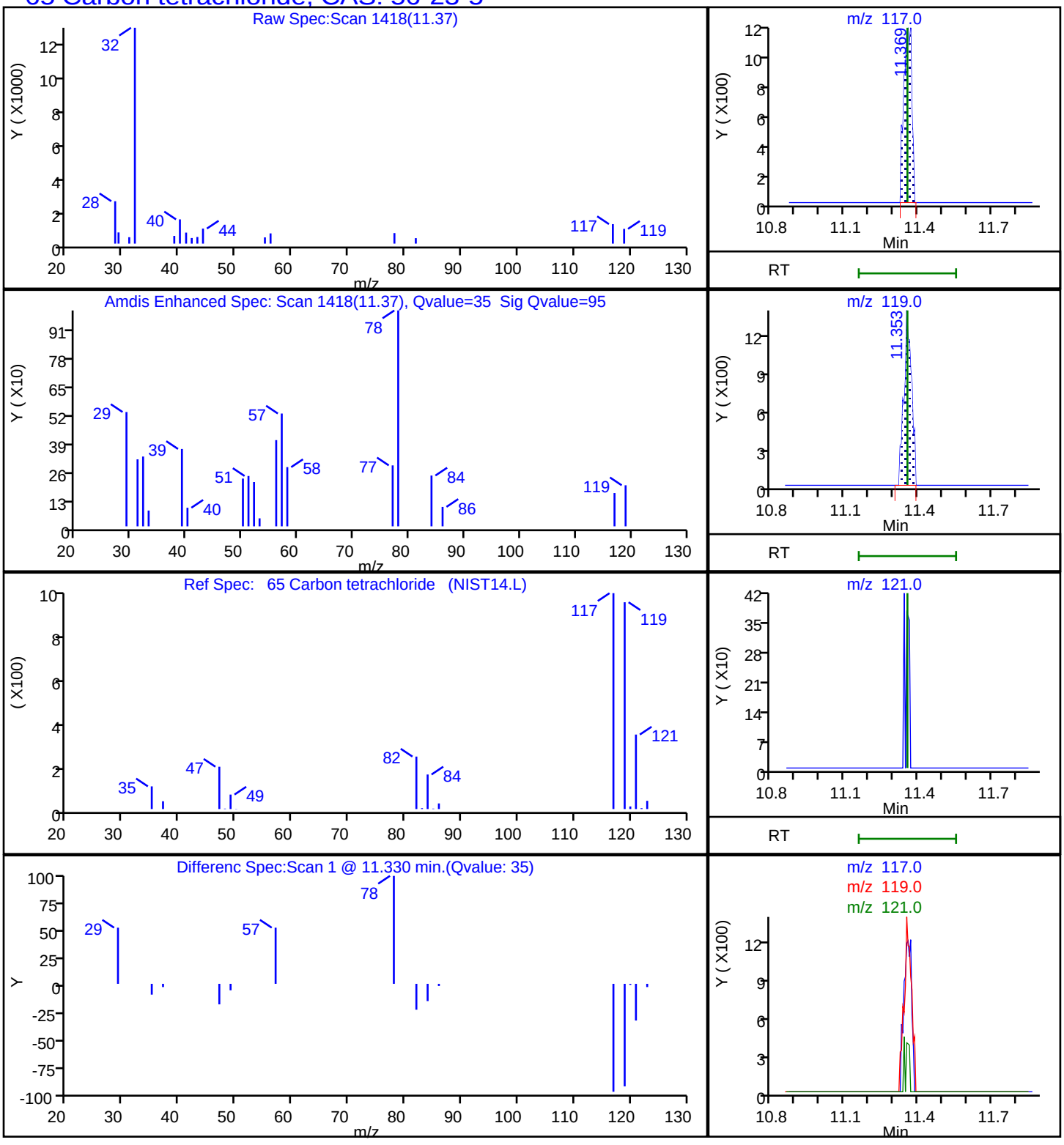
Operator ID: 007126 ALS Bottle#: 1 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

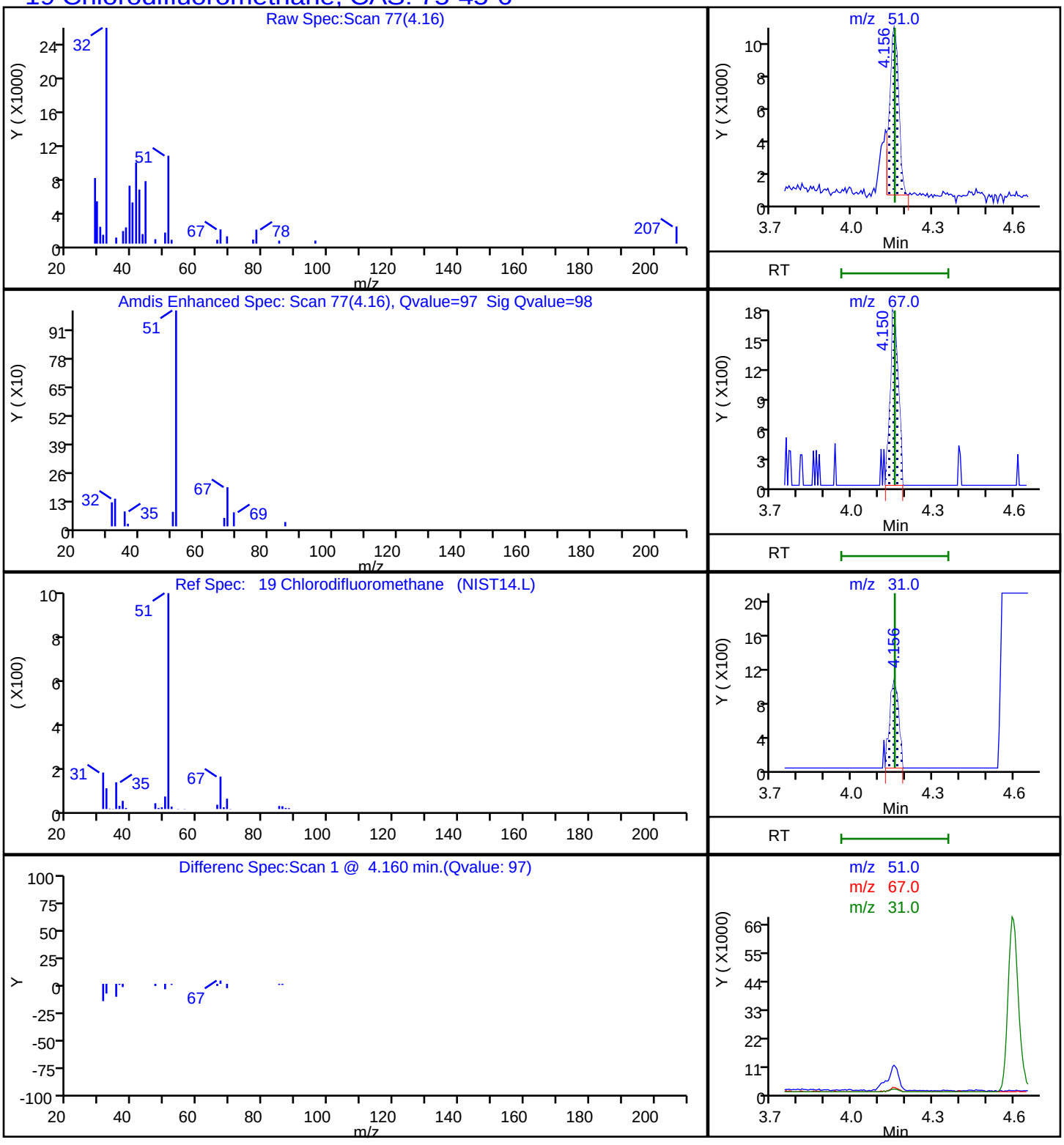
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D

Injection Date: 21-Aug-2019 15:29:30 Instrument ID: MJ

Lims ID: 140-16369-A-23 Lab Sample ID: 140-16369-23

Client ID: IA-DUP2-C-27

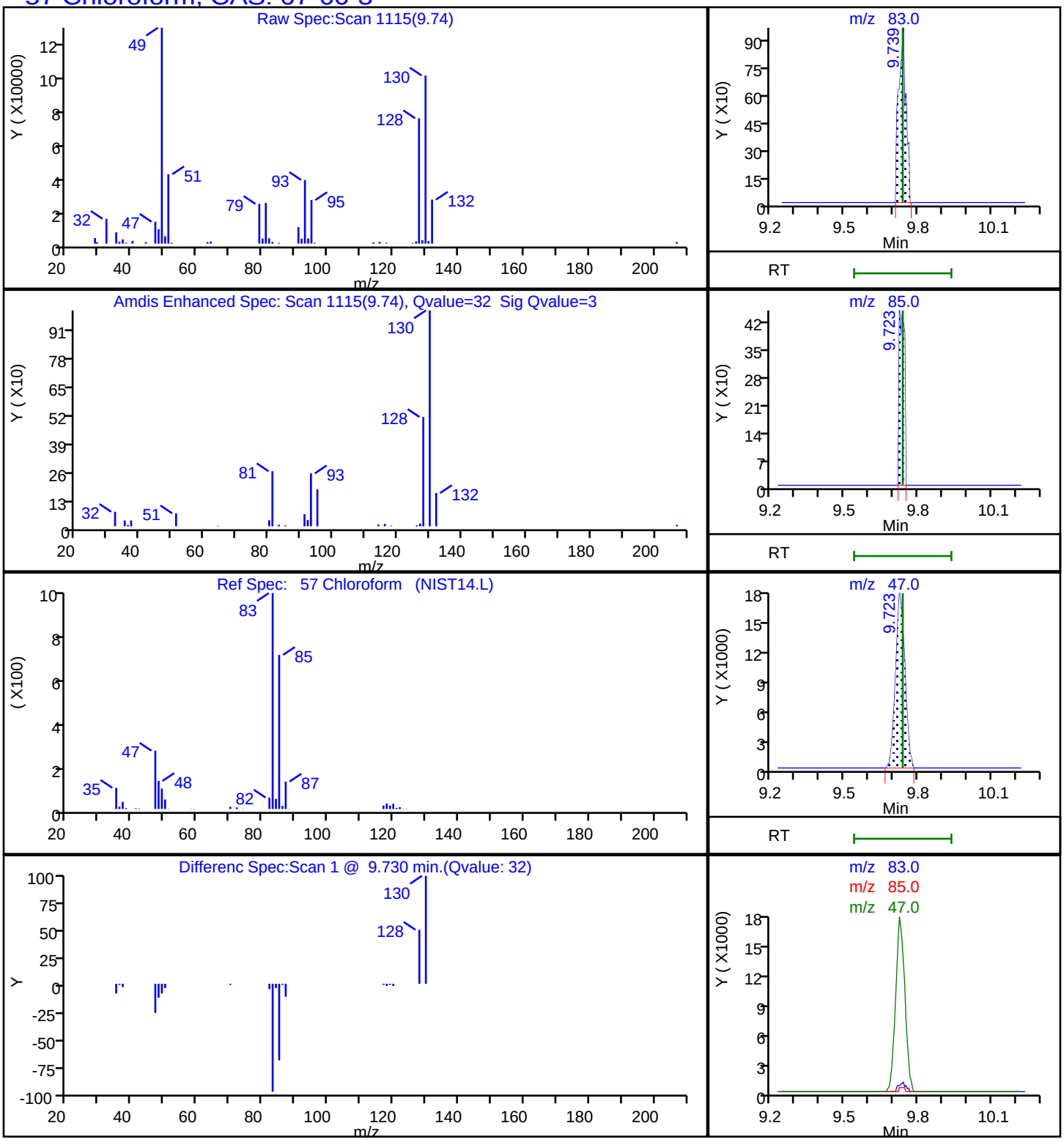
Operator ID: 007126 ALS Bottle#: 1 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

57 Chloroform, CAS: 67-66-3

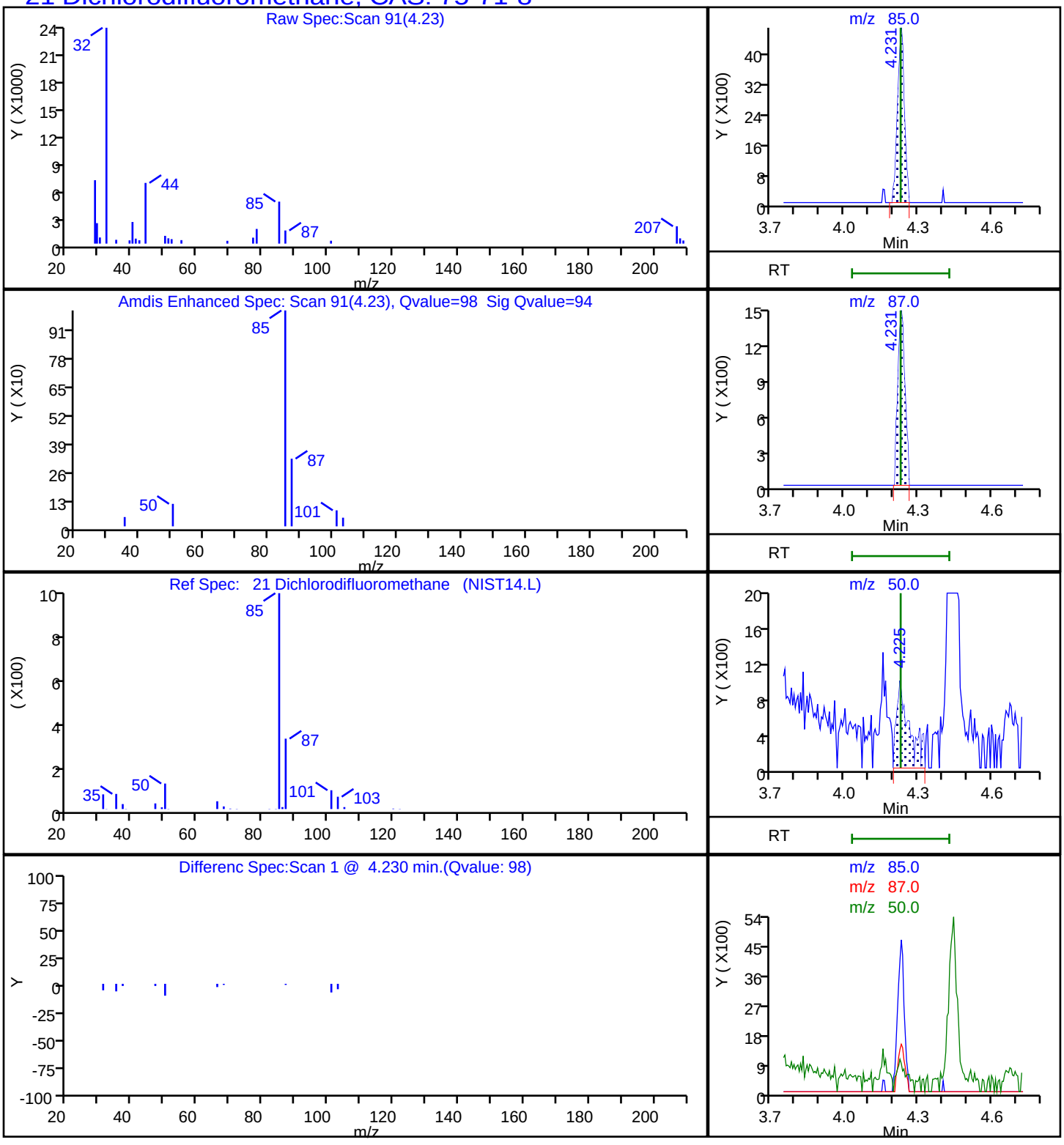


Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

21 Dichlorodifluoromethane, CAS: 75-71-8

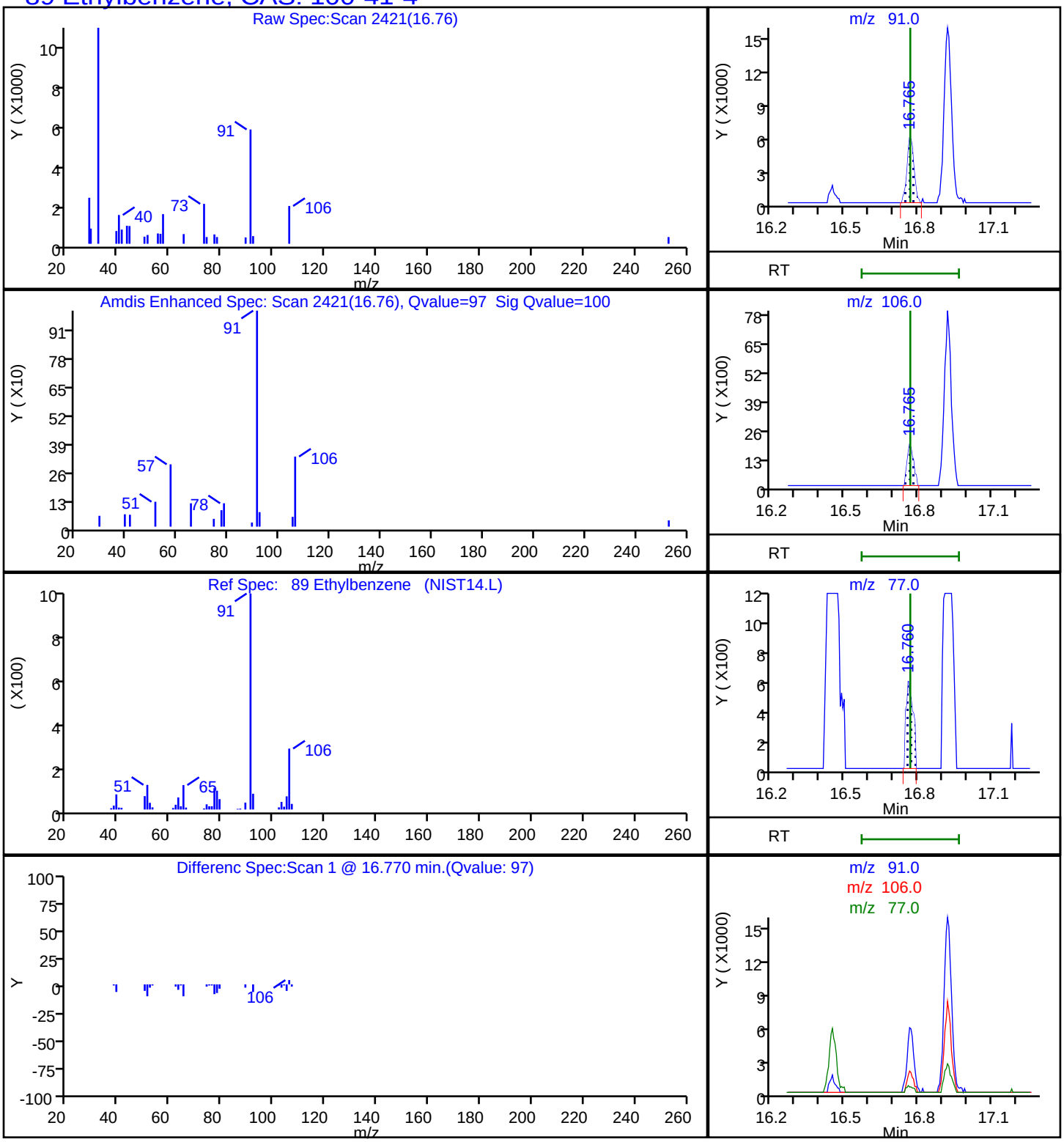


Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

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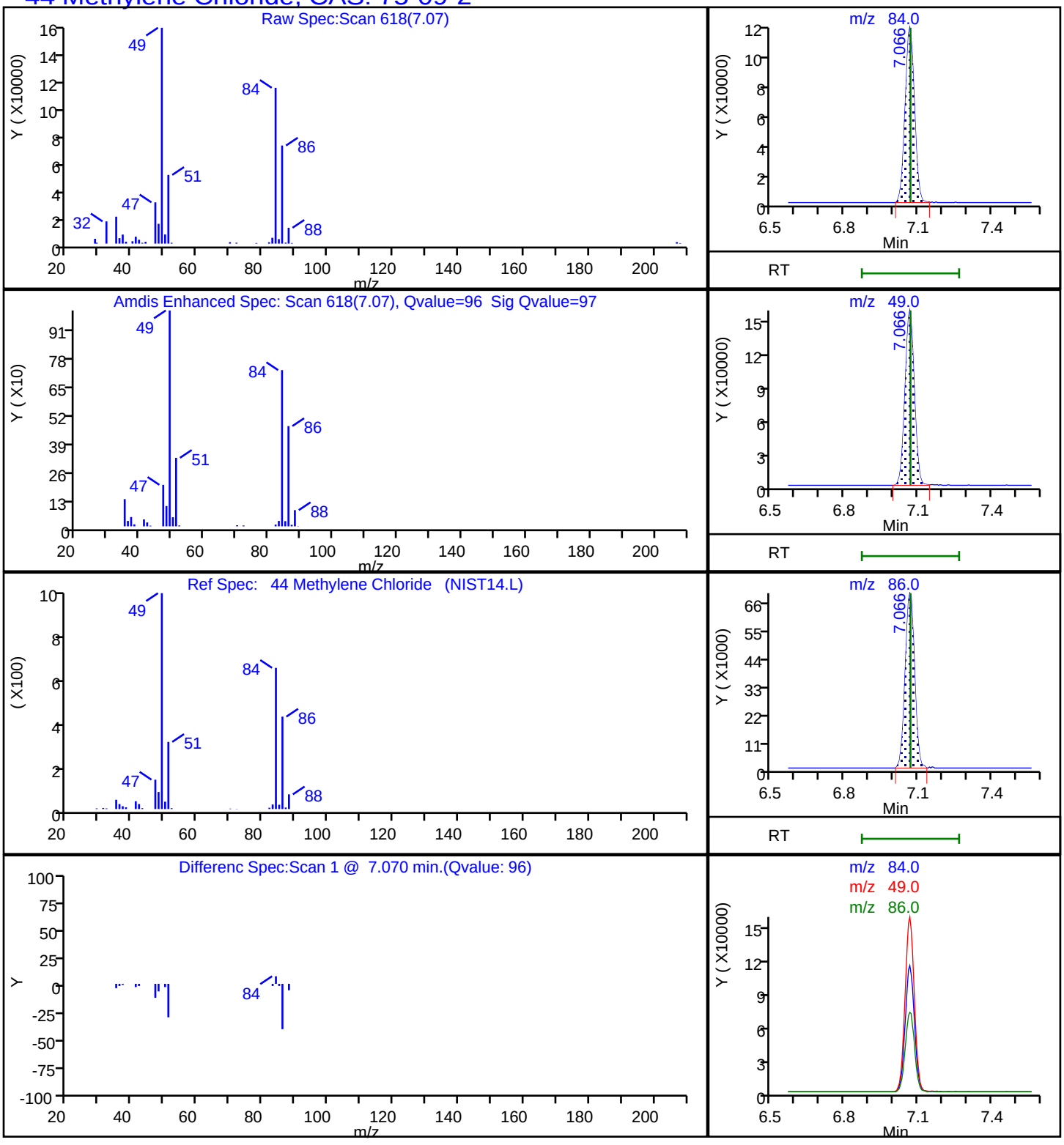
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

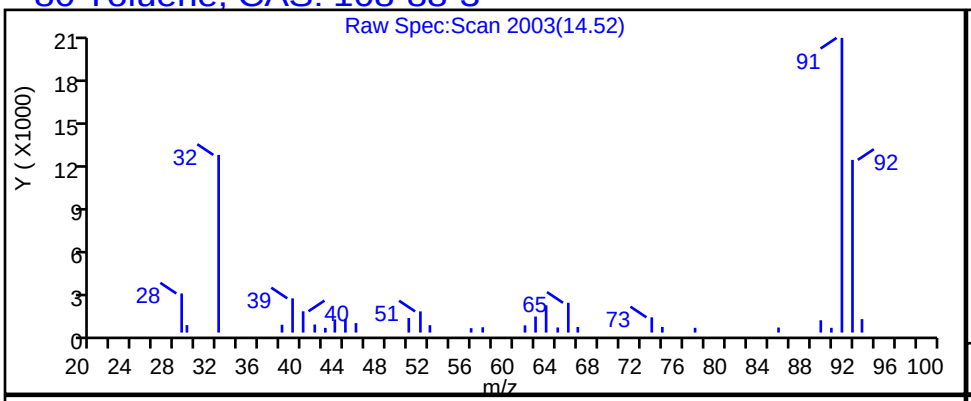
44 Methylene Chloride, CAS: 75-09-2

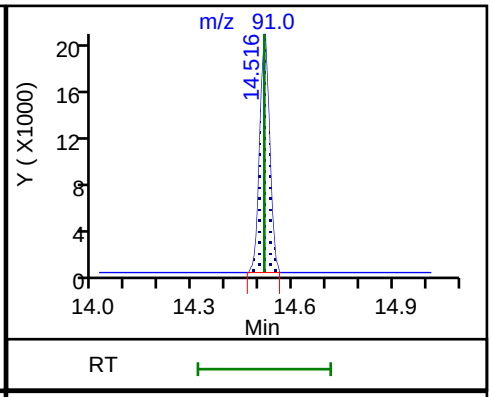


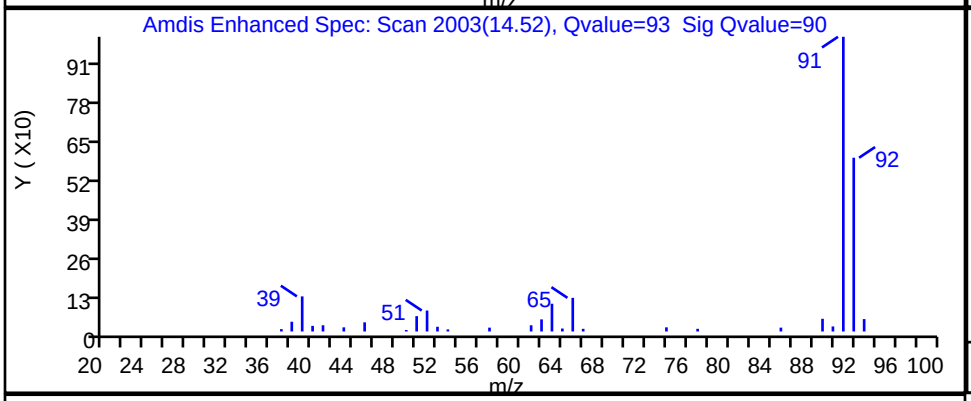
Eurofins TestAmerica, Knoxville

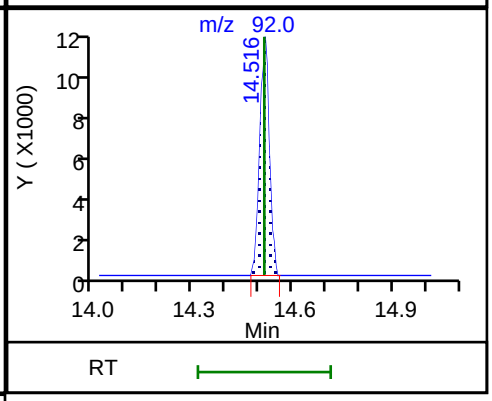
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

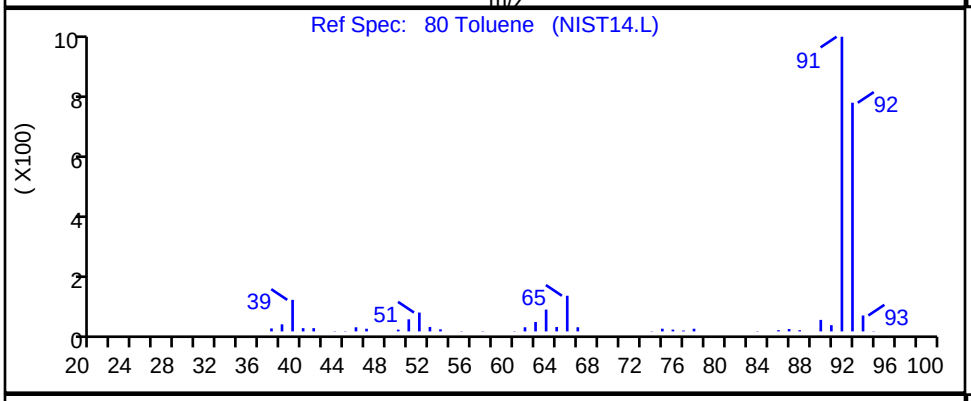
80 Toluene, CAS: 108-88-3

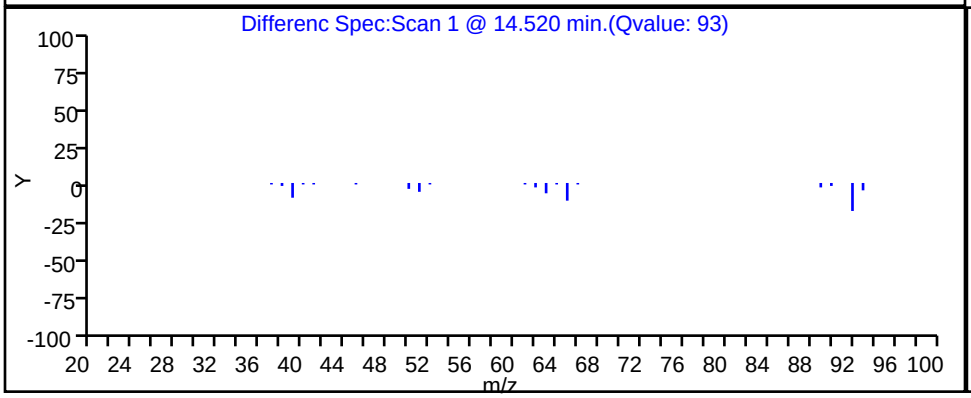


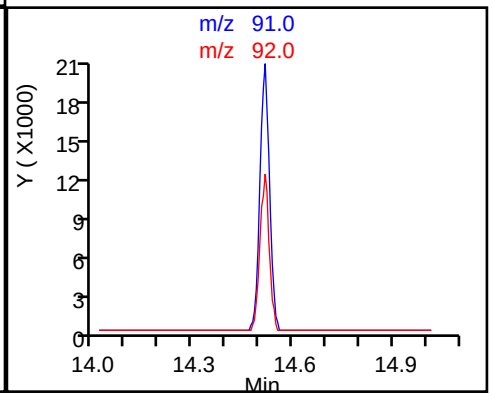










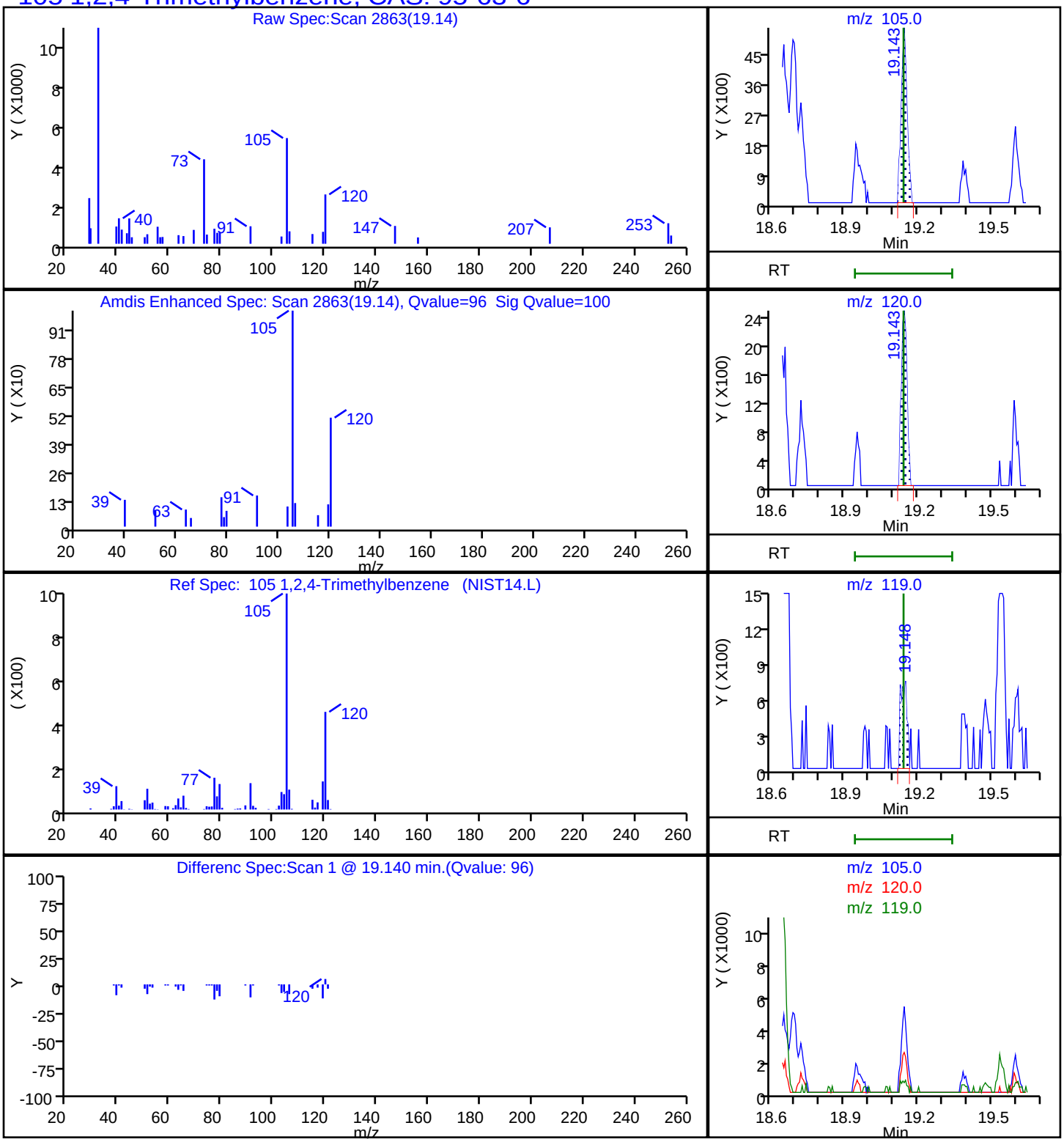


Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

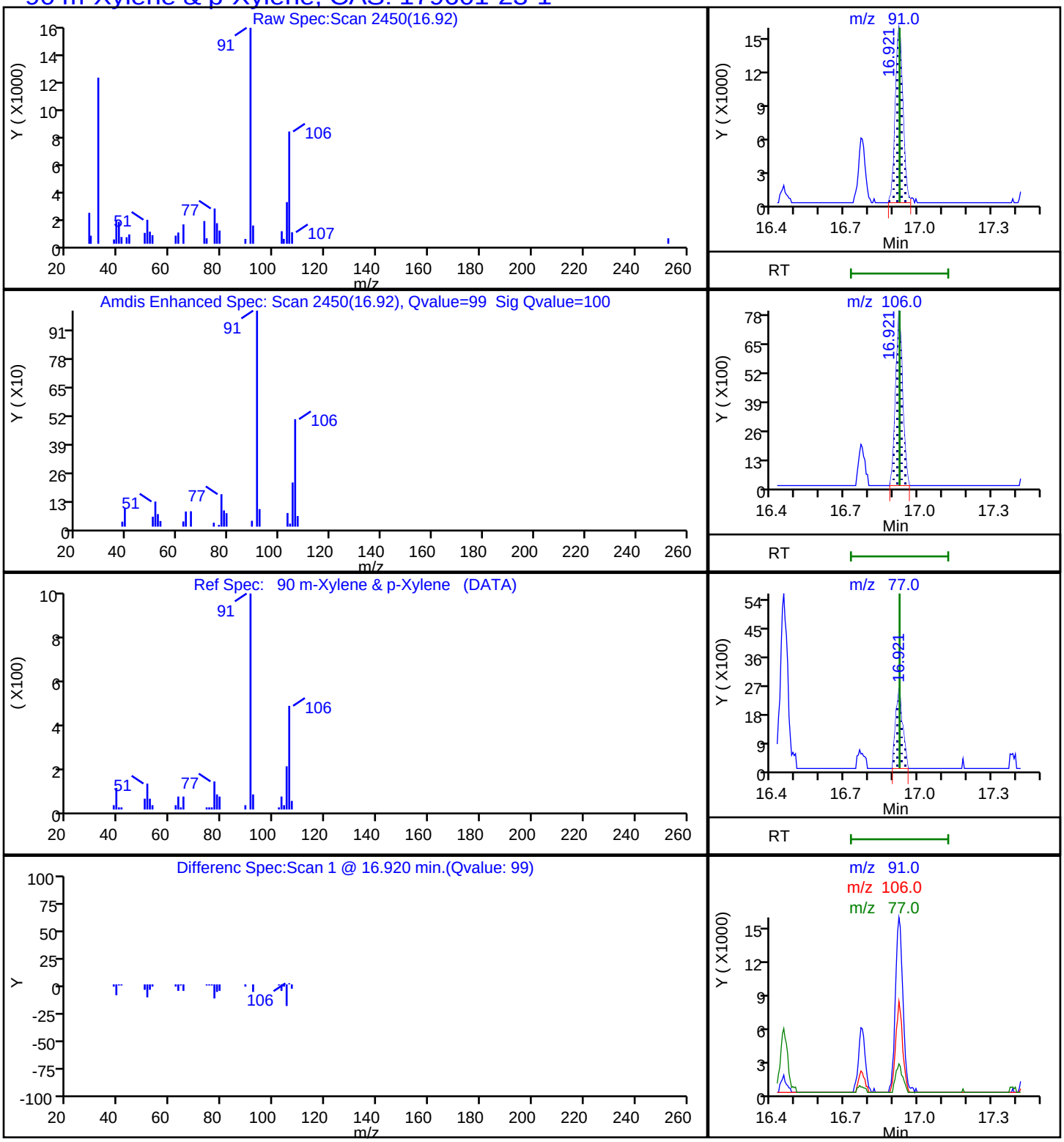


Report Date: 22-Aug-2019 11:12:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

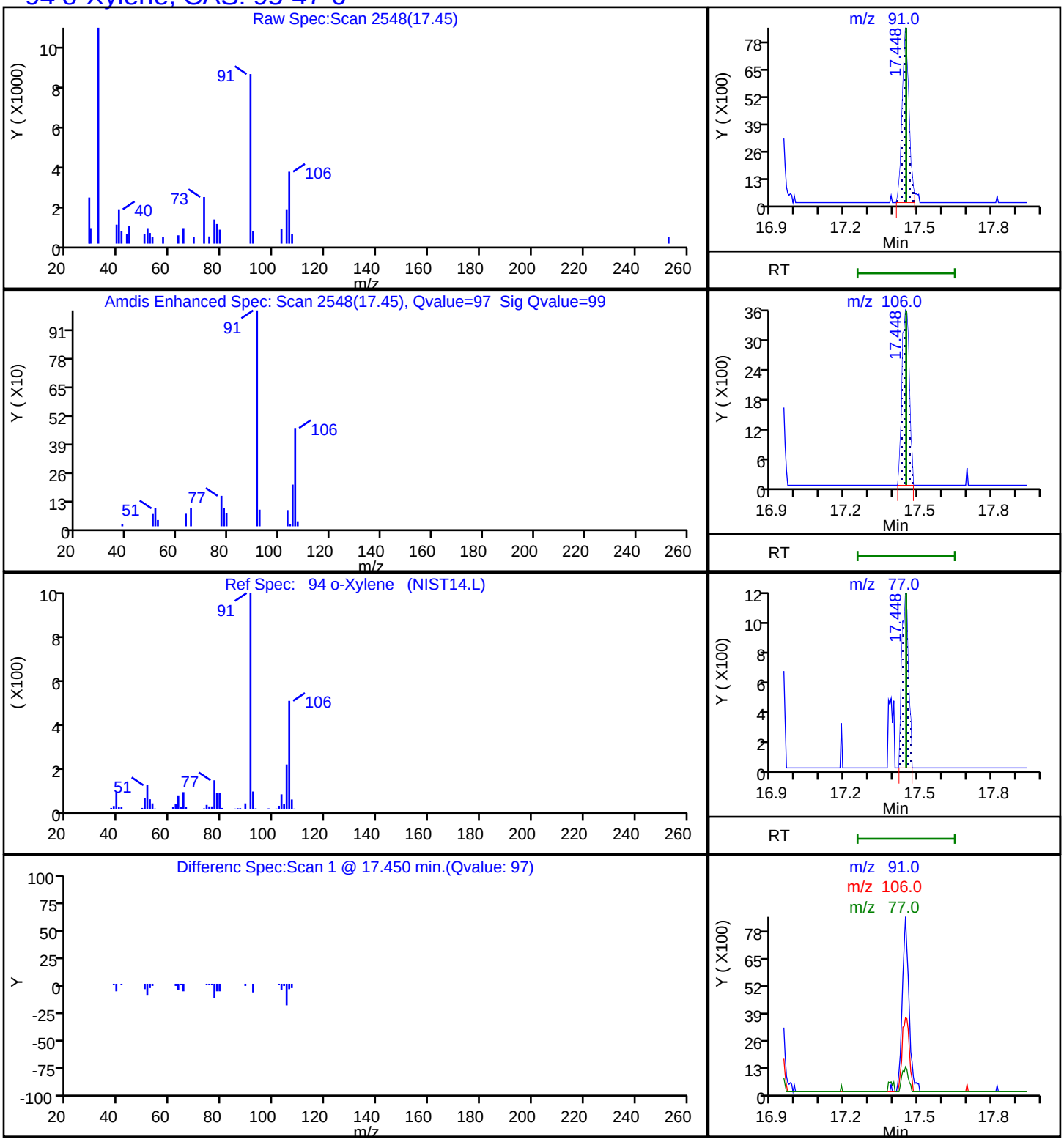
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D		
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23
Client ID:	IA-DUP2-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



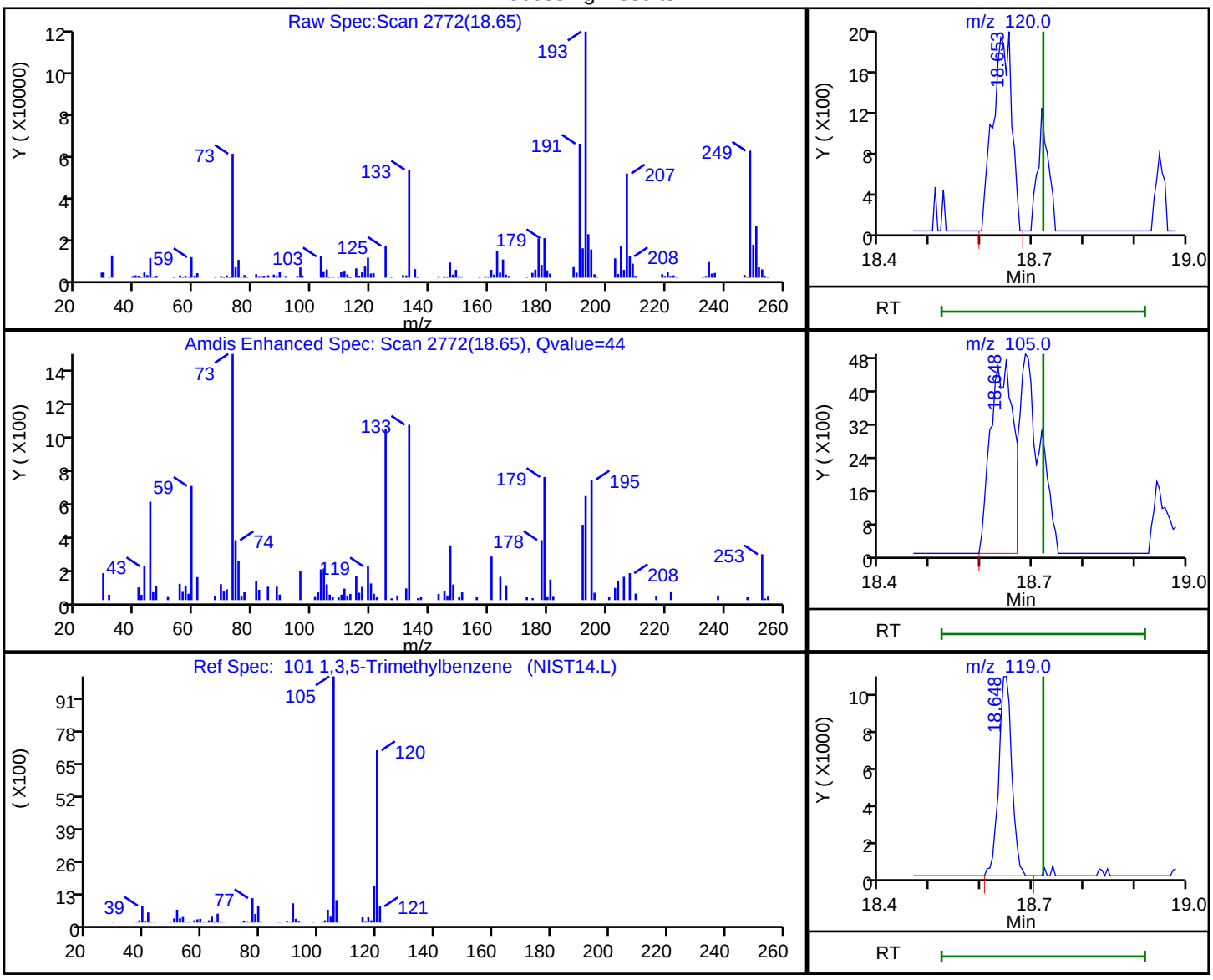
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P101.D				
Injection Date:	21-Aug-2019 15:29:30	Instrument ID:	MJ		
Lims ID:	140-16369-A-23	Lab Sample ID:	140-16369-23		
Client ID:	IA-DUP2-C-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.65	120.00	4894	0.034988
18.65	105.00	14503	
18.65	119.00	19049	

Reviewer: khachitpongpanits, 22-Aug-2019 11:12:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.035	J	0.40	0.035
108-88-3	Toluene	92.14	0.65		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.77	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	14	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.64	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D				
Lims ID:	140-16369-A-24				
Client ID:	IA-142-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 17:48:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900		
Sample Info:	140-0012811-010				
Misc. Info.:	140-16369-a-24@1.89				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:07:36		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	225566	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1255085	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1086776	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	656271	3.50	
6 Chlorodifluoromethane	51	3.437	3.427	0.010	44	33672	0.1747	
8 Dichlorodifluoromethane	85	3.486	3.488	0.000	100	11131	0.0638	
31 Methylene Chloride	84	5.972	5.966	0.006	96	63591	0.7976	
44 Chloroform	83	8.555	8.555	0.006	31	2116	0.0112	
49 Benzene	78	10.194	10.205	-0.011	71	8498	0.0334	
52 Carbon tetrachloride	117	10.237	10.221	0.016	29	3216	0.0158	
67 Toluene	91	13.586	13.586	0.000	90	36219	0.1295	
73 Tetrachloroethene	129	14.745	14.734	0.011	20	795	0.006962	
76 Ethylbenzene	91	15.910	15.905	0.005	96	11403	0.0291	
77 m-Xylene & p-Xylene	91	16.061	16.072	-0.011	97	31153	0.1011	
80 o-Xylene	91	16.600	16.595	0.005	96	17016	0.0526	
92 1,2,4-Trimethylbenzene	105	18.428	18.450	-0.022	95	11006	0.0261	
S 116 Xylenes, Total	100				0		0.1538	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

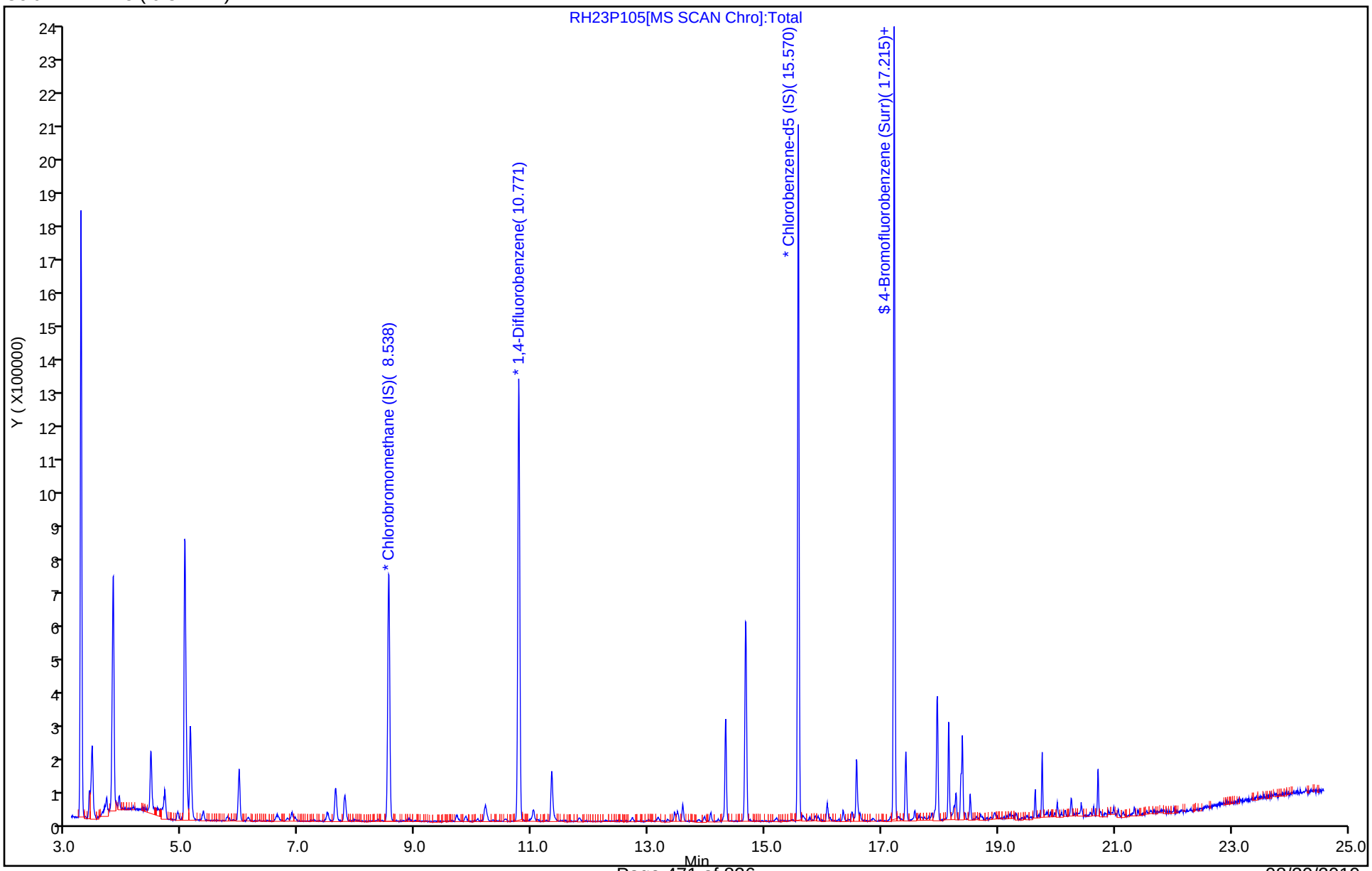
Report Date: 26-Aug-2019 14:07:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D

Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24	Worklist Smp#:	10
Client ID:	IA-142-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.8900	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D				
Lims ID:	140-16369-A-24				
Client ID:	IA-142-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 17:48:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900		
Sample Info:	140-0012811-010				
Misc. Info.:	140-16369-a-24@1.89				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:01:46	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:07:36		

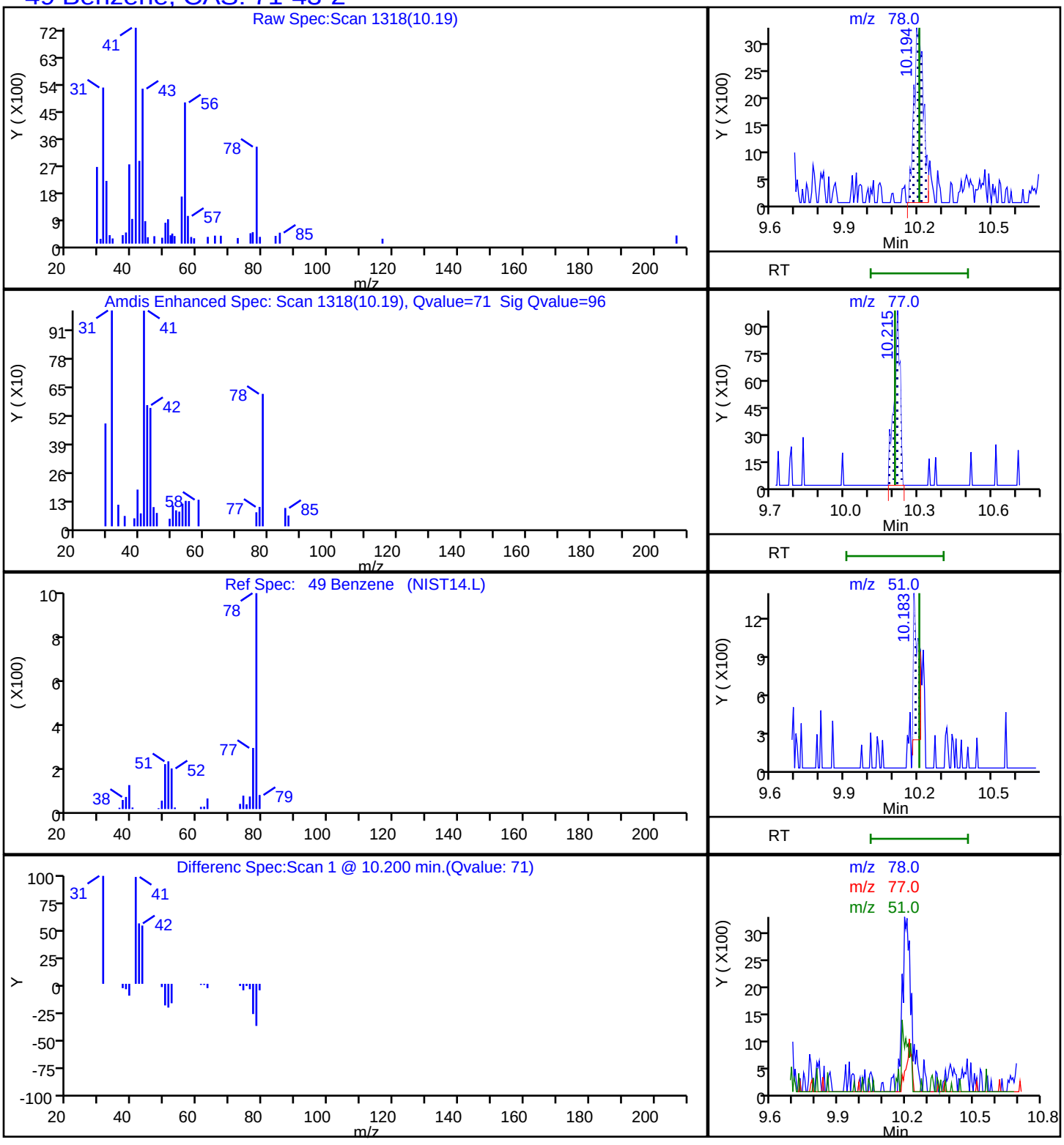
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.50	87.57

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D

Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

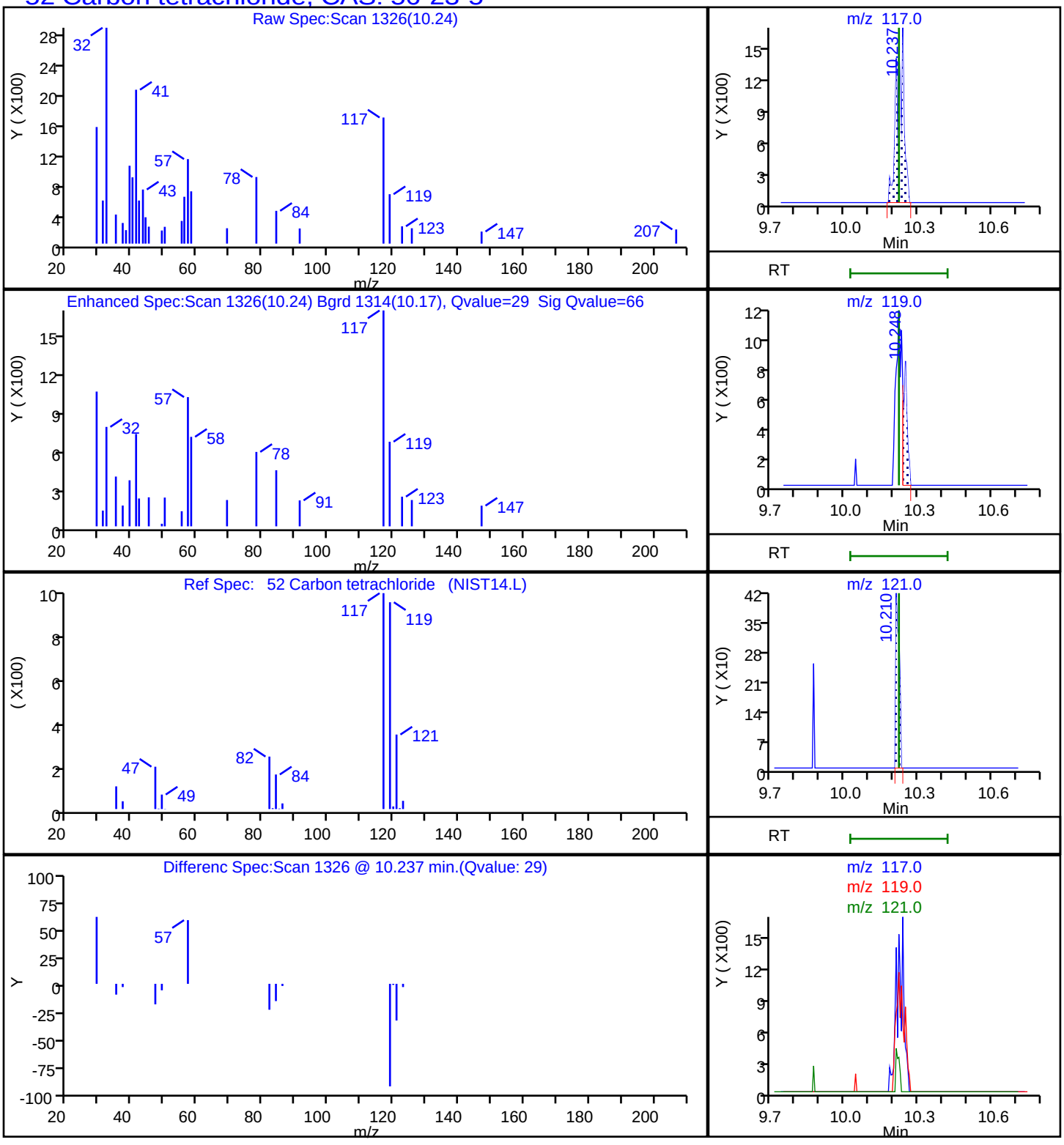
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

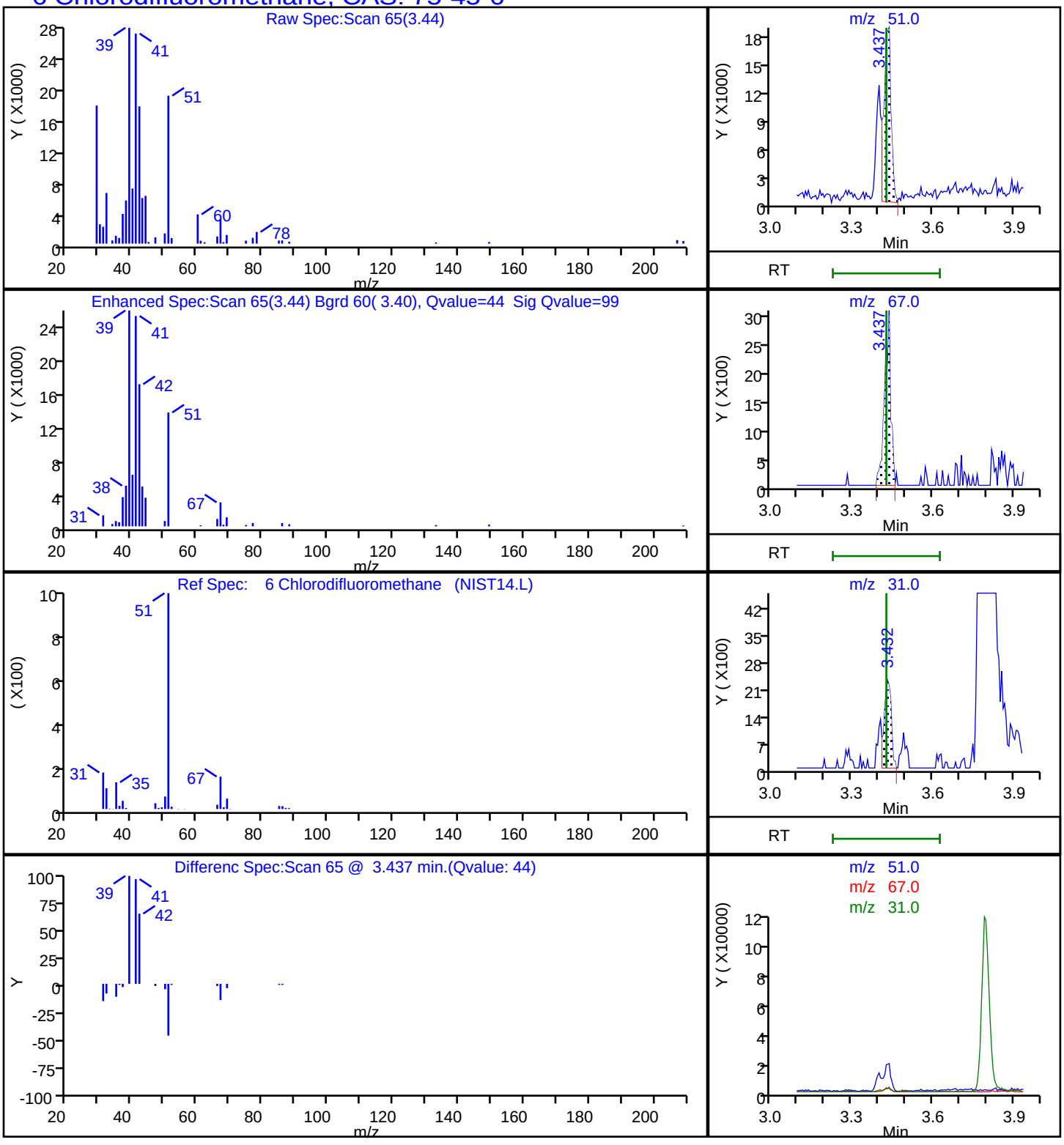
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D

Injection Date: 23-Aug-2019 17:48:30 Instrument ID: MR

Lims ID: 140-16369-A-24 Lab Sample ID: 140-16369-24

Client ID: IA-142-C-27

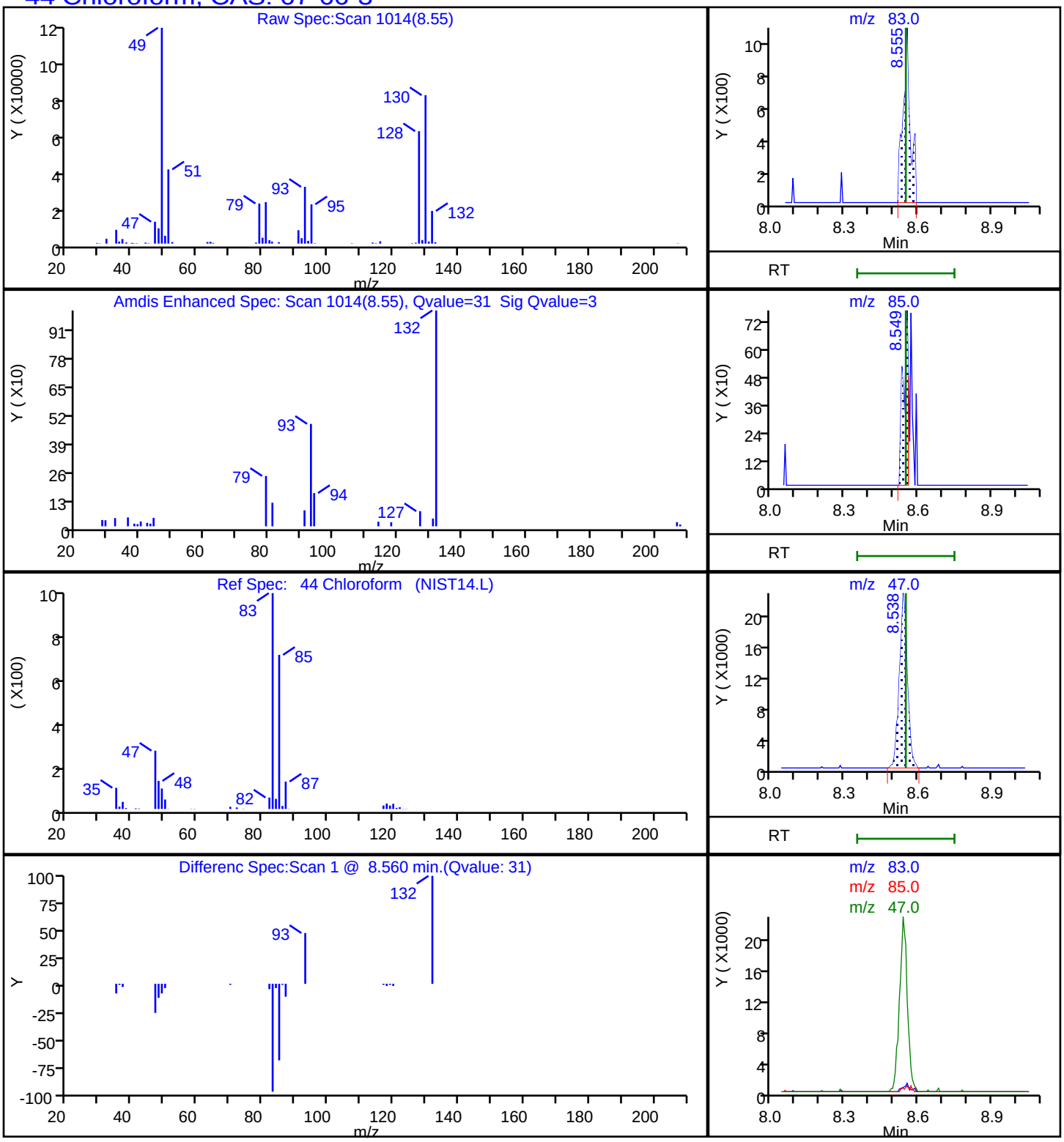
Operator ID: ALS Bottle#: 5 Worklist Smp#: 10

Purge Vol: 500.000 mL Dil. Factor: 1.8900

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

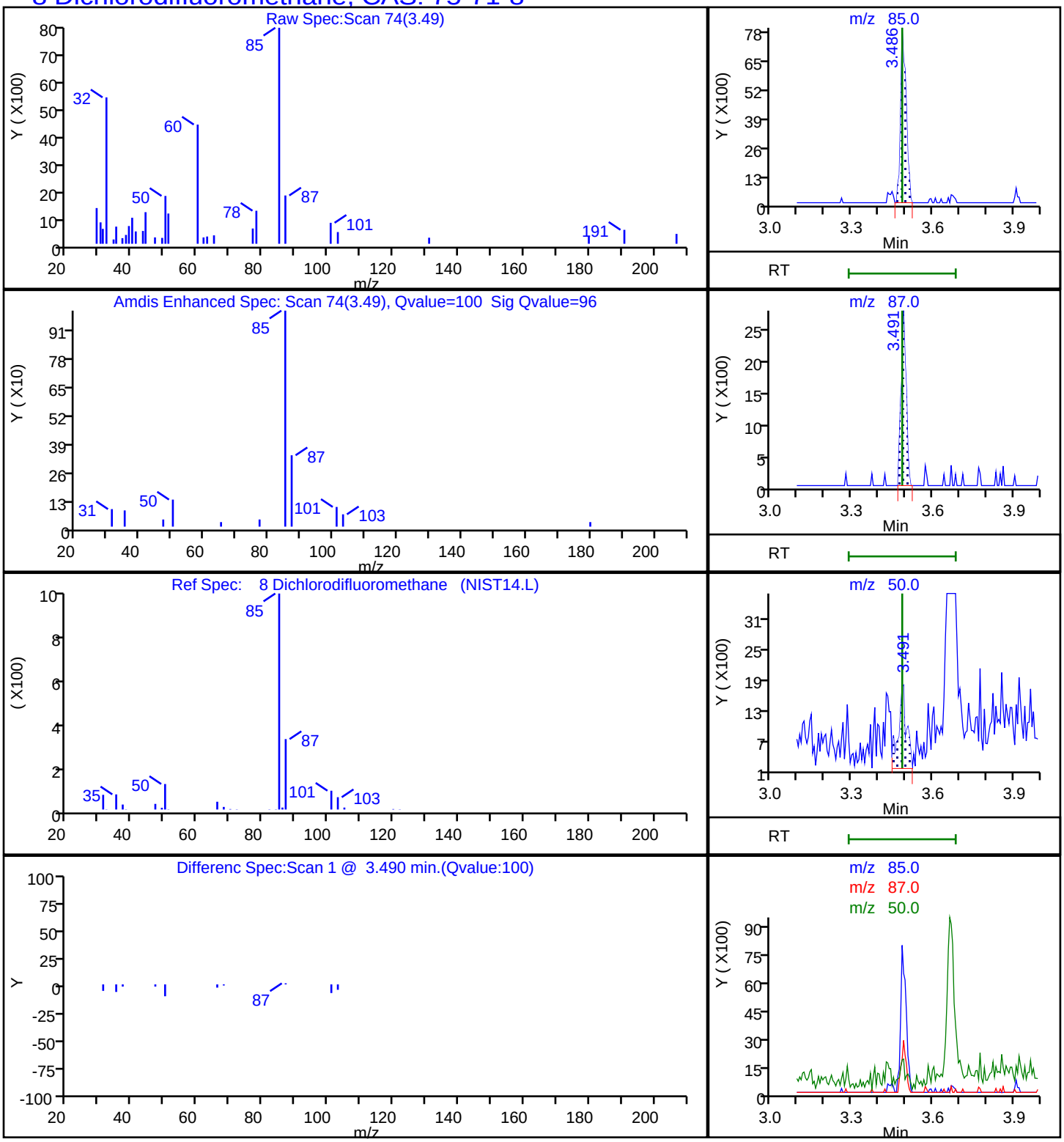
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

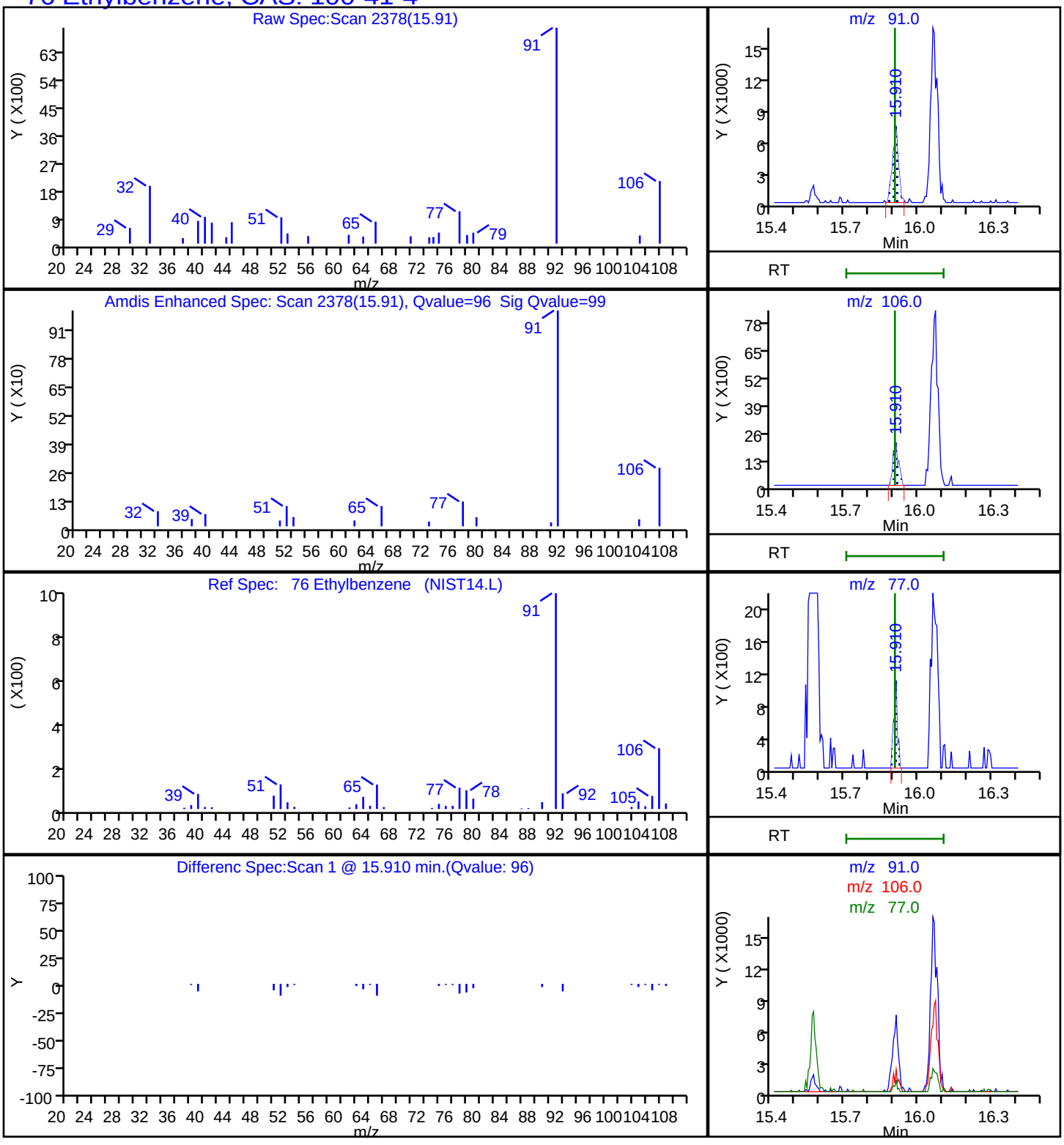
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

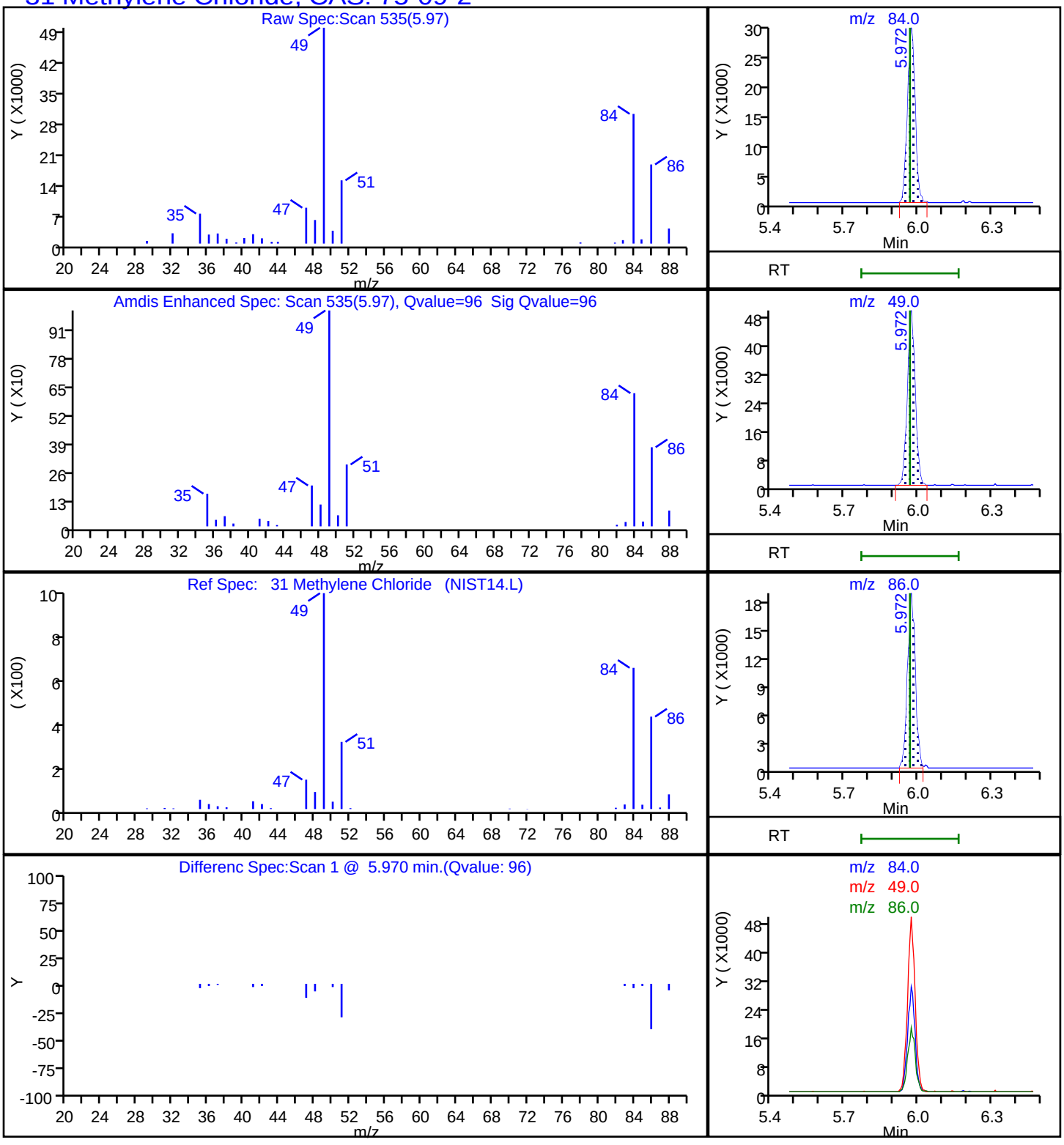


Report Date: 26-Aug-2019 14:07:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

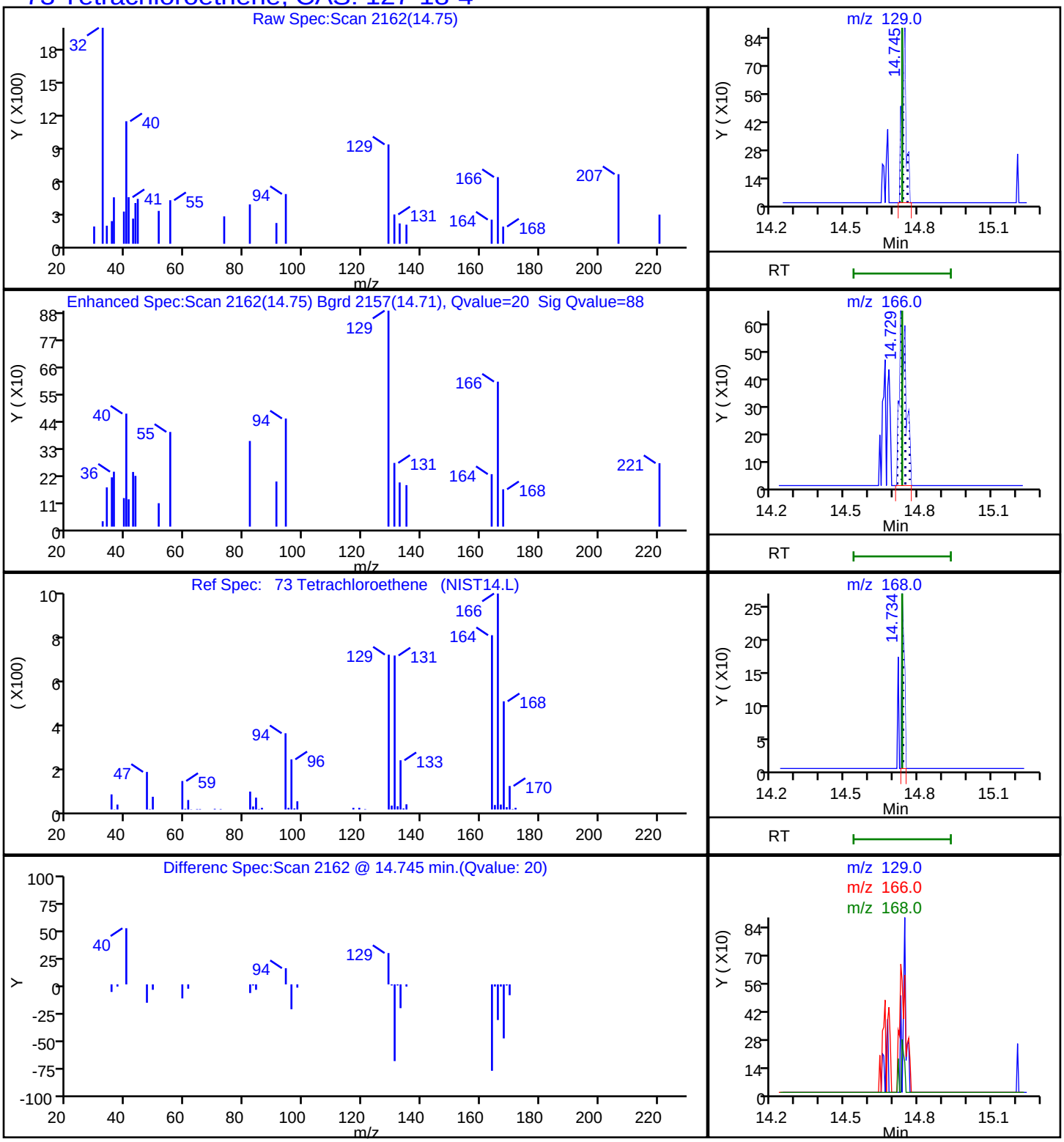
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

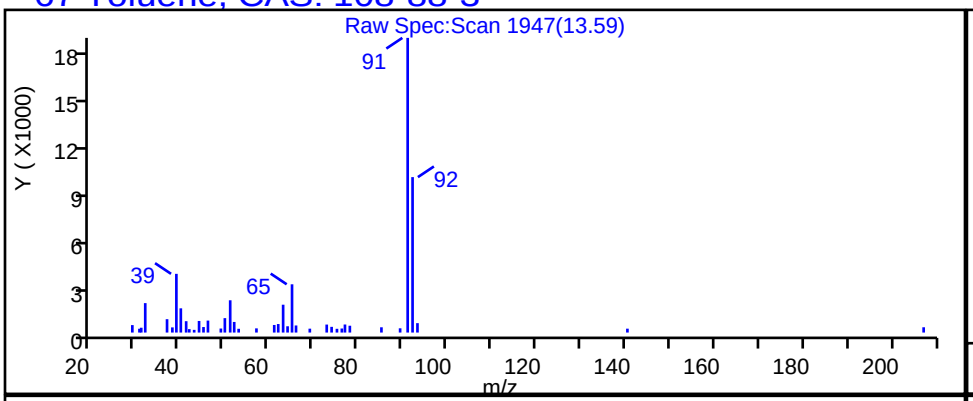
73 Tetrachloroethene, CAS: 127-18-4

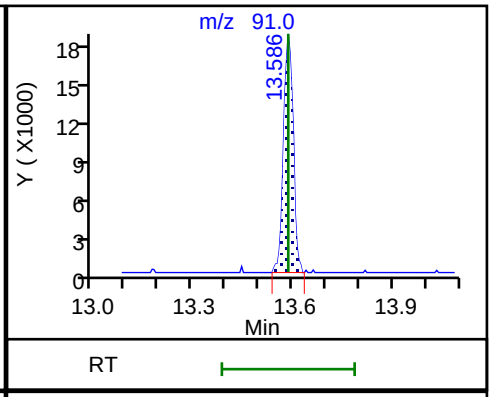


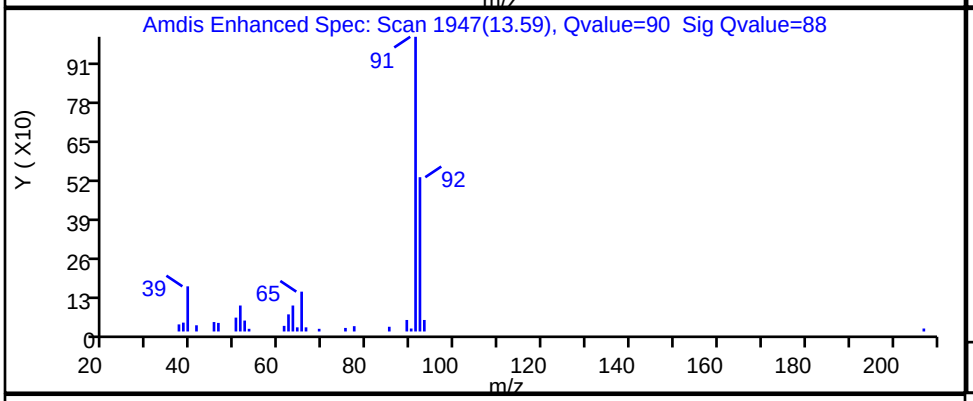
Eurofins TestAmerica, Knoxville

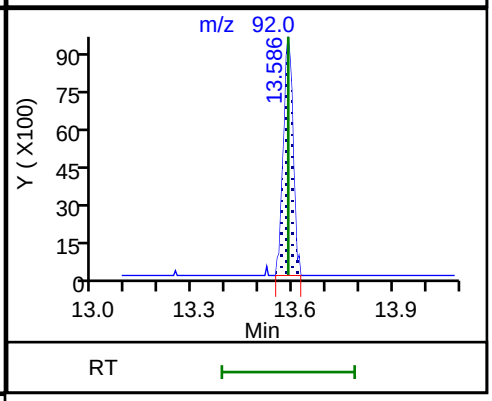
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

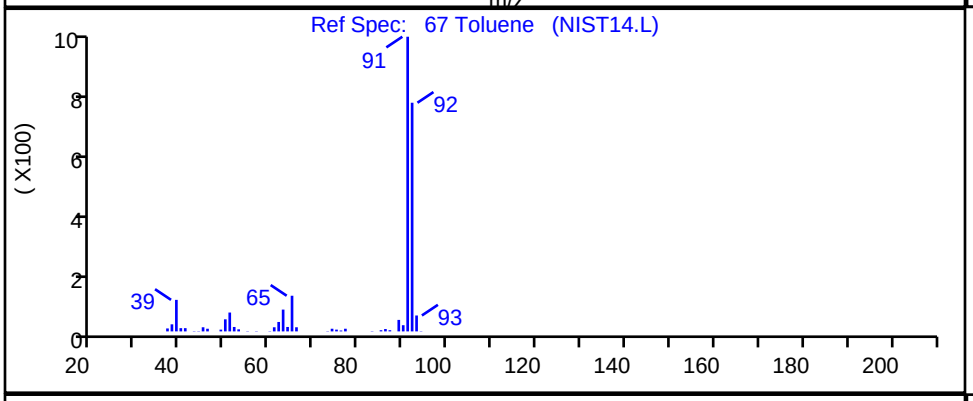
67 Toluene, CAS: 108-88-3

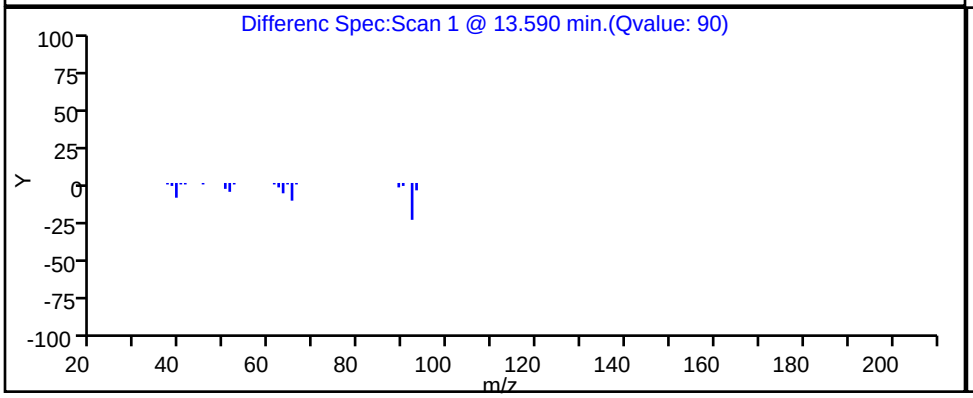


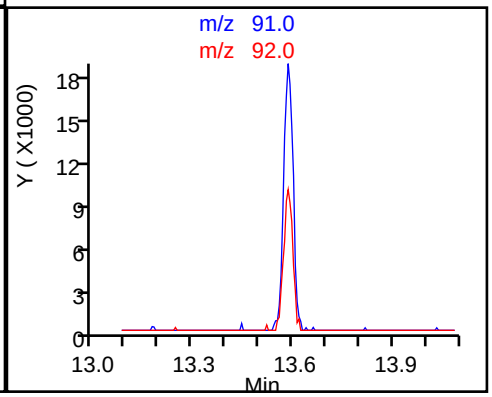








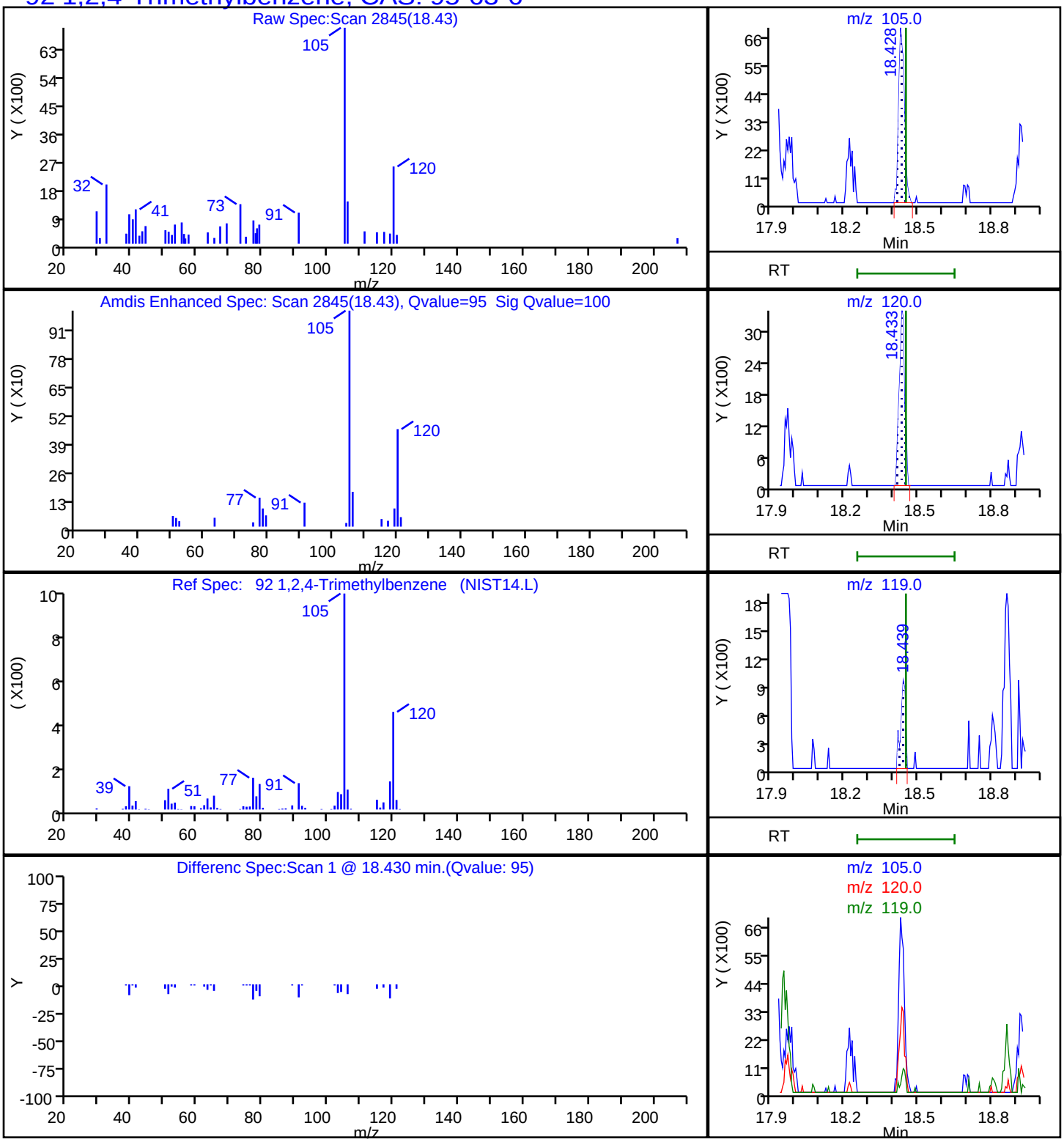




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D				
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR		
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24		
Client ID:	IA-142-C-27				
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

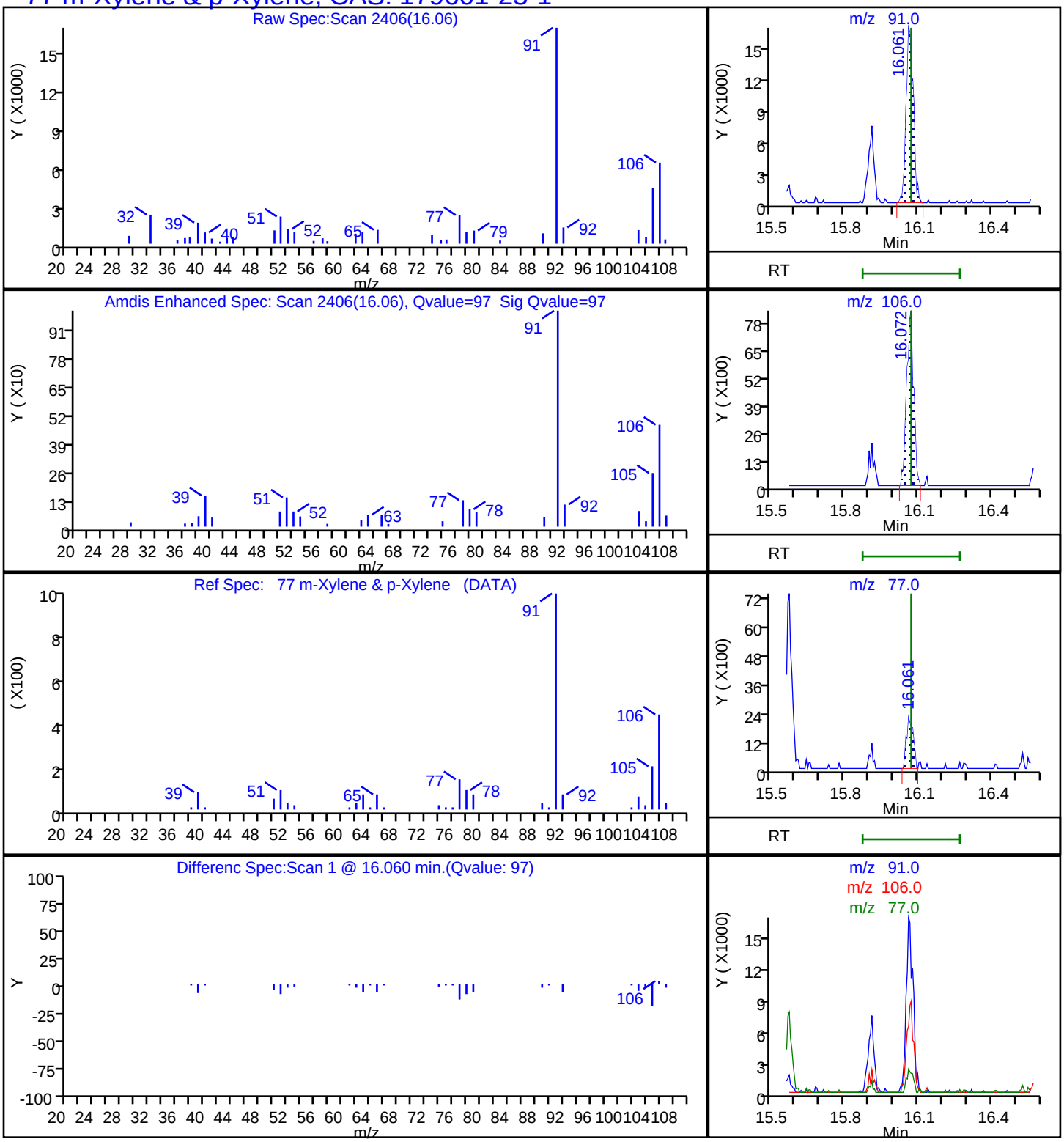
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

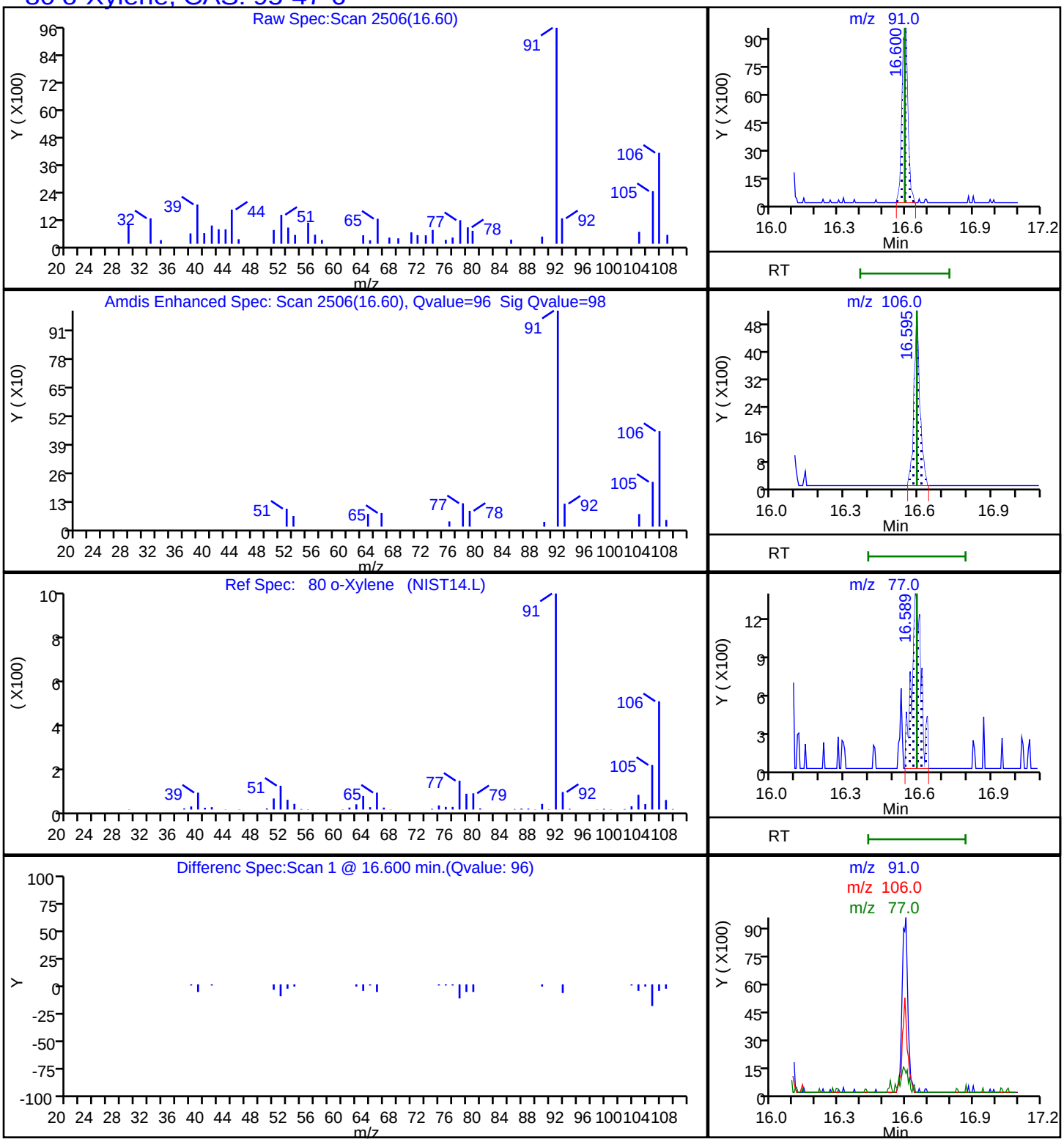
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P105.D		
Injection Date:	23-Aug-2019 17:48:30	Instrument ID:	MR
Lims ID:	140-16369-A-24	Lab Sample ID:	140-16369-24
Client ID:	IA-142-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.8900
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++	+++++	9400	11766	25664	+++++	+++++	0.0800	0.160	0.400
			69702	118045	352408	746436	+++++	1.00	2.00	4.00	8.00	+++++
Propene	CBM	Ave	+++++	+++++	+++++	+++++	29865	+++++	+++++	+++++	+++++	0.400
			59192	83916	230605	452211	+++++	1.00	2.00	4.00	8.00	+++++
Dichlorodifluoromethane	CBM	Ave	+++++	3489	9823	14967	32988	+++++	0.0400	0.0800	0.160	0.400
			83071	181786	385477	785524	1499187	1.00	2.00	4.00	8.00	16.0
Chloromethane	CBM	Ave	+++++	+++++	+++++	5364	11820	+++++	+++++	+++++	0.160	0.400
			27769	58261	123458	261290	462523	1.00	2.00	4.00	8.00	16.0
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	CBM	Ave	+++++	+++++	1285	2212	4984	+++++	+++++	0.0800	0.160	0.400
			11411	25059	54998	104932	175417	1.00	2.00	4.00	8.00	16.0
Vinyl chloride	CBM	Ave	2330	3946	8041	15377	38122	0.0200	0.0400	0.0800	0.160	0.400
			93320	209135	421064	896725	1689141	1.00	2.00	4.00	8.00	16.0
Butane	CBM	Ave	+++++	+++++	+++++	24969	60060	+++++	+++++	+++++	0.160	0.400
			146719	320866	630660	1362610	2603044	1.00	2.00	4.00	8.00	16.0
1,3-Butadiene	CBM	Ave	+++++	+++++	6693	12247	28897	+++++	+++++	0.0800	0.160	0.400
			68261	153622	308014	668537	1270467	1.00	2.00	4.00	8.00	16.0
Bromomethane	CBM	Ave	+++++	+++++	7368	14514	33566	+++++	+++++	0.0800	0.160	0.400
			78978	179541	363015	788699	1514422	1.00	2.00	4.00	8.00	16.0
Chloroethane	CBM	Ave	+++++	+++++	3754	6682	17457	+++++	+++++	0.0800	0.160	0.400
			39592	89853	179467	397472	770102	1.00	2.00	4.00	8.00	16.0
Ethanol	CBM	Ave	+++++	+++++	+++++	35944	77636	+++++	+++++	+++++	0.800	2.00
			192417	411685	737472	1803133	3044070	5.00	10.0	20.0	40.0	80.0
Vinyl bromide	CBM	Ave	+++++	3454	6832	12262	31635	+++++	0.0400	0.0800	0.160	0.400
			74384	165932	335660	741427	1459967	1.00	2.00	4.00	8.00	16.0
2-Methylbutane	CBM	Ave	+++++	+++++	9935	17850	41208	+++++	+++++	0.0800	0.160	0.400
			96302	212490	402954	914602	1778006	1.00	2.00	4.00	8.00	16.0
Trichlorofluoromethane	CBM	Ave	7213	13212	25357	50064	125032	0.0200	0.0400	0.0800	0.160	0.400
			301033	649561	1305209	2750738	5466655	1.00	2.00	4.00	8.00	16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-Jul-2019 20:27:30 ALS Bottle#: 13 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-004
Misc. Info.: 231544
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:23 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:08:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	96	314272	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.845	11.841	0.004	96	1591131	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	91	1435997	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	92	1116210	4.00	4.23	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	746436	8.00	8.69	
20 Propene	41	4.168	4.169	-0.001	97	452211	8.00	7.27	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	785524	8.00	7.98	
22 Chloromethane	52	4.443	4.441	0.002	100	261290	8.00	8.23	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	47	104932	8.00	7.68	
24 Acetaldehyde	44	4.615	4.617	-0.002	93	1644486	40.0	40.2	
25 Vinyl chloride	62	4.642	4.642	0.000	99	896725	8.00	8.40	
26 Butane	43	4.739	4.739	0.000	84	1362610	8.00	8.27	
27 Butadiene	54	4.739	4.741	-0.002	69	668537	8.00	8.28	
28 Bromomethane	94	5.115	5.117	-0.002	98	788699	8.00	8.39	
29 Chloroethane	64	5.277	5.275	0.002	93	397472	8.00	8.46	
30 Ethanol	31	5.384	5.386	-0.002	98	1803133	40.0	42.5	
31 Vinyl bromide	106	5.621	5.618	0.003	98	741427	8.00	8.51	
32 2-Methylbutane	43	5.669	5.669	0.000	90	914602	8.00	8.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	2750738	8.00	8.09	
34 Acrolein	56	5.933	5.930	0.003	96	174522	8.00	8.46	
35 Acetonitrile	40	6.008	6.004	0.004	97	281228	8.00	8.61	
36 Acetone	58	6.051	6.061	-0.010	99	880002	24.0	24.3	
38 Pentane	72	6.154	6.155	-0.001	95	108908	8.00	8.39	
37 Isopropyl alcohol	45	6.148	6.155	-0.007	93	2777741	24.0	26.4	
39 Ethyl ether	31	6.336	6.345	-0.009	91	980136	8.00	8.39	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	799265	8.00	8.29	
41 Acrylonitrile	53	6.804	6.802	0.002	91	559160	8.00	8.67	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	96	1515640	8.00	9.33	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	1829502	8.00	8.16	
44 Methylene Chloride	84	7.068	7.067	0.001	97	890951	8.00	7.53	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	97	900716	8.00	8.22	
46 Carbon disulfide	76	7.251	7.248	0.003	100	2412730	8.00	8.20	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	93	802422	8.00	8.33	
48 2-Methylpentane	43	7.929	7.928	0.001	95	2100541	8.00	7.91	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	2268816	8.00	8.82	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	1771492	8.00	8.25	
51 Vinyl acetate	43	8.461	8.461	0.000	100	2352362	8.00	8.63	
52 2-Butanone (MEK)	72	8.935	8.943	-0.008	98	348079	8.00	8.21	
53 Hexane	56	8.951	8.948	0.003	80	698498	8.00	8.08	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	2819575	8.00	8.58	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	847712	8.00	8.53	
56 Ethyl acetate	43	9.559	9.566	-0.007	98	1936281	8.00	8.57	
57 Chloroform	83	9.742	9.735	0.007	97	2105679	8.00	8.26	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	2711408	8.00	8.86	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	955418	8.00	8.45	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	96	2279639	8.00	8.31	
61 1,2-Dichloroethane	62	10.877	10.873	0.004	98	1568177	8.00	8.58	
62 n-Butanol	31	11.275	11.296	-0.021	94	378008	8.00	8.69	
63 Cyclohexane	69	11.339	11.337	0.002	93	412685	8.00	8.43	
64 Benzene	78	11.345	11.340	0.005	98	2422180	8.00	8.31	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	1624278	8.00	6.65	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	91	564569	8.00	8.59	
67 Thiophene	84	11.608	11.604	0.004	98	1436912	8.00	8.67	
68 Isooctane	57	12.044	12.041	0.003	97	4299338	8.00	8.27	
69 n-Heptane	71	12.394	12.392	0.002	94	866442	8.00	8.64	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	86	1063615	8.00	8.69	
71 Trichloroethene	130	12.539	12.537	0.002	91	1291545	8.00	9.82	
72 Dibromomethane	93	12.630	12.627	0.003	96	1189178	8.00	8.76	
73 Dichlorobromomethane	83	12.765	12.761	0.004	99	2271588	8.00	8.76	
74 1,4-Dioxane	88	12.776	12.787	-0.011	92	324076	8.00	9.50	
75 Methyl methacrylate	41	12.824	12.827	-0.003	89	1279199	8.00	8.96	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	1516089	8.00	8.49	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	2103846	8.00	9.43	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	1653644	8.00	9.10	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	98	1595731	8.00	9.02	
80 Toluene	91	14.524	14.519	0.005	92	3008163	8.00	8.67	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	96	950196	8.00	8.55	
82 2-Hexanone	58	14.949	14.956	-0.007	92	986384	8.00	9.71	
83 n-Octane	85	15.153	15.154	-0.001	95	917763	8.00	8.62	
84 Chlorodibromomethane	129	15.293	15.290	0.003	97	2141207	8.00	8.91	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	1796171	8.00	8.88	
86 Tetrachloroethene	129	15.643	15.637	0.006	96	1182555	8.00	8.48	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	95	3223031	8.00	7.91	
88 Chlorobenzene	112	16.504	16.501	0.003	90	2361273	8.00	8.51	
89 Ethylbenzene	91	16.778	16.773	0.005	100	4015925	8.00	8.98	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	6295808	16.0	18.4	
91 n-Nonane	57	17.311	17.307	0.004	92	2122316	8.00	8.55	
92 Styrene	104	17.397	17.392	0.005	98	2294329	8.00	9.37	
93 Bromoform	173	17.402	17.398	0.004	96	2392675	8.00	9.30	
94 o-Xylene	91	17.456	17.453	0.003	98	3316892	8.00	9.10	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	1948236	8.00	7.67	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	648112	8.00	8.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.015	18.012	0.003	98	4239905	8.00	8.91	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	1148202	8.00	9.04	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	1109333	8.00	9.03	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	4296952	8.00	9.06	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	1702428	8.00	9.00	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	1785812	8.00	9.15	
103 n-Decane	57	18.978	18.974	0.004	91	2689224	8.00	8.57	
104 tert-Butylbenzene	119	19.134	19.133	0.001	89	3853173	8.00	8.84	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	3728010	8.00	8.87	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	5162536	8.00	8.75	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	2584149	8.00	8.83	
108 Benzyl chloride	91	19.489	19.487	0.002	97	3429055	8.00	9.52	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	92	2591316	8.00	8.76	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	4365177	8.00	8.79	
111 1,2,3-Trimethylbenzene	105	19.608	19.603	0.005	99	3630969	8.00	8.81	
112 Butylcyclohexane	83	19.645	19.642	0.003	91	3052992	8.00	8.56	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	3375076	8.00	8.83	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	2504407	8.00	8.70	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	4494512	8.00	8.74	
116 Indene	116	19.973	19.974	-0.001	88	2859932	8.00	8.72	
117 Undecane	57	20.237	20.235	0.002	95	3006478	8.00	8.47	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	1301047	8.00	9.08	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	4041015	8.00	9.03	
120 Dodecane	57	21.324	21.323	0.001	93	2734198	8.00	9.06	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	1991130	8.00	8.47	
122 Naphthalene	128	21.695	21.693	0.002	99	2833111	8.00	7.70	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	94	2425829	8.00	8.56	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	1549901	8.00	8.35	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	861791	8.00	8.57	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	1031248	8.00	8.56	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	9605151	8.00	8.43	
S 129 Xylenes, Total	100				0		24.0	27.5	
S 130 1,2-Dichloroethene, Total	1				0		16.0	16.9	

Reagents:

40L9DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

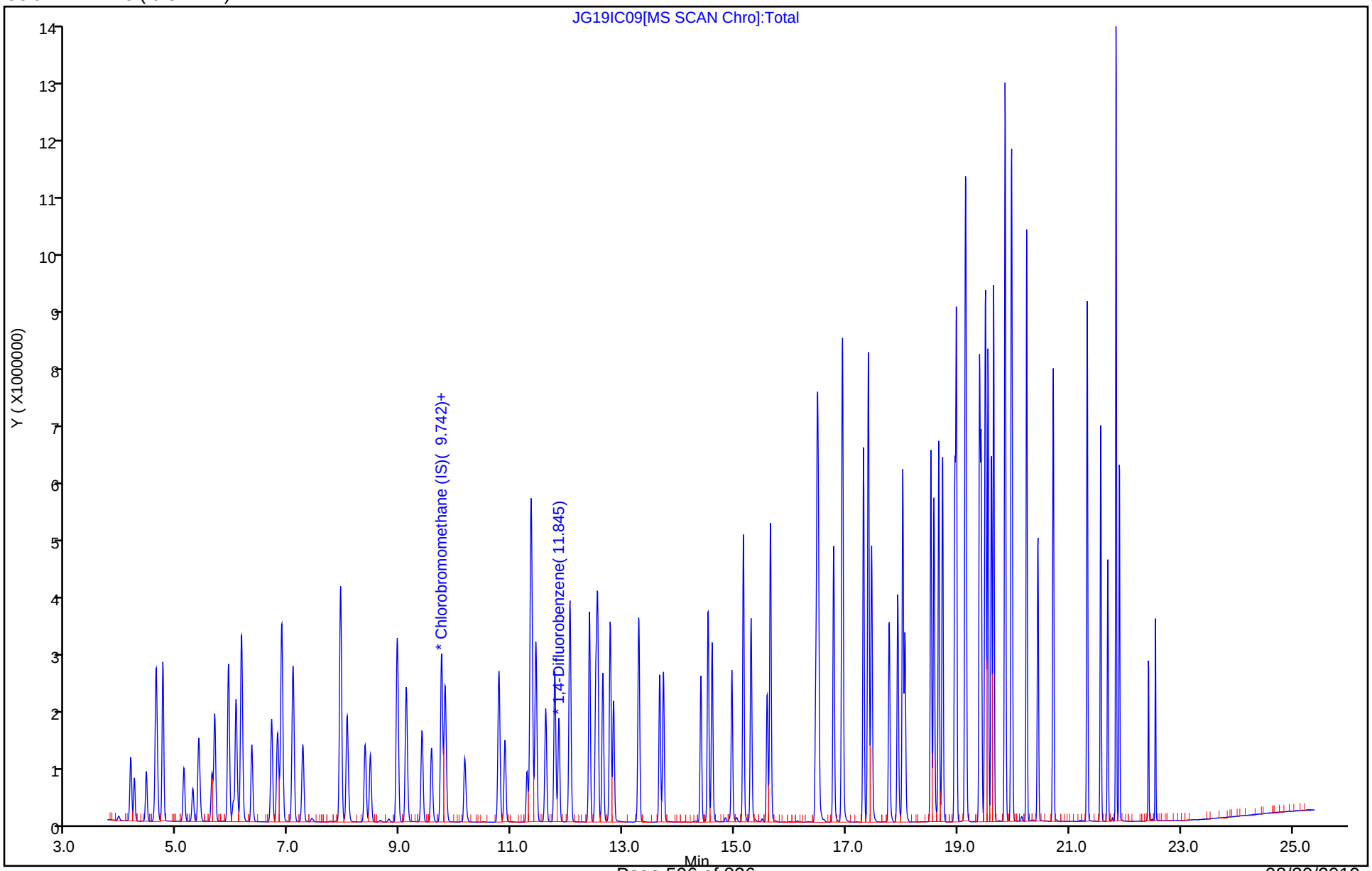
Report Date: 24-Jul-2019 11:35:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D

Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

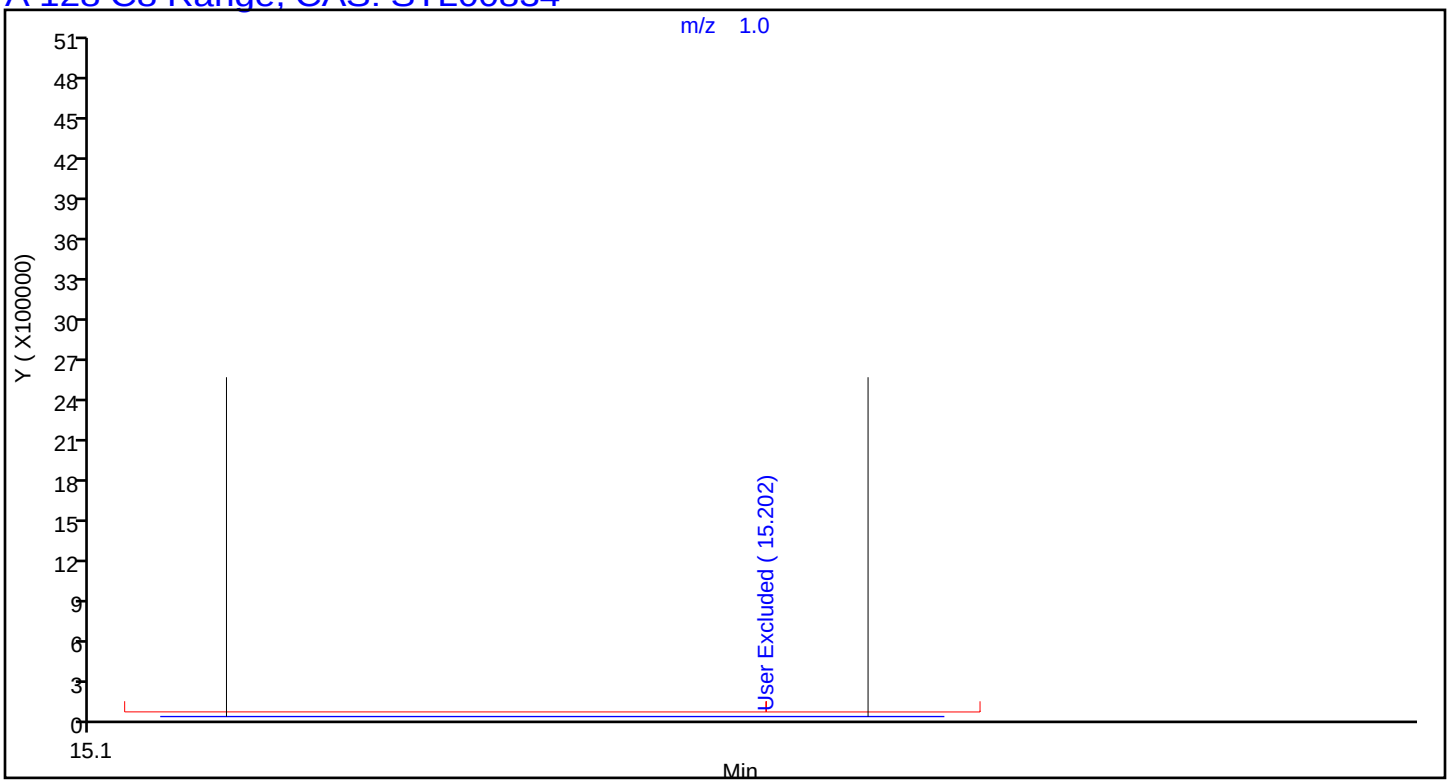


Report Date: 24-Jul-2019 11:35:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D				
Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	13	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 19-Jul-2019 22:08:30 ALS Bottle#: 15 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-006
Misc. Info.: 231543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 14:31:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	93	345636	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.850	11.841	0.009	96	1832536	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.461	16.453	0.007	89	1681549	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.058	18.052	0.006	91	1240000	4.00	4.01	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	999266	16.0	10.6	
20 Propene	41	4.168	4.169	-0.001	97	592182	16.0	8.66	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	1499187	16.0	13.8	
22 Chloromethane	52	4.443	4.441	0.002	100	462523	16.0	13.2	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	46	175417	16.0	11.7	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	2825329	80.0	62.8	
25 Vinyl chloride	62	4.642	4.642	0.000	99	1689141	16.0	14.4	
26 Butane	43	4.739	4.739	0.000	84	2603044	16.0	14.4	
27 Butadiene	54	4.739	4.741	-0.002	69	1270467	16.0	14.3	
28 Bromomethane	94	5.121	5.117	0.004	98	1514422	16.0	14.6	
29 Chloroethane	64	5.277	5.275	0.002	95	770102	16.0	14.9	
30 Ethanol	31	5.390	5.386	0.004	99	3044070	80.0	65.3	
31 Vinyl bromide	106	5.621	5.618	0.003	97	1459967	16.0	15.2	
32 2-Methylbutane	43	5.669	5.669	0.000	90	1778006	16.0	14.2	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	5466655	16.0	14.6	
34 Acrolein	56	5.933	5.930	0.003	98	314601	16.0	13.9	
35 Acetonitrile	40	6.008	6.004	0.004	97	539412	16.0	15.0	
36 Acetone	58	6.057	6.061	-0.004	100	1556512	48.0	39.1	
38 Pentane	72	6.159	6.155	0.004	92	218971	16.0	15.3	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	75	4474624	48.0	38.7	
39 Ethyl ether	31	6.336	6.345	-0.009	90	1842593	16.0	14.3	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	1581117	16.0	14.9	
41 Acrylonitrile	53	6.810	6.802	0.008	92	1066284	16.0	15.0	
42 2-Methyl-2-propanol	59	6.799	6.814	-0.015	96	2352259	16.0	13.2	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	3609413	16.0	14.6	
44 Methylene Chloride	84	7.073	7.067	0.006	97	1420525	16.0	10.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	96	1865781	16.0	15.5	
46 Carbon disulfide	76	7.251	7.248	0.003	100	4778388	16.0	14.8	
47 trans-1,2-Dichloroethene	96	7.929	7.922	0.007	93	1559714	16.0	14.7	
48 2-Methylpentane	43	7.934	7.928	0.006	94	4040646	16.0	13.8	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	4294511	16.0	15.2	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	3431571	16.0	14.5	
51 Vinyl acetate	43	8.467	8.461	0.006	100	4347628	16.0	14.5	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	98	640120	16.0	13.7	
53 Hexane	56	8.951	8.948	0.003	81	1355833	16.0	14.3	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	5240908	16.0	14.5	
55 cis-1,2-Dichloroethene	96	9.392	9.384	0.008	98	1644734	16.0	15.1	
56 Ethyl acetate	43	9.564	9.566	-0.002	98	3675059	16.0	14.8	
57 Chloroform	83	9.747	9.735	0.012	97	4117234	16.0	14.7	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	5081493	16.0	15.1	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	1801950	16.0	14.5	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	97	4497945	16.0	14.9	
61 1,2-Dichloroethane	62	10.882	10.873	0.009	98	3115023	16.0	14.8	
62 n-Butanol	31	11.280	11.296	-0.016	94	580553	16.0	11.6	
63 Cyclohexane	69	11.339	11.337	0.002	93	811291	16.0	14.4	
64 Benzene	78	11.350	11.340	0.010	98	4679288	16.0	13.9	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	4751427	16.0	16.9	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	90	1085296	16.0	14.3	
67 Thiophene	84	11.614	11.604	0.010	98	2776968	16.0	14.5	
68 Isooctane	57	12.049	12.041	0.008	96	8281518	16.0	13.8	
69 n-Heptane	71	12.399	12.392	0.007	94	1681680	16.0	14.6	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	2056985	16.0	14.6	
71 Trichloroethene	130	12.544	12.537	0.007	93	2209989	16.0	14.6	
72 Dibromomethane	93	12.636	12.627	0.009	96	2348328	16.0	15.0	
73 Dichlorobromomethane	83	12.770	12.761	0.009	99	4508733	16.0	15.1	
74 1,4-Dioxane	88	12.776	12.787	-0.011	91	537847	16.0	13.7	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	2475502	16.0	15.0	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	2972213	16.0	14.5	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.662	-0.004	99	3439475	16.0	13.4	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	3240398	16.0	15.5	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	97	3180285	16.0	15.4	
80 Toluene	91	14.524	14.519	0.005	92	5839733	16.0	14.4	
81 1,1,2-Trichloroethane	83	14.599	14.591	0.008	95	1873801	16.0	14.4	
82 2-Hexanone	58	14.954	14.956	-0.002	92	1569231	16.0	13.2	
83 n-Octane	85	15.159	15.154	0.005	93	1786512	16.0	14.3	
84 Chlorodibromomethane	129	15.299	15.290	0.009	98	4340906	16.0	15.4	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	3574771	16.0	15.1	
86 Tetrachloroethene	129	15.643	15.637	0.006	94	2373157	16.0	14.5	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	94	6097229	16.0	12.8	
88 Chlorobenzene	112	16.504	16.501	0.003	90	4719682	16.0	14.5	
89 Ethylbenzene	91	16.778	16.773	0.005	100	7725788	16.0	14.8	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	12055501	32.0	30.0	
91 n-Nonane	57	17.316	17.307	0.009	91	4150063	16.0	14.3	
92 Styrene	104	17.397	17.392	0.005	98	4622861	16.0	16.1	
93 Bromoform	173	17.402	17.398	0.004	97	5062797	16.0	16.8	
94 o-Xylene	91	17.461	17.453	0.008	98	6347222	16.0	14.9	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	4342084	16.0	14.6	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	97	1267571	16.0	15.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.021	18.012	0.009	98	8162742	16.0	14.6	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	2260539	16.0	15.2	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	2193658	16.0	15.2	
100 4-Ethyltoluene	105	18.666	18.658	0.008	97	8353268	16.0	15.0	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	3349699	16.0	15.1	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	3635031	16.0	15.9	
103 n-Decane	57	18.978	18.974	0.004	93	5075517	16.0	13.8	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	7496594	16.0	15.2	
106 sec-Butylbenzene	105	19.398	19.389	0.009	96	10008232	16.0	14.5	
107 1,3-Dichlorobenzene	146	19.425	19.419	0.006	98	5278679	16.0	15.4	
108 Benzyl chloride	91	19.495	19.487	0.008	97	7139166	16.0	16.9	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	91	5369180	16.0	15.5	
110 4-Isopropyltoluene	119	19.548	19.542	0.006	96	8636742	16.0	14.9	
111 1,2,3-Trimethylbenzene	105	19.607	19.603	0.004	98	7267371	16.0	15.1	
112 Butylcyclohexane	83	19.651	19.642	0.009	91	5944213	16.0	14.2	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	6866158	16.0	15.3	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	5170636	16.0	15.3	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	8885564	16.0	14.8	
116 Indene	116	19.979	19.974	0.005	89	6055240	16.0	15.8	
117 Undecane	57	20.237	20.235	0.002	94	5651121	16.0	13.6	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	2569818	16.0	15.3	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	8007424	16.0	15.3	
120 Dodecane	57	21.324	21.323	0.001	93	3757386	16.0	10.6	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	4126184	16.0	15.0	
122 Naphthalene	128	21.695	21.693	0.002	98	5776864	16.0	13.4	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	93	4683877	16.0	14.1	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	2955030	16.0	13.6	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	99	948200	16.0	8.05	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	977205	16.0	6.92	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	18748187	16.0	14.0	
S 129 Xylenes, Total	100				0		48.0	44.9	
S 130 1,2-Dichloroethene, Total	1				0		32.0	29.8	

Reagents:

40L10DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

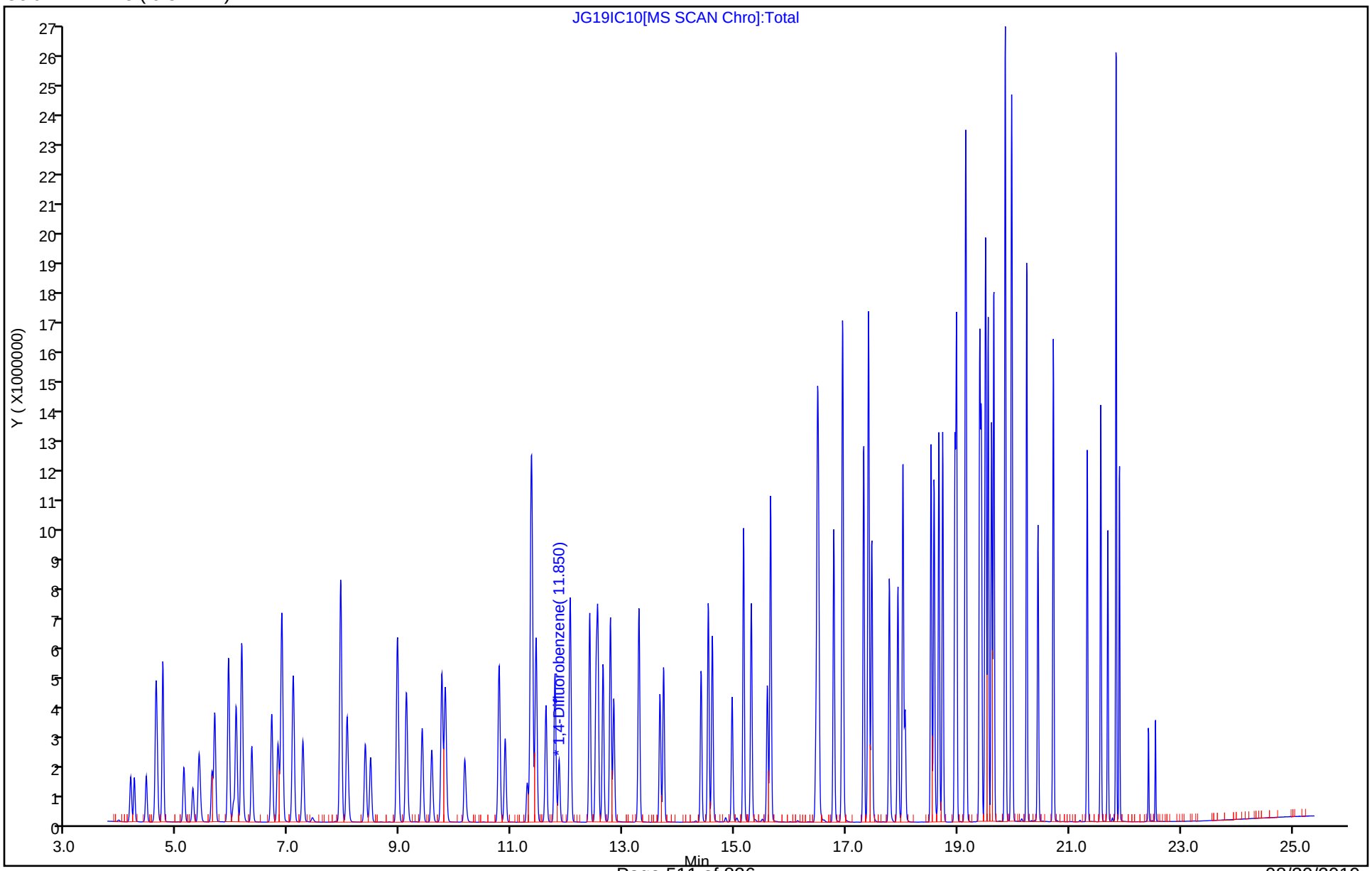
Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D

Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	6
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

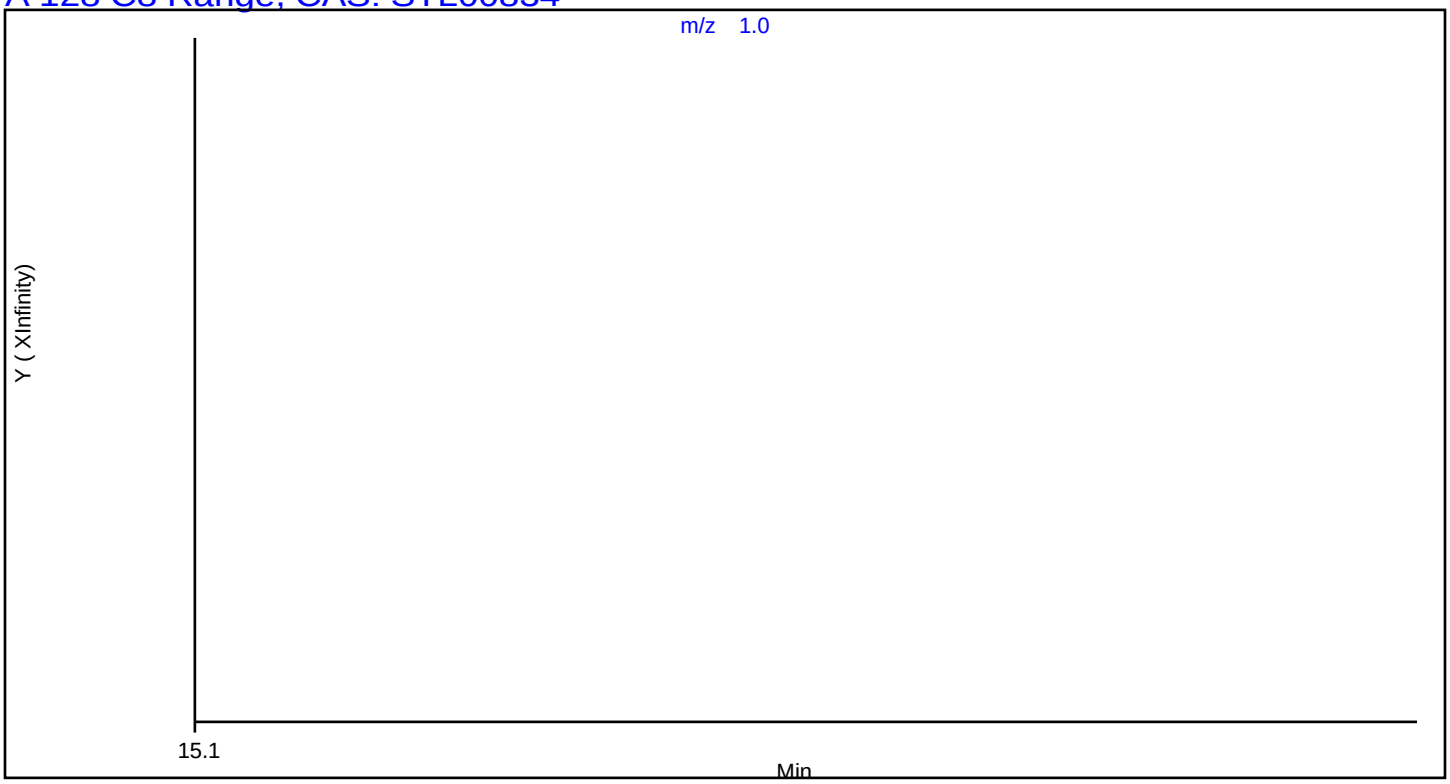


Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



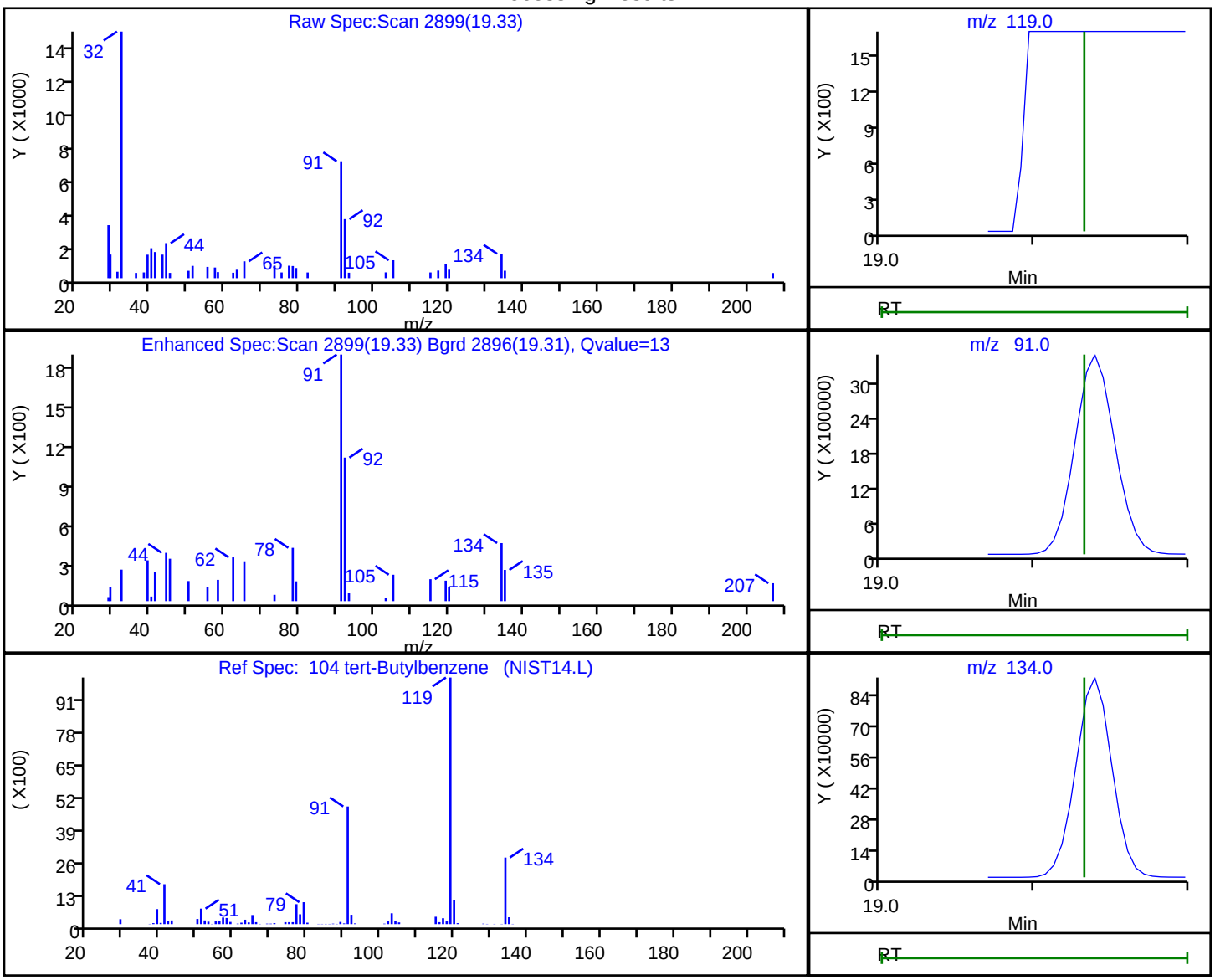
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

104 tert-Butylbenzene, CAS: 98-06-6

Processing Results



RT	Mass	Response	Amount
19.33	119.00	187	0.000418
19.13	91.00	0	
19.13	134.00	0	

Reviewer: tajh, 22-Jul-2019 18:08:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Jul-2019 00:39:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-009
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:38 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:21:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.731	-0.002	97	313712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.841	-0.004	97	1627560	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.453	16.453	0.000	91	1405662	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.051	18.052	-0.001	89	991098	4.00	3.84	
19 Chlorodifluoromethane	51	4.150	4.155	-0.005	34	2189	0.0200	0.0255	
20 Propene	41	4.172	4.169	0.003	96	17804	0.0200	0.2867	
21 Dichlorodifluoromethane	85	4.225	4.228	-0.003	85	2169	0.0200	0.0221	
22 Chloromethane	52	4.441	4.441	0.000	86	1131	0.0200	0.0357	
24 Acetaldehyde	44	4.618	4.617	0.001	90	11538	0.1000	0.2826	
25 Vinyl chloride	62	4.645	4.642	0.003	86	2330	0.0200	0.0219	
26 Butane	43	4.736	4.739	-0.003	83	4322	0.0200	0.0263	
27 Butadiene	54	4.747	4.741	0.006	60	2150	0.0200	0.0267	
28 Bromomethane	94	5.118	5.117	0.001	87	2266	0.0200	0.0241	
29 Chloroethane	64	5.280	5.275	0.005	19	820	0.0200	0.0175	
30 Ethanol	31	5.387	5.386	0.001	98	7537	0.1000	0.1781	
31 Vinyl bromide	106	5.613	5.618	-0.005	58	2050	0.0200	0.0236	
32 2-Methylbutane	43	5.673	5.669	0.004	80	2930	0.0200	0.0259	
33 Trichlorofluoromethane	101	5.915	5.916	-0.001	95	7213	0.0200	0.0213	
36 Acetone	58	6.076	6.061	0.015	73	2491	0.0600	0.0690	
37 Isopropyl alcohol	45	6.167	6.155	0.012	73	8813	0.0600	0.0840	
39 Ethyl ether	31	6.361	6.345	0.016	1	453	0.0200	0.003886	
40 1,1-Dichloroethene	96	6.695	6.690	0.005	90	2044	0.0200	0.0212	
41 Acrylonitrile	53	6.808	6.802	0.006	51	628	0.0200	0.009754	
42 2-Methyl-2-propanol	59	6.840	6.814	0.026	50	2672	0.0200	0.0165	
43 1,1,2-Trichloro-1,2,2-trif	101	6.872	6.873	-0.001	92	4632	0.0200	0.0207	
44 Methylene Chloride	84	7.066	7.067	-0.001	97	16987	0.0200	0.1439	
45 3-Chloro-1-propene	39	7.082	7.081	0.001	26	2522	0.0200	0.0231	
46 Carbon disulfide	76	7.243	7.248	-0.005	92	6498	0.0200	0.0221	
47 trans-1,2-Dichloroethene	96	7.916	7.922	-0.006	93	1890	0.0200	0.0196	
48 2-Methylpentane	43	7.932	7.928	0.004	94	7408	0.0200	0.0280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
49 Methyl tert-butyl ether	73	8.099	8.066	0.033	39	3753	0.0200	0.0146	
50 1,1-Dichloroethane	63	8.362	8.363	-0.001	95	4424	0.0200	0.0206	
51 Vinyl acetate	43	8.459	8.461	-0.002	63	4359	0.0200	0.0160	
53 Hexane	56	8.943	8.948	-0.005	81	2077	0.0200	0.0241	
54 Isopropyl ether	45	9.132	9.118	0.014	95	5328	0.0200	0.0162	
55 cis-1,2-Dichloroethene	96	9.390	9.384	0.006	77	1970	0.0200	0.0199	
56 Ethyl acetate	43	9.573	9.566	0.007	90	3872	0.0200	0.0172	
57 Chloroform	83	9.729	9.735	-0.006	31	5814	0.0200	0.0228	
58 Tert-butyl ethyl ether	59	9.836	9.817	0.019	89	4288	0.0200	0.0140	
59 Tetrahydrofuran	42	10.207	10.176	0.031	51	2162	0.0200	0.0192	
60 1,1,1-Trichloroethane	97	10.767	10.767	0.000	93	5753	0.0200	0.0210	
61 1,2-Dichloroethane	62	10.869	10.873	-0.004	92	3702	0.0200	0.0198	
62 n-Butanol	31	11.321	11.296	0.025	55	3821	0.0200	0.0859	
63 Cyclohexane	69	11.326	11.337	-0.011	77	1154	0.0200	0.0231	
64 Benzene	78	11.337	11.340	-0.003	95	7093	0.0200	0.0238	
65 Carbon tetrachloride	117	11.359	11.361	-0.002	93	4218	0.0200	0.0169	
66 2,3-Dimethylpentane	71	11.434	11.430	0.004	87	1248	0.0200	0.0186	
67 Thiophene	84	11.595	11.604	-0.009	89	3464	0.0200	0.0204	
68 Isooctane	57	12.042	12.041	0.001	96	12538	0.0200	0.0236	
69 n-Heptane	71	12.397	12.392	0.005	88	2222	0.0200	0.0217	
70 1,2-Dichloropropane	63	12.504	12.505	-0.001	80	2412	0.0200	0.0193	
71 Trichloroethene	130	12.537	12.537	0.000	90	2786	0.0200	0.0207	
72 Dibromomethane	93	12.623	12.627	-0.004	90	2816	0.0200	0.0203	
73 Dichlorobromomethane	83	12.752	12.761	-0.009	94	5568	0.0200	0.0210	
75 Methyl methacrylate	41	12.833	12.827	0.006	74	3650	0.0200	0.0250	
76 Methylcyclohexane	83	13.279	13.277	0.002	91	3834	0.0200	0.0210	
77 4-Methyl-2-pentanone (MIBK	43	13.677	13.662	0.015	91	5569	0.0200	0.0244	
78 cis-1,3-Dichloropropene	75	13.715	13.718	-0.003	87	3577	0.0200	0.0192	
79 trans-1,3-Dichloropropene	75	14.387	14.390	-0.003	92	2599	0.0200	0.0150	
80 Toluene	91	14.522	14.519	0.003	91	6575	0.0200	0.0194	
81 1,1,2-Trichloroethane	83	14.592	14.591	0.001	88	1827	0.0200	0.0168	
82 2-Hexanone	58	14.963	14.956	0.007	87	1686	0.0200	0.0170	
83 n-Octane	85	15.151	15.154	-0.003	87	2054	0.0200	0.0197	
84 Chlorodibromomethane	129	15.286	15.290	-0.004	95	4650	0.0200	0.0198	
85 Ethylene Dibromide	107	15.576	15.579	-0.003	96	4044	0.0200	0.0204	
86 Tetrachloroethene	129	15.635	15.637	-0.002	87	2956	0.0200	0.0217	
87 2,3-Dimethylheptane	43	16.474	16.478	-0.004	93	11576	0.0200	0.0290	
88 Chlorobenzene	112	16.501	16.501	0.000	83	5493	0.0200	0.0202	
89 Ethylbenzene	91	16.770	16.773	-0.003	97	7777	0.0200	0.0178	
90 m-Xylene & p-Xylene	91	16.921	16.929	-0.008	97	12370	0.0400	0.0369	
91 n-Nonane	57	17.308	17.307	0.001	90	5038	0.0200	0.0207	
92 Styrene	104	17.394	17.392	0.002	87	4123	0.0200	0.0172	
93 Bromoform	173	17.400	17.398	0.002	88	4481	0.0200	0.0178	
94 o-Xylene	91	17.454	17.453	0.001	95	5775	0.0200	0.0162	
95 1,1,2,2-Tetrachloroethane	83	17.766	17.769	-0.003	93	4273	0.0200	0.0172	
96 1,2,3-Trichloropropane	110	17.922	17.923	-0.001	94	1138	0.0200	0.0161	
97 Isopropylbenzene	105	18.013	18.012	0.001	87	7286	0.0200	0.0156	
98 N-Propylbenzene	120	18.513	18.517	-0.004	97	2069	0.0200	0.0166	
99 2-Chlorotoluene	126	18.572	18.572	0.000	95	2142	0.0200	0.0178	
100 4-Ethyltoluene	105	18.659	18.658	0.001	95	8496	0.0200	0.0183	
101 1,3,5-Trimethylbenzene	120	18.723	18.726	-0.003	91	3135	0.0200	0.0169	
102 Alpha Methyl Styrene	118	18.944	18.948	-0.004	84	3087	0.0200	0.0162	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
103 n-Decane	57	18.976	18.974	0.002	88	5340	0.0200	0.0174	
104 tert-Butylbenzene	119	19.132	19.133	-0.001	84	6713	0.0200	0.0157	
105 1,2,4-Trimethylbenzene	105	19.143	19.146	-0.003	75	6858	0.0200	0.0167	
106 sec-Butylbenzene	105	19.390	19.389	0.001	96	8913	0.0200	0.0154	
107 1,3-Dichlorobenzene	146	19.417	19.419	-0.002	95	7001	0.0200	0.0244	
108 Benzyl chloride	91	19.487	19.487	0.000	95	7763	0.0200	0.0220	
109 1,4-Dichlorobenzene	146	19.498	19.501	-0.003	86	7220	0.0200	0.0249	
110 4-Isopropyltoluene	119	19.541	19.542	-0.001	95	7857	0.0200	0.0162	
111 1,2,3-Trimethylbenzene	105	19.600	19.603	-0.003	96	7214	0.0200	0.0179	
112 Butylcyclohexane	83	19.638	19.642	-0.004	81	6127	0.0200	0.0176	
113 2,3-Dihydroindene	117	19.842	19.846	-0.004	91	7559	0.0200	0.0202	
114 1,2-Dichlorobenzene	146	19.847	19.851	-0.004	88	6415	0.0200	0.0228	
115 n-Butylbenzene	91	19.960	19.958	0.002	96	9491	0.0200	0.0189	
116 Indene	116	19.971	19.974	-0.003	88	6716	0.0200	0.0209	
117 Undecane	57	20.235	20.235	0.000	91	5853	0.0200	0.0169	
118 1,2-Dibromo-3-Chloropropan	157	20.439	20.438	0.001	87	2912	0.0200	0.0208	
119 1,2,4,5-Tetramethylbenzene	119	20.714	20.713	0.001	95	8404	0.0200	0.0192	
120 Dodecane	57	21.327	21.323	0.004	87	7479	0.0200	0.0253	
121 1,2,4-Trichlorobenzene	180	21.563	21.565	-0.002	92	9727	0.0200	0.0423	
122 Naphthalene	128	21.693	21.693	0.000	98	13915	0.0200	0.0386	
123 Hexachlorobutadiene	225	21.838	21.841	-0.003	94	5884	0.0200	0.0212	
124 1,2,3-Trichlorobenzene	180	21.902	21.900	0.002	92	8062	0.0200	0.0444	
125 2-Methylnaphthalene	142	22.424	22.424	0.000	96	11130	0.0200	0.1131	
126 1-Methylnaphthalene	142	22.548	22.549	-0.001	98	11702	0.0200	0.0992	
A 128 C8 Range	1	15.161	(15.134-15.188)		0	24948	0.0200	0.0224	
S 129 Xylenes, Total	100				0		0.0600	0.0530	
S 130 1,2-Dichloroethene, Total	1				0		0.0400	0.0395	

Reagents:

40L1-3DQP_00015	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

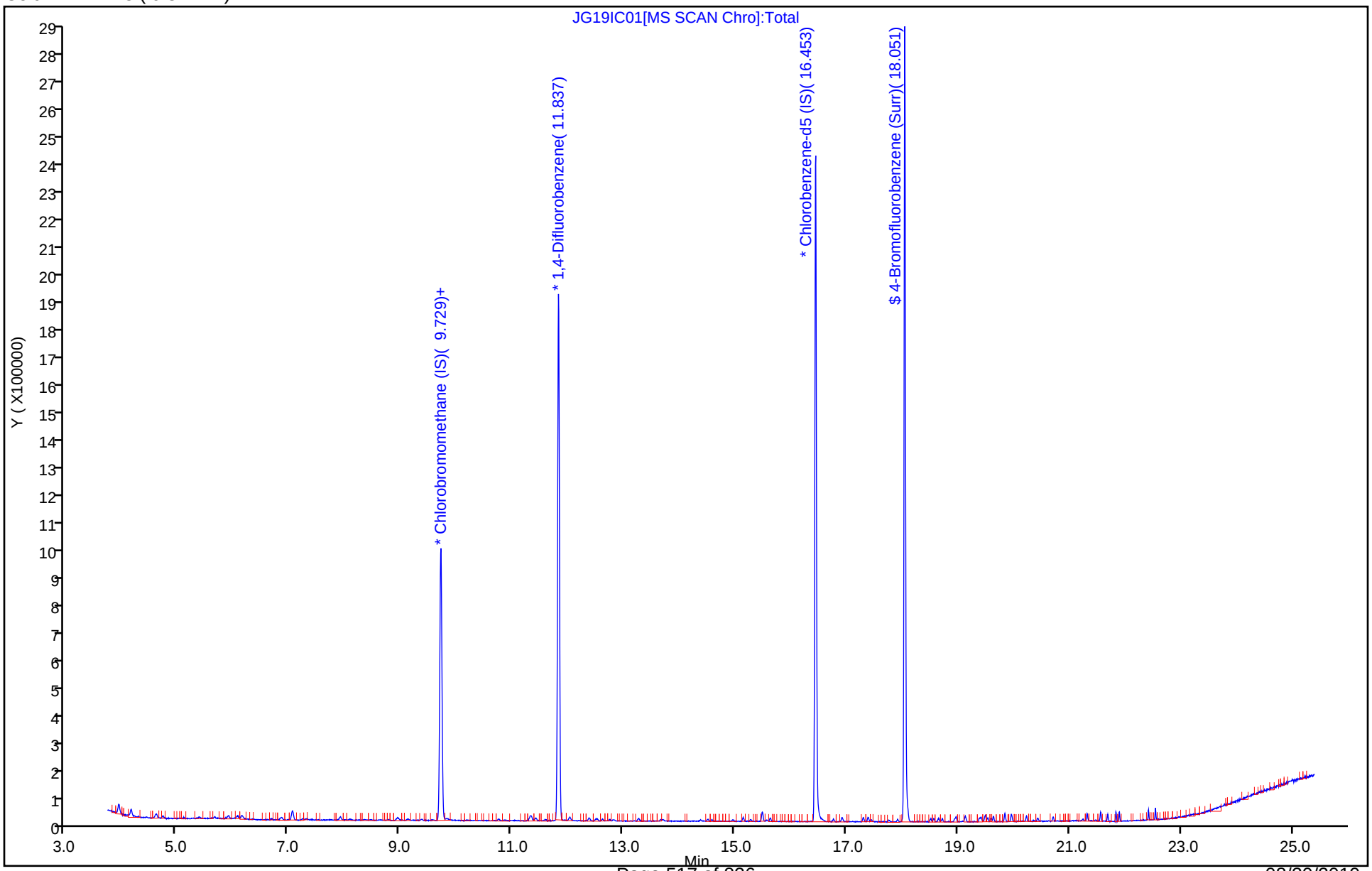
Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D

Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

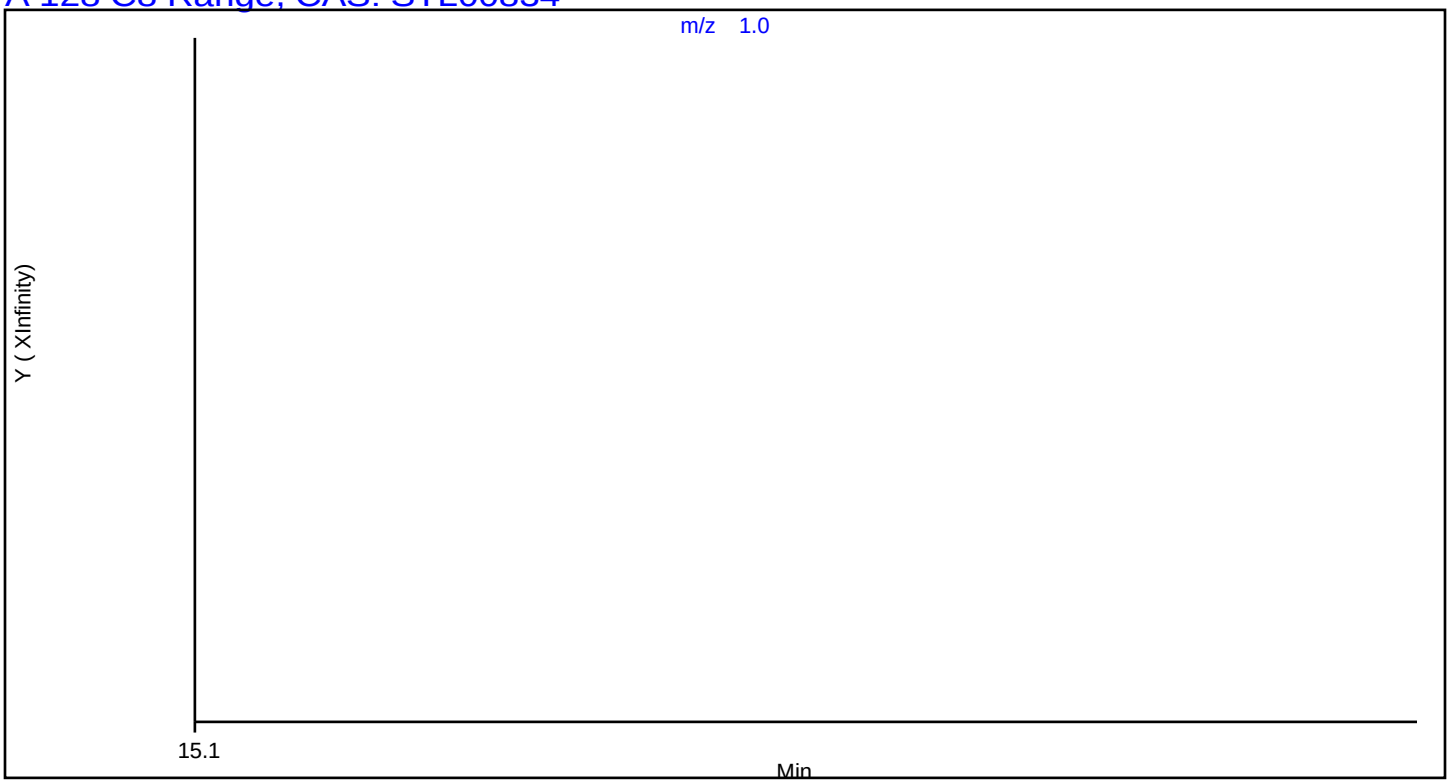


Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



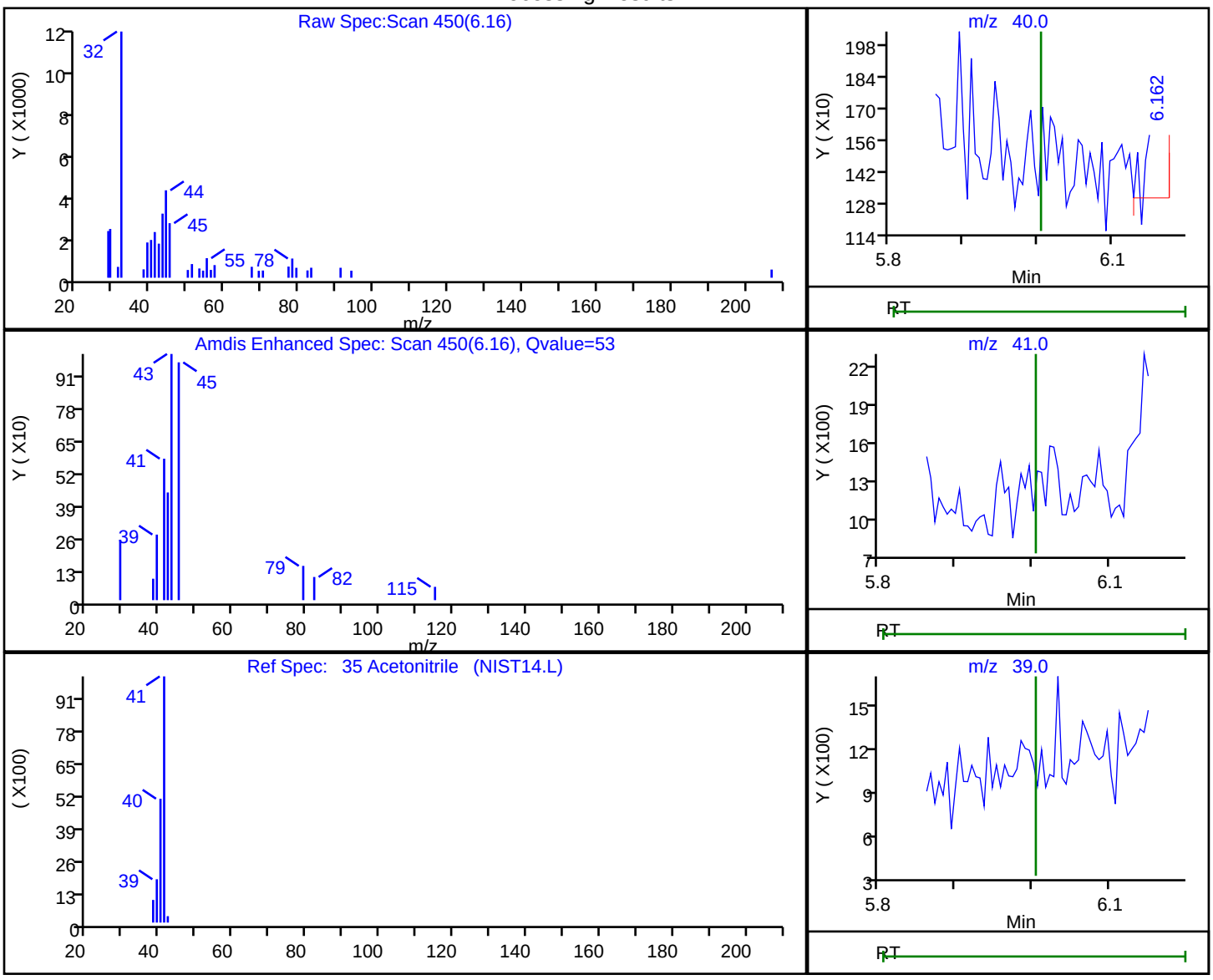
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

35 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.16	40.00	498	0.015280
6.16	41.00	4839	
6.16	39.00	1269	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:34

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

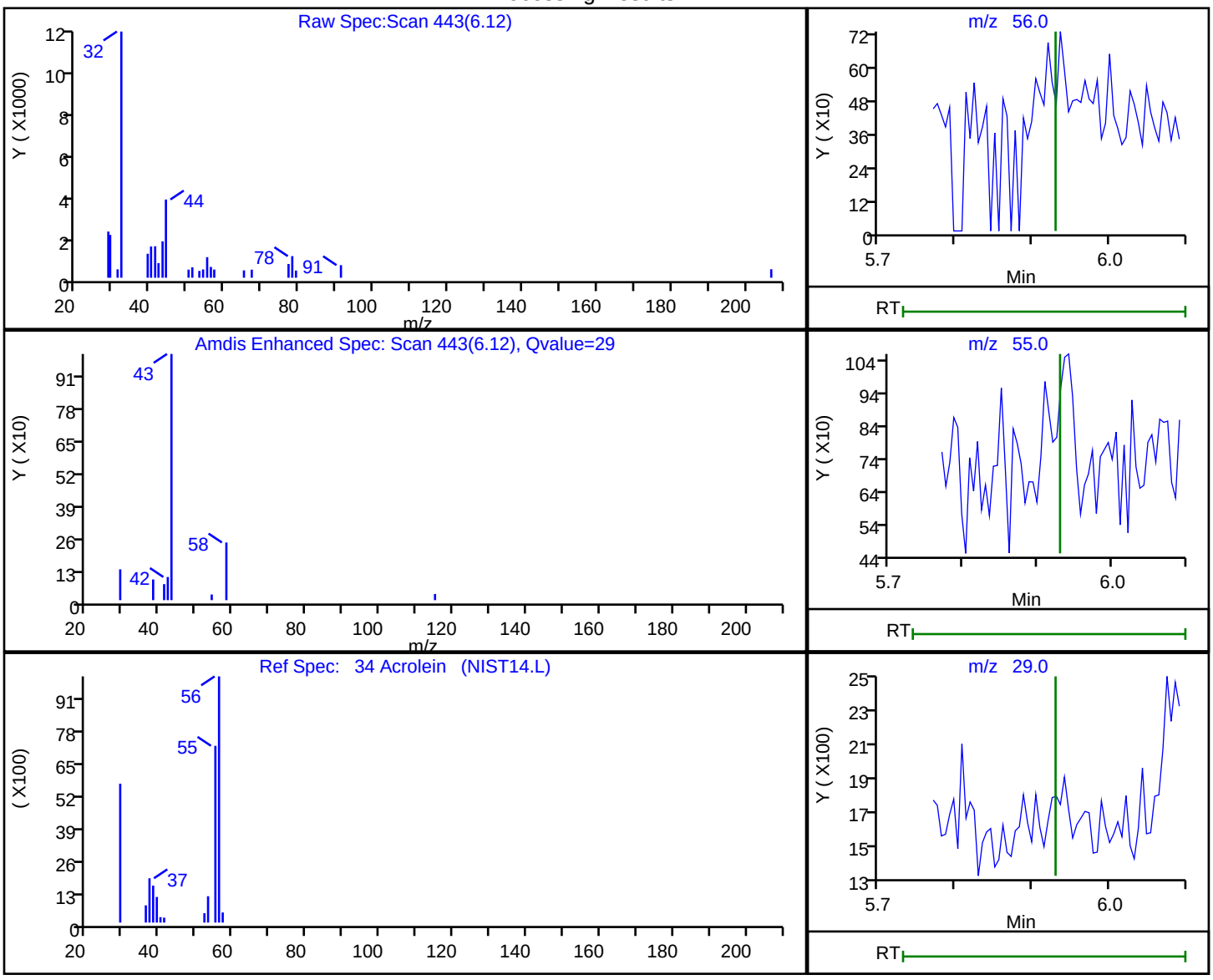
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
6.12	56.00	1445	0.070207
6.12	55.00	363	
5.93	29.00	0	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Jul-2019 01:29:30 ALS Bottle#: 1 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-010
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:44 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	97	308133	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.844	11.841	0.003	97	1576675	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1365319	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	89	967517	4.00	3.86	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	91	2936	0.0400	0.0349	
20 Propene	41	4.179	4.169	0.010	96	12962	0.0400	0.2125	
21 Dichlorodifluoromethane	85	4.243	4.228	0.015	96	3489	0.0400	0.0362	
22 Chloromethane	52	4.448	4.441	0.007	96	1894	0.0400	0.0609	
24 Acetaldehyde	44	4.625	4.617	0.008	94	18791	0.2000	0.4685	
25 Vinyl chloride	62	4.652	4.642	0.010	95	3946	0.0400	0.0377	
26 Butane	43	4.749	4.739	0.010	84	6602	0.0400	0.0409	
27 Butadiene	54	4.749	4.741	0.008	73	3557	0.0400	0.0449	
28 Bromomethane	94	5.126	5.117	0.009	89	4074	0.0400	0.0442	
29 Chloroethane	64	5.282	5.275	0.007	21	1857	0.0400	0.0403	
30 Ethanol	31	5.405	5.386	0.019	99	12906	0.2000	0.3105	
31 Vinyl bromide	106	5.626	5.618	0.008	94	3454	0.0400	0.0404	
32 2-Methylbutane	43	5.680	5.669	0.011	86	5939	0.0400	0.0533	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	97	13212	0.0400	0.0396	
34 Acrolein	56	5.938	5.930	0.008	25	2511	0.0400	0.1242	
35 Acetonitrile	40	6.008	6.004	0.004	57	1998	0.0400	0.0624	
36 Acetone	58	6.078	6.061	0.017	97	3590	0.1200	0.1012	
37 Isopropyl alcohol	45	6.196	6.155	0.041	92	16701	0.1200	0.1621	
39 Ethyl ether	31	6.357	6.345	0.012	56	1938	0.0400	0.0169	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	89	3774	0.0400	0.0399	
41 Acrylonitrile	53	6.804	6.802	0.002	69	2368	0.0400	0.0374	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	67	5845	0.0400	0.0367	
43 1,1,2-Trichloro-1,2,2-trif	101	6.879	6.873	0.006	91	9393	0.0400	0.0427	
44 Methylene Chloride	84	7.073	7.067	0.006	96	18590	0.0400	0.1604	
45 3-Chloro-1-propene	39	7.094	7.081	0.013	33	2590	0.0400	0.0241	
46 Carbon disulfide	76	7.250	7.248	0.002	96	11849	0.0400	0.0411	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
47 trans-1,2-Dichloroethene	96	7.934	7.922	0.012	86	3780	0.0400	0.0400	
48 2-Methylpentane	43	7.934	7.928	0.006	93	12084	0.0400	0.0464	
49 Methyl tert-butyl ether	73	8.100	8.066	0.034	95	8298	0.0400	0.0329	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	96	8410	0.0400	0.0399	
51 Vinyl acetate	43	8.466	8.461	0.005	98	9068	0.0400	0.0339	
52 2-Butanone (MEK)	72	8.961	8.943	0.018	80	1567	0.0400	0.0377	
53 Hexane	56	8.956	8.948	0.008	87	3869	0.0400	0.0457	
54 Isopropyl ether	45	9.149	9.118	0.031	94	10936	0.0400	0.0339	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	97	3754	0.0400	0.0385	
56 Ethyl acetate	43	9.590	9.566	0.024	94	8442	0.0400	0.0381	
57 Chloroform	83	9.730	9.735	-0.005	35	10551	0.0400	0.0422	
58 Tert-butyl ethyl ether	59	9.849	9.817	0.032	95	9805	0.0400	0.0327	
59 Tetrahydrofuran	42	10.209	10.176	0.033	90	4322	0.0400	0.0390	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	96	10466	0.0400	0.0389	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	95	7029	0.0400	0.0388	
62 n-Butanol	31	11.328	11.296	0.032	64	4606	0.0400	0.1069	
63 Cyclohexane	69	11.350	11.337	0.013	77	2068	0.0400	0.0427	
64 Benzene	78	11.333	11.340	-0.007	94	12412	0.0400	0.0430	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	86	8069	0.0400	0.0333	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	91	2480	0.0400	0.0381	
67 Thiophene	84	11.602	11.604	-0.002	92	6684	0.0400	0.0407	
68 Isooctane	57	12.044	12.041	0.003	96	21744	0.0400	0.0422	
69 n-Heptane	71	12.399	12.392	0.007	94	3833	0.0400	0.0386	
70 1,2-Dichloropropane	63	12.506	12.505	0.001	83	4584	0.0400	0.0378	
71 Trichloroethene	130	12.538	12.537	0.001	86	4953	0.0400	0.0380	
72 Dibromomethane	93	12.630	12.627	0.003	93	5398	0.0400	0.0401	
73 Dichlorobromomethane	83	12.764	12.761	0.003	97	9823	0.0400	0.0382	
74 1,4-Dioxane	88	12.818	12.787	0.031	40	1115	0.0400	0.0330	
75 Methyl methacrylate	41	12.834	12.827	0.007	82	6370	0.0400	0.0450	
76 Methylcyclohexane	83	13.275	13.277	-0.002	93	7431	0.0400	0.0420	
77 4-Methyl-2-pentanone (MIBK	43	13.679	13.662	0.017	97	11558	0.0400	0.0523	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	96	7013	0.0400	0.0390	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	94	5860	0.0400	0.0348	
80 Toluene	91	14.518	14.519	-0.001	92	13283	0.0400	0.0403	
81 1,1,2-Trichloroethane	83	14.593	14.591	0.002	92	4182	0.0400	0.0396	
82 2-Hexanone	58	14.965	14.956	0.009	89	3677	0.0400	0.0381	
83 n-Octane	85	15.153	15.154	-0.001	96	4356	0.0400	0.0430	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	95	8394	0.0400	0.0367	
85 Ethylene Dibromide	107	15.583	15.579	0.004	96	7415	0.0400	0.0385	
86 Tetrachloroethene	129	15.637	15.637	0.000	91	5396	0.0400	0.0407	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	80	18995	0.0400	0.0490	
88 Chlorobenzene	112	16.503	16.501	0.002	95	10571	0.0400	0.0401	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	15849	0.0400	0.0373	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	23792	0.0800	0.0730	
91 n-Nonane	57	17.305	17.307	-0.002	90	9676	0.0400	0.0410	
92 Styrene	104	17.391	17.392	-0.001	95	8335	0.0400	0.0358	
93 Bromoform	173	17.401	17.398	0.003	85	8155	0.0400	0.0333	
94 o-Xylene	91	17.455	17.453	0.002	96	12875	0.0400	0.0371	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	95	8806	0.0400	0.0365	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	94	2238	0.0400	0.0326	
97 Isopropylbenzene	105	18.015	18.012	0.003	87	17319	0.0400	0.0383	
98 N-Propylbenzene	120	18.515	18.517	-0.002	97	4134	0.0400	0.0342	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	4391	0.0400	0.0376	
100 4-Ethyltoluene	105	18.660	18.658	0.002	98	17321	0.0400	0.0384	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	5642	0.0400	0.0314	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	86	6248	0.0400	0.0337	
103 n-Decane	57	18.972	18.974	-0.002	89	11227	0.0400	0.0376	
104 tert-Butylbenzene	119	19.134	19.133	0.001	86	13508	0.0400	0.0326	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	94	13691	0.0400	0.0343	
106 sec-Butylbenzene	105	19.387	19.389	-0.003	97	19199	0.0400	0.0342	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	95	11083	0.0400	0.0398	
108 Benzyl chloride	91	19.483	19.487	-0.004	95	12687	0.0400	0.0371	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	89	12077	0.0400	0.0429	
110 4-Isopropyltoluene	119	19.543	19.542	0.000	96	16591	0.0400	0.0351	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	14103	0.0400	0.0360	
112 Butylcyclohexane	83	19.639	19.642	-0.003	86	12855	0.0400	0.0379	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	91	13091	0.0400	0.0360	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.003	84	11041	0.0400	0.0403	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	17973	0.0400	0.0368	
116 Indene	116	19.973	19.974	-0.001	87	11518	0.0400	0.0369	
117 Undecane	57	20.236	20.235	0.001	91	11900	0.0400	0.0353	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	90	5172	0.0400	0.0380	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	95	16233	0.0400	0.0382	
120 Dodecane	57	21.323	21.323	0.000	90	13291	0.0400	0.0463	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	11614	0.0400	0.0520	
122 Naphthalene	128	21.694	21.693	0.001	98	19371	0.0400	0.0554	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	10353	0.0400	0.0384	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	93	10581	0.0400	0.0600	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	9794	0.0400	0.1025	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	95	10896	0.0400	0.0951	
A 128 C8 Range	1	15.150	(15.125-15.201)		0	48233	0.0400	0.0445	
S 129 Xylenes, Total	100				0		0.1200	0.1101	
S 130 1,2-Dichloroethene, Total	1				0		0.0800	0.0785	

Reagents:

40L1-3DQP_00015	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D

Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

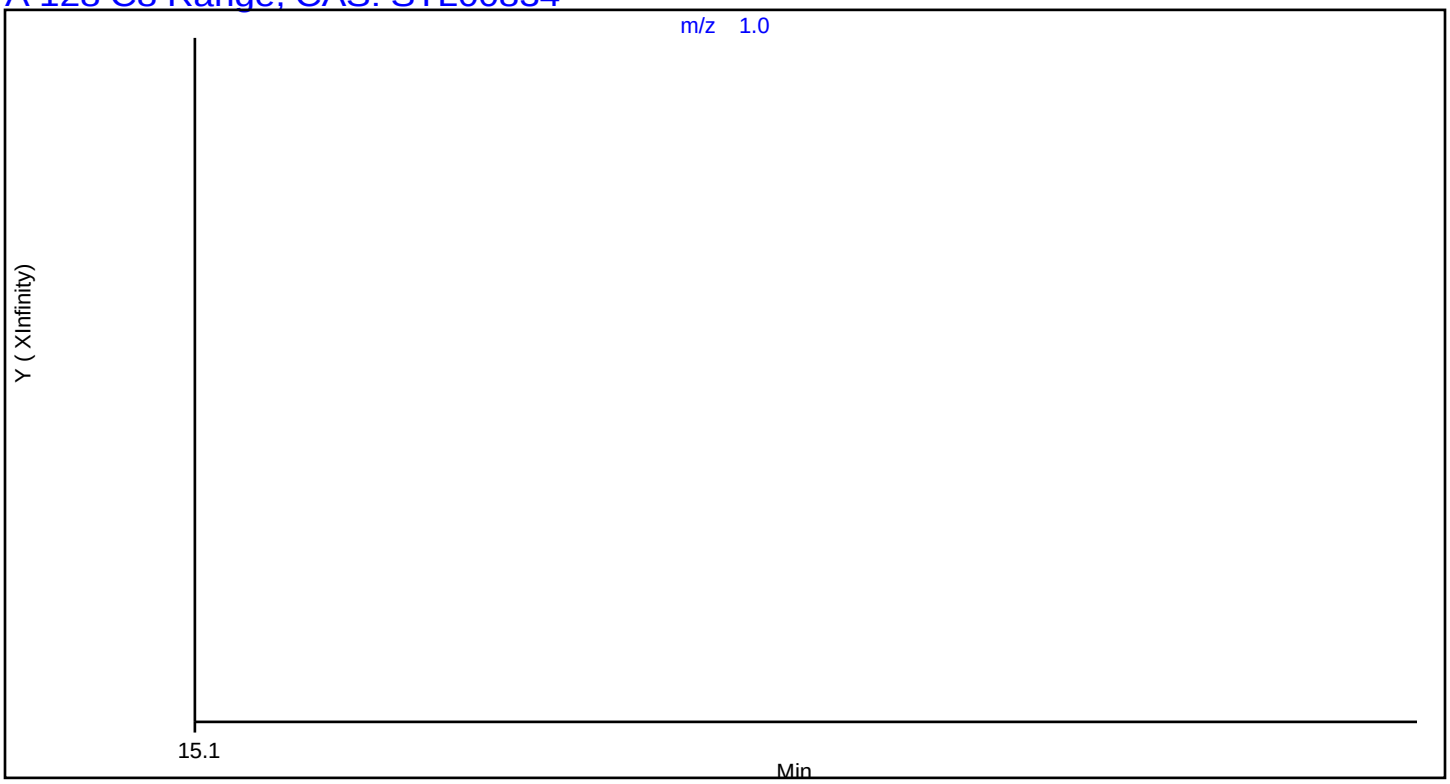


Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D				
Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Jul-2019 02:19:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-011
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:51 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	295878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1557979	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1339170	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	969175	4.00	3.94	
19 Chlorodifluoromethane	51	4.163	4.155	0.008	49	9400	0.0800	0.1163	
20 Propene	41	4.168	4.169	-0.001	97	24573	0.0800	0.4196	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	99	9823	0.0800	0.1060	
22 Chloromethane	52	4.437	4.441	-0.004	97	3201	0.0800	0.1071	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.444	0.009	48	1285	0.0800	0.0999	
24 Acetaldehyde	44	4.625	4.617	0.008	94	40868	0.4000	1.06	
25 Vinyl chloride	62	4.647	4.642	0.005	96	8041	0.0800	0.0800	
26 Butane	43	4.744	4.739	0.005	86	15268	0.0800	0.0984	
27 Butadiene	54	4.744	4.741	0.003	67	6693	0.0800	0.0880	
28 Bromomethane	94	5.115	5.117	-0.002	97	7368	0.0800	0.0832	
29 Chloroethane	64	5.276	5.275	0.001	95	3754	0.0800	0.0848	
30 Ethanol	31	5.406	5.386	0.020	97	24890	0.4000	0.6235	
31 Vinyl bromide	106	5.621	5.618	0.003	95	6832	0.0800	0.0833	
32 2-Methylbutane	43	5.664	5.669	-0.005	89	9935	0.0800	0.0929	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	99	25357	0.0800	0.0792	
34 Acrolein	56	5.933	5.930	0.003	27	3864	0.0800	0.1991	
35 Acetonitrile	40	6.008	6.004	0.004	88	2977	0.0800	0.0969	
36 Acetone	58	6.073	6.061	0.012	99	17804	0.2400	0.5227	
38 Pentane	72	6.153	6.155	-0.002	95	769	0.0800	0.0629	
37 Isopropyl alcohol	45	6.186	6.155	0.031	93	29426	0.2400	0.2974	
39 Ethyl ether	31	6.368	6.345	0.023	91	10953	0.0800	0.0996	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	91	7143	0.0800	0.0787	
41 Acrylonitrile	53	6.804	6.802	0.002	94	4815	0.0800	0.0793	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	95	11655	0.0800	0.0762	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.873	0.012	92	17504	0.0800	0.0829	
44 Methylene Chloride	84	7.068	7.067	0.001	97	20978	0.0800	0.1884	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	89	4800	0.0800	0.0465	
46 Carbon disulfide	76	7.251	7.248	0.003	96	22693	0.0800	0.0820	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	92	7079	0.0800	0.0780	
48 2-Methylpentane	43	7.934	7.928	0.006	94	21608	0.0800	0.0865	
49 Methyl tert-butyl ether	73	8.090	8.066	0.024	96	19276	0.0800	0.0796	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	98	16257	0.0800	0.0804	
51 Vinyl acetate	43	8.466	8.461	0.005	100	21643	0.0800	0.0843	
52 2-Butanone (MEK)	72	8.956	8.943	0.013	85	3867	0.0800	0.0969	
53 Hexane	56	8.956	8.948	0.008	70	6927	0.0800	0.0851	
54 Isopropyl ether	45	9.139	9.118	0.021	95	25508	0.0800	0.0824	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	96	7489	0.0800	0.0801	
56 Ethyl acetate	43	9.580	9.566	0.014	97	19451	0.0800	0.0915	
57 Chloroform	83	9.736	9.735	0.001	41	19433	0.0800	0.0809	
58 Tert-butyl ethyl ether	59	9.838	9.817	0.021	97	22975	0.0800	0.0797	
59 Tetrahydrofuran	42	10.199	10.176	0.023	92	9466	0.0800	0.0890	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	98	21221	0.0800	0.0821	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	14289	0.0800	0.0799	
62 n-Butanol	31	11.334	11.296	0.038	60	6570	0.0800	0.1543	
63 Cyclohexane	69	11.339	11.337	0.002	78	3879	0.0800	0.0810	
64 Benzene	78	11.339	11.340	-0.001	95	23431	0.0800	0.0821	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	15712	0.0800	0.0657	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	90	5203	0.0800	0.0808	
67 Thiophene	84	11.608	11.604	0.004	96	12792	0.0800	0.0788	
68 Isooctane	57	12.038	12.041	-0.003	96	41834	0.0800	0.0822	
69 n-Heptane	71	12.393	12.392	0.001	95	8011	0.0800	0.0816	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	9663	0.0800	0.0806	
71 Trichloroethene	130	12.539	12.537	0.002	90	9792	0.0800	0.0760	
72 Dibromomethane	93	12.625	12.627	-0.002	94	10330	0.0800	0.0777	
73 Dichlorobromomethane	83	12.765	12.761	0.004	98	19545	0.0800	0.0770	
74 1,4-Dioxane	88	12.813	12.787	0.026	83	2253	0.0800	0.0675	
75 Methyl methacrylate	41	12.835	12.827	0.008	88	13074	0.0800	0.0935	
76 Methylcyclohexane	83	13.281	13.277	0.004	91	14186	0.0800	0.0811	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.662	0.012	97	20616	0.0800	0.0944	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	96	12965	0.0800	0.0729	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	95	11970	0.0800	0.0726	
80 Toluene	91	14.518	14.519	-0.001	92	26319	0.0800	0.0813	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	94	8519	0.0800	0.0822	
82 2-Hexanone	58	14.970	14.956	0.014	90	6704	0.0800	0.0708	
83 n-Octane	85	15.158	15.154	0.004	95	8125	0.0800	0.0818	
84 Chlorodibromomethane	129	15.293	15.290	0.003	95	16503	0.0800	0.0737	
85 Ethylene Dibromide	107	15.583	15.579	0.004	99	13835	0.0800	0.0733	
86 Tetrachloroethene	129	15.632	15.637	-0.005	91	10387	0.0800	0.0799	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	92	34084	0.0800	0.0897	
88 Chlorobenzene	112	16.503	16.501	0.002	91	21091	0.0800	0.0815	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	33817	0.0800	0.0811	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	51906	0.1600	0.1624	
91 n-Nonane	57	17.305	17.307	-0.002	91	18648	0.0800	0.0806	
92 Styrene	104	17.391	17.392	-0.001	97	17412	0.0800	0.0762	
93 Bromoform	173	17.396	17.398	-0.002	93	16013	0.0800	0.0667	
94 o-Xylene	91	17.450	17.453	-0.003	97	25861	0.0800	0.0761	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	97	19464	0.0800	0.0822	
96 1,2,3-Trichloropropane	110	17.918	17.923	-0.005	96	5213	0.0800	0.0774	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	90	36474	0.0800	0.0822	
98 N-Propylbenzene	120	18.521	18.517	0.004	97	8913	0.0800	0.0752	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	8964	0.0800	0.0782	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	35480	0.0800	0.0802	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	13741	0.0800	0.0779	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	13291	0.0800	0.0730	
103 n-Decane	57	18.973	18.974	-0.001	90	24361	0.0800	0.0832	
104 tert-Butylbenzene	119	19.134	19.133	0.001	87	31655	0.0800	0.0778	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	95	29703	0.0800	0.0758	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	42596	0.0800	0.0774	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	21575	0.0800	0.0790	
108 Benzyl chloride	91	19.484	19.487	-0.003	96	23634	0.0800	0.0704	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	89	21946	0.0800	0.0796	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	35725	0.0800	0.0771	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	31632	0.0800	0.0823	
112 Butylcyclohexane	83	19.645	19.642	0.003	89	26215	0.0800	0.0788	
113 2,3-Dihydroindene	117	19.849	19.846	0.003	91	27282	0.0800	0.0765	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	83	21348	0.0800	0.0795	
115 n-Butylbenzene	91	19.957	19.958	-0.001	97	38745	0.0800	0.0808	
116 Indene	116	19.973	19.974	-0.001	86	22568	0.0800	0.0738	
117 Undecane	57	20.237	20.235	0.002	92	26082	0.0800	0.0788	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	89	9511	0.0800	0.0712	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	30517	0.0800	0.0731	
120 Dodecane	57	21.323	21.323	0.000	90	22571	0.0800	0.0802	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	16676	0.0800	0.0761	
122 Naphthalene	128	21.695	21.693	0.002	98	26972	0.0800	0.0786	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	21001	0.0800	0.0795	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	14610	0.0800	0.0845	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	97	7799	0.0800	0.0832	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	9565	0.0800	0.0851	
A 128 C8 Range	1	15.163	(15.125-15.201)		0	85223	0.0800	0.0802	
S 129 Xylenes, Total	100				0		0.2400	0.2384	
S 130 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00015	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

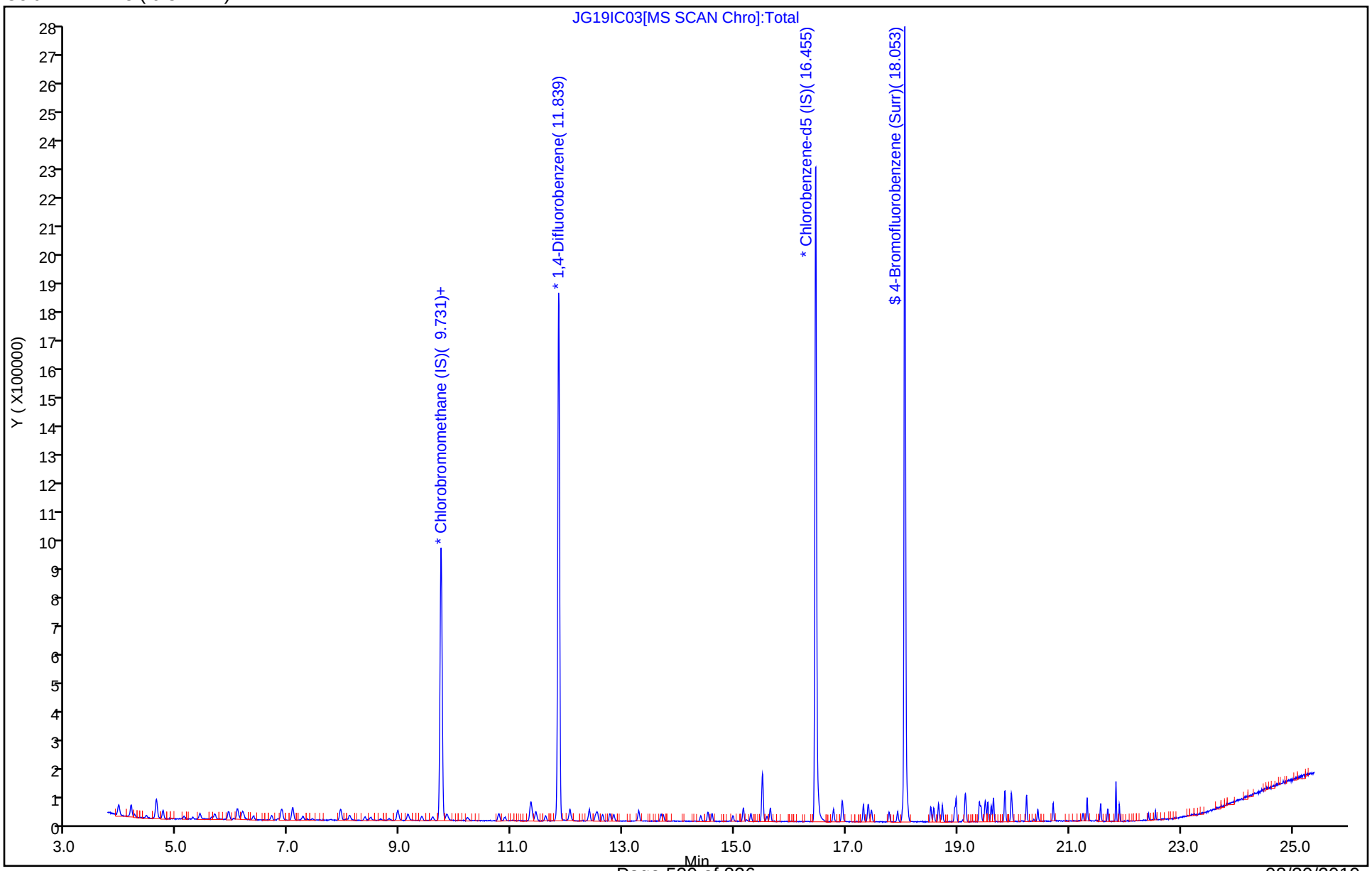
Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D

Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

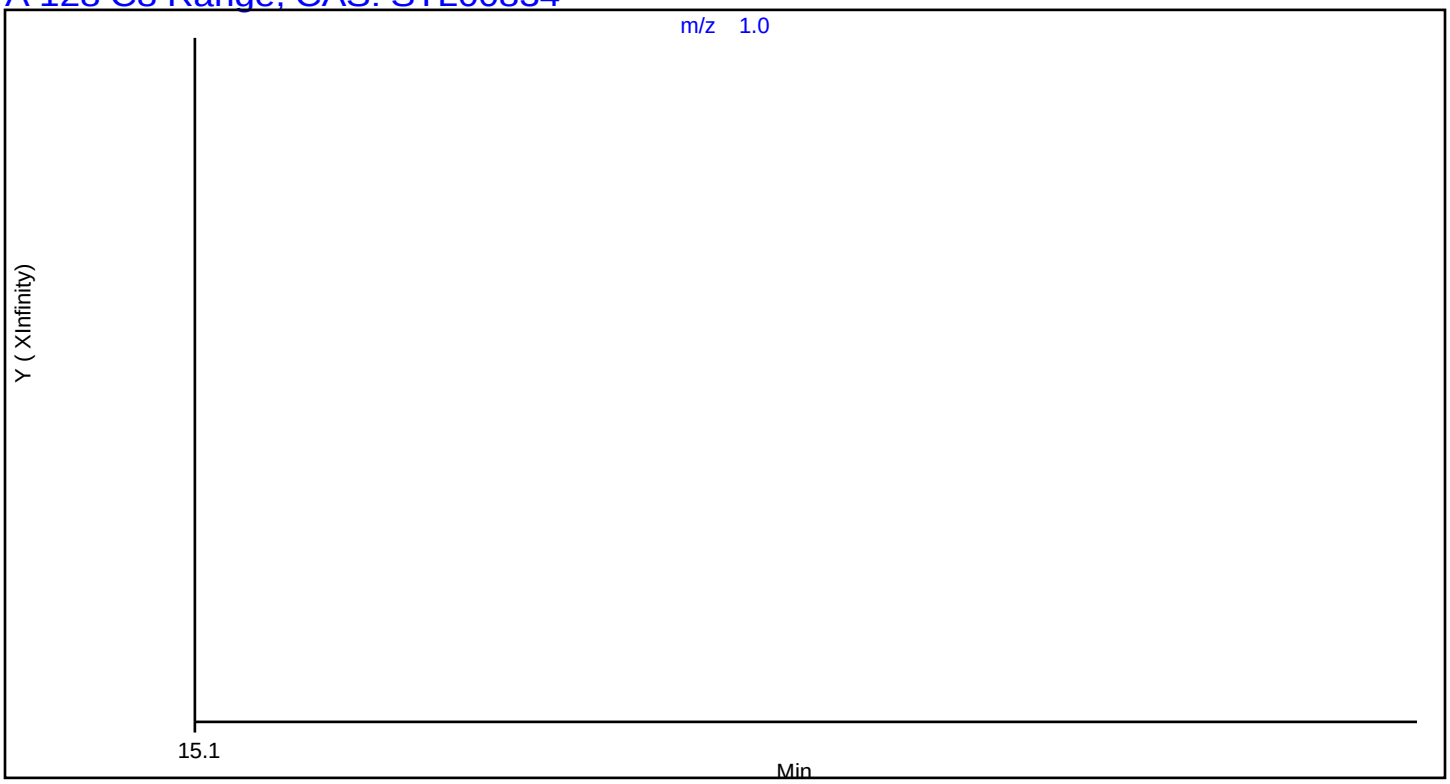


Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D				
Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Jul-2019 03:08:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-012
Misc. Info.: 231549
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:10:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.731	-0.006	97	296576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1525139	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1322052	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.052	-0.005	89	956228	4.00	3.94	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	60	11766	0.1600	0.1452	
20 Propene	41	4.168	4.169	-0.001	96	23040	0.1600	0.3925	
21 Dichlorodifluoromethane	85	4.233	4.228	0.005	98	14967	0.1600	0.1611	
22 Chloromethane	52	4.443	4.441	0.002	99	5364	0.1600	0.1791	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.444	0.004	48	2212	0.1600	0.1715	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	61302	0.8000	1.59	
25 Vinyl chloride	62	4.636	4.642	-0.006	98	15377	0.1600	0.1526	
26 Butane	43	4.733	4.739	-0.006	86	24969	0.1600	0.1605	
27 Butadiene	54	4.738	4.741	-0.003	67	12247	0.1600	0.1607	
28 Bromomethane	94	5.115	5.117	-0.002	96	14514	0.1600	0.1635	
29 Chloroethane	64	5.271	5.275	-0.004	83	6682	0.1600	0.1507	
30 Ethanol	31	5.379	5.386	-0.007	98	35944	0.8000	0.8983	
31 Vinyl bromide	106	5.615	5.618	-0.003	93	12262	0.1600	0.1491	
32 2-Methylbutane	43	5.669	5.669	0.000	89	17850	0.1600	0.1666	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	50064	0.1600	0.1561	
34 Acrolein	56	5.927	5.930	-0.003	27	5184	0.1600	0.2664	
35 Acetonitrile	40	6.003	6.004	-0.001	98	4156	0.1600	0.1349	
36 Acetone	58	6.062	6.061	0.001	99	32175	0.4800	0.9425	
38 Pentane	72	6.159	6.155	0.004	77	1905	0.1600	0.1554	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	83	53056	0.4800	0.5350	
39 Ethyl ether	31	6.342	6.345	-0.003	89	19260	0.1600	0.1748	
40 1,1-Dichloroethene	96	6.686	6.690	-0.004	93	14176	0.1600	0.1558	
41 Acrylonitrile	53	6.799	6.802	-0.003	85	10232	0.1600	0.1681	
42 2-Methyl-2-propanol	59	6.820	6.814	0.006	90	25495	0.1600	0.1663	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	94	32378	0.1600	0.1530	
44 Methylene Chloride	84	7.062	7.067	-0.005	97	27618	0.1600	0.2475	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	19027	0.1600	0.1840	
46 Carbon disulfide	76	7.245	7.248	-0.003	99	45848	0.1600	0.1652	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	94	14854	0.1600	0.1633	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	40379	0.1600	0.1612	
49 Methyl tert-butyl ether	73	8.068	8.066	0.002	96	38103	0.1600	0.1569	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	99	33200	0.1600	0.1638	
51 Vinyl acetate	43	8.461	8.461	0.000	100	41821	0.1600	0.1625	
52 2-Butanone (MEK)	72	8.945	8.943	0.002	84	7703	0.1600	0.1926	
53 Hexane	56	8.945	8.948	-0.003	70	13185	0.1600	0.1617	
54 Isopropyl ether	45	9.123	9.118	0.005	95	49024	0.1600	0.1581	
55 cis-1,2-Dichloroethene	96	9.376	9.384	-0.008	98	14886	0.1600	0.1588	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	32163	0.1600	0.1509	
57 Chloroform	83	9.731	9.735	-0.004	31	38772	0.1600	0.1611	
58 Tert-butyl ethyl ether	59	9.817	9.817	0.000	97	43590	0.1600	0.1509	
59 Tetrahydrofuran	42	10.183	10.176	0.006	91	16818	0.1600	0.1577	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	41786	0.1600	0.1614	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	28555	0.1600	0.1631	
62 n-Butanol	31	11.301	11.296	0.005	92	8706	0.1600	0.2089	
63 Cyclohexane	69	11.334	11.337	-0.003	71	7692	0.1600	0.1640	
64 Benzene	78	11.339	11.340	-0.001	97	46811	0.1600	0.1676	
65 Carbon tetrachloride	117	11.355	11.361	-0.006	96	41847	0.1600	0.1787	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	91	10044	0.1600	0.1594	
67 Thiophene	84	11.603	11.604	-0.001	97	25688	0.1600	0.1617	
68 Isooctane	57	12.038	12.041	-0.003	97	82779	0.1600	0.1661	
69 n-Heptane	71	12.388	12.392	-0.004	95	15220	0.1600	0.1583	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	19141	0.1600	0.1632	
71 Trichloroethene	130	12.533	12.537	-0.004	91	20397	0.1600	0.1617	
72 Dibromomethane	93	12.619	12.627	-0.008	95	20254	0.1600	0.1557	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	39256	0.1600	0.1580	
74 1,4-Dioxane	88	12.797	12.787	0.010	94	4891	0.1600	0.1496	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	20482	0.1600	0.1496	
76 Methylcyclohexane	83	13.270	13.277	-0.007	92	27810	0.1600	0.1625	
77 4-Methyl-2-pentanone (MIBK	43	13.663	13.662	0.001	98	34261	0.1600	0.1603	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	98	27046	0.1600	0.1553	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	24792	0.1600	0.1522	
80 Toluene	91	14.513	14.519	-0.006	91	52729	0.1600	0.1651	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	93	16524	0.1600	0.1616	
82 2-Hexanone	58	14.954	14.956	-0.002	90	14439	0.1600	0.1544	
83 n-Octane	85	15.153	15.154	-0.001	95	15603	0.1600	0.1592	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	33832	0.1600	0.1529	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	29806	0.1600	0.1600	
86 Tetrachloroethene	129	15.637	15.637	0.000	92	19915	0.1600	0.1552	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	64525	0.1600	0.1720	
88 Chlorobenzene	112	16.503	16.501	0.002	93	41482	0.1600	0.1623	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	66571	0.1600	0.1617	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	101976	0.3200	0.3231	
91 n-Nonane	57	17.305	17.307	-0.002	94	36144	0.1600	0.1582	
92 Styrene	104	17.391	17.392	-0.001	97	34466	0.1600	0.1529	
93 Bromoform	173	17.391	17.398	-0.007	88	32899	0.1600	0.1389	
94 o-Xylene	91	17.450	17.453	-0.003	97	52962	0.1600	0.1578	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	38078	0.1600	0.1628	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	10297	0.1600	0.1548	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	97	69310	0.1600	0.1582	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	18439	0.1600	0.1576	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	98	17231	0.1600	0.1524	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	69152	0.1600	0.1584	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	26393	0.1600	0.1515	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	25226	0.1600	0.1404	
103 n-Decane	57	18.973	18.974	-0.001	89	46275	0.1600	0.1602	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	89	60245	0.1600	0.1500	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	58741	0.1600	0.1518	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	82990	0.1600	0.1527	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	41427	0.1600	0.1537	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	38889	0.1600	0.1173	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	40588	0.1600	0.1490	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	67309	0.1600	0.1472	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	58340	0.1600	0.1537	
112 Butylcyclohexane	83	19.640	19.642	-0.002	89	51968	0.1600	0.1583	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	53750	0.1600	0.1527	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	93	41224	0.1600	0.1556	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	70396	0.1600	0.1488	
116 Indene	116	19.973	19.974	-0.001	88	43463	0.1600	0.1439	
117 Undecane	57	20.231	20.235	-0.004	93	49489	0.1600	0.1515	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	89	17756	0.1600	0.1347	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	57413	0.1600	0.1394	
120 Dodecane	57	21.323	21.323	0.000	91	42424	0.1600	0.1526	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	30585	0.1600	0.1413	
122 Naphthalene	128	21.689	21.693	-0.004	98	48485	0.1600	0.1431	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	40231	0.1600	0.1542	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	94	26384	0.1600	0.1545	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	14014	0.1600	0.1514	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	97	17082	0.1600	0.1539	
A 128 C8 Range	1	15.158	(15.120-15.195)		0	168585	0.1600	0.1607	
S 129 Xylenes, Total	100				0		0.4800	0.4809	
S 130 1,2-Dichloroethene, Total	1				0		0.3200	0.3221	

Reagents:

40L4DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

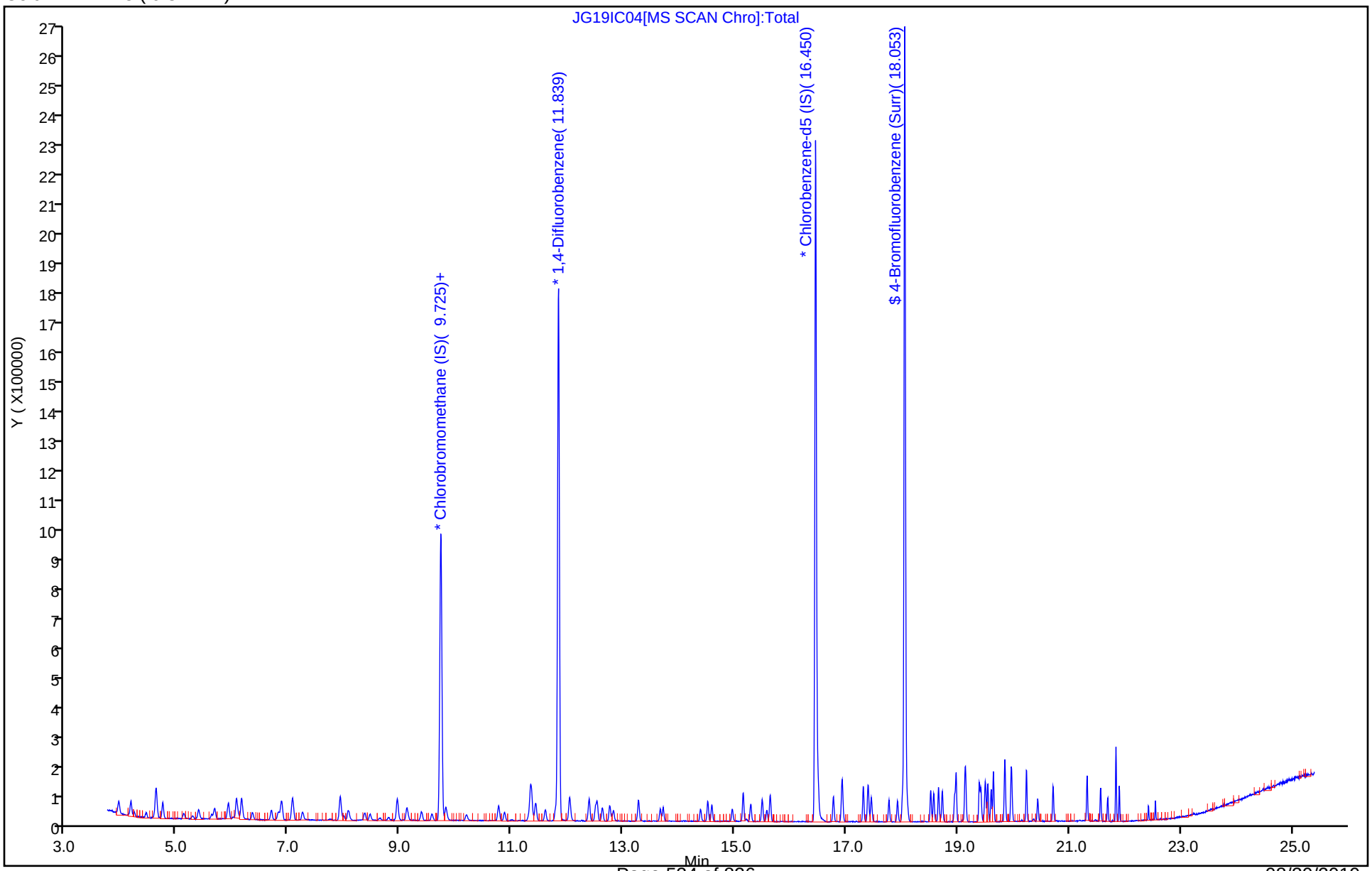
Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D

Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

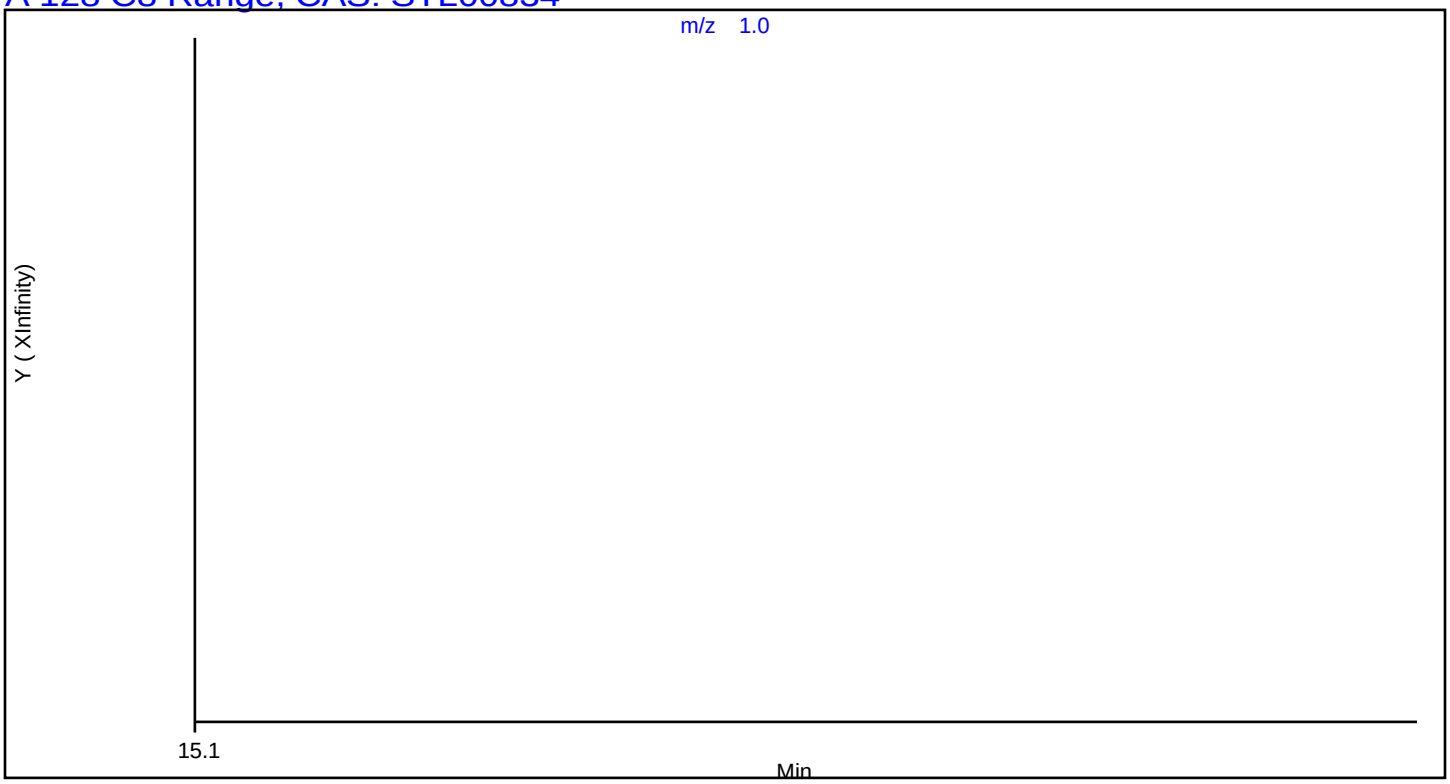


Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D				
Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Jul-2019 03:58:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-013
Misc. Info.: 231548
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:11:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	96	287860	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1514422	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.453	-0.004	92	1303933	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	94	960029	4.00	4.01	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	97	25664	0.4000	0.3262	
20 Propene	41	4.168	4.169	-0.001	97	29865	0.4000	0.5241	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	100	32988	0.4000	0.3659	
22 Chloromethane	52	4.437	4.441	-0.004	99	11820	0.4000	0.4065	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.444	-0.002	48	4984	0.4000	0.3981	
24 Acetaldehyde	44	4.620	4.617	0.003	92	102533	2.00	2.74	
25 Vinyl chloride	62	4.641	4.642	-0.001	99	38122	0.4000	0.3897	
26 Butane	43	4.738	4.739	-0.001	85	60060	0.4000	0.3979	
27 Butadiene	54	4.738	4.741	-0.003	69	28897	0.4000	0.3906	
28 Bromomethane	94	5.115	5.117	-0.002	97	33566	0.4000	0.3896	
29 Chloroethane	64	5.276	5.275	0.001	85	17457	0.4000	0.4056	
30 Ethanol	31	5.378	5.386	-0.008	99	77636	2.00	2.00	
31 Vinyl bromide	106	5.620	5.618	0.002	96	31635	0.4000	0.3962	
32 2-Methylbutane	43	5.669	5.669	0.000	91	41208	0.4000	0.3962	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	125032	0.4000	0.4016	
34 Acrolein	56	5.927	5.930	-0.003	26	8429	0.4000	0.4463	
35 Acetonitrile	40	6.002	6.004	-0.002	97	13678	0.4000	0.4574	
36 Acetone	58	6.056	6.061	-0.005	99	53289	1.20	1.61	
38 Pentane	72	6.158	6.155	0.003	93	4736	0.4000	0.3981	
37 Isopropyl alcohol	45	6.142	6.155	-0.013	83	106236	1.20	1.10	
39 Ethyl ether	31	6.346	6.345	0.001	89	46127	0.4000	0.4312	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	35931	0.4000	0.4067	
41 Acrylonitrile	53	6.804	6.802	0.002	70	24063	0.4000	0.4073	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	95	50767	0.4000	0.3411	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	94	81162	0.4000	0.3951	
44 Methylene Chloride	84	7.067	7.067	0.000	96	46376	0.4000	0.4282	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	96	42725	0.4000	0.4258	
46 Carbon disulfide	76	7.250	7.248	0.002	99	108114	0.4000	0.4014	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	35303	0.4000	0.3999	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	101723	0.4000	0.4183	
49 Methyl tert-butyl ether	73	8.062	8.066	-0.004	96	93799	0.4000	0.3979	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	99	79247	0.4000	0.4029	
51 Vinyl acetate	43	8.461	8.461	0.000	100	102808	0.4000	0.4116	
52 2-Butanone (MEK)	72	8.939	8.943	-0.004	85	16234	0.4000	0.4182	
53 Hexane	56	8.945	8.948	-0.003	71	32898	0.4000	0.4156	
54 Isopropyl ether	45	9.111	9.118	-0.007	96	122430	0.4000	0.4067	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	98	36813	0.4000	0.4046	
56 Ethyl acetate	43	9.558	9.566	-0.008	98	83654	0.4000	0.4043	
57 Chloroform	83	9.730	9.735	-0.005	94	94081	0.4000	0.4027	
58 Tert-butyl ethyl ether	59	9.805	9.817	-0.012	98	111905	0.4000	0.3992	
59 Tetrahydrofuran	42	10.171	10.176	-0.005	92	41979	0.4000	0.4056	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	100739	0.4000	0.4008	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	68517	0.4000	0.3941	
62 n-Butanol	31	11.296	11.296	0.000	93	14337	0.4000	0.3464	
63 Cyclohexane	69	11.339	11.337	0.002	71	18560	0.4000	0.3985	
64 Benzene	78	11.339	11.340	-0.001	97	109508	0.4000	0.3948	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	95	93006	0.4000	0.3999	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	92	24680	0.4000	0.3945	
67 Thiophene	84	11.602	11.604	-0.002	97	61762	0.4000	0.3915	
68 Isooctane	57	12.038	12.041	-0.003	97	195788	0.4000	0.3957	
69 n-Heptane	71	12.388	12.392	-0.004	95	37671	0.4000	0.3945	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	46483	0.4000	0.3990	
71 Trichloroethene	130	12.533	12.537	-0.004	90	48185	0.4000	0.3847	
72 Dibromomethane	93	12.624	12.627	-0.003	93	50718	0.4000	0.3926	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	95484	0.4000	0.3870	
74 1,4-Dioxane	88	12.786	12.787	-0.001	96	11915	0.4000	0.3670	
75 Methyl methacrylate	41	12.823	12.827	-0.004	88	54685	0.4000	0.4023	
76 Methylcyclohexane	83	13.275	13.277	-0.002	90	65931	0.4000	0.3880	
77 4-Methyl-2-pentanone (MIBK	43	13.662	13.662	0.000	99	74371	0.4000	0.3504	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	99	66204	0.4000	0.3829	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	61866	0.4000	0.3852	
80 Toluene	91	14.518	14.519	-0.001	92	125493	0.4000	0.3984	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	94	39029	0.4000	0.3870	
82 2-Hexanone	58	14.954	14.956	-0.002	91	31698	0.4000	0.3436	
83 n-Octane	85	15.153	15.154	-0.001	96	38072	0.4000	0.3938	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	84022	0.4000	0.3851	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	97	71880	0.4000	0.3913	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	48787	0.4000	0.3855	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	152008	0.4000	0.4109	
88 Chlorobenzene	112	16.497	16.501	-0.004	91	99536	0.4000	0.3949	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	160080	0.4000	0.3943	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	244225	0.8000	0.7847	
91 n-Nonane	57	17.310	17.307	0.003	93	88275	0.4000	0.3918	
92 Styrene	104	17.390	17.392	-0.002	97	84261	0.4000	0.3789	
93 Bromoform	173	17.396	17.398	-0.002	95	85044	0.4000	0.3640	
94 o-Xylene	91	17.450	17.453	-0.003	97	131150	0.4000	0.3962	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	92559	0.4000	0.4013	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	25000	0.4000	0.3810	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	92	167478	0.4000	0.3876	
98 N-Propylbenzene	120	18.520	18.517	0.003	98	43871	0.4000	0.3802	
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	43746	0.4000	0.3922	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	165010	0.4000	0.3832	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	90	65324	0.4000	0.3803	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	65400	0.4000	0.3689	
103 n-Decane	57	18.972	18.974	-0.002	89	113266	0.4000	0.3974	
104 tert-Butylbenzene	119	19.133	19.133	0.000	89	149859	0.4000	0.3784	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	146313	0.4000	0.3833	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	208334	0.4000	0.3888	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	98243	0.4000	0.3697	
108 Benzyl chloride	91	19.488	19.487	0.001	97	113819	0.4000	0.3481	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	96865	0.4000	0.3606	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	175502	0.4000	0.3892	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	98	147741	0.4000	0.3947	
112 Butylcyclohexane	83	19.639	19.642	-0.003	90	126456	0.4000	0.3906	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	132695	0.4000	0.3822	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	96019	0.4000	0.3674	
115 n-Butylbenzene	91	19.956	19.958	-0.002	97	184104	0.4000	0.3945	
116 Indene	116	19.973	19.974	-0.001	91	111455	0.4000	0.3742	
117 Undecane	57	20.236	20.235	0.001	93	126770	0.4000	0.3934	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	92	45955	0.4000	0.3534	
119 1,2,4,5-Tetramethylbenzene	119	20.715	20.713	0.002	96	155714	0.4000	0.3832	
120 Dodecane	57	21.323	21.323	0.000	91	93805	0.4000	0.3421	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	66283	0.4000	0.3106	
122 Naphthalene	128	21.694	21.693	0.001	98	106779	0.4000	0.3195	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	93985	0.4000	0.3653	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	94	56334	0.4000	0.3344	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	21173	0.4000	0.2319	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	97	24357	0.4000	0.2226	
A 128 C8 Range	1	15.163	(15.120-15.206)		0	412584	0.4000	0.3986	
S 129 Xylenes, Total	100				0		1.20	1.18	
S 130 1,2-Dichloroethene, Total	1				0		0.8000	0.8045	

Reagents:

40L5DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

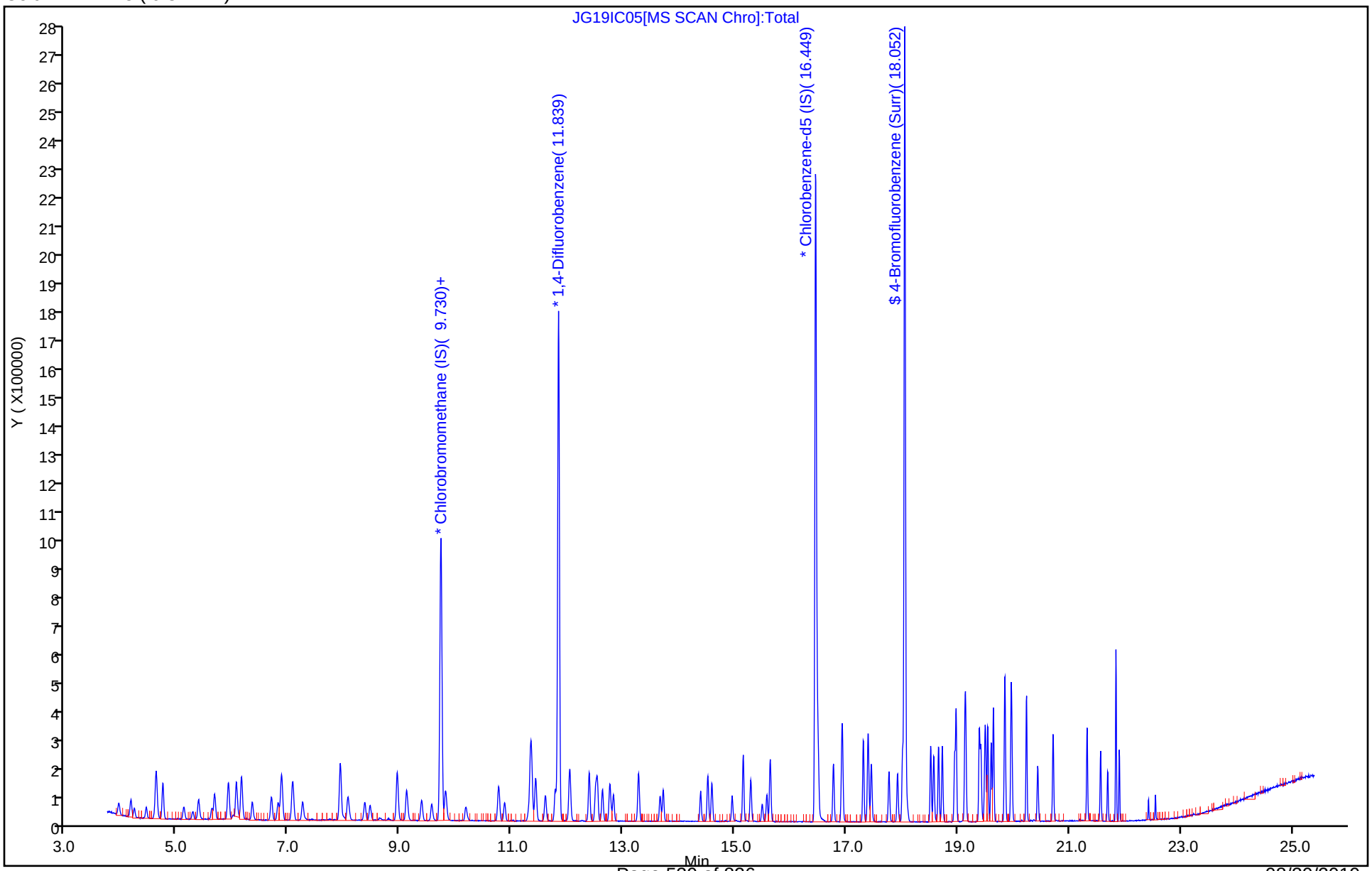
Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D

Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

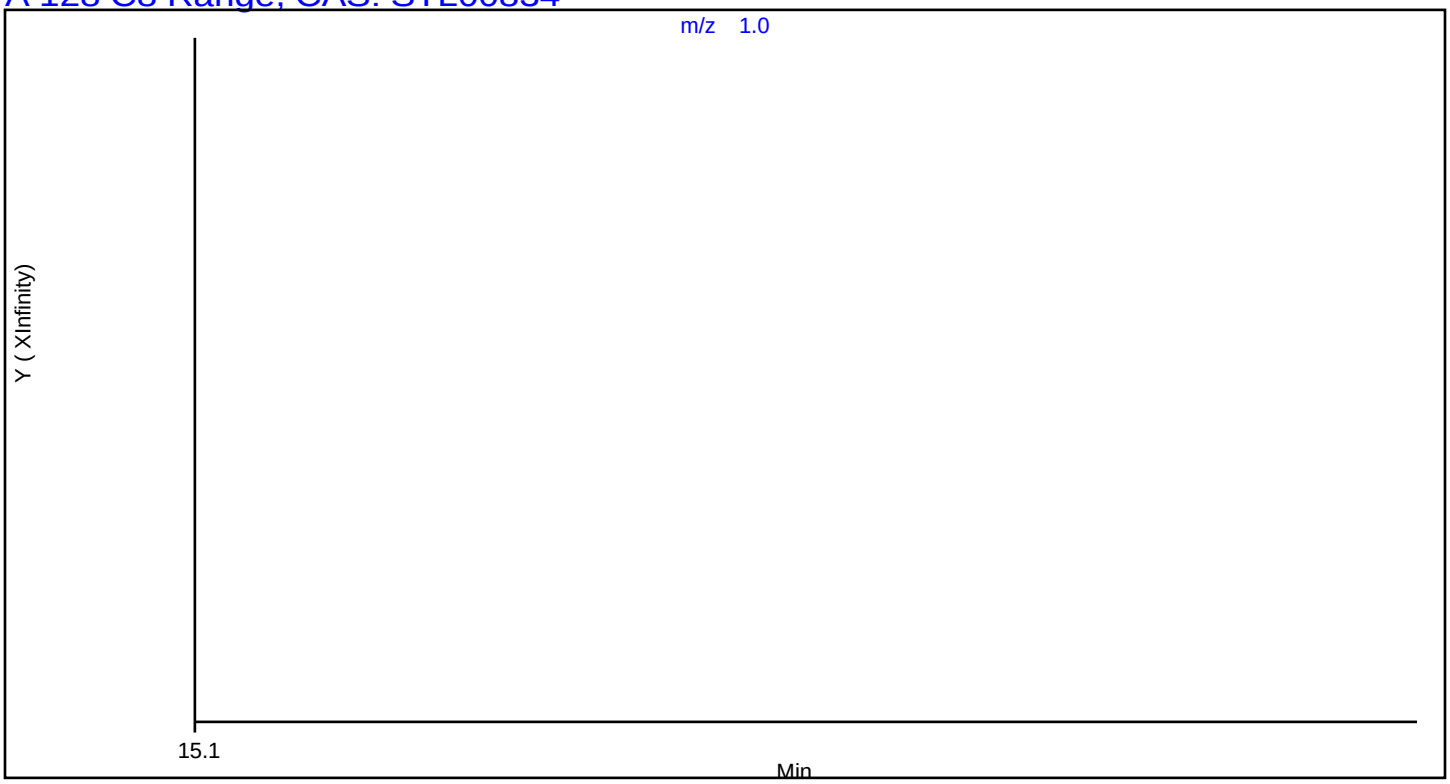


Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Jul-2019 04:48:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-014
Misc. Info.: 231547
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:14 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 11:59:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	275638	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1436209	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1244130	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	926278	4.00	4.05	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	69702	1.00	0.9253	
20 Propene	41	4.169	4.169	0.000	98	59192	1.00	1.08	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	83071	1.00	0.9623	
22 Chloromethane	52	4.438	4.441	-0.003	100	27769	1.00	1.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	48	11411	1.00	0.9518	
24 Acetaldehyde	44	4.610	4.617	-0.007	92	197908	5.00	5.52	
25 Vinyl chloride	62	4.637	4.642	-0.005	99	93320	1.00	1.00	
26 Butane	43	4.739	4.739	0.000	85	146719	1.00	1.02	
27 Butadiene	54	4.739	4.741	-0.002	68	68261	1.00	0.9635	
28 Bromomethane	94	5.115	5.117	-0.002	97	78978	1.00	0.9574	
29 Chloroethane	64	5.271	5.275	-0.004	87	39592	1.00	0.9606	
30 Ethanol	31	5.379	5.386	-0.007	98	192417	5.00	5.17	
31 Vinyl bromide	106	5.616	5.618	-0.002	97	74384	1.00	0.9730	
32 2-Methylbutane	43	5.664	5.669	-0.005	91	96302	1.00	0.9670	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	301033	1.00	1.01	
34 Acrolein	56	5.922	5.930	-0.008	93	19989	1.00	1.11	
35 Acetonitrile	40	5.998	6.004	-0.006	97	30044	1.00	1.05	
36 Acetone	58	6.057	6.061	-0.004	99	106237	3.00	3.35	
38 Pentane	72	6.154	6.155	-0.001	95	10942	1.00	0.9607	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	94	285574	3.00	3.10	
39 Ethyl ether	31	6.337	6.345	-0.008	89	107243	1.00	1.05	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	82349	1.00	0.9735	
41 Acrylonitrile	53	6.799	6.802	-0.003	93	58884	1.00	1.04	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	97	149308	1.00	1.05	
43 1,1,2-Trichloro-1,2,2-trif	101	6.869	6.873	-0.004	95	192673	1.00	0.9796	
44 Methylene Chloride	84	7.063	7.067	-0.004	96	88979	1.00	0.8580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	102639	1.00	1.07	
46 Carbon disulfide	76	7.246	7.248	-0.002	100	254625	1.00	0.9872	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	91	84422	1.00	1.00	
48 2-Methylpentane	43	7.924	7.928	-0.004	95	235268	1.00	1.01	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	235531	1.00	1.04	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	100	185591	1.00	0.9854	
51 Vinyl acetate	43	8.456	8.461	-0.005	100	250126	1.00	1.05	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	95	38700	1.00	1.04	
53 Hexane	56	8.946	8.948	-0.002	73	75679	1.00	1.00	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	301826	1.00	1.05	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	98	85468	1.00	0.9809	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	203568	1.00	1.03	
57 Chloroform	83	9.731	9.735	-0.004	50	218488	1.00	0.9767	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	98	278520	1.00	1.04	
59 Tetrahydrofuran	42	10.167	10.176	-0.009	92	102525	1.00	1.03	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	234252	1.00	0.9732	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	164559	1.00	1.00	
62 n-Butanol	31	11.280	11.296	-0.016	93	40227	1.00	1.03	
63 Cyclohexane	69	11.334	11.337	-0.003	68	43594	1.00	0.9871	
64 Benzene	78	11.340	11.340	0.000	97	257566	1.00	0.9791	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	249189	1.00	1.13	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	92	59251	1.00	1.00	
67 Thiophene	84	11.603	11.604	-0.001	98	147708	1.00	0.9872	
68 Isooctane	57	12.039	12.041	-0.002	96	468977	1.00	1.00	
69 n-Heptane	71	12.389	12.392	-0.004	95	89663	1.00	0.99	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	110558	1.00	1.00	
71 Trichloroethene	130	12.534	12.537	-0.003	92	114328	1.00	0.9626	
72 Dibromomethane	93	12.625	12.627	-0.002	93	122397	1.00	1.00	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	229761	1.00	0.9820	
74 1,4-Dioxane	88	12.781	12.787	-0.006	97	31384	1.00	1.02	
75 Methyl methacrylate	41	12.824	12.827	-0.003	88	133533	1.00	1.04	
76 Methylcyclohexane	83	13.276	13.277	-0.001	93	159061	1.00	0.9870	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	207313	1.00	1.03	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	99	165289	1.00	1.01	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	158402	1.00	1.03	
80 Toluene	91	14.519	14.519	0.000	92	306473	1.00	1.02	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	95	98749	1.00	1.03	
82 2-Hexanone	58	14.949	14.956	-0.007	91	95548	1.00	1.09	
83 n-Octane	85	15.154	15.154	0.000	96	91561	1.00	0.99	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	214363	1.00	1.03	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	176750	1.00	1.01	
86 Tetrachloroethene	129	15.632	15.637	-0.005	93	119436	1.00	0.9891	
87 2,3-Dimethylheptane	43	16.477	16.478	-0.001	94	361751	1.00	1.02	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	241644	1.00	1.00	
89 Ethylbenzene	91	16.773	16.773	0.000	100	404167	1.00	1.04	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	621917	2.00	2.09	
91 n-Nonane	57	17.305	17.307	-0.002	94	219047	1.00	1.02	
92 Styrene	104	17.391	17.392	-0.001	97	218682	1.00	1.03	
93 Bromoform	173	17.397	17.398	-0.001	95	217537	1.00	0.9757	
94 o-Xylene	91	17.451	17.453	-0.002	97	332666	1.00	1.05	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	235263	1.00	1.07	
96 1,2,3-Trichloropropane	110	17.919	17.923	-0.004	97	65354	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	98	426827	1.00	1.04	
98 N-Propylbenzene	120	18.516	18.517	-0.001	98	113652	1.00	1.03	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	109844	1.00	1.03	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	429956	1.00	1.05	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	168435	1.00	1.03	
102 Alpha Methyl Styrene	118	18.946	18.948	-0.002	84	176468	1.00	1.04	
103 n-Decane	57	18.973	18.974	-0.001	89	288216	1.00	1.06	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	88	386592	1.00	1.02	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	379144	1.00	1.04	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	536445	1.00	1.05	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	259520	1.00	1.02	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	320685	1.00	1.03	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	258631	1.00	1.01	
110 4-Isopropyltoluene	119	19.538	19.542	-0.004	96	451475	1.00	1.05	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	385477	1.00	1.08	
112 Butylcyclohexane	83	19.640	19.642	-0.002	90	331972	1.00	1.07	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	358478	1.00	1.08	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	255350	1.00	1.02	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	482850	1.00	1.08	
116 Indene	116	19.974	19.974	0.000	96	304611	1.00	1.07	
117 Undecane	57	20.232	20.235	-0.003	93	337616	1.00	1.10	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	92	132338	1.00	1.07	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	421150	1.00	1.09	
120 Dodecane	57	21.324	21.323	0.001	92	325888	1.00	1.25	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	94	212510	1.00	1.04	
122 Naphthalene	128	21.695	21.693	0.002	98	340855	1.00	1.07	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	269796	1.00	1.10	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	183380	1.00	1.14	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	98	104984	1.00	1.21	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	129712	1.00	1.24	
A 128 C8 Range	1	15.148	(15.121-15.207)		0	1013087	1.00	1.03	
S 129 Xylenes, Total	100				0		3.00	3.15	
S 130 1,2-Dichloroethene, Total	1				0		2.00	1.98	

Reagents:

40L6DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

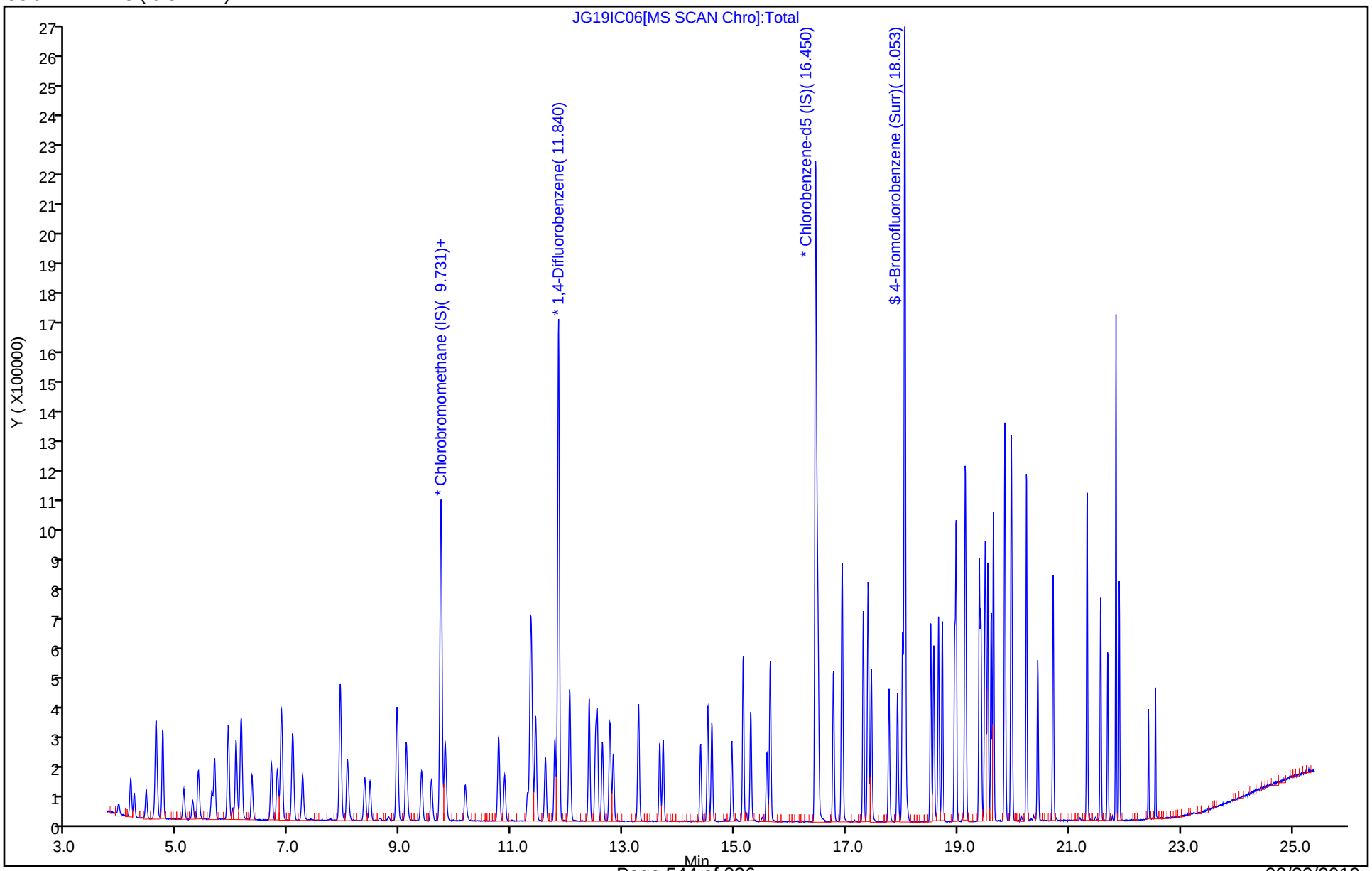
Report Date: 24-Jul-2019 11:36:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D

Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

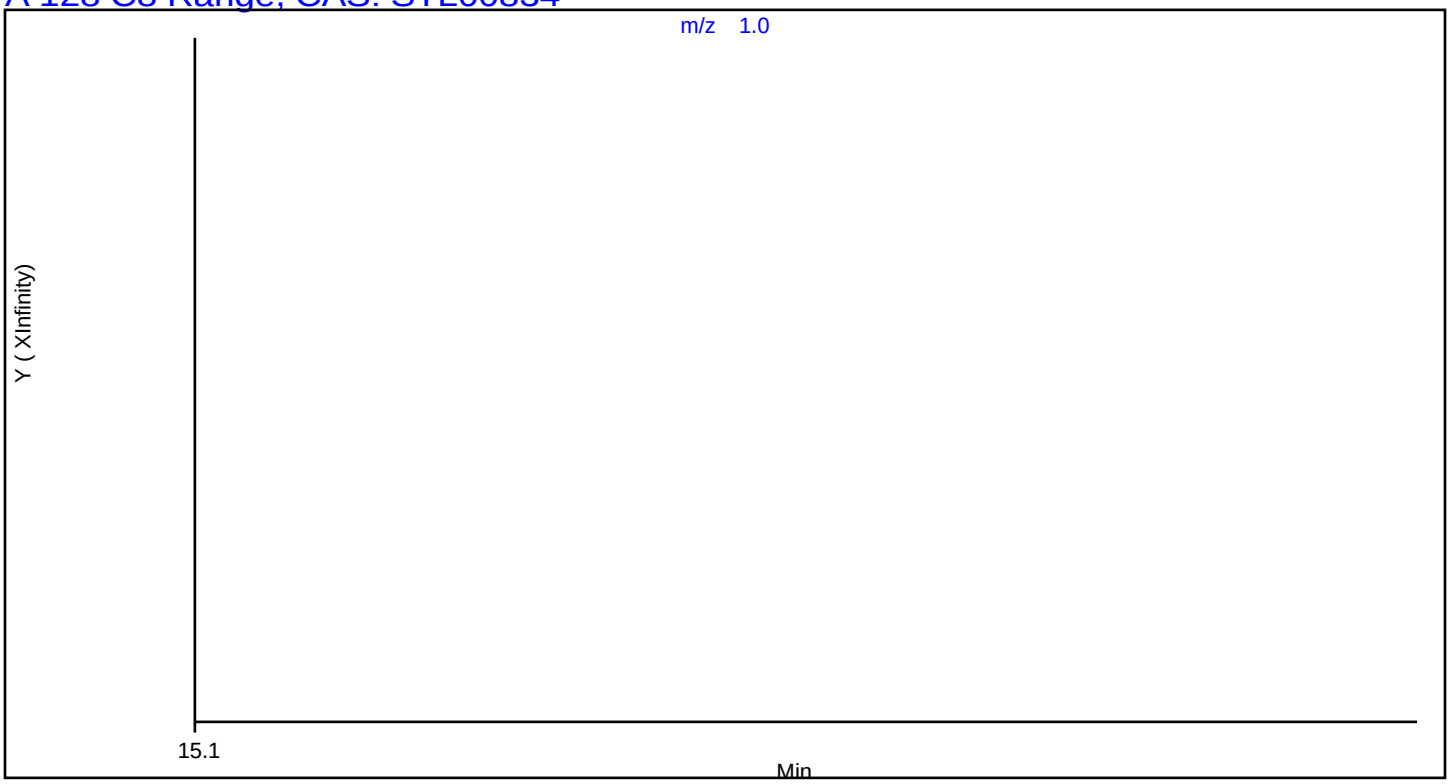


Report Date: 24-Jul-2019 11:36:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D				
Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 20-Jul-2019 05:37:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-015
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:22 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:03:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	95	285692	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.841	11.841	0.000	97	1484056	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.453	-0.002	92	1253354	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.049	18.052	-0.004	89	913593	4.00	3.97	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	118045	2.00	1.51	
20 Propene	41	4.164	4.169	-0.005	97	83916	2.00	1.48	
21 Dichlorodifluoromethane	85	4.229	4.228	0.001	100	181786	2.00	2.03	
22 Chloromethane	52	4.444	4.441	0.003	100	58261	2.00	2.02	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.444	4.444	0.000	48	25059	2.00	2.02	
24 Acetaldehyde	44	4.616	4.617	-0.001	92	322907	10.0	8.68	
25 Vinyl chloride	62	4.638	4.642	-0.004	99	209135	2.00	2.15	
26 Butane	43	4.740	4.739	0.001	85	320866	2.00	2.14	
27 Butadiene	54	4.740	4.741	-0.001	68	153622	2.00	2.09	
28 Bromomethane	94	5.116	5.117	-0.001	98	179541	2.00	2.10	
29 Chloroethane	64	5.272	5.275	-0.003	89	89853	2.00	2.10	
30 Ethanol	31	5.374	5.386	-0.012	99	411685	10.0	10.7	
31 Vinyl bromide	106	5.617	5.618	-0.001	97	165932	2.00	2.09	
32 2-Methylbutane	43	5.670	5.669	0.001	90	212490	2.00	2.06	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	649561	2.00	2.10	
34 Acrolein	56	5.929	5.930	-0.001	96	34623	2.00	1.85	
35 Acetonitrile	40	6.004	6.004	0.000	98	54608	2.00	1.84	
36 Acetone	58	6.052	6.061	-0.009	99	175926	6.00	5.35	
38 Pentane	72	6.155	6.155	-0.001	95	25557	2.00	2.16	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	93	646180	6.00	6.76	
39 Ethyl ether	31	6.337	6.345	-0.008	90	196183	2.00	1.85	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	186040	2.00	2.12	
41 Acrylonitrile	53	6.795	6.802	-0.007	91	109873	2.00	1.87	
42 2-Methyl-2-propanol	59	6.784	6.814	-0.030	96	349531	2.00	2.37	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.873	-0.003	95	427819	2.00	2.10	
44 Methylene Chloride	84	7.064	7.067	-0.003	96	182263	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.074	7.081	-0.007	97	228907	2.00	2.30	
46 Carbon disulfide	76	7.247	7.248	-0.001	100	558271	2.00	2.09	
47 trans-1,2-Dichloroethene	96	7.919	7.922	-0.003	96	187576	2.00	2.14	
48 2-Methylpentane	43	7.930	7.928	0.002	95	511215	2.00	2.12	
49 Methyl tert-butyl ether	73	8.048	8.066	-0.018	97	465475	2.00	1.99	
50 1,1-Dichloroethane	63	8.360	8.363	-0.003	99	424178	2.00	2.17	
51 Vinyl acetate	43	8.457	8.461	-0.004	100	460683	2.00	1.86	
52 2-Butanone (MEK)	72	8.936	8.943	-0.007	96	74085	2.00	1.92	
53 Hexane	56	8.941	8.948	-0.007	80	165538	2.00	2.11	
54 Isopropyl ether	45	9.108	9.118	-0.010	97	608074	2.00	2.04	
55 cis-1,2-Dichloroethene	96	9.382	9.384	-0.002	99	197127	2.00	2.18	
56 Ethyl acetate	43	9.560	9.566	-0.006	98	413396	2.00	2.01	
57 Chloroform	83	9.737	9.735	0.002	95	498664	2.00	2.15	
58 Tert-butyl ethyl ether	59	9.802	9.817	-0.015	97	575937	2.00	2.07	
59 Tetrahydrofuran	42	10.157	10.176	-0.019	92	201024	2.00	1.96	
60 1,1,1-Trichloroethane	97	10.765	10.767	-0.002	96	532500	2.00	2.13	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	375540	2.00	2.20	
62 n-Butanol	31	11.276	11.296	-0.020	95	89549	2.00	2.21	
63 Cyclohexane	69	11.335	11.337	-0.002	74	96593	2.00	2.12	
64 Benzene	78	11.340	11.340	0.000	98	581894	2.00	2.14	
65 Carbon tetrachloride	117	11.362	11.361	0.001	98	566222	2.00	2.48	
66 2,3-Dimethylpentane	71	11.432	11.430	0.002	91	134278	2.00	2.19	
67 Thiophene	84	11.604	11.604	0.000	97	337291	2.00	2.18	
68 Isooctane	57	12.040	12.041	-0.001	97	1037335	2.00	2.14	
69 n-Heptane	71	12.389	12.392	-0.003	94	203240	2.00	2.17	
70 1,2-Dichloropropane	63	12.502	12.505	-0.003	87	249044	2.00	2.18	
71 Trichloroethene	130	12.535	12.537	-0.002	92	262510	2.00	2.14	
72 Dibromomethane	93	12.626	12.627	-0.001	94	275575	2.00	2.18	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	532485	2.00	2.20	
74 1,4-Dioxane	88	12.771	12.787	-0.016	96	70857	2.00	2.23	
75 Methyl methacrylate	41	12.820	12.827	-0.007	88	272224	2.00	2.04	
76 Methylcyclohexane	83	13.277	13.277	0.000	91	356575	2.00	2.14	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	481925	2.00	2.32	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	371122	2.00	2.19	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	335403	2.00	2.17	
80 Toluene	91	14.520	14.519	0.001	92	616281	2.00	2.04	
81 1,1,2-Trichloroethane	83	14.590	14.591	-0.001	95	207313	2.00	2.14	
82 2-Hexanone	58	14.950	14.956	-0.006	91	219816	2.00	2.48	
83 n-Octane	85	15.154	15.154	0.000	95	204704	2.00	2.20	
84 Chlorodibromomethane	129	15.289	15.290	-0.001	97	477997	2.00	2.28	
85 Ethylene Dibromide	107	15.579	15.579	0.000	98	389612	2.00	2.21	
86 Tetrachloroethene	129	15.639	15.637	0.001	93	265632	2.00	2.18	
87 2,3-Dimethylheptane	43	16.478	16.478	0.000	94	757889	2.00	2.13	
88 Chlorobenzene	112	16.499	16.501	-0.002	90	515968	2.00	2.13	
89 Ethylbenzene	91	16.774	16.773	0.001	100	806819	2.00	2.07	
90 m-Xylene & p-Xylene	91	16.930	16.929	0.001	99	1270566	4.00	4.25	
91 n-Nonane	57	17.306	17.307	-0.001	94	465939	2.00	2.15	
92 Styrene	104	17.392	17.392	0.000	97	455653	2.00	2.13	
93 Bromoform	173	17.398	17.398	0.000	95	512843	2.00	2.28	
94 o-Xylene	91	17.451	17.453	-0.002	97	676455	2.00	2.13	
95 1,1,2,2-Tetrachloroethane	83	17.769	17.769	0.000	98	494603	2.00	2.23	
96 1,2,3-Trichloropropane	110	17.925	17.923	0.002	97	133722	2.00	2.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.011	18.012	-0.001	98	870746	2.00	2.10	
98 N-Propylbenzene	120	18.517	18.517	0.000	98	233784	2.00	2.11	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	227474	2.00	2.12	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	895533	2.00	2.16	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	353526	2.00	2.14	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	377525	2.00	2.22	
103 n-Decane	57	18.974	18.974	0.000	89	591844	2.00	2.16	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	815324	2.00	2.14	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	98	792960	2.00	2.16	
106 sec-Butylbenzene	105	19.388	19.389	-0.001	98	1128469	2.00	2.19	
107 1,3-Dichlorobenzene	146	19.415	19.419	-0.004	98	547572	2.00	2.14	
108 Benzyl chloride	91	19.485	19.487	-0.002	97	735170	2.00	2.34	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	94	549492	2.00	2.13	
110 4-Isopropyltoluene	119	19.539	19.542	-0.003	97	960667	2.00	2.22	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	811374	2.00	2.26	
112 Butylcyclohexane	83	19.641	19.642	-0.001	91	682027	2.00	2.19	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	93	741820	2.00	2.22	
114 1,2-Dichlorobenzene	146	19.851	19.851	0.000	95	540039	2.00	2.15	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	1016889	2.00	2.27	
116 Indene	116	19.974	19.974	0.000	91	642582	2.00	2.24	
117 Undecane	57	20.233	20.235	-0.002	93	696186	2.00	2.25	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	94	304127	2.00	2.43	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	924317	2.00	2.37	
120 Dodecane	57	21.319	21.323	-0.004	92	682968	2.00	2.59	
121 1,2,4-Trichlorobenzene	180	21.567	21.565	0.002	93	452405	2.00	2.21	
122 Naphthalene	128	21.690	21.693	-0.003	98	722961	2.00	2.25	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	94	535851	2.00	2.17	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	381083	2.00	2.35	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	252943	2.00	2.88	
126 1-Methylnaphthalene	142	22.546	22.549	-0.003	99	300466	2.00	2.86	
A 128 C8 Range	1	15.164	(15.111-15.218)		0	2208887	2.00	2.22	
S 129 Xylenes, Total	100				0		6.00	6.37	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.32	

Reagents:

40L8DQP_00011	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

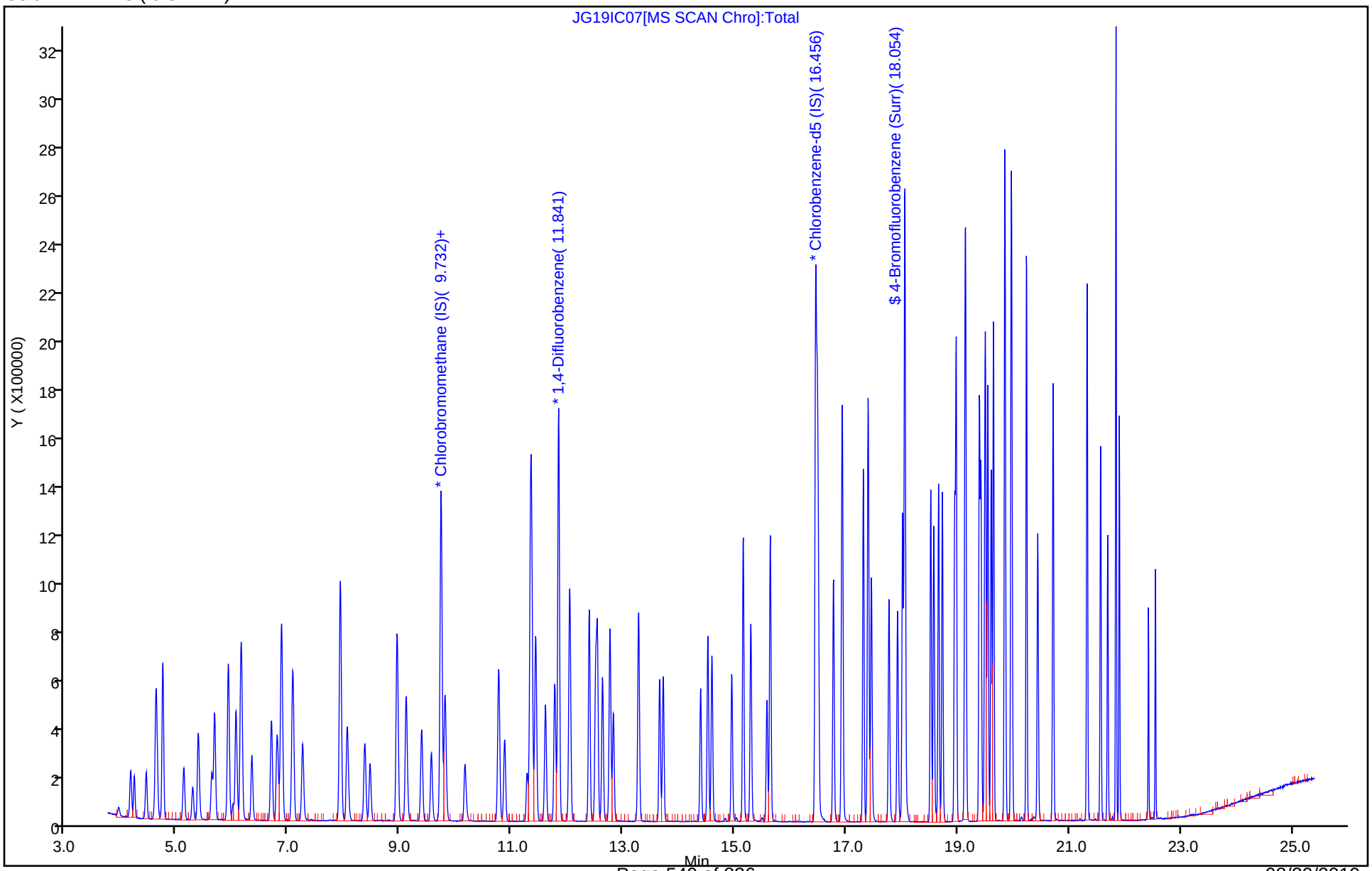
Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D

Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

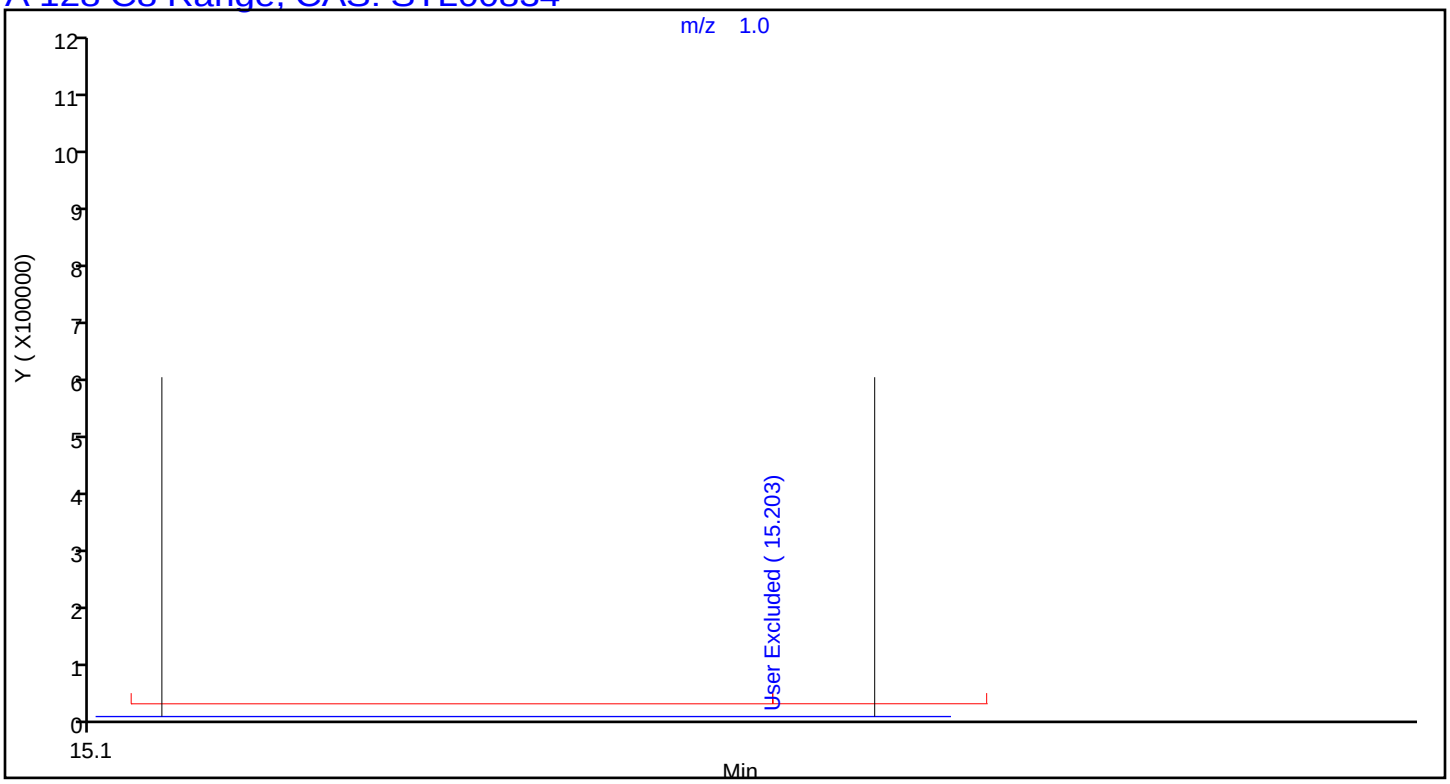


Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D				
Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Jul-2019 06:27:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-016
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 24-Jul-2019 10:50:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	95	305209	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1573202	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.454	16.453	0.001	91	1405182	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	90	1076887	4.00	4.17	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	352408	4.00	4.23	
20 Propene	41	4.162	4.169	-0.007	98	230605	4.00	3.82	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	385477	4.00	4.03	
22 Chloromethane	52	4.437	4.441	-0.004	100	123458	4.00	4.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.437	4.444	-0.007	92	54998	4.00	4.14	
24 Acetaldehyde	44	4.609	4.617	-0.008	93	691533	20.0	17.4	
25 Vinyl chloride	62	4.636	4.642	-0.006	99	421064	4.00	4.06	
26 Butane	43	4.733	4.739	-0.006	84	630660	4.00	3.94	
27 Butadiene	54	4.733	4.741	-0.008	69	308014	4.00	3.93	
28 Bromomethane	94	5.115	5.117	-0.002	98	363015	4.00	3.97	
29 Chloroethane	64	5.271	5.275	-0.004	89	179467	4.00	3.93	
30 Ethanol	31	5.373	5.386	-0.013	98	737472	20.0	17.9	
31 Vinyl bromide	106	5.615	5.618	-0.003	97	335660	4.00	3.97	
32 2-Methylbutane	43	5.663	5.669	-0.006	90	402954	4.00	3.65	
33 Trichlorofluoromethane	101	5.911	5.916	-0.005	99	1305209	4.00	3.95	
34 Acrolein	56	5.927	5.930	-0.003	98	74502	4.00	3.72	
35 Acetonitrile	40	5.997	6.004	-0.007	96	110573	4.00	3.49	
36 Acetone	58	6.045	6.061	-0.016	99	347231	12.0	9.88	
38 Pentane	72	6.147	6.155	-0.008	97	48180	4.00	3.82	
37 Isopropyl alcohol	45	6.131	6.155	-0.024	96	1099732	12.0	10.8	
39 Ethyl ether	31	6.330	6.345	-0.015	90	414082	4.00	3.65	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	361448	4.00	3.86	
41 Acrylonitrile	53	6.798	6.802	-0.004	93	235232	4.00	3.76	
42 2-Methyl-2-propanol	59	6.782	6.814	-0.032	96	590968	4.00	3.74	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	96	830656	4.00	3.81	
44 Methylene Chloride	84	7.062	7.067	-0.005	96	337568	4.00	2.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	97	421573	4.00	3.96	
46 Carbon disulfide	76	7.245	7.248	-0.003	100	1095624	4.00	3.84	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	364761	4.00	3.90	
48 2-Methylpentane	43	7.923	7.928	-0.005	95	971683	4.00	3.77	
49 Methyl tert-butyl ether	73	8.046	8.066	-0.020	97	941368	4.00	3.77	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	100	768735	4.00	3.69	
51 Vinyl acetate	43	8.455	8.461	-0.006	100	998045	4.00	3.77	
52 2-Butanone (MEK)	72	8.934	8.943	-0.009	96	142067	4.00	3.45	
53 Hexane	56	8.945	8.948	-0.003	80	312844	4.00	3.73	
54 Isopropyl ether	45	9.101	9.118	-0.017	96	1175996	4.00	3.68	
55 cis-1,2-Dichloroethene	96	9.380	9.384	-0.004	98	367352	4.00	3.81	
56 Ethyl acetate	43	9.553	9.566	-0.013	98	806524	4.00	3.68	
57 Chloroform	83	9.736	9.735	0.001	96	909968	4.00	3.67	
58 Tert-butyl ethyl ether	59	9.800	9.817	-0.017	97	1116586	4.00	3.76	
59 Tetrahydrofuran	42	10.155	10.176	-0.021	92	400597	4.00	3.65	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	991646	4.00	3.72	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	677290	4.00	3.75	
62 n-Butanol	31	11.269	11.296	-0.027	94	152659	4.00	3.55	
63 Cyclohexane	69	11.339	11.337	0.002	77	187159	4.00	3.87	
64 Benzene	78	11.339	11.340	-0.001	98	1043178	4.00	3.62	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	98	1090465	4.00	4.51	
66 2,3-Dimethylpentane	71	11.430	11.430	0.000	91	245152	4.00	3.77	
67 Thiophene	84	11.602	11.604	-0.002	98	614522	4.00	3.75	
68 Isooctane	57	12.038	12.041	-0.003	96	1894159	4.00	3.69	
69 n-Heptane	71	12.388	12.392	-0.004	95	372781	4.00	3.76	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	87	454813	4.00	3.76	
71 Trichloroethene	130	12.538	12.537	0.001	94	479951	4.00	3.69	
72 Dibromomethane	93	12.630	12.627	0.003	95	509254	4.00	3.79	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	977581	4.00	3.81	
74 1,4-Dioxane	88	12.770	12.787	-0.017	92	131050	4.00	3.89	
75 Methyl methacrylate	41	12.818	12.827	-0.009	89	531980	4.00	3.77	
76 Methylcyclohexane	83	13.275	13.277	-0.002	92	654802	4.00	3.71	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	809261	4.00	3.67	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	98	702648	4.00	3.91	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	672142	4.00	3.88	
80 Toluene	91	14.518	14.519	-0.001	92	1261809	4.00	3.72	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	96	408402	4.00	3.76	
82 2-Hexanone	58	14.948	14.956	-0.008	91	369071	4.00	3.71	
83 n-Octane	85	15.153	15.154	-0.001	95	387857	4.00	3.72	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	935330	4.00	3.98	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	98	756741	4.00	3.82	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	499480	4.00	3.66	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	1432753	4.00	3.59	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	1006543	4.00	3.71	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	1635567	4.00	3.74	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	2589354	8.00	7.72	
91 n-Nonane	57	17.304	17.307	-0.003	93	914349	4.00	3.77	
92 Styrene	104	17.391	17.392	-0.002	97	934523	4.00	3.90	
93 Bromoform	173	17.396	17.398	-0.002	97	1065944	4.00	4.23	
94 o-Xylene	91	17.450	17.453	-0.003	97	1371043	4.00	3.84	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	979510	4.00	3.94	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	269148	4.00	3.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	98	1761169	4.00	3.78	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	476994	4.00	3.84	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	468749	4.00	3.90	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	1803676	4.00	3.89	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	711101	4.00	3.84	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	763807	4.00	4.00	
103 n-Decane	57	18.972	18.974	-0.002	90	1167002	4.00	3.80	
104 tert-Butylbenzene	119	19.133	19.133	0.000	90	1612357	4.00	3.78	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	1587508	4.00	3.86	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	2223634	4.00	3.85	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	1111022	4.00	3.88	
108 Benzyl chloride	91	19.488	19.487	0.001	97	1469564	4.00	4.17	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	1113121	4.00	3.85	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	1860896	4.00	3.83	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	99	1583203	4.00	3.93	
112 Butylcyclohexane	83	19.645	19.642	0.002	90	1353618	4.00	3.88	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	1463048	4.00	3.91	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	1081773	4.00	3.84	
115 n-Butylbenzene	91	19.957	19.958	-0.002	97	1966095	4.00	3.91	
116 Indene	116	19.973	19.974	-0.001	89	1289190	4.00	4.02	
117 Undecane	57	20.236	20.235	0.001	94	1324167	4.00	3.81	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	94	593312	4.00	4.23	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	1734202	4.00	3.96	
120 Dodecane	57	21.323	21.323	0.000	93	1005845	4.00	3.40	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	871856	4.00	3.79	
122 Naphthalene	128	21.694	21.693	0.001	99	1361853	4.00	3.78	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	1079215	4.00	3.89	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	95	675575	4.00	3.72	
125 2-Methylnaphthalene	142	22.420	22.424	-0.004	98	282062	4.00	2.87	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	100	319864	4.00	2.71	
A 128 C8 Range	1	15.163	(15.114-15.211)		0	4158008	4.00	3.73	
S 129 Xylenes, Total	100				0		12.0	11.6	
S 130 1,2-Dichloroethene, Total	1				0		8.00	7.70	

Reagents:

40L8DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

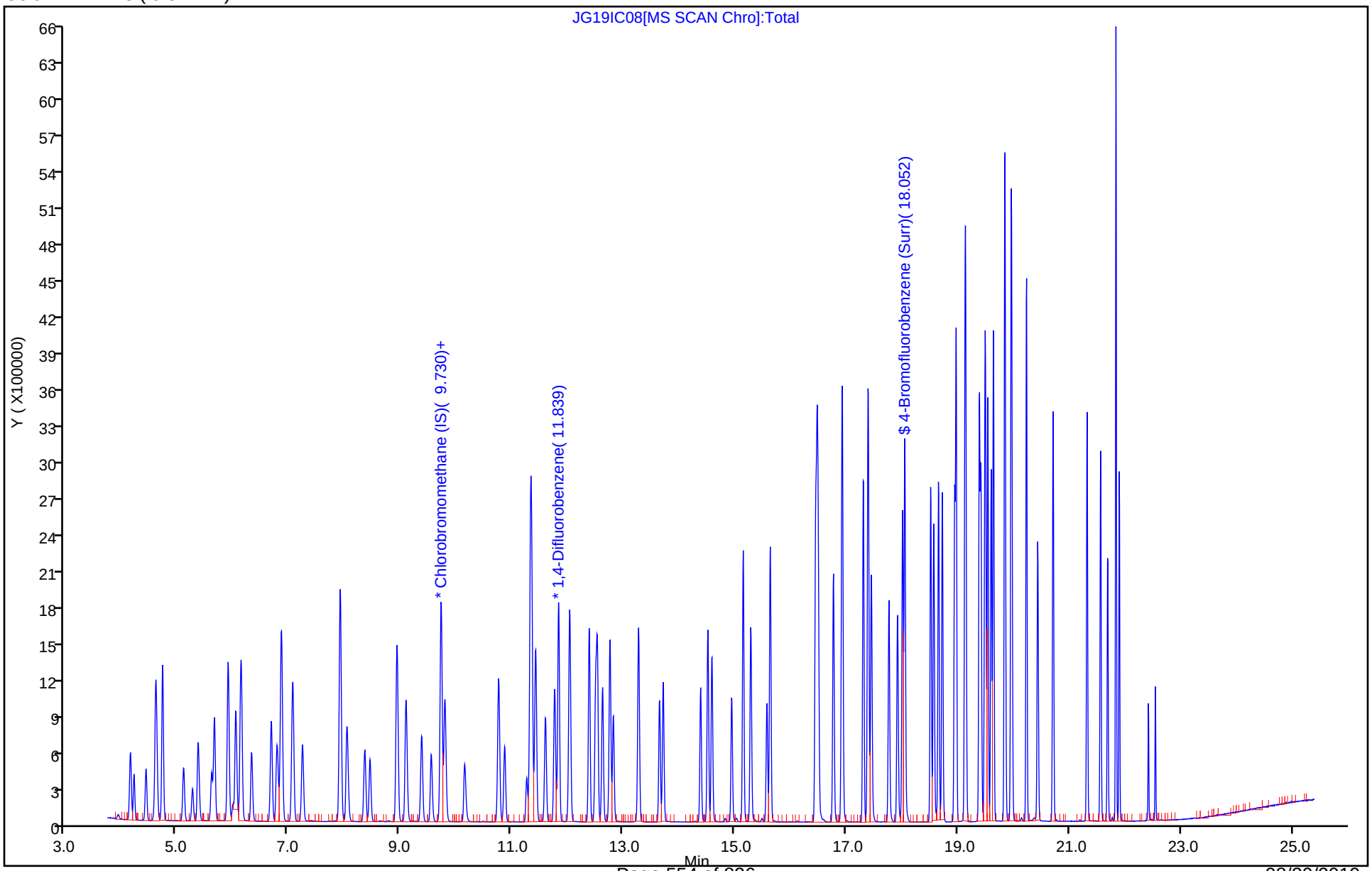
Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

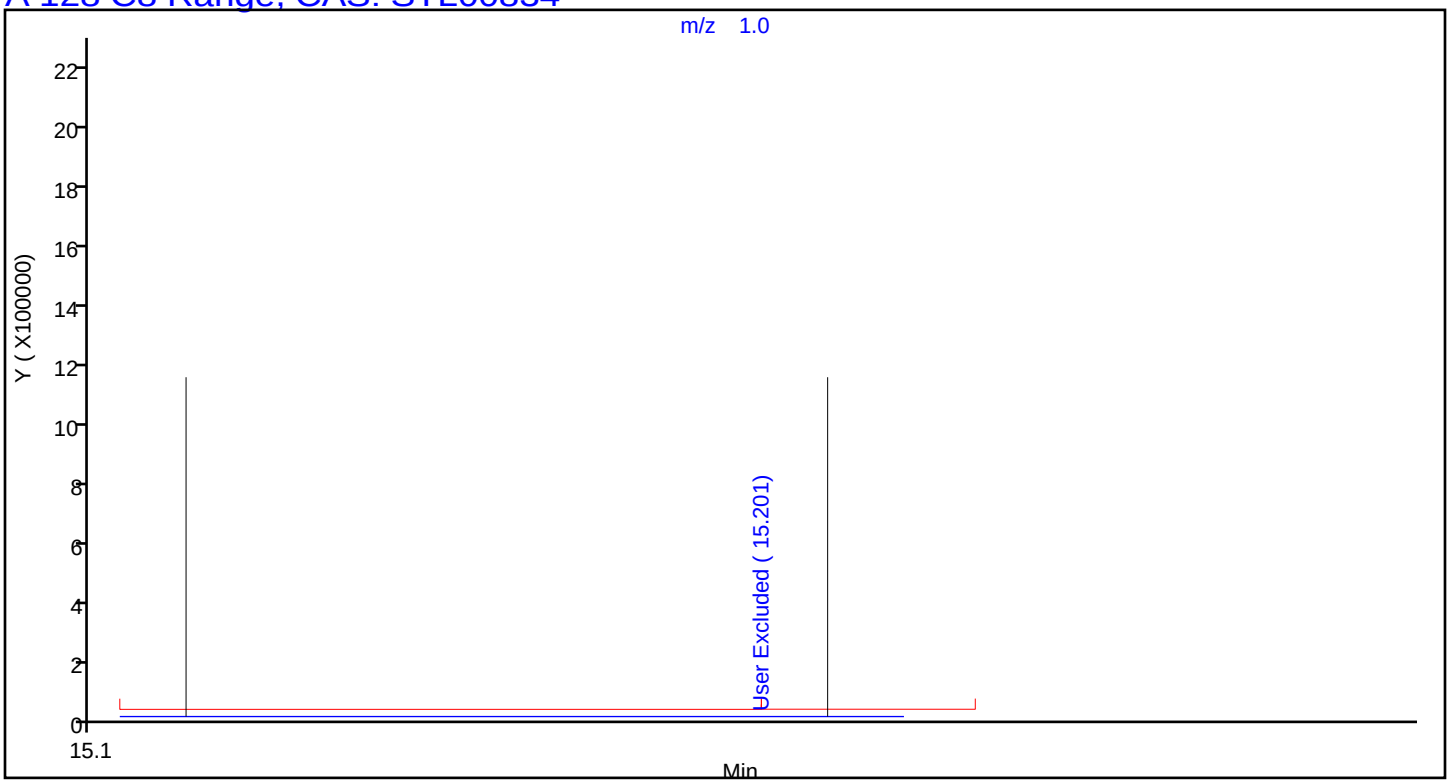


Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++	+++++	+++++	5363	12417	+++++	+++++	+++++	0.160	0.400
			31359	71916	148082	262118	585189	1.00	2.00	4.00	8.00	16.0
Acetonitrile	CBM	Ave	+++++	+++++	+++++	+++++	18073	+++++	+++++	+++++	+++++	0.400
			44589	113950	248929	409722	902567	1.00	2.00	4.00	8.00	16.0
Acetone	CBM	Ave	+++++	+++++	+++++	+++++	55059	+++++	+++++	+++++	+++++	1.20
			140239	316226	638695	1102801	2425956	3.00	6.00	12.0	24.0	48.0
Pentane	CBM	Ave	+++++	+++++	+++++	+++++	6812	+++++	+++++	+++++	+++++	0.400
			16387	40997	83201	144745	328949	1.00	2.00	4.00	8.00	16.0
Isopropyl alcohol	CBM	Ave	11087	17979	30173	56079	156113	0.0600	0.120	0.240	0.480	1.20
			434704	1105765	2244654	3831142	8514512	3.00	6.00	12.0	24.0	48.0
Ethyl ether	CBM	Ave	+++++	+++++	10342	20465	49563	+++++	+++++	0.0800	0.160	0.400
			139716	335934	691635	1173779	2610293	1.00	2.00	4.00	8.00	16.0
1,1-Dichloroethene	CBM	Ave	+++++	4055	6464	12986	30801	+++++	0.0400	0.0800	0.160	0.400
			91670	220013	436351	784721	1715585	1.00	2.00	4.00	8.00	16.0
Acrylonitrile	CBM	Ave	+++++	+++++	+++++	+++++	16277	+++++	+++++	+++++	+++++	0.400
			76620	175197	363112	655074	1448282	1.00	2.00	4.00	8.00	16.0
tert-Butyl alcohol	CBM	Ave	+++++	+++++	14220	24598	65062	+++++	+++++	0.0800	0.160	0.400
			187436	447503	934472	1626595	3602839	1.00	2.00	4.00	8.00	16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++	+++++	12898	26227	64689	+++++	+++++	0.0800	0.160	0.400
			195830	480563	958858	1736390	3875490	1.00	2.00	4.00	8.00	16.0
Methylene Chloride	CBM	Ave	+++++	+++++	+++++	19470	37926	+++++	+++++	+++++	0.160	0.400
			97104	207664	399350	694114	1527458	1.00	2.00	4.00	8.00	16.0
3-Chloropropene	CBM	Ave	+++++	+++++	8996	14010	37437	+++++	+++++	0.0800	0.160	0.400
			106755	247852	491788	910177	1990321	1.00	2.00	4.00	8.00	16.0
Carbon disulfide	CBM	Ave	+++++	+++++	16332	32055	82401	+++++	+++++	0.0800	0.160	0.400
			260082	607331	1208336	2217616	4787033	1.00	2.00	4.00	8.00	16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++	3809	5797	12429	36589	+++++	0.0400	0.0800	0.160	0.400
			97862	245990	489823	864916	1909632	1.00	2.00	4.00	8.00	16.0
2-Methylpentane	CBM	Ave	+++++	+++++	17316	38166	88849	+++++	+++++	0.0800	0.160	0.400
			265535	626319	1282861	2270807	4932630	1.00	2.00	4.00	8.00	16.0
Methyl tert-butyl ether	CBM	Ave	+++++	+++++	15453	35352	98345	+++++	+++++	0.0800	0.160	0.400
			268658	662650	1330133	2381188	5191938	1.00	2.00	4.00	8.00	16.0
1,1-Dichloroethane	CBM	Ave	4013	7026	12145	26688	63504	0.0200	0.0400	0.0800	0.160	0.400
			183745	443627	894337	1613695	3451875	1.00	2.00	4.00	8.00	16.0
Vinyl acetate	CBM	Ave	+++++	+++++	20932	43790	115947	+++++	+++++	0.0800	0.160	0.400
			333540	782313	1598765	2922060	6358946	1.00	2.00	4.00	8.00	16.0
2-Butanone (MEK)	CBM	Ave	+++++	+++++	+++++	8064	18300	+++++	+++++	+++++	0.160	0.400
			46530	116007	231513	415513	932661	1.00	2.00	4.00	8.00	16.0
Hexane	CBM	Ave	+++++	+++++	6114	13205	29832	+++++	+++++	0.0800	0.160	0.400
			85998	199557	400434	705905	1582904	1.00	2.00	4.00	8.00	16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++	4771	8632	14471	39820	+++++	0.0400	0.0800	0.160	0.400
			110184	251302	506769	903782	1979693	1.00	2.00	4.00	8.00	16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Aug-2019 13:33:30 ALS Bottle#: 14 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:25 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:41:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	96	286023	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.787	10.781	0.006	95	1651770	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1519455	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	93	1104916	4.00	4.22	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	1686652	8.00	6.90	
7 Propene	41	3.443	3.439	0.004	97	929137	8.00	6.85	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	1563912	8.00	7.07	
9 Chloromethane	52	3.669	3.665	0.004	75	192525	8.00	5.79	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	89	752994	8.00	6.71	
11 Acetaldehyde	44	3.815	3.817	-0.002	95	1258946	40.0	32.4	
12 Vinyl chloride	62	3.831	3.831	0.000	99	625941	8.00	5.95	
13 Butadiene	54	3.917	3.913	0.004	71	495518	8.00	6.49	
14 Butane	43	3.912	3.914	-0.002	84	936426	8.00	5.79	
15 Bromomethane	94	4.230	4.227	0.003	96	565685	8.00	6.34	
16 Chloroethane	64	4.359	4.359	0.000	91	257658	8.00	5.98	
17 Ethanol	31	4.462	4.464	-0.002	98	1413331	40.0	36.4	
18 Vinyl bromide	106	4.656	4.656	0.000	98	557199	8.00	7.48	
19 2-Methylbutane	43	4.699	4.699	0.000	93	798505	8.00	6.62	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	2275267	8.00	8.28	
20 Acrolein	56	4.931	4.936	-0.005	97	262118	8.00	7.71	
24 Acetonitrile	40	5.001	5.001	0.000	98	409722	8.00	8.09	
22 Acetone	58	5.044	5.057	-0.013	99	1102801	24.0	23.2	
25 Pentane	72	5.141	5.138	0.003	95	144745	8.00	7.96	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	3831142	24.0	23.8	
26 Ethyl ether	31	5.303	5.319	-0.016	90	1173779	8.00	7.90	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	95	784721	8.00	7.98	
28 Acrylonitrile	53	5.740	5.738	0.002	91	655074	8.00	8.83	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.021	96	1626595	8.00	8.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	1736390	8.00	8.49	
31 Methylene Chloride	84	5.983	5.978	0.005	96	694114	8.00	6.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	910177	8.00	8.09	
33 Carbon disulfide	76	6.134	6.133	0.001	99	2217616	8.00	8.57	
34 trans-1,2-Dichloroethene	96	6.797	6.788	0.009	98	864916	8.00	8.37	
35 2-Methylpentane	43	6.802	6.803	-0.001	97	2270807	8.00	8.28	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	2381188	8.00	8.54	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	1613695	8.00	8.23	
38 Vinyl acetate	43	7.331	7.328	0.003	100	2922060	8.00	8.54	
40 Hexane	56	7.800	7.796	0.004	78	705905	8.00	7.86	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	415513	8.00	7.92	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	3490545	8.00	8.19	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	903782	8.00	7.72	
43 Ethyl acetate	43	8.404	8.416	-0.012	98	2470352	8.00	8.15	
44 Chloroform	83	8.566	8.560	0.006	97	1952914	8.00	8.12	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	2939694	8.00	8.29	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	1194324	8.00	7.89	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	95	2171599	8.00	8.21	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	1336641	8.00	8.41	
50 n-Butanol	31	10.172	10.195	-0.023	89	529427	8.00	8.38	
51 Cyclohexane	69	10.210	10.210	0.000	89	431615	8.00	8.22	
49 Benzene	78	10.216	10.214	0.002	98	2831483	8.00	8.46	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	2471477	8.00	9.24	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	623415	8.00	8.27	
54 Thiophene	84	10.501	10.499	0.002	97	1481750	8.00	8.74	
55 Isooctane	57	10.997	10.995	0.002	98	4723123	8.00	8.45	
57 n-Heptane	71	11.391	11.387	0.004	95	1003783	8.00	8.60	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	88	1098818	8.00	8.52	
58 Trichloroethene	130	11.515	11.509	0.006	96	1272523	8.00	8.65	
59 Dibromomethane	93	11.601	11.595	0.006	95	1192726	8.00	8.74	
60 Dichlorobromomethane	83	11.752	11.746	0.006	98	2266175	8.00	9.15	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	439902	8.00	8.56	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	1602463	8.00	8.73	
63 Methylcyclohexane	83	12.292	12.288	0.004	93	1674440	8.00	8.70	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	2849090	8.00	8.70	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	97	1747199	8.00	9.04	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	98	1701957	8.00	9.01	
67 Toluene	91	13.597	13.593	0.004	93	3319430	8.00	8.49	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	1043886	8.00	8.61	
69 2-Hexanone	58	14.060	14.066	-0.006	90	1286641	8.00	8.89	
71 n-Octane	85	14.292	14.288	0.004	97	1087004	8.00	8.49	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	2602812	8.00	9.68	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	2118211	8.00	9.11	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	1347530	8.00	8.44	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	2756890	8.00	8.48	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	95	4021656	8.00	8.27	
76 Ethylbenzene	91	15.915	15.914	0.001	99	4848427	8.00	8.84	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	7462791	16.0	17.3	
81 n-Nonane	57	16.498	16.494	0.004	96	2439907	8.00	8.65	
78 Bromoform	173	16.530	16.525	0.005	96	2883880	8.00	12.0	
79 Styrene	104	16.546	16.543	0.003	99	2757815	8.00	9.30	
80 o-Xylene	91	16.606	16.602	0.004	99	3912982	8.00	8.65	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	2910298	8.00	9.14	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	930012	8.00	9.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	5876884	8.00	8.76	
85 N-Propylbenzene	120	17.749	17.745	0.004	99	1575530	8.00	9.24	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	1431553	8.00	8.81	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	6128184	8.00	9.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	2299646	8.00	9.02	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	2518203	8.00	10.3	
90 n-Decane	57	18.283	18.280	0.003	90	3340916	8.00	8.60	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	5297311	8.00	8.89	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	5278660	8.00	8.94	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	7686620	8.00	9.06	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	3534620	8.00	8.79	
96 Benzyl chloride	91	18.800	18.796	0.004	98	4731103	8.00	10.3	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	3569735	8.00	8.99	
97 4-Isopropyltoluene	119	18.876	18.871	0.005	97	6237349	8.00	9.10	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	5201556	8.00	8.95	
99 Butylcyclohexane	83	18.984	18.981	0.003	93	3867887	8.00	8.90	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	5013200	8.00	9.50	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	3650807	8.00	9.31	
102 Indene	116	19.318	19.314	0.004	90	4657904	8.00	9.78	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	6555104	8.00	9.29	
104 Undecane	57	19.641	19.638	0.003	95	4030320	8.00	8.80	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	2064543	8.00	10.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	6095231	8.00	9.27	
107 Dodecane	57	20.715	20.714	0.001	95	3951977	8.00	8.88	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	3415518	8.00	9.11	
109 Naphthalene	128	21.065	21.064	0.001	99	6971398	8.00	9.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	3455578	8.00	9.28	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	3191028	8.00	9.25	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	2133624	8.00	9.60	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	1853907	8.00	8.69	
A 115 C8 Range	1	14.292	(14.244-14.341)		0	11144655	8.00	8.60	
S 116 Xylenes, Total	100				0		24.0	26.0	
S 117 1,2-Dichloroethene, Total	1				0		16.0	16.1	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

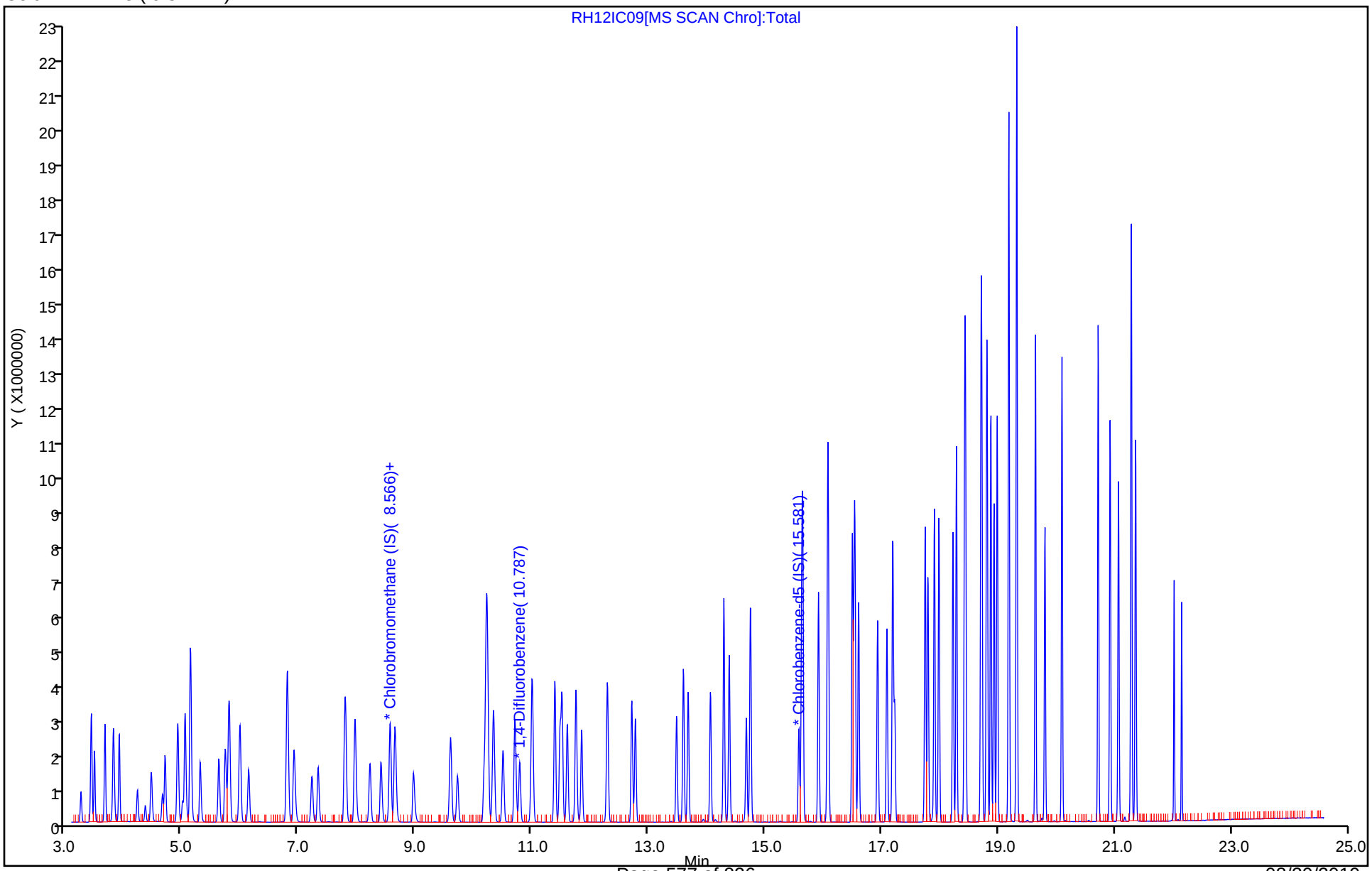
Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D

Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

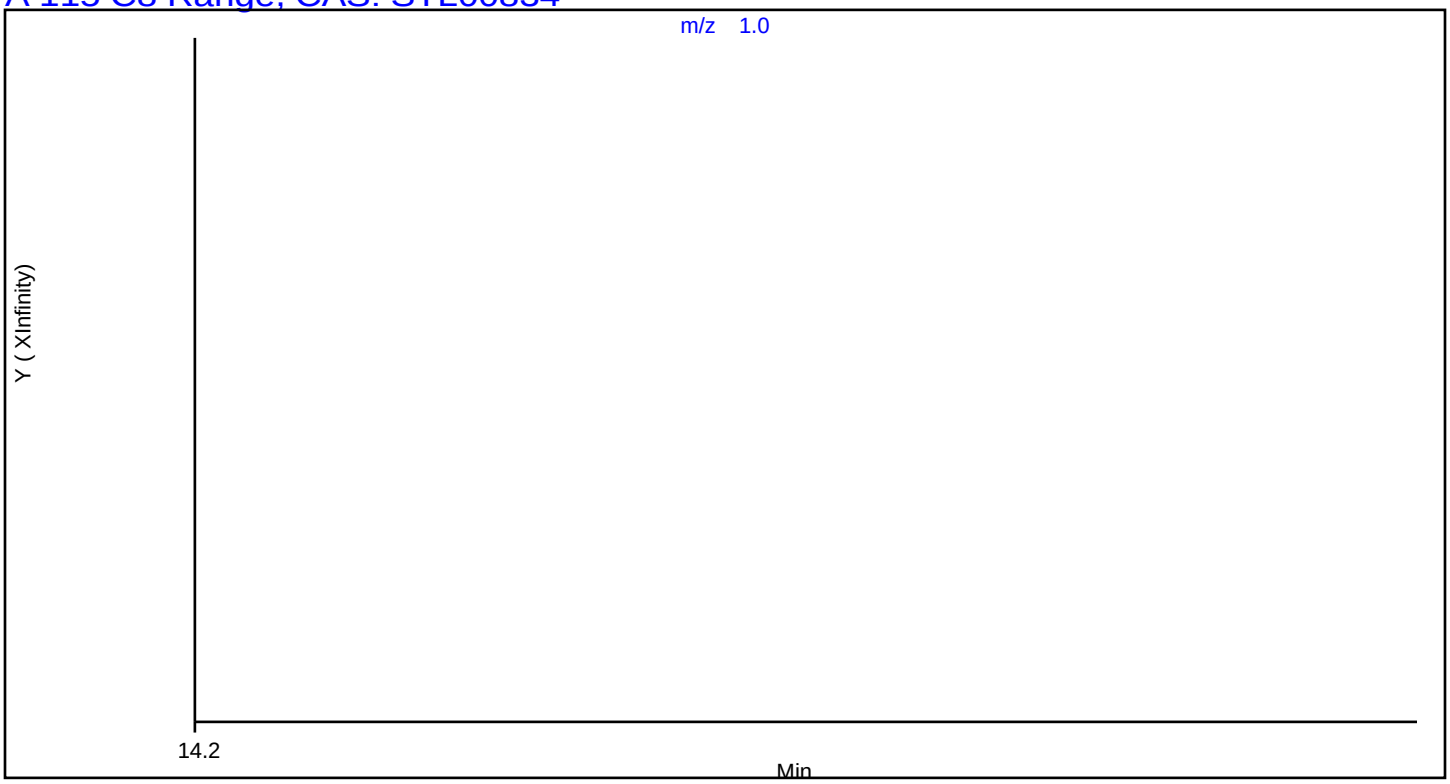


Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D				
Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	14	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 12-Aug-2019 15:13:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:32 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:39:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	98	331072	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.792	10.781	0.011	95	1796412	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1698772	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.226	17.221	0.005	94	1189880	4.00	4.06	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	3868393	16.0	13.7	
7 Propene	41	3.437	3.439	-0.002	99	2119366	16.0	13.5	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	3393984	16.0	13.3	
9 Chloromethane	52	3.664	3.665	-0.001	98	474731	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	1659392	16.0	12.8	
11 Acetaldehyde	44	3.809	3.817	-0.008	99	2832336	80.0	63.1	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	1441332	16.0	11.8	
13 Butadiene	54	3.912	3.913	-0.001	70	1166818	16.0	13.2	
14 Butane	43	3.912	3.914	-0.002	84	2251310	16.0	12.0	
15 Bromomethane	94	4.225	4.227	-0.002	96	1282109	16.0	12.4	
16 Chloroethane	64	4.359	4.359	0.000	92	604347	16.0	12.1	
17 Ethanol	31	4.467	4.464	0.003	99	3128166	80.0	69.6	
18 Vinyl bromide	106	4.656	4.656	0.000	97	1213472	16.0	14.1	
19 2-Methylbutane	43	4.705	4.699	0.005	92	1570512	16.0	11.2	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	4973718	16.0	15.6	
20 Acrolein	56	4.931	4.936	-0.005	98	585189	16.0	14.9	
24 Acetonitrile	40	5.006	5.001	0.005	98	902567	16.0	15.4	
22 Acetone	58	5.044	5.057	-0.013	99	2425956	48.0	44.2	
25 Pentane	72	5.136	5.138	-0.002	96	328949	16.0	15.6	
23 Isopropyl alcohol	45	5.147	5.149	-0.002	94	8514512	48.0	45.8	
26 Ethyl ether	31	5.303	5.319	-0.016	89	2610293	16.0	15.2	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	1715585	16.0	15.1	
28 Acrylonitrile	53	5.740	5.738	0.002	92	1448282	16.0	16.9	
29 2-Methyl-2-propanol	59	5.734	5.756	-0.022	96	3602839	16.0	15.7	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	3875490	16.0	16.4	
31 Methylene Chloride	84	5.982	5.978	0.004	96	1527458	16.0	13.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	95	1990321	16.0	15.3	
33 Carbon disulfide	76	6.133	6.133	0.000	100	4787033	16.0	16.0	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	1909632	16.0	16.0	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	4932630	16.0	15.5	
36 Methyl tert-butyl ether	73	6.910	6.934	-0.024	98	5191938	16.0	16.1	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	100	3451875	16.0	15.2	
38 Vinyl acetate	43	7.331	7.328	0.003	100	6358946	16.0	16.1	
40 Hexane	56	7.800	7.796	0.004	76	1582904	16.0	15.2	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	96	932661	16.0	15.4	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	7654437	16.0	15.5	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	95	1979693	16.0	14.6	
43 Ethyl acetate	43	8.409	8.416	-0.007	98	5400752	16.0	15.4	
44 Chloroform	83	8.571	8.560	0.011	98	4317049	16.0	15.5	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	96	6547011	16.0	16.0	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	93	2611278	16.0	14.9	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	94	4880217	16.0	15.9	
48 1,2-Dichloroethane	62	9.725	9.715	0.010	97	2896923	16.0	16.8	
50 n-Butanol	31	10.172	10.195	-0.023	66	1165521	16.0	17.0	
51 Cyclohexane	69	10.210	10.210	0.000	90	965096	16.0	16.9	
49 Benzene	78	10.216	10.214	0.002	97	6064258	16.0	16.7	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	5417313	16.0	18.6	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	1400003	16.0	17.1	
54 Thiophene	84	10.507	10.499	0.008	97	3335042	16.0	18.1	
55 Isooctane	57	11.003	10.995	0.008	98	10552510	16.0	17.4	
57 n-Heptane	71	11.396	11.387	0.009	94	2260833	16.0	17.8	
56 1,2-Dichloropropane	63	11.483	11.474	0.009	88	2458224	16.0	17.5	
58 Trichloroethene	130	11.515	11.509	0.006	96	2831772	16.0	17.7	
59 Dibromomethane	93	11.607	11.595	0.012	95	2629232	16.0	17.7	
60 Dichlorobromomethane	83	11.752	11.746	0.006	99	4971763	16.0	18.5	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	948586	16.0	17.0	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	3510561	16.0	17.6	
63 Methylcyclohexane	83	12.292	12.288	0.004	92	3734439	16.0	17.8	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	6323240	16.0	17.7	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	97	3911560	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.483	13.476	0.007	98	3868417	16.0	18.3	
67 Toluene	91	13.597	13.593	0.004	93	7282658	16.0	16.7	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	2245491	16.0	16.6	
69 2-Hexanone	58	14.060	14.066	-0.006	90	2871804	16.0	17.8	
71 n-Octane	85	14.292	14.288	0.004	96	2355321	16.0	16.4	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	5765814	16.0	19.2	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	4618343	16.0	17.8	
73 Tetrachloroethene	129	14.750	14.743	0.007	97	3052980	16.0	17.1	
74 Chlorobenzene	112	15.629	15.625	0.004	95	6391037	16.0	17.6	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	96	8293349	16.0	15.3	
76 Ethylbenzene	91	15.915	15.914	0.001	98	10423433	16.0	17.0	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	16680293	32.0	34.6	
81 n-Nonane	57	16.498	16.494	0.004	93	5441512	16.0	17.2	
78 Bromoform	173	16.530	16.525	0.005	97	6776174	16.0	25.2	
79 Styrene	104	16.546	16.543	0.003	99	6253157	16.0	18.9	
80 o-Xylene	91	16.605	16.602	0.003	99	8457498	16.0	16.7	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	6308078	16.0	17.7	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	1986065	16.0	17.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.193	17.187	0.006	96	12785204	16.0	17.0	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	3495935	16.0	18.3	e
86 2-Chlorotoluene	126	17.743	17.786	-0.043	97	2409758	16.0	13.3	e
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	12995264	16.0	17.4	e
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	5654785	16.0	20.7	
90 n-Decane	57	18.282	18.280	0.002	91	7099206	16.0	16.3	
91 tert-Butylbenzene	119	18.428	18.424	0.004	93	11832444	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	11579192	16.0	17.5	
94 sec-Butylbenzene	105	18.703	18.702	0.001	96	15544600	16.0	16.4	e
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	7935738	16.0	17.6	
96 Benzyl chloride	91	18.800	18.796	0.004	98	10790181	16.0	20.9	
95 1,4-Dichlorobenzene	146	18.816	18.810	0.006	95	8073237	16.0	18.2	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	13328935	16.0	17.4	e
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	11619317	16.0	17.9	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	8415289	16.0	17.3	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	10583764	16.0	17.9	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	7779620	16.0	17.7	
102 Indene	116	19.318	19.314	0.004	91	9949397	16.0	18.7	
103 n-Butylbenzene	91	19.323	19.318	0.005	98	13056864	16.0	16.6	e
104 Undecane	57	19.641	19.638	0.003	96	8319839	16.0	16.2	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	4656553	16.0	21.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	12471722	16.0	17.0	e
107 Dodecane	57	20.714	20.714	0.000	96	7339718	16.0	14.7	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	7089441	16.0	16.9	
109 Naphthalene	128	21.065	21.064	0.001	98	13497509	16.0	15.6	e
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	6466368	16.0	15.5	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	6241103	16.0	16.2	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	3791560	16.0	15.3	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	3107373	16.0	13.0	
A 115 C8 Range	1	14.297	(14.244-14.341)		0	23278410	16.0	16.5	
S 116 Xylenes, Total	100				0		48.0	51.4	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.6	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

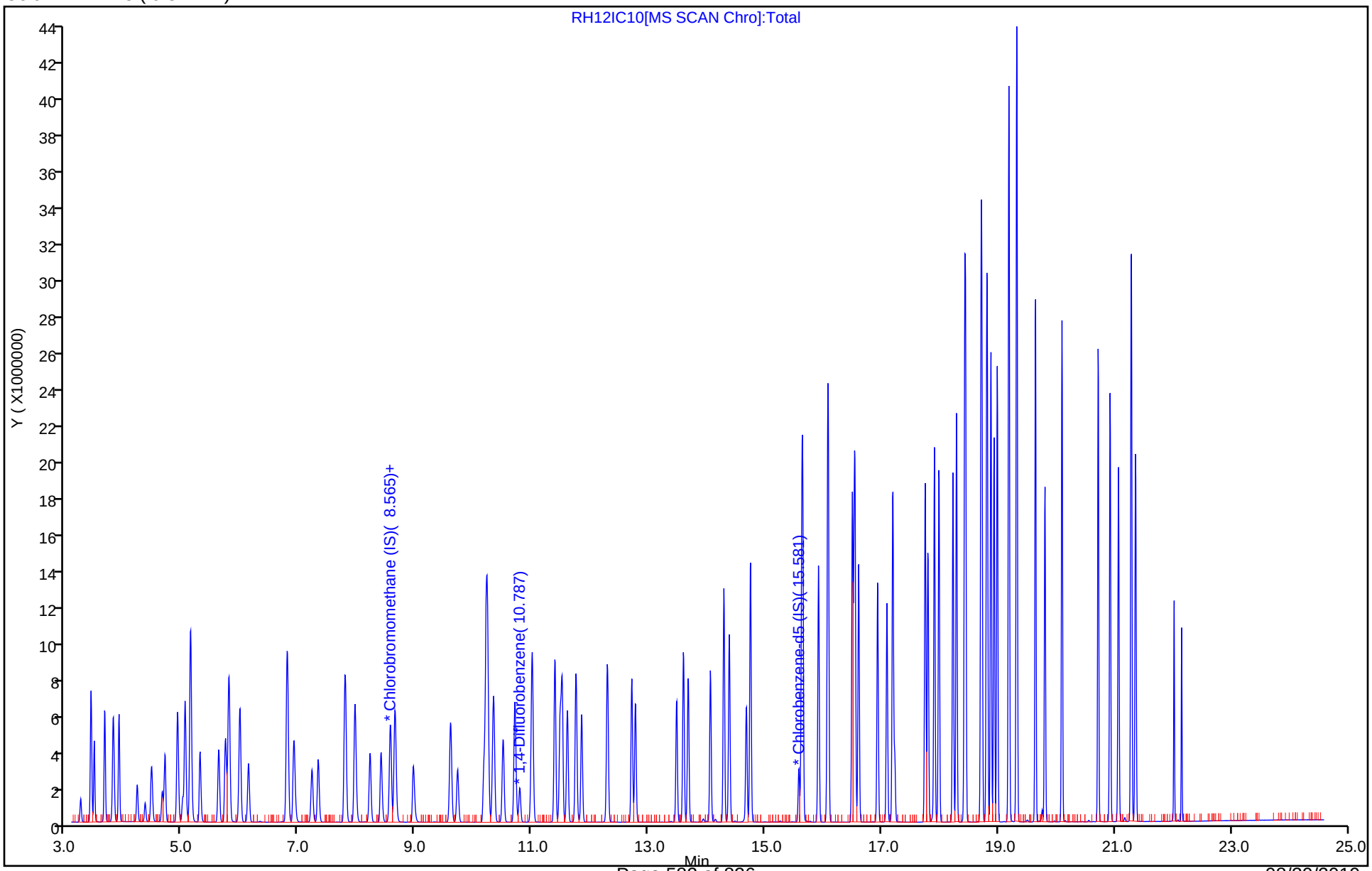
Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D

Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

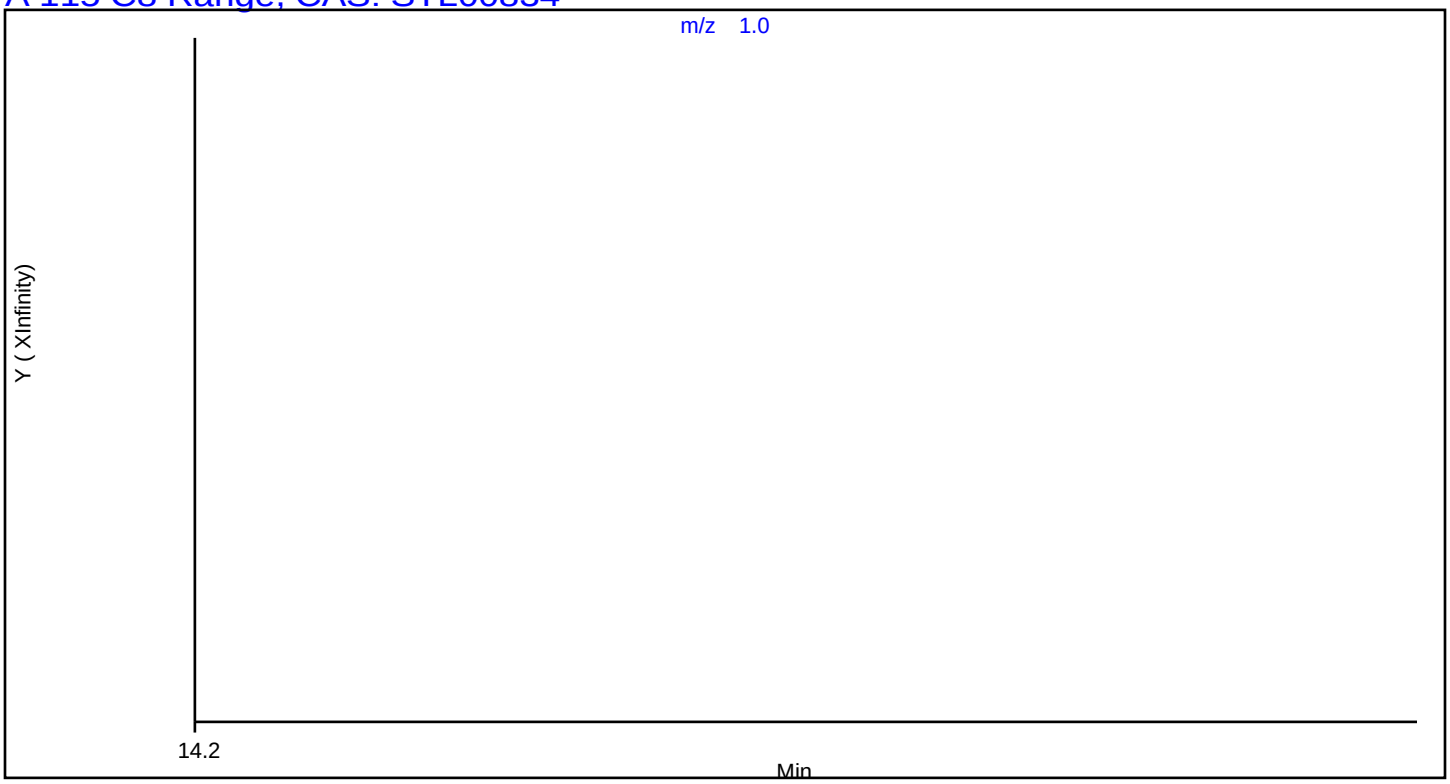


Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D				
Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Aug-2019 17:38:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:39 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	273227	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1657156	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1399213	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	930526	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	35	6169	0.0200	0.0264	
7 Propene	41	3.443	3.439	0.004	98	35147	0.0200	0.2714	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	93	6166	0.0200	0.0292	
9 Chloromethane	52	3.669	3.665	0.004	62	1201	0.0200	0.0378	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	78	5499	0.0200	0.0513	
11 Acetaldehyde	44	3.820	3.817	0.003	98	18977	0.1000	0.5120	
12 Vinyl chloride	62	3.836	3.831	0.005	31	2580	0.0200	0.0257	
13 Butadiene	54	3.907	3.913	-0.006	1	965	0.0200	0.0132	
14 Butane	43	3.917	3.914	0.003	79	5369	0.0200	0.0347	
15 Bromomethane	94	4.235	4.227	0.008	66	2455	0.0200	0.0288	
16 Chloroethane	64	4.354	4.359	-0.005	49	1273	0.0200	0.0309	
17 Ethanol	31	4.478	4.464	0.014	84	7056	0.1000	0.1902	
18 Vinyl bromide	106	4.667	4.656	0.011	29	1260	0.0200	0.0177	
19 2-Methylbutane	43	4.699	4.699	0.000	30	1403	0.0200	0.0122	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	97	5883	0.0200	0.0224	
20 Acrolein	56	4.953	4.936	0.017	35	2463	0.0200	0.0758	
24 Acetonitrile	40	4.990	5.001	-0.011	44	809	0.0200	0.0167	
22 Acetone	58	5.077	5.057	0.020	98	6860	0.0600	0.1513	
23 Isopropyl alcohol	45	5.174	5.149	0.025	90	11087	0.0600	0.0722	
26 Ethyl ether	31	5.341	5.319	0.022	40	3392	0.0200	0.0239	
27 1,1-Dichloroethene	96	5.643	5.626	0.017	26	2637	0.0200	0.0281	
28 Acrylonitrile	53	5.751	5.738	0.013	58	1333	0.0200	0.0188	
29 2-Methyl-2-propanol	59	5.805	5.756	0.049	79	4955	0.0200	0.0262	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	89	4101	0.0200	0.0210	
31 Methylene Chloride	84	5.983	5.978	0.005	97	13935	0.0200	0.1443	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	27	4618	0.0200	0.0429	
33 Carbon disulfide	76	6.128	6.133	-0.005	93	5847	0.0200	0.0237	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	86	2604	0.0200	0.0264	
35 2-Methylpentane	43	6.797	6.803	-0.006	84	7187	0.0200	0.0274	
36 Methyl tert-butyl ether	73	6.937	6.934	0.003	1	462	0.0200	0.001735	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	52	4013	0.0200	0.0214	
38 Vinyl acetate	43	7.325	7.328	-0.003	77	7381	0.0200	0.0226	
40 Hexane	56	7.800	7.796	0.004	52	1891	0.0200	0.0220	
39 2-Butanone (MEK)	72	7.843	7.797	0.046	33	1428	0.0200	0.0285	
41 Isopropyl ether	45	8.010	7.978	0.032	96	8726	0.0200	0.0214	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	31	2563	0.0200	0.0229	
43 Ethyl acetate	43	8.431	8.416	0.015	65	7334	0.0200	0.0253	
44 Chloroform	83	8.549	8.560	-0.011	27	5750	0.0200	0.0250	
45 Tert-butyl ethyl ether	59	8.711	8.665	0.046	42	6434	0.0200	0.0190	
46 Tetrahydrofuran	42	8.992	8.988	0.004	1	138	0.0200	0.000954	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	65	5135	0.0200	0.0203	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	45	4314	0.0200	0.0271	
50 n-Butanol	31	10.232	10.195	0.037	62	2174	0.0200	0.0343	
51 Cyclohexane	69	10.210	10.210	0.000	74	1435	0.0200	0.0272	
49 Benzene	78	10.221	10.214	0.007	92	8633	0.0200	0.0257	
52 Carbon tetrachloride	117	10.237	10.233	0.004	74	5735	0.0200	0.0214	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	88	1703	0.0200	0.0225	
54 Thiophene	84	10.501	10.499	0.002	6	1619	0.0200	0.009518	
55 Isooctane	57	10.992	10.995	-0.003	80	6405	0.0200	0.0114	
57 n-Heptane	71	11.386	11.387	-0.001	91	2945	0.0200	0.0252	
56 1,2-Dichloropropane	63	11.472	11.474	-0.002	55	4135	0.0200	0.0320	
58 Trichloroethene	130	11.504	11.509	-0.005	64	3253	0.0200	0.0220	
59 Dibromomethane	93	11.591	11.595	-0.004	86	3434	0.0200	0.0251	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	57	5155	0.0200	0.0208	
61 1,4-Dioxane	88	11.823	11.781	0.042	39	903	0.0200	0.0175	
62 Methyl methacrylate	41	11.855	11.850	0.005	37	4095	0.0200	0.0222	
63 Methylcyclohexane	83	12.286	12.288	-0.002	84	4324	0.0200	0.0224	
64 4-Methyl-2-pentanone (MIBK	43	12.739	12.718	0.021	92	7697	0.0200	0.0234	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	83	5183	0.0200	0.0267	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	37	3504	0.0200	0.0201	
67 Toluene	91	13.597	13.593	0.004	94	9203	0.0200	0.0256	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	94	2738	0.0200	0.0245	
69 2-Hexanone	58	14.077	14.066	0.011	85	2554	0.0200	0.0192	
71 n-Octane	85	14.281	14.288	-0.007	94	3106	0.0200	0.0263	
70 Chlorodibromomethane	129	14.379	14.379	-0.001	95	5540	0.0200	0.0224	
72 Ethylene Dibromide	107	14.675	14.674	0.001	85	4741	0.0200	0.0221	
73 Tetrachloroethene	129	14.745	14.743	0.002	89	3610	0.0200	0.0246	
74 Chlorobenzene	112	15.630	15.625	0.005	83	7184	0.0200	0.0240	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	9947	0.0200	0.0222	
76 Ethylbenzene	91	15.915	15.914	0.001	97	12124	0.0200	0.0240	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	94	17297	0.0400	0.0436	
81 n-Nonane	57	16.498	16.494	0.004	92	5561	0.0200	0.0214	
78 Bromoform	173	16.525	16.525	0.000	72	4269	0.0200	0.0193	
79 Styrene	104	16.546	16.543	0.003	76	4130	0.0200	0.0151	
80 o-Xylene	91	16.600	16.602	-0.002	95	9841	0.0200	0.0236	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	94	7091	0.0200	0.0242	
83 1,2,3-Trichloropropane	110	17.080	17.086	-0.006	88	2219	0.0200	0.0239	
84 Isopropylbenzene	105	17.183	17.187	-0.004	84	14868	0.0200	0.0241	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	3076	0.0200	0.0196	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 2-Chlorotoluene	126	17.797	17.786	0.011	94	2915	0.0200	0.0195	
88 4-Ethyltoluene	105	17.905	17.902	0.003	97	12586	0.0200	0.0204	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	87	4843	0.0200	0.0206	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	4065	0.0200	0.0181	
90 n-Decane	57	18.277	18.280	-0.003	88	6600	0.0200	0.0185	
91 tert-Butylbenzene	119	18.428	18.424	0.004	94	10200	0.0200	0.0186	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	78	10364	0.0200	0.0191	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	98	15444	0.0200	0.0198	
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	91	7920	0.0200	0.0214	
96 Benzyl chloride	91	18.789	18.796	-0.007	81	7779	0.0200	0.0183	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	89	7186	0.0200	0.0197	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	12499	0.0200	0.0198	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	93	10609	0.0200	0.0198	
99 Butylcyclohexane	83	18.984	18.981	0.003	77	7059	0.0200	0.0176	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	9400	0.0200	0.0193	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	7298	0.0200	0.0202	
102 Indene	116	19.313	19.314	-0.001	79	7584	0.0200	0.0173	
103 n-Butylbenzene	91	19.318	19.318	0.000	93	12293	0.0200	0.0189	
104 Undecane	57	19.636	19.638	-0.002	87	7662	0.0200	0.0182	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	81	3485	0.0200	0.0197	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	12243	0.0200	0.0202	
107 Dodecane	57	20.709	20.714	-0.005	81	6880	0.0200	0.0168	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	91	7729	0.0200	0.0224	
109 Naphthalene	128	21.060	21.064	-0.004	98	15438	0.0200	0.0217	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	89	7410	0.0200	0.0216	
111 1,2,3-Trichlorobenzene	180	21.351	21.356	-0.005	93	9298	0.0200	0.0293	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	97	6448	0.0200	0.0315	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	96	7979	0.0200	0.0406	
A 115 C8 Range	1	14.300	(14.260-14.325)		0	34007	0.0200	0.0262	
S 116 Xylenes, Total	100				0		0.0600	0.0673	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0493	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

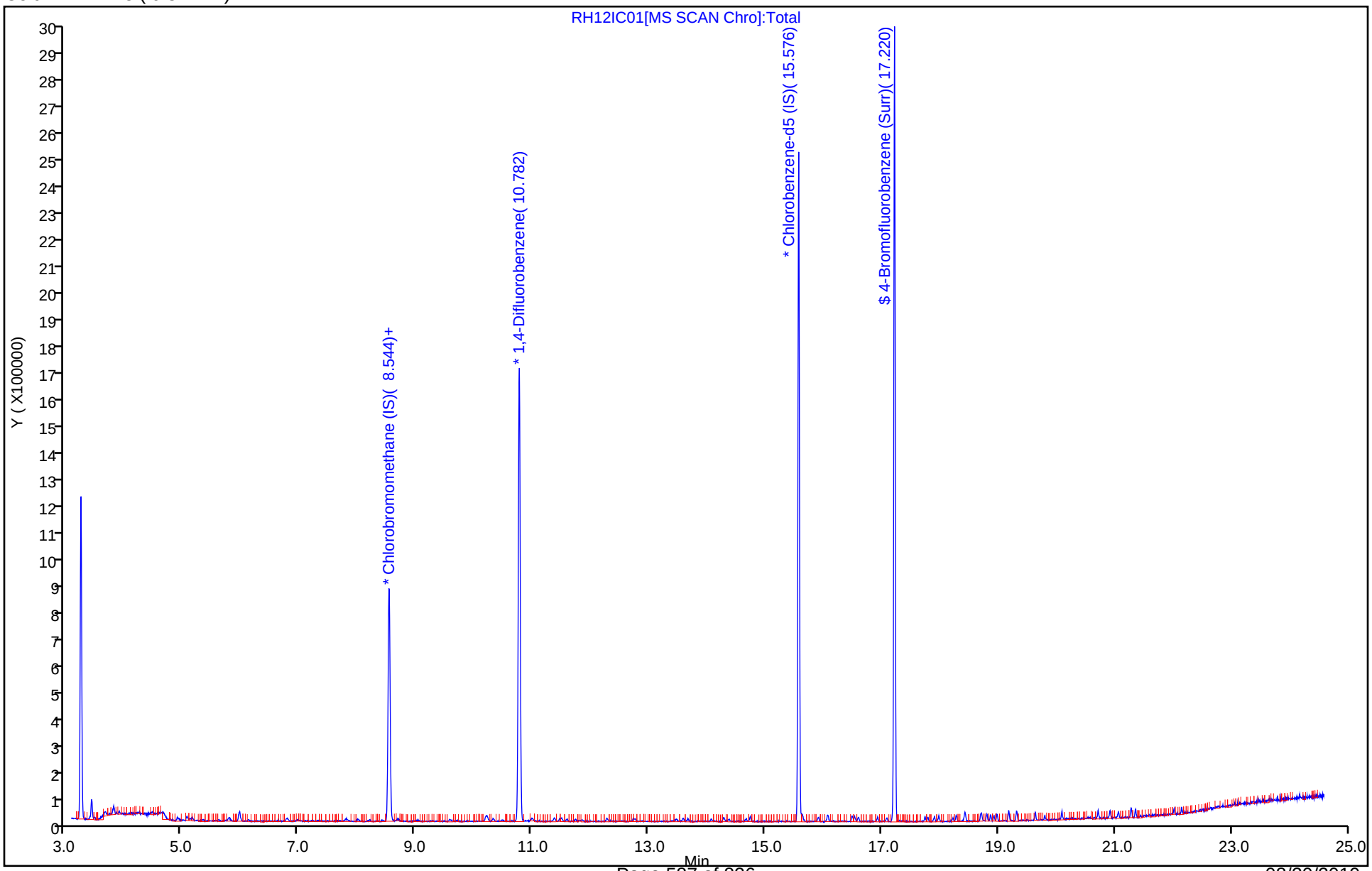
Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D

Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

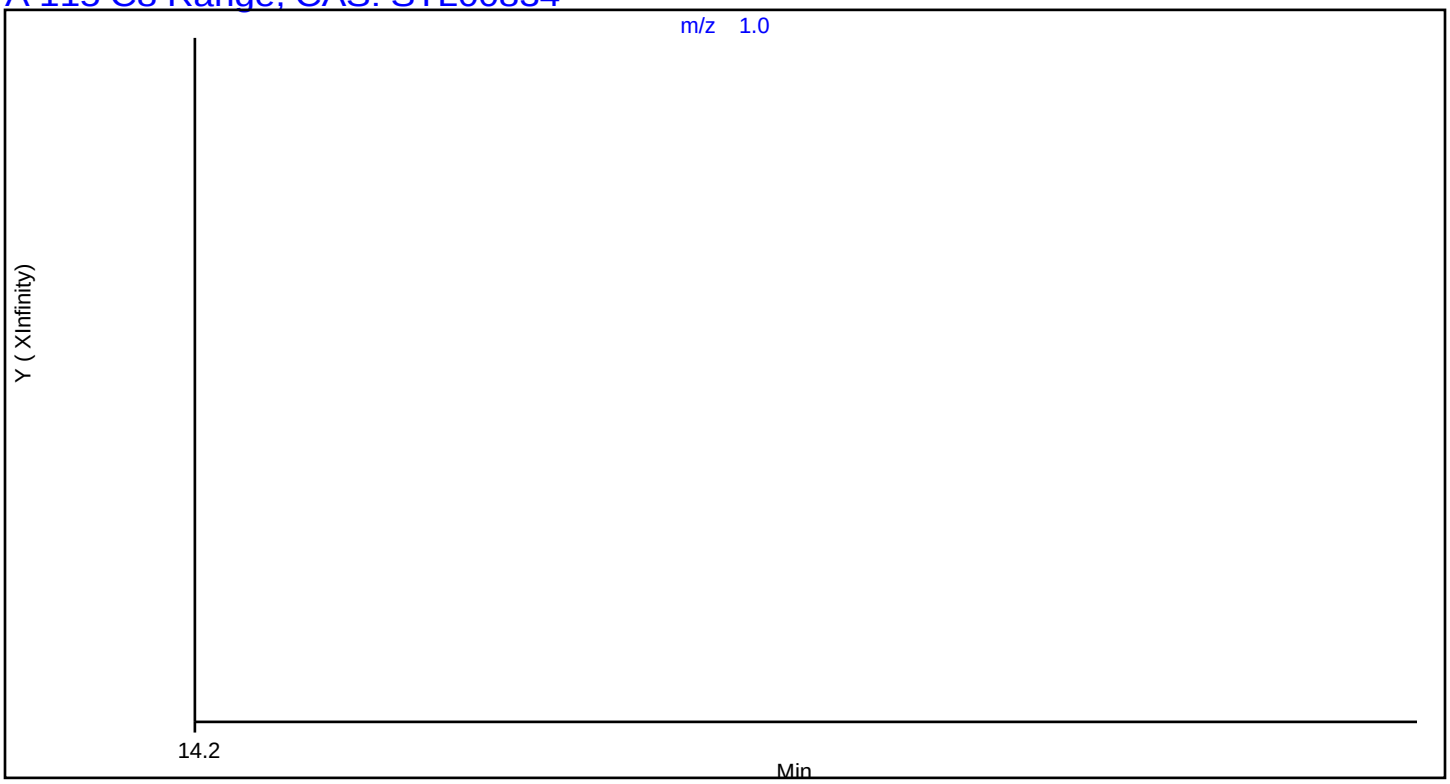


Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D				
Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Aug-2019 18:26:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:44 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:49:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	240951	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.777	10.781	-0.004	95	1473828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1287037	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	875394	4.00	3.95	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	48	9535	0.0400	0.0463	
7 Propene	41	3.432	3.439	-0.007	97	36666	0.0400	0.3210	
8 Dichlorodifluoromethane	85	3.481	3.489	-0.008	90	9042	0.0400	0.0485	
9 Chloromethane	52	3.659	3.665	-0.006	95	3186	0.0400	0.1138	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.659	3.669	-0.010	83	7157	0.0400	0.0758	
11 Acetaldehyde	44	3.820	3.817	0.003	92	22643	0.2000	0.6927	
12 Vinyl chloride	62	3.837	3.831	0.006	39	4572	0.0400	0.0516	
13 Butadiene	54	3.907	3.913	-0.006	68	4317	0.0400	0.0671	
14 Butane	43	3.912	3.914	-0.002	80	6815	0.0400	0.0500	
15 Bromomethane	94	4.230	4.227	0.003	87	3387	0.0400	0.0451	
16 Chloroethane	64	4.354	4.359	-0.005	49	1717	0.0400	0.0473	
17 Ethanol	31	4.467	4.464	0.003	74	6705	0.2000	0.2050	
18 Vinyl bromide	106	4.656	4.656	0.000	63	4274	0.0400	0.0681	
19 2-Methylbutane	43	4.689	4.699	-0.010	76	6141	0.0400	0.0604	
21 Trichlorofluoromethane	101	4.910	4.915	-0.005	97	8941	0.0400	0.0386	
20 Acrolein	56	4.931	4.936	-0.005	41	3875	0.0400	0.1352	
24 Acetonitrile	40	5.007	5.001	0.006	69	535	0.0400	0.0125	
22 Acetone	58	5.071	5.057	0.014	99	10977	0.1200	0.2746	
25 Pentane	72	5.142	5.138	0.004	3	364	0.0400	0.0238	
23 Isopropyl alcohol	45	5.163	5.149	0.014	91	17979	0.1200	0.1328	
26 Ethyl ether	31	5.325	5.319	0.006	76	4956	0.0400	0.0396	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	89	4055	0.0400	0.0489	
28 Acrylonitrile	53	5.735	5.738	-0.003	71	2350	0.0400	0.0376	
29 2-Methyl-2-propanol	59	5.778	5.756	0.022	76	7739	0.0400	0.0463	
30 1,1,2-Trichloro-1,2,2-trif	101	5.805	5.798	0.007	90	4530	0.0400	0.0263	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	14484	0.0400	0.1701	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.990	-0.013	36	6566	0.0400	0.0692	
33 Carbon disulfide	76	6.123	6.133	-0.010	63	8103	0.0400	0.0372	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	61	3809	0.0400	0.0437	
35 2-Methylpentane	43	6.808	6.803	0.005	95	11454	0.0400	0.0496	
36 Methyl tert-butyl ether	73	6.964	6.934	0.030	53	5614	0.0400	0.0239	
37 1,1-Dichloroethane	63	7.207	7.217	-0.010	9	7026	0.0400	0.0425	
38 Vinyl acetate	43	7.331	7.328	0.003	99	12777	0.0400	0.0443	
40 Hexane	56	7.795	7.796	-0.001	82	3187	0.0400	0.0421	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	83	1847	0.0400	0.0418	
41 Isopropyl ether	45	8.005	7.978	0.027	97	15231	0.0400	0.0424	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	91	4771	0.0400	0.0484	
43 Ethyl acetate	43	8.431	8.416	0.015	88	12131	0.0400	0.0475	
44 Chloroform	83	8.555	8.560	-0.005	28	9330	0.0400	0.0460	
45 Tert-butyl ethyl ether	59	8.684	8.665	0.019	94	12225	0.0400	0.0409	
46 Tetrahydrofuran	42	9.029	8.988	0.041	93	5933	0.0400	0.0465	
47 1,1,1-Trichloroethane	97	9.596	9.597	-0.001	89	10000	0.0400	0.0449	
48 1,2-Dichloroethane	62	9.720	9.715	0.005	46	5704	0.0400	0.0402	
50 n-Butanol	31	10.221	10.195	0.026	62	2845	0.0400	0.0505	
51 Cyclohexane	69	10.216	10.210	0.006	75	2105	0.0400	0.0449	
49 Benzene	78	10.210	10.214	-0.004	92	12714	0.0400	0.0426	
52 Carbon tetrachloride	117	10.237	10.233	0.004	82	8340	0.0400	0.0349	
53 2,3-Dimethylpentane	71	10.318	10.330	-0.012	87	2071	0.0400	0.0308	
54 Thiophene	84	10.502	10.499	0.003	86	2007	0.0400	0.0133	
55 Isooctane	57	10.987	10.995	-0.008	76	9874	0.0400	0.0198	
57 n-Heptane	71	11.380	11.387	-0.007	90	3898	0.0400	0.0374	
56 1,2-Dichloropropane	63	11.461	11.474	-0.013	62	4493	0.0400	0.0391	
58 Trichloroethene	130	11.510	11.509	0.001	87	4791	0.0400	0.0365	
59 Dibromomethane	93	11.591	11.595	-0.004	93	5749	0.0400	0.0472	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	92	8337	0.0400	0.0377	
61 1,4-Dioxane	88	11.796	11.781	0.015	27	1378	0.0400	0.0300	
62 Methyl methacrylate	41	11.850	11.850	0.000	50	6839	0.0400	0.0418	
63 Methylcyclohexane	83	12.286	12.288	-0.002	83	6242	0.0400	0.0364	
64 4-Methyl-2-pentanone (MIBK	43	12.729	12.718	0.011	75	11686	0.0400	0.0400	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	49	6968	0.0400	0.0404	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	96	6602	0.0400	0.0412	
67 Toluene	91	13.591	13.593	-0.002	94	11848	0.0400	0.0358	
68 1,1,2-Trichloroethane	83	13.683	13.674	0.009	89	4096	0.0400	0.0399	
69 2-Hexanone	58	14.077	14.066	0.011	88	4082	0.0400	0.0333	
71 n-Octane	85	14.292	14.288	0.004	92	4629	0.0400	0.0427	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	7768	0.0400	0.0341	
72 Ethylene Dibromide	107	14.675	14.674	0.001	93	7387	0.0400	0.0375	
73 Tetrachloroethene	129	14.735	14.743	-0.008	89	5547	0.0400	0.0410	
74 Chlorobenzene	112	15.619	15.625	-0.006	37	10958	0.0400	0.0398	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	16859	0.0400	0.0409	
76 Ethylbenzene	91	15.915	15.914	0.001	99	17826	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	95	25689	0.0800	0.0704	
81 n-Nonane	57	16.492	16.494	-0.002	91	9320	0.0400	0.0390	
78 Bromoform	173	16.519	16.525	-0.006	93	6218	0.0400	0.0305	
79 Styrene	104	16.546	16.543	0.003	93	8344	0.0400	0.0332	
80 o-Xylene	91	16.600	16.602	-0.002	97	14039	0.0400	0.0367	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	9624	0.0400	0.0357	
83 1,2,3-Trichloropropane	110	17.075	17.086	-0.011	92	2896	0.0400	0.0339	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.187	-0.004	87	22539	0.0400	0.0397	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	4793	0.0400	0.0332	
86 2-Chlorotoluene	126	17.781	17.786	-0.005	95	4980	0.0400	0.0362	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	21180	0.0400	0.0374	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	7772	0.0400	0.0360	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	6125	0.0400	0.0296	
90 n-Decane	57	18.277	18.280	-0.003	86	12151	0.0400	0.0369	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	19707	0.0400	0.0390	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	94	18855	0.0400	0.0377	
94 sec-Butylbenzene	105	18.703	18.702	0.001	98	27584	0.0400	0.0384	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	14076	0.0400	0.0413	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	13242	0.0400	0.0339	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	89	12727	0.0400	0.0379	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	22669	0.0400	0.0391	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	16683	0.0400	0.0339	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	13926	0.0400	0.0378	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	92	15512	0.0400	0.0347	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	12106	0.0400	0.0365	
102 Indene	116	19.318	19.314	0.004	74	13962	0.0400	0.0346	
103 n-Butylbenzene	91	19.318	19.318	0.000	95	25040	0.0400	0.0419	
104 Undecane	57	19.636	19.638	-0.002	92	13911	0.0400	0.0358	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	85	4732	0.0400	0.0291	
106 1,2,4,5-Tetramethylbenzene	119	20.095	20.094	0.001	96	21801	0.0400	0.0391	
107 Dodecane	57	20.715	20.714	0.001	88	12479	0.0400	0.0331	
108 1,2,4-Trichlorobenzene	180	20.925	20.920	0.005	94	11775	0.0400	0.0371	
109 Naphthalene	128	21.065	21.064	0.001	99	26992	0.0400	0.0412	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	93	12204	0.0400	0.0387	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	90	10787	0.0400	0.0369	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	96	7027	0.0400	0.0373	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	10180	0.0400	0.0563	
A 115 C8 Range	1	14.282	(14.249-14.314)		0	50038	0.0400	0.0433	
S 116 Xylenes, Total	100				0		0.1200	0.1071	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0921	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

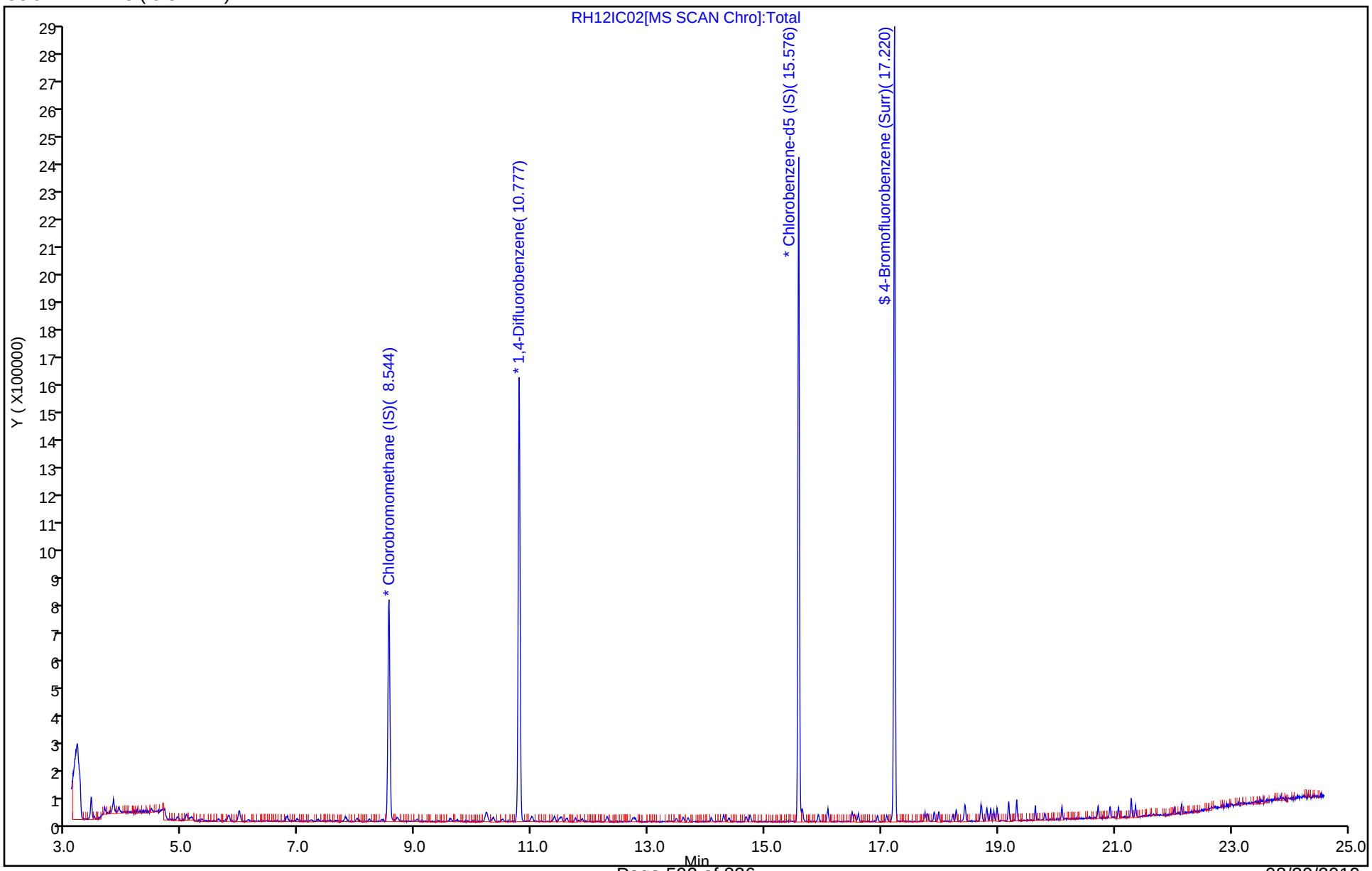
Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D

Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

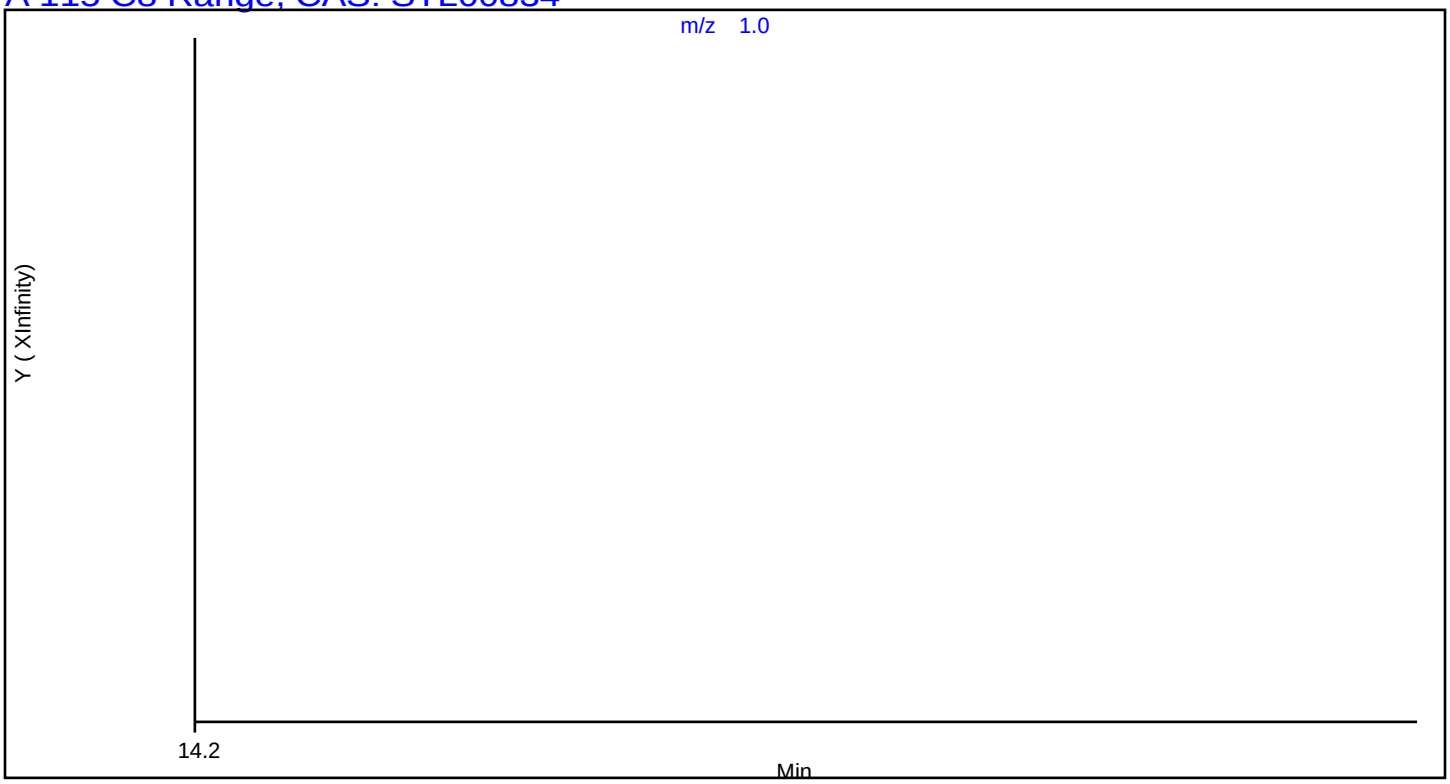


Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D				
Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Aug-2019 19:15:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:50 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:39:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.551	-0.007	97	238260	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1462098	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1307797	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	871146	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	84	17104	0.0800	0.0840	
7 Propene	41	3.448	3.439	0.009	98	40013	0.0800	0.3543	
8 Dichlorodifluoromethane	85	3.497	3.489	0.008	99	13627	0.0800	0.0740	
9 Chloromethane	52	3.669	3.665	0.004	93	4474	0.0800	0.1616	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	8302	0.0800	0.0889	
11 Acetaldehyde	44	3.826	3.817	0.009	99	53243	0.4000	1.65	
12 Vinyl chloride	62	3.836	3.831	0.005	36	8343	0.0800	0.0951	
13 Butadiene	54	3.917	3.913	0.004	64	7432	0.0800	0.1168	
14 Butane	43	3.917	3.914	0.003	88	14738	0.0800	0.1094	
15 Bromomethane	94	4.225	4.227	-0.002	71	8093	0.0800	0.1089	
16 Chloroethane	64	4.359	4.359	0.000	69	4278	0.0800	0.1192	
17 Ethanol	31	4.462	4.464	-0.002	41	8773	0.4000	0.2713	
18 Vinyl bromide	106	4.661	4.656	0.005	87	6047	0.0800	0.0975	
19 2-Methylbutane	43	4.699	4.699	0.000	88	10330	0.0800	0.1027	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	98	18776	0.0800	0.0820	
20 Acrolein	56	4.953	4.936	0.017	56	5537	0.0800	0.1954	
24 Acetonitrile	40	5.007	5.001	0.005	88	2524	0.0800	0.0598	
22 Acetone	58	5.071	5.057	0.014	99	18045	0.2400	0.4565	
23 Isopropyl alcohol	45	5.163	5.149	0.014	96	30173	0.2400	0.2254	
26 Ethyl ether	31	5.335	5.319	0.016	81	10342	0.0800	0.0835	
27 1,1-Dichloroethene	96	5.632	5.626	0.006	94	6464	0.0800	0.0789	
28 Acrylonitrile	53	5.740	5.738	0.002	67	3782	0.0800	0.0612	
29 2-Methyl-2-propanol	59	5.783	5.756	0.027	83	14220	0.0800	0.0861	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	12898	0.0800	0.0757	
31 Methylene Chloride	84	5.983	5.978	0.005	96	17663	0.0800	0.2097	
32 3-Chloro-1-propene	39	5.993	5.990	0.003	72	8996	0.0800	0.0959	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.139	6.133	0.006	98	16332	0.0800	0.0758	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	90	5797	0.0800	0.0673	
35 2-Methylpentane	43	6.808	6.803	0.005	92	17316	0.0800	0.0758	
36 Methyl tert-butyl ether	73	6.959	6.934	0.025	95	15453	0.0800	0.0666	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	98	12145	0.0800	0.0743	
38 Vinyl acetate	43	7.341	7.328	0.013	99	20932	0.0800	0.0734	
40 Hexane	56	7.794	7.796	-0.002	72	6114	0.0800	0.0817	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	96	4367	0.0800	0.0999	
41 Isopropyl ether	45	7.994	7.978	0.016	96	27616	0.0800	0.0778	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	92	8632	0.0800	0.0885	
43 Ethyl acetate	43	8.431	8.416	0.015	96	19988	0.0800	0.0791	
44 Chloroform	83	8.555	8.560	-0.005	29	16201	0.0800	0.0808	
45 Tert-butyl ethyl ether	59	8.679	8.665	0.014	96	22608	0.0800	0.0766	
46 Tetrahydrofuran	42	9.018	8.988	0.030	93	11583	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	96	17062	0.0800	0.0774	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	92	11547	0.0800	0.0821	
50 n-Butanol	31	10.210	10.195	0.015	68	4413	0.0800	0.0789	
51 Cyclohexane	69	10.216	10.210	0.006	74	2617	0.0800	0.0563	
49 Benzene	78	10.216	10.214	0.002	93	21586	0.0800	0.0729	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	86	15774	0.0800	0.0666	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	90	5547	0.0800	0.0832	
54 Thiophene	84	10.501	10.499	0.002	90	8334	0.0800	0.0555	
55 Isooctane	57	10.992	10.995	-0.003	97	36777	0.0800	0.0743	
57 n-Heptane	71	11.391	11.387	0.004	93	8204	0.0800	0.0794	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	64	9787	0.0800	0.0858	
58 Trichloroethene	130	11.515	11.509	0.006	91	10022	0.0800	0.0770	
59 Dibromomethane	93	11.596	11.595	0.001	91	9109	0.0800	0.0754	
60 Dichlorobromomethane	83	11.747	11.746	0.001	95	15440	0.0800	0.0704	
61 1,4-Dioxane	88	11.806	11.781	0.025	49	3473	0.0800	0.0763	
62 Methyl methacrylate	41	11.855	11.850	0.005	90	12240	0.0800	0.0753	
63 Methylcyclohexane	83	12.297	12.288	0.009	86	12553	0.0800	0.0737	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	97	22225	0.0800	0.0766	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	94	12719	0.0800	0.0743	
66 trans-1,3-Dichloropropene	75	13.467	13.476	-0.009	92	11493	0.0800	0.0707	
67 Toluene	91	13.591	13.593	-0.002	95	25408	0.0800	0.0755	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	7791	0.0800	0.0747	
69 2-Hexanone	58	14.071	14.066	0.005	90	8340	0.0800	0.0670	
71 n-Octane	85	14.281	14.288	-0.007	95	8484	0.0800	0.0770	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	14768	0.0800	0.0638	
72 Ethylene Dibromide	107	14.675	14.674	0.001	95	13260	0.0800	0.0663	
73 Tetrachloroethene	129	14.740	14.743	-0.003	84	10036	0.0800	0.0730	
74 Chlorobenzene	112	15.629	15.625	0.004	94	19939	0.0800	0.0713	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	32761	0.0800	0.0783	
76 Ethylbenzene	91	15.915	15.914	0.001	99	33477	0.0800	0.0709	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	96	54397	0.1600	0.1468	
81 n-Nonane	57	16.498	16.494	0.004	93	16849	0.0800	0.0694	
78 Bromoform	173	16.525	16.525	0.000	93	12693	0.0800	0.0612	
79 Styrene	104	16.541	16.543	-0.002	94	16365	0.0800	0.0641	
80 o-Xylene	91	16.606	16.602	0.004	98	26230	0.0800	0.0674	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	97	18858	0.0800	0.0688	
83 1,2,3-Trichloropropane	110	17.096	17.086	0.010	95	5924	0.0800	0.0682	
84 Isopropylbenzene	105	17.188	17.187	0.001	93	40179	0.0800	0.0696	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	98	9798	0.0800	0.0667	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	10534	0.0800	0.0753	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	42363	0.0800	0.0736	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	15853	0.0800	0.0722	
89 Alpha Methyl Styrene	118	18.218	18.223	-0.005	88	13366	0.0800	0.0635	
90 n-Decane	57	18.283	18.280	0.003	89	25144	0.0800	0.0752	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	89	35611	0.0800	0.0694	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	37839	0.0800	0.0744	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	53220	0.0800	0.0729	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	25042	0.0800	0.0723	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	25427	0.0800	0.0640	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	27287	0.0800	0.0799	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	96	42494	0.0800	0.0721	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	36284	0.0800	0.0725	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	27467	0.0800	0.0734	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33349	0.0800	0.0734	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	24634	0.0800	0.0730	
102 Indene	116	19.312	19.314	-0.002	98	27720	0.0800	0.0676	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	43509	0.0800	0.0717	
104 Undecane	57	19.641	19.638	0.003	93	27220	0.0800	0.0690	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	87	10162	0.0800	0.0614	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	96	39484	0.0800	0.0698	
107 Dodecane	57	20.714	20.714	0.000	90	26195	0.0800	0.0684	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	92	24678	0.0800	0.0765	
109 Naphthalene	128	21.065	21.064	0.001	99	53409	0.0800	0.0802	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	91	23134	0.0800	0.0722	
111 1,2,3-Trichlorobenzene	180	21.362	21.356	0.006	93	21407	0.0800	0.0721	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	93	12987	0.0800	0.0679	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	17746	0.0800	0.0966	
A 115 C8 Range	1	14.287	(14.249-14.325)		0	90033	0.0800	0.0785	
S 116 Xylenes, Total	100				0		0.2400	0.2142	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1558	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

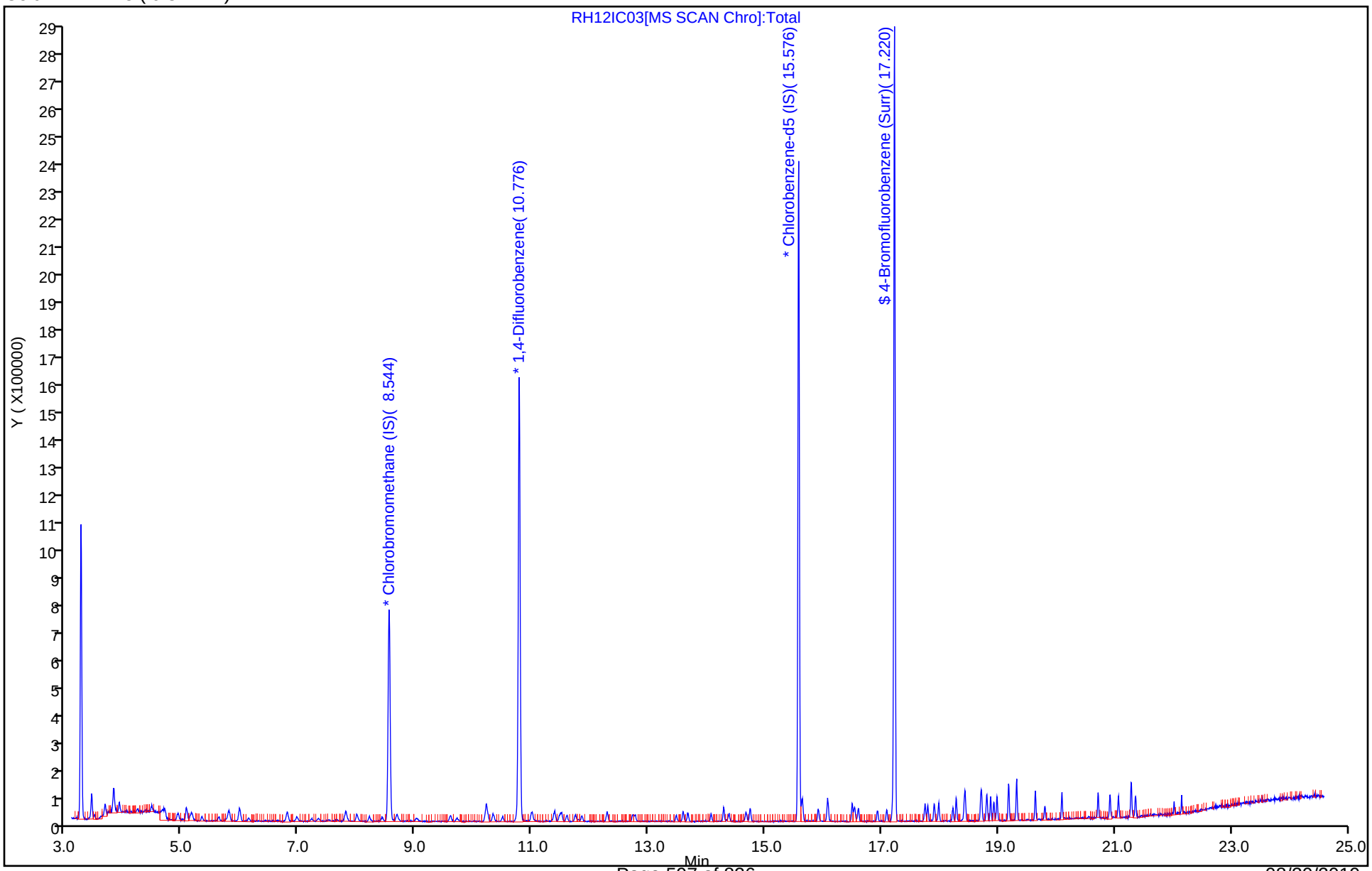
Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D

Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

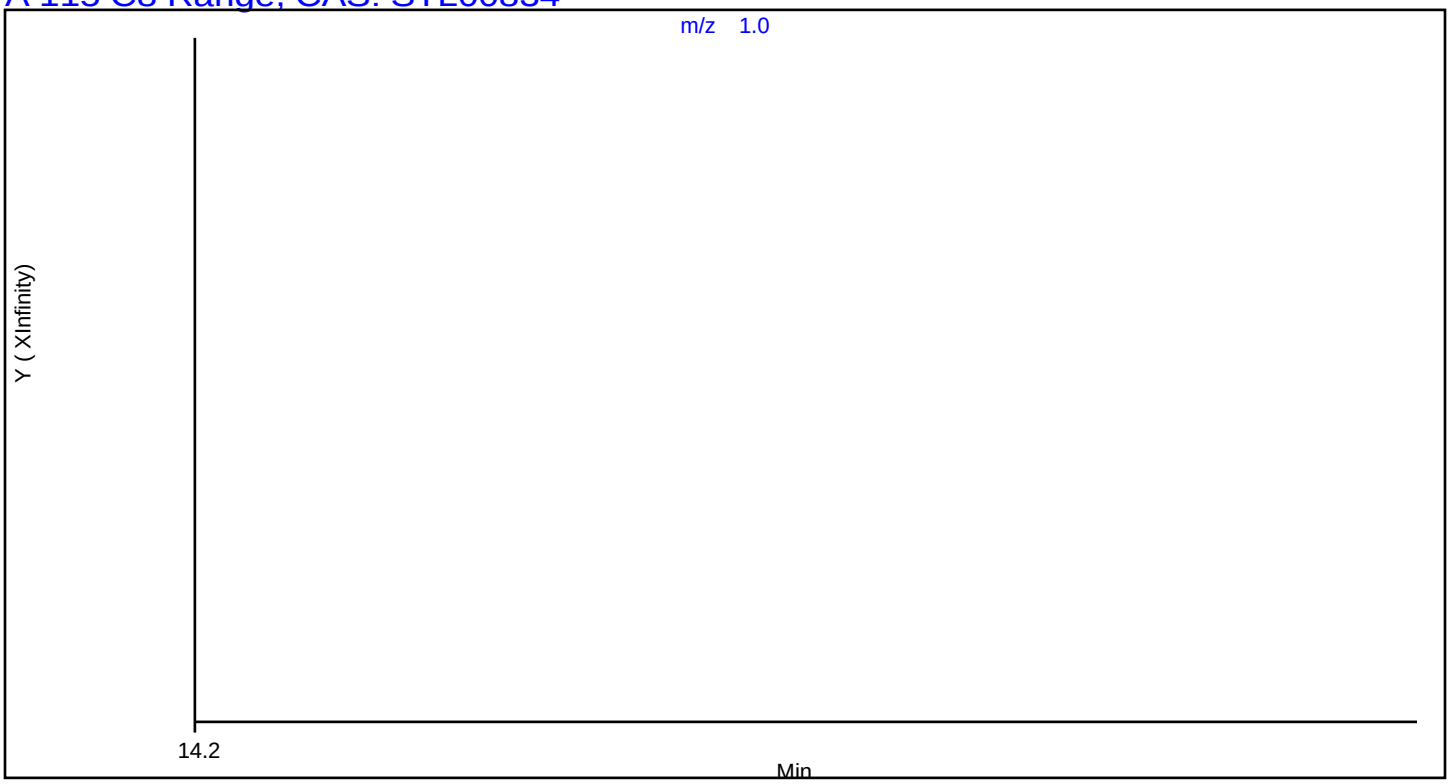


Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D				
Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Aug-2019 20:04:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 09:00:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	234467	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1479080	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1297368	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	880719	4.00	3.94	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	89	37149	0.1600	0.1854	
7 Propene	41	3.443	3.439	0.004	99	52426	0.1600	0.4717	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	98	31157	0.1600	0.1719	
9 Chloromethane	52	3.664	3.665	-0.001	76	5807	0.1600	0.2132	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.675	3.669	0.006	89	18423	0.1600	0.2004	
11 Acetaldehyde	44	3.820	3.817	0.003	91	65296	0.8000	2.05	
12 Vinyl chloride	62	3.836	3.831	0.005	90	16277	0.1600	0.1886	
13 Butadiene	54	3.912	3.913	-0.001	65	13809	0.1600	0.2205	
14 Butane	43	3.912	3.914	-0.002	86	27416	0.1600	0.2068	
15 Bromomethane	94	4.230	4.227	0.003	88	12536	0.1600	0.1714	
16 Chloroethane	64	4.359	4.359	0.000	86	6308	0.1600	0.1786	
17 Ethanol	31	4.467	4.464	0.003	97	39287	0.8000	1.23	
18 Vinyl bromide	106	4.651	4.656	-0.005	88	11256	0.1600	0.1844	
19 2-Methylbutane	43	4.705	4.699	0.006	93	21554	0.1600	0.2179	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	37252	0.1600	0.1654	
20 Acrolein	56	4.936	4.936	0.000	26	5363	0.1600	0.1923	
24 Acetonitrile	40	4.996	5.001	-0.005	90	465	0.1600	0.0112	
22 Acetone	58	5.066	5.057	0.009	98	30505	0.4800	0.7843	
25 Pentane	72	5.136	5.138	-0.002	94	3095	0.1600	0.2078	
23 Isopropyl alcohol	45	5.157	5.149	0.008	97	56079	0.4800	0.4256	
26 Ethyl ether	31	5.330	5.319	0.011	87	20465	0.1600	0.1680	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	98	12986	0.1600	0.1611	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	7796	0.1600	0.1281	
29 2-Methyl-2-propanol	59	5.767	5.756	0.011	92	24598	0.1600	0.1513	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	26227	0.1600	0.1565	
31 Methylene Chloride	84	5.977	5.978	-0.001	92	19470	0.1600	0.2349	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.999	5.990	0.009	84	14010	0.1600	0.1518	
33 Carbon disulfide	76	6.139	6.133	0.006	96	32055	0.1600	0.1511	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	95	12429	0.1600	0.1466	
35 2-Methylpentane	43	6.808	6.803	0.005	96	38166	0.1600	0.1697	
36 Methyl tert-butyl ether	73	6.953	6.934	0.019	96	35352	0.1600	0.1547	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	98	26688	0.1600	0.1660	
38 Vinyl acetate	43	7.325	7.328	-0.003	99	43790	0.1600	0.1561	
40 Hexane	56	7.794	7.796	-0.002	71	13205	0.1600	0.1794	
39 2-Butanone (MEK)	72	7.805	7.797	0.008	93	8064	0.1600	0.1874	
41 Isopropyl ether	45	7.983	7.978	0.005	98	56542	0.1600	0.1619	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	94	14471	0.1600	0.1508	
43 Ethyl acetate	43	8.431	8.416	0.015	97	39652	0.1600	0.1595	
44 Chloroform	83	8.560	8.560	0.000	30	32871	0.1600	0.1667	
45 Tert-butyl ethyl ether	59	8.673	8.665	0.008	96	45874	0.1600	0.1578	
46 Tetrahydrofuran	42	9.002	8.988	0.014	93	18911	0.1600	0.1524	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	33477	0.1600	0.1544	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	96	20976	0.1600	0.1474	
50 n-Butanol	31	10.205	10.195	0.010	58	7490	0.1600	0.1324	
51 Cyclohexane	69	10.216	10.210	0.006	72	7444	0.1600	0.1583	
49 Benzene	78	10.210	10.214	-0.004	95	49431	0.1600	0.1650	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	92	35862	0.1600	0.1497	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	10204	0.1600	0.1512	
54 Thiophene	84	10.496	10.499	-0.003	94	22379	0.1600	0.1474	
55 Isooctane	57	10.997	10.995	0.002	96	76319	0.1600	0.1525	
57 n-Heptane	71	11.386	11.387	-0.001	95	15423	0.1600	0.1476	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	80	16693	0.1600	0.1446	
58 Trichloroethene	130	11.510	11.509	0.001	93	18870	0.1600	0.1432	
59 Dibromomethane	93	11.591	11.595	-0.004	94	19319	0.1600	0.1581	
60 Dichlorobromomethane	83	11.747	11.746	0.001	97	32327	0.1600	0.1458	
61 1,4-Dioxane	88	11.785	11.781	0.004	66	7162	0.1600	0.1556	
62 Methyl methacrylate	41	11.855	11.850	0.005	87	25315	0.1600	0.1540	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	25069	0.1600	0.1455	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	98	42380	0.1600	0.1445	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	95	21987	0.1600	0.1270	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.004	93	21440	0.1600	0.1329	
67 Toluene	91	13.591	13.593	-0.002	92	52282	0.1600	0.1566	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	15946	0.1600	0.1541	
69 2-Hexanone	58	14.076	14.066	0.010	91	19028	0.1600	0.1540	
71 n-Octane	85	14.287	14.288	-0.001	97	15835	0.1600	0.1448	
70 Chlorodibromomethane	129	14.384	14.379	0.005	96	28895	0.1600	0.1259	
72 Ethylene Dibromide	107	14.675	14.674	0.001	35	29180	0.1600	0.1470	
73 Tetrachloroethene	129	14.740	14.743	-0.003	93	18774	0.1600	0.1377	
74 Chlorobenzene	112	15.629	15.625	0.004	94	41497	0.1600	0.1495	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	94	62008	0.1600	0.1493	
76 Ethylbenzene	91	15.915	15.914	0.001	98	67987	0.1600	0.1452	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	103834	0.3200	0.2824	
81 n-Nonane	57	16.492	16.494	-0.002	95	34376	0.1600	0.1427	
78 Bromoform	173	16.519	16.525	-0.006	95	27703	0.1600	0.1347	
79 Styrene	104	16.546	16.543	0.003	98	33105	0.1600	0.1307	
80 o-Xylene	91	16.600	16.602	-0.002	99	55761	0.1600	0.1444	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	38115	0.1600	0.1402	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	95	12861	0.1600	0.1492	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	87644	0.1600	0.1530	
85 N-Propylbenzene	120	17.749	17.745	0.004	98	21522	0.1600	0.1478	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	22221	0.1600	0.1602	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	88453	0.1600	0.1549	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	33519	0.1600	0.1540	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	27551	0.1600	0.1320	
90 n-Decane	57	18.283	18.280	0.002	87	50084	0.1600	0.1510	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	75576	0.1600	0.1485	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	75679	0.1600	0.1501	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	109309	0.1600	0.1510	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	51771	0.1600	0.1508	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	51323	0.1600	0.1303	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	48412	0.1600	0.1429	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	91852	0.1600	0.1570	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	98	78777	0.1600	0.1588	
99 Butylcyclohexane	83	18.984	18.981	0.003	90	58727	0.1600	0.1582	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	66472	0.1600	0.1475	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	92	52296	0.1600	0.1562	
102 Indene	116	19.312	19.314	-0.002	87	55161	0.1600	0.1357	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	92403	0.1600	0.1534	
104 Undecane	57	19.636	19.638	-0.002	94	62883	0.1600	0.1608	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	86	20360	0.1600	0.1240	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	86274	0.1600	0.1537	
107 Dodecane	57	20.714	20.714	0.000	91	59374	0.1600	0.1562	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	48894	0.1600	0.1527	
109 Naphthalene	128	21.065	21.064	0.001	100	96013	0.1600	0.1453	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	93	49887	0.1600	0.1569	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	46799	0.1600	0.1588	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	21893	0.1600	0.1154	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	27080	0.1600	0.1486	
A 115 C8 Range	1	14.298	(14.260-14.335)		0	176098	0.1600	0.1518	
S 116 Xylenes, Total	100				0		0.4800	0.4268	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.2974	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

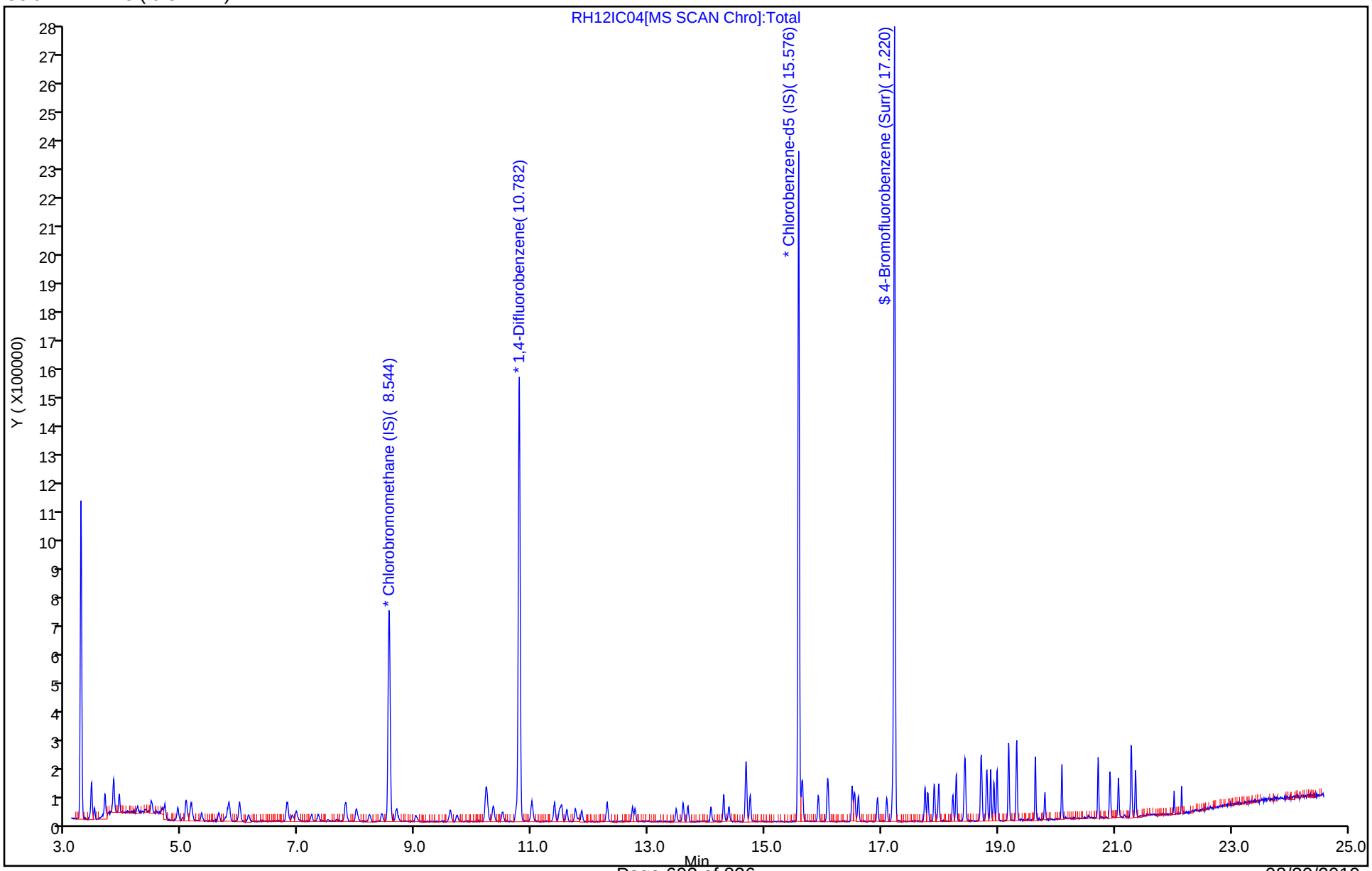
Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D

Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

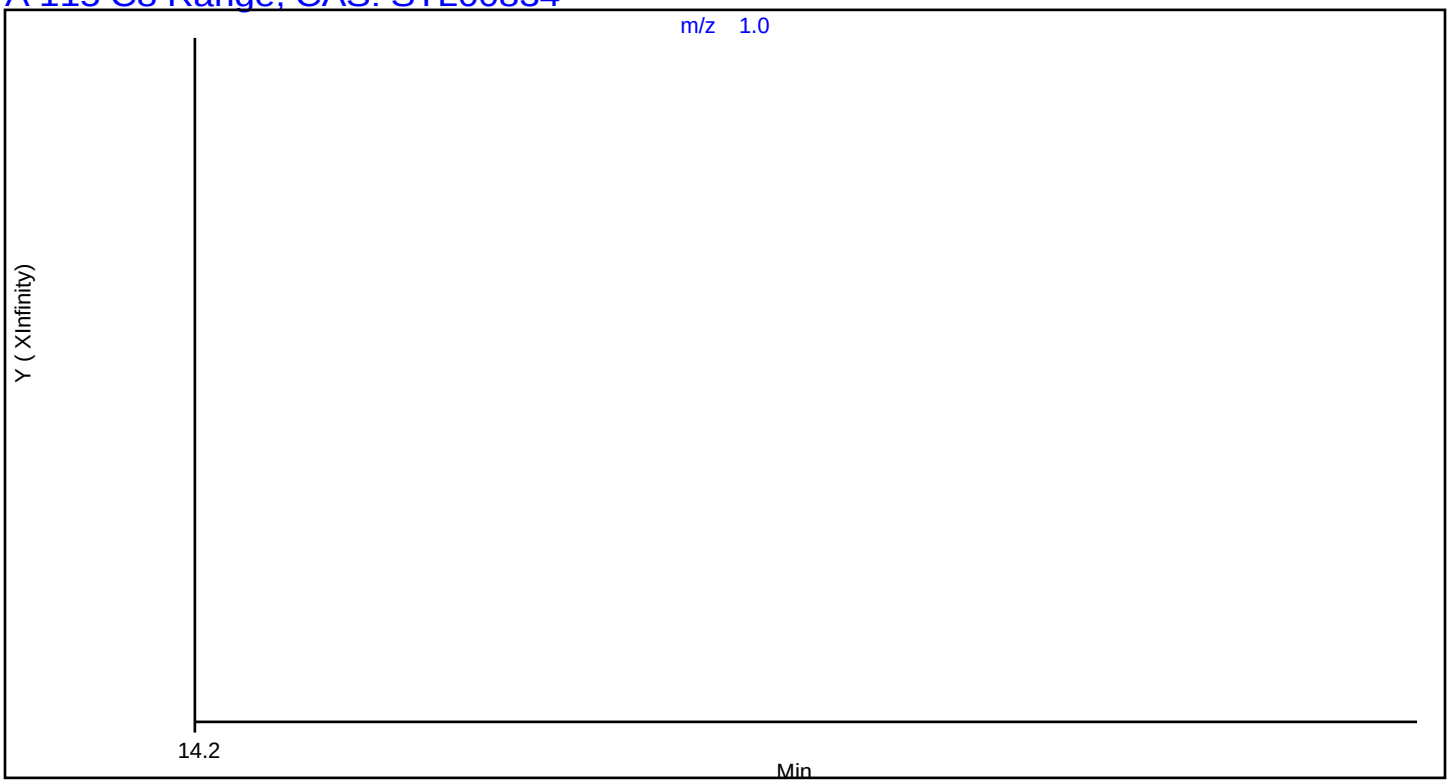


Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D				
Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Aug-2019 20:53:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:02 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	254726	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1567669	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	88	1372435	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	94	942631	4.00	3.98	
6 Chlorodifluoromethane	51	3.426	3.430	-0.004	97	92941	0.4000	0.4270	
7 Propene	41	3.437	3.439	-0.002	97	81472	0.4000	0.6747	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	83727	0.4000	0.4252	
9 Chloromethane	52	3.664	3.665	-0.001	87	15278	0.4000	0.5163	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	41905	0.4000	0.4195	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	98077	2.00	2.84	
12 Vinyl chloride	62	3.825	3.831	-0.006	98	36795	0.4000	0.3924	
13 Butadiene	54	3.912	3.913	-0.001	65	30573	0.4000	0.4494	
14 Butane	43	3.912	3.914	-0.002	85	60089	0.4000	0.4171	
15 Bromomethane	94	4.219	4.227	-0.008	96	25893	0.4000	0.3259	
16 Chloroethane	64	4.359	4.359	0.000	85	13196	0.4000	0.3439	
17 Ethanol	31	4.456	4.464	-0.008	99	80407	2.00	2.33	
18 Vinyl bromide	106	4.656	4.656	0.000	91	24652	0.4000	0.3716	
19 2-Methylbutane	43	4.694	4.699	-0.005	91	48082	0.4000	0.4473	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	94313	0.4000	0.3854	
20 Acrolein	56	4.931	4.936	-0.005	92	12417	0.4000	0.4099	
24 Acetonitrile	40	5.001	5.001	0.000	99	18073	0.4000	0.4007	
22 Acetone	58	5.055	5.057	-0.002	99	55059	1.20	1.30	
25 Pentane	72	5.141	5.138	0.003	95	6812	0.4000	0.4209	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	156113	1.20	1.09	
26 Ethyl ether	31	5.319	5.319	0.000	89	49563	0.4000	0.3745	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	97	30801	0.4000	0.3516	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	16277	0.4000	0.2463	
29 2-Methyl-2-propanol	59	5.756	5.756	0.000	95	65062	0.4000	0.3684	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	92	64689	0.4000	0.3553	
31 Methylene Chloride	84	5.977	5.978	-0.001	94	37926	0.4000	0.4212	
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	83	37437	0.4000	0.3735	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.133	6.133	0.000	99	82401	0.4000	0.3576	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	96	36589	0.4000	0.3974	
35 2-Methylpentane	43	6.802	6.803	-0.001	95	88849	0.4000	0.3637	
36 Methyl tert-butyl ether	73	6.931	6.934	-0.003	96	98345	0.4000	0.3962	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	100	63504	0.4000	0.3636	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	115947	0.4000	0.3804	
40 Hexane	56	7.800	7.796	0.004	65	29832	0.4000	0.3730	
39 2-Butanone (MEK)	72	7.794	7.797	-0.003	87	18300	0.4000	0.3915	
41 Isopropyl ether	45	7.972	7.978	-0.006	98	145384	0.4000	0.3832	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	39820	0.4000	0.3818	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	105906	0.4000	0.3922	
44 Chloroform	83	8.555	8.560	-0.005	40	83858	0.4000	0.3914	
45 Tert-butyl ethyl ether	59	8.657	8.665	-0.008	97	121332	0.4000	0.3843	
46 Tetrahydrofuran	42	8.991	8.988	0.003	95	51707	0.4000	0.3835	
47 1,1,1-Trichloroethane	97	9.590	9.597	-0.007	95	86648	0.4000	0.3678	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	96	53780	0.4000	0.3566	
50 n-Butanol	31	10.199	10.195	0.004	76	22459	0.4000	0.3746	
51 Cyclohexane	69	10.210	10.210	0.000	75	19248	0.4000	0.3861	
49 Benzene	78	10.215	10.214	0.001	96	119776	0.4000	0.3773	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	88467	0.4000	0.3485	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	91	25882	0.4000	0.3619	
54 Thiophene	84	10.496	10.499	-0.003	96	61784	0.4000	0.3839	
55 Isooctane	57	10.997	10.995	0.002	97	201320	0.4000	0.3796	
57 n-Heptane	71	11.380	11.387	-0.007	95	41187	0.4000	0.3718	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	43914	0.4000	0.3589	
58 Trichloroethene	130	11.504	11.509	-0.005	95	51621	0.4000	0.3697	
59 Dibromomethane	93	11.590	11.595	-0.005	91	45649	0.4000	0.3524	
60 Dichlorobromomethane	83	11.741	11.746	-0.005	96	82518	0.4000	0.3512	
61 1,4-Dioxane	88	11.779	11.781	-0.002	93	17072	0.4000	0.3498	
62 Methyl methacrylate	41	11.849	11.850	-0.001	87	61427	0.4000	0.3527	
63 Methylcyclohexane	83	12.281	12.288	-0.007	90	67432	0.4000	0.3693	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	96	115648	0.4000	0.3720	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	65841	0.4000	0.3589	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	60682	0.4000	0.3555	
67 Toluene	91	13.591	13.593	-0.002	92	134911	0.4000	0.3821	
68 1,1,2-Trichloroethane	83	13.667	13.674	-0.007	96	41040	0.4000	0.3749	
69 2-Hexanone	58	14.060	14.066	-0.006	90	46424	0.4000	0.3552	
71 n-Octane	85	14.287	14.288	-0.001	97	42413	0.4000	0.3666	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	82751	0.4000	0.3408	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	76615	0.4000	0.3649	
73 Tetrachloroethene	129	14.745	14.743	0.002	95	52332	0.4000	0.3629	
74 Chlorobenzene	112	15.619	15.625	-0.006	93	113301	0.4000	0.3858	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	173853	0.4000	0.3958	
76 Ethylbenzene	91	15.915	15.914	0.001	98	192887	0.4000	0.3894	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	300469	0.8000	0.7725	
81 n-Nonane	57	16.492	16.494	-0.002	94	99362	0.4000	0.3898	
78 Bromoform	173	16.525	16.525	0.000	95	84238	0.4000	0.3873	
79 Styrene	104	16.535	16.543	-0.008	98	105671	0.4000	0.3945	
80 o-Xylene	91	16.600	16.602	-0.002	99	160961	0.4000	0.3941	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	113804	0.4000	0.3956	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	91	36511	0.4000	0.4004	
84 Isopropylbenzene	105	17.188	17.187	0.001	94	235069	0.4000	0.3879	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.749	17.745	0.004	98	56029	0.4000	0.3636	
86 2-Chlorotoluene	126	17.786	17.786	0.000	98	57011	0.4000	0.3884	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	214068	0.4000	0.3544	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	91	83282	0.4000	0.3617	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	86	76630	0.4000	0.3471	
90 n-Decane	57	18.277	18.280	-0.003	86	128610	0.4000	0.3666	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	195971	0.4000	0.3640	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	193483	0.4000	0.3627	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	284972	0.4000	0.3720	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	125204	0.4000	0.3447	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	139012	0.4000	0.3336	
95 1,4-Dichlorobenzene	146	18.805	18.810	-0.005	93	128566	0.4000	0.3586	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	221539	0.4000	0.3580	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	94	190536	0.4000	0.3630	
99 Butylcyclohexane	83	18.978	18.981	-0.003	90	143647	0.4000	0.3658	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	172831	0.4000	0.3626	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	128507	0.4000	0.3629	
102 Indene	116	19.312	19.314	-0.002	89	141407	0.4000	0.3287	
103 n-Butylbenzene	91	19.318	19.318	0.000	96	224277	0.4000	0.3519	
104 Undecane	57	19.636	19.638	-0.002	90	145831	0.4000	0.3524	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	92	55688	0.4000	0.3206	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	207789	0.4000	0.3499	
107 Dodecane	57	20.714	20.714	0.000	92	138196	0.4000	0.3437	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	118995	0.4000	0.3513	
109 Naphthalene	128	21.065	21.064	0.001	99	238247	0.4000	0.3407	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	119241	0.4000	0.3545	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	122976	0.4000	0.3946	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	61224	0.4000	0.3050	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	97	65295	0.4000	0.3388	
A 115 C8 Range	1	14.284	(14.249-14.335)		0	459073	0.4000	0.3733	
S 116 Xylenes, Total	100				0		1.20	1.17	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.7792	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

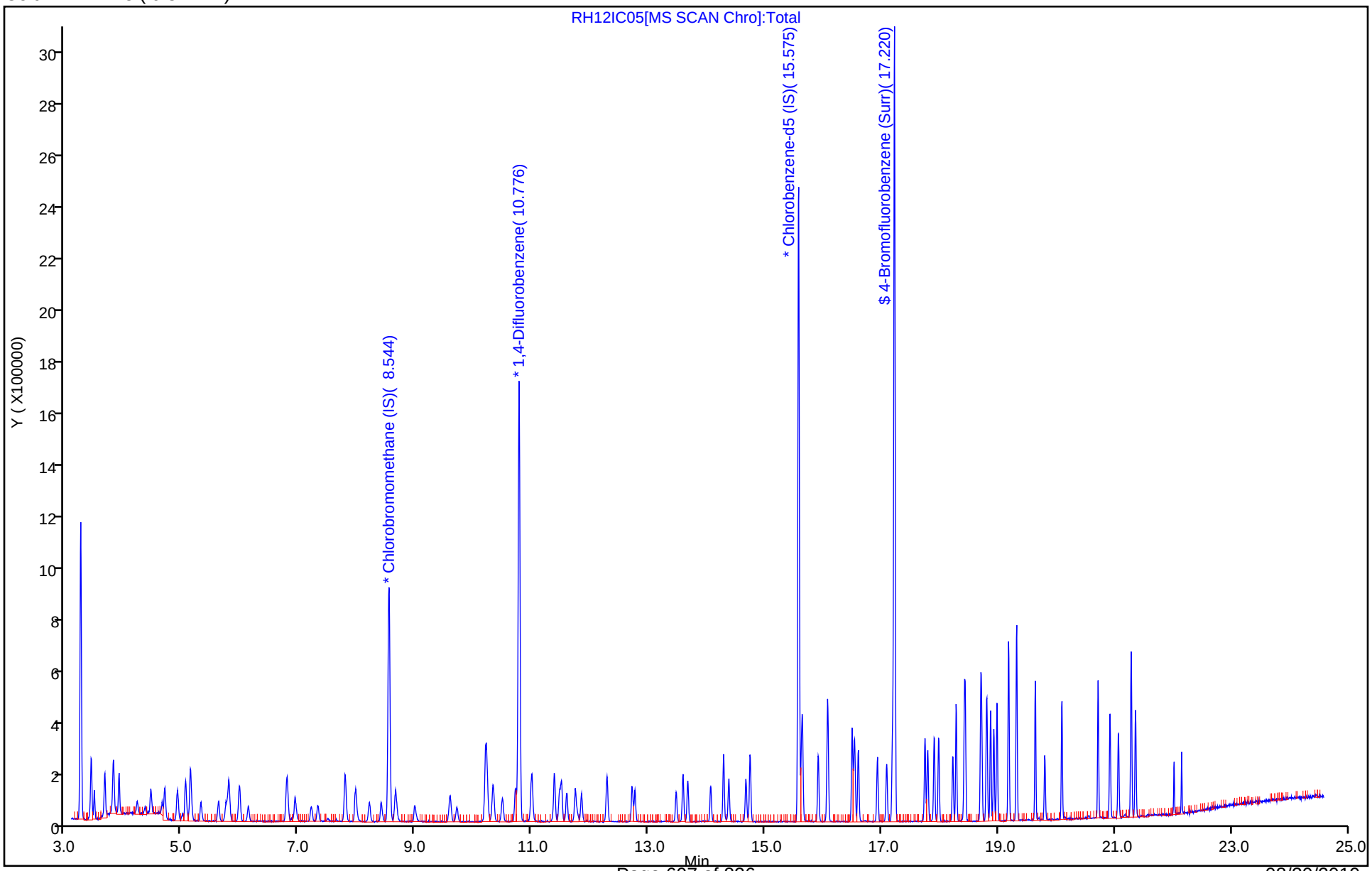
Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D

Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

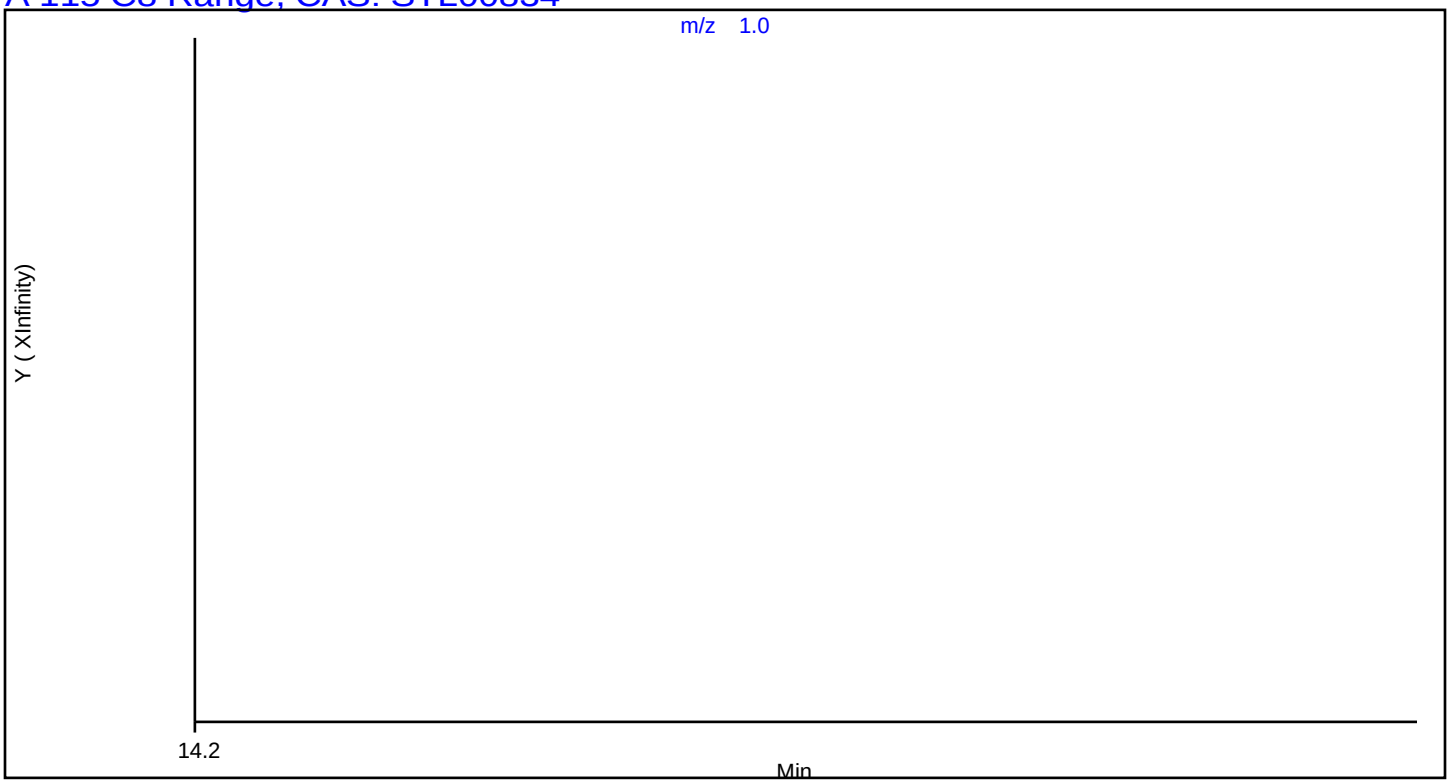


Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D				
Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Aug-2019 21:41:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:08 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:33:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	275742	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1650362	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1463744	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	1017939	4.00	4.03	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	234758	1.00	1.00	
7 Propene	41	3.443	3.439	0.004	98	163993	1.00	1.25	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	213046	1.00	1.00	
9 Chloromethane	52	3.664	3.665	-0.001	90	32588	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	104417	1.00	0.9657	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	199152	5.00	5.32	
12 Vinyl chloride	62	3.831	3.831	0.000	99	87680	1.00	0.8639	
13 Butadiene	54	3.917	3.913	0.004	67	70305	1.00	0.9547	
14 Butane	43	3.917	3.914	0.003	86	134910	1.00	0.8652	
15 Bromomethane	94	4.230	4.227	0.003	98	78476	1.00	0.9125	
16 Chloroethane	64	4.359	4.359	0.000	90	36301	1.00	0.8739	
17 Ethanol	31	4.457	4.464	-0.007	98	197485	5.00	5.28	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	71900	1.00	1.00	
19 2-Methylbutane	43	4.699	4.699	0.000	96	112317	1.00	0.9653	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	256609	1.00	0.9688	
20 Acrolein	56	4.936	4.936	0.000	95	31359	1.00	0.9562	
24 Acetonitrile	40	5.001	5.001	0.000	96	44589	1.00	0.9132	
22 Acetone	58	5.050	5.057	-0.007	99	140239	3.00	3.07	
25 Pentane	72	5.141	5.138	0.003	73	16387	1.00	0.9353	
23 Isopropyl alcohol	45	5.136	5.149	-0.013	83	434704	3.00	2.81	
26 Ethyl ether	31	5.314	5.319	-0.005	89	139716	1.00	0.9752	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	91670	1.00	0.9667	
28 Acrylonitrile	53	5.729	5.738	-0.009	67	76620	1.00	1.07	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.022	96	187436	1.00	0.9805	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	96	195830	1.00	0.99	
31 Methylene Chloride	84	5.977	5.978	-0.001	96	97104	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	94	106755	1.00	0.9838	
33 Carbon disulfide	76	6.139	6.133	0.006	100	260082	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	97	97862	1.00	0.9818	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	265535	1.00	1.00	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	268658	1.00	1.00	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	183745	1.00	0.9720	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	333540	1.00	1.01	
40 Hexane	56	7.789	7.796	-0.007	73	85998	1.00	0.99	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	95	46530	1.00	0.9195	
41 Isopropyl ether	45	7.967	7.978	-0.011	98	421247	1.00	1.03	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	110184	1.00	0.9761	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	297217	1.00	1.02	
44 Chloroform	83	8.555	8.560	-0.005	96	228386	1.00	0.9847	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	97	345723	1.00	1.01	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	95	147538	1.00	1.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	253956	1.00	1.00	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	160490	1.00	1.01	
50 n-Butanol	31	10.178	10.195	-0.017	86	56795	1.00	0.8998	
51 Cyclohexane	69	10.199	10.210	-0.011	79	50611	1.00	0.9643	
49 Benzene	78	10.210	10.214	-0.004	97	317673	1.00	0.9504	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	95	265046	1.00	0.99	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	74081	1.00	0.9839	
54 Thiophene	84	10.491	10.499	-0.008	97	177597	1.00	1.05	
55 Isooctane	57	10.992	10.995	-0.003	98	546926	1.00	0.9795	
57 n-Heptane	71	11.386	11.387	-0.001	95	114914	1.00	0.9855	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	86	123265	1.00	0.9570	
58 Trichloroethene	130	11.504	11.509	-0.005	98	148333	1.00	1.01	
59 Dibromomethane	93	11.591	11.595	-0.004	95	132070	1.00	0.9685	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	97	241765	1.00	0.9773	
61 1,4-Dioxane	88	11.769	11.781	-0.012	96	49723	1.00	0.9679	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	176236	1.00	0.9611	
63 Methylcyclohexane	83	12.286	12.288	-0.002	94	192630	1.00	1.00	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	315351	1.00	0.9635	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	194636	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.003	98	174816	1.00	0.9602	
67 Toluene	91	13.591	13.593	-0.002	92	381611	1.00	1.01	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	114417	1.00	0.9800	
69 2-Hexanone	58	14.060	14.066	-0.006	90	136287	1.00	0.9778	
71 n-Octane	85	14.287	14.288	-0.001	97	124478	1.00	1.01	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	96	250080	1.00	0.9657	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	97	227684	1.00	1.02	
73 Tetrachloroethene	129	14.740	14.743	-0.003	96	148518	1.00	0.9656	
74 Chlorobenzene	112	15.624	15.625	-0.001	94	316604	1.00	1.01	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	473323	1.00	1.01	
76 Ethylbenzene	91	15.910	15.914	-0.004	99	523426	1.00	0.99	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	824444	2.00	1.99	
81 n-Nonane	57	16.492	16.494	-0.002	95	270114	1.00	0.99	
78 Bromoform	173	16.525	16.525	0.000	95	259604	1.00	1.12	
79 Styrene	104	16.541	16.543	-0.002	99	295221	1.00	1.03	
80 o-Xylene	91	16.600	16.602	-0.002	98	434181	1.00	1.00	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.930	-0.006	99	311891	1.00	1.02	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	94	98558	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	646729	1.00	1.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	168614	1.00	1.03	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	161679	1.00	1.03	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	655801	1.00	1.02	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	248480	1.00	1.01	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	88	241958	1.00	1.03	
90 n-Decane	57	18.277	18.280	-0.003	88	371710	1.00	0.99	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	575935	1.00	1.00	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	568798	1.00	1.00	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	99	826217	1.00	1.01	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	375723	1.00	0.9698	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	437373	1.00	0.9842	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	94	372557	1.00	0.9744	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	676095	1.00	1.02	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	582945	1.00	1.04	
99 Butylcyclohexane	83	18.978	18.981	-0.003	93	437506	1.00	1.04	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	511702	1.00	1.01	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	368079	1.00	0.9746	
102 Indene	116	19.313	19.314	-0.002	95	450393	1.00	0.9817	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	691666	1.00	1.02	
104 Undecane	57	19.636	19.638	-0.002	94	450245	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	95	190182	1.00	1.03	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	648777	1.00	1.02	
107 Dodecane	57	20.715	20.714	0.001	92	445044	1.00	1.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	353265	1.00	0.9778	
109 Naphthalene	128	21.065	21.064	0.001	99	784592	1.00	1.05	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	342754	1.00	0.9555	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	323470	1.00	0.9731	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	200876	1.00	0.9383	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	198072	1.00	0.9635	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	1278165	1.00	0.9872	
S 116 Xylenes, Total	100				0		3.00	2.98	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.96	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

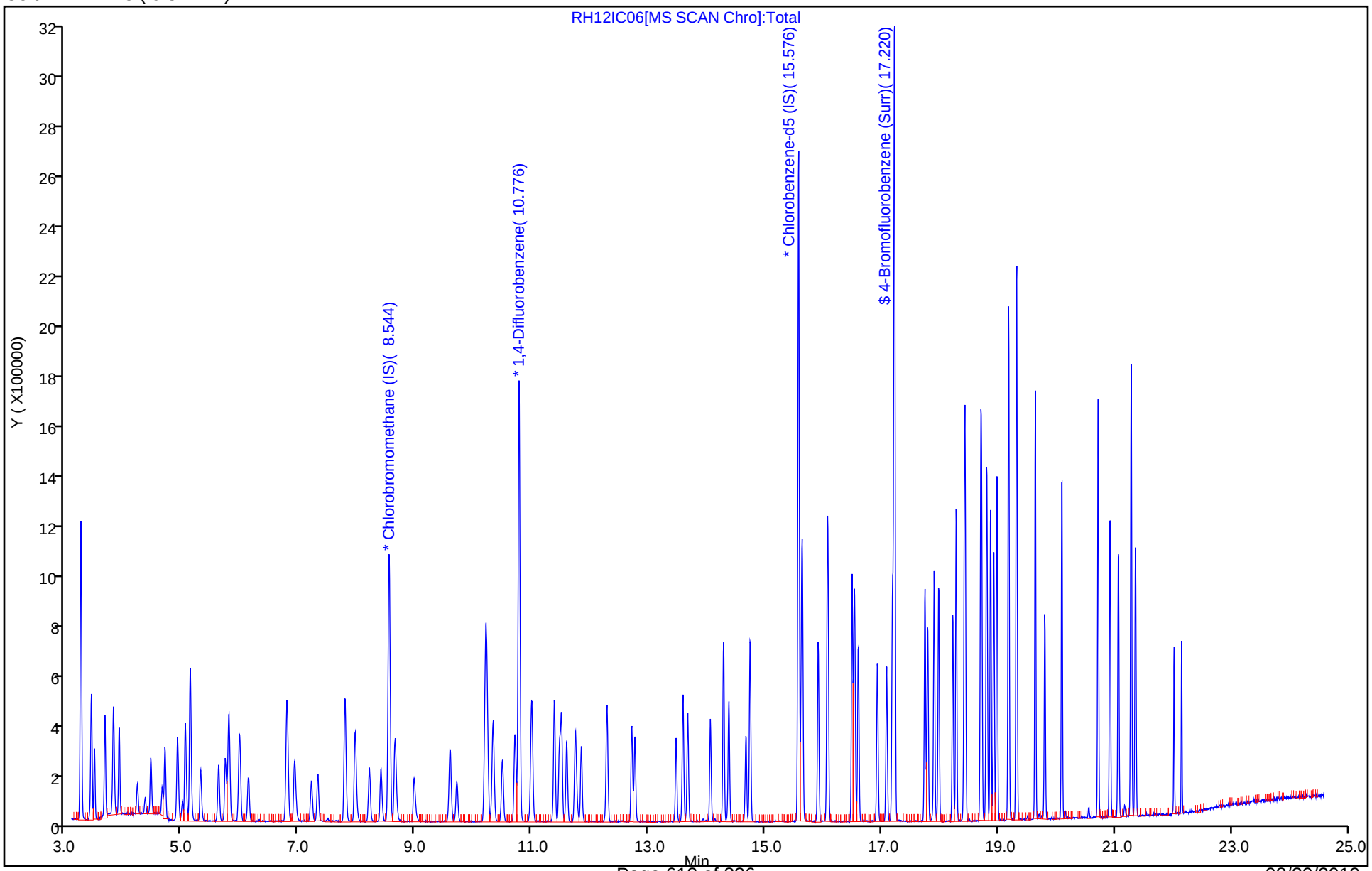
Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D

Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

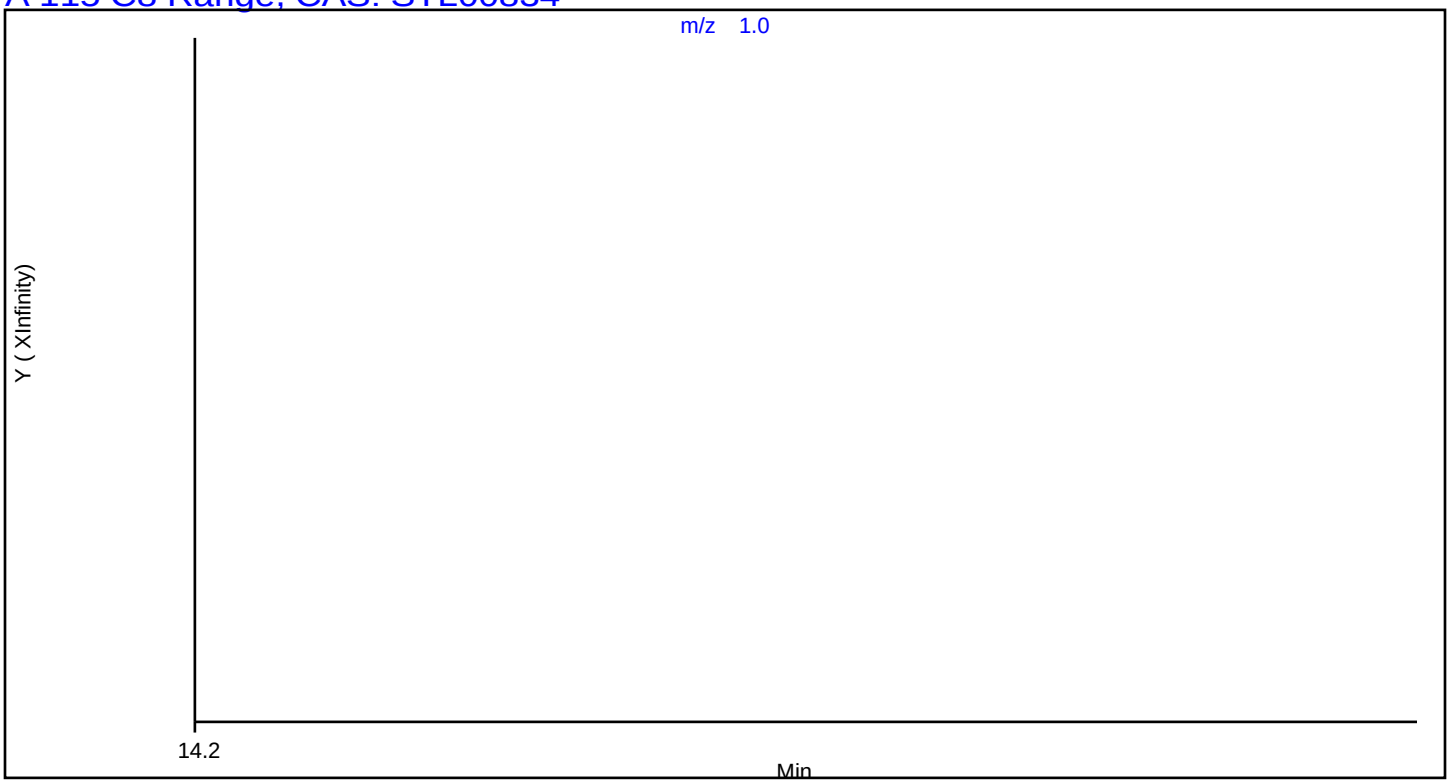


Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D				
Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 12-Aug-2019 22:32:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-013
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:14 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:25:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	316194	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.781	10.781	0.000	95	1831413	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	89	1574740	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1087615	4.00	4.01	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	489629	2.00	1.81	
7 Propene	41	3.437	3.439	-0.002	98	311708	2.00	2.08	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	436605	2.00	1.79	
9 Chloromethane	52	3.664	3.665	-0.001	90	67802	2.00	1.85	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	86	248334	2.00	2.00	
11 Acetaldehyde	44	3.815	3.817	-0.002	100	453602	10.0	10.6	
12 Vinyl chloride	62	3.831	3.831	0.000	99	211260	2.00	1.82	
13 Butadiene	54	3.917	3.913	0.004	70	166727	2.00	1.97	
14 Butane	43	3.917	3.914	0.003	84	314498	2.00	1.76	
15 Bromomethane	94	4.224	4.227	-0.003	97	177814	2.00	1.80	
16 Chloroethane	64	4.365	4.359	0.006	93	84809	2.00	1.78	
17 Ethanol	31	4.467	4.464	0.003	98	459971	10.0	10.7	
18 Vinyl bromide	106	4.656	4.656	0.000	97	166629	2.00	2.02	
19 2-Methylbutane	43	4.704	4.699	0.005	93	245568	2.00	1.84	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	608995	2.00	2.00	
20 Acrolein	56	4.931	4.936	-0.005	98	71916	2.00	1.91	
24 Acetonitrile	40	5.001	5.001	0.000	99	113950	2.00	2.04	
22 Acetone	58	5.049	5.057	-0.008	99	316226	6.00	6.03	
25 Pentane	72	5.141	5.138	0.003	96	40997	2.00	2.04	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	1105765	6.00	6.22	
26 Ethyl ether	31	5.314	5.319	-0.005	90	335934	2.00	2.04	
27 1,1-Dichloroethene	96	5.626	5.626	0.000	98	220013	2.00	2.02	
28 Acrylonitrile	53	5.740	5.738	0.002	58	175197	2.00	2.14	
29 2-Methyl-2-propanol	59	5.740	5.756	-0.016	95	447503	2.00	2.04	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	480563	2.00	2.13	
31 Methylene Chloride	84	5.971	5.978	-0.007	96	207664	2.00	1.86	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	247852	2.00	1.99	
33 Carbon disulfide	76	6.133	6.133	0.000	100	607331	2.00	2.12	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	245990	2.00	2.15	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	626319	2.00	2.07	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	662650	2.00	2.15	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	443627	2.00	2.05	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	782313	2.00	2.07	
40 Hexane	56	7.794	7.796	-0.002	74	199557	2.00	2.01	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	116007	2.00	2.00	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	967613	2.00	2.05	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	251302	2.00	1.94	
43 Ethyl acetate	43	8.403	8.416	-0.013	98	678344	2.00	2.02	
44 Chloroform	83	8.565	8.560	0.005	96	527634	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.651	8.665	-0.014	96	795966	2.00	2.03	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	93	336823	2.00	2.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	579894	2.00	1.98	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	352032	2.00	2.00	
50 n-Butanol	31	10.183	10.195	-0.012	85	140726	2.00	2.01	
51 Cyclohexane	69	10.204	10.210	-0.006	83	113375	2.00	1.95	
49 Benzene	78	10.215	10.214	0.001	97	729307	2.00	1.97	
52 Carbon tetrachloride	117	10.231	10.233	-0.002	96	601170	2.00	2.03	
53 2,3-Dimethylpentane	71	10.334	10.330	0.004	93	168847	2.00	2.02	
54 Thiophene	84	10.496	10.499	-0.003	96	401568	2.00	2.14	
55 Isooctane	57	10.992	10.995	-0.003	98	1251451	2.00	2.02	
57 n-Heptane	71	11.385	11.387	-0.002	95	257286	2.00	1.99	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	284844	2.00	1.99	
58 Trichloroethene	130	11.504	11.509	-0.005	95	316261	2.00	1.94	
59 Dibromomethane	93	11.596	11.595	0.001	96	296383	2.00	1.96	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	540886	2.00	1.97	
61 1,4-Dioxane	88	11.768	11.781	-0.013	97	115604	2.00	2.03	
62 Methyl methacrylate	41	11.849	11.850	-0.001	90	409718	2.00	2.01	
63 Methylcyclohexane	83	12.286	12.288	-0.002	91	425455	2.00	1.99	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	729869	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	431545	2.00	2.01	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	410349	2.00	2.09	
67 Toluene	91	13.591	13.593	-0.002	93	854782	2.00	2.11	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	257761	2.00	2.05	
69 2-Hexanone	58	14.060	14.066	-0.006	90	311563	2.00	2.08	
71 n-Octane	85	14.287	14.288	-0.001	97	270992	2.00	2.04	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	588398	2.00	2.11	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	502874	2.00	2.09	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	320049	2.00	1.93	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	674887	2.00	2.00	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	1047970	2.00	2.08	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1180642	2.00	2.08	
77 m-Xylene & p-Xylene	91	16.071	16.074	-0.003	98	1828793	4.00	4.10	
81 n-Nonane	57	16.492	16.494	-0.002	96	597670	2.00	2.04	
78 Bromoform	173	16.524	16.525	-0.001	96	602865	2.00	2.42	
79 Styrene	104	16.541	16.543	-0.002	98	648614	2.00	2.11	
80 o-Xylene	91	16.600	16.602	-0.002	98	945150	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	679085	2.00	2.06	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	213681	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1394055	2.00	2.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	380530	2.00	2.15	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	345097	2.00	2.05	
88 4-Ethyltoluene	105	17.899	17.902	-0.003	99	1459843	2.00	2.11	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	92	548438	2.00	2.08	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	95	556967	2.00	2.20	
90 n-Decane	57	18.282	18.280	0.002	87	841732	2.00	2.09	
91 tert-Butylbenzene	119	18.422	18.424	-0.002	93	1266574	2.00	2.05	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	97	1265159	2.00	2.07	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1818636	2.00	2.07	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	823821	2.00	1.98	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	1036549	2.00	2.17	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	825864	2.00	2.01	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1450854	2.00	2.04	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	1247184	2.00	2.07	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	943389	2.00	2.09	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	1132215	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	82	806766	2.00	1.99	
102 Indene	116	19.312	19.314	-0.002	91	1024994	2.00	2.08	
103 n-Butylbenzene	91	19.318	19.318	0.000	99	1506674	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	94	997760	2.00	2.10	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	425196	2.00	2.13	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1412707	2.00	2.07	
107 Dodecane	57	20.714	20.714	0.000	93	1029333	2.00	2.23	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	759967	2.00	1.96	
109 Naphthalene	128	21.065	21.064	0.001	99	1612650	2.00	2.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	776012	2.00	2.01	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727177	2.00	2.03	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	552616	2.00	2.40	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	524544	2.00	2.37	
A 115 C8 Range	1	14.279	(14.238-14.346)		0	2875636	2.00	2.00	
S 116 Xylenes, Total	100				0		6.00	6.11	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.09	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

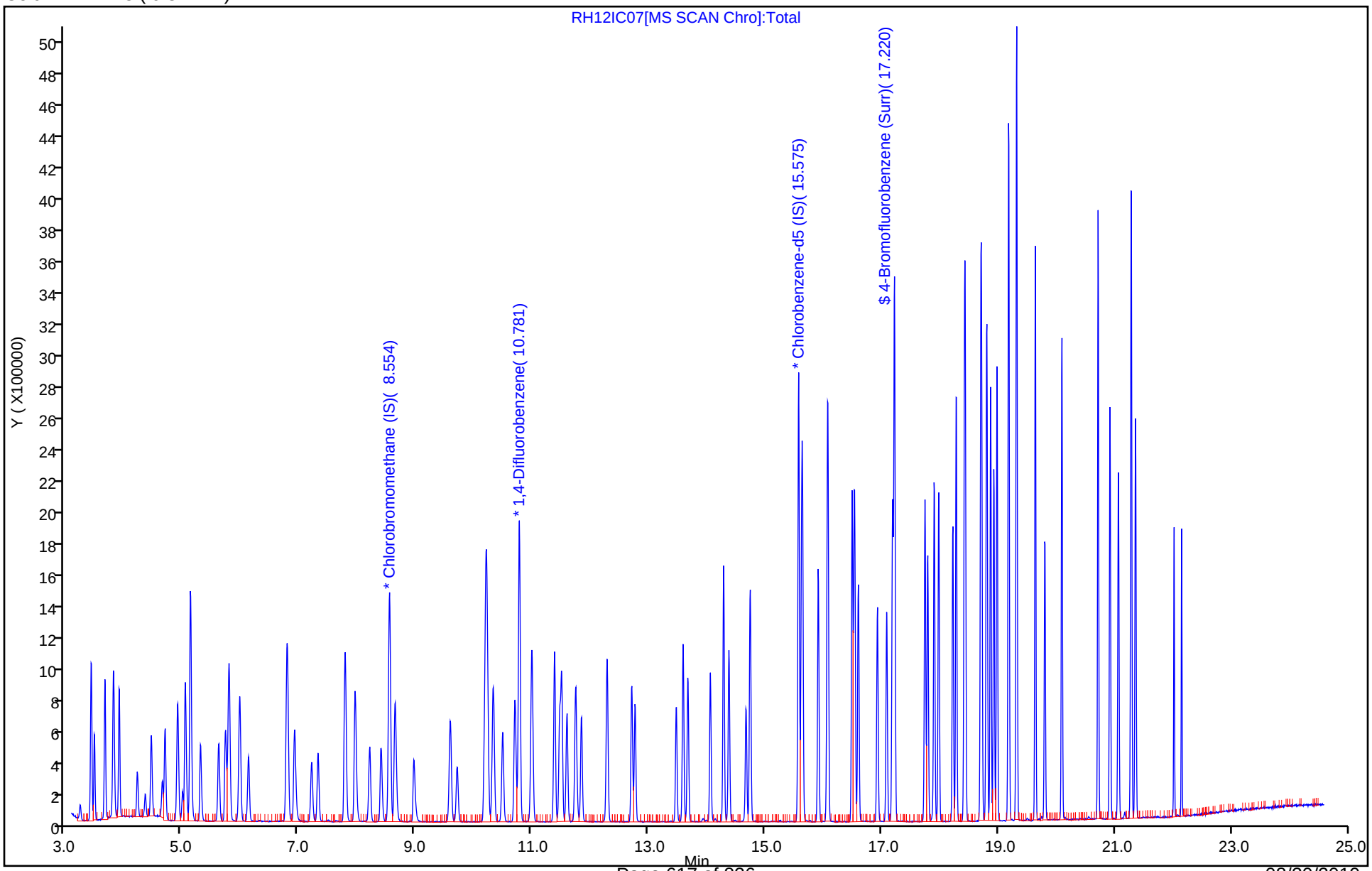
Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D

Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

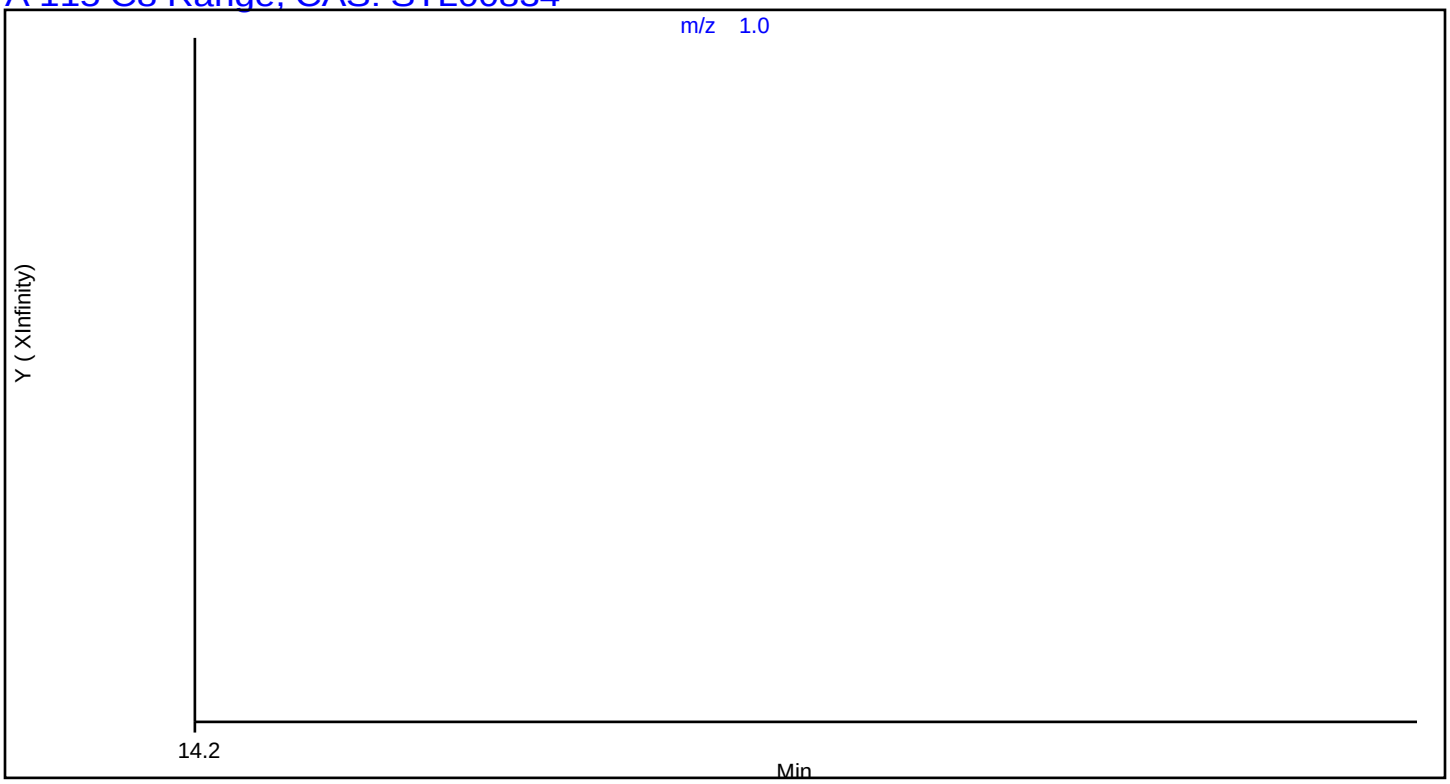


Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D				
Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Aug-2019 23:20:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:20 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	321233	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1837540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1634867	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1153368	4.00	4.09	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	97	1038164	4.00	3.78	
7 Propene	41	3.432	3.439	-0.007	98	612203	4.00	4.02	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	941193	4.00	3.79	
9 Chloromethane	52	3.664	3.665	-0.001	99	140377	4.00	3.76	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	495086	4.00	3.93	
11 Acetaldehyde	44	3.815	3.817	-0.002	99	749118	20.0	17.2	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	390377	4.00	3.30	
13 Butadiene	54	3.912	3.913	-0.001	69	315900	4.00	3.68	
14 Butane	43	3.912	3.914	-0.002	84	601193	4.00	3.31	
15 Bromomethane	94	4.219	4.227	-0.008	94	325261	4.00	3.25	
16 Chloroethane	64	4.359	4.359	0.000	91	149002	4.00	3.08	
17 Ethanol	31	4.457	4.464	-0.007	98	811380	20.0	18.6	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	291926	4.00	3.49	
19 2-Methylbutane	43	4.699	4.699	0.000	94	444864	4.00	3.28	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	1268687	4.00	4.11	
20 Acrolein	56	4.926	4.936	-0.010	98	148082	4.00	3.88	
24 Acetonitrile	40	4.996	5.001	-0.005	97	248929	4.00	4.38	
22 Acetone	58	5.044	5.057	-0.013	99	638695	12.0	12.0	
25 Pentane	72	5.125	5.138	-0.013	68	83201	4.00	4.08	
23 Isopropyl alcohol	45	5.131	5.149	-0.018	84	2244654	12.0	12.4	
26 Ethyl ether	31	5.303	5.319	-0.016	89	691635	4.00	4.14	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	436351	4.00	3.95	
28 Acrylonitrile	53	5.735	5.738	-0.004	91	363112	4.00	4.36	
29 2-Methyl-2-propanol	59	5.729	5.756	-0.027	96	934472	4.00	4.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	958858	4.00	4.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	399350	4.00	3.52	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	95	491788	4.00	3.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.133	-0.005	99	1208336	4.00	4.16	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	97	489823	4.00	4.22	
35 2-Methylpentane	43	6.797	6.803	-0.006	97	1282861	4.00	4.16	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	1330133	4.00	4.25	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	894337	4.00	4.06	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	1598765	4.00	4.16	
40 Hexane	56	7.794	7.796	-0.002	76	400434	4.00	3.97	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	97	231513	4.00	3.93	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	1932735	4.00	4.04	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	506769	4.00	3.85	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	1395118	4.00	4.10	
44 Chloroform	83	8.566	8.560	0.006	97	1090897	4.00	4.04	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	1649006	4.00	4.14	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	684785	4.00	4.03	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	1190165	4.00	4.01	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	97	740042	4.00	4.19	
50 n-Butanol	31	10.178	10.195	-0.017	87	295549	4.00	4.21	
51 Cyclohexane	69	10.205	10.210	-0.005	84	239599	4.00	4.10	
49 Benzene	78	10.216	10.214	0.002	98	1512569	4.00	4.06	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	1301234	4.00	4.37	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	340329	4.00	4.06	
54 Thiophene	84	10.496	10.499	-0.003	96	819107	4.00	4.34	
55 Isooctane	57	10.997	10.995	0.002	98	2580622	4.00	4.15	
57 n-Heptane	71	11.386	11.387	-0.001	95	546078	4.00	4.21	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	593910	4.00	4.14	
58 Trichloroethene	130	11.510	11.509	0.001	96	679471	4.00	4.15	
59 Dibromomethane	93	11.596	11.595	0.001	95	632141	4.00	4.16	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	1178556	4.00	4.28	
61 1,4-Dioxane	88	11.763	11.781	-0.018	95	248953	4.00	4.35	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	861534	4.00	4.22	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	892859	4.00	4.17	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	98	1521901	4.00	4.18	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	98	913127	4.00	4.25	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	885988	4.00	4.36	
67 Toluene	91	13.597	13.593	0.004	93	1776875	4.00	4.22	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	99	547625	4.00	4.20	
69 2-Hexanone	58	14.060	14.066	-0.006	89	668912	4.00	4.30	
71 n-Octane	85	14.292	14.288	0.004	97	568804	4.00	4.13	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	1309608	4.00	4.53	
72 Ethylene Dibromide	107	14.675	14.674	0.001	97	1092982	4.00	4.37	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	693690	4.00	4.04	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	1461212	4.00	4.18	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	2223594	4.00	4.25	
76 Ethylbenzene	91	15.915	15.914	0.001	98	2538724	4.00	4.30	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	4001961	8.00	8.64	
81 n-Nonane	57	16.492	16.494	-0.002	96	1327887	4.00	4.37	
78 Bromoform	173	16.525	16.525	0.000	97	1422909	4.00	5.49	
79 Styrene	104	16.541	16.543	-0.002	98	1449351	4.00	4.54	
80 o-Xylene	91	16.600	16.602	-0.002	99	2019938	4.00	4.15	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	1491704	4.00	4.35	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	469621	4.00	4.32	
84 Isopropylbenzene	105	17.188	17.187	0.001	95	3033081	4.00	4.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	790107	4.00	4.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	715846	4.00	4.09	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	3091126	4.00	4.30	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	1155375	4.00	4.21	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	1222128	4.00	4.65	
90 n-Decane	57	18.283	18.280	0.003	87	1777720	4.00	4.25	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	2742434	4.00	4.28	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	97	2756637	4.00	4.34	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	3969502	4.00	4.35	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	1782763	4.00	4.12	
96 Benzyl chloride	91	18.800	18.796	0.004	97	2244471	4.00	4.52	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	1782054	4.00	4.17	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3163292	4.00	4.29	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2606254	4.00	4.17	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	1994481	4.00	4.26	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2425370	4.00	4.27	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	1757169	4.00	4.17	
102 Indene	116	19.313	19.314	-0.002	90	2201908	4.00	4.30	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	3226973	4.00	4.25	
104 Undecane	57	19.636	19.638	-0.002	95	2100599	4.00	4.26	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	97	956590	4.00	4.62	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	3062915	4.00	4.33	
107 Dodecane	57	20.715	20.714	0.001	93	2157082	4.00	4.50	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	1638588	4.00	4.06	
109 Naphthalene	128	21.065	21.064	0.001	99	3144071	4.00	3.77	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	96	1748268	4.00	4.36	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	1545006	4.00	4.16	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	677421	4.00	2.83	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	717771	4.00	3.13	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	5900294	4.00	4.09	
S 116 Xylenes, Total	100				0		12.0	12.8	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.07	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

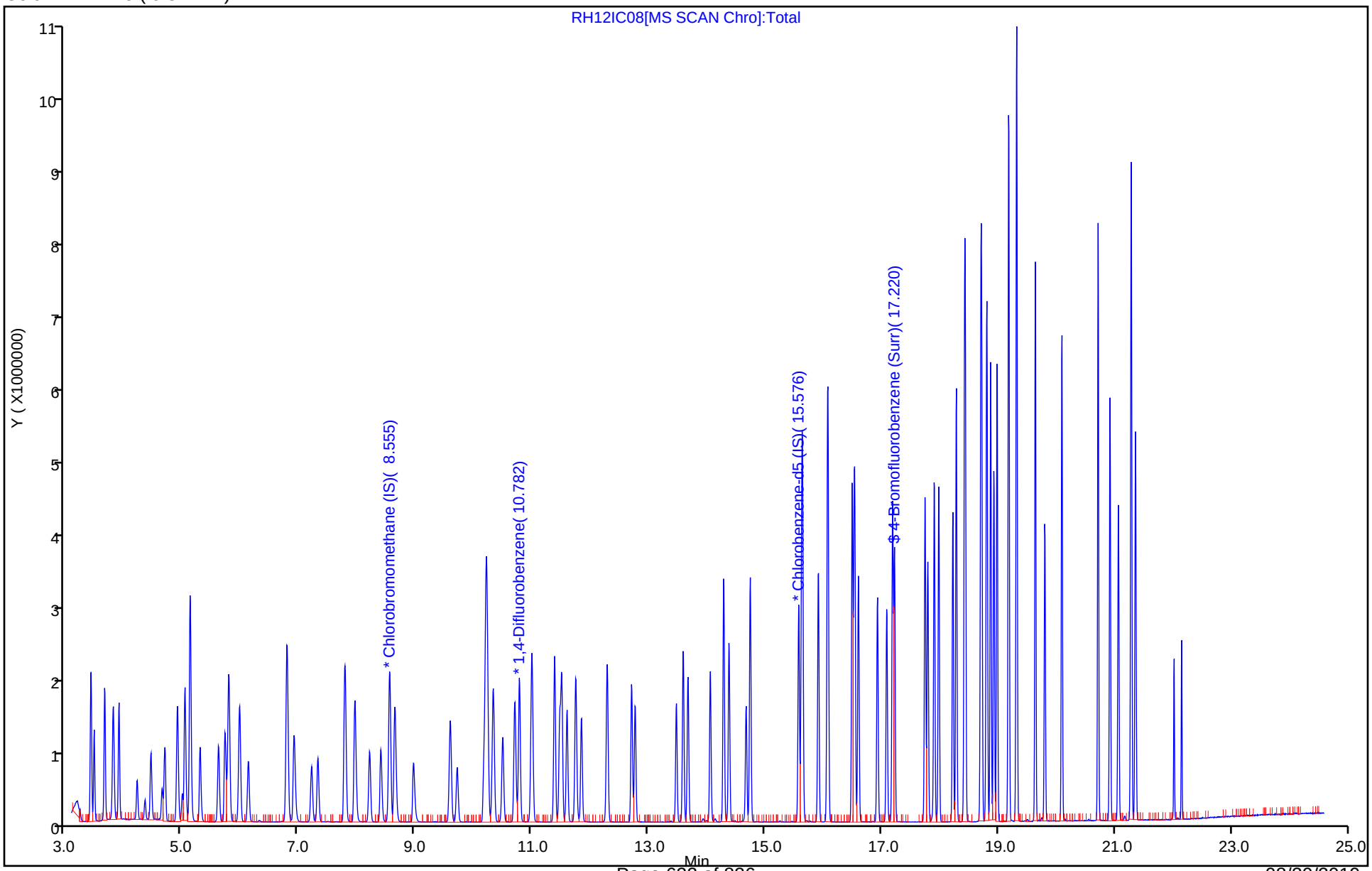
Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

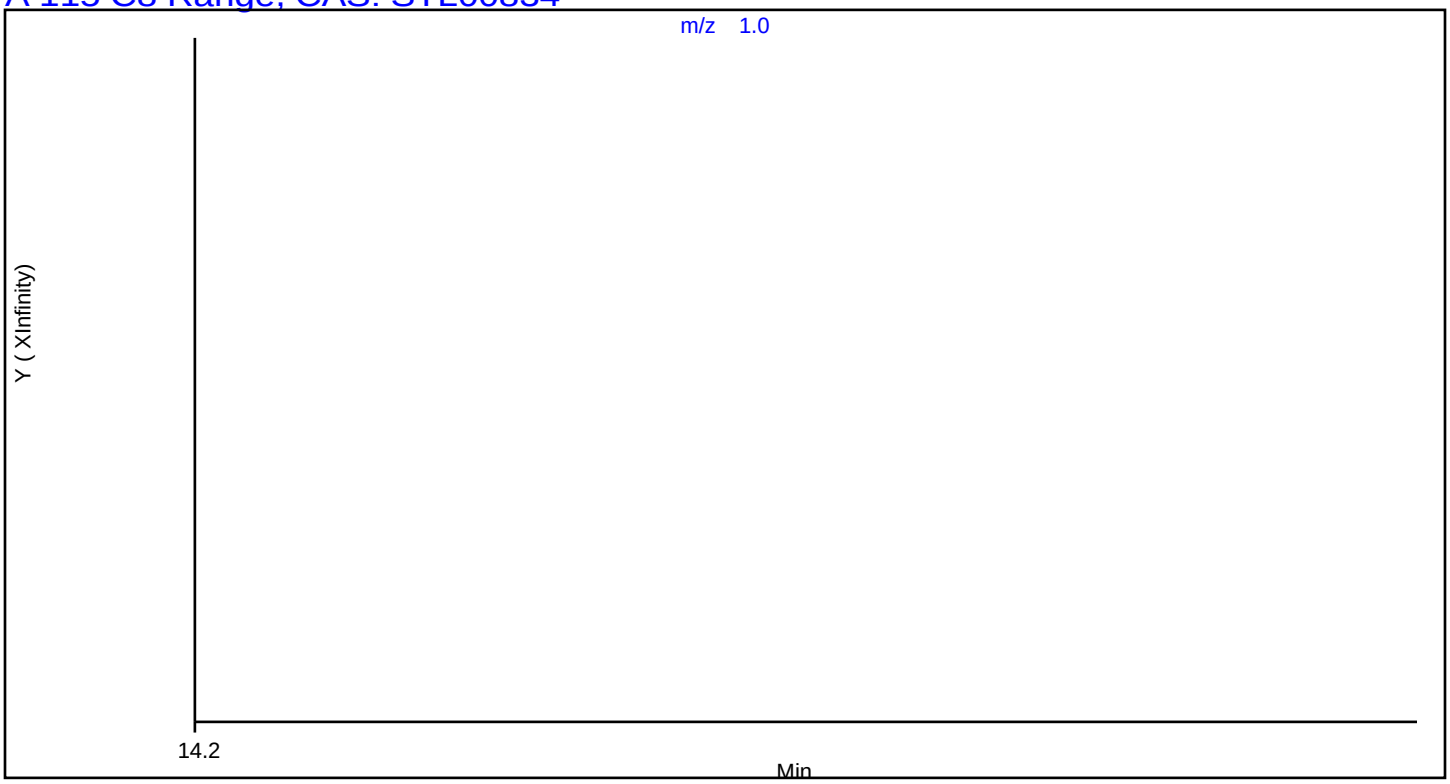


Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Jul-2019 12:28:30 ALS Bottle#: 10 Worklist Smp#: 30
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-029
Misc. Info.: 231539(S94)
Operator ID: 403648 Instrument ID: MJ
Sublist:

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:38:33 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 13:14:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	95	274664	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1422205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.456	16.453	0.003	91	1231744	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.054	18.052	0.002	89	937163	4.00	4.14	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	130636	2.00	1.74	
20 Propene	41	4.169	4.169	0.000	97	91061	2.00	1.67	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	161912	2.00	1.88	
22 Chloromethane	52	4.438	4.441	-0.003	100	52048	2.00	1.88	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.444	0.005	48	22866	2.00	1.91	
24 Acetaldehyde	44	4.621	4.617	0.004	92	256331	10.0	7.17	
25 Vinyl chloride	62	4.643	4.642	0.001	99	189280	2.00	2.03	
26 Butane	43	4.739	4.739	0.000	85	295045	2.00	2.05	
27 Butadiene	54	4.745	4.741	0.004	67	135553	2.00	1.92	
28 Bromomethane	94	5.116	5.117	-0.001	98	157964	2.00	1.92	
29 Chloroethane	64	5.283	5.275	0.008	89	80362	2.00	1.96	
30 Ethanol	31	5.385	5.386	-0.001	98	274147	10.0	7.40	
31 Vinyl bromide	106	5.622	5.618	0.004	97	158319	2.00	2.08	
32 2-Methylbutane	43	5.670	5.669	0.001	92	203035	2.00	2.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	581099	2.00	1.96	
34 Acrolein	56	5.928	5.930	-0.002	26	38584	2.00	2.14	
35 Acetonitrile	40	6.004	6.004	0.000	96	45265	2.00	1.59	
36 Acetone	58	6.063	6.061	0.002	99	49838	2.00	1.58	
38 Pentane	72	6.160	6.155	0.005	96	23125	2.00	2.04	
37 Isopropyl alcohol	45	6.149	6.155	-0.006	94	223972	2.00	2.44	
39 Ethyl ether	31	6.342	6.345	-0.003	89	173794	2.00	1.70	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	166820	2.00	1.98	
41 Acrylonitrile	53	6.805	6.802	0.003	54	92949	2.00	1.65	
42 2-Methyl-2-propanol	59	6.805	6.814	-0.009	95	278687	2.00	1.96	
43 1,1,2-Trichloro-1,2,2-trif	101	6.875	6.873	0.002	95	363927	2.00	1.86	
44 Methylene Chloride	84	7.069	7.067	0.002	96	158646	2.00	1.54	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	97	171950	2.00	1.80	
46 Carbon disulfide	76	7.252	7.248	0.004	100	503733	2.00	1.96	
47 trans-1,2-Dichloroethene	96	7.924	7.922	0.002	93	155665	2.00	1.85	
48 2-Methylpentane	43	7.929	7.928	0.001	95	388446	2.00	1.67	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	368158	2.00	1.64	
50 1,1-Dichloroethane	63	8.365	8.363	0.002	100	315408	2.00	1.68	
51 Vinyl acetate	43	8.462	8.461	0.001	100	373043	2.00	1.57	
52 2-Butanone (MEK)	72	8.941	8.943	-0.002	95	59334	2.00	1.60	
53 Hexane	56	8.946	8.948	-0.002	77	132378	2.00	1.75	
54 Isopropyl ether	45	9.113	9.118	-0.005	96	485926	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	154488	2.00	1.78	
56 Ethyl acetate	43	9.559	9.566	-0.007	97	310905	2.00	1.57	
57 Chloroform	83	9.737	9.735	0.002	96	373034	2.00	1.67	
58 Tert-butyl ethyl ether	59	9.807	9.817	-0.010	97	418746	2.00	1.57	
59 Tetrahydrofuran	42	10.162	10.176	-0.014	92	159172	2.00	1.61	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	400840	2.00	1.67	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	278292	2.00	1.70	
62 n-Butanol	31	11.286	11.296	-0.010	64	74175	2.00	1.91	
63 Cyclohexane	69	11.340	11.337	0.003	73	78867	2.00	1.80	
64 Benzene	78	11.340	11.340	0.000	97	438518	2.00	1.68	
65 Carbon tetrachloride	117	11.361	11.361	0.000	96	454012	2.00	2.08	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	90	100308	2.00	1.71	
67 Thiophene	84	11.604	11.604	0.000	97	245342	2.00	1.66	
68 Isooctane	57	12.039	12.041	-0.002	97	808269	2.00	1.74	
69 n-Heptane	71	12.394	12.392	0.002	95	153802	2.00	1.72	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	87	185370	2.00	1.69	
71 Trichloroethene	130	12.540	12.537	0.003	93	200047	2.00	1.70	
72 Dibromomethane	93	12.631	12.627	0.004	94	215885	2.00	1.78	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	398744	2.00	1.72	
74 1,4-Dioxane	88	12.782	12.787	-0.005	95	54123	2.00	1.78	
75 Methyl methacrylate	41	12.825	12.827	-0.002	88	209117	2.00	1.64	
76 Methylcyclohexane	83	13.277	13.277	0.000	92	334376	2.00	2.10	
77 4-Methyl-2-pentanone (MIBK	43	13.659	13.662	-0.004	99	359756	2.00	1.80	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	285639	2.00	1.76	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	269835	2.00	1.78	
80 Toluene	91	14.519	14.519	0.000	92	520816	2.00	1.75	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	94	168159	2.00	1.77	
82 2-Hexanone	58	14.950	14.956	-0.006	91	165032	2.00	1.89	
83 n-Octane	85	15.154	15.154	0.000	96	160766	2.00	1.76	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	362042	2.00	1.76	
85 Ethylene Dibromide	107	15.579	15.579	0.000	97	308281	2.00	1.78	
86 Tetrachloroethene	129	15.638	15.637	0.001	93	206298	2.00	1.73	
87 2,3-Dimethylheptane	43	16.483	16.478	0.005	94	549502	2.00	1.57	
88 Chlorobenzene	112	16.499	16.501	-0.002	91	419046	2.00	1.76	
89 Ethylbenzene	91	16.773	16.773	0.000	100	650469	2.00	1.70	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	1027384	4.00	3.49	
91 n-Nonane	57	17.311	17.307	0.004	94	382913	2.00	1.80	
92 Styrene	104	17.392	17.392	0.000	97	362854	2.00	1.73	
93 Bromoform	173	17.397	17.398	-0.001	94	356750	2.00	1.62	
94 o-Xylene	91	17.456	17.453	0.003	97	529548	2.00	1.69	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	391296	2.00	1.80	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	105524	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.016	18.012	0.004	98	695973	2.00	1.70	
98 N-Propylbenzene	120	18.522	18.517	0.005	98	188998	2.00	1.73	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	194678	2.00	1.85	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	674463	2.00	1.66	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	315405	2.00	1.94	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	293576	2.00	1.75	
103 n-Decane	57	18.973	18.974	-0.001	89	487884	2.00	1.81	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	636933	2.00	1.70	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	96	622242	2.00	1.73	
106 sec-Butylbenzene	105	19.393	19.389	0.004	98	893172	2.00	1.76	
107 1,3-Dichlorobenzene	146	19.420	19.419	0.001	98	451945	2.00	1.80	
108 Benzyl chloride	91	19.490	19.487	0.003	97	564628	2.00	1.83	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	91	452286	2.00	1.78	
110 4-Isopropyltoluene	119	19.544	19.542	0.002	98	743286	2.00	1.75	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	462780	2.00	1.31	
112 Butylcyclohexane	83	19.646	19.642	0.004	90	533083	2.00	1.74	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	92	557324	2.00	1.70	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	432238	2.00	1.75	
115 n-Butylbenzene	91	19.963	19.958	0.005	97	816521	2.00	1.85	
116 Indene	116	19.974	19.974	0.000	88	433186	2.00	1.54	
117 Undecane	57	20.238	20.235	0.003	94	556918	2.00	1.83	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	93	164906	2.00	1.34	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	677306	2.00	1.76	
120 Dodecane	57	21.324	21.323	0.001	92	564912	2.00	2.18	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	368640	2.00	1.83	
122 Naphthalene	128	21.695	21.693	0.002	98	590000	2.00	1.87	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	443133	2.00	1.82	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	328156	2.00	2.06	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	236290	2.00	2.74	
126 1-Methylnaphthalene	142	22.551	22.549	0.002	99	220463	2.00	2.13	
A 128 C8 Range	1	15.169	(15.114-15.211)		0	1770809	2.00	1.81	
S 129 Xylenes, Total	100				0		6.00	5.19	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.63	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

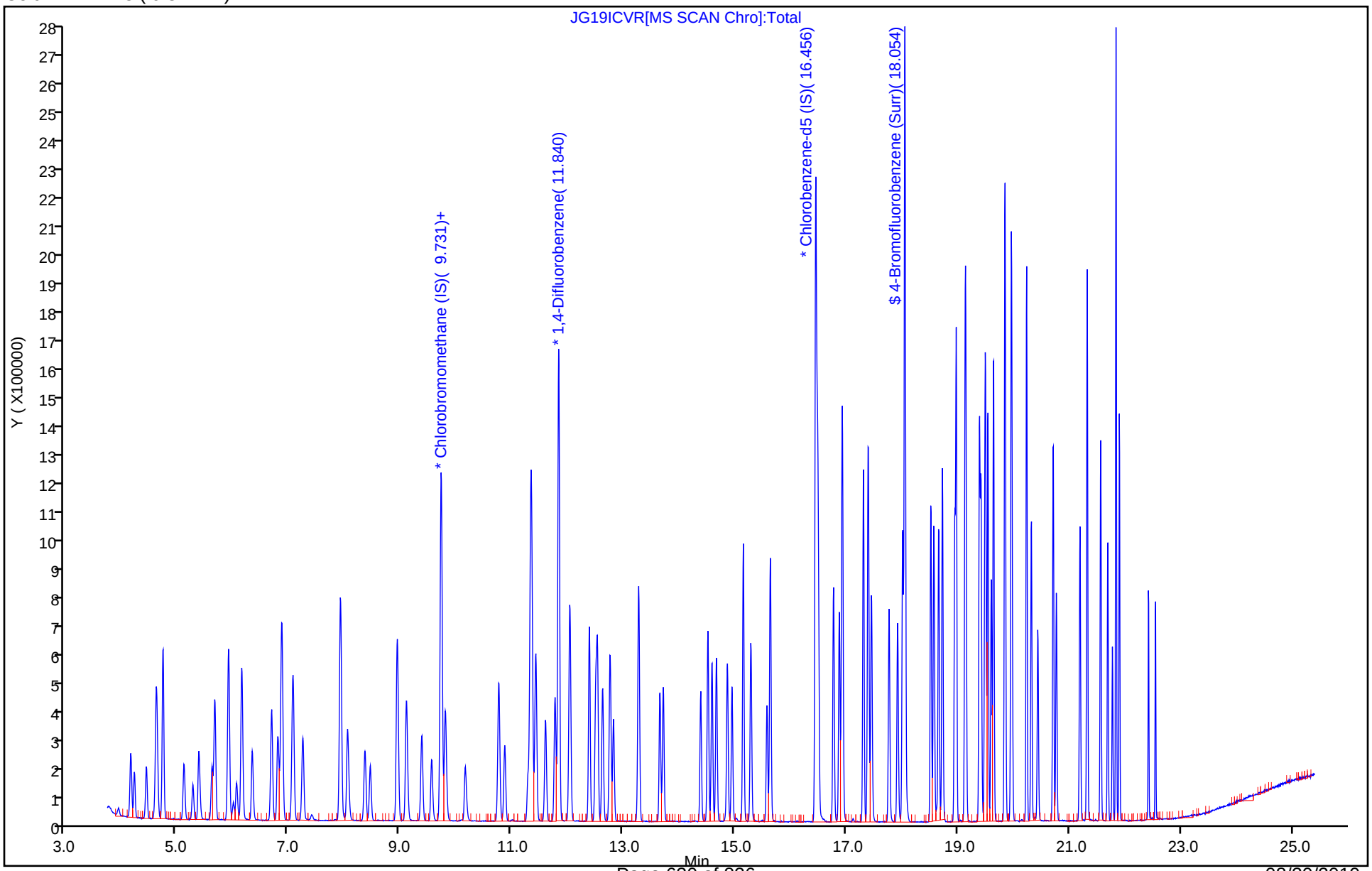
Report Date: 24-Jul-2019 11:38:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D

Injection Date:	20-Jul-2019 12:28:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	30
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9502		1.74	2.00	-13.1	30.0
Propene	Ave	0.7918	0.6822		1.72	2.00	-13.8	30.0
Dichlorodifluoromethane	Ave	1.253	1.300		2.08	2.00	3.8	30.0
Chloromethane	Ave	0.4041	0.4344		2.15	2.00	7.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2330		2.68	2.00	33.9*	30.0
Acetaldehyde	Ave	0.5207	0.5174		9.94	10.0	-0.6	30.0
Vinyl chloride	Ave	1.359	1.600		2.35	2.00	17.7	30.0
1,3-Butadiene	Ave	1.028	1.187		2.31	2.00	15.4	30.0
Butane	Ave	2.098	2.224		2.12	2.00	6.0	30.0
Bromomethane	Ave	1.197	1.529		2.55	2.00	27.7	30.0
Chloroethane	Ave	0.5981	0.7300		2.44	2.00	22.0	30.0
Ethanol	Ave	0.5397	0.4652		8.62	10.0	-13.8	30.0
Vinyl bromide	Ave	1.109	1.405		2.53	2.00	26.7	30.0
2-Methylbutane	Ave	1.445	1.593		2.20	2.00	10.2	30.0
Trichlorofluoromethane	Ave	4.326	4.166		1.93	2.00	-3.7	30.0
Acrolein	Ave	0.2624	0.2944		2.24	2.00	12.2	30.0
Acetonitrile	Ave	0.4156	0.4201		2.02	2.00	1.1	30.0
Acetone	Ave	0.4604	0.4690		6.11	6.00	1.8	30.0
Isopropyl alcohol	Ave	1.338	1.100		4.93	6.00	-17.8	30.0
Pentane	Ave	0.1653	0.2072		2.51	2.00	25.4	30.0
Ethyl ether	Ave	1.486	1.172		1.58	2.00	-21.1	30.0
1,1-Dichloroethene	Ave	1.228	1.320		2.15	2.00	7.6	30.0
Acrylonitrile	Ave	0.8209	0.7341		1.79	2.00	-10.6	30.0
tert-Butyl alcohol	Ave	2.068	1.348		1.30	2.00	-34.8*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.857		2.00	2.00	0.1	30.0
Methylene Chloride	Ave	1.505	1.285		1.71	2.00	-14.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.3	30.0
Carbon disulfide	Ave	3.743	3.799		2.03	2.00	1.5	30.0
2-Methylpentane	Ave	3.379	2.825		1.67	2.00	-16.4	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.265		2.06	2.00	3.1	30.0
Methyl tert-butyl ether	Ave	3.276	2.617		1.60	2.00	-20.1	30.0
1,1-Dichloroethane	Ave	2.733	2.248		1.65	2.00	-17.7	30.0
Vinyl acetate	Ave	3.471	2.656		1.53	2.00	-23.5	30.0
2-Butanone (MEK)	Ave	0.5394	0.4392		1.63	2.00	-18.6	30.0
Hexane	Ave	1.100	0.9156		1.66	2.00	-16.8	30.0
Isopropyl ether	Ave	4.183	3.079		1.47	2.00	-26.4	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.205		1.91	2.00	-4.7	30.0
Ethyl acetate	Ave	2.875	2.074		1.44	2.00	-27.9	30.0
Chloroform	Ave	3.246	2.617		1.61	2.00	-19.4	30.0
Tert-butyl ethyl ether	Ave	3.896	2.850		1.46	2.00	-26.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.026		1.43	2.00	-28.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.587		1.48	2.00	-25.9	30.0
1,2-Dichloroethane	Ave	0.4592	0.3138		1.37	2.00	-31.7*	30.0
1-Butanol	Ave	0.1093	0.0522		0.955	2.00	-52.3*	30.0
Cyclohexane	Ave	0.1230	0.1078		1.75	2.00	-12.4	30.0
Benzene	Ave	0.7326	0.6517		1.78	2.00	-11.1	30.0
Carbon tetrachloride	Ave	0.6143	0.5331		1.74	2.00	-13.2	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1500		1.82	2.00	-9.2	30.0
Thiophene	Ave	0.4167	0.3744		1.80	2.00	-10.2	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.039		1.59	2.00	-20.5	30.0
Heptane	Ave	0.2522	0.2160		1.71	2.00	-14.4	30.0
1,2-Dichloropropane	Ave	0.3077	0.2579		1.68	2.00	-16.2	30.0
Trichloroethene	Ave	0.3308	0.3051		1.84	2.00	-7.8	30.0
Dibromomethane	Ave	0.3412	0.2853		1.67	2.00	-16.4	30.0
Bromodichloromethane	Ave	0.6516	0.5003		1.54	2.00	-23.2	30.0
1,4-Dioxane	Ave	0.0858	0.0640		1.49	2.00	-25.4	30.0
Methyl methacrylate	Ave	0.3591	0.2331		1.30	2.00	-35.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3895		1.74	2.00	-13.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3064		1.09	2.00	-45.3*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3733		1.63	2.00	-18.3	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3889		1.58	2.00	-21.1	30.0
Toluene	Ave	0.9664	0.8569		1.77	2.00	-11.3	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2755		1.78	2.00	-11.0	30.0
2-Hexanone	Ave	0.2830	0.1689		1.19	2.00	-40.3*	30.0
Octane	Ave	0.2966	0.2571		1.73	2.00	-13.3	30.0
Dibromochloromethane	Ave	0.6693	0.5830		1.74	2.00	-12.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4906		1.74	2.00	-12.9	30.0
Tetrachloroethene	Ave	0.3882	0.3320		1.71	2.00	-14.5	30.0
2,3-Dimethylheptane	Ave	1.135	0.8448		1.49	2.00	-25.6	30.0
Chlorobenzene	Ave	0.7731	0.6854		1.77	2.00	-11.4	30.0
Ethylbenzene	Ave	1.245	0.999		1.60	2.00	-19.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7729		3.24	4.00	-19.1	30.0
Nonane	Ave	0.6911	0.5341		1.55	2.00	-22.7	30.0
Styrene	Ave	0.6822	0.5827		1.71	2.00	-14.6	30.0
Bromoform	Ave	0.7168	0.6859		1.91	2.00	-4.3	30.0
o-Xylene	Ave	1.015	0.7943		1.56	2.00	-21.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6059		1.71	2.00	-14.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1521		1.51	2.00	-24.4	30.0
Isopropylbenzene	Ave	1.326	1.052		1.59	2.00	-20.6	30.0
Propylbenzene	Ave	0.3540	0.2943		1.66	2.00	-16.9	30.0
2-Chlorotoluene	Ave	0.3422	0.2896		1.69	2.00	-15.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.059		1.60	2.00	-19.8	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4295		1.63	2.00	-18.5	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4491		1.65	2.00	-17.4	30.0
Decane	Ave	0.8742	0.6385		1.46	2.00	-27.0	30.0
tert-Butylbenzene	Ave	1.215	0.9255		1.52	2.00	-23.8	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.8866		1.51	2.00	-24.3	30.0
sec-Butylbenzene	Ave	1.644	1.288		1.57	2.00	-21.7	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.6734		1.65	2.00	-17.4	30.0
Benzyl chloride	Ave	1.003	0.7356		1.47	2.00	-26.7	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.6687		1.62	2.00	-18.8	30.0
4-Isopropyltoluene	Ave	1.383	1.054		1.52	2.00	-23.8	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.8772		1.53	2.00	-23.6	30.0
Butylcyclohexane	Ave	0.9932	0.7927		1.60	2.00	-20.2	30.0
Indane	Ave	1.065	0.8594		1.61	2.00	-19.3	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.6478		1.62	2.00	-19.2	30.0
Butylbenzene	Ave	1.432	1.079		1.51	2.00	-24.6	30.0
Indene	Ave	0.9137	0.7205		1.58	2.00	-21.1	30.0
Undecane	Ave	0.9884	0.6819		1.38	2.00	-31.0*	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3198		1.60	2.00	-19.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.8734		1.40	2.00	-29.9	30.0
Dodecane	Ave	0.8410	0.4419		1.05	2.00	-47.5*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.4727		1.44	2.00	-27.8	30.0
Naphthalene	Ave	1.025	0.6687		1.30	2.00	-34.8*	30.0
Hexachlorobutadiene	Ave	0.7893	0.6461		1.64	2.00	-18.1	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.3386		1.31	2.00	-34.5*	30.0
2-Methylnaphthalene	Ave	0.2801	0.1344		0.960	2.00	-52.0*	50.0
1-Methylnaphthalene	Ave	0.3357	0.1184		0.706	2.00	-64.7*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6617		3.60	4.00	-10.0	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Aug-2019 10:15:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012597-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:23:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:23:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	95	449719	4.00	4.00	s
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	2264250	4.00	4.00	s
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	87	1915029	4.00	4.00	s
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	1267134	4.00	3.60	
19 Chlorodifluoromethane	51	4.157	4.157	0.000	97	213663	2.00	1.74	
20 Propene	41	4.168	4.168	0.000	98	153400	2.00	1.72	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	292307	2.00	2.08	
22 Chloromethane	52	4.442	4.442	0.000	100	97686	2.00	2.15	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.448	0.000	51	52397	2.00	2.68	
24 Acetaldehyde	44	4.620	4.620	0.000	100	581670	10.0	9.94	
25 Vinyl chloride	62	4.641	4.641	0.000	99	359845	2.00	2.35	
26 Butane	43	4.738	4.738	0.000	85	500067	2.00	2.12	
27 Butadiene	54	4.738	4.738	0.000	69	266816	2.00	2.31	
28 Bromomethane	94	5.115	5.115	0.000	98	343726	2.00	2.55	
29 Chloroethane	64	5.276	5.276	0.000	98	164140	2.00	2.44	
30 Ethanol	31	5.378	5.378	0.000	96	522980	10.0	8.62	
31 Vinyl bromide	106	5.620	5.620	0.000	98	316005	2.00	2.53	
32 2-Methylbutane	43	5.669	5.669	0.000	92	358232	2.00	2.20	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	936715	2.00	1.93	
34 Acrolein	56	5.927	5.927	0.000	94	66190	2.00	2.24	
36 Acetone	58	6.056	6.056	0.000	98	316341	6.00	6.11	
37 Isopropyl alcohol	45	6.142	6.142	0.000	92	741725	6.00	4.93	
35 Acetonitrile	40	6.002	6.002	0.000	98	94458	2.00	2.02	a
38 Pentane	72	6.153	6.153	0.000	96	46589	2.00	2.51	
39 Ethyl ether	31	6.336	6.336	0.000	94	263560	2.00	1.58	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	98	296920	2.00	2.15	
41 Acrylonitrile	53	6.799	6.799	0.000	77	165063	2.00	1.79	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	303042	2.00	1.30	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	97	642447	2.00	2.00	
44 Methylene Chloride	84	7.062	7.062	0.000	97	289054	2.00	1.71	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.078	7.078	0.000	98	237267	2.00	1.51	
46 Carbon disulfide	76	7.245	7.245	0.000	99	854130	2.00	2.03	
48 2-Methylpentane	43	7.923	7.923	0.000	96	635289	2.00	1.67	
47 trans-1,2-Dichloroethene	96	7.923	7.923	0.000	97	284427	2.00	2.06	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	96	588520	2.00	1.60	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	505558	2.00	1.65	
51 Vinyl acetate	43	8.461	8.461	0.000	100	597145	2.00	1.53	
52 2-Butanone (MEK)	72	8.940	8.940	0.000	96	98768	2.00	1.63	
53 Hexane	56	8.945	8.945	0.000	77	205890	2.00	1.66	
54 Isopropyl ether	45	9.106	9.106	0.000	96	692310	2.00	1.47	
55 cis-1,2-Dichloroethene	96	9.381	9.381	0.000	95	270884	2.00	1.91	
56 Ethyl acetate	43	9.558	9.558	0.000	99	466310	2.00	1.44	
57 Chloroform	83	9.730	9.730	0.000	95	588449	2.00	1.61	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	640786	2.00	1.46	
59 Tetrahydrofuran	42	10.161	10.161	0.000	92	230805	2.00	1.43	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	96	581614	2.00	1.48	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	98	355307	2.00	1.37	
62 n-Butanol	31	11.285	11.285	0.000	84	59072	2.00	0.9547	
63 Cyclohexane	69	11.333	11.333	0.000	80	122044	2.00	1.75	
64 Benzene	78	11.339	11.339	0.000	97	737766	2.00	1.78	
65 Carbon tetrachloride	117	11.355	11.355	0.000	98	603489	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	169798	2.00	1.82	
67 Thiophene	84	11.602	11.602	0.000	96	423816	2.00	1.80	
68 Isooctane	57	12.038	12.038	0.000	99	1176080	2.00	1.59	
69 n-Heptane	71	12.388	12.388	0.000	92	244548	2.00	1.71	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	291957	2.00	1.68	
71 Trichloroethene	130	12.533	12.533	0.000	96	345431	2.00	1.84	
72 Dibromomethane	93	12.624	12.624	0.000	93	323038	2.00	1.67	
73 Dichlorobromomethane	83	12.759	12.759	0.000	98	566421	2.00	1.54	
74 1,4-Dioxane	88	12.780	12.780	0.000	86	72410	2.00	1.49	
75 Methyl methacrylate	41	12.824	12.824	0.000	94	263937	2.00	1.30	
76 Methylcyclohexane	83	13.275	13.275	0.000	97	440955	2.00	1.74	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	96	346860	2.00	1.09	
78 cis-1,3-Dichloropropene	75	13.717	13.717	0.000	94	422561	2.00	1.63	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	372392	2.00	1.58	
80 Toluene	91	14.513	14.513	0.000	93	820530	2.00	1.77	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	97	263769	2.00	1.78	
82 2-Hexanone	58	14.948	14.948	0.000	92	161713	2.00	1.19	
83 n-Octane	85	15.147	15.147	0.000	95	246220	2.00	1.73	
84 Chlorodibromomethane	129	15.287	15.287	0.000	97	558258	2.00	1.74	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	469750	2.00	1.74	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	317929	2.00	1.71	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	97	808901	2.00	1.49	
88 Chlorobenzene	112	16.498	16.498	0.000	94	656231	2.00	1.77	
89 Ethylbenzene	91	16.767	16.767	0.000	99	956495	2.00	1.60	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	1480136	4.00	3.24	
91 n-Nonane	57	17.305	17.305	0.000	93	511387	2.00	1.55	
92 Styrene	104	17.391	17.391	0.000	99	557895	2.00	1.71	
93 Bromoform	173	17.396	17.396	0.000	97	656790	2.00	1.91	
94 o-Xylene	91	17.450	17.450	0.000	99	760532	2.00	1.56	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.767	0.000	99	580126	2.00	1.71	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	99	145612	2.00	1.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.009	0.000	97	1007621	2.00	1.59	
98 N-Propylbenzene	120	18.515	18.515	0.000	99	281770	2.00	1.66	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	277271	2.00	1.69	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	1014479	2.00	1.60	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	92	411251	2.00	1.63	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	430010	2.00	1.65	
103 n-Decane	57	18.972	18.972	0.000	90	611356	2.00	1.46	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	886206	2.00	1.52	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	848889	2.00	1.51	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	1233027	2.00	1.57	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	97	644749	2.00	1.65	
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	95	640250	2.00	1.62	
108 Benzyl chloride	91	19.483	19.483	0.000	98	704365	2.00	1.47	a
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	1009447	2.00	1.52	
111 1,2,3-Trimethylbenzene	105	19.602	19.602	0.000	98	839953	2.00	1.53	
112 Butylcyclohexane	83	19.639	19.639	0.000	94	759015	2.00	1.60	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	822887	2.00	1.61	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	620289	2.00	1.62	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	1033312	2.00	1.51	
116 Indene	116	19.967	19.967	0.000	89	689840	2.00	1.58	
117 Undecane	57	20.231	20.231	0.000	96	652896	2.00	1.38	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	98	306209	2.00	1.60	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	836332	2.00	1.40	
120 Dodecane	57	21.318	21.318	0.000	95	423116	2.00	1.05	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	452652	2.00	1.44	
122 Naphthalene	128	21.689	21.689	0.000	99	640322	2.00	1.30	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	93	618669	2.00	1.64	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	324245	2.00	1.31	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	99	128679	2.00	0.9597	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	99	113412	2.00	0.7056	
A 128 C8 Range	1	15.157	(15.109-15.206)		0	2337831	2.00	1.54	
S 129 Xylenes, Total	100				0		6.00	4.80	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.97	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Review Flags

a - User Assigned ID

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

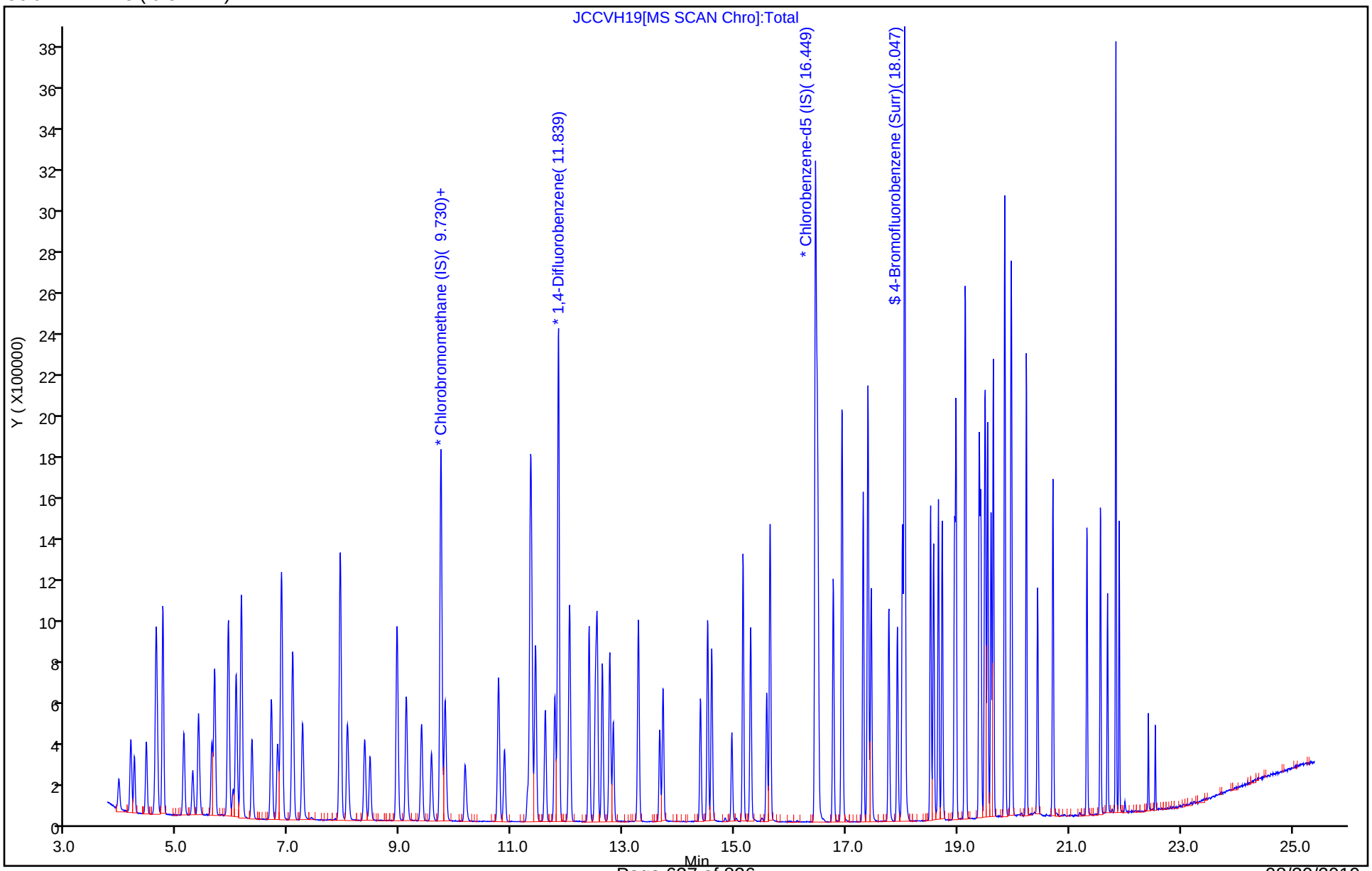
Report Date: 20-Aug-2019 12:23:30 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19.D

Injection Date:	19-Aug-2019 10:15:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

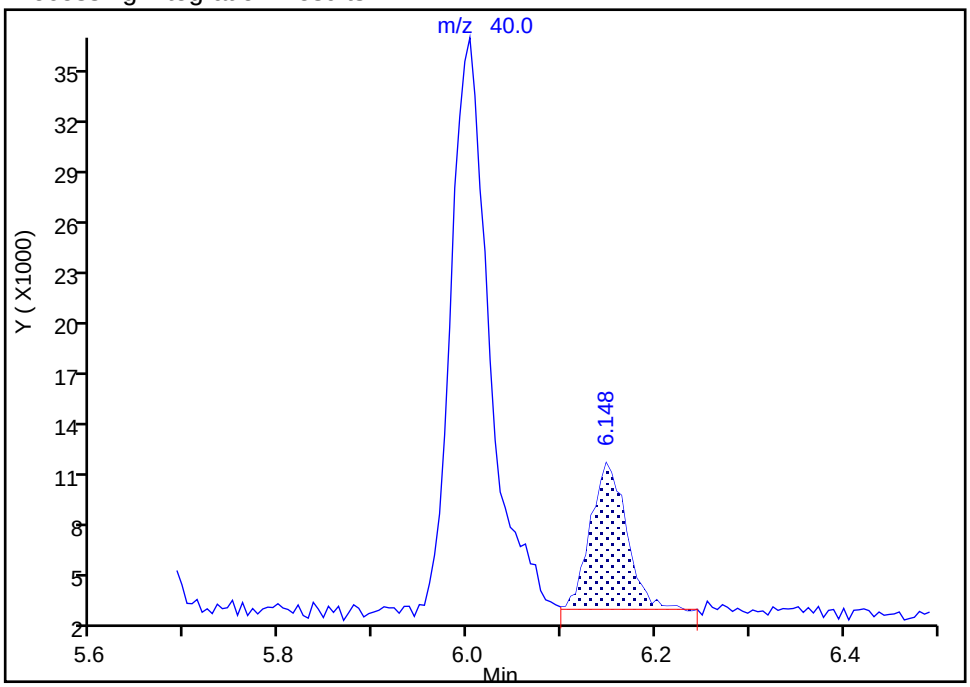
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19.D				
Injection Date:	19-Aug-2019 10:15:30	Instrument ID:	MJ		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

35 Acetonitrile, CAS: 75-05-8

Signal: 1

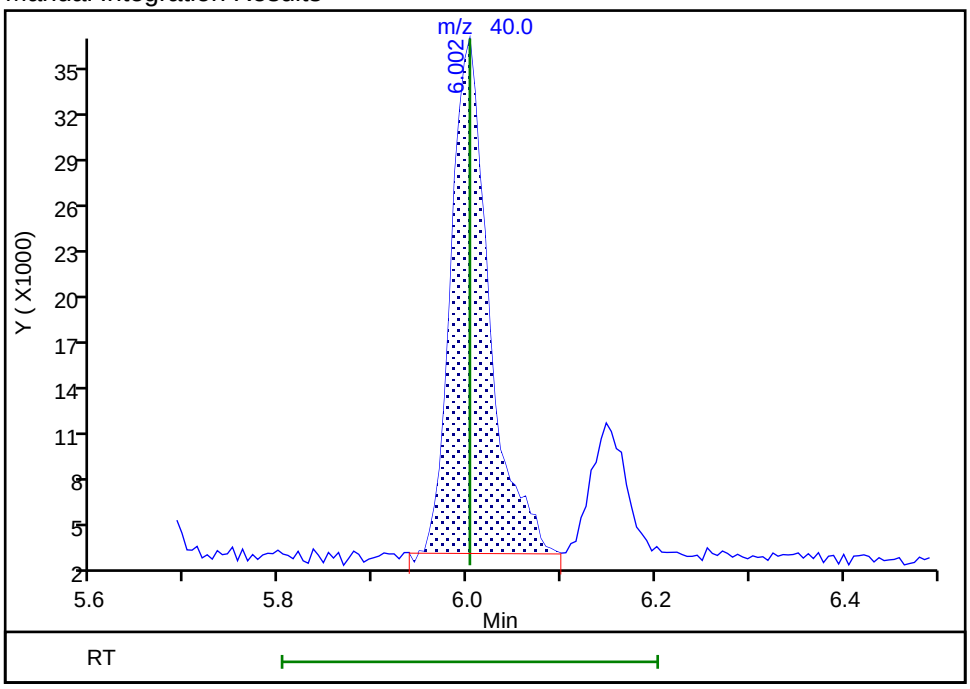
Processing Integration Results

RT: 6.15
Area: 22826
Amount: 0.488566
Amount Units: ppb v/v



Manual Integration Results

RT: 6.00
Area: 94458
Amount: 2.021771
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 12:20:46

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Knoxville

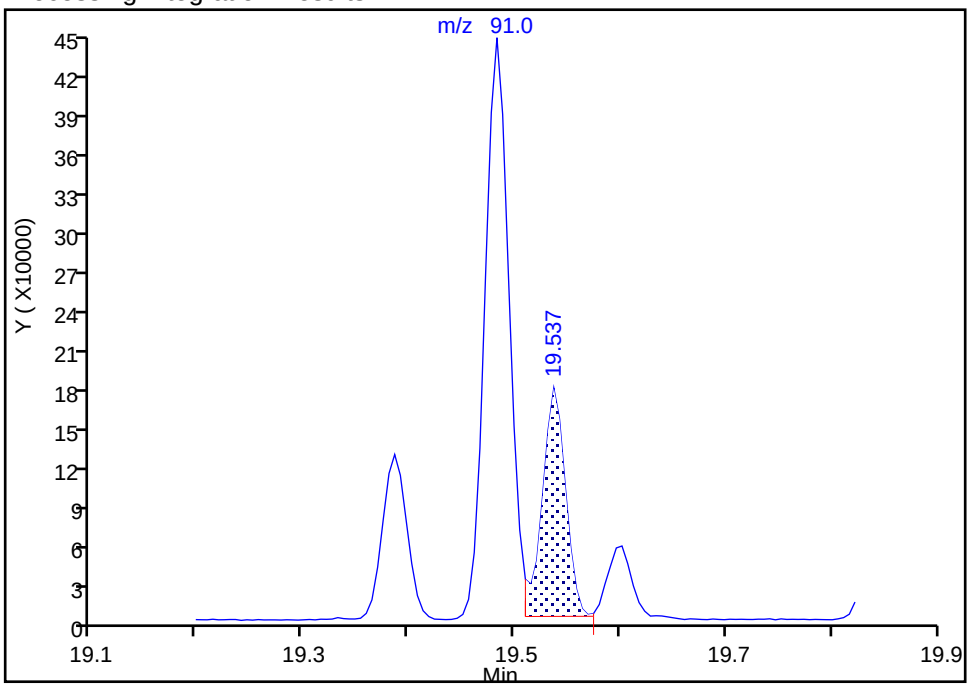
Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19.D				
Injection Date:	19-Aug-2019 10:15:30	Instrument ID:	MJ		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

108 Benzyl chloride, CAS: 100-44-7

Signal: 1

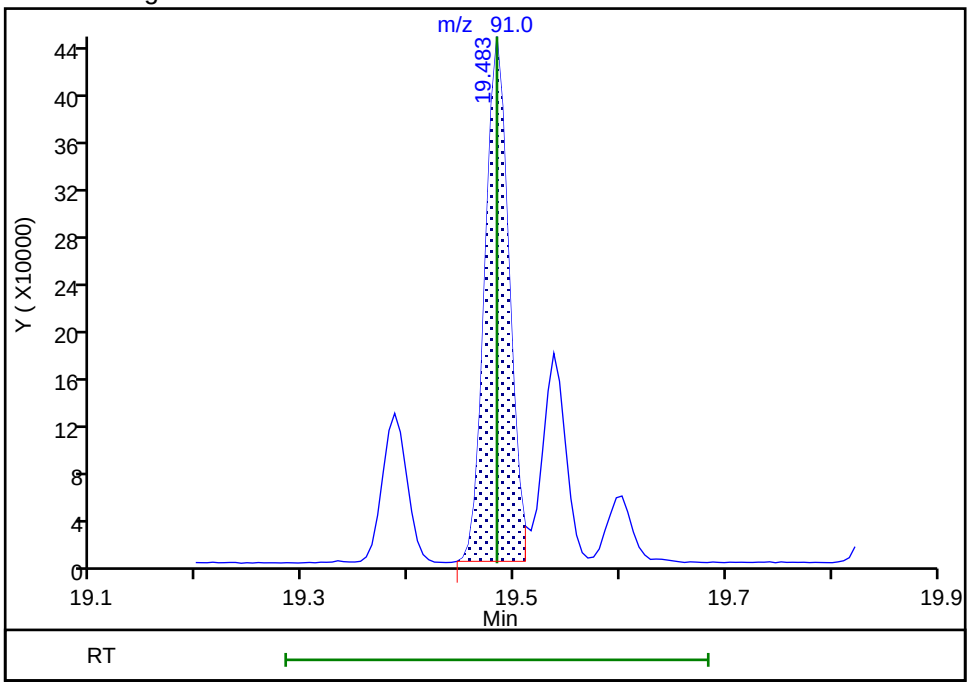
Processing Integration Results

RT: 19.54
Area: 269753
Amount: 0.561770
Amount Units: ppb v/v



Manual Integration Results

RT: 19.48
Area: 704365
Amount: 1.466866
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 20-Aug-2019 12:22:14
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Aug-2019 09:08:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:14:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	96	253683	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	1303711	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	1153268	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	791299	4.00	3.73	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	140233	2.00	2.02	
20 Propene	41	4.168	4.168	0.000	99	102701	2.00	2.05	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	162726	2.00	2.05	
22 Chloromethane	52	4.442	4.442	0.000	99	59380	2.00	2.32	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.442	0.000	52	31140	2.00	2.82	
24 Acetaldehyde	44	4.614	4.614	0.000	99	335267	10.0	10.2	
25 Vinyl chloride	62	4.636	4.636	0.000	99	203700	2.00	2.36	
26 Butane	43	4.738	4.738	0.000	85	289304	2.00	2.17	
27 Butadiene	54	4.738	4.738	0.000	67	149242	2.00	2.29	
28 Bromomethane	94	5.115	5.115	0.000	98	190572	2.00	2.51	
29 Chloroethane	64	5.271	5.271	0.000	96	90928	2.00	2.40	
30 Ethanol	31	5.373	5.373	0.000	96	292951	10.0	8.56	
31 Vinyl bromide	106	5.615	5.615	0.000	97	176919	2.00	2.51	
32 2-Methylbutane	43	5.663	5.663	0.000	92	202422	2.00	2.21	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	99	587720	2.00	2.14	
34 Acrolein	56	5.927	5.927	0.000	93	37487	2.00	2.25	
35 Acetonitrile	40	6.002	6.002	0.000	98	52365	2.00	1.99	
36 Acetone	58	6.051	6.051	0.000	99	174033	6.00	5.96	
37 Isopropyl alcohol	45	6.137	6.137	0.000	92	466046	6.00	5.49	
38 Pentane	72	6.153	6.153	0.000	95	26216	2.00	2.50	
39 Ethyl ether	31	6.336	6.336	0.000	93	147637	2.00	1.57	
40 1,1-Dichloroethene	96	6.685	6.685	0.000	97	157442	2.00	2.02	
42 2-Methyl-2-propanol	59	6.793	6.793	0.000	96	192214	2.00	1.47	
41 Acrylonitrile	53	6.798	6.798	0.000	93	91637	2.00	1.76	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	96	343383	2.00	1.90	
44 Methylene Chloride	84	7.062	7.062	0.000	98	151483	2.00	1.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	133792	2.00	1.51	
46 Carbon disulfide	76	7.245	7.245	0.000	100	467334	2.00	1.97	
47 trans-1,2-Dichloroethene	96	7.917	7.917	0.000	98	155527	2.00	2.00	
48 2-Methylpentane	43	7.923	7.923	0.000	95	360610	2.00	1.68	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	316378	2.00	1.52	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	284628	2.00	1.64	
51 Vinyl acetate	43	8.455	8.455	0.000	100	338956	2.00	1.54	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	51062	2.00	1.49	
53 Hexane	56	8.939	8.939	0.000	77	115383	2.00	1.65	
54 Isopropyl ether	45	9.106	9.106	0.000	96	398274	2.00	1.50	
55 cis-1,2-Dichloroethene	96	9.375	9.375	0.000	96	150788	2.00	1.88	
56 Ethyl acetate	43	9.558	9.558	0.000	99	244275	2.00	1.34	
57 Chloroform	83	9.730	9.730	0.000	96	332915	2.00	1.62	
58 Tert-butyl ethyl ether	59	9.800	9.800	0.000	96	353901	2.00	1.43	
59 Tetrahydrofuran	42	10.166	10.166	0.000	93	135564	2.00	1.49	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	97	326346	2.00	1.47	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	97	210580	2.00	1.41	
62 n-Butanol	31	11.280	11.280	0.000	88	44862	2.00	1.26	
64 Benzene	78	11.333	11.333	0.000	97	428186	2.00	1.79	
63 Cyclohexane	69	11.333	11.333	0.000	79	69151	2.00	1.72	
65 Carbon tetrachloride	117	11.355	11.355	0.000	96	349140	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	93	95758	2.00	1.78	
67 Thiophene	84	11.602	11.602	0.000	96	247294	2.00	1.82	
68 Isooctane	57	12.038	12.038	0.000	98	700715	2.00	1.65	
69 n-Heptane	71	12.388	12.388	0.000	93	142922	2.00	1.74	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	90	174019	2.00	1.74	
71 Trichloroethene	130	12.528	12.528	0.000	96	202209	2.00	1.88	
72 Dibromomethane	93	12.624	12.624	0.000	95	195792	2.00	1.76	
73 Dichlorobromomethane	83	12.754	12.754	0.000	98	340004	2.00	1.60	
74 1,4-Dioxane	88	12.775	12.775	0.000	88	42155	2.00	1.51	
75 Methyl methacrylate	41	12.818	12.818	0.000	92	149600	2.00	1.28	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	256278	2.00	1.75	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	240847	2.00	1.32	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	95	255522	2.00	1.72	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	98	226876	2.00	1.60	
80 Toluene	91	14.513	14.513	0.000	93	499176	2.00	1.79	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	98	161010	2.00	1.80	
82 2-Hexanone	58	14.948	14.948	0.000	92	117421	2.00	1.44	
83 n-Octane	85	15.153	15.153	0.000	95	145666	2.00	1.70	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	339491	2.00	1.76	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	287640	2.00	1.77	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	188814	2.00	1.69	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	96	514887	2.00	1.57	
88 Chlorobenzene	112	16.498	16.498	0.000	94	404501	2.00	1.81	
89 Ethylbenzene	91	16.767	16.767	0.000	99	597357	2.00	1.66	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	904412	4.00	3.29	
91 n-Nonane	57	17.305	17.305	0.000	93	320297	2.00	1.61	
92 Styrene	104	17.385	17.385	0.000	98	352314	2.00	1.79	
93 Bromoform	173	17.391	17.391	0.000	96	401076	2.00	1.94	
94 o-Xylene	91	17.450	17.450	0.000	99	480378	2.00	1.64	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	99	374020	2.00	1.83	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	89861	2.00	1.55	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.009	0.000	97	629353	2.00	1.65	
98 N-Propylbenzene	120	18.515	18.515	0.000	99	178418	2.00	1.75	
99 2-Chlorotoluene	126	18.569	18.569	0.000	97	185080	2.00	1.88	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	635771	2.00	1.67	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	93	265064	2.00	1.74	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	278713	2.00	1.78	
103 n-Decane	57	18.972	18.972	0.000	90	406955	2.00	1.61	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	569403	2.00	1.63	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	547416	2.00	1.62	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	797174	2.00	1.68	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	98	438961	2.00	1.87	
108 Benzyl chloride	91	19.483	19.483	0.000	98	459736	2.00	1.59	
109 1,4-Dichlorobenzene	146	19.499	19.499	0.000	94	436901	2.00	1.84	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	96	632993	2.00	1.59	
111 1,2,3-Trimethylbenzene	105	19.596	19.596	0.000	98	536626	2.00	1.62	
112 Butylcyclohexane	83	19.639	19.639	0.000	95	524677	2.00	1.83	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	555188	2.00	1.81	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	425968	2.00	1.84	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	669164	2.00	1.62	
116 Indene	116	19.967	19.967	0.000	89	470937	2.00	1.79	
117 Undecane	57	20.231	20.231	0.000	96	427711	2.00	1.50	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	97	199367	2.00	1.73	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	526588	2.00	1.47	
120 Dodecane	57	21.318	21.318	0.000	94	360950	2.00	1.49	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	334504	2.00	1.77	
122 Naphthalene	128	21.689	21.689	0.000	99	490658	2.00	1.66	
123 Hexachlorobutadiene	225	21.839	21.839	0.000	94	432658	2.00	1.90	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	95	264363	2.00	1.77	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	98	152708	2.00	1.89	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	98	138618	2.00	1.43	
A 128 C8 Range	1	15.163	(15.109-15.217)		0	1465889	2.00	1.60	
S 129 Xylenes, Total	100				0		6.00	4.93	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.88	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

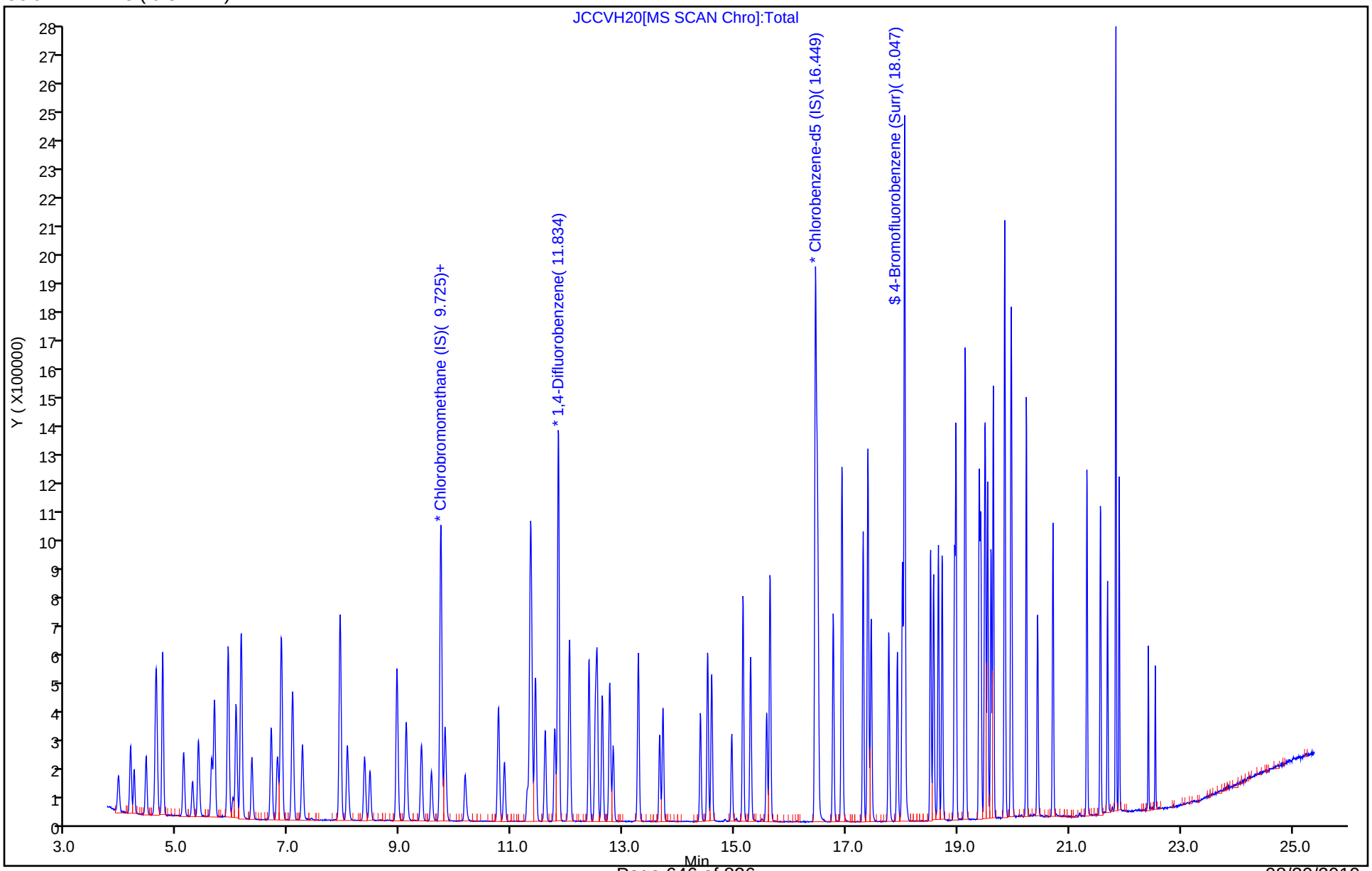
Report Date: 21-Aug-2019 12:14:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20.D

Injection Date:	20-Aug-2019 09:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

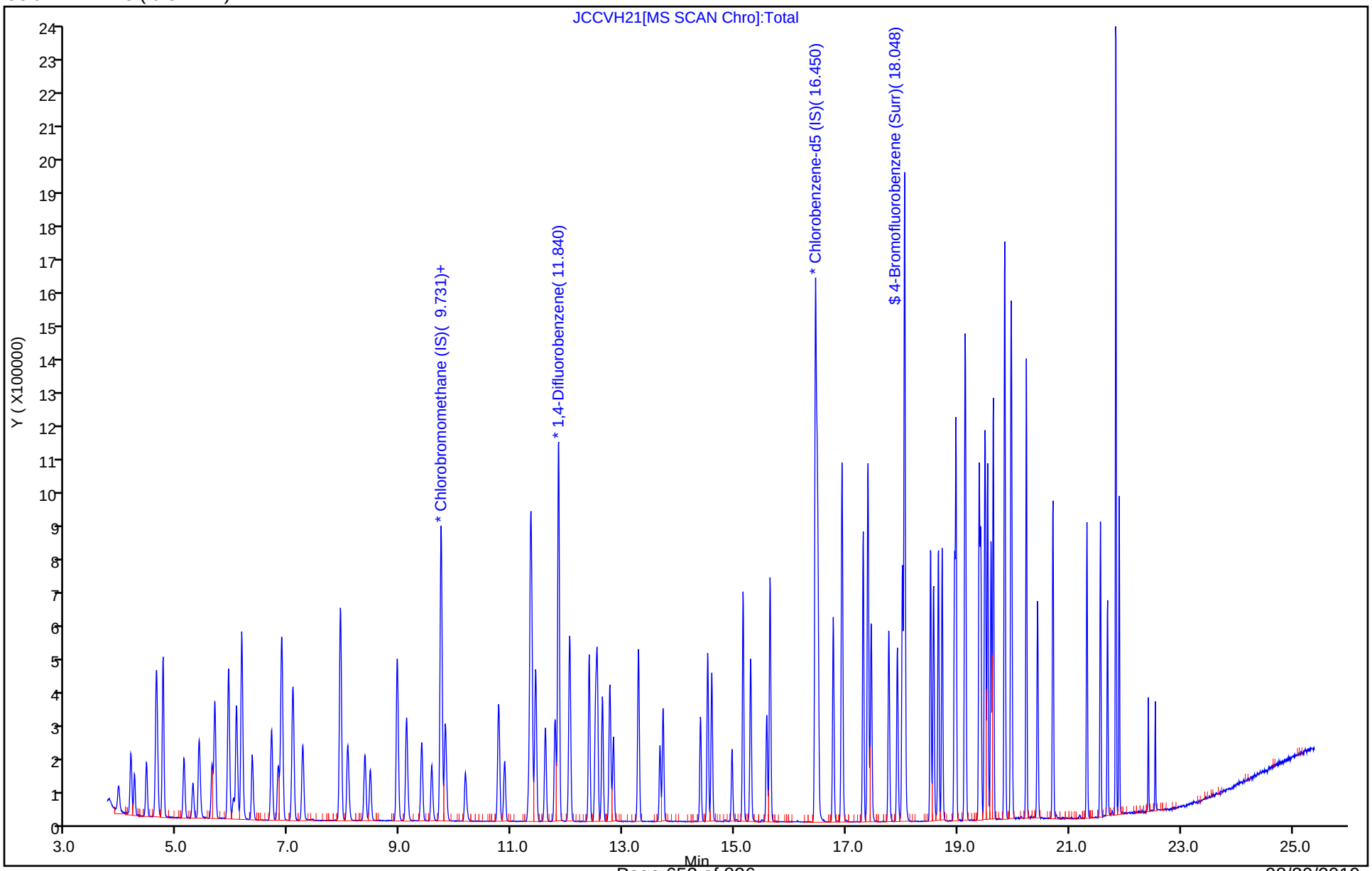
Report Date: 22-Aug-2019 11:07:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-Aug-2019 00:56:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 12:53:23 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0318

First Level Reviewer: liul Date: 15-Aug-2019 12:53:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.551	-0.013	97	280567	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1667707	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1428519	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	985825	4.00	4.00	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	496839	2.00	2.07	
7 Propene	41	3.437	3.439	-0.002	99	290502	2.00	2.18	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	523962	2.00	2.42	
9 Chloromethane	52	3.664	3.665	-0.001	63	52984	2.00	1.63	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	325648	2.00	2.96	
11 Acetaldehyde	44	3.809	3.817	-0.008	97	353288	10.0	9.28	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	188121	2.00	1.82	
13 Butadiene	54	3.906	3.913	-0.007	69	142421	2.00	1.90	
14 Butane	43	3.912	3.914	-0.002	84	275227	2.00	1.73	
15 Bromomethane	94	4.219	4.227	-0.008	97	165432	2.00	1.89	
16 Chloroethane	64	4.354	4.359	-0.005	93	77012	2.00	1.82	
17 Ethanol	31	4.451	4.464	-0.013	98	340620	10.0	8.94	
18 Vinyl bromide	106	4.651	4.656	-0.005	98	156532	2.00	2.14	
19 2-Methylbutane	43	4.699	4.699	0.000	92	212214	2.00	1.79	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	578470	2.00	2.15	
20 Acrolein	56	4.926	4.936	-0.010	96	74819	2.00	2.24	
24 Acetonitrile	40	4.990	5.001	-0.011	97	106694	2.00	2.15	
22 Acetone	58	5.055	5.057	-0.002	99	108340	2.00	2.33	
25 Pentane	72	5.125	5.138	-0.013	95	35398	2.00	1.99	
23 Isopropyl alcohol	45	5.130	5.149	-0.019	93	411672	2.00	2.61	
26 Ethyl ether	31	5.308	5.319	-0.011	88	326546	2.00	2.24	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	196958	2.00	2.04	
28 Acrylonitrile	53	5.734	5.738	-0.004	61	167417	2.00	2.30	
29 2-Methyl-2-propanol	59	5.724	5.756	-0.032	96	421667	2.00	2.17	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	95	437530	2.00	2.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	95	188455	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	95	250779	2.00	2.27	
33 Carbon disulfide	76	6.128	6.133	-0.005	99	552247	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	98	223824	2.00	2.21	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	542597	2.00	2.02	
36 Methyl tert-butyl ether	73	6.921	6.934	-0.013	97	603760	2.00	2.21	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	99	422805	2.00	2.20	
38 Vinyl acetate	43	7.320	7.328	-0.008	100	773683	2.00	2.30	
40 Hexane	56	7.794	7.796	-0.002	74	188439	2.00	2.14	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	108774	2.00	2.11	
41 Isopropyl ether	45	7.956	7.978	-0.022	97	941717	2.00	2.25	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	238996	2.00	2.08	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	622964	2.00	2.09	
44 Chloroform	83	8.560	8.560	0.000	96	515510	2.00	2.18	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	721045	2.00	2.07	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	94	327339	2.00	2.20	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	557226	2.00	2.15	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	353401	2.00	2.20	
50 n-Butanol	31	10.178	10.195	-0.017	90	142474	2.00	2.23	
51 Cyclohexane	69	10.199	10.210	-0.011	76	113450	2.00	2.14	
49 Benzene	78	10.210	10.214	-0.004	96	743588	2.00	2.20	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	96	598112	2.00	2.21	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	154719	2.00	2.03	
54 Thiophene	84	10.491	10.499	-0.009	96	376935	2.00	2.20	
55 Isooctane	57	10.992	10.995	-0.003	98	1225374	2.00	2.17	
57 n-Heptane	71	11.386	11.387	-0.001	95	252526	2.00	2.14	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	89	279428	2.00	2.15	
58 Trichloroethene	130	11.504	11.509	-0.005	96	314349	2.00	2.12	
59 Dibromomethane	93	11.596	11.595	0.001	95	303422	2.00	2.20	
60 Dichlorobromomethane	83	11.747	11.746	0.001	98	544985	2.00	2.18	
61 1,4-Dioxane	88	11.763	11.781	-0.018	97	115096	2.00	2.22	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	391081	2.00	2.11	
63 Methylcyclohexane	83	12.286	12.288	-0.002	93	511159	2.00	2.63	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	97	707381	2.00	2.14	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	441227	2.00	2.26	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	415560	2.00	2.34	
67 Toluene	91	13.591	13.593	-0.002	93	854006	2.00	2.32	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	259635	2.00	2.28	
69 2-Hexanone	58	14.055	14.066	-0.011	90	322895	2.00	2.37	
71 n-Octane	85	14.287	14.288	-0.001	98	269357	2.00	2.24	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	584492	2.00	2.31	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	498804	2.00	2.28	
73 Tetrachloroethene	129	14.745	14.743	0.002	94	323404	2.00	2.15	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	692514	2.00	2.27	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	937319	2.00	2.05	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1169380	2.00	2.27	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	1874676	4.00	4.63	
81 n-Nonane	57	16.492	16.494	-0.002	96	612738	2.00	2.31	
78 Bromoform	173	16.525	16.525	0.000	97	583215	2.00	2.58	
79 Styrene	104	16.541	16.543	-0.002	98	653467	2.00	2.34	
80 o-Xylene	91	16.600	16.602	-0.002	98	946514	2.00	2.23	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	699256	2.00	2.34	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	95	220875	2.00	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1412873	2.00	2.24	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	368693	2.00	2.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	353641	2.00	2.31	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	1357626	2.00	2.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	609824	2.00	2.54	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	535601	2.00	2.33	
90 n-Decane	57	18.277	18.280	-0.003	87	825560	2.00	2.26	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	1246898	2.00	2.23	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	1263074	2.00	2.27	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1840044	2.00	2.31	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	98	800949	2.00	2.12	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	1061175	2.00	2.45	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	817135	2.00	2.19	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1429517	2.00	2.22	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	899194	2.00	1.65	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	883622	2.00	2.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	1109919	2.00	2.24	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	801739	2.00	2.18	
102 Indene	116	19.312	19.314	-0.002	89	859159	2.00	1.92	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1500703	2.00	2.26	
104 Undecane	57	19.636	19.638	-0.002	95	977429	2.00	2.27	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	345164	2.00	1.91	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1325179	2.00	2.14	
107 Dodecane	57	20.714	20.714	0.000	92	959397	2.00	2.29	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	749549	2.00	2.13	
109 Naphthalene	128	21.065	21.064	0.001	99	1577721	2.00	2.17	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	742725	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727565	2.00	2.24	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	619722	2.00	2.97	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	585758	2.00	2.92	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	2869701	2.00	2.19	
S 116 Xylenes, Total	100				0		6.00	6.86	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.29	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

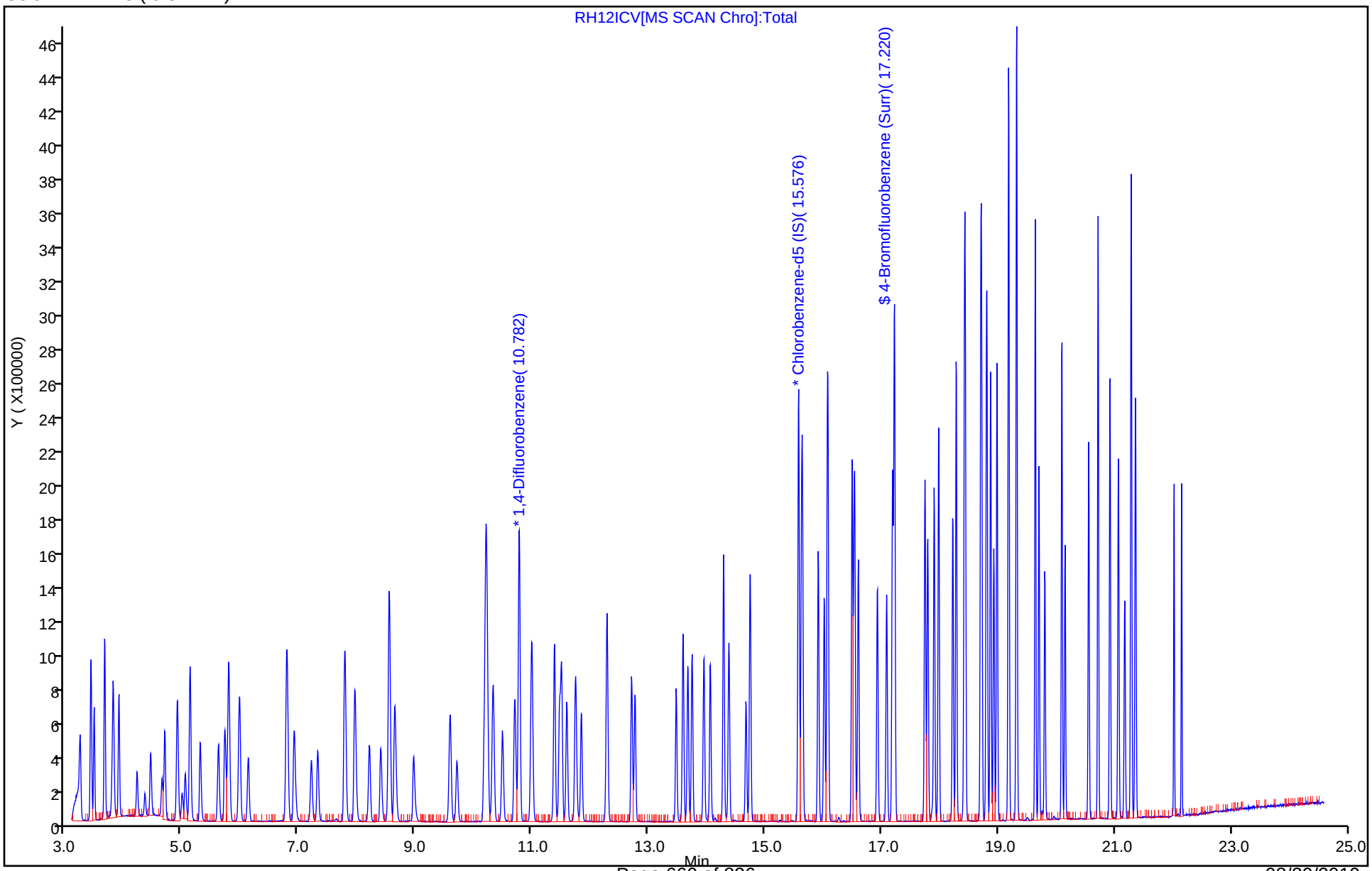
Report Date: 15-Aug-2019 12:53:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D

Injection Date:	13-Aug-2019 00:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Aug-2019 16:53:30 ALS Bottle#: 16 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-002
Misc. Info.: P93
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:05:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:05:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	95	191498	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1094127	4.00	4.00	s
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.576	0.000	89	966925	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	93	710498	4.00	4.26	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	98	152133	1.00	0.9298	
7 Propene	41	3.432	3.432	0.000	97	101351	1.00	1.12	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	172283	1.00	1.16	
9 Chloromethane	52	3.664	3.664	0.000	62	29319	1.00	1.32	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	137303	1.00	1.83	
11 Acetaldehyde	44	3.810	3.810	0.000	96	165514	5.00	6.37	
12 Vinyl chloride	62	3.826	3.826	0.000	98	69518	1.00	0.9863	
14 Butane	43	3.907	3.907	0.000	83	124546	1.00	1.15	
13 Butadiene	54	3.907	3.907	0.000	71	66076	1.00	1.29	
15 Bromomethane	94	4.219	4.219	0.000	95	58999	1.00	0.9878	
16 Chloroethane	64	4.354	4.354	0.000	83	28026	1.00	0.9716	
17 Ethanol	31	4.451	4.451	0.000	98	178877	5.00	6.88	
18 Vinyl bromide	106	4.645	4.645	0.000	95	50428	1.00	1.01	
19 2-Methylbutane	43	4.688	4.688	0.000	90	93584	1.00	1.16	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	98	160403	1.00	0.8720	
20 Acrolein	56	4.915	4.915	0.000	66	17588	1.00	0.7722	
24 Acetonitrile	40	4.996	4.996	0.000	98	27955	1.00	0.8244	
22 Acetone	58	5.039	5.039	0.000	99	76215	3.00	2.40	
25 Pentane	72	5.125	5.125	0.000	69	9285	1.00	0.7631	
23 Isopropyl alcohol	45	5.125	5.125	0.000	82	287661	3.00	2.67	
26 Ethyl ether	31	5.303	5.303	0.000	87	84015	1.00	0.8444	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	52974	1.00	0.8044	
28 Acrylonitrile	53	5.729	5.729	0.000	57	46299	1.00	0.9317	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	120639	1.00	0.9087	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	121554	1.00	0.8882	
31 Methylene Chloride	84	5.972	5.972	0.000	92	59965	1.00	0.8859	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.977	0.000	95	79904	1.00	1.06	
33 Carbon disulfide	76	6.123	6.123	0.000	98	154560	1.00	0.8922	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	96	67571	1.00	0.9761	
35 2-Methylpentane	43	6.792	6.792	0.000	95	180816	1.00	0.9844	
36 Methyl tert-butyl ether	73	6.926	6.926	0.000	96	186177	1.00	1.00	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	129290	1.00	0.9848	
38 Vinyl acetate	43	7.315	7.315	0.000	100	223073	1.00	0.9736	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	89	32176	1.00	0.9156	
40 Hexane	56	7.784	7.784	0.000	69	56463	1.00	0.9390	
41 Isopropyl ether	45	7.956	7.956	0.000	96	280420	1.00	0.9832	
42 cis-1,2-Dichloroethene	96	8.210	8.210	0.000	96	71987	1.00	0.9182	
43 Ethyl acetate	43	8.404	8.404	0.000	97	200418	1.00	0.9873	
44 Chloroform	83	8.549	8.549	0.000	47	158827	1.00	0.9860	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	230354	1.00	0.9705	
46 Tetrahydrofuran	42	8.965	8.965	0.000	92	96568	1.00	0.9526	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	97	164126	1.00	0.9266	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	108970	1.00	1.04	
50 n-Butanol	31	10.173	10.173	0.000	90	37663	1.00	0.9000	
51 Cyclohexane	69	10.194	10.194	0.000	77	29174	1.00	0.8385	
49 Benzene	78	10.205	10.205	0.000	96	197830	1.00	0.8928	
52 Carbon tetrachloride	117	10.226	10.226	0.000	95	171667	1.00	0.9690	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	90	45435	1.00	0.9102	
54 Thiophene	84	10.480	10.480	0.000	94	106922	1.00	0.9520	
55 Isooctane	57	10.992	10.992	0.000	96	331670	1.00	0.8960	
57 n-Heptane	71	11.386	11.386	0.000	95	66301	1.00	0.8576	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	77627	1.00	0.9091	
58 Trichloroethene	130	11.504	11.504	0.000	94	84527	1.00	0.8674	
59 Dibromomethane	93	11.591	11.591	0.000	95	82168	1.00	0.9089	
60 Dichlorobromomethane	83	11.742	11.742	0.000	97	147130	1.00	0.8971	
61 1,4-Dioxane	88	11.763	11.763	0.000	93	31050	1.00	0.9116	
62 Methyl methacrylate	41	11.839	11.839	0.000	88	111353	1.00	0.9160	
63 Methylcyclohexane	83	12.281	12.281	0.000	87	110259	1.00	0.8652	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	96	199181	1.00	0.9180	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	116234	1.00	0.9079	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	94	110968	1.00	0.9227	
67 Toluene	91	13.591	13.591	0.000	93	222768	1.00	0.8955	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	70612	1.00	0.9156	
69 2-Hexanone	58	14.060	14.060	0.000	88	81904	1.00	0.8896	
71 n-Octane	85	14.292	14.292	0.000	97	69323	1.00	0.8505	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	144991	1.00	0.8476	
72 Ethylene Dibromide	107	14.670	14.670	0.000	93	136333	1.00	0.9216	
73 Tetrachloroethene	129	14.745	14.745	0.000	94	85526	1.00	0.8418	
74 Chlorobenzene	112	15.619	15.619	0.000	88	185357	1.00	0.8959	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	300449	1.00	0.9708	
76 Ethylbenzene	91	15.910	15.910	0.000	99	327609	1.00	0.9388	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	504828	2.00	1.84	
81 n-Nonane	57	16.492	16.492	0.000	93	165424	1.00	0.9211	
78 Bromoform	173	16.525	16.525	0.000	93	143600	1.00	0.9370	
79 Styrene	104	16.541	16.541	0.000	97	174490	1.00	0.9246	
80 o-Xylene	91	16.595	16.595	0.000	98	273158	1.00	0.9494	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	97	194566	1.00	0.9600	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	93	59611	1.00	0.9280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.183	0.000	96	394740	1.00	0.9245	
85 N-Propylbenzene	120	17.743	17.743	0.000	99	106513	1.00	0.9812	
86 2-Chlorotoluene	126	17.792	17.792	0.000	98	98316	1.00	0.9507	
88 4-Ethyltoluene	105	17.900	17.900	0.000	98	404426	1.00	0.9504	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	154611	1.00	0.9530	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	87	149030	1.00	0.9582	
90 n-Decane	57	18.277	18.277	0.000	86	231600	1.00	0.9370	
91 tert-Butylbenzene	119	18.423	18.423	0.000	92	352897	1.00	0.9304	
92 1,2,4-Trimethylbenzene	105	18.434	18.434	0.000	96	356104	1.00	0.9474	
94 sec-Butylbenzene	105	18.703	18.703	0.000	98	524326	1.00	0.9715	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	97	236890	1.00	0.9256	
96 Benzyl chloride	91	18.795	18.795	0.000	97	276569	1.00	0.9421	
95 1,4-Dichlorobenzene	146	18.806	18.806	0.000	95	239199	1.00	0.9470	
97 4-Isopropyltoluene	119	18.865	18.865	0.000	96	417892	1.00	0.9584	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	99	360091	1.00	0.9737	
99 Butylcyclohexane	83	18.978	18.978	0.000	89	271079	1.00	0.9799	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	93	331349	1.00	0.9868	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	82	238770	1.00	0.9570	
102 Indene	116	19.313	19.313	0.000	91	286976	1.00	0.9469	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	455268	1.00	1.01	
104 Undecane	57	19.636	19.636	0.000	92	296174	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	105867	1.00	0.8652	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	97	410842	1.00	0.9820	
107 Dodecane	57	20.715	20.715	0.000	90	292307	1.00	1.03	
108 1,2,4-Trichlorobenzene	180	20.920	20.920	0.000	92	212551	1.00	0.8906	
109 Naphthalene	128	21.060	21.060	0.000	99	457877	1.00	0.9295	
110 Hexachlorobutadiene	225	21.281	21.281	0.000	94	226558	1.00	0.9561	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	217020	1.00	0.9883	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	95	144599	1.00	1.02	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	147137	1.00	1.08	
A 115 C8 Range	1	14.292	(14.244-14.330)		0	814397	1.00	0.9487	
S 116 Xylenes, Total	100				0		3.00	2.79	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.89	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

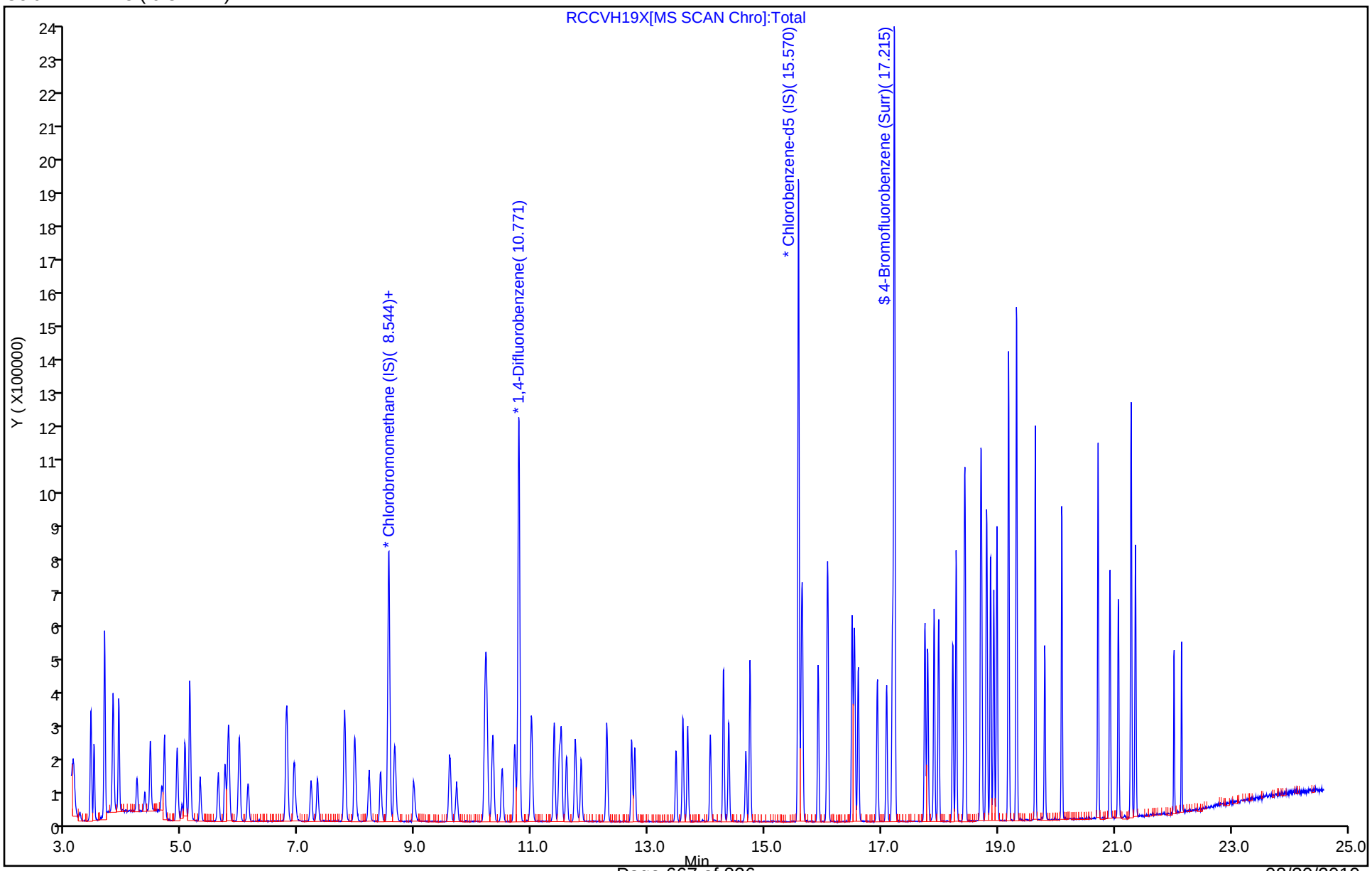
Report Date: 20-Aug-2019 13:05:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X.D

Injection Date:	19-Aug-2019 16:53:30	Instrument ID:	MR	Operator ID:	
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

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GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

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GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

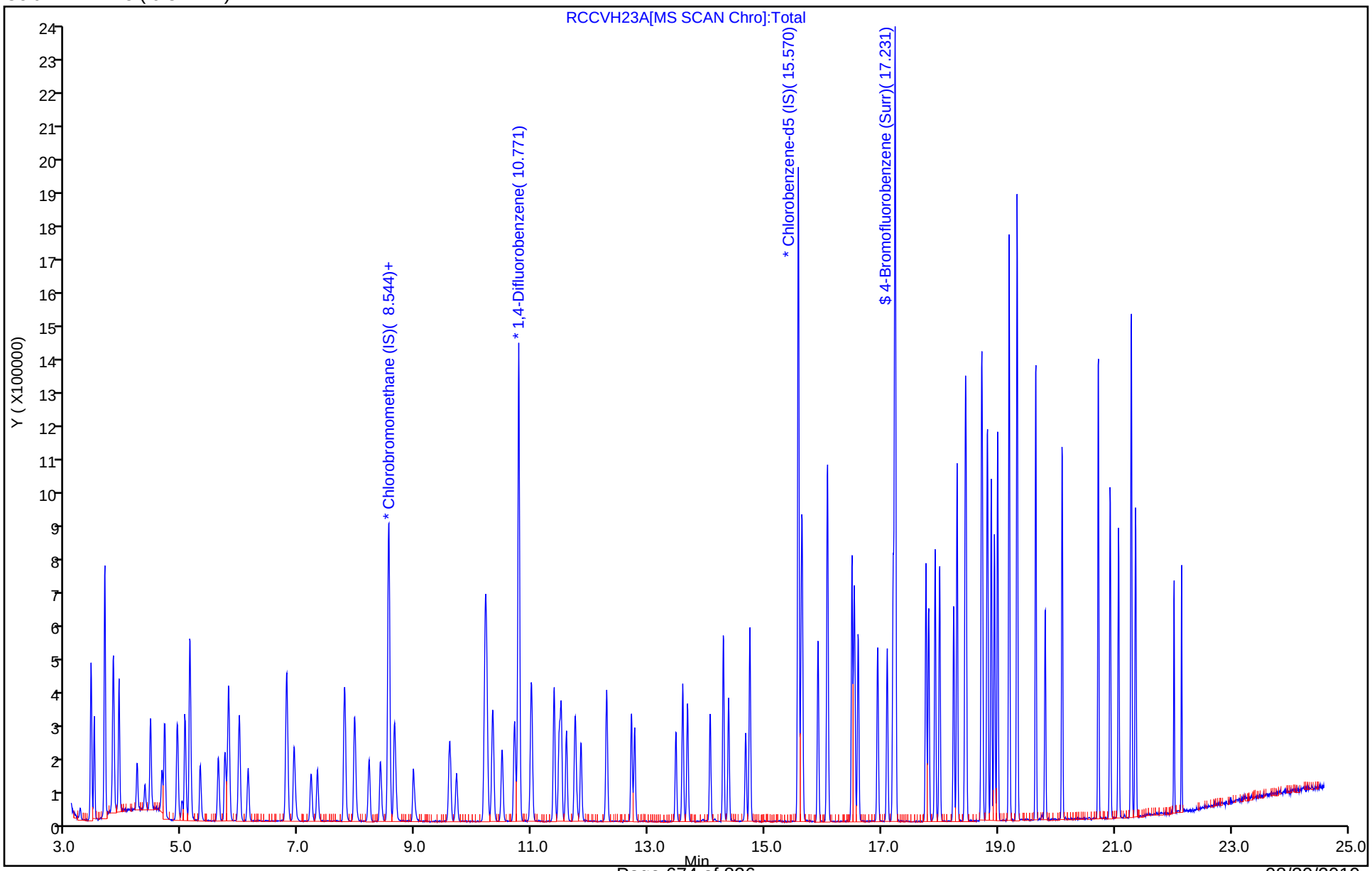
Report Date: 26-Aug-2019 13:54:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Jul-2019 19:07:30	ALS Bottle#:	16	Worklist Smp#:	2
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012415-002				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	24-Jul-2019 11:38:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: barlozhetskayaa		Date:	19-Jul-2019 19:39:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.306	4.306	0.000	0	828399	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

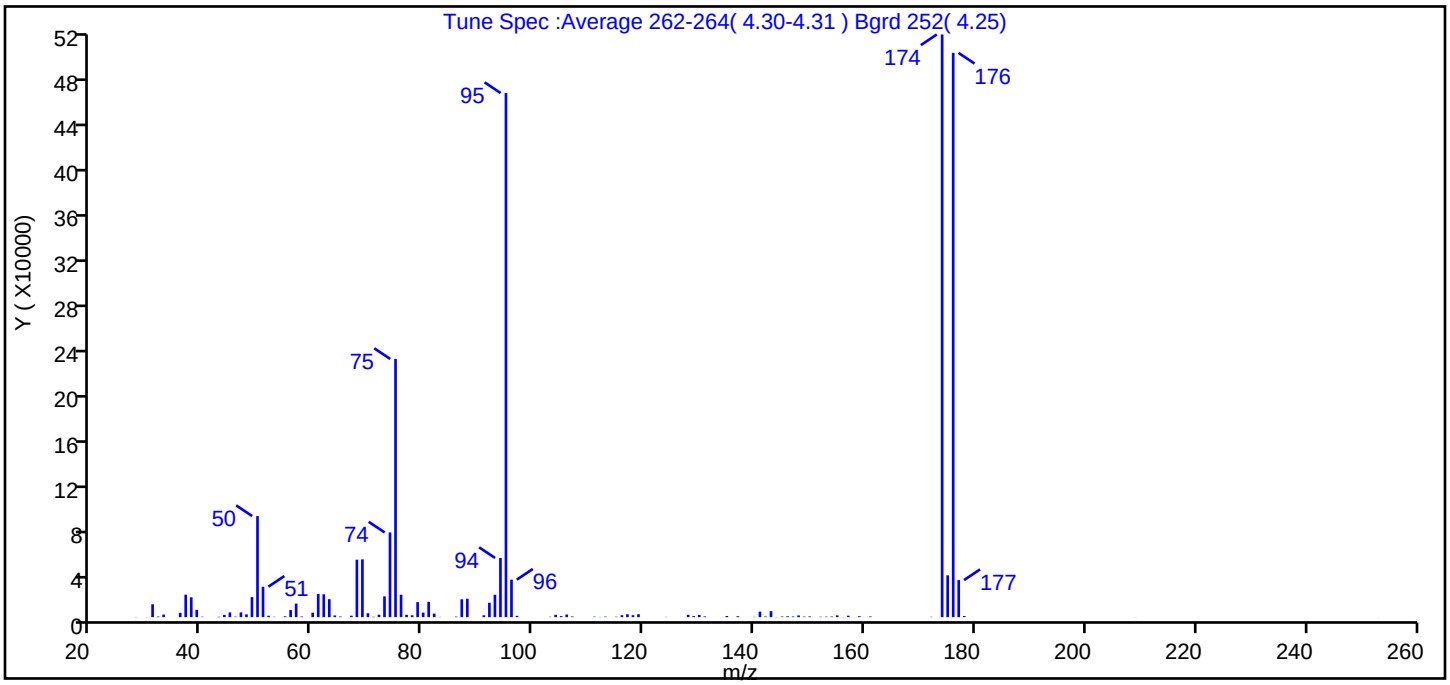
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D
Injection Date: 19-Jul-2019 19:07:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 2
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.3
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	111.2
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (96.8)
177	5 to 9% of m/z 176	7.1 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D\MJ_TO15.rslt\spectra.d
Injection Date: 19-Jul-2019 19:07:30
Spectrum: Tune Spec :Average 262-264(4.30-4.31) Bgrd 252(4.25)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	136	61.00	20664	93.00	19888	142.00	589
29.00	33	62.00	20344	94.00	52616	143.00	5335
30.00	124	63.00	15980	95.00	466240	144.00	128
31.00	11442	64.00	1511	96.00	33360	145.00	519
32.00	551	65.00	548	97.00	1139	146.00	752
33.00	2289	67.00	1272	103.00	298	147.00	574
36.00	3821	68.00	51096	104.00	2073	148.00	1517
37.00	19992	69.00	51384	105.00	928	149.00	484
38.00	17656	70.00	3470	106.00	2342	150.00	613
39.00	6478	71.00	354	107.00	574	152.00	331
40.00	335	72.00	2145	111.00	415	153.00	436
43.00	347	73.00	18504	112.00	206	154.00	525
44.00	2006	74.00	75344	113.00	447	155.00	1569
45.00	4220	75.00	229696	115.00	350	156.00	116
46.00	421	76.00	19944	116.00	1745	157.00	1286
47.00	4244	77.00	2052	117.00	2600	159.00	779
48.00	2466	78.00	1644	118.00	1746	161.00	584
49.00	17832	79.00	13400	119.00	2613	172.00	287
50.00	89920	80.00	4033	124.00	216	174.00	518336
51.00	27072	81.00	13591	128.00	2051	175.00	37224
52.00	1237	82.00	3133	129.00	948	176.00	501952
53.00	303	83.00	224	130.00	1963	177.00	32984
55.00	757	86.00	469	131.00	670	178.00	989
56.00	6316	87.00	15895	135.00	1018	209.00	101
57.00	12036	88.00	16370	137.00	844	253.00	64
58.00	555	91.00	1643	140.00	248		
60.00	3991	92.00	12801	141.00	4852		

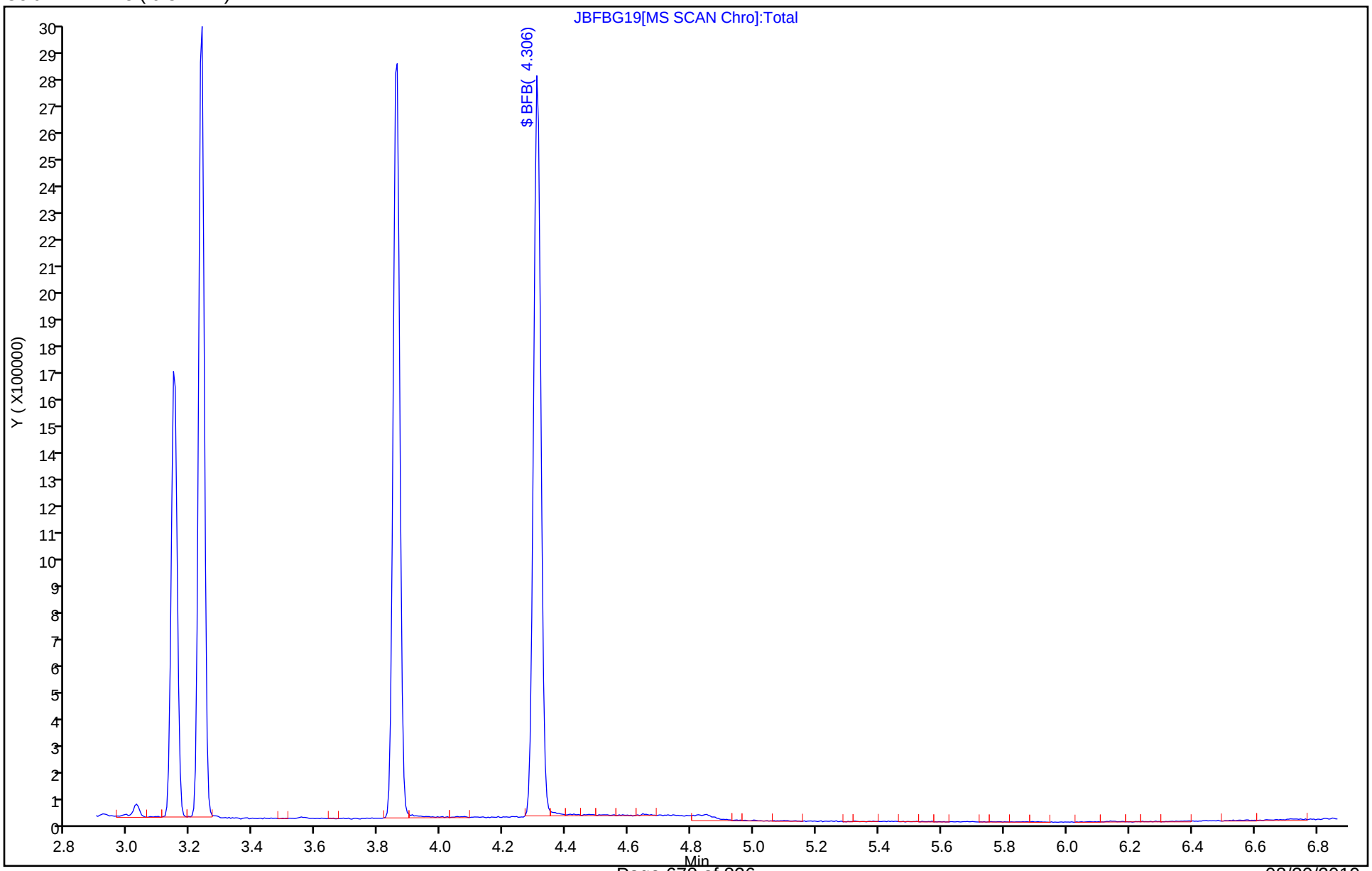
Report Date: 24-Jul-2019 11:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D

Injection Date:	19-Jul-2019 19:07:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JBFBH19.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Aug-2019 09:45:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:17:09	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				
First Level Reviewer: khachitpongpanits		Date:	20-Aug-2019 12:17:09		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.347	4.347	0.000	0	1295211	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

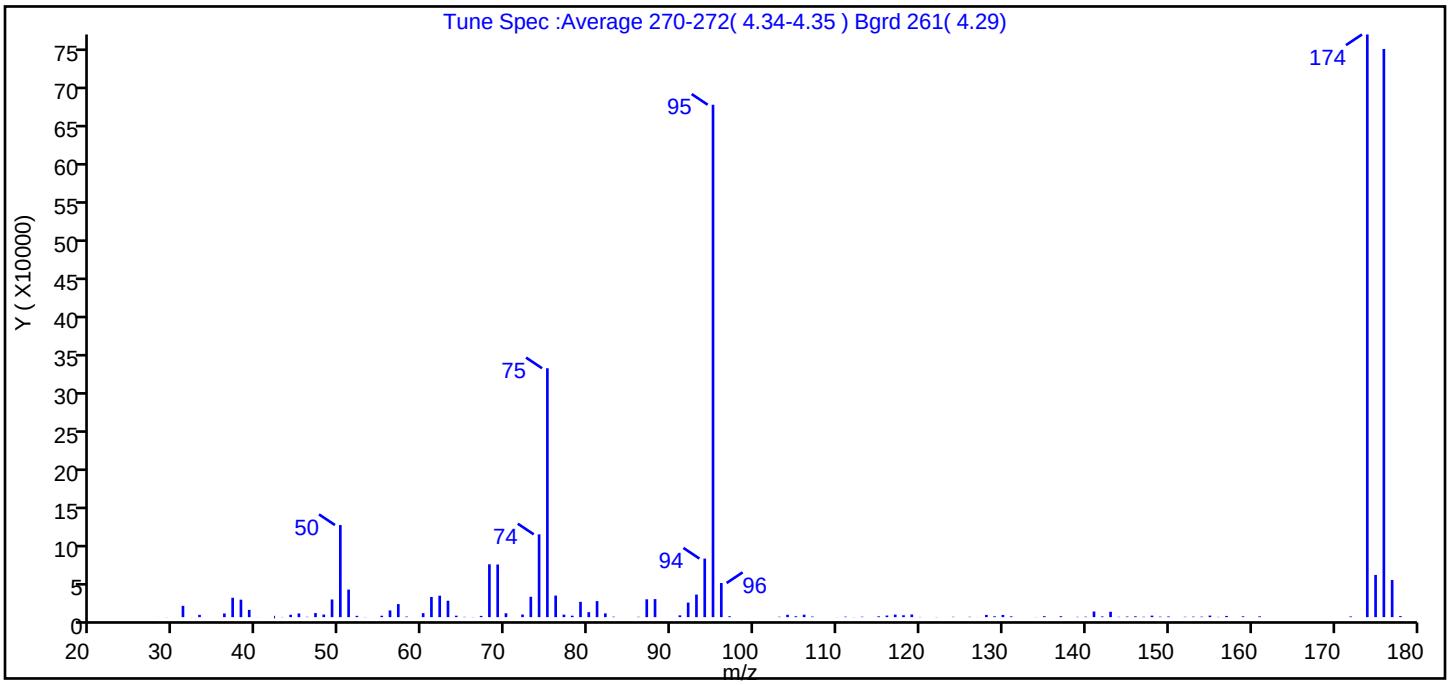
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JBFBH19.D
Injection Date: 19-Aug-2019 09:45:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.0
75	30 to 60% of m/z 95	48.6
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	113.7
175	5 to 9% of m/z 174	8.2 (7.2)
176	Greater than 95% but less than 101% of m/z 174	110.9 (97.5)
177	5 to 9% of m/z 176	7.2 (6.5)

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JBFBH19.D\MJ_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 09:45:30
Spectrum: Tune Spec :Average 270-272(4.34-4.35) Bgrd 261(4.29)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	46	62.00	28104	95.00	671168	137.00	1217
29.00	129	63.00	21528	96.00	44704	139.00	410
31.00	14824	64.00	1920	97.00	1096	140.00	596
32.00	90	65.00	393	103.00	514	141.00	7402
33.00	2993	66.00	219	104.00	3086	142.00	931
36.00	4802	67.00	1638	105.00	1185	143.00	7021
37.00	25392	68.00	69232	106.00	3188	144.00	439
38.00	22880	69.00	68944	107.00	770	145.00	779
39.00	9551	70.00	5093	110.00	134	146.00	1128
40.00	64	72.00	3412	111.00	652	147.00	534
42.00	2	73.00	26672	112.00	166	148.00	1985
43.00	252	74.00	108440	113.00	572	149.00	642
44.00	3058	75.00	326016	115.00	1058	150.00	886
45.00	4857	76.00	28232	116.00	2122	152.00	495
46.00	447	77.00	3281	117.00	3346	153.00	648
47.00	5336	78.00	1879	118.00	2480	154.00	622
48.00	3401	79.00	20024	119.00	3484	155.00	2051
49.00	23128	80.00	6507	120.00	242	156.00	334
50.00	120632	81.00	21008	122.00	207	157.00	1572
51.00	36088	82.00	4898	124.00	432	159.00	1051
52.00	1719	83.00	591	126.00	431	161.00	1073
53.00	203	86.00	432	127.00	107	172.00	898
55.00	1843	87.00	23384	128.00	2878	174.00	763200
56.00	8792	88.00	23648	129.00	1136	175.00	55280
57.00	17112	91.00	2380	130.00	2851	176.00	744192
58.00	739	92.00	19072	131.00	1029	177.00	48600
60.00	5225	93.00	29560	134.00	147	178.00	1296
61.00	26448	94.00	76704	135.00	1285		

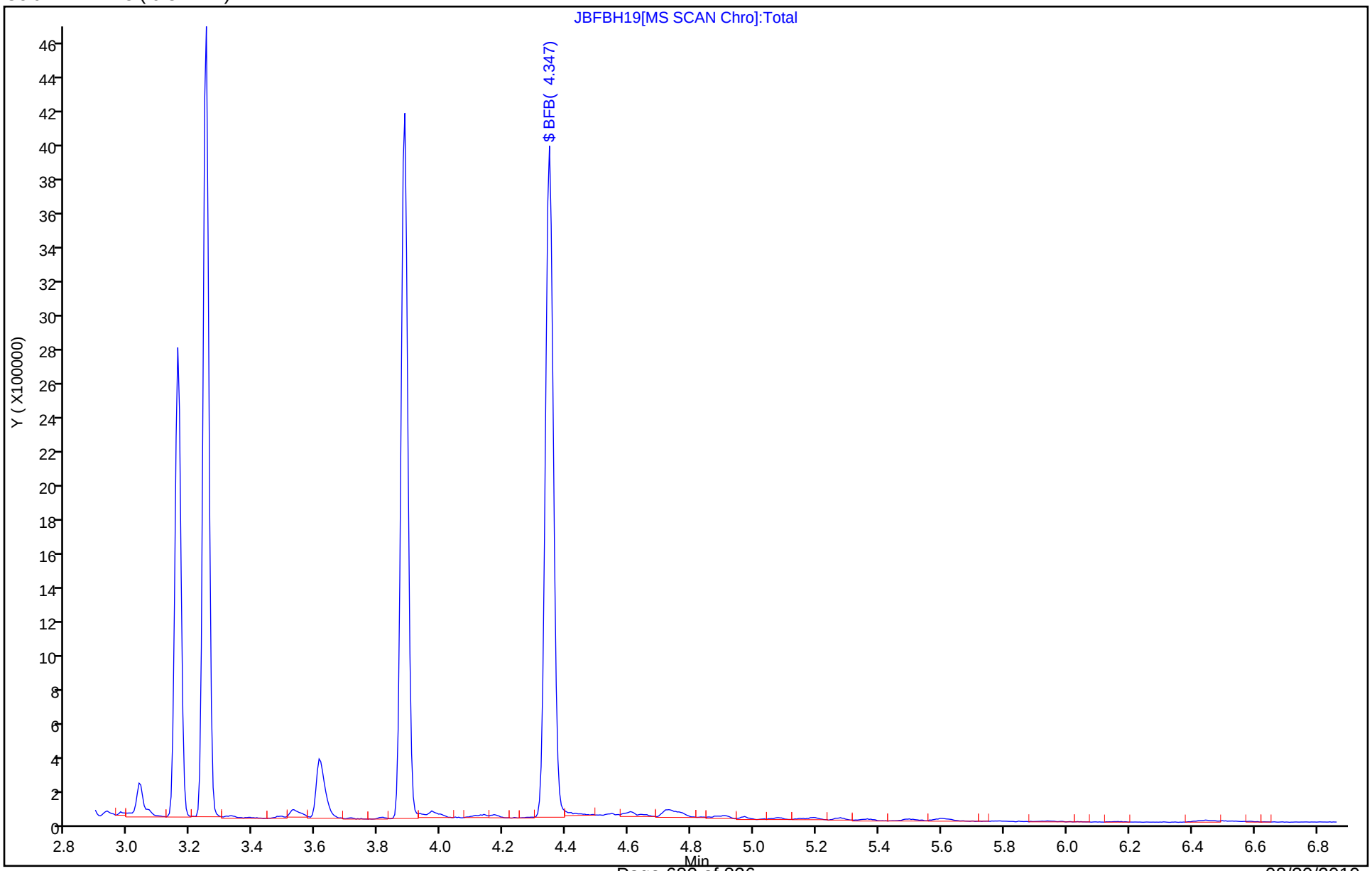
Report Date: 20-Aug-2019 12:17:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JBFBH19.D

Injection Date:	19-Aug-2019 09:45:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-Aug-2019 08:38:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:13:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:13:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.319	4.319	0.000	0	839138	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

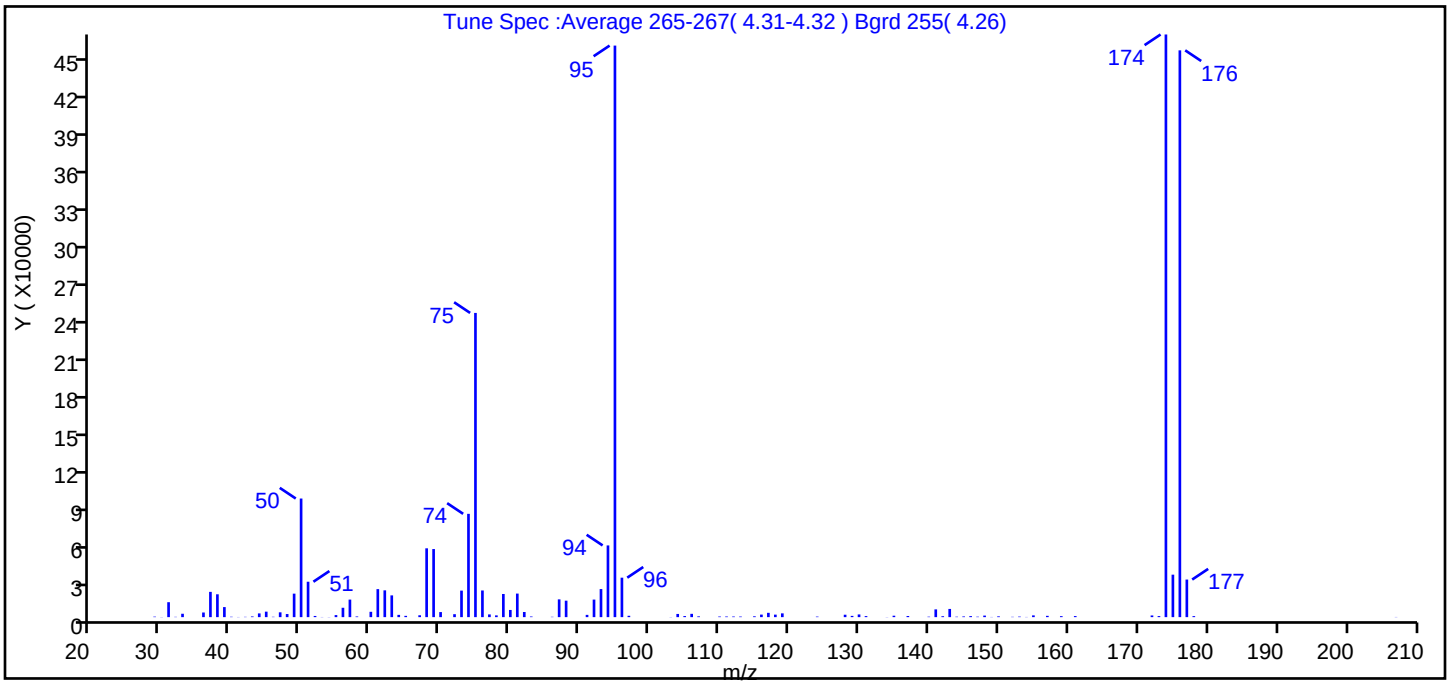
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D
Injection Date: 20-Aug-2019 08:38:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.8
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	101.9
175	5 to 9% of m/z 174	7.4 (7.3)
176	Greater than 95% but less than 101% of m/z 174	99.2 (97.3)
177	5 to 9% of m/z 176	6.6 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D\MJ_TO15.rslt\spectra.d
Injection Date: 20-Aug-2019 08:38:30
Spectrum: Tune Spec :Average 265-267(4.31-4.32) Bgrd 255(4.26)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	394	58.00	540	92.00	13949	137.00	895
30.00	113	60.00	4245	93.00	22304	140.00	367
31.00	11872	61.00	22264	94.00	56984	141.00	6167
32.00	239	62.00	21296	95.00	454144	142.00	728
33.00	2695	63.00	17288	96.00	31360	143.00	6521
36.00	3691	64.00	1805	97.00	1081	144.00	354
37.00	20080	65.00	1031	103.00	113	145.00	557
38.00	18160	67.00	1482	104.00	2544	146.00	824
39.00	7990	68.00	54688	105.00	852	147.00	363
40.00	310	69.00	54104	106.00	2632	148.00	1236
41.00	129	70.00	4028	107.00	608	149.00	144
42.00	243	72.00	2350	110.00	500	150.00	620
43.00	548	73.00	21088	111.00	512	152.00	251
44.00	2965	74.00	82088	112.00	499	153.00	439
45.00	4366	75.00	241728	113.00	467	154.00	152
46.00	284	76.00	21192	115.00	666	155.00	1398
47.00	3830	77.00	2179	116.00	2028	157.00	1035
48.00	2467	78.00	1403	117.00	3431	159.00	774
49.00	18672	79.00	18400	118.00	1994	161.00	853
50.00	94248	80.00	5711	119.00	3008	172.00	1329
51.00	28136	81.00	18720	124.00	439	173.00	850
52.00	943	82.00	4083	128.00	1925	174.00	462976
53.00	126	83.00	509	129.00	1001	175.00	33752
54.00	115	86.00	265	130.00	2144	176.00	450368
55.00	1625	87.00	14126	131.00	843	177.00	29864
56.00	7451	88.00	13085	134.00	109	178.00	804
57.00	13945	91.00	1807	135.00	1137	207.00	142

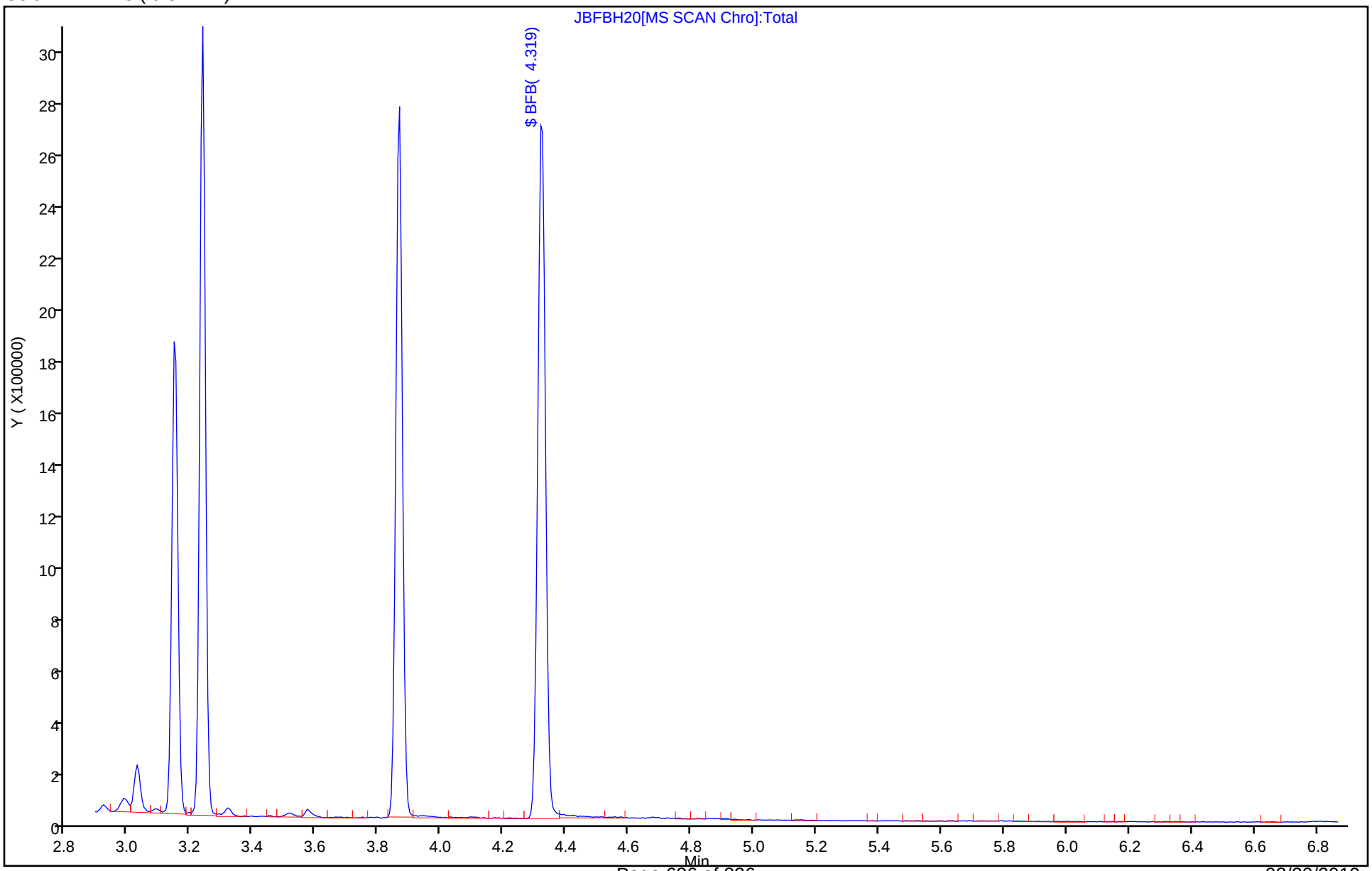
Report Date: 21-Aug-2019 12:13:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D

Injection Date:	20-Aug-2019 08:38:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Aug-2019 09:15:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:06:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 11:06:11		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.330	4.330	0.000	0	691629	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

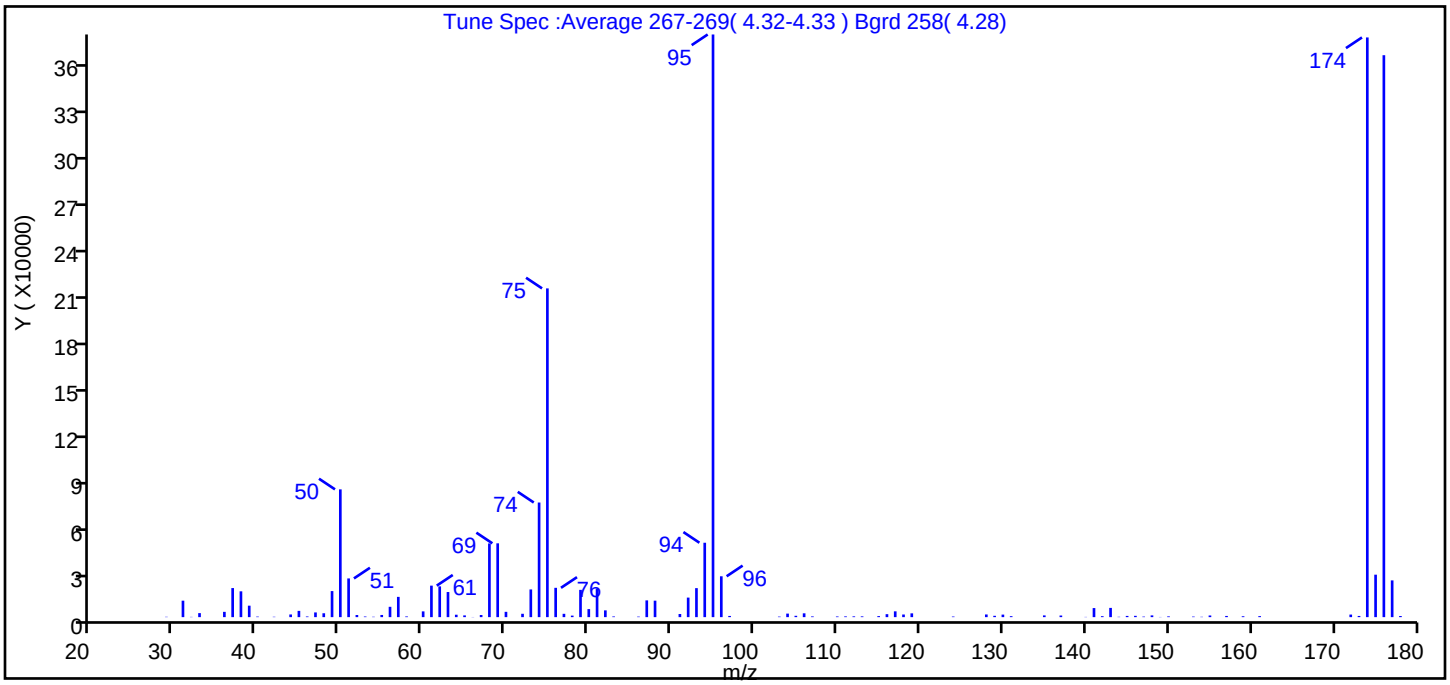
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D
Injection Date: 21-Aug-2019 09:15:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.9
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	99.5
175	5 to 9% of m/z 174	7.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	96.4 (96.9)
177	5 to 9% of m/z 176	6.3 (6.5)

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D\MJ_TO15.rslt\spectra.d
Injection Date: 21-Aug-2019 09:15:30
Spectrum: Tune Spec :Average 267-269(4.32-4.33) Bgrd 258(4.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	219	61.00	20424	92.00	12675	137.00	1048
31.00	10677	62.00	19944	93.00	18808	140.00	147
32.00	161	63.00	16285	94.00	48232	141.00	5882
33.00	2612	64.00	1567	95.00	377728	142.00	617
36.00	3432	65.00	1131	96.00	26488	143.00	5993
37.00	18848	66.00	101	97.00	779	144.00	223
38.00	16736	67.00	1378	103.00	349	145.00	790
39.00	7436	68.00	47776	104.00	2297	146.00	850
40.00	357	69.00	47856	105.00	872	147.00	352
42.00	239	70.00	3446	106.00	2480	148.00	1132
44.00	1736	72.00	2182	107.00	469	149.00	116
45.00	4065	73.00	17960	110.00	438	150.00	487
46.00	440	74.00	74312	111.00	488	153.00	361
47.00	3056	75.00	213120	112.00	501	154.00	221
48.00	2518	76.00	19008	113.00	491	155.00	1071
49.00	16896	77.00	2159	115.00	666	157.00	771
50.00	82832	78.00	995	116.00	1929	159.00	570
51.00	25096	79.00	17688	117.00	3766	161.00	660
52.00	1384	80.00	5209	118.00	1714	172.00	1667
53.00	407	81.00	18216	119.00	2466	173.00	770
54.00	246	82.00	4392	124.00	391	174.00	375808
55.00	1414	83.00	445	128.00	1733	175.00	27528
56.00	6701	86.00	341	129.00	869	176.00	364288
57.00	13140	87.00	10867	130.00	1649	177.00	23824
58.00	461	88.00	10681	131.00	623	178.00	717
60.00	3739	91.00	2039	135.00	1129		

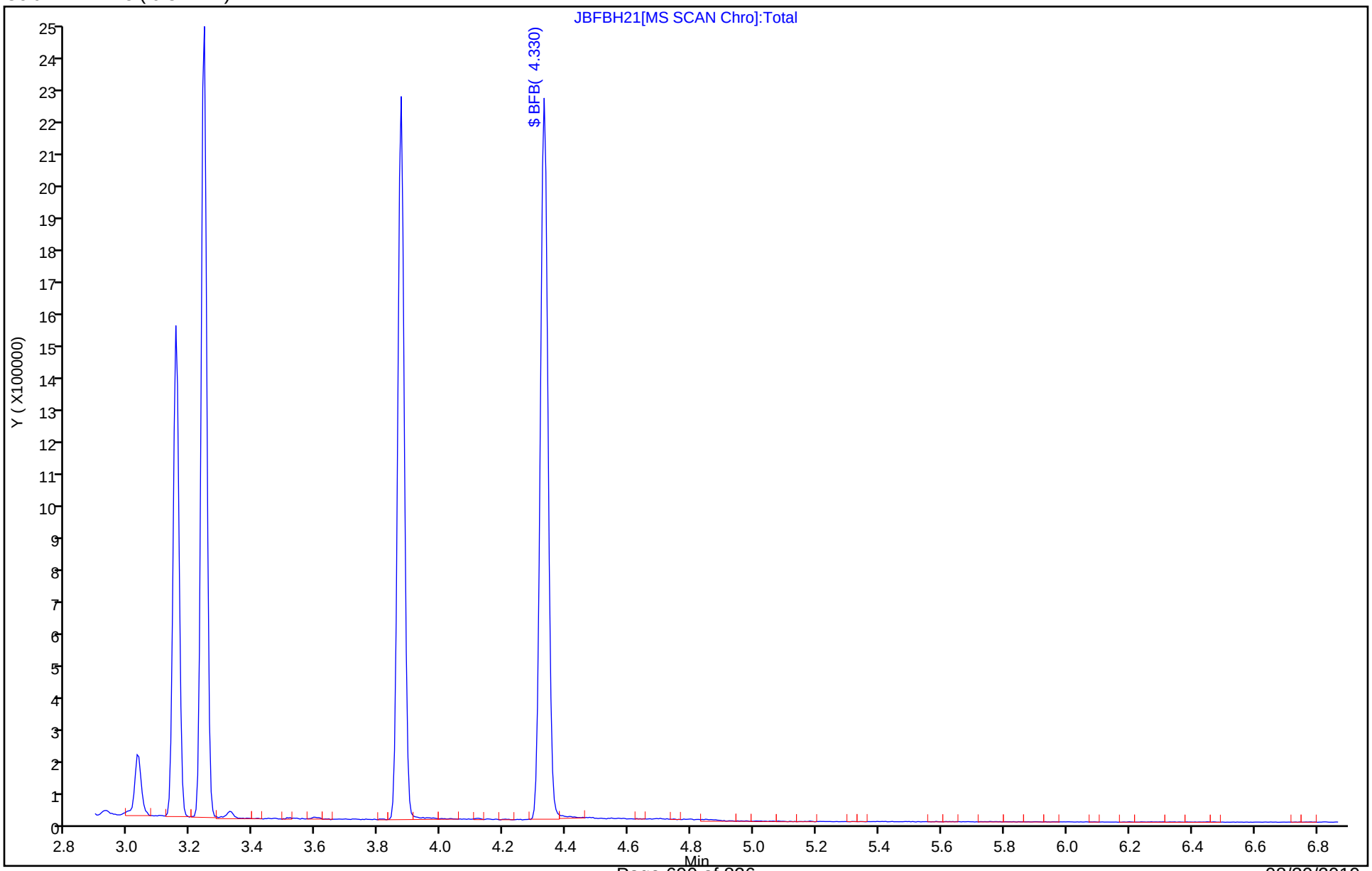
Report Date: 22-Aug-2019 11:06:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D

Injection Date:	21-Aug-2019 09:15:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Aug-2019 13:04:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-001
Misc. Info.: BFB
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:21 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:29:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.124	6.124	0.000	0	861667	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

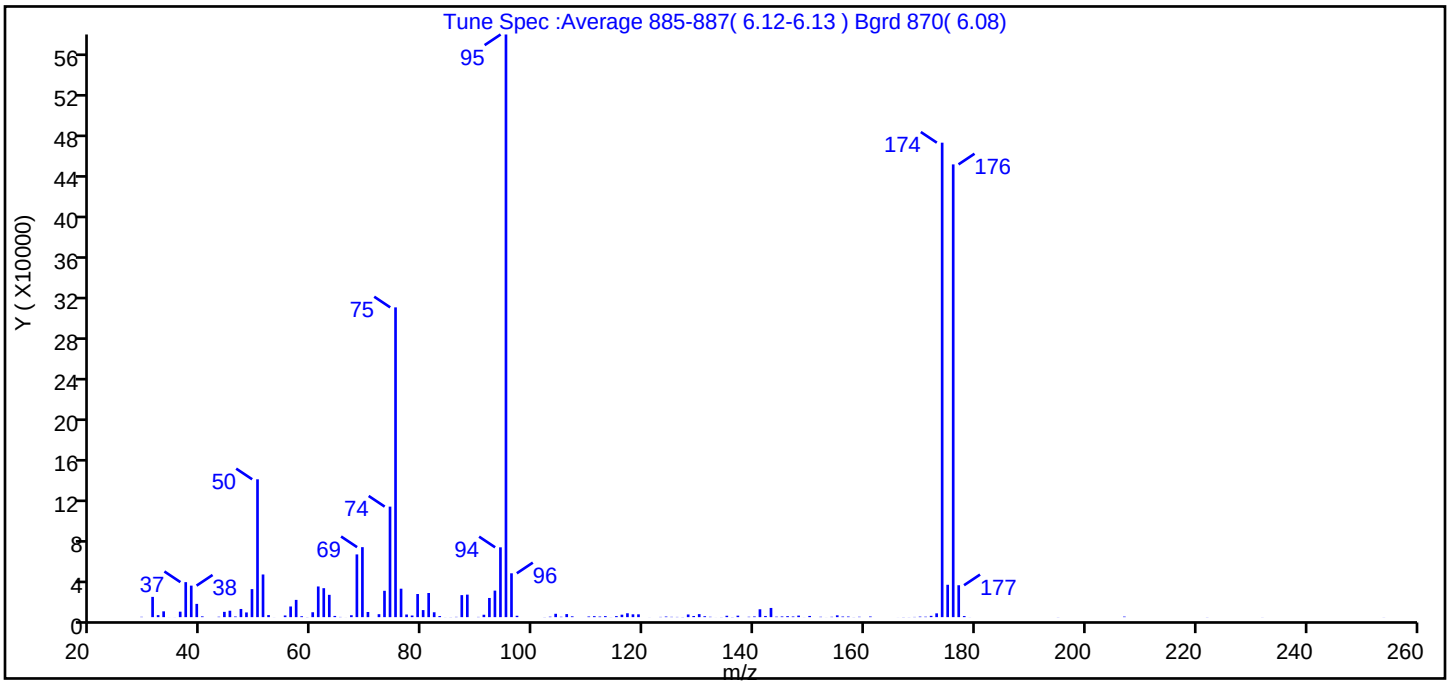
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Injection Date: 12-Aug-2019 13:04:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.7
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.7 (0.8)
174	50 to 120% of m/z 95	81.4
175	5 to 9% of m/z 174	5.6 (6.8)
176	Greater than 95% but less than 101% of m/z 174	77.7 (95.4)
177	5 to 9% of m/z 176	5.5 (7.0)

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	314	67.00	1865	107.00	807	146.00	967
31.00	19936	68.00	61744	110.00	659	147.00	651
32.00	1974	69.00	68888	111.00	971	148.00	1520
33.00	5717	70.00	5076	112.00	604	149.00	48
34.00	38	72.00	2904	113.00	1020	150.00	1173
35.00	51	73.00	25936	114.00	71	152.00	361
36.00	5387	74.00	108784	115.00	1038	153.00	41
37.00	34456	75.00	304896	116.00	2434	154.00	351
38.00	31016	76.00	28008	117.00	3832	155.00	1782
39.00	13052	77.00	2595	118.00	2790	156.00	605
40.00	759	78.00	1581	119.00	2773	157.00	617
43.00	402	79.00	22768	121.00	48	158.00	99
44.00	5203	80.00	6953	123.00	234	159.00	371
45.00	6314	81.00	23760	124.00	596	161.00	619
46.00	658	82.00	4804	125.00	296	166.00	41
47.00	8049	83.00	1058	126.00	229	167.00	131
48.00	4635	84.00	62	127.00	144	168.00	90
49.00	27576	85.00	111	128.00	2630	169.00	215
50.00	135680	86.00	272	129.00	1132	170.00	531
51.00	42000	87.00	21680	130.00	2976	171.00	447
52.00	2022	88.00	22152	131.00	916	172.00	1277
53.00	50	90.00	235	132.00	346	173.00	3743
55.00	1631	91.00	2363	133.00	34	174.00	467008
56.00	10495	92.00	18880	134.00	105	175.00	31856
57.00	16984	93.00	26120	135.00	1369	176.00	445632
58.00	880	94.00	68728	136.00	142	177.00	31408
59.00	109	95.00	573504	137.00	1446	178.00	1058
60.00	4824	96.00	43160	139.00	367	179.00	61
61.00	30200	97.00	1360	140.00	691	195.00	95
62.00	28504	102.00	113	141.00	7746	207.00	531
63.00	21960	103.00	453	142.00	1157	222.00	104
64.00	1194	104.00	3311	143.00	9053	232.00	73
65.00	210	105.00	379	144.00	487	254.00	76

Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	37	106.00	3012	145.00	701		

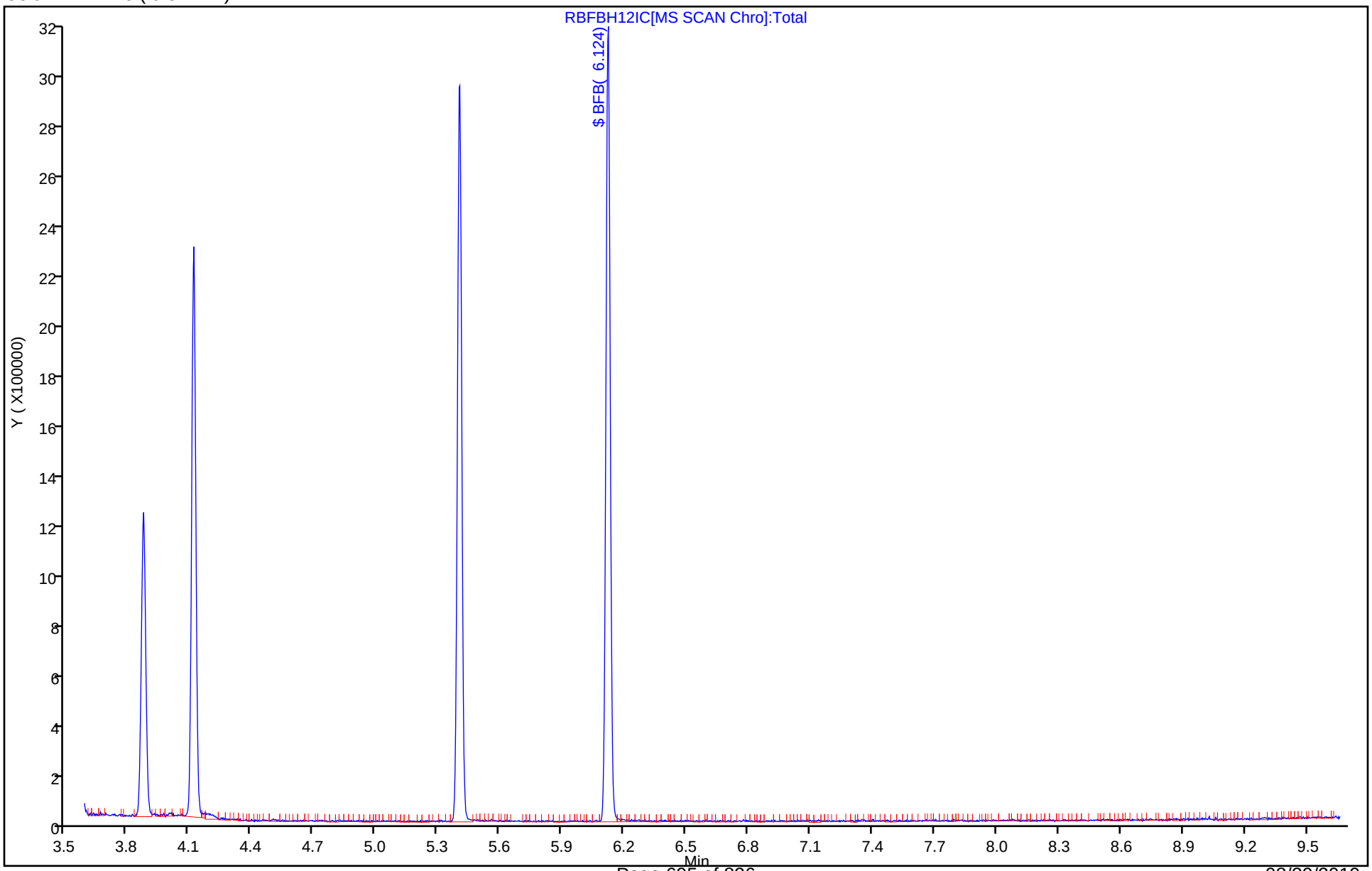
Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D

Injection Date:	12-Aug-2019 13:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Aug-2019 16:27:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-001
Misc. Info.: BFB
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:03:40 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:03:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.118	6.118	0.000	0	536850	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

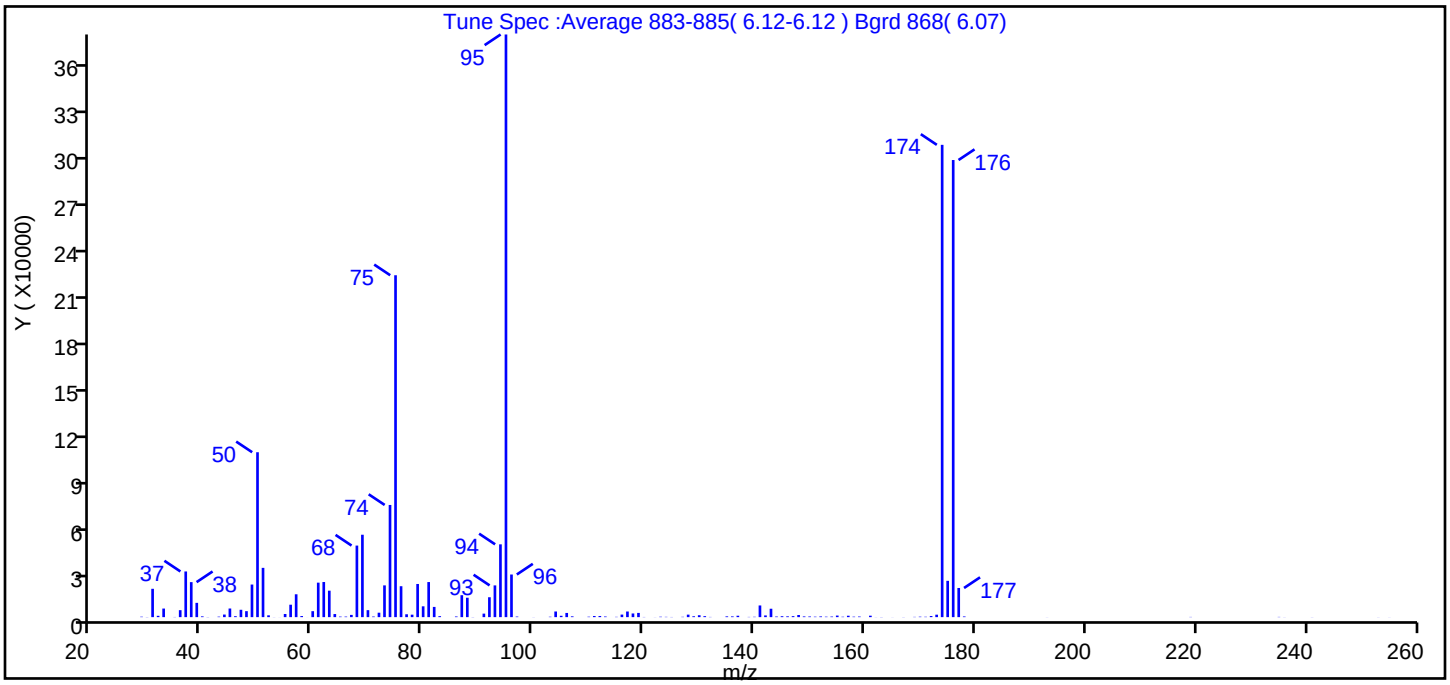
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D
Injection Date: 19-Aug-2019 16:27:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	28.3
75	30 to 60% of m/z 95	58.7
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	81.1
175	5 to 9% of m/z 174	6.2 (7.7)
176	Greater than 95% but less than 101% of m/z 174	78.5 (96.8)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D\MR_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 16:27:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 868(6.07)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	283	65.00	346	106.00	2703	148.00	1383
30.00	93	66.00	360	107.00	507	149.00	457
31.00	18280	67.00	1448	110.00	283	150.00	431
32.00	858	68.00	46152	111.00	710	151.00	298
33.00	5539	69.00	53144	112.00	720	152.00	465
35.00	108	70.00	4505	113.00	408	153.00	305
36.00	4497	71.00	387	115.00	195	154.00	383
37.00	29464	72.00	2860	116.00	1649	155.00	1014
38.00	22576	73.00	20480	117.00	3631	156.00	260
39.00	9215	74.00	72344	118.00	2368	157.00	916
40.00	492	75.00	220480	119.00	2730	158.00	305
41.00	93	76.00	19944	120.00	116	159.00	392
43.00	316	77.00	1856	122.00	49	161.00	930
44.00	1678	78.00	1595	123.00	269	162.00	50
45.00	5566	79.00	21392	124.00	190	163.00	93
46.00	611	80.00	6978	125.00	111	165.00	42
47.00	4750	81.00	22624	127.00	207	167.00	73
48.00	3859	82.00	6596	128.00	1617	169.00	171
49.00	21024	83.00	625	129.00	567	170.00	305
50.00	106344	86.00	429	130.00	1233	171.00	245
51.00	31784	87.00	14157	131.00	635	172.00	714
52.00	1170	88.00	12514	132.00	135	173.00	1589
53.00	56	89.00	90	135.00	499	174.00	304576
54.00	33	91.00	2271	136.00	474	175.00	23416
55.00	2032	92.00	12832	137.00	909	176.00	294784
56.00	8016	93.00	20472	139.00	145	177.00	18800
57.00	14749	94.00	46952	140.00	230	178.00	438
58.00	691	95.00	375744	141.00	7534	193.00	41
59.00	16	96.00	27496	142.00	1105	219.00	139
60.00	3848	97.00	376	143.00	5426	235.00	152
61.00	22240	100.00	55	144.00	396	236.00	48
62.00	22648	103.00	264	145.00	585	241.00	57
63.00	17064	104.00	3645	146.00	515	253.00	50

Report Date: 20-Aug-2019 13:03:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D\MR_TO15.rslt\spectra.d
Injection Date: 19-Aug-2019 16:27:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 868(6.07)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y
64.00	2003	105.00	873	147.00	630	255.00	42

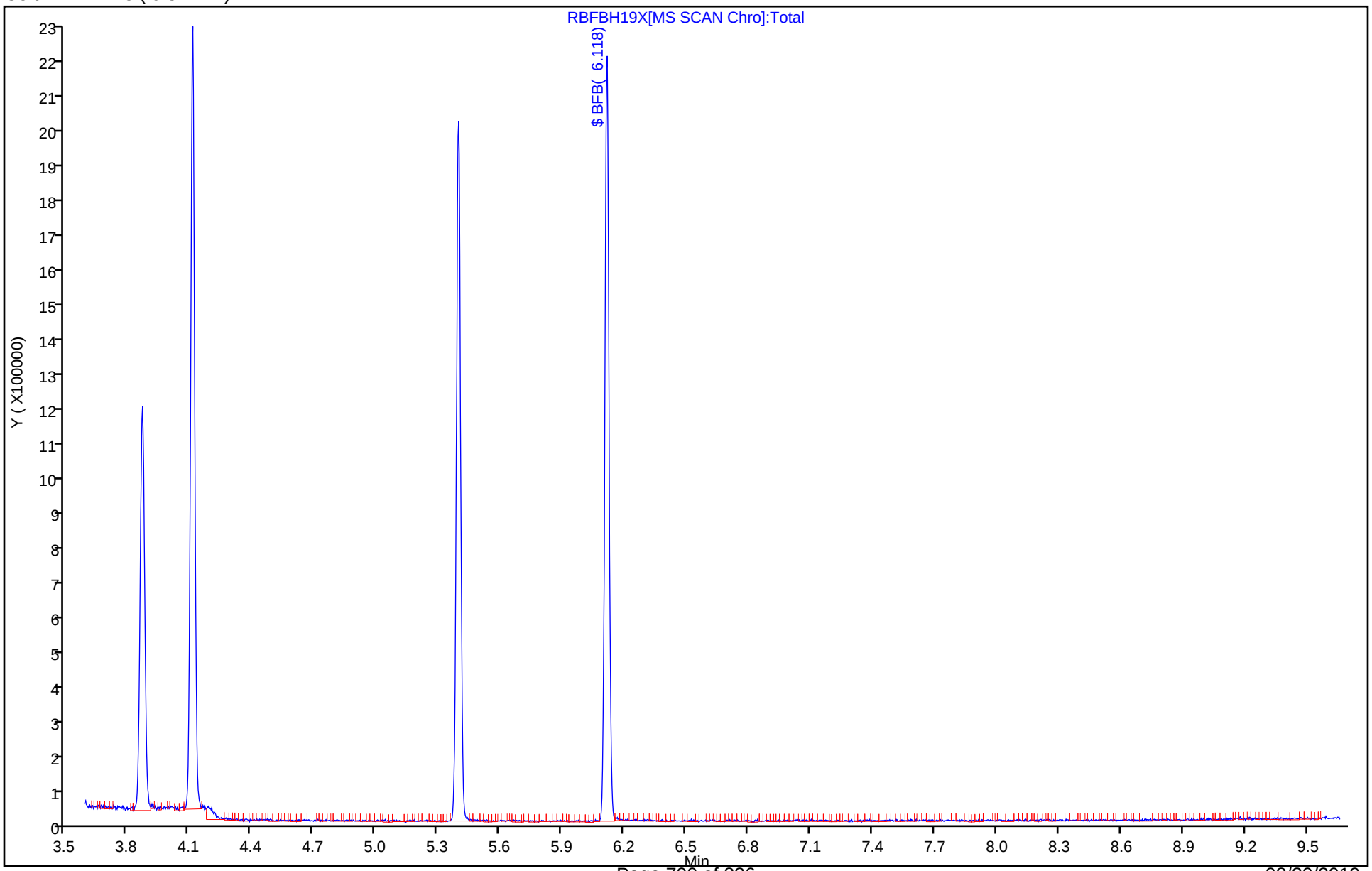
Report Date: 20-Aug-2019 13:03:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RBFBH19X.D

Injection Date:	19-Aug-2019 16:27:30	Instrument ID:	MR	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	23-Aug-2019 10:17:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:52:14	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:52:14		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.115	6.115	0.000	0	721026	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

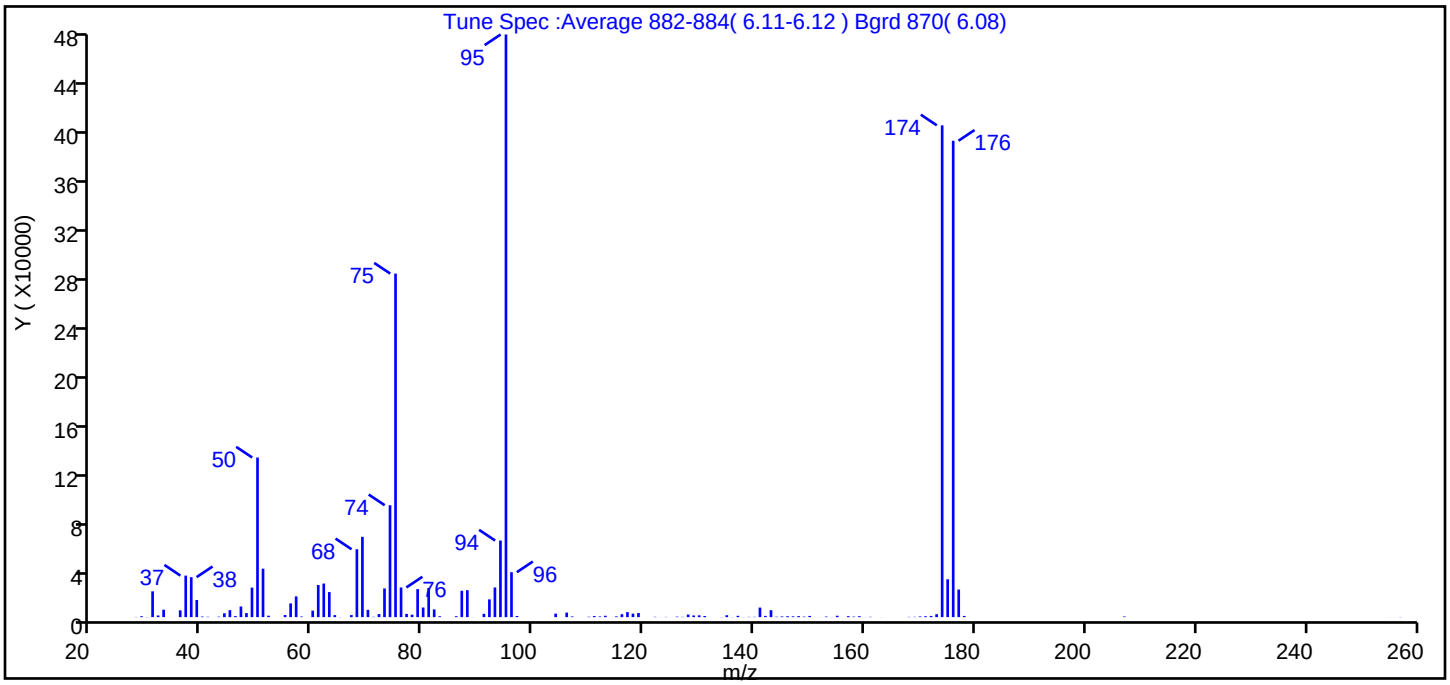
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D
Injection Date: 23-Aug-2019 10:17:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	27.4
75	30 to 60% of m/z 95	59.0
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	84.4
175	5 to 9% of m/z 174	6.5 (7.7)
176	Greater than 95% but less than 101% of m/z 174	81.8 (96.9)
177	5 to 9% of m/z 176	4.7 (5.8)

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D\MR_TO15.rslt\spectra.d
Injection Date: 23-Aug-2019 10:17:30
Spectrum: Tune Spec :Average 882-884(6.11-6.12) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	166	63.00	20416	104.00	2871	144.00	346
29.00	739	64.00	1653	106.00	3685	145.00	570
30.00	123	65.00	124	107.00	548	146.00	743
31.00	21048	67.00	1669	110.00	338	147.00	640
32.00	1358	68.00	55320	111.00	877	148.00	842
33.00	6070	69.00	65480	112.00	519	149.00	431
34.00	35	70.00	5960	113.00	1137	150.00	1000
36.00	5544	71.00	283	115.00	628	152.00	37
37.00	33856	72.00	2507	116.00	2371	153.00	467
38.00	32592	73.00	23400	117.00	4096	154.00	94
39.00	13957	74.00	91224	118.00	2868	155.00	1158
40.00	497	75.00	280000	119.00	3334	157.00	791
41.00	300	76.00	24208	122.00	278	158.00	413
43.00	386	77.00	2660	123.00	54	159.00	764
44.00	3136	78.00	1976	124.00	192	160.00	79
45.00	5717	79.00	22856	126.00	415	161.00	278
46.00	844	80.00	7857	127.00	238	163.00	63
47.00	8677	81.00	23808	128.00	2122	168.00	223
48.00	3330	82.00	6309	129.00	1374	169.00	258
49.00	24040	83.00	704	130.00	1481	170.00	547
50.00	130112	86.00	761	131.00	950	171.00	751
51.00	39496	87.00	21496	134.00	107	172.00	950
52.00	1187	88.00	21960	135.00	1556	173.00	2386
55.00	1736	89.00	74	136.00	97	174.00	400832
56.00	11214	91.00	2726	137.00	1079	175.00	30856
57.00	16896	92.00	14497	138.00	103	176.00	388288
58.00	500	93.00	24192	139.00	220	177.00	22496
59.00	10	94.00	62432	140.00	248	178.00	1000
60.00	5298	95.00	474880	141.00	7782	207.00	538
61.00	26208	96.00	36616	142.00	1019	255.00	43
62.00	27384	97.00	925	143.00	5665	257.00	131

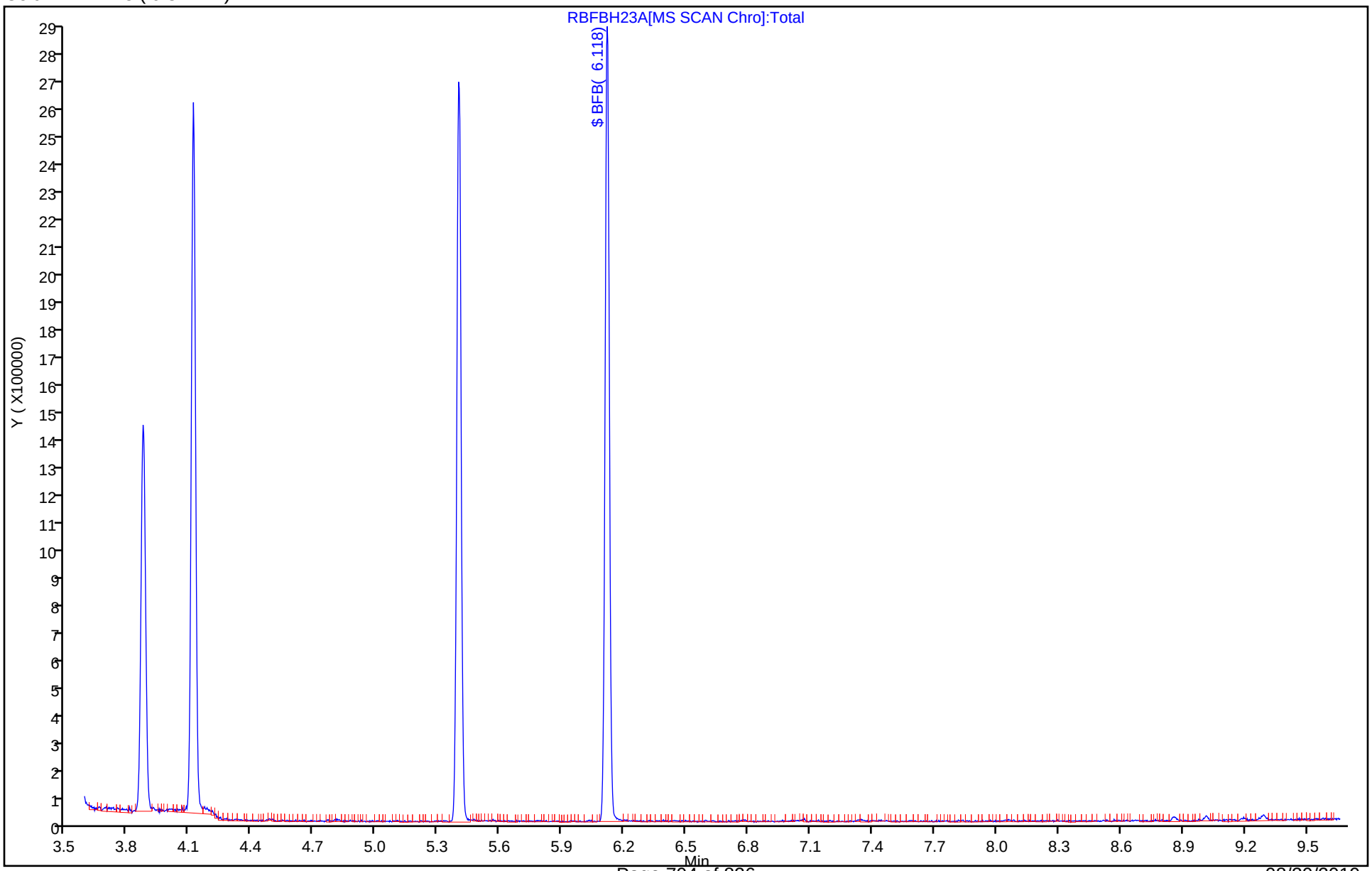
Report Date: 26-Aug-2019 13:52:15 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D

Injection Date:	23-Aug-2019 10:17:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\J500BH19.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2019 11:44:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012597-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:25:58 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:25:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	92	376501	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1931768	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.449	0.001	87	1640713	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	1044549	4.00	3.46	
20 Propene	41	4.174	4.168	0.006	98	27588		0.3702	
44 Methylene Chloride	84	7.062	7.062	0.000	94	21710		0.1533	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

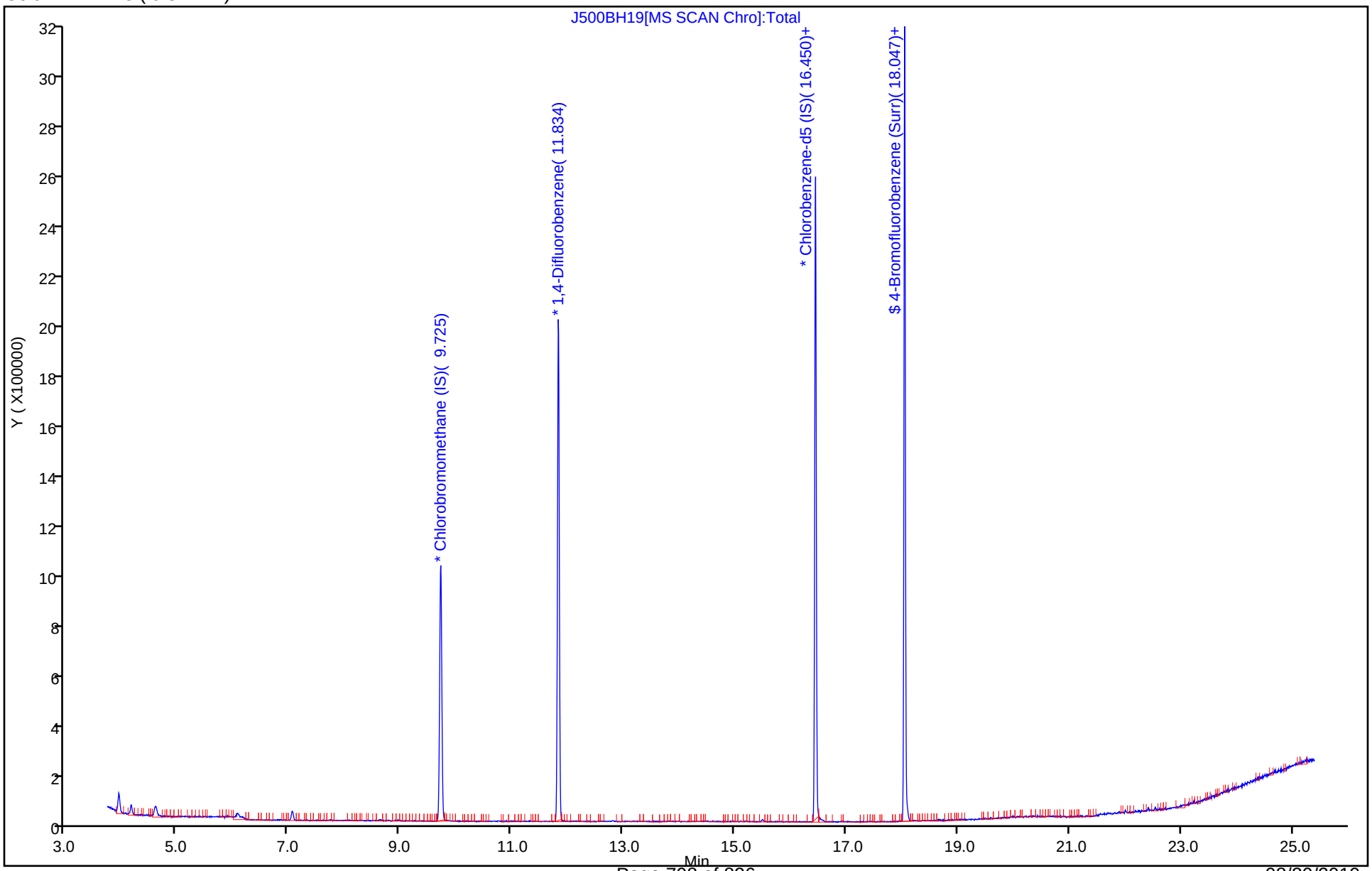
Report Date: 20-Aug-2019 12:26:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\J500BH19.D

Injection Date:	19-Aug-2019 11:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\J500BH19.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-Aug-2019 11:44:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:25:58	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:25:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.46	86.60

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-Aug-2019 18:12:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:06:53 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:06:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	191497	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1120833	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.576	-0.006	89	1035798	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	92	645258	4.00	3.61	
7 Propene	41	3.443	3.432	0.011	98	26696		0.2941	7
31 Methylene Chloride	84	5.972	5.972	0.000	94	11105		0.1641	
47 1,1,1-Trichloroethane	97	9.579	9.585	-0.006	28	4489		0.0253	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

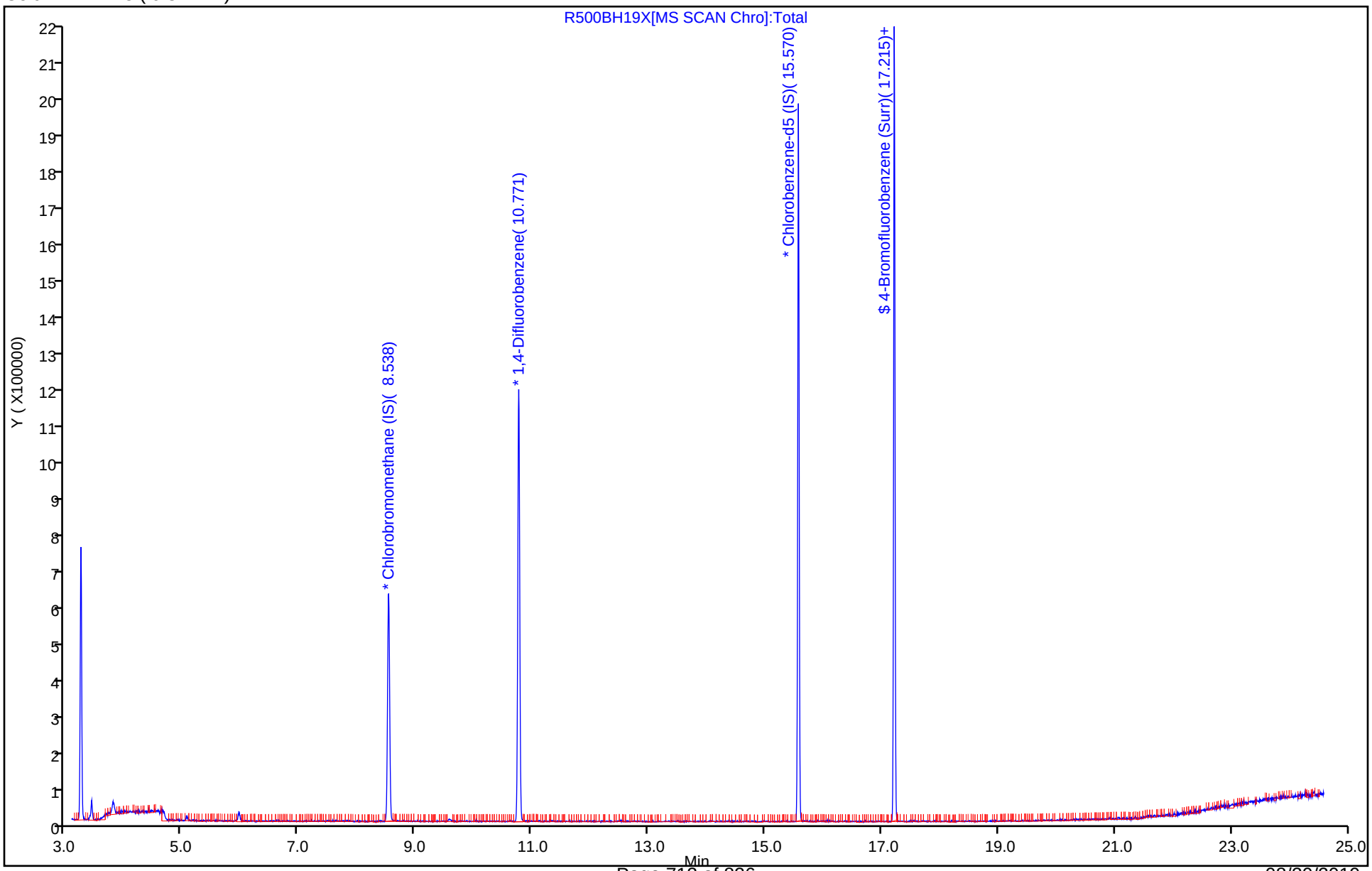
Report Date: 20-Aug-2019 13:06:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D

Injection Date:	19-Aug-2019 18:12:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-Aug-2019 18:12:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:06:53	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:06:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.61	90.33

Report Date: 20-Aug-2019 13:06:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\R500BH19X.D

Injection Date: 19-Aug-2019 18:12:30 Instrument ID: MR

Lims ID: mb

Client ID:

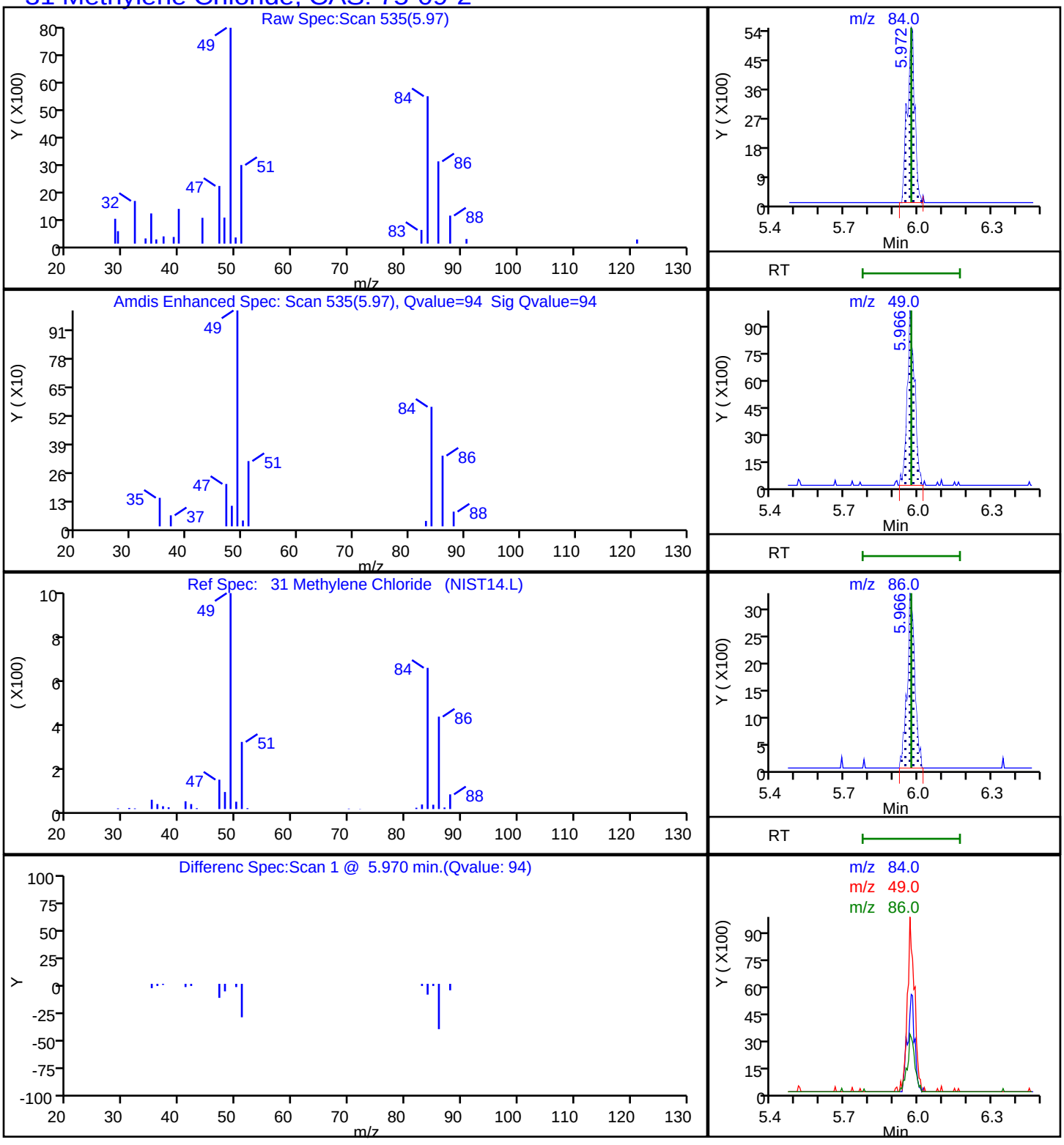
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-Aug-2019 10:41:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:15:28 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:15:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	-0.001	93	274886	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.833	11.839	-0.006	95	1397265	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.443	16.449	-0.006	88	1208366	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	783557	4.00	3.53	
20 Propene	41	4.168	4.168	0.000	98	21810		0.4008	
44 Methylene Chloride	84	7.062	7.062	0.000	98	15669		0.1515	

Reagents:

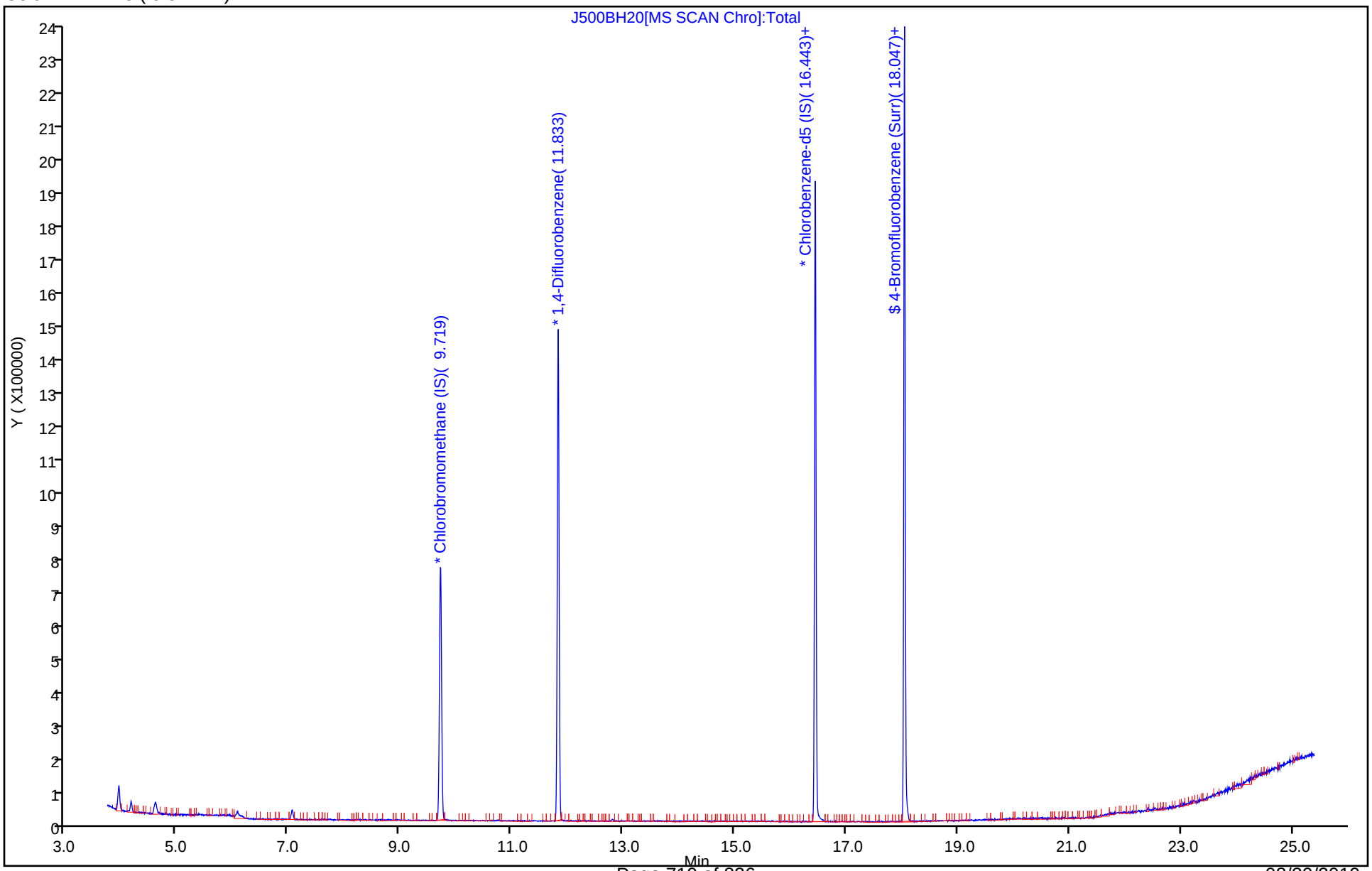
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 21-Aug-2019 12:15:30 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D				
Injection Date:	20-Aug-2019 10:41:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-Aug-2019 10:41:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:15:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.53	88.21

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 21-Aug-2019 12:47:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.720	9.731	-0.011	93	253739	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.840	-0.006	95	1276524	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	88	1050767	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	95	635663	4.00	3.29	
20 Propene	41	4.163	4.174	-0.011	98	26573		0.5291	
44 Methylene Chloride	84	7.063	7.069	-0.006	97	16593		0.1738	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

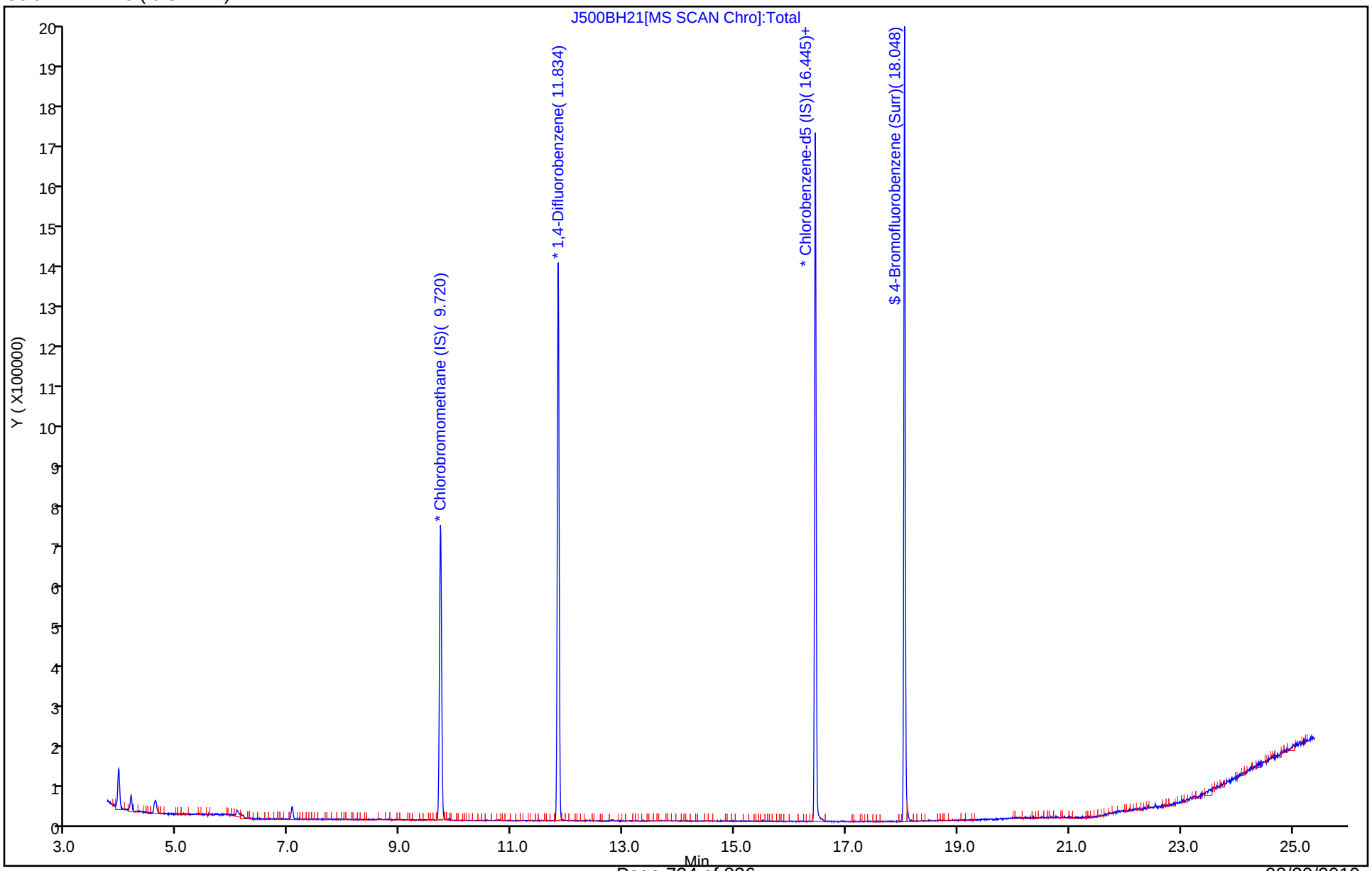
Report Date: 22-Aug-2019 11:07:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D

Injection Date:	21-Aug-2019 12:47:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Aug-2019 12:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.29	82.29

Report Date: 22-Aug-2019 11:07:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D

Injection Date: 21-Aug-2019 12:47:30 Instrument ID: MJ

Lims ID: mb

Client ID:

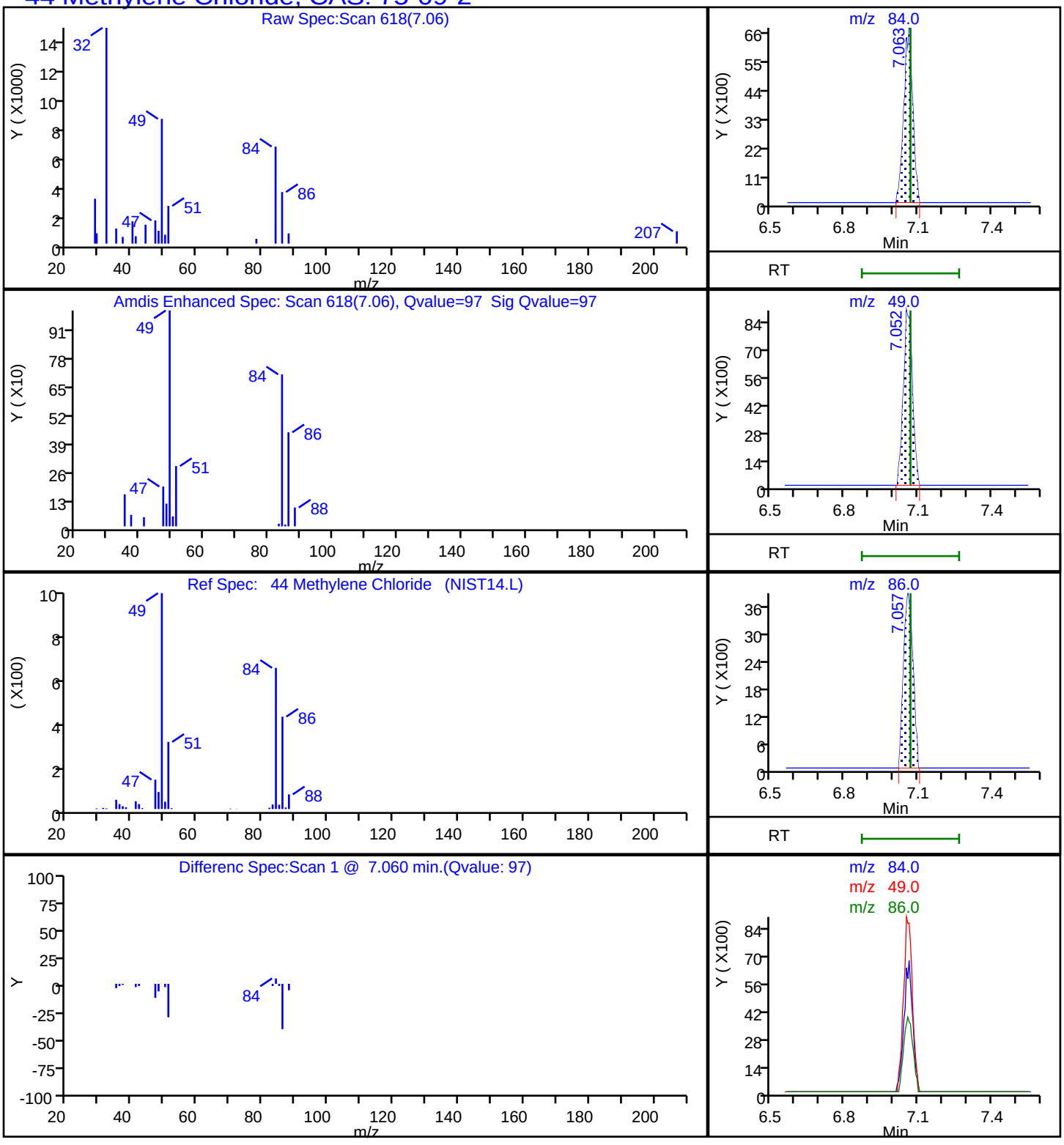
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 23-Aug-2019 12:46:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:48 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	229492	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1275766	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1067734	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	642612	4.00	3.49	
7 Propene	41	3.437	3.437	0.000	95	23523		0.2162	7
31 Methylene Chloride	84	5.961	5.966	-0.005	96	12969		0.1599	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

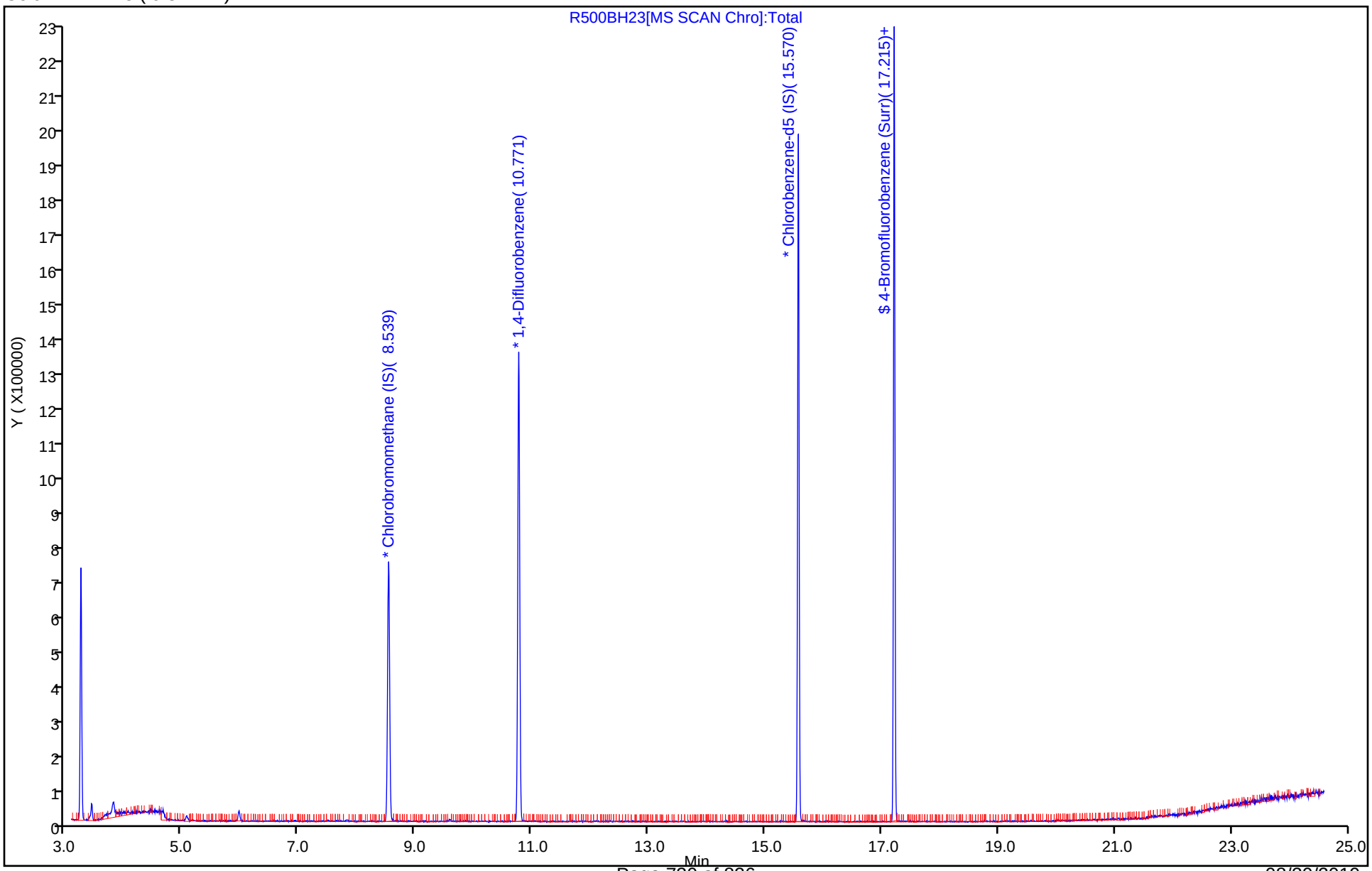
Report Date: 26-Aug-2019 13:54:49 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D

Injection Date:	23-Aug-2019 12:46:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

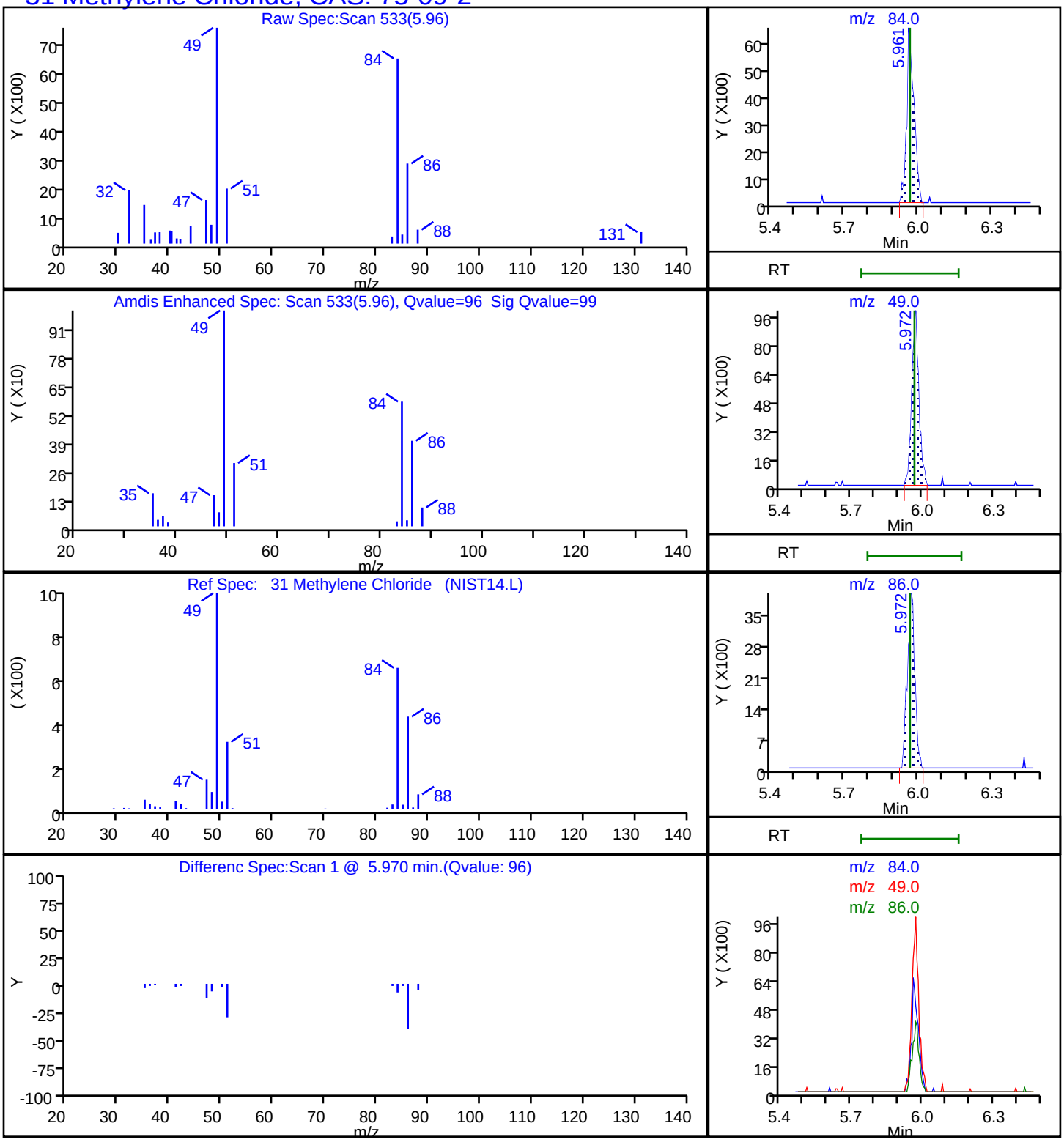
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-Aug-2019 12:46:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:48	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:54:48		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.49	87.27

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Injection Date: 23-Aug-2019 12:46:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32312/1002

Matrix: Air Lab File ID: JCCVH19-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 10:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.78		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.74		0.080	0.022
67-66-3	Chloroform	119.38	1.61		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.91		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.08		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.65		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.37		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.15		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.60		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.71		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.60		0.40	0.052
91-20-3	Naphthalene	128.17	1.30		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.71		0.080	0.0070
108-88-3	Toluene	92.14	1.77		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.06		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.44		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.48		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.78		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.84		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.53		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.51		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.63		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.35		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.80		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2019 10:15:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012597-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 12:23:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:23:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	95	449719	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	2264250	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	87	1915029	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	1267134	4.00	3.60	
19 Chlorodifluoromethane	51	4.157	4.157	0.000	97	213663	2.00	1.74	
20 Propene	41	4.168	4.168	0.000	98	153400	2.00	1.72	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	292307	2.00	2.08	
22 Chloromethane	52	4.442	4.442	0.000	100	97686	2.00	2.15	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.448	0.000	51	52397	2.00	2.68	
24 Acetaldehyde	44	4.620	4.620	0.000	100	581670	10.0	9.94	
25 Vinyl chloride	62	4.641	4.641	0.000	99	359845	2.00	2.35	
27 Butadiene	54	4.738	4.738	0.000	69	266816	2.00	2.31	
26 Butane	43	4.738	4.738	0.000	85	500067	2.00	2.12	
28 Bromomethane	94	5.115	5.115	0.000	98	343726	2.00	2.55	
29 Chloroethane	64	5.276	5.276	0.000	98	164140	2.00	2.44	
30 Ethanol	31	5.378	5.378	0.000	96	522980	10.0	8.62	
31 Vinyl bromide	106	5.620	5.620	0.000	98	316005	2.00	2.53	
32 2-Methylbutane	43	5.669	5.669	0.000	92	358232	2.00	2.20	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	936715	2.00	1.93	
34 Acrolein	56	5.927	5.927	0.000	94	66190	2.00	2.24	
35 Acetonitrile	40	6.002	6.002	0.000	98	94458	2.00	2.02	a
36 Acetone	58	6.056	6.056	0.000	98	316341	6.00	6.11	
37 Isopropyl alcohol	45	6.142	6.142	0.000	92	741725	6.00	4.93	
38 Pentane	72	6.153	6.153	0.000	96	46589	2.00	2.51	
39 Ethyl ether	31	6.336	6.336	0.000	94	263560	2.00	1.58	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	98	296920	2.00	2.15	
41 Acrylonitrile	53	6.799	6.799	0.000	77	165063	2.00	1.79	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	303042	2.00	1.30	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	97	642447	2.00	2.00	
44 Methylene Chloride	84	7.062	7.062	0.000	97	289054	2.00	1.71	
45 3-Chloro-1-propene	39	7.078	7.078	0.000	98	237267	2.00	1.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.245	7.245	0.000	99	854130	2.00	2.03	
47 trans-1,2-Dichloroethene	96	7.923	7.923	0.000	97	284427	2.00	2.06	
48 2-Methylpentane	43	7.923	7.923	0.000	96	635289	2.00	1.67	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	96	588520	2.00	1.60	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	505558	2.00	1.65	
51 Vinyl acetate	43	8.461	8.461	0.000	100	597145	2.00	1.53	
52 2-Butanone (MEK)	72	8.940	8.940	0.000	96	98768	2.00	1.63	
53 Hexane	56	8.945	8.945	0.000	77	205890	2.00	1.66	
54 Isopropyl ether	45	9.106	9.106	0.000	96	692310	2.00	1.47	
55 cis-1,2-Dichloroethene	96	9.381	9.381	0.000	95	270884	2.00	1.91	
56 Ethyl acetate	43	9.558	9.558	0.000	99	466310	2.00	1.44	
57 Chloroform	83	9.730	9.730	0.000	95	588449	2.00	1.61	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	640786	2.00	1.46	
59 Tetrahydrofuran	42	10.161	10.161	0.000	92	230805	2.00	1.43	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	96	581614	2.00	1.48	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	98	355307	2.00	1.37	
62 n-Butanol	31	11.285	11.285	0.000	84	59072	2.00	0.9547	
63 Cyclohexane	69	11.333	11.333	0.000	80	122044	2.00	1.75	
64 Benzene	78	11.339	11.339	0.000	97	737766	2.00	1.78	
65 Carbon tetrachloride	117	11.355	11.355	0.000	98	603489	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	169798	2.00	1.82	
67 Thiophene	84	11.602	11.602	0.000	96	423816	2.00	1.80	
68 Isooctane	57	12.038	12.038	0.000	99	1176080	2.00	1.59	
69 n-Heptane	71	12.388	12.388	0.000	92	244548	2.00	1.71	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	291957	2.00	1.68	
71 Trichloroethene	130	12.533	12.533	0.000	96	345431	2.00	1.84	
72 Dibromomethane	93	12.624	12.624	0.000	93	323038	2.00	1.67	
73 Dichlorobromomethane	83	12.759	12.759	0.000	98	566421	2.00	1.54	
74 1,4-Dioxane	88	12.780	12.780	0.000	86	72410	2.00	1.49	
75 Methyl methacrylate	41	12.824	12.824	0.000	94	263937	2.00	1.30	
76 Methylcyclohexane	83	13.275	13.275	0.000	97	440955	2.00	1.74	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	96	346860	2.00	1.09	
78 cis-1,3-Dichloropropene	75	13.717	13.717	0.000	94	422561	2.00	1.63	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	372392	2.00	1.58	
80 Toluene	91	14.513	14.513	0.000	93	820530	2.00	1.77	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	97	263769	2.00	1.78	
82 2-Hexanone	58	14.948	14.948	0.000	92	161713	2.00	1.19	
83 n-Octane	85	15.147	15.147	0.000	95	246220	2.00	1.73	
84 Chlorodibromomethane	129	15.287	15.287	0.000	97	558258	2.00	1.74	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	469750	2.00	1.74	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	317929	2.00	1.71	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	97	808901	2.00	1.49	
88 Chlorobenzene	112	16.498	16.498	0.000	94	656231	2.00	1.77	
89 Ethylbenzene	91	16.767	16.767	0.000	99	956495	2.00	1.60	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	1480136	4.00	3.24	
91 n-Nonane	57	17.305	17.305	0.000	93	511387	2.00	1.55	
92 Styrene	104	17.391	17.391	0.000	99	557895	2.00	1.71	
93 Bromoform	173	17.396	17.396	0.000	97	656790	2.00	1.91	
94 o-Xylene	91	17.450	17.450	0.000	99	760532	2.00	1.56	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.767	0.000	99	580126	2.00	1.71	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	99	145612	2.00	1.51	
97 Isopropylbenzene	105	18.009	18.009	0.000	97	1007621	2.00	1.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.515	18.515	0.000	99	281770	2.00	1.66	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	277271	2.00	1.69	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	1014479	2.00	1.60	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	92	411251	2.00	1.63	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	430010	2.00	1.65	
103 n-Decane	57	18.972	18.972	0.000	90	611356	2.00	1.46	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	886206	2.00	1.52	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	848889	2.00	1.51	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	1233027	2.00	1.57	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	97	644749	2.00	1.65	
108 Benzyl chloride	91	19.483	19.483	0.000	98	704365	2.00	1.47	a
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	95	640250	2.00	1.62	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	1009447	2.00	1.52	
111 1,2,3-Trimethylbenzene	105	19.602	19.602	0.000	98	839953	2.00	1.53	
112 Butylcyclohexane	83	19.639	19.639	0.000	94	759015	2.00	1.60	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	822887	2.00	1.61	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	620289	2.00	1.62	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	1033312	2.00	1.51	
116 Indene	116	19.967	19.967	0.000	89	689840	2.00	1.58	
117 Undecane	57	20.231	20.231	0.000	96	652896	2.00	1.38	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	98	306209	2.00	1.60	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	836332	2.00	1.40	
120 Dodecane	57	21.318	21.318	0.000	95	423116	2.00	1.05	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	452652	2.00	1.44	
122 Naphthalene	128	21.689	21.689	0.000	99	640322	2.00	1.30	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	93	618669	2.00	1.64	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	324245	2.00	1.31	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	99	128679	2.00	0.9597	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	99	113412	2.00	0.7056	
A 128 C8 Range	1	15.157	(15.109-15.206)		0	2337831	2.00	1.54	
S 129 Xylenes, Total	100				0		6.00	4.80	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.97	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

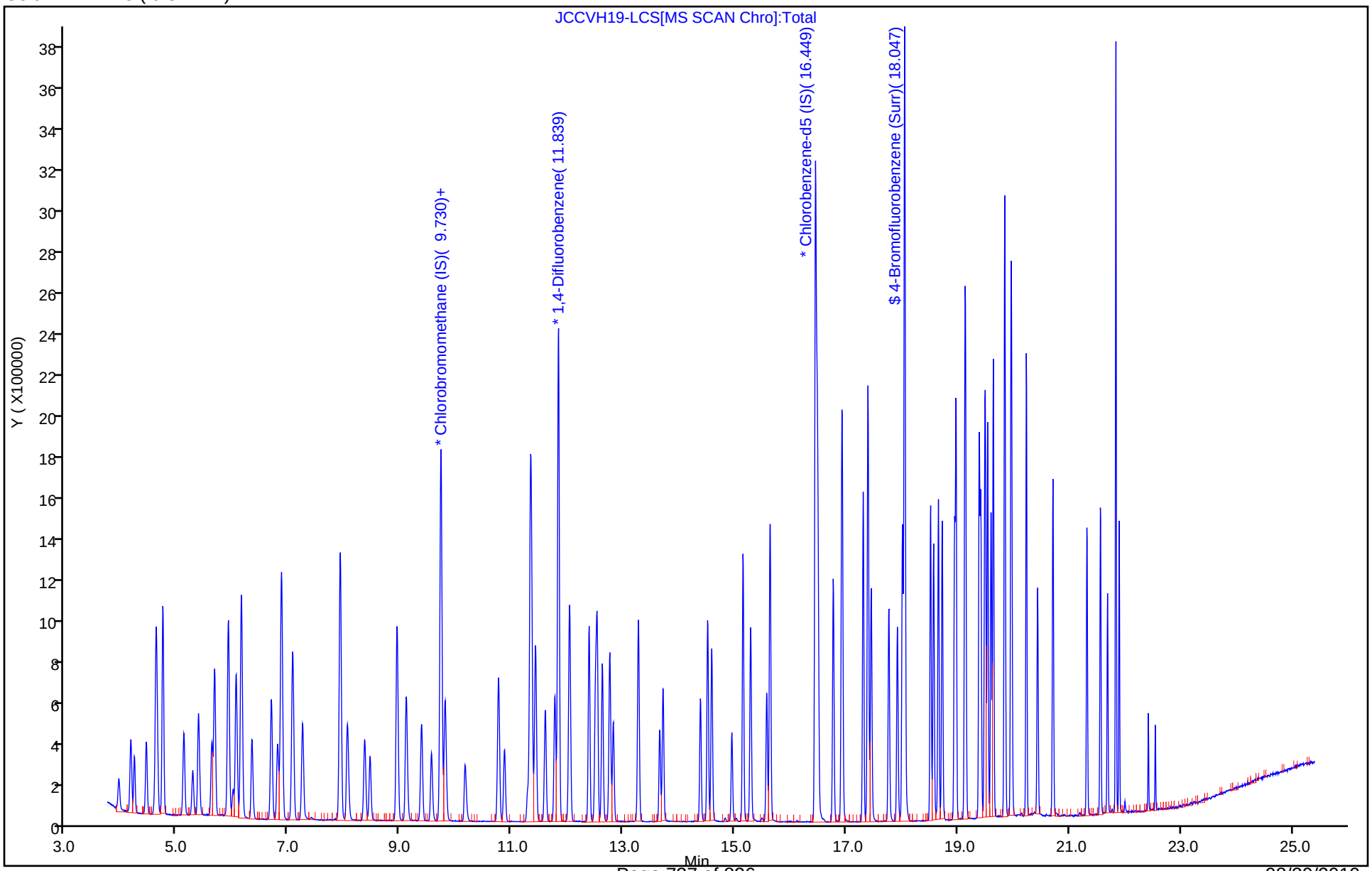
Report Date: 20-Aug-2019 12:23:35 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19-LCS.d

Injection Date:	19-Aug-2019 10:15:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\JCCVH19-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-Aug-2019 10:15:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012597-002				
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190802-12597.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 12:23:29	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 12:23:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.60	90.01

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32744/1002

Matrix: Air Lab File ID: RCCVH19X-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.893		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.969		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.930		0.080	0.022
67-66-3	Chloroform	119.38	0.986		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.918		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.16		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.985		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.04		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.804		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.939		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.886		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.998		0.40	0.052
91-20-3	Naphthalene	128.17	0.929		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.842		0.080	0.0070
108-88-3	Toluene	92.14	0.896		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.976		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.891		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.927		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.916		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.867		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.974		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.947		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.953		0.080	0.022
75-01-4	Vinyl chloride	62.50	0.986		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.79		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Aug-2019 16:53:30 ALS Bottle#: 16 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012759-002
Misc. Info.: P93
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-Aug-2019 13:05:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:05:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	95	191498	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1094127	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.576	0.000	89	966925	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	93	710498	4.00	4.26	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	98	152133	1.00	0.9298	
7 Propene	41	3.432	3.432	0.000	97	101351	1.00	1.12	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	172283	1.00	1.16	
9 Chloromethane	52	3.664	3.664	0.000	62	29319	1.00	1.32	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	137303	1.00	1.83	
11 Acetaldehyde	44	3.810	3.810	0.000	96	165514	5.00	6.37	
12 Vinyl chloride	62	3.826	3.826	0.000	98	69518	1.00	0.9863	
14 Butane	43	3.907	3.907	0.000	83	124546	1.00	1.15	
13 Butadiene	54	3.907	3.907	0.000	71	66076	1.00	1.29	
15 Bromomethane	94	4.219	4.219	0.000	95	58999	1.00	0.9878	
16 Chloroethane	64	4.354	4.354	0.000	83	28026	1.00	0.9716	
17 Ethanol	31	4.451	4.451	0.000	98	178877	5.00	6.88	
18 Vinyl bromide	106	4.645	4.645	0.000	95	50428	1.00	1.01	
19 2-Methylbutane	43	4.688	4.688	0.000	90	93584	1.00	1.16	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	98	160403	1.00	0.8720	
20 Acrolein	56	4.915	4.915	0.000	66	17588	1.00	0.7722	
24 Acetonitrile	40	4.996	4.996	0.000	98	27955	1.00	0.8244	
22 Acetone	58	5.039	5.039	0.000	99	76215	3.00	2.40	
25 Pentane	72	5.125	5.125	0.000	69	9285	1.00	0.7631	
23 Isopropyl alcohol	45	5.125	5.125	0.000	82	287661	3.00	2.67	
26 Ethyl ether	31	5.303	5.303	0.000	87	84015	1.00	0.8444	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	52974	1.00	0.8044	
28 Acrylonitrile	53	5.729	5.729	0.000	57	46299	1.00	0.9317	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	120639	1.00	0.9087	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	121554	1.00	0.8882	
31 Methylene Chloride	84	5.972	5.972	0.000	92	59965	1.00	0.8859	
32 3-Chloro-1-propene	39	5.977	5.977	0.000	95	79904	1.00	1.06	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.123	6.123	0.000	98	154560	1.00	0.8922	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	96	67571	1.00	0.9761	
35 2-Methylpentane	43	6.792	6.792	0.000	95	180816	1.00	0.9844	
36 Methyl tert-butyl ether	73	6.926	6.926	0.000	96	186177	1.00	1.00	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	129290	1.00	0.9848	
38 Vinyl acetate	43	7.315	7.315	0.000	100	223073	1.00	0.9736	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	89	32176	1.00	0.9156	
40 Hexane	56	7.784	7.784	0.000	69	56463	1.00	0.9390	
41 Isopropyl ether	45	7.956	7.956	0.000	96	280420	1.00	0.9832	
42 cis-1,2-Dichloroethene	96	8.210	8.210	0.000	96	71987	1.00	0.9182	
43 Ethyl acetate	43	8.404	8.404	0.000	97	200418	1.00	0.9873	
44 Chloroform	83	8.549	8.549	0.000	47	158827	1.00	0.9860	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	230354	1.00	0.9705	
46 Tetrahydrofuran	42	8.965	8.965	0.000	92	96568	1.00	0.9526	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	97	164126	1.00	0.9266	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	108970	1.00	1.04	
50 n-Butanol	31	10.173	10.173	0.000	90	37663	1.00	0.9000	
51 Cyclohexane	69	10.194	10.194	0.000	77	29174	1.00	0.8385	
49 Benzene	78	10.205	10.205	0.000	96	197830	1.00	0.8928	
52 Carbon tetrachloride	117	10.226	10.226	0.000	95	171667	1.00	0.9690	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	90	45435	1.00	0.9102	
54 Thiophene	84	10.480	10.480	0.000	94	106922	1.00	0.9520	
55 Isooctane	57	10.992	10.992	0.000	96	331670	1.00	0.8960	
57 n-Heptane	71	11.386	11.386	0.000	95	66301	1.00	0.8576	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	77627	1.00	0.9091	
58 Trichloroethene	130	11.504	11.504	0.000	94	84527	1.00	0.8674	
59 Dibromomethane	93	11.591	11.591	0.000	95	82168	1.00	0.9089	
60 Dichlorobromomethane	83	11.742	11.742	0.000	97	147130	1.00	0.8971	
61 1,4-Dioxane	88	11.763	11.763	0.000	93	31050	1.00	0.9116	
62 Methyl methacrylate	41	11.839	11.839	0.000	88	111353	1.00	0.9160	
63 Methylcyclohexane	83	12.281	12.281	0.000	87	110259	1.00	0.8652	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	96	199181	1.00	0.9180	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	116234	1.00	0.9079	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	94	110968	1.00	0.9227	
67 Toluene	91	13.591	13.591	0.000	93	222768	1.00	0.8955	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	70612	1.00	0.9156	
69 2-Hexanone	58	14.060	14.060	0.000	88	81904	1.00	0.8896	
71 n-Octane	85	14.292	14.292	0.000	97	69323	1.00	0.8505	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	144991	1.00	0.8476	
72 Ethylene Dibromide	107	14.670	14.670	0.000	93	136333	1.00	0.9216	
73 Tetrachloroethene	129	14.745	14.745	0.000	94	85526	1.00	0.8418	
74 Chlorobenzene	112	15.619	15.619	0.000	88	185357	1.00	0.8959	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	300449	1.00	0.9708	
76 Ethylbenzene	91	15.910	15.910	0.000	99	327609	1.00	0.9388	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	504828	2.00	1.84	
81 n-Nonane	57	16.492	16.492	0.000	93	165424	1.00	0.9211	
78 Bromoform	173	16.525	16.525	0.000	93	143600	1.00	0.9370	
79 Styrene	104	16.541	16.541	0.000	97	174490	1.00	0.9246	
80 o-Xylene	91	16.595	16.595	0.000	98	273158	1.00	0.9494	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	97	194566	1.00	0.9600	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	93	59611	1.00	0.9280	
84 Isopropylbenzene	105	17.183	17.183	0.000	96	394740	1.00	0.9245	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.743	0.000	99	106513	1.00	0.9812	
86 2-Chlorotoluene	126	17.792	17.792	0.000	98	98316	1.00	0.9507	
88 4-Ethyltoluene	105	17.900	17.900	0.000	98	404426	1.00	0.9504	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	154611	1.00	0.9530	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	87	149030	1.00	0.9582	
90 n-Decane	57	18.277	18.277	0.000	86	231600	1.00	0.9370	
91 tert-Butylbenzene	119	18.423	18.423	0.000	92	352897	1.00	0.9304	
92 1,2,4-Trimethylbenzene	105	18.434	18.434	0.000	96	356104	1.00	0.9474	
94 sec-Butylbenzene	105	18.703	18.703	0.000	98	524326	1.00	0.9715	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	97	236890	1.00	0.9256	
96 Benzyl chloride	91	18.795	18.795	0.000	97	276569	1.00	0.9421	
95 1,4-Dichlorobenzene	146	18.806	18.806	0.000	95	239199	1.00	0.9470	
97 4-Isopropyltoluene	119	18.865	18.865	0.000	96	417892	1.00	0.9584	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	99	360091	1.00	0.9737	
99 Butylcyclohexane	83	18.978	18.978	0.000	89	271079	1.00	0.9799	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	93	331349	1.00	0.9868	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	82	238770	1.00	0.9570	
102 Indene	116	19.313	19.313	0.000	91	286976	1.00	0.9469	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	455268	1.00	1.01	
104 Undecane	57	19.636	19.636	0.000	92	296174	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	105867	1.00	0.8652	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	97	410842	1.00	0.9820	
107 Dodecane	57	20.715	20.715	0.000	90	292307	1.00	1.03	
108 1,2,4-Trichlorobenzene	180	20.920	20.920	0.000	92	212551	1.00	0.8906	
109 Naphthalene	128	21.060	21.060	0.000	99	457877	1.00	0.9295	
110 Hexachlorobutadiene	225	21.281	21.281	0.000	94	226558	1.00	0.9561	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	217020	1.00	0.9883	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	95	144599	1.00	1.02	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	147137	1.00	1.08	
A 115 C8 Range	1	14.292	(14.244-14.330)		0	814397	1.00	0.9487	
S 116 Xylenes, Total	100				0		3.00	2.79	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.89	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

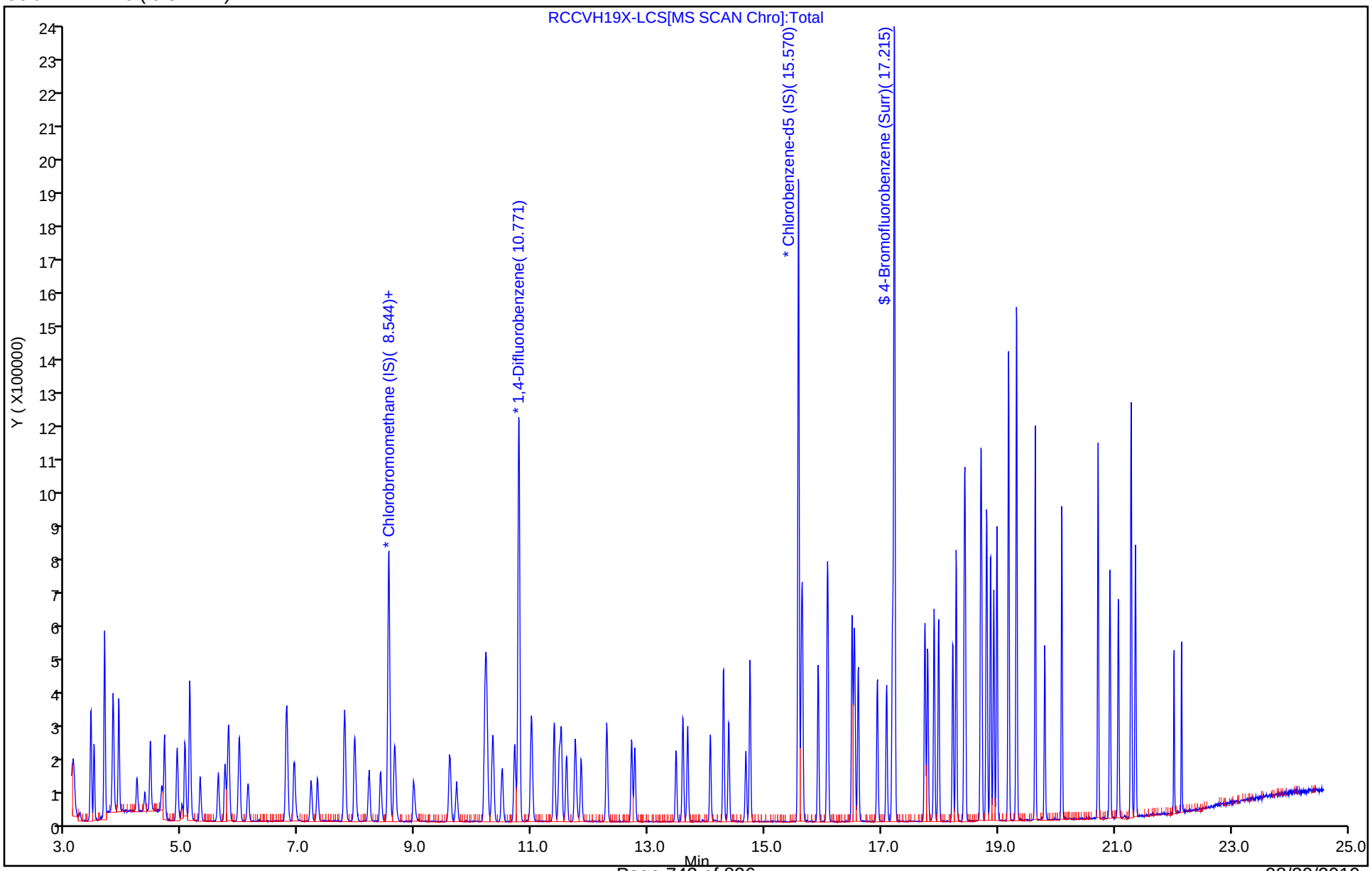
Report Date: 20-Aug-2019 13:05:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d

Injection Date:	19-Aug-2019 16:53:30	Instrument ID:	MR	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\RCCVH19X-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-Aug-2019 16:53:30	ALS Bottle#:	16	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012759-002				
Misc. Info.:	P93				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12759.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-Aug-2019 13:05:55	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0313				

First Level Reviewer: khachitpongpanits Date: 20-Aug-2019 13:05:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.26	106.55

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32828/1002

Matrix: Air Lab File ID: JCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.79		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.02		0.080	0.022
67-66-3	Chloroform	119.38	1.62		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.88		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.05		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.64		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.41		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.66		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.59		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.52		0.40	0.052
91-20-3	Naphthalene	128.17	1.66		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.69		0.080	0.0070
108-88-3	Toluene	92.14	1.79		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.00		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.77		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.47		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.80		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.88		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.62		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.62		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.74		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.36		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.93		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Aug-2019 09:08:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:14:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	96	253683	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	1303711	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	1153268	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	791299	4.00	3.73	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	140233	2.00	2.02	
20 Propene	41	4.168	4.168	0.000	99	102701	2.00	2.05	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	162726	2.00	2.05	
22 Chloromethane	52	4.442	4.442	0.000	99	59380	2.00	2.32	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.442	0.000	52	31140	2.00	2.82	
24 Acetaldehyde	44	4.614	4.614	0.000	99	335267	10.0	10.2	
25 Vinyl chloride	62	4.636	4.636	0.000	99	203700	2.00	2.36	
26 Butane	43	4.738	4.738	0.000	85	289304	2.00	2.17	
27 Butadiene	54	4.738	4.738	0.000	67	149242	2.00	2.29	
28 Bromomethane	94	5.115	5.115	0.000	98	190572	2.00	2.51	
29 Chloroethane	64	5.271	5.271	0.000	96	90928	2.00	2.40	
30 Ethanol	31	5.373	5.373	0.000	96	292951	10.0	8.56	
31 Vinyl bromide	106	5.615	5.615	0.000	97	176919	2.00	2.51	
32 2-Methylbutane	43	5.663	5.663	0.000	92	202422	2.00	2.21	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	99	587720	2.00	2.14	
34 Acrolein	56	5.927	5.927	0.000	93	37487	2.00	2.25	
35 Acetonitrile	40	6.002	6.002	0.000	98	52365	2.00	1.99	
36 Acetone	58	6.051	6.051	0.000	99	174033	6.00	5.96	
37 Isopropyl alcohol	45	6.137	6.137	0.000	92	466046	6.00	5.49	
38 Pentane	72	6.153	6.153	0.000	95	26216	2.00	2.50	
39 Ethyl ether	31	6.336	6.336	0.000	93	147637	2.00	1.57	
40 1,1-Dichloroethene	96	6.685	6.685	0.000	97	157442	2.00	2.02	
42 2-Methyl-2-propanol	59	6.793	6.793	0.000	96	192214	2.00	1.47	
41 Acrylonitrile	53	6.798	6.798	0.000	93	91637	2.00	1.76	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	96	343383	2.00	1.90	
44 Methylene Chloride	84	7.062	7.062	0.000	98	151483	2.00	1.59	
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	133792	2.00	1.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.245	7.245	0.000	100	467334	2.00	1.97	
47 trans-1,2-Dichloroethene	96	7.917	7.917	0.000	98	155527	2.00	2.00	
48 2-Methylpentane	43	7.923	7.923	0.000	95	360610	2.00	1.68	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	316378	2.00	1.52	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	284628	2.00	1.64	
51 Vinyl acetate	43	8.455	8.455	0.000	100	338956	2.00	1.54	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	51062	2.00	1.49	
53 Hexane	56	8.939	8.939	0.000	77	115383	2.00	1.65	
54 Isopropyl ether	45	9.106	9.106	0.000	96	398274	2.00	1.50	
55 cis-1,2-Dichloroethene	96	9.375	9.375	0.000	96	150788	2.00	1.88	
56 Ethyl acetate	43	9.558	9.558	0.000	99	244275	2.00	1.34	
57 Chloroform	83	9.730	9.730	0.000	96	332915	2.00	1.62	
58 Tert-butyl ethyl ether	59	9.800	9.800	0.000	96	353901	2.00	1.43	
59 Tetrahydrofuran	42	10.166	10.166	0.000	93	135564	2.00	1.49	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	97	326346	2.00	1.47	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	97	210580	2.00	1.41	
62 n-Butanol	31	11.280	11.280	0.000	88	44862	2.00	1.26	
64 Benzene	78	11.333	11.333	0.000	97	428186	2.00	1.79	
63 Cyclohexane	69	11.333	11.333	0.000	79	69151	2.00	1.72	
65 Carbon tetrachloride	117	11.355	11.355	0.000	96	349140	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	93	95758	2.00	1.78	
67 Thiophene	84	11.602	11.602	0.000	96	247294	2.00	1.82	
68 Isooctane	57	12.038	12.038	0.000	98	700715	2.00	1.65	
69 n-Heptane	71	12.388	12.388	0.000	93	142922	2.00	1.74	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	90	174019	2.00	1.74	
71 Trichloroethene	130	12.528	12.528	0.000	96	202209	2.00	1.88	
72 Dibromomethane	93	12.624	12.624	0.000	95	195792	2.00	1.76	
73 Dichlorobromomethane	83	12.754	12.754	0.000	98	340004	2.00	1.60	
74 1,4-Dioxane	88	12.775	12.775	0.000	88	42155	2.00	1.51	
75 Methyl methacrylate	41	12.818	12.818	0.000	92	149600	2.00	1.28	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	256278	2.00	1.75	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	240847	2.00	1.32	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	95	255522	2.00	1.72	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	98	226876	2.00	1.60	
80 Toluene	91	14.513	14.513	0.000	93	499176	2.00	1.79	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	98	161010	2.00	1.80	
82 2-Hexanone	58	14.948	14.948	0.000	92	117421	2.00	1.44	
83 n-Octane	85	15.153	15.153	0.000	95	145666	2.00	1.70	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	339491	2.00	1.76	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	287640	2.00	1.77	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	188814	2.00	1.69	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	96	514887	2.00	1.57	
88 Chlorobenzene	112	16.498	16.498	0.000	94	404501	2.00	1.81	
89 Ethylbenzene	91	16.767	16.767	0.000	99	597357	2.00	1.66	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	904412	4.00	3.29	
91 n-Nonane	57	17.305	17.305	0.000	93	320297	2.00	1.61	
92 Styrene	104	17.385	17.385	0.000	98	352314	2.00	1.79	
93 Bromoform	173	17.391	17.391	0.000	96	401076	2.00	1.94	
94 o-Xylene	91	17.450	17.450	0.000	99	480378	2.00	1.64	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	99	374020	2.00	1.83	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	89861	2.00	1.55	
97 Isopropylbenzene	105	18.009	18.009	0.000	97	629353	2.00	1.65	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.515	18.515	0.000	99	178418	2.00	1.75	
99 2-Chlorotoluene	126	18.569	18.569	0.000	97	185080	2.00	1.88	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	635771	2.00	1.67	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	93	265064	2.00	1.74	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	278713	2.00	1.78	
103 n-Decane	57	18.972	18.972	0.000	90	406955	2.00	1.61	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	569403	2.00	1.63	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	547416	2.00	1.62	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	797174	2.00	1.68	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	98	438961	2.00	1.87	
108 Benzyl chloride	91	19.483	19.483	0.000	98	459736	2.00	1.59	
109 1,4-Dichlorobenzene	146	19.499	19.499	0.000	94	436901	2.00	1.84	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	96	632993	2.00	1.59	
111 1,2,3-Trimethylbenzene	105	19.596	19.596	0.000	98	536626	2.00	1.62	
112 Butylcyclohexane	83	19.639	19.639	0.000	95	524677	2.00	1.83	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	555188	2.00	1.81	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	425968	2.00	1.84	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	669164	2.00	1.62	
116 Indene	116	19.967	19.967	0.000	89	470937	2.00	1.79	
117 Undecane	57	20.231	20.231	0.000	96	427711	2.00	1.50	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	97	199367	2.00	1.73	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	526588	2.00	1.47	
120 Dodecane	57	21.318	21.318	0.000	94	360950	2.00	1.49	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	334504	2.00	1.77	
122 Naphthalene	128	21.689	21.689	0.000	99	490658	2.00	1.66	
123 Hexachlorobutadiene	225	21.839	21.839	0.000	94	432658	2.00	1.90	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	95	264363	2.00	1.77	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	98	152708	2.00	1.89	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	98	138618	2.00	1.43	
A 128 C8 Range	1	15.163	(15.109-15.217)		0	1465889	2.00	1.60	
S 129 Xylenes, Total	100				0		6.00	4.93	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.88	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

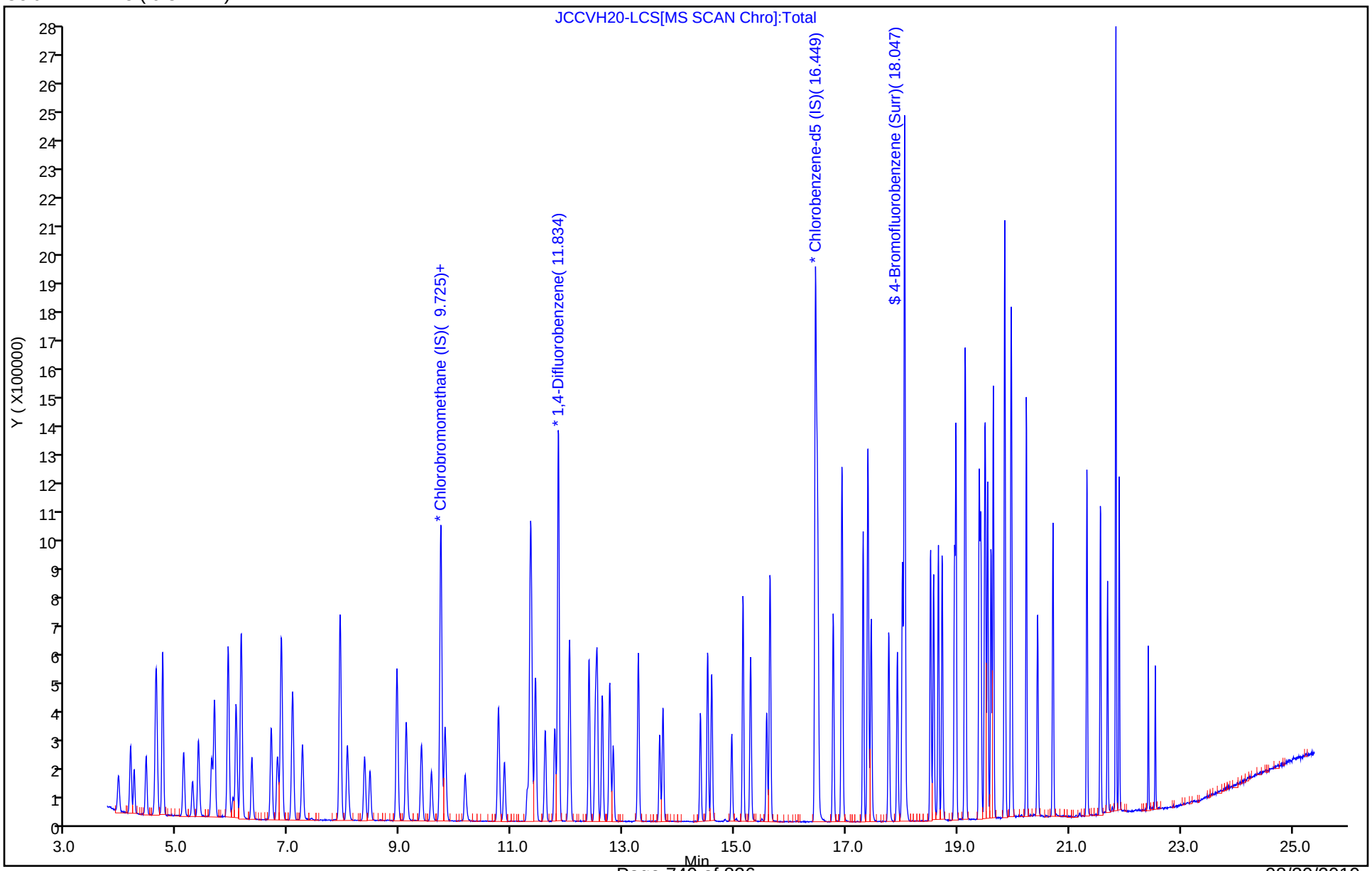
Report Date: 21-Aug-2019 12:14:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d

Injection Date:	20-Aug-2019 09:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	20-Aug-2019 09:08:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:14:29	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.73	93.33

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

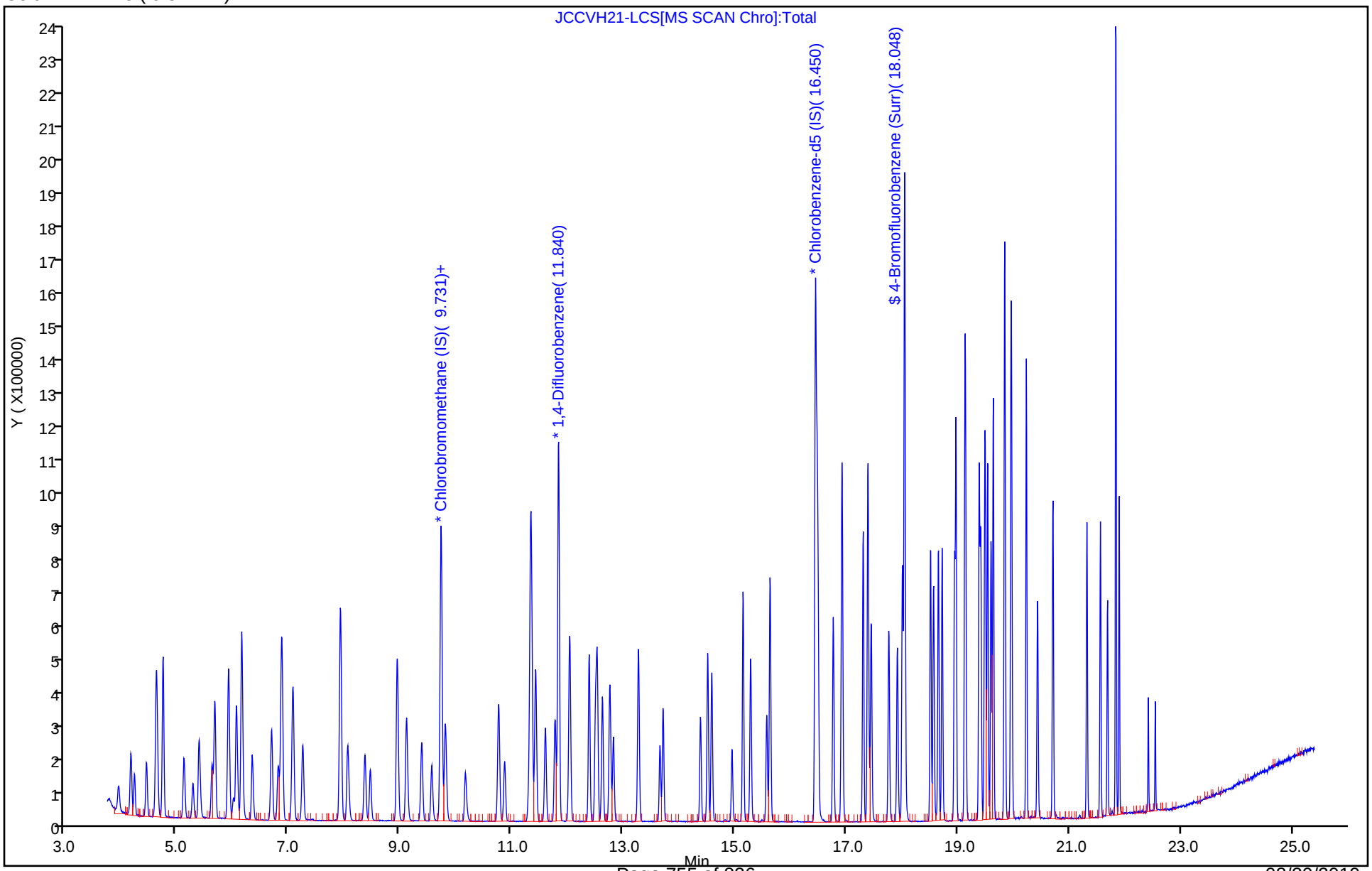
Report Date: 22-Aug-2019 11:07:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Aug-2019 09:44:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-002				
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.66	91.46

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

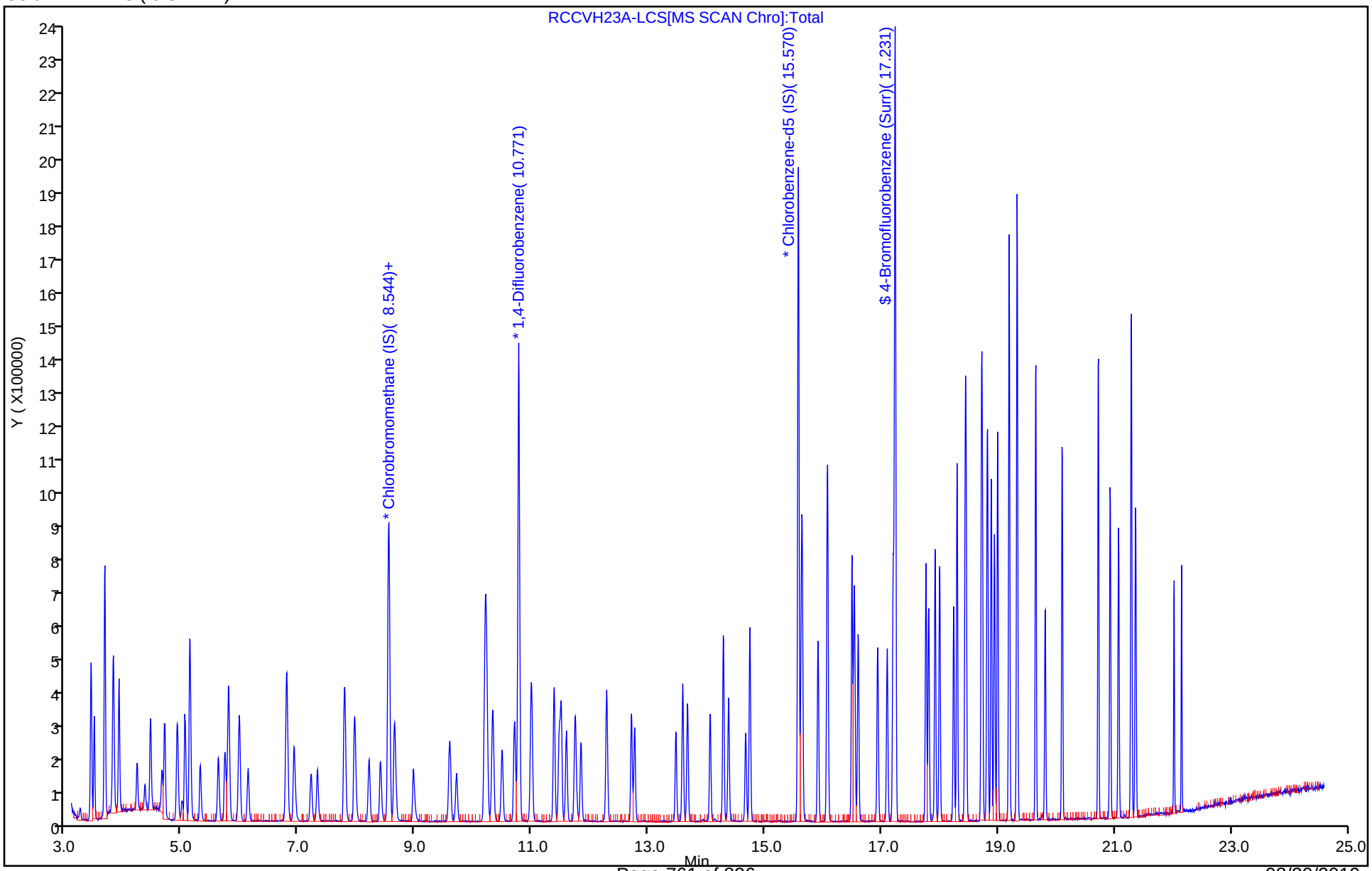
Report Date: 26-Aug-2019 13:54:09 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Aug-2019 10:44:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-002				
Misc. Info.:	P93				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.40

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

190719.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	21.5	7/19/2019	7:07:02 PM
BLK	16 - 201 mL	21.2	7/19/2019	7:36:56 PM
IC09	12 - 201 mL	9.5	7/19/2019	8:27:42 PM
BLK	14 - 201 mL	21.2	7/19/2019	9:18:14 PM
IC10	15 - 200 mL	29.4	7/19/2019	10:08:35 PM
BLK	16 - 201 mL	21	7/19/2019	10:59:16 PM
BLK	16 - 200 mL	19.6	7/19/2019	11:49:51 PM
IC01	1 - 51 mL	29.1	7/20/2019	12:39:37 AM
IC02	1 - 101 mL	28.6	7/20/2019	1:29:09 AM
IC03	1 - 201 mL	27.7	7/20/2019	2:19:01 AM
IC04	2 - 201 mL	23.5	7/20/2019	3:08:19 AM
IC05	3 - 202 mL	26.1	7/20/2019	3:58:27 AM
IC06	4 - 201 mL	29.8	7/20/2019	4:47:59 AM
IC07	5 - 101 mL	24.9	7/20/2019	5:37:55 AM
IC08	5 - 201 mL	23.3	7/20/2019	6:27:23 AM
BLK	6 - 201 mL	20.4	7/20/2019	7:17:39 AM
ICV	7 - 101 mL	25.2	7/20/2019	8:08:17 AM
LCS	8 - 101 mL	32.7	7/20/2019	8:59:34 AM
BLK	16 - 501 mL	19.9	7/20/2019	9:55:04 AM
MB	16 - 501 mL	19.4	7/20/2019	10:51:09 AM
ICV	10 - 101 mL	17.6	7/20/2019	12:28:34 PM

MJ ICAL WL 12415

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	7/28/19	Instrument:	HJ	Chrom WL #:	12415	TALS Batch & Event #	TO14/15: 31858 / 2054	DOD5: 31861 / 2057
							DOD: 31859 / 2055	OHIO: 31860 / 2056

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA	In ICV	NA
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	NA	→	→		NA		→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA	→	→		NA		→
19. Is the intercept less than the RL for each curve? [F6]	NA	→	→		NA		→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA	→	na		NA	→	na
21. Is low point RSE ≤ 50 %? Meets 50 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: [signature] 7/28/19

2nd Level Reviewer/Date: AS 7/24/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL		✓			na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	NA	→	→		✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na				

Analyst/date: AS 7/24/19

Comments: UR 8, # 19, 20, 104, 1+2 methylnapl. Meets

2nd Level Reviewer/date: [signature] 07/24/19

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/19/2019 09:45

Analysis Batch Number: 32312 End Date: 08/19/2019 21:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32312/1		08/19/2019 09:45	1	JBFBH19.D	RTX-5 0.32(mm)
CCVIS 140-32312/2		08/19/2019 10:15	1	JCCVH19.D	RTX-5 0.32(mm)
LCS 140-32312/1002		08/19/2019 10:15	1	JCCVH19-LCS.d	RTX-5 0.32(mm)
MB 140-32312/4		08/19/2019 11:44	1	J500BH19.D	RTX-5 0.32(mm)
140-16369-9		08/19/2019 13:38	1	JH19P101.D	RTX-5 0.32(mm)
140-16369-10		08/19/2019 14:28	1	JH19P102.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 15:18	1		RTX-5 0.32(mm)
140-16369-11		08/19/2019 16:08	1	JH19P104.D	RTX-5 0.32(mm)
140-16369-12		08/19/2019 16:57	1.55	JH19P105.D	RTX-5 0.32(mm)
140-16369-13		08/19/2019 18:36	1	JH19P107.D	RTX-5 0.32(mm)
140-16369-14		08/19/2019 19:25	1	JH19P108.D	RTX-5 0.32(mm)
140-16369-15		08/19/2019 21:04	1	JH19P110.D	RTX-5 0.32(mm)

190819.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	21.1	8/19/2019	9:45:05 AM
CCV	1 - 100 mL	29.2	8/19/2019	10:15:12 AM
DNU	16 - 101 mL	21.5	8/19/2019	11:12:35 AM
MB	16 - 500 mL	21.5	8/19/2019	11:44:19 AM
DNU	15 - 30 mL	7.2	8/19/2019	1:09:04 PM
16369-09	1 - 101 mL	3.7	8/19/2019	1:38:42 PM
16369-10	2 - 102 mL	7.5	8/19/2019	2:28:42 PM
16349-02	3 - 250 mL	4.4	8/19/2019	3:18:25 PM
16369-11	4 - 101 mL	5.9	8/19/2019	4:08:52 PM
16369-12	5 - 155 mL	10.6	8/19/2019	4:57:46 PM
16349-03	6 - 250 mL	4.8	8/19/2019	5:47:10 PM
16369-13	7 - 102 mL	8	8/19/2019	6:36:05 PM
16369-14	8 - 101 mL	3.8	8/19/2019	7:25:39 PM
16349-04	9 - 251 mL	6	8/19/2019	8:15:10 PM
16369-15	10 - 102 mL	7.8	8/19/2019	9:04:43 PM
16369-16	11 - 101 mL	6.8	8/19/2019	9:54:16 PM
16349-05	12 - 20 mL	6.3	8/19/2019	10:43:30 PM
16369-17	13 - 102 mL	7.4	8/19/2019	11:32:45 PM
16369-18	14 - 101 mL	6.3	8/20/2019	12:22:14 AM
16349-06	15 - 251 mL	7.4	8/20/2019	1:11:27 AM
16369-19	16 - 101 mL	6	8/20/2019	2:01:22 AM
16369-19	16 - 100 mL	3.6	8/20/2019	2:50:41 AM

MJ WL 12597

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/19/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12597	CCAL Batch #	32312		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Naphthalene, 1,2-Dichloroethane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawarn K. 8/20/2019		**2nd Level Reviewer/date** 08/21/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	NA

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason: 140-16349-2 / NT	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☑ (2) Reporting Limit – Dilution, Non-Target (NCM#19255) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?	↓		✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19253) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	NA
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	☑ Marginal Exceedances - Within ME Limits and Random; Report (NCM# 19254 □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		NA
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		NA
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	NA		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	✓	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32312/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Analyst: Suphawan Kh.	Date: 8/20/2019	2nd Level Reviewer : [signature]	Date: 08/27/19
Comments:		**Comments:** ✓ analyzed ok.	
CL lines 7, 9, 12, 13			
Example Calculation: 140-16369-12 Methylene chloride			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
0.505165 x 500/155 x 1.55 = 2.53			

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/12/19	Instrument:	MR	Chrom WL #:	12700	TALS Batch & Event #	TO14/15: 2089 / 32571	DOD5: 2090 / 32572
							DOD: 2092 / 32574	OHIO: 2091 / 32573

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	pts removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	in ICV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	na	→	→		ns	→	→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	ne	→	→		ns	→	→
19. Is the intercept less than the RL for each curve? [F6]	ne	→	→		ns	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	ne	na	na		ns	ns	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? #10 ↑ICV must be ND [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 8/13/19

2nd Level Reviewer/Date: 08/14/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ne	→			ns	→	→
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/15/19

2nd Level Reviewer/date: 08/15/19

Comments: 12 Dichloro-1,1,2,2-tetra fluoroethane must be ND- ↑ in ICV.

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/19/2019 16:27

Analysis Batch Number: 32744 End Date: 08/20/2019 06:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32744/1		08/19/2019 16:27	1	RBFBH19X.D	RTX-5 0.32(mm)
CCVIS 140-32744/2		08/19/2019 16:53	1	RCCVH19X.D	RTX-5 0.32(mm)
LCS 140-32744/1002		08/19/2019 16:53	1	RCCVH19X-LCS.d	RTX-5 0.32(mm)
MB 140-32744/4		08/19/2019 18:12	1	R500BH19X.D	RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 19:56	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 20:44	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 21:31	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 22:19	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:07	1		RTX-5 0.32(mm)
ZZZZZ		08/19/2019 23:56	1		RTX-5 0.32(mm)
140-16369-1		08/20/2019 00:45	1	RH19P108.D	RTX-5 0.32(mm)
140-16369-2		08/20/2019 01:33	1.64	RH19P109.D	RTX-5 0.32(mm)
140-16369-3		08/20/2019 02:20	1	RH19P110.D	RTX-5 0.32(mm)
140-16369-4		08/20/2019 03:09	1	RH19P111.D	RTX-5 0.32(mm)
140-16369-5		08/20/2019 03:56	1	RH19P112.D	RTX-5 0.32(mm)
140-16369-6		08/20/2019 04:45	1	RH19P113.D	RTX-5 0.32(mm)
140-16369-7		08/20/2019 05:34	1	RH19P114.D	RTX-5 0.32(mm)
140-16369-8		08/20/2019 06:23	1	RH19P115.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/19/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12759	CCAL Batch #	32744		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	32571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		ns
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		ns
6. Has the RT been updated to the method?	✓		✓
Analyst/date Supharom Kh. 8/20/2019		**2nd Level Reviewer/date**	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ Mscer	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	☐ ICAL – Range Exceeded; Minimum Dilution	ns

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason 140-18767-16 / NT	N	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☑ (2) Reporting Limit – Dilution, Non-Target (NCM# 19255) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		ns
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	NA
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		NA
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		NA
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32744/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawana Kh **Date:** 8/20/2019	**2nd Level Reviewer :** [signature] **Date:** 08/21/19
Comments:	**Comments:**
1st Level Line 20 8/20/19 [illegible]	
Example Calculation: 140-16367-16 Toluene	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
0.126633 x 500/10 x 1.0 = 6.33	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/20/2019 08:38

Analysis Batch Number: 32828 End Date: 08/21/2019 04:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32828/1		08/20/2019 08:38	1	JBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32828/2		08/20/2019 09:08	1	JCCVH20.D	RTX-5 0.32(mm)
LCS 140-32828/1002		08/20/2019 09:08	1	JCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32828/4		08/20/2019 10:41	1	J500BH20.D	RTX-5 0.32(mm)
140-16369-16		08/20/2019 11:30	1	JH20P211.D	RTX-5 0.32(mm)
140-16369-17		08/20/2019 12:19	1	JH20P213.D	RTX-5 0.32(mm)
140-16369-18		08/20/2019 13:08	1	JH20P214.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 14:06	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 15:39	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 16:29	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 17:19	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:08	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:57	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 19:46	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:36	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 21:24	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 22:14	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:02	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:52	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 00:41	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 01:31	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 02:20	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 03:10	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:00	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:50	1		RTX-5 0.32(mm)

190820.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	21.6	8/20/2019	8:38:43 AM
CCV	1 - 100 mL	29	8/20/2019	9:08:07 AM
DNU	16 - 100 mL	21.4	8/20/2019	10:07:31 AM
MB	16 - 501 mL	20.8	8/20/2019	10:41:46 AM
16369-16	11 - 101 mL	3.7	8/20/2019	11:30:39 AM
16369-17	13 - 100 mL	3.7	8/20/2019	12:19:35 PM
16369-18	14 - 101 mL	3.7	8/20/2019	1:08:52 PM
16377-01	1 - 101 mL	6.4	8/20/2019	2:06:44 PM
DNU	15 - 51 mL	9.7	8/20/2019	3:10:08 PM
16349-06	15 - 250 mL	5.7	8/20/2019	3:39:06 PM
16377-20	1 - 101 mL	3.6	8/20/2019	4:29:28 PM
16377-09	2 - 102 mL	7.7	8/20/2019	5:19:01 PM
16377-10	3 - 102 mL	6.5	8/20/2019	6:08:11 PM
16377-11	4 - 102 mL	7.8	8/20/2019	6:57:35 PM
16377-12	5 - 102 mL	7.8	8/20/2019	7:46:36 PM
16349-03	6 - 250 mL	4.1	8/20/2019	8:35:58 PM
16377-13	7 - 101 mL	6.7	8/20/2019	9:24:41 PM
16377-14	8 - 101 mL	6.6	8/20/2019	10:14:23 PM
16349-04	9 - 250 mL	3.8	8/20/2019	11:02:47 PM
16377-15	10 - 101 mL	6	8/20/2019	11:52:23 PM
16377-16	11 - 101 mL	7.1	8/21/2019	12:41:56 AM
16349-05	12 - 21 mL	7.3	8/21/2019	1:31:06 AM
16377-17	13 - 102 mL	7.9	8/21/2019	2:20:52 AM
16377-18	14 - 101 mL	5.9	8/21/2019	3:10:48 AM
16377-19	16 - 101 mL	6.4	8/21/2019	4:00:18 AM
16377-19	16 - 101 mL	3.6	8/21/2019	4:50:32 AM

MJ WL 12792

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/20/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12792	CCAL Batch #	32828		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MJS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MJS
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphamora Kh. 8/21/2019		**2nd Level Reviewer/date** 8/21/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason 140-16349-3 NT 140-16349-4 NT 140-16349-6 NT	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☑ (2) Reporting Limit – Dilution, Non-Target (NCM#19272) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MJS
17. Obvious non-TPH peaks excluded?			✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	CSXPL	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-328284 **200 mL blank ID:** ✓	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphannee M.	**Date:** 8/21/2019	**2nd Level Reviewer :** ✓	**Date:** 8/21/19
Comments:		**Comments:**	
Cr lines 5, 6, 11			
Example Calculation: 140-16349-5 TCE			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
12.97852 x 500 / 20 x 1.0 = 324.46			

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
140-16369-23		08/21/2019 15:29	1	JH21P101.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:09	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:59	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 20:28	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 21:18	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:07	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 22:56	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 00:34	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 01:23	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:13	3.72		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 03:02	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 05:31	1		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

190821.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	20.9	8/21/2019	9:15:15 AM
CCV	5 - 100 mL	28.5	8/21/2019	9:44:27 AM
LCSD	5 - 100 mL	28.3	8/21/2019	10:53:05 AM
DNU	16 - 101 mL	21	8/21/2019	12:16:56 PM
MB	16 - 500 mL	20.4	8/21/2019	12:47:42 PM
DNU	STD- 50 mL	11	8/21/2019	2:59:43 PM
16369-23	1 - 100 mL	3.5	8/21/2019	3:29:21 PM
16369-24	2 - 101 mL	3.7	8/21/2019	4:19:09 PM
16367-04	3 - 101 mL	3.5	8/21/2019	5:09:48 PM
16367-08	4 - 100 mL	3.3	8/21/2019	5:59:06 PM
DRY	STD- 200 mL	10.6	8/21/2019	6:48:23 PM
16377-02	5 - 101 mL	5.6	8/21/2019	7:38:25 PM
16377-03	6 - 11 mL	9.5	8/21/2019	8:28:31 PM
16377-05	7 - 11 mL	9.5	8/21/2019	9:18:33 PM
16377-12	8 - 30 mL	6.8	8/21/2019	10:07:46 PM
16377-13	9 - 31 mL	3.6	8/21/2019	10:56:26 PM
DRY	STD- 200 mL	10.2	8/21/2019	11:44:49 PM
16367-05	10 - 100 mL	3.4	8/22/2019	12:34:33 AM
16377-04	11 - 101 mL	3.8	8/22/2019	1:23:36 AM
16377-06	12 - 102 mL	8	8/22/2019	2:12:58 AM
16377-07	13 - 100 mL	3.5	8/22/2019	3:02:22 AM
DRY	STD- 200 mL	9.7	8/22/2019	3:51:49 AM
16377-08	14 - 101 mL	5	8/22/2019	4:41:34 AM
16377-08	14 - 100 mL	3.5	8/22/2019	5:31:12 AM
16363-01	15 - 11 mL	11	8/22/2019	6:20:59 AM
16388-03	16 - 21 mL	8.8	8/22/2019	7:10:54 AM

MJ WL 12793

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/21/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12793	CCAL Batch #	32829		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: _____ _____	✓
4. Elution order checked on isomeric pairs? [Chrom]			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Sophonna H 8/23/2019		**2nd Level Reviewer/date** 08/23/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason _____ _____ _____ _____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	NA
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32829/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		NA
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?		Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphaporn Kh. **Date:** 8/23/2019	**2nd Level Reviewer:** ✓ **Date:** 08/26/19
Comments:	**Comments:**
Example Calculation: 140-16377-5 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
8.844193 x 500 / 11 x 1.0 = 402.01	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
140-16369-20		08/23/2019 15:21	2.87	RH23P102.D	RTX-5 0.32(mm)
140-16369-21		08/23/2019 16:08	1.45	RH23P103.D	RTX-5 0.32(mm)
140-16369-22		08/23/2019 16:57	1.53	RH23P104.D	RTX-5 0.32(mm)
140-16369-24		08/23/2019 17:48	1.89	RH23P105.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 18:36	1		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 19:23	3.64		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 21:47	1.76		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 22:35	5.03		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 00:10	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:00	4.15		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:50	1.52		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
140-16369-19		08/24/2019 04:23	1.67	RH23P101R.D	RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/23/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12811	CCAL Batch #	372868		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	372571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		NA
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Dichlorodifluoromethane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Supharoma Kh. 8/26/2019		**2nd Level Reviewer/date** ✓ 08/26/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ on screen	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19376) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#___)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#___) □ Holding Time – Receipt (NCM#___)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#___)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32868/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Siphawone Kh. **Date:** 8/26/2019	**2nd Level Reviewer :** ✓ **Date:** 08/27/19
Comments:	**Comments:**
Example Calculation: 140-16376-8 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
$\frac{4.222734 \times 500 \times 5.03}{100} = 106.20$	

MS017r46, 2/22/2019

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32312 Batch Start Date: 08/19/19 09:45 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32312/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32312/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32312/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-9	IA-155-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-10	IA-133-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-11	IA-153-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-12	IA-060-C-27	TO 15 LL	T	155 mL	500 mL	1	1		40 mL
140-16369-A-13	IA-152-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-14	IA-144-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-15	IA-145-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32312/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32312/1		TO 15 LL		40 mL					
CCVIS 140-32312/2		TO 15 LL							
MB 140-32312/4		TO 15 LL							
140-16369-A-9	IA-155-C-27	TO 15 LL	T						
140-16369-A-10	IA-133-C-27	TO 15 LL	T						
140-16369-A-11	IA-153-C-27	TO 15 LL	T						
140-16369-A-12	IA-060-C-27	TO 15 LL	T						
140-16369-A-13	IA-152-C-27	TO 15 LL	T						
140-16369-A-14	IA-144-C-27	TO 15 LL	T						
140-16369-A-15	IA-145-C-27	TO 15 LL	T						
LCS 140-32312/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32312 Batch Start Date: 08/19/19 09:45 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32744/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32744/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32744/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-1	IA-BCK-4-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-2	IA-BCK-2-27	TO 15 LL	T	164 mL	500 mL	1	1		40 mL
140-16369-A-3	IA-BCK-1-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-4	IA-BCK-3-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-5	IA-001-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-6	IA-004-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-7	IA-102-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-8	IA-DUP1-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32744/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32744/1		TO 15 LL		40 mL					
CCVIS 140-32744/2		TO 15 LL							
MB 140-32744/4		TO 15 LL							
140-16369-A-1	IA-BCK-4-27	TO 15 LL	T						
140-16369-A-2	IA-BCK-2-27	TO 15 LL	T						
140-16369-A-3	IA-BCK-1-27	TO 15 LL	T						
140-16369-A-4	IA-BCK-3-27	TO 15 LL	T						
140-16369-A-5	IA-001-C-27	TO 15 LL	T						
140-16369-A-6	IA-004-C-27	TO 15 LL	T						
140-16369-A-7	IA-102-C-27	TO 15 LL	T						
140-16369-A-8	IA-DUP1-C-27	TO 15 LL	T						
LCS 140-32744/1002		TO 15 LL							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32744 Batch Start Date: 08/19/19 16:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32828/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32828/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32828/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-16	IA-146-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-17	IA-150-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16369-A-18	IA-141-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32828/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32828/1		TO 15 LL		40 mL					
CCVIS 140-32828/2		TO 15 LL							
MB 140-32828/4		TO 15 LL							
140-16369-A-16	IA-146-C-27	TO 15 LL	T						
140-16369-A-17	IA-150-C-27	TO 15 LL	T						
140-16369-A-18	IA-141-C-27	TO 15 LL	T						
LCS 140-32828/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-23	IA-DUP2-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16369-A-23	IA-DUP2-C-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16369-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16369-A-20	IA-126-C-27	TO 15 LL	T	287 mL	500 mL	1	1		40 mL
140-16369-A-21	IA-113-C-27	TO 15 LL	T	145 mL	500 mL	1	1		40 mL
140-16369-A-22	IA-088-C-27	TO 15 LL	T	153 mL	500 mL	1	1		40 mL
140-16369-A-24	IA-142-C-27	TO 15 LL	T	189 mL	500 mL	1	1		40 mL
140-16369-A-19	IA-149-C-27	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16369-A-20	IA-126-C-27	TO 15 LL	T						
140-16369-A-21	IA-113-C-27	TO 15 LL	T						
140-16369-A-22	IA-088-C-27	TO 15 LL	T						
140-16369-A-24	IA-142-C-27	TO 15 LL	T						
140-16369-A-19	IA-149-C-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16369-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16369-2	1	-8.3	0.72	0.72	2.7	1.18	1.18		1.64	1.64	08/19/19 11:55	Taj, Holly M
140-16369-12	1	-6.9	0.77	0.77	2.8	1.19	1.19		1.55	1.55	08/19/19 11:57	Taj, Holly M
140-16369-19	1	-7.7	0.74	0.74	3.5	1.24	1.24		1.67	1.67	08/23/19 11:44	Taj, Holly M
140-16369-20	1	-8.2	0.73	0.73	15.9	2.08	2.08		2.87	2.87	08/23/19 11:41	Taj, Holly M
140-16369-21	1	-4.7	0.84	0.84	3.3	1.22	1.22		1.45	1.45	08/23/19 11:44	Taj, Holly M
140-16369-22	1	-5.9	0.80	0.80	3.4	1.23	1.23		1.53	1.53	08/23/19 11:43	Taj, Holly M
140-16369-24	1	-9.1	0.70	0.70	4.6	1.31	1.31		1.89	1.89	08/23/19 11:42	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D
Lims ID: 140-15955-A-1
Client ID: 10500
Sample Type: Client
Inject. Date: 12-Jul-2019 07:00:30 ALS Bottle#: 13 Worklist Smp#: 26
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012293-026
Misc. Info.: 10500
Operator ID: HMT Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 12-Jul-2019 05:43:43 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: khachitpongpanits Date: 12-Jul-2019 18:45:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

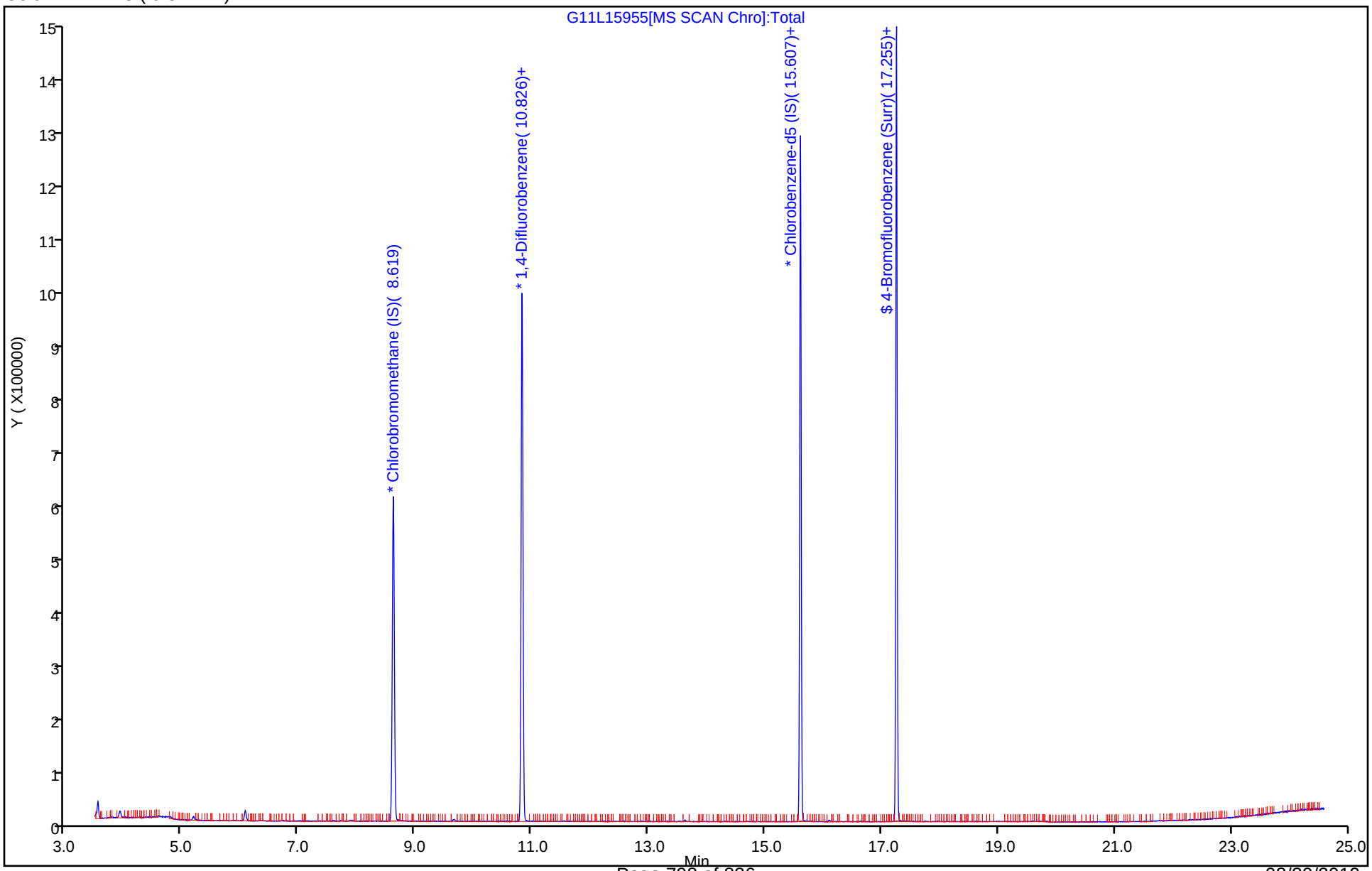
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16080-1

SDG No.:

Client Sample ID: 09583 Lab Sample ID: 140-16080-13

Matrix: Air Lab File ID: GG20LOT16080.D

Analysis Method: TO-15 Date Collected: 07/19/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 07/21/2019 04:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31800 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D				
Lims ID:	140-16080-A-13				
Client ID:	09583				
Sample Type:	Client				
Inject. Date:	21-Jul-2019 04:24:30	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012391-021				
Misc. Info.:	09583				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12391.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Jul-2019 11:04:01	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0324				
First Level Reviewer: khachitpongpanits		Date:	22-Jul-2019 11:06:12		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.162	-0.011	94	216420	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.330	-0.011	97	1209463	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	94	1032396	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	78	745253	3.85	
7 Propene	41	3.834	3.834	0.000	98	43488	0.5290	
31 Methylene Chloride	84	6.552	6.552	0.000	98	14297	0.1665	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

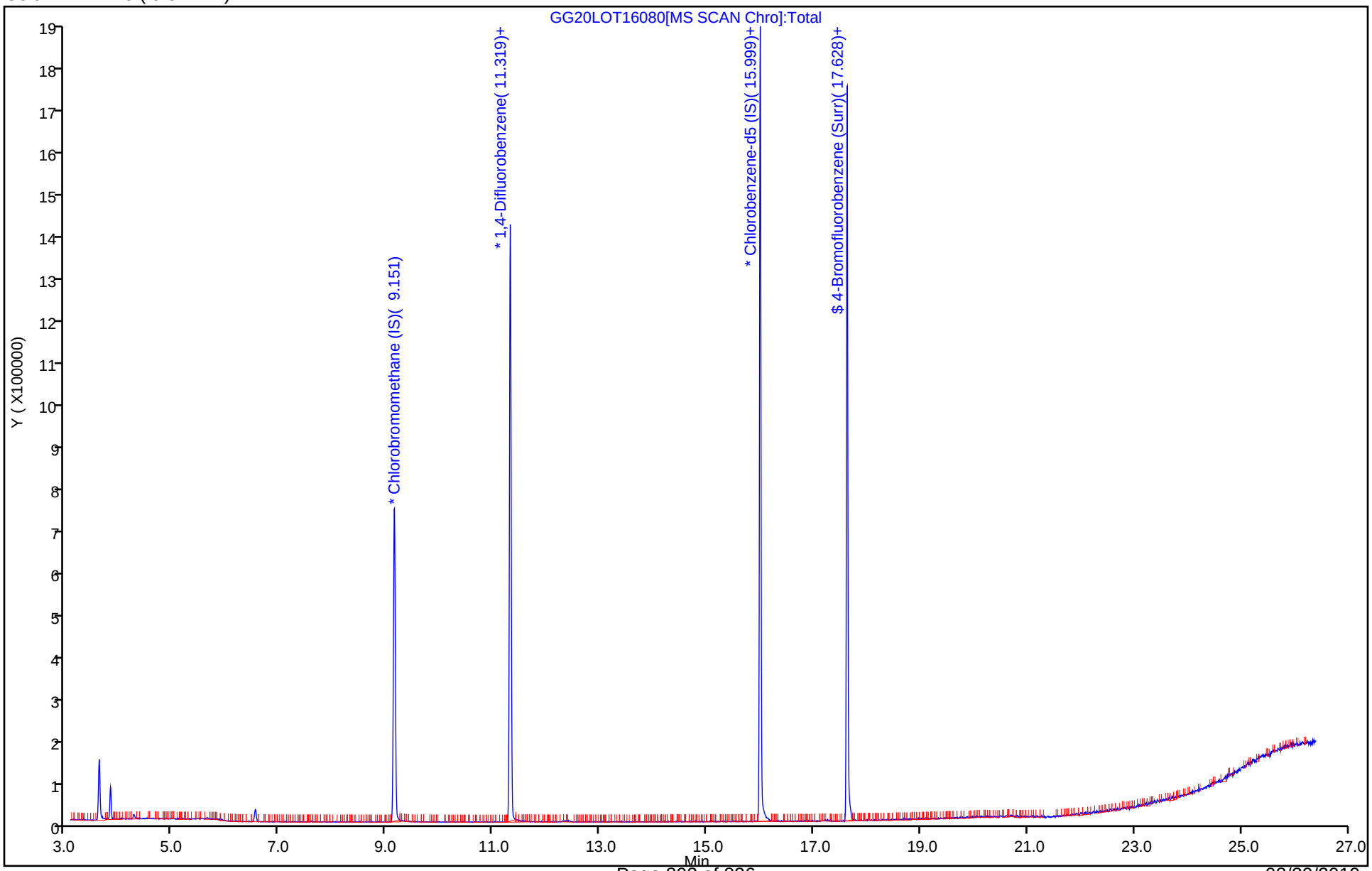
Report Date: 22-Jul-2019 11:06:12 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12391.b\GG20LOT16080.D

Injection Date:	21-Jul-2019 04:24:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16080-A-13	Lab Sample ID:	140-16080-13	Worklist Smp#:	21
Client ID:	09583				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16090-1

SDG No.:

Client Sample ID: 09814 Lab Sample ID: 140-16090-16

Matrix: Air Lab File ID: G22L16090.D

Analysis Method: TO-15 Date Collected: 07/20/2019 14:30

Sample wt/vol: 200(mL) Date Analyzed: 07/23/2019 05:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31801 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D				
Lims ID:	140-16090-A-16				
Client ID:	09814				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 05:42:30	ALS Bottle#:	2	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012392-025				
Misc. Info.:	09814				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190718-12392.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Jul-2019 04:18:05	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0339				
First Level Reviewer: khachitpongpanits		Date:	23-Jul-2019 17:24:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.151	0.000	94	259488	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.324	0.000	97	1492987	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1296032	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	942339	3.88	
7 Propene	41	3.845	3.840	0.005	99	47088	0.4778	
31 Methylene Chloride	84	6.557	6.546	0.010	98	16683	0.1621	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

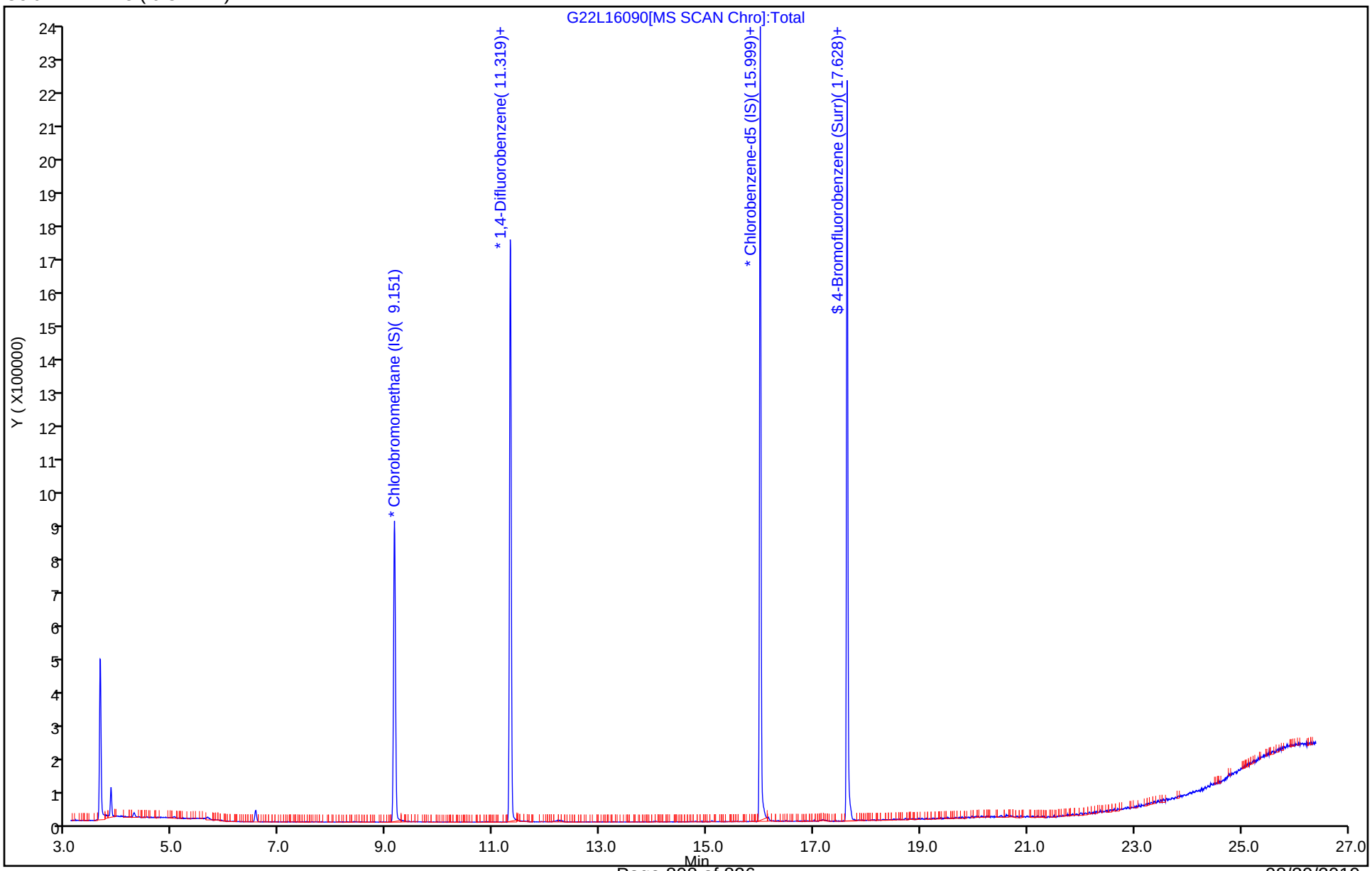
Report Date: 23-Jul-2019 17:24:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190718-12392.b\G22L16090.D

Injection Date:	23-Jul-2019 05:42:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16090-A-16	Lab Sample ID:	140-16090-16	Worklist Smp#:	25
Client ID:	09814				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND	*	1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16112-1

SDG No.:

Client Sample ID: 10335 Lab Sample ID: 140-16112-4

Matrix: Air Lab File ID: G23L16112X.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:05

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 09:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31903 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND	*	2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D
Lims ID: 140-16112-A-4
Client ID: 10335
Sample Type: Client
Inject. Date: 24-Jul-2019 09:26:30 ALS Bottle#: 16 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012431-023
Misc. Info.: 10335
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 08:01:31 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: tajh Date: 24-Jul-2019 10:32:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.151	-0.006	94	219439	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.319	0.000	97	1272102	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.999	0.000	94	1096012	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	798264	3.88	
7 Propene	41	3.839	3.832	0.005	99	44228	0.5306	
31 Methylene Chloride	84	6.546	6.543	0.000	98	20115	0.2311	
40 Hexane	56	8.391	8.391	-0.005	84	1694	0.0225	
47 1,1,1-Trichloroethane	97	10.208	10.196	0.006	94	4666	0.0248	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

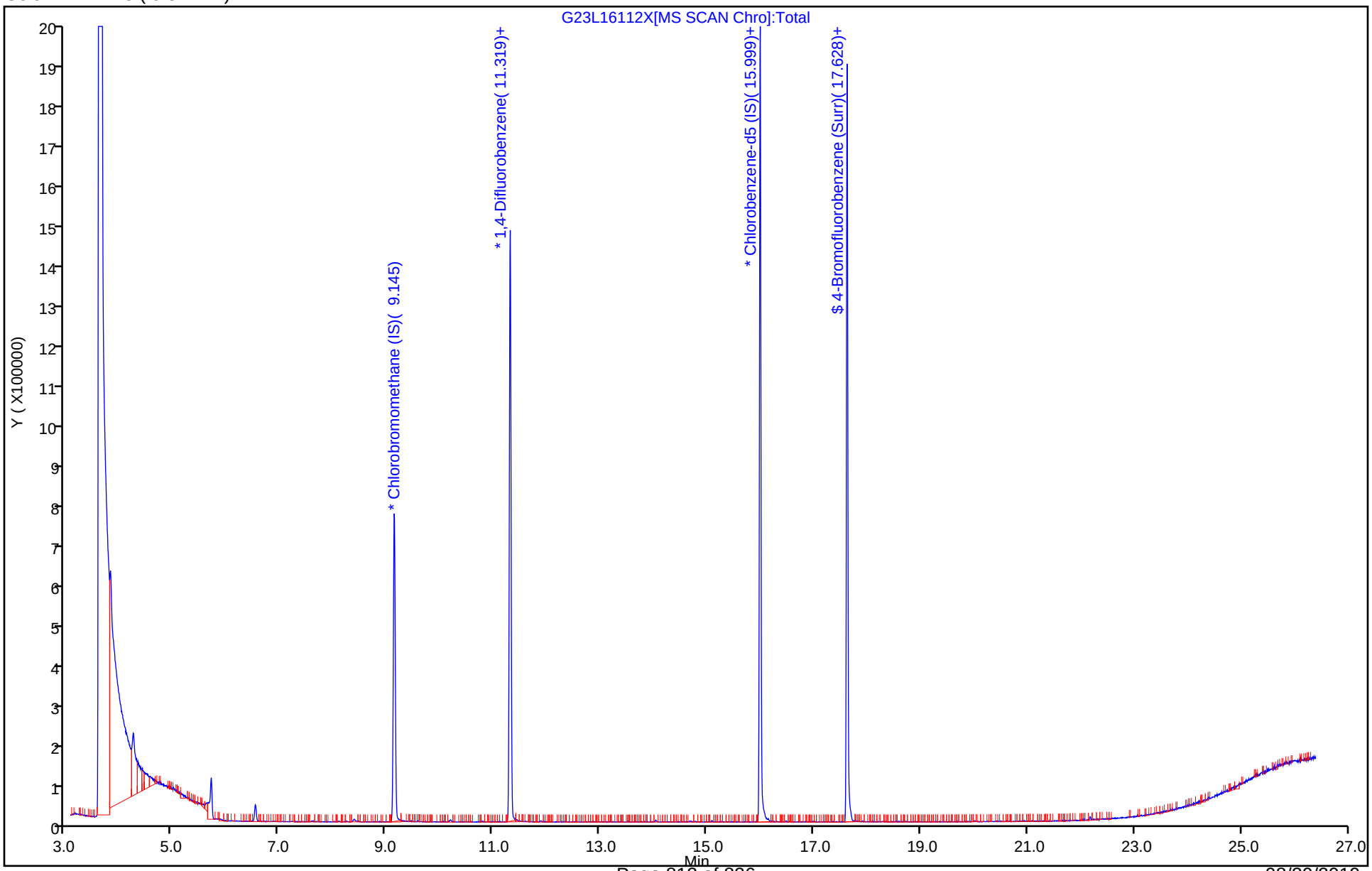
Report Date: 24-Jul-2019 10:32:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190722-12431.b\G23L16112X.D

Injection Date:	24-Jul-2019 09:26:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	140-16112-A-4	Lab Sample ID:	140-16112-4	Worklist Smp#:	23
Client ID:	10335				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16113-1

SDG No.:

Client Sample ID: 11713 Lab Sample ID: 140-16113-14

Matrix: Air Lab File ID: G23L16113.D

Analysis Method: TO-15 Date Collected: 07/22/2019 16:30

Sample wt/vol: 200(mL) Date Analyzed: 07/24/2019 05:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31912 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D
Lims ID: 140-16113-A-14
Client ID: 11713
Sample Type: Client
Inject. Date: 24-Jul-2019 05:30:30 ALS Bottle#: 8 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012440-025
Misc. Info.: 11713
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 17:11:05 Calib Date: 17-Jul-2019 02:30:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190716-12366.b\RG16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: khachitpongpanits Date: 24-Jul-2019 17:11:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.325	7.325	0.000	68	185440	4.00	
* 2 1,4-Difluorobenzene	114	9.380	9.385	-0.005	95	1017877	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.443	14.448	-0.005	91	867615	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.174	16.168	0.000	87	731505	4.12	
7 Propene	41	3.529	3.518	0.011	92	4705	0.1591	7
23 Isopropyl alcohol	45	4.737	4.699	0.038	63	2975	0.0625	
29 2-Methyl-2-propanol	59	5.179	5.136	0.043	91	2388	0.0197	
31 Methylene Chloride	84	5.287	5.292	-0.005	88	16812	0.2624	
40 Hexane	56	6.813	6.802	0.011	79	1478	0.0384	
47 1,1,1-Trichloroethane	97	8.274	8.280	-0.006	95	8702	0.0392	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

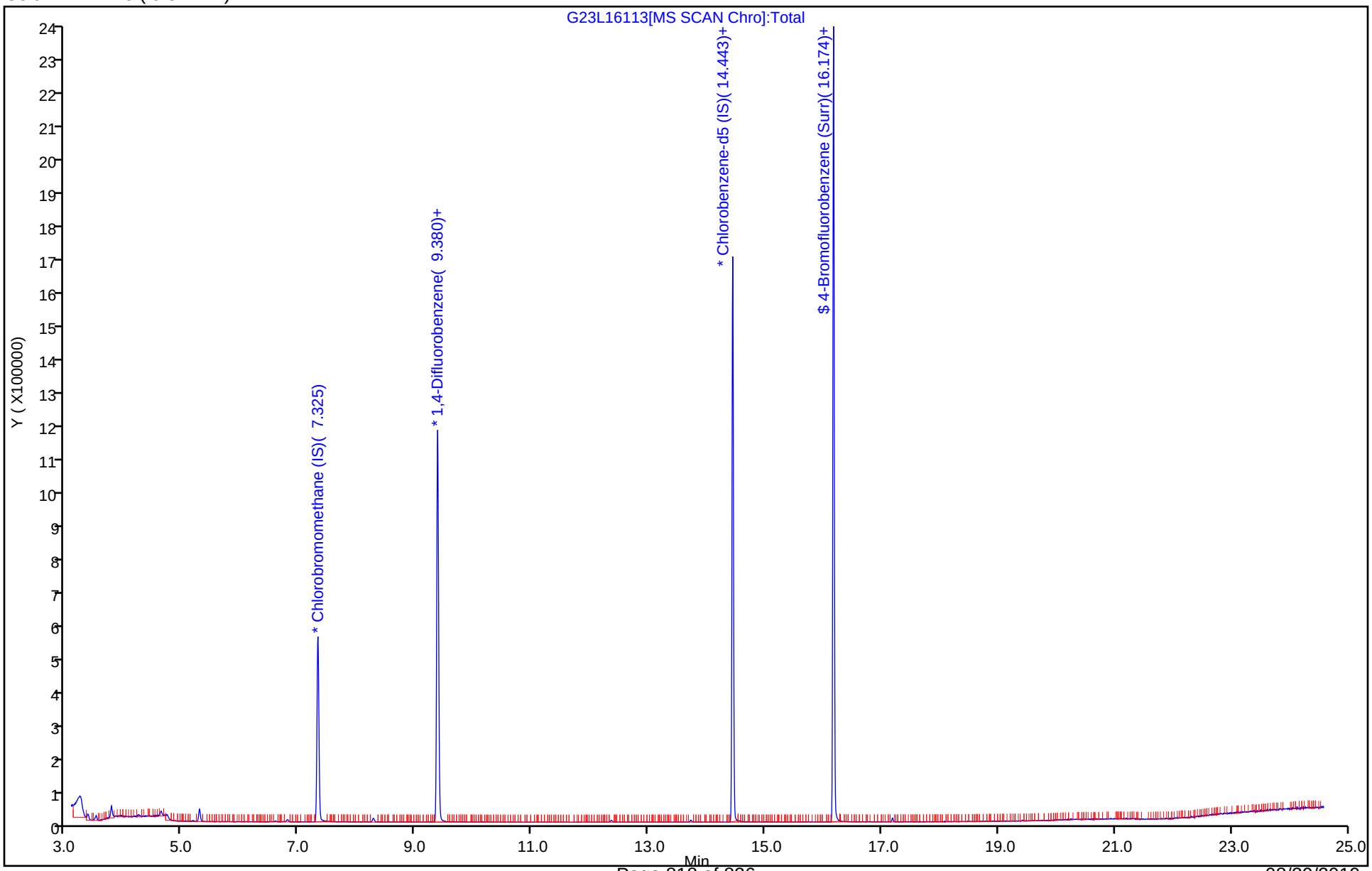
Report Date: 24-Jul-2019 17:11:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D

Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14	Worklist Smp#:	25
Client ID:	11713				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



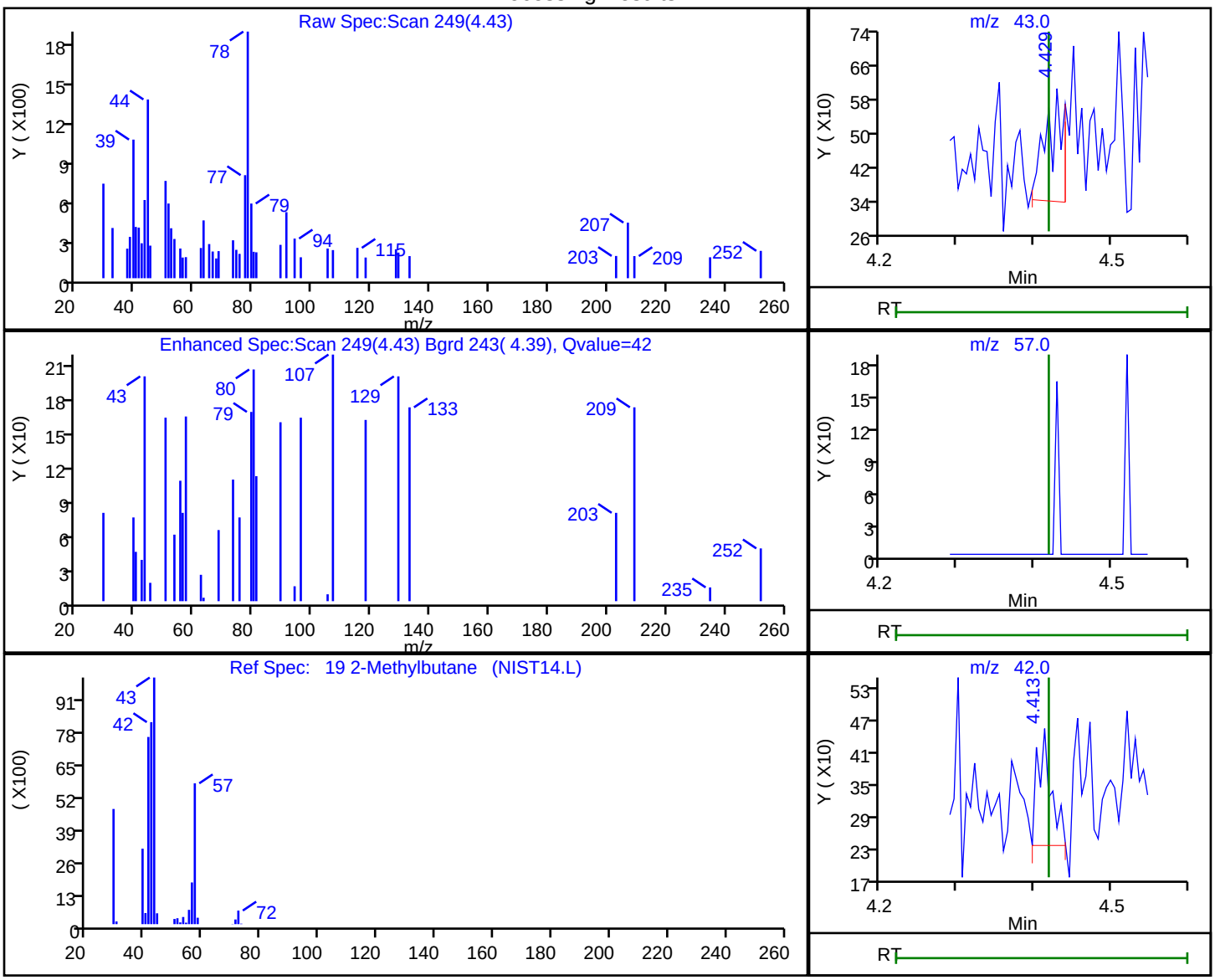
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D				
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR		
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14		
Client ID:	11713				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.43	43.00	413	0.013699
4.42	57.00	0	
4.41	42.00	258	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

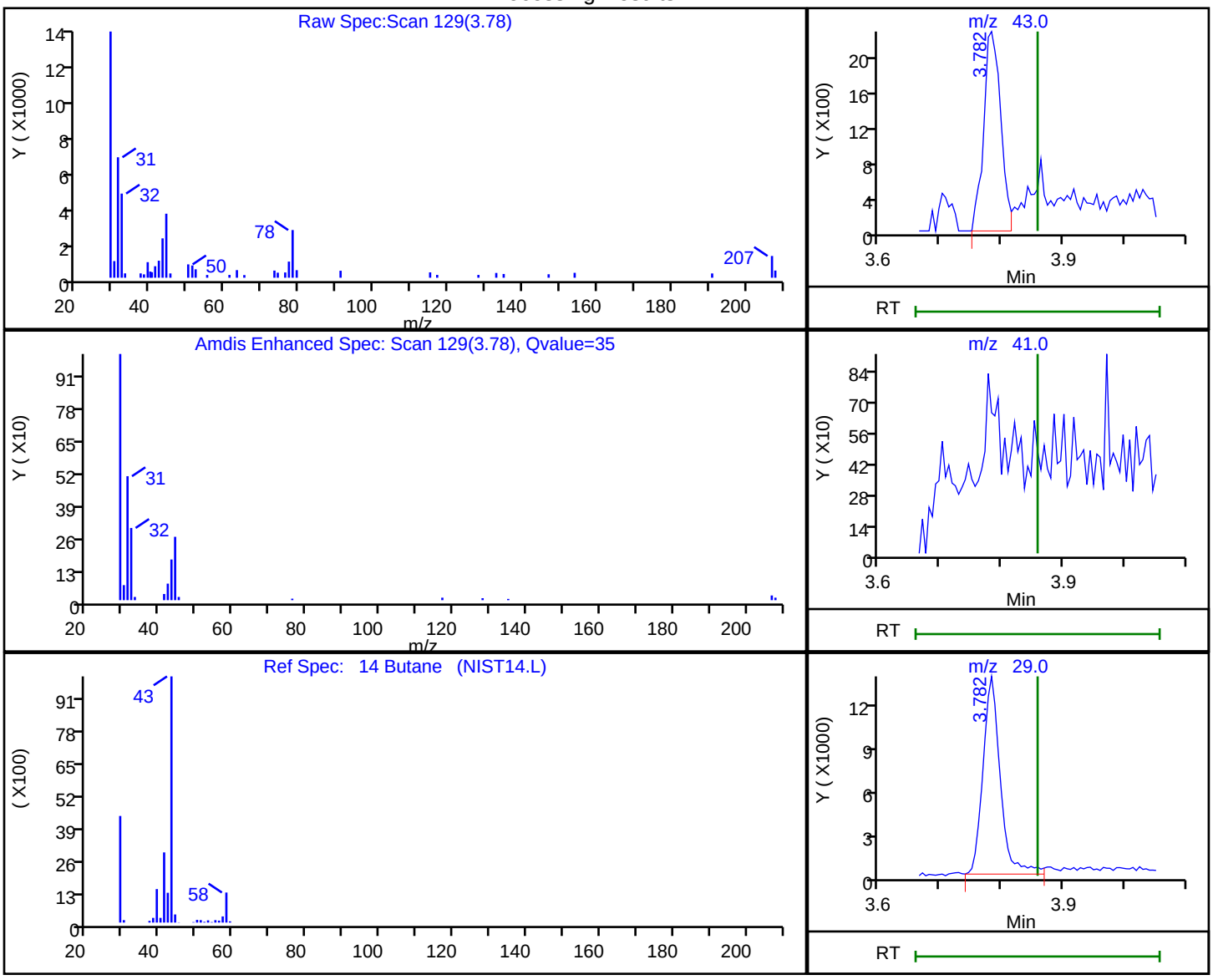
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190722-12440.b\G23L16113.D		
Injection Date:	24-Jul-2019 05:30:30	Instrument ID:	MR
Lims ID:	140-16113-A-14	Lab Sample ID:	140-16113-14
Client ID:	11713		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.78	43.00	4307	0.097258
3.86	41.00	0	
3.78	29.00	26745	

Reviewer: khachitpongpanits, 24-Jul-2019 17:10:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

140-16369 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 3 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, BCH, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC08388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-BCK-4-27	8/14/19	0716	8/14/19	1534	-28	0	7581	11868	X								X						
IA-BCK-2-27		0722		1544	-20	0	8634	11821	X								X						
IA-BCK-1-27		0727		1549	-30	-1	10584	11626	X								X						
IA-BCK-3-27		0736		1537	-30	-1	7061	10603	X								X						
IA-001-C-27		0751		1631	-30	-4	09552	11669	X								X						
IA-004-C-27		0753		1632	-25	1	10174	09806	X								X						
IA-102-C-27		0800		1635	-30	-4	8607	11609	X								X						
IA-OUP1-C-27		0000		0000	-30	-1	8680	11889	X								X						
IA-155-C-27		0803		1637	-26	-3	8464	11716	X								X						
IA-133-C-27		0805		1638	-30	-4	7588	11269	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Received @ ambient, 3 boxes, Fedex PO
trK#7760 0655 8170, Custody seal intact
" " 8376 KW 8/17/19
" " 8343

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by: [signature]	Date / Time: 8/16/19 1300	Received by: [signature]	
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] ETA 8/17/19 1630	2T, 24 flows, 24 cans
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSEN/OBRIEN/PRYOR	COC No: 4 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-3700		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	**Analysis Turnaround Time**		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Standard (Specific): 10 DAYS		
P O # 112ICOC388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-153-C-27	8/14/19	0807	8/14/19	1639	-28	0	11528	11828	X								X						
IA-060-C-27	"	0809	"	1640	-30	-6	7107	11726	X								X						
IA-152-C-27	"	0812	"	1642	-30	0	8752	11831	X								X						
IA-144-C-27	"	0815	"	1641	-29	-3	099955	11107	X								X						
IA-145-C-27	"	0821	"	1643	-12	1	11423	11495	X								X						
IA-146-C-27	"	0825	"	1645	-30	-1	8689	10841	X								X						
IA-150-C-27	"	0823	"	1644	-29	0	7421	11877	X								X						
IA-141-C-27	"	0826	"	1647	-27	-2	7365	10520	X								X						
IA-149-C-27	"	0828	"	1650	-30	-4	11489	11842	X								X						
IA-126-C-27	"	0830	"	1651	-29	-2	10875	11521	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore
#201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PAYOR	COC No: 5 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 200	Email: JIM.APANAVAGE@TETRATECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PAYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		(See below for Add'l Items)
Site/Location: MRC, Bel Air, MD	Standard (Specific): 10 DAYS		
P O # 112IC08588	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-113-C-27	8/14/19	0837	8/14/19	1654	-27	0	10593	09583	X								X						
IA-088-C-27	↓	0840	↓	1655	-30	-4	11757	11258	X								X						
IA-DUP2-C-27	↓	0000	↓	0000	-24	0	8837	11890	X								X						
IA-142-C-27	↓	0845	↓	1656	-25	+1	10439	11774	X								X						

8/14/19

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

* NOT USED - Flow # 7420, Can # 11743 (8hr Can)

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** LA ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16369

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400295 PM Instructions: _____

Sample Receiving Associate: _____ Date: 8/1/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/19/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
DLW	140-16369-a-1	11868	16090	B	1	0.0	11:04	
DLW	140-16369-a-2	11821	16090	B	1	-8.3	11:04	2.7
DLW	140-16369-a-3	11626	16112	B	1	-3.1	11:05	
DLW	140-16369-a-4	10603	16090	B	1	-2.1	11:05	
DLW	140-16369-a-5	11669	15955	B	1	-4.7	11:05	
DLW	140-16369-a-6	09806	16113	B	1	0.0	11:06	
DLW	140-16369-a-7	11609	16112	B	1	-2.6	11:06	
DLW	140-16369-a-8	11889	16090	B	1	-2.1	11:06	
DLW	140-16369-a-9	11716	16090	B	1	-5.4	11:07	
DLW	140-16369-a-10	11269	16080	B	1	0.0	11:07	
DLW	140-16369-a-11	11828	16112	B	1	-1.5	11:23	
DLW	140-16369-a-12	11726	16080	B	1	-6.9	11:24	2.8
DLW	140-16369-a-13	11831	16113	B	1	0.0	11:24	
DLW	140-16369-a-14	11107	16090	B	1	-2.4	11:24	
DLW	140-16369-a-15	11495	16113	B	1	0.0	11:25	
DLW	140-16369-a-16	10841	16080	B	1	-1.2	11:25	
DLW	140-16369-a-17	11877	16090	B	1	0.0	11:25	
DLW	140-16369-a-18	10520	16112	B	1	-2.2	11:25	
DLW	140-16369-a-19	11842	16112	B	1	-3.0	11:26	
DLW	140-16369-a-20	11521	16112	B	1	-3.8	11:26	
DLW	140-16369-a-21	09583	16080	B	1	-1.7	11:50	
DLW	140-16369-a-22	11288	16112	B	1	-2.1	11:51	
DLW	140-16369-a-23	11890	16080	B	1	-3.7	11:51	
DLW	140-16369-a-24	11774	16090	B	1	-1.7	11:51	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

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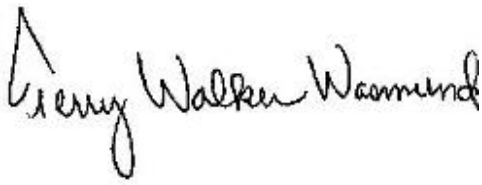
ANALYTICAL REPORT

Job Number: 140-16376-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:19 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Ms. Michelle Woeber

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16376-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.065	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.50		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.14	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.1		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.1	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.43		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.066	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.52		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	7.6		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.26	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.66	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	8.3		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.50	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.3	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	2.2		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.44	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.1		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	41		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.087	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.24	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	7.8		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	7.4		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.23	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.5		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.44		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	29		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.81		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.86	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	38		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	29		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-004-C-27 (Continued) Lab Sample ID: 140-16376-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.50	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.56	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.8		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	160		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5	J	14	1.4	ppb v/v	3.73		TO 15 LL	Total/NA
Chloroform	7.0	J	14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	11	J	14	1.7	ppb v/v	3.73		TO 15 LL	Total/NA
1,1-Dichloroethane	720		14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
1,1-Dichloroethene	790		14	1.4	ppb v/v	3.73		TO 15 LL	Total/NA
Ethylbenzene	30		14	2.2	ppb v/v	3.73		TO 15 LL	Total/NA
Methylene Chloride	56	J B	68	27	ppb v/v	3.73		TO 15 LL	Total/NA
Naphthalene	15		6.8	13	ppb v/v	3.73		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6	J	14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
1,1,1-Trichloroethane	340		14	6.3	ppb v/v	3.73		TO 15 LL	Total/NA
Trichloroethene	220		6.8	1.0	ppb v/v	3.73		TO 15 LL	Total/NA
Xylenes, Total	280		27	4.1	ppb v/v	3.73		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.9	J	43	4.3	ug/m3	3.73		TO 15 LL	Total/NA
Chloroform	34	J	66	5.8	ug/m3	3.73		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45	J	54	6.7	ug/m3	3.73		TO 15 LL	Total/NA
1,1-Dichloroethane	2900		55	4.8	ug/m3	3.73		TO 15 LL	Total/NA
1,1-Dichloroethene	3100		54	5.4	ug/m3	3.73		TO 15 LL	Total/NA
Ethylbenzene	130		59	9.6	ug/m3	3.73		TO 15 LL	Total/NA
Methylene Chloride	190	J B	240	94	ug/m3	3.73		TO 15 LL	Total/NA
Naphthalene	77		36	68	ug/m3	3.73		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	10	J	54	4.7	ug/m3	3.73		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1800		74	34	ug/m3	3.73		TO 15 LL	Total/NA
Trichloroethene	1200		36	5.5	ug/m3	3.73		TO 15 LL	Total/NA
Xylenes, Total	1200		120	18	ug/m3	3.73		TO 15 LL	Total/NA

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5	J	4.0	0.40	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	6.1		4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	9.2		4.0	0.50	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	990	E	4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	400		4.0	0.40	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	51		4.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	18	J B	20	8.0	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	23		2.0	3.8	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.7	J	6.0	3.9	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.66	J	4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP1-C-27 (Continued) Lab Sample ID: 140-16376-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	280		4.0	1.9	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	170		2.0	0.30	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	2.8	J	4.0	1.8	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.5	J	4.0	1.0	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.9	J	4.0	1.1	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	2.6		2.0	1.3	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	480		8.0	1.2	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane - DL	940		13	1.1	ppb v/v	3.53		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.6	J	13	1.3	ug/m3	1		TO 15 LL	Total/NA
Chloroform	30		20	1.7	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	37		16	2.0	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4000	E	16	1.4	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1600		16	1.6	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	220		17	2.8	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	63	J B	69	28	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	120		10	20	ug/m3	1		TO 15 LL	Total/NA
Toluene	18	J	23	15	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6	J	16	1.4	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1500		22	10	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	890		11	1.6	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	14	J	20	8.8	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	17	J	20	4.9	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	9.5	J	20	5.4	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	6.6		5.1	3.3	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2100		35	5.2	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane - DL	3800		52	4.5	ug/m3	3.53		TO 15 LL	Total/NA

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.17	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.17	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	2.1		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.49		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.43		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.72		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.5		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.1		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.34	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.67	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	1.1	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.3		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.81	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-155-C-27 (Continued) Lab Sample ID: 140-16376-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	19		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	8.4		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.1		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	15	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	2.9		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	7.9		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	5.9		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.7	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	17		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	0.99	J	1.3	0.37	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.1		1.3	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	1.3	0.23	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	120	B	6.7	2.7	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5		1.3	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	120		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	1.6		0.67	0.43	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	3.5	J	4.7	1.3	ug/m3	1		TO 15 LL	Total/NA
Chloroform	10		6.5	0.57	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	6.6	1.2	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	420	B	23	9.3	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	10		9.0	0.79	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	620		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	4.1		1.7	1.1	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1.76		TO 15 LL	Total/NA
Carbon tetrachloride	0.081	J	0.40	0.035	ppb v/v	1.76		TO 15 LL	Total/NA
Chlorodifluoromethane	2.2		0.40	0.11	ppb v/v	1.76		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1.76		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1.76		TO 15 LL	Total/NA
Methylene Chloride	6.9	B	2.0	0.80	ppb v/v	1.76		TO 15 LL	Total/NA
Tetrachloroethene	0.090	J	0.40	0.035	ppb v/v	1.76		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1.76		TO 15 LL	Total/NA
Trichloroethene	0.82		0.20	0.030	ppb v/v	1.76		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.31	J	0.40	0.10	ppb v/v	1.76		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1.76		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1.76		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1.76		TO 15 LL	Total/NA
Chlorodifluoromethane	7.9		1.4	0.39	ug/m3	1.76		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1.76		TO 15 LL	Total/NA
Ethylbenzene	0.80	J	1.7	0.28	ug/m3	1.76		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-153-C-27 (Continued) Lab Sample ID: 140-16376-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	24	B	6.9	2.8	ug/m3	1.76		TO 15 LL	Total/NA
Tetrachloroethene	0.61	J	2.7	0.24	ug/m3	1.76		TO 15 LL	Total/NA
Toluene	3.9		2.3	1.5	ug/m3	1.76		TO 15 LL	Total/NA
Trichloroethene	4.4		1.1	0.16	ug/m3	1.76		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.5	J	2.0	0.49	ug/m3	1.76		TO 15 LL	Total/NA
Xylenes, Total	4.8		3.5	0.52	ug/m3	1.76		TO 15 LL	Total/NA

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.9		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.9		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.39	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.92		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	11		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.78		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.43		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.4		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	120	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.36	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.27	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	91		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	110		1.0	0.15	ppb v/v	5.03		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.95	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	14		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	14		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	27		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	16		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	3.7		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	47		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	21	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.76	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.7		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	19		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	670	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.8	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.3	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	400		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	570		5.4	0.81	ug/m3	5.03		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.5		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.19	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.25	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.17	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	8.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.94	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	40	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	6.3		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	10		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.0	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.81	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	38		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.084	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.33	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.7		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.27	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.51		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	28		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.29	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.16	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.66	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.53	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	22		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.6	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.9		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.43	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-152-C-27 (Continued) Lab Sample ID: 140-16376-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.21	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.8		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.80	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.047	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.7		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.21	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.51		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.45		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	5.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	1.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.55	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.66		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	90	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.24		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	61		0.59	0.088	ppb v/v	1.47		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	31		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.0	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	14		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	2.0		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.9		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	19	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	7.3		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.1	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	480	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.62		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	12		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	330		3.2	0.47	ug/m3	1.47		TO 15 LL	Total/NA

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	62		8.3	0.83	ppb v/v	4.15		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	57		8.3	1.0	ppb v/v	4.15		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-149-C-27 (Continued) Lab Sample ID: 140-16376-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	60		8.3	0.83	ppb v/v	4.15		TO 15 LL	Total/NA
Ethylbenzene	4.1	J	8.3	1.3	ppb v/v	4.15		TO 15 LL	Total/NA
Methylene Chloride	28	J B	42	17	ppb v/v	4.15		TO 15 LL	Total/NA
Toluene	12		12	8.1	ppb v/v	4.15		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	10		8.3	0.73	ppb v/v	4.15		TO 15 LL	Total/NA
Trichloroethene	37		4.2	0.62	ppb v/v	4.15		TO 15 LL	Total/NA
Vinyl chloride	2000	E	4.2	2.7	ppb v/v	4.15		TO 15 LL	Total/NA
Xylenes, Total	11	J	17	2.5	ppb v/v	4.15		TO 15 LL	Total/NA
Vinyl chloride - DL	1000		7.5	4.9	ppb v/v	4.15		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	200		27	2.7	ug/m3	4.15		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	230		33	4.1	ug/m3	4.15		TO 15 LL	Total/NA
1,1-Dichloroethene	240		33	3.3	ug/m3	4.15		TO 15 LL	Total/NA
Ethylbenzene	18	J	36	5.9	ug/m3	4.15		TO 15 LL	Total/NA
Methylene Chloride	96	J B	140	58	ug/m3	4.15		TO 15 LL	Total/NA
Toluene	45		47	30	ug/m3	4.15		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	40		33	2.9	ug/m3	4.15		TO 15 LL	Total/NA
Trichloroethene	200		22	3.3	ug/m3	4.15		TO 15 LL	Total/NA
Vinyl chloride	5100	E	11	6.9	ug/m3	4.15		TO 15 LL	Total/NA
Xylenes, Total	49	J	72	11	ug/m3	4.15		TO 15 LL	Total/NA
Vinyl chloride - DL	2700		19	13	ug/m3	4.15		TO 15 LL	Total/NA

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.35	J	0.40	0.040	ppb v/v	1.52		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.40	0.11	ppb v/v	1.52		TO 15 LL	Total/NA
Chloroform	0.095	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.18	J	0.40	0.050	ppb v/v	1.52		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1.52		TO 15 LL	Total/NA
1,1-Dichloroethene	0.074	J	0.40	0.040	ppb v/v	1.52		TO 15 LL	Total/NA
Ethylbenzene	0.38	J	0.40	0.065	ppb v/v	1.52		TO 15 LL	Total/NA
Methylene Chloride	230	E B	2.0	0.80	ppb v/v	1.52		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Toluene	4.1		0.60	0.39	ppb v/v	1.52		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.041	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Trichloroethene	0.68		0.20	0.030	ppb v/v	1.52		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.17	J	0.40	0.10	ppb v/v	1.52		TO 15 LL	Total/NA
Vinyl chloride	2.7		0.20	0.13	ppb v/v	1.52		TO 15 LL	Total/NA
Xylenes, Total	1.8		0.80	0.12	ppb v/v	1.52		TO 15 LL	Total/NA
Methylene Chloride - DL	180	B	22	8.7	ppb v/v	1.52		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1	J	1.3	0.13	ug/m3	1.52		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1.52		TO 15 LL	Total/NA
Chlorodifluoromethane	4.2		1.4	0.39	ug/m3	1.52		TO 15 LL	Total/NA
Chloroform	0.46	J	2.0	0.17	ug/m3	1.52		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.70	J	1.6	0.20	ug/m3	1.52		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1.52		TO 15 LL	Total/NA
1,1-Dichloroethene	0.29	J	1.6	0.16	ug/m3	1.52		TO 15 LL	Total/NA
Ethylbenzene	1.7	J	1.7	0.28	ug/m3	1.52		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-126-C-27 (Continued) Lab Sample ID: 140-16376-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	810	E B	6.9	2.8	ug/m3	1.52		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1.52		TO 15 LL	Total/NA
Toluene	15		2.3	1.5	ug/m3	1.52		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.16	J	1.6	0.14	ug/m3	1.52		TO 15 LL	Total/NA
Trichloroethene	3.7		1.1	0.16	ug/m3	1.52		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.84	J	2.0	0.49	ug/m3	1.52		TO 15 LL	Total/NA
Vinyl chloride	6.8		0.51	0.33	ug/m3	1.52		TO 15 LL	Total/NA
Xylenes, Total	7.9		3.5	0.52	ug/m3	1.52		TO 15 LL	Total/NA
Methylene Chloride - DL	630	B	75	30	ug/m3	1.52		TO 15 LL	Total/NA

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.050	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.058	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.27	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	4.7		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	3.0		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	12	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.037	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.81		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	33		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.23	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.36	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.3	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	18		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.26	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	12		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.84	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	42	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.25	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.0		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.26	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	180		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.3		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-088-C-27 (Continued) Lab Sample ID: 140-16376-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.1		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.1	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.40	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.8		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.42	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.5		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.45	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	36		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.89	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.0		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.5		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.040	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.39	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.41		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.078	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.4		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	4.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.51	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	5.9		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP02-C-27 (Continued) Lab Sample ID: 140-16376-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.16	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.7	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	2.1		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.31	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	34		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.88	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	18		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.087	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.63		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	1.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.14	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	10	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.15	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.49	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.2		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	5.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.63	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	36	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.99	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.9	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	10		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Date Collected: 08/14/19 10:24 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.065**	**J**	0.40	0.040	ppb v/v			08/20/19 12:52	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
Chlorodifluoromethane	**0.50**		0.40	0.11	ppb v/v			08/20/19 12:52	1
Chloroform	**0.14**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
cis-1,2-Dichloroethene	**2.1**		0.40	0.050	ppb v/v			08/20/19 12:52	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 12:52	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:52	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 12:52	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 12:52	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/20/19 12:52	1
Methylene Chloride	**2.1**	**B**	2.0	0.80	ppb v/v			08/20/19 12:52	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 12:52	1
Naphthalene	**0.43**		0.20	0.38	ppb v/v			08/20/19 12:52	1
Tetrachloroethene	**0.066**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 12:52	1
trans-1,2-Dichloroethene	**0.52**		0.40	0.035	ppb v/v			08/20/19 12:52	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 12:52	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 12:52	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:52	1
Trichloroethene	**7.6**		0.20	0.030	ppb v/v			08/20/19 12:52	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 12:52	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 12:52	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 12:52	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 12:52	1
Xylenes, Total	**0.26**	**J**	0.80	0.12	ppb v/v			08/20/19 12:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	1.3	0.13	ug/m3			08/20/19 12:52	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 12:52	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 12:52	1
Chloroform	**0.66**	**J**	2.0	0.17	ug/m3			08/20/19 12:52	1
cis-1,2-Dichloroethene	**8.3**		1.6	0.20	ug/m3			08/20/19 12:52	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 12:52	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 12:52	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 12:52	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 12:52	1
Ethylbenzene	**0.50**	**J**	1.7	0.28	ug/m3			08/20/19 12:52	1
Methylene Chloride	**7.3**	**B**	6.9	2.8	ug/m3			08/20/19 12:52	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 12:52	1
Naphthalene	**2.2**		1.0	2.0	ug/m3			08/20/19 12:52	1
Tetrachloroethene	**0.44**	**J**	2.7	0.24	ug/m3			08/20/19 12:52	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 12:52	1
trans-1,2-Dichloroethene	**2.1**		1.6	0.14	ug/m3			08/20/19 12:52	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 12:52	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 12:52	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 12:52	1
Trichloroethene	**41**		1.1	0.16	ug/m3			08/20/19 12:52	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 12:52	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 12:52	1

Client Sample ID: SV-001-C-27 **Lab Sample ID: 140-16376-1**
Date Collected: 08/14/19 10:24 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 12:52	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 12:52	1
Xylenes, Total	**1.1**	**J**	3.5	0.52	ug/m3			08/20/19 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/20/19 12:52*	*1*

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Date Collected: 08/14/19 10:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.087**	**J**	0.40	0.040	ppb v/v			08/20/19 13:40	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 13:40	1
Chlorodifluoromethane	**0.24**	**J**	0.40	0.11	ppb v/v			08/20/19 13:40	1
Chloroform	**7.8**		0.40	0.035	ppb v/v			08/20/19 13:40	1
cis-1,2-Dichloroethene	**7.4**		0.40	0.050	ppb v/v			08/20/19 13:40	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/20/19 13:40	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:40	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 13:40	1
1,1-Dichloroethene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 13:40	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/20/19 13:40	1
Methylene Chloride	**3.8**	**B**	2.0	0.80	ppb v/v			08/20/19 13:40	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 13:40	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 13:40	1
Tetrachloroethene	**0.23**	**J**	0.40	0.035	ppb v/v			08/20/19 13:40	1
Toluene	**1.5**		0.60	0.39	ppb v/v			08/20/19 13:40	1
trans-1,2-Dichloroethene	**0.44**		0.40	0.035	ppb v/v			08/20/19 13:40	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 13:40	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 13:40	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:40	1
Trichloroethene	**29**		0.20	0.030	ppb v/v			08/20/19 13:40	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 13:40	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 13:40	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 13:40	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 13:40	1
Xylenes, Total	**0.81**		0.80	0.12	ppb v/v			08/20/19 13:40	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	1.3	0.13	ug/m3			08/20/19 13:40	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/20/19 13:40	1
Chlorodifluoromethane	**0.86**	**J**	1.4	0.39	ug/m3			08/20/19 13:40	1
Chloroform	**38**		2.0	0.17	ug/m3			08/20/19 13:40	1
cis-1,2-Dichloroethene	**29**		1.6	0.20	ug/m3			08/20/19 13:40	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/20/19 13:40	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 13:40	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 13:40	1
1,1-Dichloroethene	**0.50**	**J**	1.6	0.16	ug/m3			08/20/19 13:40	1
Ethylbenzene	**0.56**	**J**	1.7	0.28	ug/m3			08/20/19 13:40	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/20/19 13:40	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 13:40	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 13:40	1
Tetrachloroethene	**1.5**	**J**	2.7	0.24	ug/m3			08/20/19 13:40	1
Toluene	**5.8**		2.3	1.5	ug/m3			08/20/19 13:40	1
trans-1,2-Dichloroethene	**1.8**		1.6	0.14	ug/m3			08/20/19 13:40	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 13:40	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 13:40	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 13:40	1
Trichloroethene	**160**		1.1	0.16	ug/m3			08/20/19 13:40	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 13:40	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 13:40	1

Client Sample ID: SV-004-C-27 **Lab Sample ID: 140-16376-2**
Date Collected: 08/14/19 10:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 13:40	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 13:40	1
Xylenes, Total	**3.5**		3.5	0.52	ug/m3			08/20/19 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 13:40*	*1*

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Date Collected: 08/14/19 10:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**	**J**	14	1.4	ppb v/v			08/22/19 00:47	3.73
Carbon tetrachloride	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Chlorodifluoromethane	ND		14	3.7	ppb v/v			08/22/19 00:47	3.73
Chloroform	**7.0**	**J**	14	1.2	ppb v/v			08/22/19 00:47	3.73
cis-1,2-Dichloroethene	**11**	**J**	14	1.7	ppb v/v			08/22/19 00:47	3.73
Dichlorodifluoromethane	ND		14	2.4	ppb v/v			08/22/19 00:47	3.73
1,1-Dichloroethane	**720**		14	1.2	ppb v/v			08/22/19 00:47	3.73
1,2-Dichloroethane	ND		14	1.7	ppb v/v			08/22/19 00:47	3.73
1,1-Dichloroethene	**790**		14	1.4	ppb v/v			08/22/19 00:47	3.73
Ethylbenzene	**30**		14	2.2	ppb v/v			08/22/19 00:47	3.73
Methylene Chloride	**56**	**J B**	68	27	ppb v/v			08/22/19 00:47	3.73
Methyl tert-butyl ether	ND		68	8.8	ppb v/v			08/22/19 00:47	3.73
Naphthalene	**15**		6.8	13	ppb v/v			08/22/19 00:47	3.73
Tetrachloroethene	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Toluene	ND		20	13	ppb v/v			08/22/19 00:47	3.73
trans-1,2-Dichloroethene	**2.6**	**J**	14	1.2	ppb v/v			08/22/19 00:47	3.73
1,2,4-Trichlorobenzene	ND		14	11	ppb v/v			08/22/19 00:47	3.73
1,1,1-Trichloroethane	**340**		14	6.3	ppb v/v			08/22/19 00:47	3.73
1,1,2-Trichloroethane	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Trichloroethene	**220**		6.8	1.0	ppb v/v			08/22/19 00:47	3.73
1,2,3-Trimethylbenzene	ND		14	6.1	ppb v/v			08/22/19 00:47	3.73
1,2,4-Trimethylbenzene	ND		14	3.4	ppb v/v			08/22/19 00:47	3.73
1,3,5-Trimethylbenzene	ND		14	3.7	ppb v/v			08/22/19 00:47	3.73
Vinyl chloride	ND		6.8	4.4	ppb v/v			08/22/19 00:47	3.73
Xylenes, Total	**280**		27	4.1	ppb v/v			08/22/19 00:47	3.73

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.9**	**J**	43	4.3	ug/m3			08/22/19 00:47	3.73
Carbon tetrachloride	ND		85	7.5	ug/m3			08/22/19 00:47	3.73
Chlorodifluoromethane	ND		48	13	ug/m3			08/22/19 00:47	3.73
Chloroform	**34**	**J**	66	5.8	ug/m3			08/22/19 00:47	3.73
cis-1,2-Dichloroethene	**45**	**J**	54	6.7	ug/m3			08/22/19 00:47	3.73
Dichlorodifluoromethane	ND		67	12	ug/m3			08/22/19 00:47	3.73
1,1-Dichloroethane	**2900**		55	4.8	ug/m3			08/22/19 00:47	3.73
1,2-Dichloroethane	ND		55	6.9	ug/m3			08/22/19 00:47	3.73
1,1-Dichloroethene	**3100**		54	5.4	ug/m3			08/22/19 00:47	3.73
Ethylbenzene	**130**		59	9.6	ug/m3			08/22/19 00:47	3.73
Methylene Chloride	**190**	**J B**	240	94	ug/m3			08/22/19 00:47	3.73
Methyl tert-butyl ether	ND		240	32	ug/m3			08/22/19 00:47	3.73
Naphthalene	**77**		36	68	ug/m3			08/22/19 00:47	3.73
Tetrachloroethene	ND		92	8.0	ug/m3			08/22/19 00:47	3.73
Toluene	ND		77	50	ug/m3			08/22/19 00:47	3.73
trans-1,2-Dichloroethene	**10**	**J**	54	4.7	ug/m3			08/22/19 00:47	3.73
1,2,4-Trichlorobenzene	ND		100	81	ug/m3			08/22/19 00:47	3.73
1,1,1-Trichloroethane	**1800**		74	34	ug/m3			08/22/19 00:47	3.73
1,1,2-Trichloroethane	ND		74	6.5	ug/m3			08/22/19 00:47	3.73
Trichloroethene	**1200**		36	5.5	ug/m3			08/22/19 00:47	3.73
1,2,3-Trimethylbenzene	ND		67	30	ug/m3			08/22/19 00:47	3.73
1,2,4-Trimethylbenzene	ND		67	17	ug/m3			08/22/19 00:47	3.73

Client Sample ID: SV-102-C-27 **Lab Sample ID: 140-16376-3**
Date Collected: 08/14/19 10:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		67	18	ug/m3			08/22/19 00:47	3.73
Vinyl chloride	ND		17	11	ug/m3			08/22/19 00:47	3.73
Xylenes, Total	**1200**		120	18	ug/m3			08/22/19 00:47	3.73

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/22/19 00:47*	*3.73*

Client Sample ID: SV-DUP1-C-27 — Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**	**J**	4.0	0.40	ppb v/v			08/20/19 19:07	1
Carbon tetrachloride	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Chlorodifluoromethane	ND		4.0	1.1	ppb v/v			08/20/19 19:07	1
Chloroform	**6.1**		4.0	0.35	ppb v/v			08/20/19 19:07	1
cis-1,2-Dichloroethene	**9.2**		4.0	0.50	ppb v/v			08/20/19 19:07	1
Dichlorodifluoromethane	ND		4.0	0.70	ppb v/v			08/20/19 19:07	1
1,1-Dichloroethane	**990**	**E**	4.0	0.35	ppb v/v			08/20/19 19:07	1
1,2-Dichloroethane	ND		4.0	0.50	ppb v/v			08/20/19 19:07	1
1,1-Dichloroethene	**400**		4.0	0.40	ppb v/v			08/20/19 19:07	1
Ethylbenzene	**51**		4.0	0.65	ppb v/v			08/20/19 19:07	1
Methylene Chloride	**18**	**J B**	20	8.0	ppb v/v			08/20/19 19:07	1
Methyl tert-butyl ether	ND		20	2.6	ppb v/v			08/20/19 19:07	1
Naphthalene	**23**		2.0	3.8	ppb v/v			08/20/19 19:07	1
Tetrachloroethene	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Toluene	**4.7**	**J**	6.0	3.9	ppb v/v			08/20/19 19:07	1
trans-1,2-Dichloroethene	**0.66**	**J**	4.0	0.35	ppb v/v			08/20/19 19:07	1
1,2,4-Trichlorobenzene	ND		4.0	3.2	ppb v/v			08/20/19 19:07	1
1,1,1-Trichloroethane	**280**		4.0	1.9	ppb v/v			08/20/19 19:07	1
1,1,2-Trichloroethane	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Trichloroethene	**170**		2.0	0.30	ppb v/v			08/20/19 19:07	1
1,2,3-Trimethylbenzene	**2.8**	**J**	4.0	1.8	ppb v/v			08/20/19 19:07	1
1,2,4-Trimethylbenzene	**3.5**	**J**	4.0	1.0	ppb v/v			08/20/19 19:07	1
1,3,5-Trimethylbenzene	**1.9**	**J**	4.0	1.1	ppb v/v			08/20/19 19:07	1
Vinyl chloride	**2.6**		2.0	1.3	ppb v/v			08/20/19 19:07	1
Xylenes, Total	**480**		8.0	1.2	ppb v/v			08/20/19 19:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.6**	**J**	13	1.3	ug/m3			08/20/19 19:07	1
Carbon tetrachloride	ND		25	2.2	ug/m3			08/20/19 19:07	1
Chlorodifluoromethane	ND		14	3.9	ug/m3			08/20/19 19:07	1
Chloroform	**30**		20	1.7	ug/m3			08/20/19 19:07	1
cis-1,2-Dichloroethene	**37**		16	2.0	ug/m3			08/20/19 19:07	1
Dichlorodifluoromethane	ND		20	3.5	ug/m3			08/20/19 19:07	1
1,1-Dichloroethane	**4000**	**E**	16	1.4	ug/m3			08/20/19 19:07	1
1,2-Dichloroethane	ND		16	2.0	ug/m3			08/20/19 19:07	1
1,1-Dichloroethene	**1600**		16	1.6	ug/m3			08/20/19 19:07	1
Ethylbenzene	**220**		17	2.8	ug/m3			08/20/19 19:07	1
Methylene Chloride	**63**	**J B**	69	28	ug/m3			08/20/19 19:07	1
Methyl tert-butyl ether	ND		72	9.4	ug/m3			08/20/19 19:07	1
Naphthalene	**120**		10	20	ug/m3			08/20/19 19:07	1
Tetrachloroethene	ND		27	2.4	ug/m3			08/20/19 19:07	1
Toluene	**18**	**J**	23	15	ug/m3			08/20/19 19:07	1
trans-1,2-Dichloroethene	**2.6**	**J**	16	1.4	ug/m3			08/20/19 19:07	1
1,2,4-Trichlorobenzene	ND		30	24	ug/m3			08/20/19 19:07	1
1,1,1-Trichloroethane	**1500**		22	10	ug/m3			08/20/19 19:07	1
1,1,2-Trichloroethane	ND		22	1.9	ug/m3			08/20/19 19:07	1
Trichloroethene	**890**		11	1.6	ug/m3			08/20/19 19:07	1
1,2,3-Trimethylbenzene	**14**	**J**	20	8.8	ug/m3			08/20/19 19:07	1
1,2,4-Trimethylbenzene	**17**	**J**	20	4.9	ug/m3			08/20/19 19:07	1

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	9.5	J	20	5.4	ug/m3			08/20/19 19:07	1
Vinyl chloride	6.6		5.1	3.3	ug/m3			08/20/19 19:07	1
Xylenes, Total	2100		35	5.2	ug/m3			08/20/19 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 19:07*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	940		13	1.1	ppb v/v			08/22/19 01:29	3.53

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	3800		52	4.5	ug/m3			08/22/19 01:29	3.53

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/22/19 01:29*	*3.53*

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Date Collected: 08/14/19 10:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	0.40	0.040	ppb v/v			08/20/19 19:57	1
Carbon tetrachloride	**0.17**	**J**	0.40	0.035	ppb v/v			08/20/19 19:57	1
Chlorodifluoromethane	**2.3**		0.40	0.11	ppb v/v			08/20/19 19:57	1
Chloroform	**0.17**	**J**	0.40	0.035	ppb v/v			08/20/19 19:57	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 19:57	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 19:57	1
1,1-Dichloroethane	**4.7**		0.40	0.035	ppb v/v			08/20/19 19:57	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 19:57	1
1,1-Dichloroethene	**2.1**		0.40	0.040	ppb v/v			08/20/19 19:57	1
Ethylbenzene	**0.49**		0.40	0.065	ppb v/v			08/20/19 19:57	1
Methylene Chloride	**4.4**	**B**	2.0	0.80	ppb v/v			08/20/19 19:57	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 19:57	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 19:57	1
Tetrachloroethene	**0.43**		0.40	0.035	ppb v/v			08/20/19 19:57	1
Toluene	**0.72**		0.60	0.39	ppb v/v			08/20/19 19:57	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 19:57	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 19:57	1
1,1,1-Trichloroethane	**1.5**		0.40	0.19	ppb v/v			08/20/19 19:57	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 19:57	1
Trichloroethene	**1.1**		0.20	0.030	ppb v/v			08/20/19 19:57	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 19:57	1
1,2,4-Trimethylbenzene	**0.34**	**J**	0.40	0.10	ppb v/v			08/20/19 19:57	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 19:57	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 19:57	1
Xylenes, Total	**3.8**		0.80	0.12	ppb v/v			08/20/19 19:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.67**	**J**	1.3	0.13	ug/m3			08/20/19 19:57	1
Carbon tetrachloride	**1.1**	**J**	2.5	0.22	ug/m3			08/20/19 19:57	1
Chlorodifluoromethane	**8.3**		1.4	0.39	ug/m3			08/20/19 19:57	1
Chloroform	**0.81**	**J**	2.0	0.17	ug/m3			08/20/19 19:57	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 19:57	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 19:57	1
1,1-Dichloroethane	**19**		1.6	0.14	ug/m3			08/20/19 19:57	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 19:57	1
1,1-Dichloroethene	**8.4**		1.6	0.16	ug/m3			08/20/19 19:57	1
Ethylbenzene	**2.1**		1.7	0.28	ug/m3			08/20/19 19:57	1
Methylene Chloride	**15**	**B**	6.9	2.8	ug/m3			08/20/19 19:57	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 19:57	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 19:57	1
Tetrachloroethene	**2.9**		2.7	0.24	ug/m3			08/20/19 19:57	1
Toluene	**2.7**		2.3	1.5	ug/m3			08/20/19 19:57	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 19:57	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 19:57	1
1,1,1-Trichloroethane	**7.9**		2.2	1.0	ug/m3			08/20/19 19:57	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 19:57	1
Trichloroethene	**5.9**		1.1	0.16	ug/m3			08/20/19 19:57	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 19:57	1
1,2,4-Trimethylbenzene	**1.7**	**J**	2.0	0.49	ug/m3			08/20/19 19:57	1

Client Sample ID: SV-155-C-27 **Lab Sample ID: 140-16376-5**
Date Collected: 08/14/19 10:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 19:57	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 19:57	1
Xylenes, Total	**17**		3.5	0.52	ug/m3			08/20/19 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 19:57*	*1*

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Date Collected: 08/14/19 10:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ppb v/v			08/27/19 12:41	1
Carbon tetrachloride	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
Chlorodifluoromethane	**0.99**	**J**	1.3	0.37	ppb v/v			08/27/19 12:41	1
Chloroform	**2.1**		1.3	0.12	ppb v/v			08/27/19 12:41	1
cis-1,2-Dichloroethene	ND		1.3	0.17	ppb v/v			08/27/19 12:41	1
Dichlorodifluoromethane	**0.34**	**J**	1.3	0.23	ppb v/v			08/27/19 12:41	1
1,1-Dichloroethane	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
1,2-Dichloroethane	ND		1.3	0.17	ppb v/v			08/27/19 12:41	1
1,1-Dichloroethene	ND		1.3	0.13	ppb v/v			08/27/19 12:41	1
Ethylbenzene	ND		1.3	0.22	ppb v/v			08/27/19 12:41	1
Methylene Chloride	**120**	**B**	6.7	2.7	ppb v/v			08/27/19 12:41	1
Methyl tert-butyl ether	ND		6.7	0.87	ppb v/v			08/27/19 12:41	1
Naphthalene	ND		0.67	1.3	ppb v/v			08/27/19 12:41	1
Tetrachloroethene	**1.5**		1.3	0.12	ppb v/v			08/27/19 12:41	1
Toluene	ND		2.0	1.3	ppb v/v			08/27/19 12:41	1
trans-1,2-Dichloroethene	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
1,2,4-Trichlorobenzene	ND		1.3	1.1	ppb v/v			08/27/19 12:41	1
1,1,1-Trichloroethane	ND		1.3	0.62	ppb v/v			08/27/19 12:41	1
1,1,2-Trichloroethane	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
Trichloroethene	**120**		0.67	0.10	ppb v/v			08/27/19 12:41	1
1,2,3-Trimethylbenzene	ND		1.3	0.60	ppb v/v			08/27/19 12:41	1
1,2,4-Trimethylbenzene	ND		1.3	0.33	ppb v/v			08/27/19 12:41	1
1,3,5-Trimethylbenzene	ND		1.3	0.37	ppb v/v			08/27/19 12:41	1
Vinyl chloride	**1.6**		0.67	0.43	ppb v/v			08/27/19 12:41	1
Xylenes, Total	ND		2.7	0.40	ppb v/v			08/27/19 12:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.3	0.43	ug/m3			08/27/19 12:41	1
Carbon tetrachloride	ND		8.4	0.73	ug/m3			08/27/19 12:41	1
Chlorodifluoromethane	**3.5**	**J**	4.7	1.3	ug/m3			08/27/19 12:41	1
Chloroform	**10**		6.5	0.57	ug/m3			08/27/19 12:41	1
cis-1,2-Dichloroethene	ND		5.3	0.66	ug/m3			08/27/19 12:41	1
Dichlorodifluoromethane	**1.7**	**J**	6.6	1.2	ug/m3			08/27/19 12:41	1
1,1-Dichloroethane	ND		5.4	0.47	ug/m3			08/27/19 12:41	1
1,2-Dichloroethane	ND		5.4	0.67	ug/m3			08/27/19 12:41	1
1,1-Dichloroethene	ND		5.3	0.53	ug/m3			08/27/19 12:41	1
Ethylbenzene	ND		5.8	0.94	ug/m3			08/27/19 12:41	1
Methylene Chloride	**420**	**B**	23	9.3	ug/m3			08/27/19 12:41	1
Methyl tert-butyl ether	ND		24	3.1	ug/m3			08/27/19 12:41	1
Naphthalene	ND		3.5	6.6	ug/m3			08/27/19 12:41	1
Tetrachloroethene	**10**		9.0	0.79	ug/m3			08/27/19 12:41	1
Toluene	ND		7.5	4.9	ug/m3			08/27/19 12:41	1
trans-1,2-Dichloroethene	ND		5.3	0.46	ug/m3			08/27/19 12:41	1
1,2,4-Trichlorobenzene	ND		9.9	7.9	ug/m3			08/27/19 12:41	1
1,1,1-Trichloroethane	ND		7.3	3.4	ug/m3			08/27/19 12:41	1
1,1,2-Trichloroethane	ND		7.3	0.64	ug/m3			08/27/19 12:41	1
Trichloroethene	**620**		3.6	0.54	ug/m3			08/27/19 12:41	1
1,2,3-Trimethylbenzene	ND		6.6	2.9	ug/m3			08/27/19 12:41	1
1,2,4-Trimethylbenzene	ND		6.6	1.6	ug/m3			08/27/19 12:41	1

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Date Collected: 08/14/19 10:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		6.6	1.8	ug/m3			08/27/19 12:41	1
Vinyl chloride	**4.1**		1.7	1.1	ug/m3			08/27/19 12:41	1
Xylenes, Total	ND		12	1.7	ug/m3			08/27/19 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/27/19 12:41*	*1*

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Date Collected: 08/14/19 10:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/23/19 21:47	1.76
Carbon tetrachloride	**0.081**	**J**	0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Chlorodifluoromethane	**2.2**		0.40	0.11	ppb v/v			08/23/19 21:47	1.76
Chloroform	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 21:47	1.76
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/23/19 21:47	1.76
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 21:47	1.76
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 21:47	1.76
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/23/19 21:47	1.76
Methylene Chloride	**6.9**	**B**	2.0	0.80	ppb v/v			08/23/19 21:47	1.76
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 21:47	1.76
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 21:47	1.76
Tetrachloroethene	**0.090**	**J**	0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Toluene	**1.0**		0.60	0.39	ppb v/v			08/23/19 21:47	1.76
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 21:47	1.76
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 21:47	1.76
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Trichloroethene	**0.82**		0.20	0.030	ppb v/v			08/23/19 21:47	1.76
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 21:47	1.76
1,2,4-Trimethylbenzene	**0.31**	**J**	0.40	0.10	ppb v/v			08/23/19 21:47	1.76
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 21:47	1.76
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 21:47	1.76
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/23/19 21:47	1.76

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/23/19 21:47	1.76
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/23/19 21:47	1.76
Chlorodifluoromethane	**7.9**		1.4	0.39	ug/m3			08/23/19 21:47	1.76
Chloroform	ND		2.0	0.17	ug/m3			08/23/19 21:47	1.76
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 21:47	1.76
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 21:47	1.76
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 21:47	1.76
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 21:47	1.76
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 21:47	1.76
Ethylbenzene	**0.80**	**J**	1.7	0.28	ug/m3			08/23/19 21:47	1.76
Methylene Chloride	**24**	**B**	6.9	2.8	ug/m3			08/23/19 21:47	1.76
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 21:47	1.76
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 21:47	1.76
Tetrachloroethene	**0.61**	**J**	2.7	0.24	ug/m3			08/23/19 21:47	1.76
Toluene	**3.9**		2.3	1.5	ug/m3			08/23/19 21:47	1.76
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 21:47	1.76
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 21:47	1.76
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 21:47	1.76
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 21:47	1.76
Trichloroethene	**4.4**		1.1	0.16	ug/m3			08/23/19 21:47	1.76
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 21:47	1.76
1,2,4-Trimethylbenzene	**1.5**	**J**	2.0	0.49	ug/m3			08/23/19 21:47	1.76

Client Sample ID: SV-153-C-27 **Lab Sample ID: 140-16376-7**
Date Collected: 08/14/19 10:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 21:47	1.76
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 21:47	1.76
Xylenes, Total	**4.8**		3.5	0.52	ug/m3			08/23/19 21:47	1.76

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/23/19 21:47*	*1.76*

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Date Collected: 08/14/19 10:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	0.40	0.040	ppb v/v			08/20/19 22:24	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 22:24	1
Chlorodifluoromethane	**4.0**		0.40	0.11	ppb v/v			08/20/19 22:24	1
Chloroform	**2.9**		0.40	0.035	ppb v/v			08/20/19 22:24	1
cis-1,2-Dichloroethene	**6.9**		0.40	0.050	ppb v/v			08/20/19 22:24	1
Dichlorodifluoromethane	**0.39**	**J**	0.40	0.070	ppb v/v			08/20/19 22:24	1
1,1-Dichloroethane	**4.1**		0.40	0.035	ppb v/v			08/20/19 22:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 22:24	1
1,1-Dichloroethene	**0.92**		0.40	0.040	ppb v/v			08/20/19 22:24	1
Ethylbenzene	**11**		0.40	0.065	ppb v/v			08/20/19 22:24	1
Methylene Chloride	**6.0**	**B**	2.0	0.80	ppb v/v			08/20/19 22:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 22:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 22:24	1
Tetrachloroethene	**0.11**	**J**	0.40	0.035	ppb v/v			08/20/19 22:24	1
Toluene	**0.78**		0.60	0.39	ppb v/v			08/20/19 22:24	1
trans-1,2-Dichloroethene	**0.43**		0.40	0.035	ppb v/v			08/20/19 22:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 22:24	1
1,1,1-Trichloroethane	**3.4**		0.40	0.19	ppb v/v			08/20/19 22:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:24	1
Trichloroethene	**120**	**E**	0.20	0.030	ppb v/v			08/20/19 22:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 22:24	1
1,2,4-Trimethylbenzene	**0.36**	**J**	0.40	0.10	ppb v/v			08/20/19 22:24	1
1,3,5-Trimethylbenzene	**0.27**	**J**	0.40	0.11	ppb v/v			08/20/19 22:24	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 22:24	1
Xylenes, Total	**91**		0.80	0.12	ppb v/v			08/20/19 22:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.95**	**J**	1.3	0.13	ug/m3			08/20/19 22:24	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 22:24	1
Chlorodifluoromethane	**14**		1.4	0.39	ug/m3			08/20/19 22:24	1
Chloroform	**14**		2.0	0.17	ug/m3			08/20/19 22:24	1
cis-1,2-Dichloroethene	**27**		1.6	0.20	ug/m3			08/20/19 22:24	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 22:24	1
1,1-Dichloroethane	**16**		1.6	0.14	ug/m3			08/20/19 22:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 22:24	1
1,1-Dichloroethene	**3.7**		1.6	0.16	ug/m3			08/20/19 22:24	1
Ethylbenzene	**47**		1.7	0.28	ug/m3			08/20/19 22:24	1
Methylene Chloride	**21**	**B**	6.9	2.8	ug/m3			08/20/19 22:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 22:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 22:24	1
Tetrachloroethene	**0.76**	**J**	2.7	0.24	ug/m3			08/20/19 22:24	1
Toluene	**2.9**		2.3	1.5	ug/m3			08/20/19 22:24	1
trans-1,2-Dichloroethene	**1.7**		1.6	0.14	ug/m3			08/20/19 22:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 22:24	1
1,1,1-Trichloroethane	**19**		2.2	1.0	ug/m3			08/20/19 22:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 22:24	1
Trichloroethene	**670**	**E**	1.1	0.16	ug/m3			08/20/19 22:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 22:24	1
1,2,4-Trimethylbenzene	**1.8**	**J**	2.0	0.49	ug/m3			08/20/19 22:24	1

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Date Collected: 08/14/19 10:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.3	J	2.0	0.54	ug/m3			08/20/19 22:24	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 22:24	1
Xylenes, Total	400		3.5	0.52	ug/m3			08/20/19 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*		*08/20/19 22:24*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	110		1.0	0.15	ppb v/v			08/23/19 22:35	5.03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	570		5.4	0.81	ug/m3			08/23/19 22:35	5.03

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/23/19 22:35*	*5.03*

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Date Collected: 08/14/19 10:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	0.40	0.040	ppb v/v			08/20/19 23:13	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/20/19 23:13	1
Chlorodifluoromethane	**11**	**CI**	0.40	0.11	ppb v/v			08/20/19 23:13	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 23:13	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/20/19 23:13	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 23:13	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 23:13	1
Ethylbenzene	**1.5**		0.40	0.065	ppb v/v			08/20/19 23:13	1
Methylene Chloride	**3.9**	**B**	2.0	0.80	ppb v/v			08/20/19 23:13	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 23:13	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 23:13	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
Toluene	**2.6**		0.60	0.39	ppb v/v			08/20/19 23:13	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 23:13	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 23:13	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
Trichloroethene	**0.19**	**J**	0.20	0.030	ppb v/v			08/20/19 23:13	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 23:13	1
1,2,4-Trimethylbenzene	**0.25**	**J**	0.40	0.10	ppb v/v			08/20/19 23:13	1
1,3,5-Trimethylbenzene	**0.17**	**J**	0.40	0.11	ppb v/v			08/20/19 23:13	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 23:13	1
Xylenes, Total	**8.8**		0.80	0.12	ppb v/v			08/20/19 23:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.94**	**J**	1.3	0.13	ug/m3			08/20/19 23:13	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 23:13	1
Chlorodifluoromethane	**40**	**CI**	1.4	0.39	ug/m3			08/20/19 23:13	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 23:13	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 23:13	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/20/19 23:13	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 23:13	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 23:13	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 23:13	1
Ethylbenzene	**6.3**		1.7	0.28	ug/m3			08/20/19 23:13	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/20/19 23:13	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 23:13	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 23:13	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 23:13	1
Toluene	**10**		2.3	1.5	ug/m3			08/20/19 23:13	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 23:13	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 23:13	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 23:13	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 23:13	1
Trichloroethene	**1.0**	**J**	1.1	0.16	ug/m3			08/20/19 23:13	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 23:13	1
1,2,4-Trimethylbenzene	**1.2**	**J**	2.0	0.49	ug/m3			08/20/19 23:13	1

Client Sample ID: SV-150-C-27 **Lab Sample ID: 140-16376-9**
Date Collected: 08/14/19 10:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.81**	**J**	2.0	0.54	ug/m3			08/20/19 23:13	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 23:13	1
Xylenes, Total	**38**		3.5	0.52	ug/m3			08/20/19 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/20/19 23:13*	*1*

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Date Collected: 08/14/19 10:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	0.40	0.040	ppb v/v			08/21/19 00:02	1
Carbon tetrachloride	**0.084**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
Chlorodifluoromethane	**6.3**		0.40	0.11	ppb v/v			08/21/19 00:02	1
Chloroform	**0.33**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
cis-1,2-Dichloroethene	**1.7**		0.40	0.050	ppb v/v			08/21/19 00:02	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/21/19 00:02	1
1,1-Dichloroethane	**0.11**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:02	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 00:02	1
Ethylbenzene	**0.27**	**J**	0.40	0.065	ppb v/v			08/21/19 00:02	1
Methylene Chloride	**4.6**	**B**	2.0	0.80	ppb v/v			08/21/19 00:02	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:02	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:02	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 00:02	1
Toluene	**1.3**		0.60	0.39	ppb v/v			08/21/19 00:02	1
trans-1,2-Dichloroethene	**0.053**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:02	1
1,1,1-Trichloroethane	**0.51**		0.40	0.19	ppb v/v			08/21/19 00:02	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:02	1
Trichloroethene	**28**		0.20	0.030	ppb v/v			08/21/19 00:02	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:02	1
1,2,4-Trimethylbenzene	**0.29**	**J**	0.40	0.10	ppb v/v			08/21/19 00:02	1
1,3,5-Trimethylbenzene	**0.16**	**J**	0.40	0.11	ppb v/v			08/21/19 00:02	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 00:02	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/21/19 00:02	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.66**	**J**	1.3	0.13	ug/m3			08/21/19 00:02	1
Carbon tetrachloride	**0.53**	**J**	2.5	0.22	ug/m3			08/21/19 00:02	1
Chlorodifluoromethane	**22**		1.4	0.39	ug/m3			08/21/19 00:02	1
Chloroform	**1.6**	**J**	2.0	0.17	ug/m3			08/21/19 00:02	1
cis-1,2-Dichloroethene	**6.9**		1.6	0.20	ug/m3			08/21/19 00:02	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/21/19 00:02	1
1,1-Dichloroethane	**0.43**	**J**	1.6	0.14	ug/m3			08/21/19 00:02	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:02	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 00:02	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/21/19 00:02	1
Methylene Chloride	**16**	**B**	6.9	2.8	ug/m3			08/21/19 00:02	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:02	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:02	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 00:02	1
Toluene	**4.8**		2.3	1.5	ug/m3			08/21/19 00:02	1
trans-1,2-Dichloroethene	**0.21**	**J**	1.6	0.14	ug/m3			08/21/19 00:02	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:02	1
1,1,1-Trichloroethane	**2.8**		2.2	1.0	ug/m3			08/21/19 00:02	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:02	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/21/19 00:02	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:02	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/21/19 00:02	1

Client Sample ID: SV-152-C-27 **Lab Sample ID: 140-16376-10**
Date Collected: 08/14/19 10:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.80**	**J**	2.0	0.54	ug/m3			08/21/19 00:02	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 00:02	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/21/19 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 00:02*	*1*

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**		0.40	0.040	ppb v/v			08/21/19 00:51	1
Carbon tetrachloride	**0.047**	**J**	0.40	0.035	ppb v/v			08/21/19 00:51	1
Chlorodifluoromethane	**8.7**		0.40	0.11	ppb v/v			08/21/19 00:51	1
Chloroform	**0.21**	**J**	0.40	0.035	ppb v/v			08/21/19 00:51	1
cis-1,2-Dichloroethene	**3.6**		0.40	0.050	ppb v/v			08/21/19 00:51	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/21/19 00:51	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:51	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:51	1
1,1-Dichloroethene	**0.51**		0.40	0.040	ppb v/v			08/21/19 00:51	1
Ethylbenzene	**0.45**		0.40	0.065	ppb v/v			08/21/19 00:51	1
Methylene Chloride	**5.6**	**B**	2.0	0.80	ppb v/v			08/21/19 00:51	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:51	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:51	1
Tetrachloroethene	**1.1**		0.40	0.035	ppb v/v			08/21/19 00:51	1
Toluene	**0.55**	**J**	0.60	0.39	ppb v/v			08/21/19 00:51	1
trans-1,2-Dichloroethene	**0.66**		0.40	0.035	ppb v/v			08/21/19 00:51	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:51	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 00:51	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:51	1
Trichloroethene	**90**	**E**	0.20	0.030	ppb v/v			08/21/19 00:51	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:51	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 00:51	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 00:51	1
Vinyl chloride	**0.24**		0.20	0.13	ppb v/v			08/21/19 00:51	1
Xylenes, Total	**2.8**		0.80	0.12	ppb v/v			08/21/19 00:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.4**		1.3	0.13	ug/m3			08/21/19 00:51	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/21/19 00:51	1
Chlorodifluoromethane	**31**		1.4	0.39	ug/m3			08/21/19 00:51	1
Chloroform	**1.0**	**J**	2.0	0.17	ug/m3			08/21/19 00:51	1
cis-1,2-Dichloroethene	**14**		1.6	0.20	ug/m3			08/21/19 00:51	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/21/19 00:51	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 00:51	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:51	1
1,1-Dichloroethene	**2.0**		1.6	0.16	ug/m3			08/21/19 00:51	1
Ethylbenzene	**1.9**		1.7	0.28	ug/m3			08/21/19 00:51	1
Methylene Chloride	**19**	**B**	6.9	2.8	ug/m3			08/21/19 00:51	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:51	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:51	1
Tetrachloroethene	**7.3**		2.7	0.24	ug/m3			08/21/19 00:51	1
Toluene	**2.1**	**J**	2.3	1.5	ug/m3			08/21/19 00:51	1
trans-1,2-Dichloroethene	**2.6**		1.6	0.14	ug/m3			08/21/19 00:51	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:51	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 00:51	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:51	1
Trichloroethene	**480**	**E**	1.1	0.16	ug/m3			08/21/19 00:51	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:51	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 00:51	1

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 00:51	1
Vinyl chloride	**0.62**		0.51	0.33	ug/m3			08/21/19 00:51	1
Xylenes, Total	**12**		3.5	0.52	ug/m3			08/21/19 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 00:51*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**61**		0.59	0.088	ppb v/v			08/24/19 00:10	1.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**330**		3.2	0.47	ug/m3			08/24/19 00:10	1.47

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/24/19 00:10*	*1.47*

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**62**		8.3	0.83	ppb v/v			08/24/19 01:00	4.15
Carbon tetrachloride	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Chlorodifluoromethane	ND		8.3	2.3	ppb v/v			08/24/19 01:00	4.15
Chloroform	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
cis-1,2-Dichloroethene	**57**		8.3	1.0	ppb v/v			08/24/19 01:00	4.15
Dichlorodifluoromethane	ND		8.3	1.5	ppb v/v			08/24/19 01:00	4.15
1,1-Dichloroethane	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
1,2-Dichloroethane	ND		8.3	1.0	ppb v/v			08/24/19 01:00	4.15
1,1-Dichloroethene	**60**		8.3	0.83	ppb v/v			08/24/19 01:00	4.15
Ethylbenzene	**4.1**	**J**	8.3	1.3	ppb v/v			08/24/19 01:00	4.15
Methylene Chloride	**28**	**J B**	42	17	ppb v/v			08/24/19 01:00	4.15
Methyl tert-butyl ether	ND		42	5.4	ppb v/v			08/24/19 01:00	4.15
Naphthalene	ND		4.2	7.9	ppb v/v			08/24/19 01:00	4.15
Tetrachloroethene	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Toluene	**12**		12	8.1	ppb v/v			08/24/19 01:00	4.15
trans-1,2-Dichloroethene	**10**		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
1,2,4-Trichlorobenzene	ND		8.3	6.6	ppb v/v			08/24/19 01:00	4.15
1,1,1-Trichloroethane	ND		8.3	3.8	ppb v/v			08/24/19 01:00	4.15
1,1,2-Trichloroethane	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Trichloroethene	**37**		4.2	0.62	ppb v/v			08/24/19 01:00	4.15
1,2,3-Trimethylbenzene	ND		8.3	3.7	ppb v/v			08/24/19 01:00	4.15
1,2,4-Trimethylbenzene	ND		8.3	2.1	ppb v/v			08/24/19 01:00	4.15
1,3,5-Trimethylbenzene	ND		8.3	2.3	ppb v/v			08/24/19 01:00	4.15
Vinyl chloride	**2000**	**E**	4.2	2.7	ppb v/v			08/24/19 01:00	4.15
Xylenes, Total	**11**	**J**	17	2.5	ppb v/v			08/24/19 01:00	4.15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**200**		27	2.7	ug/m3			08/24/19 01:00	4.15
Carbon tetrachloride	ND		52	4.6	ug/m3			08/24/19 01:00	4.15
Chlorodifluoromethane	ND		29	8.1	ug/m3			08/24/19 01:00	4.15
Chloroform	ND		41	3.5	ug/m3			08/24/19 01:00	4.15
cis-1,2-Dichloroethene	**230**		33	4.1	ug/m3			08/24/19 01:00	4.15
Dichlorodifluoromethane	ND		41	7.2	ug/m3			08/24/19 01:00	4.15
1,1-Dichloroethane	ND		34	2.9	ug/m3			08/24/19 01:00	4.15
1,2-Dichloroethane	ND		34	4.2	ug/m3			08/24/19 01:00	4.15
1,1-Dichloroethene	**240**		33	3.3	ug/m3			08/24/19 01:00	4.15
Ethylbenzene	**18**	**J**	36	5.9	ug/m3			08/24/19 01:00	4.15
Methylene Chloride	**96**	**J B**	140	58	ug/m3			08/24/19 01:00	4.15
Methyl tert-butyl ether	ND		150	19	ug/m3			08/24/19 01:00	4.15
Naphthalene	ND		22	41	ug/m3			08/24/19 01:00	4.15
Tetrachloroethene	ND		56	4.9	ug/m3			08/24/19 01:00	4.15
Toluene	**45**		47	30	ug/m3			08/24/19 01:00	4.15
trans-1,2-Dichloroethene	**40**		33	2.9	ug/m3			08/24/19 01:00	4.15
1,2,4-Trichlorobenzene	ND		62	49	ug/m3			08/24/19 01:00	4.15
1,1,1-Trichloroethane	ND		45	21	ug/m3			08/24/19 01:00	4.15
1,1,2-Trichloroethane	ND		45	4.0	ug/m3			08/24/19 01:00	4.15
Trichloroethene	**200**		22	3.3	ug/m3			08/24/19 01:00	4.15
1,2,3-Trimethylbenzene	ND		41	18	ug/m3			08/24/19 01:00	4.15
1,2,4-Trimethylbenzene	ND		41	10	ug/m3			08/24/19 01:00	4.15

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		41	11	ug/m3			08/24/19 01:00	4.15
Vinyl chloride	**5100**	**E**	11	6.9	ug/m3			08/24/19 01:00	4.15
Xylenes, Total	**49**	**J**	72	11	ug/m3			08/24/19 01:00	4.15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/24/19 01:00*	*4.15*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**1000**		7.5	4.9	ppb v/v			08/26/19 23:46	4.15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**2700**		19	13	ug/m3			08/26/19 23:46	4.15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/26/19 23:46*	*4.15*

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.35**	**J**	0.40	0.040	ppb v/v			08/24/19 01:50	1.52
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Chlorodifluoromethane	**1.2**		0.40	0.11	ppb v/v			08/24/19 01:50	1.52
Chloroform	**0.095**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
cis-1,2-Dichloroethene	**0.18**	**J**	0.40	0.050	ppb v/v			08/24/19 01:50	1.52
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/24/19 01:50	1.52
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/24/19 01:50	1.52
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/24/19 01:50	1.52
1,1-Dichloroethene	**0.074**	**J**	0.40	0.040	ppb v/v			08/24/19 01:50	1.52
Ethylbenzene	**0.38**	**J**	0.40	0.065	ppb v/v			08/24/19 01:50	1.52
Methylene Chloride	**230**	**E B**	2.0	0.80	ppb v/v			08/24/19 01:50	1.52
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/24/19 01:50	1.52
Naphthalene	ND		0.20	0.38	ppb v/v			08/24/19 01:50	1.52
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Toluene	**4.1**		0.60	0.39	ppb v/v			08/24/19 01:50	1.52
trans-1,2-Dichloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/24/19 01:50	1.52
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/24/19 01:50	1.52
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Trichloroethene	**0.68**		0.20	0.030	ppb v/v			08/24/19 01:50	1.52
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/24/19 01:50	1.52
1,2,4-Trimethylbenzene	**0.17**	**J**	0.40	0.10	ppb v/v			08/24/19 01:50	1.52
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/24/19 01:50	1.52
Vinyl chloride	**2.7**		0.20	0.13	ppb v/v			08/24/19 01:50	1.52
Xylenes, Total	**1.8**		0.80	0.12	ppb v/v			08/24/19 01:50	1.52

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.1**	**J**	1.3	0.13	ug/m3			08/24/19 01:50	1.52
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			08/24/19 01:50	1.52
Chlorodifluoromethane	**4.2**		1.4	0.39	ug/m3			08/24/19 01:50	1.52
Chloroform	**0.46**	**J**	2.0	0.17	ug/m3			08/24/19 01:50	1.52
cis-1,2-Dichloroethene	**0.70**	**J**	1.6	0.20	ug/m3			08/24/19 01:50	1.52
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/24/19 01:50	1.52
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/24/19 01:50	1.52
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/24/19 01:50	1.52
1,1-Dichloroethene	**0.29**	**J**	1.6	0.16	ug/m3			08/24/19 01:50	1.52
Ethylbenzene	**1.7**	**J**	1.7	0.28	ug/m3			08/24/19 01:50	1.52
Methylene Chloride	**810**	**E B**	6.9	2.8	ug/m3			08/24/19 01:50	1.52
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/24/19 01:50	1.52
Naphthalene	ND		1.0	2.0	ug/m3			08/24/19 01:50	1.52
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			08/24/19 01:50	1.52
Toluene	**15**		2.3	1.5	ug/m3			08/24/19 01:50	1.52
trans-1,2-Dichloroethene	**0.16**	**J**	1.6	0.14	ug/m3			08/24/19 01:50	1.52
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/24/19 01:50	1.52
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/24/19 01:50	1.52
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/24/19 01:50	1.52
Trichloroethene	**3.7**		1.1	0.16	ug/m3			08/24/19 01:50	1.52
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/24/19 01:50	1.52
1,2,4-Trimethylbenzene	**0.84**	**J**	2.0	0.49	ug/m3			08/24/19 01:50	1.52

Client Sample ID: SV-126-C-27 — Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/24/19 01:50	1.52
Vinyl chloride	**6.8**		0.51	0.33	ug/m3			08/24/19 01:50	1.52
Xylenes, Total	**7.9**		3.5	0.52	ug/m3			08/24/19 01:50	1.52

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/24/19 01:50*	*1.52*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**180**	**B**	22	8.7	ppb v/v			08/27/19 14:52	1.52

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**630**	**B**	75	30	ug/m3			08/27/19 14:52	1.52

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/27/19 14:52*	*1.52*

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Date Collected: 08/14/19 11:09 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.050**	**J**	0.40	0.040	ppb v/v			08/21/19 03:16	1
Carbon tetrachloride	**0.058**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
Chlorodifluoromethane	**1.4**		0.40	0.11	ppb v/v			08/21/19 03:16	1
Chloroform	**0.27**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
cis-1,2-Dichloroethene	**4.7**		0.40	0.050	ppb v/v			08/21/19 03:16	1
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/21/19 03:16	1
1,1-Dichloroethane	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
1,2-Dichloroethane	**3.0**		0.40	0.050	ppb v/v			08/21/19 03:16	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 03:16	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			08/21/19 03:16	1
Methylene Chloride	**12**	**B**	2.0	0.80	ppb v/v			08/21/19 03:16	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 03:16	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 03:16	1
Tetrachloroethene	**0.037**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
Toluene	**0.81**		0.60	0.39	ppb v/v			08/21/19 03:16	1
trans-1,2-Dichloroethene	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 03:16	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 03:16	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:16	1
Trichloroethene	**33**		0.20	0.030	ppb v/v			08/21/19 03:16	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 03:16	1
1,2,4-Trimethylbenzene	**0.23**	**J**	0.40	0.10	ppb v/v			08/21/19 03:16	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 03:16	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 03:16	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/21/19 03:16	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	1.3	0.13	ug/m3			08/21/19 03:16	1
Carbon tetrachloride	**0.36**	**J**	2.5	0.22	ug/m3			08/21/19 03:16	1
Chlorodifluoromethane	**5.1**		1.4	0.39	ug/m3			08/21/19 03:16	1
Chloroform	**1.3**	**J**	2.0	0.17	ug/m3			08/21/19 03:16	1
cis-1,2-Dichloroethene	**18**		1.6	0.20	ug/m3			08/21/19 03:16	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/21/19 03:16	1
1,1-Dichloroethane	**0.26**	**J**	1.6	0.14	ug/m3			08/21/19 03:16	1
1,2-Dichloroethane	**12**		1.6	0.20	ug/m3			08/21/19 03:16	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 03:16	1
Ethylbenzene	**0.84**	**J**	1.7	0.28	ug/m3			08/21/19 03:16	1
Methylene Chloride	**42**	**B**	6.9	2.8	ug/m3			08/21/19 03:16	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 03:16	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 03:16	1
Tetrachloroethene	**0.25**	**J**	2.7	0.24	ug/m3			08/21/19 03:16	1
Toluene	**3.0**		2.3	1.5	ug/m3			08/21/19 03:16	1
trans-1,2-Dichloroethene	**0.26**	**J**	1.6	0.14	ug/m3			08/21/19 03:16	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 03:16	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 03:16	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 03:16	1
Trichloroethene	**180**		1.1	0.16	ug/m3			08/21/19 03:16	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 03:16	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/21/19 03:16	1

Client Sample ID: SV-113-C-27 — Lab Sample ID: 140-16376-14

Date Collected: 08/14/19 11:09 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 03:16	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 03:16	1
Xylenes, Total	**4.3**		3.5	0.52	ug/m3			08/21/19 03:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 03:16*	*1*

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Date Collected: 08/14/19 11:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/21/19 04:05	1
Carbon tetrachloride	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
Chlorodifluoromethane	**1.1**		0.40	0.11	ppb v/v			08/21/19 04:05	1
Chloroform	**0.087**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
cis-1,2-Dichloroethene	**1.6**		0.40	0.050	ppb v/v			08/21/19 04:05	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/21/19 04:05	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 04:05	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 04:05	1
Ethylbenzene	**0.30**	**J**	0.40	0.065	ppb v/v			08/21/19 04:05	1
Methylene Chloride	**3.1**	**B**	2.0	0.80	ppb v/v			08/21/19 04:05	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 04:05	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 04:05	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
Toluene	**0.40**	**J**	0.60	0.39	ppb v/v			08/21/19 04:05	1
trans-1,2-Dichloroethene	**0.11**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 04:05	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 04:05	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
Trichloroethene	**6.8**		0.20	0.030	ppb v/v			08/21/19 04:05	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 04:05	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/21/19 04:05	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 04:05	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 04:05	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/21/19 04:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/21/19 04:05	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/21/19 04:05	1
Chlorodifluoromethane	**4.0**		1.4	0.39	ug/m3			08/21/19 04:05	1
Chloroform	**0.42**	**J**	2.0	0.17	ug/m3			08/21/19 04:05	1
cis-1,2-Dichloroethene	**6.5**		1.6	0.20	ug/m3			08/21/19 04:05	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 04:05	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 04:05	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 04:05	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 04:05	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/21/19 04:05	1
Methylene Chloride	**11**	**B**	6.9	2.8	ug/m3			08/21/19 04:05	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 04:05	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 04:05	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 04:05	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/21/19 04:05	1
trans-1,2-Dichloroethene	**0.45**	**J**	1.6	0.14	ug/m3			08/21/19 04:05	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 04:05	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 04:05	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 04:05	1
Trichloroethene	**36**		1.1	0.16	ug/m3			08/21/19 04:05	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 04:05	1
1,2,4-Trimethylbenzene	**0.89**	**J**	2.0	0.49	ug/m3			08/21/19 04:05	1

Client Sample ID: SV-088-C-27 **Lab Sample ID: 140-16376-15**
Date Collected: 08/14/19 11:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 04:05	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 04:05	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/21/19 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 04:05*	*1*

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/21/19 05:43	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
Chlorodifluoromethane	**1.0**		0.40	0.11	ppb v/v			08/21/19 05:43	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
cis-1,2-Dichloroethene	**1.5**		0.40	0.050	ppb v/v			08/21/19 05:43	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/21/19 05:43	1
1,1-Dichloroethane	**0.040**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 05:43	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 05:43	1
Ethylbenzene	**0.39**	**J**	0.40	0.065	ppb v/v			08/21/19 05:43	1
Methylene Chloride	**3.9**	**B**	2.0	0.80	ppb v/v			08/21/19 05:43	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 05:43	1
Naphthalene	**0.41**		0.20	0.38	ppb v/v			08/21/19 05:43	1
Tetrachloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
Toluene	**1.3**		0.60	0.39	ppb v/v			08/21/19 05:43	1
trans-1,2-Dichloroethene	**0.078**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 05:43	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 05:43	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 05:43	1
Trichloroethene	**6.4**		0.20	0.030	ppb v/v			08/21/19 05:43	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 05:43	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/21/19 05:43	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 05:43	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 05:43	1
Xylenes, Total	**4.1**		0.80	0.12	ppb v/v			08/21/19 05:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/21/19 05:43	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/21/19 05:43	1
Chlorodifluoromethane	**3.5**		1.4	0.39	ug/m3			08/21/19 05:43	1
Chloroform	**0.51**	**J**	2.0	0.17	ug/m3			08/21/19 05:43	1
cis-1,2-Dichloroethene	**5.9**		1.6	0.20	ug/m3			08/21/19 05:43	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 05:43	1
1,1-Dichloroethane	**0.16**	**J**	1.6	0.14	ug/m3			08/21/19 05:43	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 05:43	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 05:43	1
Ethylbenzene	**1.7**	**J**	1.7	0.28	ug/m3			08/21/19 05:43	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/21/19 05:43	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 05:43	1
Naphthalene	**2.1**		1.0	2.0	ug/m3			08/21/19 05:43	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			08/21/19 05:43	1
Toluene	**4.9**		2.3	1.5	ug/m3			08/21/19 05:43	1
trans-1,2-Dichloroethene	**0.31**	**J**	1.6	0.14	ug/m3			08/21/19 05:43	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 05:43	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 05:43	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 05:43	1
Trichloroethene	**34**		1.1	0.16	ug/m3			08/21/19 05:43	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 05:43	1
1,2,4-Trimethylbenzene	**0.88**	**J**	2.0	0.49	ug/m3			08/21/19 05:43	1

Client Sample ID: SV-DUP02-C-27 **Lab Sample ID: 140-16376-16**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 05:43	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 05:43	1
Xylenes, Total	**18**		3.5	0.52	ug/m3			08/21/19 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/21/19 05:43*	*1*

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Date Collected: 08/14/19 11:13 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.087**	**J**	0.40	0.040	ppb v/v			08/21/19 06:31	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			08/21/19 06:31	1
Chlorodifluoromethane	**0.63**		0.40	0.11	ppb v/v			08/21/19 06:31	1
Chloroform	**1.1**		0.40	0.035	ppb v/v			08/21/19 06:31	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 06:31	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/21/19 06:31	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 06:31	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 06:31	1
Ethylbenzene	**0.14**	**J**	0.40	0.065	ppb v/v			08/21/19 06:31	1
Methylene Chloride	**10**	**B**	2.0	0.80	ppb v/v			08/21/19 06:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 06:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 06:31	1
Tetrachloroethene	**0.15**	**J**	0.40	0.035	ppb v/v			08/21/19 06:31	1
Toluene	**0.49**	**J**	0.60	0.39	ppb v/v			08/21/19 06:31	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 06:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 06:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
Trichloroethene	**1.9**		0.20	0.030	ppb v/v			08/21/19 06:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 06:31	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 06:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 06:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 06:31	1
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/21/19 06:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	1.3	0.13	ug/m3			08/21/19 06:31	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/21/19 06:31	1
Chlorodifluoromethane	**2.2**		1.4	0.39	ug/m3			08/21/19 06:31	1
Chloroform	**5.4**		2.0	0.17	ug/m3			08/21/19 06:31	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 06:31	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 06:31	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 06:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 06:31	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 06:31	1
Ethylbenzene	**0.63**	**J**	1.7	0.28	ug/m3			08/21/19 06:31	1
Methylene Chloride	**36**	**B**	6.9	2.8	ug/m3			08/21/19 06:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 06:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 06:31	1
Tetrachloroethene	**0.99**	**J**	2.7	0.24	ug/m3			08/21/19 06:31	1
Toluene	**1.9**	**J**	2.3	1.5	ug/m3			08/21/19 06:31	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 06:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 06:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 06:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 06:31	1
Trichloroethene	**10**		1.1	0.16	ug/m3			08/21/19 06:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 06:31	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 06:31	1

Client Sample ID: SV-142-C-27 — Lab Sample ID: 140-16376-17

Date Collected: 08/14/19 11:13 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 06:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 06:31	1
Xylenes, Total	**4.6**		3.5	0.52	ug/m3			08/21/19 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 06:31*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16376-1	SV-001-C-27	92								
140-16376-2	SV-004-C-27	96								
140-16376-3	SV-102-C-27	85								
140-16376-4	SV-DUP1-C-27	96								
140-16376-4 - DL	SV-DUP1-C-27	88								
140-16376-5	SV-155-C-27	96								
140-16376-6	SV-133-C-27	87								
140-16376-7	SV-153-C-27	89								
140-16376-8	SV-060-C-27	106								
140-16376-8 - DL	SV-060-C-27	92								
140-16376-9	SV-150-C-27	94								
140-16376-10	SV-152-C-27	94								
140-16376-11	SV-141-C-27	91								
140-16376-11 - DL	SV-141-C-27	87								
140-16376-12	SV-149-C-27	86								
140-16376-12 - DL	SV-149-C-27	85								
140-16376-13	SV-126-C-27	92								
140-16376-13 - DL	SV-126-C-27	93								
140-16376-14	SV-113-C-27	94								
140-16376-15	SV-088-C-27	94								
140-16376-16	SV-DUP02-C-27	96								
140-16376-17	SV-142-C-27	91								
LCS 140-32745/1002	Lab Control Sample	97								
LCS 140-32777/1002	Lab Control Sample	95								
LCS 140-32868/1002	Lab Control Sample	94								
LCS 140-32956/1002	Lab Control Sample	90								
LCS 140-32985/1002	Lab Control Sample	91								
MB 140-32745/4	Method Blank	91								
MB 140-32777/4	Method Blank	97								
MB 140-32868/4	Method Blank	87								
MB 140-32956/4	Method Blank	85								
MB 140-32985/4	Method Blank	85								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32745/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 12:04	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 12:04	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 12:04	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 12:04	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 12:04	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 12:04	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 12:04	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/20/19 12:04	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 12:04	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 12:04	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 12:04	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 12:04	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 12:04	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 12:04	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 12:04	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 12:04	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 12:04	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 12:04	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 12:04	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 12:04	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 12:04	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 12:04	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 12:04	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 12:04	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 12:04	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 12:04	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 12:04	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 12:04	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 12:04	1
Methylene Chloride	0.557	J	1.4	0.56	ug/m3			08/20/19 12:04	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 12:04	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 12:04	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 12:04	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 12:04	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 12:04	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 12:04	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 12:04	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 12:04	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 12:04	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 12:04	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32745/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 12:04	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 12:04	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 12:04	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 12:04*	*1*

Lab Sample ID: LCS 140-32745/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.924		ppb v/v		92	70 - 130
Carbon tetrachloride	1.00	0.944		ppb v/v		94	70 - 130
Chlorodifluoromethane	1.00	1.10		ppb v/v		110	60 - 140
Chloroform	1.00	1.02		ppb v/v		102	70 - 130
cis-1,2-Dichloroethene	1.00	0.944		ppb v/v		94	70 - 130
Dichlorodifluoromethane	1.00	1.23		ppb v/v		123	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.01		ppb v/v		101	70 - 130
1,1-Dichloroethene	1.00	1.02		ppb v/v		102	70 - 130
Ethylbenzene	1.00	1.01		ppb v/v		101	70 - 130
Methylene Chloride	1.00	1.09		ppb v/v		109	70 - 130
Methyl tert-butyl ether	1.00	1.05		ppb v/v		105	60 - 140
Naphthalene	1.00	0.992		ppb v/v		99	60 - 140
Tetrachloroethene	1.00	0.893		ppb v/v		89	70 - 130
Toluene	1.00	0.962		ppb v/v		96	70 - 130
trans-1,2-Dichloroethene	1.00	1.03		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	1.00	0.948		ppb v/v		95	60 - 140
1,1,1-Trichloroethane	1.00	0.986		ppb v/v		99	70 - 130
1,1,2-Trichloroethane	1.00	0.962		ppb v/v		96	70 - 130
Trichloroethene	1.00	0.914		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	1.00	1.05		ppb v/v		105	70 - 130
1,2,4-Trimethylbenzene	1.00	1.02		ppb v/v		102	70 - 130
1,3,5-Trimethylbenzene	1.00	0.969		ppb v/v		97	70 - 130
Vinyl chloride	1.00	1.25		ppb v/v		125	70 - 130
Xylenes, Total	3.00	3.18		ppb v/v		106	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.95		ug/m3		92	70 - 130
Carbon tetrachloride	6.3	5.94		ug/m3		94	70 - 130
Chlorodifluoromethane	3.5	3.90		ug/m3		110	60 - 140
Chloroform	4.9	5.00		ug/m3		102	70 - 130
cis-1,2-Dichloroethene	4.0	3.74		ug/m3		94	70 - 130
Dichlorodifluoromethane	4.9	6.08		ug/m3		123	60 - 140
1,1-Dichloroethane	4.0	4.30		ug/m3		106	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32745/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.0	4.10		ug/m3		101	70 - 130
1,1-Dichloroethene	4.0	4.04		ug/m3		102	70 - 130
Ethylbenzene	4.3	4.37		ug/m3		101	70 - 130
Methylene Chloride	3.5	3.78		ug/m3		109	70 - 130
Methyl tert-butyl ether	3.6	3.79		ug/m3		105	60 - 140
Naphthalene	5.2	5.20		ug/m3		99	60 - 140
Tetrachloroethene	6.8	6.06		ug/m3		89	70 - 130
Toluene	3.8	3.62		ug/m3		96	70 - 130
trans-1,2-Dichloroethene	4.0	4.08		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	7.4	7.03		ug/m3		95	60 - 140
1,1,1-Trichloroethane	5.5	5.38		ug/m3		99	70 - 130
1,1,2-Trichloroethane	5.5	5.25		ug/m3		96	70 - 130
Trichloroethene	5.4	4.91		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	4.9	5.14		ug/m3		105	70 - 130
1,2,4-Trimethylbenzene	4.9	5.01		ug/m3		102	70 - 130
1,3,5-Trimethylbenzene	4.9	4.76		ug/m3		97	70 - 130
Vinyl chloride	2.6	3.18		ug/m3		125	70 - 130
Xylenes, Total	13	13.8		ug/m3		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*

Lab Sample ID: MB 140-32777/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 16:09	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 16:09	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 16:09	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 16:09	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 16:09	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 16:09	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 16:09	1
Methylene Chloride	0.207	J	0.40	0.16	ppb v/v			08/21/19 16:09	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 16:09	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 16:09	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 16:09	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 16:09	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 16:09	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 16:09	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32777/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 16:09	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 16:09	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 16:09	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 16:09	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 16:09	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 16:09	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 16:09	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 16:09	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 16:09	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 16:09	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 16:09	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 16:09	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 16:09	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 16:09	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 16:09	1
Methylene Chloride	0.718	J	1.4	0.56	ug/m3			08/21/19 16:09	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 16:09	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 16:09	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 16:09	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 16:09	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 16:09	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 16:09	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 16:09	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 16:09	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 16:09	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 16:09	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 16:09	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 16:09	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 16:09	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*08/21/19 16:09*	*1*

Lab Sample ID: LCS 140-32777/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.89		ppb v/v		95	70 - 130
Carbon tetrachloride	2.00	1.89		ppb v/v		94	70 - 130
Chlorodifluoromethane	2.00	1.48		ppb v/v		74	60 - 140
Chloroform	2.00	1.85		ppb v/v		92	70 - 130
cis-1,2-Dichloroethene	2.00	2.05		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	1.74		ppb v/v		87	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32777/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.72		ppb v/v		86	70 - 130
1,2-Dichloroethane	2.00	1.63		ppb v/v		82	70 - 130
1,1-Dichloroethene	2.00	2.03		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.88		ppb v/v		94	70 - 130
Methylene Chloride	2.00	1.96		ppb v/v		98	70 - 130
Methyl tert-butyl ether	2.00	1.59		ppb v/v		80	60 - 140
Naphthalene	2.00	1.64		ppb v/v		82	60 - 140
Tetrachloroethene	2.00	1.92		ppb v/v		96	70 - 130
Toluene	2.00	1.91		ppb v/v		95	70 - 130
trans-1,2-Dichloroethene	2.00	2.11		ppb v/v		105	70 - 130
1,2,4-Trichlorobenzene	2.00	1.83		ppb v/v		91	60 - 140
1,1,1-Trichloroethane	2.00	1.87		ppb v/v		94	70 - 130
1,1,2-Trichloroethane	2.00	1.83		ppb v/v		92	70 - 130
Trichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,3-Trimethylbenzene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trimethylbenzene	2.00	1.77		ppb v/v		88	70 - 130
1,3,5-Trimethylbenzene	2.00	1.92		ppb v/v		96	70 - 130
Vinyl chloride	2.00	1.49		ppb v/v		75	70 - 130
Xylenes, Total	6.00	5.49		ppb v/v		92	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.04		ug/m3		95	70 - 130
Carbon tetrachloride	13	11.9		ug/m3		94	70 - 130
Chlorodifluoromethane	7.1	5.22		ug/m3		74	60 - 140
Chloroform	9.8	9.03		ug/m3		92	70 - 130
cis-1,2-Dichloroethene	7.9	8.12		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	8.60		ug/m3		87	60 - 140
1,1-Dichloroethane	8.1	6.95		ug/m3		86	70 - 130
1,2-Dichloroethane	8.1	6.61		ug/m3		82	70 - 130
1,1-Dichloroethene	7.9	8.04		ug/m3		101	70 - 130
Ethylbenzene	8.7	8.18		ug/m3		94	70 - 130
Methylene Chloride	6.9	6.81		ug/m3		98	70 - 130
Methyl tert-butyl ether	7.2	5.73		ug/m3		80	60 - 140
Naphthalene	10	8.61		ug/m3		82	60 - 140
Tetrachloroethene	14	13.0		ug/m3		96	70 - 130
Toluene	7.5	7.20		ug/m3		95	70 - 130
trans-1,2-Dichloroethene	7.9	8.35		ug/m3		105	70 - 130
1,2,4-Trichlorobenzene	15	13.5		ug/m3		91	60 - 140
1,1,1-Trichloroethane	11	10.2		ug/m3		94	70 - 130
1,1,2-Trichloroethane	11	10.0		ug/m3		92	70 - 130
Trichloroethene	11	11.0		ug/m3		103	70 - 130
1,2,3-Trimethylbenzene	9.8	9.84		ug/m3		100	70 - 130
1,2,4-Trimethylbenzene	9.8	8.69		ug/m3		88	70 - 130
1,3,5-Trimethylbenzene	9.8	9.43		ug/m3		96	70 - 130
Vinyl chloride	5.1	3.82		ug/m3		75	70 - 130
Xylenes, Total	26	23.8		ug/m3		92	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32777/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 140-32956/4
Matrix: Air
Analysis Batch: 32956

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/26/19 08:49	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/26/19 08:49	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/26/19 08:49	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/26/19 08:49	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/26/19 08:49	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/26/19 08:49	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/26/19 08:49	1
Methylene Chloride	0.226	J	0.40	0.16	ppb v/v			08/26/19 08:49	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/26/19 08:49	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/26/19 08:49	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Toluene	ND		0.12	0.078	ppb v/v			08/26/19 08:49	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32956/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/26/19 08:49	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/26/19 08:49	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/26/19 08:49	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/26/19 08:49	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/26/19 08:49	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/26/19 08:49	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/26/19 08:49	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/26/19 08:49	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/26/19 08:49	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/26/19 08:49	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/26/19 08:49	1
Chloroform	ND		0.39	0.034	ug/m3			08/26/19 08:49	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/26/19 08:49	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/26/19 08:49	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/26/19 08:49	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/26/19 08:49	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/26/19 08:49	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/26/19 08:49	1
Methylene Chloride	0.785	J	1.4	0.56	ug/m3			08/26/19 08:49	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/26/19 08:49	1
Naphthalene	ND		0.21	0.40	ug/m3			08/26/19 08:49	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/26/19 08:49	1
Toluene	ND		0.45	0.29	ug/m3			08/26/19 08:49	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/26/19 08:49	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/26/19 08:49	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/26/19 08:49	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/26/19 08:49	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/26/19 08:49	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/26/19 08:49	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/26/19 08:49	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/26/19 08:49	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/26/19 08:49	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/26/19 08:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/26/19 08:49*	*1*

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.781		ppb v/v		78	70 - 130
Carbon tetrachloride	1.00	0.740		ppb v/v		74	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	1.00	0.888		ppb v/v		89	60 - 140
Chloroform	1.00	0.821		ppb v/v		82	70 - 130
cis-1,2-Dichloroethene	1.00	0.770		ppb v/v		77	70 - 130
Dichlorodifluoromethane	1.00	1.08		ppb v/v		108	60 - 140
1,1-Dichloroethane	1.00	0.873		ppb v/v		87	70 - 130
1,2-Dichloroethane	1.00	0.793		ppb v/v		79	70 - 130
1,1-Dichloroethene	1.00	0.792		ppb v/v		79	70 - 130
Ethylbenzene	1.00	0.856		ppb v/v		86	70 - 130
Methylene Chloride	1.00	0.910		ppb v/v		91	70 - 130
Methyl tert-butyl ether	1.00	0.845		ppb v/v		85	60 - 140
Naphthalene	1.00	0.780		ppb v/v		78	60 - 140
Tetrachloroethene	1.00	0.833		ppb v/v		83	70 - 130
Toluene	1.00	0.879		ppb v/v		88	70 - 130
trans-1,2-Dichloroethene	1.00	0.848		ppb v/v		85	70 - 130
1,2,4-Trichlorobenzene	1.00	0.791		ppb v/v		79	60 - 140
1,1,1-Trichloroethane	1.00	0.756		ppb v/v		76	70 - 130
1,1,2-Trichloroethane	1.00	0.897		ppb v/v		90	70 - 130
Trichloroethene	1.00	0.784		ppb v/v		78	70 - 130
1,2,3-Trimethylbenzene	1.00	0.848		ppb v/v		85	70 - 130
1,2,4-Trimethylbenzene	1.00	0.796		ppb v/v		80	70 - 130
1,3,5-Trimethylbenzene	1.00	0.835		ppb v/v		84	70 - 130
Vinyl chloride	1.00	1.22		ppb v/v		122	70 - 130
Xylenes, Total	3.00	2.57		ppb v/v		86	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.50		ug/m3		78	70 - 130
Carbon tetrachloride	6.3	4.66		ug/m3		74	70 - 130
Chlorodifluoromethane	3.5	3.14		ug/m3		89	60 - 140
Chloroform	4.9	4.01		ug/m3		82	70 - 130
cis-1,2-Dichloroethene	4.0	3.05		ug/m3		77	70 - 130
Dichlorodifluoromethane	4.9	5.36		ug/m3		108	60 - 140
1,1-Dichloroethane	4.0	3.53		ug/m3		87	70 - 130
1,2-Dichloroethane	4.0	3.21		ug/m3		79	70 - 130
1,1-Dichloroethene	4.0	3.14		ug/m3		79	70 - 130
Ethylbenzene	4.3	3.72		ug/m3		86	70 - 130
Methylene Chloride	3.5	3.16		ug/m3		91	70 - 130
Methyl tert-butyl ether	3.6	3.05		ug/m3		85	60 - 140
Naphthalene	5.2	4.09		ug/m3		78	60 - 140
Tetrachloroethene	6.8	5.65		ug/m3		83	70 - 130
Toluene	3.8	3.31		ug/m3		88	70 - 130
trans-1,2-Dichloroethene	4.0	3.36		ug/m3		85	70 - 130
1,2,4-Trichlorobenzene	7.4	5.87		ug/m3		79	60 - 140
1,1,1-Trichloroethane	5.5	4.12		ug/m3		76	70 - 130
1,1,2-Trichloroethane	5.5	4.90		ug/m3		90	70 - 130
Trichloroethene	5.4	4.21		ug/m3		78	70 - 130
1,2,3-Trimethylbenzene	4.9	4.17		ug/m3		85	70 - 130
1,2,4-Trimethylbenzene	4.9	3.91		ug/m3		80	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trimethylbenzene			4.9	4.11		ug/m3		84	70 - 130		
Vinyl chloride			2.6	3.11		ug/m3		122	70 - 130		
Xylenes, Total			13	11.2		ug/m3		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/27/19 10:12	1
Methylene Chloride	0.305	J	0.40	0.16	ppb v/v			08/27/19 10:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/27/19 10:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/27/19 10:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/27/19 10:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/27/19 10:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/27/19 10:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/27/19 10:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/27/19 10:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/27/19 10:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/27/19 10:12	1
Methylene Chloride	1.06	J	1.4	0.56	ug/m3			08/27/19 10:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/27/19 10:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/27/19 10:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/27/19 10:12	1
Toluene	ND		0.45	0.29	ug/m3			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/27/19 10:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/27/19 10:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/27/19 10:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/27/19 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/27/19 10:12*	*1*

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.07		ppb v/v		103	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		91	70 - 130
Chlorodifluoromethane	2.00	2.11		ppb v/v		106	60 - 140
Chloroform	2.00	1.87		ppb v/v		94	70 - 130
cis-1,2-Dichloroethene	2.00	2.17		ppb v/v		109	70 - 130
Dichlorodifluoromethane	2.00	2.11		ppb v/v		105	60 - 140
1,1-Dichloroethane	2.00	1.93		ppb v/v		97	70 - 130
1,2-Dichloroethane	2.00	1.52		ppb v/v		76	70 - 130
1,1-Dichloroethene	2.00	2.17		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
Methylene Chloride	2.00	1.81		ppb v/v		91	70 - 130
Methyl tert-butyl ether	2.00	1.91		ppb v/v		95	60 - 140
Naphthalene	2.00	2.27		ppb v/v		113	60 - 140
Tetrachloroethene	2.00	1.89		ppb v/v		95	70 - 130
Toluene	2.00	2.06		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.19		ppb v/v		110	70 - 130
1,2,4-Trichlorobenzene	2.00	2.20		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	2.00	1.68		ppb v/v		84	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		107	70 - 130
Trichloroethene	2.00	2.01		ppb v/v		101	70 - 130
1,2,3-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,3,5-Trimethylbenzene	2.00	2.09		ppb v/v		105	70 - 130
Vinyl chloride	2.00	2.56		ppb v/v		128	70 - 130
Xylenes, Total	6.00	5.81		ppb v/v		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.60		ug/m3		103	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		91	70 - 130
Chlorodifluoromethane	7.1	7.48		ug/m3		106	60 - 140
Chloroform	9.8	9.15		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	7.9	8.62		ug/m3		109	70 - 130
Dichlorodifluoromethane	9.9	10.4		ug/m3		105	60 - 140
1,1-Dichloroethane	8.1	7.83		ug/m3		97	70 - 130
1,2-Dichloroethane	8.1	6.14		ug/m3		76	70 - 130
1,1-Dichloroethene	7.9	8.60		ug/m3		108	70 - 130
Ethylbenzene	8.7	8.51		ug/m3		98	70 - 130
Methylene Chloride	6.9	6.30		ug/m3		91	70 - 130
Methyl tert-butyl ether	7.2	6.87		ug/m3		95	60 - 140
Naphthalene	10	11.9		ug/m3		113	60 - 140
Tetrachloroethene	14	12.8		ug/m3		95	70 - 130
Toluene	7.5	7.77		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.69		ug/m3		110	70 - 130
1,2,4-Trichlorobenzene	15	16.3		ug/m3		110	60 - 140
1,1,1-Trichloroethane	11	9.14		ug/m3		84	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		107	70 - 130
Trichloroethene	11	10.8		ug/m3		101	70 - 130
1,2,3-Trimethylbenzene	9.8	9.56		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	9.8	9.54		ug/m3		97	70 - 130
1,3,5-Trimethylbenzene	9.8	10.3		ug/m3		105	70 - 130
Vinyl chloride	5.1	6.56		ug/m3		128	70 - 130
Xylenes, Total	26	25.2		ug/m3		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-1	SV-001-C-27	Total/NA	Air	TO 15 LL	
140-16376-2	SV-004-C-27	Total/NA	Air	TO 15 LL	
140-16376-4	SV-DUP1-C-27	Total/NA	Air	TO 15 LL	
140-16376-5	SV-155-C-27	Total/NA	Air	TO 15 LL	
140-16376-8	SV-060-C-27	Total/NA	Air	TO 15 LL	
140-16376-9	SV-150-C-27	Total/NA	Air	TO 15 LL	
140-16376-10	SV-152-C-27	Total/NA	Air	TO 15 LL	
140-16376-11	SV-141-C-27	Total/NA	Air	TO 15 LL	
140-16376-14	SV-113-C-27	Total/NA	Air	TO 15 LL	
140-16376-15	SV-088-C-27	Total/NA	Air	TO 15 LL	
140-16376-16	SV-DUP02-C-27	Total/NA	Air	TO 15 LL	
140-16376-17	SV-142-C-27	Total/NA	Air	TO 15 LL	
MB 140-32745/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32745/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-3	SV-102-C-27	Total/NA	Air	TO 15 LL	
140-16376-4 - DL	SV-DUP1-C-27	Total/NA	Air	TO 15 LL	
MB 140-32777/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32777/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-7	SV-153-C-27	Total/NA	Air	TO 15 LL	
140-16376-8 - DL	SV-060-C-27	Total/NA	Air	TO 15 LL	
140-16376-11 - DL	SV-141-C-27	Total/NA	Air	TO 15 LL	
140-16376-12	SV-149-C-27	Total/NA	Air	TO 15 LL	
140-16376-13	SV-126-C-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-12 - DL	SV-149-C-27	Total/NA	Air	TO 15 LL	
MB 140-32956/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32956/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-6	SV-133-C-27	Total/NA	Air	TO 15 LL	
140-16376-13 - DL	SV-126-C-27	Total/NA	Air	TO 15 LL	
MB 140-32985/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32985/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-001-C-27 — Lab Sample ID: 140-16376-1

Date Collected: 08/14/19 10:24 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 12:52	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-004-C-27 — Lab Sample ID: 140-16376-2

Date Collected: 08/14/19 10:25 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 13:40	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-102-C-27 — Lab Sample ID: 140-16376-3

Date Collected: 08/14/19 10:30 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.73	11 mL	500 mL	32777	08/22/19 00:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: SV-DUP1-C-27 — Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	3.53	11 mL	500 mL	32777	08/22/19 01:29	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	10 mL	500 mL	32745	08/20/19 19:07	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-155-C-27 — Lab Sample ID: 140-16376-5

Date Collected: 08/14/19 10:32 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 19:57	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-133-C-27 — Lab Sample ID: 140-16376-6

Date Collected: 08/14/19 10:34 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	30 mL	500 mL	32985	08/27/19 12:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-153-C-27 — Lab Sample ID: 140-16376-7

Date Collected: 08/14/19 10:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.76	176 mL	500 mL	32868	08/23/19 21:47	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-060-C-27 — Lab Sample ID: 140-16376-8

Date Collected: 08/14/19 10:40 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 22:24	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO 15 LL	DL	5.03	100 mL	500 mL	32868	08/23/19 22:35	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-150-C-27 — Lab Sample ID: 140-16376-9

Date Collected: 08/14/19 10:55 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 23:13	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-152-C-27 — Lab Sample ID: 140-16376-10

Date Collected: 08/14/19 10:53 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 00:02	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-141-C-27 — Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 00:51	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO 15 LL	DL	1.47	50 mL	500 mL	32868	08/24/19 00:10	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		4.15	20 mL	500 mL	32868	08/24/19 01:00	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	4.15	11 mL	500 mL	32956	08/26/19 23:46	S1K	TAL KNX

Client Sample ID: SV-126-C-27 — Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	1.52	14 mL	500 mL	32985	08/27/19 14:52	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL		1.52	152 mL	500 mL	32868	08/24/19 01:50	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-113-C-27 — Lab Sample ID: 140-16376-14

Date Collected: 08/14/19 11:09 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 03:16	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-088-C-27 — Lab Sample ID: 140-16376-15

Date Collected: 08/14/19 11:11 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 04:05	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-DUP02-C-27 — Lab Sample ID: 140-16376-16

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 05:43	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-142-C-27 — Lab Sample ID: 140-16376-17

Date Collected: 08/14/19 11:13 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 06:31	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32745/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32745	08/20/19 12:04	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32777/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32777	08/21/19 16:09	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32956/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32956	08/26/19 08:49	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32985/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 10:12	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32745/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32745	08/20/19 09:15	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32777/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32777	08/21/19 12:55	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32956/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32956	08/26/19 06:51	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32985/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 08:11	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16376-1	SV-001-C-27	Air	08/14/19 10:24	08/17/19 10:30	Air Canister (1-Liter) #11720
140-16376-2	SV-004-C-27	Air	08/14/19 10:25	08/17/19 10:30	Air Canister (1-Liter) #10746
140-16376-3	SV-102-C-27	Air	08/14/19 10:30	08/17/19 10:30	Air Canister (1-Liter) #09660
140-16376-4	SV-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09665
140-16376-5	SV-155-C-27	Air	08/14/19 10:32	08/17/19 10:30	Air Canister (1-Liter) #11830
140-16376-6	SV-133-C-27	Air	08/14/19 10:34	08/17/19 10:30	Air Canister (1-Liter) #11616
140-16376-7	SV-153-C-27	Air	08/14/19 10:37	08/17/19 10:30	Air Canister (1-Liter) #11256
140-16376-8	SV-060-C-27	Air	08/14/19 10:40	08/17/19 10:30	Air Canister (1-Liter) #11741
140-16376-9	SV-150-C-27	Air	08/14/19 10:55	08/17/19 10:30	Air Canister (1-Liter) #11723
140-16376-10	SV-152-C-27	Air	08/14/19 10:53	08/17/19 10:30	Air Canister (1-Liter) #11554
140-16376-11	SV-141-C-27	Air	08/14/19 10:58	08/17/19 10:30	Air Canister (1-Liter) #09739
140-16376-12	SV-149-C-27	Air	08/14/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #11811
140-16376-13	SV-126-C-27	Air	08/14/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #09580
140-16376-14	SV-113-C-27	Air	08/14/19 11:09	08/17/19 10:30	Air Canister (1-Liter) #11139
140-16376-15	SV-088-C-27	Air	08/14/19 11:11	08/17/19 10:30	Air Canister (1-Liter) #11142
140-16376-16	SV-DUP02-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #10336
140-16376-17	SV-142-C-27	Air	08/14/19 11:13	08/17/19 10:30	Air Canister (1-Liter) #10493

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-001-C-27	140-16376-1	92
SV-004-C-27	140-16376-2	96
SV-102-C-27	140-16376-3	85
SV-DUP1-C-27	140-16376-4	96
SV-DUP1-C-27 DL	140-16376-4 DL	88
SV-155-C-27	140-16376-5	96
SV-133-C-27	140-16376-6	87
SV-153-C-27	140-16376-7	89
SV-060-C-27	140-16376-8	106
SV-060-C-27 DL	140-16376-8 DL	92
SV-150-C-27	140-16376-9	94
SV-152-C-27	140-16376-10	94
SV-141-C-27	140-16376-11	91
SV-141-C-27 DL	140-16376-11 DL	87
SV-149-C-27	140-16376-12	86
SV-149-C-27 DL	140-16376-12 DL	85
SV-126-C-27	140-16376-13	92
SV-126-C-27 DL	140-16376-13 DL	93
SV-113-C-27	140-16376-14	94
SV-088-C-27	140-16376-15	94
SV-DUP02-C-27	140-16376-16	96
SV-142-C-27	140-16376-17	91
	MB 140-32745/4	91
	MB 140-32777/4	97
	MB 140-32868/4	87
	MB 140-32956/4	85
	MB 140-32985/4	85
	LCS 140-32745/1002	97
	LCS 140-32777/1002	95
	LCS 140-32868/1002	94
	LCS 140-32956/1002	90
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH20-LCS.d

Lab ID: LCS 140-32745/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.924	92	70-130	
Carbon tetrachloride	1.00	0.944	94	70-130	
Chlorodifluoromethane	1.00	1.10	110	60-140	
Chloroform	1.00	1.02	102	70-130	
cis-1,2-Dichloroethene	1.00	0.944	94	70-130	
Dichlorodifluoromethane	1.00	1.23	123	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.01	101	70-130	
1,1-Dichloroethene	1.00	1.02	102	70-130	
Ethylbenzene	1.00	1.01	101	70-130	
Methylene Chloride	1.00	1.09	109	70-130	
Methyl tert-butyl ether	1.00	1.05	105	60-140	
Naphthalene	1.00	0.992	99	60-140	
Tetrachloroethene	1.00	0.893	89	70-130	
Toluene	1.00	0.962	96	70-130	
trans-1,2-Dichloroethene	1.00	1.03	103	70-130	
1,2,4-Trichlorobenzene	1.00	0.948	95	60-140	
1,1,1-Trichloroethane	1.00	0.986	99	70-130	
1,1,2-Trichloroethane	1.00	0.962	96	70-130	
Trichloroethene	1.00	0.914	91	70-130	
1,2,3-Trimethylbenzene	1.00	1.05	105	70-130	
1,2,4-Trimethylbenzene	1.00	1.02	102	70-130	
1,3,5-Trimethylbenzene	1.00	0.969	97	70-130	
Vinyl chloride	1.00	1.25	125	70-130	
Xylenes, Total	3.00	3.18	106	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH21B-LCS.d

Lab ID: LCS 140-32777/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.89	95	70-130	
Carbon tetrachloride	2.00	1.89	94	70-130	
Chlorodifluoromethane	2.00	1.48	74	60-140	
Chloroform	2.00	1.85	92	70-130	
cis-1,2-Dichloroethene	2.00	2.05	102	70-130	
Dichlorodifluoromethane	2.00	1.74	87	60-140	
1,1-Dichloroethane	2.00	1.72	86	70-130	
1,2-Dichloroethane	2.00	1.63	82	70-130	
1,1-Dichloroethene	2.00	2.03	101	70-130	
Ethylbenzene	2.00	1.88	94	70-130	
Methylene Chloride	2.00	1.96	98	70-130	
Methyl tert-butyl ether	2.00	1.59	80	60-140	
Naphthalene	2.00	1.64	82	60-140	
Tetrachloroethene	2.00	1.92	96	70-130	
Toluene	2.00	1.91	95	70-130	
trans-1,2-Dichloroethene	2.00	2.11	105	70-130	
1,2,4-Trichlorobenzene	2.00	1.83	91	60-140	
1,1,1-Trichloroethane	2.00	1.87	94	70-130	
1,1,2-Trichloroethane	2.00	1.83	92	70-130	
Trichloroethene	2.00	2.06	103	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	1.77	88	70-130	
1,3,5-Trimethylbenzene	2.00	1.92	96	70-130	
Vinyl chloride	2.00	1.49	75	70-130	
Xylenes, Total	6.00	5.49	92	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH26-LCS.d

Lab ID: LCS 140-32956/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.781	78	70-130	
Carbon tetrachloride	1.00	0.740	74	70-130	
Chlorodifluoromethane	1.00	0.888	89	60-140	
Chloroform	1.00	0.821	82	70-130	
cis-1,2-Dichloroethene	1.00	0.770	77	70-130	
Dichlorodifluoromethane	1.00	1.08	108	60-140	
1,1-Dichloroethane	1.00	0.873	87	70-130	
1,2-Dichloroethane	1.00	0.793	79	70-130	
1,1-Dichloroethene	1.00	0.792	79	70-130	
Ethylbenzene	1.00	0.856	86	70-130	
Methylene Chloride	1.00	0.910	91	70-130	
Methyl tert-butyl ether	1.00	0.845	85	60-140	
Naphthalene	1.00	0.780	78	60-140	
Tetrachloroethene	1.00	0.833	83	70-130	
Toluene	1.00	0.879	88	70-130	
trans-1,2-Dichloroethene	1.00	0.848	85	70-130	
1,2,4-Trichlorobenzene	1.00	0.791	79	60-140	
1,1,1-Trichloroethane	1.00	0.756	76	70-130	
1,1,2-Trichloroethane	1.00	0.897	90	70-130	
Trichloroethene	1.00	0.784	78	70-130	
1,2,3-Trimethylbenzene	1.00	0.848	85	70-130	
1,2,4-Trimethylbenzene	1.00	0.796	80	70-130	
1,3,5-Trimethylbenzene	1.00	0.835	84	70-130	
Vinyl chloride	1.00	1.22	122	70-130	
Xylenes, Total	3.00	2.57	86	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: G500BH21.D Lab Sample ID: MB 140-32777/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/21/2019 16:09

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32777/1002	GCCVH21B-LCS.d	08/21/2019 12:55
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019 00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019 01:29

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019 12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019 14:52

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH20.D Lab Sample ID: MB 140-32745/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/20/2019 12:04

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019 09:15
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019 12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019 13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019 19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019 19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019 22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019 23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019 00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019 00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019 03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019 04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019 05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019 06:31

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019 21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019 22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019 00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019 01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019 01:50

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH26.D Lab Sample ID: MB 140-32956/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/26/2019 08:49

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019 06:51
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019 23:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH21B.D BFB Injection Date: 08/21/2019

Instrument ID: MG BFB Injection Time: 12:22

Analysis Batch No.: 32777

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	50.0 - 120.00 % of mass 95	98.7	
175	5.0 - 9.0 % of mass 174	7.1	(7.2) 1
176	95.0 - 101.0 % of mass 174	96.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32777/2	GCCVH21B.D	08/21/2019	12:55
	LCS 140-32777/1002	GCCVH21B-LCS .d	08/21/2019	12:55
	MB 140-32777/4	G500BH21.D	08/21/2019	16:09
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019	00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019	01:29

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019	12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019	14:52

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MR BFB Injection Time: 08:48

Analysis Batch No.: 32745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.3	
75	30.0 - 60.0 % of mass 95	56.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	76.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.1) 1
176	95.0 - 101.0 % of mass 174	73.9	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32745/2	RCCVH20.D	08/20/2019	09:15
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019	09:15
	MB 140-32745/4	R500BH20.D	08/20/2019	12:04
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019	12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019	13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019	19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019	19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019	22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019	23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019	00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019	00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019	03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019	04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019	05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019	06:31

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019	21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019	22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019	00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019	01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019	01:50

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH26.D BFB Injection Date: 08/26/2019

Instrument ID: MR BFB Injection Time: 06:24

Analysis Batch No.: 32956

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
50	15.0 - 40.0 % of mass 95	26.6		
75	30.0 - 60.0 % of mass 95	54.7		
95	Base Peak, 100% relative abundance	100.0		
96	5.0 - 9.0 % of mass 95	7.6		
173	Less than 2.0 % of mass 174	0.6	(0.7) 1	
174	50.0 - 120.00 % of mass 95	87.8		
175	5.0 - 9.0 % of mass 174	5.7	(6.5) 1	
176	95.0 - 101.0 % of mass 174	83.1	(94.6) 1	*
177	5.0 - 9.0 % of mass 176	4.9	(5.9) 2	

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32956/2	RCCVH26.D	08/26/2019	06:51
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019	06:51
	MB 140-32956/4	R500BH26.D	08/26/2019	08:49
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019	23:46

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32777/2 Date Analyzed: 08/21/2019 12:55

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH21B.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		464447	9.15	2534948	11.31	2289629	15.99
UPPER LIMIT		650226	9.48	3548927	11.64	3205481	16.32
LOWER LIMIT		278668	8.82	1520969	10.98	1373777	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32777/1002		464447	9.15	2534948	11.31	2289629	15.99
MB 140-32777/4		475297	9.14	2398937	11.31	2344388	15.99
140-16376-3	SV-102-C-27	543383	9.15	2741508	11.31	2402343	15.99
140-16376-4 DL	SV-DUP1-C-27 DL	639127	9.14	3004501	11.30	3093212	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16376-6	SV-133-C-27	186283	9.72	1015978	11.83	859603	16.44
140-16376-13 DL	SV-126-C-27 DL	224559	9.72	971477	11.83	811314	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32745/2 Date Analyzed: 08/20/2019 09:15

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217762	8.54	1358602	10.77	1173944	15.57
UPPER LIMIT		304867	8.87	1902043	11.10	1643522	15.90
LOWER LIMIT		130657	8.21	815161	10.44	704366	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32745/1002		217762	8.54	1358602	10.77	1173944	15.57
MB 140-32745/4		233186	8.55	1381702	10.78	1229968	15.57
140-16376-1	SV-001-C-27	210257	8.53	1194896	10.77	1043672	15.57
140-16376-2	SV-004-C-27	191411	8.54	1130249	10.77	974960	15.58
140-16376-4	SV-DUP1-C-27	210919	8.55	1226735	10.78	1081918	15.58
140-16376-5	SV-155-C-27	251548	8.54	1520419	10.78	1277387	15.57
140-16376-8	SV-060-C-27	203227	8.54	1272475	10.77	1041985	15.57
140-16376-9	SV-150-C-27	220600	8.54	1351111	10.77	1202516	15.57
140-16376-10	SV-152-C-27	228916	8.54	1362730	10.78	1220774	15.57
140-16376-11	SV-141-C-27	228686	8.54	1380073	10.78	1244471	15.57
140-16376-14	SV-113-C-27	254178	8.53	1545932	10.77	1266721	15.57
140-16376-15	SV-088-C-27	220485	8.54	1308716	10.77	1118039	15.57
140-16376-16	SV-DUP02-C-27	226700	8.54	1369338	10.77	1118062	15.57
140-16376-17	SV-142-C-27	227228	8.54	1337929	10.77	1105963	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16376-7	SV-153-C-27	170891	8.54	1003124	10.77	880664	15.57
140-16376-8 DL	SV-060-C-27 DL	192521	8.54	1107901	10.78	958178	15.57
140-16376-11 DL	SV-141-C-27 DL	170125	8.54	1018189	10.77	869046	15.57
140-16376-12	SV-149-C-27	177520	8.53	1049539	10.77	846156	15.57
140-16376-13	SV-126-C-27	169919	8.54	1006028	10.77	827032	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32956/2 Date Analyzed: 08/26/2019 06:51

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH26.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		261101	8.53	1564138	10.77	1263318	15.57
UPPER LIMIT		365541	8.86	2189793	11.10	1768645	15.90
LOWER LIMIT		156661	8.20	938483	10.44	757991	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32956/1002		261101	8.53	1564138	10.77	1263318	15.57
MB 140-32956/4		262440	8.53	1591487	10.77	1298062	15.57
140-16376-12 DL	SV-149-C-27 DL	199464	8.54	1126856	10.77	914132	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.065	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.50		0.40	0.11
67-66-3	Chloroform	119.38	0.14	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.1		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.43		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.066	J	0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.52		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	7.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.26	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.66	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	8.3		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.2		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.44	J	2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.1		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	41		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	7.8		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	7.4		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.44		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	29		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.81		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	38		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	29		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.50	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.56	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.8		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	160		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	14	1.4
56-23-5	Carbon tetrachloride	153.81	ND		14	1.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.7
67-66-3	Chloroform	119.38	7.0	J	14	1.2
156-59-2	cis-1,2-Dichloroethene	96.94	11	J	14	1.7
75-71-8	Dichlorodifluoromethane	120.91	ND		14	2.4
75-34-3	1,1-Dichloroethane	98.96	720		14	1.2
107-06-2	1,2-Dichloroethane	98.96	ND		14	1.7
75-35-4	1,1-Dichloroethene	96.94	790		14	1.4
100-41-4	Ethylbenzene	106.17	30		14	2.2
75-09-2	Methylene Chloride	84.93	56	J B	68	27
1634-04-4	Methyl tert-butyl ether	88.15	ND		68	8.8
91-20-3	Naphthalene	128.17	15		6.8	13
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		20	13
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	14	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		14	11
71-55-6	1,1,1-Trichloroethane	133.41	340		14	6.3
79-00-5	1,1,2-Trichloroethane	133.41	ND		14	1.2
79-01-6	Trichloroethene	131.39	220		6.8	1.0
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		14	6.1
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		14	3.4
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		14	3.7
75-01-4	Vinyl chloride	62.50	ND		6.8	4.4
1330-20-7	Xylenes, Total	106.17	280		27	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.9	J	43	4.3
56-23-5	Carbon tetrachloride	153.81	ND		85	7.5
75-45-6	Chlorodifluoromethane	86.47	ND		48	13
67-66-3	Chloroform	119.38	34	J	66	5.8
156-59-2	cis-1,2-Dichloroethene	96.94	45	J	54	6.7
75-71-8	Dichlorodifluoromethane	120.91	ND		67	12
75-34-3	1,1-Dichloroethane	98.96	2900		55	4.8
107-06-2	1,2-Dichloroethane	98.96	ND		55	6.9
75-35-4	1,1-Dichloroethene	96.94	3100		54	5.4
100-41-4	Ethylbenzene	106.17	130		59	9.6
75-09-2	Methylene Chloride	84.93	190	J B	240	94
1634-04-4	Methyl tert-butyl ether	88.15	ND		240	32
91-20-3	Naphthalene	128.17	77		36	68
127-18-4	Tetrachloroethene	165.83	ND		92	8.0
108-88-3	Toluene	92.14	ND		77	50
156-60-5	trans-1,2-Dichloroethene	96.94	10	J	54	4.7
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		100	81
71-55-6	1,1,1-Trichloroethane	133.41	1800		74	34
79-00-5	1,1,2-Trichloroethane	133.41	ND		74	6.5
79-01-6	Trichloroethene	131.39	1200		36	5.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		67	30
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		67	17
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		67	18
75-01-4	Vinyl chloride	62.50	ND		17	11
1330-20-7	Xylenes, Total	106.17	1200		120	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	6.1		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	9.2		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	*1,1-Dichloroethane*	*98.96*	*990*	*E*	*4.0*	*0.35*
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	400		4.0	0.40
100-41-4	Ethylbenzene	106.17	51		4.0	0.65
75-09-2	Methylene Chloride	84.93	18	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	23		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	4.7	J	6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	0.66	J	4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	280		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	170		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	2.8	J	4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5	J	4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	1.9	J	4.0	1.1
75-01-4	Vinyl chloride	62.50	2.6		2.0	1.3
1330-20-7	Xylenes, Total	106.17	480		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.6	J	13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	30		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	37		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	*1,1-Dichloroethane*	*98.96*	*4000*	*E*	*16*	*1.4*
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	1600		16	1.6
100-41-4	Ethylbenzene	106.17	220		17	2.8
75-09-2	Methylene Chloride	84.93	63	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	120		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	18	J	23	15
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	1500		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	890		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	14	J	20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	17	J	20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	9.5	J	20	5.4
75-01-4	Vinyl chloride	62.50	6.6		5.1	3.3
1330-20-7	Xylenes, Total	106.17	2100		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	940		13	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	3800		52	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.17	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.17	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	2.1		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.49		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.43		0.40	0.035
108-88-3	Toluene	92.14	0.72		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.5		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.1		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.34	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.67	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	1.1	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.3		1.4	0.39
67-66-3	Chloroform	119.38	0.81	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	19		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	8.4		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.1		1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.9		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	7.9		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.7	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	17		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	0.99	J	1.3	0.37
67-66-3	Chloroform	119.38	2.1		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	ND		1.3	0.22
75-09-2	Methylene Chloride	84.93	120	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	1.5		1.3	0.12
108-88-3	Toluene	92.14	ND		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	120		0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	1.6		0.67	0.43
1330-20-7	Xylenes, Total	106.17	ND		2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.73
75-45-6	Chlorodifluoromethane	86.47	3.5	J	4.7	1.3
67-66-3	Chloroform	119.38	10		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.67
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	ND		5.8	0.94
75-09-2	Methylene Chloride	84.93	420	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.6
127-18-4	Tetrachloroethene	165.83	10		9.0	0.79
108-88-3	Toluene	92.14	ND		7.5	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	620		3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	2.9
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	4.1		1.7	1.1
1330-20-7	Xylenes, Total	106.17	ND		12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.2		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.090	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.82		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.31	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	7.9		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.80	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.61	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	4.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.5	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.0		0.40	0.11
67-66-3	Chloroform	119.38	2.9		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.39	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.1		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.92		0.40	0.040
100-41-4	Ethylbenzene	106.17	11		0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.11	J	0.40	0.035
108-88-3	Toluene	92.14	0.78		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.43		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	3.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*120*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.36	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.27	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	91		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.95	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14		1.4	0.39
67-66-3	Chloroform	119.38	14		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	27		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	16		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	3.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	47		1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.76	J	2.7	0.24
108-88-3	Toluene	92.14	2.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	19		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*670*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.8	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	400		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	110		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	570		5.4	0.81

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.25	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.94	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	40	CI	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.3		1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	10		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	38		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.084	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	6.3		0.40	0.11
67-66-3	Chloroform	119.38	0.33	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.11	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.27	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.053	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.51		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	28		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.16	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.66	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	22		1.4	0.39
67-66-3	Chloroform	119.38	1.6	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.43	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.21	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.80	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.047	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	8.7		0.40	0.11
67-66-3	Chloroform	119.38	0.21	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.51		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.45		0.40	0.065
75-09-2	Methylene Chloride	84.93	5.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	1.1		0.40	0.035
108-88-3	Toluene	92.14	0.55	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.66		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*90*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.24		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	31		1.4	0.39
67-66-3	Chloroform	119.38	1.0	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	2.0		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.9		1.7	0.28
75-09-2	Methylene Chloride	84.93	19	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	7.3		2.7	0.24
108-88-3	Toluene	92.14	2.1	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.6		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*480*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.62		0.51	0.33
1330-20-7	Xylenes, Total	106.17	12		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	61		0.59	0.088

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	330		3.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	62		8.3	0.83
56-23-5	Carbon tetrachloride	153.81	ND		8.3	0.73
75-45-6	Chlorodifluoromethane	86.47	ND		8.3	2.3
67-66-3	Chloroform	119.38	ND		8.3	0.73
156-59-2	cis-1,2-Dichloroethene	96.94	57		8.3	1.0
75-71-8	Dichlorodifluoromethane	120.91	ND		8.3	1.5
75-34-3	1,1-Dichloroethane	98.96	ND		8.3	0.73
107-06-2	1,2-Dichloroethane	98.96	ND		8.3	1.0
75-35-4	1,1-Dichloroethene	96.94	60		8.3	0.83
100-41-4	Ethylbenzene	106.17	4.1	J	8.3	1.3
75-09-2	Methylene Chloride	84.93	28	J B	42	17
1634-04-4	Methyl tert-butyl ether	88.15	ND		42	5.4
91-20-3	Naphthalene	128.17	ND		4.2	7.9
127-18-4	Tetrachloroethene	165.83	ND		8.3	0.73
108-88-3	Toluene	92.14	12		12	8.1
156-60-5	trans-1,2-Dichloroethene	96.94	10		8.3	0.73
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		8.3	6.6
71-55-6	1,1,1-Trichloroethane	133.41	ND		8.3	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.3	0.73
79-01-6	Trichloroethene	131.39	37		4.2	0.62
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		8.3	3.7
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		8.3	2.1
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		8.3	2.3
75-01-4	*Vinyl chloride*	*62.50*	*2000*	*E*	*4.2*	*2.7*
1330-20-7	Xylenes, Total	106.17	11	J	17	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	200		27	2.7
56-23-5	Carbon tetrachloride	153.81	ND		52	4.6
75-45-6	Chlorodifluoromethane	86.47	ND		29	8.1
67-66-3	Chloroform	119.38	ND		41	3.5
156-59-2	cis-1,2-Dichloroethene	96.94	230		33	4.1
75-71-8	Dichlorodifluoromethane	120.91	ND		41	7.2
75-34-3	1,1-Dichloroethane	98.96	ND		34	2.9
107-06-2	1,2-Dichloroethane	98.96	ND		34	4.2
75-35-4	1,1-Dichloroethene	96.94	240		33	3.3
100-41-4	Ethylbenzene	106.17	18	J	36	5.9
75-09-2	Methylene Chloride	84.93	96	J B	140	58
1634-04-4	Methyl tert-butyl ether	88.15	ND		150	19
91-20-3	Naphthalene	128.17	ND		22	41
127-18-4	Tetrachloroethene	165.83	ND		56	4.9
108-88-3	Toluene	92.14	45		47	30
156-60-5	trans-1,2-Dichloroethene	96.94	40		33	2.9
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		62	49
71-55-6	1,1,1-Trichloroethane	133.41	ND		45	21
79-00-5	1,1,2-Trichloroethane	133.41	ND		45	4.0
79-01-6	Trichloroethene	131.39	200		22	3.3
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		41	18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		41	10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		41	11
75-01-4	*Vinyl chloride*	*62.50*	*5100*	*E*	*11*	*6.9*
1330-20-7	Xylenes, Total	106.17	49	J	72	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	1000		7.5	4.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	2700		19	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.35	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.095	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.18	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.074	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.38	J	0.40	0.065
75-09-2	*Methylene Chloride*	*84.93*	*230*	*E B*	*2.0*	*0.80*
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	4.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.041	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.68		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	2.7		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.1	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.70	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.29	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	*Methylene Chloride*	*84.93*	*810*	*E B*	*6.9*	*2.8*
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	15		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.16	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.7		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.84	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	6.8		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	180	B	22	8.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	630	B	75	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.050	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.058	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.4		0.40	0.11
67-66-3	Chloroform	119.38	0.27	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	4.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.065	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	3.0		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	12	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.037	J	0.40	0.035
108-88-3	Toluene	92.14	0.81		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.065	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	33		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.23	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.1		1.4	0.39
67-66-3	Chloroform	119.38	1.3	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	18		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.26	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	12		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.84	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	42	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.25	J	2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.26	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	180		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.11	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.8		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.5		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.45	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	36		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.89	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.040	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.39	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.41		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.078	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	4.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.5		1.4	0.39
67-66-3	Chloroform	119.38	0.51	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	5.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.16	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	4.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.31	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.88	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	18		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.63		0.40	0.11
67-66-3	Chloroform	119.38	1.1		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	10	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	0.49	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.2		1.4	0.39
67-66-3	Chloroform	119.38	5.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	36	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.99	J	2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.501		1.48	2.00	-26.1	30.0
Propene	Ave	0.996	0.6933		1.39	2.00	-30.4*	30.0
Dichlorodifluoromethane	Ave	3.947	3.431		1.74	2.00	-13.1	30.0
Chloromethane	Ave	0.2864	0.1932		1.35	2.00	-32.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.175		1.94	2.00	-3.1	30.0
Acetaldehyde	Ave	0.3158	0.1909		6.05	10.0	-39.5*	30.0
Vinyl chloride	Ave	1.044	0.7807		1.49	2.00	-25.3	30.0
1,3-Butadiene	Ave	0.7597	0.5632		1.48	2.00	-25.9	30.0
Butane	Ave	1.492	0.9683		1.30	2.00	-35.1*	30.0
Bromomethane	Ave	0.9503	0.8520		1.79	2.00	-10.3	30.0
Chloroethane	Ave	0.4643	0.3467		1.49	2.00	-25.3	30.0
Ethanol	Ave	0.3217	0.1826		5.68	10.0	-43.2*	30.0
Vinyl bromide	Ave	0.8333	0.8155		1.96	2.00	-2.1	30.0
2-Methylbutane	Ave	0.9463	0.6074		1.28	2.00	-35.8*	30.0
Trichlorofluoromethane	Ave	3.185	2.959		1.86	2.00	-7.1	30.0
Acrolein	Ave	0.1381	0.0846		1.23	2.00	-38.7*	30.0
Acetonitrile	Ave	0.2308	0.1313		1.14	2.00	-43.1*	30.0
Acetone	Ave	0.2705	0.1706		3.78	6.00	-37.0*	30.0
Pentane	Ave	0.1347	0.1160		1.72	2.00	-13.9	30.0
Isopropyl alcohol	Ave	0.7723	0.4608		3.58	6.00	-40.3*	30.0
Ethyl ether	Ave	0.5689	0.3367		1.18	2.00	-40.8*	30.0
1,1-Dichloroethene	Ave	1.140	1.156		2.03	2.00	1.4	30.0
Acrylonitrile	Ave	0.5581	0.4247		1.52	2.00	-23.9	30.0
tert-Butyl alcohol	Ave	1.715	1.182		1.38	2.00	-31.1*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.508		2.01	2.00	0.5	30.0
Methylene Chloride	Ave	1.108	1.086		1.96	2.00	-2.0	30.0
3-Chloropropene	Ave	1.095	0.8096		1.48	2.00	-26.1	30.0
Carbon disulfide	Ave	3.065	2.981		1.95	2.00	-2.7	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.202		2.11	2.00	5.4	30.0
2-Methylpentane	Ave	2.358	1.738		1.47	2.00	-26.3	30.0
Methyl tert-butyl ether	Ave	3.072	2.442		1.59	2.00	-20.5	30.0
1,1-Dichloroethane	Ave	2.187	1.877		1.72	2.00	-14.2	30.0
Vinyl acetate	Ave	2.107	1.496		1.42	2.00	-29.0	30.0
2-Butanone (MEK)	Ave	0.4337	0.3355		1.55	2.00	-22.6	30.0
Hexane	Ave	0.9137	0.7777		1.70	2.00	-14.9	30.0
Isopropyl ether	Ave	2.914	1.957		1.34	2.00	-32.9*	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.199		2.05	2.00	2.4	30.0
Ethyl acetate	Ave	1.876	1.233		1.31	2.00	-34.3*	30.0
Chloroform	Ave	2.715	2.511		1.85	2.00	-7.5	30.0
Tert-butyl ethyl ether	Ave	3.293	2.446		1.49	2.00	-25.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6045		1.25	2.00	-37.6*	30.0
1,1,1-Trichloroethane	Ave	3.254	3.045		1.87	2.00	-6.4	30.0
1,2-Dichloroethane	Ave	0.3682	0.3008		1.63	2.00	-18.3	30.0
Benzene	Ave	0.5978	0.5651		1.89	2.00	-5.5	30.0
Cyclohexane	Ave	0.1107	0.0970		1.75	2.00	-12.3	30.0
1-Butanol	Ave	0.0501	0.0299		1.19	2.00	-40.3*	30.0
Carbon tetrachloride	Ave	0.6079	0.5736		1.89	2.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1363		1.79	2.00	-10.4	30.0
Thiophene	Ave	0.3534	0.3477		1.97	2.00	-1.6	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.8187		1.56	2.00	-22.0	30.0
Heptane	Ave	0.2329	0.2056		1.77	2.00	-11.7	30.0
1,2-Dichloropropane	Ave	0.2110	0.1786		1.69	2.00	-15.4	30.0
Trichloroethene	Ave	0.3335	0.3427		2.06	2.00	2.8	30.0
Dibromomethane	Ave	0.2511	0.2400		1.91	2.00	-4.4	30.0
Bromodichloromethane	Ave	0.5049	0.4818		1.91	2.00	-4.6	30.0
1,4-Dioxane	Ave	0.0869	0.0618		1.42	2.00	-29.0	30.0
Methyl methacrylate	Ave	0.2246	0.1434		1.28	2.00	-36.2*	30.0
Methylcyclohexane	Ave	0.4217	0.3913		1.86	2.00	-7.2	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.1995		1.22	2.00	-38.9*	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3262		1.85	2.00	-7.6	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3322		1.80	2.00	-10.0	30.0
Toluene	Ave	0.7865	0.7510		1.91	2.00	-4.5	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2112		1.83	2.00	-8.3	30.0
2-Hexanone	Ave	0.1912	0.1268		1.33	2.00	-33.7*	30.0
Octane	Ave	0.2861	0.2774		1.94	2.00	-3.0	30.0
Dibromochloromethane	Ave	0.5582	0.5826		2.09	2.00	4.4	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4425		2.07	2.00	3.5	30.0
Tetrachloroethene	Ave	0.3641	0.3497		1.92	2.00	-4.0	30.0
Chlorobenzene	Ave	0.6563	0.6694		2.04	2.00	2.0	30.0
2,3-Dimethylheptane	Ave	0.7538	0.5283		1.40	2.00	-29.9	30.0
Ethylbenzene	Ave	1.041	0.9814		1.88	2.00	-5.8	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7506		3.68	4.00	-7.9	30.0
Nonane	Ave	0.5001	0.4062		1.62	2.00	-18.8	30.0
Bromoform	Ave	0.5067	0.5559		2.19	2.00	9.7	30.0
Styrene	Ave	0.5330	0.5534		2.08	2.00	3.8	30.0
o-Xylene	Ave	0.8833	0.8008		1.81	2.00	-9.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4653		1.80	2.00	-9.9	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1766		1.76	2.00	-11.8	30.0
Isopropylbenzene	Ave	1.202	1.099		1.83	2.00	-8.6	30.0
Propylbenzene	Ave	0.3368	0.3213		1.91	2.00	-4.6	30.0
2-Chlorotoluene	Ave	0.3248	0.3250		2.00	2.00	0.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.105		1.87	2.00	-6.3	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4739		1.92	2.00	-4.1	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4741		2.07	2.00	3.7	30.0
Decane	Ave	0.6385	0.4816		1.51	2.00	-24.6	30.0
tert-Butylbenzene	Ave	1.121	1.044		1.86	2.00	-6.8	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9275		1.77	2.00	-11.7	30.0
sec-Butylbenzene	Ave	1.470	1.354		1.84	2.00	-7.9	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.7471		2.02	2.00	1.1	30.0
Benzyl chloride	Ave	0.8145	0.7519		1.85	2.00	-7.7	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.7528		2.02	2.00	0.9	30.0
4-Isopropyltoluene	Ave	1.304	1.188		1.82	2.00	-8.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.9624		2.00	2.00	0.0	30.0
Butylcyclohexane	Ave	0.8263	0.7467		1.81	2.00	-9.6	30.0
Indane	Ave	0.9576	0.8974		1.87	2.00	-6.3	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.7140		2.05	2.00	2.7	30.0
Butylbenzene	Ave	1.167	0.9822		1.68	2.00	-15.8	30.0
Indene	Ave	0.7987	0.7784		1.95	2.00	-2.6	30.0
Undecane	Ave	0.5181	0.4843		1.87	2.00	-6.5	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.3470		1.96	2.00	-2.1	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	1.053		1.71	2.00	-14.5	30.0
Dodecane	Ave	0.4081	0.3355		1.64	2.00	-17.8	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5648		1.83	2.00	-8.7	30.0
Naphthalene	Ave	1.275	1.047		1.64	2.00	-17.9	30.0
Hexachlorobutadiene	Ave	0.6005	0.5673		1.89	2.00	-5.5	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4528		1.59	2.00	-20.7	30.0
2-Methylnaphthalene	Ave	0.4473	0.4022		1.80	2.00	-10.1	50.0
1-Methylnaphthalene	Ave	0.4268	0.3881		1.82	2.00	-9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6596		3.80	4.00	-5.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.771		1.10	1.00	10.3	30.0
Propene	Ave	1.896	2.541		1.34	1.00	34.0*	30.0
Dichlorodifluoromethane	Ave	3.092	3.800		1.23	1.00	22.9	30.0
Chloromethane	Ave	0.4647	0.7107		1.53	1.00	53.0*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.915		1.86	1.00	85.8*	30.0
Acetaldehyde	Ave	0.5427	0.8295		7.64	5.00	52.9*	30.0
Vinyl chloride	Ave	1.472	1.833		1.25	1.00	24.5	30.0
1,3-Butadiene	Ave	1.068	1.520		1.42	1.00	42.3*	30.0
Butane	Ave	2.262	3.213		1.42	1.00	42.1*	30.0
Bromomethane	Ave	1.248	1.522		1.22	1.00	22.0	30.0
Chloroethane	Ave	0.6025	0.7812		1.30	1.00	29.7	30.0
Ethanol	Ave	0.5430	0.9274		8.54	5.00	70.8*	30.0
Vinyl bromide	Ave	1.042	1.384		1.33	1.00	32.9*	30.0
2-Methylbutane	Ave	1.688	2.245		1.33	1.00	33.0*	30.0
Trichlorofluoromethane	Ave	3.843	4.048		1.05	1.00	5.4	30.0
Acrolein	Ave	0.4757	0.5329		1.12	1.00	12.0	30.0
Acetonitrile	Ave	0.7083	0.7644		1.08	1.00	7.9	30.0
Acetone	Ave	0.6636	0.6815		3.08	3.00	2.7	30.0
Isopropyl alcohol	Ave	2.248	2.429		3.24	3.00	8.1	30.0
Pentane	Ave	0.2541	0.2565		1.01	1.00	0.9	30.0
Ethyl ether	Ave	2.078	2.122		1.02	1.00	2.1	30.0
1,1-Dichloroethene	Ave	1.376	1.400		1.02	1.00	1.8	30.0
Acrylonitrile	Ave	1.038	1.159		1.12	1.00	11.7	30.0
tert-Butyl alcohol	Ave	2.773	3.042		1.10	1.00	9.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.225		1.13	1.00	12.8	30.0
Methylene Chloride	Ave	1.414	1.537		1.09	1.00	8.7	30.0
3-Chloropropene	Ave	1.574	1.813		1.15	1.00	15.2	30.0
Carbon disulfide	Ave	3.618	3.984		1.10	1.00	10.1	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.487		1.03	1.00	2.8	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.094		1.05	1.00	5.0	30.0
1,1-Dichloroethane	Ave	2.742	2.915		1.06	1.00	6.3	30.0
Vinyl acetate	Ave	4.786	4.941		1.03	1.00	3.2	30.0
2-Butanone (MEK)	Ave	0.7340	0.6703		0.913	1.00	-8.7	30.0
Hexane	Ave	1.256	1.262		1.01	1.00	0.5	30.0
Isopropyl ether	Ave	5.958	6.354		1.07	1.00	6.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.545		0.944	1.00	-5.6	30.0
Ethyl acetate	Ave	4.240	4.488		1.06	1.00	5.8	30.0
Chloroform	Ave	3.365	3.445		1.02	1.00	2.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.974		1.00	1.00	0.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.188		1.03	1.00	3.3	30.0
1,1,1-Trichloroethane	Ave	3.700	3.649		0.986	1.00	-1.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3900		1.01	1.00	1.3	30.0
1-Butanol	Ave	0.1530	0.1363		0.891	1.00	-10.9	30.0
Benzene	Ave	0.8101	0.7482		0.924	1.00	-7.6	30.0
Cyclohexane	Ave	0.1272	0.1212		0.953	1.00	-4.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6113		0.944	1.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1634		0.895	1.00	-10.5	30.0
Thiophene	Ave	0.4106	0.3987		0.971	1.00	-2.9	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.248		0.922	1.00	-7.8	30.0
Heptane	Ave	0.2826	0.2579		0.913	1.00	-8.7	30.0
1,2-Dichloropropane	Ave	0.3122	0.2847		0.912	1.00	-8.8	30.0
Trichloroethene	Ave	0.3563	0.3258		0.914	1.00	-8.6	30.0
Dibromomethane	Ave	0.3305	0.3073		0.930	1.00	-7.0	30.0
Bromodichloromethane	Ave	0.5996	0.5387		0.898	1.00	-10.2	30.0
1,4-Dioxane	Ave	0.1245	0.1187		0.953	1.00	-4.7	30.0
Methyl methacrylate	Ave	0.4444	0.4181		0.941	1.00	-5.9	30.0
Methylcyclohexane	Ave	0.4659	0.4312		0.925	1.00	-7.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7409		0.934	1.00	-6.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4311		0.921	1.00	-7.9	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4508		0.906	1.00	-9.4	30.0
Toluene	Ave	1.029	0.9897		0.962	1.00	-3.8	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3069		0.962	1.00	-3.8	30.0
2-Hexanone	Ave	0.3809	0.3585		0.941	1.00	-5.9	30.0
Octane	Ave	0.3372	0.3139		0.931	1.00	-6.9	30.0
Dibromochloromethane	Ave	0.7076	0.6283		0.888	1.00	-11.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5948		0.972	1.00	-2.8	30.0
Tetrachloroethene	Ave	0.4203	0.3754		0.893	1.00	-10.7	30.0
Chlorobenzene	Ave	0.8559	0.8670		1.01	1.00	1.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.379		1.08	1.00	7.7	30.0
Ethylbenzene	Ave	1.444	1.452		1.01	1.00	0.6	30.0
m-Xylene & p-Xylene	Ave	1.134	1.231		2.17	2.00	8.6	30.0
Nonane	Ave	0.7430	0.7796		1.05	1.00	4.9	30.0
Bromoform	Ave	0.6340	0.6246		0.985	1.00	-1.5	30.0
Styrene	Ave	0.7807	0.8185		1.05	1.00	4.8	30.0
o-Xylene	Ave	1.190	1.206		1.01	1.00	1.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8108		0.967	1.00	-3.3	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2599		0.978	1.00	-2.2	30.0
Isopropylbenzene	Ave	1.766	1.675		0.948	1.00	-5.2	30.0
Propylbenzene	Ave	0.4491	0.4314		0.961	1.00	-3.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4043		0.945	1.00	-5.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.685		0.957	1.00	-4.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6503		0.969	1.00	-3.1	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6057		0.941	1.00	-5.9	30.0
Decane	Ave	1.022	1.002		0.980	1.00	-2.0	30.0
tert-Butylbenzene	Ave	1.569	1.605		1.02	1.00	2.3	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.585		1.02	1.00	1.9	30.0
sec-Butylbenzene	Ave	2.233	2.360		1.06	1.00	5.7	30.0
1,3-Dichlorobenzene	Ave	1.059	1.037		0.979	1.00	-2.1	30.0
Benzyl chloride	Ave	1.214	1.221		1.01	1.00	0.6	30.0
1,4-Dichlorobenzene	Ave	1.045	1.020		0.977	1.00	-2.3	30.0
4-Isopropyltoluene	Ave	1.804	1.821		1.01	1.00	0.9	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.601		1.05	1.00	4.6	30.0
Butylcyclohexane	Ave	1.144	1.231		1.08	1.00	7.5	30.0
1,2-Dichlorobenzene	Ave	1.032	1.046		1.01	1.00	1.3	30.0
Indane	Ave	1.389	1.533		1.10	1.00	10.4	30.0
Indene	Ave	1.254	1.284		1.02	1.00	2.4	30.0
Butylbenzene	Ave	1.857	2.044		1.10	1.00	10.1	30.0
Undecane	Ave	1.206	1.346		1.12	1.00	11.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4453		0.880	1.00	-12.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.787		1.03	1.00	3.2	30.0
Dodecane	Ave	1.172	1.236		1.05	1.00	5.5	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.9356		0.948	1.00	-5.2	30.0
Naphthalene	Ave	2.038	2.021		0.992	1.00	-0.8	30.0
Hexachlorobutadiene	Ave	0.9802	0.9641		0.984	1.00	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.9084		1.00	1.00	0.0	30.0
2-Methylnaphthalene	Ave	0.5850	0.6255		1.07	1.00	6.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6307		1.12	1.00	12.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6662		3.86	4.00	-3.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.036		0.888	1.00	-11.2	30.0
Propene	Ave	1.896	2.197		1.16	1.00	15.9	30.0
Dichlorodifluoromethane	Ave	3.092	3.350		1.08	1.00	8.3	30.0
Chloromethane	Ave	0.4647	0.5906		1.27	1.00	27.1	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.171		2.02	1.00	102.2*	30.0
Acetaldehyde	Ave	0.5427	0.7247		6.68	5.00	33.5*	30.0
Vinyl chloride	Ave	1.472	1.791		1.22	1.00	21.6	30.0
1,3-Butadiene	Ave	1.068	1.409		1.32	1.00	31.9*	30.0
Butane	Ave	2.262	2.741		1.21	1.00	21.2	30.0
Bromomethane	Ave	1.248	1.673		1.34	1.00	34.1*	30.0
Chloroethane	Ave	0.6025	0.8080		1.34	1.00	34.1*	30.0
Ethanol	Ave	0.5430	0.7034		6.48	5.00	29.5	30.0
Vinyl bromide	Ave	1.042	1.625		1.56	1.00	56.0*	30.0
2-Methylbutane	Ave	1.688	1.696		1.00	1.00	0.5	30.0
Trichlorofluoromethane	Ave	3.843	3.140		0.817	1.00	-18.3	30.0
Acrolein	Ave	0.4757	0.4118		0.866	1.00	-13.4	30.0
Acetonitrile	Ave	0.7083	0.5789		0.817	1.00	-18.3	30.0
Acetone	Ave	0.6636	0.5380		2.43	3.00	-18.9	30.0
Isopropyl alcohol	Ave	2.248	1.838		2.45	3.00	-18.2	30.0
Pentane	Ave	0.2541	0.1839		0.724	1.00	-27.6	30.0
Ethyl ether	Ave	2.078	1.566		0.753	1.00	-24.7	30.0
1,1-Dichloroethene	Ave	1.376	1.090		0.792	1.00	-20.8	30.0
tert-Butyl alcohol	Ave	2.773	2.244		0.809	1.00	-19.1	30.0
Acrylonitrile	Ave	1.038	0.8599		0.828	1.00	-17.2	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.481		0.868	1.00	-13.2	30.0
Methylene Chloride	Ave	1.414	1.286		0.910	1.00	-9.0	30.0
3-Chloropropene	Ave	1.574	1.373		0.872	1.00	-12.8	30.0
Carbon disulfide	Ave	3.618	3.104		0.858	1.00	-14.2	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.226		0.848	1.00	-15.2	30.0
2-Methylpentane	Ave	3.837	3.239		0.844	1.00	-15.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.295		0.845	1.00	-15.5	30.0
1,1-Dichloroethane	Ave	2.742	2.394		0.873	1.00	-12.7	30.0
Vinyl acetate	Ave	4.786	3.829		0.800	1.00	-20.0	30.0
2-Butanone (MEK)	Ave	0.7340	0.5508		0.750	1.00	-25.0	30.0
Hexane	Ave	1.256	1.024		0.815	1.00	-18.5	30.0
Isopropyl ether	Ave	5.958	5.064		0.850	1.00	-15.0	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.260		0.770	1.00	-23.0	30.0
Ethyl acetate	Ave	4.240	3.554		0.838	1.00	-16.2	30.0
Chloroform	Ave	3.365	2.761		0.821	1.00	-17.9	30.0
Tert-butyl ethyl ether	Ave	4.958	4.065		0.820	1.00	-18.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	1.700		0.803	1.00	-19.7	30.0
1,1,1-Trichloroethane	Ave	3.700	2.796		0.756	1.00	-24.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3052		0.793	1.00	-20.7	30.0
1-Butanol	Ave	0.1530	0.1053		0.688	1.00	-31.2*	30.0
Benzene	Ave	0.8101	0.6330		0.781	1.00	-21.9	30.0
Cyclohexane	Ave	0.1272	0.0951		0.747	1.00	-25.3	30.0
Carbon tetrachloride	Ave	0.6477	0.4796		0.740	1.00	-26.0	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1380		0.756	1.00	-24.4	30.0
Thiophene	Ave	0.4106	0.3437		0.837	1.00	-16.3	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.045		0.772	1.00	-22.8	30.0
Heptane	Ave	0.2826	0.2198		0.778	1.00	-22.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2443		0.782	1.00	-21.8	30.0
Trichloroethene	Ave	0.3563	0.2794		0.784	1.00	-21.6	30.0
Dibromomethane	Ave	0.3305	0.2628		0.795	1.00	-20.5	30.0
Bromodichloromethane	Ave	0.5996	0.4340		0.724	1.00	-27.6	30.0
1,4-Dioxane	Ave	0.1245	0.1040		0.835	1.00	-16.5	30.0
Methyl methacrylate	Ave	0.4444	0.3131		0.705	1.00	-29.5	30.0
Methylcyclohexane	Ave	0.4659	0.3515		0.754	1.00	-24.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.5845		0.737	1.00	-26.3	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.3614		0.772	1.00	-22.8	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4028		0.810	1.00	-19.0	30.0
Toluene	Ave	1.029	0.9047		0.879	1.00	-12.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2863		0.897	1.00	-10.3	30.0
2-Hexanone	Ave	0.3809	0.2993		0.786	1.00	-21.4	30.0
Octane	Ave	0.3372	0.2817		0.835	1.00	-16.5	30.0
Dibromochloromethane	Ave	0.7076	0.5396		0.762	1.00	-23.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5139		0.840	1.00	-16.0	30.0
Tetrachloroethene	Ave	0.4203	0.3499		0.833	1.00	-16.7	30.0
Chlorobenzene	Ave	0.8559	0.7588		0.887	1.00	-11.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.163		0.908	1.00	-9.2	30.0
Ethylbenzene	Ave	1.444	1.235		0.856	1.00	-14.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.004		1.77	2.00	-11.4	30.0
Nonane	Ave	0.7430	0.6368		0.857	1.00	-14.3	30.0
Bromoform	Ave	0.6340	0.5278		0.832	1.00	-16.8	30.0
Styrene	Ave	0.7807	0.6515		0.834	1.00	-16.6	30.0
o-Xylene	Ave	1.190	0.9553		0.803	1.00	-19.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.7343		0.876	1.00	-12.4	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2003		0.754	1.00	-24.6	30.0
Isopropylbenzene	Ave	1.766	1.388		0.786	1.00	-21.4	30.0
Propylbenzene	Ave	0.4491	0.3624		0.807	1.00	-19.3	30.0
2-Chlorotoluene	Ave	0.4278	0.3470		0.811	1.00	-18.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.421		0.807	1.00	-19.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.5605		0.835	1.00	-16.5	30.0
Alpha Methyl Styrene	Ave	0.6434	0.4965		0.772	1.00	-22.8	30.0
Decane	Ave	1.022	0.8627		0.844	1.00	-15.6	30.0
tert-Butylbenzene	Ave	1.569	1.262		0.804	1.00	-19.6	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.238		0.796	1.00	-20.4	30.0
sec-Butylbenzene	Ave	2.233	1.885		0.844	1.00	-15.6	30.0
1,3-Dichlorobenzene	Ave	1.059	0.8639		0.816	1.00	-18.4	30.0
Benzyl chloride	Ave	1.214	0.9814		0.808	1.00	-19.2	30.0
1,4-Dichlorobenzene	Ave	1.045	0.8474		0.811	1.00	-18.9	30.0
4-Isopropyltoluene	Ave	1.804	1.516		0.840	1.00	-16.0	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.298		0.848	1.00	-15.2	30.0
Butylcyclohexane	Ave	1.144	1.019		0.890	1.00	-11.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.8586		0.832	1.00	-16.8	30.0
Indane	Ave	1.389	1.170		0.842	1.00	-15.8	30.0
Butylbenzene	Ave	1.857	1.625		0.875	1.00	-12.5	30.0
Indene	Ave	1.254	0.998		0.796	1.00	-20.4	30.0
Undecane	Ave	1.206	1.038		0.861	1.00	-13.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.3447		0.681	1.00	-31.9*	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.443		0.834	1.00	-16.6	30.0
Dodecane	Ave	1.172	1.006		0.858	1.00	-14.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.7810		0.791	1.00	-20.9	30.0
Naphthalene	Ave	2.038	1.590		0.780	1.00	-22.0	30.0
Hexachlorobutadiene	Ave	0.9802	0.7784		0.794	1.00	-20.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.7848		0.864	1.00	-13.6	30.0
2-Methylnaphthalene	Ave	0.5850	0.6194		1.06	1.00	5.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6385		1.14	1.00	13.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6217		3.61	4.00	-9.9	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.557	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.207	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.718	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.226	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.785	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32745/1002

Matrix: Air Lab File ID: RCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.924		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.944		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.10		0.080	0.022
67-66-3	Chloroform	119.38	1.02		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.944		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.01		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.01		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.09		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.05		0.40	0.052
91-20-3	Naphthalene	128.17	0.992		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.893		0.080	0.0070
108-88-3	Toluene	92.14	0.962		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.03		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.948		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.986		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.962		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.914		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.05		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.02		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.969		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.25		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.18		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32777/1002

Matrix: Air Lab File ID: GCCVH21B-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.89		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.89		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.48		0.080	0.022
67-66-3	Chloroform	119.38	1.85		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.05		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.74		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.72		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.63		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.03		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.88		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.96		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.59		0.40	0.052
91-20-3	Naphthalene	128.17	1.64		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.92		0.080	0.0070
108-88-3	Toluene	92.14	1.91		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.11		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.83		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.87		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.83		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.06		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.00		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.77		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.92		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.49		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.49		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32956/1002

Matrix: Air Lab File ID: RCCVH26-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 06:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.781		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.740		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.888		0.080	0.022
67-66-3	Chloroform	119.38	0.821		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.770		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.08		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.873		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.793		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.792		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.856		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.910		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.845		0.40	0.052
91-20-3	Naphthalene	128.17	0.780		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.833		0.080	0.0070
108-88-3	Toluene	92.14	0.879		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.848		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.791		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.756		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.897		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.784		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.848		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.796		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.835		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.22		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.57		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32985/1002

Matrix: Air Lab File ID: JCCVH27-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 08:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.07		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.11		0.080	0.022
67-66-3	Chloroform	119.38	1.87		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.17		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.11		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.93		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.52		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.17		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.96		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.81		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.91		0.40	0.052
91-20-3	Naphthalene	128.17	2.27		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.89		0.080	0.0070
108-88-3	Toluene	92.14	2.06		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.19		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.20		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.68		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.01		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.94		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.94		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.09		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.56		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.81		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MG Start Date: 08/05/2019 14:36

Analysis Batch Number: 32317 End Date: 08/06/2019 03:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32317/1		08/05/2019 14:36	1	GBFBH05IC.D	RTX-5 0.32(mm)
IC 140-32317/2		08/05/2019 15:09	1	GH05ICLVL9.D	RTX-5 0.32(mm)
IC 140-32317/4		08/05/2019 16:33	1	GH05ICLVL10.D	RTX-5 0.32(mm)
IC 140-32317/7		08/05/2019 18:41	1	GH05ICLVL01.D	RTX-5 0.32(mm)
IC 140-32317/8		08/05/2019 19:23	1	GH05ICLVL02.D	RTX-5 0.32(mm)
140-15871-A-5 MDLV		08/05/2019 19:23	1		RTX-5 0.32(mm)
IC 140-32317/9		08/05/2019 20:05	1	GH05ICLVL03.D	RTX-5 0.32(mm)
140-15871-A-6 MDLV		08/05/2019 20:05	1		RTX-5 0.32(mm)
IC 140-32317/10		08/05/2019 20:47	1	GH05ICLVL04.D	RTX-5 0.32(mm)
140-15871-A-7 MDLV		08/05/2019 20:47	1		RTX-5 0.32(mm)
IC 140-32317/11		08/05/2019 21:30	1	GH05ICLVL05.D	RTX-5 0.32(mm)
140-15871-A-8 MDLV		08/05/2019 21:30	1		RTX-5 0.32(mm)
IC 140-32317/12		08/05/2019 22:16	1	GH05ICLVL06.D	RTX-5 0.32(mm)
ICIS 140-32317/13		08/05/2019 22:58	1	GH05ICLVL07.D	RTX-5 0.32(mm)
IC 140-32317/14		08/05/2019 23:41	1	GH05ICLVL8.D	RTX-5 0.32(mm)
ICV 140-32317/17		08/06/2019 01:46	1	GH05LCS.D	RTX-5 0.32(mm)
ZZZZZ		08/06/2019 03:17	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MG Start Date: 08/21/2019 12:22

Analysis Batch Number: 32777 End Date: 08/22/2019 02:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32777/1		08/21/2019 12:22	1	GBFBH21B.D	RTX-5 0.32(mm)
CCVIS 140-32777/2		08/21/2019 12:55	1	GCCVH21B.D	RTX-5 0.32(mm)
LCS 140-32777/1002		08/21/2019 12:55	1	GCCVH21B-LCS.d	RTX-5 0.32(mm)
MB 140-32777/4		08/21/2019 16:09	1	G500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 16:54	1		RTX-5 0.32(mm)
140-16376-3		08/22/2019 00:47	3.73	GH21P111.D	RTX-5 0.32(mm)
140-16376-4 DL		08/22/2019 01:29	3.53	GH21P112.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:55	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MJ Start Date: 08/27/2019 07:42

Analysis Batch Number: 32985 End Date: 08/27/2019 15:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32985/1		08/27/2019 07:42	1	JBFBH27.D	RTX-5 0.32(mm)
CCVIS 140-32985/2		08/27/2019 08:11	1	JCCVH27.D	RTX-5 0.32(mm)
LCS 140-32985/1002		08/27/2019 08:11	1	JCCVH27-LCS.d	RTX-5 0.32(mm)
MB 140-32985/4		08/27/2019 10:12	1	J500BH27.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 11:02	1		RTX-5 0.32(mm)
140-16376-6		08/27/2019 12:41	1	JH27P214.D	RTX-5 0.32(mm)
140-16376-13 DL		08/27/2019 14:52	1.52	JH27P101.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 15:43	3.72		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/20/2019 08:48

Analysis Batch Number: 32745 End Date: 08/21/2019 06:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32745/1		08/20/2019 08:48	1	RBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32745/2		08/20/2019 09:15	1	RCCVH20.D	RTX-5 0.32(mm)
LCS 140-32745/1002		08/20/2019 09:15	1	RCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32745/4		08/20/2019 12:04	1	R500BH20.D	RTX-5 0.32(mm)
140-16376-1		08/20/2019 12:52	1	RH20P101.D	RTX-5 0.32(mm)
140-16376-2		08/20/2019 13:40	1	RH20P102.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:19	1		RTX-5 0.32(mm)
140-16376-4		08/20/2019 19:07	1	RH20P105.D	RTX-5 0.32(mm)
140-16376-5		08/20/2019 19:57	1	RH20P106.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:46	1		RTX-5 0.32(mm)
140-16376-8		08/20/2019 22:24	1	RH20P109.D	RTX-5 0.32(mm)
140-16376-9		08/20/2019 23:13	1	RH20P110.D	RTX-5 0.32(mm)
140-16376-10		08/21/2019 00:02	1	RH20P111.D	RTX-5 0.32(mm)
140-16376-11		08/21/2019 00:51	1	RH20P112.D	RTX-5 0.32(mm)
140-16376-14		08/21/2019 03:16	1	RH20P115.D	RTX-5 0.32(mm)
140-16376-15		08/21/2019 04:05	1	RH20P115D.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:54	1		RTX-5 0.32(mm)
140-16376-16		08/21/2019 05:43	1	RH20P201.D	RTX-5 0.32(mm)
140-16376-17		08/21/2019 06:31	1	H20L16368.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 15:21	2.87		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:08	1.45		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:57	1.53		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 17:48	1.89		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 18:36	1		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 19:23	3.64		RTX-5 0.32(mm)
140-16376-7		08/23/2019 21:47	1.76	RH23P110.D	RTX-5 0.32(mm)
140-16376-8 DL		08/23/2019 22:35	5.03	RH23P111.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
140-16376-11 DL		08/24/2019 00:10	1.47	RH23P112.D	RTX-5 0.32(mm)
140-16376-12		08/24/2019 01:00	4.15	RH23P113.D	RTX-5 0.32(mm)
140-16376-13		08/24/2019 01:50	1.52	RH23P114.D	RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 04:23	1.67		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/26/2019 06:24

Analysis Batch Number: 32956 End Date: 08/27/2019 02:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32956/1		08/26/2019 06:24	1	RBFBH26.D	RTX-5 0.32(mm)
CCVIS 140-32956/2		08/26/2019 06:51	1	RCCVH26.D	RTX-5 0.32(mm)
LCS 140-32956/1002		08/26/2019 06:51	1	RCCVH26-LCS.d	RTX-5 0.32(mm)
MB 140-32956/4		08/26/2019 08:49	1	R500BH26.D	RTX-5 0.32(mm)
ZZZZZ		08/26/2019 22:58	1		RTX-5 0.32(mm)
140-16376-12 DL		08/26/2019 23:46	4.15	RH26P111.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 00:35	1.52		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 01:23	3.72		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 02:17	1		RTX-5 0.32(mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32745 Batch Start Date: 08/20/19 08:48 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32745/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32745/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32745/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-1	SV-001-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-2	SV-004-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-5	SV-155-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-8	SV-060-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-9	SV-150-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-10	SV-152-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-11	SV-141-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-14	SV-113-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-15	SV-088-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-16	SV-DUP02-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-17	SV-142-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
LCS 140-32745/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32745/1		TO 15 LL		40 mL					
CCVIS 140-32745/2		TO 15 LL							
MB 140-32745/4		TO 15 LL							
140-16376-A-1	SV-001-C-27	TO 15 LL	T						
140-16376-A-2	SV-004-C-27	TO 15 LL	T						
140-16376-A-5	SV-155-C-27	TO 15 LL	T						
140-16376-A-8	SV-060-C-27	TO 15 LL	T						
140-16376-A-9	SV-150-C-27	TO 15 LL	T						
140-16376-A-10	SV-152-C-27	TO 15 LL	T						
140-16376-A-11	SV-141-C-27	TO 15 LL	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32745 Batch Start Date: 08/20/19 08:48 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16376-A-14	SV-113-C-27	TO 15 LL	T						
140-16376-A-15	SV-088-C-27	TO 15 LL	T						
140-16376-A-16	SV-DUP02-C-27	TO 15 LL	T						
140-16376-A-17	SV-142-C-27	TO 15 LL	T						
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T						
LCS 140-32745/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32777 Batch Start Date: 08/21/19 12:22 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32777/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32777/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32777/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-3	SV-102-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32777/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32777/1		TO 15 LL		40 mL					
CCVIS 140-32777/2		TO 15 LL							
MB 140-32777/4		TO 15 LL							
140-16376-A-3	SV-102-C-27	TO 15 LL	T						
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T						
LCS 140-32777/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-7	SV-153-C-27	TO 15 LL	T	176 mL	500 mL	1	1		40 mL
140-16376-A-8	SV-060-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-11	SV-141-C-27	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
140-16376-A-12	SV-149-C-27	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
140-16376-A-13	SV-126-C-27	TO 15 LL	T	152 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16376-A-7	SV-153-C-27	TO 15 LL	T						
140-16376-A-8	SV-060-C-27	TO 15 LL	T						
140-16376-A-11	SV-141-C-27	TO 15 LL	T						
140-16376-A-12	SV-149-C-27	TO 15 LL	T						
140-16376-A-13	SV-126-C-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32956 Batch Start Date: 08/26/19 06:24 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32956/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32956/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32956/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-12	SV-149-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32956/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32956/1		TO 15 LL		40 mL					
CCVIS 140-32956/2		TO 15 LL							
MB 140-32956/4		TO 15 LL							
140-16376-A-12	SV-149-C-27	TO 15 LL	T						
LCS 140-32956/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32985 Batch Start Date: 08/27/19 07:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32985/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32985/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32985/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-6	SV-133-C-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16376-A-13	SV-126-C-27	TO 15 LL	T	14 mL	500 mL	1	1		40 mL
LCS 140-32985/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32985/1		TO 15 LL		40 mL					
CCVIS 140-32985/2		TO 15 LL							
MB 140-32985/4		TO 15 LL							
140-16376-A-6	SV-133-C-27	TO 15 LL	T						
140-16376-A-13	SV-126-C-27	TO 15 LL	T						
LCS 140-32985/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16376-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16376-3	1	-4.4	0.85	0.85	32.1	3.18	3.18		3.73	3.73	08/21/19 13:47	Knight, Benjamin K
140-16376-4	1	-4.4	0.85	0.85	29.6	3.01	3.01		3.53	3.53	08/21/19 13:49	Knight, Benjamin K
140-16376-7	1	-8.0	0.73	0.73	4.2	1.29	1.29		1.75	1.76	08/23/19 11:49	Taj, Holly M
140-16376-8	1	-11.0	0.63	0.63	32.1	3.18	3.18		5.03	5.03	08/23/19 11:36	Taj, Holly M
140-16376-11	1	-4.5	0.85	0.85	3.7	1.25	1.25		1.47	1.47	08/23/19 11:50	Taj, Holly M
140-16376-12	1	-6.5	0.78	0.78	33.0	3.24	3.24		4.15	4.15	08/21/19 13:46	Knight, Benjamin K
140-16376-13	1	-4.9	0.84	0.84	4.0	1.27	1.27		1.52	1.52	08/23/19 11:51	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND	*	1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND	*	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND	*	2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND	*	0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND	*	0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND	*	5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND	*	1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D				
Lims ID:	140-15799-A-13				
Client ID:	09735				
Sample Type:	Client				
Inject. Date:	01-Jul-2019 14:18:30	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012175-005				
Misc. Info.:	09735				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	02-Jul-2019 15:20:34	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	02-Jul-2019 15:22:25		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	95	360511	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.329	0.006	95	2031465	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.010	16.010	0.000	87	1805839	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.633	0.000	97	1216973	4.38	
7 Propene	41	3.840	3.834	0.006	97	32675	0.2807	
31 Methylene Chloride	84	6.557	6.552	0.005	96	22489	0.1555	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

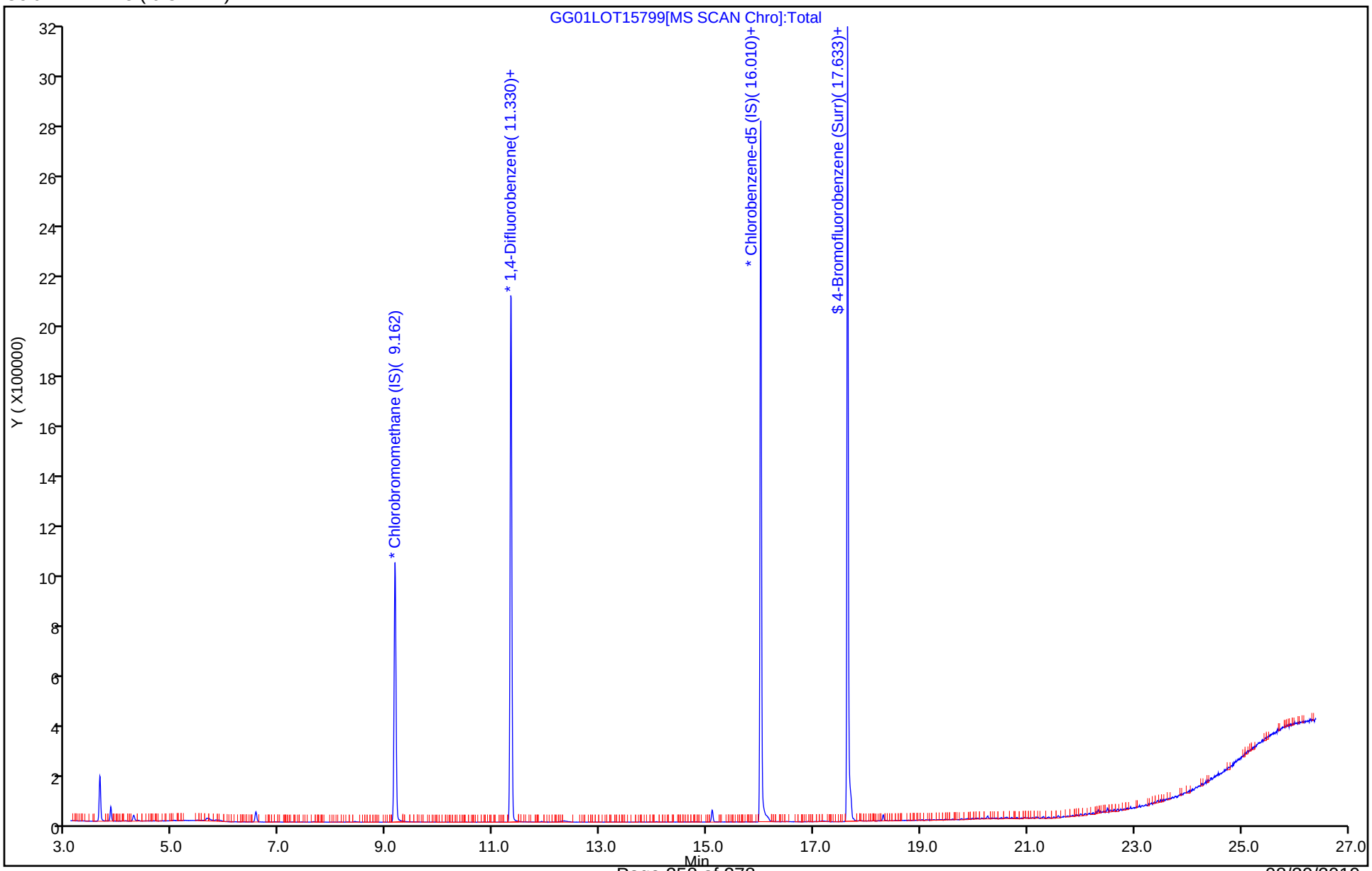
Report Date: 02-Jul-2019 15:22:26 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D

Injection Date:	01-Jul-2019 14:18:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-15799-A-13	Lab Sample ID:	140-15799-13	Worklist Smp#:	5
Client ID:	09735				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D
Lims ID: 140-15818-A-11
Client ID: 11554
Sample Type: Client
Inject. Date: 05-Jul-2019 05:25:30 ALS Bottle#: 1 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012211-023
Misc. Info.: 11554
Operator ID: AFB Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 08:25:59 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 08:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	87	283374	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1354218	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	87	1065007	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.255	17.281	-0.026	97	661926	3.65	
7 Propene	41	3.554	3.547	0.005	99	17412	0.2235	
31 Methylene Chloride	84	6.081	6.078	0.000	97	18749	0.1606	
33 Carbon disulfide	76	6.236	6.238	-0.006	90	4409	0.0141	
45 1,1,1-Trichloroethane	97	9.663	9.657	0.000	95	5088	0.0209	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

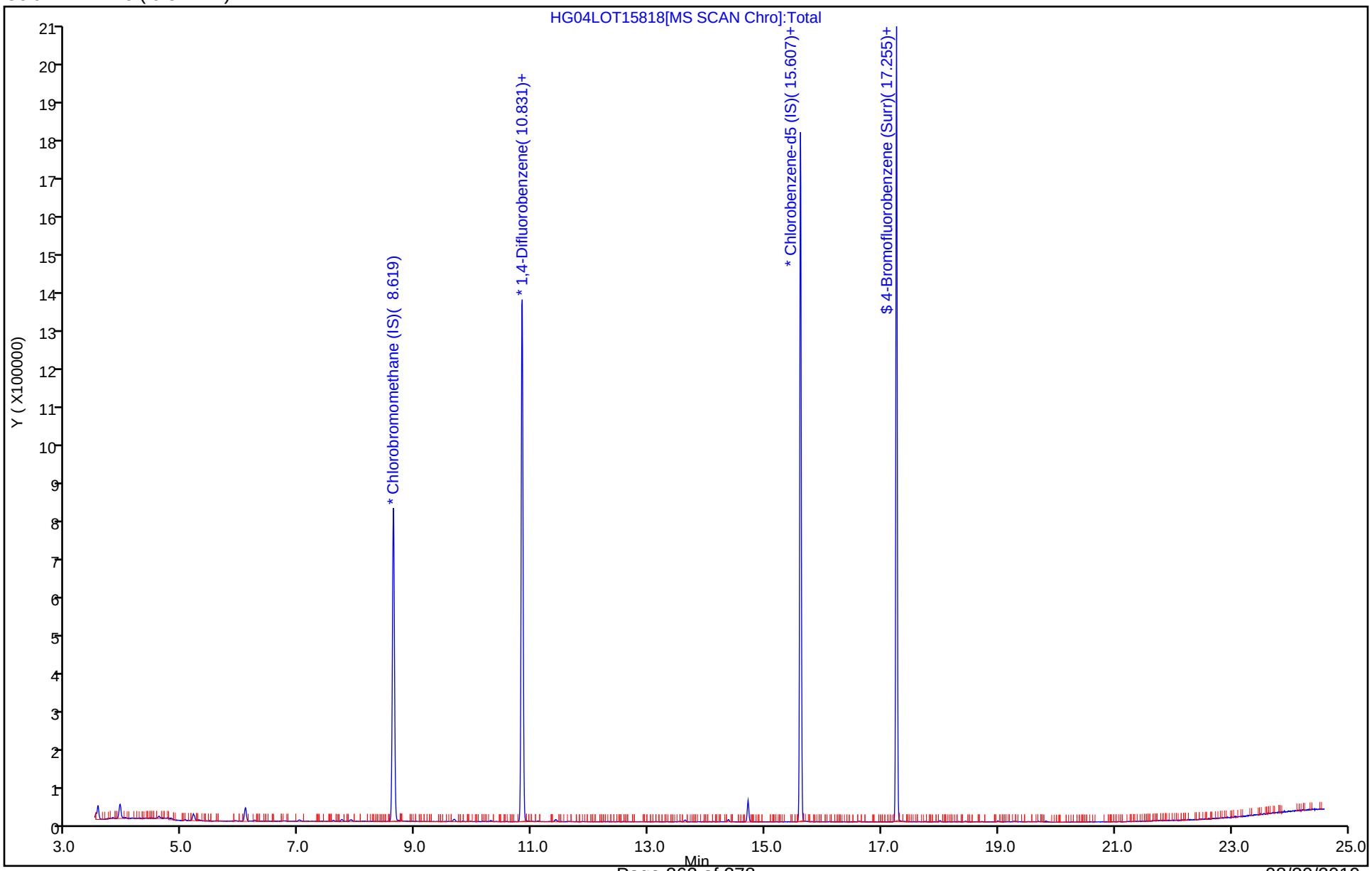
Report Date: 08-Jul-2019 08:26:27 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D

Injection Date:	05-Jul-2019 05:25:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	140-15818-A-11	Lab Sample ID:	140-15818-11	Worklist Smp#:	23
Client ID:	11554				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D
Lims ID: 140-15841-A-14
Client ID: 10746
Sample Type: Client
Inject. Date: 06-Jul-2019 14:02:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012246-004
Misc. Info.: 200mL 10746
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 12:30:24 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 12:31:45

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	85	391331	4.00	
*	2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1867475	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	86	1457045	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.276	17.281	-0.005	97	883485	3.56	
	7 Propene	41	3.554	3.554	0.000	98	24277	0.2256	
	31 Methylene Chloride	84	6.086	6.081	0.005	94	34631	0.2148	
	33 Carbon disulfide	76	6.247	6.242	0.005	96	8915	0.0207	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

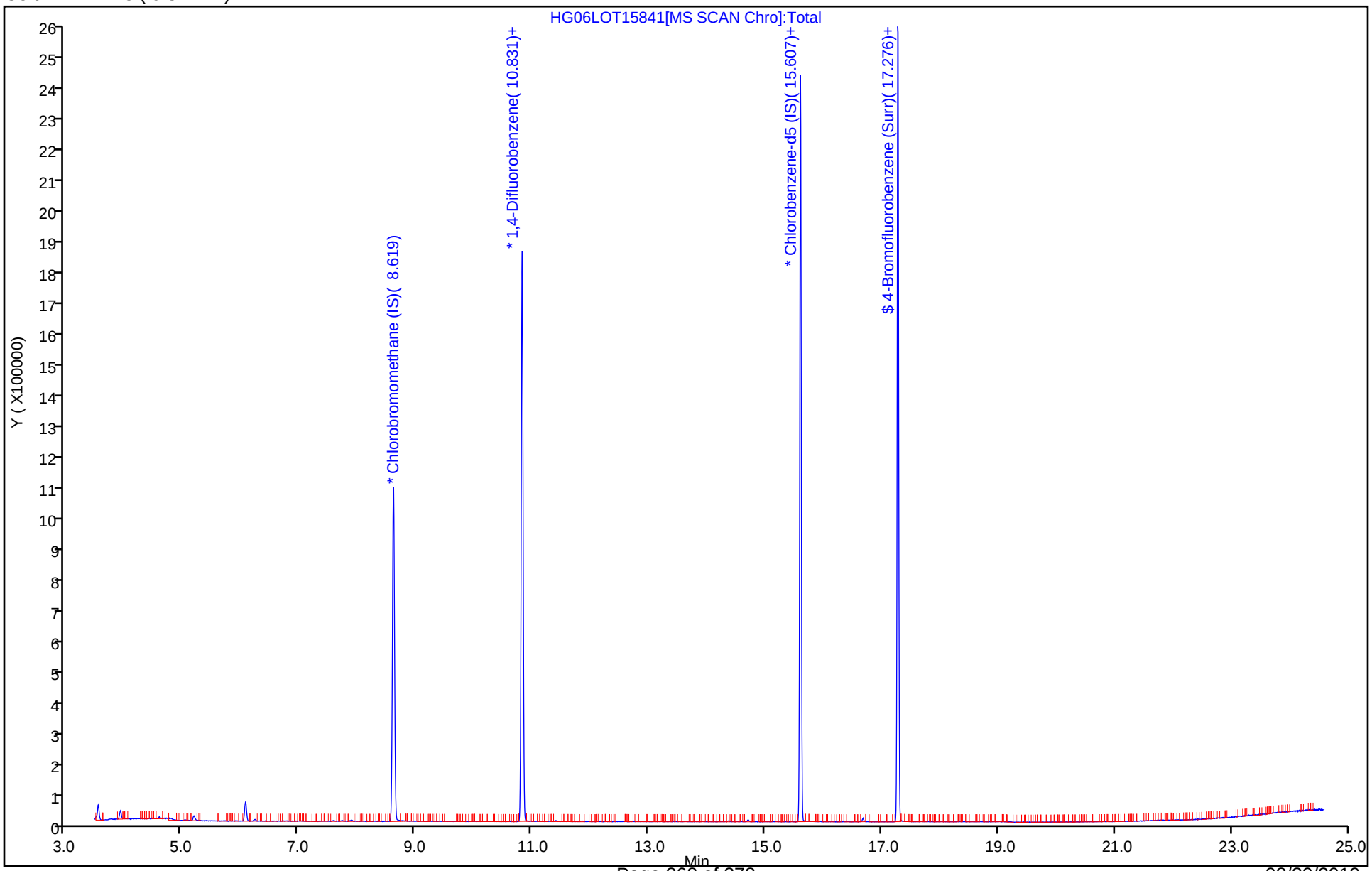
Report Date: 08-Jul-2019 12:31:46 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D

Injection Date:	06-Jul-2019 14:02:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-15841-A-14	Lab Sample ID:	140-15841-14	Worklist Smp#:	4
Client ID:	10746				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D
Lims ID: 140-15955-A-1
Client ID: 10500
Sample Type: Client
Inject. Date: 12-Jul-2019 07:00:30 ALS Bottle#: 13 Worklist Smp#: 26
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012293-026
Misc. Info.: 10500
Operator ID: HMT Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 12-Jul-2019 05:43:43 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: khachitpongpanits Date: 12-Jul-2019 18:45:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

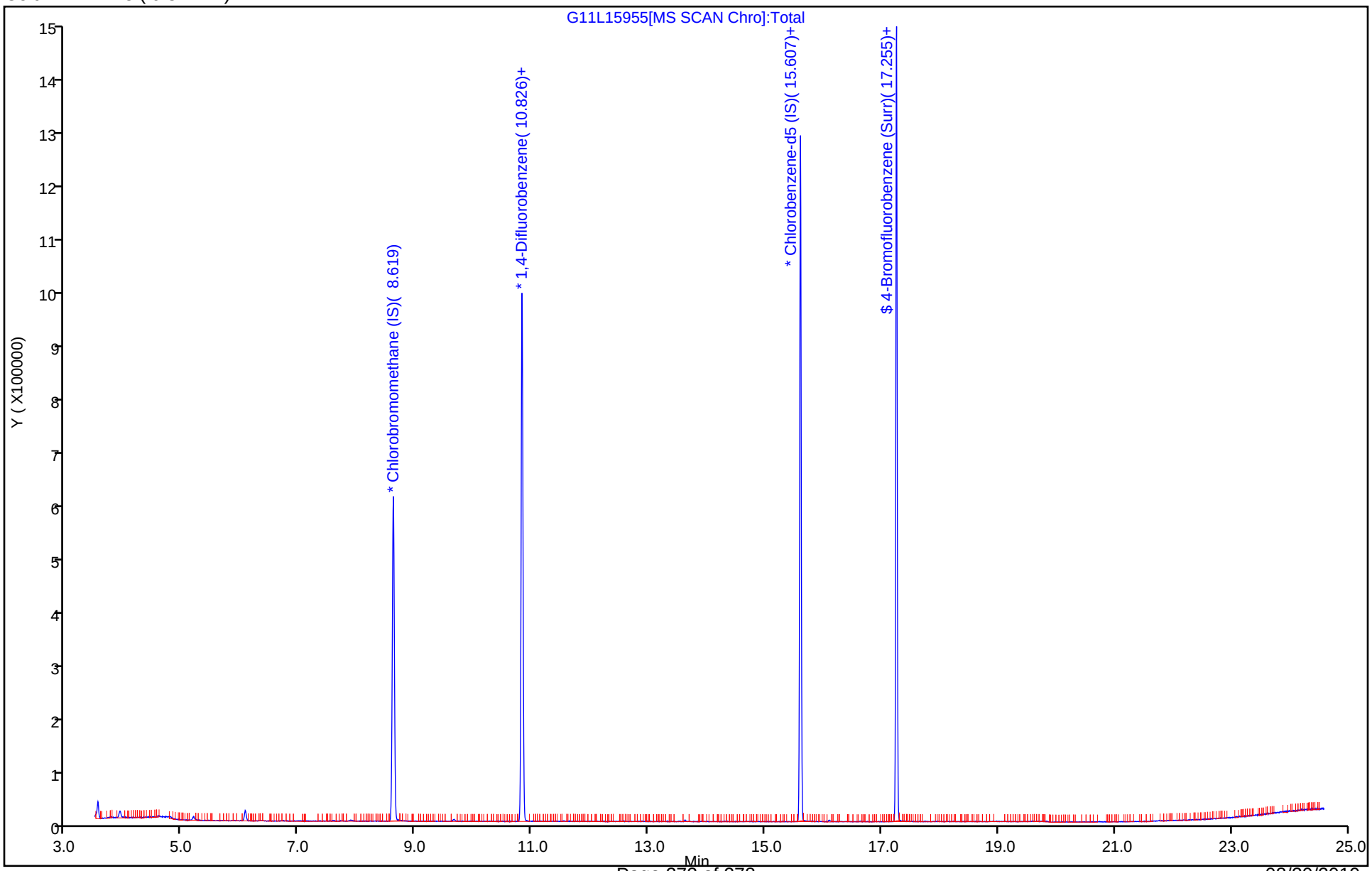
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



08/30/2019

Shipping and Receiving Documents

Baltimore #201

140-16376 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 1 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 202	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, B.H, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC05388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-001-C-27	8/14/19	0905	8/14/19	1024	-30	0	7255	11720	X									X		X			
SV-004-C-27		0912		1025	-26	0	7168	10746	X									X					
SV-102-C-27		0921		1030	-30	-2	8134	09660	X									X					
SV-DUP1-C-27		0000		0000	-30	0	7652	09665	X									X					
SV-155-C-27		0926		1032	-30	-4	8924	11830	X									X					
SV-133-C-27		0930		1034	-29	-2	11921	11616	X									X					
SV-153-C-27		0932		1037	-27	-3	7200	11256	X									X					
SV-060-C-27		0940		1040	-30	-7	7648	11741	X									X					
SV-150-C-27		0952		1055	-30	-4	11497	11723	X									X					SV-150
SV-152-C-27		0950		1053	-29	-3	11976	11554	X									X					SV-152

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

CUSTODY SEALS INTACT
RECEIVED AMBIENT
BXD 8-16-19
FEDX# 776006558067 M SAT
17 CANS / 17 FLOWS IN

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by: Walt P	Date / Time: 8/16/19 1300	Received by: [signature]
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] EPA KNX 8-17-19 10:31
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR
Company Name: TETRA TECH INC	Phone: 301-528-3021	COC No: 2 of 9 COCs
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM	
City/State/Zip GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR	For Lab Use Only:
Phone: 301-528-3021	Tel/Fax 410-279-3700	Walk-in Client:
FAX:	**Analysis Turnaround Time**	Lab Sampling:
Project Name: MPC SV/IAQ Round 27	Standard (Specific): 10 DAYS	Job / SDG No.:
Site/Location: MPC, BALT, MD	Rush (Specify):	(See below for Add'l Items)
P O # 112ICO5388		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-141-C-27	8/14/19	0956	8/14/19	1058	-28	-4	7657	09739	X									X					
SV-149-C-27		1002		1102	-30	-4	7650	11811	X									X					
SV-126-C-27		1004		1104	-30	-4	7367	09580	X									X					
SV-113-C-27		1009		1109	-28	-3	11938	11139	X									X					
SV-088-C-27		1011		1111	-30	-5	11990	11142	X									X					
SV-DUP02-C-27		0000		0000	-30	-3	11511	10336	X									X					
SV-142-C-27		1015		1113	-30	-4	11306	10493	X									X					
				8/14/19																			

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)		
	Interior	Ambient
Start		
Stop		

* VOID → Control # 10436, Can # 11628 NOT USED, Pressure gauge incorrect

* VOID → Control # 7196, Can # 11279 NOT USED, pressure incorrect

Special Instructions/QC Requirements & Comments: * MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** EVANSVILLE 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Loc: 140
16376

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓		✓	☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 8-19-19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/19/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
DLW	140-16376-a-1	11720	15955	B	1	0.0	15:59	
DLW	140-16376-a-2	10746	15841	B	1	0.0	15:59	
DLW	140-16376-a-3	09660	15841	B	1	-2.4	16:00	
DLW	140-16376-a-4	09665	15818	B	1	-1.6	16:00	
DLW	140-16376-a-5	11830	15841	B	1	-2.3	16:00	
DLW	140-16376-a-6	11616	15818	B	1	-3.2	16:01	
DLW	140-16376-a-7	11256	15841	B	1	-2.0	16:01	
DLW	140-16376-a-8	11741	15955	B	1	-5.5	16:01	
DLW	140-16376-a-9	11723	15799	B	1	-3.1	16:02	
DLW	140-16376-a-10	11554	15818	B	1	-3.2	16:02	
DLW	140-16376-a-11	09739	15955	B	1	-3.8	16:11	
DLW	140-16376-a-12	11811	15818	B	1	-4.3	16:11	
DLW	140-16376-a-13	09580	15818	B	1	-3.4	16:11	
DLW	140-16376-a-14	11139	15818	B	1	-4.1	16:12	
DLW	140-16376-a-15	11142	15955	B	1	-4.7	16:12	
DLW	140-16376-a-16	10336	15799	B	1	-3.8	16:12	
DLW	140-16376-a-17	10493	15841	B	1	-4.0	16:12	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

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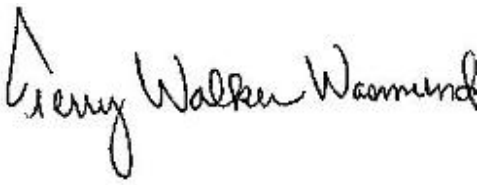
ANALYTICAL REPORT

Job Number: 140-16376-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:28 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Amy Thomson

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16376-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.065	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.50		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.14	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.1		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.33	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.1	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.43		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.066	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.52		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	7.6		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.26	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.34	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.66	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	8.3		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.50	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	7.3	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	2.2		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.44	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.1		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	41		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.087	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.24	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	7.8		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	7.4		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.23	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.5		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.44		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	29		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.81		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.86	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	38		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	29		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-004-C-27 (Continued) Lab Sample ID: 140-16376-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.50	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.56	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.8		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	160		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5	J	14	1.4	ppb v/v	3.73		TO 15 LL	Total/NA
Chloroform	7.0	J	14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	11	J	14	1.7	ppb v/v	3.73		TO 15 LL	Total/NA
1,1-Dichloroethane	720		14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
1,1-Dichloroethene	790		14	1.4	ppb v/v	3.73		TO 15 LL	Total/NA
Ethylbenzene	30		14	2.2	ppb v/v	3.73		TO 15 LL	Total/NA
Methylene Chloride	56	J B	68	27	ppb v/v	3.73		TO 15 LL	Total/NA
Naphthalene	15		6.8	13	ppb v/v	3.73		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6	J	14	1.2	ppb v/v	3.73		TO 15 LL	Total/NA
1,1,1-Trichloroethane	340		14	6.3	ppb v/v	3.73		TO 15 LL	Total/NA
Trichloroethene	220		6.8	1.0	ppb v/v	3.73		TO 15 LL	Total/NA
Xylenes, Total	280		27	4.1	ppb v/v	3.73		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.9	J	43	4.3	ug/m3	3.73		TO 15 LL	Total/NA
Chloroform	34	J	66	5.8	ug/m3	3.73		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45	J	54	6.7	ug/m3	3.73		TO 15 LL	Total/NA
1,1-Dichloroethane	2900		55	4.8	ug/m3	3.73		TO 15 LL	Total/NA
1,1-Dichloroethene	3100		54	5.4	ug/m3	3.73		TO 15 LL	Total/NA
Ethylbenzene	130		59	9.6	ug/m3	3.73		TO 15 LL	Total/NA
Methylene Chloride	190	J B	240	94	ug/m3	3.73		TO 15 LL	Total/NA
Naphthalene	77		36	68	ug/m3	3.73		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	10	J	54	4.7	ug/m3	3.73		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1800		74	34	ug/m3	3.73		TO 15 LL	Total/NA
Trichloroethene	1200		36	5.5	ug/m3	3.73		TO 15 LL	Total/NA
Xylenes, Total	1200		120	18	ug/m3	3.73		TO 15 LL	Total/NA

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5	J	4.0	0.40	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	6.1		4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	9.2		4.0	0.50	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	990	E	4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	400		4.0	0.40	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	51		4.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	18	J B	20	8.0	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	23		2.0	3.8	ppb v/v	1		TO 15 LL	Total/NA
Toluene	4.7	J	6.0	3.9	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.66	J	4.0	0.35	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP1-C-27 (Continued) Lab Sample ID: 140-16376-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	280		4.0	1.9	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	170		2.0	0.30	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	2.8	J	4.0	1.8	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.5	J	4.0	1.0	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.9	J	4.0	1.1	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	2.6		2.0	1.3	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	480		8.0	1.2	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane - DL	940		13	1.1	ppb v/v	3.53		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.6	J	13	1.3	ug/m3	1		TO 15 LL	Total/NA
Chloroform	30		20	1.7	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	37		16	2.0	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4000	E	16	1.4	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1600		16	1.6	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	220		17	2.8	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	63	J B	69	28	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	120		10	20	ug/m3	1		TO 15 LL	Total/NA
Toluene	18	J	23	15	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6	J	16	1.4	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1500		22	10	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	890		11	1.6	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	14	J	20	8.8	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	17	J	20	4.9	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	9.5	J	20	5.4	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	6.6		5.1	3.3	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2100		35	5.2	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane - DL	3800		52	4.5	ug/m3	3.53		TO 15 LL	Total/NA

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.17	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.17	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.38	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	2.1		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.49		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.43		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.72		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.5		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.1		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.34	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.67	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	1.1	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.3		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.81	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-155-C-27 (Continued) Lab Sample ID: 140-16376-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	19		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	8.4		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.1		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	15	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	2.9		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	7.9		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	5.9		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.7	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	17		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	0.99	J	1.3	0.37	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.1		1.3	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	1.3	0.23	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	120	B	6.7	2.7	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5		1.3	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	120		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	1.6		0.67	0.43	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	3.5	J	4.7	1.3	ug/m3	1		TO 15 LL	Total/NA
Chloroform	10		6.5	0.57	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	6.6	1.2	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	420	B	23	9.3	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	10		9.0	0.79	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	620		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	4.1		1.7	1.1	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1.76		TO 15 LL	Total/NA
Carbon tetrachloride	0.081	J	0.40	0.035	ppb v/v	1.76		TO 15 LL	Total/NA
Chlorodifluoromethane	2.2		0.40	0.11	ppb v/v	1.76		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1.76		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1.76		TO 15 LL	Total/NA
Methylene Chloride	6.9	B	2.0	0.80	ppb v/v	1.76		TO 15 LL	Total/NA
Tetrachloroethene	0.090	J	0.40	0.035	ppb v/v	1.76		TO 15 LL	Total/NA
Toluene	1.0		0.60	0.39	ppb v/v	1.76		TO 15 LL	Total/NA
Trichloroethene	0.82		0.20	0.030	ppb v/v	1.76		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.31	J	0.40	0.10	ppb v/v	1.76		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1.76		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1.76		TO 15 LL	Total/NA
Carbon tetrachloride	0.51	J	2.5	0.22	ug/m3	1.76		TO 15 LL	Total/NA
Chlorodifluoromethane	7.9		1.4	0.39	ug/m3	1.76		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1.76		TO 15 LL	Total/NA
Ethylbenzene	0.80	J	1.7	0.28	ug/m3	1.76		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-153-C-27 (Continued) Lab Sample ID: 140-16376-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	24	B	6.9	2.8	ug/m3	1.76		TO 15 LL	Total/NA
Tetrachloroethene	0.61	J	2.7	0.24	ug/m3	1.76		TO 15 LL	Total/NA
Toluene	3.9		2.3	1.5	ug/m3	1.76		TO 15 LL	Total/NA
Trichloroethene	4.4		1.1	0.16	ug/m3	1.76		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.5	J	2.0	0.49	ug/m3	1.76		TO 15 LL	Total/NA
Xylenes, Total	4.8		3.5	0.52	ug/m3	1.76		TO 15 LL	Total/NA

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.9		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.9		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.39	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.92		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	11		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.0	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.78		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.43		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.4		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	120	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.36	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.27	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	91		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	110		1.0	0.15	ppb v/v	5.03		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.95	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	14		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	14		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	27		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.9	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	16		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	3.7		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	47		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	21	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.76	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.7		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	19		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	670	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.8	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.3	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	400		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	570		5.4	0.81	ug/m3	5.03		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.5		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.19	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.25	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.17	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	8.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.94	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.37	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	40	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	6.3		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	10		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.0	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.81	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	38		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.084	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.33	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.7		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.27	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.51		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	28		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.29	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.16	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.4		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.66	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.53	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	22		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.6	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.9		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.43	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-152-C-27 (Continued) Lab Sample ID: 140-16376-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.2	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.21	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.8		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.80	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	6.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.047	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	8.7		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.21	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.51		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.45		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	5.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	1.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.55	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.66		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	90	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.24		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	2.8		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	61		0.59	0.088	ppb v/v	1.47		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	31		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.0	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	14		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	2.0		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.9		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	19	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	7.3		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.1	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.6		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	480	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.62		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	12		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	330		3.2	0.47	ug/m3	1.47		TO 15 LL	Total/NA

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	62		8.3	0.83	ppb v/v	4.15		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	57		8.3	1.0	ppb v/v	4.15		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-149-C-27 (Continued) Lab Sample ID: 140-16376-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	60		8.3	0.83	ppb v/v	4.15		TO 15 LL	Total/NA
Ethylbenzene	4.1	J	8.3	1.3	ppb v/v	4.15		TO 15 LL	Total/NA
Methylene Chloride	28	J B	42	17	ppb v/v	4.15		TO 15 LL	Total/NA
Toluene	12		12	8.1	ppb v/v	4.15		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	10		8.3	0.73	ppb v/v	4.15		TO 15 LL	Total/NA
Trichloroethene	37		4.2	0.62	ppb v/v	4.15		TO 15 LL	Total/NA
Vinyl chloride	2000	E	4.2	2.7	ppb v/v	4.15		TO 15 LL	Total/NA
Xylenes, Total	11	J	17	2.5	ppb v/v	4.15		TO 15 LL	Total/NA
Vinyl chloride - DL	1000		7.5	4.9	ppb v/v	4.15		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	200		27	2.7	ug/m3	4.15		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	230		33	4.1	ug/m3	4.15		TO 15 LL	Total/NA
1,1-Dichloroethene	240		33	3.3	ug/m3	4.15		TO 15 LL	Total/NA
Ethylbenzene	18	J	36	5.9	ug/m3	4.15		TO 15 LL	Total/NA
Methylene Chloride	96	J B	140	58	ug/m3	4.15		TO 15 LL	Total/NA
Toluene	45		47	30	ug/m3	4.15		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	40		33	2.9	ug/m3	4.15		TO 15 LL	Total/NA
Trichloroethene	200		22	3.3	ug/m3	4.15		TO 15 LL	Total/NA
Vinyl chloride	5100	E	11	6.9	ug/m3	4.15		TO 15 LL	Total/NA
Xylenes, Total	49	J	72	11	ug/m3	4.15		TO 15 LL	Total/NA
Vinyl chloride - DL	2700		19	13	ug/m3	4.15		TO 15 LL	Total/NA

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.35	J	0.40	0.040	ppb v/v	1.52		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.40	0.11	ppb v/v	1.52		TO 15 LL	Total/NA
Chloroform	0.095	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.18	J	0.40	0.050	ppb v/v	1.52		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.40		0.40	0.070	ppb v/v	1.52		TO 15 LL	Total/NA
1,1-Dichloroethene	0.074	J	0.40	0.040	ppb v/v	1.52		TO 15 LL	Total/NA
Ethylbenzene	0.38	J	0.40	0.065	ppb v/v	1.52		TO 15 LL	Total/NA
Methylene Chloride	230	E B	2.0	0.80	ppb v/v	1.52		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Toluene	4.1		0.60	0.39	ppb v/v	1.52		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.041	J	0.40	0.035	ppb v/v	1.52		TO 15 LL	Total/NA
Trichloroethene	0.68		0.20	0.030	ppb v/v	1.52		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.17	J	0.40	0.10	ppb v/v	1.52		TO 15 LL	Total/NA
Vinyl chloride	2.7		0.20	0.13	ppb v/v	1.52		TO 15 LL	Total/NA
Xylenes, Total	1.8		0.80	0.12	ppb v/v	1.52		TO 15 LL	Total/NA
Methylene Chloride - DL	180	B	22	8.7	ppb v/v	1.52		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1	J	1.3	0.13	ug/m3	1.52		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1.52		TO 15 LL	Total/NA
Chlorodifluoromethane	4.2		1.4	0.39	ug/m3	1.52		TO 15 LL	Total/NA
Chloroform	0.46	J	2.0	0.17	ug/m3	1.52		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.70	J	1.6	0.20	ug/m3	1.52		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1.52		TO 15 LL	Total/NA
1,1-Dichloroethene	0.29	J	1.6	0.16	ug/m3	1.52		TO 15 LL	Total/NA
Ethylbenzene	1.7	J	1.7	0.28	ug/m3	1.52		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-126-C-27 (Continued) Lab Sample ID: 140-16376-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	810	E B	6.9	2.8	ug/m3	1.52		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1.52		TO 15 LL	Total/NA
Toluene	15		2.3	1.5	ug/m3	1.52		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.16	J	1.6	0.14	ug/m3	1.52		TO 15 LL	Total/NA
Trichloroethene	3.7		1.1	0.16	ug/m3	1.52		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.84	J	2.0	0.49	ug/m3	1.52		TO 15 LL	Total/NA
Vinyl chloride	6.8		0.51	0.33	ug/m3	1.52		TO 15 LL	Total/NA
Xylenes, Total	7.9		3.5	0.52	ug/m3	1.52		TO 15 LL	Total/NA
Methylene Chloride - DL	630	B	75	30	ug/m3	1.52		TO 15 LL	Total/NA

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.050	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.058	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.27	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	4.7		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.32	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	3.0		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	12	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.037	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.81		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	33		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.23	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.36	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.3	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	18		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.26	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	12		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.84	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	42	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.25	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.0		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.26	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	180		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.3		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-088-C-27 (Continued) Lab Sample ID: 140-16376-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.1		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.30	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.1	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.40	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.8		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.42	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.5		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.3	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	11	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.45	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	36		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.89	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.046	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.0		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.5		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.040	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.39	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.9	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.41		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.078	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.4		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	4.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.51	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	5.9		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP02-C-27 (Continued) Lab Sample ID: 140-16376-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.16	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.7	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	2.1		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.31	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	34		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.88	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	18		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.087	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.63		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	1.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.34	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.14	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	10	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.15	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.49	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.1		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.2		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	5.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.63	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	36	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.99	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.9	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	10		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Date Collected: 08/14/19 10:24 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.065**	**J**	0.40	0.040	ppb v/v			08/20/19 12:52	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
Chlorodifluoromethane	**0.50**		0.40	0.11	ppb v/v			08/20/19 12:52	1
Chloroform	**0.14**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
cis-1,2-Dichloroethene	**2.1**		0.40	0.050	ppb v/v			08/20/19 12:52	1
Dichlorodifluoromethane	**0.33**	**J**	0.40	0.070	ppb v/v			08/20/19 12:52	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:52	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 12:52	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 12:52	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			08/20/19 12:52	1
Methylene Chloride	**2.1**	**B**	2.0	0.80	ppb v/v			08/20/19 12:52	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 12:52	1
Naphthalene	**0.43**		0.20	0.38	ppb v/v			08/20/19 12:52	1
Tetrachloroethene	**0.066**	**J**	0.40	0.035	ppb v/v			08/20/19 12:52	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 12:52	1
trans-1,2-Dichloroethene	**0.52**		0.40	0.035	ppb v/v			08/20/19 12:52	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 12:52	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 12:52	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 12:52	1
Trichloroethene	**7.6**		0.20	0.030	ppb v/v			08/20/19 12:52	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 12:52	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 12:52	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 12:52	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 12:52	1
Xylenes, Total	**0.26**	**J**	0.80	0.12	ppb v/v			08/20/19 12:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	1.3	0.13	ug/m3			08/20/19 12:52	1
Carbon tetrachloride	**0.34**	**J**	2.5	0.22	ug/m3			08/20/19 12:52	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 12:52	1
Chloroform	**0.66**	**J**	2.0	0.17	ug/m3			08/20/19 12:52	1
cis-1,2-Dichloroethene	**8.3**		1.6	0.20	ug/m3			08/20/19 12:52	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/20/19 12:52	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 12:52	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 12:52	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 12:52	1
Ethylbenzene	**0.50**	**J**	1.7	0.28	ug/m3			08/20/19 12:52	1
Methylene Chloride	**7.3**	**B**	6.9	2.8	ug/m3			08/20/19 12:52	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 12:52	1
Naphthalene	**2.2**		1.0	2.0	ug/m3			08/20/19 12:52	1
Tetrachloroethene	**0.44**	**J**	2.7	0.24	ug/m3			08/20/19 12:52	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 12:52	1
trans-1,2-Dichloroethene	**2.1**		1.6	0.14	ug/m3			08/20/19 12:52	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 12:52	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 12:52	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 12:52	1
Trichloroethene	**41**		1.1	0.16	ug/m3			08/20/19 12:52	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 12:52	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 12:52	1

Client Sample ID: SV-001-C-27 **Lab Sample ID: 140-16376-1**
Date Collected: 08/14/19 10:24 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 12:52	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 12:52	1
Xylenes, Total	**1.1**	**J**	3.5	0.52	ug/m3			08/20/19 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/20/19 12:52*	*1*

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Date Collected: 08/14/19 10:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.087**	**J**	0.40	0.040	ppb v/v			08/20/19 13:40	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/20/19 13:40	1
Chlorodifluoromethane	**0.24**	**J**	0.40	0.11	ppb v/v			08/20/19 13:40	1
Chloroform	**7.8**		0.40	0.035	ppb v/v			08/20/19 13:40	1
cis-1,2-Dichloroethene	**7.4**		0.40	0.050	ppb v/v			08/20/19 13:40	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/20/19 13:40	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:40	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 13:40	1
1,1-Dichloroethene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 13:40	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/20/19 13:40	1
Methylene Chloride	**3.8**	**B**	2.0	0.80	ppb v/v			08/20/19 13:40	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 13:40	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 13:40	1
Tetrachloroethene	**0.23**	**J**	0.40	0.035	ppb v/v			08/20/19 13:40	1
Toluene	**1.5**		0.60	0.39	ppb v/v			08/20/19 13:40	1
trans-1,2-Dichloroethene	**0.44**		0.40	0.035	ppb v/v			08/20/19 13:40	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 13:40	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 13:40	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 13:40	1
Trichloroethene	**29**		0.20	0.030	ppb v/v			08/20/19 13:40	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 13:40	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 13:40	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 13:40	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 13:40	1
Xylenes, Total	**0.81**		0.80	0.12	ppb v/v			08/20/19 13:40	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	1.3	0.13	ug/m3			08/20/19 13:40	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/20/19 13:40	1
Chlorodifluoromethane	**0.86**	**J**	1.4	0.39	ug/m3			08/20/19 13:40	1
Chloroform	**38**		2.0	0.17	ug/m3			08/20/19 13:40	1
cis-1,2-Dichloroethene	**29**		1.6	0.20	ug/m3			08/20/19 13:40	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/20/19 13:40	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 13:40	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 13:40	1
1,1-Dichloroethene	**0.50**	**J**	1.6	0.16	ug/m3			08/20/19 13:40	1
Ethylbenzene	**0.56**	**J**	1.7	0.28	ug/m3			08/20/19 13:40	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/20/19 13:40	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 13:40	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 13:40	1
Tetrachloroethene	**1.5**	**J**	2.7	0.24	ug/m3			08/20/19 13:40	1
Toluene	**5.8**		2.3	1.5	ug/m3			08/20/19 13:40	1
trans-1,2-Dichloroethene	**1.8**		1.6	0.14	ug/m3			08/20/19 13:40	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 13:40	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 13:40	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 13:40	1
Trichloroethene	**160**		1.1	0.16	ug/m3			08/20/19 13:40	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 13:40	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 13:40	1

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Date Collected: 08/14/19 10:25 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 13:40	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 13:40	1
Xylenes, Total	**3.5**		3.5	0.52	ug/m3			08/20/19 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 13:40*	*1*

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Date Collected: 08/14/19 10:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**	**J**	14	1.4	ppb v/v			08/22/19 00:47	3.73
Carbon tetrachloride	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Chlorodifluoromethane	ND		14	3.7	ppb v/v			08/22/19 00:47	3.73
Chloroform	**7.0**	**J**	14	1.2	ppb v/v			08/22/19 00:47	3.73
cis-1,2-Dichloroethene	**11**	**J**	14	1.7	ppb v/v			08/22/19 00:47	3.73
Dichlorodifluoromethane	ND		14	2.4	ppb v/v			08/22/19 00:47	3.73
1,1-Dichloroethane	**720**		14	1.2	ppb v/v			08/22/19 00:47	3.73
1,2-Dichloroethane	ND		14	1.7	ppb v/v			08/22/19 00:47	3.73
1,1-Dichloroethene	**790**		14	1.4	ppb v/v			08/22/19 00:47	3.73
Ethylbenzene	**30**		14	2.2	ppb v/v			08/22/19 00:47	3.73
Methylene Chloride	**56**	**J B**	68	27	ppb v/v			08/22/19 00:47	3.73
Methyl tert-butyl ether	ND		68	8.8	ppb v/v			08/22/19 00:47	3.73
Naphthalene	**15**		6.8	13	ppb v/v			08/22/19 00:47	3.73
Tetrachloroethene	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Toluene	ND		20	13	ppb v/v			08/22/19 00:47	3.73
trans-1,2-Dichloroethene	**2.6**	**J**	14	1.2	ppb v/v			08/22/19 00:47	3.73
1,2,4-Trichlorobenzene	ND		14	11	ppb v/v			08/22/19 00:47	3.73
1,1,1-Trichloroethane	**340**		14	6.3	ppb v/v			08/22/19 00:47	3.73
1,1,2-Trichloroethane	ND		14	1.2	ppb v/v			08/22/19 00:47	3.73
Trichloroethene	**220**		6.8	1.0	ppb v/v			08/22/19 00:47	3.73
1,2,3-Trimethylbenzene	ND		14	6.1	ppb v/v			08/22/19 00:47	3.73
1,2,4-Trimethylbenzene	ND		14	3.4	ppb v/v			08/22/19 00:47	3.73
1,3,5-Trimethylbenzene	ND		14	3.7	ppb v/v			08/22/19 00:47	3.73
Vinyl chloride	ND		6.8	4.4	ppb v/v			08/22/19 00:47	3.73
Xylenes, Total	**280**		27	4.1	ppb v/v			08/22/19 00:47	3.73

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.9**	**J**	43	4.3	ug/m3			08/22/19 00:47	3.73
Carbon tetrachloride	ND		85	7.5	ug/m3			08/22/19 00:47	3.73
Chlorodifluoromethane	ND		48	13	ug/m3			08/22/19 00:47	3.73
Chloroform	**34**	**J**	66	5.8	ug/m3			08/22/19 00:47	3.73
cis-1,2-Dichloroethene	**45**	**J**	54	6.7	ug/m3			08/22/19 00:47	3.73
Dichlorodifluoromethane	ND		67	12	ug/m3			08/22/19 00:47	3.73
1,1-Dichloroethane	**2900**		55	4.8	ug/m3			08/22/19 00:47	3.73
1,2-Dichloroethane	ND		55	6.9	ug/m3			08/22/19 00:47	3.73
1,1-Dichloroethene	**3100**		54	5.4	ug/m3			08/22/19 00:47	3.73
Ethylbenzene	**130**		59	9.6	ug/m3			08/22/19 00:47	3.73
Methylene Chloride	**190**	**J B**	240	94	ug/m3			08/22/19 00:47	3.73
Methyl tert-butyl ether	ND		240	32	ug/m3			08/22/19 00:47	3.73
Naphthalene	**77**		36	68	ug/m3			08/22/19 00:47	3.73
Tetrachloroethene	ND		92	8.0	ug/m3			08/22/19 00:47	3.73
Toluene	ND		77	50	ug/m3			08/22/19 00:47	3.73
trans-1,2-Dichloroethene	**10**	**J**	54	4.7	ug/m3			08/22/19 00:47	3.73
1,2,4-Trichlorobenzene	ND		100	81	ug/m3			08/22/19 00:47	3.73
1,1,1-Trichloroethane	**1800**		74	34	ug/m3			08/22/19 00:47	3.73
1,1,2-Trichloroethane	ND		74	6.5	ug/m3			08/22/19 00:47	3.73
Trichloroethene	**1200**		36	5.5	ug/m3			08/22/19 00:47	3.73
1,2,3-Trimethylbenzene	ND		67	30	ug/m3			08/22/19 00:47	3.73
1,2,4-Trimethylbenzene	ND		67	17	ug/m3			08/22/19 00:47	3.73

Client Sample ID: SV-102-C-27 **Lab Sample ID: 140-16376-3**
Date Collected: 08/14/19 10:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		67	18	ug/m3			08/22/19 00:47	3.73
Vinyl chloride	ND		17	11	ug/m3			08/22/19 00:47	3.73
Xylenes, Total	**1200**		120	18	ug/m3			08/22/19 00:47	3.73

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/22/19 00:47*	*3.73*

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**	**J**	4.0	0.40	ppb v/v			08/20/19 19:07	1
Carbon tetrachloride	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Chlorodifluoromethane	ND		4.0	1.1	ppb v/v			08/20/19 19:07	1
Chloroform	**6.1**		4.0	0.35	ppb v/v			08/20/19 19:07	1
cis-1,2-Dichloroethene	**9.2**		4.0	0.50	ppb v/v			08/20/19 19:07	1
Dichlorodifluoromethane	ND		4.0	0.70	ppb v/v			08/20/19 19:07	1
1,1-Dichloroethane	**990**	**E**	4.0	0.35	ppb v/v			08/20/19 19:07	1
1,2-Dichloroethane	ND		4.0	0.50	ppb v/v			08/20/19 19:07	1
1,1-Dichloroethene	**400**		4.0	0.40	ppb v/v			08/20/19 19:07	1
Ethylbenzene	**51**		4.0	0.65	ppb v/v			08/20/19 19:07	1
Methylene Chloride	**18**	**J B**	20	8.0	ppb v/v			08/20/19 19:07	1
Methyl tert-butyl ether	ND		20	2.6	ppb v/v			08/20/19 19:07	1
Naphthalene	**23**		2.0	3.8	ppb v/v			08/20/19 19:07	1
Tetrachloroethene	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Toluene	**4.7**	**J**	6.0	3.9	ppb v/v			08/20/19 19:07	1
trans-1,2-Dichloroethene	**0.66**	**J**	4.0	0.35	ppb v/v			08/20/19 19:07	1
1,2,4-Trichlorobenzene	ND		4.0	3.2	ppb v/v			08/20/19 19:07	1
1,1,1-Trichloroethane	**280**		4.0	1.9	ppb v/v			08/20/19 19:07	1
1,1,2-Trichloroethane	ND		4.0	0.35	ppb v/v			08/20/19 19:07	1
Trichloroethene	**170**		2.0	0.30	ppb v/v			08/20/19 19:07	1
1,2,3-Trimethylbenzene	**2.8**	**J**	4.0	1.8	ppb v/v			08/20/19 19:07	1
1,2,4-Trimethylbenzene	**3.5**	**J**	4.0	1.0	ppb v/v			08/20/19 19:07	1
1,3,5-Trimethylbenzene	**1.9**	**J**	4.0	1.1	ppb v/v			08/20/19 19:07	1
Vinyl chloride	**2.6**		2.0	1.3	ppb v/v			08/20/19 19:07	1
Xylenes, Total	**480**		8.0	1.2	ppb v/v			08/20/19 19:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.6**	**J**	13	1.3	ug/m3			08/20/19 19:07	1
Carbon tetrachloride	ND		25	2.2	ug/m3			08/20/19 19:07	1
Chlorodifluoromethane	ND		14	3.9	ug/m3			08/20/19 19:07	1
Chloroform	**30**		20	1.7	ug/m3			08/20/19 19:07	1
cis-1,2-Dichloroethene	**37**		16	2.0	ug/m3			08/20/19 19:07	1
Dichlorodifluoromethane	ND		20	3.5	ug/m3			08/20/19 19:07	1
1,1-Dichloroethane	**4000**	**E**	16	1.4	ug/m3			08/20/19 19:07	1
1,2-Dichloroethane	ND		16	2.0	ug/m3			08/20/19 19:07	1
1,1-Dichloroethene	**1600**		16	1.6	ug/m3			08/20/19 19:07	1
Ethylbenzene	**220**		17	2.8	ug/m3			08/20/19 19:07	1
Methylene Chloride	**63**	**J B**	69	28	ug/m3			08/20/19 19:07	1
Methyl tert-butyl ether	ND		72	9.4	ug/m3			08/20/19 19:07	1
Naphthalene	**120**		10	20	ug/m3			08/20/19 19:07	1
Tetrachloroethene	ND		27	2.4	ug/m3			08/20/19 19:07	1
Toluene	**18**	**J**	23	15	ug/m3			08/20/19 19:07	1
trans-1,2-Dichloroethene	**2.6**	**J**	16	1.4	ug/m3			08/20/19 19:07	1
1,2,4-Trichlorobenzene	ND		30	24	ug/m3			08/20/19 19:07	1
1,1,1-Trichloroethane	**1500**		22	10	ug/m3			08/20/19 19:07	1
1,1,2-Trichloroethane	ND		22	1.9	ug/m3			08/20/19 19:07	1
Trichloroethene	**890**		11	1.6	ug/m3			08/20/19 19:07	1
1,2,3-Trimethylbenzene	**14**	**J**	20	8.8	ug/m3			08/20/19 19:07	1
1,2,4-Trimethylbenzene	**17**	**J**	20	4.9	ug/m3			08/20/19 19:07	1

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	9.5	J	20	5.4	ug/m3			08/20/19 19:07	1
Vinyl chloride	6.6		5.1	3.3	ug/m3			08/20/19 19:07	1
Xylenes, Total	2100		35	5.2	ug/m3			08/20/19 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 19:07*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	940		13	1.1	ppb v/v			08/22/19 01:29	3.53

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	3800		52	4.5	ug/m3			08/22/19 01:29	3.53

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/22/19 01:29*	*3.53*

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Date Collected: 08/14/19 10:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	0.40	0.040	ppb v/v			08/20/19 19:57	1
Carbon tetrachloride	**0.17**	**J**	0.40	0.035	ppb v/v			08/20/19 19:57	1
Chlorodifluoromethane	**2.3**		0.40	0.11	ppb v/v			08/20/19 19:57	1
Chloroform	**0.17**	**J**	0.40	0.035	ppb v/v			08/20/19 19:57	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 19:57	1
Dichlorodifluoromethane	**0.38**	**J**	0.40	0.070	ppb v/v			08/20/19 19:57	1
1,1-Dichloroethane	**4.7**		0.40	0.035	ppb v/v			08/20/19 19:57	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 19:57	1
1,1-Dichloroethene	**2.1**		0.40	0.040	ppb v/v			08/20/19 19:57	1
Ethylbenzene	**0.49**		0.40	0.065	ppb v/v			08/20/19 19:57	1
Methylene Chloride	**4.4**	**B**	2.0	0.80	ppb v/v			08/20/19 19:57	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 19:57	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 19:57	1
Tetrachloroethene	**0.43**		0.40	0.035	ppb v/v			08/20/19 19:57	1
Toluene	**0.72**		0.60	0.39	ppb v/v			08/20/19 19:57	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 19:57	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 19:57	1
1,1,1-Trichloroethane	**1.5**		0.40	0.19	ppb v/v			08/20/19 19:57	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 19:57	1
Trichloroethene	**1.1**		0.20	0.030	ppb v/v			08/20/19 19:57	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 19:57	1
1,2,4-Trimethylbenzene	**0.34**	**J**	0.40	0.10	ppb v/v			08/20/19 19:57	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 19:57	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 19:57	1
Xylenes, Total	**3.8**		0.80	0.12	ppb v/v			08/20/19 19:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.67**	**J**	1.3	0.13	ug/m3			08/20/19 19:57	1
Carbon tetrachloride	**1.1**	**J**	2.5	0.22	ug/m3			08/20/19 19:57	1
Chlorodifluoromethane	**8.3**		1.4	0.39	ug/m3			08/20/19 19:57	1
Chloroform	**0.81**	**J**	2.0	0.17	ug/m3			08/20/19 19:57	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 19:57	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 19:57	1
1,1-Dichloroethane	**19**		1.6	0.14	ug/m3			08/20/19 19:57	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 19:57	1
1,1-Dichloroethene	**8.4**		1.6	0.16	ug/m3			08/20/19 19:57	1
Ethylbenzene	**2.1**		1.7	0.28	ug/m3			08/20/19 19:57	1
Methylene Chloride	**15**	**B**	6.9	2.8	ug/m3			08/20/19 19:57	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 19:57	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 19:57	1
Tetrachloroethene	**2.9**		2.7	0.24	ug/m3			08/20/19 19:57	1
Toluene	**2.7**		2.3	1.5	ug/m3			08/20/19 19:57	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 19:57	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 19:57	1
1,1,1-Trichloroethane	**7.9**		2.2	1.0	ug/m3			08/20/19 19:57	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 19:57	1
Trichloroethene	**5.9**		1.1	0.16	ug/m3			08/20/19 19:57	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 19:57	1
1,2,4-Trimethylbenzene	**1.7**	**J**	2.0	0.49	ug/m3			08/20/19 19:57	1

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Date Collected: 08/14/19 10:32 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 19:57	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 19:57	1
Xylenes, Total	**17**		3.5	0.52	ug/m3			08/20/19 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/20/19 19:57*	*1*

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Date Collected: 08/14/19 10:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ppb v/v			08/27/19 12:41	1
Carbon tetrachloride	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
Chlorodifluoromethane	**0.99**	**J**	1.3	0.37	ppb v/v			08/27/19 12:41	1
Chloroform	**2.1**		1.3	0.12	ppb v/v			08/27/19 12:41	1
cis-1,2-Dichloroethene	ND		1.3	0.17	ppb v/v			08/27/19 12:41	1
Dichlorodifluoromethane	**0.34**	**J**	1.3	0.23	ppb v/v			08/27/19 12:41	1
1,1-Dichloroethane	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
1,2-Dichloroethane	ND		1.3	0.17	ppb v/v			08/27/19 12:41	1
1,1-Dichloroethene	ND		1.3	0.13	ppb v/v			08/27/19 12:41	1
Ethylbenzene	ND		1.3	0.22	ppb v/v			08/27/19 12:41	1
Methylene Chloride	**120**	**B**	6.7	2.7	ppb v/v			08/27/19 12:41	1
Methyl tert-butyl ether	ND		6.7	0.87	ppb v/v			08/27/19 12:41	1
Naphthalene	ND		0.67	1.3	ppb v/v			08/27/19 12:41	1
Tetrachloroethene	**1.5**		1.3	0.12	ppb v/v			08/27/19 12:41	1
Toluene	ND		2.0	1.3	ppb v/v			08/27/19 12:41	1
trans-1,2-Dichloroethene	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
1,2,4-Trichlorobenzene	ND		1.3	1.1	ppb v/v			08/27/19 12:41	1
1,1,1-Trichloroethane	ND		1.3	0.62	ppb v/v			08/27/19 12:41	1
1,1,2-Trichloroethane	ND		1.3	0.12	ppb v/v			08/27/19 12:41	1
Trichloroethene	**120**		0.67	0.10	ppb v/v			08/27/19 12:41	1
1,2,3-Trimethylbenzene	ND		1.3	0.60	ppb v/v			08/27/19 12:41	1
1,2,4-Trimethylbenzene	ND		1.3	0.33	ppb v/v			08/27/19 12:41	1
1,3,5-Trimethylbenzene	ND		1.3	0.37	ppb v/v			08/27/19 12:41	1
Vinyl chloride	**1.6**		0.67	0.43	ppb v/v			08/27/19 12:41	1
Xylenes, Total	ND		2.7	0.40	ppb v/v			08/27/19 12:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.3	0.43	ug/m3			08/27/19 12:41	1
Carbon tetrachloride	ND		8.4	0.73	ug/m3			08/27/19 12:41	1
Chlorodifluoromethane	**3.5**	**J**	4.7	1.3	ug/m3			08/27/19 12:41	1
Chloroform	**10**		6.5	0.57	ug/m3			08/27/19 12:41	1
cis-1,2-Dichloroethene	ND		5.3	0.66	ug/m3			08/27/19 12:41	1
Dichlorodifluoromethane	**1.7**	**J**	6.6	1.2	ug/m3			08/27/19 12:41	1
1,1-Dichloroethane	ND		5.4	0.47	ug/m3			08/27/19 12:41	1
1,2-Dichloroethane	ND		5.4	0.67	ug/m3			08/27/19 12:41	1
1,1-Dichloroethene	ND		5.3	0.53	ug/m3			08/27/19 12:41	1
Ethylbenzene	ND		5.8	0.94	ug/m3			08/27/19 12:41	1
Methylene Chloride	**420**	**B**	23	9.3	ug/m3			08/27/19 12:41	1
Methyl tert-butyl ether	ND		24	3.1	ug/m3			08/27/19 12:41	1
Naphthalene	ND		3.5	6.6	ug/m3			08/27/19 12:41	1
Tetrachloroethene	**10**		9.0	0.79	ug/m3			08/27/19 12:41	1
Toluene	ND		7.5	4.9	ug/m3			08/27/19 12:41	1
trans-1,2-Dichloroethene	ND		5.3	0.46	ug/m3			08/27/19 12:41	1
1,2,4-Trichlorobenzene	ND		9.9	7.9	ug/m3			08/27/19 12:41	1
1,1,1-Trichloroethane	ND		7.3	3.4	ug/m3			08/27/19 12:41	1
1,1,2-Trichloroethane	ND		7.3	0.64	ug/m3			08/27/19 12:41	1
Trichloroethene	**620**		3.6	0.54	ug/m3			08/27/19 12:41	1
1,2,3-Trimethylbenzene	ND		6.6	2.9	ug/m3			08/27/19 12:41	1
1,2,4-Trimethylbenzene	ND		6.6	1.6	ug/m3			08/27/19 12:41	1

Client Sample ID: SV-133-C-27 **Lab Sample ID: 140-16376-6**
Date Collected: 08/14/19 10:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		6.6	1.8	ug/m3			08/27/19 12:41	1
Vinyl chloride	**4.1**		1.7	1.1	ug/m3			08/27/19 12:41	1
Xylenes, Total	ND		12	1.7	ug/m3			08/27/19 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/27/19 12:41*	*1*

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Date Collected: 08/14/19 10:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/23/19 21:47	1.76
Carbon tetrachloride	**0.081**	**J**	0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Chlorodifluoromethane	**2.2**		0.40	0.11	ppb v/v			08/23/19 21:47	1.76
Chloroform	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/23/19 21:47	1.76
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/23/19 21:47	1.76
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 21:47	1.76
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/23/19 21:47	1.76
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/23/19 21:47	1.76
Methylene Chloride	**6.9**	**B**	2.0	0.80	ppb v/v			08/23/19 21:47	1.76
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 21:47	1.76
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 21:47	1.76
Tetrachloroethene	**0.090**	**J**	0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Toluene	**1.0**		0.60	0.39	ppb v/v			08/23/19 21:47	1.76
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 21:47	1.76
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 21:47	1.76
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 21:47	1.76
Trichloroethene	**0.82**		0.20	0.030	ppb v/v			08/23/19 21:47	1.76
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 21:47	1.76
1,2,4-Trimethylbenzene	**0.31**	**J**	0.40	0.10	ppb v/v			08/23/19 21:47	1.76
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 21:47	1.76
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 21:47	1.76
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/23/19 21:47	1.76

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/23/19 21:47	1.76
Carbon tetrachloride	**0.51**	**J**	2.5	0.22	ug/m3			08/23/19 21:47	1.76
Chlorodifluoromethane	**7.9**		1.4	0.39	ug/m3			08/23/19 21:47	1.76
Chloroform	ND		2.0	0.17	ug/m3			08/23/19 21:47	1.76
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/23/19 21:47	1.76
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 21:47	1.76
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 21:47	1.76
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 21:47	1.76
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/23/19 21:47	1.76
Ethylbenzene	**0.80**	**J**	1.7	0.28	ug/m3			08/23/19 21:47	1.76
Methylene Chloride	**24**	**B**	6.9	2.8	ug/m3			08/23/19 21:47	1.76
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 21:47	1.76
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 21:47	1.76
Tetrachloroethene	**0.61**	**J**	2.7	0.24	ug/m3			08/23/19 21:47	1.76
Toluene	**3.9**		2.3	1.5	ug/m3			08/23/19 21:47	1.76
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 21:47	1.76
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 21:47	1.76
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 21:47	1.76
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 21:47	1.76
Trichloroethene	**4.4**		1.1	0.16	ug/m3			08/23/19 21:47	1.76
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 21:47	1.76
1,2,4-Trimethylbenzene	**1.5**	**J**	2.0	0.49	ug/m3			08/23/19 21:47	1.76

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Date Collected: 08/14/19 10:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 21:47	1.76
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 21:47	1.76
Xylenes, Total	**4.8**		3.5	0.52	ug/m3			08/23/19 21:47	1.76

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/23/19 21:47*	*1.76*

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Date Collected: 08/14/19 10:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	0.40	0.040	ppb v/v			08/20/19 22:24	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 22:24	1
Chlorodifluoromethane	**4.0**		0.40	0.11	ppb v/v			08/20/19 22:24	1
Chloroform	**2.9**		0.40	0.035	ppb v/v			08/20/19 22:24	1
cis-1,2-Dichloroethene	**6.9**		0.40	0.050	ppb v/v			08/20/19 22:24	1
Dichlorodifluoromethane	**0.39**	**J**	0.40	0.070	ppb v/v			08/20/19 22:24	1
1,1-Dichloroethane	**4.1**		0.40	0.035	ppb v/v			08/20/19 22:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 22:24	1
1,1-Dichloroethene	**0.92**		0.40	0.040	ppb v/v			08/20/19 22:24	1
Ethylbenzene	**11**		0.40	0.065	ppb v/v			08/20/19 22:24	1
Methylene Chloride	**6.0**	**B**	2.0	0.80	ppb v/v			08/20/19 22:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 22:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 22:24	1
Tetrachloroethene	**0.11**	**J**	0.40	0.035	ppb v/v			08/20/19 22:24	1
Toluene	**0.78**		0.60	0.39	ppb v/v			08/20/19 22:24	1
trans-1,2-Dichloroethene	**0.43**		0.40	0.035	ppb v/v			08/20/19 22:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 22:24	1
1,1,1-Trichloroethane	**3.4**		0.40	0.19	ppb v/v			08/20/19 22:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:24	1
Trichloroethene	**120**	**E**	0.20	0.030	ppb v/v			08/20/19 22:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 22:24	1
1,2,4-Trimethylbenzene	**0.36**	**J**	0.40	0.10	ppb v/v			08/20/19 22:24	1
1,3,5-Trimethylbenzene	**0.27**	**J**	0.40	0.11	ppb v/v			08/20/19 22:24	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 22:24	1
Xylenes, Total	**91**		0.80	0.12	ppb v/v			08/20/19 22:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.95**	**J**	1.3	0.13	ug/m3			08/20/19 22:24	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 22:24	1
Chlorodifluoromethane	**14**		1.4	0.39	ug/m3			08/20/19 22:24	1
Chloroform	**14**		2.0	0.17	ug/m3			08/20/19 22:24	1
cis-1,2-Dichloroethene	**27**		1.6	0.20	ug/m3			08/20/19 22:24	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.35	ug/m3			08/20/19 22:24	1
1,1-Dichloroethane	**16**		1.6	0.14	ug/m3			08/20/19 22:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 22:24	1
1,1-Dichloroethene	**3.7**		1.6	0.16	ug/m3			08/20/19 22:24	1
Ethylbenzene	**47**		1.7	0.28	ug/m3			08/20/19 22:24	1
Methylene Chloride	**21**	**B**	6.9	2.8	ug/m3			08/20/19 22:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 22:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 22:24	1
Tetrachloroethene	**0.76**	**J**	2.7	0.24	ug/m3			08/20/19 22:24	1
Toluene	**2.9**		2.3	1.5	ug/m3			08/20/19 22:24	1
trans-1,2-Dichloroethene	**1.7**		1.6	0.14	ug/m3			08/20/19 22:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 22:24	1
1,1,1-Trichloroethane	**19**		2.2	1.0	ug/m3			08/20/19 22:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 22:24	1
Trichloroethene	**670**	**E**	1.1	0.16	ug/m3			08/20/19 22:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 22:24	1
1,2,4-Trimethylbenzene	**1.8**	**J**	2.0	0.49	ug/m3			08/20/19 22:24	1

Client Sample ID: SV-060-C-27 **Lab Sample ID: 140-16376-8**
Date Collected: 08/14/19 10:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.3	J	2.0	0.54	ug/m3			08/20/19 22:24	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 22:24	1
Xylenes, Total	400		3.5	0.52	ug/m3			08/20/19 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*		*08/20/19 22:24*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	110		1.0	0.15	ppb v/v			08/23/19 22:35	5.03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	570		5.4	0.81	ug/m3			08/23/19 22:35	5.03

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/23/19 22:35*	*5.03*

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Date Collected: 08/14/19 10:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	0.40	0.040	ppb v/v			08/20/19 23:13	1
Carbon tetrachloride	**0.059**	**J**	0.40	0.035	ppb v/v			08/20/19 23:13	1
Chlorodifluoromethane	**11**	**CI**	0.40	0.11	ppb v/v			08/20/19 23:13	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 23:13	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/20/19 23:13	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 23:13	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 23:13	1
Ethylbenzene	**1.5**		0.40	0.065	ppb v/v			08/20/19 23:13	1
Methylene Chloride	**3.9**	**B**	2.0	0.80	ppb v/v			08/20/19 23:13	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 23:13	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 23:13	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
Toluene	**2.6**		0.60	0.39	ppb v/v			08/20/19 23:13	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 23:13	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 23:13	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:13	1
Trichloroethene	**0.19**	**J**	0.20	0.030	ppb v/v			08/20/19 23:13	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 23:13	1
1,2,4-Trimethylbenzene	**0.25**	**J**	0.40	0.10	ppb v/v			08/20/19 23:13	1
1,3,5-Trimethylbenzene	**0.17**	**J**	0.40	0.11	ppb v/v			08/20/19 23:13	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 23:13	1
Xylenes, Total	**8.8**		0.80	0.12	ppb v/v			08/20/19 23:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.94**	**J**	1.3	0.13	ug/m3			08/20/19 23:13	1
Carbon tetrachloride	**0.37**	**J**	2.5	0.22	ug/m3			08/20/19 23:13	1
Chlorodifluoromethane	**40**	**CI**	1.4	0.39	ug/m3			08/20/19 23:13	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 23:13	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 23:13	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/20/19 23:13	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 23:13	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 23:13	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 23:13	1
Ethylbenzene	**6.3**		1.7	0.28	ug/m3			08/20/19 23:13	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/20/19 23:13	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 23:13	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 23:13	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 23:13	1
Toluene	**10**		2.3	1.5	ug/m3			08/20/19 23:13	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 23:13	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 23:13	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 23:13	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 23:13	1
Trichloroethene	**1.0**	**J**	1.1	0.16	ug/m3			08/20/19 23:13	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 23:13	1
1,2,4-Trimethylbenzene	**1.2**	**J**	2.0	0.49	ug/m3			08/20/19 23:13	1

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Date Collected: 08/14/19 10:55 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.81**	**J**	2.0	0.54	ug/m3			08/20/19 23:13	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 23:13	1
Xylenes, Total	**38**		3.5	0.52	ug/m3			08/20/19 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/20/19 23:13*	*1*

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Date Collected: 08/14/19 10:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.21**	**J**	0.40	0.040	ppb v/v			08/21/19 00:02	1
Carbon tetrachloride	**0.084**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
Chlorodifluoromethane	**6.3**		0.40	0.11	ppb v/v			08/21/19 00:02	1
Chloroform	**0.33**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
cis-1,2-Dichloroethene	**1.7**		0.40	0.050	ppb v/v			08/21/19 00:02	1
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/21/19 00:02	1
1,1-Dichloroethane	**0.11**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:02	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 00:02	1
Ethylbenzene	**0.27**	**J**	0.40	0.065	ppb v/v			08/21/19 00:02	1
Methylene Chloride	**4.6**	**B**	2.0	0.80	ppb v/v			08/21/19 00:02	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:02	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:02	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 00:02	1
Toluene	**1.3**		0.60	0.39	ppb v/v			08/21/19 00:02	1
trans-1,2-Dichloroethene	**0.053**	**J**	0.40	0.035	ppb v/v			08/21/19 00:02	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:02	1
1,1,1-Trichloroethane	**0.51**		0.40	0.19	ppb v/v			08/21/19 00:02	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:02	1
Trichloroethene	**28**		0.20	0.030	ppb v/v			08/21/19 00:02	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:02	1
1,2,4-Trimethylbenzene	**0.29**	**J**	0.40	0.10	ppb v/v			08/21/19 00:02	1
1,3,5-Trimethylbenzene	**0.16**	**J**	0.40	0.11	ppb v/v			08/21/19 00:02	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 00:02	1
Xylenes, Total	**1.4**		0.80	0.12	ppb v/v			08/21/19 00:02	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.66**	**J**	1.3	0.13	ug/m3			08/21/19 00:02	1
Carbon tetrachloride	**0.53**	**J**	2.5	0.22	ug/m3			08/21/19 00:02	1
Chlorodifluoromethane	**22**		1.4	0.39	ug/m3			08/21/19 00:02	1
Chloroform	**1.6**	**J**	2.0	0.17	ug/m3			08/21/19 00:02	1
cis-1,2-Dichloroethene	**6.9**		1.6	0.20	ug/m3			08/21/19 00:02	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/21/19 00:02	1
1,1-Dichloroethane	**0.43**	**J**	1.6	0.14	ug/m3			08/21/19 00:02	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:02	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 00:02	1
Ethylbenzene	**1.2**	**J**	1.7	0.28	ug/m3			08/21/19 00:02	1
Methylene Chloride	**16**	**B**	6.9	2.8	ug/m3			08/21/19 00:02	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:02	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:02	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 00:02	1
Toluene	**4.8**		2.3	1.5	ug/m3			08/21/19 00:02	1
trans-1,2-Dichloroethene	**0.21**	**J**	1.6	0.14	ug/m3			08/21/19 00:02	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:02	1
1,1,1-Trichloroethane	**2.8**		2.2	1.0	ug/m3			08/21/19 00:02	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:02	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/21/19 00:02	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:02	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/21/19 00:02	1

Client Sample ID: SV-152-C-27 **Lab Sample ID: 140-16376-10**
Date Collected: 08/14/19 10:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.80**	**J**	2.0	0.54	ug/m3			08/21/19 00:02	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 00:02	1
Xylenes, Total	**6.1**		3.5	0.52	ug/m3			08/21/19 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 00:02*	*1*

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**		0.40	0.040	ppb v/v			08/21/19 00:51	1
Carbon tetrachloride	**0.047**	**J**	0.40	0.035	ppb v/v			08/21/19 00:51	1
Chlorodifluoromethane	**8.7**		0.40	0.11	ppb v/v			08/21/19 00:51	1
Chloroform	**0.21**	**J**	0.40	0.035	ppb v/v			08/21/19 00:51	1
cis-1,2-Dichloroethene	**3.6**		0.40	0.050	ppb v/v			08/21/19 00:51	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			08/21/19 00:51	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:51	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:51	1
1,1-Dichloroethene	**0.51**		0.40	0.040	ppb v/v			08/21/19 00:51	1
Ethylbenzene	**0.45**		0.40	0.065	ppb v/v			08/21/19 00:51	1
Methylene Chloride	**5.6**	**B**	2.0	0.80	ppb v/v			08/21/19 00:51	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:51	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:51	1
Tetrachloroethene	**1.1**		0.40	0.035	ppb v/v			08/21/19 00:51	1
Toluene	**0.55**	**J**	0.60	0.39	ppb v/v			08/21/19 00:51	1
trans-1,2-Dichloroethene	**0.66**		0.40	0.035	ppb v/v			08/21/19 00:51	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:51	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 00:51	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:51	1
Trichloroethene	**90**	**E**	0.20	0.030	ppb v/v			08/21/19 00:51	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:51	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 00:51	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 00:51	1
Vinyl chloride	**0.24**		0.20	0.13	ppb v/v			08/21/19 00:51	1
Xylenes, Total	**2.8**		0.80	0.12	ppb v/v			08/21/19 00:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.4**		1.3	0.13	ug/m3			08/21/19 00:51	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/21/19 00:51	1
Chlorodifluoromethane	**31**		1.4	0.39	ug/m3			08/21/19 00:51	1
Chloroform	**1.0**	**J**	2.0	0.17	ug/m3			08/21/19 00:51	1
cis-1,2-Dichloroethene	**14**		1.6	0.20	ug/m3			08/21/19 00:51	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			08/21/19 00:51	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 00:51	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:51	1
1,1-Dichloroethene	**2.0**		1.6	0.16	ug/m3			08/21/19 00:51	1
Ethylbenzene	**1.9**		1.7	0.28	ug/m3			08/21/19 00:51	1
Methylene Chloride	**19**	**B**	6.9	2.8	ug/m3			08/21/19 00:51	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:51	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:51	1
Tetrachloroethene	**7.3**		2.7	0.24	ug/m3			08/21/19 00:51	1
Toluene	**2.1**	**J**	2.3	1.5	ug/m3			08/21/19 00:51	1
trans-1,2-Dichloroethene	**2.6**		1.6	0.14	ug/m3			08/21/19 00:51	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:51	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 00:51	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:51	1
Trichloroethene	**480**	**E**	1.1	0.16	ug/m3			08/21/19 00:51	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:51	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 00:51	1

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 00:51	1
Vinyl chloride	**0.62**		0.51	0.33	ug/m3			08/21/19 00:51	1
Xylenes, Total	**12**		3.5	0.52	ug/m3			08/21/19 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 00:51*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**61**		0.59	0.088	ppb v/v			08/24/19 00:10	1.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**330**		3.2	0.47	ug/m3			08/24/19 00:10	1.47

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/24/19 00:10*	*1.47*

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**62**		8.3	0.83	ppb v/v			08/24/19 01:00	4.15
Carbon tetrachloride	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Chlorodifluoromethane	ND		8.3	2.3	ppb v/v			08/24/19 01:00	4.15
Chloroform	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
cis-1,2-Dichloroethene	**57**		8.3	1.0	ppb v/v			08/24/19 01:00	4.15
Dichlorodifluoromethane	ND		8.3	1.5	ppb v/v			08/24/19 01:00	4.15
1,1-Dichloroethane	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
1,2-Dichloroethane	ND		8.3	1.0	ppb v/v			08/24/19 01:00	4.15
1,1-Dichloroethene	**60**		8.3	0.83	ppb v/v			08/24/19 01:00	4.15
Ethylbenzene	**4.1**	**J**	8.3	1.3	ppb v/v			08/24/19 01:00	4.15
Methylene Chloride	**28**	**J B**	42	17	ppb v/v			08/24/19 01:00	4.15
Methyl tert-butyl ether	ND		42	5.4	ppb v/v			08/24/19 01:00	4.15
Naphthalene	ND		4.2	7.9	ppb v/v			08/24/19 01:00	4.15
Tetrachloroethene	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Toluene	**12**		12	8.1	ppb v/v			08/24/19 01:00	4.15
trans-1,2-Dichloroethene	**10**		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
1,2,4-Trichlorobenzene	ND		8.3	6.6	ppb v/v			08/24/19 01:00	4.15
1,1,1-Trichloroethane	ND		8.3	3.8	ppb v/v			08/24/19 01:00	4.15
1,1,2-Trichloroethane	ND		8.3	0.73	ppb v/v			08/24/19 01:00	4.15
Trichloroethene	**37**		4.2	0.62	ppb v/v			08/24/19 01:00	4.15
1,2,3-Trimethylbenzene	ND		8.3	3.7	ppb v/v			08/24/19 01:00	4.15
1,2,4-Trimethylbenzene	ND		8.3	2.1	ppb v/v			08/24/19 01:00	4.15
1,3,5-Trimethylbenzene	ND		8.3	2.3	ppb v/v			08/24/19 01:00	4.15
Vinyl chloride	**2000**	**E**	4.2	2.7	ppb v/v			08/24/19 01:00	4.15
Xylenes, Total	**11**	**J**	17	2.5	ppb v/v			08/24/19 01:00	4.15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**200**		27	2.7	ug/m3			08/24/19 01:00	4.15
Carbon tetrachloride	ND		52	4.6	ug/m3			08/24/19 01:00	4.15
Chlorodifluoromethane	ND		29	8.1	ug/m3			08/24/19 01:00	4.15
Chloroform	ND		41	3.5	ug/m3			08/24/19 01:00	4.15
cis-1,2-Dichloroethene	**230**		33	4.1	ug/m3			08/24/19 01:00	4.15
Dichlorodifluoromethane	ND		41	7.2	ug/m3			08/24/19 01:00	4.15
1,1-Dichloroethane	ND		34	2.9	ug/m3			08/24/19 01:00	4.15
1,2-Dichloroethane	ND		34	4.2	ug/m3			08/24/19 01:00	4.15
1,1-Dichloroethene	**240**		33	3.3	ug/m3			08/24/19 01:00	4.15
Ethylbenzene	**18**	**J**	36	5.9	ug/m3			08/24/19 01:00	4.15
Methylene Chloride	**96**	**J B**	140	58	ug/m3			08/24/19 01:00	4.15
Methyl tert-butyl ether	ND		150	19	ug/m3			08/24/19 01:00	4.15
Naphthalene	ND		22	41	ug/m3			08/24/19 01:00	4.15
Tetrachloroethene	ND		56	4.9	ug/m3			08/24/19 01:00	4.15
Toluene	**45**		47	30	ug/m3			08/24/19 01:00	4.15
trans-1,2-Dichloroethene	**40**		33	2.9	ug/m3			08/24/19 01:00	4.15
1,2,4-Trichlorobenzene	ND		62	49	ug/m3			08/24/19 01:00	4.15
1,1,1-Trichloroethane	ND		45	21	ug/m3			08/24/19 01:00	4.15
1,1,2-Trichloroethane	ND		45	4.0	ug/m3			08/24/19 01:00	4.15
Trichloroethene	**200**		22	3.3	ug/m3			08/24/19 01:00	4.15
1,2,3-Trimethylbenzene	ND		41	18	ug/m3			08/24/19 01:00	4.15
1,2,4-Trimethylbenzene	ND		41	10	ug/m3			08/24/19 01:00	4.15

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		41	11	ug/m3			08/24/19 01:00	4.15
Vinyl chloride	**5100**	**E**	11	6.9	ug/m3			08/24/19 01:00	4.15
Xylenes, Total	**49**	**J**	72	11	ug/m3			08/24/19 01:00	4.15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/24/19 01:00*	*4.15*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**1000**		7.5	4.9	ppb v/v			08/26/19 23:46	4.15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**2700**		19	13	ug/m3			08/26/19 23:46	4.15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/26/19 23:46*	*4.15*

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.35**	**J**	0.40	0.040	ppb v/v			08/24/19 01:50	1.52
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Chlorodifluoromethane	**1.2**		0.40	0.11	ppb v/v			08/24/19 01:50	1.52
Chloroform	**0.095**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
cis-1,2-Dichloroethene	**0.18**	**J**	0.40	0.050	ppb v/v			08/24/19 01:50	1.52
Dichlorodifluoromethane	**0.40**		0.40	0.070	ppb v/v			08/24/19 01:50	1.52
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/24/19 01:50	1.52
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/24/19 01:50	1.52
1,1-Dichloroethene	**0.074**	**J**	0.40	0.040	ppb v/v			08/24/19 01:50	1.52
Ethylbenzene	**0.38**	**J**	0.40	0.065	ppb v/v			08/24/19 01:50	1.52
Methylene Chloride	**230**	**E B**	2.0	0.80	ppb v/v			08/24/19 01:50	1.52
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/24/19 01:50	1.52
Naphthalene	ND		0.20	0.38	ppb v/v			08/24/19 01:50	1.52
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Toluene	**4.1**		0.60	0.39	ppb v/v			08/24/19 01:50	1.52
trans-1,2-Dichloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			08/24/19 01:50	1.52
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/24/19 01:50	1.52
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/24/19 01:50	1.52
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/24/19 01:50	1.52
Trichloroethene	**0.68**		0.20	0.030	ppb v/v			08/24/19 01:50	1.52
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/24/19 01:50	1.52
1,2,4-Trimethylbenzene	**0.17**	**J**	0.40	0.10	ppb v/v			08/24/19 01:50	1.52
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/24/19 01:50	1.52
Vinyl chloride	**2.7**		0.20	0.13	ppb v/v			08/24/19 01:50	1.52
Xylenes, Total	**1.8**		0.80	0.12	ppb v/v			08/24/19 01:50	1.52

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.1**	**J**	1.3	0.13	ug/m3			08/24/19 01:50	1.52
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			08/24/19 01:50	1.52
Chlorodifluoromethane	**4.2**		1.4	0.39	ug/m3			08/24/19 01:50	1.52
Chloroform	**0.46**	**J**	2.0	0.17	ug/m3			08/24/19 01:50	1.52
cis-1,2-Dichloroethene	**0.70**	**J**	1.6	0.20	ug/m3			08/24/19 01:50	1.52
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/24/19 01:50	1.52
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/24/19 01:50	1.52
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/24/19 01:50	1.52
1,1-Dichloroethene	**0.29**	**J**	1.6	0.16	ug/m3			08/24/19 01:50	1.52
Ethylbenzene	**1.7**	**J**	1.7	0.28	ug/m3			08/24/19 01:50	1.52
Methylene Chloride	**810**	**E B**	6.9	2.8	ug/m3			08/24/19 01:50	1.52
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/24/19 01:50	1.52
Naphthalene	ND		1.0	2.0	ug/m3			08/24/19 01:50	1.52
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			08/24/19 01:50	1.52
Toluene	**15**		2.3	1.5	ug/m3			08/24/19 01:50	1.52
trans-1,2-Dichloroethene	**0.16**	**J**	1.6	0.14	ug/m3			08/24/19 01:50	1.52
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/24/19 01:50	1.52
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/24/19 01:50	1.52
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/24/19 01:50	1.52
Trichloroethene	**3.7**		1.1	0.16	ug/m3			08/24/19 01:50	1.52
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/24/19 01:50	1.52
1,2,4-Trimethylbenzene	**0.84**	**J**	2.0	0.49	ug/m3			08/24/19 01:50	1.52

Client Sample ID: SV-126-C-27 — Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/24/19 01:50	1.52
Vinyl chloride	**6.8**		0.51	0.33	ug/m3			08/24/19 01:50	1.52
Xylenes, Total	**7.9**		3.5	0.52	ug/m3			08/24/19 01:50	1.52

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*08/24/19 01:50*	*1.52*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**180**	**B**	22	8.7	ppb v/v			08/27/19 14:52	1.52

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**630**	**B**	75	30	ug/m3			08/27/19 14:52	1.52

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/27/19 14:52*	*1.52*

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Date Collected: 08/14/19 11:09 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.050**	**J**	0.40	0.040	ppb v/v			08/21/19 03:16	1
Carbon tetrachloride	**0.058**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
Chlorodifluoromethane	**1.4**		0.40	0.11	ppb v/v			08/21/19 03:16	1
Chloroform	**0.27**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
cis-1,2-Dichloroethene	**4.7**		0.40	0.050	ppb v/v			08/21/19 03:16	1
Dichlorodifluoromethane	**0.32**	**J**	0.40	0.070	ppb v/v			08/21/19 03:16	1
1,1-Dichloroethane	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
1,2-Dichloroethane	**3.0**		0.40	0.050	ppb v/v			08/21/19 03:16	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 03:16	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			08/21/19 03:16	1
Methylene Chloride	**12**	**B**	2.0	0.80	ppb v/v			08/21/19 03:16	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 03:16	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 03:16	1
Tetrachloroethene	**0.037**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
Toluene	**0.81**		0.60	0.39	ppb v/v			08/21/19 03:16	1
trans-1,2-Dichloroethene	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 03:16	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 03:16	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 03:16	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:16	1
Trichloroethene	**33**		0.20	0.030	ppb v/v			08/21/19 03:16	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 03:16	1
1,2,4-Trimethylbenzene	**0.23**	**J**	0.40	0.10	ppb v/v			08/21/19 03:16	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 03:16	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 03:16	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/21/19 03:16	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	1.3	0.13	ug/m3			08/21/19 03:16	1
Carbon tetrachloride	**0.36**	**J**	2.5	0.22	ug/m3			08/21/19 03:16	1
Chlorodifluoromethane	**5.1**		1.4	0.39	ug/m3			08/21/19 03:16	1
Chloroform	**1.3**	**J**	2.0	0.17	ug/m3			08/21/19 03:16	1
cis-1,2-Dichloroethene	**18**		1.6	0.20	ug/m3			08/21/19 03:16	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			08/21/19 03:16	1
1,1-Dichloroethane	**0.26**	**J**	1.6	0.14	ug/m3			08/21/19 03:16	1
1,2-Dichloroethane	**12**		1.6	0.20	ug/m3			08/21/19 03:16	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 03:16	1
Ethylbenzene	**0.84**	**J**	1.7	0.28	ug/m3			08/21/19 03:16	1
Methylene Chloride	**42**	**B**	6.9	2.8	ug/m3			08/21/19 03:16	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 03:16	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 03:16	1
Tetrachloroethene	**0.25**	**J**	2.7	0.24	ug/m3			08/21/19 03:16	1
Toluene	**3.0**		2.3	1.5	ug/m3			08/21/19 03:16	1
trans-1,2-Dichloroethene	**0.26**	**J**	1.6	0.14	ug/m3			08/21/19 03:16	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 03:16	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 03:16	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 03:16	1
Trichloroethene	**180**		1.1	0.16	ug/m3			08/21/19 03:16	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 03:16	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/21/19 03:16	1

Client Sample ID: SV-113-C-27 **Lab Sample ID: 140-16376-14**
Date Collected: 08/14/19 11:09 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 03:16	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 03:16	1
Xylenes, Total	**4.3**		3.5	0.52	ug/m3			08/21/19 03:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 03:16*	*1*

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Date Collected: 08/14/19 11:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/21/19 04:05	1
Carbon tetrachloride	**0.065**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
Chlorodifluoromethane	**1.1**		0.40	0.11	ppb v/v			08/21/19 04:05	1
Chloroform	**0.087**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
cis-1,2-Dichloroethene	**1.6**		0.40	0.050	ppb v/v			08/21/19 04:05	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/21/19 04:05	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 04:05	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 04:05	1
Ethylbenzene	**0.30**	**J**	0.40	0.065	ppb v/v			08/21/19 04:05	1
Methylene Chloride	**3.1**	**B**	2.0	0.80	ppb v/v			08/21/19 04:05	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 04:05	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 04:05	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
Toluene	**0.40**	**J**	0.60	0.39	ppb v/v			08/21/19 04:05	1
trans-1,2-Dichloroethene	**0.11**	**J**	0.40	0.035	ppb v/v			08/21/19 04:05	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 04:05	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 04:05	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:05	1
Trichloroethene	**6.8**		0.20	0.030	ppb v/v			08/21/19 04:05	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 04:05	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/21/19 04:05	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 04:05	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 04:05	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/21/19 04:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.45**	**J**	1.3	0.13	ug/m3			08/21/19 04:05	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/21/19 04:05	1
Chlorodifluoromethane	**4.0**		1.4	0.39	ug/m3			08/21/19 04:05	1
Chloroform	**0.42**	**J**	2.0	0.17	ug/m3			08/21/19 04:05	1
cis-1,2-Dichloroethene	**6.5**		1.6	0.20	ug/m3			08/21/19 04:05	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 04:05	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 04:05	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 04:05	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 04:05	1
Ethylbenzene	**1.3**	**J**	1.7	0.28	ug/m3			08/21/19 04:05	1
Methylene Chloride	**11**	**B**	6.9	2.8	ug/m3			08/21/19 04:05	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 04:05	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 04:05	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/21/19 04:05	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/21/19 04:05	1
trans-1,2-Dichloroethene	**0.45**	**J**	1.6	0.14	ug/m3			08/21/19 04:05	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 04:05	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 04:05	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 04:05	1
Trichloroethene	**36**		1.1	0.16	ug/m3			08/21/19 04:05	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 04:05	1
1,2,4-Trimethylbenzene	**0.89**	**J**	2.0	0.49	ug/m3			08/21/19 04:05	1

Client Sample ID: SV-088-C-27 **Lab Sample ID: 140-16376-15**
Date Collected: 08/14/19 11:11 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 04:05	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 04:05	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/21/19 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*08/21/19 04:05*	*1*

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/21/19 05:43	1
Carbon tetrachloride	**0.046**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
Chlorodifluoromethane	**1.0**		0.40	0.11	ppb v/v			08/21/19 05:43	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
cis-1,2-Dichloroethene	**1.5**		0.40	0.050	ppb v/v			08/21/19 05:43	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/21/19 05:43	1
1,1-Dichloroethane	**0.040**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 05:43	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 05:43	1
Ethylbenzene	**0.39**	**J**	0.40	0.065	ppb v/v			08/21/19 05:43	1
Methylene Chloride	**3.9**	**B**	2.0	0.80	ppb v/v			08/21/19 05:43	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 05:43	1
Naphthalene	**0.41**		0.20	0.38	ppb v/v			08/21/19 05:43	1
Tetrachloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
Toluene	**1.3**		0.60	0.39	ppb v/v			08/21/19 05:43	1
trans-1,2-Dichloroethene	**0.078**	**J**	0.40	0.035	ppb v/v			08/21/19 05:43	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 05:43	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 05:43	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 05:43	1
Trichloroethene	**6.4**		0.20	0.030	ppb v/v			08/21/19 05:43	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 05:43	1
1,2,4-Trimethylbenzene	**0.18**	**J**	0.40	0.10	ppb v/v			08/21/19 05:43	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 05:43	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 05:43	1
Xylenes, Total	**4.1**		0.80	0.12	ppb v/v			08/21/19 05:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/21/19 05:43	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			08/21/19 05:43	1
Chlorodifluoromethane	**3.5**		1.4	0.39	ug/m3			08/21/19 05:43	1
Chloroform	**0.51**	**J**	2.0	0.17	ug/m3			08/21/19 05:43	1
cis-1,2-Dichloroethene	**5.9**		1.6	0.20	ug/m3			08/21/19 05:43	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 05:43	1
1,1-Dichloroethane	**0.16**	**J**	1.6	0.14	ug/m3			08/21/19 05:43	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 05:43	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 05:43	1
Ethylbenzene	**1.7**	**J**	1.7	0.28	ug/m3			08/21/19 05:43	1
Methylene Chloride	**13**	**B**	6.9	2.8	ug/m3			08/21/19 05:43	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 05:43	1
Naphthalene	**2.1**		1.0	2.0	ug/m3			08/21/19 05:43	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			08/21/19 05:43	1
Toluene	**4.9**		2.3	1.5	ug/m3			08/21/19 05:43	1
trans-1,2-Dichloroethene	**0.31**	**J**	1.6	0.14	ug/m3			08/21/19 05:43	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 05:43	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 05:43	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 05:43	1
Trichloroethene	**34**		1.1	0.16	ug/m3			08/21/19 05:43	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 05:43	1
1,2,4-Trimethylbenzene	**0.88**	**J**	2.0	0.49	ug/m3			08/21/19 05:43	1

Client Sample ID: SV-DUP02-C-27 **Lab Sample ID: 140-16376-16**
Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 05:43	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 05:43	1
Xylenes, Total	**18**		3.5	0.52	ug/m3			08/21/19 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*08/21/19 05:43*	*1*

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Date Collected: 08/14/19 11:13 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.087**	**J**	0.40	0.040	ppb v/v			08/21/19 06:31	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			08/21/19 06:31	1
Chlorodifluoromethane	**0.63**		0.40	0.11	ppb v/v			08/21/19 06:31	1
Chloroform	**1.1**		0.40	0.035	ppb v/v			08/21/19 06:31	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 06:31	1
Dichlorodifluoromethane	**0.34**	**J**	0.40	0.070	ppb v/v			08/21/19 06:31	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 06:31	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 06:31	1
Ethylbenzene	**0.14**	**J**	0.40	0.065	ppb v/v			08/21/19 06:31	1
Methylene Chloride	**10**	**B**	2.0	0.80	ppb v/v			08/21/19 06:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 06:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 06:31	1
Tetrachloroethene	**0.15**	**J**	0.40	0.035	ppb v/v			08/21/19 06:31	1
Toluene	**0.49**	**J**	0.60	0.39	ppb v/v			08/21/19 06:31	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 06:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 06:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 06:31	1
Trichloroethene	**1.9**		0.20	0.030	ppb v/v			08/21/19 06:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 06:31	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/21/19 06:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 06:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 06:31	1
Xylenes, Total	**1.1**		0.80	0.12	ppb v/v			08/21/19 06:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	1.3	0.13	ug/m3			08/21/19 06:31	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			08/21/19 06:31	1
Chlorodifluoromethane	**2.2**		1.4	0.39	ug/m3			08/21/19 06:31	1
Chloroform	**5.4**		2.0	0.17	ug/m3			08/21/19 06:31	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 06:31	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/21/19 06:31	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 06:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 06:31	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 06:31	1
Ethylbenzene	**0.63**	**J**	1.7	0.28	ug/m3			08/21/19 06:31	1
Methylene Chloride	**36**	**B**	6.9	2.8	ug/m3			08/21/19 06:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 06:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 06:31	1
Tetrachloroethene	**0.99**	**J**	2.7	0.24	ug/m3			08/21/19 06:31	1
Toluene	**1.9**	**J**	2.3	1.5	ug/m3			08/21/19 06:31	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 06:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 06:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 06:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 06:31	1
Trichloroethene	**10**		1.1	0.16	ug/m3			08/21/19 06:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 06:31	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/21/19 06:31	1

Client Sample ID: SV-142-C-27 **Lab Sample ID: 140-16376-17**
Date Collected: 08/14/19 11:13 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 06:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 06:31	1
Xylenes, Total	**4.6**		3.5	0.52	ug/m3			08/21/19 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 06:31*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16376-1	SV-001-C-27	92								
140-16376-2	SV-004-C-27	96								
140-16376-3	SV-102-C-27	85								
140-16376-4	SV-DUP1-C-27	96								
140-16376-4 - DL	SV-DUP1-C-27	88								
140-16376-5	SV-155-C-27	96								
140-16376-6	SV-133-C-27	87								
140-16376-7	SV-153-C-27	89								
140-16376-8	SV-060-C-27	106								
140-16376-8 - DL	SV-060-C-27	92								
140-16376-9	SV-150-C-27	94								
140-16376-10	SV-152-C-27	94								
140-16376-11	SV-141-C-27	91								
140-16376-11 - DL	SV-141-C-27	87								
140-16376-12	SV-149-C-27	86								
140-16376-12 - DL	SV-149-C-27	85								
140-16376-13	SV-126-C-27	92								
140-16376-13 - DL	SV-126-C-27	93								
140-16376-14	SV-113-C-27	94								
140-16376-15	SV-088-C-27	94								
140-16376-16	SV-DUP02-C-27	96								
140-16376-17	SV-142-C-27	91								
LCS 140-32745/1002	Lab Control Sample	97								
LCS 140-32777/1002	Lab Control Sample	95								
LCS 140-32868/1002	Lab Control Sample	94								
LCS 140-32956/1002	Lab Control Sample	90								
LCS 140-32985/1002	Lab Control Sample	91								
MB 140-32745/4	Method Blank	91								
MB 140-32777/4	Method Blank	97								
MB 140-32868/4	Method Blank	87								
MB 140-32956/4	Method Blank	85								
MB 140-32985/4	Method Blank	85								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32745/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 12:04	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 12:04	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 12:04	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 12:04	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 12:04	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 12:04	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 12:04	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/20/19 12:04	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 12:04	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 12:04	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 12:04	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 12:04	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 12:04	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 12:04	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 12:04	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 12:04	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 12:04	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 12:04	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 12:04	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 12:04	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 12:04	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 12:04	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 12:04	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 12:04	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 12:04	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 12:04	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 12:04	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 12:04	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 12:04	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 12:04	1
Methylene Chloride	0.557	J	1.4	0.56	ug/m3			08/20/19 12:04	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 12:04	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 12:04	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 12:04	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 12:04	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 12:04	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 12:04	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 12:04	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 12:04	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 12:04	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 12:04	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32745/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 12:04	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 12:04	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 12:04	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 12:04*	*1*

Lab Sample ID: LCS 140-32745/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.924		ppb v/v		92	70 - 130
Carbon tetrachloride	1.00	0.944		ppb v/v		94	70 - 130
Chlorodifluoromethane	1.00	1.10		ppb v/v		110	60 - 140
Chloroform	1.00	1.02		ppb v/v		102	70 - 130
cis-1,2-Dichloroethene	1.00	0.944		ppb v/v		94	70 - 130
Dichlorodifluoromethane	1.00	1.23		ppb v/v		123	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.01		ppb v/v		101	70 - 130
1,1-Dichloroethene	1.00	1.02		ppb v/v		102	70 - 130
Ethylbenzene	1.00	1.01		ppb v/v		101	70 - 130
Methylene Chloride	1.00	1.09		ppb v/v		109	70 - 130
Methyl tert-butyl ether	1.00	1.05		ppb v/v		105	60 - 140
Naphthalene	1.00	0.992		ppb v/v		99	60 - 140
Tetrachloroethene	1.00	0.893		ppb v/v		89	70 - 130
Toluene	1.00	0.962		ppb v/v		96	70 - 130
trans-1,2-Dichloroethene	1.00	1.03		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	1.00	0.948		ppb v/v		95	60 - 140
1,1,1-Trichloroethane	1.00	0.986		ppb v/v		99	70 - 130
1,1,2-Trichloroethane	1.00	0.962		ppb v/v		96	70 - 130
Trichloroethene	1.00	0.914		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	1.00	1.05		ppb v/v		105	70 - 130
1,2,4-Trimethylbenzene	1.00	1.02		ppb v/v		102	70 - 130
1,3,5-Trimethylbenzene	1.00	0.969		ppb v/v		97	70 - 130
Vinyl chloride	1.00	1.25		ppb v/v		125	70 - 130
Xylenes, Total	3.00	3.18		ppb v/v		106	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.95		ug/m3		92	70 - 130
Carbon tetrachloride	6.3	5.94		ug/m3		94	70 - 130
Chlorodifluoromethane	3.5	3.90		ug/m3		110	60 - 140
Chloroform	4.9	5.00		ug/m3		102	70 - 130
cis-1,2-Dichloroethene	4.0	3.74		ug/m3		94	70 - 130
Dichlorodifluoromethane	4.9	6.08		ug/m3		123	60 - 140
1,1-Dichloroethane	4.0	4.30		ug/m3		106	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32745/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.0	4.10		ug/m3		101	70 - 130
1,1-Dichloroethene	4.0	4.04		ug/m3		102	70 - 130
Ethylbenzene	4.3	4.37		ug/m3		101	70 - 130
Methylene Chloride	3.5	3.78		ug/m3		109	70 - 130
Methyl tert-butyl ether	3.6	3.79		ug/m3		105	60 - 140
Naphthalene	5.2	5.20		ug/m3		99	60 - 140
Tetrachloroethene	6.8	6.06		ug/m3		89	70 - 130
Toluene	3.8	3.62		ug/m3		96	70 - 130
trans-1,2-Dichloroethene	4.0	4.08		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	7.4	7.03		ug/m3		95	60 - 140
1,1,1-Trichloroethane	5.5	5.38		ug/m3		99	70 - 130
1,1,2-Trichloroethane	5.5	5.25		ug/m3		96	70 - 130
Trichloroethene	5.4	4.91		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	4.9	5.14		ug/m3		105	70 - 130
1,2,4-Trimethylbenzene	4.9	5.01		ug/m3		102	70 - 130
1,3,5-Trimethylbenzene	4.9	4.76		ug/m3		97	70 - 130
Vinyl chloride	2.6	3.18		ug/m3		125	70 - 130
Xylenes, Total	13	13.8		ug/m3		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*

Lab Sample ID: MB 140-32777/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 16:09	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 16:09	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 16:09	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 16:09	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 16:09	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 16:09	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 16:09	1
Methylene Chloride	0.207	J	0.40	0.16	ppb v/v			08/21/19 16:09	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 16:09	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 16:09	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 16:09	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 16:09	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 16:09	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 16:09	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 16:09	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32777/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 16:09	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 16:09	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 16:09	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 16:09	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 16:09	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 16:09	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 16:09	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 16:09	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 16:09	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 16:09	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 16:09	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 16:09	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 16:09	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 16:09	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 16:09	1
Methylene Chloride	0.718	J	1.4	0.56	ug/m3			08/21/19 16:09	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 16:09	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 16:09	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 16:09	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 16:09	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 16:09	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 16:09	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 16:09	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 16:09	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 16:09	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 16:09	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 16:09	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 16:09	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 16:09	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*08/21/19 16:09*	*1*

Lab Sample ID: LCS 140-32777/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.89		ppb v/v		95	70 - 130
Carbon tetrachloride	2.00	1.89		ppb v/v		94	70 - 130
Chlorodifluoromethane	2.00	1.48		ppb v/v		74	60 - 140
Chloroform	2.00	1.85		ppb v/v		92	70 - 130
cis-1,2-Dichloroethene	2.00	2.05		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	1.74		ppb v/v		87	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32777/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.72		ppb v/v		86	70 - 130
1,2-Dichloroethane	2.00	1.63		ppb v/v		82	70 - 130
1,1-Dichloroethene	2.00	2.03		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.88		ppb v/v		94	70 - 130
Methylene Chloride	2.00	1.96		ppb v/v		98	70 - 130
Methyl tert-butyl ether	2.00	1.59		ppb v/v		80	60 - 140
Naphthalene	2.00	1.64		ppb v/v		82	60 - 140
Tetrachloroethene	2.00	1.92		ppb v/v		96	70 - 130
Toluene	2.00	1.91		ppb v/v		95	70 - 130
trans-1,2-Dichloroethene	2.00	2.11		ppb v/v		105	70 - 130
1,2,4-Trichlorobenzene	2.00	1.83		ppb v/v		91	60 - 140
1,1,1-Trichloroethane	2.00	1.87		ppb v/v		94	70 - 130
1,1,2-Trichloroethane	2.00	1.83		ppb v/v		92	70 - 130
Trichloroethene	2.00	2.06		ppb v/v		103	70 - 130
1,2,3-Trimethylbenzene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trimethylbenzene	2.00	1.77		ppb v/v		88	70 - 130
1,3,5-Trimethylbenzene	2.00	1.92		ppb v/v		96	70 - 130
Vinyl chloride	2.00	1.49		ppb v/v		75	70 - 130
Xylenes, Total	6.00	5.49		ppb v/v		92	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.04		ug/m3		95	70 - 130
Carbon tetrachloride	13	11.9		ug/m3		94	70 - 130
Chlorodifluoromethane	7.1	5.22		ug/m3		74	60 - 140
Chloroform	9.8	9.03		ug/m3		92	70 - 130
cis-1,2-Dichloroethene	7.9	8.12		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	8.60		ug/m3		87	60 - 140
1,1-Dichloroethane	8.1	6.95		ug/m3		86	70 - 130
1,2-Dichloroethane	8.1	6.61		ug/m3		82	70 - 130
1,1-Dichloroethene	7.9	8.04		ug/m3		101	70 - 130
Ethylbenzene	8.7	8.18		ug/m3		94	70 - 130
Methylene Chloride	6.9	6.81		ug/m3		98	70 - 130
Methyl tert-butyl ether	7.2	5.73		ug/m3		80	60 - 140
Naphthalene	10	8.61		ug/m3		82	60 - 140
Tetrachloroethene	14	13.0		ug/m3		96	70 - 130
Toluene	7.5	7.20		ug/m3		95	70 - 130
trans-1,2-Dichloroethene	7.9	8.35		ug/m3		105	70 - 130
1,2,4-Trichlorobenzene	15	13.5		ug/m3		91	60 - 140
1,1,1-Trichloroethane	11	10.2		ug/m3		94	70 - 130
1,1,2-Trichloroethane	11	10.0		ug/m3		92	70 - 130
Trichloroethene	11	11.0		ug/m3		103	70 - 130
1,2,3-Trimethylbenzene	9.8	9.84		ug/m3		100	70 - 130
1,2,4-Trimethylbenzene	9.8	8.69		ug/m3		88	70 - 130
1,3,5-Trimethylbenzene	9.8	9.43		ug/m3		96	70 - 130
Vinyl chloride	5.1	3.82		ug/m3		75	70 - 130
Xylenes, Total	26	23.8		ug/m3		92	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32777/1002
Matrix: Air
Analysis Batch: 32777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*

Lab Sample ID: MB 140-32868/4
Matrix: Air
Analysis Batch: 32868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 140-32956/4
Matrix: Air
Analysis Batch: 32956

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/26/19 08:49	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/26/19 08:49	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/26/19 08:49	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/26/19 08:49	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/26/19 08:49	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/26/19 08:49	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/26/19 08:49	1
Methylene Chloride	0.226	J	0.40	0.16	ppb v/v			08/26/19 08:49	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/26/19 08:49	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/26/19 08:49	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Toluene	ND		0.12	0.078	ppb v/v			08/26/19 08:49	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32956/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/26/19 08:49	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/26/19 08:49	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/26/19 08:49	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/26/19 08:49	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/26/19 08:49	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/26/19 08:49	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/26/19 08:49	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/26/19 08:49	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/26/19 08:49	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/26/19 08:49	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/26/19 08:49	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/26/19 08:49	1
Chloroform	ND		0.39	0.034	ug/m3			08/26/19 08:49	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/26/19 08:49	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/26/19 08:49	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/26/19 08:49	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/26/19 08:49	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/26/19 08:49	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/26/19 08:49	1
Methylene Chloride	0.785	J	1.4	0.56	ug/m3			08/26/19 08:49	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/26/19 08:49	1
Naphthalene	ND		0.21	0.40	ug/m3			08/26/19 08:49	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/26/19 08:49	1
Toluene	ND		0.45	0.29	ug/m3			08/26/19 08:49	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/26/19 08:49	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/26/19 08:49	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/26/19 08:49	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/26/19 08:49	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/26/19 08:49	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/26/19 08:49	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/26/19 08:49	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/26/19 08:49	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/26/19 08:49	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/26/19 08:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/26/19 08:49*	*1*

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.781		ppb v/v		78	70 - 130
Carbon tetrachloride	1.00	0.740		ppb v/v		74	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	1.00	0.888		ppb v/v		89	60 - 140
Chloroform	1.00	0.821		ppb v/v		82	70 - 130
cis-1,2-Dichloroethene	1.00	0.770		ppb v/v		77	70 - 130
Dichlorodifluoromethane	1.00	1.08		ppb v/v		108	60 - 140
1,1-Dichloroethane	1.00	0.873		ppb v/v		87	70 - 130
1,2-Dichloroethane	1.00	0.793		ppb v/v		79	70 - 130
1,1-Dichloroethene	1.00	0.792		ppb v/v		79	70 - 130
Ethylbenzene	1.00	0.856		ppb v/v		86	70 - 130
Methylene Chloride	1.00	0.910		ppb v/v		91	70 - 130
Methyl tert-butyl ether	1.00	0.845		ppb v/v		85	60 - 140
Naphthalene	1.00	0.780		ppb v/v		78	60 - 140
Tetrachloroethene	1.00	0.833		ppb v/v		83	70 - 130
Toluene	1.00	0.879		ppb v/v		88	70 - 130
trans-1,2-Dichloroethene	1.00	0.848		ppb v/v		85	70 - 130
1,2,4-Trichlorobenzene	1.00	0.791		ppb v/v		79	60 - 140
1,1,1-Trichloroethane	1.00	0.756		ppb v/v		76	70 - 130
1,1,2-Trichloroethane	1.00	0.897		ppb v/v		90	70 - 130
Trichloroethene	1.00	0.784		ppb v/v		78	70 - 130
1,2,3-Trimethylbenzene	1.00	0.848		ppb v/v		85	70 - 130
1,2,4-Trimethylbenzene	1.00	0.796		ppb v/v		80	70 - 130
1,3,5-Trimethylbenzene	1.00	0.835		ppb v/v		84	70 - 130
Vinyl chloride	1.00	1.22		ppb v/v		122	70 - 130
Xylenes, Total	3.00	2.57		ppb v/v		86	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	2.50		ug/m3		78	70 - 130
Carbon tetrachloride	6.3	4.66		ug/m3		74	70 - 130
Chlorodifluoromethane	3.5	3.14		ug/m3		89	60 - 140
Chloroform	4.9	4.01		ug/m3		82	70 - 130
cis-1,2-Dichloroethene	4.0	3.05		ug/m3		77	70 - 130
Dichlorodifluoromethane	4.9	5.36		ug/m3		108	60 - 140
1,1-Dichloroethane	4.0	3.53		ug/m3		87	70 - 130
1,2-Dichloroethane	4.0	3.21		ug/m3		79	70 - 130
1,1-Dichloroethene	4.0	3.14		ug/m3		79	70 - 130
Ethylbenzene	4.3	3.72		ug/m3		86	70 - 130
Methylene Chloride	3.5	3.16		ug/m3		91	70 - 130
Methyl tert-butyl ether	3.6	3.05		ug/m3		85	60 - 140
Naphthalene	5.2	4.09		ug/m3		78	60 - 140
Tetrachloroethene	6.8	5.65		ug/m3		83	70 - 130
Toluene	3.8	3.31		ug/m3		88	70 - 130
trans-1,2-Dichloroethene	4.0	3.36		ug/m3		85	70 - 130
1,2,4-Trichlorobenzene	7.4	5.87		ug/m3		79	60 - 140
1,1,1-Trichloroethane	5.5	4.12		ug/m3		76	70 - 130
1,1,2-Trichloroethane	5.5	4.90		ug/m3		90	70 - 130
Trichloroethene	5.4	4.21		ug/m3		78	70 - 130
1,2,3-Trimethylbenzene	4.9	4.17		ug/m3		85	70 - 130
1,2,4-Trimethylbenzene	4.9	3.91		ug/m3		80	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32956/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32956

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	4.9	4.11		ug/m3		84	70 - 130
Vinyl chloride	2.6	3.11		ug/m3		122	70 - 130
Xylenes, Total	13	11.2		ug/m3		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/27/19 10:12	1
Methylene Chloride	0.305	J	0.40	0.16	ppb v/v			08/27/19 10:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/27/19 10:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/27/19 10:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/27/19 10:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/27/19 10:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/27/19 10:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/27/19 10:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/27/19 10:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/27/19 10:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/27/19 10:12	1
Methylene Chloride	1.06	J	1.4	0.56	ug/m3			08/27/19 10:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/27/19 10:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/27/19 10:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/27/19 10:12	1
Toluene	ND		0.45	0.29	ug/m3			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/27/19 10:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/27/19 10:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/27/19 10:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/27/19 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/27/19 10:12*	*1*

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.07		ppb v/v		103	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		91	70 - 130
Chlorodifluoromethane	2.00	2.11		ppb v/v		106	60 - 140
Chloroform	2.00	1.87		ppb v/v		94	70 - 130
cis-1,2-Dichloroethene	2.00	2.17		ppb v/v		109	70 - 130
Dichlorodifluoromethane	2.00	2.11		ppb v/v		105	60 - 140
1,1-Dichloroethane	2.00	1.93		ppb v/v		97	70 - 130
1,2-Dichloroethane	2.00	1.52		ppb v/v		76	70 - 130
1,1-Dichloroethene	2.00	2.17		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
Methylene Chloride	2.00	1.81		ppb v/v		91	70 - 130
Methyl tert-butyl ether	2.00	1.91		ppb v/v		95	60 - 140
Naphthalene	2.00	2.27		ppb v/v		113	60 - 140
Tetrachloroethene	2.00	1.89		ppb v/v		95	70 - 130
Toluene	2.00	2.06		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.19		ppb v/v		110	70 - 130
1,2,4-Trichlorobenzene	2.00	2.20		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	2.00	1.68		ppb v/v		84	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		107	70 - 130
Trichloroethene	2.00	2.01		ppb v/v		101	70 - 130
1,2,3-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,3,5-Trimethylbenzene	2.00	2.09		ppb v/v		105	70 - 130
Vinyl chloride	2.00	2.56		ppb v/v		128	70 - 130
Xylenes, Total	6.00	5.81		ppb v/v		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.60		ug/m3		103	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		91	70 - 130
Chlorodifluoromethane	7.1	7.48		ug/m3		106	60 - 140
Chloroform	9.8	9.15		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	7.9	8.62		ug/m3		109	70 - 130
Dichlorodifluoromethane	9.9	10.4		ug/m3		105	60 - 140
1,1-Dichloroethane	8.1	7.83		ug/m3		97	70 - 130
1,2-Dichloroethane	8.1	6.14		ug/m3		76	70 - 130
1,1-Dichloroethene	7.9	8.60		ug/m3		108	70 - 130
Ethylbenzene	8.7	8.51		ug/m3		98	70 - 130
Methylene Chloride	6.9	6.30		ug/m3		91	70 - 130
Methyl tert-butyl ether	7.2	6.87		ug/m3		95	60 - 140
Naphthalene	10	11.9		ug/m3		113	60 - 140
Tetrachloroethene	14	12.8		ug/m3		95	70 - 130
Toluene	7.5	7.77		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.69		ug/m3		110	70 - 130
1,2,4-Trichlorobenzene	15	16.3		ug/m3		110	60 - 140
1,1,1-Trichloroethane	11	9.14		ug/m3		84	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		107	70 - 130
Trichloroethene	11	10.8		ug/m3		101	70 - 130
1,2,3-Trimethylbenzene	9.8	9.56		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	9.8	9.54		ug/m3		97	70 - 130
1,3,5-Trimethylbenzene	9.8	10.3		ug/m3		105	70 - 130
Vinyl chloride	5.1	6.56		ug/m3		128	70 - 130
Xylenes, Total	26	25.2		ug/m3		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-1	SV-001-C-27	Total/NA	Air	TO 15 LL	
140-16376-2	SV-004-C-27	Total/NA	Air	TO 15 LL	
140-16376-4	SV-DUP1-C-27	Total/NA	Air	TO 15 LL	
140-16376-5	SV-155-C-27	Total/NA	Air	TO 15 LL	
140-16376-8	SV-060-C-27	Total/NA	Air	TO 15 LL	
140-16376-9	SV-150-C-27	Total/NA	Air	TO 15 LL	
140-16376-10	SV-152-C-27	Total/NA	Air	TO 15 LL	
140-16376-11	SV-141-C-27	Total/NA	Air	TO 15 LL	
140-16376-14	SV-113-C-27	Total/NA	Air	TO 15 LL	
140-16376-15	SV-088-C-27	Total/NA	Air	TO 15 LL	
140-16376-16	SV-DUP02-C-27	Total/NA	Air	TO 15 LL	
140-16376-17	SV-142-C-27	Total/NA	Air	TO 15 LL	
MB 140-32745/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32745/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-3	SV-102-C-27	Total/NA	Air	TO 15 LL	
140-16376-4 - DL	SV-DUP1-C-27	Total/NA	Air	TO 15 LL	
MB 140-32777/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32777/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-7	SV-153-C-27	Total/NA	Air	TO 15 LL	
140-16376-8 - DL	SV-060-C-27	Total/NA	Air	TO 15 LL	
140-16376-11 - DL	SV-141-C-27	Total/NA	Air	TO 15 LL	
140-16376-12	SV-149-C-27	Total/NA	Air	TO 15 LL	
140-16376-13	SV-126-C-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-12 - DL	SV-149-C-27	Total/NA	Air	TO 15 LL	
MB 140-32956/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32956/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16376-6	SV-133-C-27	Total/NA	Air	TO 15 LL	
140-16376-13 - DL	SV-126-C-27	Total/NA	Air	TO 15 LL	
MB 140-32985/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32985/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-001-C-27 — Lab Sample ID: 140-16376-1

Date Collected: 08/14/19 10:24 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 12:52	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-004-C-27 — Lab Sample ID: 140-16376-2

Date Collected: 08/14/19 10:25 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 13:40	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-102-C-27 — Lab Sample ID: 140-16376-3

Date Collected: 08/14/19 10:30 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.73	11 mL	500 mL	32777	08/22/19 00:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: SV-DUP1-C-27 — Lab Sample ID: 140-16376-4

Date Collected: 08/14/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	3.53	11 mL	500 mL	32777	08/22/19 01:29	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	10 mL	500 mL	32745	08/20/19 19:07	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-155-C-27 — Lab Sample ID: 140-16376-5

Date Collected: 08/14/19 10:32 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 19:57	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-133-C-27 — Lab Sample ID: 140-16376-6

Date Collected: 08/14/19 10:34 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	30 mL	500 mL	32985	08/27/19 12:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-153-C-27 — Lab Sample ID: 140-16376-7

Date Collected: 08/14/19 10:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.76	176 mL	500 mL	32868	08/23/19 21:47	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-060-C-27 — Lab Sample ID: 140-16376-8

Date Collected: 08/14/19 10:40 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 22:24	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO 15 LL	DL	5.03	100 mL	500 mL	32868	08/23/19 22:35	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-150-C-27 — Lab Sample ID: 140-16376-9

Date Collected: 08/14/19 10:55 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/20/19 23:13	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-152-C-27 — Lab Sample ID: 140-16376-10

Date Collected: 08/14/19 10:53 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 00:02	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-141-C-27 — Lab Sample ID: 140-16376-11

Date Collected: 08/14/19 10:58 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 00:51	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO 15 LL	DL	1.47	50 mL	500 mL	32868	08/24/19 00:10	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		4.15	20 mL	500 mL	32868	08/24/19 01:00	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-149-C-27 — Lab Sample ID: 140-16376-12

Date Collected: 08/14/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	4.15	11 mL	500 mL	32956	08/26/19 23:46	S1K	TAL KNX

Client Sample ID: SV-126-C-27 — Lab Sample ID: 140-16376-13

Date Collected: 08/14/19 11:04 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	1.52	14 mL	500 mL	32985	08/27/19 14:52	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL		1.52	152 mL	500 mL	32868	08/24/19 01:50	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-113-C-27 — Lab Sample ID: 140-16376-14

Date Collected: 08/14/19 11:09 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 03:16	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-088-C-27 — Lab Sample ID: 140-16376-15

Date Collected: 08/14/19 11:11 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 04:05	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-DUP02-C-27 — Lab Sample ID: 140-16376-16

Date Collected: 08/14/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 05:43	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-142-C-27 — Lab Sample ID: 140-16376-17

Date Collected: 08/14/19 11:13 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32745	08/21/19 06:31	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32745/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32745	08/20/19 12:04	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32777/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32777	08/21/19 16:09	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32956/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32956	08/26/19 08:49	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32985/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 10:12	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32745/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32745	08/20/19 09:15	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32777/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32777	08/21/19 12:55	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32956/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32956	08/26/19 06:51	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32985/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 08:11	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16376-1	SV-001-C-27	Air	08/14/19 10:24	08/17/19 10:30	Air Canister (1-Liter) #11720
140-16376-2	SV-004-C-27	Air	08/14/19 10:25	08/17/19 10:30	Air Canister (1-Liter) #10746
140-16376-3	SV-102-C-27	Air	08/14/19 10:30	08/17/19 10:30	Air Canister (1-Liter) #09660
140-16376-4	SV-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09665
140-16376-5	SV-155-C-27	Air	08/14/19 10:32	08/17/19 10:30	Air Canister (1-Liter) #11830
140-16376-6	SV-133-C-27	Air	08/14/19 10:34	08/17/19 10:30	Air Canister (1-Liter) #11616
140-16376-7	SV-153-C-27	Air	08/14/19 10:37	08/17/19 10:30	Air Canister (1-Liter) #11256
140-16376-8	SV-060-C-27	Air	08/14/19 10:40	08/17/19 10:30	Air Canister (1-Liter) #11741
140-16376-9	SV-150-C-27	Air	08/14/19 10:55	08/17/19 10:30	Air Canister (1-Liter) #11723
140-16376-10	SV-152-C-27	Air	08/14/19 10:53	08/17/19 10:30	Air Canister (1-Liter) #11554
140-16376-11	SV-141-C-27	Air	08/14/19 10:58	08/17/19 10:30	Air Canister (1-Liter) #09739
140-16376-12	SV-149-C-27	Air	08/14/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #11811
140-16376-13	SV-126-C-27	Air	08/14/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #09580
140-16376-14	SV-113-C-27	Air	08/14/19 11:09	08/17/19 10:30	Air Canister (1-Liter) #11139
140-16376-15	SV-088-C-27	Air	08/14/19 11:11	08/17/19 10:30	Air Canister (1-Liter) #11142
140-16376-16	SV-DUP02-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #10336
140-16376-17	SV-142-C-27	Air	08/14/19 11:13	08/17/19 10:30	Air Canister (1-Liter) #10493

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-001-C-27	140-16376-1	92
SV-004-C-27	140-16376-2	96
SV-102-C-27	140-16376-3	85
SV-DUP1-C-27	140-16376-4	96
SV-DUP1-C-27 DL	140-16376-4 DL	88
SV-155-C-27	140-16376-5	96
SV-133-C-27	140-16376-6	87
SV-153-C-27	140-16376-7	89
SV-060-C-27	140-16376-8	106
SV-060-C-27 DL	140-16376-8 DL	92
SV-150-C-27	140-16376-9	94
SV-152-C-27	140-16376-10	94
SV-141-C-27	140-16376-11	91
SV-141-C-27 DL	140-16376-11 DL	87
SV-149-C-27	140-16376-12	86
SV-149-C-27 DL	140-16376-12 DL	85
SV-126-C-27	140-16376-13	92
SV-126-C-27 DL	140-16376-13 DL	93
SV-113-C-27	140-16376-14	94
SV-088-C-27	140-16376-15	94
SV-DUP02-C-27	140-16376-16	96
SV-142-C-27	140-16376-17	91
	MB 140-32745/4	91
	MB 140-32777/4	97
	MB 140-32868/4	87
	MB 140-32956/4	85
	MB 140-32985/4	85
	LCS 140-32745/1002	97
	LCS 140-32777/1002	95
	LCS 140-32868/1002	94
	LCS 140-32956/1002	90
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH20-LCS.d

Lab ID: LCS 140-32745/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.924	92	70-130	
Carbon tetrachloride	1.00	0.944	94	70-130	
Chlorodifluoromethane	1.00	1.10	110	60-140	
Chloroform	1.00	1.02	102	70-130	
cis-1,2-Dichloroethene	1.00	0.944	94	70-130	
Dichlorodifluoromethane	1.00	1.23	123	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.01	101	70-130	
1,1-Dichloroethene	1.00	1.02	102	70-130	
Ethylbenzene	1.00	1.01	101	70-130	
Methylene Chloride	1.00	1.09	109	70-130	
Methyl tert-butyl ether	1.00	1.05	105	60-140	
Naphthalene	1.00	0.992	99	60-140	
Tetrachloroethene	1.00	0.893	89	70-130	
Toluene	1.00	0.962	96	70-130	
trans-1,2-Dichloroethene	1.00	1.03	103	70-130	
1,2,4-Trichlorobenzene	1.00	0.948	95	60-140	
1,1,1-Trichloroethane	1.00	0.986	99	70-130	
1,1,2-Trichloroethane	1.00	0.962	96	70-130	
Trichloroethene	1.00	0.914	91	70-130	
1,2,3-Trimethylbenzene	1.00	1.05	105	70-130	
1,2,4-Trimethylbenzene	1.00	1.02	102	70-130	
1,3,5-Trimethylbenzene	1.00	0.969	97	70-130	
Vinyl chloride	1.00	1.25	125	70-130	
Xylenes, Total	3.00	3.18	106	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH21B-LCS.d

Lab ID: LCS 140-32777/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.89	95	70-130	
Carbon tetrachloride	2.00	1.89	94	70-130	
Chlorodifluoromethane	2.00	1.48	74	60-140	
Chloroform	2.00	1.85	92	70-130	
cis-1,2-Dichloroethene	2.00	2.05	102	70-130	
Dichlorodifluoromethane	2.00	1.74	87	60-140	
1,1-Dichloroethane	2.00	1.72	86	70-130	
1,2-Dichloroethane	2.00	1.63	82	70-130	
1,1-Dichloroethene	2.00	2.03	101	70-130	
Ethylbenzene	2.00	1.88	94	70-130	
Methylene Chloride	2.00	1.96	98	70-130	
Methyl tert-butyl ether	2.00	1.59	80	60-140	
Naphthalene	2.00	1.64	82	60-140	
Tetrachloroethene	2.00	1.92	96	70-130	
Toluene	2.00	1.91	95	70-130	
trans-1,2-Dichloroethene	2.00	2.11	105	70-130	
1,2,4-Trichlorobenzene	2.00	1.83	91	60-140	
1,1,1-Trichloroethane	2.00	1.87	94	70-130	
1,1,2-Trichloroethane	2.00	1.83	92	70-130	
Trichloroethene	2.00	2.06	103	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	1.77	88	70-130	
1,3,5-Trimethylbenzene	2.00	1.92	96	70-130	
Vinyl chloride	2.00	1.49	75	70-130	
Xylenes, Total	6.00	5.49	92	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH26-LCS.d

Lab ID: LCS 140-32956/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.781	78	70-130	
Carbon tetrachloride	1.00	0.740	74	70-130	
Chlorodifluoromethane	1.00	0.888	89	60-140	
Chloroform	1.00	0.821	82	70-130	
cis-1,2-Dichloroethene	1.00	0.770	77	70-130	
Dichlorodifluoromethane	1.00	1.08	108	60-140	
1,1-Dichloroethane	1.00	0.873	87	70-130	
1,2-Dichloroethane	1.00	0.793	79	70-130	
1,1-Dichloroethene	1.00	0.792	79	70-130	
Ethylbenzene	1.00	0.856	86	70-130	
Methylene Chloride	1.00	0.910	91	70-130	
Methyl tert-butyl ether	1.00	0.845	85	60-140	
Naphthalene	1.00	0.780	78	60-140	
Tetrachloroethene	1.00	0.833	83	70-130	
Toluene	1.00	0.879	88	70-130	
trans-1,2-Dichloroethene	1.00	0.848	85	70-130	
1,2,4-Trichlorobenzene	1.00	0.791	79	60-140	
1,1,1-Trichloroethane	1.00	0.756	76	70-130	
1,1,2-Trichloroethane	1.00	0.897	90	70-130	
Trichloroethene	1.00	0.784	78	70-130	
1,2,3-Trimethylbenzene	1.00	0.848	85	70-130	
1,2,4-Trimethylbenzene	1.00	0.796	80	70-130	
1,3,5-Trimethylbenzene	1.00	0.835	84	70-130	
Vinyl chloride	1.00	1.22	122	70-130	
Xylenes, Total	3.00	2.57	86	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: G500BH21.D Lab Sample ID: MB 140-32777/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/21/2019 16:09

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32777/1002	GCCVH21B-LCS.d	08/21/2019 12:55
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019 00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019 01:29

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019 12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019 14:52

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH20.D Lab Sample ID: MB 140-32745/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/20/2019 12:04

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019 09:15
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019 12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019 13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019 19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019 19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019 22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019 23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019 00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019 00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019 03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019 04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019 05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019 06:31

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019 21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019 22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019 00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019 01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019 01:50

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH26.D Lab Sample ID: MB 140-32956/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/26/2019 08:49

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019 06:51
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019 23:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH21B.D BFB Injection Date: 08/21/2019

Instrument ID: MG BFB Injection Time: 12:22

Analysis Batch No.: 32777

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	50.0 - 120.00 % of mass 95	98.7	
175	5.0 - 9.0 % of mass 174	7.1	(7.2) 1
176	95.0 - 101.0 % of mass 174	96.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32777/2	GCCVH21B.D	08/21/2019	12:55
	LCS 140-32777/1002	GCCVH21B-LCS .d	08/21/2019	12:55
	MB 140-32777/4	G500BH21.D	08/21/2019	16:09
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019	00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019	01:29

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019	12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019	14:52

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MR BFB Injection Time: 08:48

Analysis Batch No.: 32745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.3	
75	30.0 - 60.0 % of mass 95	56.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	76.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.1) 1
176	95.0 - 101.0 % of mass 174	73.9	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32745/2	RCCVH20.D	08/20/2019	09:15
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019	09:15
	MB 140-32745/4	R500BH20.D	08/20/2019	12:04
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019	12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019	13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019	19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019	19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019	22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019	23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019	00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019	00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019	03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019	04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019	05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019	06:31

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019	21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019	22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019	00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019	01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019	01:50

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH26.D BFB Injection Date: 08/26/2019

Instrument ID: MR BFB Injection Time: 06:24

Analysis Batch No.: 32956

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
50	15.0 - 40.0 % of mass 95	26.6		
75	30.0 - 60.0 % of mass 95	54.7		
95	Base Peak, 100% relative abundance	100.0		
96	5.0 - 9.0 % of mass 95	7.6		
173	Less than 2.0 % of mass 174	0.6	(0.7) 1	
174	50.0 - 120.00 % of mass 95	87.8		
175	5.0 - 9.0 % of mass 174	5.7	(6.5) 1	
176	95.0 - 101.0 % of mass 174	83.1	(94.6) 1	*
177	5.0 - 9.0 % of mass 176	4.9	(5.9) 2	

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32956/2	RCCVH26.D	08/26/2019	06:51
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019	06:51
	MB 140-32956/4	R500BH26.D	08/26/2019	08:49
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019	23:46

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32777/2 Date Analyzed: 08/21/2019 12:55

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH21B.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		464447	9.15	2534948	11.31	2289629	15.99
UPPER LIMIT		650226	9.48	3548927	11.64	3205481	16.32
LOWER LIMIT		278668	8.82	1520969	10.98	1373777	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32777/1002		464447	9.15	2534948	11.31	2289629	15.99
MB 140-32777/4		475297	9.14	2398937	11.31	2344388	15.99
140-16376-3	SV-102-C-27	543383	9.15	2741508	11.31	2402343	15.99
140-16376-4 DL	SV-DUP1-C-27 DL	639127	9.14	3004501	11.30	3093212	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16376-6	SV-133-C-27	186283	9.72	1015978	11.83	859603	16.44
140-16376-13 DL	SV-126-C-27 DL	224559	9.72	971477	11.83	811314	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32745/2 Date Analyzed: 08/20/2019 09:15

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217762	8.54	1358602	10.77	1173944	15.57
UPPER LIMIT		304867	8.87	1902043	11.10	1643522	15.90
LOWER LIMIT		130657	8.21	815161	10.44	704366	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32745/1002		217762	8.54	1358602	10.77	1173944	15.57
MB 140-32745/4		233186	8.55	1381702	10.78	1229968	15.57
140-16376-1	SV-001-C-27	210257	8.53	1194896	10.77	1043672	15.57
140-16376-2	SV-004-C-27	191411	8.54	1130249	10.77	974960	15.58
140-16376-4	SV-DUP1-C-27	210919	8.55	1226735	10.78	1081918	15.58
140-16376-5	SV-155-C-27	251548	8.54	1520419	10.78	1277387	15.57
140-16376-8	SV-060-C-27	203227	8.54	1272475	10.77	1041985	15.57
140-16376-9	SV-150-C-27	220600	8.54	1351111	10.77	1202516	15.57
140-16376-10	SV-152-C-27	228916	8.54	1362730	10.78	1220774	15.57
140-16376-11	SV-141-C-27	228686	8.54	1380073	10.78	1244471	15.57
140-16376-14	SV-113-C-27	254178	8.53	1545932	10.77	1266721	15.57
140-16376-15	SV-088-C-27	220485	8.54	1308716	10.77	1118039	15.57
140-16376-16	SV-DUP02-C-27	226700	8.54	1369338	10.77	1118062	15.57
140-16376-17	SV-142-C-27	227228	8.54	1337929	10.77	1105963	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16376-7	SV-153-C-27	170891	8.54	1003124	10.77	880664	15.57
140-16376-8 DL	SV-060-C-27 DL	192521	8.54	1107901	10.78	958178	15.57
140-16376-11 DL	SV-141-C-27 DL	170125	8.54	1018189	10.77	869046	15.57
140-16376-12	SV-149-C-27	177520	8.53	1049539	10.77	846156	15.57
140-16376-13	SV-126-C-27	169919	8.54	1006028	10.77	827032	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32956/2 Date Analyzed: 08/26/2019 06:51

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH26.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		261101	8.53	1564138	10.77	1263318	15.57
UPPER LIMIT		365541	8.86	2189793	11.10	1768645	15.90
LOWER LIMIT		156661	8.20	938483	10.44	757991	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32956/1002		261101	8.53	1564138	10.77	1263318	15.57
MB 140-32956/4		262440	8.53	1591487	10.77	1298062	15.57
140-16376-12 DL	SV-149-C-27 DL	199464	8.54	1126856	10.77	914132	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.065	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.50		0.40	0.11
67-66-3	Chloroform	119.38	0.14	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.1		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.43		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.066	J	0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.52		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	7.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.26	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.66	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	8.3		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.2		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.44	J	2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.1		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	41		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D
Lims ID: 140-16376-A-1
Client ID: SV-001-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 12:52:30 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-005
Misc. Info.: 140-16376-a-1
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:38:45 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:39:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	210257	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1194896	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1043672	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	93	663068	3.69	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	35	17887	0.0996	
8 Dichlorodifluoromethane	85	3.491	3.490	0.005	96	10627	0.0654	
31 Methylene Chloride	84	5.966	5.972	-0.006	95	31230	0.4202	
34 trans-1,2-Dichloroethene	96	6.781	6.789	0.000	93	7945	0.1045	
42 cis-1,2-Dichloroethene	96	8.204	8.209	0.005	95	36222	0.4208	
44 Chloroform	83	8.560	8.565	0.005	27	4807	0.0272	
49 Benzene	78	10.205	10.199	0.006	52	3169	0.0131	
52 Carbon tetrachloride	117	10.216	10.231	-0.010	28	2069	0.0107	
58 Trichloroethene	130	11.499	11.505	0.000	94	162041	1.52	
67 Toluene	91	13.586	13.586	0.000	92	13523	0.0504	
73 Tetrachloroethene	129	14.740	14.740	0.000	55	1438	0.0131	
76 Ethylbenzene	91	15.910	15.905	0.005	93	8649	0.0230	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	96	9792	0.0331	
80 o-Xylene	91	16.595	16.595	0.000	89	5678	0.0183	
109 Naphthalene	128	21.060	21.065	-0.005	98	45546	0.0857	
S 116 Xylenes, Total	100				0		0.0514	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

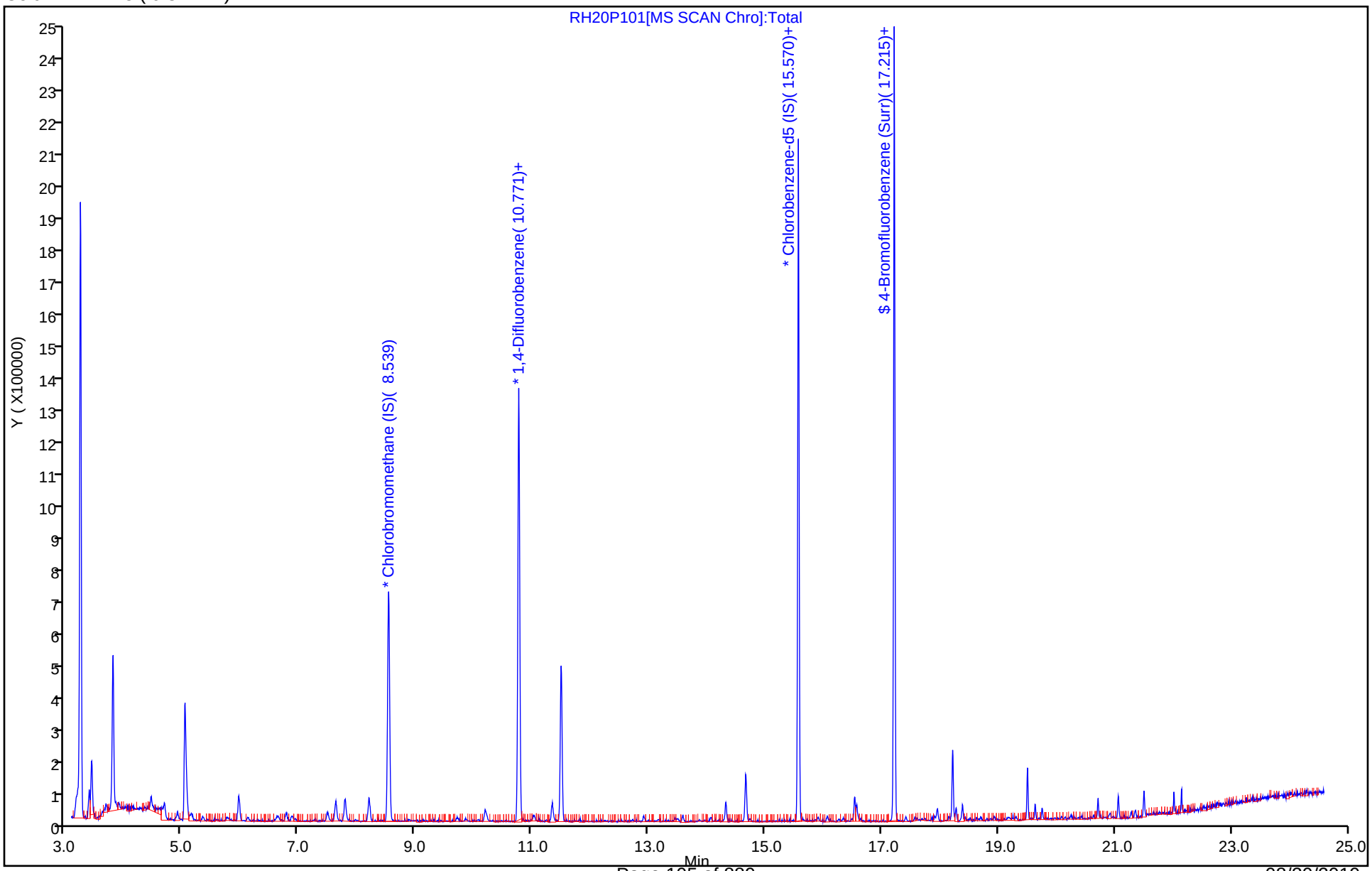
Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1	Worklist Smp#:	5
Client ID:	SV-001-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D				
Lims ID:	140-16376-A-1				
Client ID:	SV-001-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 12:52:30	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-005				
Misc. Info.:	140-16376-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:38:45	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:39:24		

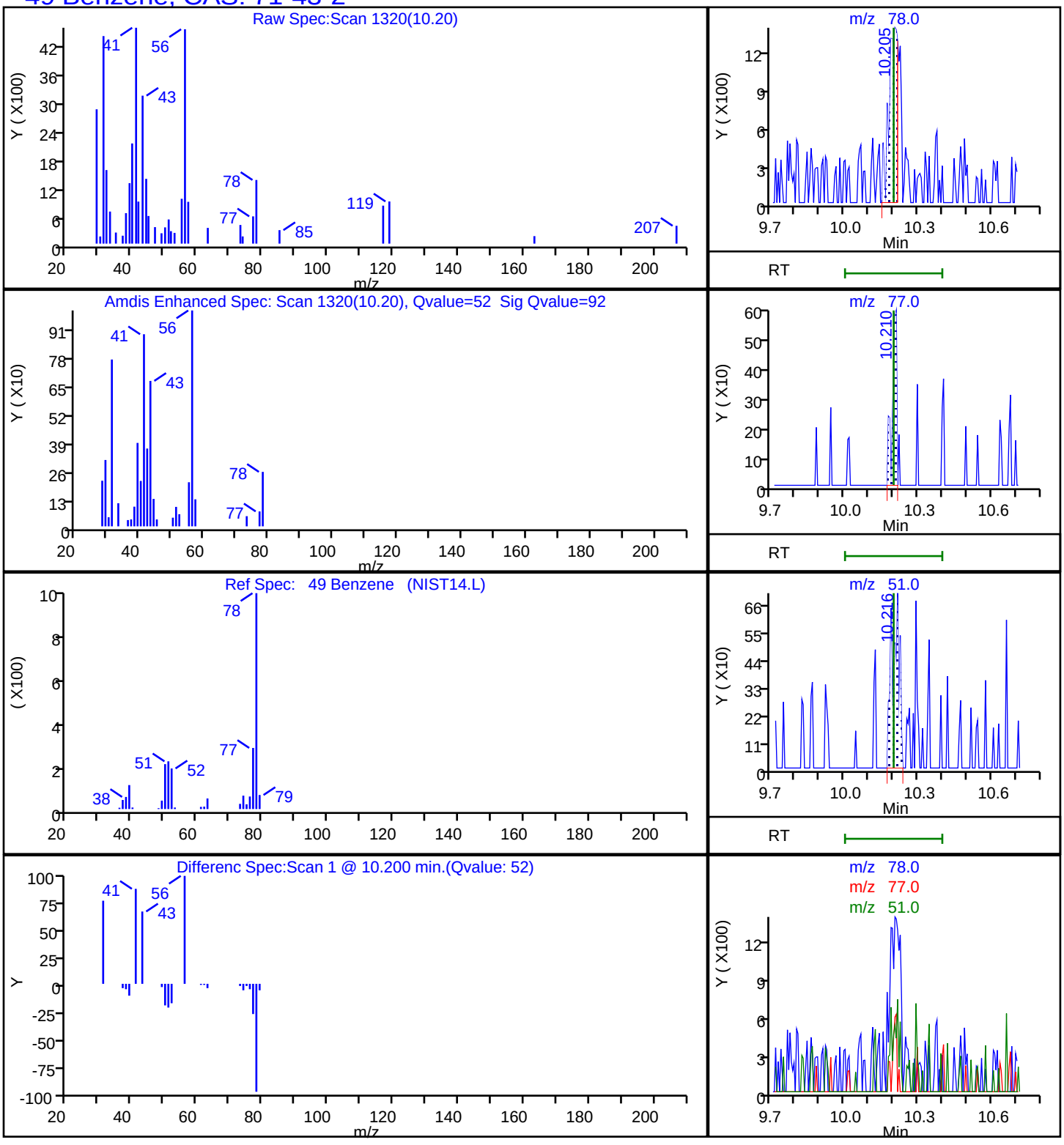
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.69	92.13

Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

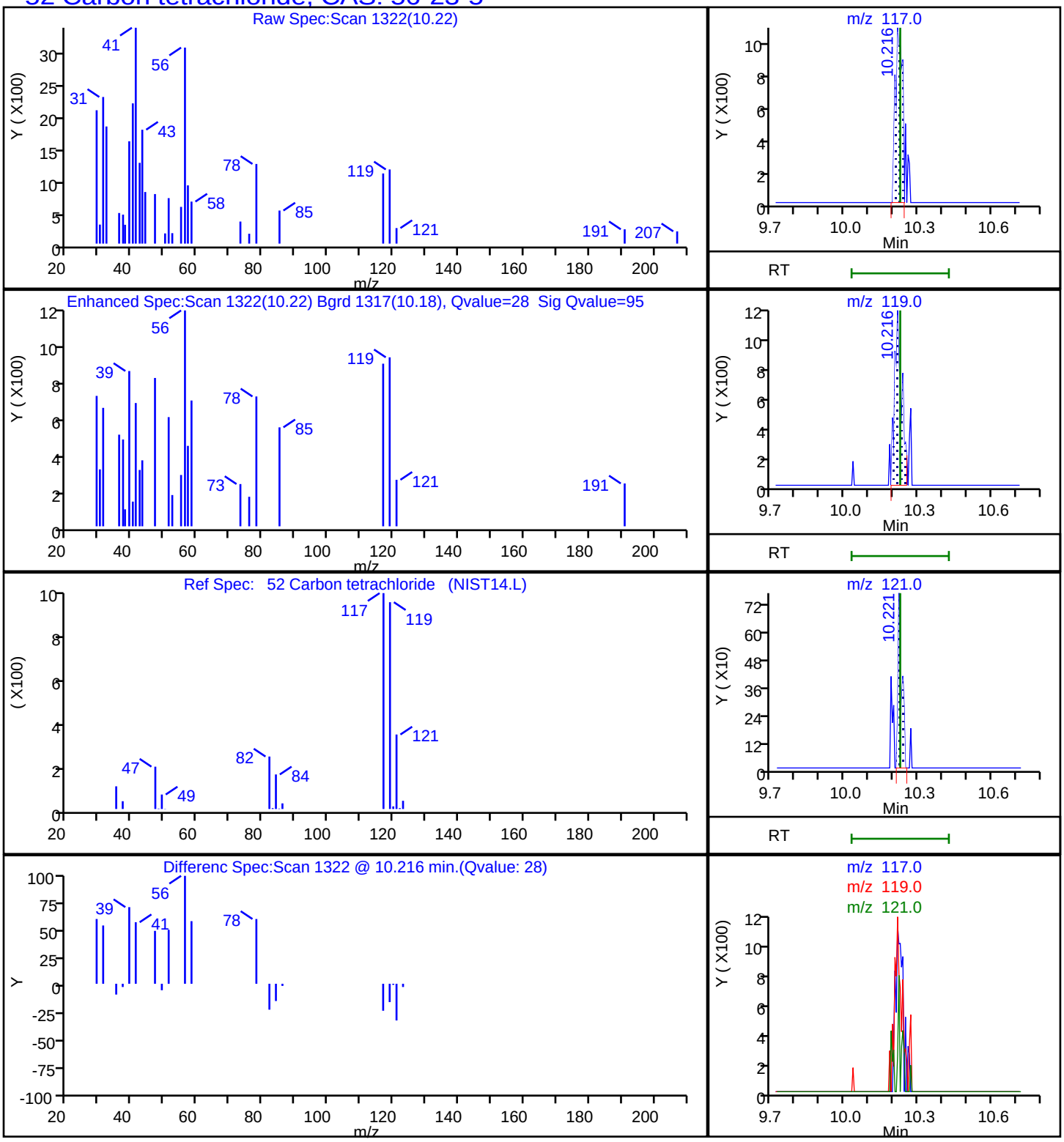
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date: 20-Aug-2019 12:52:30 Instrument ID: MR

Lims ID: 140-16376-A-1 Lab Sample ID: 140-16376-1

Client ID: SV-001-C-27

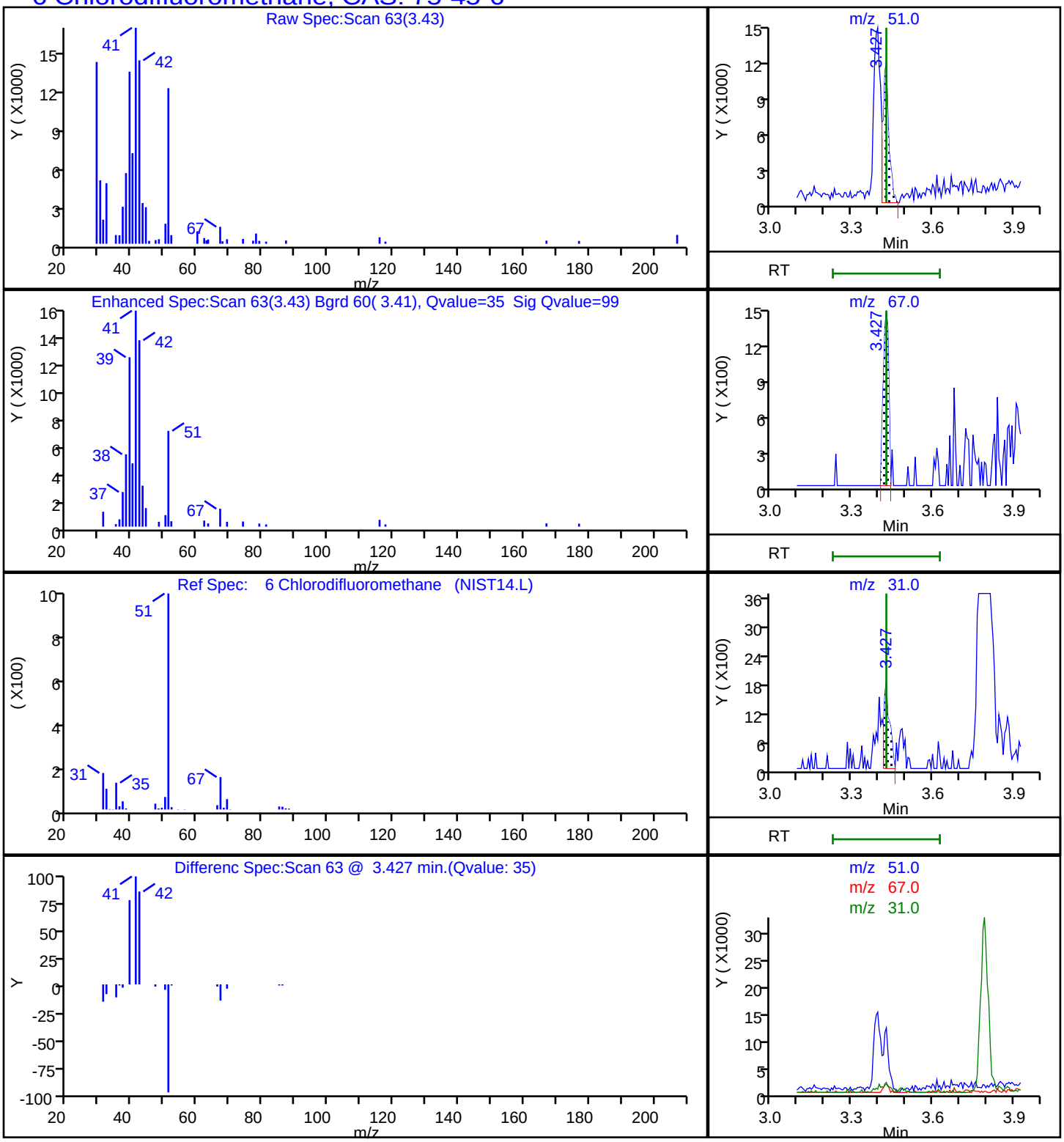
Operator ID: ALS Bottle#: 1 Worklist Smp#: 5

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

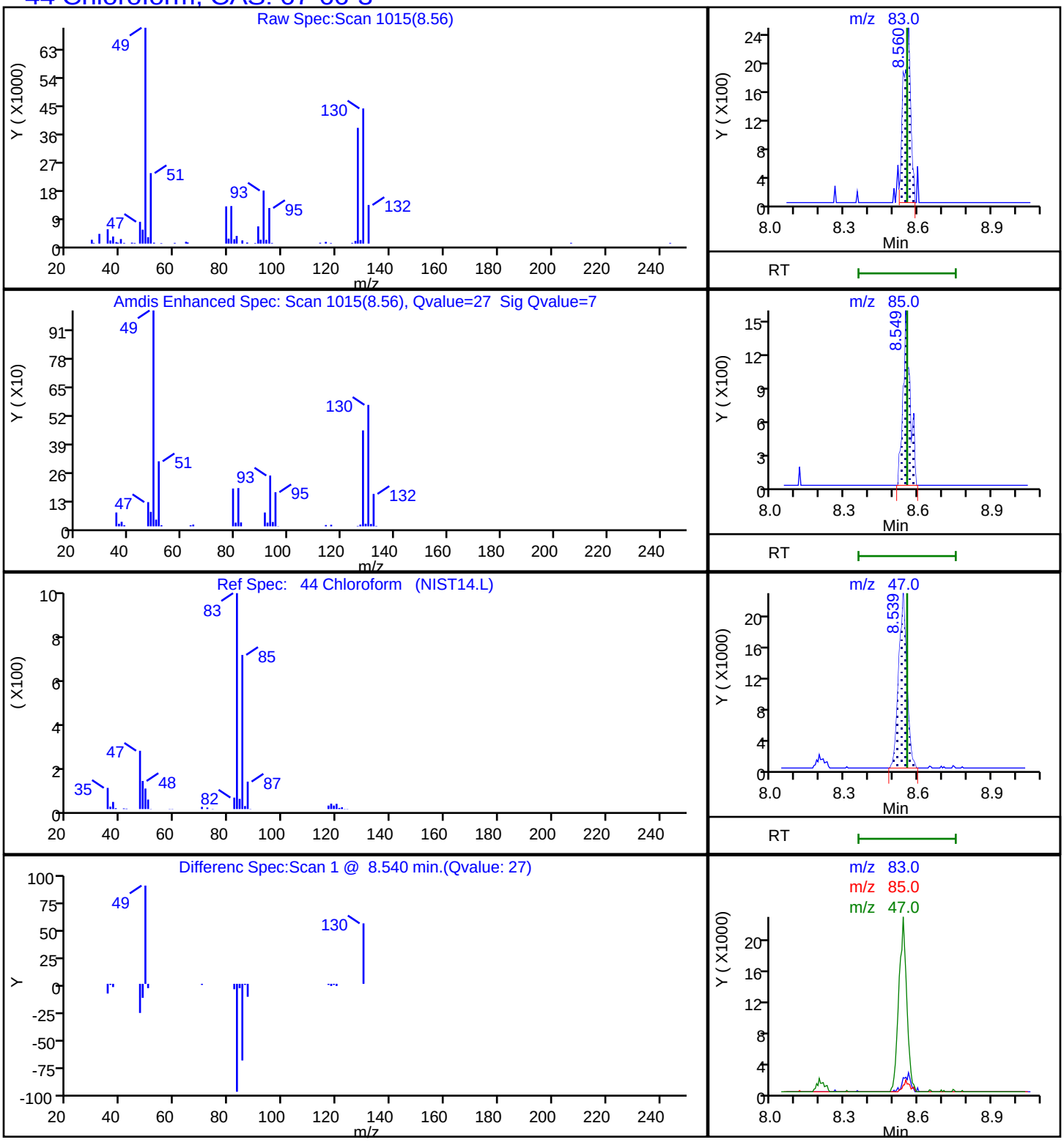


Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

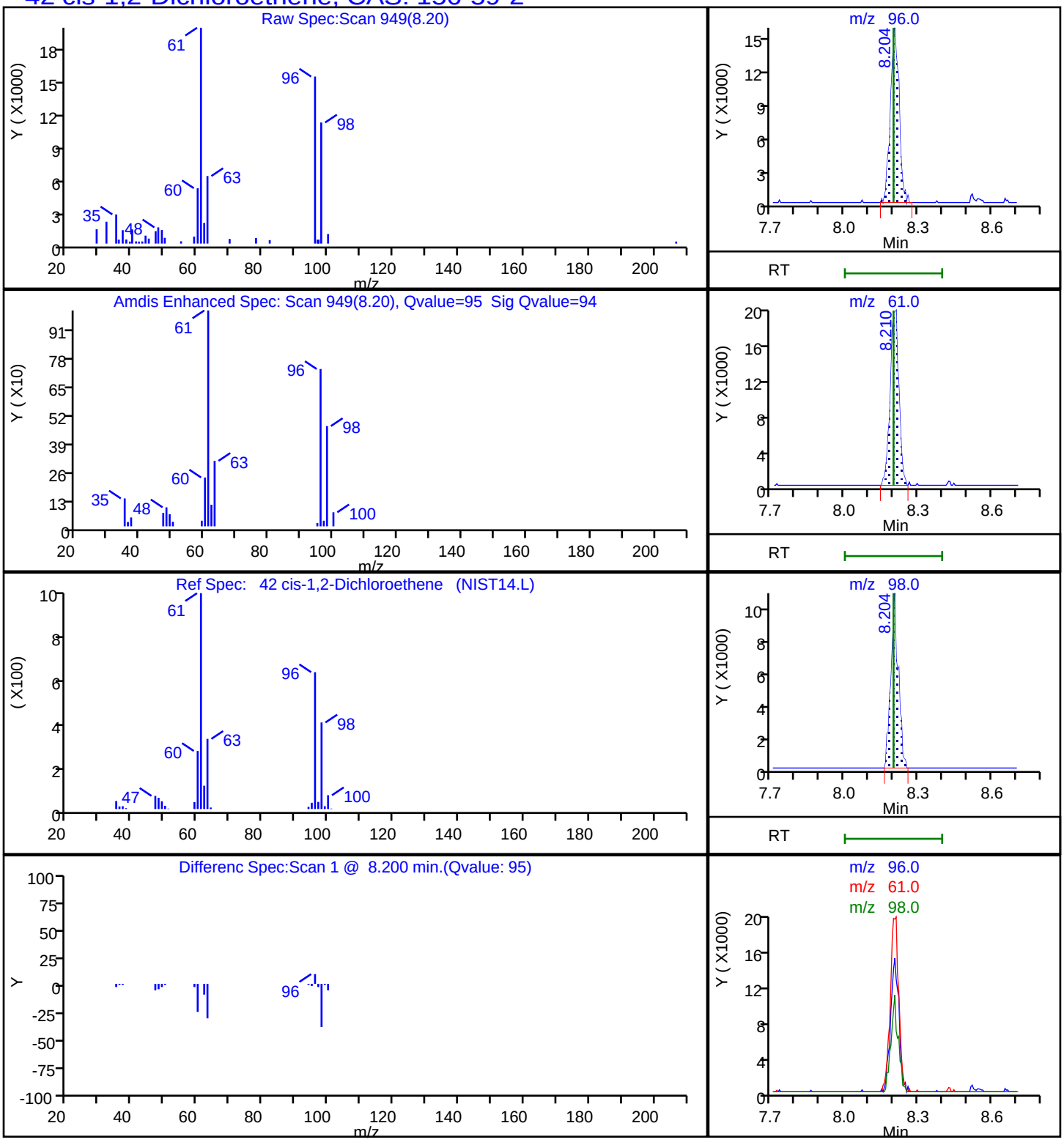
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

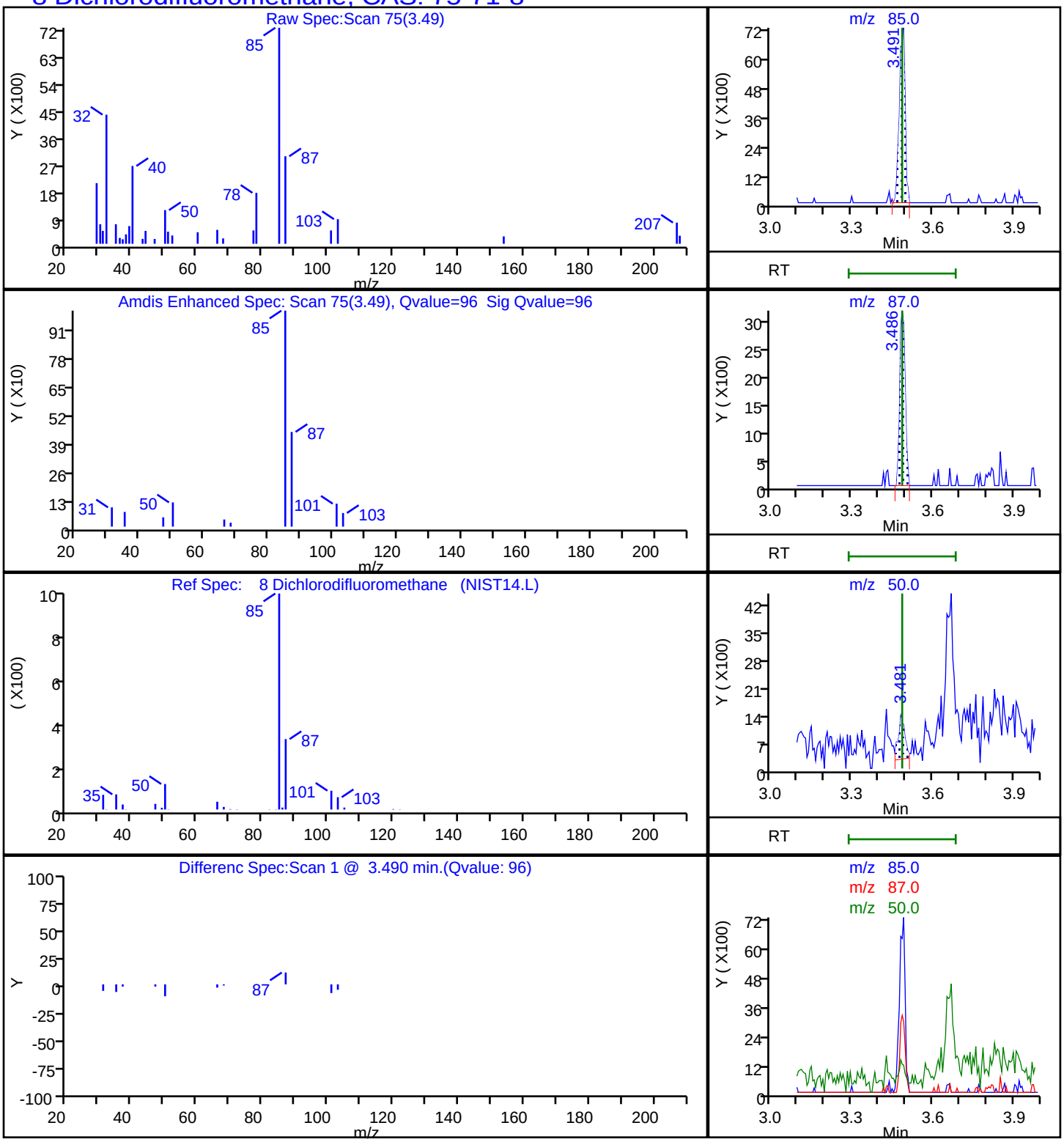
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

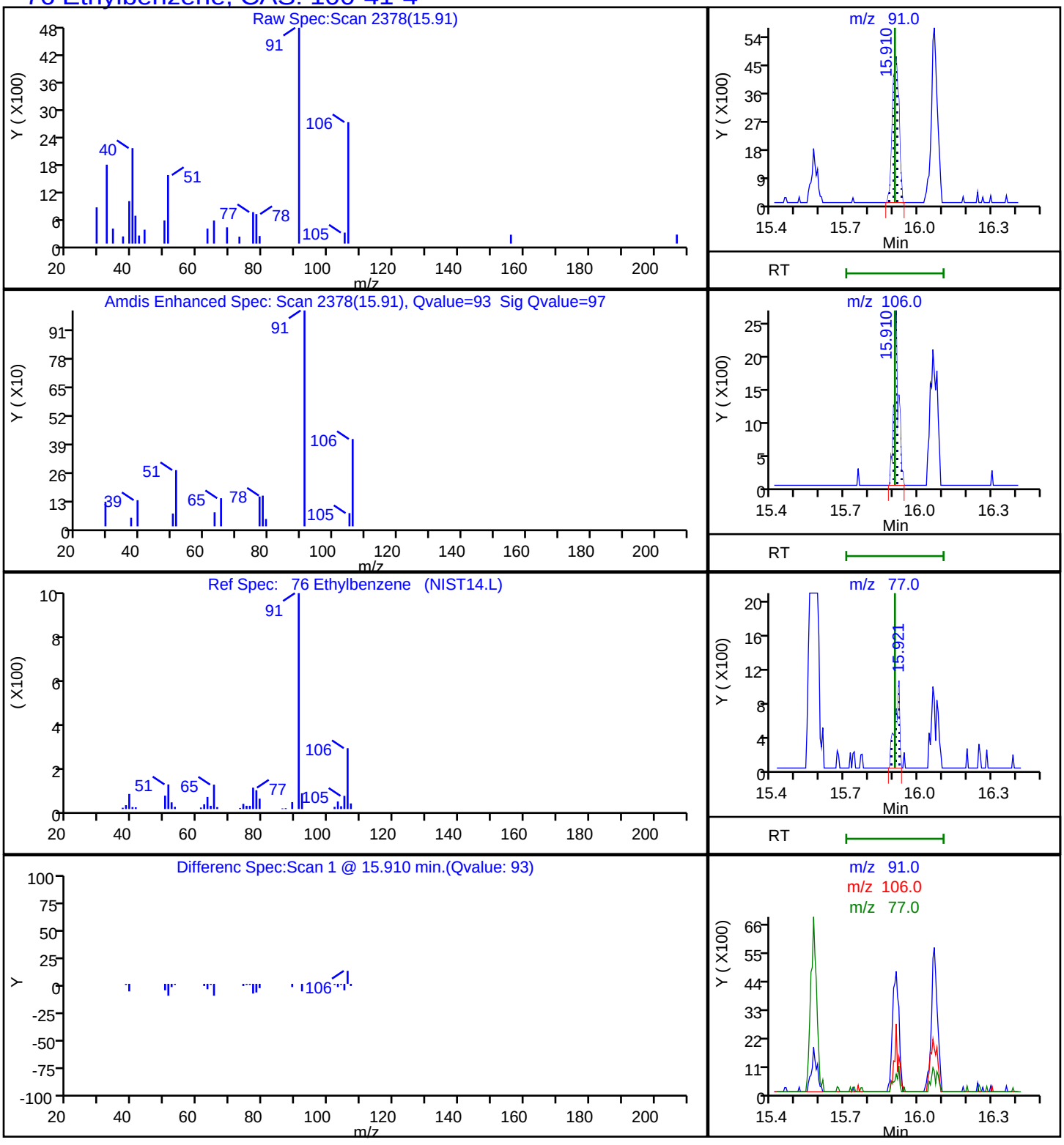
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



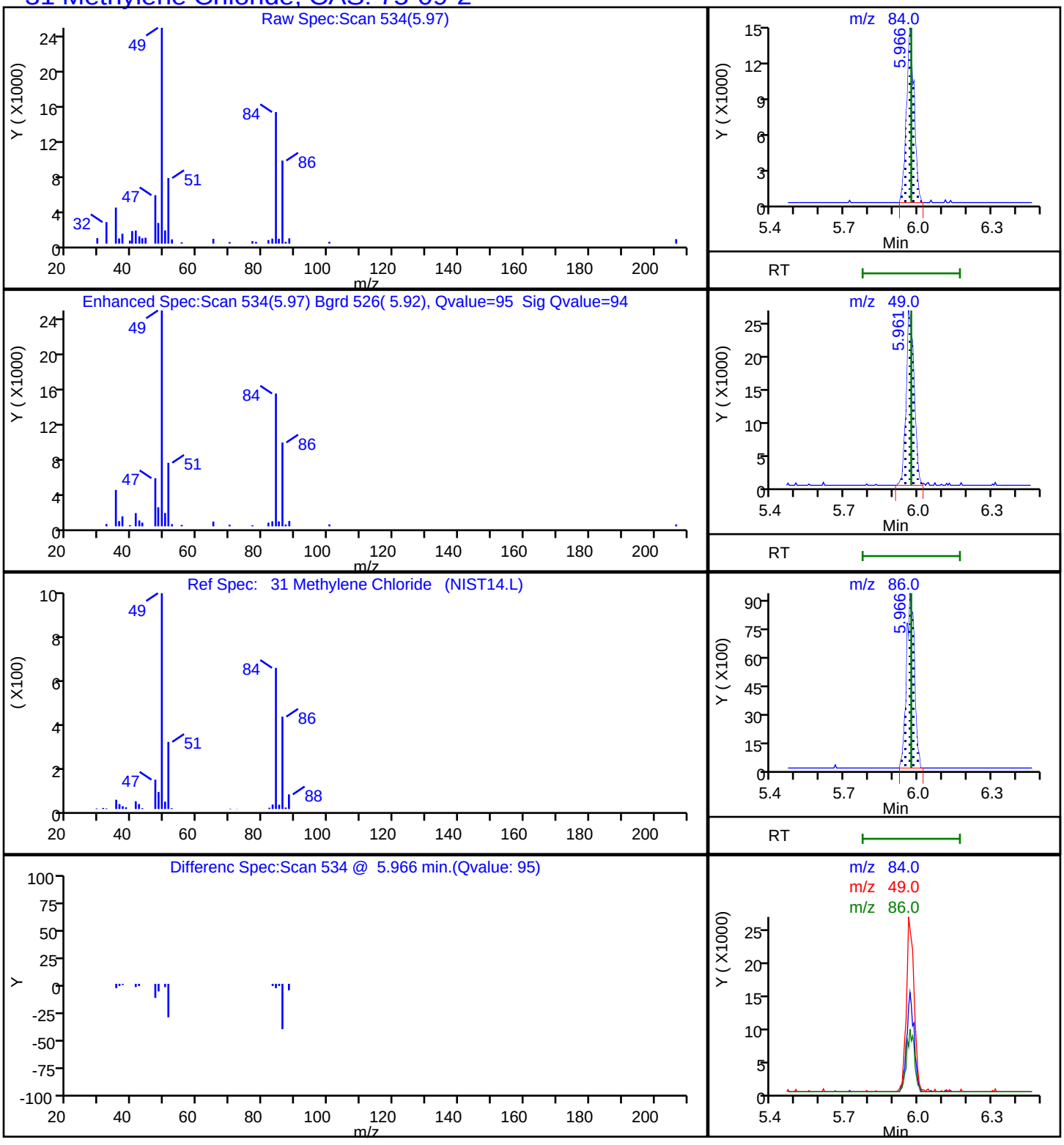
Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



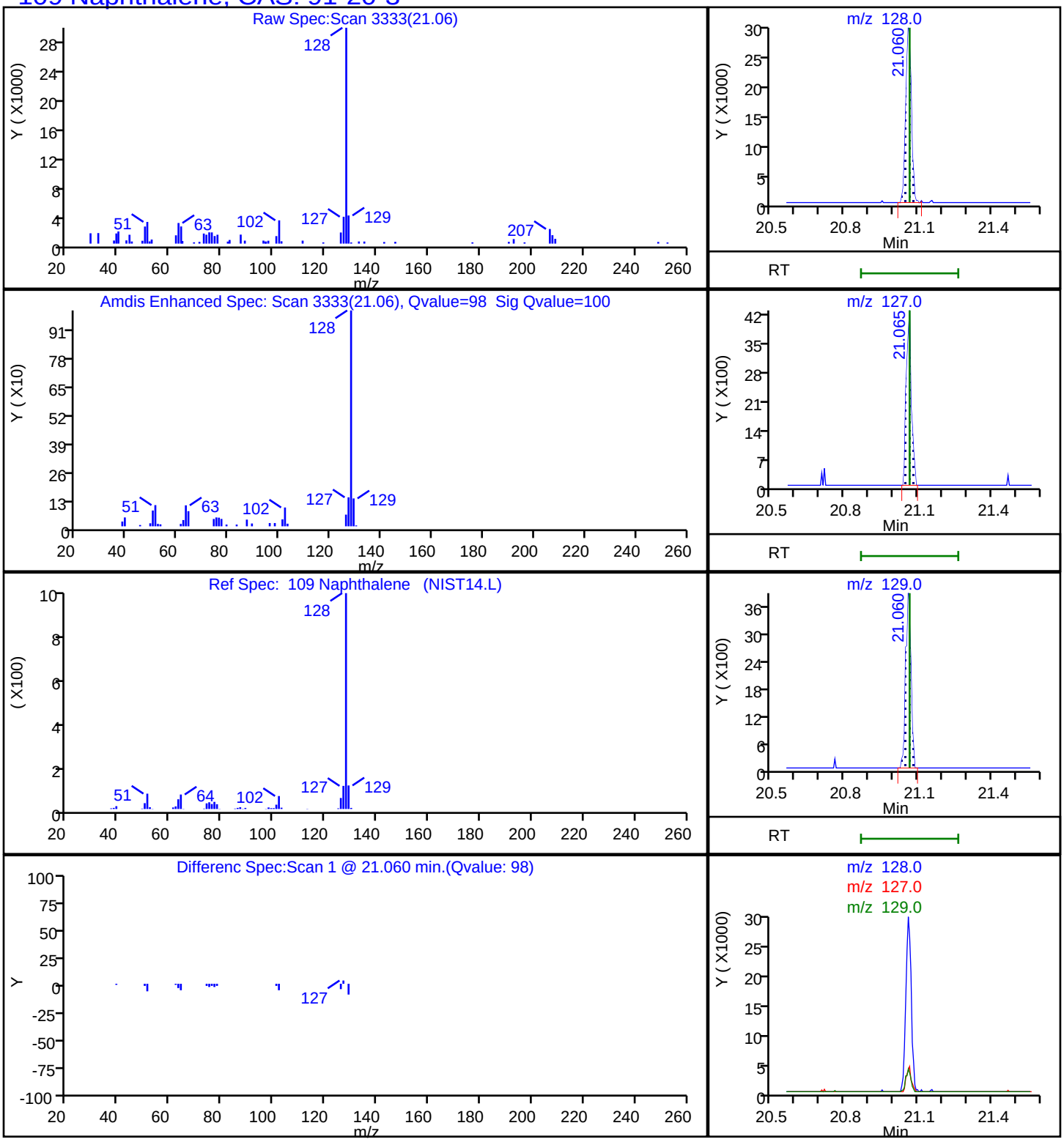
Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

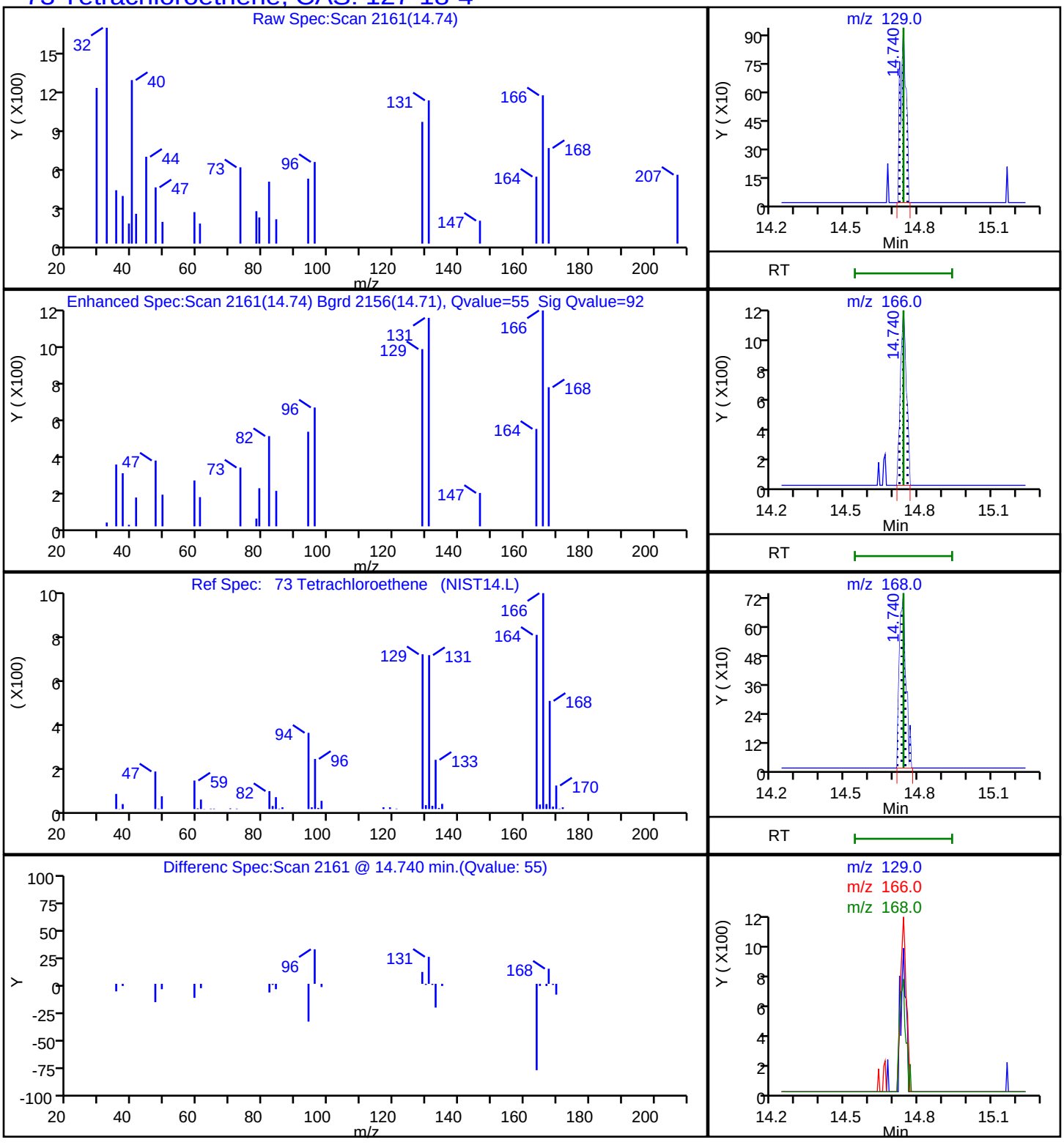
109 Naphthalene, CAS: 91-20-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

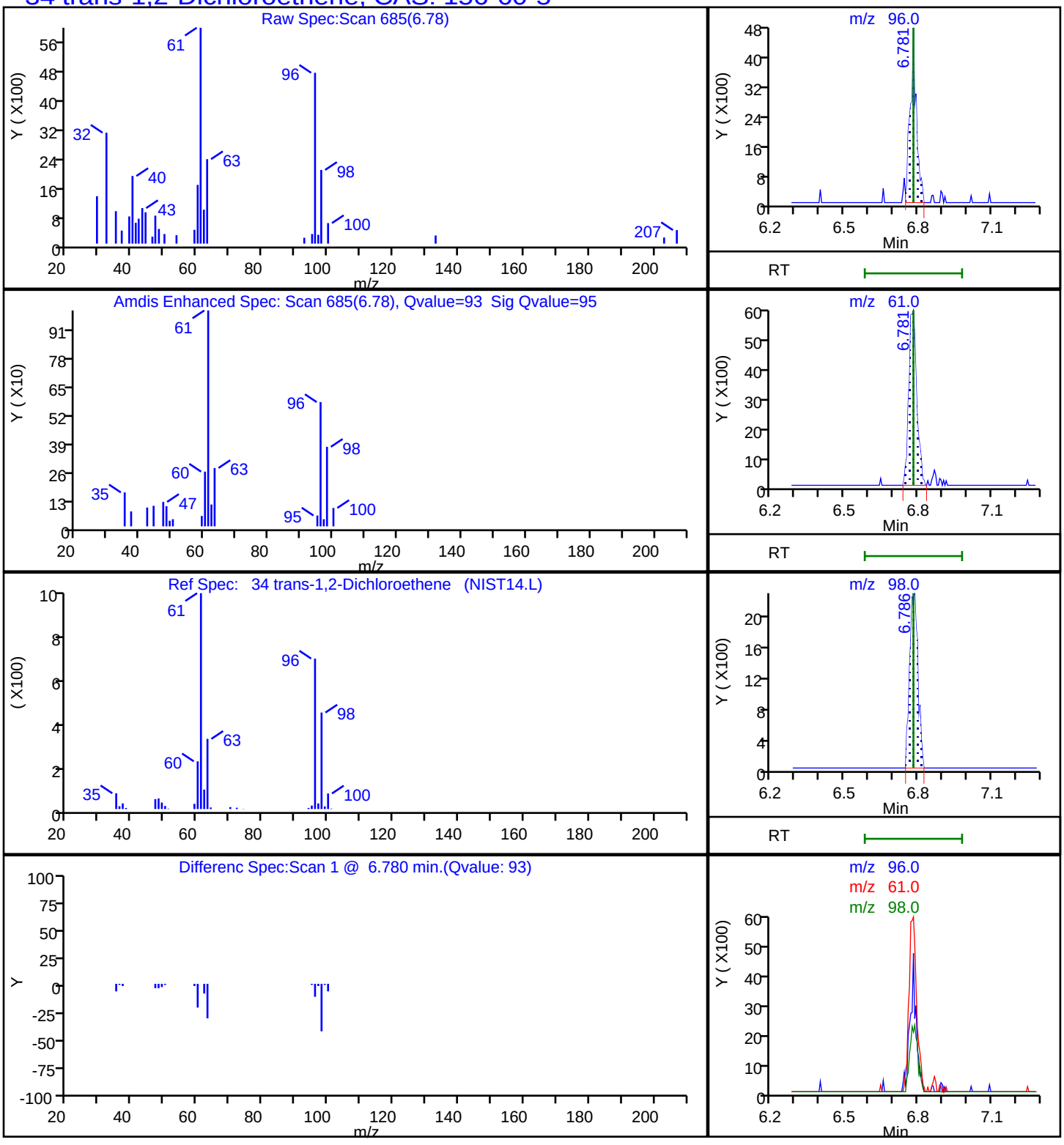
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date: 20-Aug-2019 12:52:30 Instrument ID: MR

Lims ID: 140-16376-A-1 Lab Sample ID: 140-16376-1

Client ID: SV-001-C-27

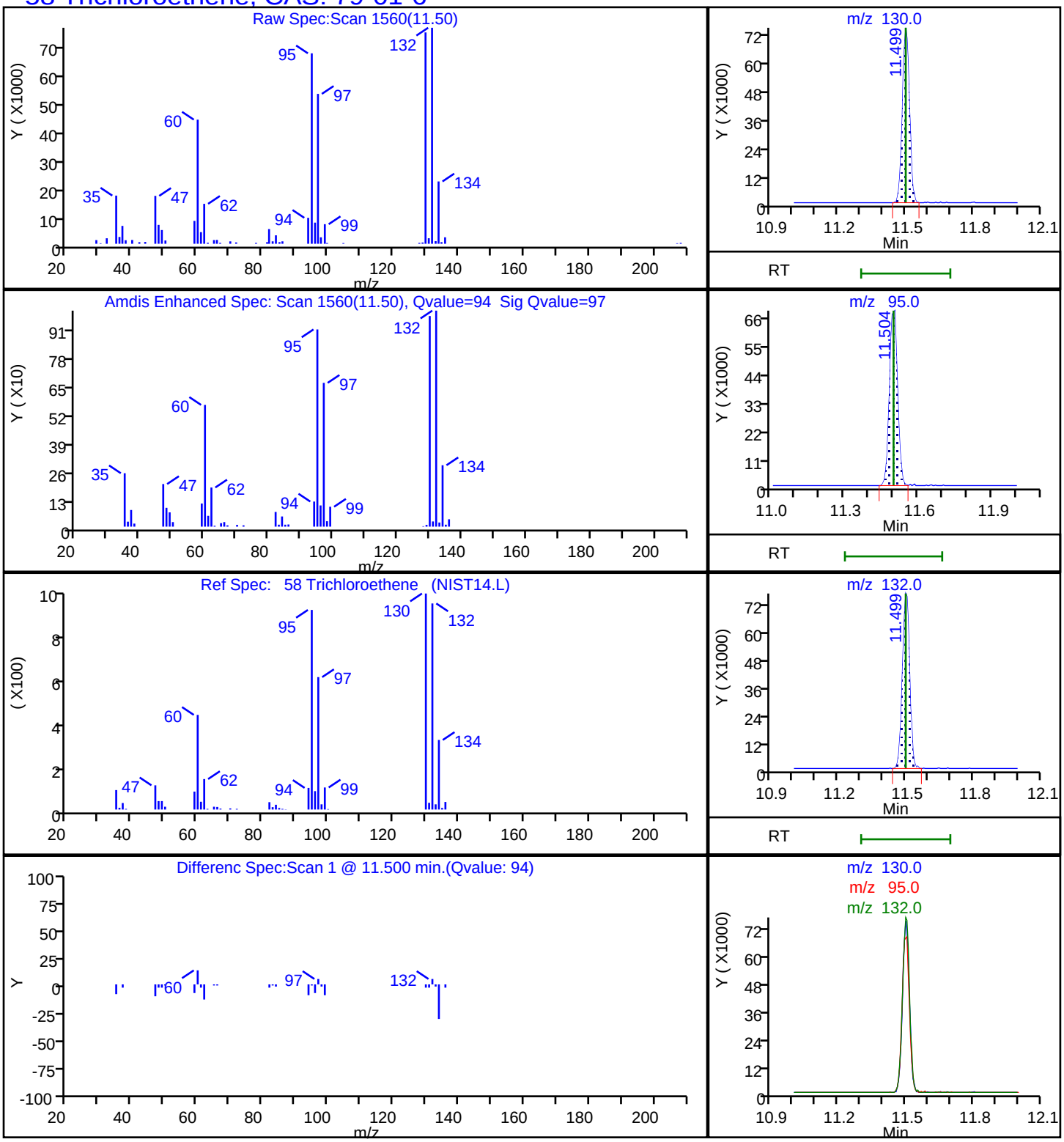
Operator ID: ALS Bottle#: 1 Worklist Smp#: 5

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6

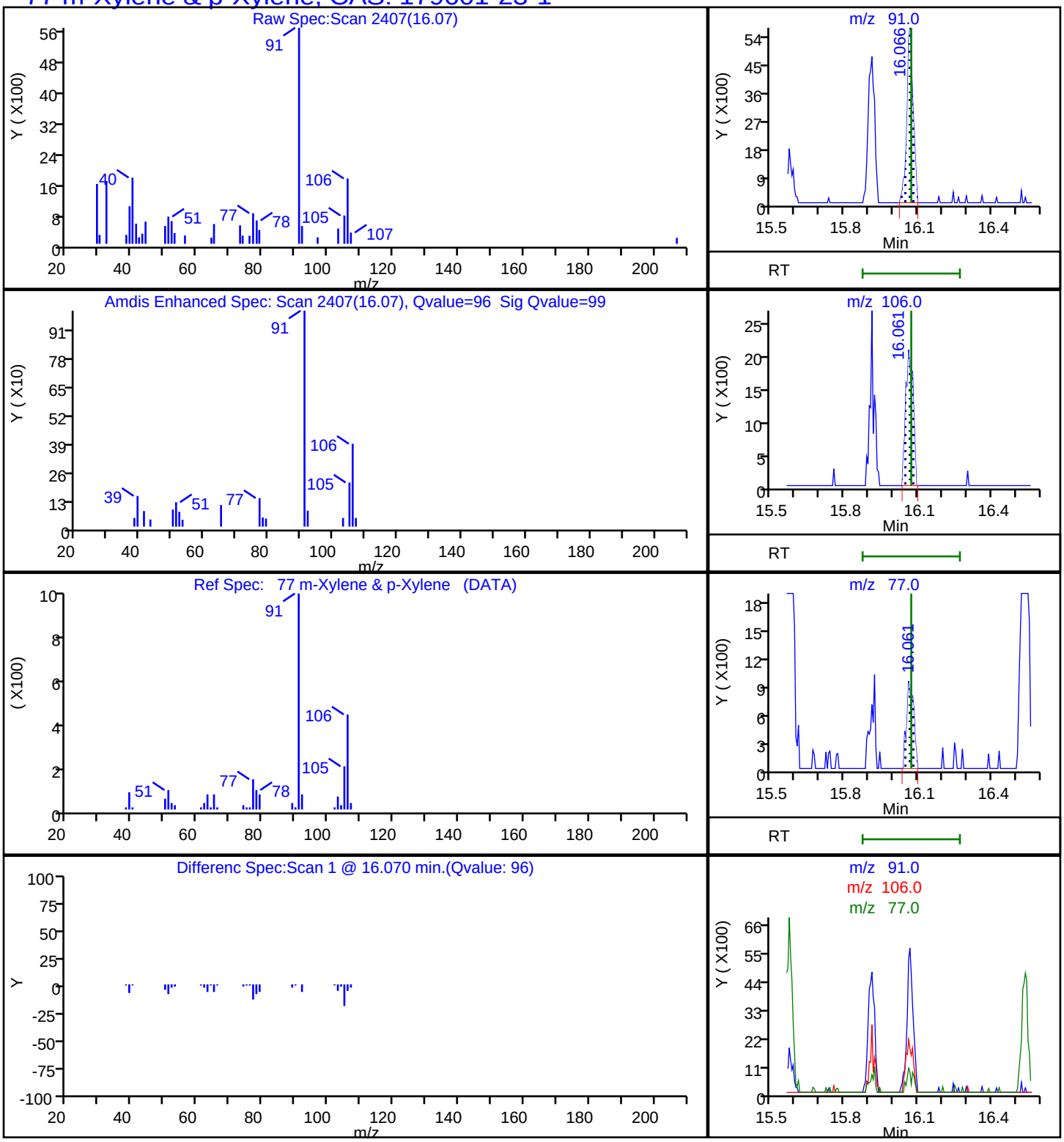


Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D		
Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



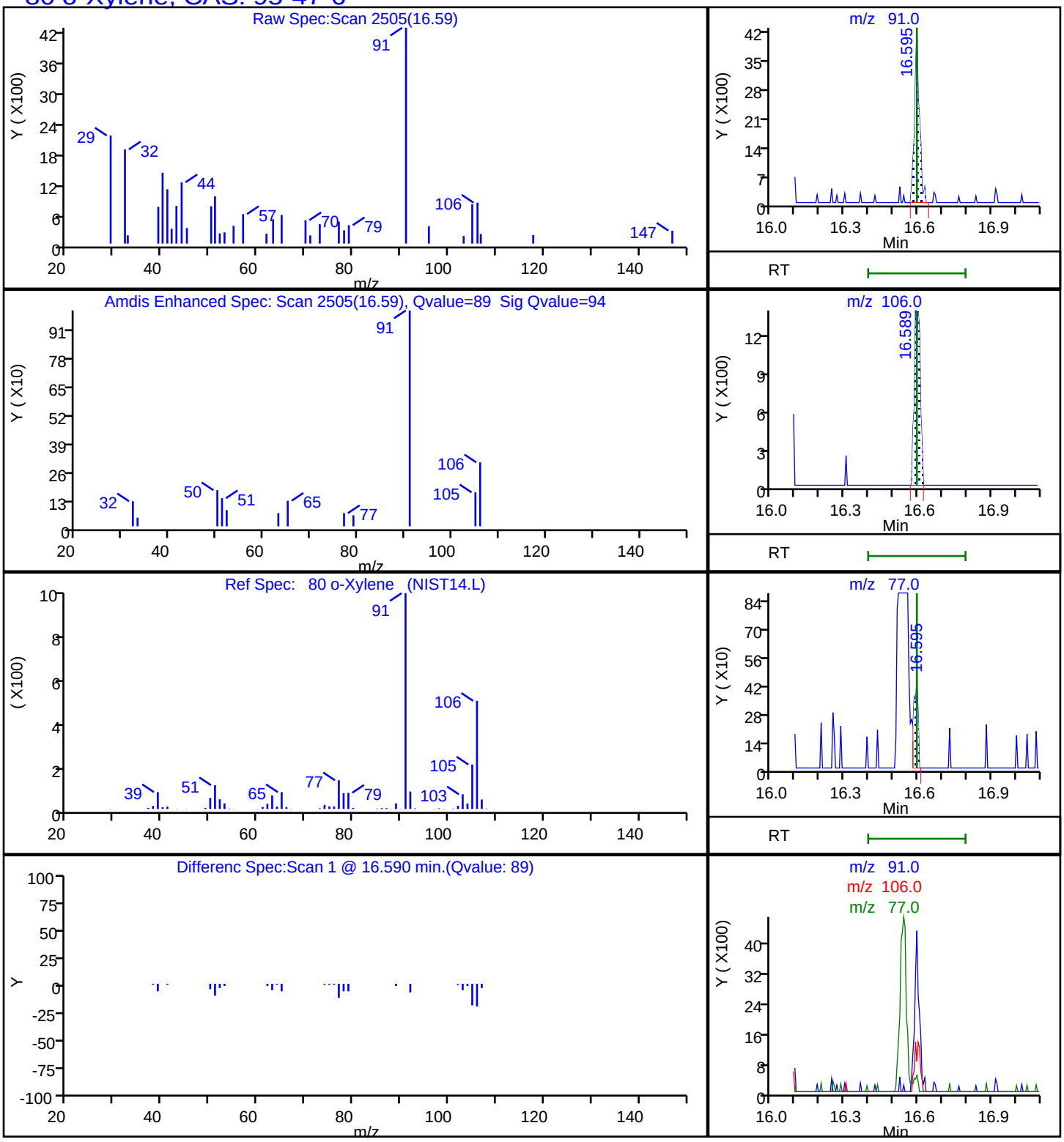
Report Date: 21-Aug-2019 12:39:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P101.D

Injection Date:	20-Aug-2019 12:52:30	Instrument ID:	MR
Lims ID:	140-16376-A-1	Lab Sample ID:	140-16376-1
Client ID:	SV-001-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	7.8		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	7.4		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.44		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	29		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.81		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	38		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	29		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.50	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.56	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.8		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	160		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D
Lims ID: 140-16376-A-2
Client ID: SV-004-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 13:40:30 ALS Bottle#: 2 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-006
Misc. Info.: 140-16376-a-2
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:38:45 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:39:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	95	191411	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	96	1130249	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.570	0.005	90	974960	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.231	-0.011	93	644716	3.84	
6 Chlorodifluoromethane	51	3.421	3.427	-0.006	45	7941	0.0486	
8 Dichlorodifluoromethane	85	3.486	3.490	0.000	98	12042	0.0814	
27 1,1-Dichloroethene	96	5.600	5.623	-0.016	6	1667	0.0253	
31 Methylene Chloride	84	5.966	5.972	-0.006	95	52068	0.7696	
34 trans-1,2-Dichloroethene	96	6.786	6.789	0.005	93	6137	0.0887	
42 cis-1,2-Dichloroethene	96	8.204	8.209	0.005	96	116218	1.48	
44 Chloroform	83	8.549	8.565	-0.006	91	249881	1.55	
49 Benzene	78	10.215	10.199	0.016	54	3984	0.0174	
52 Carbon tetrachloride	117	10.232	10.231	0.006	40	1928	0.0105	
58 Trichloroethene	130	11.499	11.505	0.000	94	592481	5.89	
67 Toluene	91	13.586	13.586	0.000	92	77320	0.3083	
73 Tetrachloroethene	129	14.734	14.740	-0.006	82	4629	0.0452	
76 Ethylbenzene	91	15.910	15.905	0.005	97	9033	0.0257	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	31144	0.1127	
80 o-Xylene	91	16.595	16.595	0.000	98	14754	0.0509	
S 116 Xylenes, Total	100				0		0.1636	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

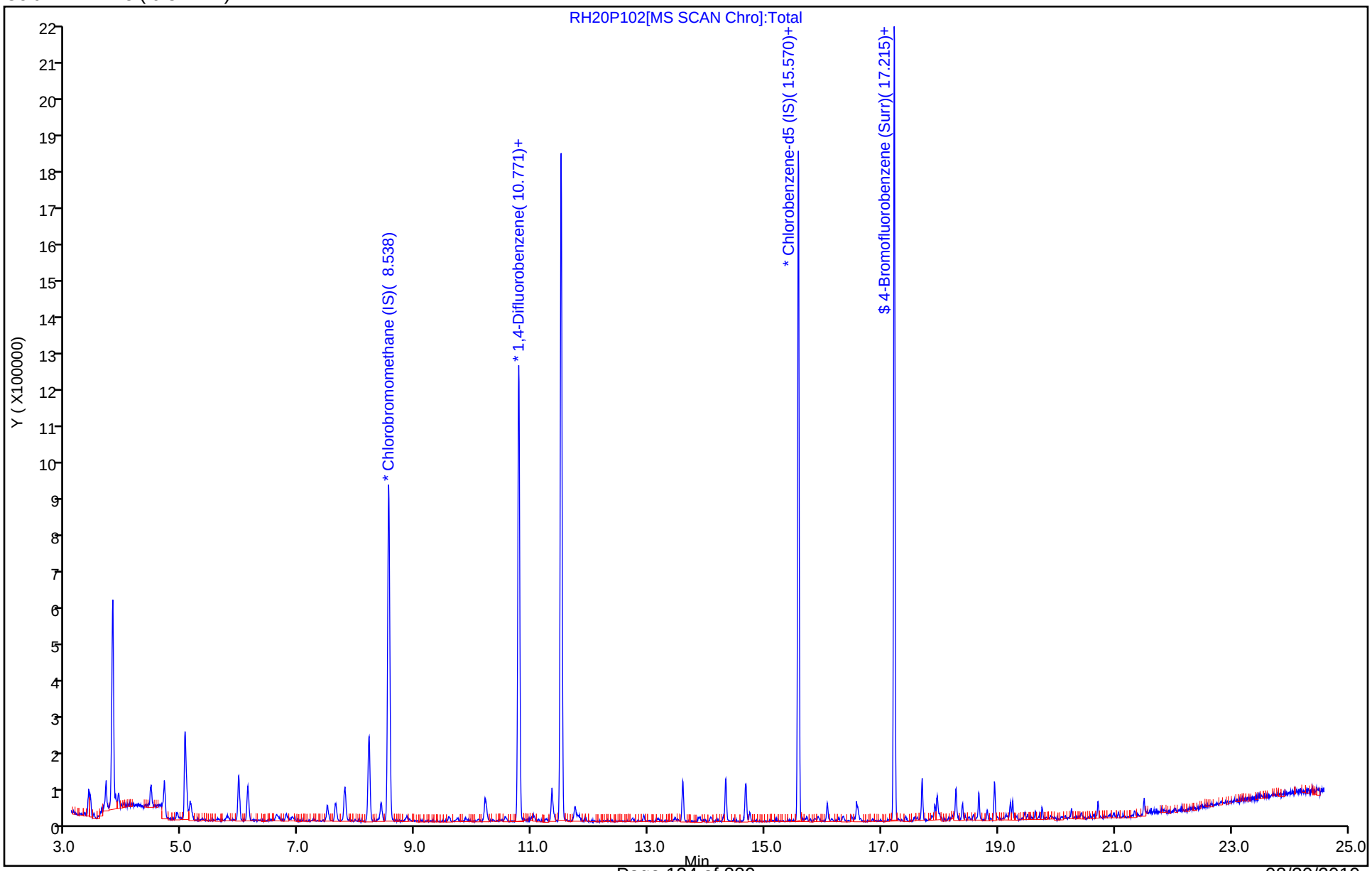
Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2	Worklist Smp#:	6
Client ID:	SV-004-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

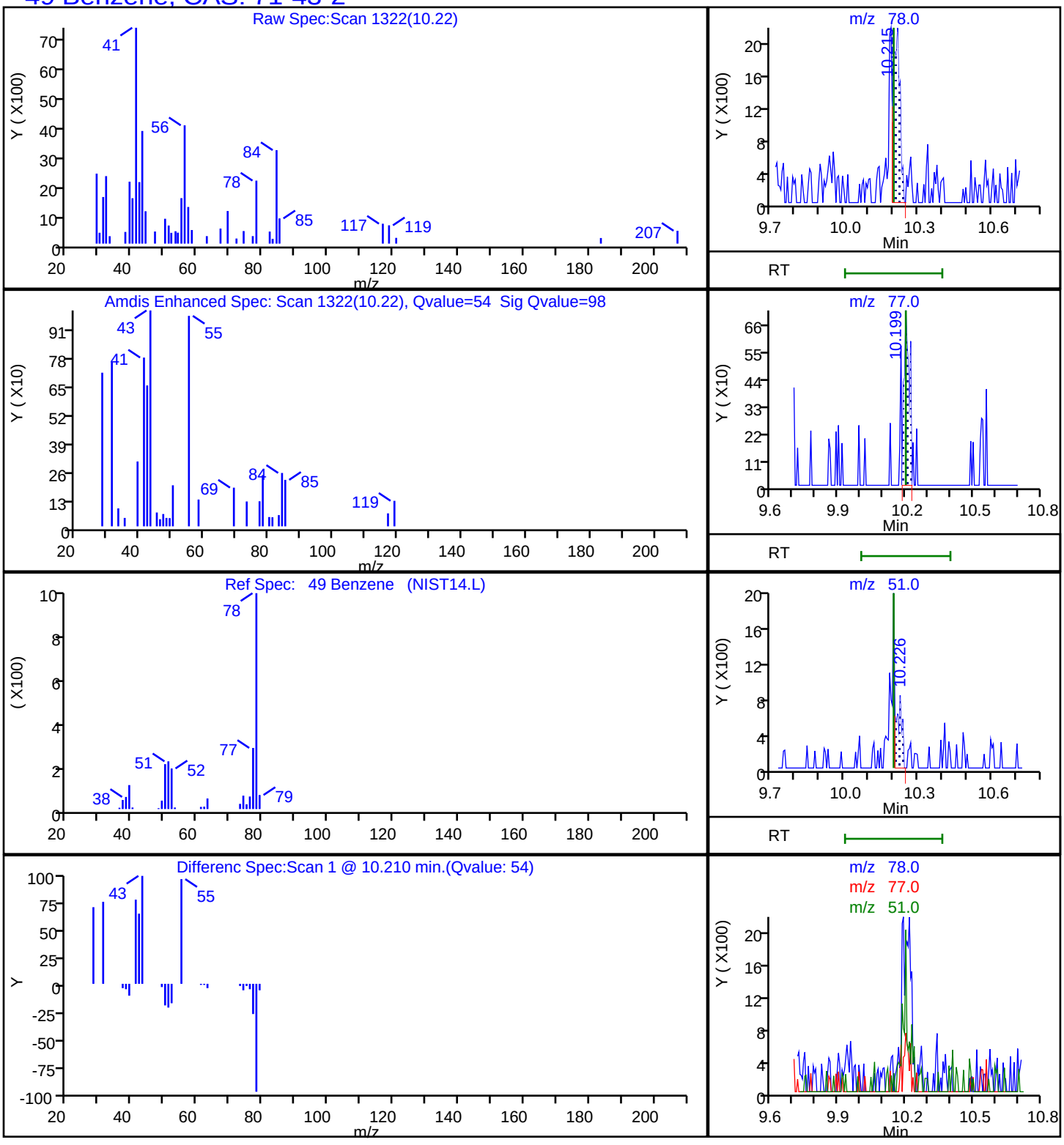
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D				
Lims ID:	140-16376-A-2				
Client ID:	SV-004-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 13:40:30	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-006				
Misc. Info.:	140-16376-a-2				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:38:45	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:39:52		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.84	95.89

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date: 20-Aug-2019 13:40:30 Instrument ID: MR

Lims ID: 140-16376-A-2 Lab Sample ID: 140-16376-2

Client ID: SV-004-C-27

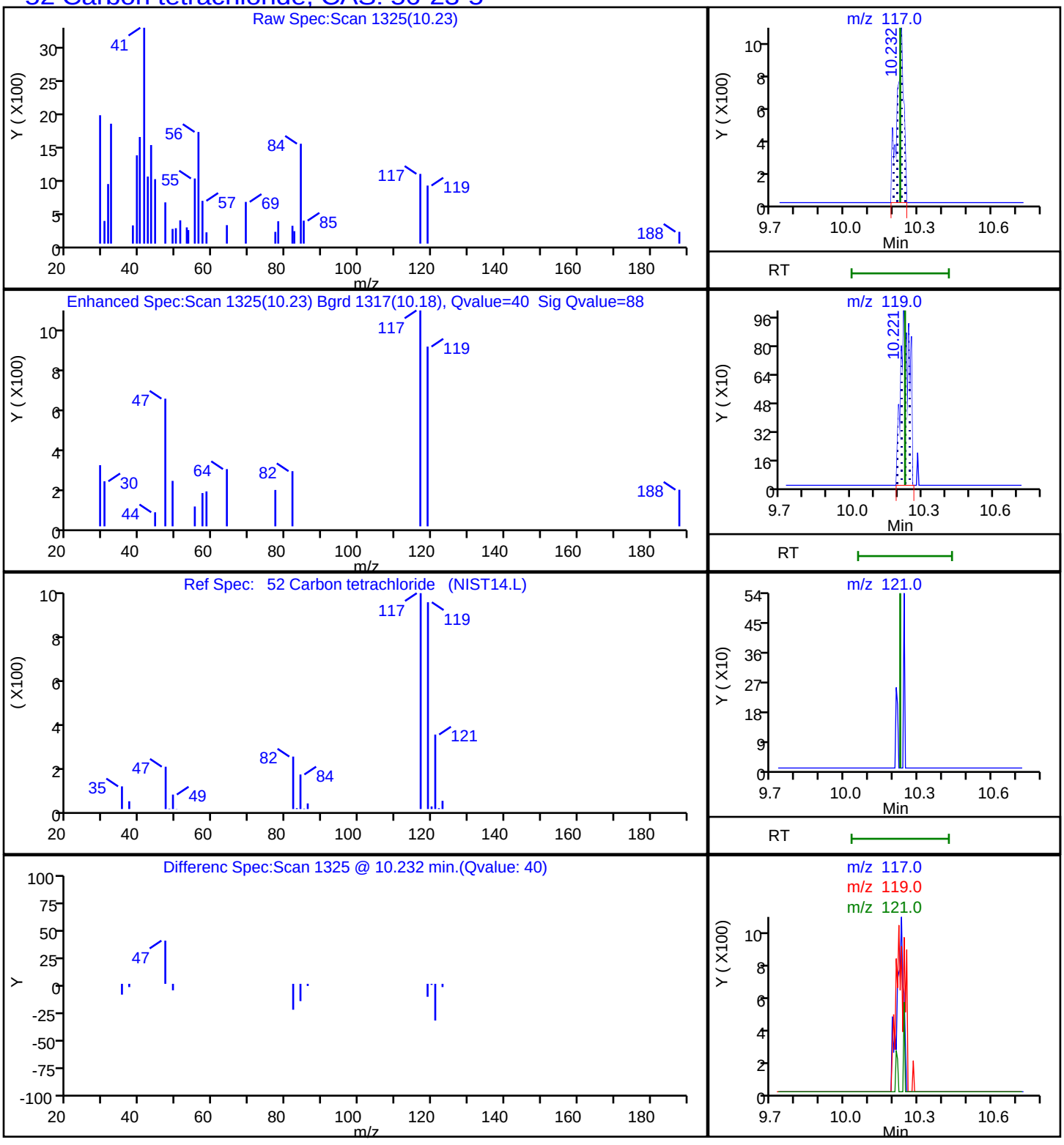
Operator ID: ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date: 20-Aug-2019 13:40:30 Instrument ID: MR

Lims ID: 140-16376-A-2 Lab Sample ID: 140-16376-2

Client ID: SV-004-C-27

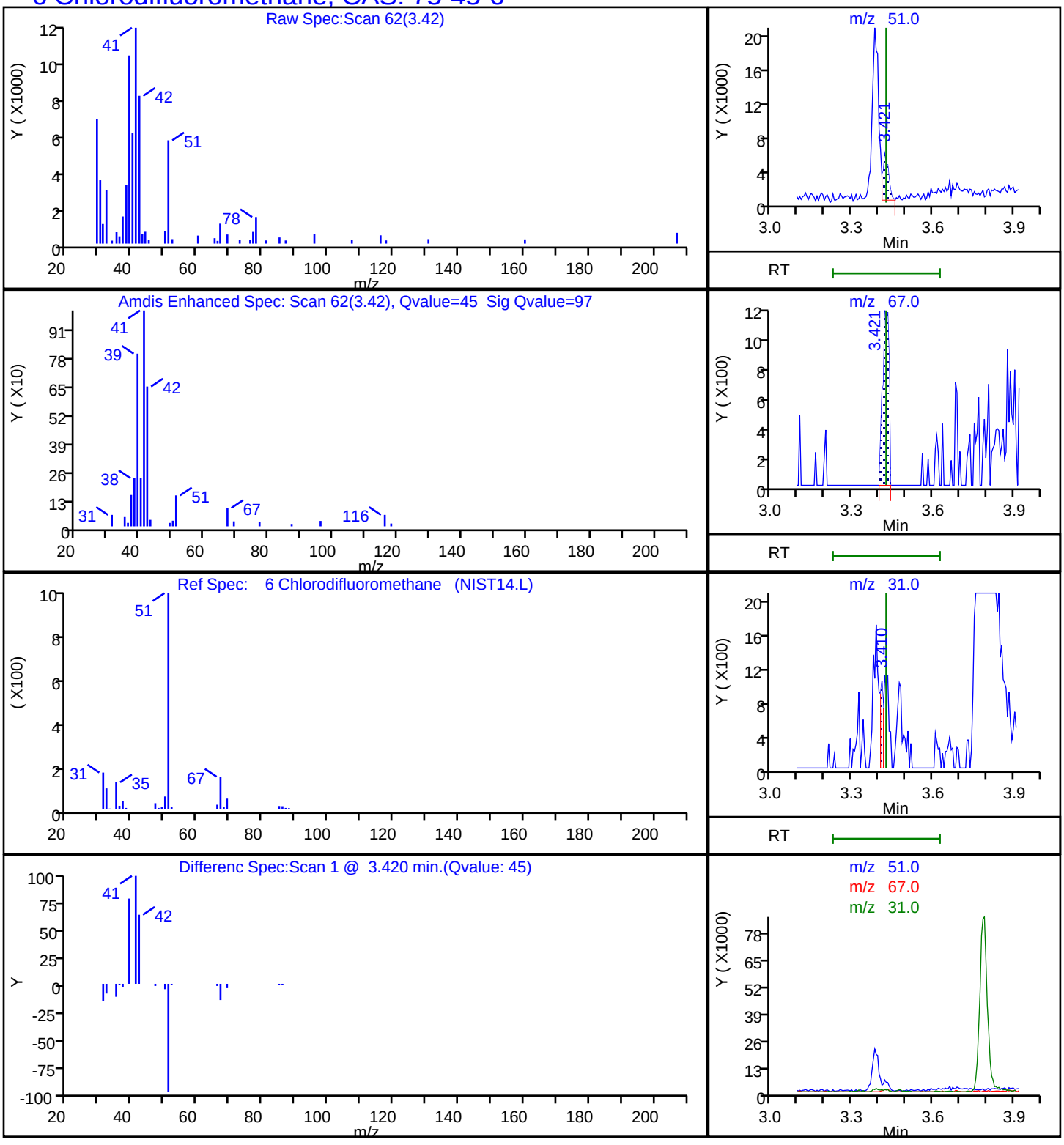
Operator ID: ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

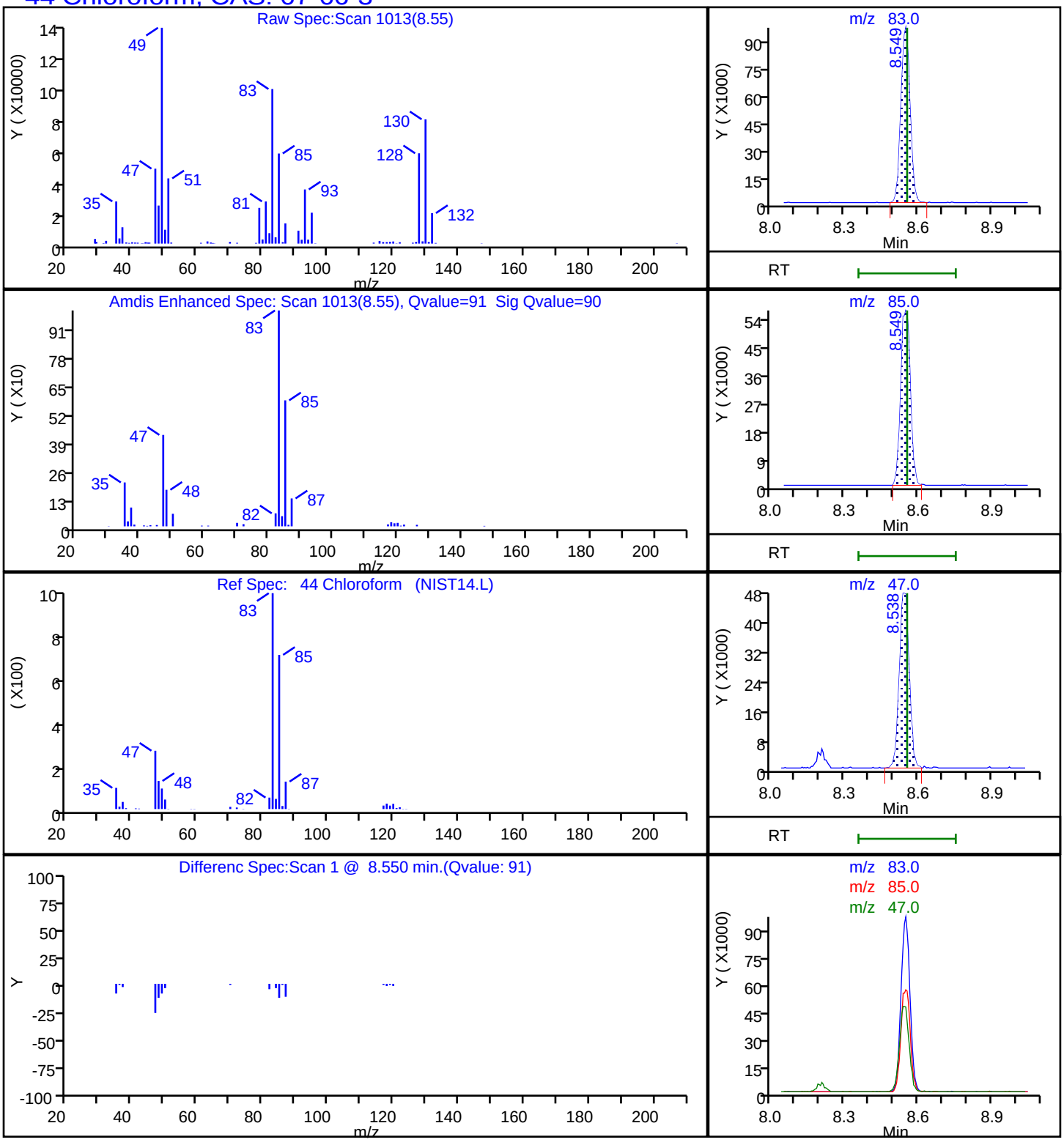


Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

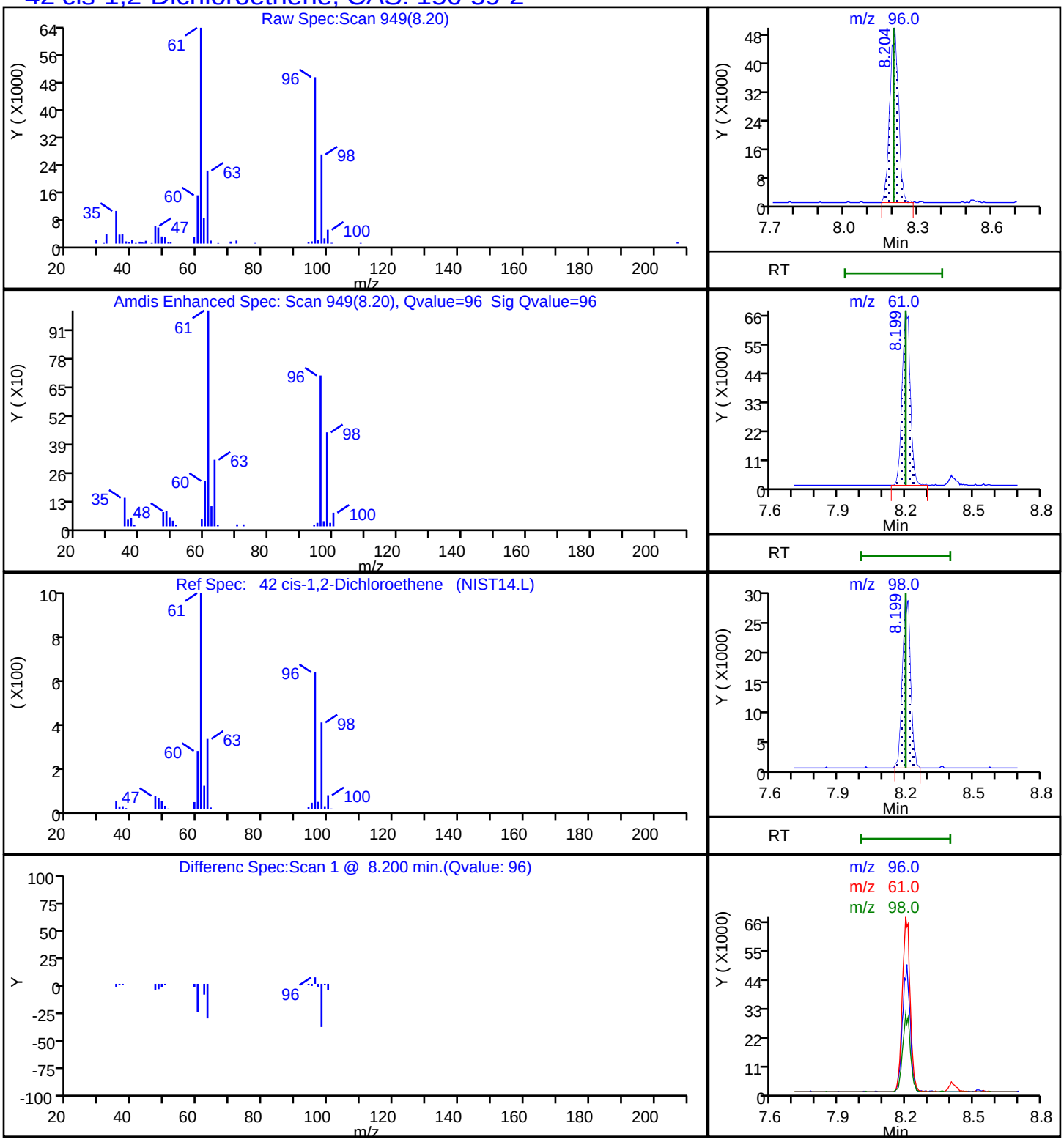


Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2



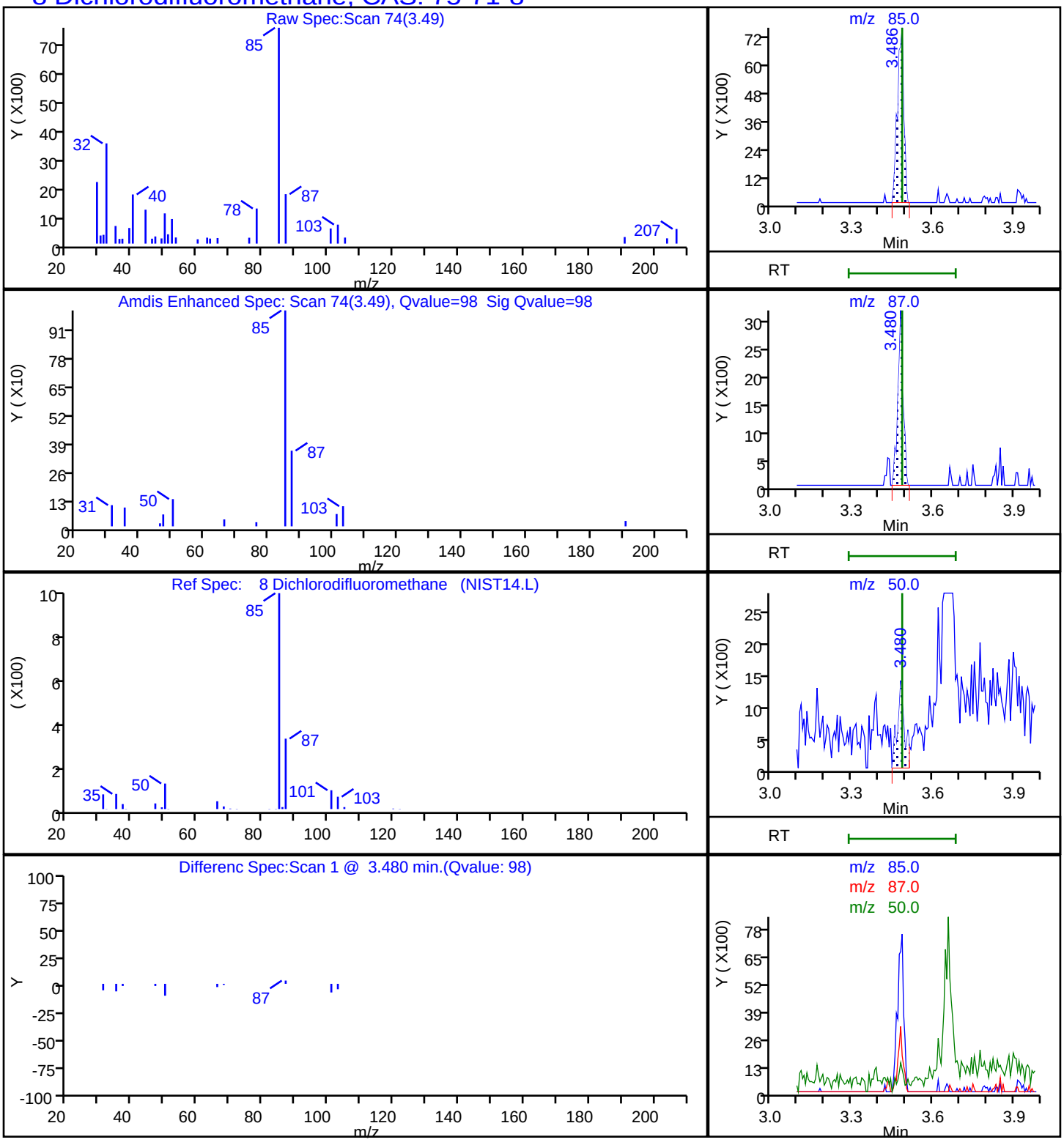
Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR		
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2		
Client ID:	SV-004-C-27				
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

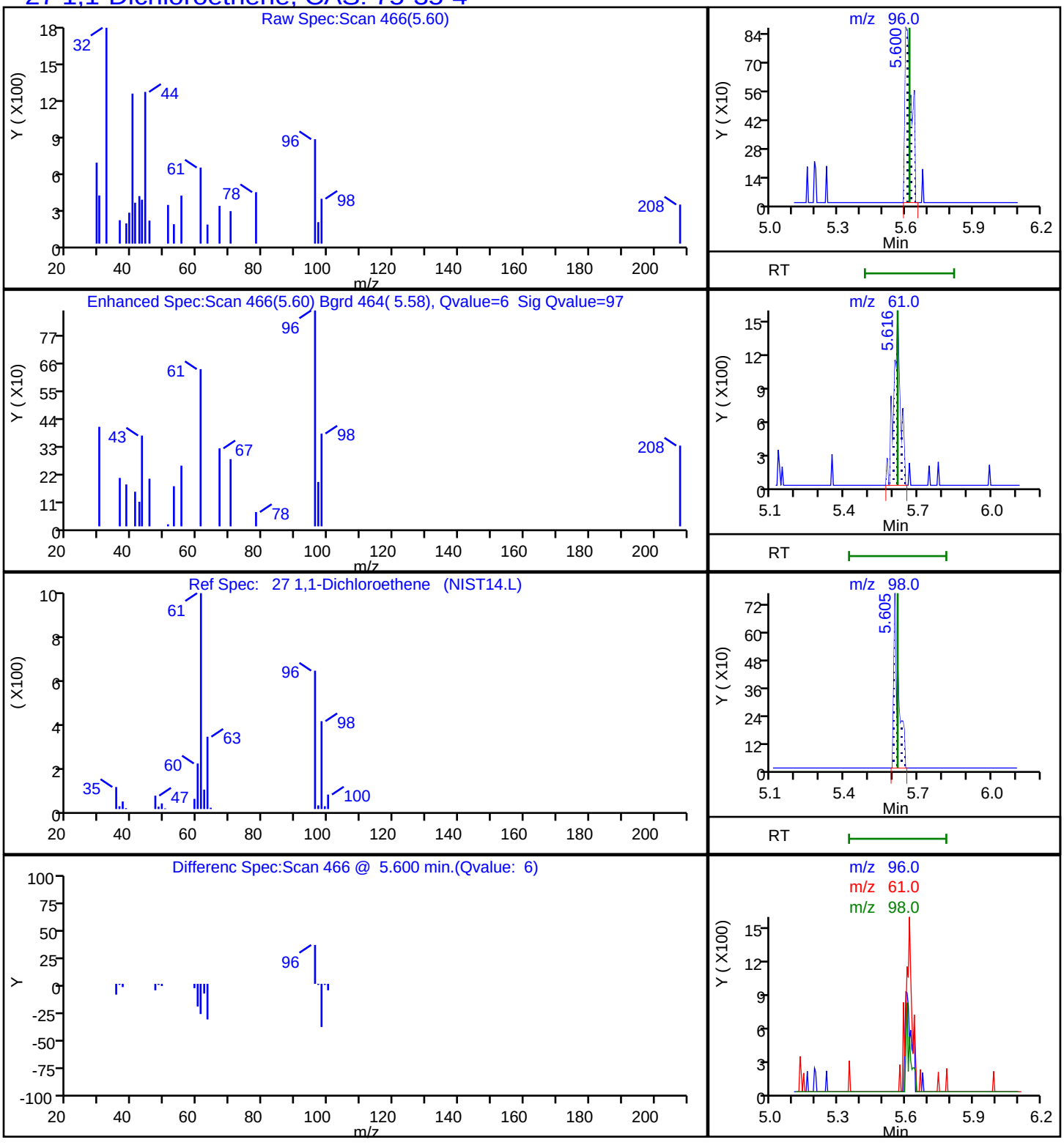
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date: 20-Aug-2019 13:40:30 Instrument ID: MR

Lims ID: 140-16376-A-2 Lab Sample ID: 140-16376-2

Client ID: SV-004-C-27

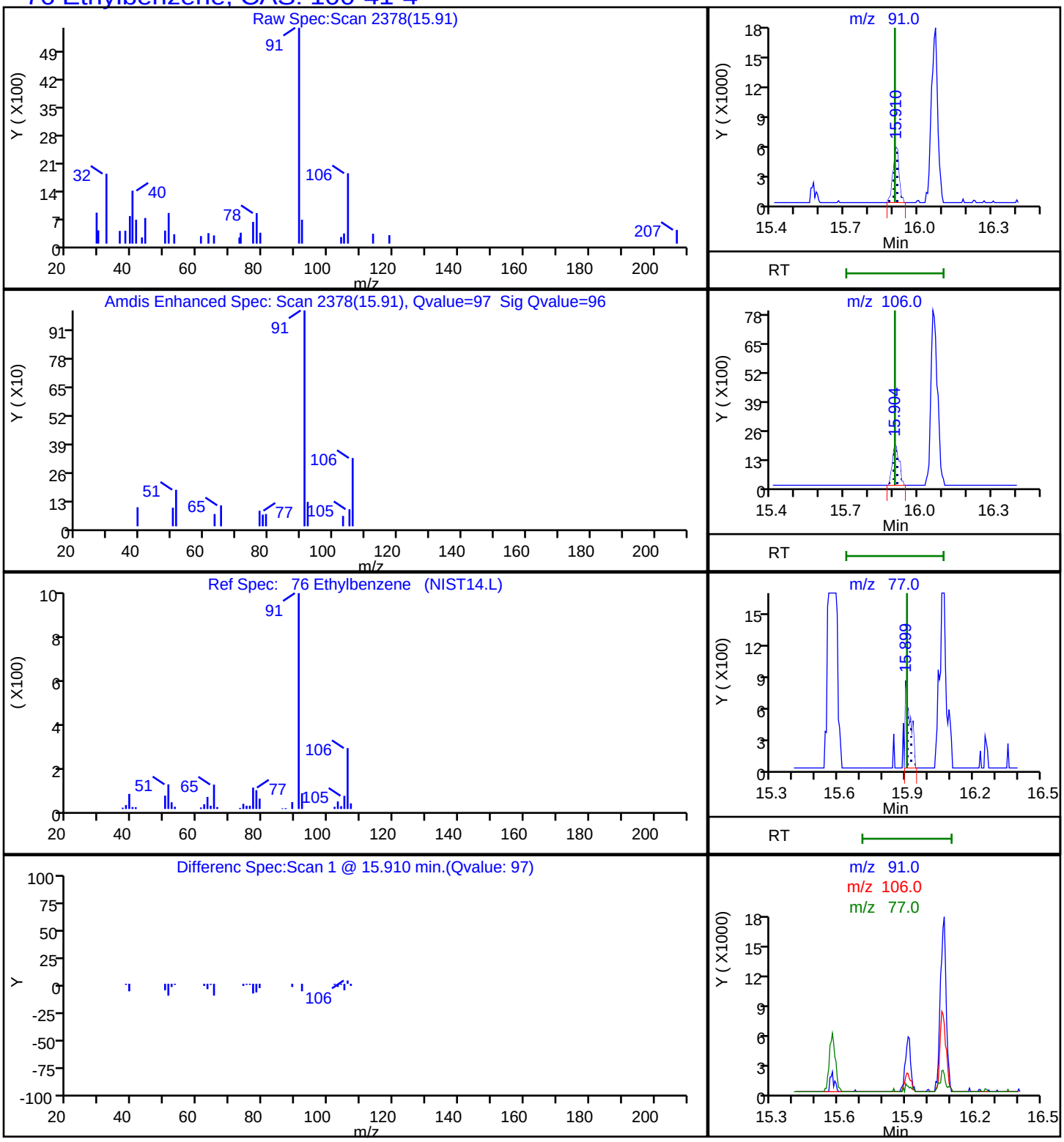
Operator ID: ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

76 Ethylbenzene, CAS: 100-41-4

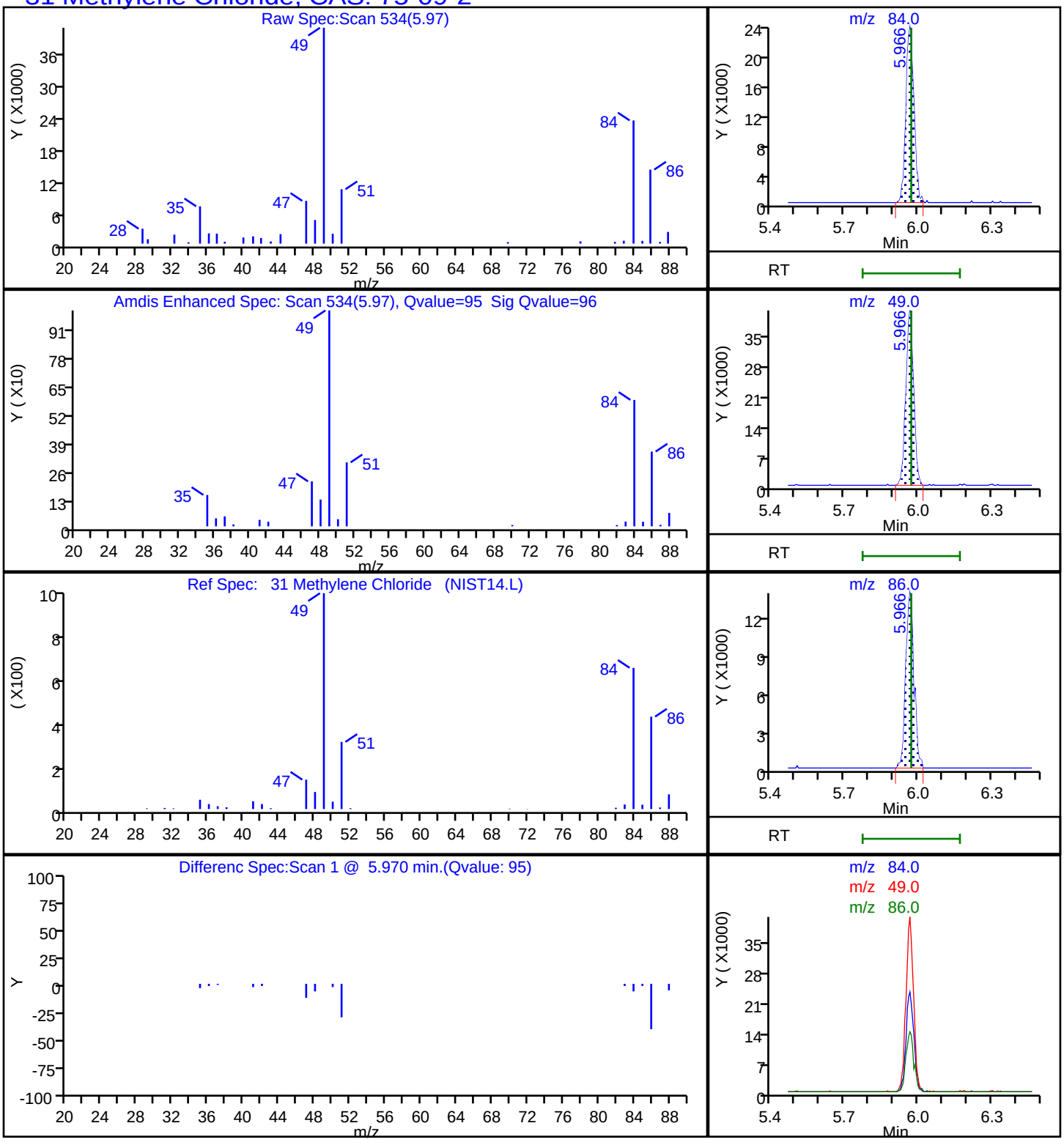


Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

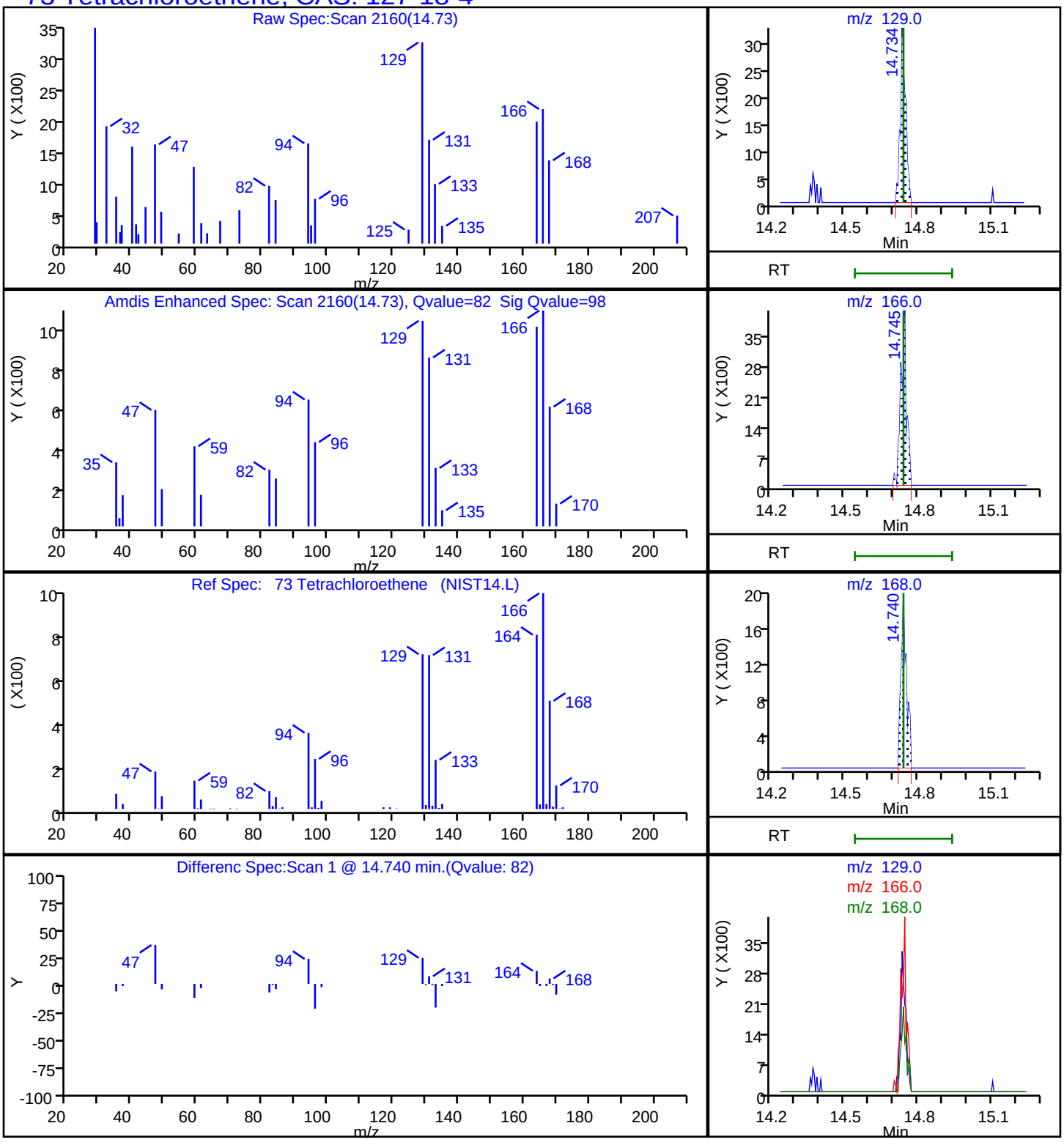
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

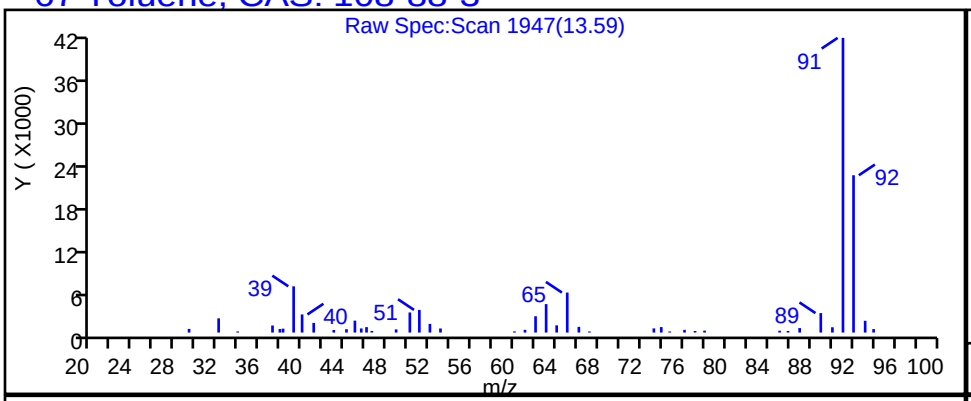
73 Tetrachloroethene, CAS: 127-18-4

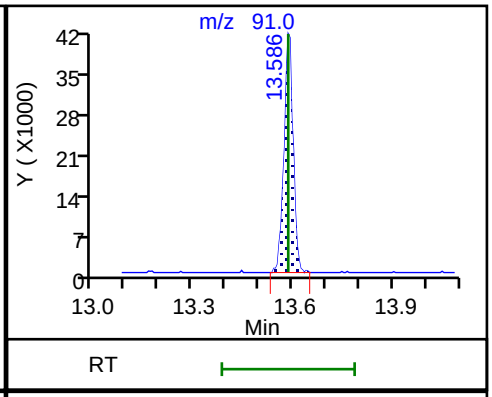


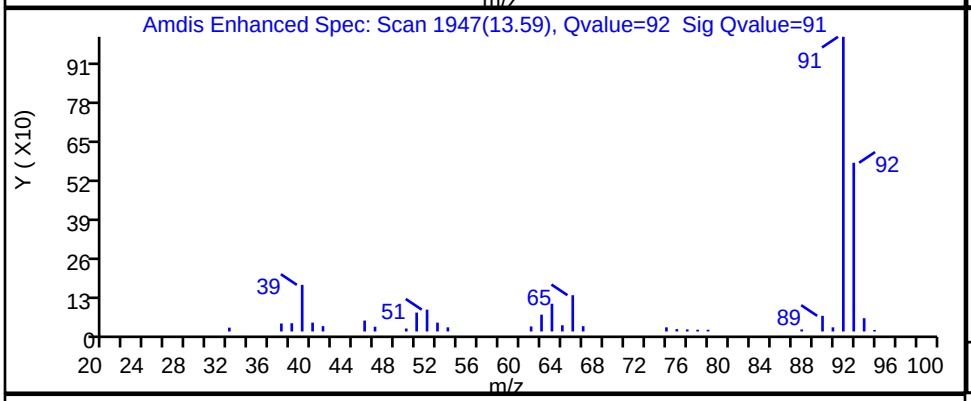
Eurofins TestAmerica, Knoxville

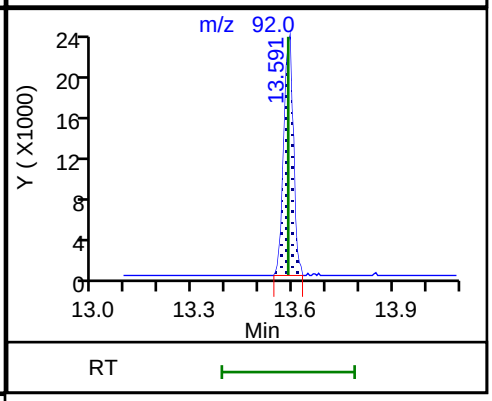
Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D		
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2
Client ID:	SV-004-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

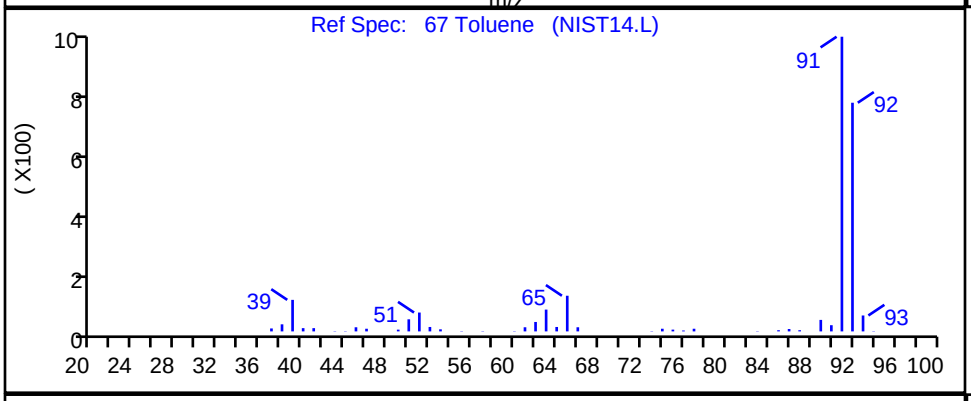
67 Toluene, CAS: 108-88-3

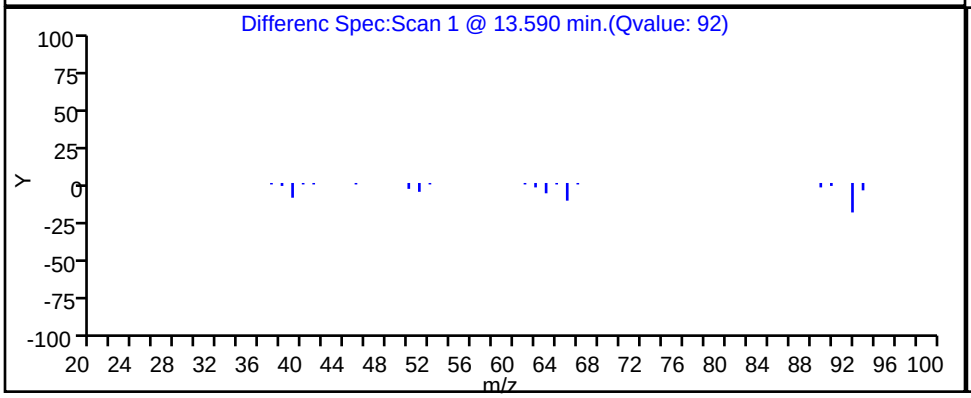


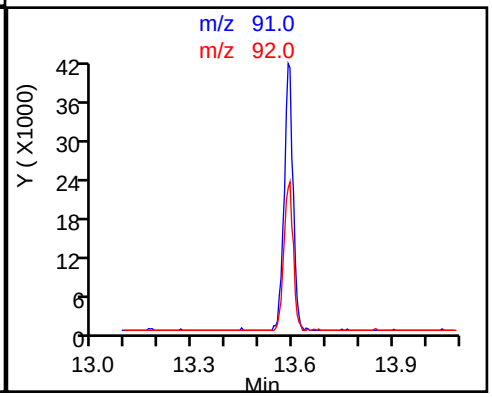










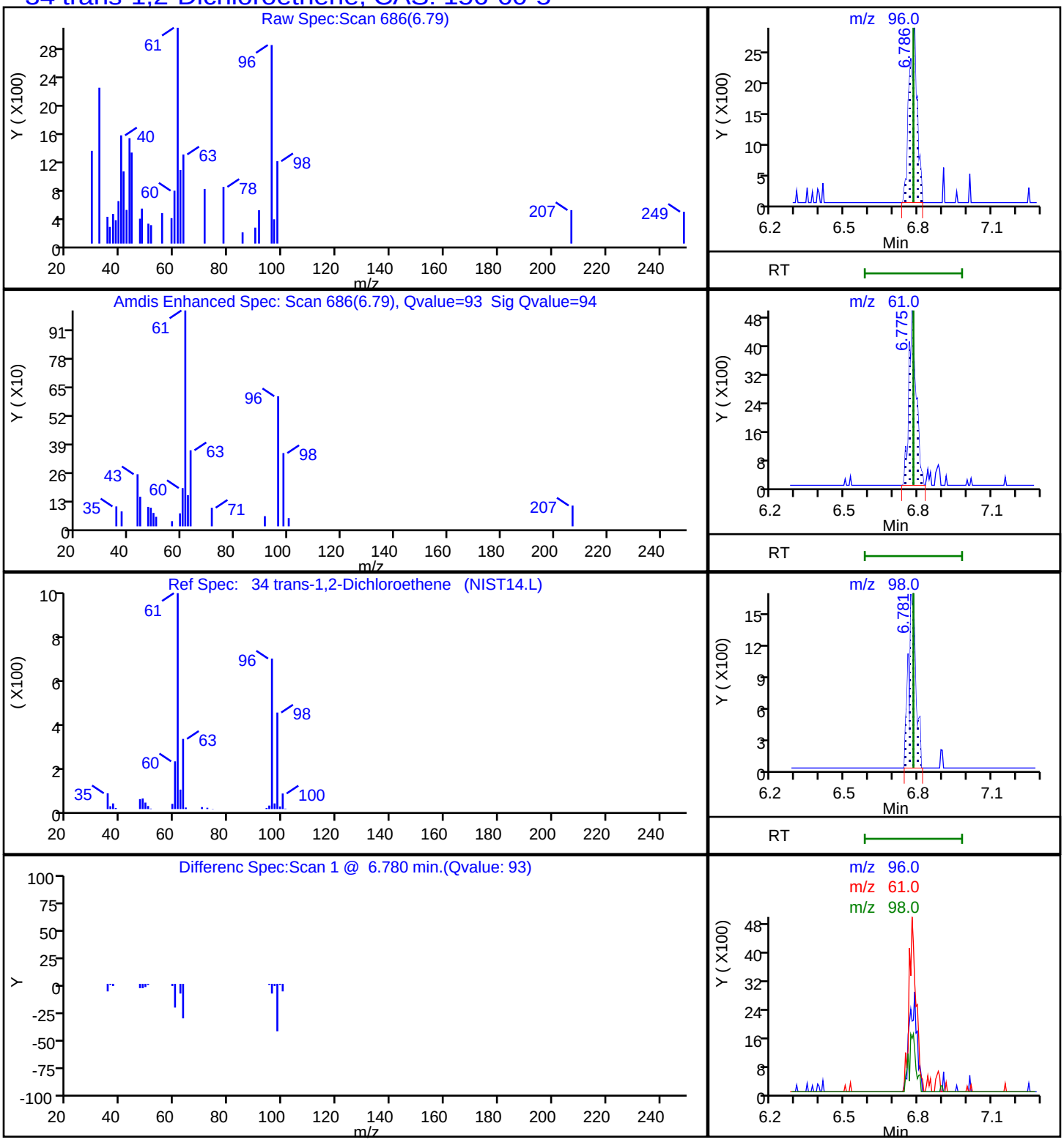


Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D				
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR		
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2		
Client ID:	SV-004-C-27				
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date: 20-Aug-2019 13:40:30 Instrument ID: MR

Lims ID: 140-16376-A-2 Lab Sample ID: 140-16376-2

Client ID: SV-004-C-27

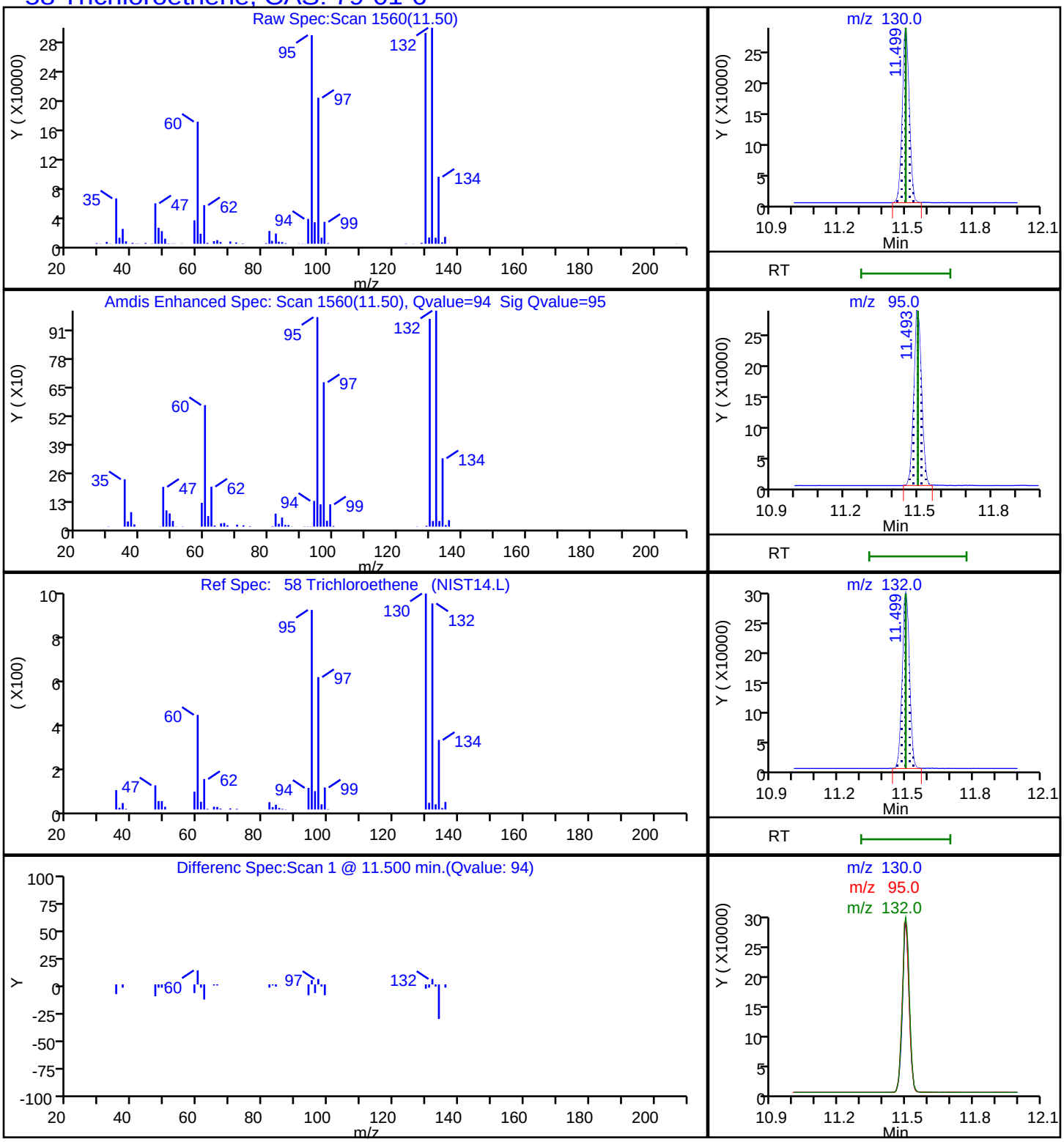
Operator ID: ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6

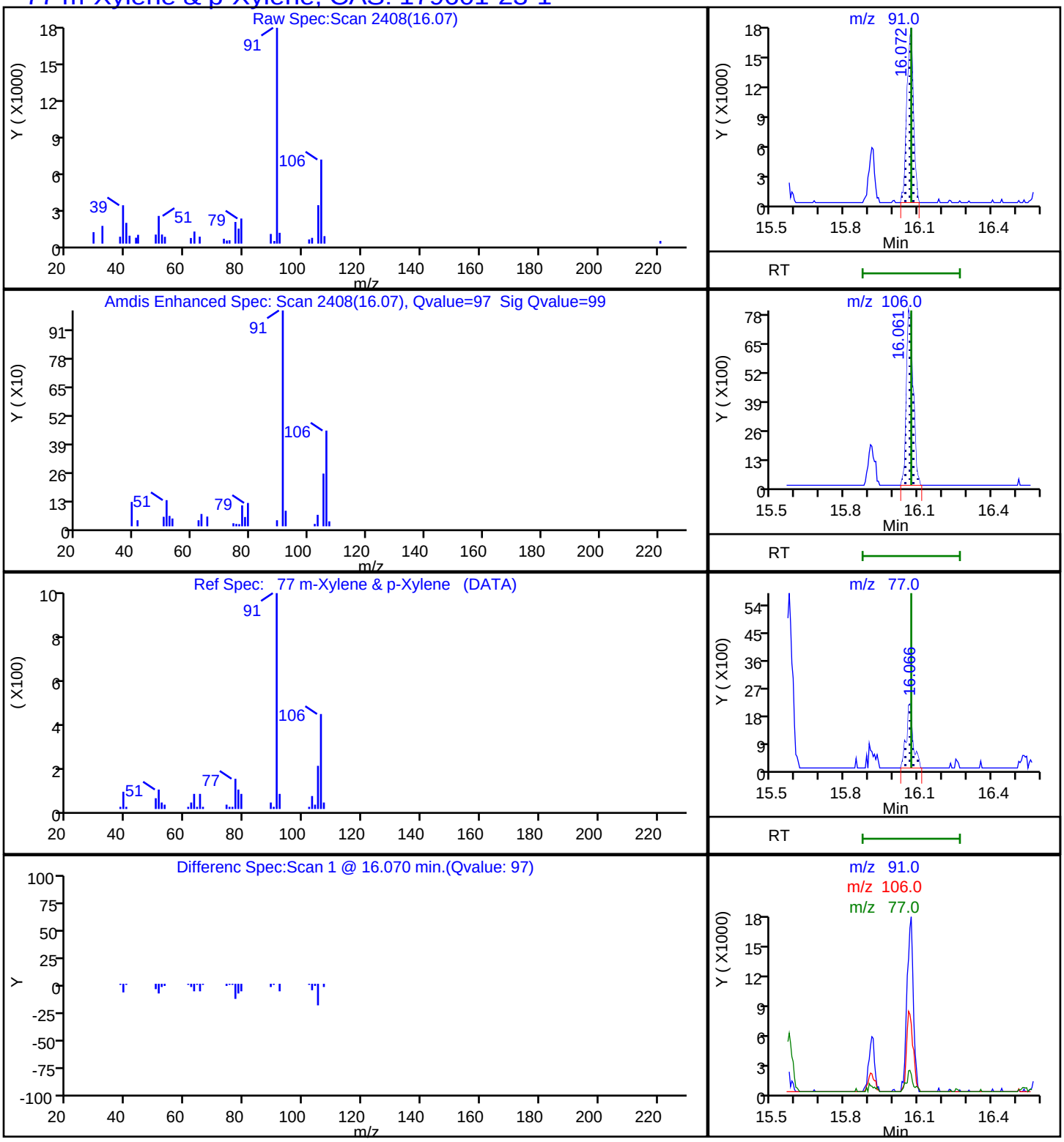


Report Date: 21-Aug-2019 12:39:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D				
Injection Date:	20-Aug-2019 13:40:30	Instrument ID:	MR		
Lims ID:	140-16376-A-2	Lab Sample ID:	140-16376-2		
Client ID:	SV-004-C-27				
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P102.D

Injection Date: 20-Aug-2019 13:40:30 Instrument ID: MR

Lims ID: 140-16376-A-2 Lab Sample ID: 140-16376-2

Client ID: SV-004-C-27

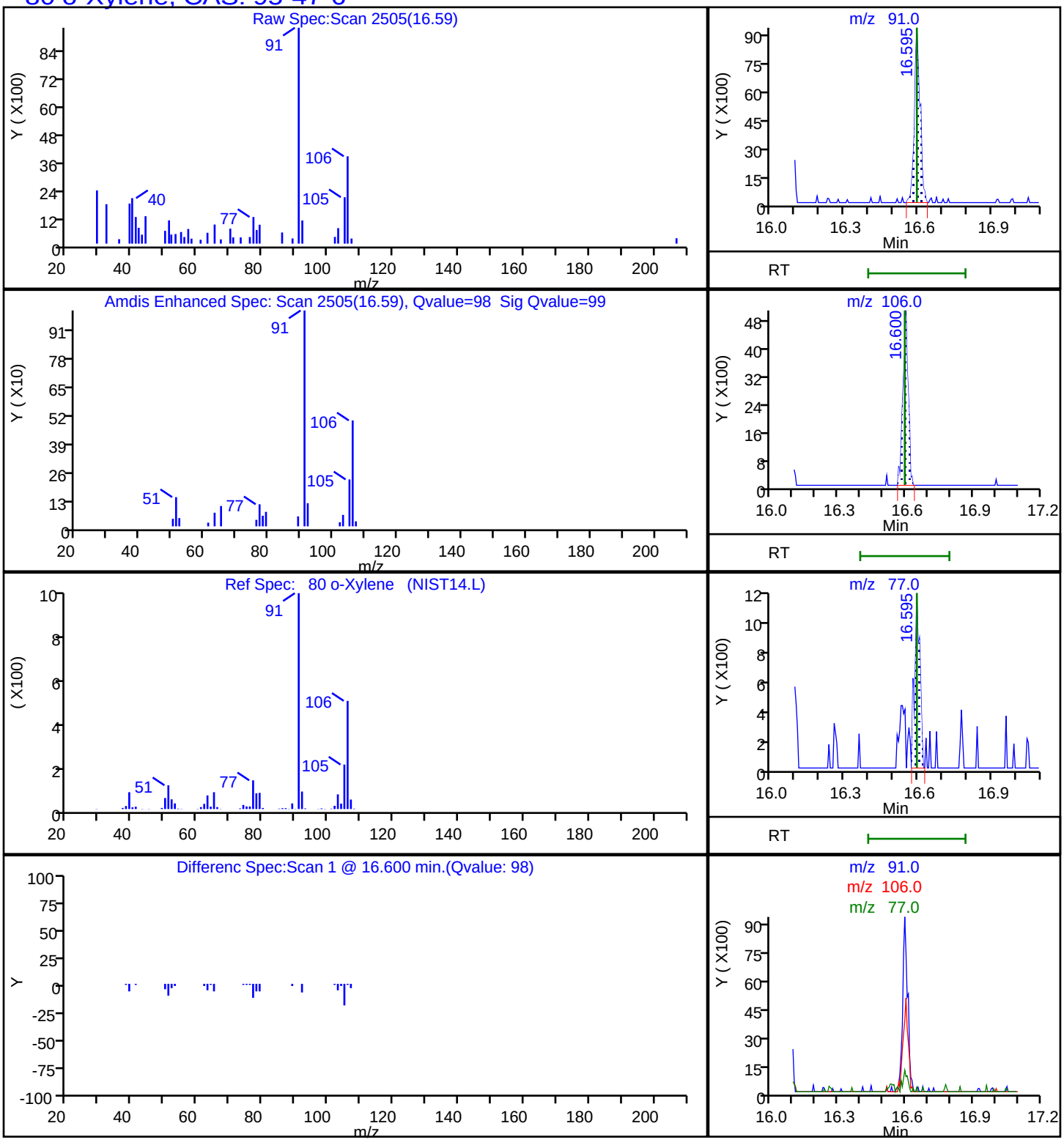
Operator ID: ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	14	1.4
56-23-5	Carbon tetrachloride	153.81	ND		14	1.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.7
67-66-3	Chloroform	119.38	7.0	J	14	1.2
156-59-2	cis-1,2-Dichloroethene	96.94	11	J	14	1.7
75-71-8	Dichlorodifluoromethane	120.91	ND		14	2.4
75-34-3	1,1-Dichloroethane	98.96	720		14	1.2
107-06-2	1,2-Dichloroethane	98.96	ND		14	1.7
75-35-4	1,1-Dichloroethene	96.94	790		14	1.4
100-41-4	Ethylbenzene	106.17	30		14	2.2
75-09-2	Methylene Chloride	84.93	56	J B	68	27
1634-04-4	Methyl tert-butyl ether	88.15	ND		68	8.8
91-20-3	Naphthalene	128.17	15		6.8	13
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		20	13
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	14	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		14	11
71-55-6	1,1,1-Trichloroethane	133.41	340		14	6.3
79-00-5	1,1,2-Trichloroethane	133.41	ND		14	1.2
79-01-6	Trichloroethene	131.39	220		6.8	1.0
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		14	6.1
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		14	3.4
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		14	3.7
75-01-4	Vinyl chloride	62.50	ND		6.8	4.4
1330-20-7	Xylenes, Total	106.17	280		27	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.9	J	43	4.3
56-23-5	Carbon tetrachloride	153.81	ND		85	7.5
75-45-6	Chlorodifluoromethane	86.47	ND		48	13
67-66-3	Chloroform	119.38	34	J	66	5.8
156-59-2	cis-1,2-Dichloroethene	96.94	45	J	54	6.7
75-71-8	Dichlorodifluoromethane	120.91	ND		67	12
75-34-3	1,1-Dichloroethane	98.96	2900		55	4.8
107-06-2	1,2-Dichloroethane	98.96	ND		55	6.9
75-35-4	1,1-Dichloroethene	96.94	3100		54	5.4
100-41-4	Ethylbenzene	106.17	130		59	9.6
75-09-2	Methylene Chloride	84.93	190	J B	240	94
1634-04-4	Methyl tert-butyl ether	88.15	ND		240	32
91-20-3	Naphthalene	128.17	77		36	68
127-18-4	Tetrachloroethene	165.83	ND		92	8.0
108-88-3	Toluene	92.14	ND		77	50
156-60-5	trans-1,2-Dichloroethene	96.94	10	J	54	4.7
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		100	81
71-55-6	1,1,1-Trichloroethane	133.41	1800		74	34
79-00-5	1,1,2-Trichloroethane	133.41	ND		74	6.5
79-01-6	Trichloroethene	131.39	1200		36	5.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		67	30
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		67	17
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		67	18
75-01-4	Vinyl chloride	62.50	ND		17	11
1330-20-7	Xylenes, Total	106.17	1200		120	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Lims ID:	140-16376-A-3				
Client ID:	SV-102-C-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 00:47:30	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Sample Info:	140-0012774-016				
Misc. Info.:	140-16376-a-3@3.73				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 02:14:08	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 15:34:56		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.146	0.000	72	543383	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	93	2741508	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	85	2402343	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	97	1413647	3.39	
27 1,1-Dichloroethene	96	6.191	6.178	0.006	95	719957	4.65	
31 Methylene Chloride	84	6.546	6.539	-0.001	82	49469	0.3285	
34 trans-1,2-Dichloroethene	96	7.388	7.368	0.011	40	2377	0.0153	
37 1,1-Dichloroethane	63	7.798	7.799	-0.010	100	1266606	4.26	
42 cis-1,2-Dichloroethene	96	8.801	8.801	-0.011	83	10622	0.0668	
44 Chloroform	83	9.151	9.146	-0.005	33	15127	0.0410	
47 1,1,1-Trichloroethane	97	10.192	10.180	0.000	94	882152	2.00	
50 Benzene	78	10.796	10.775	0.011	50	3716	0.009069	
58 Trichloroethene	130	12.014	12.008	-0.006	97	291624	1.28	
78 Ethylbenzene	91	16.317	16.312	-0.001	97	111159	0.1777	
79 m-Xylene & p-Xylene	91	16.474	16.474	-0.005	97	579753	1.18	
83 o-Xylene	91	16.997	16.997	-0.005	98	233863	0.4409	
112 Naphthalene	128	21.284	21.277	0.000	99	66748	0.0872	
S 124 Xylenes, Total	100				0		1.63	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

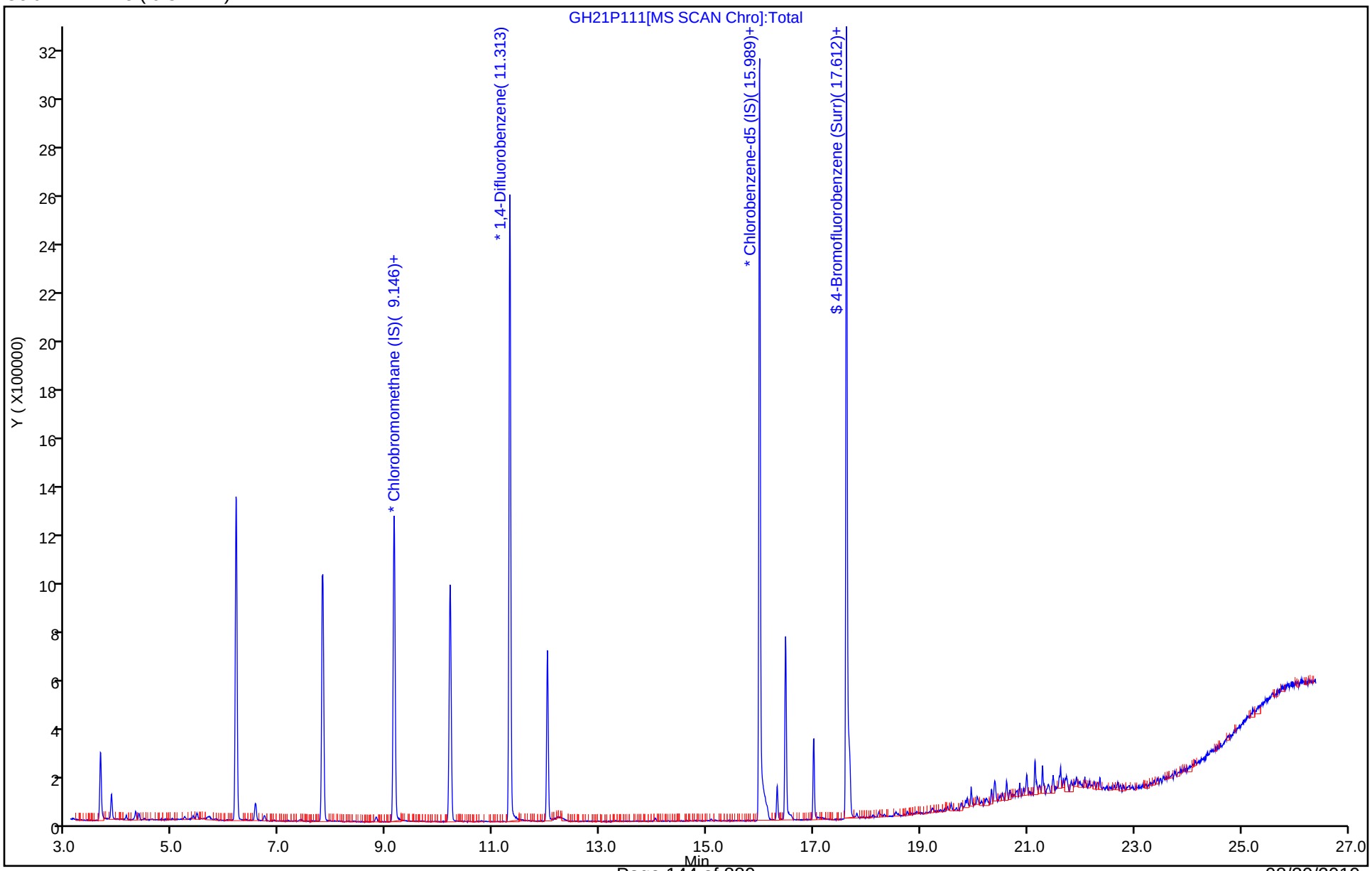
Report Date: 22-Aug-2019 15:34:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D

Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3	Worklist Smp#:	16
Client ID:	SV-102-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	3.7300	ALS Bottle#:	11
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Lims ID:	140-16376-A-3				
Client ID:	SV-102-C-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 00:47:30	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Sample Info:	140-0012774-016				
Misc. Info.:	140-16376-a-3@3.73				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 02:14:08	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 15:34:56		

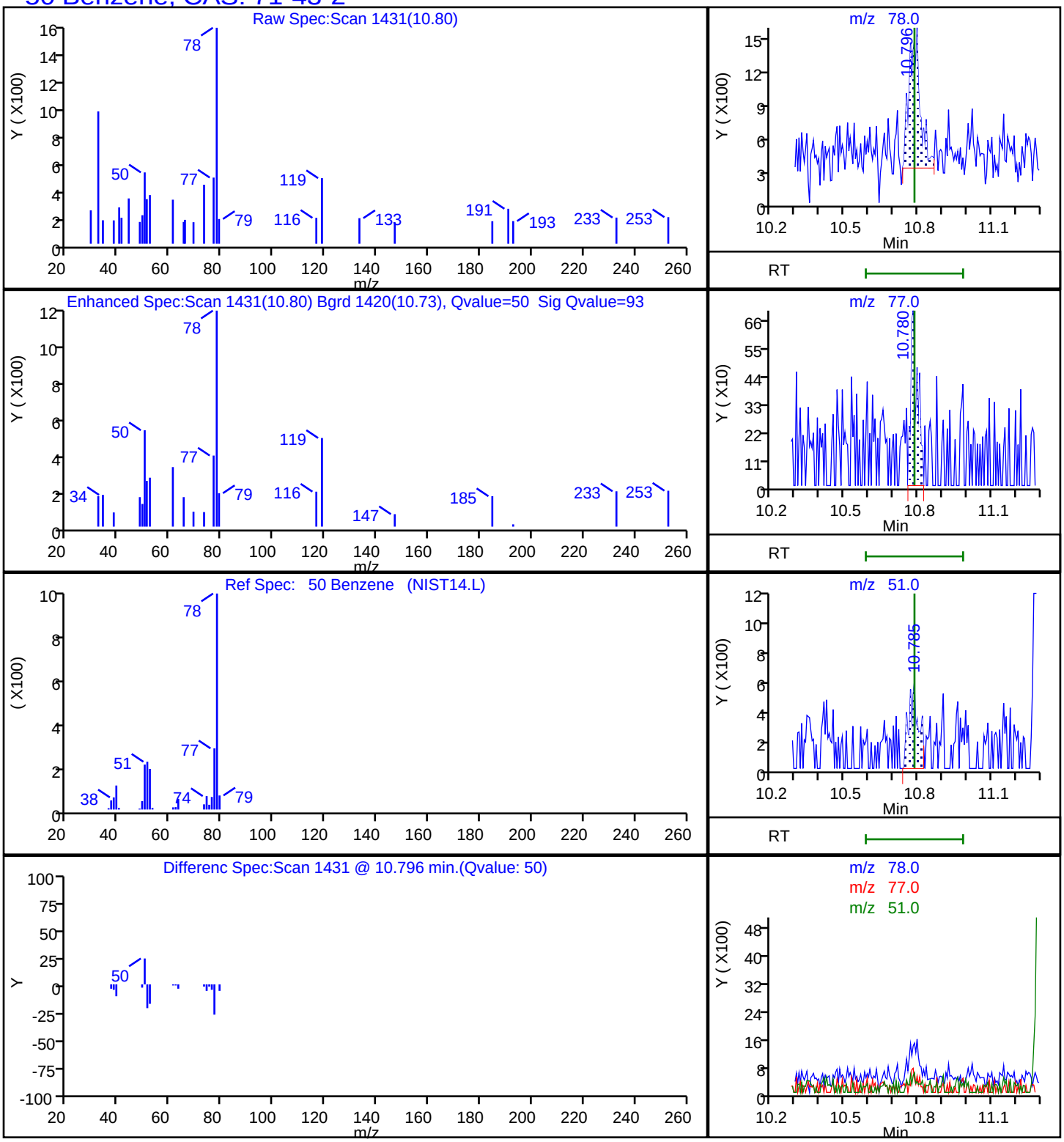
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.39	84.68

Report Date: 22-Aug-2019 15:34:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG		
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Benzene, CAS: 71-43-2



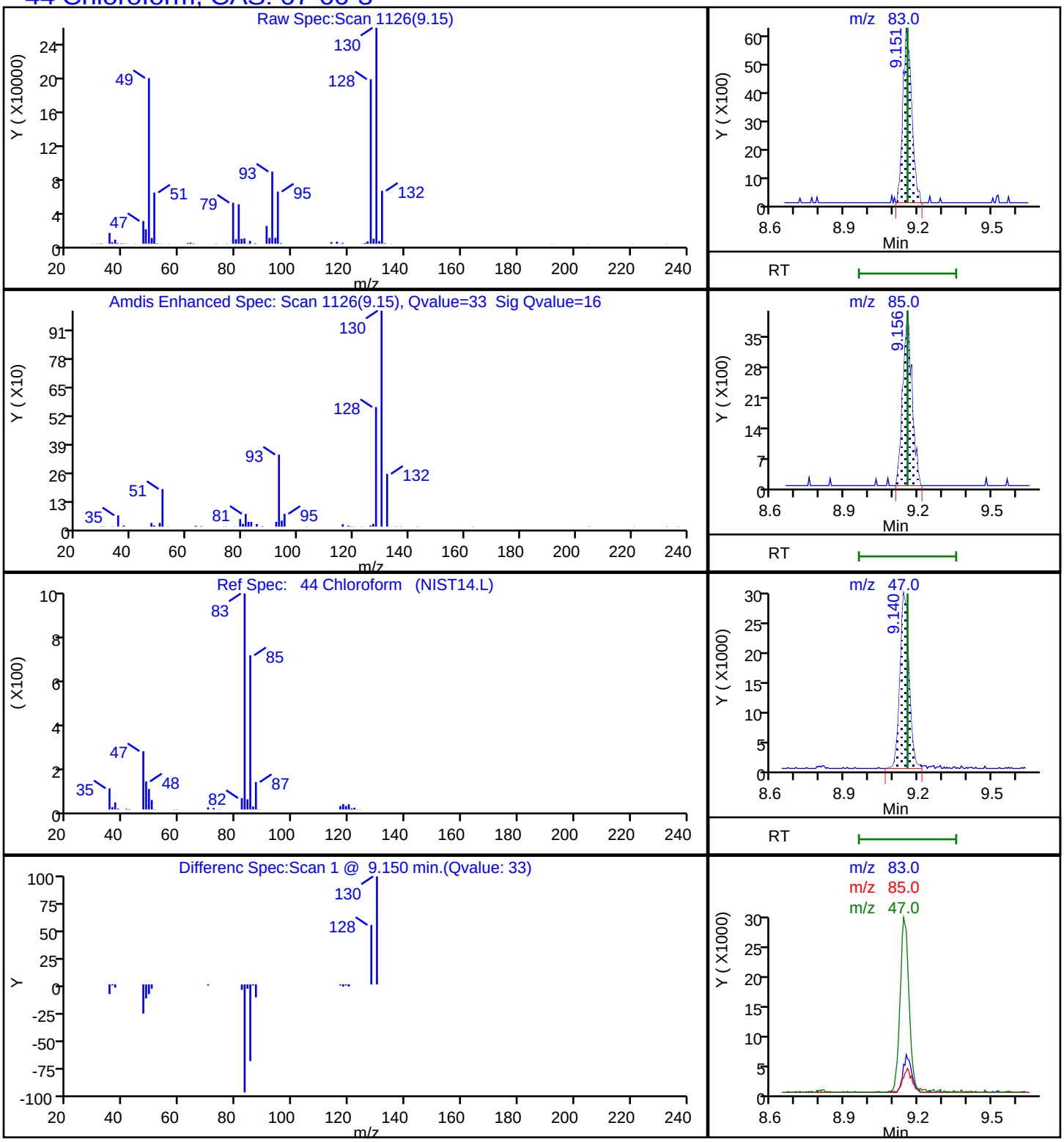
Report Date: 22-Aug-2019 15:34:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D

Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



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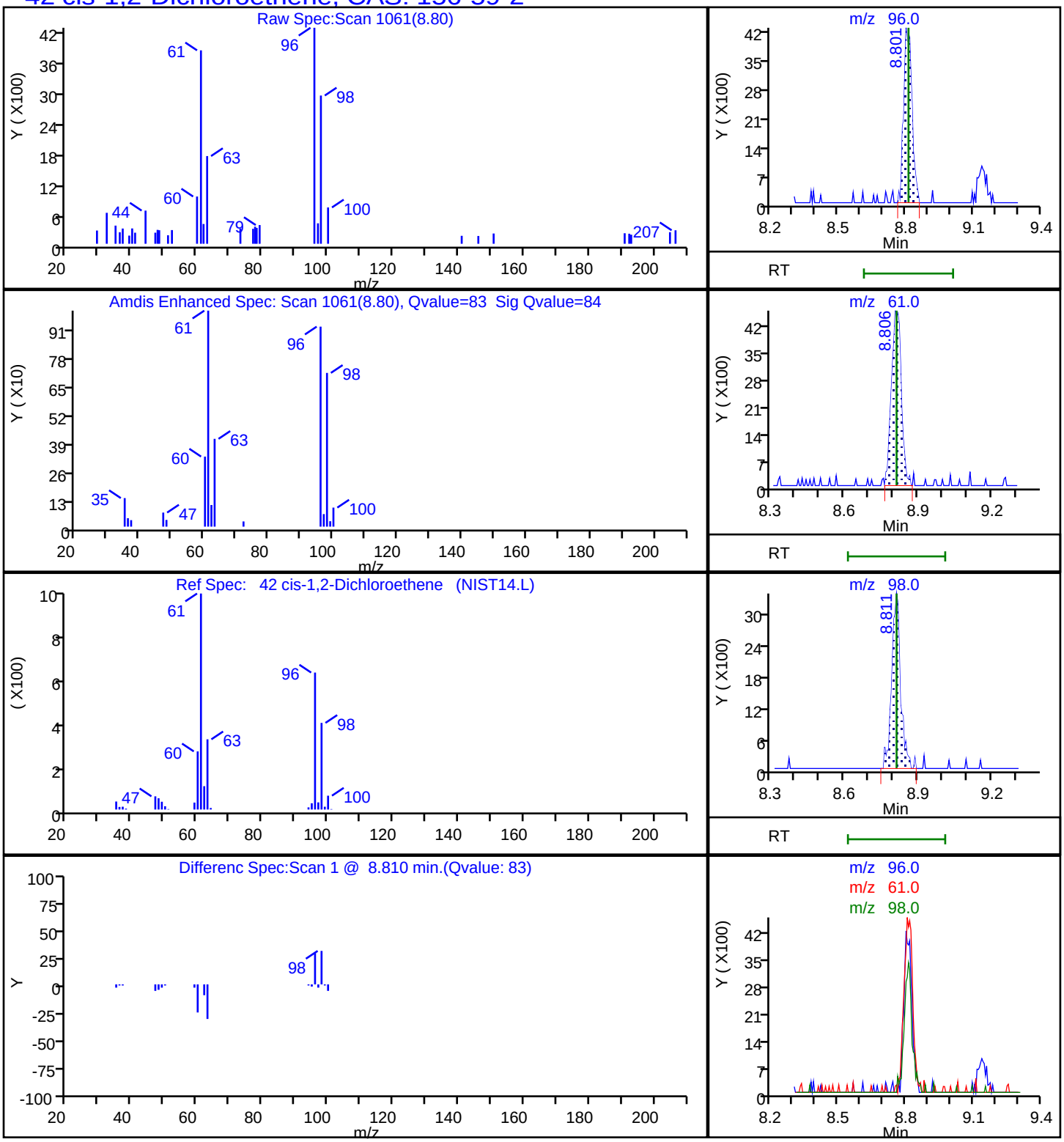
Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG		
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2

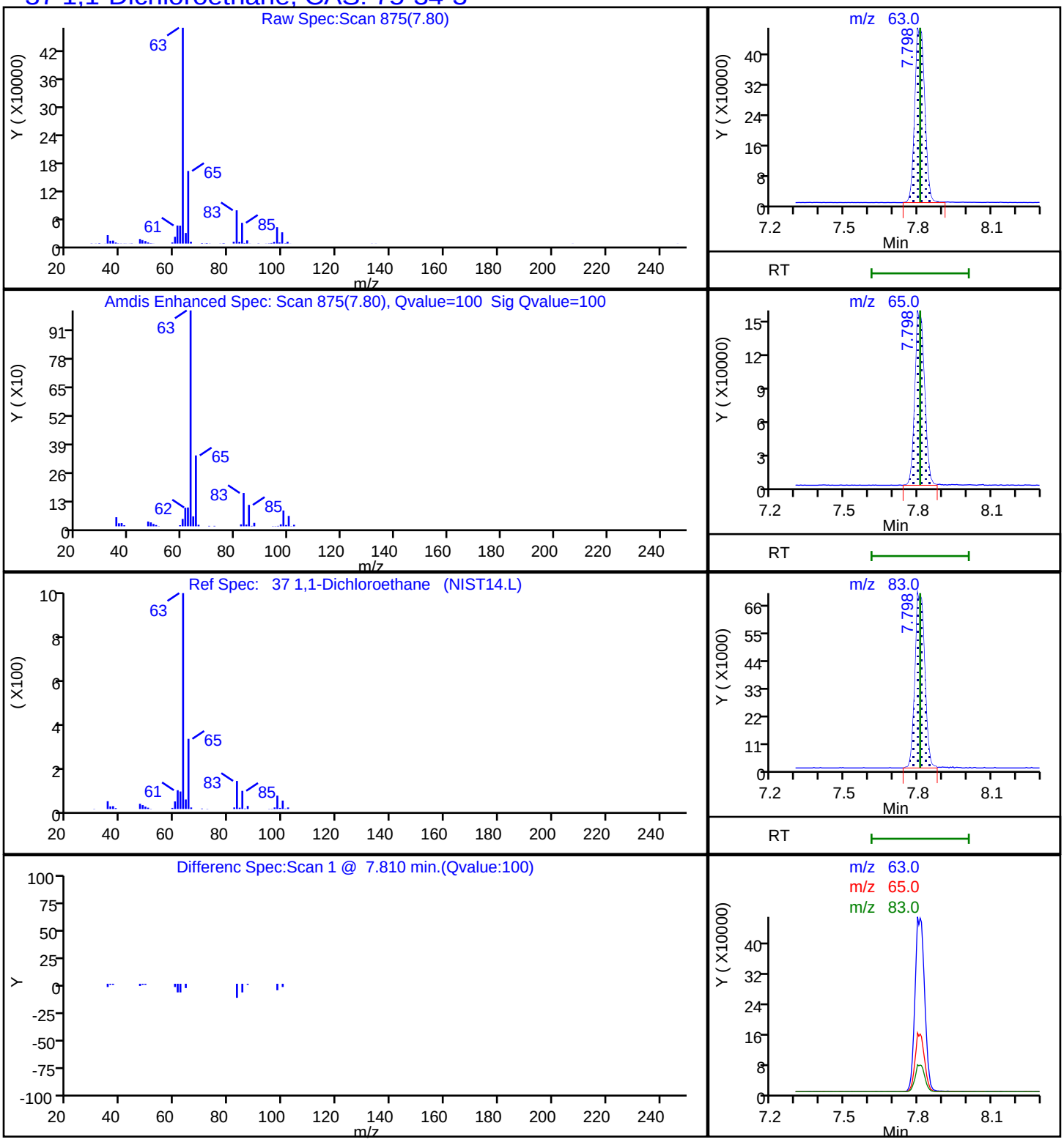


Report Date: 22-Aug-2019 15:34:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG		
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

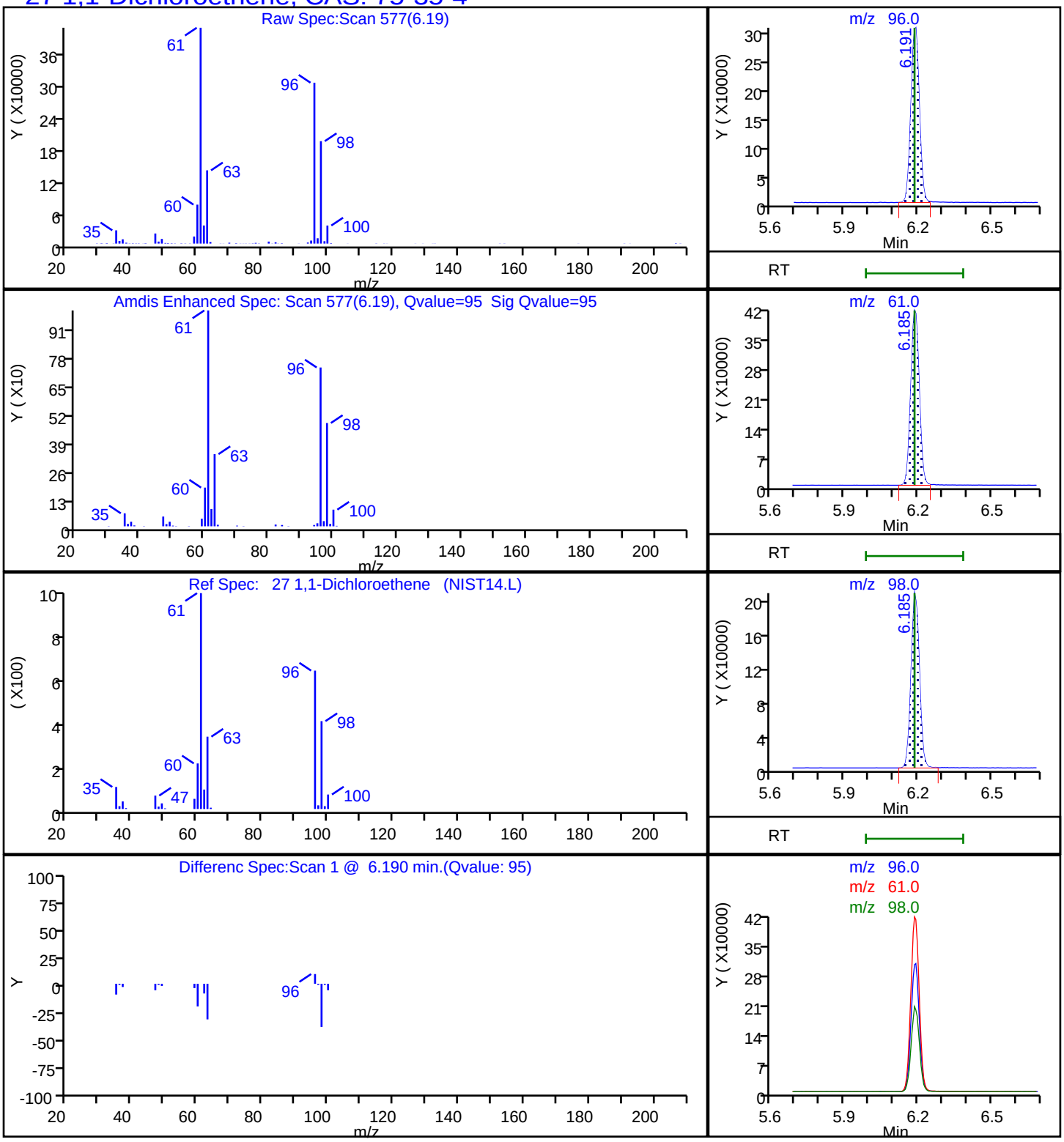
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D
Injection Date: 22-Aug-2019 00:47:30 Instrument ID: MG
Lims ID: 140-16376-A-3 Lab Sample ID: 140-16376-3
Client ID: SV-102-C-27
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 3.7300
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

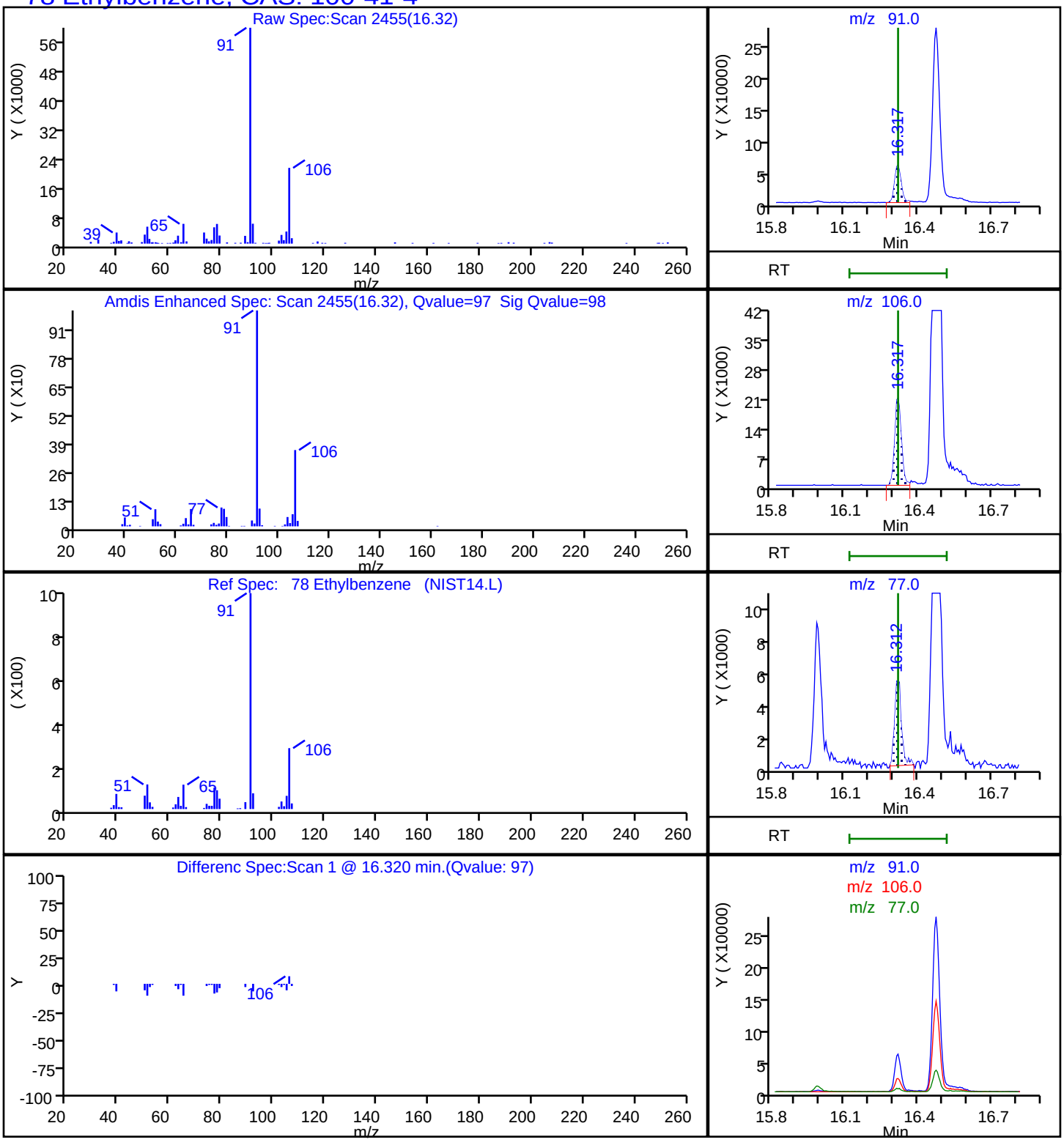
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D		
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

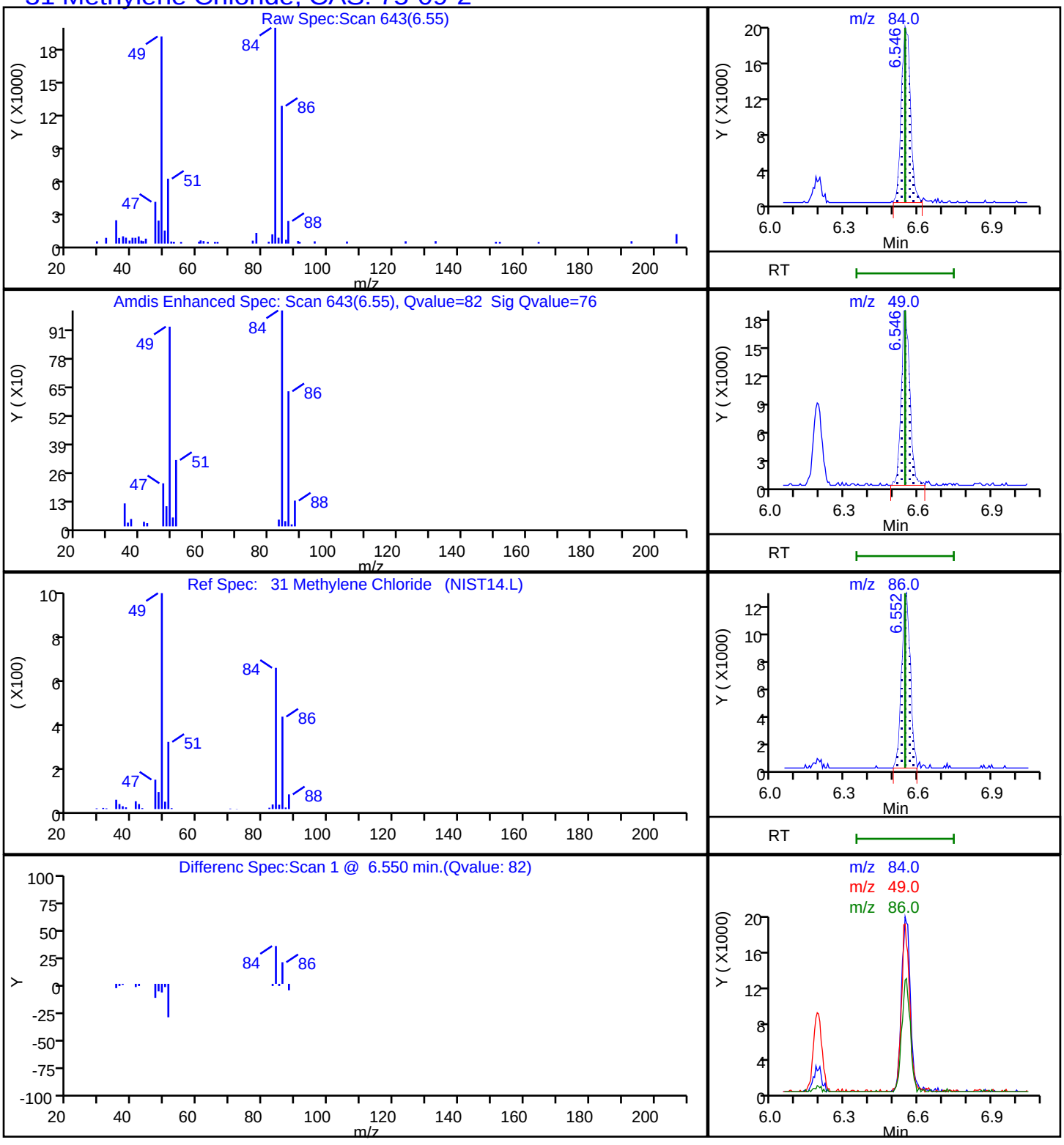
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D		
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

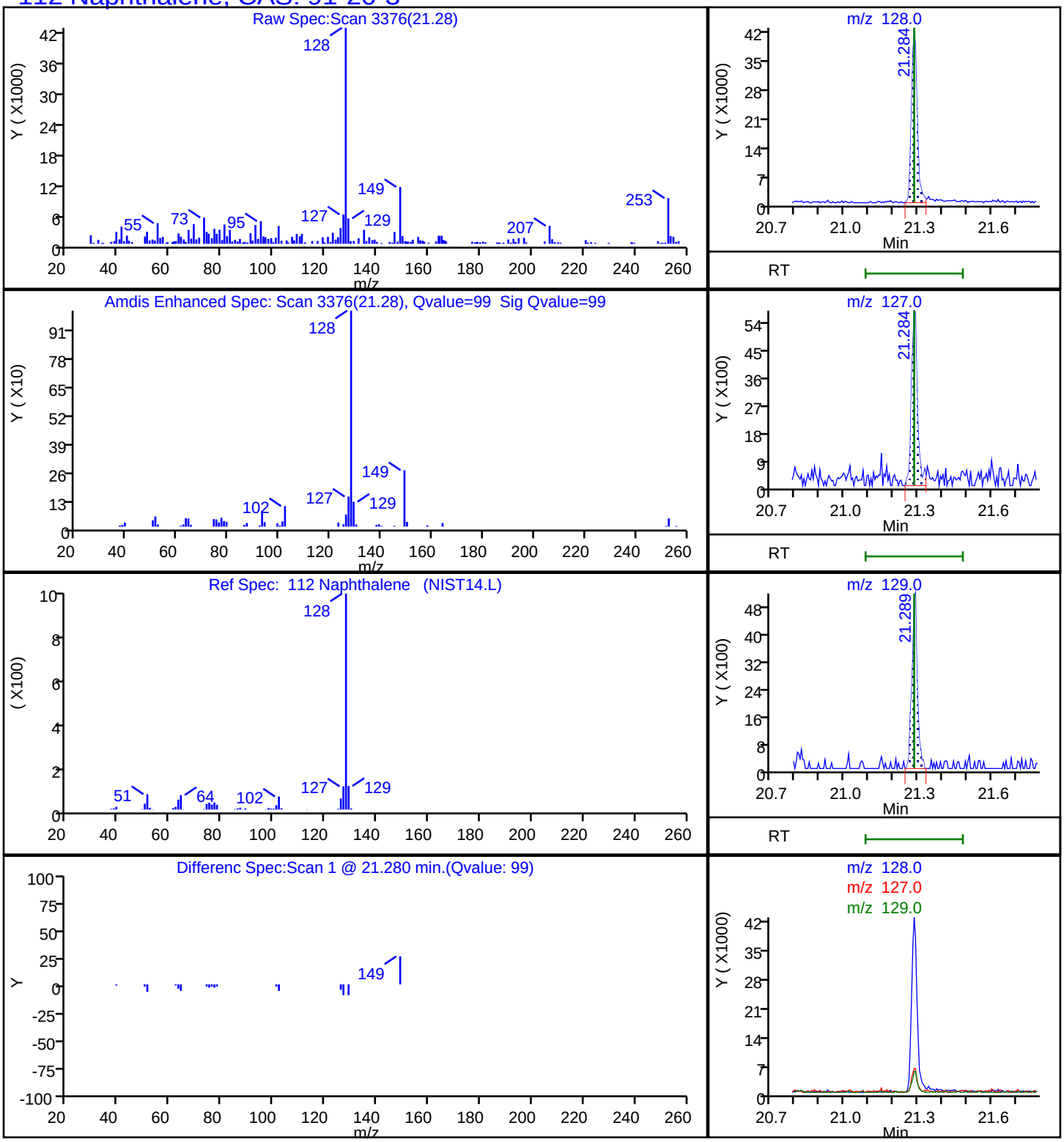
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D		
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

112 Naphthalene, CAS: 91-20-3

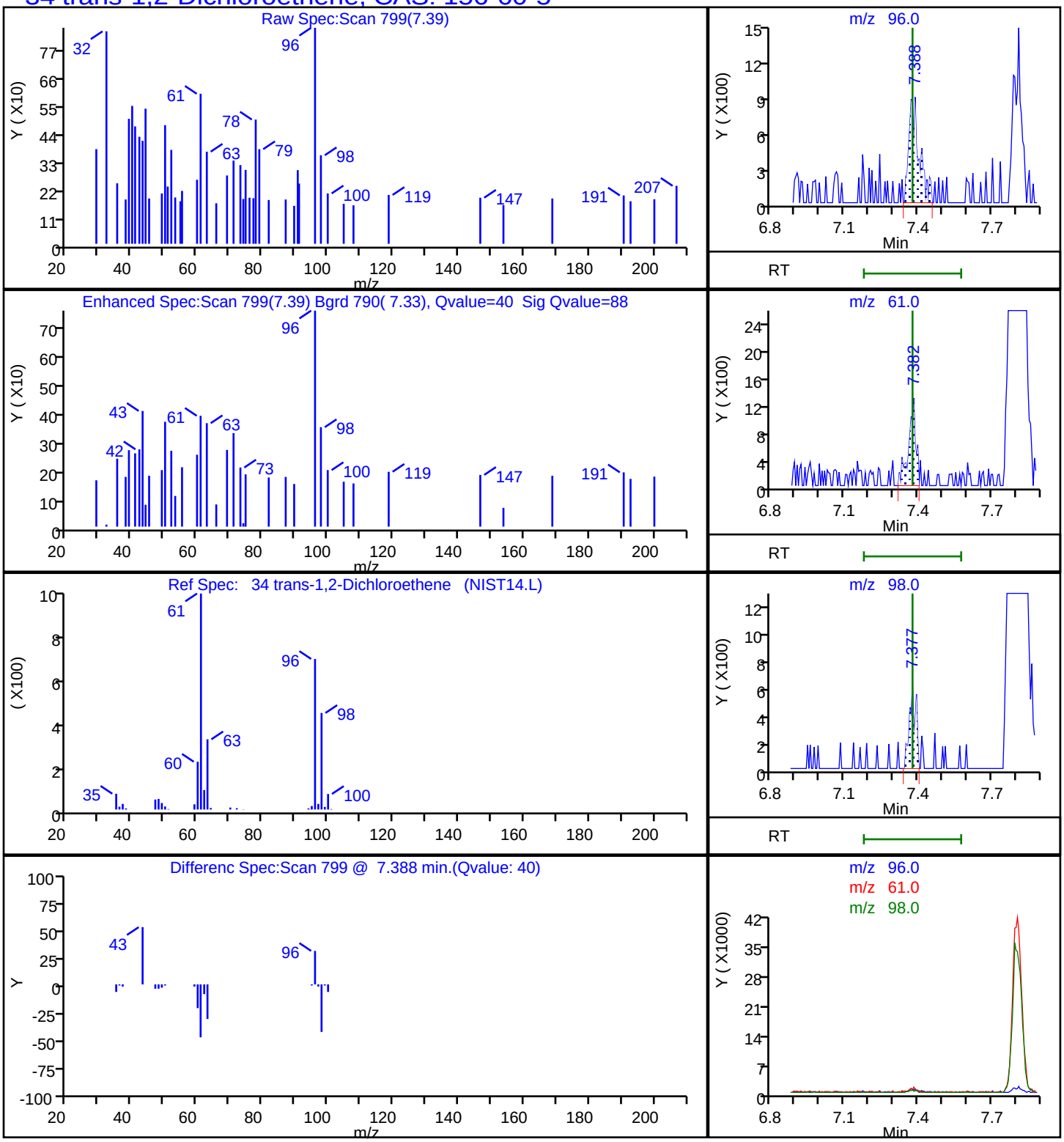


Report Date: 22-Aug-2019 15:34:57 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG		
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
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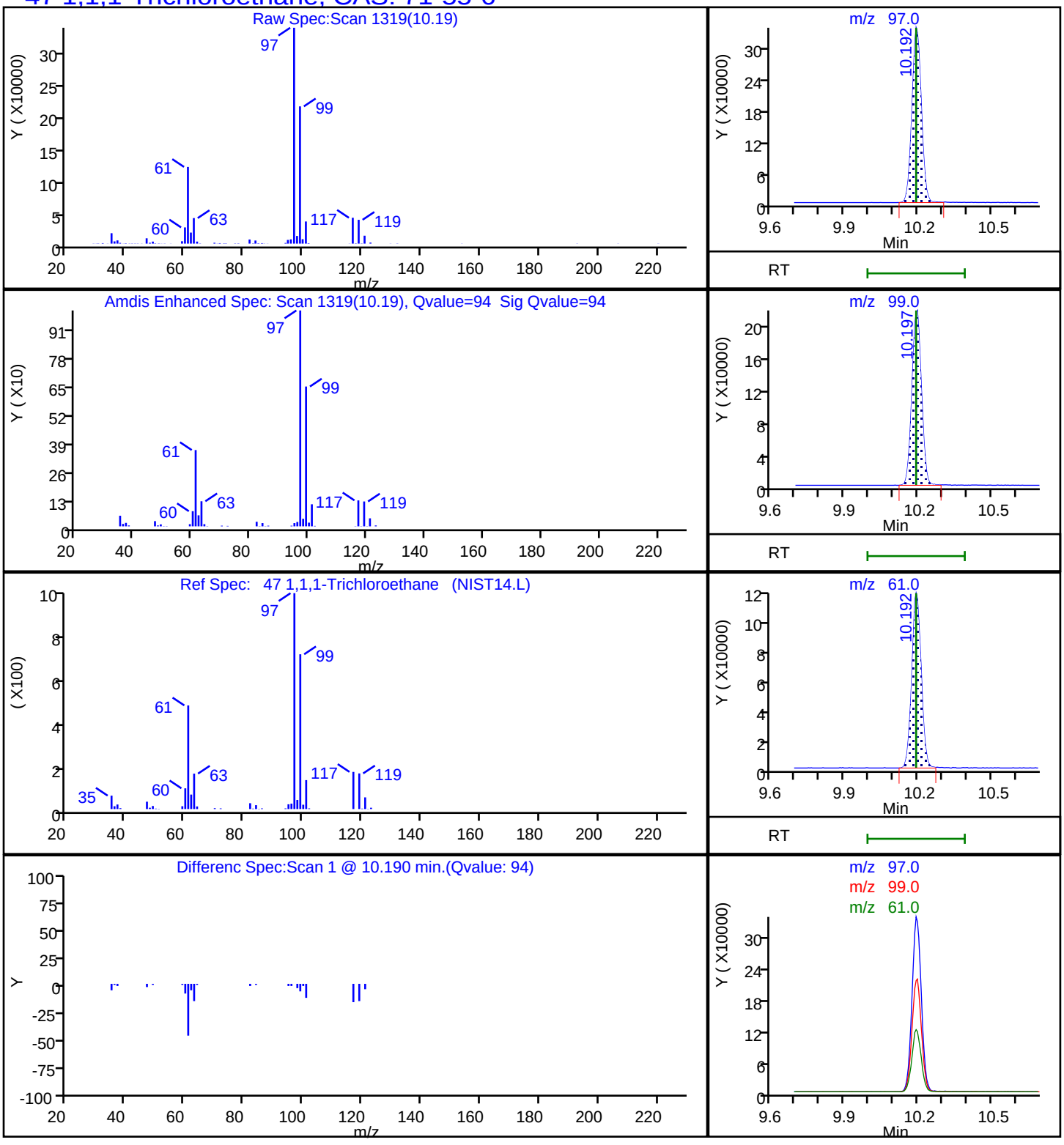
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6

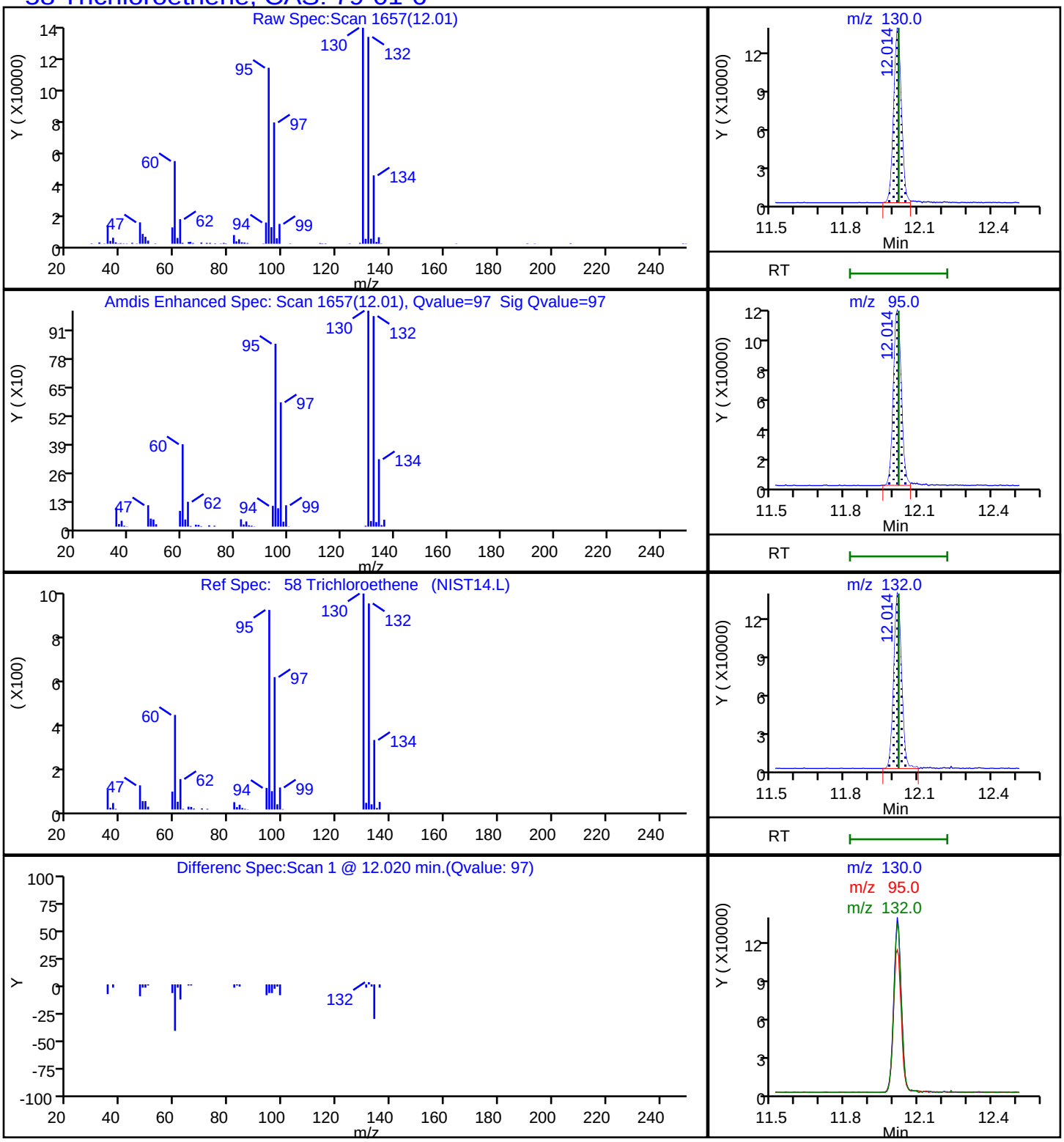


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D

Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

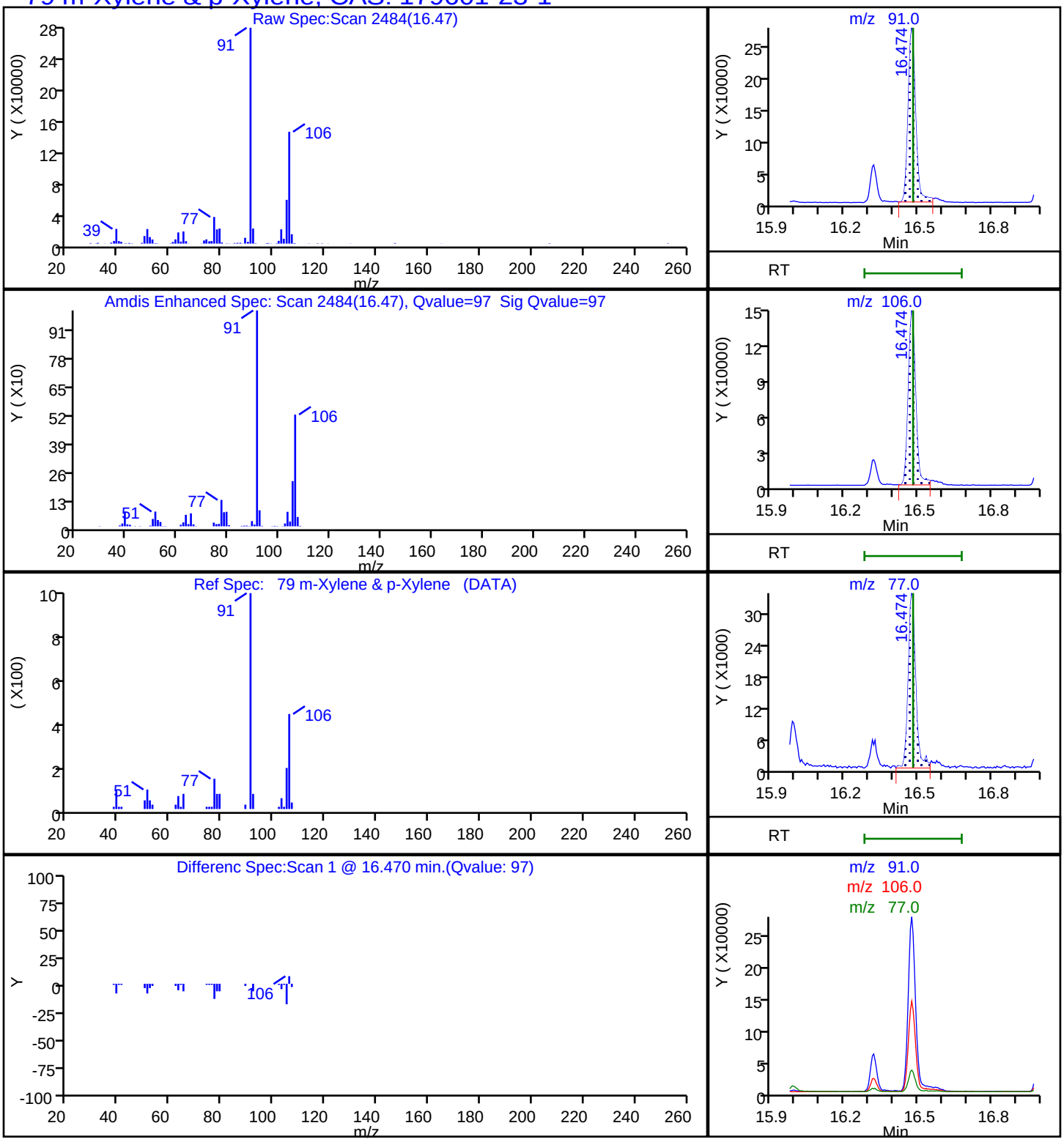


Report Date: 22-Aug-2019 15:34:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D				
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG		
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3		
Client ID:	SV-102-C-27				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1

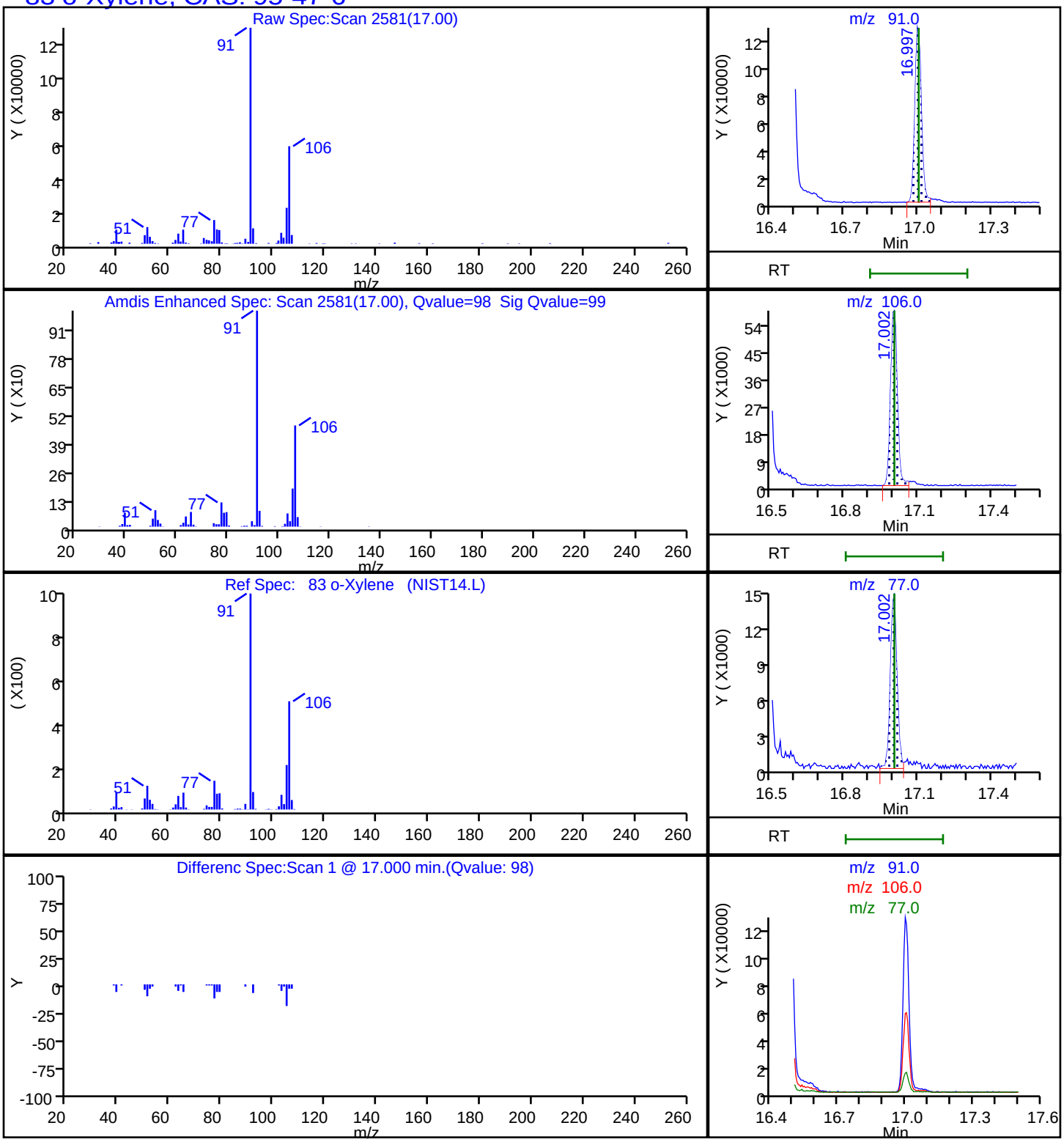


Report Date: 22-Aug-2019 15:34:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D		
Injection Date:	22-Aug-2019 00:47:30	Instrument ID:	MG
Lims ID:	140-16376-A-3	Lab Sample ID:	140-16376-3
Client ID:	SV-102-C-27		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	3.7300
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	6.1		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	9.2		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	*1,1-Dichloroethane*	*98.96*	*990*	*E*	*4.0*	*0.35*
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	400		4.0	0.40
100-41-4	Ethylbenzene	106.17	51		4.0	0.65
75-09-2	Methylene Chloride	84.93	18	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	23		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	4.7	J	6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	0.66	J	4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	280		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	170		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	2.8	J	4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5	J	4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	1.9	J	4.0	1.1
75-01-4	Vinyl chloride	62.50	2.6		2.0	1.3
1330-20-7	Xylenes, Total	106.17	480		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.6	J	13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	30		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	37		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	*1,1-Dichloroethane*	*98.96*	*4000*	*E*	*16*	*1.4*
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	1600		16	1.6
100-41-4	Ethylbenzene	106.17	220		17	2.8
75-09-2	Methylene Chloride	84.93	63	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	120		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	18	J	23	15
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	1500		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	890		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	14	J	20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	17	J	20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	9.5	J	20	5.4
75-01-4	Vinyl chloride	62.50	6.6		5.1	3.3
1330-20-7	Xylenes, Total	106.17	2100		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D
Lims ID: 140-16376-A-4
Client ID: SV-DUP1-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 19:07:30 ALS Bottle#: 5 Worklist Smp#: 30
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-009
Misc. Info.: 140-16376-a-5
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:19:05 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:19:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.539	0.010	97	210919	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	96	1226735	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.570	0.006	89	1081918	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	89	716994	3.84	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	34	2673	0.0148	
12 Vinyl chloride	62	3.836	3.826	0.010	45	4035	0.0520	
27 1,1-Dichloroethene	96	5.627	5.616	0.011	95	587179	8.10	
31 Methylene Chloride	84	5.972	5.972	0.000	97	27218	0.3651	
34 trans-1,2-Dichloroethene	96	6.797	6.781	0.016	27	1012	0.0133	
37 1,1-Dichloroethane	63	7.217	7.212	0.005	100	2862469	19.8	E
42 cis-1,2-Dichloroethene	96	8.210	8.199	0.011	96	15968	0.1849	
44 Chloroform	83	8.555	8.555	0.000	29	21702	0.1223	
47 1,1,1-Trichloroethane	97	9.595	9.590	0.005	95	1084050	5.56	
49 Benzene	78	10.210	10.199	0.011	68	7232	0.0291	
58 Trichloroethene	130	11.504	11.499	0.005	94	363406	3.33	
67 Toluene	91	13.591	13.586	0.005	93	25968	0.0933	
76 Ethylbenzene	91	15.910	15.905	0.005	99	395635	1.01	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	2219351	7.24	
80 o-Xylene	91	16.595	16.595	0.000	99	786462	2.44	
87 1,3,5-Trimethylbenzene	120	17.975	17.997	-0.022	92	7003	0.0386	
92 1,2,4-Trimethylbenzene	105	18.433	18.450	-0.017	97	29114	0.0692	
98 1,2,3-Trimethylbenzene	105	18.924	18.935	-0.011	98	23157	0.0560	
109 Naphthalene	128	21.060	21.065	-0.005	99	248267	0.4504	
S 116 Xylenes, Total	100				0		9.68	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

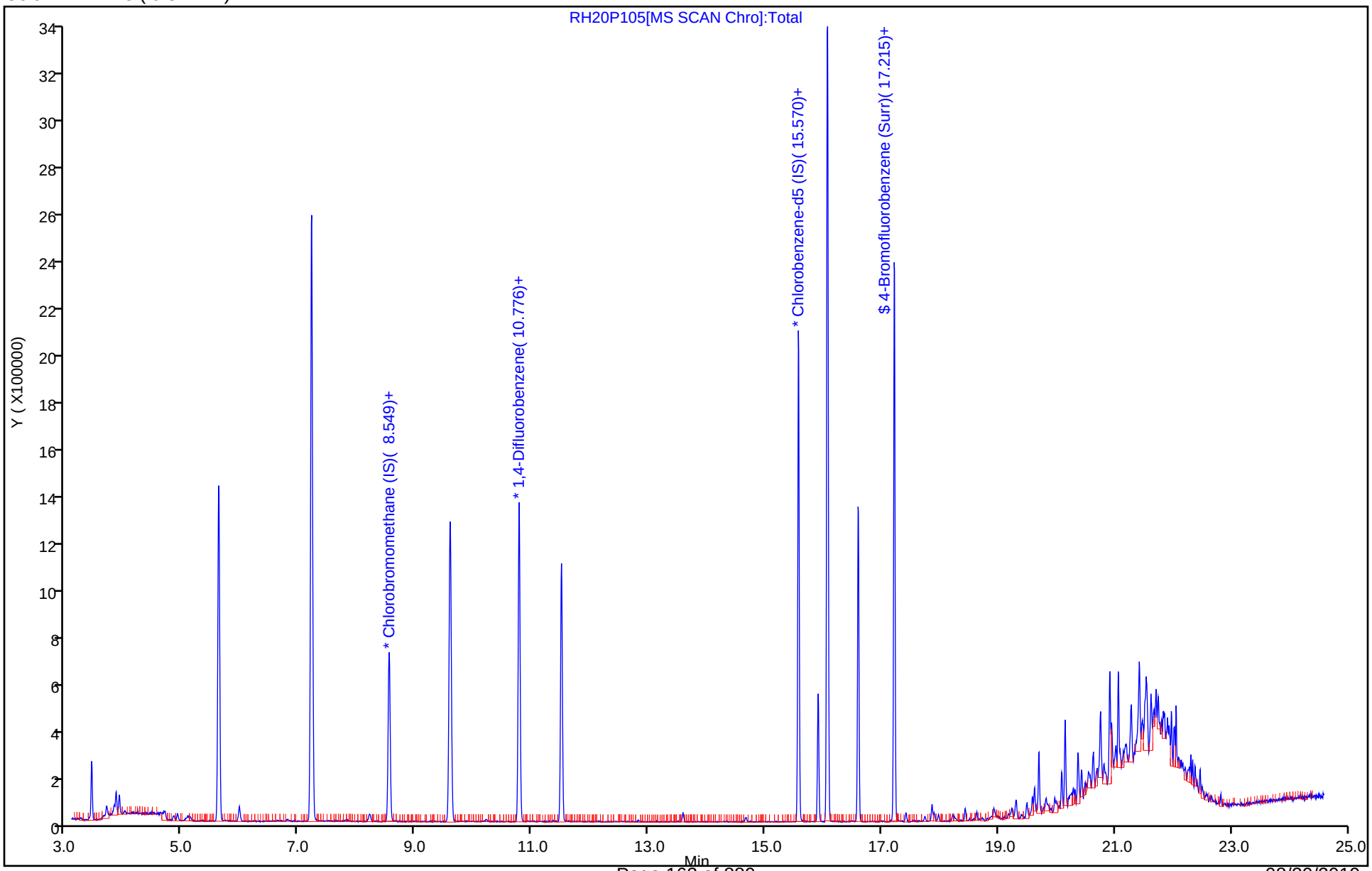
Report Date: 22-Aug-2019 10:19:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4	Worklist Smp#:	30
Client ID:	SV-DUP1-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D				
Lims ID:	140-16376-A-4				
Client ID:	SV-DUP1-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 19:07:30	ALS Bottle#:	5	Worklist Smp#:	30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-009				
Misc. Info.:	140-16376-a-5				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:19:05	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:19:04		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.84	96.10

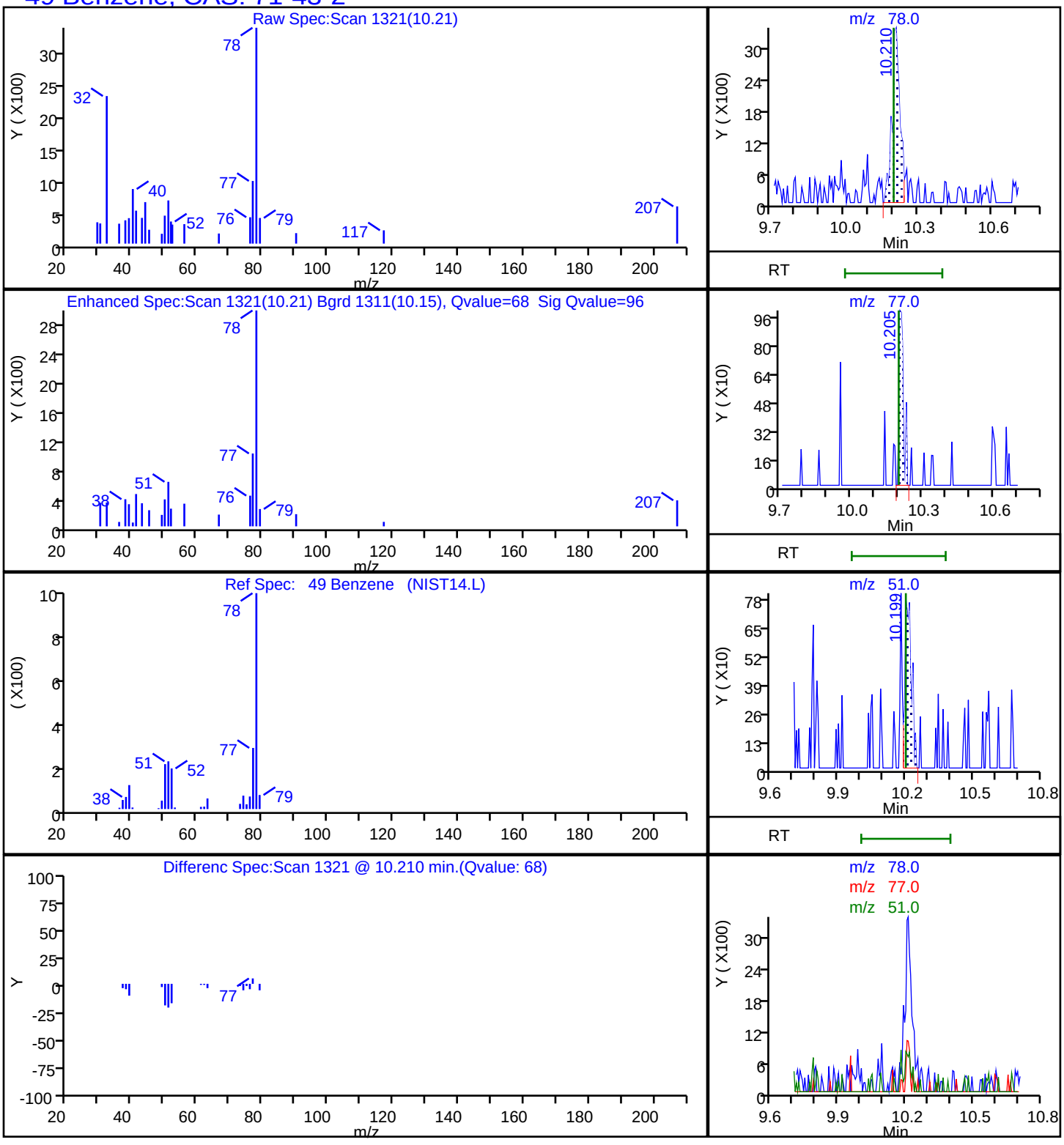
Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date: 20-Aug-2019 19:07:30 Instrument ID: MR

Lims ID: 140-16376-A-4 Lab Sample ID: 140-16376-4

Client ID: SV-DUP1-C-27

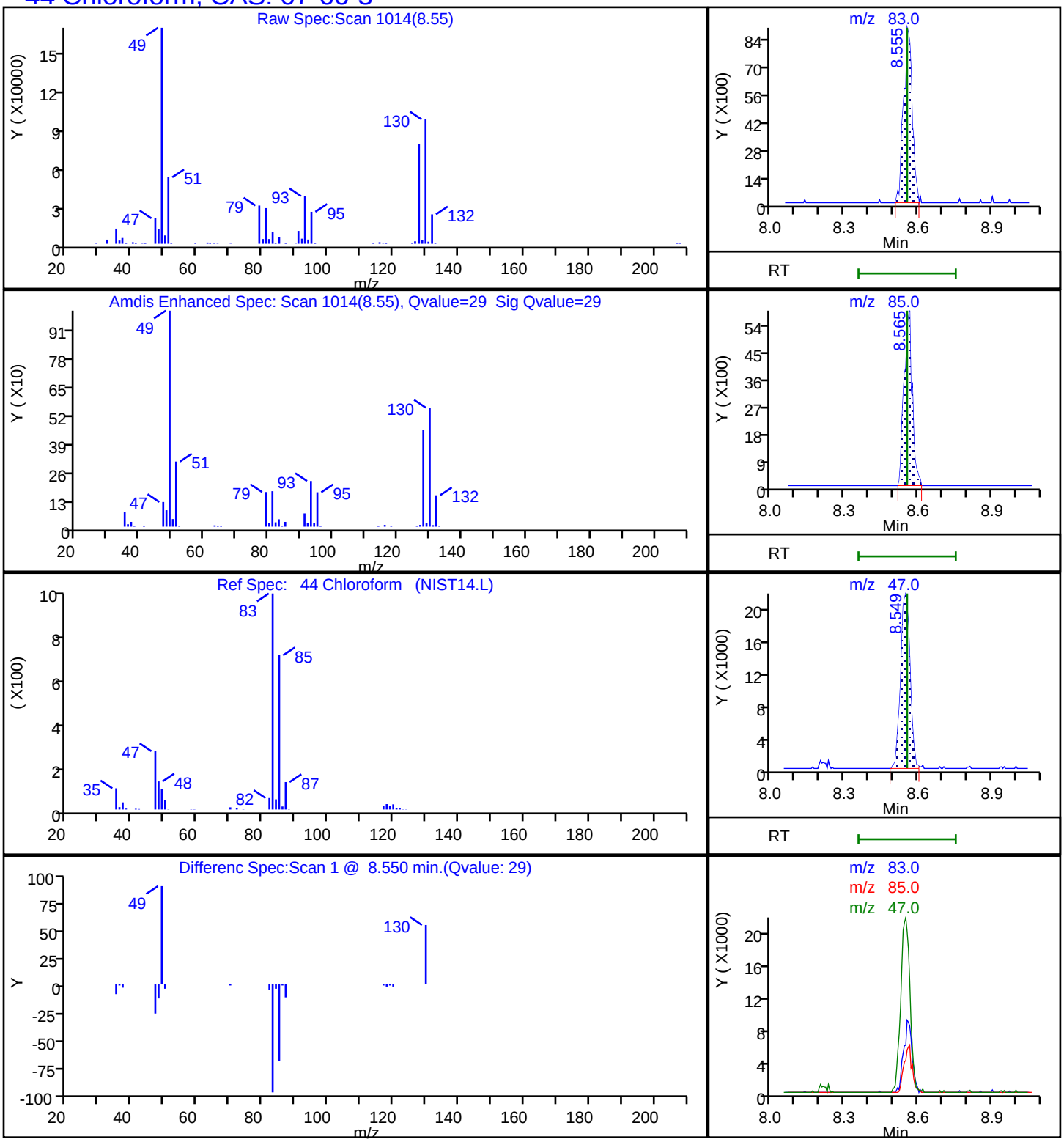
Operator ID: ALS Bottle#: 5 Worklist Smp#: 30

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

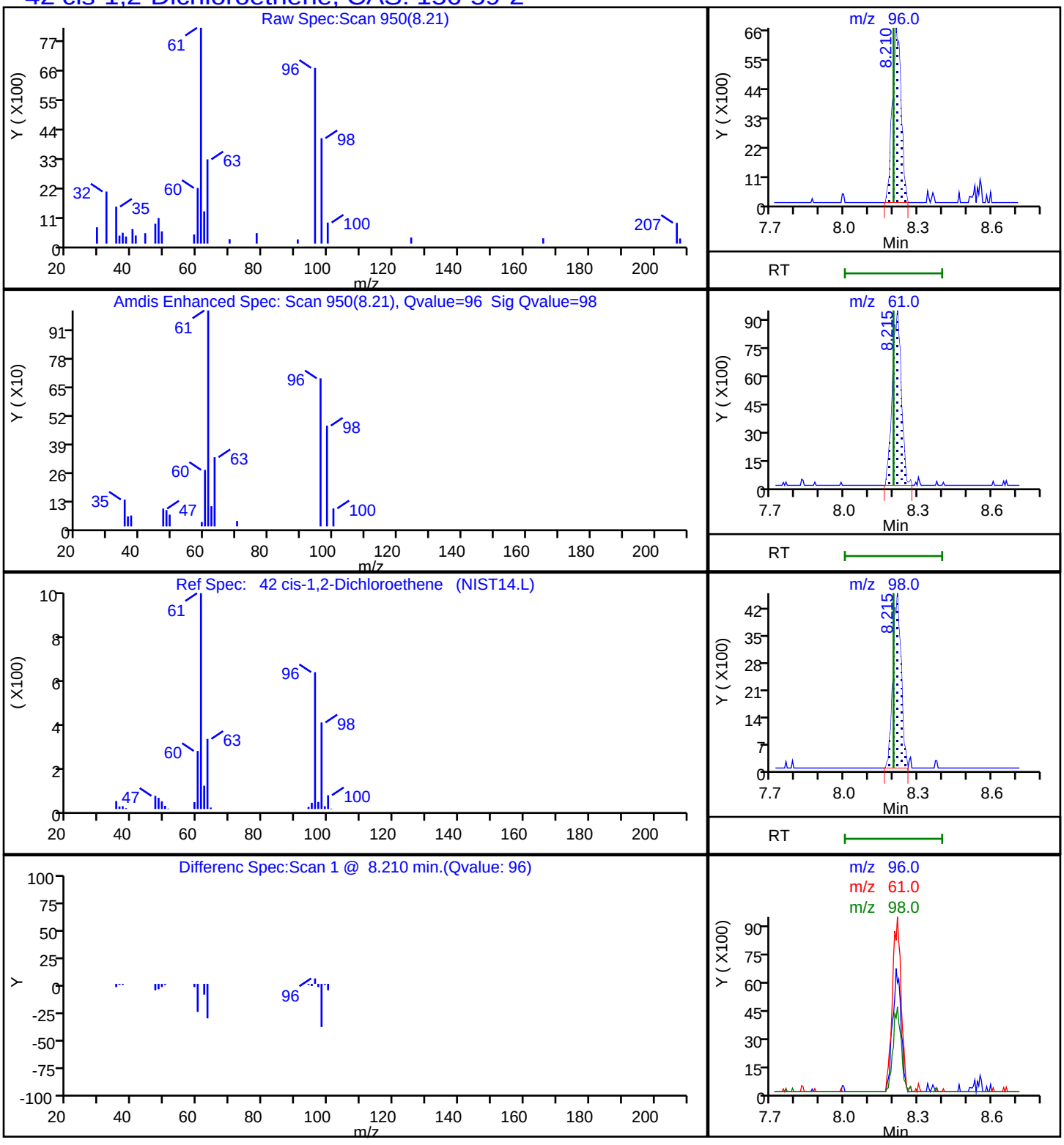
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

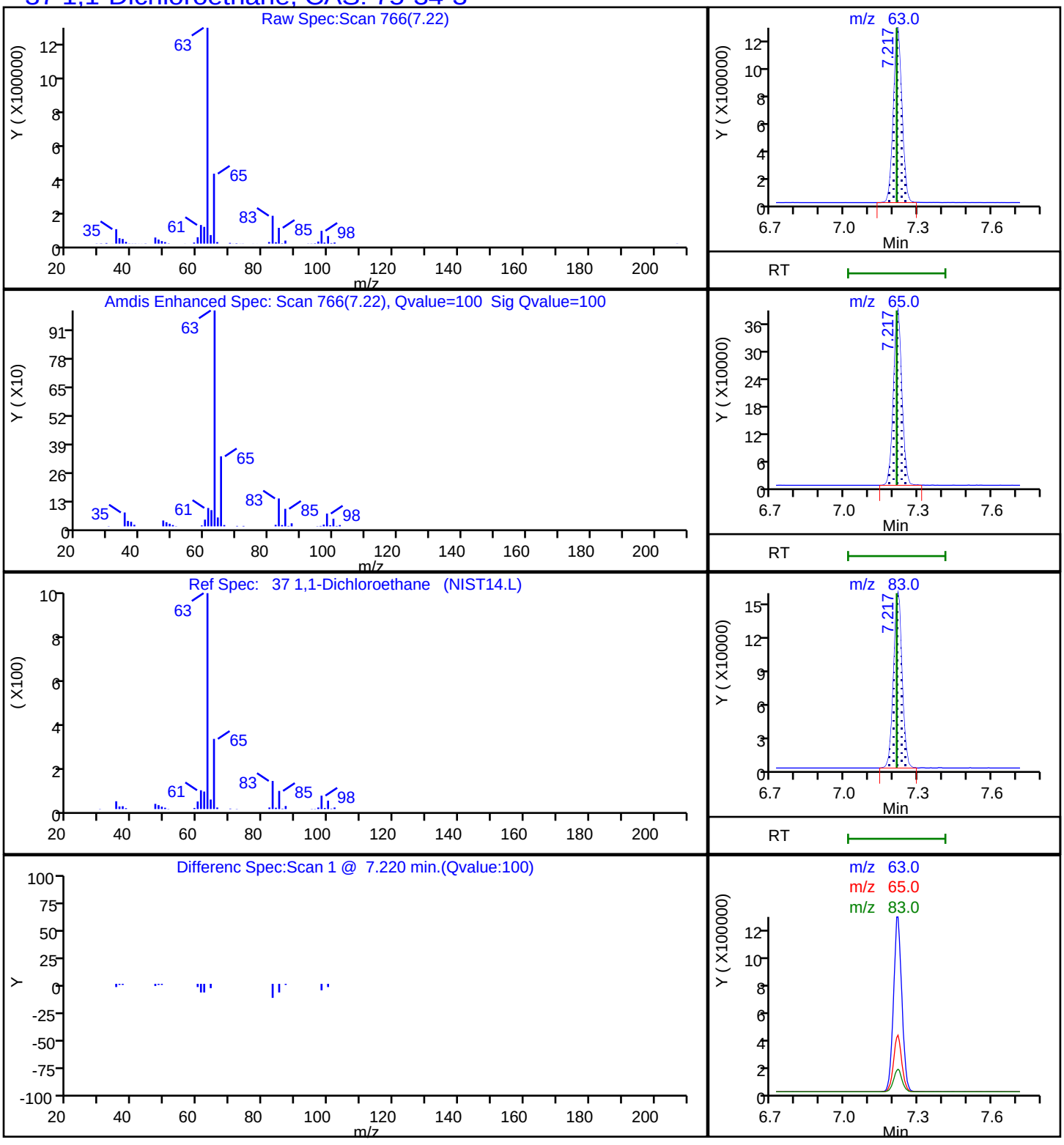


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date: 20-Aug-2019 19:07:30 Instrument ID: MR

Lims ID: 140-16376-A-4 Lab Sample ID: 140-16376-4

Client ID: SV-DUP1-C-27

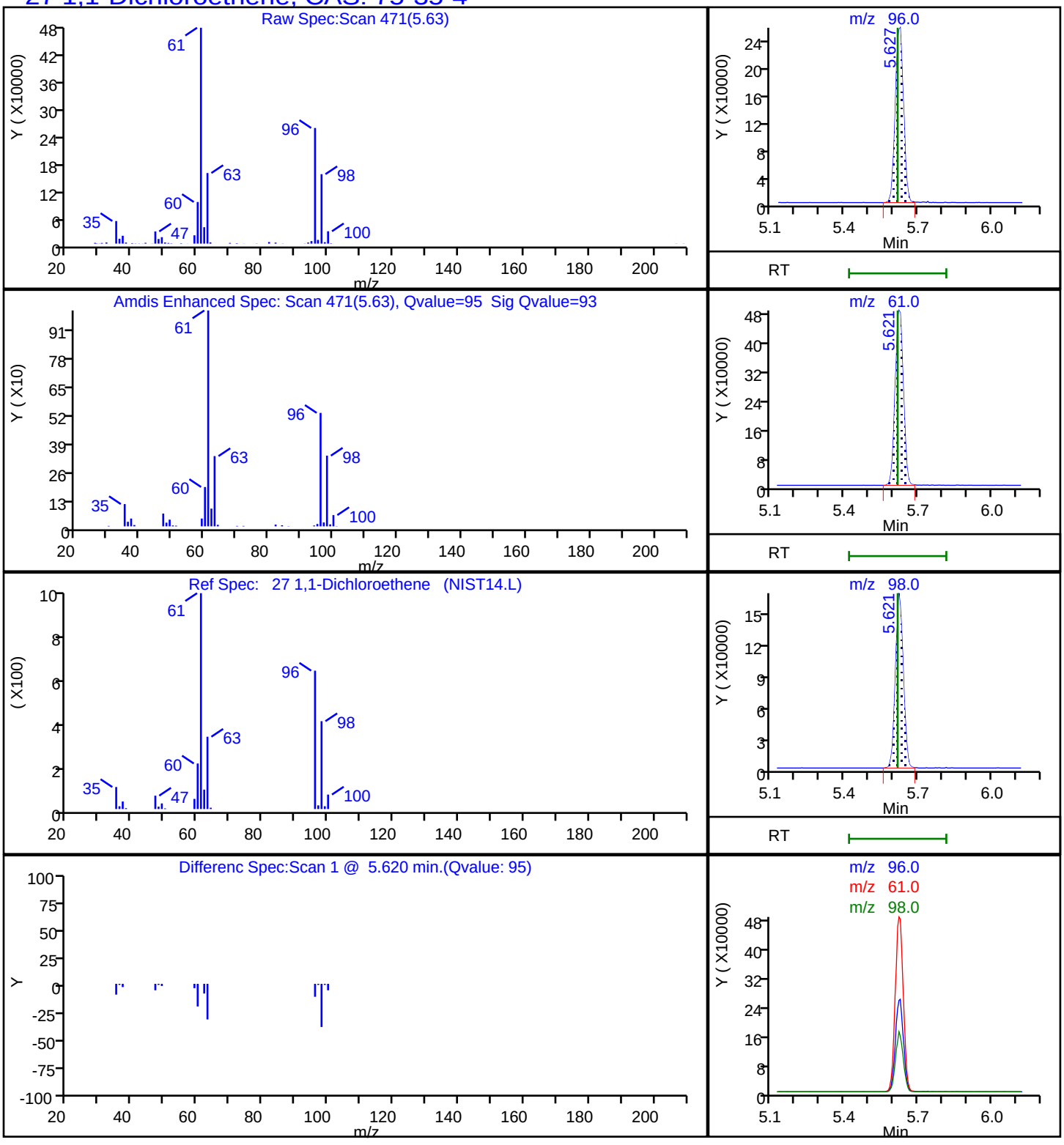
Operator ID: ALS Bottle#: 5 Worklist Smp#: 30

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

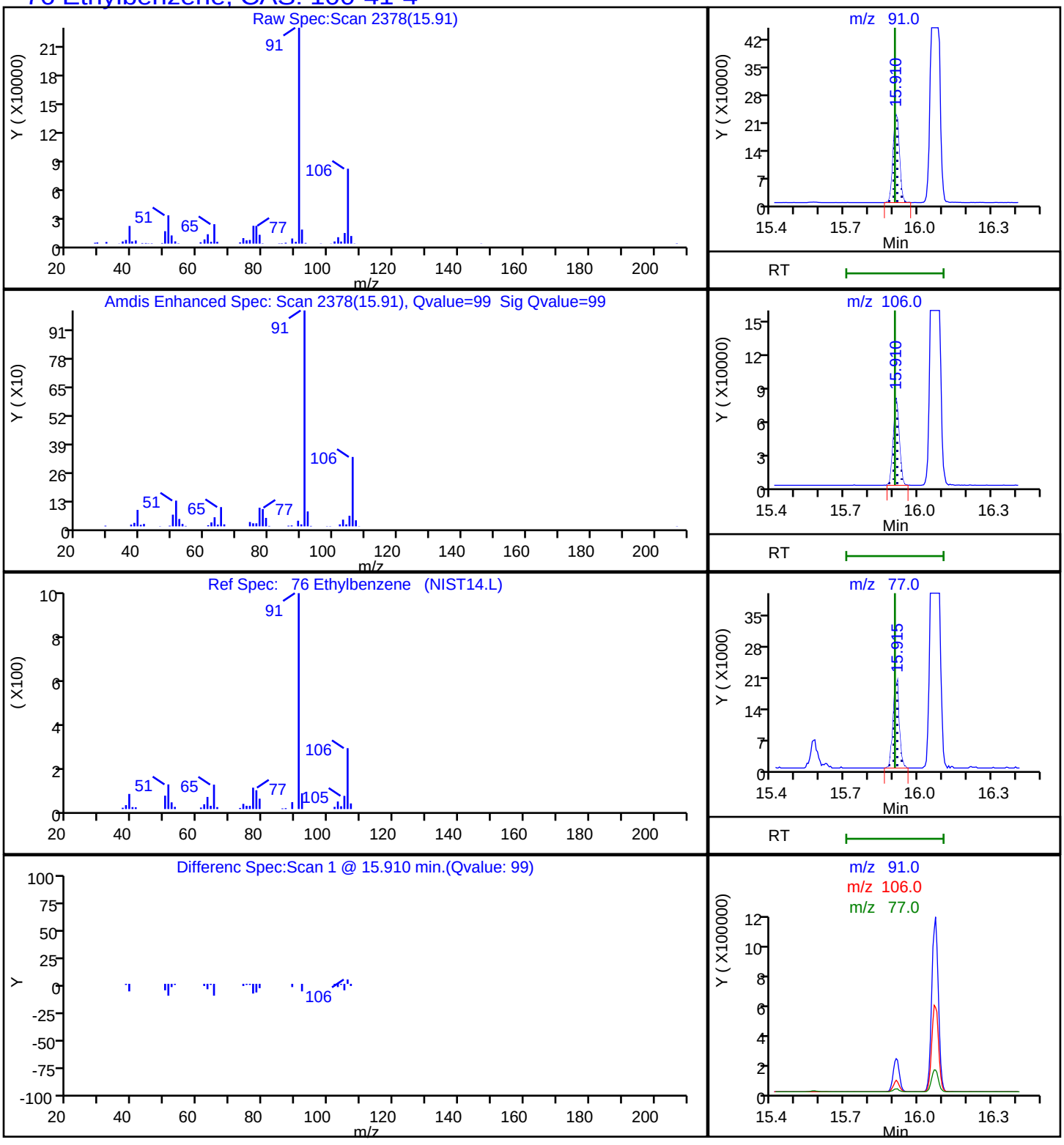
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
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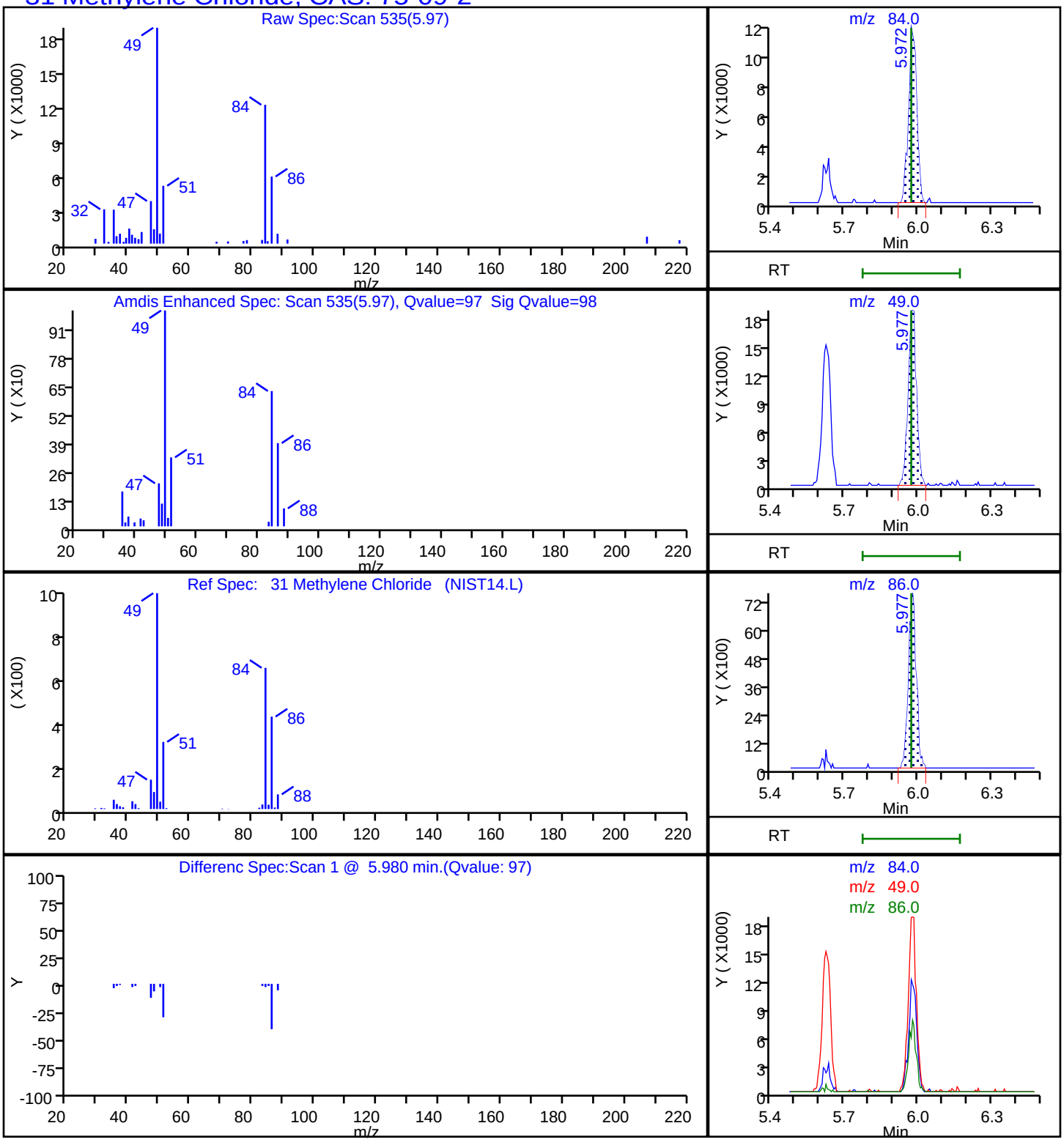
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date: 20-Aug-2019 19:07:30 Instrument ID: MR

Lims ID: 140-16376-A-4 Lab Sample ID: 140-16376-4

Client ID: SV-DUP1-C-27

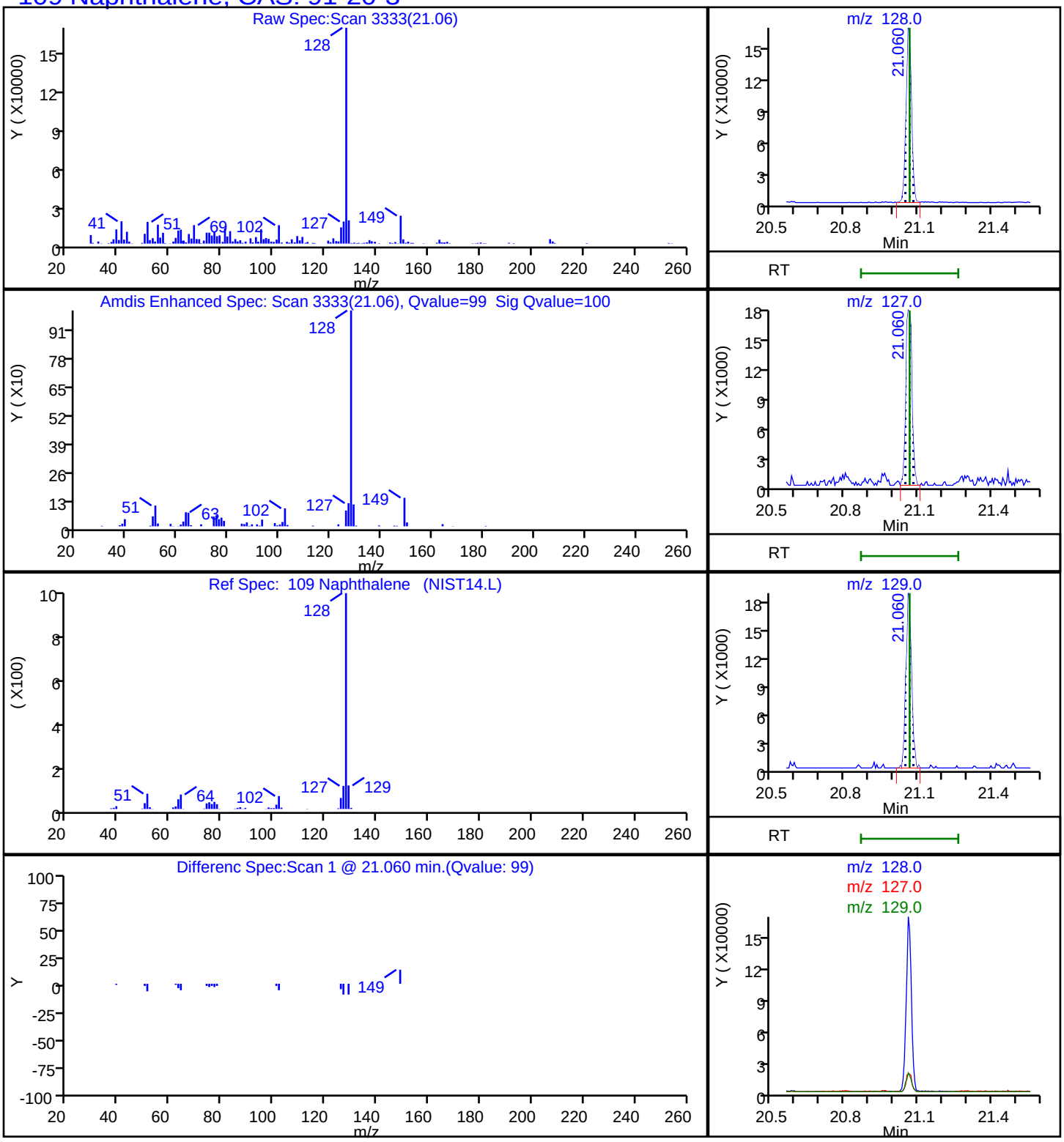
Operator ID: ALS Bottle#: 5 Worklist Smp#: 30

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

109 Naphthalene, CAS: 91-20-3

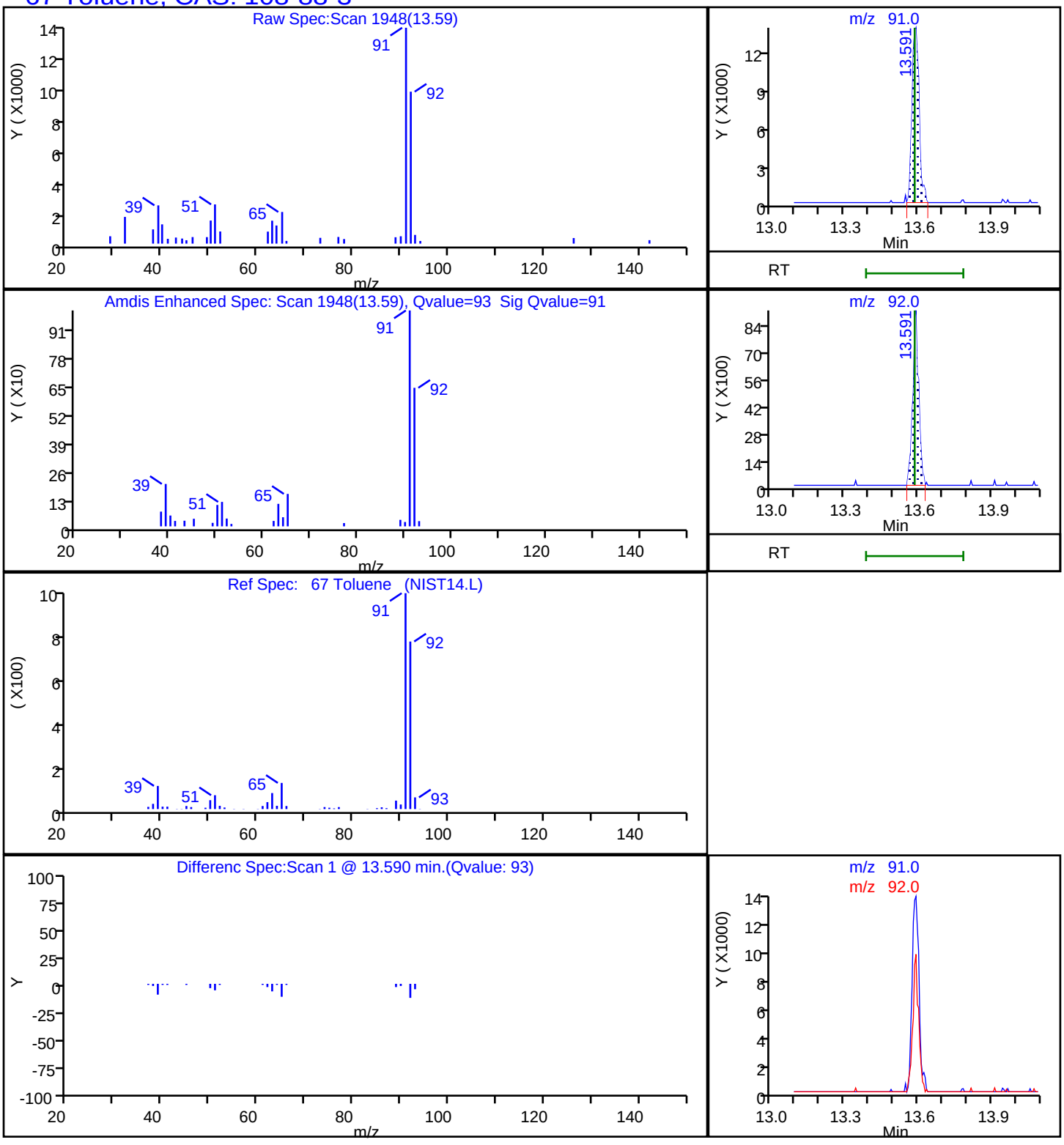


Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date: 20-Aug-2019 19:07:30 Instrument ID: MR

Lims ID: 140-16376-A-4 Lab Sample ID: 140-16376-4

Client ID: SV-DUP1-C-27

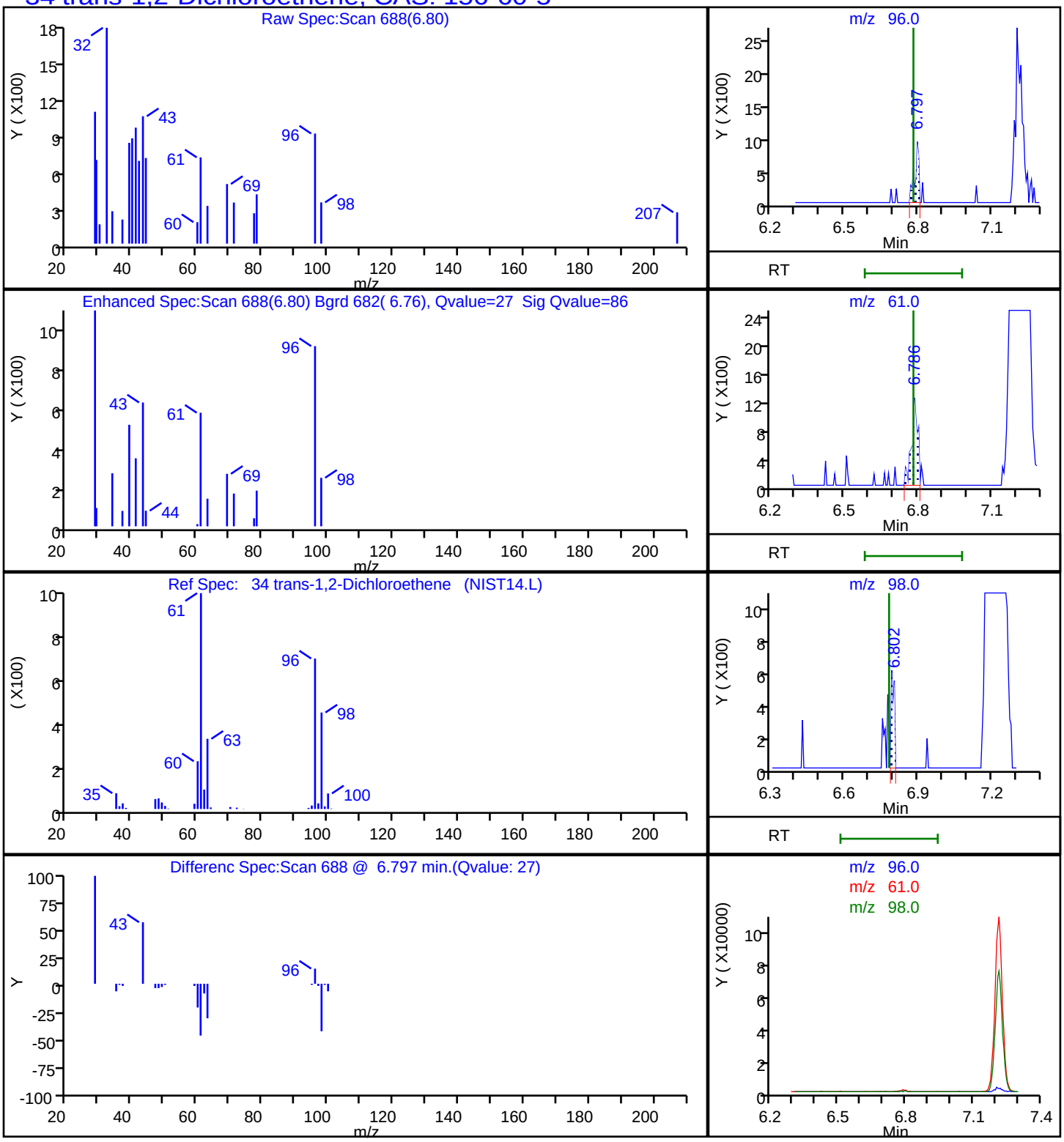
Operator ID: ALS Bottle#: 5 Worklist Smp#: 30

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

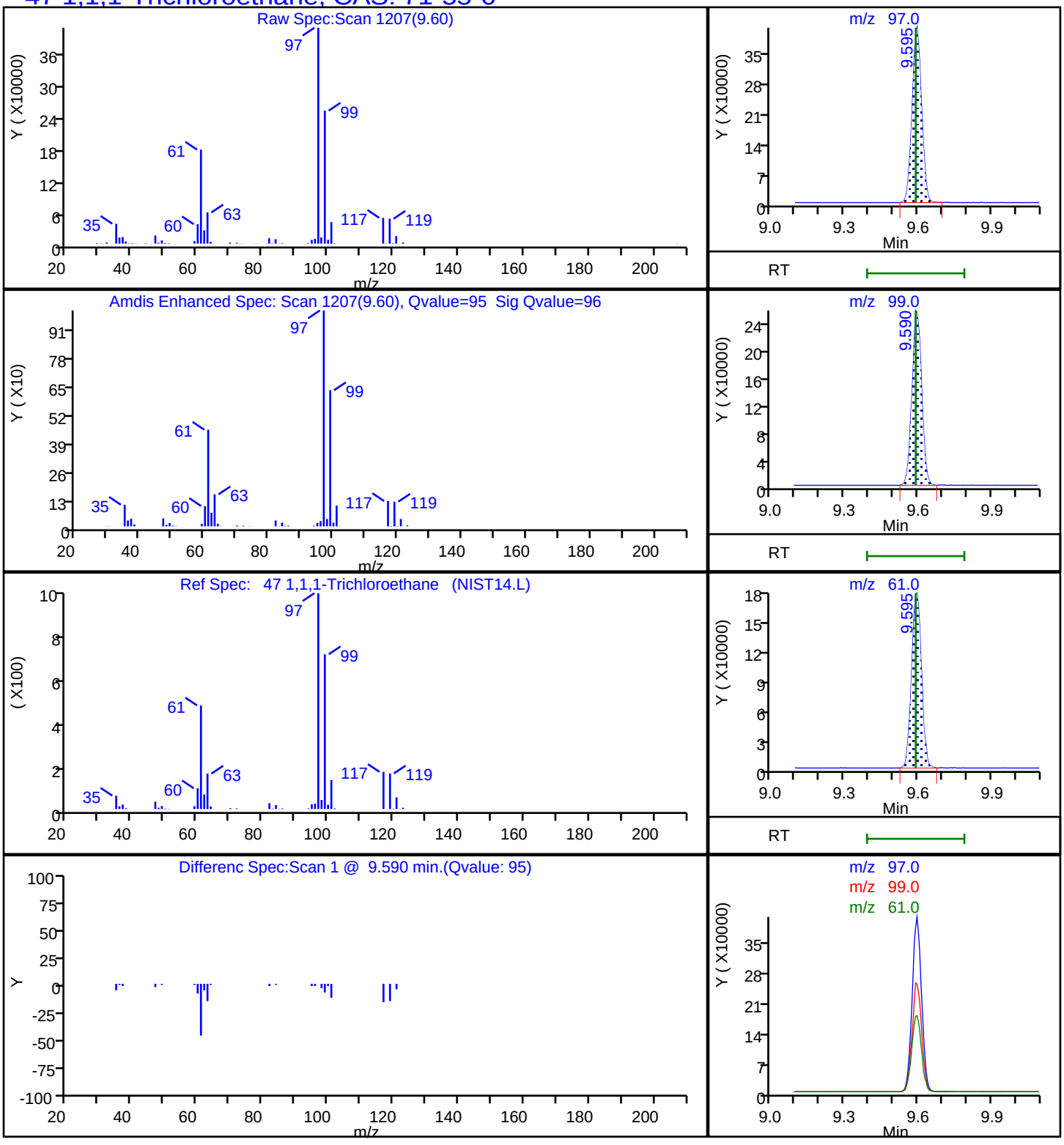
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

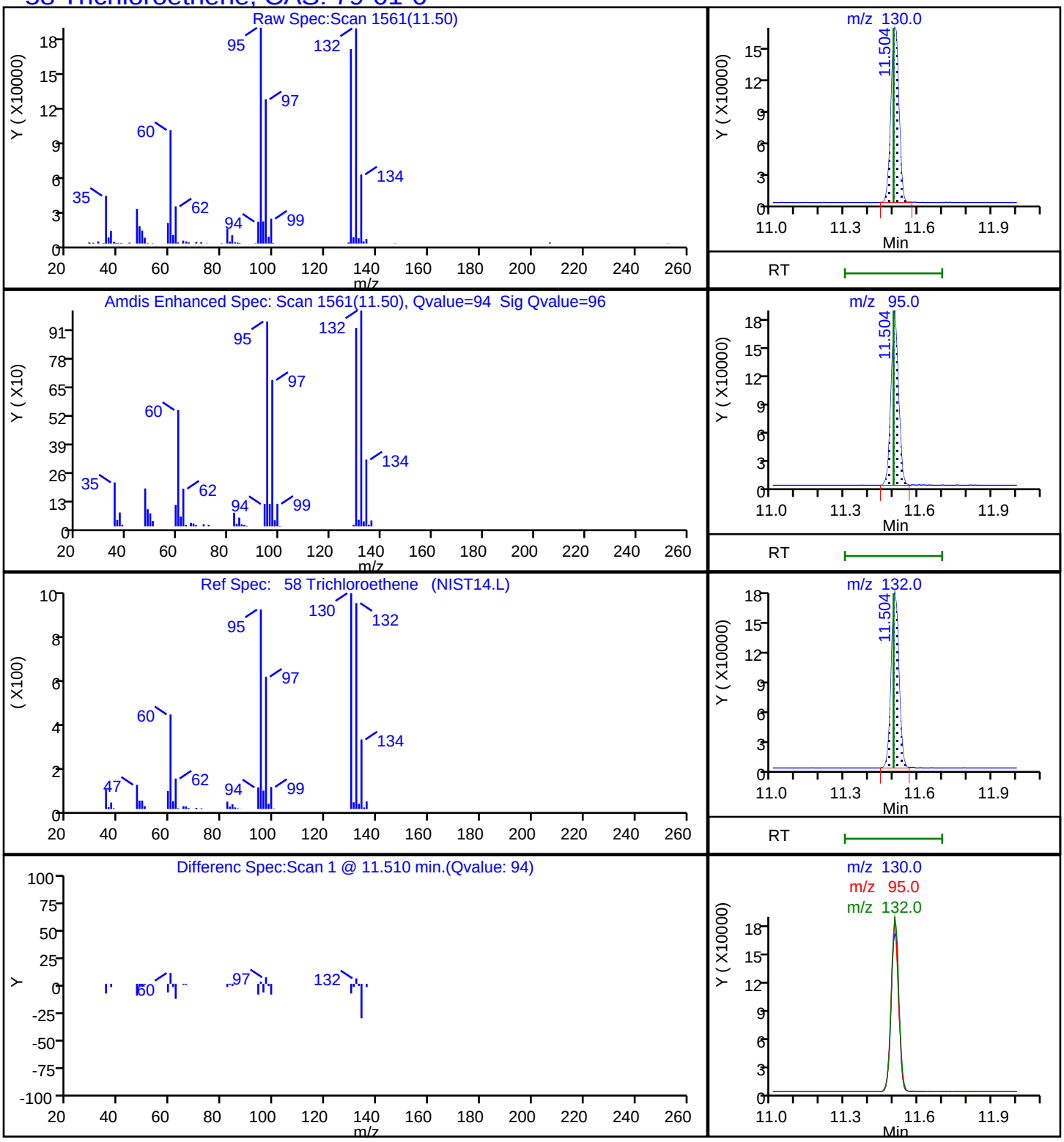


Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

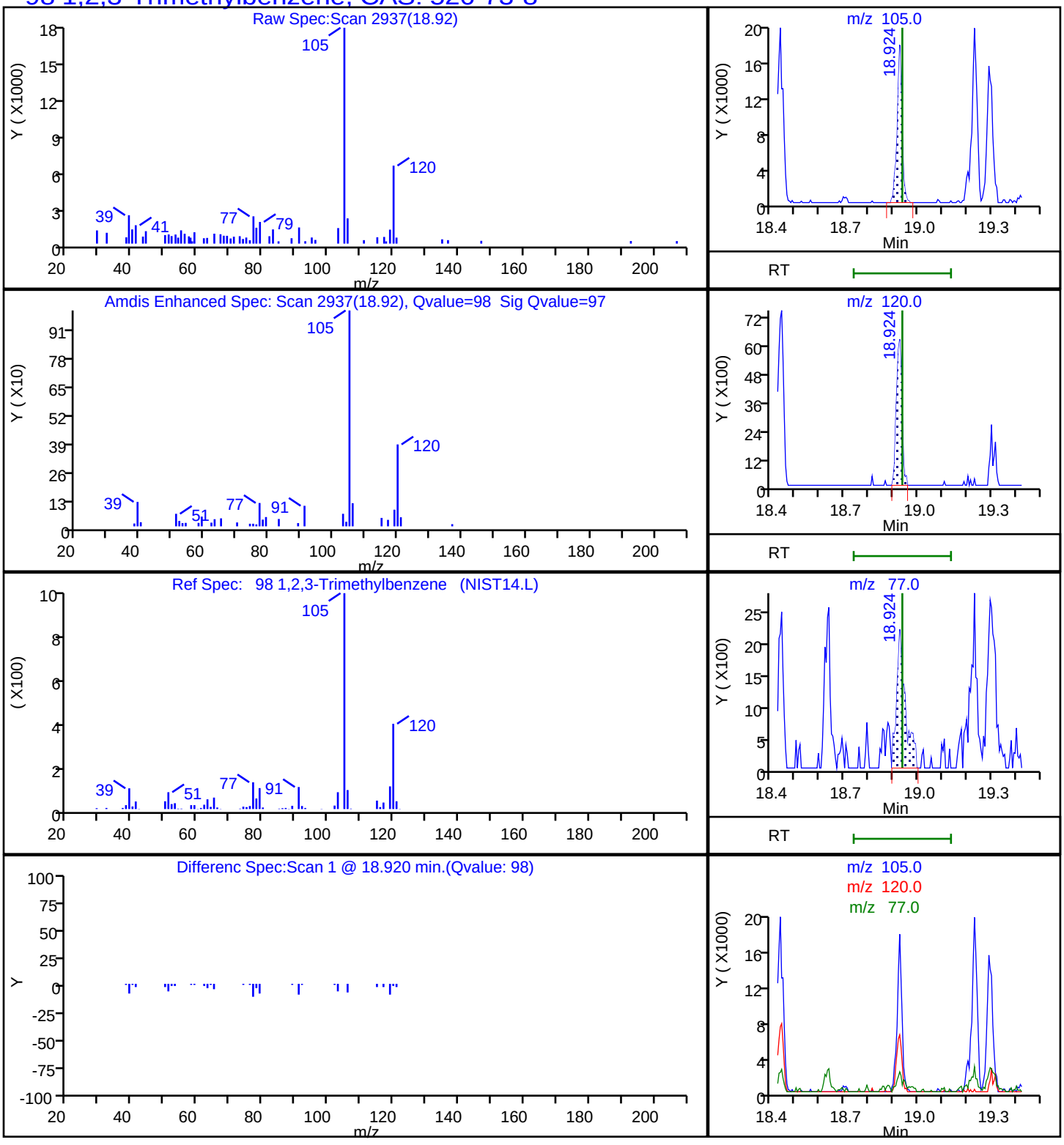
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

98 1,2,3-Trimethylbenzene, CAS: 526-73-8

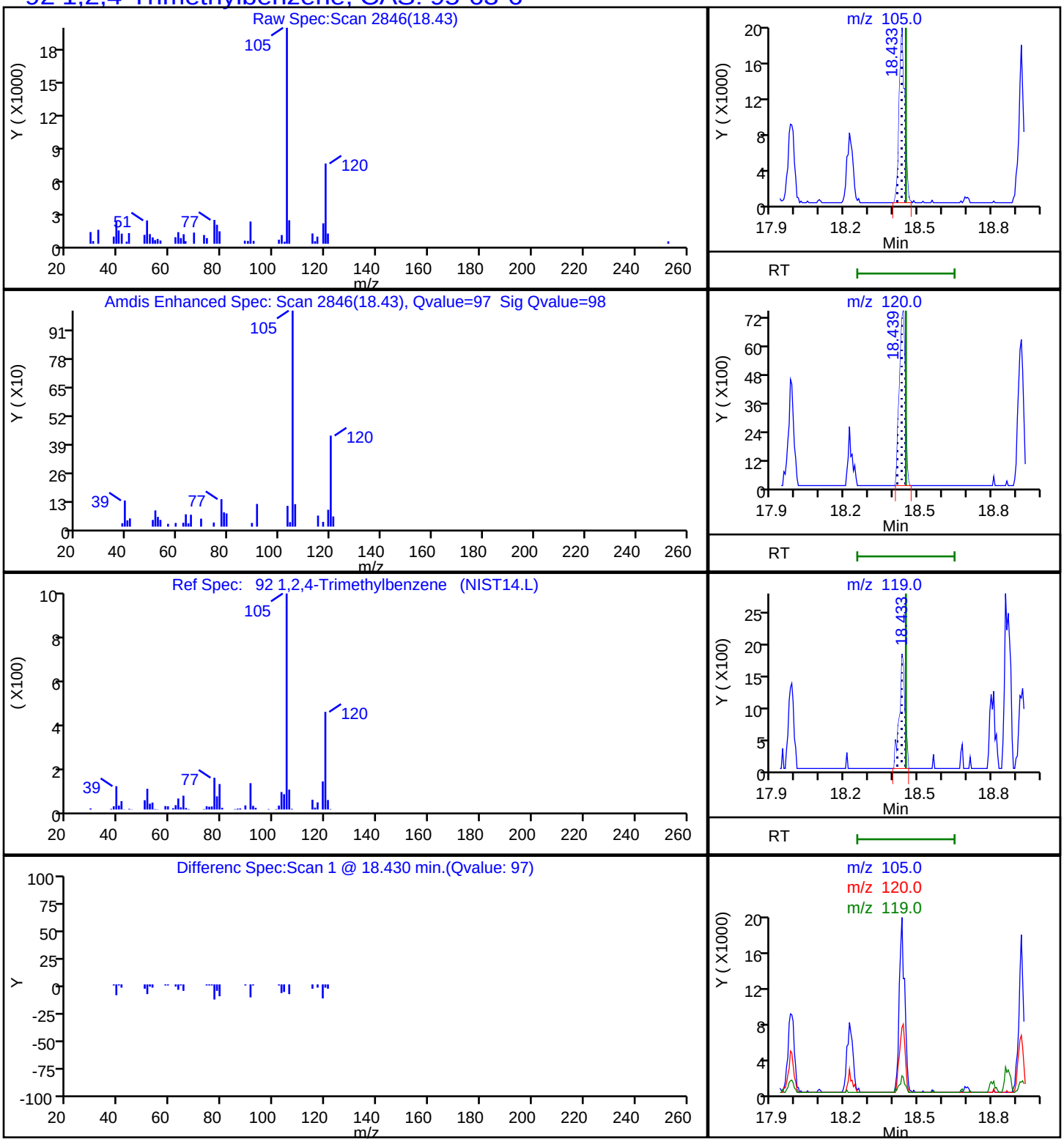


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D

Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

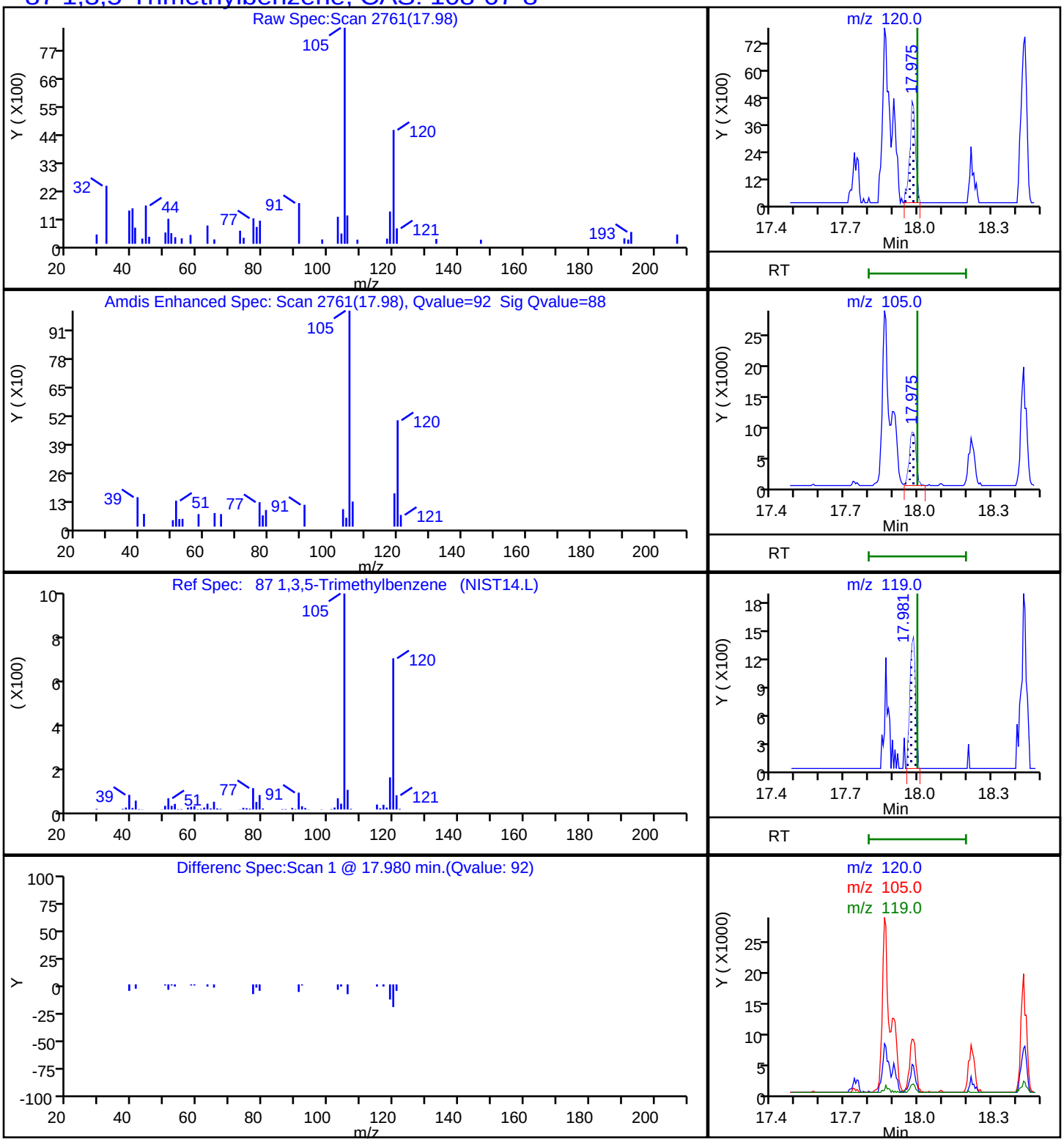
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

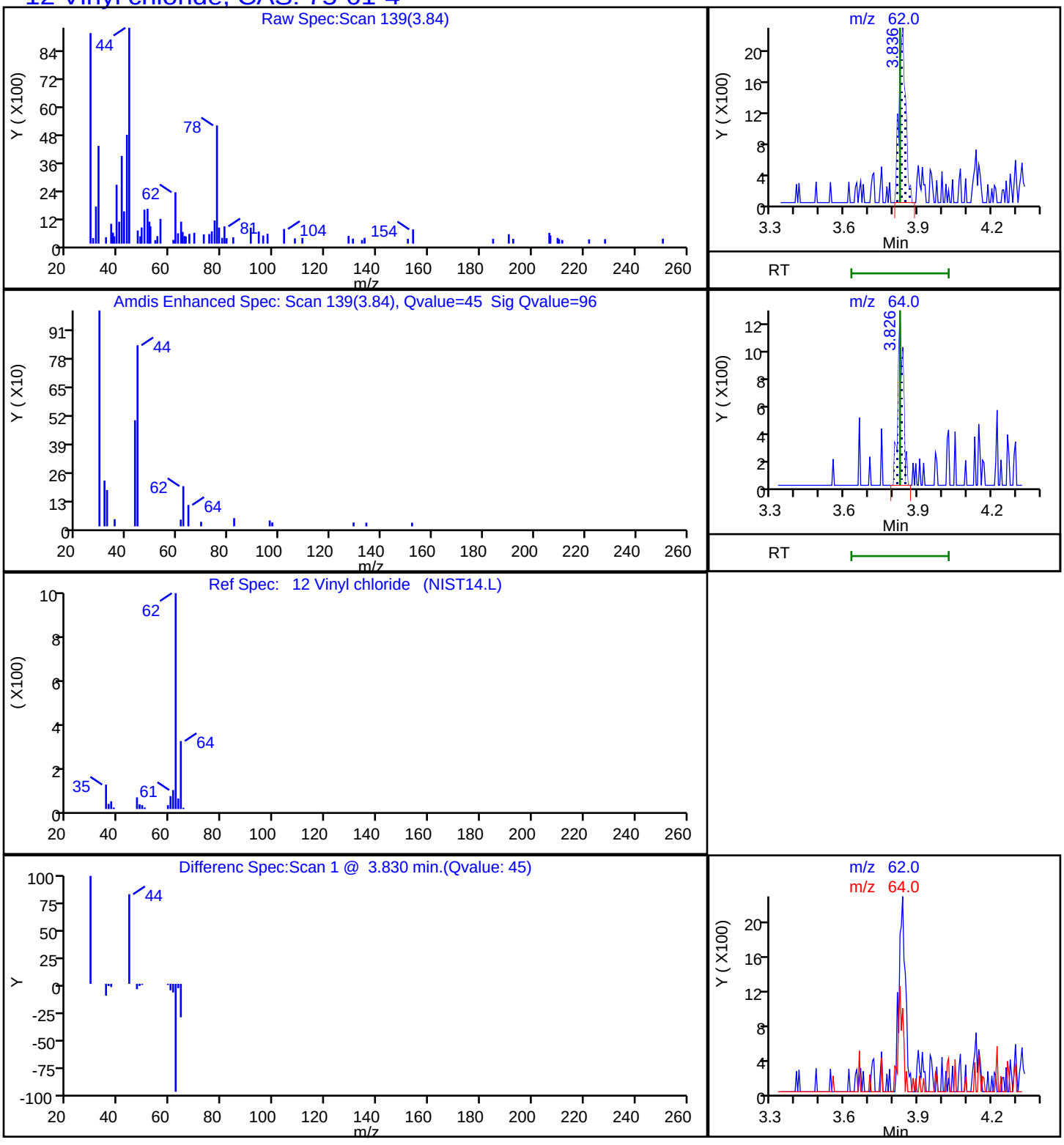
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

12 Vinyl chloride, CAS: 75-01-4

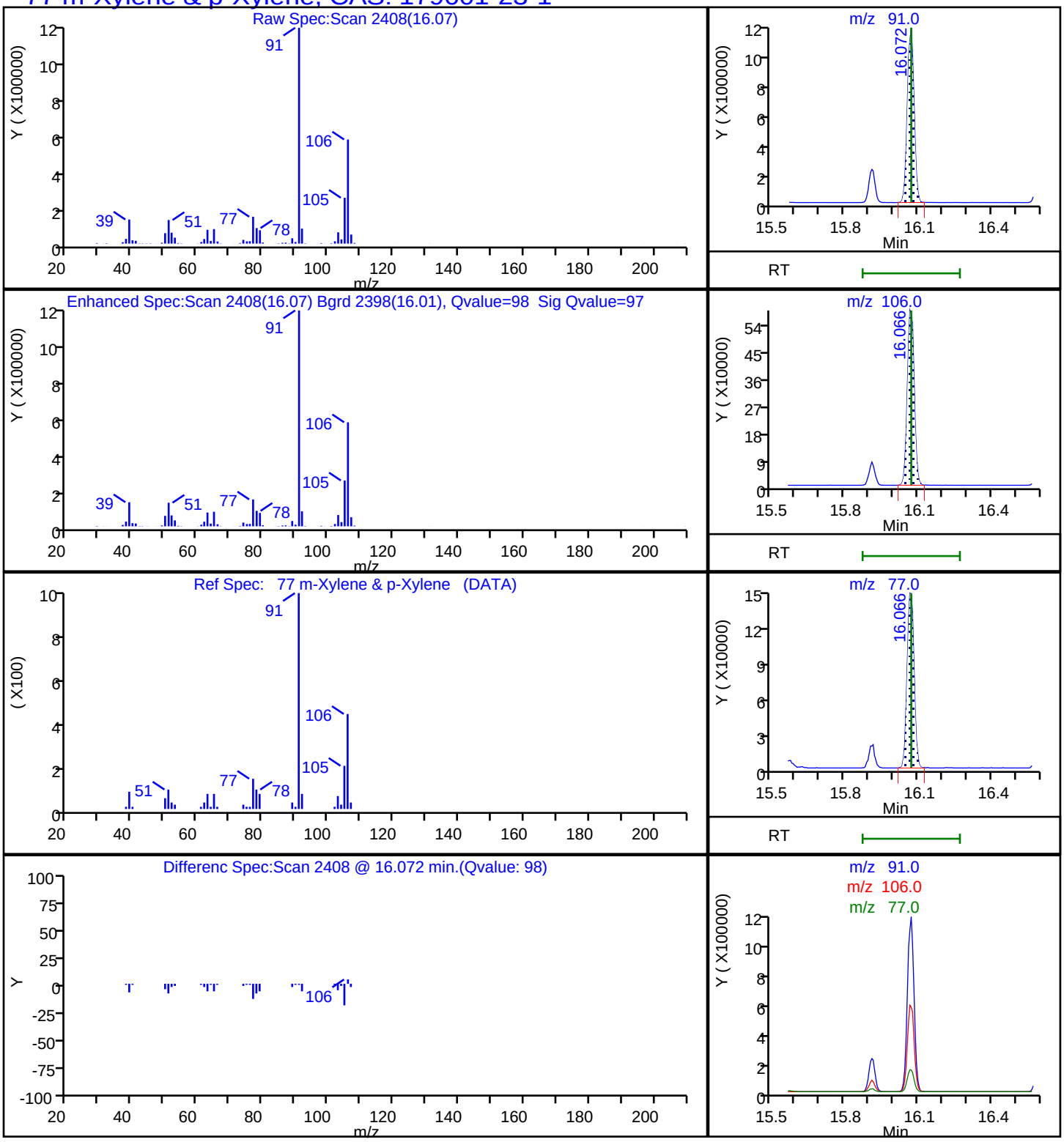


Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

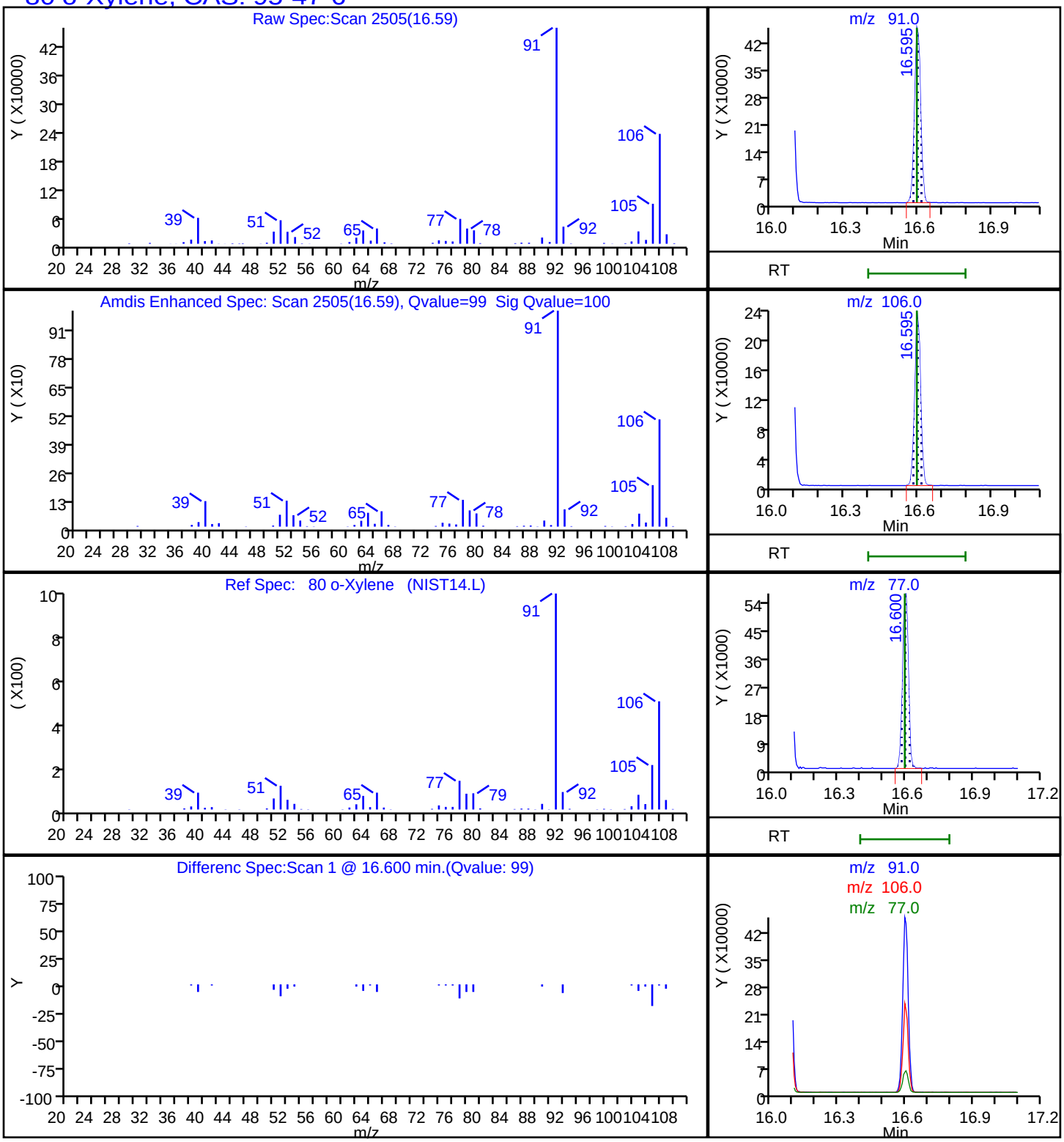


Report Date: 22-Aug-2019 10:19:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D		
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4
Client ID:	SV-DUP1-C-27		
Operator ID:		ALS Bottle#:	5 Worklist Smp#: 30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



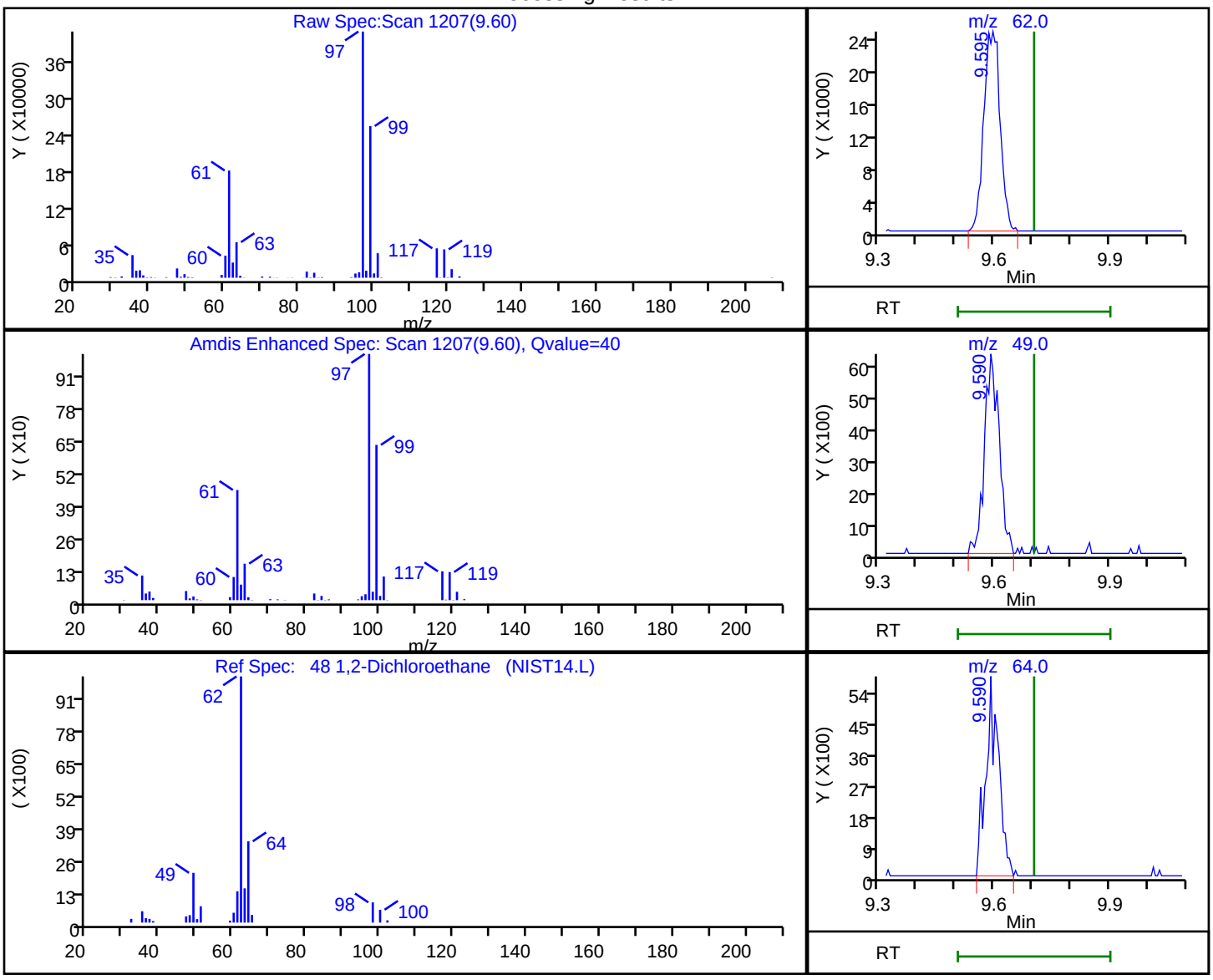
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P105.D				
Injection Date:	20-Aug-2019 19:07:30	Instrument ID:	MR		
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4		
Client ID:	SV-DUP1-C-27				
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	30
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
9.60	62.00	73991	0.626940
9.59	49.00	17029	
9.59	64.00	13587	

Reviewer: khachitpongpanits, 22-Aug-2019 10:17:26

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	940		13	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	3800		52	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P112.D
Lims ID: 140-16376-A-4
Client ID: SV-DUP1-C-27
Sample Type: Client
Inject. Date: 22-Aug-2019 01:29:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 3.5300
Sample Info: 140-0012774-017
Misc. Info.: 140-16376-a-4@3.53
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 02:14:08 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 15:35:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.135	9.146	-0.011	69	639127	4.00	
* 2 1,4-Difluorobenzene	114	11.303	11.313	-0.010	92	3004501	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.983	15.989	-0.006	83	3093212	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	98	1892986	3.52	
27 1,1-Dichloroethene	96	6.174	6.178	-0.011	96	754348	4.14	
31 Methylene Chloride	84	6.536	6.539	-0.011	77	36503	0.2061	
34 trans-1,2-Dichloroethene	96	7.377	7.368	0.000	34	2219	0.0122	
37 1,1-Dichloroethane	63	7.798	7.799	-0.010	99	2045575	5.85	
42 cis-1,2-Dichloroethene	96	8.795	8.801	-0.016	83	18319	0.0979	
44 Chloroform	83	9.140	9.146	-0.016	89	23784	0.0548	
47 1,1,1-Trichloroethane	97	10.186	10.180	-0.006	94	1224676	2.36	
50 Benzene	78	10.774	10.775	-0.011	96	6810	0.0152	
58 Trichloroethene	130	12.009	12.008	-0.011	96	530652	2.12	
67 Toluene	91	14.031	14.032	-0.006	94	30344	0.0499	
78 Ethylbenzene	91	16.312	16.312	-0.006	97	456422	0.5667	
79 m-Xylene & p-Xylene	91	16.474	16.474	-0.005	96	2413010	3.83	
83 o-Xylene	91	16.997	16.997	-0.005	98	964168	1.41	
90 1,3,5-Trimethylbenzene	120	18.323	18.317	-0.001	95	12143	0.0318	
95 1,2,4-Trimethylbenzene	105	18.749	18.743	0.000	96	39129	0.0482	
112 Naphthalene	128	21.284	21.277	0.000	99	295181	0.2994	
S 124 Xylenes, Total	100				0		5.24	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

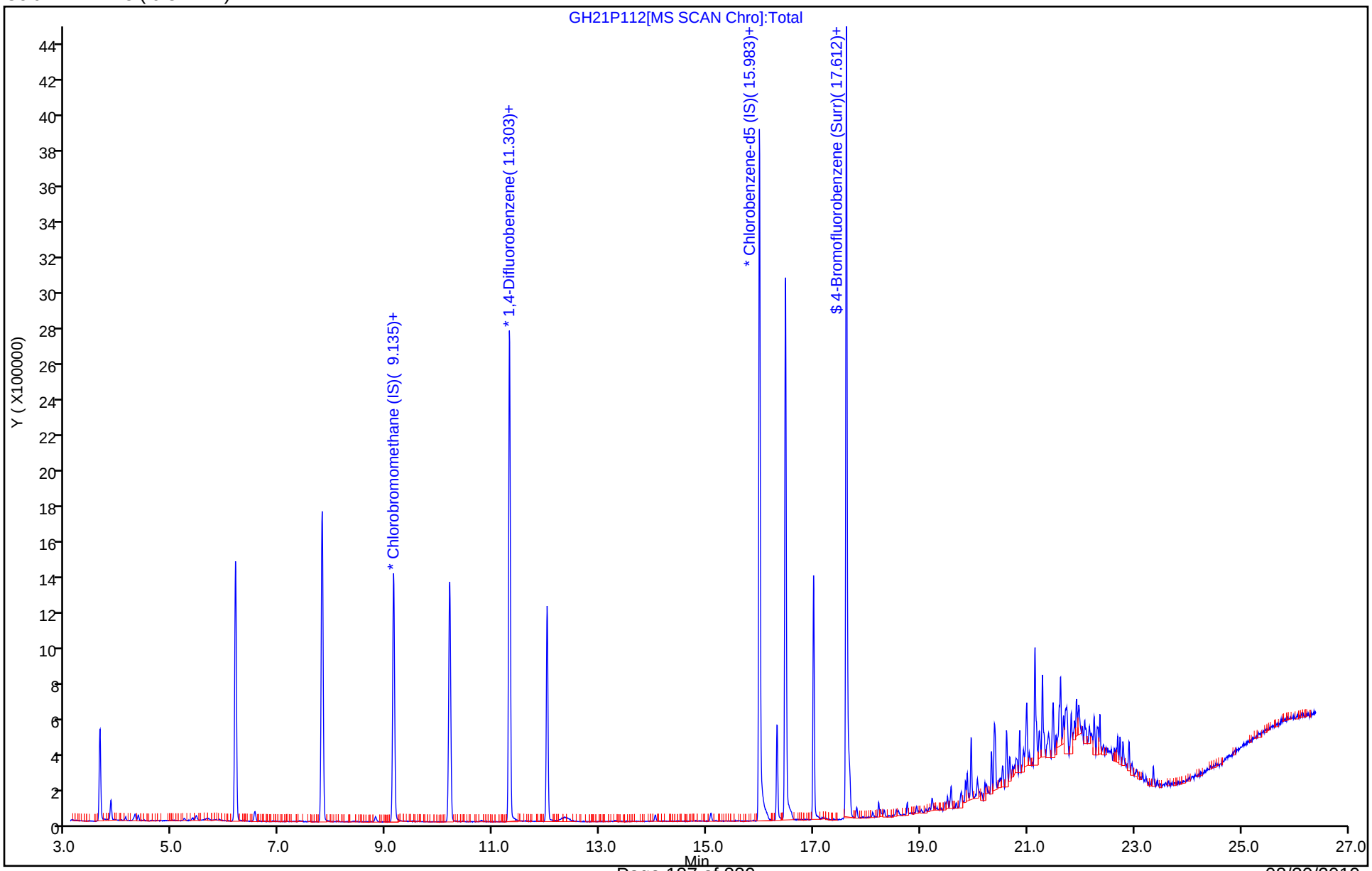
Report Date: 22-Aug-2019 15:35:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P112.D

Injection Date:	22-Aug-2019 01:29:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4	Worklist Smp#:	17
Client ID:	SV-DUP1-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	3.5300	ALS Bottle#:	12
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P112.D				
Lims ID:	140-16376-A-4				
Client ID:	SV-DUP1-C-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 01:29:30	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	3.5300		
Sample Info:	140-0012774-017				
Misc. Info.:	140-16376-a-4@3.53				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 02:14:08	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 15:35:43		

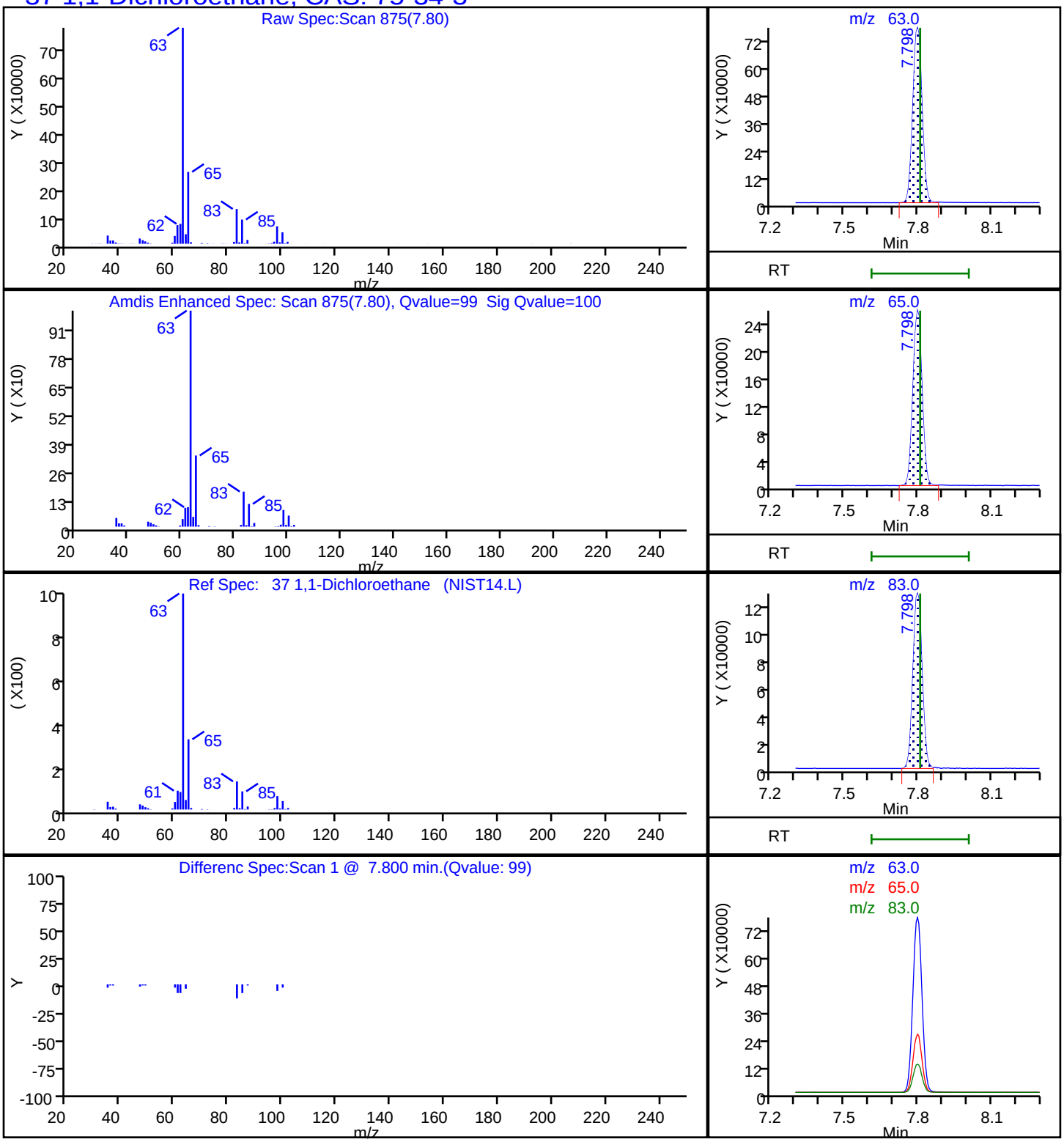
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.52	88.07

Report Date: 22-Aug-2019 15:35:43 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P112.D				
Injection Date:	22-Aug-2019 01:29:30	Instrument ID:	MG		
Lims ID:	140-16376-A-4	Lab Sample ID:	140-16376-4		
Client ID:	SV-DUP1-C-27				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	3.5300		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.17	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.17	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	2.1		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.49		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.43		0.40	0.035
108-88-3	Toluene	92.14	0.72		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.5		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.1		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.34	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.67	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	1.1	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.3		1.4	0.39
67-66-3	Chloroform	119.38	0.81	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	19		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	8.4		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.1		1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.9		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	7.9		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.7	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	17		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D
Lims ID: 140-16376-A-5
Client ID: SV-155-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 19:57:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-009
Misc. Info.: 140-16376-a-5
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:20:19 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:20:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	98	251548	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	1520419	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1277387	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	90	843414	3.83	
6 Chlorodifluoromethane	51	3.432	3.427	0.005	97	100738	0.4687	
8 Dichlorodifluoromethane	85	3.497	3.486	0.011	99	14959	0.0769	
27 1,1-Dichloroethene	96	5.621	5.616	0.005	96	36470	0.4216	
31 Methylene Chloride	84	5.977	5.972	0.005	95	77541	0.8721	
37 1,1-Dichloroethane	63	7.217	7.212	0.005	99	161314	0.9354	
44 Chloroform	83	8.555	8.555	0.000	28	7023	0.0332	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	94	67669	0.2908	
49 Benzene	78	10.205	10.199	0.006	93	12957	0.0421	
52 Carbon tetrachloride	117	10.232	10.226	0.006	76	8223	0.0334	
58 Trichloroethene	130	11.499	11.499	0.000	95	29913	0.2209	
67 Toluene	91	13.586	13.586	0.000	94	47562	0.1447	
73 Tetrachloroethene	129	14.734	14.740	-0.006	90	11602	0.0864	
76 Ethylbenzene	91	15.910	15.905	0.005	98	44767	0.0971	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	193538	0.5346	
80 o-Xylene	91	16.600	16.595	0.005	96	79913	0.2102	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	95	33749	0.0680	
109 Naphthalene	128	21.065	21.065	0.000	99	34593	0.0532	
S 116 Xylenes, Total	100				0		0.7449	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

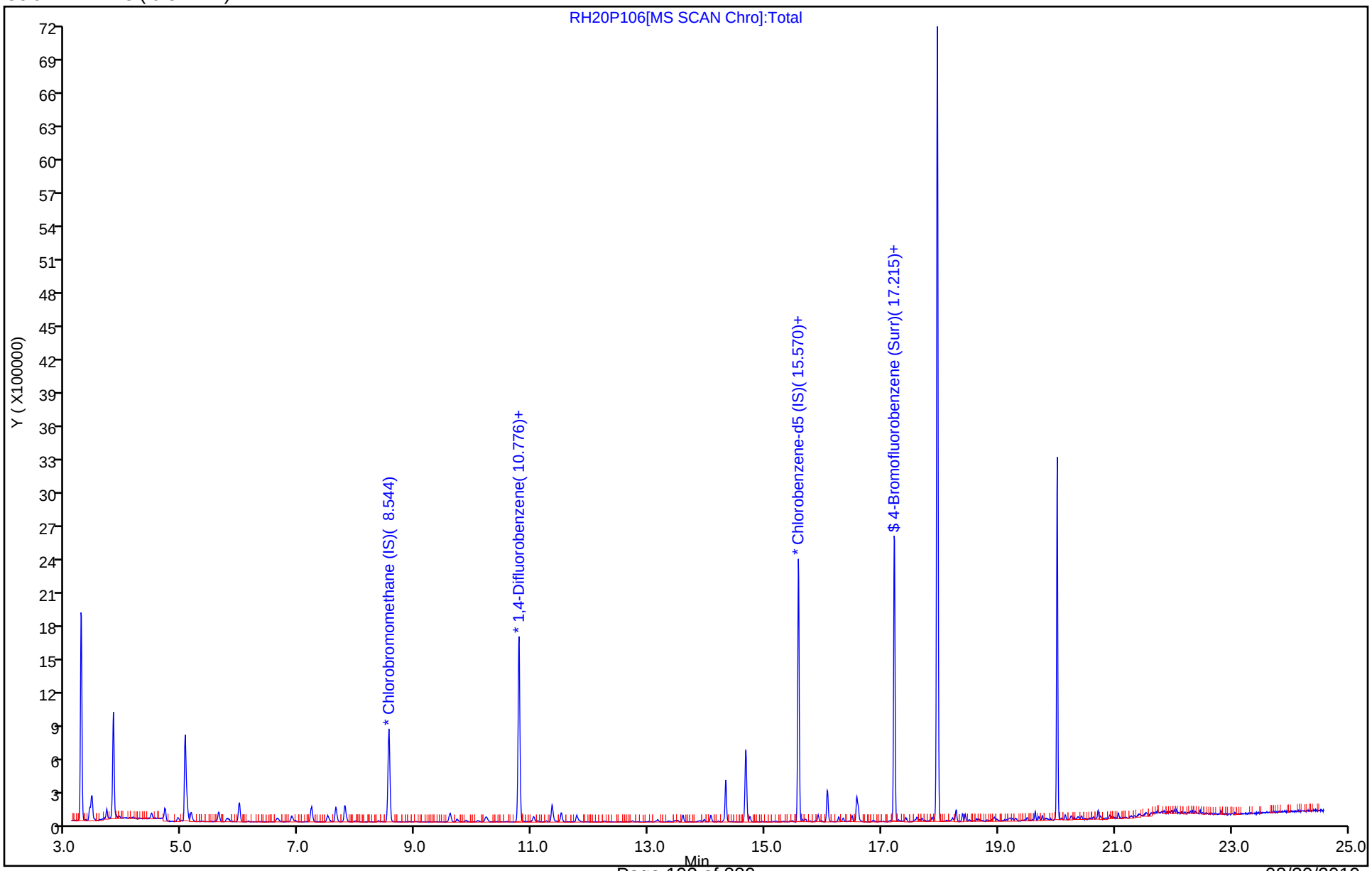
Report Date: 22-Aug-2019 10:20:21 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5	Worklist Smp#:	9
Client ID:	SV-155-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D				
Lims ID:	140-16376-A-5				
Client ID:	SV-155-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 19:57:30	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-009				
Misc. Info.:	140-16376-a-5				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:20:19	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:20:18		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.83	95.74

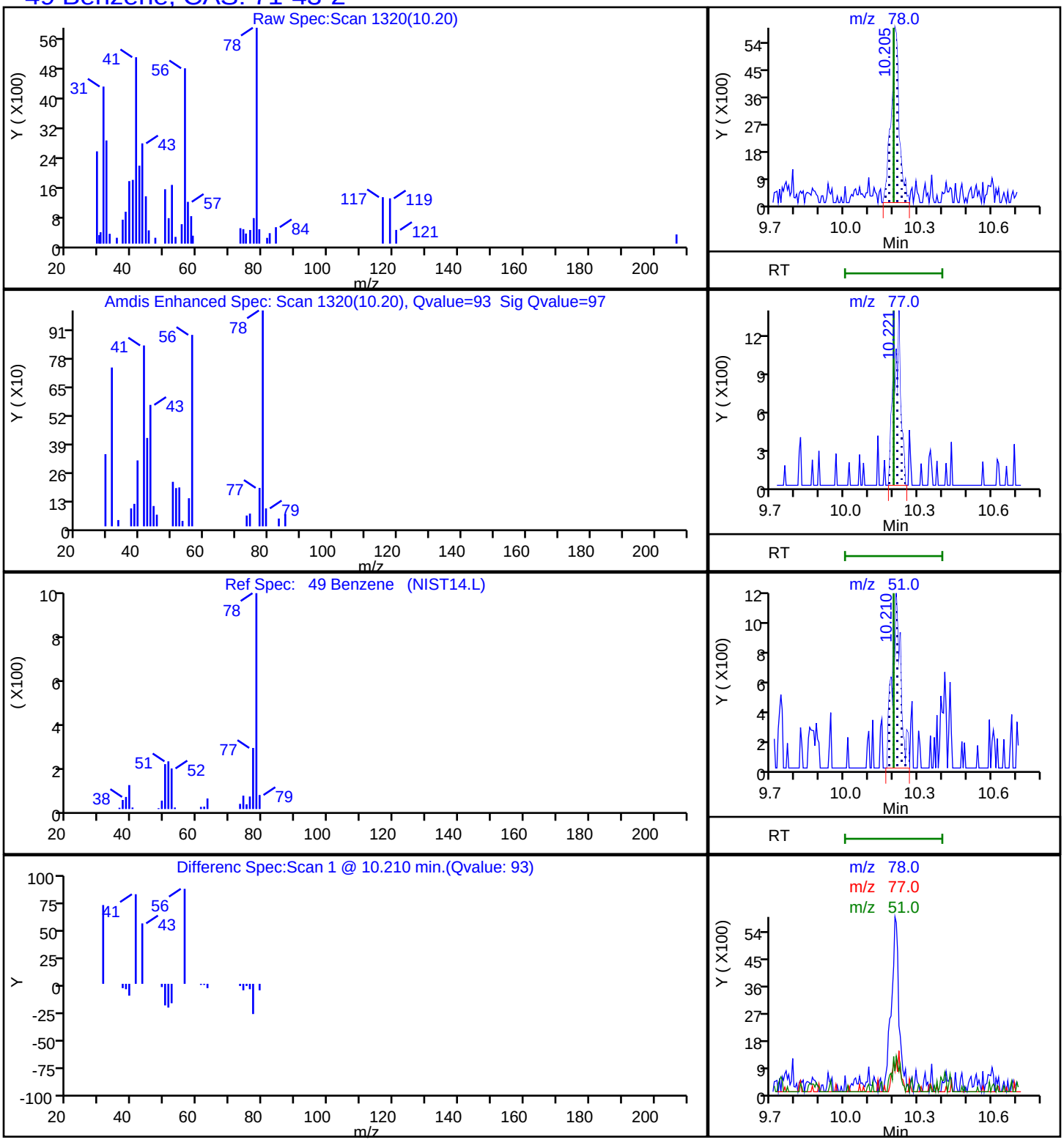
Report Date: 22-Aug-2019 10:20:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

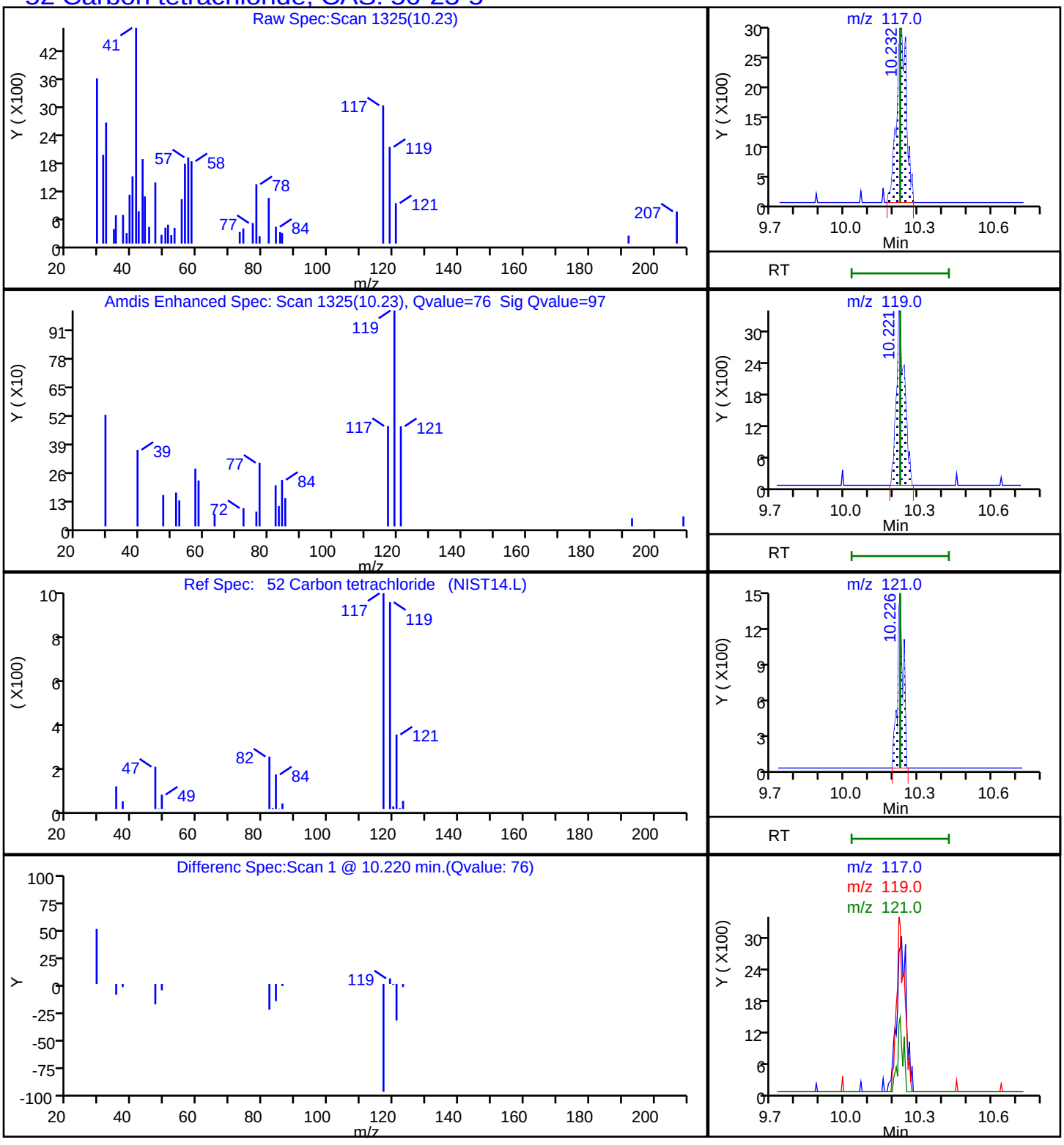
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

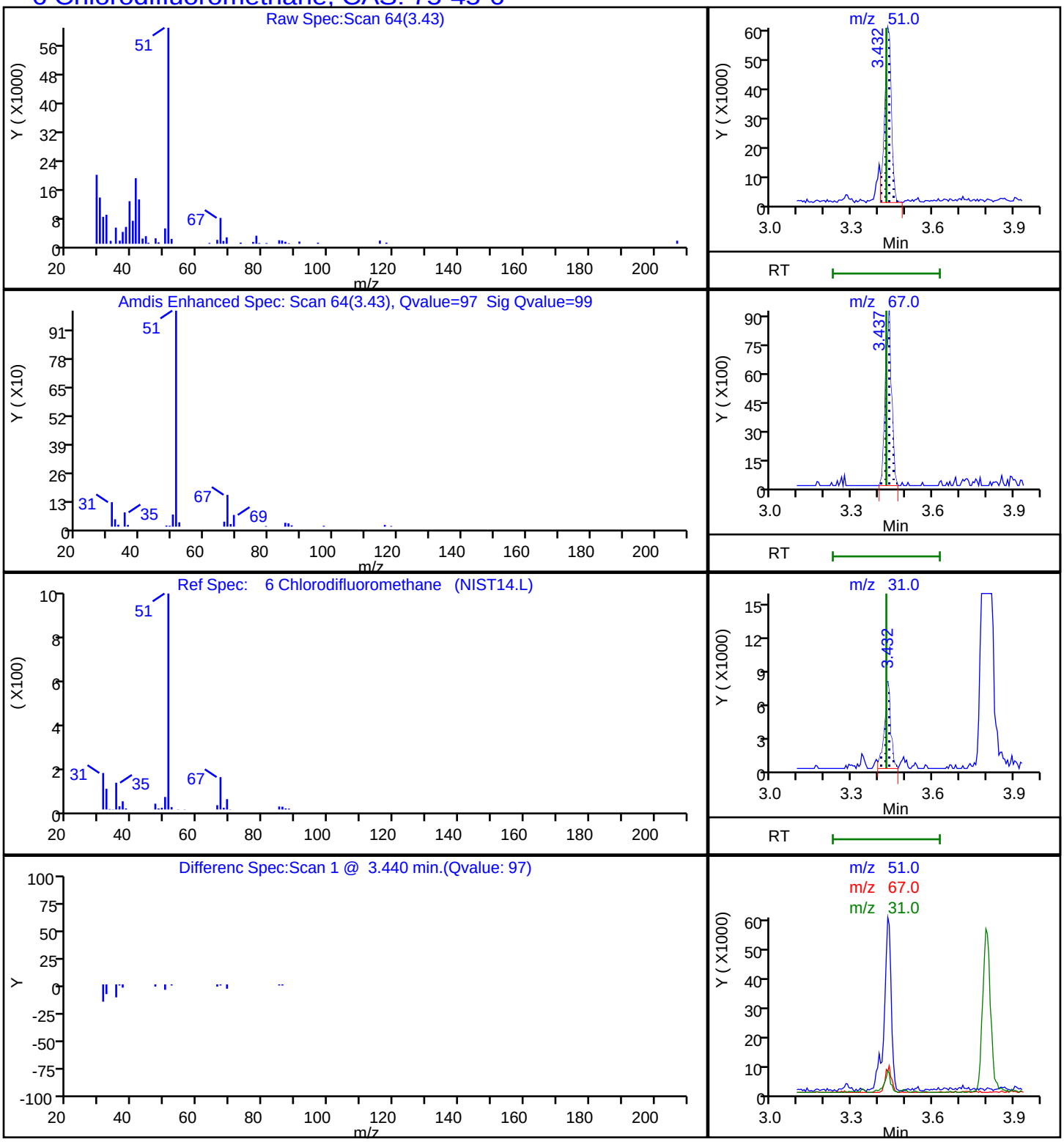


Report Date: 22-Aug-2019 10:20:21 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



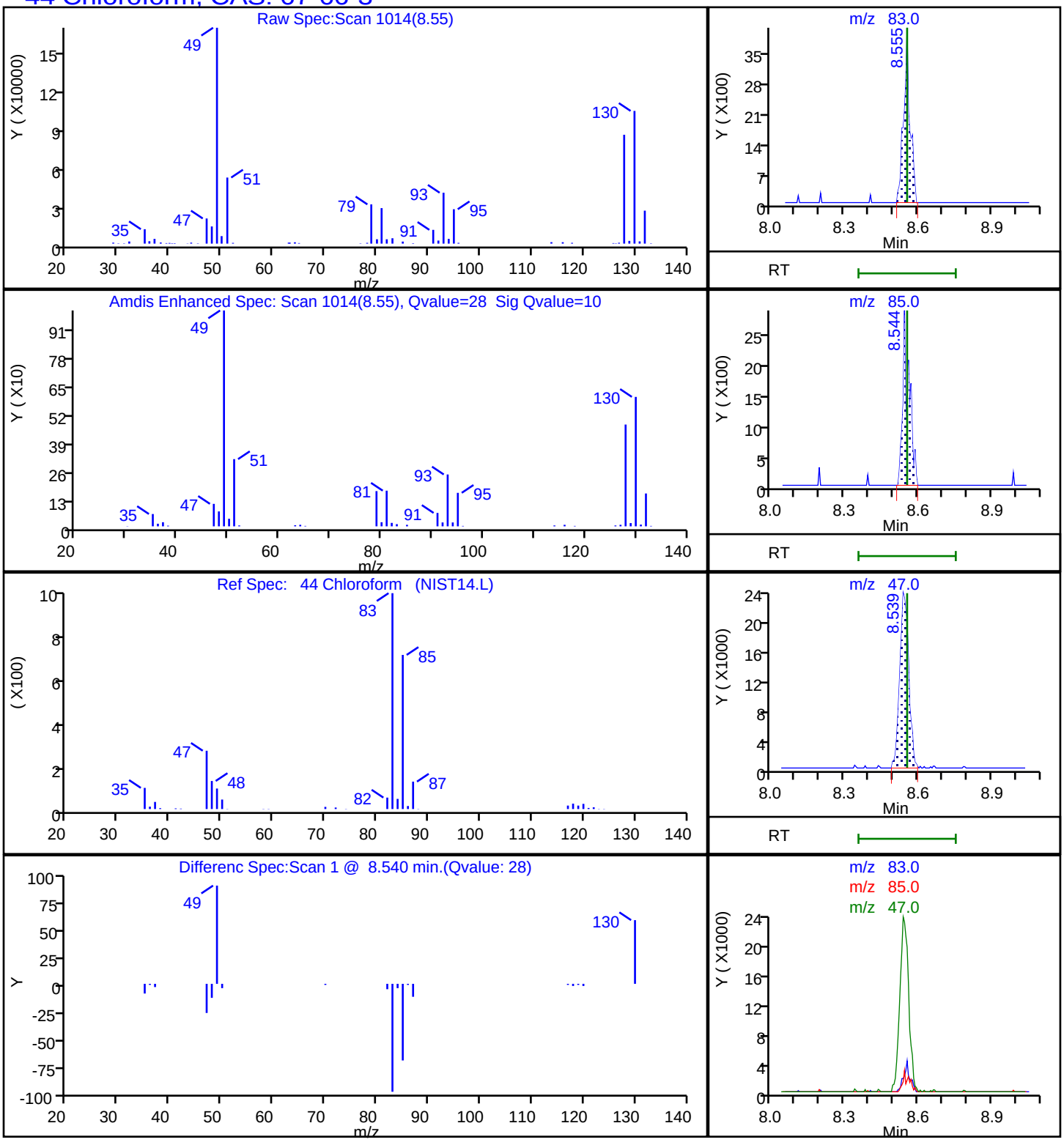
Report Date: 22-Aug-2019 10:20:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

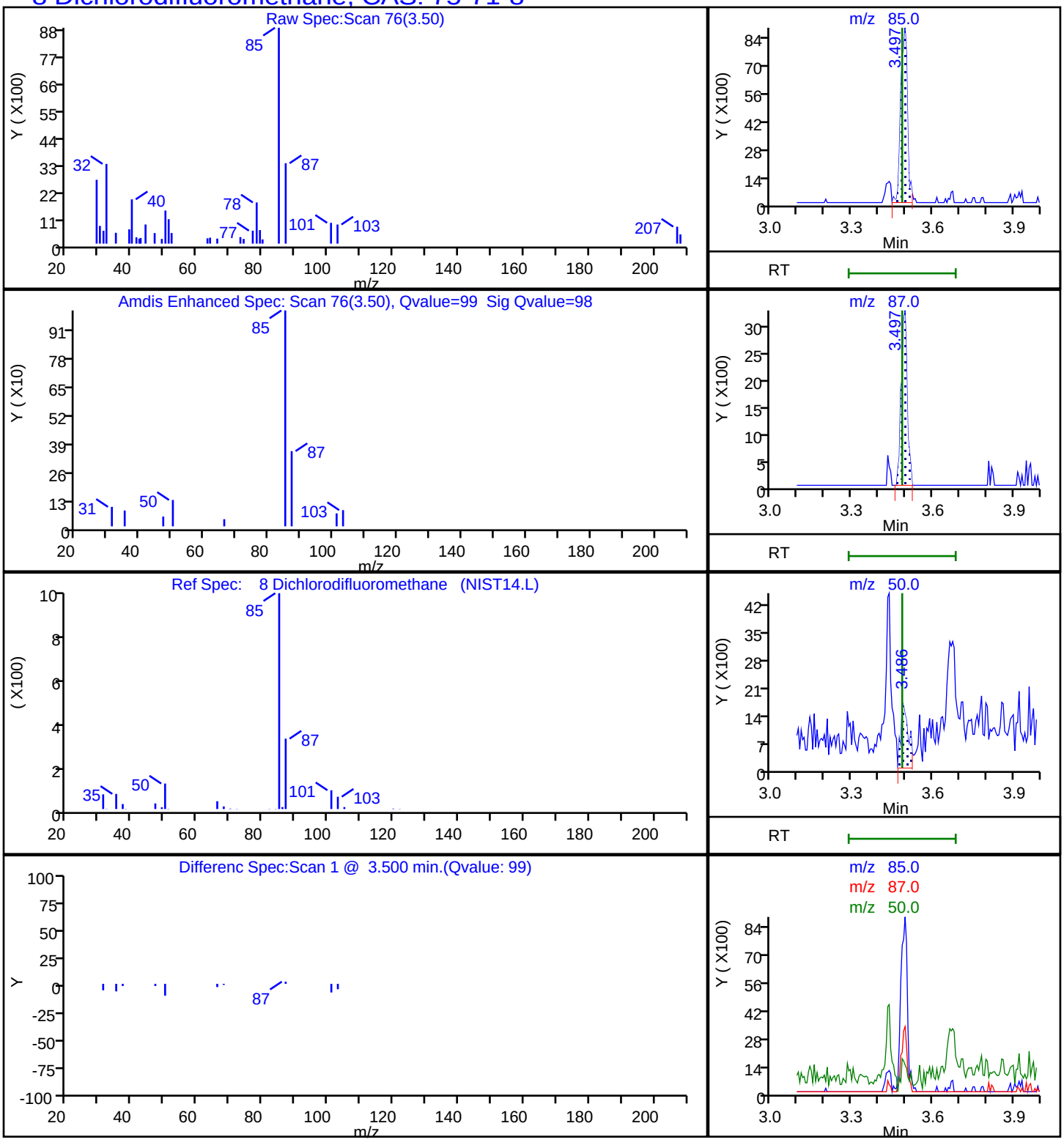


Report Date: 22-Aug-2019 10:20:21 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



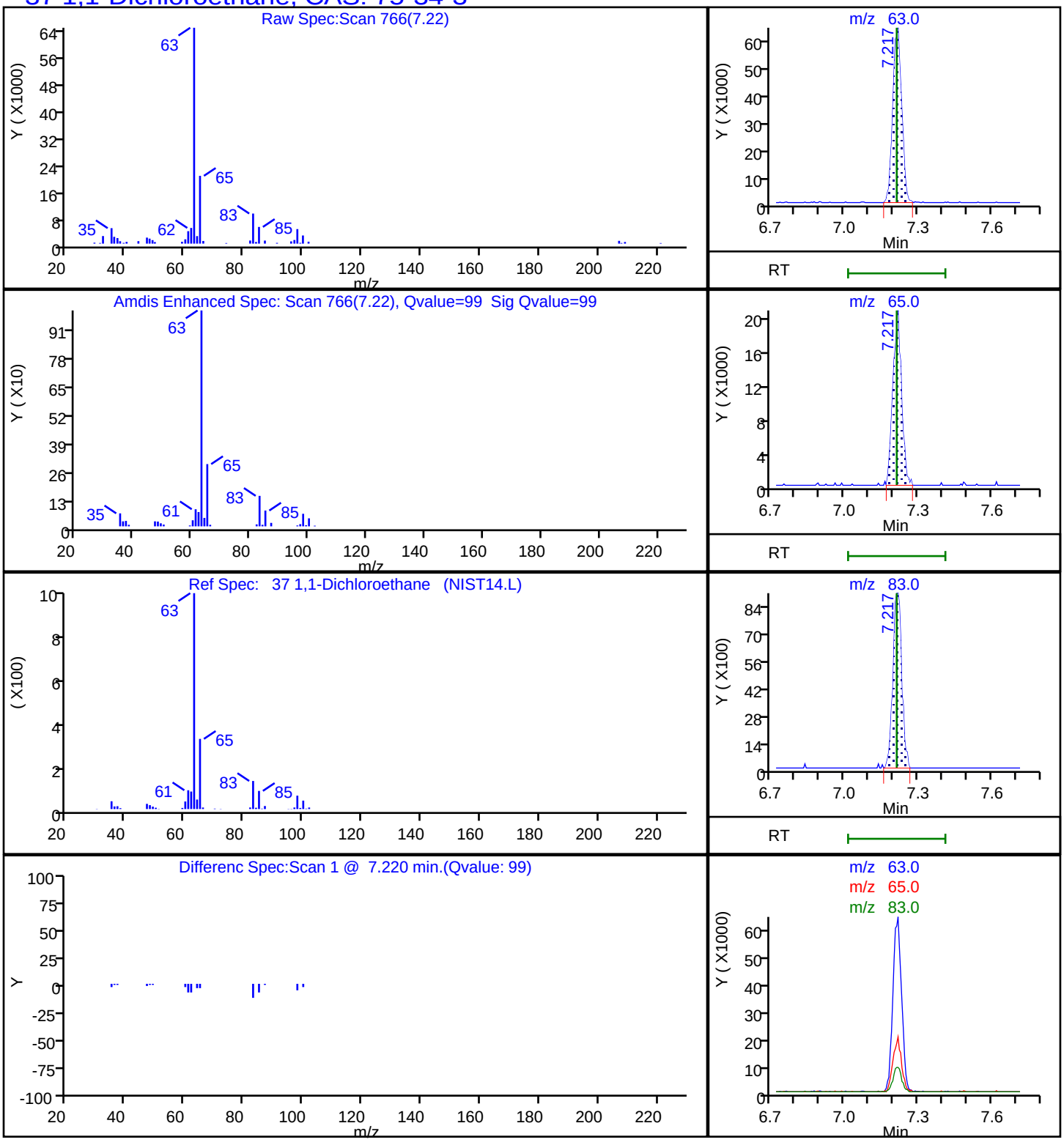
Report Date: 22-Aug-2019 10:20:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date: 20-Aug-2019 19:57:30 Instrument ID: MR

Lims ID: 140-16376-A-5 Lab Sample ID: 140-16376-5

Client ID: SV-155-C-27

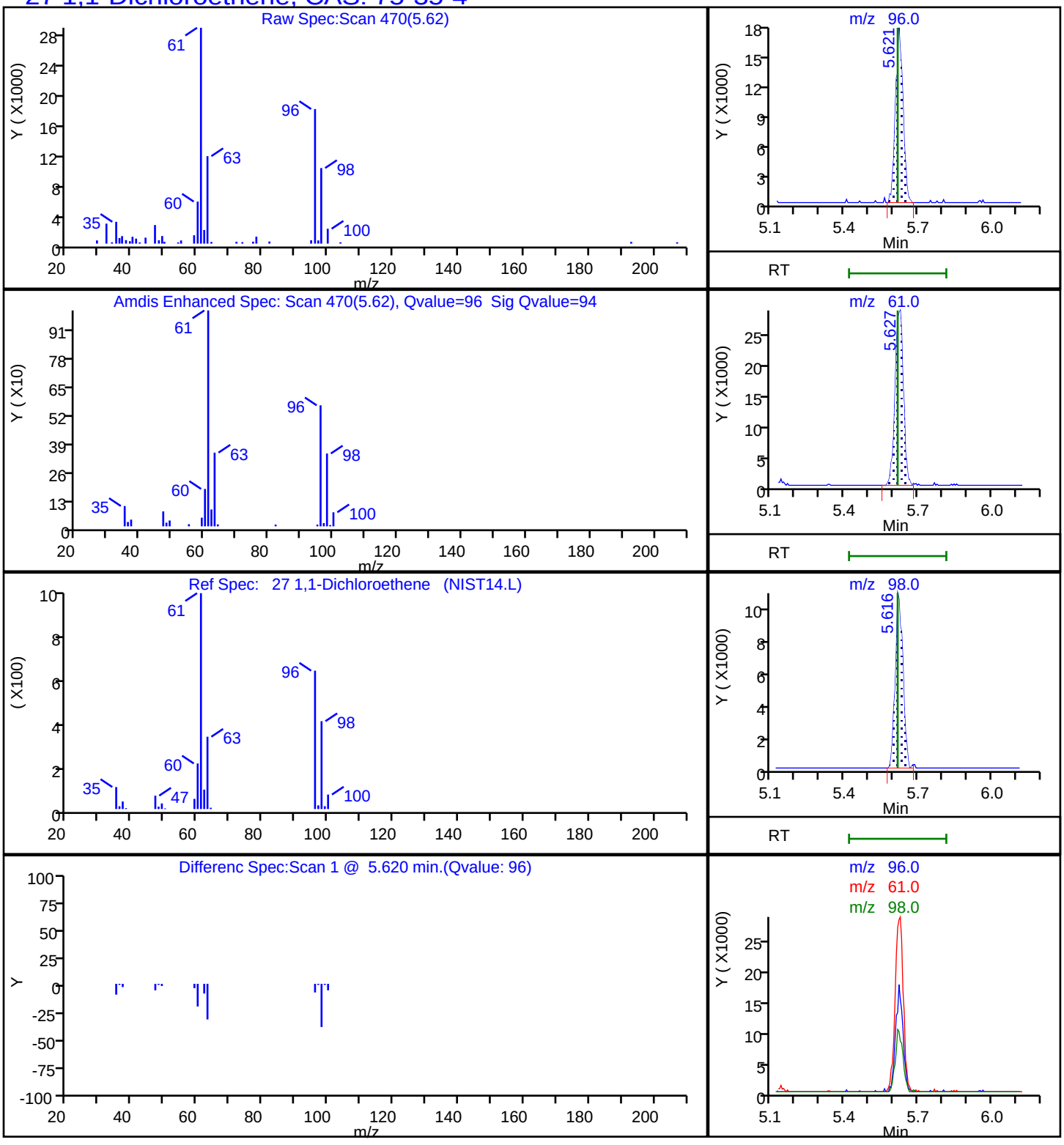
Operator ID: ALS Bottle#: 6 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



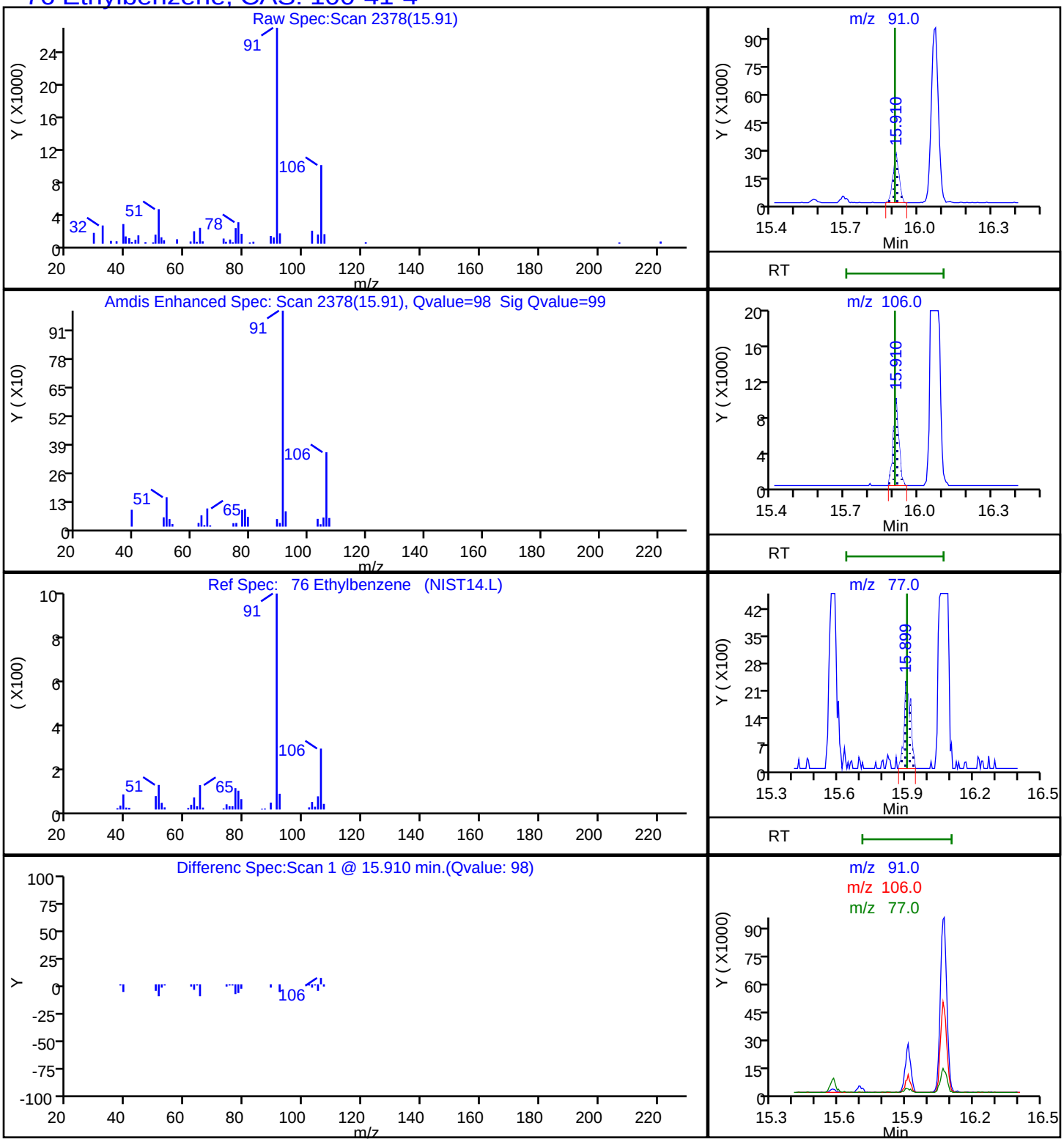
Report Date: 22-Aug-2019 10:20:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

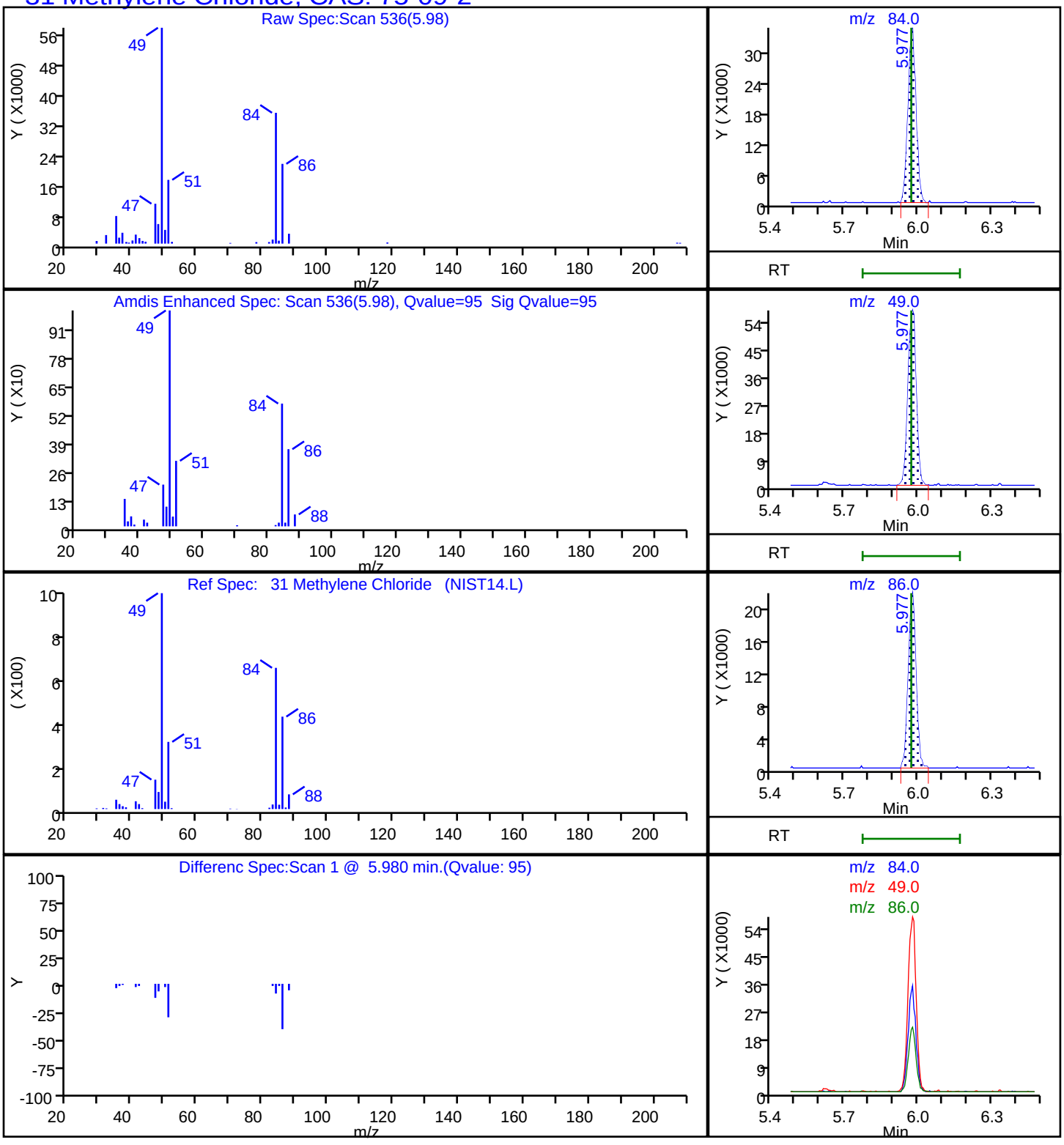


Report Date: 22-Aug-2019 10:20:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



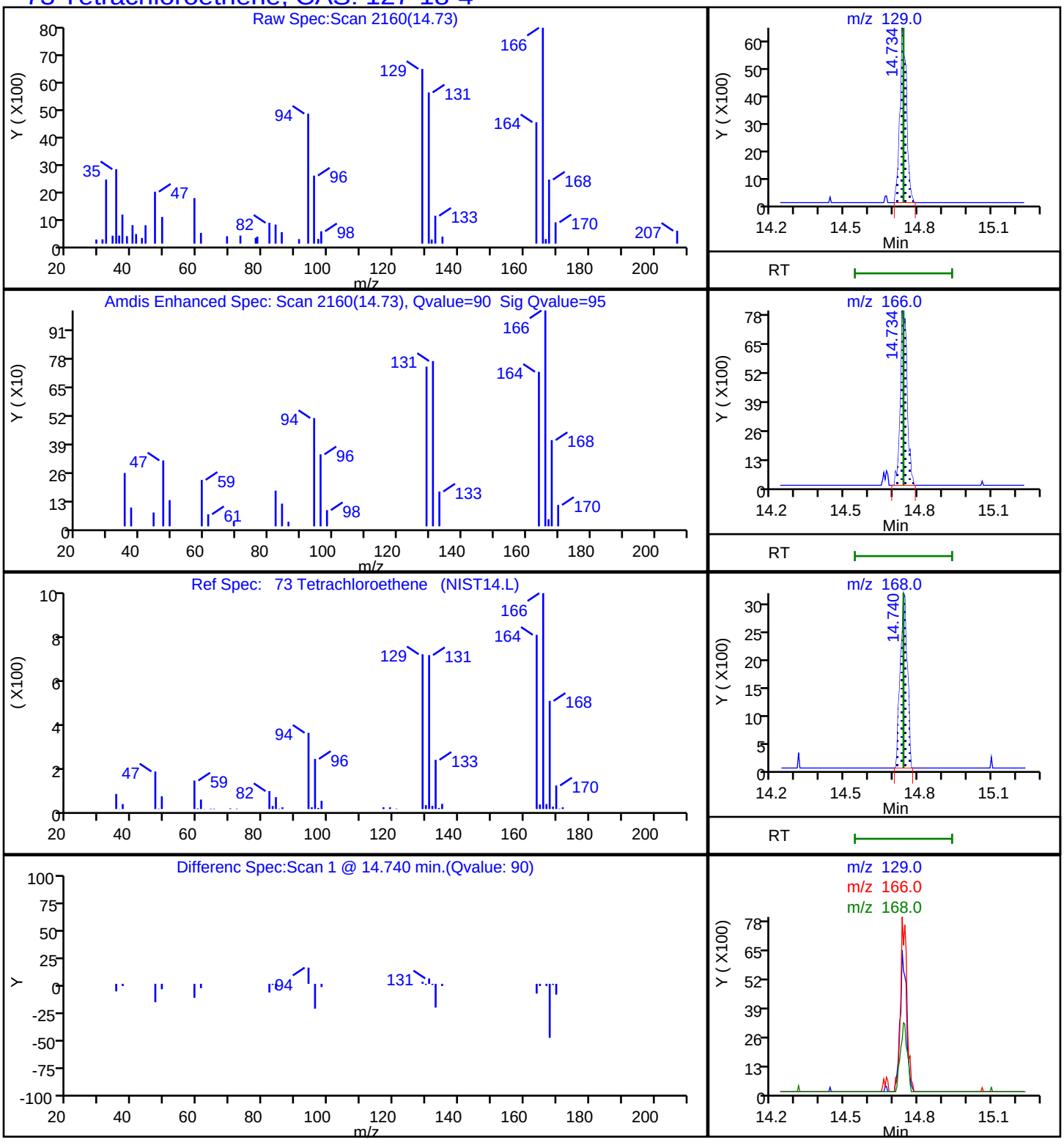
Report Date: 22-Aug-2019 10:20:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D

Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

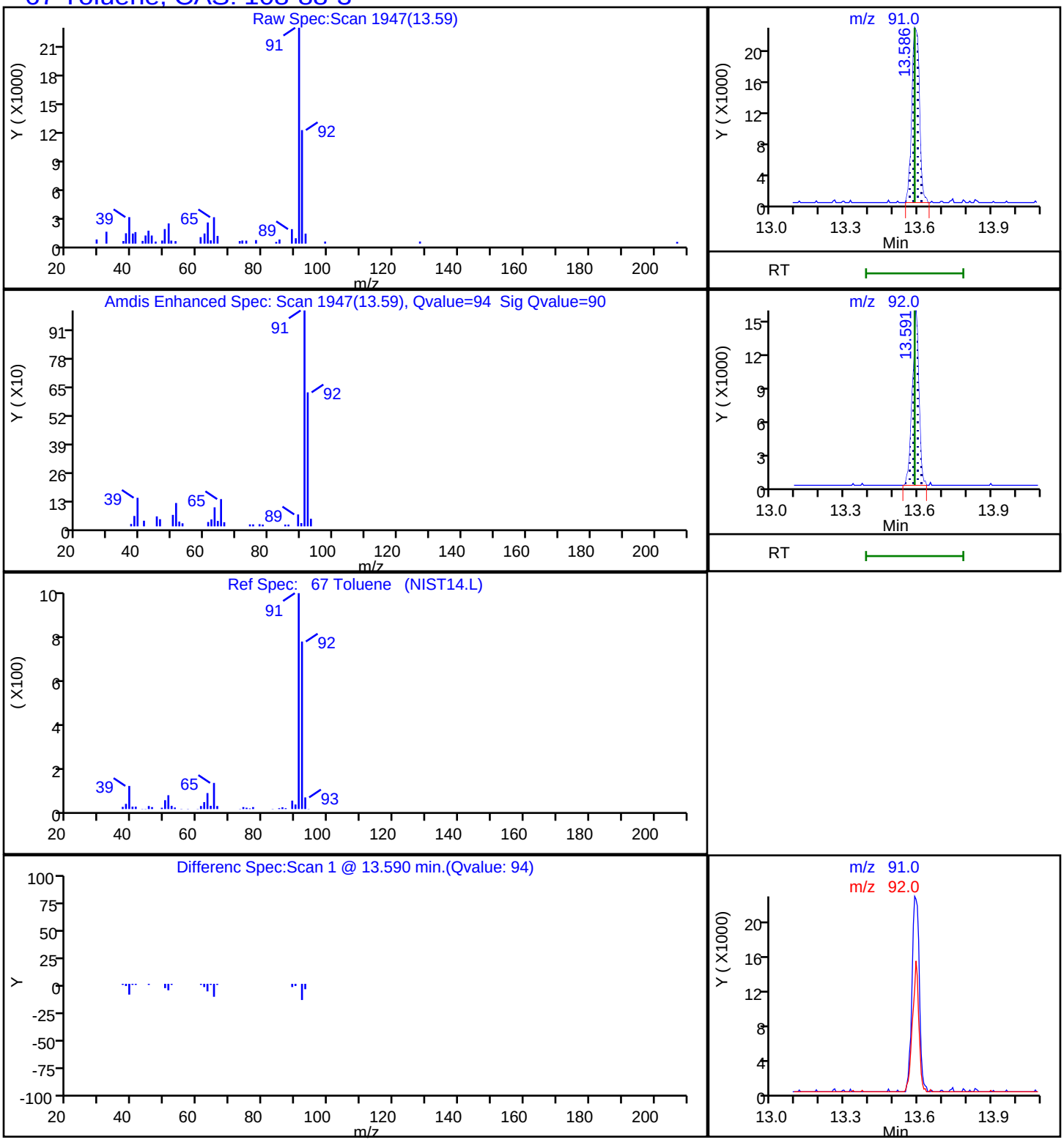


Report Date: 22-Aug-2019 10:20:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

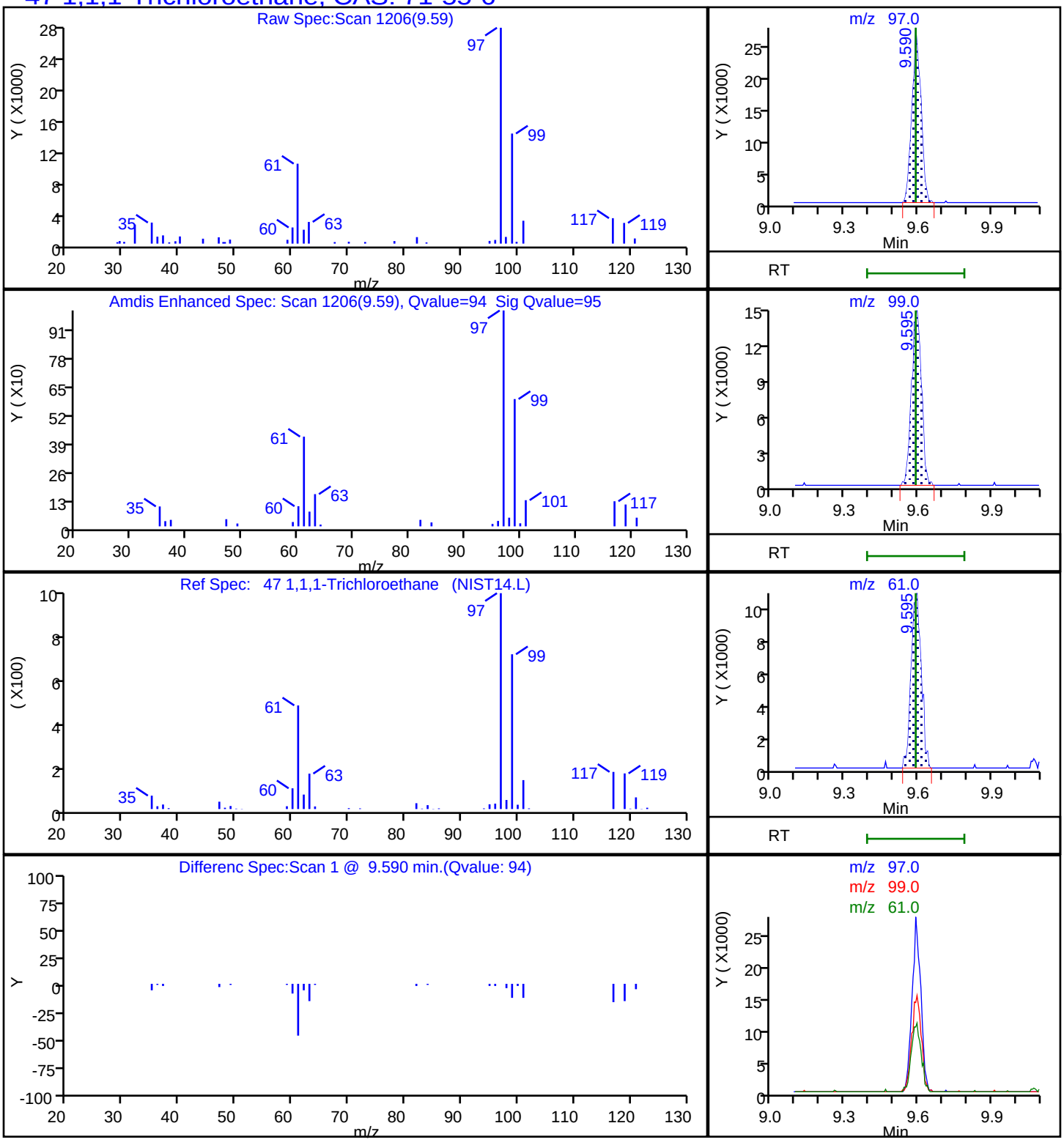
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

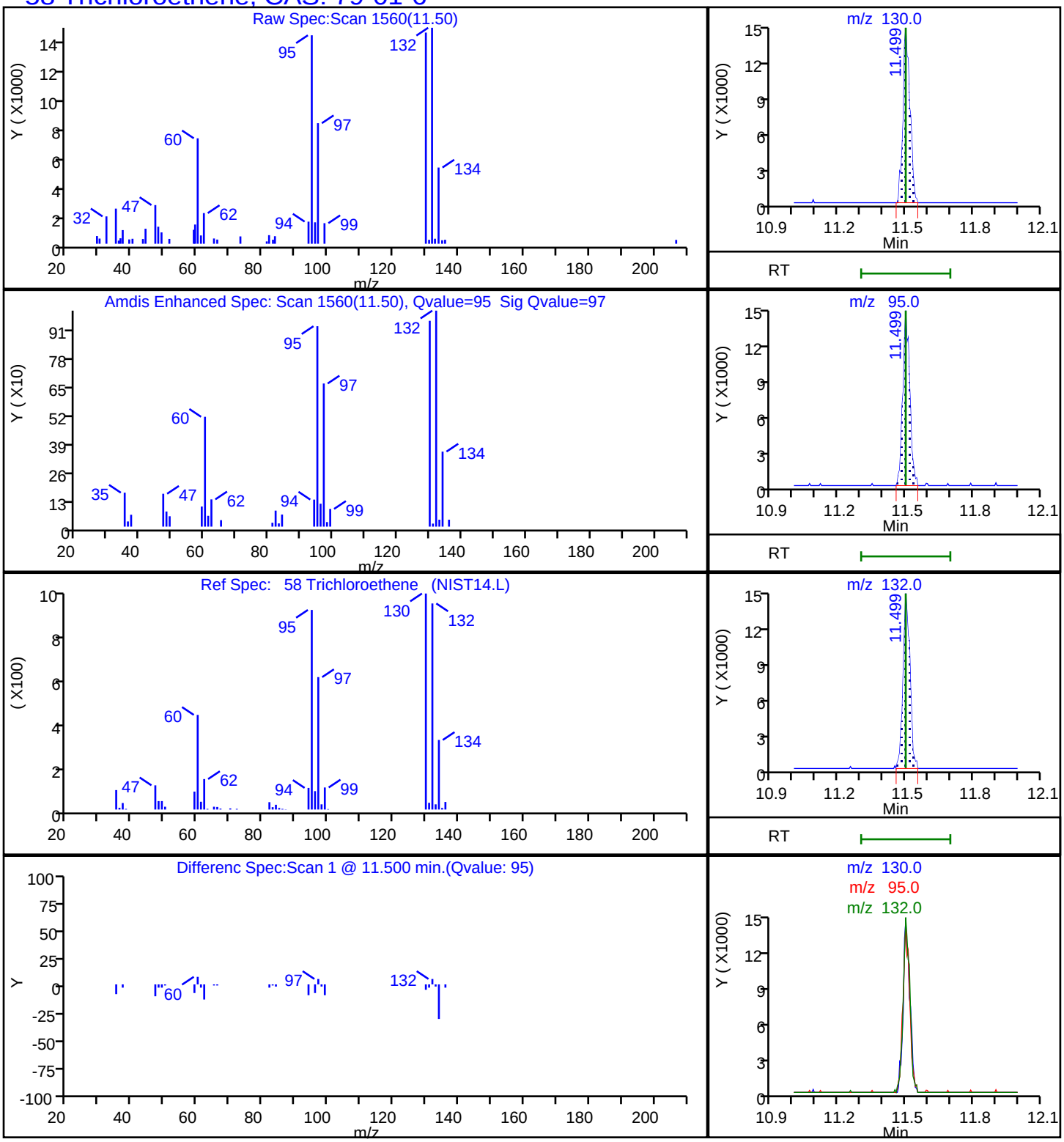


Report Date: 22-Aug-2019 10:20:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

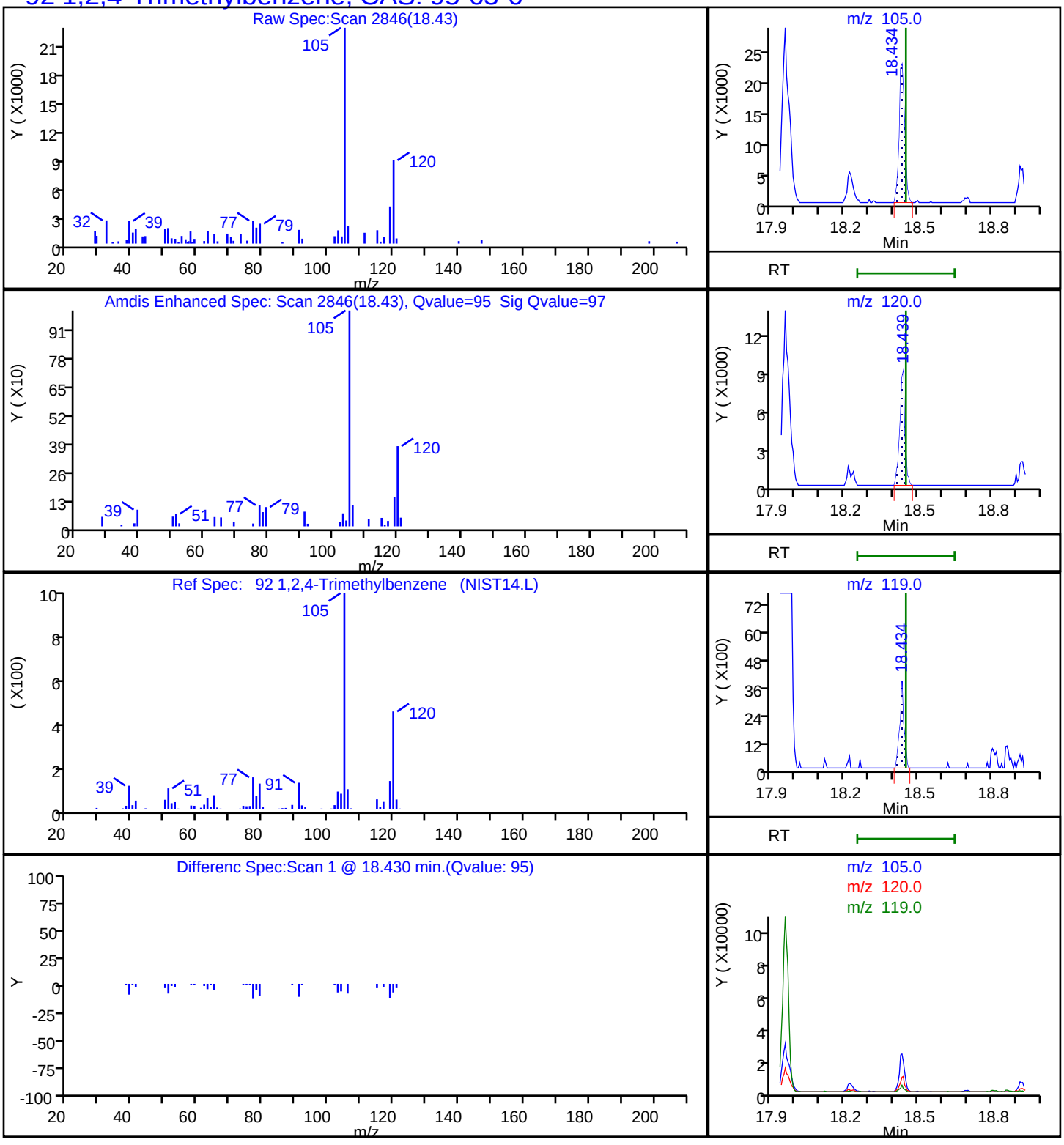


Report Date: 22-Aug-2019 10:20:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

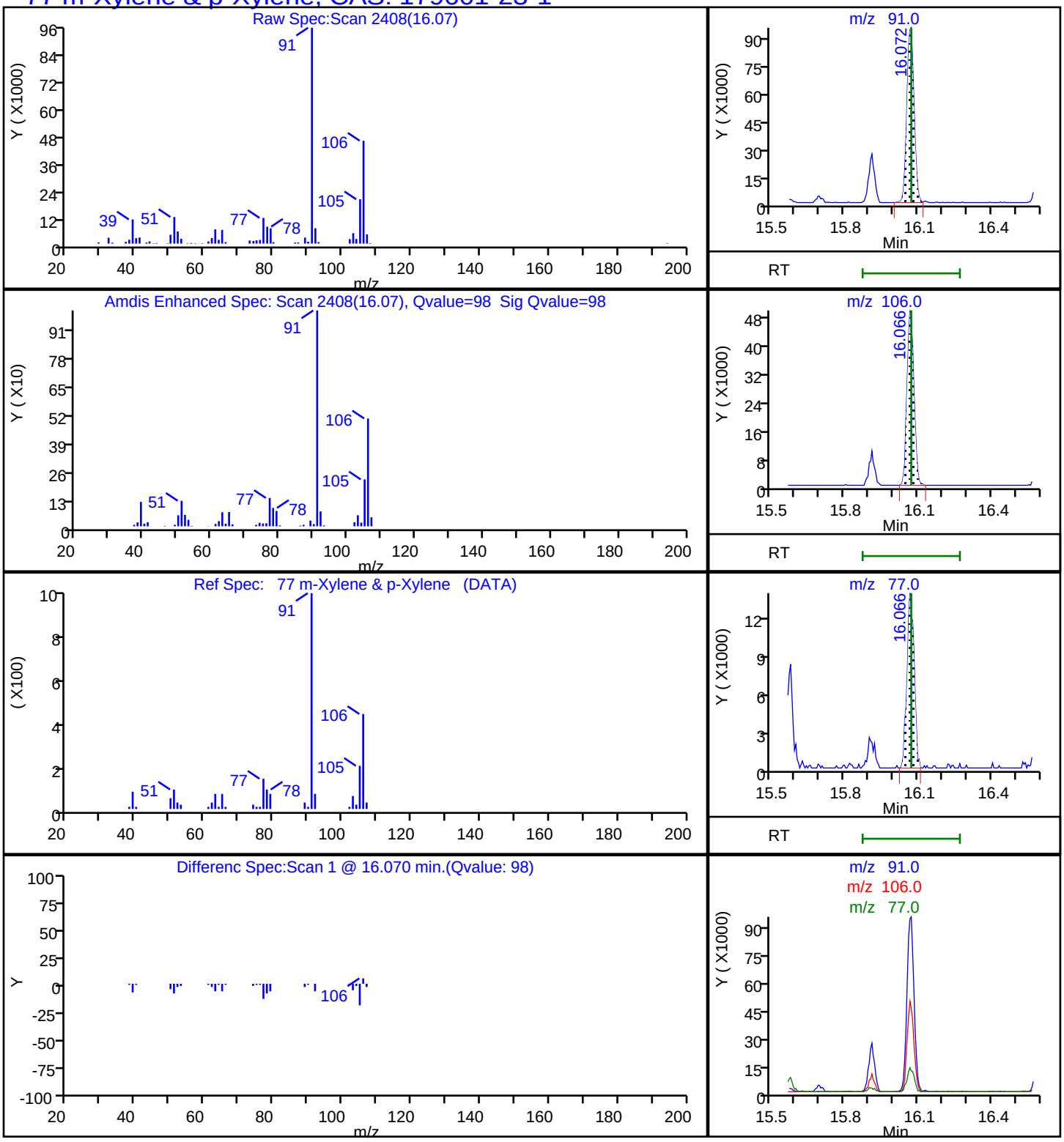


Report Date: 22-Aug-2019 10:20:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
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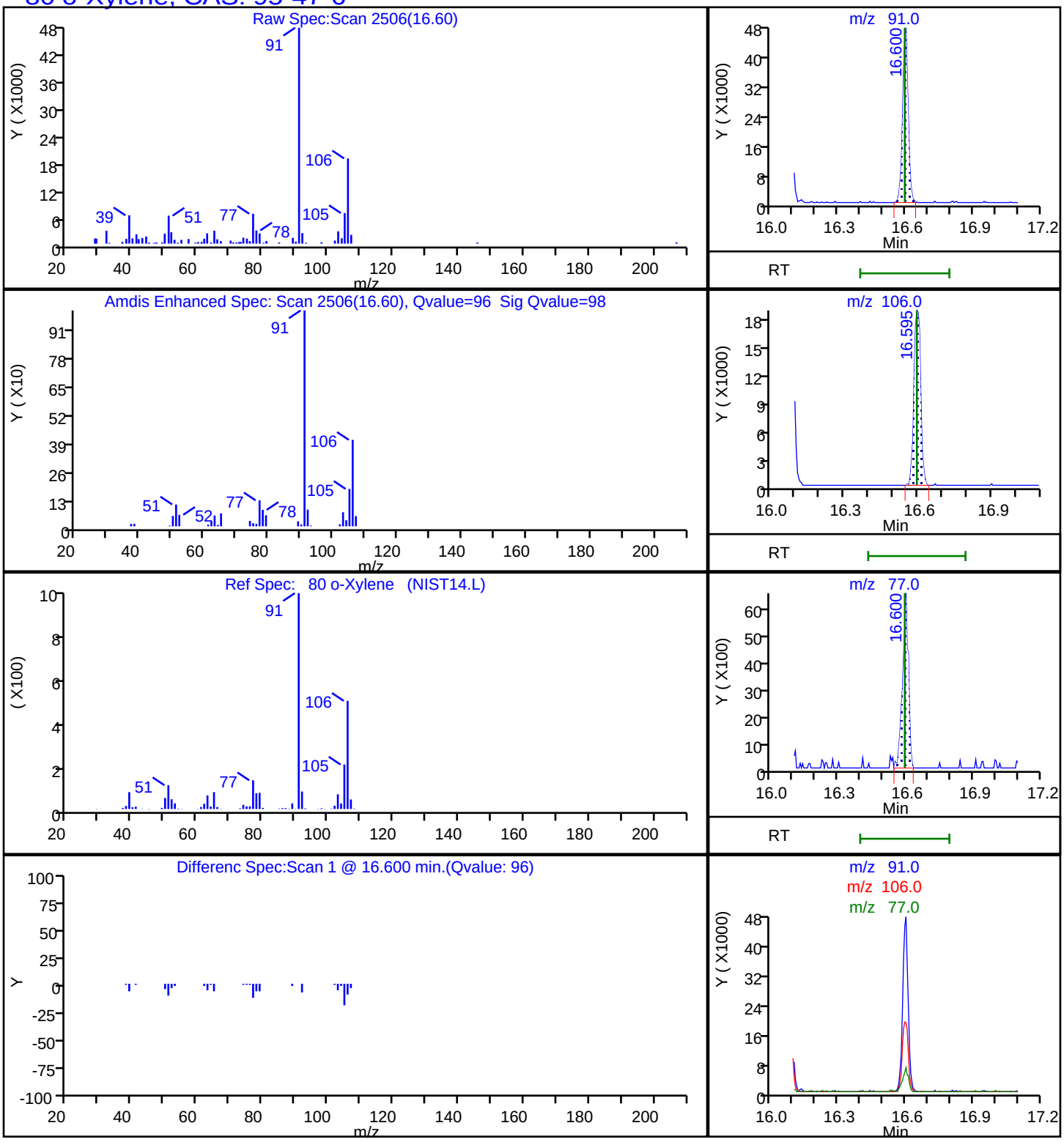
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



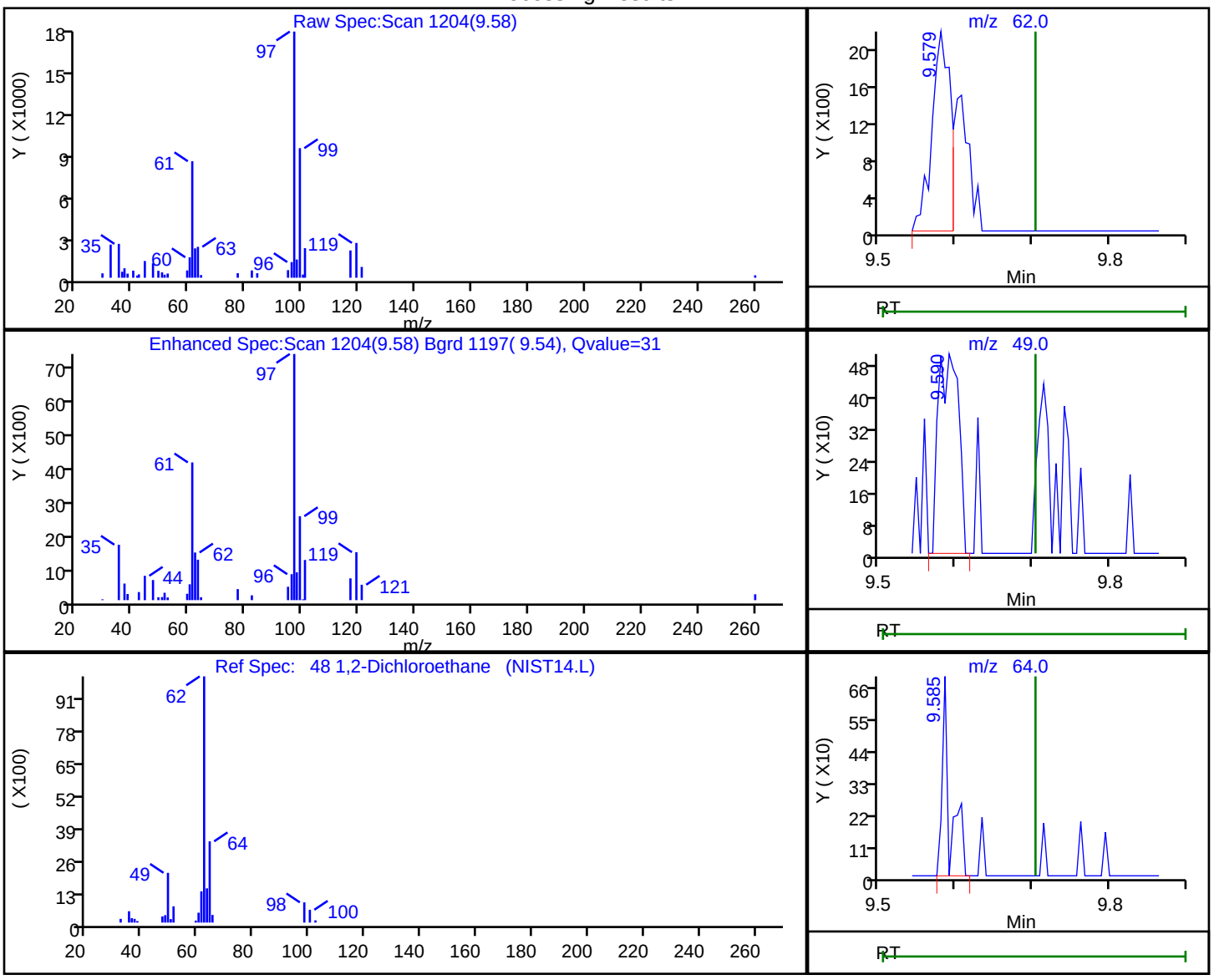
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D		
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5
Client ID:	SV-155-C-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
9.58	62.00	3585	0.024509
9.59	49.00	938	
9.58	64.00	506	

Reviewer: khachitpongpanits, 22-Aug-2019 10:19:40

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

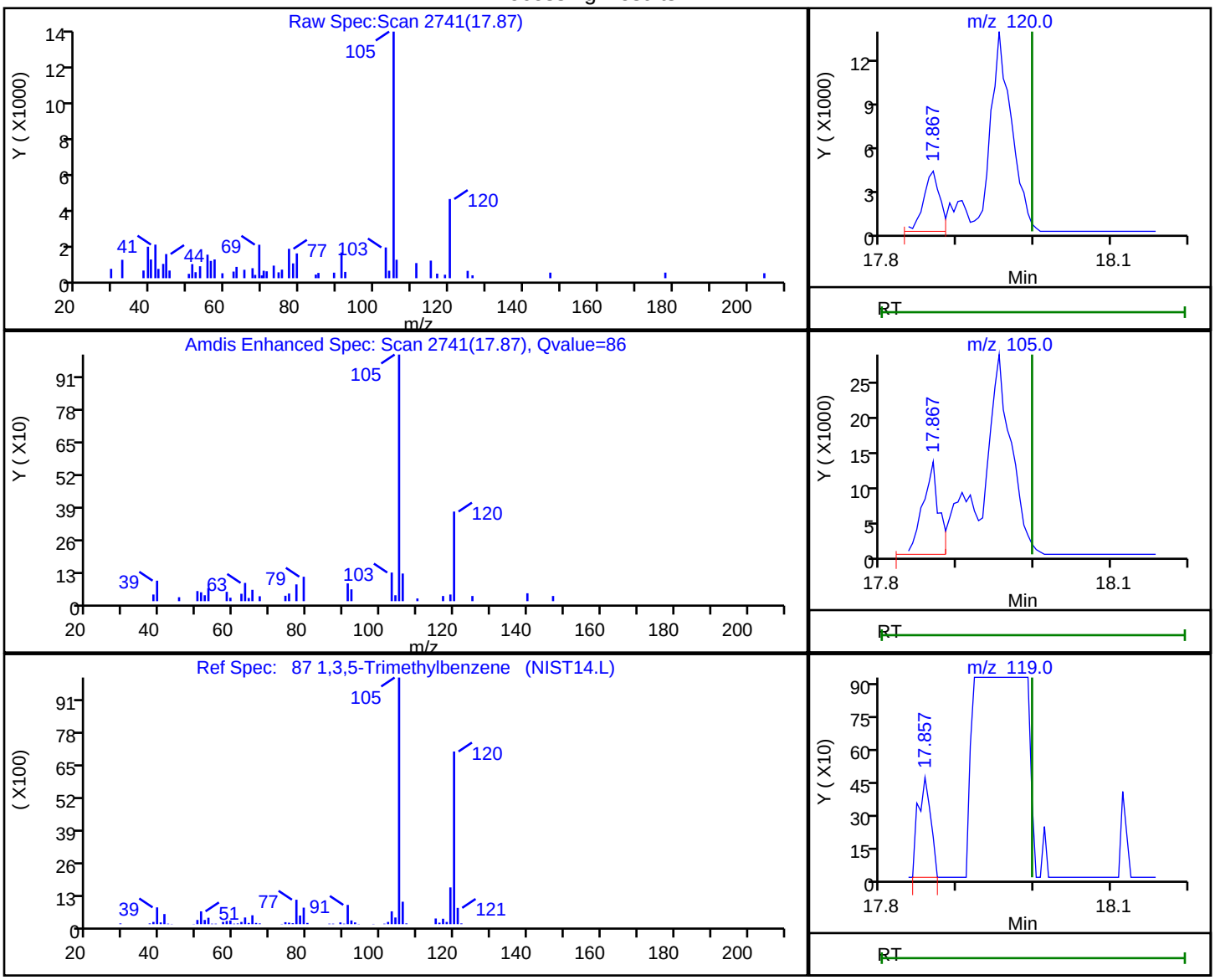
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P106.D				
Injection Date:	20-Aug-2019 19:57:30	Instrument ID:	MR		
Lims ID:	140-16376-A-5	Lab Sample ID:	140-16376-5		
Client ID:	SV-155-C-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
17.87	120.00	6229	0.029064
17.87	105.00	18996	
17.86	119.00	526	

Reviewer: khachitpongpanits, 22-Aug-2019 10:20:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	0.99	J	1.3	0.37
67-66-3	Chloroform	119.38	2.1		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	ND		1.3	0.22
75-09-2	Methylene Chloride	84.93	120	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	1.5		1.3	0.12
108-88-3	Toluene	92.14	ND		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	120		0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	1.6		0.67	0.43
1330-20-7	Xylenes, Total	106.17	ND		2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.73
75-45-6	Chlorodifluoromethane	86.47	3.5	J	4.7	1.3
67-66-3	Chloroform	119.38	10		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.67
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	ND		5.8	0.94
75-09-2	Methylene Chloride	84.93	420	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.6
127-18-4	Tetrachloroethene	165.83	10		9.0	0.79
108-88-3	Toluene	92.14	ND		7.5	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	620		3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	2.9
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	4.1		1.7	1.1
1330-20-7	Xylenes, Total	106.17	ND		12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D
Lims ID: 140-16376-A-6
Client ID: SV-133-C-27
Sample Type: Client
Inject. Date: 27-Aug-2019 12:41:30 ALS Bottle#: 14 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012855-007
Misc. Info.: 140-16376-a-6
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:52:32 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:52:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.724	9.725	-0.001	97	186283	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.834	-0.002	96	1015978	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.443	16.444	-0.001	89	859603	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.046	18.047	-0.001	93	548389	3.47	
19 Chlorodifluoromethane	51	4.156	4.156	0.004	37	3037	0.0597	a
21 Dichlorodifluoromethane	85	4.220	4.225	-0.002	1	1180	0.0202	
25 Vinyl chloride	62	4.640	4.639	0.004	95	6109	0.0965	
44 Methylene Chloride	84	7.055	7.062	-0.007	99	512060	7.31	
57 Chloroform	83	9.724	9.737	-0.007	42	19375	0.1282	
71 Trichloroethene	130	12.526	12.529	-0.002	93	585261	6.97	
80 Toluene	91	14.511	14.513	-0.002	92	11723	0.0564	
86 Tetrachloroethene	129	15.636	15.632	0.004	92	7663	0.0918	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

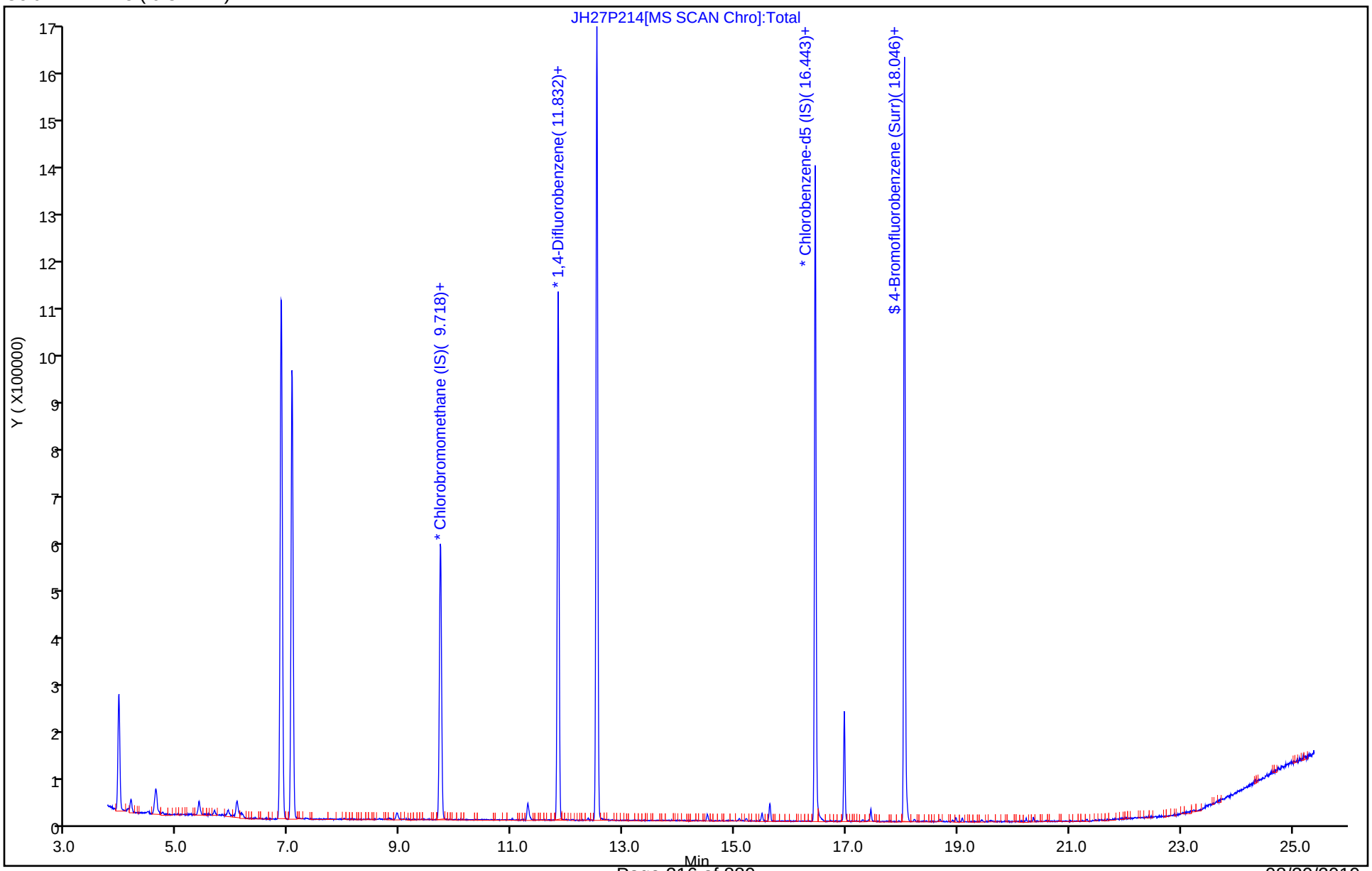
Report Date: 28-Aug-2019 10:52:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D

Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6	Worklist Smp#:	7
Client ID:	SV-133-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D				
Lims ID:	140-16376-A-6				
Client ID:	SV-133-C-27				
Sample Type:	Client				
Inject. Date:	27-Aug-2019 12:41:30	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012855-007				
Misc. Info.:	140-16376-a-6				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:52:32	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:52:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.47	86.78

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D

Injection Date: 27-Aug-2019 12:41:30 Instrument ID: MJ

Lims ID: 140-16376-A-6 Lab Sample ID: 140-16376-6

Client ID: SV-133-C-27

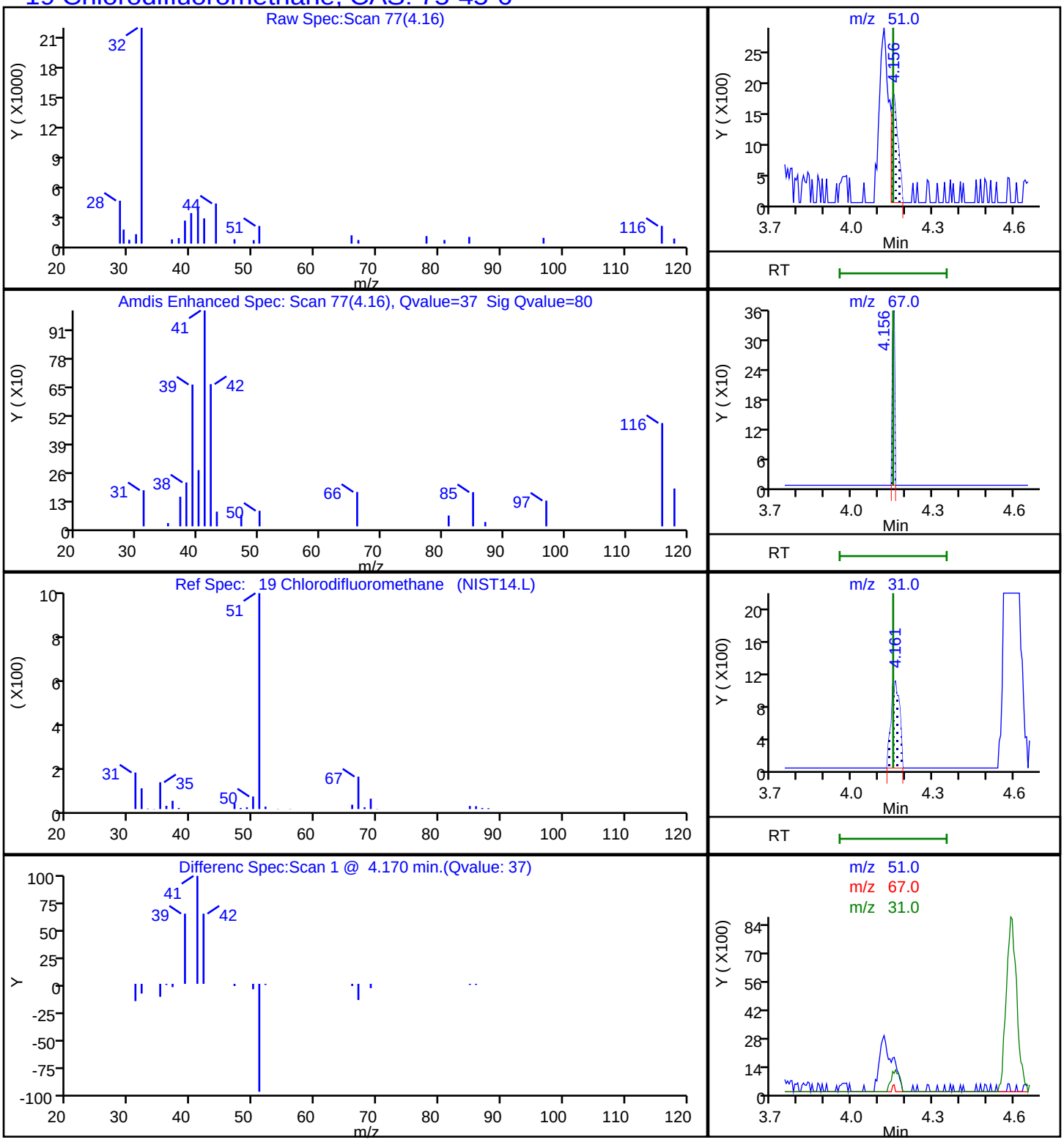
Operator ID: 007126 ALS Bottle#: 14 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6

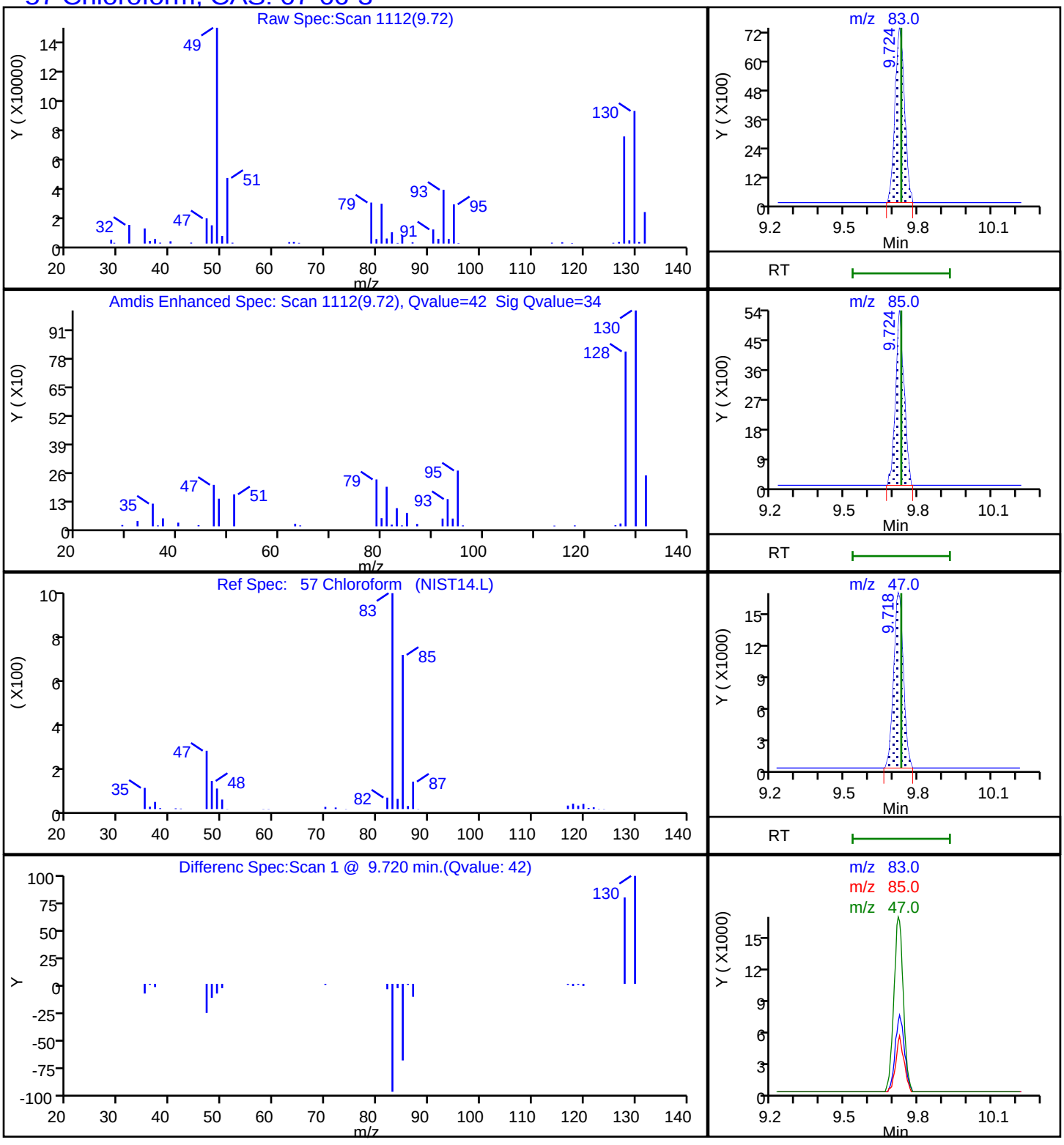


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D

Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6
Client ID:	SV-133-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

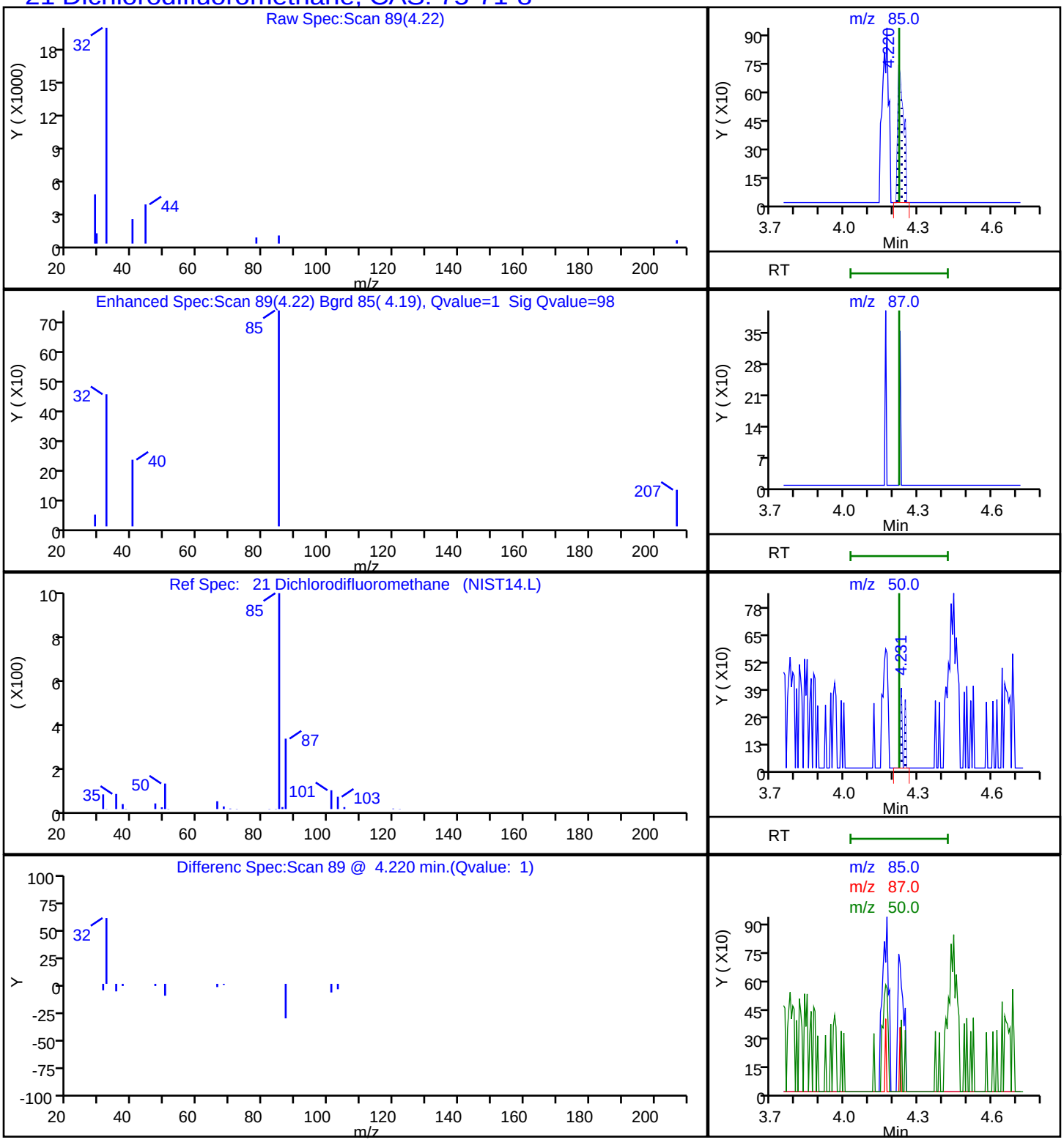
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D				
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ		
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6		
Client ID:	SV-133-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

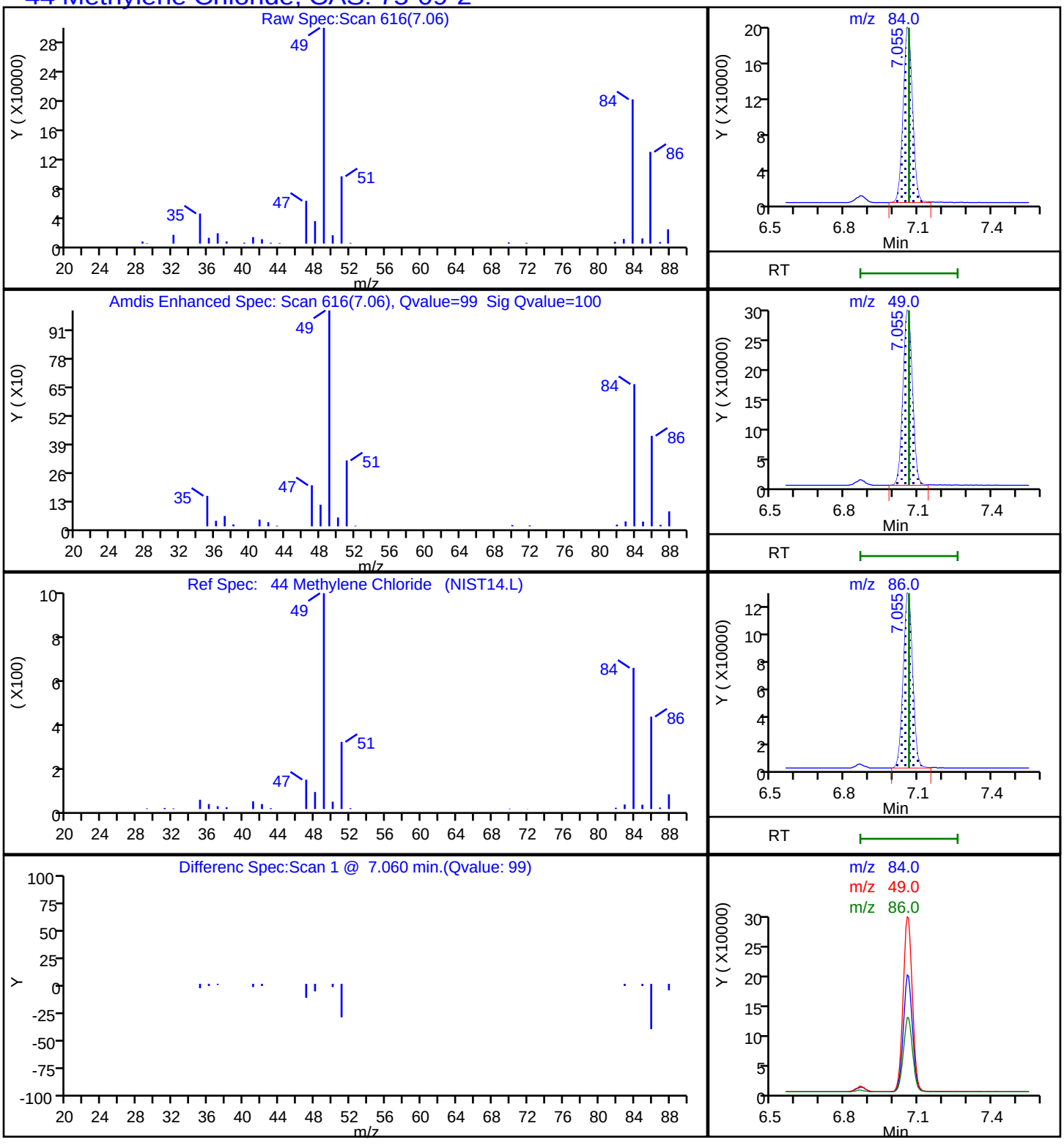


Report Date: 28-Aug-2019 10:52:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D		
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6
Client ID:	SV-133-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

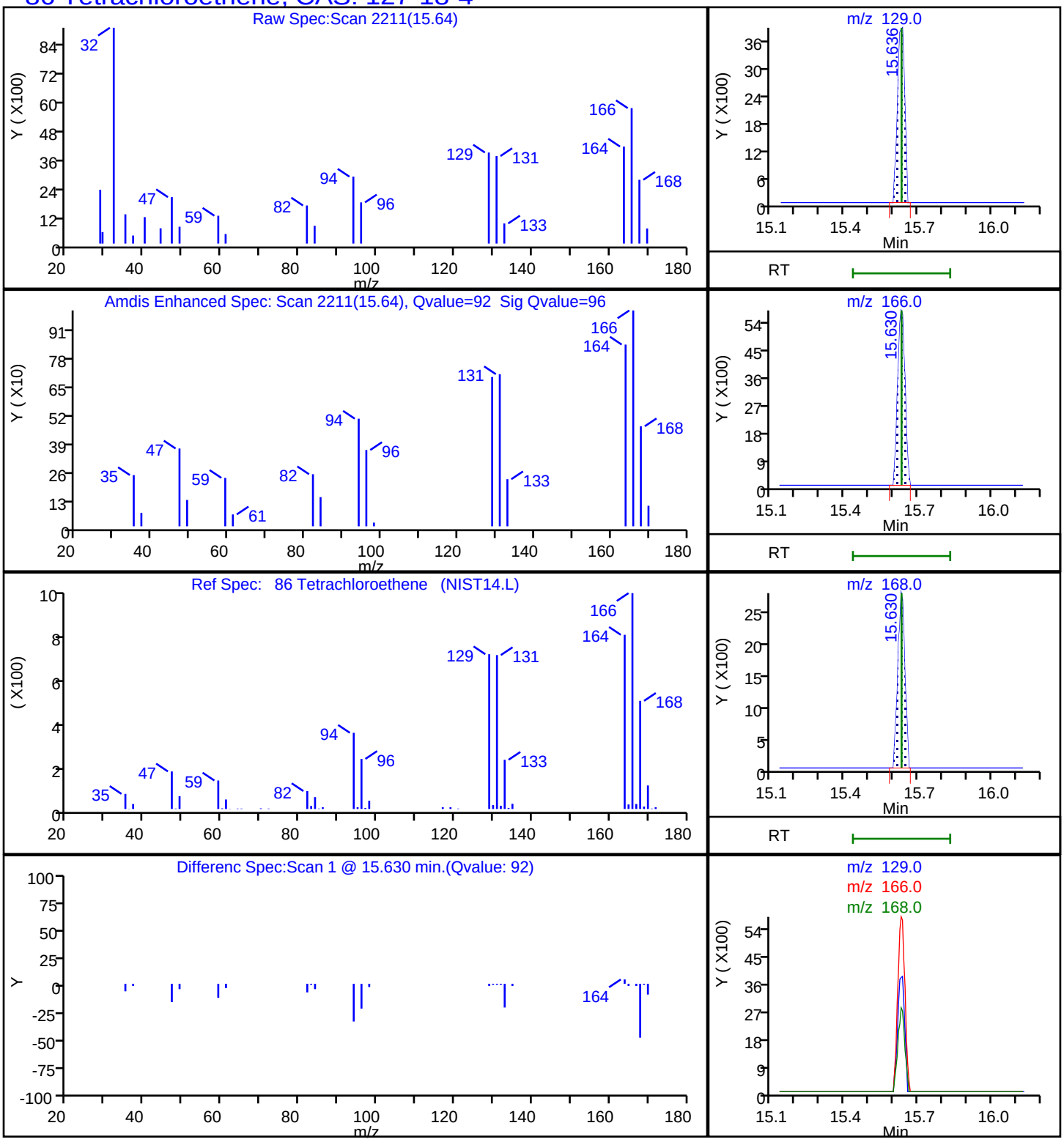
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D		
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6
Client ID:	SV-133-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4



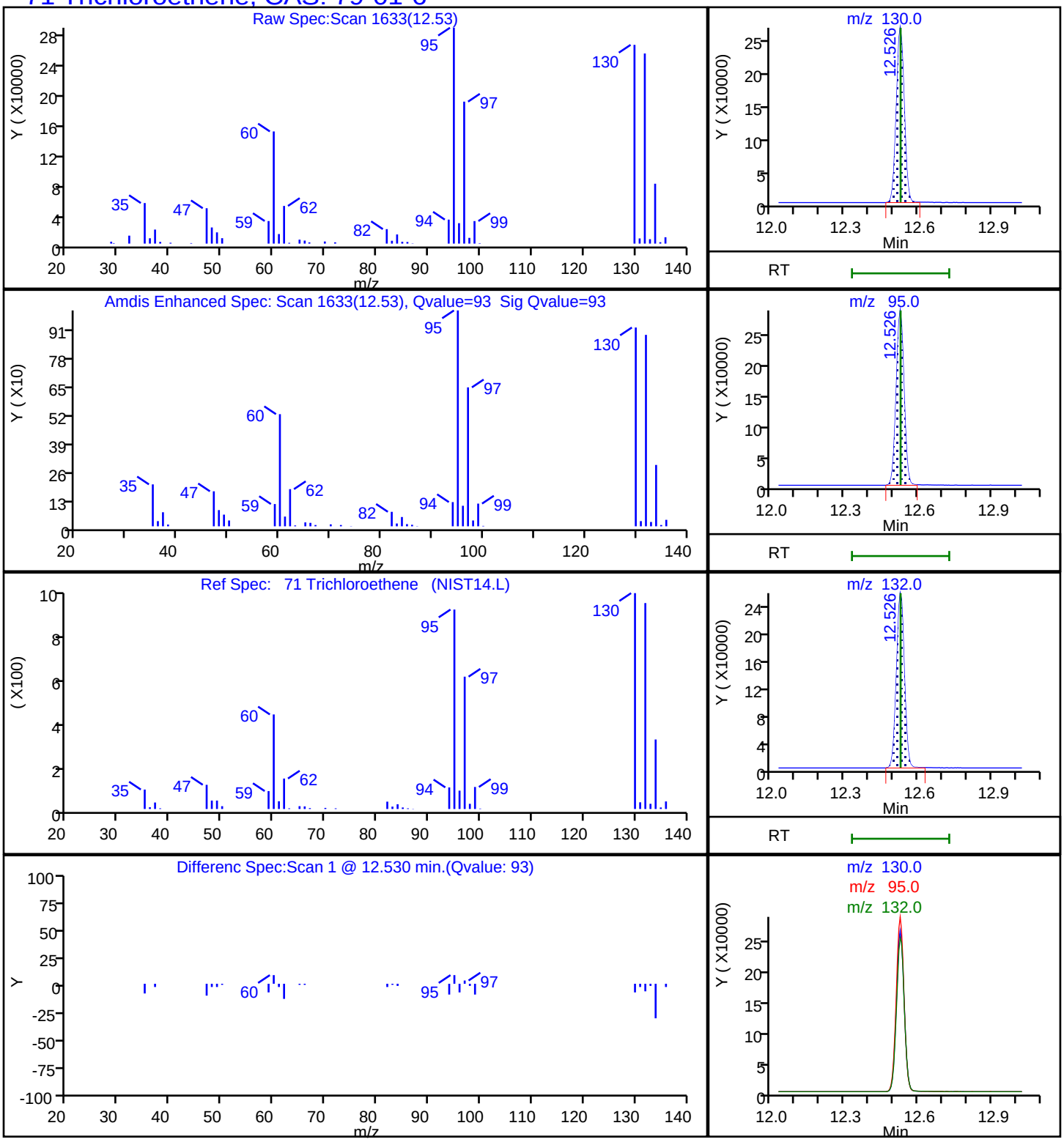
Report Date: 28-Aug-2019 10:52:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D

Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6
Client ID:	SV-133-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

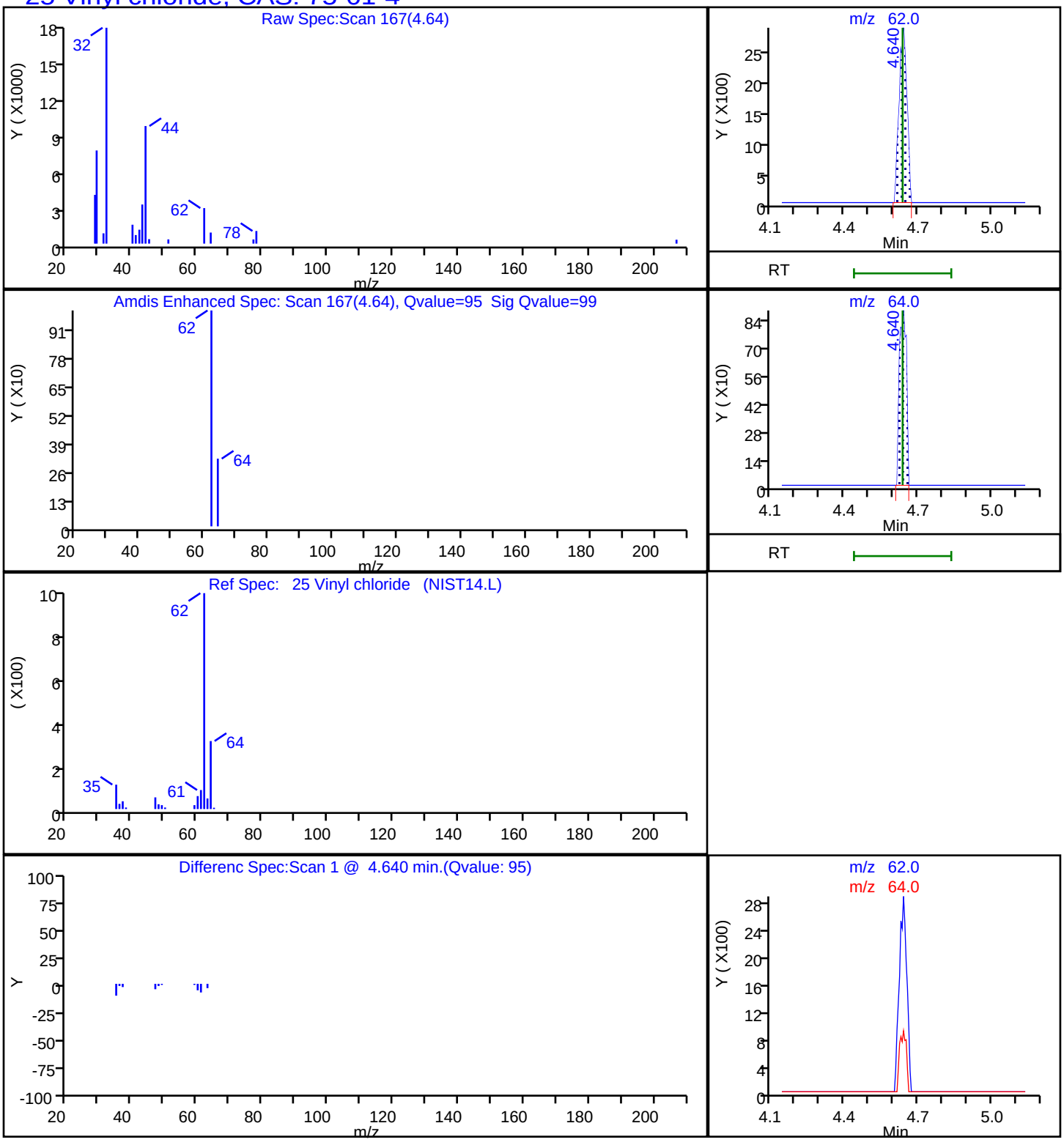
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D		
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6
Client ID:	SV-133-C-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

25 Vinyl chloride, CAS: 75-01-4



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

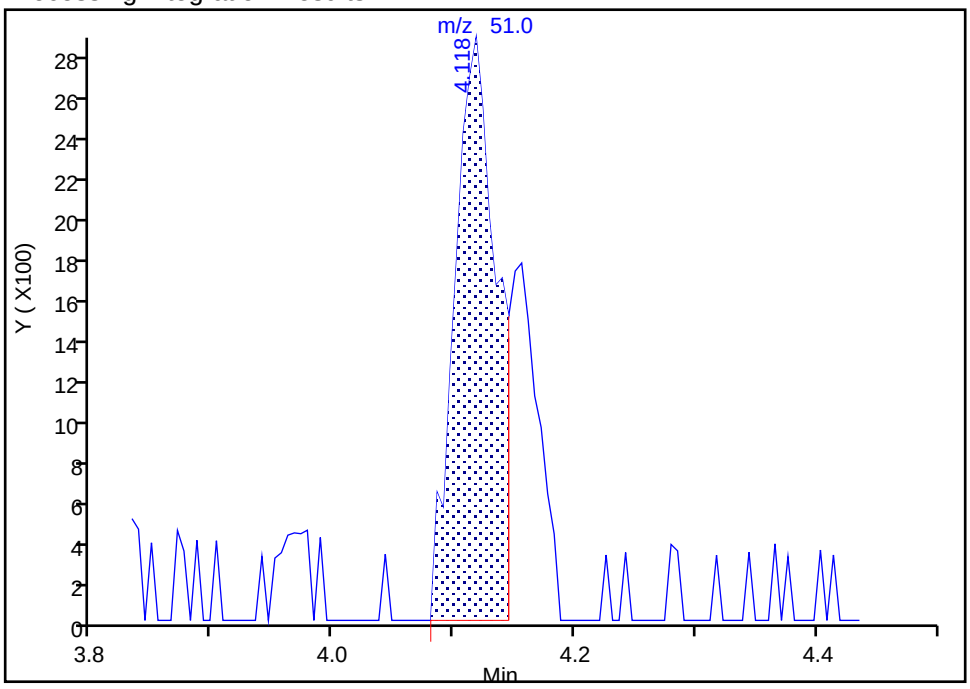
Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D				
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ		
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6		
Client ID:	SV-133-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

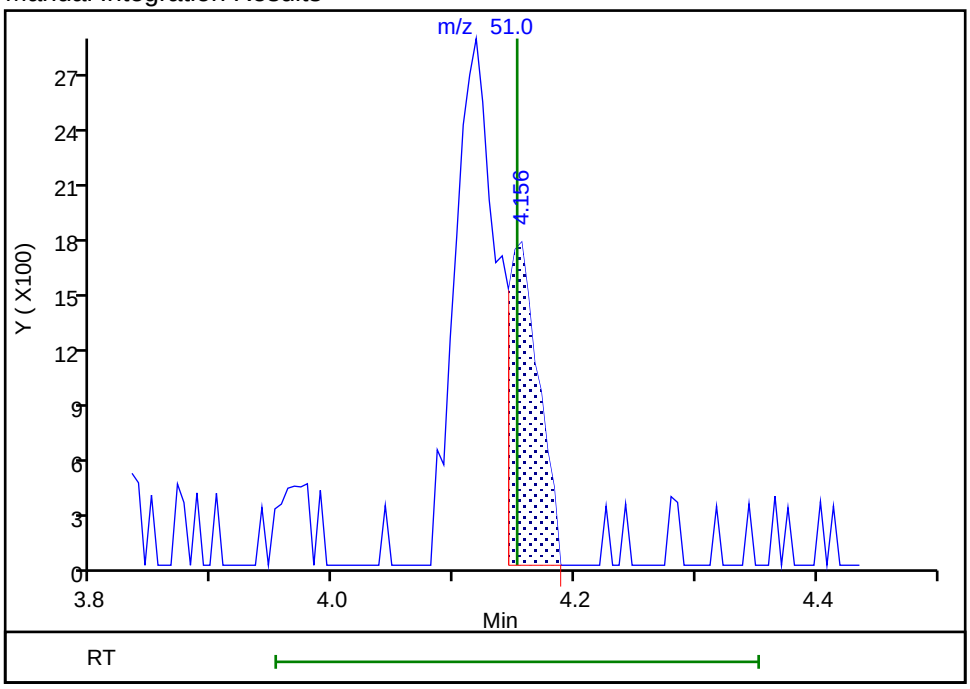
Processing Integration Results

RT: 4.12
Area: 6830
Amount: 0.134163
Amount Units: ppb v/v



Manual Integration Results

RT: 4.16
Area: 3037
Amount: 0.059656
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 28-Aug-2019 10:52:12

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

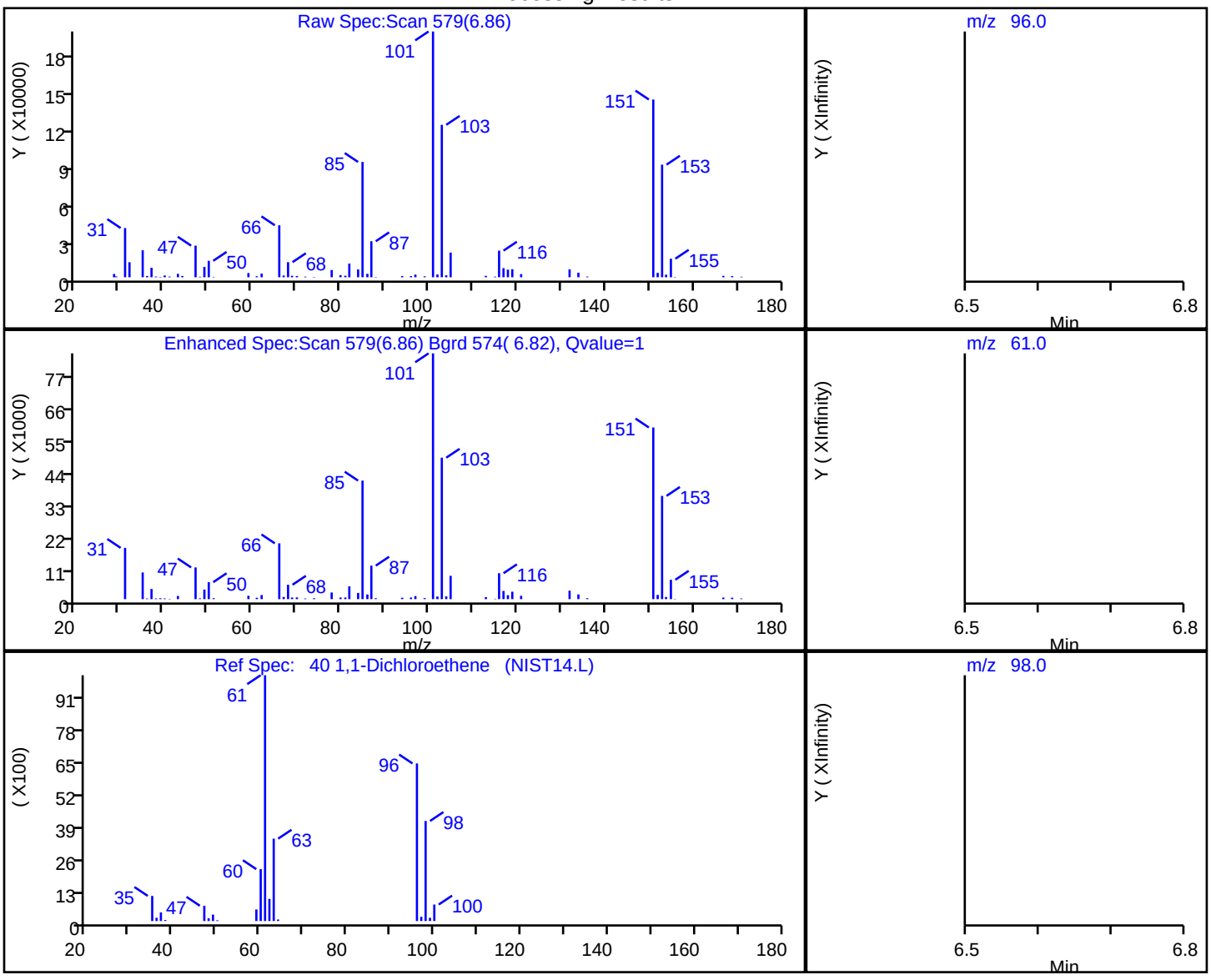
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P214.D				
Injection Date:	27-Aug-2019 12:41:30	Instrument ID:	MJ		
Lims ID:	140-16376-A-6	Lab Sample ID:	140-16376-6		
Client ID:	SV-133-C-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

40 1,1-Dichloroethene, CAS: 75-35-4

Processing Results



RT	Mass	Response	Amount
6.86	96.00	963	0.016846
6.86	61.00	1813	
6.69	98.00	0	

Reviewer: khachitpongpanits, 28-Aug-2019 10:52:25

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.2		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.090	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.82		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.31	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	7.9		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.80	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.61	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	4.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.5	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D
Lims ID: 140-16376-A-7
Client ID: SV-153-C-27
Sample Type: Client
Inject. Date: 23-Aug-2019 21:47:30 ALS Bottle#: 10 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.7600
Sample Info: 140-0012811-015
Misc. Info.: 140-16376-a-7@1.76
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:11:38 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:11:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	97	170891	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1003124	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	880664	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	93	540690	3.56	
6 Chlorodifluoromethane	51	3.432	3.421	0.005	97	65457	0.4483	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	97	8873	0.0672	
31 Methylene Chloride	84	5.972	5.966	0.006	95	83417	1.38	
49 Benzene	78	10.210	10.205	0.005	60	6494	0.0320	
52 Carbon tetrachloride	117	10.221	10.221	0.000	40	2617	0.0161	
58 Trichloroethene	130	11.499	11.499	0.000	91	14656	0.1640	
67 Toluene	91	13.586	13.586	0.000	93	46916	0.2071	
73 Tetrachloroethene	129	14.740	14.734	0.006	50	1661	0.0179	
76 Ethylbenzene	91	15.910	15.905	0.005	97	11677	0.0367	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	96	38224	0.1532	
80 o-Xylene	91	16.595	16.595	0.000	97	17999	0.0687	
92 1,2,4-Trimethylbenzene	105	18.433	18.450	-0.017	97	21489	0.0628	
S 116 Xylenes, Total	100				0		0.2218	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

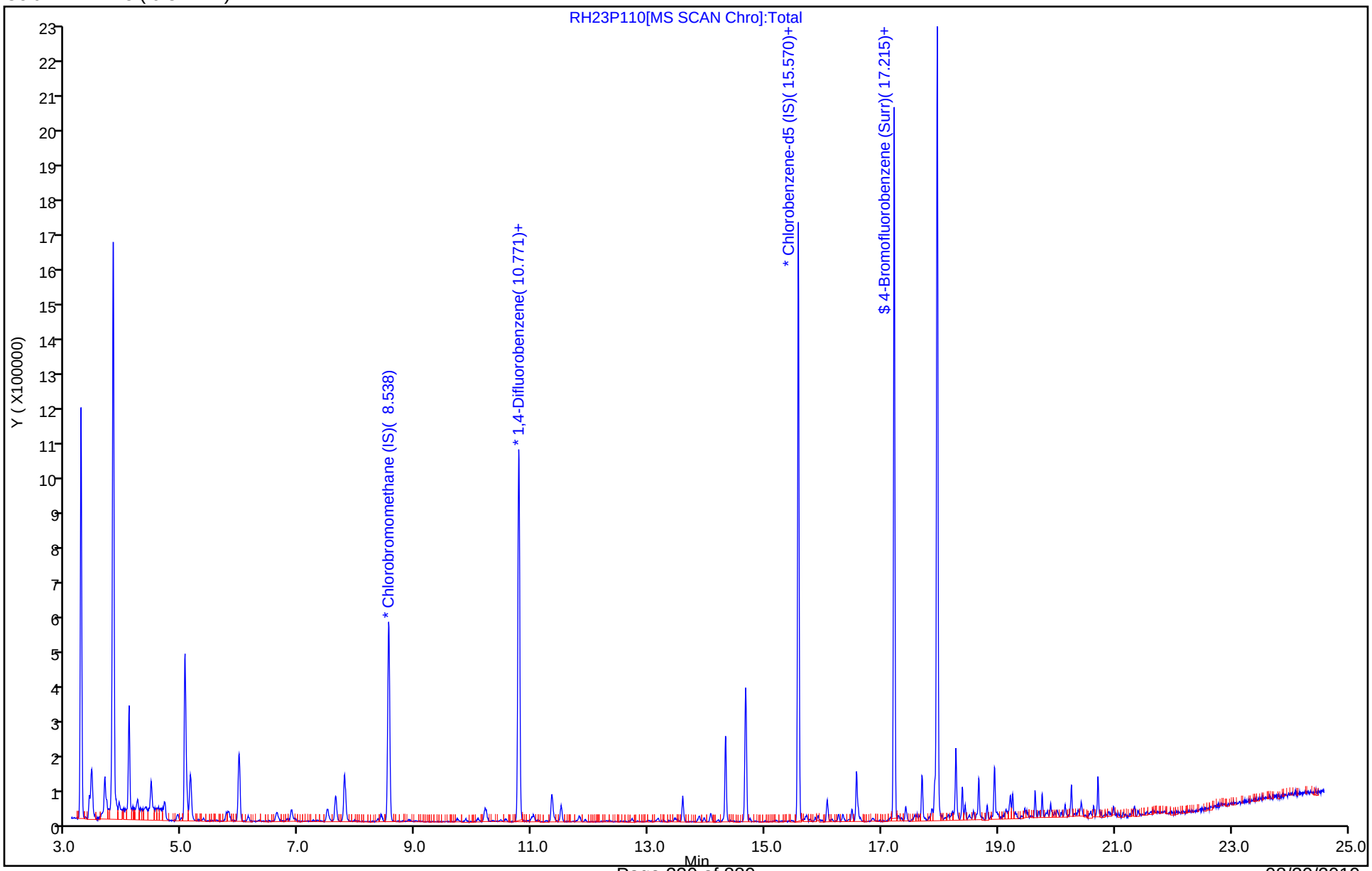
Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7	Worklist Smp#:	15
Client ID:	SV-153-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.7600	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D				
Lims ID:	140-16376-A-7				
Client ID:	SV-153-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 21:47:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600		
Sample Info:	140-0012811-015				
Misc. Info.:	140-16376-a-7@1.76				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:11:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:11:38		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.56	89.03

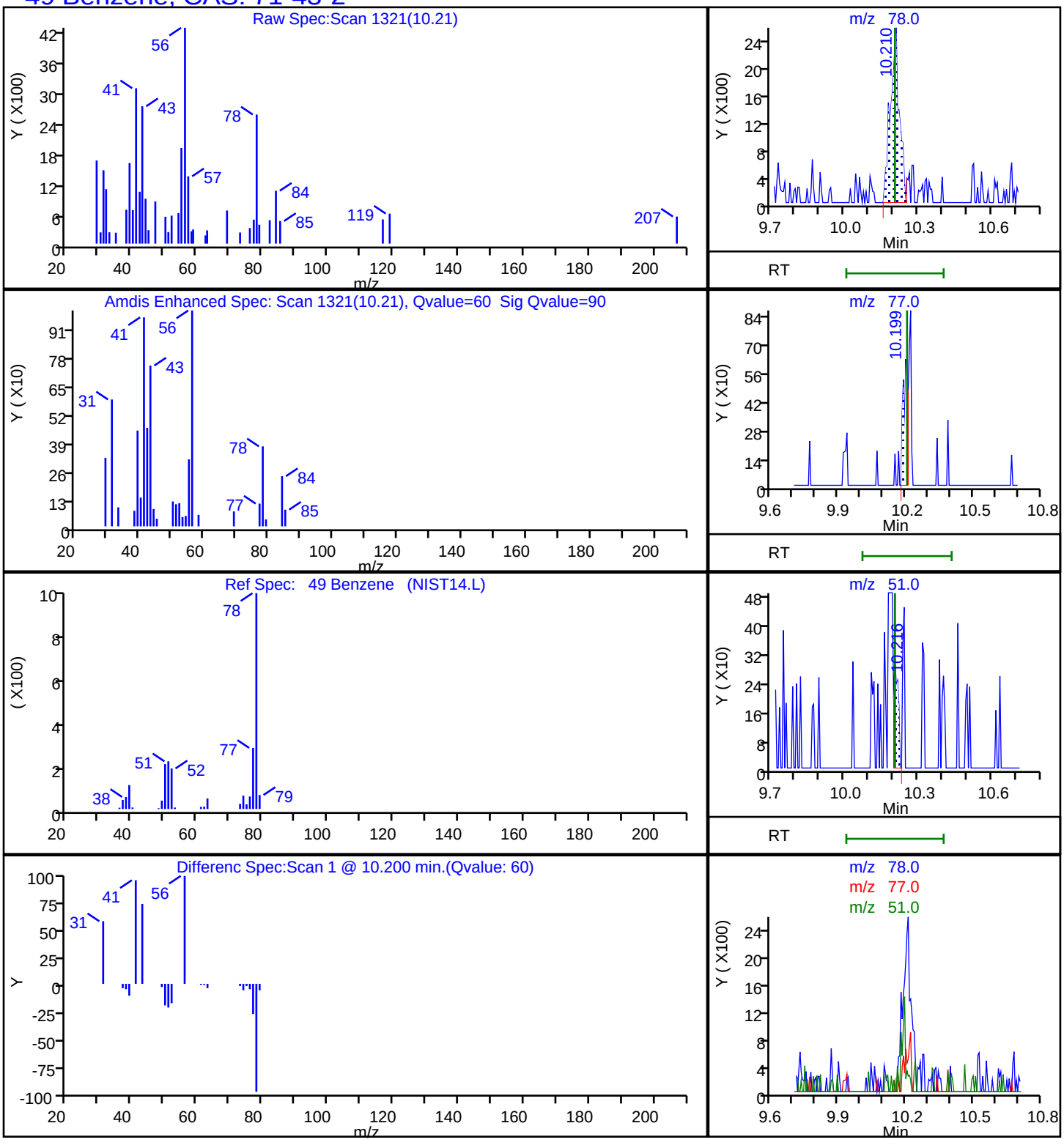
Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date: 23-Aug-2019 21:47:30 Instrument ID: MR

Lims ID: 140-16376-A-7 Lab Sample ID: 140-16376-7

Client ID: SV-153-C-27

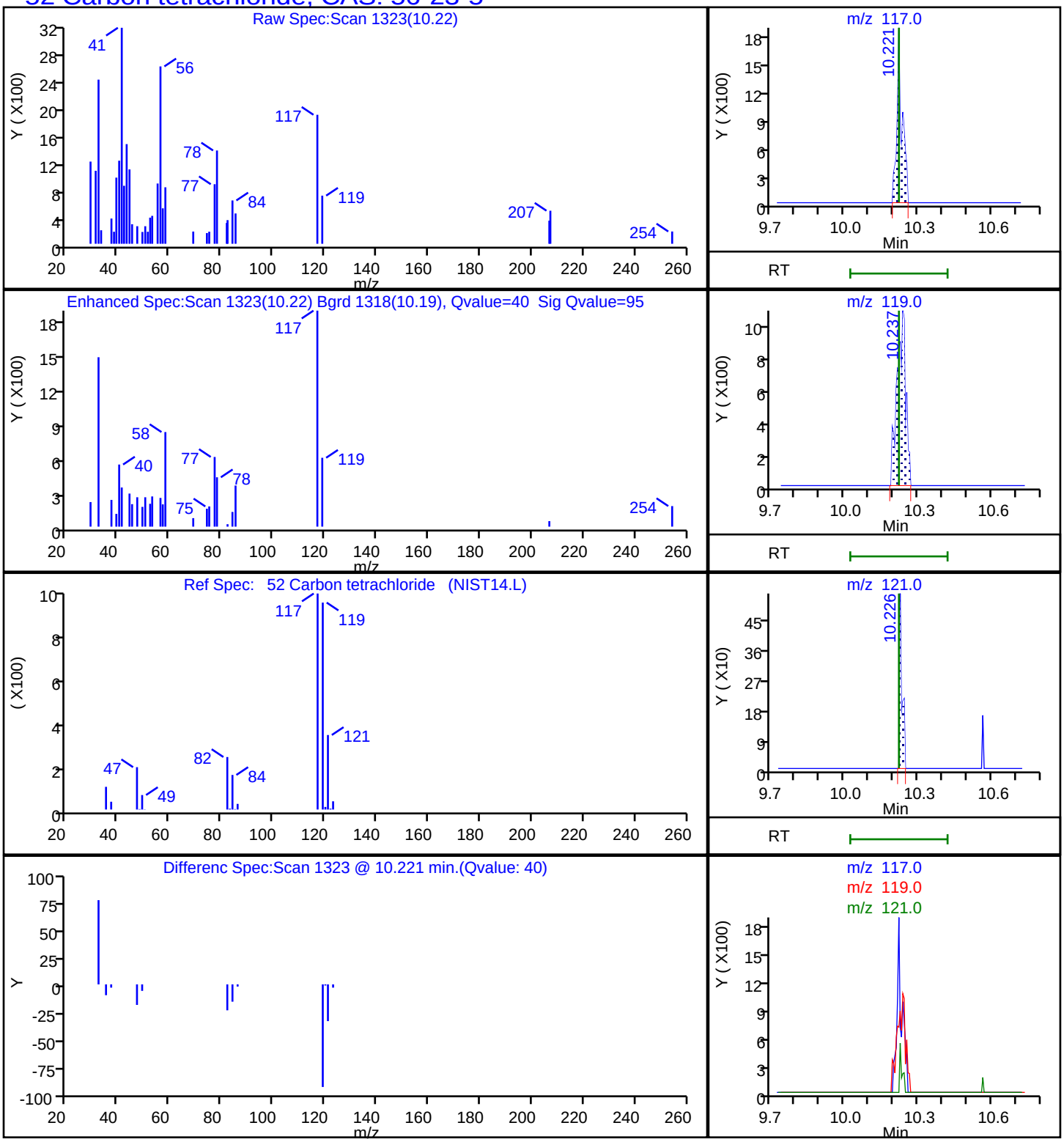
Operator ID: ALS Bottle#: 10 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.7600

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

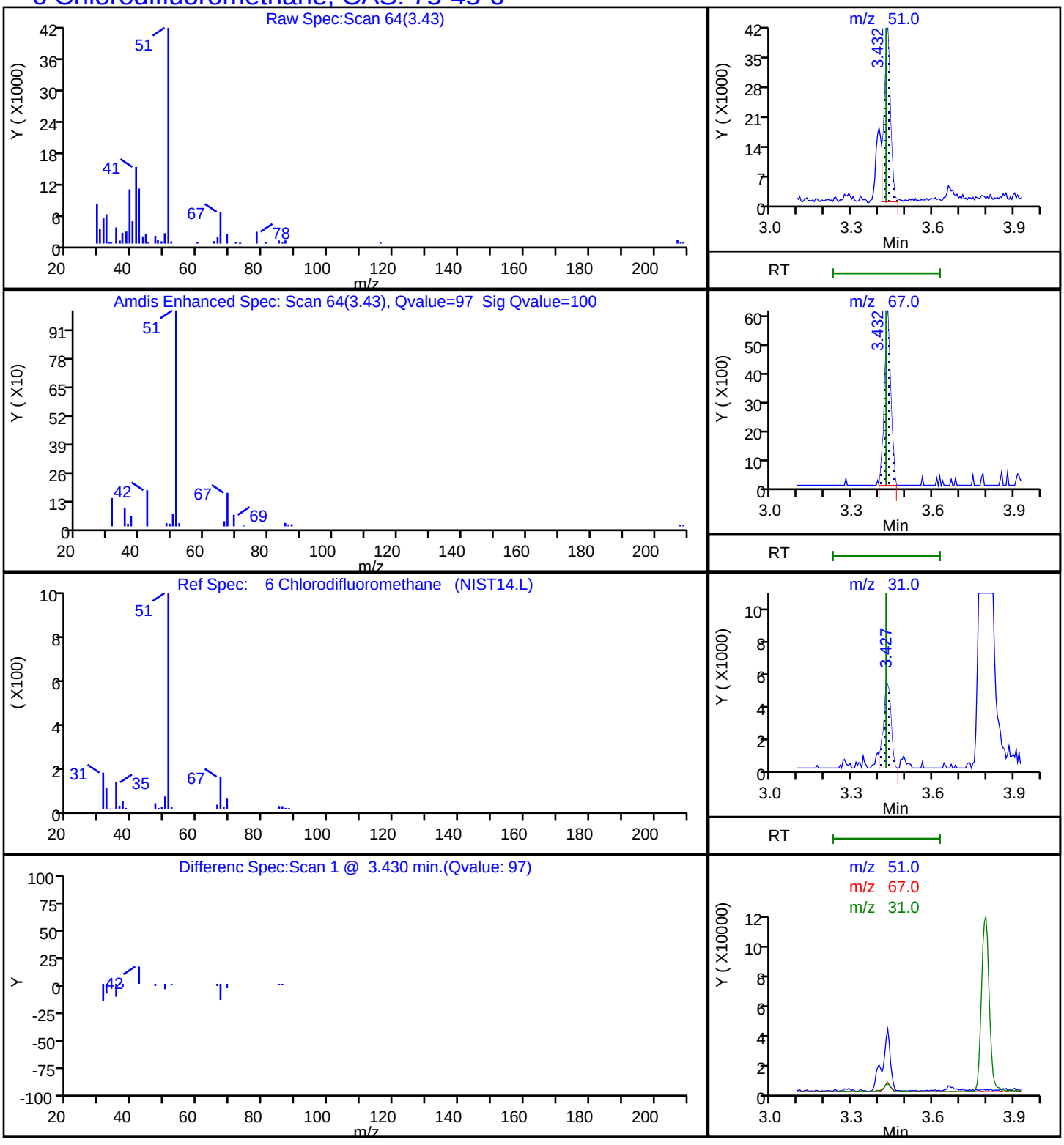
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D		
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

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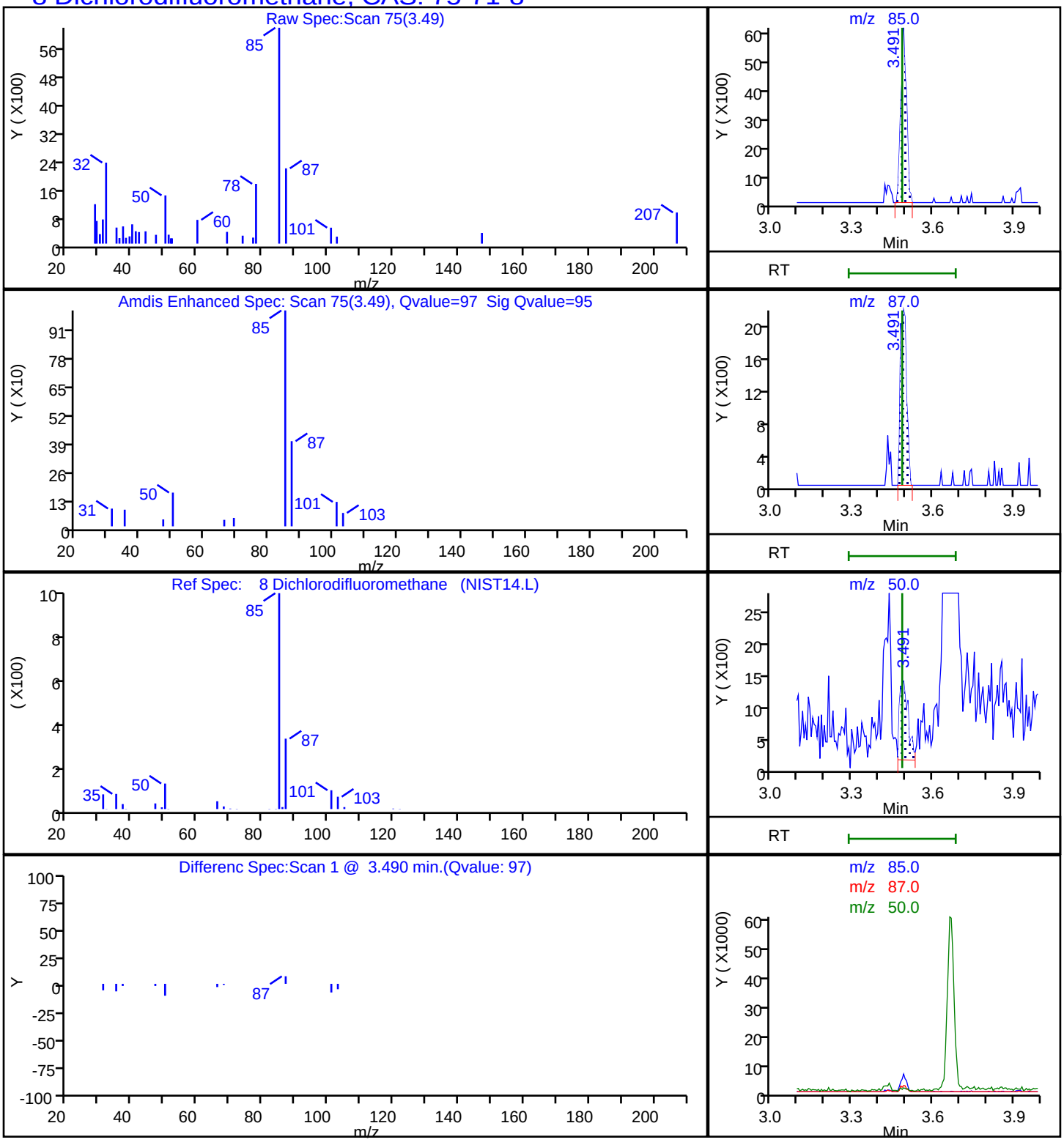
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

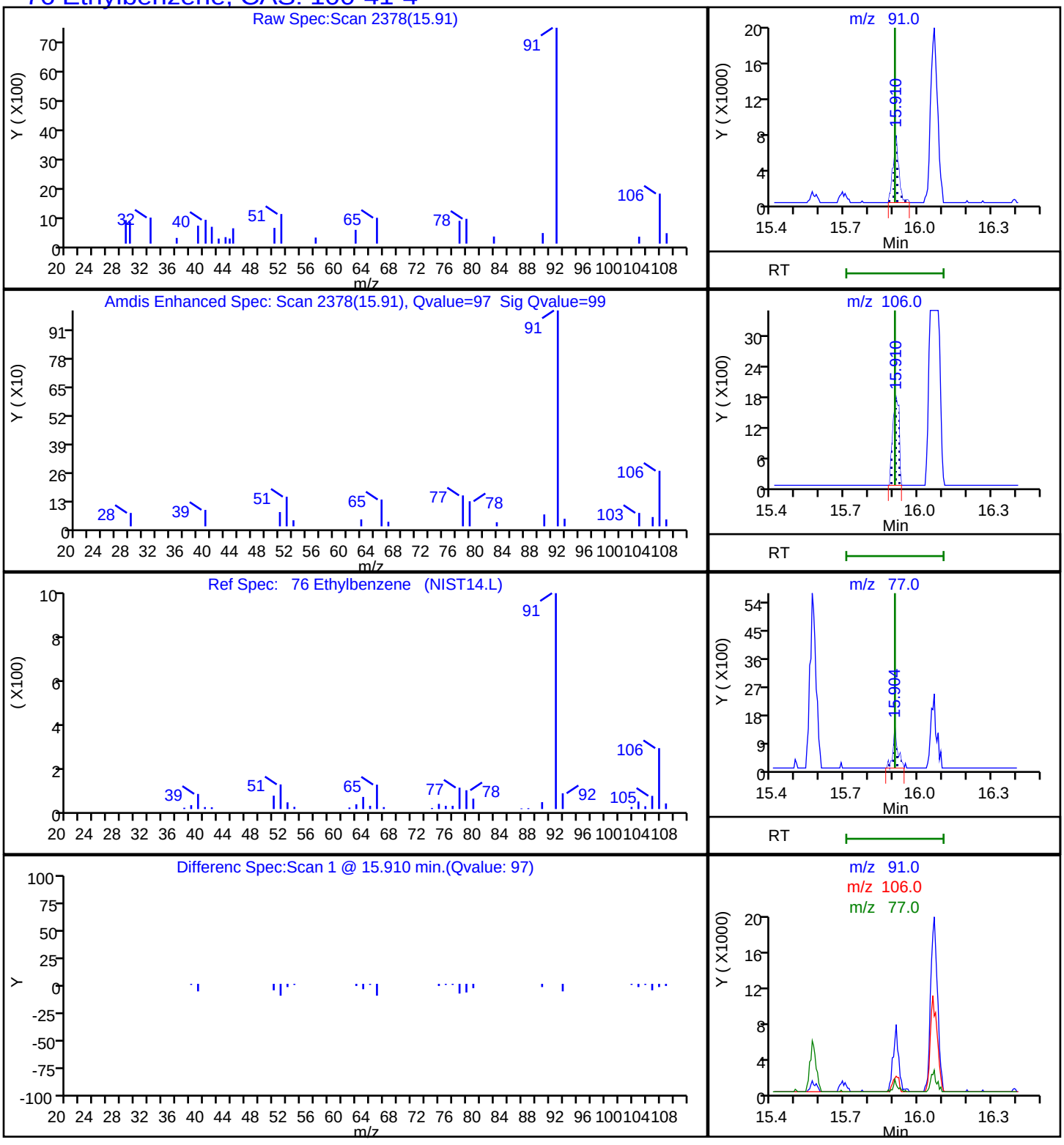
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D		
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date: 23-Aug-2019 21:47:30 Instrument ID: MR

Lims ID: 140-16376-A-7 Lab Sample ID: 140-16376-7

Client ID: SV-153-C-27

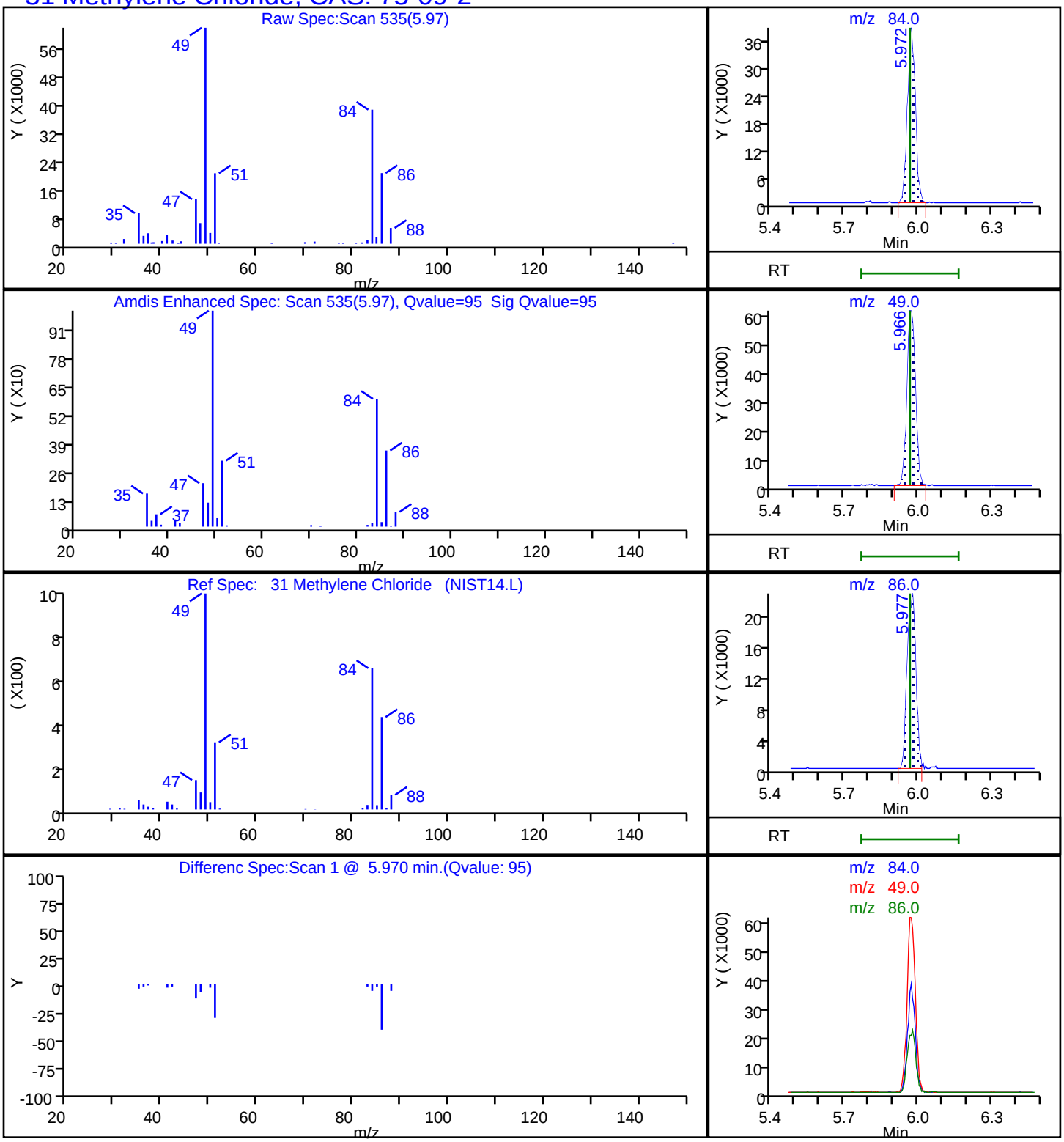
Operator ID: ALS Bottle#: 10 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.7600

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date: 23-Aug-2019 21:47:30 Instrument ID: MR

Lims ID: 140-16376-A-7 Lab Sample ID: 140-16376-7

Client ID: SV-153-C-27

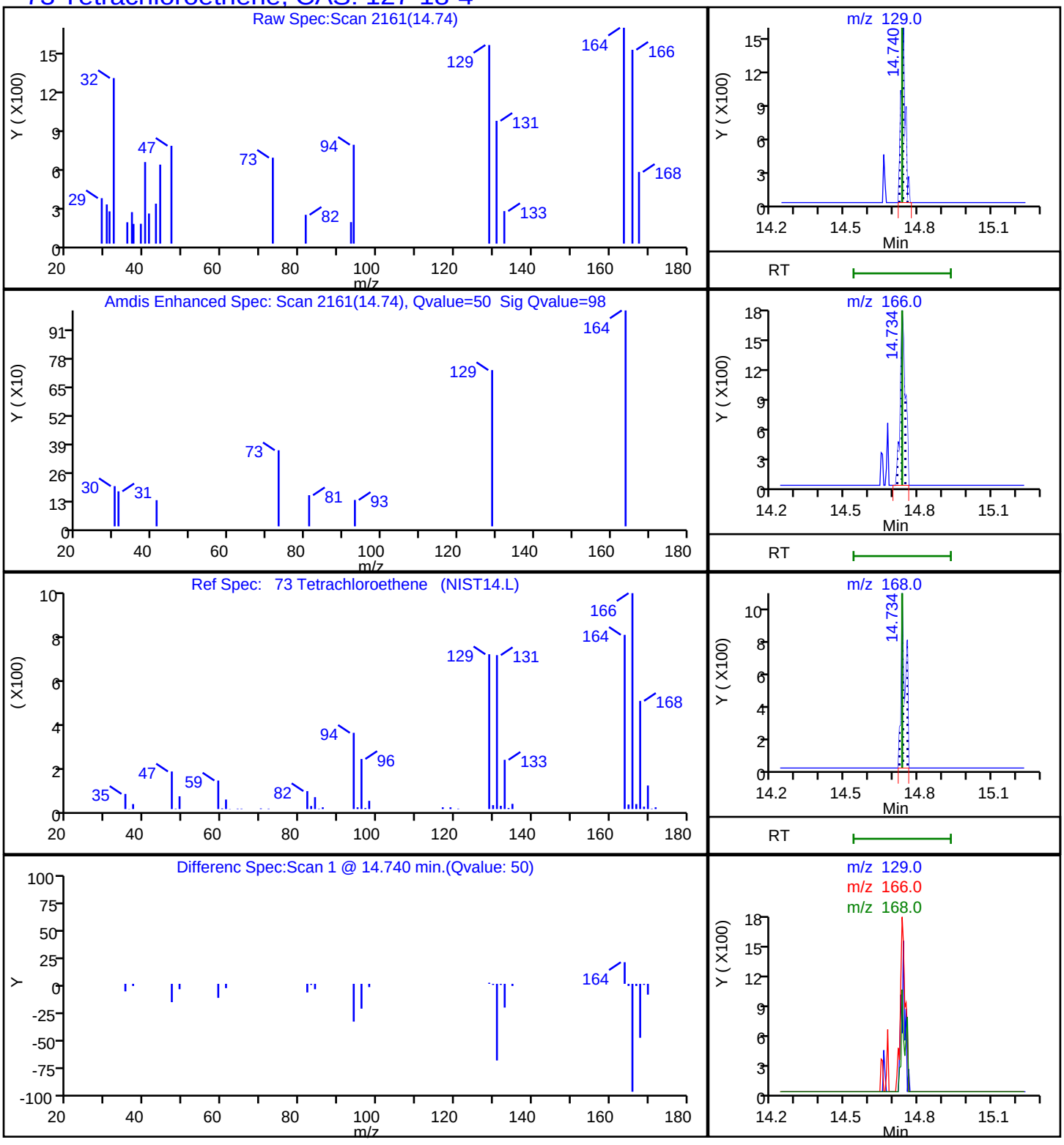
Operator ID: ALS Bottle#: 10 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.7600

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

73 Tetrachloroethene, CAS: 127-18-4



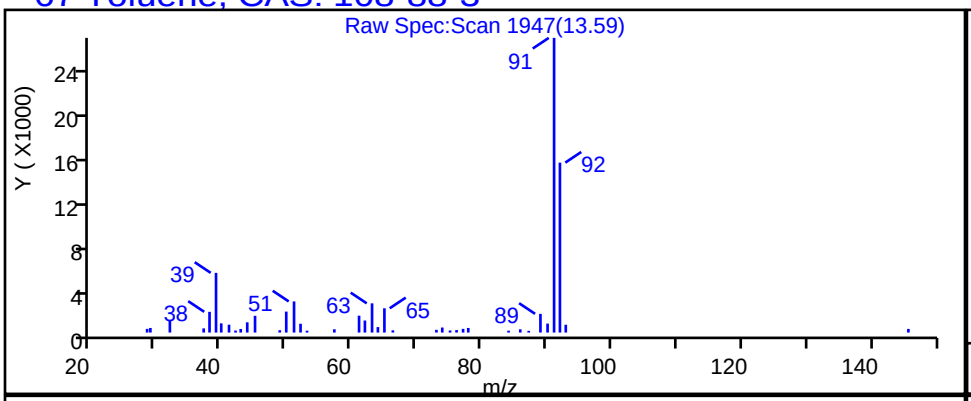
Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

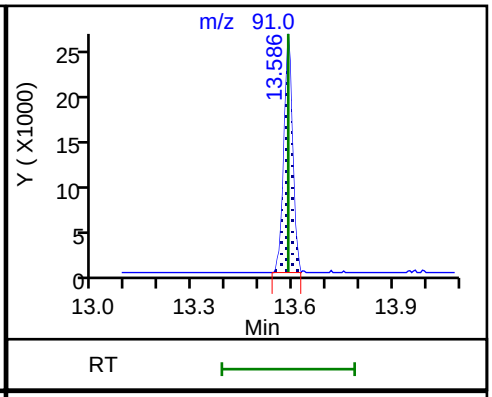
Eurofins TestAmerica, Knoxville

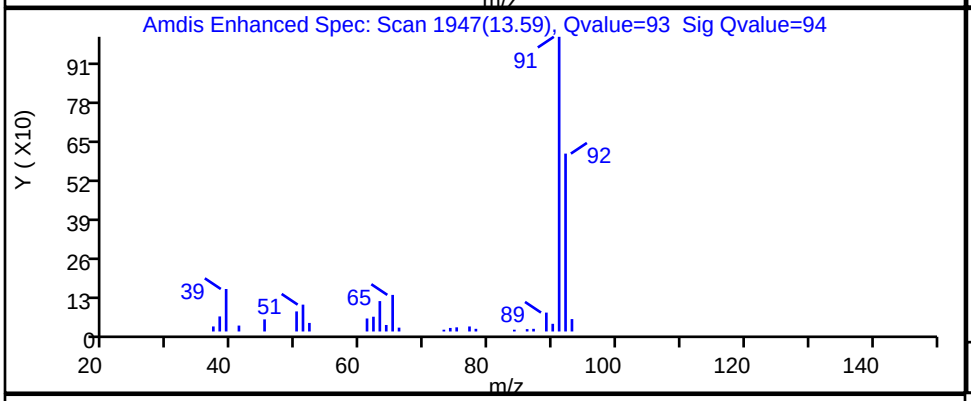
Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

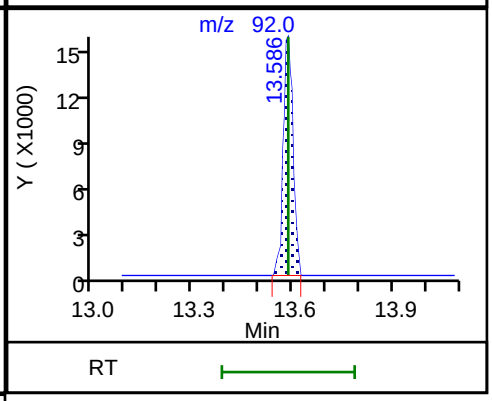
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

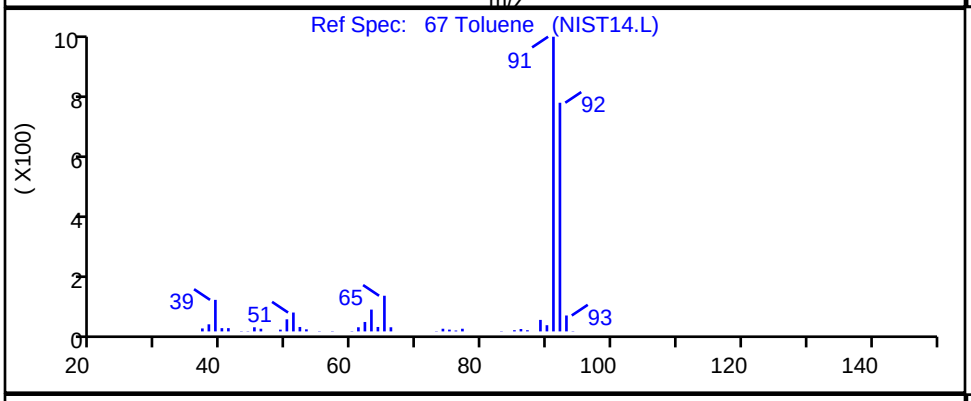
67 Toluene, CAS: 108-88-3

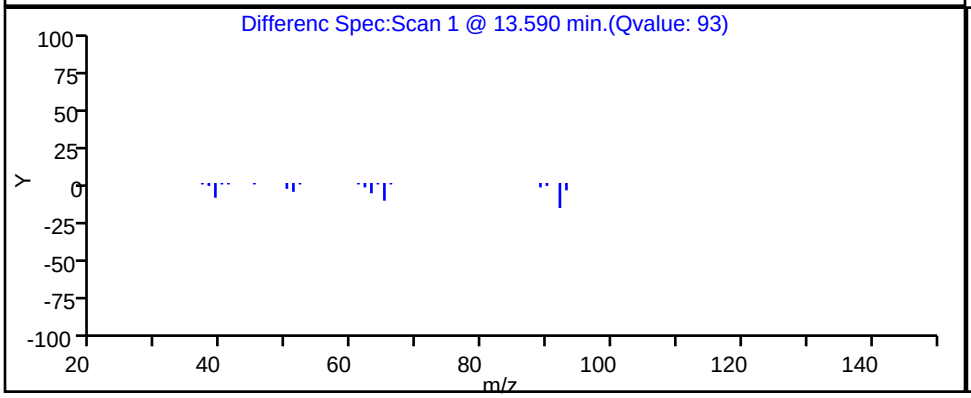


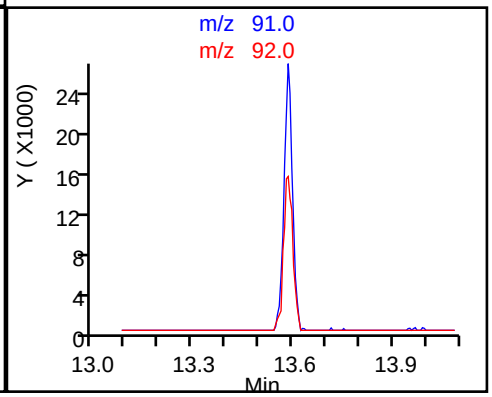












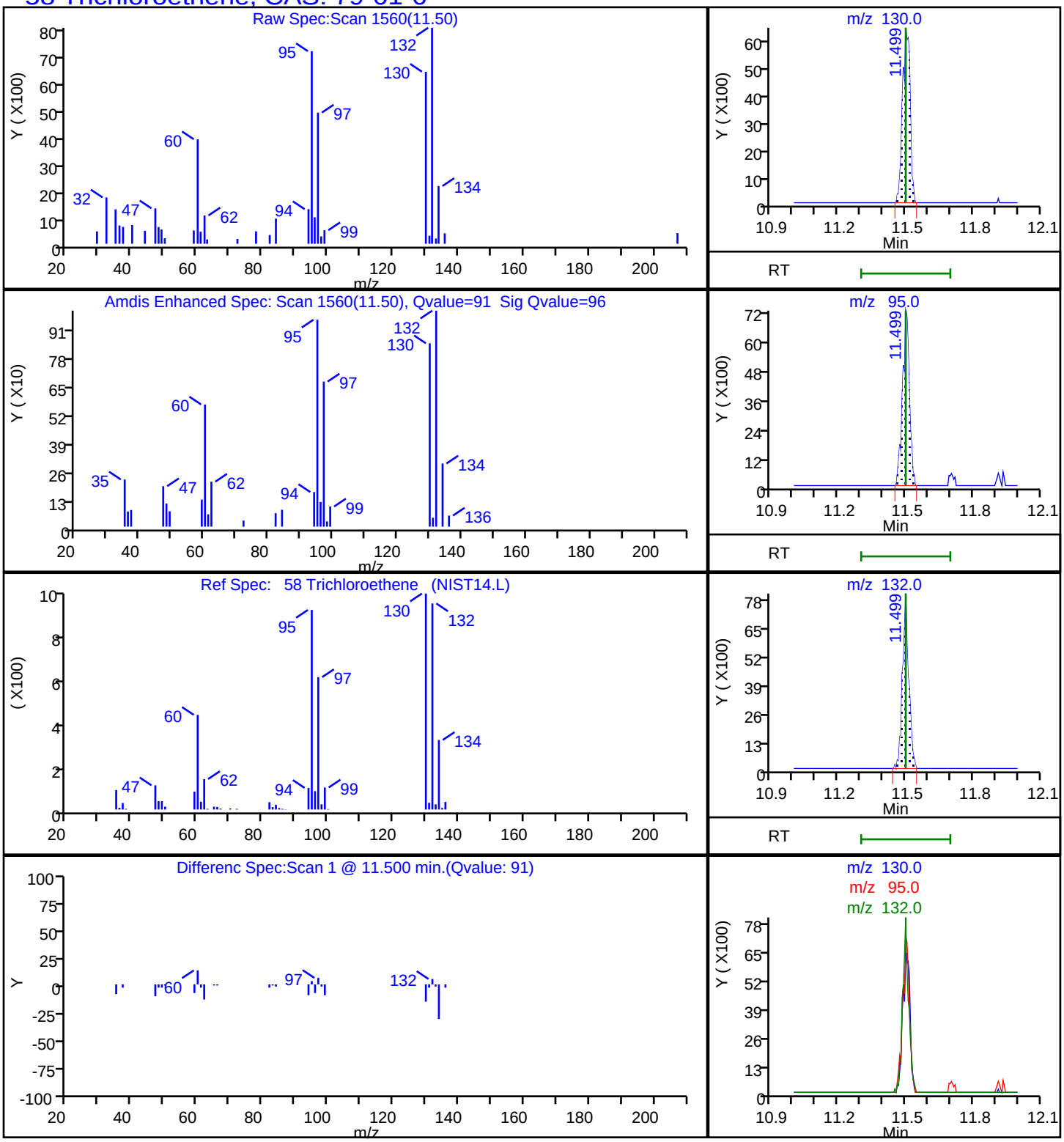
Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D

Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

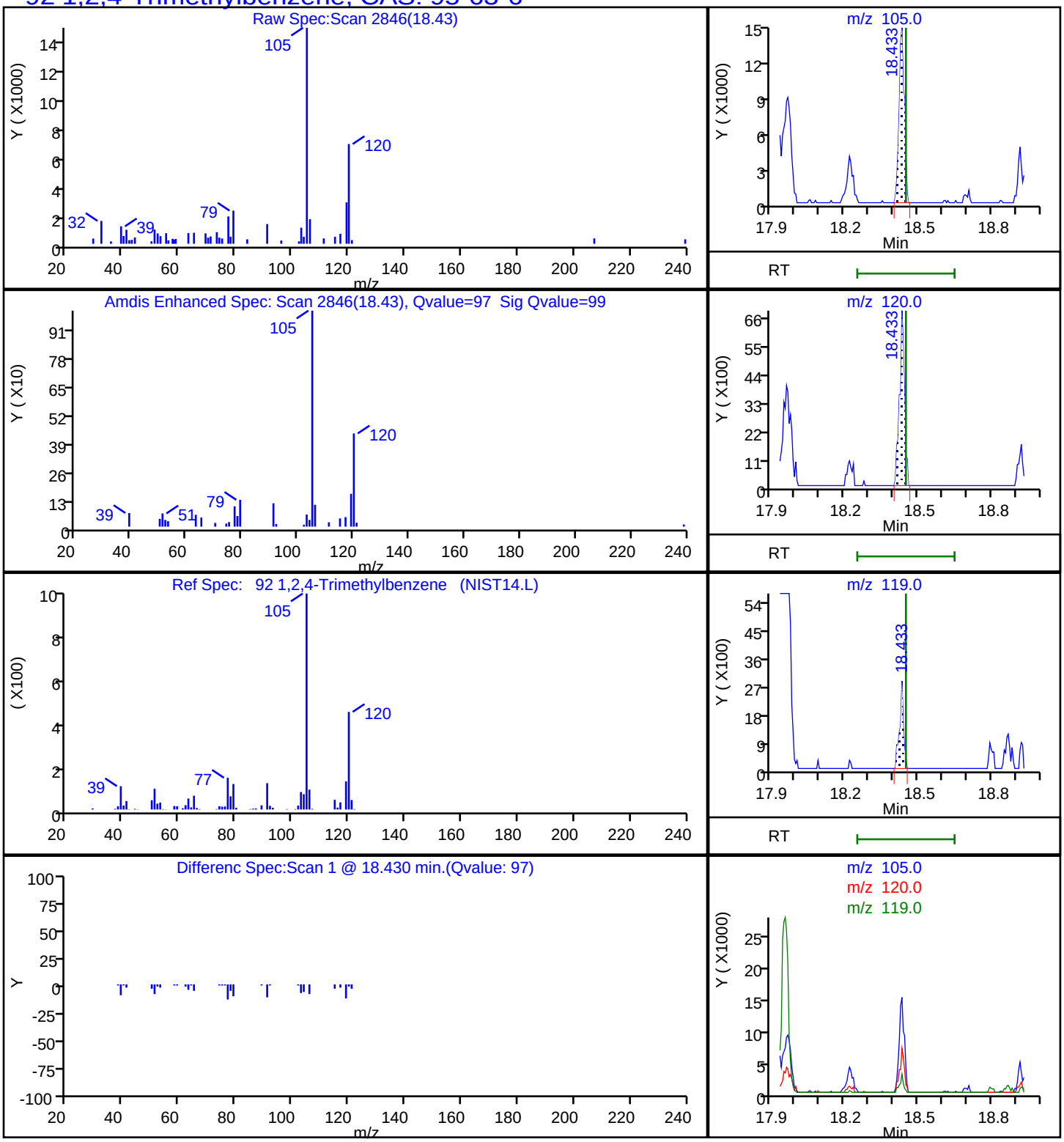


Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D				
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR		
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7		
Client ID:	SV-153-C-27				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

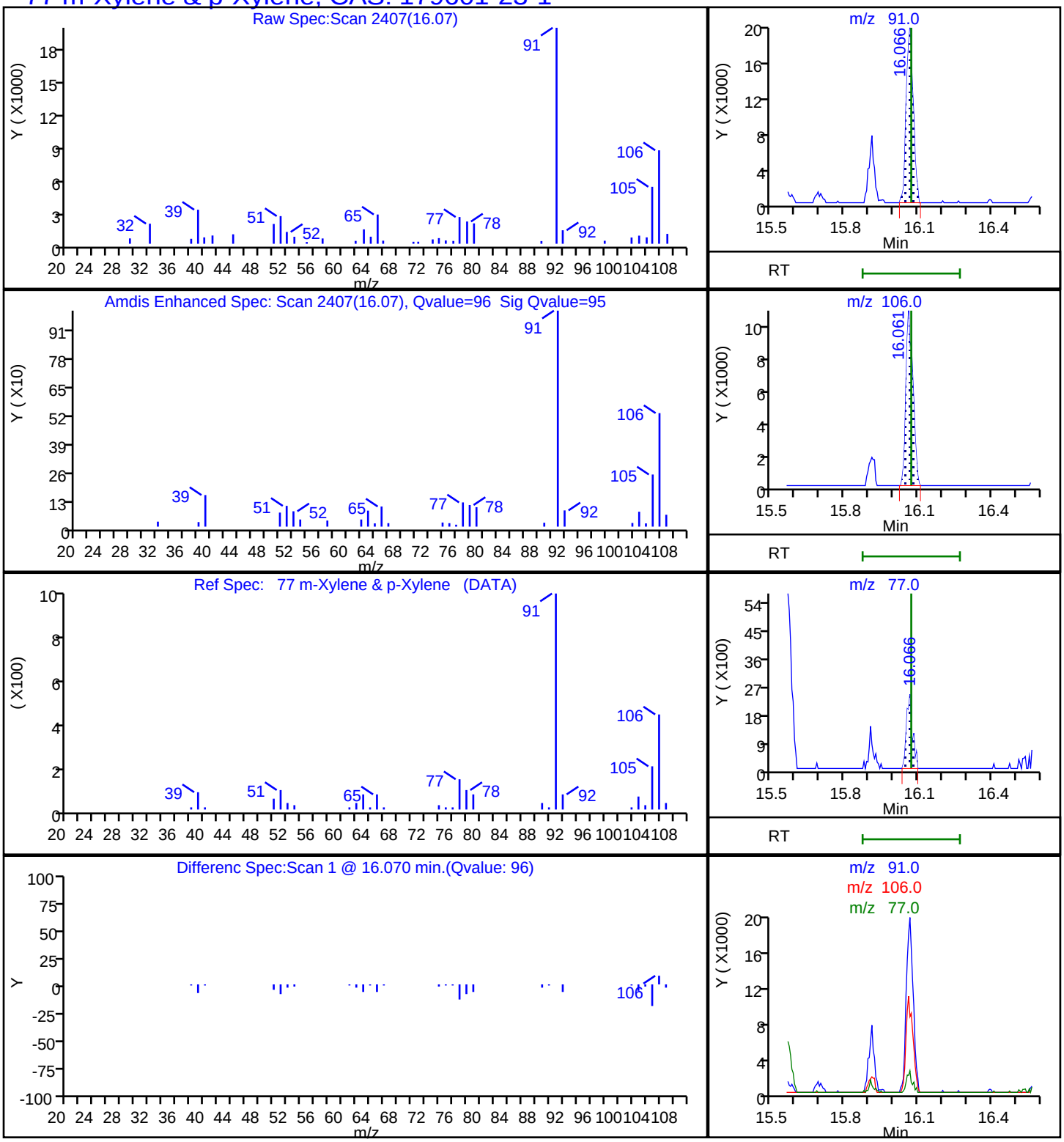


Report Date: 26-Aug-2019 14:11:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D				
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR		
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7		
Client ID:	SV-153-C-27				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

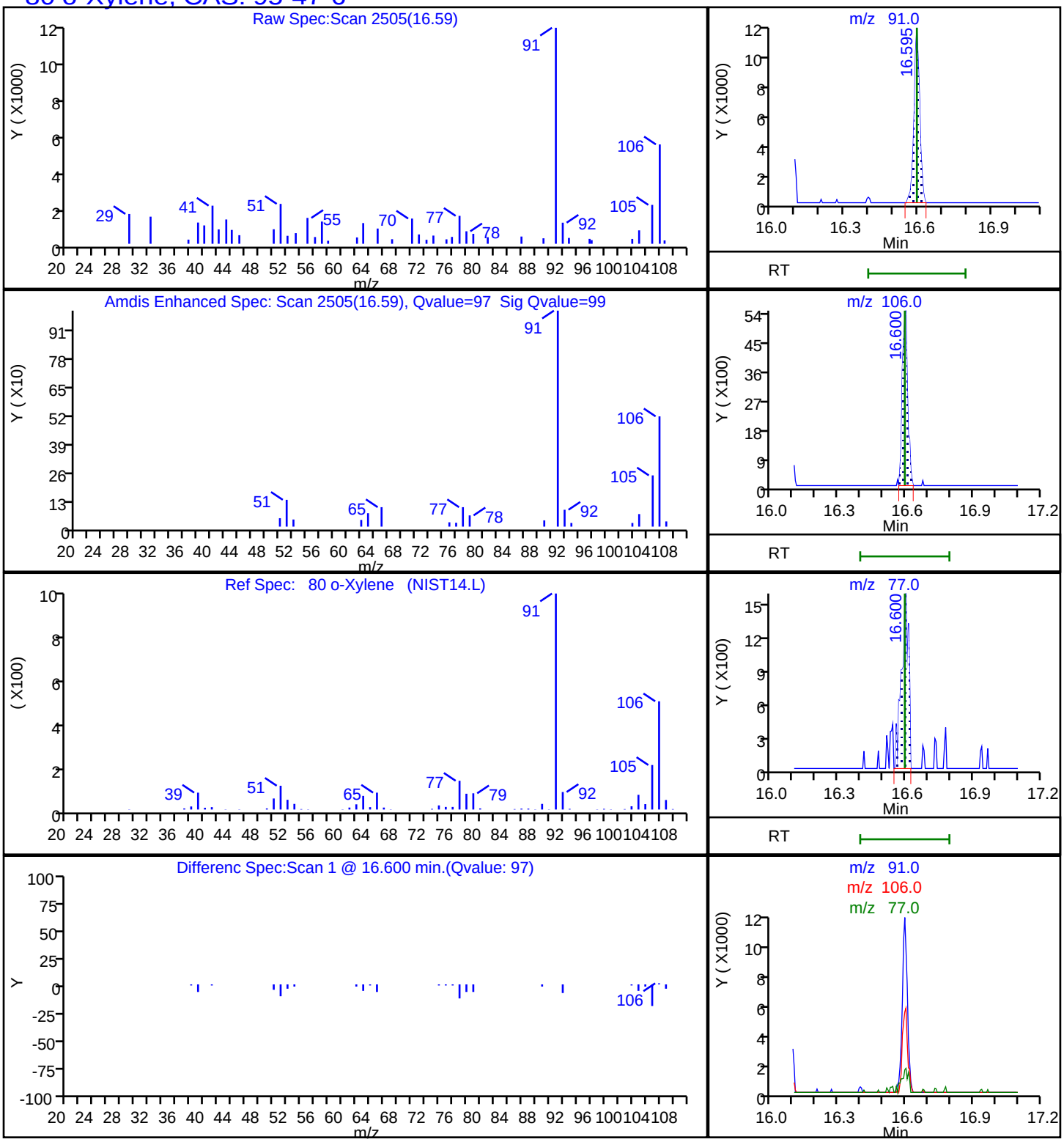
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D		
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7
Client ID:	SV-153-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



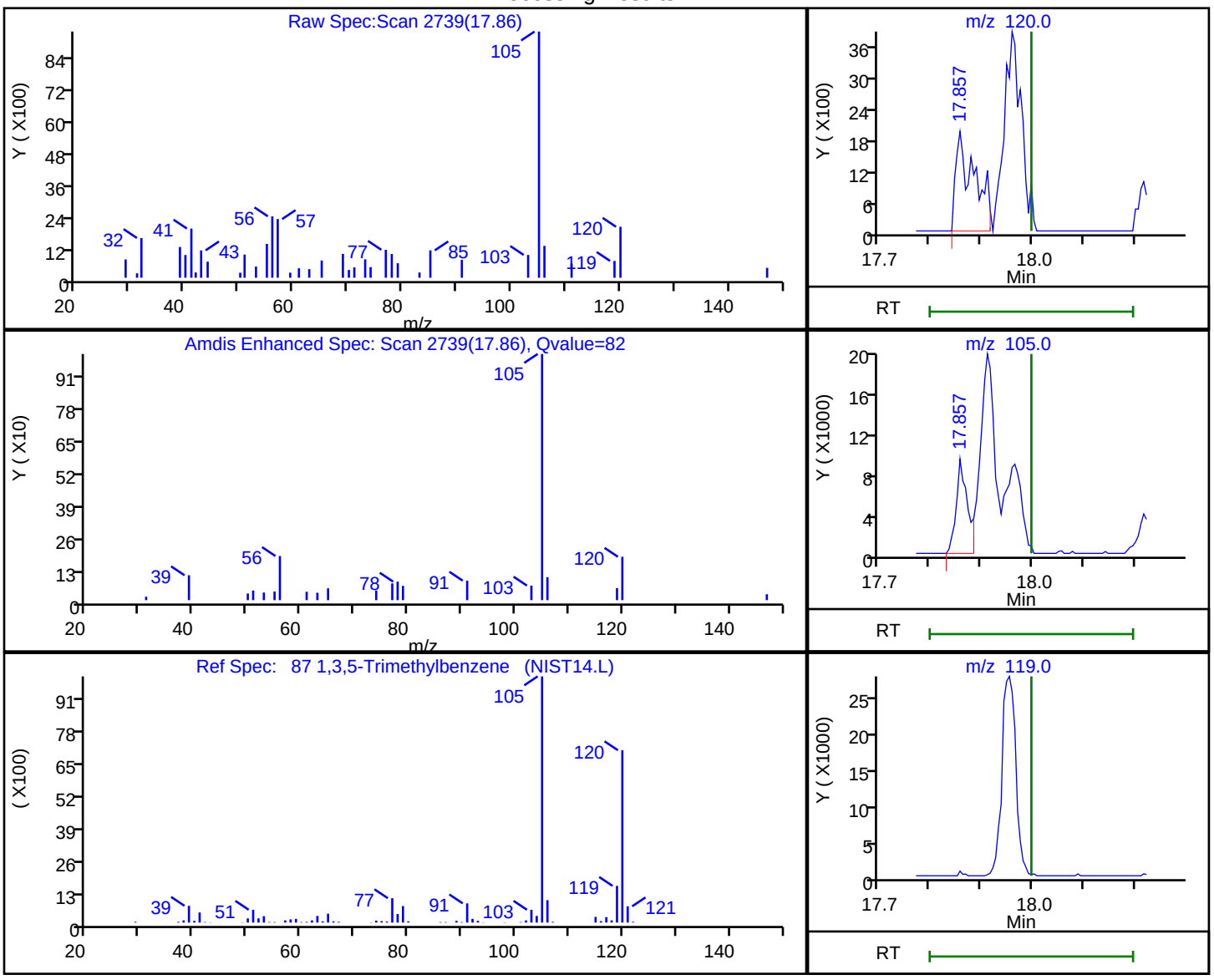
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P110.D				
Injection Date:	23-Aug-2019 21:47:30	Instrument ID:	MR		
Lims ID:	140-16376-A-7	Lab Sample ID:	140-16376-7		
Client ID:	SV-153-C-27				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.7600		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
17.86	120.00	4928	0.033352
17.86	105.00	14505	
18.00	119.00	0	

Reviewer: khachitpongpanits, 26-Aug-2019 14:11:23

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.0		0.40	0.11
67-66-3	Chloroform	119.38	2.9		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.39	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.1		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.92		0.40	0.040
100-41-4	Ethylbenzene	106.17	11		0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.11	J	0.40	0.035
108-88-3	Toluene	92.14	0.78		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.43		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	3.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*120*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.36	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.27	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	91		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.95	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14		1.4	0.39
67-66-3	Chloroform	119.38	14		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	27		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	16		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	3.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	47		1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.76	J	2.7	0.24
108-88-3	Toluene	92.14	2.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	19		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*670*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.8	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	400		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D
Lims ID: 140-16376-A-8
Client ID: SV-060-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 22:24:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-012
Misc. Info.: 140-16376-a-8
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:23:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	97	203227	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1272475	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1041985	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	91	760181	4.23	
6 Chlorodifluoromethane	51	3.426	3.427	-0.001	97	140132	0.8070	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	12212	0.0777	
27 1,1-Dichloroethene	96	5.621	5.616	0.005	93	12875	0.1842	
31 Methylene Chloride	84	5.966	5.972	-0.006	96	85910	1.20	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	94	6289	0.0856	
37 1,1-Dichloroethane	63	7.207	7.212	-0.006	98	113045	0.8113	
42 cis-1,2-Dichloroethene	96	8.204	8.199	0.005	93	115183	1.38	
44 Chloroform	83	8.555	8.555	0.000	48	98622	0.5769	
47 1,1,1-Trichloroethane	97	9.585	9.590	-0.005	96	127549	0.6785	
49 Benzene	78	10.199	10.199	0.000	94	15326	0.0595	
52 Carbon tetrachloride	117	10.221	10.226	-0.005	43	2624	0.0127	
58 Trichloroethene	130	11.504	11.499	0.005	96	2829307	25.0	E
67 Toluene	91	13.591	13.586	0.005	90	41711	0.1556	
73 Tetrachloroethene	129	14.745	14.740	0.005	82	2466	0.0225	
76 Ethylbenzene	91	15.910	15.905	0.005	99	806797	2.15	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	3737829	12.7	
80 o-Xylene	91	16.600	16.595	0.005	99	1736831	5.60	
87 1,3,5-Trimethylbenzene	120	17.975	17.997	-0.022	91	9533	0.0545	
92 1,2,4-Trimethylbenzene	105	18.439	18.450	-0.011	96	28912	0.0714	
S 116 Xylenes, Total	100				0		18.3	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

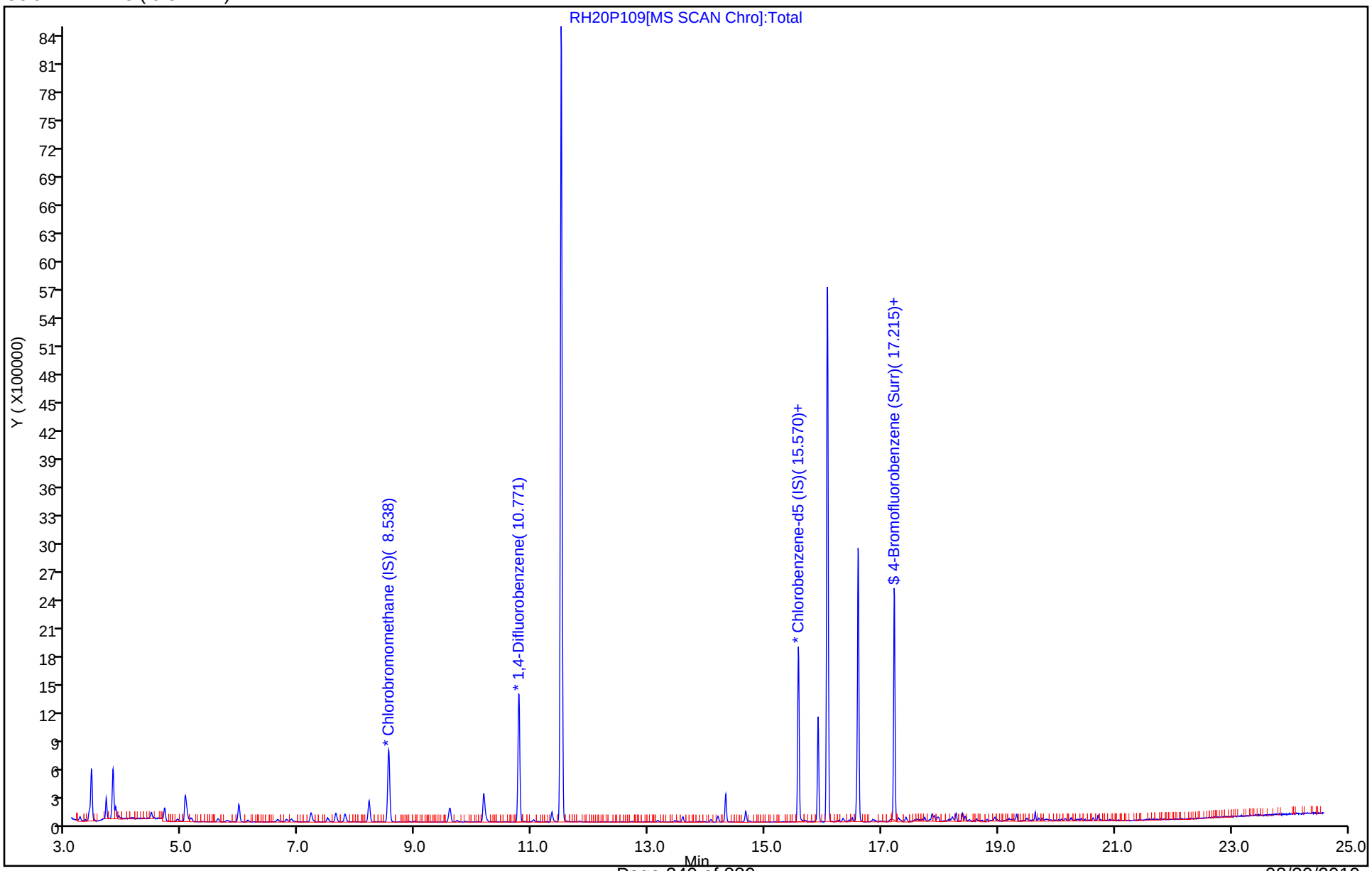
Report Date: 22-Aug-2019 10:23:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8	Worklist Smp#:	12
Client ID:	SV-060-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D				
Lims ID:	140-16376-A-8				
Client ID:	SV-060-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 22:24:30	ALS Bottle#:	9	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-012				
Misc. Info.:	140-16376-a-8				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:23:06

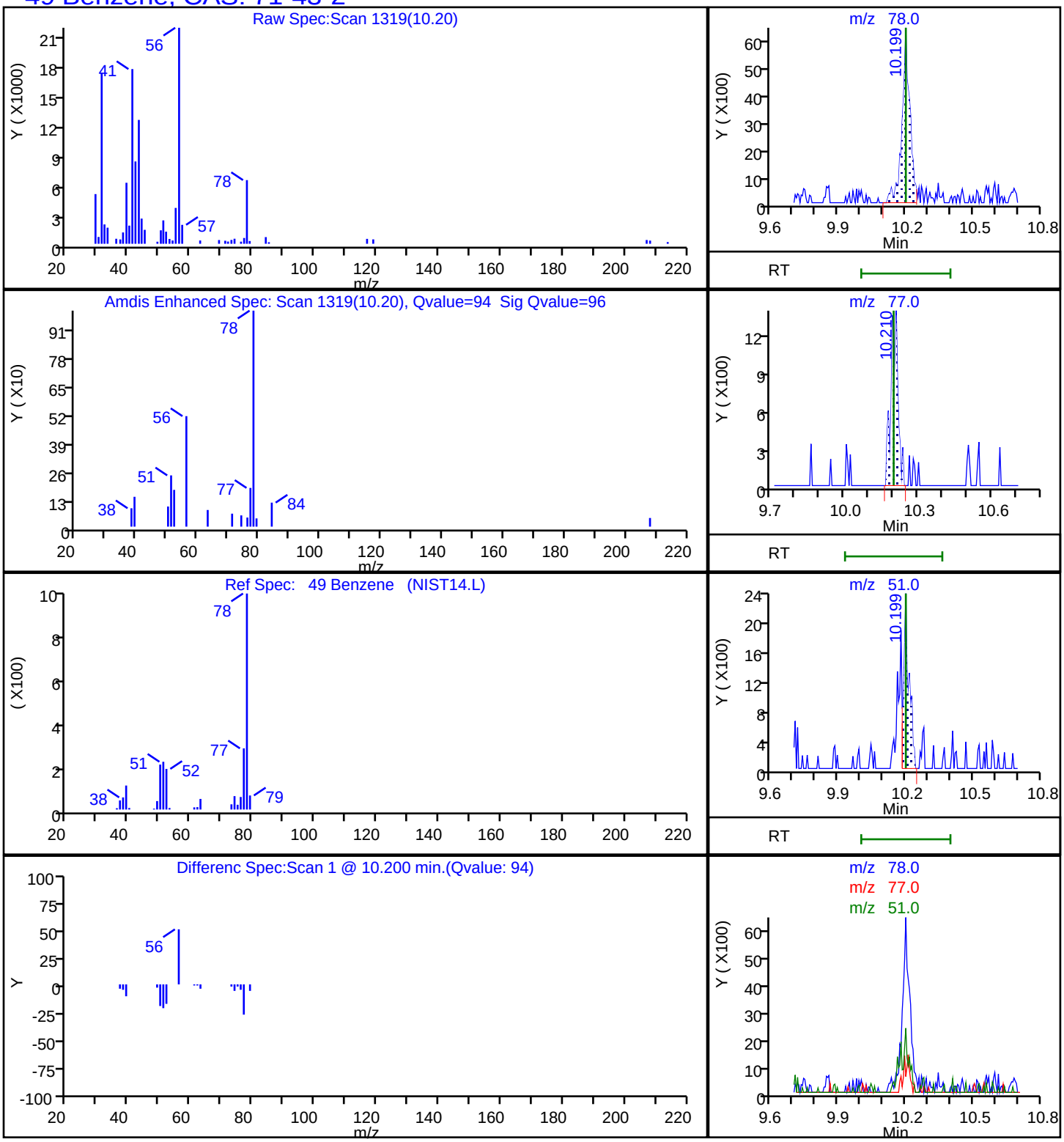
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.23	105.79

Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



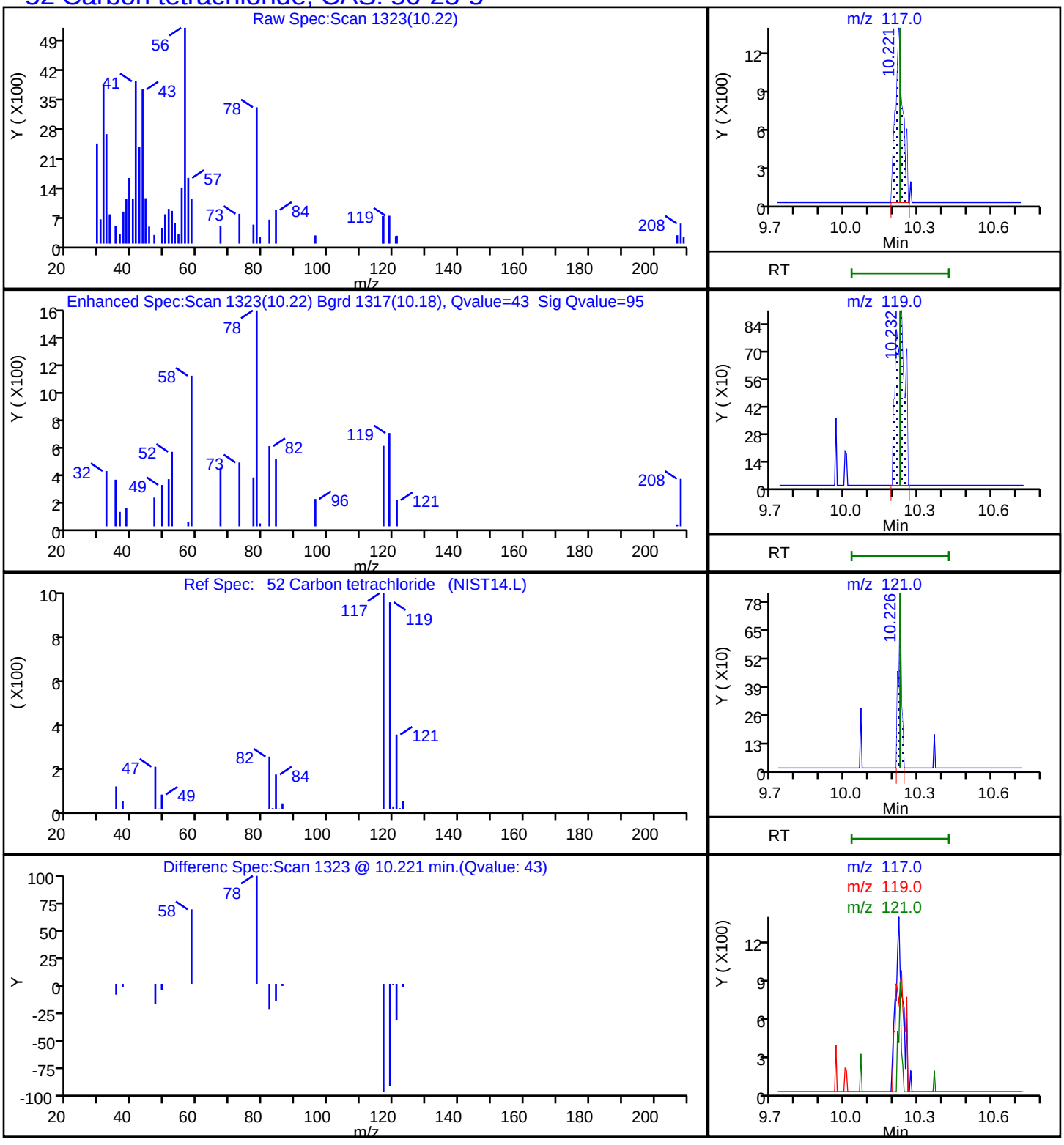
Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 22-Aug-2019 10:23:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date: 20-Aug-2019 22:24:30 Instrument ID: MR

Lims ID: 140-16376-A-8 Lab Sample ID: 140-16376-8

Client ID: SV-060-C-27

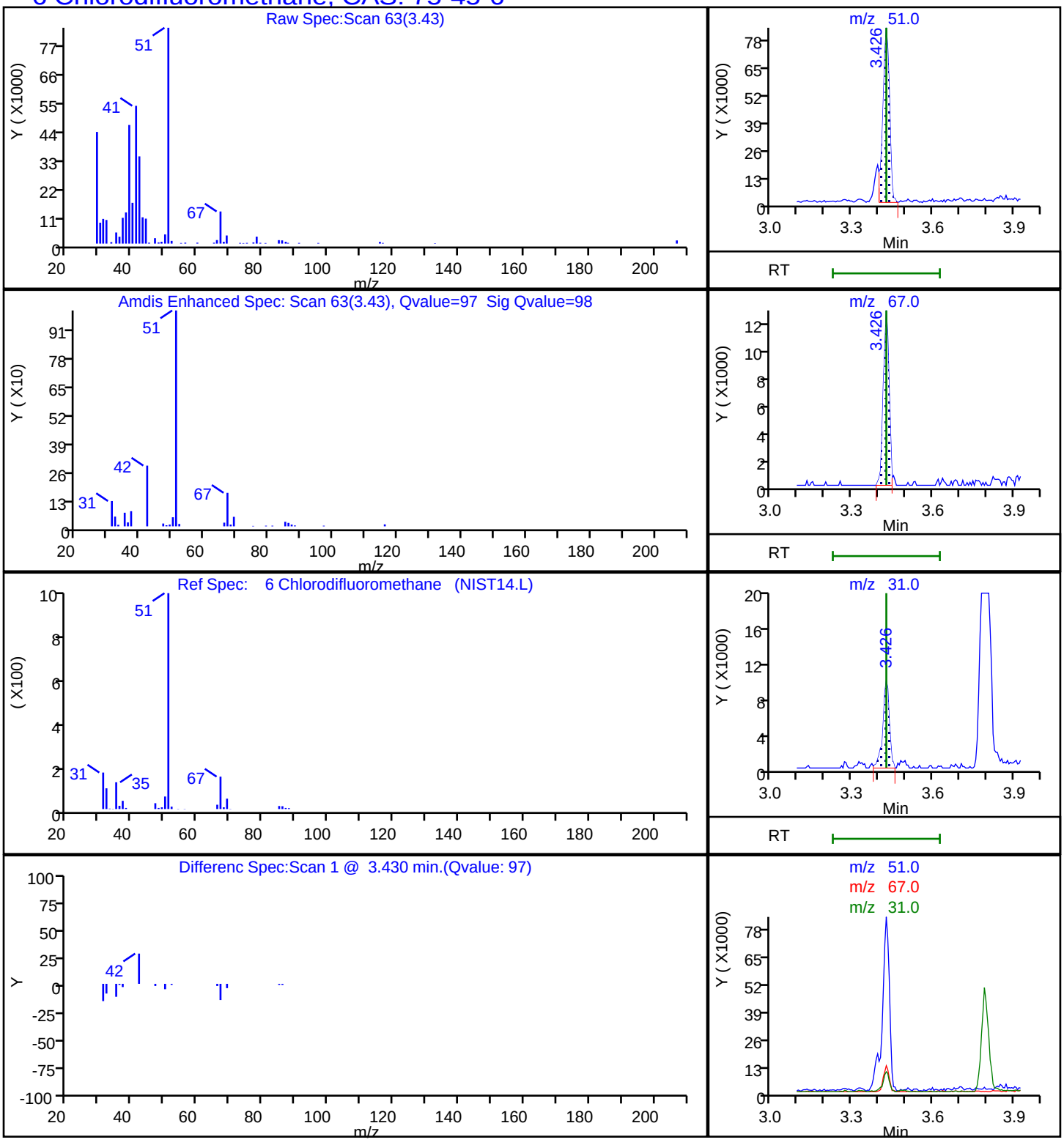
Operator ID: ALS Bottle#: 9 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

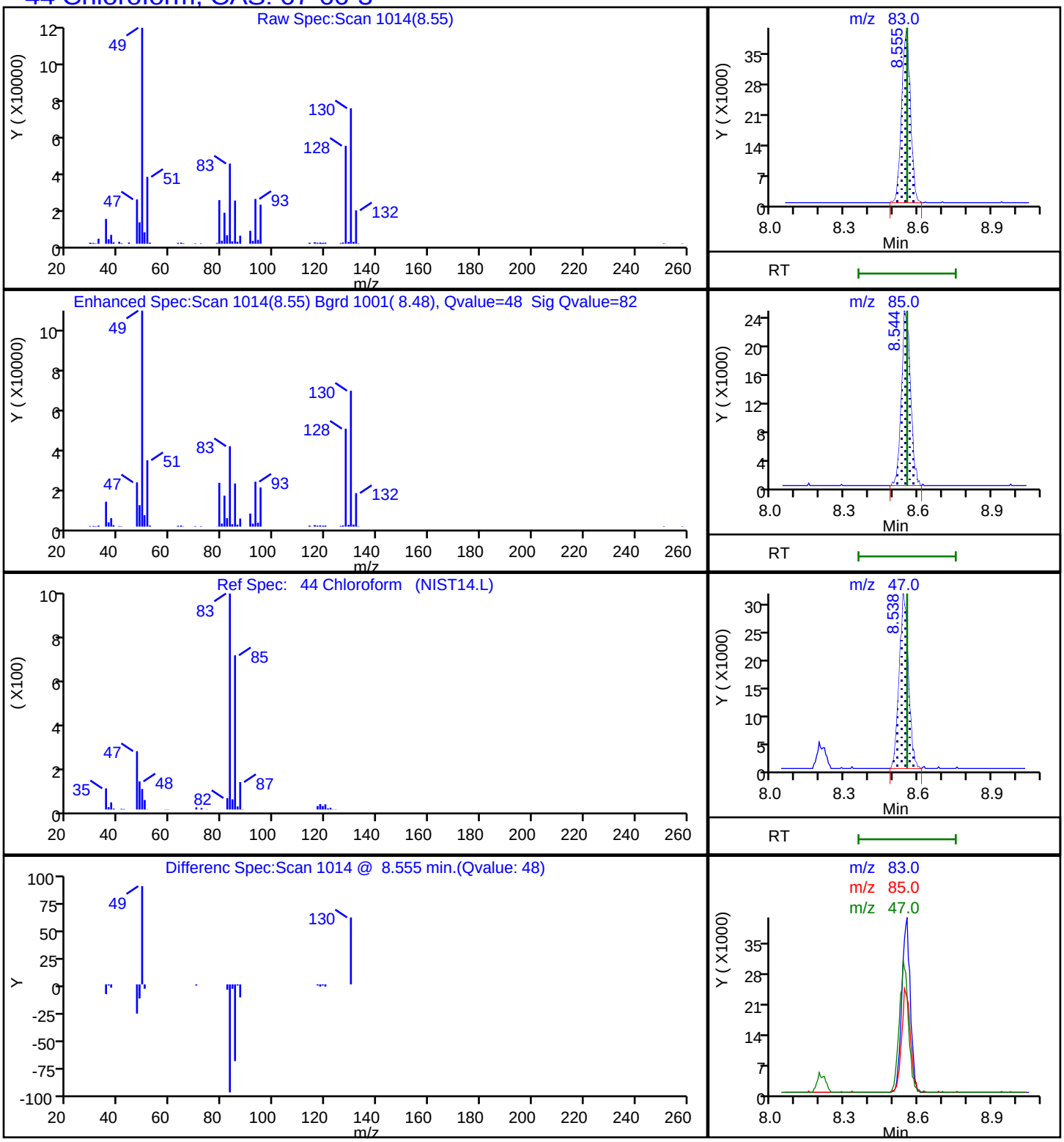


Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

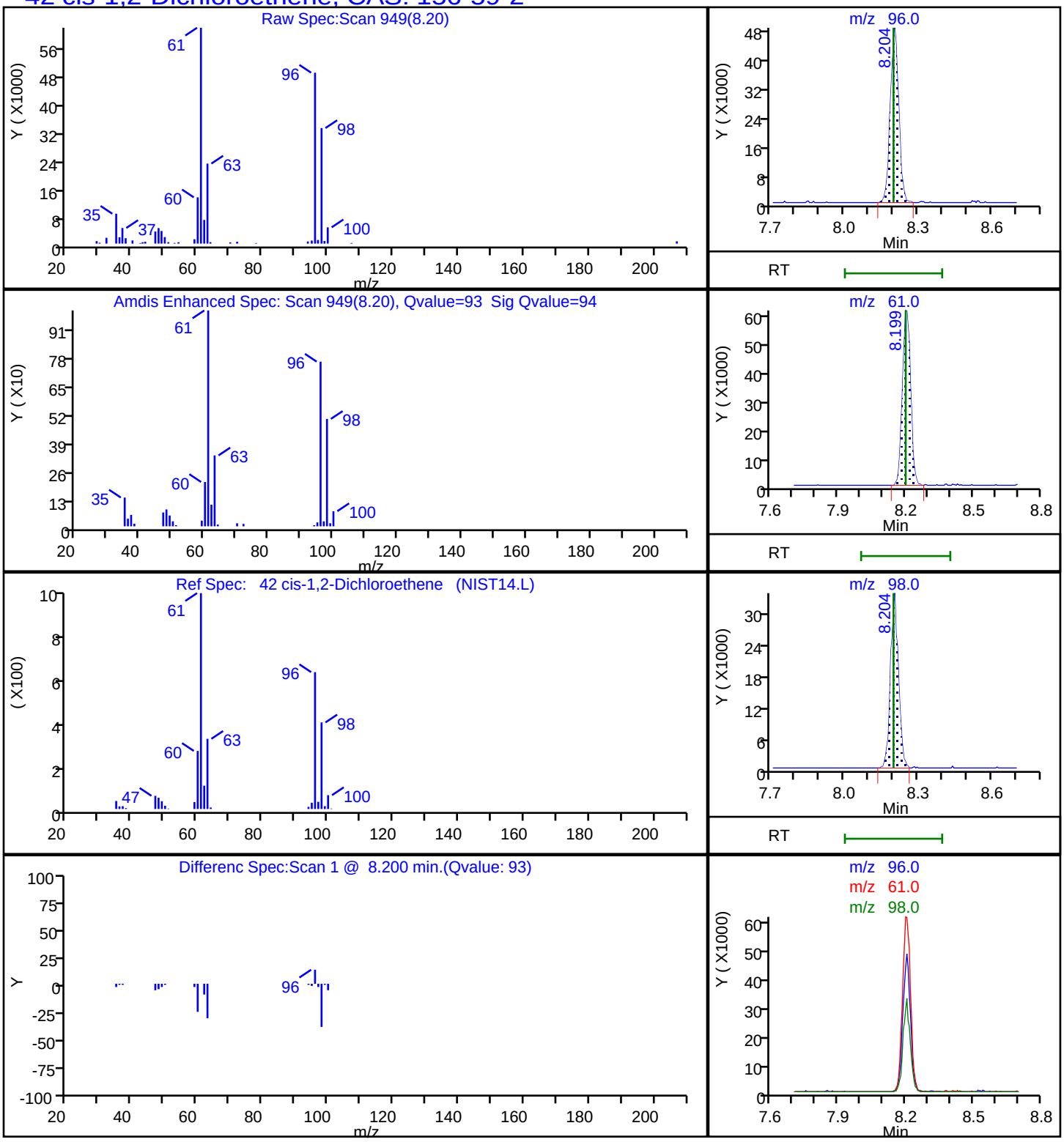
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

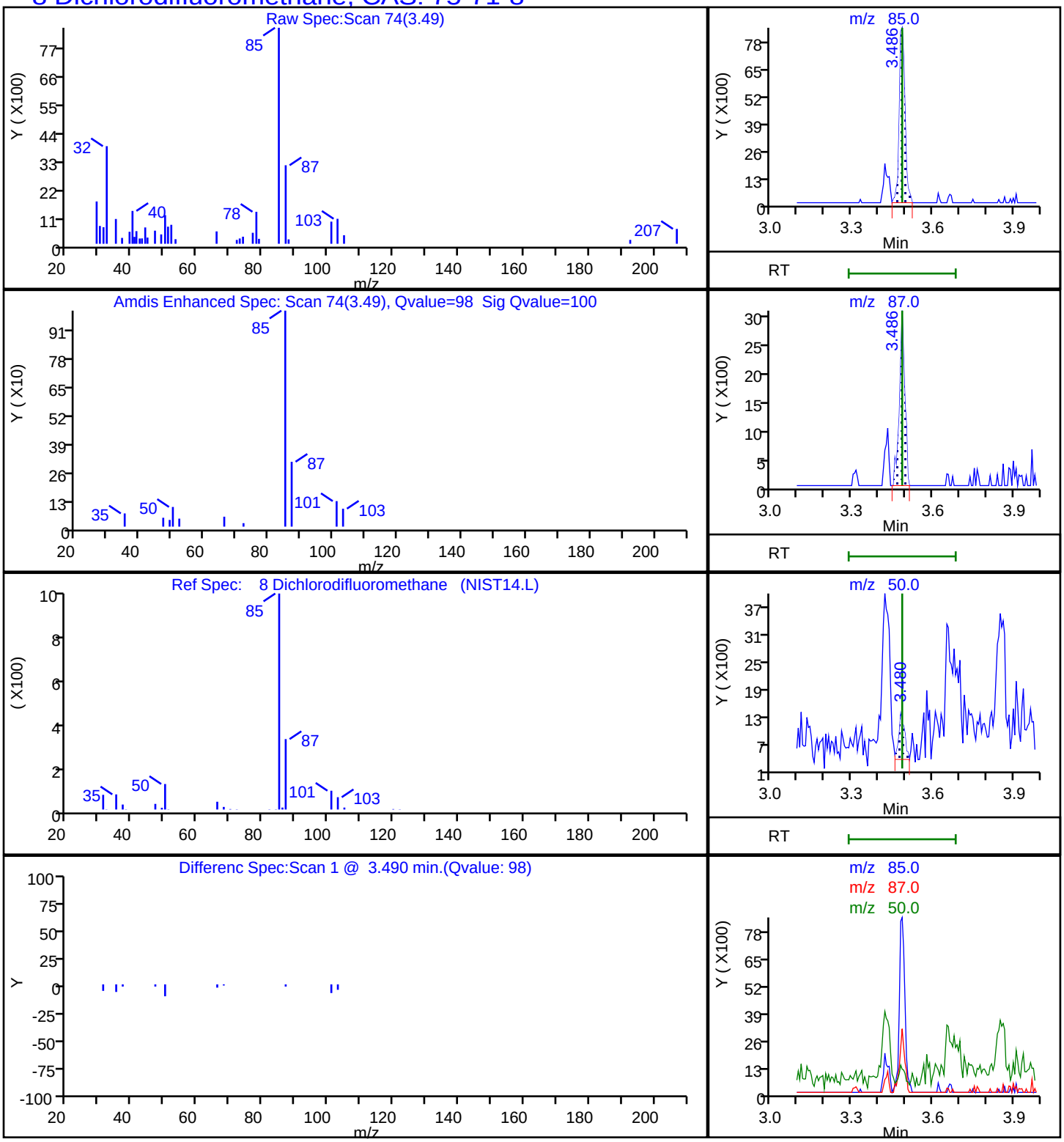
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

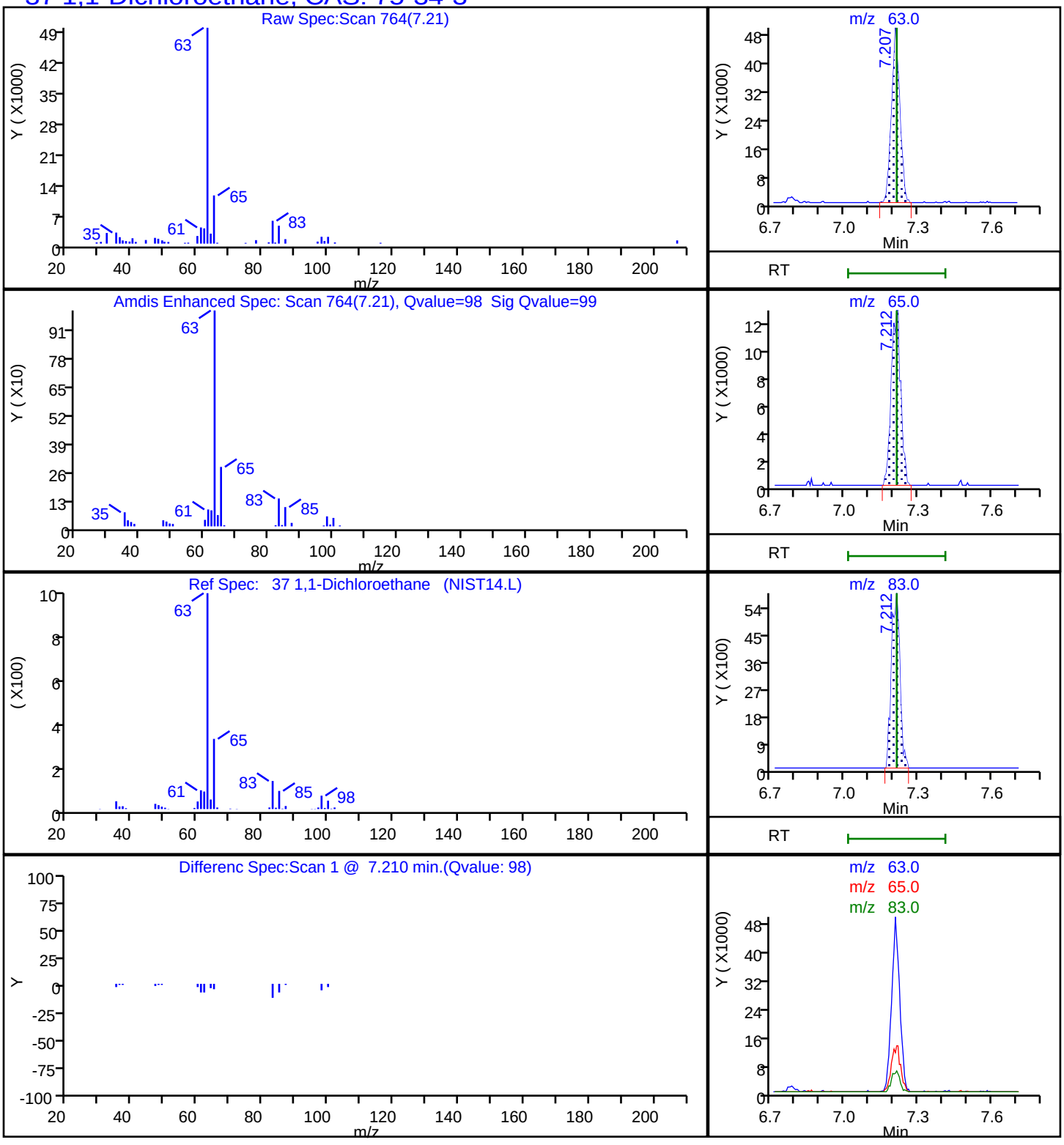
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

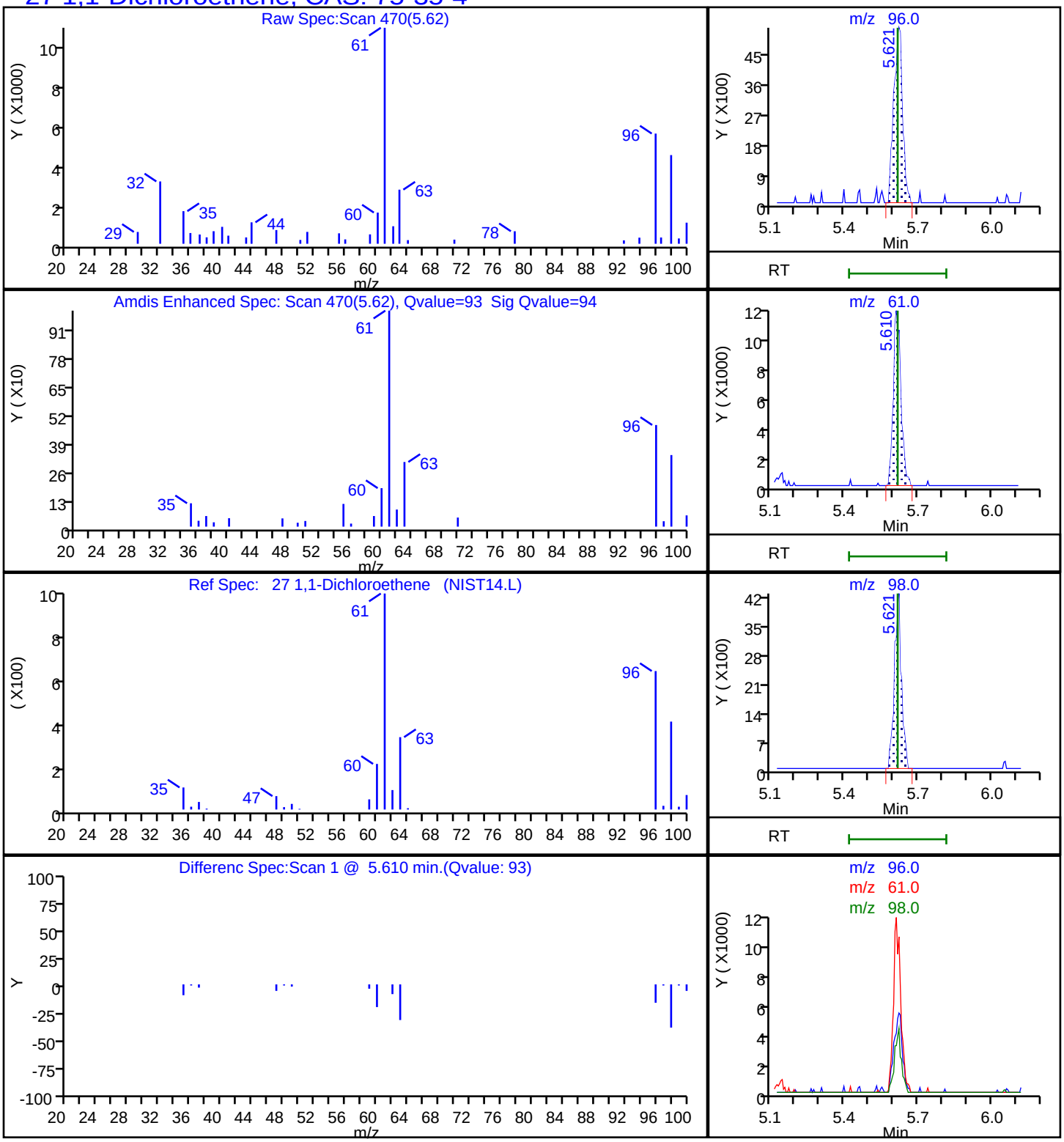
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4

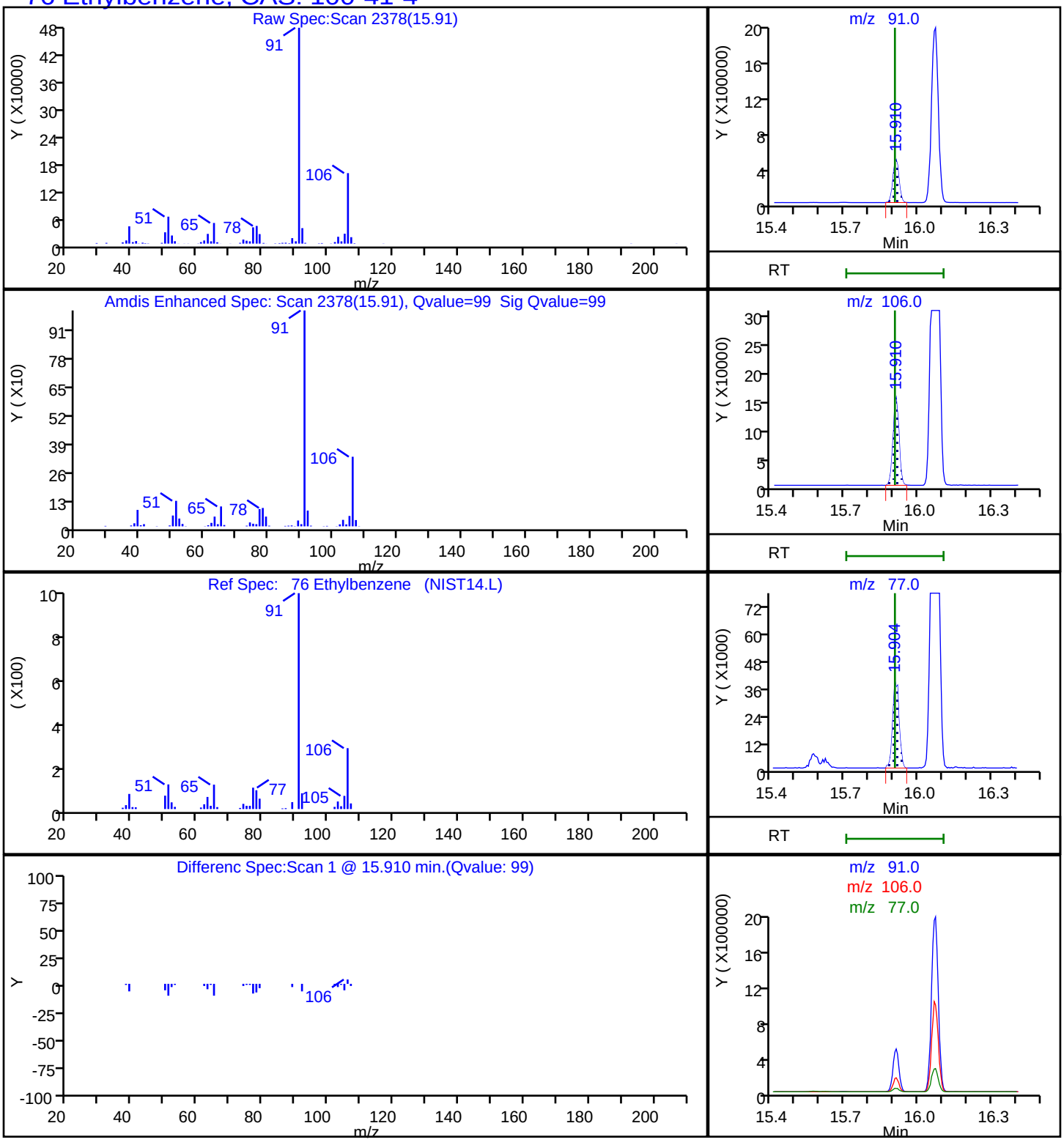


Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



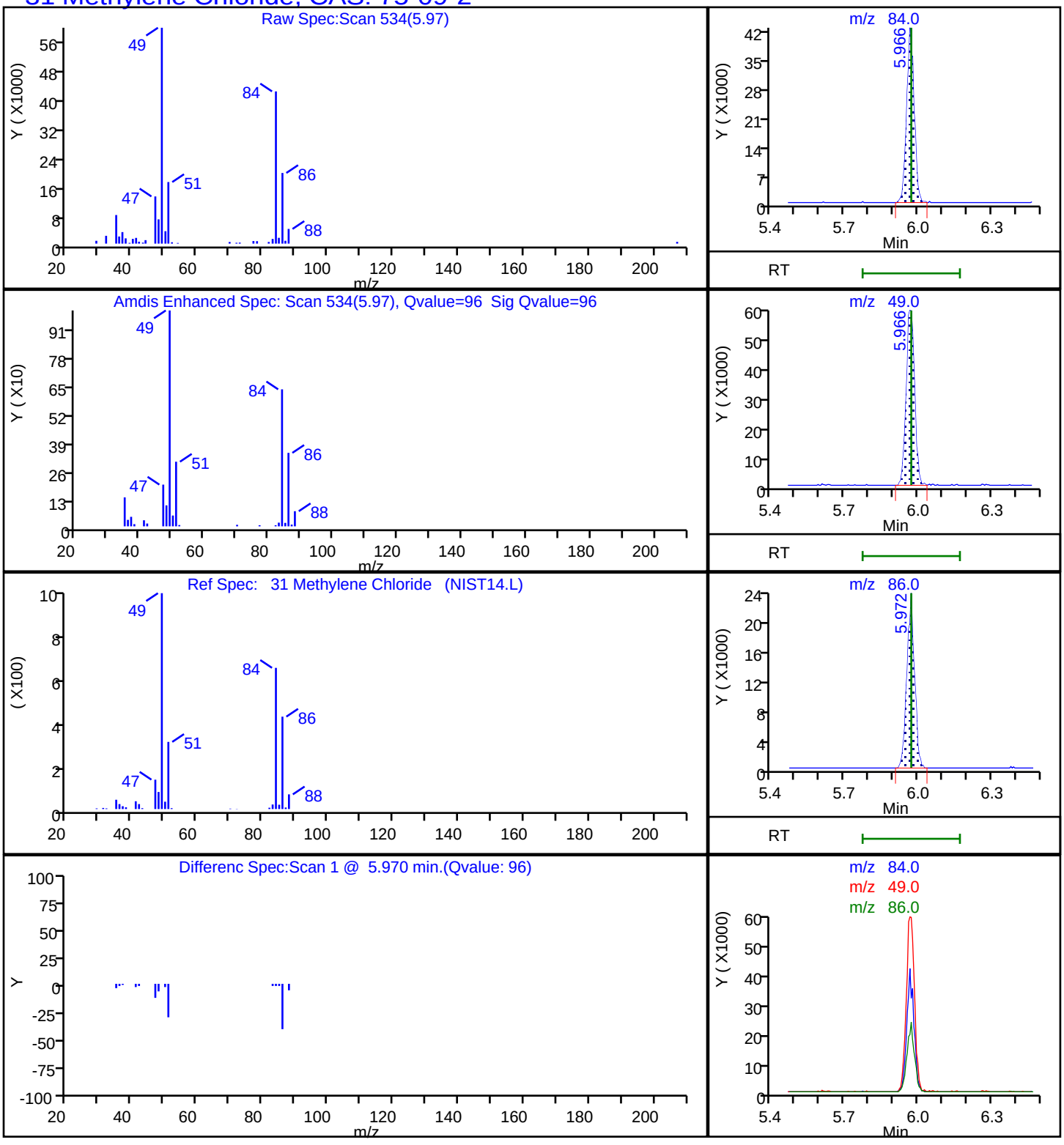
Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



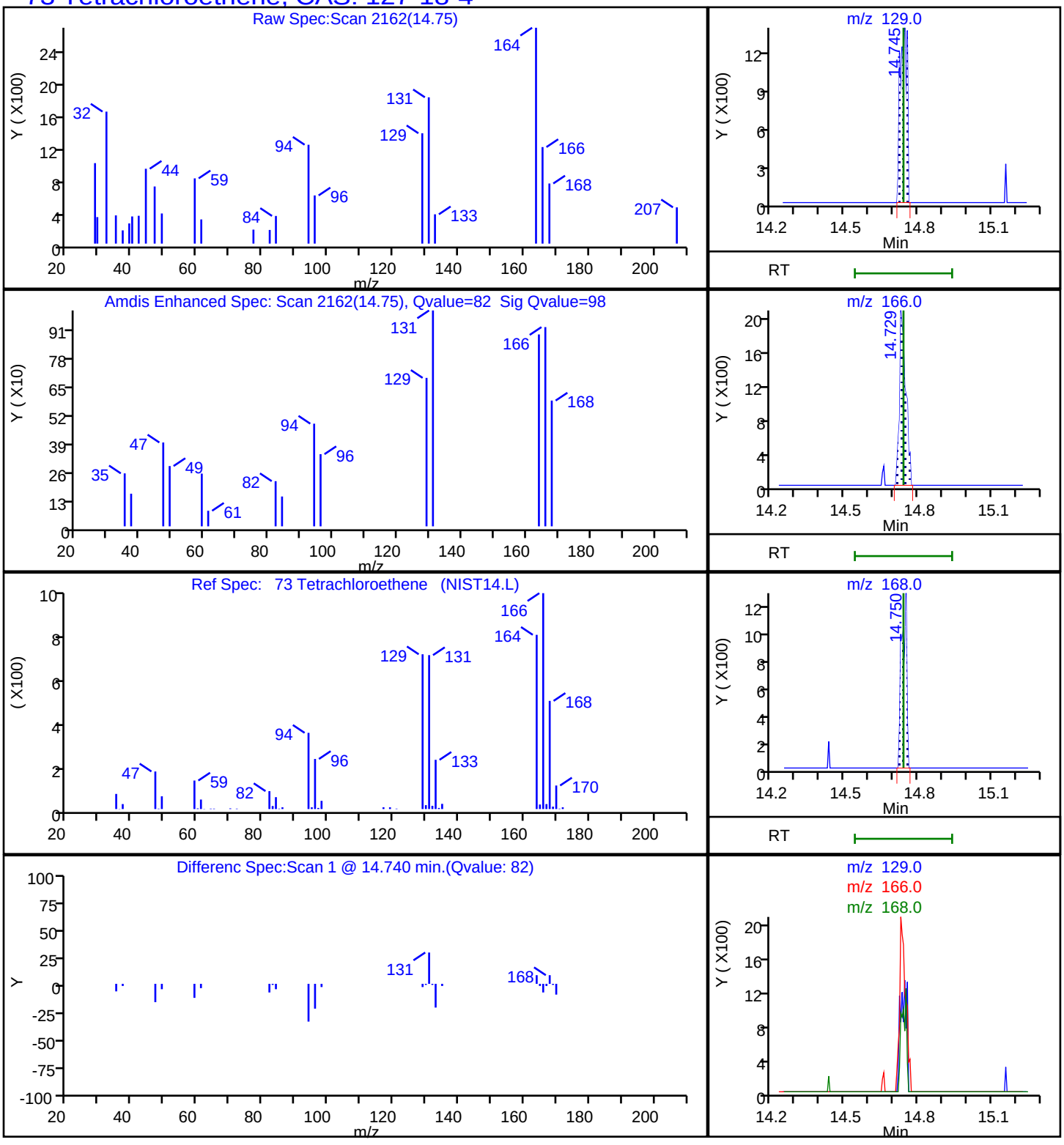
Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

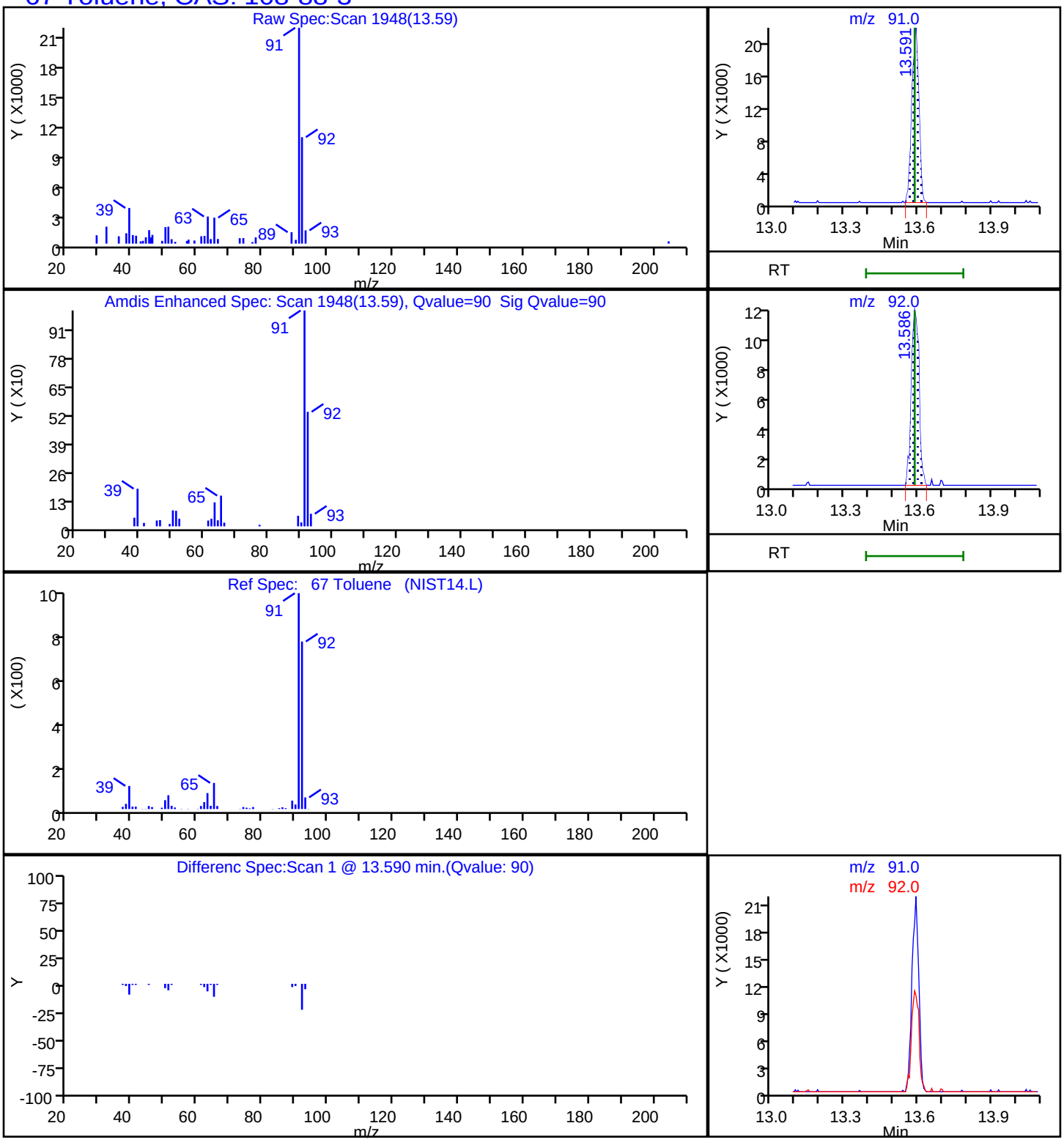
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



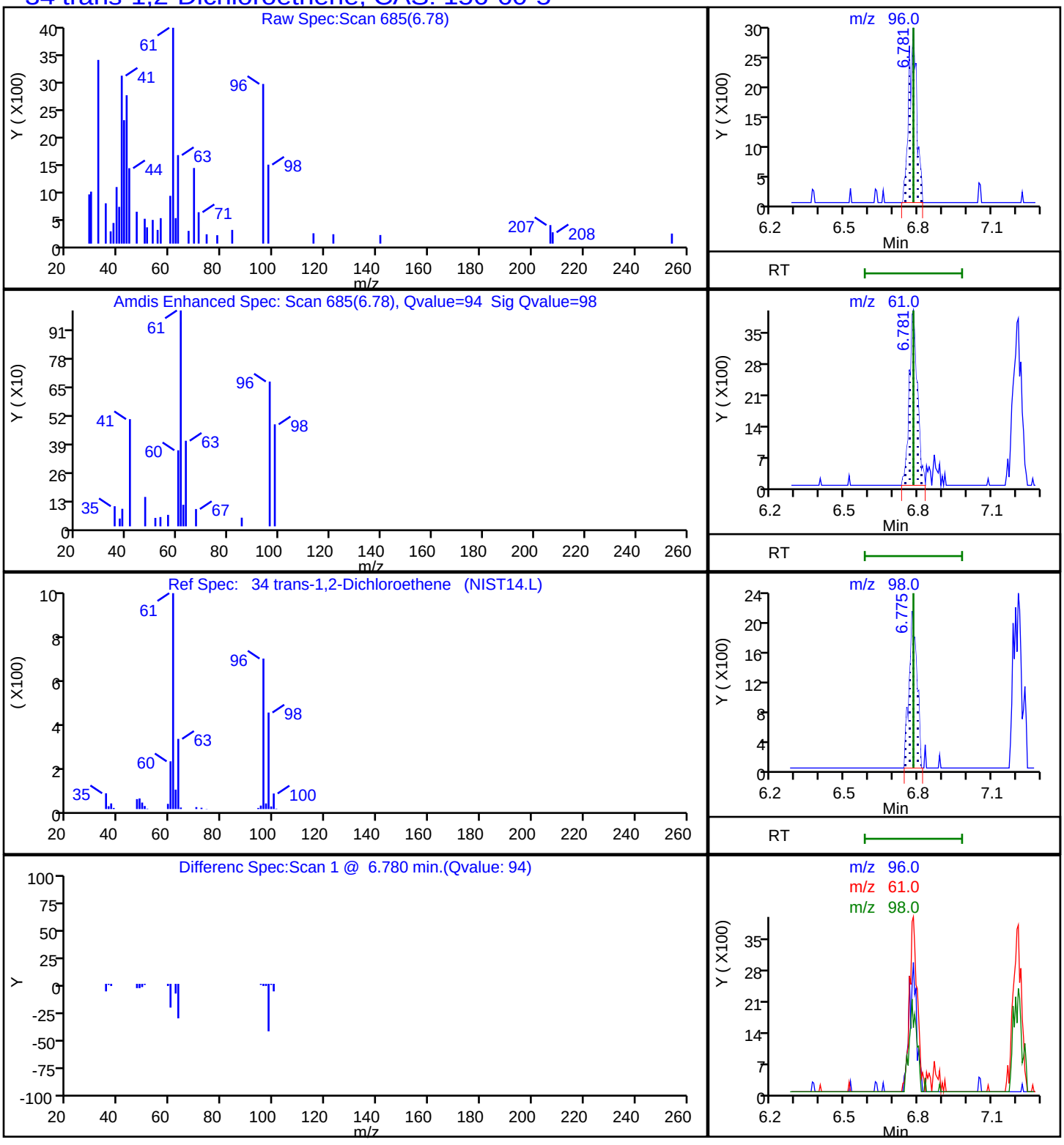
Report Date: 22-Aug-2019 10:23:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

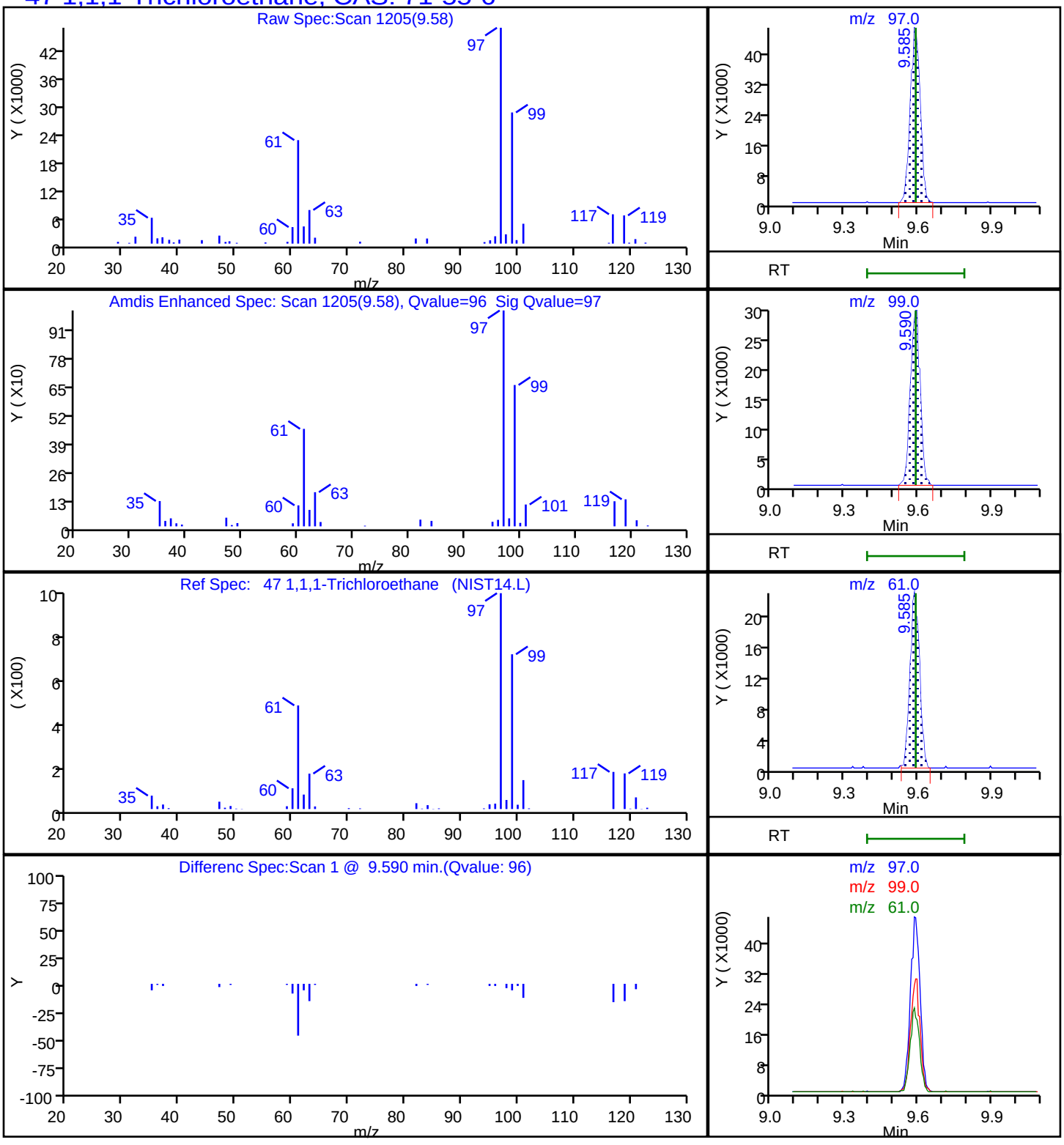
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

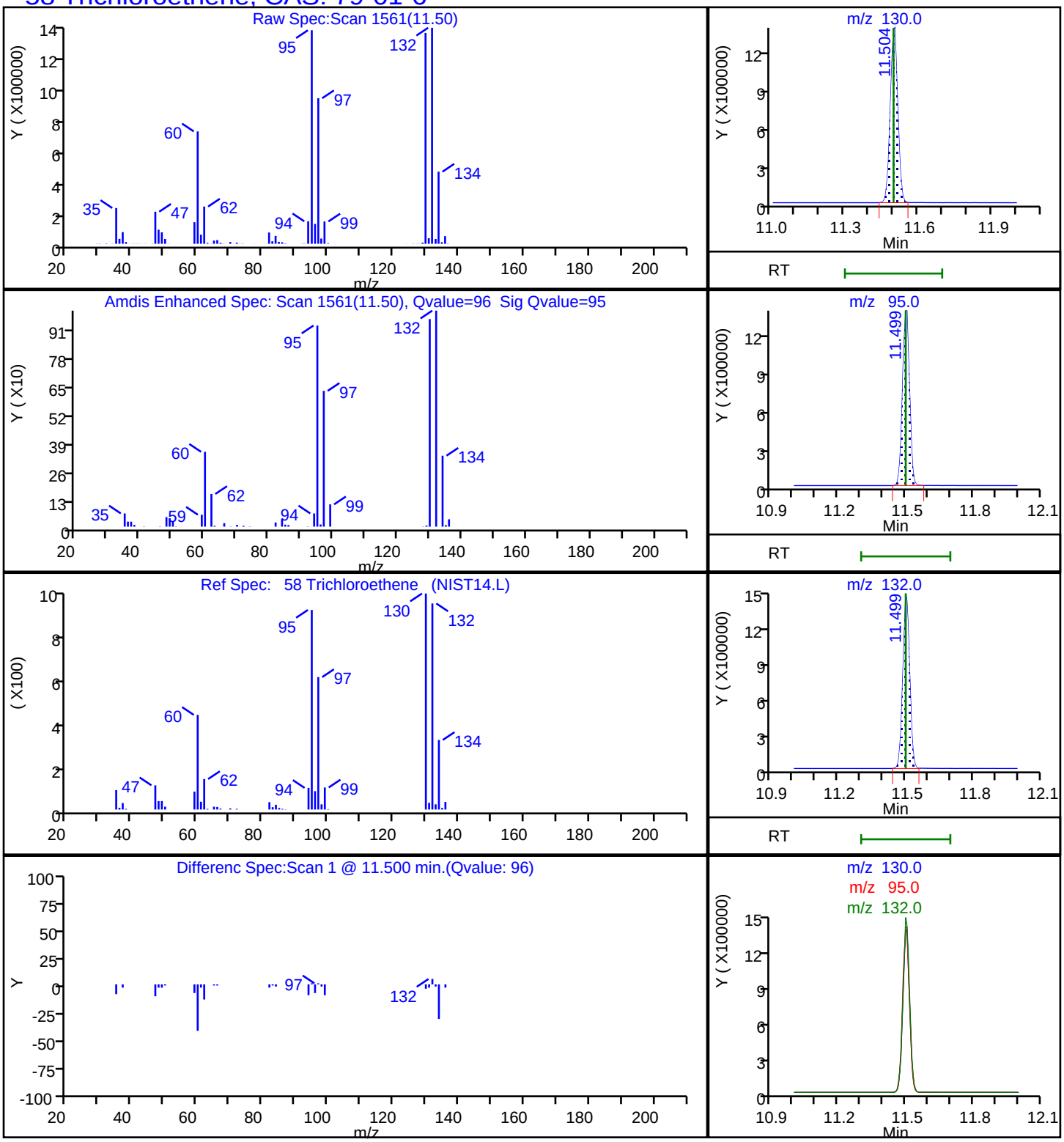
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

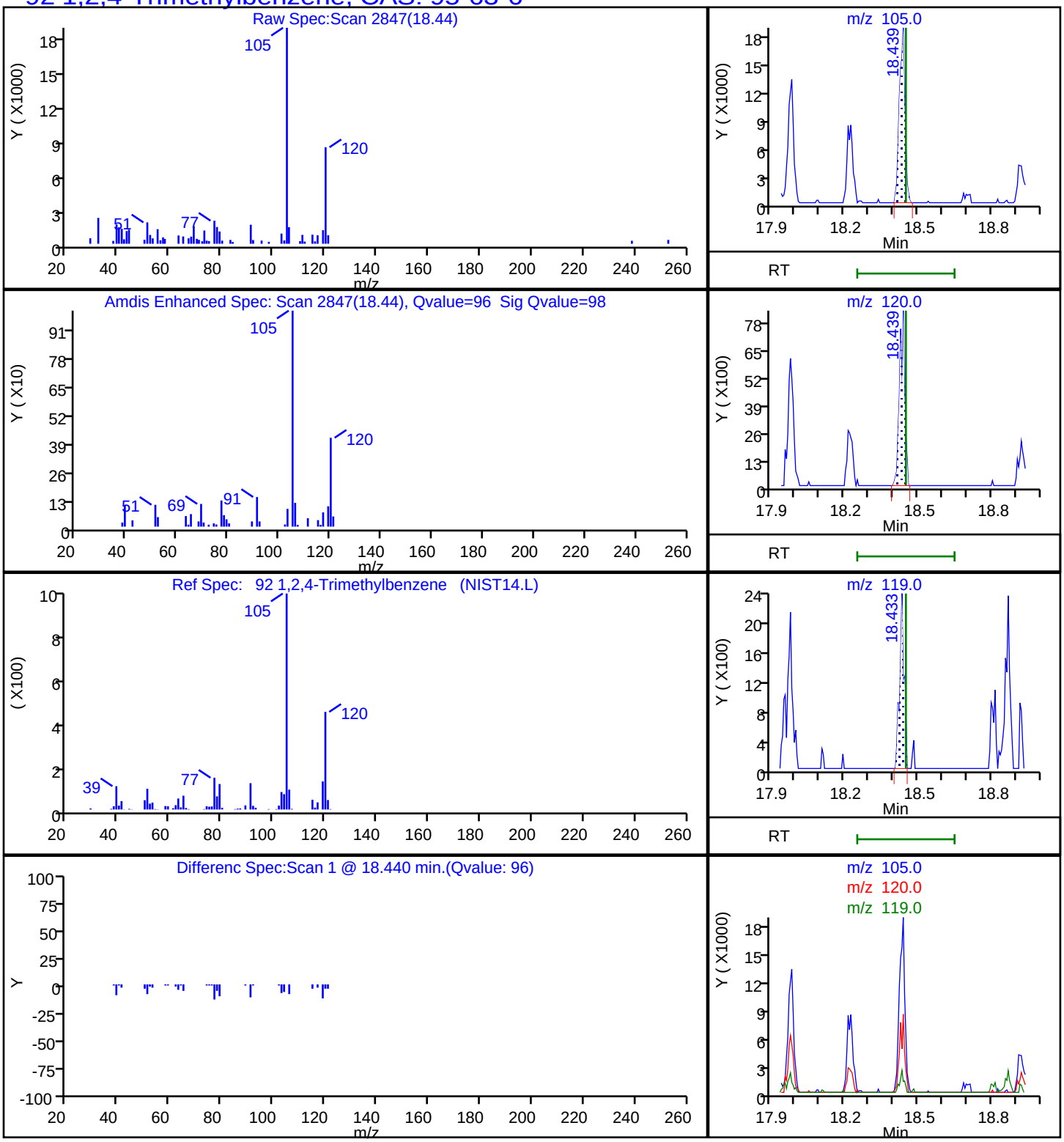
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

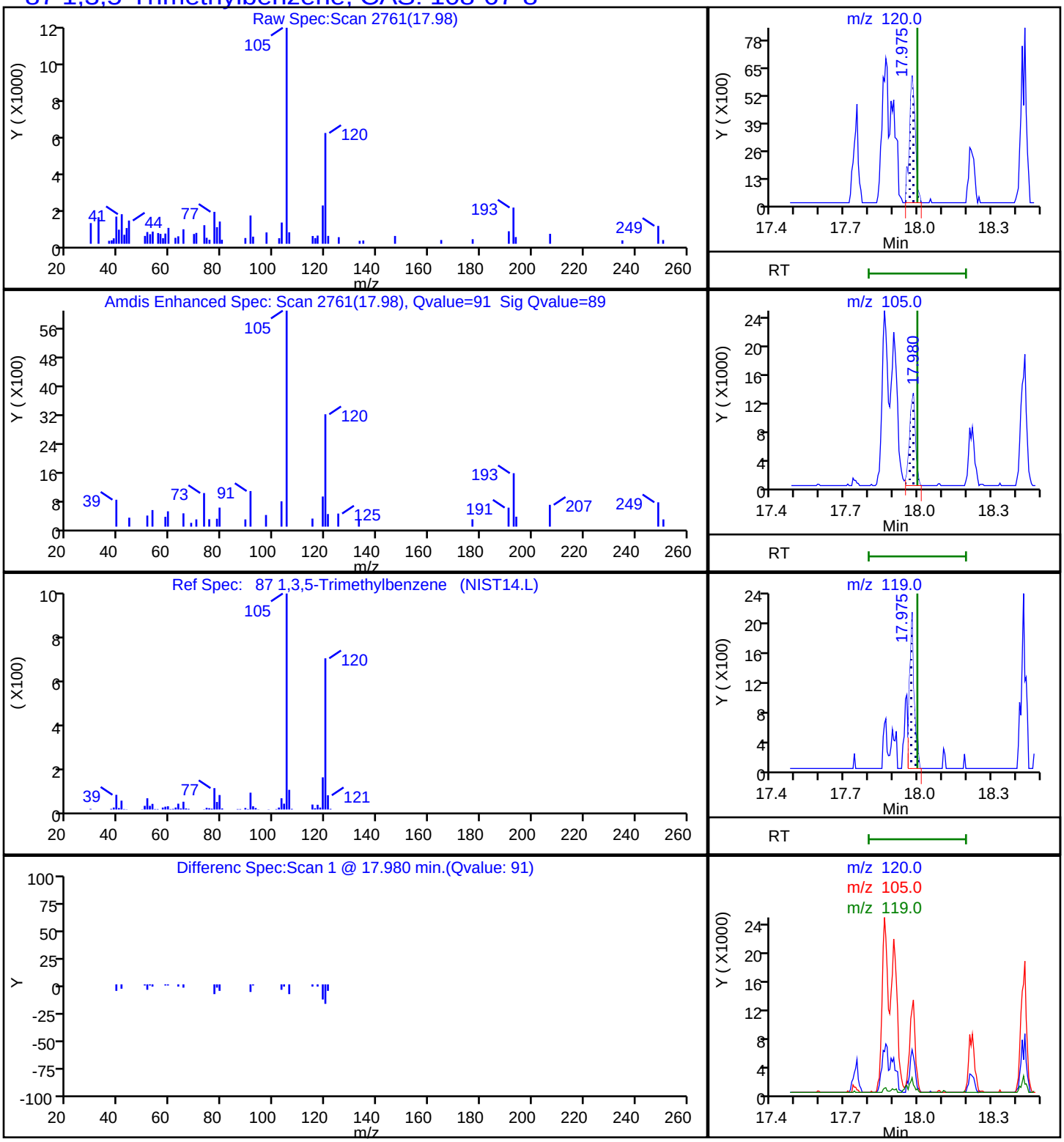


Report Date: 22-Aug-2019 10:23:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

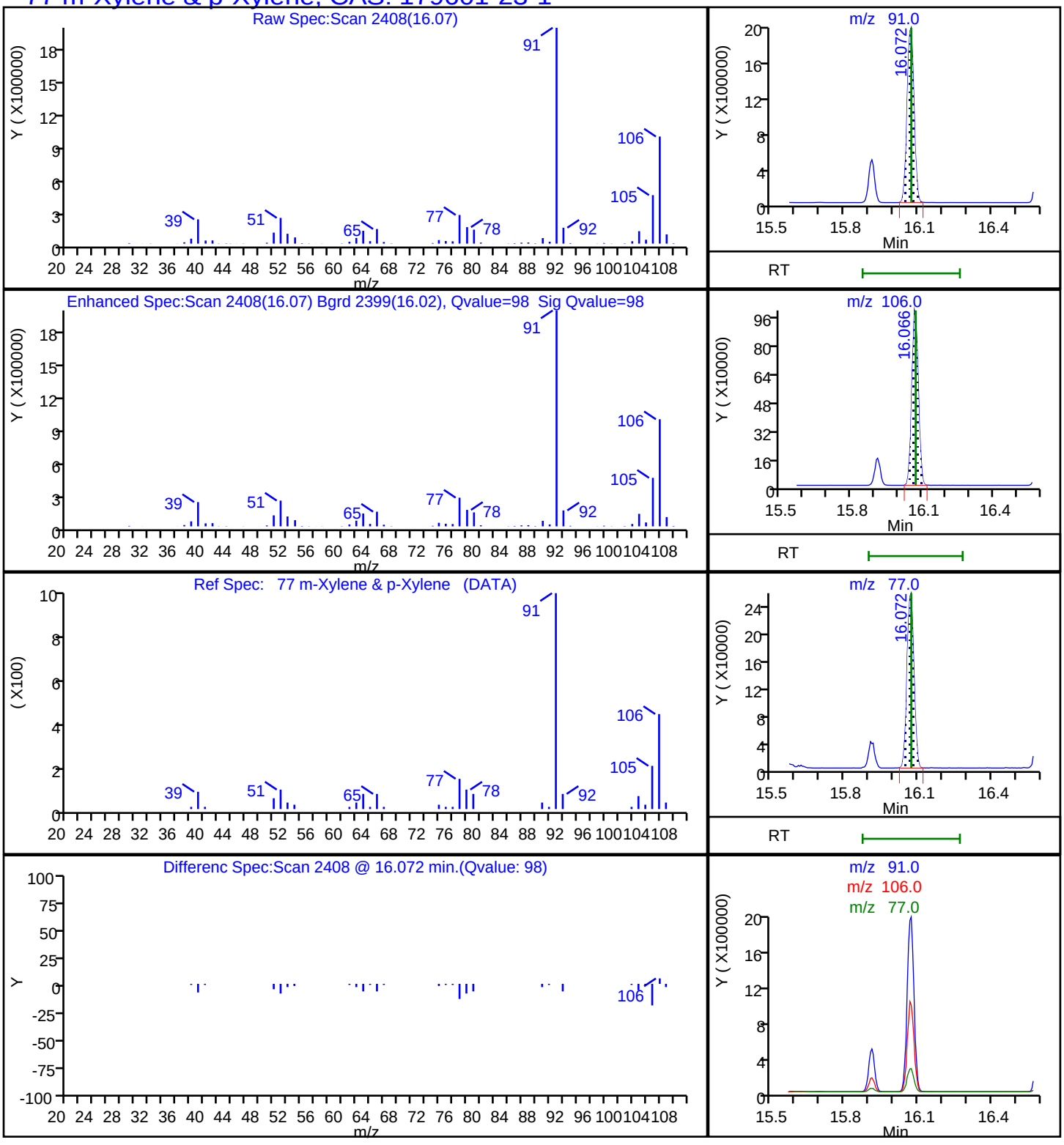
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D		
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 22-Aug-2019 10:23:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D

Injection Date: 20-Aug-2019 22:24:30 Instrument ID: MR

Lims ID: 140-16376-A-8 Lab Sample ID: 140-16376-8

Client ID: SV-060-C-27

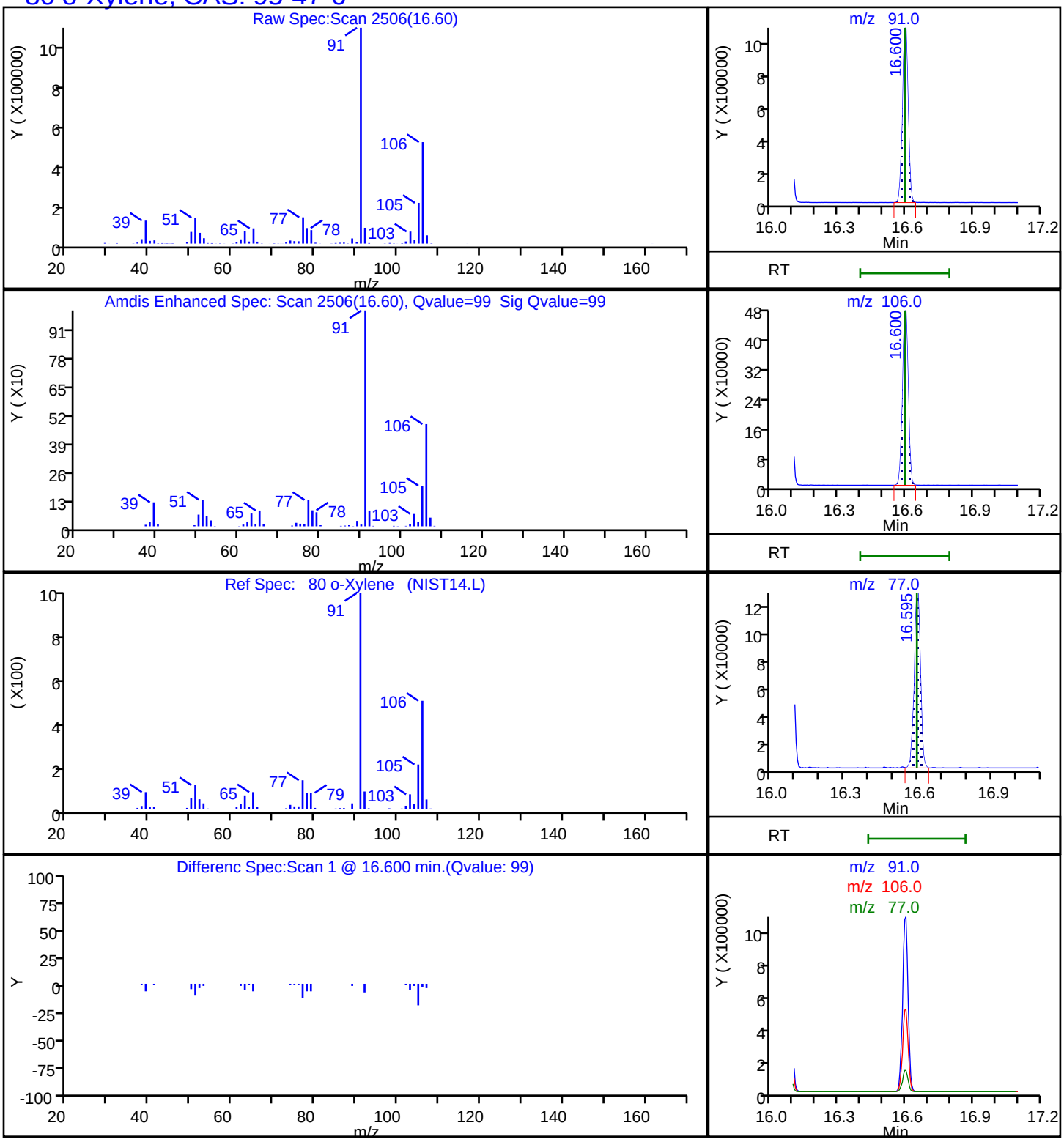
Operator ID: ALS Bottle#: 9 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



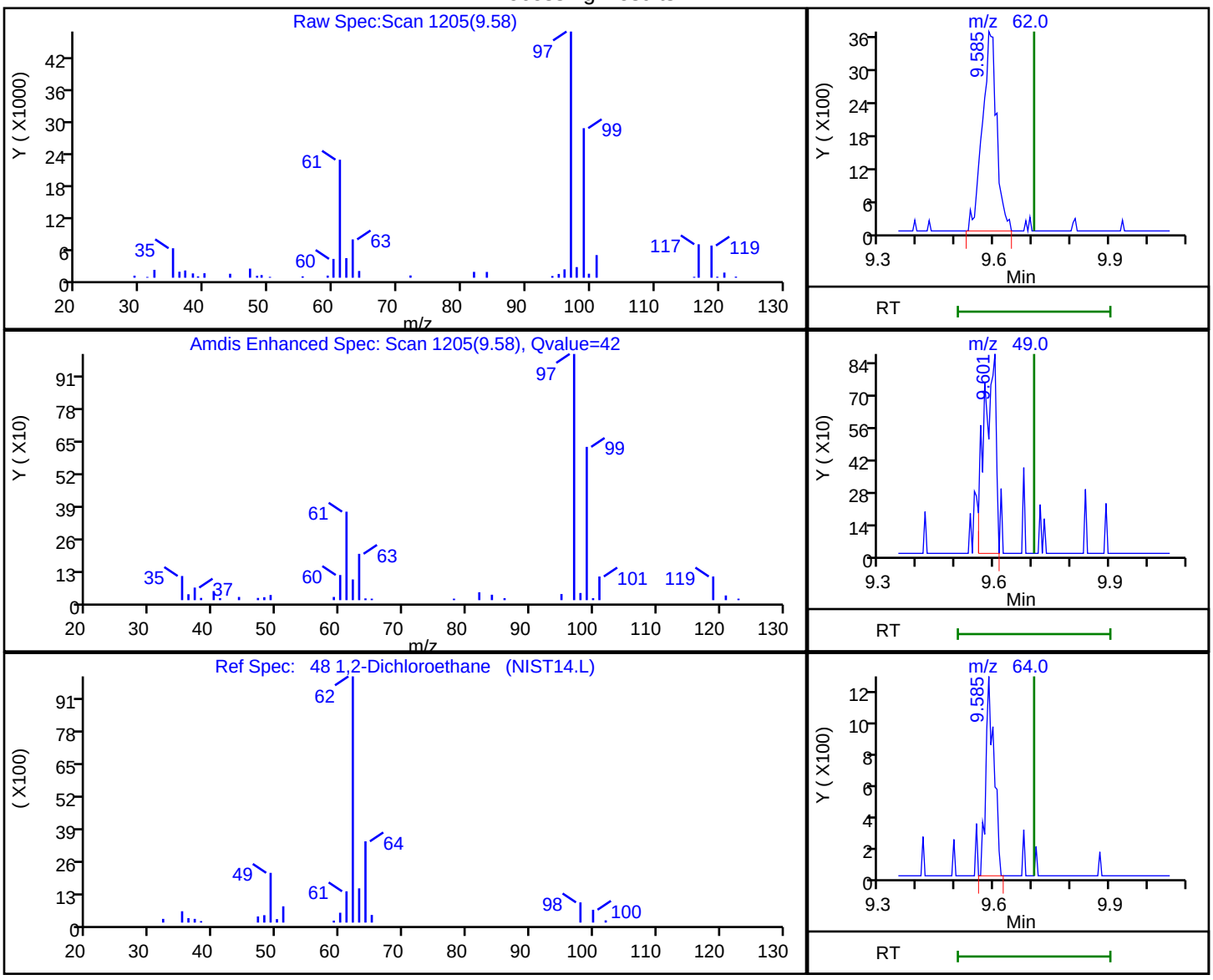
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P109.D				
Injection Date:	20-Aug-2019 22:24:30	Instrument ID:	MR		
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8		
Client ID:	SV-060-C-27				
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
9.58	62.00	9514	0.077716
9.60	49.00	1844	
9.58	64.00	1883	

Reviewer: khachitpongpanits, 22-Aug-2019 10:22:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	110		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	570		5.4	0.81

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P111.D
Lims ID: 140-16376-A-8
Client ID: SV-060-C-27
Sample Type: Client
Inject. Date: 23-Aug-2019 22:35:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 5.0300
Sample Info: 140-0012811-016
Misc. Info.: 140-16376-a-8@5.03
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:11:38 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:12:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	192521	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	1107901	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	958178	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	93	607594	3.68	
6 Chlorodifluoromethane	51	3.432	3.421	0.005	97	21793	0.1325	
8 Dichlorodifluoromethane	85	3.491	3.488	0.005	44	2641	0.0177	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	75	2313	0.0349	
31 Methylene Chloride	84	5.972	5.966	0.006	95	27566	0.4051	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	14	795	0.0114	
37 1,1-Dichloroethane	63	7.207	7.212	-0.005	98	18338	0.1389	
42 cis-1,2-Dichloroethene	96	8.210	8.204	0.006	91	18445	0.2340	
44 Chloroform	83	8.549	8.555	0.000	29	15953	0.0985	
47 1,1,1-Trichloroethane	97	9.585	9.596	-0.005	92	19719	0.1107	
49 Benzene	78	10.194	10.205	-0.011	43	2727	0.0122	
58 Trichloroethene	130	11.504	11.499	0.005	95	416677	4.22	
76 Ethylbenzene	91	15.905	15.905	0.000	98	121068	0.3501	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	528796	1.95	
80 o-Xylene	91	16.595	16.595	0.000	99	234847	0.8237	
S 116 Xylenes, Total	100				0		2.77	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

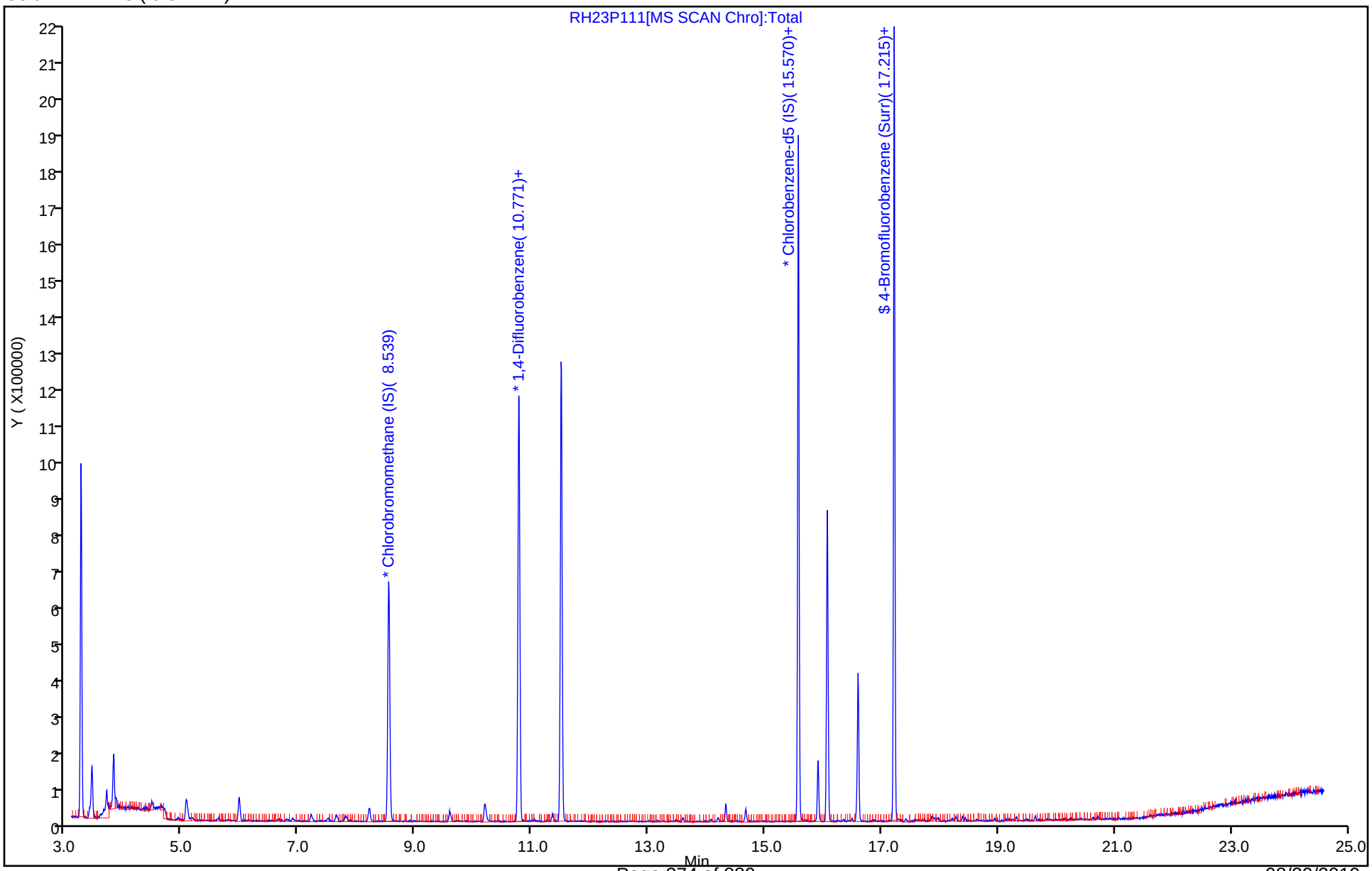
Report Date: 26-Aug-2019 14:12:08 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P111.D

Injection Date:	23-Aug-2019 22:35:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8	Worklist Smp#:	16
Client ID:	SV-060-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	5.0300	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

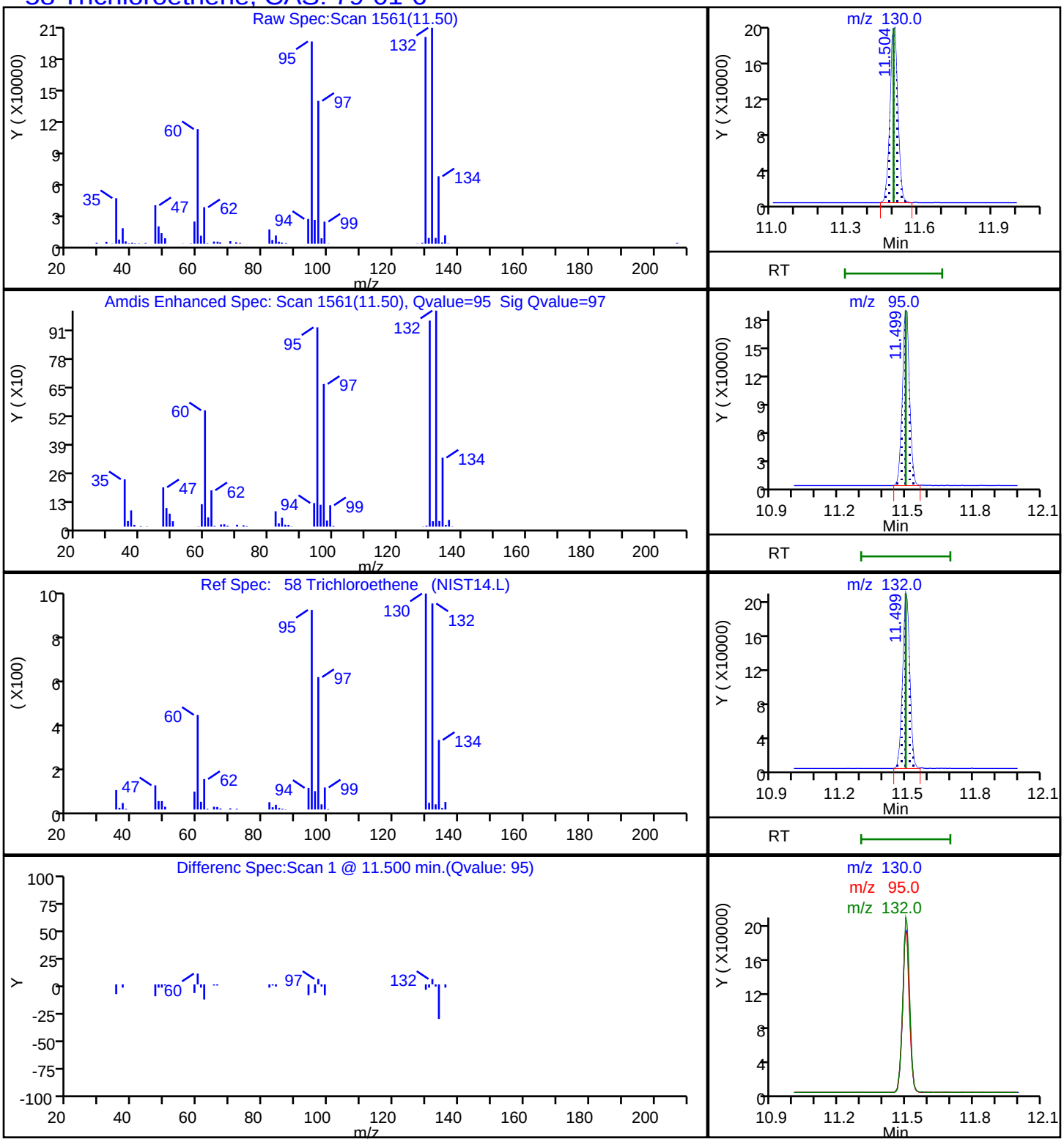
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P111.D				
Lims ID:	140-16376-A-8				
Client ID:	SV-060-C-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 22:35:30	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	5.0300		
Sample Info:	140-0012811-016				
Misc. Info.:	140-16376-a-8@5.03				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:11:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:12:07		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.68	91.95

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P111.D		
Injection Date:	23-Aug-2019 22:35:30	Instrument ID:	MR
Lims ID:	140-16376-A-8	Lab Sample ID:	140-16376-8
Client ID:	SV-060-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	5.0300
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.25	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.94	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	40	CI	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.3		1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	10		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	38		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D
Lims ID: 140-16376-A-9
Client ID: SV-150-C-27
Sample Type: Client
Inject. Date: 20-Aug-2019 23:13:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-013
Misc. Info.: 140-16376-a-9
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:24:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	220600	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1351111	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1202516	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	92	781377	3.77	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	422613	2.24	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	98	12199	0.0715	
31 Methylene Chloride	84	5.972	5.972	0.000	95	60259	0.7728	
49 Benzene	78	10.205	10.199	0.006	40	16152	0.0590	
52 Carbon tetrachloride	117	10.216	10.226	-0.010	32	2602	0.0119	
58 Trichloroethene	130	11.499	11.499	0.000	88	4596	0.0382	
67 Toluene	91	13.586	13.586	0.000	92	163899	0.5298	
76 Ethylbenzene	91	15.910	15.905	0.005	99	126076	0.2905	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	429281	1.26	
80 o-Xylene	91	16.600	16.595	0.005	99	175937	0.4917	
87 1,3,5-Trimethylbenzene	120	17.981	17.997	-0.016	89	6675	0.0331	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	98	23618	0.0505	
S 116 Xylenes, Total	100				0		1.75	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

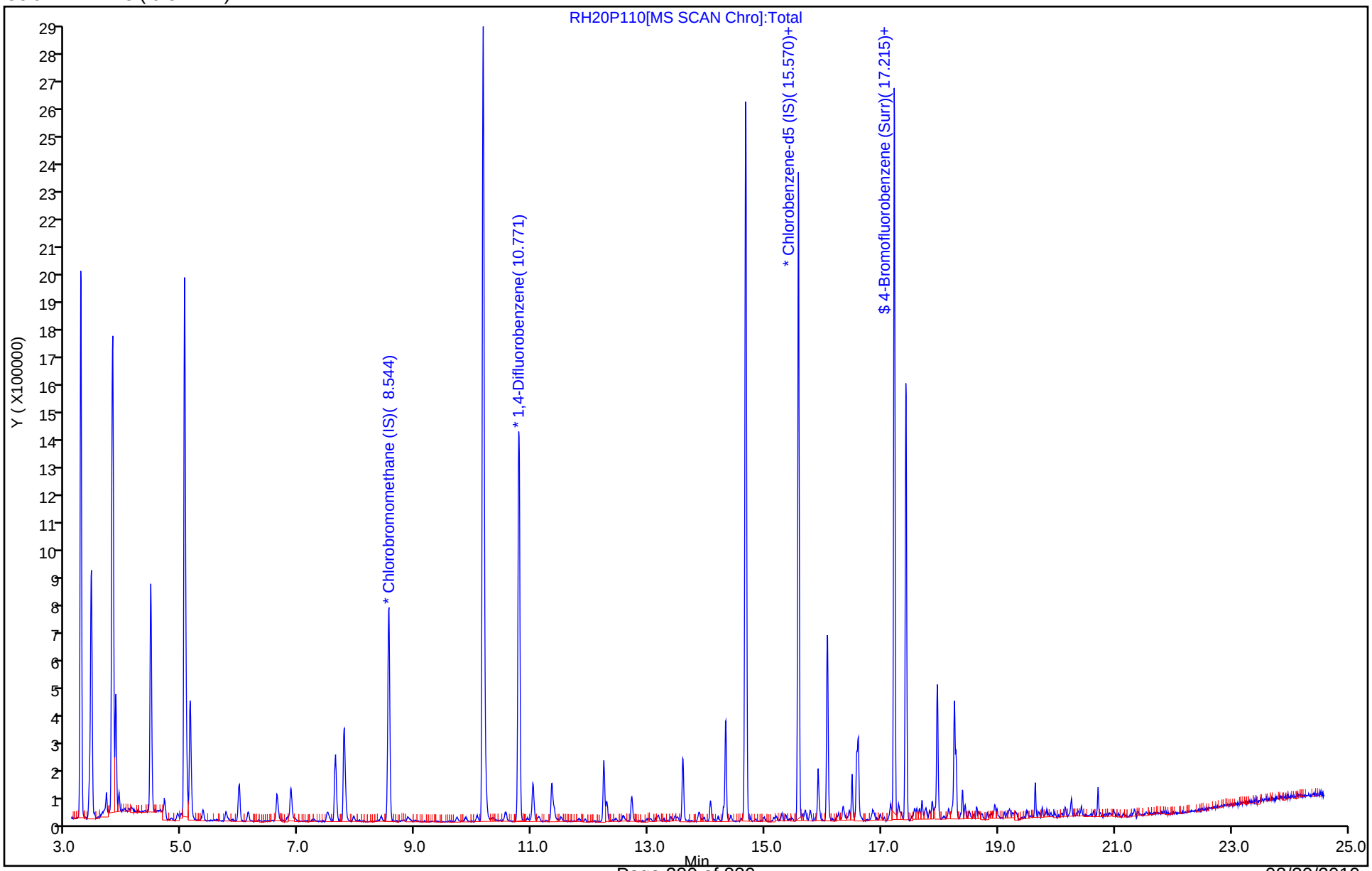
Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9	Worklist Smp#:	13
Client ID:	SV-150-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D				
Lims ID:	140-16376-A-9				
Client ID:	SV-150-C-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 23:13:30	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-013				
Misc. Info.:	140-16376-a-9				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:24:21		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.77	94.22

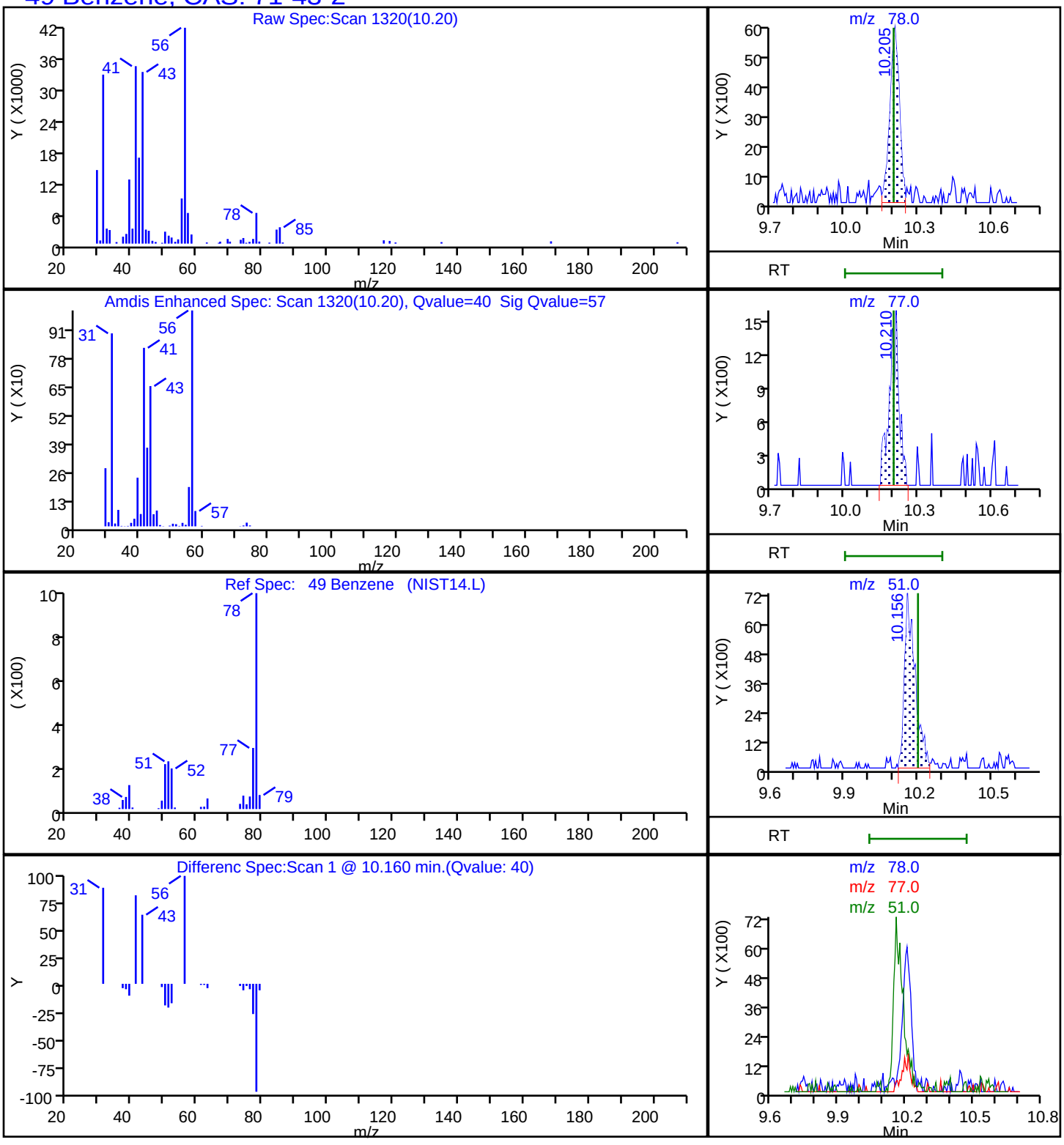
Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date: 20-Aug-2019 23:13:30 Instrument ID: MR

Lims ID: 140-16376-A-9 Lab Sample ID: 140-16376-9

Client ID: SV-150-C-27

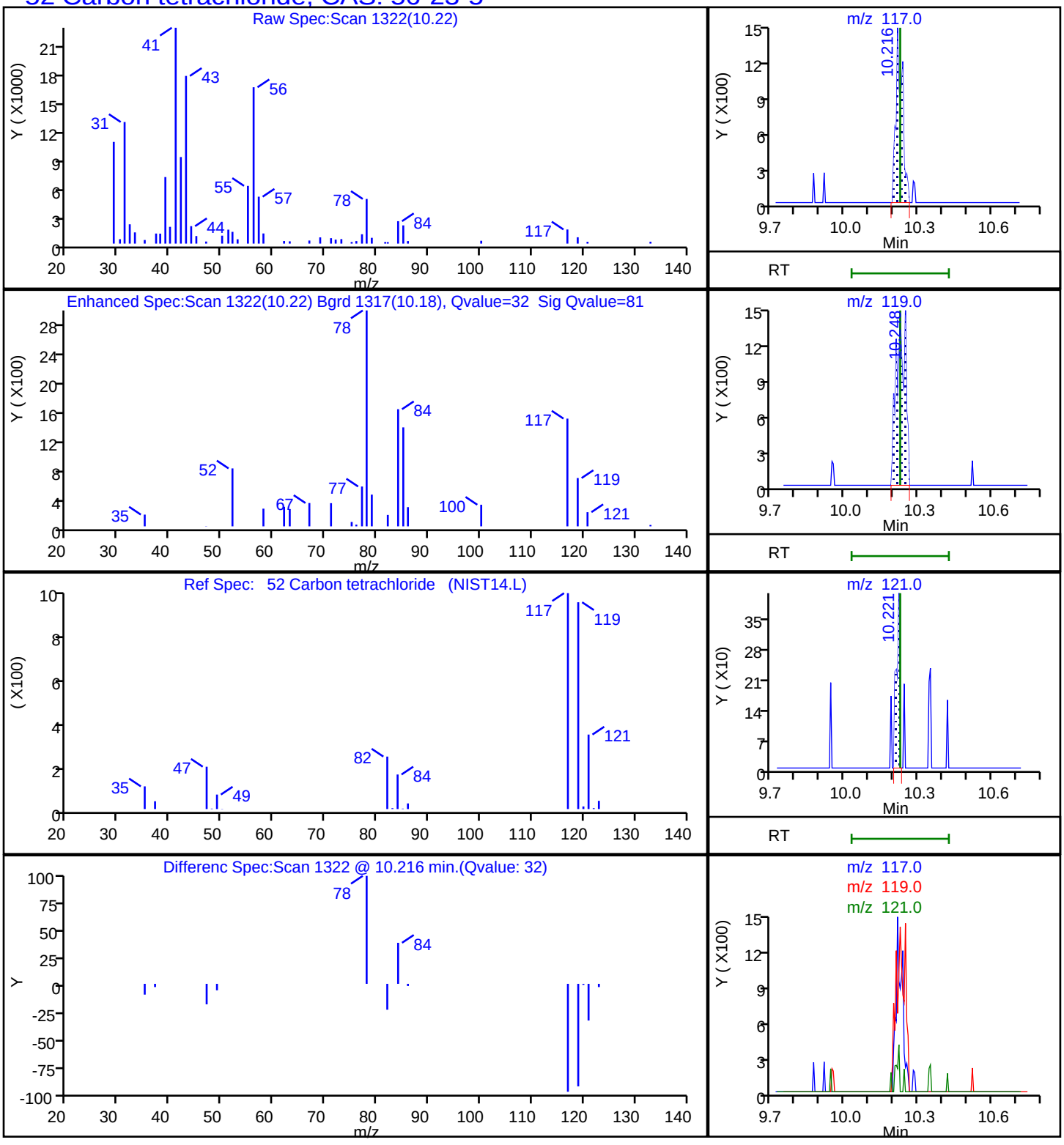
Operator ID: ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date: 20-Aug-2019 23:13:30 Instrument ID: MR

Lims ID: 140-16376-A-9 Lab Sample ID: 140-16376-9

Client ID: SV-150-C-27

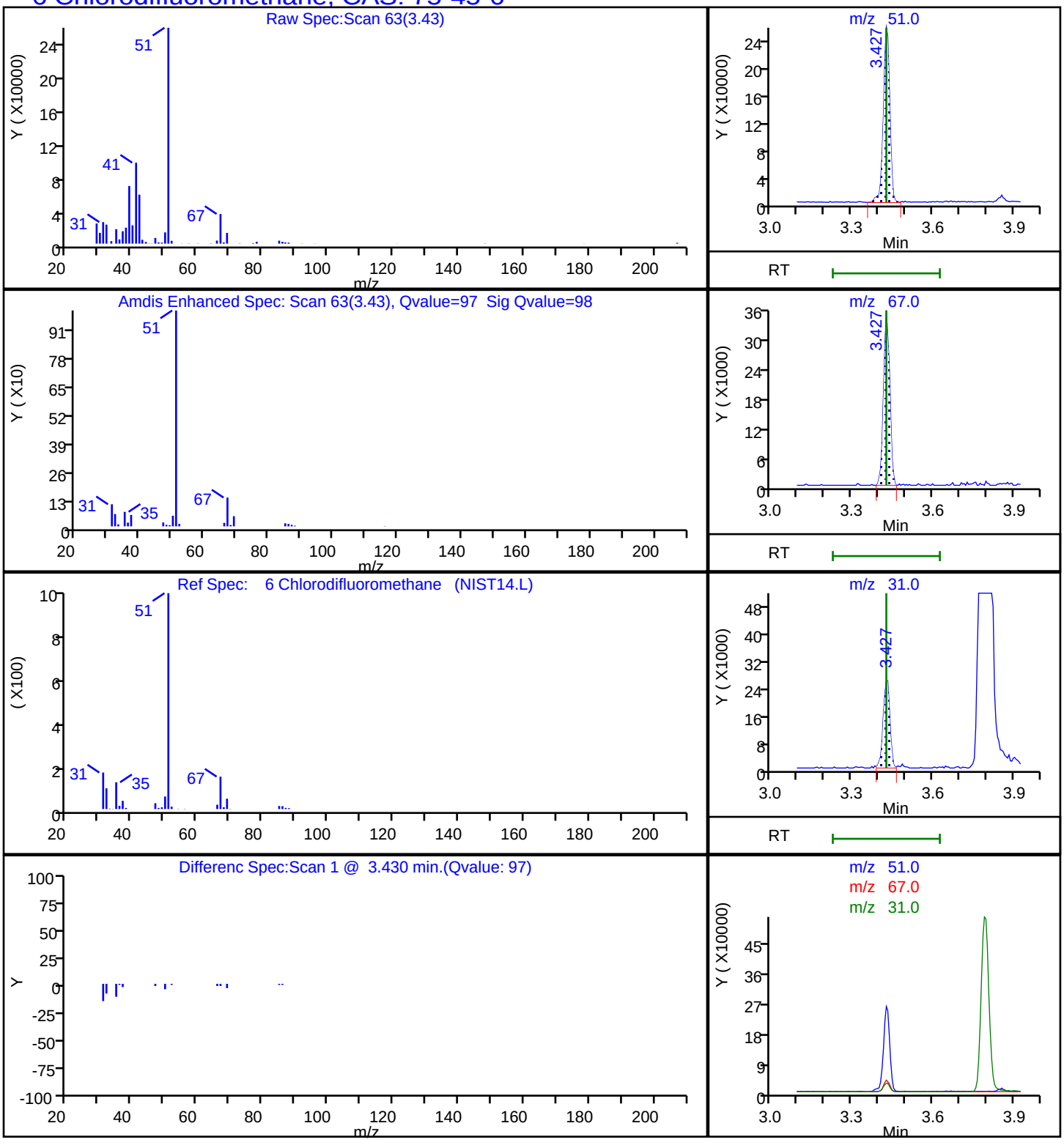
Operator ID: ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



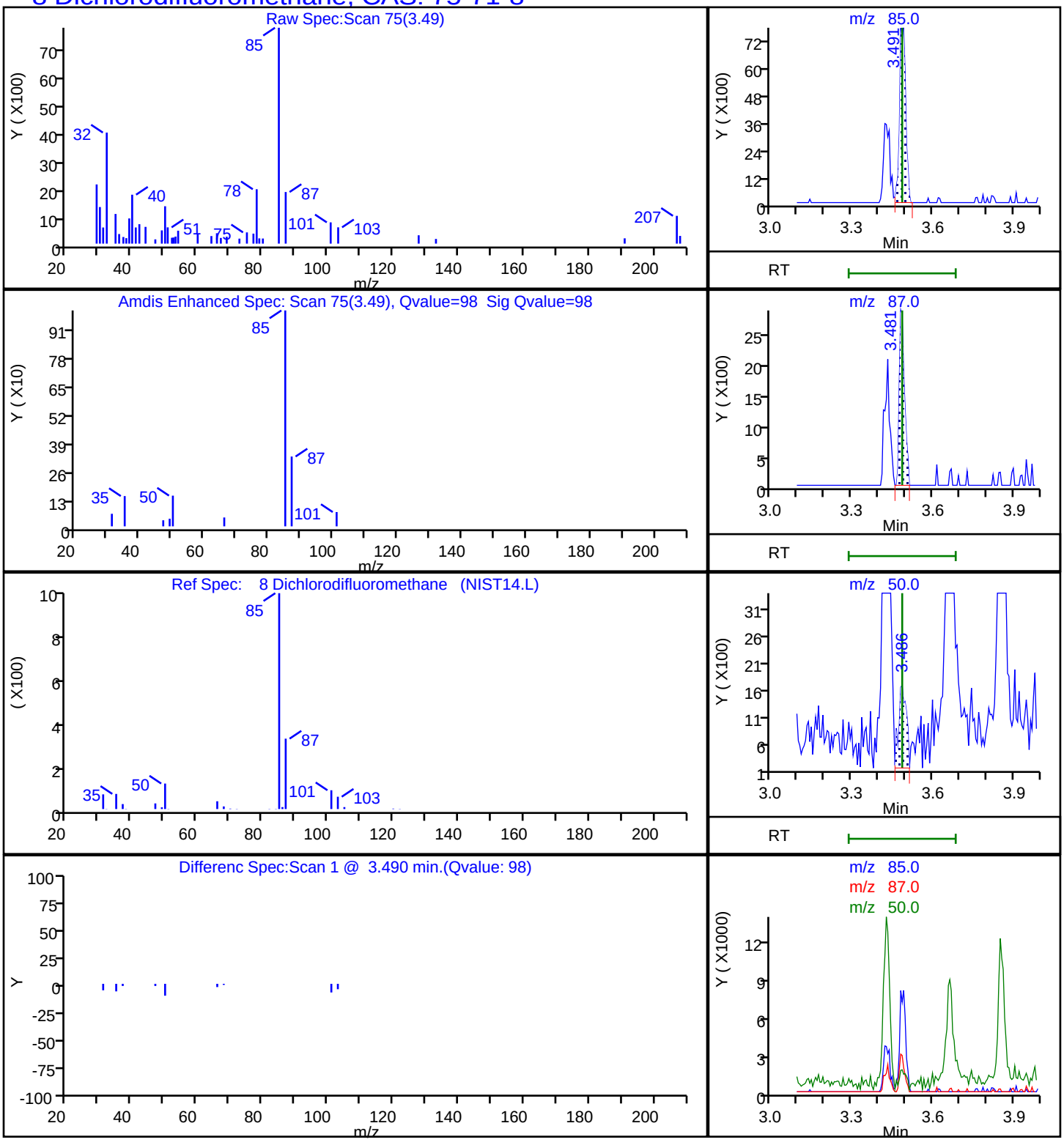
Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR		
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9		
Client ID:	SV-150-C-27				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



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Eurofins TestAmerica, Knoxville

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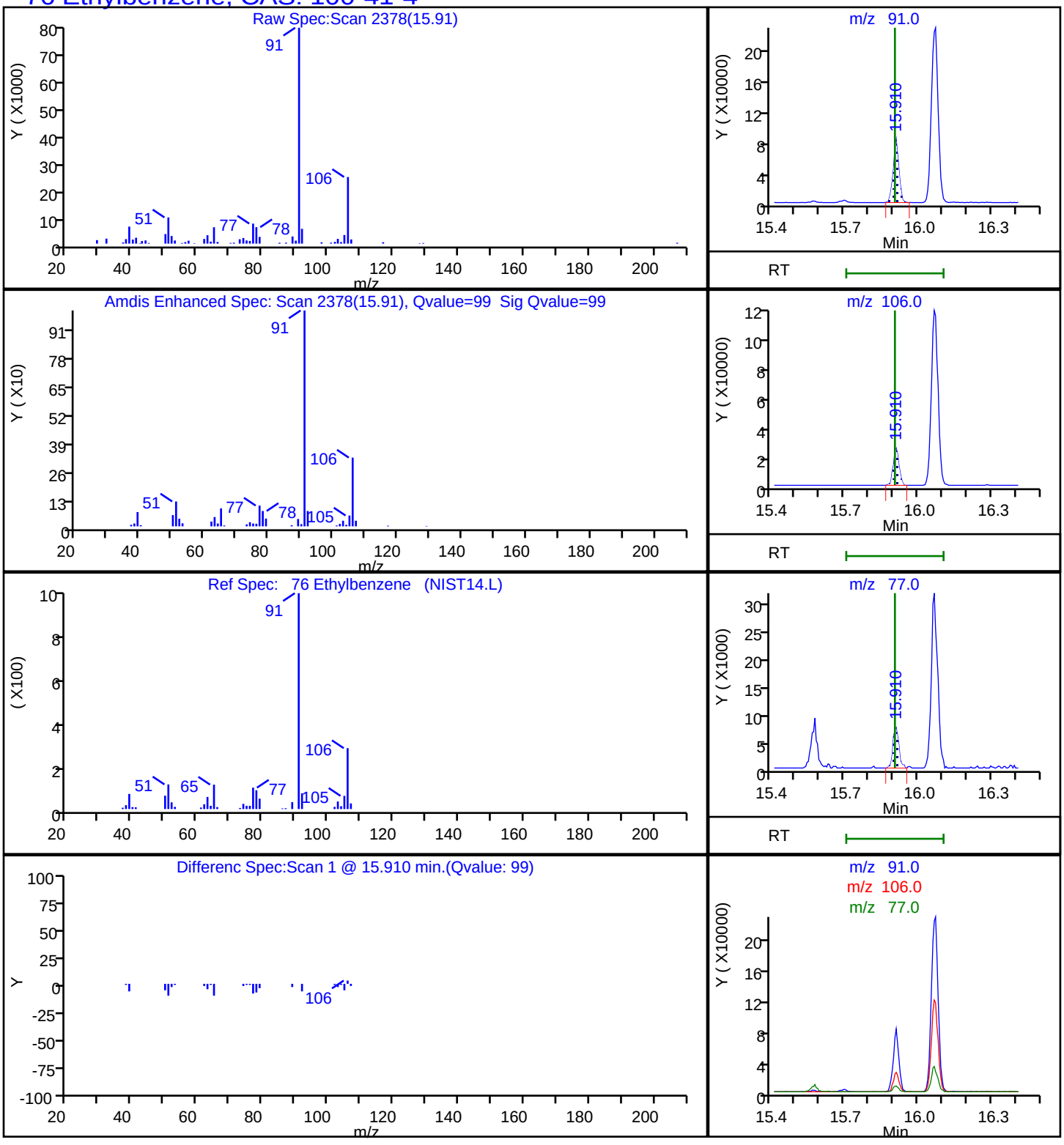
Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

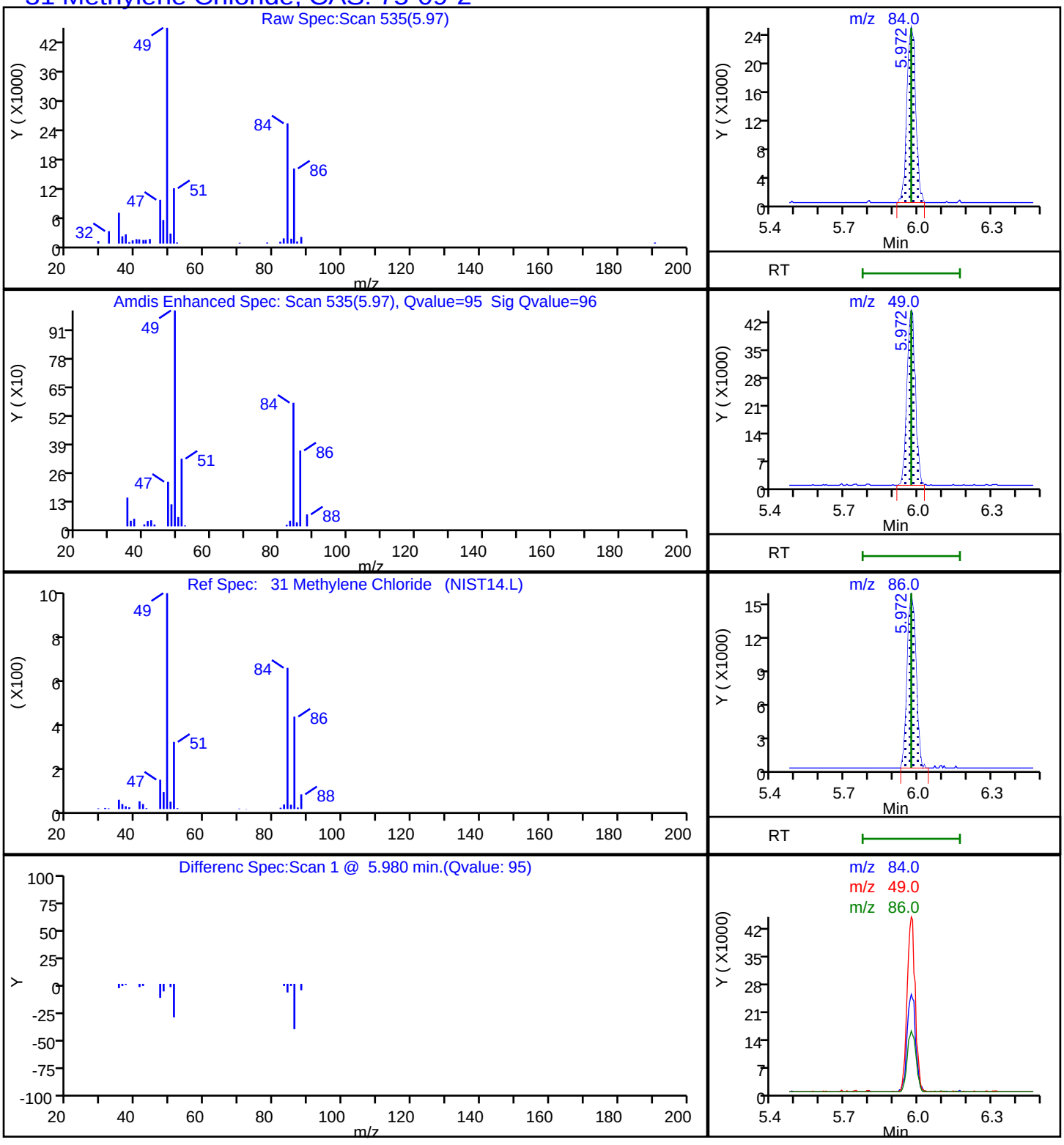


Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D		
Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

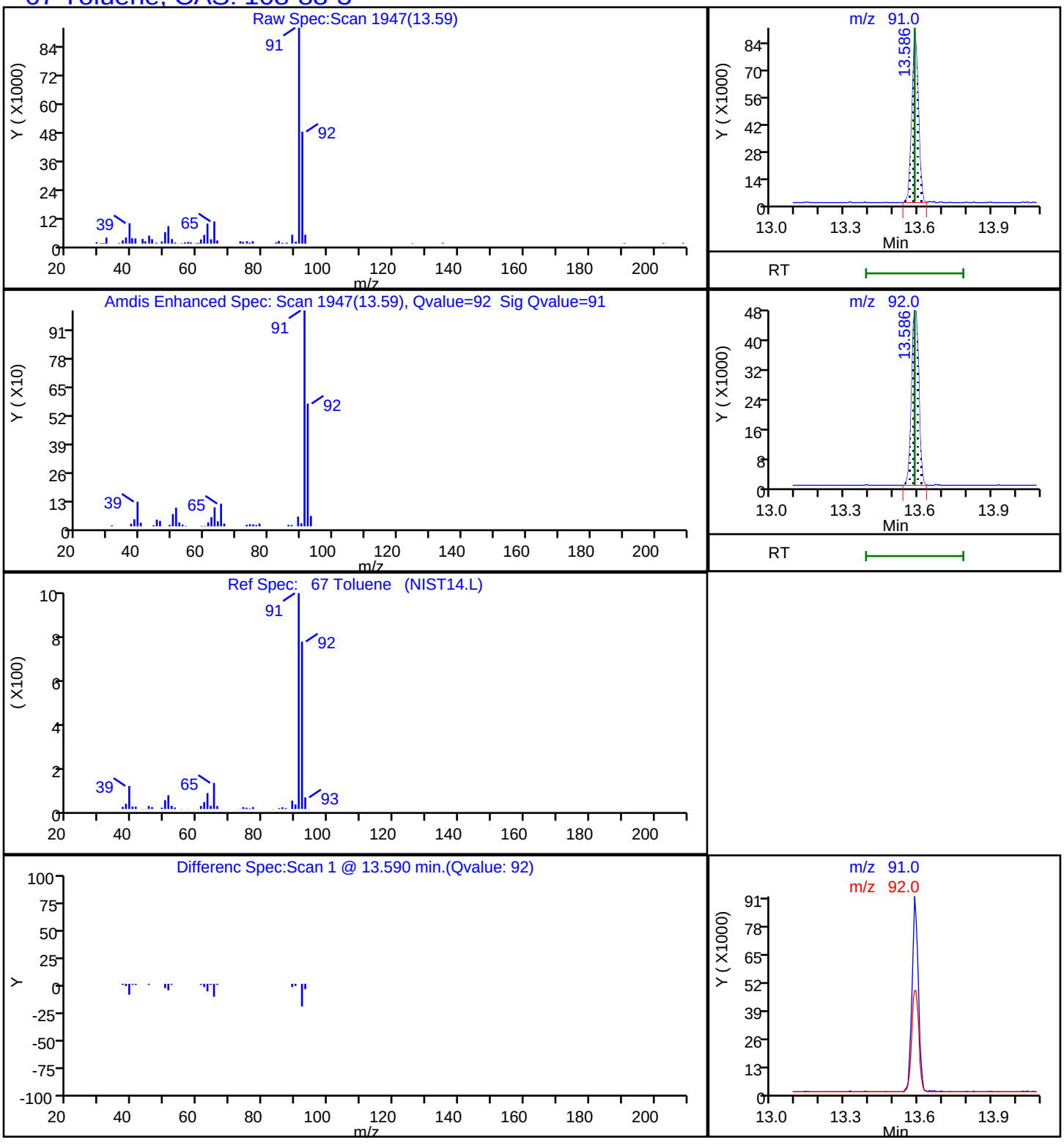


Report Date: 22-Aug-2019 10:24:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D		
Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



Report Date: 22-Aug-2019 10:24:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date: 20-Aug-2019 23:13:30 Instrument ID: MR

Lims ID: 140-16376-A-9 Lab Sample ID: 140-16376-9

Client ID: SV-150-C-27

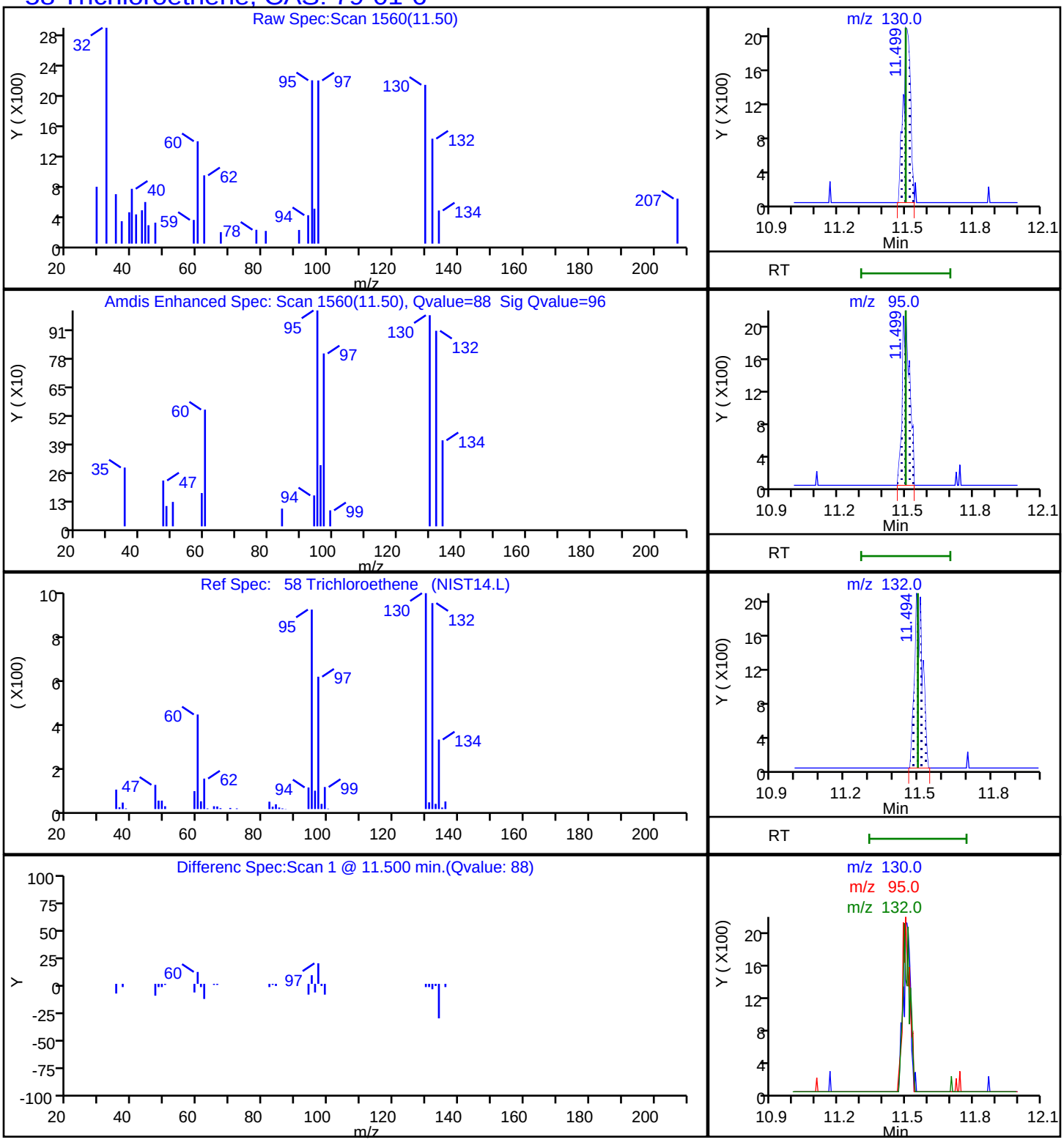
Operator ID: ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6

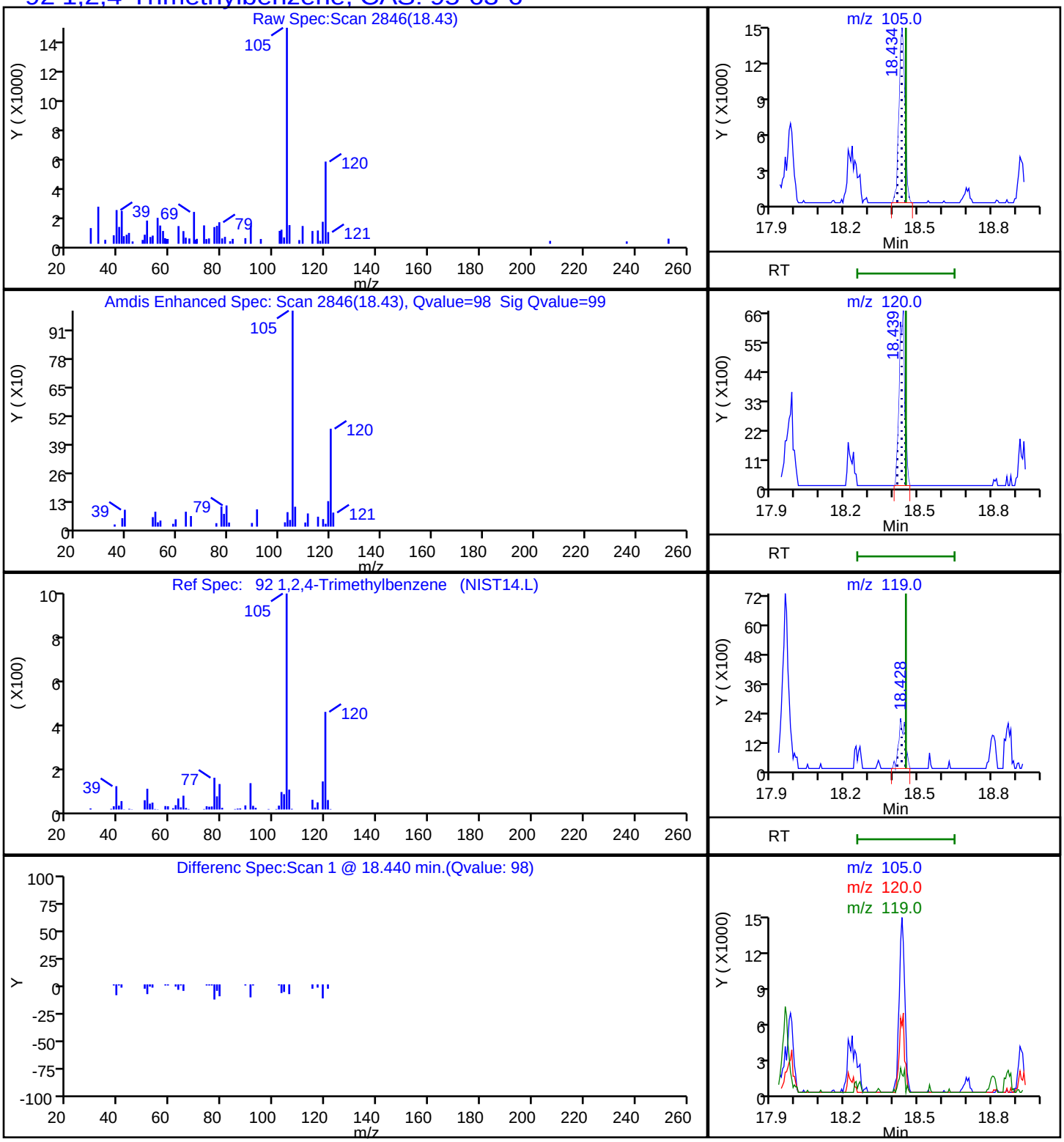


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

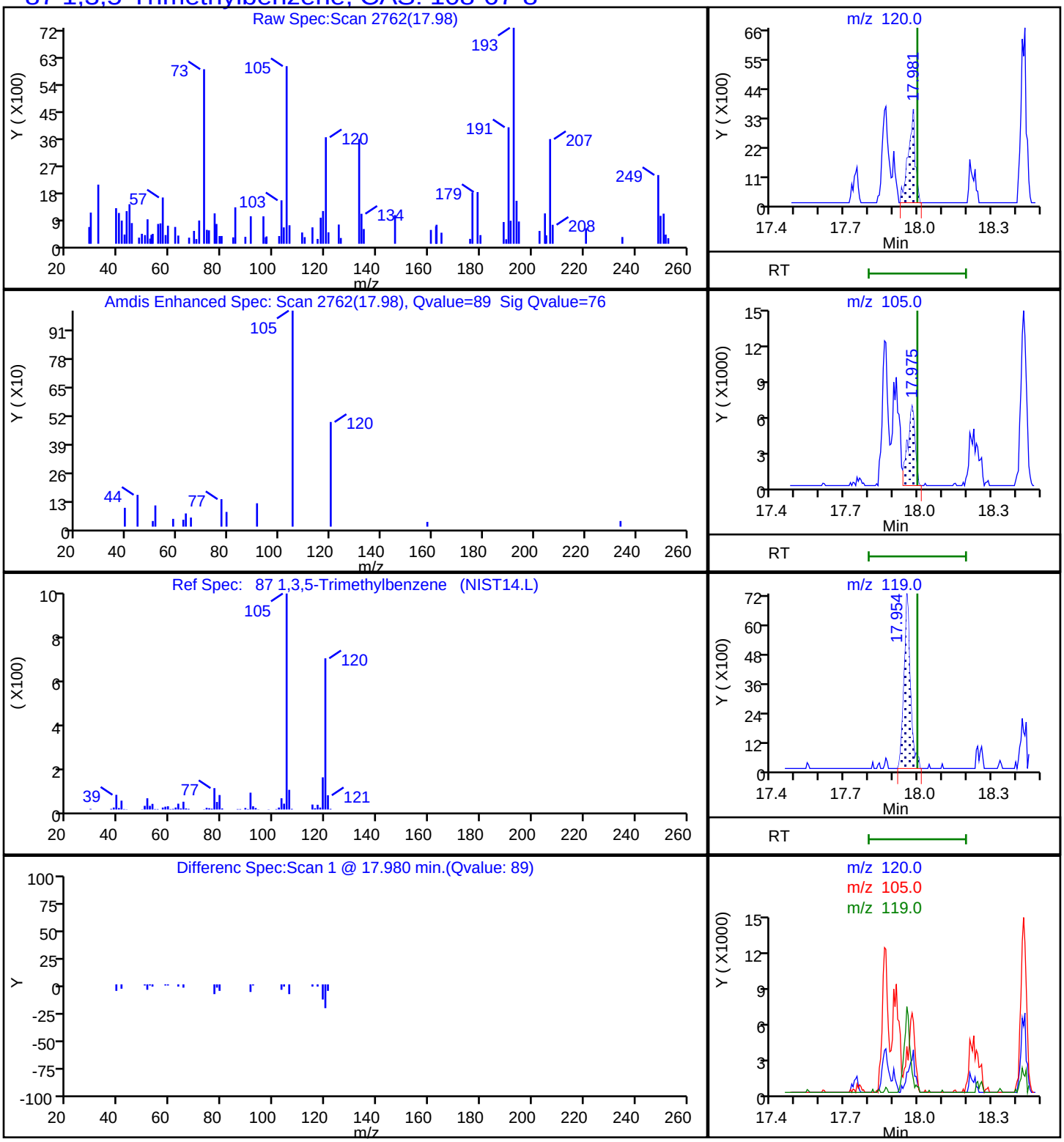
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D		
Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

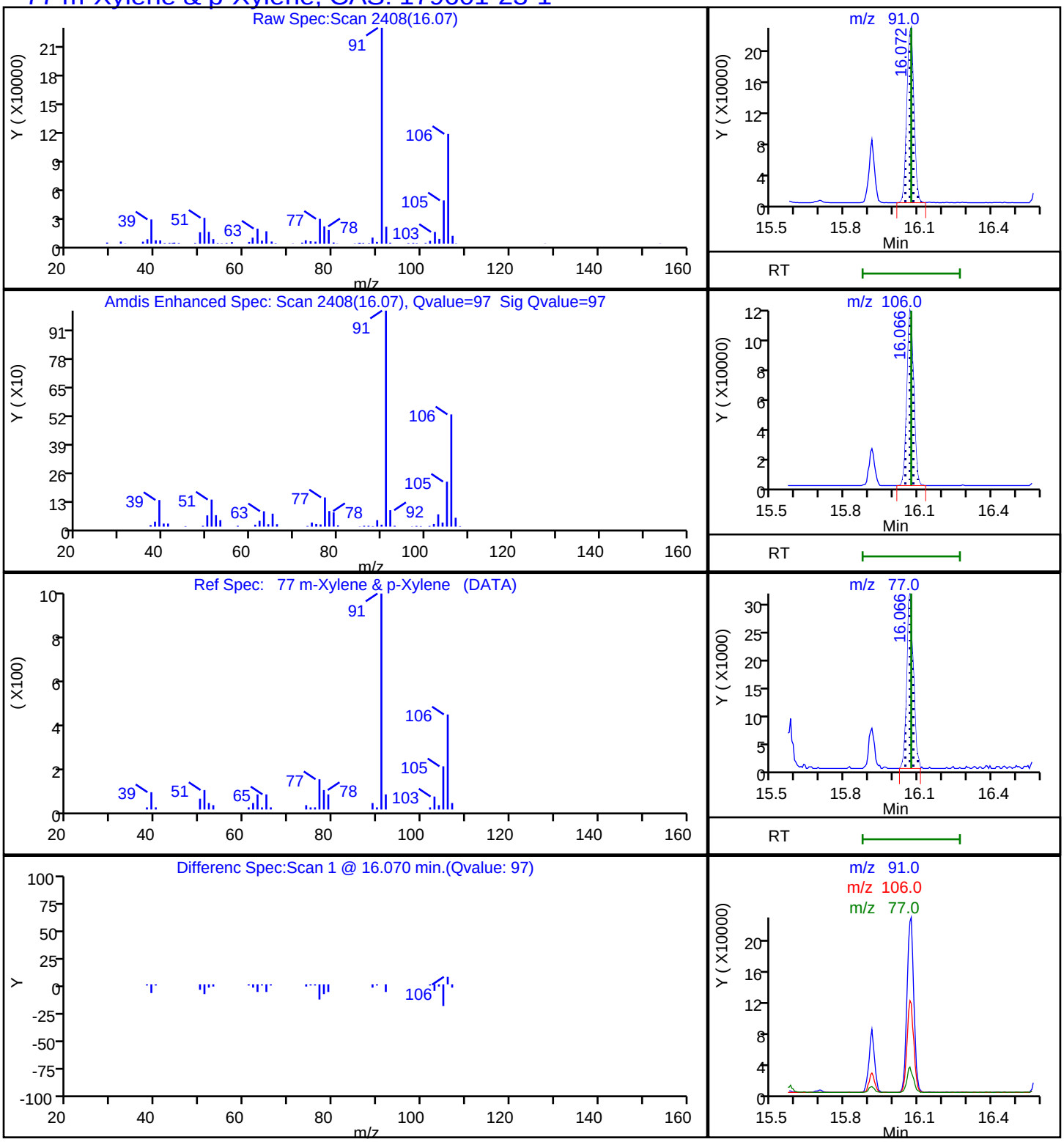
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D		
Injection Date:	20-Aug-2019 23:13:30	Instrument ID:	MR
Lims ID:	140-16376-A-9	Lab Sample ID:	140-16376-9
Client ID:	SV-150-C-27		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P110.D

Injection Date: 20-Aug-2019 23:13:30 Instrument ID: MR

Lims ID: 140-16376-A-9 Lab Sample ID: 140-16376-9

Client ID: SV-150-C-27

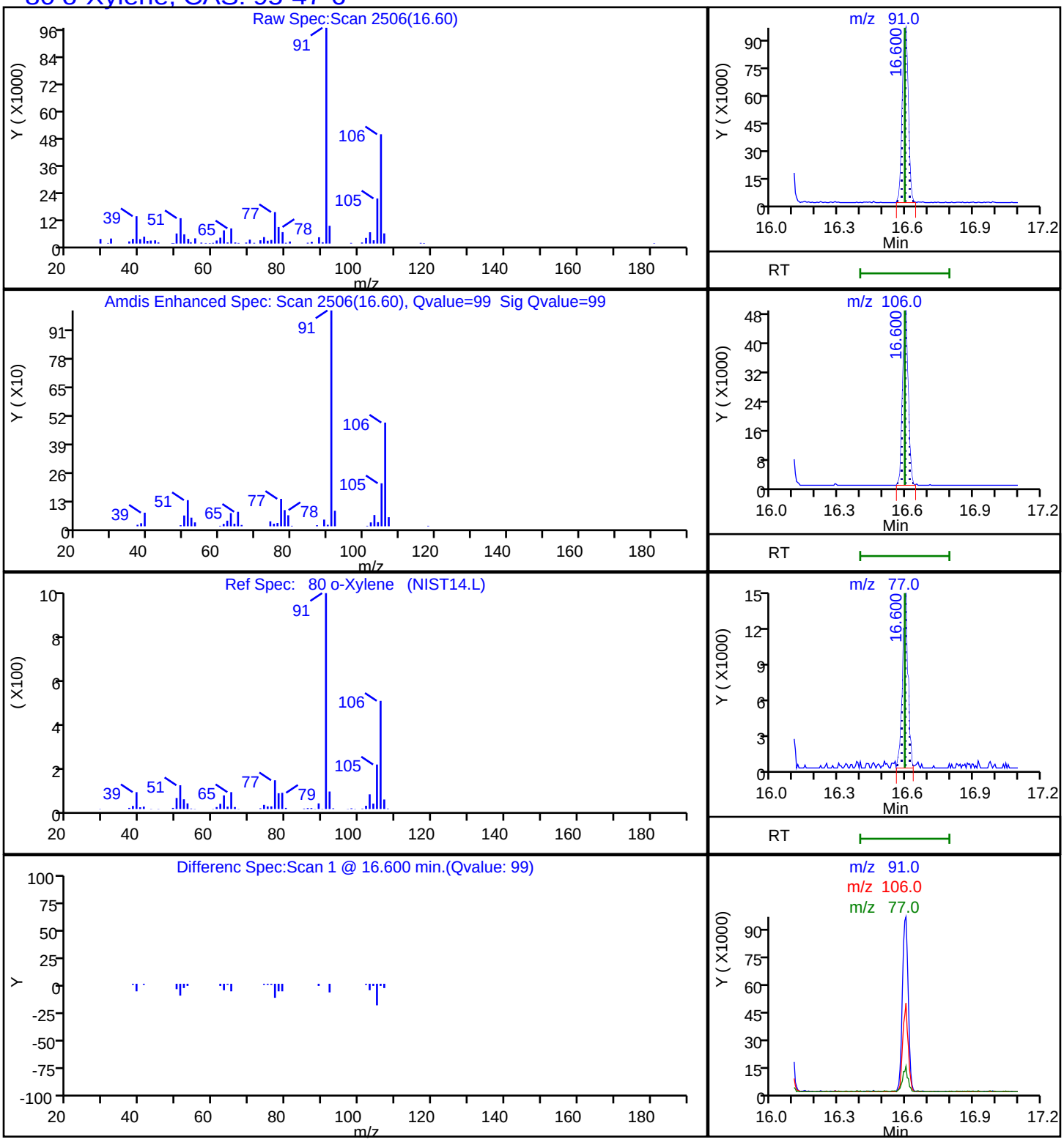
Operator ID: ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.084	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	6.3		0.40	0.11
67-66-3	Chloroform	119.38	0.33	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.11	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.27	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.053	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.51		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	28		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.16	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.66	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	22		1.4	0.39
67-66-3	Chloroform	119.38	1.6	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.43	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.21	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.80	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D
Lims ID: 140-16376-A-10
Client ID: SV-152-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 00:02:30 ALS Bottle#: 11 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-014
Misc. Info.: 140-16376-a-10
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:25:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	228916	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	1362730	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	91	1220774	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	90	792210	3.76	
6 Chlorodifluoromethane	51	3.432	3.427	0.005	96	247071	1.26	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	99	14278	0.0807	
31 Methylene Chloride	84	5.972	5.972	0.000	95	74177	0.9167	
34 trans-1,2-Dichloroethene	96	6.775	6.781	-0.006	26	869	0.0105	
37 1,1-Dichloroethane	63	7.207	7.212	-0.005	1	3323	0.0212	
42 cis-1,2-Dichloroethene	96	8.204	8.199	0.005	97	32627	0.3481	
44 Chloroform	83	8.549	8.555	-0.006	28	12761	0.0663	
47 1,1,1-Trichloroethane	97	9.595	9.590	0.005	95	21704	0.1025	
49 Benzene	78	10.210	10.199	0.011	55	11329	0.0410	
52 Carbon tetrachloride	117	10.232	10.226	0.006	60	3698	0.0168	
58 Trichloroethene	130	11.504	11.499	0.005	95	674392	5.56	
67 Toluene	91	13.591	13.586	0.005	92	79349	0.2526	
76 Ethylbenzene	91	15.910	15.905	0.005	97	23824	0.0541	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	69639	0.2013	
80 o-Xylene	91	16.600	16.595	0.005	97	29607	0.0815	
87 1,3,5-Trimethylbenzene	120	17.975	17.997	-0.022	83	6685	0.0326	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	99	27067	0.0570	
S 116 Xylenes, Total	100				0		0.2828	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

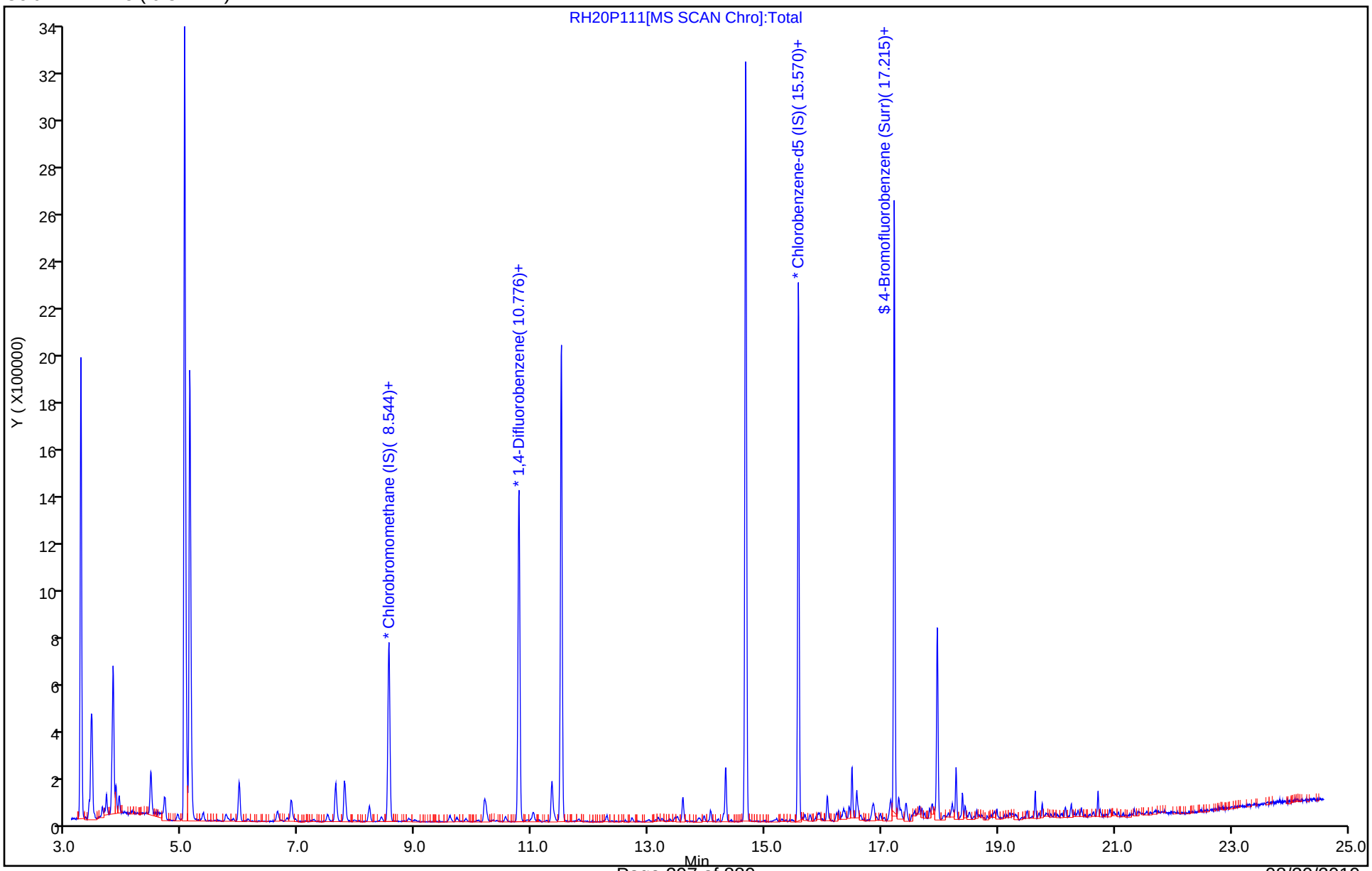
Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10	Worklist Smp#:	14
Client ID:	SV-152-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D				
Lims ID:	140-16376-A-10				
Client ID:	SV-152-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 00:02:30	ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-014				
Misc. Info.:	140-16376-a-10				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:25:11		

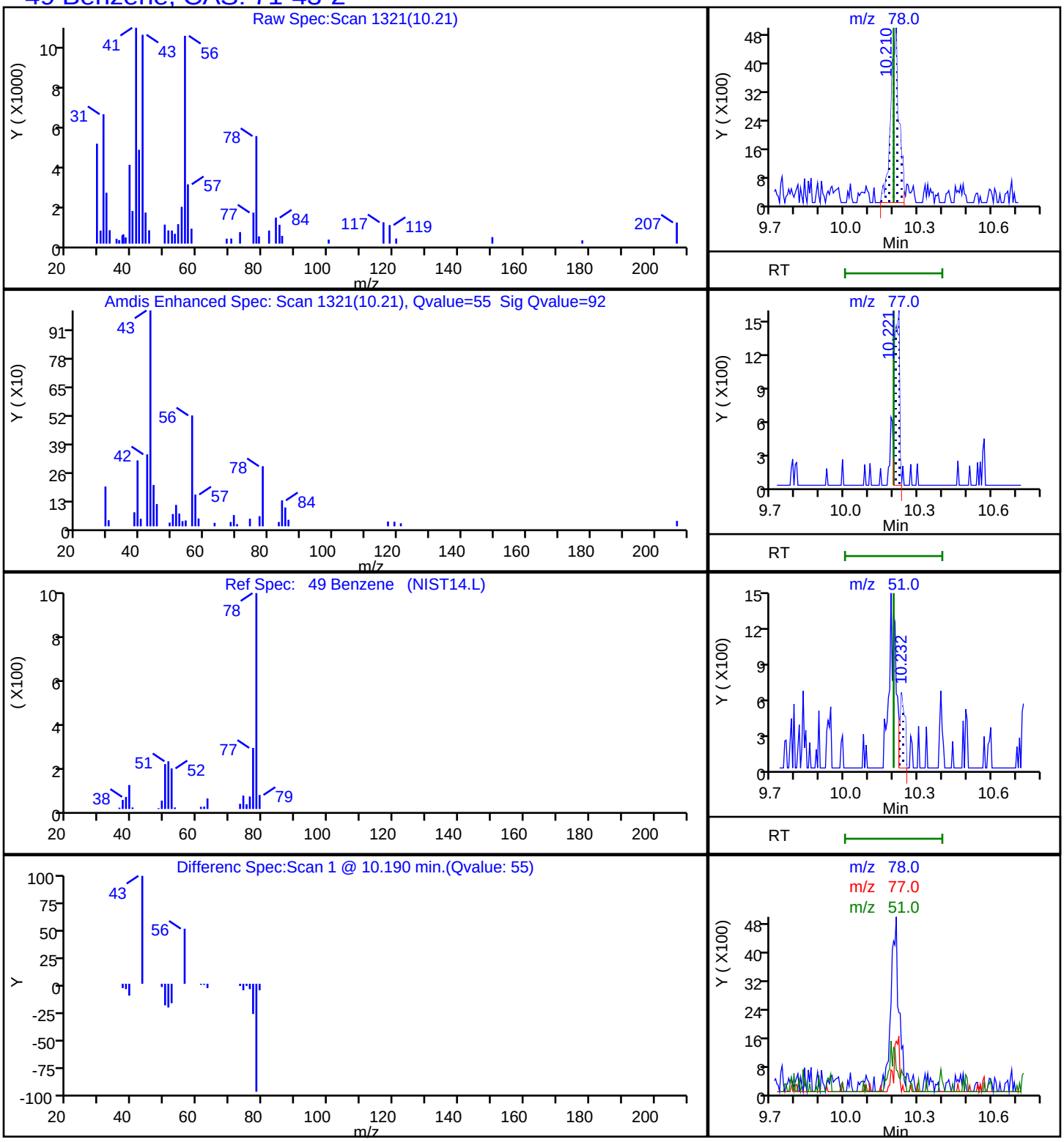
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.76	94.10

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



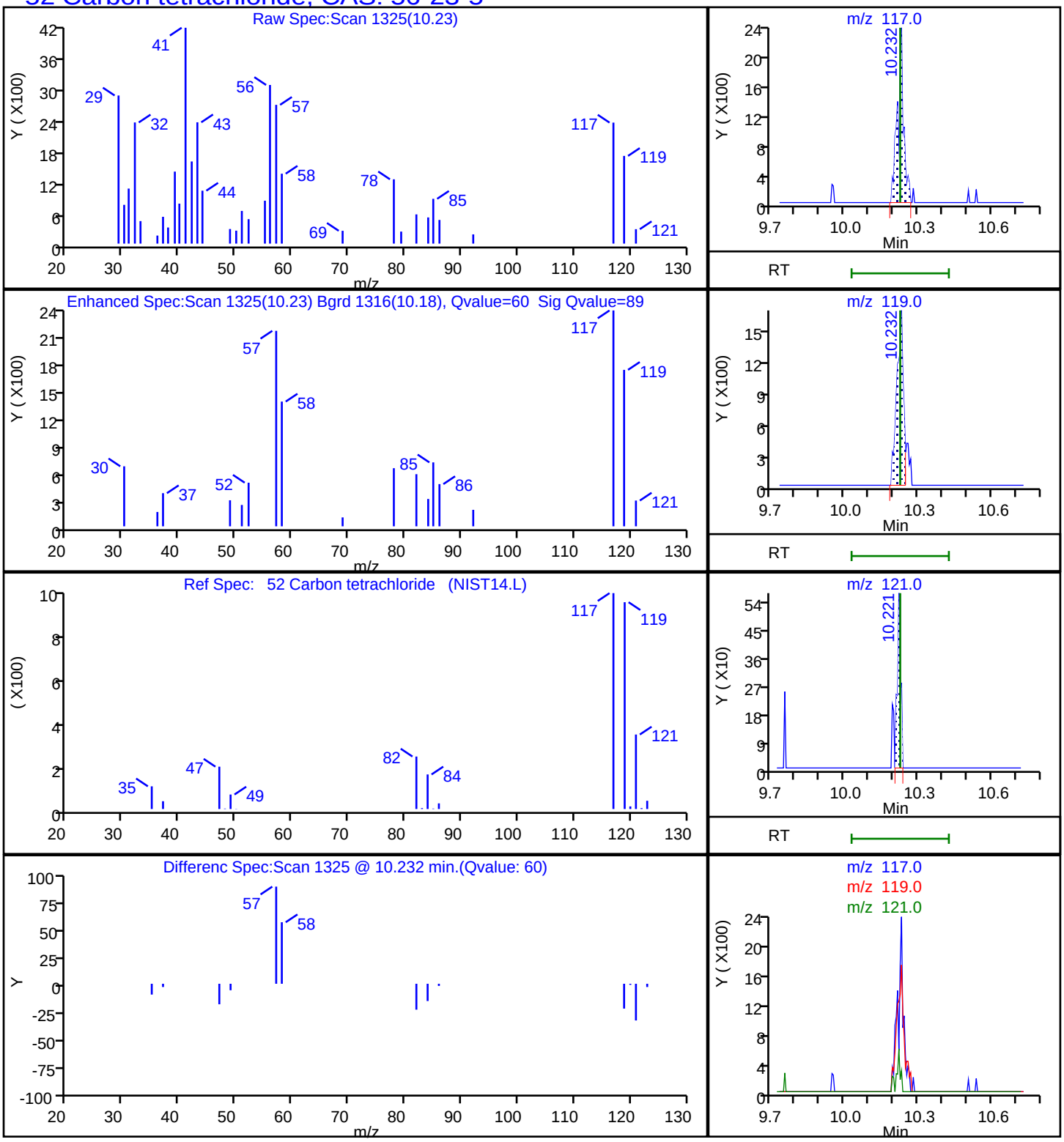
Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date: 21-Aug-2019 00:02:30 Instrument ID: MR

Lims ID: 140-16376-A-10 Lab Sample ID: 140-16376-10

Client ID: SV-152-C-27

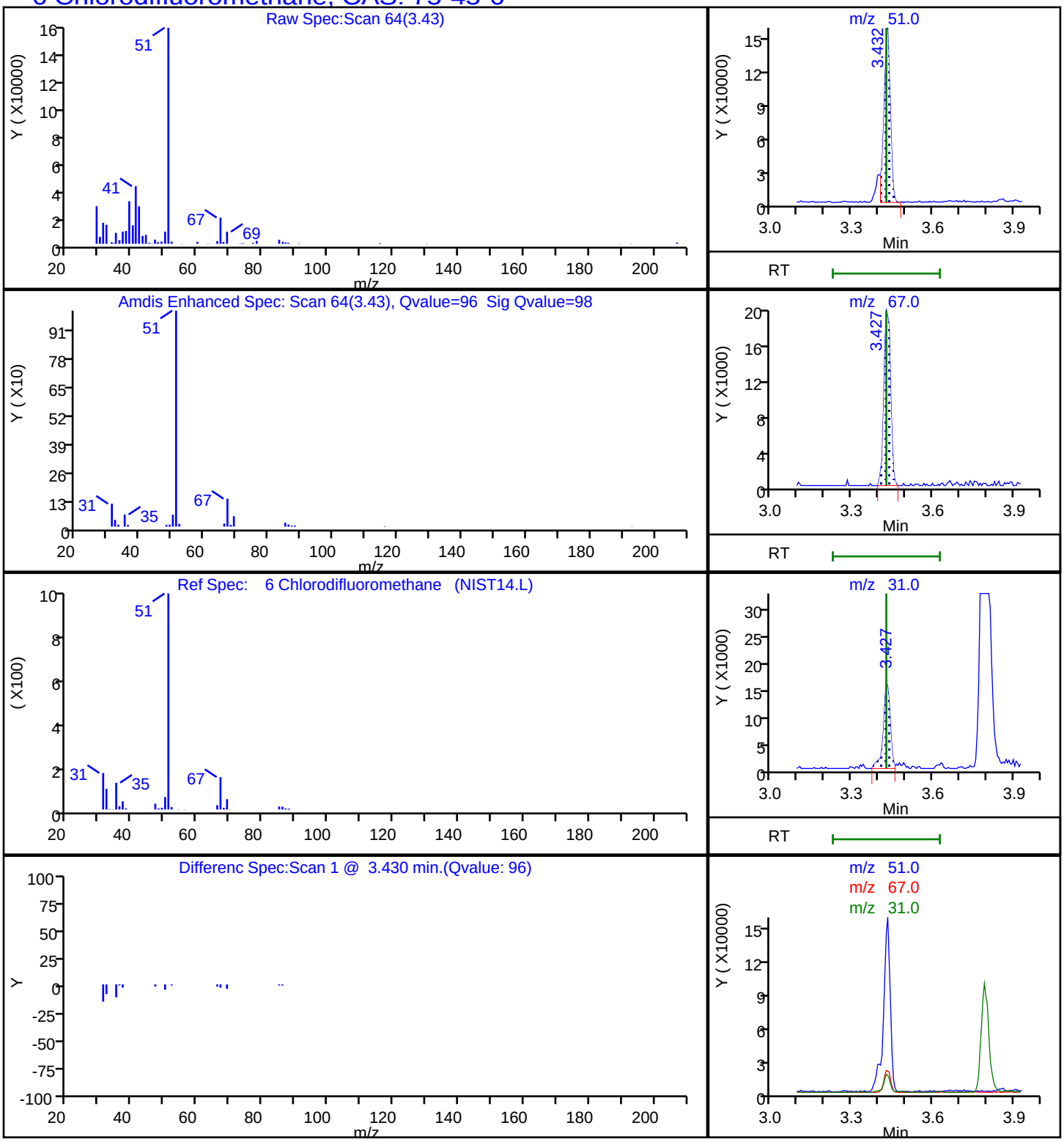
Operator ID: ALS Bottle#: 11 Worklist Smp#: 14

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

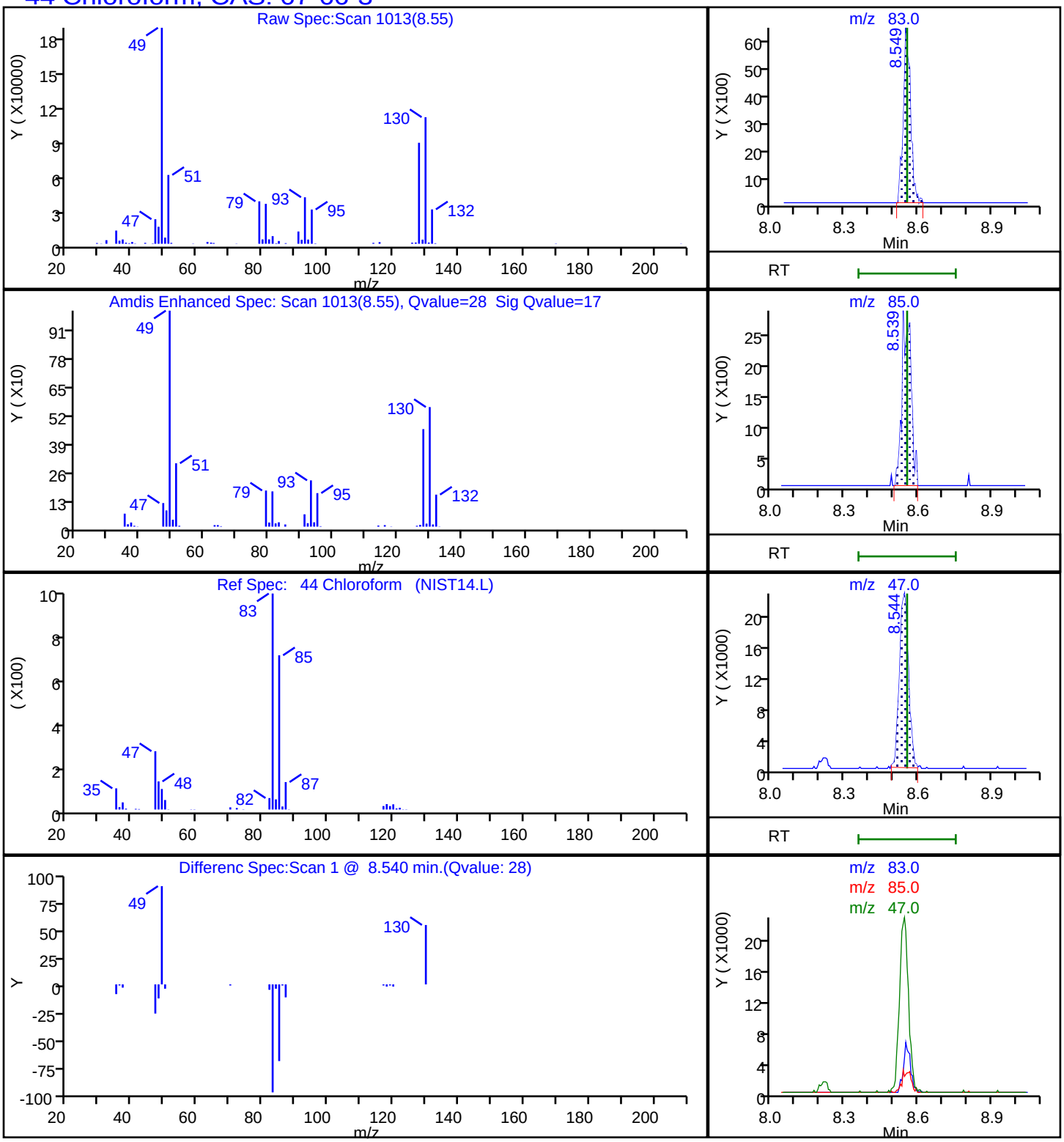
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



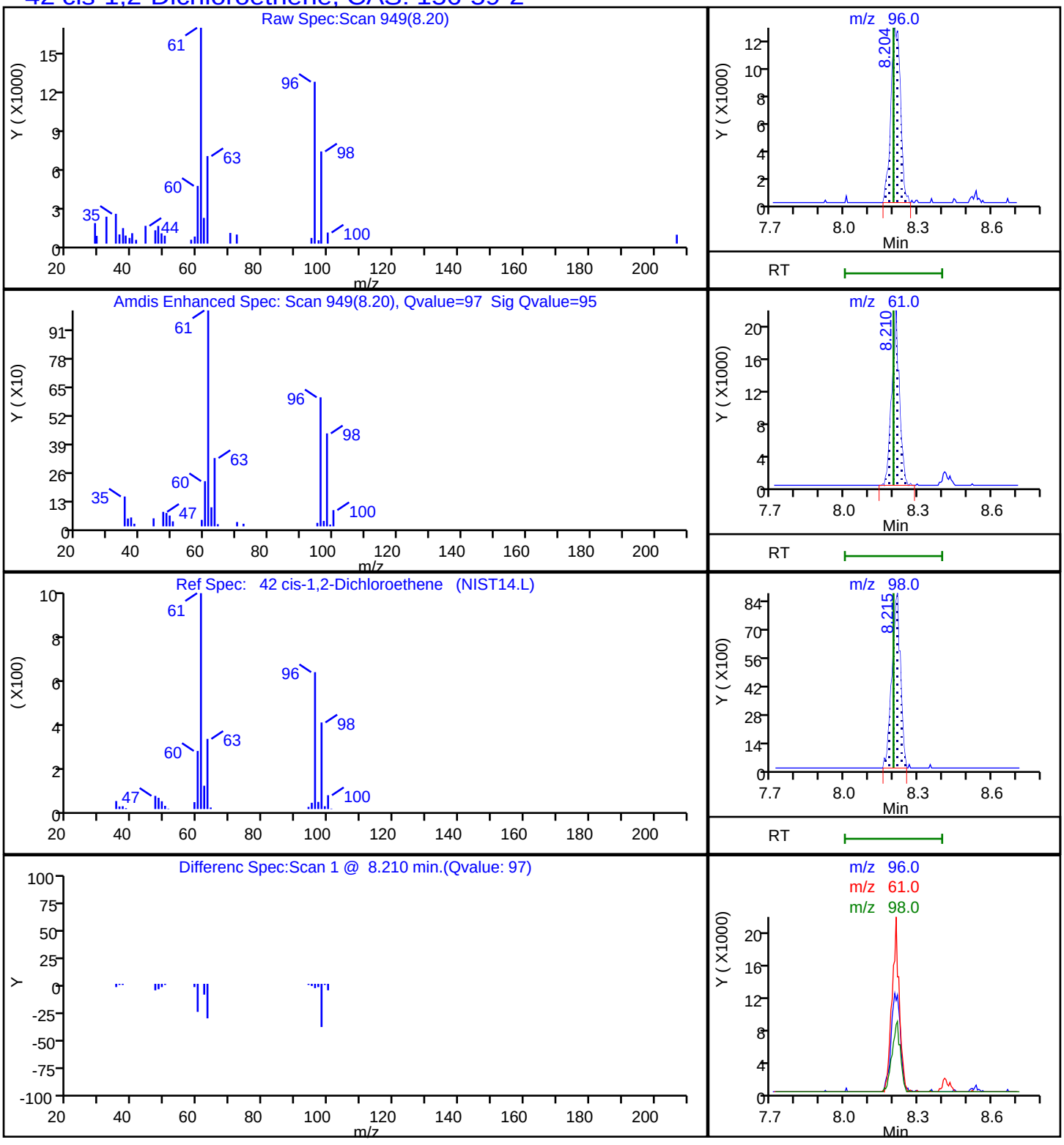
Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR		
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10		
Client ID:	SV-152-C-27				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

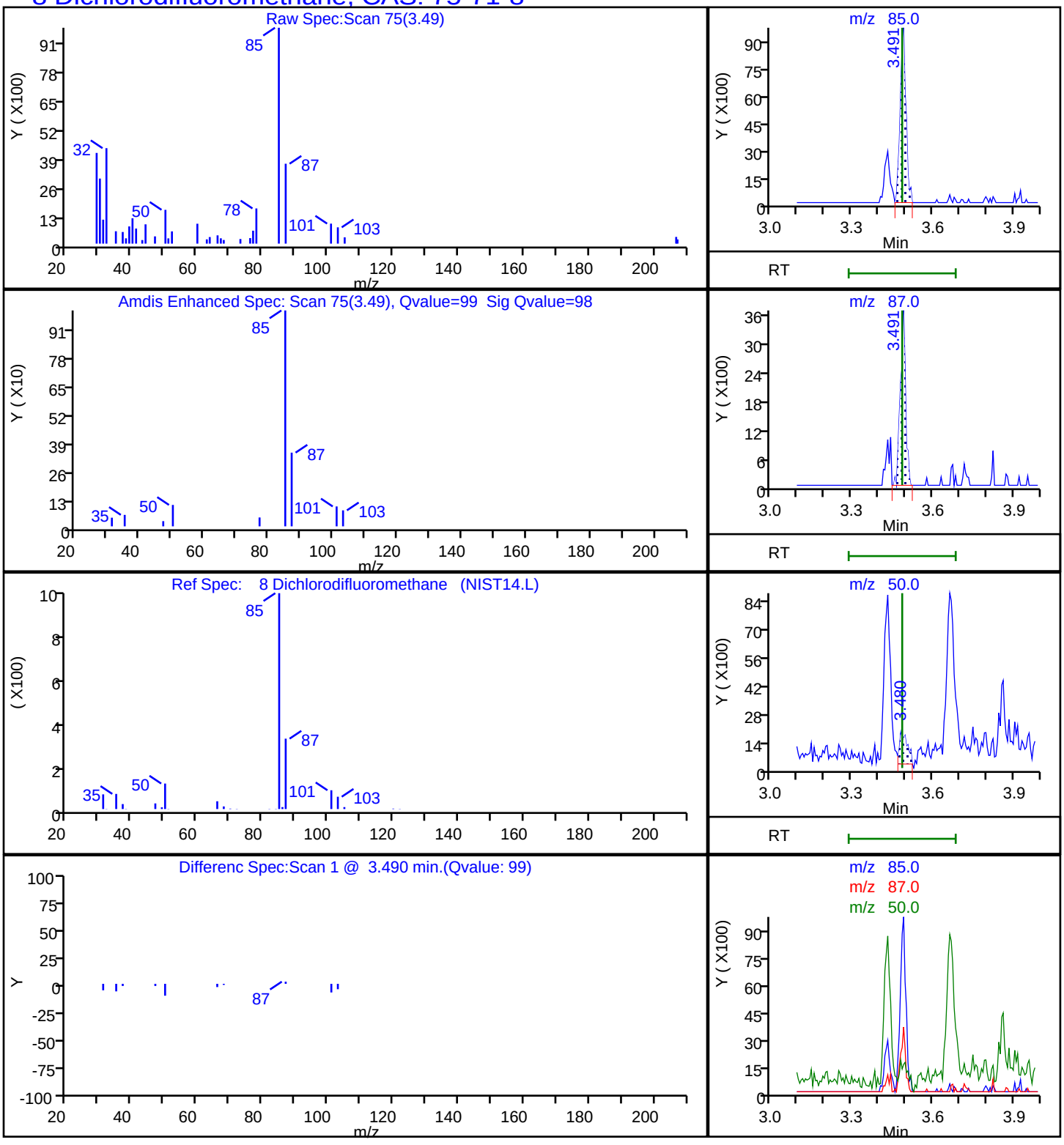
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date: 21-Aug-2019 00:02:30 Instrument ID: MR

Lims ID: 140-16376-A-10 Lab Sample ID: 140-16376-10

Client ID: SV-152-C-27

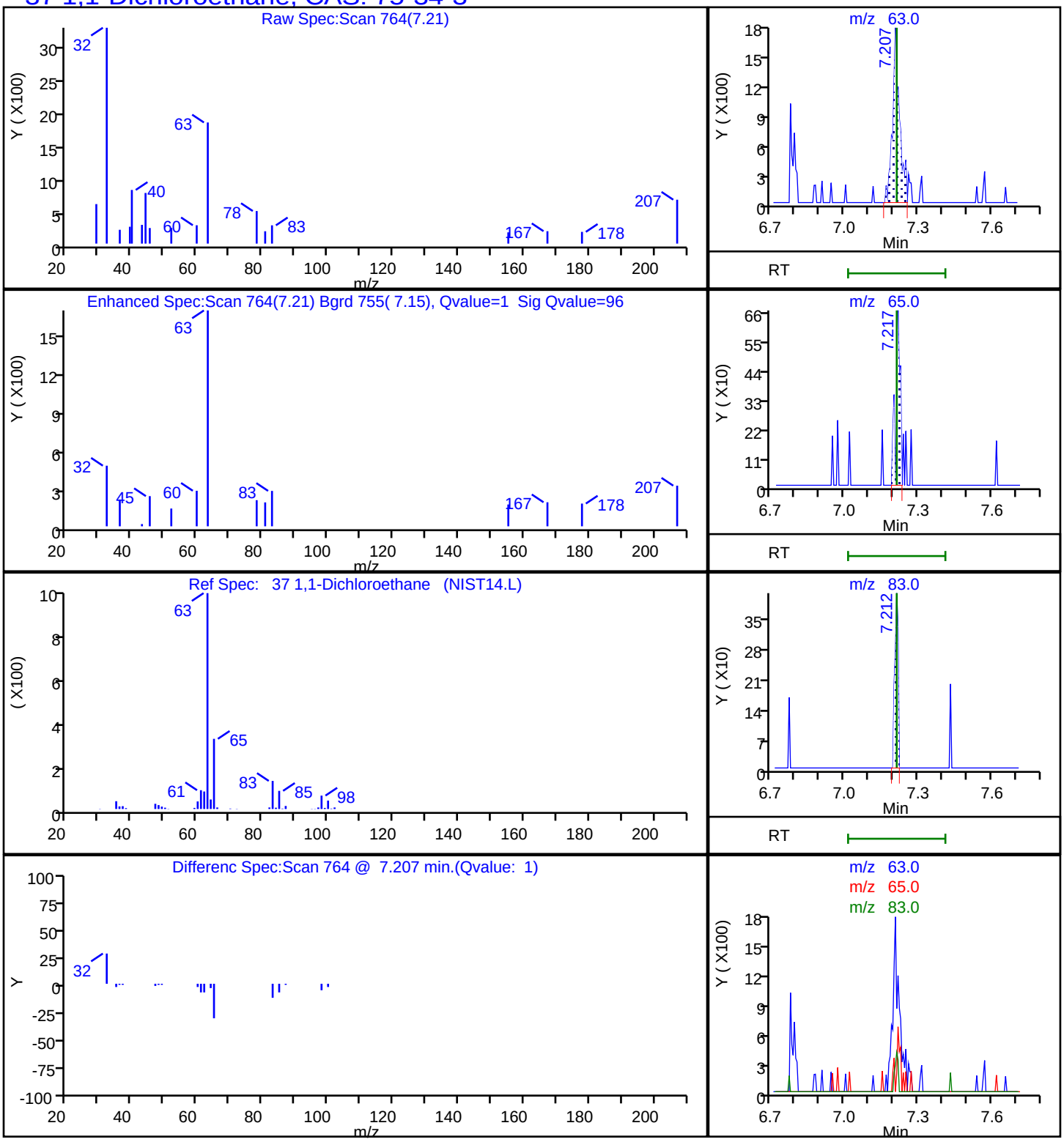
Operator ID: ALS Bottle#: 11 Worklist Smp#: 14

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

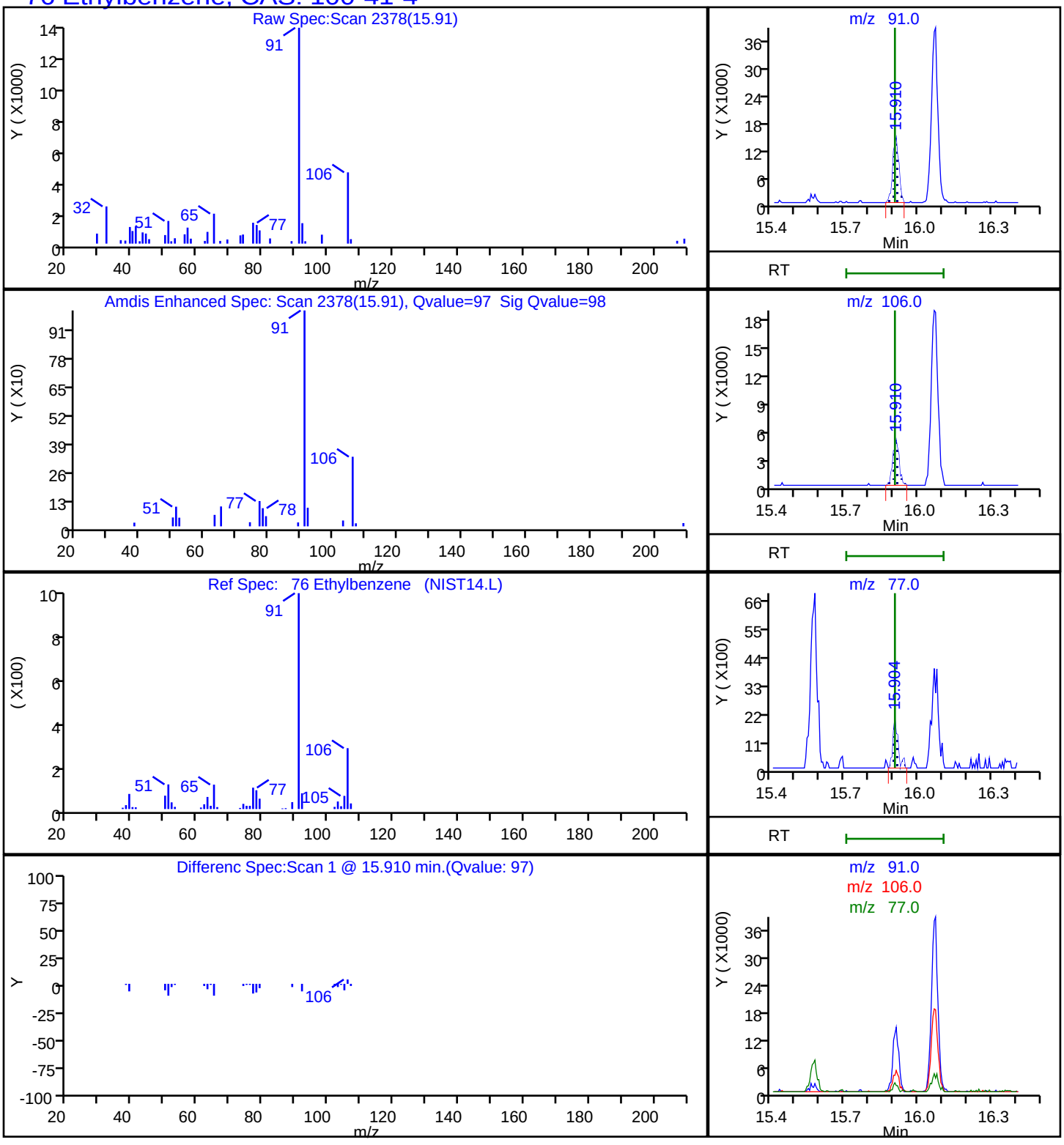
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

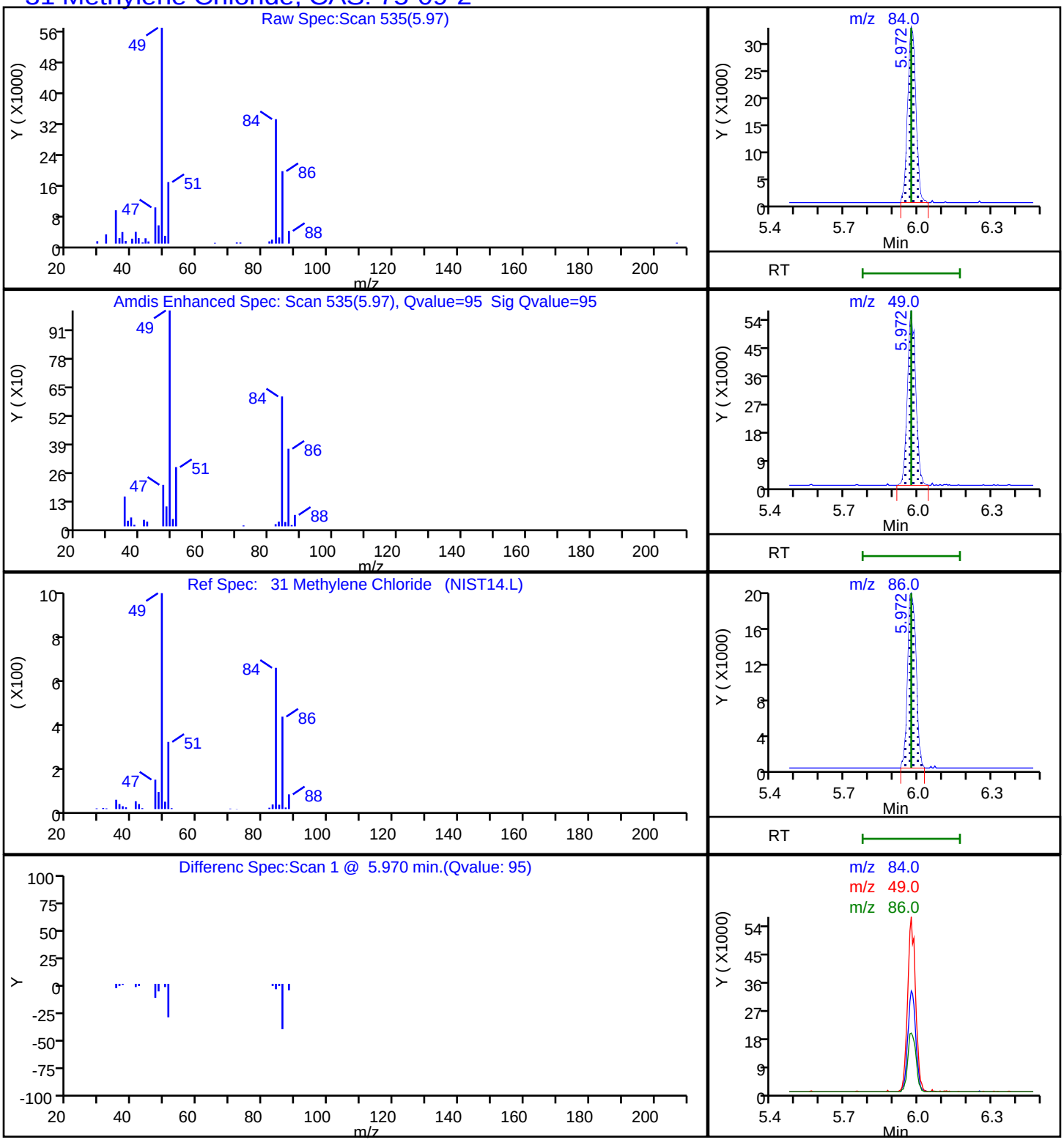


Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

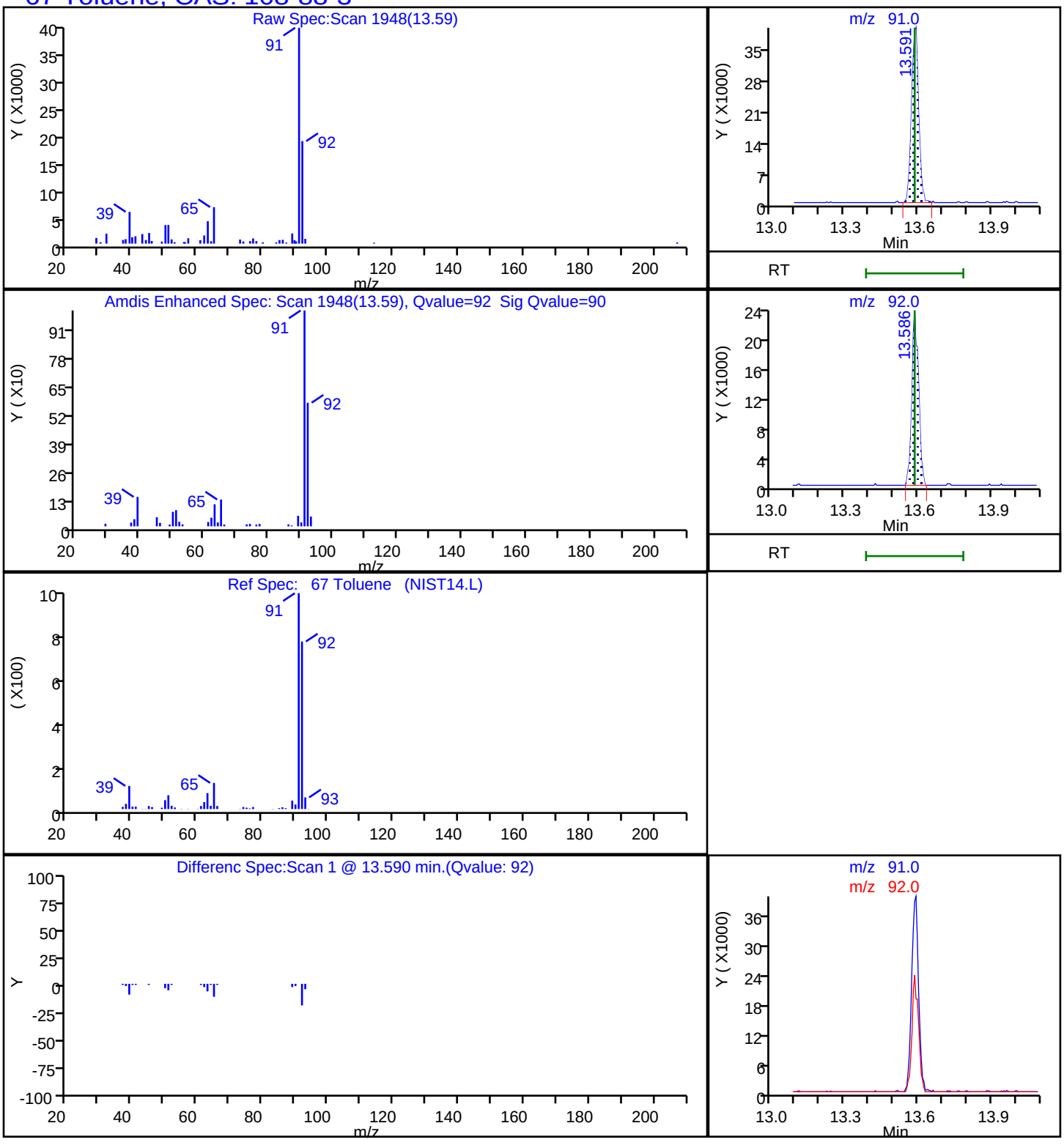
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

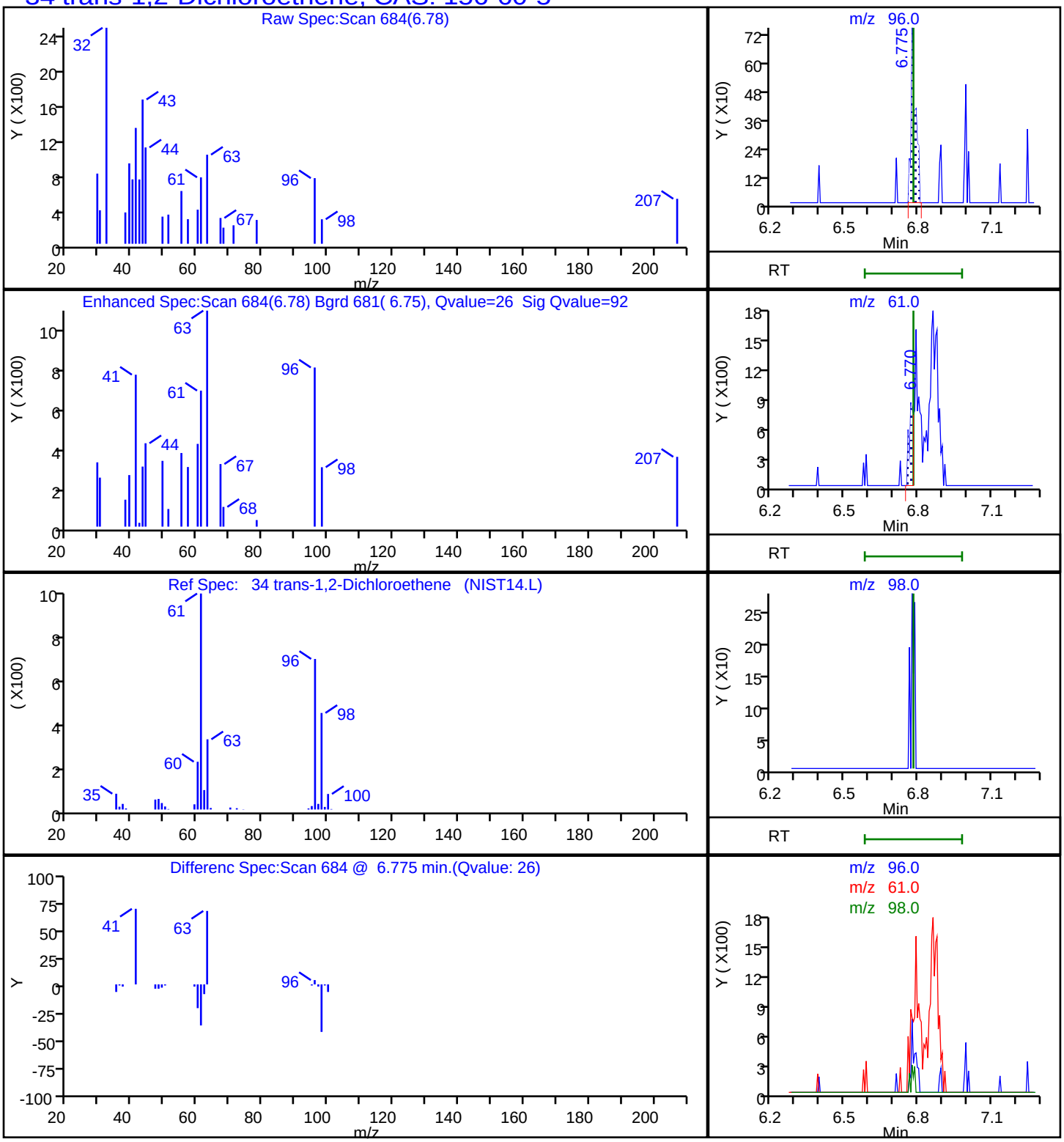


Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D				
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR		
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10		
Client ID:	SV-152-C-27				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



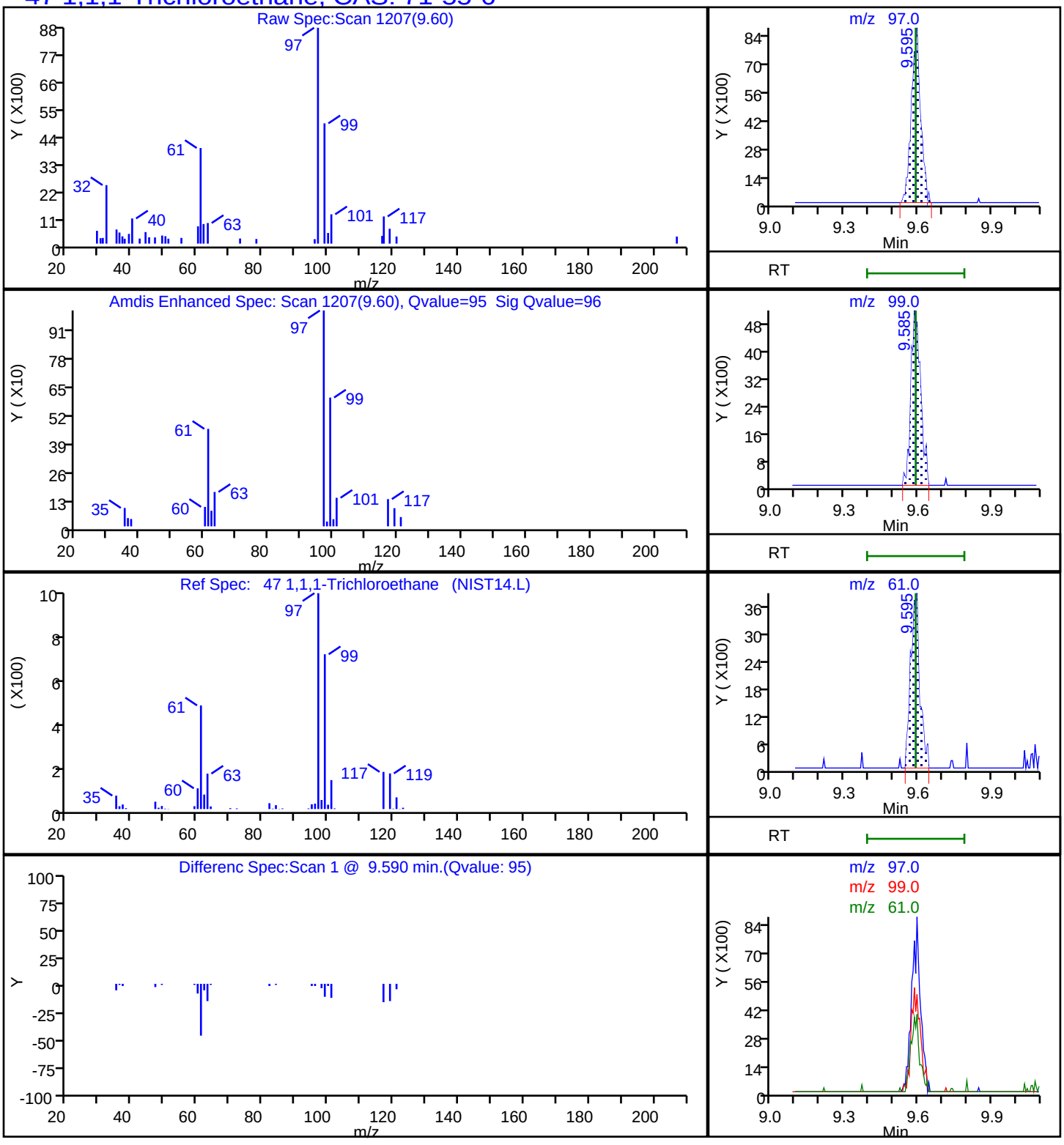
Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date: 21-Aug-2019 00:02:30 Instrument ID: MR

Lims ID: 140-16376-A-10 Lab Sample ID: 140-16376-10

Client ID: SV-152-C-27

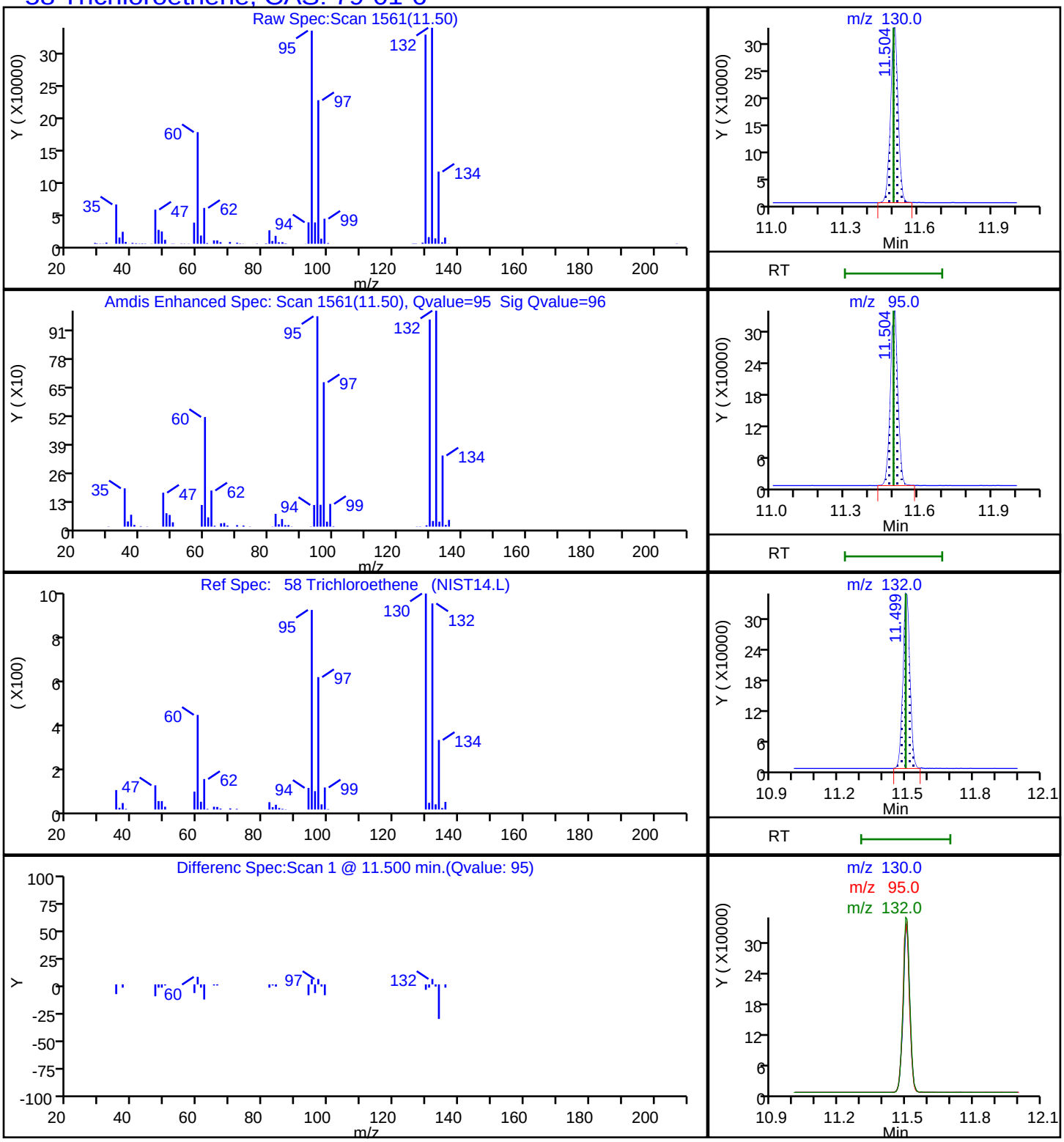
Operator ID: ALS Bottle#: 11 Worklist Smp#: 14

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

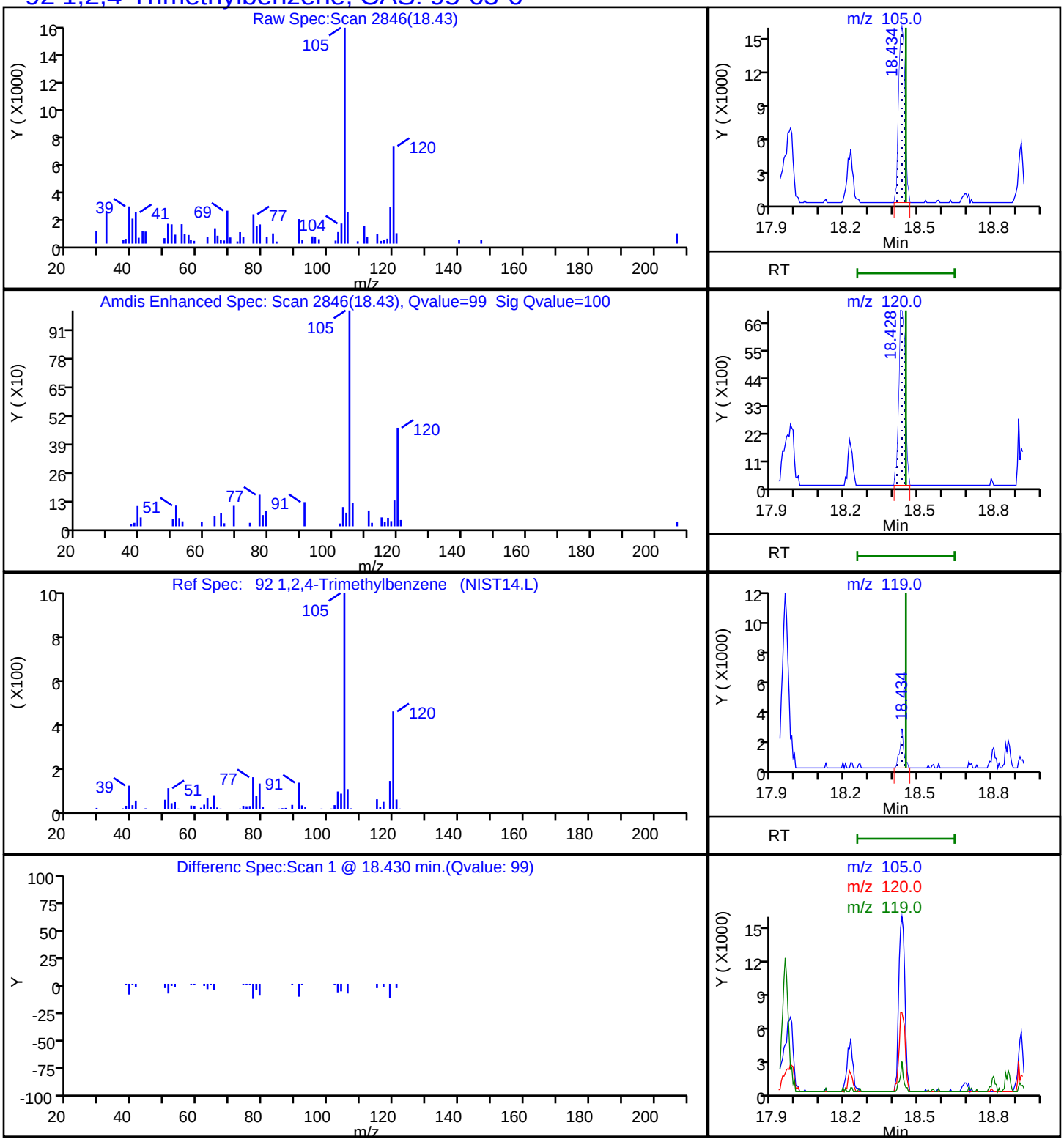
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

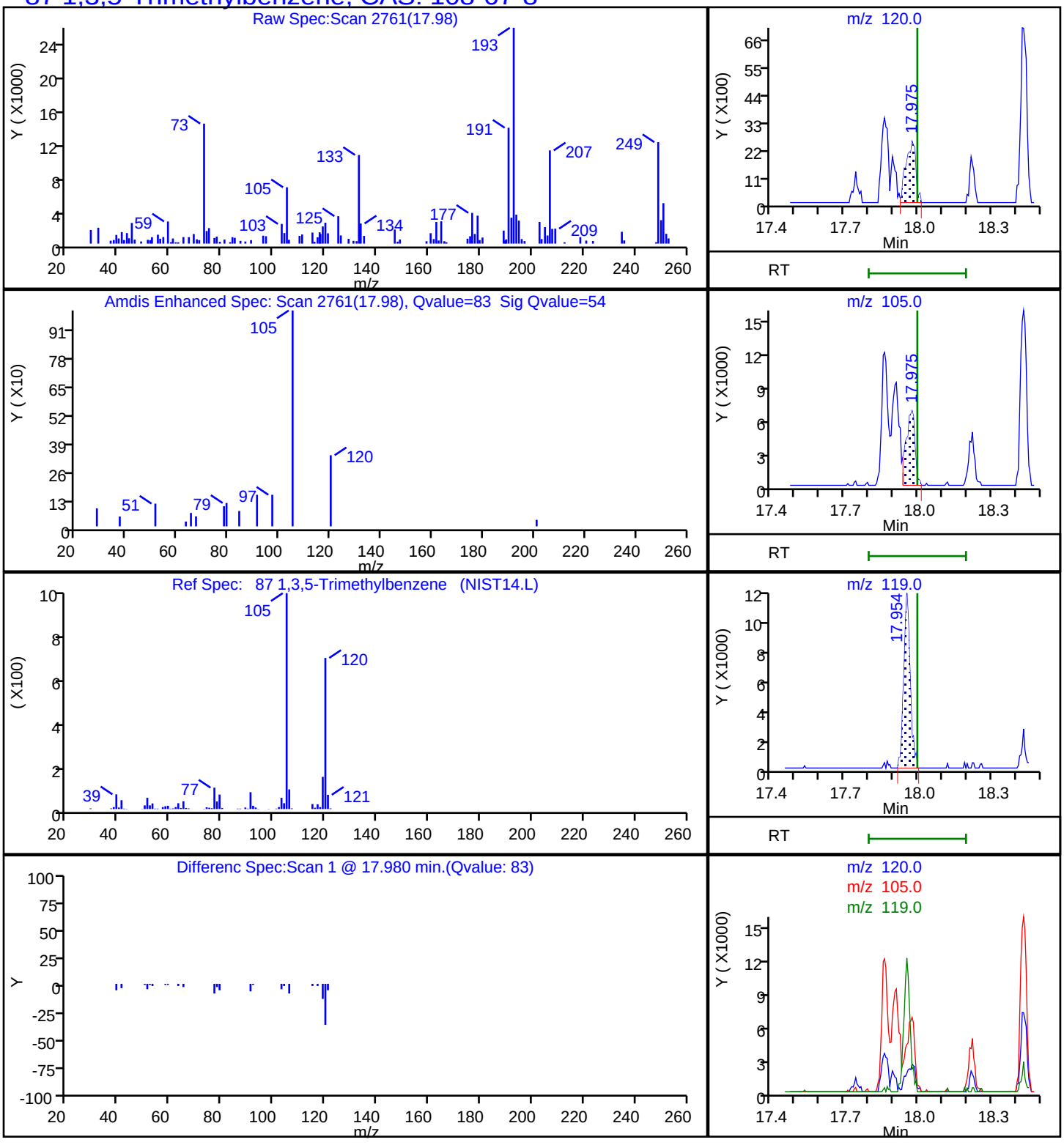
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D		
Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

87 1,3,5-Trimethylbenzene, CAS: 108-67-8



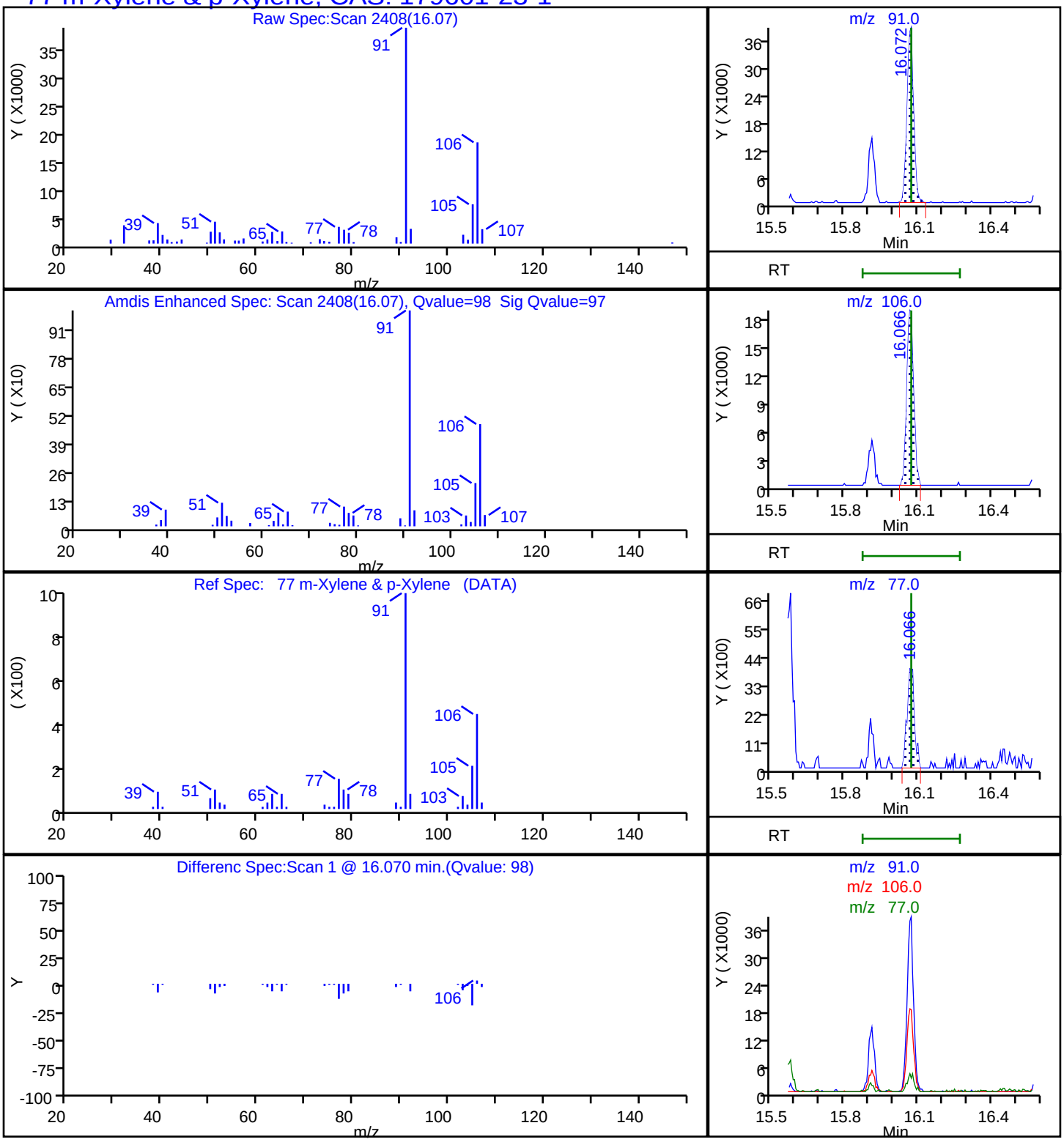
Report Date: 22-Aug-2019 10:25:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date:	21-Aug-2019 00:02:30	Instrument ID:	MR
Lims ID:	140-16376-A-10	Lab Sample ID:	140-16376-10
Client ID:	SV-152-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 22-Aug-2019 10:25:13 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P111.D

Injection Date: 21-Aug-2019 00:02:30 Instrument ID: MR

Lims ID: 140-16376-A-10 Lab Sample ID: 140-16376-10

Client ID: SV-152-C-27

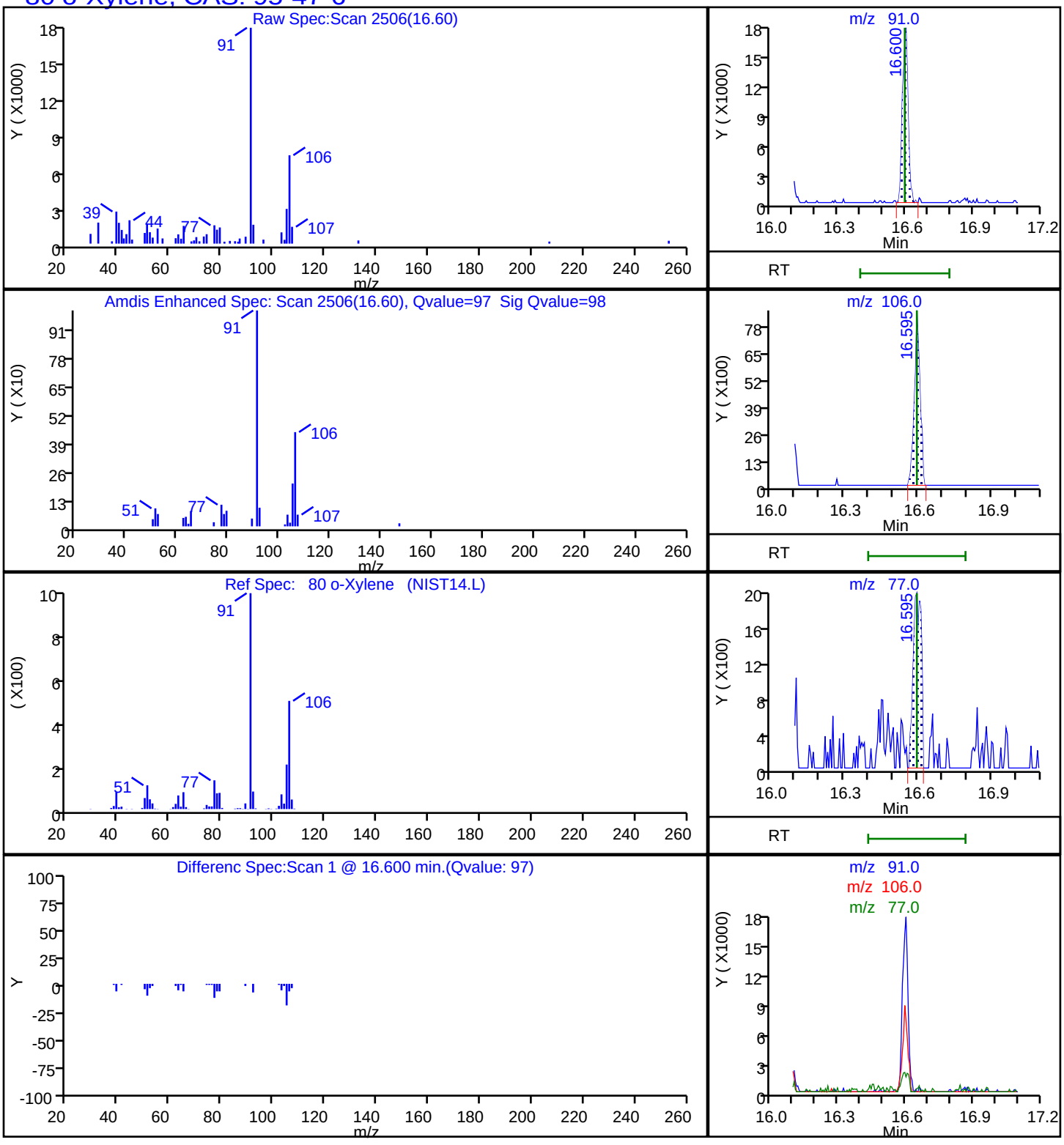
Operator ID: ALS Bottle#: 11 Worklist Smp#: 14

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.047	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	8.7		0.40	0.11
67-66-3	Chloroform	119.38	0.21	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.51		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.45		0.40	0.065
75-09-2	Methylene Chloride	84.93	5.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	1.1		0.40	0.035
108-88-3	Toluene	92.14	0.55	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.66		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*90*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.24		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	31		1.4	0.39
67-66-3	Chloroform	119.38	1.0	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	2.0		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.9		1.7	0.28
75-09-2	Methylene Chloride	84.93	19	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	7.3		2.7	0.24
108-88-3	Toluene	92.14	2.1	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.6		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*480*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.62		0.51	0.33
1330-20-7	Xylenes, Total	106.17	12		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D
Lims ID: 140-16376-A-11
Client ID: SV-141-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 00:51:30 ALS Bottle#: 12 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-015
Misc. Info.: 140-16376-a-11
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:25:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	228686	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	1380073	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1244471	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	91	784224	3.66	
6 Chlorodifluoromethane	51	3.432	3.427	0.005	97	338417	1.73	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	96	12573	0.0711	
12 Vinyl chloride	62	3.831	3.826	0.005	31	4051	0.0481	
27 1,1-Dichloroethene	96	5.621	5.616	0.005	78	8097	0.1030	
31 Methylene Chloride	84	5.977	5.972	0.005	96	90719	1.12	
34 trans-1,2-Dichloroethene	96	6.791	6.781	0.010	87	10915	0.1320	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	96	66787	0.7134	
44 Chloroform	83	8.560	8.555	0.005	28	8007	0.0416	
49 Benzene	78	10.205	10.199	0.006	96	24323	0.0870	
52 Carbon tetrachloride	117	10.226	10.226	0.000	31	2080	0.009308	
58 Trichloroethene	130	11.504	11.499	0.005	96	2212485	18.0	E
67 Toluene	91	13.591	13.586	0.005	94	35356	0.1104	
73 Tetrachloroethene	129	14.740	14.740	0.000	91	28172	0.2154	
76 Ethylbenzene	91	15.910	15.905	0.005	98	40036	0.0891	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	148257	0.4204	
80 o-Xylene	91	16.600	16.595	0.005	99	49203	0.1329	
S 116 Xylenes, Total	100				0		0.5532	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

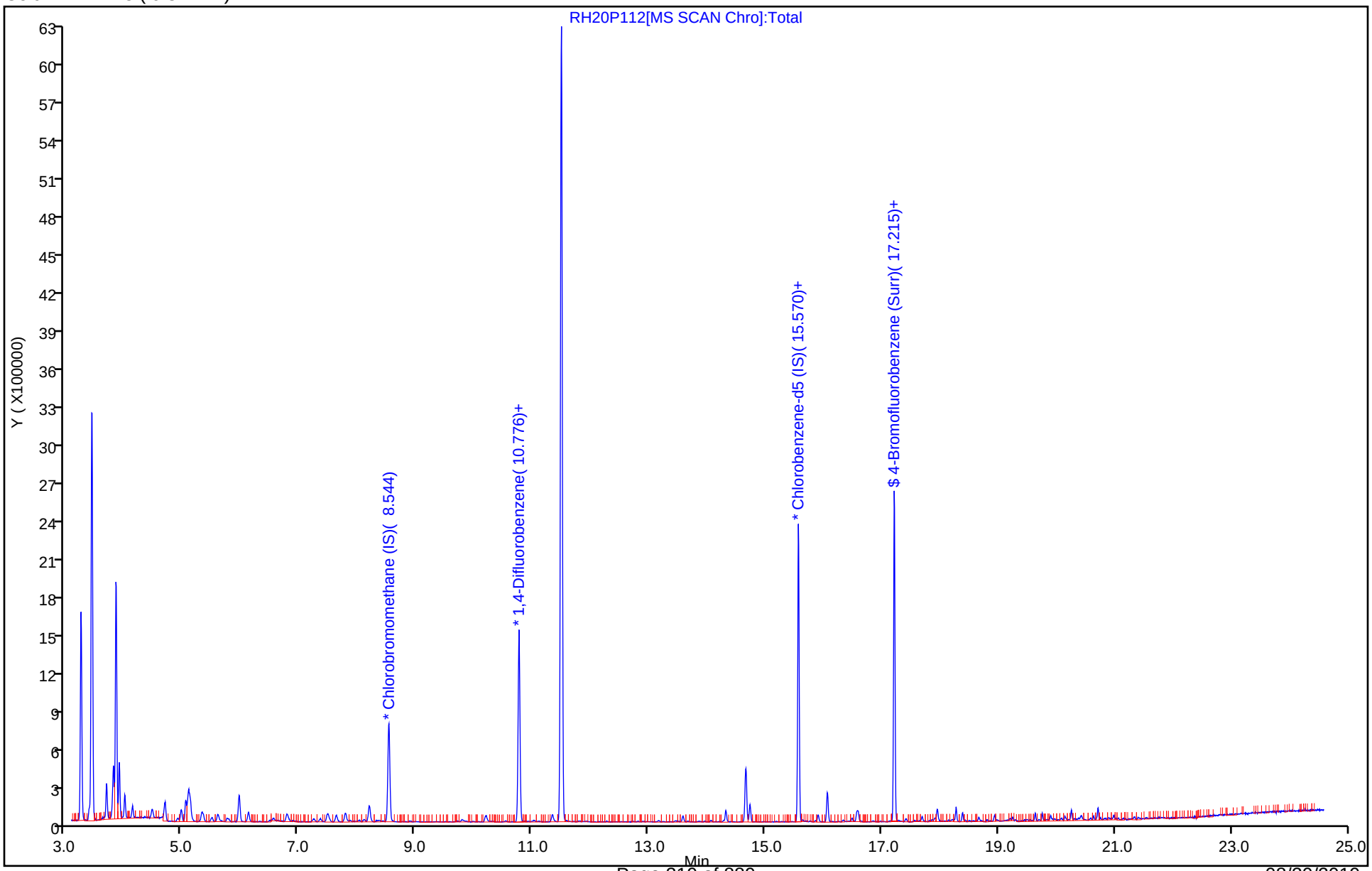
Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11	Worklist Smp#:	15
Client ID:	SV-141-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D				
Lims ID:	140-16376-A-11				
Client ID:	SV-141-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 00:51:30	ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-015				
Misc. Info.:	140-16376-a-11				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:25:43		

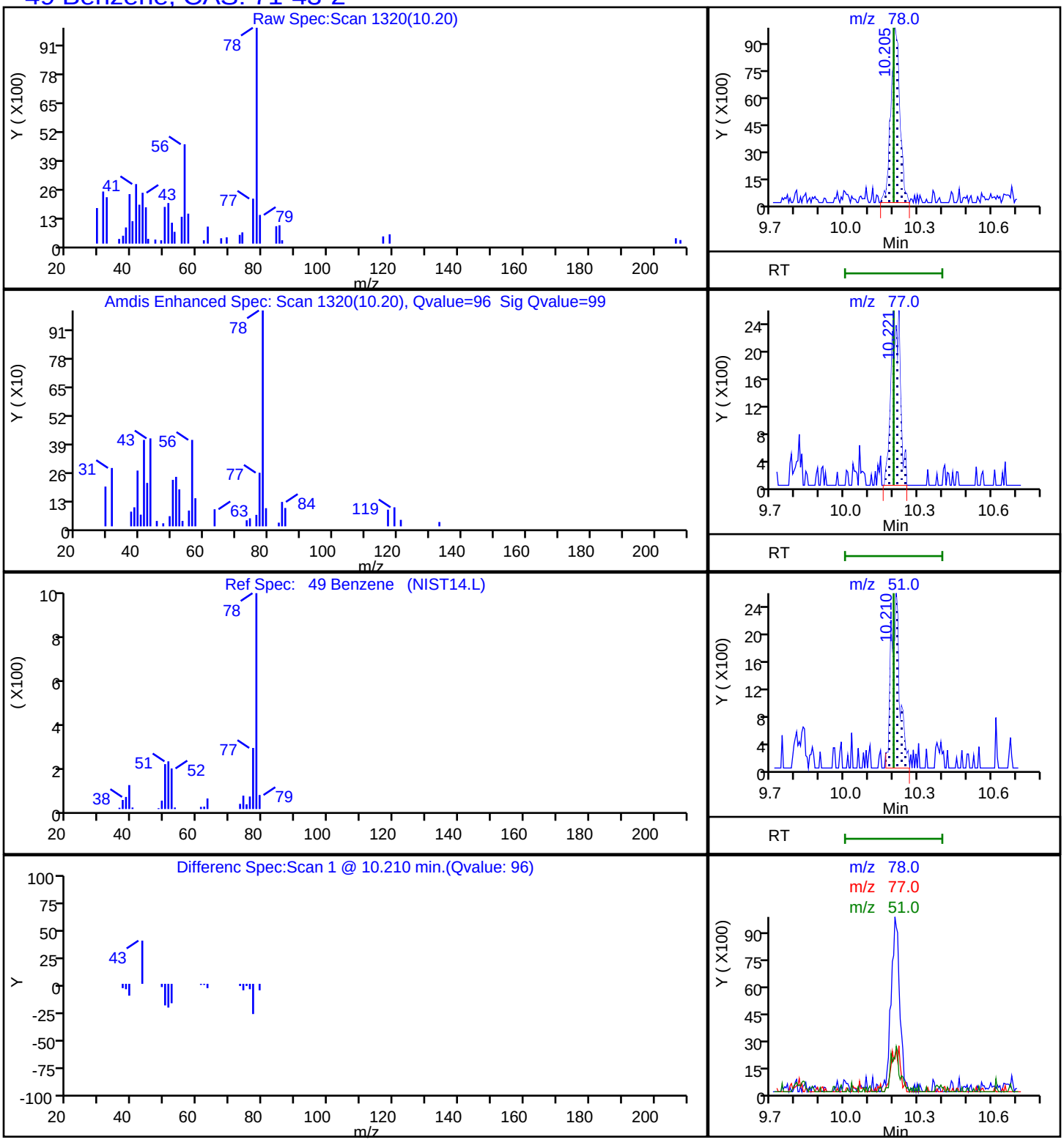
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.66	91.38

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

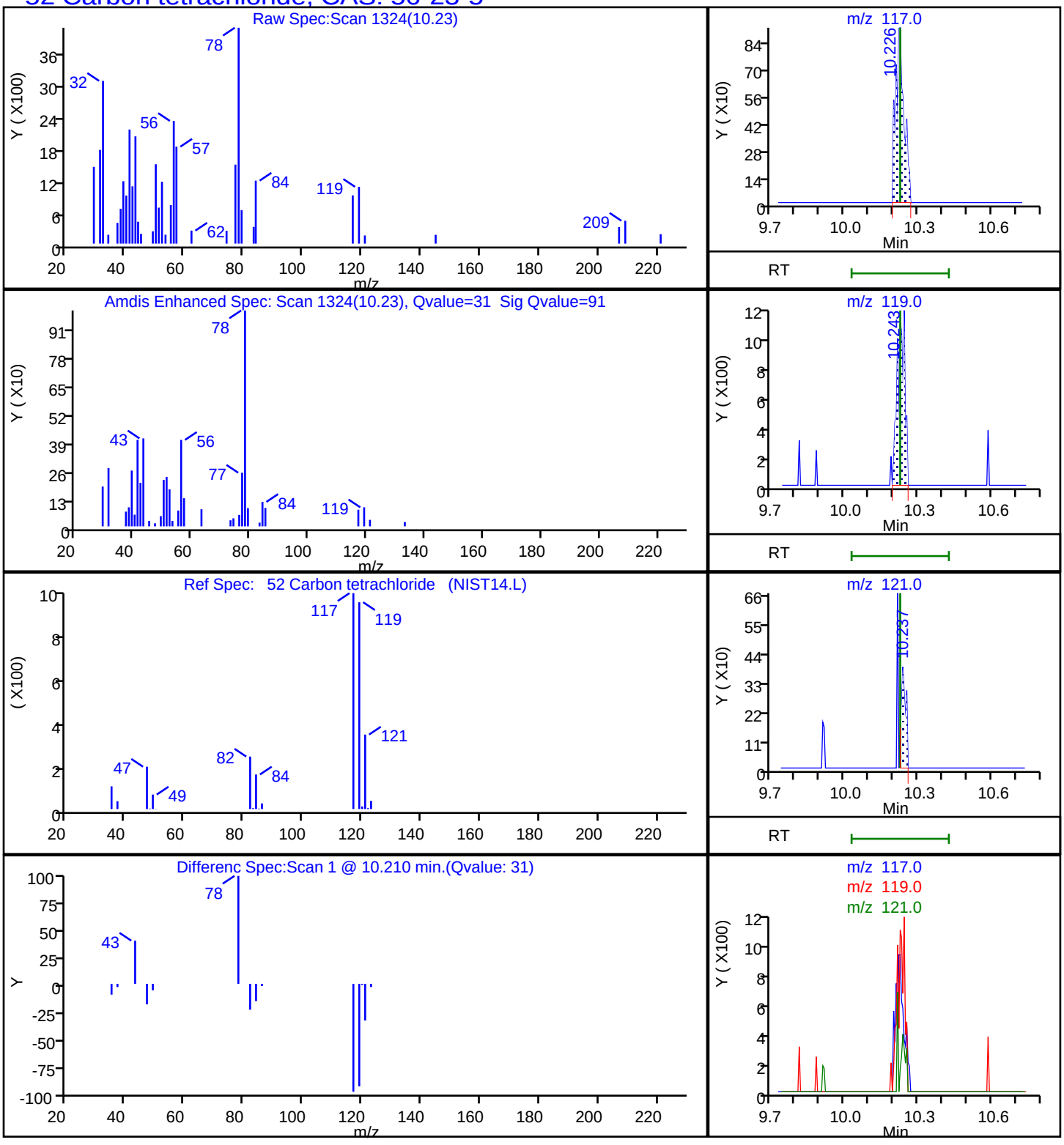
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date: 21-Aug-2019 00:51:30 Instrument ID: MR

Lims ID: 140-16376-A-11 Lab Sample ID: 140-16376-11

Client ID: SV-141-C-27

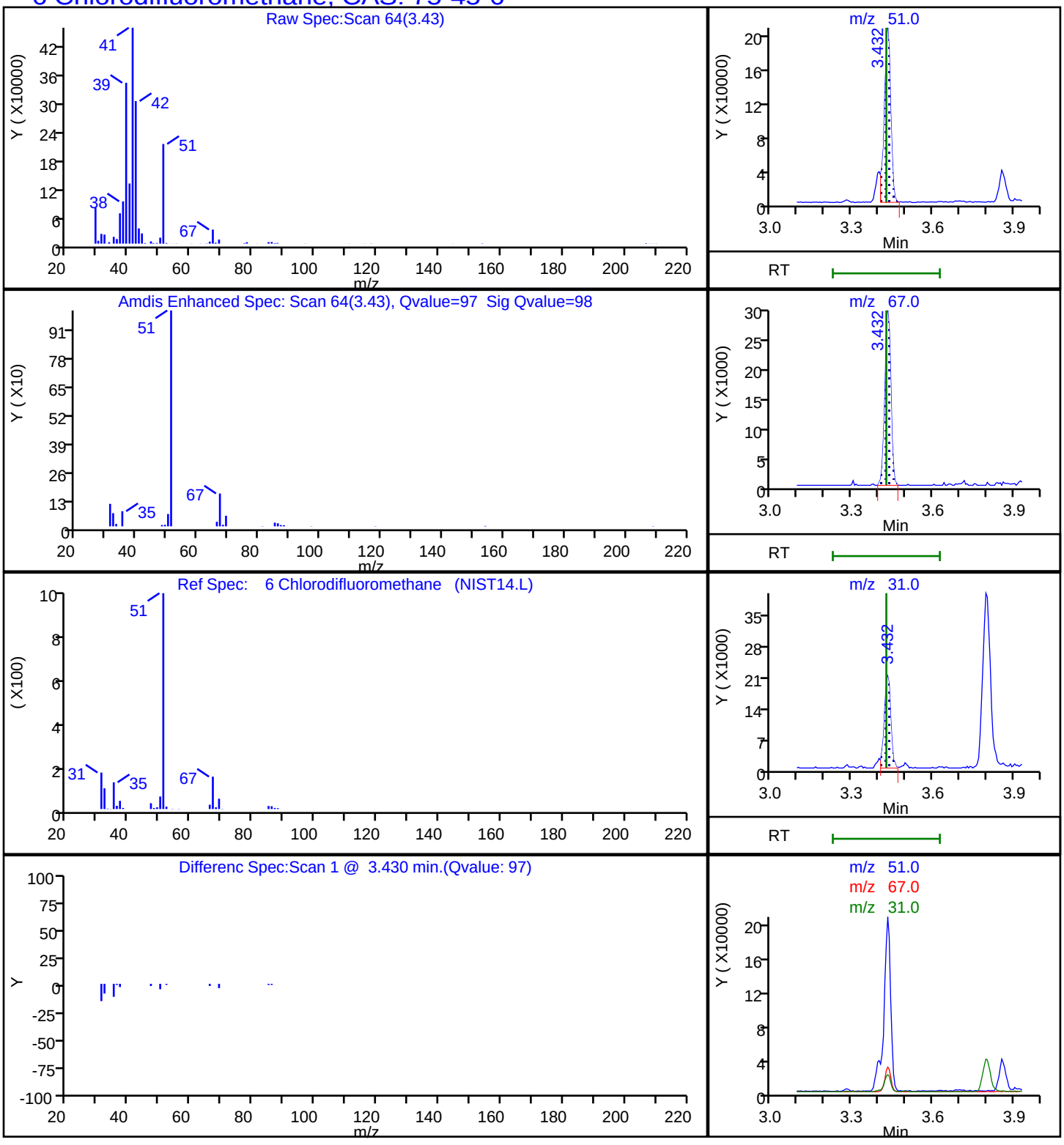
Operator ID: ALS Bottle#: 12 Worklist Smp#: 15

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



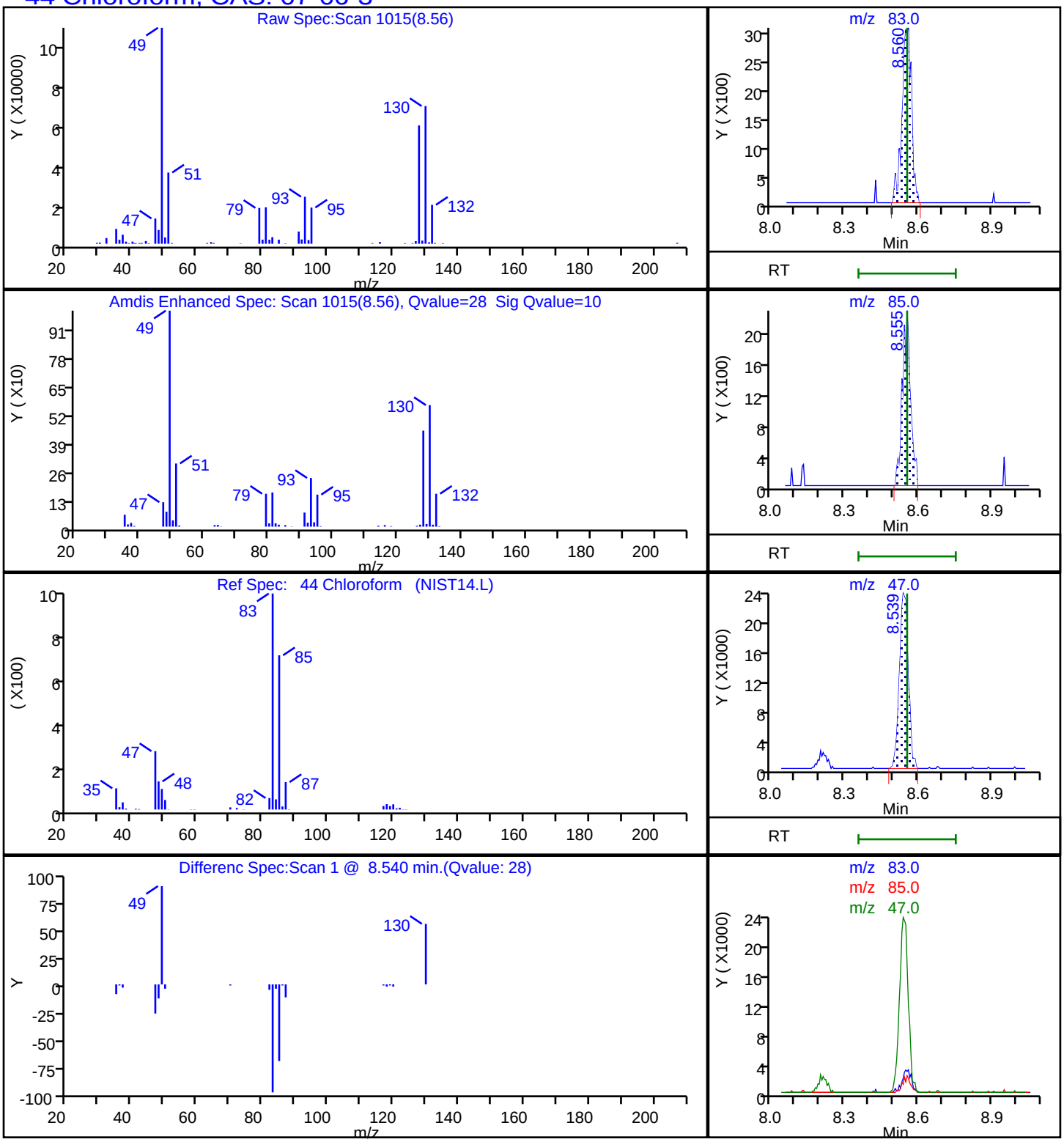
Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

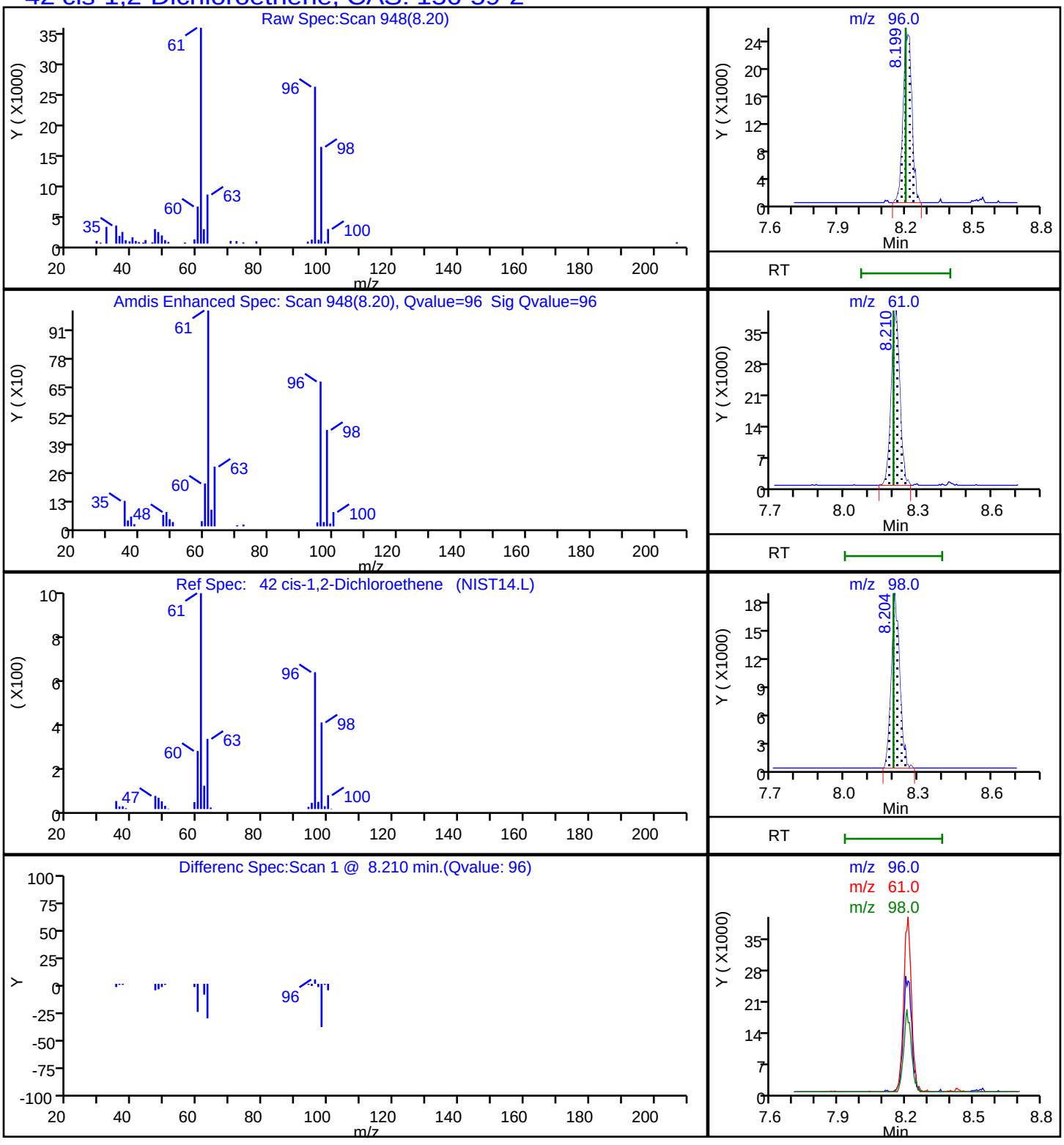


Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

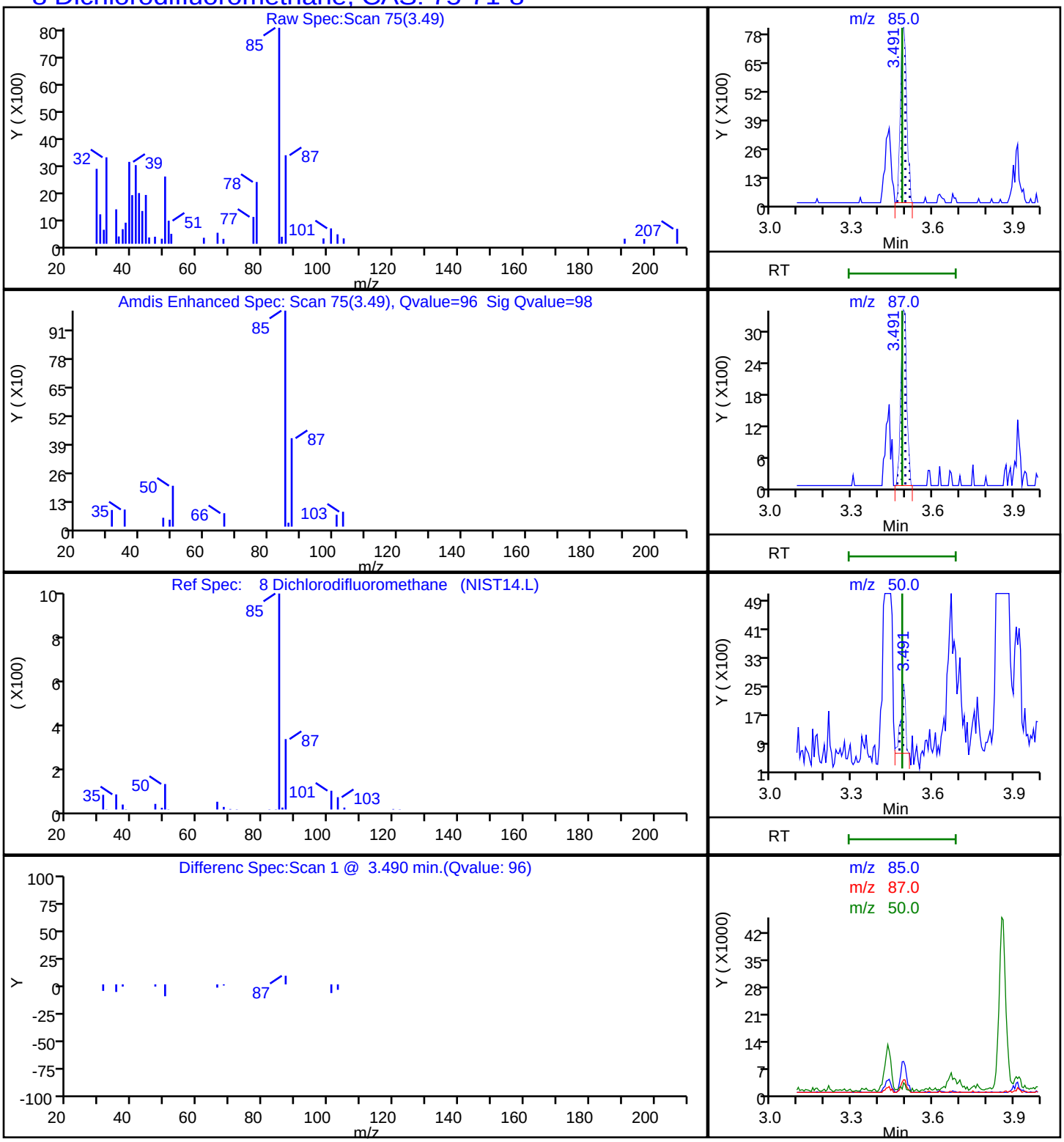


Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

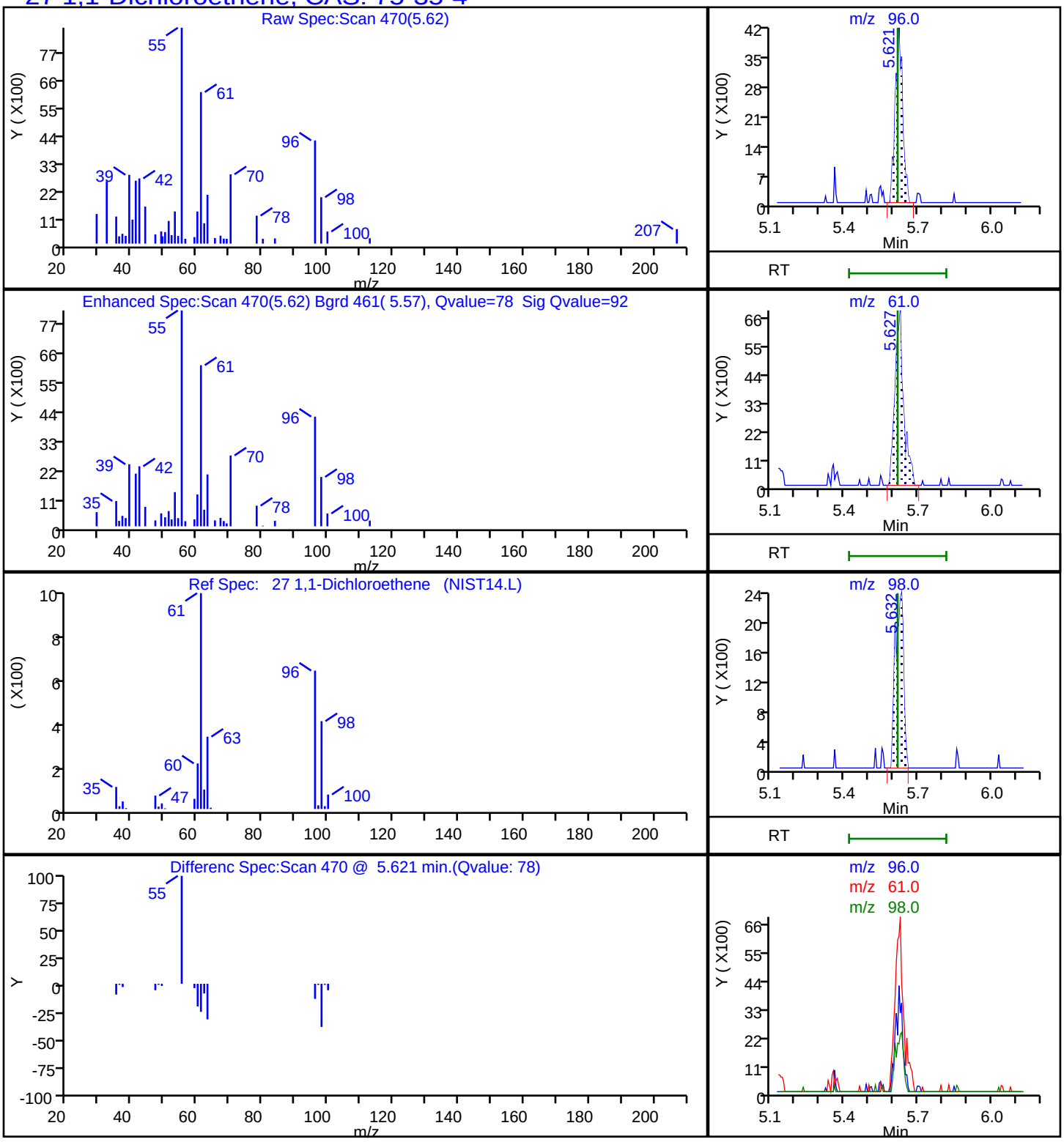


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

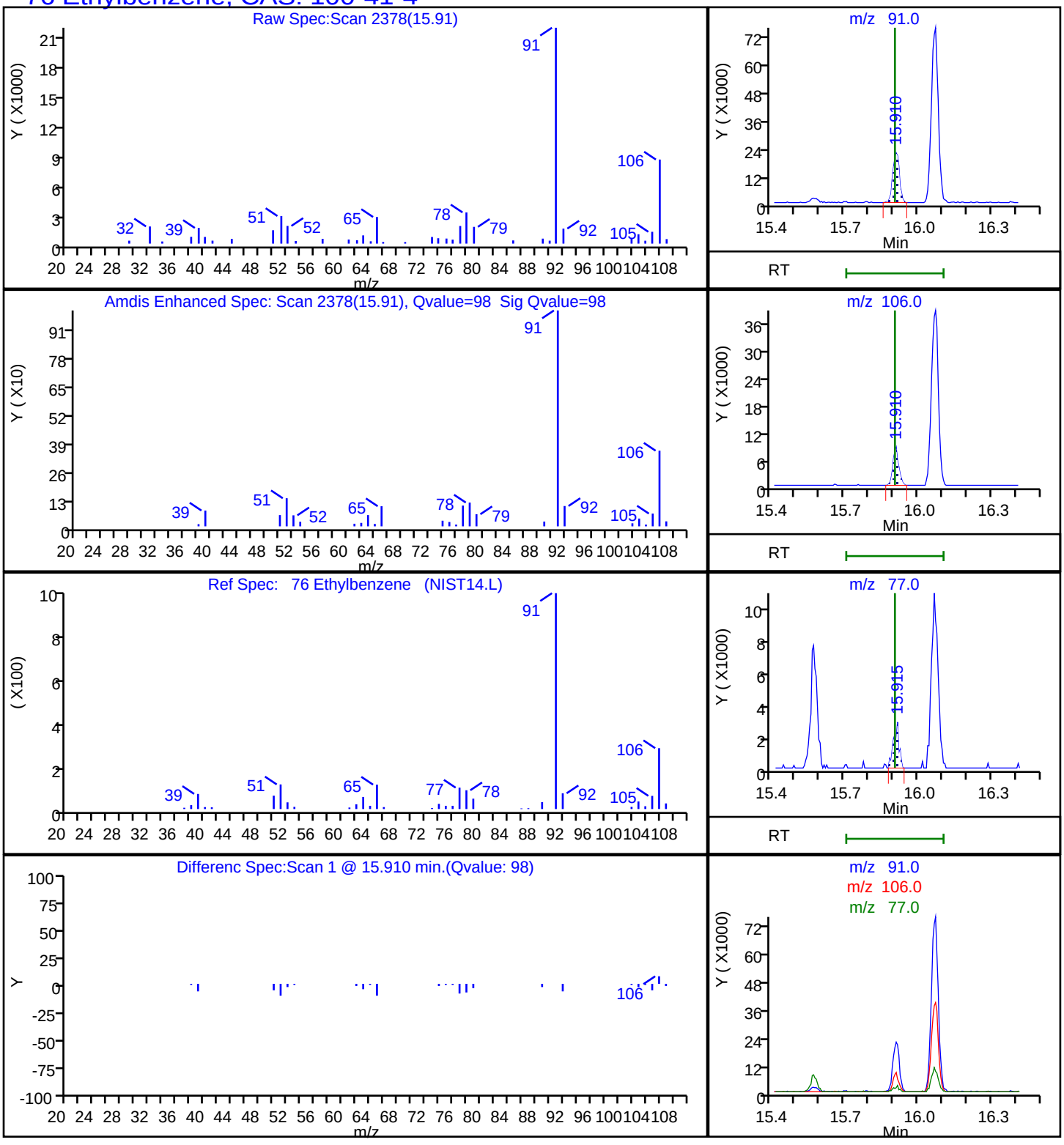
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

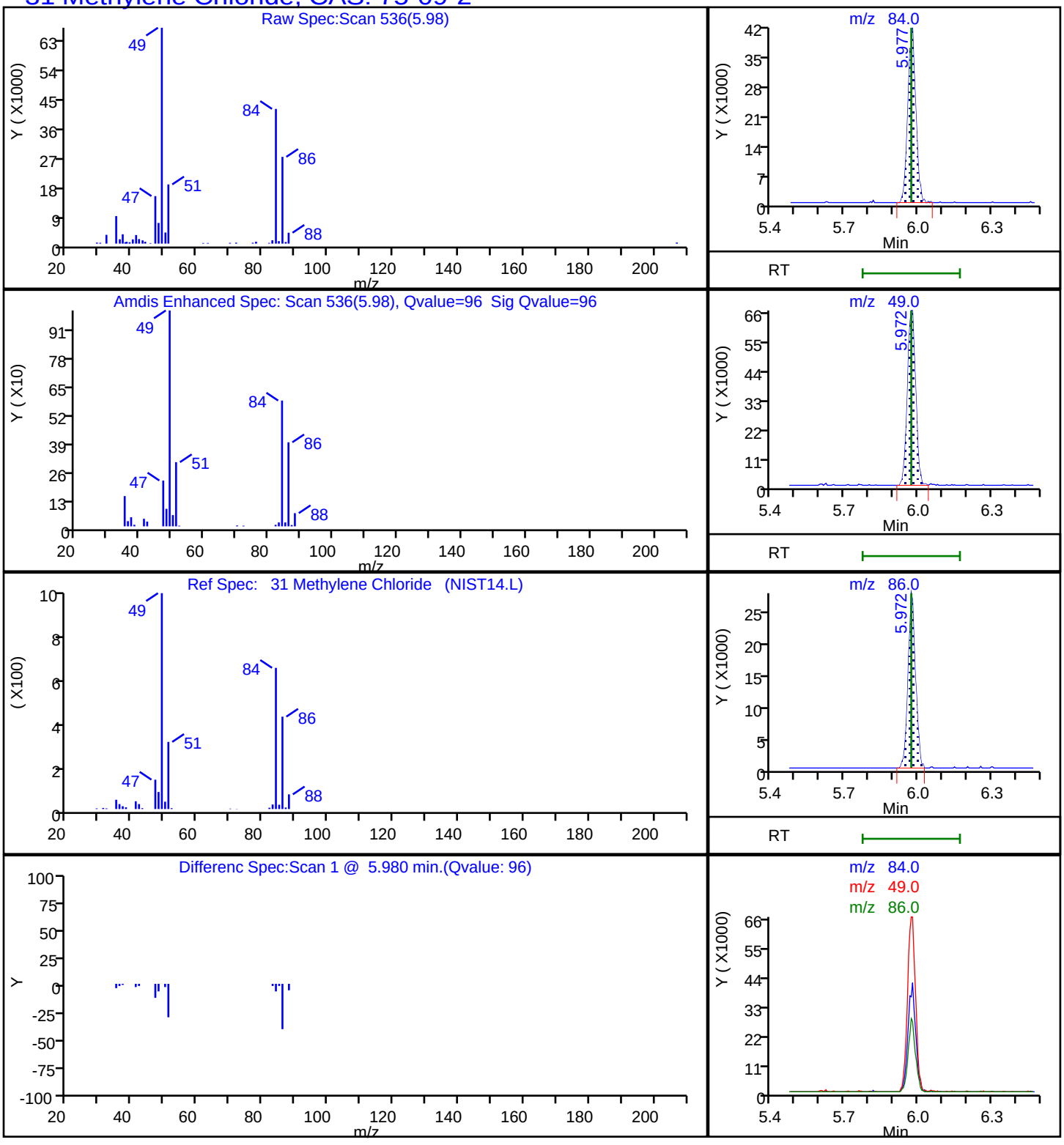


Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



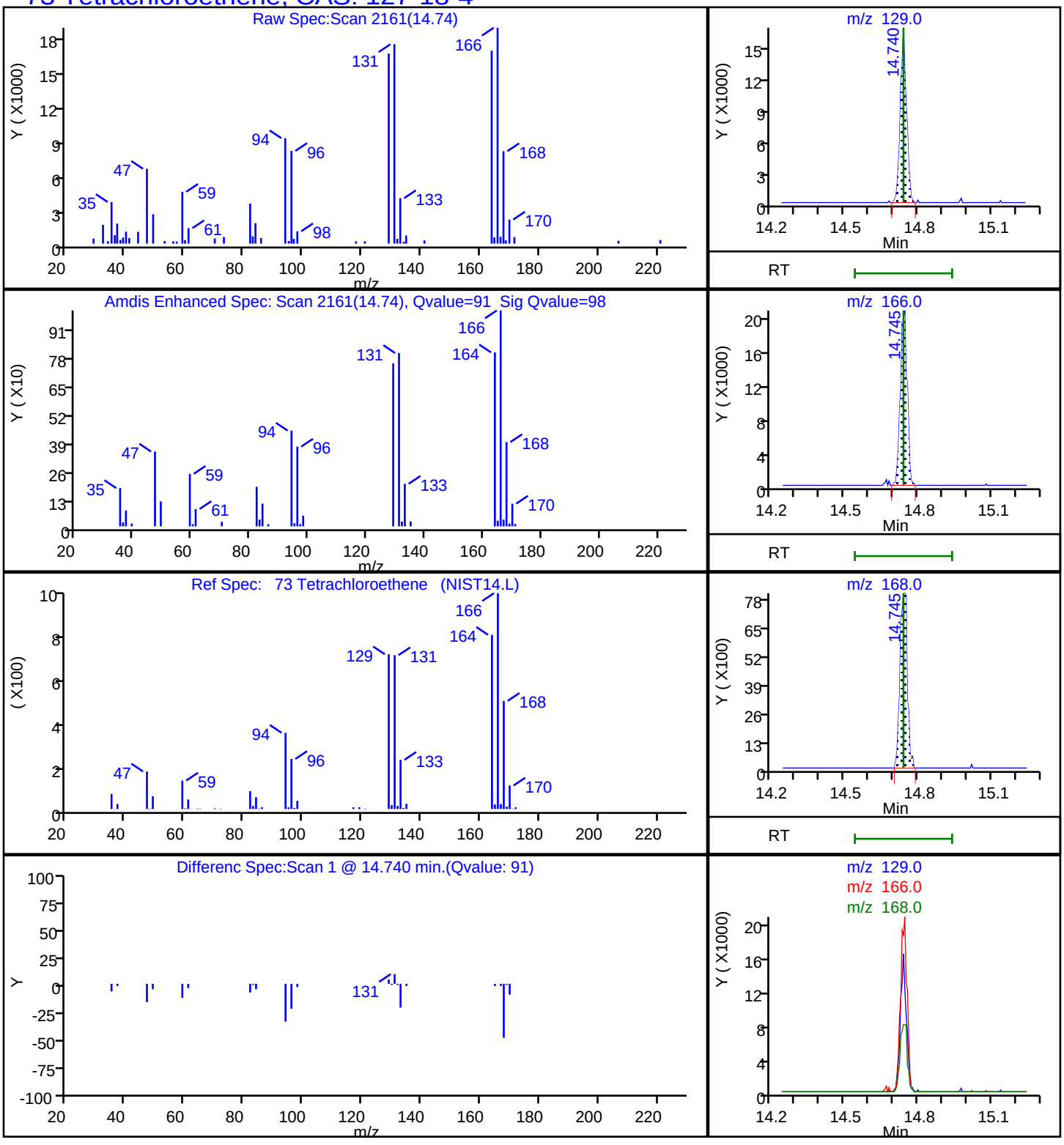
Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4



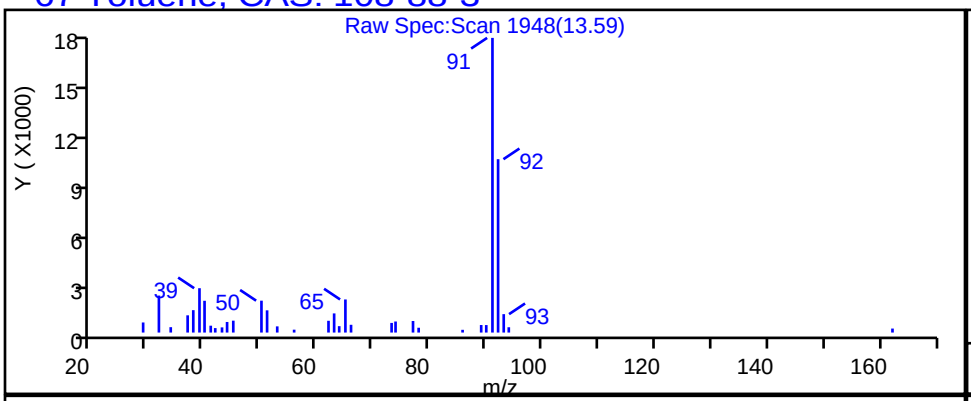
Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

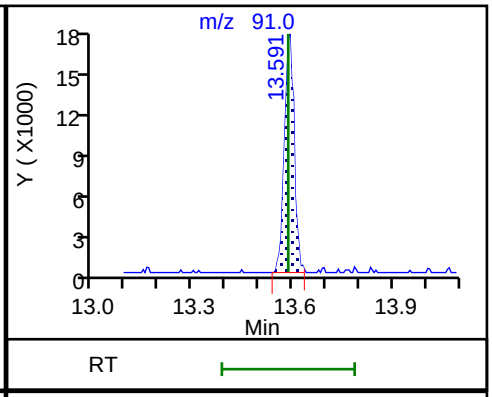
Eurofins TestAmerica, Knoxville

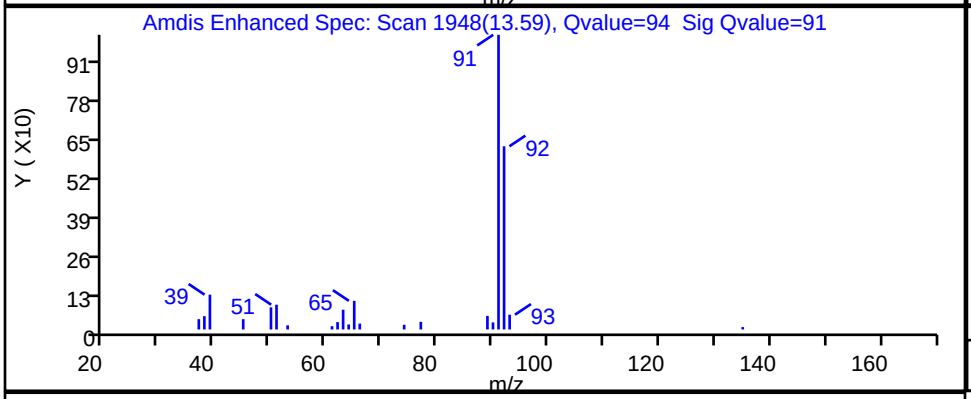
Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

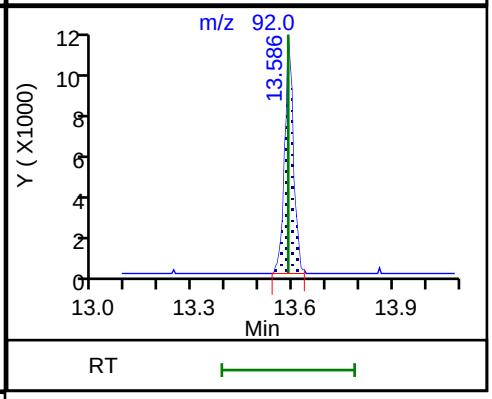
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR		
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11		
Client ID:	SV-141-C-27				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

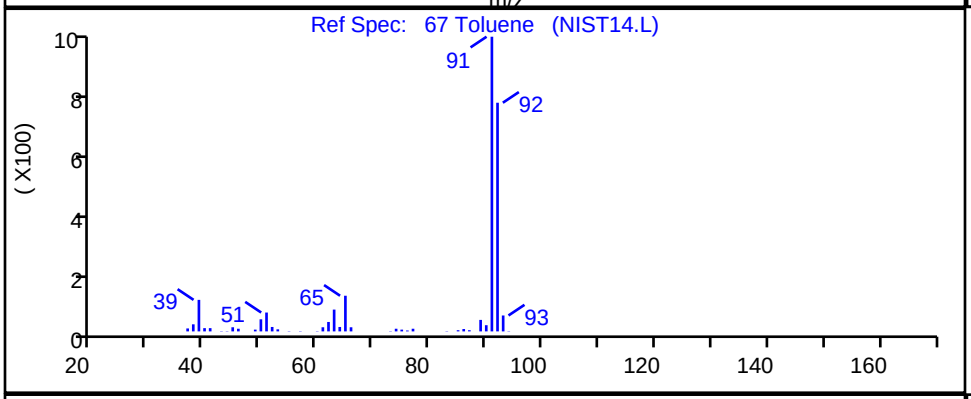
67 Toluene, CAS: 108-88-3

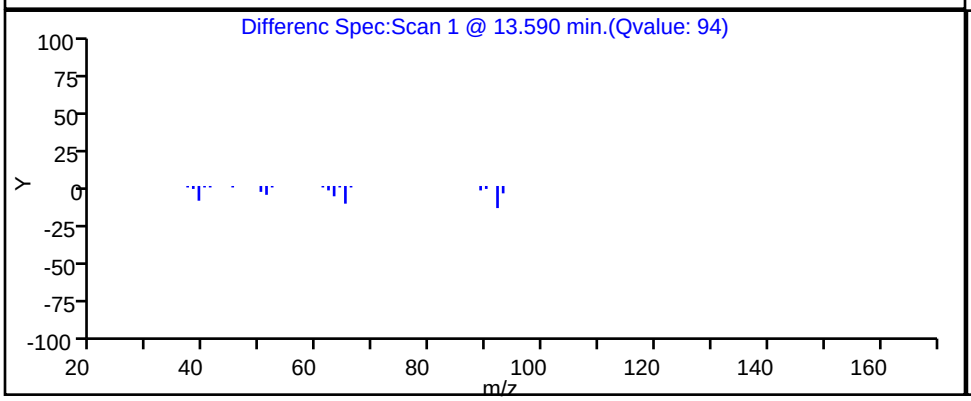


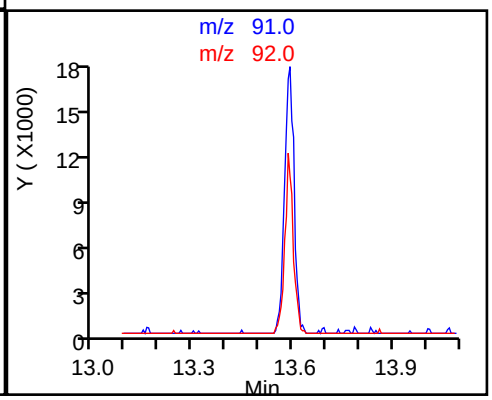










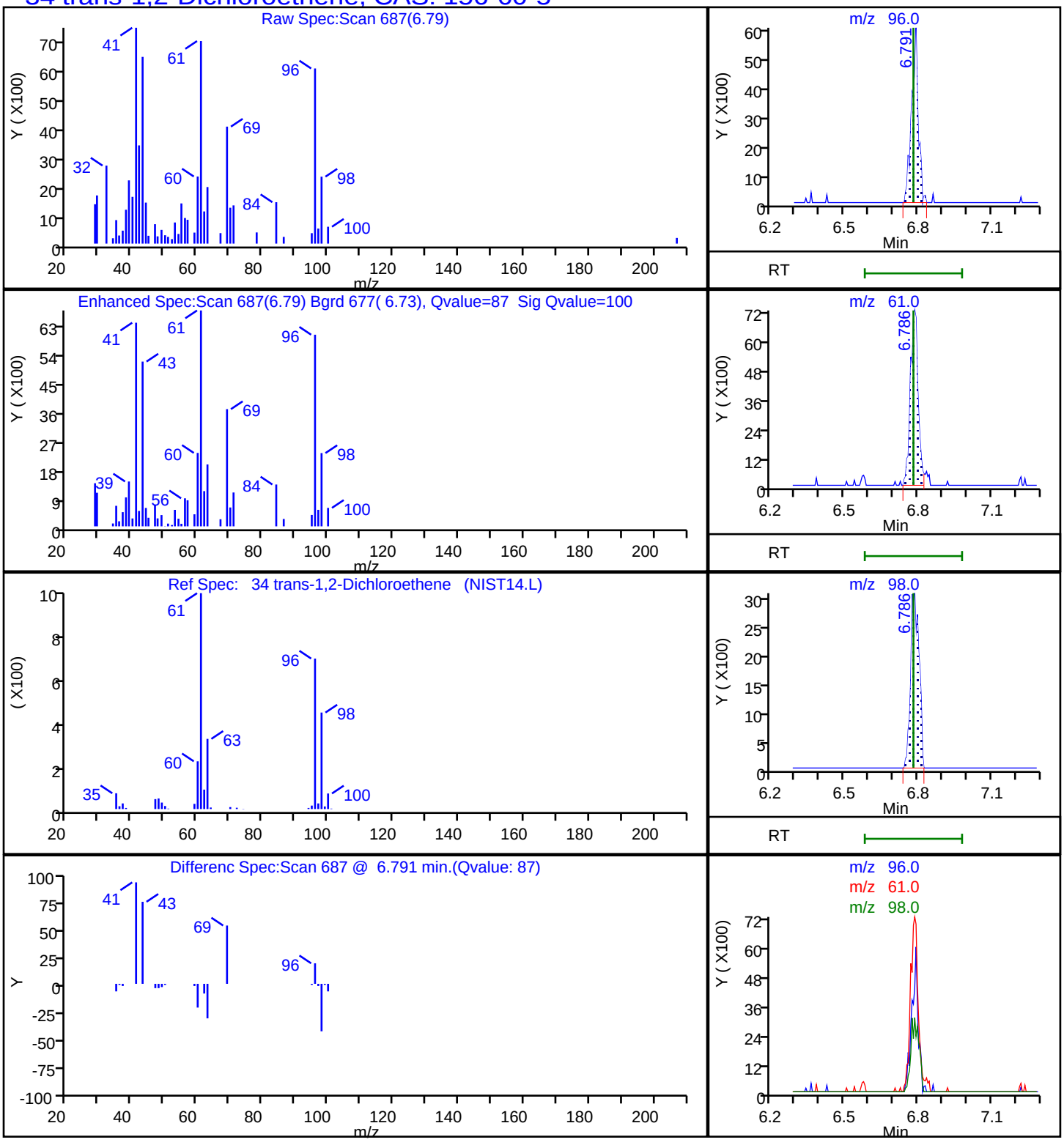


Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

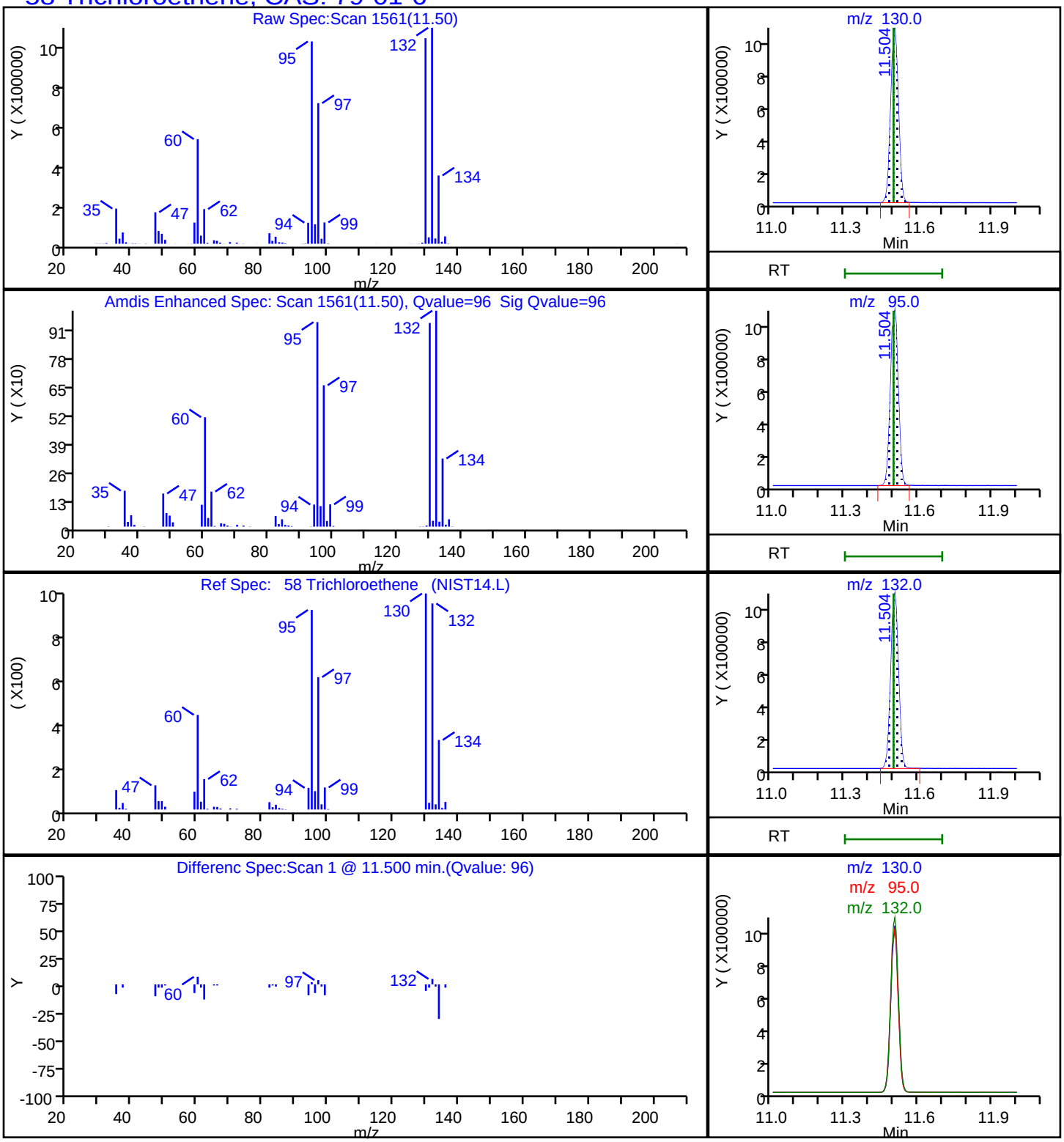
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

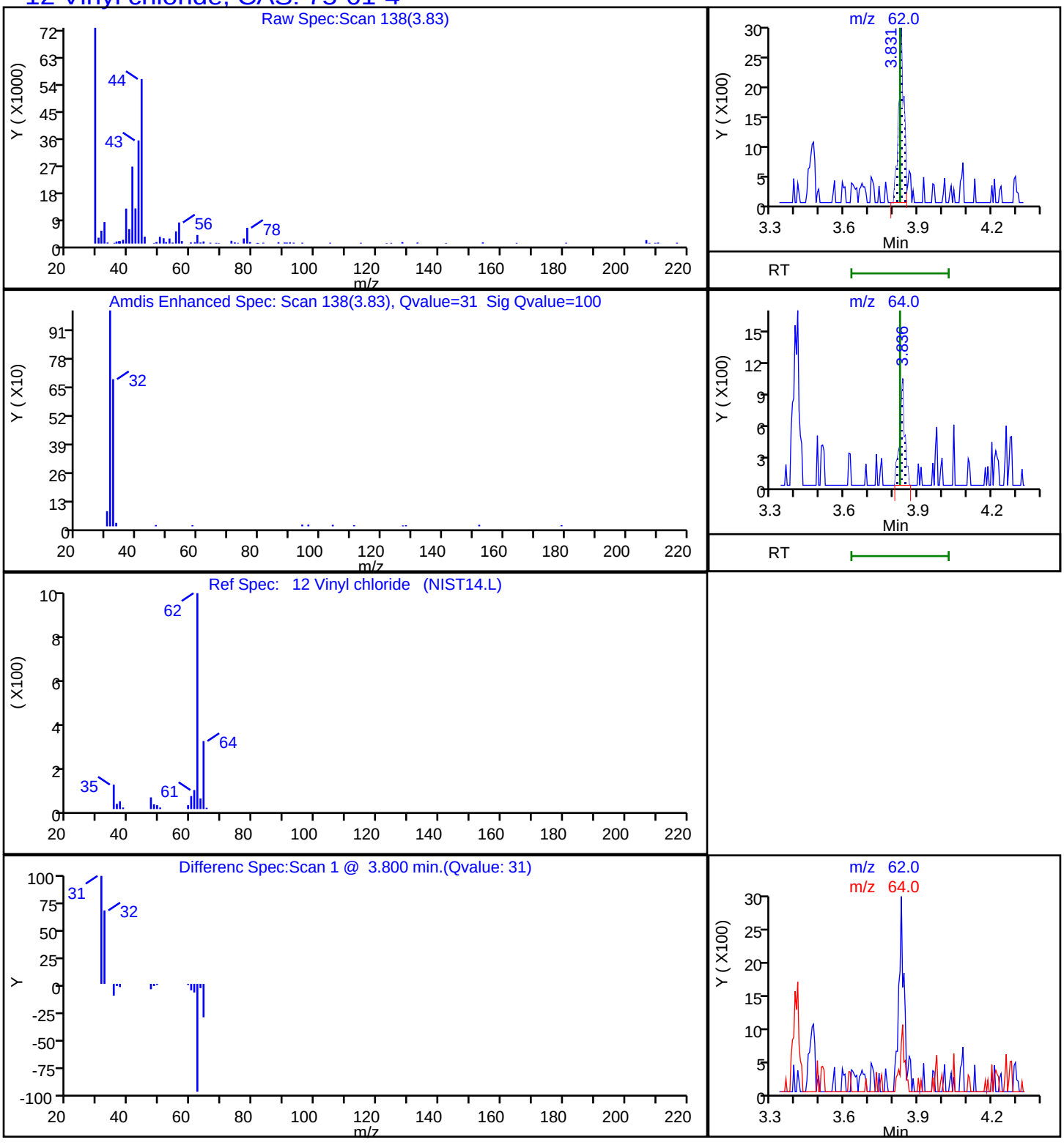


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D

Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

12 Vinyl chloride, CAS: 75-01-4

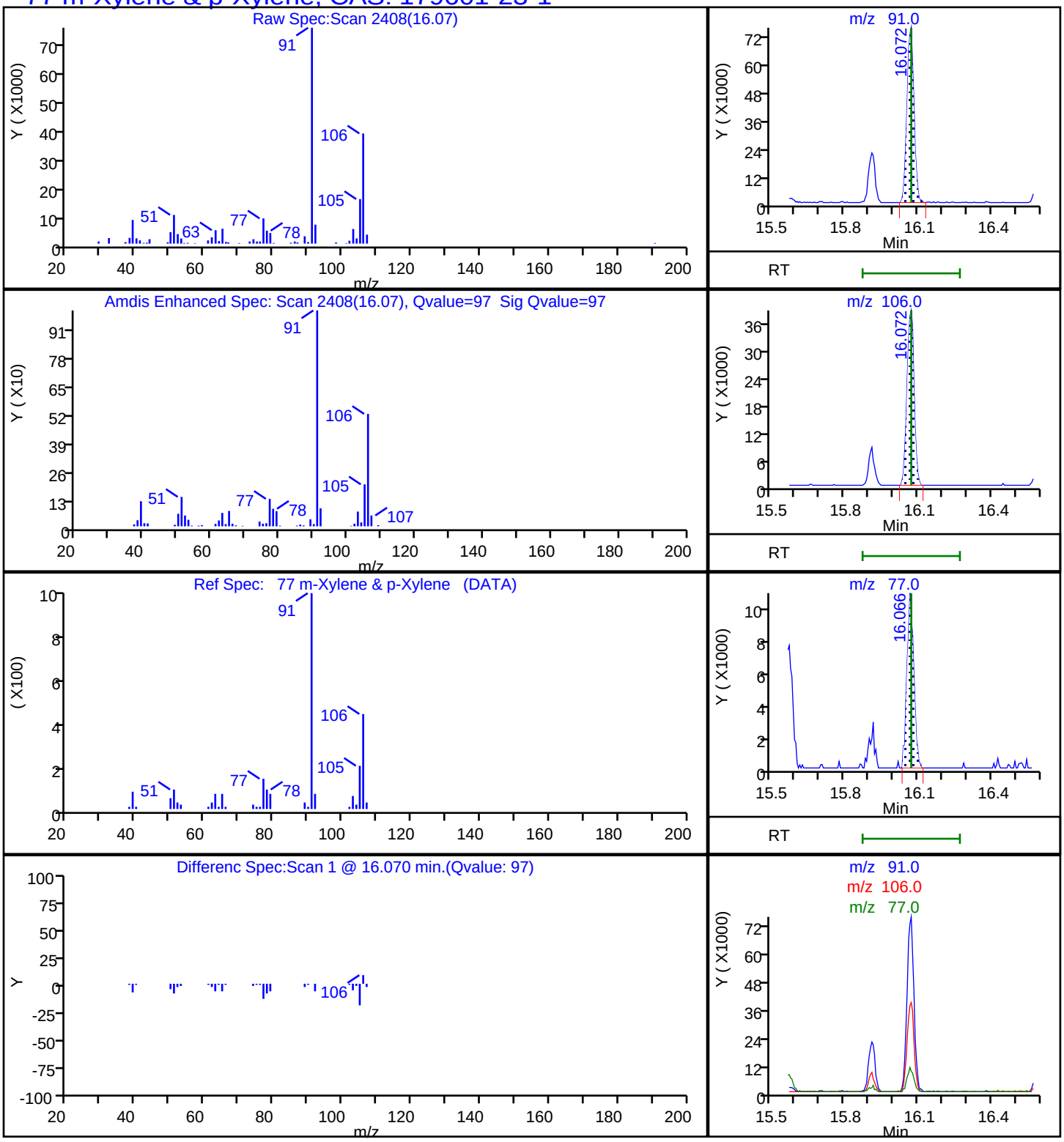


Report Date: 22-Aug-2019 10:25:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

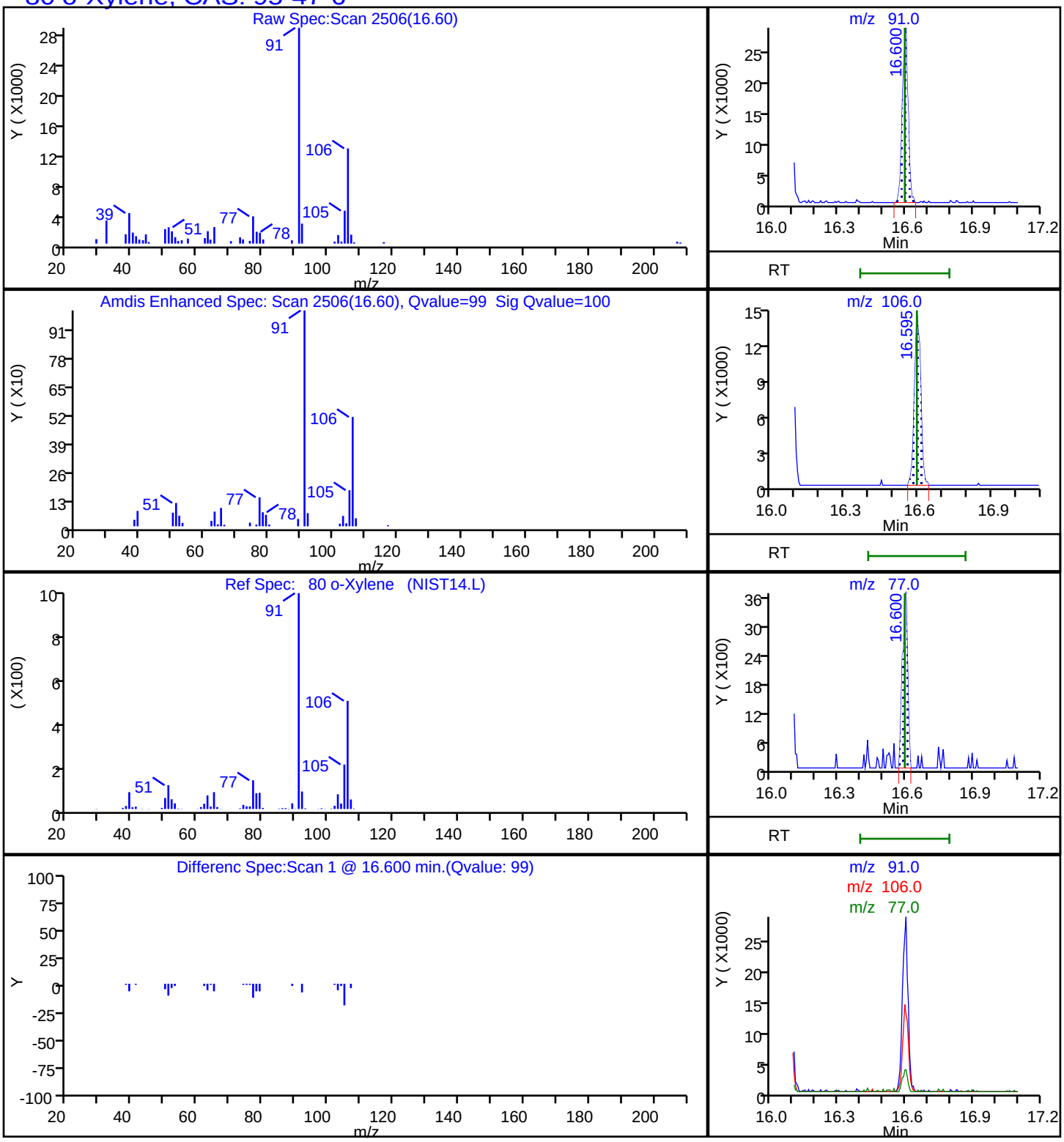
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P112.D		
Injection Date:	21-Aug-2019 00:51:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	61		0.59	0.088

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	330		3.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P112.D
Lims ID: 140-16376-A-11
Client ID: SV-141-C-27
Sample Type: Client
Inject. Date: 24-Aug-2019 00:10:30 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.4700
Sample Info: 140-0012811-018
Misc. Info.: 140-16376-a-11@1.47
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:11:38 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:13:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	97	170125	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1018189	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	869046	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	93	519499	3.47	
6 Chlorodifluoromethane	51	3.426	3.421	-0.001	97	60352	0.4152	
8 Dichlorodifluoromethane	85	3.486	3.488	0.000	78	4747	0.0361	
12 Vinyl chloride	62	3.820	3.826	-0.006	32	2080	0.0332	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	58	1816	0.0310	
31 Methylene Chloride	84	5.966	5.966	0.000	96	954773	15.9	
34 trans-1,2-Dichloroethene	96	6.775	6.781	-0.006	74	2607	0.0424	
42 cis-1,2-Dichloroethene	96	8.209	8.204	0.005	93	13355	0.1918	
44 Chloroform	83	8.549	8.555	0.000	28	1680	0.0117	
49 Benzene	78	10.199	10.205	-0.006	92	6234	0.0302	
58 Trichloroethene	130	11.499	11.499	0.000	95	377428	4.16	
67 Toluene	91	13.586	13.586	0.000	92	24807	0.1110	
73 Tetrachloroethene	129	14.734	14.734	0.000	91	6777	0.0742	
76 Ethylbenzene	91	15.904	15.905	-0.001	93	7460	0.0238	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	96	26544	0.1078	
80 o-Xylene	91	16.595	16.595	0.000	94	8156	0.0315	
S 116 Xylenes, Total	100				0		0.1393	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

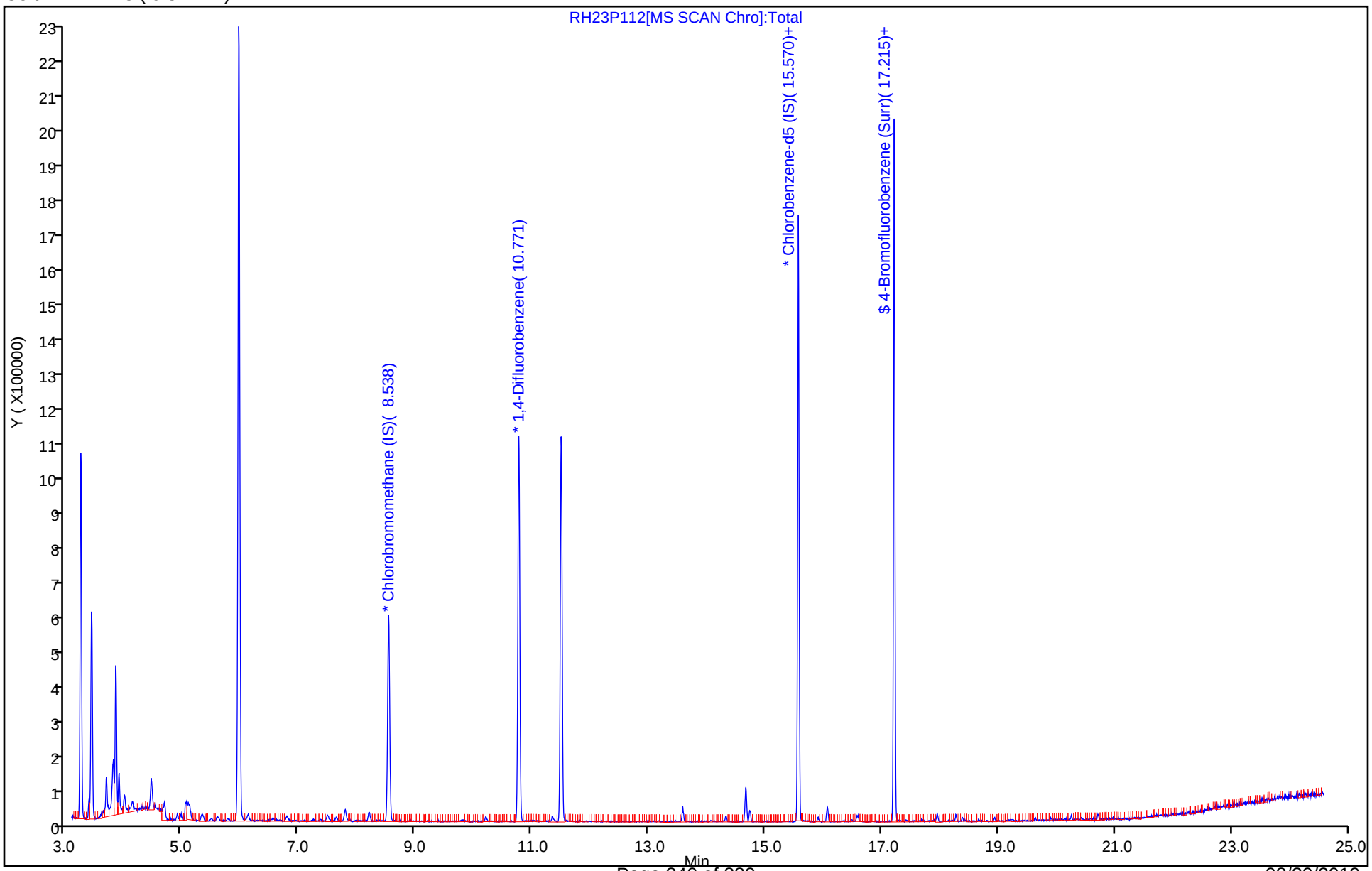
Report Date: 26-Aug-2019 14:13:09 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P112.D

Injection Date:	24-Aug-2019 00:10:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11	Worklist Smp#:	18
Client ID:	SV-141-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.4700	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

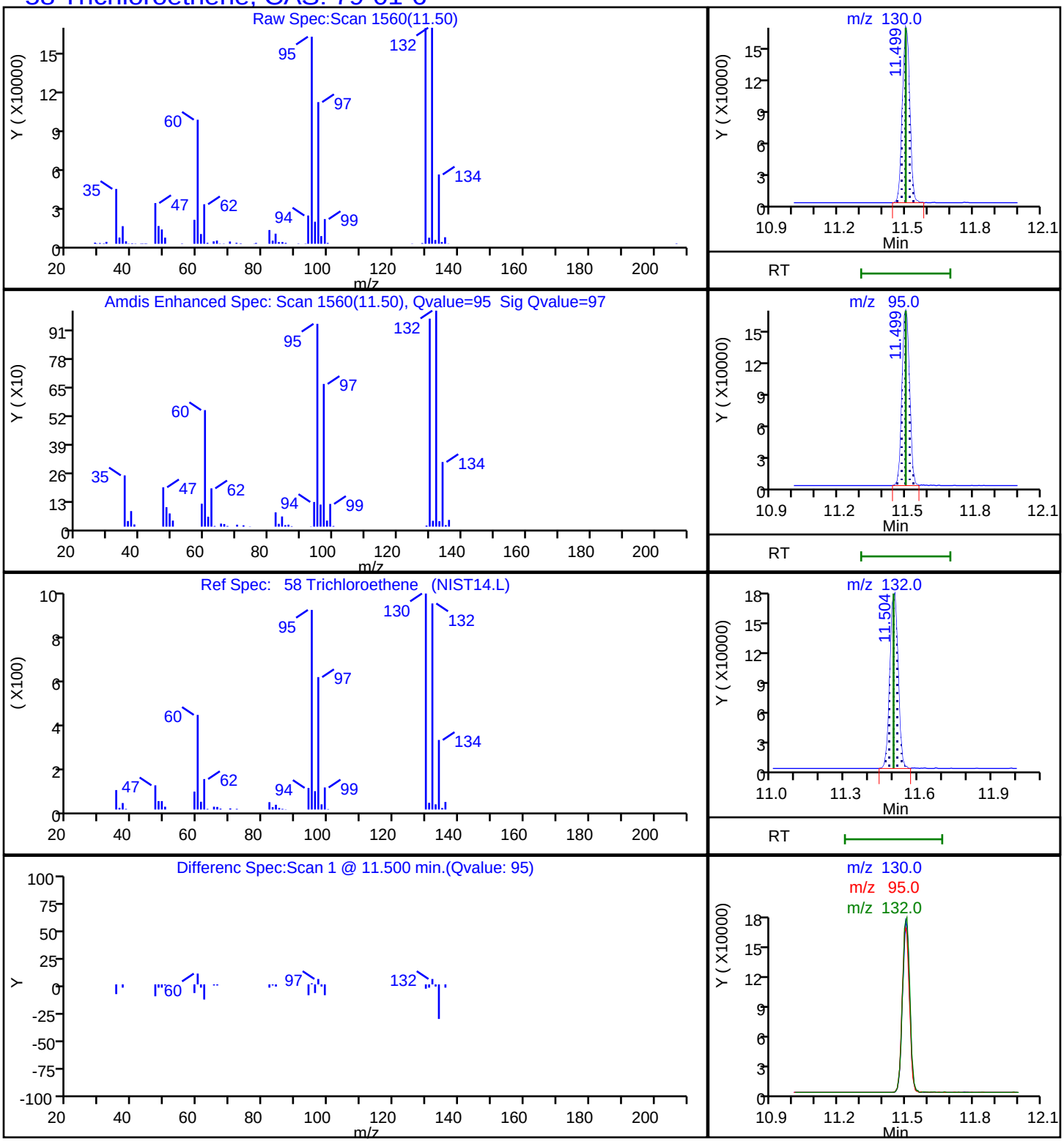
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P112.D				
Lims ID:	140-16376-A-11				
Client ID:	SV-141-C-27				
Sample Type:	Client				
Inject. Date:	24-Aug-2019 00:10:30	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.4700		
Sample Info:	140-0012811-018				
Misc. Info.:	140-16376-a-11@1.47				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:11:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:13:08		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.47	86.68

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P112.D		
Injection Date:	24-Aug-2019 00:10:30	Instrument ID:	MR
Lims ID:	140-16376-A-11	Lab Sample ID:	140-16376-11
Client ID:	SV-141-C-27		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.4700
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	62		8.3	0.83
56-23-5	Carbon tetrachloride	153.81	ND		8.3	0.73
75-45-6	Chlorodifluoromethane	86.47	ND		8.3	2.3
67-66-3	Chloroform	119.38	ND		8.3	0.73
156-59-2	cis-1,2-Dichloroethene	96.94	57		8.3	1.0
75-71-8	Dichlorodifluoromethane	120.91	ND		8.3	1.5
75-34-3	1,1-Dichloroethane	98.96	ND		8.3	0.73
107-06-2	1,2-Dichloroethane	98.96	ND		8.3	1.0
75-35-4	1,1-Dichloroethene	96.94	60		8.3	0.83
100-41-4	Ethylbenzene	106.17	4.1	J	8.3	1.3
75-09-2	Methylene Chloride	84.93	28	J B	42	17
1634-04-4	Methyl tert-butyl ether	88.15	ND		42	5.4
91-20-3	Naphthalene	128.17	ND		4.2	7.9
127-18-4	Tetrachloroethene	165.83	ND		8.3	0.73
108-88-3	Toluene	92.14	12		12	8.1
156-60-5	trans-1,2-Dichloroethene	96.94	10		8.3	0.73
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		8.3	6.6
71-55-6	1,1,1-Trichloroethane	133.41	ND		8.3	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.3	0.73
79-01-6	Trichloroethene	131.39	37		4.2	0.62
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		8.3	3.7
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		8.3	2.1
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		8.3	2.3
75-01-4	*Vinyl chloride*	*62.50*	*2000*	*E*	*4.2*	*2.7*
1330-20-7	Xylenes, Total	106.17	11	J	17	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	200		27	2.7
56-23-5	Carbon tetrachloride	153.81	ND		52	4.6
75-45-6	Chlorodifluoromethane	86.47	ND		29	8.1
67-66-3	Chloroform	119.38	ND		41	3.5
156-59-2	cis-1,2-Dichloroethene	96.94	230		33	4.1
75-71-8	Dichlorodifluoromethane	120.91	ND		41	7.2
75-34-3	1,1-Dichloroethane	98.96	ND		34	2.9
107-06-2	1,2-Dichloroethane	98.96	ND		34	4.2
75-35-4	1,1-Dichloroethene	96.94	240		33	3.3
100-41-4	Ethylbenzene	106.17	18	J	36	5.9
75-09-2	Methylene Chloride	84.93	96	J B	140	58
1634-04-4	Methyl tert-butyl ether	88.15	ND		150	19
91-20-3	Naphthalene	128.17	ND		22	41
127-18-4	Tetrachloroethene	165.83	ND		56	4.9
108-88-3	Toluene	92.14	45		47	30
156-60-5	trans-1,2-Dichloroethene	96.94	40		33	2.9
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		62	49
71-55-6	1,1,1-Trichloroethane	133.41	ND		45	21
79-00-5	1,1,2-Trichloroethane	133.41	ND		45	4.0
79-01-6	Trichloroethene	131.39	200		22	3.3
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		41	18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		41	10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		41	11
75-01-4	*Vinyl chloride*	*62.50*	*5100*	*E*	*11*	*6.9*
1330-20-7	Xylenes, Total	106.17	49	J	72	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D
Lims ID: 140-16376-A-12
Client ID: SV-149-C-27
Sample Type: Client
Inject. Date: 24-Aug-2019 01:00:30 ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 4.1500
Sample Info: 140-0012811-019
Misc. Info.: 140-16376-a-12@4.15
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:11:38 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:13:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	177520	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1049539	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	92	846156	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	501330	3.44	
12 Vinyl chloride	62	3.826	3.826	0.000	99	1265217	19.4	E
27 1,1-Dichloroethene	96	5.616	5.621	-0.005	95	35044	0.5740	
31 Methylene Chloride	84	5.972	5.966	0.006	94	16670	0.2657	
34 trans-1,2-Dichloroethene	96	6.786	6.781	0.005	93	6271	0.0977	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	96	40244	0.5538	
49 Benzene	78	10.199	10.205	-0.006	97	127034	0.5976	
58 Trichloroethene	130	11.499	11.499	0.000	95	33007	0.3531	
67 Toluene	91	13.586	13.586	0.000	88	24844	0.1141	
76 Ethylbenzene	91	15.910	15.905	0.005	96	12115	0.0397	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	17810	0.0743	
80 o-Xylene	91	16.589	16.595	-0.006	94	8410	0.0334	
S 116 Xylenes, Total	100				0		0.1077	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

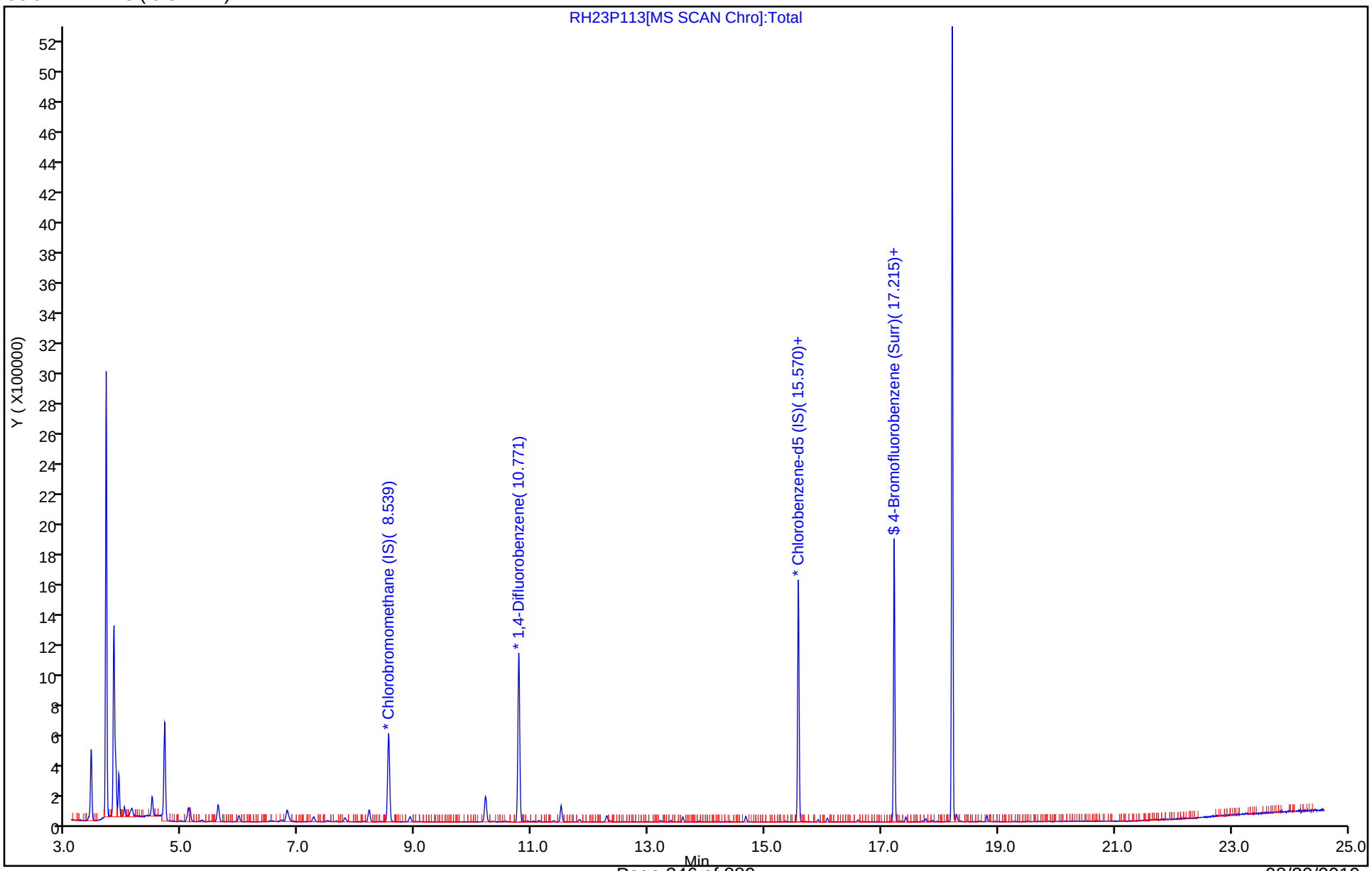
Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12	Worklist Smp#:	19
Client ID:	SV-149-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	4.1500	ALS Bottle#:	13
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D				
Lims ID:	140-16376-A-12				
Client ID:	SV-149-C-27				
Sample Type:	Client				
Inject. Date:	24-Aug-2019 01:00:30	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500		
Sample Info:	140-0012811-019				
Misc. Info.:	140-16376-a-12@4.15				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:11:38	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:13:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.44	85.91

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date: 24-Aug-2019 01:00:30 Instrument ID: MR

Lims ID: 140-16376-A-12 Lab Sample ID: 140-16376-12

Client ID: SV-149-C-27

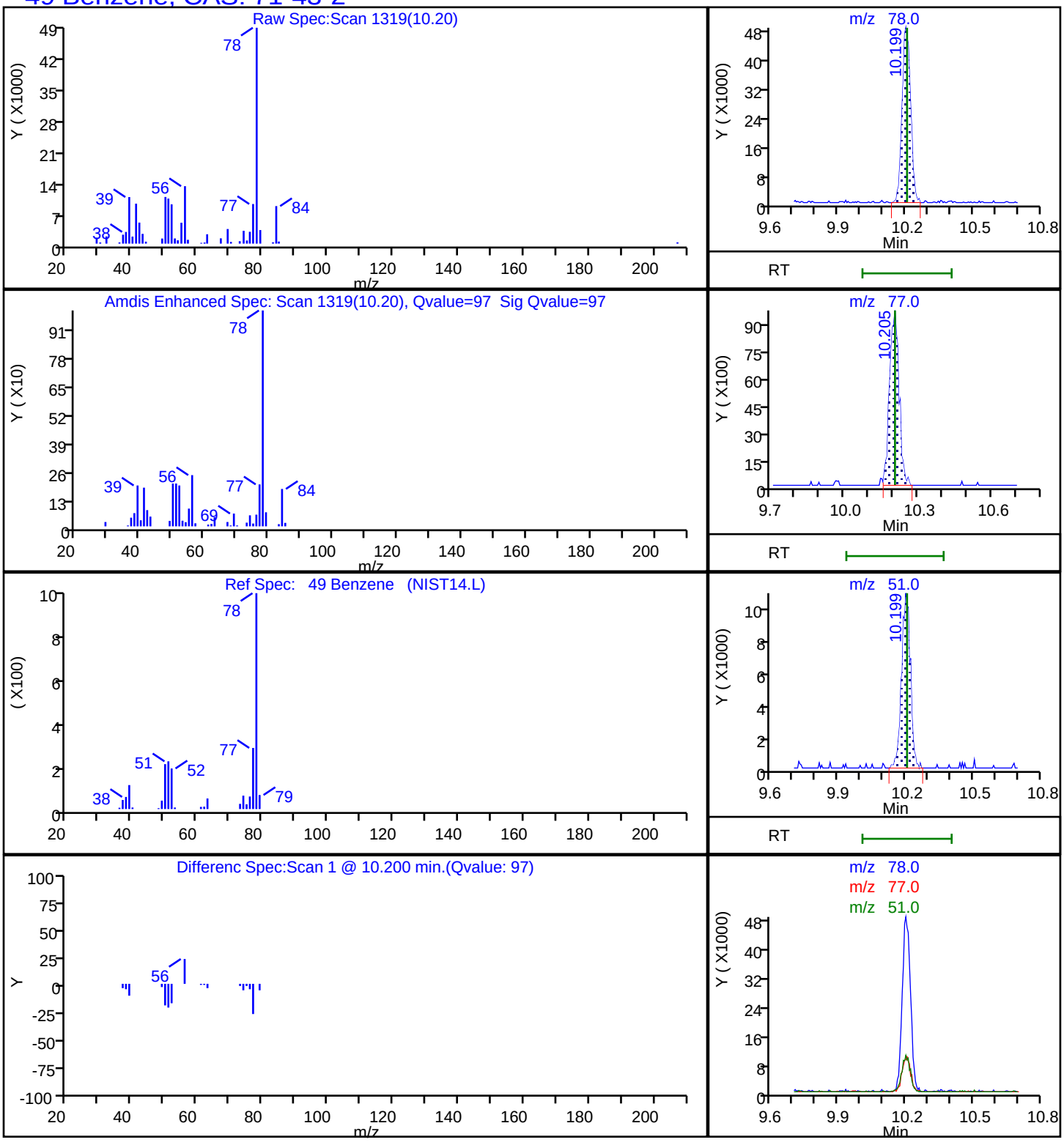
Operator ID: ALS Bottle#: 13 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 4.1500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

49 Benzene, CAS: 71-43-2

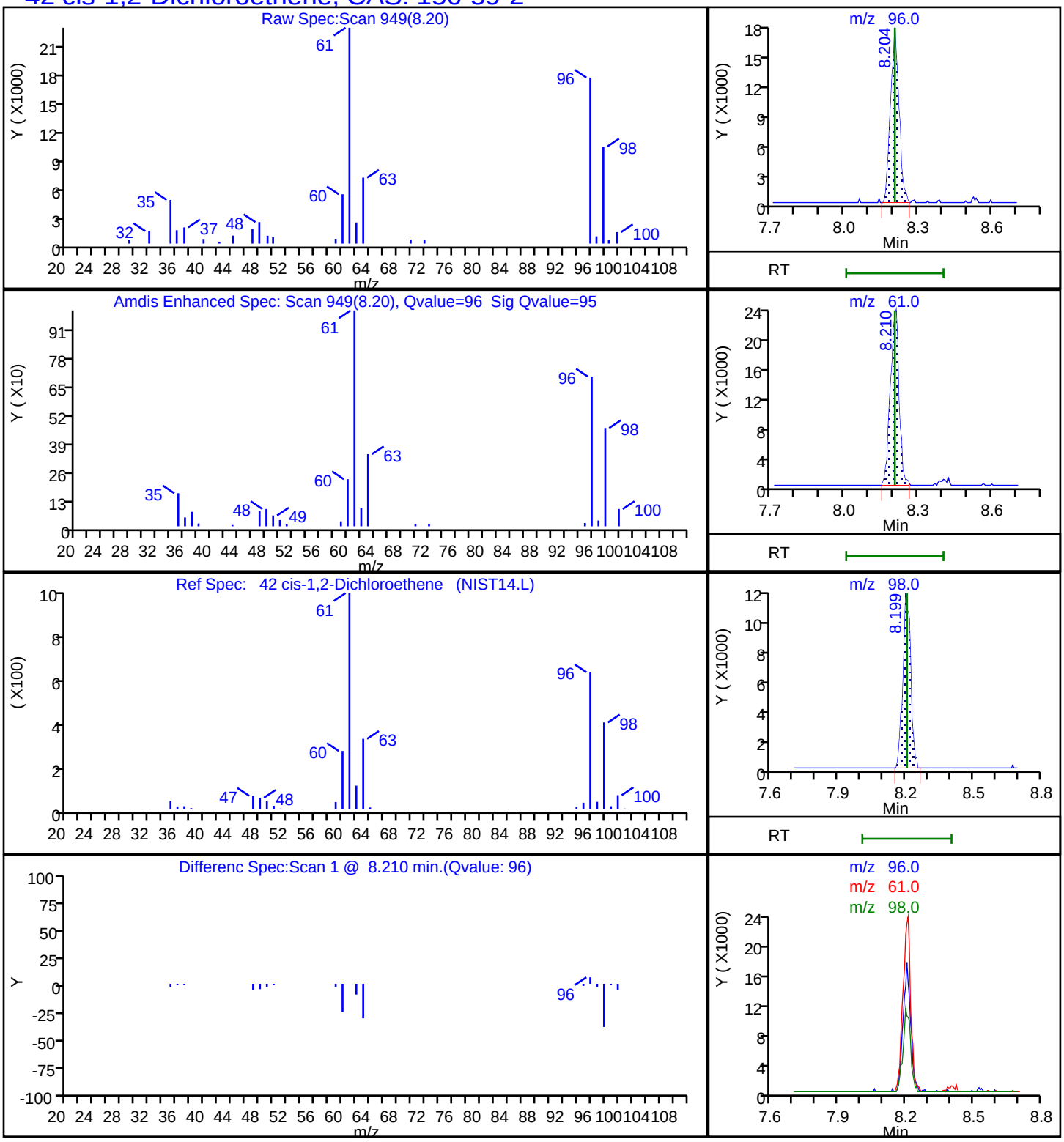


Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D				
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR		
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12		
Client ID:	SV-149-C-27				
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date: 24-Aug-2019 01:00:30 Instrument ID: MR

Lims ID: 140-16376-A-12 Lab Sample ID: 140-16376-12

Client ID: SV-149-C-27

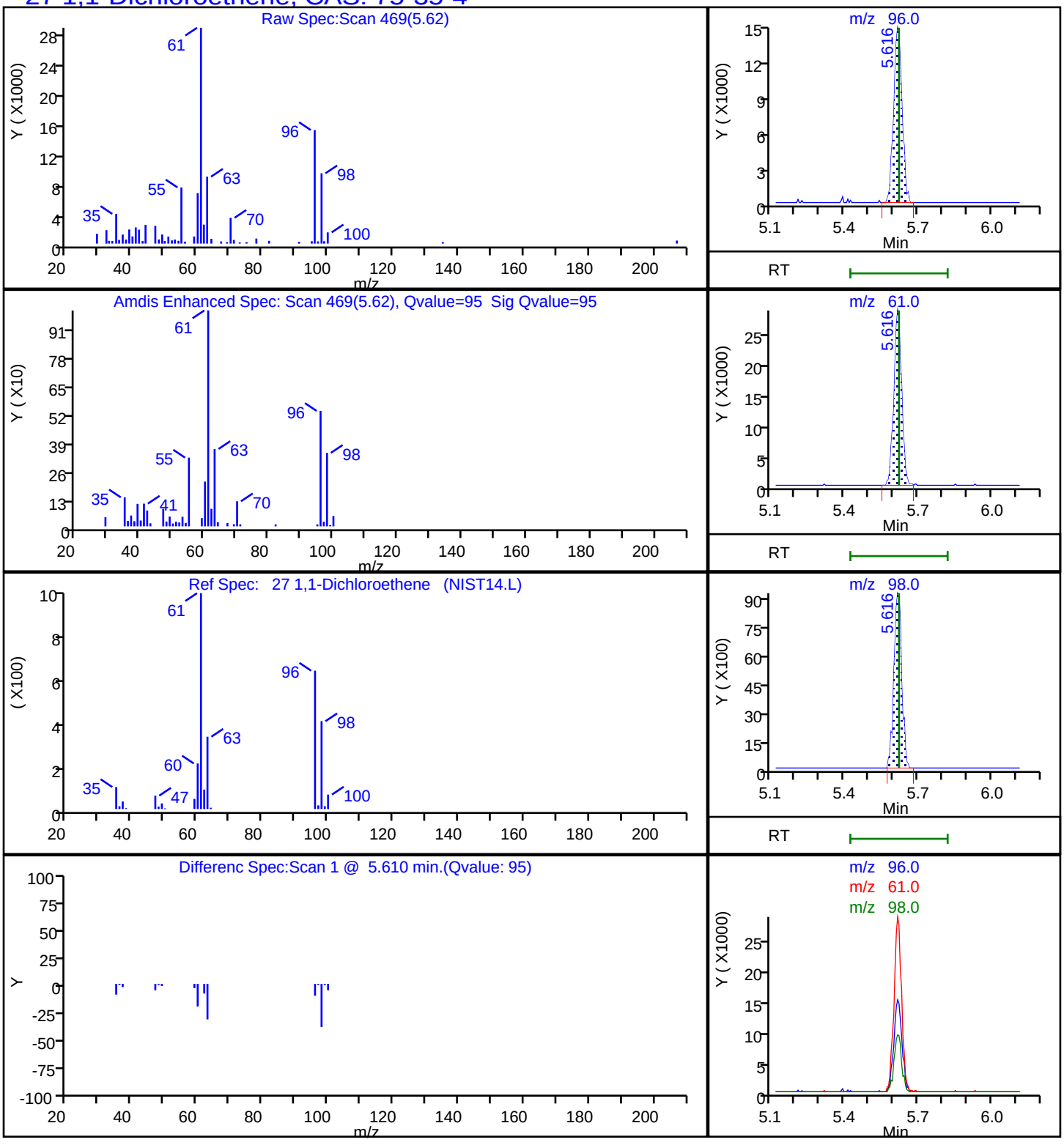
Operator ID: ALS Bottle#: 13 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 4.1500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

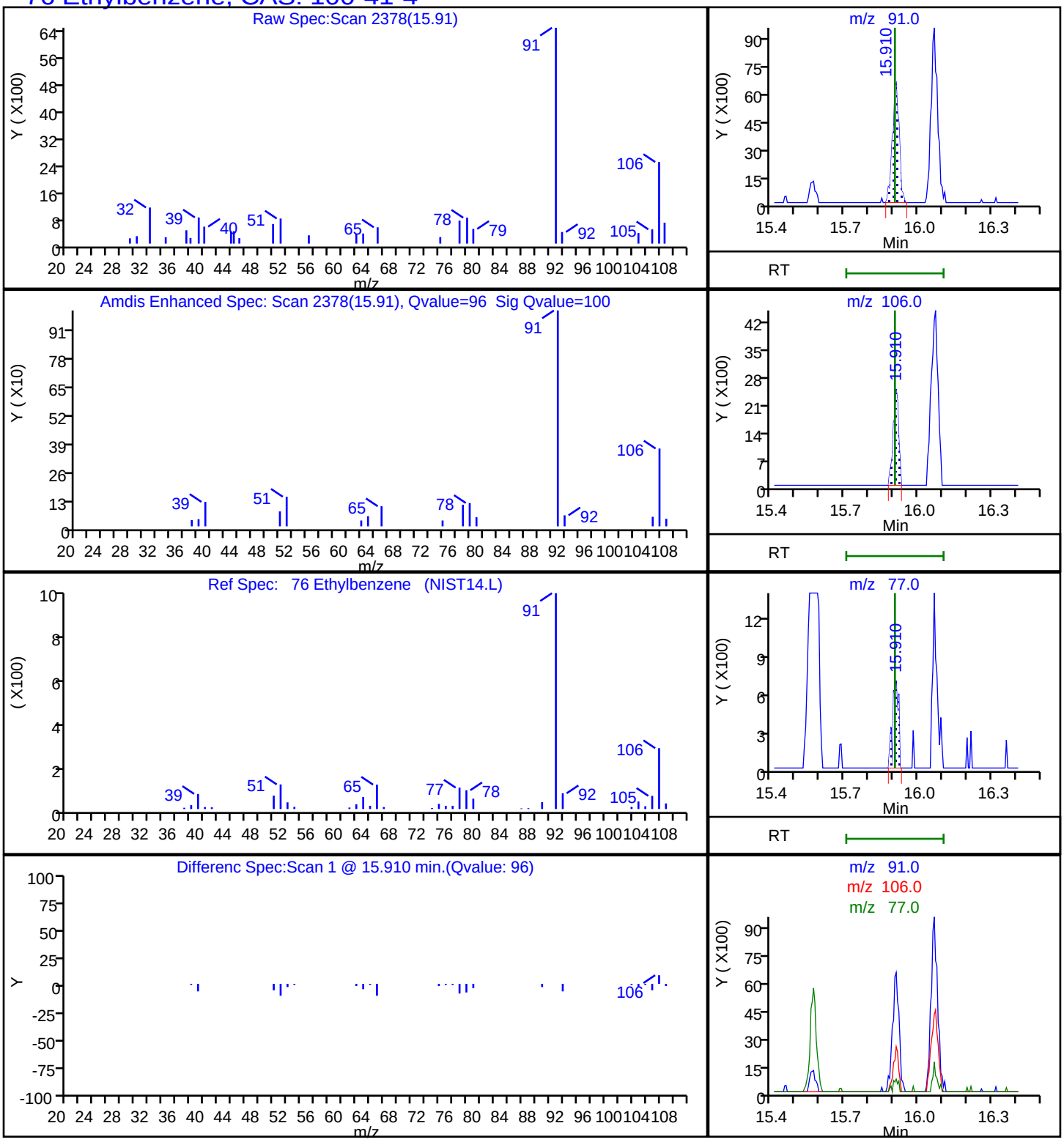
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D		
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

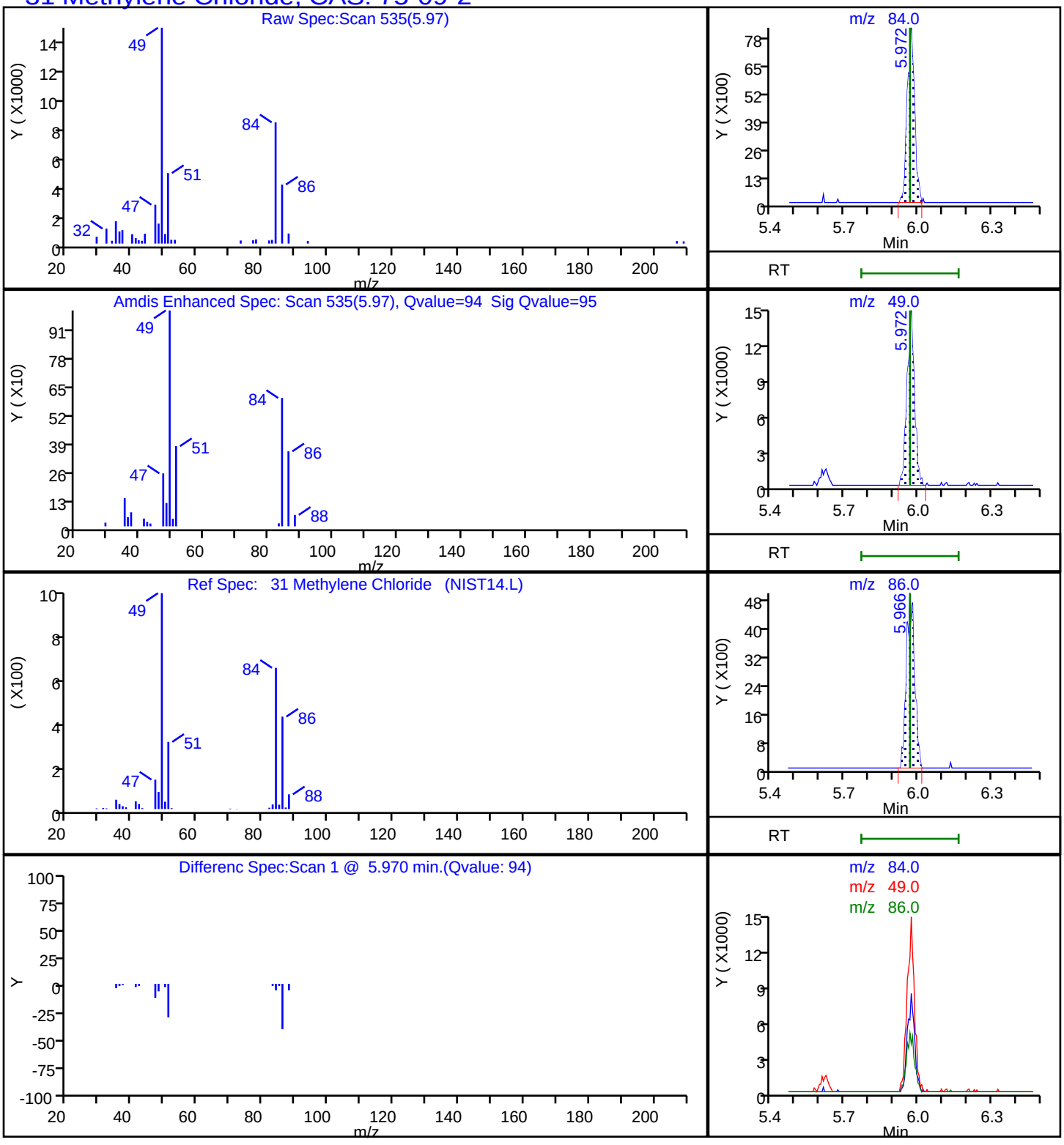


Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D		
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

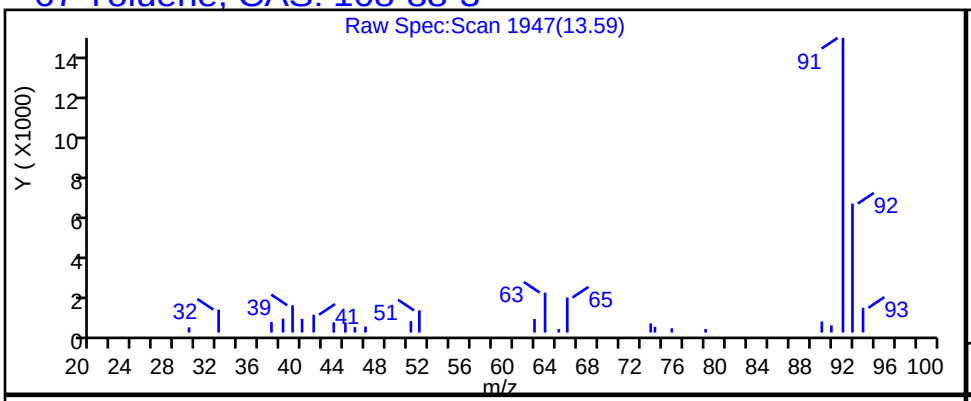
31 Methylene Chloride, CAS: 75-09-2

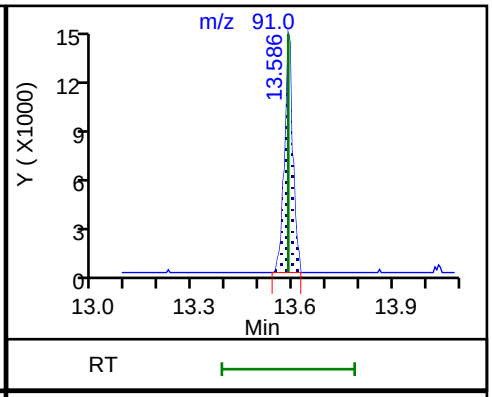


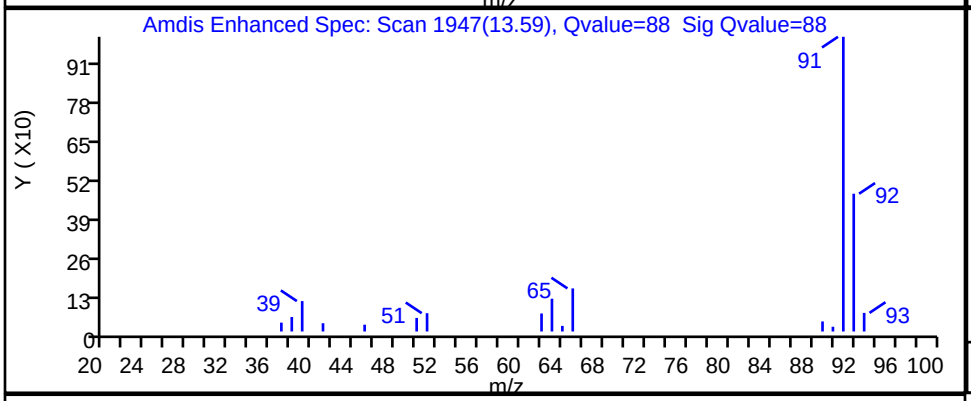
Eurofins TestAmerica, Knoxville

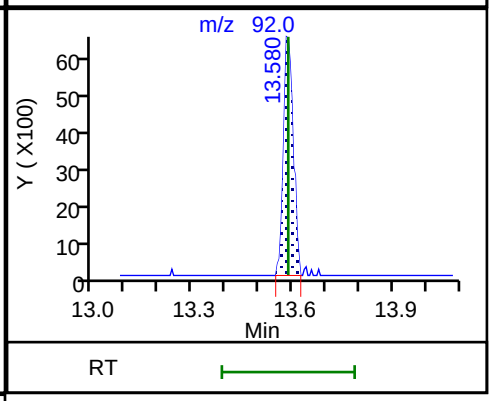
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D		
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

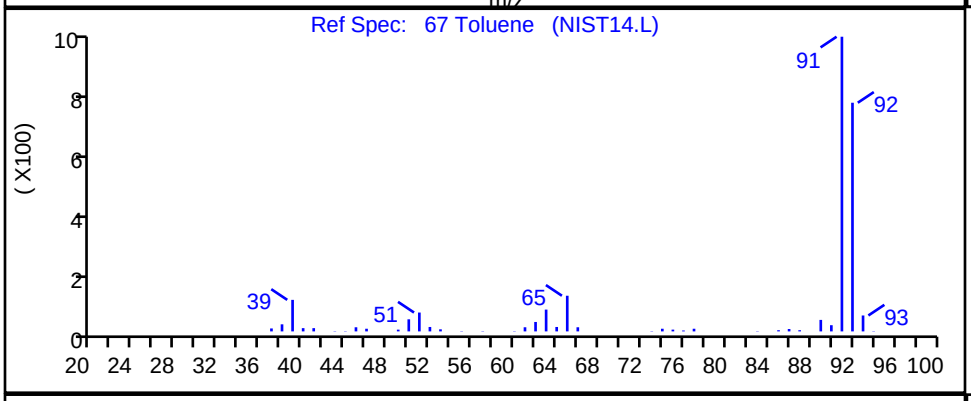
67 Toluene, CAS: 108-88-3

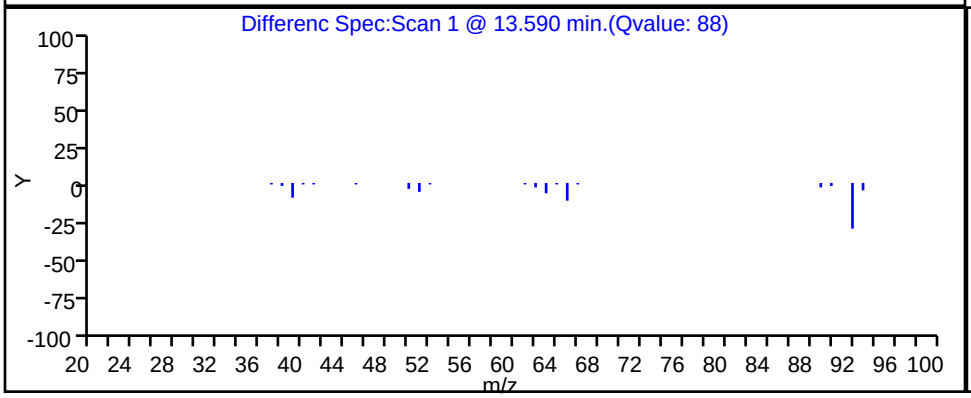


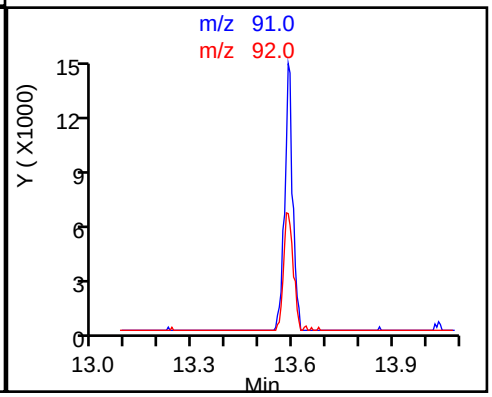








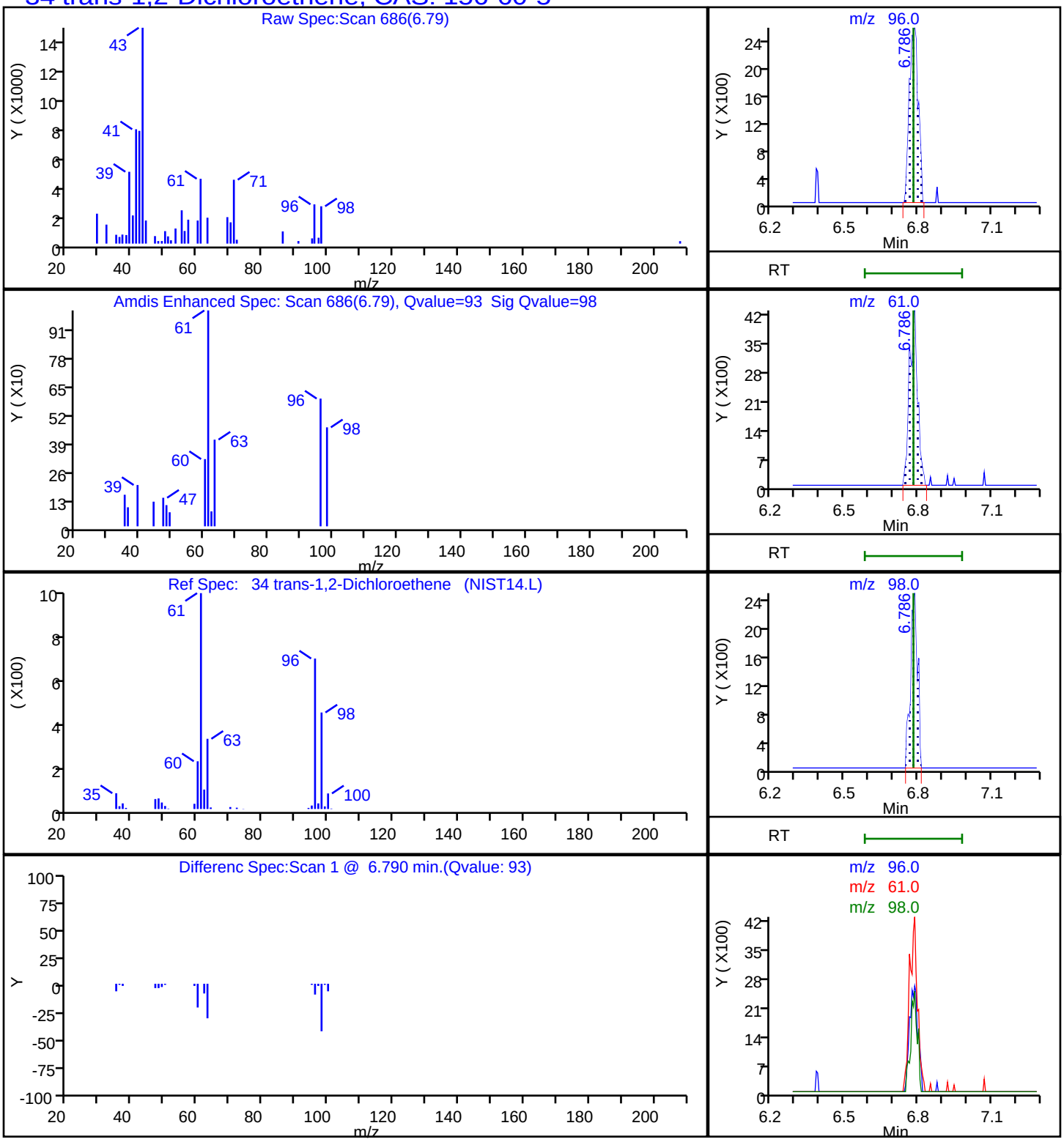




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D		
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



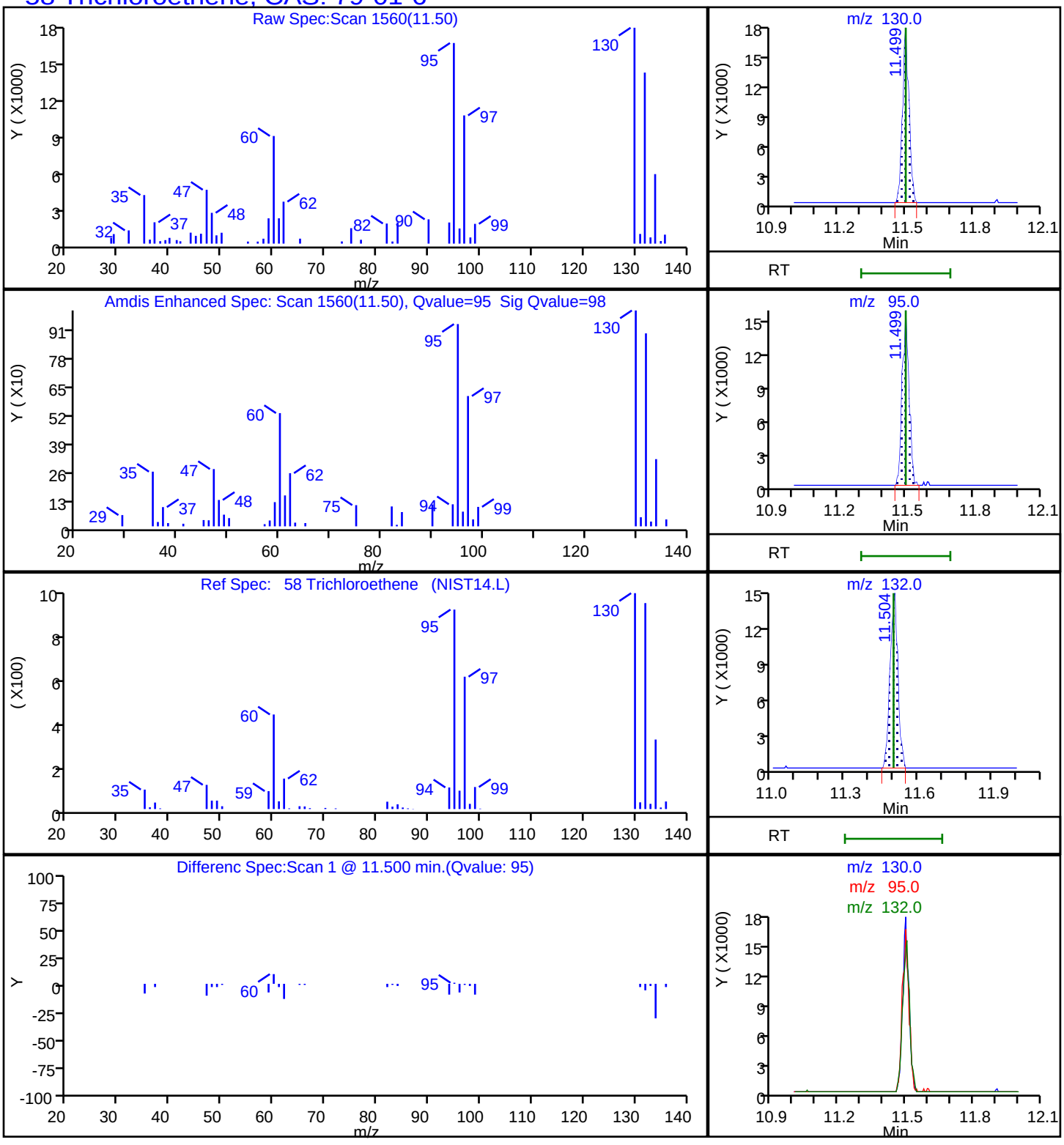
Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

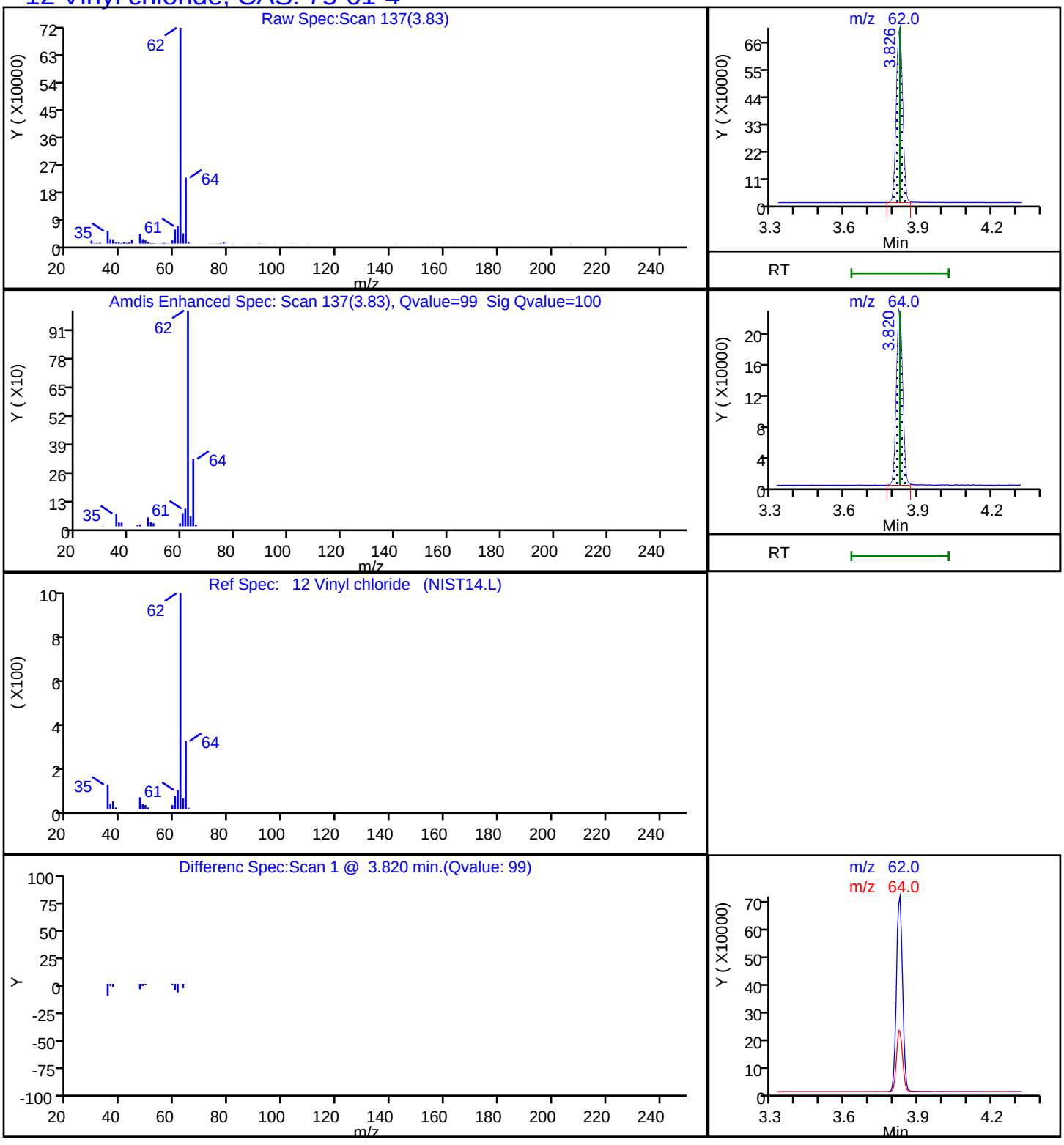


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

12 Vinyl chloride, CAS: 75-01-4

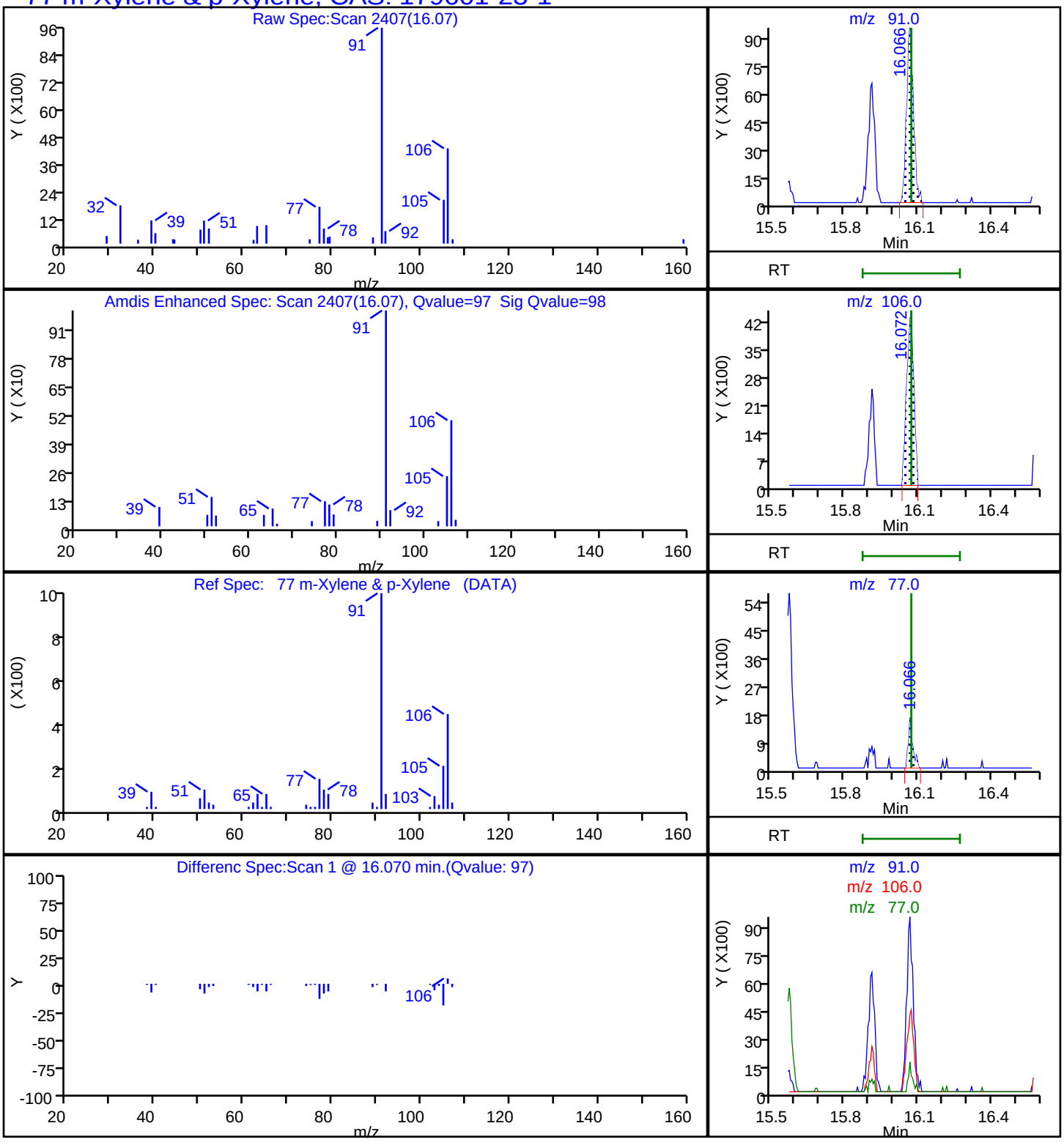


Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D		
Injection Date:	24-Aug-2019 01:00:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 26-Aug-2019 14:13:44 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P113.D

Injection Date: 24-Aug-2019 01:00:30 Instrument ID: MR

Lims ID: 140-16376-A-12 Lab Sample ID: 140-16376-12

Client ID: SV-149-C-27

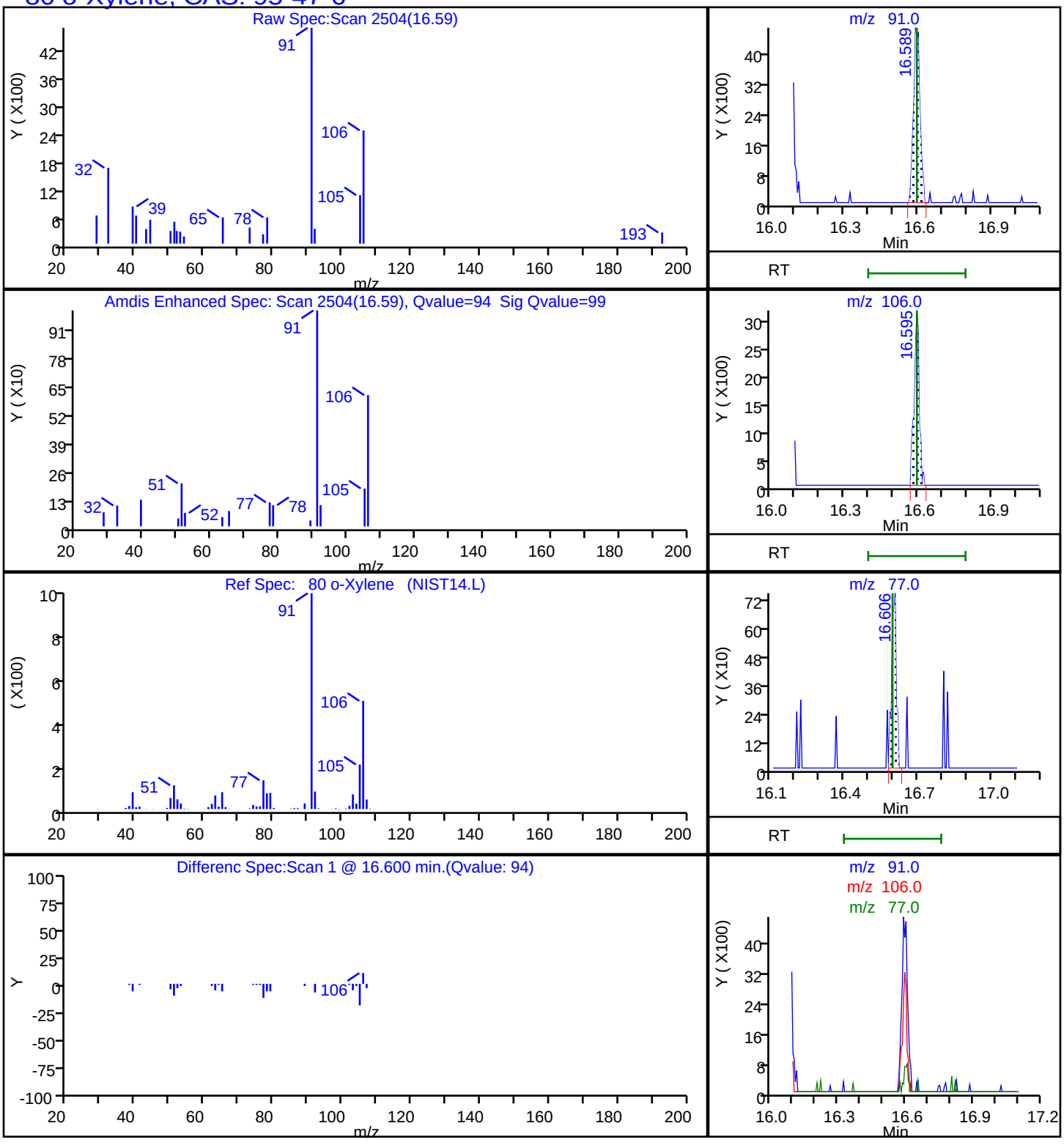
Operator ID: ALS Bottle#: 13 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 4.1500

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	1000		7.5	4.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	2700		19	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RH26P111.D
Lims ID: 140-16376-A-12
Client ID: SV-149-C-27
Sample Type: Client
Inject. Date: 26-Aug-2019 23:46:30 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 4.1500
Sample Info: 140-0012845-019
Misc. Info.: 140-16423-a-1
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Aug-2019 15:15:25 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 27-Aug-2019 15:23:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.533	0.005	97	199464	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.766	0.005	95	1126856	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	914132	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	534198	3.39	
12 Vinyl chloride	62	3.831	3.831	0.000	99	404611	5.51	
27 1,1-Dichloroethene	96	5.627	5.619	0.011	96	12932	0.1885	
31 Methylene Chloride	84	5.977	5.972	0.005	94	16120	0.2286	
34 trans-1,2-Dichloroethene	96	6.781	6.775	0.006	52	2715	0.0377	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.005	94	13019	0.1594	
49 Benzene	78	10.205	10.199	0.006	96	43428	0.1903	
58 Trichloroethene	130	11.499	11.499	0.005	90	10757	0.1072	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

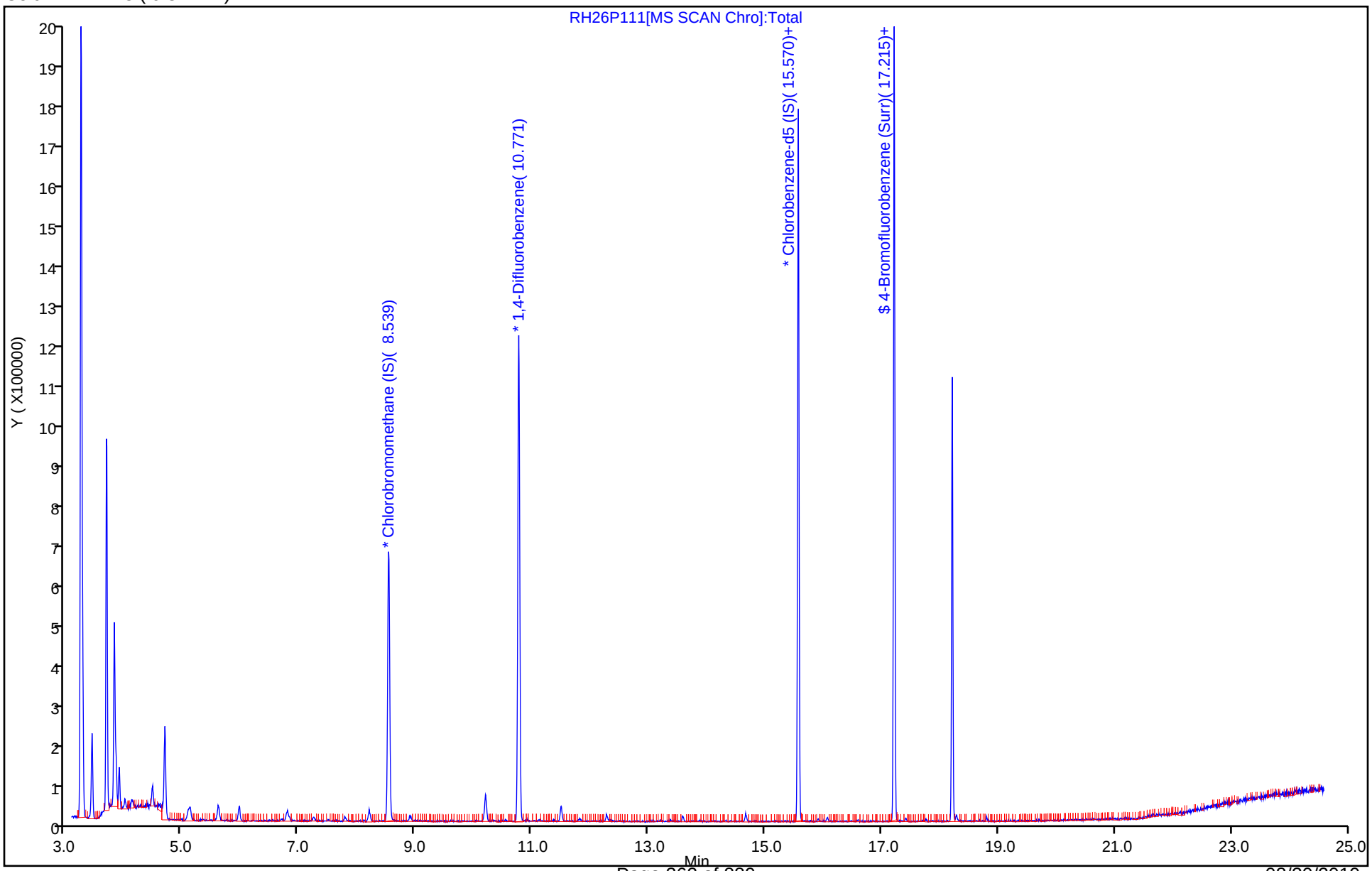
Report Date: 27-Aug-2019 15:23:23 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RH26P111.D

Injection Date:	26-Aug-2019 23:46:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12	Worklist Smp#:	19
Client ID:	SV-149-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	4.1500	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

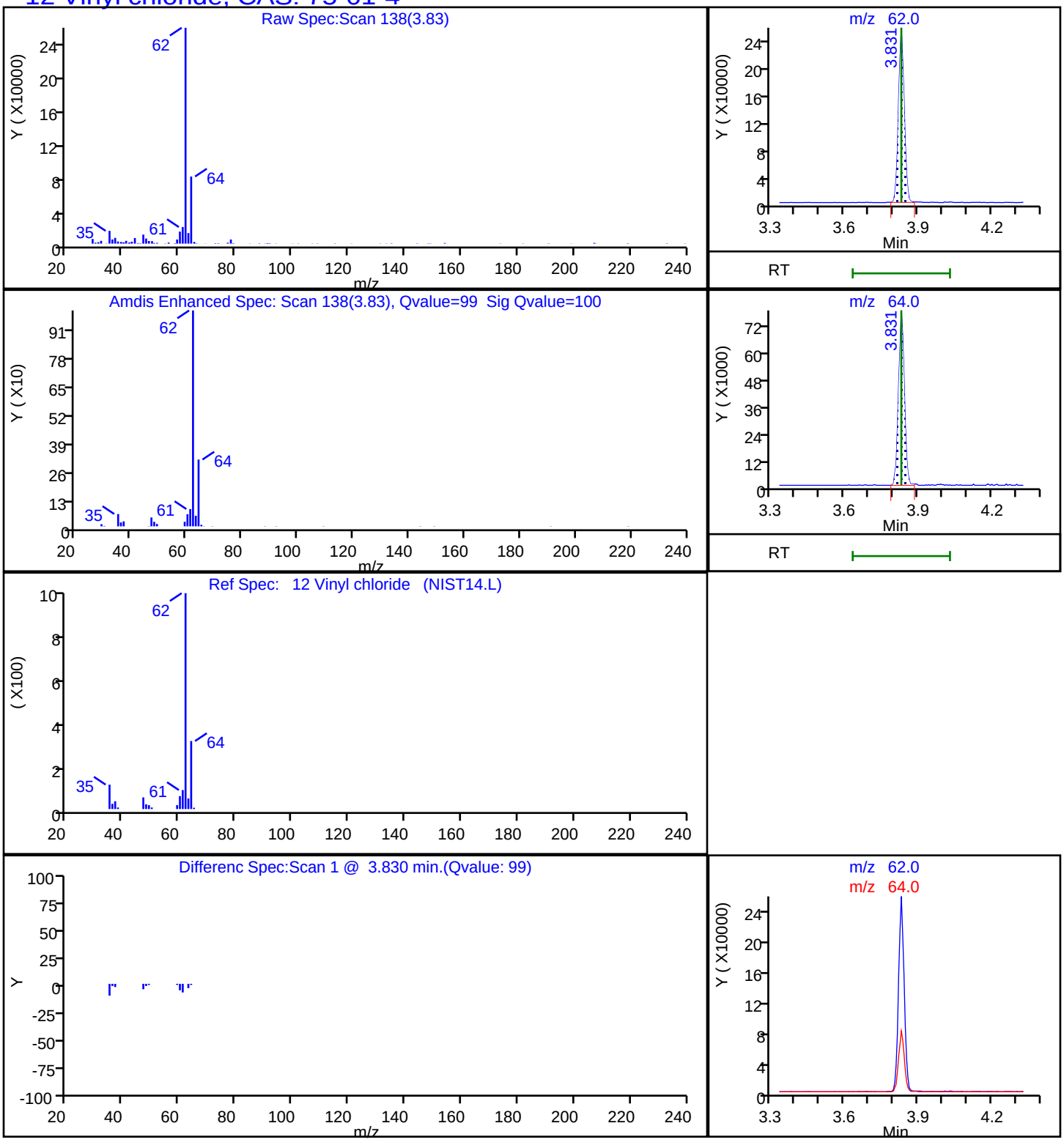
Data File:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\RH26P111.D				
Lims ID:	140-16376-A-12				
Client ID:	SV-149-C-27				
Sample Type:	Client				
Inject. Date:	26-Aug-2019 23:46:30	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500		
Sample Info:	140-0012845-019				
Misc. Info.:	140-16423-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Aug-2019 15:15:25	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	27-Aug-2019 15:23:23		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.39	84.74

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\RH26P111.D		
Injection Date:	26-Aug-2019 23:46:30	Instrument ID:	MR
Lims ID:	140-16376-A-12	Lab Sample ID:	140-16376-12
Client ID:	SV-149-C-27		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	4.1500
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

12 Vinyl chloride, CAS: 75-01-4



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.35	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.095	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.18	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.074	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.38	J	0.40	0.065
75-09-2	*Methylene Chloride*	*84.93*	*230*	*E B*	*2.0*	*0.80*
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	4.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.041	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.68		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	2.7		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.1	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.70	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.29	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	*Methylene Chloride*	*84.93*	*810*	*E B*	*6.9*	*2.8*
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	15		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.16	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.7		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.84	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	6.8		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D
Lims ID: 140-16376-A-13
Client ID: SV-126-C-27
Sample Type: Client
Inject. Date: 24-Aug-2019 01:50:30 ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.5200
Sample Info: 140-0012811-020
Misc. Info.: 140-16376-a-13@1.52
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:14:58 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:15:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.539	-0.001	97	169919	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1006028	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	827032	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	524997	3.68	
6 Chlorodifluoromethane	51	3.421	3.421	-0.006	56	34413	0.2370	
8 Dichlorodifluoromethane	85	3.480	3.488	-0.006	95	10435	0.0794	
12 Vinyl chloride	62	3.820	3.826	-0.006	97	33412	0.5342	
27 1,1-Dichloroethene	96	5.600	5.621	-0.021	6	862	0.0148	
31 Methylene Chloride	84	5.966	5.966	0.000	96	2786773	46.4	E
34 trans-1,2-Dichloroethene	96	6.770	6.781	-0.011	1	508	0.008271	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	29	2471	0.0355	
44 Chloroform	83	8.555	8.555	0.006	36	2712	0.0190	
49 Benzene	78	10.210	10.205	0.005	81	14452	0.0709	
52 Carbon tetrachloride	117	10.215	10.221	-0.006	25	2353	0.0144	
58 Trichloroethene	130	11.499	11.499	0.000	90	12268	0.1369	
67 Toluene	91	13.586	13.586	0.000	92	174075	0.8181	
73 Tetrachloroethene	129	14.740	14.734	0.006	39	734	0.008446	
76 Ethylbenzene	91	15.910	15.905	0.005	97	22873	0.0766	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	61359	0.2618	
80 o-Xylene	91	16.595	16.595	0.000	98	25678	0.1043	
92 1,2,4-Trimethylbenzene	105	18.433	18.450	-0.017	95	10940	0.0340	
S 116 Xylenes, Total	100				0		0.3661	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

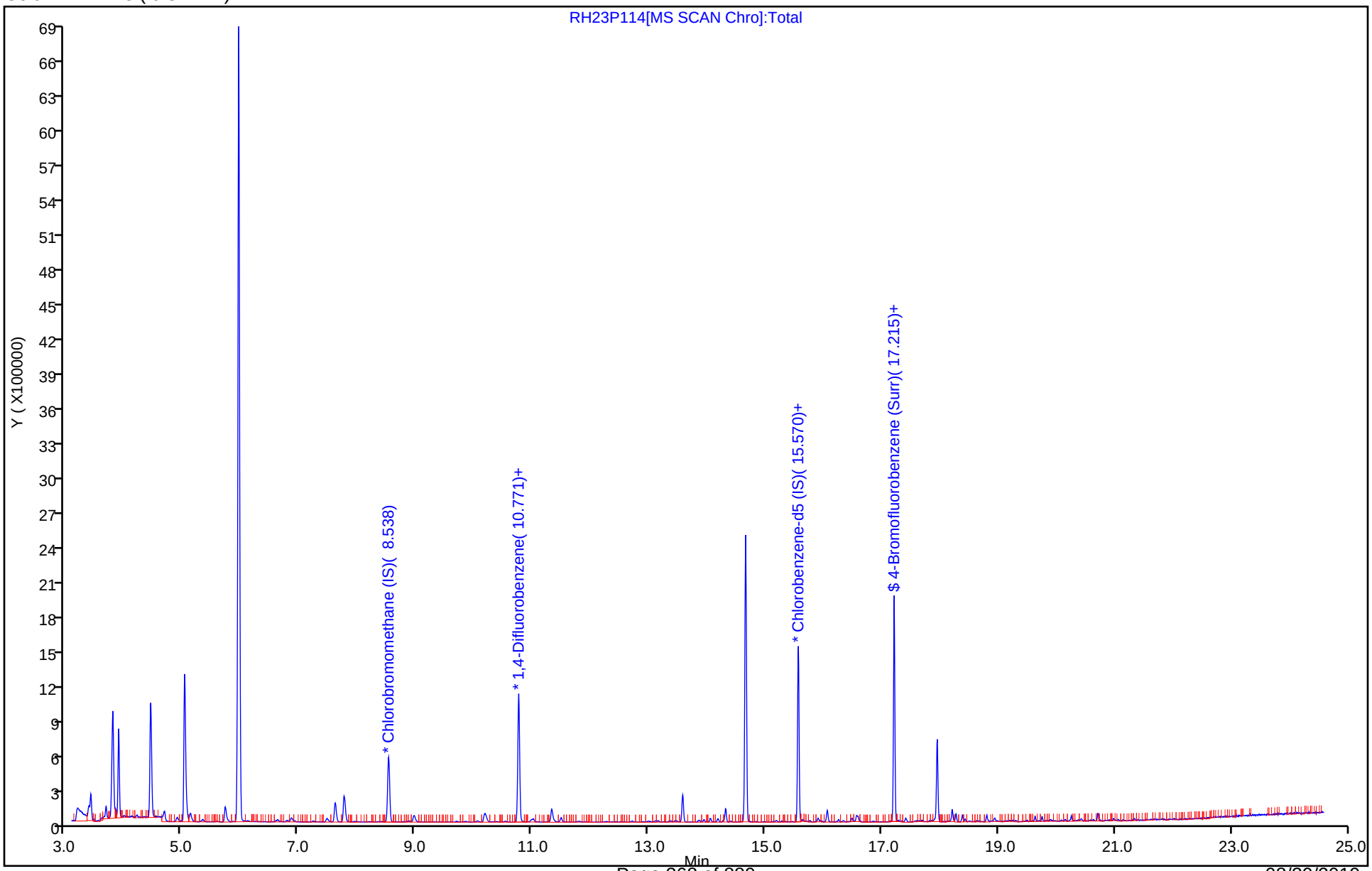
Report Date: 26-Aug-2019 14:15:42 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D

Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13	Worklist Smp#:	20
Client ID:	SV-126-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.5200	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D				
Lims ID:	140-16376-A-13				
Client ID:	SV-126-C-27				
Sample Type:	Client				
Inject. Date:	24-Aug-2019 01:50:30	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200		
Sample Info:	140-0012811-020				
Misc. Info.:	140-16376-a-13@1.52				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:14:58	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:15:41		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.68	92.05

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D

Injection Date: 24-Aug-2019 01:50:30 Instrument ID: MR

Lims ID: 140-16376-A-13 Lab Sample ID: 140-16376-13

Client ID: SV-126-C-27

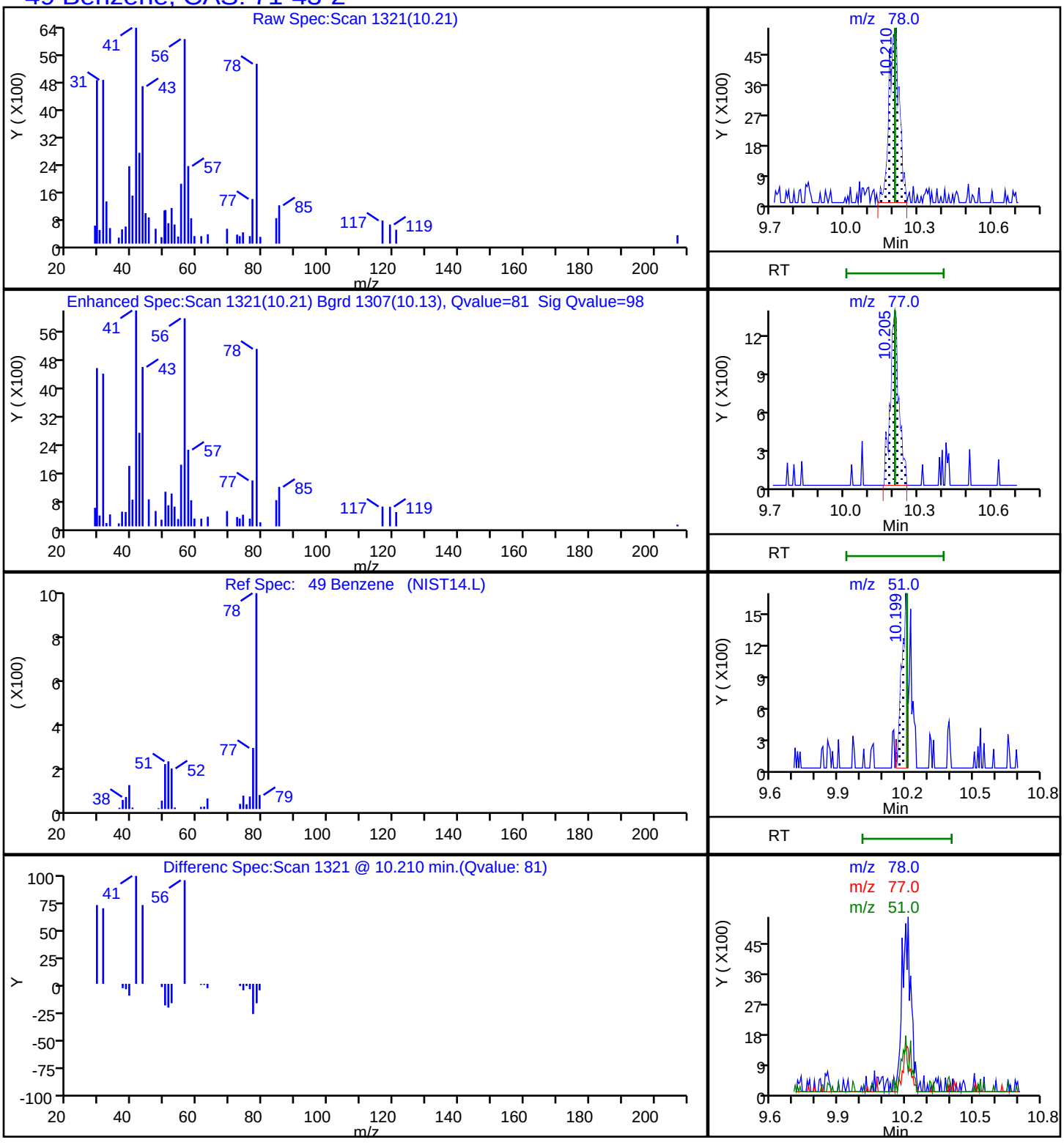
Operator ID: ALS Bottle#: 14 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.5200

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

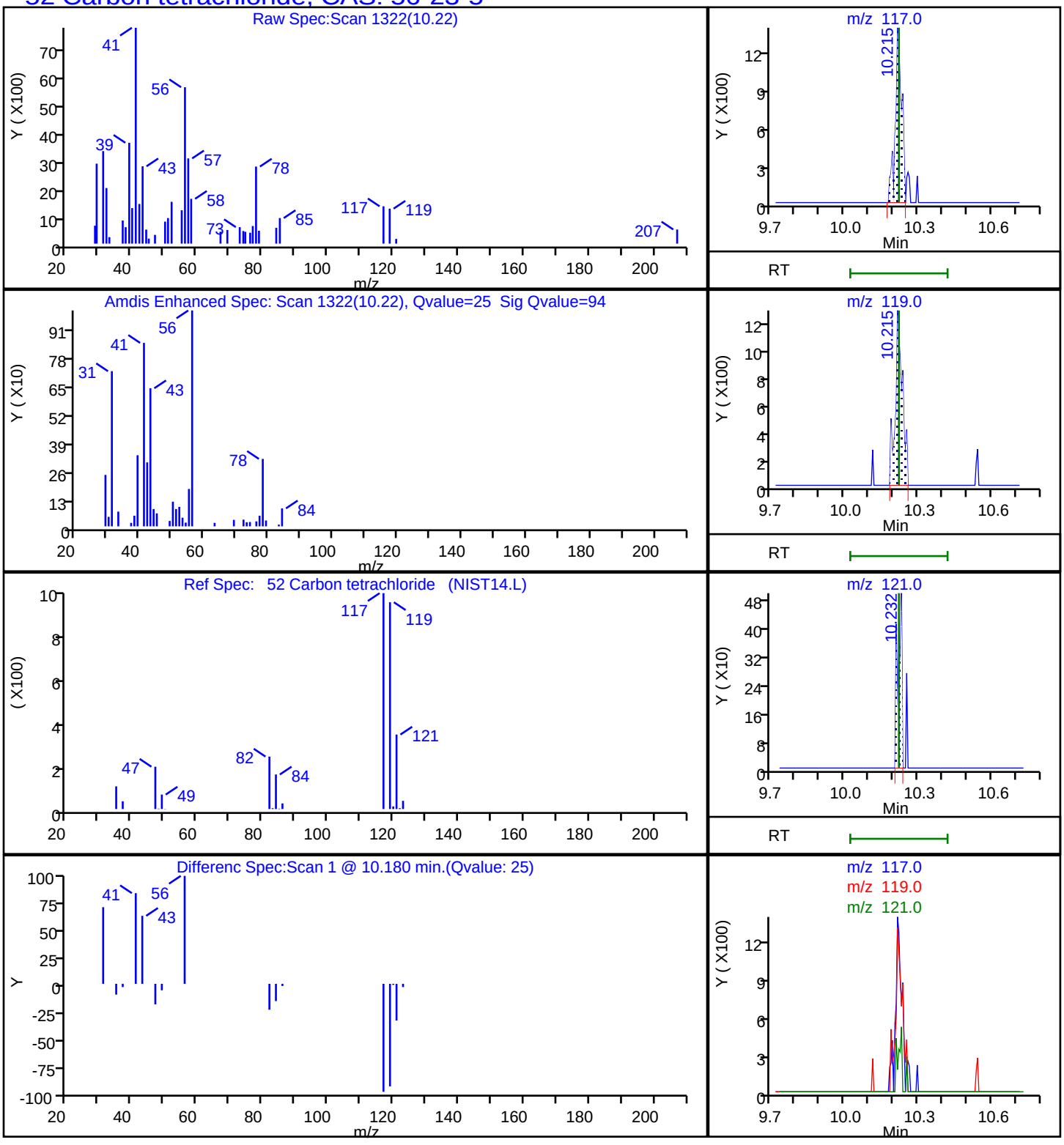
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

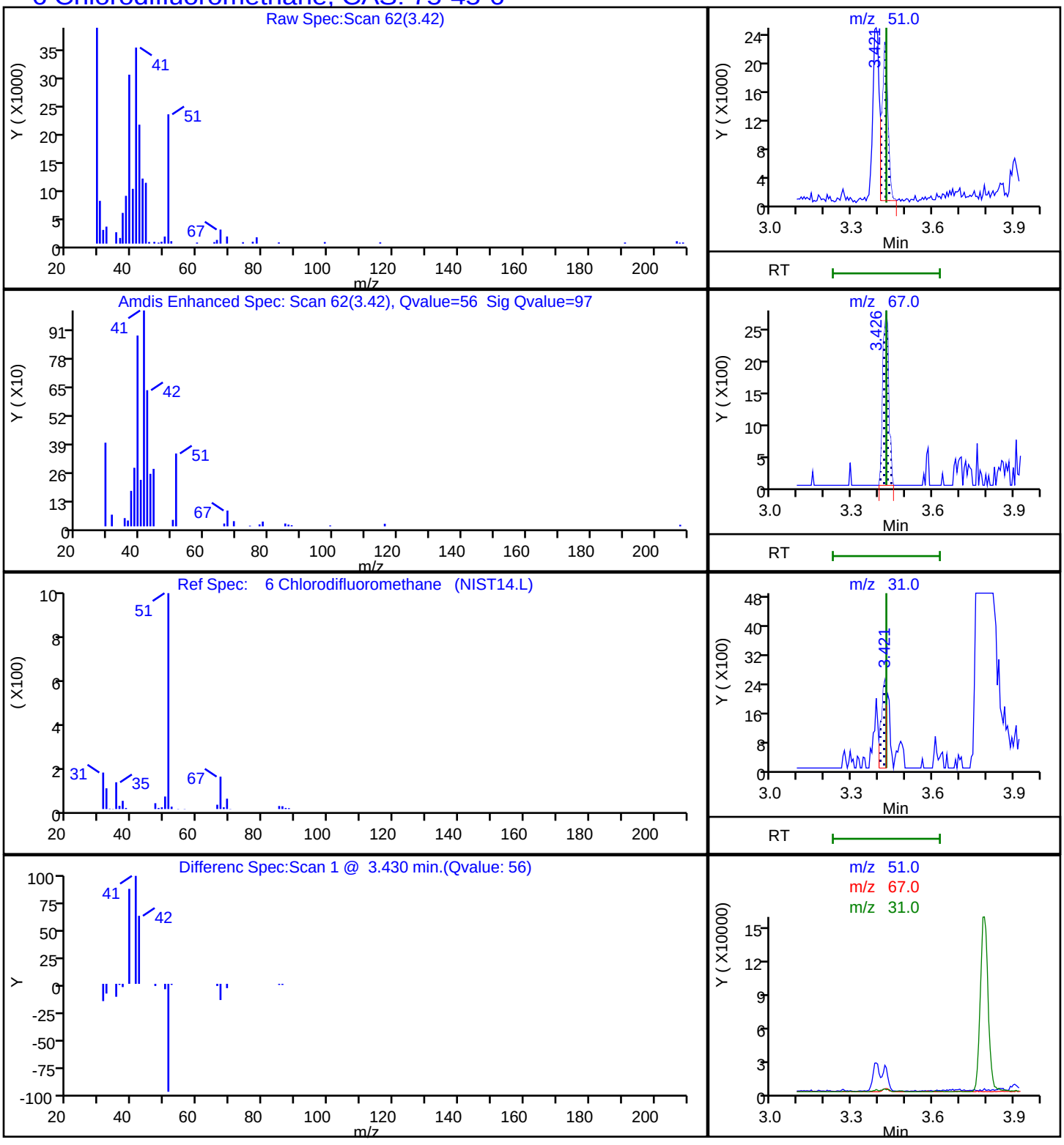
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

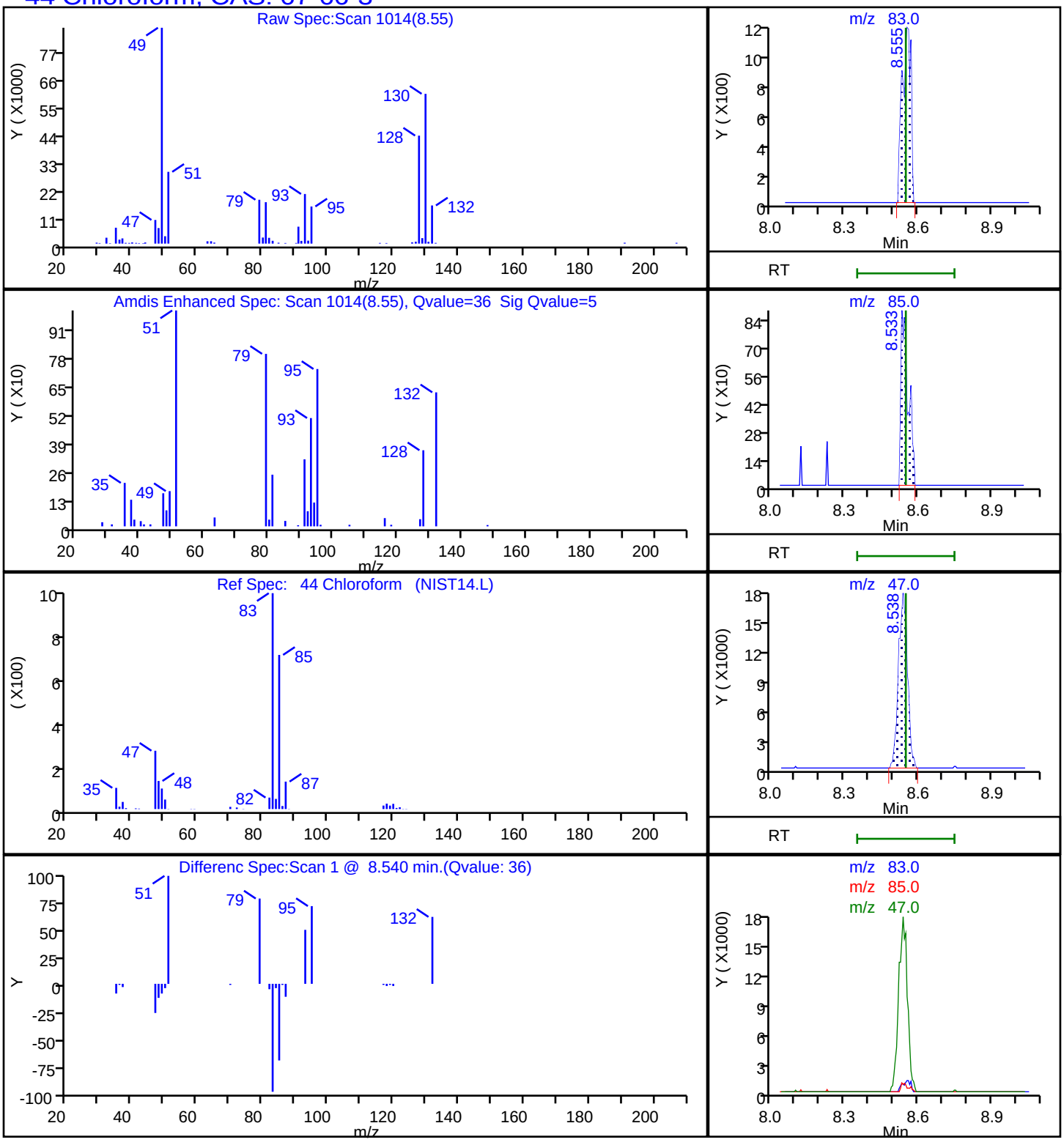
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

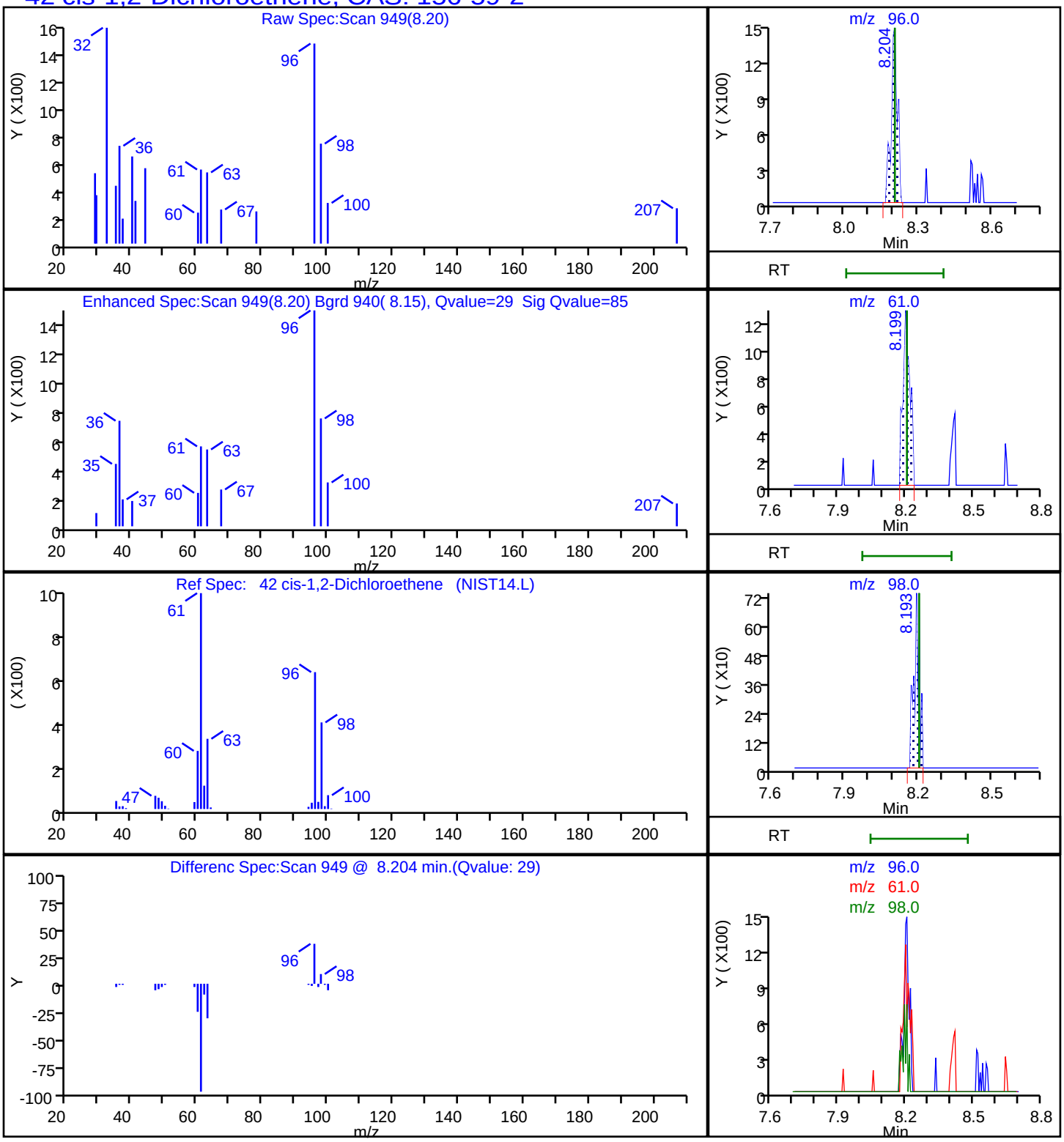
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

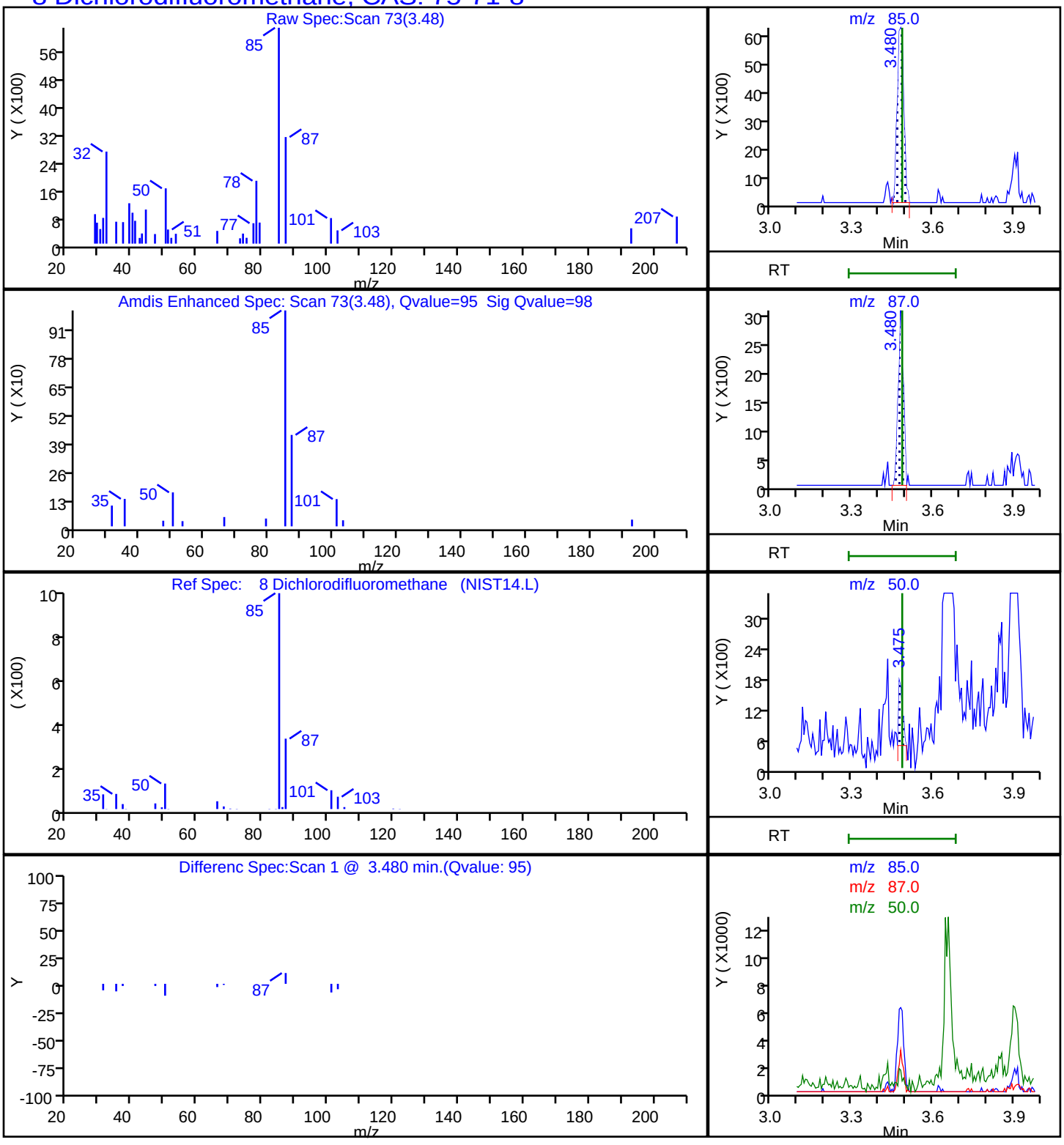
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

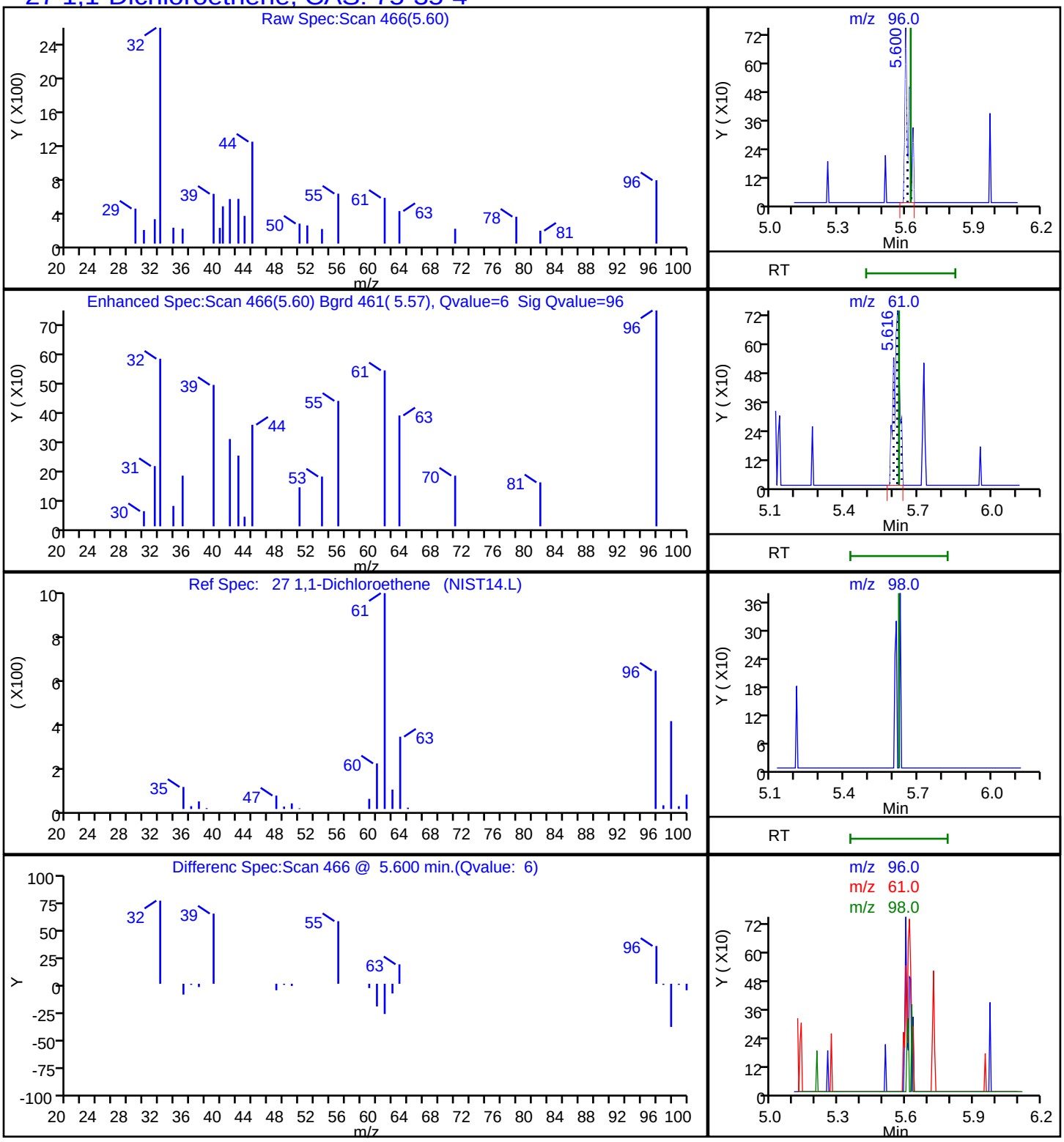
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

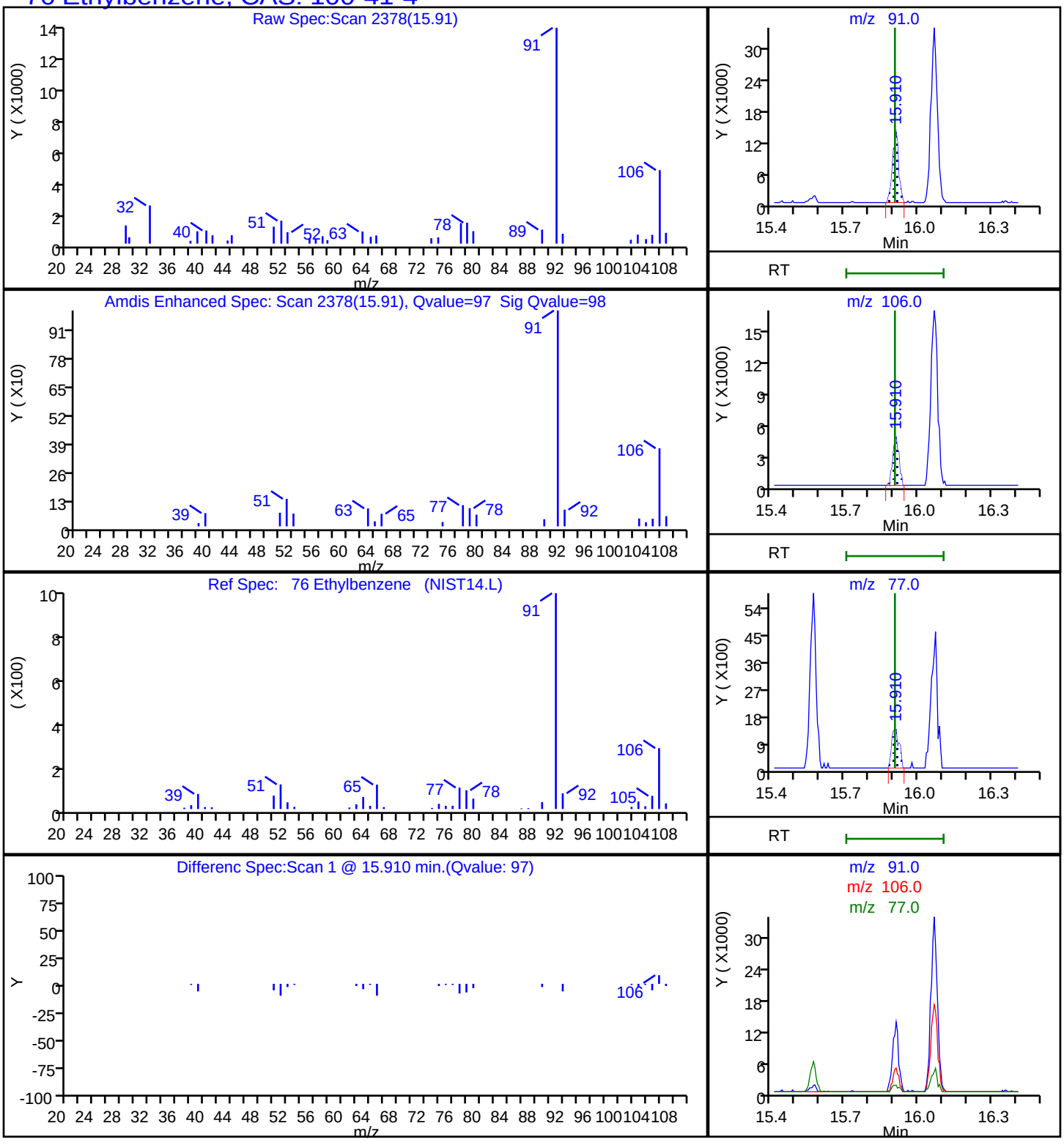
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

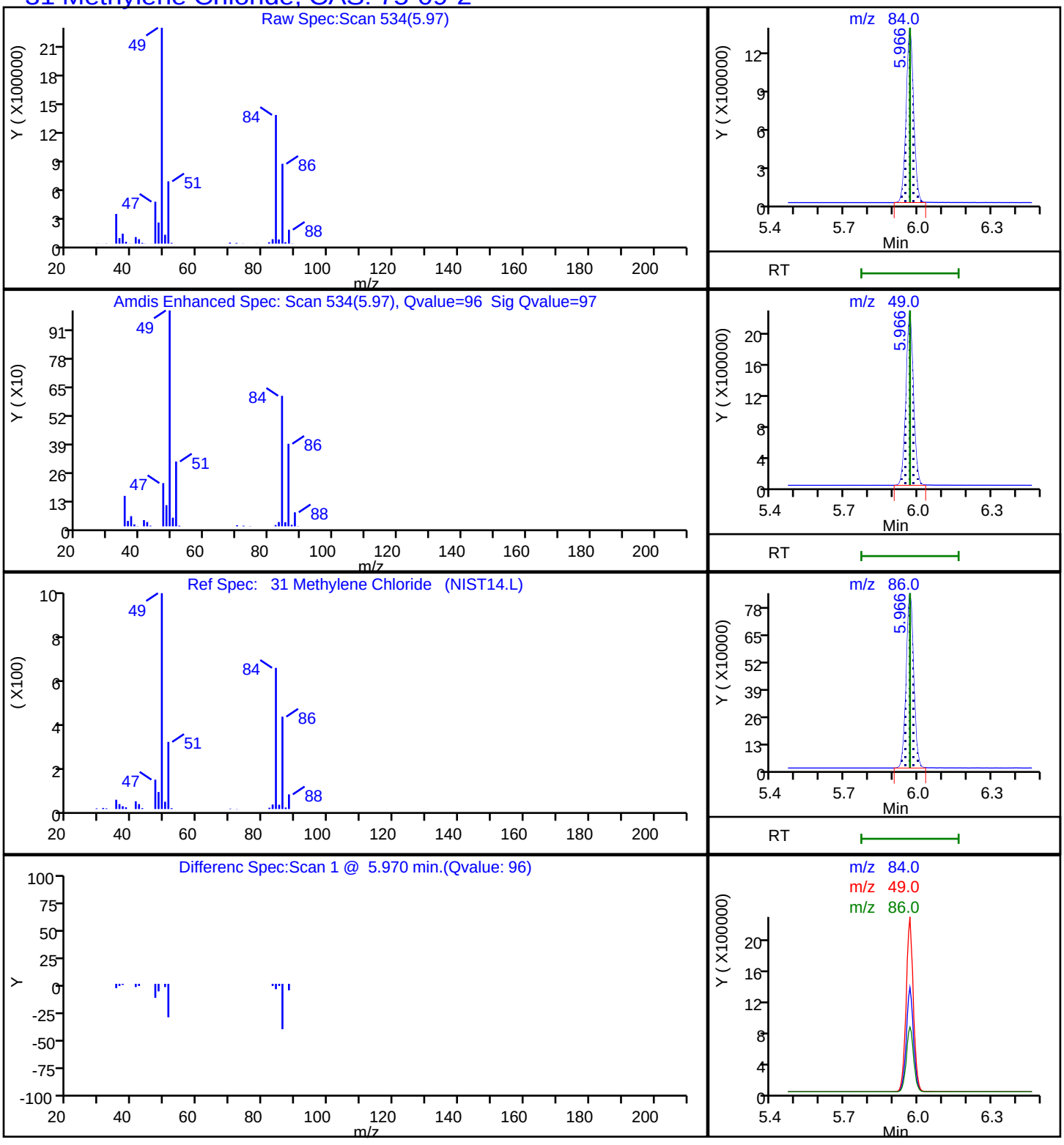


Report Date: 26-Aug-2019 14:15:42 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

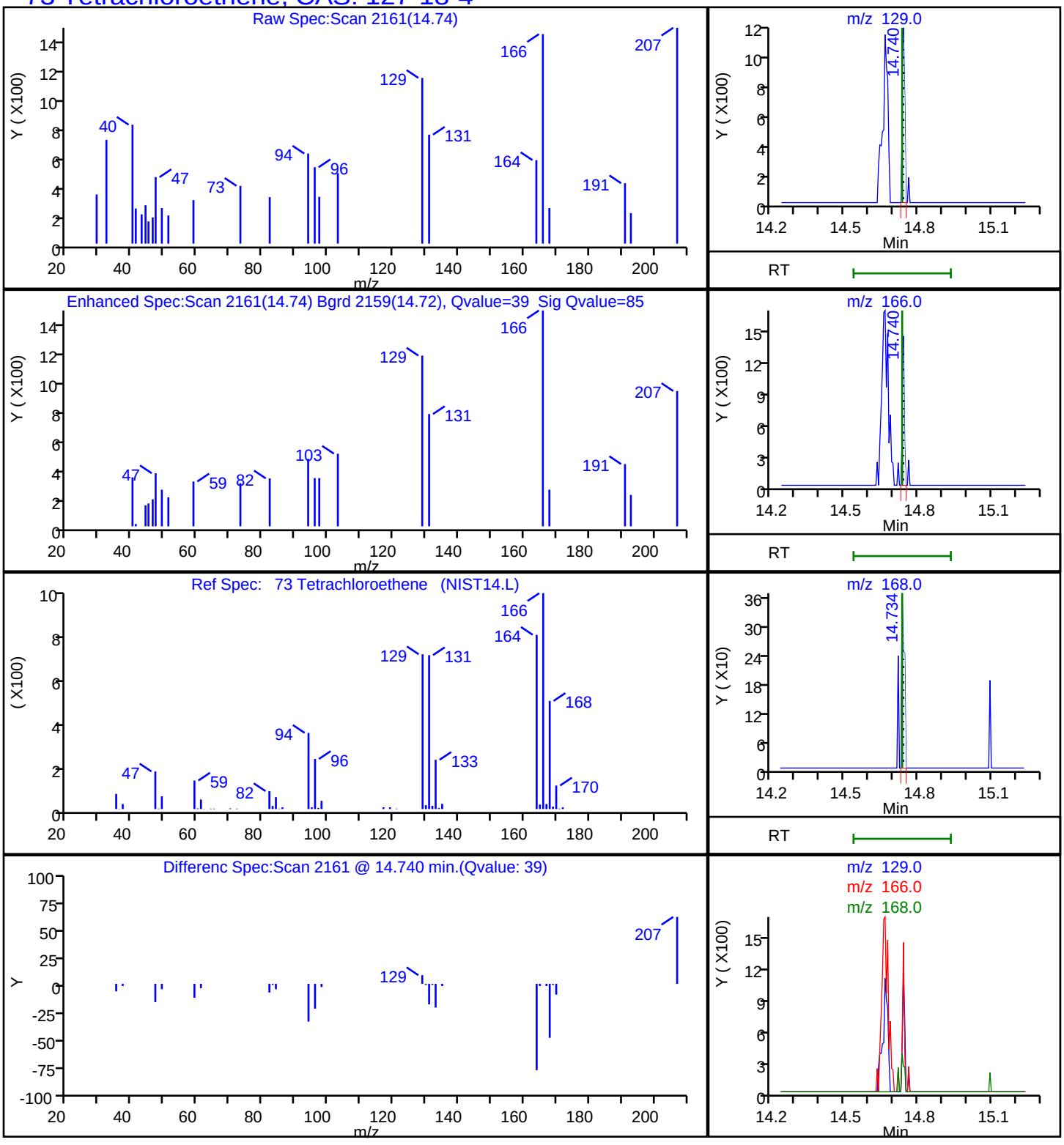


Report Date: 26-Aug-2019 14:15:43 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

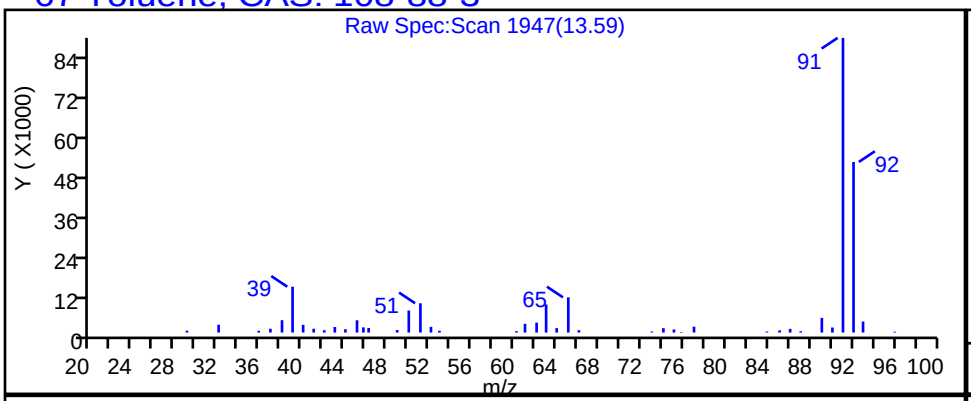


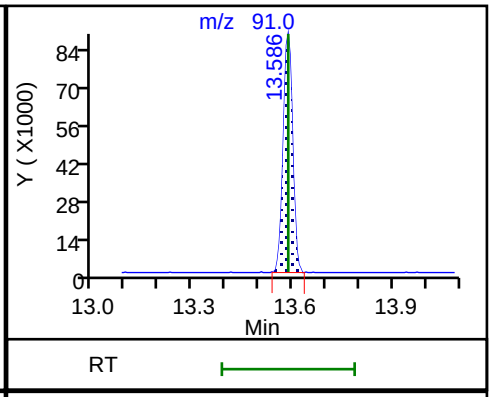
Report Date: 26-Aug-2019 14:15:42 Chrom Revision: 2.3 22-Aug-2019 12:55:36

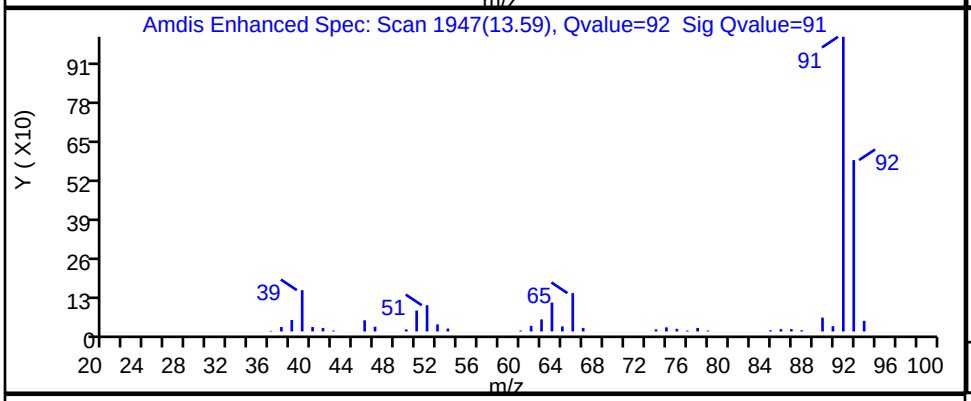
Eurofins TestAmerica, Knoxville

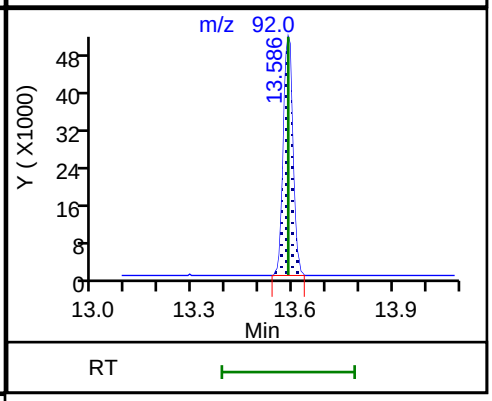
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

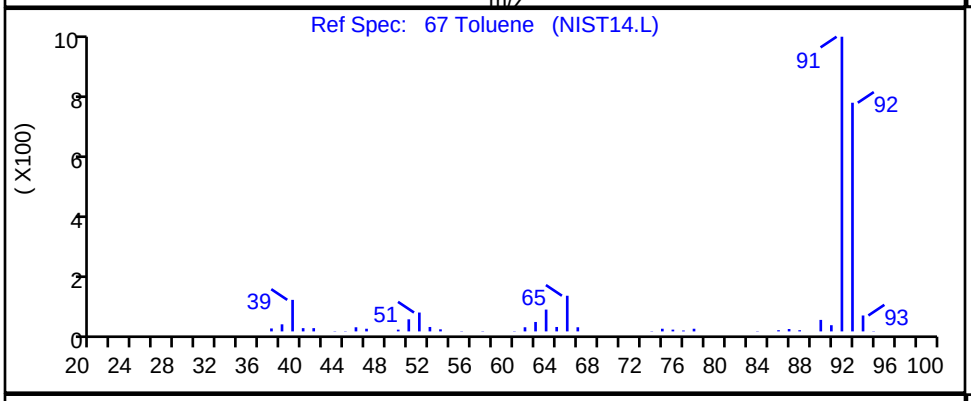
67 Toluene, CAS: 108-88-3

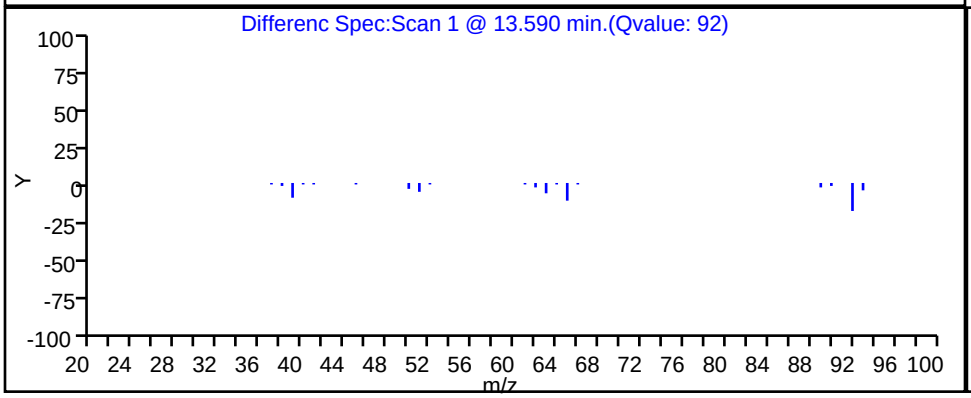


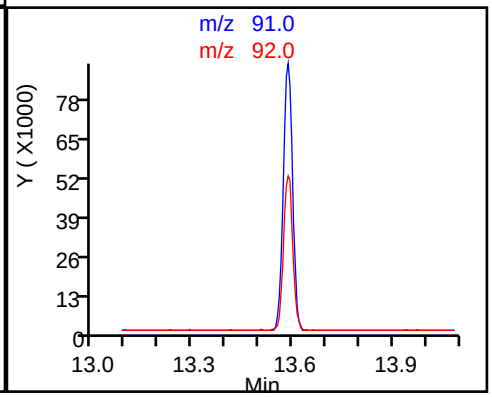








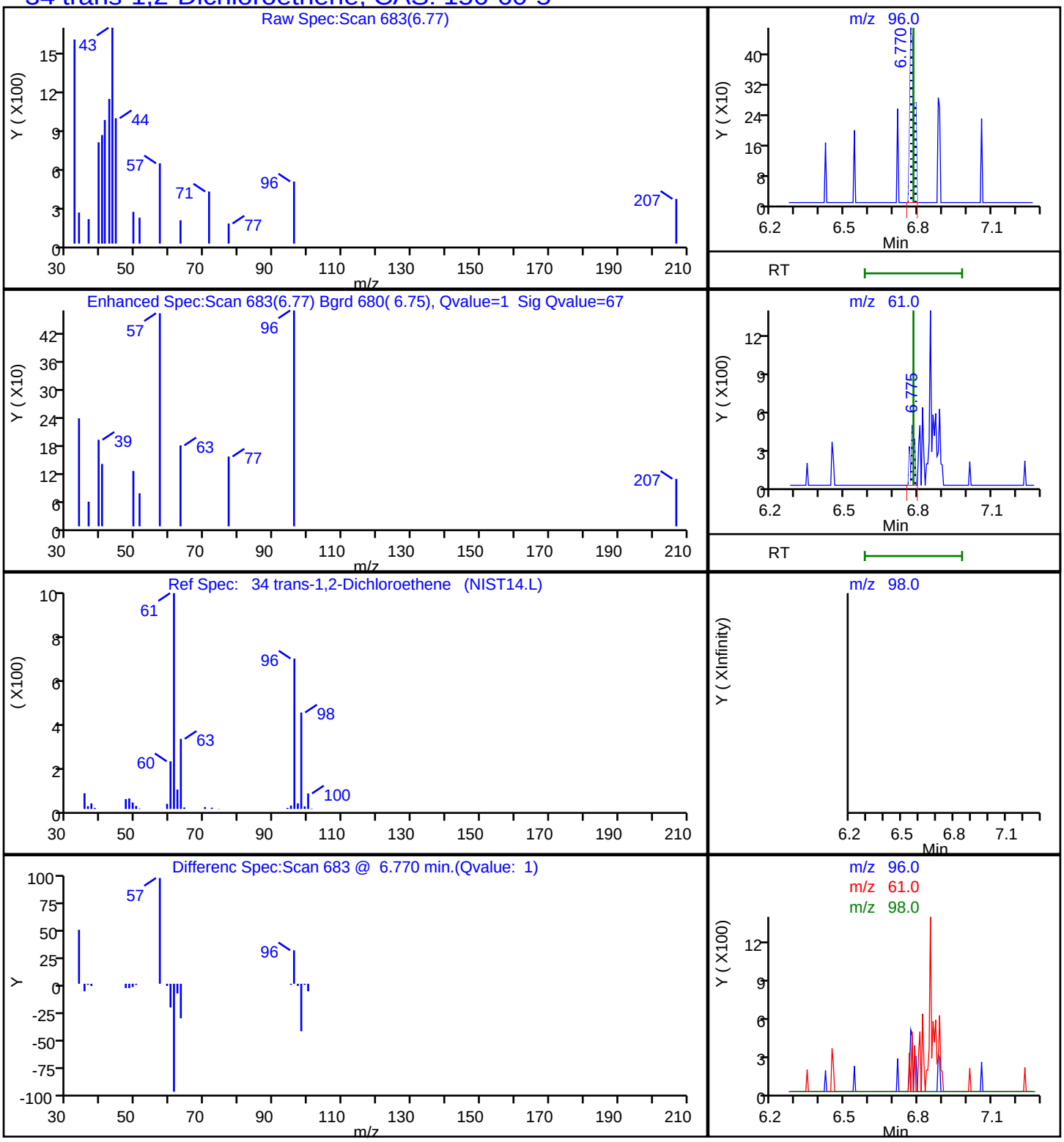




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



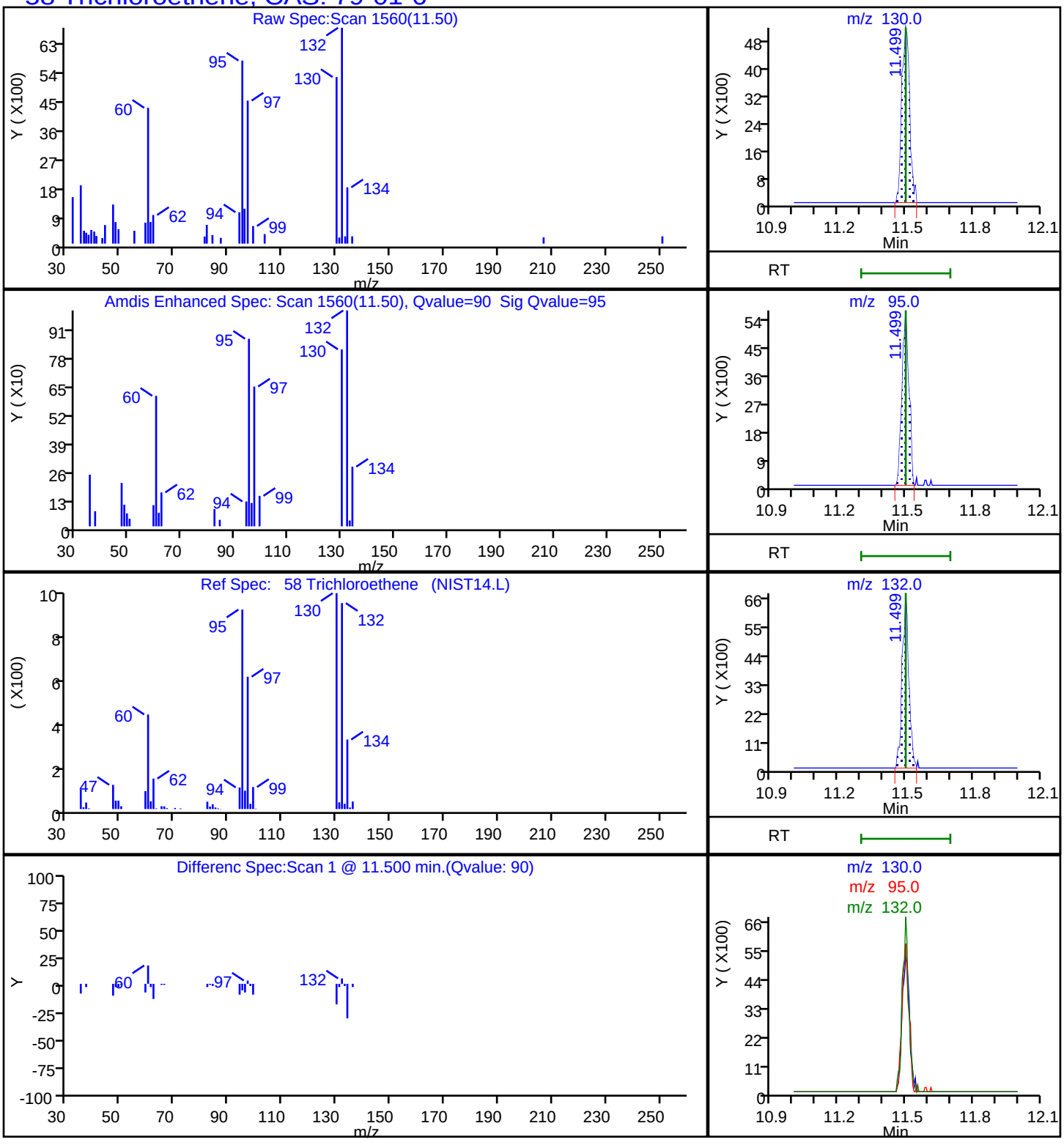
Report Date: 26-Aug-2019 14:15:42 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D

Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

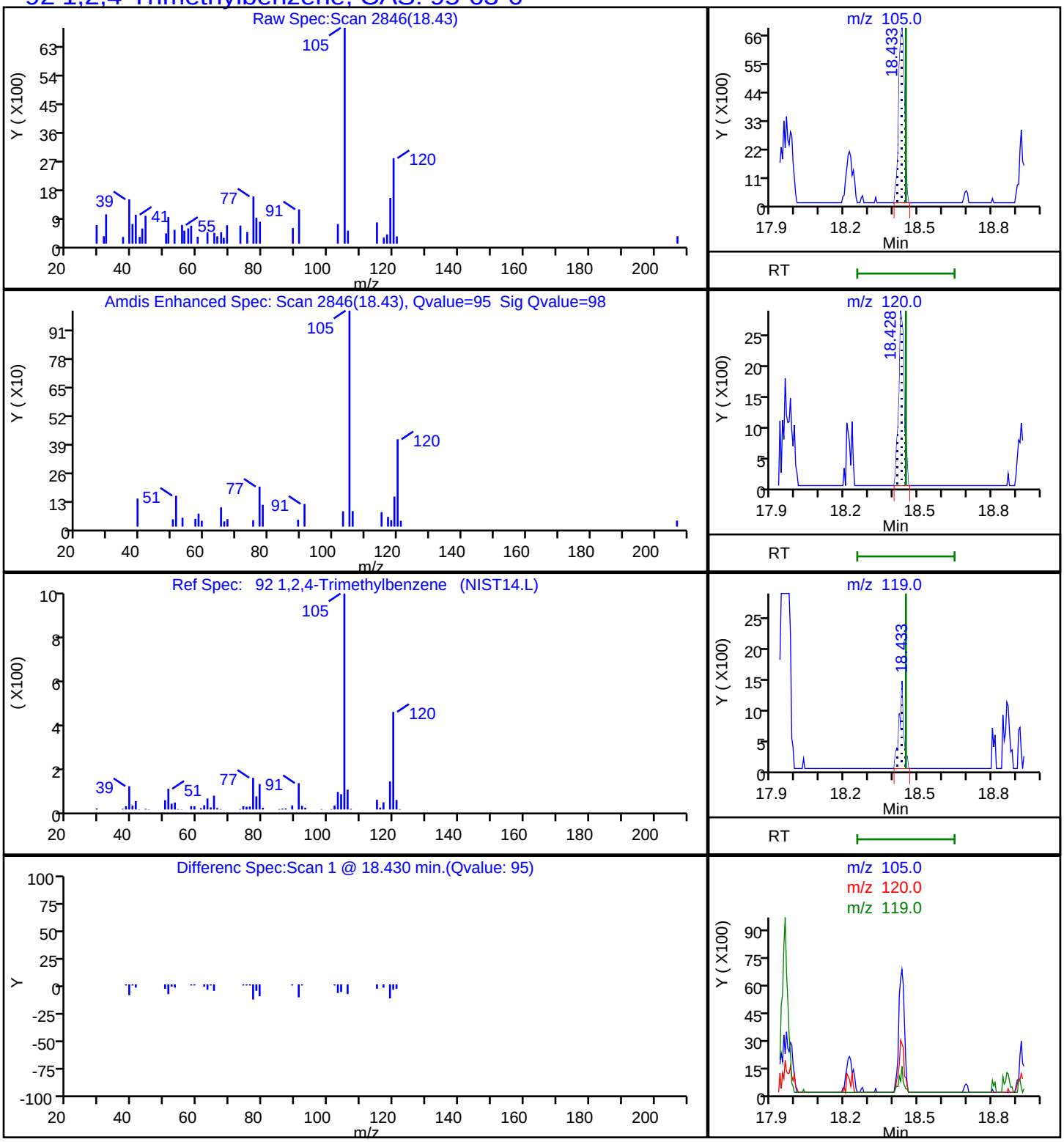
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

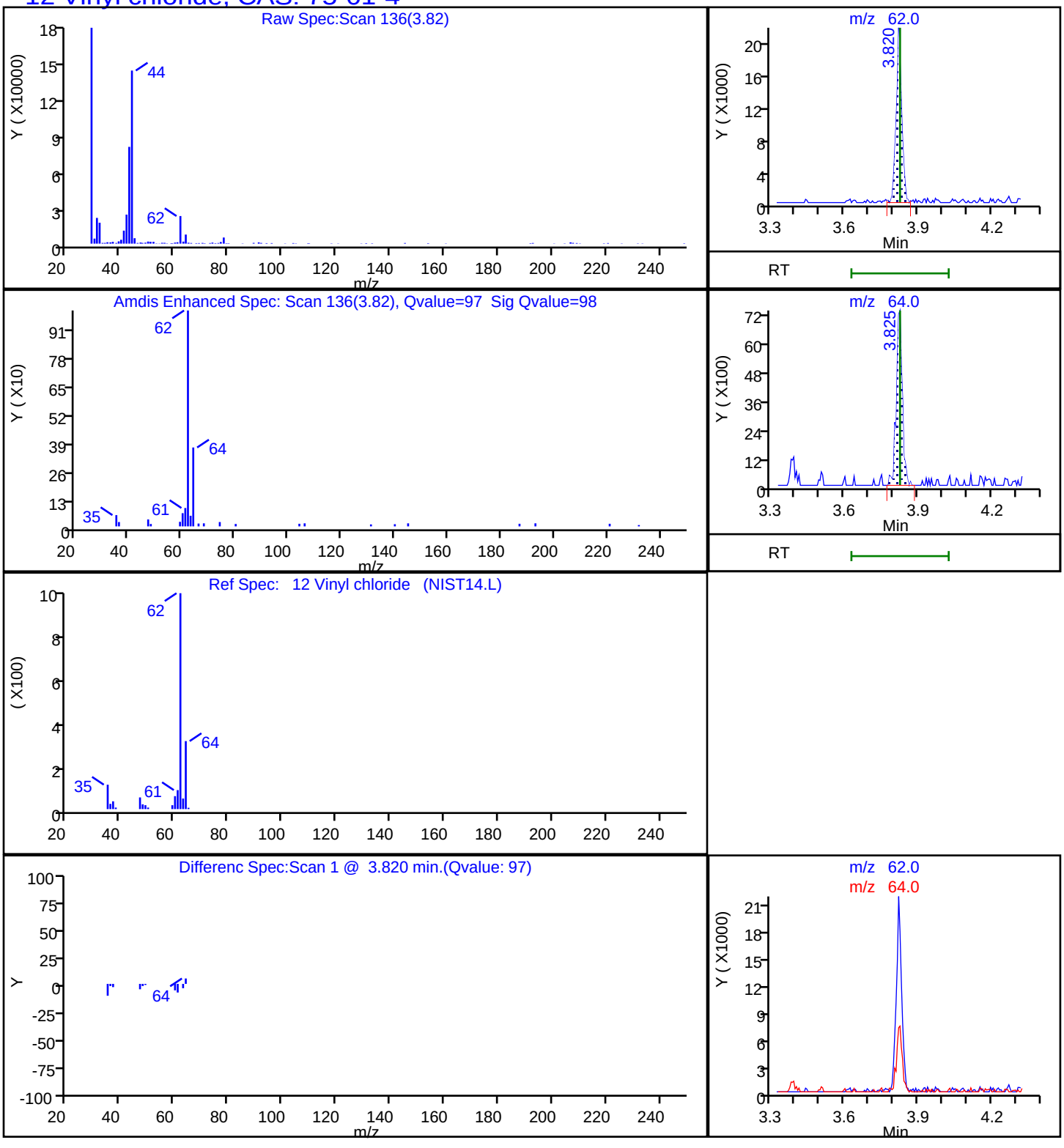


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D

Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

12 Vinyl chloride, CAS: 75-01-4

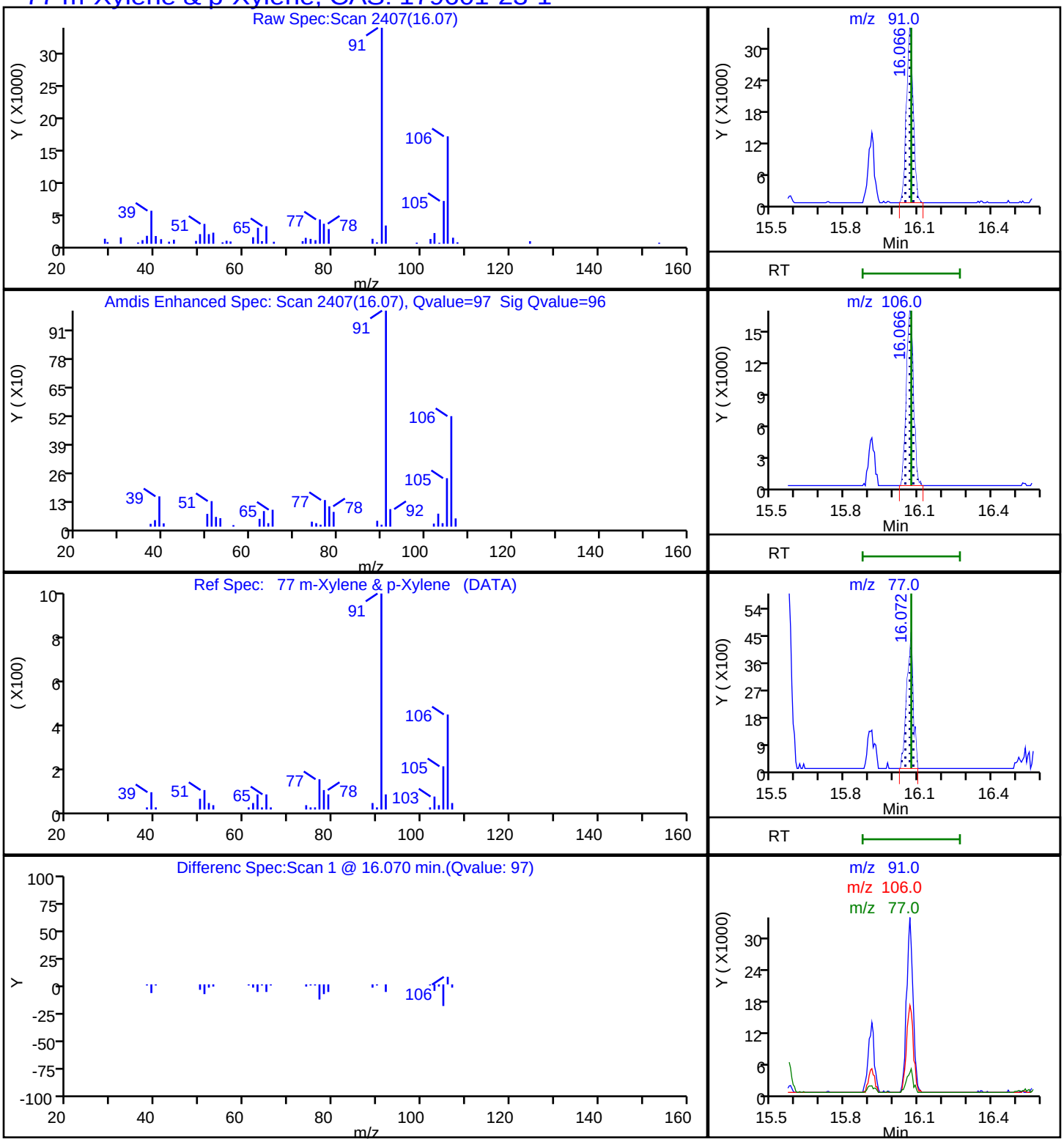


Report Date: 26-Aug-2019 14:15:43 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D

Injection Date: 24-Aug-2019 01:50:30 Instrument ID: MR

Lims ID: 140-16376-A-13 Lab Sample ID: 140-16376-13

Client ID: SV-126-C-27

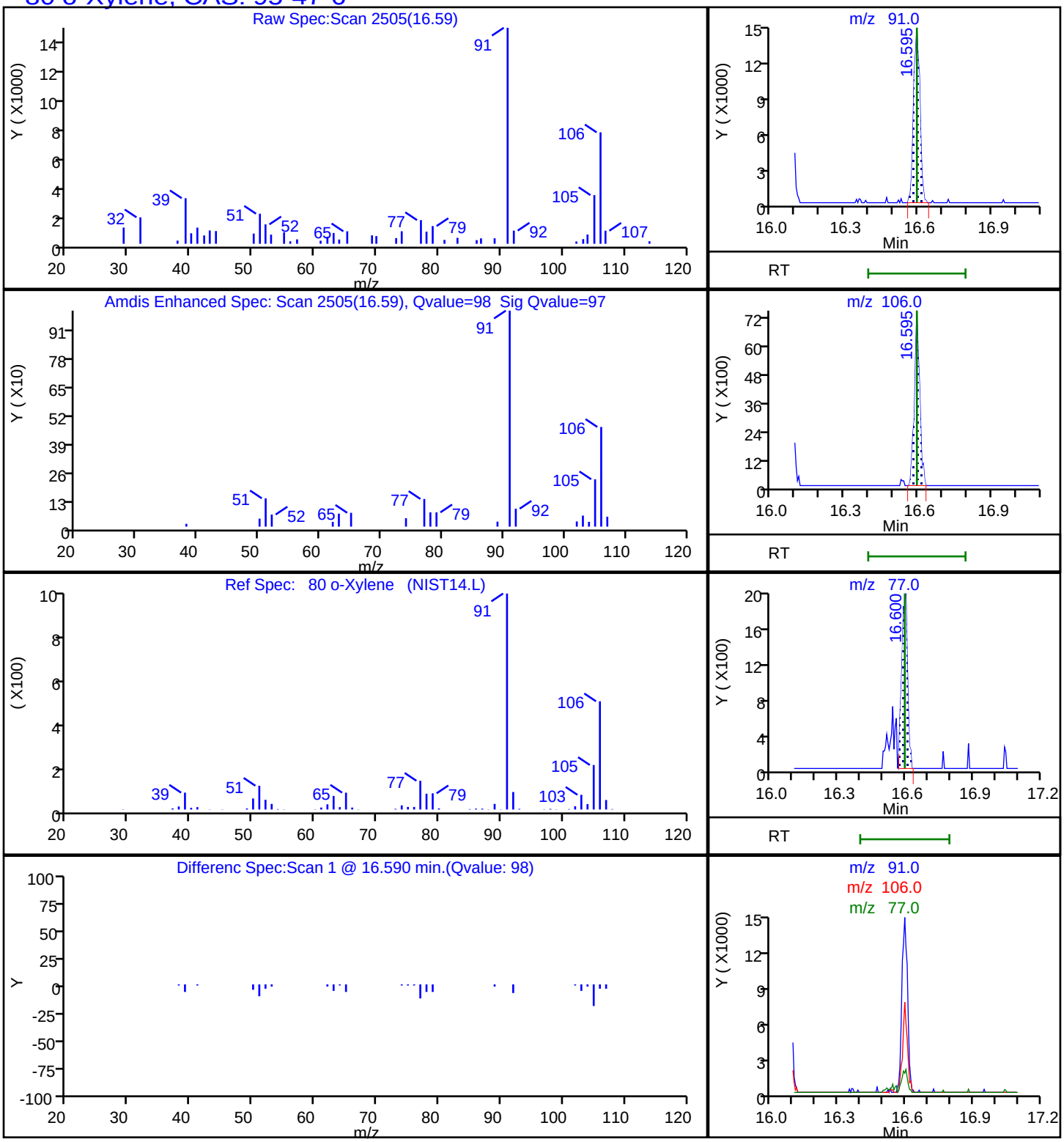
Operator ID: ALS Bottle#: 14 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.5200

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



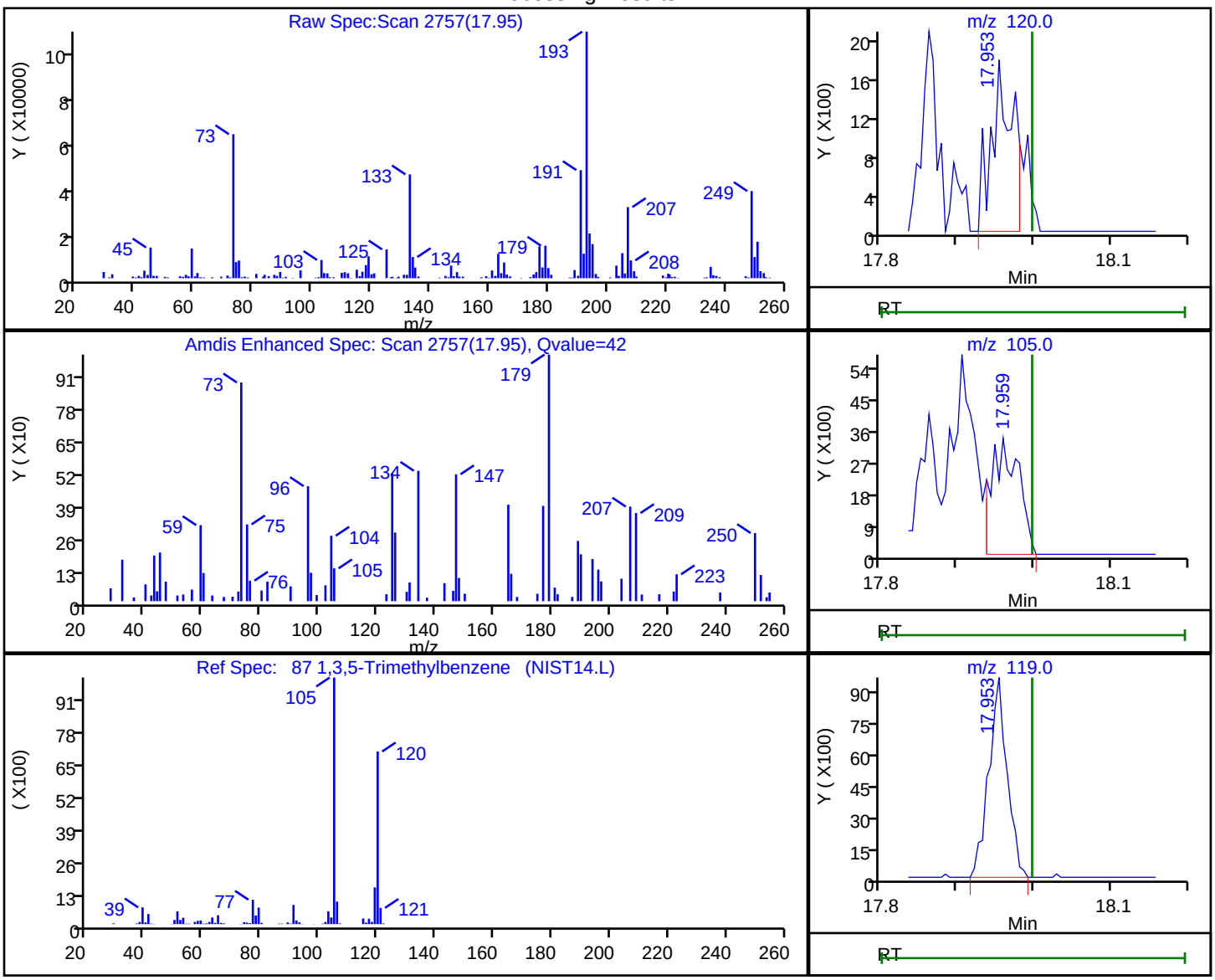
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P114.D		
Injection Date:	24-Aug-2019 01:50:30	Instrument ID:	MR
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:		ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
17.95	120.00	3409	0.024568
17.96	105.00	8259	
17.95	119.00	16191	

Reviewer: khachitpongpanits, 26-Aug-2019 14:14:57

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	180	B	22	8.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	630	B	75	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P101.D				
Lims ID:	140-16376-A-13				
Client ID:	SV-126-C-27				
Sample Type:	Client				
Inject. Date:	27-Aug-2019 14:52:30	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.5200		
Sample Info:	140-0012855-006				
Misc. Info.:	140-16376-a-13@1.52				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:54:00	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: khachitpongpanits		Date:	28-Aug-2019 10:54:00		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.725	-0.004	92	224559	4.00	
* 2 1,4-Difluorobenzene	114	11.829	11.834	-0.005	95	971477	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.444	0.001	87	811314	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	96	554704	3.72	
19 Chlorodifluoromethane	51	4.169	4.169	0.017	34	1767	0.0288	M
25 Vinyl chloride	62	4.642	4.639	0.006	93	3846	0.0504	
44 Methylene Chloride	84	7.058	7.062	-0.004	96	281628	3.33	
64 Benzene	78	11.324	11.334	-0.010	57	2050	0.0115	
71 Trichloroethene	130	12.529	12.529	0.001	48	1373	0.0171	
80 Toluene	91	14.514	14.513	0.001	93	16392	0.0836	
90 m-Xylene & p-Xylene	91	16.918	16.924	-0.005	95	6724	0.0347	
S 129 Xylenes, Total	100				0		0.0347	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

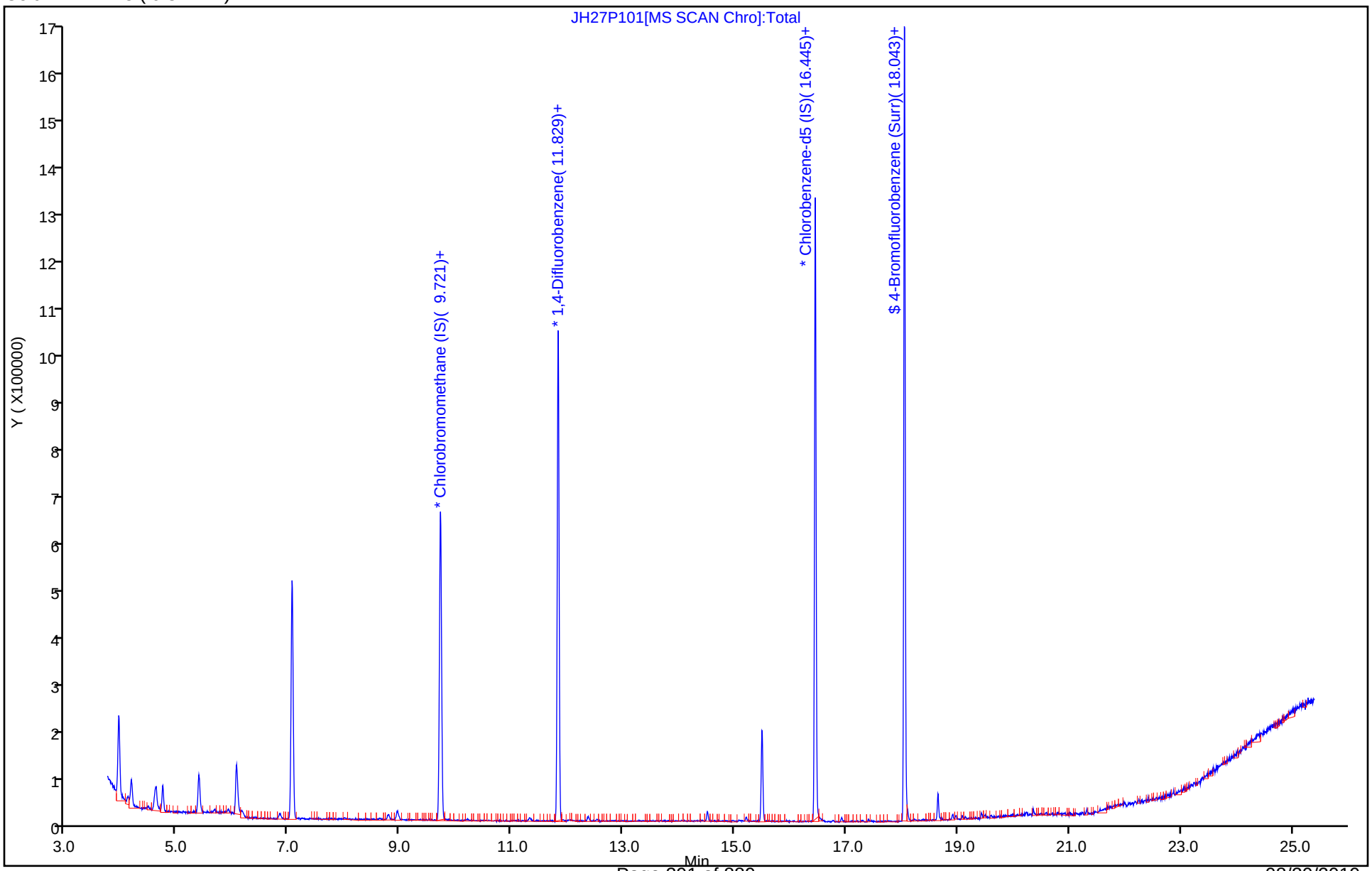
Report Date: 28-Aug-2019 10:54:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P101.D

Injection Date:	27-Aug-2019 14:52:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13	Worklist Smp#:	9
Client ID:	SV-126-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.5200	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P101.D				
Lims ID:	140-16376-A-13				
Client ID:	SV-126-C-27				
Sample Type:	Client				
Inject. Date:	27-Aug-2019 14:52:30	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.5200		
Sample Info:	140-0012855-006				
Misc. Info.:	140-16376-a-13@1.52				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:54:00	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:54:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.72	93.00

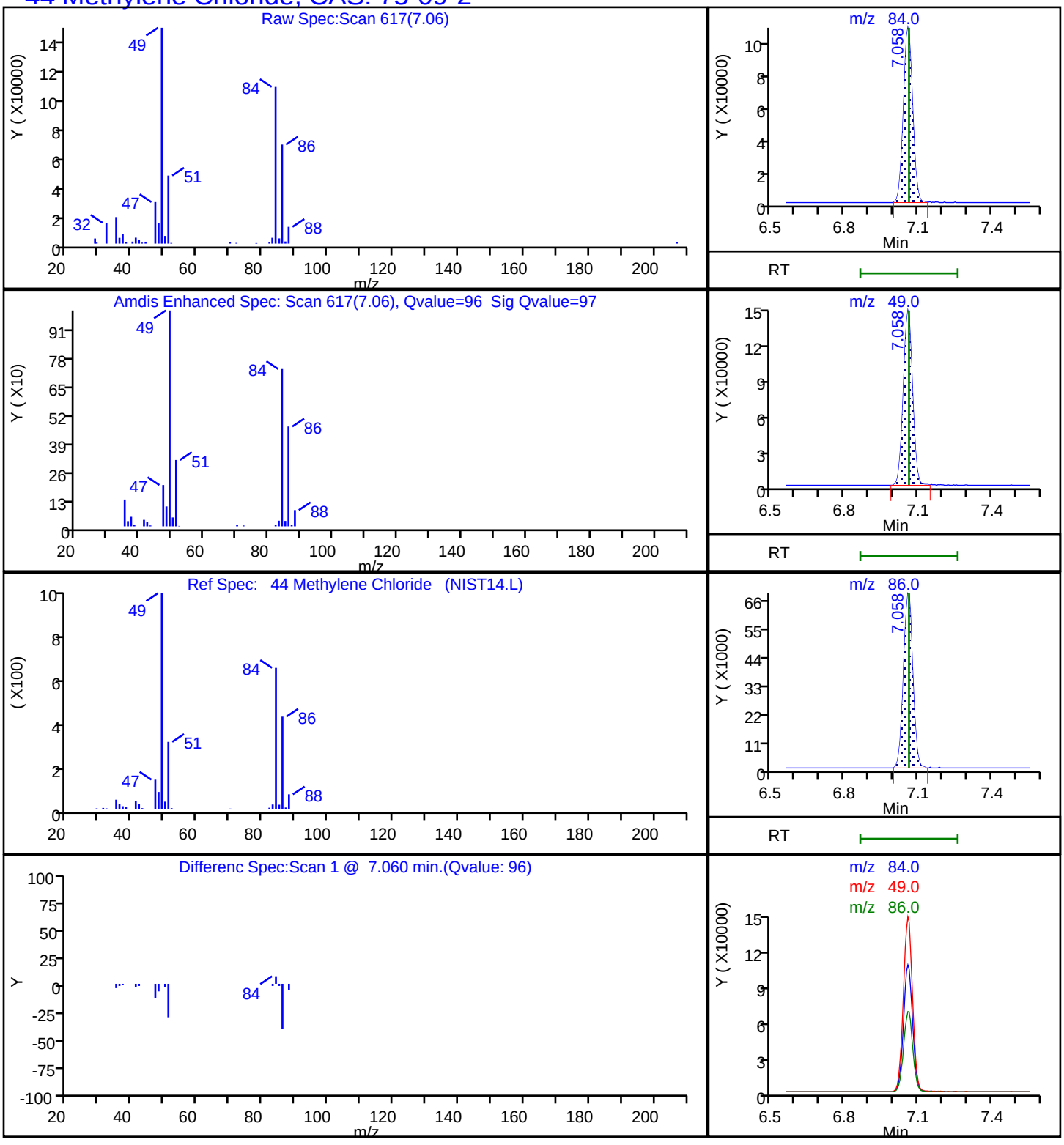
Report Date: 28-Aug-2019 10:54:00 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P101.D

Injection Date:	27-Aug-2019 14:52:30	Instrument ID:	MJ
Lims ID:	140-16376-A-13	Lab Sample ID:	140-16376-13
Client ID:	SV-126-C-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.5200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.050	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.058	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.4		0.40	0.11
67-66-3	Chloroform	119.38	0.27	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	4.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.065	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	3.0		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	12	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.037	J	0.40	0.035
108-88-3	Toluene	92.14	0.81		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.065	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	33		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.23	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.1		1.4	0.39
67-66-3	Chloroform	119.38	1.3	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	18		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.26	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	12		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.84	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	42	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.25	J	2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.26	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	180		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D
Lims ID: 140-16376-A-14
Client ID: SV-113-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 03:16:30 ALS Bottle#: 15 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-018
Misc. Info.: 140-16376-a-14
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:26:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	98	254178	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1545932	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1266721	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	90	817079	3.74	
6 Chlorodifluoromethane	51	3.421	3.427	-0.006	97	62139	0.2861	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	97	12489	0.0636	
31 Methylene Chloride	84	5.966	5.972	-0.006	95	215854	2.40	
34 trans-1,2-Dichloroethene	96	6.775	6.781	-0.006	36	1186	0.0129	
37 1,1-Dichloroethane	63	7.207	7.212	-0.005	1	2276	0.0131	
42 cis-1,2-Dichloroethene	96	8.204	8.199	0.005	96	97035	0.9325	
44 Chloroform	83	8.538	8.555	-0.017	79	11538	0.0540	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	90094	0.6058	
49 Benzene	78	10.205	10.199	0.006	53	3134	0.0100	
52 Carbon tetrachloride	117	10.221	10.226	-0.005	68	2897	0.0116	
58 Trichloroethene	130	11.499	11.499	0.000	95	908662	6.60	
67 Toluene	91	13.586	13.586	0.000	93	52644	0.1615	
73 Tetrachloroethene	129	14.745	14.740	0.005	39	994	0.007468	
76 Ethylbenzene	91	15.910	15.905	0.005	96	17617	0.0385	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	95	47703	0.1329	
80 o-Xylene	91	16.600	16.595	0.005	97	25449	0.0675	
92 1,2,4-Trimethylbenzene	105	18.433	18.450	-0.017	96	22812	0.0463	
S 116 Xylenes, Total	100				0		0.2004	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

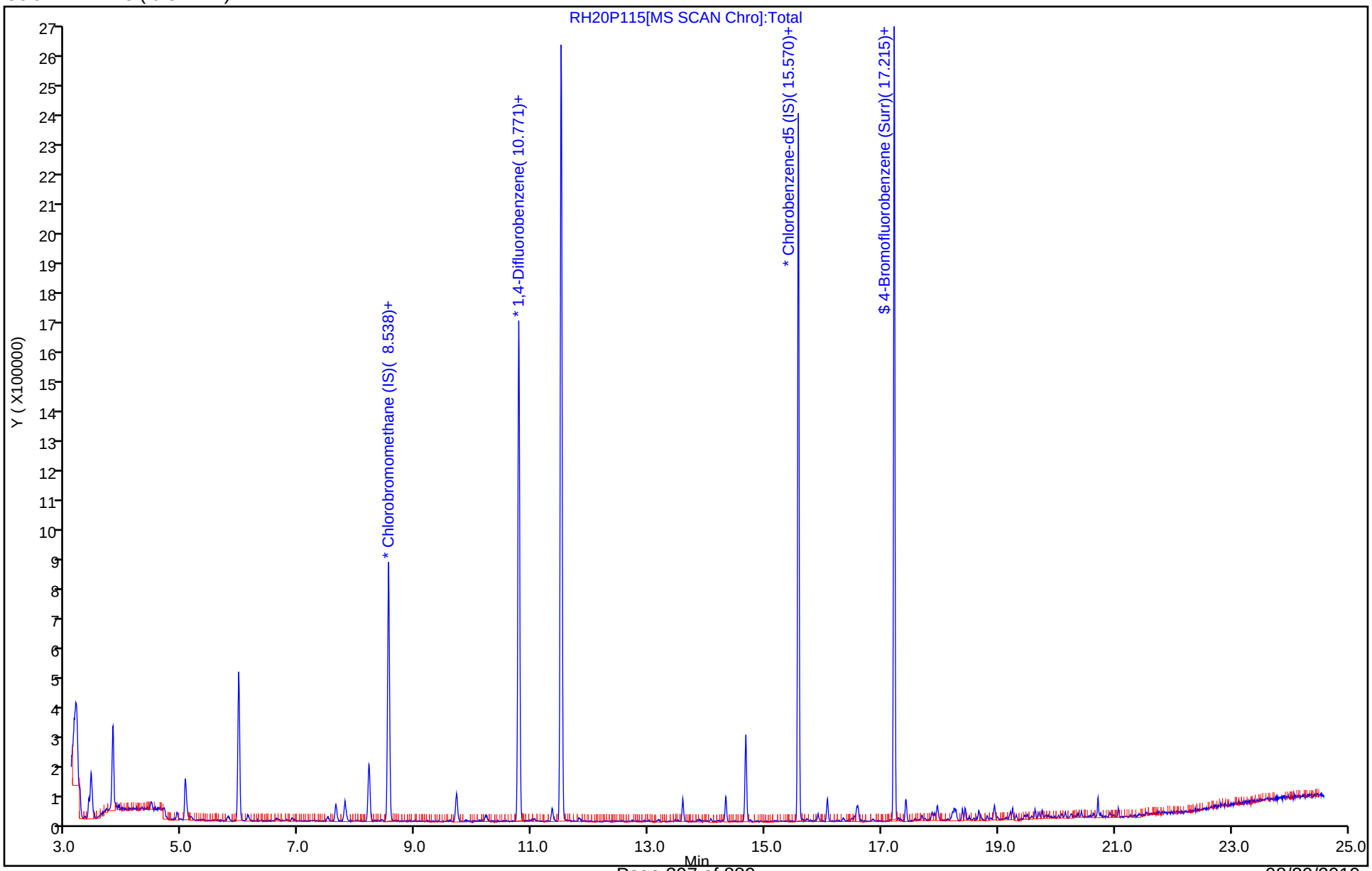
Report Date: 22-Aug-2019 10:26:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14	Worklist Smp#:	18
Client ID:	SV-113-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D				
Lims ID:	140-16376-A-14				
Client ID:	SV-113-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 03:16:30	ALS Bottle#:	15	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-018				
Misc. Info.:	140-16376-a-14				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:26:57		

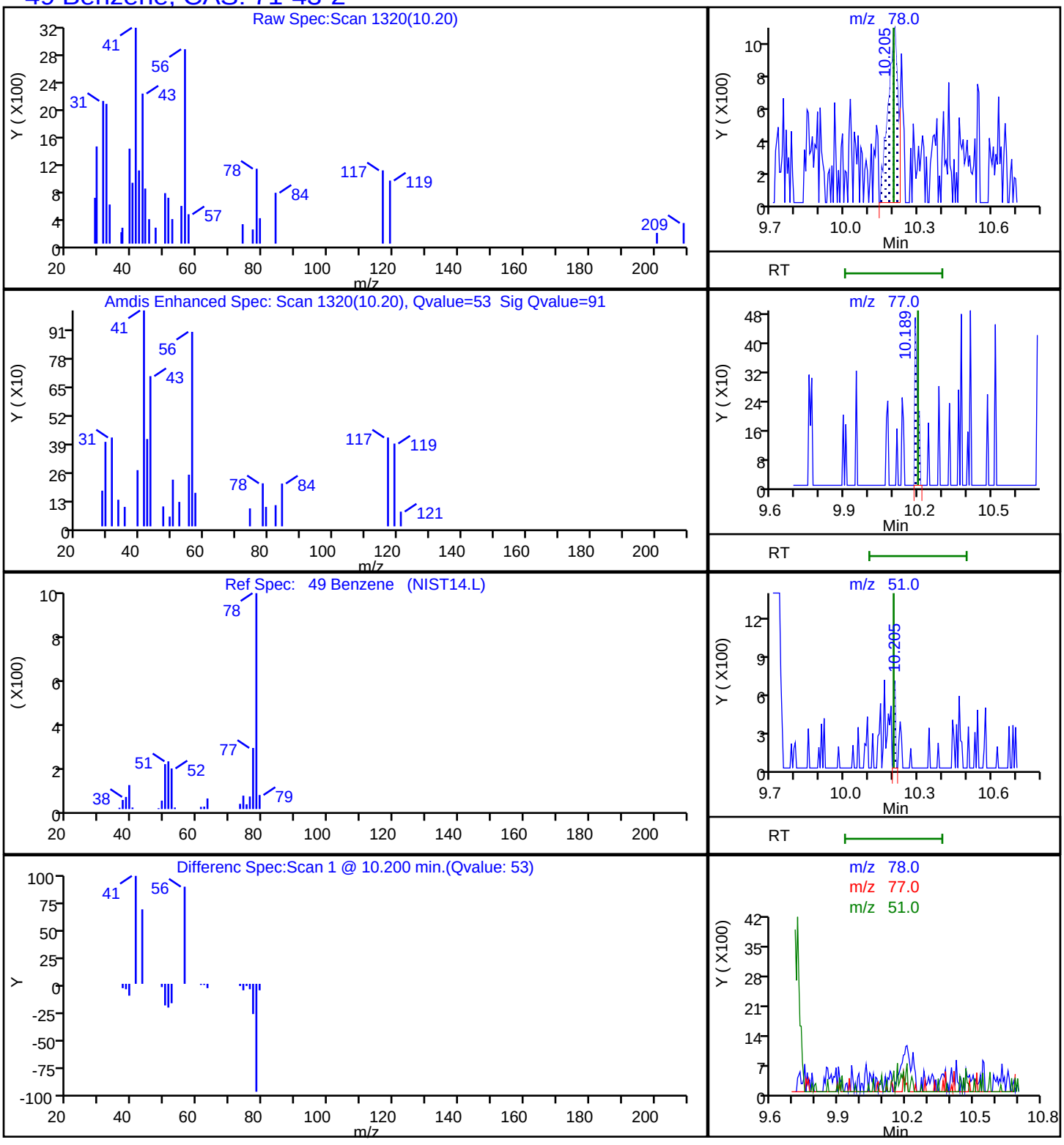
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.74	93.53

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date: 21-Aug-2019 03:16:30 Instrument ID: MR

Lims ID: 140-16376-A-14 Lab Sample ID: 140-16376-14

Client ID: SV-113-C-27

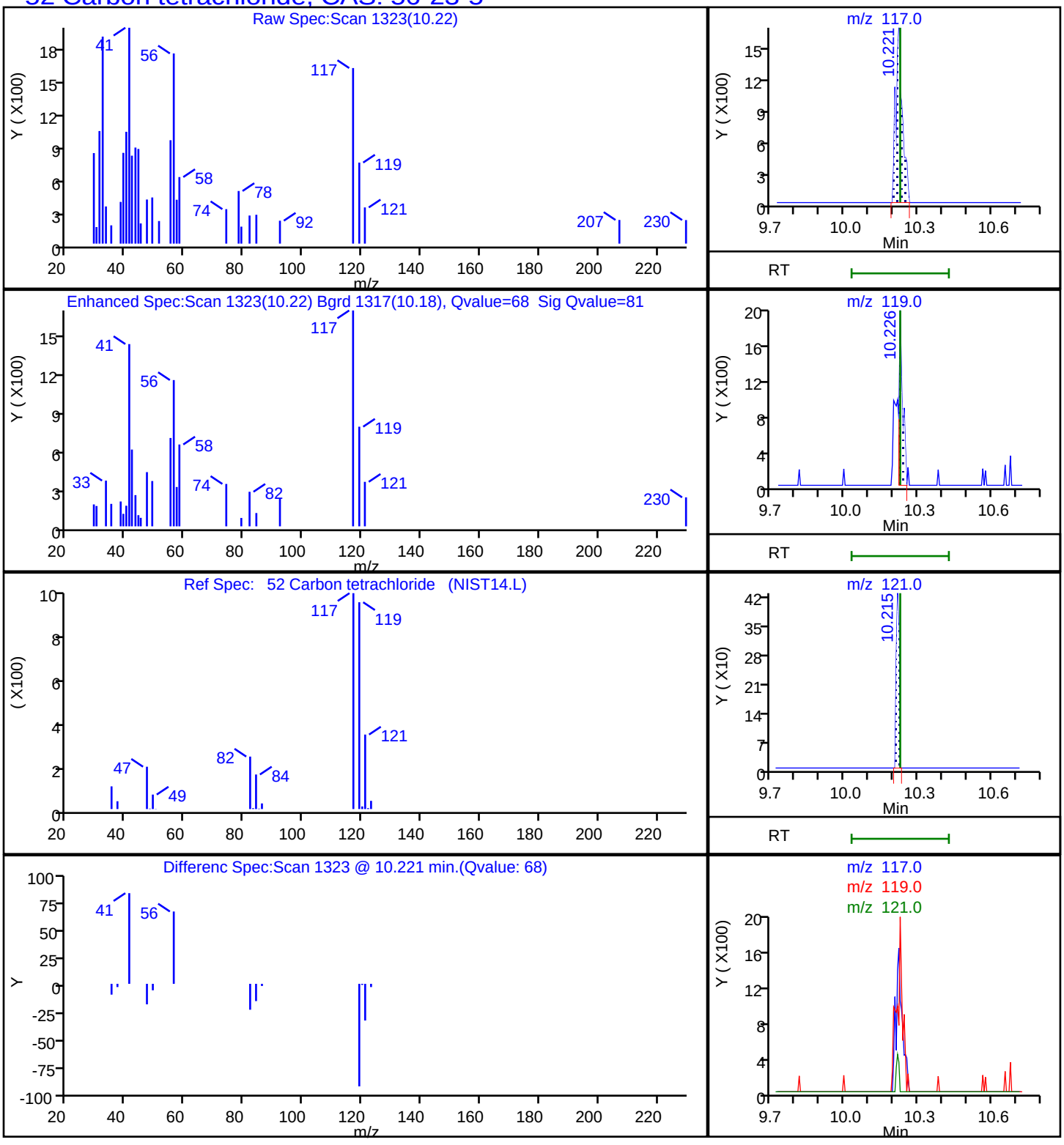
Operator ID: ALS Bottle#: 15 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 22-Aug-2019 10:26:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date: 21-Aug-2019 03:16:30 Instrument ID: MR

Lims ID: 140-16376-A-14 Lab Sample ID: 140-16376-14

Client ID: SV-113-C-27

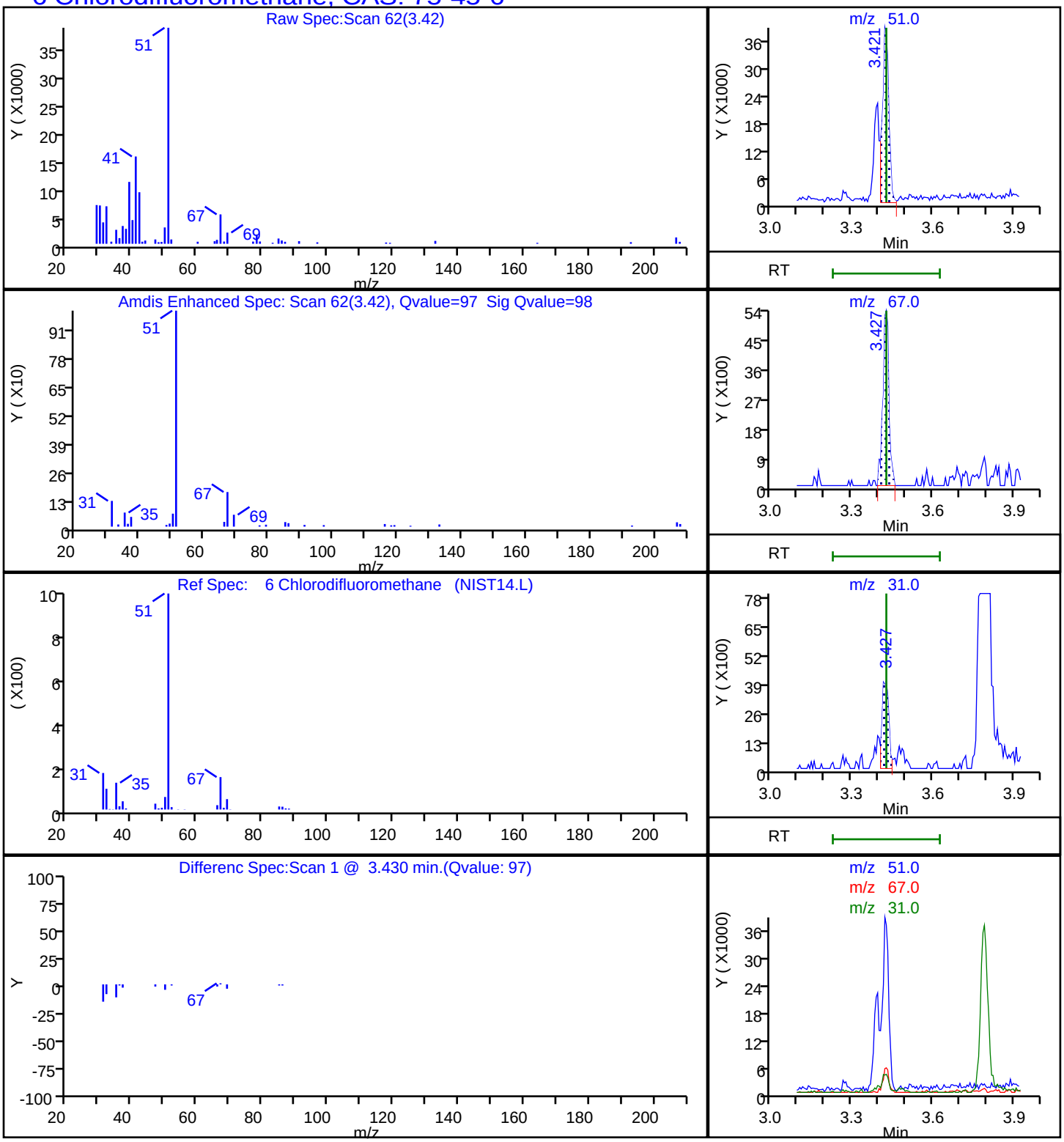
Operator ID: ALS Bottle#: 15 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



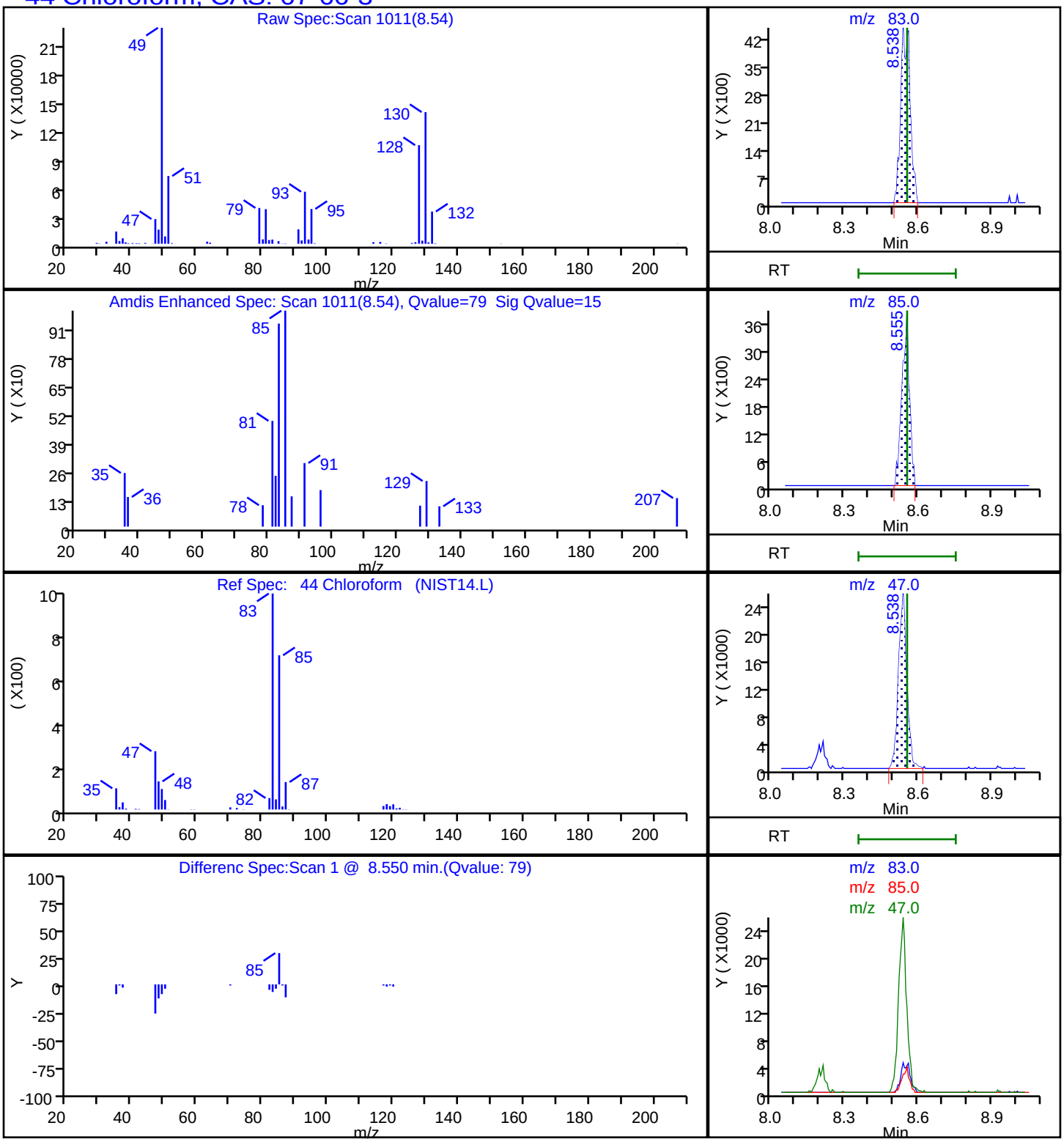
Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

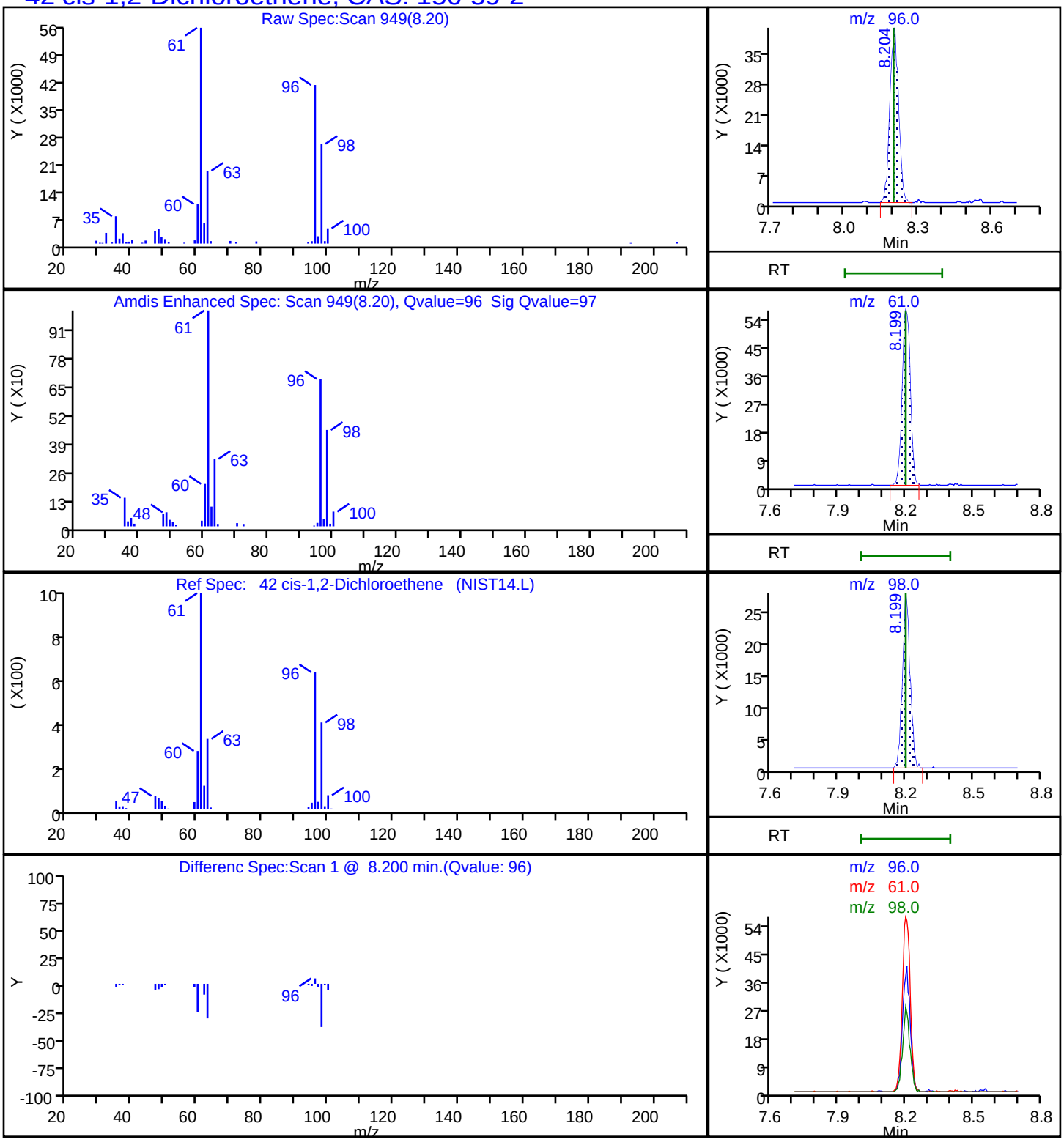
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

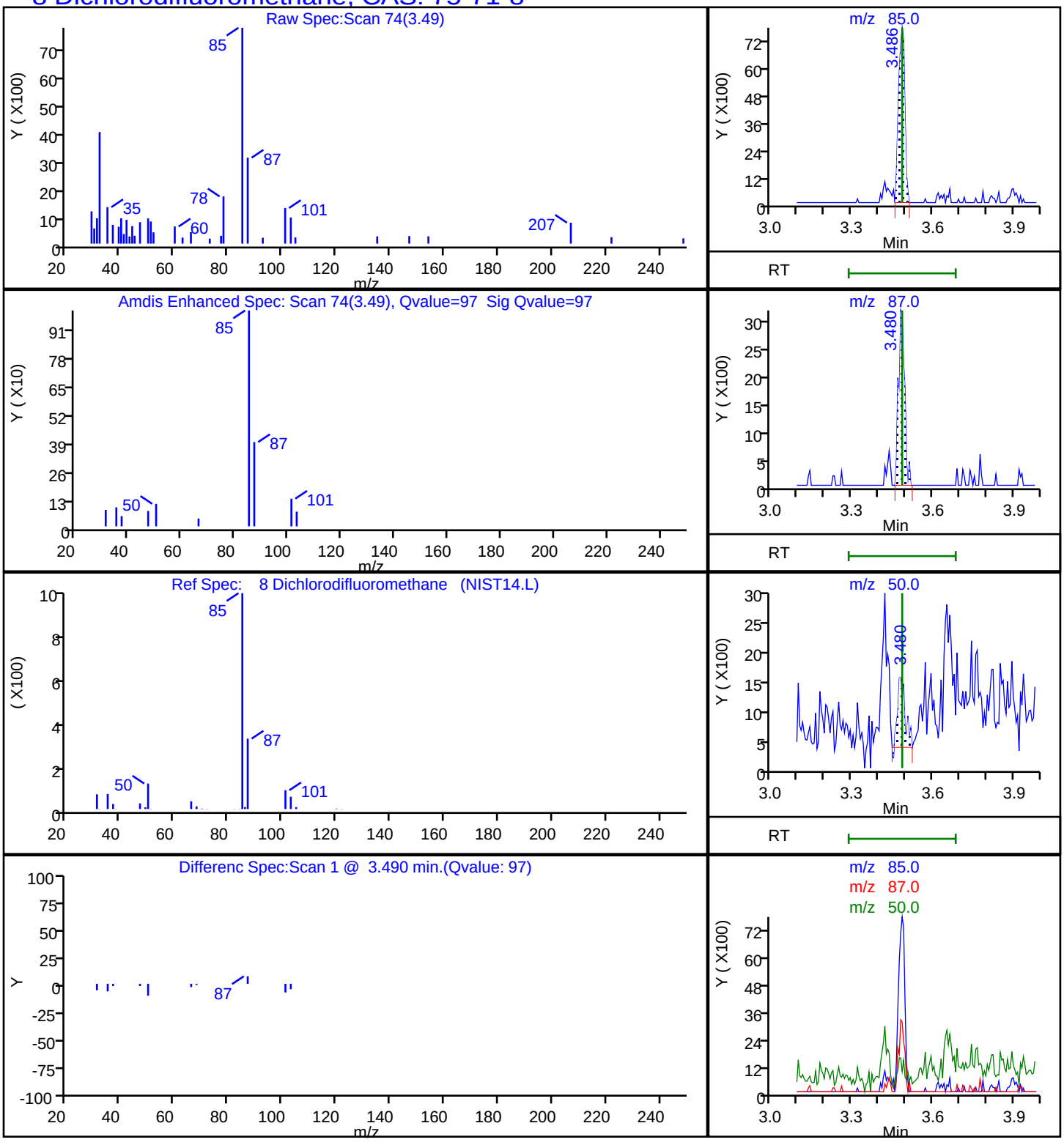


Report Date: 22-Aug-2019 10:26:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D				
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR		
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14		
Client ID:	SV-113-C-27				
Operator ID:		ALS Bottle#:	15	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



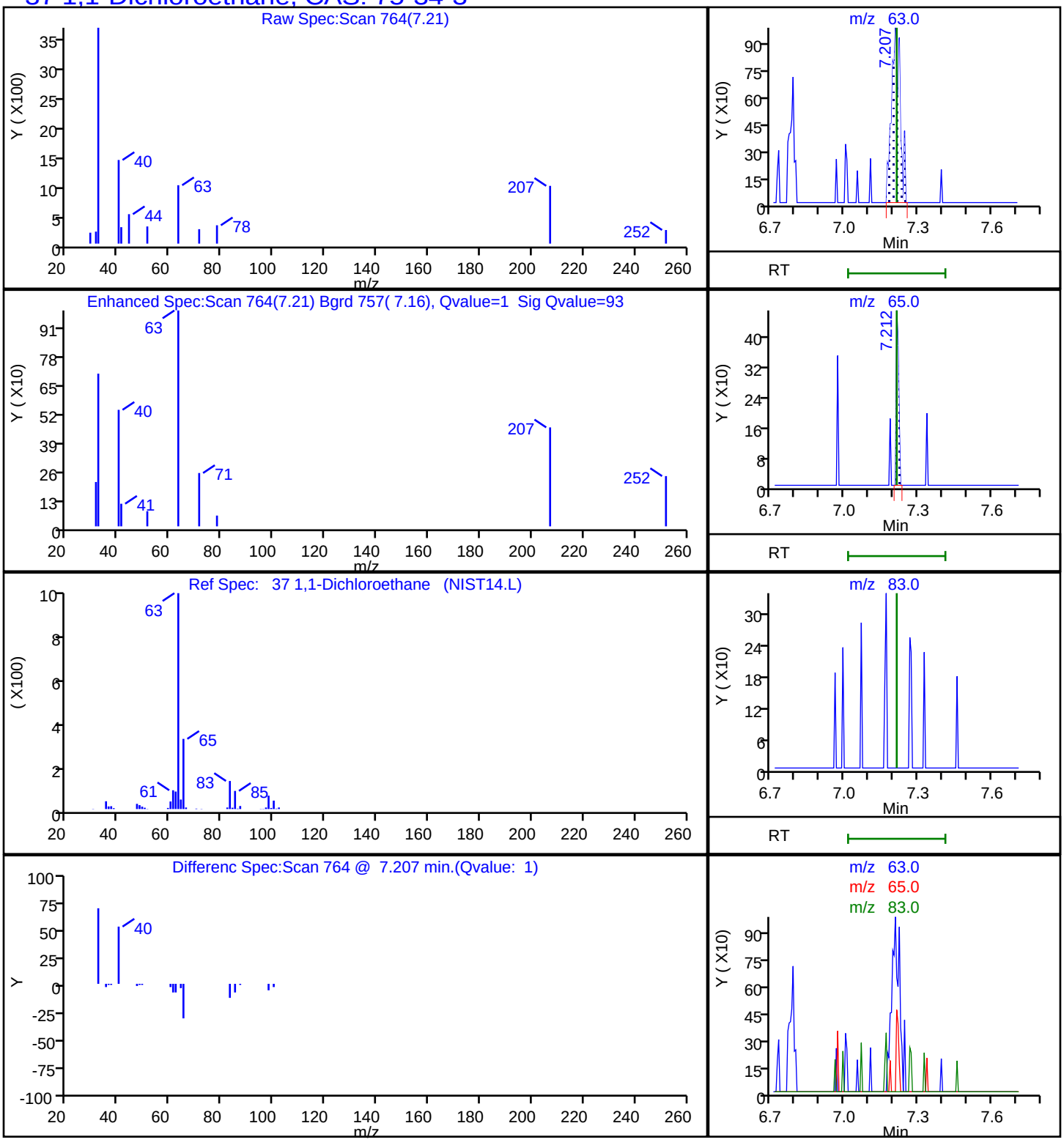
Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date: 21-Aug-2019 03:16:30 Instrument ID: MR

Lims ID: 140-16376-A-14 Lab Sample ID: 140-16376-14

Client ID: SV-113-C-27

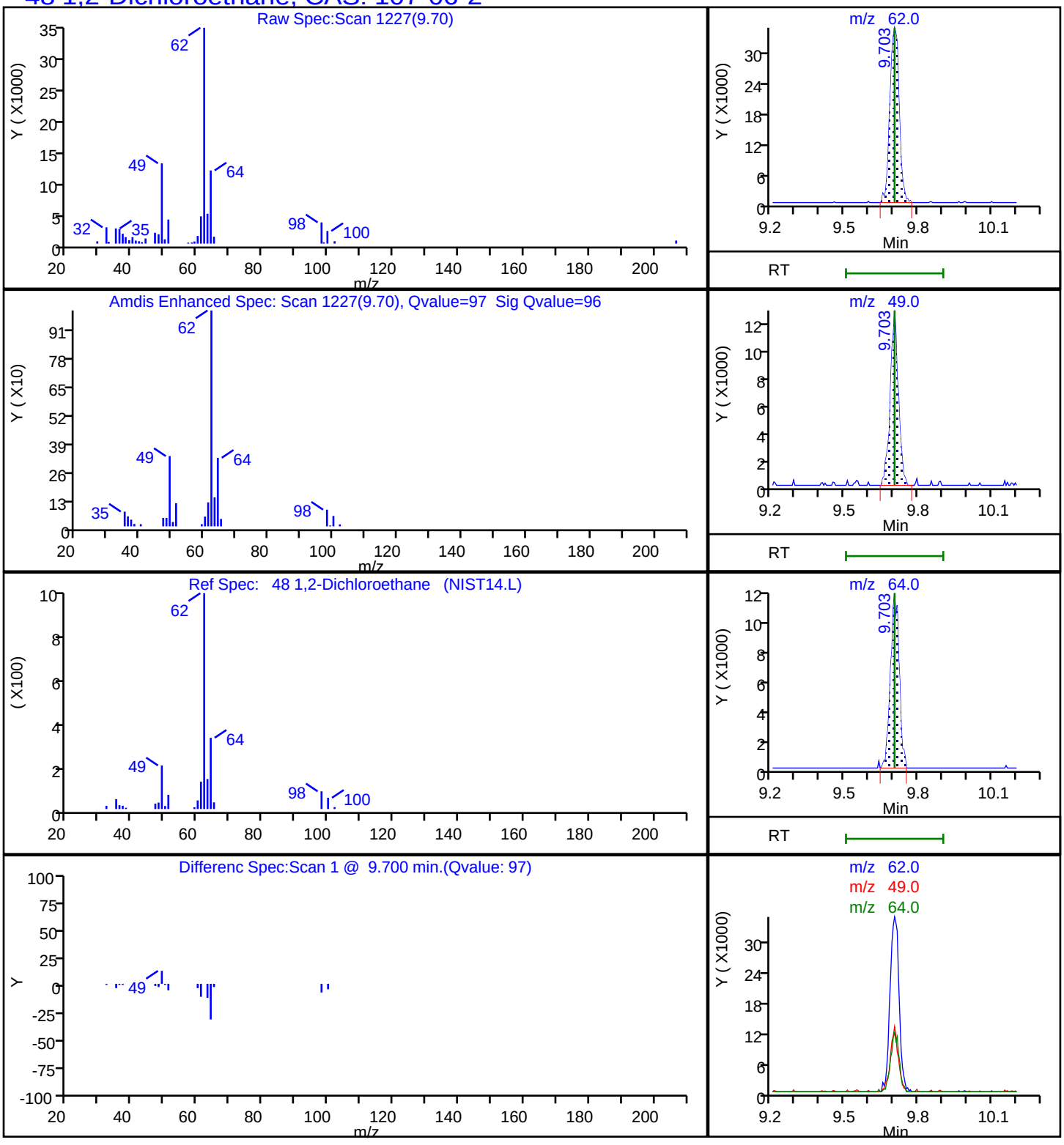
Operator ID: ALS Bottle#: 15 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2

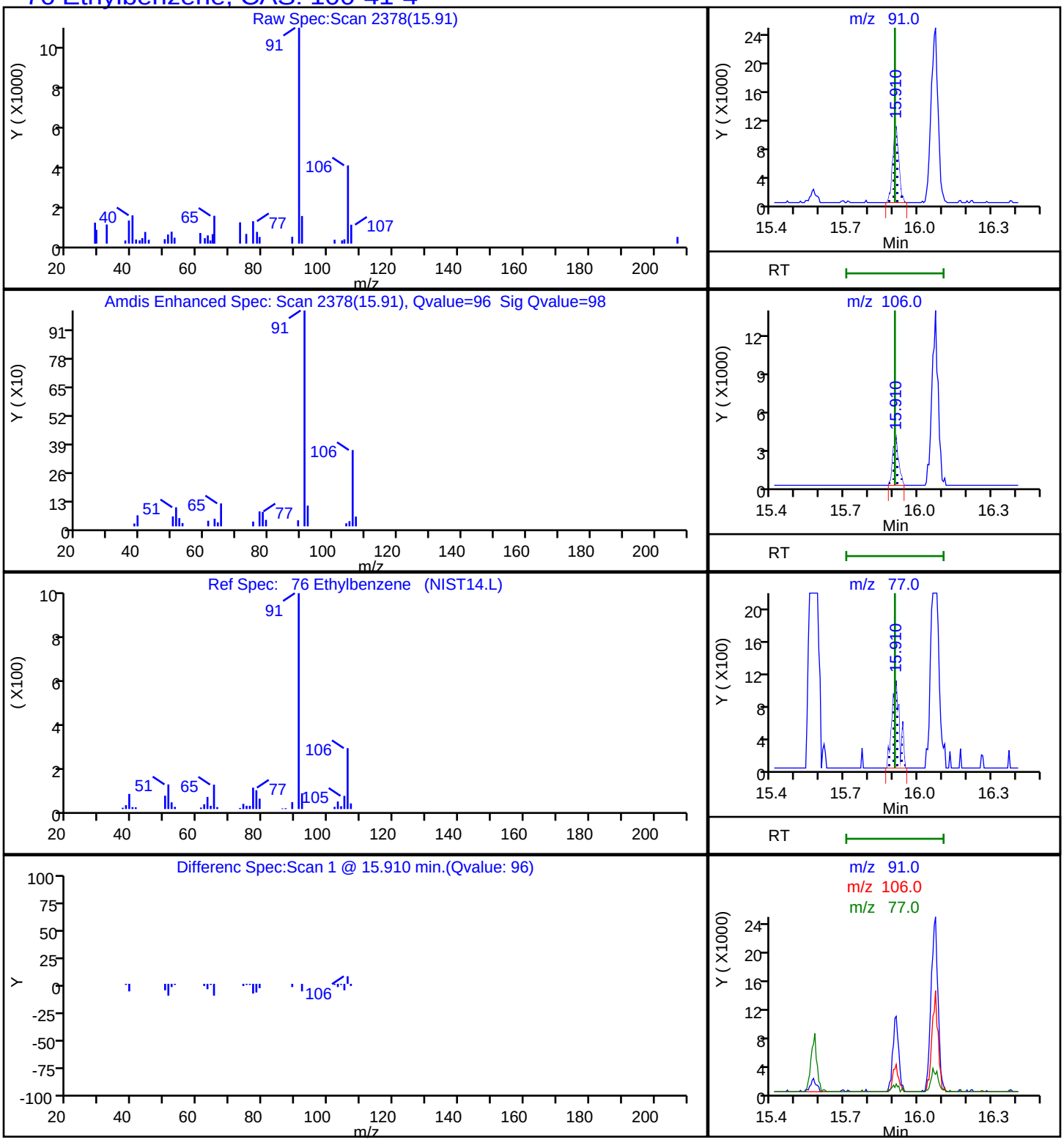


Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



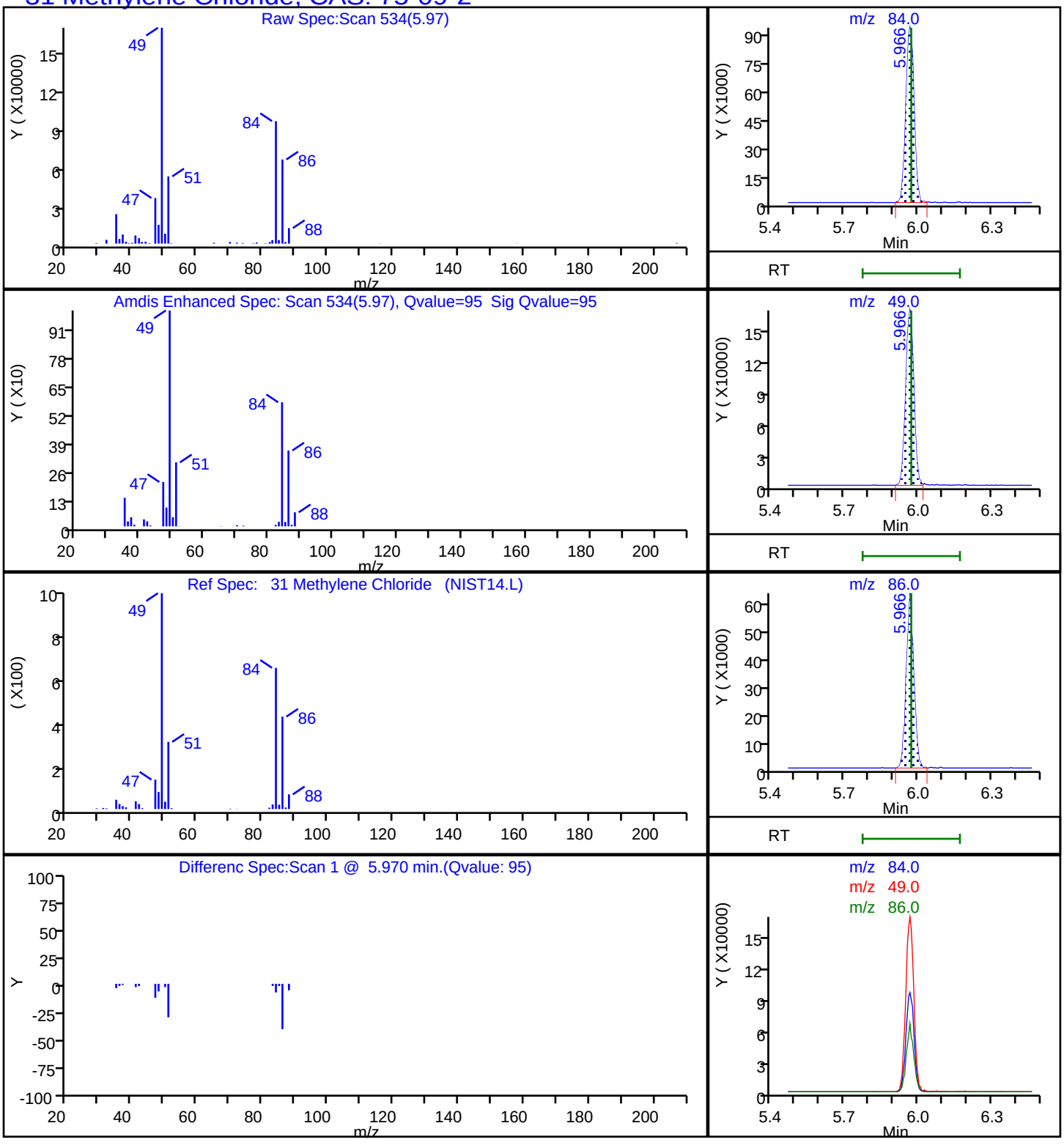
Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



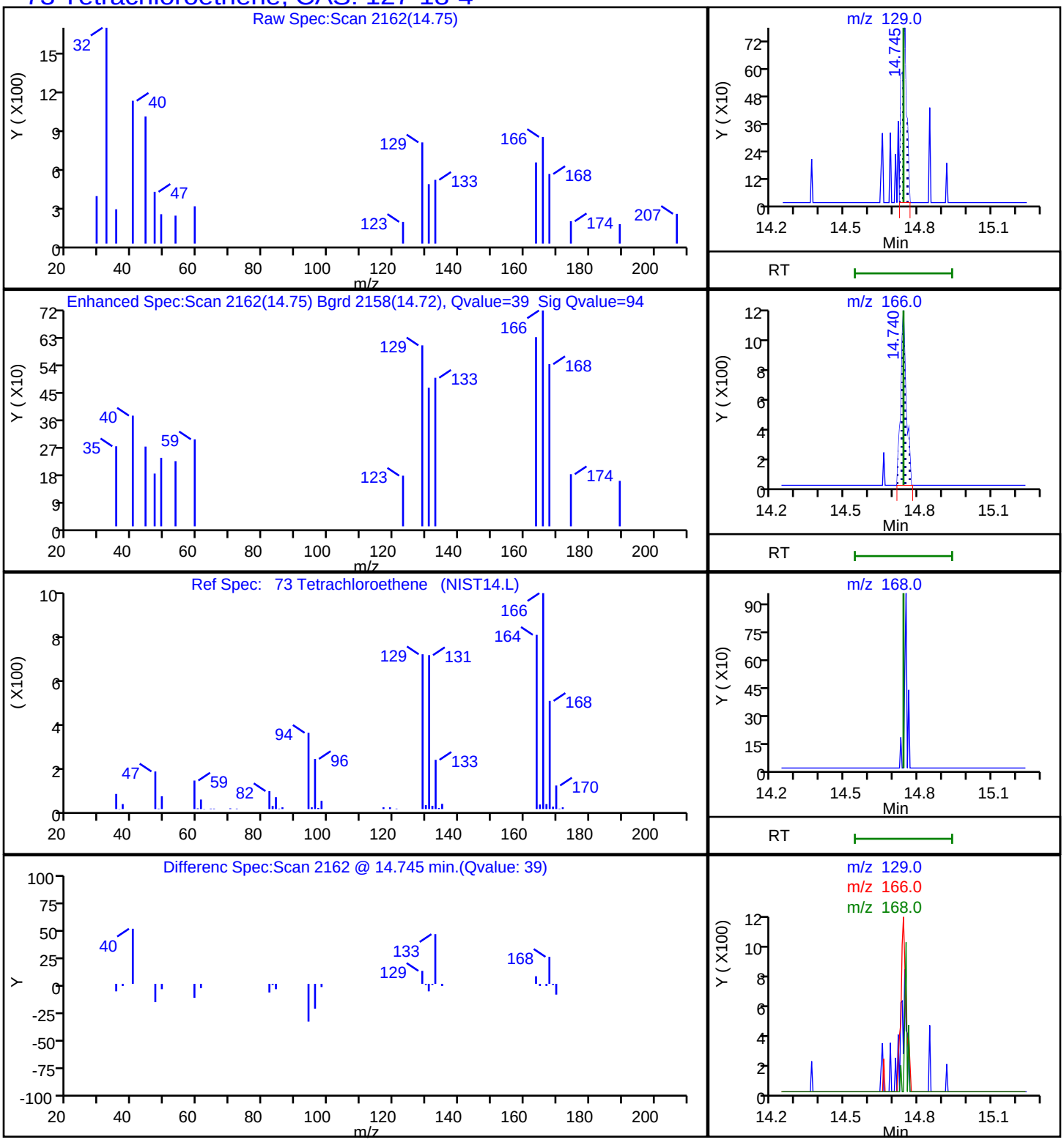
Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

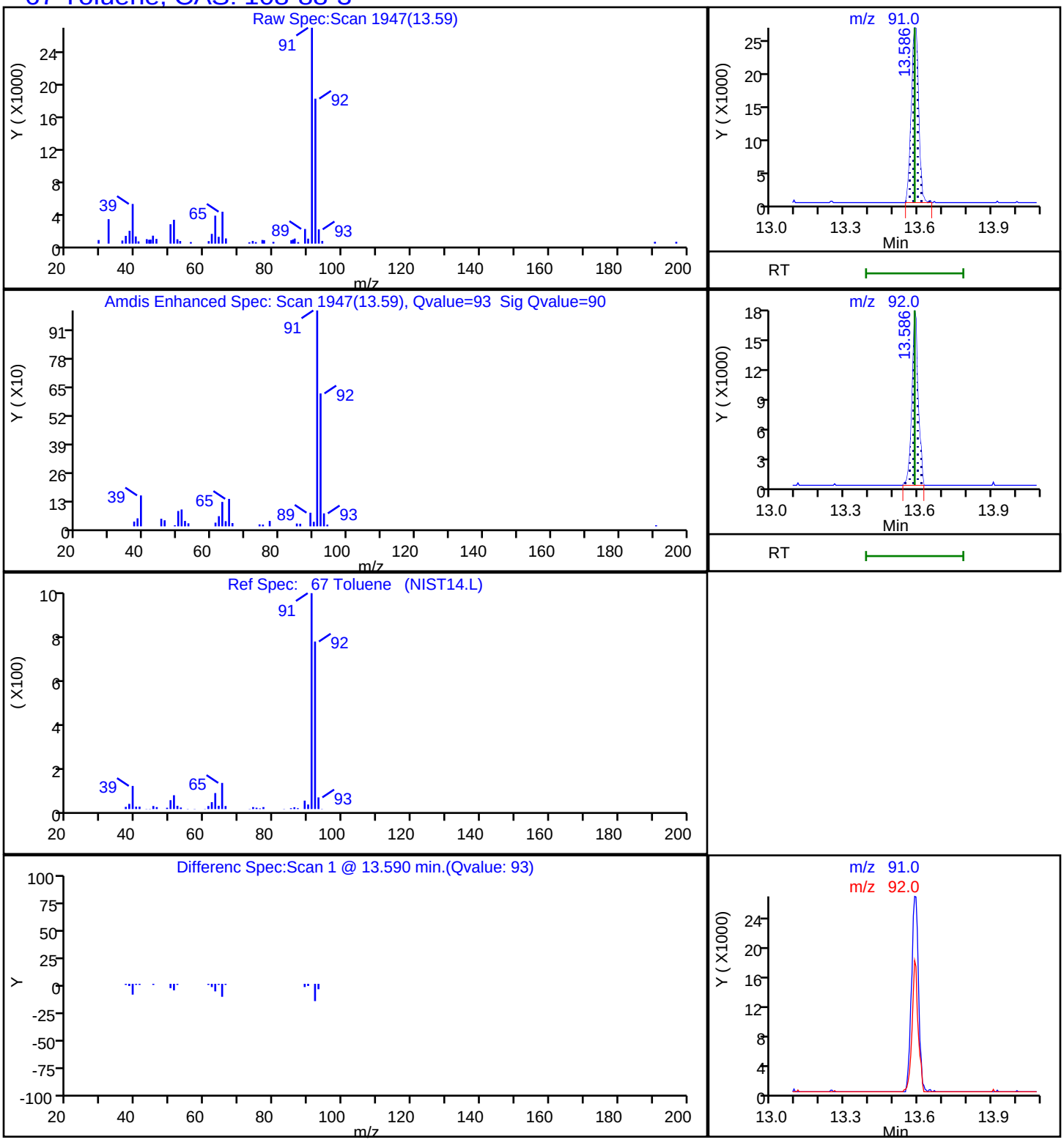
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

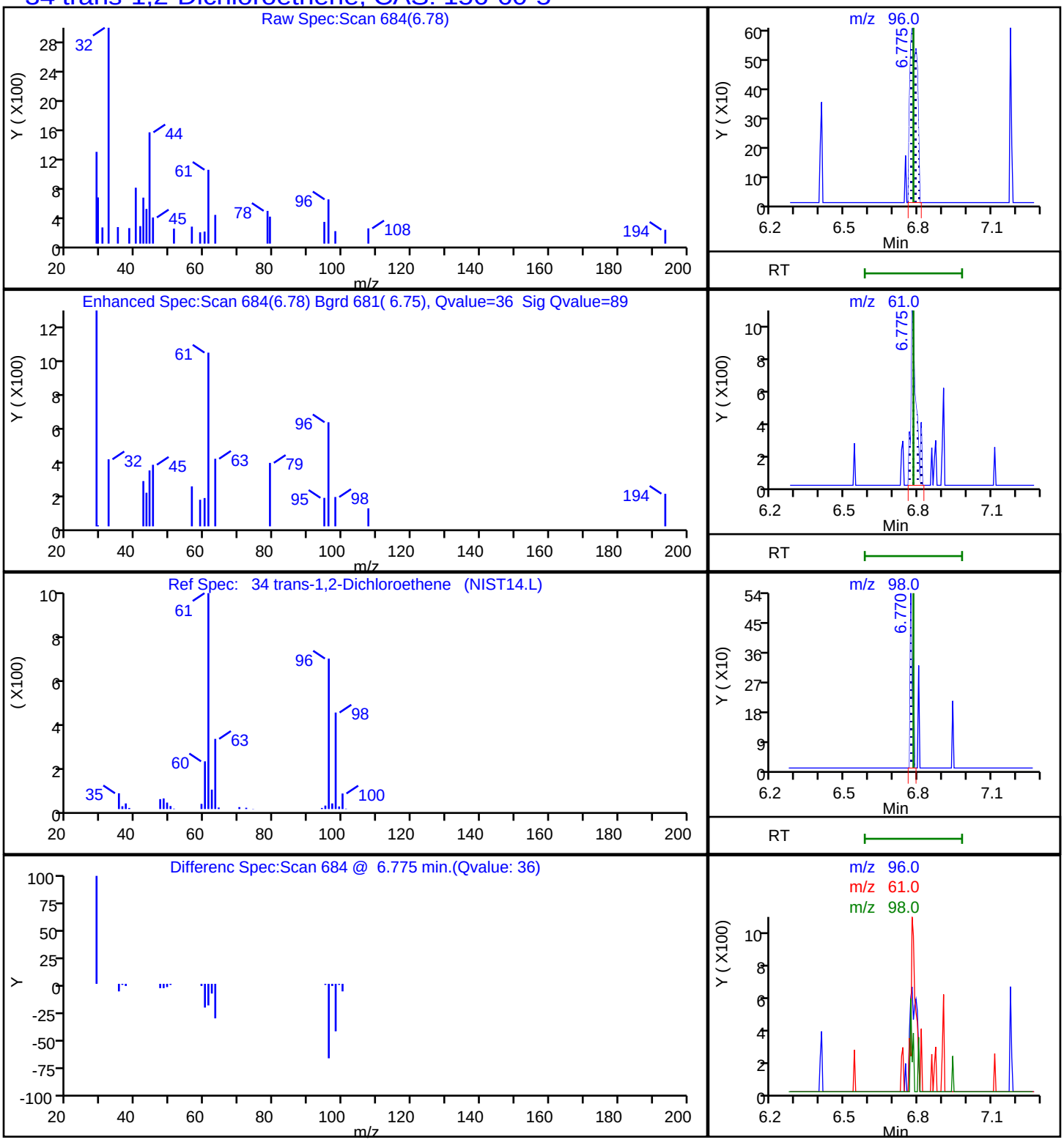


Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D

Injection Date: 21-Aug-2019 03:16:30 Instrument ID: MR

Lims ID: 140-16376-A-14 Lab Sample ID: 140-16376-14

Client ID: SV-113-C-27

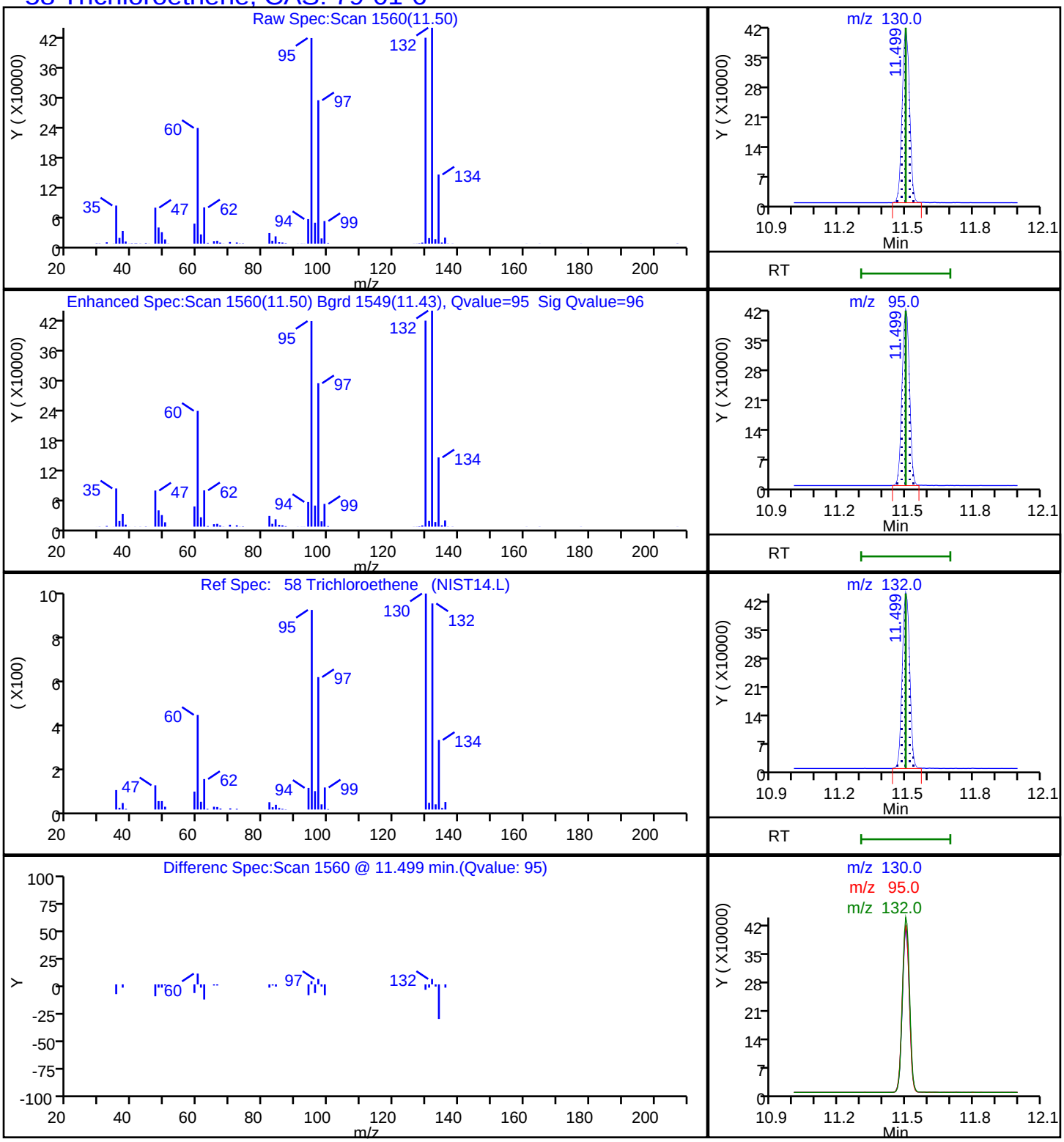
Operator ID: ALS Bottle#: 15 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6

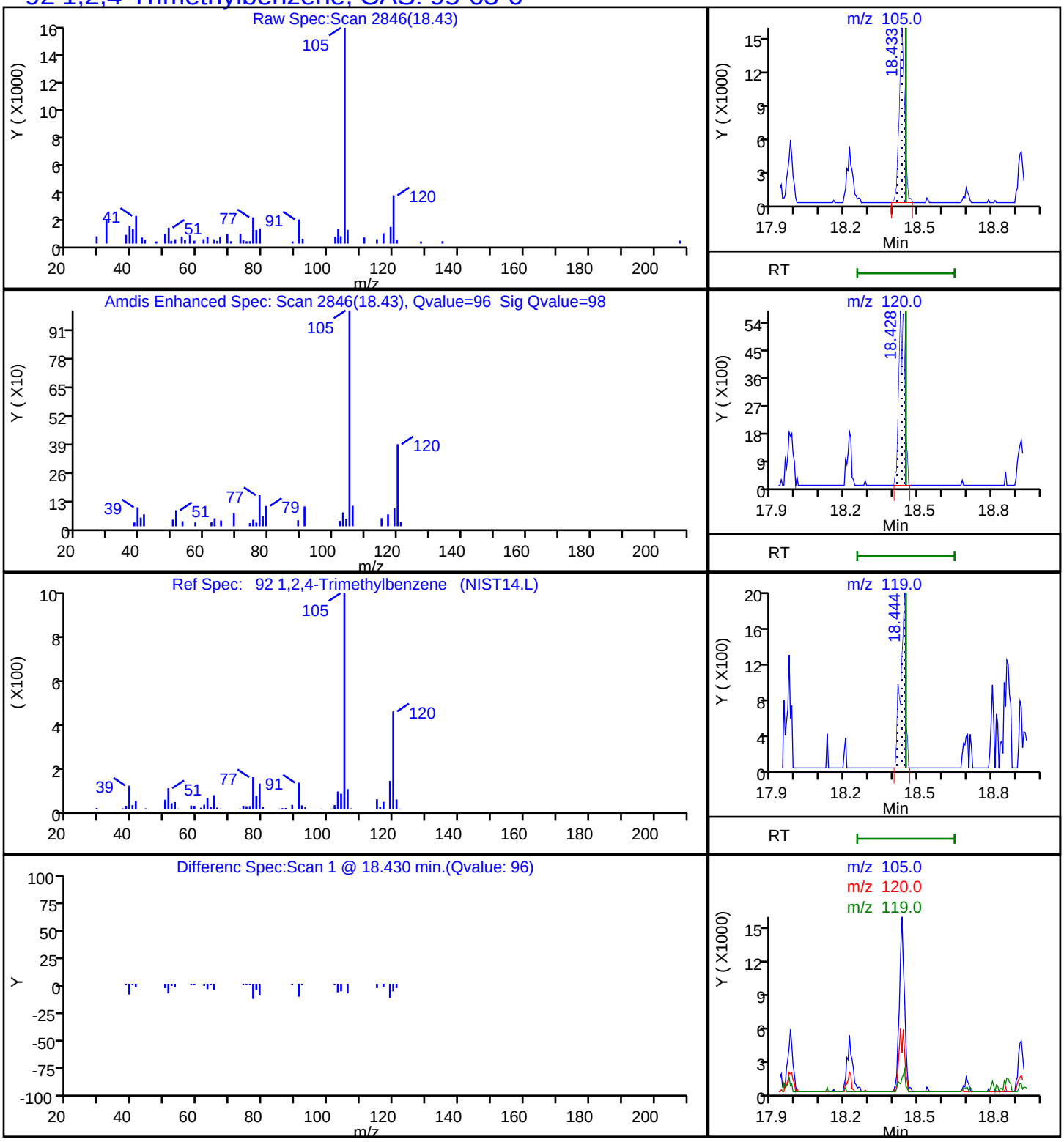


Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D				
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR		
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14		
Client ID:	SV-113-C-27				
Operator ID:		ALS Bottle#:	15	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

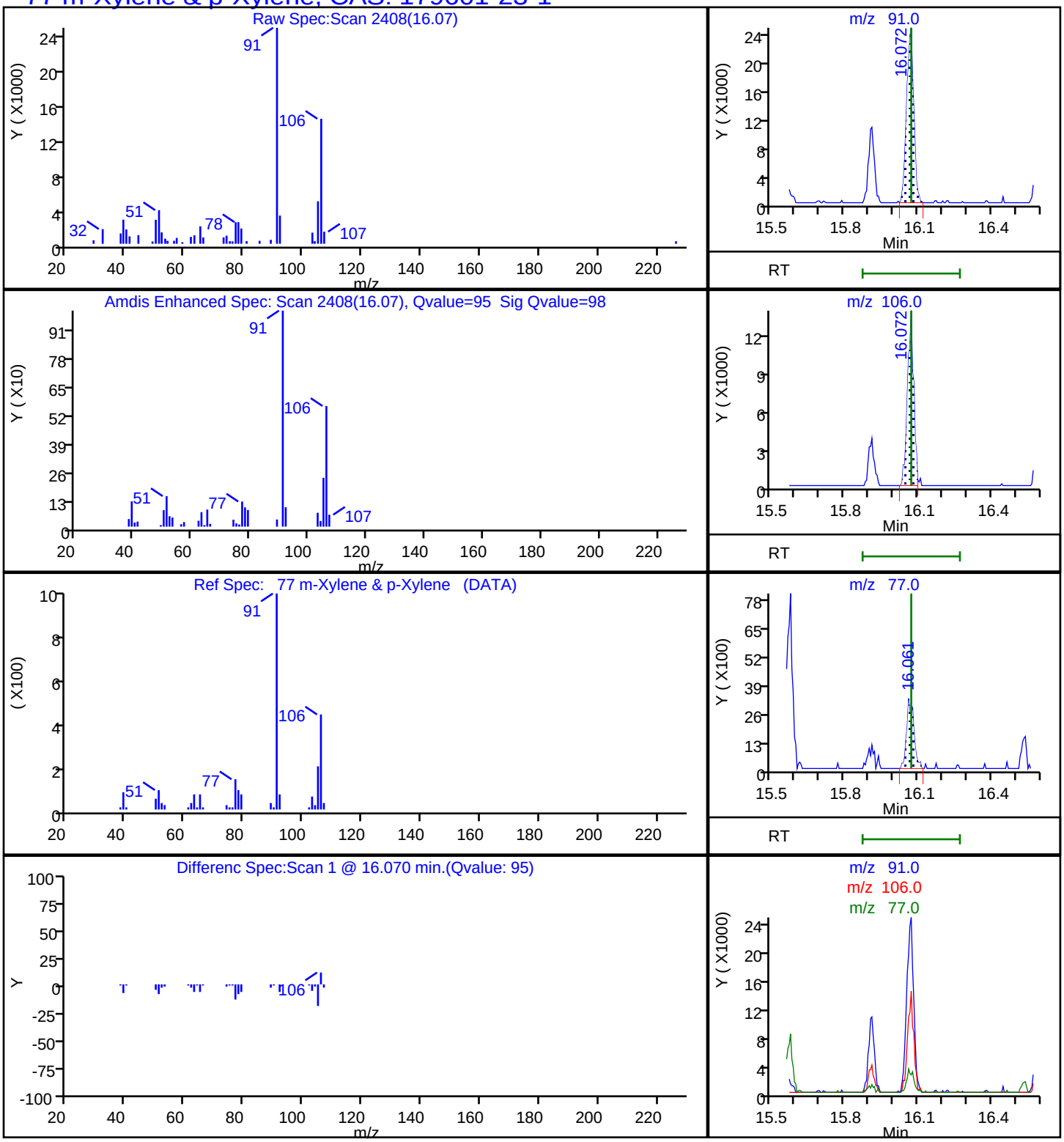


Report Date: 22-Aug-2019 10:26:59 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

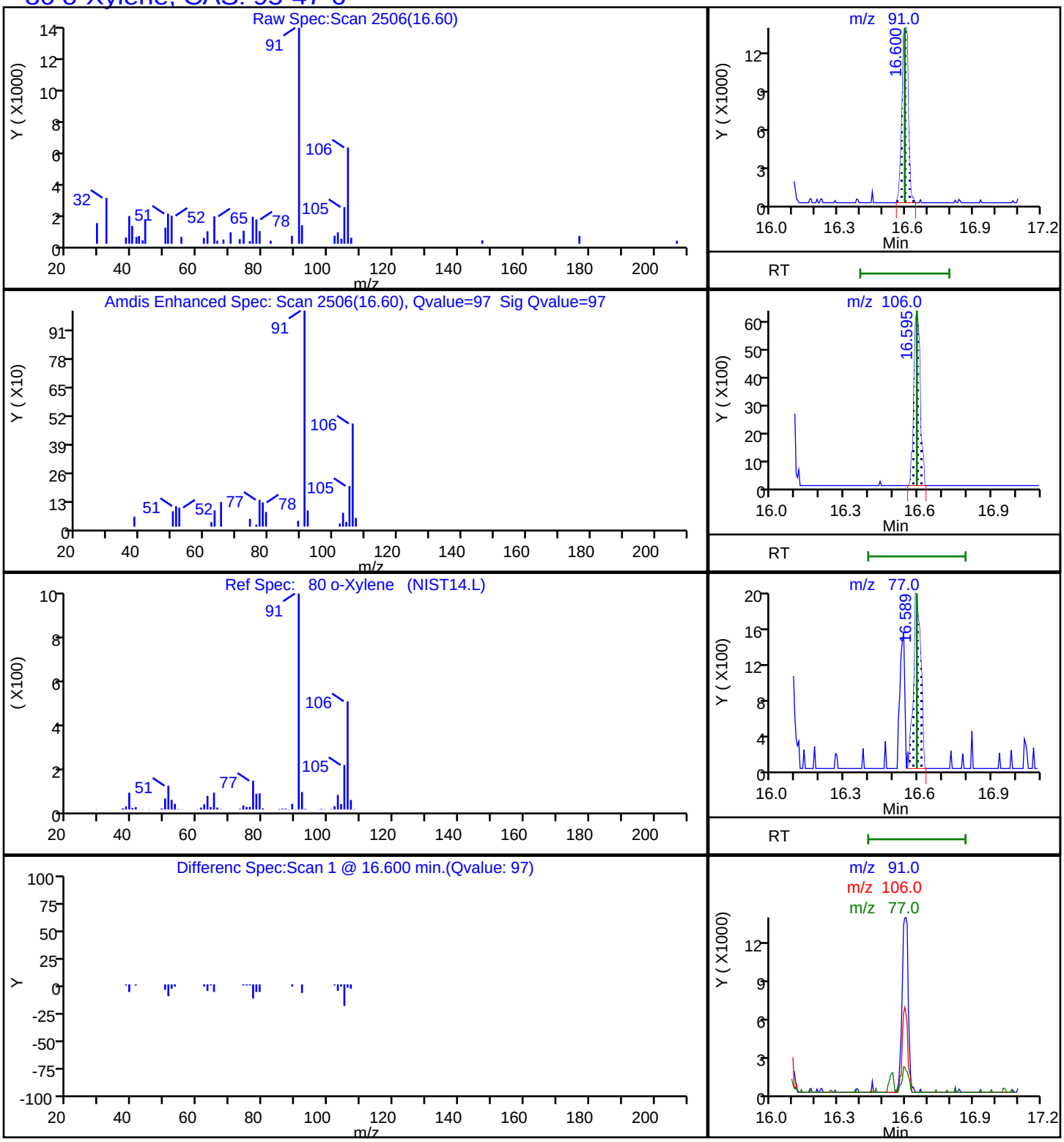
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115.D		
Injection Date:	21-Aug-2019 03:16:30	Instrument ID:	MR
Lims ID:	140-16376-A-14	Lab Sample ID:	140-16376-14
Client ID:	SV-113-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.11	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.8		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.5		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.45	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	36		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.89	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D
Lims ID: 140-16376-A-15
Client ID: SV-088-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 04:05:30 ALS Bottle#: 15 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-019
Misc. Info.: 140-16376-a-15
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:23:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:27:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	98	220485	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1308716	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1118039	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	92	723251	3.75	
6 Chlorodifluoromethane	51	3.432	3.427	0.005	87	42942	0.2279	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	98	11868	0.0696	
31 Methylene Chloride	84	5.977	5.972	0.005	94	49021	0.6290	
34 trans-1,2-Dichloroethene	96	6.792	6.781	0.011	54	1820	0.0228	
42 cis-1,2-Dichloroethene	96	8.204	8.199	0.005	95	29723	0.3293	
44 Chloroform	83	8.544	8.555	-0.011	27	3226	0.0174	
49 Benzene	78	10.216	10.199	0.017	85	7456	0.0281	
52 Carbon tetrachloride	117	10.221	10.226	-0.005	53	2772	0.0131	
58 Trichloroethene	130	11.499	11.499	0.000	94	157580	1.35	
67 Toluene	91	13.586	13.586	0.000	91	23049	0.0801	
76 Ethylbenzene	91	15.910	15.905	0.005	97	24546	0.0608	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	120513	0.3803	
80 o-Xylene	91	16.595	16.595	0.000	99	103785	0.3120	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	92	15790	0.0363	
109 Naphthalene	128	21.060	21.065	-0.005	99	31853	0.0559	
S 116 Xylenes, Total	100				0		0.6923	

Reagents:

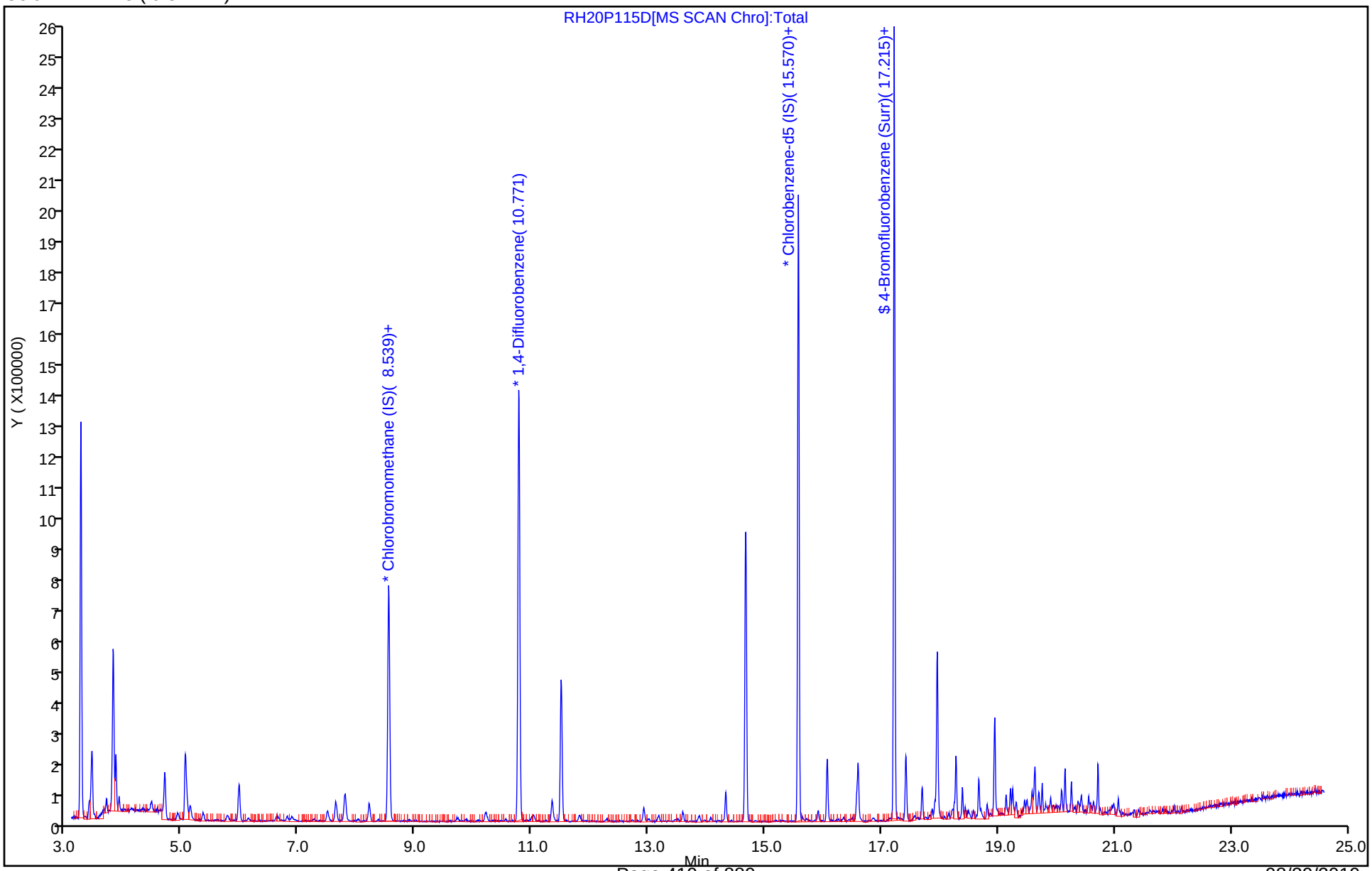
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 10:27:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D				
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15	Worklist Smp#:	19
Client ID:	SV-088-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D				
Lims ID:	140-16376-A-15				
Client ID:	SV-088-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 04:05:30	ALS Bottle#:	15	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-019				
Misc. Info.:	140-16376-a-15				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:23:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:27:46		

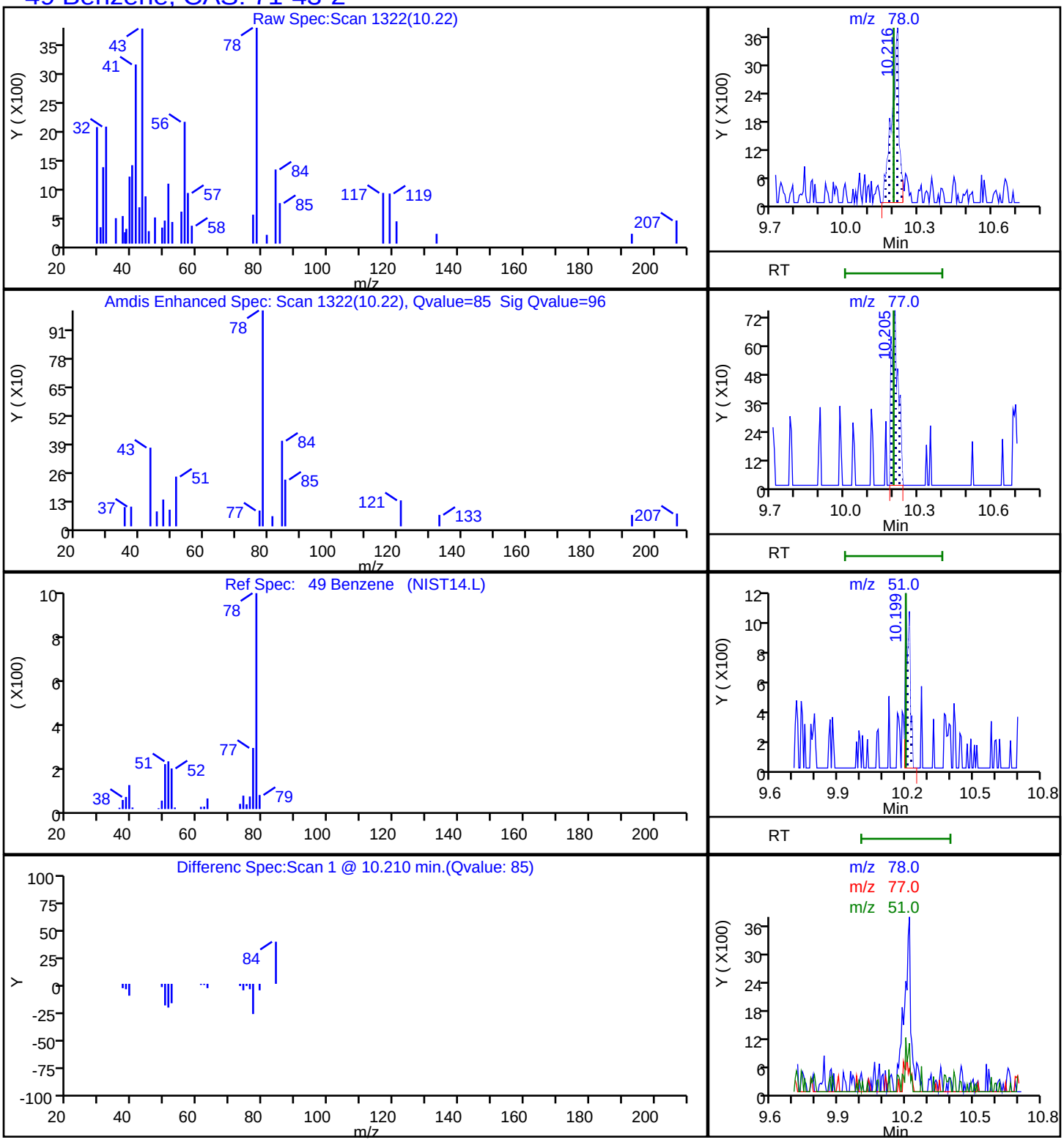
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.75	93.80

Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2

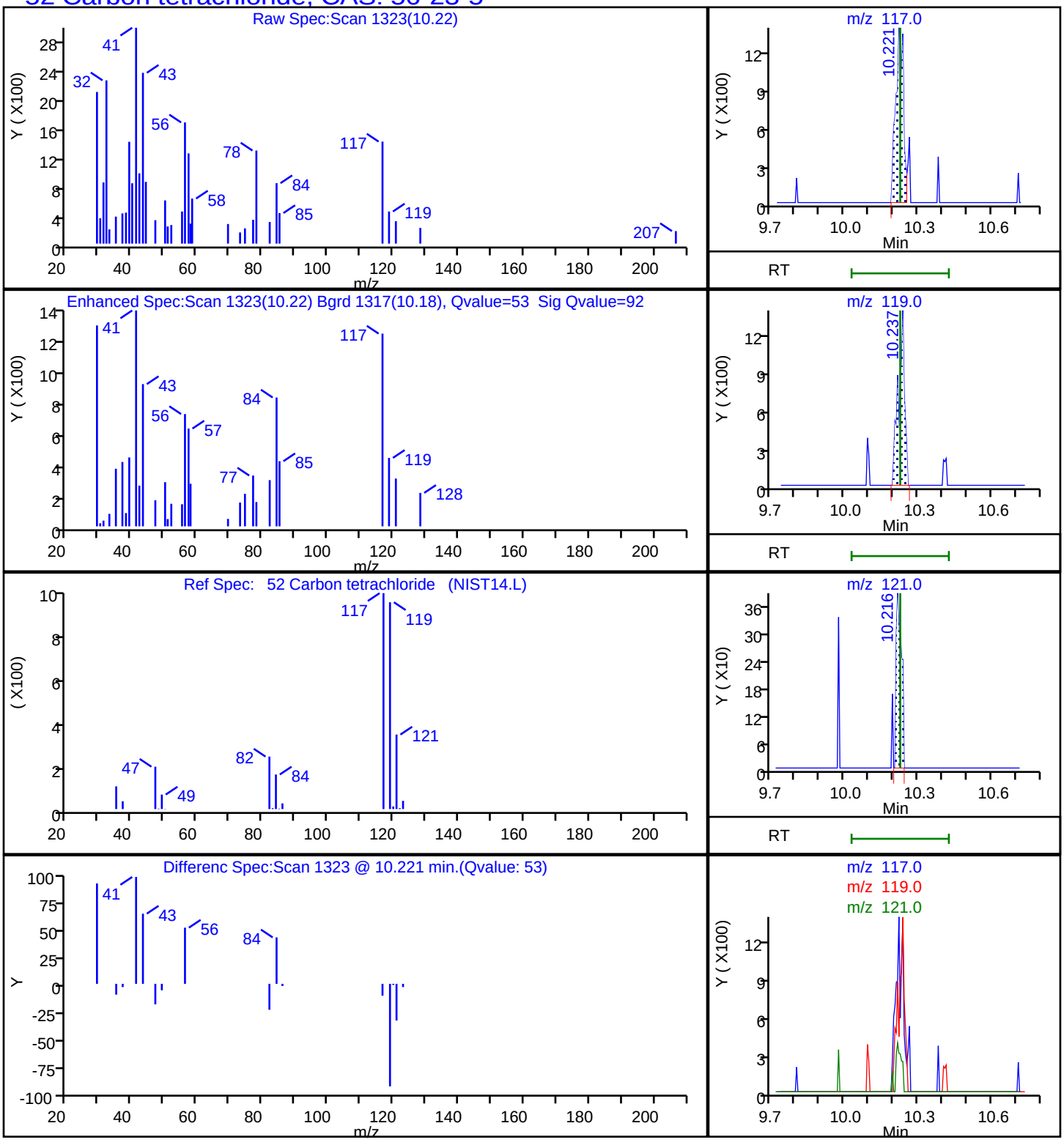


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

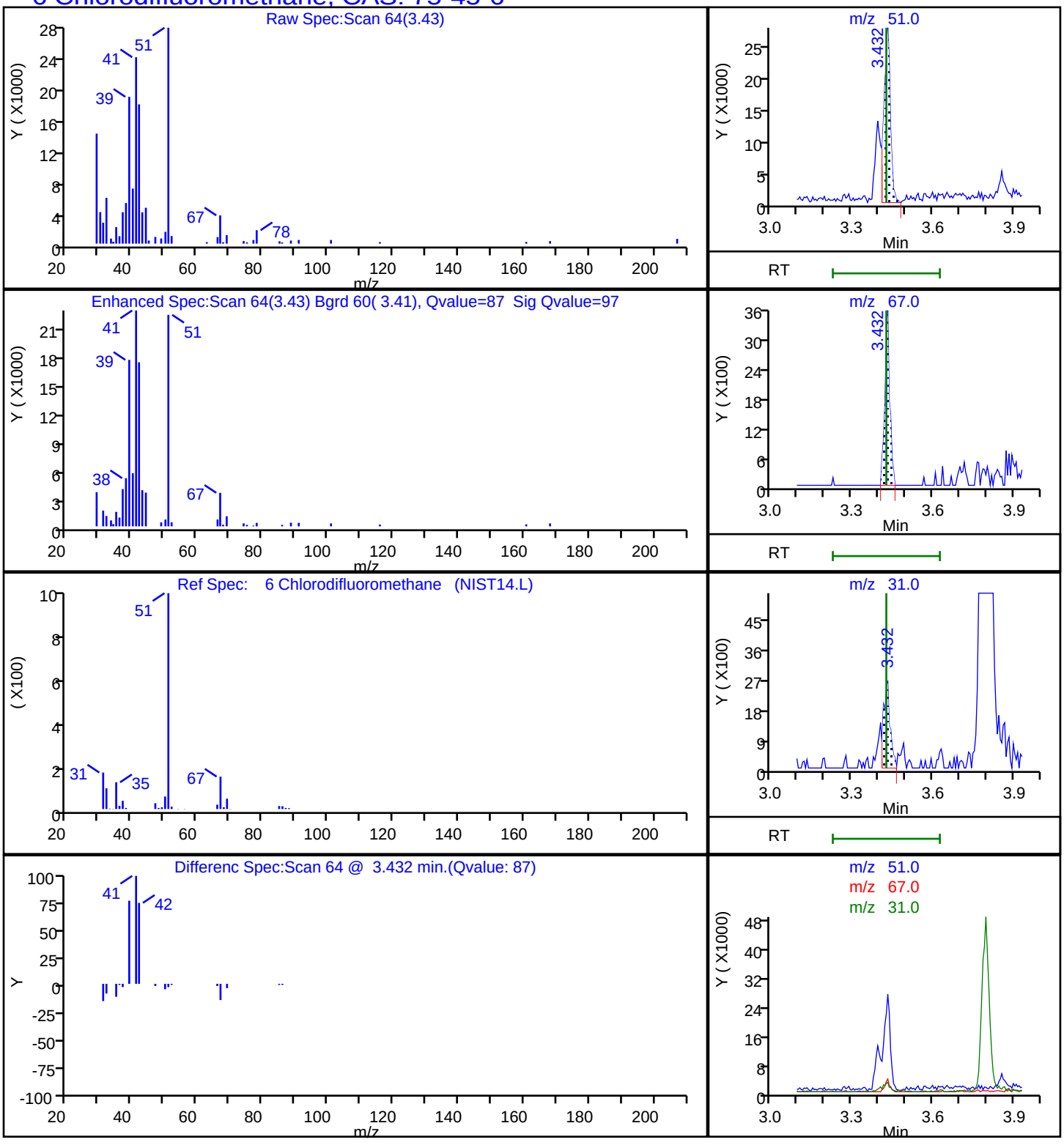
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

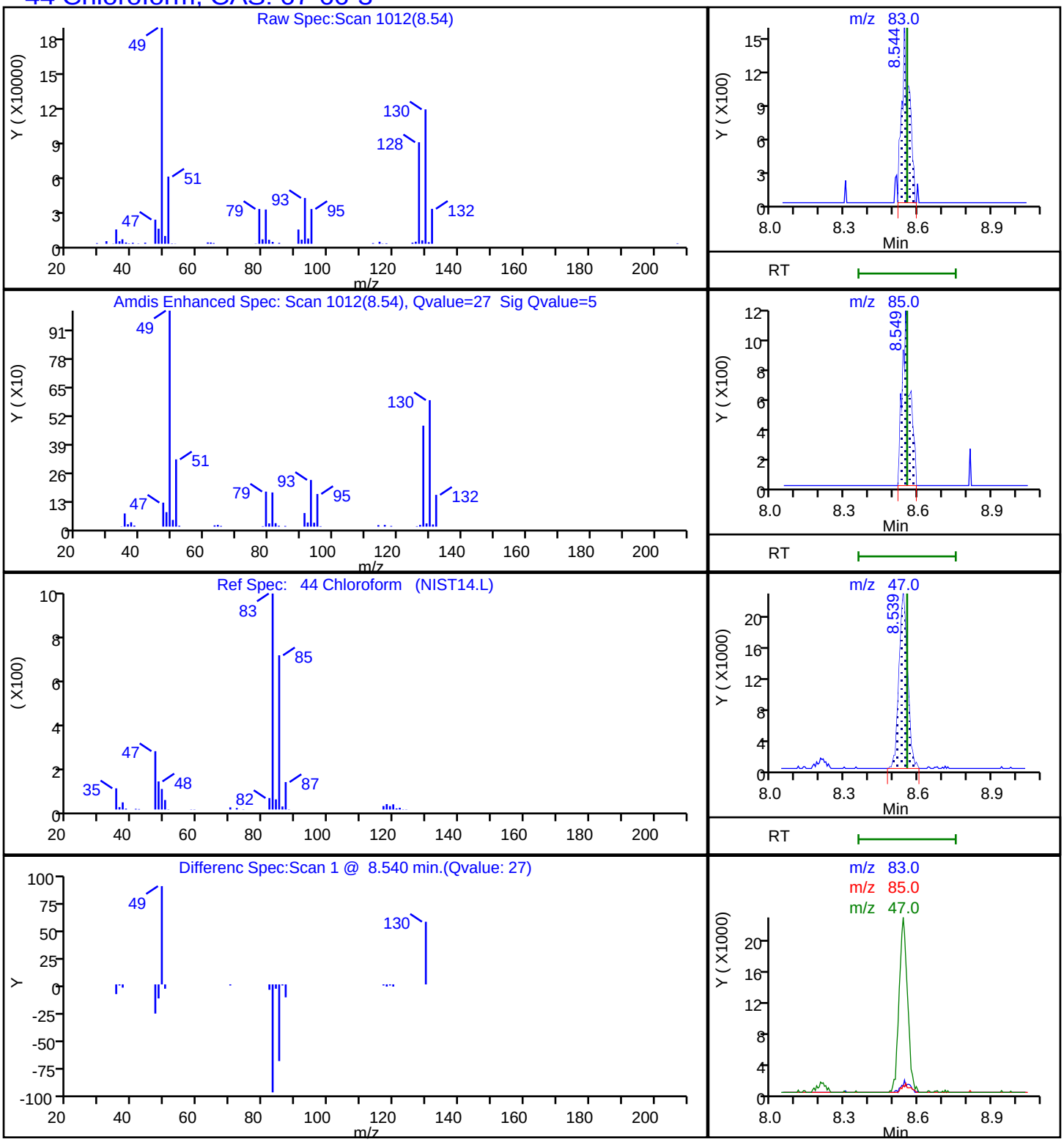
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

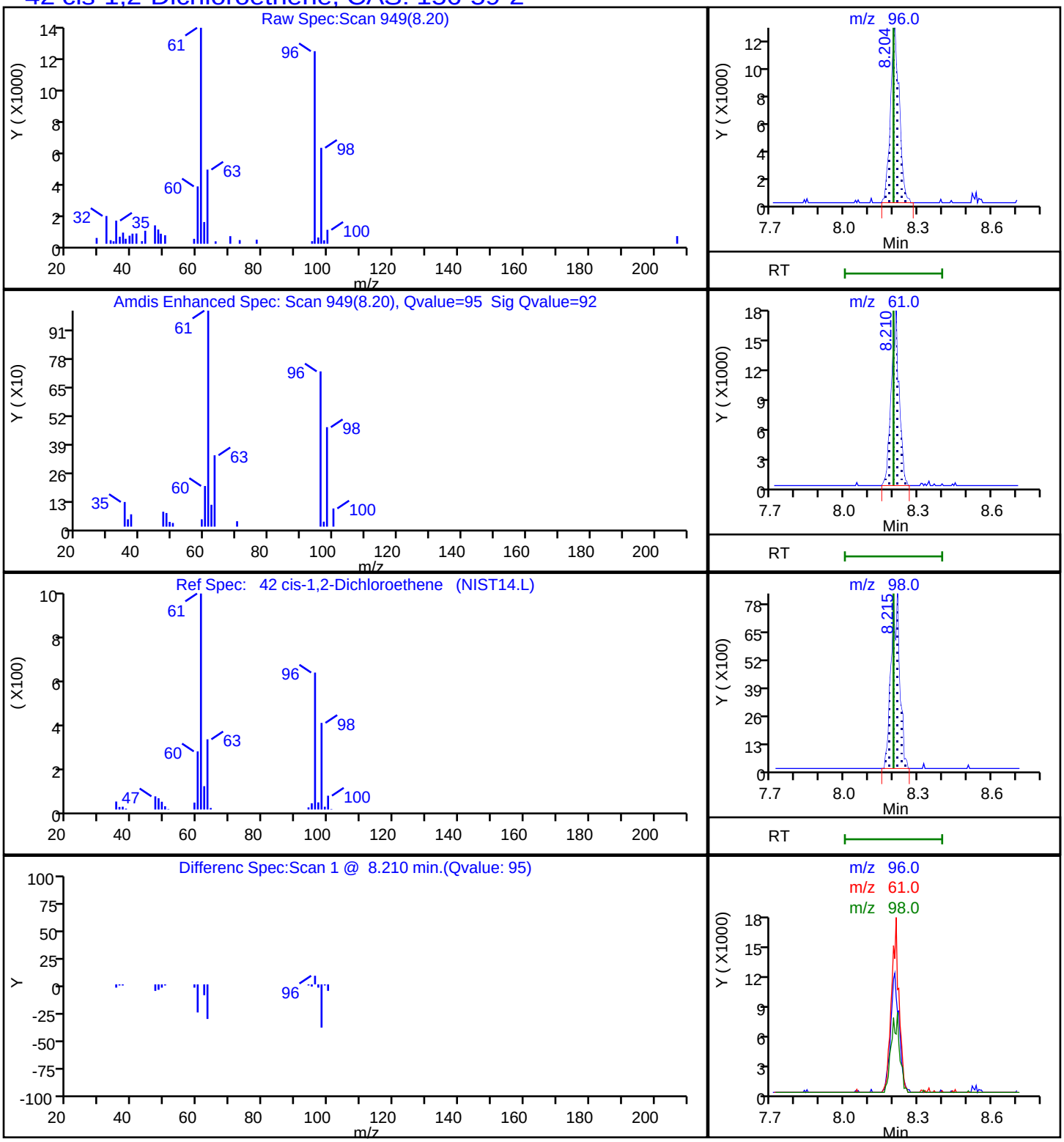


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

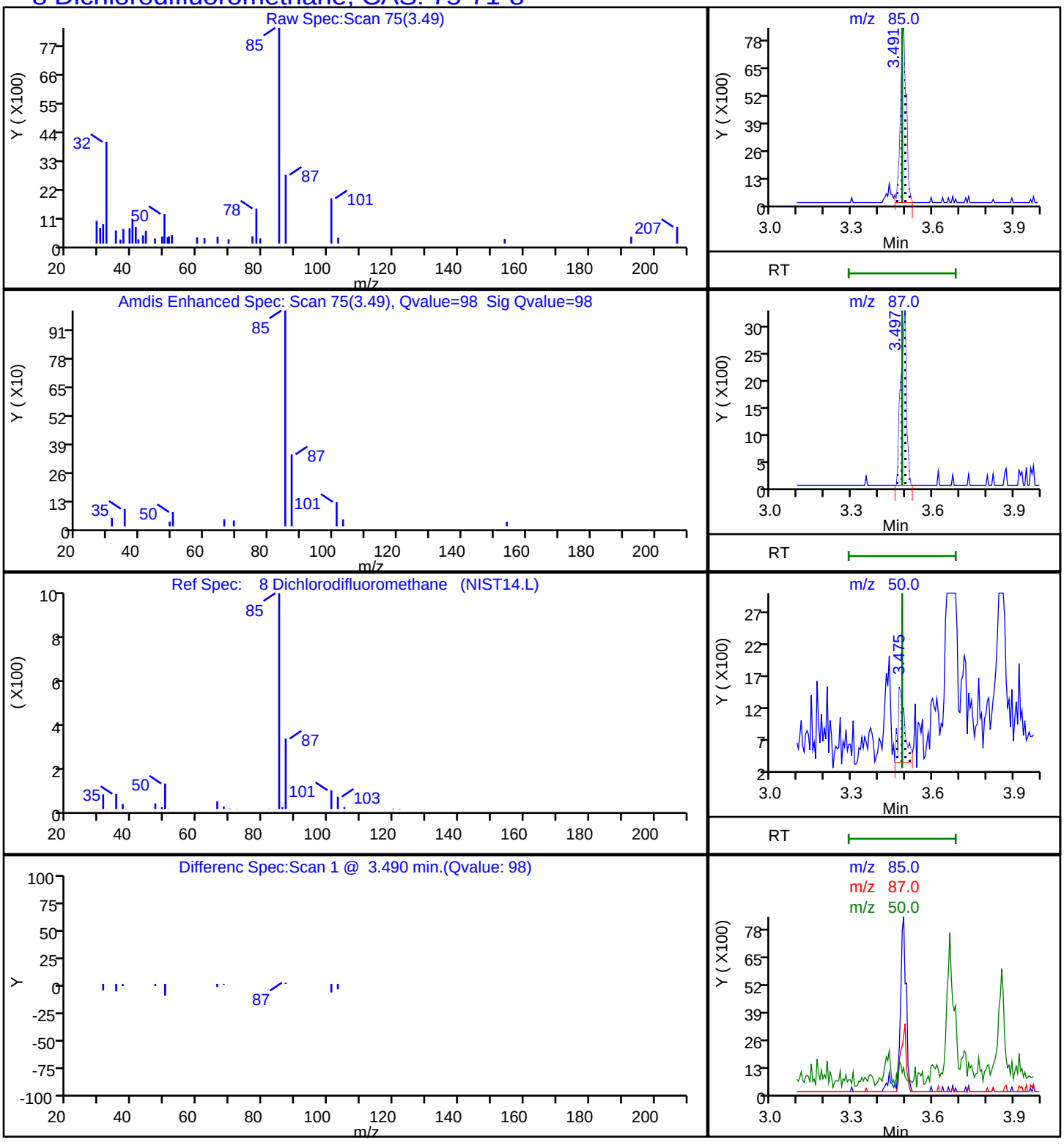


Report Date: 22-Aug-2019 10:27:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

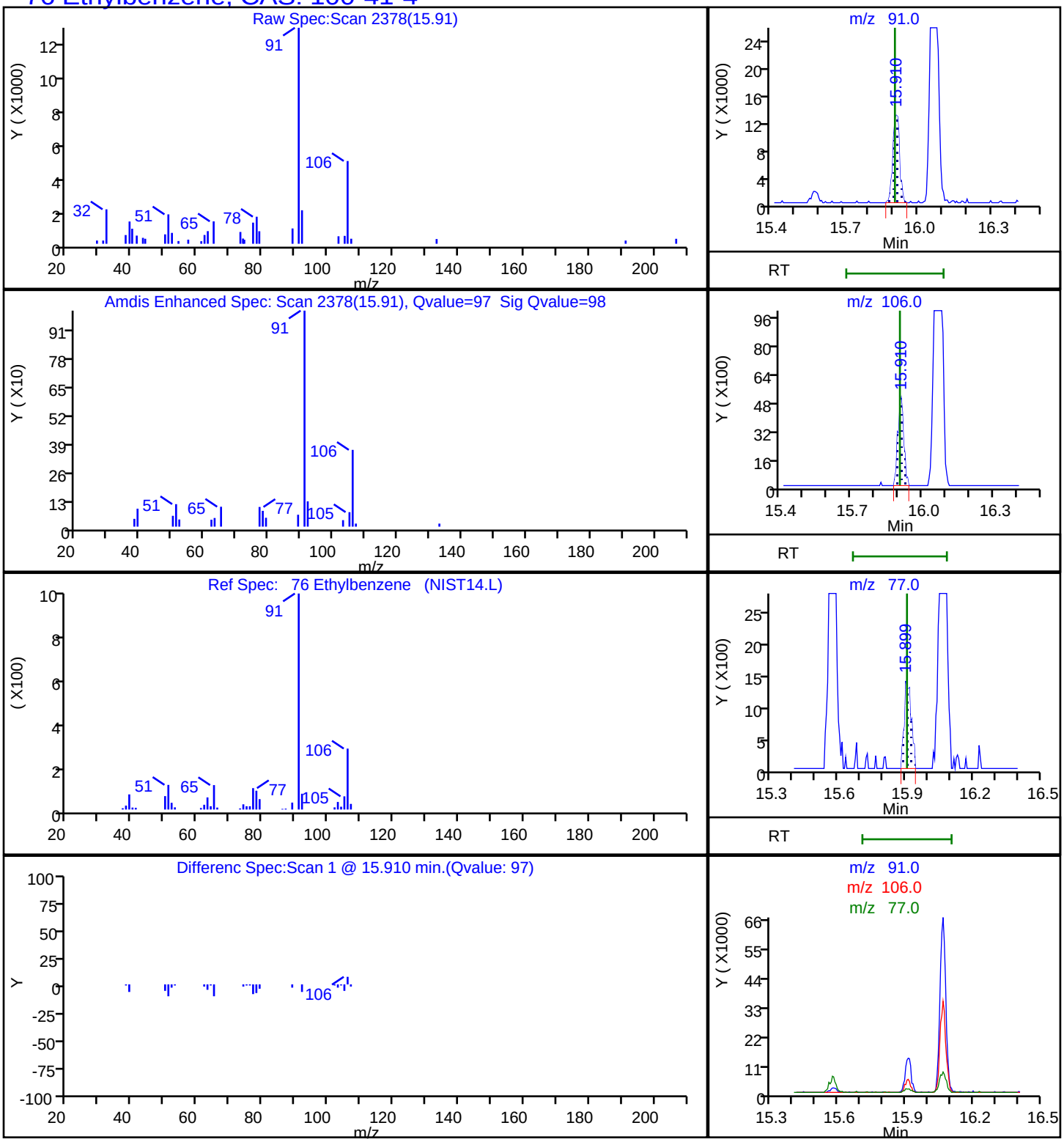


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

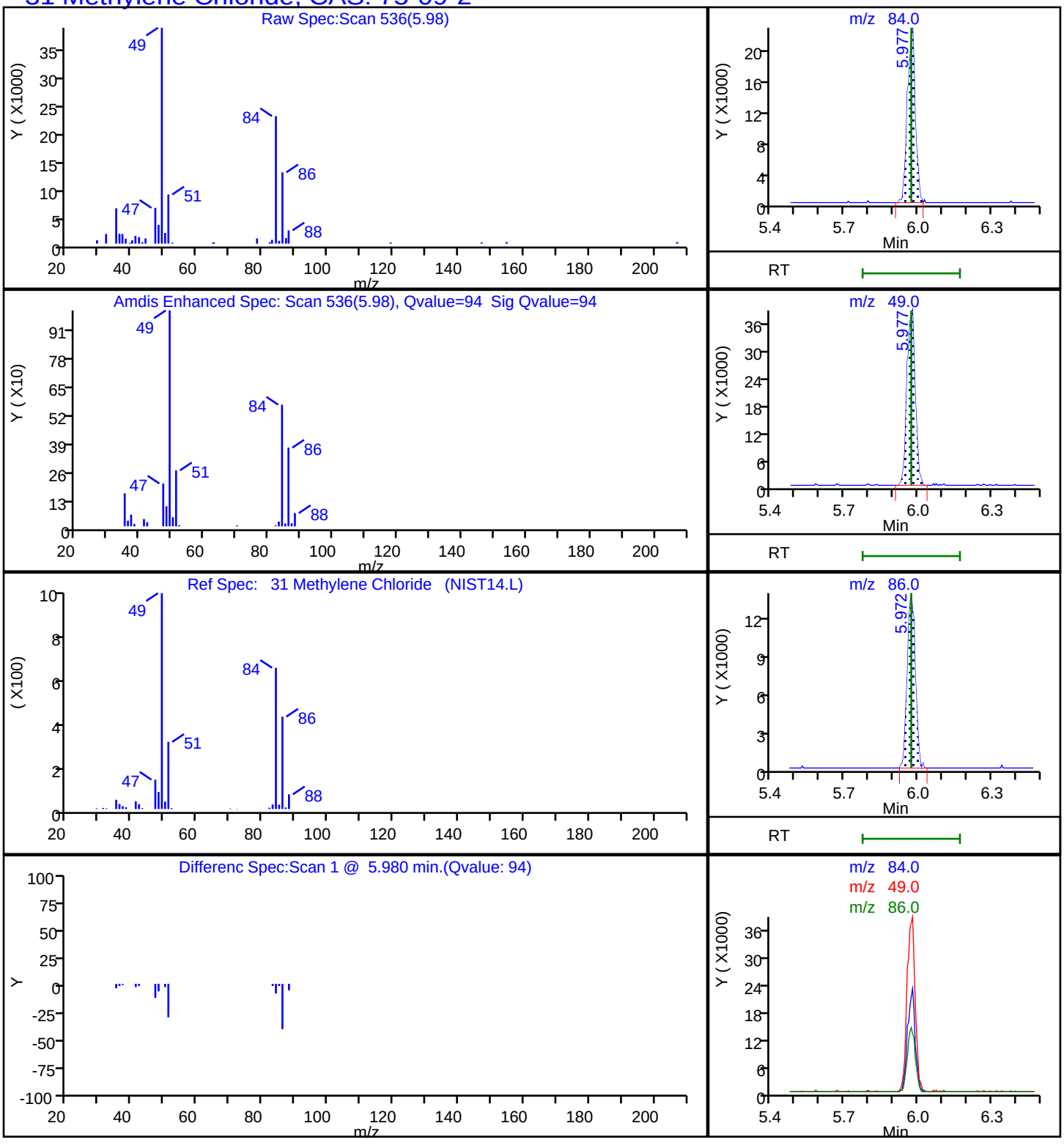


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

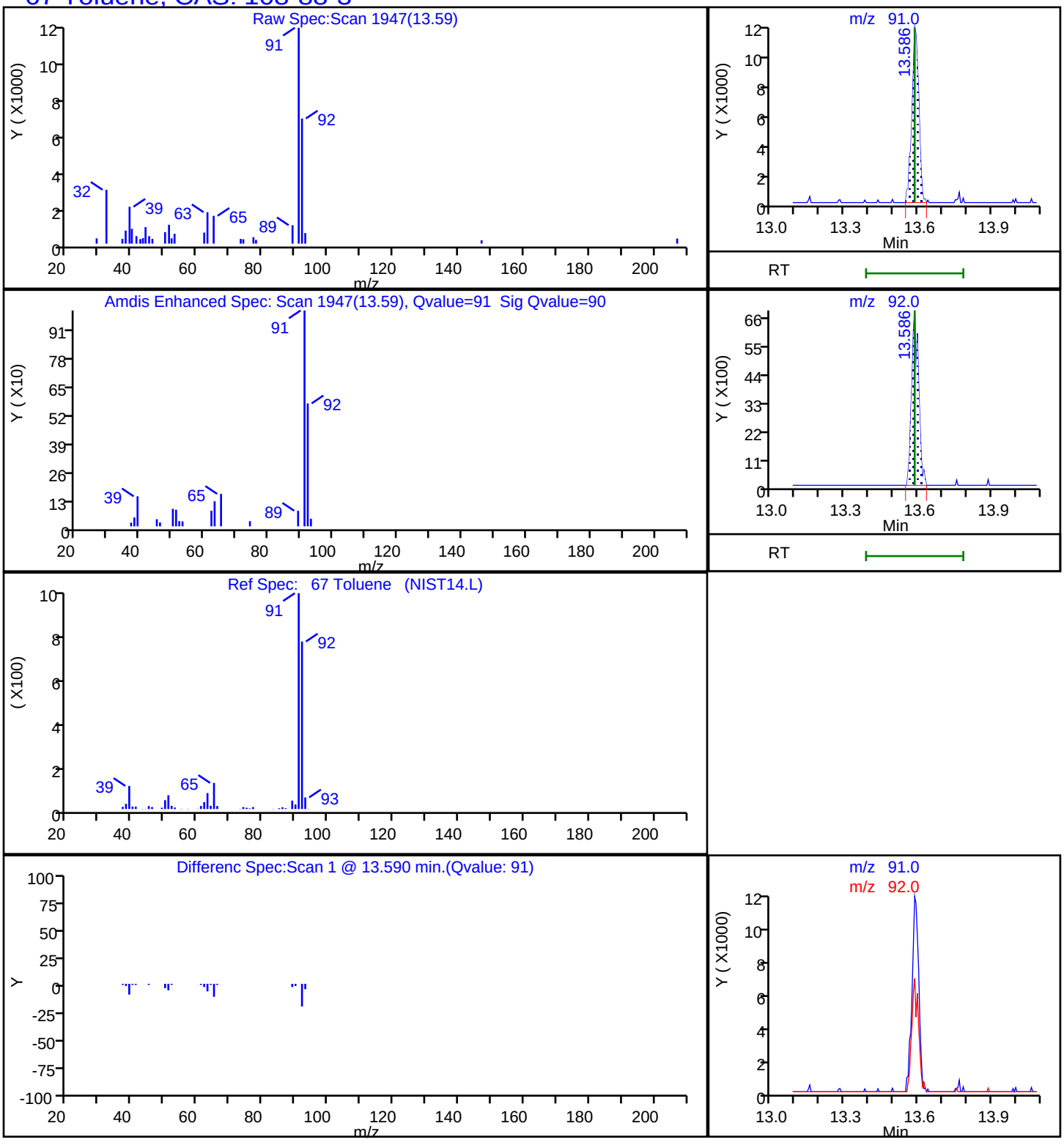
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

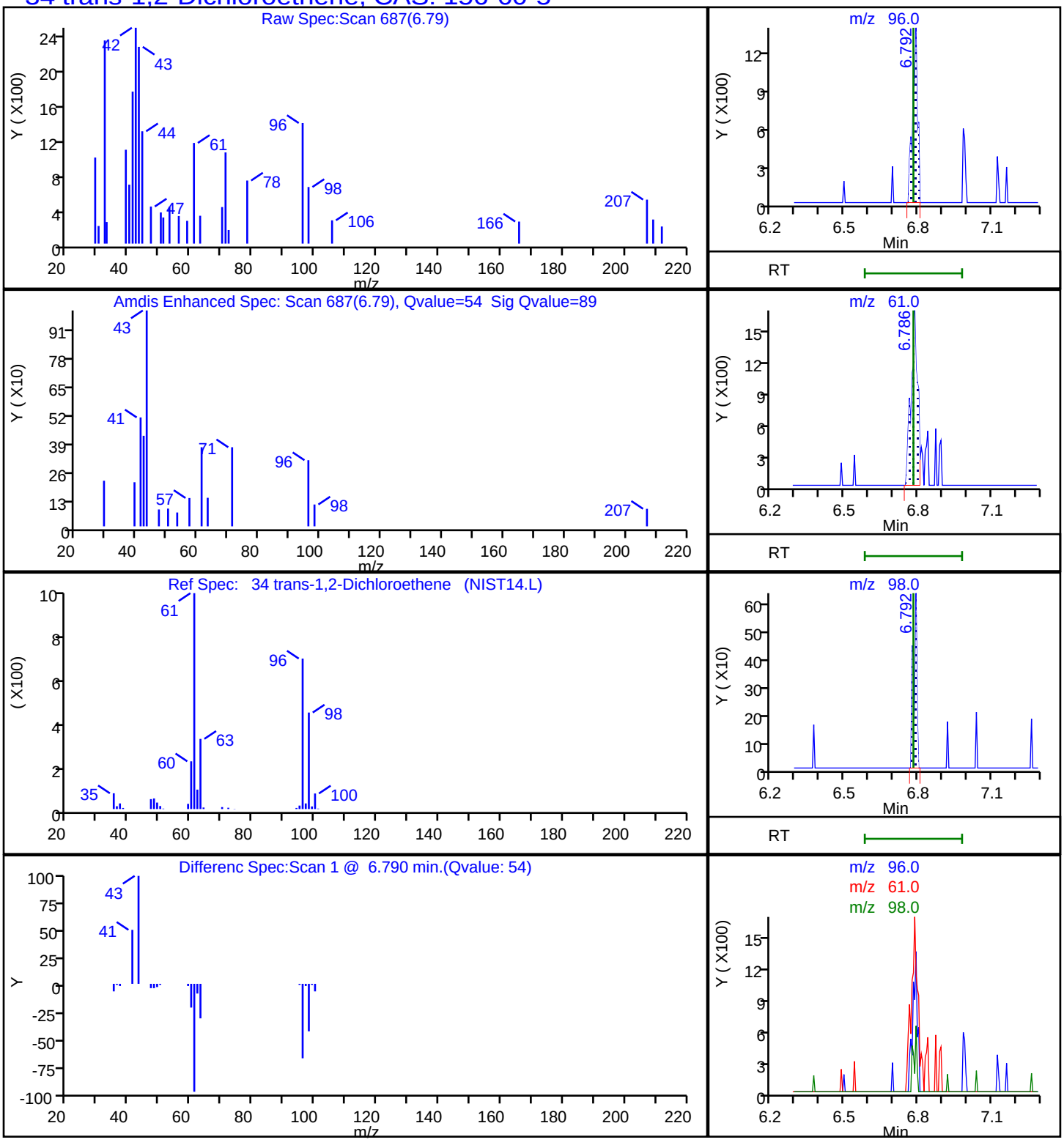


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



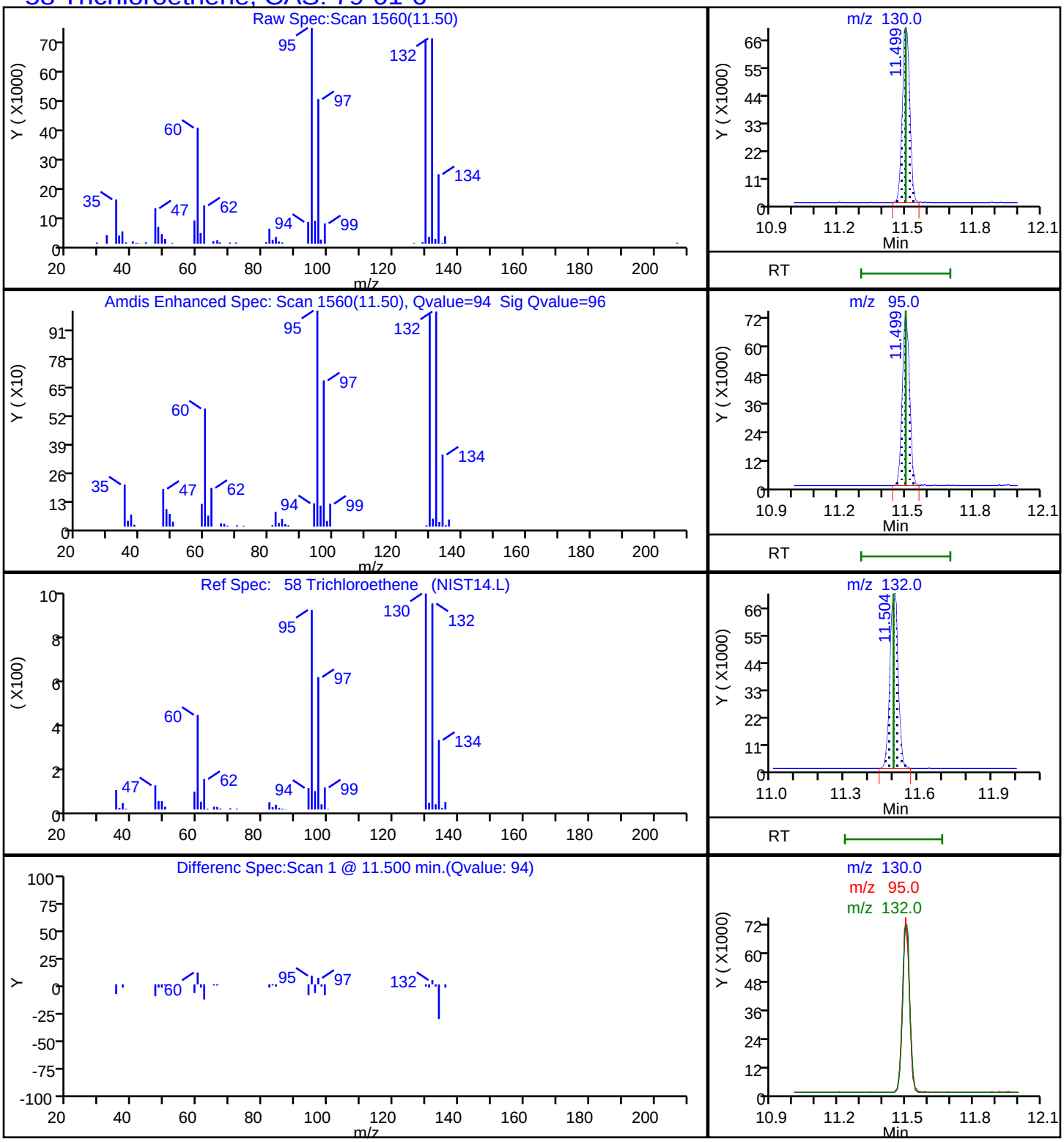
Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D

Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

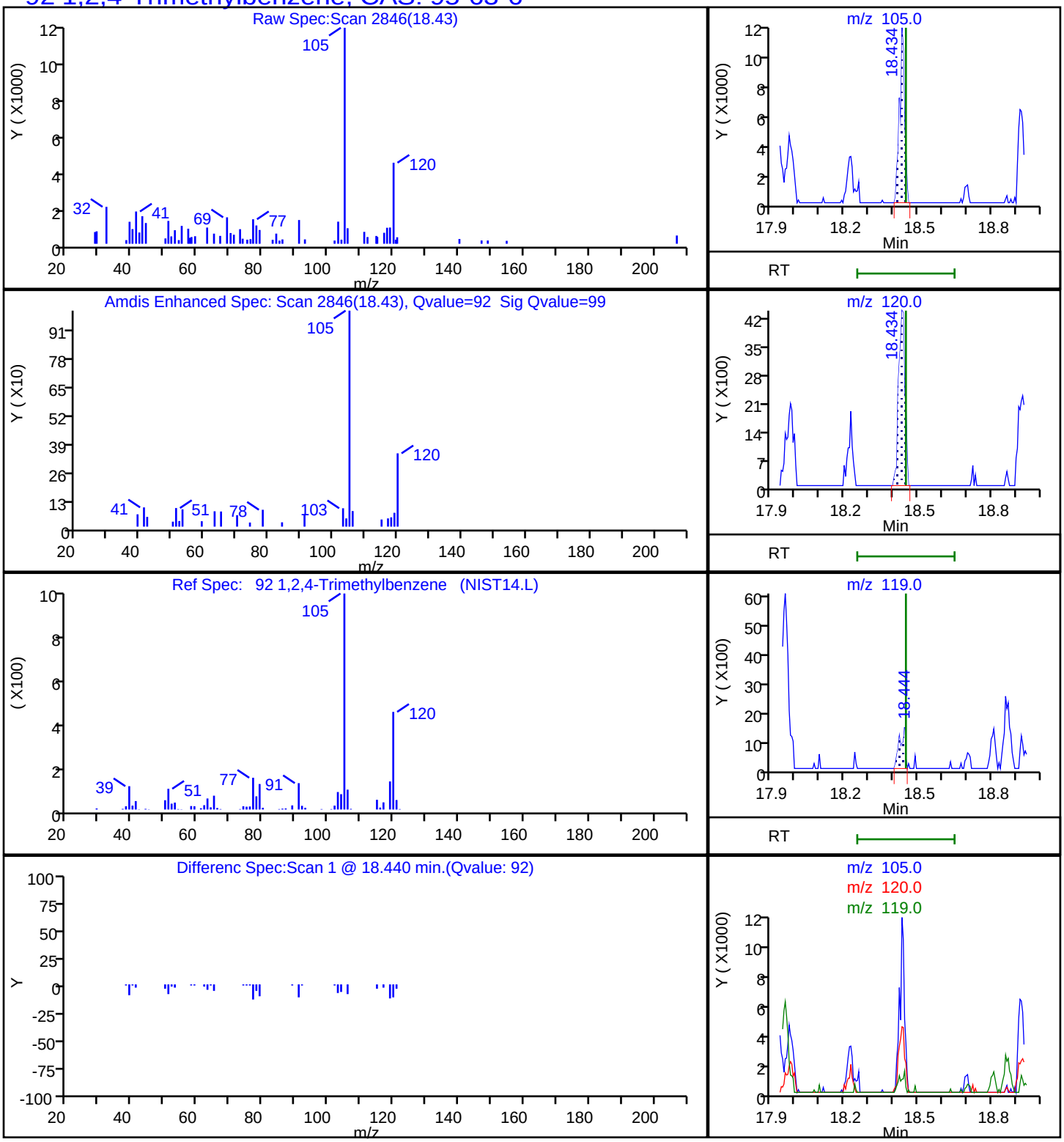


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

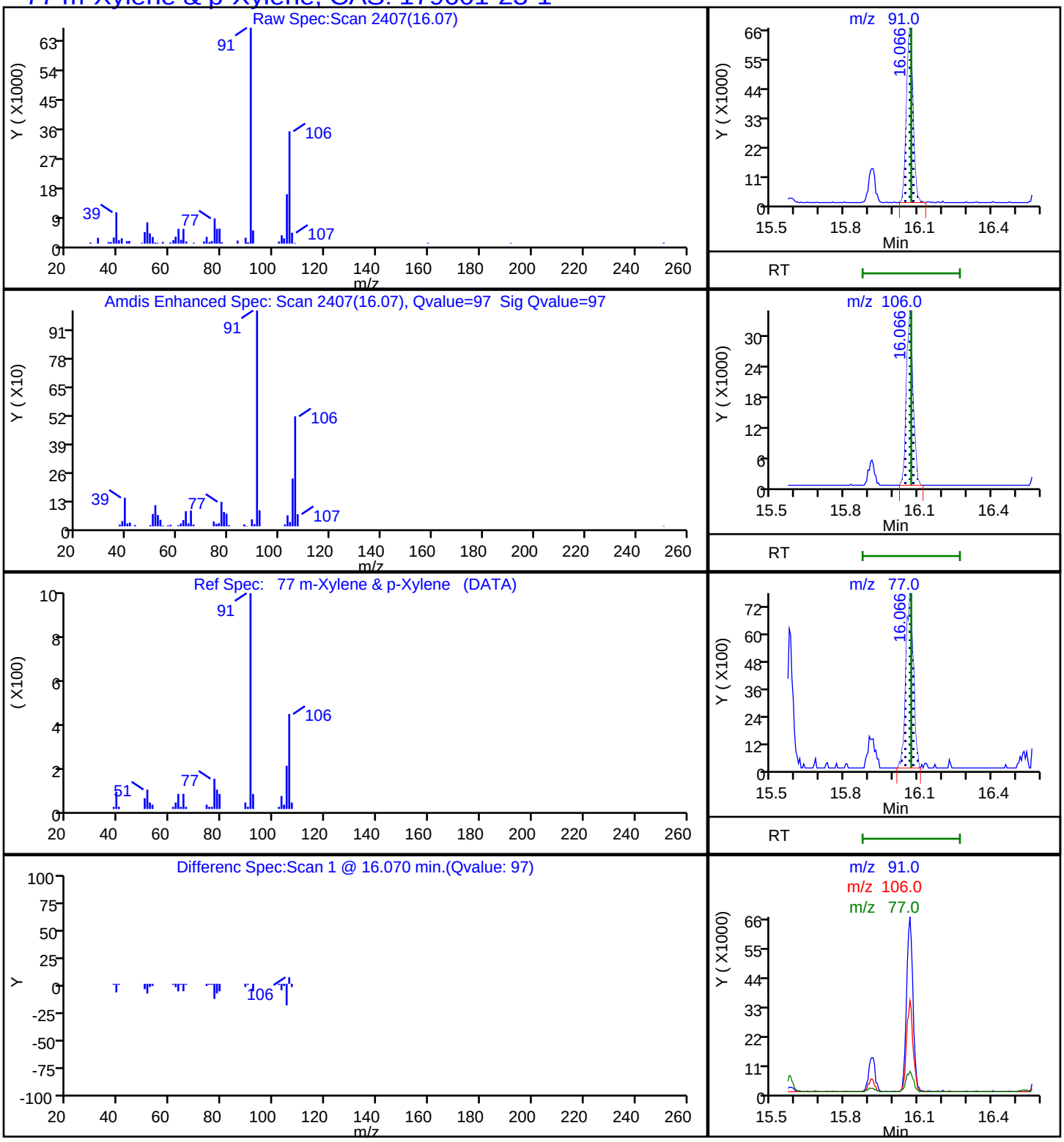


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

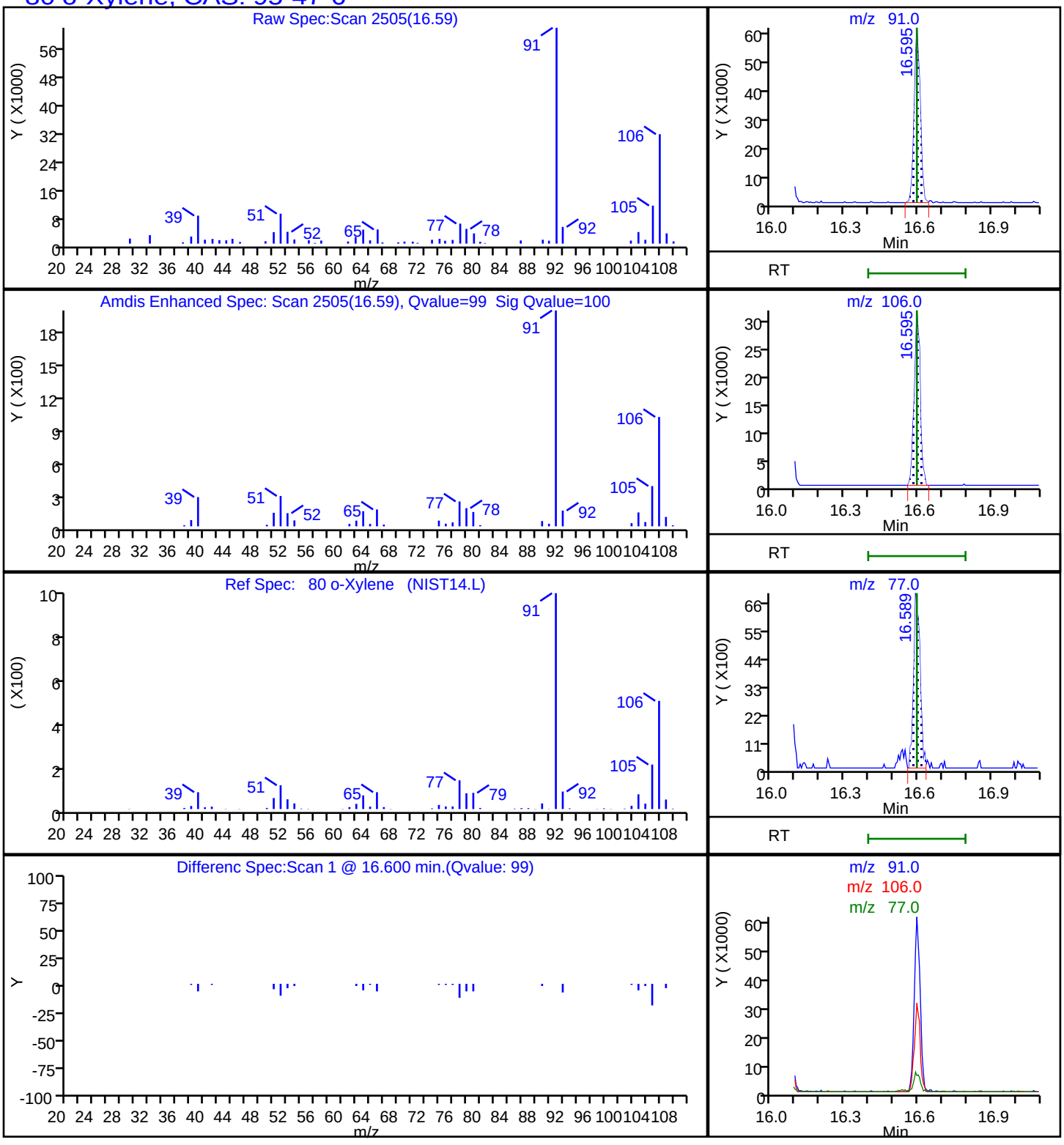


Report Date: 22-Aug-2019 10:27:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P115D.D		
Injection Date:	21-Aug-2019 04:05:30	Instrument ID:	MR
Lims ID:	140-16376-A-15	Lab Sample ID:	140-16376-15
Client ID:	SV-088-C-27		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.040	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.39	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.41		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.078	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	4.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.5		1.4	0.39
67-66-3	Chloroform	119.38	0.51	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	5.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.16	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	4.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.31	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.88	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	18		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D
Lims ID: 140-16376-A-16
Client ID: SV-DUP02-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 05:43:30 ALS Bottle#: 1 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-021
Misc. Info.: 140-16376-a-16
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:28:54 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:30:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	98	226700	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1369338	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	91	1118062	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	91	738320	3.83	
6 Chlorodifluoromethane	51	3.437	3.427	0.010	56	38689	0.1997	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	98	12267	0.0700	
31 Methylene Chloride	84	5.966	5.972	-0.006	93	61723	0.7703	
34 trans-1,2-Dichloroethene	96	6.770	6.781	-0.011	41	1271	0.0155	
37 1,1-Dichloroethane	63	7.201	7.212	-0.011	1	1251	0.008049	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	96	27441	0.2957	
44 Chloroform	83	8.549	8.555	-0.006	28	3997	0.0210	
49 Benzene	78	10.210	10.199	0.011	52	8164	0.0294	
52 Carbon tetrachloride	117	10.226	10.226	0.000	56	2020	0.009110	
58 Trichloroethene	130	11.504	11.499	0.005	96	155729	1.28	
67 Toluene	91	13.586	13.586	0.000	91	74772	0.2599	
73 Tetrachloroethene	129	14.745	14.740	0.005	14	960	0.008171	
76 Ethylbenzene	91	15.905	15.905	-0.001	98	31394	0.0778	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	97	143386	0.4525	
80 o-Xylene	91	16.595	16.595	0.000	99	121917	0.3665	
92 1,2,4-Trimethylbenzene	105	18.434	18.450	-0.016	96	15557	0.0358	
109 Naphthalene	128	21.065	21.065	0.000	99	46226	0.0812	
S 116 Xylenes, Total	100				0		0.8190	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

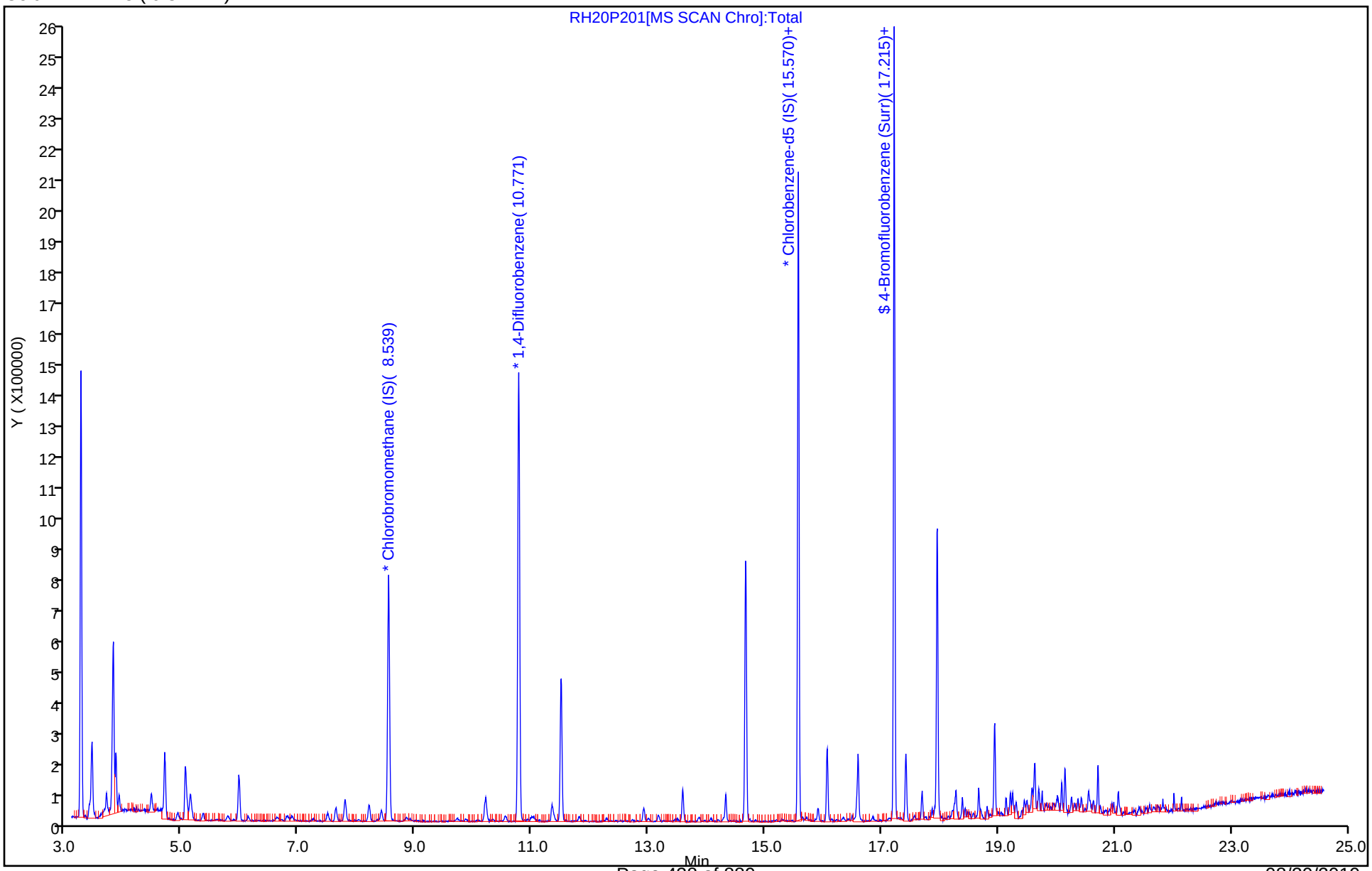
Report Date: 22-Aug-2019 10:30:36 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D

Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16	Worklist Smp#:	21
Client ID:	SV-DUP02-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D				
Lims ID:	140-16376-A-16				
Client ID:	SV-DUP02-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 05:43:30	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-021				
Misc. Info.:	140-16376-a-16				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:28:54	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:30:34		

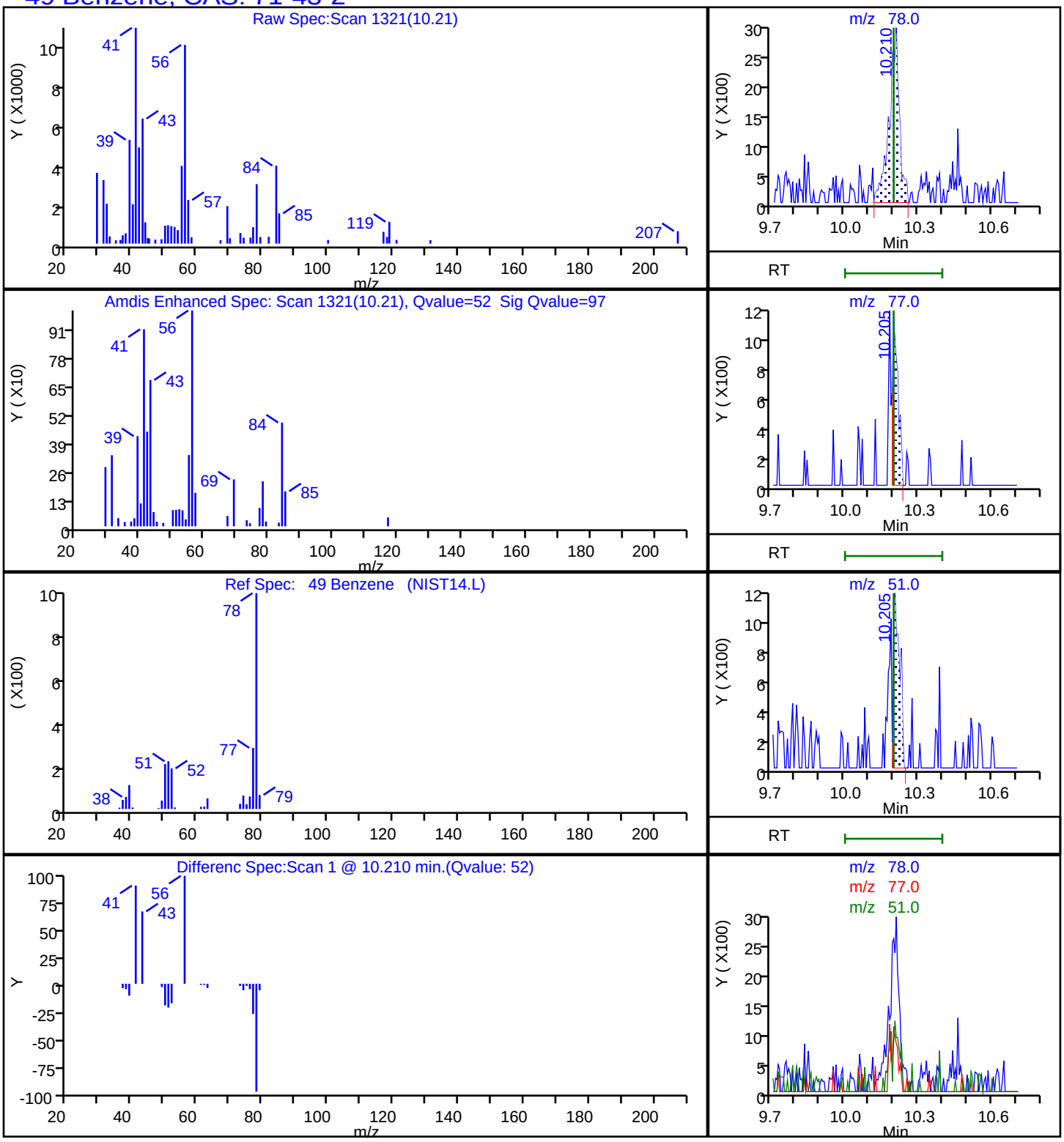
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.83	95.76

Report Date: 22-Aug-2019 10:30:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2

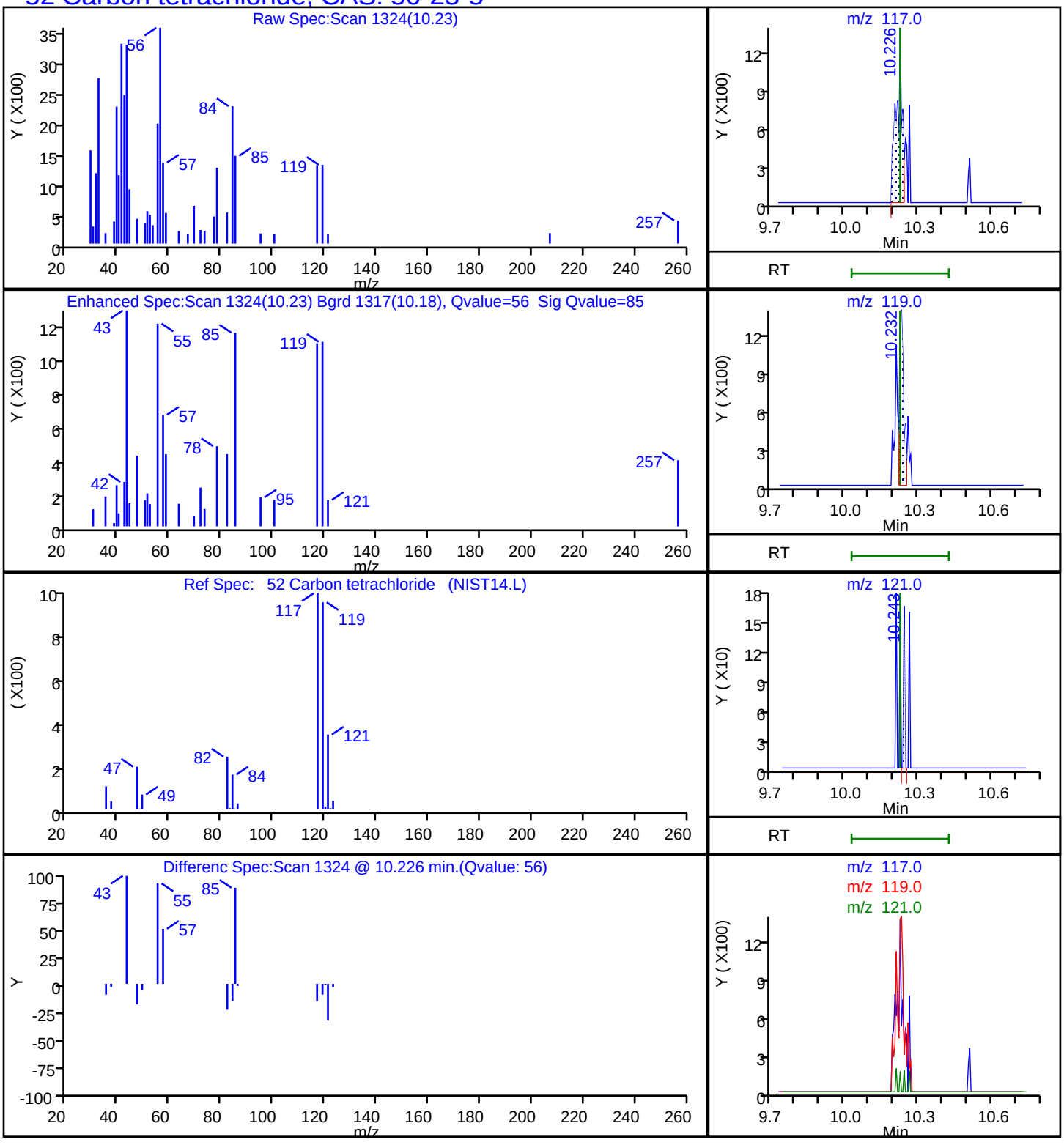


Report Date: 22-Aug-2019 10:30:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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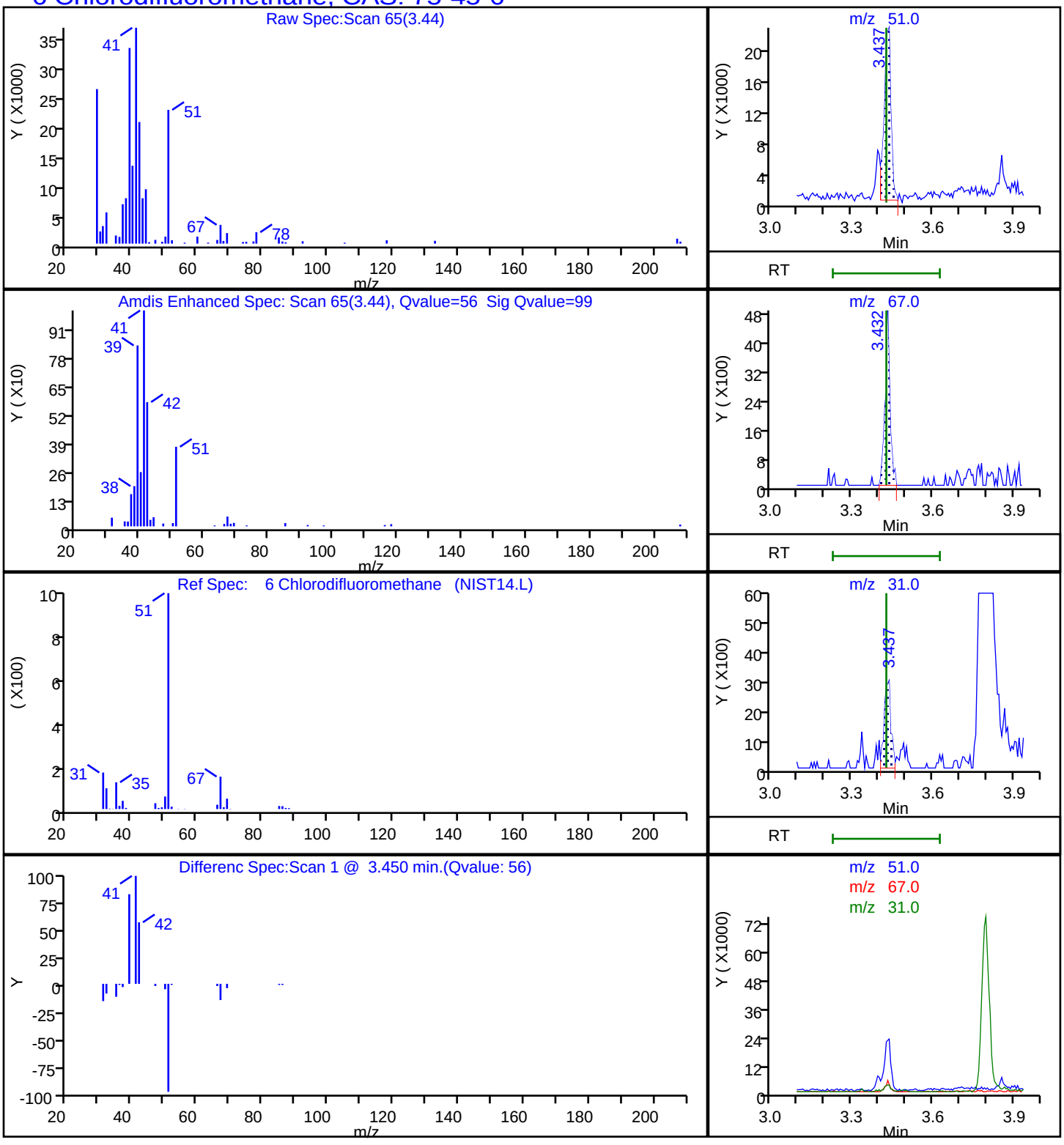
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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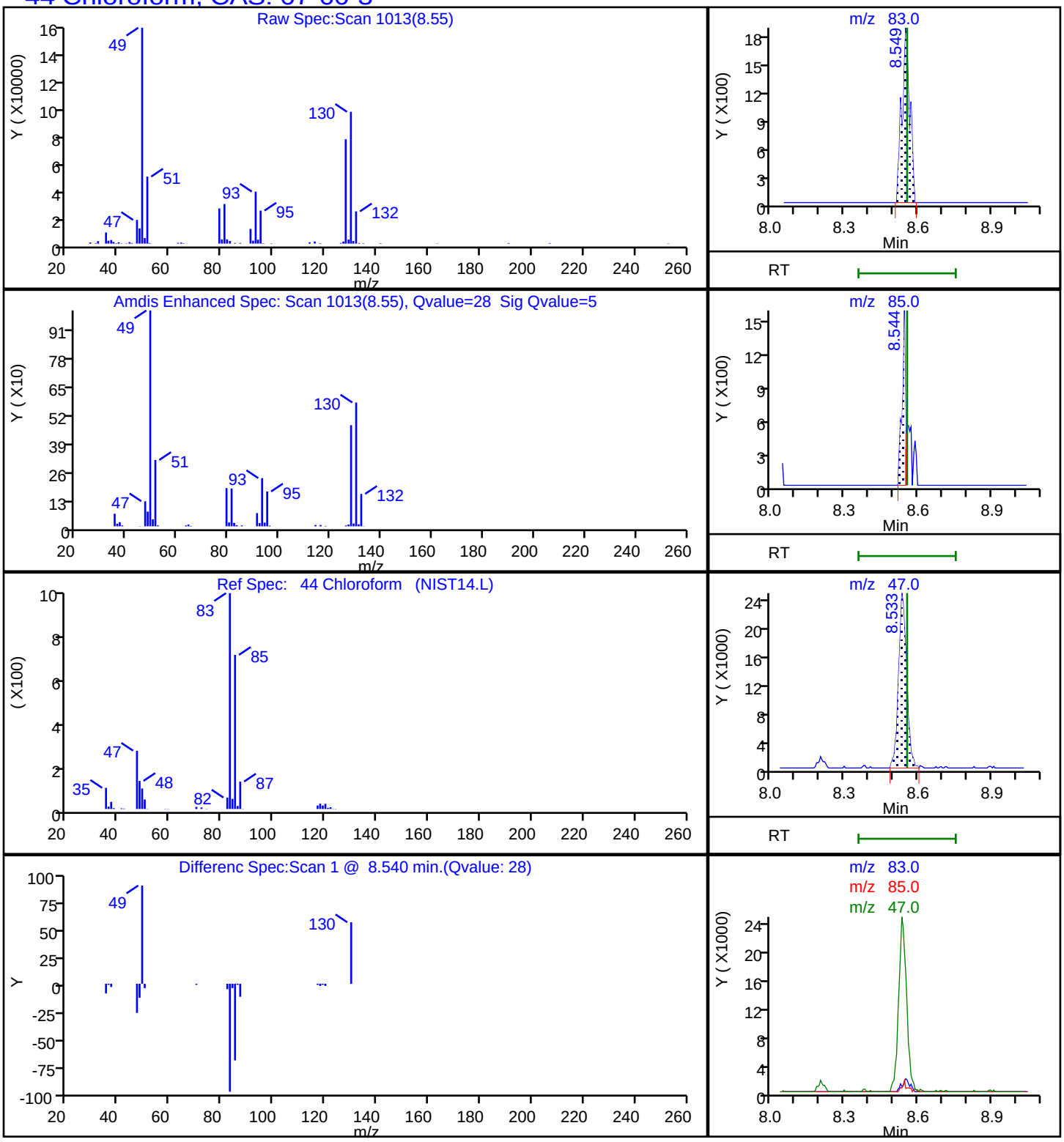
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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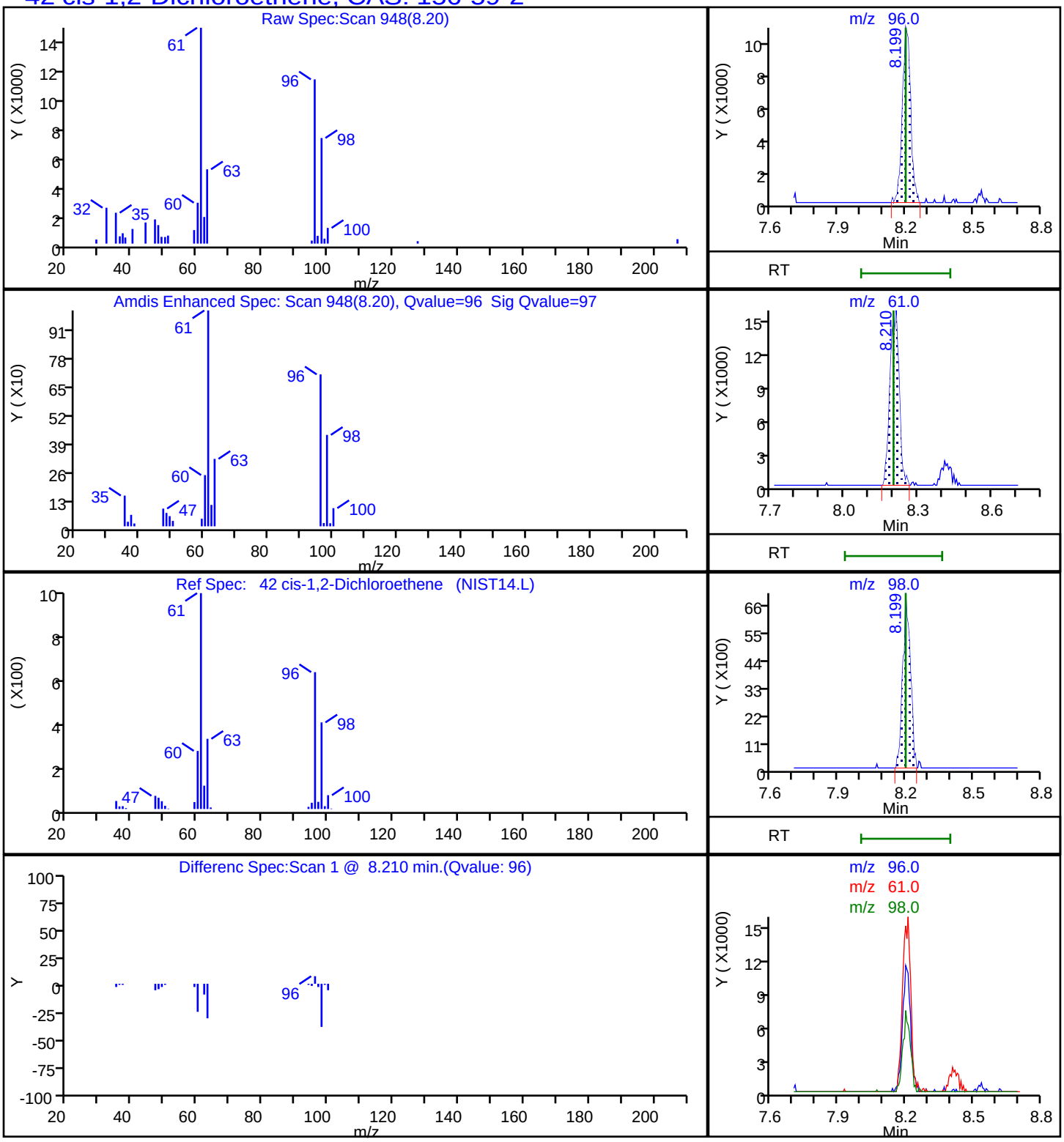
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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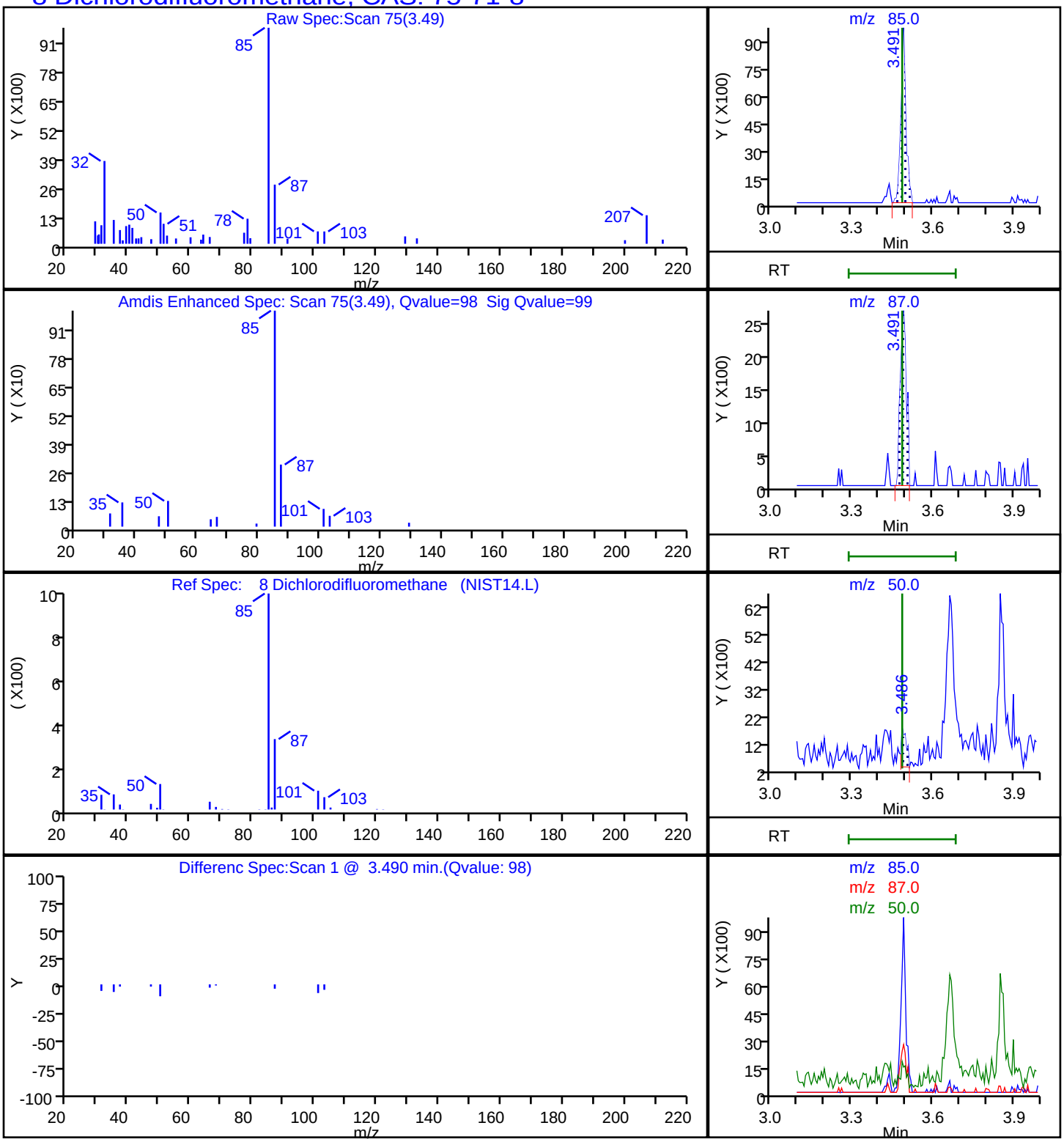
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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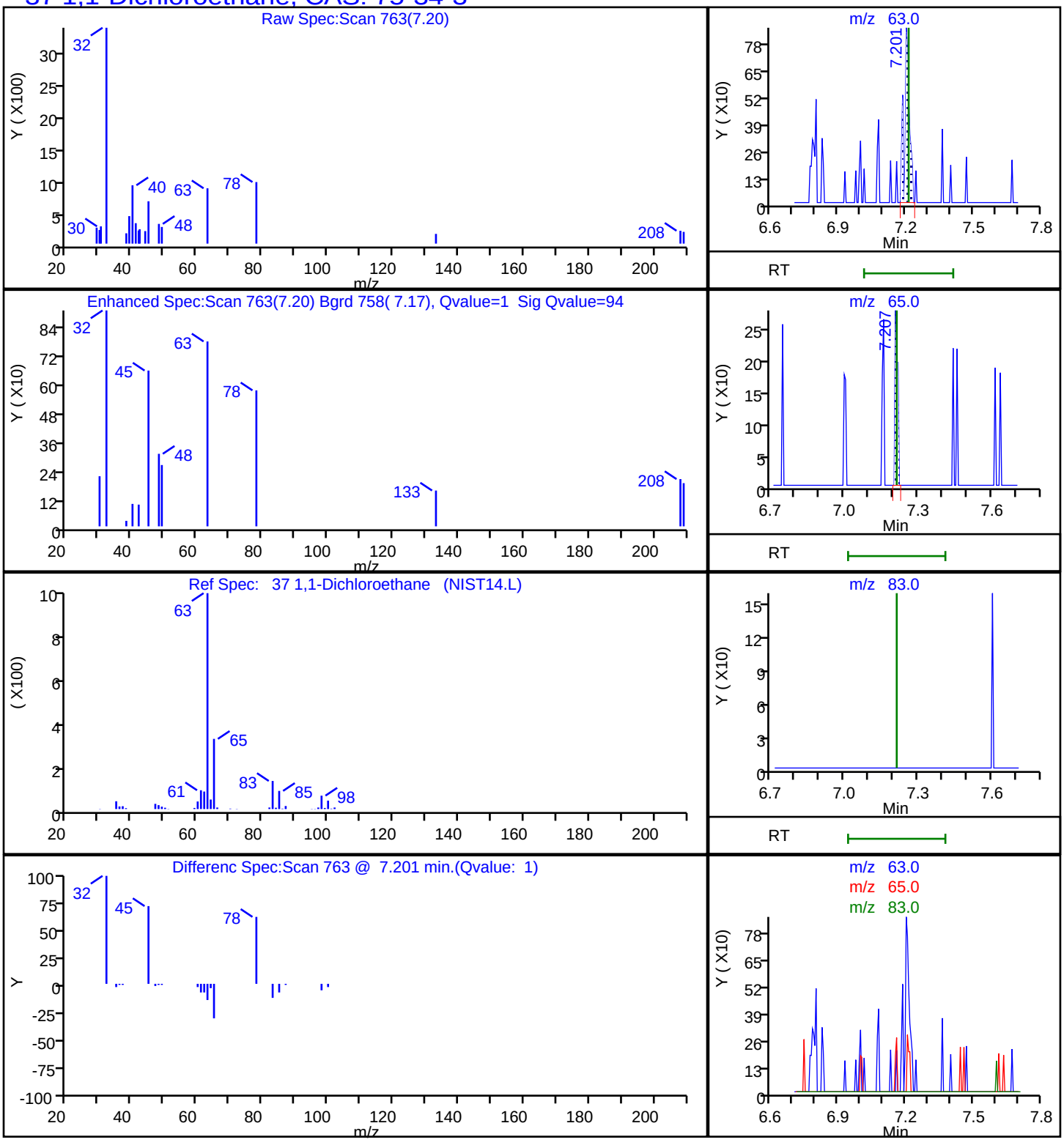
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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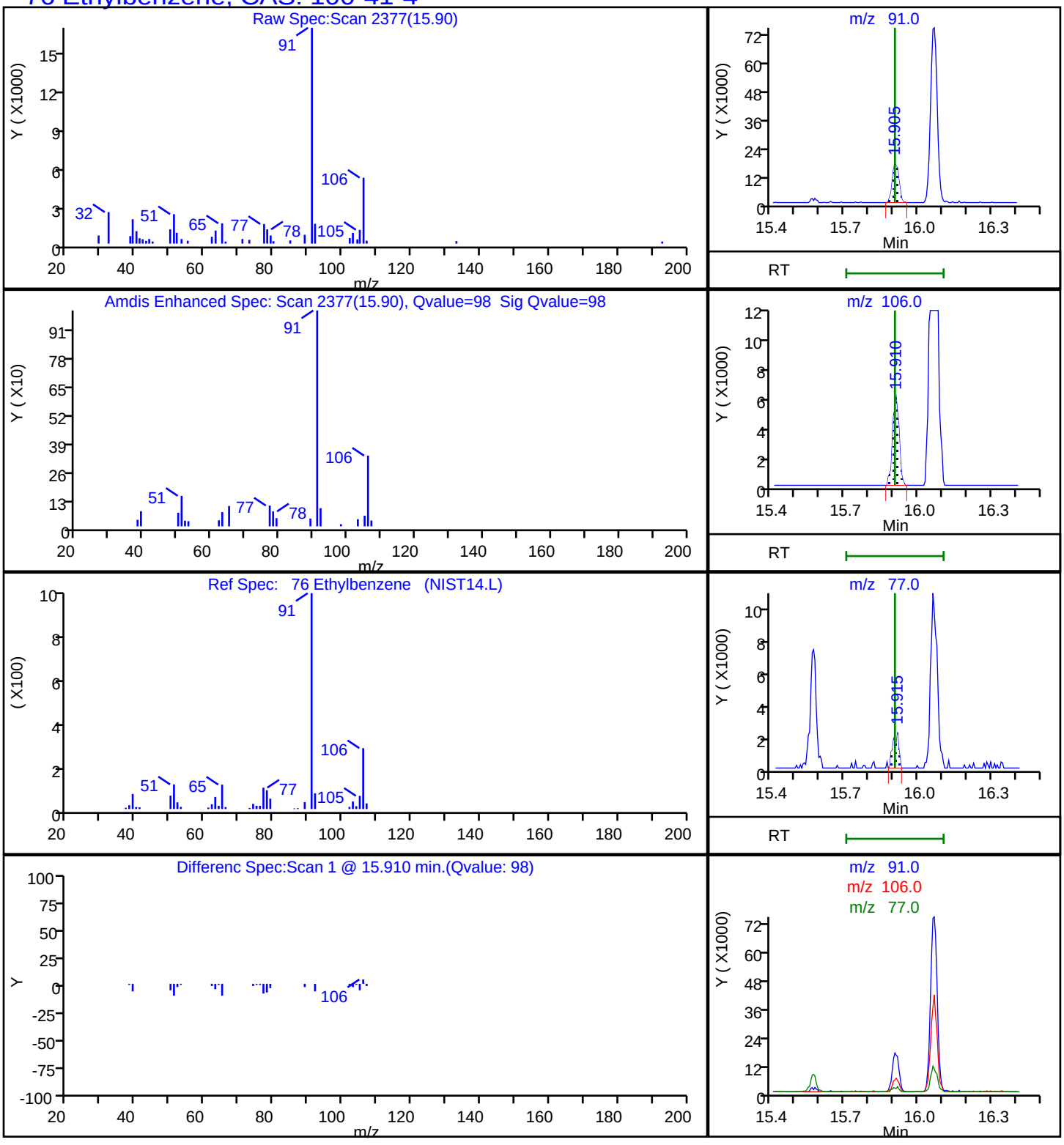
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



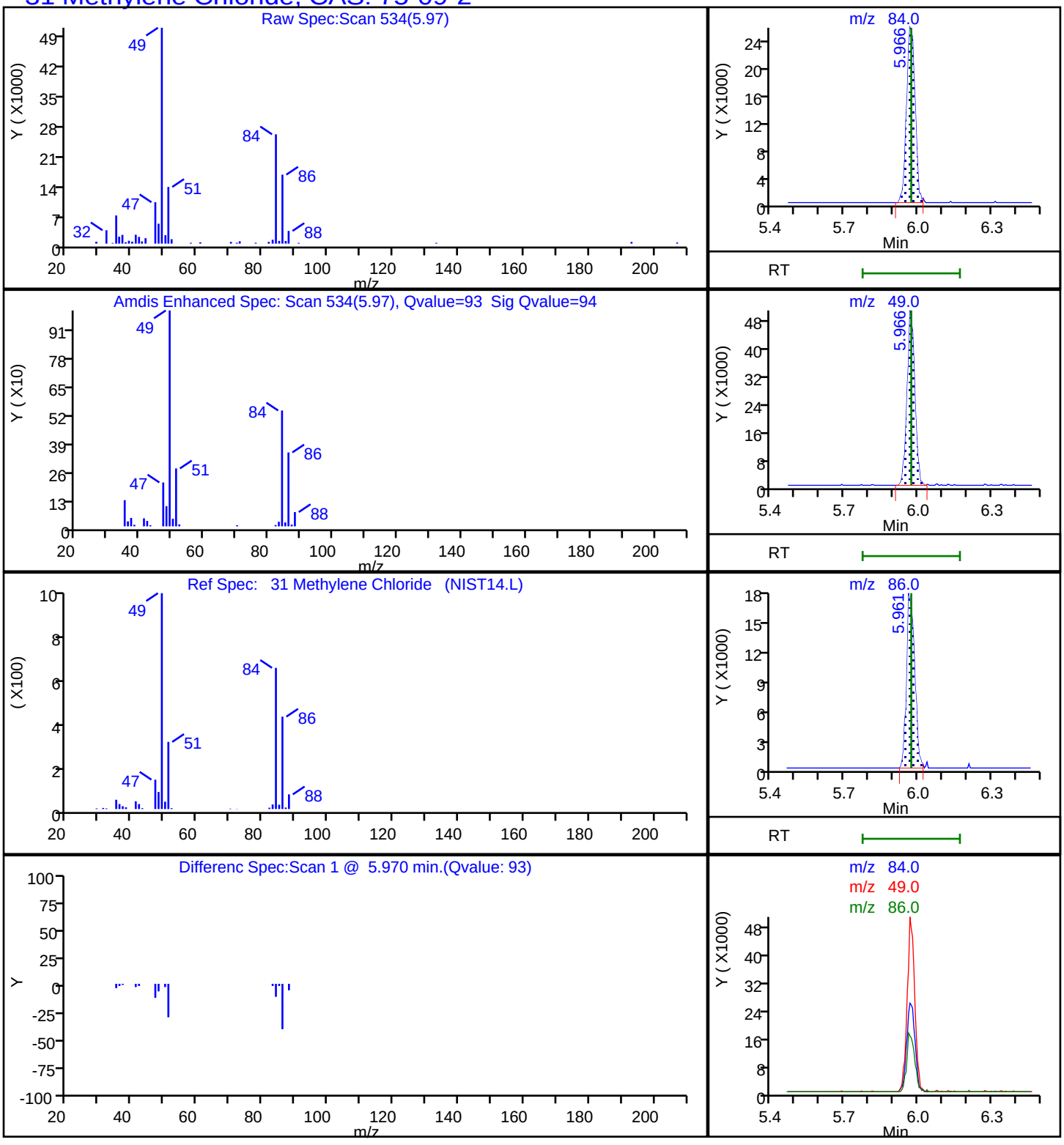
Report Date: 22-Aug-2019 10:30:36 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D

Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR		
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16		
Client ID:	SV-DUP02-C-27				
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

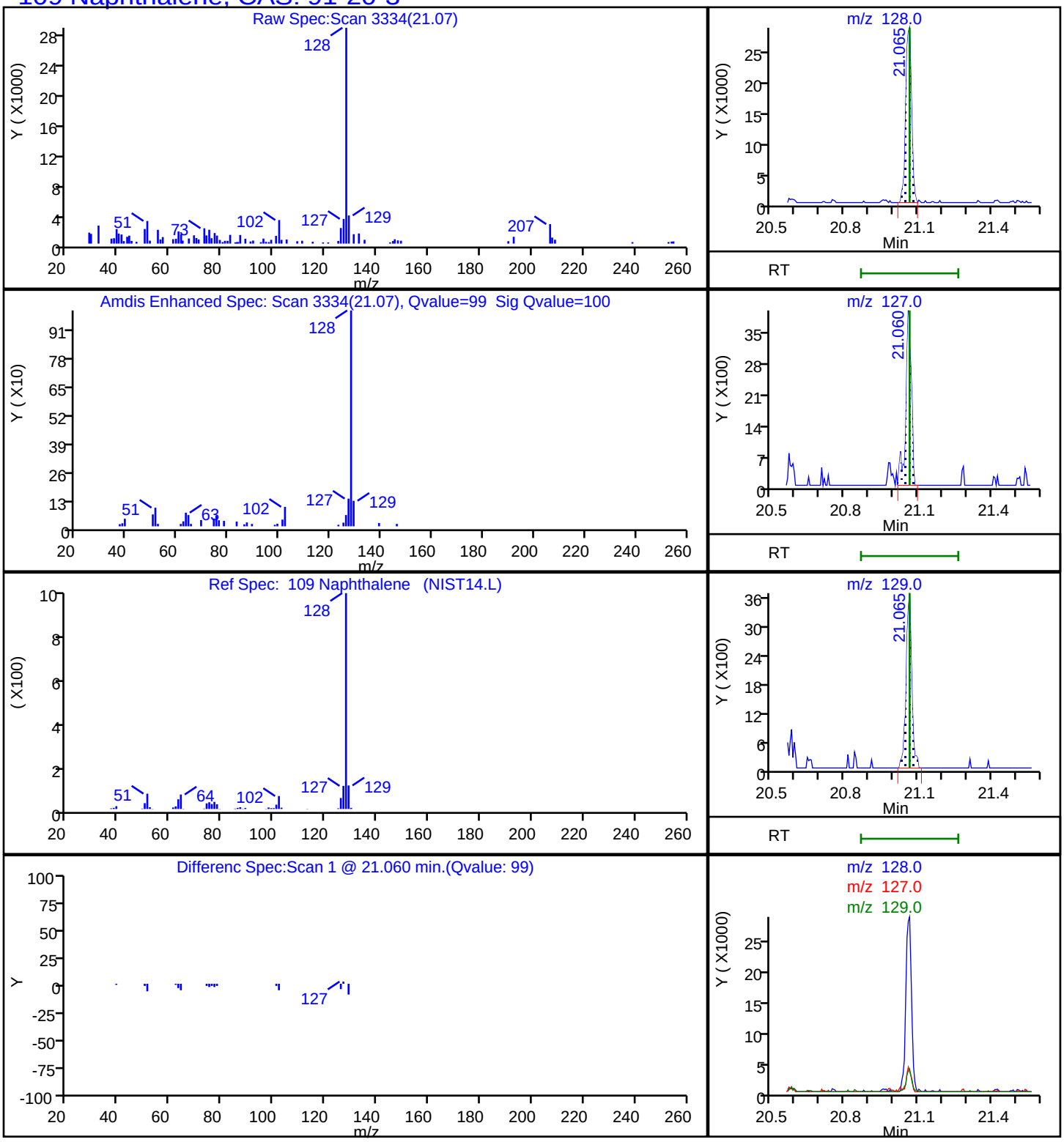


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D

Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

109 Naphthalene, CAS: 91-20-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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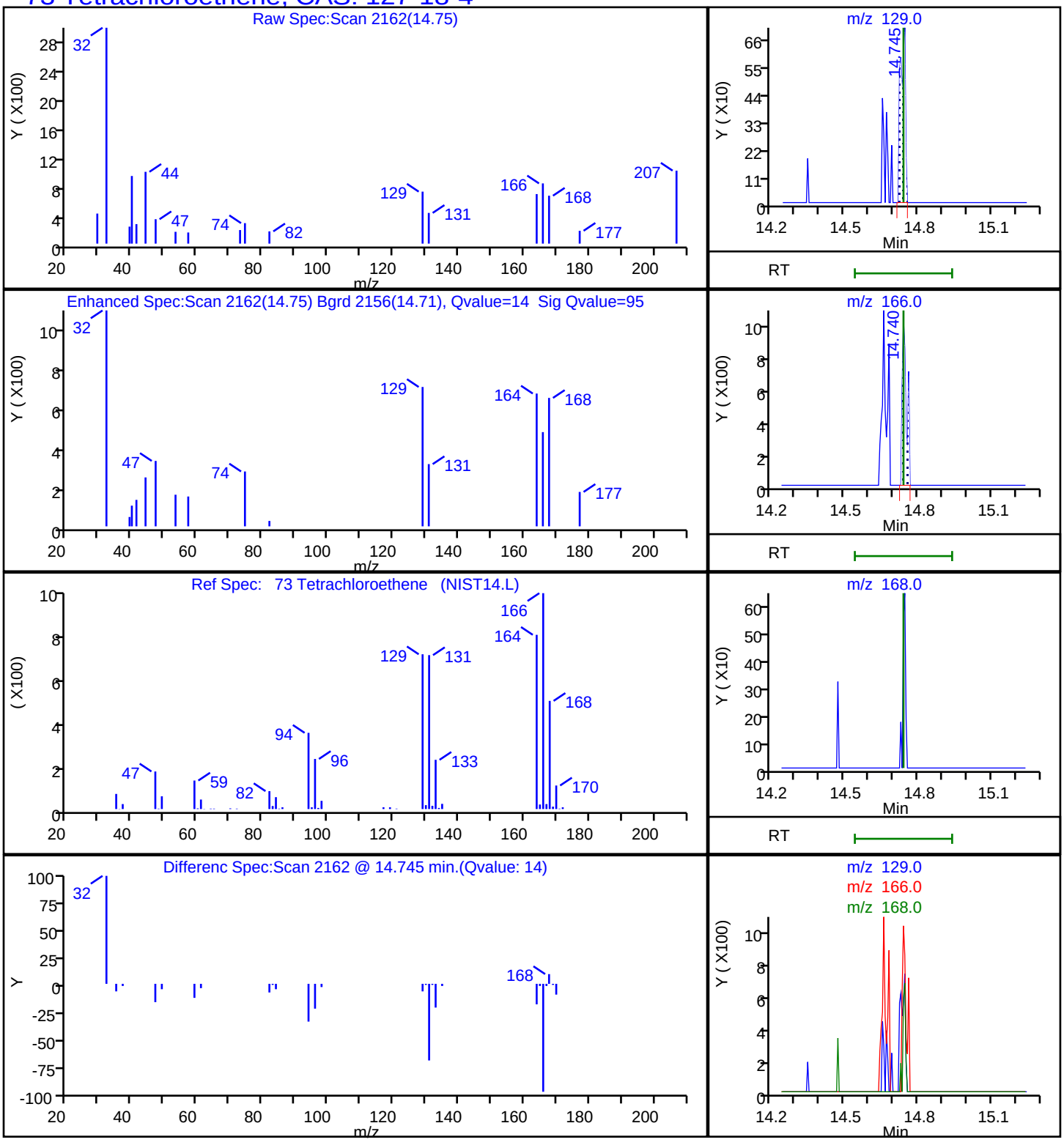
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

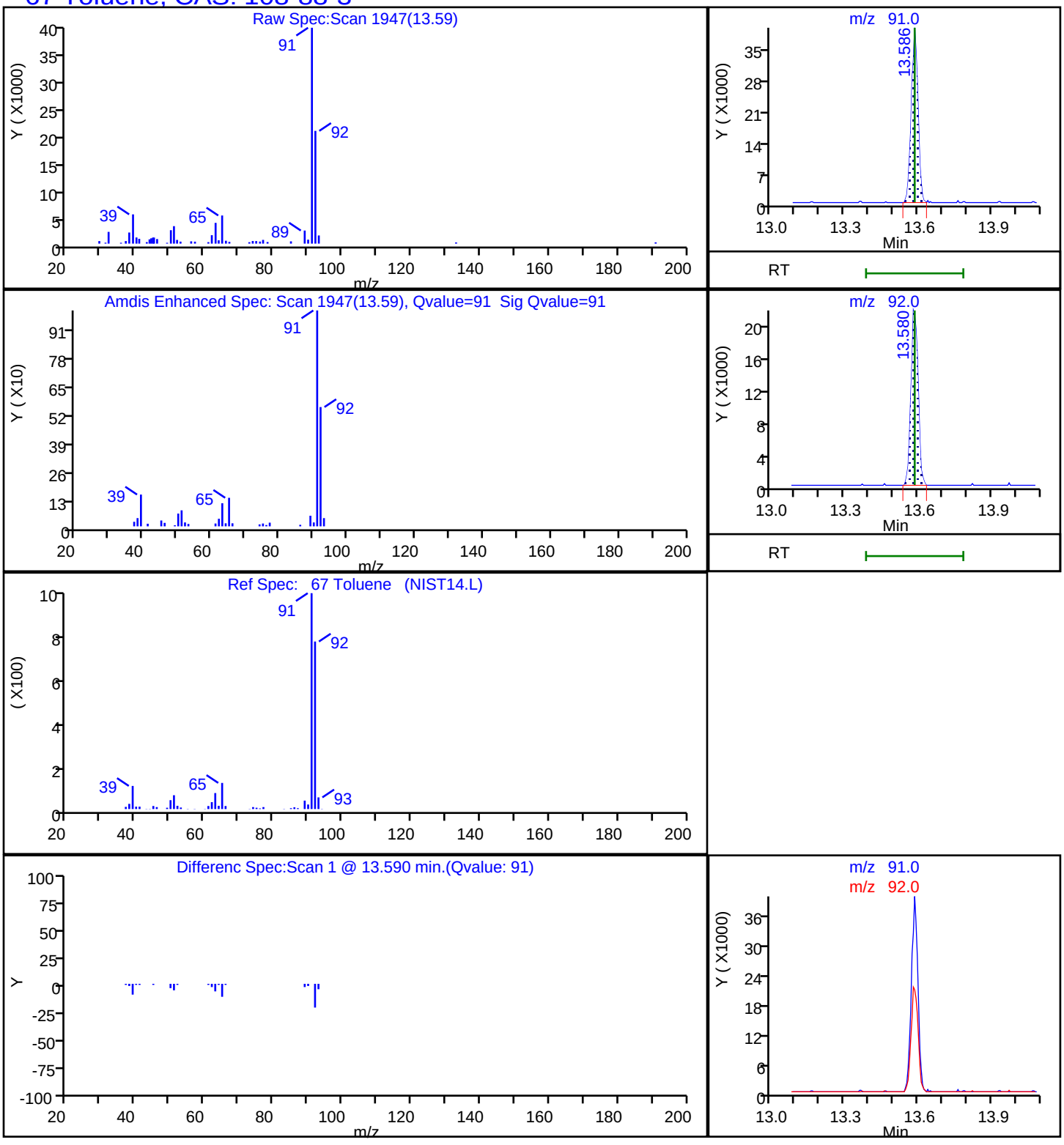
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

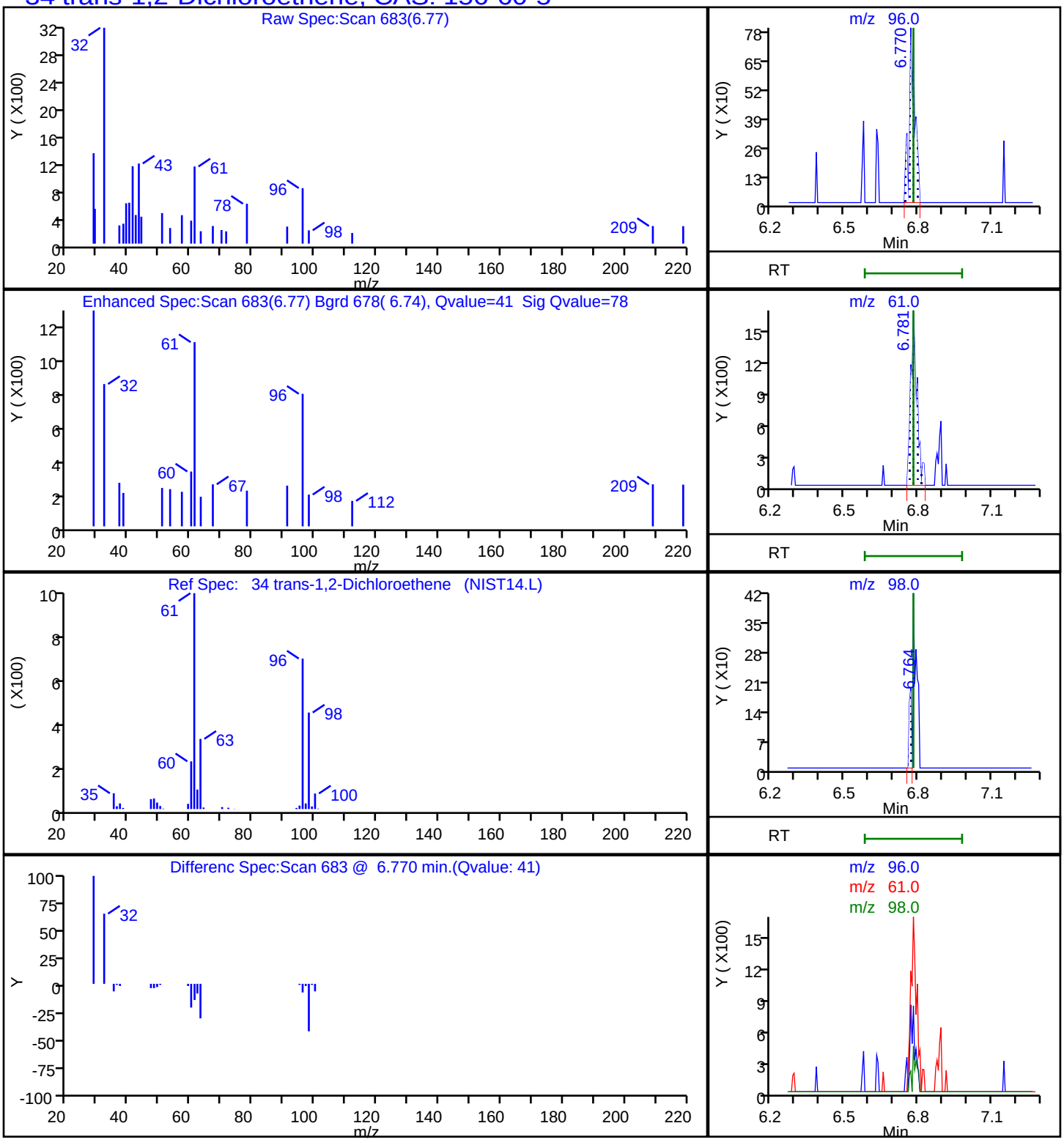
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



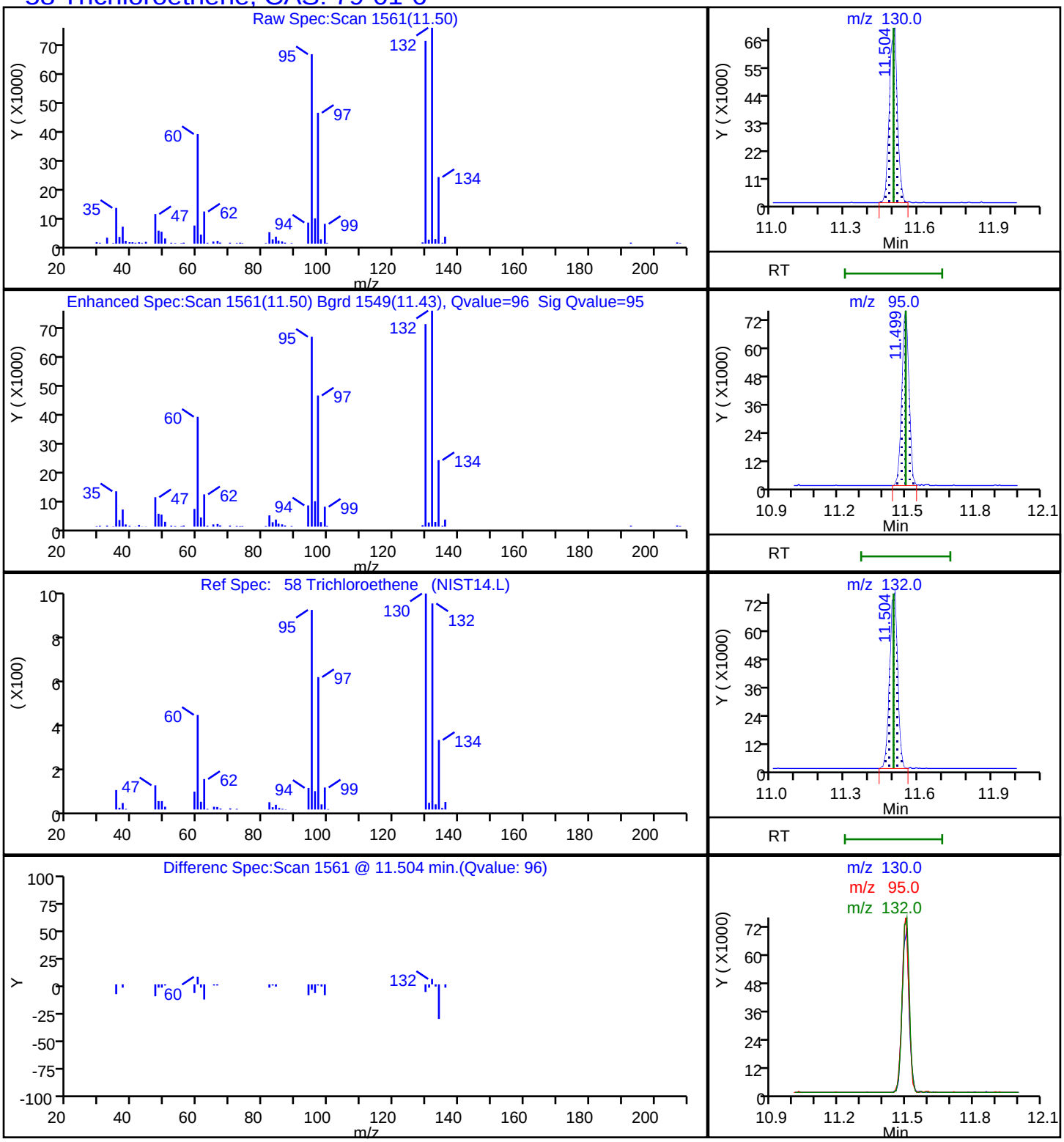
Report Date: 22-Aug-2019 10:30:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D

Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
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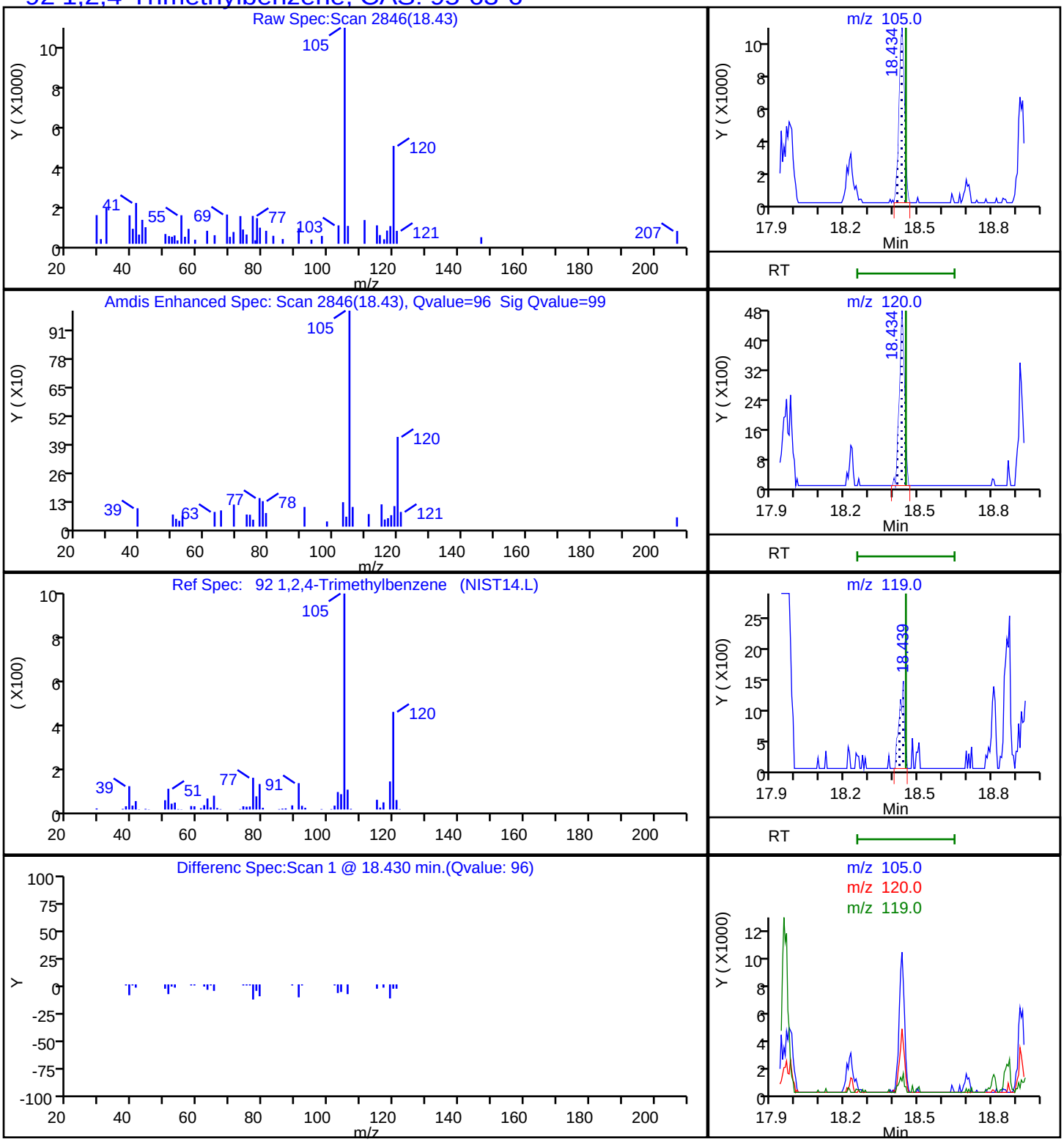
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

92 1,2,4-Trimethylbenzene, CAS: 95-63-6

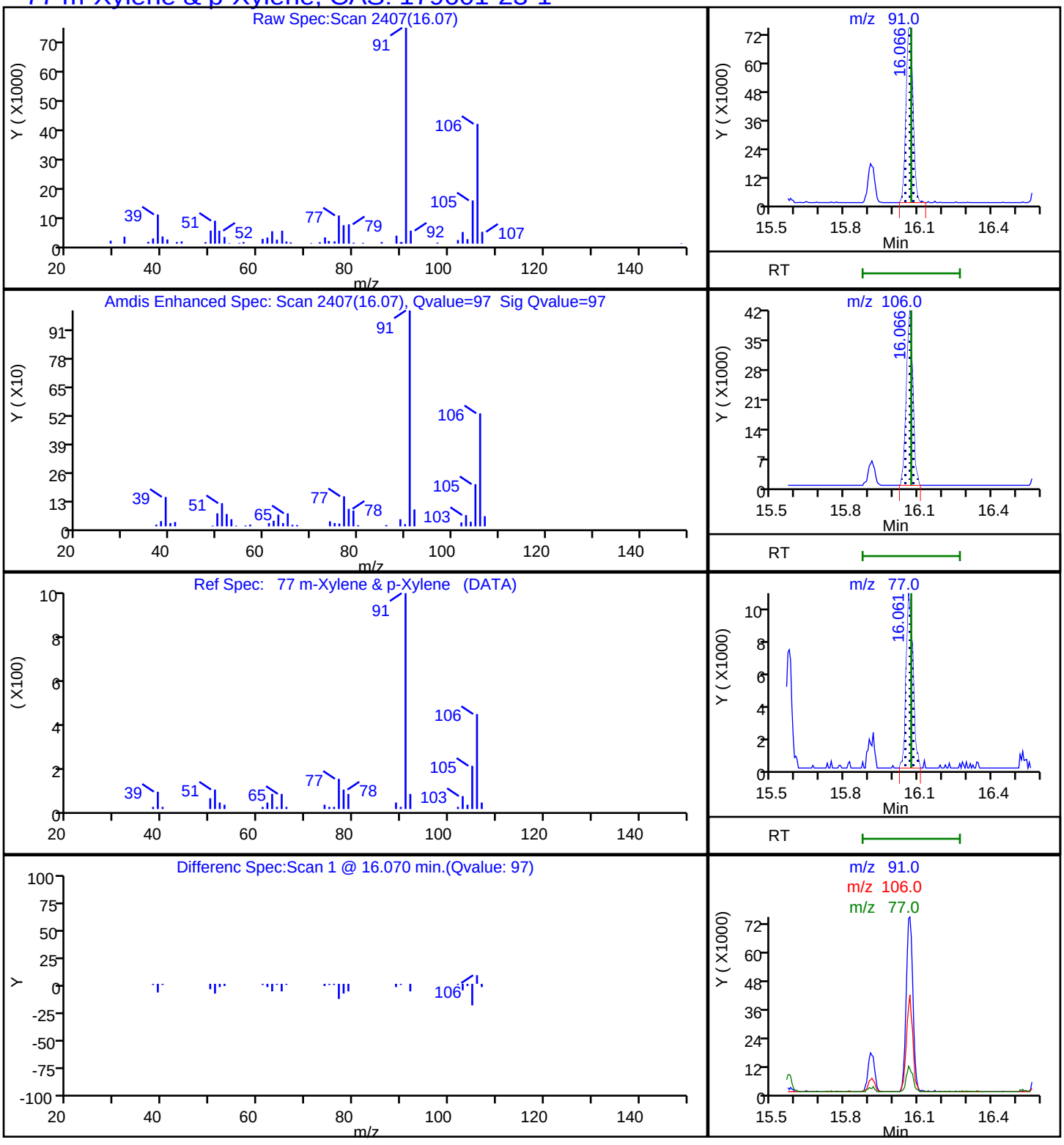


Report Date: 22-Aug-2019 10:30:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

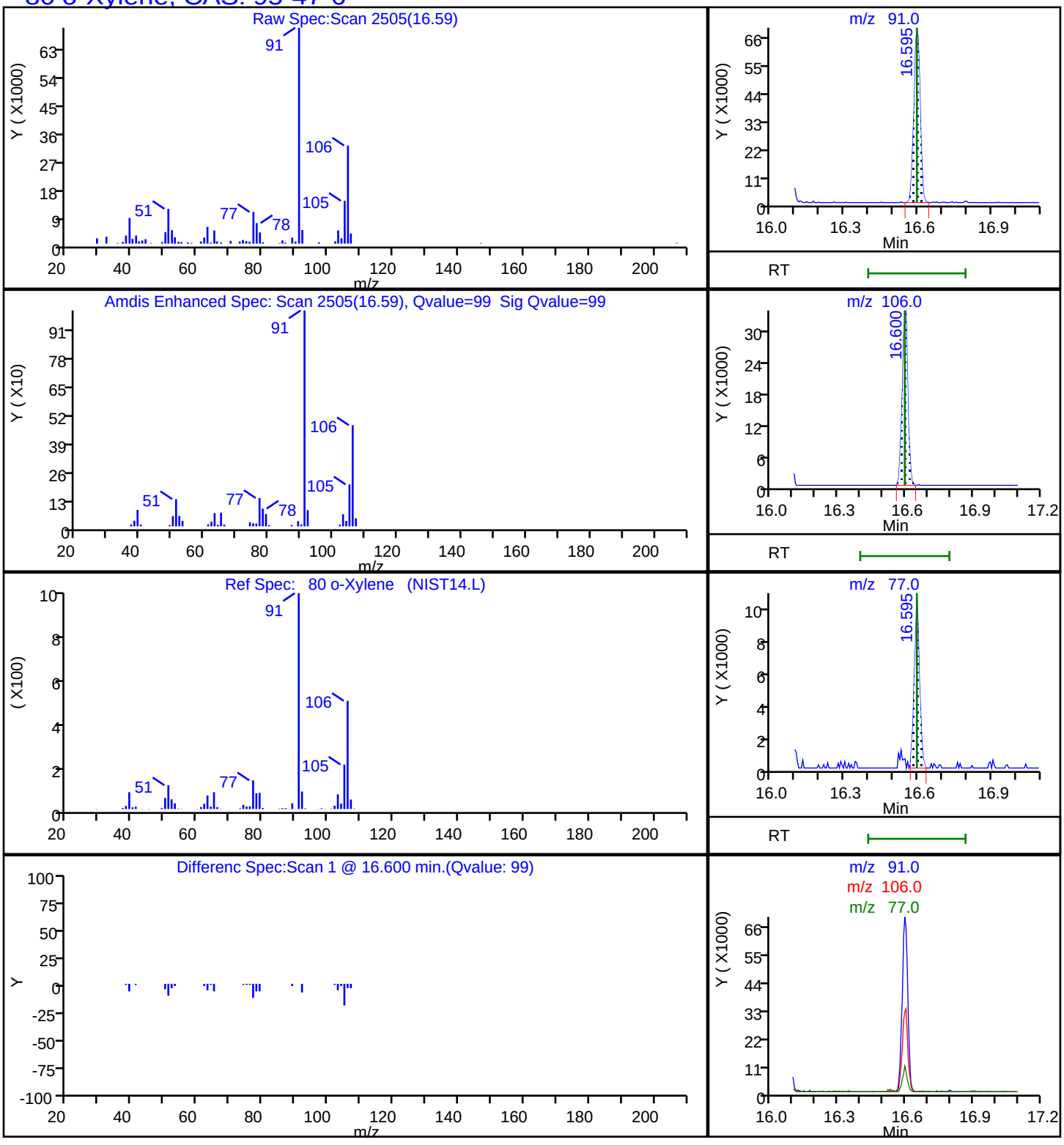


Report Date: 22-Aug-2019 10:30:37 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RH20P201.D		
Injection Date:	21-Aug-2019 05:43:30	Instrument ID:	MR
Lims ID:	140-16376-A-16	Lab Sample ID:	140-16376-16
Client ID:	SV-DUP02-C-27		
Operator ID:		ALS Bottle#:	1 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.63		0.40	0.11
67-66-3	Chloroform	119.38	1.1		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	10	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	0.49	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.2		1.4	0.39
67-66-3	Chloroform	119.38	5.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	36	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.99	J	2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D
Lims ID: 140-16376-A-17
Client ID: SV-142-C-27
Sample Type: Client
Inject. Date: 21-Aug-2019 06:31:30 ALS Bottle#: 2 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-022
Misc. Info.: 140-16376-a-17
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 10:28:54 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 10:31:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	227228	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1337929	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1105963	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	92	693146	3.64	
6 Chlorodifluoromethane	51	3.421	3.427	-0.006	90	24592	0.1267	
8 Dichlorodifluoromethane	85	3.481	3.486	-0.005	96	12010	0.0684	
31 Methylene Chloride	84	5.966	5.972	-0.006	94	164733	2.05	
44 Chloroform	83	8.544	8.555	-0.011	31	42069	0.2201	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	27	3461	0.0165	
49 Benzene	78	10.194	10.199	-0.005	67	4740	0.0175	
52 Carbon tetrachloride	117	10.221	10.226	-0.005	51	3181	0.0147	
58 Trichloroethene	130	11.499	11.499	0.000	94	45661	0.3832	
67 Toluene	91	13.591	13.586	0.005	92	28103	0.0988	
73 Tetrachloroethene	129	14.740	14.740	0.000	89	3384	0.0291	
76 Ethylbenzene	91	15.910	15.905	0.005	95	11552	0.0289	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	95	36412	0.1162	
80 o-Xylene	91	16.600	16.595	0.005	98	31359	0.0953	
109 Naphthalene	128	21.060	21.065	-0.005	98	33298	0.0591	
S 116 Xylenes, Total	100				0		0.2115	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

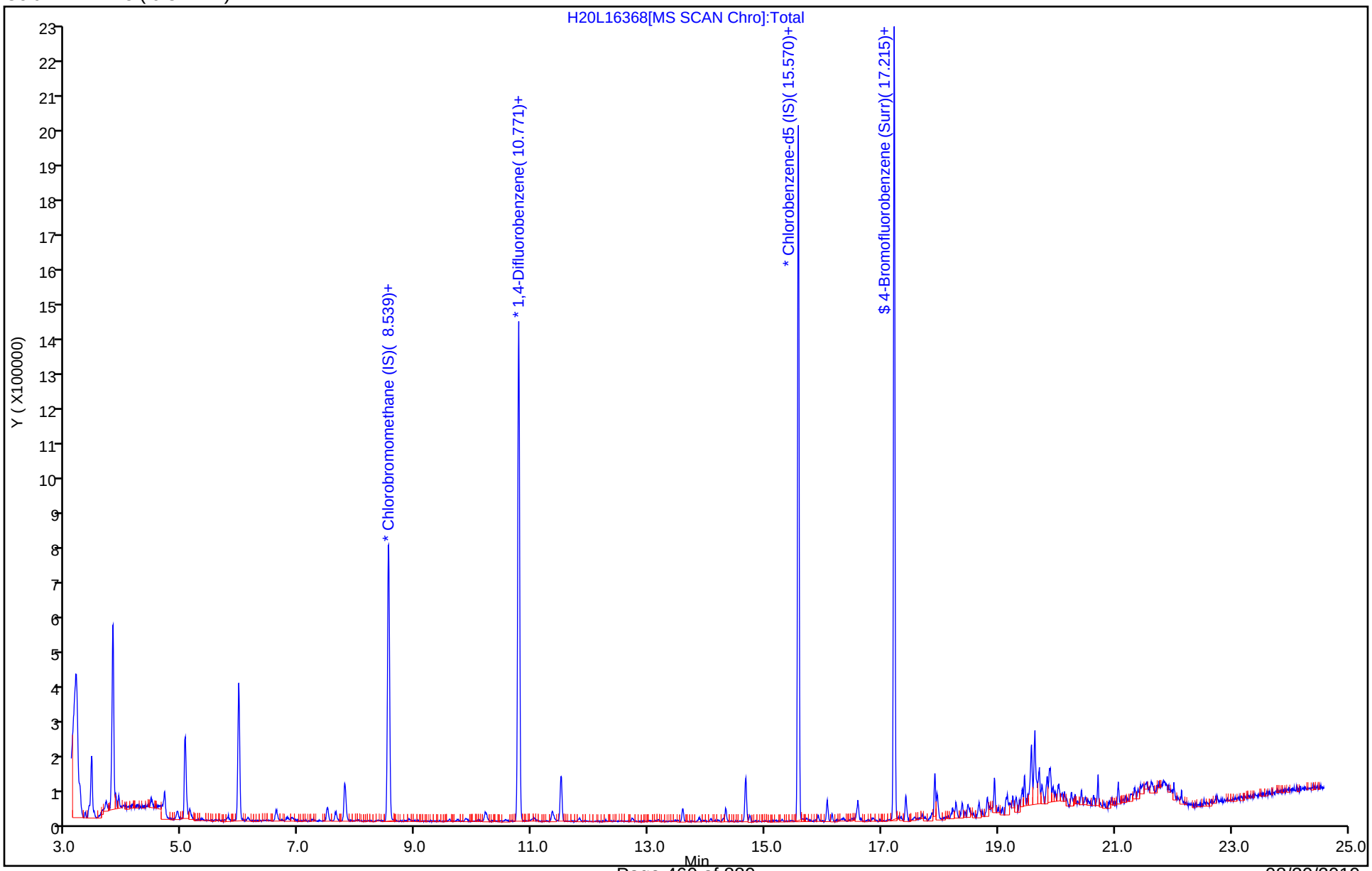
Report Date: 22-Aug-2019 10:31:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D

Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17	Worklist Smp#:	22
Client ID:	SV-142-C-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D				
Lims ID:	140-16376-A-17				
Client ID:	SV-142-C-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 06:31:30	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-022				
Misc. Info.:	140-16376-a-17				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 10:28:54	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 10:31:09		

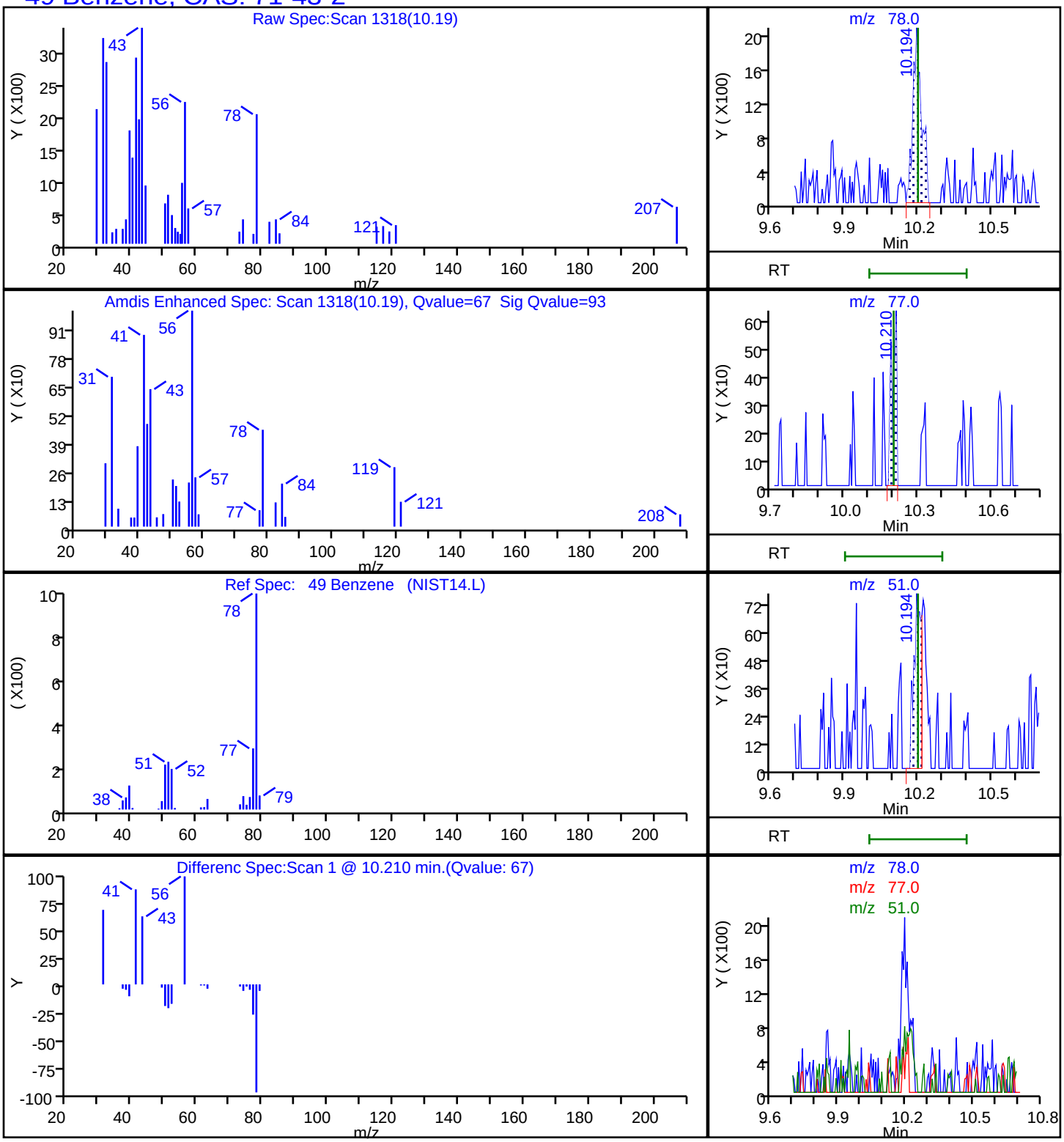
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.64	90.88

Report Date: 22-Aug-2019 10:31:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

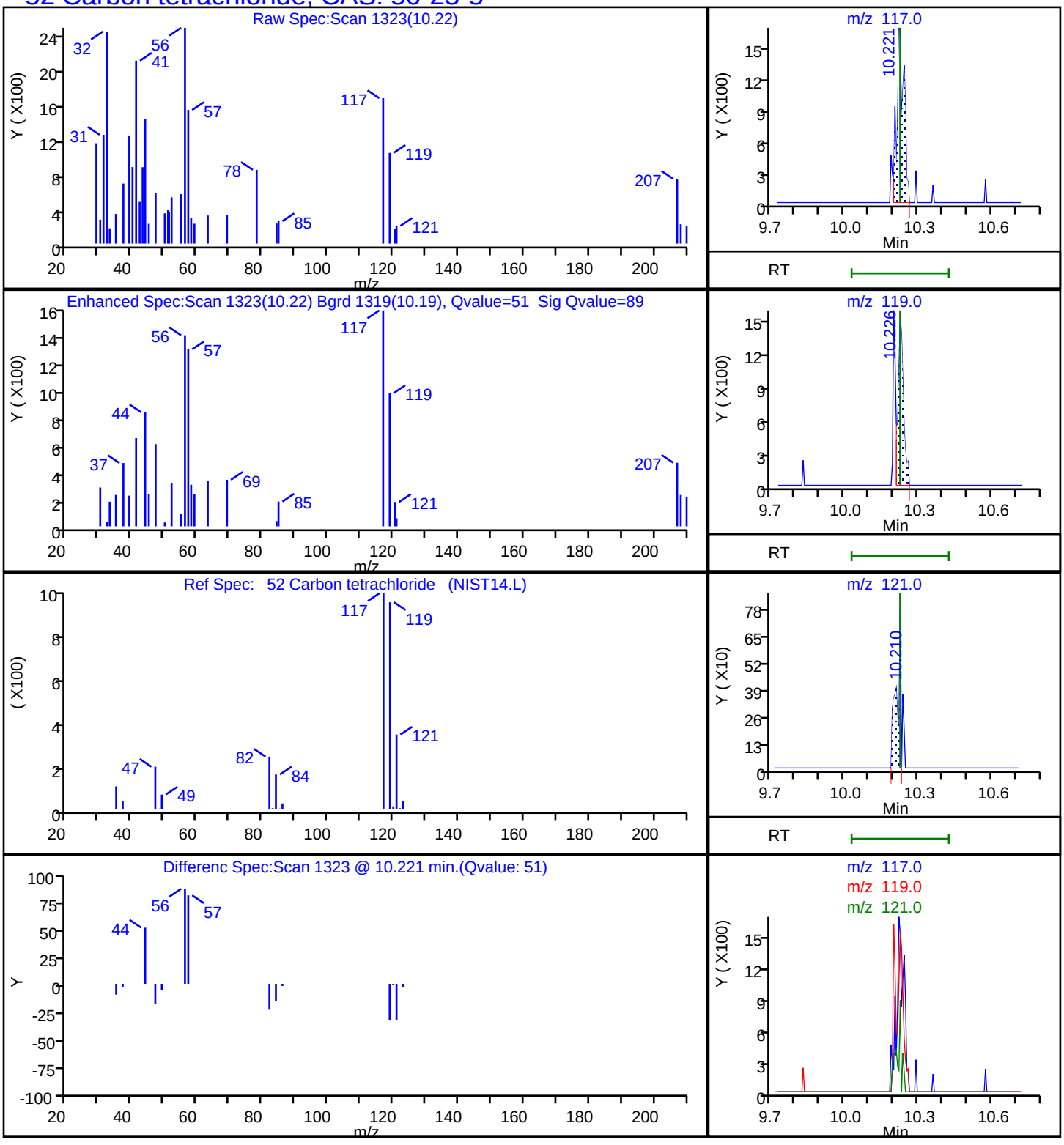
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

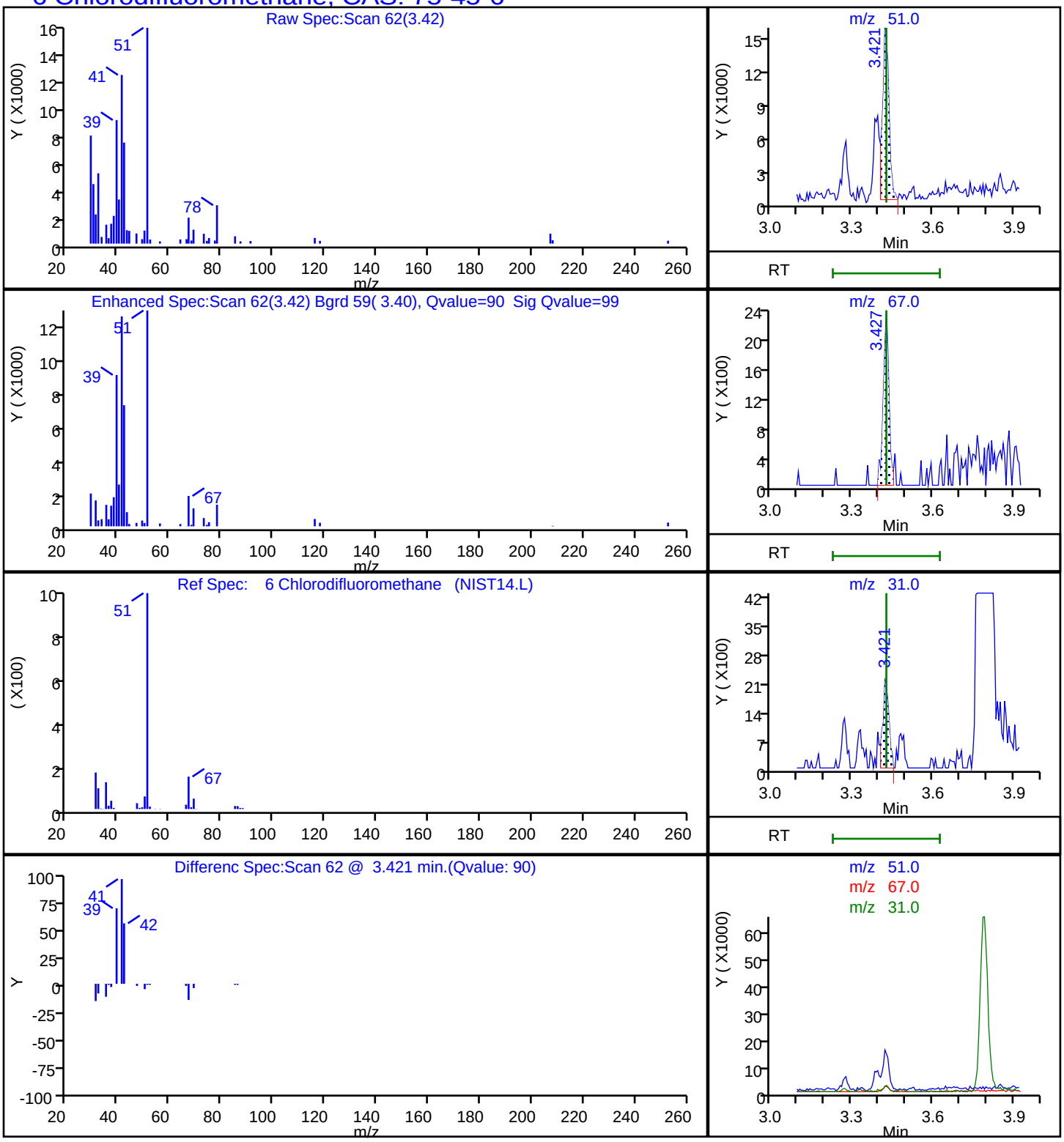


Report Date: 22-Aug-2019 10:31:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

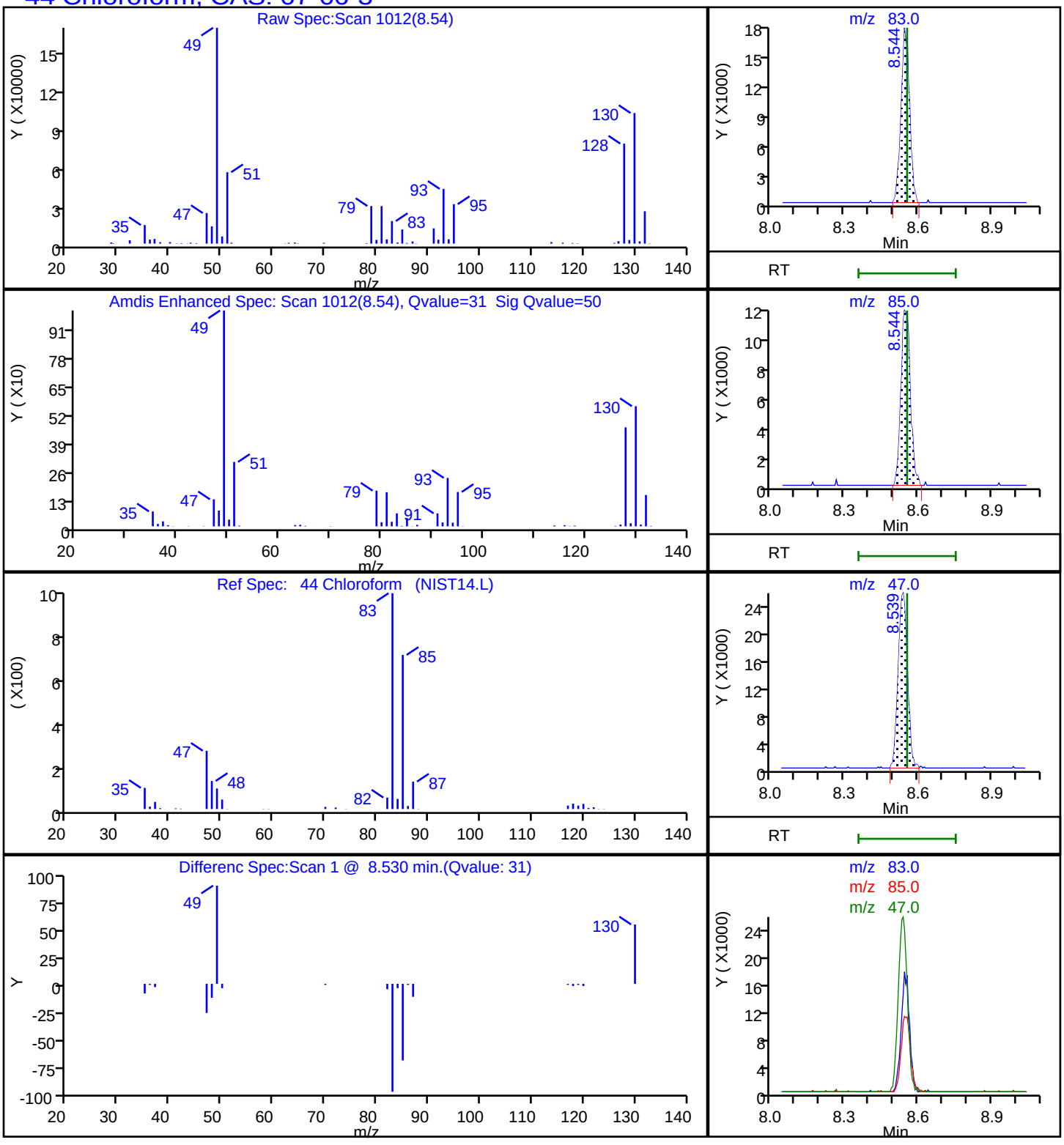
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

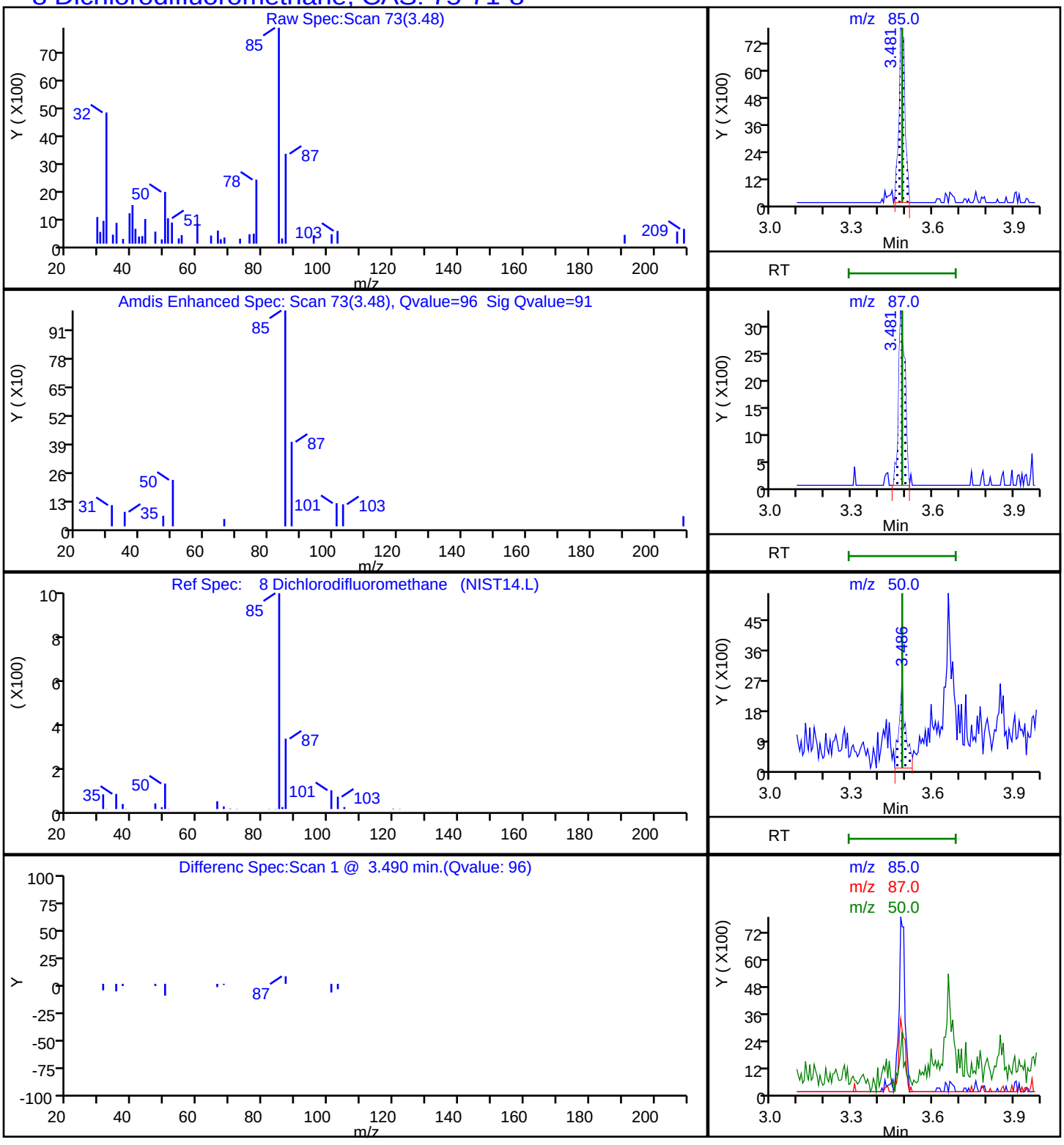
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

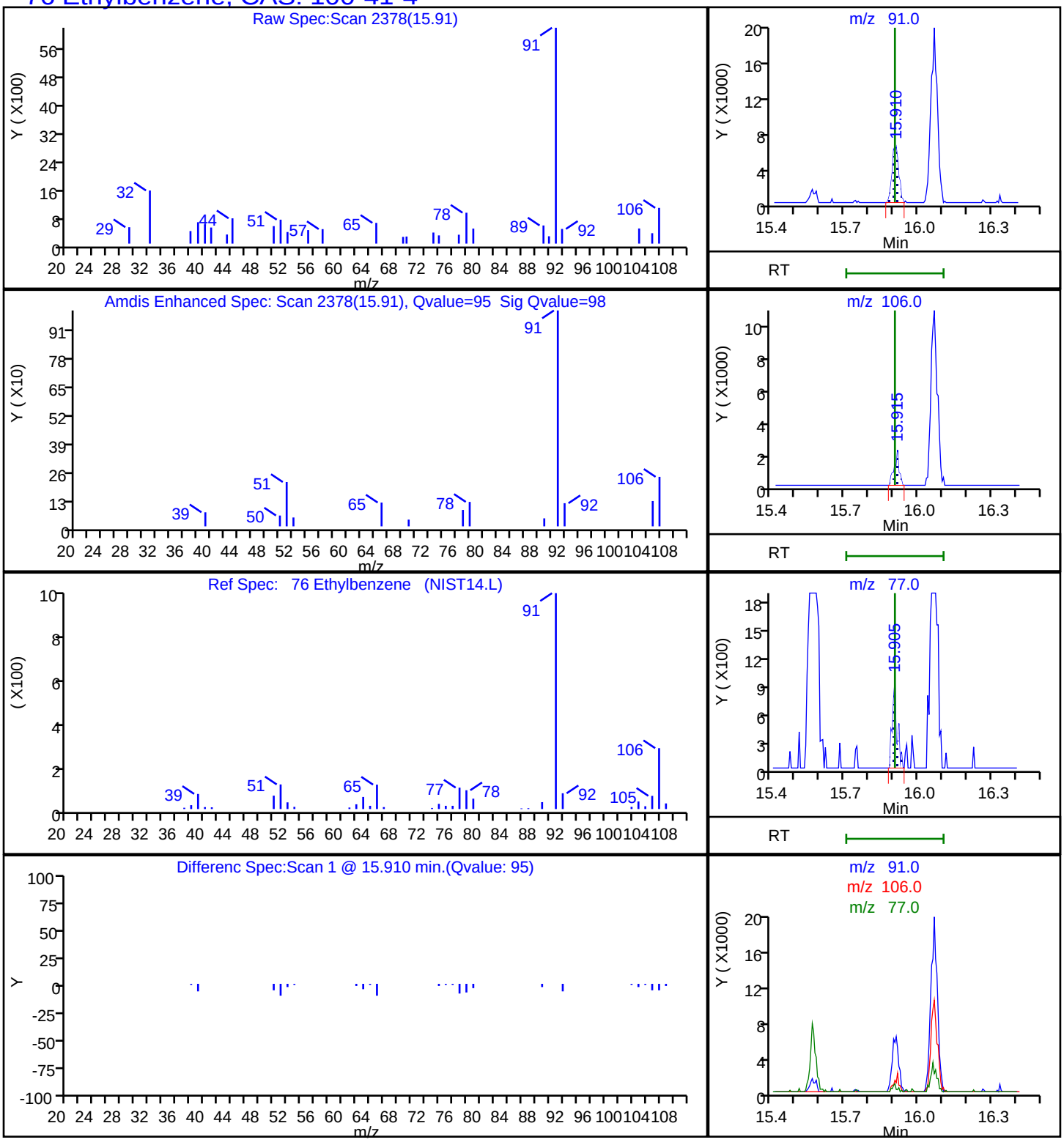


Report Date: 22-Aug-2019 10:31:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

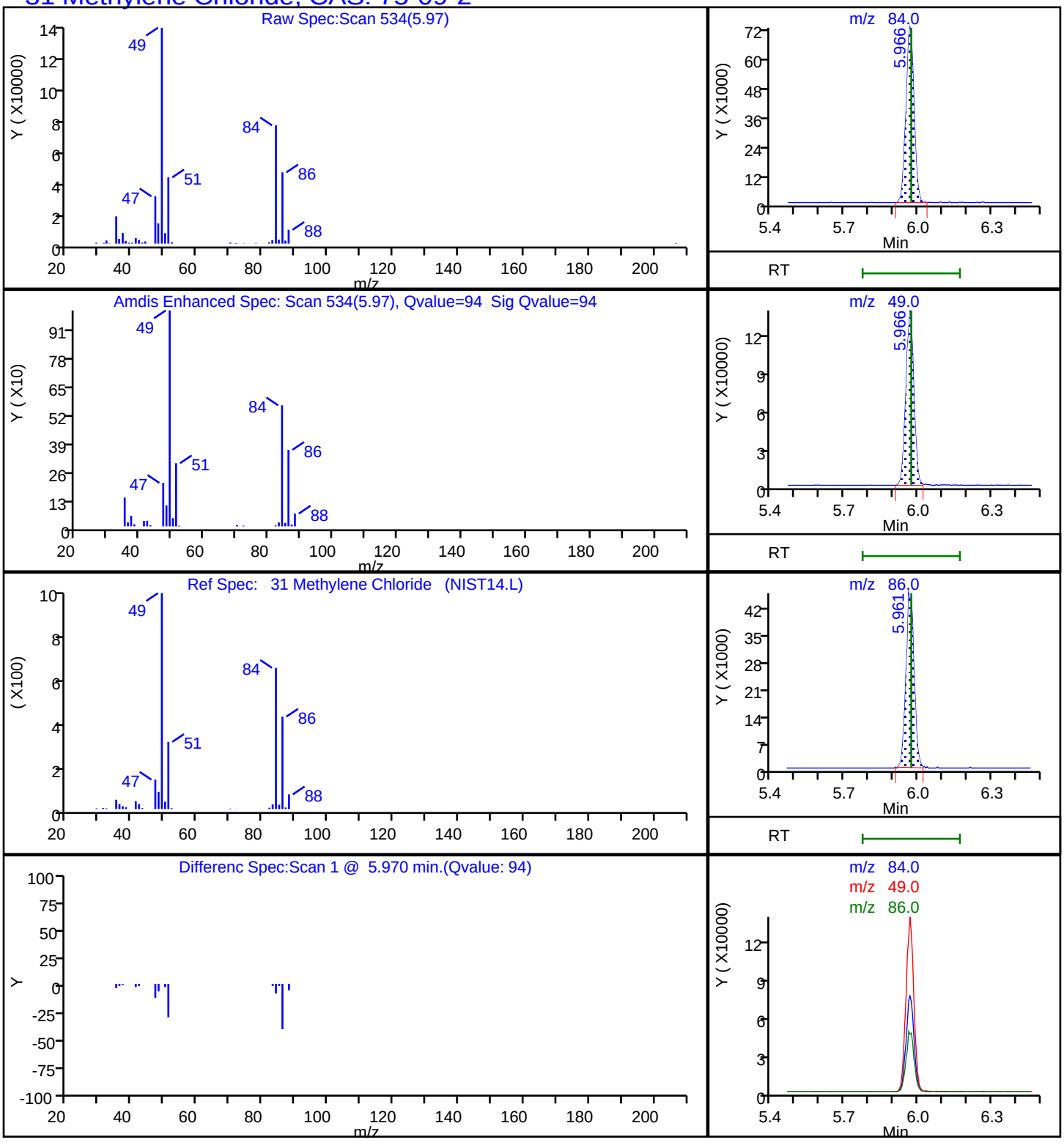


Report Date: 22-Aug-2019 10:31:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

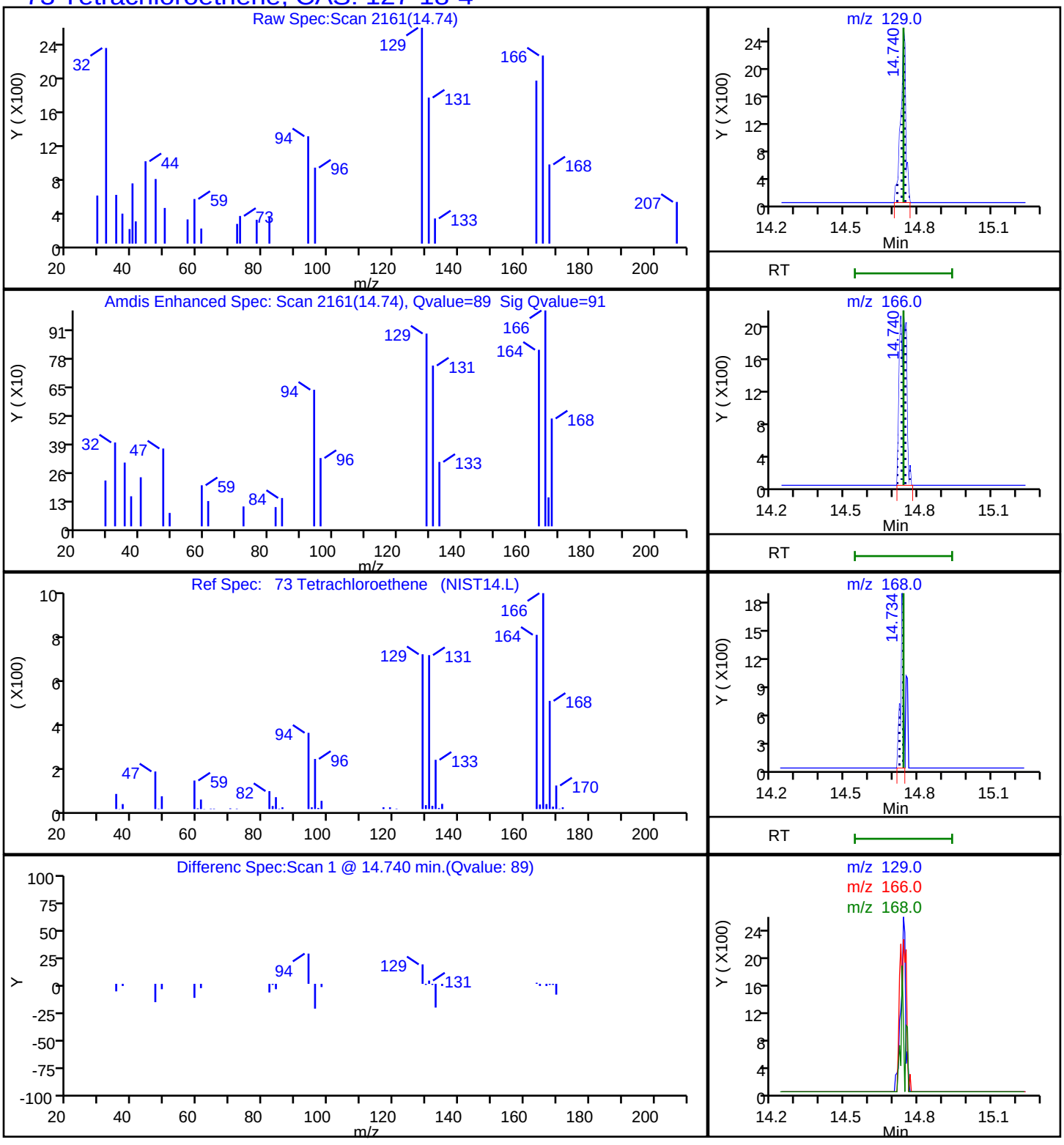
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

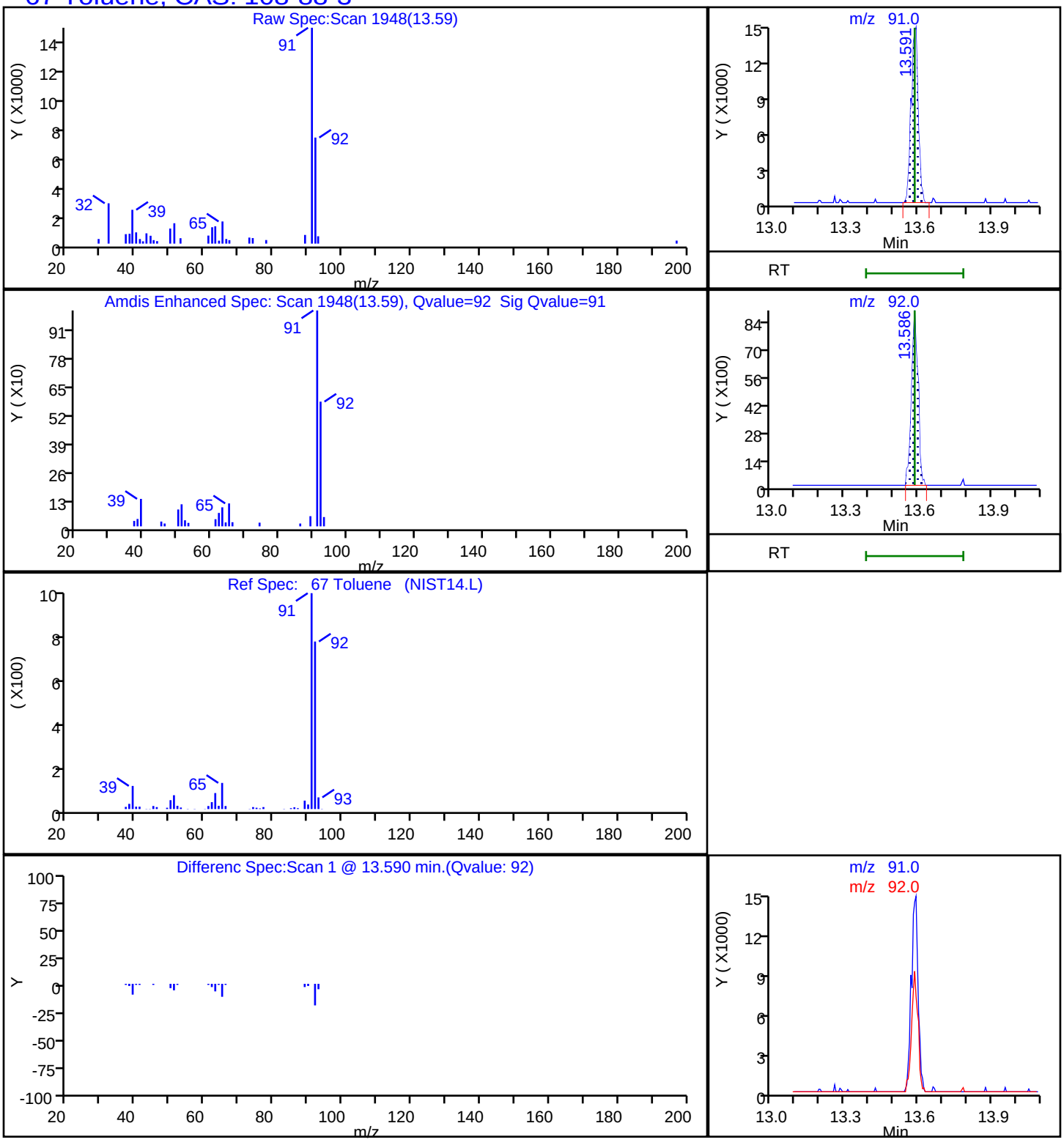
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

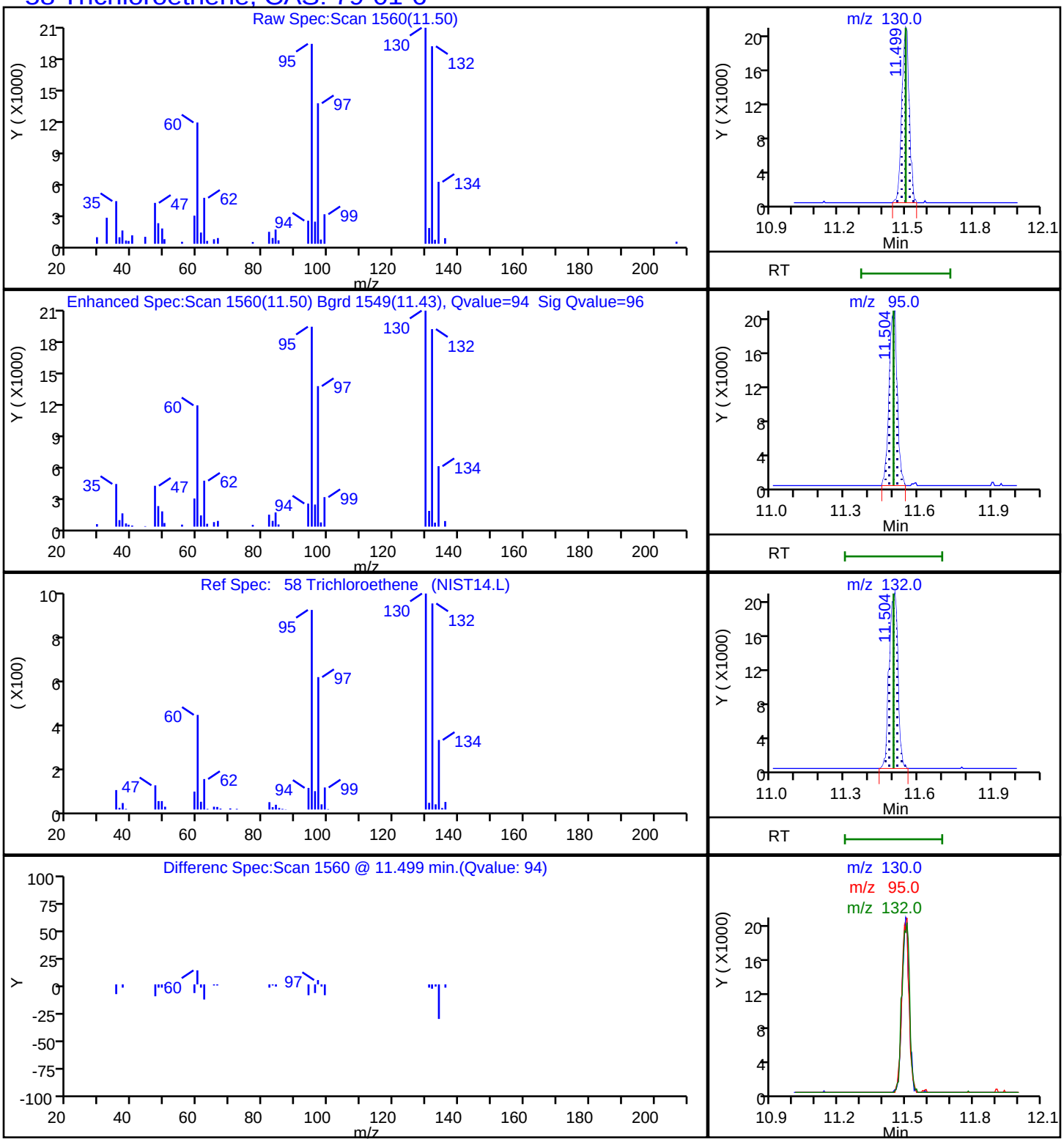


Report Date: 22-Aug-2019 10:31:10 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

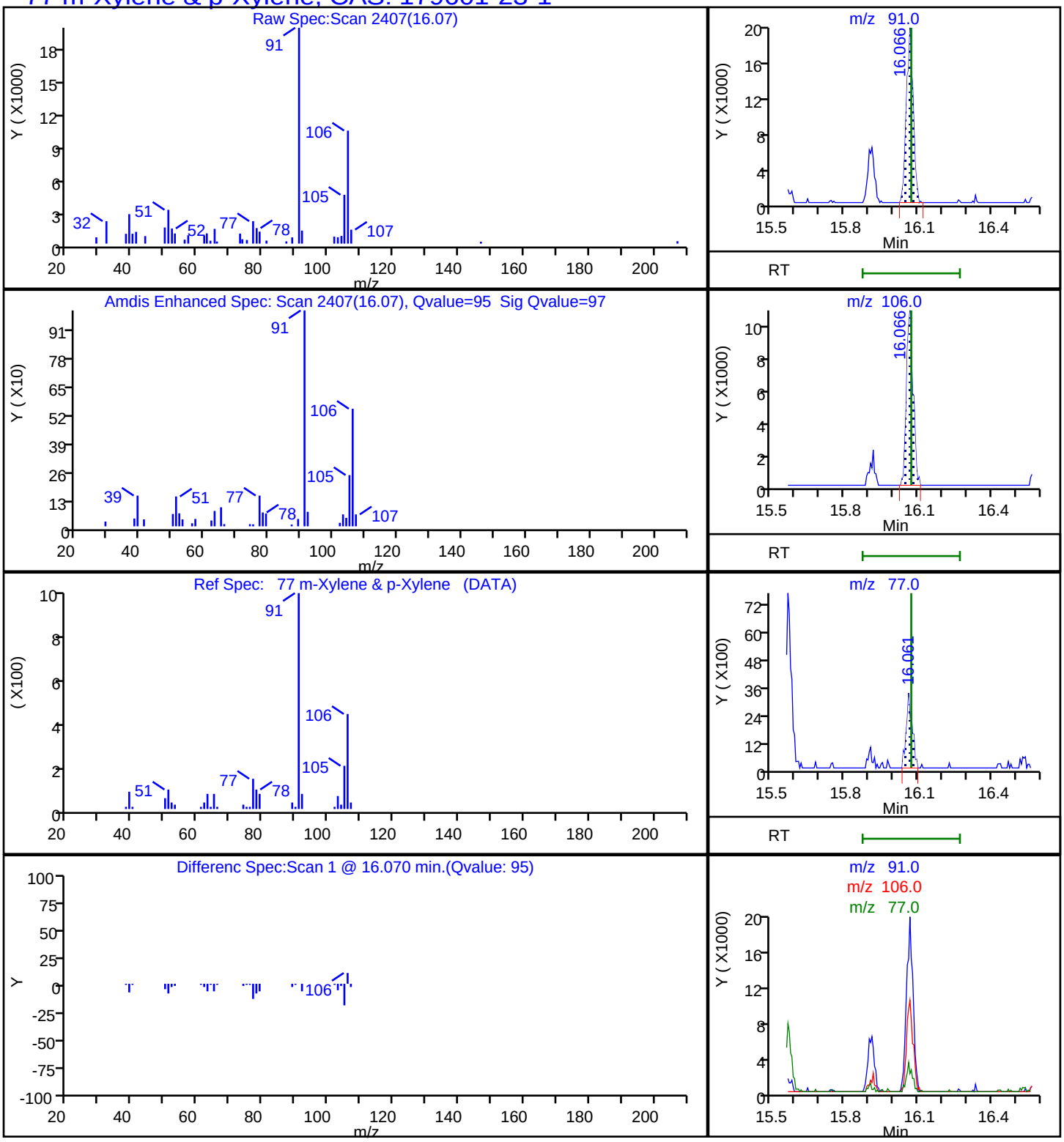


Report Date: 22-Aug-2019 10:31:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

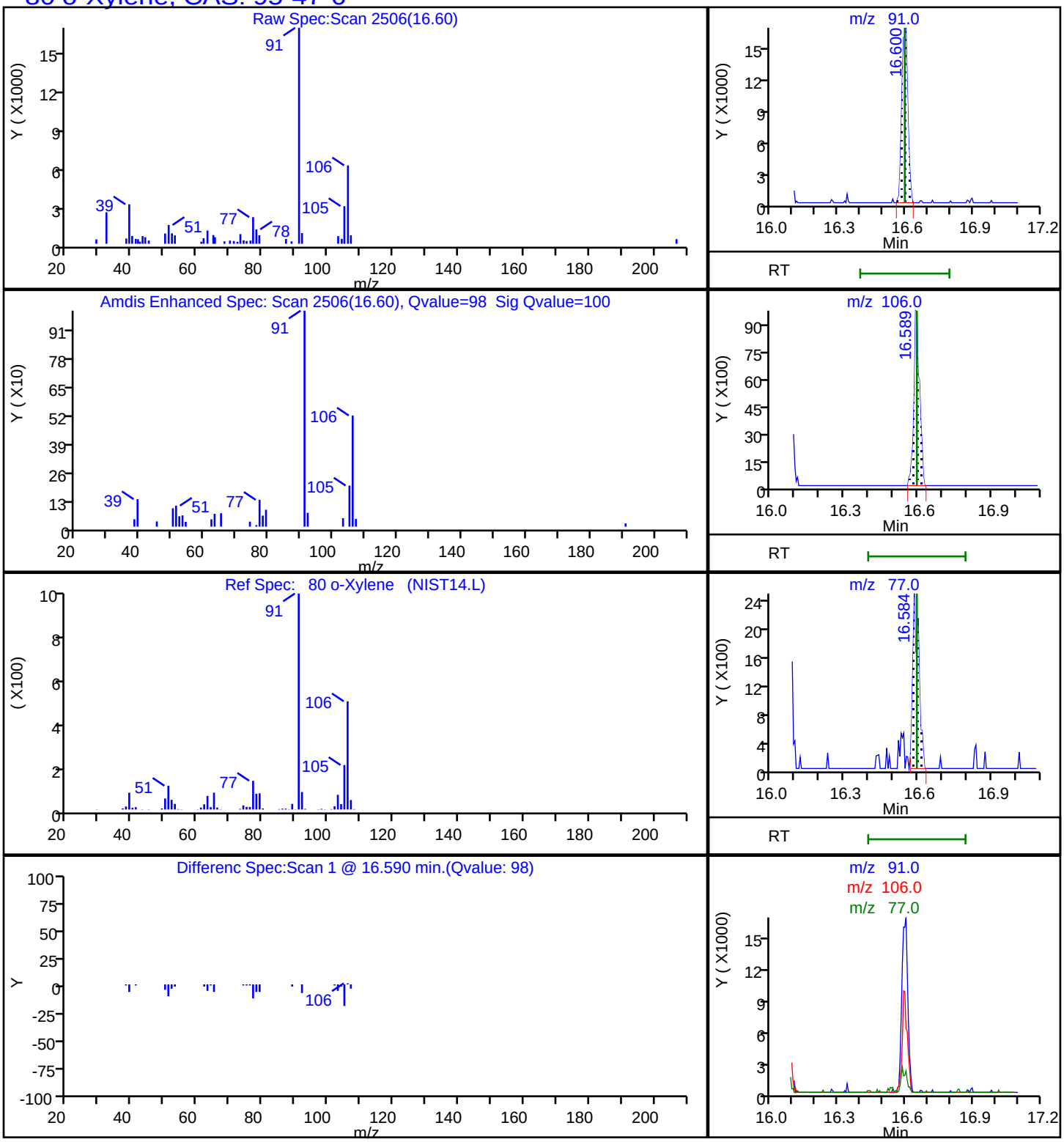
77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\H20L16368.D		
Injection Date:	21-Aug-2019 06:31:30	Instrument ID:	MR
Lims ID:	140-16376-A-17	Lab Sample ID:	140-16376-17
Client ID:	SV-142-C-27		
Operator ID:		ALS Bottle#:	2 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 05-Aug-2019 15:09:30 ALS Bottle#: 3 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-002
Misc. Info.: 245075
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:28 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	87	451712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2473673	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2154864	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	93	1461274	4.00	3.90	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	1710736	8.00	7.46	
7 Propene	41	3.834	3.839	-0.005	95	770844	8.00	6.86	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	3306512	8.00	7.42	
9 Chloromethane	52	4.082	4.085	-0.003	97	222416	8.00	6.88	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	90	1793395	8.00	7.07	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	1374626	40.0	38.5	
12 Vinyl chloride	62	4.266	4.266	0.000	99	845319	8.00	7.17	
13 Butane	43	4.357	4.360	-0.003	82	1250581	8.00	7.42	
14 Butadiene	54	4.357	4.360	-0.003	72	660584	8.00	7.70	
15 Bromomethane	94	4.697	4.699	-0.002	97	793864	8.00	7.40	
16 Chloroethane	64	4.848	4.849	-0.001	92	401160	8.00	7.65	
17 Ethanol	31	4.961	4.983	-0.022	99	1504209	40.0	41.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	737450	8.00	7.84	
19 2-Methylbutane	43	5.220	5.219	0.001	89	822472	8.00	7.70	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	100	2830484	8.00	7.87	
21 Acrolein	56	5.463	5.472	-0.009	97	141090	8.00	9.05	
22 Acetonitrile	40	5.533	5.537	-0.004	97	243930	8.00	9.36	
23 Acetone	58	5.576	5.604	-0.028	100	768726	24.0	25.2	
24 Pentane	72	5.678	5.682	-0.004	94	120009	8.00	7.89	
25 Isopropyl alcohol	45	5.678	5.726	-0.048	93	2151424	24.0	24.7	
26 Ethyl ether	31	5.851	5.869	-0.018	93	551656	8.00	8.59	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	96	961786	8.00	7.47	
28 Acrylonitrile	53	6.293	6.304	-0.011	91	555382	8.00	8.81	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	2112949	8.00	7.50	
30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	1599691	8.00	8.26	
31 Methylene Chloride	84	6.546	6.545	0.001	95	849405	8.00	6.79	
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1009854	8.00	8.17	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.714	6.713	0.001	100	2725404	8.00	7.87	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	97	979238	8.00	7.60	
35 2-Methylpentane	43	7.393	7.393	0.000	91	1987860	8.00	7.47	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	2948147	8.00	8.50	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1925083	8.00	7.79	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	2242940	8.00	9.43	
40 Hexane	56	8.391	8.392	-0.001	90	800390	8.00	7.76	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	412248	8.00	8.42	
41 Isopropyl ether	45	8.552	8.569	-0.017	94	2770096	8.00	8.42	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	96	1050648	8.00	7.95	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	1884143	8.00	8.90	
44 Chloroform	83	9.162	9.157	0.005	97	2472840	8.00	8.07	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	3154212	8.00	8.48	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	915126	8.00	8.36	
47 1,1,1-Trichloroethane	97	10.203	10.198	0.004	95	2925648	8.00	7.96	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	99	1813560	8.00	7.96	
49 Cyclohexane	69	10.790	10.788	0.002	76	458824	8.00	6.70	
50 Benzene	78	10.790	10.788	0.002	98	2602460	8.00	7.04	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	3044571	8.00	8.10	
51 n-Butanol	31	10.758	10.822	-0.064	77	260359	8.00	8.41	
53 2,3-Dimethylpentane	71	10.904	10.900	0.004	88	686659	8.00	7.30	
54 Thiophene	84	11.065	11.057	0.008	97	1698039	8.00	7.77	
55 Isooctane	57	11.534	11.531	0.003	97	4508895	8.00	6.95	
56 n-Heptane	71	11.901	11.898	0.003	88	1058004	8.00	7.35	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	991233	8.00	7.60	
58 Trichloroethene	130	12.025	12.022	0.003	98	1507633	8.00	7.31	
59 Dibromomethane	93	12.111	12.108	0.003	92	1198582	8.00	7.72	
60 Dichlorobromomethane	83	12.252	12.249	0.003	99	2599570	8.00	8.33	
61 1,4-Dioxane	88	12.268	12.304	-0.036	89	355892	8.00	6.62	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1196941	8.00	8.62	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	1859316	8.00	7.13	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	1661149	8.00	8.47	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	1750155	8.00	8.02	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	1765828	8.00	8.88	
67 Toluene	91	14.047	14.046	0.001	94	3427935	8.00	8.09	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	98	971053	8.00	7.82	
69 2-Hexanone	58	14.500	14.514	-0.014	95	821892	8.00	7.98	
70 n-Octane	85	14.716	14.714	0.002	88	1194484	8.00	7.75	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	2731534	8.00	9.08	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1942792	8.00	8.43	
73 Tetrachloroethene	129	15.180	15.176	0.004	95	1448244	8.00	7.38	
75 Chlorobenzene	112	16.048	16.044	0.004	91	2554935	8.00	7.23	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	89	2603666	8.00	6.41	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	4591648	8.00	8.18	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	6873741	16.0	15.7	
80 n-Nonane	57	16.894	16.891	0.003	85	1974700	8.00	7.33	
81 Bromoform	173	16.943	16.943	0.000	94	2587360	8.00	9.48	
82 Styrene	104	16.954	16.951	0.003	97	2313599	8.00	8.06	
83 o-Xylene	91	17.013	17.012	0.001	98	3781529	8.00	7.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	2175269	8.00	7.82	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	96	889000	8.00	8.24	
86 Isopropylbenzene	105	17.595	17.592	0.003	97	5054165	8.00	7.80	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.000	99	1458598	8.00	8.04	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	1349589	8.00	7.71	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	5058724	8.00	7.96	
90 1,3,5-Trimethylbenzene	120	18.340	18.335	0.005	92	2101833	8.00	7.90	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	2211925	8.00	8.98	
93 n-Decane	57	18.609	18.606	0.003	95	2137953	8.00	6.22	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	4312361	8.00	7.14	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	3968365	8.00	7.02	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	5352154	8.00	6.76	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	2903324	8.00	7.29	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	3561090	8.00	8.12	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	2902889	8.00	7.22	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	96	5072526	8.00	7.22	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	4190174	8.00	8.22	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	2648672	8.00	5.95	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	3274469	8.00	6.35	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	96	2618202	8.00	6.99	
105 n-Butylbenzene	91	19.596	19.596	0.000	94	3820712	8.00	6.08	
106 Indene	116	19.601	19.598	0.003	84	2920360	8.00	6.79	
107 Undecane	57	19.893	19.893	0.000	91	2084469	8.00	7.47	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	1666153	8.00	8.73	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	4728508	8.00	7.12	
110 Dodecane	57	20.944	20.944	0.000	94	1769673	8.00	8.05	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	2608671	8.00	7.83	
112 Naphthalene	128	21.300	21.297	0.003	98	4986554	8.00	7.26	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	2597769	8.00	8.03	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	2232436	8.00	7.25	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	2760596	8.00	11.5	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	2543638	8.00	11.1	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	9972663	8.00	7.80	
S 123 1,2-Dichloroethene, Total	1				0		16.0	15.5	
S 124 Xylenes, Total	100				0		24.0	23.6	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

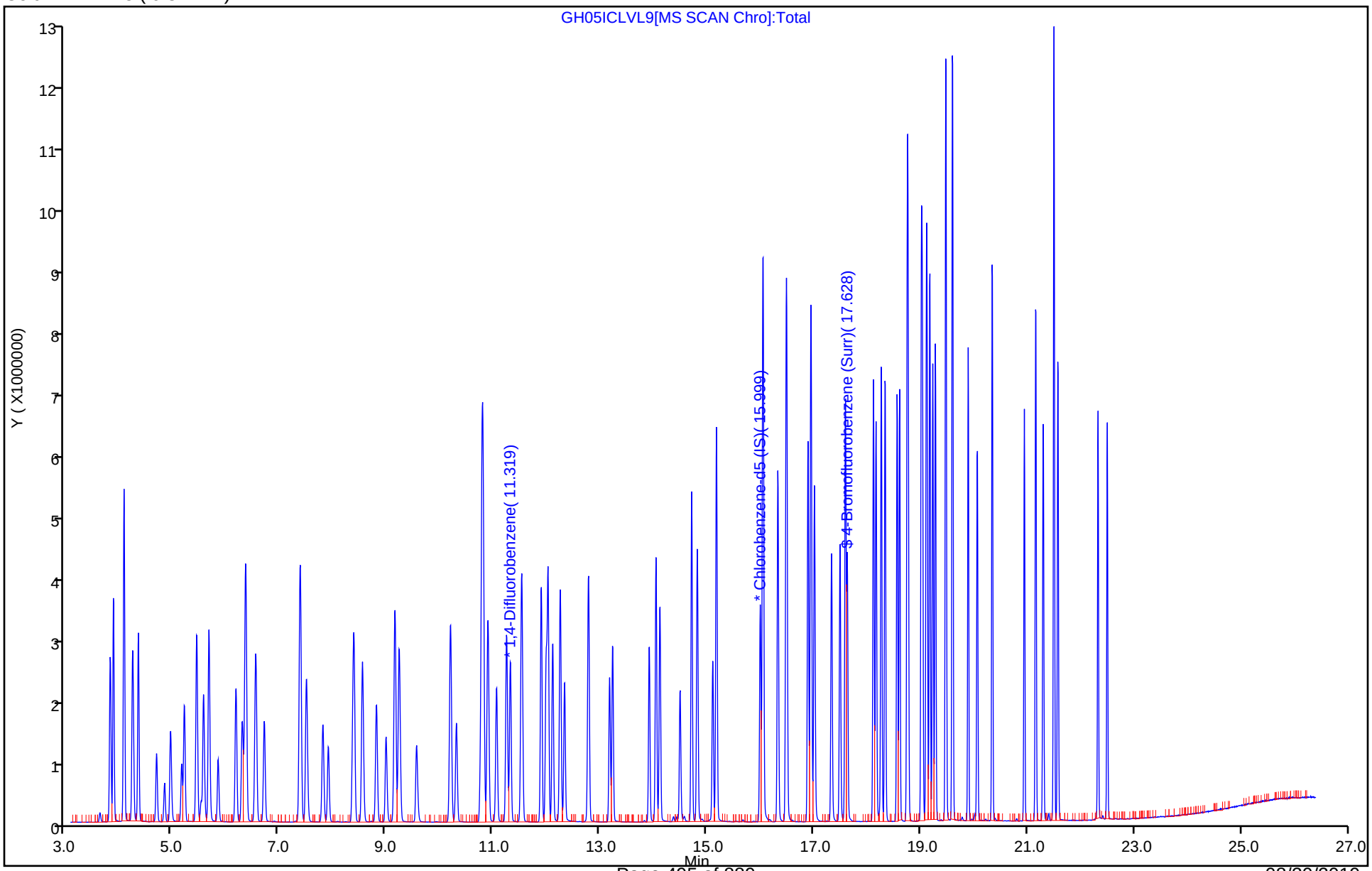
Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D

Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

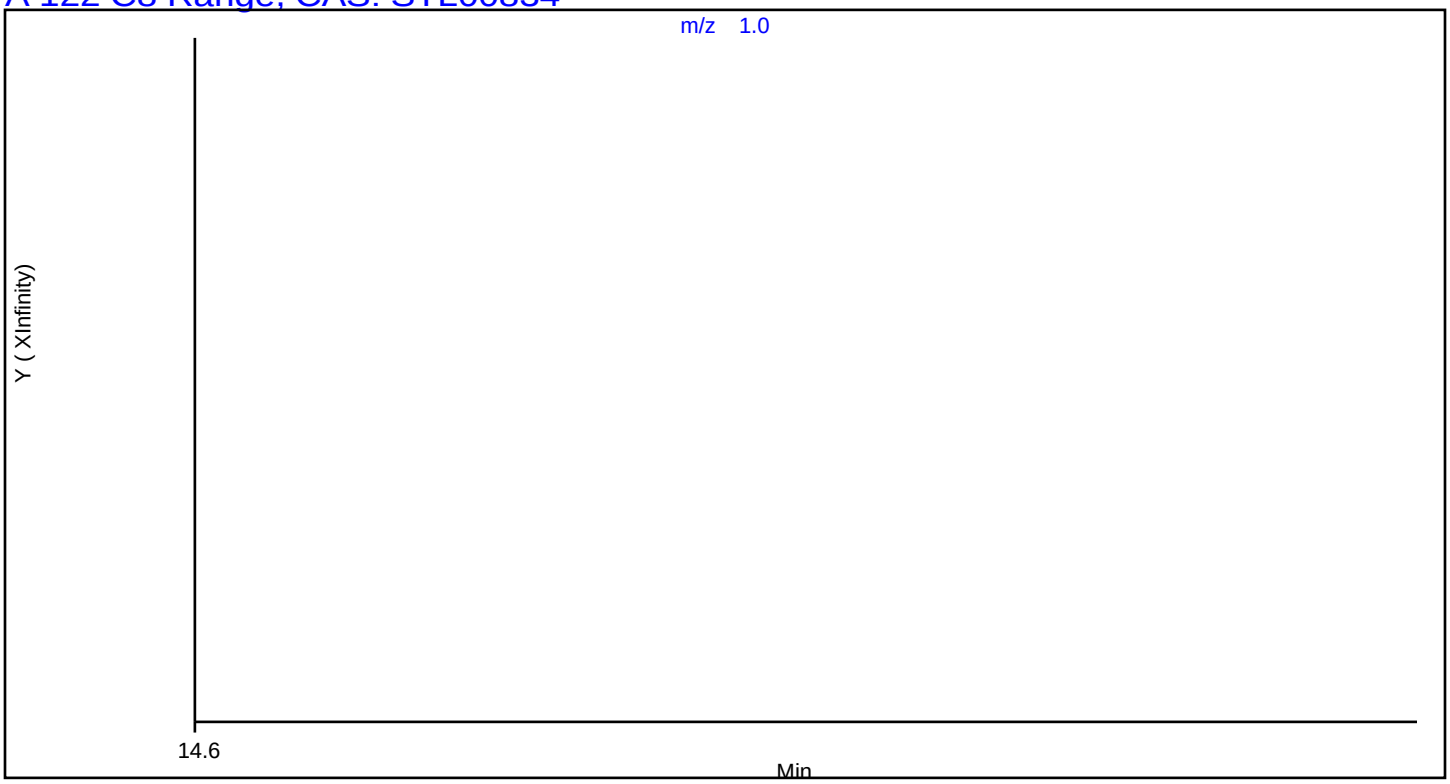


Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D				
Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 05-Aug-2019 16:33:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-004
Misc. Info.: 245074
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:44 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 05-Aug-2019 17:21:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	84	436852	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	94	2327802	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2072045	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.625	0.008	94	1314099	4.00	3.65	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	3413750	16.0	15.4	
7 Propene	41	3.839	3.839	0.000	96	1470598	16.0	13.5	
8 Dichlorodifluoromethane	85	3.893	3.891	0.002	100	6628673	16.0	15.4	
9 Chloromethane	52	4.082	4.085	-0.003	96	404402	16.0	12.9	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	96	3536586	16.0	14.4	
11 Acetaldehyde	44	4.249	4.261	-0.012	94	2344274	80.0	68.0	
12 Vinyl chloride	62	4.265	4.266	-0.001	100	1597085	16.0	14.0	
13 Butane	43	4.357	4.360	-0.003	82	2312485	16.0	14.2	
14 Butadiene	54	4.357	4.360	-0.003	72	1240321	16.0	14.9	
15 Bromomethane	94	4.697	4.699	-0.002	97	1593069	16.0	15.3	
16 Chloroethane	64	4.848	4.849	-0.001	92	775358	16.0	15.3	
17 Ethanol	31	4.966	4.983	-0.017	99	2765105	80.0	78.7	
18 Vinyl bromide	106	5.171	5.168	0.003	97	1469342	16.0	16.1	
19 2-Methylbutane	43	5.220	5.219	0.001	87	1509461	16.0	14.6	
20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	5652401	16.0	16.2	
21 Acrolein	56	5.468	5.472	-0.004	97	236667	16.0	15.7	
22 Acetonitrile	40	5.538	5.537	0.001	94	380086	16.0	15.1	
23 Acetone	58	5.581	5.604	-0.023	100	1191830	48.0	40.3	
24 Pentane	72	5.684	5.682	0.002	94	211194	16.0	14.4	
25 Isopropyl alcohol	45	5.689	5.726	-0.037	96	3856427	48.0	45.7	
26 Ethyl ether	31	5.851	5.869	-0.018	90	874287	16.0	14.1	
27 1,1-Dichloroethene	96	6.190	6.185	0.005	97	1887057	16.0	15.2	
28 Acrylonitrile	53	6.304	6.304	0.000	93	913756	16.0	15.0	
29 1,1,2-Trichloro-1,2,2-trif	101	6.368	6.365	0.003	93	3894500	16.0	14.3	
30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	2988690	16.0	16.0	
31 Methylene Chloride	84	6.552	6.545	0.007	93	1554645	16.0	12.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1801075	16.0	15.1	
33 Carbon disulfide	76	6.719	6.713	0.006	99	5213697	16.0	15.6	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	98	1787324	16.0	14.3	
35 2-Methylpentane	43	7.393	7.393	0.000	91	3287427	16.0	12.8	
36 Methyl tert-butyl ether	73	7.501	7.541	-0.040	95	4997147	16.0	14.9	
37 1,1-Dichloroethane	63	7.814	7.808	0.006	100	3481885	16.0	14.6	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	3544424	16.0	15.4	
40 Hexane	56	8.396	8.392	0.004	88	1353149	16.0	13.6	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	688610	16.0	14.5	
41 Isopropyl ether	45	8.558	8.569	-0.011	92	4448498	16.0	14.0	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	95	1957380	16.0	15.3	
43 Ethyl acetate	43	8.995	9.002	-0.008	99	2981386	16.0	14.6	
44 Chloroform	83	9.167	9.157	0.010	97	4468981	16.0	15.1	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	5188982	16.0	14.4	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	87	1479241	16.0	14.0	
47 1,1,1-Trichloroethane	97	10.202	10.198	0.004	94	5426403	16.0	15.3	
48 1,2-Dichloroethane	62	10.316	10.305	0.011	99	3322146	16.0	15.5	
49 Cyclohexane	69	10.790	10.788	0.002	80	708818	16.0	11.0	
50 Benzene	78	10.796	10.788	0.008	98	4041029	16.0	11.6	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	5441196	16.0	15.4	
51 n-Butanol	31	10.752	10.822	-0.070	79	457330	16.0	15.7	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	1144193	16.0	12.9	
54 Thiophene	84	11.065	11.057	0.008	96	3015307	16.0	14.7	
55 Isooctane	57	11.534	11.531	0.003	97	7197999	16.0	11.8	
56 n-Heptane	71	11.901	11.898	0.003	87	1720461	16.0	12.7	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	88	1535077	16.0	12.5	
58 Trichloroethene	130	12.030	12.022	0.008	97	2675360	16.0	13.8	
59 Dibromomethane	93	12.117	12.108	0.009	90	2107056	16.0	14.4	
60 Dichlorobromomethane	83	12.257	12.249	0.008	99	4486346	16.0	15.3	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	602252	16.0	11.9	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1868074	16.0	14.3	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	3054841	16.0	12.4	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	95	2937214	16.0	15.9	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	2978739	16.0	14.5	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	3066168	16.0	16.0	
67 Toluene	91	14.053	14.046	0.007	94	5640299	16.0	13.8	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	96	1577758	16.0	13.2	
69 2-Hexanone	58	14.500	14.514	-0.014	96	1484205	16.0	15.0	
70 n-Octane	85	14.716	14.714	0.002	86	1912459	16.0	12.9	
71 Chlorodibromomethane	129	14.824	14.818	0.006	97	4881466	16.0	16.9	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	3363399	16.0	15.2	
73 Tetrachloroethene	129	15.180	15.176	0.004	94	2458714	16.0	13.0	
75 Chlorobenzene	112	16.048	16.044	0.004	92	3953266	16.0	11.6	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	3521924	16.0	9.02	
78 Ethylbenzene	91	16.334	16.329	0.005	98	7288603	16.0	13.5	
79 m-Xylene & p-Xylene	91	16.495	16.488	0.007	99	10283215	32.0	24.4	
80 n-Nonane	57	16.894	16.891	0.003	82	2811123	16.0	10.9	
81 Bromoform	173	16.948	16.943	0.005	97	4458642	16.0	17.0	
82 Styrene	104	16.959	16.951	0.008	96	3390433	16.0	12.3	
83 o-Xylene	91	17.018	17.012	0.006	98	5806893	16.0	12.7	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.002	95	3245579	16.0	12.1	
85 1,2,3-Trichloropropane	110	17.498	17.489	0.009	94	1444098	16.0	13.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	97	7721441	16.0	12.4	
87 N-Propylbenzene	120	18.124	18.118	0.006	99	2263933	16.0	13.0	
88 2-Chlorotoluene	126	18.172	18.166	0.006	96	2118839	16.0	12.6	
89 4-Ethyltoluene	105	18.269	18.264	0.005	97	7560446	16.0	12.4	
90 1,3,5-Trimethylbenzene	120	18.339	18.335	0.004	92	3107751	16.0	12.1	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	89	3376616	16.0	14.3	
93 n-Decane	57	18.609	18.606	0.003	96	2784766	16.0	8.42	
94 tert-Butylbenzene	119	18.755	18.750	0.005	90	6236972	16.0	10.7	
95 1,2,4-Trimethylbenzene	105	18.771	18.763	0.008	96	5565578	16.0	10.2	
96 sec-Butylbenzene	105	19.019	19.014	0.005	96	7461784	16.0	9.80	
97 1,3-Dichlorobenzene	146	19.040	19.034	0.006	98	4320607	16.0	11.3	
98 Benzyl chloride	91	19.111	19.106	0.005	98	5005951	16.0	11.9	
99 1,4-Dichlorobenzene	146	19.127	19.119	0.008	95	4234206	16.0	11.0	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	95	7166043	16.0	10.6	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	5940721	16.0	12.1	
102 Butylcyclohexane	83	19.283	19.276	0.007	89	3436205	16.0	8.03	
103 2,3-Dihydroindene	117	19.477	19.470	0.007	93	4483614	16.0	9.04	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	95	3849848	16.0	10.7	
105 n-Butylbenzene	91	19.601	19.596	0.005	97	5132732	16.0	8.49	
106 Indene	116	19.601	19.598	0.003	90	4001471	16.0	9.67	
107 Undecane	57	19.892	19.893	-0.001	91	2637759	16.0	9.83	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	2473525	16.0	13.5	
109 1,2,4,5-Tetramethylbenzene	119	20.345	20.341	0.004	96	7095902	16.0	11.1	
110 Dodecane	57	20.944	20.944	0.000	89	2379982	16.0	11.3	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	4129061	16.0	12.9	
112 Naphthalene	128	21.300	21.297	0.003	98	7968446	16.0	12.1	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	4260397	16.0	13.7	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	3656173	16.0	12.4	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	4148243	16.0	17.9	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	3655105	16.0	16.5	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	15510497	16.0	12.6	
S 123 1,2-Dichloroethene, Total	1				0		32.0	29.6	
S 124 Xylenes, Total	100				0		48.0	37.0	

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

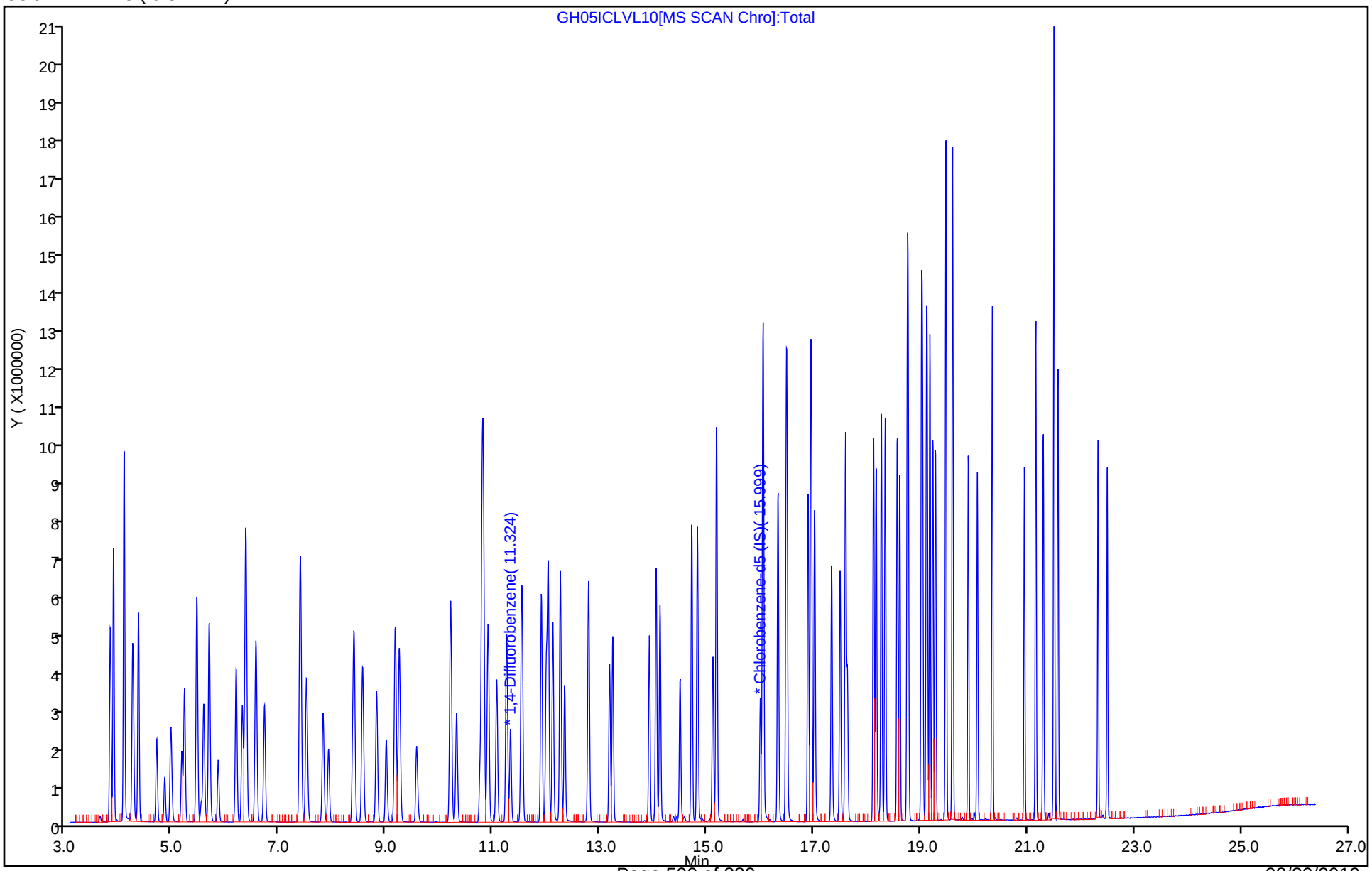
Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D

Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

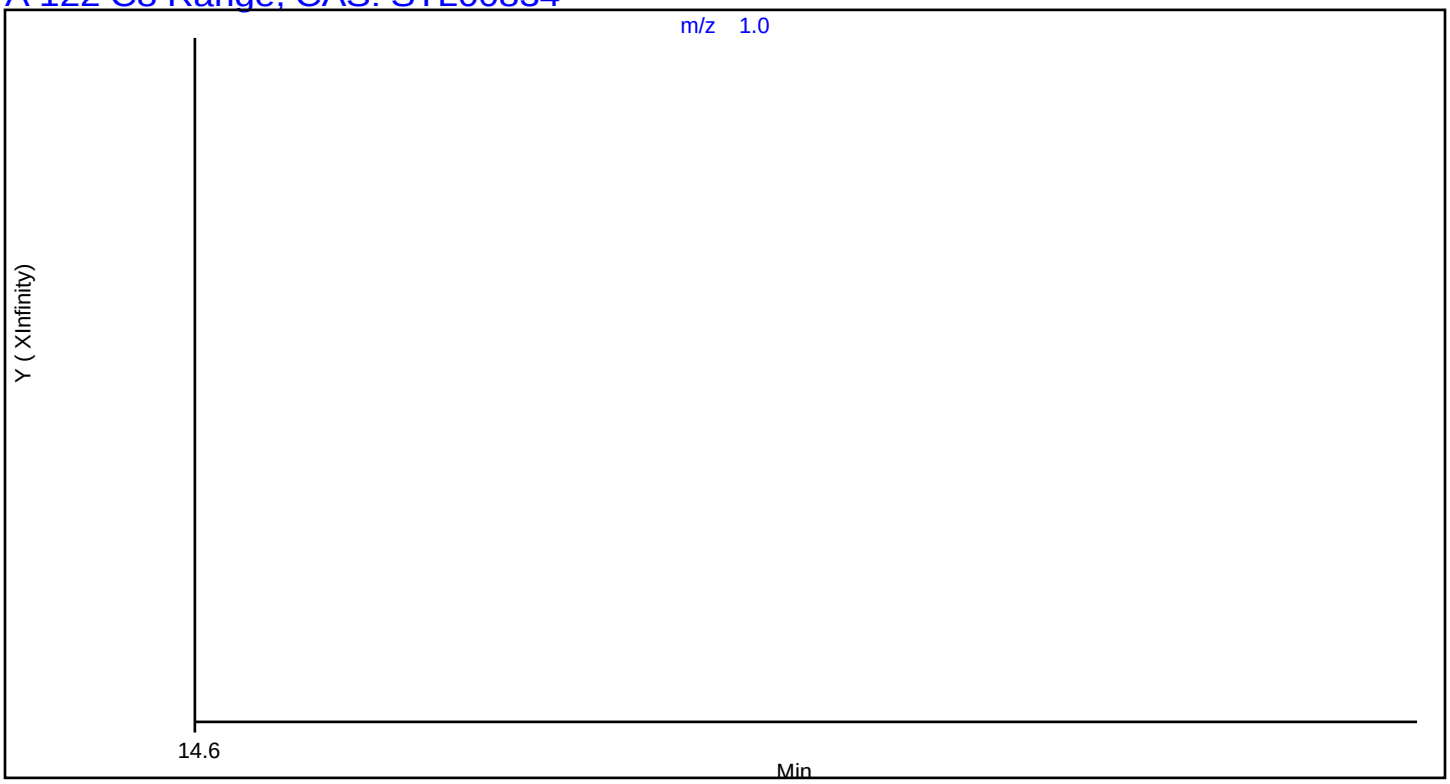


Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D				
Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Aug-2019 18:41:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-007
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:58 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:16:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.147	0.009	84	503396	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2696093	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	2370413	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	90	1675889	4.00	4.07	
6 Chlorodifluoromethane	51	3.845	3.826	0.019	39	4639	0.0200	0.0181	
7 Propene	41	3.856	3.839	0.017	96	47744	0.0200	0.3810	
8 Dichlorodifluoromethane	85	3.910	3.891	0.019	98	10373	0.0200	0.0209	
9 Chloromethane	52	4.104	4.085	0.019	55	1125	0.0200	0.0312	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.109	4.091	0.018	91	5686	0.0200	0.0201	
11 Acetaldehyde	44	4.303	4.261	0.042	91	8557	0.1000	0.2153	
12 Vinyl chloride	62	4.282	4.266	0.016	86	3255	0.0200	0.0248	
13 Butane	43	4.379	4.360	0.019	77	4892	0.0200	0.0261	
14 Butadiene	54	4.384	4.360	0.024	75	2010	0.0200	0.0210	
15 Bromomethane	94	4.724	4.699	0.025	64	2647	0.0200	0.0221	
16 Chloroethane	64	4.870	4.849	0.021	58	1559	0.0200	0.0267	
17 Ethanol	31	5.085	4.983	0.102	75	1843	0.1000	0.0455	
18 Vinyl bromide	106	5.182	5.168	0.014	57	2676	0.0200	0.0255	
19 2-Methylbutane	43	5.231	5.219	0.012	77	3108	0.0200	0.0261	
20 Trichlorofluoromethane	101	5.473	5.449	0.024	97	8334	0.0200	0.0208	
21 Acrolein	56	5.484	5.472	0.012	26	49	0.0200	0.002819	
23 Acetone	58	5.668	5.604	0.064	96	3377	0.0600	0.0992	
24 Pentane	72	5.711	5.682	0.029	77	494	0.0200	0.0292	
25 Isopropyl alcohol	45	5.867	5.726	0.141	94	5865	0.0600	0.0603	
26 Ethyl ether	31	5.878	5.869	0.009	27	248	0.0200	0.003464	
27 1,1-Dichloroethene	96	6.201	6.185	0.016	96	2843	0.0200	0.0198	
28 Acrylonitrile	53	6.358	6.304	0.054	64	1473	0.0200	0.0210	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.365	0.020	95	6606	0.0200	0.0210	
30 2-Methyl-2-propanol	59	6.568	6.376	0.192	42	3751	0.0200	0.0174	
31 Methylene Chloride	84	6.557	6.545	0.012	93	28622	0.0200	0.2052	
32 3-Chloro-1-propene	39	6.579	6.562	0.017	30	3937	0.0200	0.0286	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.719	6.713	0.006	78	8449	0.0200	0.0219	
34 trans-1,2-Dichloroethene	96	7.388	7.375	0.013	83	3184	0.0200	0.0222	
35 2-Methylpentane	43	7.420	7.393	0.027	84	6353	0.0200	0.0214	
36 Methyl tert-butyl ether	73	7.652	7.541	0.111	62	5429	0.0200	0.0140	
37 1,1-Dichloroethane	63	7.825	7.808	0.017	97	5975	0.0200	0.0217	
38 Vinyl acetate	43	7.965	7.921	0.044	93	3225	0.0200	0.0122	
40 Hexane	56	8.407	8.392	0.015	84	2589	0.0200	0.0225	
39 2-Butanone (MEK)	72	8.472	8.393	0.079	50	917	0.0200	0.0168	
42 cis-1,2-Dichloroethene	96	8.833	8.812	0.021	84	2993	0.0200	0.0203	
43 Ethyl acetate	43	8.952	9.002	-0.050	1	203	0.0200	0.000860	
44 Chloroform	83	9.167	9.157	0.010	28	7588	0.0200	0.0222	
45 Tert-butyl ethyl ether	59	9.351	9.270	0.081	85	4998	0.0200	0.0121	
46 Tetrahydrofuran	42	9.701	9.605	0.096	50	2156	0.0200	0.0177	
47 1,1,1-Trichloroethane	97	10.213	10.198	0.015	93	8172	0.0200	0.0200	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	77	5677	0.0200	0.0229	
49 Cyclohexane	69	10.807	10.788	0.018	65	2027	0.0200	0.0272	
50 Benzene	78	10.801	10.788	0.013	94	9905	0.0200	0.0246	
52 Carbon tetrachloride	117	10.828	10.811	0.017	76	6946	0.0200	0.0170	
51 n-Butanol	31	10.925	10.822	0.103	70	1648	0.0200	0.0488	
53 2,3-Dimethylpentane	71	10.914	10.900	0.014	85	2427	0.0200	0.0237	
54 Thiophene	84	11.055	11.057	-0.002	95	4301	0.0200	0.0181	
55 Isooctane	57	11.540	11.531	0.009	97	15152	0.0200	0.0214	
56 n-Heptane	71	11.912	11.898	0.014	81	3918	0.0200	0.0250	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	75	3728	0.0200	0.0262	
58 Trichloroethene	130	12.036	12.022	0.014	87	4559	0.0200	0.0203	
59 Dibromomethane	93	12.117	12.108	0.009	91	4130	0.0200	0.0244	
60 Dichlorobromomethane	83	12.262	12.249	0.013	95	6167	0.0200	0.0181	
61 1,4-Dioxane	88	12.397	12.304	0.093	1	636	0.0200	0.0109	
62 Methyl methacrylate	41	12.370	12.343	0.027	27	2350	0.0200	0.0155	
63 Methylcyclohexane	83	12.780	12.781	-0.001	91	6395	0.0200	0.0225	
64 4-Methyl-2-pentanone (MIBK	43	13.260	13.202	0.058	79	3756	0.0200	-0.0246	
65 cis-1,3-Dichloropropene	75	13.244	13.234	0.010	96	4963	0.0200	0.0209	
66 trans-1,3-Dichloropropene	75	13.929	13.919	0.010	95	3925	0.0200	0.0179	
67 Toluene	91	14.053	14.046	0.007	91	8854	0.0200	0.0190	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	92	2306	0.0200	0.0169	
69 2-Hexanone	58	14.554	14.514	0.040	90	1676	0.0200	0.0148	
70 n-Octane	85	14.716	14.714	0.002	85	3469	0.0200	0.0205	
71 Chlorodibromomethane	129	14.818	14.818	0.000	96	5178	0.0200	0.0157	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	4351	0.0200	0.0172	
73 Tetrachloroethene	129	15.180	15.176	0.004	90	4821	0.0200	0.0223	
75 Chlorobenzene	112	16.048	16.044	0.004	94	7876	0.0200	0.0202	
74 2,3-Dimethylheptane	43	16.059	16.052	0.007	86	8752	0.0200	0.0196	
78 Ethylbenzene	91	16.339	16.329	0.010	97	9958	0.0200	0.0161	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	98	16155	0.0400	0.0334	
80 n-Nonane	57	16.894	16.891	0.003	90	5240	0.0200	0.0177	
82 Styrene	104	16.954	16.951	0.003	94	3945	0.0200	0.0125	
83 o-Xylene	91	17.008	17.012	-0.004	96	7264	0.0200	0.0139	
84 1,1,2,2-Tetrachloroethane	83	17.342	17.334	0.008	91	4379	0.0200	0.0143	
85 1,2,3-Trichloropropane	110	17.482	17.489	-0.007	89	1821	0.0200	0.0153	
86 Isopropylbenzene	105	17.596	17.592	0.004	87	9713	0.0200	0.0136	
87 N-Propylbenzene	120	18.113	18.118	-0.005	99	3060	0.0200	0.0153	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	94	3403	0.0200	0.0177	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
89 4-Ethyltoluene	105	18.270	18.264	0.006	98	11438	0.0200	0.0164	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	91	4046	0.0200	0.0138	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	78	3169	0.0200	0.0117	
93 n-Decane	57	18.609	18.606	0.003	94	6429	0.0200	0.0170	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	9325	0.0200	0.0140	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	9370	0.0200	0.0151	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	13227	0.0200	0.0152	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	93	9138	0.0200	0.0209	
98 Benzyl chloride	91	19.111	19.106	0.005	96	7709	0.0200	0.0160	
99 1,4-Dichlorobenzene	146	19.122	19.119	0.003	93	9440	0.0200	0.0214	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	93	9956	0.0200	0.0129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	96	9424	0.0200	-0.0269	
102 Butylcyclohexane	83	19.278	19.276	0.002	89	8516	0.0200	0.0174	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	92	10739	0.0200	0.0189	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	7703	0.0200	0.0187	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	9276	0.0200	0.0134	
106 Indene	116	19.601	19.598	0.003	83	7955	0.0200	0.0168	
107 Undecane	57	19.893	19.893	0.000	90	6993	0.0200	0.0228	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	78	2463	0.0200	0.0117	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	94	11610	0.0200	0.0159	
110 Dodecane	57	20.944	20.944	0.000	96	7087	0.0200	0.0293	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	11162	0.0200	0.0304	
112 Naphthalene	128	21.300	21.297	0.003	98	23386	0.0200	0.0310	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	86	7011	0.0200	0.0197	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	92	12351	0.0200	0.0365	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	22376	0.0200	0.0844	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	97	28876	0.0200	0.1142	
A 122 C8 Range	1	14.711	(14.668-14.754)		0	35633	0.0200	0.0253	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0425	
S 124 Xylenes, Total	100				0		0.0600	0.0473	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

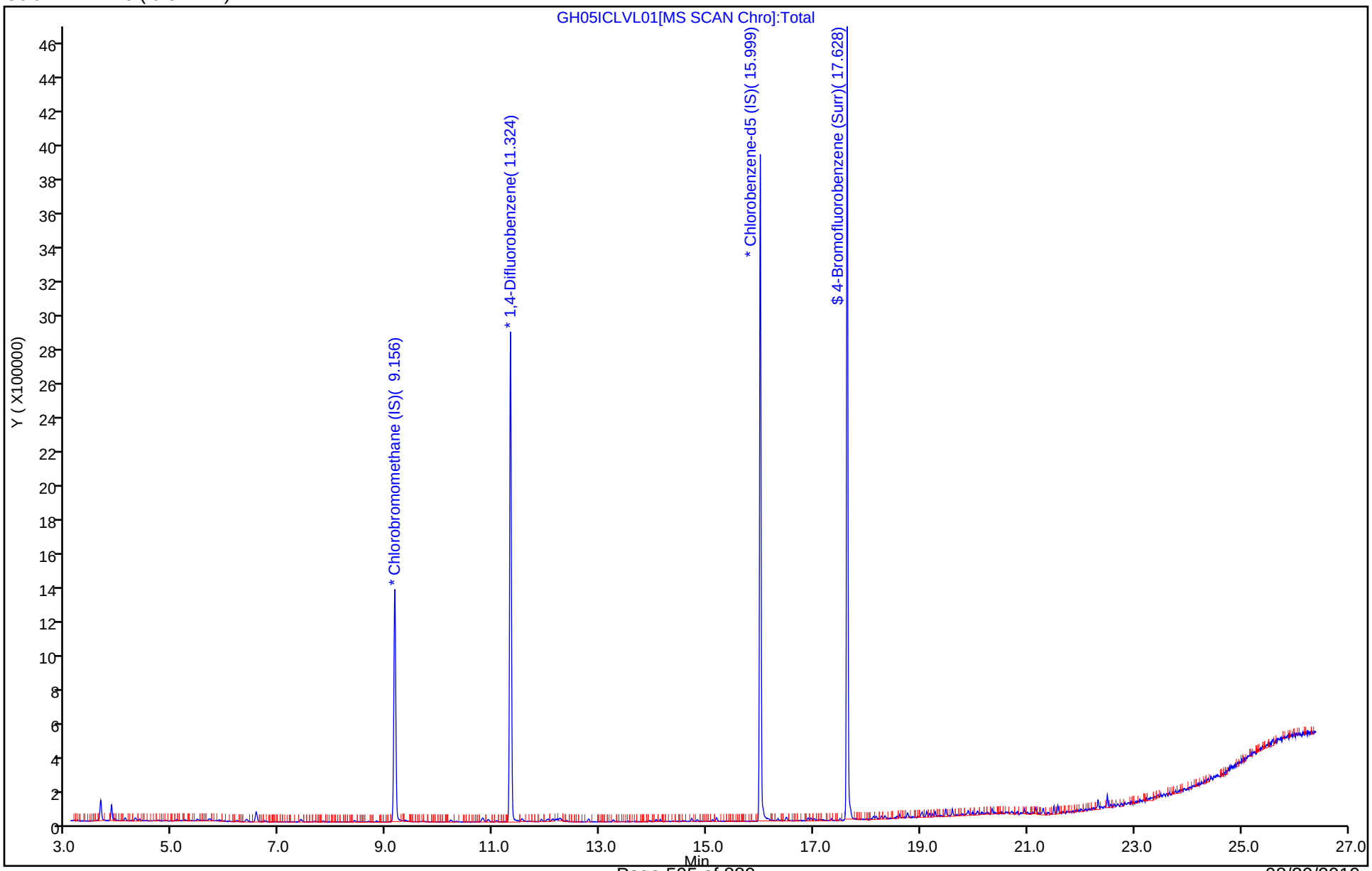
Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D

Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

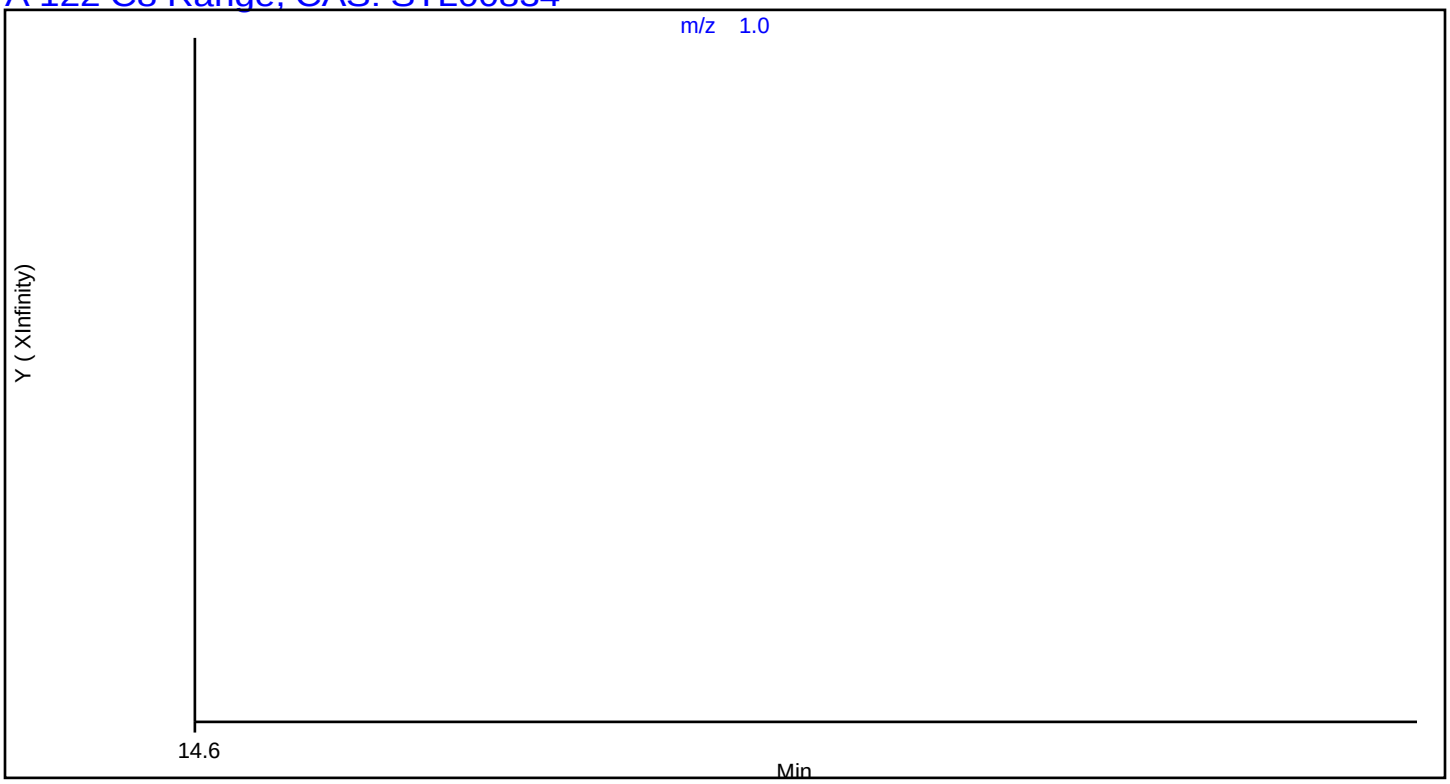


Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D				
Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Aug-2019 19:23:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-008
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:09 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:18:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	482772	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2397205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2207916	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	91	1583394	4.00	4.13	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	44	11229	0.0400	0.0458	
7 Propene	41	3.839	3.839	0.000	97	54550	0.0400	0.4539	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	98	20271	0.0400	0.0426	
9 Chloromethane	52	4.088	4.085	0.003	60	2094	0.0400	0.0606	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	88	12377	0.0400	0.0457	
11 Acetaldehyde	44	4.271	4.261	0.010	94	16177	0.2000	0.4244	
12 Vinyl chloride	62	4.260	4.266	-0.006	49	5569	0.0400	0.0442	
13 Butane	43	4.357	4.360	-0.003	82	8400	0.0400	0.0467	
14 Butadiene	54	4.363	4.360	0.003	77	3760	0.0400	0.0410	
15 Bromomethane	94	4.691	4.699	-0.008	95	5860	0.0400	0.0511	
16 Chloroethane	64	4.842	4.849	-0.007	92	2583	0.0400	0.0461	
17 Ethanol	31	4.999	4.983	0.016	98	8546	0.2000	0.2201	
18 Vinyl bromide	106	5.166	5.168	-0.002	85	3350	0.0400	0.0333	
19 2-Methylbutane	43	5.220	5.219	0.001	88	6528	0.0400	0.0572	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	15499	0.0400	0.0403	
21 Acrolein	56	5.495	5.472	0.023	50	2102	0.0400	0.1261	
22 Acetonitrile	40	5.538	5.537	0.001	7	1959	0.0400	0.0703	
23 Acetone	58	5.635	5.604	0.031	98	5697	0.1200	0.1745	
24 Pentane	72	5.667	5.682	-0.015	88	716	0.0400	0.0441	
25 Isopropyl alcohol	45	5.765	5.726	0.039	86	5933	0.1200	0.0637	
26 Ethyl ether	31	5.899	5.869	0.030	84	3373	0.0400	0.0491	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	99	6820	0.0400	0.0496	
28 Acrylonitrile	53	6.298	6.304	-0.006	71	2836	0.0400	0.0421	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	13044	0.0400	0.0433	
30 2-Methyl-2-propanol	59	6.455	6.376	0.079	93	9562	0.0400	0.0462	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	31135	0.0400	0.2327	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	41	5777	0.0400	0.0437	
33 Carbon disulfide	76	6.719	6.713	0.006	99	15924	0.0400	0.0431	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	92	6348	0.0400	0.0461	
35 2-Methylpentane	43	7.393	7.393	0.000	90	12086	0.0400	0.0425	
36 Methyl tert-butyl ether	73	7.582	7.541	0.041	94	13012	0.0400	0.0351	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	99	11175	0.0400	0.0423	
38 Vinyl acetate	43	7.932	7.921	0.011	100	8908	0.0400	0.0350	
40 Hexane	56	8.391	8.392	-0.001	88	4994	0.0400	0.0453	
39 2-Butanone (MEK)	72	8.423	8.393	0.030	63	2836	0.0400	0.0542	
41 Isopropyl ether	45	8.606	8.569	0.037	97	13349	0.0400	0.0380	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	6151	0.0400	0.0435	
43 Ethyl acetate	43	9.038	9.002	0.036	99	8456	0.0400	0.0374	
44 Chloroform	83	9.151	9.157	-0.006	28	14008	0.0400	0.0428	
45 Tert-butyl ethyl ether	59	9.307	9.270	0.037	96	14864	0.0400	0.0374	
46 Tetrahydrofuran	42	9.652	9.605	0.047	90	4833	0.0400	0.0413	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	94	15594	0.0400	0.0397	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	98	9325	0.0400	0.0423	
49 Cyclohexane	69	10.790	10.788	0.002	73	2652	0.0400	0.0400	
50 Benzene	78	10.779	10.788	-0.009	98	18589	0.0400	0.0519	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	90	15371	0.0400	0.0422	
51 n-Butanol	31	10.925	10.822	0.103	69	337	0.0400	0.0112	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	5253	0.0400	0.0576	
54 Thiophene	84	11.054	11.057	-0.003	92	10109	0.0400	0.0477	
55 Isooctane	57	11.534	11.531	0.003	97	28411	0.0400	0.0452	
56 n-Heptane	71	11.896	11.898	-0.002	86	5956	0.0400	0.0427	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	84	6335	0.0400	0.0501	
58 Trichloroethene	130	12.014	12.022	-0.008	94	8720	0.0400	0.0436	
59 Dibromomethane	93	12.101	12.108	-0.007	88	6468	0.0400	0.0430	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	92	11428	0.0400	0.0378	
61 1,4-Dioxane	88	12.349	12.304	0.045	61	2396	0.0400	0.0460	
62 Methyl methacrylate	41	12.354	12.343	0.011	94	3820	0.0400	0.0284	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	11761	0.0400	0.0465	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.202	0.020	90	9462	0.0400	0.007723	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	92	8379	0.0400	0.0396	
66 trans-1,3-Dichloropropene	75	13.912	13.919	-0.007	96	7827	0.0400	0.0384	
67 Toluene	91	14.053	14.046	0.007	95	16916	0.0400	0.0390	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	93	5515	0.0400	0.0434	
69 2-Hexanone	58	14.538	14.514	0.024	93	4506	0.0400	0.0427	
70 n-Octane	85	14.716	14.714	0.002	89	7087	0.0400	0.0449	
71 Chlorodibromomethane	129	14.813	14.818	-0.005	95	9163	0.0400	0.0297	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	94	8811	0.0400	0.0373	
73 Tetrachloroethene	129	15.174	15.176	-0.002	93	8734	0.0400	0.0435	
75 Chlorobenzene	112	16.042	16.044	-0.002	90	15314	0.0400	0.0423	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	17137	0.0400	0.0412	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	22256	0.0400	0.0387	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	35105	0.0800	0.0780	
80 n-Nonane	57	16.889	16.891	-0.002	87	11562	0.0400	0.0419	
81 Bromoform	173	16.943	16.943	0.000	72	7804	0.0400	0.0279	
82 Styrene	104	16.948	16.951	-0.003	92	10396	0.0400	0.0353	
83 o-Xylene	91	17.008	17.012	-0.004	98	18816	0.0400	0.0386	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.003	95	11164	0.0400	0.0392	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	3959	0.0400	0.0358	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	94	25366	0.0400	0.0382	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	6796	0.0400	0.0366	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	7294	0.0400	0.0407	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	97	22791	0.0400	0.0350	
90 1,3,5-Trimethylbenzene	120	18.329	18.335	-0.006	92	10004	0.0400	0.0367	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	88	7865	0.0400	0.0312	
93 n-Decane	57	18.604	18.606	-0.002	93	14677	0.0400	0.0416	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	21637	0.0400	0.0350	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	21744	0.0400	0.0375	
96 sec-Butylbenzene	105	19.014	19.014	0.000	99	30473	0.0400	0.0375	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	97	17973	0.0400	0.0440	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	16301	0.0400	0.0363	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	16568	0.0400	0.0402	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	25424	0.0400	0.0353	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	21872	0.0400	-0.001666	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	18898	0.0400	0.0414	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	20597	0.0400	0.0390	
104 1,2-Dichlorobenzene	146	19.467	19.472	-0.005	84	14692	0.0400	0.0383	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	25020	0.0400	0.0389	
106 Indene	116	19.596	19.598	-0.002	81	16014	0.0400	0.0363	
107 Undecane	57	19.893	19.893	0.000	95	15784	0.0400	0.0552	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	88	5408	0.0400	0.0277	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	95	27454	0.0400	0.0404	
110 Dodecane	57	20.944	20.944	0.000	95	15672	0.0400	0.0696	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	17630	0.0400	0.0516	
112 Naphthalene	128	21.300	21.297	0.003	98	36456	0.0400	0.0518	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	15384	0.0400	0.0464	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	18232	0.0400	0.0578	
115 2-Methylnaphthalene	142	22.325	22.325	-0.001	97	27146	0.0400	0.1099	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	32737	0.0400	0.1390	
A 122 C8 Range	1	14.705	(14.657-14.754)		0	60839	0.0400	0.0465	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0896	
S 124 Xylenes, Total	100				0		0.1200	0.1166	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

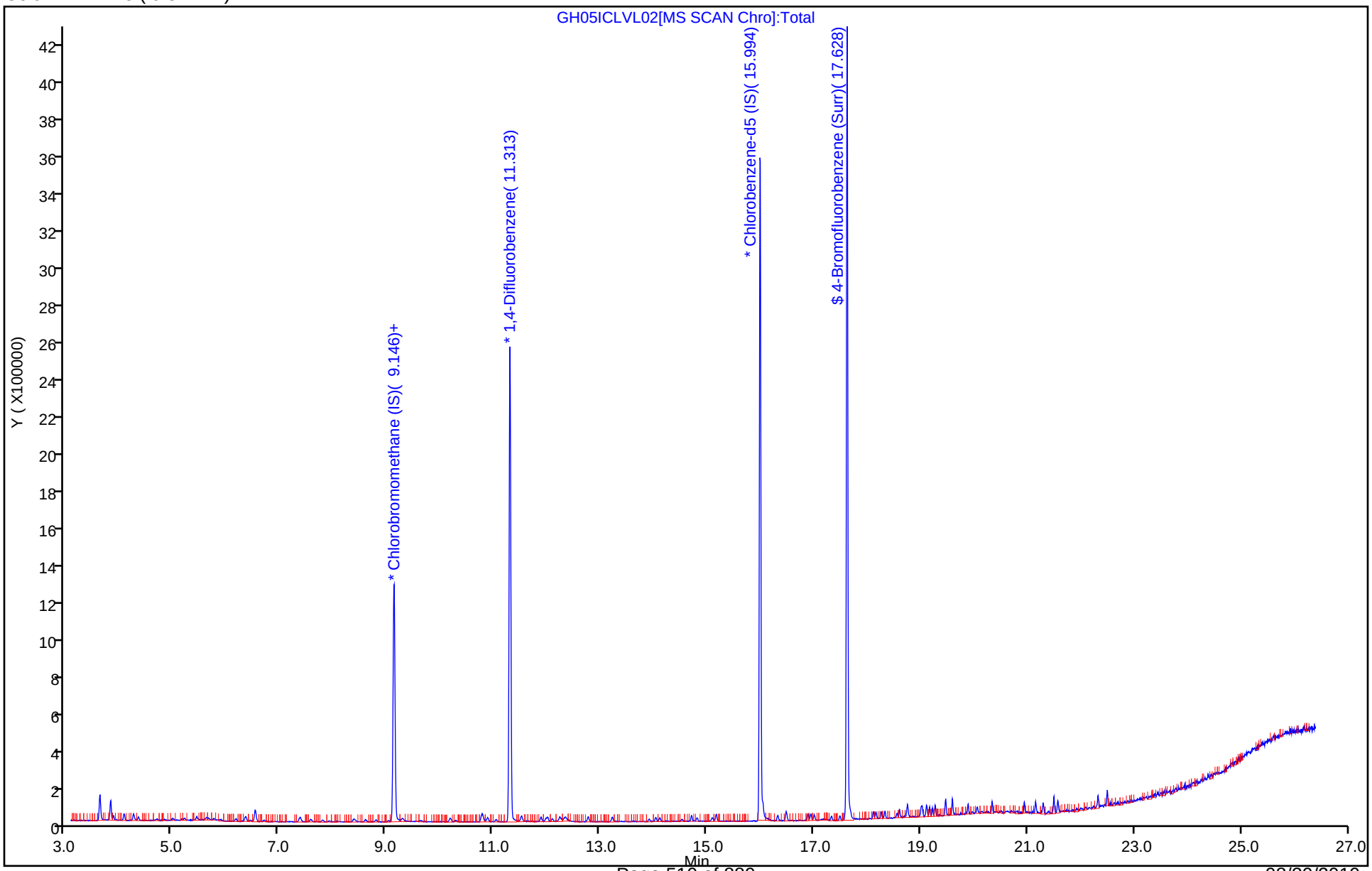
Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D

Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

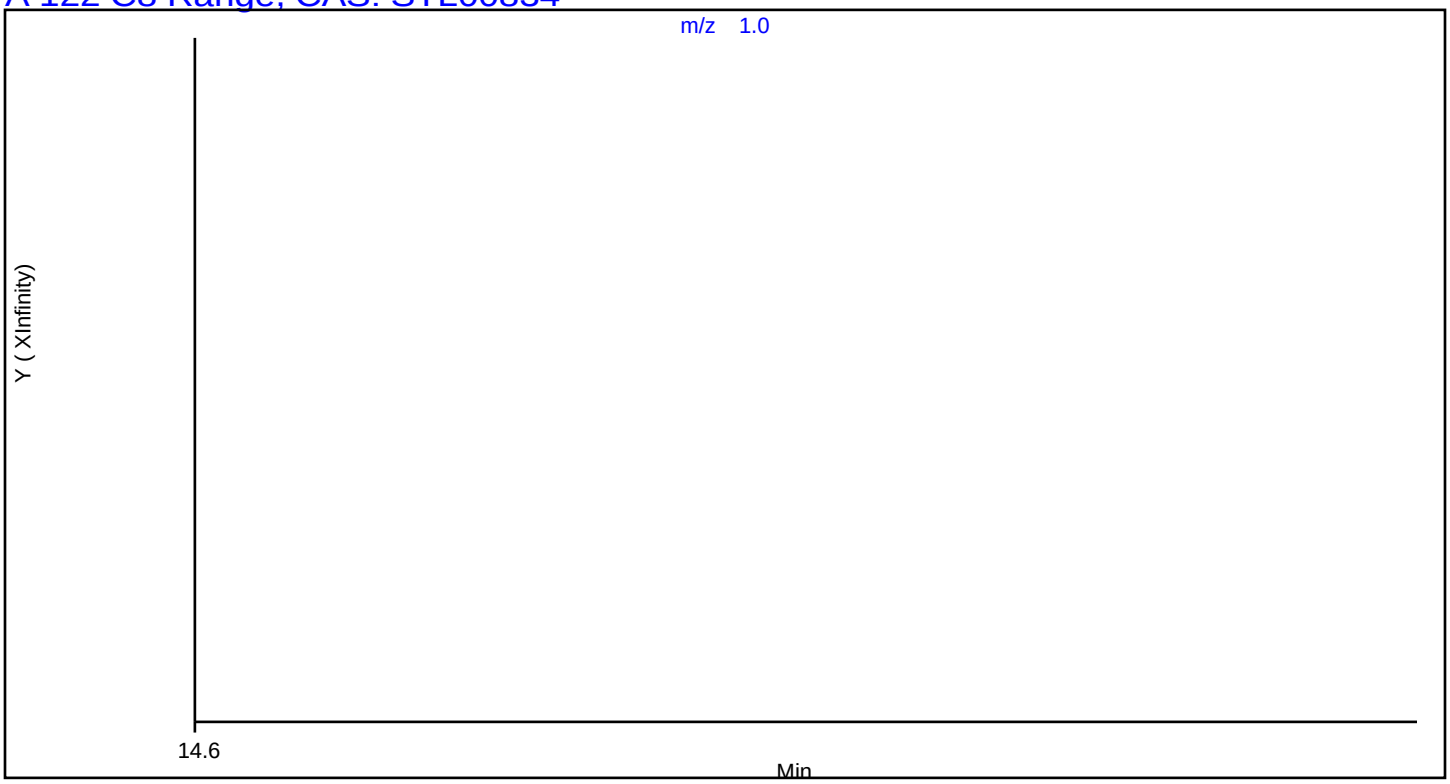


Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D				
Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Aug-2019 20:05:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-009
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:10:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	485074	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2275482	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	1993384	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1397416	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	77	20155	0.0800	0.0818	
7 Propene	41	3.839	3.839	0.000	96	56169	0.0800	0.4652	
8 Dichlorodifluoromethane	85	3.893	3.891	0.002	99	38252	0.0800	0.0799	
9 Chloromethane	52	4.087	4.085	0.002	53	4268	0.0800	0.1229	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	90	22040	0.0800	0.0809	
11 Acetaldehyde	44	4.271	4.261	0.010	94	28184	0.4000	0.7359	
12 Vinyl chloride	62	4.265	4.266	-0.001	51	10115	0.0800	0.0799	
13 Butane	43	4.362	4.360	0.002	81	15528	0.0800	0.0858	
14 Butadiene	54	4.357	4.360	-0.003	76	7695	0.0800	0.0835	
15 Bromomethane	94	4.702	4.699	0.003	94	9506	0.0800	0.0825	
16 Chloroethane	64	4.853	4.849	0.004	89	4628	0.0800	0.0822	
17 Ethanol	31	4.988	4.983	0.005	92	8178	0.4000	0.2096	
18 Vinyl bromide	106	5.171	5.168	0.003	90	8701	0.0800	0.0861	
19 2-Methylbutane	43	5.220	5.219	0.001	87	10969	0.0800	0.0956	
20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	29279	0.0800	0.0758	
21 Acrolein	56	5.473	5.472	0.001	53	3448	0.0800	0.2059	
22 Acetonitrile	40	5.538	5.537	0.001	80	2293	0.0800	0.0819	
23 Acetone	58	5.619	5.604	0.015	99	13952	0.2400	0.4253	
24 Pentane	72	5.700	5.682	0.018	86	1424	0.0800	0.0872	
25 Isopropyl alcohol	45	5.748	5.726	0.022	98	25117	0.2400	0.2682	
26 Ethyl ether	31	5.888	5.869	0.019	87	5869	0.0800	0.0851	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	95	10955	0.0800	0.0792	
28 Acrylonitrile	53	6.314	6.304	0.010	80	6165	0.0800	0.0911	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	24086	0.0800	0.0796	
30 2-Methyl-2-propanol	59	6.368	6.376	-0.008	39	279	0.0800	0.001342	
31 Methylene Chloride	84	6.546	6.545	0.001	95	35982	0.0800	0.2677	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	11032	0.0800	0.0831	
33 Carbon disulfide	76	6.714	6.713	0.001	98	28845	0.0800	0.0776	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	96	10482	0.0800	0.0757	
35 2-Methylpentane	43	7.388	7.393	-0.005	93	24678	0.0800	0.0863	
36 Methyl tert-butyl ether	73	7.566	7.541	0.025	94	32407	0.0800	0.0870	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	21834	0.0800	0.0823	
38 Vinyl acetate	43	7.921	7.921	0.000	99	19565	0.0800	0.0766	
40 Hexane	56	8.391	8.392	-0.001	89	9014	0.0800	0.0813	
39 2-Butanone (MEK)	72	8.401	8.393	0.008	98	6125	0.0800	0.1165	
41 Isopropyl ether	45	8.590	8.569	0.021	96	32748	0.0800	0.0927	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	92	11194	0.0800	0.0788	
43 Ethyl acetate	43	9.027	9.002	0.025	98	20750	0.0800	0.0912	
44 Chloroform	83	9.156	9.157	-0.001	92	25301	0.0800	0.0768	
45 Tert-butyl ethyl ether	59	9.291	9.270	0.021	94	34262	0.0800	0.0858	
46 Tetrahydrofuran	42	9.631	9.605	0.026	84	10783	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	93	32613	0.0800	0.0827	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	98	16034	0.0800	0.0765	
49 Cyclohexane	69	10.774	10.788	-0.014	70	5664	0.0800	0.0899	
50 Benzene	78	10.785	10.788	-0.003	97	31709	0.0800	0.0932	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	96	28324	0.0800	0.0819	
51 n-Butanol	31	10.855	10.822	0.033	69	3348	0.0800	0.1175	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	87	7931	0.0800	0.0916	
54 Thiophene	84	11.054	11.057	-0.003	95	16607	0.0800	0.0826	
55 Isooctane	57	11.529	11.531	-0.002	96	54294	0.0800	0.0910	
56 n-Heptane	71	11.901	11.898	0.003	87	11553	0.0800	0.0872	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	11379	0.0800	0.0948	
58 Trichloroethene	130	12.020	12.022	-0.002	95	16423	0.0800	0.0866	
59 Dibromomethane	93	12.106	12.108	-0.002	87	11862	0.0800	0.0830	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	23380	0.0800	0.0814	
61 1,4-Dioxane	88	12.327	12.304	0.023	74	4545	0.0800	0.0919	
62 Methyl methacrylate	41	12.349	12.343	0.006	94	11652	0.0800	0.0912	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	22506	0.0800	0.0938	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.202	0.015	95	22222	0.0800	0.0815	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	96	15241	0.0800	0.0759	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	14929	0.0800	0.0811	
67 Toluene	91	14.042	14.046	-0.004	95	33590	0.0800	0.0857	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	10086	0.0800	0.0879	
69 2-Hexanone	58	14.527	14.514	0.013	95	10527	0.0800	0.1105	
70 n-Octane	85	14.710	14.714	-0.004	88	12903	0.0800	0.0905	
71 Chlorodibromomethane	129	14.818	14.818	0.000	94	18912	0.0800	0.0680	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	16489	0.0800	0.0774	
73 Tetrachloroethene	129	15.174	15.176	-0.002	91	15990	0.0800	0.0881	
75 Chlorobenzene	112	16.042	16.044	-0.002	82	29816	0.0800	0.0912	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	93	35633	0.0800	0.0948	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	47492	0.0800	0.0915	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	100	75367	0.1600	0.1855	
80 n-Nonane	57	16.889	16.891	-0.002	87	22670	0.0800	0.0910	
81 Bromoform	173	16.943	16.943	0.000	53	13171	0.0800	0.0522	
82 Styrene	104	16.948	16.951	-0.003	98	21427	0.0800	0.0807	
83 o-Xylene	91	17.008	17.012	-0.004	97	39635	0.0800	0.0900	
84 1,1,2,2-Tetrachloroethane	83	17.336	17.334	0.002	98	24048	0.0800	0.0935	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	95	9770	0.0800	0.0978	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	96	57014	0.0800	0.0952	
87 N-Propylbenzene	120	18.113	18.118	-0.005	98	15620	0.0800	0.0931	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	14661	0.0800	0.0906	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	57587	0.0800	0.0980	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	24908	0.0800	0.1012	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	18349	0.0800	0.0805	
93 n-Decane	57	18.609	18.606	0.003	93	31130	0.0800	0.0978	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	54550	0.0800	0.0977	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	51351	0.0800	0.0981	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	72823	0.0800	0.0994	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	32567	0.0800	0.0884	
98 Benzyl chloride	91	19.105	19.106	-0.001	96	38098	0.0800	0.0939	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	36226	0.0800	0.0974	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	64942	0.0800	0.0999	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	50176	0.0800	0.0632	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	39366	0.0800	0.0956	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	46910	0.0800	0.0983	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	35966	0.0800	0.1038	
105 n-Butylbenzene	91	19.590	19.596	-0.006	97	60804	0.0800	0.1046	
106 Indene	116	19.601	19.598	0.003	84	38081	0.0800	0.0957	
107 Undecane	57	19.892	19.893	-0.001	93	37946	0.0800	0.1470	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	17478	0.0800	0.0990	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	66175	0.0800	0.1077	
110 Dodecane	57	20.944	20.944	0.000	96	34163	0.0800	0.1680	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	33145	0.0800	0.1075	
112 Naphthalene	128	21.294	21.297	-0.003	99	77307	0.0800	0.1217	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	21486	0.0800	0.0718	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	93	33405	0.0800	0.1173	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	45882	0.0800	0.2058	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	50300	0.0800	0.2365	
A 122 C8 Range	1	14.716	(14.668-14.764)		0	130441	0.0800	0.1103	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1546	
S 124 Xylenes, Total	100				0		0.2400	0.2756	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

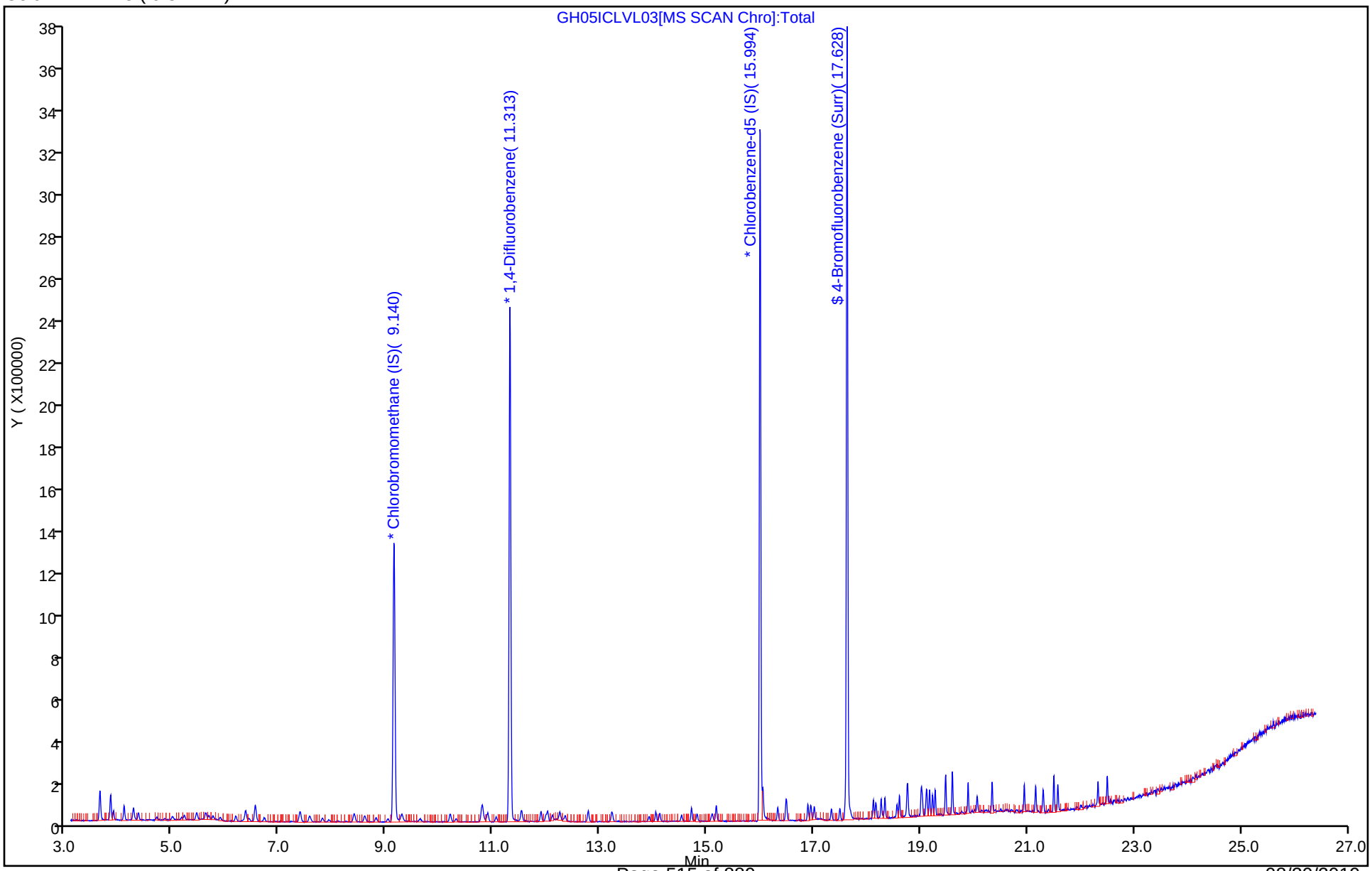
Report Date: 08-Aug-2019 11:05:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D

Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

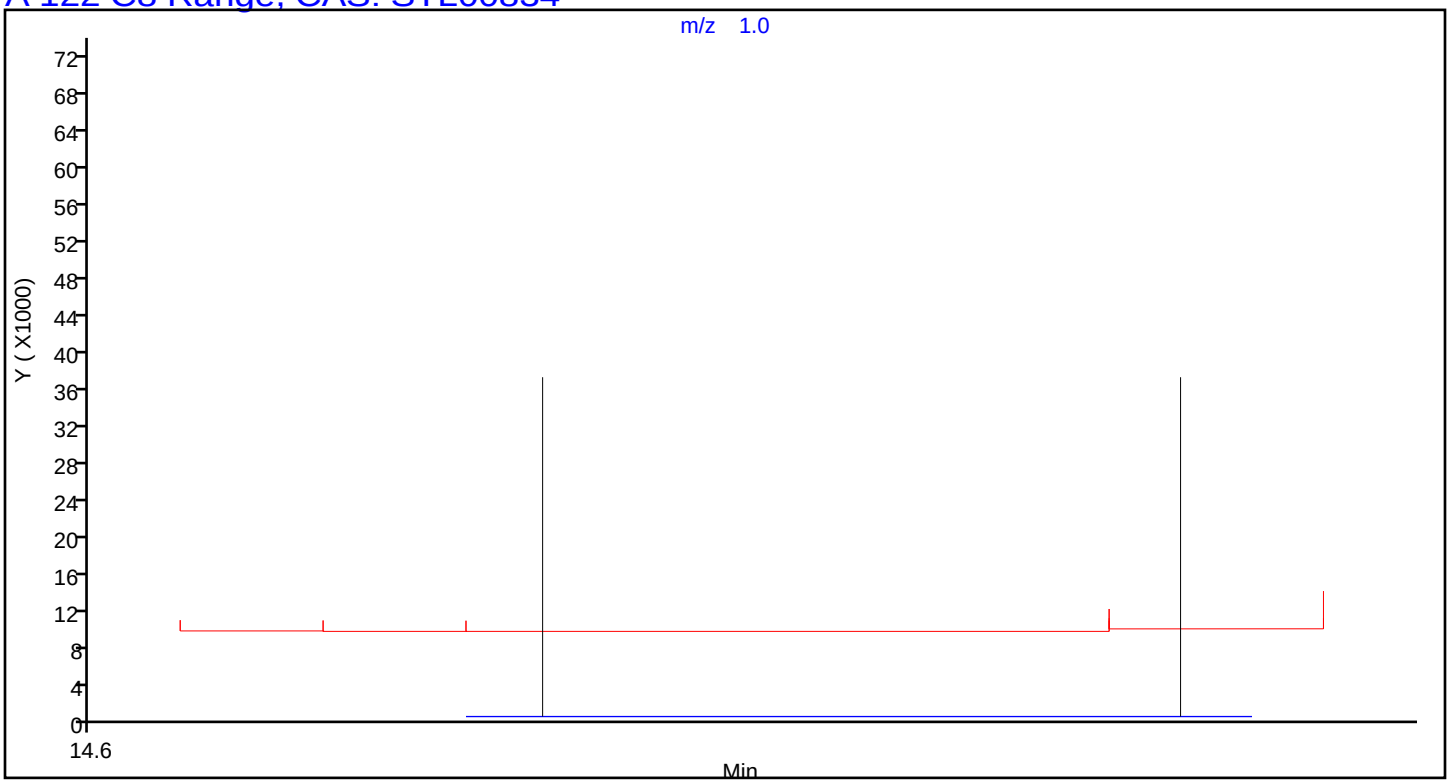


Report Date: 08-Aug-2019 11:05:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D				
Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Aug-2019 20:47:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-010
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:33 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:17:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	463991	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2062287	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	1864303	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1332067	4.00	4.11	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	95	43674	0.1600	0.1853	
7 Propene	41	3.839	3.839	0.000	96	66692	0.1600	0.5774	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	82655	0.1600	0.1805	
9 Chloromethane	52	4.077	4.085	-0.008	52	6860	0.1600	0.2065	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	92	45952	0.1600	0.1764	
11 Acetaldehyde	44	4.260	4.261	-0.001	95	32700	0.8000	0.8926	
12 Vinyl chloride	62	4.265	4.266	-0.001	74	21311	0.1600	0.1759	
13 Butane	43	4.357	4.360	-0.003	83	30690	0.1600	0.1773	
14 Butadiene	54	4.357	4.360	-0.003	70	15170	0.1600	0.1722	
15 Bromomethane	94	4.691	4.699	-0.008	94	19987	0.1600	0.1813	
16 Chloroethane	64	4.848	4.849	-0.001	93	9559	0.1600	0.1775	
17 Ethanol	31	4.983	4.983	0.000	98	34755	0.8000	0.9314	
18 Vinyl bromide	106	5.155	5.168	-0.013	97	17369	0.1600	0.1797	
19 2-Methylbutane	43	5.214	5.219	-0.005	90	20372	0.1600	0.1856	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	99	64158	0.1600	0.1736	
21 Acrolein	56	5.473	5.472	0.001	38	3102	0.1600	0.1936	
22 Acetonitrile	40	5.543	5.537	0.006	78	5733	0.1600	0.2142	
23 Acetone	58	5.608	5.604	0.004	100	18945	0.4800	0.6037	
24 Pentane	72	5.673	5.682	-0.009	96	3439	0.1600	0.2202	
25 Isopropyl alcohol	45	5.732	5.726	0.006	98	53127	0.4800	0.5930	
26 Ethyl ether	31	5.878	5.869	0.009	93	11079	0.1600	0.1679	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	23053	0.1600	0.1743	
28 Acrylonitrile	53	6.304	6.304	0.000	86	10005	0.1600	0.1545	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.365	-0.007	95	50455	0.1600	0.1743	
30 2-Methyl-2-propanol	59	6.390	6.376	0.014	95	40836	0.1600	0.2053	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	44923	0.1600	0.3494	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.552	6.562	-0.010	94	22705	0.1600	0.1788	
33 Carbon disulfide	76	6.703	6.713	-0.010	99	62846	0.1600	0.1768	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	96	22858	0.1600	0.1727	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	51137	0.1600	0.1870	
36 Methyl tert-butyl ether	73	7.544	7.541	0.003	95	65422	0.1600	0.1836	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	41560	0.1600	0.1638	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	38914	0.1600	0.1592	
40 Hexane	56	8.380	8.392	-0.012	85	20583	0.1600	0.1942	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	85	10171	0.1600	0.2022	
41 Isopropyl ether	45	8.579	8.569	0.010	94	60985	0.1600	0.1804	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	22936	0.1600	0.1689	
43 Ethyl acetate	43	9.016	9.002	0.014	98	39531	0.1600	0.1817	
44 Chloroform	83	9.151	9.157	-0.006	33	53830	0.1600	0.1709	
45 Tert-butyl ethyl ether	59	9.275	9.270	0.005	94	70720	0.1600	0.1852	
46 Tetrahydrofuran	42	9.609	9.605	0.004	93	21964	0.1600	0.1954	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	63703	0.1600	0.1688	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	33979	0.1600	0.1790	
49 Cyclohexane	69	10.779	10.788	-0.009	77	13114	0.1600	0.2298	
50 Benzene	78	10.785	10.788	-0.003	97	60976	0.1600	0.1978	
52 Carbon tetrachloride	117	10.801	10.811	-0.010	94	59505	0.1600	0.1899	
51 n-Butanol	31	10.828	10.822	0.006	45	6821	0.1600	0.2642	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	16080	0.1600	0.2049	
54 Thiophene	84	11.054	11.057	-0.003	95	34034	0.1600	0.1868	
55 Isooctane	57	11.529	11.531	-0.002	97	111708	0.1600	0.2065	
56 n-Heptane	71	11.890	11.898	-0.008	91	24842	0.1600	0.2069	
57 1,2-Dichloropropane	63	11.977	11.986	-0.009	79	20718	0.1600	0.1904	
58 Trichloroethene	130	12.020	12.022	-0.002	96	35132	0.1600	0.2043	
59 Dibromomethane	93	12.106	12.108	-0.002	90	24369	0.1600	0.1882	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	46669	0.1600	0.1793	
61 1,4-Dioxane	88	12.311	12.304	0.007	88	9942	0.1600	0.2218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	23616	0.1600	0.2039	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	45690	0.1600	0.2102	
64 4-Methyl-2-pentanone (MIBK	43	13.206	13.202	0.004	97	42641	0.1600	0.2198	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	96	32629	0.1600	0.1792	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	30260	0.1600	0.1759	
67 Toluene	91	14.042	14.046	-0.004	94	65839	0.1600	0.1796	
68 1,1,2-Trichloroethane	83	14.112	14.118	-0.006	97	20707	0.1600	0.1929	
69 2-Hexanone	58	14.511	14.514	-0.003	94	18953	0.1600	0.2126	
70 n-Octane	85	14.710	14.714	-0.004	90	24732	0.1600	0.1855	
71 Chlorodibromomethane	129	14.818	14.818	0.000	95	41432	0.1600	0.1592	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	34998	0.1600	0.1756	
73 Tetrachloroethene	129	15.174	15.176	-0.002	95	33441	0.1600	0.1970	
75 Chlorobenzene	112	16.042	16.044	-0.002	91	58808	0.1600	0.1922	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	70725	0.1600	0.2013	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	95193	0.1600	0.1961	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	154203	0.3200	0.4059	
80 n-Nonane	57	16.889	16.891	-0.002	90	48543	0.1600	0.2083	
81 Bromoform	173	16.938	16.943	-0.005	94	37003	0.1600	0.1567	
82 Styrene	104	16.948	16.951	-0.003	97	45045	0.1600	0.1813	
83 o-Xylene	91	17.013	17.012	0.001	97	84470	0.1600	0.2052	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	50351	0.1600	0.2092	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	97	18714	0.1600	0.2004	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	92	115484	0.1600	0.2061	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	32515	0.1600	0.2072	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	97	29848	0.1600	0.1971	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	98	115144	0.1600	0.2095	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	48012	0.1600	0.2085	
92 Alpha Methyl Styrene	118	18.555	18.561	-0.006	82	36594	0.1600	0.1717	
93 n-Decane	57	18.604	18.606	-0.002	92	62826	0.1600	0.2111	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	108229	0.1600	0.2072	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	103573	0.1600	0.2116	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	140174	0.1600	0.2045	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	98	69116	0.1600	0.2006	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	79164	0.1600	0.2085	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	69868	0.1600	0.2009	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	129393	0.1600	0.2129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	106789	0.1600	0.1997	
102 Butylcyclohexane	83	19.272	19.276	-0.004	94	80763	0.1600	0.2097	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	94383	0.1600	0.2115	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	94	71080	0.1600	0.2193	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	121537	0.1600	0.2235	
106 Indene	116	19.596	19.598	-0.002	78	77351	0.1600	0.2078	
107 Undecane	57	19.893	19.893	0.000	93	70210	0.1600	0.2908	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	30729	0.1600	0.1861	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	124331	0.1600	0.2164	
110 Dodecane	57	20.944	20.944	0.000	95	64002	0.1600	0.3365	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	55860	0.1600	0.1937	
112 Naphthalene	128	21.295	21.297	-0.002	99	122533	0.1600	0.2062	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	61353	0.1600	0.2192	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	55841	0.1600	0.2097	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	97	58455	0.1600	0.2804	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	63205	0.1600	0.3177	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	221820	0.1600	0.2006	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3416	
S 124 Xylenes, Total	100				0		0.4800	0.6111	

Reagents:

40L5DQP_00012	Amount Added: 80.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

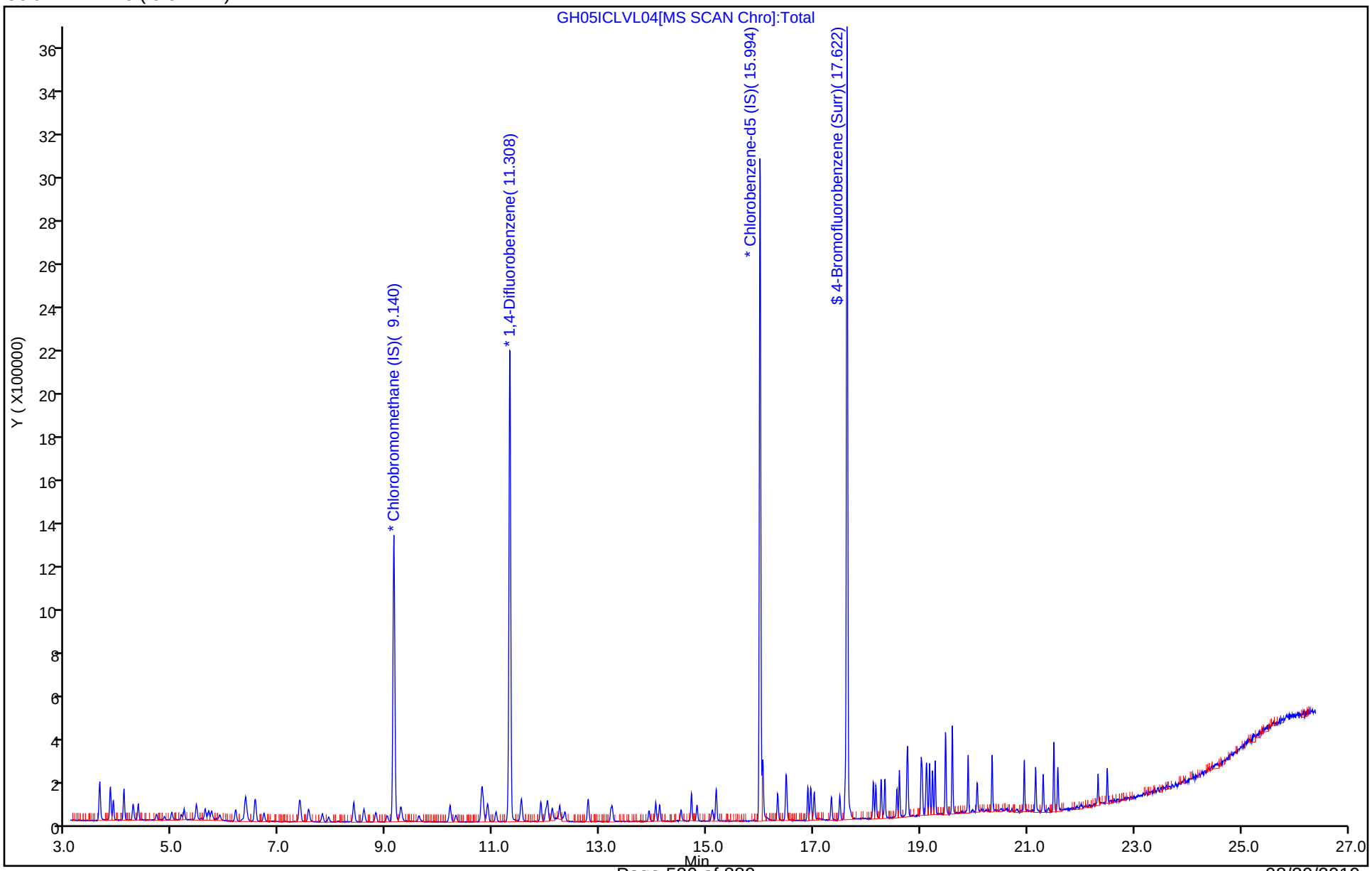
Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D

Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

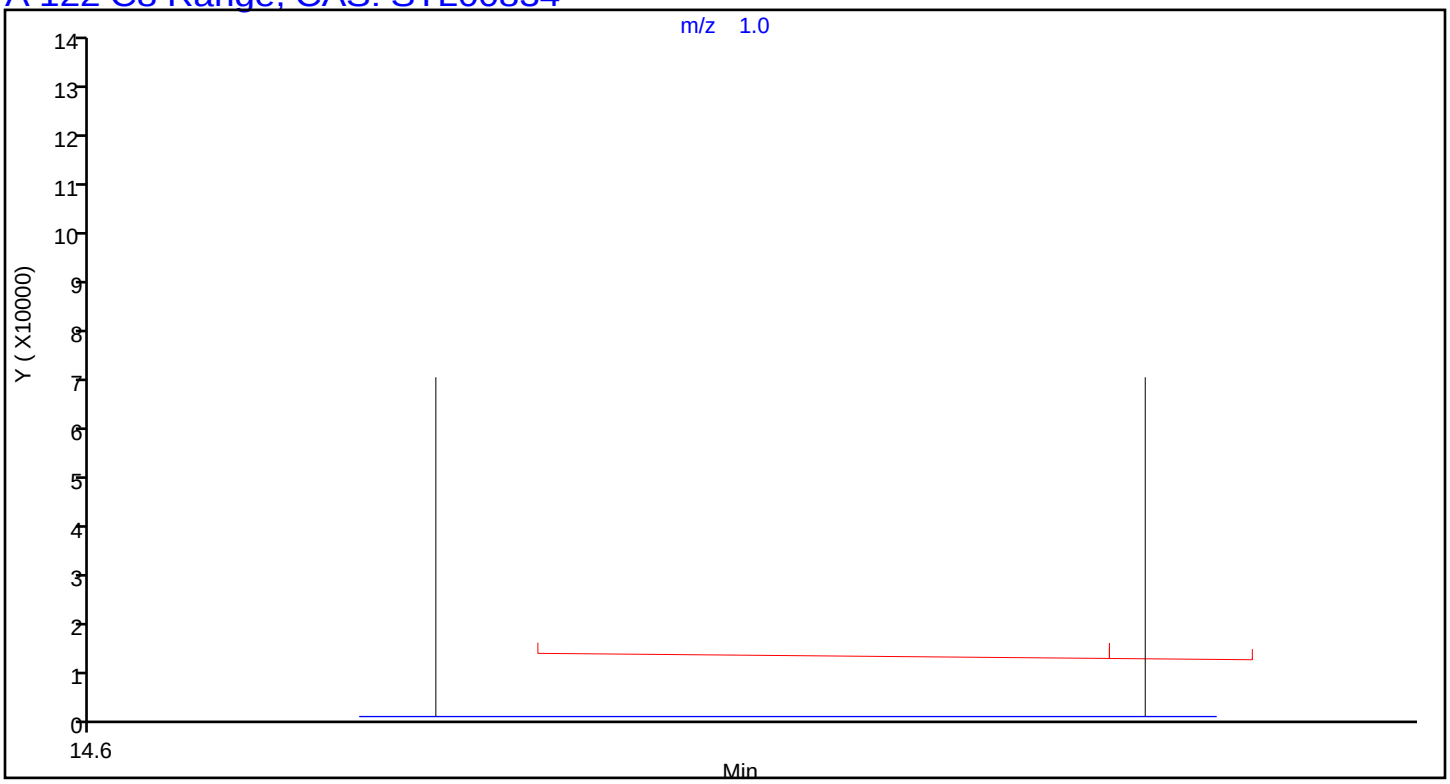


Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D				
Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Aug-2019 21:30:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-011
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:49 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:16:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.147	-0.002	86	482012	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2685242	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	2421756	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1736106	4.00	4.13	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	98658	0.4000	0.4030	
7 Propene	41	3.834	3.839	-0.005	96	93102	0.4000	0.7759	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	189623	0.4000	0.3987	
9 Chloromethane	52	4.087	4.085	0.002	53	16334	0.4000	0.4733	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	109276	0.4000	0.4039	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	92892	2.00	2.44	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	49646	0.4000	0.3944	
13 Butane	43	4.357	4.360	-0.003	83	70814	0.4000	0.3939	
14 Butadiene	54	4.357	4.360	-0.003	71	37768	0.4000	0.4126	
15 Bromomethane	94	4.702	4.699	0.003	96	46317	0.4000	0.4045	
16 Chloroethane	64	4.842	4.849	-0.007	93	23095	0.4000	0.4128	
17 Ethanol	31	4.977	4.983	-0.006	99	75469	2.00	1.95	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	39681	0.4000	0.3952	
19 2-Methylbutane	43	5.220	5.219	0.001	92	43427	0.4000	0.3808	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	153029	0.4000	0.3987	
21 Acrolein	56	5.479	5.472	0.007	69	6947	0.4000	0.4175	
22 Acetonitrile	40	5.549	5.537	0.012	98	10348	0.4000	0.3721	
23 Acetone	58	5.603	5.604	-0.001	100	45565	1.20	1.40	
24 Pentane	72	5.678	5.682	-0.004	99	7179	0.4000	0.4424	
25 Isopropyl alcohol	45	5.721	5.726	-0.005	97	105605	1.20	1.13	
26 Ethyl ether	31	5.872	5.869	0.003	92	30603	0.4000	0.4464	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	95	51669	0.4000	0.3761	
28 Acrylonitrile	53	6.298	6.304	-0.006	94	26372	0.4000	0.3921	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	121174	0.4000	0.4028	
30 2-Methyl-2-propanol	59	6.379	6.376	0.003	96	74946	0.4000	0.3626	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	77107	0.4000	0.5773	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	53903	0.4000	0.4086	
33 Carbon disulfide	76	6.714	6.713	0.001	99	148089	0.4000	0.4010	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	53641	0.4000	0.3900	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	118675	0.4000	0.4177	
36 Methyl tert-butyl ether	73	7.533	7.541	-0.008	95	146739	0.4000	0.3964	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	109237	0.4000	0.4144	
38 Vinyl acetate	43	7.921	7.921	0.000	99	105231	0.4000	0.4145	
40 Hexane	56	8.391	8.392	-0.001	76	45077	0.4000	0.4094	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	84	21738	0.4000	0.4159	
41 Isopropyl ether	45	8.568	8.569	-0.001	94	143561	0.4000	0.4088	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	57870	0.4000	0.4102	
43 Ethyl acetate	43	9.011	9.002	0.009	98	91929	0.4000	0.4067	
44 Chloroform	83	9.151	9.157	-0.006	51	135314	0.4000	0.4136	
45 Tert-butyl ethyl ether	59	9.264	9.270	-0.006	94	162243	0.4000	0.4089	
46 Tetrahydrofuran	42	9.604	9.605	-0.001	90	48513	0.4000	0.4154	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	161683	0.4000	0.4124	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	95386	0.4000	0.3859	
49 Cyclohexane	69	10.785	10.788	-0.003	71	27598	0.4000	0.3714	
50 Benzene	78	10.785	10.788	-0.003	96	169359	0.4000	0.4220	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	154448	0.4000	0.3785	
51 n-Butanol	31	10.817	10.822	-0.005	69	13289	0.4000	0.3954	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	88	40576	0.4000	0.3972	
54 Thiophene	84	11.054	11.057	-0.003	98	93958	0.4000	0.3961	
55 Isooctane	57	11.529	11.531	-0.002	97	283998	0.4000	0.4032	
56 n-Heptane	71	11.890	11.898	-0.008	89	63065	0.4000	0.4034	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	57441	0.4000	0.4055	
58 Trichloroethene	130	12.014	12.022	-0.008	96	82347	0.4000	0.3678	
59 Dibromomethane	93	12.106	12.108	-0.002	91	64841	0.4000	0.3846	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	97	132443	0.4000	0.3907	
61 1,4-Dioxane	88	12.300	12.304	-0.004	79	19834	0.4000	0.3398	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	55721	0.4000	0.3695	
63 Methylcyclohexane	83	12.775	12.781	-0.006	94	112759	0.4000	0.3983	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.202	-0.001	95	73496	0.4000	0.3046	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	97	94583	0.4000	0.3990	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	86203	0.4000	0.3857	
67 Toluene	91	14.042	14.046	-0.004	93	192263	0.4000	0.4038	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	54263	0.4000	0.3891	
69 2-Hexanone	58	14.511	14.514	-0.003	94	33428	0.4000	0.2887	
70 n-Octane	85	14.710	14.714	-0.004	90	67037	0.4000	0.3871	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	120240	0.4000	0.3558	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	100	99501	0.4000	0.3843	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	82558	0.4000	0.3745	
75 Chlorobenzene	112	16.042	16.044	-0.002	93	163168	0.4000	0.4106	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	92	183187	0.4000	0.4014	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	262802	0.4000	0.4168	
79 m-Xylene & p-Xylene	91	16.484	16.488	-0.004	99	418810	0.8000	0.8487	
80 n-Nonane	57	16.889	16.891	-0.002	90	126710	0.4000	0.4185	
81 Bromoform	173	16.943	16.943	0.000	94	109007	0.4000	0.3553	
82 Styrene	104	16.948	16.951	-0.003	98	133694	0.4000	0.4143	
83 o-Xylene	91	17.013	17.012	0.001	98	206900	0.4000	0.3869	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	123660	0.4000	0.3956	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	97	45252	0.4000	0.3730	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	93	288284	0.4000	0.3960	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	79322	0.4000	0.3891	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	77331	0.4000	0.3932	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	281615	0.4000	0.3945	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	115462	0.4000	0.3859	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	87	100044	0.4000	0.3613	
93 n-Decane	57	18.604	18.606	-0.002	93	153552	0.4000	0.3972	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	95	268979	0.4000	0.3964	
95 1,2,4-Trimethylbenzene	105	18.765	18.763	0.002	96	242624	0.4000	0.3817	
96 sec-Butylbenzene	105	19.013	19.014	-0.001	98	350396	0.4000	0.3936	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	176506	0.4000	0.3943	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	195591	0.4000	0.3966	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	175218	0.4000	0.3879	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	303580	0.4000	0.3845	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	248613	0.4000	0.3926	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	202219	0.4000	0.4042	
103 2,3-Dihydroindene	117	19.466	19.470	-0.004	93	229968	0.4000	0.3967	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	171061	0.4000	0.4063	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	277154	0.4000	0.3924	
106 Indene	116	19.596	19.598	-0.002	94	190258	0.4000	0.3934	
107 Undecane	57	19.892	19.893	-0.001	93	156878	0.4000	0.5002	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	95	73294	0.4000	0.3417	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	258532	0.4000	0.3464	
110 Dodecane	57	20.944	20.944	0.000	96	107502	0.4000	0.4351	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	127013	0.4000	0.3391	
112 Naphthalene	128	21.294	21.297	-0.003	99	246489	0.4000	0.3194	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	139670	0.4000	0.3841	
114 1,2,3-Trichlorobenzene	180	21.569	21.572	-0.003	94	104909	0.4000	0.3033	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	99	88366	0.4000	0.3263	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	89896	0.4000	0.3479	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	598323	0.4000	0.4166	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.8003	
S 124 Xylenes, Total	100				0		1.20	1.24	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

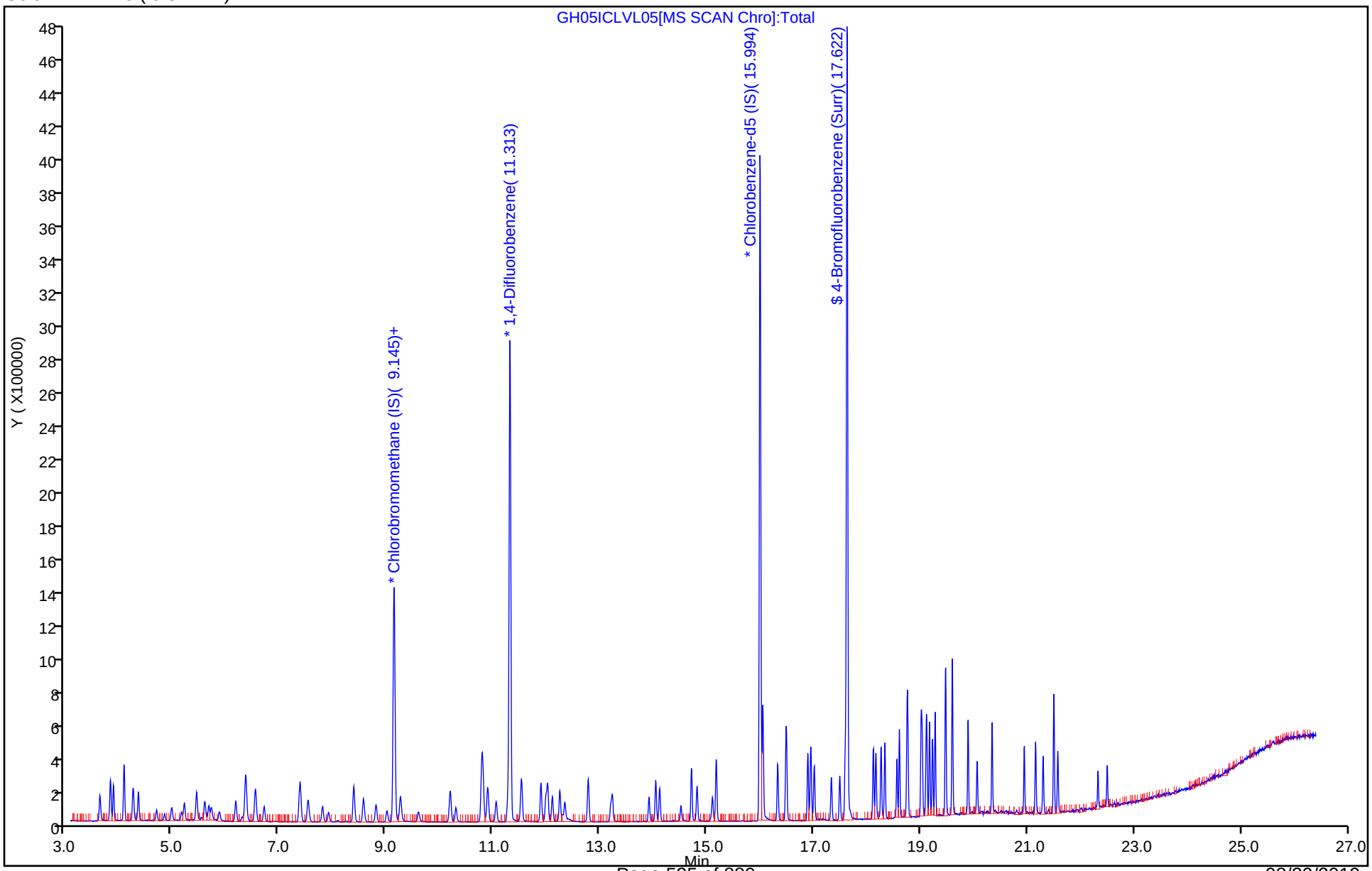
Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D

Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

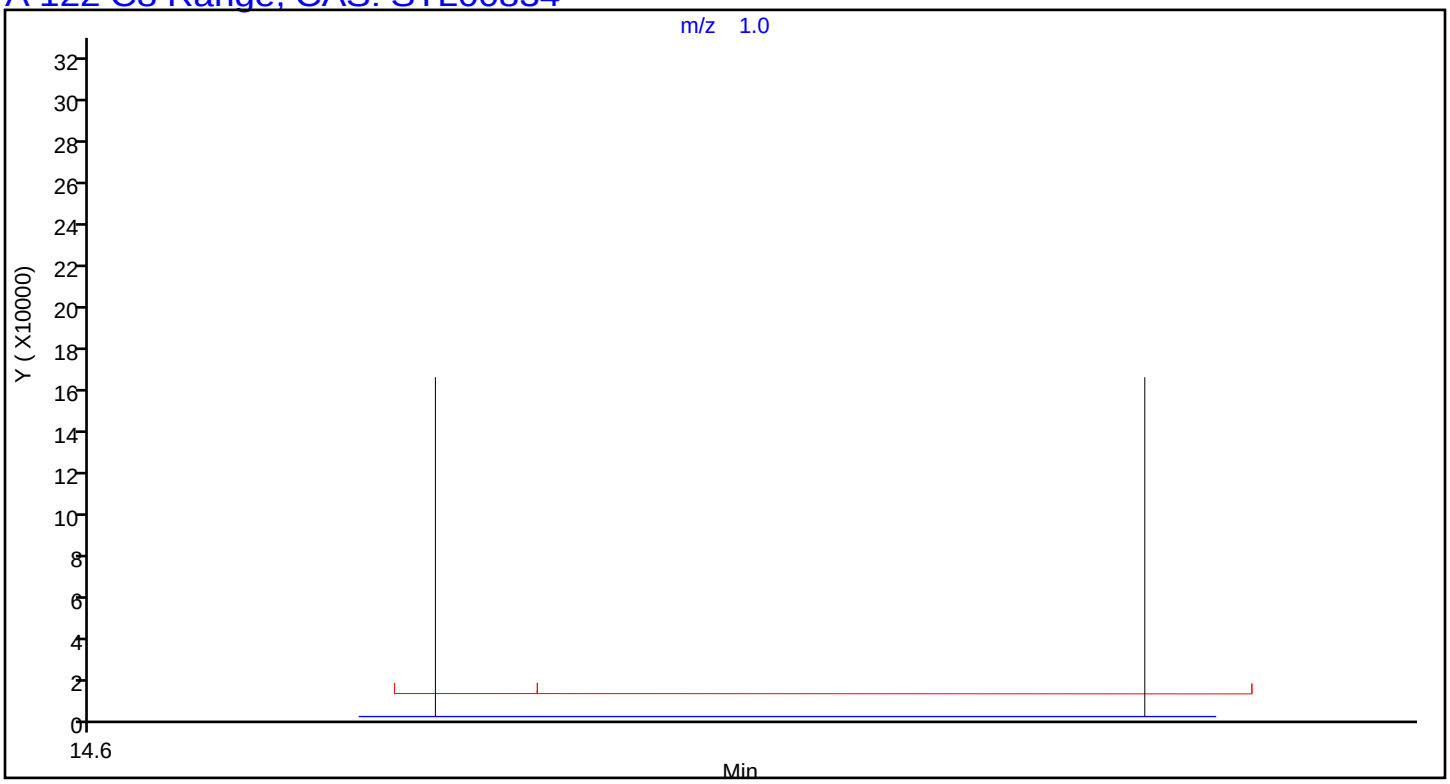


Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D				
Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Aug-2019 22:16:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-012
Misc. Info.: 245273
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:02 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:13:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	86	487685	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2553258	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2386492	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	93	1693688	4.00	4.09	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	246667	1.00	1.00	
7 Propene	41	3.839	3.839	0.000	96	158639	1.00	1.31	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	483918	1.00	1.01	
9 Chloromethane	52	4.082	4.085	-0.003	57	35516	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	288577	1.00	1.05	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	190926	5.00	4.96	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	122540	1.00	0.9623	
13 Butane	43	4.357	4.360	-0.003	83	180868	1.00	0.99	
14 Butadiene	54	4.357	4.360	-0.003	71	92822	1.00	1.00	
15 Bromomethane	94	4.697	4.699	-0.002	97	115754	1.00	1.00	
16 Chloroethane	64	4.848	4.849	-0.001	95	56216	1.00	0.99	
17 Ethanol	31	4.961	4.983	-0.022	99	178614	5.00	4.55	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	101538	1.00	1.00	
19 2-Methylbutane	43	5.220	5.219	0.001	88	114036	1.00	0.9884	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	98	390456	1.00	1.01	
21 Acrolein	56	5.463	5.472	-0.009	98	15503	1.00	0.9208	
22 Acetonitrile	40	5.533	5.537	-0.004	98	27290	1.00	0.9699	
23 Acetone	58	5.587	5.604	-0.017	100	91668	3.00	2.78	
24 Pentane	72	5.678	5.682	-0.004	96	18090	1.00	1.10	
25 Isopropyl alcohol	45	5.694	5.726	-0.032	93	256655	3.00	2.73	
26 Ethyl ether	31	5.862	5.869	-0.007	90	65045	1.00	0.9377	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	135168	1.00	0.9724	
28 Acrylonitrile	53	6.293	6.304	-0.011	93	63395	1.00	0.9316	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	96	306378	1.00	1.01	
30 2-Methyl-2-propanol	59	6.352	6.376	-0.024	95	178772	1.00	0.8550	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	146176	1.00	1.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	95	131925	1.00	0.9883	
33 Carbon disulfide	76	6.714	6.713	0.001	99	379039	1.00	1.01	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	135666	1.00	0.9750	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	294862	1.00	1.03	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	346158	1.00	0.9243	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	263784	1.00	0.9891	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	243472	1.00	0.9479	
40 Hexane	56	8.396	8.392	0.004	88	114287	1.00	1.03	
39 2-Butanone (MEK)	72	8.380	8.393	-0.013	96	47510	1.00	0.8984	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	331939	1.00	0.9343	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	135269	1.00	0.9477	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	199113	1.00	0.8707	
44 Chloroform	83	9.156	9.157	-0.001	96	324608	1.00	0.9807	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	95	370752	1.00	0.9235	
46 Tetrahydrofuran	42	9.582	9.605	-0.023	88	103852	1.00	0.8789	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	96	388592	1.00	0.9796	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	226363	1.00	0.9631	
49 Cyclohexane	69	10.790	10.788	0.002	77	71834	1.00	1.02	
50 Benzene	78	10.785	10.788	-0.003	97	402752	1.00	1.06	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	395039	1.00	1.02	
51 n-Butanol	31	10.806	10.822	-0.016	48	31242	1.00	0.9775	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	97512	1.00	1.00	
54 Thiophene	84	11.054	11.057	-0.003	96	228095	1.00	1.01	
55 Isooctane	57	11.524	11.531	-0.007	98	669441	1.00	1.00	
56 n-Heptane	71	11.896	11.898	-0.002	88	149939	1.00	1.01	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	135272	1.00	1.00	
58 Trichloroethene	130	12.020	12.022	-0.002	96	205666	1.00	0.9661	
59 Dibromomethane	93	12.106	12.108	-0.002	95	160258	1.00	1.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	333891	1.00	1.04	
61 1,4-Dioxane	88	12.278	12.304	-0.026	91	45605	1.00	0.8218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	94	127335	1.00	0.8880	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	271241	1.00	1.01	
64 4-Methyl-2-pentanone (MIBK	43	13.190	13.202	-0.012	96	193142	1.00	0.9164	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	229501	1.00	1.02	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	209941	1.00	0.9531	
67 Toluene	91	14.042	14.046	-0.004	94	453010	1.00	0.9654	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	99	130717	1.00	0.9511	
69 2-Hexanone	58	14.506	14.514	-0.008	93	94111	1.00	0.8248	
70 n-Octane	85	14.716	14.714	0.002	89	172691	1.00	1.01	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	324681	1.00	0.9749	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	253874	1.00	1.00	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	202403	1.00	0.9316	
75 Chlorobenzene	112	16.042	16.044	-0.002	92	389910	1.00	1.00	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	91	435613	1.00	0.9685	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	599681	1.00	0.9651	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	966570	2.00	1.99	
80 n-Nonane	57	16.889	16.891	-0.002	91	300204	1.00	1.01	
81 Bromoform	173	16.943	16.943	0.000	95	303372	1.00	1.00	
82 Styrene	104	16.948	16.951	-0.003	98	325846	1.00	1.02	
83 o-Xylene	91	17.013	17.012	0.001	98	506239	1.00	0.9607	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	296089	1.00	0.9611	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	112173	1.00	0.9383	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	681562	1.00	0.9501	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	190451	1.00	0.9479	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	184067	1.00	0.9497	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	679340	1.00	0.9657	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	283628	1.00	0.9621	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	261798	1.00	0.9594	
93 n-Decane	57	18.604	18.606	-0.002	93	372039	1.00	0.9766	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	626116	1.00	0.9362	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	582954	1.00	0.9306	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	836987	1.00	0.9540	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	435441	1.00	0.9872	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	468018	1.00	0.9631	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	441981	1.00	0.99	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	702381	1.00	0.9027	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	585330	1.00	1.00	
102 Butylcyclohexane	83	19.272	19.276	-0.004	93	484667	1.00	0.9831	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	548117	1.00	0.9594	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	419606	1.00	1.01	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	635099	1.00	0.9125	
106 Indene	116	19.596	19.598	-0.002	82	460501	1.00	0.9663	
107 Undecane	57	19.893	19.893	-0.001	94	352838	1.00	1.14	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	98	189969	1.00	0.8987	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	620680	1.00	0.8440	
110 Dodecane	57	20.944	20.944	0.000	96	255850	1.00	1.05	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	301840	1.00	0.8177	
112 Naphthalene	128	21.295	21.297	-0.002	99	619621	1.00	0.8147	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	320011	1.00	0.8932	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	255330	1.00	0.7492	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	100	196801	1.00	0.7374	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	194294	1.00	0.7630	
A 122 C8 Range	1	14.705	(14.647-14.764)		0	1446999	1.00	1.02	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.92	
S 124 Xylenes, Total	100				0		3.00	2.95	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

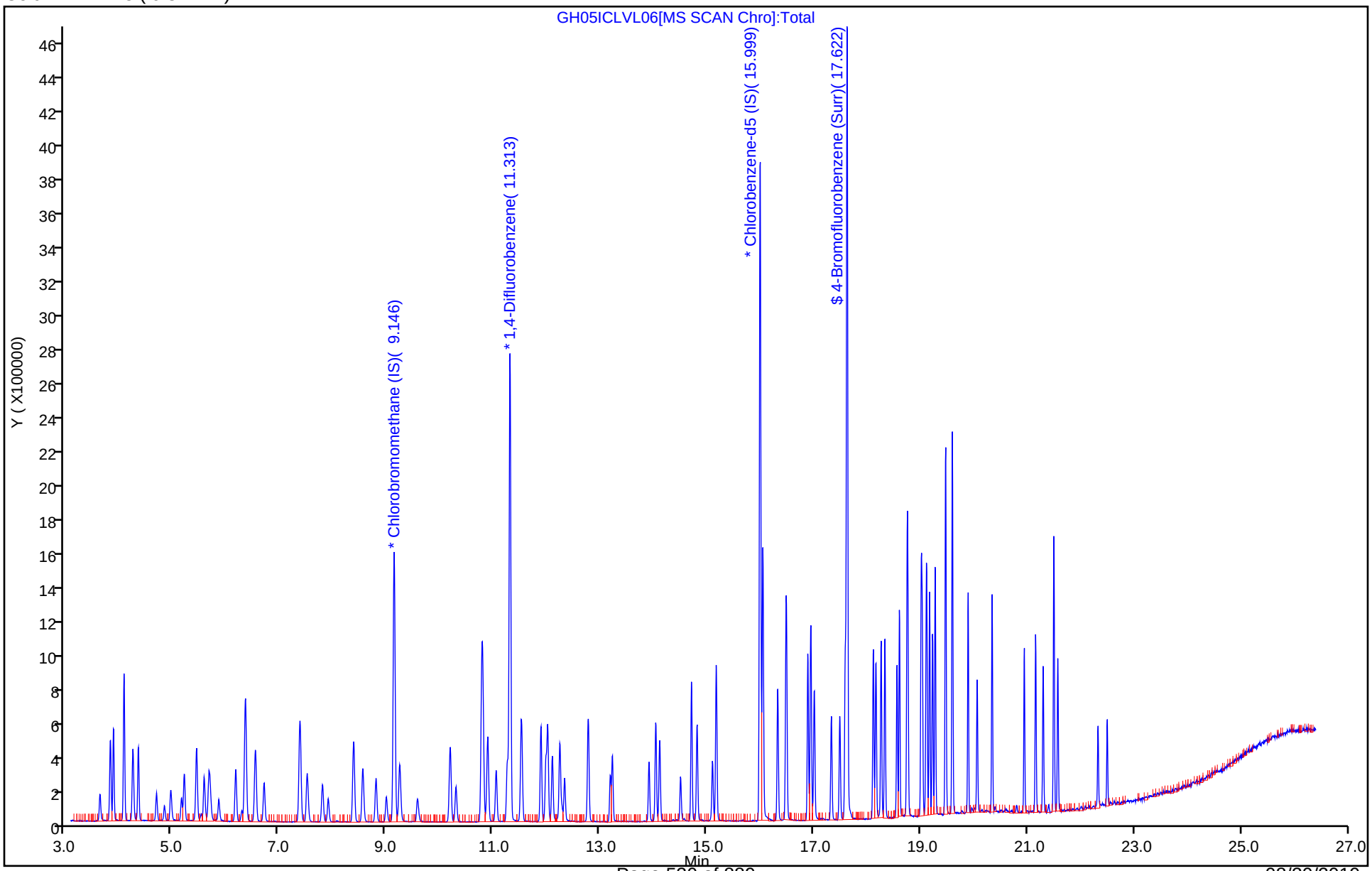
Report Date: 08-Aug-2019 11:06:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D

Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

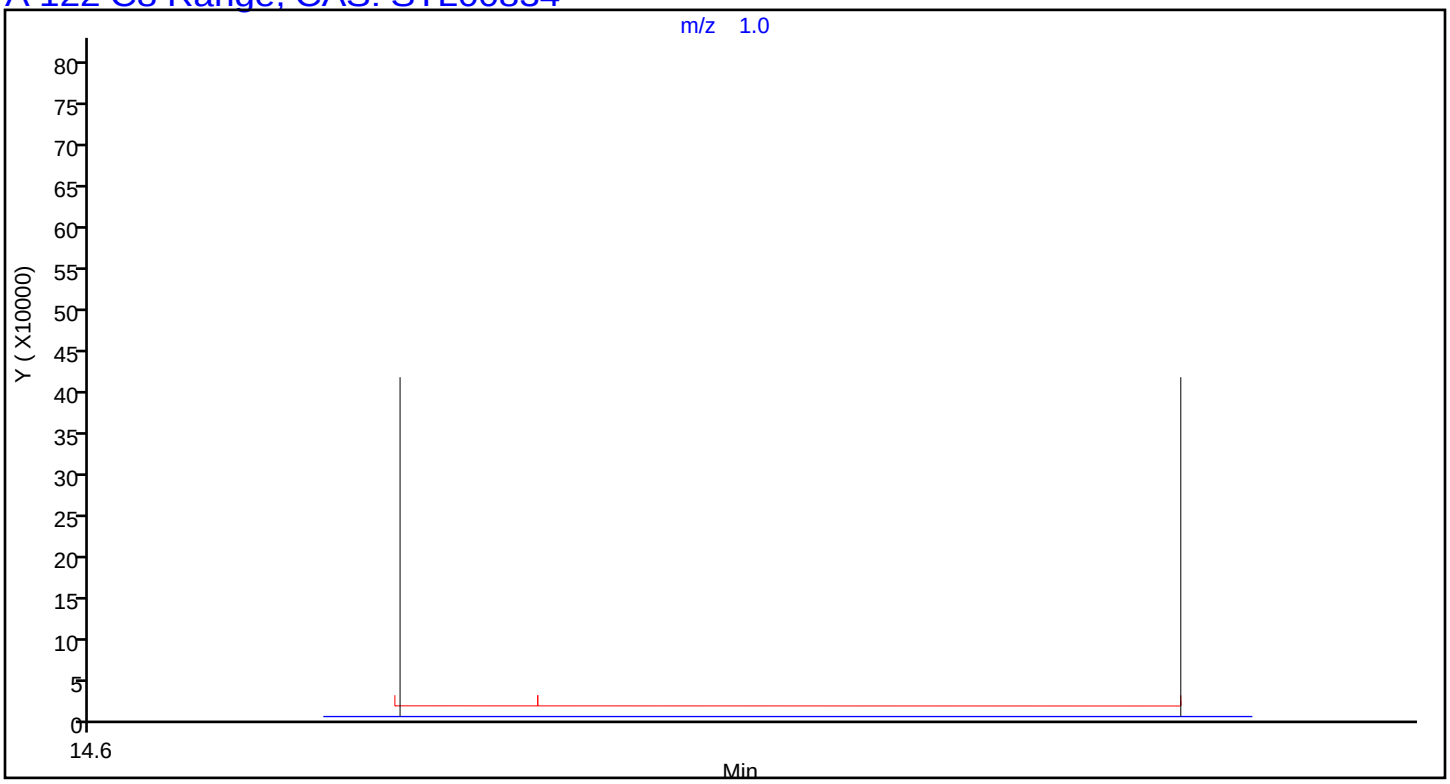
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D				
Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	007126	ALS Bottle#:	9	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 05-Aug-2019 22:58:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-013
Misc. Info.: 245077
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:16 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 08-Aug-2019 09:54:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	85	498889	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2835428	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2531405	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1775500	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	505376	2.00	1.99	
7 Propene	41	3.834	3.839	-0.005	96	269532	2.00	2.17	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1004548	2.00	2.04	
9 Chloromethane	52	4.082	4.085	-0.003	97	69360	2.00	1.94	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	89	586746	2.00	2.10	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	394630	10.0	10.0	
12 Vinyl chloride	62	4.260	4.266	-0.006	99	249592	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	361983	2.00	1.95	
14 Butadiene	54	4.357	4.360	-0.003	71	190360	2.00	2.01	
15 Bromomethane	94	4.692	4.699	-0.007	98	236529	2.00	2.00	
16 Chloroethane	64	4.843	4.849	-0.006	94	116908	2.00	2.02	
17 Ethanol	31	4.956	4.983	-0.027	98	405411	10.0	10.1	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	211252	2.00	2.03	
19 2-Methylbutane	43	5.215	5.219	-0.004	89	226978	2.00	1.92	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	100	793533	2.00	2.00	
21 Acrolein	56	5.463	5.472	-0.009	95	33184	2.00	1.93	
22 Acetonitrile	40	5.527	5.537	-0.010	98	61225	2.00	2.13	
23 Acetone	58	5.581	5.604	-0.023	100	189815	6.00	5.63	
24 Pentane	72	5.678	5.682	-0.004	95	33318	2.00	1.98	
25 Isopropyl alcohol	45	5.689	5.726	-0.037	92	571687	6.00	5.94	
26 Ethyl ether	31	5.856	5.869	-0.013	92	138967	2.00	1.96	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	272518	2.00	1.92	
28 Acrylonitrile	53	6.288	6.304	-0.016	94	140721	2.00	2.02	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	625843	2.00	2.01	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	94	404096	2.00	1.89	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	268413	2.00	1.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	264084	2.00	1.93	
33 Carbon disulfide	76	6.708	6.713	-0.005	99	762533	2.00	1.99	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	98	276739	2.00	1.94	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	582509	2.00	1.98	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	745830	2.00	1.95	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	538283	2.00	1.97	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	530203	2.00	2.02	
40 Hexane	56	8.391	8.392	-0.001	90	227104	2.00	1.99	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	105914	2.00	1.96	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	705829	2.00	1.94	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	95	287485	2.00	1.97	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	455292	2.00	1.95	
44 Chloroform	83	9.157	9.157	-0.001	96	675276	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	808985	2.00	1.97	
46 Tetrahydrofuran	42	9.572	9.605	-0.033	89	230500	2.00	1.91	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	824853	2.00	2.03	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	477830	2.00	1.83	
49 Cyclohexane	69	10.785	10.788	-0.003	81	142693	2.00	1.82	
50 Benzene	78	10.785	10.788	-0.003	97	821203	2.00	1.94	
52 Carbon tetrachloride	117	10.807	10.811	-0.004	97	839197	2.00	1.95	
51 n-Butanol	31	10.790	10.822	-0.032	68	66485	2.00	1.87	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	206018	2.00	1.91	
54 Thiophene	84	11.055	11.057	-0.002	95	479200	2.00	1.91	
55 Isooctane	57	11.529	11.531	-0.002	97	1342251	2.00	1.80	
56 n-Heptane	71	11.896	11.898	-0.002	88	305057	2.00	1.85	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	283363	2.00	1.89	
58 Trichloroethene	130	12.020	12.022	-0.002	98	441732	2.00	1.87	
59 Dibromomethane	93	12.106	12.108	-0.002	92	336220	2.00	1.89	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	713523	2.00	1.99	
61 1,4-Dioxane	88	12.273	12.304	-0.031	92	100718	2.00	1.63	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	301502	2.00	1.89	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	558969	2.00	1.87	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	412149	2.00	1.80	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	95	494209	2.00	1.97	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	473163	2.00	2.03	
67 Toluene	91	14.042	14.046	-0.004	92	974154	2.00	1.96	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	277228	2.00	1.90	
69 2-Hexanone	58	14.500	14.514	-0.014	94	204660	2.00	1.69	
70 n-Octane	85	14.711	14.714	-0.003	88	354754	2.00	1.96	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	729086	2.00	2.06	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	556280	2.00	2.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	425087	2.00	1.84	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	827346	2.00	1.99	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	90	884406	2.00	1.85	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1333571	2.00	2.02	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	2080126	4.00	4.03	
80 n-Nonane	57	16.889	16.891	-0.002	87	630721	2.00	1.99	
81 Bromoform	173	16.943	16.943	0.000	94	710116	2.00	2.21	
82 Styrene	104	16.948	16.951	-0.003	98	738865	2.00	2.19	
83 o-Xylene	91	17.013	17.012	0.001	98	1091980	2.00	1.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	637564	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	242207	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1459434	2.00	1.92	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	411131	2.00	1.93	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	406356	2.00	1.98	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1452472	2.00	1.95	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	599259	2.00	1.92	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	602874	2.00	2.08	
93 n-Decane	57	18.604	18.606	-0.002	93	741699	2.00	1.84	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1334314	2.00	1.88	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	1225884	2.00	1.84	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1726234	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	918520	2.00	1.96	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1035763	2.00	2.01	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	95	928649	2.00	1.97	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1539685	2.00	1.87	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	1246166	2.00	2.05	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	956144	2.00	1.83	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1113701	2.00	1.84	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	91	865203	2.00	1.97	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1334040	2.00	1.81	
106 Indene	116	19.596	19.598	-0.002	90	967517	2.00	1.91	
107 Undecane	57	19.893	19.893	0.000	93	730107	2.00	2.23	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	431473	2.00	1.92	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1363668	2.00	1.75	
110 Dodecane	57	20.944	20.944	0.000	96	533935	2.00	2.07	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	94	671652	2.00	1.72	
112 Naphthalene	128	21.295	21.297	-0.002	99	1338267	2.00	1.66	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	724710	2.00	1.91	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	564307	2.00	1.56	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	556936	2.00	1.97	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	534510	2.00	1.98	
A 122 C8 Range	1	14.716	(14.658-14.775)		0	2938358	2.00	1.96	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.91	
S 124 Xylenes, Total	100				0		6.00	5.99	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

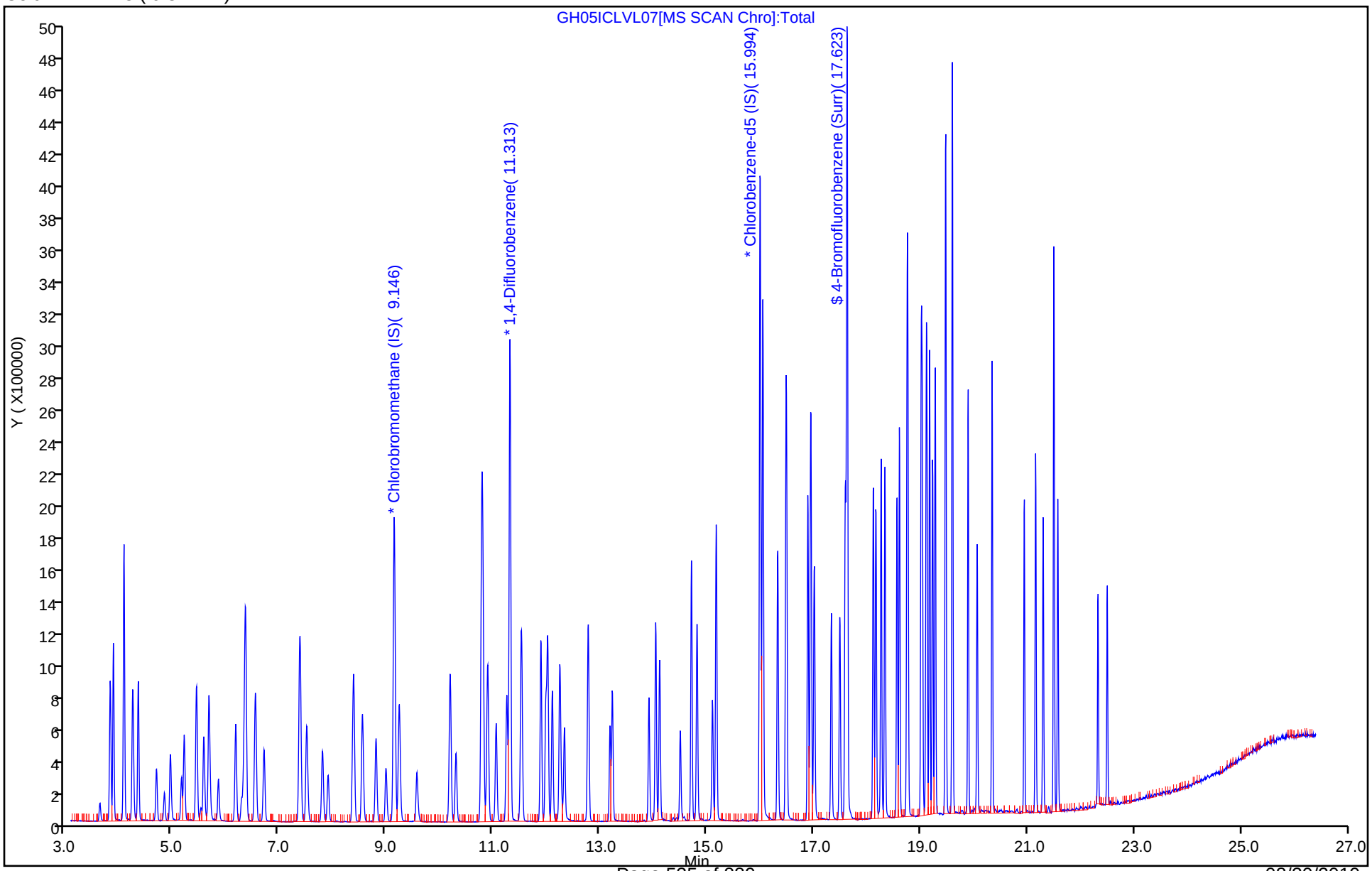
Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D

Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

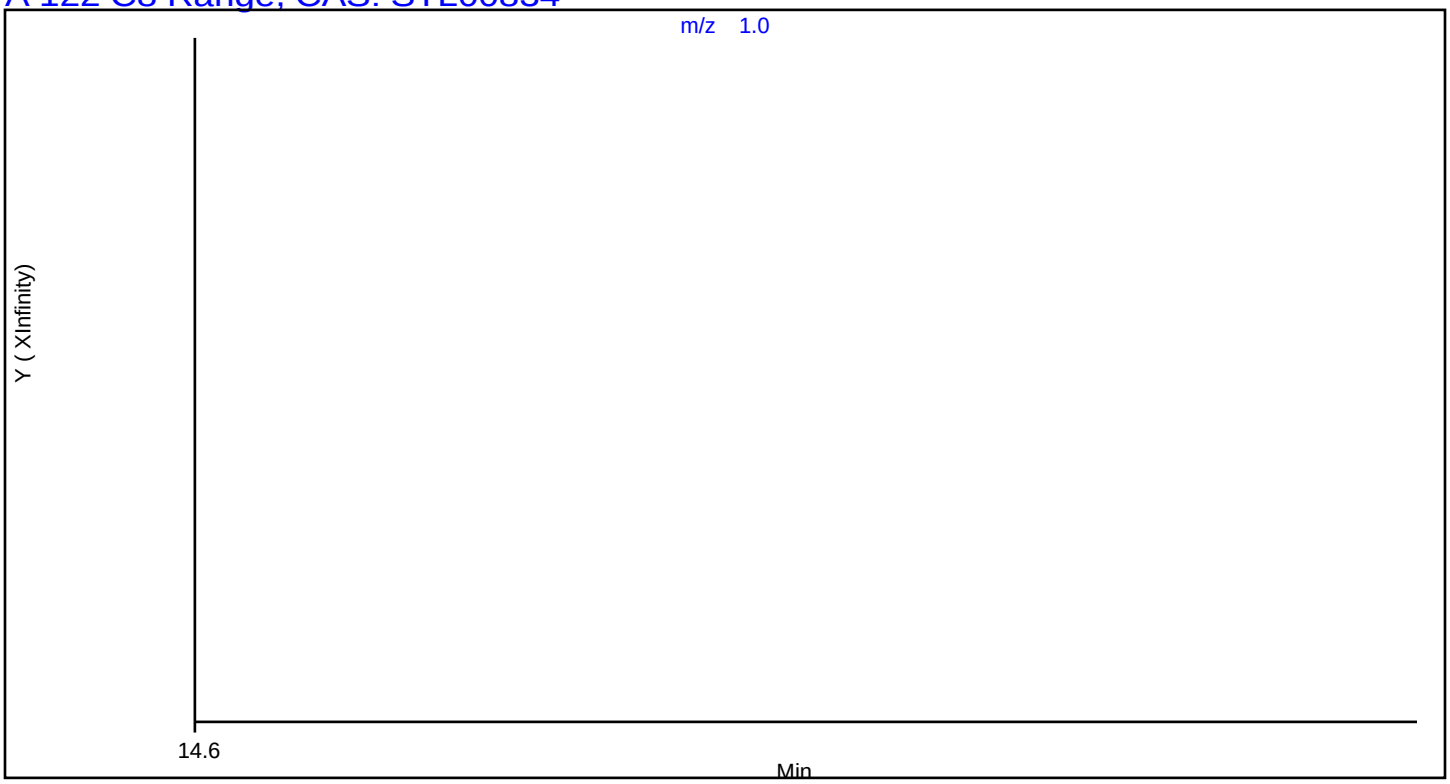


Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D				
Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 05-Aug-2019 23:41:30 ALS Bottle#: 3 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-014
Misc. Info.: 245076
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:30 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	90	513676	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.317	0.002	95	2745418	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	87	2468315	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.003	93	1651663	4.00	3.85	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	965849	4.00	3.70	
7 Propene	41	3.840	3.839	0.001	96	463444	4.00	3.62	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1949658	4.00	3.85	
9 Chloromethane	52	4.082	4.085	-0.003	96	128137	4.00	3.48	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	95	1140759	4.00	3.96	
11 Acetaldehyde	44	4.244	4.261	-0.017	95	695166	20.0	17.1	
12 Vinyl chloride	62	4.266	4.266	0.000	99	473502	4.00	3.53	
13 Butane	43	4.357	4.360	-0.003	82	678714	4.00	3.54	
14 Butadiene	54	4.357	4.360	-0.003	72	358899	4.00	3.68	
15 Bromomethane	94	4.697	4.699	-0.002	98	460553	4.00	3.77	
16 Chloroethane	64	4.848	4.849	-0.001	94	218525	4.00	3.67	
17 Ethanol	31	4.956	4.983	-0.027	99	761701	20.0	18.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	417570	4.00	3.90	
19 2-Methylbutane	43	5.215	5.219	-0.004	88	421997	4.00	3.47	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	1569298	4.00	3.84	
21 Acrolein	56	5.457	5.472	-0.015	96	68152	4.00	3.84	
22 Acetonitrile	40	5.533	5.537	-0.004	95	109495	4.00	3.69	
23 Acetone	58	5.581	5.604	-0.023	100	343813	12.0	9.90	
24 Pentane	72	5.673	5.682	-0.009	81	63374	4.00	3.66	
25 Isopropyl alcohol	45	5.673	5.726	-0.053	77	1119666	12.0	11.3	
26 Ethyl ether	31	5.851	5.869	-0.018	90	263626	4.00	3.61	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	98	549765	4.00	3.75	
28 Acrylonitrile	53	6.288	6.304	-0.016	93	267903	4.00	3.74	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	1197286	4.00	3.74	
30 2-Methyl-2-propanol	59	6.309	6.376	-0.067	94	864303	4.00	3.92	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	486021	4.00	3.41	
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	96	509026	4.00	3.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.713	-0.005	99	1499860	4.00	3.81	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	99	554110	4.00	3.78	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	1089314	4.00	3.60	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	1392455	4.00	3.53	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1018782	4.00	3.63	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	987752	4.00	3.65	
40 Hexane	56	8.391	8.392	-0.001	91	425515	4.00	3.63	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	97	191292	4.00	3.43	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	1288871	4.00	3.44	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	569244	4.00	3.79	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	811274	4.00	3.37	
44 Chloroform	83	9.156	9.157	-0.001	96	1311051	4.00	3.76	
45 Tert-butyl ethyl ether	59	9.237	9.270	-0.033	94	1484302	4.00	3.51	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	419284	4.00	3.37	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	94	1578895	4.00	3.78	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	926487	4.00	3.67	
49 Cyclohexane	69	10.785	10.788	-0.003	75	265054	4.00	3.49	
50 Benzene	78	10.785	10.788	-0.003	98	1498256	4.00	3.65	
52 Carbon tetrachloride	117	10.812	10.811	0.001	98	1628520	4.00	3.90	
51 n-Butanol	31	10.763	10.822	-0.059	79	146442	4.00	4.26	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	377248	4.00	3.61	
54 Thiophene	84	11.060	11.057	0.003	96	925464	4.00	3.82	
55 Isooctane	57	11.529	11.531	-0.002	97	2463502	4.00	3.42	
56 n-Heptane	71	11.896	11.898	-0.002	89	573413	4.00	3.59	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	538612	4.00	3.72	
58 Trichloroethene	130	12.020	12.022	-0.002	98	862077	4.00	3.77	
59 Dibromomethane	93	12.106	12.108	-0.002	92	648015	4.00	3.76	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	1396397	4.00	4.03	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	197428	4.00	3.31	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	528755	4.00	3.43	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	1048798	4.00	3.62	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	853850	4.00	3.90	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	957323	4.00	3.95	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	899946	4.00	3.95	
67 Toluene	91	14.042	14.046	-0.004	94	1894853	4.00	3.90	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	530558	4.00	3.73	
69 2-Hexanone	58	14.495	14.514	-0.019	96	455335	4.00	3.86	
70 n-Octane	85	14.716	14.714	0.002	88	688088	4.00	3.90	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	1471952	4.00	4.27	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1071436	4.00	4.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	841268	4.00	3.74	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	1525179	4.00	3.77	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	89	1537758	4.00	3.31	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	2492968	4.00	3.88	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	3855580	8.00	7.67	
80 n-Nonane	57	16.889	16.891	-0.002	85	1133522	4.00	3.67	
81 Bromoform	173	16.943	16.943	0.000	96	1404549	4.00	4.49	
82 Styrene	104	16.954	16.951	0.003	98	1374089	4.00	4.18	
83 o-Xylene	91	17.013	17.012	0.001	98	2040159	4.00	3.74	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	1126153	4.00	3.53	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	447403	4.00	3.62	
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	2722769	4.00	3.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.001	99	770068	4.00	3.71	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	759079	4.00	3.79	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	2605654	4.00	3.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	1079158	4.00	3.54	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	1133355	4.00	4.02	
93 n-Decane	57	18.604	18.606	-0.002	94	1250578	4.00	3.17	
94 tert-Butylbenzene	119	18.750	18.750	0.000	91	2351607	4.00	3.40	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	2146687	4.00	3.31	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	3015388	4.00	3.32	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	1691446	4.00	3.71	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1812134	4.00	3.61	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	1692663	4.00	3.68	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	2699782	4.00	3.35	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	2181596	4.00	3.71	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	1645586	4.00	3.23	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1918858	4.00	3.25	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	1526639	4.00	3.56	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	2208828	4.00	3.07	
106 Indene	116	19.596	19.598	-0.002	91	1660484	4.00	3.37	
107 Undecane	57	19.893	19.893	0.000	92	1210490	4.00	3.79	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	831656	4.00	3.80	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	2487349	4.00	3.27	
110 Dodecane	57	20.944	20.944	0.000	95	1126091	4.00	4.47	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	-0.001	95	1295535	4.00	3.39	
112 Naphthalene	128	21.295	21.297	-0.002	99	2485523	4.00	3.16	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	1364630	4.00	3.68	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	1141200	4.00	3.24	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	1007749	4.00	3.65	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	1013536	4.00	3.85	
A 122 C8 Range	1	14.716	(14.652-14.792)		0	5498095	4.00	3.76	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.57	
S 124 Xylenes, Total	100				0		12.0	11.4	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

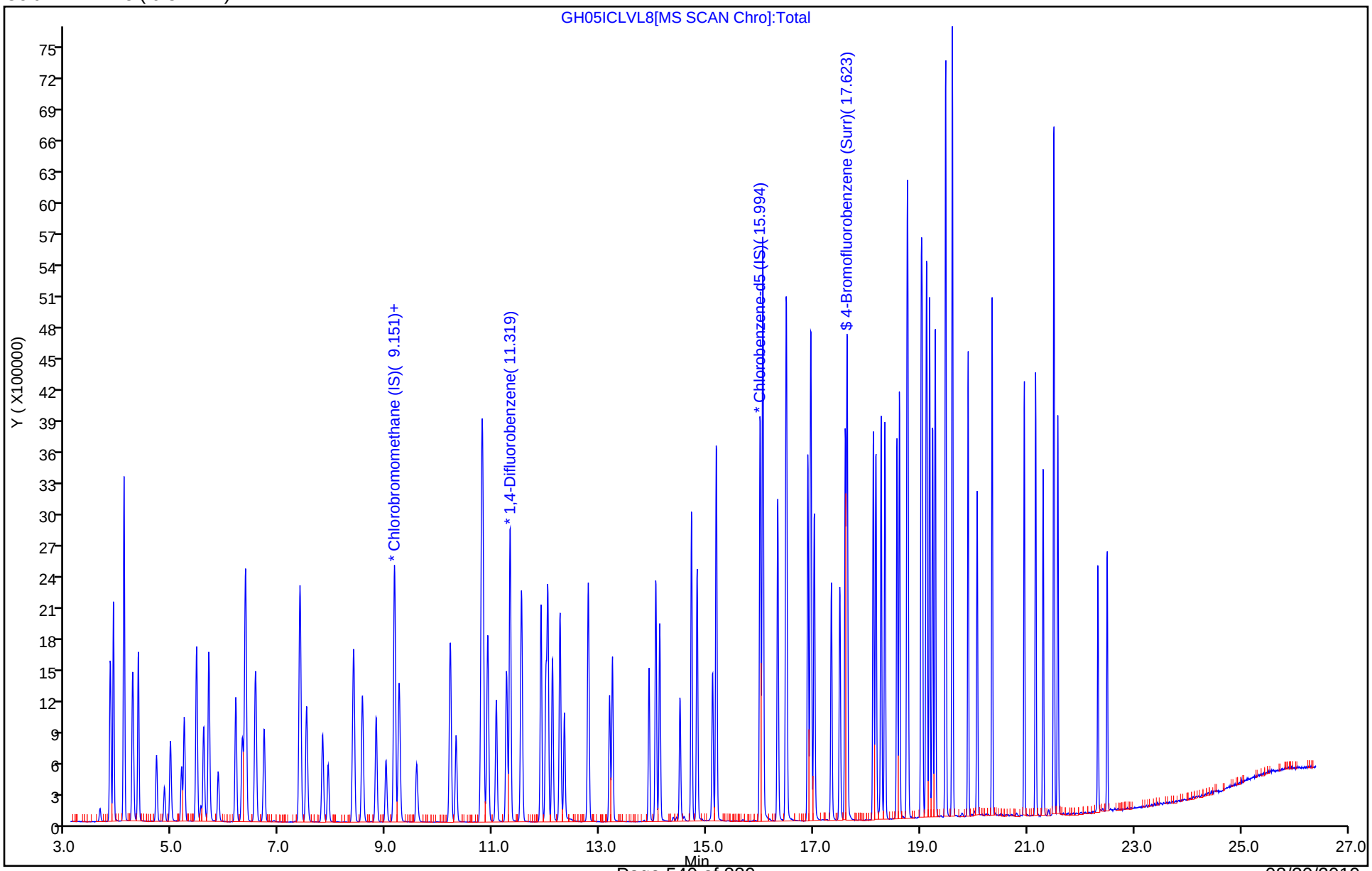
Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

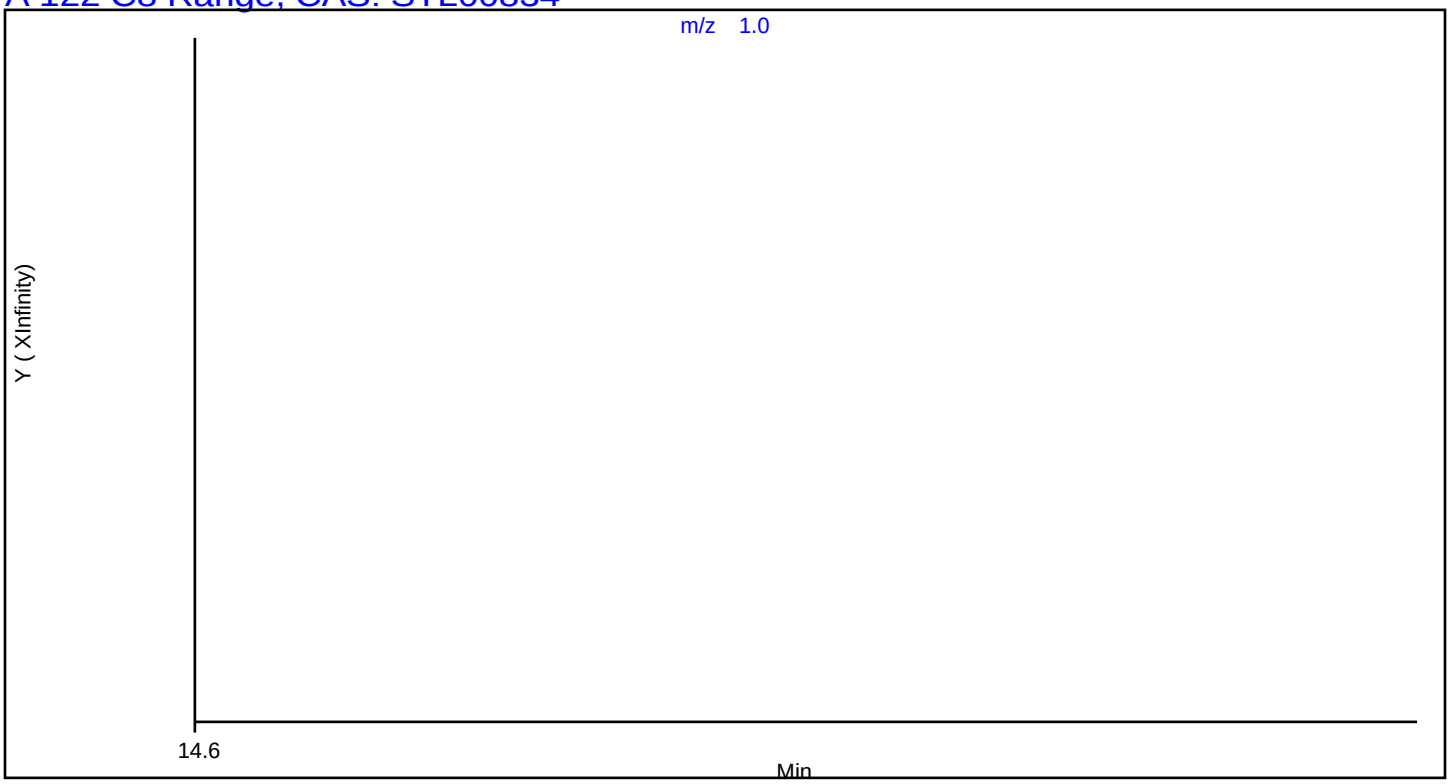


Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++	+++++	9400	11766	25664	+++++	+++++	0.0800	0.160	0.400
			69702	118045	352408	746436	+++++	1.00	2.00	4.00	8.00	+++++
Propene	CBM	Ave	+++++	+++++	+++++	+++++	29865	+++++	+++++	+++++	+++++	0.400
			59192	83916	230605	452211	+++++	1.00	2.00	4.00	8.00	+++++
Dichlorodifluoromethane	CBM	Ave	+++++	3489	9823	14967	32988	+++++	0.0400	0.0800	0.160	0.400
			83071	181786	385477	785524	1499187	1.00	2.00	4.00	8.00	16.0
Chloromethane	CBM	Ave	+++++	+++++	+++++	5364	11820	+++++	+++++	+++++	0.160	0.400
			27769	58261	123458	261290	462523	1.00	2.00	4.00	8.00	16.0
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	CBM	Ave	+++++	+++++	1285	2212	4984	+++++	+++++	0.0800	0.160	0.400
			11411	25059	54998	104932	175417	1.00	2.00	4.00	8.00	16.0
Vinyl chloride	CBM	Ave	2330	3946	8041	15377	38122	0.0200	0.0400	0.0800	0.160	0.400
			93320	209135	421064	896725	1689141	1.00	2.00	4.00	8.00	16.0
Butane	CBM	Ave	+++++	+++++	+++++	24969	60060	+++++	+++++	+++++	0.160	0.400
			146719	320866	630660	1362610	2603044	1.00	2.00	4.00	8.00	16.0
1,3-Butadiene	CBM	Ave	+++++	+++++	6693	12247	28897	+++++	+++++	0.0800	0.160	0.400
			68261	153622	308014	668537	1270467	1.00	2.00	4.00	8.00	16.0
Bromomethane	CBM	Ave	+++++	+++++	7368	14514	33566	+++++	+++++	0.0800	0.160	0.400
			78978	179541	363015	788699	1514422	1.00	2.00	4.00	8.00	16.0
Chloroethane	CBM	Ave	+++++	+++++	3754	6682	17457	+++++	+++++	0.0800	0.160	0.400
			39592	89853	179467	397472	770102	1.00	2.00	4.00	8.00	16.0
Ethanol	CBM	Ave	+++++	+++++	+++++	35944	77636	+++++	+++++	+++++	0.800	2.00
			192417	411685	737472	1803133	3044070	5.00	10.0	20.0	40.0	80.0
Vinyl bromide	CBM	Ave	+++++	3454	6832	12262	31635	+++++	0.0400	0.0800	0.160	0.400
			74384	165932	335660	741427	1459967	1.00	2.00	4.00	8.00	16.0
2-Methylbutane	CBM	Ave	+++++	+++++	9935	17850	41208	+++++	+++++	0.0800	0.160	0.400
			96302	212490	402954	914602	1778006	1.00	2.00	4.00	8.00	16.0
Trichlorofluoromethane	CBM	Ave	7213	13212	25357	50064	125032	0.0200	0.0400	0.0800	0.160	0.400
			301033	649561	1305209	2750738	5466655	1.00	2.00	4.00	8.00	16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-Jul-2019 20:27:30 ALS Bottle#: 13 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-004
Misc. Info.: 231544
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:23 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:08:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	96	314272	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.845	11.841	0.004	96	1591131	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	91	1435997	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	92	1116210	4.00	4.23	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	746436	8.00	8.69	
20 Propene	41	4.168	4.169	-0.001	97	452211	8.00	7.27	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	785524	8.00	7.98	
22 Chloromethane	52	4.443	4.441	0.002	100	261290	8.00	8.23	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	47	104932	8.00	7.68	
24 Acetaldehyde	44	4.615	4.617	-0.002	93	1644486	40.0	40.2	
25 Vinyl chloride	62	4.642	4.642	0.000	99	896725	8.00	8.40	
26 Butane	43	4.739	4.739	0.000	84	1362610	8.00	8.27	
27 Butadiene	54	4.739	4.741	-0.002	69	668537	8.00	8.28	
28 Bromomethane	94	5.115	5.117	-0.002	98	788699	8.00	8.39	
29 Chloroethane	64	5.277	5.275	0.002	93	397472	8.00	8.46	
30 Ethanol	31	5.384	5.386	-0.002	98	1803133	40.0	42.5	
31 Vinyl bromide	106	5.621	5.618	0.003	98	741427	8.00	8.51	
32 2-Methylbutane	43	5.669	5.669	0.000	90	914602	8.00	8.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	2750738	8.00	8.09	
34 Acrolein	56	5.933	5.930	0.003	96	174522	8.00	8.46	
35 Acetonitrile	40	6.008	6.004	0.004	97	281228	8.00	8.61	
36 Acetone	58	6.051	6.061	-0.010	99	880002	24.0	24.3	
38 Pentane	72	6.154	6.155	-0.001	95	108908	8.00	8.39	
37 Isopropyl alcohol	45	6.148	6.155	-0.007	93	2777741	24.0	26.4	
39 Ethyl ether	31	6.336	6.345	-0.009	91	980136	8.00	8.39	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	799265	8.00	8.29	
41 Acrylonitrile	53	6.804	6.802	0.002	91	559160	8.00	8.67	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	96	1515640	8.00	9.33	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	1829502	8.00	8.16	
44 Methylene Chloride	84	7.068	7.067	0.001	97	890951	8.00	7.53	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	97	900716	8.00	8.22	
46 Carbon disulfide	76	7.251	7.248	0.003	100	2412730	8.00	8.20	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	93	802422	8.00	8.33	
48 2-Methylpentane	43	7.929	7.928	0.001	95	2100541	8.00	7.91	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	2268816	8.00	8.82	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	1771492	8.00	8.25	
51 Vinyl acetate	43	8.461	8.461	0.000	100	2352362	8.00	8.63	
52 2-Butanone (MEK)	72	8.935	8.943	-0.008	98	348079	8.00	8.21	
53 Hexane	56	8.951	8.948	0.003	80	698498	8.00	8.08	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	2819575	8.00	8.58	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	847712	8.00	8.53	
56 Ethyl acetate	43	9.559	9.566	-0.007	98	1936281	8.00	8.57	
57 Chloroform	83	9.742	9.735	0.007	97	2105679	8.00	8.26	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	2711408	8.00	8.86	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	955418	8.00	8.45	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	96	2279639	8.00	8.31	
61 1,2-Dichloroethane	62	10.877	10.873	0.004	98	1568177	8.00	8.58	
62 n-Butanol	31	11.275	11.296	-0.021	94	378008	8.00	8.69	
63 Cyclohexane	69	11.339	11.337	0.002	93	412685	8.00	8.43	
64 Benzene	78	11.345	11.340	0.005	98	2422180	8.00	8.31	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	1624278	8.00	6.65	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	91	564569	8.00	8.59	
67 Thiophene	84	11.608	11.604	0.004	98	1436912	8.00	8.67	
68 Isooctane	57	12.044	12.041	0.003	97	4299338	8.00	8.27	
69 n-Heptane	71	12.394	12.392	0.002	94	866442	8.00	8.64	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	86	1063615	8.00	8.69	
71 Trichloroethene	130	12.539	12.537	0.002	91	1291545	8.00	9.82	
72 Dibromomethane	93	12.630	12.627	0.003	96	1189178	8.00	8.76	
73 Dichlorobromomethane	83	12.765	12.761	0.004	99	2271588	8.00	8.76	
74 1,4-Dioxane	88	12.776	12.787	-0.011	92	324076	8.00	9.50	
75 Methyl methacrylate	41	12.824	12.827	-0.003	89	1279199	8.00	8.96	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	1516089	8.00	8.49	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	2103846	8.00	9.43	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	1653644	8.00	9.10	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	98	1595731	8.00	9.02	
80 Toluene	91	14.524	14.519	0.005	92	3008163	8.00	8.67	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	96	950196	8.00	8.55	
82 2-Hexanone	58	14.949	14.956	-0.007	92	986384	8.00	9.71	
83 n-Octane	85	15.153	15.154	-0.001	95	917763	8.00	8.62	
84 Chlorodibromomethane	129	15.293	15.290	0.003	97	2141207	8.00	8.91	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	1796171	8.00	8.88	
86 Tetrachloroethene	129	15.643	15.637	0.006	96	1182555	8.00	8.48	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	95	3223031	8.00	7.91	
88 Chlorobenzene	112	16.504	16.501	0.003	90	2361273	8.00	8.51	
89 Ethylbenzene	91	16.778	16.773	0.005	100	4015925	8.00	8.98	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	6295808	16.0	18.4	
91 n-Nonane	57	17.311	17.307	0.004	92	2122316	8.00	8.55	
92 Styrene	104	17.397	17.392	0.005	98	2294329	8.00	9.37	
93 Bromoform	173	17.402	17.398	0.004	96	2392675	8.00	9.30	
94 o-Xylene	91	17.456	17.453	0.003	98	3316892	8.00	9.10	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	1948236	8.00	7.67	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	648112	8.00	8.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.015	18.012	0.003	98	4239905	8.00	8.91	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	1148202	8.00	9.04	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	1109333	8.00	9.03	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	4296952	8.00	9.06	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	1702428	8.00	9.00	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	1785812	8.00	9.15	
103 n-Decane	57	18.978	18.974	0.004	91	2689224	8.00	8.57	
104 tert-Butylbenzene	119	19.134	19.133	0.001	89	3853173	8.00	8.84	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	3728010	8.00	8.87	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	5162536	8.00	8.75	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	2584149	8.00	8.83	
108 Benzyl chloride	91	19.489	19.487	0.002	97	3429055	8.00	9.52	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	92	2591316	8.00	8.76	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	4365177	8.00	8.79	
111 1,2,3-Trimethylbenzene	105	19.608	19.603	0.005	99	3630969	8.00	8.81	
112 Butylcyclohexane	83	19.645	19.642	0.003	91	3052992	8.00	8.56	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	3375076	8.00	8.83	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	2504407	8.00	8.70	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	4494512	8.00	8.74	
116 Indene	116	19.973	19.974	-0.001	88	2859932	8.00	8.72	
117 Undecane	57	20.237	20.235	0.002	95	3006478	8.00	8.47	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	1301047	8.00	9.08	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	4041015	8.00	9.03	
120 Dodecane	57	21.324	21.323	0.001	93	2734198	8.00	9.06	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	1991130	8.00	8.47	
122 Naphthalene	128	21.695	21.693	0.002	99	2833111	8.00	7.70	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	94	2425829	8.00	8.56	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	1549901	8.00	8.35	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	861791	8.00	8.57	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	1031248	8.00	8.56	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	9605151	8.00	8.43	
S 129 Xylenes, Total	100				0		24.0	27.5	
S 130 1,2-Dichloroethene, Total	1				0		16.0	16.9	

Reagents:

40L9DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

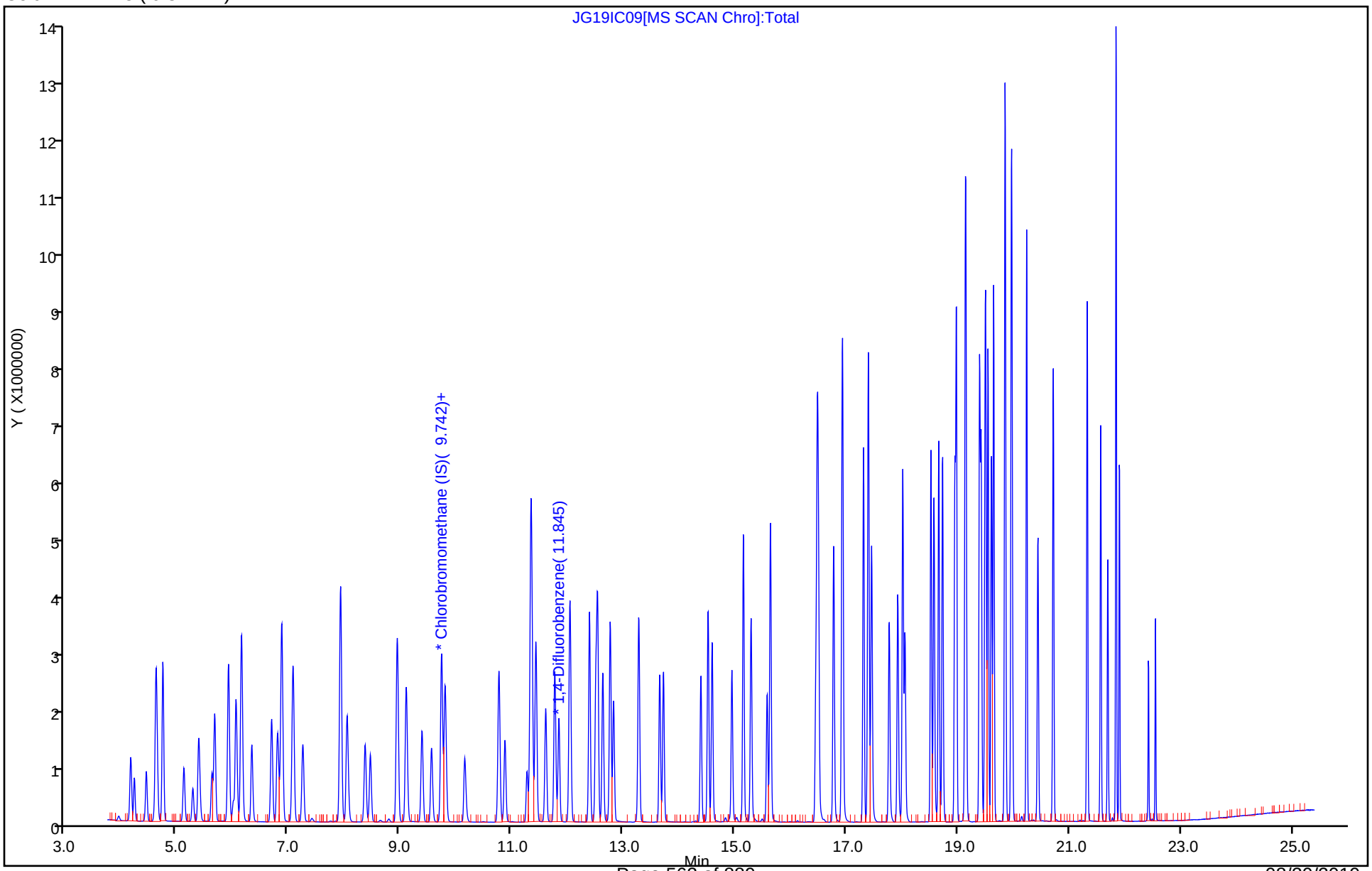
Report Date: 24-Jul-2019 11:35:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D

Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

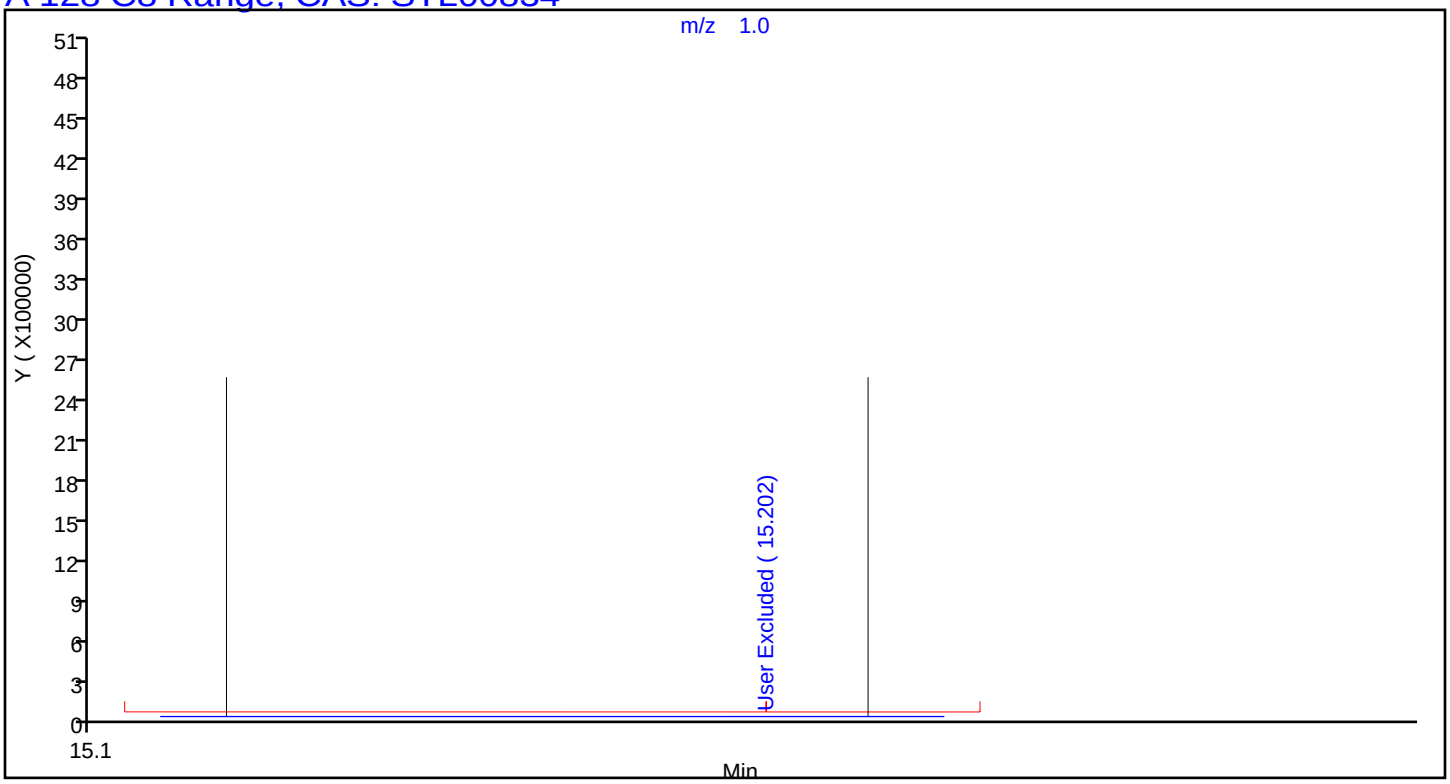


Report Date: 24-Jul-2019 11:35:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D				
Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	13	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 19-Jul-2019 22:08:30 ALS Bottle#: 15 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-006
Misc. Info.: 231543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 14:31:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	93	345636	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.850	11.841	0.009	96	1832536	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.461	16.453	0.007	89	1681549	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.058	18.052	0.006	91	1240000	4.00	4.01	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	999266	16.0	10.6	
20 Propene	41	4.168	4.169	-0.001	97	592182	16.0	8.66	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	1499187	16.0	13.8	
22 Chloromethane	52	4.443	4.441	0.002	100	462523	16.0	13.2	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	46	175417	16.0	11.7	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	2825329	80.0	62.8	
25 Vinyl chloride	62	4.642	4.642	0.000	99	1689141	16.0	14.4	
26 Butane	43	4.739	4.739	0.000	84	2603044	16.0	14.4	
27 Butadiene	54	4.739	4.741	-0.002	69	1270467	16.0	14.3	
28 Bromomethane	94	5.121	5.117	0.004	98	1514422	16.0	14.6	
29 Chloroethane	64	5.277	5.275	0.002	95	770102	16.0	14.9	
30 Ethanol	31	5.390	5.386	0.004	99	3044070	80.0	65.3	
31 Vinyl bromide	106	5.621	5.618	0.003	97	1459967	16.0	15.2	
32 2-Methylbutane	43	5.669	5.669	0.000	90	1778006	16.0	14.2	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	5466655	16.0	14.6	
34 Acrolein	56	5.933	5.930	0.003	98	314601	16.0	13.9	
35 Acetonitrile	40	6.008	6.004	0.004	97	539412	16.0	15.0	
36 Acetone	58	6.057	6.061	-0.004	100	1556512	48.0	39.1	
38 Pentane	72	6.159	6.155	0.004	92	218971	16.0	15.3	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	75	4474624	48.0	38.7	
39 Ethyl ether	31	6.336	6.345	-0.009	90	1842593	16.0	14.3	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	1581117	16.0	14.9	
41 Acrylonitrile	53	6.810	6.802	0.008	92	1066284	16.0	15.0	
42 2-Methyl-2-propanol	59	6.799	6.814	-0.015	96	2352259	16.0	13.2	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	3609413	16.0	14.6	
44 Methylene Chloride	84	7.073	7.067	0.006	97	1420525	16.0	10.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	96	1865781	16.0	15.5	
46 Carbon disulfide	76	7.251	7.248	0.003	100	4778388	16.0	14.8	
47 trans-1,2-Dichloroethene	96	7.929	7.922	0.007	93	1559714	16.0	14.7	
48 2-Methylpentane	43	7.934	7.928	0.006	94	4040646	16.0	13.8	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	4294511	16.0	15.2	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	3431571	16.0	14.5	
51 Vinyl acetate	43	8.467	8.461	0.006	100	4347628	16.0	14.5	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	98	640120	16.0	13.7	
53 Hexane	56	8.951	8.948	0.003	81	1355833	16.0	14.3	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	5240908	16.0	14.5	
55 cis-1,2-Dichloroethene	96	9.392	9.384	0.008	98	1644734	16.0	15.1	
56 Ethyl acetate	43	9.564	9.566	-0.002	98	3675059	16.0	14.8	
57 Chloroform	83	9.747	9.735	0.012	97	4117234	16.0	14.7	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	5081493	16.0	15.1	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	1801950	16.0	14.5	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	97	4497945	16.0	14.9	
61 1,2-Dichloroethane	62	10.882	10.873	0.009	98	3115023	16.0	14.8	
62 n-Butanol	31	11.280	11.296	-0.016	94	580553	16.0	11.6	
63 Cyclohexane	69	11.339	11.337	0.002	93	811291	16.0	14.4	
64 Benzene	78	11.350	11.340	0.010	98	4679288	16.0	13.9	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	4751427	16.0	16.9	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	90	1085296	16.0	14.3	
67 Thiophene	84	11.614	11.604	0.010	98	2776968	16.0	14.5	
68 Isooctane	57	12.049	12.041	0.008	96	8281518	16.0	13.8	
69 n-Heptane	71	12.399	12.392	0.007	94	1681680	16.0	14.6	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	2056985	16.0	14.6	
71 Trichloroethene	130	12.544	12.537	0.007	93	2209989	16.0	14.6	
72 Dibromomethane	93	12.636	12.627	0.009	96	2348328	16.0	15.0	
73 Dichlorobromomethane	83	12.770	12.761	0.009	99	4508733	16.0	15.1	
74 1,4-Dioxane	88	12.776	12.787	-0.011	91	537847	16.0	13.7	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	2475502	16.0	15.0	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	2972213	16.0	14.5	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.662	-0.004	99	3439475	16.0	13.4	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	3240398	16.0	15.5	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	97	3180285	16.0	15.4	
80 Toluene	91	14.524	14.519	0.005	92	5839733	16.0	14.4	
81 1,1,2-Trichloroethane	83	14.599	14.591	0.008	95	1873801	16.0	14.4	
82 2-Hexanone	58	14.954	14.956	-0.002	92	1569231	16.0	13.2	
83 n-Octane	85	15.159	15.154	0.005	93	1786512	16.0	14.3	
84 Chlorodibromomethane	129	15.299	15.290	0.009	98	4340906	16.0	15.4	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	3574771	16.0	15.1	
86 Tetrachloroethene	129	15.643	15.637	0.006	94	2373157	16.0	14.5	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	94	6097229	16.0	12.8	
88 Chlorobenzene	112	16.504	16.501	0.003	90	4719682	16.0	14.5	
89 Ethylbenzene	91	16.778	16.773	0.005	100	7725788	16.0	14.8	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	12055501	32.0	30.0	
91 n-Nonane	57	17.316	17.307	0.009	91	4150063	16.0	14.3	
92 Styrene	104	17.397	17.392	0.005	98	4622861	16.0	16.1	
93 Bromoform	173	17.402	17.398	0.004	97	5062797	16.0	16.8	
94 o-Xylene	91	17.461	17.453	0.008	98	6347222	16.0	14.9	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	4342084	16.0	14.6	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	97	1267571	16.0	15.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.021	18.012	0.009	98	8162742	16.0	14.6	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	2260539	16.0	15.2	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	2193658	16.0	15.2	
100 4-Ethyltoluene	105	18.666	18.658	0.008	97	8353268	16.0	15.0	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	3349699	16.0	15.1	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	3635031	16.0	15.9	
103 n-Decane	57	18.978	18.974	0.004	93	5075517	16.0	13.8	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	7496594	16.0	15.2	
106 sec-Butylbenzene	105	19.398	19.389	0.009	96	10008232	16.0	14.5	
107 1,3-Dichlorobenzene	146	19.425	19.419	0.006	98	5278679	16.0	15.4	
108 Benzyl chloride	91	19.495	19.487	0.008	97	7139166	16.0	16.9	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	91	5369180	16.0	15.5	
110 4-Isopropyltoluene	119	19.548	19.542	0.006	96	8636742	16.0	14.9	
111 1,2,3-Trimethylbenzene	105	19.607	19.603	0.004	98	7267371	16.0	15.1	
112 Butylcyclohexane	83	19.651	19.642	0.009	91	5944213	16.0	14.2	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	6866158	16.0	15.3	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	5170636	16.0	15.3	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	8885564	16.0	14.8	
116 Indene	116	19.979	19.974	0.005	89	6055240	16.0	15.8	
117 Undecane	57	20.237	20.235	0.002	94	5651121	16.0	13.6	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	2569818	16.0	15.3	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	8007424	16.0	15.3	
120 Dodecane	57	21.324	21.323	0.001	93	3757386	16.0	10.6	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	4126184	16.0	15.0	
122 Naphthalene	128	21.695	21.693	0.002	98	5776864	16.0	13.4	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	93	4683877	16.0	14.1	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	2955030	16.0	13.6	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	99	948200	16.0	8.05	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	977205	16.0	6.92	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	18748187	16.0	14.0	
S 129 Xylenes, Total	100				0		48.0	44.9	
S 130 1,2-Dichloroethene, Total	1				0		32.0	29.8	

Reagents:

40L10DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

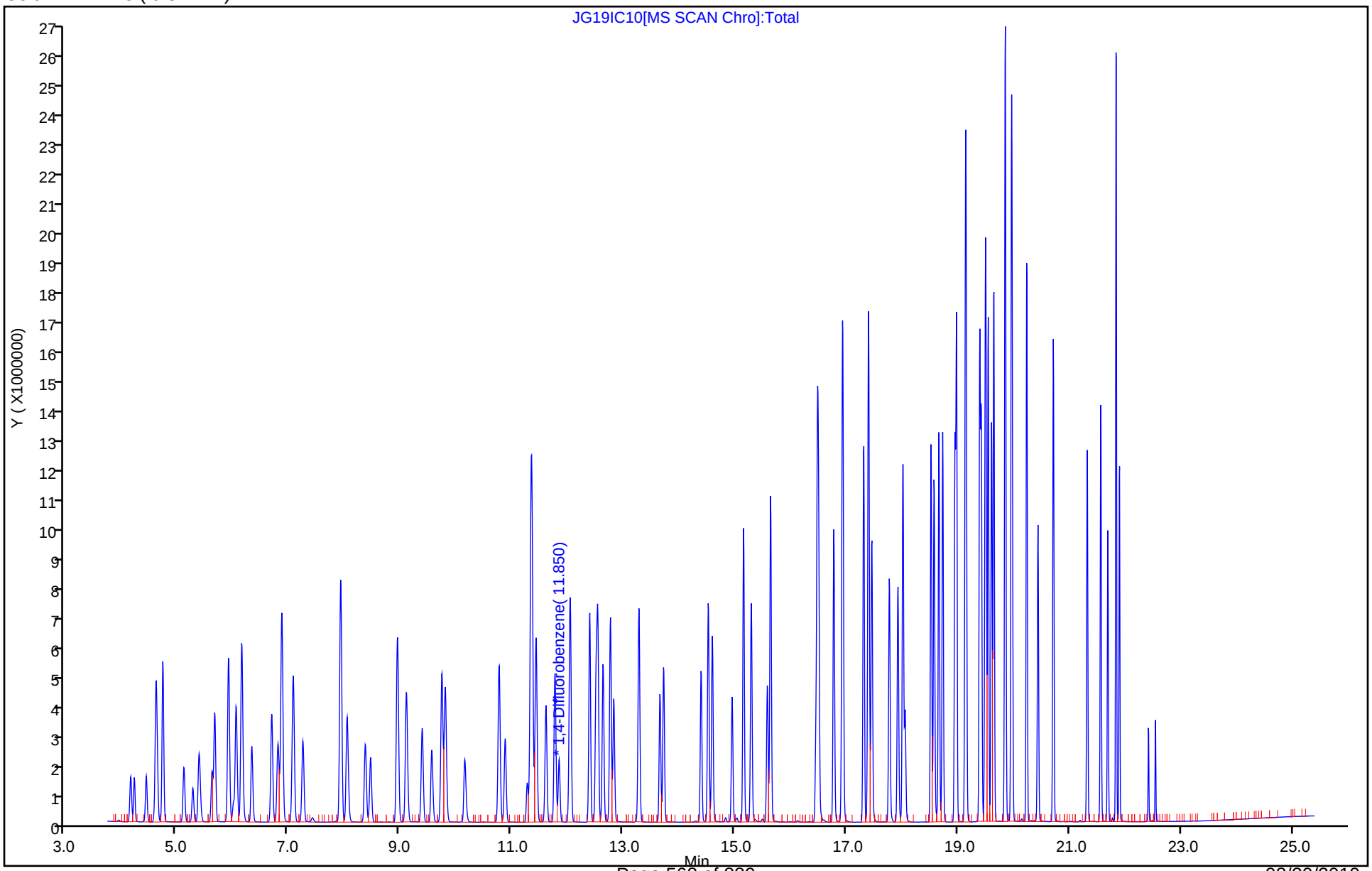
Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D

Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	6
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

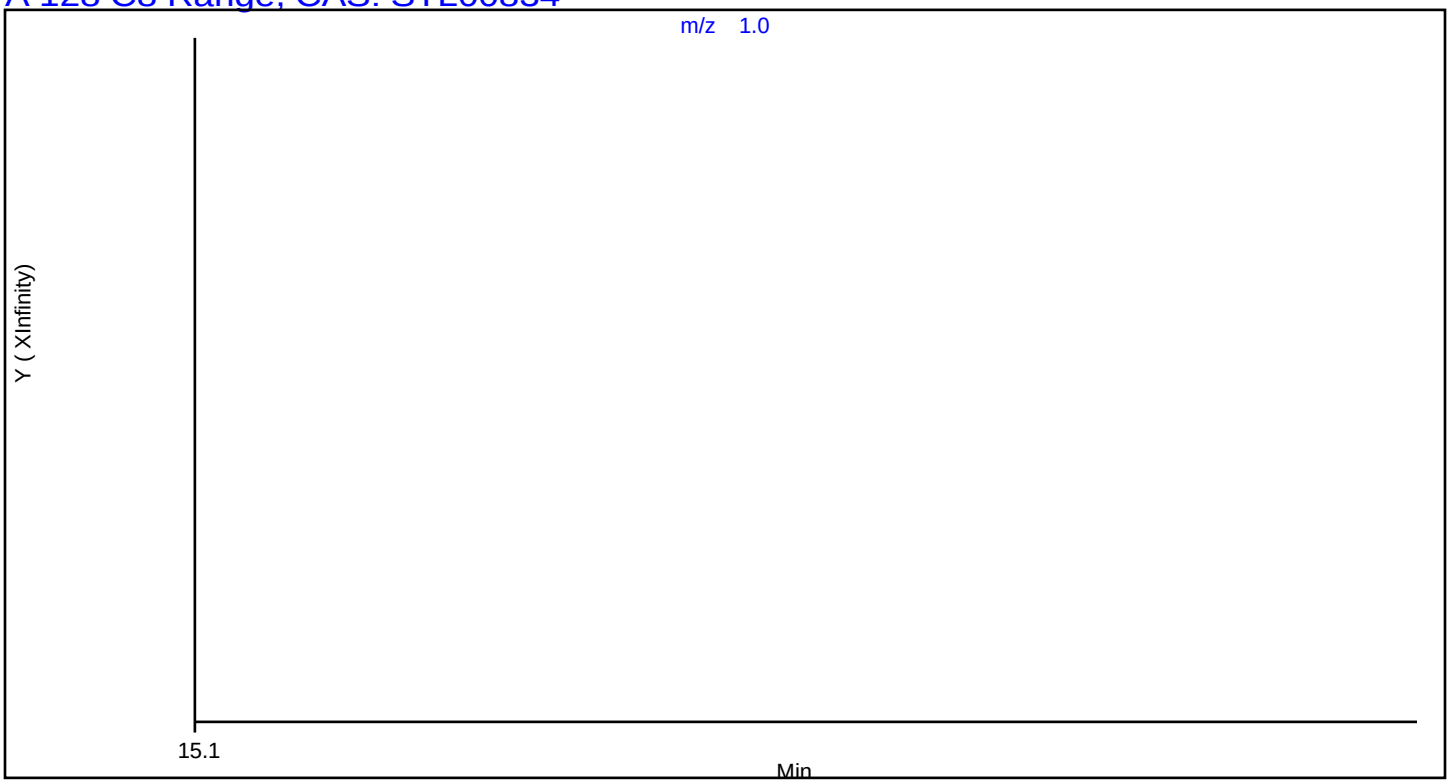


Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



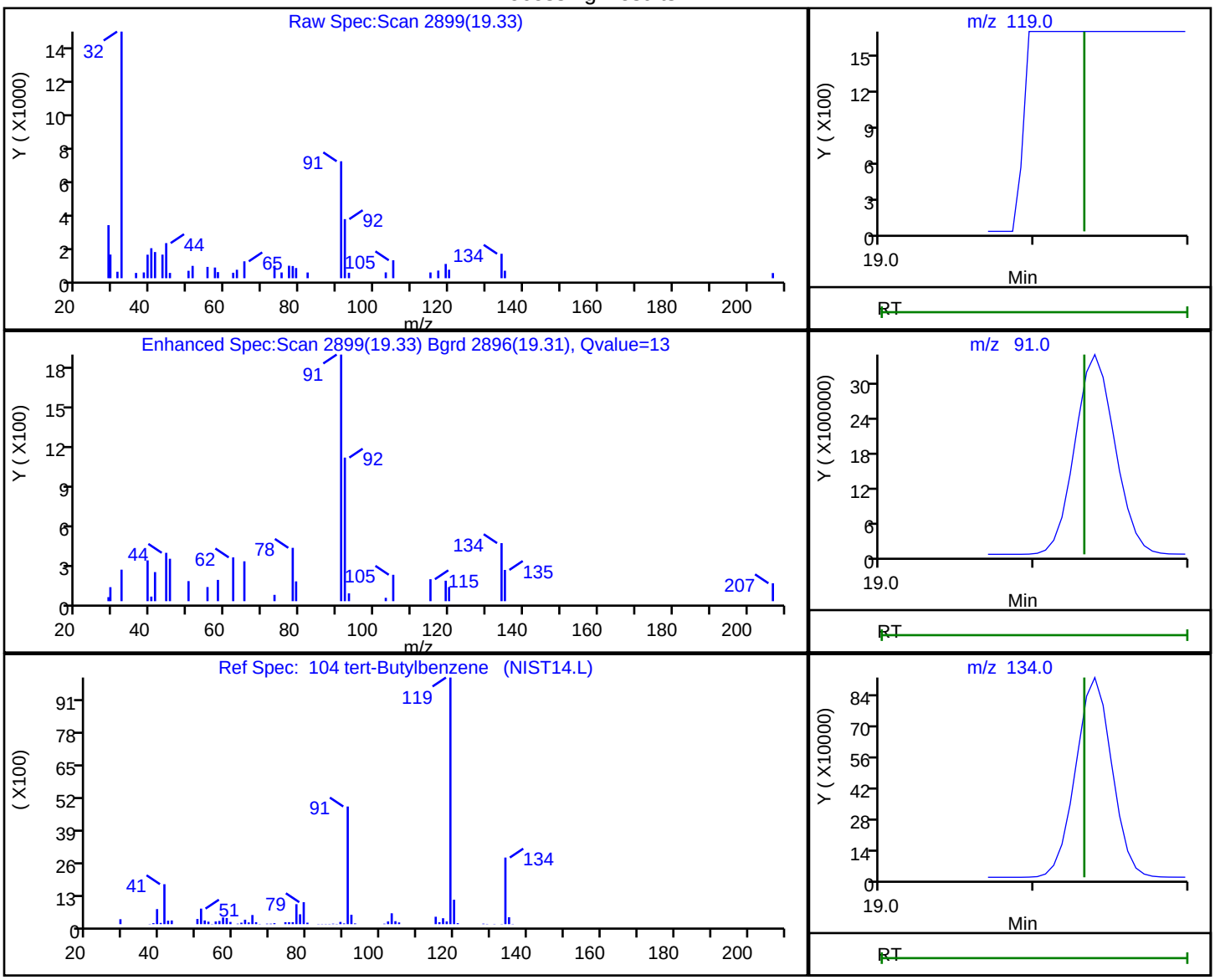
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

104 tert-Butylbenzene, CAS: 98-06-6

Processing Results



RT	Mass	Response	Amount
19.33	119.00	187	0.000418
19.13	91.00	0	
19.13	134.00	0	

Reviewer: tajh, 22-Jul-2019 18:08:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Jul-2019 00:39:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-009
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:38 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:21:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.731	-0.002	97	313712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.841	-0.004	97	1627560	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.453	16.453	0.000	91	1405662	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.051	18.052	-0.001	89	991098	4.00	3.84	
19 Chlorodifluoromethane	51	4.150	4.155	-0.005	34	2189	0.0200	0.0255	
20 Propene	41	4.172	4.169	0.003	96	17804	0.0200	0.2867	
21 Dichlorodifluoromethane	85	4.225	4.228	-0.003	85	2169	0.0200	0.0221	
22 Chloromethane	52	4.441	4.441	0.000	86	1131	0.0200	0.0357	
24 Acetaldehyde	44	4.618	4.617	0.001	90	11538	0.1000	0.2826	
25 Vinyl chloride	62	4.645	4.642	0.003	86	2330	0.0200	0.0219	
26 Butane	43	4.736	4.739	-0.003	83	4322	0.0200	0.0263	
27 Butadiene	54	4.747	4.741	0.006	60	2150	0.0200	0.0267	
28 Bromomethane	94	5.118	5.117	0.001	87	2266	0.0200	0.0241	
29 Chloroethane	64	5.280	5.275	0.005	19	820	0.0200	0.0175	
30 Ethanol	31	5.387	5.386	0.001	98	7537	0.1000	0.1781	
31 Vinyl bromide	106	5.613	5.618	-0.005	58	2050	0.0200	0.0236	
32 2-Methylbutane	43	5.673	5.669	0.004	80	2930	0.0200	0.0259	
33 Trichlorofluoromethane	101	5.915	5.916	-0.001	95	7213	0.0200	0.0213	
36 Acetone	58	6.076	6.061	0.015	73	2491	0.0600	0.0690	
37 Isopropyl alcohol	45	6.167	6.155	0.012	73	8813	0.0600	0.0840	
39 Ethyl ether	31	6.361	6.345	0.016	1	453	0.0200	0.003886	
40 1,1-Dichloroethene	96	6.695	6.690	0.005	90	2044	0.0200	0.0212	
41 Acrylonitrile	53	6.808	6.802	0.006	51	628	0.0200	0.009754	
42 2-Methyl-2-propanol	59	6.840	6.814	0.026	50	2672	0.0200	0.0165	
43 1,1,2-Trichloro-1,2,2-trif	101	6.872	6.873	-0.001	92	4632	0.0200	0.0207	
44 Methylene Chloride	84	7.066	7.067	-0.001	97	16987	0.0200	0.1439	
45 3-Chloro-1-propene	39	7.082	7.081	0.001	26	2522	0.0200	0.0231	
46 Carbon disulfide	76	7.243	7.248	-0.005	92	6498	0.0200	0.0221	
47 trans-1,2-Dichloroethene	96	7.916	7.922	-0.006	93	1890	0.0200	0.0196	
48 2-Methylpentane	43	7.932	7.928	0.004	94	7408	0.0200	0.0280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
49 Methyl tert-butyl ether	73	8.099	8.066	0.033	39	3753	0.0200	0.0146	
50 1,1-Dichloroethane	63	8.362	8.363	-0.001	95	4424	0.0200	0.0206	
51 Vinyl acetate	43	8.459	8.461	-0.002	63	4359	0.0200	0.0160	
53 Hexane	56	8.943	8.948	-0.005	81	2077	0.0200	0.0241	
54 Isopropyl ether	45	9.132	9.118	0.014	95	5328	0.0200	0.0162	
55 cis-1,2-Dichloroethene	96	9.390	9.384	0.006	77	1970	0.0200	0.0199	
56 Ethyl acetate	43	9.573	9.566	0.007	90	3872	0.0200	0.0172	
57 Chloroform	83	9.729	9.735	-0.006	31	5814	0.0200	0.0228	
58 Tert-butyl ethyl ether	59	9.836	9.817	0.019	89	4288	0.0200	0.0140	
59 Tetrahydrofuran	42	10.207	10.176	0.031	51	2162	0.0200	0.0192	
60 1,1,1-Trichloroethane	97	10.767	10.767	0.000	93	5753	0.0200	0.0210	
61 1,2-Dichloroethane	62	10.869	10.873	-0.004	92	3702	0.0200	0.0198	
62 n-Butanol	31	11.321	11.296	0.025	55	3821	0.0200	0.0859	
63 Cyclohexane	69	11.326	11.337	-0.011	77	1154	0.0200	0.0231	
64 Benzene	78	11.337	11.340	-0.003	95	7093	0.0200	0.0238	
65 Carbon tetrachloride	117	11.359	11.361	-0.002	93	4218	0.0200	0.0169	
66 2,3-Dimethylpentane	71	11.434	11.430	0.004	87	1248	0.0200	0.0186	
67 Thiophene	84	11.595	11.604	-0.009	89	3464	0.0200	0.0204	
68 Isooctane	57	12.042	12.041	0.001	96	12538	0.0200	0.0236	
69 n-Heptane	71	12.397	12.392	0.005	88	2222	0.0200	0.0217	
70 1,2-Dichloropropane	63	12.504	12.505	-0.001	80	2412	0.0200	0.0193	
71 Trichloroethene	130	12.537	12.537	0.000	90	2786	0.0200	0.0207	
72 Dibromomethane	93	12.623	12.627	-0.004	90	2816	0.0200	0.0203	
73 Dichlorobromomethane	83	12.752	12.761	-0.009	94	5568	0.0200	0.0210	
75 Methyl methacrylate	41	12.833	12.827	0.006	74	3650	0.0200	0.0250	
76 Methylcyclohexane	83	13.279	13.277	0.002	91	3834	0.0200	0.0210	
77 4-Methyl-2-pentanone (MIBK	43	13.677	13.662	0.015	91	5569	0.0200	0.0244	
78 cis-1,3-Dichloropropene	75	13.715	13.718	-0.003	87	3577	0.0200	0.0192	
79 trans-1,3-Dichloropropene	75	14.387	14.390	-0.003	92	2599	0.0200	0.0150	
80 Toluene	91	14.522	14.519	0.003	91	6575	0.0200	0.0194	
81 1,1,2-Trichloroethane	83	14.592	14.591	0.001	88	1827	0.0200	0.0168	
82 2-Hexanone	58	14.963	14.956	0.007	87	1686	0.0200	0.0170	
83 n-Octane	85	15.151	15.154	-0.003	87	2054	0.0200	0.0197	
84 Chlorodibromomethane	129	15.286	15.290	-0.004	95	4650	0.0200	0.0198	
85 Ethylene Dibromide	107	15.576	15.579	-0.003	96	4044	0.0200	0.0204	
86 Tetrachloroethene	129	15.635	15.637	-0.002	87	2956	0.0200	0.0217	
87 2,3-Dimethylheptane	43	16.474	16.478	-0.004	93	11576	0.0200	0.0290	
88 Chlorobenzene	112	16.501	16.501	0.000	83	5493	0.0200	0.0202	
89 Ethylbenzene	91	16.770	16.773	-0.003	97	7777	0.0200	0.0178	
90 m-Xylene & p-Xylene	91	16.921	16.929	-0.008	97	12370	0.0400	0.0369	
91 n-Nonane	57	17.308	17.307	0.001	90	5038	0.0200	0.0207	
92 Styrene	104	17.394	17.392	0.002	87	4123	0.0200	0.0172	
93 Bromoform	173	17.400	17.398	0.002	88	4481	0.0200	0.0178	
94 o-Xylene	91	17.454	17.453	0.001	95	5775	0.0200	0.0162	
95 1,1,2,2-Tetrachloroethane	83	17.766	17.769	-0.003	93	4273	0.0200	0.0172	
96 1,2,3-Trichloropropane	110	17.922	17.923	-0.001	94	1138	0.0200	0.0161	
97 Isopropylbenzene	105	18.013	18.012	0.001	87	7286	0.0200	0.0156	
98 N-Propylbenzene	120	18.513	18.517	-0.004	97	2069	0.0200	0.0166	
99 2-Chlorotoluene	126	18.572	18.572	0.000	95	2142	0.0200	0.0178	
100 4-Ethyltoluene	105	18.659	18.658	0.001	95	8496	0.0200	0.0183	
101 1,3,5-Trimethylbenzene	120	18.723	18.726	-0.003	91	3135	0.0200	0.0169	
102 Alpha Methyl Styrene	118	18.944	18.948	-0.004	84	3087	0.0200	0.0162	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
103 n-Decane	57	18.976	18.974	0.002	88	5340	0.0200	0.0174	
104 tert-Butylbenzene	119	19.132	19.133	-0.001	84	6713	0.0200	0.0157	
105 1,2,4-Trimethylbenzene	105	19.143	19.146	-0.003	75	6858	0.0200	0.0167	
106 sec-Butylbenzene	105	19.390	19.389	0.001	96	8913	0.0200	0.0154	
107 1,3-Dichlorobenzene	146	19.417	19.419	-0.002	95	7001	0.0200	0.0244	
108 Benzyl chloride	91	19.487	19.487	0.000	95	7763	0.0200	0.0220	
109 1,4-Dichlorobenzene	146	19.498	19.501	-0.003	86	7220	0.0200	0.0249	
110 4-Isopropyltoluene	119	19.541	19.542	-0.001	95	7857	0.0200	0.0162	
111 1,2,3-Trimethylbenzene	105	19.600	19.603	-0.003	96	7214	0.0200	0.0179	
112 Butylcyclohexane	83	19.638	19.642	-0.004	81	6127	0.0200	0.0176	
113 2,3-Dihydroindene	117	19.842	19.846	-0.004	91	7559	0.0200	0.0202	
114 1,2-Dichlorobenzene	146	19.847	19.851	-0.004	88	6415	0.0200	0.0228	
115 n-Butylbenzene	91	19.960	19.958	0.002	96	9491	0.0200	0.0189	
116 Indene	116	19.971	19.974	-0.003	88	6716	0.0200	0.0209	
117 Undecane	57	20.235	20.235	0.000	91	5853	0.0200	0.0169	
118 1,2-Dibromo-3-Chloropropan	157	20.439	20.438	0.001	87	2912	0.0200	0.0208	
119 1,2,4,5-Tetramethylbenzene	119	20.714	20.713	0.001	95	8404	0.0200	0.0192	
120 Dodecane	57	21.327	21.323	0.004	87	7479	0.0200	0.0253	
121 1,2,4-Trichlorobenzene	180	21.563	21.565	-0.002	92	9727	0.0200	0.0423	
122 Naphthalene	128	21.693	21.693	0.000	98	13915	0.0200	0.0386	
123 Hexachlorobutadiene	225	21.838	21.841	-0.003	94	5884	0.0200	0.0212	
124 1,2,3-Trichlorobenzene	180	21.902	21.900	0.002	92	8062	0.0200	0.0444	
125 2-Methylnaphthalene	142	22.424	22.424	0.000	96	11130	0.0200	0.1131	
126 1-Methylnaphthalene	142	22.548	22.549	-0.001	98	11702	0.0200	0.0992	
A 128 C8 Range	1	15.161	(15.134-15.188)		0	24948	0.0200	0.0224	
S 129 Xylenes, Total	100				0		0.0600	0.0530	
S 130 1,2-Dichloroethene, Total	1				0		0.0400	0.0395	

Reagents:

40L1-3DQP_00015	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

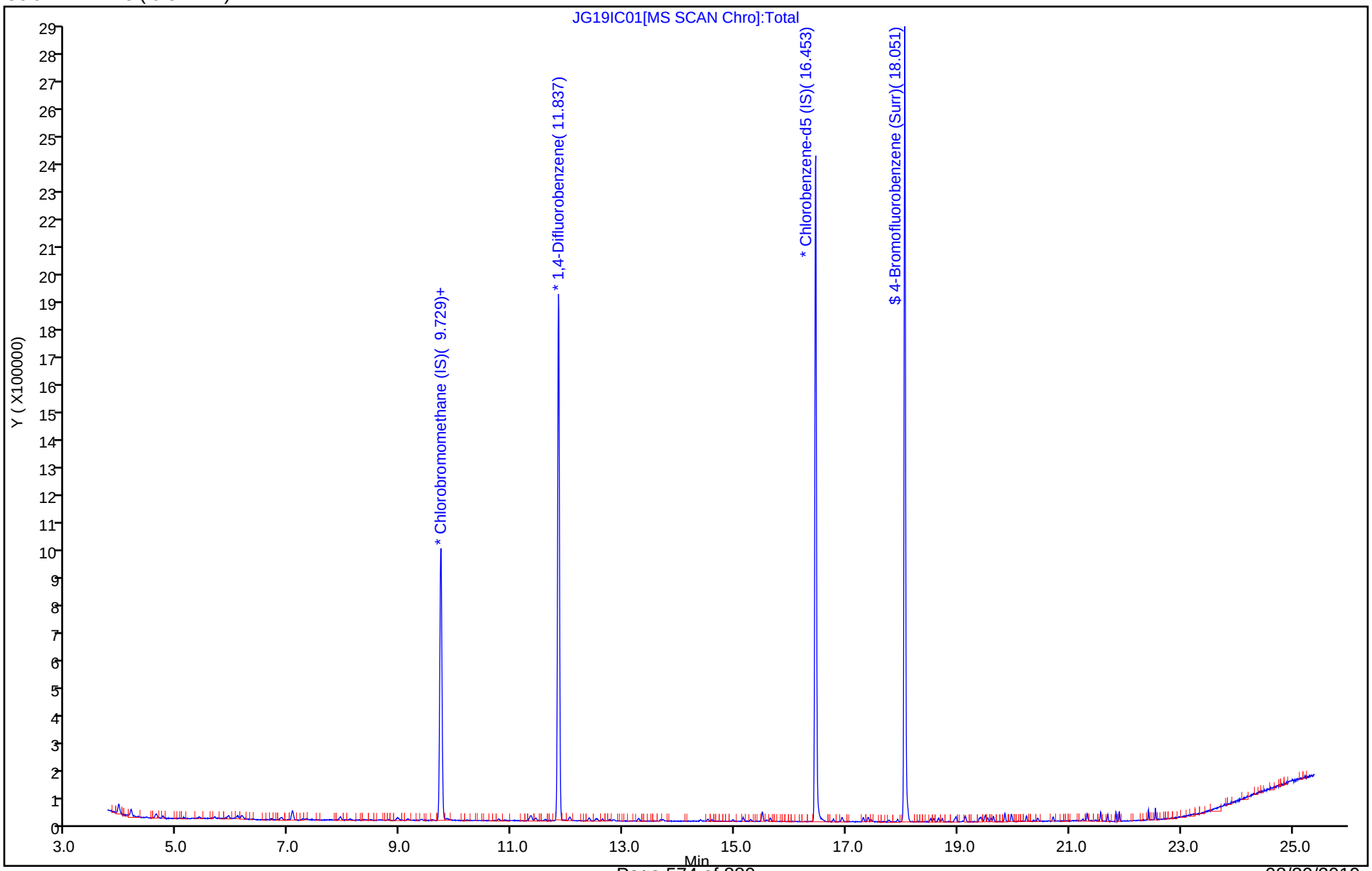
Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D

Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

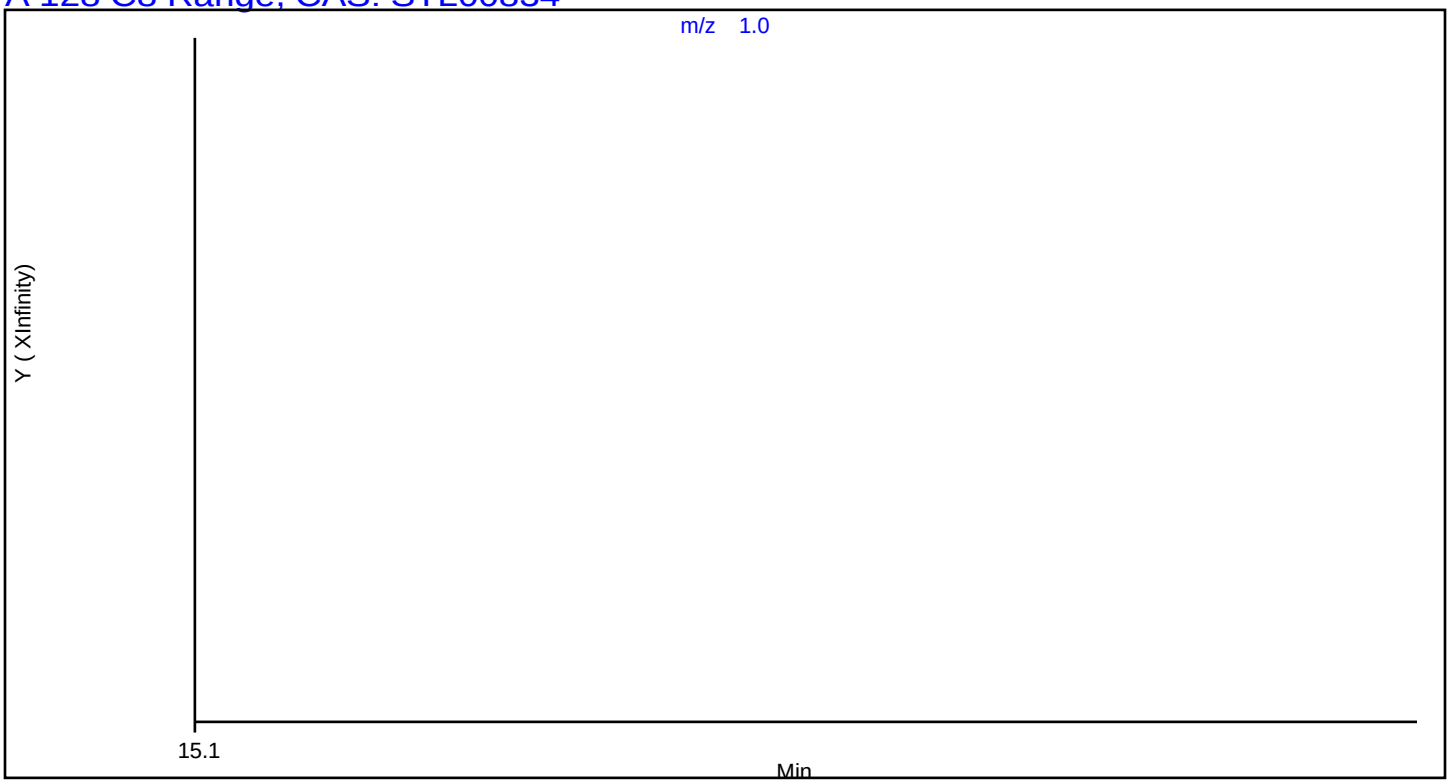


Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



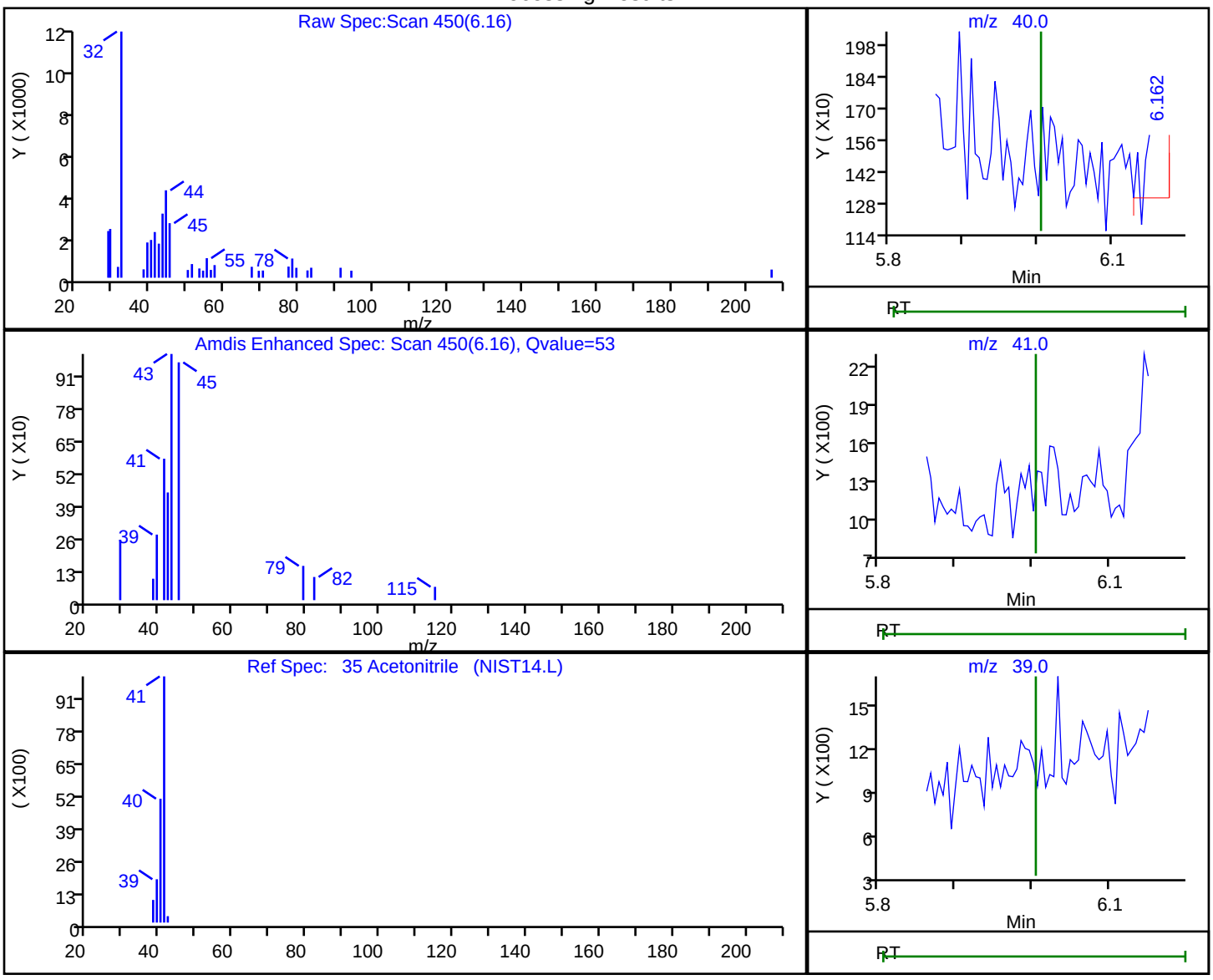
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

35 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.16	40.00	498	0.015280
6.16	41.00	4839	
6.16	39.00	1269	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:34

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

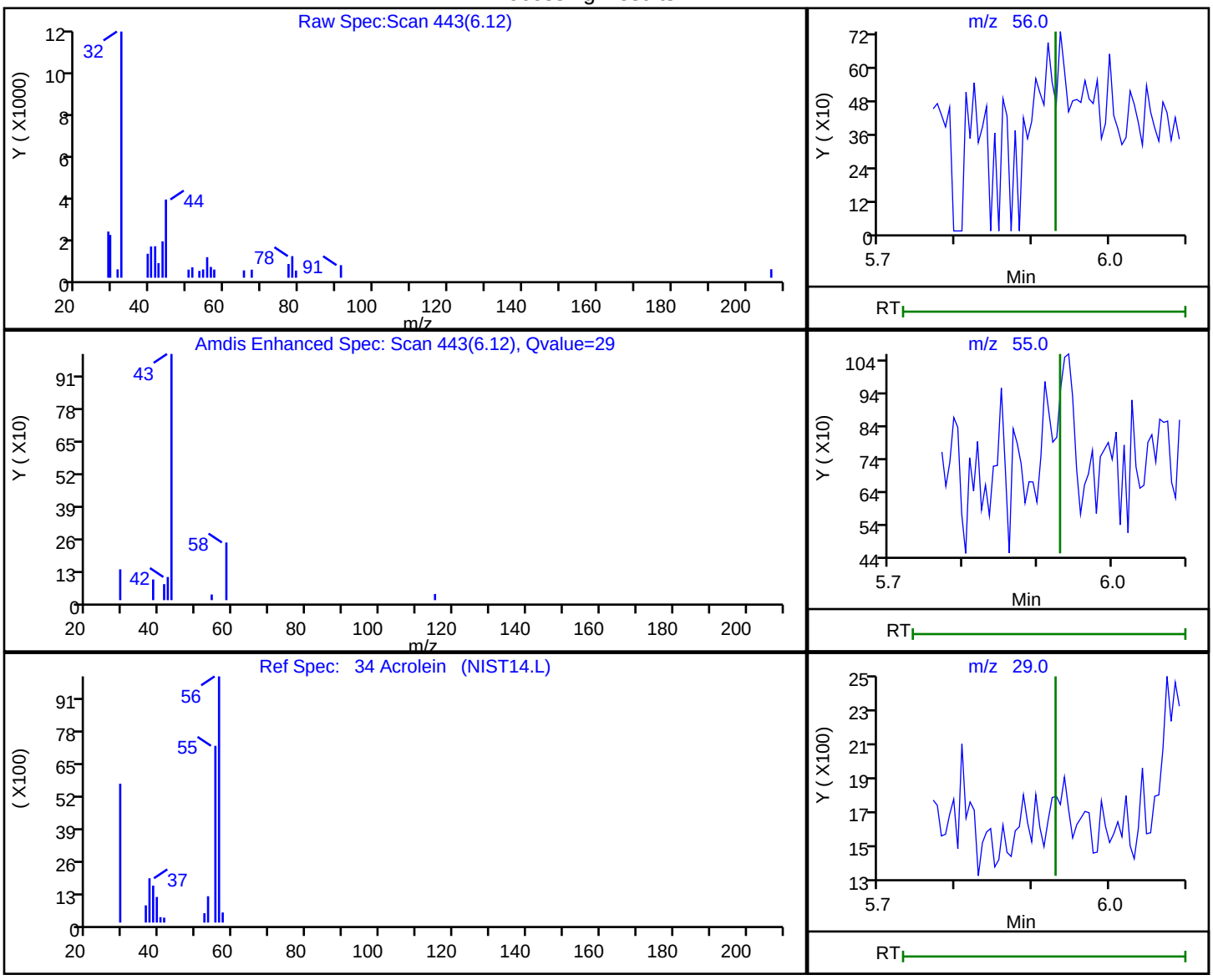
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
6.12	56.00	1445	0.070207
6.12	55.00	363	
5.93	29.00	0	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Jul-2019 01:29:30 ALS Bottle#: 1 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-010
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:44 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	97	308133	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.844	11.841	0.003	97	1576675	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1365319	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	89	967517	4.00	3.86	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	91	2936	0.0400	0.0349	
20 Propene	41	4.179	4.169	0.010	96	12962	0.0400	0.2125	
21 Dichlorodifluoromethane	85	4.243	4.228	0.015	96	3489	0.0400	0.0362	
22 Chloromethane	52	4.448	4.441	0.007	96	1894	0.0400	0.0609	
24 Acetaldehyde	44	4.625	4.617	0.008	94	18791	0.2000	0.4685	
25 Vinyl chloride	62	4.652	4.642	0.010	95	3946	0.0400	0.0377	
26 Butane	43	4.749	4.739	0.010	84	6602	0.0400	0.0409	
27 Butadiene	54	4.749	4.741	0.008	73	3557	0.0400	0.0449	
28 Bromomethane	94	5.126	5.117	0.009	89	4074	0.0400	0.0442	
29 Chloroethane	64	5.282	5.275	0.007	21	1857	0.0400	0.0403	
30 Ethanol	31	5.405	5.386	0.019	99	12906	0.2000	0.3105	
31 Vinyl bromide	106	5.626	5.618	0.008	94	3454	0.0400	0.0404	
32 2-Methylbutane	43	5.680	5.669	0.011	86	5939	0.0400	0.0533	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	97	13212	0.0400	0.0396	
34 Acrolein	56	5.938	5.930	0.008	25	2511	0.0400	0.1242	
35 Acetonitrile	40	6.008	6.004	0.004	57	1998	0.0400	0.0624	
36 Acetone	58	6.078	6.061	0.017	97	3590	0.1200	0.1012	
37 Isopropyl alcohol	45	6.196	6.155	0.041	92	16701	0.1200	0.1621	
39 Ethyl ether	31	6.357	6.345	0.012	56	1938	0.0400	0.0169	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	89	3774	0.0400	0.0399	
41 Acrylonitrile	53	6.804	6.802	0.002	69	2368	0.0400	0.0374	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	67	5845	0.0400	0.0367	
43 1,1,2-Trichloro-1,2,2-trif	101	6.879	6.873	0.006	91	9393	0.0400	0.0427	
44 Methylene Chloride	84	7.073	7.067	0.006	96	18590	0.0400	0.1604	
45 3-Chloro-1-propene	39	7.094	7.081	0.013	33	2590	0.0400	0.0241	
46 Carbon disulfide	76	7.250	7.248	0.002	96	11849	0.0400	0.0411	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
47 trans-1,2-Dichloroethene	96	7.934	7.922	0.012	86	3780	0.0400	0.0400	
48 2-Methylpentane	43	7.934	7.928	0.006	93	12084	0.0400	0.0464	
49 Methyl tert-butyl ether	73	8.100	8.066	0.034	95	8298	0.0400	0.0329	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	96	8410	0.0400	0.0399	
51 Vinyl acetate	43	8.466	8.461	0.005	98	9068	0.0400	0.0339	
52 2-Butanone (MEK)	72	8.961	8.943	0.018	80	1567	0.0400	0.0377	
53 Hexane	56	8.956	8.948	0.008	87	3869	0.0400	0.0457	
54 Isopropyl ether	45	9.149	9.118	0.031	94	10936	0.0400	0.0339	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	97	3754	0.0400	0.0385	
56 Ethyl acetate	43	9.590	9.566	0.024	94	8442	0.0400	0.0381	
57 Chloroform	83	9.730	9.735	-0.005	35	10551	0.0400	0.0422	
58 Tert-butyl ethyl ether	59	9.849	9.817	0.032	95	9805	0.0400	0.0327	
59 Tetrahydrofuran	42	10.209	10.176	0.033	90	4322	0.0400	0.0390	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	96	10466	0.0400	0.0389	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	95	7029	0.0400	0.0388	
62 n-Butanol	31	11.328	11.296	0.032	64	4606	0.0400	0.1069	
63 Cyclohexane	69	11.350	11.337	0.013	77	2068	0.0400	0.0427	
64 Benzene	78	11.333	11.340	-0.007	94	12412	0.0400	0.0430	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	86	8069	0.0400	0.0333	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	91	2480	0.0400	0.0381	
67 Thiophene	84	11.602	11.604	-0.002	92	6684	0.0400	0.0407	
68 Isooctane	57	12.044	12.041	0.003	96	21744	0.0400	0.0422	
69 n-Heptane	71	12.399	12.392	0.007	94	3833	0.0400	0.0386	
70 1,2-Dichloropropane	63	12.506	12.505	0.001	83	4584	0.0400	0.0378	
71 Trichloroethene	130	12.538	12.537	0.001	86	4953	0.0400	0.0380	
72 Dibromomethane	93	12.630	12.627	0.003	93	5398	0.0400	0.0401	
73 Dichlorobromomethane	83	12.764	12.761	0.003	97	9823	0.0400	0.0382	
74 1,4-Dioxane	88	12.818	12.787	0.031	40	1115	0.0400	0.0330	
75 Methyl methacrylate	41	12.834	12.827	0.007	82	6370	0.0400	0.0450	
76 Methylcyclohexane	83	13.275	13.277	-0.002	93	7431	0.0400	0.0420	
77 4-Methyl-2-pentanone (MIBK	43	13.679	13.662	0.017	97	11558	0.0400	0.0523	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	96	7013	0.0400	0.0390	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	94	5860	0.0400	0.0348	
80 Toluene	91	14.518	14.519	-0.001	92	13283	0.0400	0.0403	
81 1,1,2-Trichloroethane	83	14.593	14.591	0.002	92	4182	0.0400	0.0396	
82 2-Hexanone	58	14.965	14.956	0.009	89	3677	0.0400	0.0381	
83 n-Octane	85	15.153	15.154	-0.001	96	4356	0.0400	0.0430	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	95	8394	0.0400	0.0367	
85 Ethylene Dibromide	107	15.583	15.579	0.004	96	7415	0.0400	0.0385	
86 Tetrachloroethene	129	15.637	15.637	0.000	91	5396	0.0400	0.0407	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	80	18995	0.0400	0.0490	
88 Chlorobenzene	112	16.503	16.501	0.002	95	10571	0.0400	0.0401	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	15849	0.0400	0.0373	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	23792	0.0800	0.0730	
91 n-Nonane	57	17.305	17.307	-0.002	90	9676	0.0400	0.0410	
92 Styrene	104	17.391	17.392	-0.001	95	8335	0.0400	0.0358	
93 Bromoform	173	17.401	17.398	0.003	85	8155	0.0400	0.0333	
94 o-Xylene	91	17.455	17.453	0.002	96	12875	0.0400	0.0371	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	95	8806	0.0400	0.0365	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	94	2238	0.0400	0.0326	
97 Isopropylbenzene	105	18.015	18.012	0.003	87	17319	0.0400	0.0383	
98 N-Propylbenzene	120	18.515	18.517	-0.002	97	4134	0.0400	0.0342	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	4391	0.0400	0.0376	
100 4-Ethyltoluene	105	18.660	18.658	0.002	98	17321	0.0400	0.0384	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	5642	0.0400	0.0314	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	86	6248	0.0400	0.0337	
103 n-Decane	57	18.972	18.974	-0.002	89	11227	0.0400	0.0376	
104 tert-Butylbenzene	119	19.134	19.133	0.001	86	13508	0.0400	0.0326	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	94	13691	0.0400	0.0343	
106 sec-Butylbenzene	105	19.387	19.389	-0.003	97	19199	0.0400	0.0342	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	95	11083	0.0400	0.0398	
108 Benzyl chloride	91	19.483	19.487	-0.004	95	12687	0.0400	0.0371	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	89	12077	0.0400	0.0429	
110 4-Isopropyltoluene	119	19.543	19.542	0.000	96	16591	0.0400	0.0351	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	14103	0.0400	0.0360	
112 Butylcyclohexane	83	19.639	19.642	-0.003	86	12855	0.0400	0.0379	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	91	13091	0.0400	0.0360	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.003	84	11041	0.0400	0.0403	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	17973	0.0400	0.0368	
116 Indene	116	19.973	19.974	-0.001	87	11518	0.0400	0.0369	
117 Undecane	57	20.236	20.235	0.001	91	11900	0.0400	0.0353	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	90	5172	0.0400	0.0380	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	95	16233	0.0400	0.0382	
120 Dodecane	57	21.323	21.323	0.000	90	13291	0.0400	0.0463	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	11614	0.0400	0.0520	
122 Naphthalene	128	21.694	21.693	0.001	98	19371	0.0400	0.0554	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	10353	0.0400	0.0384	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	93	10581	0.0400	0.0600	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	9794	0.0400	0.1025	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	95	10896	0.0400	0.0951	
A 128 C8 Range	1	15.150	(15.125-15.201)		0	48233	0.0400	0.0445	
S 129 Xylenes, Total	100				0		0.1200	0.1101	
S 130 1,2-Dichloroethene, Total	1				0		0.0800	0.0785	

Reagents:

40L1-3DQP_00015	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D

Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

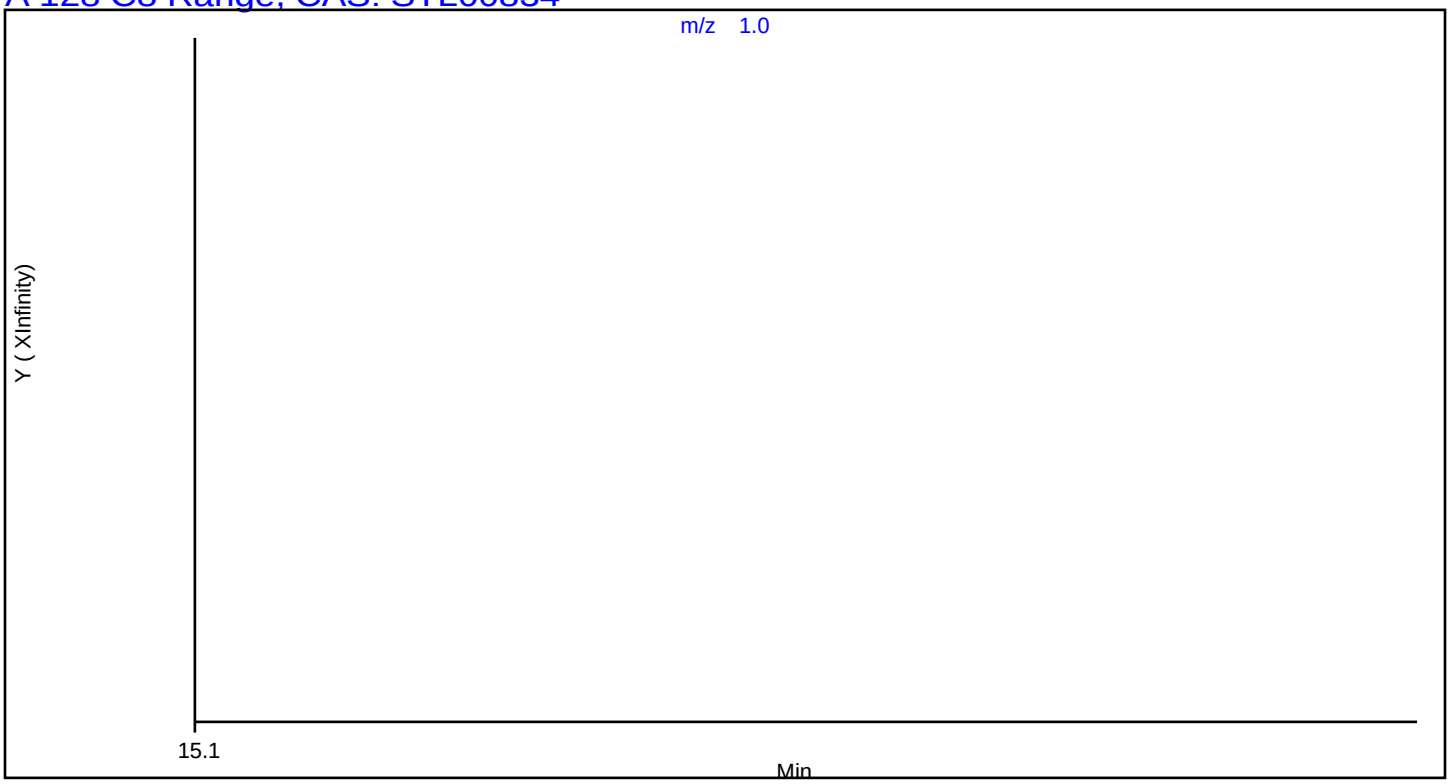


Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D				
Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Jul-2019 02:19:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-011
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:51 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	295878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1557979	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1339170	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	969175	4.00	3.94	
19 Chlorodifluoromethane	51	4.163	4.155	0.008	49	9400	0.0800	0.1163	
20 Propene	41	4.168	4.169	-0.001	97	24573	0.0800	0.4196	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	99	9823	0.0800	0.1060	
22 Chloromethane	52	4.437	4.441	-0.004	97	3201	0.0800	0.1071	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.444	0.009	48	1285	0.0800	0.0999	
24 Acetaldehyde	44	4.625	4.617	0.008	94	40868	0.4000	1.06	
25 Vinyl chloride	62	4.647	4.642	0.005	96	8041	0.0800	0.0800	
26 Butane	43	4.744	4.739	0.005	86	15268	0.0800	0.0984	
27 Butadiene	54	4.744	4.741	0.003	67	6693	0.0800	0.0880	
28 Bromomethane	94	5.115	5.117	-0.002	97	7368	0.0800	0.0832	
29 Chloroethane	64	5.276	5.275	0.001	95	3754	0.0800	0.0848	
30 Ethanol	31	5.406	5.386	0.020	97	24890	0.4000	0.6235	
31 Vinyl bromide	106	5.621	5.618	0.003	95	6832	0.0800	0.0833	
32 2-Methylbutane	43	5.664	5.669	-0.005	89	9935	0.0800	0.0929	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	99	25357	0.0800	0.0792	
34 Acrolein	56	5.933	5.930	0.003	27	3864	0.0800	0.1991	
35 Acetonitrile	40	6.008	6.004	0.004	88	2977	0.0800	0.0969	
36 Acetone	58	6.073	6.061	0.012	99	17804	0.2400	0.5227	
38 Pentane	72	6.153	6.155	-0.002	95	769	0.0800	0.0629	
37 Isopropyl alcohol	45	6.186	6.155	0.031	93	29426	0.2400	0.2974	
39 Ethyl ether	31	6.368	6.345	0.023	91	10953	0.0800	0.0996	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	91	7143	0.0800	0.0787	
41 Acrylonitrile	53	6.804	6.802	0.002	94	4815	0.0800	0.0793	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	95	11655	0.0800	0.0762	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.873	0.012	92	17504	0.0800	0.0829	
44 Methylene Chloride	84	7.068	7.067	0.001	97	20978	0.0800	0.1884	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	89	4800	0.0800	0.0465	
46 Carbon disulfide	76	7.251	7.248	0.003	96	22693	0.0800	0.0820	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	92	7079	0.0800	0.0780	
48 2-Methylpentane	43	7.934	7.928	0.006	94	21608	0.0800	0.0865	
49 Methyl tert-butyl ether	73	8.090	8.066	0.024	96	19276	0.0800	0.0796	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	98	16257	0.0800	0.0804	
51 Vinyl acetate	43	8.466	8.461	0.005	100	21643	0.0800	0.0843	
52 2-Butanone (MEK)	72	8.956	8.943	0.013	85	3867	0.0800	0.0969	
53 Hexane	56	8.956	8.948	0.008	70	6927	0.0800	0.0851	
54 Isopropyl ether	45	9.139	9.118	0.021	95	25508	0.0800	0.0824	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	96	7489	0.0800	0.0801	
56 Ethyl acetate	43	9.580	9.566	0.014	97	19451	0.0800	0.0915	
57 Chloroform	83	9.736	9.735	0.001	41	19433	0.0800	0.0809	
58 Tert-butyl ethyl ether	59	9.838	9.817	0.021	97	22975	0.0800	0.0797	
59 Tetrahydrofuran	42	10.199	10.176	0.023	92	9466	0.0800	0.0890	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	98	21221	0.0800	0.0821	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	14289	0.0800	0.0799	
62 n-Butanol	31	11.334	11.296	0.038	60	6570	0.0800	0.1543	
63 Cyclohexane	69	11.339	11.337	0.002	78	3879	0.0800	0.0810	
64 Benzene	78	11.339	11.340	-0.001	95	23431	0.0800	0.0821	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	15712	0.0800	0.0657	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	90	5203	0.0800	0.0808	
67 Thiophene	84	11.608	11.604	0.004	96	12792	0.0800	0.0788	
68 Isooctane	57	12.038	12.041	-0.003	96	41834	0.0800	0.0822	
69 n-Heptane	71	12.393	12.392	0.001	95	8011	0.0800	0.0816	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	9663	0.0800	0.0806	
71 Trichloroethene	130	12.539	12.537	0.002	90	9792	0.0800	0.0760	
72 Dibromomethane	93	12.625	12.627	-0.002	94	10330	0.0800	0.0777	
73 Dichlorobromomethane	83	12.765	12.761	0.004	98	19545	0.0800	0.0770	
74 1,4-Dioxane	88	12.813	12.787	0.026	83	2253	0.0800	0.0675	
75 Methyl methacrylate	41	12.835	12.827	0.008	88	13074	0.0800	0.0935	
76 Methylcyclohexane	83	13.281	13.277	0.004	91	14186	0.0800	0.0811	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.662	0.012	97	20616	0.0800	0.0944	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	96	12965	0.0800	0.0729	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	95	11970	0.0800	0.0726	
80 Toluene	91	14.518	14.519	-0.001	92	26319	0.0800	0.0813	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	94	8519	0.0800	0.0822	
82 2-Hexanone	58	14.970	14.956	0.014	90	6704	0.0800	0.0708	
83 n-Octane	85	15.158	15.154	0.004	95	8125	0.0800	0.0818	
84 Chlorodibromomethane	129	15.293	15.290	0.003	95	16503	0.0800	0.0737	
85 Ethylene Dibromide	107	15.583	15.579	0.004	99	13835	0.0800	0.0733	
86 Tetrachloroethene	129	15.632	15.637	-0.005	91	10387	0.0800	0.0799	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	92	34084	0.0800	0.0897	
88 Chlorobenzene	112	16.503	16.501	0.002	91	21091	0.0800	0.0815	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	33817	0.0800	0.0811	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	51906	0.1600	0.1624	
91 n-Nonane	57	17.305	17.307	-0.002	91	18648	0.0800	0.0806	
92 Styrene	104	17.391	17.392	-0.001	97	17412	0.0800	0.0762	
93 Bromoform	173	17.396	17.398	-0.002	93	16013	0.0800	0.0667	
94 o-Xylene	91	17.450	17.453	-0.003	97	25861	0.0800	0.0761	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	97	19464	0.0800	0.0822	
96 1,2,3-Trichloropropane	110	17.918	17.923	-0.005	96	5213	0.0800	0.0774	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	90	36474	0.0800	0.0822	
98 N-Propylbenzene	120	18.521	18.517	0.004	97	8913	0.0800	0.0752	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	8964	0.0800	0.0782	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	35480	0.0800	0.0802	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	13741	0.0800	0.0779	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	13291	0.0800	0.0730	
103 n-Decane	57	18.973	18.974	-0.001	90	24361	0.0800	0.0832	
104 tert-Butylbenzene	119	19.134	19.133	0.001	87	31655	0.0800	0.0778	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	95	29703	0.0800	0.0758	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	42596	0.0800	0.0774	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	21575	0.0800	0.0790	
108 Benzyl chloride	91	19.484	19.487	-0.003	96	23634	0.0800	0.0704	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	89	21946	0.0800	0.0796	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	35725	0.0800	0.0771	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	31632	0.0800	0.0823	
112 Butylcyclohexane	83	19.645	19.642	0.003	89	26215	0.0800	0.0788	
113 2,3-Dihydroindene	117	19.849	19.846	0.003	91	27282	0.0800	0.0765	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	83	21348	0.0800	0.0795	
115 n-Butylbenzene	91	19.957	19.958	-0.001	97	38745	0.0800	0.0808	
116 Indene	116	19.973	19.974	-0.001	86	22568	0.0800	0.0738	
117 Undecane	57	20.237	20.235	0.002	92	26082	0.0800	0.0788	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	89	9511	0.0800	0.0712	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	30517	0.0800	0.0731	
120 Dodecane	57	21.323	21.323	0.000	90	22571	0.0800	0.0802	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	16676	0.0800	0.0761	
122 Naphthalene	128	21.695	21.693	0.002	98	26972	0.0800	0.0786	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	21001	0.0800	0.0795	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	14610	0.0800	0.0845	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	97	7799	0.0800	0.0832	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	9565	0.0800	0.0851	
A 128 C8 Range	1	15.163	(15.125-15.201)		0	85223	0.0800	0.0802	
S 129 Xylenes, Total	100				0		0.2400	0.2384	
S 130 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00015	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

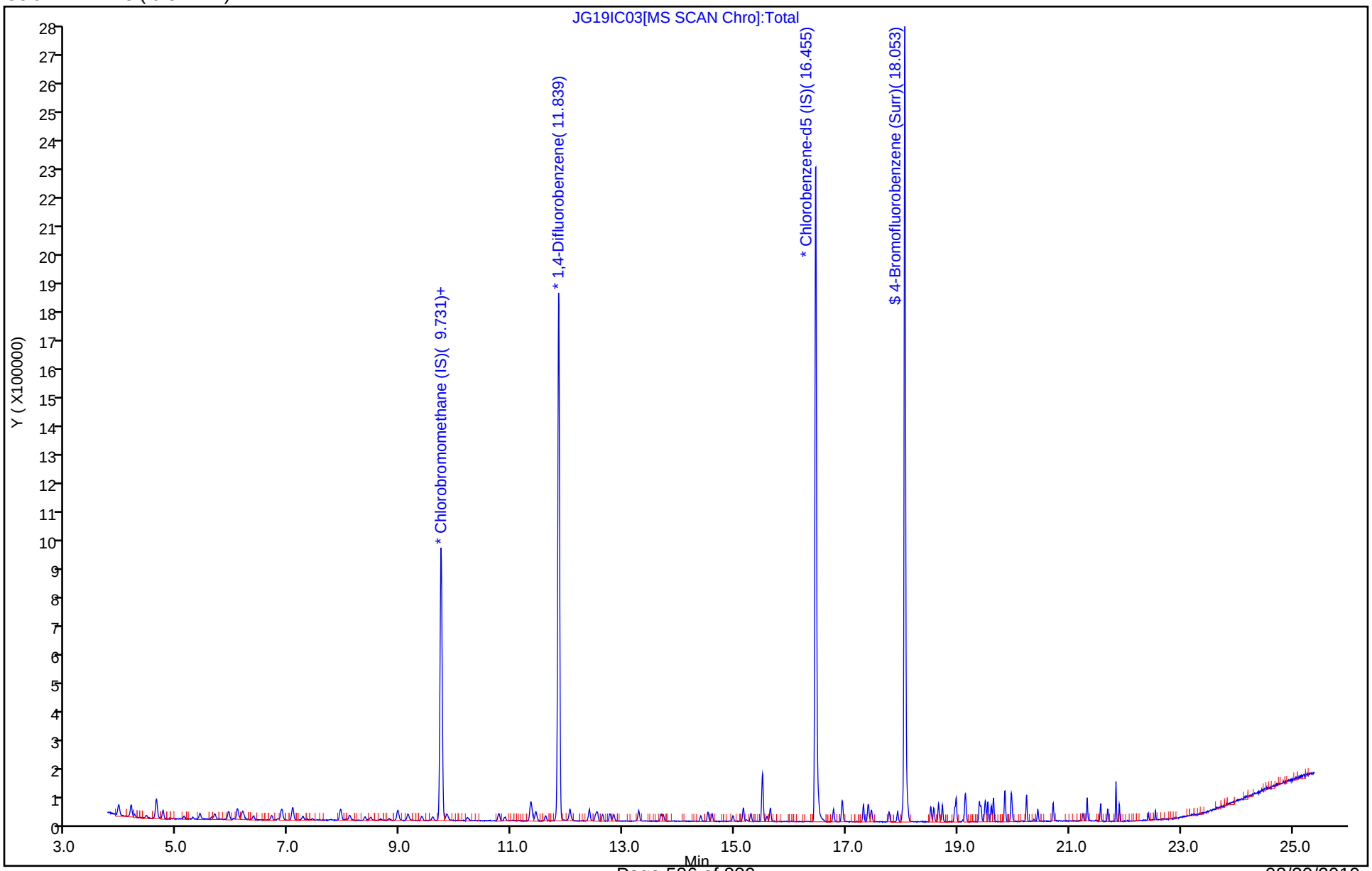
Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D

Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

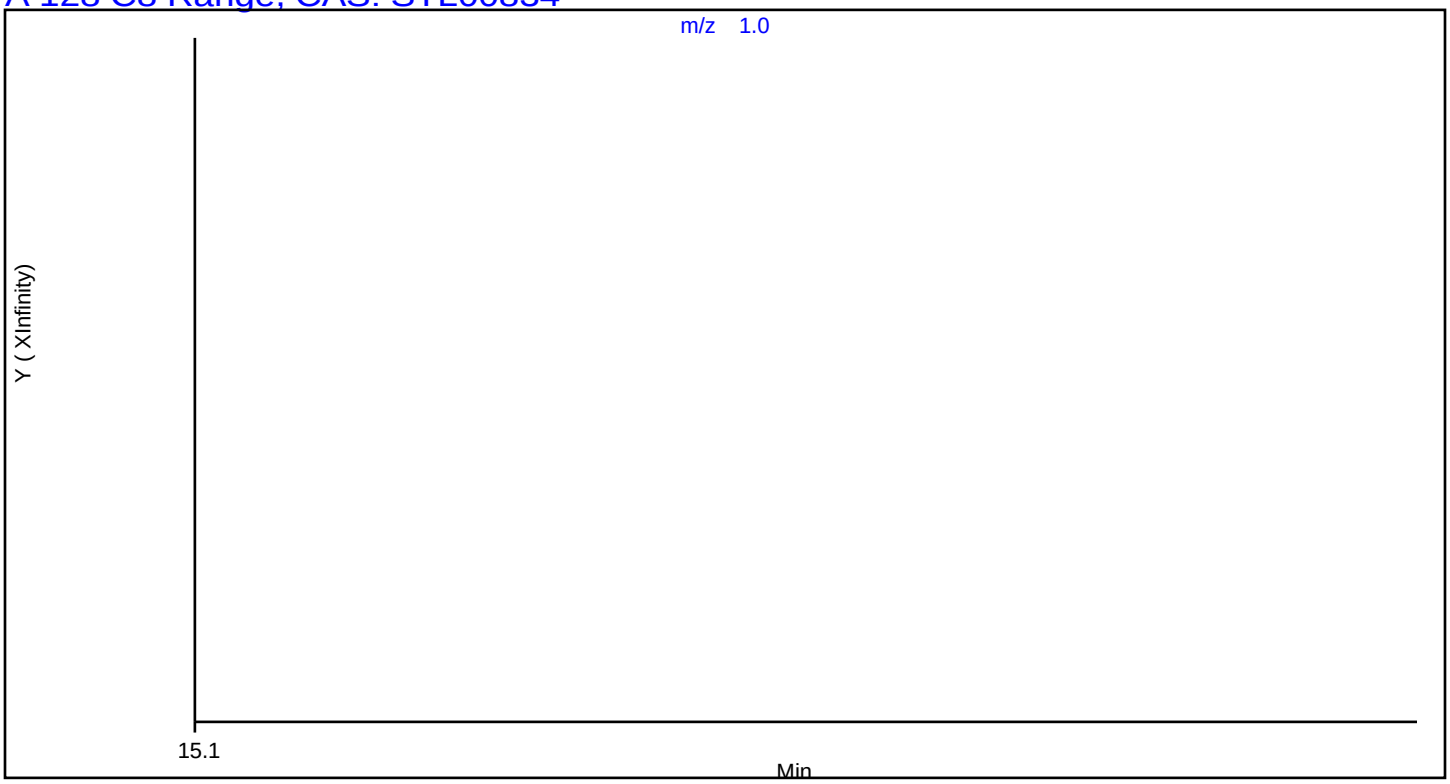


Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D				
Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Jul-2019 03:08:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-012
Misc. Info.: 231549
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:10:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.731	-0.006	97	296576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1525139	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1322052	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.052	-0.005	89	956228	4.00	3.94	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	60	11766	0.1600	0.1452	
20 Propene	41	4.168	4.169	-0.001	96	23040	0.1600	0.3925	
21 Dichlorodifluoromethane	85	4.233	4.228	0.005	98	14967	0.1600	0.1611	
22 Chloromethane	52	4.443	4.441	0.002	99	5364	0.1600	0.1791	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.444	0.004	48	2212	0.1600	0.1715	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	61302	0.8000	1.59	
25 Vinyl chloride	62	4.636	4.642	-0.006	98	15377	0.1600	0.1526	
26 Butane	43	4.733	4.739	-0.006	86	24969	0.1600	0.1605	
27 Butadiene	54	4.738	4.741	-0.003	67	12247	0.1600	0.1607	
28 Bromomethane	94	5.115	5.117	-0.002	96	14514	0.1600	0.1635	
29 Chloroethane	64	5.271	5.275	-0.004	83	6682	0.1600	0.1507	
30 Ethanol	31	5.379	5.386	-0.007	98	35944	0.8000	0.8983	
31 Vinyl bromide	106	5.615	5.618	-0.003	93	12262	0.1600	0.1491	
32 2-Methylbutane	43	5.669	5.669	0.000	89	17850	0.1600	0.1666	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	50064	0.1600	0.1561	
34 Acrolein	56	5.927	5.930	-0.003	27	5184	0.1600	0.2664	
35 Acetonitrile	40	6.003	6.004	-0.001	98	4156	0.1600	0.1349	
36 Acetone	58	6.062	6.061	0.001	99	32175	0.4800	0.9425	
38 Pentane	72	6.159	6.155	0.004	77	1905	0.1600	0.1554	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	83	53056	0.4800	0.5350	
39 Ethyl ether	31	6.342	6.345	-0.003	89	19260	0.1600	0.1748	
40 1,1-Dichloroethene	96	6.686	6.690	-0.004	93	14176	0.1600	0.1558	
41 Acrylonitrile	53	6.799	6.802	-0.003	85	10232	0.1600	0.1681	
42 2-Methyl-2-propanol	59	6.820	6.814	0.006	90	25495	0.1600	0.1663	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	94	32378	0.1600	0.1530	
44 Methylene Chloride	84	7.062	7.067	-0.005	97	27618	0.1600	0.2475	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	19027	0.1600	0.1840	
46 Carbon disulfide	76	7.245	7.248	-0.003	99	45848	0.1600	0.1652	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	94	14854	0.1600	0.1633	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	40379	0.1600	0.1612	
49 Methyl tert-butyl ether	73	8.068	8.066	0.002	96	38103	0.1600	0.1569	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	99	33200	0.1600	0.1638	
51 Vinyl acetate	43	8.461	8.461	0.000	100	41821	0.1600	0.1625	
52 2-Butanone (MEK)	72	8.945	8.943	0.002	84	7703	0.1600	0.1926	
53 Hexane	56	8.945	8.948	-0.003	70	13185	0.1600	0.1617	
54 Isopropyl ether	45	9.123	9.118	0.005	95	49024	0.1600	0.1581	
55 cis-1,2-Dichloroethene	96	9.376	9.384	-0.008	98	14886	0.1600	0.1588	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	32163	0.1600	0.1509	
57 Chloroform	83	9.731	9.735	-0.004	31	38772	0.1600	0.1611	
58 Tert-butyl ethyl ether	59	9.817	9.817	0.000	97	43590	0.1600	0.1509	
59 Tetrahydrofuran	42	10.183	10.176	0.006	91	16818	0.1600	0.1577	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	41786	0.1600	0.1614	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	28555	0.1600	0.1631	
62 n-Butanol	31	11.301	11.296	0.005	92	8706	0.1600	0.2089	
63 Cyclohexane	69	11.334	11.337	-0.003	71	7692	0.1600	0.1640	
64 Benzene	78	11.339	11.340	-0.001	97	46811	0.1600	0.1676	
65 Carbon tetrachloride	117	11.355	11.361	-0.006	96	41847	0.1600	0.1787	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	91	10044	0.1600	0.1594	
67 Thiophene	84	11.603	11.604	-0.001	97	25688	0.1600	0.1617	
68 Isooctane	57	12.038	12.041	-0.003	97	82779	0.1600	0.1661	
69 n-Heptane	71	12.388	12.392	-0.004	95	15220	0.1600	0.1583	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	19141	0.1600	0.1632	
71 Trichloroethene	130	12.533	12.537	-0.004	91	20397	0.1600	0.1617	
72 Dibromomethane	93	12.619	12.627	-0.008	95	20254	0.1600	0.1557	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	39256	0.1600	0.1580	
74 1,4-Dioxane	88	12.797	12.787	0.010	94	4891	0.1600	0.1496	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	20482	0.1600	0.1496	
76 Methylcyclohexane	83	13.270	13.277	-0.007	92	27810	0.1600	0.1625	
77 4-Methyl-2-pentanone (MIBK	43	13.663	13.662	0.001	98	34261	0.1600	0.1603	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	98	27046	0.1600	0.1553	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	24792	0.1600	0.1522	
80 Toluene	91	14.513	14.519	-0.006	91	52729	0.1600	0.1651	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	93	16524	0.1600	0.1616	
82 2-Hexanone	58	14.954	14.956	-0.002	90	14439	0.1600	0.1544	
83 n-Octane	85	15.153	15.154	-0.001	95	15603	0.1600	0.1592	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	33832	0.1600	0.1529	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	29806	0.1600	0.1600	
86 Tetrachloroethene	129	15.637	15.637	0.000	92	19915	0.1600	0.1552	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	64525	0.1600	0.1720	
88 Chlorobenzene	112	16.503	16.501	0.002	93	41482	0.1600	0.1623	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	66571	0.1600	0.1617	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	101976	0.3200	0.3231	
91 n-Nonane	57	17.305	17.307	-0.002	94	36144	0.1600	0.1582	
92 Styrene	104	17.391	17.392	-0.001	97	34466	0.1600	0.1529	
93 Bromoform	173	17.391	17.398	-0.007	88	32899	0.1600	0.1389	
94 o-Xylene	91	17.450	17.453	-0.003	97	52962	0.1600	0.1578	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	38078	0.1600	0.1628	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	10297	0.1600	0.1548	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	97	69310	0.1600	0.1582	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	18439	0.1600	0.1576	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	98	17231	0.1600	0.1524	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	69152	0.1600	0.1584	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	26393	0.1600	0.1515	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	25226	0.1600	0.1404	
103 n-Decane	57	18.973	18.974	-0.001	89	46275	0.1600	0.1602	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	89	60245	0.1600	0.1500	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	58741	0.1600	0.1518	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	82990	0.1600	0.1527	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	41427	0.1600	0.1537	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	38889	0.1600	0.1173	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	40588	0.1600	0.1490	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	67309	0.1600	0.1472	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	58340	0.1600	0.1537	
112 Butylcyclohexane	83	19.640	19.642	-0.002	89	51968	0.1600	0.1583	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	53750	0.1600	0.1527	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	93	41224	0.1600	0.1556	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	70396	0.1600	0.1488	
116 Indene	116	19.973	19.974	-0.001	88	43463	0.1600	0.1439	
117 Undecane	57	20.231	20.235	-0.004	93	49489	0.1600	0.1515	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	89	17756	0.1600	0.1347	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	57413	0.1600	0.1394	
120 Dodecane	57	21.323	21.323	0.000	91	42424	0.1600	0.1526	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	30585	0.1600	0.1413	
122 Naphthalene	128	21.689	21.693	-0.004	98	48485	0.1600	0.1431	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	40231	0.1600	0.1542	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	94	26384	0.1600	0.1545	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	14014	0.1600	0.1514	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	97	17082	0.1600	0.1539	
A 128 C8 Range	1	15.158	(15.120-15.195)		0	168585	0.1600	0.1607	
S 129 Xylenes, Total	100				0		0.4800	0.4809	
S 130 1,2-Dichloroethene, Total	1				0		0.3200	0.3221	

Reagents:

40L4DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

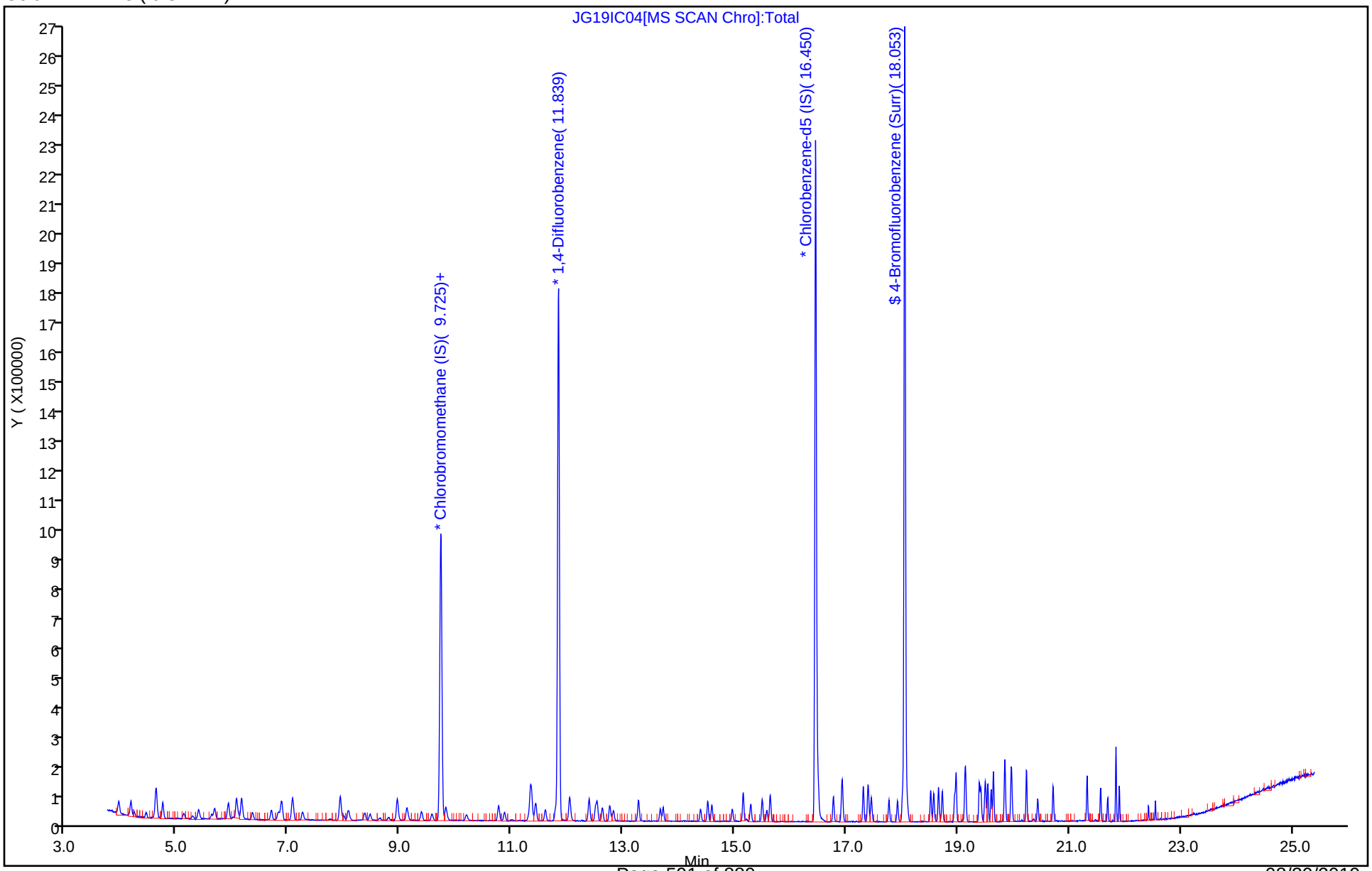
Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D

Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

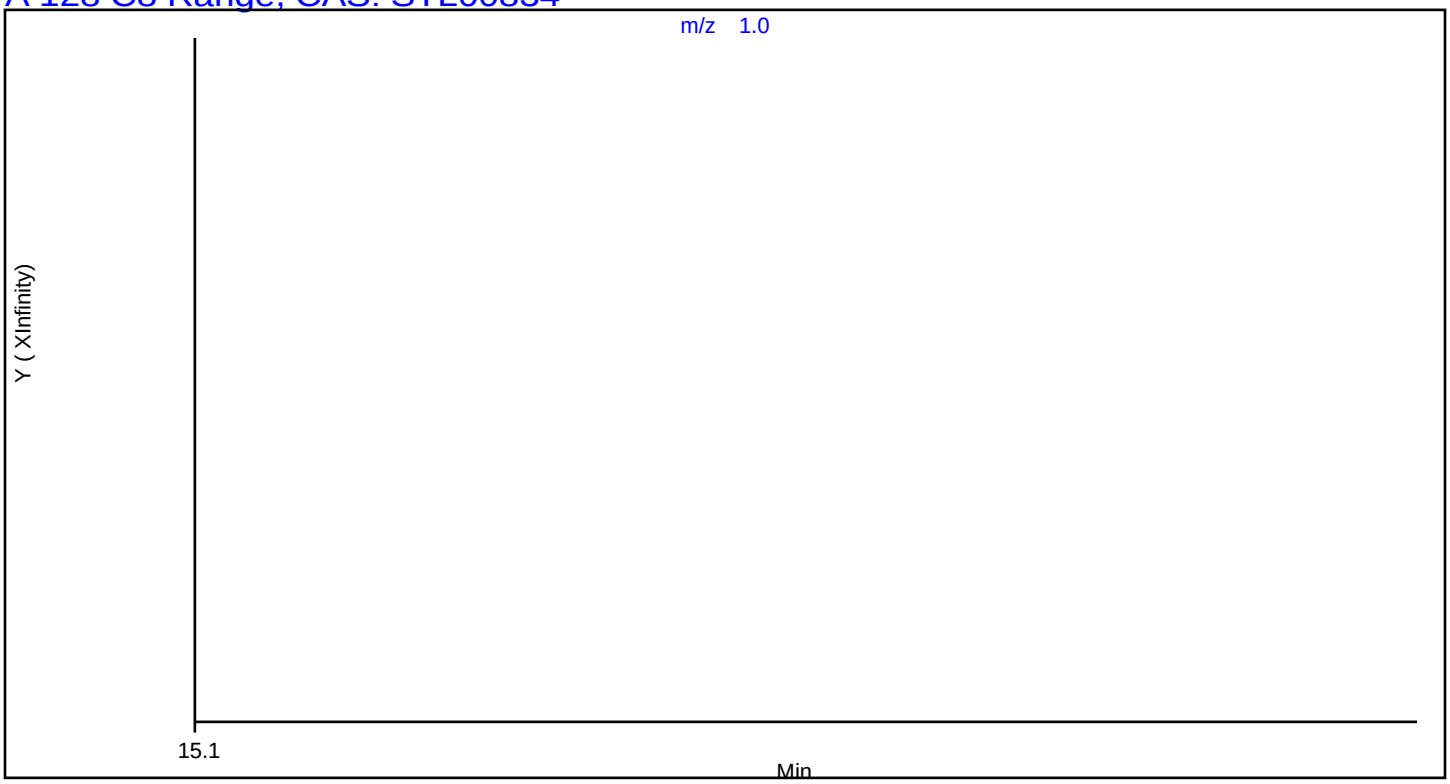


Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D				
Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Jul-2019 03:58:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-013
Misc. Info.: 231548
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:11:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	96	287860	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1514422	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.453	-0.004	92	1303933	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	94	960029	4.00	4.01	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	97	25664	0.4000	0.3262	
20 Propene	41	4.168	4.169	-0.001	97	29865	0.4000	0.5241	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	100	32988	0.4000	0.3659	
22 Chloromethane	52	4.437	4.441	-0.004	99	11820	0.4000	0.4065	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.444	-0.002	48	4984	0.4000	0.3981	
24 Acetaldehyde	44	4.620	4.617	0.003	92	102533	2.00	2.74	
25 Vinyl chloride	62	4.641	4.642	-0.001	99	38122	0.4000	0.3897	
26 Butane	43	4.738	4.739	-0.001	85	60060	0.4000	0.3979	
27 Butadiene	54	4.738	4.741	-0.003	69	28897	0.4000	0.3906	
28 Bromomethane	94	5.115	5.117	-0.002	97	33566	0.4000	0.3896	
29 Chloroethane	64	5.276	5.275	0.001	85	17457	0.4000	0.4056	
30 Ethanol	31	5.378	5.386	-0.008	99	77636	2.00	2.00	
31 Vinyl bromide	106	5.620	5.618	0.002	96	31635	0.4000	0.3962	
32 2-Methylbutane	43	5.669	5.669	0.000	91	41208	0.4000	0.3962	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	125032	0.4000	0.4016	
34 Acrolein	56	5.927	5.930	-0.003	26	8429	0.4000	0.4463	
35 Acetonitrile	40	6.002	6.004	-0.002	97	13678	0.4000	0.4574	
36 Acetone	58	6.056	6.061	-0.005	99	53289	1.20	1.61	
38 Pentane	72	6.158	6.155	0.003	93	4736	0.4000	0.3981	
37 Isopropyl alcohol	45	6.142	6.155	-0.013	83	106236	1.20	1.10	
39 Ethyl ether	31	6.346	6.345	0.001	89	46127	0.4000	0.4312	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	35931	0.4000	0.4067	
41 Acrylonitrile	53	6.804	6.802	0.002	70	24063	0.4000	0.4073	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	95	50767	0.4000	0.3411	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	94	81162	0.4000	0.3951	
44 Methylene Chloride	84	7.067	7.067	0.000	96	46376	0.4000	0.4282	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	96	42725	0.4000	0.4258	
46 Carbon disulfide	76	7.250	7.248	0.002	99	108114	0.4000	0.4014	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	35303	0.4000	0.3999	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	101723	0.4000	0.4183	
49 Methyl tert-butyl ether	73	8.062	8.066	-0.004	96	93799	0.4000	0.3979	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	99	79247	0.4000	0.4029	
51 Vinyl acetate	43	8.461	8.461	0.000	100	102808	0.4000	0.4116	
52 2-Butanone (MEK)	72	8.939	8.943	-0.004	85	16234	0.4000	0.4182	
53 Hexane	56	8.945	8.948	-0.003	71	32898	0.4000	0.4156	
54 Isopropyl ether	45	9.111	9.118	-0.007	96	122430	0.4000	0.4067	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	98	36813	0.4000	0.4046	
56 Ethyl acetate	43	9.558	9.566	-0.008	98	83654	0.4000	0.4043	
57 Chloroform	83	9.730	9.735	-0.005	94	94081	0.4000	0.4027	
58 Tert-butyl ethyl ether	59	9.805	9.817	-0.012	98	111905	0.4000	0.3992	
59 Tetrahydrofuran	42	10.171	10.176	-0.005	92	41979	0.4000	0.4056	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	100739	0.4000	0.4008	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	68517	0.4000	0.3941	
62 n-Butanol	31	11.296	11.296	0.000	93	14337	0.4000	0.3464	
63 Cyclohexane	69	11.339	11.337	0.002	71	18560	0.4000	0.3985	
64 Benzene	78	11.339	11.340	-0.001	97	109508	0.4000	0.3948	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	95	93006	0.4000	0.3999	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	92	24680	0.4000	0.3945	
67 Thiophene	84	11.602	11.604	-0.002	97	61762	0.4000	0.3915	
68 Isooctane	57	12.038	12.041	-0.003	97	195788	0.4000	0.3957	
69 n-Heptane	71	12.388	12.392	-0.004	95	37671	0.4000	0.3945	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	46483	0.4000	0.3990	
71 Trichloroethene	130	12.533	12.537	-0.004	90	48185	0.4000	0.3847	
72 Dibromomethane	93	12.624	12.627	-0.003	93	50718	0.4000	0.3926	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	95484	0.4000	0.3870	
74 1,4-Dioxane	88	12.786	12.787	-0.001	96	11915	0.4000	0.3670	
75 Methyl methacrylate	41	12.823	12.827	-0.004	88	54685	0.4000	0.4023	
76 Methylcyclohexane	83	13.275	13.277	-0.002	90	65931	0.4000	0.3880	
77 4-Methyl-2-pentanone (MIBK	43	13.662	13.662	0.000	99	74371	0.4000	0.3504	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	99	66204	0.4000	0.3829	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	61866	0.4000	0.3852	
80 Toluene	91	14.518	14.519	-0.001	92	125493	0.4000	0.3984	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	94	39029	0.4000	0.3870	
82 2-Hexanone	58	14.954	14.956	-0.002	91	31698	0.4000	0.3436	
83 n-Octane	85	15.153	15.154	-0.001	96	38072	0.4000	0.3938	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	84022	0.4000	0.3851	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	97	71880	0.4000	0.3913	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	48787	0.4000	0.3855	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	152008	0.4000	0.4109	
88 Chlorobenzene	112	16.497	16.501	-0.004	91	99536	0.4000	0.3949	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	160080	0.4000	0.3943	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	244225	0.8000	0.7847	
91 n-Nonane	57	17.310	17.307	0.003	93	88275	0.4000	0.3918	
92 Styrene	104	17.390	17.392	-0.002	97	84261	0.4000	0.3789	
93 Bromoform	173	17.396	17.398	-0.002	95	85044	0.4000	0.3640	
94 o-Xylene	91	17.450	17.453	-0.003	97	131150	0.4000	0.3962	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	92559	0.4000	0.4013	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	25000	0.4000	0.3810	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	92	167478	0.4000	0.3876	
98 N-Propylbenzene	120	18.520	18.517	0.003	98	43871	0.4000	0.3802	
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	43746	0.4000	0.3922	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	165010	0.4000	0.3832	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	90	65324	0.4000	0.3803	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	65400	0.4000	0.3689	
103 n-Decane	57	18.972	18.974	-0.002	89	113266	0.4000	0.3974	
104 tert-Butylbenzene	119	19.133	19.133	0.000	89	149859	0.4000	0.3784	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	146313	0.4000	0.3833	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	208334	0.4000	0.3888	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	98243	0.4000	0.3697	
108 Benzyl chloride	91	19.488	19.487	0.001	97	113819	0.4000	0.3481	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	96865	0.4000	0.3606	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	175502	0.4000	0.3892	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	98	147741	0.4000	0.3947	
112 Butylcyclohexane	83	19.639	19.642	-0.003	90	126456	0.4000	0.3906	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	132695	0.4000	0.3822	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	96019	0.4000	0.3674	
115 n-Butylbenzene	91	19.956	19.958	-0.002	97	184104	0.4000	0.3945	
116 Indene	116	19.973	19.974	-0.001	91	111455	0.4000	0.3742	
117 Undecane	57	20.236	20.235	0.001	93	126770	0.4000	0.3934	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	92	45955	0.4000	0.3534	
119 1,2,4,5-Tetramethylbenzene	119	20.715	20.713	0.002	96	155714	0.4000	0.3832	
120 Dodecane	57	21.323	21.323	0.000	91	93805	0.4000	0.3421	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	66283	0.4000	0.3106	
122 Naphthalene	128	21.694	21.693	0.001	98	106779	0.4000	0.3195	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	93985	0.4000	0.3653	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	94	56334	0.4000	0.3344	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	21173	0.4000	0.2319	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	97	24357	0.4000	0.2226	
A 128 C8 Range	1	15.163	(15.120-15.206)		0	412584	0.4000	0.3986	
S 129 Xylenes, Total	100				0		1.20	1.18	
S 130 1,2-Dichloroethene, Total	1				0		0.8000	0.8045	

Reagents:

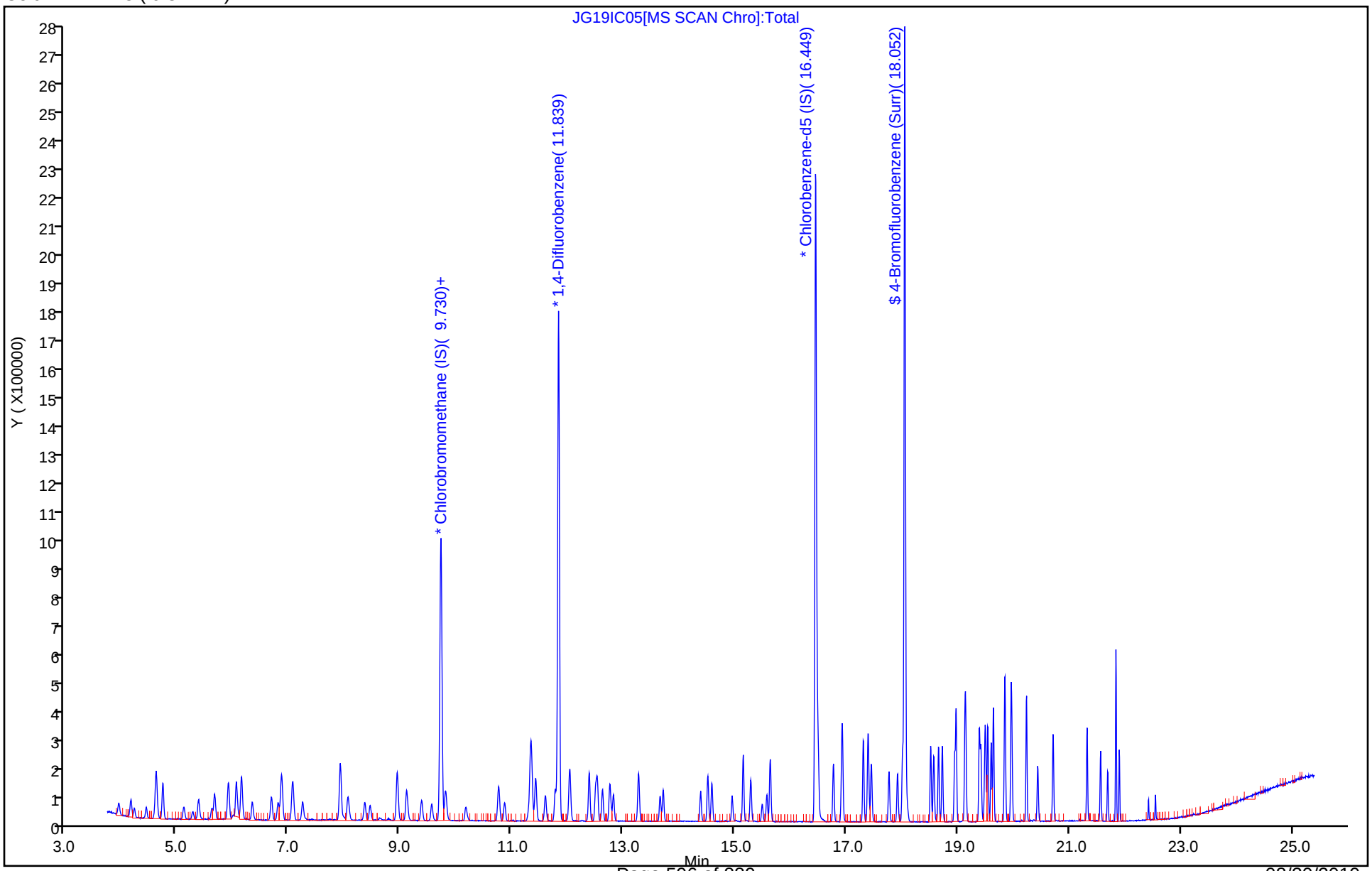
40L5DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



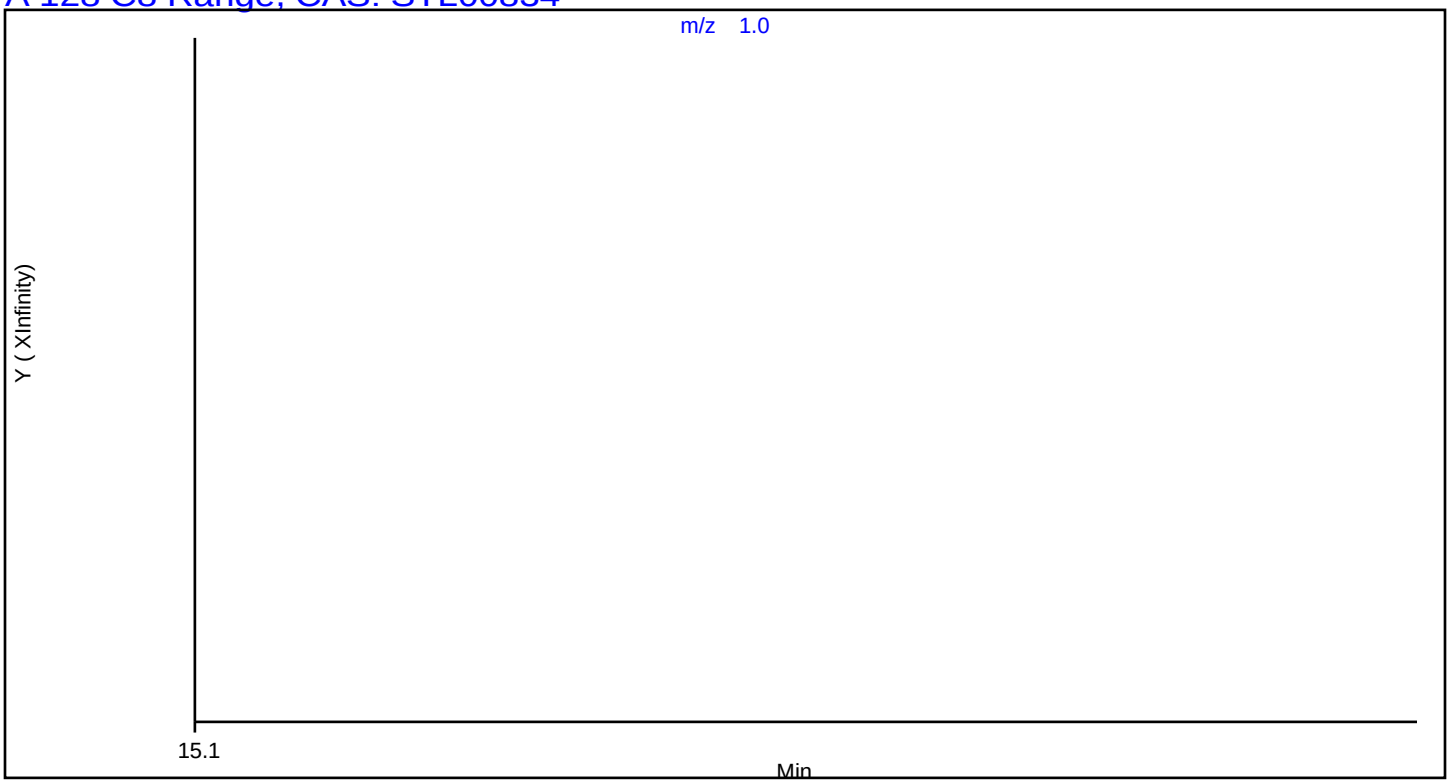
08/30/2019

Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Jul-2019 04:48:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-014
Misc. Info.: 231547
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:14 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 11:59:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	275638	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1436209	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1244130	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	926278	4.00	4.05	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	69702	1.00	0.9253	
20 Propene	41	4.169	4.169	0.000	98	59192	1.00	1.08	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	83071	1.00	0.9623	
22 Chloromethane	52	4.438	4.441	-0.003	100	27769	1.00	1.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	48	11411	1.00	0.9518	
24 Acetaldehyde	44	4.610	4.617	-0.007	92	197908	5.00	5.52	
25 Vinyl chloride	62	4.637	4.642	-0.005	99	93320	1.00	1.00	
26 Butane	43	4.739	4.739	0.000	85	146719	1.00	1.02	
27 Butadiene	54	4.739	4.741	-0.002	68	68261	1.00	0.9635	
28 Bromomethane	94	5.115	5.117	-0.002	97	78978	1.00	0.9574	
29 Chloroethane	64	5.271	5.275	-0.004	87	39592	1.00	0.9606	
30 Ethanol	31	5.379	5.386	-0.007	98	192417	5.00	5.17	
31 Vinyl bromide	106	5.616	5.618	-0.002	97	74384	1.00	0.9730	
32 2-Methylbutane	43	5.664	5.669	-0.005	91	96302	1.00	0.9670	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	301033	1.00	1.01	
34 Acrolein	56	5.922	5.930	-0.008	93	19989	1.00	1.11	
35 Acetonitrile	40	5.998	6.004	-0.006	97	30044	1.00	1.05	
36 Acetone	58	6.057	6.061	-0.004	99	106237	3.00	3.35	
38 Pentane	72	6.154	6.155	-0.001	95	10942	1.00	0.9607	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	94	285574	3.00	3.10	
39 Ethyl ether	31	6.337	6.345	-0.008	89	107243	1.00	1.05	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	82349	1.00	0.9735	
41 Acrylonitrile	53	6.799	6.802	-0.003	93	58884	1.00	1.04	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	97	149308	1.00	1.05	
43 1,1,2-Trichloro-1,2,2-trif	101	6.869	6.873	-0.004	95	192673	1.00	0.9796	
44 Methylene Chloride	84	7.063	7.067	-0.004	96	88979	1.00	0.8580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	102639	1.00	1.07	
46 Carbon disulfide	76	7.246	7.248	-0.002	100	254625	1.00	0.9872	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	91	84422	1.00	1.00	
48 2-Methylpentane	43	7.924	7.928	-0.004	95	235268	1.00	1.01	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	235531	1.00	1.04	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	100	185591	1.00	0.9854	
51 Vinyl acetate	43	8.456	8.461	-0.005	100	250126	1.00	1.05	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	95	38700	1.00	1.04	
53 Hexane	56	8.946	8.948	-0.002	73	75679	1.00	1.00	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	301826	1.00	1.05	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	98	85468	1.00	0.9809	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	203568	1.00	1.03	
57 Chloroform	83	9.731	9.735	-0.004	50	218488	1.00	0.9767	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	98	278520	1.00	1.04	
59 Tetrahydrofuran	42	10.167	10.176	-0.009	92	102525	1.00	1.03	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	234252	1.00	0.9732	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	164559	1.00	1.00	
62 n-Butanol	31	11.280	11.296	-0.016	93	40227	1.00	1.03	
63 Cyclohexane	69	11.334	11.337	-0.003	68	43594	1.00	0.9871	
64 Benzene	78	11.340	11.340	0.000	97	257566	1.00	0.9791	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	249189	1.00	1.13	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	92	59251	1.00	1.00	
67 Thiophene	84	11.603	11.604	-0.001	98	147708	1.00	0.9872	
68 Isooctane	57	12.039	12.041	-0.002	96	468977	1.00	1.00	
69 n-Heptane	71	12.389	12.392	-0.004	95	89663	1.00	0.99	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	110558	1.00	1.00	
71 Trichloroethene	130	12.534	12.537	-0.003	92	114328	1.00	0.9626	
72 Dibromomethane	93	12.625	12.627	-0.002	93	122397	1.00	1.00	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	229761	1.00	0.9820	
74 1,4-Dioxane	88	12.781	12.787	-0.006	97	31384	1.00	1.02	
75 Methyl methacrylate	41	12.824	12.827	-0.003	88	133533	1.00	1.04	
76 Methylcyclohexane	83	13.276	13.277	-0.001	93	159061	1.00	0.9870	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	207313	1.00	1.03	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	99	165289	1.00	1.01	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	158402	1.00	1.03	
80 Toluene	91	14.519	14.519	0.000	92	306473	1.00	1.02	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	95	98749	1.00	1.03	
82 2-Hexanone	58	14.949	14.956	-0.007	91	95548	1.00	1.09	
83 n-Octane	85	15.154	15.154	0.000	96	91561	1.00	0.99	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	214363	1.00	1.03	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	176750	1.00	1.01	
86 Tetrachloroethene	129	15.632	15.637	-0.005	93	119436	1.00	0.9891	
87 2,3-Dimethylheptane	43	16.477	16.478	-0.001	94	361751	1.00	1.02	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	241644	1.00	1.00	
89 Ethylbenzene	91	16.773	16.773	0.000	100	404167	1.00	1.04	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	621917	2.00	2.09	
91 n-Nonane	57	17.305	17.307	-0.002	94	219047	1.00	1.02	
92 Styrene	104	17.391	17.392	-0.001	97	218682	1.00	1.03	
93 Bromoform	173	17.397	17.398	-0.001	95	217537	1.00	0.9757	
94 o-Xylene	91	17.451	17.453	-0.002	97	332666	1.00	1.05	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	235263	1.00	1.07	
96 1,2,3-Trichloropropane	110	17.919	17.923	-0.004	97	65354	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	98	426827	1.00	1.04	
98 N-Propylbenzene	120	18.516	18.517	-0.001	98	113652	1.00	1.03	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	109844	1.00	1.03	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	429956	1.00	1.05	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	168435	1.00	1.03	
102 Alpha Methyl Styrene	118	18.946	18.948	-0.002	84	176468	1.00	1.04	
103 n-Decane	57	18.973	18.974	-0.001	89	288216	1.00	1.06	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	88	386592	1.00	1.02	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	379144	1.00	1.04	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	536445	1.00	1.05	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	259520	1.00	1.02	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	320685	1.00	1.03	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	258631	1.00	1.01	
110 4-Isopropyltoluene	119	19.538	19.542	-0.004	96	451475	1.00	1.05	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	385477	1.00	1.08	
112 Butylcyclohexane	83	19.640	19.642	-0.002	90	331972	1.00	1.07	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	358478	1.00	1.08	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	255350	1.00	1.02	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	482850	1.00	1.08	
116 Indene	116	19.974	19.974	0.000	96	304611	1.00	1.07	
117 Undecane	57	20.232	20.235	-0.003	93	337616	1.00	1.10	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	92	132338	1.00	1.07	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	421150	1.00	1.09	
120 Dodecane	57	21.324	21.323	0.001	92	325888	1.00	1.25	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	94	212510	1.00	1.04	
122 Naphthalene	128	21.695	21.693	0.002	98	340855	1.00	1.07	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	269796	1.00	1.10	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	183380	1.00	1.14	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	98	104984	1.00	1.21	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	129712	1.00	1.24	
A 128 C8 Range	1	15.148	(15.121-15.207)		0	1013087	1.00	1.03	
S 129 Xylenes, Total	100				0		3.00	3.15	
S 130 1,2-Dichloroethene, Total	1				0		2.00	1.98	

Reagents:

40L6DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

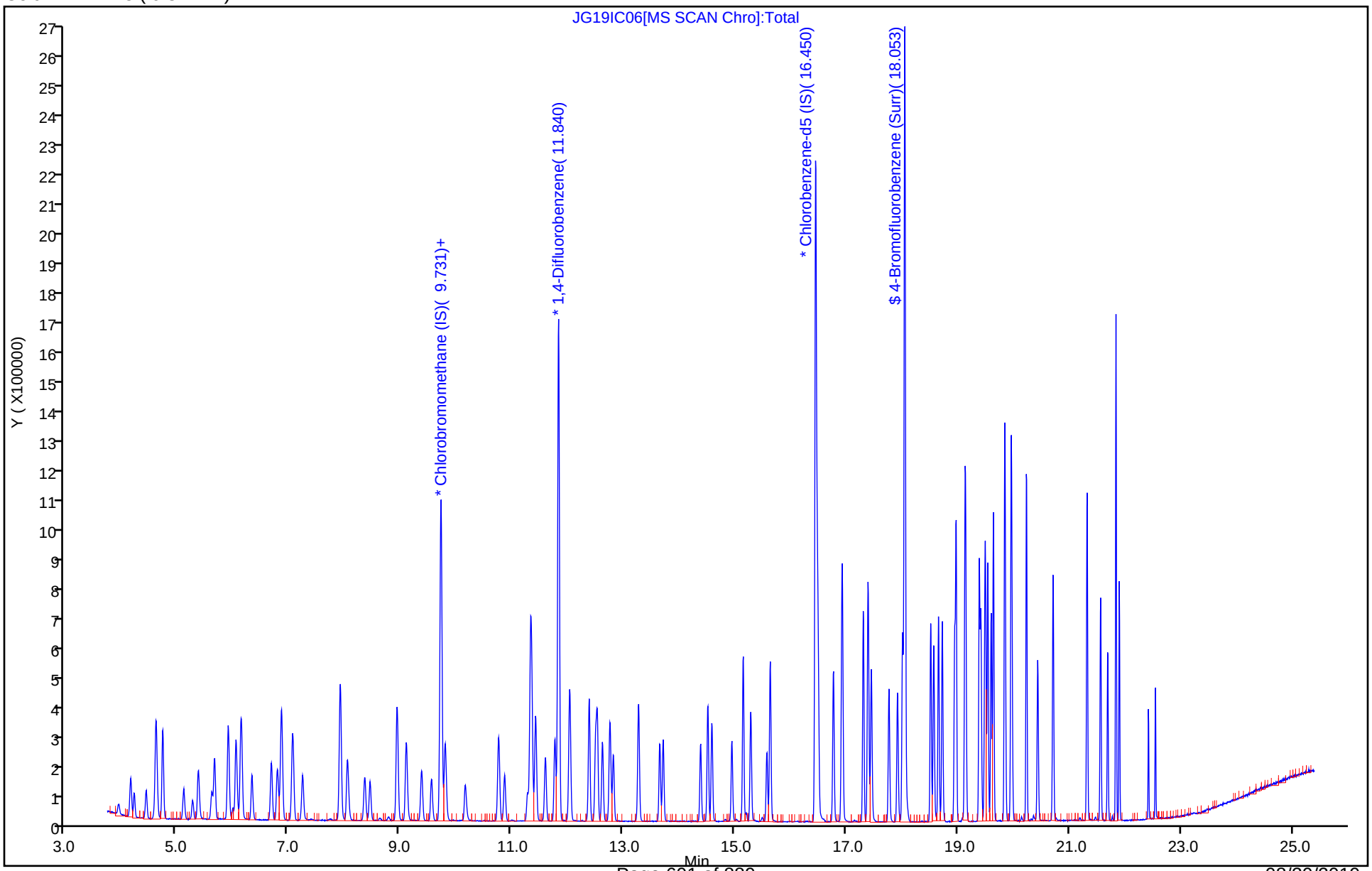
Report Date: 24-Jul-2019 11:36:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D

Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

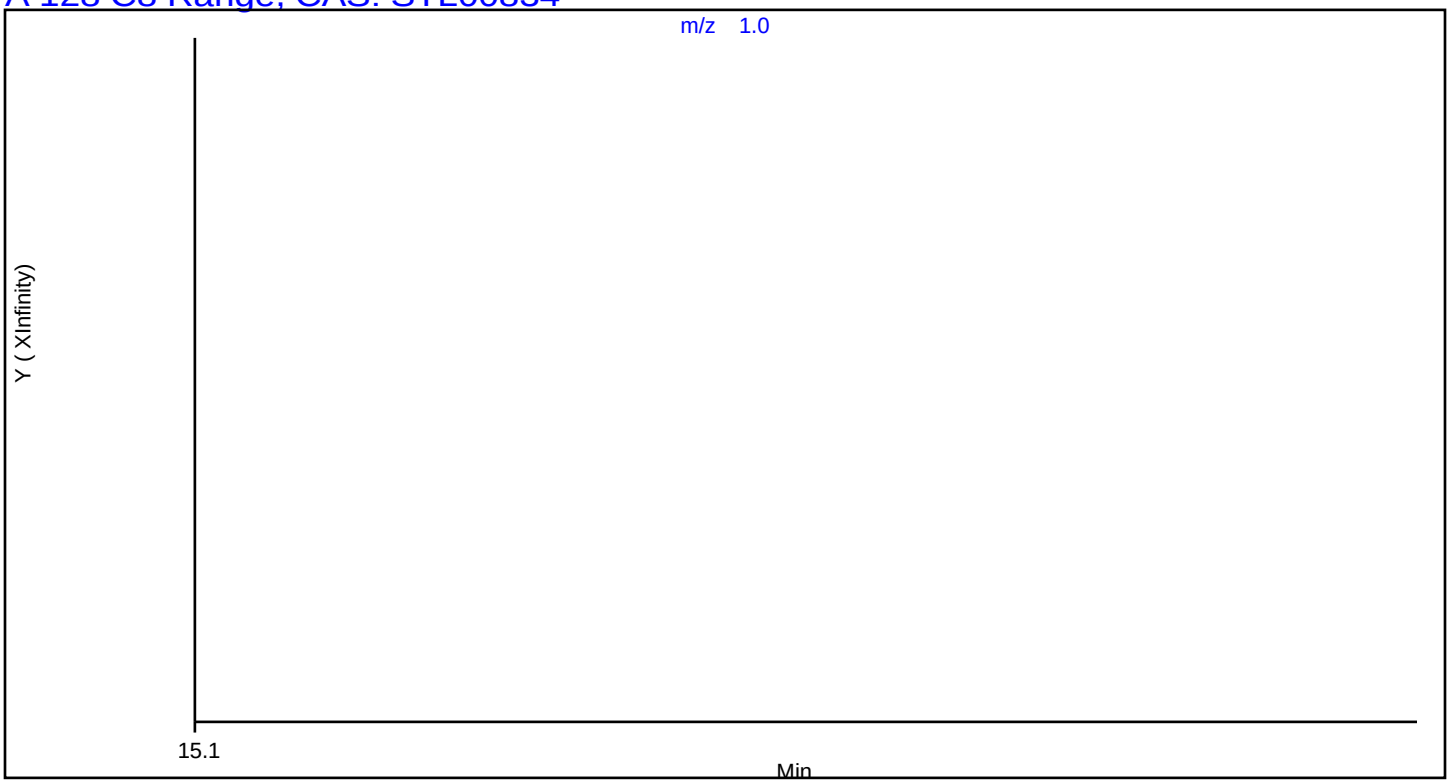


Report Date: 24-Jul-2019 11:36:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D				
Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 20-Jul-2019 05:37:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-015
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:22 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:03:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	95	285692	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.841	11.841	0.000	97	1484056	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.453	-0.002	92	1253354	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.049	18.052	-0.004	89	913593	4.00	3.97	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	118045	2.00	1.51	
20 Propene	41	4.164	4.169	-0.005	97	83916	2.00	1.48	
21 Dichlorodifluoromethane	85	4.229	4.228	0.001	100	181786	2.00	2.03	
22 Chloromethane	52	4.444	4.441	0.003	100	58261	2.00	2.02	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.444	4.444	0.000	48	25059	2.00	2.02	
24 Acetaldehyde	44	4.616	4.617	-0.001	92	322907	10.0	8.68	
25 Vinyl chloride	62	4.638	4.642	-0.004	99	209135	2.00	2.15	
26 Butane	43	4.740	4.739	0.001	85	320866	2.00	2.14	
27 Butadiene	54	4.740	4.741	-0.001	68	153622	2.00	2.09	
28 Bromomethane	94	5.116	5.117	-0.001	98	179541	2.00	2.10	
29 Chloroethane	64	5.272	5.275	-0.003	89	89853	2.00	2.10	
30 Ethanol	31	5.374	5.386	-0.012	99	411685	10.0	10.7	
31 Vinyl bromide	106	5.617	5.618	-0.001	97	165932	2.00	2.09	
32 2-Methylbutane	43	5.670	5.669	0.001	90	212490	2.00	2.06	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	649561	2.00	2.10	
34 Acrolein	56	5.929	5.930	-0.001	96	34623	2.00	1.85	
35 Acetonitrile	40	6.004	6.004	0.000	98	54608	2.00	1.84	
36 Acetone	58	6.052	6.061	-0.009	99	175926	6.00	5.35	
38 Pentane	72	6.155	6.155	-0.001	95	25557	2.00	2.16	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	93	646180	6.00	6.76	
39 Ethyl ether	31	6.337	6.345	-0.008	90	196183	2.00	1.85	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	186040	2.00	2.12	
41 Acrylonitrile	53	6.795	6.802	-0.007	91	109873	2.00	1.87	
42 2-Methyl-2-propanol	59	6.784	6.814	-0.030	96	349531	2.00	2.37	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.873	-0.003	95	427819	2.00	2.10	
44 Methylene Chloride	84	7.064	7.067	-0.003	96	182263	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.074	7.081	-0.007	97	228907	2.00	2.30	
46 Carbon disulfide	76	7.247	7.248	-0.001	100	558271	2.00	2.09	
47 trans-1,2-Dichloroethene	96	7.919	7.922	-0.003	96	187576	2.00	2.14	
48 2-Methylpentane	43	7.930	7.928	0.002	95	511215	2.00	2.12	
49 Methyl tert-butyl ether	73	8.048	8.066	-0.018	97	465475	2.00	1.99	
50 1,1-Dichloroethane	63	8.360	8.363	-0.003	99	424178	2.00	2.17	
51 Vinyl acetate	43	8.457	8.461	-0.004	100	460683	2.00	1.86	
52 2-Butanone (MEK)	72	8.936	8.943	-0.007	96	74085	2.00	1.92	
53 Hexane	56	8.941	8.948	-0.007	80	165538	2.00	2.11	
54 Isopropyl ether	45	9.108	9.118	-0.010	97	608074	2.00	2.04	
55 cis-1,2-Dichloroethene	96	9.382	9.384	-0.002	99	197127	2.00	2.18	
56 Ethyl acetate	43	9.560	9.566	-0.006	98	413396	2.00	2.01	
57 Chloroform	83	9.737	9.735	0.002	95	498664	2.00	2.15	
58 Tert-butyl ethyl ether	59	9.802	9.817	-0.015	97	575937	2.00	2.07	
59 Tetrahydrofuran	42	10.157	10.176	-0.019	92	201024	2.00	1.96	
60 1,1,1-Trichloroethane	97	10.765	10.767	-0.002	96	532500	2.00	2.13	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	375540	2.00	2.20	
62 n-Butanol	31	11.276	11.296	-0.020	95	89549	2.00	2.21	
63 Cyclohexane	69	11.335	11.337	-0.002	74	96593	2.00	2.12	
64 Benzene	78	11.340	11.340	0.000	98	581894	2.00	2.14	
65 Carbon tetrachloride	117	11.362	11.361	0.001	98	566222	2.00	2.48	
66 2,3-Dimethylpentane	71	11.432	11.430	0.002	91	134278	2.00	2.19	
67 Thiophene	84	11.604	11.604	0.000	97	337291	2.00	2.18	
68 Isooctane	57	12.040	12.041	-0.001	97	1037335	2.00	2.14	
69 n-Heptane	71	12.389	12.392	-0.003	94	203240	2.00	2.17	
70 1,2-Dichloropropane	63	12.502	12.505	-0.003	87	249044	2.00	2.18	
71 Trichloroethene	130	12.535	12.537	-0.002	92	262510	2.00	2.14	
72 Dibromomethane	93	12.626	12.627	-0.001	94	275575	2.00	2.18	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	532485	2.00	2.20	
74 1,4-Dioxane	88	12.771	12.787	-0.016	96	70857	2.00	2.23	
75 Methyl methacrylate	41	12.820	12.827	-0.007	88	272224	2.00	2.04	
76 Methylcyclohexane	83	13.277	13.277	0.000	91	356575	2.00	2.14	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	481925	2.00	2.32	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	371122	2.00	2.19	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	335403	2.00	2.17	
80 Toluene	91	14.520	14.519	0.001	92	616281	2.00	2.04	
81 1,1,2-Trichloroethane	83	14.590	14.591	-0.001	95	207313	2.00	2.14	
82 2-Hexanone	58	14.950	14.956	-0.006	91	219816	2.00	2.48	
83 n-Octane	85	15.154	15.154	0.000	95	204704	2.00	2.20	
84 Chlorodibromomethane	129	15.289	15.290	-0.001	97	477997	2.00	2.28	
85 Ethylene Dibromide	107	15.579	15.579	0.000	98	389612	2.00	2.21	
86 Tetrachloroethene	129	15.639	15.637	0.001	93	265632	2.00	2.18	
87 2,3-Dimethylheptane	43	16.478	16.478	0.000	94	757889	2.00	2.13	
88 Chlorobenzene	112	16.499	16.501	-0.002	90	515968	2.00	2.13	
89 Ethylbenzene	91	16.774	16.773	0.001	100	806819	2.00	2.07	
90 m-Xylene & p-Xylene	91	16.930	16.929	0.001	99	1270566	4.00	4.25	
91 n-Nonane	57	17.306	17.307	-0.001	94	465939	2.00	2.15	
92 Styrene	104	17.392	17.392	0.000	97	455653	2.00	2.13	
93 Bromoform	173	17.398	17.398	0.000	95	512843	2.00	2.28	
94 o-Xylene	91	17.451	17.453	-0.002	97	676455	2.00	2.13	
95 1,1,2,2-Tetrachloroethane	83	17.769	17.769	0.000	98	494603	2.00	2.23	
96 1,2,3-Trichloropropane	110	17.925	17.923	0.002	97	133722	2.00	2.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.011	18.012	-0.001	98	870746	2.00	2.10	
98 N-Propylbenzene	120	18.517	18.517	0.000	98	233784	2.00	2.11	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	227474	2.00	2.12	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	895533	2.00	2.16	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	353526	2.00	2.14	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	377525	2.00	2.22	
103 n-Decane	57	18.974	18.974	0.000	89	591844	2.00	2.16	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	815324	2.00	2.14	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	98	792960	2.00	2.16	
106 sec-Butylbenzene	105	19.388	19.389	-0.001	98	1128469	2.00	2.19	
107 1,3-Dichlorobenzene	146	19.415	19.419	-0.004	98	547572	2.00	2.14	
108 Benzyl chloride	91	19.485	19.487	-0.002	97	735170	2.00	2.34	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	94	549492	2.00	2.13	
110 4-Isopropyltoluene	119	19.539	19.542	-0.003	97	960667	2.00	2.22	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	811374	2.00	2.26	
112 Butylcyclohexane	83	19.641	19.642	-0.001	91	682027	2.00	2.19	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	93	741820	2.00	2.22	
114 1,2-Dichlorobenzene	146	19.851	19.851	0.000	95	540039	2.00	2.15	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	1016889	2.00	2.27	
116 Indene	116	19.974	19.974	0.000	91	642582	2.00	2.24	
117 Undecane	57	20.233	20.235	-0.002	93	696186	2.00	2.25	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	94	304127	2.00	2.43	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	924317	2.00	2.37	
120 Dodecane	57	21.319	21.323	-0.004	92	682968	2.00	2.59	
121 1,2,4-Trichlorobenzene	180	21.567	21.565	0.002	93	452405	2.00	2.21	
122 Naphthalene	128	21.690	21.693	-0.003	98	722961	2.00	2.25	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	94	535851	2.00	2.17	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	381083	2.00	2.35	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	252943	2.00	2.88	
126 1-Methylnaphthalene	142	22.546	22.549	-0.003	99	300466	2.00	2.86	
A 128 C8 Range	1	15.164	(15.111-15.218)		0	2208887	2.00	2.22	
S 129 Xylenes, Total	100				0		6.00	6.37	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.32	

Reagents:

40L8DQP_00011	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

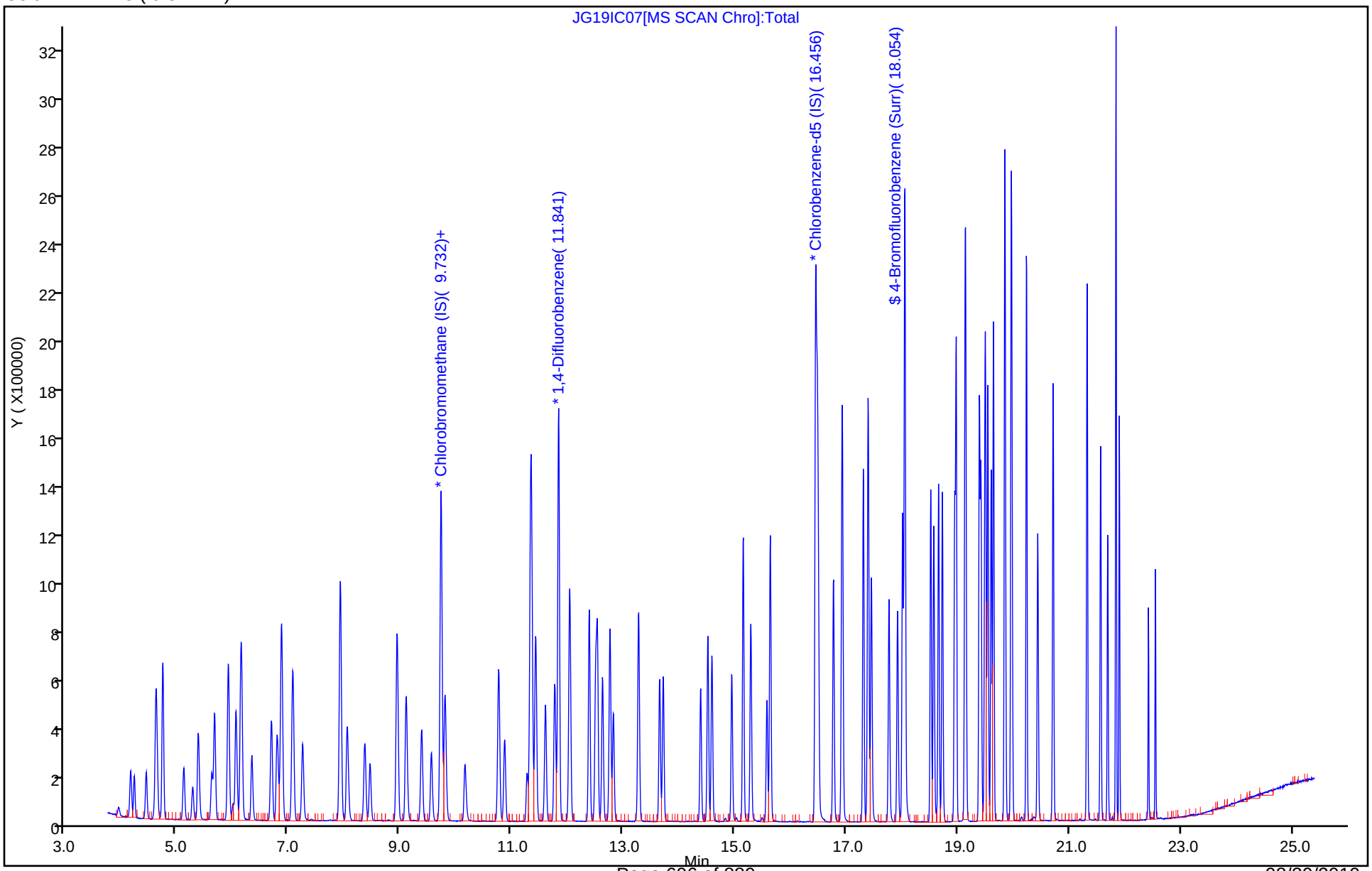
Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D

Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

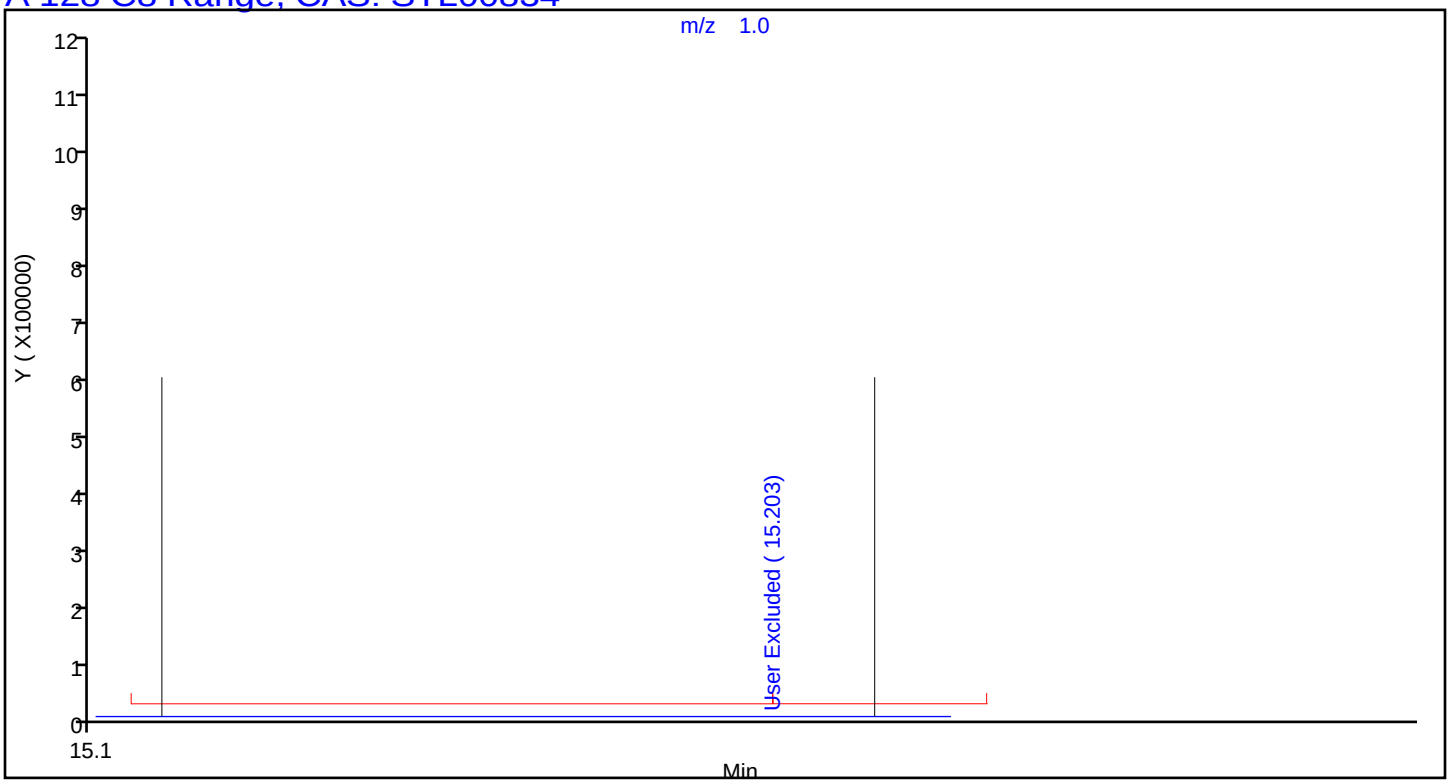


Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D				
Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Jul-2019 06:27:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-016
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 24-Jul-2019 10:50:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	95	305209	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1573202	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.454	16.453	0.001	91	1405182	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	90	1076887	4.00	4.17	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	352408	4.00	4.23	
20 Propene	41	4.162	4.169	-0.007	98	230605	4.00	3.82	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	385477	4.00	4.03	
22 Chloromethane	52	4.437	4.441	-0.004	100	123458	4.00	4.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.437	4.444	-0.007	92	54998	4.00	4.14	
24 Acetaldehyde	44	4.609	4.617	-0.008	93	691533	20.0	17.4	
25 Vinyl chloride	62	4.636	4.642	-0.006	99	421064	4.00	4.06	
26 Butane	43	4.733	4.739	-0.006	84	630660	4.00	3.94	
27 Butadiene	54	4.733	4.741	-0.008	69	308014	4.00	3.93	
28 Bromomethane	94	5.115	5.117	-0.002	98	363015	4.00	3.97	
29 Chloroethane	64	5.271	5.275	-0.004	89	179467	4.00	3.93	
30 Ethanol	31	5.373	5.386	-0.013	98	737472	20.0	17.9	
31 Vinyl bromide	106	5.615	5.618	-0.003	97	335660	4.00	3.97	
32 2-Methylbutane	43	5.663	5.669	-0.006	90	402954	4.00	3.65	
33 Trichlorofluoromethane	101	5.911	5.916	-0.005	99	1305209	4.00	3.95	
34 Acrolein	56	5.927	5.930	-0.003	98	74502	4.00	3.72	
35 Acetonitrile	40	5.997	6.004	-0.007	96	110573	4.00	3.49	
36 Acetone	58	6.045	6.061	-0.016	99	347231	12.0	9.88	
38 Pentane	72	6.147	6.155	-0.008	97	48180	4.00	3.82	
37 Isopropyl alcohol	45	6.131	6.155	-0.024	96	1099732	12.0	10.8	
39 Ethyl ether	31	6.330	6.345	-0.015	90	414082	4.00	3.65	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	361448	4.00	3.86	
41 Acrylonitrile	53	6.798	6.802	-0.004	93	235232	4.00	3.76	
42 2-Methyl-2-propanol	59	6.782	6.814	-0.032	96	590968	4.00	3.74	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	96	830656	4.00	3.81	
44 Methylene Chloride	84	7.062	7.067	-0.005	96	337568	4.00	2.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	97	421573	4.00	3.96	
46 Carbon disulfide	76	7.245	7.248	-0.003	100	1095624	4.00	3.84	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	364761	4.00	3.90	
48 2-Methylpentane	43	7.923	7.928	-0.005	95	971683	4.00	3.77	
49 Methyl tert-butyl ether	73	8.046	8.066	-0.020	97	941368	4.00	3.77	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	100	768735	4.00	3.69	
51 Vinyl acetate	43	8.455	8.461	-0.006	100	998045	4.00	3.77	
52 2-Butanone (MEK)	72	8.934	8.943	-0.009	96	142067	4.00	3.45	
53 Hexane	56	8.945	8.948	-0.003	80	312844	4.00	3.73	
54 Isopropyl ether	45	9.101	9.118	-0.017	96	1175996	4.00	3.68	
55 cis-1,2-Dichloroethene	96	9.380	9.384	-0.004	98	367352	4.00	3.81	
56 Ethyl acetate	43	9.553	9.566	-0.013	98	806524	4.00	3.68	
57 Chloroform	83	9.736	9.735	0.001	96	909968	4.00	3.67	
58 Tert-butyl ethyl ether	59	9.800	9.817	-0.017	97	1116586	4.00	3.76	
59 Tetrahydrofuran	42	10.155	10.176	-0.021	92	400597	4.00	3.65	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	991646	4.00	3.72	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	677290	4.00	3.75	
62 n-Butanol	31	11.269	11.296	-0.027	94	152659	4.00	3.55	
63 Cyclohexane	69	11.339	11.337	0.002	77	187159	4.00	3.87	
64 Benzene	78	11.339	11.340	-0.001	98	1043178	4.00	3.62	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	98	1090465	4.00	4.51	
66 2,3-Dimethylpentane	71	11.430	11.430	0.000	91	245152	4.00	3.77	
67 Thiophene	84	11.602	11.604	-0.002	98	614522	4.00	3.75	
68 Isooctane	57	12.038	12.041	-0.003	96	1894159	4.00	3.69	
69 n-Heptane	71	12.388	12.392	-0.004	95	372781	4.00	3.76	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	87	454813	4.00	3.76	
71 Trichloroethene	130	12.538	12.537	0.001	94	479951	4.00	3.69	
72 Dibromomethane	93	12.630	12.627	0.003	95	509254	4.00	3.79	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	977581	4.00	3.81	
74 1,4-Dioxane	88	12.770	12.787	-0.017	92	131050	4.00	3.89	
75 Methyl methacrylate	41	12.818	12.827	-0.009	89	531980	4.00	3.77	
76 Methylcyclohexane	83	13.275	13.277	-0.002	92	654802	4.00	3.71	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	809261	4.00	3.67	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	98	702648	4.00	3.91	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	672142	4.00	3.88	
80 Toluene	91	14.518	14.519	-0.001	92	1261809	4.00	3.72	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	96	408402	4.00	3.76	
82 2-Hexanone	58	14.948	14.956	-0.008	91	369071	4.00	3.71	
83 n-Octane	85	15.153	15.154	-0.001	95	387857	4.00	3.72	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	935330	4.00	3.98	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	98	756741	4.00	3.82	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	499480	4.00	3.66	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	1432753	4.00	3.59	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	1006543	4.00	3.71	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	1635567	4.00	3.74	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	2589354	8.00	7.72	
91 n-Nonane	57	17.304	17.307	-0.003	93	914349	4.00	3.77	
92 Styrene	104	17.391	17.392	-0.002	97	934523	4.00	3.90	
93 Bromoform	173	17.396	17.398	-0.002	97	1065944	4.00	4.23	
94 o-Xylene	91	17.450	17.453	-0.003	97	1371043	4.00	3.84	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	979510	4.00	3.94	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	269148	4.00	3.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	98	1761169	4.00	3.78	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	476994	4.00	3.84	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	468749	4.00	3.90	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	1803676	4.00	3.89	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	711101	4.00	3.84	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	763807	4.00	4.00	
103 n-Decane	57	18.972	18.974	-0.002	90	1167002	4.00	3.80	
104 tert-Butylbenzene	119	19.133	19.133	0.000	90	1612357	4.00	3.78	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	1587508	4.00	3.86	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	2223634	4.00	3.85	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	1111022	4.00	3.88	
108 Benzyl chloride	91	19.488	19.487	0.001	97	1469564	4.00	4.17	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	1113121	4.00	3.85	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	1860896	4.00	3.83	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	99	1583203	4.00	3.93	
112 Butylcyclohexane	83	19.645	19.642	0.002	90	1353618	4.00	3.88	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	1463048	4.00	3.91	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	1081773	4.00	3.84	
115 n-Butylbenzene	91	19.957	19.958	-0.002	97	1966095	4.00	3.91	
116 Indene	116	19.973	19.974	-0.001	89	1289190	4.00	4.02	
117 Undecane	57	20.236	20.235	0.001	94	1324167	4.00	3.81	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	94	593312	4.00	4.23	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	1734202	4.00	3.96	
120 Dodecane	57	21.323	21.323	0.000	93	1005845	4.00	3.40	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	871856	4.00	3.79	
122 Naphthalene	128	21.694	21.693	0.001	99	1361853	4.00	3.78	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	1079215	4.00	3.89	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	95	675575	4.00	3.72	
125 2-Methylnaphthalene	142	22.420	22.424	-0.004	98	282062	4.00	2.87	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	100	319864	4.00	2.71	
A 128 C8 Range	1	15.163	(15.114-15.211)		0	4158008	4.00	3.73	
S 129 Xylenes, Total	100				0		12.0	11.6	
S 130 1,2-Dichloroethene, Total	1				0		8.00	7.70	

Reagents:

40L8DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

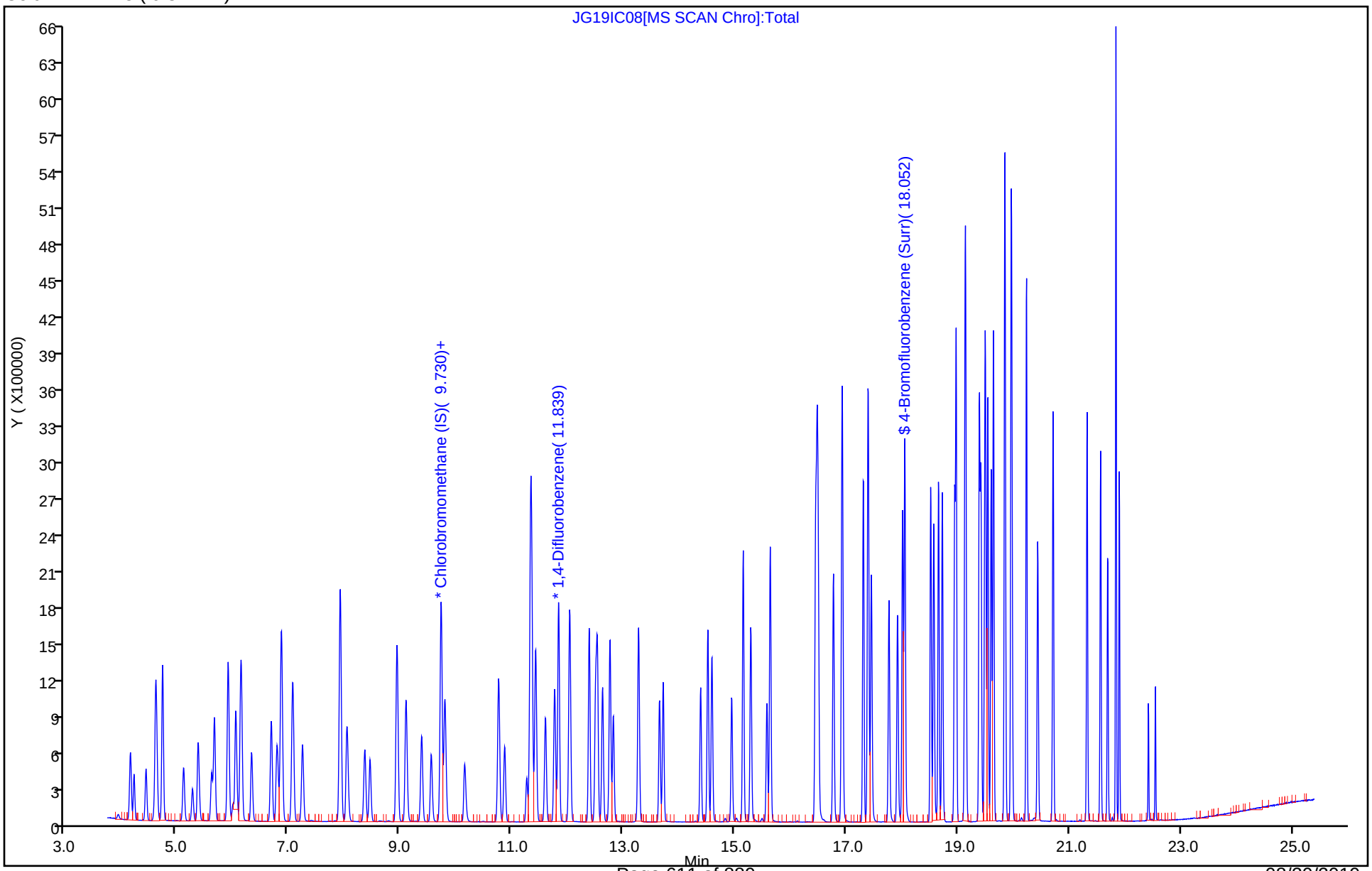
Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

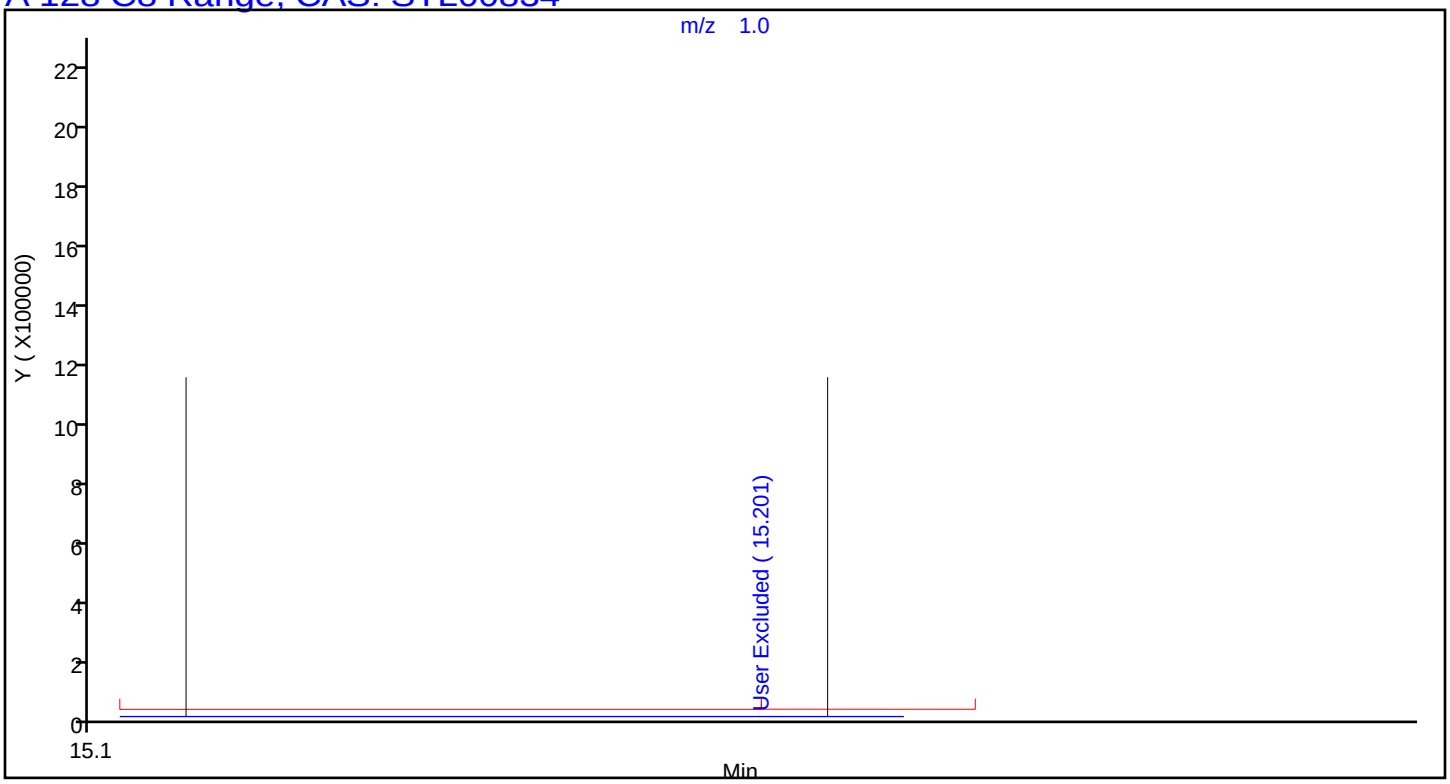


Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Aug-2019 13:33:30 ALS Bottle#: 14 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:25 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:41:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	96	286023	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.787	10.781	0.006	95	1651770	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1519455	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	93	1104916	4.00	4.22	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	1686652	8.00	6.90	
7 Propene	41	3.443	3.439	0.004	97	929137	8.00	6.85	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	1563912	8.00	7.07	
9 Chloromethane	52	3.669	3.665	0.004	75	192525	8.00	5.79	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	89	752994	8.00	6.71	
11 Acetaldehyde	44	3.815	3.817	-0.002	95	1258946	40.0	32.4	
12 Vinyl chloride	62	3.831	3.831	0.000	99	625941	8.00	5.95	
13 Butadiene	54	3.917	3.913	0.004	71	495518	8.00	6.49	
14 Butane	43	3.912	3.914	-0.002	84	936426	8.00	5.79	
15 Bromomethane	94	4.230	4.227	0.003	96	565685	8.00	6.34	
16 Chloroethane	64	4.359	4.359	0.000	91	257658	8.00	5.98	
17 Ethanol	31	4.462	4.464	-0.002	98	1413331	40.0	36.4	
18 Vinyl bromide	106	4.656	4.656	0.000	98	557199	8.00	7.48	
19 2-Methylbutane	43	4.699	4.699	0.000	93	798505	8.00	6.62	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	2275267	8.00	8.28	
20 Acrolein	56	4.931	4.936	-0.005	97	262118	8.00	7.71	
24 Acetonitrile	40	5.001	5.001	0.000	98	409722	8.00	8.09	
22 Acetone	58	5.044	5.057	-0.013	99	1102801	24.0	23.2	
25 Pentane	72	5.141	5.138	0.003	95	144745	8.00	7.96	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	3831142	24.0	23.8	
26 Ethyl ether	31	5.303	5.319	-0.016	90	1173779	8.00	7.90	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	95	784721	8.00	7.98	
28 Acrylonitrile	53	5.740	5.738	0.002	91	655074	8.00	8.83	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.021	96	1626595	8.00	8.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	1736390	8.00	8.49	
31 Methylene Chloride	84	5.983	5.978	0.005	96	694114	8.00	6.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	910177	8.00	8.09	
33 Carbon disulfide	76	6.134	6.133	0.001	99	2217616	8.00	8.57	
34 trans-1,2-Dichloroethene	96	6.797	6.788	0.009	98	864916	8.00	8.37	
35 2-Methylpentane	43	6.802	6.803	-0.001	97	2270807	8.00	8.28	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	2381188	8.00	8.54	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	1613695	8.00	8.23	
38 Vinyl acetate	43	7.331	7.328	0.003	100	2922060	8.00	8.54	
40 Hexane	56	7.800	7.796	0.004	78	705905	8.00	7.86	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	415513	8.00	7.92	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	3490545	8.00	8.19	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	903782	8.00	7.72	
43 Ethyl acetate	43	8.404	8.416	-0.012	98	2470352	8.00	8.15	
44 Chloroform	83	8.566	8.560	0.006	97	1952914	8.00	8.12	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	2939694	8.00	8.29	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	1194324	8.00	7.89	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	95	2171599	8.00	8.21	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	1336641	8.00	8.41	
50 n-Butanol	31	10.172	10.195	-0.023	89	529427	8.00	8.38	
51 Cyclohexane	69	10.210	10.210	0.000	89	431615	8.00	8.22	
49 Benzene	78	10.216	10.214	0.002	98	2831483	8.00	8.46	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	2471477	8.00	9.24	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	623415	8.00	8.27	
54 Thiophene	84	10.501	10.499	0.002	97	1481750	8.00	8.74	
55 Isooctane	57	10.997	10.995	0.002	98	4723123	8.00	8.45	
57 n-Heptane	71	11.391	11.387	0.004	95	1003783	8.00	8.60	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	88	1098818	8.00	8.52	
58 Trichloroethene	130	11.515	11.509	0.006	96	1272523	8.00	8.65	
59 Dibromomethane	93	11.601	11.595	0.006	95	1192726	8.00	8.74	
60 Dichlorobromomethane	83	11.752	11.746	0.006	98	2266175	8.00	9.15	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	439902	8.00	8.56	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	1602463	8.00	8.73	
63 Methylcyclohexane	83	12.292	12.288	0.004	93	1674440	8.00	8.70	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	2849090	8.00	8.70	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	97	1747199	8.00	9.04	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	98	1701957	8.00	9.01	
67 Toluene	91	13.597	13.593	0.004	93	3319430	8.00	8.49	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	1043886	8.00	8.61	
69 2-Hexanone	58	14.060	14.066	-0.006	90	1286641	8.00	8.89	
71 n-Octane	85	14.292	14.288	0.004	97	1087004	8.00	8.49	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	2602812	8.00	9.68	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	2118211	8.00	9.11	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	1347530	8.00	8.44	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	2756890	8.00	8.48	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	95	4021656	8.00	8.27	
76 Ethylbenzene	91	15.915	15.914	0.001	99	4848427	8.00	8.84	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	7462791	16.0	17.3	
81 n-Nonane	57	16.498	16.494	0.004	96	2439907	8.00	8.65	
78 Bromoform	173	16.530	16.525	0.005	96	2883880	8.00	12.0	
79 Styrene	104	16.546	16.543	0.003	99	2757815	8.00	9.30	
80 o-Xylene	91	16.606	16.602	0.004	99	3912982	8.00	8.65	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	2910298	8.00	9.14	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	930012	8.00	9.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	5876884	8.00	8.76	
85 N-Propylbenzene	120	17.749	17.745	0.004	99	1575530	8.00	9.24	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	1431553	8.00	8.81	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	6128184	8.00	9.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	2299646	8.00	9.02	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	2518203	8.00	10.3	
90 n-Decane	57	18.283	18.280	0.003	90	3340916	8.00	8.60	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	5297311	8.00	8.89	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	5278660	8.00	8.94	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	7686620	8.00	9.06	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	3534620	8.00	8.79	
96 Benzyl chloride	91	18.800	18.796	0.004	98	4731103	8.00	10.3	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	3569735	8.00	8.99	
97 4-Isopropyltoluene	119	18.876	18.871	0.005	97	6237349	8.00	9.10	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	5201556	8.00	8.95	
99 Butylcyclohexane	83	18.984	18.981	0.003	93	3867887	8.00	8.90	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	5013200	8.00	9.50	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	3650807	8.00	9.31	
102 Indene	116	19.318	19.314	0.004	90	4657904	8.00	9.78	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	6555104	8.00	9.29	
104 Undecane	57	19.641	19.638	0.003	95	4030320	8.00	8.80	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	2064543	8.00	10.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	6095231	8.00	9.27	
107 Dodecane	57	20.715	20.714	0.001	95	3951977	8.00	8.88	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	3415518	8.00	9.11	
109 Naphthalene	128	21.065	21.064	0.001	99	6971398	8.00	9.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	3455578	8.00	9.28	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	3191028	8.00	9.25	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	2133624	8.00	9.60	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	1853907	8.00	8.69	
A 115 C8 Range	1	14.292	(14.244-14.341)		0	11144655	8.00	8.60	
S 116 Xylenes, Total	100				0		24.0	26.0	
S 117 1,2-Dichloroethene, Total	1				0		16.0	16.1	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

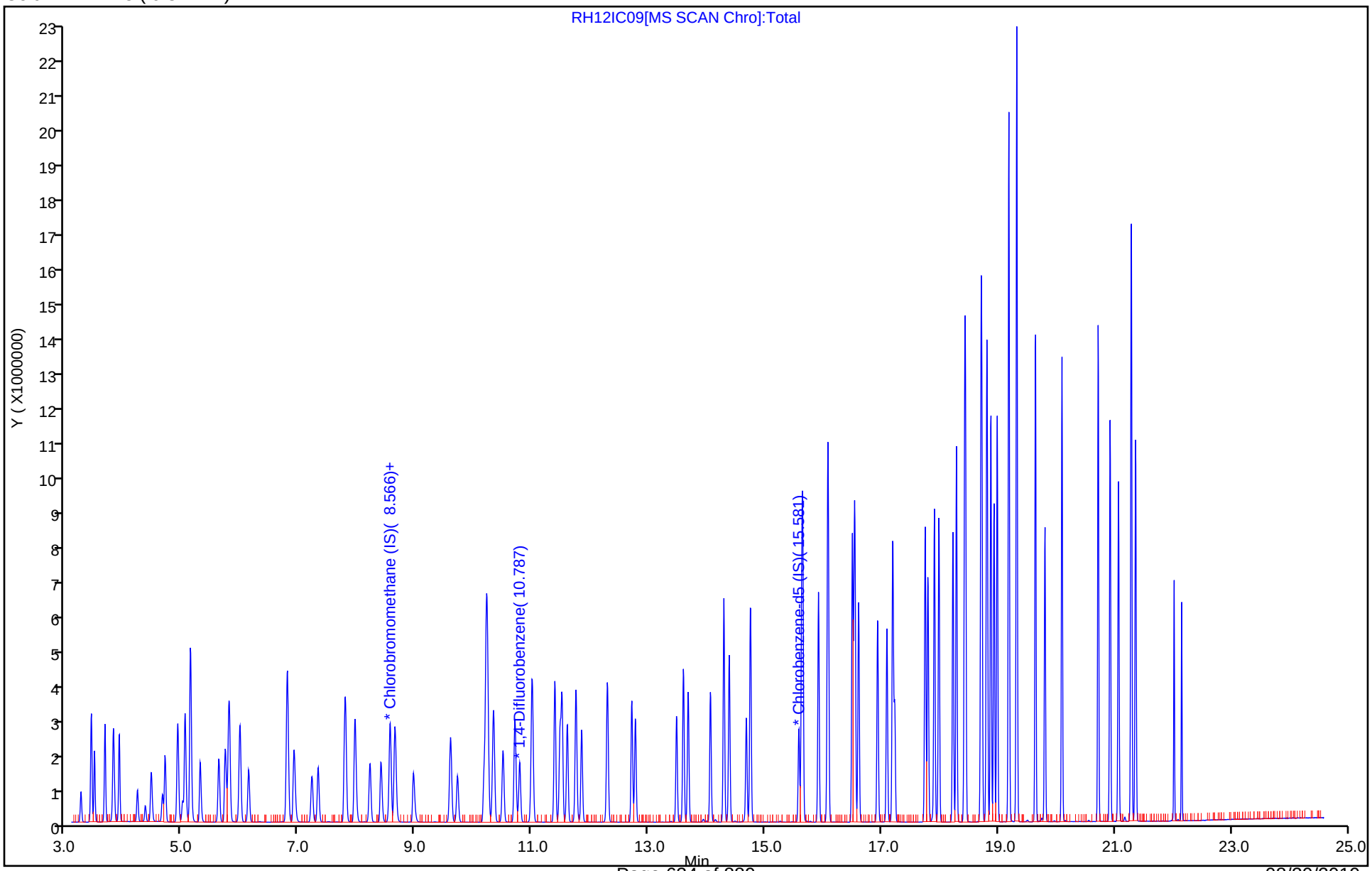
Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D

Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

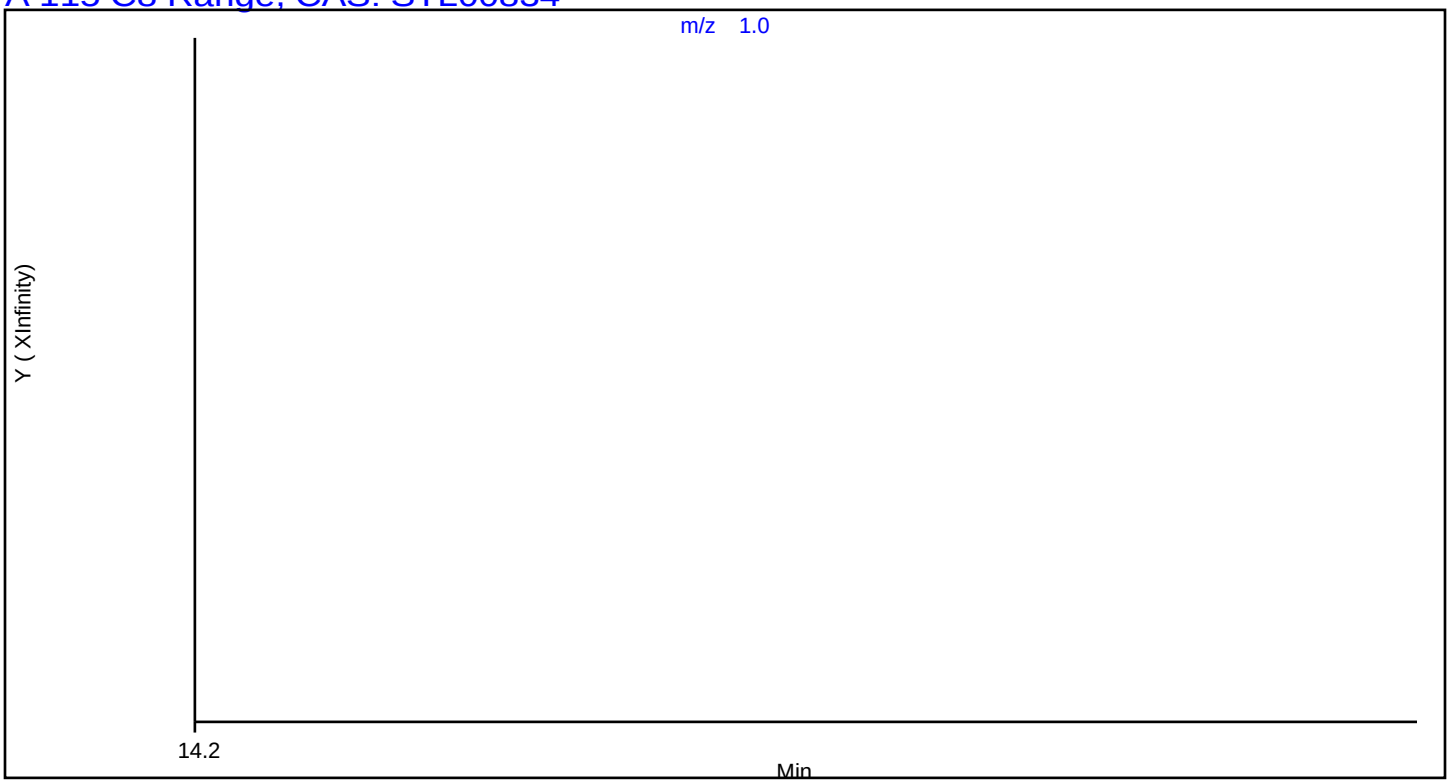


Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D				
Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	14	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 12-Aug-2019 15:13:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:32 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:39:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	98	331072	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.792	10.781	0.011	95	1796412	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1698772	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.226	17.221	0.005	94	1189880	4.00	4.06	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	3868393	16.0	13.7	
7 Propene	41	3.437	3.439	-0.002	99	2119366	16.0	13.5	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	3393984	16.0	13.3	
9 Chloromethane	52	3.664	3.665	-0.001	98	474731	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	1659392	16.0	12.8	
11 Acetaldehyde	44	3.809	3.817	-0.008	99	2832336	80.0	63.1	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	1441332	16.0	11.8	
13 Butadiene	54	3.912	3.913	-0.001	70	1166818	16.0	13.2	
14 Butane	43	3.912	3.914	-0.002	84	2251310	16.0	12.0	
15 Bromomethane	94	4.225	4.227	-0.002	96	1282109	16.0	12.4	
16 Chloroethane	64	4.359	4.359	0.000	92	604347	16.0	12.1	
17 Ethanol	31	4.467	4.464	0.003	99	3128166	80.0	69.6	
18 Vinyl bromide	106	4.656	4.656	0.000	97	1213472	16.0	14.1	
19 2-Methylbutane	43	4.705	4.699	0.005	92	1570512	16.0	11.2	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	4973718	16.0	15.6	
20 Acrolein	56	4.931	4.936	-0.005	98	585189	16.0	14.9	
24 Acetonitrile	40	5.006	5.001	0.005	98	902567	16.0	15.4	
22 Acetone	58	5.044	5.057	-0.013	99	2425956	48.0	44.2	
25 Pentane	72	5.136	5.138	-0.002	96	328949	16.0	15.6	
23 Isopropyl alcohol	45	5.147	5.149	-0.002	94	8514512	48.0	45.8	
26 Ethyl ether	31	5.303	5.319	-0.016	89	2610293	16.0	15.2	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	1715585	16.0	15.1	
28 Acrylonitrile	53	5.740	5.738	0.002	92	1448282	16.0	16.9	
29 2-Methyl-2-propanol	59	5.734	5.756	-0.022	96	3602839	16.0	15.7	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	3875490	16.0	16.4	
31 Methylene Chloride	84	5.982	5.978	0.004	96	1527458	16.0	13.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	95	1990321	16.0	15.3	
33 Carbon disulfide	76	6.133	6.133	0.000	100	4787033	16.0	16.0	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	1909632	16.0	16.0	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	4932630	16.0	15.5	
36 Methyl tert-butyl ether	73	6.910	6.934	-0.024	98	5191938	16.0	16.1	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	100	3451875	16.0	15.2	
38 Vinyl acetate	43	7.331	7.328	0.003	100	6358946	16.0	16.1	
40 Hexane	56	7.800	7.796	0.004	76	1582904	16.0	15.2	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	96	932661	16.0	15.4	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	7654437	16.0	15.5	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	95	1979693	16.0	14.6	
43 Ethyl acetate	43	8.409	8.416	-0.007	98	5400752	16.0	15.4	
44 Chloroform	83	8.571	8.560	0.011	98	4317049	16.0	15.5	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	96	6547011	16.0	16.0	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	93	2611278	16.0	14.9	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	94	4880217	16.0	15.9	
48 1,2-Dichloroethane	62	9.725	9.715	0.010	97	2896923	16.0	16.8	
50 n-Butanol	31	10.172	10.195	-0.023	66	1165521	16.0	17.0	
51 Cyclohexane	69	10.210	10.210	0.000	90	965096	16.0	16.9	
49 Benzene	78	10.216	10.214	0.002	97	6064258	16.0	16.7	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	5417313	16.0	18.6	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	1400003	16.0	17.1	
54 Thiophene	84	10.507	10.499	0.008	97	3335042	16.0	18.1	
55 Isooctane	57	11.003	10.995	0.008	98	10552510	16.0	17.4	
57 n-Heptane	71	11.396	11.387	0.009	94	2260833	16.0	17.8	
56 1,2-Dichloropropane	63	11.483	11.474	0.009	88	2458224	16.0	17.5	
58 Trichloroethene	130	11.515	11.509	0.006	96	2831772	16.0	17.7	
59 Dibromomethane	93	11.607	11.595	0.012	95	2629232	16.0	17.7	
60 Dichlorobromomethane	83	11.752	11.746	0.006	99	4971763	16.0	18.5	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	948586	16.0	17.0	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	3510561	16.0	17.6	
63 Methylcyclohexane	83	12.292	12.288	0.004	92	3734439	16.0	17.8	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	6323240	16.0	17.7	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	97	3911560	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.483	13.476	0.007	98	3868417	16.0	18.3	
67 Toluene	91	13.597	13.593	0.004	93	7282658	16.0	16.7	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	2245491	16.0	16.6	
69 2-Hexanone	58	14.060	14.066	-0.006	90	2871804	16.0	17.8	
71 n-Octane	85	14.292	14.288	0.004	96	2355321	16.0	16.4	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	5765814	16.0	19.2	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	4618343	16.0	17.8	
73 Tetrachloroethene	129	14.750	14.743	0.007	97	3052980	16.0	17.1	
74 Chlorobenzene	112	15.629	15.625	0.004	95	6391037	16.0	17.6	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	96	8293349	16.0	15.3	
76 Ethylbenzene	91	15.915	15.914	0.001	98	10423433	16.0	17.0	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	16680293	32.0	34.6	
81 n-Nonane	57	16.498	16.494	0.004	93	5441512	16.0	17.2	
78 Bromoform	173	16.530	16.525	0.005	97	6776174	16.0	25.2	
79 Styrene	104	16.546	16.543	0.003	99	6253157	16.0	18.9	
80 o-Xylene	91	16.605	16.602	0.003	99	8457498	16.0	16.7	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	6308078	16.0	17.7	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	1986065	16.0	17.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.193	17.187	0.006	96	12785204	16.0	17.0	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	3495935	16.0	18.3	e
86 2-Chlorotoluene	126	17.743	17.786	-0.043	97	2409758	16.0	13.3	e
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	12995264	16.0	17.4	e
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	5654785	16.0	20.7	
90 n-Decane	57	18.282	18.280	0.002	91	7099206	16.0	16.3	
91 tert-Butylbenzene	119	18.428	18.424	0.004	93	11832444	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	11579192	16.0	17.5	
94 sec-Butylbenzene	105	18.703	18.702	0.001	96	15544600	16.0	16.4	e
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	7935738	16.0	17.6	
96 Benzyl chloride	91	18.800	18.796	0.004	98	10790181	16.0	20.9	
95 1,4-Dichlorobenzene	146	18.816	18.810	0.006	95	8073237	16.0	18.2	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	13328935	16.0	17.4	e
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	11619317	16.0	17.9	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	8415289	16.0	17.3	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	10583764	16.0	17.9	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	7779620	16.0	17.7	
102 Indene	116	19.318	19.314	0.004	91	9949397	16.0	18.7	
103 n-Butylbenzene	91	19.323	19.318	0.005	98	13056864	16.0	16.6	e
104 Undecane	57	19.641	19.638	0.003	96	8319839	16.0	16.2	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	4656553	16.0	21.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	12471722	16.0	17.0	e
107 Dodecane	57	20.714	20.714	0.000	96	7339718	16.0	14.7	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	7089441	16.0	16.9	
109 Naphthalene	128	21.065	21.064	0.001	98	13497509	16.0	15.6	e
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	6466368	16.0	15.5	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	6241103	16.0	16.2	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	3791560	16.0	15.3	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	3107373	16.0	13.0	
A 115 C8 Range	1	14.297	(14.244-14.341)		0	23278410	16.0	16.5	
S 116 Xylenes, Total	100				0		48.0	51.4	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.6	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

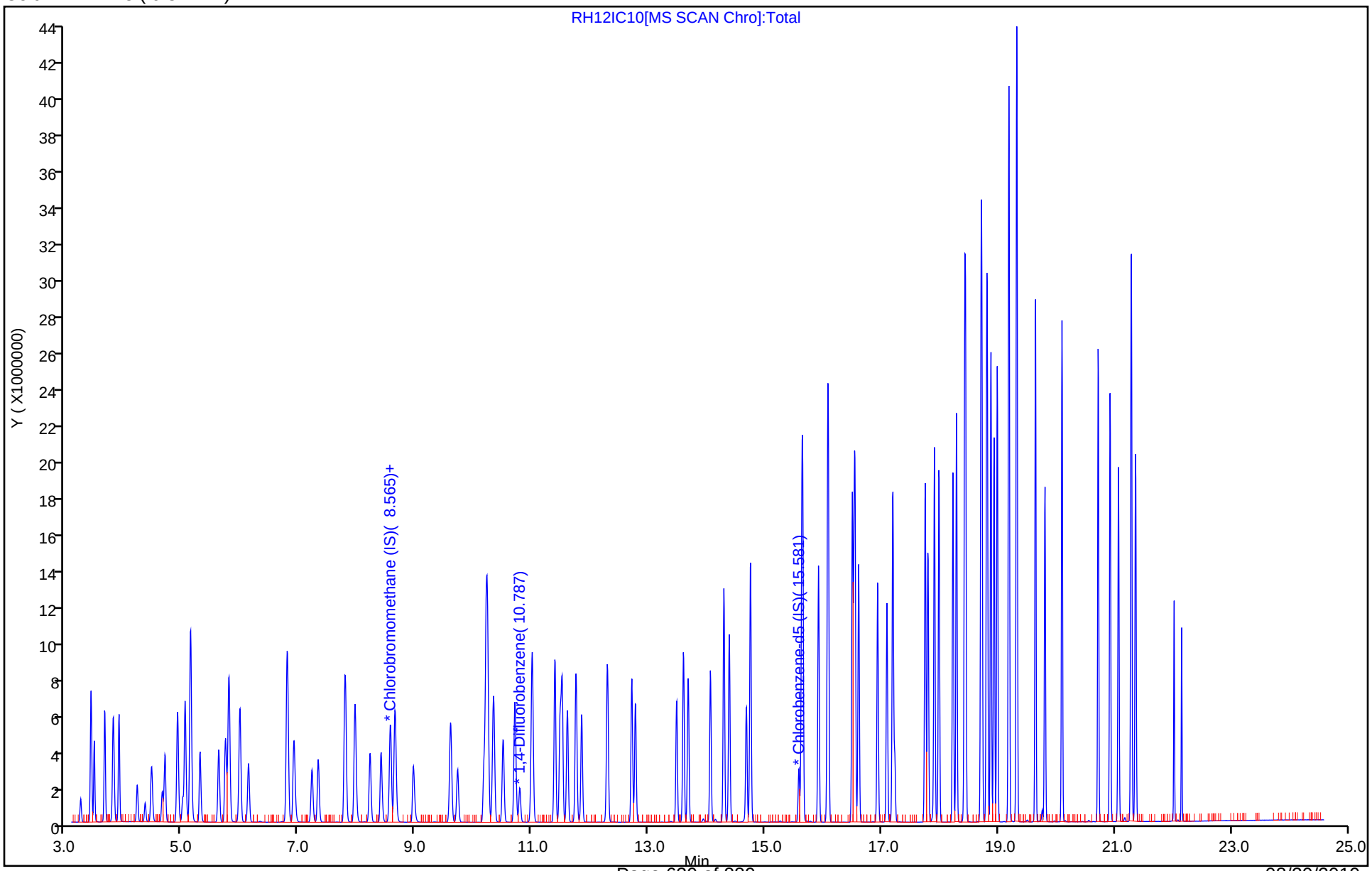
Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D

Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

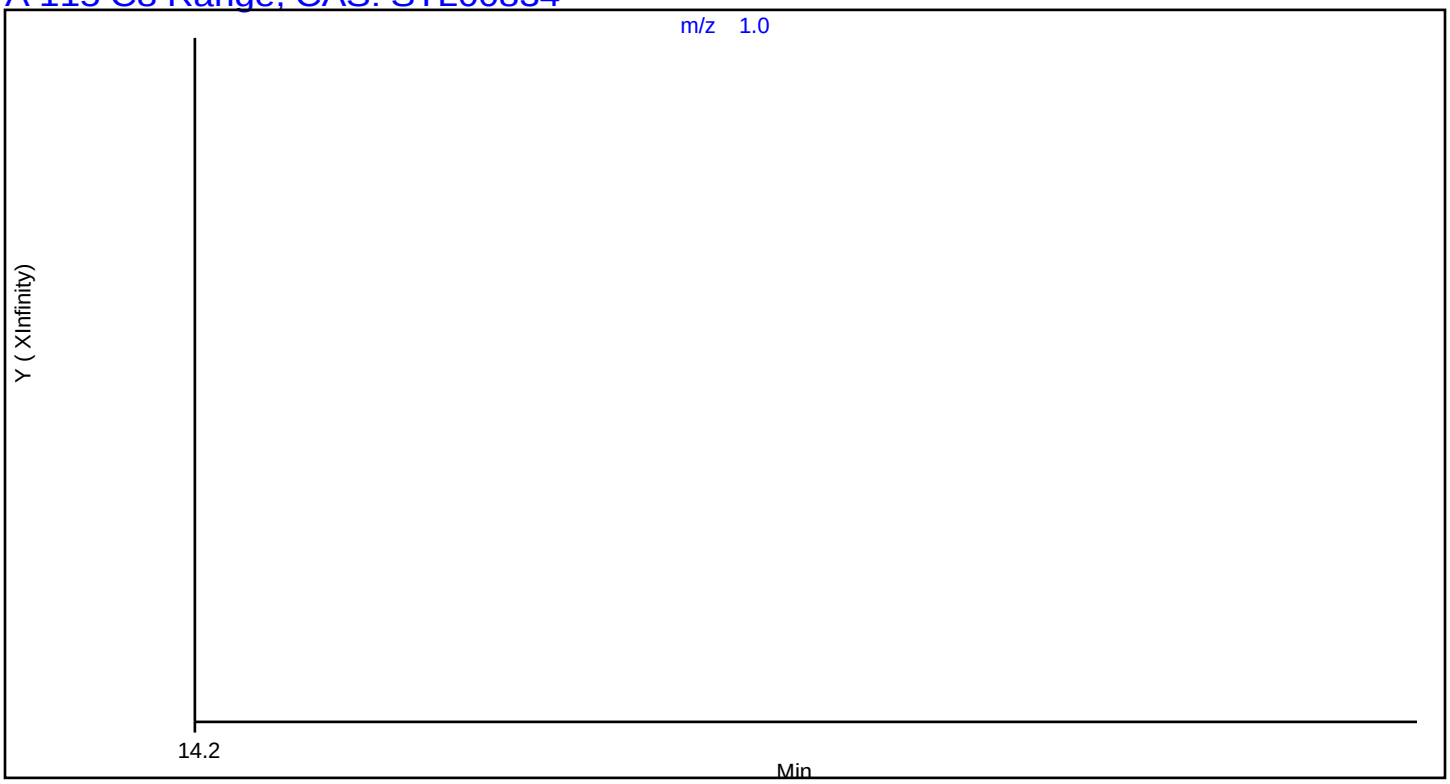


Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D				
Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Aug-2019 17:38:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:39 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	273227	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1657156	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1399213	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	930526	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	35	6169	0.0200	0.0264	
7 Propene	41	3.443	3.439	0.004	98	35147	0.0200	0.2714	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	93	6166	0.0200	0.0292	
9 Chloromethane	52	3.669	3.665	0.004	62	1201	0.0200	0.0378	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	78	5499	0.0200	0.0513	
11 Acetaldehyde	44	3.820	3.817	0.003	98	18977	0.1000	0.5120	
12 Vinyl chloride	62	3.836	3.831	0.005	31	2580	0.0200	0.0257	
13 Butadiene	54	3.907	3.913	-0.006	1	965	0.0200	0.0132	
14 Butane	43	3.917	3.914	0.003	79	5369	0.0200	0.0347	
15 Bromomethane	94	4.235	4.227	0.008	66	2455	0.0200	0.0288	
16 Chloroethane	64	4.354	4.359	-0.005	49	1273	0.0200	0.0309	
17 Ethanol	31	4.478	4.464	0.014	84	7056	0.1000	0.1902	
18 Vinyl bromide	106	4.667	4.656	0.011	29	1260	0.0200	0.0177	
19 2-Methylbutane	43	4.699	4.699	0.000	30	1403	0.0200	0.0122	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	97	5883	0.0200	0.0224	
20 Acrolein	56	4.953	4.936	0.017	35	2463	0.0200	0.0758	
24 Acetonitrile	40	4.990	5.001	-0.011	44	809	0.0200	0.0167	
22 Acetone	58	5.077	5.057	0.020	98	6860	0.0600	0.1513	
23 Isopropyl alcohol	45	5.174	5.149	0.025	90	11087	0.0600	0.0722	
26 Ethyl ether	31	5.341	5.319	0.022	40	3392	0.0200	0.0239	
27 1,1-Dichloroethene	96	5.643	5.626	0.017	26	2637	0.0200	0.0281	
28 Acrylonitrile	53	5.751	5.738	0.013	58	1333	0.0200	0.0188	
29 2-Methyl-2-propanol	59	5.805	5.756	0.049	79	4955	0.0200	0.0262	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	89	4101	0.0200	0.0210	
31 Methylene Chloride	84	5.983	5.978	0.005	97	13935	0.0200	0.1443	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	27	4618	0.0200	0.0429	
33 Carbon disulfide	76	6.128	6.133	-0.005	93	5847	0.0200	0.0237	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	86	2604	0.0200	0.0264	
35 2-Methylpentane	43	6.797	6.803	-0.006	84	7187	0.0200	0.0274	
36 Methyl tert-butyl ether	73	6.937	6.934	0.003	1	462	0.0200	0.001735	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	52	4013	0.0200	0.0214	
38 Vinyl acetate	43	7.325	7.328	-0.003	77	7381	0.0200	0.0226	
40 Hexane	56	7.800	7.796	0.004	52	1891	0.0200	0.0220	
39 2-Butanone (MEK)	72	7.843	7.797	0.046	33	1428	0.0200	0.0285	
41 Isopropyl ether	45	8.010	7.978	0.032	96	8726	0.0200	0.0214	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	31	2563	0.0200	0.0229	
43 Ethyl acetate	43	8.431	8.416	0.015	65	7334	0.0200	0.0253	
44 Chloroform	83	8.549	8.560	-0.011	27	5750	0.0200	0.0250	
45 Tert-butyl ethyl ether	59	8.711	8.665	0.046	42	6434	0.0200	0.0190	
46 Tetrahydrofuran	42	8.992	8.988	0.004	1	138	0.0200	0.000954	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	65	5135	0.0200	0.0203	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	45	4314	0.0200	0.0271	
50 n-Butanol	31	10.232	10.195	0.037	62	2174	0.0200	0.0343	
51 Cyclohexane	69	10.210	10.210	0.000	74	1435	0.0200	0.0272	
49 Benzene	78	10.221	10.214	0.007	92	8633	0.0200	0.0257	
52 Carbon tetrachloride	117	10.237	10.233	0.004	74	5735	0.0200	0.0214	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	88	1703	0.0200	0.0225	
54 Thiophene	84	10.501	10.499	0.002	6	1619	0.0200	0.009518	
55 Isooctane	57	10.992	10.995	-0.003	80	6405	0.0200	0.0114	
57 n-Heptane	71	11.386	11.387	-0.001	91	2945	0.0200	0.0252	
56 1,2-Dichloropropane	63	11.472	11.474	-0.002	55	4135	0.0200	0.0320	
58 Trichloroethene	130	11.504	11.509	-0.005	64	3253	0.0200	0.0220	
59 Dibromomethane	93	11.591	11.595	-0.004	86	3434	0.0200	0.0251	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	57	5155	0.0200	0.0208	
61 1,4-Dioxane	88	11.823	11.781	0.042	39	903	0.0200	0.0175	
62 Methyl methacrylate	41	11.855	11.850	0.005	37	4095	0.0200	0.0222	
63 Methylcyclohexane	83	12.286	12.288	-0.002	84	4324	0.0200	0.0224	
64 4-Methyl-2-pentanone (MIBK	43	12.739	12.718	0.021	92	7697	0.0200	0.0234	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	83	5183	0.0200	0.0267	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	37	3504	0.0200	0.0201	
67 Toluene	91	13.597	13.593	0.004	94	9203	0.0200	0.0256	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	94	2738	0.0200	0.0245	
69 2-Hexanone	58	14.077	14.066	0.011	85	2554	0.0200	0.0192	
71 n-Octane	85	14.281	14.288	-0.007	94	3106	0.0200	0.0263	
70 Chlorodibromomethane	129	14.379	14.379	-0.001	95	5540	0.0200	0.0224	
72 Ethylene Dibromide	107	14.675	14.674	0.001	85	4741	0.0200	0.0221	
73 Tetrachloroethene	129	14.745	14.743	0.002	89	3610	0.0200	0.0246	
74 Chlorobenzene	112	15.630	15.625	0.005	83	7184	0.0200	0.0240	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	9947	0.0200	0.0222	
76 Ethylbenzene	91	15.915	15.914	0.001	97	12124	0.0200	0.0240	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	94	17297	0.0400	0.0436	
81 n-Nonane	57	16.498	16.494	0.004	92	5561	0.0200	0.0214	
78 Bromoform	173	16.525	16.525	0.000	72	4269	0.0200	0.0193	
79 Styrene	104	16.546	16.543	0.003	76	4130	0.0200	0.0151	
80 o-Xylene	91	16.600	16.602	-0.002	95	9841	0.0200	0.0236	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	94	7091	0.0200	0.0242	
83 1,2,3-Trichloropropane	110	17.080	17.086	-0.006	88	2219	0.0200	0.0239	
84 Isopropylbenzene	105	17.183	17.187	-0.004	84	14868	0.0200	0.0241	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	3076	0.0200	0.0196	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 2-Chlorotoluene	126	17.797	17.786	0.011	94	2915	0.0200	0.0195	
88 4-Ethyltoluene	105	17.905	17.902	0.003	97	12586	0.0200	0.0204	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	87	4843	0.0200	0.0206	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	4065	0.0200	0.0181	
90 n-Decane	57	18.277	18.280	-0.003	88	6600	0.0200	0.0185	
91 tert-Butylbenzene	119	18.428	18.424	0.004	94	10200	0.0200	0.0186	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	78	10364	0.0200	0.0191	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	98	15444	0.0200	0.0198	
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	91	7920	0.0200	0.0214	
96 Benzyl chloride	91	18.789	18.796	-0.007	81	7779	0.0200	0.0183	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	89	7186	0.0200	0.0197	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	12499	0.0200	0.0198	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	93	10609	0.0200	0.0198	
99 Butylcyclohexane	83	18.984	18.981	0.003	77	7059	0.0200	0.0176	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	9400	0.0200	0.0193	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	7298	0.0200	0.0202	
102 Indene	116	19.313	19.314	-0.001	79	7584	0.0200	0.0173	
103 n-Butylbenzene	91	19.318	19.318	0.000	93	12293	0.0200	0.0189	
104 Undecane	57	19.636	19.638	-0.002	87	7662	0.0200	0.0182	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	81	3485	0.0200	0.0197	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	12243	0.0200	0.0202	
107 Dodecane	57	20.709	20.714	-0.005	81	6880	0.0200	0.0168	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	91	7729	0.0200	0.0224	
109 Naphthalene	128	21.060	21.064	-0.004	98	15438	0.0200	0.0217	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	89	7410	0.0200	0.0216	
111 1,2,3-Trichlorobenzene	180	21.351	21.356	-0.005	93	9298	0.0200	0.0293	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	97	6448	0.0200	0.0315	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	96	7979	0.0200	0.0406	
A 115 C8 Range	1	14.300	(14.260-14.325)		0	34007	0.0200	0.0262	
S 116 Xylenes, Total	100				0		0.0600	0.0673	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0493	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

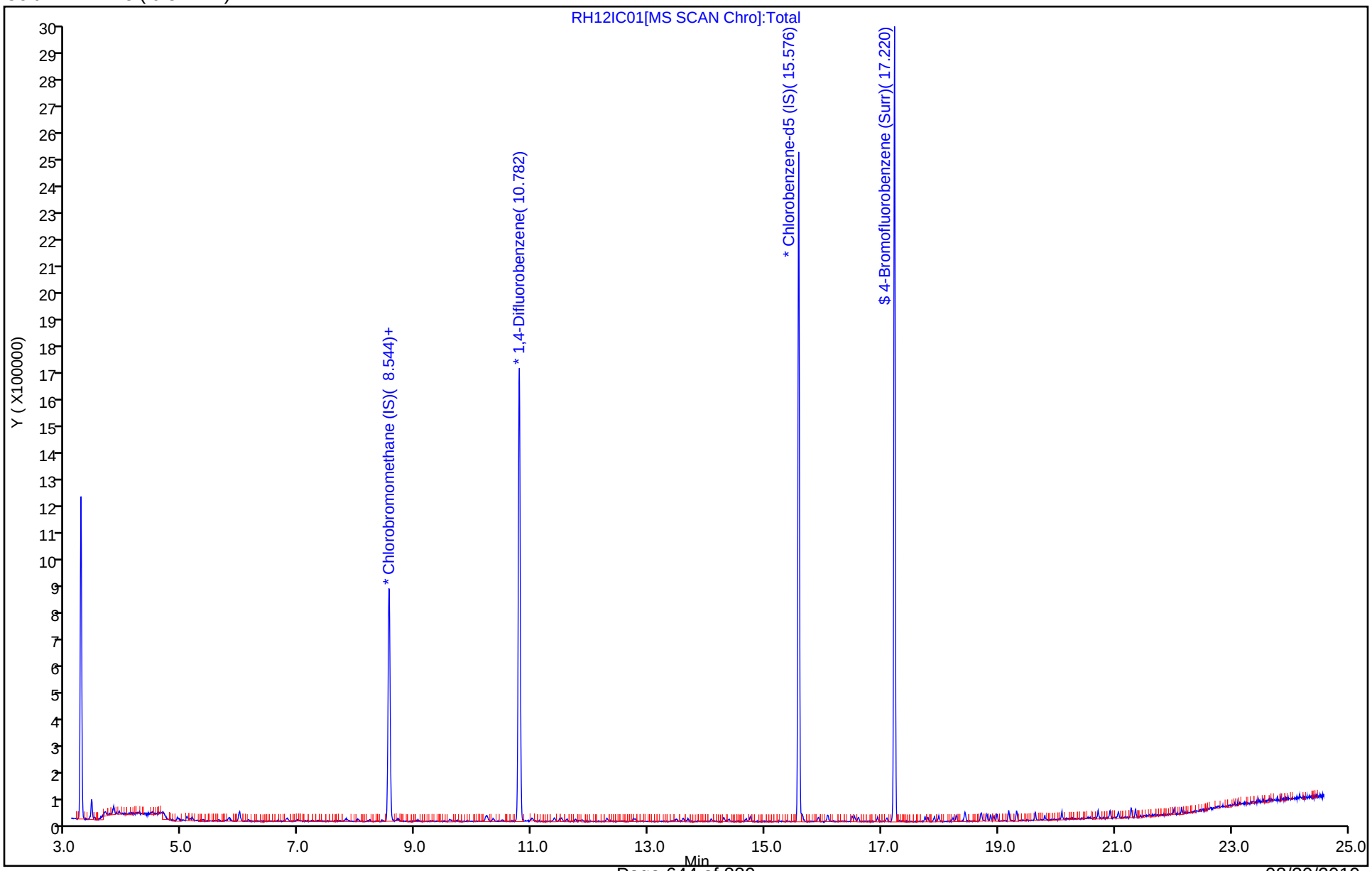
Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D

Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

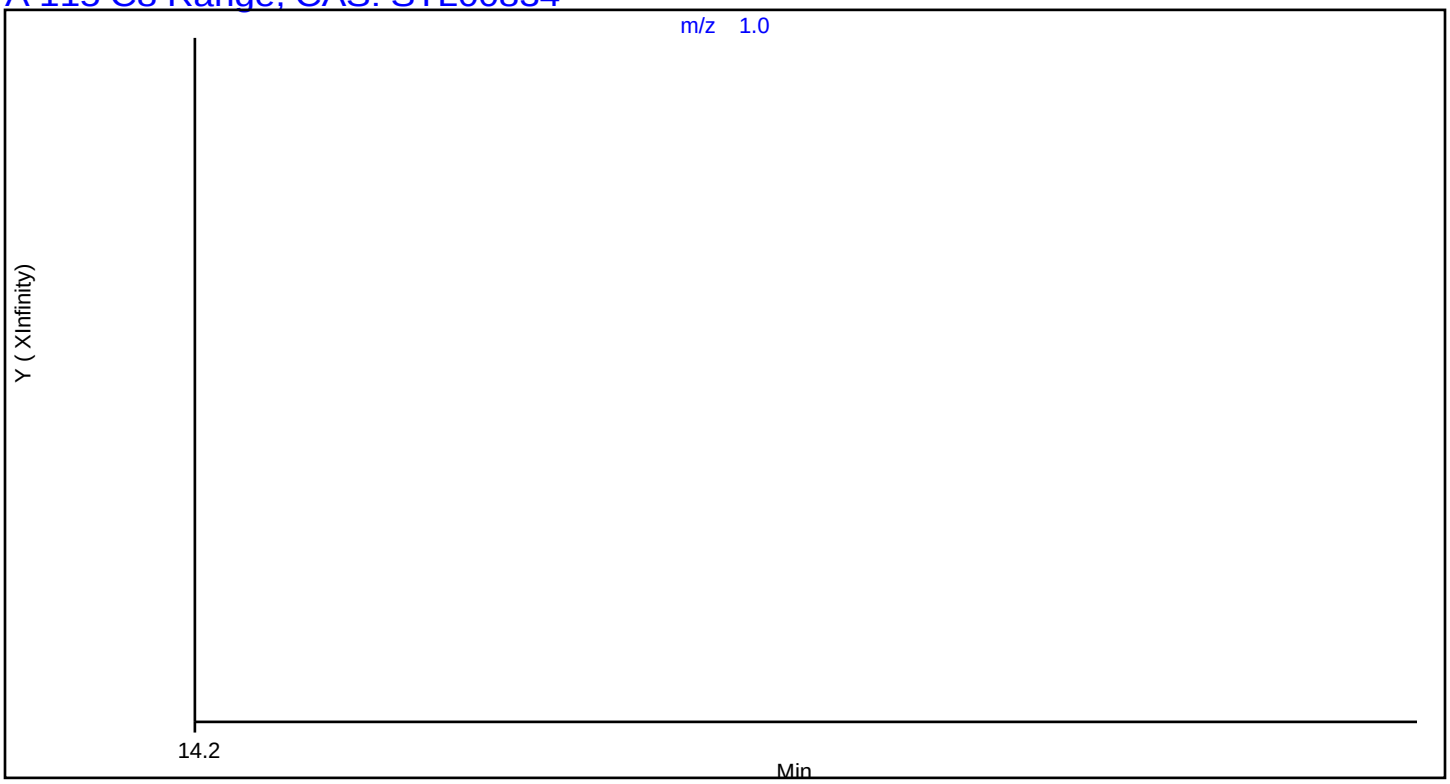


Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D				
Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Aug-2019 18:26:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:44 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:49:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	240951	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.777	10.781	-0.004	95	1473828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1287037	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	875394	4.00	3.95	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	48	9535	0.0400	0.0463	
7 Propene	41	3.432	3.439	-0.007	97	36666	0.0400	0.3210	
8 Dichlorodifluoromethane	85	3.481	3.489	-0.008	90	9042	0.0400	0.0485	
9 Chloromethane	52	3.659	3.665	-0.006	95	3186	0.0400	0.1138	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.659	3.669	-0.010	83	7157	0.0400	0.0758	
11 Acetaldehyde	44	3.820	3.817	0.003	92	22643	0.2000	0.6927	
12 Vinyl chloride	62	3.837	3.831	0.006	39	4572	0.0400	0.0516	
13 Butadiene	54	3.907	3.913	-0.006	68	4317	0.0400	0.0671	
14 Butane	43	3.912	3.914	-0.002	80	6815	0.0400	0.0500	
15 Bromomethane	94	4.230	4.227	0.003	87	3387	0.0400	0.0451	
16 Chloroethane	64	4.354	4.359	-0.005	49	1717	0.0400	0.0473	
17 Ethanol	31	4.467	4.464	0.003	74	6705	0.2000	0.2050	
18 Vinyl bromide	106	4.656	4.656	0.000	63	4274	0.0400	0.0681	
19 2-Methylbutane	43	4.689	4.699	-0.010	76	6141	0.0400	0.0604	
21 Trichlorofluoromethane	101	4.910	4.915	-0.005	97	8941	0.0400	0.0386	
20 Acrolein	56	4.931	4.936	-0.005	41	3875	0.0400	0.1352	
24 Acetonitrile	40	5.007	5.001	0.006	69	535	0.0400	0.0125	
22 Acetone	58	5.071	5.057	0.014	99	10977	0.1200	0.2746	
25 Pentane	72	5.142	5.138	0.004	3	364	0.0400	0.0238	
23 Isopropyl alcohol	45	5.163	5.149	0.014	91	17979	0.1200	0.1328	
26 Ethyl ether	31	5.325	5.319	0.006	76	4956	0.0400	0.0396	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	89	4055	0.0400	0.0489	
28 Acrylonitrile	53	5.735	5.738	-0.003	71	2350	0.0400	0.0376	
29 2-Methyl-2-propanol	59	5.778	5.756	0.022	76	7739	0.0400	0.0463	
30 1,1,2-Trichloro-1,2,2-trif	101	5.805	5.798	0.007	90	4530	0.0400	0.0263	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	14484	0.0400	0.1701	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.990	-0.013	36	6566	0.0400	0.0692	
33 Carbon disulfide	76	6.123	6.133	-0.010	63	8103	0.0400	0.0372	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	61	3809	0.0400	0.0437	
35 2-Methylpentane	43	6.808	6.803	0.005	95	11454	0.0400	0.0496	
36 Methyl tert-butyl ether	73	6.964	6.934	0.030	53	5614	0.0400	0.0239	
37 1,1-Dichloroethane	63	7.207	7.217	-0.010	9	7026	0.0400	0.0425	
38 Vinyl acetate	43	7.331	7.328	0.003	99	12777	0.0400	0.0443	
40 Hexane	56	7.795	7.796	-0.001	82	3187	0.0400	0.0421	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	83	1847	0.0400	0.0418	
41 Isopropyl ether	45	8.005	7.978	0.027	97	15231	0.0400	0.0424	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	91	4771	0.0400	0.0484	
43 Ethyl acetate	43	8.431	8.416	0.015	88	12131	0.0400	0.0475	
44 Chloroform	83	8.555	8.560	-0.005	28	9330	0.0400	0.0460	
45 Tert-butyl ethyl ether	59	8.684	8.665	0.019	94	12225	0.0400	0.0409	
46 Tetrahydrofuran	42	9.029	8.988	0.041	93	5933	0.0400	0.0465	
47 1,1,1-Trichloroethane	97	9.596	9.597	-0.001	89	10000	0.0400	0.0449	
48 1,2-Dichloroethane	62	9.720	9.715	0.005	46	5704	0.0400	0.0402	
50 n-Butanol	31	10.221	10.195	0.026	62	2845	0.0400	0.0505	
51 Cyclohexane	69	10.216	10.210	0.006	75	2105	0.0400	0.0449	
49 Benzene	78	10.210	10.214	-0.004	92	12714	0.0400	0.0426	
52 Carbon tetrachloride	117	10.237	10.233	0.004	82	8340	0.0400	0.0349	
53 2,3-Dimethylpentane	71	10.318	10.330	-0.012	87	2071	0.0400	0.0308	
54 Thiophene	84	10.502	10.499	0.003	86	2007	0.0400	0.0133	
55 Isooctane	57	10.987	10.995	-0.008	76	9874	0.0400	0.0198	
57 n-Heptane	71	11.380	11.387	-0.007	90	3898	0.0400	0.0374	
56 1,2-Dichloropropane	63	11.461	11.474	-0.013	62	4493	0.0400	0.0391	
58 Trichloroethene	130	11.510	11.509	0.001	87	4791	0.0400	0.0365	
59 Dibromomethane	93	11.591	11.595	-0.004	93	5749	0.0400	0.0472	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	92	8337	0.0400	0.0377	
61 1,4-Dioxane	88	11.796	11.781	0.015	27	1378	0.0400	0.0300	
62 Methyl methacrylate	41	11.850	11.850	0.000	50	6839	0.0400	0.0418	
63 Methylcyclohexane	83	12.286	12.288	-0.002	83	6242	0.0400	0.0364	
64 4-Methyl-2-pentanone (MIBK	43	12.729	12.718	0.011	75	11686	0.0400	0.0400	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	49	6968	0.0400	0.0404	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	96	6602	0.0400	0.0412	
67 Toluene	91	13.591	13.593	-0.002	94	11848	0.0400	0.0358	
68 1,1,2-Trichloroethane	83	13.683	13.674	0.009	89	4096	0.0400	0.0399	
69 2-Hexanone	58	14.077	14.066	0.011	88	4082	0.0400	0.0333	
71 n-Octane	85	14.292	14.288	0.004	92	4629	0.0400	0.0427	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	7768	0.0400	0.0341	
72 Ethylene Dibromide	107	14.675	14.674	0.001	93	7387	0.0400	0.0375	
73 Tetrachloroethene	129	14.735	14.743	-0.008	89	5547	0.0400	0.0410	
74 Chlorobenzene	112	15.619	15.625	-0.006	37	10958	0.0400	0.0398	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	16859	0.0400	0.0409	
76 Ethylbenzene	91	15.915	15.914	0.001	99	17826	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	95	25689	0.0800	0.0704	
81 n-Nonane	57	16.492	16.494	-0.002	91	9320	0.0400	0.0390	
78 Bromoform	173	16.519	16.525	-0.006	93	6218	0.0400	0.0305	
79 Styrene	104	16.546	16.543	0.003	93	8344	0.0400	0.0332	
80 o-Xylene	91	16.600	16.602	-0.002	97	14039	0.0400	0.0367	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	9624	0.0400	0.0357	
83 1,2,3-Trichloropropane	110	17.075	17.086	-0.011	92	2896	0.0400	0.0339	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.187	-0.004	87	22539	0.0400	0.0397	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	4793	0.0400	0.0332	
86 2-Chlorotoluene	126	17.781	17.786	-0.005	95	4980	0.0400	0.0362	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	21180	0.0400	0.0374	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	7772	0.0400	0.0360	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	6125	0.0400	0.0296	
90 n-Decane	57	18.277	18.280	-0.003	86	12151	0.0400	0.0369	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	19707	0.0400	0.0390	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	94	18855	0.0400	0.0377	
94 sec-Butylbenzene	105	18.703	18.702	0.001	98	27584	0.0400	0.0384	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	14076	0.0400	0.0413	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	13242	0.0400	0.0339	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	89	12727	0.0400	0.0379	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	22669	0.0400	0.0391	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	16683	0.0400	0.0339	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	13926	0.0400	0.0378	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	92	15512	0.0400	0.0347	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	12106	0.0400	0.0365	
102 Indene	116	19.318	19.314	0.004	74	13962	0.0400	0.0346	
103 n-Butylbenzene	91	19.318	19.318	0.000	95	25040	0.0400	0.0419	
104 Undecane	57	19.636	19.638	-0.002	92	13911	0.0400	0.0358	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	85	4732	0.0400	0.0291	
106 1,2,4,5-Tetramethylbenzene	119	20.095	20.094	0.001	96	21801	0.0400	0.0391	
107 Dodecane	57	20.715	20.714	0.001	88	12479	0.0400	0.0331	
108 1,2,4-Trichlorobenzene	180	20.925	20.920	0.005	94	11775	0.0400	0.0371	
109 Naphthalene	128	21.065	21.064	0.001	99	26992	0.0400	0.0412	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	93	12204	0.0400	0.0387	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	90	10787	0.0400	0.0369	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	96	7027	0.0400	0.0373	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	10180	0.0400	0.0563	
A 115 C8 Range	1	14.282	(14.249-14.314)		0	50038	0.0400	0.0433	
S 116 Xylenes, Total	100				0		0.1200	0.1071	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0921	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

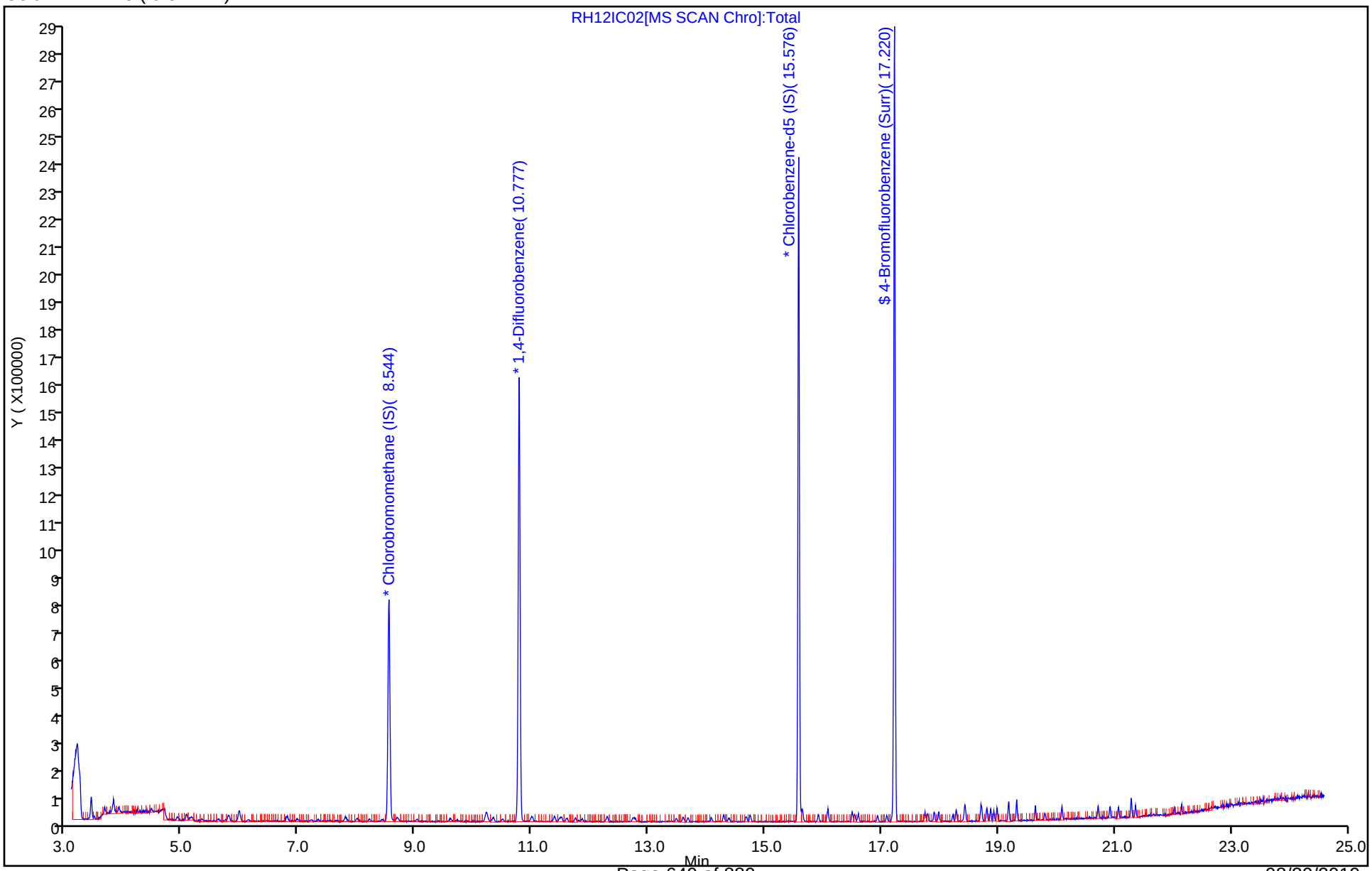
Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D

Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

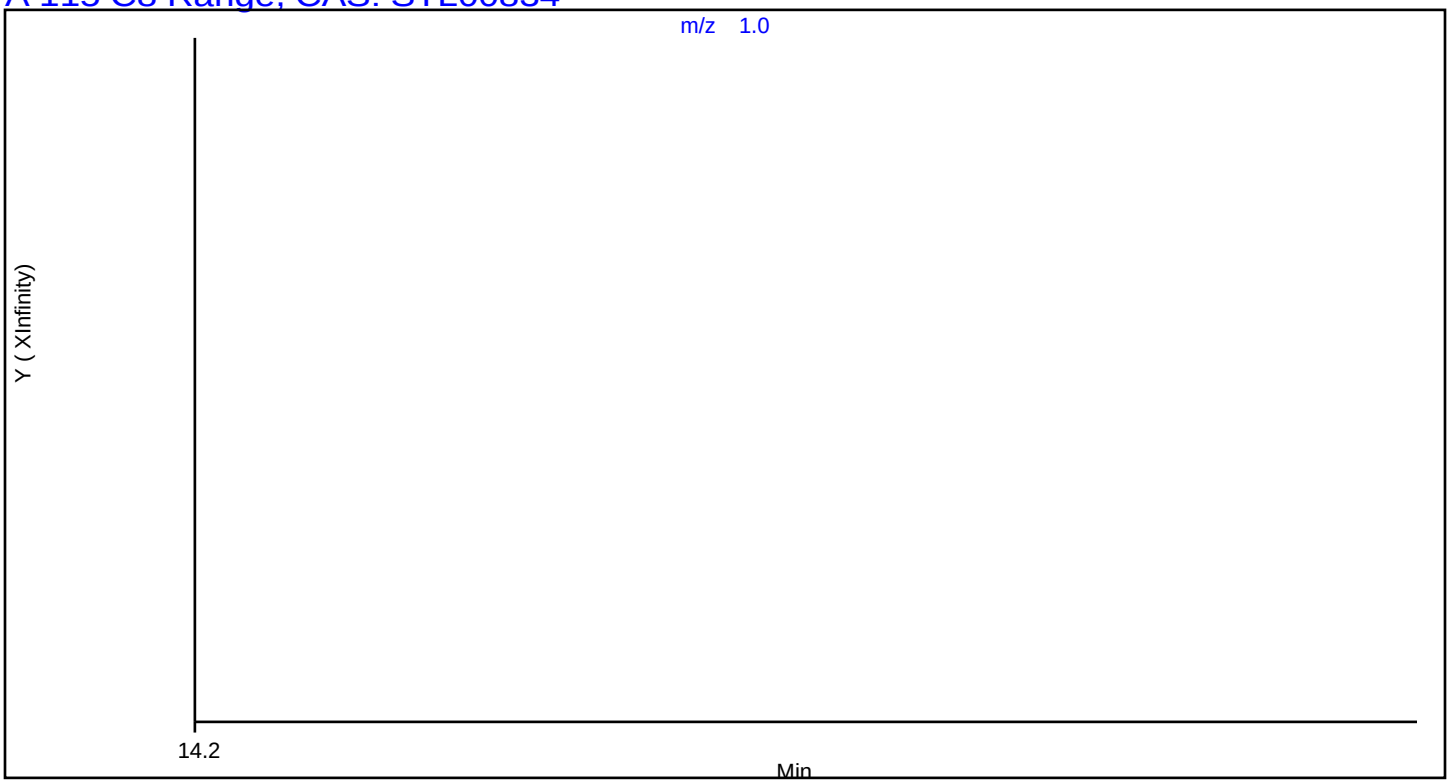


Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D				
Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Aug-2019 19:15:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:50 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:39:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.551	-0.007	97	238260	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1462098	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1307797	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	871146	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	84	17104	0.0800	0.0840	
7 Propene	41	3.448	3.439	0.009	98	40013	0.0800	0.3543	
8 Dichlorodifluoromethane	85	3.497	3.489	0.008	99	13627	0.0800	0.0740	
9 Chloromethane	52	3.669	3.665	0.004	93	4474	0.0800	0.1616	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	8302	0.0800	0.0889	
11 Acetaldehyde	44	3.826	3.817	0.009	99	53243	0.4000	1.65	
12 Vinyl chloride	62	3.836	3.831	0.005	36	8343	0.0800	0.0951	
13 Butadiene	54	3.917	3.913	0.004	64	7432	0.0800	0.1168	
14 Butane	43	3.917	3.914	0.003	88	14738	0.0800	0.1094	
15 Bromomethane	94	4.225	4.227	-0.002	71	8093	0.0800	0.1089	
16 Chloroethane	64	4.359	4.359	0.000	69	4278	0.0800	0.1192	
17 Ethanol	31	4.462	4.464	-0.002	41	8773	0.4000	0.2713	
18 Vinyl bromide	106	4.661	4.656	0.005	87	6047	0.0800	0.0975	
19 2-Methylbutane	43	4.699	4.699	0.000	88	10330	0.0800	0.1027	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	98	18776	0.0800	0.0820	
20 Acrolein	56	4.953	4.936	0.017	56	5537	0.0800	0.1954	
24 Acetonitrile	40	5.007	5.001	0.005	88	2524	0.0800	0.0598	
22 Acetone	58	5.071	5.057	0.014	99	18045	0.2400	0.4565	
23 Isopropyl alcohol	45	5.163	5.149	0.014	96	30173	0.2400	0.2254	
26 Ethyl ether	31	5.335	5.319	0.016	81	10342	0.0800	0.0835	
27 1,1-Dichloroethene	96	5.632	5.626	0.006	94	6464	0.0800	0.0789	
28 Acrylonitrile	53	5.740	5.738	0.002	67	3782	0.0800	0.0612	
29 2-Methyl-2-propanol	59	5.783	5.756	0.027	83	14220	0.0800	0.0861	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	12898	0.0800	0.0757	
31 Methylene Chloride	84	5.983	5.978	0.005	96	17663	0.0800	0.2097	
32 3-Chloro-1-propene	39	5.993	5.990	0.003	72	8996	0.0800	0.0959	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.139	6.133	0.006	98	16332	0.0800	0.0758	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	90	5797	0.0800	0.0673	
35 2-Methylpentane	43	6.808	6.803	0.005	92	17316	0.0800	0.0758	
36 Methyl tert-butyl ether	73	6.959	6.934	0.025	95	15453	0.0800	0.0666	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	98	12145	0.0800	0.0743	
38 Vinyl acetate	43	7.341	7.328	0.013	99	20932	0.0800	0.0734	
40 Hexane	56	7.794	7.796	-0.002	72	6114	0.0800	0.0817	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	96	4367	0.0800	0.0999	
41 Isopropyl ether	45	7.994	7.978	0.016	96	27616	0.0800	0.0778	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	92	8632	0.0800	0.0885	
43 Ethyl acetate	43	8.431	8.416	0.015	96	19988	0.0800	0.0791	
44 Chloroform	83	8.555	8.560	-0.005	29	16201	0.0800	0.0808	
45 Tert-butyl ethyl ether	59	8.679	8.665	0.014	96	22608	0.0800	0.0766	
46 Tetrahydrofuran	42	9.018	8.988	0.030	93	11583	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	96	17062	0.0800	0.0774	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	92	11547	0.0800	0.0821	
50 n-Butanol	31	10.210	10.195	0.015	68	4413	0.0800	0.0789	
51 Cyclohexane	69	10.216	10.210	0.006	74	2617	0.0800	0.0563	
49 Benzene	78	10.216	10.214	0.002	93	21586	0.0800	0.0729	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	86	15774	0.0800	0.0666	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	90	5547	0.0800	0.0832	
54 Thiophene	84	10.501	10.499	0.002	90	8334	0.0800	0.0555	
55 Isooctane	57	10.992	10.995	-0.003	97	36777	0.0800	0.0743	
57 n-Heptane	71	11.391	11.387	0.004	93	8204	0.0800	0.0794	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	64	9787	0.0800	0.0858	
58 Trichloroethene	130	11.515	11.509	0.006	91	10022	0.0800	0.0770	
59 Dibromomethane	93	11.596	11.595	0.001	91	9109	0.0800	0.0754	
60 Dichlorobromomethane	83	11.747	11.746	0.001	95	15440	0.0800	0.0704	
61 1,4-Dioxane	88	11.806	11.781	0.025	49	3473	0.0800	0.0763	
62 Methyl methacrylate	41	11.855	11.850	0.005	90	12240	0.0800	0.0753	
63 Methylcyclohexane	83	12.297	12.288	0.009	86	12553	0.0800	0.0737	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	97	22225	0.0800	0.0766	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	94	12719	0.0800	0.0743	
66 trans-1,3-Dichloropropene	75	13.467	13.476	-0.009	92	11493	0.0800	0.0707	
67 Toluene	91	13.591	13.593	-0.002	95	25408	0.0800	0.0755	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	7791	0.0800	0.0747	
69 2-Hexanone	58	14.071	14.066	0.005	90	8340	0.0800	0.0670	
71 n-Octane	85	14.281	14.288	-0.007	95	8484	0.0800	0.0770	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	14768	0.0800	0.0638	
72 Ethylene Dibromide	107	14.675	14.674	0.001	95	13260	0.0800	0.0663	
73 Tetrachloroethene	129	14.740	14.743	-0.003	84	10036	0.0800	0.0730	
74 Chlorobenzene	112	15.629	15.625	0.004	94	19939	0.0800	0.0713	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	32761	0.0800	0.0783	
76 Ethylbenzene	91	15.915	15.914	0.001	99	33477	0.0800	0.0709	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	96	54397	0.1600	0.1468	
81 n-Nonane	57	16.498	16.494	0.004	93	16849	0.0800	0.0694	
78 Bromoform	173	16.525	16.525	0.000	93	12693	0.0800	0.0612	
79 Styrene	104	16.541	16.543	-0.002	94	16365	0.0800	0.0641	
80 o-Xylene	91	16.606	16.602	0.004	98	26230	0.0800	0.0674	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	97	18858	0.0800	0.0688	
83 1,2,3-Trichloropropane	110	17.096	17.086	0.010	95	5924	0.0800	0.0682	
84 Isopropylbenzene	105	17.188	17.187	0.001	93	40179	0.0800	0.0696	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	98	9798	0.0800	0.0667	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	10534	0.0800	0.0753	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	42363	0.0800	0.0736	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	15853	0.0800	0.0722	
89 Alpha Methyl Styrene	118	18.218	18.223	-0.005	88	13366	0.0800	0.0635	
90 n-Decane	57	18.283	18.280	0.003	89	25144	0.0800	0.0752	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	89	35611	0.0800	0.0694	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	37839	0.0800	0.0744	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	53220	0.0800	0.0729	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	25042	0.0800	0.0723	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	25427	0.0800	0.0640	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	27287	0.0800	0.0799	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	96	42494	0.0800	0.0721	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	36284	0.0800	0.0725	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	27467	0.0800	0.0734	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33349	0.0800	0.0734	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	24634	0.0800	0.0730	
102 Indene	116	19.312	19.314	-0.002	98	27720	0.0800	0.0676	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	43509	0.0800	0.0717	
104 Undecane	57	19.641	19.638	0.003	93	27220	0.0800	0.0690	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	87	10162	0.0800	0.0614	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	96	39484	0.0800	0.0698	
107 Dodecane	57	20.714	20.714	0.000	90	26195	0.0800	0.0684	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	92	24678	0.0800	0.0765	
109 Naphthalene	128	21.065	21.064	0.001	99	53409	0.0800	0.0802	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	91	23134	0.0800	0.0722	
111 1,2,3-Trichlorobenzene	180	21.362	21.356	0.006	93	21407	0.0800	0.0721	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	93	12987	0.0800	0.0679	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	17746	0.0800	0.0966	
A 115 C8 Range	1	14.287	(14.249-14.325)		0	90033	0.0800	0.0785	
S 116 Xylenes, Total	100				0		0.2400	0.2142	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1558	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

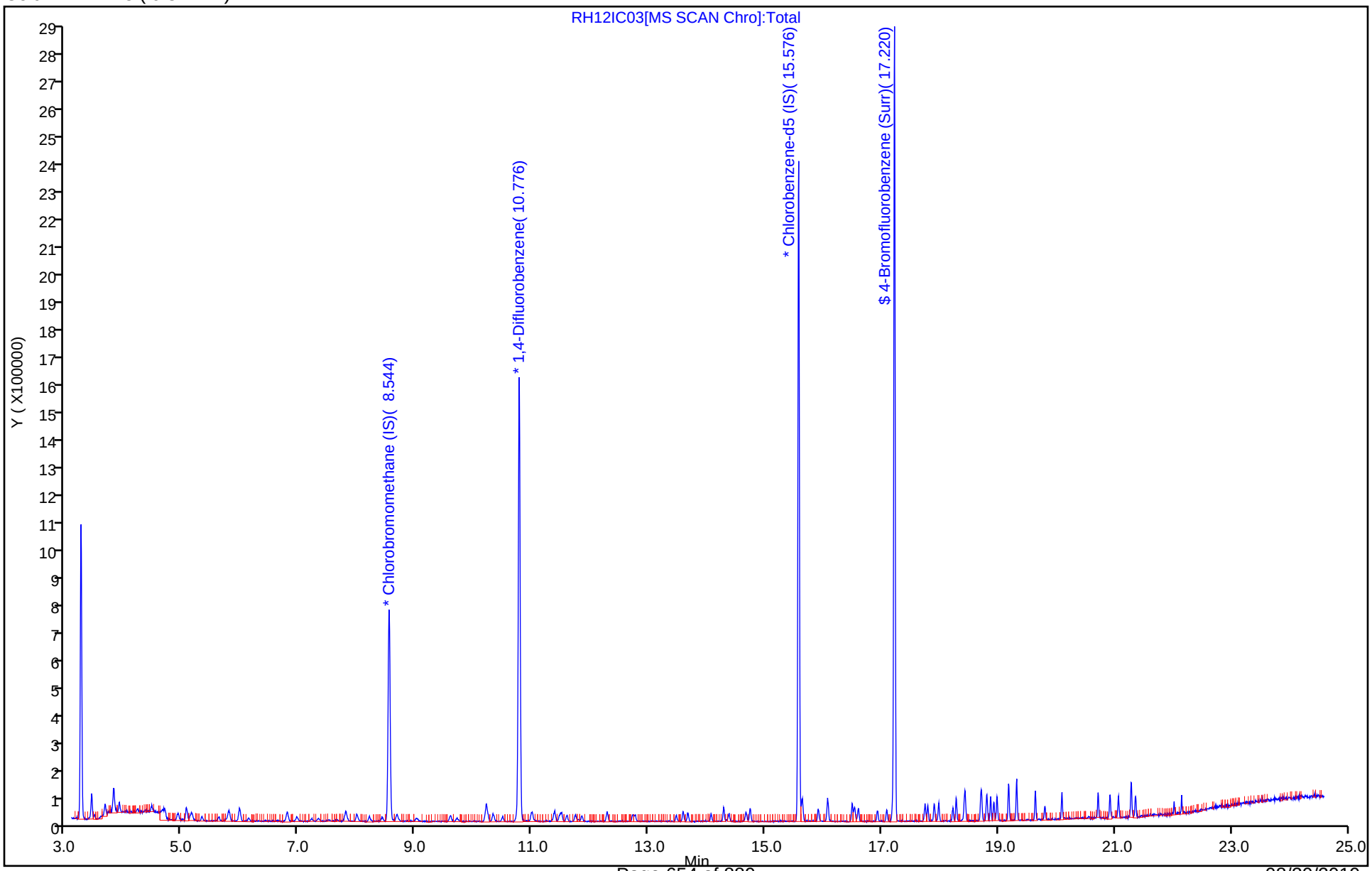
Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D

Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

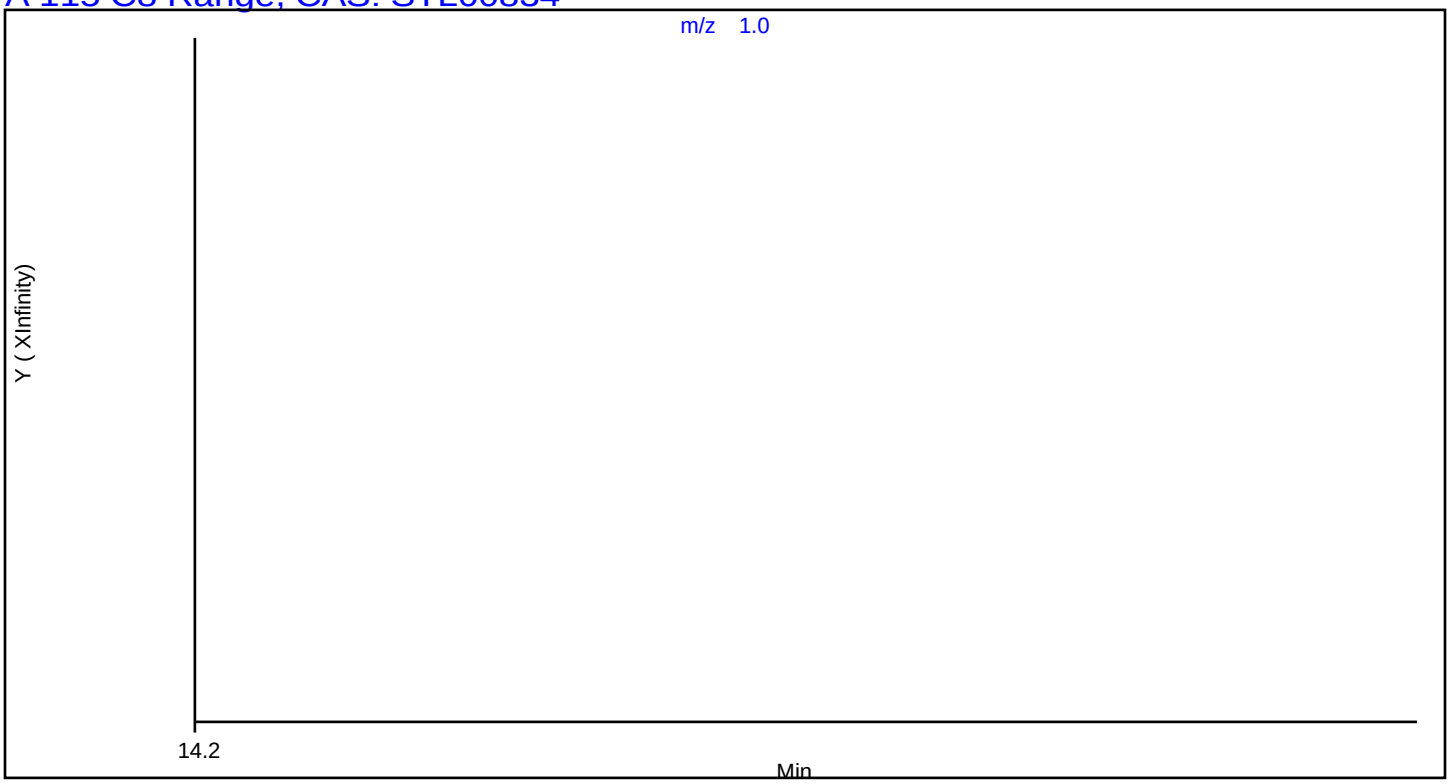


Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D				
Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Aug-2019 20:04:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 09:00:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	234467	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1479080	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1297368	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	880719	4.00	3.94	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	89	37149	0.1600	0.1854	
7 Propene	41	3.443	3.439	0.004	99	52426	0.1600	0.4717	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	98	31157	0.1600	0.1719	
9 Chloromethane	52	3.664	3.665	-0.001	76	5807	0.1600	0.2132	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.675	3.669	0.006	89	18423	0.1600	0.2004	
11 Acetaldehyde	44	3.820	3.817	0.003	91	65296	0.8000	2.05	
12 Vinyl chloride	62	3.836	3.831	0.005	90	16277	0.1600	0.1886	
13 Butadiene	54	3.912	3.913	-0.001	65	13809	0.1600	0.2205	
14 Butane	43	3.912	3.914	-0.002	86	27416	0.1600	0.2068	
15 Bromomethane	94	4.230	4.227	0.003	88	12536	0.1600	0.1714	
16 Chloroethane	64	4.359	4.359	0.000	86	6308	0.1600	0.1786	
17 Ethanol	31	4.467	4.464	0.003	97	39287	0.8000	1.23	
18 Vinyl bromide	106	4.651	4.656	-0.005	88	11256	0.1600	0.1844	
19 2-Methylbutane	43	4.705	4.699	0.006	93	21554	0.1600	0.2179	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	37252	0.1600	0.1654	
20 Acrolein	56	4.936	4.936	0.000	26	5363	0.1600	0.1923	
24 Acetonitrile	40	4.996	5.001	-0.005	90	465	0.1600	0.0112	
22 Acetone	58	5.066	5.057	0.009	98	30505	0.4800	0.7843	
25 Pentane	72	5.136	5.138	-0.002	94	3095	0.1600	0.2078	
23 Isopropyl alcohol	45	5.157	5.149	0.008	97	56079	0.4800	0.4256	
26 Ethyl ether	31	5.330	5.319	0.011	87	20465	0.1600	0.1680	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	98	12986	0.1600	0.1611	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	7796	0.1600	0.1281	
29 2-Methyl-2-propanol	59	5.767	5.756	0.011	92	24598	0.1600	0.1513	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	26227	0.1600	0.1565	
31 Methylene Chloride	84	5.977	5.978	-0.001	92	19470	0.1600	0.2349	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.999	5.990	0.009	84	14010	0.1600	0.1518	
33 Carbon disulfide	76	6.139	6.133	0.006	96	32055	0.1600	0.1511	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	95	12429	0.1600	0.1466	
35 2-Methylpentane	43	6.808	6.803	0.005	96	38166	0.1600	0.1697	
36 Methyl tert-butyl ether	73	6.953	6.934	0.019	96	35352	0.1600	0.1547	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	98	26688	0.1600	0.1660	
38 Vinyl acetate	43	7.325	7.328	-0.003	99	43790	0.1600	0.1561	
40 Hexane	56	7.794	7.796	-0.002	71	13205	0.1600	0.1794	
39 2-Butanone (MEK)	72	7.805	7.797	0.008	93	8064	0.1600	0.1874	
41 Isopropyl ether	45	7.983	7.978	0.005	98	56542	0.1600	0.1619	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	94	14471	0.1600	0.1508	
43 Ethyl acetate	43	8.431	8.416	0.015	97	39652	0.1600	0.1595	
44 Chloroform	83	8.560	8.560	0.000	30	32871	0.1600	0.1667	
45 Tert-butyl ethyl ether	59	8.673	8.665	0.008	96	45874	0.1600	0.1578	
46 Tetrahydrofuran	42	9.002	8.988	0.014	93	18911	0.1600	0.1524	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	33477	0.1600	0.1544	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	96	20976	0.1600	0.1474	
50 n-Butanol	31	10.205	10.195	0.010	58	7490	0.1600	0.1324	
51 Cyclohexane	69	10.216	10.210	0.006	72	7444	0.1600	0.1583	
49 Benzene	78	10.210	10.214	-0.004	95	49431	0.1600	0.1650	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	92	35862	0.1600	0.1497	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	10204	0.1600	0.1512	
54 Thiophene	84	10.496	10.499	-0.003	94	22379	0.1600	0.1474	
55 Isooctane	57	10.997	10.995	0.002	96	76319	0.1600	0.1525	
57 n-Heptane	71	11.386	11.387	-0.001	95	15423	0.1600	0.1476	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	80	16693	0.1600	0.1446	
58 Trichloroethene	130	11.510	11.509	0.001	93	18870	0.1600	0.1432	
59 Dibromomethane	93	11.591	11.595	-0.004	94	19319	0.1600	0.1581	
60 Dichlorobromomethane	83	11.747	11.746	0.001	97	32327	0.1600	0.1458	
61 1,4-Dioxane	88	11.785	11.781	0.004	66	7162	0.1600	0.1556	
62 Methyl methacrylate	41	11.855	11.850	0.005	87	25315	0.1600	0.1540	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	25069	0.1600	0.1455	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	98	42380	0.1600	0.1445	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	95	21987	0.1600	0.1270	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.004	93	21440	0.1600	0.1329	
67 Toluene	91	13.591	13.593	-0.002	92	52282	0.1600	0.1566	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	15946	0.1600	0.1541	
69 2-Hexanone	58	14.076	14.066	0.010	91	19028	0.1600	0.1540	
71 n-Octane	85	14.287	14.288	-0.001	97	15835	0.1600	0.1448	
70 Chlorodibromomethane	129	14.384	14.379	0.005	96	28895	0.1600	0.1259	
72 Ethylene Dibromide	107	14.675	14.674	0.001	35	29180	0.1600	0.1470	
73 Tetrachloroethene	129	14.740	14.743	-0.003	93	18774	0.1600	0.1377	
74 Chlorobenzene	112	15.629	15.625	0.004	94	41497	0.1600	0.1495	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	94	62008	0.1600	0.1493	
76 Ethylbenzene	91	15.915	15.914	0.001	98	67987	0.1600	0.1452	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	103834	0.3200	0.2824	
81 n-Nonane	57	16.492	16.494	-0.002	95	34376	0.1600	0.1427	
78 Bromoform	173	16.519	16.525	-0.006	95	27703	0.1600	0.1347	
79 Styrene	104	16.546	16.543	0.003	98	33105	0.1600	0.1307	
80 o-Xylene	91	16.600	16.602	-0.002	99	55761	0.1600	0.1444	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	38115	0.1600	0.1402	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	95	12861	0.1600	0.1492	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	87644	0.1600	0.1530	
85 N-Propylbenzene	120	17.749	17.745	0.004	98	21522	0.1600	0.1478	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	22221	0.1600	0.1602	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	88453	0.1600	0.1549	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	33519	0.1600	0.1540	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	27551	0.1600	0.1320	
90 n-Decane	57	18.283	18.280	0.002	87	50084	0.1600	0.1510	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	75576	0.1600	0.1485	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	75679	0.1600	0.1501	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	109309	0.1600	0.1510	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	51771	0.1600	0.1508	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	51323	0.1600	0.1303	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	48412	0.1600	0.1429	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	91852	0.1600	0.1570	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	98	78777	0.1600	0.1588	
99 Butylcyclohexane	83	18.984	18.981	0.003	90	58727	0.1600	0.1582	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	66472	0.1600	0.1475	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	92	52296	0.1600	0.1562	
102 Indene	116	19.312	19.314	-0.002	87	55161	0.1600	0.1357	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	92403	0.1600	0.1534	
104 Undecane	57	19.636	19.638	-0.002	94	62883	0.1600	0.1608	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	86	20360	0.1600	0.1240	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	86274	0.1600	0.1537	
107 Dodecane	57	20.714	20.714	0.000	91	59374	0.1600	0.1562	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	48894	0.1600	0.1527	
109 Naphthalene	128	21.065	21.064	0.001	100	96013	0.1600	0.1453	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	93	49887	0.1600	0.1569	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	46799	0.1600	0.1588	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	21893	0.1600	0.1154	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	27080	0.1600	0.1486	
A 115 C8 Range	1	14.298	(14.260-14.335)		0	176098	0.1600	0.1518	
S 116 Xylenes, Total	100				0		0.4800	0.4268	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.2974	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

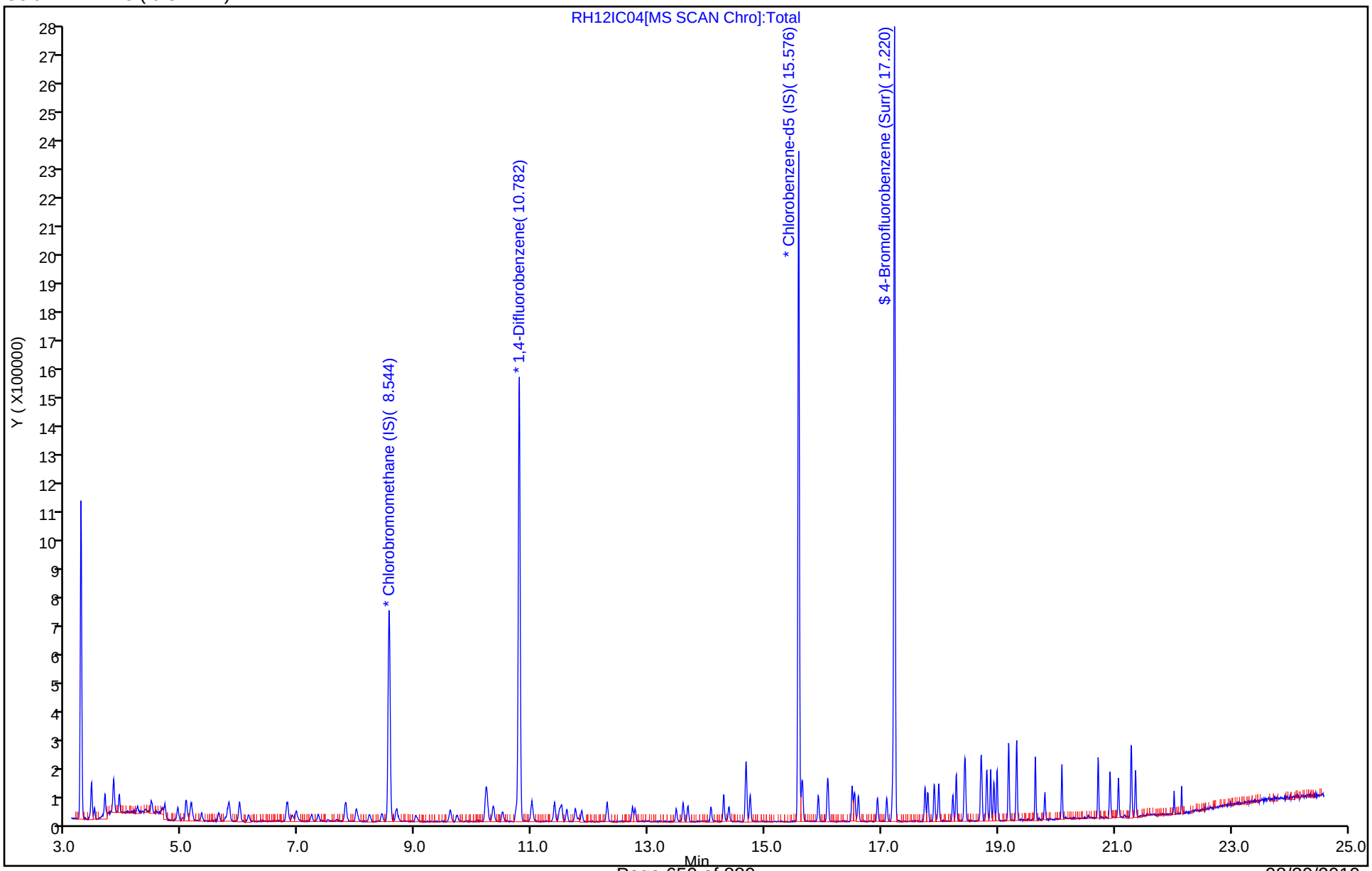
Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D

Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

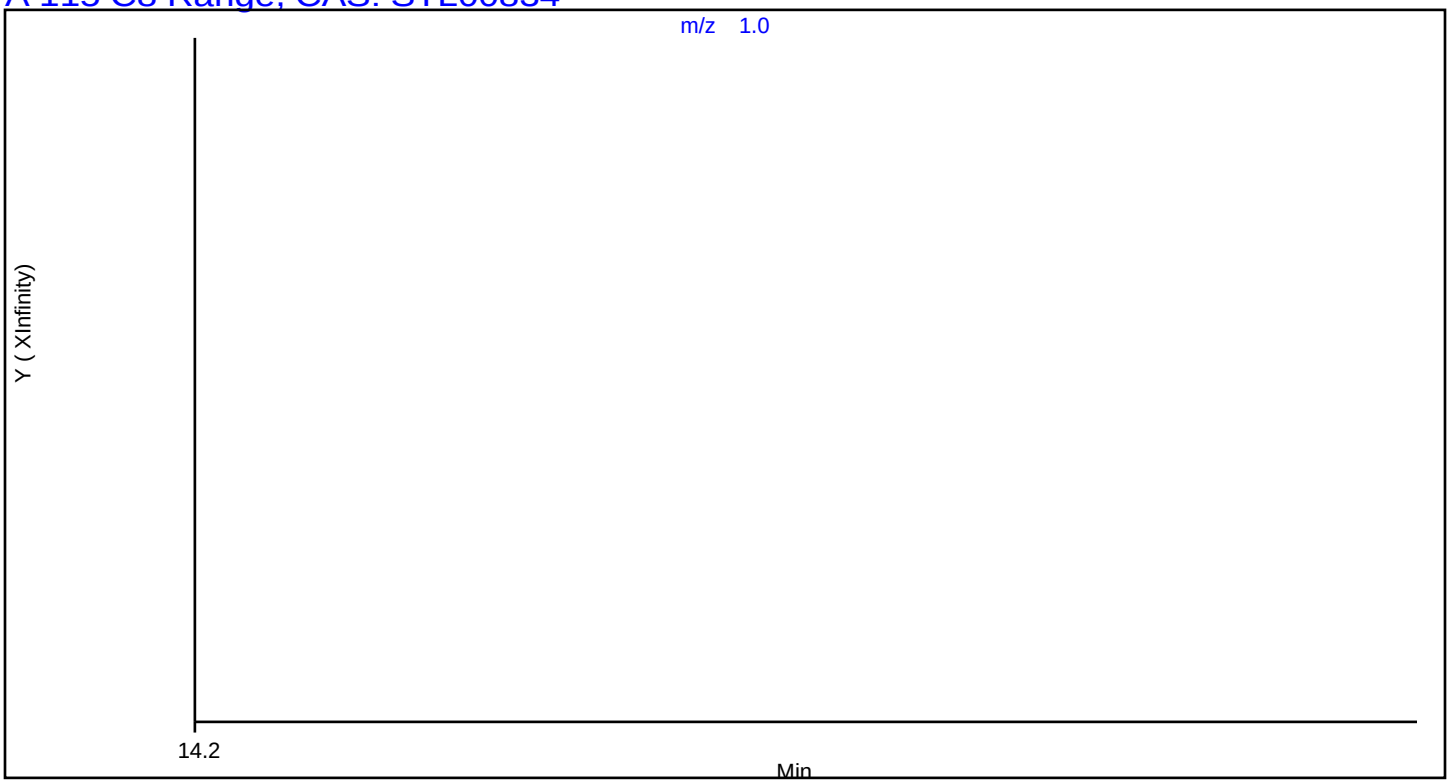


Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D				
Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Aug-2019 20:53:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:02 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	254726	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1567669	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	88	1372435	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	94	942631	4.00	3.98	
6 Chlorodifluoromethane	51	3.426	3.430	-0.004	97	92941	0.4000	0.4270	
7 Propene	41	3.437	3.439	-0.002	97	81472	0.4000	0.6747	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	83727	0.4000	0.4252	
9 Chloromethane	52	3.664	3.665	-0.001	87	15278	0.4000	0.5163	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	41905	0.4000	0.4195	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	98077	2.00	2.84	
12 Vinyl chloride	62	3.825	3.831	-0.006	98	36795	0.4000	0.3924	
13 Butadiene	54	3.912	3.913	-0.001	65	30573	0.4000	0.4494	
14 Butane	43	3.912	3.914	-0.002	85	60089	0.4000	0.4171	
15 Bromomethane	94	4.219	4.227	-0.008	96	25893	0.4000	0.3259	
16 Chloroethane	64	4.359	4.359	0.000	85	13196	0.4000	0.3439	
17 Ethanol	31	4.456	4.464	-0.008	99	80407	2.00	2.33	
18 Vinyl bromide	106	4.656	4.656	0.000	91	24652	0.4000	0.3716	
19 2-Methylbutane	43	4.694	4.699	-0.005	91	48082	0.4000	0.4473	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	94313	0.4000	0.3854	
20 Acrolein	56	4.931	4.936	-0.005	92	12417	0.4000	0.4099	
24 Acetonitrile	40	5.001	5.001	0.000	99	18073	0.4000	0.4007	
22 Acetone	58	5.055	5.057	-0.002	99	55059	1.20	1.30	
25 Pentane	72	5.141	5.138	0.003	95	6812	0.4000	0.4209	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	156113	1.20	1.09	
26 Ethyl ether	31	5.319	5.319	0.000	89	49563	0.4000	0.3745	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	97	30801	0.4000	0.3516	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	16277	0.4000	0.2463	
29 2-Methyl-2-propanol	59	5.756	5.756	0.000	95	65062	0.4000	0.3684	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	92	64689	0.4000	0.3553	
31 Methylene Chloride	84	5.977	5.978	-0.001	94	37926	0.4000	0.4212	
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	83	37437	0.4000	0.3735	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.133	6.133	0.000	99	82401	0.4000	0.3576	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	96	36589	0.4000	0.3974	
35 2-Methylpentane	43	6.802	6.803	-0.001	95	88849	0.4000	0.3637	
36 Methyl tert-butyl ether	73	6.931	6.934	-0.003	96	98345	0.4000	0.3962	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	100	63504	0.4000	0.3636	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	115947	0.4000	0.3804	
40 Hexane	56	7.800	7.796	0.004	65	29832	0.4000	0.3730	
39 2-Butanone (MEK)	72	7.794	7.797	-0.003	87	18300	0.4000	0.3915	
41 Isopropyl ether	45	7.972	7.978	-0.006	98	145384	0.4000	0.3832	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	39820	0.4000	0.3818	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	105906	0.4000	0.3922	
44 Chloroform	83	8.555	8.560	-0.005	40	83858	0.4000	0.3914	
45 Tert-butyl ethyl ether	59	8.657	8.665	-0.008	97	121332	0.4000	0.3843	
46 Tetrahydrofuran	42	8.991	8.988	0.003	95	51707	0.4000	0.3835	
47 1,1,1-Trichloroethane	97	9.590	9.597	-0.007	95	86648	0.4000	0.3678	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	96	53780	0.4000	0.3566	
50 n-Butanol	31	10.199	10.195	0.004	76	22459	0.4000	0.3746	
51 Cyclohexane	69	10.210	10.210	0.000	75	19248	0.4000	0.3861	
49 Benzene	78	10.215	10.214	0.001	96	119776	0.4000	0.3773	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	88467	0.4000	0.3485	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	91	25882	0.4000	0.3619	
54 Thiophene	84	10.496	10.499	-0.003	96	61784	0.4000	0.3839	
55 Isooctane	57	10.997	10.995	0.002	97	201320	0.4000	0.3796	
57 n-Heptane	71	11.380	11.387	-0.007	95	41187	0.4000	0.3718	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	43914	0.4000	0.3589	
58 Trichloroethene	130	11.504	11.509	-0.005	95	51621	0.4000	0.3697	
59 Dibromomethane	93	11.590	11.595	-0.005	91	45649	0.4000	0.3524	
60 Dichlorobromomethane	83	11.741	11.746	-0.005	96	82518	0.4000	0.3512	
61 1,4-Dioxane	88	11.779	11.781	-0.002	93	17072	0.4000	0.3498	
62 Methyl methacrylate	41	11.849	11.850	-0.001	87	61427	0.4000	0.3527	
63 Methylcyclohexane	83	12.281	12.288	-0.007	90	67432	0.4000	0.3693	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	96	115648	0.4000	0.3720	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	65841	0.4000	0.3589	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	60682	0.4000	0.3555	
67 Toluene	91	13.591	13.593	-0.002	92	134911	0.4000	0.3821	
68 1,1,2-Trichloroethane	83	13.667	13.674	-0.007	96	41040	0.4000	0.3749	
69 2-Hexanone	58	14.060	14.066	-0.006	90	46424	0.4000	0.3552	
71 n-Octane	85	14.287	14.288	-0.001	97	42413	0.4000	0.3666	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	82751	0.4000	0.3408	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	76615	0.4000	0.3649	
73 Tetrachloroethene	129	14.745	14.743	0.002	95	52332	0.4000	0.3629	
74 Chlorobenzene	112	15.619	15.625	-0.006	93	113301	0.4000	0.3858	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	173853	0.4000	0.3958	
76 Ethylbenzene	91	15.915	15.914	0.001	98	192887	0.4000	0.3894	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	300469	0.8000	0.7725	
81 n-Nonane	57	16.492	16.494	-0.002	94	99362	0.4000	0.3898	
78 Bromoform	173	16.525	16.525	0.000	95	84238	0.4000	0.3873	
79 Styrene	104	16.535	16.543	-0.008	98	105671	0.4000	0.3945	
80 o-Xylene	91	16.600	16.602	-0.002	99	160961	0.4000	0.3941	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	113804	0.4000	0.3956	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	91	36511	0.4000	0.4004	
84 Isopropylbenzene	105	17.188	17.187	0.001	94	235069	0.4000	0.3879	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.749	17.745	0.004	98	56029	0.4000	0.3636	
86 2-Chlorotoluene	126	17.786	17.786	0.000	98	57011	0.4000	0.3884	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	214068	0.4000	0.3544	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	91	83282	0.4000	0.3617	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	86	76630	0.4000	0.3471	
90 n-Decane	57	18.277	18.280	-0.003	86	128610	0.4000	0.3666	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	195971	0.4000	0.3640	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	193483	0.4000	0.3627	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	284972	0.4000	0.3720	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	125204	0.4000	0.3447	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	139012	0.4000	0.3336	
95 1,4-Dichlorobenzene	146	18.805	18.810	-0.005	93	128566	0.4000	0.3586	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	221539	0.4000	0.3580	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	94	190536	0.4000	0.3630	
99 Butylcyclohexane	83	18.978	18.981	-0.003	90	143647	0.4000	0.3658	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	172831	0.4000	0.3626	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	128507	0.4000	0.3629	
102 Indene	116	19.312	19.314	-0.002	89	141407	0.4000	0.3287	
103 n-Butylbenzene	91	19.318	19.318	0.000	96	224277	0.4000	0.3519	
104 Undecane	57	19.636	19.638	-0.002	90	145831	0.4000	0.3524	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	92	55688	0.4000	0.3206	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	207789	0.4000	0.3499	
107 Dodecane	57	20.714	20.714	0.000	92	138196	0.4000	0.3437	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	118995	0.4000	0.3513	
109 Naphthalene	128	21.065	21.064	0.001	99	238247	0.4000	0.3407	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	119241	0.4000	0.3545	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	122976	0.4000	0.3946	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	61224	0.4000	0.3050	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	97	65295	0.4000	0.3388	
A 115 C8 Range	1	14.284	(14.249-14.335)		0	459073	0.4000	0.3733	
S 116 Xylenes, Total	100				0		1.20	1.17	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.7792	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

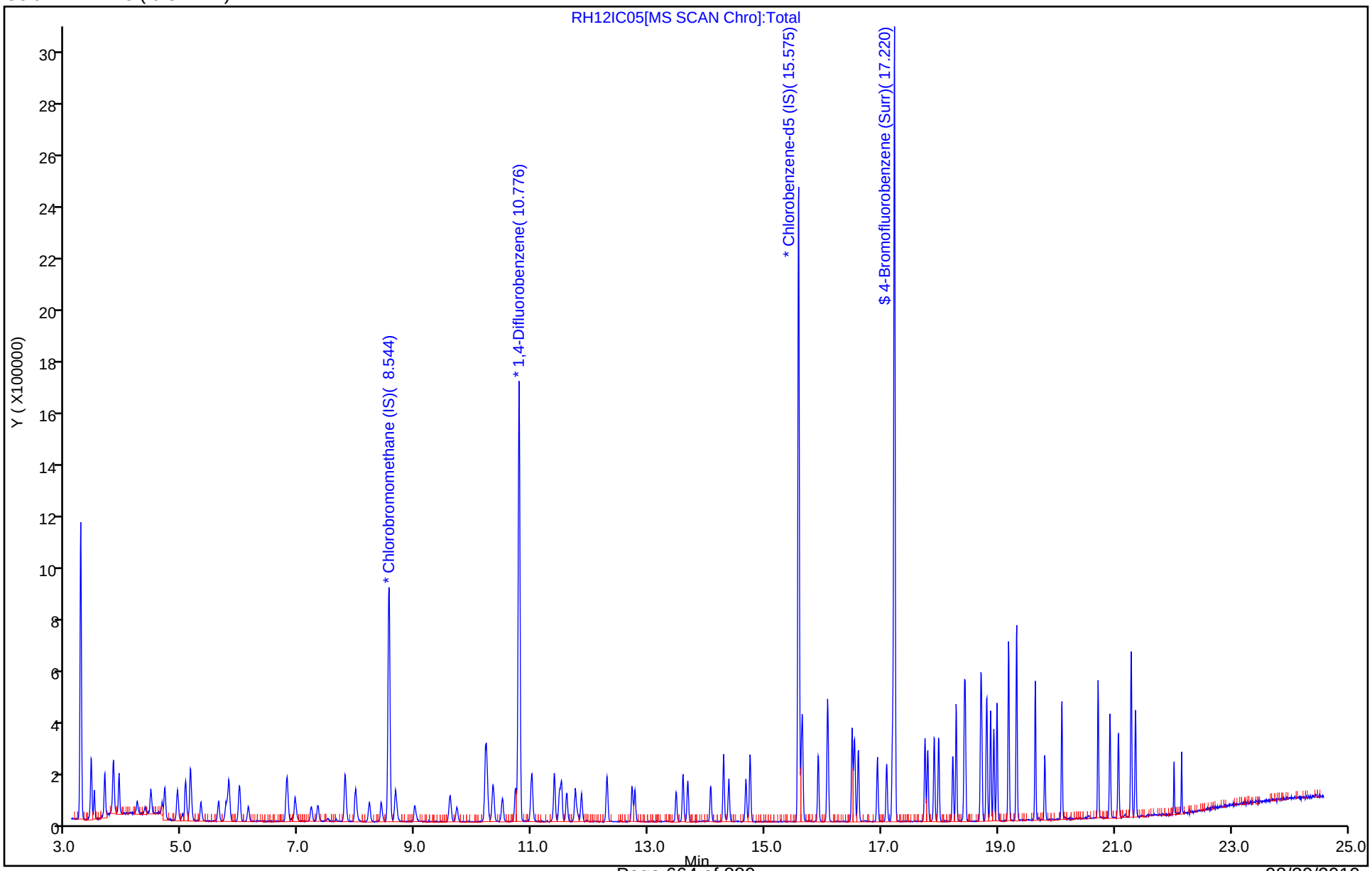
Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D

Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

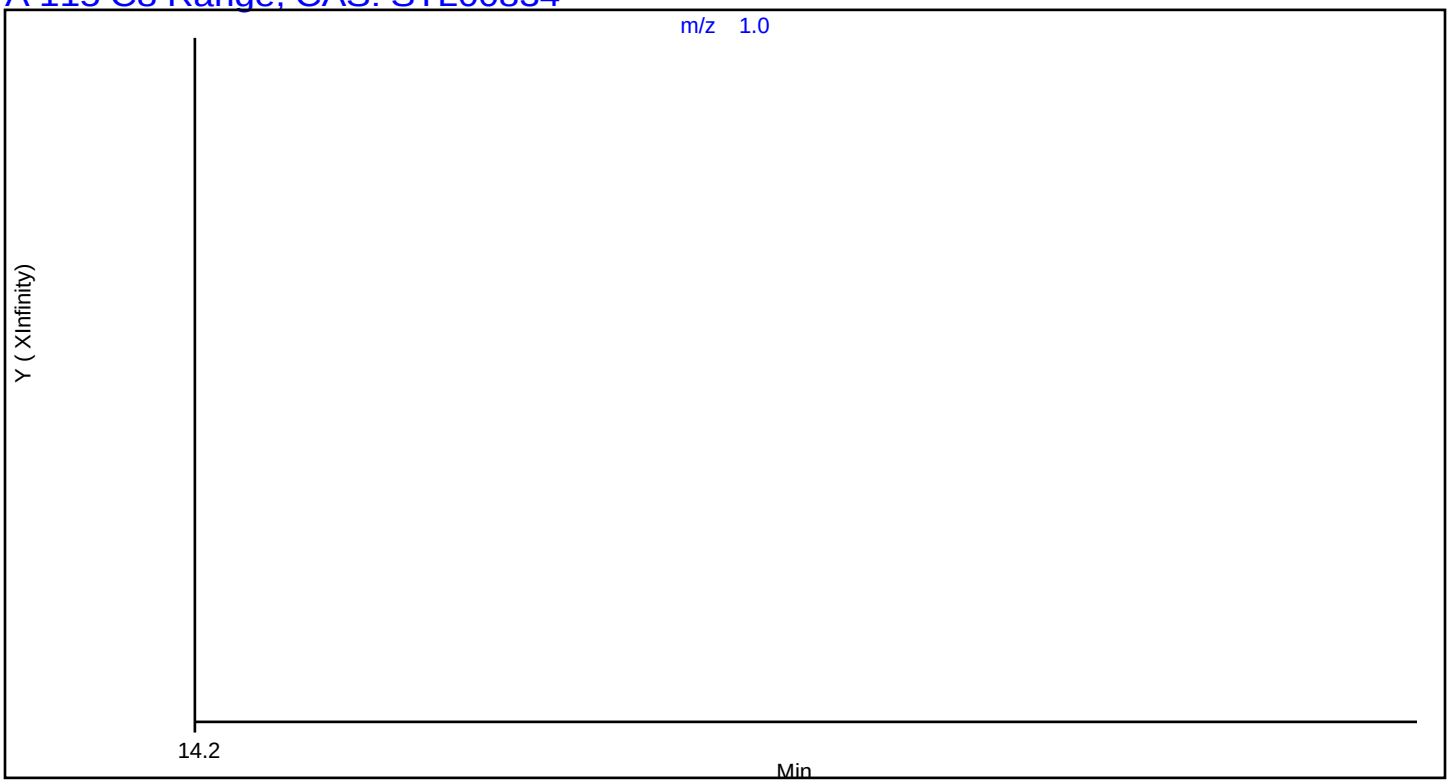


Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D				
Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Aug-2019 21:41:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:08 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:33:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	275742	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1650362	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1463744	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	1017939	4.00	4.03	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	234758	1.00	1.00	
7 Propene	41	3.443	3.439	0.004	98	163993	1.00	1.25	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	213046	1.00	1.00	
9 Chloromethane	52	3.664	3.665	-0.001	90	32588	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	104417	1.00	0.9657	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	199152	5.00	5.32	
12 Vinyl chloride	62	3.831	3.831	0.000	99	87680	1.00	0.8639	
13 Butadiene	54	3.917	3.913	0.004	67	70305	1.00	0.9547	
14 Butane	43	3.917	3.914	0.003	86	134910	1.00	0.8652	
15 Bromomethane	94	4.230	4.227	0.003	98	78476	1.00	0.9125	
16 Chloroethane	64	4.359	4.359	0.000	90	36301	1.00	0.8739	
17 Ethanol	31	4.457	4.464	-0.007	98	197485	5.00	5.28	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	71900	1.00	1.00	
19 2-Methylbutane	43	4.699	4.699	0.000	96	112317	1.00	0.9653	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	256609	1.00	0.9688	
20 Acrolein	56	4.936	4.936	0.000	95	31359	1.00	0.9562	
24 Acetonitrile	40	5.001	5.001	0.000	96	44589	1.00	0.9132	
22 Acetone	58	5.050	5.057	-0.007	99	140239	3.00	3.07	
25 Pentane	72	5.141	5.138	0.003	73	16387	1.00	0.9353	
23 Isopropyl alcohol	45	5.136	5.149	-0.013	83	434704	3.00	2.81	
26 Ethyl ether	31	5.314	5.319	-0.005	89	139716	1.00	0.9752	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	91670	1.00	0.9667	
28 Acrylonitrile	53	5.729	5.738	-0.009	67	76620	1.00	1.07	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.022	96	187436	1.00	0.9805	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	96	195830	1.00	0.99	
31 Methylene Chloride	84	5.977	5.978	-0.001	96	97104	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	94	106755	1.00	0.9838	
33 Carbon disulfide	76	6.139	6.133	0.006	100	260082	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	97	97862	1.00	0.9818	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	265535	1.00	1.00	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	268658	1.00	1.00	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	183745	1.00	0.9720	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	333540	1.00	1.01	
40 Hexane	56	7.789	7.796	-0.007	73	85998	1.00	0.99	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	95	46530	1.00	0.9195	
41 Isopropyl ether	45	7.967	7.978	-0.011	98	421247	1.00	1.03	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	110184	1.00	0.9761	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	297217	1.00	1.02	
44 Chloroform	83	8.555	8.560	-0.005	96	228386	1.00	0.9847	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	97	345723	1.00	1.01	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	95	147538	1.00	1.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	253956	1.00	1.00	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	160490	1.00	1.01	
50 n-Butanol	31	10.178	10.195	-0.017	86	56795	1.00	0.8998	
51 Cyclohexane	69	10.199	10.210	-0.011	79	50611	1.00	0.9643	
49 Benzene	78	10.210	10.214	-0.004	97	317673	1.00	0.9504	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	95	265046	1.00	0.99	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	74081	1.00	0.9839	
54 Thiophene	84	10.491	10.499	-0.008	97	177597	1.00	1.05	
55 Isooctane	57	10.992	10.995	-0.003	98	546926	1.00	0.9795	
57 n-Heptane	71	11.386	11.387	-0.001	95	114914	1.00	0.9855	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	86	123265	1.00	0.9570	
58 Trichloroethene	130	11.504	11.509	-0.005	98	148333	1.00	1.01	
59 Dibromomethane	93	11.591	11.595	-0.004	95	132070	1.00	0.9685	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	97	241765	1.00	0.9773	
61 1,4-Dioxane	88	11.769	11.781	-0.012	96	49723	1.00	0.9679	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	176236	1.00	0.9611	
63 Methylcyclohexane	83	12.286	12.288	-0.002	94	192630	1.00	1.00	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	315351	1.00	0.9635	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	194636	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.003	98	174816	1.00	0.9602	
67 Toluene	91	13.591	13.593	-0.002	92	381611	1.00	1.01	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	114417	1.00	0.9800	
69 2-Hexanone	58	14.060	14.066	-0.006	90	136287	1.00	0.9778	
71 n-Octane	85	14.287	14.288	-0.001	97	124478	1.00	1.01	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	96	250080	1.00	0.9657	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	97	227684	1.00	1.02	
73 Tetrachloroethene	129	14.740	14.743	-0.003	96	148518	1.00	0.9656	
74 Chlorobenzene	112	15.624	15.625	-0.001	94	316604	1.00	1.01	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	473323	1.00	1.01	
76 Ethylbenzene	91	15.910	15.914	-0.004	99	523426	1.00	0.99	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	824444	2.00	1.99	
81 n-Nonane	57	16.492	16.494	-0.002	95	270114	1.00	0.99	
78 Bromoform	173	16.525	16.525	0.000	95	259604	1.00	1.12	
79 Styrene	104	16.541	16.543	-0.002	99	295221	1.00	1.03	
80 o-Xylene	91	16.600	16.602	-0.002	98	434181	1.00	1.00	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.930	-0.006	99	311891	1.00	1.02	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	94	98558	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	646729	1.00	1.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	168614	1.00	1.03	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	161679	1.00	1.03	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	655801	1.00	1.02	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	248480	1.00	1.01	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	88	241958	1.00	1.03	
90 n-Decane	57	18.277	18.280	-0.003	88	371710	1.00	0.99	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	575935	1.00	1.00	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	568798	1.00	1.00	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	99	826217	1.00	1.01	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	375723	1.00	0.9698	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	437373	1.00	0.9842	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	94	372557	1.00	0.9744	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	676095	1.00	1.02	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	582945	1.00	1.04	
99 Butylcyclohexane	83	18.978	18.981	-0.003	93	437506	1.00	1.04	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	511702	1.00	1.01	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	368079	1.00	0.9746	
102 Indene	116	19.313	19.314	-0.002	95	450393	1.00	0.9817	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	691666	1.00	1.02	
104 Undecane	57	19.636	19.638	-0.002	94	450245	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	95	190182	1.00	1.03	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	648777	1.00	1.02	
107 Dodecane	57	20.715	20.714	0.001	92	445044	1.00	1.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	353265	1.00	0.9778	
109 Naphthalene	128	21.065	21.064	0.001	99	784592	1.00	1.05	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	342754	1.00	0.9555	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	323470	1.00	0.9731	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	200876	1.00	0.9383	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	198072	1.00	0.9635	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	1278165	1.00	0.9872	
S 116 Xylenes, Total	100				0		3.00	2.98	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.96	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

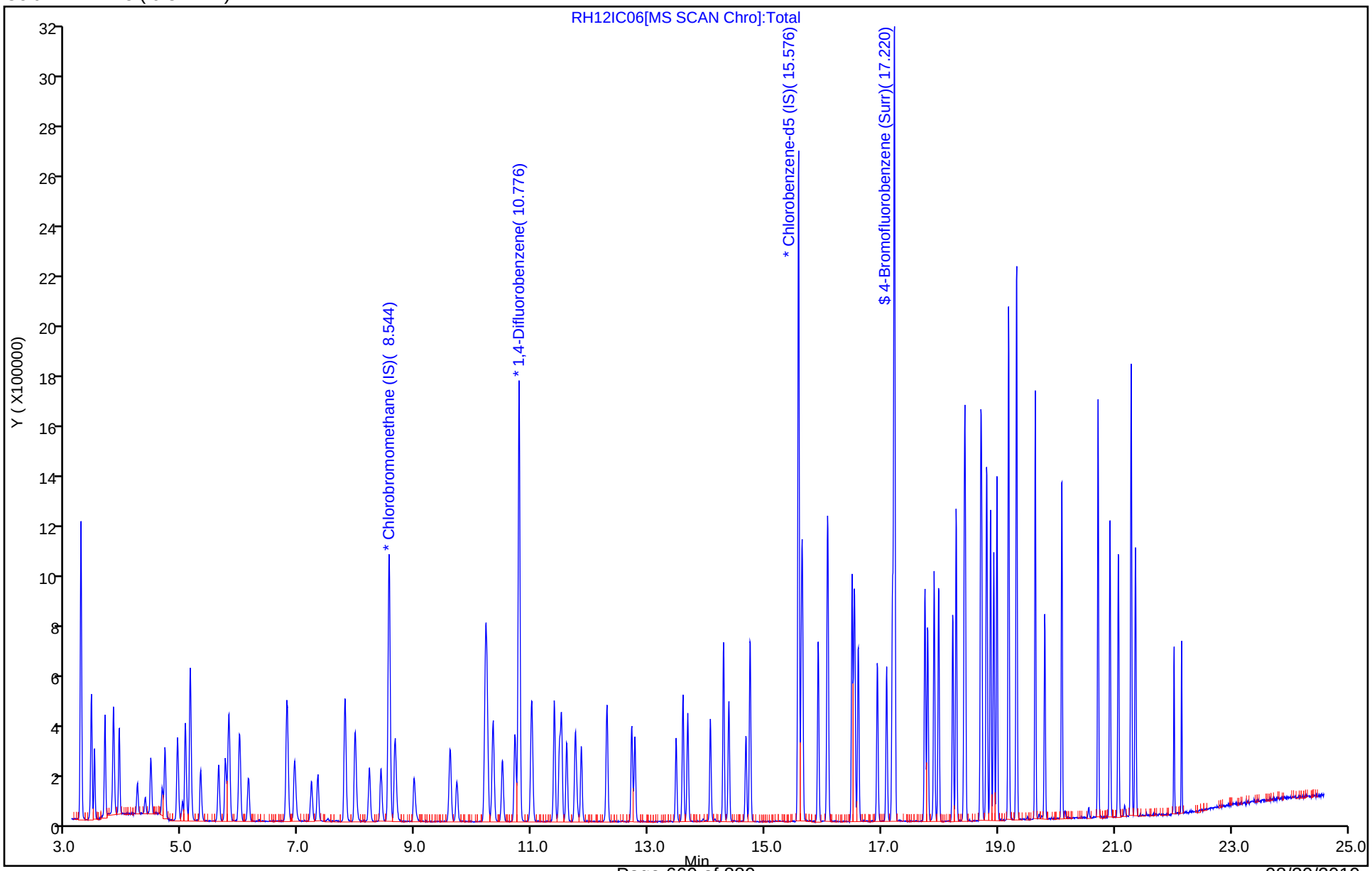
Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D

Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

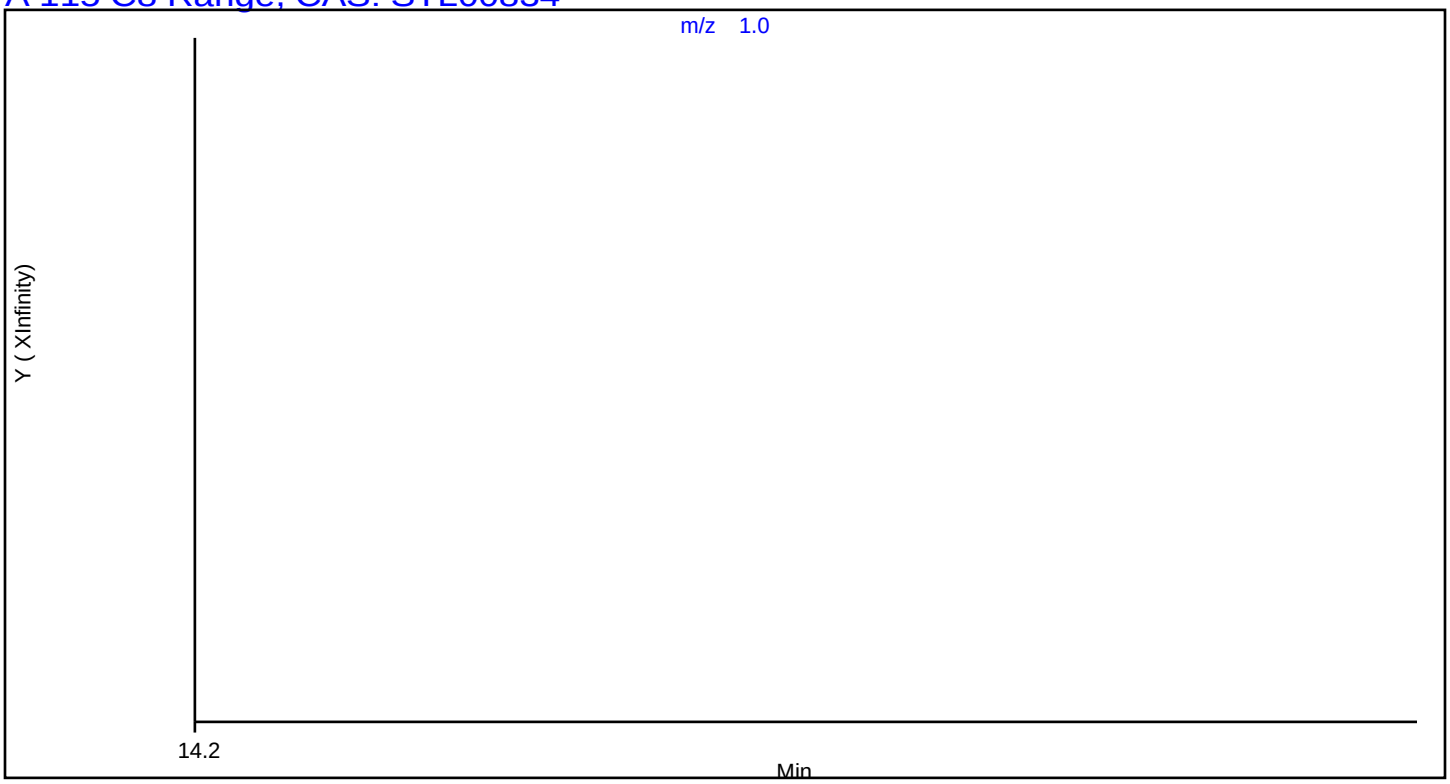


Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D				
Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 12-Aug-2019 22:32:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-013
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:14 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:25:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	316194	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.781	10.781	0.000	95	1831413	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	89	1574740	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1087615	4.00	4.01	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	489629	2.00	1.81	
7 Propene	41	3.437	3.439	-0.002	98	311708	2.00	2.08	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	436605	2.00	1.79	
9 Chloromethane	52	3.664	3.665	-0.001	90	67802	2.00	1.85	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	86	248334	2.00	2.00	
11 Acetaldehyde	44	3.815	3.817	-0.002	100	453602	10.0	10.6	
12 Vinyl chloride	62	3.831	3.831	0.000	99	211260	2.00	1.82	
13 Butadiene	54	3.917	3.913	0.004	70	166727	2.00	1.97	
14 Butane	43	3.917	3.914	0.003	84	314498	2.00	1.76	
15 Bromomethane	94	4.224	4.227	-0.003	97	177814	2.00	1.80	
16 Chloroethane	64	4.365	4.359	0.006	93	84809	2.00	1.78	
17 Ethanol	31	4.467	4.464	0.003	98	459971	10.0	10.7	
18 Vinyl bromide	106	4.656	4.656	0.000	97	166629	2.00	2.02	
19 2-Methylbutane	43	4.704	4.699	0.005	93	245568	2.00	1.84	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	608995	2.00	2.00	
20 Acrolein	56	4.931	4.936	-0.005	98	71916	2.00	1.91	
24 Acetonitrile	40	5.001	5.001	0.000	99	113950	2.00	2.04	
22 Acetone	58	5.049	5.057	-0.008	99	316226	6.00	6.03	
25 Pentane	72	5.141	5.138	0.003	96	40997	2.00	2.04	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	1105765	6.00	6.22	
26 Ethyl ether	31	5.314	5.319	-0.005	90	335934	2.00	2.04	
27 1,1-Dichloroethene	96	5.626	5.626	0.000	98	220013	2.00	2.02	
28 Acrylonitrile	53	5.740	5.738	0.002	58	175197	2.00	2.14	
29 2-Methyl-2-propanol	59	5.740	5.756	-0.016	95	447503	2.00	2.04	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	480563	2.00	2.13	
31 Methylene Chloride	84	5.971	5.978	-0.007	96	207664	2.00	1.86	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	247852	2.00	1.99	
33 Carbon disulfide	76	6.133	6.133	0.000	100	607331	2.00	2.12	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	245990	2.00	2.15	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	626319	2.00	2.07	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	662650	2.00	2.15	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	443627	2.00	2.05	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	782313	2.00	2.07	
40 Hexane	56	7.794	7.796	-0.002	74	199557	2.00	2.01	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	116007	2.00	2.00	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	967613	2.00	2.05	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	251302	2.00	1.94	
43 Ethyl acetate	43	8.403	8.416	-0.013	98	678344	2.00	2.02	
44 Chloroform	83	8.565	8.560	0.005	96	527634	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.651	8.665	-0.014	96	795966	2.00	2.03	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	93	336823	2.00	2.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	579894	2.00	1.98	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	352032	2.00	2.00	
50 n-Butanol	31	10.183	10.195	-0.012	85	140726	2.00	2.01	
51 Cyclohexane	69	10.204	10.210	-0.006	83	113375	2.00	1.95	
49 Benzene	78	10.215	10.214	0.001	97	729307	2.00	1.97	
52 Carbon tetrachloride	117	10.231	10.233	-0.002	96	601170	2.00	2.03	
53 2,3-Dimethylpentane	71	10.334	10.330	0.004	93	168847	2.00	2.02	
54 Thiophene	84	10.496	10.499	-0.003	96	401568	2.00	2.14	
55 Isooctane	57	10.992	10.995	-0.003	98	1251451	2.00	2.02	
57 n-Heptane	71	11.385	11.387	-0.002	95	257286	2.00	1.99	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	284844	2.00	1.99	
58 Trichloroethene	130	11.504	11.509	-0.005	95	316261	2.00	1.94	
59 Dibromomethane	93	11.596	11.595	0.001	96	296383	2.00	1.96	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	540886	2.00	1.97	
61 1,4-Dioxane	88	11.768	11.781	-0.013	97	115604	2.00	2.03	
62 Methyl methacrylate	41	11.849	11.850	-0.001	90	409718	2.00	2.01	
63 Methylcyclohexane	83	12.286	12.288	-0.002	91	425455	2.00	1.99	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	729869	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	431545	2.00	2.01	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	410349	2.00	2.09	
67 Toluene	91	13.591	13.593	-0.002	93	854782	2.00	2.11	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	257761	2.00	2.05	
69 2-Hexanone	58	14.060	14.066	-0.006	90	311563	2.00	2.08	
71 n-Octane	85	14.287	14.288	-0.001	97	270992	2.00	2.04	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	588398	2.00	2.11	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	502874	2.00	2.09	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	320049	2.00	1.93	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	674887	2.00	2.00	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	1047970	2.00	2.08	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1180642	2.00	2.08	
77 m-Xylene & p-Xylene	91	16.071	16.074	-0.003	98	1828793	4.00	4.10	
81 n-Nonane	57	16.492	16.494	-0.002	96	597670	2.00	2.04	
78 Bromoform	173	16.524	16.525	-0.001	96	602865	2.00	2.42	
79 Styrene	104	16.541	16.543	-0.002	98	648614	2.00	2.11	
80 o-Xylene	91	16.600	16.602	-0.002	98	945150	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	679085	2.00	2.06	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	213681	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1394055	2.00	2.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	380530	2.00	2.15	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	345097	2.00	2.05	
88 4-Ethyltoluene	105	17.899	17.902	-0.003	99	1459843	2.00	2.11	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	92	548438	2.00	2.08	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	95	556967	2.00	2.20	
90 n-Decane	57	18.282	18.280	0.002	87	841732	2.00	2.09	
91 tert-Butylbenzene	119	18.422	18.424	-0.002	93	1266574	2.00	2.05	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	97	1265159	2.00	2.07	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1818636	2.00	2.07	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	823821	2.00	1.98	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	1036549	2.00	2.17	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	825864	2.00	2.01	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1450854	2.00	2.04	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	1247184	2.00	2.07	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	943389	2.00	2.09	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	1132215	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	82	806766	2.00	1.99	
102 Indene	116	19.312	19.314	-0.002	91	1024994	2.00	2.08	
103 n-Butylbenzene	91	19.318	19.318	0.000	99	1506674	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	94	997760	2.00	2.10	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	425196	2.00	2.13	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1412707	2.00	2.07	
107 Dodecane	57	20.714	20.714	0.000	93	1029333	2.00	2.23	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	759967	2.00	1.96	
109 Naphthalene	128	21.065	21.064	0.001	99	1612650	2.00	2.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	776012	2.00	2.01	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727177	2.00	2.03	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	552616	2.00	2.40	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	524544	2.00	2.37	
A 115 C8 Range	1	14.279	(14.238-14.346)		0	2875636	2.00	2.00	
S 116 Xylenes, Total	100				0		6.00	6.11	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.09	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

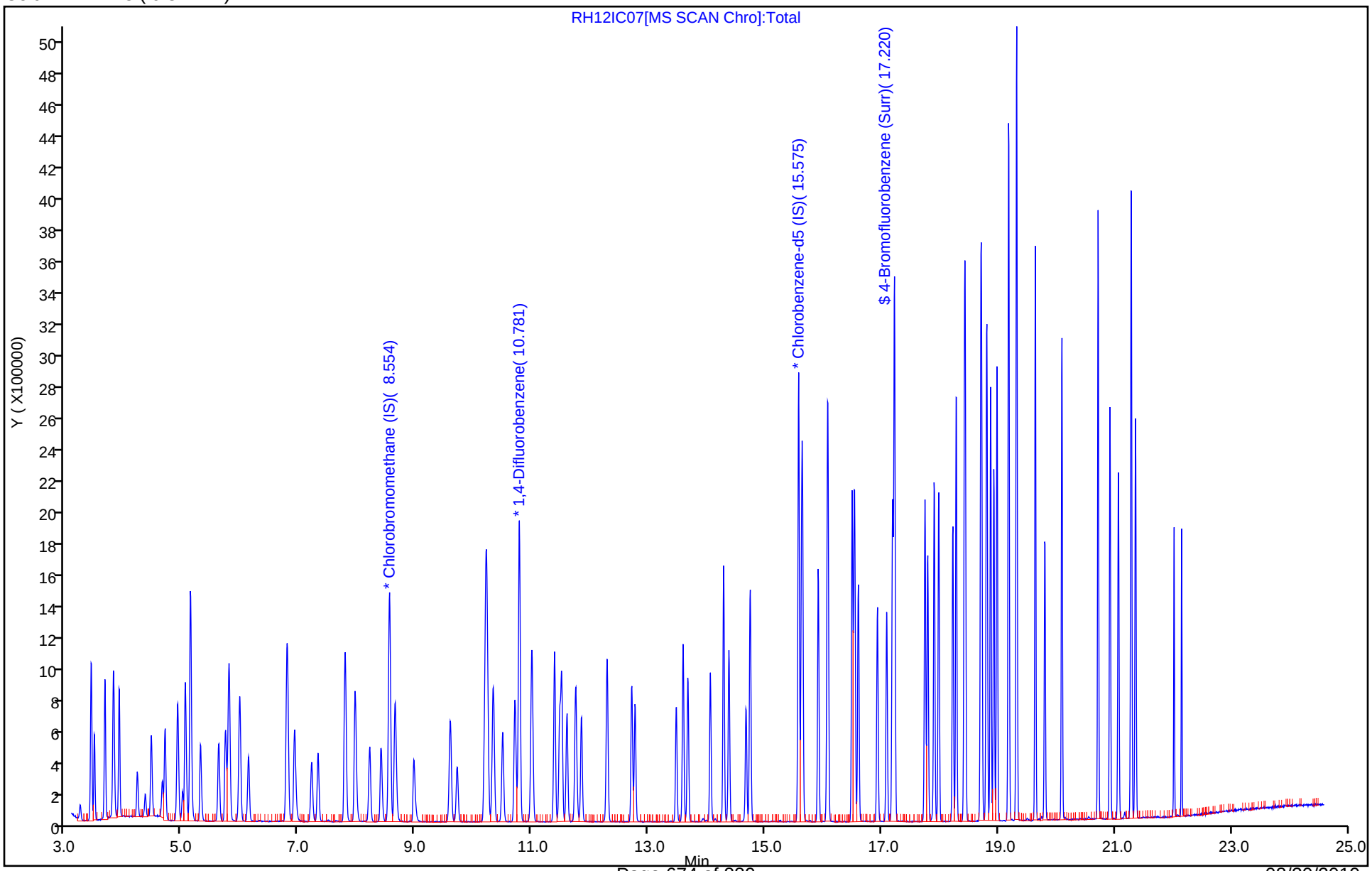
Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D

Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

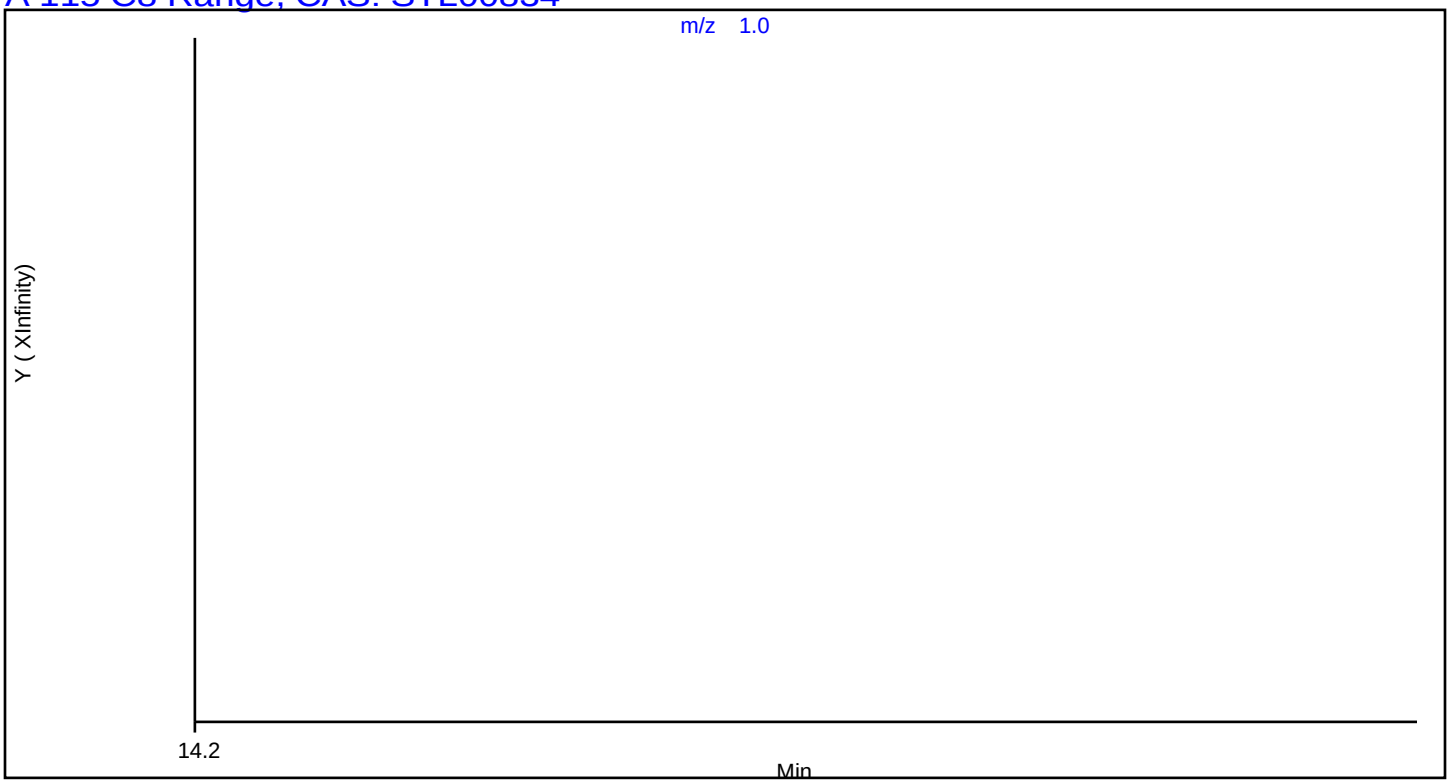


Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D				
Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Aug-2019 23:20:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:20 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	321233	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1837540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1634867	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1153368	4.00	4.09	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	97	1038164	4.00	3.78	
7 Propene	41	3.432	3.439	-0.007	98	612203	4.00	4.02	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	941193	4.00	3.79	
9 Chloromethane	52	3.664	3.665	-0.001	99	140377	4.00	3.76	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	495086	4.00	3.93	
11 Acetaldehyde	44	3.815	3.817	-0.002	99	749118	20.0	17.2	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	390377	4.00	3.30	
13 Butadiene	54	3.912	3.913	-0.001	69	315900	4.00	3.68	
14 Butane	43	3.912	3.914	-0.002	84	601193	4.00	3.31	
15 Bromomethane	94	4.219	4.227	-0.008	94	325261	4.00	3.25	
16 Chloroethane	64	4.359	4.359	0.000	91	149002	4.00	3.08	
17 Ethanol	31	4.457	4.464	-0.007	98	811380	20.0	18.6	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	291926	4.00	3.49	
19 2-Methylbutane	43	4.699	4.699	0.000	94	444864	4.00	3.28	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	1268687	4.00	4.11	
20 Acrolein	56	4.926	4.936	-0.010	98	148082	4.00	3.88	
24 Acetonitrile	40	4.996	5.001	-0.005	97	248929	4.00	4.38	
22 Acetone	58	5.044	5.057	-0.013	99	638695	12.0	12.0	
25 Pentane	72	5.125	5.138	-0.013	68	83201	4.00	4.08	
23 Isopropyl alcohol	45	5.131	5.149	-0.018	84	2244654	12.0	12.4	
26 Ethyl ether	31	5.303	5.319	-0.016	89	691635	4.00	4.14	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	436351	4.00	3.95	
28 Acrylonitrile	53	5.735	5.738	-0.004	91	363112	4.00	4.36	
29 2-Methyl-2-propanol	59	5.729	5.756	-0.027	96	934472	4.00	4.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	958858	4.00	4.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	399350	4.00	3.52	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	95	491788	4.00	3.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.133	-0.005	99	1208336	4.00	4.16	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	97	489823	4.00	4.22	
35 2-Methylpentane	43	6.797	6.803	-0.006	97	1282861	4.00	4.16	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	1330133	4.00	4.25	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	894337	4.00	4.06	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	1598765	4.00	4.16	
40 Hexane	56	7.794	7.796	-0.002	76	400434	4.00	3.97	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	97	231513	4.00	3.93	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	1932735	4.00	4.04	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	506769	4.00	3.85	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	1395118	4.00	4.10	
44 Chloroform	83	8.566	8.560	0.006	97	1090897	4.00	4.04	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	1649006	4.00	4.14	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	684785	4.00	4.03	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	1190165	4.00	4.01	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	97	740042	4.00	4.19	
50 n-Butanol	31	10.178	10.195	-0.017	87	295549	4.00	4.21	
51 Cyclohexane	69	10.205	10.210	-0.005	84	239599	4.00	4.10	
49 Benzene	78	10.216	10.214	0.002	98	1512569	4.00	4.06	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	1301234	4.00	4.37	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	340329	4.00	4.06	
54 Thiophene	84	10.496	10.499	-0.003	96	819107	4.00	4.34	
55 Isooctane	57	10.997	10.995	0.002	98	2580622	4.00	4.15	
57 n-Heptane	71	11.386	11.387	-0.001	95	546078	4.00	4.21	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	593910	4.00	4.14	
58 Trichloroethene	130	11.510	11.509	0.001	96	679471	4.00	4.15	
59 Dibromomethane	93	11.596	11.595	0.001	95	632141	4.00	4.16	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	1178556	4.00	4.28	
61 1,4-Dioxane	88	11.763	11.781	-0.018	95	248953	4.00	4.35	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	861534	4.00	4.22	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	892859	4.00	4.17	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	98	1521901	4.00	4.18	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	98	913127	4.00	4.25	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	885988	4.00	4.36	
67 Toluene	91	13.597	13.593	0.004	93	1776875	4.00	4.22	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	99	547625	4.00	4.20	
69 2-Hexanone	58	14.060	14.066	-0.006	89	668912	4.00	4.30	
71 n-Octane	85	14.292	14.288	0.004	97	568804	4.00	4.13	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	1309608	4.00	4.53	
72 Ethylene Dibromide	107	14.675	14.674	0.001	97	1092982	4.00	4.37	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	693690	4.00	4.04	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	1461212	4.00	4.18	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	2223594	4.00	4.25	
76 Ethylbenzene	91	15.915	15.914	0.001	98	2538724	4.00	4.30	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	4001961	8.00	8.64	
81 n-Nonane	57	16.492	16.494	-0.002	96	1327887	4.00	4.37	
78 Bromoform	173	16.525	16.525	0.000	97	1422909	4.00	5.49	
79 Styrene	104	16.541	16.543	-0.002	98	1449351	4.00	4.54	
80 o-Xylene	91	16.600	16.602	-0.002	99	2019938	4.00	4.15	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	1491704	4.00	4.35	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	469621	4.00	4.32	
84 Isopropylbenzene	105	17.188	17.187	0.001	95	3033081	4.00	4.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	790107	4.00	4.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	715846	4.00	4.09	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	3091126	4.00	4.30	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	1155375	4.00	4.21	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	1222128	4.00	4.65	
90 n-Decane	57	18.283	18.280	0.003	87	1777720	4.00	4.25	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	2742434	4.00	4.28	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	97	2756637	4.00	4.34	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	3969502	4.00	4.35	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	1782763	4.00	4.12	
96 Benzyl chloride	91	18.800	18.796	0.004	97	2244471	4.00	4.52	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	1782054	4.00	4.17	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3163292	4.00	4.29	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2606254	4.00	4.17	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	1994481	4.00	4.26	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2425370	4.00	4.27	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	1757169	4.00	4.17	
102 Indene	116	19.313	19.314	-0.002	90	2201908	4.00	4.30	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	3226973	4.00	4.25	
104 Undecane	57	19.636	19.638	-0.002	95	2100599	4.00	4.26	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	97	956590	4.00	4.62	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	3062915	4.00	4.33	
107 Dodecane	57	20.715	20.714	0.001	93	2157082	4.00	4.50	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	1638588	4.00	4.06	
109 Naphthalene	128	21.065	21.064	0.001	99	3144071	4.00	3.77	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	96	1748268	4.00	4.36	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	1545006	4.00	4.16	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	677421	4.00	2.83	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	717771	4.00	3.13	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	5900294	4.00	4.09	
S 116 Xylenes, Total	100				0		12.0	12.8	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.07	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

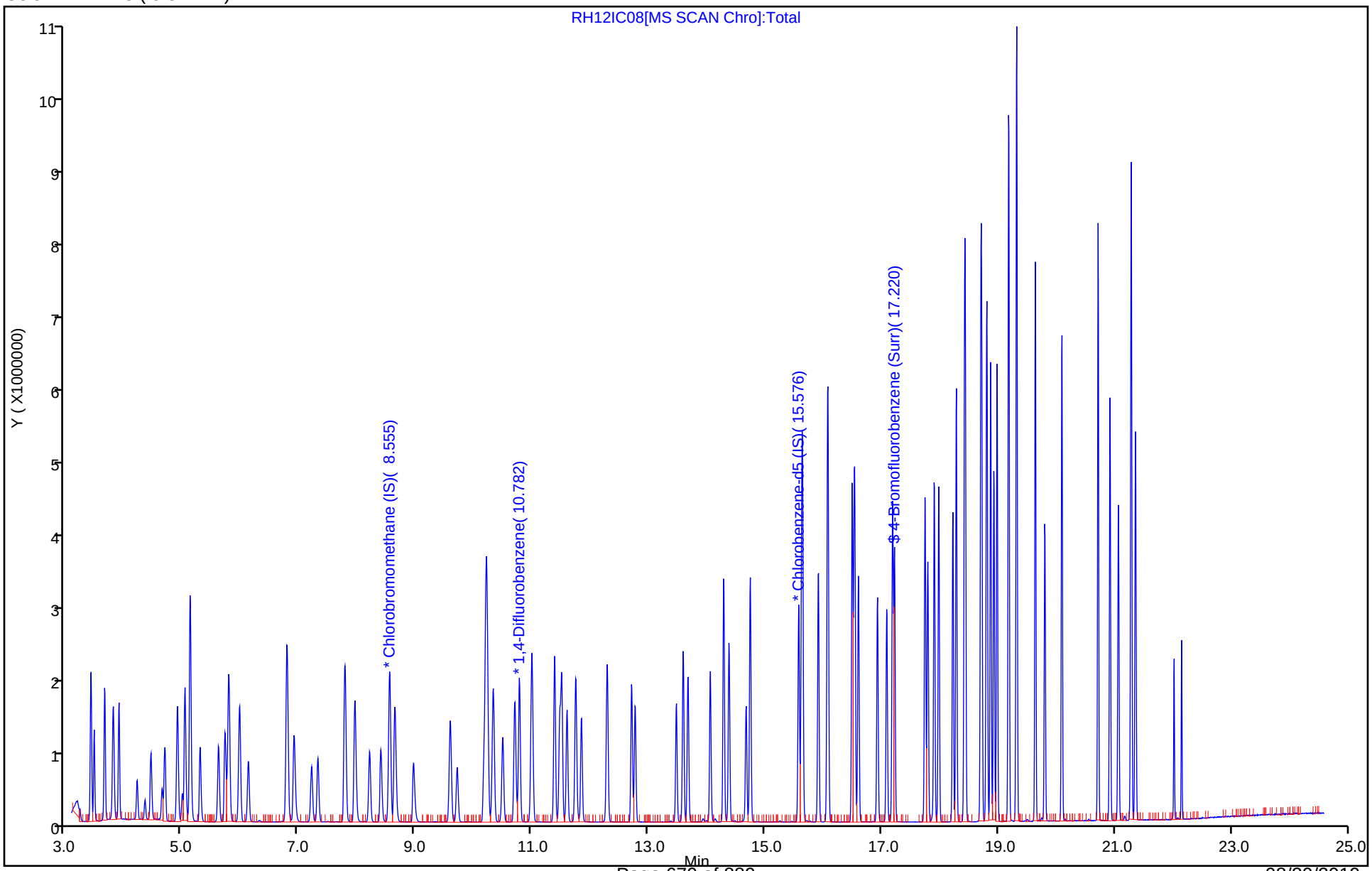
Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

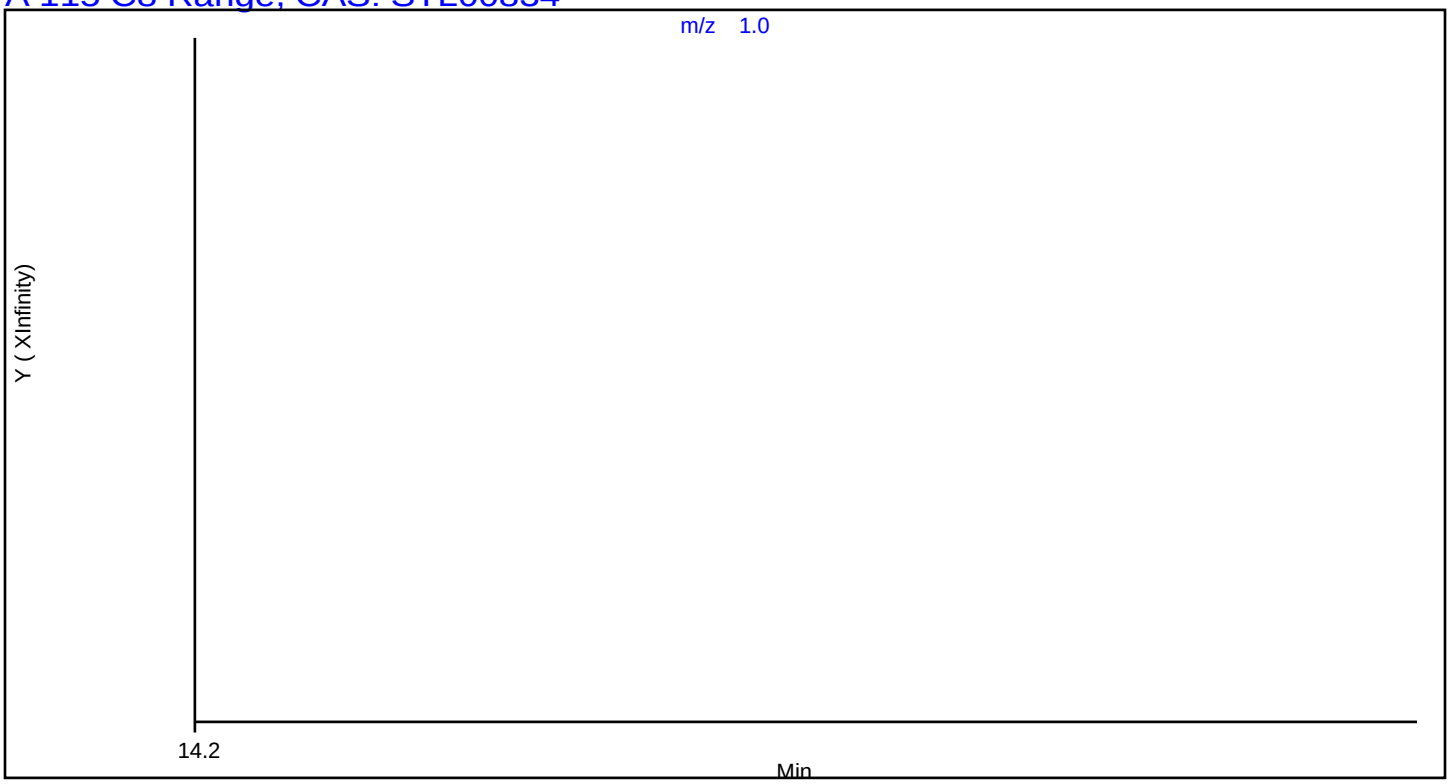


Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Aug-2019 01:46:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-017
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 14:01:26 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0310

First Level Reviewer: liul Date: 08-Aug-2019 14:01:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	489315	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	94	2460270	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	88	2289950	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1575637	4.00	3.96	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	96	488556	2.00	1.97	
7 Propene	41	3.840	3.839	0.001	96	251206	2.00	2.06	
8 Dichlorodifluoromethane	85	3.894	3.891	0.003	100	995132	2.00	2.06	
9 Chloromethane	52	4.082	4.085	-0.003	97	66671	2.00	1.90	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	89	588824	2.00	2.14	
11 Acetaldehyde	44	4.255	4.261	-0.006	91	266464	10.0	6.90	
12 Vinyl chloride	62	4.266	4.266	0.000	99	245218	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	352535	2.00	1.93	
14 Butadiene	54	4.357	4.360	-0.003	69	173846	2.00	1.87	
15 Bromomethane	94	4.697	4.699	-0.002	98	226647	2.00	1.95	
16 Chloroethane	64	4.848	4.849	-0.001	95	108684	2.00	1.91	
17 Ethanol	31	4.967	4.983	-0.016	98	264160	10.0	6.71	
18 Vinyl bromide	106	5.166	5.168	-0.002	96	218694	2.00	2.15	
19 2-Methylbutane	43	5.220	5.219	0.001	89	222377	2.00	1.92	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	802062	2.00	2.06	
21 Acrolein	56	5.468	5.472	-0.004	97	30703	2.00	1.82	
22 Acetonitrile	40	5.533	5.537	-0.004	98	39256	2.00	1.39	
23 Acetone	58	5.587	5.604	-0.017	100	48389	2.00	1.46	
24 Pentane	72	5.678	5.682	-0.004	96	34558	2.00	2.10	
25 Isopropyl alcohol	45	5.695	5.726	-0.031	94	217323	2.00	2.30	
26 Ethyl ether	31	5.862	5.869	-0.007	90	108869	2.00	1.56	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	273951	2.00	1.96	
28 Acrylonitrile	53	6.299	6.304	-0.005	94	107166	2.00	1.57	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	601551	2.00	1.97	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	95	414115	2.00	1.97	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	254639	2.00	1.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	247156	2.00	1.85	
33 Carbon disulfide	76	6.714	6.713	0.001	99	750779	2.00	2.00	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	99	274522	2.00	1.97	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	501052	2.00	1.74	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	587885	2.00	1.56	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	481046	2.00	1.80	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	376362	2.00	1.46	
40 Hexane	56	8.396	8.392	0.004	90	208038	2.00	1.86	
39 2-Butanone (MEK)	72	8.375	8.393	-0.018	98	78398	2.00	1.48	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	561675	2.00	1.58	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	276247	2.00	1.93	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	315013	2.00	1.37	
44 Chloroform	83	9.157	9.157	-0.001	96	621081	2.00	1.87	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	93	594016	2.00	1.47	
46 Tetrahydrofuran	42	9.577	9.605	-0.028	88	170766	2.00	1.44	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	740690	2.00	1.86	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	429233	2.00	1.90	
49 Cyclohexane	69	10.785	10.788	-0.003	79	135174	2.00	1.99	
50 Benzene	78	10.785	10.788	-0.003	97	744293	2.00	2.02	
52 Carbon tetrachloride	117	10.812	10.811	0.001	97	792237	2.00	2.12	
51 n-Butanol	31	10.785	10.822	-0.037	51	67370	2.00	2.19	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	89	180321	2.00	1.93	
54 Thiophene	84	11.055	11.057	-0.002	95	430542	2.00	1.98	
55 Isooctane	57	11.529	11.531	-0.002	97	1222219	2.00	1.89	
56 n-Heptane	71	11.890	11.898	-0.008	89	283963	2.00	1.98	
57 1,2-Dichloropropane	63	11.988	11.986	0.002	84	238206	2.00	1.84	
58 Trichloroethene	130	12.020	12.022	-0.002	98	420601	2.00	2.05	
59 Dibromomethane	93	12.106	12.108	-0.002	92	309292	2.00	2.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	645655	2.00	2.08	
61 1,4-Dioxane	88	12.279	12.304	-0.025	90	92281	2.00	1.73	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	212031	2.00	1.53	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	622284	2.00	2.40	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	403647	2.00	2.04	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	405924	2.00	1.87	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	366604	2.00	1.73	
67 Toluene	91	14.042	14.046	-0.004	94	815778	2.00	1.81	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	226200	2.00	1.72	
69 2-Hexanone	58	14.506	14.514	-0.008	95	209595	2.00	1.91	
70 n-Octane	85	14.711	14.714	-0.003	90	348608	2.00	2.13	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	662242	2.00	2.07	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	99	459872	2.00	1.88	
73 Tetrachloroethene	129	15.174	15.176	-0.002	97	412171	2.00	1.98	
75 Chlorobenzene	112	16.048	16.044	0.004	94	718490	2.00	1.91	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	715895	2.00	1.66	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1026339	2.00	1.72	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	1647623	4.00	3.53	
80 n-Nonane	57	16.889	16.891	-0.002	86	545977	2.00	1.91	
81 Bromoform	173	16.943	16.943	0.000	96	591919	2.00	2.04	
82 Styrene	104	16.948	16.951	-0.003	98	555145	2.00	1.82	
83 o-Xylene	91	17.008	17.012	-0.004	99	842230	2.00	1.67	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	485625	2.00	1.64	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	188272	2.00	1.64	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1192211	2.00	1.73	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	325016	2.00	1.69	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	340708	2.00	1.83	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1064941	2.00	1.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	526211	2.00	1.86	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	456216	2.00	1.74	
93 n-Decane	57	18.604	18.606	-0.002	94	602277	2.00	1.65	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1046750	2.00	1.63	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	958801	2.00	1.60	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1361439	2.00	1.62	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	752858	2.00	1.78	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	820460	2.00	1.76	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	753358	2.00	1.76	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1190444	2.00	1.59	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	737047	2.00	1.32	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	781266	2.00	1.65	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	879547	2.00	1.60	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	88	704588	2.00	1.77	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1067884	2.00	1.60	
106 Indene	116	19.596	19.598	-0.002	90	659271	2.00	1.44	
107 Undecane	57	19.893	19.893	0.000	93	580386	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	302450	2.00	1.49	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1123670	2.00	1.59	
110 Dodecane	57	20.944	20.944	0.000	96	494419	2.00	2.12	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	95	611666	2.00	1.73	
112 Naphthalene	128	21.295	21.297	-0.002	99	1252073	2.00	1.72	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	560237	2.00	1.63	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	562298	2.00	1.72	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	751467	2.00	2.93	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	701583	2.00	2.87	
A 122 C8 Range	1	14.721	(14.652-14.792)		0	2770126	2.00	2.04	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.90	
S 124 Xylenes, Total	100				0		6.00	5.20	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

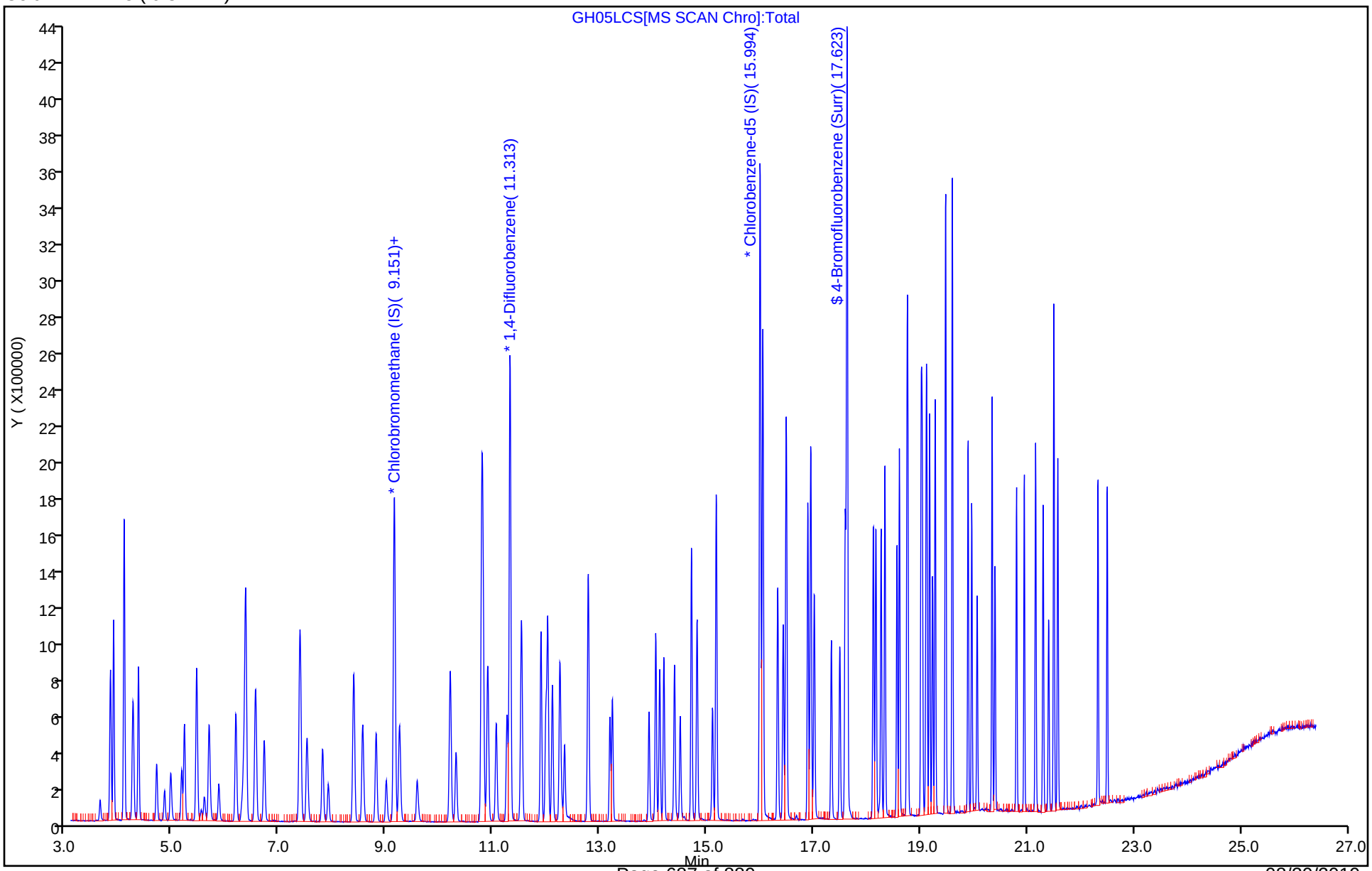
Report Date: 08-Aug-2019 14:01:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D

Injection Date:	06-Aug-2019 01:46:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.501		1.48	2.00	-26.1	30.0
Propene	Ave	0.996	0.6933		1.39	2.00	-30.4*	30.0
Dichlorodifluoromethane	Ave	3.947	3.431		1.74	2.00	-13.1	30.0
Chloromethane	Ave	0.2864	0.1932		1.35	2.00	-32.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.175		1.94	2.00	-3.1	30.0
Acetaldehyde	Ave	0.3158	0.1909		6.05	10.0	-39.5*	30.0
Vinyl chloride	Ave	1.044	0.7807		1.49	2.00	-25.3	30.0
1,3-Butadiene	Ave	0.7597	0.5632		1.48	2.00	-25.9	30.0
Butane	Ave	1.492	0.9683		1.30	2.00	-35.1*	30.0
Bromomethane	Ave	0.9503	0.8520		1.79	2.00	-10.3	30.0
Chloroethane	Ave	0.4643	0.3467		1.49	2.00	-25.3	30.0
Ethanol	Ave	0.3217	0.1826		5.68	10.0	-43.2*	30.0
Vinyl bromide	Ave	0.8333	0.8155		1.96	2.00	-2.1	30.0
2-Methylbutane	Ave	0.9463	0.6074		1.28	2.00	-35.8*	30.0
Trichlorofluoromethane	Ave	3.185	2.959		1.86	2.00	-7.1	30.0
Acrolein	Ave	0.1381	0.0846		1.23	2.00	-38.7*	30.0
Acetonitrile	Ave	0.2308	0.1313		1.14	2.00	-43.1*	30.0
Acetone	Ave	0.2705	0.1706		3.78	6.00	-37.0*	30.0
Pentane	Ave	0.1347	0.1160		1.72	2.00	-13.9	30.0
Isopropyl alcohol	Ave	0.7723	0.4608		3.58	6.00	-40.3*	30.0
Ethyl ether	Ave	0.5689	0.3367		1.18	2.00	-40.8*	30.0
1,1-Dichloroethene	Ave	1.140	1.156		2.03	2.00	1.4	30.0
Acrylonitrile	Ave	0.5581	0.4247		1.52	2.00	-23.9	30.0
tert-Butyl alcohol	Ave	1.715	1.182		1.38	2.00	-31.1*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.508		2.01	2.00	0.5	30.0
Methylene Chloride	Ave	1.108	1.086		1.96	2.00	-2.0	30.0
3-Chloropropene	Ave	1.095	0.8096		1.48	2.00	-26.1	30.0
Carbon disulfide	Ave	3.065	2.981		1.95	2.00	-2.7	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.202		2.11	2.00	5.4	30.0
2-Methylpentane	Ave	2.358	1.738		1.47	2.00	-26.3	30.0
Methyl tert-butyl ether	Ave	3.072	2.442		1.59	2.00	-20.5	30.0
1,1-Dichloroethane	Ave	2.187	1.877		1.72	2.00	-14.2	30.0
Vinyl acetate	Ave	2.107	1.496		1.42	2.00	-29.0	30.0
2-Butanone (MEK)	Ave	0.4337	0.3355		1.55	2.00	-22.6	30.0
Hexane	Ave	0.9137	0.7777		1.70	2.00	-14.9	30.0
Isopropyl ether	Ave	2.914	1.957		1.34	2.00	-32.9*	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.199		2.05	2.00	2.4	30.0
Ethyl acetate	Ave	1.876	1.233		1.31	2.00	-34.3*	30.0
Chloroform	Ave	2.715	2.511		1.85	2.00	-7.5	30.0
Tert-butyl ethyl ether	Ave	3.293	2.446		1.49	2.00	-25.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6045		1.25	2.00	-37.6*	30.0
1,1,1-Trichloroethane	Ave	3.254	3.045		1.87	2.00	-6.4	30.0
1,2-Dichloroethane	Ave	0.3682	0.3008		1.63	2.00	-18.3	30.0
Benzene	Ave	0.5978	0.5651		1.89	2.00	-5.5	30.0
Cyclohexane	Ave	0.1107	0.0970		1.75	2.00	-12.3	30.0
1-Butanol	Ave	0.0501	0.0299		1.19	2.00	-40.3*	30.0
Carbon tetrachloride	Ave	0.6079	0.5736		1.89	2.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1363		1.79	2.00	-10.4	30.0
Thiophene	Ave	0.3534	0.3477		1.97	2.00	-1.6	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.8187		1.56	2.00	-22.0	30.0
Heptane	Ave	0.2329	0.2056		1.77	2.00	-11.7	30.0
1,2-Dichloropropane	Ave	0.2110	0.1786		1.69	2.00	-15.4	30.0
Trichloroethene	Ave	0.3335	0.3427		2.06	2.00	2.8	30.0
Dibromomethane	Ave	0.2511	0.2400		1.91	2.00	-4.4	30.0
Bromodichloromethane	Ave	0.5049	0.4818		1.91	2.00	-4.6	30.0
1,4-Dioxane	Ave	0.0869	0.0618		1.42	2.00	-29.0	30.0
Methyl methacrylate	Ave	0.2246	0.1434		1.28	2.00	-36.2*	30.0
Methylcyclohexane	Ave	0.4217	0.3913		1.86	2.00	-7.2	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.1995		1.22	2.00	-38.9*	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3262		1.85	2.00	-7.6	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3322		1.80	2.00	-10.0	30.0
Toluene	Ave	0.7865	0.7510		1.91	2.00	-4.5	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2112		1.83	2.00	-8.3	30.0
2-Hexanone	Ave	0.1912	0.1268		1.33	2.00	-33.7*	30.0
Octane	Ave	0.2861	0.2774		1.94	2.00	-3.0	30.0
Dibromochloromethane	Ave	0.5582	0.5826		2.09	2.00	4.4	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4425		2.07	2.00	3.5	30.0
Tetrachloroethene	Ave	0.3641	0.3497		1.92	2.00	-4.0	30.0
Chlorobenzene	Ave	0.6563	0.6694		2.04	2.00	2.0	30.0
2,3-Dimethylheptane	Ave	0.7538	0.5283		1.40	2.00	-29.9	30.0
Ethylbenzene	Ave	1.041	0.9814		1.88	2.00	-5.8	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7506		3.68	4.00	-7.9	30.0
Nonane	Ave	0.5001	0.4062		1.62	2.00	-18.8	30.0
Bromoform	Ave	0.5067	0.5559		2.19	2.00	9.7	30.0
Styrene	Ave	0.5330	0.5534		2.08	2.00	3.8	30.0
o-Xylene	Ave	0.8833	0.8008		1.81	2.00	-9.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4653		1.80	2.00	-9.9	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1766		1.76	2.00	-11.8	30.0
Isopropylbenzene	Ave	1.202	1.099		1.83	2.00	-8.6	30.0
Propylbenzene	Ave	0.3368	0.3213		1.91	2.00	-4.6	30.0
2-Chlorotoluene	Ave	0.3248	0.3250		2.00	2.00	0.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.105		1.87	2.00	-6.3	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4739		1.92	2.00	-4.1	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4741		2.07	2.00	3.7	30.0
Decane	Ave	0.6385	0.4816		1.51	2.00	-24.6	30.0
tert-Butylbenzene	Ave	1.121	1.044		1.86	2.00	-6.8	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9275		1.77	2.00	-11.7	30.0
sec-Butylbenzene	Ave	1.470	1.354		1.84	2.00	-7.9	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.7471		2.02	2.00	1.1	30.0
Benzyl chloride	Ave	0.8145	0.7519		1.85	2.00	-7.7	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.7528		2.02	2.00	0.9	30.0
4-Isopropyltoluene	Ave	1.304	1.188		1.82	2.00	-8.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.9624		2.00	2.00	0.0	30.0
Butylcyclohexane	Ave	0.8263	0.7467		1.81	2.00	-9.6	30.0
Indane	Ave	0.9576	0.8974		1.87	2.00	-6.3	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.7140		2.05	2.00	2.7	30.0
Butylbenzene	Ave	1.167	0.9822		1.68	2.00	-15.8	30.0
Indene	Ave	0.7987	0.7784		1.95	2.00	-2.6	30.0
Undecane	Ave	0.5181	0.4843		1.87	2.00	-6.5	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.3470		1.96	2.00	-2.1	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	1.053		1.71	2.00	-14.5	30.0
Dodecane	Ave	0.4081	0.3355		1.64	2.00	-17.8	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5648		1.83	2.00	-8.7	30.0
Naphthalene	Ave	1.275	1.047		1.64	2.00	-17.9	30.0
Hexachlorobutadiene	Ave	0.6005	0.5673		1.89	2.00	-5.5	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4528		1.59	2.00	-20.7	30.0
2-Methylnaphthalene	Ave	0.4473	0.4022		1.80	2.00	-10.1	50.0
1-Methylnaphthalene	Ave	0.4268	0.3881		1.82	2.00	-9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6596		3.80	4.00	-5.1	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GCCVH21B.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Aug-2019 12:55:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012774-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 15:57:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 14:28:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.146	0.000	78	464447	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	93	2534948	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	85	2289629	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	96	1510140	4.00	3.80	
6 Chlorodifluoromethane	51	3.834	3.834	0.000	96	348478	2.00	1.48	
7 Propene	41	3.845	3.845	0.000	95	160998	2.00	1.39	
8 Dichlorodifluoromethane	85	3.899	3.899	0.000	99	796847	2.00	1.74	
9 Chloromethane	52	4.093	4.093	0.000	47	44874	2.00	1.35	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.098	4.098	0.000	87	505110	2.00	1.94	
11 Acetaldehyde	44	4.260	4.260	0.000	93	221686	10.0	6.05	
12 Vinyl chloride	62	4.271	4.271	0.000	99	181286	2.00	1.49	
13 Butane	43	4.363	4.363	0.000	81	224851	2.00	1.30	
14 Butadiene	54	4.363	4.363	0.000	76	130782	2.00	1.48	
15 Bromomethane	94	4.702	4.702	0.000	97	197847	2.00	1.79	
16 Chloroethane	64	4.853	4.853	0.000	96	80521	2.00	1.49	
17 Ethanol	31	4.972	4.972	0.000	98	212061	10.0	5.68	
18 Vinyl bromide	106	5.172	5.172	0.000	98	189381	2.00	1.96	
19 2-Methylbutane	43	5.220	5.220	0.000	87	141061	2.00	1.28	
20 Trichlorofluoromethane	101	5.452	5.452	0.000	99	687175	2.00	1.86	
21 Acrolein	56	5.468	5.468	0.000	94	19653	2.00	1.23	
22 Acetonitrile	40	5.544	5.544	0.000	98	30495	2.00	1.14	
23 Acetone	58	5.592	5.592	0.000	100	118829	6.00	3.78	
24 Pentane	72	5.684	5.684	0.000	95	26930	2.00	1.72	
25 Isopropyl alcohol	45	5.700	5.700	0.000	94	321049	6.00	3.58	
26 Ethyl ether	31	5.862	5.862	0.000	87	78196	2.00	1.18	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	99	268449	2.00	2.03	
28 Acrylonitrile	53	6.299	6.299	0.000	93	98632	2.00	1.52	
30 2-Methyl-2-propanol	59	6.352	6.352	0.000	93	274595	2.00	1.38	
29 1,1,2-Trichloro-1,2,2-trif	101	6.369	6.369	0.000	95	582414	2.00	2.01	
31 Methylene Chloride	84	6.547	6.547	0.000	87	252287	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.563	0.000	93	187999	2.00	1.48	
33 Carbon disulfide	76	6.714	6.714	0.000	98	692177	2.00	1.95	
34 trans-1,2-Dichloroethene	96	7.377	7.377	0.000	95	279227	2.00	2.11	
35 2-Methylpentane	43	7.393	7.393	0.000	88	403687	2.00	1.47	
36 Methyl tert-butyl ether	73	7.523	7.523	0.000	94	567085	2.00	1.59	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	99	435818	2.00	1.72	
38 Vinyl acetate	43	7.916	7.916	0.000	99	347475	2.00	1.42	
39 2-Butanone (MEK)	72	8.375	8.375	0.000	98	77916	2.00	1.55	
40 Hexane	56	8.391	8.391	0.000	91	180589	2.00	1.70	
41 Isopropyl ether	45	8.558	8.558	0.000	92	454425	2.00	1.34	
42 cis-1,2-Dichloroethene	96	8.811	8.811	0.000	90	278481	2.00	2.05	
43 Ethyl acetate	43	9.000	9.000	0.000	99	286250	2.00	1.31	
44 Chloroform	83	9.156	9.156	0.000	96	583156	2.00	1.85	
45 Tert-butyl ethyl ether	59	9.248	9.248	0.000	92	567963	2.00	1.49	
46 Tetrahydrofuran	42	9.577	9.577	0.000	83	140386	2.00	1.25	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	94	707227	2.00	1.87	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	381291	2.00	1.63	
49 Cyclohexane	69	10.785	10.785	0.000	70	122995	2.00	1.75	
50 Benzene	78	10.785	10.785	0.000	96	716184	2.00	1.89	
51 n-Butanol	31	10.801	10.801	0.000	68	37894	2.00	1.19	
52 Carbon tetrachloride	117	10.807	10.807	0.000	97	727007	2.00	1.89	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	87	172794	2.00	1.79	
54 Thiophene	84	11.055	11.055	0.000	91	440641	2.00	1.97	
55 Isooctane	57	11.529	11.529	0.000	97	1037700	2.00	1.56	
56 n-Heptane	71	11.896	11.896	0.000	83	260636	2.00	1.77	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	87	226374	2.00	1.69	
58 Trichloroethene	130	12.020	12.020	0.000	97	434392	2.00	2.06	
59 Dibromomethane	93	12.106	12.106	0.000	91	304207	2.00	1.91	
60 Dichlorobromomethane	83	12.246	12.246	0.000	98	610621	2.00	1.91	
61 1,4-Dioxane	88	12.273	12.273	0.000	83	78289	2.00	1.42	
62 Methyl methacrylate	41	12.333	12.333	0.000	96	181689	2.00	1.28	
63 Methylcyclohexane	83	12.775	12.775	0.000	92	495897	2.00	1.86	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.185	0.000	92	252794	2.00	1.22	
65 cis-1,3-Dichloropropene	75	13.228	13.228	0.000	92	413449	2.00	1.85	
66 trans-1,3-Dichloropropene	75	13.907	13.907	0.000	96	380267	2.00	1.80	
67 Toluene	91	14.037	14.037	0.000	94	859700	2.00	1.91	
68 1,1,2-Trichloroethane	83	14.112	14.112	0.000	97	241754	2.00	1.83	
69 2-Hexanone	58	14.495	14.495	0.000	97	145201	2.00	1.33	
70 n-Octane	85	14.705	14.705	0.000	83	317617	2.00	1.94	
71 Chlorodibromomethane	129	14.808	14.808	0.000	98	666962	2.00	2.09	
72 Ethylene Dibromide	107	15.099	15.099	0.000	100	506574	2.00	2.07	
73 Tetrachloroethene	129	15.169	15.169	0.000	97	400296	2.00	1.92	
75 Chlorobenzene	112	16.037	16.037	0.000	95	766381	2.00	2.04	
74 2,3-Dimethylheptane	43	16.043	16.043	0.000	85	604774	2.00	1.40	
78 Ethylbenzene	91	16.318	16.318	0.000	97	1123562	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.479	16.479	0.000	97	1718556	4.00	3.68	
80 n-Nonane	57	16.878	16.878	0.000	81	465050	2.00	1.62	
81 Bromoform	173	16.932	16.932	0.000	96	636365	2.00	2.19	
82 Styrene	104	16.938	16.938	0.000	97	633573	2.00	2.08	
83 o-Xylene	91	17.002	17.002	0.000	98	916723	2.00	1.81	
84 1,1,2,2-Tetrachloroethane	83	17.321	17.321	0.000	100	532678	2.00	1.80	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	96	202219	2.00	1.76	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.579	17.579	0.000	95	1257629	2.00	1.83	
87 N-Propylbenzene	120	18.108	18.108	0.000	100	367860	2.00	1.91	
88 2-Chlorotoluene	126	18.156	18.156	0.000	96	372025	2.00	2.00	
89 4-Ethyltoluene	105	18.253	18.253	0.000	98	1265049	2.00	1.87	
90 1,3,5-Trimethylbenzene	120	18.324	18.324	0.000	94	542534	2.00	1.92	
92 Alpha Methyl Styrene	118	18.550	18.550	0.000	92	542760	2.00	2.07	
93 n-Decane	57	18.593	18.593	0.000	93	551387	2.00	1.51	
94 tert-Butylbenzene	119	18.739	18.739	0.000	94	1195429	2.00	1.86	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	95	1061776	2.00	1.77	
96 sec-Butylbenzene	105	19.003	19.003	0.000	98	1550242	2.00	1.84	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	97	855310	2.00	2.02	
98 Benzyl chloride	91	19.095	19.095	0.000	99	860823	2.00	1.85	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	96	861768	2.00	2.02	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1359783	2.00	1.82	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	98	1101715	2.00	2.00	
102 Butylcyclohexane	83	19.262	19.262	0.000	96	854776	2.00	1.81	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1027384	2.00	1.87	
104 1,2-Dichlorobenzene	146	19.461	19.461	0.000	89	817421	2.00	2.05	
105 n-Butylbenzene	91	19.585	19.585	0.000	98	1124427	2.00	1.68	
106 Indene	116	19.585	19.585	0.000	91	891079	2.00	1.95	
107 Undecane	57	19.882	19.882	0.000	90	554374	2.00	1.87	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	95	397276	2.00	1.96	
109 1,2,4,5-Tetramethylbenzene	119	20.329	20.329	0.000	97	1206034	2.00	1.71	
110 Dodecane	57	20.928	20.928	0.000	95	384106	2.00	1.64	
111 1,2,4-Trichlorobenzene	180	21.144	21.144	0.000	94	646578	2.00	1.83	
112 Naphthalene	128	21.284	21.284	0.000	99	1198220	2.00	1.64	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	649405	2.00	1.89	
114 1,2,3-Trichlorobenzene	180	21.559	21.559	0.000	96	518380	2.00	1.59	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	99	460476	2.00	1.80	
116 1-Methylnaphthalene	142	22.486	22.486	0.000	99	444334	2.00	1.82	
A 122 C8 Range	1	14.700	(14.647-14.754)		0	2249258	2.00	1.66	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.16	
S 124 Xylenes, Total	100				0		6.00	5.50	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

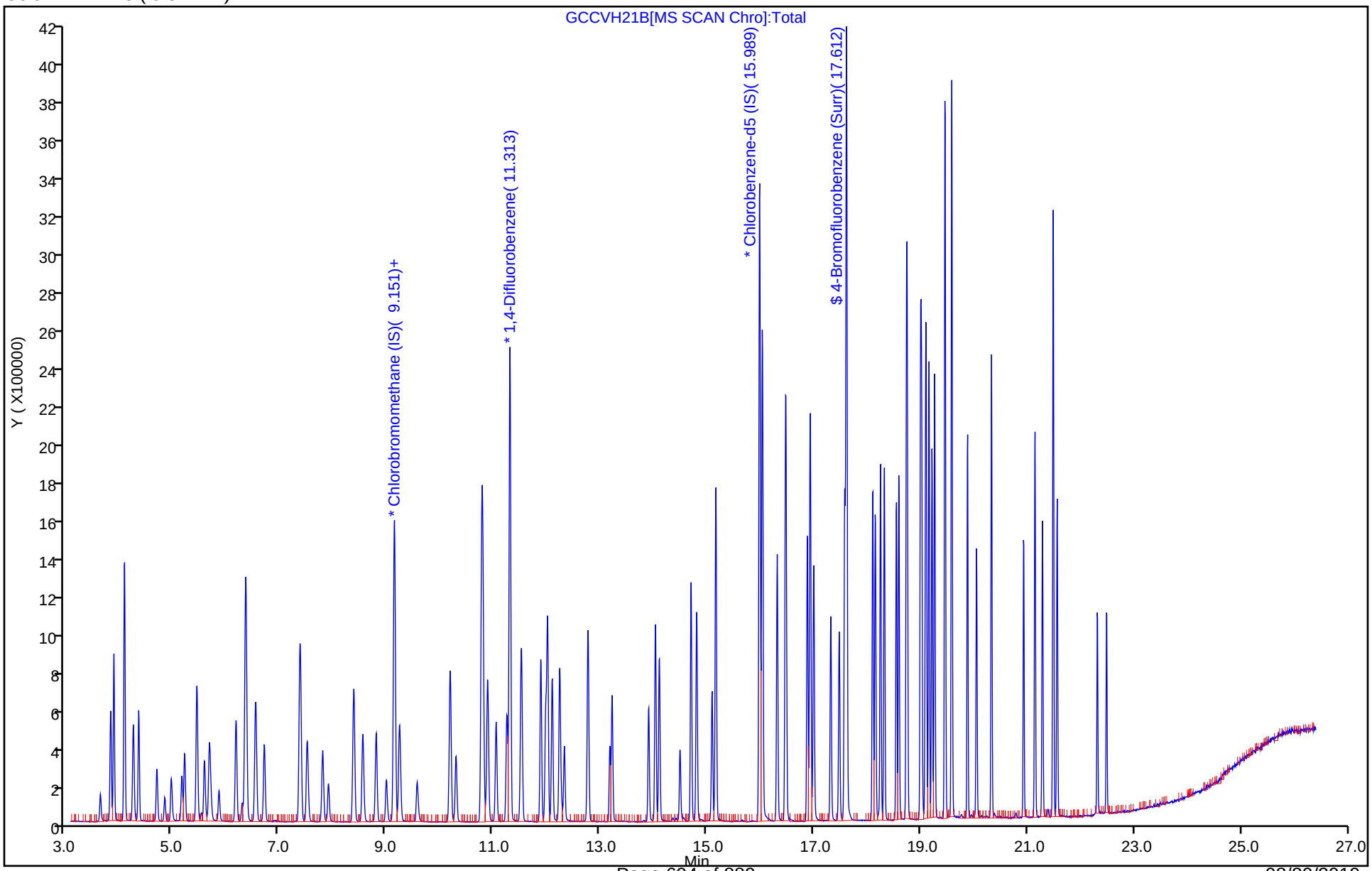
Report Date: 22-Aug-2019 15:57:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GCCVH21B.D

Injection Date:	21-Aug-2019 12:55:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Jul-2019 12:28:30 ALS Bottle#: 10 Worklist Smp#: 30
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-029
Misc. Info.: 231539(S94)
Operator ID: 403648 Instrument ID: MJ
Sublist:

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:38:33 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 13:14:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	95	274664	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1422205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.456	16.453	0.003	91	1231744	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.054	18.052	0.002	89	937163	4.00	4.14	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	130636	2.00	1.74	
20 Propene	41	4.169	4.169	0.000	97	91061	2.00	1.67	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	161912	2.00	1.88	
22 Chloromethane	52	4.438	4.441	-0.003	100	52048	2.00	1.88	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.444	0.005	48	22866	2.00	1.91	
24 Acetaldehyde	44	4.621	4.617	0.004	92	256331	10.0	7.17	
25 Vinyl chloride	62	4.643	4.642	0.001	99	189280	2.00	2.03	
26 Butane	43	4.739	4.739	0.000	85	295045	2.00	2.05	
27 Butadiene	54	4.745	4.741	0.004	67	135553	2.00	1.92	
28 Bromomethane	94	5.116	5.117	-0.001	98	157964	2.00	1.92	
29 Chloroethane	64	5.283	5.275	0.008	89	80362	2.00	1.96	
30 Ethanol	31	5.385	5.386	-0.001	98	274147	10.0	7.40	
31 Vinyl bromide	106	5.622	5.618	0.004	97	158319	2.00	2.08	
32 2-Methylbutane	43	5.670	5.669	0.001	92	203035	2.00	2.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	581099	2.00	1.96	
34 Acrolein	56	5.928	5.930	-0.002	26	38584	2.00	2.14	
35 Acetonitrile	40	6.004	6.004	0.000	96	45265	2.00	1.59	
36 Acetone	58	6.063	6.061	0.002	99	49838	2.00	1.58	
38 Pentane	72	6.160	6.155	0.005	96	23125	2.00	2.04	
37 Isopropyl alcohol	45	6.149	6.155	-0.006	94	223972	2.00	2.44	
39 Ethyl ether	31	6.342	6.345	-0.003	89	173794	2.00	1.70	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	166820	2.00	1.98	
41 Acrylonitrile	53	6.805	6.802	0.003	54	92949	2.00	1.65	
42 2-Methyl-2-propanol	59	6.805	6.814	-0.009	95	278687	2.00	1.96	
43 1,1,2-Trichloro-1,2,2-trif	101	6.875	6.873	0.002	95	363927	2.00	1.86	
44 Methylene Chloride	84	7.069	7.067	0.002	96	158646	2.00	1.54	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	97	171950	2.00	1.80	
46 Carbon disulfide	76	7.252	7.248	0.004	100	503733	2.00	1.96	
47 trans-1,2-Dichloroethene	96	7.924	7.922	0.002	93	155665	2.00	1.85	
48 2-Methylpentane	43	7.929	7.928	0.001	95	388446	2.00	1.67	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	368158	2.00	1.64	
50 1,1-Dichloroethane	63	8.365	8.363	0.002	100	315408	2.00	1.68	
51 Vinyl acetate	43	8.462	8.461	0.001	100	373043	2.00	1.57	
52 2-Butanone (MEK)	72	8.941	8.943	-0.002	95	59334	2.00	1.60	
53 Hexane	56	8.946	8.948	-0.002	77	132378	2.00	1.75	
54 Isopropyl ether	45	9.113	9.118	-0.005	96	485926	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	154488	2.00	1.78	
56 Ethyl acetate	43	9.559	9.566	-0.007	97	310905	2.00	1.57	
57 Chloroform	83	9.737	9.735	0.002	96	373034	2.00	1.67	
58 Tert-butyl ethyl ether	59	9.807	9.817	-0.010	97	418746	2.00	1.57	
59 Tetrahydrofuran	42	10.162	10.176	-0.014	92	159172	2.00	1.61	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	400840	2.00	1.67	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	278292	2.00	1.70	
62 n-Butanol	31	11.286	11.296	-0.010	64	74175	2.00	1.91	
63 Cyclohexane	69	11.340	11.337	0.003	73	78867	2.00	1.80	
64 Benzene	78	11.340	11.340	0.000	97	438518	2.00	1.68	
65 Carbon tetrachloride	117	11.361	11.361	0.000	96	454012	2.00	2.08	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	90	100308	2.00	1.71	
67 Thiophene	84	11.604	11.604	0.000	97	245342	2.00	1.66	
68 Isooctane	57	12.039	12.041	-0.002	97	808269	2.00	1.74	
69 n-Heptane	71	12.394	12.392	0.002	95	153802	2.00	1.72	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	87	185370	2.00	1.69	
71 Trichloroethene	130	12.540	12.537	0.003	93	200047	2.00	1.70	
72 Dibromomethane	93	12.631	12.627	0.004	94	215885	2.00	1.78	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	398744	2.00	1.72	
74 1,4-Dioxane	88	12.782	12.787	-0.005	95	54123	2.00	1.78	
75 Methyl methacrylate	41	12.825	12.827	-0.002	88	209117	2.00	1.64	
76 Methylcyclohexane	83	13.277	13.277	0.000	92	334376	2.00	2.10	
77 4-Methyl-2-pentanone (MIBK	43	13.659	13.662	-0.004	99	359756	2.00	1.80	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	285639	2.00	1.76	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	269835	2.00	1.78	
80 Toluene	91	14.519	14.519	0.000	92	520816	2.00	1.75	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	94	168159	2.00	1.77	
82 2-Hexanone	58	14.950	14.956	-0.006	91	165032	2.00	1.89	
83 n-Octane	85	15.154	15.154	0.000	96	160766	2.00	1.76	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	362042	2.00	1.76	
85 Ethylene Dibromide	107	15.579	15.579	0.000	97	308281	2.00	1.78	
86 Tetrachloroethene	129	15.638	15.637	0.001	93	206298	2.00	1.73	
87 2,3-Dimethylheptane	43	16.483	16.478	0.005	94	549502	2.00	1.57	
88 Chlorobenzene	112	16.499	16.501	-0.002	91	419046	2.00	1.76	
89 Ethylbenzene	91	16.773	16.773	0.000	100	650469	2.00	1.70	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	1027384	4.00	3.49	
91 n-Nonane	57	17.311	17.307	0.004	94	382913	2.00	1.80	
92 Styrene	104	17.392	17.392	0.000	97	362854	2.00	1.73	
93 Bromoform	173	17.397	17.398	-0.001	94	356750	2.00	1.62	
94 o-Xylene	91	17.456	17.453	0.003	97	529548	2.00	1.69	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	391296	2.00	1.80	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	105524	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.016	18.012	0.004	98	695973	2.00	1.70	
98 N-Propylbenzene	120	18.522	18.517	0.005	98	188998	2.00	1.73	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	194678	2.00	1.85	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	674463	2.00	1.66	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	315405	2.00	1.94	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	293576	2.00	1.75	
103 n-Decane	57	18.973	18.974	-0.001	89	487884	2.00	1.81	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	636933	2.00	1.70	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	96	622242	2.00	1.73	
106 sec-Butylbenzene	105	19.393	19.389	0.004	98	893172	2.00	1.76	
107 1,3-Dichlorobenzene	146	19.420	19.419	0.001	98	451945	2.00	1.80	
108 Benzyl chloride	91	19.490	19.487	0.003	97	564628	2.00	1.83	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	91	452286	2.00	1.78	
110 4-Isopropyltoluene	119	19.544	19.542	0.002	98	743286	2.00	1.75	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	462780	2.00	1.31	
112 Butylcyclohexane	83	19.646	19.642	0.004	90	533083	2.00	1.74	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	92	557324	2.00	1.70	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	432238	2.00	1.75	
115 n-Butylbenzene	91	19.963	19.958	0.005	97	816521	2.00	1.85	
116 Indene	116	19.974	19.974	0.000	88	433186	2.00	1.54	
117 Undecane	57	20.238	20.235	0.003	94	556918	2.00	1.83	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	93	164906	2.00	1.34	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	677306	2.00	1.76	
120 Dodecane	57	21.324	21.323	0.001	92	564912	2.00	2.18	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	368640	2.00	1.83	
122 Naphthalene	128	21.695	21.693	0.002	98	590000	2.00	1.87	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	443133	2.00	1.82	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	328156	2.00	2.06	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	236290	2.00	2.74	
126 1-Methylnaphthalene	142	22.551	22.549	0.002	99	220463	2.00	2.13	
A 128 C8 Range	1	15.169	(15.114-15.211)		0	1770809	2.00	1.81	
S 129 Xylenes, Total	100				0		6.00	5.19	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.63	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

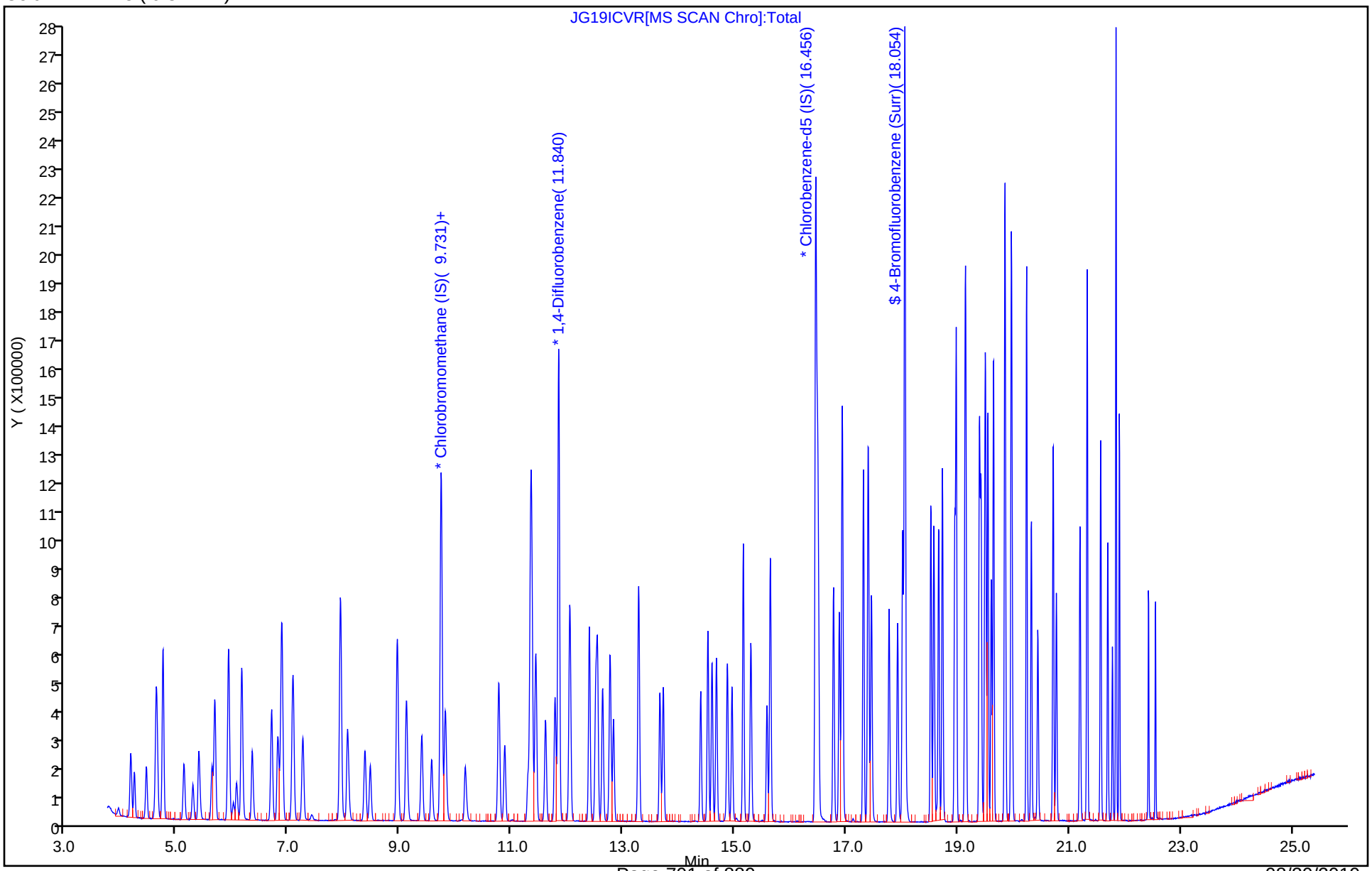
Report Date: 24-Jul-2019 11:38:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D

Injection Date:	20-Jul-2019 12:28:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	30
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-Aug-2019 08:11:30 ALS Bottle#: 7 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012855-002
Misc. Info.: p92
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:39:25 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	97	238218	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.834	0.000	95	1260984	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.444	0.000	88	1074888	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	716191	4.00	3.63	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	137671	2.00	2.11	
20 Propene	41	4.168	4.168	0.000	98	102544	2.00	2.17	
21 Dichlorodifluoromethane	85	4.222	4.222	0.000	100	157397	2.00	2.11	
22 Chloromethane	52	4.437	4.437	0.000	100	61807	2.00	2.57	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.443	0.000	94	30193	2.00	2.91	
24 Acetaldehyde	44	4.615	4.615	0.000	99	356510	10.0	11.5	
25 Vinyl chloride	62	4.636	4.636	0.000	99	207570	2.00	2.56	
27 Butadiene	54	4.733	4.733	0.000	66	151991	2.00	2.48	
26 Butane	43	4.738	4.738	0.000	86	298254	2.00	2.39	
28 Bromomethane	94	5.110	5.110	0.000	99	190694	2.00	2.67	
29 Chloroethane	64	5.271	5.271	0.000	98	92154	2.00	2.59	
30 Ethanol	31	5.384	5.384	0.000	96	348784	10.0	10.9	
31 Vinyl bromide	106	5.615	5.615	0.000	98	176720	2.00	2.67	
32 2-Methylbutane	43	5.664	5.664	0.000	93	215232	2.00	2.50	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	100	513690	2.00	1.99	
34 Acrolein	56	5.927	5.927	0.000	95	44357	2.00	2.84	
35 Acetonitrile	40	6.003	6.003	0.000	100	65824	2.00	2.66	
36 Acetone	58	6.056	6.056	0.000	98	208913	6.00	7.62	
37 Isopropyl alcohol	45	6.148	6.148	0.000	93	507301	6.00	6.37	
38 Pentane	72	6.148	6.148	0.000	97	26706	2.00	2.71	
39 Ethyl ether	31	6.336	6.336	0.000	92	170249	2.00	1.92	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	97	158508	2.00	2.17	
41 Acrylonitrile	53	6.799	6.799	0.000	79	106580	2.00	2.18	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	192341	2.00	1.56	
43 1,1,2-Trichloro-1,2,2-trif	101	6.863	6.863	0.000	95	353774	2.00	2.08	
44 Methylene Chloride	84	7.062	7.062	0.000	98	162549	2.00	1.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	140541	2.00	1.69	
46 Carbon disulfide	76	7.245	7.245	0.000	99	486121	2.00	2.18	
47 trans-1,2-Dichloroethene	96	7.918	7.918	0.000	96	160173	2.00	2.19	
48 2-Methylpentane	43	7.923	7.923	0.000	96	379457	2.00	1.89	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	371838	2.00	1.91	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	99	314937	2.00	1.93	
51 Vinyl acetate	43	8.456	8.456	0.000	100	397258	2.00	1.92	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	64994	2.00	2.02	
53 Hexane	56	8.940	8.940	0.000	79	127201	2.00	1.94	
54 Isopropyl ether	45	9.107	9.107	0.000	97	474646	2.00	1.91	
55 cis-1,2-Dichloroethene	96	9.376	9.376	0.000	96	163713	2.00	2.17	
56 Ethyl acetate	43	9.558	9.558	0.000	98	319362	2.00	1.87	
57 Chloroform	83	9.731	9.731	0.000	95	362268	2.00	1.87	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	426599	2.00	1.84	
59 Tetrahydrofuran	42	10.161	10.161	0.000	94	162085	2.00	1.89	
60 1,1,1-Trichloroethane	97	10.758	10.758	0.000	97	348488	2.00	1.68	
61 1,2-Dichloroethane	62	10.866	10.866	0.000	97	219625	2.00	1.52	
62 n-Butanol	31	11.285	11.285	0.000	88	43786	2.00	1.27	
63 Cyclohexane	69	11.328	11.328	0.000	83	73044	2.00	1.88	
64 Benzene	78	11.334	11.334	0.000	97	477441	2.00	2.07	
65 Carbon tetrachloride	117	11.355	11.355	0.000	97	353733	2.00	1.83	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	106994	2.00	2.05	
67 Thiophene	84	11.597	11.597	0.000	96	274688	2.00	2.09	
68 Isooctane	57	12.033	12.033	0.000	98	776028	2.00	1.88	
69 n-Heptane	71	12.388	12.388	0.000	94	156410	2.00	1.97	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	194465	2.00	2.00	
71 Trichloroethene	130	12.528	12.528	0.000	96	209946	2.00	2.01	
72 Dibromomethane	93	12.619	12.619	0.000	96	211503	2.00	1.97	
73 Dichlorobromomethane	83	12.754	12.754	0.000	99	356677	2.00	1.74	
74 1,4-Dioxane	88	12.775	12.775	0.000	87	51079	2.00	1.89	
75 Methyl methacrylate	41	12.818	12.818	0.000	93	191167	2.00	1.69	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	279276	2.00	1.97	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	266639	2.00	1.51	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	94	277941	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	243137	2.00	1.84	
80 Toluene	91	14.513	14.513	0.000	93	535089	2.00	2.06	
81 1,1,2-Trichloroethane	83	14.583	14.583	0.000	97	177176	2.00	2.13	
82 2-Hexanone	58	14.949	14.949	0.000	92	124869	2.00	1.64	
83 n-Octane	85	15.148	15.148	0.000	95	155478	2.00	1.95	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	350459	2.00	1.95	
85 Ethylene Dibromide	107	15.567	15.567	0.000	98	304790	2.00	2.01	
86 Tetrachloroethene	129	15.632	15.632	0.000	94	197210	2.00	1.89	
87 2,3-Dimethylheptane	43	16.471	16.471	0.000	96	549565	2.00	1.80	
88 Chlorobenzene	112	16.493	16.493	0.000	94	420646	2.00	2.02	
89 Ethylbenzene	91	16.767	16.767	0.000	99	655741	2.00	1.96	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	996544	4.00	3.88	
91 n-Nonane	57	17.305	17.305	0.000	94	343639	2.00	1.85	
92 Styrene	104	17.386	17.386	0.000	99	378623	2.00	2.07	
93 Bromoform	173	17.391	17.391	0.000	95	391286	2.00	2.03	
94 o-Xylene	91	17.445	17.445	0.000	99	526455	2.00	1.93	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	98	417311	2.00	2.19	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	101202	2.00	1.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.004	18.004	0.000	96	696473	2.00	1.96	
98 N-Propylbenzene	120	18.510	18.510	0.000	99	195522	2.00	2.06	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	193865	2.00	2.11	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	703830	2.00	1.98	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	296417	2.00	2.09	
102 Alpha Methyl Styrene	118	18.940	18.940	0.000	87	306614	2.00	2.10	
103 n-Decane	57	18.967	18.967	0.000	89	451745	2.00	1.92	
104 tert-Butylbenzene	119	19.129	19.129	0.000	91	638506	2.00	1.96	
105 1,2,4-Trimethylbenzene	105	19.139	19.139	0.000	96	610551	2.00	1.94	
106 sec-Butylbenzene	105	19.387	19.387	0.000	98	909167	2.00	2.06	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	456637	2.00	2.08	
108 Benzyl chloride	91	19.484	19.484	0.000	98	522902	2.00	1.94	
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	94	453337	2.00	2.05	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	739942	2.00	1.99	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	600099	2.00	1.94	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	562299	2.00	2.11	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	94	609050	2.00	2.13	
114 1,2-Dichlorobenzene	146	19.844	19.844	0.000	96	452134	2.00	2.10	
115 n-Butylbenzene	91	19.957	19.957	0.000	98	786336	2.00	2.04	
116 Indene	116	19.968	19.968	0.000	94	512013	2.00	2.09	
117 Undecane	57	20.231	20.231	0.000	96	520041	2.00	1.96	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.436	0.000	97	232500	2.00	2.17	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	661873	2.00	1.98	
120 Dodecane	57	21.318	21.318	0.000	95	452051	2.00	2.00	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	387486	2.00	2.20	
122 Naphthalene	128	21.689	21.689	0.000	99	624363	2.00	2.27	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	94	527469	2.00	2.49	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	336530	2.00	2.42	
125 2-Methylnaphthalene	142	22.421	22.421	0.000	99	191359	2.00	2.54	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	98	177960	2.00	1.97	
A 128 C8 Range	1	15.158	(15.115-15.201)		0	1562083	2.00	1.83	
S 129 Xylenes, Total	100				0		6.00	5.81	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.37	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

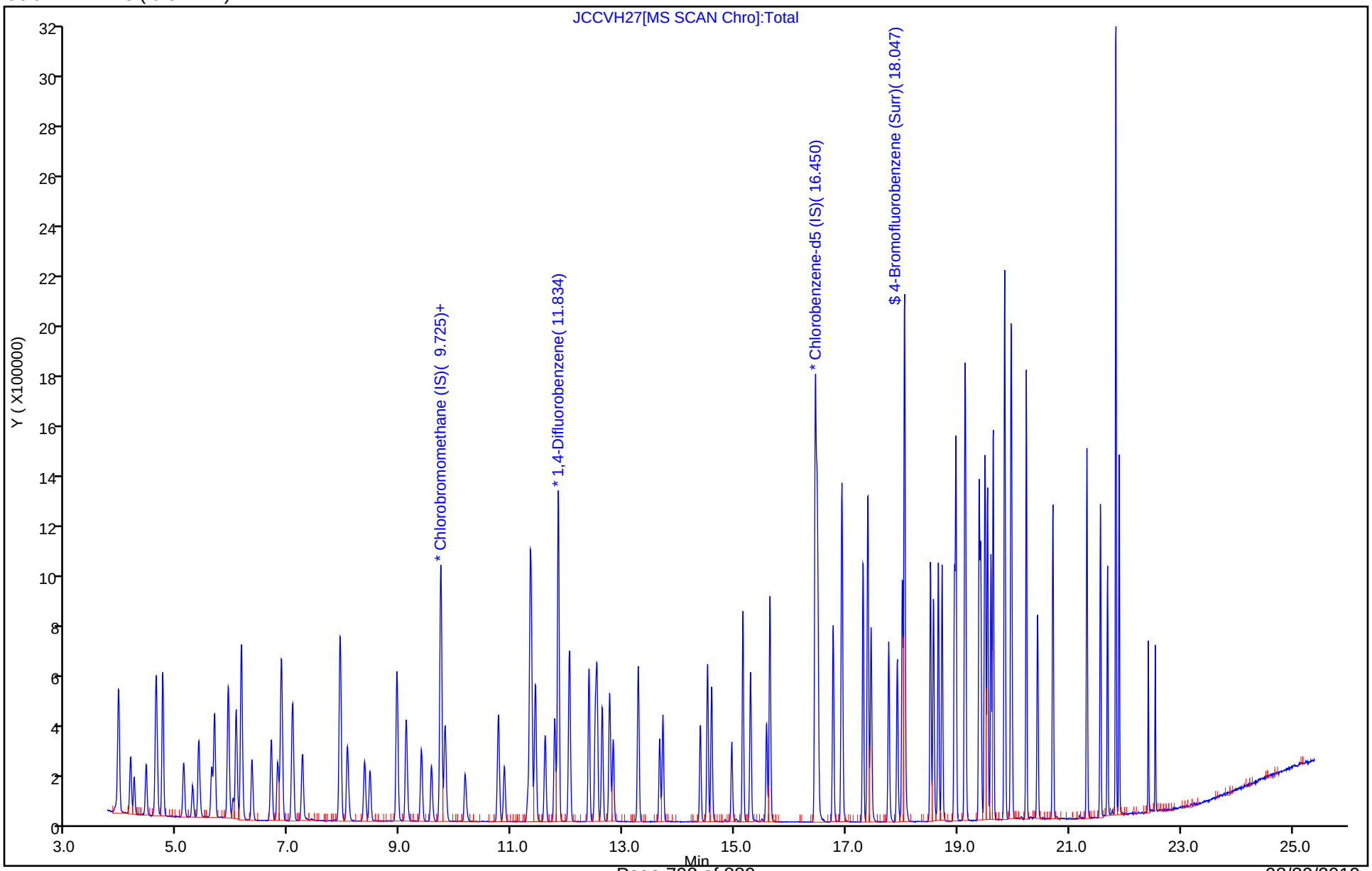
Report Date: 28-Aug-2019 10:39:27 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27.D

Injection Date:	27-Aug-2019 08:11:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-Aug-2019 00:56:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 12:53:23 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0318

First Level Reviewer: liul Date: 15-Aug-2019 12:53:23

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.538	8.551	-0.013	97	280567	4.00	4.00	
*	2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1667707	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1428519	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	985825	4.00	4.00	
	6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	496839	2.00	2.07	
	7 Propene	41	3.437	3.439	-0.002	99	290502	2.00	2.18	
	8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	523962	2.00	2.42	
	9 Chloromethane	52	3.664	3.665	-0.001	63	52984	2.00	1.63	
	10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	325648	2.00	2.96	
	11 Acetaldehyde	44	3.809	3.817	-0.008	97	353288	10.0	9.28	
	12 Vinyl chloride	62	3.826	3.831	-0.005	99	188121	2.00	1.82	
	13 Butadiene	54	3.906	3.913	-0.007	69	142421	2.00	1.90	
	14 Butane	43	3.912	3.914	-0.002	84	275227	2.00	1.73	
	15 Bromomethane	94	4.219	4.227	-0.008	97	165432	2.00	1.89	
	16 Chloroethane	64	4.354	4.359	-0.005	93	77012	2.00	1.82	
	17 Ethanol	31	4.451	4.464	-0.013	98	340620	10.0	8.94	
	18 Vinyl bromide	106	4.651	4.656	-0.005	98	156532	2.00	2.14	
	19 2-Methylbutane	43	4.699	4.699	0.000	92	212214	2.00	1.79	
	21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	578470	2.00	2.15	
	20 Acrolein	56	4.926	4.936	-0.010	96	74819	2.00	2.24	
	24 Acetonitrile	40	4.990	5.001	-0.011	97	106694	2.00	2.15	
	22 Acetone	58	5.055	5.057	-0.002	99	108340	2.00	2.33	
	25 Pentane	72	5.125	5.138	-0.013	95	35398	2.00	1.99	
	23 Isopropyl alcohol	45	5.130	5.149	-0.019	93	411672	2.00	2.61	
	26 Ethyl ether	31	5.308	5.319	-0.011	88	326546	2.00	2.24	
	27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	196958	2.00	2.04	
	28 Acrylonitrile	53	5.734	5.738	-0.004	61	167417	2.00	2.30	
	29 2-Methyl-2-propanol	59	5.724	5.756	-0.032	96	421667	2.00	2.17	
	30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	95	437530	2.00	2.18	
	31 Methylene Chloride	84	5.972	5.978	-0.006	95	188455	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	95	250779	2.00	2.27	
33 Carbon disulfide	76	6.128	6.133	-0.005	99	552247	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	98	223824	2.00	2.21	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	542597	2.00	2.02	
36 Methyl tert-butyl ether	73	6.921	6.934	-0.013	97	603760	2.00	2.21	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	99	422805	2.00	2.20	
38 Vinyl acetate	43	7.320	7.328	-0.008	100	773683	2.00	2.30	
40 Hexane	56	7.794	7.796	-0.002	74	188439	2.00	2.14	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	108774	2.00	2.11	
41 Isopropyl ether	45	7.956	7.978	-0.022	97	941717	2.00	2.25	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	238996	2.00	2.08	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	622964	2.00	2.09	
44 Chloroform	83	8.560	8.560	0.000	96	515510	2.00	2.18	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	721045	2.00	2.07	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	94	327339	2.00	2.20	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	557226	2.00	2.15	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	353401	2.00	2.20	
50 n-Butanol	31	10.178	10.195	-0.017	90	142474	2.00	2.23	
51 Cyclohexane	69	10.199	10.210	-0.011	76	113450	2.00	2.14	
49 Benzene	78	10.210	10.214	-0.004	96	743588	2.00	2.20	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	96	598112	2.00	2.21	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	154719	2.00	2.03	
54 Thiophene	84	10.491	10.499	-0.009	96	376935	2.00	2.20	
55 Isooctane	57	10.992	10.995	-0.003	98	1225374	2.00	2.17	
57 n-Heptane	71	11.386	11.387	-0.001	95	252526	2.00	2.14	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	89	279428	2.00	2.15	
58 Trichloroethene	130	11.504	11.509	-0.005	96	314349	2.00	2.12	
59 Dibromomethane	93	11.596	11.595	0.001	95	303422	2.00	2.20	
60 Dichlorobromomethane	83	11.747	11.746	0.001	98	544985	2.00	2.18	
61 1,4-Dioxane	88	11.763	11.781	-0.018	97	115096	2.00	2.22	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	391081	2.00	2.11	
63 Methylcyclohexane	83	12.286	12.288	-0.002	93	511159	2.00	2.63	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	97	707381	2.00	2.14	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	441227	2.00	2.26	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	415560	2.00	2.34	
67 Toluene	91	13.591	13.593	-0.002	93	854006	2.00	2.32	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	259635	2.00	2.28	
69 2-Hexanone	58	14.055	14.066	-0.011	90	322895	2.00	2.37	
71 n-Octane	85	14.287	14.288	-0.001	98	269357	2.00	2.24	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	584492	2.00	2.31	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	498804	2.00	2.28	
73 Tetrachloroethene	129	14.745	14.743	0.002	94	323404	2.00	2.15	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	692514	2.00	2.27	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	937319	2.00	2.05	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1169380	2.00	2.27	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	1874676	4.00	4.63	
81 n-Nonane	57	16.492	16.494	-0.002	96	612738	2.00	2.31	
78 Bromoform	173	16.525	16.525	0.000	97	583215	2.00	2.58	
79 Styrene	104	16.541	16.543	-0.002	98	653467	2.00	2.34	
80 o-Xylene	91	16.600	16.602	-0.002	98	946514	2.00	2.23	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	699256	2.00	2.34	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	95	220875	2.00	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1412873	2.00	2.24	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	368693	2.00	2.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	353641	2.00	2.31	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	1357626	2.00	2.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	609824	2.00	2.54	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	535601	2.00	2.33	
90 n-Decane	57	18.277	18.280	-0.003	87	825560	2.00	2.26	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	1246898	2.00	2.23	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	1263074	2.00	2.27	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1840044	2.00	2.31	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	98	800949	2.00	2.12	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	1061175	2.00	2.45	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	817135	2.00	2.19	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1429517	2.00	2.22	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	899194	2.00	1.65	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	883622	2.00	2.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	1109919	2.00	2.24	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	801739	2.00	2.18	
102 Indene	116	19.312	19.314	-0.002	89	859159	2.00	1.92	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1500703	2.00	2.26	
104 Undecane	57	19.636	19.638	-0.002	95	977429	2.00	2.27	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	345164	2.00	1.91	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1325179	2.00	2.14	
107 Dodecane	57	20.714	20.714	0.000	92	959397	2.00	2.29	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	749549	2.00	2.13	
109 Naphthalene	128	21.065	21.064	0.001	99	1577721	2.00	2.17	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	742725	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727565	2.00	2.24	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	619722	2.00	2.97	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	585758	2.00	2.92	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	2869701	2.00	2.19	
S 116 Xylenes, Total	100				0		6.00	6.86	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.29	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

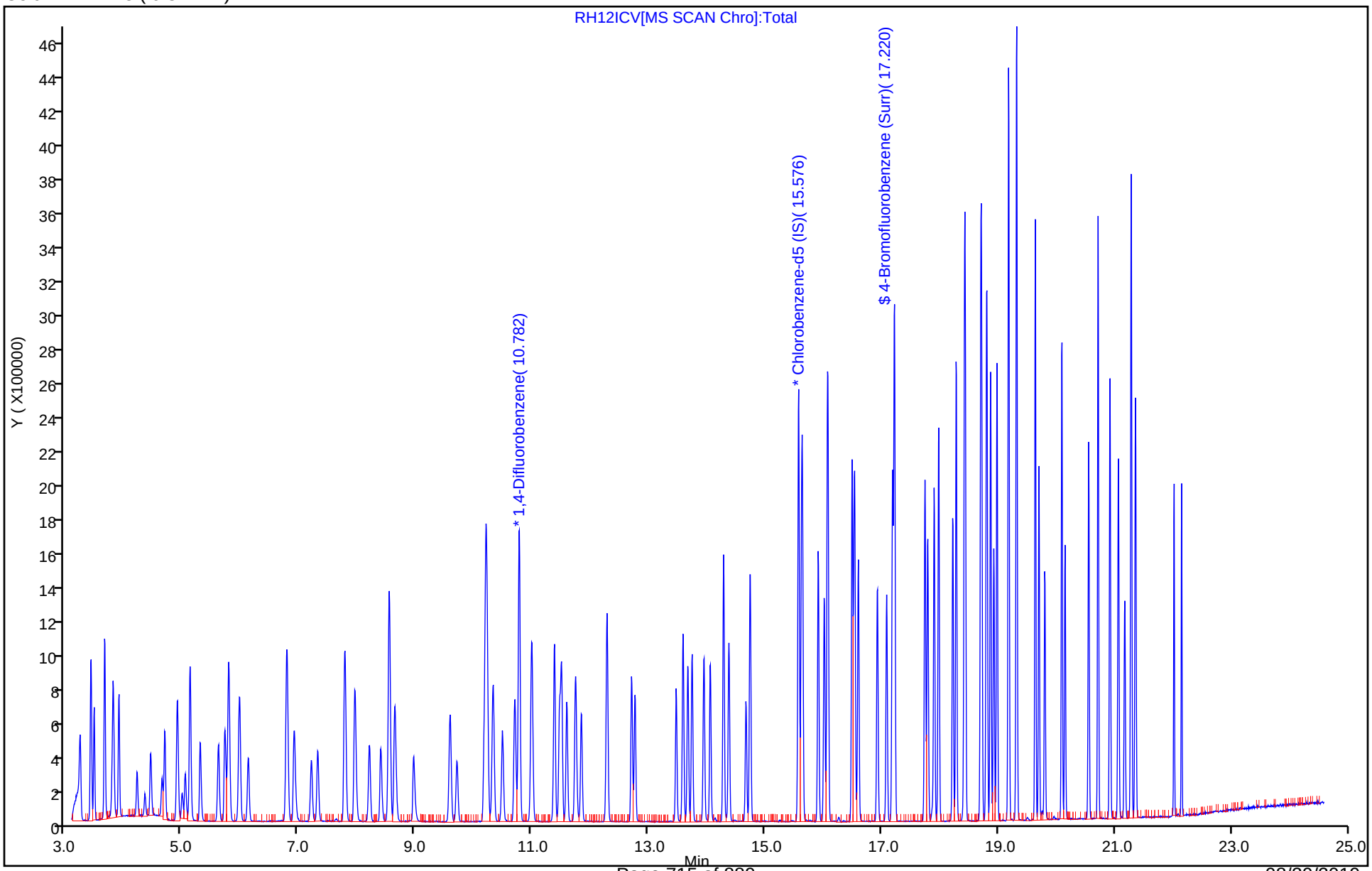
Report Date: 15-Aug-2019 12:53:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D

Injection Date:	13-Aug-2019 00:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.771		1.10	1.00	10.3	30.0
Propene	Ave	1.896	2.541		1.34	1.00	34.0*	30.0
Dichlorodifluoromethane	Ave	3.092	3.800		1.23	1.00	22.9	30.0
Chloromethane	Ave	0.4647	0.7107		1.53	1.00	53.0*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.915		1.86	1.00	85.8*	30.0
Acetaldehyde	Ave	0.5427	0.8295		7.64	5.00	52.9*	30.0
Vinyl chloride	Ave	1.472	1.833		1.25	1.00	24.5	30.0
1,3-Butadiene	Ave	1.068	1.520		1.42	1.00	42.3*	30.0
Butane	Ave	2.262	3.213		1.42	1.00	42.1*	30.0
Bromomethane	Ave	1.248	1.522		1.22	1.00	22.0	30.0
Chloroethane	Ave	0.6025	0.7812		1.30	1.00	29.7	30.0
Ethanol	Ave	0.5430	0.9274		8.54	5.00	70.8*	30.0
Vinyl bromide	Ave	1.042	1.384		1.33	1.00	32.9*	30.0
2-Methylbutane	Ave	1.688	2.245		1.33	1.00	33.0*	30.0
Trichlorofluoromethane	Ave	3.843	4.048		1.05	1.00	5.4	30.0
Acrolein	Ave	0.4757	0.5329		1.12	1.00	12.0	30.0
Acetonitrile	Ave	0.7083	0.7644		1.08	1.00	7.9	30.0
Acetone	Ave	0.6636	0.6815		3.08	3.00	2.7	30.0
Isopropyl alcohol	Ave	2.248	2.429		3.24	3.00	8.1	30.0
Pentane	Ave	0.2541	0.2565		1.01	1.00	0.9	30.0
Ethyl ether	Ave	2.078	2.122		1.02	1.00	2.1	30.0
1,1-Dichloroethene	Ave	1.376	1.400		1.02	1.00	1.8	30.0
Acrylonitrile	Ave	1.038	1.159		1.12	1.00	11.7	30.0
tert-Butyl alcohol	Ave	2.773	3.042		1.10	1.00	9.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.225		1.13	1.00	12.8	30.0
Methylene Chloride	Ave	1.414	1.537		1.09	1.00	8.7	30.0
3-Chloropropene	Ave	1.574	1.813		1.15	1.00	15.2	30.0
Carbon disulfide	Ave	3.618	3.984		1.10	1.00	10.1	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.487		1.03	1.00	2.8	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.094		1.05	1.00	5.0	30.0
1,1-Dichloroethane	Ave	2.742	2.915		1.06	1.00	6.3	30.0
Vinyl acetate	Ave	4.786	4.941		1.03	1.00	3.2	30.0
2-Butanone (MEK)	Ave	0.7340	0.6703		0.913	1.00	-8.7	30.0
Hexane	Ave	1.256	1.262		1.01	1.00	0.5	30.0
Isopropyl ether	Ave	5.958	6.354		1.07	1.00	6.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.545		0.944	1.00	-5.6	30.0
Ethyl acetate	Ave	4.240	4.488		1.06	1.00	5.8	30.0
Chloroform	Ave	3.365	3.445		1.02	1.00	2.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.974		1.00	1.00	0.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.188		1.03	1.00	3.3	30.0
1,1,1-Trichloroethane	Ave	3.700	3.649		0.986	1.00	-1.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3900		1.01	1.00	1.3	30.0
1-Butanol	Ave	0.1530	0.1363		0.891	1.00	-10.9	30.0
Benzene	Ave	0.8101	0.7482		0.924	1.00	-7.6	30.0
Cyclohexane	Ave	0.1272	0.1212		0.953	1.00	-4.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6113		0.944	1.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1634		0.895	1.00	-10.5	30.0
Thiophene	Ave	0.4106	0.3987		0.971	1.00	-2.9	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.248		0.922	1.00	-7.8	30.0
Heptane	Ave	0.2826	0.2579		0.913	1.00	-8.7	30.0
1,2-Dichloropropane	Ave	0.3122	0.2847		0.912	1.00	-8.8	30.0
Trichloroethene	Ave	0.3563	0.3258		0.914	1.00	-8.6	30.0
Dibromomethane	Ave	0.3305	0.3073		0.930	1.00	-7.0	30.0
Bromodichloromethane	Ave	0.5996	0.5387		0.898	1.00	-10.2	30.0
1,4-Dioxane	Ave	0.1245	0.1187		0.953	1.00	-4.7	30.0
Methyl methacrylate	Ave	0.4444	0.4181		0.941	1.00	-5.9	30.0
Methylcyclohexane	Ave	0.4659	0.4312		0.925	1.00	-7.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7409		0.934	1.00	-6.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4311		0.921	1.00	-7.9	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4508		0.906	1.00	-9.4	30.0
Toluene	Ave	1.029	0.9897		0.962	1.00	-3.8	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3069		0.962	1.00	-3.8	30.0
2-Hexanone	Ave	0.3809	0.3585		0.941	1.00	-5.9	30.0
Octane	Ave	0.3372	0.3139		0.931	1.00	-6.9	30.0
Dibromochloromethane	Ave	0.7076	0.6283		0.888	1.00	-11.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5948		0.972	1.00	-2.8	30.0
Tetrachloroethene	Ave	0.4203	0.3754		0.893	1.00	-10.7	30.0
Chlorobenzene	Ave	0.8559	0.8670		1.01	1.00	1.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.379		1.08	1.00	7.7	30.0
Ethylbenzene	Ave	1.444	1.452		1.01	1.00	0.6	30.0
m-Xylene & p-Xylene	Ave	1.134	1.231		2.17	2.00	8.6	30.0
Nonane	Ave	0.7430	0.7796		1.05	1.00	4.9	30.0
Bromoform	Ave	0.6340	0.6246		0.985	1.00	-1.5	30.0
Styrene	Ave	0.7807	0.8185		1.05	1.00	4.8	30.0
o-Xylene	Ave	1.190	1.206		1.01	1.00	1.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8108		0.967	1.00	-3.3	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2599		0.978	1.00	-2.2	30.0
Isopropylbenzene	Ave	1.766	1.675		0.948	1.00	-5.2	30.0
Propylbenzene	Ave	0.4491	0.4314		0.961	1.00	-3.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4043		0.945	1.00	-5.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.685		0.957	1.00	-4.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6503		0.969	1.00	-3.1	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6057		0.941	1.00	-5.9	30.0
Decane	Ave	1.022	1.002		0.980	1.00	-2.0	30.0
tert-Butylbenzene	Ave	1.569	1.605		1.02	1.00	2.3	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.585		1.02	1.00	1.9	30.0
sec-Butylbenzene	Ave	2.233	2.360		1.06	1.00	5.7	30.0
1,3-Dichlorobenzene	Ave	1.059	1.037		0.979	1.00	-2.1	30.0
Benzyl chloride	Ave	1.214	1.221		1.01	1.00	0.6	30.0
1,4-Dichlorobenzene	Ave	1.045	1.020		0.977	1.00	-2.3	30.0
4-Isopropyltoluene	Ave	1.804	1.821		1.01	1.00	0.9	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.601		1.05	1.00	4.6	30.0
Butylcyclohexane	Ave	1.144	1.231		1.08	1.00	7.5	30.0
1,2-Dichlorobenzene	Ave	1.032	1.046		1.01	1.00	1.3	30.0
Indane	Ave	1.389	1.533		1.10	1.00	10.4	30.0
Indene	Ave	1.254	1.284		1.02	1.00	2.4	30.0
Butylbenzene	Ave	1.857	2.044		1.10	1.00	10.1	30.0
Undecane	Ave	1.206	1.346		1.12	1.00	11.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4453		0.880	1.00	-12.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.787		1.03	1.00	3.2	30.0
Dodecane	Ave	1.172	1.236		1.05	1.00	5.5	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.9356		0.948	1.00	-5.2	30.0
Naphthalene	Ave	2.038	2.021		0.992	1.00	-0.8	30.0
Hexachlorobutadiene	Ave	0.9802	0.9641		0.984	1.00	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.9084		1.00	1.00	0.0	30.0
2-Methylnaphthalene	Ave	0.5850	0.6255		1.07	1.00	6.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6307		1.12	1.00	12.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6662		3.86	4.00	-3.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RCCVH20.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Aug-2019 09:15:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:37:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:37:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	217762	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1358602	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1173944	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	91	782084	4.00	3.86	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	205314	1.00	1.10	
7 Propene	41	3.437	3.437	0.000	99	138315	1.00	1.34	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	206847	1.00	1.23	
9 Chloromethane	52	3.664	3.664	0.000	67	38692	1.00	1.53	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	158680	1.00	1.86	
11 Acetaldehyde	44	3.815	3.815	0.000	98	225801	5.00	7.64	
12 Vinyl chloride	62	3.826	3.826	0.000	99	99793	1.00	1.25	
13 Butadiene	54	3.912	3.912	0.000	66	82742	1.00	1.42	
14 Butane	43	3.912	3.912	0.000	86	174940	1.00	1.42	
15 Bromomethane	94	4.219	4.219	0.000	98	82870	1.00	1.22	
16 Chloroethane	64	4.359	4.359	0.000	95	42531	1.00	1.30	
17 Ethanol	31	4.451	4.451	0.000	98	252448	5.00	8.54	
18 Vinyl bromide	106	4.651	4.651	0.000	97	75367	1.00	1.33	
19 2-Methylbutane	43	4.699	4.699	0.000	94	122194	1.00	1.33	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220383	1.00	1.05	
20 Acrolein	56	4.926	4.926	0.000	93	29009	1.00	1.12	
24 Acetonitrile	40	4.996	4.996	0.000	98	41614	1.00	1.08	
22 Acetone	58	5.039	5.039	0.000	100	111302	3.00	3.08	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	396766	3.00	3.24	
25 Pentane	72	5.131	5.131	0.000	71	13966	1.00	1.01	
26 Ethyl ether	31	5.303	5.303	0.000	89	115500	1.00	1.02	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	76237	1.00	1.02	
28 Acrylonitrile	53	5.724	5.724	0.000	61	63093	1.00	1.12	
29 2-Methyl-2-propanol	59	5.724	5.724	0.000	97	165632	1.00	1.10	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.788	0.000	96	175557	1.00	1.13	
31 Methylene Chloride	84	5.972	5.972	0.000	94	83689	1.00	1.09	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.988	0.000	95	98682	1.00	1.15	
33 Carbon disulfide	76	6.123	6.123	0.000	98	216880	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	96	80942	1.00	1.03	
35 2-Methylpentane	43	6.791	6.791	0.000	96	232735	1.00	1.11	
36 Methyl tert-butyl ether	73	6.910	6.910	0.000	96	222852	1.00	1.05	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	158702	1.00	1.06	
38 Vinyl acetate	43	7.315	7.315	0.000	100	268981	1.00	1.03	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	96	36492	1.00	0.9132	
40 Hexane	56	7.784	7.784	0.000	77	68719	1.00	1.01	
41 Isopropyl ether	45	7.956	7.956	0.000	98	345940	1.00	1.07	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	97	84134	1.00	0.9437	
43 Ethyl acetate	43	8.393	8.393	0.000	97	244320	1.00	1.06	
44 Chloroform	83	8.555	8.555	0.000	94	187533	1.00	1.02	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	270806	1.00	1.00	
46 Tetrahydrofuran	42	8.965	8.965	0.000	93	119116	1.00	1.03	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	198656	1.00	0.9863	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	132467	1.00	1.01	
50 n-Butanol	31	10.183	10.183	0.000	86	46290	1.00	0.8909	
51 Cyclohexane	69	10.199	10.199	0.000	76	41156	1.00	0.9526	
49 Benzene	78	10.199	10.199	0.000	96	254114	1.00	0.9235	
52 Carbon tetrachloride	117	10.226	10.226	0.000	94	207631	1.00	0.9438	
53 2,3-Dimethylpentane	71	10.329	10.329	0.000	91	55499	1.00	0.8954	
54 Thiophene	84	10.485	10.485	0.000	96	135408	1.00	0.9709	
55 Isooctane	57	10.987	10.987	0.000	95	423814	1.00	0.9220	
57 n-Heptane	71	11.375	11.375	0.000	95	87599	1.00	0.9126	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	84	96692	1.00	0.9119	
58 Trichloroethene	130	11.499	11.499	0.000	95	110644	1.00	0.9144	
59 Dibromomethane	93	11.591	11.591	0.000	95	104366	1.00	0.9297	
60 Dichlorobromomethane	83	11.731	11.731	0.000	97	182953	1.00	0.8984	
61 1,4-Dioxane	88	11.769	11.769	0.000	82	40325	1.00	0.9535	
62 Methyl methacrylate	41	11.833	11.833	0.000	88	142007	1.00	0.9408	
63 Methylcyclohexane	83	12.275	12.275	0.000	91	146446	1.00	0.9255	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	97	251660	1.00	0.9340	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	99	146433	1.00	0.9211	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	94	132288	1.00	0.9060	
67 Toluene	91	13.586	13.586	0.000	93	290449	1.00	0.9617	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	90073	1.00	0.9620	
69 2-Hexanone	58	14.055	14.055	0.000	89	105205	1.00	0.9411	
71 n-Octane	85	14.287	14.287	0.000	97	92128	1.00	0.9309	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	184402	1.00	0.8879	
72 Ethylene Dibromide	107	14.670	14.670	0.000	96	174557	1.00	0.9719	
73 Tetrachloroethene	129	14.740	14.740	0.000	94	110187	1.00	0.8932	
74 Chlorobenzene	112	15.619	15.619	0.000	92	254449	1.00	1.01	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	404695	1.00	1.08	
76 Ethylbenzene	91	15.905	15.905	0.000	99	426136	1.00	1.01	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	722376	2.00	2.17	
81 n-Nonane	57	16.492	16.492	0.000	95	228806	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	93	183314	1.00	0.9853	
79 Styrene	104	16.535	16.535	0.000	98	240212	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	353973	1.00	1.01	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.934	0.000	99	237950	1.00	0.9670	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	76272	1.00	0.9780	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.199	17.199	0.000	94	491510	1.00	0.9481	
85 N-Propylbenzene	120	17.765	17.765	0.000	99	126595	1.00	0.9606	
86 2-Chlorotoluene	126	17.808	17.808	0.000	98	118646	1.00	0.9450	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	494403	1.00	0.9569	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	93	190860	1.00	0.9690	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	89	177768	1.00	0.9414	
90 n-Decane	57	18.293	18.293	0.000	86	294036	1.00	0.9798	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	471077	1.00	1.02	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	96	465233	1.00	1.02	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	692719	1.00	1.06	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304321	1.00	0.9794	
96 Benzyl chloride	91	18.811	18.811	0.000	98	358392	1.00	1.01	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	95	299491	1.00	0.9766	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	97	534416	1.00	1.01	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	469820	1.00	1.05	
99 Butylcyclohexane	83	18.989	18.989	0.000	91	361221	1.00	1.08	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	93	449901	1.00	1.10	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	80	306860	1.00	1.01	
102 Indene	116	19.323	19.323	0.000	88	376806	1.00	1.02	
103 n-Butylbenzene	91	19.329	19.329	0.000	98	599940	1.00	1.10	
104 Undecane	57	19.647	19.647	0.000	94	395141	1.00	1.12	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	93	130700	1.00	0.8798	
106 1,2,4,5-Tetramethylbenzene	119	20.100	20.100	0.000	97	524373	1.00	1.03	
107 Dodecane	57	20.720	20.720	0.000	90	362723	1.00	1.05	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	274598	1.00	0.9477	
109 Naphthalene	128	21.065	21.065	0.000	99	593082	1.00	0.99	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	282943	1.00	0.9835	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	266615	1.00	1.00	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	97	183576	1.00	1.07	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	185101	1.00	1.12	
A 115 C8 Range	1	14.281	(14.238-14.325)		0	1055124	1.00	0.9899	
S 116 Xylenes, Total	100				0		3.00	3.18	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.97	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

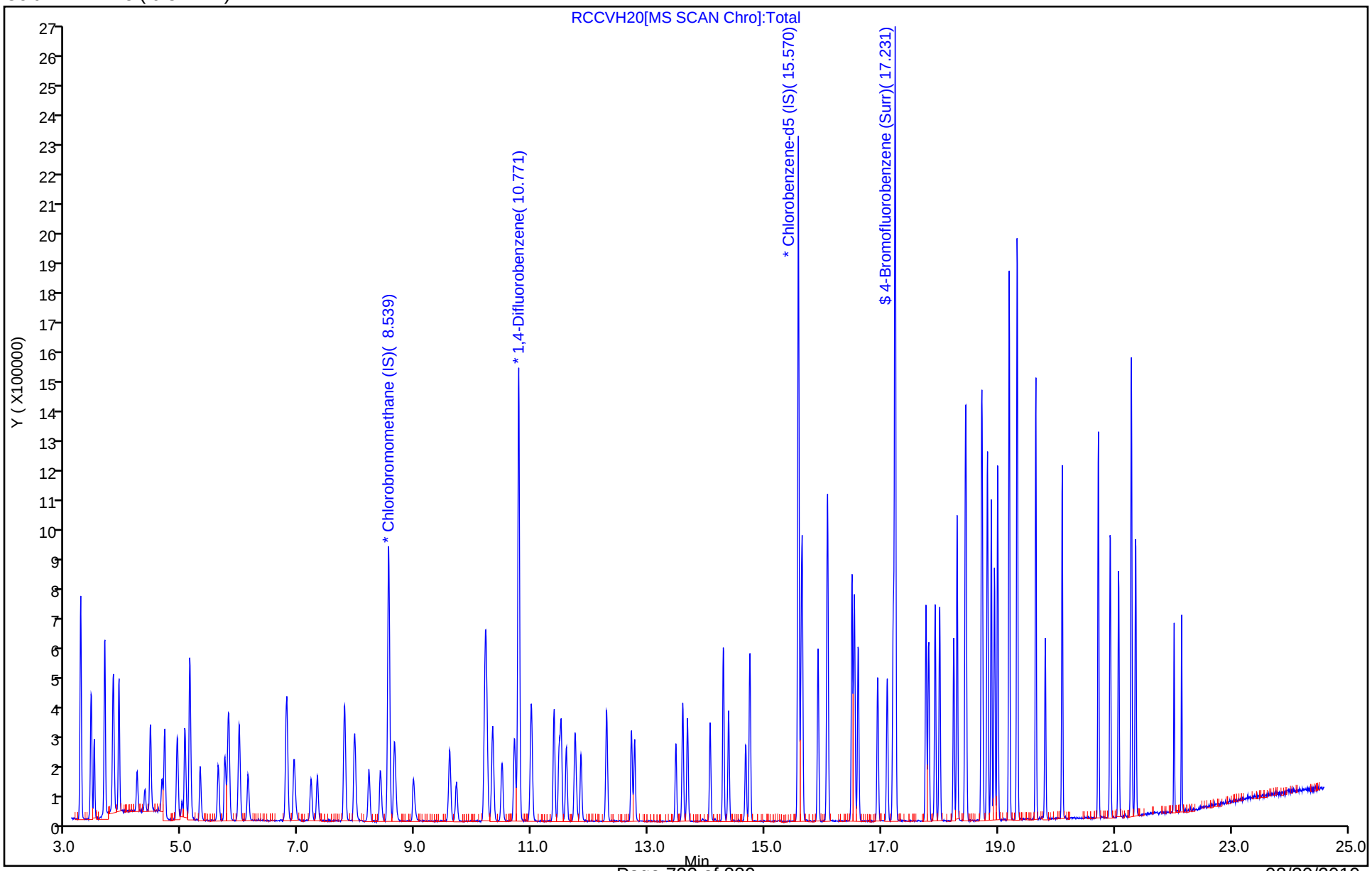
Report Date: 21-Aug-2019 12:37:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RCCVH20.D

Injection Date:	20-Aug-2019 09:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

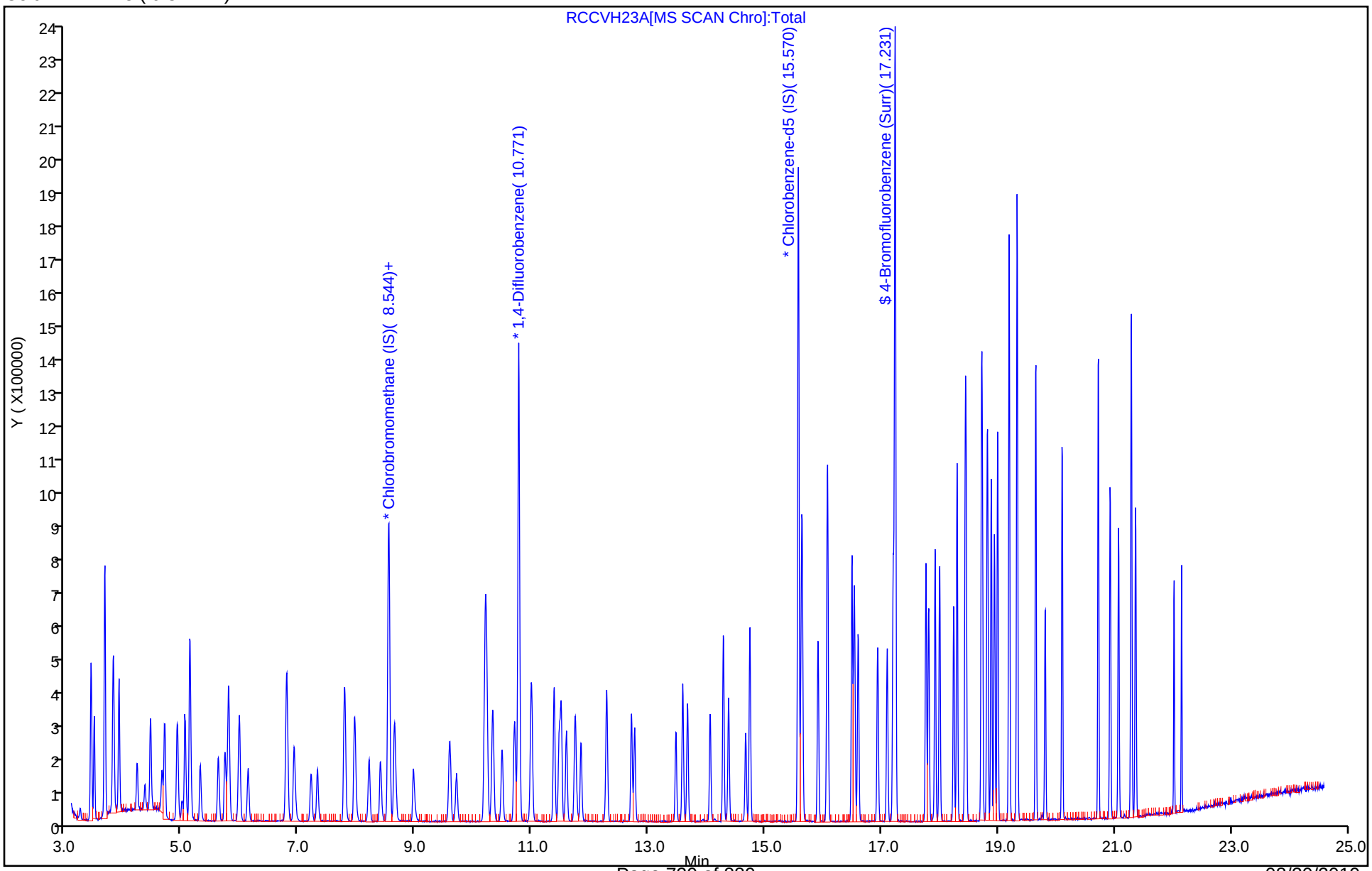
Report Date: 26-Aug-2019 13:54:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.036		0.888	1.00	-11.2	30.0
Propene	Ave	1.896	2.197		1.16	1.00	15.9	30.0
Dichlorodifluoromethane	Ave	3.092	3.350		1.08	1.00	8.3	30.0
Chloromethane	Ave	0.4647	0.5906		1.27	1.00	27.1	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.171		2.02	1.00	102.2*	30.0
Acetaldehyde	Ave	0.5427	0.7247		6.68	5.00	33.5*	30.0
Vinyl chloride	Ave	1.472	1.791		1.22	1.00	21.6	30.0
1,3-Butadiene	Ave	1.068	1.409		1.32	1.00	31.9*	30.0
Butane	Ave	2.262	2.741		1.21	1.00	21.2	30.0
Bromomethane	Ave	1.248	1.673		1.34	1.00	34.1*	30.0
Chloroethane	Ave	0.6025	0.8080		1.34	1.00	34.1*	30.0
Ethanol	Ave	0.5430	0.7034		6.48	5.00	29.5	30.0
Vinyl bromide	Ave	1.042	1.625		1.56	1.00	56.0*	30.0
2-Methylbutane	Ave	1.688	1.696		1.00	1.00	0.5	30.0
Trichlorofluoromethane	Ave	3.843	3.140		0.817	1.00	-18.3	30.0
Acrolein	Ave	0.4757	0.4118		0.866	1.00	-13.4	30.0
Acetonitrile	Ave	0.7083	0.5789		0.817	1.00	-18.3	30.0
Acetone	Ave	0.6636	0.5380		2.43	3.00	-18.9	30.0
Isopropyl alcohol	Ave	2.248	1.838		2.45	3.00	-18.2	30.0
Pentane	Ave	0.2541	0.1839		0.724	1.00	-27.6	30.0
Ethyl ether	Ave	2.078	1.566		0.753	1.00	-24.7	30.0
1,1-Dichloroethene	Ave	1.376	1.090		0.792	1.00	-20.8	30.0
tert-Butyl alcohol	Ave	2.773	2.244		0.809	1.00	-19.1	30.0
Acrylonitrile	Ave	1.038	0.8599		0.828	1.00	-17.2	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.481		0.868	1.00	-13.2	30.0
Methylene Chloride	Ave	1.414	1.286		0.910	1.00	-9.0	30.0
3-Chloropropene	Ave	1.574	1.373		0.872	1.00	-12.8	30.0
Carbon disulfide	Ave	3.618	3.104		0.858	1.00	-14.2	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.226		0.848	1.00	-15.2	30.0
2-Methylpentane	Ave	3.837	3.239		0.844	1.00	-15.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.295		0.845	1.00	-15.5	30.0
1,1-Dichloroethane	Ave	2.742	2.394		0.873	1.00	-12.7	30.0
Vinyl acetate	Ave	4.786	3.829		0.800	1.00	-20.0	30.0
2-Butanone (MEK)	Ave	0.7340	0.5508		0.750	1.00	-25.0	30.0
Hexane	Ave	1.256	1.024		0.815	1.00	-18.5	30.0
Isopropyl ether	Ave	5.958	5.064		0.850	1.00	-15.0	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.260		0.770	1.00	-23.0	30.0
Ethyl acetate	Ave	4.240	3.554		0.838	1.00	-16.2	30.0
Chloroform	Ave	3.365	2.761		0.821	1.00	-17.9	30.0
Tert-butyl ethyl ether	Ave	4.958	4.065		0.820	1.00	-18.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	1.700		0.803	1.00	-19.7	30.0
1,1,1-Trichloroethane	Ave	3.700	2.796		0.756	1.00	-24.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3052		0.793	1.00	-20.7	30.0
1-Butanol	Ave	0.1530	0.1053		0.688	1.00	-31.2*	30.0
Benzene	Ave	0.8101	0.6330		0.781	1.00	-21.9	30.0
Cyclohexane	Ave	0.1272	0.0951		0.747	1.00	-25.3	30.0
Carbon tetrachloride	Ave	0.6477	0.4796		0.740	1.00	-26.0	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1380		0.756	1.00	-24.4	30.0
Thiophene	Ave	0.4106	0.3437		0.837	1.00	-16.3	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.045		0.772	1.00	-22.8	30.0
Heptane	Ave	0.2826	0.2198		0.778	1.00	-22.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2443		0.782	1.00	-21.8	30.0
Trichloroethene	Ave	0.3563	0.2794		0.784	1.00	-21.6	30.0
Dibromomethane	Ave	0.3305	0.2628		0.795	1.00	-20.5	30.0
Bromodichloromethane	Ave	0.5996	0.4340		0.724	1.00	-27.6	30.0
1,4-Dioxane	Ave	0.1245	0.1040		0.835	1.00	-16.5	30.0
Methyl methacrylate	Ave	0.4444	0.3131		0.705	1.00	-29.5	30.0
Methylcyclohexane	Ave	0.4659	0.3515		0.754	1.00	-24.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.5845		0.737	1.00	-26.3	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.3614		0.772	1.00	-22.8	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4028		0.810	1.00	-19.0	30.0
Toluene	Ave	1.029	0.9047		0.879	1.00	-12.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2863		0.897	1.00	-10.3	30.0
2-Hexanone	Ave	0.3809	0.2993		0.786	1.00	-21.4	30.0
Octane	Ave	0.3372	0.2817		0.835	1.00	-16.5	30.0
Dibromochloromethane	Ave	0.7076	0.5396		0.762	1.00	-23.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5139		0.840	1.00	-16.0	30.0
Tetrachloroethene	Ave	0.4203	0.3499		0.833	1.00	-16.7	30.0
Chlorobenzene	Ave	0.8559	0.7588		0.887	1.00	-11.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.163		0.908	1.00	-9.2	30.0
Ethylbenzene	Ave	1.444	1.235		0.856	1.00	-14.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.004		1.77	2.00	-11.4	30.0
Nonane	Ave	0.7430	0.6368		0.857	1.00	-14.3	30.0
Bromoform	Ave	0.6340	0.5278		0.832	1.00	-16.8	30.0
Styrene	Ave	0.7807	0.6515		0.834	1.00	-16.6	30.0
o-Xylene	Ave	1.190	0.9553		0.803	1.00	-19.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.7343		0.876	1.00	-12.4	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2003		0.754	1.00	-24.6	30.0
Isopropylbenzene	Ave	1.766	1.388		0.786	1.00	-21.4	30.0
Propylbenzene	Ave	0.4491	0.3624		0.807	1.00	-19.3	30.0
2-Chlorotoluene	Ave	0.4278	0.3470		0.811	1.00	-18.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.421		0.807	1.00	-19.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.5605		0.835	1.00	-16.5	30.0
Alpha Methyl Styrene	Ave	0.6434	0.4965		0.772	1.00	-22.8	30.0
Decane	Ave	1.022	0.8627		0.844	1.00	-15.6	30.0
tert-Butylbenzene	Ave	1.569	1.262		0.804	1.00	-19.6	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.238		0.796	1.00	-20.4	30.0
sec-Butylbenzene	Ave	2.233	1.885		0.844	1.00	-15.6	30.0
1,3-Dichlorobenzene	Ave	1.059	0.8639		0.816	1.00	-18.4	30.0
Benzyl chloride	Ave	1.214	0.9814		0.808	1.00	-19.2	30.0
1,4-Dichlorobenzene	Ave	1.045	0.8474		0.811	1.00	-18.9	30.0
4-Isopropyltoluene	Ave	1.804	1.516		0.840	1.00	-16.0	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.298		0.848	1.00	-15.2	30.0
Butylcyclohexane	Ave	1.144	1.019		0.890	1.00	-11.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.8586		0.832	1.00	-16.8	30.0
Indane	Ave	1.389	1.170		0.842	1.00	-15.8	30.0
Butylbenzene	Ave	1.857	1.625		0.875	1.00	-12.5	30.0
Indene	Ave	1.254	0.998		0.796	1.00	-20.4	30.0
Undecane	Ave	1.206	1.038		0.861	1.00	-13.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.3447		0.681	1.00	-31.9*	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.443		0.834	1.00	-16.6	30.0
Dodecane	Ave	1.172	1.006		0.858	1.00	-14.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.7810		0.791	1.00	-20.9	30.0
Naphthalene	Ave	2.038	1.590		0.780	1.00	-22.0	30.0
Hexachlorobutadiene	Ave	0.9802	0.7784		0.794	1.00	-20.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.7848		0.864	1.00	-13.6	30.0
2-Methylnaphthalene	Ave	0.5850	0.6194		1.06	1.00	5.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6385		1.14	1.00	13.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6217		3.61	4.00	-9.9	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RCCVH26.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 26-Aug-2019 06:51:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012845-002
Misc. Info.: P93
Operator ID: afb Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Aug-2019 15:10:53 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 27-Aug-2019 15:10:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.533	0.000	98	261101	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.766	0.000	95	1564138	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1263318	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	95	785386	4.00	3.61	
6 Chlorodifluoromethane	51	3.432	3.432	0.000	97	198197	1.00	0.8884	
7 Propene	41	3.437	3.437	0.000	96	143422	1.00	1.16	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	218684	1.00	1.08	
9 Chloromethane	52	3.664	3.664	0.000	65	38552	1.00	1.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	206998	1.00	2.02	
11 Acetaldehyde	44	3.809	3.809	0.000	98	236529	5.00	6.68	
12 Vinyl chloride	62	3.831	3.831	0.000	99	116892	1.00	1.22	
13 Butadiene	54	3.912	3.912	0.000	67	91954	1.00	1.32	
14 Butane	43	3.912	3.912	0.000	86	178914	1.00	1.21	
15 Bromomethane	94	4.219	4.219	0.000	97	109186	1.00	1.34	
16 Chloroethane	64	4.359	4.359	0.000	99	52740	1.00	1.34	
17 Ethanol	31	4.451	4.451	0.000	95	229581	5.00	6.48	
18 Vinyl bromide	106	4.651	4.651	0.000	97	106062	1.00	1.56	
19 2-Methylbutane	43	4.694	4.694	0.000	94	110679	1.00	1.00	
21 Trichlorofluoromethane	101	4.909	4.909	0.000	99	204976	1.00	0.8172	
20 Acrolein	56	4.920	4.920	0.000	95	26879	1.00	0.8656	
24 Acetonitrile	40	4.996	4.996	0.000	97	37790	1.00	0.8174	
22 Acetone	58	5.044	5.044	0.000	100	105344	3.00	2.43	
23 Isopropyl alcohol	45	5.125	5.125	0.000	85	359949	3.00	2.45	
25 Pentane	72	5.131	5.131	0.000	72	12007	1.00	0.7238	
26 Ethyl ether	31	5.303	5.303	0.000	90	102200	1.00	0.7534	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	97	71123	1.00	0.7921	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	94	146481	1.00	0.8093	
28 Acrylonitrile	53	5.734	5.734	0.000	57	56129	1.00	0.8284	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.788	0.000	95	161935	1.00	0.8678	
31 Methylene Chloride	84	5.972	5.972	0.000	96	83959	1.00	0.9097	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	89607	1.00	0.8721	
33 Carbon disulfide	76	6.128	6.128	0.000	98	202625	1.00	0.8579	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	97	80018	1.00	0.8478	
35 2-Methylpentane	43	6.791	6.791	0.000	96	211400	1.00	0.8441	
36 Methyl tert-butyl ether	73	6.915	6.915	0.000	96	215091	1.00	0.8453	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	156277	1.00	0.8730	
38 Vinyl acetate	43	7.314	7.314	0.000	100	249961	1.00	0.8001	
39 2-Butanone (MEK)	72	7.767	7.767	0.000	95	35956	1.00	0.7504	
40 Hexane	56	7.784	7.784	0.000	75	66830	1.00	0.8152	
41 Isopropyl ether	45	7.956	7.956	0.000	96	330534	1.00	0.8499	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	97	82257	1.00	0.7695	
43 Ethyl acetate	43	8.393	8.393	0.000	98	232017	1.00	0.8383	
44 Chloroform	83	8.544	8.544	0.000	96	180225	1.00	0.8206	
45 Tert-butyl ethyl ether	59	8.636	8.636	0.000	97	265359	1.00	0.8199	
46 Tetrahydrofuran	42	8.965	8.965	0.000	94	110936	1.00	0.8026	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	95	182517	1.00	0.7557	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	119357	1.00	0.7932	
50 n-Butanol	31	10.178	10.178	0.000	74	41160	1.00	0.6880	
49 Benzene	78	10.199	10.199	0.000	95	247535	1.00	0.7814	
51 Cyclohexane	69	10.205	10.205	0.000	72	37173	1.00	0.7473	
52 Carbon tetrachloride	117	10.226	10.226	0.000	94	187524	1.00	0.7404	
53 2,3-Dimethylpentane	71	10.329	10.329	0.000	93	53943	1.00	0.7559	
54 Thiophene	84	10.491	10.491	0.000	97	134406	1.00	0.8371	
55 Isooctane	57	10.987	10.987	0.000	96	408652	1.00	0.7722	
57 n-Heptane	71	11.375	11.375	0.000	95	85929	1.00	0.7775	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	87	95515	1.00	0.7825	
58 Trichloroethene	130	11.494	11.494	0.000	94	109248	1.00	0.7842	
59 Dibromomethane	93	11.585	11.585	0.000	95	102760	1.00	0.7951	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	169693	1.00	0.7238	
61 1,4-Dioxane	88	11.752	11.752	0.000	94	40673	1.00	0.8353	
62 Methyl methacrylate	41	11.839	11.839	0.000	89	122437	1.00	0.7045	
63 Methylcyclohexane	83	12.275	12.275	0.000	90	137452	1.00	0.7545	
64 4-Methyl-2-pentanone (MIBK	43	12.701	12.701	0.000	97	228562	1.00	0.7368	
65 cis-1,3-Dichloropropene	75	12.755	12.755	0.000	98	141325	1.00	0.7721	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	96	127227	1.00	0.8097	
67 Toluene	91	13.586	13.586	0.000	93	285726	1.00	0.8791	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	90423	1.00	0.8974	
69 2-Hexanone	58	14.050	14.050	0.000	90	94534	1.00	0.7859	
71 n-Octane	85	14.281	14.281	0.000	97	88959	1.00	0.8353	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	170412	1.00	0.7625	
72 Ethylene Dibromide	107	14.664	14.664	0.000	97	162295	1.00	0.8397	
73 Tetrachloroethene	129	14.740	14.740	0.000	95	110517	1.00	0.8325	
74 Chlorobenzene	112	15.619	15.619	0.000	92	239636	1.00	0.8865	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	367162	1.00	0.9080	
76 Ethylbenzene	91	15.904	15.904	0.000	98	390108	1.00	0.8556	
77 m-Xylene & p-Xylene	91	16.066	16.066	0.000	97	634141	2.00	1.77	
81 n-Nonane	57	16.487	16.487	0.000	94	201103	1.00	0.8570	
78 Bromoform	173	16.519	16.519	0.000	95	166683	1.00	0.8325	
79 Styrene	104	16.535	16.535	0.000	98	205754	1.00	0.8344	
80 o-Xylene	91	16.595	16.595	0.000	99	301702	1.00	0.8026	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	231919	1.00	0.8758	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	63253	1.00	0.7537	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.199	17.199	0.000	96	438469	1.00	0.7860	
85 N-Propylbenzene	120	17.759	17.759	0.000	99	114452	1.00	0.8070	
86 2-Chlorotoluene	126	17.808	17.808	0.000	98	109598	1.00	0.8112	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	448703	1.00	0.8070	
87 1,3,5-Trimethylbenzene	120	17.991	17.991	0.000	93	177017	1.00	0.8351	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	90	156810	1.00	0.7717	
90 n-Decane	57	18.293	18.293	0.000	87	272476	1.00	0.8438	
91 tert-Butylbenzene	119	18.434	18.434	0.000	93	398473	1.00	0.8041	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	96	390932	1.00	0.7960	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	595336	1.00	0.8443	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	272858	1.00	0.8160	
96 Benzyl chloride	91	18.806	18.806	0.000	98	309967	1.00	0.8082	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	95	267644	1.00	0.8110	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	97	478661	1.00	0.8402	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	409819	1.00	0.8482	
99 Butylcyclohexane	83	18.989	18.989	0.000	92	321816	1.00	0.8904	
101 2,3-Dihydroindene	117	19.188	19.188	0.000	93	369615	1.00	0.8425	
100 1,2-Dichlorobenzene	146	19.188	19.188	0.000	83	271172	1.00	0.8319	
103 n-Butylbenzene	91	19.323	19.323	0.000	98	513297	1.00	0.8751	
102 Indene	116	19.323	19.323	0.000	90	315329	1.00	0.7964	
104 Undecane	57	19.641	19.641	0.000	91	327770	1.00	0.8605	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	91	108865	1.00	0.6810	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	455898	1.00	0.8341	
107 Dodecane	57	20.714	20.714	0.000	89	317612	1.00	0.8581	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	246672	1.00	0.7911	
109 Naphthalene	128	21.065	21.065	0.000	99	502202	1.00	0.7803	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	245842	1.00	0.7941	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	247868	1.00	0.8640	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	195634	1.00	1.06	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	201669	1.00	1.14	
A 115 C8 Range	1	14.286	(14.233-14.330)		0	980992	1.00	0.7994	
S 116 Xylenes, Total	100				0		3.00	2.57	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.62	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

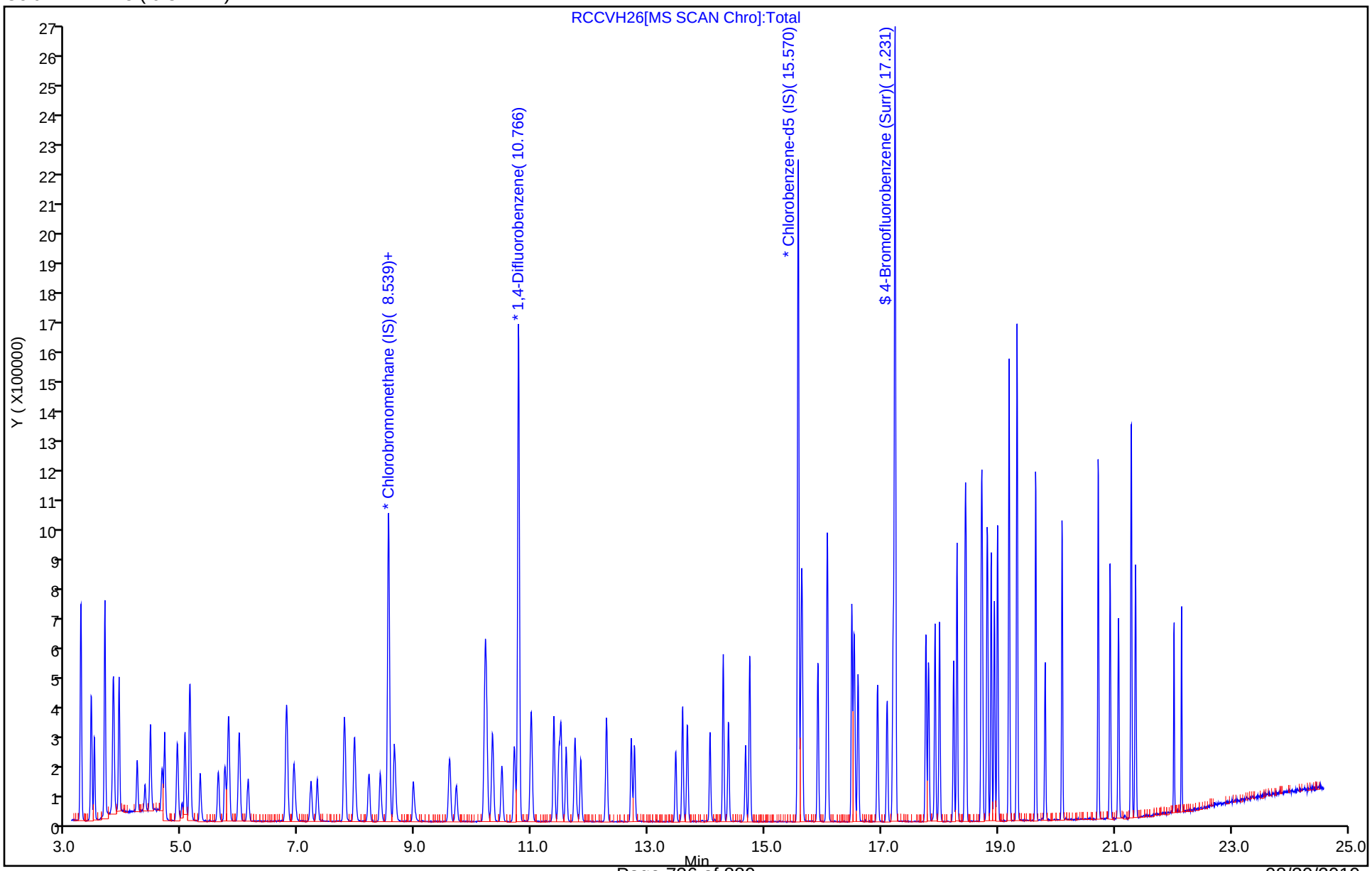
Report Date: 27-Aug-2019 15:10:55 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RCCVH26.D

Injection Date:	26-Aug-2019 06:51:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	05-Aug-2019 14:36:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012602-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Aug-2019 11:04:18	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.235	5.235	0.000	0	1223297	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

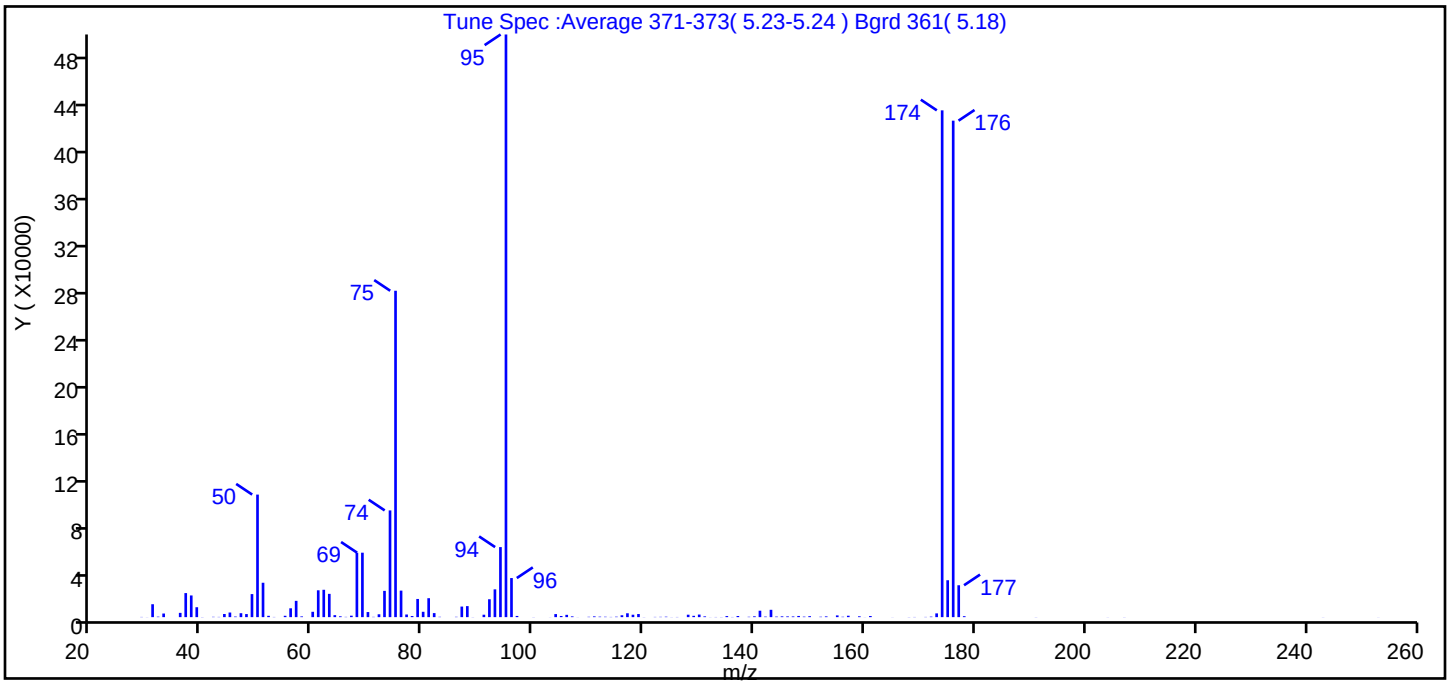
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D
Injection Date: 05-Aug-2019 14:36:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	56.0
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	87.0
175	5 to 9% of m/z 174	6.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	85.2 (98.0)
177	5 to 9% of m/z 176	5.5 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D\MG_TO15.rslt\spectra.d
Injection Date: 05-Aug-2019 14:36:30
Spectrum: Tune Spec :Average 371-373(5.23-5.24) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

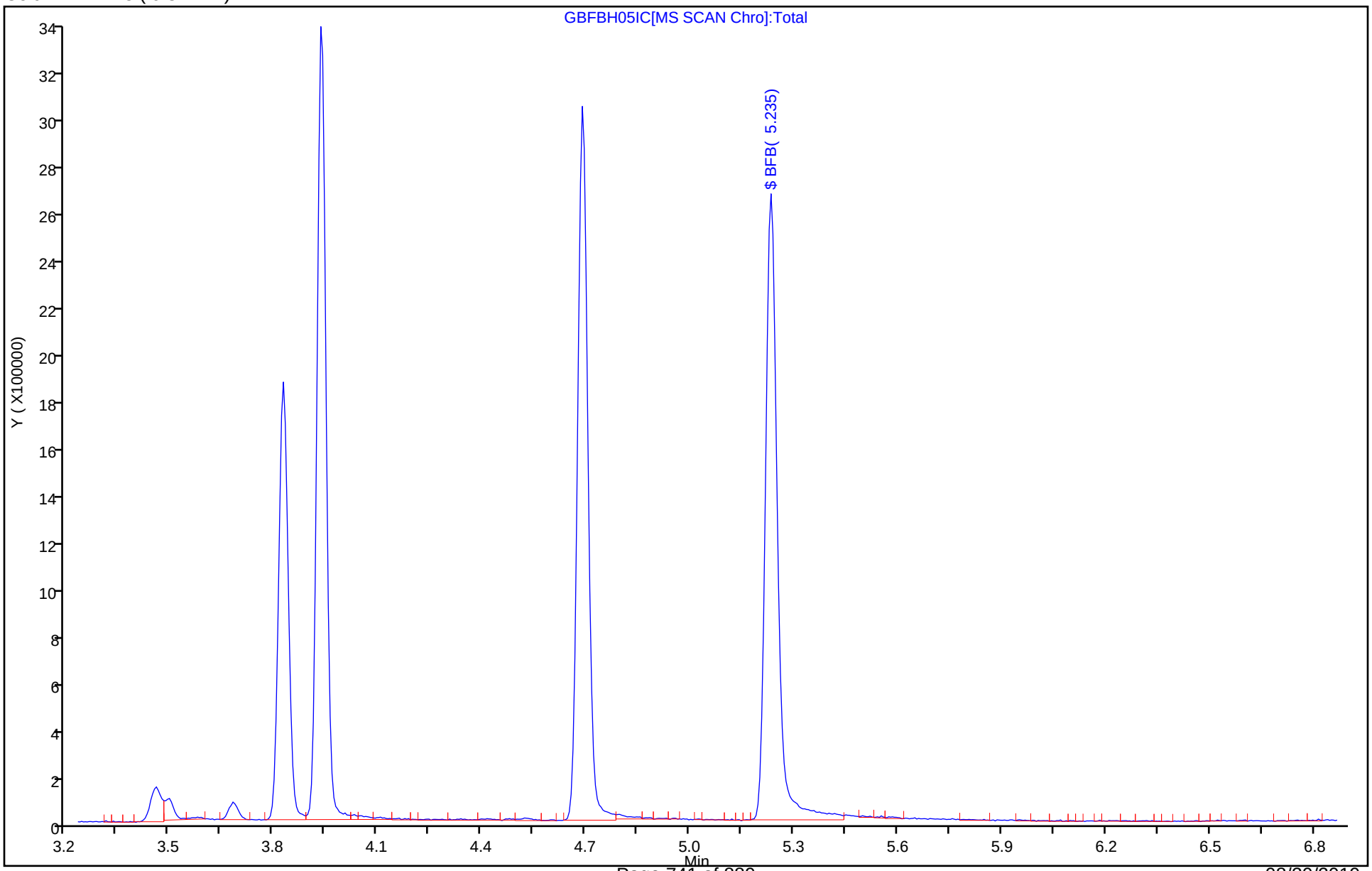
Report Date: 08-Aug-2019 11:04:22 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D

Injection Date:	05-Aug-2019 14:36:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GBFBH21B.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Aug-2019 12:22:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012774-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 15:57:17	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 15:57:17		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.229	5.229	0.000	0	1258467	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

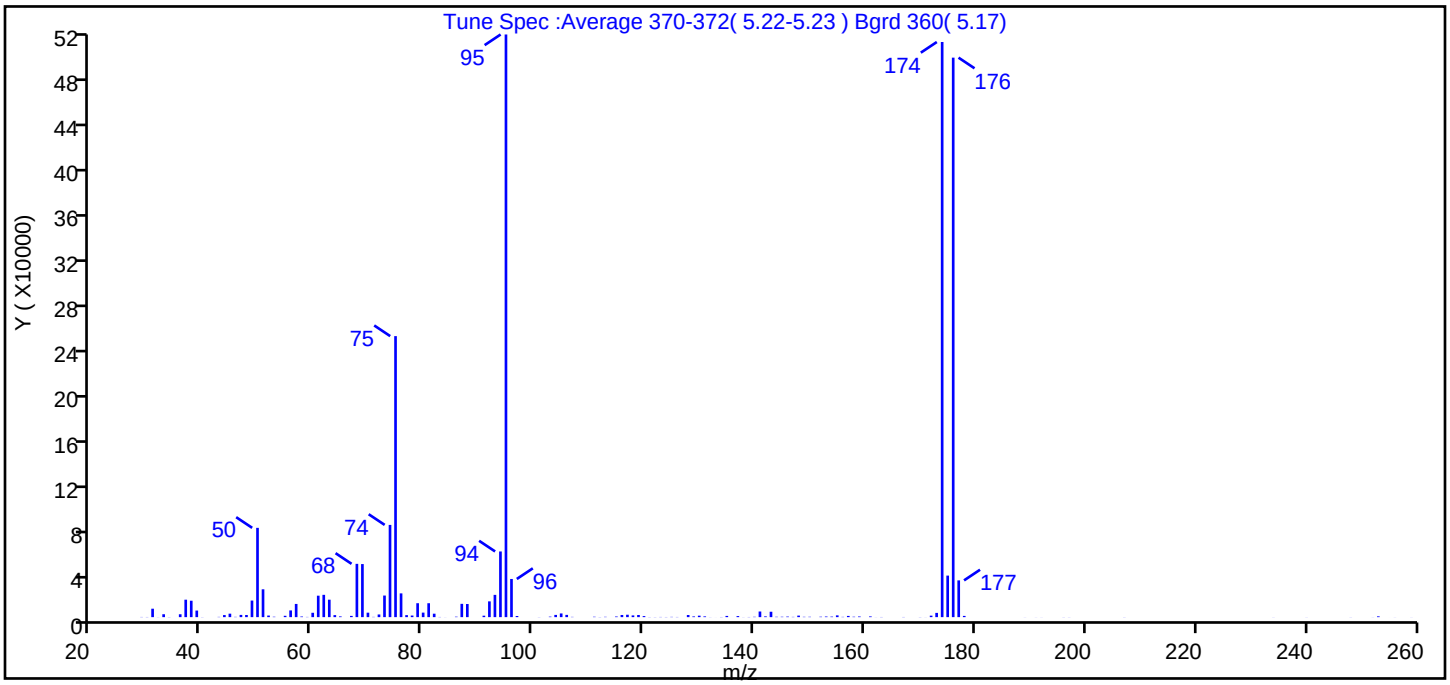
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GBFBH21B.D
Injection Date: 21-Aug-2019 12:22:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.3
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.7 (0.7)
174	50 to 120% of m/z 95	98.7
175	5 to 9% of m/z 174	7.1 (7.2)
176	Greater than 95% but less than 101% of m/z 174	96.0 (97.3)
177	5 to 9% of m/z 176	6.3 (6.6)

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GBFBH21B.D\MG_TO15.rslt\spectra.d
Injection Date: 21-Aug-2019 12:22:30
Spectrum: Tune Spec :Average 370-372(5.22-5.23) Bgrd 360(5.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	163	69.00	46472	115.00	564	152.00	378
30.00	140	70.00	3909	116.00	1887	153.00	542
31.00	7390	71.00	214	117.00	2111	154.00	470
32.00	76	72.00	2338	118.00	1516	155.00	1550
33.00	2545	73.00	18912	119.00	1887	156.00	235
34.00	111	74.00	80768	120.00	911	157.00	1075
36.00	2521	75.00	246080	121.00	108	158.00	365
37.00	15282	76.00	20808	122.00	104	159.00	570
38.00	14379	77.00	1763	123.00	169	161.00	630
39.00	5759	78.00	1401	124.00	136	162.00	50
40.00	96	79.00	12200	125.00	231	163.00	143
43.00	221	80.00	3969	126.00	154	167.00	145
44.00	1823	81.00	12186	127.00	4	170.00	106
45.00	3040	82.00	3017	128.00	1860	171.00	50
46.00	238	83.00	156	129.00	636	172.00	1302
47.00	1957	84.00	51	130.00	1287	173.00	3724
48.00	1886	86.00	402	131.00	661	174.00	503616
49.00	14527	87.00	11645	132.00	65	175.00	36376
50.00	78192	88.00	11495	133.00	22	176.00	489920
51.00	24384	91.00	1266	134.00	131	177.00	32184
52.00	1400	92.00	13821	135.00	1071	178.00	1082
53.00	350	93.00	19504	137.00	926	189.00	52
55.00	1179	94.00	57512	138.00	68	191.00	50
56.00	5883	95.00	510208	139.00	140	192.00	50
57.00	11562	96.00	33424	140.00	300	196.00	77
58.00	538	97.00	995	141.00	4939	197.00	75
59.00	186	101.00	90	142.00	674	207.00	84
60.00	3822	103.00	444	143.00	4732	234.00	60
61.00	18792	104.00	1954	144.00	318	240.00	58
62.00	19536	105.00	3241	145.00	343	248.00	73
63.00	15284	106.00	1976	146.00	486	252.00	53
64.00	1776	107.00	230	147.00	220	253.00	682
65.00	632	111.00	344	148.00	1353	255.00	8

Report Date: 22-Aug-2019 15:57:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GBFBH21B.D\MG_TO15.rslt\spectra.d
Injection Date: 21-Aug-2019 12:22:30
Spectrum: Tune Spec :Average 370-372(5.22-5.23) Bgrd 360(5.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
67.00	1099	112.00	119	149.00	291	256.00	50
68.00	46672	113.00	286	150.00	317	259.00	50

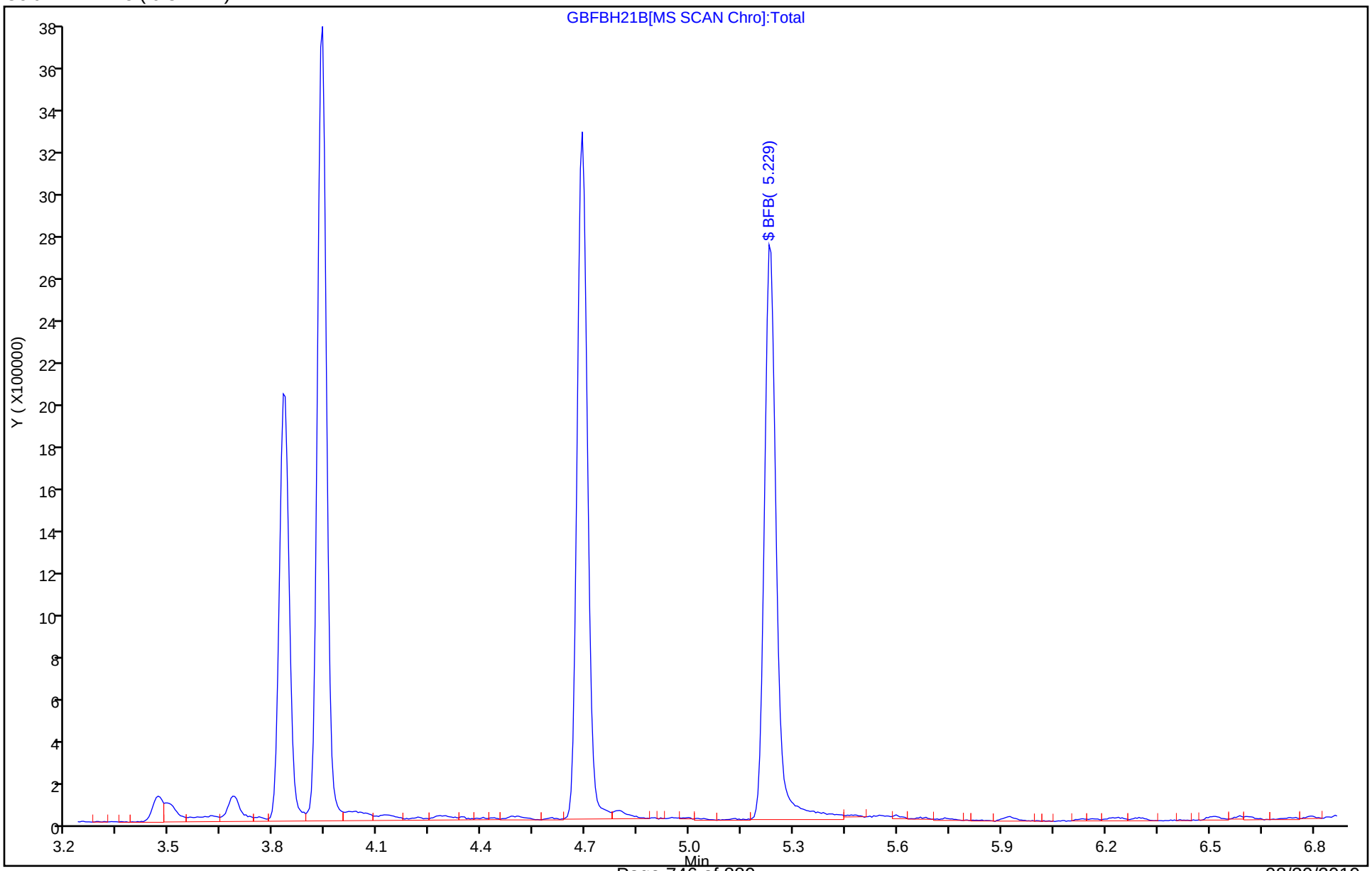
Report Date: 22-Aug-2019 15:57:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GBFBH21B.D

Injection Date:	21-Aug-2019 12:22:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Jul-2019 19:07:30	ALS Bottle#:	16	Worklist Smp#:	2
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012415-002				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	24-Jul-2019 11:38:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: barlozhetskayaa		Date:	19-Jul-2019 19:39:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.306	4.306	0.000	0	828399	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

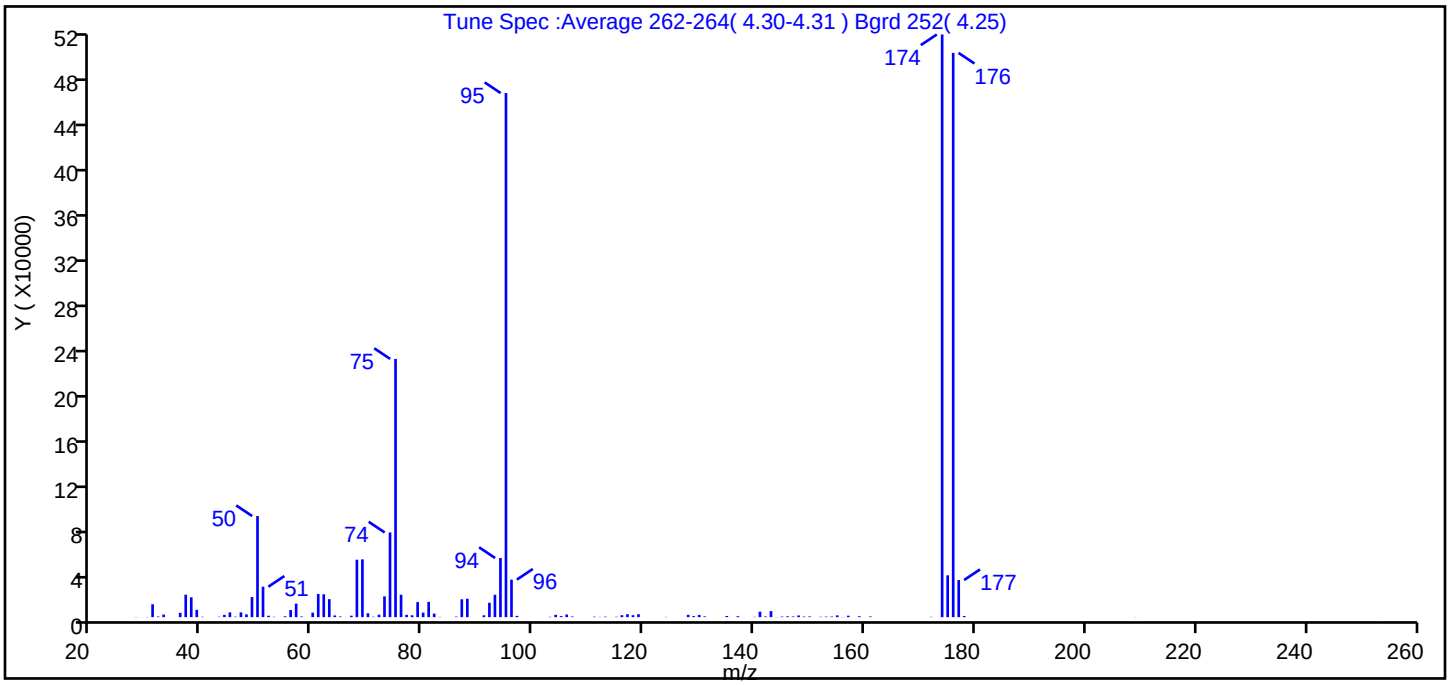
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D
Injection Date: 19-Jul-2019 19:07:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 2
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.3
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	111.2
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (96.8)
177	5 to 9% of m/z 176	7.1 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D\MJ_TO15.rslt\spectra.d
Injection Date: 19-Jul-2019 19:07:30
Spectrum: Tune Spec :Average 262-264(4.30-4.31) Bgrd 252(4.25)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	136	61.00	20664	93.00	19888	142.00	589
29.00	33	62.00	20344	94.00	52616	143.00	5335
30.00	124	63.00	15980	95.00	466240	144.00	128
31.00	11442	64.00	1511	96.00	33360	145.00	519
32.00	551	65.00	548	97.00	1139	146.00	752
33.00	2289	67.00	1272	103.00	298	147.00	574
36.00	3821	68.00	51096	104.00	2073	148.00	1517
37.00	19992	69.00	51384	105.00	928	149.00	484
38.00	17656	70.00	3470	106.00	2342	150.00	613
39.00	6478	71.00	354	107.00	574	152.00	331
40.00	335	72.00	2145	111.00	415	153.00	436
43.00	347	73.00	18504	112.00	206	154.00	525
44.00	2006	74.00	75344	113.00	447	155.00	1569
45.00	4220	75.00	229696	115.00	350	156.00	116
46.00	421	76.00	19944	116.00	1745	157.00	1286
47.00	4244	77.00	2052	117.00	2600	159.00	779
48.00	2466	78.00	1644	118.00	1746	161.00	584
49.00	17832	79.00	13400	119.00	2613	172.00	287
50.00	89920	80.00	4033	124.00	216	174.00	518336
51.00	27072	81.00	13591	128.00	2051	175.00	37224
52.00	1237	82.00	3133	129.00	948	176.00	501952
53.00	303	83.00	224	130.00	1963	177.00	32984
55.00	757	86.00	469	131.00	670	178.00	989
56.00	6316	87.00	15895	135.00	1018	209.00	101
57.00	12036	88.00	16370	137.00	844	253.00	64
58.00	555	91.00	1643	140.00	248		
60.00	3991	92.00	12801	141.00	4852		

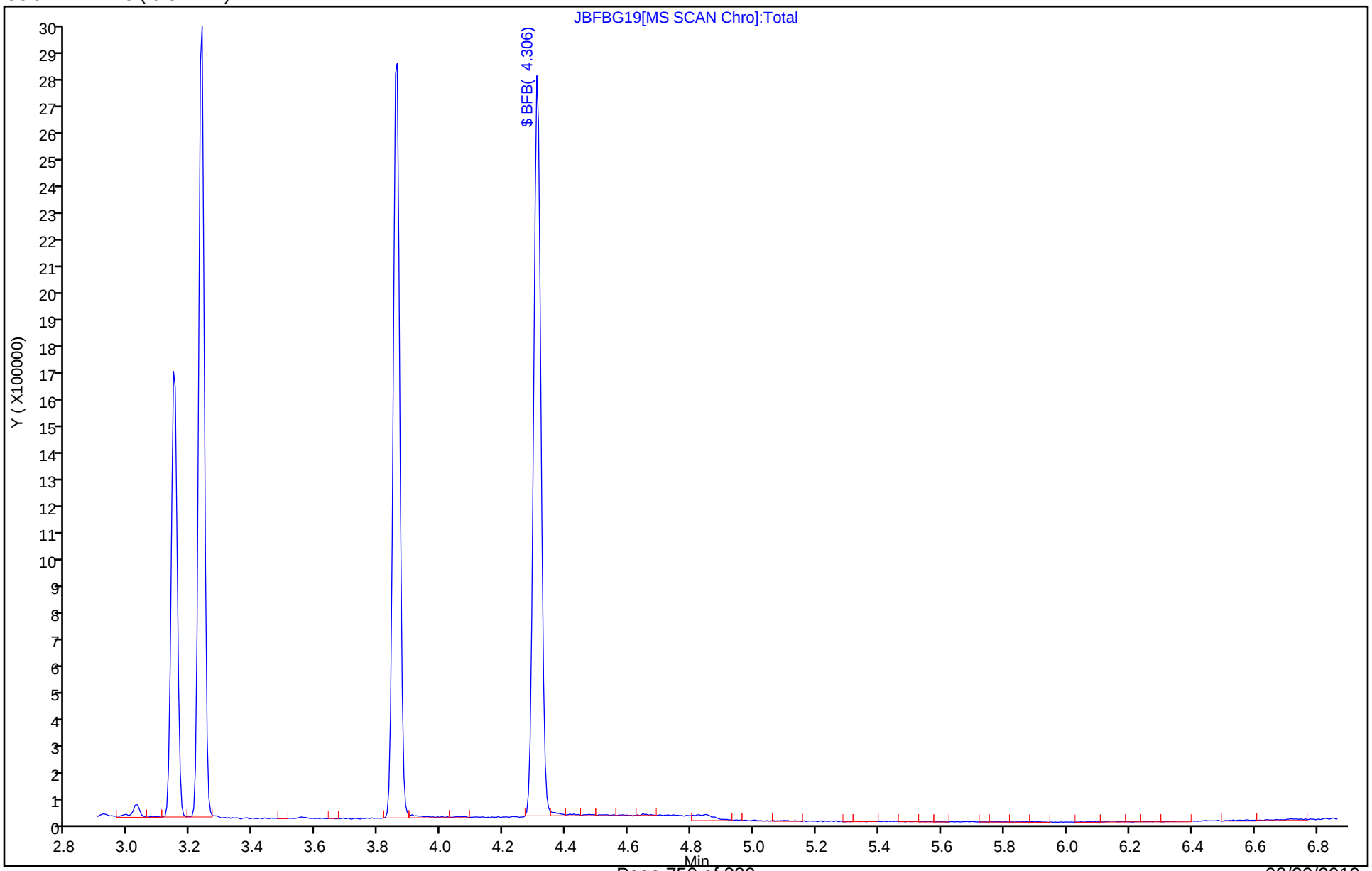
Report Date: 24-Jul-2019 11:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D

Injection Date:	19-Jul-2019 19:07:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Aug-2019 07:42:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012855-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:38:37	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: khachitpongpanits		Date:	28-Aug-2019 10:38:37		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.298	4.298	0.000	0	755903	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

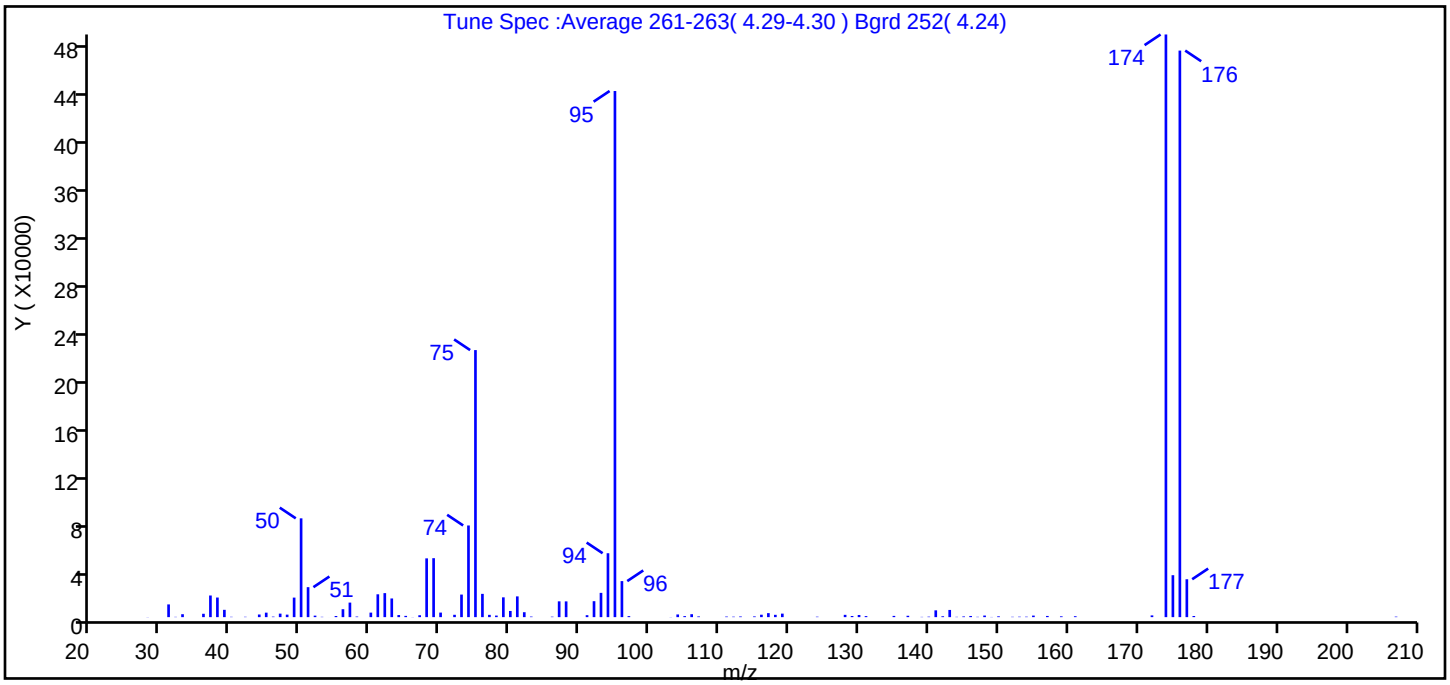
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D
Injection Date: 27-Aug-2019 07:42:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	50.8
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	110.7
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (97.2)
177	5 to 9% of m/z 176	7.2 (6.7)

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D\MJ_TO15.rslt\spectra.d
Injection Date: 27-Aug-2019 07:42:30
Spectrum: Tune Spec :Average 261-263(4.29-4.30) Bgrd 252(4.24)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	101	61.00	18880	92.00	13183	139.00	215
31.00	10517	62.00	19848	93.00	20064	140.00	400
32.00	237	63.00	15438	94.00	52808	141.00	5622
33.00	2428	64.00	1715	95.00	434752	142.00	728
36.00	2785	65.00	1050	96.00	29776	143.00	5953
37.00	17880	66.00	103	97.00	845	144.00	256
38.00	16206	67.00	1562	103.00	107	145.00	580
39.00	6046	68.00	48568	104.00	2221	146.00	966
40.00	275	69.00	48720	105.00	849	147.00	265
42.00	291	70.00	3761	106.00	2435	148.00	1318
44.00	2184	72.00	1943	107.00	580	149.00	151
45.00	3709	73.00	18656	111.00	486	150.00	665
46.00	427	74.00	75752	112.00	387	152.00	286
47.00	2907	75.00	220672	113.00	551	153.00	378
48.00	2070	76.00	19240	115.00	606	154.00	381
49.00	16146	77.00	1901	116.00	2010	155.00	1282
50.00	81648	78.00	1305	117.00	3313	157.00	986
51.00	24768	79.00	16366	118.00	1921	159.00	670
52.00	1240	80.00	5101	119.00	2912	161.00	782
53.00	262	81.00	17152	124.00	370	172.00	1445
54.00	15	82.00	4075	128.00	1907	174.00	481472
55.00	938	83.00	468	129.00	934	175.00	34664
56.00	6558	86.00	384	130.00	1783	176.00	468160
57.00	12018	87.00	13061	131.00	872	177.00	31312
58.00	488	88.00	13026	135.00	1032	178.00	932
60.00	3733	91.00	1618	137.00	1134	207.00	416

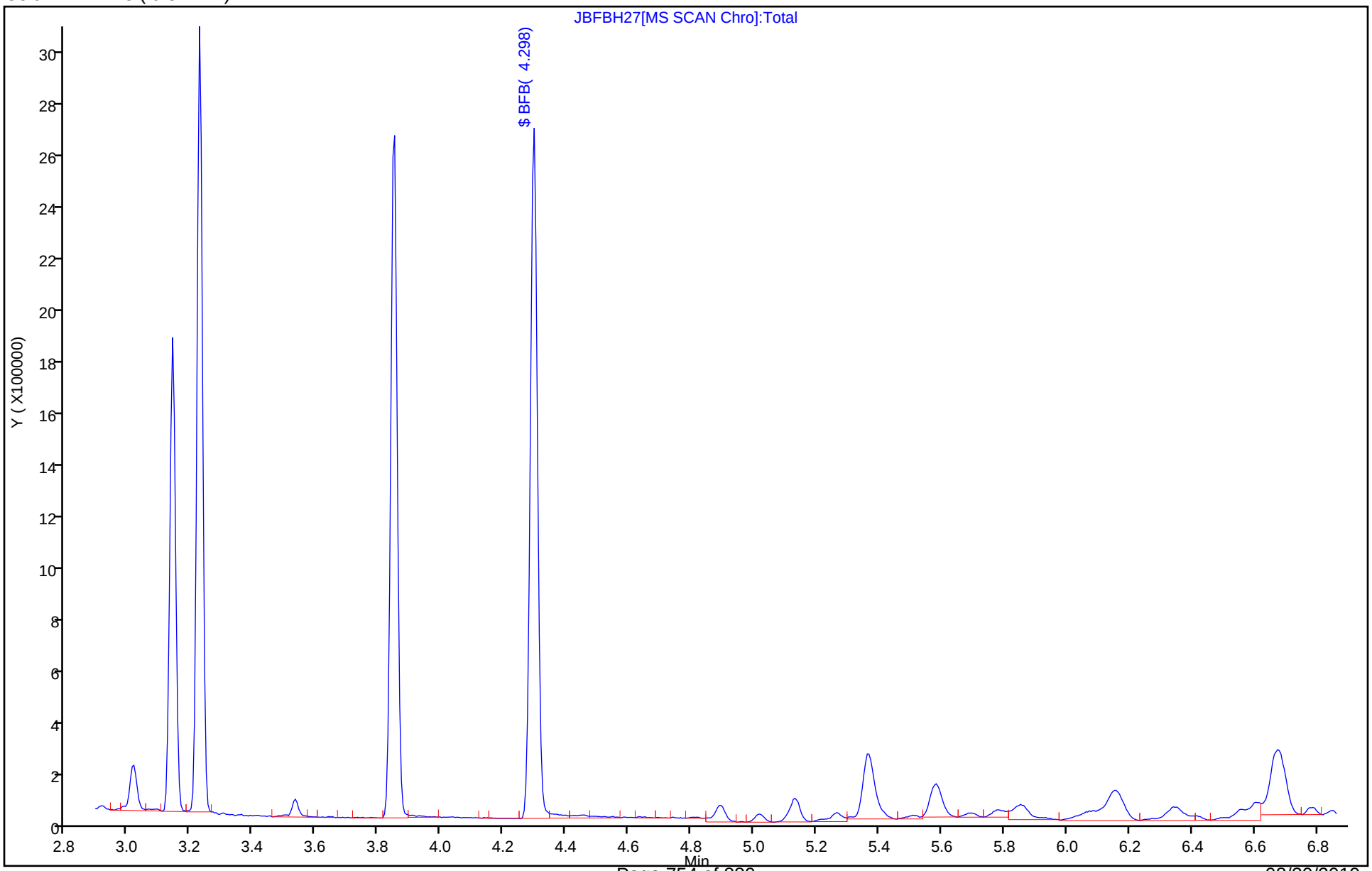
Report Date: 28-Aug-2019 10:38:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D

Injection Date:	27-Aug-2019 07:42:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Aug-2019 13:04:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-001
Misc. Info.: BFB
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:21 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:29:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.124	6.124	0.000	0	861667	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

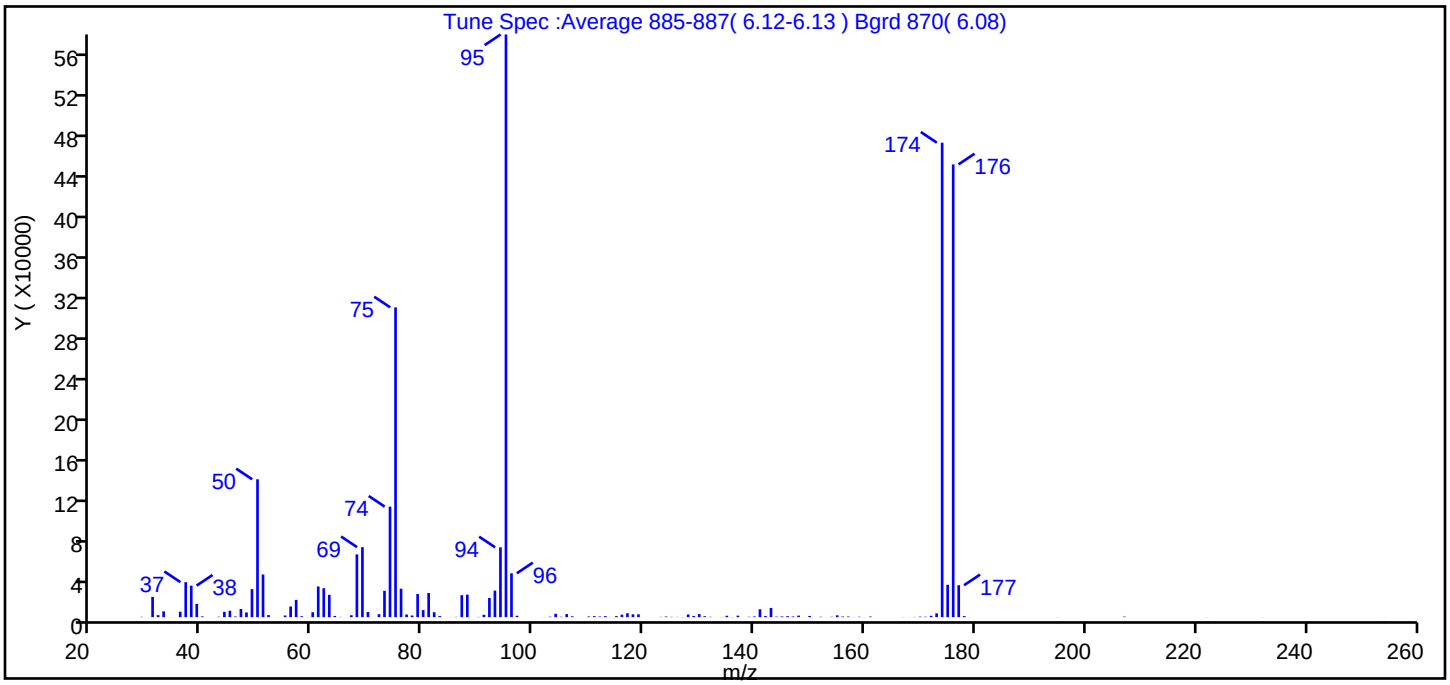
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Injection Date: 12-Aug-2019 13:04:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.7
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.7 (0.8)
174	50 to 120% of m/z 95	81.4
175	5 to 9% of m/z 174	5.6 (6.8)
176	Greater than 95% but less than 101% of m/z 174	77.7 (95.4)
177	5 to 9% of m/z 176	5.5 (7.0)

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	314	67.00	1865	107.00	807	146.00	967
31.00	19936	68.00	61744	110.00	659	147.00	651
32.00	1974	69.00	68888	111.00	971	148.00	1520
33.00	5717	70.00	5076	112.00	604	149.00	48
34.00	38	72.00	2904	113.00	1020	150.00	1173
35.00	51	73.00	25936	114.00	71	152.00	361
36.00	5387	74.00	108784	115.00	1038	153.00	41
37.00	34456	75.00	304896	116.00	2434	154.00	351
38.00	31016	76.00	28008	117.00	3832	155.00	1782
39.00	13052	77.00	2595	118.00	2790	156.00	605
40.00	759	78.00	1581	119.00	2773	157.00	617
43.00	402	79.00	22768	121.00	48	158.00	99
44.00	5203	80.00	6953	123.00	234	159.00	371
45.00	6314	81.00	23760	124.00	596	161.00	619
46.00	658	82.00	4804	125.00	296	166.00	41
47.00	8049	83.00	1058	126.00	229	167.00	131
48.00	4635	84.00	62	127.00	144	168.00	90
49.00	27576	85.00	111	128.00	2630	169.00	215
50.00	135680	86.00	272	129.00	1132	170.00	531
51.00	42000	87.00	21680	130.00	2976	171.00	447
52.00	2022	88.00	22152	131.00	916	172.00	1277
53.00	50	90.00	235	132.00	346	173.00	3743
55.00	1631	91.00	2363	133.00	34	174.00	467008
56.00	10495	92.00	18880	134.00	105	175.00	31856
57.00	16984	93.00	26120	135.00	1369	176.00	445632
58.00	880	94.00	68728	136.00	142	177.00	31408
59.00	109	95.00	573504	137.00	1446	178.00	1058
60.00	4824	96.00	43160	139.00	367	179.00	61
61.00	30200	97.00	1360	140.00	691	195.00	95
62.00	28504	102.00	113	141.00	7746	207.00	531
63.00	21960	103.00	453	142.00	1157	222.00	104
64.00	1194	104.00	3311	143.00	9053	232.00	73
65.00	210	105.00	379	144.00	487	254.00	76

Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	37	106.00	3012	145.00	701		

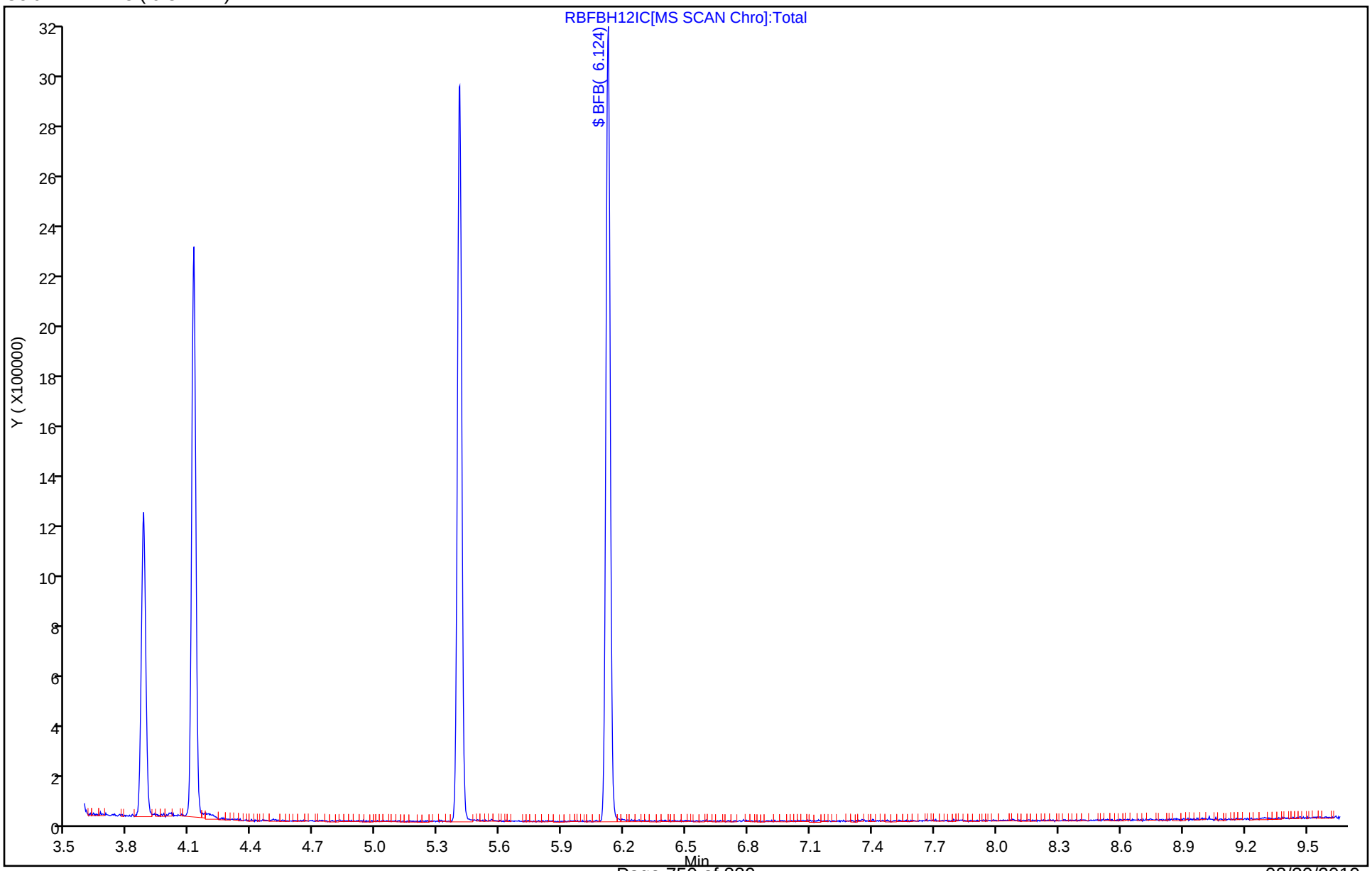
Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D

Injection Date:	12-Aug-2019 13:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RBFBH20.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Aug-2019 08:48:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:36:35	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:36:35		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.121	6.121	0.000	0	1607513	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

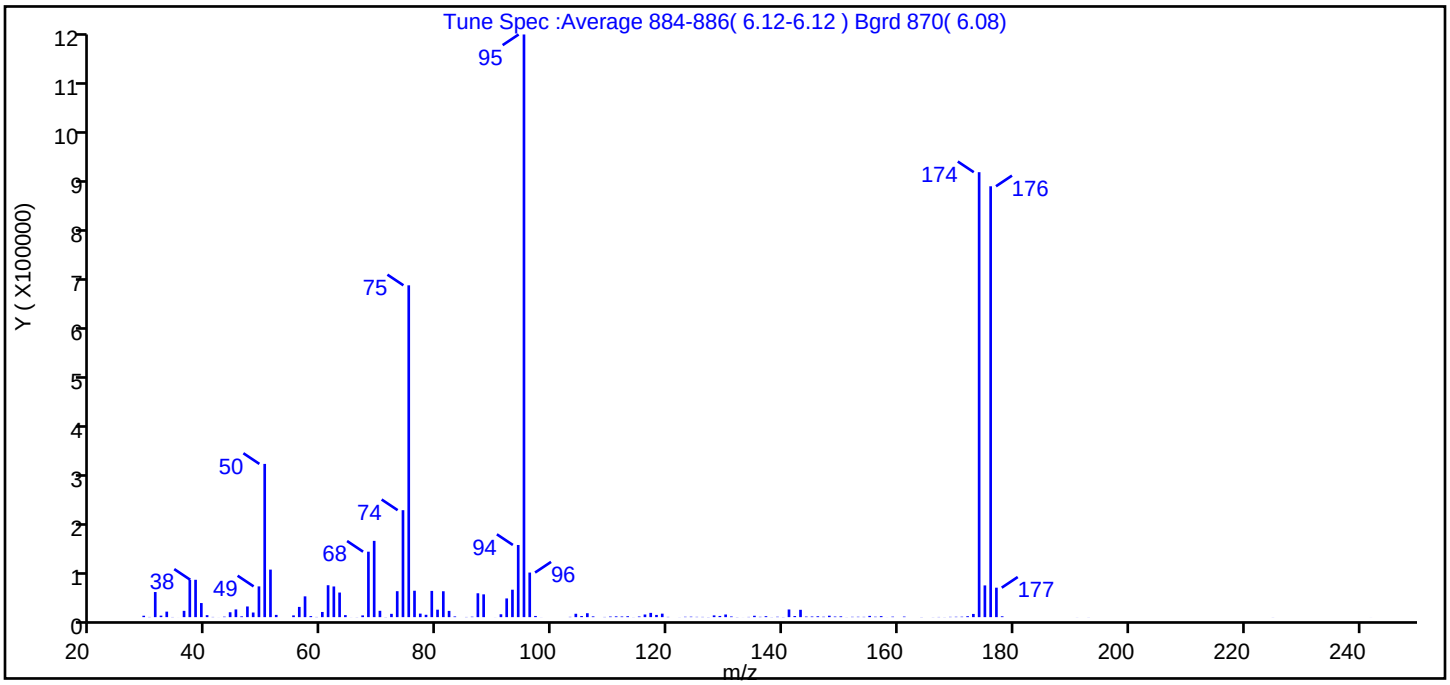
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RBFBH20.D
Injection Date: 20-Aug-2019 08:48:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	26.3
75	30 to 60% of m/z 95	56.9
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	76.4
175	5 to 9% of m/z 174	5.4 (7.1)
176	Greater than 95% but less than 101% of m/z 174	73.9 (96.8)
177	5 to 9% of m/z 176	5.1 (6.8)

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RBFBH20.D\MR_TO15.rslt\spectra.d
Injection Date: 20-Aug-2019 08:48:30
Spectrum: Tune Spec :Average 884-886(6.12-6.12) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	2815	66.00	199	107.00	1517	144.00	1189
30.00	388	67.00	3472	109.00	401	145.00	1306
31.00	50328	68.00	131200	110.00	1234	146.00	1769
32.00	3020	69.00	152896	111.00	1604	147.00	836
33.00	11056	70.00	12722	112.00	1326	148.00	2842
34.00	327	71.00	275	113.00	1852	149.00	1215
35.00	55	72.00	6611	114.00	167	150.00	1637
36.00	12625	73.00	52032	115.00	1303	151.00	152
37.00	74496	74.00	214400	116.00	5306	152.00	669
38.00	74888	75.00	665088	117.00	8520	153.00	771
39.00	28256	76.00	52928	118.00	4445	154.00	579
40.00	3957	77.00	7090	119.00	7008	155.00	2509
41.00	422	78.00	4735	120.00	508	156.00	882
42.00	89	79.00	52600	122.00	143	157.00	2013
43.00	931	80.00	14966	123.00	741	158.00	69
44.00	9828	81.00	51904	124.00	929	159.00	998
45.00	15465	82.00	12556	125.00	572	161.00	1149
46.00	1565	83.00	1427	126.00	484	164.00	245
47.00	21392	85.00	383	127.00	274	166.00	183
48.00	9265	86.00	887	128.00	3495	167.00	388
49.00	61656	87.00	47848	129.00	2385	168.00	190
50.00	307136	88.00	45680	130.00	5315	169.00	587
51.00	95288	90.00	101	131.00	1340	170.00	771
52.00	4506	91.00	5746	132.00	282	171.00	919
55.00	3471	92.00	37512	133.00	78	172.00	1872
56.00	20536	93.00	55024	134.00	450	173.00	6434
57.00	41680	94.00	144640	135.00	2777	174.00	891840
58.00	2105	95.00	1167872	136.00	654	175.00	63600
59.00	385	96.00	89368	137.00	1951	176.00	863616
60.00	10387	97.00	2384	138.00	220	177.00	59056
61.00	63976	98.00	115	139.00	789	178.00	1684
62.00	61472	103.00	573	140.00	297	191.00	115
63.00	49320	104.00	6784	141.00	15344	193.00	142

Report Date: 21-Aug-2019 12:36:35 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RBFBH20.D\MR_TO15.rslt\spectra.d
Injection Date: 20-Aug-2019 08:48:30
Spectrum: Tune Spec :Average 884-886(6.12-6.12) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
64.00	4033	105.00	2225	142.00	2237	225.00	133
65.00	111	106.00	7874	143.00	14709	242.00	60

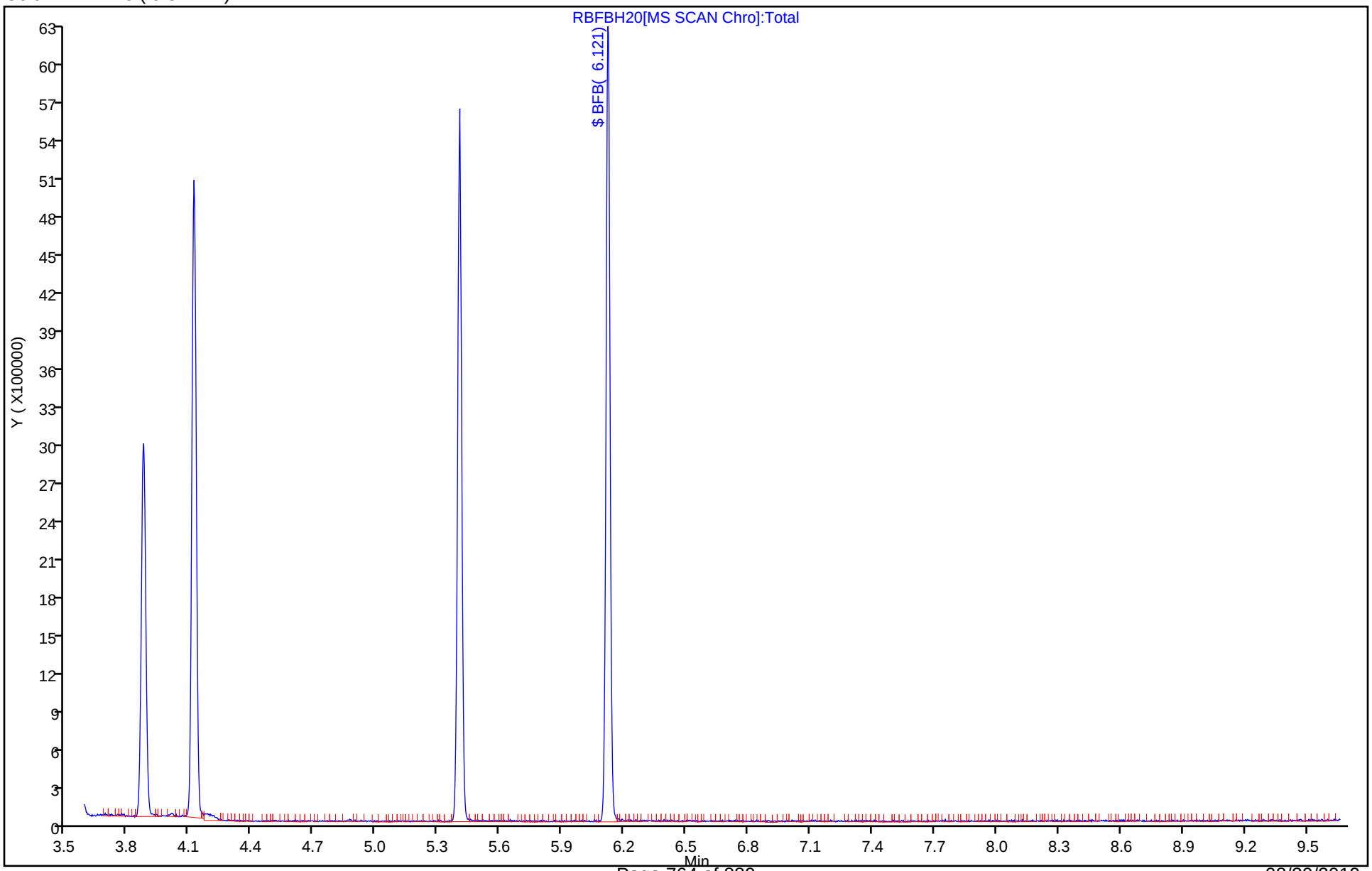
Report Date: 21-Aug-2019 12:36:35 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RBFBH20.D

Injection Date:	20-Aug-2019 08:48:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 23-Aug-2019 10:17:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-001
Misc. Info.: BFB
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:52:14 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:52:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.115	6.115	0.000	0	721026	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

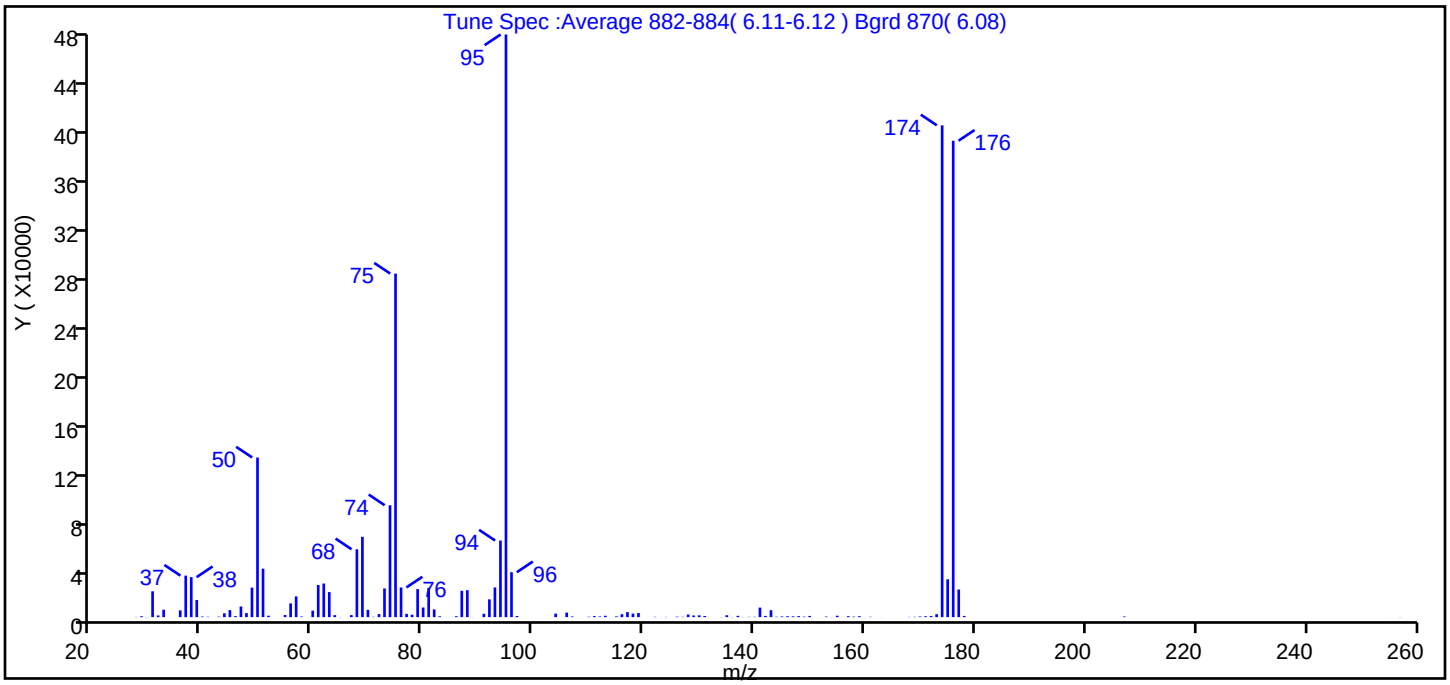
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D
Injection Date: 23-Aug-2019 10:17:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	27.4
75	30 to 60% of m/z 95	59.0
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	84.4
175	5 to 9% of m/z 174	6.5 (7.7)
176	Greater than 95% but less than 101% of m/z 174	81.8 (96.9)
177	5 to 9% of m/z 176	4.7 (5.8)

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D\MR_TO15.rslt\spectra.d
Injection Date: 23-Aug-2019 10:17:30
Spectrum: Tune Spec :Average 882-884(6.11-6.12) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	166	63.00	20416	104.00	2871	144.00	346
29.00	739	64.00	1653	106.00	3685	145.00	570
30.00	123	65.00	124	107.00	548	146.00	743
31.00	21048	67.00	1669	110.00	338	147.00	640
32.00	1358	68.00	55320	111.00	877	148.00	842
33.00	6070	69.00	65480	112.00	519	149.00	431
34.00	35	70.00	5960	113.00	1137	150.00	1000
36.00	5544	71.00	283	115.00	628	152.00	37
37.00	33856	72.00	2507	116.00	2371	153.00	467
38.00	32592	73.00	23400	117.00	4096	154.00	94
39.00	13957	74.00	91224	118.00	2868	155.00	1158
40.00	497	75.00	280000	119.00	3334	157.00	791
41.00	300	76.00	24208	122.00	278	158.00	413
43.00	386	77.00	2660	123.00	54	159.00	764
44.00	3136	78.00	1976	124.00	192	160.00	79
45.00	5717	79.00	22856	126.00	415	161.00	278
46.00	844	80.00	7857	127.00	238	163.00	63
47.00	8677	81.00	23808	128.00	2122	168.00	223
48.00	3330	82.00	6309	129.00	1374	169.00	258
49.00	24040	83.00	704	130.00	1481	170.00	547
50.00	130112	86.00	761	131.00	950	171.00	751
51.00	39496	87.00	21496	134.00	107	172.00	950
52.00	1187	88.00	21960	135.00	1556	173.00	2386
55.00	1736	89.00	74	136.00	97	174.00	400832
56.00	11214	91.00	2726	137.00	1079	175.00	30856
57.00	16896	92.00	14497	138.00	103	176.00	388288
58.00	500	93.00	24192	139.00	220	177.00	22496
59.00	10	94.00	62432	140.00	248	178.00	1000
60.00	5298	95.00	474880	141.00	7782	207.00	538
61.00	26208	96.00	36616	142.00	1019	255.00	43
62.00	27384	97.00	925	143.00	5665	257.00	131

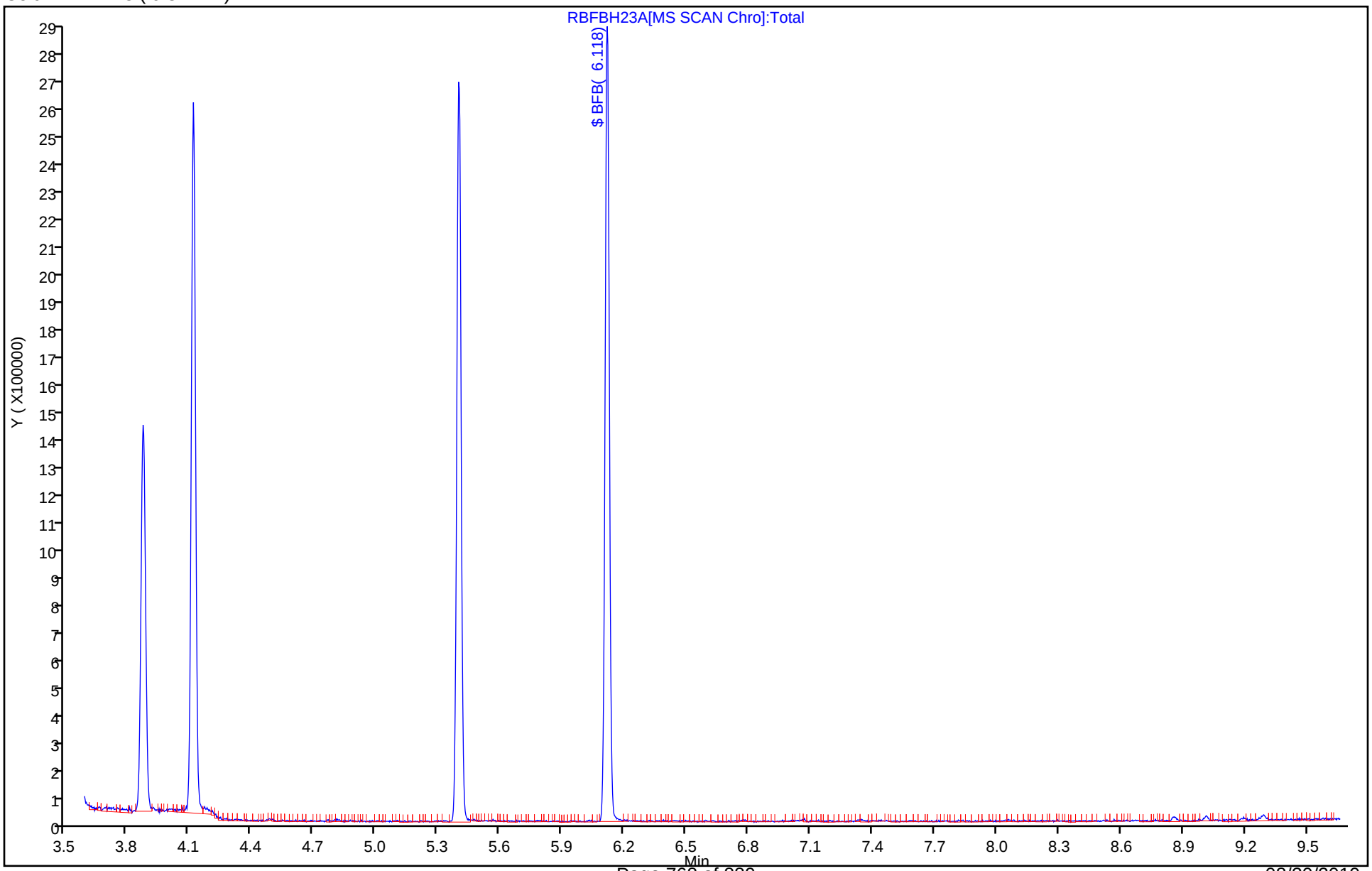
Report Date: 26-Aug-2019 13:52:15 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D

Injection Date:	23-Aug-2019 10:17:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\RBFBH26.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	26-Aug-2019 06:24:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012845-001				
Misc. Info.:	BFB				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Aug-2019 15:09:17	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	27-Aug-2019 15:09:17		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.118	6.118	0.000	0	818570	NR	NR	8

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
8 - Failed MS Tune Ratio Test

Reagents:

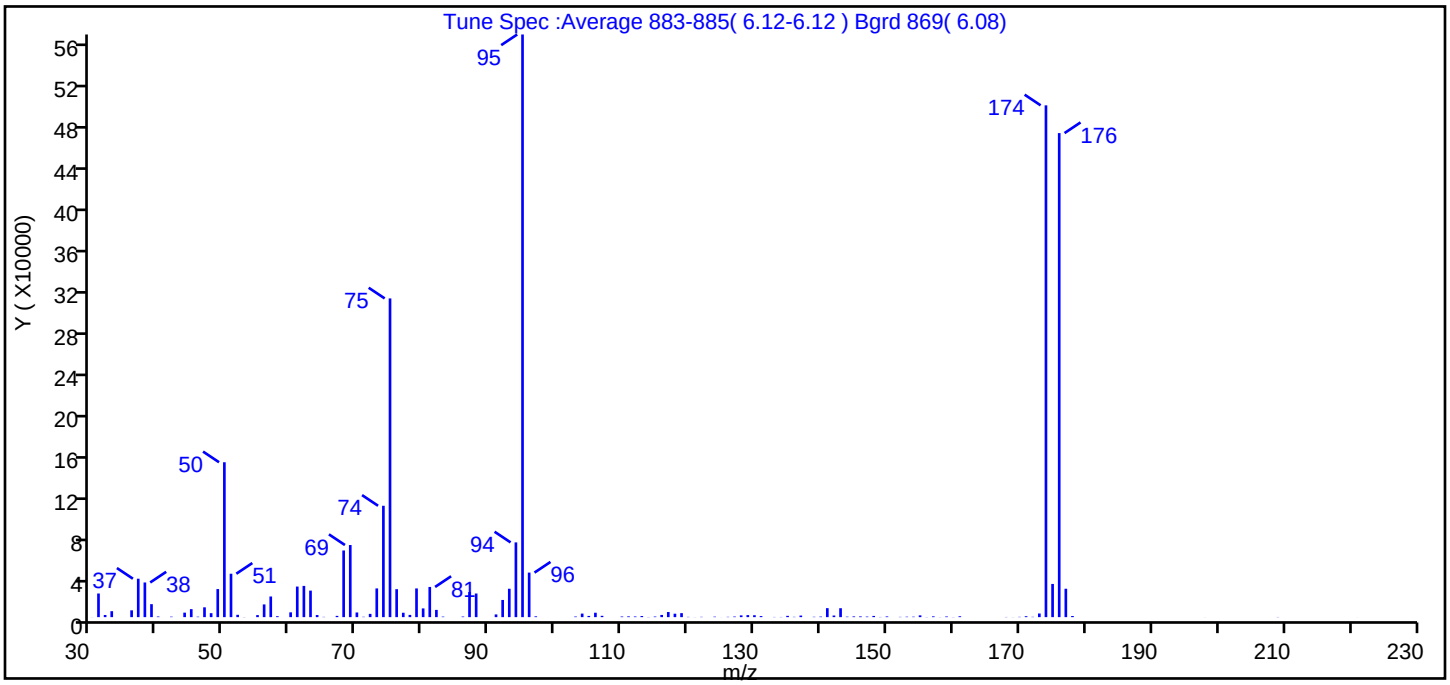
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RBFBH26.D
Injection Date: 26-Aug-2019 06:24:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: afb ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	26.6
75	30 to 60% of m/z 95	54.7
96	5 to 9% of m/z 95	7.6
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	87.8
175	5 to 9% of m/z 174	5.7 (6.5)
176	Greater than 95% but less than 101% of m/z 174	83.1 (94.6)*
177	5 to 9% of m/z 176	4.9 (5.9)

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RBFBH26.D\MR_TO15.rslt\spectra.d
Injection Date: 26-Aug-2019 06:24:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 869(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	68	68.00	65040	110.00	612	144.00	469
31.00	23072	69.00	70352	111.00	748	145.00	705
32.00	2085	70.00	4556	112.00	647	146.00	717
33.00	5813	71.00	345	113.00	1077	147.00	548
36.00	6663	72.00	3198	114.00	150	148.00	1178
37.00	37488	73.00	28024	115.00	584	149.00	183
38.00	33816	74.00	108640	116.00	2143	150.00	685
39.00	12675	75.00	310912	117.00	4992	152.00	252
40.00	606	76.00	27272	118.00	3360	153.00	423
42.00	467	77.00	4292	119.00	3907	154.00	442
44.00	4390	78.00	2182	120.00	266	155.00	1722
45.00	7805	79.00	28000	121.00	77	156.00	134
46.00	441	80.00	8519	122.00	291	157.00	757
47.00	9582	81.00	29464	124.00	460	158.00	101
48.00	3867	82.00	7066	125.00	46	159.00	643
49.00	27384	83.00	510	126.00	292	160.00	133
50.00	151104	86.00	573	127.00	573	161.00	846
51.00	42360	87.00	24488	128.00	1714	168.00	177
52.00	2270	88.00	23048	129.00	1986	169.00	81
53.00	125	91.00	2651	130.00	1867	170.00	285
55.00	1990	92.00	16768	131.00	1037	171.00	915
56.00	12409	93.00	27704	133.00	189	172.00	301
57.00	20152	94.00	72912	134.00	178	173.00	3559
58.00	896	95.00	568384	135.00	1266	174.00	499264
60.00	4683	96.00	43456	136.00	294	175.00	32392
61.00	29840	97.00	788	137.00	1542	176.00	472192
62.00	30472	103.00	588	139.00	344	177.00	27696
63.00	25880	104.00	3467	140.00	539	178.00	1098
64.00	2045	105.00	1184	141.00	8774	198.00	43
65.00	257	106.00	4289	142.00	1580	209.00	163
67.00	1244	107.00	1292	143.00	8707	221.00	35

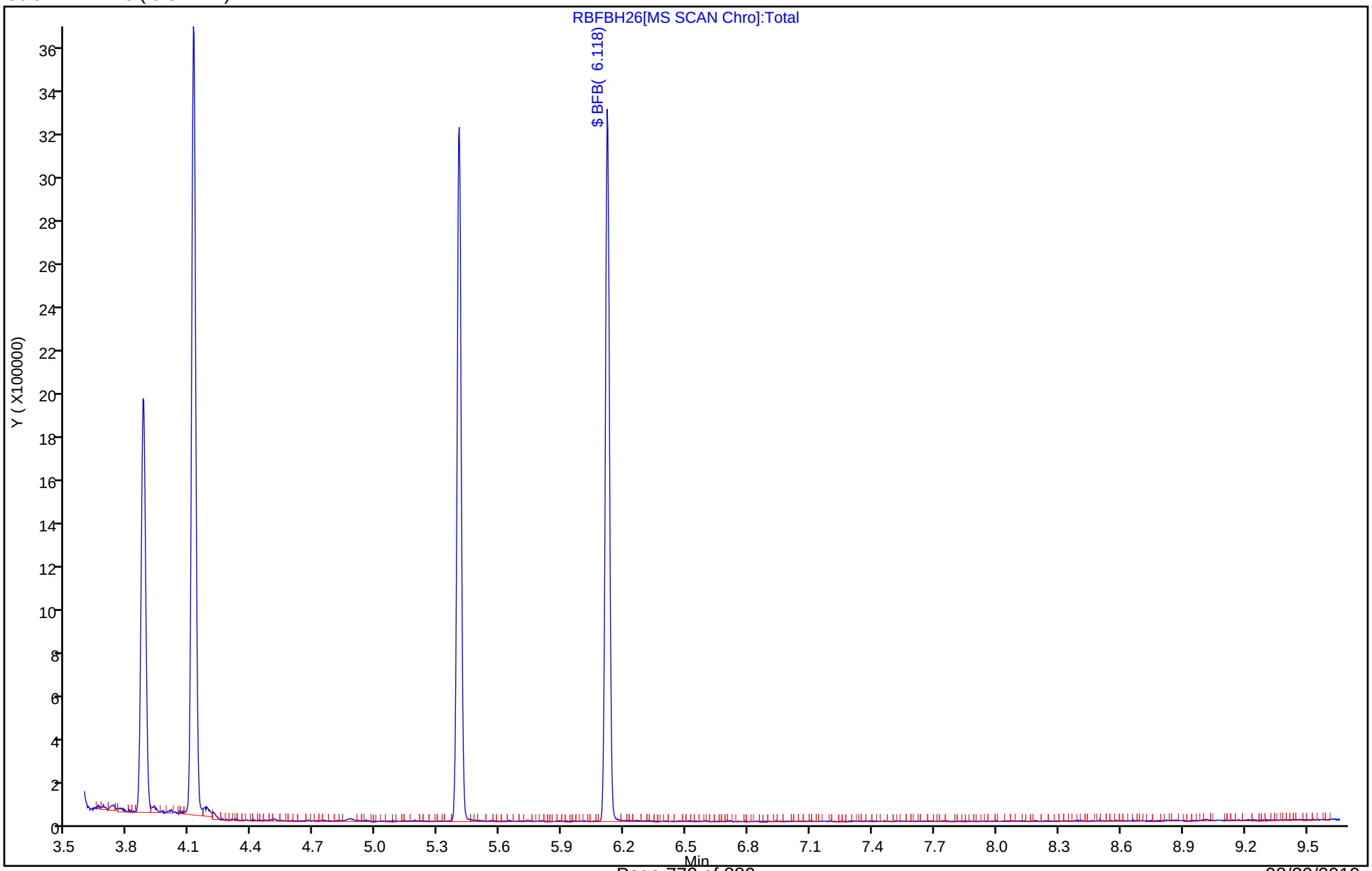
Report Date: 27-Aug-2019 15:09:18 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RBFBH26.D

Injection Date:	26-Aug-2019 06:24:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.557	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\R500BH20.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-Aug-2019 12:04:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:38:45 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:38:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.539	0.010	98	233186	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	1381702	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	90	1229968	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	91	769629	4.00	3.63	
7 Propene	41	3.453	3.437	0.016	95	28200		0.2551	7
31 Methylene Chloride	84	5.977	5.972	0.005	98	13216		0.1603	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	80	4669		0.0216	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

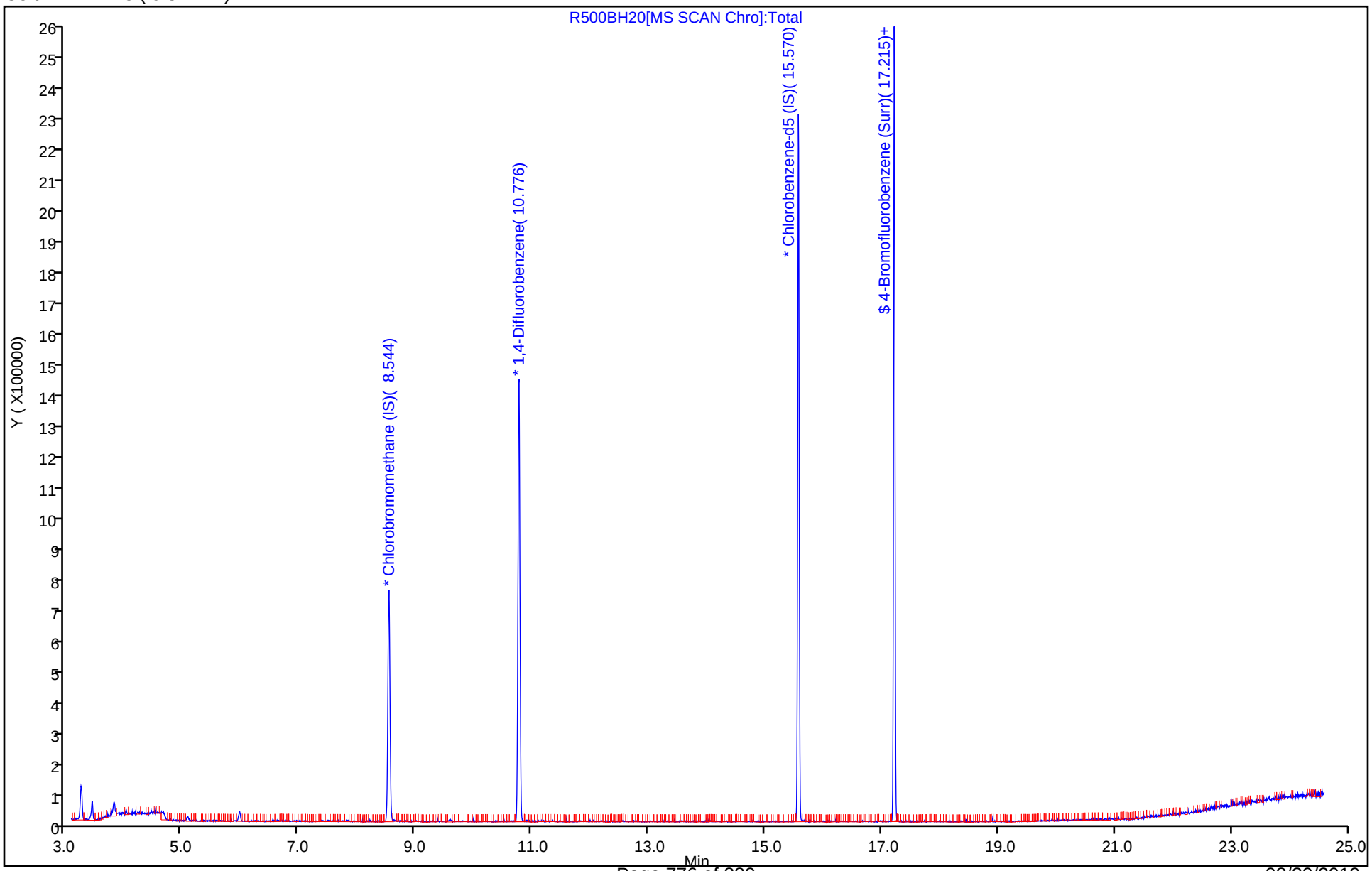
Report Date: 21-Aug-2019 12:38:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\R500BH20.D

Injection Date:	20-Aug-2019 12:04:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\R500BH20.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-Aug-2019 12:04:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:38:45	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:38:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.63	90.74

Report Date: 21-Aug-2019 12:38:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\R500BH20.D

Injection Date: 20-Aug-2019 12:04:30 Instrument ID: MR

Lims ID: mb

Client ID:

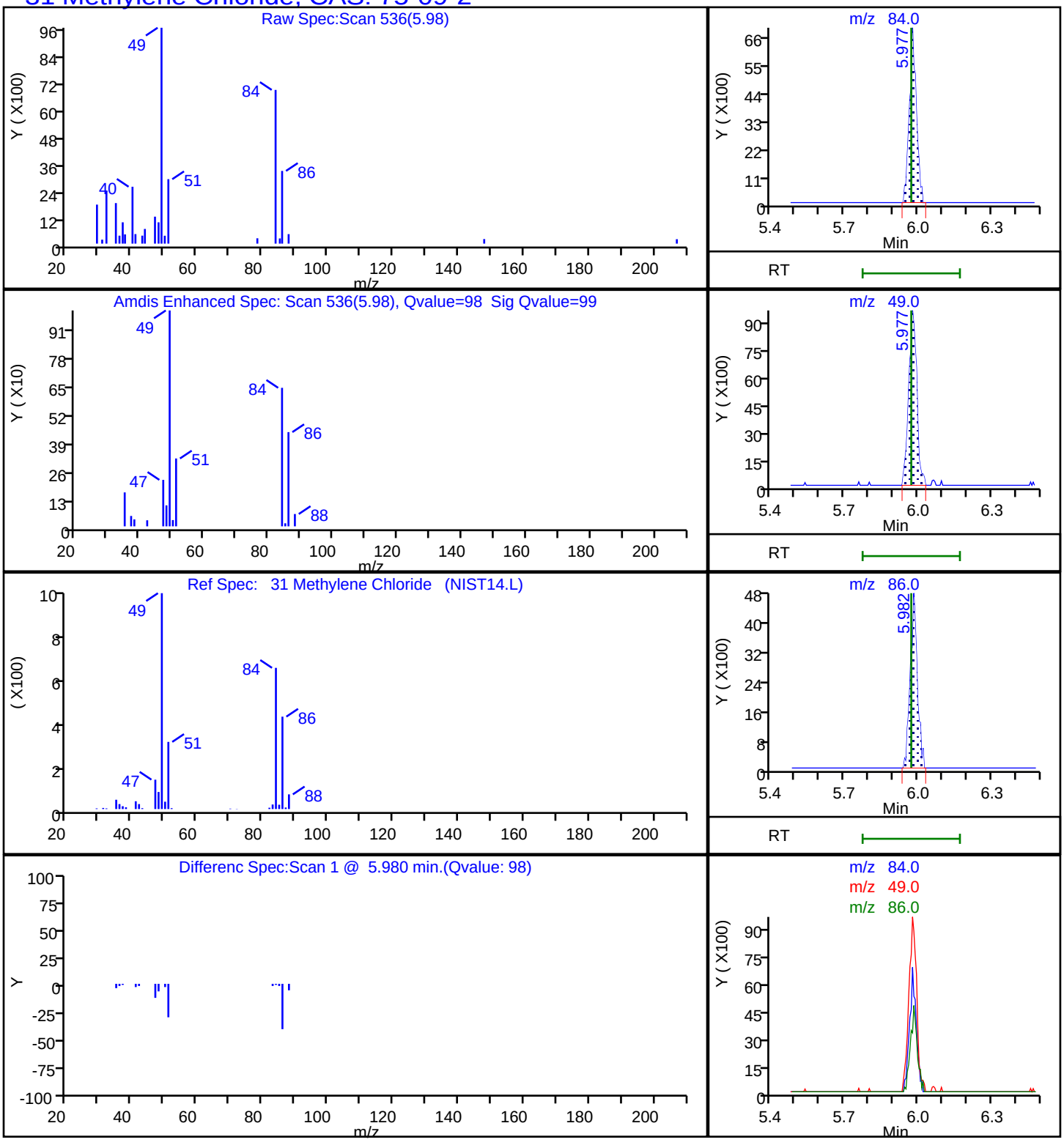
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.207	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.718	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\G500BH21.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 21-Aug-2019 16:09:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012774-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 15:57:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 15:57:40

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.135	9.146	-0.011	77	475297	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.308	11.313	-0.005	93	2398937	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	85	2344388	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	95	1581025	4.00	3.88	
	31 Methylene Chloride	84	6.536	6.547	-0.011	83	27209		0.2066	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

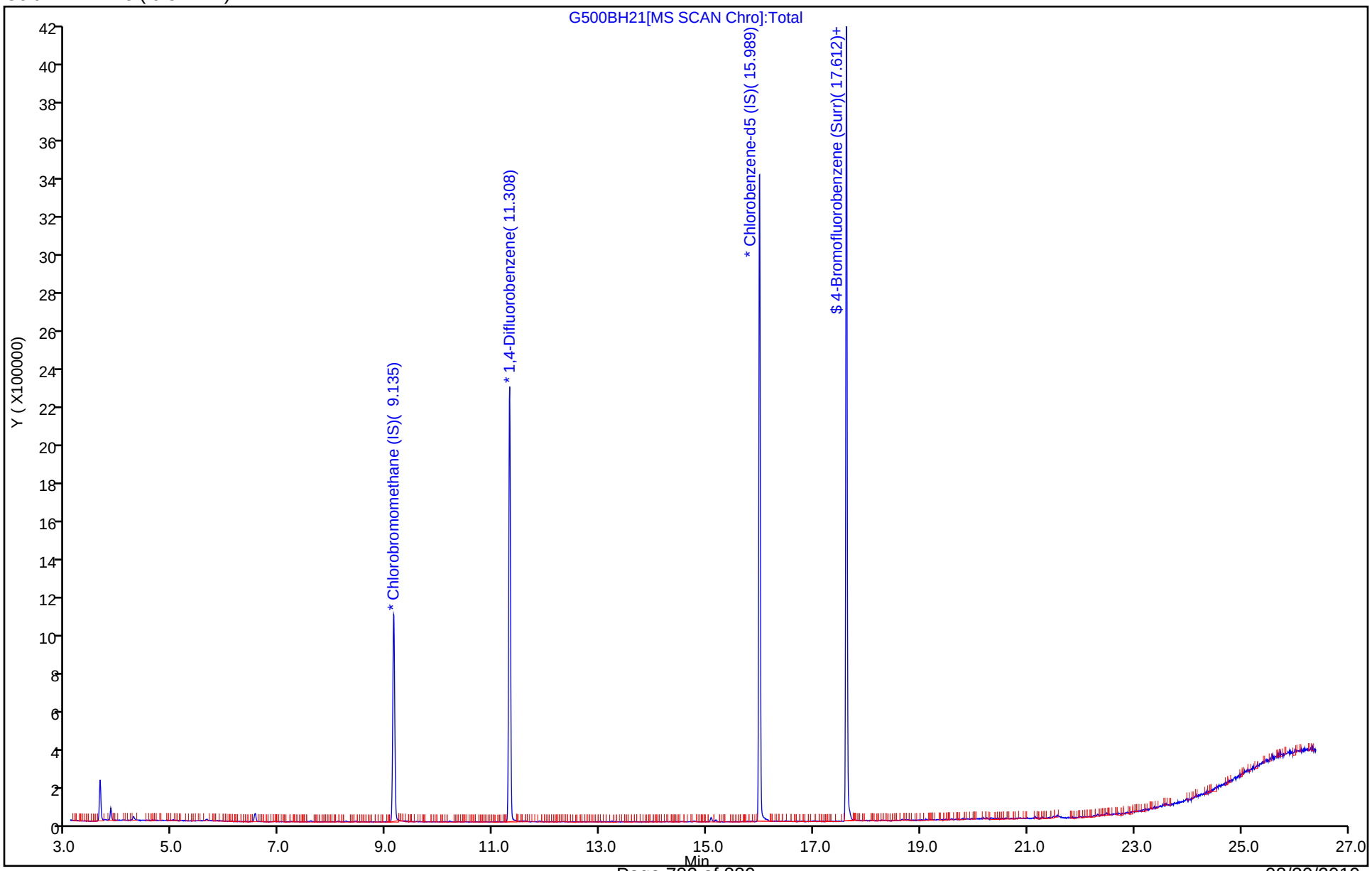
Report Date: 22-Aug-2019 15:57:41 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\G500BH21.D

Injection Date:	21-Aug-2019 16:09:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

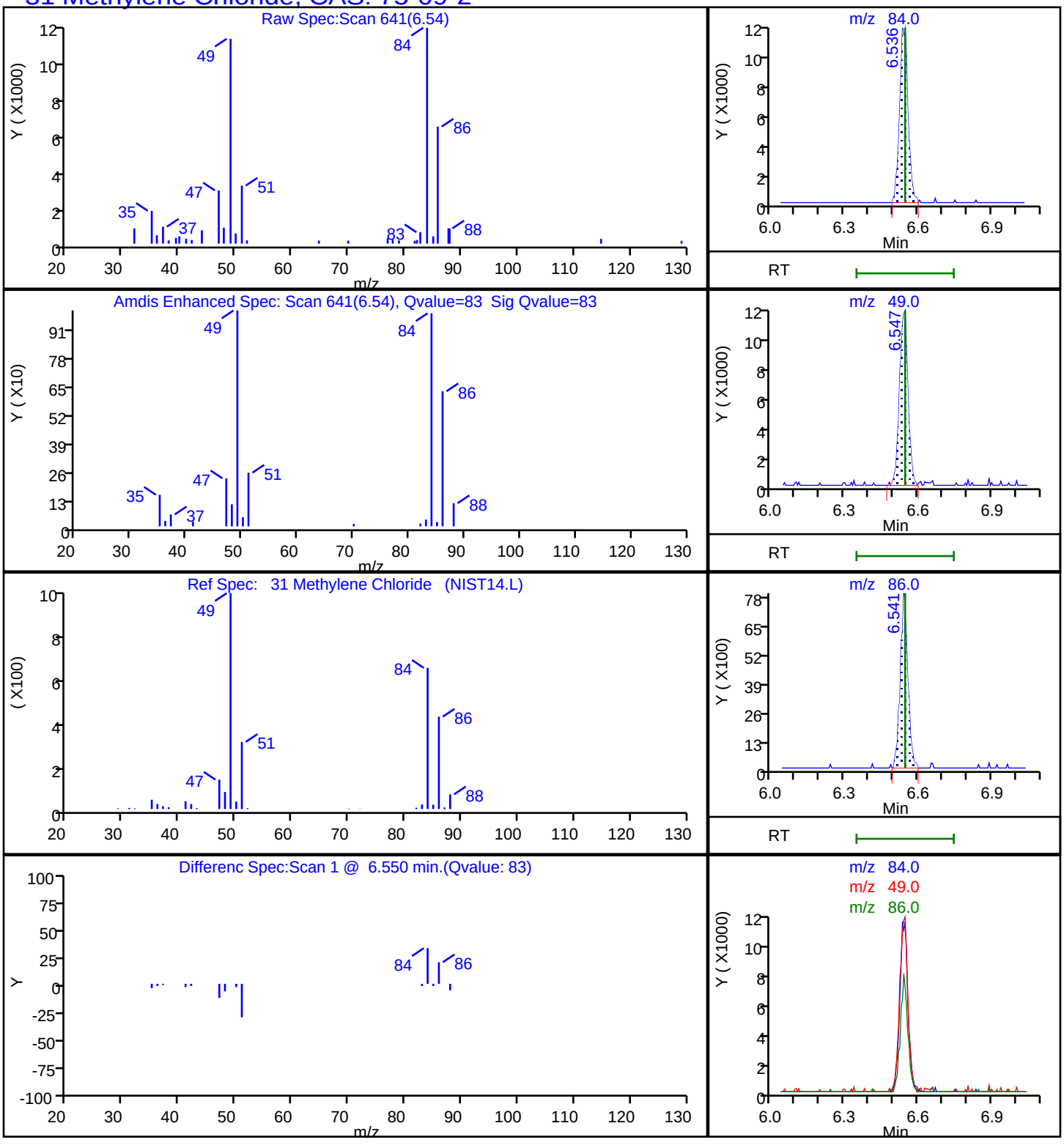
Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\G500BH21.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Aug-2019 16:09:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012774-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 15:57:22	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 15:57:40		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.88	97.05

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\G500BH21.D
Injection Date: 21-Aug-2019 16:09:30 Instrument ID: MG
Lims ID: mb
Client ID:
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 23-Aug-2019 12:46:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:48 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	229492	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1275766	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1067734	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	642612	4.00	3.49	
7 Propene	41	3.437	3.437	0.000	95	23523		0.2162	7
31 Methylene Chloride	84	5.961	5.966	-0.005	96	12969		0.1599	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

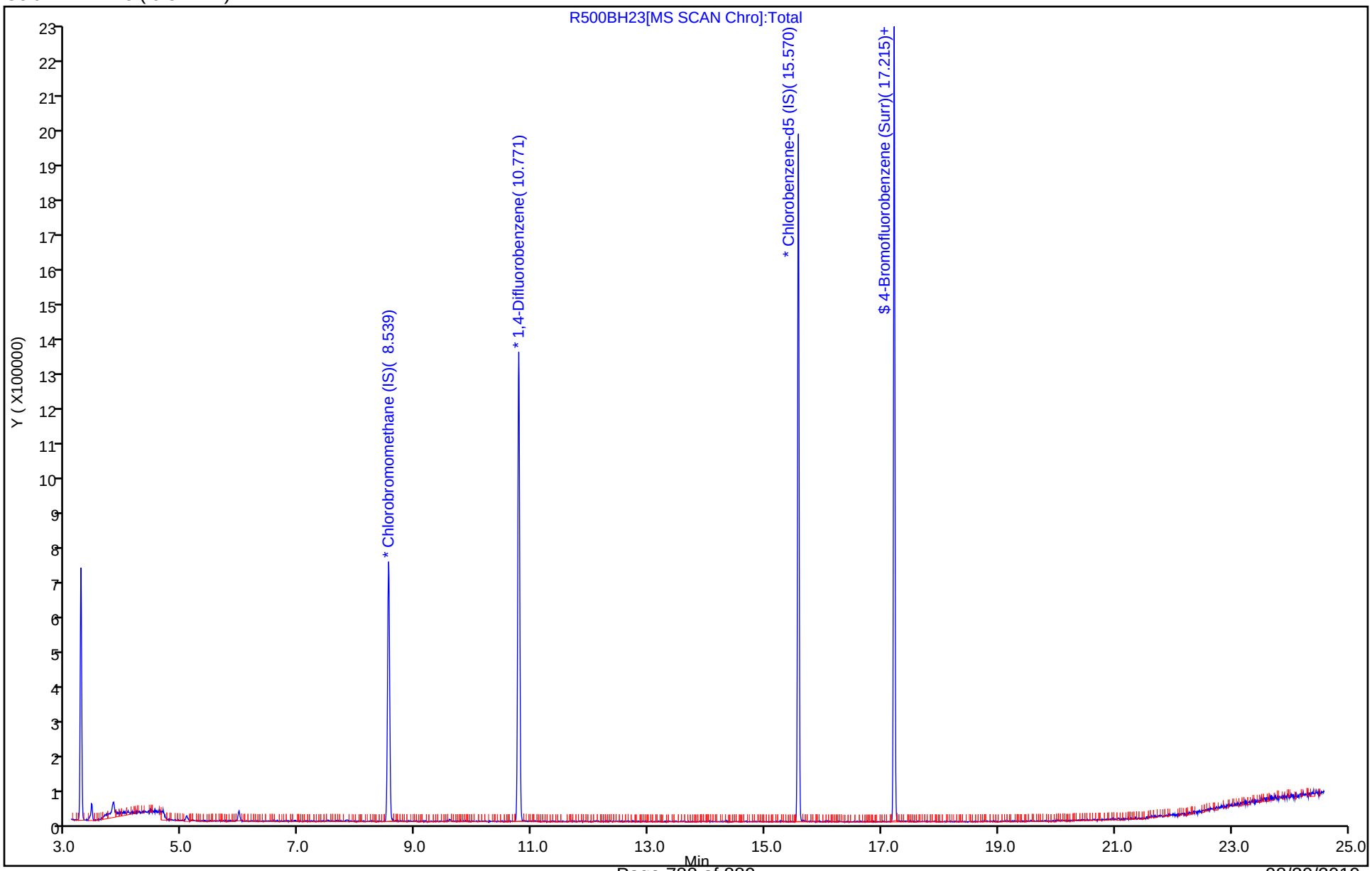
Report Date: 26-Aug-2019 13:54:49 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D

Injection Date:	23-Aug-2019 12:46:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

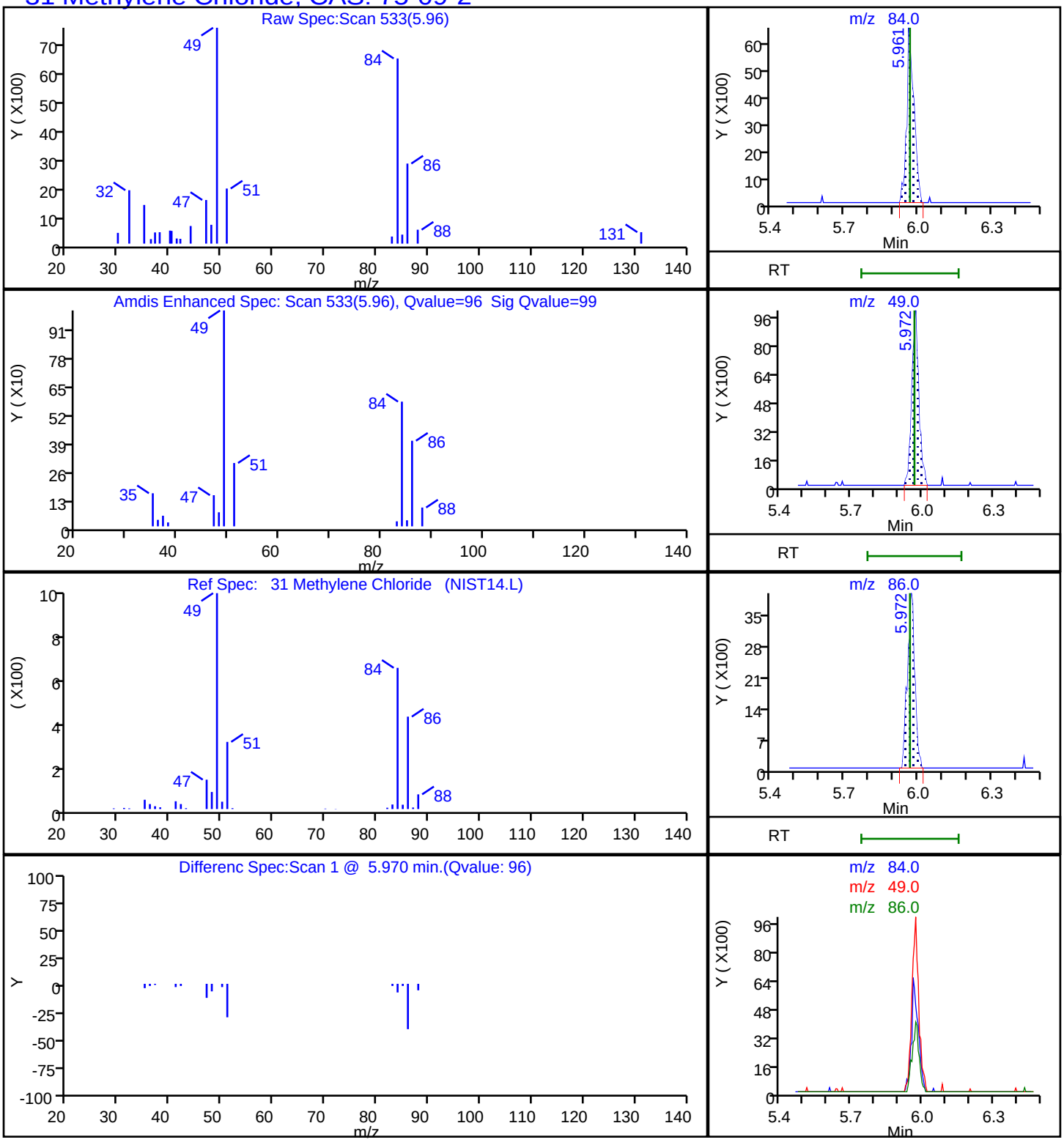
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-Aug-2019 12:46:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:48	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:54:48		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.49	87.27

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Injection Date: 23-Aug-2019 12:46:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.226	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.785	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\R500BH26.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 26-Aug-2019 08:49:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012845-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Aug-2019 15:11:44 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 27-Aug-2019 15:11:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.533	0.000	98	262440	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.766	0.000	95	1591487	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1298062	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	95	760723	4.00	3.40	
7 Propene	41	3.437	3.437	0.000	92	44022		0.3538	7
31 Methylene Chloride	84	5.972	5.972	0.000	98	20971		0.2261	
47 1,1,1-Trichloroethane	97	9.590	9.585	0.005	25	3241		0.0134	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

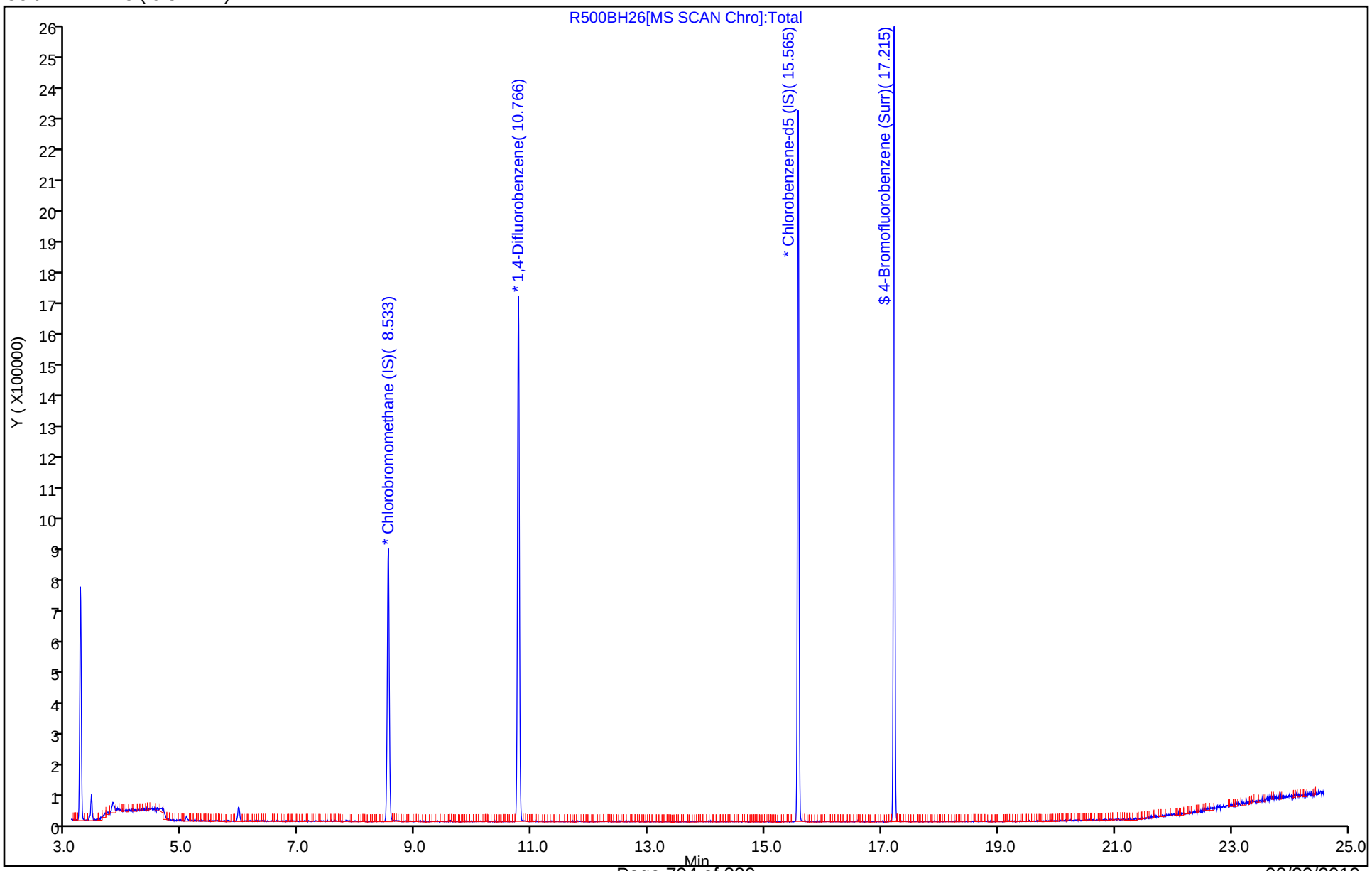
Report Date: 27-Aug-2019 15:11:45 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\R500BH26.D

Injection Date:	26-Aug-2019 08:49:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

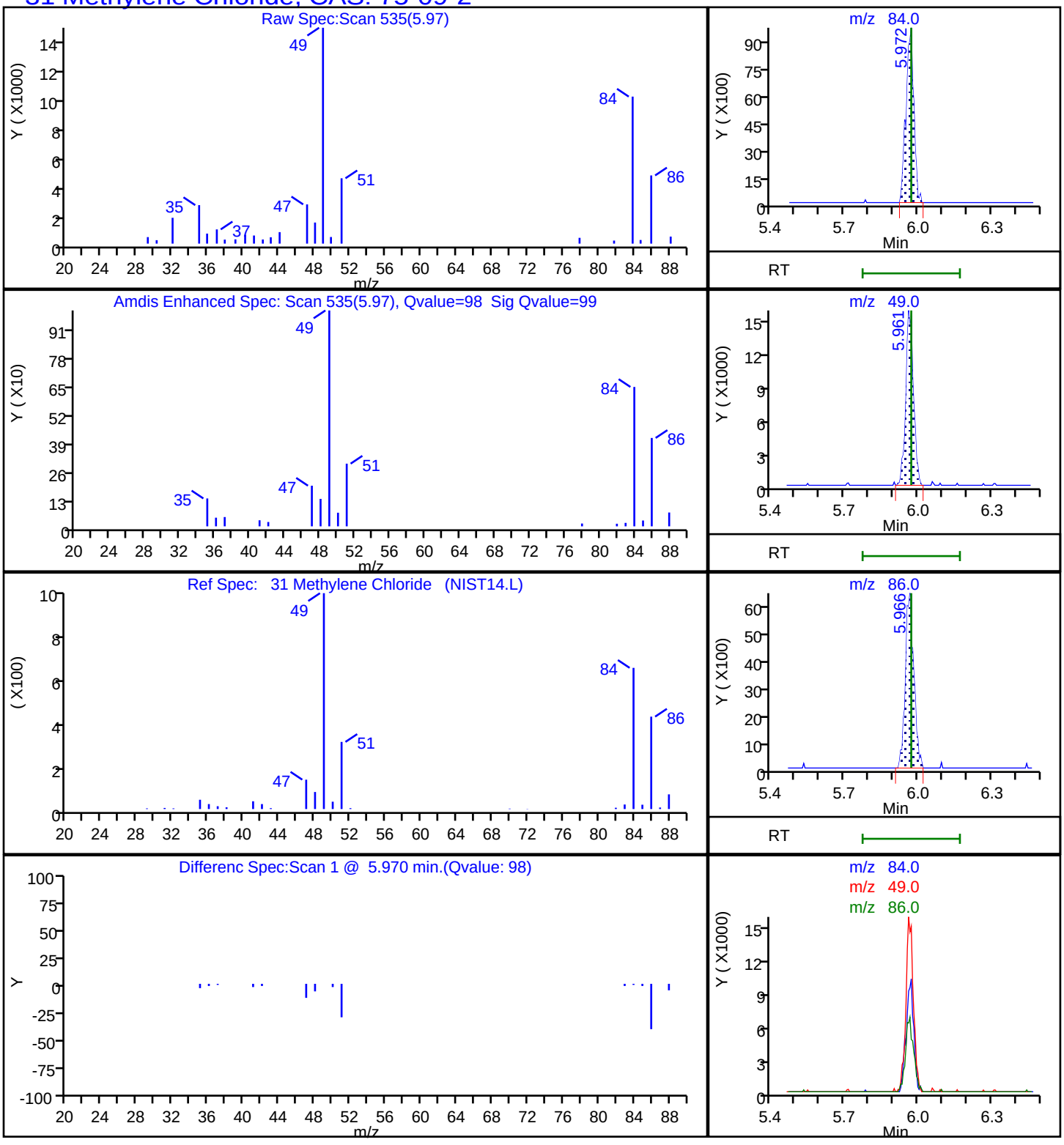
Data File:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\R500BH26.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	26-Aug-2019 08:49:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012845-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Aug-2019 15:11:44	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	27-Aug-2019 15:11:44		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.40	84.98

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\R500BH26.D
Injection Date: 26-Aug-2019 08:49:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Aug-2019 10:12:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012866-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:40:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:40:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.723	9.725	-0.002	93	259379	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.834	-0.002	95	1342867	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.444	0.003	87	1080755	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.047	-0.002	96	675619	4.00	3.40	
20 Propene	41	4.166	4.168	-0.002	99	18865		0.3674	
44 Methylene Chloride	84	7.066	7.062	0.004	98	29735		0.3047	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

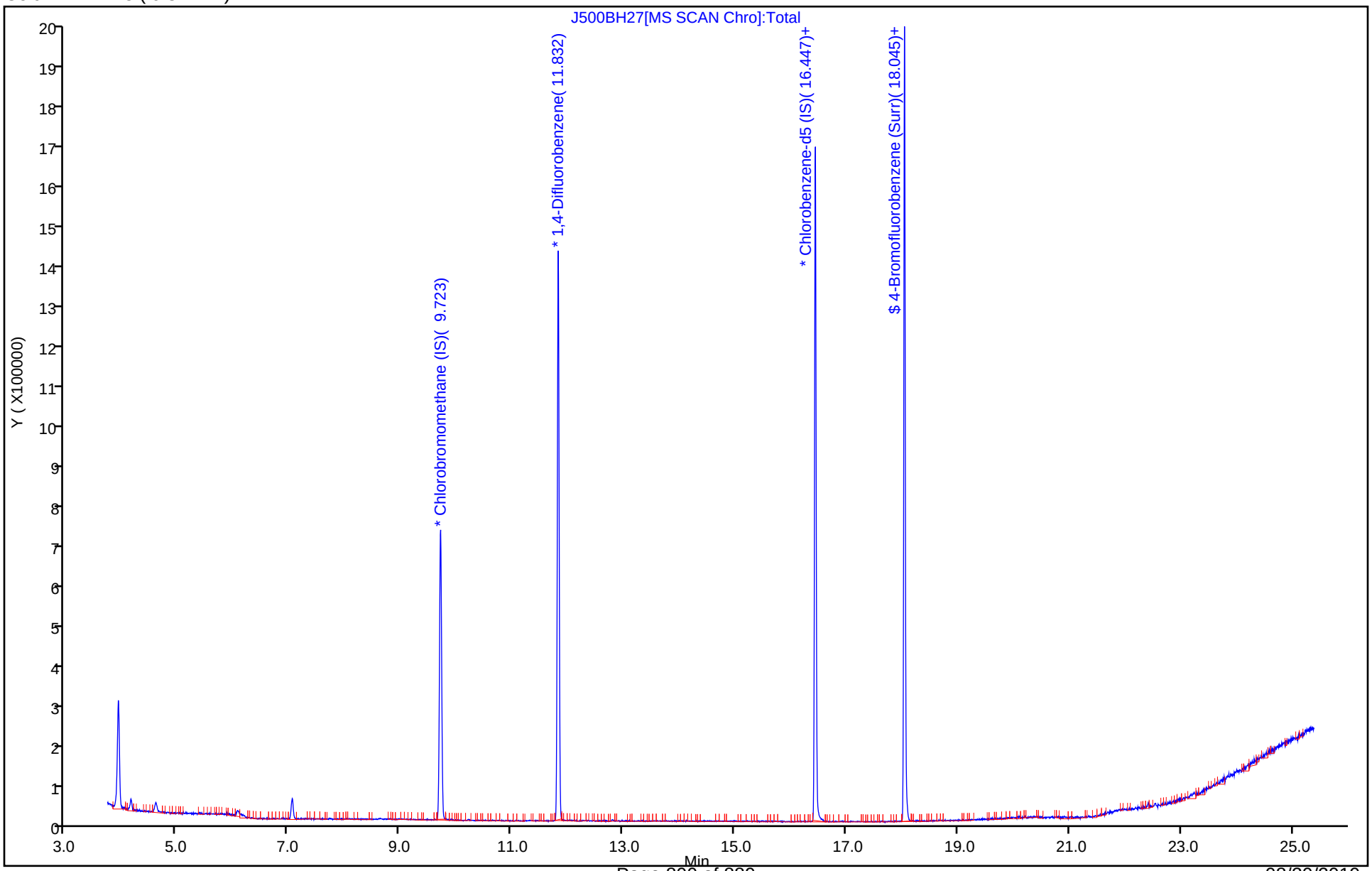
Report Date: 28-Aug-2019 10:40:31 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D

Injection Date:	27-Aug-2019 10:12:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	27-Aug-2019 10:12:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012866-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:40:29	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

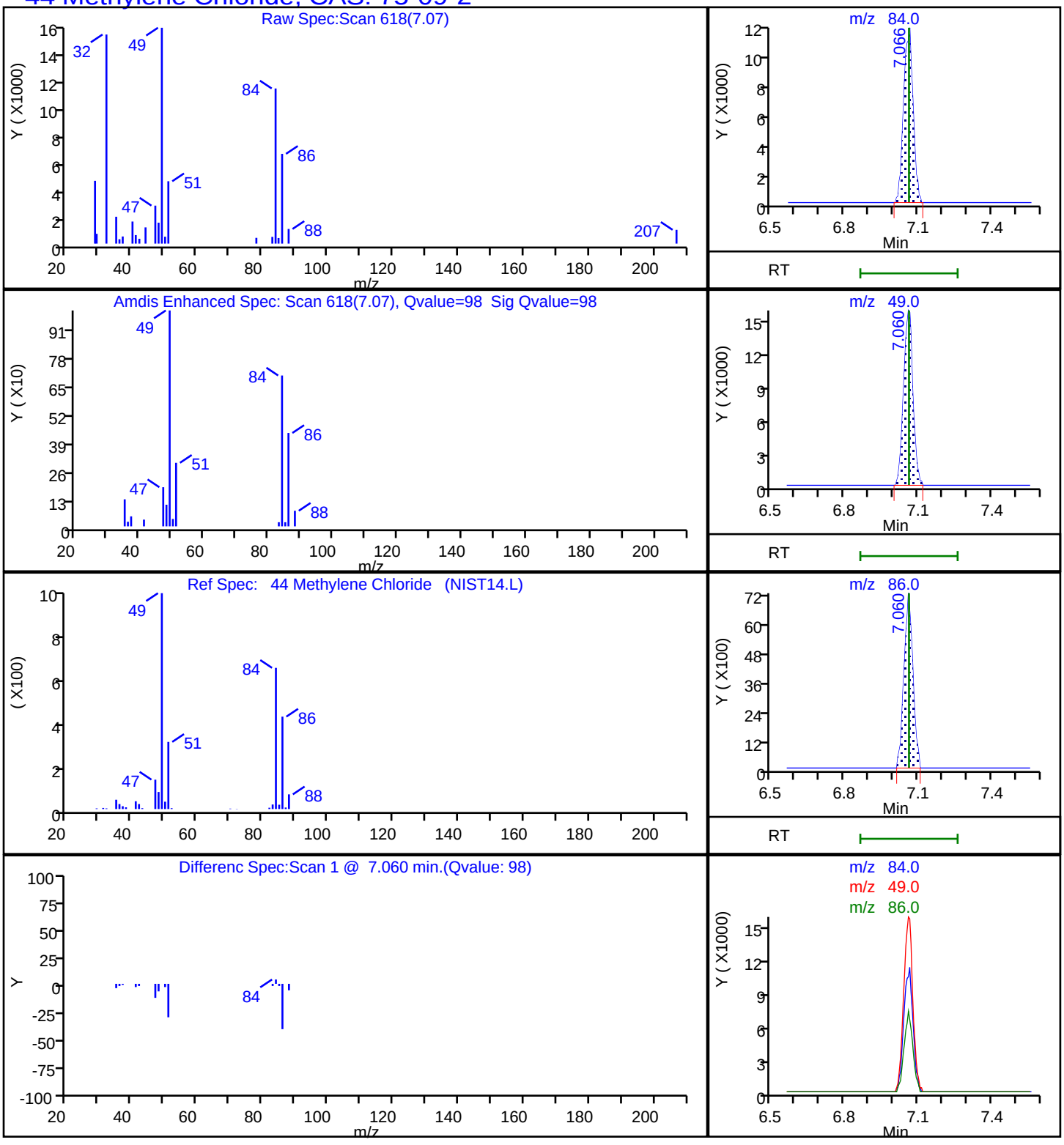
First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:40:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.40	85.04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D
Injection Date: 27-Aug-2019 10:12:30 Instrument ID: MJ
Lims ID: mb
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32745/1002

Matrix: Air Lab File ID: RCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.924		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.944		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.10		0.080	0.022
67-66-3	Chloroform	119.38	1.02		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.944		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.01		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.01		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.09		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.05		0.40	0.052
91-20-3	Naphthalene	128.17	0.992		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.893		0.080	0.0070
108-88-3	Toluene	92.14	0.962		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.03		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.948		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.986		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.962		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.914		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.05		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.02		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.969		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.25		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.18		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RCCVH20-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Aug-2019 09:15:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012760-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:37:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:37:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	217762	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1358602	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1173944	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	91	782084	4.00	3.86	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	205314	1.00	1.10	
7 Propene	41	3.437	3.437	0.000	99	138315	1.00	1.34	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	206847	1.00	1.23	
9 Chloromethane	52	3.664	3.664	0.000	67	38692	1.00	1.53	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	91	158680	1.00	1.86	
11 Acetaldehyde	44	3.815	3.815	0.000	98	225801	5.00	7.64	
12 Vinyl chloride	62	3.826	3.826	0.000	99	99793	1.00	1.25	
13 Butadiene	54	3.912	3.912	0.000	66	82742	1.00	1.42	
14 Butane	43	3.912	3.912	0.000	86	174940	1.00	1.42	
15 Bromomethane	94	4.219	4.219	0.000	98	82870	1.00	1.22	
16 Chloroethane	64	4.359	4.359	0.000	95	42531	1.00	1.30	
17 Ethanol	31	4.451	4.451	0.000	98	252448	5.00	8.54	
18 Vinyl bromide	106	4.651	4.651	0.000	97	75367	1.00	1.33	
19 2-Methylbutane	43	4.699	4.699	0.000	94	122194	1.00	1.33	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220383	1.00	1.05	
20 Acrolein	56	4.926	4.926	0.000	93	29009	1.00	1.12	
24 Acetonitrile	40	4.996	4.996	0.000	98	41614	1.00	1.08	
22 Acetone	58	5.039	5.039	0.000	100	111302	3.00	3.08	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	396766	3.00	3.24	
25 Pentane	72	5.131	5.131	0.000	71	13966	1.00	1.01	
26 Ethyl ether	31	5.303	5.303	0.000	89	115500	1.00	1.02	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	95	76237	1.00	1.02	
28 Acrylonitrile	53	5.724	5.724	0.000	61	63093	1.00	1.12	
29 2-Methyl-2-propanol	59	5.724	5.724	0.000	97	165632	1.00	1.10	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.788	0.000	96	175557	1.00	1.13	
31 Methylene Chloride	84	5.972	5.972	0.000	94	83689	1.00	1.09	
32 3-Chloro-1-propene	39	5.988	5.988	0.000	95	98682	1.00	1.15	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.123	6.123	0.000	98	216880	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	96	80942	1.00	1.03	
35 2-Methylpentane	43	6.791	6.791	0.000	96	232735	1.00	1.11	
36 Methyl tert-butyl ether	73	6.910	6.910	0.000	96	222852	1.00	1.05	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	158702	1.00	1.06	
38 Vinyl acetate	43	7.315	7.315	0.000	100	268981	1.00	1.03	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	96	36492	1.00	0.9132	
40 Hexane	56	7.784	7.784	0.000	77	68719	1.00	1.01	
41 Isopropyl ether	45	7.956	7.956	0.000	98	345940	1.00	1.07	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	97	84134	1.00	0.9437	
43 Ethyl acetate	43	8.393	8.393	0.000	97	244320	1.00	1.06	
44 Chloroform	83	8.555	8.555	0.000	94	187533	1.00	1.02	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	97	270806	1.00	1.00	
46 Tetrahydrofuran	42	8.965	8.965	0.000	93	119116	1.00	1.03	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	198656	1.00	0.9863	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	97	132467	1.00	1.01	
50 n-Butanol	31	10.183	10.183	0.000	86	46290	1.00	0.8909	
51 Cyclohexane	69	10.199	10.199	0.000	76	41156	1.00	0.9526	
49 Benzene	78	10.199	10.199	0.000	96	254114	1.00	0.9235	
52 Carbon tetrachloride	117	10.226	10.226	0.000	94	207631	1.00	0.9438	
53 2,3-Dimethylpentane	71	10.329	10.329	0.000	91	55499	1.00	0.8954	
54 Thiophene	84	10.485	10.485	0.000	96	135408	1.00	0.9709	
55 Isooctane	57	10.987	10.987	0.000	95	423814	1.00	0.9220	
57 n-Heptane	71	11.375	11.375	0.000	95	87599	1.00	0.9126	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	84	96692	1.00	0.9119	
58 Trichloroethene	130	11.499	11.499	0.000	95	110644	1.00	0.9144	
59 Dibromomethane	93	11.591	11.591	0.000	95	104366	1.00	0.9297	
60 Dichlorobromomethane	83	11.731	11.731	0.000	97	182953	1.00	0.8984	
61 1,4-Dioxane	88	11.769	11.769	0.000	82	40325	1.00	0.9535	
62 Methyl methacrylate	41	11.833	11.833	0.000	88	142007	1.00	0.9408	
63 Methylcyclohexane	83	12.275	12.275	0.000	91	146446	1.00	0.9255	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	97	251660	1.00	0.9340	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	99	146433	1.00	0.9211	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	94	132288	1.00	0.9060	
67 Toluene	91	13.586	13.586	0.000	93	290449	1.00	0.9617	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	90073	1.00	0.9620	
69 2-Hexanone	58	14.055	14.055	0.000	89	105205	1.00	0.9411	
71 n-Octane	85	14.287	14.287	0.000	97	92128	1.00	0.9309	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	184402	1.00	0.8879	
72 Ethylene Dibromide	107	14.670	14.670	0.000	96	174557	1.00	0.9719	
73 Tetrachloroethene	129	14.740	14.740	0.000	94	110187	1.00	0.8932	
74 Chlorobenzene	112	15.619	15.619	0.000	92	254449	1.00	1.01	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	404695	1.00	1.08	
76 Ethylbenzene	91	15.905	15.905	0.000	99	426136	1.00	1.01	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	97	722376	2.00	2.17	
81 n-Nonane	57	16.492	16.492	0.000	95	228806	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	93	183314	1.00	0.9853	
79 Styrene	104	16.535	16.535	0.000	98	240212	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	353973	1.00	1.01	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.934	0.000	99	237950	1.00	0.9670	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	76272	1.00	0.9780	
84 Isopropylbenzene	105	17.199	17.199	0.000	94	491510	1.00	0.9481	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.765	17.765	0.000	99	126595	1.00	0.9606	
86 2-Chlorotoluene	126	17.808	17.808	0.000	98	118646	1.00	0.9450	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	494403	1.00	0.9569	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	93	190860	1.00	0.9690	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	89	177768	1.00	0.9414	
90 n-Decane	57	18.293	18.293	0.000	86	294036	1.00	0.9798	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	471077	1.00	1.02	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	96	465233	1.00	1.02	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	692719	1.00	1.06	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304321	1.00	0.9794	
96 Benzyl chloride	91	18.811	18.811	0.000	98	358392	1.00	1.01	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	95	299491	1.00	0.9766	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	97	534416	1.00	1.01	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	469820	1.00	1.05	
99 Butylcyclohexane	83	18.989	18.989	0.000	91	361221	1.00	1.08	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	93	449901	1.00	1.10	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	80	306860	1.00	1.01	
102 Indene	116	19.323	19.323	0.000	88	376806	1.00	1.02	
103 n-Butylbenzene	91	19.329	19.329	0.000	98	599940	1.00	1.10	
104 Undecane	57	19.647	19.647	0.000	94	395141	1.00	1.12	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	93	130700	1.00	0.8798	
106 1,2,4,5-Tetramethylbenzene	119	20.100	20.100	0.000	97	524373	1.00	1.03	
107 Dodecane	57	20.720	20.720	0.000	90	362723	1.00	1.05	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	274598	1.00	0.9477	
109 Naphthalene	128	21.065	21.065	0.000	99	593082	1.00	0.99	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	282943	1.00	0.9835	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	266615	1.00	1.00	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	97	183576	1.00	1.07	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	185101	1.00	1.12	
A 115 C8 Range	1	14.281	(14.238-14.325)		0	1055124	1.00	0.9899	
S 116 Xylenes, Total	100				0		3.00	3.18	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.97	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

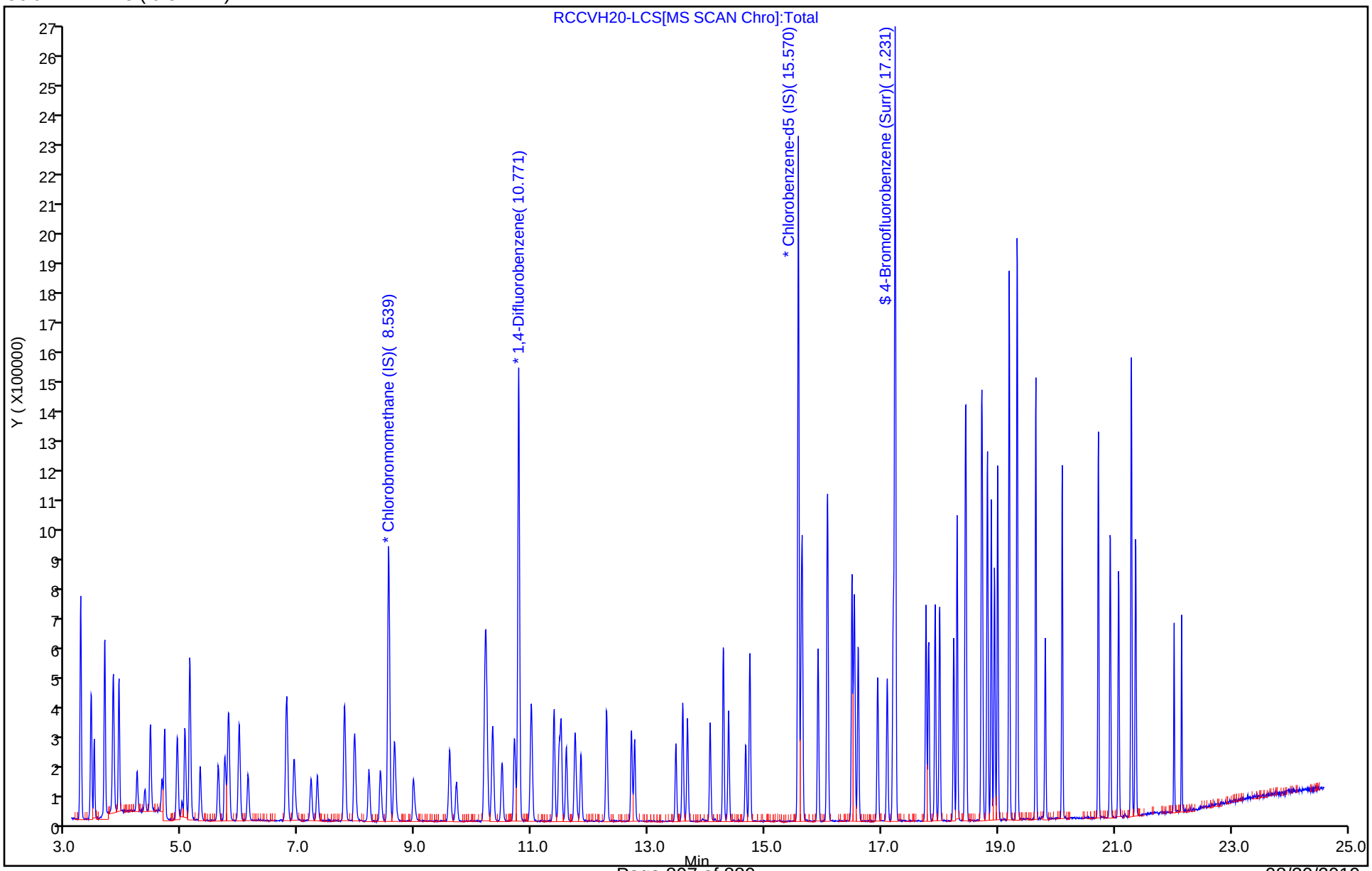
Report Date: 21-Aug-2019 12:37:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190816-12760.b\RCCVH20-LCS.d

Injection Date:	20-Aug-2019 09:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\RCCVH20-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	20-Aug-2019 09:15:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012760-002				
Misc. Info.:	P93				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190816-12760.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:37:55	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:37:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.86	96.60

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32777/1002

Matrix: Air Lab File ID: GCCVH21B-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.89		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.89		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.48		0.080	0.022
67-66-3	Chloroform	119.38	1.85		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.05		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.74		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.72		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.63		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.03		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.88		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.96		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.59		0.40	0.052
91-20-3	Naphthalene	128.17	1.64		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.92		0.080	0.0070
108-88-3	Toluene	92.14	1.91		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.11		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.83		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.87		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.83		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.06		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.00		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.77		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.92		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.49		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.49		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GCCVH21B-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 21-Aug-2019 12:55:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012774-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 15:57:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 14:28:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.146	0.000	78	464447	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	93	2534948	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	85	2289629	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	96	1510140	4.00	3.80	
6 Chlorodifluoromethane	51	3.834	3.834	0.000	96	348478	2.00	1.48	
7 Propene	41	3.845	3.845	0.000	95	160998	2.00	1.39	
8 Dichlorodifluoromethane	85	3.899	3.899	0.000	99	796847	2.00	1.74	
9 Chloromethane	52	4.093	4.093	0.000	47	44874	2.00	1.35	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.098	4.098	0.000	87	505110	2.00	1.94	
11 Acetaldehyde	44	4.260	4.260	0.000	93	221686	10.0	6.05	
12 Vinyl chloride	62	4.271	4.271	0.000	99	181286	2.00	1.49	
13 Butane	43	4.363	4.363	0.000	81	224851	2.00	1.30	
14 Butadiene	54	4.363	4.363	0.000	76	130782	2.00	1.48	
15 Bromomethane	94	4.702	4.702	0.000	97	197847	2.00	1.79	
16 Chloroethane	64	4.853	4.853	0.000	96	80521	2.00	1.49	
17 Ethanol	31	4.972	4.972	0.000	98	212061	10.0	5.68	
18 Vinyl bromide	106	5.172	5.172	0.000	98	189381	2.00	1.96	
19 2-Methylbutane	43	5.220	5.220	0.000	87	141061	2.00	1.28	
20 Trichlorofluoromethane	101	5.452	5.452	0.000	99	687175	2.00	1.86	
21 Acrolein	56	5.468	5.468	0.000	94	19653	2.00	1.23	
22 Acetonitrile	40	5.544	5.544	0.000	98	30495	2.00	1.14	
23 Acetone	58	5.592	5.592	0.000	100	118829	6.00	3.78	
24 Pentane	72	5.684	5.684	0.000	95	26930	2.00	1.72	
25 Isopropyl alcohol	45	5.700	5.700	0.000	94	321049	6.00	3.58	
26 Ethyl ether	31	5.862	5.862	0.000	87	78196	2.00	1.18	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	99	268449	2.00	2.03	
28 Acrylonitrile	53	6.299	6.299	0.000	93	98632	2.00	1.52	
30 2-Methyl-2-propanol	59	6.352	6.352	0.000	93	274595	2.00	1.38	
29 1,1,2-Trichloro-1,2,2-trif	101	6.369	6.369	0.000	95	582414	2.00	2.01	
31 Methylene Chloride	84	6.547	6.547	0.000	87	252287	2.00	1.96	
32 3-Chloro-1-propene	39	6.563	6.563	0.000	93	187999	2.00	1.48	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.714	6.714	0.000	98	692177	2.00	1.95	
34 trans-1,2-Dichloroethene	96	7.377	7.377	0.000	95	279227	2.00	2.11	
35 2-Methylpentane	43	7.393	7.393	0.000	88	403687	2.00	1.47	
36 Methyl tert-butyl ether	73	7.523	7.523	0.000	94	567085	2.00	1.59	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	99	435818	2.00	1.72	
38 Vinyl acetate	43	7.916	7.916	0.000	99	347475	2.00	1.42	
39 2-Butanone (MEK)	72	8.375	8.375	0.000	98	77916	2.00	1.55	
40 Hexane	56	8.391	8.391	0.000	91	180589	2.00	1.70	
41 Isopropyl ether	45	8.558	8.558	0.000	92	454425	2.00	1.34	
42 cis-1,2-Dichloroethene	96	8.811	8.811	0.000	90	278481	2.00	2.05	
43 Ethyl acetate	43	9.000	9.000	0.000	99	286250	2.00	1.31	
44 Chloroform	83	9.156	9.156	0.000	96	583156	2.00	1.85	
45 Tert-butyl ethyl ether	59	9.248	9.248	0.000	92	567963	2.00	1.49	
46 Tetrahydrofuran	42	9.577	9.577	0.000	83	140386	2.00	1.25	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	94	707227	2.00	1.87	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	381291	2.00	1.63	
49 Cyclohexane	69	10.785	10.785	0.000	70	122995	2.00	1.75	
50 Benzene	78	10.785	10.785	0.000	96	716184	2.00	1.89	
51 n-Butanol	31	10.801	10.801	0.000	68	37894	2.00	1.19	
52 Carbon tetrachloride	117	10.807	10.807	0.000	97	727007	2.00	1.89	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	87	172794	2.00	1.79	
54 Thiophene	84	11.055	11.055	0.000	91	440641	2.00	1.97	
55 Isooctane	57	11.529	11.529	0.000	97	1037700	2.00	1.56	
56 n-Heptane	71	11.896	11.896	0.000	83	260636	2.00	1.77	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	87	226374	2.00	1.69	
58 Trichloroethene	130	12.020	12.020	0.000	97	434392	2.00	2.06	
59 Dibromomethane	93	12.106	12.106	0.000	91	304207	2.00	1.91	
60 Dichlorobromomethane	83	12.246	12.246	0.000	98	610621	2.00	1.91	
61 1,4-Dioxane	88	12.273	12.273	0.000	83	78289	2.00	1.42	
62 Methyl methacrylate	41	12.333	12.333	0.000	96	181689	2.00	1.28	
63 Methylcyclohexane	83	12.775	12.775	0.000	92	495897	2.00	1.86	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.185	0.000	92	252794	2.00	1.22	
65 cis-1,3-Dichloropropene	75	13.228	13.228	0.000	92	413449	2.00	1.85	
66 trans-1,3-Dichloropropene	75	13.907	13.907	0.000	96	380267	2.00	1.80	
67 Toluene	91	14.037	14.037	0.000	94	859700	2.00	1.91	
68 1,1,2-Trichloroethane	83	14.112	14.112	0.000	97	241754	2.00	1.83	
69 2-Hexanone	58	14.495	14.495	0.000	97	145201	2.00	1.33	
70 n-Octane	85	14.705	14.705	0.000	83	317617	2.00	1.94	
71 Chlorodibromomethane	129	14.808	14.808	0.000	98	666962	2.00	2.09	
72 Ethylene Dibromide	107	15.099	15.099	0.000	100	506574	2.00	2.07	
73 Tetrachloroethene	129	15.169	15.169	0.000	97	400296	2.00	1.92	
75 Chlorobenzene	112	16.037	16.037	0.000	95	766381	2.00	2.04	
74 2,3-Dimethylheptane	43	16.043	16.043	0.000	85	604774	2.00	1.40	
78 Ethylbenzene	91	16.318	16.318	0.000	97	1123562	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.479	16.479	0.000	97	1718556	4.00	3.68	
80 n-Nonane	57	16.878	16.878	0.000	81	465050	2.00	1.62	
81 Bromoform	173	16.932	16.932	0.000	96	636365	2.00	2.19	
82 Styrene	104	16.938	16.938	0.000	97	633573	2.00	2.08	
83 o-Xylene	91	17.002	17.002	0.000	98	916723	2.00	1.81	
84 1,1,2,2-Tetrachloroethane	83	17.321	17.321	0.000	100	532678	2.00	1.80	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	96	202219	2.00	1.76	
86 Isopropylbenzene	105	17.579	17.579	0.000	95	1257629	2.00	1.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.108	18.108	0.000	100	367860	2.00	1.91	
88 2-Chlorotoluene	126	18.156	18.156	0.000	96	372025	2.00	2.00	
89 4-Ethyltoluene	105	18.253	18.253	0.000	98	1265049	2.00	1.87	
90 1,3,5-Trimethylbenzene	120	18.324	18.324	0.000	94	542534	2.00	1.92	
92 Alpha Methyl Styrene	118	18.550	18.550	0.000	92	542760	2.00	2.07	
93 n-Decane	57	18.593	18.593	0.000	93	551387	2.00	1.51	
94 tert-Butylbenzene	119	18.739	18.739	0.000	94	1195429	2.00	1.86	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	95	1061776	2.00	1.77	
96 sec-Butylbenzene	105	19.003	19.003	0.000	98	1550242	2.00	1.84	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	97	855310	2.00	2.02	
98 Benzyl chloride	91	19.095	19.095	0.000	99	860823	2.00	1.85	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	96	861768	2.00	2.02	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1359783	2.00	1.82	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	98	1101715	2.00	2.00	
102 Butylcyclohexane	83	19.262	19.262	0.000	96	854776	2.00	1.81	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1027384	2.00	1.87	
104 1,2-Dichlorobenzene	146	19.461	19.461	0.000	89	817421	2.00	2.05	
105 n-Butylbenzene	91	19.585	19.585	0.000	98	1124427	2.00	1.68	
106 Indene	116	19.585	19.585	0.000	91	891079	2.00	1.95	
107 Undecane	57	19.882	19.882	0.000	90	554374	2.00	1.87	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	95	397276	2.00	1.96	
109 1,2,4,5-Tetramethylbenzene	119	20.329	20.329	0.000	97	1206034	2.00	1.71	
110 Dodecane	57	20.928	20.928	0.000	95	384106	2.00	1.64	
111 1,2,4-Trichlorobenzene	180	21.144	21.144	0.000	94	646578	2.00	1.83	
112 Naphthalene	128	21.284	21.284	0.000	99	1198220	2.00	1.64	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	649405	2.00	1.89	
114 1,2,3-Trichlorobenzene	180	21.559	21.559	0.000	96	518380	2.00	1.59	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	99	460476	2.00	1.80	
116 1-Methylnaphthalene	142	22.486	22.486	0.000	99	444334	2.00	1.82	
A 122 C8 Range	1	14.700	(14.647-14.754)		0	2249258	2.00	1.66	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.16	
S 124 Xylenes, Total	100				0		6.00	5.50	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

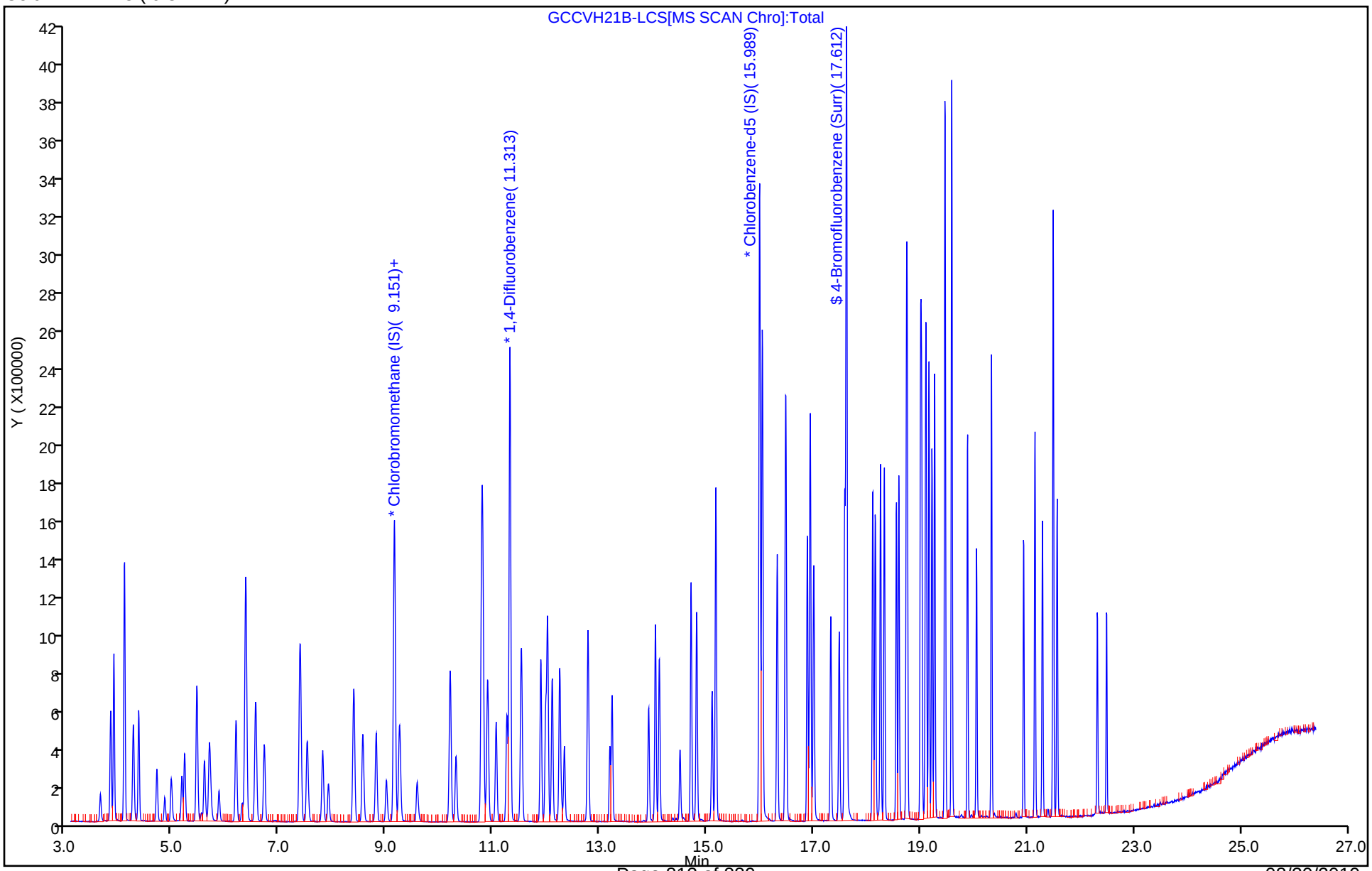
Report Date: 22-Aug-2019 15:57:26 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GCCVH21B-LCS.d

Injection Date:	21-Aug-2019 12:55:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\GCCVH21B-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Aug-2019 12:55:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012774-002				
Misc. Info.:	S97				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 15:57:22	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 14:28:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.80	94.91

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

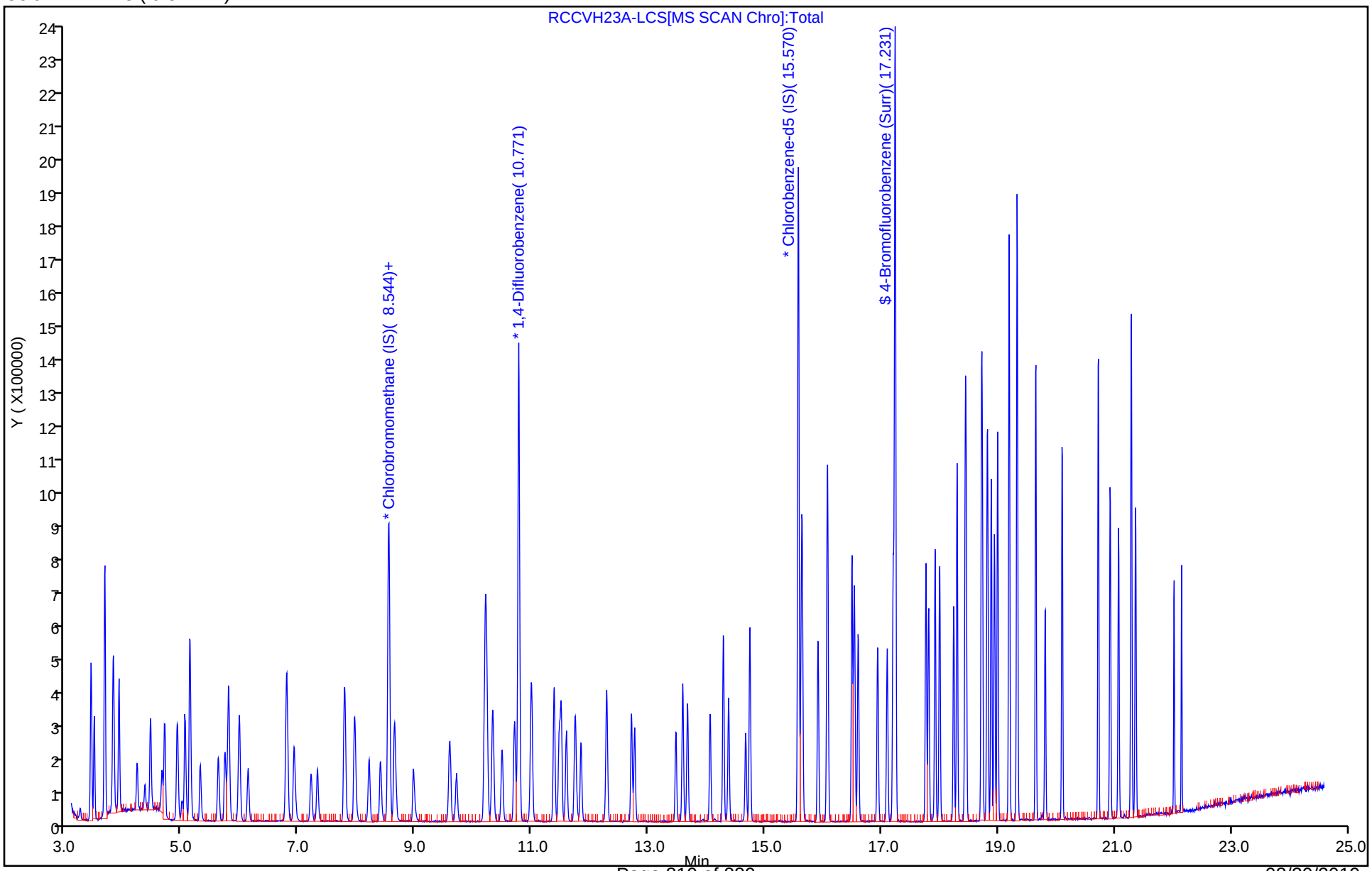
Report Date: 26-Aug-2019 13:54:09 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Aug-2019 10:44:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-002				
Misc. Info.:	P93				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.40

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32956/1002

Matrix: Air Lab File ID: RCCVH26-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 06:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.781		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.740		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.888		0.080	0.022
67-66-3	Chloroform	119.38	0.821		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.770		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.08		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.873		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.793		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.792		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.856		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.910		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	0.845		0.40	0.052
91-20-3	Naphthalene	128.17	0.780		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.833		0.080	0.0070
108-88-3	Toluene	92.14	0.879		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	0.848		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	0.791		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	0.756		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	0.897		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.784		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.848		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.796		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.835		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.22		0.040	0.026
1330-20-7	Xylenes, Total	106.17	2.57		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RCCVH26-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 26-Aug-2019 06:51:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012845-002
Misc. Info.: P93
Operator ID: afb Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Aug-2019 15:10:53 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 27-Aug-2019 15:10:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.533	0.000	98	261101	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.766	0.000	95	1564138	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1263318	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	95	785386	4.00	3.61	
6 Chlorodifluoromethane	51	3.432	3.432	0.000	97	198197	1.00	0.8884	
7 Propene	41	3.437	3.437	0.000	96	143422	1.00	1.16	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	218684	1.00	1.08	
9 Chloromethane	52	3.664	3.664	0.000	65	38552	1.00	1.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	206998	1.00	2.02	
11 Acetaldehyde	44	3.809	3.809	0.000	98	236529	5.00	6.68	
12 Vinyl chloride	62	3.831	3.831	0.000	99	116892	1.00	1.22	
13 Butadiene	54	3.912	3.912	0.000	67	91954	1.00	1.32	
14 Butane	43	3.912	3.912	0.000	86	178914	1.00	1.21	
15 Bromomethane	94	4.219	4.219	0.000	97	109186	1.00	1.34	
16 Chloroethane	64	4.359	4.359	0.000	99	52740	1.00	1.34	
17 Ethanol	31	4.451	4.451	0.000	95	229581	5.00	6.48	
18 Vinyl bromide	106	4.651	4.651	0.000	97	106062	1.00	1.56	
19 2-Methylbutane	43	4.694	4.694	0.000	94	110679	1.00	1.00	
21 Trichlorofluoromethane	101	4.909	4.909	0.000	99	204976	1.00	0.8172	
20 Acrolein	56	4.920	4.920	0.000	95	26879	1.00	0.8656	
24 Acetonitrile	40	4.996	4.996	0.000	97	37790	1.00	0.8174	
22 Acetone	58	5.044	5.044	0.000	100	105344	3.00	2.43	
23 Isopropyl alcohol	45	5.125	5.125	0.000	85	359949	3.00	2.45	
25 Pentane	72	5.131	5.131	0.000	72	12007	1.00	0.7238	
26 Ethyl ether	31	5.303	5.303	0.000	90	102200	1.00	0.7534	
27 1,1-Dichloroethene	96	5.616	5.616	0.000	97	71123	1.00	0.7921	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	94	146481	1.00	0.8093	
28 Acrylonitrile	53	5.734	5.734	0.000	57	56129	1.00	0.8284	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.788	0.000	95	161935	1.00	0.8678	
31 Methylene Chloride	84	5.972	5.972	0.000	96	83959	1.00	0.9097	
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	89607	1.00	0.8721	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.128	0.000	98	202625	1.00	0.8579	
34 trans-1,2-Dichloroethene	96	6.775	6.775	0.000	97	80018	1.00	0.8478	
35 2-Methylpentane	43	6.791	6.791	0.000	96	211400	1.00	0.8441	
36 Methyl tert-butyl ether	73	6.915	6.915	0.000	96	215091	1.00	0.8453	
37 1,1-Dichloroethane	63	7.207	7.207	0.000	99	156277	1.00	0.8730	
38 Vinyl acetate	43	7.314	7.314	0.000	100	249961	1.00	0.8001	
39 2-Butanone (MEK)	72	7.767	7.767	0.000	95	35956	1.00	0.7504	
40 Hexane	56	7.784	7.784	0.000	75	66830	1.00	0.8152	
41 Isopropyl ether	45	7.956	7.956	0.000	96	330534	1.00	0.8499	
42 cis-1,2-Dichloroethene	96	8.199	8.199	0.000	97	82257	1.00	0.7695	
43 Ethyl acetate	43	8.393	8.393	0.000	98	232017	1.00	0.8383	
44 Chloroform	83	8.544	8.544	0.000	96	180225	1.00	0.8206	
45 Tert-butyl ethyl ether	59	8.636	8.636	0.000	97	265359	1.00	0.8199	
46 Tetrahydrofuran	42	8.965	8.965	0.000	94	110936	1.00	0.8026	
47 1,1,1-Trichloroethane	97	9.585	9.585	0.000	95	182517	1.00	0.7557	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	119357	1.00	0.7932	
50 n-Butanol	31	10.178	10.178	0.000	74	41160	1.00	0.6880	
49 Benzene	78	10.199	10.199	0.000	95	247535	1.00	0.7814	
51 Cyclohexane	69	10.205	10.205	0.000	72	37173	1.00	0.7473	
52 Carbon tetrachloride	117	10.226	10.226	0.000	94	187524	1.00	0.7404	
53 2,3-Dimethylpentane	71	10.329	10.329	0.000	93	53943	1.00	0.7559	
54 Thiophene	84	10.491	10.491	0.000	97	134406	1.00	0.8371	
55 Isooctane	57	10.987	10.987	0.000	96	408652	1.00	0.7722	
57 n-Heptane	71	11.375	11.375	0.000	95	85929	1.00	0.7775	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	87	95515	1.00	0.7825	
58 Trichloroethene	130	11.494	11.494	0.000	94	109248	1.00	0.7842	
59 Dibromomethane	93	11.585	11.585	0.000	95	102760	1.00	0.7951	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	169693	1.00	0.7238	
61 1,4-Dioxane	88	11.752	11.752	0.000	94	40673	1.00	0.8353	
62 Methyl methacrylate	41	11.839	11.839	0.000	89	122437	1.00	0.7045	
63 Methylcyclohexane	83	12.275	12.275	0.000	90	137452	1.00	0.7545	
64 4-Methyl-2-pentanone (MIBK	43	12.701	12.701	0.000	97	228562	1.00	0.7368	
65 cis-1,3-Dichloropropene	75	12.755	12.755	0.000	98	141325	1.00	0.7721	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	96	127227	1.00	0.8097	
67 Toluene	91	13.586	13.586	0.000	93	285726	1.00	0.8791	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	98	90423	1.00	0.8974	
69 2-Hexanone	58	14.050	14.050	0.000	90	94534	1.00	0.7859	
71 n-Octane	85	14.281	14.281	0.000	97	88959	1.00	0.8353	
70 Chlorodibromomethane	129	14.373	14.373	0.000	96	170412	1.00	0.7625	
72 Ethylene Dibromide	107	14.664	14.664	0.000	97	162295	1.00	0.8397	
73 Tetrachloroethene	129	14.740	14.740	0.000	95	110517	1.00	0.8325	
74 Chlorobenzene	112	15.619	15.619	0.000	92	239636	1.00	0.8865	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	367162	1.00	0.9080	
76 Ethylbenzene	91	15.904	15.904	0.000	98	390108	1.00	0.8556	
77 m-Xylene & p-Xylene	91	16.066	16.066	0.000	97	634141	2.00	1.77	
81 n-Nonane	57	16.487	16.487	0.000	94	201103	1.00	0.8570	
78 Bromoform	173	16.519	16.519	0.000	95	166683	1.00	0.8325	
79 Styrene	104	16.535	16.535	0.000	98	205754	1.00	0.8344	
80 o-Xylene	91	16.595	16.595	0.000	99	301702	1.00	0.8026	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	231919	1.00	0.8758	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	63253	1.00	0.7537	
84 Isopropylbenzene	105	17.199	17.199	0.000	96	438469	1.00	0.7860	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.759	17.759	0.000	99	114452	1.00	0.8070	
86 2-Chlorotoluene	126	17.808	17.808	0.000	98	109598	1.00	0.8112	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	448703	1.00	0.8070	
87 1,3,5-Trimethylbenzene	120	17.991	17.991	0.000	93	177017	1.00	0.8351	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	90	156810	1.00	0.7717	
90 n-Decane	57	18.293	18.293	0.000	87	272476	1.00	0.8438	
91 tert-Butylbenzene	119	18.434	18.434	0.000	93	398473	1.00	0.8041	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	96	390932	1.00	0.7960	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	595336	1.00	0.8443	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	272858	1.00	0.8160	
96 Benzyl chloride	91	18.806	18.806	0.000	98	309967	1.00	0.8082	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	95	267644	1.00	0.8110	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	97	478661	1.00	0.8402	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	409819	1.00	0.8482	
99 Butylcyclohexane	83	18.989	18.989	0.000	92	321816	1.00	0.8904	
101 2,3-Dihydroindene	117	19.188	19.188	0.000	93	369615	1.00	0.8425	
100 1,2-Dichlorobenzene	146	19.188	19.188	0.000	83	271172	1.00	0.8319	
103 n-Butylbenzene	91	19.323	19.323	0.000	98	513297	1.00	0.8751	
102 Indene	116	19.323	19.323	0.000	90	315329	1.00	0.7964	
104 Undecane	57	19.641	19.641	0.000	91	327770	1.00	0.8605	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	91	108865	1.00	0.6810	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	455898	1.00	0.8341	
107 Dodecane	57	20.714	20.714	0.000	89	317612	1.00	0.8581	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	246672	1.00	0.7911	
109 Naphthalene	128	21.065	21.065	0.000	99	502202	1.00	0.7803	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	245842	1.00	0.7941	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	247868	1.00	0.8640	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	195634	1.00	1.06	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	201669	1.00	1.14	
A 115 C8 Range	1	14.286	(14.233-14.330)		0	980992	1.00	0.7994	
S 116 Xylenes, Total	100				0		3.00	2.57	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.62	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

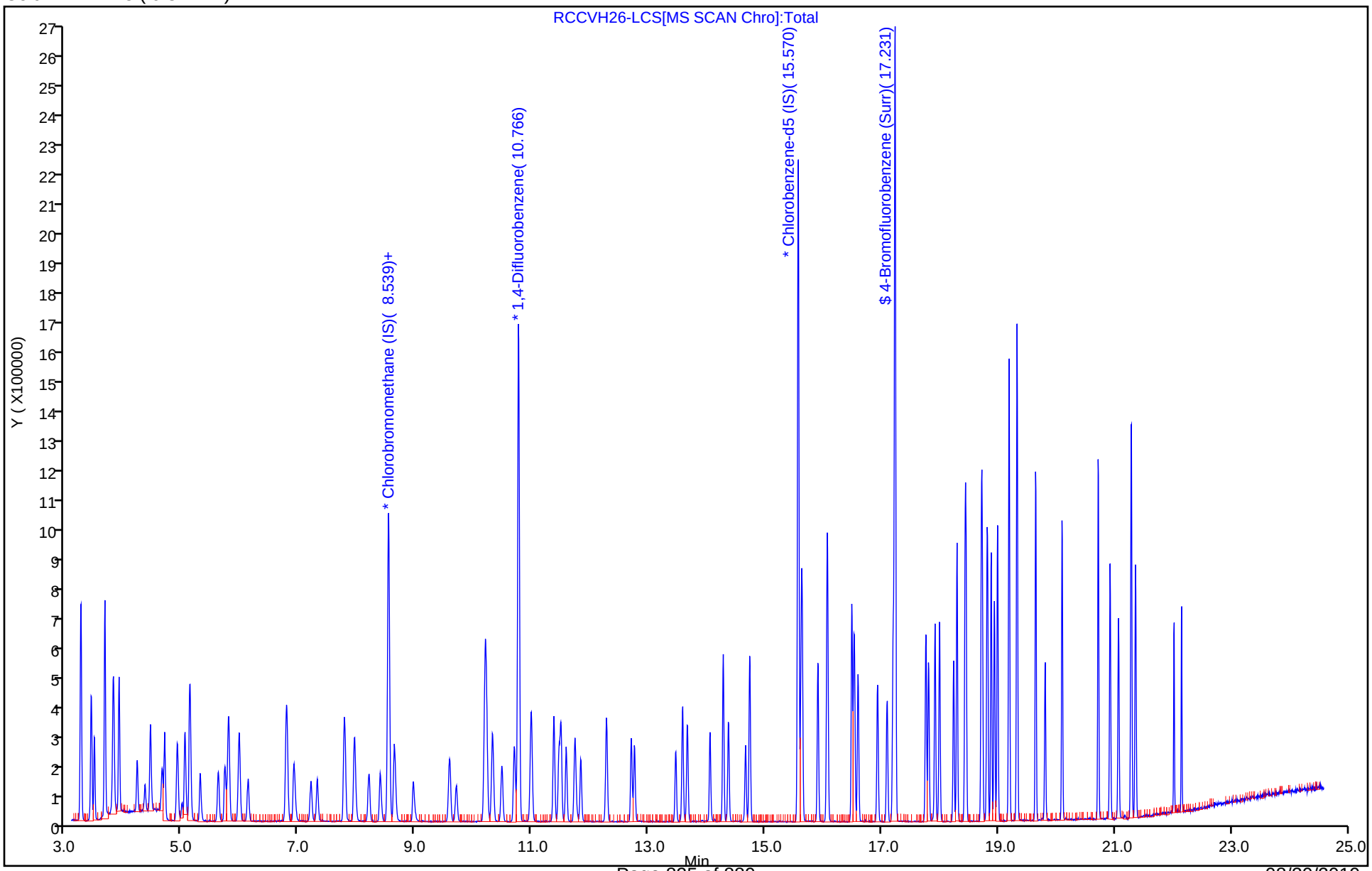
Report Date: 27-Aug-2019 15:10:58 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190823-12845.b\RCCVH26-LCS.d

Injection Date:	26-Aug-2019 06:51:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\RCCVH26-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	26-Aug-2019 06:51:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012845-002				
Misc. Info.:	P93				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190823-12845.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Aug-2019 15:10:53	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	27-Aug-2019 15:10:53		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.61	90.15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32985/1002

Matrix: Air Lab File ID: JCCVH27-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 08:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.07		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.11		0.080	0.022
67-66-3	Chloroform	119.38	1.87		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.17		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.11		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.93		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.52		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.17		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.96		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.81		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.91		0.40	0.052
91-20-3	Naphthalene	128.17	2.27		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.89		0.080	0.0070
108-88-3	Toluene	92.14	2.06		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.19		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.20		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.68		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.01		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.94		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.94		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.09		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.56		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.81		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 27-Aug-2019 08:11:30 ALS Bottle#: 7 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012855-002
Misc. Info.: p92
Operator ID: 403648 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:39:25 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	97	238218	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.834	0.000	95	1260984	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.444	0.000	88	1074888	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	716191	4.00	3.63	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	137671	2.00	2.11	
20 Propene	41	4.168	4.168	0.000	98	102544	2.00	2.17	
21 Dichlorodifluoromethane	85	4.222	4.222	0.000	100	157397	2.00	2.11	
22 Chloromethane	52	4.437	4.437	0.000	100	61807	2.00	2.57	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.443	0.000	94	30193	2.00	2.91	
24 Acetaldehyde	44	4.615	4.615	0.000	99	356510	10.0	11.5	
25 Vinyl chloride	62	4.636	4.636	0.000	99	207570	2.00	2.56	
27 Butadiene	54	4.733	4.733	0.000	66	151991	2.00	2.48	
26 Butane	43	4.738	4.738	0.000	86	298254	2.00	2.39	
28 Bromomethane	94	5.110	5.110	0.000	99	190694	2.00	2.67	
29 Chloroethane	64	5.271	5.271	0.000	98	92154	2.00	2.59	
30 Ethanol	31	5.384	5.384	0.000	96	348784	10.0	10.9	
31 Vinyl bromide	106	5.615	5.615	0.000	98	176720	2.00	2.67	
32 2-Methylbutane	43	5.664	5.664	0.000	93	215232	2.00	2.50	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	100	513690	2.00	1.99	
34 Acrolein	56	5.927	5.927	0.000	95	44357	2.00	2.84	
35 Acetonitrile	40	6.003	6.003	0.000	100	65824	2.00	2.66	
36 Acetone	58	6.056	6.056	0.000	98	208913	6.00	7.62	
37 Isopropyl alcohol	45	6.148	6.148	0.000	93	507301	6.00	6.37	
38 Pentane	72	6.148	6.148	0.000	97	26706	2.00	2.71	
39 Ethyl ether	31	6.336	6.336	0.000	92	170249	2.00	1.92	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	97	158508	2.00	2.17	
41 Acrylonitrile	53	6.799	6.799	0.000	79	106580	2.00	2.18	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	192341	2.00	1.56	
43 1,1,2-Trichloro-1,2,2-trif	101	6.863	6.863	0.000	95	353774	2.00	2.08	
44 Methylene Chloride	84	7.062	7.062	0.000	98	162549	2.00	1.81	
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	140541	2.00	1.69	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.245	7.245	0.000	99	486121	2.00	2.18	
47 trans-1,2-Dichloroethene	96	7.918	7.918	0.000	96	160173	2.00	2.19	
48 2-Methylpentane	43	7.923	7.923	0.000	96	379457	2.00	1.89	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	371838	2.00	1.91	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	99	314937	2.00	1.93	
51 Vinyl acetate	43	8.456	8.456	0.000	100	397258	2.00	1.92	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	64994	2.00	2.02	
53 Hexane	56	8.940	8.940	0.000	79	127201	2.00	1.94	
54 Isopropyl ether	45	9.107	9.107	0.000	97	474646	2.00	1.91	
55 cis-1,2-Dichloroethene	96	9.376	9.376	0.000	96	163713	2.00	2.17	
56 Ethyl acetate	43	9.558	9.558	0.000	98	319362	2.00	1.87	
57 Chloroform	83	9.731	9.731	0.000	95	362268	2.00	1.87	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	426599	2.00	1.84	
59 Tetrahydrofuran	42	10.161	10.161	0.000	94	162085	2.00	1.89	
60 1,1,1-Trichloroethane	97	10.758	10.758	0.000	97	348488	2.00	1.68	
61 1,2-Dichloroethane	62	10.866	10.866	0.000	97	219625	2.00	1.52	
62 n-Butanol	31	11.285	11.285	0.000	88	43786	2.00	1.27	
63 Cyclohexane	69	11.328	11.328	0.000	83	73044	2.00	1.88	
64 Benzene	78	11.334	11.334	0.000	97	477441	2.00	2.07	
65 Carbon tetrachloride	117	11.355	11.355	0.000	97	353733	2.00	1.83	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	106994	2.00	2.05	
67 Thiophene	84	11.597	11.597	0.000	96	274688	2.00	2.09	
68 Isooctane	57	12.033	12.033	0.000	98	776028	2.00	1.88	
69 n-Heptane	71	12.388	12.388	0.000	94	156410	2.00	1.97	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	194465	2.00	2.00	
71 Trichloroethene	130	12.528	12.528	0.000	96	209946	2.00	2.01	
72 Dibromomethane	93	12.619	12.619	0.000	96	211503	2.00	1.97	
73 Dichlorobromomethane	83	12.754	12.754	0.000	99	356677	2.00	1.74	
74 1,4-Dioxane	88	12.775	12.775	0.000	87	51079	2.00	1.89	
75 Methyl methacrylate	41	12.818	12.818	0.000	93	191167	2.00	1.69	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	279276	2.00	1.97	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	266639	2.00	1.51	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	94	277941	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	243137	2.00	1.84	
80 Toluene	91	14.513	14.513	0.000	93	535089	2.00	2.06	
81 1,1,2-Trichloroethane	83	14.583	14.583	0.000	97	177176	2.00	2.13	
82 2-Hexanone	58	14.949	14.949	0.000	92	124869	2.00	1.64	
83 n-Octane	85	15.148	15.148	0.000	95	155478	2.00	1.95	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	350459	2.00	1.95	
85 Ethylene Dibromide	107	15.567	15.567	0.000	98	304790	2.00	2.01	
86 Tetrachloroethene	129	15.632	15.632	0.000	94	197210	2.00	1.89	
87 2,3-Dimethylheptane	43	16.471	16.471	0.000	96	549565	2.00	1.80	
88 Chlorobenzene	112	16.493	16.493	0.000	94	420646	2.00	2.02	
89 Ethylbenzene	91	16.767	16.767	0.000	99	655741	2.00	1.96	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	996544	4.00	3.88	
91 n-Nonane	57	17.305	17.305	0.000	94	343639	2.00	1.85	
92 Styrene	104	17.386	17.386	0.000	99	378623	2.00	2.07	
93 Bromoform	173	17.391	17.391	0.000	95	391286	2.00	2.03	
94 o-Xylene	91	17.445	17.445	0.000	99	526455	2.00	1.93	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	98	417311	2.00	2.19	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	101202	2.00	1.87	
97 Isopropylbenzene	105	18.004	18.004	0.000	96	696473	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.510	18.510	0.000	99	195522	2.00	2.06	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	193865	2.00	2.11	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	703830	2.00	1.98	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	296417	2.00	2.09	
102 Alpha Methyl Styrene	118	18.940	18.940	0.000	87	306614	2.00	2.10	
103 n-Decane	57	18.967	18.967	0.000	89	451745	2.00	1.92	
104 tert-Butylbenzene	119	19.129	19.129	0.000	91	638506	2.00	1.96	
105 1,2,4-Trimethylbenzene	105	19.139	19.139	0.000	96	610551	2.00	1.94	
106 sec-Butylbenzene	105	19.387	19.387	0.000	98	909167	2.00	2.06	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	456637	2.00	2.08	
108 Benzyl chloride	91	19.484	19.484	0.000	98	522902	2.00	1.94	
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	94	453337	2.00	2.05	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	739942	2.00	1.99	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	600099	2.00	1.94	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	562299	2.00	2.11	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	94	609050	2.00	2.13	
114 1,2-Dichlorobenzene	146	19.844	19.844	0.000	96	452134	2.00	2.10	
115 n-Butylbenzene	91	19.957	19.957	0.000	98	786336	2.00	2.04	
116 Indene	116	19.968	19.968	0.000	94	512013	2.00	2.09	
117 Undecane	57	20.231	20.231	0.000	96	520041	2.00	1.96	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.436	0.000	97	232500	2.00	2.17	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	661873	2.00	1.98	
120 Dodecane	57	21.318	21.318	0.000	95	452051	2.00	2.00	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	387486	2.00	2.20	
122 Naphthalene	128	21.689	21.689	0.000	99	624363	2.00	2.27	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	94	527469	2.00	2.49	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	336530	2.00	2.42	
125 2-Methylnaphthalene	142	22.421	22.421	0.000	99	191359	2.00	2.54	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	98	177960	2.00	1.97	
A 128 C8 Range	1	15.158	(15.115-15.201)		0	1562083	2.00	1.83	
S 129 Xylenes, Total	100				0		6.00	5.81	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.37	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

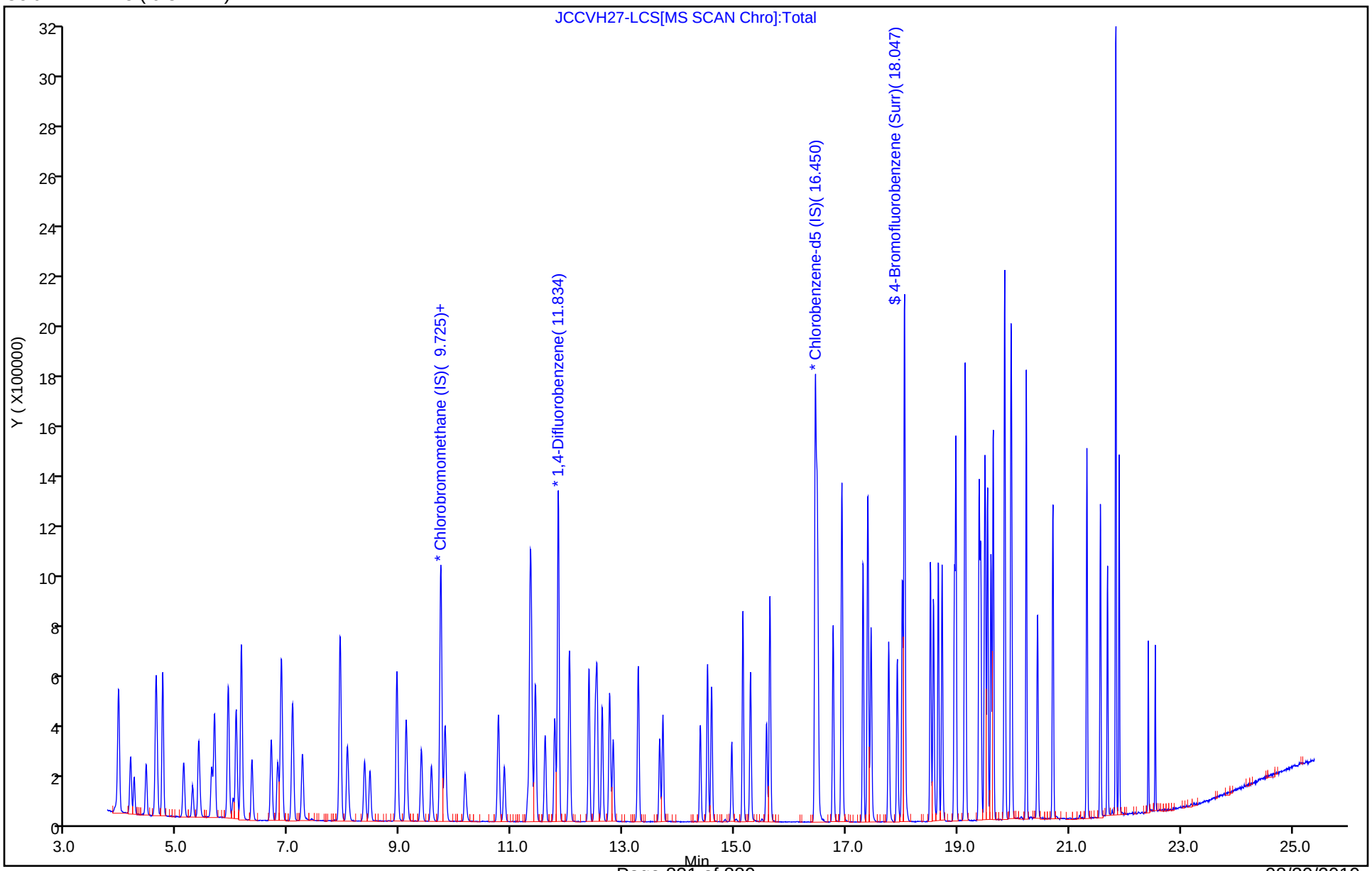
Report Date: 28-Aug-2019 10:39:35 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d

Injection Date:	27-Aug-2019 08:11:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	27-Aug-2019 08:11:30	ALS Bottle#:	7	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012855-002				
Misc. Info.:	p92				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:39:25	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.63	90.63

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

190719.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	21.5	7/19/2019	7:07:02 PM
BLK	16 - 201 mL	21.2	7/19/2019	7:36:56 PM
IC09	12 - 201 mL	9.5	7/19/2019	8:27:42 PM
BLK	14 - 201 mL	21.2	7/19/2019	9:18:14 PM
IC10	15 - 200 mL	29.4	7/19/2019	10:08:35 PM
BLK	16 - 201 mL	21	7/19/2019	10:59:16 PM
BLK	16 - 200 mL	19.6	7/19/2019	11:49:51 PM
IC01	1 - 51 mL	29.1	7/20/2019	12:39:37 AM
IC02	1 - 101 mL	28.6	7/20/2019	1:29:09 AM
IC03	1 - 201 mL	27.7	7/20/2019	2:19:01 AM
IC04	2 - 201 mL	23.5	7/20/2019	3:08:19 AM
IC05	3 - 202 mL	26.1	7/20/2019	3:58:27 AM
IC06	4 - 201 mL	29.8	7/20/2019	4:47:59 AM
IC07	5 - 101 mL	24.9	7/20/2019	5:37:55 AM
IC08	5 - 201 mL	23.3	7/20/2019	6:27:23 AM
BLK	6 - 201 mL	20.4	7/20/2019	7:17:39 AM
ICV	7 - 101 mL	25.2	7/20/2019	8:08:17 AM
LCS	8 - 101 mL	32.7	7/20/2019	8:59:34 AM
BLK	16 - 501 mL	19.9	7/20/2019	9:55:04 AM
MB	16 - 501 mL	19.4	7/20/2019	10:51:09 AM
ICV	10 - 101 mL	17.6	7/20/2019	12:28:34 PM

MJ ICAL WL 12415

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	7/28/19	Instrument:	HJ	Chrom WL #:	12415	TALS Batch & Event #	TO14/15: 31858 / 2054	DOD5: 31861 / 2057
							DOD: 31859 / 2055	OHIO: 31860 / 2056

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA	In ICV	NA
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	NA	→	→		NA		→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA	→	→		NA		→
19. Is the intercept less than the RL for each curve? [F6]	NA	→	→		NA		→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA	→	na		NA	→	na
21. Is low point RSE ≤ 50 %? Meets 50 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: [signature] 7/28/19

2nd Level Reviewer/Date: AS 7/24/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL		✓			na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	NA	→	→		✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na				

Analyst/date: AS 7/24/19

Comments: UR 8, # 19, 20, 104, 1+2 methylnapl. Meets

2nd Level Reviewer/date: [signature] 07/24/19

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MG Start Date: 08/05/2019 14:36

Analysis Batch Number: 32317 End Date: 08/06/2019 03:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32317/1		08/05/2019 14:36	1	GBFBH05IC.D	RTX-5 0.32(mm)
IC 140-32317/2		08/05/2019 15:09	1	GH05ICLVL9.D	RTX-5 0.32(mm)
IC 140-32317/4		08/05/2019 16:33	1	GH05ICLVL10.D	RTX-5 0.32(mm)
IC 140-32317/7		08/05/2019 18:41	1	GH05ICLVL01.D	RTX-5 0.32(mm)
IC 140-32317/8		08/05/2019 19:23	1	GH05ICLVL02.D	RTX-5 0.32(mm)
140-15871-A-5 MDLV		08/05/2019 19:23	1		RTX-5 0.32(mm)
IC 140-32317/9		08/05/2019 20:05	1	GH05ICLVL03.D	RTX-5 0.32(mm)
140-15871-A-6 MDLV		08/05/2019 20:05	1		RTX-5 0.32(mm)
IC 140-32317/10		08/05/2019 20:47	1	GH05ICLVL04.D	RTX-5 0.32(mm)
140-15871-A-7 MDLV		08/05/2019 20:47	1		RTX-5 0.32(mm)
IC 140-32317/11		08/05/2019 21:30	1	GH05ICLVL05.D	RTX-5 0.32(mm)
140-15871-A-8 MDLV		08/05/2019 21:30	1		RTX-5 0.32(mm)
IC 140-32317/12		08/05/2019 22:16	1	GH05ICLVL06.D	RTX-5 0.32(mm)
ICIS 140-32317/13		08/05/2019 22:58	1	GH05ICLVL07.D	RTX-5 0.32(mm)
IC 140-32317/14		08/05/2019 23:41	1	GH05ICLVL8.D	RTX-5 0.32(mm)
ICV 140-32317/17		08/06/2019 01:46	1	GH05LCS.D	RTX-5 0.32(mm)
ZZZZZ		08/06/2019 03:17	1		RTX-5 0.32(mm)

190805.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	19.4	8/5/2019	2:36:00 PM
LVL9	6 - 201 mL	32	8/5/2019	3:09:17 PM
BLK	16 - 101 mL	19.3	8/5/2019	3:51:18 PM
LVL10	7 - 201 mL	28.7	8/5/2019	4:33:52 PM
BLK	16 - 101 mL	18.7	8/5/2019	5:15:59 PM
BLK	16 - 101 mL	18.4	8/5/2019	5:58:39 PM
LVL01	1 - 51 mL	33.2	8/5/2019	6:41:08 PM
LVL02	1 - 101 mL	33	8/5/2019	7:23:13 PM
LVL03	1 - 201 mL	32.9	8/5/2019	8:05:19 PM
LVL04	2 - 80 mL	31.9	8/5/2019	8:47:48 PM
LVL05	2 - 200 mL	30.9	8/5/2019	9:30:55 PM
LVL06	3 - 200 mL	32.9	8/5/2019	10:16:08 PM
LVL07	4 - 200 mL	32.5	8/5/2019	10:58:44 PM
LVL08	5 - 200 mL	33.2	8/5/2019	11:41:12 PM
BLK	16 - 101 mL	18.6	8/6/2019	12:23:05 AM
ICV	14 - 100 mL	32.7	8/6/2019	1:05:01 AM
LCS	15 - 100 mL	32.4	8/6/2019	1:46:49 AM
BLK	16 - 501 mL	18.3	8/6/2019	2:32:16 AM
BLK	16 - 501 mL	18.2	8/6/2019	3:17:47 AM

MG WL ICAL 12602

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/5/19	Instrument:	MG	Chrom WL #:	12602	TALS Batch & Event #	TO14/15: 2077 / 32317	DOD5: 2078 / 32365
							DOD: 2080 / 32367	OHIO: 2079 / 32366

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	IN ICV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% 123 TMBz 31% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓	123TMBz Quad fit low. fit OH + MIBK.	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	na	✓		✓	ns	ns
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	✓	✓		✓	ns	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	✓	✓	and MIBK	✓	ns	ns
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	na	na		✓	ns	na
21. Is low point RSE ≤ 50 %? MeCl2 0.4 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓
Analyst/Date: 8/6/19	linear MIBK, 123TMBz,			2nd Level Reviewer/Date: 8/8/19			

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ne				ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/6/19 8/8/19	2nd Level Reviewer/date: 8/8/19
Comments: MeCl2 @ 0.4 RL	Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/12/19	Instrument:	MR	Chrom WL #:	12700	TALS Batch & Event #	TO14/15: 2089 / 32571	DOD5: 2090 / 32572
							DOD: 2092 / 32574	OHIO: 2091 / 32573

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	pts removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		na
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	in ICV	na
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	na	→	→		na	→	→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	ne	→	→		na	→	→
19. Is the intercept less than the RL for each curve? [F6]	ne	→	→		na	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	ne	→	na		na	na	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? #10 ↑ICV must be ND [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 8/13/19 **2nd Level Reviewer/Date:** 08/14/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ne	→			na	→	→
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/15/19	2nd Level Reviewer/date: 08/15/19
Comments: 12 Dichloro-1,1,22- tetra fluoroethane must be ND- ↑ in ICV.	Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/20/2019 08:48

Analysis Batch Number: 32745 End Date: 08/21/2019 06:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32745/1		08/20/2019 08:48	1	RBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32745/2		08/20/2019 09:15	1	RCCVH20.D	RTX-5 0.32(mm)
LCS 140-32745/1002		08/20/2019 09:15	1	RCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32745/4		08/20/2019 12:04	1	R500BH20.D	RTX-5 0.32(mm)
140-16376-1		08/20/2019 12:52	1	RH20P101.D	RTX-5 0.32(mm)
140-16376-2		08/20/2019 13:40	1	RH20P102.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 18:19	1		RTX-5 0.32(mm)
140-16376-4		08/20/2019 19:07	1	RH20P105.D	RTX-5 0.32(mm)
140-16376-5		08/20/2019 19:57	1	RH20P106.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:46	1		RTX-5 0.32(mm)
140-16376-8		08/20/2019 22:24	1	RH20P109.D	RTX-5 0.32(mm)
140-16376-9		08/20/2019 23:13	1	RH20P110.D	RTX-5 0.32(mm)
140-16376-10		08/21/2019 00:02	1	RH20P111.D	RTX-5 0.32(mm)
140-16376-11		08/21/2019 00:51	1	RH20P112.D	RTX-5 0.32(mm)
140-16376-14		08/21/2019 03:16	1	RH20P115.D	RTX-5 0.32(mm)
140-16376-15		08/21/2019 04:05	1	RH20P115D.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:54	1		RTX-5 0.32(mm)
140-16376-16		08/21/2019 05:43	1	RH20P201.D	RTX-5 0.32(mm)
140-16376-17		08/21/2019 06:31	1	H20L16368.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/20/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12760	CCAL Batch #	32745		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	32571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		na
2. Did BFB meet tune criteria? [F8]	/	□ [Failed TO-14A, but passes TO-15]	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	/	List Target analytes outside CCV limits:	/
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3- , 1,4- , and 1,2-dichlorobenzene	/		/
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	/		/
Analyst/date Suphanana Kh. 8/21/2019		**2nd Level Reviewer/date** 08/23/19	
7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/	✓ on screen runs off shifted. VOI + mi time + pos verified 8/23/19	/
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/		/
9. Can dilution history verified? [Mgmt Report]	/		/
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	/	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	/
11. All runs - peaks ID'd correctly and false positives removed?	/		/
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	/		/
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample ____ Reason ____ Sample ____ Reason ____	/	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur. Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	/
14. Samples outside calibration range scheduled for dilution?	/	□ ICAL – Range Exceeded; Minimum Dilution	/

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample ____ Reason ____ Sample ____ Reason ____	/	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	/
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#____) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	< 5x RL	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32745/4 **200 mL blank ID:** –	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawan M.	Date: 8/21/2019	2nd Level Reviewer:	Date: 8/26/19
Comments:		**Comments:**	
CA line #13 8/28/19			

Example Calculation: 140-16376-1 TCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$1.522614 \times \frac{500}{100} \times 1.0 = 7.61$

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MG Start Date: 08/21/2019 12:22

Analysis Batch Number: 32777 End Date: 08/22/2019 02:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32777/1		08/21/2019 12:22	1	GBFBH21B.D	RTX-5 0.32(mm)
CCVIS 140-32777/2		08/21/2019 12:55	1	GCCVH21B.D	RTX-5 0.32(mm)
LCS 140-32777/1002		08/21/2019 12:55	1	GCCVH21B-LCS.d	RTX-5 0.32(mm)
MB 140-32777/4		08/21/2019 16:09	1	G500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 16:54	1		RTX-5 0.32(mm)
140-16376-3		08/22/2019 00:47	3.73	GH21P111.D	RTX-5 0.32(mm)
140-16376-4 DL		08/22/2019 01:29	3.53	GH21P112.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 02:55	1		RTX-5 0.32(mm)

190821.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	22	8/21/2019	12:21:59 PM
CCV	10 - 100 mL	26.9	8/21/2019	12:55:13 PM
DNU	16 - 21 mL	21.9	8/21/2019	3:28:46 PM
BLK	16 - 501 mL	21.1	8/21/2019	4:09:46 PM
BLK	16 - 201 mL	21.2	8/21/2019	4:54:23 PM
16369-20	1 - 100 mL	4.1	8/21/2019	5:37:58 PM
16369-21	2 - 101 mL	1.1	8/21/2019	6:22:17 PM
16369-22	3 - 100 mL	1.5	8/21/2019	7:05:00 PM
16369-14	4 - 101 mL	1	8/21/2019	7:48:14 PM
16376-06	5 - 101 mL	6	8/21/2019	8:30:44 PM
16376-07	6 - 100 mL	4.1	8/21/2019	9:13:51 PM
16376-08	7 - 101 mL	1.1	8/21/2019	9:57:18 PM
16376-11	8 - 100 mL	5.4	8/21/2019	10:39:22 PM
16376-13	9 - 100 mL	4.5	8/21/2019	11:21:56 PM
16376-12	10 - 11 mL	11.2	8/22/2019	12:04:26 AM
16376-03	11 - 11 mL	9.4	8/22/2019	12:47:00 AM
16376-04	12 - 11 mL	10.7	8/22/2019	1:29:00 AM
16389-01	13 - 200 mL	2.3	8/22/2019	2:11:27 AM
16389-02	14 - 201 mL	1.1	8/22/2019	2:55:21 AM
16389-03	15 - 200 mL	1.4	8/22/2019	3:37:44 AM
16389-03	15 - 200 mL	1.1	8/22/2019	4:21:05 AM
16389-04	STD- 199 mL	1.7	8/22/2019	5:04:33 AM

MG WL 12774

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MS 8/21/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12774	CCAL Batch #	32777		
ICAL Chrom WL #	12602	ICAL Batch # / Event #	32317 / 2077	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		NA
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawan K 8/23/2019		**2nd Level Reviewer/date** 08/23/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	NA

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason _____ _____ _____ _____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) □ LCS/LCSD - %R High (NCM#)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		MS
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	+	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32777/4 **200 mL blank ID:** 140-32777/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		MS
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawan Ph	**Date:** 8/23/2019	**2nd Level Reviewer :**	**Date:** 08/23/19
Comments:		**Comments:** + analyzed at ,	

Example Calculation: 140-16376-3 1,1-DCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

4.648393 x 500 x 3.73 = 788.11
11

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 15:21	2.87		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:08	1.45		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:57	1.53		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 17:48	1.89		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 18:36	1		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 19:23	3.64		RTX-5 0.32(mm)
140-16376-7		08/23/2019 21:47	1.76	RH23P110.D	RTX-5 0.32(mm)
140-16376-8 DL		08/23/2019 22:35	5.03	RH23P111.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
140-16376-11 DL		08/24/2019 00:10	1.47	RH23P112.D	RTX-5 0.32(mm)
140-16376-12		08/24/2019 01:00	4.15	RH23P113.D	RTX-5 0.32(mm)
140-16376-13		08/24/2019 01:50	1.52	RH23P114.D	RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 04:23	1.67		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/23/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12811	CCAL Batch #	32868		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	32571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		NA
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Dichlorodifluoromethane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Supharoma Kh. 8/26/2019		**2nd Level Reviewer/date** ✓ 08/26/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ on screen	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	ns
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19376) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#___)	ns
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#___) □ Holding Time – Receipt (NCM#___)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#___)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32868/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Siphawone Kh. **Date:** 8/26/2019	**2nd Level Reviewer :** ✓ **Date:** 08/27/19
Comments:	**Comments:**
Example Calculation: 140-16376-8 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
$\frac{4.222734 \times 500 \times 5.03}{100} = 106.20$	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MR Start Date: 08/26/2019 06:24

Analysis Batch Number: 32956 End Date: 08/27/2019 02:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32956/1		08/26/2019 06:24	1	RBFBH26.D	RTX-5 0.32(mm)
CCVIS 140-32956/2		08/26/2019 06:51	1	RCCVH26.D	RTX-5 0.32(mm)
LCS 140-32956/1002		08/26/2019 06:51	1	RCCVH26-LCS.d	RTX-5 0.32(mm)
MB 140-32956/4		08/26/2019 08:49	1	R500BH26.D	RTX-5 0.32(mm)
ZZZZZ		08/26/2019 22:58	1		RTX-5 0.32(mm)
140-16376-12 DL		08/26/2019 23:46	4.15	RH26P111.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 00:35	1.52		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 01:23	3.72		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 02:17	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/26/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12845	CCAL Batch #	32956		33020
ICAL Chrom WL #	12700	ICAL Batch # / Event #	32571 / 2089	/	32573 / 2091

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na ✓
2. Did BFB meet tune criteria? [F8]	✓	✓ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: _____ _____	✓
4. Elution order checked on isomeric pairs? [Chrom]			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MS ✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MS ✓
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawara Kh. 8/27/2019		**2nd Level Reviewer/date** 08/27/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	VOL ✓ corrected vol to 11ml line 19	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur. Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	MS ✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason _____ _____ _____ _____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MS ✓
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	/		
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	/	☑ [Failed TO-14A, but passes TO-15] (NCM# 19355)	/
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	/
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	/		na
23. Project & sample special instructions verified?	/		/
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	ns
25. Sample analyses done within analytical holding time?	/	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	/
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	/	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	/
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	/		/
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	/		/
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		ns
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	NA		/
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	/	*	/
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	/	**500 mL blank ID:** 140-32956/4, 140-33020/4 **200 mL blank ID:** —	/
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	/		/
34. Correct ICV linked to each MB? [QC Links]	/		/
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	/		/
37. Run Checklist and acknowledge findings [F8]	/		/
38. Runs set to 1st level review?	/	Runs set to 2nd level review?	/
39. QC checker run and items addressed?	-na-		/
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		/

Analyst: Suphanana Kh **Date:** 8/27/2019	**2nd Level Reviewer :** ✓ **Date:** 08/27/19
Comments: 1st level 18, 20, 21 but will RR 8/27/19	**Comments:** * analyzed ok
Example Calculation: 140-16426-4 PCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
7.826552 x 500/15 x 10.58 = 2760.16	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Instrument ID: MJ Start Date: 08/27/2019 07:42

Analysis Batch Number: 32985 End Date: 08/27/2019 15:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32985/1		08/27/2019 07:42	1	JBFBH27.D	RTX-5 0.32(mm)
CCVIS 140-32985/2		08/27/2019 08:11	1	JCCVH27.D	RTX-5 0.32(mm)
LCS 140-32985/1002		08/27/2019 08:11	1	JCCVH27-LCS.d	RTX-5 0.32(mm)
MB 140-32985/4		08/27/2019 10:12	1	J500BH27.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 11:02	1		RTX-5 0.32(mm)
140-16376-6		08/27/2019 12:41	1	JH27P214.D	RTX-5 0.32(mm)
140-16376-13 DL		08/27/2019 14:52	1.52	JH27P101.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 15:43	3.72		RTX-5 0.32(mm)

190827.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	34.9	8/27/2019	7:42:19 AM
CCV	7 - 101 mL	25	8/27/2019	8:11:21 AM
DNU	16 - 101 mL	34.7	8/27/2019	9:41:12 AM
MB	16 - 502 mL	34.5	8/27/2019	10:12:25 AM
MB	16 - 200 mL	34.1	8/27/2019	11:02:00 AM
16377-06	14 - 31 mL	9.8	8/27/2019	11:51:56 AM
16376-06	15 - 30 mL	5.8	8/27/2019	12:41:25 PM
DNU	16 - 100 mL	7.6	8/27/2019	2:22:51 PM
16376-13	1 - 14 mL	12.3	8/27/2019	2:52:46 PM
16377-06	2 - 11 mL	10.6	8/27/2019	3:43:30 PM
16439-01	3 - 501 mL	8	8/27/2019	4:33:23 PM
16426-02	4 - 21 mL	9	8/27/2019	5:22:56 PM
16426-05	5 - 500 mL	3.8	8/27/2019	6:14:01 PM
16426-06	6 - 696 mL	3.6	8/27/2019	7:06:39 PM
16426-08	7 - 200 mL	4.1	8/27/2019	7:56:37 PM
16426-03	16 - 100 mL	6.8	8/27/2019	8:46:47 PM

MJ WL 12855

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/27/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12855	CCAL Batch #	32985		33066
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	31860 / 2056

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		na
2. Did BFB meet tune criteria? [F8]	/	□ [Failed TO-14A, but passes TO-15]	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	/	List Target analytes outside CCV limits:	/
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3- , 1,4- , and 1,2-dichlorobenzene	/		/
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	/		/
Analyst/date Suphanana Kh 8/28/2019.		**2nd Level Reviewer/date** 08 28 19	
7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/	Corrected vol line 9,10 8/28/19	/
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/	8/28/19	/
9. Can dilution history verified? [Mgmt Report]	/		/
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	/	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	/
11. All runs - peaks ID'd correctly and false positives removed?	/		/
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	/		/
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	/	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	/
14. Samples outside calibration range scheduled for dilution?	/	□ ICAL – Range Exceeded; Minimum Dilution	/

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	/	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	/
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	ns
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		ns
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	ns
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32985/4, 140-33066/4 **200 mL blank ID:** 140-32985/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		ns
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphannee Ph.	Date: 8/28/2019	2nd Level Reviewer:	Date: 8/28/19
Comments:		**Comments:**	

Example Calculation: 140-16377-b TCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$4.865337 \times \frac{500}{10} \times 3.72 = 904.95$

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32745 Batch Start Date: 08/20/19 08:48 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32745/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32745/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32745/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-1	SV-001-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-2	SV-004-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-5	SV-155-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-8	SV-060-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-9	SV-150-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-10	SV-152-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-11	SV-141-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-14	SV-113-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-15	SV-088-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-16	SV-DUP02-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-17	SV-142-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
LCS 140-32745/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32745/1		TO 15 LL		40 mL					
CCVIS 140-32745/2		TO 15 LL							
MB 140-32745/4		TO 15 LL							
140-16376-A-1	SV-001-C-27	TO 15 LL	T						
140-16376-A-2	SV-004-C-27	TO 15 LL	T						
140-16376-A-5	SV-155-C-27	TO 15 LL	T						
140-16376-A-8	SV-060-C-27	TO 15 LL	T						
140-16376-A-9	SV-150-C-27	TO 15 LL	T						
140-16376-A-10	SV-152-C-27	TO 15 LL	T						
140-16376-A-11	SV-141-C-27	TO 15 LL	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32745 Batch Start Date: 08/20/19 08:48 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16376-A-14	SV-113-C-27	TO 15 LL	T						
140-16376-A-15	SV-088-C-27	TO 15 LL	T						
140-16376-A-16	SV-DUP02-C-27	TO 15 LL	T						
140-16376-A-17	SV-142-C-27	TO 15 LL	T						
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T						
LCS 140-32745/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32777 Batch Start Date: 08/21/19 12:22 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32777/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32777/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32777/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-3	SV-102-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32777/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32777/1		TO 15 LL		40 mL					
CCVIS 140-32777/2		TO 15 LL							
MB 140-32777/4		TO 15 LL							
140-16376-A-3	SV-102-C-27	TO 15 LL	T						
140-16376-A-4	SV-DUP1-C-27	TO 15 LL	T						
LCS 140-32777/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-7	SV-153-C-27	TO 15 LL	T	176 mL	500 mL	1	1		40 mL
140-16376-A-8	SV-060-C-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16376-A-11	SV-141-C-27	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
140-16376-A-12	SV-149-C-27	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
140-16376-A-13	SV-126-C-27	TO 15 LL	T	152 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16376-A-7	SV-153-C-27	TO 15 LL	T						
140-16376-A-8	SV-060-C-27	TO 15 LL	T						
140-16376-A-11	SV-141-C-27	TO 15 LL	T						
140-16376-A-12	SV-149-C-27	TO 15 LL	T						
140-16376-A-13	SV-126-C-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32956 Batch Start Date: 08/26/19 06:24 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32956/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32956/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32956/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-12	SV-149-C-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32956/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32956/1		TO 15 LL		40 mL					
CCVIS 140-32956/2		TO 15 LL							
MB 140-32956/4		TO 15 LL							
140-16376-A-12	SV-149-C-27	TO 15 LL	T						
LCS 140-32956/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16376-1

SDG No.:

Batch Number: 32985 Batch Start Date: 08/27/19 07:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32985/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32985/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32985/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16376-A-6	SV-133-C-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16376-A-13	SV-126-C-27	TO 15 LL	T	14 mL	500 mL	1	1		40 mL
LCS 140-32985/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32985/1		TO 15 LL		40 mL					
CCVIS 140-32985/2		TO 15 LL							
MB 140-32985/4		TO 15 LL							
140-16376-A-6	SV-133-C-27	TO 15 LL	T						
140-16376-A-13	SV-126-C-27	TO 15 LL	T						
LCS 140-32985/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16376-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16376-3	1	-4.4	0.85	0.85	32.1	3.18	3.18		3.73	3.73	08/21/19 13:47	Knight, Benjamin K
140-16376-4	1	-4.4	0.85	0.85	29.6	3.01	3.01		3.53	3.53	08/21/19 13:49	Knight, Benjamin K
140-16376-7	1	-8.0	0.73	0.73	4.2	1.29	1.29		1.75	1.76	08/23/19 11:49	Taj, Holly M
140-16376-8	1	-11.0	0.63	0.63	32.1	3.18	3.18		5.03	5.03	08/23/19 11:36	Taj, Holly M
140-16376-11	1	-4.5	0.85	0.85	3.7	1.25	1.25		1.47	1.47	08/23/19 11:50	Taj, Holly M
140-16376-12	1	-6.5	0.78	0.78	33.0	3.24	3.24		4.15	4.15	08/21/19 13:46	Knight, Benjamin K
140-16376-13	1	-4.9	0.84	0.84	4.0	1.27	1.27		1.52	1.52	08/23/19 11:51	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND	*	1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND	*	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND	*	2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND	*	0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND	*	0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND	*	5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND	*	1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D				
Lims ID:	140-15799-A-13				
Client ID:	09735				
Sample Type:	Client				
Inject. Date:	01-Jul-2019 14:18:30	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012175-005				
Misc. Info.:	09735				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	02-Jul-2019 15:20:34	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	02-Jul-2019 15:22:25		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	95	360511	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.329	0.006	95	2031465	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.010	16.010	0.000	87	1805839	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.633	0.000	97	1216973	4.38	
7 Propene	41	3.840	3.834	0.006	97	32675	0.2807	
31 Methylene Chloride	84	6.557	6.552	0.005	96	22489	0.1555	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

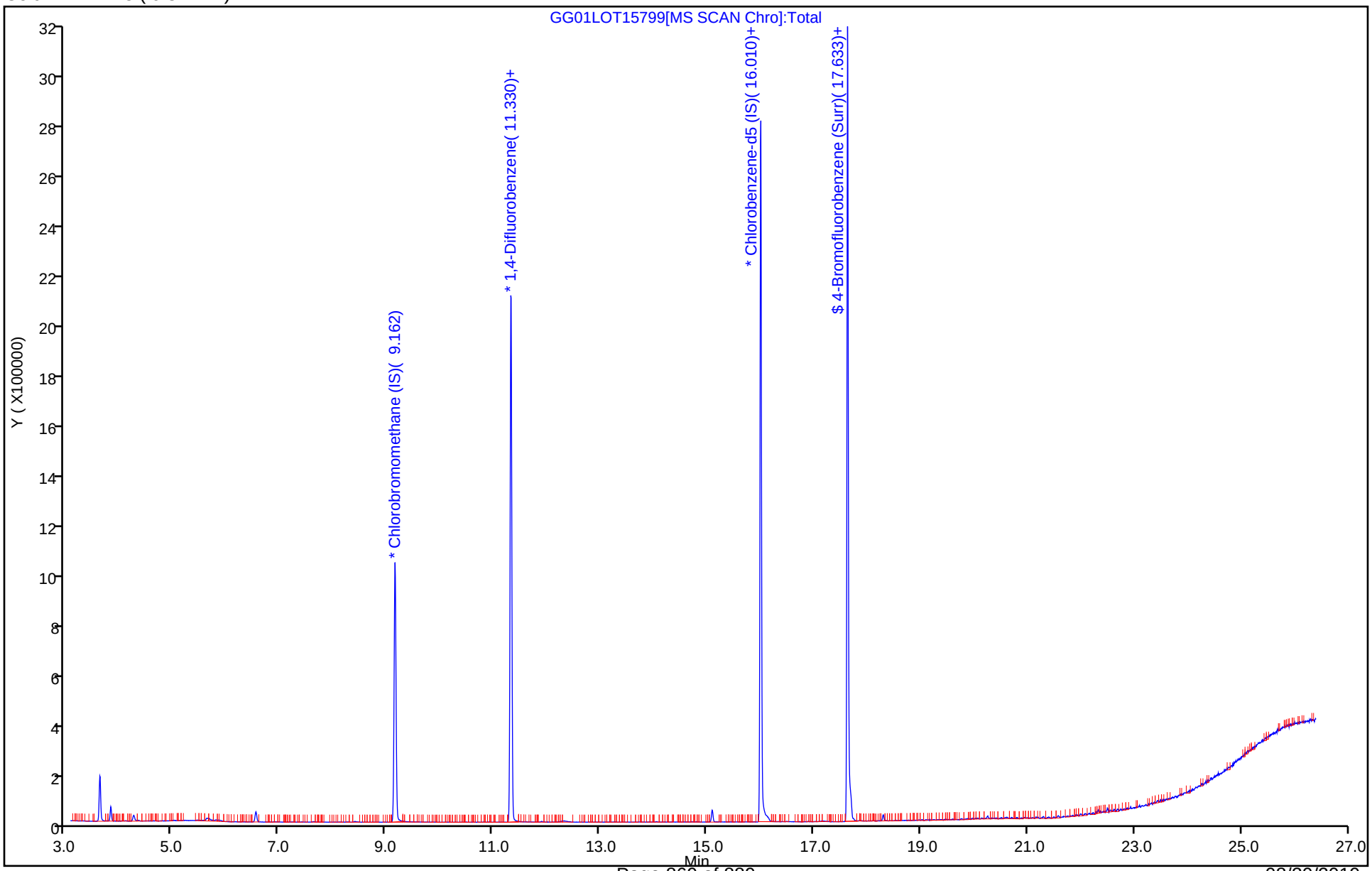
Report Date: 02-Jul-2019 15:22:26 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D

Injection Date:	01-Jul-2019 14:18:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-15799-A-13	Lab Sample ID:	140-15799-13	Worklist Smp#:	5
Client ID:	09735				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D
Lims ID: 140-15818-A-11
Client ID: 11554
Sample Type: Client
Inject. Date: 05-Jul-2019 05:25:30 ALS Bottle#: 1 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012211-023
Misc. Info.: 11554
Operator ID: AFB Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 08:25:59 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 08:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	87	283374	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1354218	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	87	1065007	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.255	17.281	-0.026	97	661926	3.65	
7 Propene	41	3.554	3.547	0.005	99	17412	0.2235	
31 Methylene Chloride	84	6.081	6.078	0.000	97	18749	0.1606	
33 Carbon disulfide	76	6.236	6.238	-0.006	90	4409	0.0141	
45 1,1,1-Trichloroethane	97	9.663	9.657	0.000	95	5088	0.0209	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

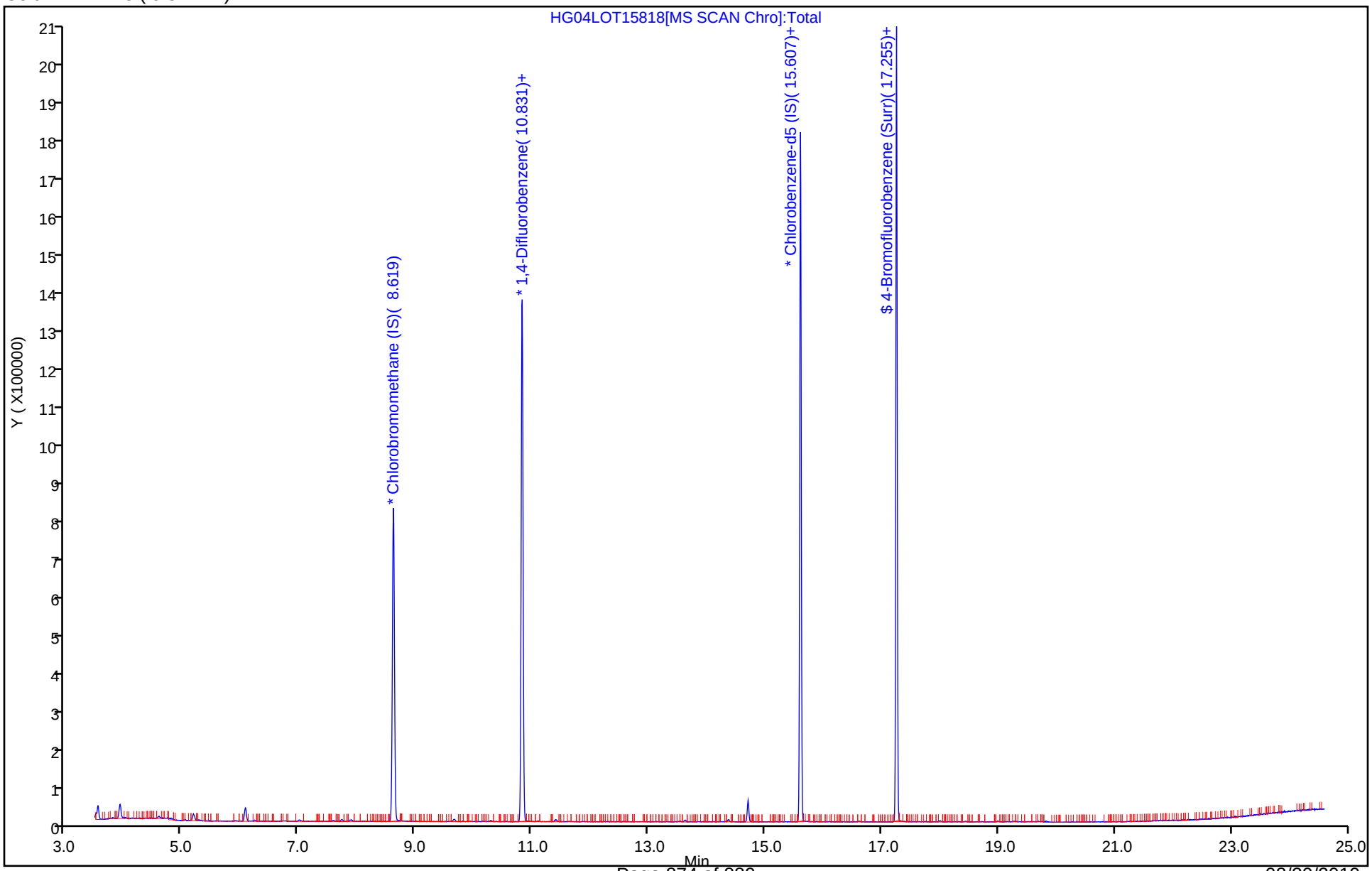
Report Date: 08-Jul-2019 08:26:27 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D

Injection Date:	05-Jul-2019 05:25:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	140-15818-A-11	Lab Sample ID:	140-15818-11	Worklist Smp#:	23
Client ID:	11554				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D
Lims ID: 140-15841-A-14
Client ID: 10746
Sample Type: Client
Inject. Date: 06-Jul-2019 14:02:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012246-004
Misc. Info.: 200mL 10746
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 12:30:24 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 12:31:45

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	85	391331	4.00	
*	2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1867475	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	86	1457045	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.276	17.281	-0.005	97	883485	3.56	
	7 Propene	41	3.554	3.554	0.000	98	24277	0.2256	
	31 Methylene Chloride	84	6.086	6.081	0.005	94	34631	0.2148	
	33 Carbon disulfide	76	6.247	6.242	0.005	96	8915	0.0207	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

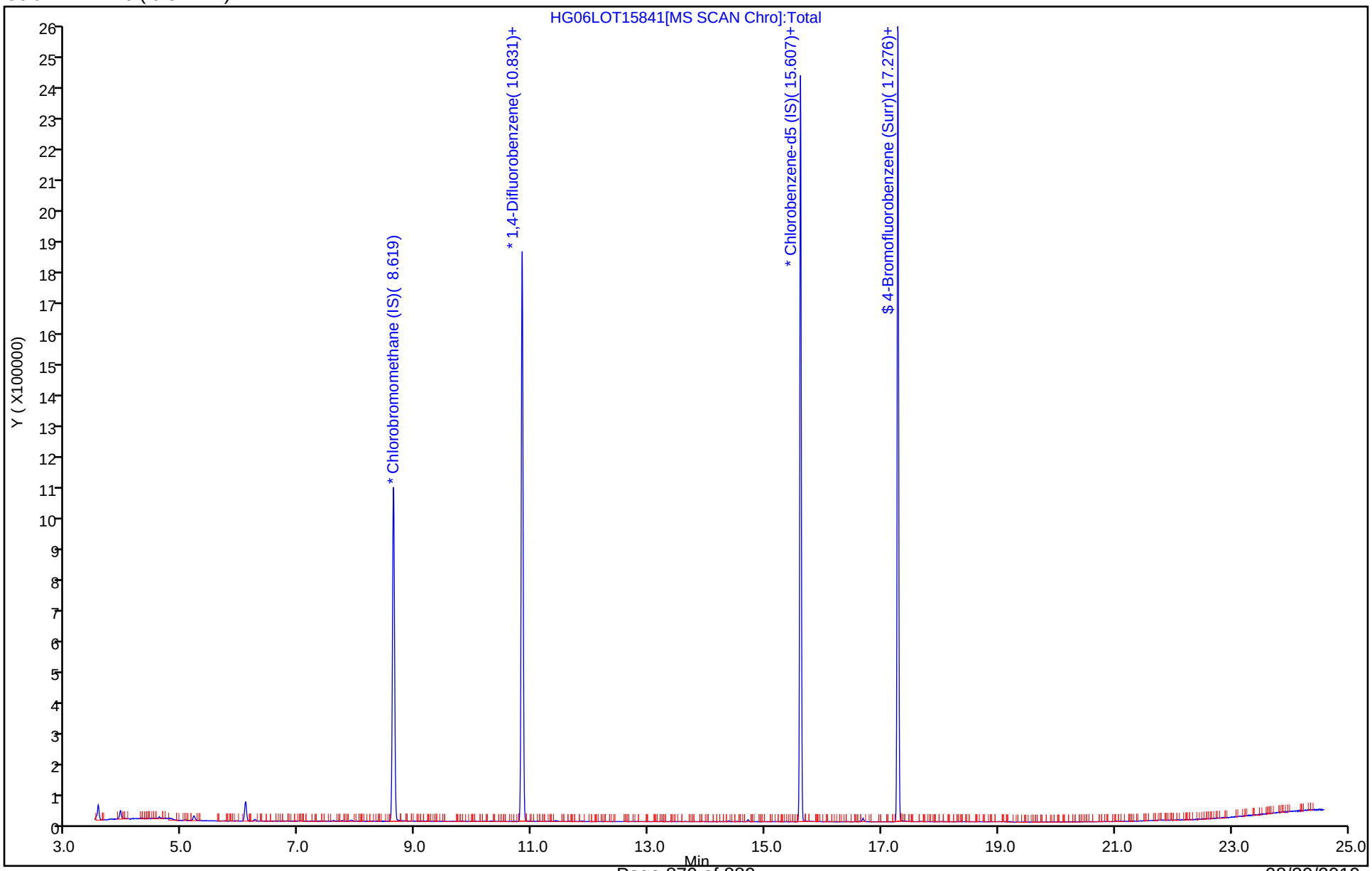
Report Date: 08-Jul-2019 12:31:46 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D

Injection Date:	06-Jul-2019 14:02:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-15841-A-14	Lab Sample ID:	140-15841-14	Worklist Smp#:	4
Client ID:	10746				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



08/30/2019

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D				
Lims ID:	140-15955-A-1				
Client ID:	10500				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 07:00:30	ALS Bottle#:	13	Worklist Smp#:	26
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012293-026				
Misc. Info.:	10500				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	12-Jul-2019 05:43:43	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0309				
First Level Reviewer: khachitpongpanits		Date:	12-Jul-2019 18:45:22		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

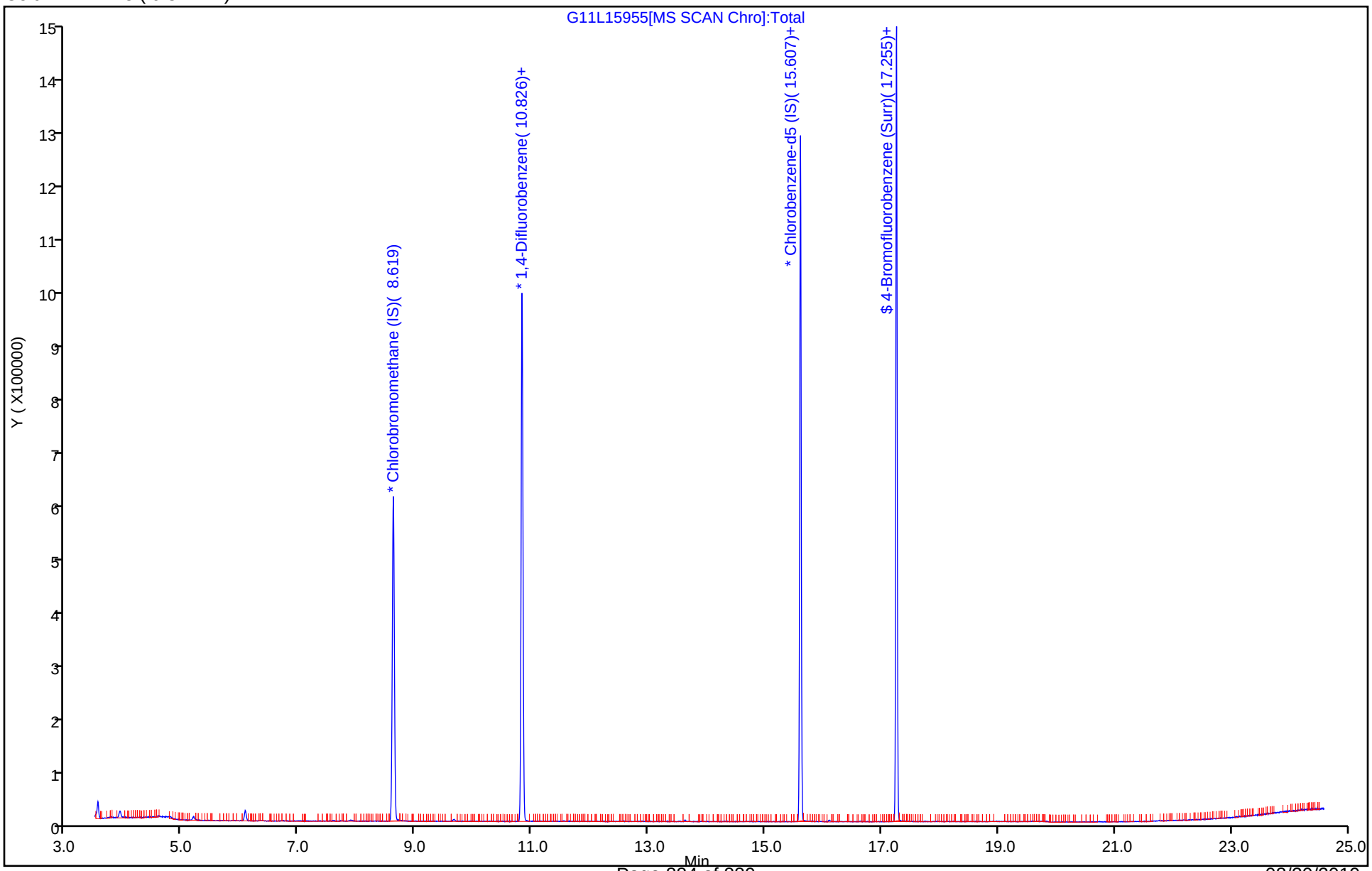
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Baltimore #201

140-16376 Chain of Custody

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 1 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 202	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax: 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, B.H, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC05388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-001-C-27	8/14/19	0905	8/14/19	1024	-30	0	7255	11720	X									X		X			
SV-004-C-27		0912		1025	-26	0	7168	10746	X									X					
SV-102-C-27		0921		1030	-30	-2	8134	09660	X									X					
SV-DUP1-C-27		0000		0000	-30	0	7652	09665	X									X					
SV-155-C-27		0926		1032	-30	-4	8924	11830	X									X					
SV-133-C-27		0930		1034	-29	-2	11921	11616	X									X					
SV-153-C-27		0932		1037	-27	-3	7200	11256	X									X					
SV-060-C-27		0940		1040	-30	-7	7648	11741	X									X					
SV-150-C-27		0952		1055	-30	-4	11497	11723	X									X					SV-150
SV-152-C-27		0950		1053	-29	-3	11976	11554	X									X					SV-152

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

CUSTODY SEALS INTACT
RECEIVED AMBIENT
BXD 8-16-19
FEDX# 776006558067 M SAT
17 CANS / 17 FLOWS IN

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by: Walt P	Date / Time: 8/16/19 1300	Received by: [signature]
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] EPA KNX 8-17-19 10:31
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 2 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Lab Sampling:
FAX:	Analysis Turnaround Time		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, BALT, MD	Rush (Specifiy):		
P O # 112ICO5388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-141-C-27	8/14/19	0956	8/14/19	1058	-28	-4	7657	09739	X									X					
SV-149-C-27		1002		1102	-30	-4	7650	11811	X									X					
SV-126-C-27		1004		1104	-30	-4	7367	09580	X									X					
SV-113-C-27		1009		1109	-28	-3	11938	11139	X									X					
SV-088-C-27		1011		1111	-30	-5	11990	11142	X									X					
SV-DUP02-C-27		0000		0000	-30	-3	11511	10336	X									X					
SV-142-C-27		1015		1113	-30	-4	11306	10493	X									X					
				8/14/19																			

Temperature (Fahrenheit)		
Start	Interior	Ambient
Stop		

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

* VOID → Control # 10436, Can # 11628 NOT USED, Pressure gauge incorrect

* VOID → Control # 7196, Can # 11279 NOT USED, pressure incorrect

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by:	Date / Time: 8/16/19 1300	Received by:	
Relinquished by:	Date / Time: 8/16/19 1720	Received by: EA-KNX 8-17-19 10:30	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 8-19-19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/19/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
DLW	140-16376-a-1	11720	15955	B	1	0.0	15:59	
DLW	140-16376-a-2	10746	15841	B	1	0.0	15:59	
DLW	140-16376-a-3	09660	15841	B	1	-2.4	16:00	
DLW	140-16376-a-4	09665	15818	B	1	-1.6	16:00	
DLW	140-16376-a-5	11830	15841	B	1	-2.3	16:00	
DLW	140-16376-a-6	11616	15818	B	1	-3.2	16:01	
DLW	140-16376-a-7	11256	15841	B	1	-2.0	16:01	
DLW	140-16376-a-8	11741	15955	B	1	-5.5	16:01	
DLW	140-16376-a-9	11723	15799	B	1	-3.1	16:02	
DLW	140-16376-a-10	11554	15818	B	1	-3.2	16:02	
DLW	140-16376-a-11	09739	15955	B	1	-3.8	16:11	
DLW	140-16376-a-12	11811	15818	B	1	-4.3	16:11	
DLW	140-16376-a-13	09580	15818	B	1	-3.4	16:11	
DLW	140-16376-a-14	11139	15818	B	1	-4.1	16:12	
DLW	140-16376-a-15	11142	15955	B	1	-4.7	16:12	
DLW	140-16376-a-16	10336	15799	B	1	-3.8	16:12	
DLW	140-16376-a-17	10493	15841	B	1	-4.0	16:12	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

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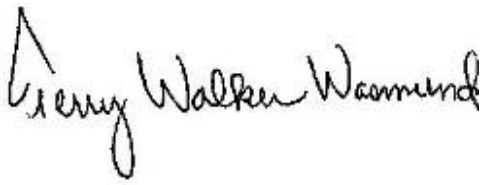
ANALYTICAL REPORT

Job Number: 140-16377-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:30 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/30/2019

cc: Ms. Michelle Woeber

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16377-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.31	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.22	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.52	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.2		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.1	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.56	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.0	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	6.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.077	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.49		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.19	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.11	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	48	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.6		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.60	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.49	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.91	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.44	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.84	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.53	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	170	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	8.4		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.6	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.1	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45		3.6	0.45	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	6.7		3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	150		3.6	0.36	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	20	B	18	7.3	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.7	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1100	E	1.8	0.27	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	1900		7.3	1.1	ppb v/v	3.64		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	10	J	18	1.6	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	180		14	1.8	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	27		15	1.3	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	580		14	1.4	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	69	B	63	25	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	6.6	J	14	1.3	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	5900	E	9.8	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	10000		39	5.9	ug/m3	3.64		TO 15 LL	Total/NA

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.19	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.079	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.35	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.5		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.53		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.82		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	5.7		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.23	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.39	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	37		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.61	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.62	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	14		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.3		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	22		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	29	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.49	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	200		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc.
Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-171-A-27
Lab Sample ID: 140-16377-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.99	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	13		3.6	0.45	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.1	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	63		3.6	0.36	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	15	J B	18	7.3	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	400		1.8	0.27	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	4.8	J	18	1.6	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	52		14	1.8	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	8.5	J	15	1.3	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	250		14	1.4	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	53	J B	63	25	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2200		9.8	1.5	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-174-A-27
Lab Sample ID: 140-16377-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.5	0.15	ppb v/v	3.72		TO 15 LL	Total/NA
Chloroform	5.7		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	62		1.5	0.19	ppb v/v	3.72		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.26	ppb v/v	3.72		TO 15 LL	Total/NA
1,1-Dichloroethane	21		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
1,1-Dichloroethene	230		1.5	0.15	ppb v/v	3.72		TO 15 LL	Total/NA
Methylene Chloride	7.1	J B	7.4	3.0	ppb v/v	3.72		TO 15 LL	Total/NA
Tetrachloroethene	0.37	J	1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	3.2		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
1,1,1-Trichloroethane	30		1.5	0.69	ppb v/v	3.72		TO 15 LL	Total/NA
Trichloroethene	1400	E	0.74	0.11	ppb v/v	3.72		TO 15 LL	Total/NA
Xylenes, Total	1.0	J	3.0	0.45	ppb v/v	3.72		TO 15 LL	Total/NA
Trichloroethene - DL	820		6.8	1.0	ppb v/v	3.72		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4	J	4.8	0.48	ug/m3	3.72		TO 15 LL	Total/NA
Chloroform	28		7.3	0.64	ug/m3	3.72		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	240		5.9	0.74	ug/m3	3.72		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.3	ug/m3	3.72		TO 15 LL	Total/NA
1,1-Dichloroethane	84		6.0	0.53	ug/m3	3.72		TO 15 LL	Total/NA
1,1-Dichloroethene	900		5.9	0.59	ug/m3	3.72		TO 15 LL	Total/NA
Methylene Chloride	25	J B	26	10	ug/m3	3.72		TO 15 LL	Total/NA
Tetrachloroethene	2.5	J	10	0.88	ug/m3	3.72		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	13		5.9	0.52	ug/m3	3.72		TO 15 LL	Total/NA
1,1,1-Trichloroethane	160		8.1	3.8	ug/m3	3.72		TO 15 LL	Total/NA
Trichloroethene	7600	E	4.0	0.60	ug/m3	3.72		TO 15 LL	Total/NA
Xylenes, Total	4.4	J	13	1.9	ug/m3	3.72		TO 15 LL	Total/NA
Trichloroethene - DL	4400		36	5.5	ug/m3	3.72		TO 15 LL	Total/NA

Client Sample ID: SV-093-A-27
Lab Sample ID: 140-16377-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.092	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-093-A-27 (Continued) Lab Sample ID: 140-16377-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.20	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.3		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.70		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.3		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.45	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.79	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	9.2		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	5.3		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	7.2		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.063	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.38	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.44		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	12		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.33	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.40	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.095	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.1		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	63		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.19	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.63	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	10		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.8		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	49		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.4	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	27	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.78	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-170-A-27 (Continued) Lab Sample ID: 140-16377-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.38	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	6.2		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	340		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.93	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.21	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	13		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.23	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	27		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.24	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.31	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.50	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.92	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	45		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	18		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.51	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.3	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.091	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP04-A-27 (Continued) Lab Sample ID: 140-16377-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	0.14	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.26	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	27		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.22	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.2		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.30	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.45	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.77	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	29		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	19		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.56	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.4	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.042	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.35	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.0		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	9.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.58		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.84		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.30		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.1		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.48		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	8.6		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	4.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	32		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	3.0		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	5.7		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	5.6		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.4		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	6.6		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	37		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.10	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.47		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	11		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	22		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.5		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	10		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.89		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.0		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.66		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	130	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.51		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.79		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.22		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	13		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	78		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.32	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.3		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	11		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	86		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	6.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	36		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	4.0		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.6		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	720	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	2.5		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	5.7		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	3.9		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.57		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	58		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	420		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.92		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.070	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.60		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-015-A-27 (Continued) Lab Sample ID: 140-16377-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.65		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	3.5		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	7.0		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	39		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	3.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.070	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.21	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	15		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.9		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.38	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.34	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.4		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.6		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	14		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	30		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	140		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	13		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.28	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.2	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	10		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	64		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.40		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.2		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	11		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.31	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.52		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	5.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.29	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.12	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.57	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	6.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.77	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	39		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-078-A-27 (Continued) Lab Sample ID: 140-16377-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.1	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	26		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.8		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	32		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.58	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.51		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.71		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.22	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	110	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.14	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	92		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.0		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	13		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.8		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.52	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.95	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	31		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	25		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.41	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	610	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.69	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	500		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.052	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.36	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.26	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	29		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-076-A-27 (Continued) Lab Sample ID: 140-16377-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	23		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.15	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.16	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	100		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.91	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	87		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.82	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.78	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.25	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.085	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.32	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.48		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.19	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.30	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	20		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.5		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.052	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.4		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	51		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.22	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.72	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.81	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.53	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.3		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.76	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.2	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	79		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.55	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	26		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.88	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.5		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-168-A-27 (Continued) Lab Sample ID: 140-16377-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	0.20	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	13		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	270		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.0		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	10		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.1		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.56		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.5		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.5		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.8		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.24	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.20	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.79	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	24		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	53		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.49	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	7.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.0		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	7.3		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	17		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	8.9		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.093	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	4.9		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.93		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	1.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.85		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.9		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.72		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.62		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.45		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.4		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-100-B-27 (Continued) Lab Sample ID: 140-16377-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trimethylbenzene	0.21	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.20	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.32	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	31		2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.3		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	6.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	4.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	31		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	4.9		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.4		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.4		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	34		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.0	J	2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.0	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.68		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.16	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.67		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	1.7		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	12		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	47		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	35		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.3		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.7		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.89		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	4.3		2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.1	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.78	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	9.1		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	85		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.2		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	250		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	190		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	6.4		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-101-B-27 (Continued) Lab Sample ID: 140-16377-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	13		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	7.2		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.9		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Date Collected: 08/15/19 10:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 14:06	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 14:06	1
Chlorodifluoromethane	**0.31**	**J**	0.40	0.11	ppb v/v			08/20/19 14:06	1
Chloroform	**0.22**	**J**	0.40	0.035	ppb v/v			08/20/19 14:06	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 14:06	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/20/19 14:06	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 14:06	1
1,1-Dichloroethene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 14:06	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 14:06	1
Methylene Chloride	**1.8**	**J**	2.0	0.80	ppb v/v			08/20/19 14:06	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 14:06	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 14:06	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
Toluene	**0.52**	**J**	0.60	0.39	ppb v/v			08/20/19 14:06	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 14:06	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 14:06	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
Trichloroethene	**1.2**		0.20	0.030	ppb v/v			08/20/19 14:06	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 14:06	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 14:06	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 14:06	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 14:06	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 14:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.41**	**J**	1.3	0.13	ug/m3			08/20/19 14:06	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 14:06	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/20/19 14:06	1
Chloroform	**1.1**	**J**	2.0	0.17	ug/m3			08/20/19 14:06	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 14:06	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 14:06	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 14:06	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 14:06	1
1,1-Dichloroethene	**0.56**	**J**	1.6	0.16	ug/m3			08/20/19 14:06	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 14:06	1
Methylene Chloride	**6.3**	**J**	6.9	2.8	ug/m3			08/20/19 14:06	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 14:06	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 14:06	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 14:06	1
Toluene	**2.0**	**J**	2.3	1.5	ug/m3			08/20/19 14:06	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 14:06	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 14:06	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 14:06	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 14:06	1
Trichloroethene	**6.6**		1.1	0.16	ug/m3			08/20/19 14:06	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 14:06	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 14:06	1

Client Sample ID: SV-116-A-27 **Lab Sample ID: 140-16377-1**
Date Collected: 08/15/19 10:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 14:06	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 14:06	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 14:06*	*1*

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/23/19 18:36	1
Carbon tetrachloride	**0.077**	**J**	0.40	0.035	ppb v/v			08/23/19 18:36	1
Chlorodifluoromethane	**0.49**		0.40	0.11	ppb v/v			08/23/19 18:36	1
Chloroform	**0.19**	**J**	0.40	0.035	ppb v/v			08/23/19 18:36	1
cis-1,2-Dichloroethene	**0.11**	**J**	0.40	0.050	ppb v/v			08/23/19 18:36	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/23/19 18:36	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 18:36	1
1,1-Dichloroethene	**0.21**	**J**	0.40	0.040	ppb v/v			08/23/19 18:36	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			08/23/19 18:36	1
Methylene Chloride	**48**	**B**	2.0	0.80	ppb v/v			08/23/19 18:36	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 18:36	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 18:36	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/23/19 18:36	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 18:36	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 18:36	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
Trichloroethene	**1.6**		0.20	0.030	ppb v/v			08/23/19 18:36	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 18:36	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/23/19 18:36	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 18:36	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 18:36	1
Xylenes, Total	**0.60**	**J**	0.80	0.12	ppb v/v			08/23/19 18:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/23/19 18:36	1
Carbon tetrachloride	**0.49**	**J**	2.5	0.22	ug/m3			08/23/19 18:36	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/23/19 18:36	1
Chloroform	**0.91**	**J**	2.0	0.17	ug/m3			08/23/19 18:36	1
cis-1,2-Dichloroethene	**0.44**	**J**	1.6	0.20	ug/m3			08/23/19 18:36	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 18:36	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 18:36	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 18:36	1
1,1-Dichloroethene	**0.84**	**J**	1.6	0.16	ug/m3			08/23/19 18:36	1
Ethylbenzene	**0.53**	**J**	1.7	0.28	ug/m3			08/23/19 18:36	1
Methylene Chloride	**170**	**B**	6.9	2.8	ug/m3			08/23/19 18:36	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 18:36	1
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 18:36	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/23/19 18:36	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/23/19 18:36	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 18:36	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 18:36	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 18:36	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 18:36	1
Trichloroethene	**8.4**		1.1	0.16	ug/m3			08/23/19 18:36	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 18:36	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/23/19 18:36	1

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 18:36	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 18:36	1
Xylenes, Total	**2.6**	**J**	3.5	0.52	ug/m3			08/23/19 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/23/19 18:36*	*1*

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Date Collected: 08/15/19 11:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		3.6	0.36	ppb v/v			08/21/19 20:28	1
Carbon tetrachloride	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Chlorodifluoromethane	ND		3.6	1.0	ppb v/v			08/21/19 20:28	1
Chloroform	**2.1**	**J**	3.6	0.32	ppb v/v			08/21/19 20:28	1
cis-1,2-Dichloroethene	**45**		3.6	0.45	ppb v/v			08/21/19 20:28	1
Dichlorodifluoromethane	ND		3.6	0.64	ppb v/v			08/21/19 20:28	1
1,1-Dichloroethane	**6.7**		3.6	0.32	ppb v/v			08/21/19 20:28	1
1,2-Dichloroethane	ND		3.6	0.45	ppb v/v			08/21/19 20:28	1
1,1-Dichloroethene	**150**		3.6	0.36	ppb v/v			08/21/19 20:28	1
Ethylbenzene	ND		3.6	0.59	ppb v/v			08/21/19 20:28	1
Methylene Chloride	**20**	**B**	18	7.3	ppb v/v			08/21/19 20:28	1
Methyl tert-butyl ether	ND		18	2.4	ppb v/v			08/21/19 20:28	1
Naphthalene	ND		1.8	3.5	ppb v/v			08/21/19 20:28	1
Tetrachloroethene	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Toluene	ND		5.5	3.5	ppb v/v			08/21/19 20:28	1
trans-1,2-Dichloroethene	**1.7**	**J**	3.6	0.32	ppb v/v			08/21/19 20:28	1
1,2,4-Trichlorobenzene	ND		3.6	2.9	ppb v/v			08/21/19 20:28	1
1,1,1-Trichloroethane	ND		3.6	1.7	ppb v/v			08/21/19 20:28	1
1,1,2-Trichloroethane	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Trichloroethene	**1100**	**E**	1.8	0.27	ppb v/v			08/21/19 20:28	1
1,2,3-Trimethylbenzene	ND		3.6	1.6	ppb v/v			08/21/19 20:28	1
1,2,4-Trimethylbenzene	ND		3.6	0.91	ppb v/v			08/21/19 20:28	1
1,3,5-Trimethylbenzene	ND		3.6	1.0	ppb v/v			08/21/19 20:28	1
Vinyl chloride	ND		1.8	1.2	ppb v/v			08/21/19 20:28	1
Xylenes, Total	ND		7.3	1.1	ppb v/v			08/21/19 20:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		12	1.2	ug/m3			08/21/19 20:28	1
Carbon tetrachloride	ND		23	2.0	ug/m3			08/21/19 20:28	1
Chlorodifluoromethane	ND		13	3.5	ug/m3			08/21/19 20:28	1
Chloroform	**10**	**J**	18	1.6	ug/m3			08/21/19 20:28	1
cis-1,2-Dichloroethene	**180**		14	1.8	ug/m3			08/21/19 20:28	1
Dichlorodifluoromethane	ND		18	3.1	ug/m3			08/21/19 20:28	1
1,1-Dichloroethane	**27**		15	1.3	ug/m3			08/21/19 20:28	1
1,2-Dichloroethane	ND		15	1.8	ug/m3			08/21/19 20:28	1
1,1-Dichloroethene	**580**		14	1.4	ug/m3			08/21/19 20:28	1
Ethylbenzene	ND		16	2.6	ug/m3			08/21/19 20:28	1
Methylene Chloride	**69**	**B**	63	25	ug/m3			08/21/19 20:28	1
Methyl tert-butyl ether	ND		66	8.5	ug/m3			08/21/19 20:28	1
Naphthalene	ND		9.5	18	ug/m3			08/21/19 20:28	1
Tetrachloroethene	ND		25	2.2	ug/m3			08/21/19 20:28	1
Toluene	ND		21	13	ug/m3			08/21/19 20:28	1
trans-1,2-Dichloroethene	**6.6**	**J**	14	1.3	ug/m3			08/21/19 20:28	1
1,2,4-Trichlorobenzene	ND		27	22	ug/m3			08/21/19 20:28	1
1,1,1-Trichloroethane	ND		20	9.2	ug/m3			08/21/19 20:28	1
1,1,2-Trichloroethane	ND		20	1.7	ug/m3			08/21/19 20:28	1
Trichloroethene	**5900**	**E**	9.8	1.5	ug/m3			08/21/19 20:28	1
1,2,3-Trimethylbenzene	ND		18	8.0	ug/m3			08/21/19 20:28	1
1,2,4-Trimethylbenzene	ND		18	4.5	ug/m3			08/21/19 20:28	1

Client Sample ID: SV-173-A-27 **Lab Sample ID: 140-16377-3**
Date Collected: 08/15/19 11:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		18	4.9	ug/m3			08/21/19 20:28	1
Vinyl chloride	ND		4.6	3.0	ug/m3			08/21/19 20:28	1
Xylenes, Total	ND		32	4.7	ug/m3			08/21/19 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/21/19 20:28*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**1900**		7.3	1.1	ppb v/v			08/23/19 19:23	3.64

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**10000**		39	5.9	ug/m3			08/23/19 19:23	3.64

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 19:23*	*3.64*

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Date Collected: 08/15/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.19**	**J**	0.40	0.040	ppb v/v			08/22/19 01:23	1
Carbon tetrachloride	**0.079**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
Chlorodifluoromethane	**0.35**	**J**	0.40	0.11	ppb v/v			08/22/19 01:23	1
Chloroform	**0.13**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
cis-1,2-Dichloroethene	**3.5**		0.40	0.050	ppb v/v			08/22/19 01:23	1
Dichlorodifluoromethane	**0.53**		0.40	0.070	ppb v/v			08/22/19 01:23	1
1,1-Dichloroethane	**0.82**		0.40	0.035	ppb v/v			08/22/19 01:23	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 01:23	1
1,1-Dichloroethene	**5.7**		0.40	0.040	ppb v/v			08/22/19 01:23	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/22/19 01:23	1
Methylene Chloride	**8.4**	**B**	2.0	0.80	ppb v/v			08/22/19 01:23	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 01:23	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 01:23	1
Tetrachloroethene	**0.23**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
Toluene	**0.39**	**J**	0.60	0.39	ppb v/v			08/22/19 01:23	1
trans-1,2-Dichloroethene	**0.12**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 01:23	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 01:23	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 01:23	1
Trichloroethene	**37**		0.20	0.030	ppb v/v			08/22/19 01:23	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 01:23	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 01:23	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 01:23	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 01:23	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/22/19 01:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.61**	**J**	1.3	0.13	ug/m3			08/22/19 01:23	1
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/22/19 01:23	1
Chlorodifluoromethane	**1.2**	**J**	1.4	0.39	ug/m3			08/22/19 01:23	1
Chloroform	**0.62**	**J**	2.0	0.17	ug/m3			08/22/19 01:23	1
cis-1,2-Dichloroethene	**14**		1.6	0.20	ug/m3			08/22/19 01:23	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/22/19 01:23	1
1,1-Dichloroethane	**3.3**		1.6	0.14	ug/m3			08/22/19 01:23	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 01:23	1
1,1-Dichloroethene	**22**		1.6	0.16	ug/m3			08/22/19 01:23	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/22/19 01:23	1
Methylene Chloride	**29**	**B**	6.9	2.8	ug/m3			08/22/19 01:23	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 01:23	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 01:23	1
Tetrachloroethene	**1.5**	**J**	2.7	0.24	ug/m3			08/22/19 01:23	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/22/19 01:23	1
trans-1,2-Dichloroethene	**0.49**	**J**	1.6	0.14	ug/m3			08/22/19 01:23	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 01:23	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 01:23	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 01:23	1
Trichloroethene	**200**		1.1	0.16	ug/m3			08/22/19 01:23	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 01:23	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 01:23	1

Client Sample ID: SV-138-A-27 **Lab Sample ID: 140-16377-4**
Date Collected: 08/15/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 01:23	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 01:23	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/22/19 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/22/19 01:23*	*1*

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Date Collected: 08/15/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		3.6	0.36	ppb v/v			08/21/19 21:18	1
Carbon tetrachloride	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Chlorodifluoromethane	ND		3.6	1.0	ppb v/v			08/21/19 21:18	1
Chloroform	**0.99**	**J**	3.6	0.32	ppb v/v			08/21/19 21:18	1
cis-1,2-Dichloroethene	**13**		3.6	0.45	ppb v/v			08/21/19 21:18	1
Dichlorodifluoromethane	ND		3.6	0.64	ppb v/v			08/21/19 21:18	1
1,1-Dichloroethane	**2.1**	**J**	3.6	0.32	ppb v/v			08/21/19 21:18	1
1,2-Dichloroethane	ND		3.6	0.45	ppb v/v			08/21/19 21:18	1
1,1-Dichloroethene	**63**		3.6	0.36	ppb v/v			08/21/19 21:18	1
Ethylbenzene	ND		3.6	0.59	ppb v/v			08/21/19 21:18	1
Methylene Chloride	**15**	**J B**	18	7.3	ppb v/v			08/21/19 21:18	1
Methyl tert-butyl ether	ND		18	2.4	ppb v/v			08/21/19 21:18	1
Naphthalene	ND		1.8	3.5	ppb v/v			08/21/19 21:18	1
Tetrachloroethene	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Toluene	ND		5.5	3.5	ppb v/v			08/21/19 21:18	1
trans-1,2-Dichloroethene	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
1,2,4-Trichlorobenzene	ND		3.6	2.9	ppb v/v			08/21/19 21:18	1
1,1,1-Trichloroethane	ND		3.6	1.7	ppb v/v			08/21/19 21:18	1
1,1,2-Trichloroethane	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Trichloroethene	**400**		1.8	0.27	ppb v/v			08/21/19 21:18	1
1,2,3-Trimethylbenzene	ND		3.6	1.6	ppb v/v			08/21/19 21:18	1
1,2,4-Trimethylbenzene	ND		3.6	0.91	ppb v/v			08/21/19 21:18	1
1,3,5-Trimethylbenzene	ND		3.6	1.0	ppb v/v			08/21/19 21:18	1
Vinyl chloride	ND		1.8	1.2	ppb v/v			08/21/19 21:18	1
Xylenes, Total	ND		7.3	1.1	ppb v/v			08/21/19 21:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		12	1.2	ug/m3			08/21/19 21:18	1
Carbon tetrachloride	ND		23	2.0	ug/m3			08/21/19 21:18	1
Chlorodifluoromethane	ND		13	3.5	ug/m3			08/21/19 21:18	1
Chloroform	**4.8**	**J**	18	1.6	ug/m3			08/21/19 21:18	1
cis-1,2-Dichloroethene	**52**		14	1.8	ug/m3			08/21/19 21:18	1
Dichlorodifluoromethane	ND		18	3.1	ug/m3			08/21/19 21:18	1
1,1-Dichloroethane	**8.5**	**J**	15	1.3	ug/m3			08/21/19 21:18	1
1,2-Dichloroethane	ND		15	1.8	ug/m3			08/21/19 21:18	1
1,1-Dichloroethene	**250**		14	1.4	ug/m3			08/21/19 21:18	1
Ethylbenzene	ND		16	2.6	ug/m3			08/21/19 21:18	1
Methylene Chloride	**53**	**J B**	63	25	ug/m3			08/21/19 21:18	1
Methyl tert-butyl ether	ND		66	8.5	ug/m3			08/21/19 21:18	1
Naphthalene	ND		9.5	18	ug/m3			08/21/19 21:18	1
Tetrachloroethene	ND		25	2.2	ug/m3			08/21/19 21:18	1
Toluene	ND		21	13	ug/m3			08/21/19 21:18	1
trans-1,2-Dichloroethene	ND		14	1.3	ug/m3			08/21/19 21:18	1
1,2,4-Trichlorobenzene	ND		27	22	ug/m3			08/21/19 21:18	1
1,1,1-Trichloroethane	ND		20	9.2	ug/m3			08/21/19 21:18	1
1,1,2-Trichloroethane	ND		20	1.7	ug/m3			08/21/19 21:18	1
Trichloroethene	**2200**		9.8	1.5	ug/m3			08/21/19 21:18	1
1,2,3-Trimethylbenzene	ND		18	8.0	ug/m3			08/21/19 21:18	1
1,2,4-Trimethylbenzene	ND		18	4.5	ug/m3			08/21/19 21:18	1

Client Sample ID: SV-171-A-27 **Lab Sample ID: 140-16377-5**
Date Collected: 08/15/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		18	4.9	ug/m3			08/21/19 21:18	1
Vinyl chloride	ND		4.6	3.0	ug/m3			08/21/19 21:18	1
Xylenes, Total	ND		32	4.7	ug/m3			08/21/19 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 21:18*	*1*

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.5	0.15	ppb v/v			08/22/19 02:13	3.72
Carbon tetrachloride	ND		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Chlorodifluoromethane	ND		1.5	0.41	ppb v/v			08/22/19 02:13	3.72
Chloroform	**5.7**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
cis-1,2-Dichloroethene	**62**		1.5	0.19	ppb v/v			08/22/19 02:13	3.72
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.26	ppb v/v			08/22/19 02:13	3.72
1,1-Dichloroethane	**21**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
1,2-Dichloroethane	ND		1.5	0.19	ppb v/v			08/22/19 02:13	3.72
1,1-Dichloroethene	**230**		1.5	0.15	ppb v/v			08/22/19 02:13	3.72
Ethylbenzene	ND		1.5	0.24	ppb v/v			08/22/19 02:13	3.72
Methylene Chloride	**7.1**	**J B**	7.4	3.0	ppb v/v			08/22/19 02:13	3.72
Methyl tert-butyl ether	ND		7.4	0.97	ppb v/v			08/22/19 02:13	3.72
Naphthalene	ND		0.74	1.4	ppb v/v			08/22/19 02:13	3.72
Tetrachloroethene	**0.37**	**J**	1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Toluene	ND		2.2	1.5	ppb v/v			08/22/19 02:13	3.72
trans-1,2-Dichloroethene	**3.2**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
1,2,4-Trichlorobenzene	ND		1.5	1.2	ppb v/v			08/22/19 02:13	3.72
1,1,1-Trichloroethane	**30**		1.5	0.69	ppb v/v			08/22/19 02:13	3.72
1,1,2-Trichloroethane	ND		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Trichloroethene	**1400**	**E**	0.74	0.11	ppb v/v			08/22/19 02:13	3.72
1,2,3-Trimethylbenzene	ND		1.5	0.67	ppb v/v			08/22/19 02:13	3.72
1,2,4-Trimethylbenzene	ND		1.5	0.37	ppb v/v			08/22/19 02:13	3.72
1,3,5-Trimethylbenzene	ND		1.5	0.41	ppb v/v			08/22/19 02:13	3.72
Vinyl chloride	ND		0.74	0.48	ppb v/v			08/22/19 02:13	3.72
Xylenes, Total	**1.0**	**J**	3.0	0.45	ppb v/v			08/22/19 02:13	3.72

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.4**	**J**	4.8	0.48	ug/m3			08/22/19 02:13	3.72
Carbon tetrachloride	ND		9.4	0.82	ug/m3			08/22/19 02:13	3.72
Chlorodifluoromethane	ND		5.3	1.4	ug/m3			08/22/19 02:13	3.72
Chloroform	**28**		7.3	0.64	ug/m3			08/22/19 02:13	3.72
cis-1,2-Dichloroethene	**240**		5.9	0.74	ug/m3			08/22/19 02:13	3.72
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.3	ug/m3			08/22/19 02:13	3.72
1,1-Dichloroethane	**84**		6.0	0.53	ug/m3			08/22/19 02:13	3.72
1,2-Dichloroethane	ND		6.0	0.75	ug/m3			08/22/19 02:13	3.72
1,1-Dichloroethene	**900**		5.9	0.59	ug/m3			08/22/19 02:13	3.72
Ethylbenzene	ND		6.5	1.0	ug/m3			08/22/19 02:13	3.72
Methylene Chloride	**25**	**J B**	26	10	ug/m3			08/22/19 02:13	3.72
Methyl tert-butyl ether	ND		27	3.5	ug/m3			08/22/19 02:13	3.72
Naphthalene	ND		3.9	7.4	ug/m3			08/22/19 02:13	3.72
Tetrachloroethene	**2.5**	**J**	10	0.88	ug/m3			08/22/19 02:13	3.72
Toluene	ND		8.4	5.5	ug/m3			08/22/19 02:13	3.72
trans-1,2-Dichloroethene	**13**		5.9	0.52	ug/m3			08/22/19 02:13	3.72
1,2,4-Trichlorobenzene	ND		11	8.8	ug/m3			08/22/19 02:13	3.72
1,1,1-Trichloroethane	**160**		8.1	3.8	ug/m3			08/22/19 02:13	3.72
1,1,2-Trichloroethane	ND		8.1	0.71	ug/m3			08/22/19 02:13	3.72
Trichloroethene	**7600**	**E**	4.0	0.60	ug/m3			08/22/19 02:13	3.72
1,2,3-Trimethylbenzene	ND		7.3	3.3	ug/m3			08/22/19 02:13	3.72
1,2,4-Trimethylbenzene	ND		7.3	1.8	ug/m3			08/22/19 02:13	3.72

Client Sample ID: SV-174-A-27 — Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		7.3	2.0	ug/m3			08/22/19 02:13	3.72
Vinyl chloride	ND		1.9	1.2	ug/m3			08/22/19 02:13	3.72
Xylenes, Total	**4.4**	**J**	13	1.9	ug/m3			08/22/19 02:13	3.72

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/22/19 02:13*	*3.72*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**820**		6.8	1.0	ppb v/v			08/27/19 15:43	3.72

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**4400**		36	5.5	ug/m3			08/27/19 15:43	3.72

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/27/19 15:43*	*3.72*

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Date Collected: 08/15/19 11:08 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/22/19 03:02	1
Carbon tetrachloride	**0.065**	**J**	0.40	0.035	ppb v/v			08/22/19 03:02	1
Chlorodifluoromethane	ND		0.40	0.11	ppb v/v			08/22/19 03:02	1
Chloroform	**0.092**	**J**	0.40	0.035	ppb v/v			08/22/19 03:02	1
cis-1,2-Dichloroethene	**0.20**	**J**	0.40	0.050	ppb v/v			08/22/19 03:02	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/22/19 03:02	1
1,1-Dichloroethane	**2.3**		0.40	0.035	ppb v/v			08/22/19 03:02	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 03:02	1
1,1-Dichloroethene	**1.3**		0.40	0.040	ppb v/v			08/22/19 03:02	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/22/19 03:02	1
Methylene Chloride	**4.7**	**B**	2.0	0.80	ppb v/v			08/22/19 03:02	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 03:02	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 03:02	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
Toluene	**0.70**		0.60	0.39	ppb v/v			08/22/19 03:02	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 03:02	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 03:02	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
Trichloroethene	**1.3**		0.20	0.030	ppb v/v			08/22/19 03:02	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 03:02	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 03:02	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 03:02	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 03:02	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/22/19 03:02	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/22/19 03:02	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/22/19 03:02	1
Chlorodifluoromethane	ND		1.4	0.39	ug/m3			08/22/19 03:02	1
Chloroform	**0.45**	**J**	2.0	0.17	ug/m3			08/22/19 03:02	1
cis-1,2-Dichloroethene	**0.79**	**J**	1.6	0.20	ug/m3			08/22/19 03:02	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/22/19 03:02	1
1,1-Dichloroethane	**9.2**		1.6	0.14	ug/m3			08/22/19 03:02	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 03:02	1
1,1-Dichloroethene	**5.3**		1.6	0.16	ug/m3			08/22/19 03:02	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/22/19 03:02	1
Methylene Chloride	**16**	**B**	6.9	2.8	ug/m3			08/22/19 03:02	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 03:02	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 03:02	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/22/19 03:02	1
Toluene	**2.6**		2.3	1.5	ug/m3			08/22/19 03:02	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/22/19 03:02	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 03:02	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 03:02	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 03:02	1
Trichloroethene	**7.2**		1.1	0.16	ug/m3			08/22/19 03:02	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 03:02	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 03:02	1

Client Sample ID: SV-093-A-27 **Lab Sample ID: 140-16377-7**
Date Collected: 08/15/19 11:08 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 03:02	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 03:02	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/22/19 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/22/19 03:02*	*1*

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Date Collected: 08/15/19 11:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/22/19 05:31	1
Carbon tetrachloride	**0.063**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
Chlorodifluoromethane	**0.38**	**J**	0.40	0.11	ppb v/v			08/22/19 05:31	1
Chloroform	**0.13**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
cis-1,2-Dichloroethene	**2.6**		0.40	0.050	ppb v/v			08/22/19 05:31	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/22/19 05:31	1
1,1-Dichloroethane	**0.44**		0.40	0.035	ppb v/v			08/22/19 05:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 05:31	1
1,1-Dichloroethene	**12**		0.40	0.040	ppb v/v			08/22/19 05:31	1
Ethylbenzene	**0.33**	**J**	0.40	0.065	ppb v/v			08/22/19 05:31	1
Methylene Chloride	**7.7**	**B**	2.0	0.80	ppb v/v			08/22/19 05:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 05:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 05:31	1
Tetrachloroethene	**0.12**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
Toluene	**0.40**	**J**	0.60	0.39	ppb v/v			08/22/19 05:31	1
trans-1,2-Dichloroethene	**0.095**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 05:31	1
1,1,1-Trichloroethane	**1.1**		0.40	0.19	ppb v/v			08/22/19 05:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 05:31	1
Trichloroethene	**63**		0.20	0.030	ppb v/v			08/22/19 05:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 05:31	1
1,2,4-Trimethylbenzene	**0.19**	**J**	0.40	0.10	ppb v/v			08/22/19 05:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 05:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 05:31	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/22/19 05:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/22/19 05:31	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/22/19 05:31	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/22/19 05:31	1
Chloroform	**0.63**	**J**	2.0	0.17	ug/m3			08/22/19 05:31	1
cis-1,2-Dichloroethene	**10**		1.6	0.20	ug/m3			08/22/19 05:31	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/22/19 05:31	1
1,1-Dichloroethane	**1.8**		1.6	0.14	ug/m3			08/22/19 05:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 05:31	1
1,1-Dichloroethene	**49**		1.6	0.16	ug/m3			08/22/19 05:31	1
Ethylbenzene	**1.4**	**J**	1.7	0.28	ug/m3			08/22/19 05:31	1
Methylene Chloride	**27**	**B**	6.9	2.8	ug/m3			08/22/19 05:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 05:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 05:31	1
Tetrachloroethene	**0.78**	**J**	2.7	0.24	ug/m3			08/22/19 05:31	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/22/19 05:31	1
trans-1,2-Dichloroethene	**0.38**	**J**	1.6	0.14	ug/m3			08/22/19 05:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 05:31	1
1,1,1-Trichloroethane	**6.2**		2.2	1.0	ug/m3			08/22/19 05:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 05:31	1
Trichloroethene	**340**		1.1	0.16	ug/m3			08/22/19 05:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 05:31	1
1,2,4-Trimethylbenzene	**0.93**	**J**	2.0	0.49	ug/m3			08/22/19 05:31	1

Client Sample ID: SV-170-A-27 **Lab Sample ID: 140-16377-8**
Date Collected: 08/15/19 11:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 05:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 05:31	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/22/19 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/22/19 05:31*	*1*

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Date Collected: 08/15/19 11:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 17:19	1
Carbon tetrachloride	**0.049**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/20/19 17:19	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 17:19	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/20/19 17:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 17:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 17:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 17:19	1
Ethylbenzene	**0.21**	**J**	0.40	0.065	ppb v/v			08/20/19 17:19	1
Methylene Chloride	**13**		2.0	0.80	ppb v/v			08/20/19 17:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 17:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 17:19	1
Tetrachloroethene	**2.7**		0.40	0.035	ppb v/v			08/20/19 17:19	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/20/19 17:19	1
trans-1,2-Dichloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 17:19	1
1,1,1-Trichloroethane	**0.23**	**J**	0.40	0.19	ppb v/v			08/20/19 17:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 17:19	1
Trichloroethene	**27**		0.20	0.030	ppb v/v			08/20/19 17:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 17:19	1
1,2,4-Trimethylbenzene	**0.24**	**J**	0.40	0.10	ppb v/v			08/20/19 17:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 17:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 17:19	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/20/19 17:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/20/19 17:19	1
Carbon tetrachloride	**0.31**	**J**	2.5	0.22	ug/m3			08/20/19 17:19	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/20/19 17:19	1
Chloroform	**0.50**	**J**	2.0	0.17	ug/m3			08/20/19 17:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 17:19	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 17:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 17:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 17:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 17:19	1
Ethylbenzene	**0.92**	**J**	1.7	0.28	ug/m3			08/20/19 17:19	1
Methylene Chloride	**45**		6.9	2.8	ug/m3			08/20/19 17:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 17:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 17:19	1
Tetrachloroethene	**18**		2.7	0.24	ug/m3			08/20/19 17:19	1
Toluene	**5.9**		2.3	1.5	ug/m3			08/20/19 17:19	1
trans-1,2-Dichloroethene	**0.51**	**J**	1.6	0.14	ug/m3			08/20/19 17:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 17:19	1
1,1,1-Trichloroethane	**1.3**	**J**	2.2	1.0	ug/m3			08/20/19 17:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 17:19	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/20/19 17:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 17:19	1
1,2,4-Trimethylbenzene	**1.2**	**J**	2.0	0.49	ug/m3			08/20/19 17:19	1

Client Sample ID: SV-079-A-27 **Lab Sample ID: 140-16377-9**
Date Collected: 08/15/19 11:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 17:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 17:19	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/20/19 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 17:19*	*1*

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/20/19 18:08	1
Carbon tetrachloride	**0.048**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/20/19 18:08	1
Chloroform	**0.091**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 18:08	1
Dichlorodifluoromethane	**0.46**		0.40	0.070	ppb v/v			08/20/19 18:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:08	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 18:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 18:08	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/20/19 18:08	1
Methylene Chloride	**8.2**		2.0	0.80	ppb v/v			08/20/19 18:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 18:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 18:08	1
Tetrachloroethene	**2.7**		0.40	0.035	ppb v/v			08/20/19 18:08	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/20/19 18:08	1
trans-1,2-Dichloroethene	**0.14**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 18:08	1
1,1,1-Trichloroethane	**0.26**	**J**	0.40	0.19	ppb v/v			08/20/19 18:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:08	1
Trichloroethene	**27**		0.20	0.030	ppb v/v			08/20/19 18:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 18:08	1
1,2,4-Trimethylbenzene	**0.22**	**J**	0.40	0.10	ppb v/v			08/20/19 18:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 18:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 18:08	1
Xylenes, Total	**1.2**		0.80	0.12	ppb v/v			08/20/19 18:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			08/20/19 18:08	1
Carbon tetrachloride	**0.30**	**J**	2.5	0.22	ug/m3			08/20/19 18:08	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/20/19 18:08	1
Chloroform	**0.45**	**J**	2.0	0.17	ug/m3			08/20/19 18:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 18:08	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/20/19 18:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 18:08	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 18:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 18:08	1
Ethylbenzene	**0.77**	**J**	1.7	0.28	ug/m3			08/20/19 18:08	1
Methylene Chloride	**29**		6.9	2.8	ug/m3			08/20/19 18:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 18:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 18:08	1
Tetrachloroethene	**19**		2.7	0.24	ug/m3			08/20/19 18:08	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/20/19 18:08	1
trans-1,2-Dichloroethene	**0.56**	**J**	1.6	0.14	ug/m3			08/20/19 18:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 18:08	1
1,1,1-Trichloroethane	**1.4**	**J**	2.2	1.0	ug/m3			08/20/19 18:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 18:08	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/20/19 18:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 18:08	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/20/19 18:08	1

Client Sample ID: SV-DUP04-A-27 — Lab Sample ID: 140-16377-10

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 18:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 18:08	1
Xylenes, Total	**5.0**		3.5	0.52	ug/m3			08/20/19 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 18:08*	*1*

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Date Collected: 08/15/19 11:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.042**	**J**	0.40	0.040	ppb v/v			08/20/19 18:57	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/20/19 18:57	1
Chlorodifluoromethane	**0.35**	**J**	0.40	0.11	ppb v/v			08/20/19 18:57	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 18:57	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/20/19 18:57	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 18:57	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 18:57	1
Ethylbenzene	**1.0**		0.40	0.065	ppb v/v			08/20/19 18:57	1
Methylene Chloride	**9.2**		2.0	0.80	ppb v/v			08/20/19 18:57	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 18:57	1
Naphthalene	**0.58**		0.20	0.38	ppb v/v			08/20/19 18:57	1
Tetrachloroethene	**0.84**		0.40	0.035	ppb v/v			08/20/19 18:57	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 18:57	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 18:57	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 18:57	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
Trichloroethene	**0.30**		0.20	0.030	ppb v/v			08/20/19 18:57	1
1,2,3-Trimethylbenzene	**1.1**		0.40	0.18	ppb v/v			08/20/19 18:57	1
1,2,4-Trimethylbenzene	**0.48**		0.40	0.10	ppb v/v			08/20/19 18:57	1
1,3,5-Trimethylbenzene	**1.3**		0.40	0.11	ppb v/v			08/20/19 18:57	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 18:57	1
Xylenes, Total	**8.6**		0.80	0.12	ppb v/v			08/20/19 18:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	1.3	0.13	ug/m3			08/20/19 18:57	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/20/19 18:57	1
Chlorodifluoromethane	**1.2**	**J**	1.4	0.39	ug/m3			08/20/19 18:57	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 18:57	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 18:57	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 18:57	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 18:57	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 18:57	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 18:57	1
Ethylbenzene	**4.4**		1.7	0.28	ug/m3			08/20/19 18:57	1
Methylene Chloride	**32**		6.9	2.8	ug/m3			08/20/19 18:57	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 18:57	1
Naphthalene	**3.0**		1.0	2.0	ug/m3			08/20/19 18:57	1
Tetrachloroethene	**5.7**		2.7	0.24	ug/m3			08/20/19 18:57	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 18:57	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 18:57	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 18:57	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 18:57	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 18:57	1
Trichloroethene	**1.6**		1.1	0.16	ug/m3			08/20/19 18:57	1
1,2,3-Trimethylbenzene	**5.6**		2.0	0.88	ug/m3			08/20/19 18:57	1
1,2,4-Trimethylbenzene	**2.4**		2.0	0.49	ug/m3			08/20/19 18:57	1

Client Sample ID: SV-139-A-27 **Lab Sample ID: 140-16377-11**
Date Collected: 08/15/19 11:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**6.6**		2.0	0.54	ug/m3			08/20/19 18:57	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 18:57	1
Xylenes, Total	**37**		3.5	0.52	ug/m3			08/20/19 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 18:57*	*1*

Client Sample ID: SV-118-A-27 — Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.10**	**J**	0.40	0.040	ppb v/v			08/20/19 19:46	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			08/20/19 19:46	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/20/19 19:46	1
Chloroform	**0.47**		0.40	0.035	ppb v/v			08/20/19 19:46	1
cis-1,2-Dichloroethene	**11**		0.40	0.050	ppb v/v			08/20/19 19:46	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			08/20/19 19:46	1
1,1-Dichloroethane	**2.7**		0.40	0.035	ppb v/v			08/20/19 19:46	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 19:46	1
1,1-Dichloroethene	**22**		0.40	0.040	ppb v/v			08/20/19 19:46	1
Ethylbenzene	**1.5**		0.40	0.065	ppb v/v			08/20/19 19:46	1
Methylene Chloride	**10**		2.0	0.80	ppb v/v			08/20/19 19:46	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 19:46	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 19:46	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 19:46	1
Toluene	**0.89**		0.60	0.39	ppb v/v			08/20/19 19:46	1
trans-1,2-Dichloroethene	**1.0**		0.40	0.035	ppb v/v			08/20/19 19:46	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 19:46	1
1,1,1-Trichloroethane	**0.66**		0.40	0.19	ppb v/v			08/20/19 19:46	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 19:46	1
Trichloroethene	**130**	**E**	0.20	0.030	ppb v/v			08/20/19 19:46	1
1,2,3-Trimethylbenzene	**0.51**		0.40	0.18	ppb v/v			08/20/19 19:46	1
1,2,4-Trimethylbenzene	**1.2**		0.40	0.10	ppb v/v			08/20/19 19:46	1
1,3,5-Trimethylbenzene	**0.79**		0.40	0.11	ppb v/v			08/20/19 19:46	1
Vinyl chloride	**0.22**		0.20	0.13	ppb v/v			08/20/19 19:46	1
Xylenes, Total	**13**		0.80	0.12	ppb v/v			08/20/19 19:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.32**	**J**	1.3	0.13	ug/m3			08/20/19 19:46	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			08/20/19 19:46	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/20/19 19:46	1
Chloroform	**2.3**		2.0	0.17	ug/m3			08/20/19 19:46	1
cis-1,2-Dichloroethene	**45**		1.6	0.20	ug/m3			08/20/19 19:46	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 19:46	1
1,1-Dichloroethane	**11**		1.6	0.14	ug/m3			08/20/19 19:46	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 19:46	1
1,1-Dichloroethene	**86**		1.6	0.16	ug/m3			08/20/19 19:46	1
Ethylbenzene	**6.4**		1.7	0.28	ug/m3			08/20/19 19:46	1
Methylene Chloride	**36**		6.9	2.8	ug/m3			08/20/19 19:46	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 19:46	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 19:46	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 19:46	1
Toluene	**3.3**		2.3	1.5	ug/m3			08/20/19 19:46	1
trans-1,2-Dichloroethene	**4.0**		1.6	0.14	ug/m3			08/20/19 19:46	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 19:46	1
1,1,1-Trichloroethane	**3.6**		2.2	1.0	ug/m3			08/20/19 19:46	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 19:46	1
Trichloroethene	**720**	**E**	1.1	0.16	ug/m3			08/20/19 19:46	1
1,2,3-Trimethylbenzene	**2.5**		2.0	0.88	ug/m3			08/20/19 19:46	1
1,2,4-Trimethylbenzene	**5.7**		2.0	0.49	ug/m3			08/20/19 19:46	1

Client Sample ID: SV-118-A-27 — Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	3.9		2.0	0.54	ug/m3			08/20/19 19:46	1
Vinyl chloride	0.57		0.51	0.33	ug/m3			08/20/19 19:46	1
Xylenes, Total	58		3.5	0.52	ug/m3			08/20/19 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 19:46*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	78		0.67	0.10	ppb v/v			08/21/19 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	420		3.6	0.54	ug/m3			08/21/19 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 22:07*	*1*

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Date Collected: 08/15/19 16:12 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.92**		0.40	0.040	ppb v/v			08/20/19 21:24	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/20/19 21:24	1
Chloroform	**0.070**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
cis-1,2-Dichloroethene	**0.60**		0.40	0.050	ppb v/v			08/20/19 21:24	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			08/20/19 21:24	1
1,1-Dichloroethane	**0.65**		0.40	0.035	ppb v/v			08/20/19 21:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 21:24	1
1,1-Dichloroethene	**3.5**		0.40	0.040	ppb v/v			08/20/19 21:24	1
Ethylbenzene	**7.0**		0.40	0.065	ppb v/v			08/20/19 21:24	1
Methylene Chloride	**39**		2.0	0.80	ppb v/v			08/20/19 21:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 21:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 21:24	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 21:24	1
Toluene	**3.4**		0.60	0.39	ppb v/v			08/20/19 21:24	1
trans-1,2-Dichloroethene	**0.070**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 21:24	1
1,1,1-Trichloroethane	**0.21**	**J**	0.40	0.19	ppb v/v			08/20/19 21:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 21:24	1
Trichloroethene	**1.9**		0.20	0.030	ppb v/v			08/20/19 21:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 21:24	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 21:24	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 21:24	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 21:24	1
Xylenes, Total	**15**		0.80	0.12	ppb v/v			08/20/19 21:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.9**		1.3	0.13	ug/m3			08/20/19 21:24	1
Carbon tetrachloride	**0.38**	**J**	2.5	0.22	ug/m3			08/20/19 21:24	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/20/19 21:24	1
Chloroform	**0.34**	**J**	2.0	0.17	ug/m3			08/20/19 21:24	1
cis-1,2-Dichloroethene	**2.4**		1.6	0.20	ug/m3			08/20/19 21:24	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 21:24	1
1,1-Dichloroethane	**2.6**		1.6	0.14	ug/m3			08/20/19 21:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 21:24	1
1,1-Dichloroethene	**14**		1.6	0.16	ug/m3			08/20/19 21:24	1
Ethylbenzene	**30**		1.7	0.28	ug/m3			08/20/19 21:24	1
Methylene Chloride	**140**		6.9	2.8	ug/m3			08/20/19 21:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 21:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 21:24	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 21:24	1
Toluene	**13**		2.3	1.5	ug/m3			08/20/19 21:24	1
trans-1,2-Dichloroethene	**0.28**	**J**	1.6	0.14	ug/m3			08/20/19 21:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 21:24	1
1,1,1-Trichloroethane	**1.2**	**J**	2.2	1.0	ug/m3			08/20/19 21:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 21:24	1
Trichloroethene	**10**		1.1	0.16	ug/m3			08/20/19 21:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 21:24	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 21:24	1

Client Sample ID: SV-015-A-27 **Lab Sample ID: 140-16377-13**
Date Collected: 08/15/19 16:12 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 21:24	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 21:24	1
Xylenes, Total	**64**		3.5	0.52	ug/m3			08/20/19 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 21:24*	*1*

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Date Collected: 08/15/19 11:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 22:14	1
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
Chlorodifluoromethane	**0.40**		0.40	0.11	ppb v/v			08/20/19 22:14	1
Chloroform	**0.12**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 22:14	1
Dichlorodifluoromethane	**1.2**		0.40	0.070	ppb v/v			08/20/19 22:14	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 22:14	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 22:14	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/20/19 22:14	1
Methylene Chloride	**11**		2.0	0.80	ppb v/v			08/20/19 22:14	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 22:14	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 22:14	1
Tetrachloroethene	**0.31**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
Toluene	**6.8**		0.60	0.39	ppb v/v			08/20/19 22:14	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 22:14	1
1,1,1-Trichloroethane	**0.52**		0.40	0.19	ppb v/v			08/20/19 22:14	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
Trichloroethene	**5.9**		0.20	0.030	ppb v/v			08/20/19 22:14	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 22:14	1
1,2,4-Trimethylbenzene	**0.29**	**J**	0.40	0.10	ppb v/v			08/20/19 22:14	1
1,3,5-Trimethylbenzene	**0.12**	**J**	0.40	0.11	ppb v/v			08/20/19 22:14	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 22:14	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/20/19 22:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 22:14	1
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/20/19 22:14	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/20/19 22:14	1
Chloroform	**0.57**	**J**	2.0	0.17	ug/m3			08/20/19 22:14	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 22:14	1
Dichlorodifluoromethane	**6.1**		2.0	0.35	ug/m3			08/20/19 22:14	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 22:14	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 22:14	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 22:14	1
Ethylbenzene	**0.77**	**J**	1.7	0.28	ug/m3			08/20/19 22:14	1
Methylene Chloride	**39**		6.9	2.8	ug/m3			08/20/19 22:14	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 22:14	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 22:14	1
Tetrachloroethene	**2.1**	**J**	2.7	0.24	ug/m3			08/20/19 22:14	1
Toluene	**26**		2.3	1.5	ug/m3			08/20/19 22:14	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 22:14	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 22:14	1
1,1,1-Trichloroethane	**2.8**		2.2	1.0	ug/m3			08/20/19 22:14	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 22:14	1
Trichloroethene	**32**		1.1	0.16	ug/m3			08/20/19 22:14	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 22:14	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/20/19 22:14	1

Client Sample ID: SV-078-A-27 **Lab Sample ID: 140-16377-14**
Date Collected: 08/15/19 11:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.58**	**J**	2.0	0.54	ug/m3			08/20/19 22:14	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 22:14	1
Xylenes, Total	**5.4**		3.5	0.52	ug/m3			08/20/19 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/20/19 22:14*	*1*

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.2**		0.40	0.040	ppb v/v			08/20/19 23:52	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 23:52	1
Chlorodifluoromethane	**0.51**		0.40	0.11	ppb v/v			08/20/19 23:52	1
Chloroform	**2.7**		0.40	0.035	ppb v/v			08/20/19 23:52	1
cis-1,2-Dichloroethene	**0.71**		0.40	0.050	ppb v/v			08/20/19 23:52	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/20/19 23:52	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 23:52	1
1,1-Dichloroethene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 23:52	1
Ethylbenzene	**0.22**	**J**	0.40	0.065	ppb v/v			08/20/19 23:52	1
Methylene Chloride	**8.8**		2.0	0.80	ppb v/v			08/20/19 23:52	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 23:52	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 23:52	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
Toluene	**6.6**		0.60	0.39	ppb v/v			08/20/19 23:52	1
trans-1,2-Dichloroethene	**0.10**	**J**	0.40	0.035	ppb v/v			08/20/19 23:52	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 23:52	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 23:52	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
Trichloroethene	**110**	**E**	0.20	0.030	ppb v/v			08/20/19 23:52	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 23:52	1
1,2,4-Trimethylbenzene	**0.14**	**J**	0.40	0.10	ppb v/v			08/20/19 23:52	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 23:52	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 23:52	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/20/19 23:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.0**		1.3	0.13	ug/m3			08/20/19 23:52	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 23:52	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 23:52	1
Chloroform	**13**		2.0	0.17	ug/m3			08/20/19 23:52	1
cis-1,2-Dichloroethene	**2.8**		1.6	0.20	ug/m3			08/20/19 23:52	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 23:52	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 23:52	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 23:52	1
1,1-Dichloroethene	**0.52**	**J**	1.6	0.16	ug/m3			08/20/19 23:52	1
Ethylbenzene	**0.95**	**J**	1.7	0.28	ug/m3			08/20/19 23:52	1
Methylene Chloride	**31**		6.9	2.8	ug/m3			08/20/19 23:52	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 23:52	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 23:52	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 23:52	1
Toluene	**25**		2.3	1.5	ug/m3			08/20/19 23:52	1
trans-1,2-Dichloroethene	**0.41**	**J**	1.6	0.14	ug/m3			08/20/19 23:52	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 23:52	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 23:52	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 23:52	1
Trichloroethene	**610**	**E**	1.1	0.16	ug/m3			08/20/19 23:52	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 23:52	1
1,2,4-Trimethylbenzene	**0.69**	**J**	2.0	0.49	ug/m3			08/20/19 23:52	1

Client Sample ID: SV-136-A-27 — Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 23:52	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 23:52	1
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/20/19 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 23:52*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**92**		0.67	0.10	ppb v/v			08/21/19 22:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		3.6	0.54	ug/m3			08/21/19 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 22:56*	*1*

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Date Collected: 08/15/19 11:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/21/19 00:41	1
Carbon tetrachloride	**0.052**	**J**	0.40	0.035	ppb v/v			08/21/19 00:41	1
Chlorodifluoromethane	**0.36**	**J**	0.40	0.11	ppb v/v			08/21/19 00:41	1
Chloroform	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 00:41	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/21/19 00:41	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:41	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 00:41	1
Ethylbenzene	**0.26**	**J**	0.40	0.065	ppb v/v			08/21/19 00:41	1
Methylene Chloride	**29**		2.0	0.80	ppb v/v			08/21/19 00:41	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:41	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:41	1
Tetrachloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/21/19 00:41	1
Toluene	**23**		0.60	0.39	ppb v/v			08/21/19 00:41	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:41	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 00:41	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
Trichloroethene	**0.15**	**J**	0.20	0.030	ppb v/v			08/21/19 00:41	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:41	1
1,2,4-Trimethylbenzene	**0.16**	**J**	0.40	0.10	ppb v/v			08/21/19 00:41	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 00:41	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 00:41	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/21/19 00:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			08/21/19 00:41	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/21/19 00:41	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/21/19 00:41	1
Chloroform	ND		2.0	0.17	ug/m3			08/21/19 00:41	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 00:41	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/21/19 00:41	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 00:41	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:41	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 00:41	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/21/19 00:41	1
Methylene Chloride	**100**		6.9	2.8	ug/m3			08/21/19 00:41	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:41	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:41	1
Tetrachloroethene	**0.91**	**J**	2.7	0.24	ug/m3			08/21/19 00:41	1
Toluene	**87**		2.3	1.5	ug/m3			08/21/19 00:41	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 00:41	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:41	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 00:41	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:41	1
Trichloroethene	**0.82**	**J**	1.1	0.16	ug/m3			08/21/19 00:41	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:41	1
1,2,4-Trimethylbenzene	**0.78**	**J**	2.0	0.49	ug/m3			08/21/19 00:41	1

Client Sample ID: SV-076-A-27 **Lab Sample ID: 140-16377-16**
Date Collected: 08/15/19 11:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 00:41	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 00:41	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/21/19 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/21/19 00:41*	*1*

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Date Collected: 08/15/19 11:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.25**	**J**	0.40	0.040	ppb v/v			08/21/19 02:20	1
Carbon tetrachloride	**0.085**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
Chlorodifluoromethane	**0.32**	**J**	0.40	0.11	ppb v/v			08/21/19 02:20	1
Chloroform	**0.48**		0.40	0.035	ppb v/v			08/21/19 02:20	1
cis-1,2-Dichloroethene	**0.19**	**J**	0.40	0.050	ppb v/v			08/21/19 02:20	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/21/19 02:20	1
1,1-Dichloroethane	**0.30**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 02:20	1
1,1-Dichloroethene	**20**		0.40	0.040	ppb v/v			08/21/19 02:20	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/21/19 02:20	1
Methylene Chloride	**7.5**		2.0	0.80	ppb v/v			08/21/19 02:20	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 02:20	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 02:20	1
Tetrachloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
Toluene	**1.2**		0.60	0.39	ppb v/v			08/21/19 02:20	1
trans-1,2-Dichloroethene	**0.052**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 02:20	1
1,1,1-Trichloroethane	**2.4**		0.40	0.19	ppb v/v			08/21/19 02:20	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 02:20	1
Trichloroethene	**51**		0.20	0.030	ppb v/v			08/21/19 02:20	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 02:20	1
1,2,4-Trimethylbenzene	**0.22**	**J**	0.40	0.10	ppb v/v			08/21/19 02:20	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 02:20	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 02:20	1
Xylenes, Total	**0.72**	**J**	0.80	0.12	ppb v/v			08/21/19 02:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.81**	**J**	1.3	0.13	ug/m3			08/21/19 02:20	1
Carbon tetrachloride	**0.53**	**J**	2.5	0.22	ug/m3			08/21/19 02:20	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/21/19 02:20	1
Chloroform	**2.3**		2.0	0.17	ug/m3			08/21/19 02:20	1
cis-1,2-Dichloroethene	**0.76**	**J**	1.6	0.20	ug/m3			08/21/19 02:20	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/21/19 02:20	1
1,1-Dichloroethane	**1.2**	**J**	1.6	0.14	ug/m3			08/21/19 02:20	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 02:20	1
1,1-Dichloroethene	**79**		1.6	0.16	ug/m3			08/21/19 02:20	1
Ethylbenzene	**0.55**	**J**	1.7	0.28	ug/m3			08/21/19 02:20	1
Methylene Chloride	**26**		6.9	2.8	ug/m3			08/21/19 02:20	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 02:20	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 02:20	1
Tetrachloroethene	**0.88**	**J**	2.7	0.24	ug/m3			08/21/19 02:20	1
Toluene	**4.5**		2.3	1.5	ug/m3			08/21/19 02:20	1
trans-1,2-Dichloroethene	**0.20**	**J**	1.6	0.14	ug/m3			08/21/19 02:20	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 02:20	1
1,1,1-Trichloroethane	**13**		2.2	1.0	ug/m3			08/21/19 02:20	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 02:20	1
Trichloroethene	**270**		1.1	0.16	ug/m3			08/21/19 02:20	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 02:20	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/21/19 02:20	1

Client Sample ID: SV-168-A-27 **Lab Sample ID: 140-16377-17**
Date Collected: 08/15/19 11:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 02:20	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 02:20	1
Xylenes, Total	**3.1**	**J**	3.5	0.52	ug/m3			08/21/19 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/21/19 02:20*	*1*

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Date Collected: 08/15/19 11:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40	0.040	ppb v/v			08/21/19 03:10	1
Carbon tetrachloride	**0.038**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
Chlorodifluoromethane	**3.1**		0.40	0.11	ppb v/v			08/21/19 03:10	1
Chloroform	**0.041**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 03:10	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/21/19 03:10	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 03:10	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 03:10	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/21/19 03:10	1
Methylene Chloride	**7.0**		2.0	0.80	ppb v/v			08/21/19 03:10	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 03:10	1
Naphthalene	**10**		0.20	0.38	ppb v/v			08/21/19 03:10	1
Tetrachloroethene	**0.073**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
Toluene	**2.1**		0.60	0.39	ppb v/v			08/21/19 03:10	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 03:10	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 03:10	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
Trichloroethene	**0.56**		0.20	0.030	ppb v/v			08/21/19 03:10	1
1,2,3-Trimethylbenzene	**1.5**		0.40	0.18	ppb v/v			08/21/19 03:10	1
1,2,4-Trimethylbenzene	**3.5**		0.40	0.10	ppb v/v			08/21/19 03:10	1
1,3,5-Trimethylbenzene	**1.8**		0.40	0.11	ppb v/v			08/21/19 03:10	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 03:10	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/21/19 03:10	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ug/m3			08/21/19 03:10	1
Carbon tetrachloride	**0.24**	**J**	2.5	0.22	ug/m3			08/21/19 03:10	1
Chlorodifluoromethane	**11**		1.4	0.39	ug/m3			08/21/19 03:10	1
Chloroform	**0.20**	**J**	2.0	0.17	ug/m3			08/21/19 03:10	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 03:10	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/21/19 03:10	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 03:10	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 03:10	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 03:10	1
Ethylbenzene	**0.79**	**J**	1.7	0.28	ug/m3			08/21/19 03:10	1
Methylene Chloride	**24**		6.9	2.8	ug/m3			08/21/19 03:10	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 03:10	1
Naphthalene	**53**		1.0	2.0	ug/m3			08/21/19 03:10	1
Tetrachloroethene	**0.49**	**J**	2.7	0.24	ug/m3			08/21/19 03:10	1
Toluene	**7.9**		2.3	1.5	ug/m3			08/21/19 03:10	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 03:10	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 03:10	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 03:10	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 03:10	1
Trichloroethene	**3.0**		1.1	0.16	ug/m3			08/21/19 03:10	1
1,2,3-Trimethylbenzene	**7.3**		2.0	0.88	ug/m3			08/21/19 03:10	1
1,2,4-Trimethylbenzene	**17**		2.0	0.49	ug/m3			08/21/19 03:10	1

Client Sample ID: SV-075-A-27 **Lab Sample ID: 140-16377-18**
Date Collected: 08/15/19 11:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**8.9**		2.0	0.54	ug/m3			08/21/19 03:10	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 03:10	1
Xylenes, Total	**5.5**		3.5	0.52	ug/m3			08/21/19 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 03:10*	*1*

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Date Collected: 08/15/19 11:47 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.093**	**J**	0.40	0.040	ppb v/v			08/21/19 04:00	1
Carbon tetrachloride	**4.9**		0.40	0.035	ppb v/v			08/21/19 04:00	1
Chlorodifluoromethane	**0.93**		0.40	0.11	ppb v/v			08/21/19 04:00	1
Chloroform	**1.3**		0.40	0.035	ppb v/v			08/21/19 04:00	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 04:00	1
Dichlorodifluoromethane	**0.85**		0.40	0.070	ppb v/v			08/21/19 04:00	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 04:00	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 04:00	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/21/19 04:00	1
Methylene Chloride	**8.9**		2.0	0.80	ppb v/v			08/21/19 04:00	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 04:00	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 04:00	1
Tetrachloroethene	**0.72**		0.40	0.035	ppb v/v			08/21/19 04:00	1
Toluene	**0.62**		0.60	0.39	ppb v/v			08/21/19 04:00	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 04:00	1
1,1,1-Trichloroethane	**0.45**		0.40	0.19	ppb v/v			08/21/19 04:00	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
Trichloroethene	**6.4**		0.20	0.030	ppb v/v			08/21/19 04:00	1
1,2,3-Trimethylbenzene	**0.21**	**J**	0.40	0.18	ppb v/v			08/21/19 04:00	1
1,2,4-Trimethylbenzene	**0.20**	**J**	0.40	0.10	ppb v/v			08/21/19 04:00	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 04:00	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 04:00	1
Xylenes, Total	**0.32**	**J**	0.80	0.12	ppb v/v			08/21/19 04:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	1.3	0.13	ug/m3			08/21/19 04:00	1
Carbon tetrachloride	**31**		2.5	0.22	ug/m3			08/21/19 04:00	1
Chlorodifluoromethane	**3.3**		1.4	0.39	ug/m3			08/21/19 04:00	1
Chloroform	**6.4**		2.0	0.17	ug/m3			08/21/19 04:00	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 04:00	1
Dichlorodifluoromethane	**4.2**		2.0	0.35	ug/m3			08/21/19 04:00	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 04:00	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 04:00	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 04:00	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/21/19 04:00	1
Methylene Chloride	**31**		6.9	2.8	ug/m3			08/21/19 04:00	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 04:00	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 04:00	1
Tetrachloroethene	**4.9**		2.7	0.24	ug/m3			08/21/19 04:00	1
Toluene	**2.4**		2.3	1.5	ug/m3			08/21/19 04:00	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 04:00	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 04:00	1
1,1,1-Trichloroethane	**2.4**		2.2	1.0	ug/m3			08/21/19 04:00	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 04:00	1
Trichloroethene	**34**		1.1	0.16	ug/m3			08/21/19 04:00	1
1,2,3-Trimethylbenzene	**1.0**	**J**	2.0	0.88	ug/m3			08/21/19 04:00	1
1,2,4-Trimethylbenzene	**1.0**	**J**	2.0	0.49	ug/m3			08/21/19 04:00	1

Client Sample ID: SV-100-B-27 **Lab Sample ID: 140-16377-19**
Date Collected: 08/15/19 11:47 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 04:00	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 04:00	1
Xylenes, Total	**1.4**	**J**	3.5	0.52	ug/m3			08/21/19 04:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 04:00*	*1*

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Date Collected: 08/15/19 11:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 16:29	1
Carbon tetrachloride	**0.68**		0.40	0.035	ppb v/v			08/20/19 16:29	1
Chlorodifluoromethane	**1.7**	**CI**	0.40	0.11	ppb v/v			08/20/19 16:29	1
Chloroform	**0.16**	**J**	0.40	0.035	ppb v/v			08/20/19 16:29	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 16:29	1
Dichlorodifluoromethane	**0.67**		0.40	0.070	ppb v/v			08/20/19 16:29	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 16:29	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 16:29	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/20/19 16:29	1
Methylene Chloride	**3.8**		2.0	0.80	ppb v/v			08/20/19 16:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 16:29	1
Naphthalene	**1.7**		0.20	0.38	ppb v/v			08/20/19 16:29	1
Tetrachloroethene	**12**		0.40	0.035	ppb v/v			08/20/19 16:29	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/20/19 16:29	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 16:29	1
1,1,1-Trichloroethane	**47**		0.40	0.19	ppb v/v			08/20/19 16:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
Trichloroethene	**35**		0.20	0.030	ppb v/v			08/20/19 16:29	1
1,2,3-Trimethylbenzene	**1.3**		0.40	0.18	ppb v/v			08/20/19 16:29	1
1,2,4-Trimethylbenzene	**2.7**		0.40	0.10	ppb v/v			08/20/19 16:29	1
1,3,5-Trimethylbenzene	**1.5**		0.40	0.11	ppb v/v			08/20/19 16:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 16:29	1
Xylenes, Total	**0.89**		0.80	0.12	ppb v/v			08/20/19 16:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/20/19 16:29	1
Carbon tetrachloride	**4.3**		2.5	0.22	ug/m3			08/20/19 16:29	1
Chlorodifluoromethane	**6.1**	**CI**	1.4	0.39	ug/m3			08/20/19 16:29	1
Chloroform	**0.78**	**J**	2.0	0.17	ug/m3			08/20/19 16:29	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 16:29	1
Dichlorodifluoromethane	**3.3**		2.0	0.35	ug/m3			08/20/19 16:29	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 16:29	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 16:29	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 16:29	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			08/20/19 16:29	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/20/19 16:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 16:29	1
Naphthalene	**9.1**		1.0	2.0	ug/m3			08/20/19 16:29	1
Tetrachloroethene	**85**		2.7	0.24	ug/m3			08/20/19 16:29	1
Toluene	**6.2**		2.3	1.5	ug/m3			08/20/19 16:29	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 16:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 16:29	1
1,1,1-Trichloroethane	**250**		2.2	1.0	ug/m3			08/20/19 16:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 16:29	1
Trichloroethene	**190**		1.1	0.16	ug/m3			08/20/19 16:29	1
1,2,3-Trimethylbenzene	**6.4**		2.0	0.88	ug/m3			08/20/19 16:29	1
1,2,4-Trimethylbenzene	**13**		2.0	0.49	ug/m3			08/20/19 16:29	1

Client Sample ID: SV-101-B-27 **Lab Sample ID: 140-16377-20**
Date Collected: 08/15/19 11:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**7.2**		2.0	0.54	ug/m3			08/20/19 16:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 16:29	1
Xylenes, Total	**3.9**		3.5	0.52	ug/m3			08/20/19 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 16:29*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (60-140)							
140-16377-1	SV-116-A-27	89							
140-16377-2	SV-DUP03-A-27	89							
140-16377-3	SV-173-A-27	88							
140-16377-3 - DL	SV-173-A-27	87							
140-16377-4	SV-138-A-27	90							
140-16377-5	SV-171-A-27	89							
140-16377-6	SV-174-A-27	89							
140-16377-6 - DL	SV-174-A-27	93							
140-16377-7	SV-093-A-27	90							
140-16377-8	SV-170-A-27	86							
140-16377-9	SV-079-A-27	88							
140-16377-10	SV-DUP04-A-27	87							
140-16377-11	SV-139-A-27	89							
140-16377-12	SV-118-A-27	93							
140-16377-12 - DL	SV-118-A-27	89							
140-16377-13	SV-015-A-27	87							
140-16377-14	SV-078-A-27	85							
140-16377-15	SV-136-A-27	91							
140-16377-15 - DL	SV-136-A-27	89							
140-16377-16	SV-076-A-27	86							
140-16377-17	SV-168-A-27	90							
140-16377-18	SV-075-A-27	91							
140-16377-19	SV-100-B-27	89							
140-16377-20	SV-101-B-27	87							
LCS 140-32828/1002	Lab Control Sample	93							
LCS 140-32829/1002	Lab Control Sample	91							
LCS 140-32868/1002	Lab Control Sample	94							
LCS 140-32985/1002	Lab Control Sample	91							
MB 140-32828/4	Method Blank	88							
MB 140-32829/4	Method Blank	82							
MB 140-32868/4	Method Blank	87							
MB 140-32985/4	Method Blank	85							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 10:41	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/20/19 10:41	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 10:41	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 10:41	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 10:41	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 10:41	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 10:41	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 10:41	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 10:41	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 10:41	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/20/19 10:41	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 10:41	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 10:41	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 10:41	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 10:41	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 10:41	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 10:41	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 10:41	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 10:41*	*1*

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.79		ppb v/v		90	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.02		ppb v/v		101	60 - 140
Chloroform	2.00	1.62		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.88		ppb v/v		94	70 - 130
Dichlorodifluoromethane	2.00	2.05		ppb v/v		102	60 - 140
1,1-Dichloroethane	2.00	1.64		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.41		ppb v/v		70	70 - 130
1,1-Dichloroethene	2.00	2.02		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.66		ppb v/v		83	70 - 130
Methylene Chloride	2.00	1.59		ppb v/v		79	70 - 130
Methyl tert-butyl ether	2.00	1.52		ppb v/v		76	60 - 140
Naphthalene	2.00	1.66		ppb v/v		83	60 - 140
Tetrachloroethene	2.00	1.69		ppb v/v		84	70 - 130
Toluene	2.00	1.79		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trichlorobenzene	2.00	1.77		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	2.00	1.47		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.80		ppb v/v		90	70 - 130
Trichloroethene	2.00	1.88		ppb v/v		94	70 - 130
1,2,3-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,2,4-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,3,5-Trimethylbenzene	2.00	1.74		ppb v/v		87	70 - 130
Vinyl chloride	2.00	2.36		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.93		ppb v/v		82	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.73		ug/m3		90	70 - 130
Carbon tetrachloride	13	11.0		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.15		ug/m3		101	60 - 140
Chloroform	9.8	7.90		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.46		ug/m3		94	70 - 130
Dichlorodifluoromethane	9.9	10.1		ug/m3		102	60 - 140
1,1-Dichloroethane	8.1	6.65		ug/m3		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	5.69		ug/m3		70	70 - 130
1,1-Dichloroethene	7.9	8.02		ug/m3		101	70 - 130
Ethylbenzene	8.7	7.22		ug/m3		83	70 - 130
Methylene Chloride	6.9	5.51		ug/m3		79	70 - 130
Methyl tert-butyl ether	7.2	5.49		ug/m3		76	60 - 140
Naphthalene	10	8.70		ug/m3		83	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.75		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	7.9	7.93		ug/m3		100	70 - 130
1,2,4-Trichlorobenzene	15	13.2		ug/m3		89	60 - 140
1,1,1-Trichloroethane	11	8.04		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.85		ug/m3		90	70 - 130
Trichloroethene	11	10.1		ug/m3		94	70 - 130
1,2,3-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,2,4-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,3,5-Trimethylbenzene	9.8	8.58		ug/m3		87	70 - 130
Vinyl chloride	5.1	6.04		ug/m3		118	70 - 130
Xylenes, Total	26	21.4		ug/m3		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.91		ppb v/v		96	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		92	70 - 130
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.11		ug/m3		96	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		92	70 - 130
Chlorodifluoromethane	7.1	6.98		ug/m3		99	60 - 140
Chloroform	9.8	8.72		ug/m3		89	70 - 130
cis-1,2-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.90		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	7.45		ug/m3		92	70 - 130
1,2-Dichloroethane	8.1	5.88		ug/m3		73	70 - 130
1,1-Dichloroethene	7.9	8.38		ug/m3		106	70 - 130
Ethylbenzene	8.7	7.36		ug/m3		85	70 - 130
Methylene Chloride	6.9	6.15		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	5.97		ug/m3		83	60 - 140
Naphthalene	10	8.88		ug/m3		85	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.82		ug/m3		91	70 - 130
trans-1,2-Dichloroethene	7.9	8.50		ug/m3		107	70 - 130
1,2,4-Trichlorobenzene	15	12.5		ug/m3		84	60 - 140
1,1,1-Trichloroethane	11	8.88		ug/m3		81	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
1,2,3-Trimethylbenzene	9.8	8.49		ug/m3		86	70 - 130
1,2,4-Trimethylbenzene	9.8	8.31		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	8.93		ug/m3		91	70 - 130
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Xylenes, Total	26	22.1		ug/m3		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002
Matrix: Air
Analysis Batch: 32829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Lab Sample ID: MB 140-32868/4
Matrix: Air
Analysis Batch: 32868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 140-32985/4
Matrix: Air
Analysis Batch: 32985

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/27/19 10:12	1
Methylene Chloride	0.305	J	0.40	0.16	ppb v/v			08/27/19 10:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/27/19 10:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/27/19 10:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/27/19 10:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/27/19 10:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/27/19 10:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/27/19 10:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/27/19 10:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/27/19 10:12	1
Methylene Chloride	1.06	J	1.4	0.56	ug/m3			08/27/19 10:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/27/19 10:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/27/19 10:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/27/19 10:12	1
Toluene	ND		0.45	0.29	ug/m3			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/27/19 10:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/27/19 10:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/27/19 10:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/27/19 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/27/19 10:12*	*1*

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			2.00	2.07		ppb v/v		103	70 - 130		
Carbon tetrachloride			2.00	1.83		ppb v/v		91	70 - 130		

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	2.00	2.11		ppb v/v		106	60 - 140
Chloroform	2.00	1.87		ppb v/v		94	70 - 130
cis-1,2-Dichloroethene	2.00	2.17		ppb v/v		109	70 - 130
Dichlorodifluoromethane	2.00	2.11		ppb v/v		105	60 - 140
1,1-Dichloroethane	2.00	1.93		ppb v/v		97	70 - 130
1,2-Dichloroethane	2.00	1.52		ppb v/v		76	70 - 130
1,1-Dichloroethene	2.00	2.17		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
Methylene Chloride	2.00	1.81		ppb v/v		91	70 - 130
Methyl tert-butyl ether	2.00	1.91		ppb v/v		95	60 - 140
Naphthalene	2.00	2.27		ppb v/v		113	60 - 140
Tetrachloroethene	2.00	1.89		ppb v/v		95	70 - 130
Toluene	2.00	2.06		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.19		ppb v/v		110	70 - 130
1,2,4-Trichlorobenzene	2.00	2.20		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	2.00	1.68		ppb v/v		84	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		107	70 - 130
Trichloroethene	2.00	2.01		ppb v/v		101	70 - 130
1,2,3-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,3,5-Trimethylbenzene	2.00	2.09		ppb v/v		105	70 - 130
Vinyl chloride	2.00	2.56		ppb v/v		128	70 - 130
Xylenes, Total	6.00	5.81		ppb v/v		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.60		ug/m3		103	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		91	70 - 130
Chlorodifluoromethane	7.1	7.48		ug/m3		106	60 - 140
Chloroform	9.8	9.15		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	7.9	8.62		ug/m3		109	70 - 130
Dichlorodifluoromethane	9.9	10.4		ug/m3		105	60 - 140
1,1-Dichloroethane	8.1	7.83		ug/m3		97	70 - 130
1,2-Dichloroethane	8.1	6.14		ug/m3		76	70 - 130
1,1-Dichloroethene	7.9	8.60		ug/m3		108	70 - 130
Ethylbenzene	8.7	8.51		ug/m3		98	70 - 130
Methylene Chloride	6.9	6.30		ug/m3		91	70 - 130
Methyl tert-butyl ether	7.2	6.87		ug/m3		95	60 - 140
Naphthalene	10	11.9		ug/m3		113	60 - 140
Tetrachloroethene	14	12.8		ug/m3		95	70 - 130
Toluene	7.5	7.77		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.69		ug/m3		110	70 - 130
1,2,4-Trichlorobenzene	15	16.3		ug/m3		110	60 - 140
1,1,1-Trichloroethane	11	9.14		ug/m3		84	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		107	70 - 130
Trichloroethene	11	10.8		ug/m3		101	70 - 130
1,2,3-Trimethylbenzene	9.8	9.56		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	9.8	9.54		ug/m3		97	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trimethylbenzene			9.8	10.3		ug/m3		105	70 - 130		
Vinyl chloride			5.1	6.56		ug/m3		128	70 - 130		
Xylenes, Total			26	25.2		ug/m3		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-1	SV-116-A-27	Total/NA	Air	TO 15 LL	
140-16377-9	SV-079-A-27	Total/NA	Air	TO 15 LL	
140-16377-10	SV-DUP04-A-27	Total/NA	Air	TO 15 LL	
140-16377-11	SV-139-A-27	Total/NA	Air	TO 15 LL	
140-16377-12	SV-118-A-27	Total/NA	Air	TO 15 LL	
140-16377-13	SV-015-A-27	Total/NA	Air	TO 15 LL	
140-16377-14	SV-078-A-27	Total/NA	Air	TO 15 LL	
140-16377-15	SV-136-A-27	Total/NA	Air	TO 15 LL	
140-16377-16	SV-076-A-27	Total/NA	Air	TO 15 LL	
140-16377-17	SV-168-A-27	Total/NA	Air	TO 15 LL	
140-16377-18	SV-075-A-27	Total/NA	Air	TO 15 LL	
140-16377-19	SV-100-B-27	Total/NA	Air	TO 15 LL	
140-16377-20	SV-101-B-27	Total/NA	Air	TO 15 LL	
MB 140-32828/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32828/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-3	SV-173-A-27	Total/NA	Air	TO 15 LL	
140-16377-4	SV-138-A-27	Total/NA	Air	TO 15 LL	
140-16377-5	SV-171-A-27	Total/NA	Air	TO 15 LL	
140-16377-6	SV-174-A-27	Total/NA	Air	TO 15 LL	
140-16377-7	SV-093-A-27	Total/NA	Air	TO 15 LL	
140-16377-8	SV-170-A-27	Total/NA	Air	TO 15 LL	
140-16377-12 - DL	SV-118-A-27	Total/NA	Air	TO 15 LL	
140-16377-15 - DL	SV-136-A-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-2	SV-DUP03-A-27	Total/NA	Air	TO 15 LL	
140-16377-3 - DL	SV-173-A-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-6 - DL	SV-174-A-27	Total/NA	Air	TO 15 LL	
MB 140-32985/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32985/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: SV-116-A-27 — Lab Sample ID: 140-16377-1

Date Collected: 08/15/19 10:54 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 14:06	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-DUP03-A-27 — Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32868	08/23/19 18:36	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-173-A-27 — Lab Sample ID: 140-16377-3

Date Collected: 08/15/19 11:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	11 mL	500 mL	32829	08/21/19 20:28	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	3.64	10 mL	500 mL	32868	08/23/19 19:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-138-A-27 — Lab Sample ID: 140-16377-4

Date Collected: 08/15/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 01:23	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-171-A-27 — Lab Sample ID: 140-16377-5

Date Collected: 08/15/19 11:04 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	11 mL	500 mL	32829	08/21/19 21:18	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-174-A-27 — Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.72	100 mL	500 mL	32829	08/22/19 02:13	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	3.72	11 mL	500 mL	32985	08/27/19 15:43	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-093-A-27 — Lab Sample ID: 140-16377-7

Date Collected: 08/15/19 11:08 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 03:02	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-170-A-27 — Lab Sample ID: 140-16377-8

Date Collected: 08/15/19 11:10 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 05:31	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-079-A-27 — Lab Sample ID: 140-16377-9

Date Collected: 08/15/19 11:17 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 17:19	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-DUP04-A-27 — Lab Sample ID: 140-16377-10

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 18:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-139-A-27 — Lab Sample ID: 140-16377-11

Date Collected: 08/15/19 11:20 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 18:57	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-118-A-27 — Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 19:46	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	1	30 mL	500 mL	32829	08/21/19 22:07	S1K	TAL KNX
	Instrument ID: MJ									

Lab Chronicle

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-015-A-27 — Lab Sample ID: 140-16377-13

Date Collected: 08/15/19 16:12 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 21:24	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-078-A-27 — Lab Sample ID: 140-16377-14

Date Collected: 08/15/19 11:30 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 22:14	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-136-A-27 — Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 23:52	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	1	30 mL	500 mL	32829	08/21/19 22:56	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-076-A-27 — Lab Sample ID: 140-16377-16

Date Collected: 08/15/19 11:37 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 00:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-168-A-27 — Lab Sample ID: 140-16377-17

Date Collected: 08/15/19 11:40 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 02:20	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-075-A-27 — Lab Sample ID: 140-16377-18

Date Collected: 08/15/19 11:43 **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 03:10	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-100-B-27 — Lab Sample ID: 140-16377-19

Date Collected: 08/15/19 11:47 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 04:00	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-101-B-27 — Lab Sample ID: 140-16377-20

Date Collected: 08/15/19 11:53 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 16:29	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32828/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 10:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32985/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 10:12	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32828/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 09:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32829/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32985/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 08:11	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16377-1	SV-116-A-27	Air	08/15/19 10:54	08/17/19 10:30	Air Canister (1-Liter) #10796
140-16377-2	SV-DUP03-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09586
140-16377-3	SV-173-A-27	Air	08/15/19 11:00	08/17/19 10:30	Air Canister (1-Liter) #11885
140-16377-4	SV-138-A-27	Air	08/15/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #09641
140-16377-5	SV-171-A-27	Air	08/15/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #11706
140-16377-6	SV-174-A-27	Air	08/15/19 11:06	08/17/19 10:30	Air Canister (1-Liter) #11136
140-16377-7	SV-093-A-27	Air	08/15/19 11:08	08/17/19 10:30	Air Canister (1-Liter) #11861
140-16377-8	SV-170-A-27	Air	08/15/19 11:10	08/17/19 10:30	Air Canister (1-Liter) #11277
140-16377-9	SV-079-A-27	Air	08/15/19 11:17	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-10	SV-DUP04-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09636
140-16377-11	SV-139-A-27	Air	08/15/19 11:20	08/17/19 10:30	Air Canister (1-Liter) #11138
140-16377-12	SV-118-A-27	Air	08/15/19 11:23	08/17/19 10:30	Air Canister (1-Liter) #11517
140-16377-13	SV-015-A-27	Air	08/15/19 16:12	08/17/19 10:30	Air Canister (1-Liter) #10523
140-16377-14	SV-078-A-27	Air	08/15/19 11:30	08/17/19 10:30	Air Canister (1-Liter) #11770
140-16377-15	SV-136-A-27	Air	08/15/19 11:34	08/17/19 10:30	Air Canister (1-Liter) #11773
140-16377-16	SV-076-A-27	Air	08/15/19 11:37	08/17/19 10:30	Air Canister (1-Liter) #10333
140-16377-17	SV-168-A-27	Air	08/15/19 11:40	08/17/19 10:30	Air Canister (1-Liter) #09741
140-16377-18	SV-075-A-27	Air	08/15/19 11:43	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-19	SV-100-B-27	Air	08/15/19 11:47	08/17/19 10:30	Air Canister (1-Liter) #11891
140-16377-20	SV-101-B-27	Air	08/15/19 11:53	08/17/19 10:30	Air Canister (1-Liter) #09735

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-116-A-27	140-16377-1	89
SV-DUP03-A-27	140-16377-2	89
SV-173-A-27	140-16377-3	88
SV-173-A-27 DL	140-16377-3 DL	87
SV-138-A-27	140-16377-4	90
SV-171-A-27	140-16377-5	89
SV-174-A-27	140-16377-6	89
SV-174-A-27 DL	140-16377-6 DL	93
SV-093-A-27	140-16377-7	90
SV-170-A-27	140-16377-8	86
SV-079-A-27	140-16377-9	88
SV-DUP04-A-27	140-16377-10	87
SV-139-A-27	140-16377-11	89
SV-118-A-27	140-16377-12	93
SV-118-A-27 DL	140-16377-12 DL	89
SV-015-A-27	140-16377-13	87
SV-078-A-27	140-16377-14	85
SV-136-A-27	140-16377-15	91
SV-136-A-27 DL	140-16377-15 DL	89
SV-076-A-27	140-16377-16	86
SV-168-A-27	140-16377-17	90
SV-075-A-27	140-16377-18	91
SV-100-B-27	140-16377-19	89
SV-101-B-27	140-16377-20	87
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	MB 140-32985/4	85
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91
	LCS 140-32868/1002	94
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019 14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019 16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019 17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019 18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019 18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019 19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019 21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019 22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019 23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019 00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019 02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019 03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019 04:00

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019 20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019 21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019 22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019 22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019 01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019 02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019 03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019 05:31

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019 15:43

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019 18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019 19:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019	14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019	16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019	17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019	18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019	18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019	19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019	21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019	22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019	23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019	00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019	02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019	03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019	04:00

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019	20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019	21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019	22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019	22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019	01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019	02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019	03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019	05:31

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019	15:43

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019	18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019	19:23

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16377-1	SV-116-A-27	215665	9.73	1104443	11.83	955661	16.45
140-16377-20	SV-101-B-27	294498	9.72	1486019	11.84	1206295	16.45
140-16377-9	SV-079-A-27	240640	9.72	1202153	11.84	1002767	16.45
140-16377-10	SV-DUP04-A-27	217248	9.73	1094915	11.83	926637	16.44
140-16377-11	SV-139-A-27	203135	9.73	1066461	11.83	911430	16.44
140-16377-12	SV-118-A-27	189851	9.73	979666	11.84	839932	16.45
140-16377-13	SV-015-A-27	253233	9.74	1238002	11.84	1007401	16.45
140-16377-14	SV-078-A-27	175215	9.72	899727	11.83	762309	16.44
140-16377-15	SV-136-A-27	257272	9.73	1257055	11.84	1072869	16.44
140-16377-16	SV-076-A-27	260393	9.75	1273864	11.85	1060863	16.45
140-16377-17	SV-168-A-27	191677	9.72	977491	11.84	848051	16.45
140-16377-18	SV-075-A-27	182024	9.72	932399	11.84	794687	16.45
140-16377-19	SV-100-B-27	183940	9.72	948992	11.83	807505	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16377-3	SV-173-A-27	248279	9.73	1271047	11.84	1086251	16.45
140-16377-5	SV-171-A-27	179281	9.72	915860	11.83	787797	16.45
140-16377-12 DL	SV-118-A-27 DL	188742	9.72	1009542	11.84	850532	16.45
140-16377-15 DL	SV-136-A-27 DL	161066	9.73	793410	11.83	656566	16.44
140-16377-4	SV-138-A-27	186557	9.72	957545	11.83	785208	16.45
140-16377-6	SV-174-A-27	187226	9.73	960719	11.84	828103	16.45
140-16377-7	SV-093-A-27	178833	9.73	947448	11.83	809865	16.44
140-16377-8	SV-170-A-27	243075	9.73	1247288	11.84	1034214	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16377-6 DL	SV-174-A-27 DL	222191	9.72	1103557	11.84	888773	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16377-2	SV-DUP03-A-27	224616	8.53	1245944	10.77	1042831	15.57
140-16377-3 DL	SV-173-A-27 DL	203774	8.54	1199615	10.77	964694	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.22	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.14	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.52	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.2		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	1.1	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.56	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.0	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	6.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.077	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	0.19	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.11	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.21	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	48	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.60	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.49	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.91	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.44	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.84	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.53	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	170	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	2.1	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	45		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	6.7		3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	150		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	20	B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7	J	3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	*Trichloroethene*	*131.39*	*1100*	*E*	*1.8*	*0.27*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	10	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	180		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	27		15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	580		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	69	B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	6.6	J	14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	*Trichloroethene*	*131.39*	*5900*	*E*	*9.8*	*1.5*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	1900		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	10000		39	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.82		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	5.7		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	0.39	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.12	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	37		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	0.62	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	3.3		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	22		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	29	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.49	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	200		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	0.99	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	13		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	2.1	J	3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	63		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	15	J B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	Trichloroethene	131.39	400		1.8	0.27
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	4.8	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	52		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	8.5	J	15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	250		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	53	J B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	ND		14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	Trichloroethene	131.39	2200		9.8	1.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.5	0.15
56-23-5	Carbon tetrachloride	153.81	ND		1.5	0.13
75-45-6	Chlorodifluoromethane	86.47	ND		1.5	0.41
67-66-3	Chloroform	119.38	5.7		1.5	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	62		1.5	0.19
75-71-8	Dichlorodifluoromethane	120.91	0.43	J	1.5	0.26
75-34-3	1,1-Dichloroethane	98.96	21		1.5	0.13
107-06-2	1,2-Dichloroethane	98.96	ND		1.5	0.19
75-35-4	1,1-Dichloroethene	96.94	230		1.5	0.15
100-41-4	Ethylbenzene	106.17	ND		1.5	0.24
75-09-2	Methylene Chloride	84.93	7.1	J B	7.4	3.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.4	0.97
91-20-3	Naphthalene	128.17	ND		0.74	1.4
127-18-4	Tetrachloroethene	165.83	0.37	J	1.5	0.13
108-88-3	Toluene	92.14	ND		2.2	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	3.2		1.5	0.13
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.5	1.2
71-55-6	1,1,1-Trichloroethane	133.41	30		1.5	0.69
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.5	0.13
79-01-6	*Trichloroethene*	*131.39*	*1400*	*E*	*0.74*	*0.11*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.5	0.67
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.5	0.37
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.5	0.41
75-01-4	Vinyl chloride	62.50	ND		0.74	0.48
1330-20-7	Xylenes, Total	106.17	1.0	J	3.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4	J	4.8	0.48
56-23-5	Carbon tetrachloride	153.81	ND		9.4	0.82
75-45-6	Chlorodifluoromethane	86.47	ND		5.3	1.4
67-66-3	Chloroform	119.38	28		7.3	0.64
156-59-2	cis-1,2-Dichloroethene	96.94	240		5.9	0.74
75-71-8	Dichlorodifluoromethane	120.91	2.1	J	7.4	1.3
75-34-3	1,1-Dichloroethane	98.96	84		6.0	0.53
107-06-2	1,2-Dichloroethane	98.96	ND		6.0	0.75
75-35-4	1,1-Dichloroethene	96.94	900		5.9	0.59
100-41-4	Ethylbenzene	106.17	ND		6.5	1.0
75-09-2	Methylene Chloride	84.93	25	J B	26	10
1634-04-4	Methyl tert-butyl ether	88.15	ND		27	3.5
91-20-3	Naphthalene	128.17	ND		3.9	7.4
127-18-4	Tetrachloroethene	165.83	2.5	J	10	0.88
108-88-3	Toluene	92.14	ND		8.4	5.5
156-60-5	trans-1,2-Dichloroethene	96.94	13		5.9	0.52
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		11	8.8
71-55-6	1,1,1-Trichloroethane	133.41	160		8.1	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.1	0.71
79-01-6	*Trichloroethene*	*131.39*	*7600*	*E*	*4.0*	*0.60*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		7.3	3.3
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		7.3	1.8
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		7.3	2.0
75-01-4	Vinyl chloride	62.50	ND		1.9	1.2
1330-20-7	Xylenes, Total	106.17	4.4	J	13	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	820		6.8	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	4400		36	5.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.092	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.3		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	1.3		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.70		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.3		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	9.2		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	5.3		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	7.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.44		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	12		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.33	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.12	J	0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.095	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.1		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	63		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.19	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.63	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	10		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.8		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	49		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.4	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	27	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.78	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.38	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	6.2		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	340		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.93	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.049	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.21	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	13		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.13	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.23	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.24	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.31	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.50	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.92	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	45		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	18		2.7	0.24
108-88-3	Toluene	92.14	5.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.51	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.3	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.048	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.091	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.14	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.26	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.2		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.30	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	29		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	19		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.56	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.4	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.042	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	9.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.58		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.84		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.30		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.1		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.48		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	4.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	32		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	3.0		1.0	2.0
127-18-4	Tetrachloroethene	165.83	5.7		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	5.6		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.4		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	6.6		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	37		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.10	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.47		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	11		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	22		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	10		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.89		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	1.0		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.66		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*130*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	0.51		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.79		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.22		0.20	0.13
1330-20-7	Xylenes, Total	106.17	13		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.32	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	45		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	11		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	86		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	36		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	4.0		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.6		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*720*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	2.5		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	5.7		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	3.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.57		0.51	0.33
1330-20-7	Xylenes, Total	106.17	58		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	78		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	420		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.92		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.070	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.60		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.65		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	3.5		0.40	0.040
100-41-4	Ethylbenzene	106.17	7.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	39		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.070	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.21	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	15		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.9		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.34	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.4		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	2.6		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	14		1.6	0.16
100-41-4	Ethylbenzene	106.17	30		1.7	0.28
75-09-2	Methylene Chloride	84.93	140		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.28	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.2	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	64		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.40		0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	1.2		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	11		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.31	J	0.40	0.035
108-88-3	Toluene	92.14	6.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.52		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	5.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.12	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	6.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	39		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.1	J	2.7	0.24
108-88-3	Toluene	92.14	26		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	32		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.58	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.2		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.51		0.40	0.11
67-66-3	Chloroform	119.38	2.7		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.71		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.22	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	6.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.10	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*110*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.0		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	13		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.8		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.52	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.95	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	25		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.41	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*610*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.69	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	92		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	500		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.052	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.36	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	29		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	23		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.15	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	100		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.91	J	2.7	0.24
108-88-3	Toluene	92.14	87		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.82	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.78	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.085	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.32	J	0.40	0.11
67-66-3	Chloroform	119.38	0.48		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.30	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	20		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.052	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	2.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	51		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.72	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.81	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.76	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.2	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	79		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.55	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	26		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.88	J	2.7	0.24
108-88-3	Toluene	92.14	4.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	13		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	270		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.038	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.1		0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.0		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	10		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.073	J	0.40	0.035
108-88-3	Toluene	92.14	2.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.56		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.5		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.8		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.24	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	11		1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.79	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	53		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.49	J	2.7	0.24
108-88-3	Toluene	92.14	7.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.0		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	7.3		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	17		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	8.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.093	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	4.9		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.93		0.40	0.11
67-66-3	Chloroform	119.38	1.3		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.85		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.72		0.40	0.035
108-88-3	Toluene	92.14	0.62		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.45		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.21	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.32	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	31		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.3		1.4	0.39
67-66-3	Chloroform	119.38	6.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	4.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	4.9		2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.4		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	1.0	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.0	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.68		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.16	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.67		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	1.7		0.20	0.38
127-18-4	Tetrachloroethene	165.83	12		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	47		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	35		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.3		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	2.7		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.5		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.89		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	4.3		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.1	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.78	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	9.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	85		2.7	0.24
108-88-3	Toluene	92.14	6.2		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	250		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	190		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	6.4		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	13		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	7.2		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32828/1002

Matrix: Air Lab File ID: JCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.79		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.02		0.080	0.022
67-66-3	Chloroform	119.38	1.62		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.88		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.05		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.64		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.41		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.66		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.59		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.52		0.40	0.052
91-20-3	Naphthalene	128.17	1.66		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.69		0.080	0.0070
108-88-3	Toluene	92.14	1.79		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.00		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.77		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.47		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.80		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.88		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.62		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.62		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.74		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.36		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.93		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32985/1002

Matrix: Air Lab File ID: JCCVH27-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 08:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.07		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.11		0.080	0.022
67-66-3	Chloroform	119.38	1.87		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.17		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.11		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.93		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.52		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.17		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.96		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.81		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.91		0.40	0.052
91-20-3	Naphthalene	128.17	2.27		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.89		0.080	0.0070
108-88-3	Toluene	92.14	2.06		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.19		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.20		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.68		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.01		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.94		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.94		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.09		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.56		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.81		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/20/2019 08:38

Analysis Batch Number: 32828 End Date: 08/21/2019 04:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32828/1		08/20/2019 08:38	1	JBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32828/2		08/20/2019 09:08	1	JCCVH20.D	RTX-5 0.32(mm)
LCS 140-32828/1002		08/20/2019 09:08	1	JCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32828/4		08/20/2019 10:41	1	J500BH20.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 11:30	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 12:19	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 13:08	1		RTX-5 0.32(mm)
140-16377-1		08/20/2019 14:06	1	JH20P201.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 15:39	1		RTX-5 0.32(mm)
140-16377-20		08/20/2019 16:29	1	JH20P101.D	RTX-5 0.32(mm)
140-16377-9		08/20/2019 17:19	1	JH20P102.D	RTX-5 0.32(mm)
140-16377-10		08/20/2019 18:08	1	JH20P103.D	RTX-5 0.32(mm)
140-16377-11		08/20/2019 18:57	1	JH20P104.D	RTX-5 0.32(mm)
140-16377-12		08/20/2019 19:46	1	JH20P105.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:36	1		RTX-5 0.32(mm)
140-16377-13		08/20/2019 21:24	1	JH20P107.D	RTX-5 0.32(mm)
140-16377-14		08/20/2019 22:14	1	JH20P108.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:02	1		RTX-5 0.32(mm)
140-16377-15		08/20/2019 23:52	1	JH20P110.D	RTX-5 0.32(mm)
140-16377-16		08/21/2019 00:41	1	JH20P111.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 01:31	1		RTX-5 0.32(mm)
140-16377-17		08/21/2019 02:20	1	JH20P113.D	RTX-5 0.32(mm)
140-16377-18		08/21/2019 03:10	1	JH20P114.D	RTX-5 0.32(mm)
140-16377-19		08/21/2019 04:00	1	JH20P116D.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:50	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 15:29	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:09	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:59	1		RTX-5 0.32(mm)
140-16377-3		08/21/2019 20:28	1	JH21P106.D	RTX-5 0.32(mm)
140-16377-5		08/21/2019 21:18	1	JH21P107.D	RTX-5 0.32(mm)
140-16377-12 DL		08/21/2019 22:07	1	JH21P108.D	RTX-5 0.32(mm)
140-16377-15 DL		08/21/2019 22:56	1	JH21P109.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 00:34	1		RTX-5 0.32(mm)
140-16377-4		08/22/2019 01:23	1	JH21P111.D	RTX-5 0.32(mm)
140-16377-6		08/22/2019 02:13	3.72	JH21P112.D	RTX-5 0.32(mm)
140-16377-7		08/22/2019 03:02	1	JH21P113.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
140-16377-8		08/22/2019 05:31	1	JH21P114.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/27/2019 07:42

Analysis Batch Number: 32985 End Date: 08/27/2019 15:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32985/1		08/27/2019 07:42	1	JBFBH27.D	RTX-5 0.32(mm)
CCVIS 140-32985/2		08/27/2019 08:11	1	JCCVH27.D	RTX-5 0.32(mm)
LCS 140-32985/1002		08/27/2019 08:11	1	JCCVH27-LCS.d	RTX-5 0.32(mm)
MB 140-32985/4		08/27/2019 10:12	1	J500BH27.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 11:02	1		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 12:41	1		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 14:52	1.52		RTX-5 0.32(mm)
140-16377-6 DL		08/27/2019 15:43	3.72	JH27P102.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 15:21	2.87		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:08	1.45		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:57	1.53		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 17:48	1.89		RTX-5 0.32(mm)
140-16377-2		08/23/2019 18:36	1	RH23P106.D	RTX-5 0.32(mm)
140-16377-3 DL		08/23/2019 19:23	3.64	RH23P107.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 21:47	1.76		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 22:35	5.03		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 00:10	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:00	4.15		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:50	1.52		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 04:23	1.67		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32828/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32828/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32828/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-1	SV-116-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-20	SV-101-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-9	SV-079-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-10	SV-DUP04-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-11	SV-139-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-12	SV-118-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-13	SV-015-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-14	SV-078-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-15	SV-136-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-16	SV-076-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-17	SV-168-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-18	SV-075-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-19	SV-100-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32828/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32828/1		TO 15 LL		40 mL					
CCVIS 140-32828/2		TO 15 LL							
MB 140-32828/4		TO 15 LL							
140-16377-A-1	SV-116-A-27	TO 15 LL	T						
140-16377-A-20	SV-101-B-27	TO 15 LL	T						
140-16377-A-9	SV-079-A-27	TO 15 LL	T						
140-16377-A-10	SV-DUP04-A-27	TO 15 LL	T						
140-16377-A-11	SV-139-A-27	TO 15 LL	T						
140-16377-A-12	SV-118-A-27	TO 15 LL	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16377-A-13	SV-015-A-27	TO 15 LL	T						
140-16377-A-14	SV-078-A-27	TO 15 LL	T						
140-16377-A-15	SV-136-A-27	TO 15 LL	T						
140-16377-A-16	SV-076-A-27	TO 15 LL	T						
140-16377-A-17	SV-168-A-27	TO 15 LL	T						
140-16377-A-18	SV-075-A-27	TO 15 LL	T						
140-16377-A-19	SV-100-B-27	TO 15 LL	T						
LCS 140-32828/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-3	SV-173-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16377-A-5	SV-171-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16377-A-12	SV-118-A-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16377-A-15	SV-136-A-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16377-A-4	SV-138-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-6	SV-174-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-7	SV-093-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-8	SV-170-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16377-A-3	SV-173-A-27	TO 15 LL	T						
140-16377-A-5	SV-171-A-27	TO 15 LL	T						
140-16377-A-12	SV-118-A-27	TO 15 LL	T						
140-16377-A-15	SV-136-A-27	TO 15 LL	T						
140-16377-A-4	SV-138-A-27	TO 15 LL	T						
140-16377-A-6	SV-174-A-27	TO 15 LL	T						
140-16377-A-7	SV-093-A-27	TO 15 LL	T						
140-16377-A-8	SV-170-A-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-2	SV-DUP03-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-3	SV-173-A-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16377-A-2	SV-DUP03-A-27	TO 15 LL	T						
140-16377-A-3	SV-173-A-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32985 Batch Start Date: 08/27/19 07:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32985/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32985/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32985/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-6	SV-174-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32985/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32985/1		TO 15 LL		40 mL					
CCVIS 140-32985/2		TO 15 LL							
MB 140-32985/4		TO 15 LL							
140-16377-A-6	SV-174-A-27	TO 15 LL	T						
LCS 140-32985/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16377-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16377-3	1	-4.4	0.85	0.85	31.0	3.11	3.11		3.64	3.64	08/23/19 11:36	Taj, Holly M
140-16377-6	1	-3.9	0.87	0.87	32.9	3.24	3.24		3.72	3.72	08/21/19 13:50	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND	*	1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND	*	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND	*	2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND	*	0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND	*	0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND	*	5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND	*	1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D				
Lims ID:	140-15799-A-13				
Client ID:	09735				
Sample Type:	Client				
Inject. Date:	01-Jul-2019 14:18:30	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012175-005				
Misc. Info.:	09735				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	02-Jul-2019 15:20:34	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	02-Jul-2019 15:22:25		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	95	360511	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.329	0.006	95	2031465	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.010	16.010	0.000	87	1805839	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.633	0.000	97	1216973	4.38	
7 Propene	41	3.840	3.834	0.006	97	32675	0.2807	
31 Methylene Chloride	84	6.557	6.552	0.005	96	22489	0.1555	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

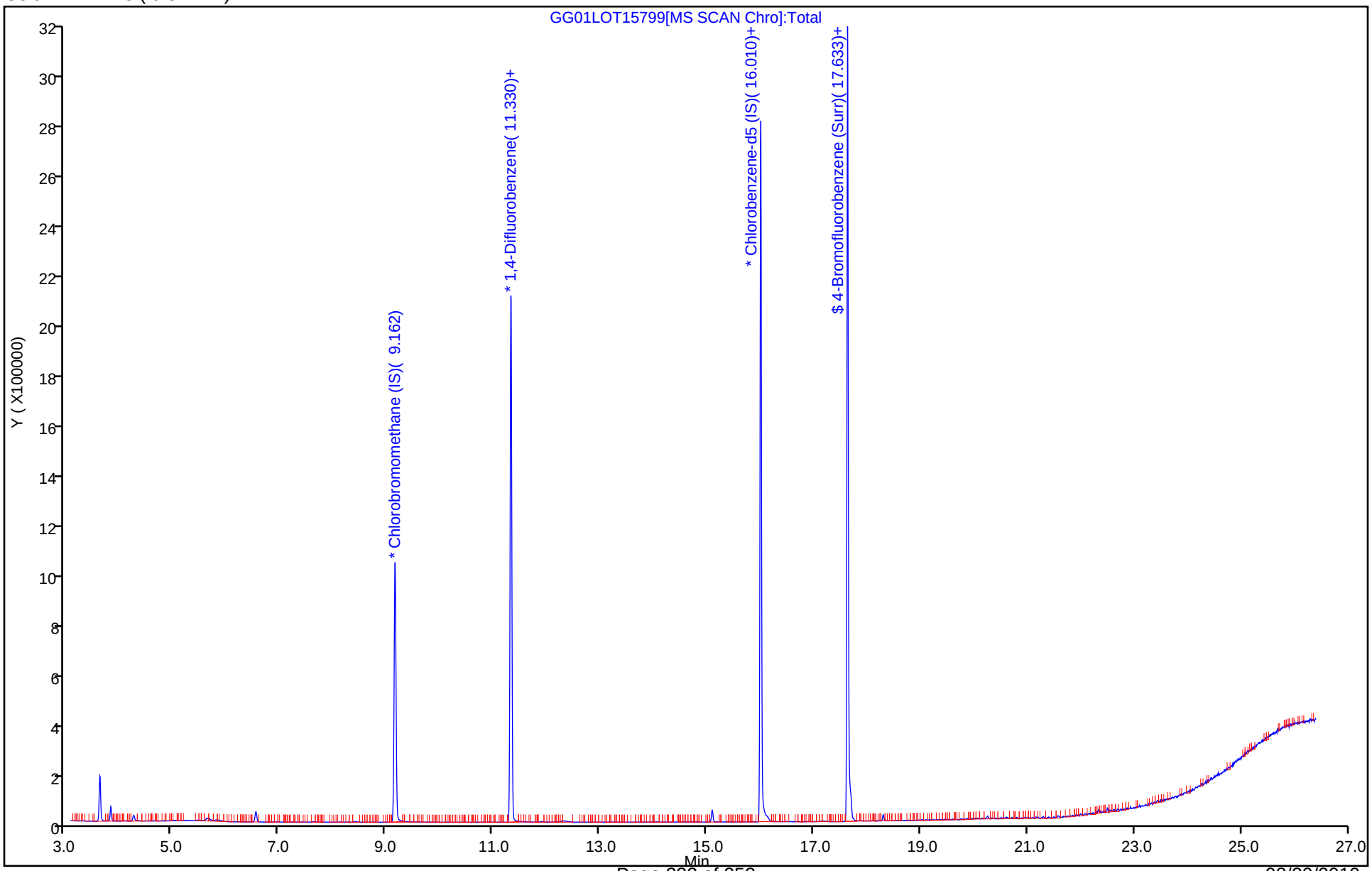
Report Date: 02-Jul-2019 15:22:26 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D

Injection Date:	01-Jul-2019 14:18:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-15799-A-13	Lab Sample ID:	140-15799-13	Worklist Smp#:	5
Client ID:	09735				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D				
Lims ID:	140-15818-A-11				
Client ID:	11554				
Sample Type:	Client				
Inject. Date:	05-Jul-2019 05:25:30	ALS Bottle#:	1	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012211-023				
Misc. Info.:	11554				
Operator ID:	AFB	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190701-12211.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Jul-2019 08:25:59	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				
First Level Reviewer: khachitpongpanits		Date:	08-Jul-2019 08:26:27		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	87	283374	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1354218	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	87	1065007	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.255	17.281	-0.026	97	661926	3.65	
7 Propene	41	3.554	3.547	0.005	99	17412	0.2235	
31 Methylene Chloride	84	6.081	6.078	0.000	97	18749	0.1606	
33 Carbon disulfide	76	6.236	6.238	-0.006	90	4409	0.0141	
45 1,1,1-Trichloroethane	97	9.663	9.657	0.000	95	5088	0.0209	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

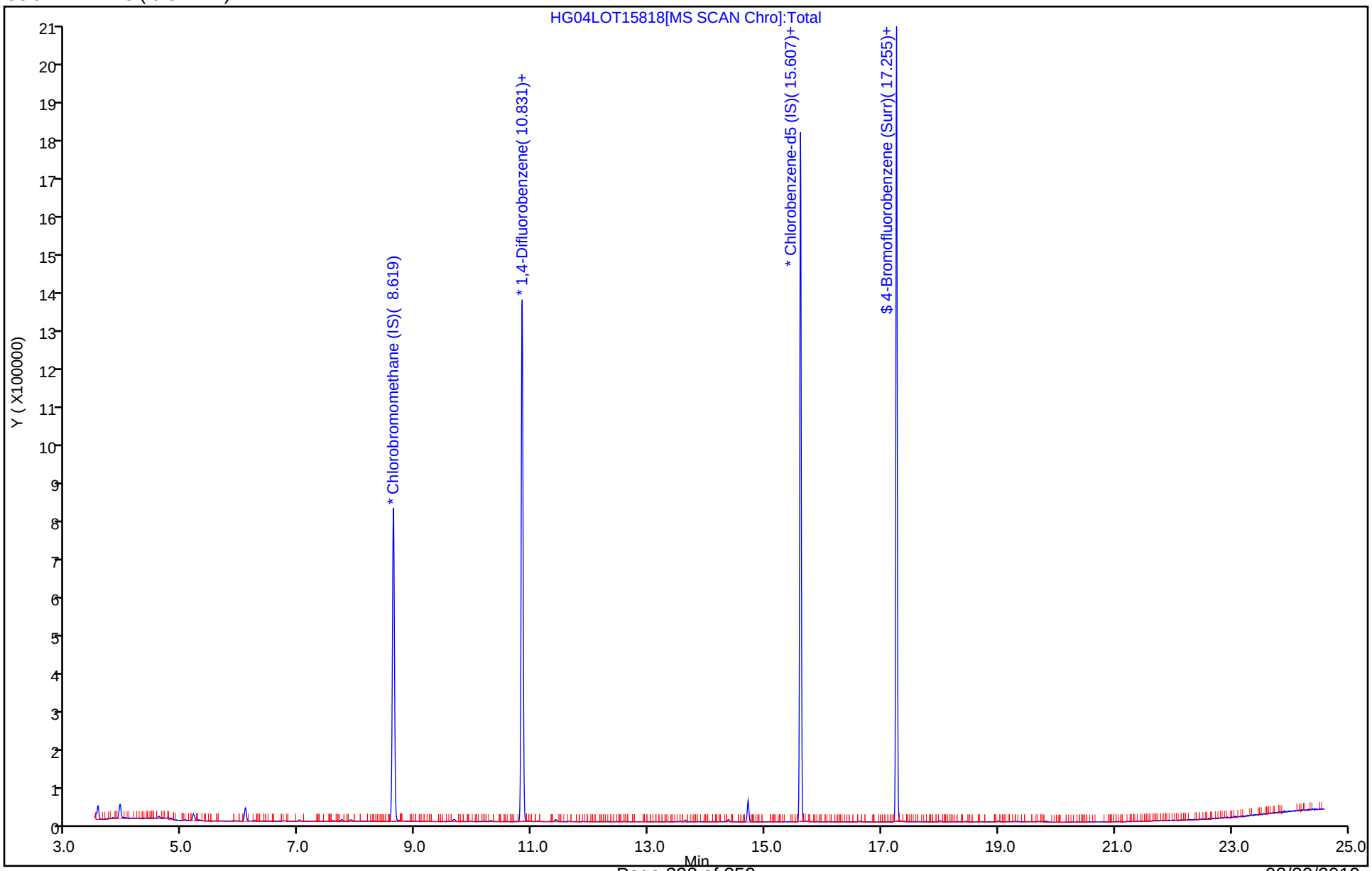
Report Date: 08-Jul-2019 08:26:27 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D

Injection Date:	05-Jul-2019 05:25:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	140-15818-A-11	Lab Sample ID:	140-15818-11	Worklist Smp#:	23
Client ID:	11554				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D
Lims ID: 140-15841-A-14
Client ID: 10746
Sample Type: Client
Inject. Date: 06-Jul-2019 14:02:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012246-004
Misc. Info.: 200mL 10746
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 12:30:24 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 12:31:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	85	391331	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1867475	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	86	1457045	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.276	17.281	-0.005	97	883485	3.56	
7 Propene	41	3.554	3.554	0.000	98	24277	0.2256	
31 Methylene Chloride	84	6.086	6.081	0.005	94	34631	0.2148	
33 Carbon disulfide	76	6.247	6.242	0.005	96	8915	0.0207	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

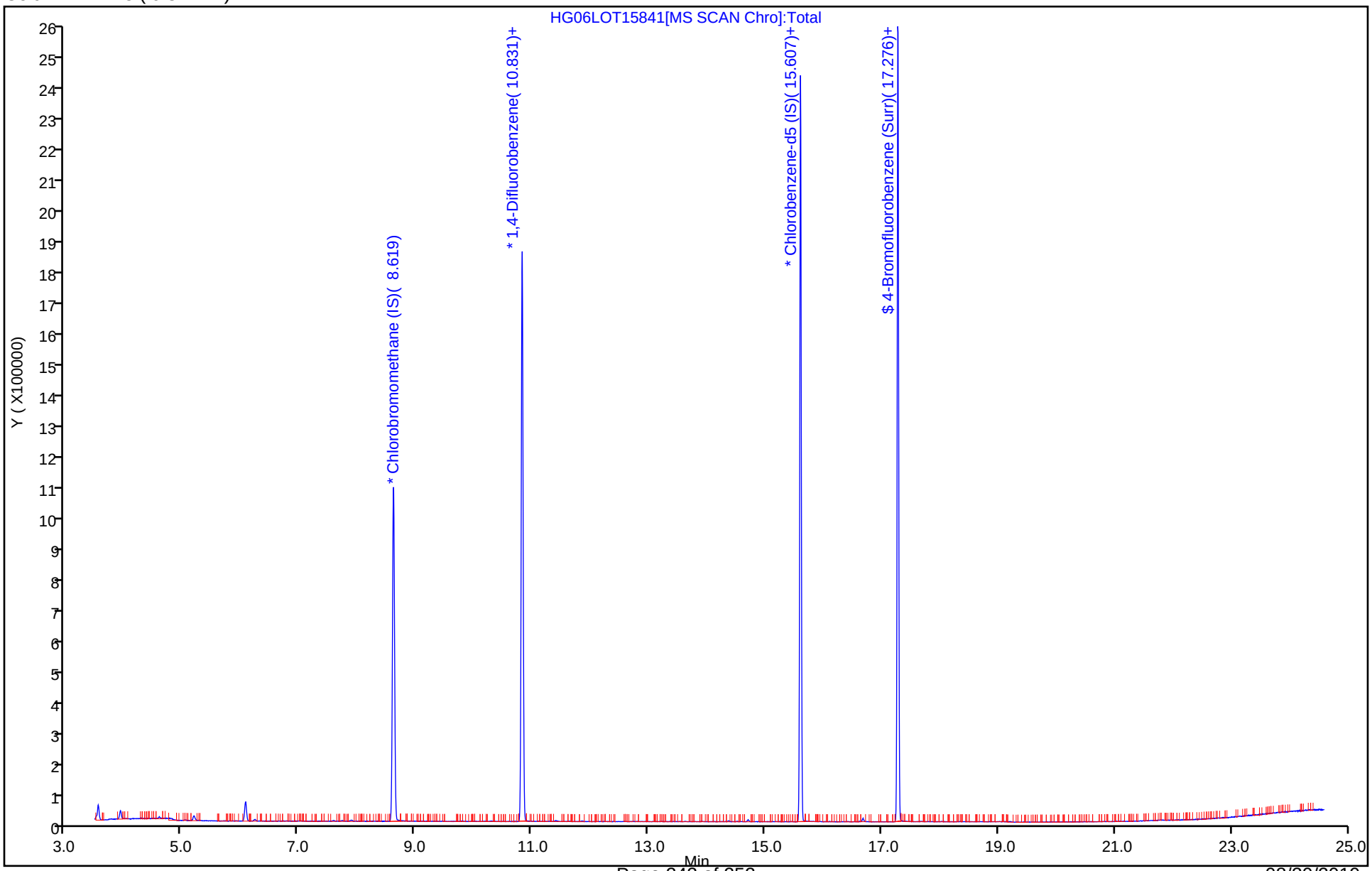
Report Date: 08-Jul-2019 12:31:46 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D

Injection Date:	06-Jul-2019 14:02:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-15841-A-14	Lab Sample ID:	140-15841-14	Worklist Smp#:	4
Client ID:	10746				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D				
Lims ID:	140-15955-A-1				
Client ID:	10500				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 07:00:30	ALS Bottle#:	13	Worklist Smp#:	26
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012293-026				
Misc. Info.:	10500				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	12-Jul-2019 05:43:43	Calib Date:	14-May-2019 01:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0309				
First Level Reviewer: khachitpongpanits		Date:	12-Jul-2019 18:45:22		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

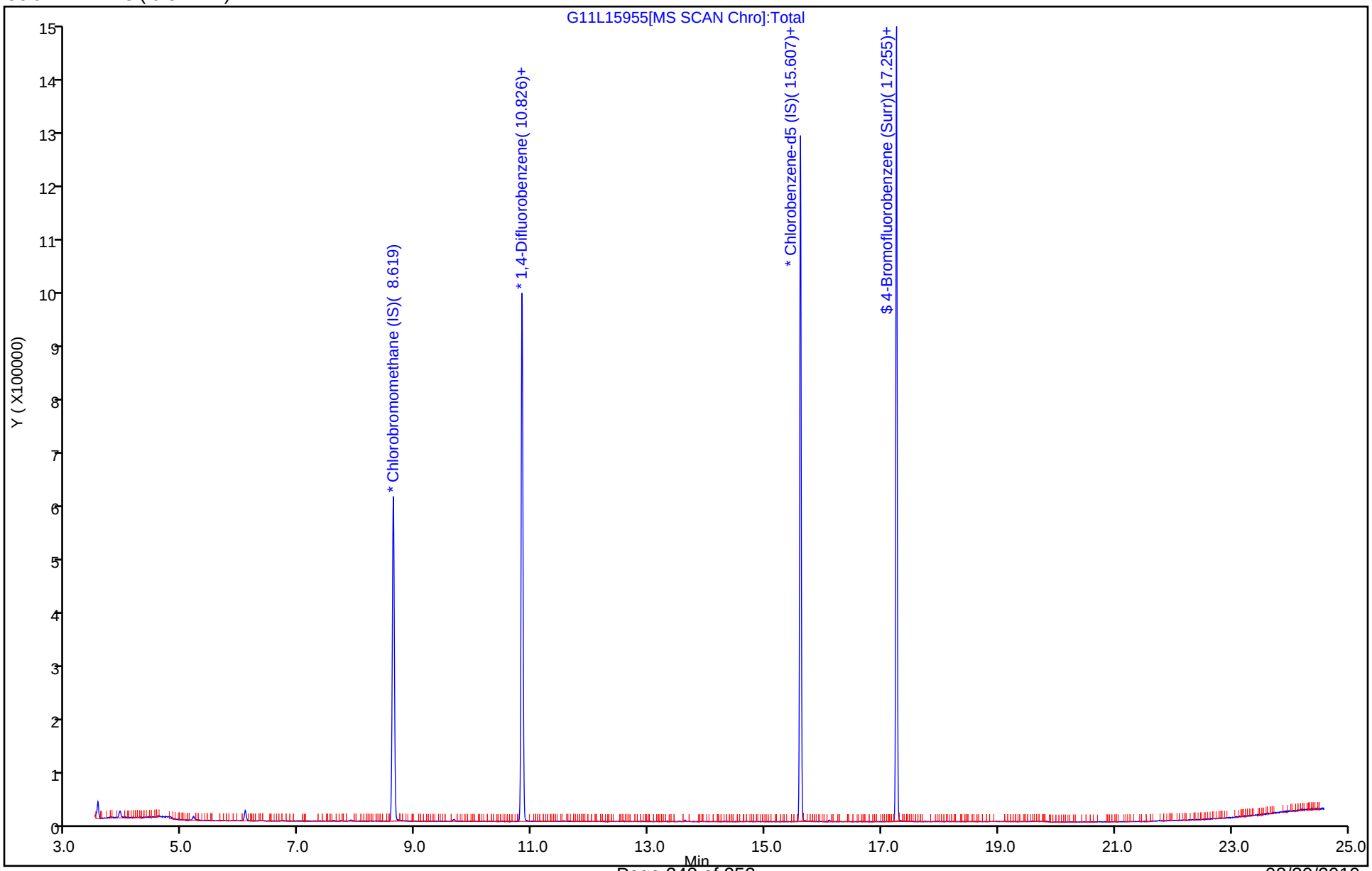
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/ LARSON/ OBRIEN/ PRYOR	COC No: 6 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 22	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874	Site Contact: MULLIS/ PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-379-3900		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MRC SV/IAQ Rnd 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Rush (Specify):		
P O # 112IC03588			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-116-A-27	8/15/19	0856	8/15/19	1054	-30	0	8136	10796	X									X					CUSTODY SEALS INTACT
SV-DUP03-A-27	"	0000	"	0000	-30	0	8529	09586	X									X					RECEIVED AMBIENT
SV-173-A-27	"	0902	"	1100	-30	0	7074	11885	X									X					SFD 8-19-19
SV-138-A-27	"	0904	"	1102	-29	2	10653	09641	X									X					FEDEX #
SV-171-A-27	"	0906	"	1104	-30	0	8548	11706	X									X					7760 0655 8067 M SAT
SV-174-A-27	"	0910	"	1106	-30	0	12006	11136	X									X					22 CANS / 23 FLOWS (R)
SV-093-A-27	"	0913	"	1108	-30	0	7281	11861	X									X					5 T's
SV-170-A-27	"	0915	"	1110	-30	0	7374	11277	X									X					
SV-079-A-27	"	0938	"	1117	-30	0	7492	11645	X									X					
SV-DUP04-A-27	"	0000	"	0000	-30	-1	8137	09636	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

140-16377 Chain of Custody

Special Instructions/QC Requirements & Comments: MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETAKWX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Apanavage	Samples Collected By: Mullis/Lawson/OBrien/Pryor	COC No: 7 of 9 COCs
Company Name: Tetra Tech Inc	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste 200	Email: Tony.Apanavage@tetratech.com		
City/State/Zip: Germantown, MD, 20874	Site Contact: Mullis/Pryor		For Lab Use Only:
Phone: 301-528-3021	Tel/Fax: 410-279-2700		Walk-in Client:
FAX:	Analysis Turnaround Time		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 Days		Job / SDG No.:
Site/Location: MRC, Balt., MD	Rush (Specifiy):		(See below for Add'l Items)
P O # 412IC08388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-139-A-27	8/15/19	0950	8/15/19	1120	-30	0	7679	11138	X									X					
SV-118-A-27		0953		1123	-28	1	09553	11517	X									X					
SV-015-A-27		1507		1612	-26	1	11273	10523	X									X					
SV-078-A-27		1002		1130	-30	0	10860	11770	X									X					
SV-136-A-27		1005		1134	-28	0	10292	11773	X									X					
SV-076-A-27		1010		1137	-30	0	8551	10333	X									X					
SV-168-A-27		1013		1140	-25	3	7426	09741	X									X					
SV-075-A-27		1019		1143	-29	0	7441	11543	X									X					
SV-100-B-27		1024		1147	-29	1	11490	11891	X									X					
SV-101-B-27		1028		1153	-29	0	11922	09735	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

11743
09814

Special Instructions/QC Requirements & Comments: ☆MRC Indoor Air/Soil Vapor Sampling Round 27 August 2019

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by:	Date / Time: 8/16/19 1300	Received by:
Relinquished by:	Date / Time: 8/16/19 1700	Received by: STA KNX 8-17-19 10:30
Lab Use Only:	Shipper Name:	Opened by:	Condition:

Void: Flow Controller ID: 7075 & Canister ID: 09814

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16377

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** _____

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?				☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 8-19-19

QA026R32.doc, 062719

eurofins | Environment Testing TestAmerica

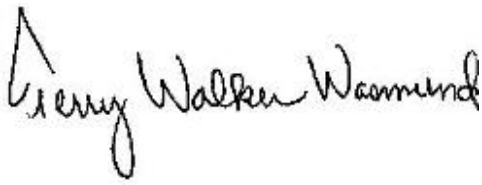
ANALYTICAL REPORT

Job Number: 140-16377-1

Job Description: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Terry Walker Wasmund
Project Manager II
8/30/2019 3:38 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
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08/30/2019

cc: Amy Thomson

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16377-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.31	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.22	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.52	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.2		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.1	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.56	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.0	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	6.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.077	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.49		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.19	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.11	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.35	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.21	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	48	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.6		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.60	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.49	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.91	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.44	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.7	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.84	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.53	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	170	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	8.4		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.6	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.1	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45		3.6	0.45	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	6.7		3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	150		3.6	0.36	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	20	B	18	7.3	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.7	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1100	E	1.8	0.27	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	1900		7.3	1.1	ppb v/v	3.64		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	10	J	18	1.6	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	180		14	1.8	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	27		15	1.3	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	580		14	1.4	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	69	B	63	25	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	6.6	J	14	1.3	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	5900	E	9.8	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	10000		39	5.9	ug/m3	3.64		TO 15 LL	Total/NA

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.19	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.079	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.35	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.5		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.53		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.82		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	5.7		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.23	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.39	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	37		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.61	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.50	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.62	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	14		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.3		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	22		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	29	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.5	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.49	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	200		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc.
Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-171-A-27
Lab Sample ID: 140-16377-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.99	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	13		3.6	0.45	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.1	J	3.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	63		3.6	0.36	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	15	J B	18	7.3	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	400		1.8	0.27	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	4.8	J	18	1.6	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	52		14	1.8	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	8.5	J	15	1.3	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	250		14	1.4	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	53	J B	63	25	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2200		9.8	1.5	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-174-A-27
Lab Sample ID: 140-16377-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.5	0.15	ppb v/v	3.72		TO 15 LL	Total/NA
Chloroform	5.7		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	62		1.5	0.19	ppb v/v	3.72		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.26	ppb v/v	3.72		TO 15 LL	Total/NA
1,1-Dichloroethane	21		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
1,1-Dichloroethene	230		1.5	0.15	ppb v/v	3.72		TO 15 LL	Total/NA
Methylene Chloride	7.1	J B	7.4	3.0	ppb v/v	3.72		TO 15 LL	Total/NA
Tetrachloroethene	0.37	J	1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	3.2		1.5	0.13	ppb v/v	3.72		TO 15 LL	Total/NA
1,1,1-Trichloroethane	30		1.5	0.69	ppb v/v	3.72		TO 15 LL	Total/NA
Trichloroethene	1400	E	0.74	0.11	ppb v/v	3.72		TO 15 LL	Total/NA
Xylenes, Total	1.0	J	3.0	0.45	ppb v/v	3.72		TO 15 LL	Total/NA
Trichloroethene - DL	820		6.8	1.0	ppb v/v	3.72		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4	J	4.8	0.48	ug/m3	3.72		TO 15 LL	Total/NA
Chloroform	28		7.3	0.64	ug/m3	3.72		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	240		5.9	0.74	ug/m3	3.72		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.3	ug/m3	3.72		TO 15 LL	Total/NA
1,1-Dichloroethane	84		6.0	0.53	ug/m3	3.72		TO 15 LL	Total/NA
1,1-Dichloroethene	900		5.9	0.59	ug/m3	3.72		TO 15 LL	Total/NA
Methylene Chloride	25	J B	26	10	ug/m3	3.72		TO 15 LL	Total/NA
Tetrachloroethene	2.5	J	10	0.88	ug/m3	3.72		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	13		5.9	0.52	ug/m3	3.72		TO 15 LL	Total/NA
1,1,1-Trichloroethane	160		8.1	3.8	ug/m3	3.72		TO 15 LL	Total/NA
Trichloroethene	7600	E	4.0	0.60	ug/m3	3.72		TO 15 LL	Total/NA
Xylenes, Total	4.4	J	13	1.9	ug/m3	3.72		TO 15 LL	Total/NA
Trichloroethene - DL	4400		36	5.5	ug/m3	3.72		TO 15 LL	Total/NA

Client Sample ID: SV-093-A-27
Lab Sample ID: 140-16377-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.065	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.092	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-093-A-27 (Continued) Lab Sample ID: 140-16377-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.20	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.3		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.70		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.3		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.41	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.45	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.79	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	9.2		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	5.3		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	16	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	7.2		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.063	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.38	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.42		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.44		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	12		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.33	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.7	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.40	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.095	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.1		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	63		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.19	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	3.5		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.51	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.63	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	10		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.8		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	49		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.4	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	27	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.78	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-170-A-27 (Continued) Lab Sample ID: 140-16377-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.5	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.38	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	6.2		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	340		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.93	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	15		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.21	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	13		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.23	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	27		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.24	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.31	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.50	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.92	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	45		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	18		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.51	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.3	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.048	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.091	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-DUP04-A-27 (Continued) Lab Sample ID: 140-16377-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	0.14	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.26	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	27		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.22	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.2		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.30	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.45	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.77	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	29		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	19		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.56	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.4	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	150		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.042	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.055	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.35	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.0		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	9.2		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	0.58		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.84		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.30		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.1		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.48		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.3		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	8.6		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.35	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	4.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	32		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	3.0		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	5.7		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.6		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	5.6		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.4		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	6.6		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	37		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.10	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.47		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	11		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	22		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	1.5		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	10		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.89		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.0		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.66		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	130	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.51		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.2		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.79		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.22		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	13		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	78		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.32	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.3		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	45		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	11		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	86		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	6.4		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	36		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	4.0		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.6		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	720	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	2.5		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	5.7		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	3.9		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.57		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	58		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	420		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.92		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.41		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.070	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.60		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-015-A-27 (Continued) Lab Sample ID: 140-16377-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.65		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	3.5		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	7.0		0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	39		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	3.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.070	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.21	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	15		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.9		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.38	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.34	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.4		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.6		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	14		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	30		1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	140		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	13		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.28	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.2	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	10		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	64		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.051	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.40		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.2		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	11		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.31	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.52		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	5.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.29	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.12	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.32	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.57	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	6.1		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.77	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	39		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-078-A-27 (Continued) Lab Sample ID: 140-16377-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.1	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	26		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.8		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	32		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.4	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.58	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.064	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.51		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.7		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.71		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.44		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.13	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.22	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.10	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	110	E	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.14	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.0		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	92		0.67	0.10	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.0		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.40	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	13		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.8		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.52	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.95	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	31		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	25		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.41	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	610	E	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.69	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.4		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	500		3.6	0.54	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.052	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.36	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.41		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.26	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	29		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-076-A-27 (Continued) Lab Sample ID: 140-16377-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	23		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.15	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.16	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	1.1	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	100		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.91	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	87		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.82	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.78	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.6		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.25	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.085	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.32	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.48		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.19	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.30	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	20		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.5		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.13	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.052	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.4		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	51		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.22	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.72	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.81	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.53	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.3		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.76	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.2	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	79		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.55	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	26		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.88	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.5		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-168-A-27 (Continued) Lab Sample ID: 140-16377-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	0.20	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	13		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	270		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.1	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.1		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.18	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	7.0		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	10		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.1		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.56		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.5		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.5		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.8		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.3		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.24	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	11		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.20	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.79	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	24		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	53		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.49	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	7.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.0		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	7.3		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	17		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	8.9		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.5		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.093	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	4.9		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.93		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	1.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.85		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	8.9		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.72		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.62		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.45		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.4		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-100-B-27 (Continued) Lab Sample ID: 140-16377-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trimethylbenzene	0.21	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.20	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.32	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	31		2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.3		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	6.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	4.2		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	31		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	4.9		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.4		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.4		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	34		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.0	J	2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.0	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.68		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7	CI	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.16	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.67		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	1.7		0.20	0.38	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	12		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	47		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	35		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.3		0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	2.7		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.89		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	4.3		2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.1	CI	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.78	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	13		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	9.1		1.0	2.0	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	85		2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.2		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	250		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	190		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	6.4		2.0	0.88	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-101-B-27 (Continued) Lab Sample ID: 140-16377-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	13		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	7.2		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.9		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Date Collected: 08/15/19 10:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 14:06	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 14:06	1
Chlorodifluoromethane	**0.31**	**J**	0.40	0.11	ppb v/v			08/20/19 14:06	1
Chloroform	**0.22**	**J**	0.40	0.035	ppb v/v			08/20/19 14:06	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 14:06	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/20/19 14:06	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 14:06	1
1,1-Dichloroethene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 14:06	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/20/19 14:06	1
Methylene Chloride	**1.8**	**J**	2.0	0.80	ppb v/v			08/20/19 14:06	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 14:06	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 14:06	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
Toluene	**0.52**	**J**	0.60	0.39	ppb v/v			08/20/19 14:06	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 14:06	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 14:06	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 14:06	1
Trichloroethene	**1.2**		0.20	0.030	ppb v/v			08/20/19 14:06	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 14:06	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 14:06	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 14:06	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 14:06	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/20/19 14:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.41**	**J**	1.3	0.13	ug/m3			08/20/19 14:06	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 14:06	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/20/19 14:06	1
Chloroform	**1.1**	**J**	2.0	0.17	ug/m3			08/20/19 14:06	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 14:06	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 14:06	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 14:06	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 14:06	1
1,1-Dichloroethene	**0.56**	**J**	1.6	0.16	ug/m3			08/20/19 14:06	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/20/19 14:06	1
Methylene Chloride	**6.3**	**J**	6.9	2.8	ug/m3			08/20/19 14:06	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 14:06	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 14:06	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 14:06	1
Toluene	**2.0**	**J**	2.3	1.5	ug/m3			08/20/19 14:06	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 14:06	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 14:06	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 14:06	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 14:06	1
Trichloroethene	**6.6**		1.1	0.16	ug/m3			08/20/19 14:06	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 14:06	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 14:06	1

Client Sample ID: SV-116-A-27 **Lab Sample ID: 140-16377-1**
Date Collected: 08/15/19 10:54 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 14:06	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 14:06	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/20/19 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 14:06*	*1*

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/23/19 18:36	1
Carbon tetrachloride	**0.077**	**J**	0.40	0.035	ppb v/v			08/23/19 18:36	1
Chlorodifluoromethane	**0.49**		0.40	0.11	ppb v/v			08/23/19 18:36	1
Chloroform	**0.19**	**J**	0.40	0.035	ppb v/v			08/23/19 18:36	1
cis-1,2-Dichloroethene	**0.11**	**J**	0.40	0.050	ppb v/v			08/23/19 18:36	1
Dichlorodifluoromethane	**0.35**	**J**	0.40	0.070	ppb v/v			08/23/19 18:36	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/23/19 18:36	1
1,1-Dichloroethene	**0.21**	**J**	0.40	0.040	ppb v/v			08/23/19 18:36	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			08/23/19 18:36	1
Methylene Chloride	**48**	**B**	2.0	0.80	ppb v/v			08/23/19 18:36	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/23/19 18:36	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/23/19 18:36	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/23/19 18:36	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/23/19 18:36	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/23/19 18:36	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/23/19 18:36	1
Trichloroethene	**1.6**		0.20	0.030	ppb v/v			08/23/19 18:36	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/23/19 18:36	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/23/19 18:36	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/23/19 18:36	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/23/19 18:36	1
Xylenes, Total	**0.60**	**J**	0.80	0.12	ppb v/v			08/23/19 18:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.48**	**J**	1.3	0.13	ug/m3			08/23/19 18:36	1
Carbon tetrachloride	**0.49**	**J**	2.5	0.22	ug/m3			08/23/19 18:36	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			08/23/19 18:36	1
Chloroform	**0.91**	**J**	2.0	0.17	ug/m3			08/23/19 18:36	1
cis-1,2-Dichloroethene	**0.44**	**J**	1.6	0.20	ug/m3			08/23/19 18:36	1
Dichlorodifluoromethane	**1.7**	**J**	2.0	0.35	ug/m3			08/23/19 18:36	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/23/19 18:36	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/23/19 18:36	1
1,1-Dichloroethene	**0.84**	**J**	1.6	0.16	ug/m3			08/23/19 18:36	1
Ethylbenzene	**0.53**	**J**	1.7	0.28	ug/m3			08/23/19 18:36	1
Methylene Chloride	**170**	**B**	6.9	2.8	ug/m3			08/23/19 18:36	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/23/19 18:36	1
Naphthalene	ND		1.0	2.0	ug/m3			08/23/19 18:36	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/23/19 18:36	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/23/19 18:36	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/23/19 18:36	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/23/19 18:36	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/23/19 18:36	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/23/19 18:36	1
Trichloroethene	**8.4**		1.1	0.16	ug/m3			08/23/19 18:36	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/23/19 18:36	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/23/19 18:36	1

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/23/19 18:36	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/23/19 18:36	1
Xylenes, Total	**2.6**	**J**	3.5	0.52	ug/m3			08/23/19 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/23/19 18:36*	*1*

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Date Collected: 08/15/19 11:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		3.6	0.36	ppb v/v			08/21/19 20:28	1
Carbon tetrachloride	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Chlorodifluoromethane	ND		3.6	1.0	ppb v/v			08/21/19 20:28	1
Chloroform	**2.1**	**J**	3.6	0.32	ppb v/v			08/21/19 20:28	1
cis-1,2-Dichloroethene	**45**		3.6	0.45	ppb v/v			08/21/19 20:28	1
Dichlorodifluoromethane	ND		3.6	0.64	ppb v/v			08/21/19 20:28	1
1,1-Dichloroethane	**6.7**		3.6	0.32	ppb v/v			08/21/19 20:28	1
1,2-Dichloroethane	ND		3.6	0.45	ppb v/v			08/21/19 20:28	1
1,1-Dichloroethene	**150**		3.6	0.36	ppb v/v			08/21/19 20:28	1
Ethylbenzene	ND		3.6	0.59	ppb v/v			08/21/19 20:28	1
Methylene Chloride	**20**	**B**	18	7.3	ppb v/v			08/21/19 20:28	1
Methyl tert-butyl ether	ND		18	2.4	ppb v/v			08/21/19 20:28	1
Naphthalene	ND		1.8	3.5	ppb v/v			08/21/19 20:28	1
Tetrachloroethene	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Toluene	ND		5.5	3.5	ppb v/v			08/21/19 20:28	1
trans-1,2-Dichloroethene	**1.7**	**J**	3.6	0.32	ppb v/v			08/21/19 20:28	1
1,2,4-Trichlorobenzene	ND		3.6	2.9	ppb v/v			08/21/19 20:28	1
1,1,1-Trichloroethane	ND		3.6	1.7	ppb v/v			08/21/19 20:28	1
1,1,2-Trichloroethane	ND		3.6	0.32	ppb v/v			08/21/19 20:28	1
Trichloroethene	**1100**	**E**	1.8	0.27	ppb v/v			08/21/19 20:28	1
1,2,3-Trimethylbenzene	ND		3.6	1.6	ppb v/v			08/21/19 20:28	1
1,2,4-Trimethylbenzene	ND		3.6	0.91	ppb v/v			08/21/19 20:28	1
1,3,5-Trimethylbenzene	ND		3.6	1.0	ppb v/v			08/21/19 20:28	1
Vinyl chloride	ND		1.8	1.2	ppb v/v			08/21/19 20:28	1
Xylenes, Total	ND		7.3	1.1	ppb v/v			08/21/19 20:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		12	1.2	ug/m3			08/21/19 20:28	1
Carbon tetrachloride	ND		23	2.0	ug/m3			08/21/19 20:28	1
Chlorodifluoromethane	ND		13	3.5	ug/m3			08/21/19 20:28	1
Chloroform	**10**	**J**	18	1.6	ug/m3			08/21/19 20:28	1
cis-1,2-Dichloroethene	**180**		14	1.8	ug/m3			08/21/19 20:28	1
Dichlorodifluoromethane	ND		18	3.1	ug/m3			08/21/19 20:28	1
1,1-Dichloroethane	**27**		15	1.3	ug/m3			08/21/19 20:28	1
1,2-Dichloroethane	ND		15	1.8	ug/m3			08/21/19 20:28	1
1,1-Dichloroethene	**580**		14	1.4	ug/m3			08/21/19 20:28	1
Ethylbenzene	ND		16	2.6	ug/m3			08/21/19 20:28	1
Methylene Chloride	**69**	**B**	63	25	ug/m3			08/21/19 20:28	1
Methyl tert-butyl ether	ND		66	8.5	ug/m3			08/21/19 20:28	1
Naphthalene	ND		9.5	18	ug/m3			08/21/19 20:28	1
Tetrachloroethene	ND		25	2.2	ug/m3			08/21/19 20:28	1
Toluene	ND		21	13	ug/m3			08/21/19 20:28	1
trans-1,2-Dichloroethene	**6.6**	**J**	14	1.3	ug/m3			08/21/19 20:28	1
1,2,4-Trichlorobenzene	ND		27	22	ug/m3			08/21/19 20:28	1
1,1,1-Trichloroethane	ND		20	9.2	ug/m3			08/21/19 20:28	1
1,1,2-Trichloroethane	ND		20	1.7	ug/m3			08/21/19 20:28	1
Trichloroethene	**5900**	**E**	9.8	1.5	ug/m3			08/21/19 20:28	1
1,2,3-Trimethylbenzene	ND		18	8.0	ug/m3			08/21/19 20:28	1
1,2,4-Trimethylbenzene	ND		18	4.5	ug/m3			08/21/19 20:28	1

Client Sample ID: SV-173-A-27 — Lab Sample ID: 140-16377-3

Date Collected: 08/15/19 11:00 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		18	4.9	ug/m3			08/21/19 20:28	1
Vinyl chloride	ND		4.6	3.0	ug/m3			08/21/19 20:28	1
Xylenes, Total	ND		32	4.7	ug/m3			08/21/19 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/21/19 20:28*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**1900**		7.3	1.1	ppb v/v			08/23/19 19:23	3.64

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**10000**		39	5.9	ug/m3			08/23/19 19:23	3.64

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 19:23*	*3.64*

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Date Collected: 08/15/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.19**	**J**	0.40	0.040	ppb v/v			08/22/19 01:23	1
Carbon tetrachloride	**0.079**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
Chlorodifluoromethane	**0.35**	**J**	0.40	0.11	ppb v/v			08/22/19 01:23	1
Chloroform	**0.13**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
cis-1,2-Dichloroethene	**3.5**		0.40	0.050	ppb v/v			08/22/19 01:23	1
Dichlorodifluoromethane	**0.53**		0.40	0.070	ppb v/v			08/22/19 01:23	1
1,1-Dichloroethane	**0.82**		0.40	0.035	ppb v/v			08/22/19 01:23	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 01:23	1
1,1-Dichloroethene	**5.7**		0.40	0.040	ppb v/v			08/22/19 01:23	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/22/19 01:23	1
Methylene Chloride	**8.4**	**B**	2.0	0.80	ppb v/v			08/22/19 01:23	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 01:23	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 01:23	1
Tetrachloroethene	**0.23**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
Toluene	**0.39**	**J**	0.60	0.39	ppb v/v			08/22/19 01:23	1
trans-1,2-Dichloroethene	**0.12**	**J**	0.40	0.035	ppb v/v			08/22/19 01:23	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 01:23	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 01:23	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 01:23	1
Trichloroethene	**37**		0.20	0.030	ppb v/v			08/22/19 01:23	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 01:23	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 01:23	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 01:23	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 01:23	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/22/19 01:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.61**	**J**	1.3	0.13	ug/m3			08/22/19 01:23	1
Carbon tetrachloride	**0.50**	**J**	2.5	0.22	ug/m3			08/22/19 01:23	1
Chlorodifluoromethane	**1.2**	**J**	1.4	0.39	ug/m3			08/22/19 01:23	1
Chloroform	**0.62**	**J**	2.0	0.17	ug/m3			08/22/19 01:23	1
cis-1,2-Dichloroethene	**14**		1.6	0.20	ug/m3			08/22/19 01:23	1
Dichlorodifluoromethane	**2.6**		2.0	0.35	ug/m3			08/22/19 01:23	1
1,1-Dichloroethane	**3.3**		1.6	0.14	ug/m3			08/22/19 01:23	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 01:23	1
1,1-Dichloroethene	**22**		1.6	0.16	ug/m3			08/22/19 01:23	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/22/19 01:23	1
Methylene Chloride	**29**	**B**	6.9	2.8	ug/m3			08/22/19 01:23	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 01:23	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 01:23	1
Tetrachloroethene	**1.5**	**J**	2.7	0.24	ug/m3			08/22/19 01:23	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/22/19 01:23	1
trans-1,2-Dichloroethene	**0.49**	**J**	1.6	0.14	ug/m3			08/22/19 01:23	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 01:23	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 01:23	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 01:23	1
Trichloroethene	**200**		1.1	0.16	ug/m3			08/22/19 01:23	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 01:23	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 01:23	1

Client Sample ID: SV-138-A-27 **Lab Sample ID: 140-16377-4**
Date Collected: 08/15/19 11:02 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 01:23	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 01:23	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/22/19 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/22/19 01:23*	*1*

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Date Collected: 08/15/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		3.6	0.36	ppb v/v			08/21/19 21:18	1
Carbon tetrachloride	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Chlorodifluoromethane	ND		3.6	1.0	ppb v/v			08/21/19 21:18	1
Chloroform	**0.99**	**J**	3.6	0.32	ppb v/v			08/21/19 21:18	1
cis-1,2-Dichloroethene	**13**		3.6	0.45	ppb v/v			08/21/19 21:18	1
Dichlorodifluoromethane	ND		3.6	0.64	ppb v/v			08/21/19 21:18	1
1,1-Dichloroethane	**2.1**	**J**	3.6	0.32	ppb v/v			08/21/19 21:18	1
1,2-Dichloroethane	ND		3.6	0.45	ppb v/v			08/21/19 21:18	1
1,1-Dichloroethene	**63**		3.6	0.36	ppb v/v			08/21/19 21:18	1
Ethylbenzene	ND		3.6	0.59	ppb v/v			08/21/19 21:18	1
Methylene Chloride	**15**	**J B**	18	7.3	ppb v/v			08/21/19 21:18	1
Methyl tert-butyl ether	ND		18	2.4	ppb v/v			08/21/19 21:18	1
Naphthalene	ND		1.8	3.5	ppb v/v			08/21/19 21:18	1
Tetrachloroethene	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Toluene	ND		5.5	3.5	ppb v/v			08/21/19 21:18	1
trans-1,2-Dichloroethene	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
1,2,4-Trichlorobenzene	ND		3.6	2.9	ppb v/v			08/21/19 21:18	1
1,1,1-Trichloroethane	ND		3.6	1.7	ppb v/v			08/21/19 21:18	1
1,1,2-Trichloroethane	ND		3.6	0.32	ppb v/v			08/21/19 21:18	1
Trichloroethene	**400**		1.8	0.27	ppb v/v			08/21/19 21:18	1
1,2,3-Trimethylbenzene	ND		3.6	1.6	ppb v/v			08/21/19 21:18	1
1,2,4-Trimethylbenzene	ND		3.6	0.91	ppb v/v			08/21/19 21:18	1
1,3,5-Trimethylbenzene	ND		3.6	1.0	ppb v/v			08/21/19 21:18	1
Vinyl chloride	ND		1.8	1.2	ppb v/v			08/21/19 21:18	1
Xylenes, Total	ND		7.3	1.1	ppb v/v			08/21/19 21:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		12	1.2	ug/m3			08/21/19 21:18	1
Carbon tetrachloride	ND		23	2.0	ug/m3			08/21/19 21:18	1
Chlorodifluoromethane	ND		13	3.5	ug/m3			08/21/19 21:18	1
Chloroform	**4.8**	**J**	18	1.6	ug/m3			08/21/19 21:18	1
cis-1,2-Dichloroethene	**52**		14	1.8	ug/m3			08/21/19 21:18	1
Dichlorodifluoromethane	ND		18	3.1	ug/m3			08/21/19 21:18	1
1,1-Dichloroethane	**8.5**	**J**	15	1.3	ug/m3			08/21/19 21:18	1
1,2-Dichloroethane	ND		15	1.8	ug/m3			08/21/19 21:18	1
1,1-Dichloroethene	**250**		14	1.4	ug/m3			08/21/19 21:18	1
Ethylbenzene	ND		16	2.6	ug/m3			08/21/19 21:18	1
Methylene Chloride	**53**	**J B**	63	25	ug/m3			08/21/19 21:18	1
Methyl tert-butyl ether	ND		66	8.5	ug/m3			08/21/19 21:18	1
Naphthalene	ND		9.5	18	ug/m3			08/21/19 21:18	1
Tetrachloroethene	ND		25	2.2	ug/m3			08/21/19 21:18	1
Toluene	ND		21	13	ug/m3			08/21/19 21:18	1
trans-1,2-Dichloroethene	ND		14	1.3	ug/m3			08/21/19 21:18	1
1,2,4-Trichlorobenzene	ND		27	22	ug/m3			08/21/19 21:18	1
1,1,1-Trichloroethane	ND		20	9.2	ug/m3			08/21/19 21:18	1
1,1,2-Trichloroethane	ND		20	1.7	ug/m3			08/21/19 21:18	1
Trichloroethene	**2200**		9.8	1.5	ug/m3			08/21/19 21:18	1
1,2,3-Trimethylbenzene	ND		18	8.0	ug/m3			08/21/19 21:18	1
1,2,4-Trimethylbenzene	ND		18	4.5	ug/m3			08/21/19 21:18	1

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Date Collected: 08/15/19 11:04 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		18	4.9	ug/m3			08/21/19 21:18	1
Vinyl chloride	ND		4.6	3.0	ug/m3			08/21/19 21:18	1
Xylenes, Total	ND		32	4.7	ug/m3			08/21/19 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 21:18*	*1*

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.5	0.15	ppb v/v			08/22/19 02:13	3.72
Carbon tetrachloride	ND		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Chlorodifluoromethane	ND		1.5	0.41	ppb v/v			08/22/19 02:13	3.72
Chloroform	**5.7**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
cis-1,2-Dichloroethene	**62**		1.5	0.19	ppb v/v			08/22/19 02:13	3.72
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.26	ppb v/v			08/22/19 02:13	3.72
1,1-Dichloroethane	**21**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
1,2-Dichloroethane	ND		1.5	0.19	ppb v/v			08/22/19 02:13	3.72
1,1-Dichloroethene	**230**		1.5	0.15	ppb v/v			08/22/19 02:13	3.72
Ethylbenzene	ND		1.5	0.24	ppb v/v			08/22/19 02:13	3.72
Methylene Chloride	**7.1**	**J B**	7.4	3.0	ppb v/v			08/22/19 02:13	3.72
Methyl tert-butyl ether	ND		7.4	0.97	ppb v/v			08/22/19 02:13	3.72
Naphthalene	ND		0.74	1.4	ppb v/v			08/22/19 02:13	3.72
Tetrachloroethene	**0.37**	**J**	1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Toluene	ND		2.2	1.5	ppb v/v			08/22/19 02:13	3.72
trans-1,2-Dichloroethene	**3.2**		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
1,2,4-Trichlorobenzene	ND		1.5	1.2	ppb v/v			08/22/19 02:13	3.72
1,1,1-Trichloroethane	**30**		1.5	0.69	ppb v/v			08/22/19 02:13	3.72
1,1,2-Trichloroethane	ND		1.5	0.13	ppb v/v			08/22/19 02:13	3.72
Trichloroethene	**1400**	**E**	0.74	0.11	ppb v/v			08/22/19 02:13	3.72
1,2,3-Trimethylbenzene	ND		1.5	0.67	ppb v/v			08/22/19 02:13	3.72
1,2,4-Trimethylbenzene	ND		1.5	0.37	ppb v/v			08/22/19 02:13	3.72
1,3,5-Trimethylbenzene	ND		1.5	0.41	ppb v/v			08/22/19 02:13	3.72
Vinyl chloride	ND		0.74	0.48	ppb v/v			08/22/19 02:13	3.72
Xylenes, Total	**1.0**	**J**	3.0	0.45	ppb v/v			08/22/19 02:13	3.72

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.4**	**J**	4.8	0.48	ug/m3			08/22/19 02:13	3.72
Carbon tetrachloride	ND		9.4	0.82	ug/m3			08/22/19 02:13	3.72
Chlorodifluoromethane	ND		5.3	1.4	ug/m3			08/22/19 02:13	3.72
Chloroform	**28**		7.3	0.64	ug/m3			08/22/19 02:13	3.72
cis-1,2-Dichloroethene	**240**		5.9	0.74	ug/m3			08/22/19 02:13	3.72
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.3	ug/m3			08/22/19 02:13	3.72
1,1-Dichloroethane	**84**		6.0	0.53	ug/m3			08/22/19 02:13	3.72
1,2-Dichloroethane	ND		6.0	0.75	ug/m3			08/22/19 02:13	3.72
1,1-Dichloroethene	**900**		5.9	0.59	ug/m3			08/22/19 02:13	3.72
Ethylbenzene	ND		6.5	1.0	ug/m3			08/22/19 02:13	3.72
Methylene Chloride	**25**	**J B**	26	10	ug/m3			08/22/19 02:13	3.72
Methyl tert-butyl ether	ND		27	3.5	ug/m3			08/22/19 02:13	3.72
Naphthalene	ND		3.9	7.4	ug/m3			08/22/19 02:13	3.72
Tetrachloroethene	**2.5**	**J**	10	0.88	ug/m3			08/22/19 02:13	3.72
Toluene	ND		8.4	5.5	ug/m3			08/22/19 02:13	3.72
trans-1,2-Dichloroethene	**13**		5.9	0.52	ug/m3			08/22/19 02:13	3.72
1,2,4-Trichlorobenzene	ND		11	8.8	ug/m3			08/22/19 02:13	3.72
1,1,1-Trichloroethane	**160**		8.1	3.8	ug/m3			08/22/19 02:13	3.72
1,1,2-Trichloroethane	ND		8.1	0.71	ug/m3			08/22/19 02:13	3.72
Trichloroethene	**7600**	**E**	4.0	0.60	ug/m3			08/22/19 02:13	3.72
1,2,3-Trimethylbenzene	ND		7.3	3.3	ug/m3			08/22/19 02:13	3.72
1,2,4-Trimethylbenzene	ND		7.3	1.8	ug/m3			08/22/19 02:13	3.72

Client Sample ID: SV-174-A-27 — Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		7.3	2.0	ug/m3			08/22/19 02:13	3.72
Vinyl chloride	ND		1.9	1.2	ug/m3			08/22/19 02:13	3.72
Xylenes, Total	**4.4**	**J**	13	1.9	ug/m3			08/22/19 02:13	3.72

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/22/19 02:13*	*3.72*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**820**		6.8	1.0	ppb v/v			08/27/19 15:43	3.72

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**4400**		36	5.5	ug/m3			08/27/19 15:43	3.72

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/27/19 15:43*	*3.72*

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Date Collected: 08/15/19 11:08 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/22/19 03:02	1
Carbon tetrachloride	**0.065**	**J**	0.40	0.035	ppb v/v			08/22/19 03:02	1
Chlorodifluoromethane	ND		0.40	0.11	ppb v/v			08/22/19 03:02	1
Chloroform	**0.092**	**J**	0.40	0.035	ppb v/v			08/22/19 03:02	1
cis-1,2-Dichloroethene	**0.20**	**J**	0.40	0.050	ppb v/v			08/22/19 03:02	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/22/19 03:02	1
1,1-Dichloroethane	**2.3**		0.40	0.035	ppb v/v			08/22/19 03:02	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 03:02	1
1,1-Dichloroethene	**1.3**		0.40	0.040	ppb v/v			08/22/19 03:02	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/22/19 03:02	1
Methylene Chloride	**4.7**	**B**	2.0	0.80	ppb v/v			08/22/19 03:02	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 03:02	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 03:02	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
Toluene	**0.70**		0.60	0.39	ppb v/v			08/22/19 03:02	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 03:02	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/22/19 03:02	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 03:02	1
Trichloroethene	**1.3**		0.20	0.030	ppb v/v			08/22/19 03:02	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 03:02	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/22/19 03:02	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 03:02	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 03:02	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			08/22/19 03:02	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/22/19 03:02	1
Carbon tetrachloride	**0.41**	**J**	2.5	0.22	ug/m3			08/22/19 03:02	1
Chlorodifluoromethane	ND		1.4	0.39	ug/m3			08/22/19 03:02	1
Chloroform	**0.45**	**J**	2.0	0.17	ug/m3			08/22/19 03:02	1
cis-1,2-Dichloroethene	**0.79**	**J**	1.6	0.20	ug/m3			08/22/19 03:02	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/22/19 03:02	1
1,1-Dichloroethane	**9.2**		1.6	0.14	ug/m3			08/22/19 03:02	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 03:02	1
1,1-Dichloroethene	**5.3**		1.6	0.16	ug/m3			08/22/19 03:02	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/22/19 03:02	1
Methylene Chloride	**16**	**B**	6.9	2.8	ug/m3			08/22/19 03:02	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 03:02	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 03:02	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/22/19 03:02	1
Toluene	**2.6**		2.3	1.5	ug/m3			08/22/19 03:02	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/22/19 03:02	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 03:02	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/22/19 03:02	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 03:02	1
Trichloroethene	**7.2**		1.1	0.16	ug/m3			08/22/19 03:02	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 03:02	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/22/19 03:02	1

Client Sample ID: SV-093-A-27 **Lab Sample ID: 140-16377-7**
Date Collected: 08/15/19 11:08 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 03:02	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 03:02	1
Xylenes, Total	ND		3.5	0.52	ug/m3			08/22/19 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/22/19 03:02*	*1*

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Date Collected: 08/15/19 11:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			08/22/19 05:31	1
Carbon tetrachloride	**0.063**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
Chlorodifluoromethane	**0.38**	**J**	0.40	0.11	ppb v/v			08/22/19 05:31	1
Chloroform	**0.13**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
cis-1,2-Dichloroethene	**2.6**		0.40	0.050	ppb v/v			08/22/19 05:31	1
Dichlorodifluoromethane	**0.42**		0.40	0.070	ppb v/v			08/22/19 05:31	1
1,1-Dichloroethane	**0.44**		0.40	0.035	ppb v/v			08/22/19 05:31	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/22/19 05:31	1
1,1-Dichloroethene	**12**		0.40	0.040	ppb v/v			08/22/19 05:31	1
Ethylbenzene	**0.33**	**J**	0.40	0.065	ppb v/v			08/22/19 05:31	1
Methylene Chloride	**7.7**	**B**	2.0	0.80	ppb v/v			08/22/19 05:31	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/22/19 05:31	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/22/19 05:31	1
Tetrachloroethene	**0.12**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
Toluene	**0.40**	**J**	0.60	0.39	ppb v/v			08/22/19 05:31	1
trans-1,2-Dichloroethene	**0.095**	**J**	0.40	0.035	ppb v/v			08/22/19 05:31	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/22/19 05:31	1
1,1,1-Trichloroethane	**1.1**		0.40	0.19	ppb v/v			08/22/19 05:31	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/22/19 05:31	1
Trichloroethene	**63**		0.20	0.030	ppb v/v			08/22/19 05:31	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/22/19 05:31	1
1,2,4-Trimethylbenzene	**0.19**	**J**	0.40	0.10	ppb v/v			08/22/19 05:31	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/22/19 05:31	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/22/19 05:31	1
Xylenes, Total	**3.5**		0.80	0.12	ppb v/v			08/22/19 05:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.51**	**J**	1.3	0.13	ug/m3			08/22/19 05:31	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/22/19 05:31	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/22/19 05:31	1
Chloroform	**0.63**	**J**	2.0	0.17	ug/m3			08/22/19 05:31	1
cis-1,2-Dichloroethene	**10**		1.6	0.20	ug/m3			08/22/19 05:31	1
Dichlorodifluoromethane	**2.1**		2.0	0.35	ug/m3			08/22/19 05:31	1
1,1-Dichloroethane	**1.8**		1.6	0.14	ug/m3			08/22/19 05:31	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/22/19 05:31	1
1,1-Dichloroethene	**49**		1.6	0.16	ug/m3			08/22/19 05:31	1
Ethylbenzene	**1.4**	**J**	1.7	0.28	ug/m3			08/22/19 05:31	1
Methylene Chloride	**27**	**B**	6.9	2.8	ug/m3			08/22/19 05:31	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/22/19 05:31	1
Naphthalene	ND		1.0	2.0	ug/m3			08/22/19 05:31	1
Tetrachloroethene	**0.78**	**J**	2.7	0.24	ug/m3			08/22/19 05:31	1
Toluene	**1.5**	**J**	2.3	1.5	ug/m3			08/22/19 05:31	1
trans-1,2-Dichloroethene	**0.38**	**J**	1.6	0.14	ug/m3			08/22/19 05:31	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/22/19 05:31	1
1,1,1-Trichloroethane	**6.2**		2.2	1.0	ug/m3			08/22/19 05:31	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/22/19 05:31	1
Trichloroethene	**340**		1.1	0.16	ug/m3			08/22/19 05:31	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/22/19 05:31	1
1,2,4-Trimethylbenzene	**0.93**	**J**	2.0	0.49	ug/m3			08/22/19 05:31	1

Client Sample ID: SV-170-A-27 **Lab Sample ID: 140-16377-8**
Date Collected: 08/15/19 11:10 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/22/19 05:31	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/22/19 05:31	1
Xylenes, Total	**15**		3.5	0.52	ug/m3			08/22/19 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/22/19 05:31*	*1*

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Date Collected: 08/15/19 11:17 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.14**	**J**	0.40	0.040	ppb v/v			08/20/19 17:19	1
Carbon tetrachloride	**0.049**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			08/20/19 17:19	1
Chloroform	**0.10**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 17:19	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/20/19 17:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 17:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 17:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 17:19	1
Ethylbenzene	**0.21**	**J**	0.40	0.065	ppb v/v			08/20/19 17:19	1
Methylene Chloride	**13**		2.0	0.80	ppb v/v			08/20/19 17:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 17:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 17:19	1
Tetrachloroethene	**2.7**		0.40	0.035	ppb v/v			08/20/19 17:19	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/20/19 17:19	1
trans-1,2-Dichloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/20/19 17:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 17:19	1
1,1,1-Trichloroethane	**0.23**	**J**	0.40	0.19	ppb v/v			08/20/19 17:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 17:19	1
Trichloroethene	**27**		0.20	0.030	ppb v/v			08/20/19 17:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 17:19	1
1,2,4-Trimethylbenzene	**0.24**	**J**	0.40	0.10	ppb v/v			08/20/19 17:19	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 17:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 17:19	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/20/19 17:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.44**	**J**	1.3	0.13	ug/m3			08/20/19 17:19	1
Carbon tetrachloride	**0.31**	**J**	2.5	0.22	ug/m3			08/20/19 17:19	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/20/19 17:19	1
Chloroform	**0.50**	**J**	2.0	0.17	ug/m3			08/20/19 17:19	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 17:19	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 17:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 17:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 17:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 17:19	1
Ethylbenzene	**0.92**	**J**	1.7	0.28	ug/m3			08/20/19 17:19	1
Methylene Chloride	**45**		6.9	2.8	ug/m3			08/20/19 17:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 17:19	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 17:19	1
Tetrachloroethene	**18**		2.7	0.24	ug/m3			08/20/19 17:19	1
Toluene	**5.9**		2.3	1.5	ug/m3			08/20/19 17:19	1
trans-1,2-Dichloroethene	**0.51**	**J**	1.6	0.14	ug/m3			08/20/19 17:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 17:19	1
1,1,1-Trichloroethane	**1.3**	**J**	2.2	1.0	ug/m3			08/20/19 17:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 17:19	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/20/19 17:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 17:19	1
1,2,4-Trimethylbenzene	**1.2**	**J**	2.0	0.49	ug/m3			08/20/19 17:19	1

Client Sample ID: SV-079-A-27 — Lab Sample ID: 140-16377-9

Date Collected: 08/15/19 11:17 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 17:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 17:19	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/20/19 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 17:19*	*1*

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/20/19 18:08	1
Carbon tetrachloride	**0.048**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			08/20/19 18:08	1
Chloroform	**0.091**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 18:08	1
Dichlorodifluoromethane	**0.46**		0.40	0.070	ppb v/v			08/20/19 18:08	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:08	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 18:08	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 18:08	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/20/19 18:08	1
Methylene Chloride	**8.2**		2.0	0.80	ppb v/v			08/20/19 18:08	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 18:08	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 18:08	1
Tetrachloroethene	**2.7**		0.40	0.035	ppb v/v			08/20/19 18:08	1
Toluene	**1.4**		0.60	0.39	ppb v/v			08/20/19 18:08	1
trans-1,2-Dichloroethene	**0.14**	**J**	0.40	0.035	ppb v/v			08/20/19 18:08	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 18:08	1
1,1,1-Trichloroethane	**0.26**	**J**	0.40	0.19	ppb v/v			08/20/19 18:08	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:08	1
Trichloroethene	**27**		0.20	0.030	ppb v/v			08/20/19 18:08	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 18:08	1
1,2,4-Trimethylbenzene	**0.22**	**J**	0.40	0.10	ppb v/v			08/20/19 18:08	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 18:08	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 18:08	1
Xylenes, Total	**1.2**		0.80	0.12	ppb v/v			08/20/19 18:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			08/20/19 18:08	1
Carbon tetrachloride	**0.30**	**J**	2.5	0.22	ug/m3			08/20/19 18:08	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			08/20/19 18:08	1
Chloroform	**0.45**	**J**	2.0	0.17	ug/m3			08/20/19 18:08	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 18:08	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/20/19 18:08	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 18:08	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 18:08	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 18:08	1
Ethylbenzene	**0.77**	**J**	1.7	0.28	ug/m3			08/20/19 18:08	1
Methylene Chloride	**29**		6.9	2.8	ug/m3			08/20/19 18:08	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 18:08	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 18:08	1
Tetrachloroethene	**19**		2.7	0.24	ug/m3			08/20/19 18:08	1
Toluene	**5.3**		2.3	1.5	ug/m3			08/20/19 18:08	1
trans-1,2-Dichloroethene	**0.56**	**J**	1.6	0.14	ug/m3			08/20/19 18:08	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 18:08	1
1,1,1-Trichloroethane	**1.4**	**J**	2.2	1.0	ug/m3			08/20/19 18:08	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 18:08	1
Trichloroethene	**150**		1.1	0.16	ug/m3			08/20/19 18:08	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 18:08	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/20/19 18:08	1

Client Sample ID: SV-DUP04-A-27 **Lab Sample ID: 140-16377-10**
Date Collected: 08/15/19 00:00 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 18:08	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 18:08	1
Xylenes, Total	**5.0**		3.5	0.52	ug/m3			08/20/19 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 18:08*	*1*

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Date Collected: 08/15/19 11:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.042**	**J**	0.40	0.040	ppb v/v			08/20/19 18:57	1
Carbon tetrachloride	**0.055**	**J**	0.40	0.035	ppb v/v			08/20/19 18:57	1
Chlorodifluoromethane	**0.35**	**J**	0.40	0.11	ppb v/v			08/20/19 18:57	1
Chloroform	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 18:57	1
Dichlorodifluoromethane	**0.45**		0.40	0.070	ppb v/v			08/20/19 18:57	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 18:57	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 18:57	1
Ethylbenzene	**1.0**		0.40	0.065	ppb v/v			08/20/19 18:57	1
Methylene Chloride	**9.2**		2.0	0.80	ppb v/v			08/20/19 18:57	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 18:57	1
Naphthalene	**0.58**		0.20	0.38	ppb v/v			08/20/19 18:57	1
Tetrachloroethene	**0.84**		0.40	0.035	ppb v/v			08/20/19 18:57	1
Toluene	ND		0.60	0.39	ppb v/v			08/20/19 18:57	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 18:57	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 18:57	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 18:57	1
Trichloroethene	**0.30**		0.20	0.030	ppb v/v			08/20/19 18:57	1
1,2,3-Trimethylbenzene	**1.1**		0.40	0.18	ppb v/v			08/20/19 18:57	1
1,2,4-Trimethylbenzene	**0.48**		0.40	0.10	ppb v/v			08/20/19 18:57	1
1,3,5-Trimethylbenzene	**1.3**		0.40	0.11	ppb v/v			08/20/19 18:57	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 18:57	1
Xylenes, Total	**8.6**		0.80	0.12	ppb v/v			08/20/19 18:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	1.3	0.13	ug/m3			08/20/19 18:57	1
Carbon tetrachloride	**0.35**	**J**	2.5	0.22	ug/m3			08/20/19 18:57	1
Chlorodifluoromethane	**1.2**	**J**	1.4	0.39	ug/m3			08/20/19 18:57	1
Chloroform	ND		2.0	0.17	ug/m3			08/20/19 18:57	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 18:57	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 18:57	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 18:57	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 18:57	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 18:57	1
Ethylbenzene	**4.4**		1.7	0.28	ug/m3			08/20/19 18:57	1
Methylene Chloride	**32**		6.9	2.8	ug/m3			08/20/19 18:57	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 18:57	1
Naphthalene	**3.0**		1.0	2.0	ug/m3			08/20/19 18:57	1
Tetrachloroethene	**5.7**		2.7	0.24	ug/m3			08/20/19 18:57	1
Toluene	ND		2.3	1.5	ug/m3			08/20/19 18:57	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 18:57	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 18:57	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 18:57	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 18:57	1
Trichloroethene	**1.6**		1.1	0.16	ug/m3			08/20/19 18:57	1
1,2,3-Trimethylbenzene	**5.6**		2.0	0.88	ug/m3			08/20/19 18:57	1
1,2,4-Trimethylbenzene	**2.4**		2.0	0.49	ug/m3			08/20/19 18:57	1

Client Sample ID: SV-139-A-27 **Lab Sample ID: 140-16377-11**
Date Collected: 08/15/19 11:20 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**6.6**		2.0	0.54	ug/m3			08/20/19 18:57	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 18:57	1
Xylenes, Total	**37**		3.5	0.52	ug/m3			08/20/19 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/20/19 18:57*	*1*

Client Sample ID: SV-118-A-27 — Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.10**	**J**	0.40	0.040	ppb v/v			08/20/19 19:46	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			08/20/19 19:46	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/20/19 19:46	1
Chloroform	**0.47**		0.40	0.035	ppb v/v			08/20/19 19:46	1
cis-1,2-Dichloroethene	**11**		0.40	0.050	ppb v/v			08/20/19 19:46	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			08/20/19 19:46	1
1,1-Dichloroethane	**2.7**		0.40	0.035	ppb v/v			08/20/19 19:46	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 19:46	1
1,1-Dichloroethene	**22**		0.40	0.040	ppb v/v			08/20/19 19:46	1
Ethylbenzene	**1.5**		0.40	0.065	ppb v/v			08/20/19 19:46	1
Methylene Chloride	**10**		2.0	0.80	ppb v/v			08/20/19 19:46	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 19:46	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 19:46	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 19:46	1
Toluene	**0.89**		0.60	0.39	ppb v/v			08/20/19 19:46	1
trans-1,2-Dichloroethene	**1.0**		0.40	0.035	ppb v/v			08/20/19 19:46	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 19:46	1
1,1,1-Trichloroethane	**0.66**		0.40	0.19	ppb v/v			08/20/19 19:46	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 19:46	1
Trichloroethene	**130**	**E**	0.20	0.030	ppb v/v			08/20/19 19:46	1
1,2,3-Trimethylbenzene	**0.51**		0.40	0.18	ppb v/v			08/20/19 19:46	1
1,2,4-Trimethylbenzene	**1.2**		0.40	0.10	ppb v/v			08/20/19 19:46	1
1,3,5-Trimethylbenzene	**0.79**		0.40	0.11	ppb v/v			08/20/19 19:46	1
Vinyl chloride	**0.22**		0.20	0.13	ppb v/v			08/20/19 19:46	1
Xylenes, Total	**13**		0.80	0.12	ppb v/v			08/20/19 19:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.32**	**J**	1.3	0.13	ug/m3			08/20/19 19:46	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			08/20/19 19:46	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			08/20/19 19:46	1
Chloroform	**2.3**		2.0	0.17	ug/m3			08/20/19 19:46	1
cis-1,2-Dichloroethene	**45**		1.6	0.20	ug/m3			08/20/19 19:46	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 19:46	1
1,1-Dichloroethane	**11**		1.6	0.14	ug/m3			08/20/19 19:46	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 19:46	1
1,1-Dichloroethene	**86**		1.6	0.16	ug/m3			08/20/19 19:46	1
Ethylbenzene	**6.4**		1.7	0.28	ug/m3			08/20/19 19:46	1
Methylene Chloride	**36**		6.9	2.8	ug/m3			08/20/19 19:46	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 19:46	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 19:46	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 19:46	1
Toluene	**3.3**		2.3	1.5	ug/m3			08/20/19 19:46	1
trans-1,2-Dichloroethene	**4.0**		1.6	0.14	ug/m3			08/20/19 19:46	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 19:46	1
1,1,1-Trichloroethane	**3.6**		2.2	1.0	ug/m3			08/20/19 19:46	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 19:46	1
Trichloroethene	**720**	**E**	1.1	0.16	ug/m3			08/20/19 19:46	1
1,2,3-Trimethylbenzene	**2.5**		2.0	0.88	ug/m3			08/20/19 19:46	1
1,2,4-Trimethylbenzene	**5.7**		2.0	0.49	ug/m3			08/20/19 19:46	1

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	3.9		2.0	0.54	ug/m3			08/20/19 19:46	1
Vinyl chloride	0.57		0.51	0.33	ug/m3			08/20/19 19:46	1
Xylenes, Total	58		3.5	0.52	ug/m3			08/20/19 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*08/20/19 19:46*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	78		0.67	0.10	ppb v/v			08/21/19 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	420		3.6	0.54	ug/m3			08/21/19 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 22:07*	*1*

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Date Collected: 08/15/19 16:12 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.92**		0.40	0.040	ppb v/v			08/20/19 21:24	1
Carbon tetrachloride	**0.060**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
Chlorodifluoromethane	**0.41**		0.40	0.11	ppb v/v			08/20/19 21:24	1
Chloroform	**0.070**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
cis-1,2-Dichloroethene	**0.60**		0.40	0.050	ppb v/v			08/20/19 21:24	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			08/20/19 21:24	1
1,1-Dichloroethane	**0.65**		0.40	0.035	ppb v/v			08/20/19 21:24	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 21:24	1
1,1-Dichloroethene	**3.5**		0.40	0.040	ppb v/v			08/20/19 21:24	1
Ethylbenzene	**7.0**		0.40	0.065	ppb v/v			08/20/19 21:24	1
Methylene Chloride	**39**		2.0	0.80	ppb v/v			08/20/19 21:24	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 21:24	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 21:24	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 21:24	1
Toluene	**3.4**		0.60	0.39	ppb v/v			08/20/19 21:24	1
trans-1,2-Dichloroethene	**0.070**	**J**	0.40	0.035	ppb v/v			08/20/19 21:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 21:24	1
1,1,1-Trichloroethane	**0.21**	**J**	0.40	0.19	ppb v/v			08/20/19 21:24	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 21:24	1
Trichloroethene	**1.9**		0.20	0.030	ppb v/v			08/20/19 21:24	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 21:24	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/20/19 21:24	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 21:24	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 21:24	1
Xylenes, Total	**15**		0.80	0.12	ppb v/v			08/20/19 21:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.9**		1.3	0.13	ug/m3			08/20/19 21:24	1
Carbon tetrachloride	**0.38**	**J**	2.5	0.22	ug/m3			08/20/19 21:24	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/20/19 21:24	1
Chloroform	**0.34**	**J**	2.0	0.17	ug/m3			08/20/19 21:24	1
cis-1,2-Dichloroethene	**2.4**		1.6	0.20	ug/m3			08/20/19 21:24	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			08/20/19 21:24	1
1,1-Dichloroethane	**2.6**		1.6	0.14	ug/m3			08/20/19 21:24	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 21:24	1
1,1-Dichloroethene	**14**		1.6	0.16	ug/m3			08/20/19 21:24	1
Ethylbenzene	**30**		1.7	0.28	ug/m3			08/20/19 21:24	1
Methylene Chloride	**140**		6.9	2.8	ug/m3			08/20/19 21:24	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 21:24	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 21:24	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 21:24	1
Toluene	**13**		2.3	1.5	ug/m3			08/20/19 21:24	1
trans-1,2-Dichloroethene	**0.28**	**J**	1.6	0.14	ug/m3			08/20/19 21:24	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 21:24	1
1,1,1-Trichloroethane	**1.2**	**J**	2.2	1.0	ug/m3			08/20/19 21:24	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 21:24	1
Trichloroethene	**10**		1.1	0.16	ug/m3			08/20/19 21:24	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 21:24	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/20/19 21:24	1

Client Sample ID: SV-015-A-27 **Lab Sample ID: 140-16377-13**
Date Collected: 08/15/19 16:12 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 21:24	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 21:24	1
Xylenes, Total	**64**		3.5	0.52	ug/m3			08/20/19 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 21:24*	*1*

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Date Collected: 08/15/19 11:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 22:14	1
Carbon tetrachloride	**0.051**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
Chlorodifluoromethane	**0.40**		0.40	0.11	ppb v/v			08/20/19 22:14	1
Chloroform	**0.12**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 22:14	1
Dichlorodifluoromethane	**1.2**		0.40	0.070	ppb v/v			08/20/19 22:14	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 22:14	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 22:14	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/20/19 22:14	1
Methylene Chloride	**11**		2.0	0.80	ppb v/v			08/20/19 22:14	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 22:14	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 22:14	1
Tetrachloroethene	**0.31**	**J**	0.40	0.035	ppb v/v			08/20/19 22:14	1
Toluene	**6.8**		0.60	0.39	ppb v/v			08/20/19 22:14	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 22:14	1
1,1,1-Trichloroethane	**0.52**		0.40	0.19	ppb v/v			08/20/19 22:14	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 22:14	1
Trichloroethene	**5.9**		0.20	0.030	ppb v/v			08/20/19 22:14	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 22:14	1
1,2,4-Trimethylbenzene	**0.29**	**J**	0.40	0.10	ppb v/v			08/20/19 22:14	1
1,3,5-Trimethylbenzene	**0.12**	**J**	0.40	0.11	ppb v/v			08/20/19 22:14	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 22:14	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/20/19 22:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.13	ug/m3			08/20/19 22:14	1
Carbon tetrachloride	**0.32**	**J**	2.5	0.22	ug/m3			08/20/19 22:14	1
Chlorodifluoromethane	**1.4**		1.4	0.39	ug/m3			08/20/19 22:14	1
Chloroform	**0.57**	**J**	2.0	0.17	ug/m3			08/20/19 22:14	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 22:14	1
Dichlorodifluoromethane	**6.1**		2.0	0.35	ug/m3			08/20/19 22:14	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 22:14	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 22:14	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 22:14	1
Ethylbenzene	**0.77**	**J**	1.7	0.28	ug/m3			08/20/19 22:14	1
Methylene Chloride	**39**		6.9	2.8	ug/m3			08/20/19 22:14	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 22:14	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 22:14	1
Tetrachloroethene	**2.1**	**J**	2.7	0.24	ug/m3			08/20/19 22:14	1
Toluene	**26**		2.3	1.5	ug/m3			08/20/19 22:14	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 22:14	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 22:14	1
1,1,1-Trichloroethane	**2.8**		2.2	1.0	ug/m3			08/20/19 22:14	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 22:14	1
Trichloroethene	**32**		1.1	0.16	ug/m3			08/20/19 22:14	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 22:14	1
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.49	ug/m3			08/20/19 22:14	1

Client Sample ID: SV-078-A-27 **Lab Sample ID: 140-16377-14**
Date Collected: 08/15/19 11:30 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.58**	**J**	2.0	0.54	ug/m3			08/20/19 22:14	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 22:14	1
Xylenes, Total	**5.4**		3.5	0.52	ug/m3			08/20/19 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/20/19 22:14*	*1*

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.2**		0.40	0.040	ppb v/v			08/20/19 23:52	1
Carbon tetrachloride	**0.064**	**J**	0.40	0.035	ppb v/v			08/20/19 23:52	1
Chlorodifluoromethane	**0.51**		0.40	0.11	ppb v/v			08/20/19 23:52	1
Chloroform	**2.7**		0.40	0.035	ppb v/v			08/20/19 23:52	1
cis-1,2-Dichloroethene	**0.71**		0.40	0.050	ppb v/v			08/20/19 23:52	1
Dichlorodifluoromethane	**0.44**		0.40	0.070	ppb v/v			08/20/19 23:52	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 23:52	1
1,1-Dichloroethene	**0.13**	**J**	0.40	0.040	ppb v/v			08/20/19 23:52	1
Ethylbenzene	**0.22**	**J**	0.40	0.065	ppb v/v			08/20/19 23:52	1
Methylene Chloride	**8.8**		2.0	0.80	ppb v/v			08/20/19 23:52	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 23:52	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/20/19 23:52	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
Toluene	**6.6**		0.60	0.39	ppb v/v			08/20/19 23:52	1
trans-1,2-Dichloroethene	**0.10**	**J**	0.40	0.035	ppb v/v			08/20/19 23:52	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 23:52	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/20/19 23:52	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 23:52	1
Trichloroethene	**110**	**E**	0.20	0.030	ppb v/v			08/20/19 23:52	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/20/19 23:52	1
1,2,4-Trimethylbenzene	**0.14**	**J**	0.40	0.10	ppb v/v			08/20/19 23:52	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/20/19 23:52	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 23:52	1
Xylenes, Total	**1.0**		0.80	0.12	ppb v/v			08/20/19 23:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.0**		1.3	0.13	ug/m3			08/20/19 23:52	1
Carbon tetrachloride	**0.40**	**J**	2.5	0.22	ug/m3			08/20/19 23:52	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			08/20/19 23:52	1
Chloroform	**13**		2.0	0.17	ug/m3			08/20/19 23:52	1
cis-1,2-Dichloroethene	**2.8**		1.6	0.20	ug/m3			08/20/19 23:52	1
Dichlorodifluoromethane	**2.2**		2.0	0.35	ug/m3			08/20/19 23:52	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 23:52	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 23:52	1
1,1-Dichloroethene	**0.52**	**J**	1.6	0.16	ug/m3			08/20/19 23:52	1
Ethylbenzene	**0.95**	**J**	1.7	0.28	ug/m3			08/20/19 23:52	1
Methylene Chloride	**31**		6.9	2.8	ug/m3			08/20/19 23:52	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 23:52	1
Naphthalene	ND		1.0	2.0	ug/m3			08/20/19 23:52	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/20/19 23:52	1
Toluene	**25**		2.3	1.5	ug/m3			08/20/19 23:52	1
trans-1,2-Dichloroethene	**0.41**	**J**	1.6	0.14	ug/m3			08/20/19 23:52	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 23:52	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/20/19 23:52	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 23:52	1
Trichloroethene	**610**	**E**	1.1	0.16	ug/m3			08/20/19 23:52	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/20/19 23:52	1
1,2,4-Trimethylbenzene	**0.69**	**J**	2.0	0.49	ug/m3			08/20/19 23:52	1

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/20/19 23:52	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 23:52	1
Xylenes, Total	**4.4**		3.5	0.52	ug/m3			08/20/19 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/20/19 23:52*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**92**		0.67	0.10	ppb v/v			08/21/19 22:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		3.6	0.54	ug/m3			08/21/19 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 22:56*	*1*

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Date Collected: 08/15/19 11:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			08/21/19 00:41	1
Carbon tetrachloride	**0.052**	**J**	0.40	0.035	ppb v/v			08/21/19 00:41	1
Chlorodifluoromethane	**0.36**	**J**	0.40	0.11	ppb v/v			08/21/19 00:41	1
Chloroform	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 00:41	1
Dichlorodifluoromethane	**0.41**		0.40	0.070	ppb v/v			08/21/19 00:41	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 00:41	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 00:41	1
Ethylbenzene	**0.26**	**J**	0.40	0.065	ppb v/v			08/21/19 00:41	1
Methylene Chloride	**29**		2.0	0.80	ppb v/v			08/21/19 00:41	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 00:41	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 00:41	1
Tetrachloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/21/19 00:41	1
Toluene	**23**		0.60	0.39	ppb v/v			08/21/19 00:41	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 00:41	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 00:41	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 00:41	1
Trichloroethene	**0.15**	**J**	0.20	0.030	ppb v/v			08/21/19 00:41	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 00:41	1
1,2,4-Trimethylbenzene	**0.16**	**J**	0.40	0.10	ppb v/v			08/21/19 00:41	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 00:41	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 00:41	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/21/19 00:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			08/21/19 00:41	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/21/19 00:41	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			08/21/19 00:41	1
Chloroform	ND		2.0	0.17	ug/m3			08/21/19 00:41	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 00:41	1
Dichlorodifluoromethane	**2.0**		2.0	0.35	ug/m3			08/21/19 00:41	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 00:41	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 00:41	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 00:41	1
Ethylbenzene	**1.1**	**J**	1.7	0.28	ug/m3			08/21/19 00:41	1
Methylene Chloride	**100**		6.9	2.8	ug/m3			08/21/19 00:41	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 00:41	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 00:41	1
Tetrachloroethene	**0.91**	**J**	2.7	0.24	ug/m3			08/21/19 00:41	1
Toluene	**87**		2.3	1.5	ug/m3			08/21/19 00:41	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 00:41	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 00:41	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 00:41	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 00:41	1
Trichloroethene	**0.82**	**J**	1.1	0.16	ug/m3			08/21/19 00:41	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 00:41	1
1,2,4-Trimethylbenzene	**0.78**	**J**	2.0	0.49	ug/m3			08/21/19 00:41	1

Client Sample ID: SV-076-A-27 **Lab Sample ID: 140-16377-16**
Date Collected: 08/15/19 11:37 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 00:41	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 00:41	1
Xylenes, Total	**5.6**		3.5	0.52	ug/m3			08/21/19 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*08/21/19 00:41*	*1*

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Date Collected: 08/15/19 11:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.25**	**J**	0.40	0.040	ppb v/v			08/21/19 02:20	1
Carbon tetrachloride	**0.085**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
Chlorodifluoromethane	**0.32**	**J**	0.40	0.11	ppb v/v			08/21/19 02:20	1
Chloroform	**0.48**		0.40	0.035	ppb v/v			08/21/19 02:20	1
cis-1,2-Dichloroethene	**0.19**	**J**	0.40	0.050	ppb v/v			08/21/19 02:20	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/21/19 02:20	1
1,1-Dichloroethane	**0.30**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 02:20	1
1,1-Dichloroethene	**20**		0.40	0.040	ppb v/v			08/21/19 02:20	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/21/19 02:20	1
Methylene Chloride	**7.5**		2.0	0.80	ppb v/v			08/21/19 02:20	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 02:20	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 02:20	1
Tetrachloroethene	**0.13**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
Toluene	**1.2**		0.60	0.39	ppb v/v			08/21/19 02:20	1
trans-1,2-Dichloroethene	**0.052**	**J**	0.40	0.035	ppb v/v			08/21/19 02:20	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 02:20	1
1,1,1-Trichloroethane	**2.4**		0.40	0.19	ppb v/v			08/21/19 02:20	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 02:20	1
Trichloroethene	**51**		0.20	0.030	ppb v/v			08/21/19 02:20	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			08/21/19 02:20	1
1,2,4-Trimethylbenzene	**0.22**	**J**	0.40	0.10	ppb v/v			08/21/19 02:20	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 02:20	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 02:20	1
Xylenes, Total	**0.72**	**J**	0.80	0.12	ppb v/v			08/21/19 02:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.81**	**J**	1.3	0.13	ug/m3			08/21/19 02:20	1
Carbon tetrachloride	**0.53**	**J**	2.5	0.22	ug/m3			08/21/19 02:20	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.39	ug/m3			08/21/19 02:20	1
Chloroform	**2.3**		2.0	0.17	ug/m3			08/21/19 02:20	1
cis-1,2-Dichloroethene	**0.76**	**J**	1.6	0.20	ug/m3			08/21/19 02:20	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/21/19 02:20	1
1,1-Dichloroethane	**1.2**	**J**	1.6	0.14	ug/m3			08/21/19 02:20	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 02:20	1
1,1-Dichloroethene	**79**		1.6	0.16	ug/m3			08/21/19 02:20	1
Ethylbenzene	**0.55**	**J**	1.7	0.28	ug/m3			08/21/19 02:20	1
Methylene Chloride	**26**		6.9	2.8	ug/m3			08/21/19 02:20	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 02:20	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 02:20	1
Tetrachloroethene	**0.88**	**J**	2.7	0.24	ug/m3			08/21/19 02:20	1
Toluene	**4.5**		2.3	1.5	ug/m3			08/21/19 02:20	1
trans-1,2-Dichloroethene	**0.20**	**J**	1.6	0.14	ug/m3			08/21/19 02:20	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 02:20	1
1,1,1-Trichloroethane	**13**		2.2	1.0	ug/m3			08/21/19 02:20	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 02:20	1
Trichloroethene	**270**		1.1	0.16	ug/m3			08/21/19 02:20	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			08/21/19 02:20	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			08/21/19 02:20	1

Client Sample ID: SV-168-A-27 **Lab Sample ID: 140-16377-17**
Date Collected: 08/15/19 11:40 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 02:20	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 02:20	1
Xylenes, Total	**3.1**	**J**	3.5	0.52	ug/m3			08/21/19 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*08/21/19 02:20*	*1*

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Date Collected: 08/15/19 11:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.40	0.040	ppb v/v			08/21/19 03:10	1
Carbon tetrachloride	**0.038**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
Chlorodifluoromethane	**3.1**		0.40	0.11	ppb v/v			08/21/19 03:10	1
Chloroform	**0.041**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 03:10	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			08/21/19 03:10	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 03:10	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 03:10	1
Ethylbenzene	**0.18**	**J**	0.40	0.065	ppb v/v			08/21/19 03:10	1
Methylene Chloride	**7.0**		2.0	0.80	ppb v/v			08/21/19 03:10	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 03:10	1
Naphthalene	**10**		0.20	0.38	ppb v/v			08/21/19 03:10	1
Tetrachloroethene	**0.073**	**J**	0.40	0.035	ppb v/v			08/21/19 03:10	1
Toluene	**2.1**		0.60	0.39	ppb v/v			08/21/19 03:10	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 03:10	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			08/21/19 03:10	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 03:10	1
Trichloroethene	**0.56**		0.20	0.030	ppb v/v			08/21/19 03:10	1
1,2,3-Trimethylbenzene	**1.5**		0.40	0.18	ppb v/v			08/21/19 03:10	1
1,2,4-Trimethylbenzene	**3.5**		0.40	0.10	ppb v/v			08/21/19 03:10	1
1,3,5-Trimethylbenzene	**1.8**		0.40	0.11	ppb v/v			08/21/19 03:10	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 03:10	1
Xylenes, Total	**1.3**		0.80	0.12	ppb v/v			08/21/19 03:10	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3	0.13	ug/m3			08/21/19 03:10	1
Carbon tetrachloride	**0.24**	**J**	2.5	0.22	ug/m3			08/21/19 03:10	1
Chlorodifluoromethane	**11**		1.4	0.39	ug/m3			08/21/19 03:10	1
Chloroform	**0.20**	**J**	2.0	0.17	ug/m3			08/21/19 03:10	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 03:10	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			08/21/19 03:10	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 03:10	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 03:10	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 03:10	1
Ethylbenzene	**0.79**	**J**	1.7	0.28	ug/m3			08/21/19 03:10	1
Methylene Chloride	**24**		6.9	2.8	ug/m3			08/21/19 03:10	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 03:10	1
Naphthalene	**53**		1.0	2.0	ug/m3			08/21/19 03:10	1
Tetrachloroethene	**0.49**	**J**	2.7	0.24	ug/m3			08/21/19 03:10	1
Toluene	**7.9**		2.3	1.5	ug/m3			08/21/19 03:10	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 03:10	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 03:10	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			08/21/19 03:10	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 03:10	1
Trichloroethene	**3.0**		1.1	0.16	ug/m3			08/21/19 03:10	1
1,2,3-Trimethylbenzene	**7.3**		2.0	0.88	ug/m3			08/21/19 03:10	1
1,2,4-Trimethylbenzene	**17**		2.0	0.49	ug/m3			08/21/19 03:10	1

Client Sample ID: SV-075-A-27 **Lab Sample ID: 140-16377-18**
Date Collected: 08/15/19 11:43 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**8.9**		2.0	0.54	ug/m3			08/21/19 03:10	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 03:10	1
Xylenes, Total	**5.5**		3.5	0.52	ug/m3			08/21/19 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*08/21/19 03:10*	*1*

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Date Collected: 08/15/19 11:47 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.093**	**J**	0.40	0.040	ppb v/v			08/21/19 04:00	1
Carbon tetrachloride	**4.9**		0.40	0.035	ppb v/v			08/21/19 04:00	1
Chlorodifluoromethane	**0.93**		0.40	0.11	ppb v/v			08/21/19 04:00	1
Chloroform	**1.3**		0.40	0.035	ppb v/v			08/21/19 04:00	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/21/19 04:00	1
Dichlorodifluoromethane	**0.85**		0.40	0.070	ppb v/v			08/21/19 04:00	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/21/19 04:00	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/21/19 04:00	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			08/21/19 04:00	1
Methylene Chloride	**8.9**		2.0	0.80	ppb v/v			08/21/19 04:00	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/21/19 04:00	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/21/19 04:00	1
Tetrachloroethene	**0.72**		0.40	0.035	ppb v/v			08/21/19 04:00	1
Toluene	**0.62**		0.60	0.39	ppb v/v			08/21/19 04:00	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/21/19 04:00	1
1,1,1-Trichloroethane	**0.45**		0.40	0.19	ppb v/v			08/21/19 04:00	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/21/19 04:00	1
Trichloroethene	**6.4**		0.20	0.030	ppb v/v			08/21/19 04:00	1
1,2,3-Trimethylbenzene	**0.21**	**J**	0.40	0.18	ppb v/v			08/21/19 04:00	1
1,2,4-Trimethylbenzene	**0.20**	**J**	0.40	0.10	ppb v/v			08/21/19 04:00	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/21/19 04:00	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/21/19 04:00	1
Xylenes, Total	**0.32**	**J**	0.80	0.12	ppb v/v			08/21/19 04:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.30**	**J**	1.3	0.13	ug/m3			08/21/19 04:00	1
Carbon tetrachloride	**31**		2.5	0.22	ug/m3			08/21/19 04:00	1
Chlorodifluoromethane	**3.3**		1.4	0.39	ug/m3			08/21/19 04:00	1
Chloroform	**6.4**		2.0	0.17	ug/m3			08/21/19 04:00	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/21/19 04:00	1
Dichlorodifluoromethane	**4.2**		2.0	0.35	ug/m3			08/21/19 04:00	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/21/19 04:00	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/21/19 04:00	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/21/19 04:00	1
Ethylbenzene	ND		1.7	0.28	ug/m3			08/21/19 04:00	1
Methylene Chloride	**31**		6.9	2.8	ug/m3			08/21/19 04:00	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/21/19 04:00	1
Naphthalene	ND		1.0	2.0	ug/m3			08/21/19 04:00	1
Tetrachloroethene	**4.9**		2.7	0.24	ug/m3			08/21/19 04:00	1
Toluene	**2.4**		2.3	1.5	ug/m3			08/21/19 04:00	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/21/19 04:00	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/21/19 04:00	1
1,1,1-Trichloroethane	**2.4**		2.2	1.0	ug/m3			08/21/19 04:00	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/21/19 04:00	1
Trichloroethene	**34**		1.1	0.16	ug/m3			08/21/19 04:00	1
1,2,3-Trimethylbenzene	**1.0**	**J**	2.0	0.88	ug/m3			08/21/19 04:00	1
1,2,4-Trimethylbenzene	**1.0**	**J**	2.0	0.49	ug/m3			08/21/19 04:00	1

Client Sample ID: SV-100-B-27 — Lab Sample ID: 140-16377-19

Date Collected: 08/15/19 11:47 — **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/21/19 04:00	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/21/19 04:00	1
Xylenes, Total	**1.4**	**J**	3.5	0.52	ug/m3			08/21/19 04:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*08/21/19 04:00*	*1*

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Date Collected: 08/15/19 11:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			08/20/19 16:29	1
Carbon tetrachloride	**0.68**		0.40	0.035	ppb v/v			08/20/19 16:29	1
Chlorodifluoromethane	**1.7**	**CI**	0.40	0.11	ppb v/v			08/20/19 16:29	1
Chloroform	**0.16**	**J**	0.40	0.035	ppb v/v			08/20/19 16:29	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			08/20/19 16:29	1
Dichlorodifluoromethane	**0.67**		0.40	0.070	ppb v/v			08/20/19 16:29	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			08/20/19 16:29	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			08/20/19 16:29	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/20/19 16:29	1
Methylene Chloride	**3.8**		2.0	0.80	ppb v/v			08/20/19 16:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/20/19 16:29	1
Naphthalene	**1.7**		0.20	0.38	ppb v/v			08/20/19 16:29	1
Tetrachloroethene	**12**		0.40	0.035	ppb v/v			08/20/19 16:29	1
Toluene	**1.6**		0.60	0.39	ppb v/v			08/20/19 16:29	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/20/19 16:29	1
1,1,1-Trichloroethane	**47**		0.40	0.19	ppb v/v			08/20/19 16:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/20/19 16:29	1
Trichloroethene	**35**		0.20	0.030	ppb v/v			08/20/19 16:29	1
1,2,3-Trimethylbenzene	**1.3**		0.40	0.18	ppb v/v			08/20/19 16:29	1
1,2,4-Trimethylbenzene	**2.7**		0.40	0.10	ppb v/v			08/20/19 16:29	1
1,3,5-Trimethylbenzene	**1.5**		0.40	0.11	ppb v/v			08/20/19 16:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/20/19 16:29	1
Xylenes, Total	**0.89**		0.80	0.12	ppb v/v			08/20/19 16:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			08/20/19 16:29	1
Carbon tetrachloride	**4.3**		2.5	0.22	ug/m3			08/20/19 16:29	1
Chlorodifluoromethane	**6.1**	**CI**	1.4	0.39	ug/m3			08/20/19 16:29	1
Chloroform	**0.78**	**J**	2.0	0.17	ug/m3			08/20/19 16:29	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			08/20/19 16:29	1
Dichlorodifluoromethane	**3.3**		2.0	0.35	ug/m3			08/20/19 16:29	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			08/20/19 16:29	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			08/20/19 16:29	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			08/20/19 16:29	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			08/20/19 16:29	1
Methylene Chloride	**13**		6.9	2.8	ug/m3			08/20/19 16:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/20/19 16:29	1
Naphthalene	**9.1**		1.0	2.0	ug/m3			08/20/19 16:29	1
Tetrachloroethene	**85**		2.7	0.24	ug/m3			08/20/19 16:29	1
Toluene	**6.2**		2.3	1.5	ug/m3			08/20/19 16:29	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			08/20/19 16:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/20/19 16:29	1
1,1,1-Trichloroethane	**250**		2.2	1.0	ug/m3			08/20/19 16:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/20/19 16:29	1
Trichloroethene	**190**		1.1	0.16	ug/m3			08/20/19 16:29	1
1,2,3-Trimethylbenzene	**6.4**		2.0	0.88	ug/m3			08/20/19 16:29	1
1,2,4-Trimethylbenzene	**13**		2.0	0.49	ug/m3			08/20/19 16:29	1

Client Sample ID: SV-101-B-27 **Lab Sample ID: 140-16377-20**
Date Collected: 08/15/19 11:53 **Matrix: Air**
Date Received: 08/17/19 10:30
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**7.2**		2.0	0.54	ug/m3			08/20/19 16:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/20/19 16:29	1
Xylenes, Total	**3.9**		3.5	0.52	ug/m3			08/20/19 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/20/19 16:29*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16377-1	SV-116-A-27	89								
140-16377-2	SV-DUP03-A-27	89								
140-16377-3	SV-173-A-27	88								
140-16377-3 - DL	SV-173-A-27	87								
140-16377-4	SV-138-A-27	90								
140-16377-5	SV-171-A-27	89								
140-16377-6	SV-174-A-27	89								
140-16377-6 - DL	SV-174-A-27	93								
140-16377-7	SV-093-A-27	90								
140-16377-8	SV-170-A-27	86								
140-16377-9	SV-079-A-27	88								
140-16377-10	SV-DUP04-A-27	87								
140-16377-11	SV-139-A-27	89								
140-16377-12	SV-118-A-27	93								
140-16377-12 - DL	SV-118-A-27	89								
140-16377-13	SV-015-A-27	87								
140-16377-14	SV-078-A-27	85								
140-16377-15	SV-136-A-27	91								
140-16377-15 - DL	SV-136-A-27	89								
140-16377-16	SV-076-A-27	86								
140-16377-17	SV-168-A-27	90								
140-16377-18	SV-075-A-27	91								
140-16377-19	SV-100-B-27	89								
140-16377-20	SV-101-B-27	87								
LCS 140-32828/1002	Lab Control Sample	93								
LCS 140-32829/1002	Lab Control Sample	91								
LCS 140-32868/1002	Lab Control Sample	94								
LCS 140-32985/1002	Lab Control Sample	91								
MB 140-32828/4	Method Blank	88								
MB 140-32829/4	Method Blank	82								
MB 140-32868/4	Method Blank	87								
MB 140-32985/4	Method Blank	85								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/20/19 10:41	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/20/19 10:41	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			08/20/19 10:41	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/20/19 10:41	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/20/19 10:41	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Toluene	ND		0.12	0.078	ppb v/v			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/20/19 10:41	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/20/19 10:41	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/20/19 10:41	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/20/19 10:41	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/20/19 10:41	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/20/19 10:41	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/20/19 10:41	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/20/19 10:41	1
Chloroform	ND		0.39	0.034	ug/m3			08/20/19 10:41	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/20/19 10:41	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/20/19 10:41	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/20/19 10:41	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/20/19 10:41	1
Methylene Chloride	ND		1.4	0.56	ug/m3			08/20/19 10:41	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/20/19 10:41	1
Naphthalene	ND		0.21	0.40	ug/m3			08/20/19 10:41	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/20/19 10:41	1
Toluene	ND		0.45	0.29	ug/m3			08/20/19 10:41	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/20/19 10:41	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/20/19 10:41	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/20/19 10:41	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/20/19 10:41	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/20/19 10:41	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/20/19 10:41	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32828/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/20/19 10:41	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/20/19 10:41	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/20/19 10:41	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/20/19 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*08/20/19 10:41*	*1*

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.79		ppb v/v		90	70 - 130
Carbon tetrachloride	2.00	1.74		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.02		ppb v/v		101	60 - 140
Chloroform	2.00	1.62		ppb v/v		81	70 - 130
cis-1,2-Dichloroethene	2.00	1.88		ppb v/v		94	70 - 130
Dichlorodifluoromethane	2.00	2.05		ppb v/v		102	60 - 140
1,1-Dichloroethane	2.00	1.64		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.41		ppb v/v		70	70 - 130
1,1-Dichloroethene	2.00	2.02		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.66		ppb v/v		83	70 - 130
Methylene Chloride	2.00	1.59		ppb v/v		79	70 - 130
Methyl tert-butyl ether	2.00	1.52		ppb v/v		76	60 - 140
Naphthalene	2.00	1.66		ppb v/v		83	60 - 140
Tetrachloroethene	2.00	1.69		ppb v/v		84	70 - 130
Toluene	2.00	1.79		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trichlorobenzene	2.00	1.77		ppb v/v		89	60 - 140
1,1,1-Trichloroethane	2.00	1.47		ppb v/v		74	70 - 130
1,1,2-Trichloroethane	2.00	1.80		ppb v/v		90	70 - 130
Trichloroethene	2.00	1.88		ppb v/v		94	70 - 130
1,2,3-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,2,4-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,3,5-Trimethylbenzene	2.00	1.74		ppb v/v		87	70 - 130
Vinyl chloride	2.00	2.36		ppb v/v		118	70 - 130
Xylenes, Total	6.00	4.93		ppb v/v		82	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.73		ug/m3		90	70 - 130
Carbon tetrachloride	13	11.0		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.15		ug/m3		101	60 - 140
Chloroform	9.8	7.90		ug/m3		81	70 - 130
cis-1,2-Dichloroethene	7.9	7.46		ug/m3		94	70 - 130
Dichlorodifluoromethane	9.9	10.1		ug/m3		102	60 - 140
1,1-Dichloroethane	8.1	6.65		ug/m3		82	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32828/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	5.69		ug/m3		70	70 - 130
1,1-Dichloroethene	7.9	8.02		ug/m3		101	70 - 130
Ethylbenzene	8.7	7.22		ug/m3		83	70 - 130
Methylene Chloride	6.9	5.51		ug/m3		79	70 - 130
Methyl tert-butyl ether	7.2	5.49		ug/m3		76	60 - 140
Naphthalene	10	8.70		ug/m3		83	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.75		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	7.9	7.93		ug/m3		100	70 - 130
1,2,4-Trichlorobenzene	15	13.2		ug/m3		89	60 - 140
1,1,1-Trichloroethane	11	8.04		ug/m3		74	70 - 130
1,1,2-Trichloroethane	11	9.85		ug/m3		90	70 - 130
Trichloroethene	11	10.1		ug/m3		94	70 - 130
1,2,3-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,2,4-Trimethylbenzene	9.8	7.97		ug/m3		81	70 - 130
1,3,5-Trimethylbenzene	9.8	8.58		ug/m3		87	70 - 130
Vinyl chloride	5.1	6.04		ug/m3		118	70 - 130
Xylenes, Total	26	21.4		ug/m3		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/21/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/21/19 12:47	1
Methylene Chloride	0.174	J	0.40	0.16	ppb v/v			08/21/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/21/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/21/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/21/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/21/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32829/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/21/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/21/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/21/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/21/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/21/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/21/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			08/21/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/21/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/21/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/21/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/21/19 12:47	1
Methylene Chloride	0.604	J	1.4	0.56	ug/m3			08/21/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/21/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			08/21/19 12:47	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/21/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			08/21/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/21/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/21/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/21/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/21/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/21/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/21/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/21/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/21/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/21/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/21/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*08/21/19 12:47*	*1*

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.91		ppb v/v		96	70 - 130
Carbon tetrachloride	2.00	1.83		ppb v/v		92	70 - 130
Chlorodifluoromethane	2.00	1.97		ppb v/v		99	60 - 140
Chloroform	2.00	1.79		ppb v/v		89	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.00		ppb v/v		100	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,2-Dichloroethane	2.00	1.45		ppb v/v		73	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
Methylene Chloride	2.00	1.77		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		83	60 - 140
Naphthalene	2.00	1.69		ppb v/v		85	60 - 140
Tetrachloroethene	2.00	1.68		ppb v/v		84	70 - 130
Toluene	2.00	1.81		ppb v/v		91	70 - 130
trans-1,2-Dichloroethene	2.00	2.15		ppb v/v		107	70 - 130
1,2,4-Trichlorobenzene	2.00	1.68		ppb v/v		84	60 - 140
1,1,1-Trichloroethane	2.00	1.63		ppb v/v		81	70 - 130
1,1,2-Trichloroethane	2.00	1.89		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,3-Trimethylbenzene	2.00	1.73		ppb v/v		86	70 - 130
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.82		ppb v/v		91	70 - 130
Vinyl chloride	2.00	2.45		ppb v/v		122	70 - 130
Xylenes, Total	6.00	5.09		ppb v/v		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.11		ug/m3		96	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		92	70 - 130
Chlorodifluoromethane	7.1	6.98		ug/m3		99	60 - 140
Chloroform	9.8	8.72		ug/m3		89	70 - 130
cis-1,2-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.90		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	7.45		ug/m3		92	70 - 130
1,2-Dichloroethane	8.1	5.88		ug/m3		73	70 - 130
1,1-Dichloroethene	7.9	8.38		ug/m3		106	70 - 130
Ethylbenzene	8.7	7.36		ug/m3		85	70 - 130
Methylene Chloride	6.9	6.15		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	5.97		ug/m3		83	60 - 140
Naphthalene	10	8.88		ug/m3		85	60 - 140
Tetrachloroethene	14	11.4		ug/m3		84	70 - 130
Toluene	7.5	6.82		ug/m3		91	70 - 130
trans-1,2-Dichloroethene	7.9	8.50		ug/m3		107	70 - 130
1,2,4-Trichlorobenzene	15	12.5		ug/m3		84	60 - 140
1,1,1-Trichloroethane	11	8.88		ug/m3		81	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
1,2,3-Trimethylbenzene	9.8	8.49		ug/m3		86	70 - 130
1,2,4-Trimethylbenzene	9.8	8.31		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	8.93		ug/m3		91	70 - 130
Vinyl chloride	5.1	6.26		ug/m3		122	70 - 130
Xylenes, Total	26	22.1		ug/m3		85	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32829/1002
Matrix: Air
Analysis Batch: 32829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Lab Sample ID: MB 140-32868/4
Matrix: Air
Analysis Batch: 32868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/23/19 12:46	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/23/19 12:46	1
Methylene Chloride	0.160	J	0.40	0.16	ppb v/v			08/23/19 12:46	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/23/19 12:46	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/23/19 12:46	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Toluene	ND		0.12	0.078	ppb v/v			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/23/19 12:46	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/23/19 12:46	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/23/19 12:46	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/23/19 12:46	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/23/19 12:46	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/23/19 12:46	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/23/19 12:46	1
Chloroform	ND		0.39	0.034	ug/m3			08/23/19 12:46	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/23/19 12:46	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/23/19 12:46	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/23/19 12:46	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/23/19 12:46	1
Methylene Chloride	0.555	J	1.4	0.56	ug/m3			08/23/19 12:46	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/23/19 12:46	1
Naphthalene	ND		0.21	0.40	ug/m3			08/23/19 12:46	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32868/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/23/19 12:46	1
Toluene	ND		0.45	0.29	ug/m3			08/23/19 12:46	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/23/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/23/19 12:46	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/23/19 12:46	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/23/19 12:46	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/23/19 12:46	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/23/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/23/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/23/19 12:46	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/23/19 12:46	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/23/19 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*08/23/19 12:46*	*1*

Lab Sample ID: LCS 140-32868/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.08		ppb v/v		108	70 - 130
Carbon tetrachloride	1.00	1.07		ppb v/v		107	70 - 130
Chlorodifluoromethane	1.00	1.17		ppb v/v		117	60 - 140
Chloroform	1.00	1.09		ppb v/v		109	70 - 130
cis-1,2-Dichloroethene	1.00	1.06		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.00	1.40		ppb v/v		140	60 - 140
1,1-Dichloroethane	1.00	1.06		ppb v/v		106	70 - 130
1,2-Dichloroethane	1.00	1.12		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.00	1.05		ppb v/v		105	70 - 130
Ethylbenzene	1.00	1.03		ppb v/v		103	70 - 130
Methylene Chloride	1.00	1.04		ppb v/v		104	70 - 130
Methyl tert-butyl ether	1.00	1.10		ppb v/v		110	60 - 140
Naphthalene	1.00	1.12		ppb v/v		112	60 - 140
Tetrachloroethene	1.00	0.973		ppb v/v		97	70 - 130
Toluene	1.00	1.11		ppb v/v		111	70 - 130
trans-1,2-Dichloroethene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	1.00	1.10		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.02		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	1.00	1.14		ppb v/v		114	70 - 130
1,2,4-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
1,3,5-Trimethylbenzene	1.00	1.11		ppb v/v		111	70 - 130
Vinyl chloride	1.00	1.28		ppb v/v		128	70 - 130
Xylenes, Total	3.00	3.32		ppb v/v		111	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.44		ug/m3		108	70 - 130
Carbon tetrachloride	6.3	6.72		ug/m3		107	70 - 130
Chlorodifluoromethane	3.5	4.15		ug/m3		117	60 - 140
Chloroform	4.9	5.34		ug/m3		109	70 - 130
cis-1,2-Dichloroethene	4.0	4.19		ug/m3		106	70 - 130
Dichlorodifluoromethane	4.9	6.90		ug/m3		140	60 - 140
1,1-Dichloroethane	4.0	4.31		ug/m3		106	70 - 130
1,2-Dichloroethane	4.0	4.51		ug/m3		112	70 - 130
1,1-Dichloroethene	4.0	4.14		ug/m3		105	70 - 130
Ethylbenzene	4.3	4.49		ug/m3		103	70 - 130
Methylene Chloride	3.5	3.61		ug/m3		104	70 - 130
Methyl tert-butyl ether	3.6	3.97		ug/m3		110	60 - 140
Naphthalene	5.2	5.85		ug/m3		112	60 - 140
Tetrachloroethene	6.8	6.60		ug/m3		97	70 - 130
Toluene	3.8	4.19		ug/m3		111	70 - 130
trans-1,2-Dichloroethene	4.0	4.54		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	7.4	8.16		ug/m3		110	60 - 140
1,1,1-Trichloroethane	5.5	5.69		ug/m3		104	70 - 130
1,1,2-Trichloroethane	5.5	5.93		ug/m3		109	70 - 130
Trichloroethene	5.4	5.51		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	4.9	5.59		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	4.9	5.45		ug/m3		111	70 - 130
1,3,5-Trimethylbenzene	4.9	5.47		ug/m3		111	70 - 130
Vinyl chloride	2.6	3.27		ug/m3		128	70 - 130
Xylenes, Total	13	14.4		ug/m3		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 140-32985/4
Matrix: Air
Analysis Batch: 32985

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/27/19 10:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/27/19 10:12	1
Methylene Chloride	0.305	J	0.40	0.16	ppb v/v			08/27/19 10:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/27/19 10:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/27/19 10:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Toluene	ND		0.12	0.078	ppb v/v			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32985/4 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/27/19 10:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/27/19 10:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/27/19 10:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/27/19 10:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/27/19 10:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/27/19 10:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/27/19 10:12	1
Chloroform	ND		0.39	0.034	ug/m3			08/27/19 10:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/27/19 10:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/27/19 10:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/27/19 10:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/27/19 10:12	1
Methylene Chloride	1.06	J	1.4	0.56	ug/m3			08/27/19 10:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/27/19 10:12	1
Naphthalene	ND		0.21	0.40	ug/m3			08/27/19 10:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/27/19 10:12	1
Toluene	ND		0.45	0.29	ug/m3			08/27/19 10:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/27/19 10:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/27/19 10:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/27/19 10:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/27/19 10:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/27/19 10:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/27/19 10:12	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/27/19 10:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/27/19 10:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/27/19 10:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/27/19 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*08/27/19 10:12*	*1*

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			2.00	2.07		ppb v/v		103	70 - 130		
Carbon tetrachloride			2.00	1.83		ppb v/v		91	70 - 130		

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodifluoromethane	2.00	2.11		ppb v/v		106	60 - 140
Chloroform	2.00	1.87		ppb v/v		94	70 - 130
cis-1,2-Dichloroethene	2.00	2.17		ppb v/v		109	70 - 130
Dichlorodifluoromethane	2.00	2.11		ppb v/v		105	60 - 140
1,1-Dichloroethane	2.00	1.93		ppb v/v		97	70 - 130
1,2-Dichloroethane	2.00	1.52		ppb v/v		76	70 - 130
1,1-Dichloroethene	2.00	2.17		ppb v/v		108	70 - 130
Ethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
Methylene Chloride	2.00	1.81		ppb v/v		91	70 - 130
Methyl tert-butyl ether	2.00	1.91		ppb v/v		95	60 - 140
Naphthalene	2.00	2.27		ppb v/v		113	60 - 140
Tetrachloroethene	2.00	1.89		ppb v/v		95	70 - 130
Toluene	2.00	2.06		ppb v/v		103	70 - 130
trans-1,2-Dichloroethene	2.00	2.19		ppb v/v		110	70 - 130
1,2,4-Trichlorobenzene	2.00	2.20		ppb v/v		110	60 - 140
1,1,1-Trichloroethane	2.00	1.68		ppb v/v		84	70 - 130
1,1,2-Trichloroethane	2.00	2.13		ppb v/v		107	70 - 130
Trichloroethene	2.00	2.01		ppb v/v		101	70 - 130
1,2,3-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,2,4-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
1,3,5-Trimethylbenzene	2.00	2.09		ppb v/v		105	70 - 130
Vinyl chloride	2.00	2.56		ppb v/v		128	70 - 130
Xylenes, Total	6.00	5.81		ppb v/v		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.60		ug/m3		103	70 - 130
Carbon tetrachloride	13	11.5		ug/m3		91	70 - 130
Chlorodifluoromethane	7.1	7.48		ug/m3		106	60 - 140
Chloroform	9.8	9.15		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	7.9	8.62		ug/m3		109	70 - 130
Dichlorodifluoromethane	9.9	10.4		ug/m3		105	60 - 140
1,1-Dichloroethane	8.1	7.83		ug/m3		97	70 - 130
1,2-Dichloroethane	8.1	6.14		ug/m3		76	70 - 130
1,1-Dichloroethene	7.9	8.60		ug/m3		108	70 - 130
Ethylbenzene	8.7	8.51		ug/m3		98	70 - 130
Methylene Chloride	6.9	6.30		ug/m3		91	70 - 130
Methyl tert-butyl ether	7.2	6.87		ug/m3		95	60 - 140
Naphthalene	10	11.9		ug/m3		113	60 - 140
Tetrachloroethene	14	12.8		ug/m3		95	70 - 130
Toluene	7.5	7.77		ug/m3		103	70 - 130
trans-1,2-Dichloroethene	7.9	8.69		ug/m3		110	70 - 130
1,2,4-Trichlorobenzene	15	16.3		ug/m3		110	60 - 140
1,1,1-Trichloroethane	11	9.14		ug/m3		84	70 - 130
1,1,2-Trichloroethane	11	11.6		ug/m3		107	70 - 130
Trichloroethene	11	10.8		ug/m3		101	70 - 130
1,2,3-Trimethylbenzene	9.8	9.56		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	9.8	9.54		ug/m3		97	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32985/1002 **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 32985

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trimethylbenzene			9.8	10.3		ug/m3		105	70 - 130		
Vinyl chloride			5.1	6.56		ug/m3		128	70 - 130		
Xylenes, Total			26	25.2		ug/m3		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Air - GC/MS VOA

Analysis Batch: 32828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-1	SV-116-A-27	Total/NA	Air	TO 15 LL	
140-16377-9	SV-079-A-27	Total/NA	Air	TO 15 LL	
140-16377-10	SV-DUP04-A-27	Total/NA	Air	TO 15 LL	
140-16377-11	SV-139-A-27	Total/NA	Air	TO 15 LL	
140-16377-12	SV-118-A-27	Total/NA	Air	TO 15 LL	
140-16377-13	SV-015-A-27	Total/NA	Air	TO 15 LL	
140-16377-14	SV-078-A-27	Total/NA	Air	TO 15 LL	
140-16377-15	SV-136-A-27	Total/NA	Air	TO 15 LL	
140-16377-16	SV-076-A-27	Total/NA	Air	TO 15 LL	
140-16377-17	SV-168-A-27	Total/NA	Air	TO 15 LL	
140-16377-18	SV-075-A-27	Total/NA	Air	TO 15 LL	
140-16377-19	SV-100-B-27	Total/NA	Air	TO 15 LL	
140-16377-20	SV-101-B-27	Total/NA	Air	TO 15 LL	
MB 140-32828/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32828/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-3	SV-173-A-27	Total/NA	Air	TO 15 LL	
140-16377-4	SV-138-A-27	Total/NA	Air	TO 15 LL	
140-16377-5	SV-171-A-27	Total/NA	Air	TO 15 LL	
140-16377-6	SV-174-A-27	Total/NA	Air	TO 15 LL	
140-16377-7	SV-093-A-27	Total/NA	Air	TO 15 LL	
140-16377-8	SV-170-A-27	Total/NA	Air	TO 15 LL	
140-16377-12 - DL	SV-118-A-27	Total/NA	Air	TO 15 LL	
140-16377-15 - DL	SV-136-A-27	Total/NA	Air	TO 15 LL	
MB 140-32829/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32829/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-2	SV-DUP03-A-27	Total/NA	Air	TO 15 LL	
140-16377-3 - DL	SV-173-A-27	Total/NA	Air	TO 15 LL	
MB 140-32868/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32868/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16377-6 - DL	SV-174-A-27	Total/NA	Air	TO 15 LL	
MB 140-32985/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32985/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: SV-116-A-27 — Lab Sample ID: 140-16377-1

Date Collected: 08/15/19 10:54 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 14:06	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-DUP03-A-27 — Lab Sample ID: 140-16377-2

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32868	08/23/19 18:36	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-173-A-27 — Lab Sample ID: 140-16377-3

Date Collected: 08/15/19 11:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	11 mL	500 mL	32829	08/21/19 20:28	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	3.64	10 mL	500 mL	32868	08/23/19 19:23	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: SV-138-A-27 — Lab Sample ID: 140-16377-4

Date Collected: 08/15/19 11:02 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 01:23	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-171-A-27 — Lab Sample ID: 140-16377-5

Date Collected: 08/15/19 11:04 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	11 mL	500 mL	32829	08/21/19 21:18	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-174-A-27 — Lab Sample ID: 140-16377-6

Date Collected: 08/15/19 11:06 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.72	100 mL	500 mL	32829	08/22/19 02:13	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	3.72	11 mL	500 mL	32985	08/27/19 15:43	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-093-A-27 — Lab Sample ID: 140-16377-7

Date Collected: 08/15/19 11:08 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 03:02	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-170-A-27 — Lab Sample ID: 140-16377-8

Date Collected: 08/15/19 11:10 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32829	08/22/19 05:31	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-079-A-27 — Lab Sample ID: 140-16377-9

Date Collected: 08/15/19 11:17 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 17:19	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-DUP04-A-27 — Lab Sample ID: 140-16377-10

Date Collected: 08/15/19 00:00 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 18:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-139-A-27 — Lab Sample ID: 140-16377-11

Date Collected: 08/15/19 11:20 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 18:57	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-118-A-27 — Lab Sample ID: 140-16377-12

Date Collected: 08/15/19 11:23 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 19:46	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	1	30 mL	500 mL	32829	08/21/19 22:07	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-015-A-27 — Lab Sample ID: 140-16377-13

Date Collected: 08/15/19 16:12 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 21:24	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-078-A-27 — Lab Sample ID: 140-16377-14

Date Collected: 08/15/19 11:30 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 22:14	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-136-A-27 — Lab Sample ID: 140-16377-15

Date Collected: 08/15/19 11:34 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 23:52	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL	DL	1	30 mL	500 mL	32829	08/21/19 22:56	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-076-A-27 — Lab Sample ID: 140-16377-16

Date Collected: 08/15/19 11:37 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 00:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-168-A-27 — Lab Sample ID: 140-16377-17

Date Collected: 08/15/19 11:40 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 02:20	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-075-A-27 — Lab Sample ID: 140-16377-18

Date Collected: 08/15/19 11:43 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 03:10	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-100-B-27 — Lab Sample ID: 140-16377-19

Date Collected: 08/15/19 11:47 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/21/19 04:00	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: SV-101-B-27 — Lab Sample ID: 140-16377-20

Date Collected: 08/15/19 11:53 — **Matrix: Air**
Date Received: 08/17/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32828	08/20/19 16:29	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32828/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 10:41	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32829/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 12:47	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32868/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 12:46	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-32985/4

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 10:12	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32828/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32828	08/20/19 09:08	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32829/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32829	08/21/19 09:44	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32868/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32868	08/23/19 10:44	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-32985/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32985	08/27/19 08:11	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16377-1	SV-116-A-27	Air	08/15/19 10:54	08/17/19 10:30	Air Canister (1-Liter) #10796
140-16377-2	SV-DUP03-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09586
140-16377-3	SV-173-A-27	Air	08/15/19 11:00	08/17/19 10:30	Air Canister (1-Liter) #11885
140-16377-4	SV-138-A-27	Air	08/15/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #09641
140-16377-5	SV-171-A-27	Air	08/15/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #11706
140-16377-6	SV-174-A-27	Air	08/15/19 11:06	08/17/19 10:30	Air Canister (1-Liter) #11136
140-16377-7	SV-093-A-27	Air	08/15/19 11:08	08/17/19 10:30	Air Canister (1-Liter) #11861
140-16377-8	SV-170-A-27	Air	08/15/19 11:10	08/17/19 10:30	Air Canister (1-Liter) #11277
140-16377-9	SV-079-A-27	Air	08/15/19 11:17	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-10	SV-DUP04-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09636
140-16377-11	SV-139-A-27	Air	08/15/19 11:20	08/17/19 10:30	Air Canister (1-Liter) #11138
140-16377-12	SV-118-A-27	Air	08/15/19 11:23	08/17/19 10:30	Air Canister (1-Liter) #11517
140-16377-13	SV-015-A-27	Air	08/15/19 16:12	08/17/19 10:30	Air Canister (1-Liter) #10523
140-16377-14	SV-078-A-27	Air	08/15/19 11:30	08/17/19 10:30	Air Canister (1-Liter) #11770
140-16377-15	SV-136-A-27	Air	08/15/19 11:34	08/17/19 10:30	Air Canister (1-Liter) #11773
140-16377-16	SV-076-A-27	Air	08/15/19 11:37	08/17/19 10:30	Air Canister (1-Liter) #10333
140-16377-17	SV-168-A-27	Air	08/15/19 11:40	08/17/19 10:30	Air Canister (1-Liter) #09741
140-16377-18	SV-075-A-27	Air	08/15/19 11:43	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-19	SV-100-B-27	Air	08/15/19 11:47	08/17/19 10:30	Air Canister (1-Liter) #11891
140-16377-20	SV-101-B-27	Air	08/15/19 11:53	08/17/19 10:30	Air Canister (1-Liter) #09735

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-116-A-27	140-16377-1	89
SV-DUP03-A-27	140-16377-2	89
SV-173-A-27	140-16377-3	88
SV-173-A-27 DL	140-16377-3 DL	87
SV-138-A-27	140-16377-4	90
SV-171-A-27	140-16377-5	89
SV-174-A-27	140-16377-6	89
SV-174-A-27 DL	140-16377-6 DL	93
SV-093-A-27	140-16377-7	90
SV-170-A-27	140-16377-8	86
SV-079-A-27	140-16377-9	88
SV-DUP04-A-27	140-16377-10	87
SV-139-A-27	140-16377-11	89
SV-118-A-27	140-16377-12	93
SV-118-A-27 DL	140-16377-12 DL	89
SV-015-A-27	140-16377-13	87
SV-078-A-27	140-16377-14	85
SV-136-A-27	140-16377-15	91
SV-136-A-27 DL	140-16377-15 DL	89
SV-076-A-27	140-16377-16	86
SV-168-A-27	140-16377-17	90
SV-075-A-27	140-16377-18	91
SV-100-B-27	140-16377-19	89
SV-101-B-27	140-16377-20	87
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	MB 140-32985/4	85
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91
	LCS 140-32868/1002	94
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019 14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019 16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019 17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019 18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019 18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019 19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019 21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019 22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019 23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019 00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019 02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019 03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019 04:00

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019 20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019 21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019 22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019 22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019 01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019 02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019 03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019 05:31

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019 15:43

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019 18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019 19:23

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019	14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019	16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019	17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019	18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019	18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019	19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019	21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019	22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019	23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019	00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019	02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019	03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019	04:00

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019	20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019	21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019	22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019	22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019	01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019	02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019	03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019	05:31

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019	15:43

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019	18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019	19:23

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16377-1	SV-116-A-27	215665	9.73	1104443	11.83	955661	16.45
140-16377-20	SV-101-B-27	294498	9.72	1486019	11.84	1206295	16.45
140-16377-9	SV-079-A-27	240640	9.72	1202153	11.84	1002767	16.45
140-16377-10	SV-DUP04-A-27	217248	9.73	1094915	11.83	926637	16.44
140-16377-11	SV-139-A-27	203135	9.73	1066461	11.83	911430	16.44
140-16377-12	SV-118-A-27	189851	9.73	979666	11.84	839932	16.45
140-16377-13	SV-015-A-27	253233	9.74	1238002	11.84	1007401	16.45
140-16377-14	SV-078-A-27	175215	9.72	899727	11.83	762309	16.44
140-16377-15	SV-136-A-27	257272	9.73	1257055	11.84	1072869	16.44
140-16377-16	SV-076-A-27	260393	9.75	1273864	11.85	1060863	16.45
140-16377-17	SV-168-A-27	191677	9.72	977491	11.84	848051	16.45
140-16377-18	SV-075-A-27	182024	9.72	932399	11.84	794687	16.45
140-16377-19	SV-100-B-27	183940	9.72	948992	11.83	807505	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16377-3	SV-173-A-27	248279	9.73	1271047	11.84	1086251	16.45
140-16377-5	SV-171-A-27	179281	9.72	915860	11.83	787797	16.45
140-16377-12 DL	SV-118-A-27 DL	188742	9.72	1009542	11.84	850532	16.45
140-16377-15 DL	SV-136-A-27 DL	161066	9.73	793410	11.83	656566	16.44
140-16377-4	SV-138-A-27	186557	9.72	957545	11.83	785208	16.45
140-16377-6	SV-174-A-27	187226	9.73	960719	11.84	828103	16.45
140-16377-7	SV-093-A-27	178833	9.73	947448	11.83	809865	16.44
140-16377-8	SV-170-A-27	243075	9.73	1247288	11.84	1034214	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16377-6 DL	SV-174-A-27 DL	222191	9.72	1103557	11.84	888773	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16377-2	SV-DUP03-A-27	224616	8.53	1245944	10.77	1042831	15.57
140-16377-3 DL	SV-173-A-27 DL	203774	8.54	1199615	10.77	964694	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.22	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.14	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.52	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.2		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	1.1	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.56	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.0	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	6.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D				
Lims ID:	140-16377-A-1				
Client ID:	SV-116-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 14:06:30	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-008				
Misc. Info.:	140-16377-a-1				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:20:31	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				
First Level Reviewer: khachitpongpanits		Date:	21-Aug-2019 12:20:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	93	215665	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1104443	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	955661	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	95	622564	3.54	
19 Chlorodifluoromethane	51	4.163	4.152	0.011	87	3689	0.0626	
21 Dichlorodifluoromethane	85	4.238	4.227	0.011	95	5908	0.0875	
40 1,1-Dichloroethene	96	6.686	6.685	0.001	70	1865	0.0282	
44 Methylene Chloride	84	7.067	7.062	0.005	95	29496	0.3635	
57 Chloroform	83	9.725	9.730	-0.005	28	7597	0.0434	
64 Benzene	78	11.333	11.333	0.000	93	5143	0.0254	
65 Carbon tetrachloride	117	11.366	11.349	0.011	80	2164	0.0128	
71 Trichloroethene	130	12.533	12.521	0.005	96	22481	0.2461	
80 Toluene	91	14.513	14.508	0.000	93	24136	0.1045	
122 Naphthalene	128	21.689	21.689	0.000	99	10515	0.0429	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

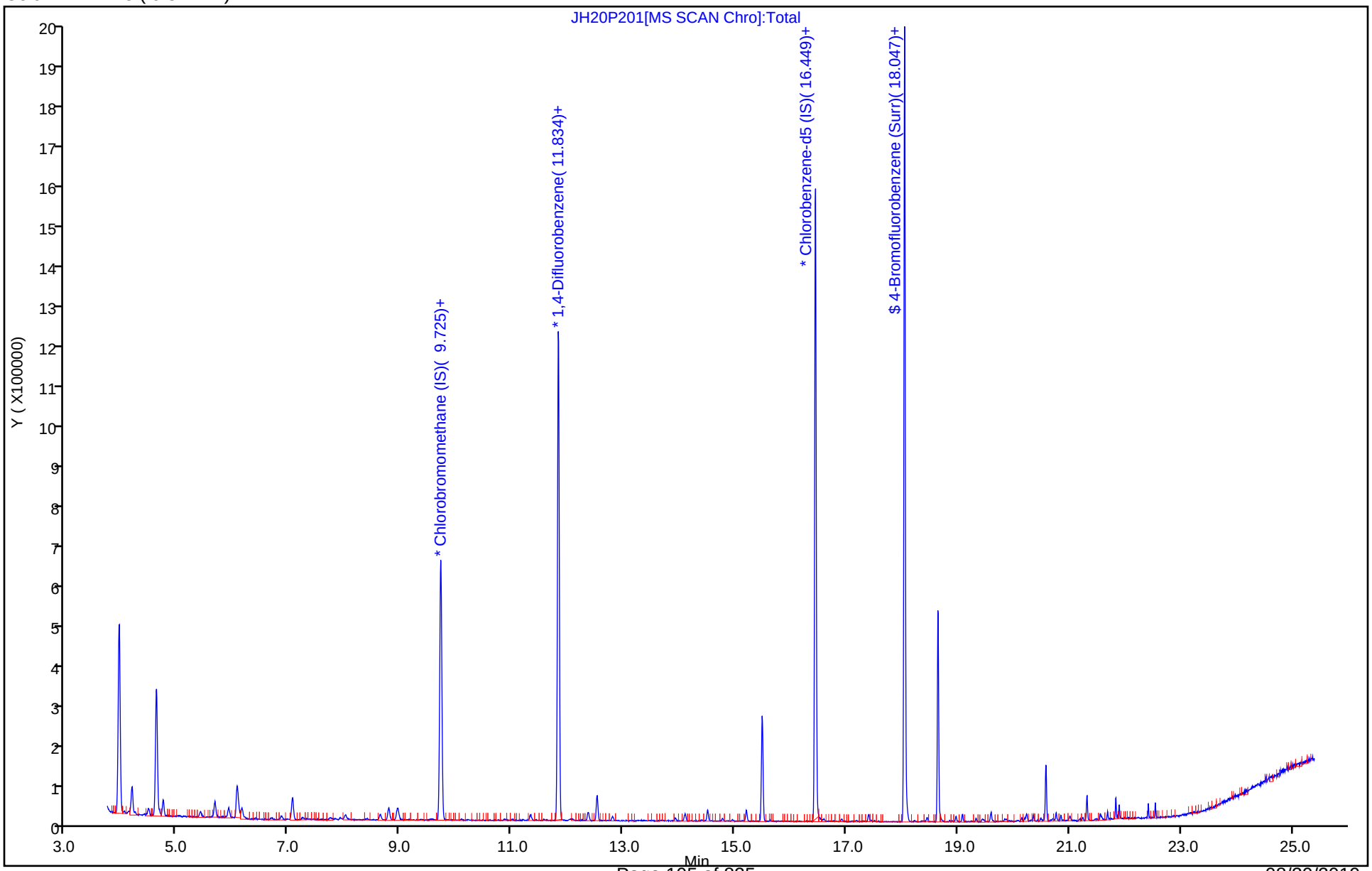
Report Date: 21-Aug-2019 12:20:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D

Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1	Worklist Smp#:	8
Client ID:	SV-116-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D				
Lims ID:	140-16377-A-1				
Client ID:	SV-116-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 14:06:30	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-008				
Misc. Info.:	140-16377-a-1				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:20:31	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

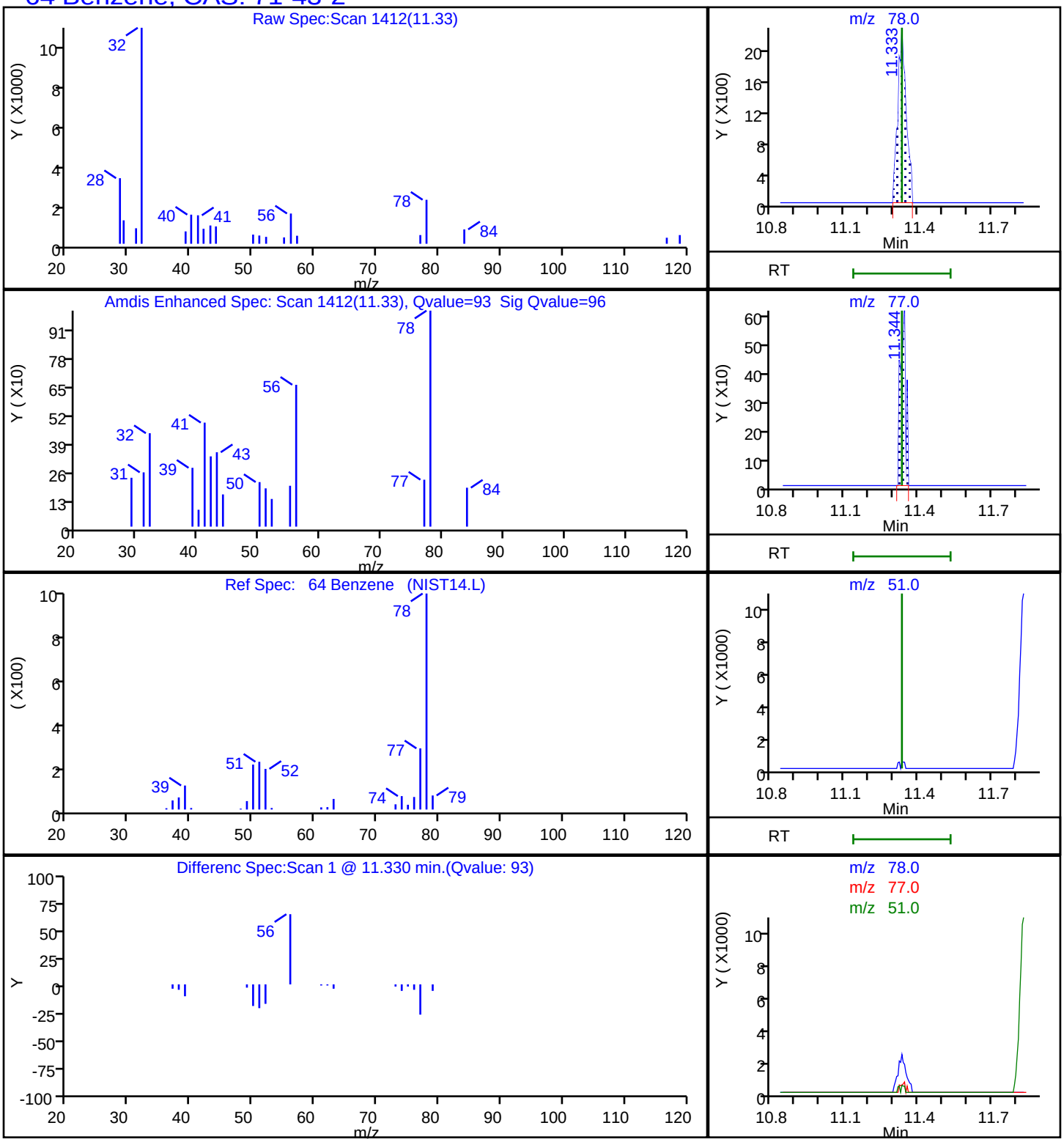
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:20:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.54	88.61

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

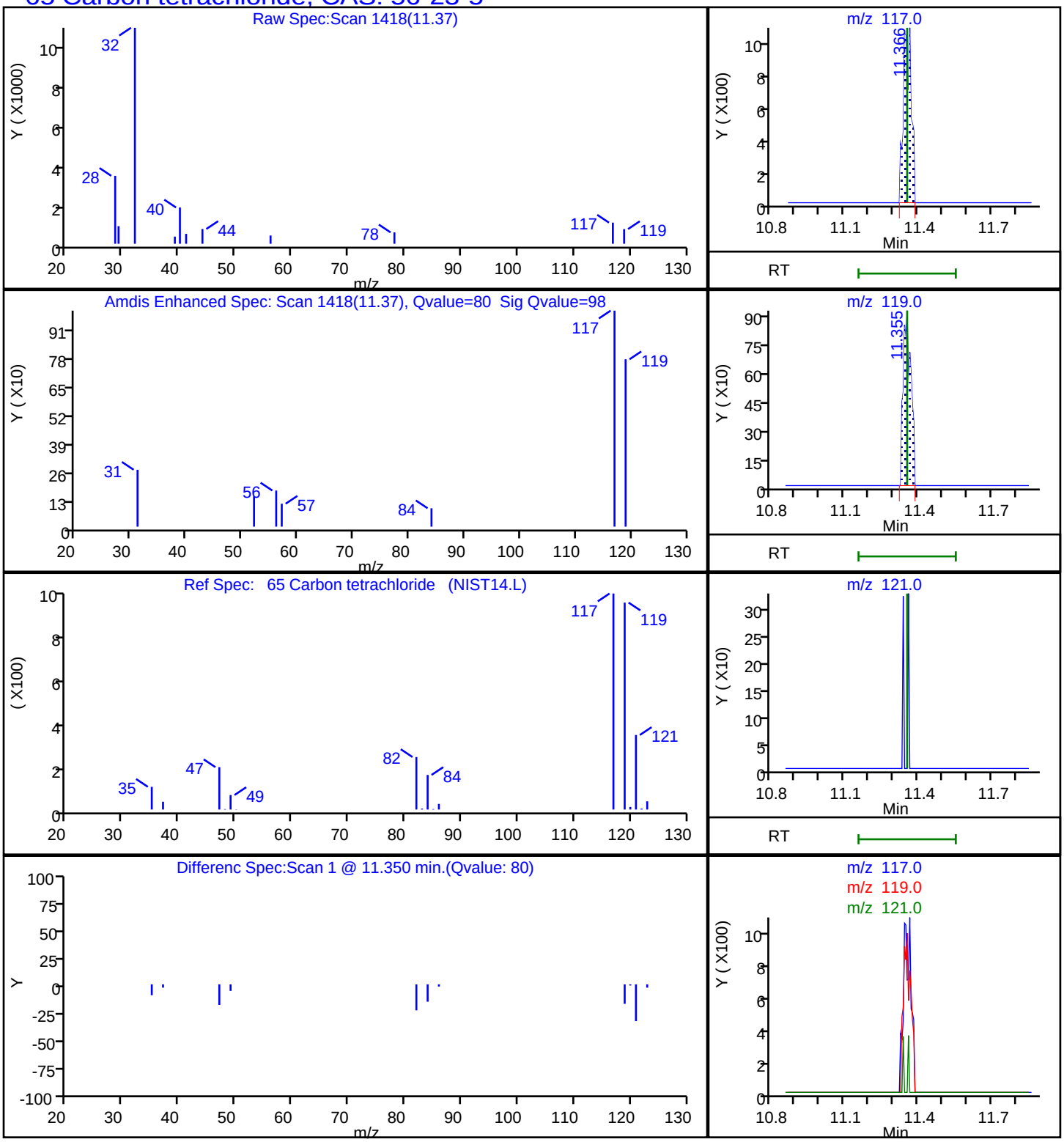
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

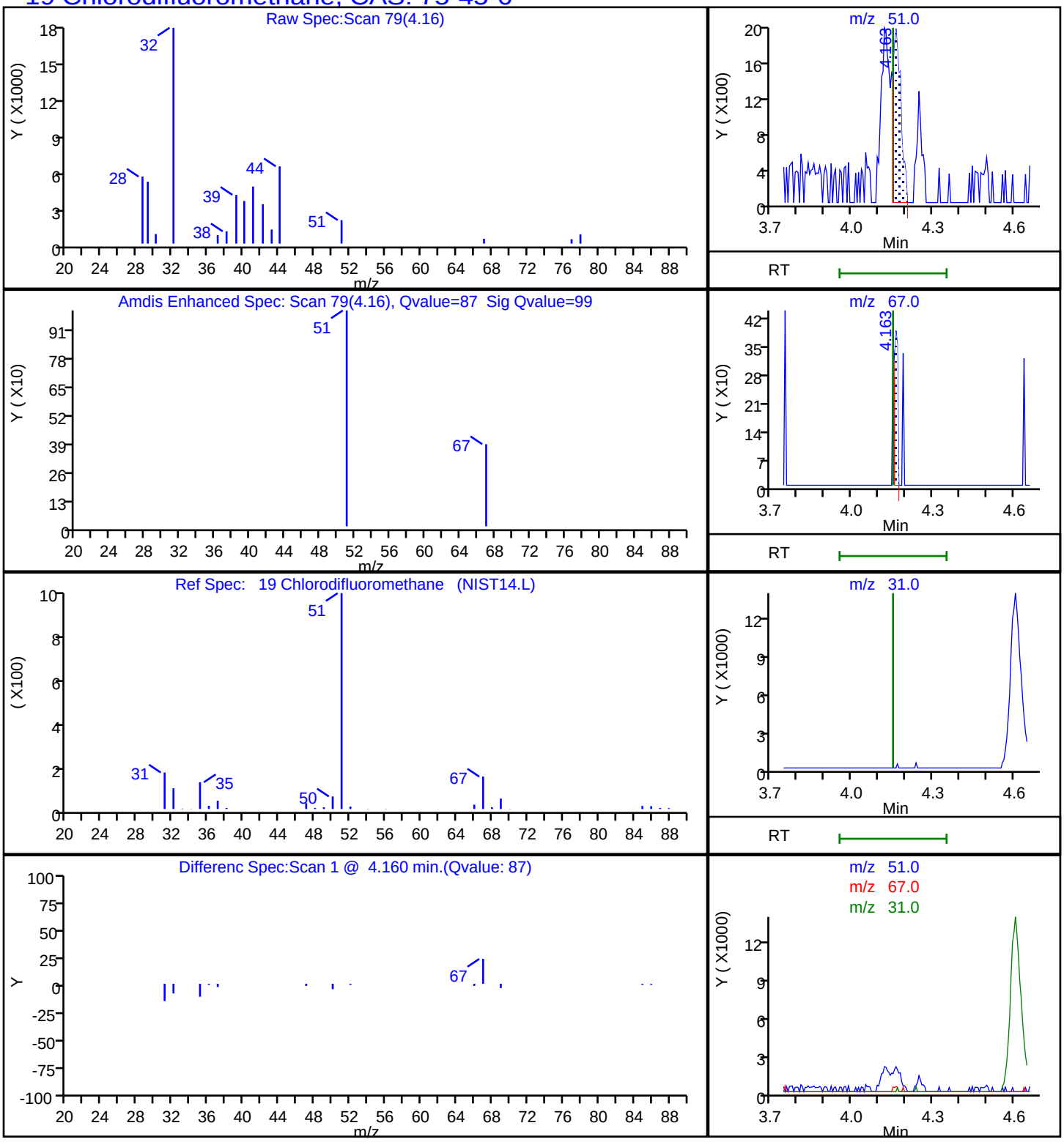
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

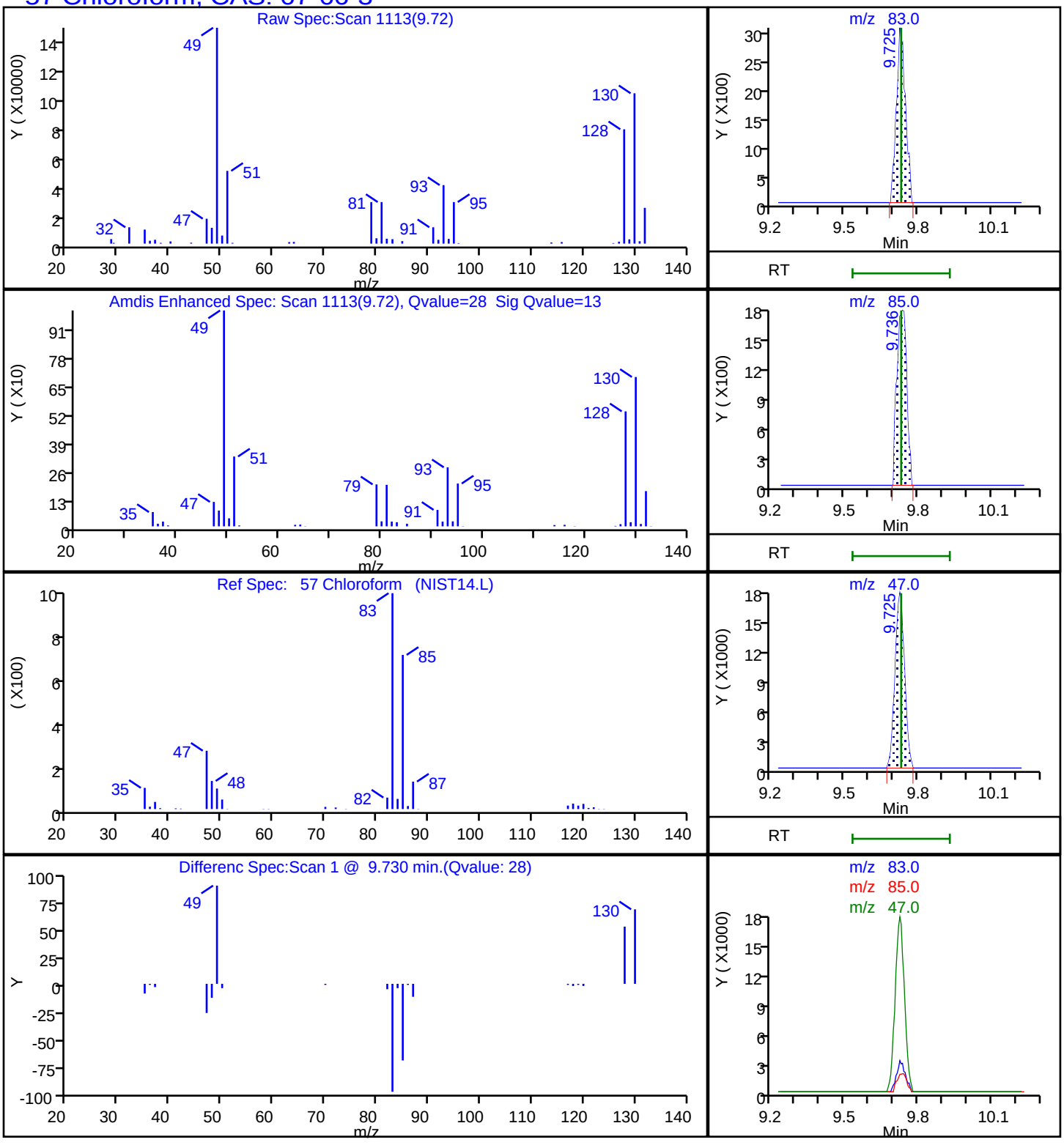
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

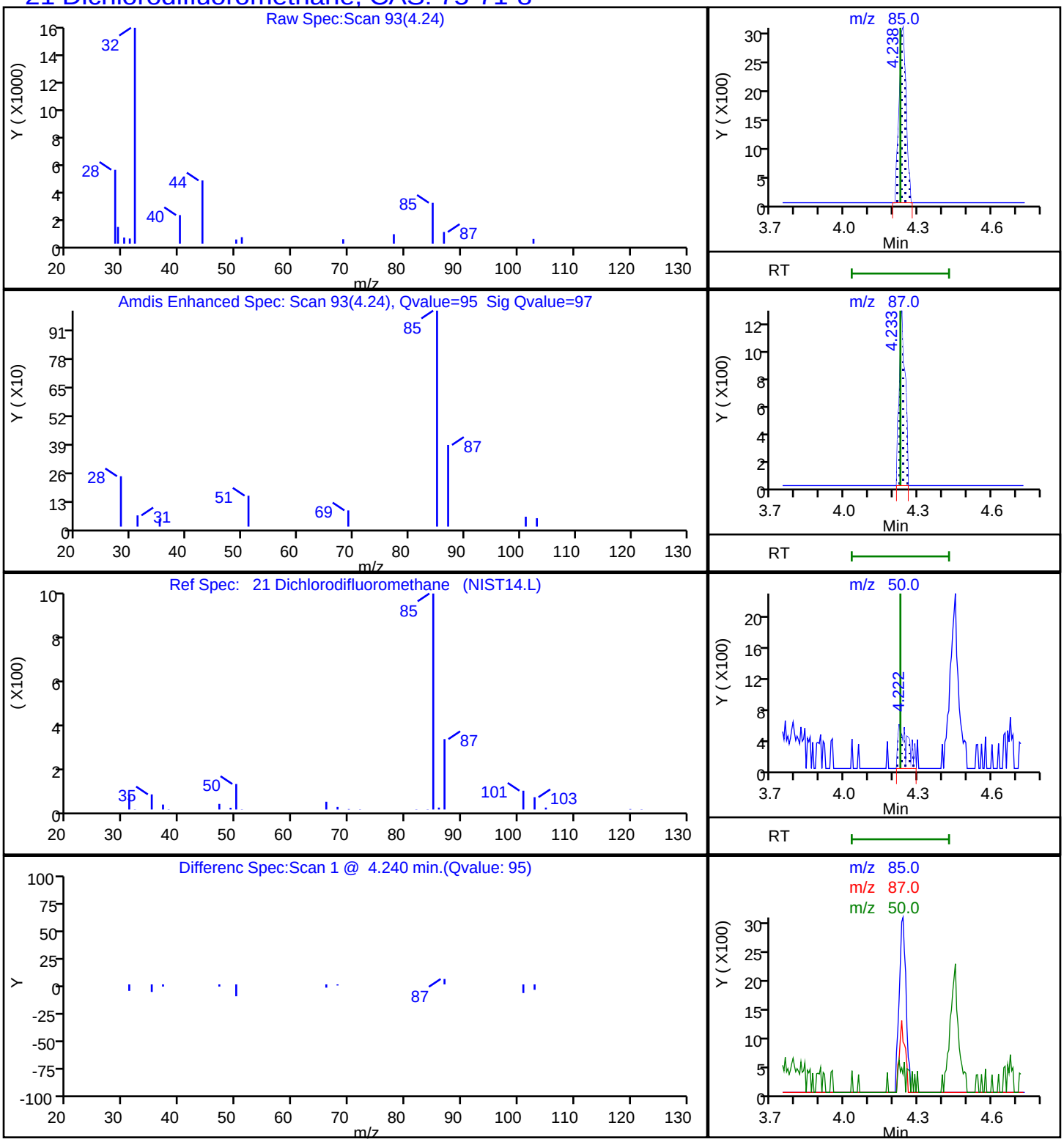


Report Date: 21-Aug-2019 12:20:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D				
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1		
Client ID:	SV-116-A-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

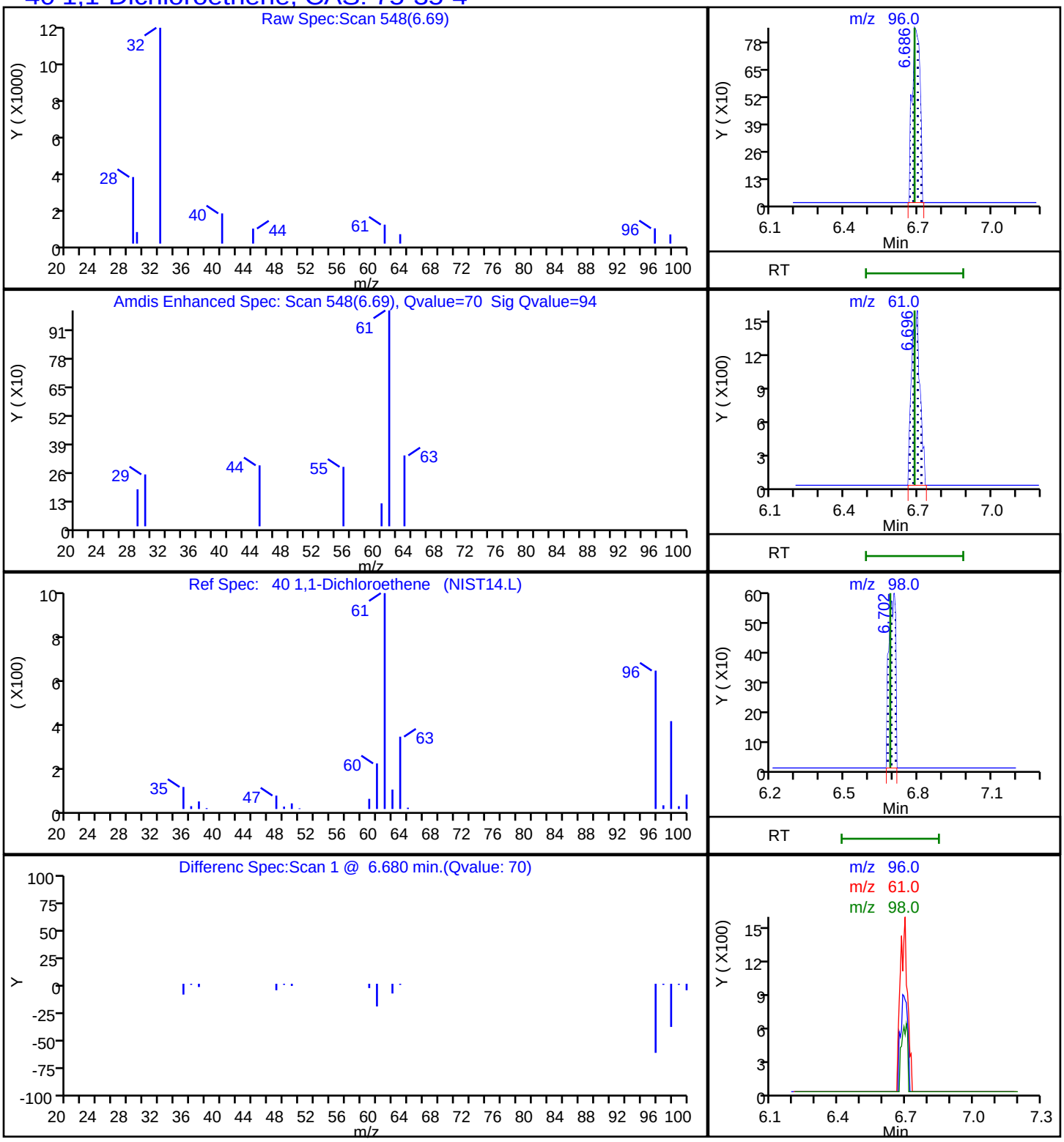
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

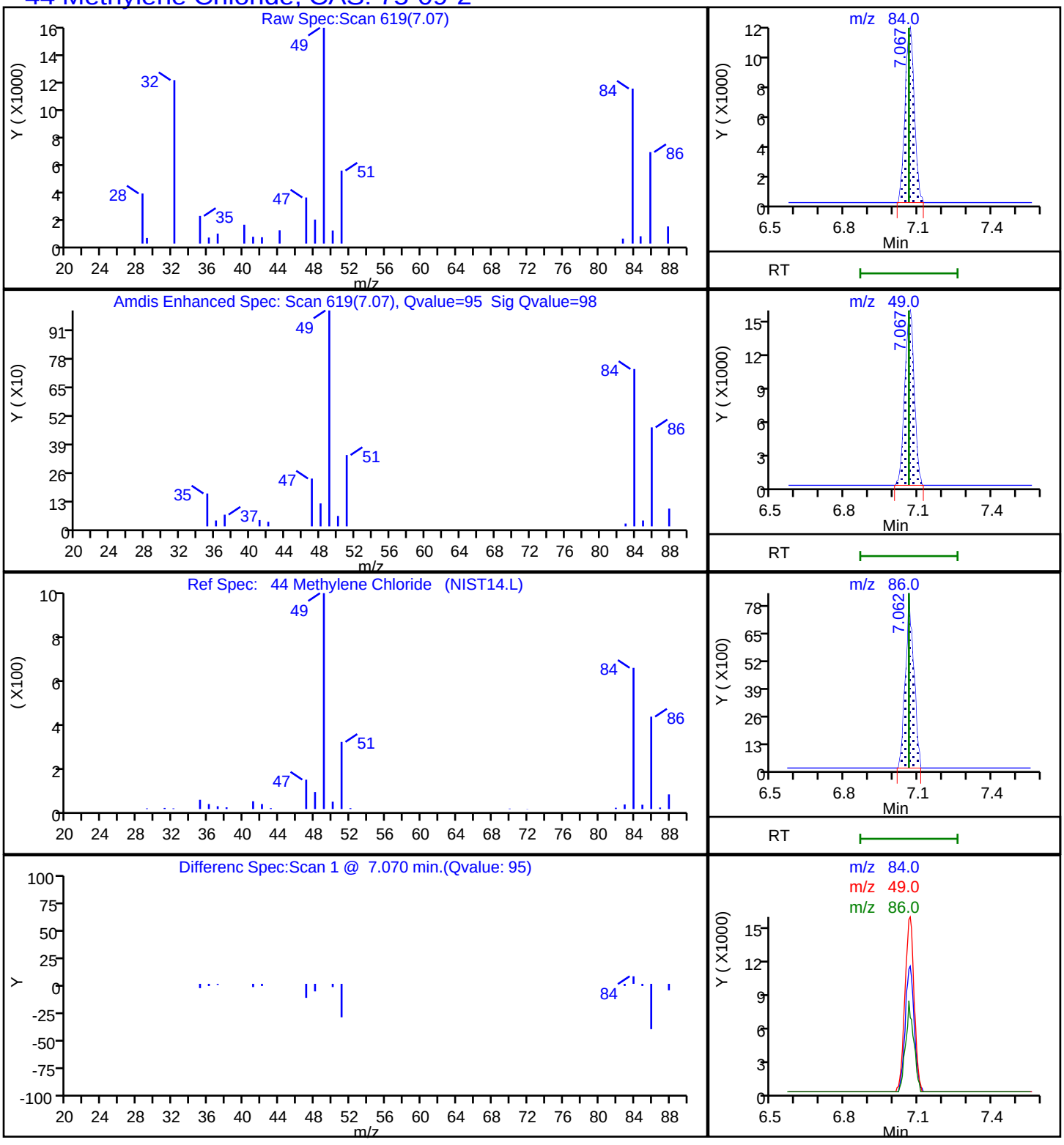


Report Date: 21-Aug-2019 12:20:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

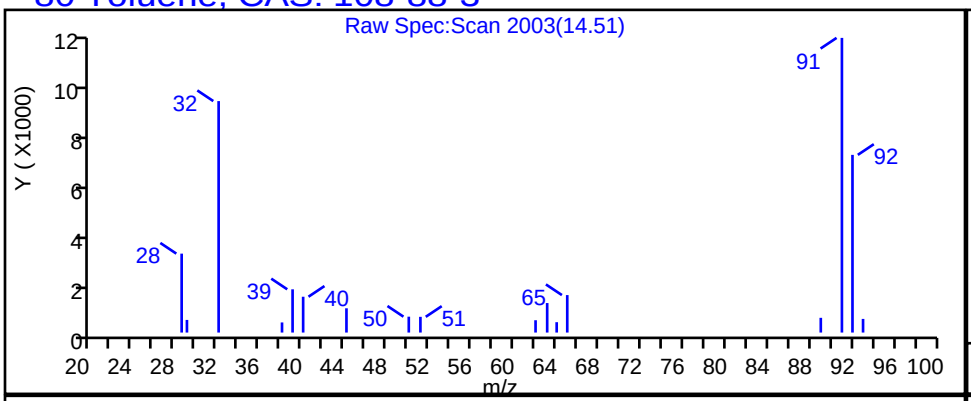


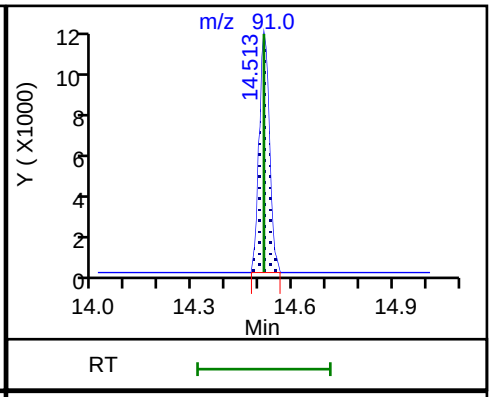
Report Date: 21-Aug-2019 12:20:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

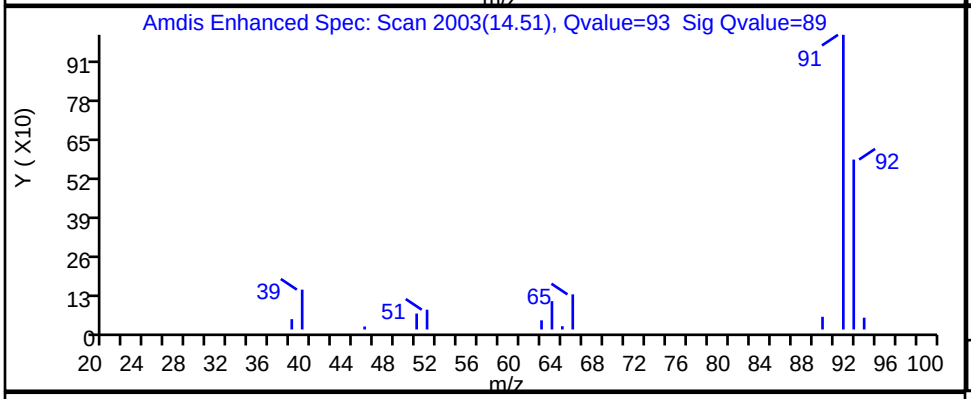
Eurofins TestAmerica, Knoxville

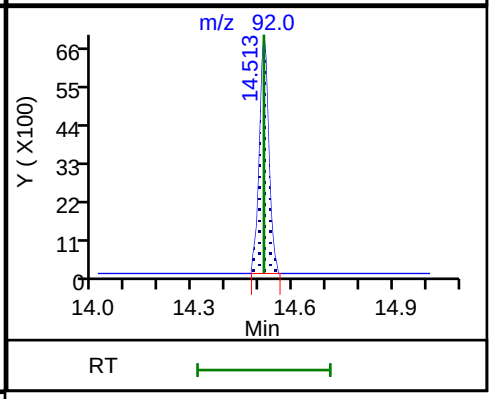
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

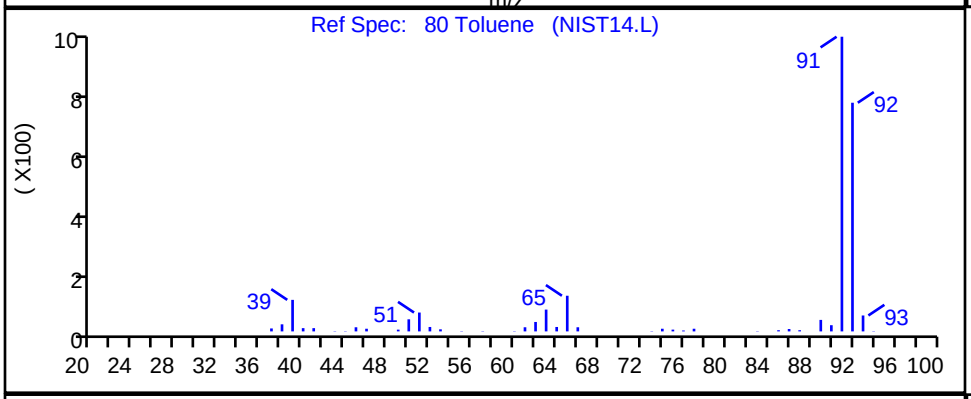
80 Toluene, CAS: 108-88-3

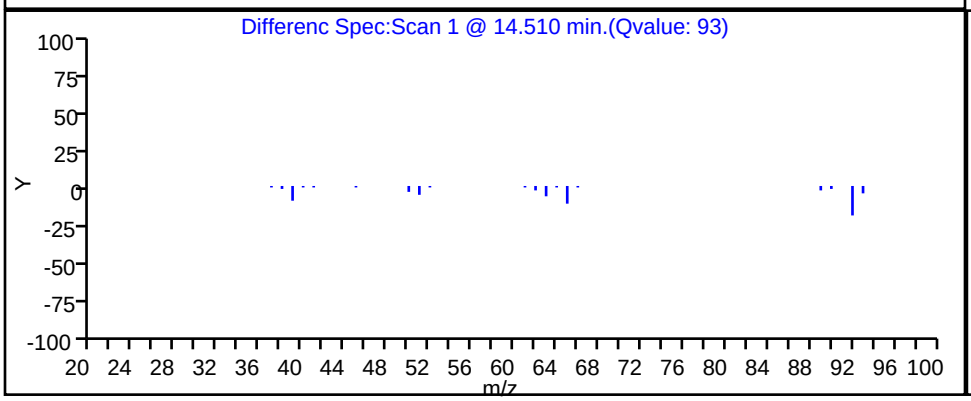


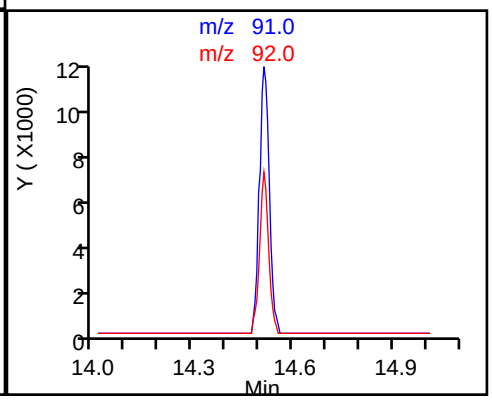








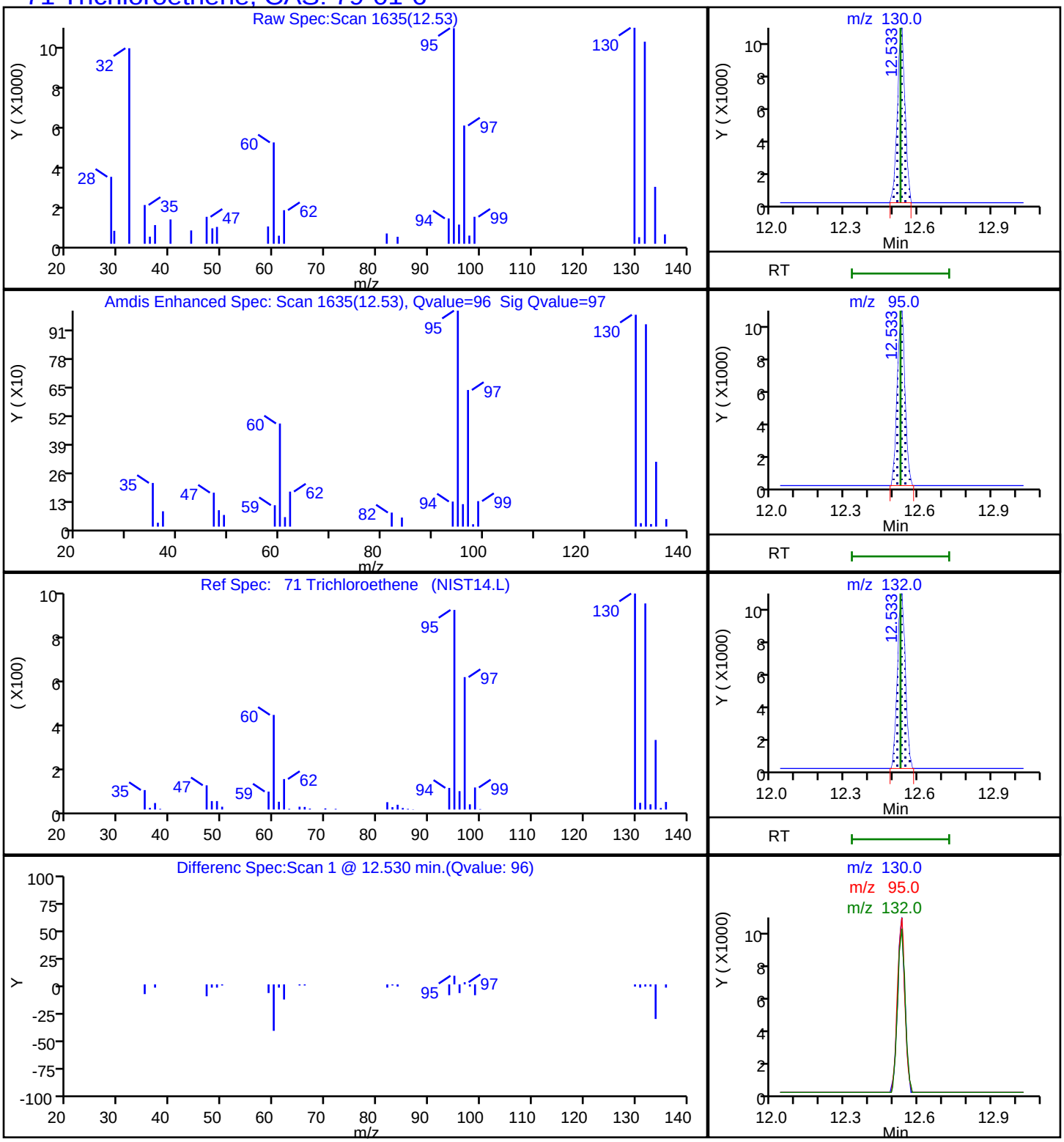




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D		
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1
Client ID:	SV-116-A-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



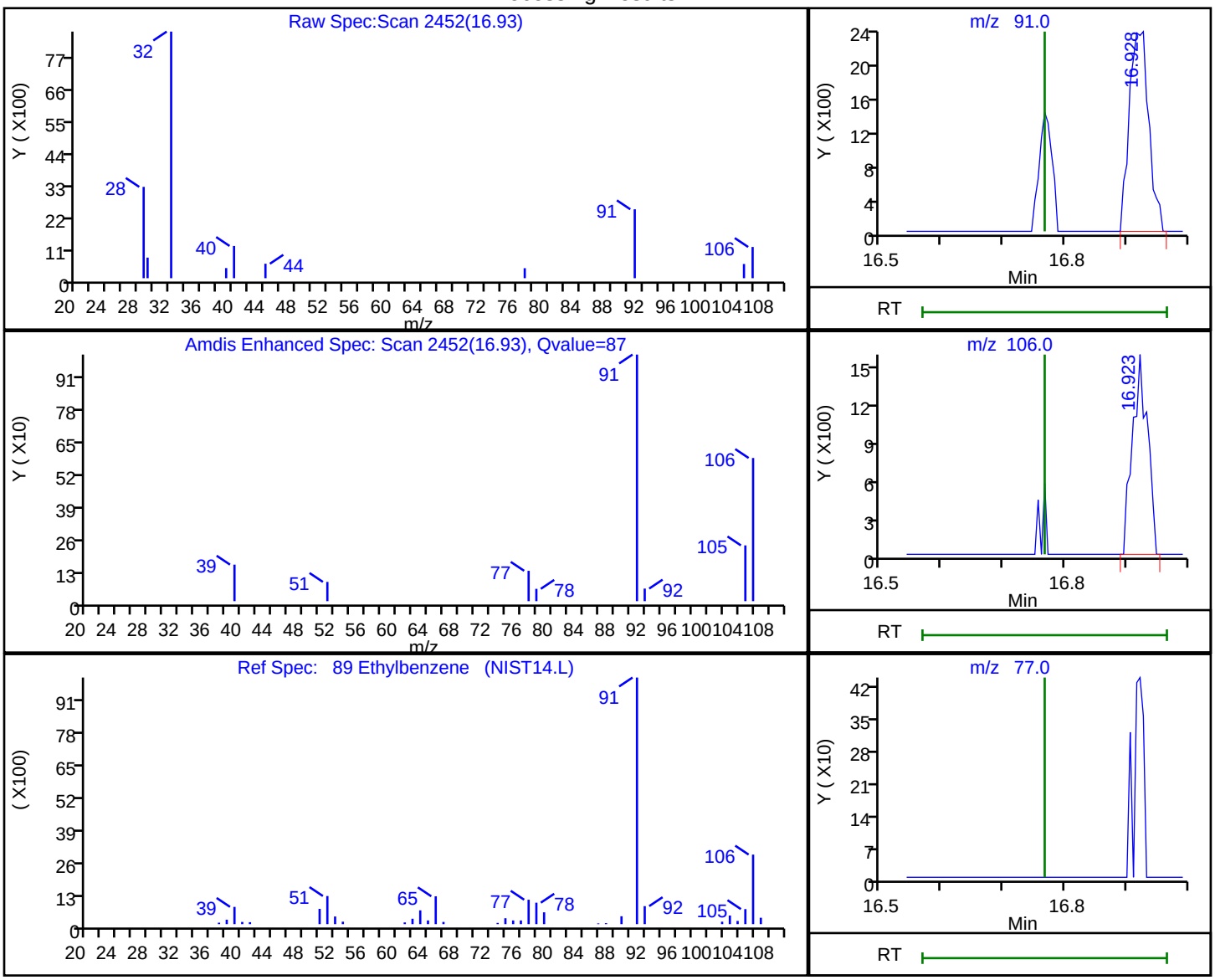
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P201.D				
Injection Date:	20-Aug-2019 14:06:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-1	Lab Sample ID:	140-16377-1		
Client ID:	SV-116-A-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

Processing Results



RT	Mass	Response	Amount
16.93	91.00	5298	0.017807
16.92	106.00	2720	
16.77	77.00	0	

Reviewer: khachitpongpanits, 21-Aug-2019 12:20:19

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.077	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	0.19	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.11	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.21	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	48	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.60	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.49	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.91	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.44	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.84	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.53	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	170	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D
Lims ID: 140-16377-A-2
Client ID: SV-DUP03-A-27
Sample Type: Client
Inject. Date: 23-Aug-2019 18:36:30 ALS Bottle#: 6 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-011
Misc. Info.: 140-16377-a-2
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 14:08:33 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 14:08:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.539	-0.006	97	224616	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1245944	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1042831	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	639114	3.55	
6 Chlorodifluoromethane	51	3.421	3.421	-0.006	37	18762	0.0978	M
8 Dichlorodifluoromethane	85	3.480	3.488	-0.006	98	12168	0.0701	
27 1,1-Dichloroethene	96	5.616	5.618	-0.005	64	3271	0.0423	
31 Methylene Chloride	84	5.966	5.966	0.000	97	759907	9.57	
42 cis-1,2-Dichloroethene	96	8.215	8.199	0.011	25	2043	0.0222	
44 Chloroform	83	8.549	8.555	0.000	28	7028	0.0372	
49 Benzene	78	10.210	10.205	0.005	68	7508	0.0298	
52 Carbon tetrachloride	117	10.210	10.221	-0.011	42	3116	0.0154	
58 Trichloroethene	130	11.499	11.499	0.000	93	34870	0.3142	
67 Toluene	91	13.586	13.586	0.000	92	75485	0.2814	
76 Ethylbenzene	91	15.910	15.905	0.005	93	9258	0.0246	
77 m-Xylene & p-Xylene	91	16.066	16.072	-0.006	96	24662	0.0834	
80 o-Xylene	91	16.595	16.595	0.000	98	10926	0.0352	
S 116 Xylenes, Total	100				0		0.1187	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

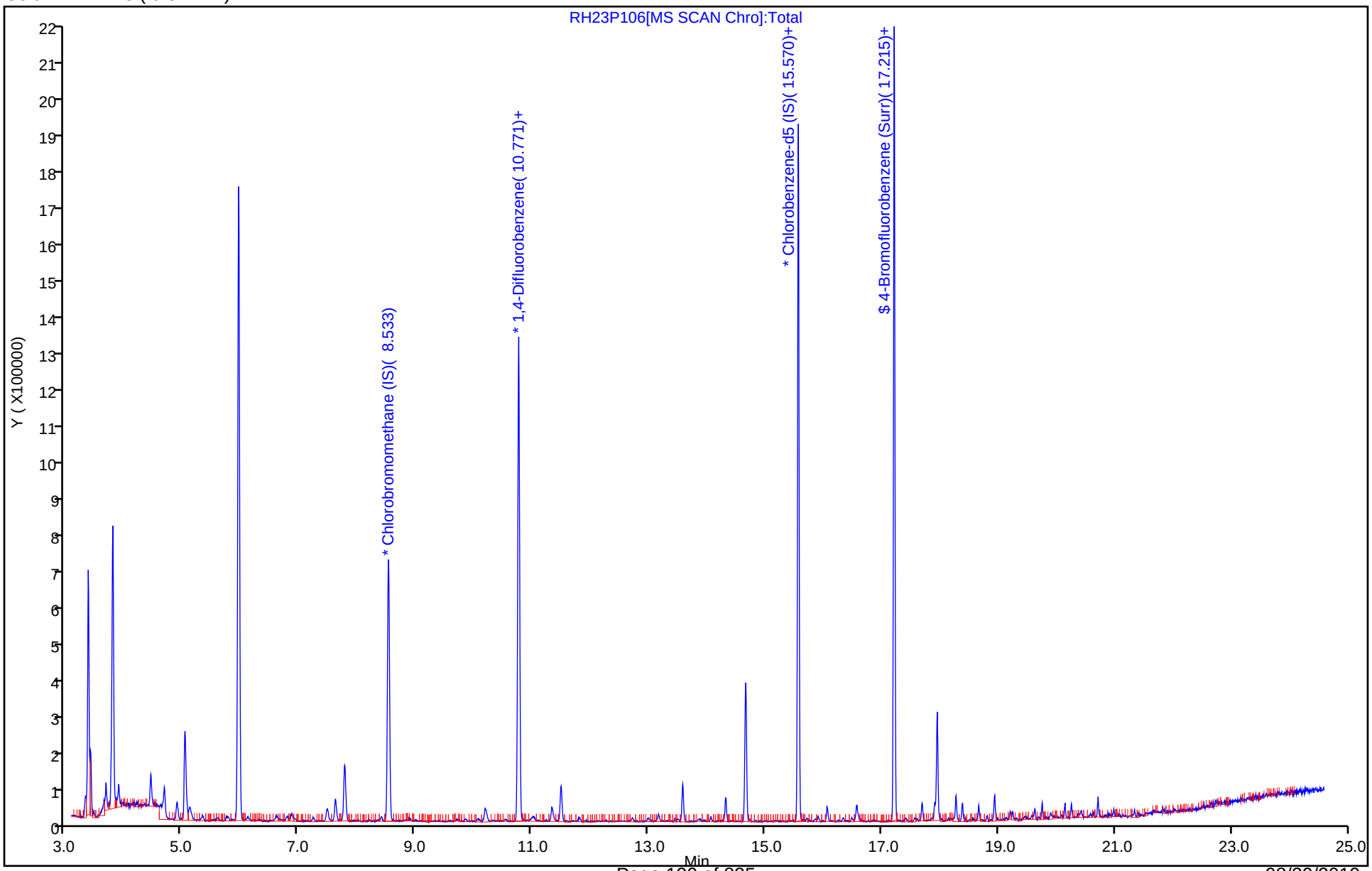
Report Date: 26-Aug-2019 14:08:34 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2	Worklist Smp#:	11
Client ID:	SV-DUP03-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D				
Lims ID:	140-16377-A-2				
Client ID:	SV-DUP03-A-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 18:36:30	ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-011				
Misc. Info.:	140-16377-a-2				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:08:33	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:08:33		

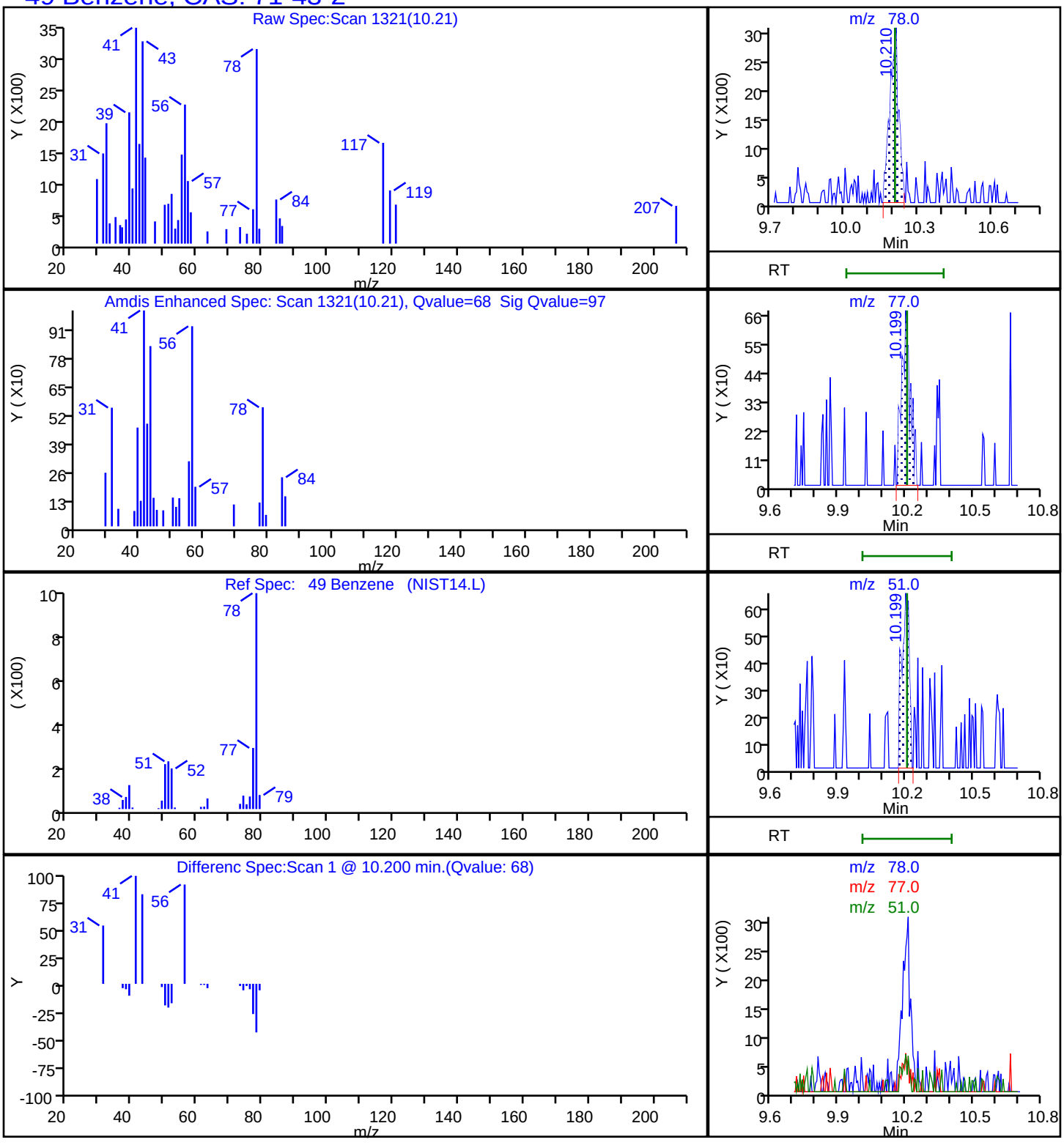
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.55	88.87

Report Date: 26-Aug-2019 14:08:34 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D		
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date: 23-Aug-2019 18:36:30 Instrument ID: MR

Lims ID: 140-16377-A-2 Lab Sample ID: 140-16377-2

Client ID: SV-DUP03-A-27

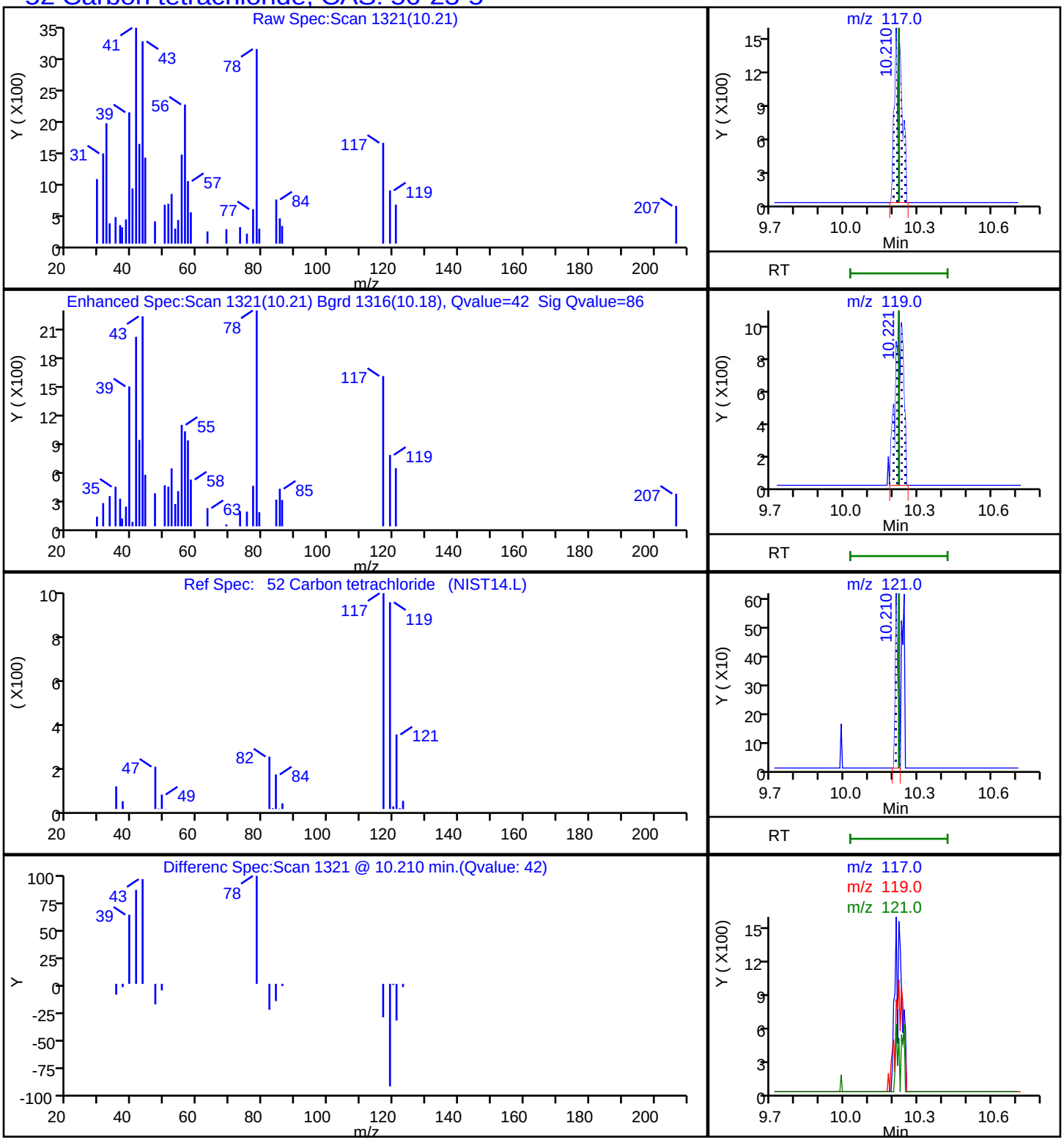
Operator ID: ALS Bottle#: 6 Worklist Smp#: 11

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

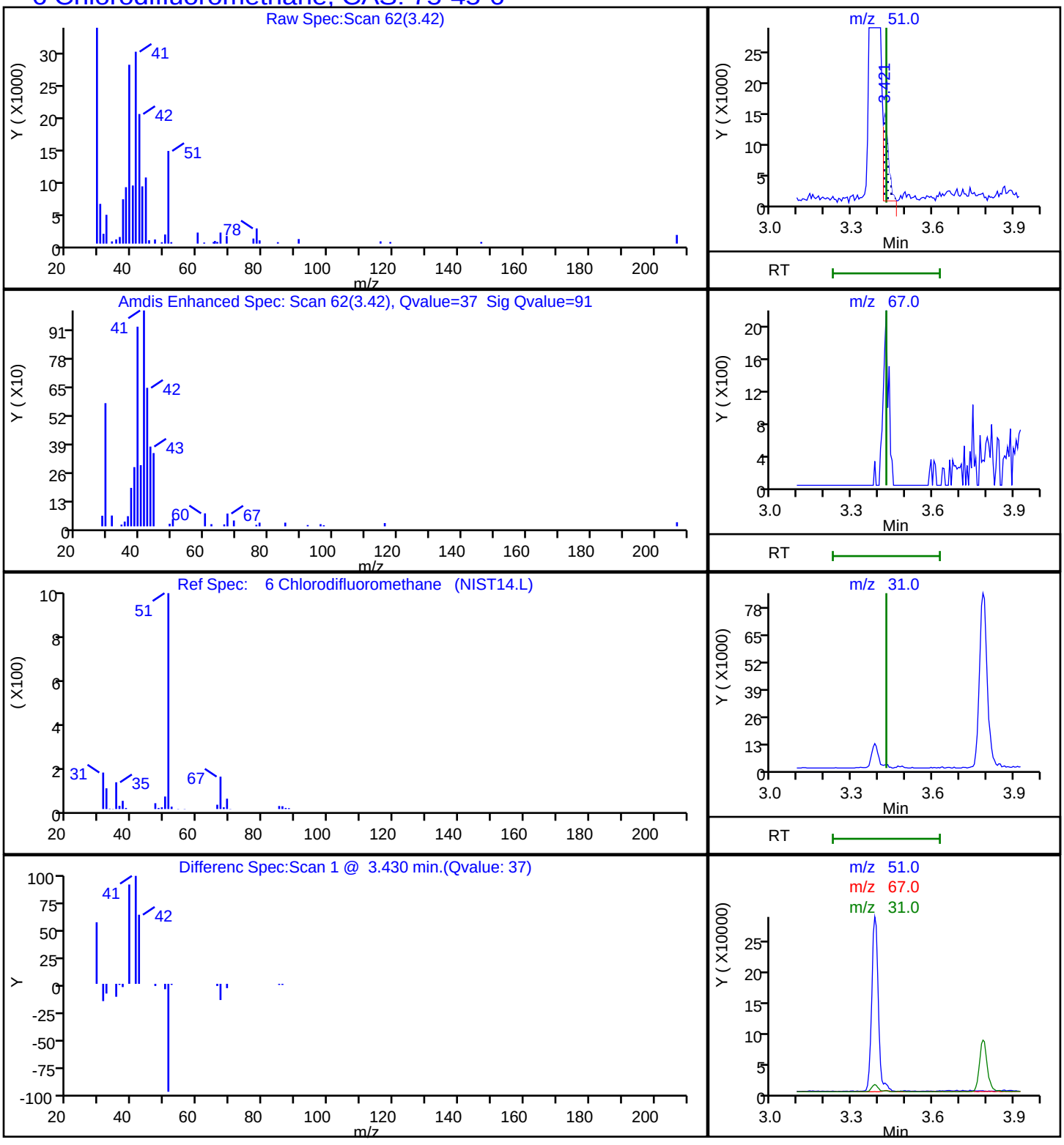


Report Date: 26-Aug-2019 14:08:34 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D		
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

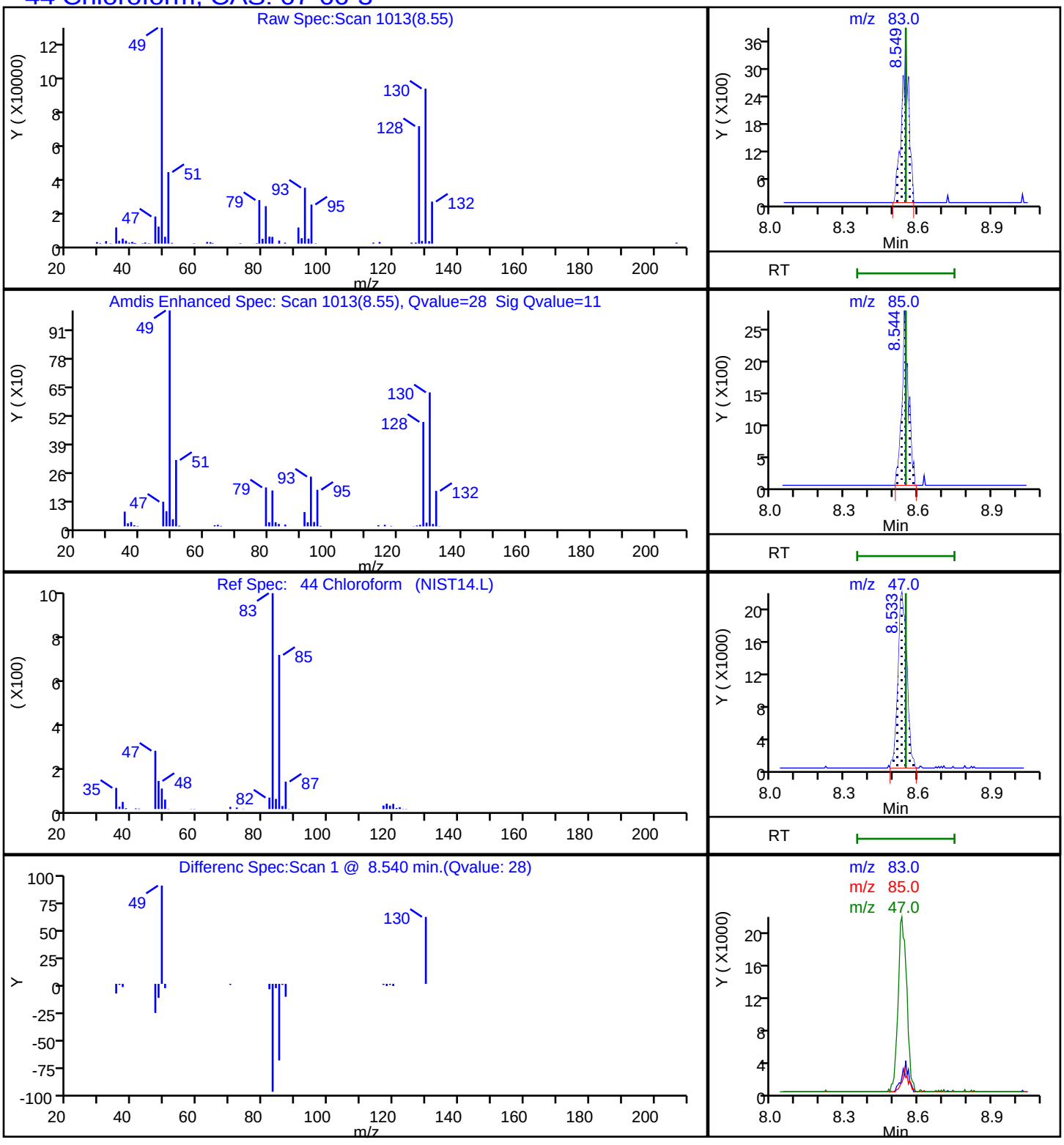
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D		
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date: 23-Aug-2019 18:36:30 Instrument ID: MR

Lims ID: 140-16377-A-2 Lab Sample ID: 140-16377-2

Client ID: SV-DUP03-A-27

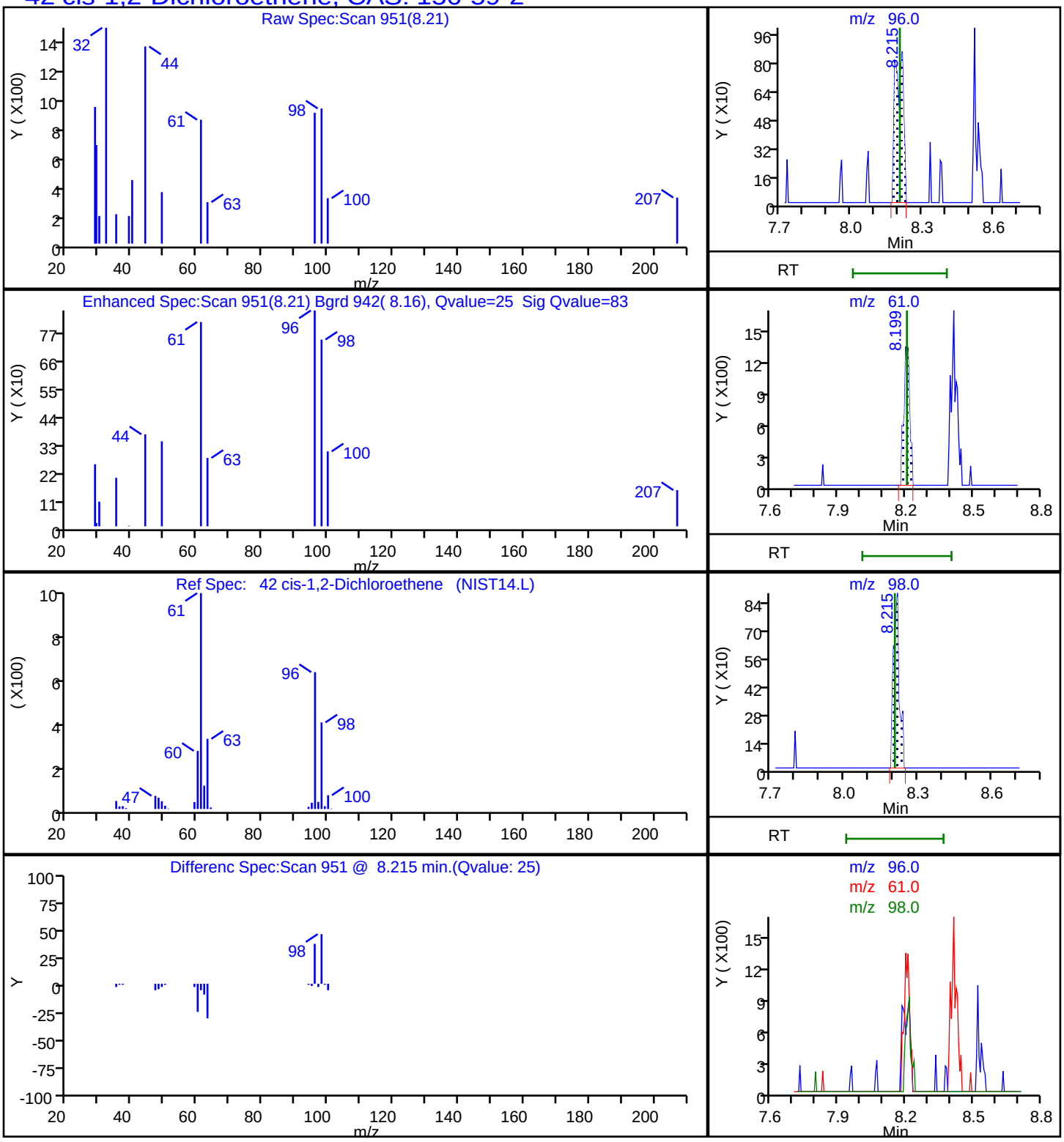
Operator ID: ALS Bottle#: 6 Worklist Smp#: 11

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

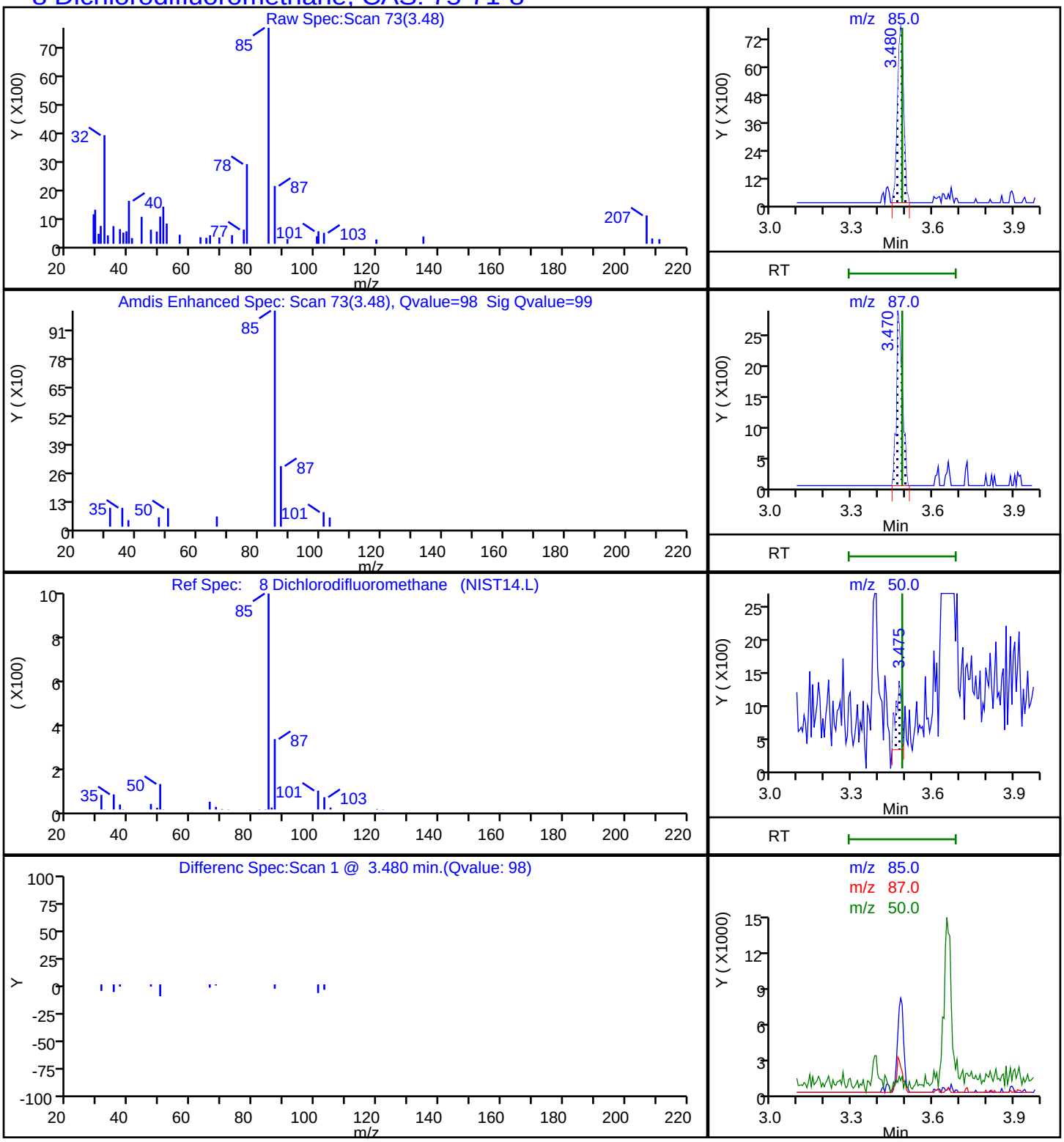
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D		
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date: 23-Aug-2019 18:36:30 Instrument ID: MR

Lims ID: 140-16377-A-2 Lab Sample ID: 140-16377-2

Client ID: SV-DUP03-A-27

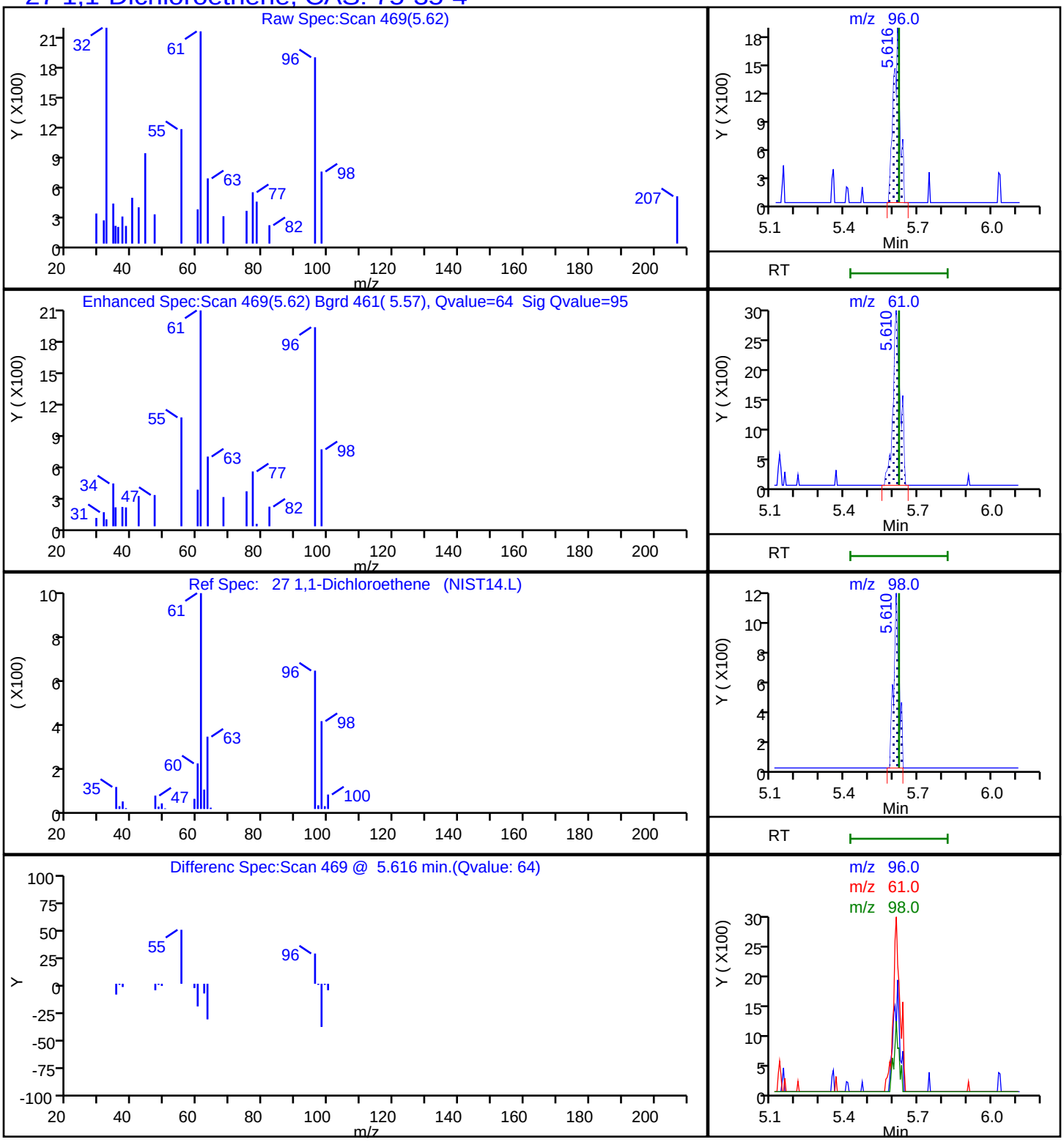
Operator ID: ALS Bottle#: 6 Worklist Smp#: 11

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4

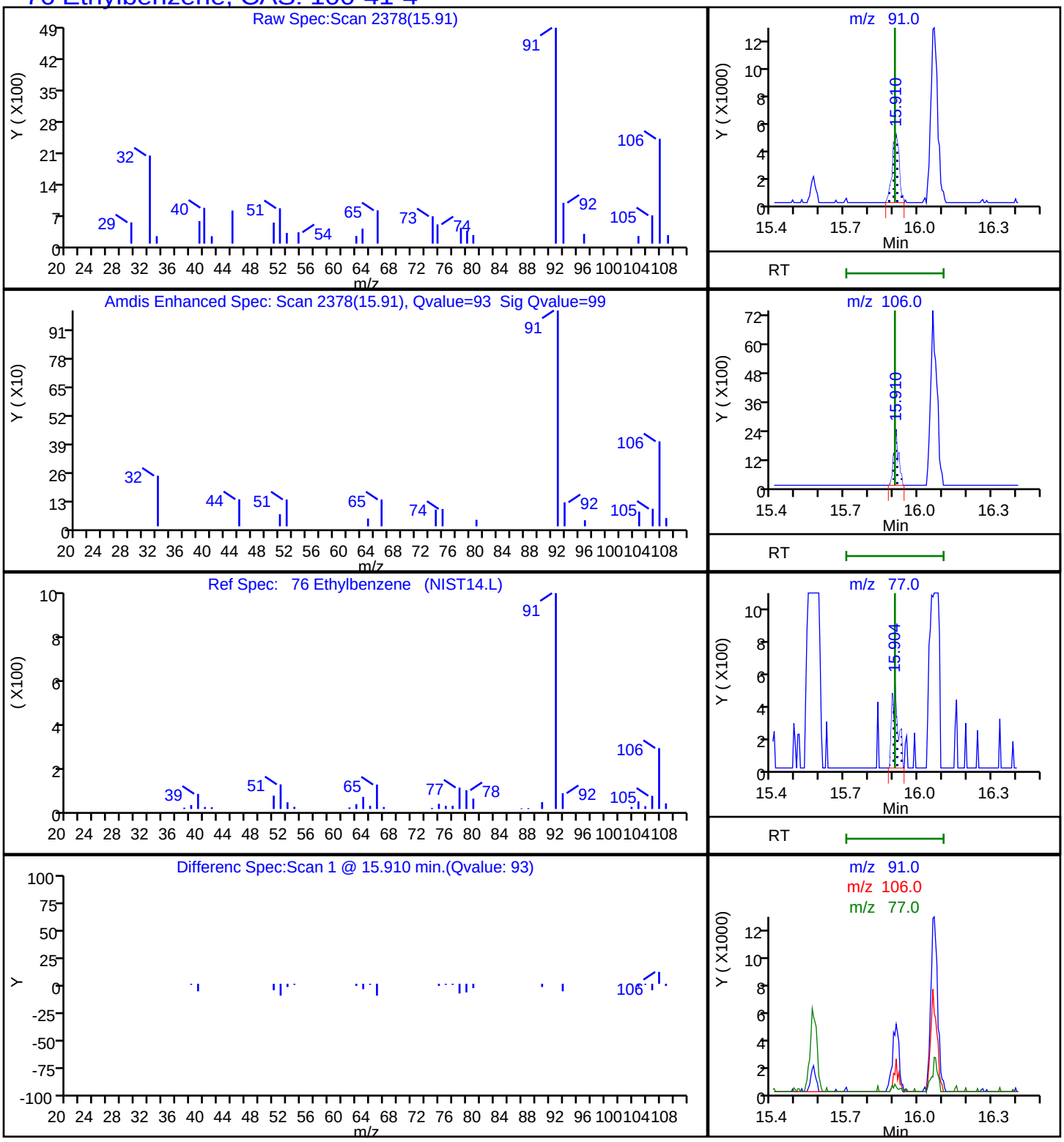


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

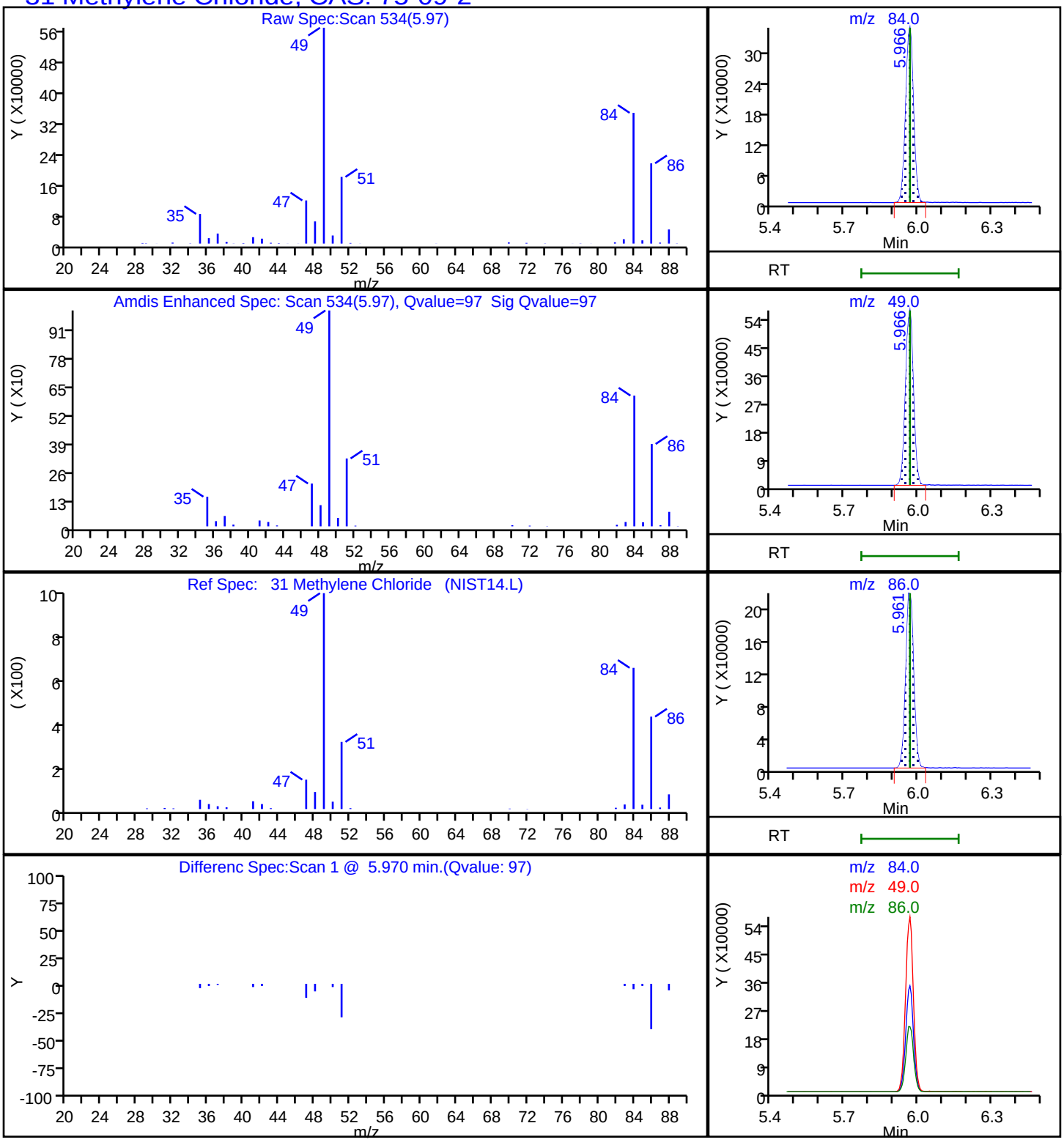
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D				
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR		
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2		
Client ID:	SV-DUP03-A-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

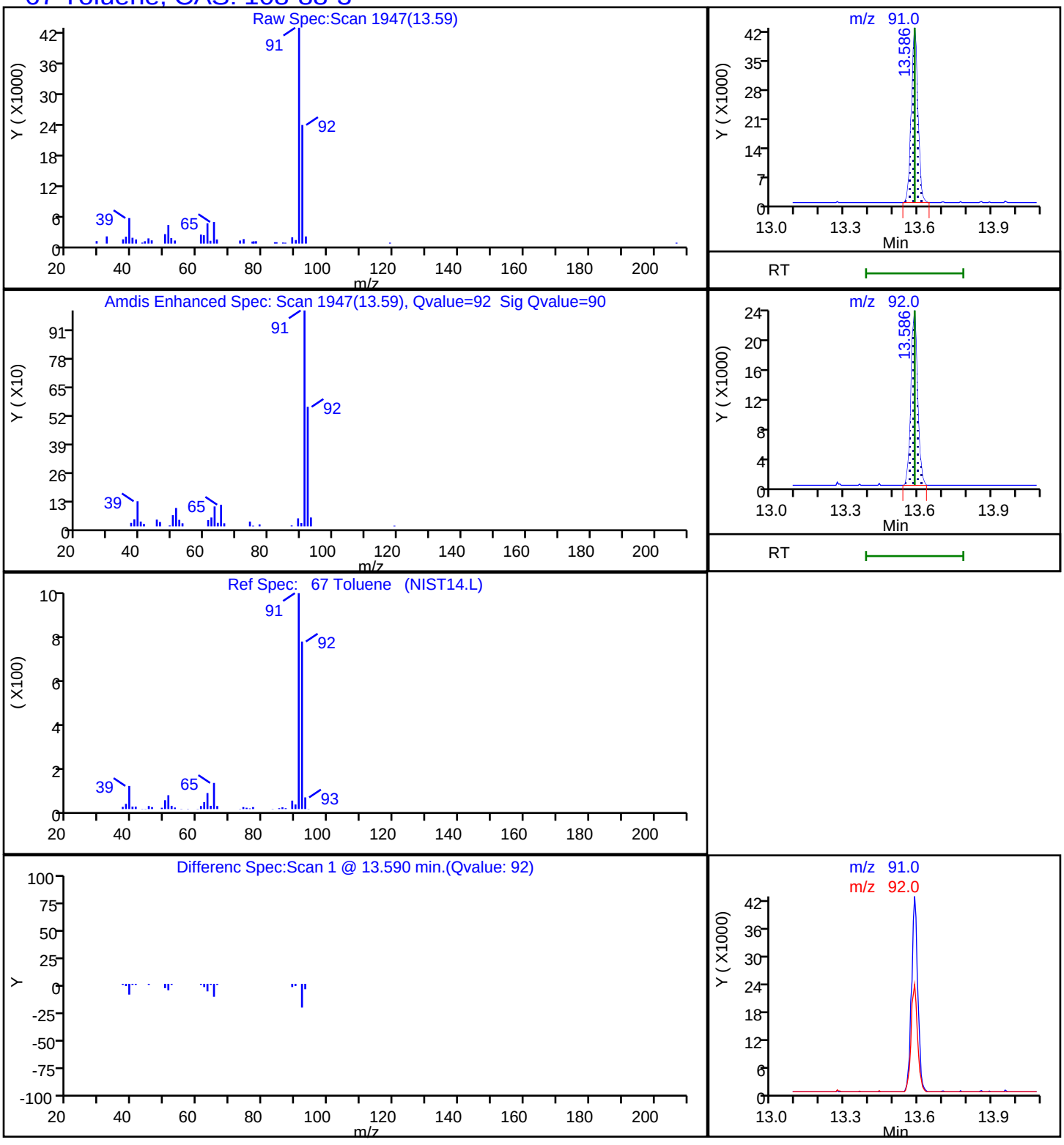
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D		
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2
Client ID:	SV-DUP03-A-27		
Operator ID:		ALS Bottle#:	6 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date: 23-Aug-2019 18:36:30 Instrument ID: MR

Lims ID: 140-16377-A-2 Lab Sample ID: 140-16377-2

Client ID: SV-DUP03-A-27

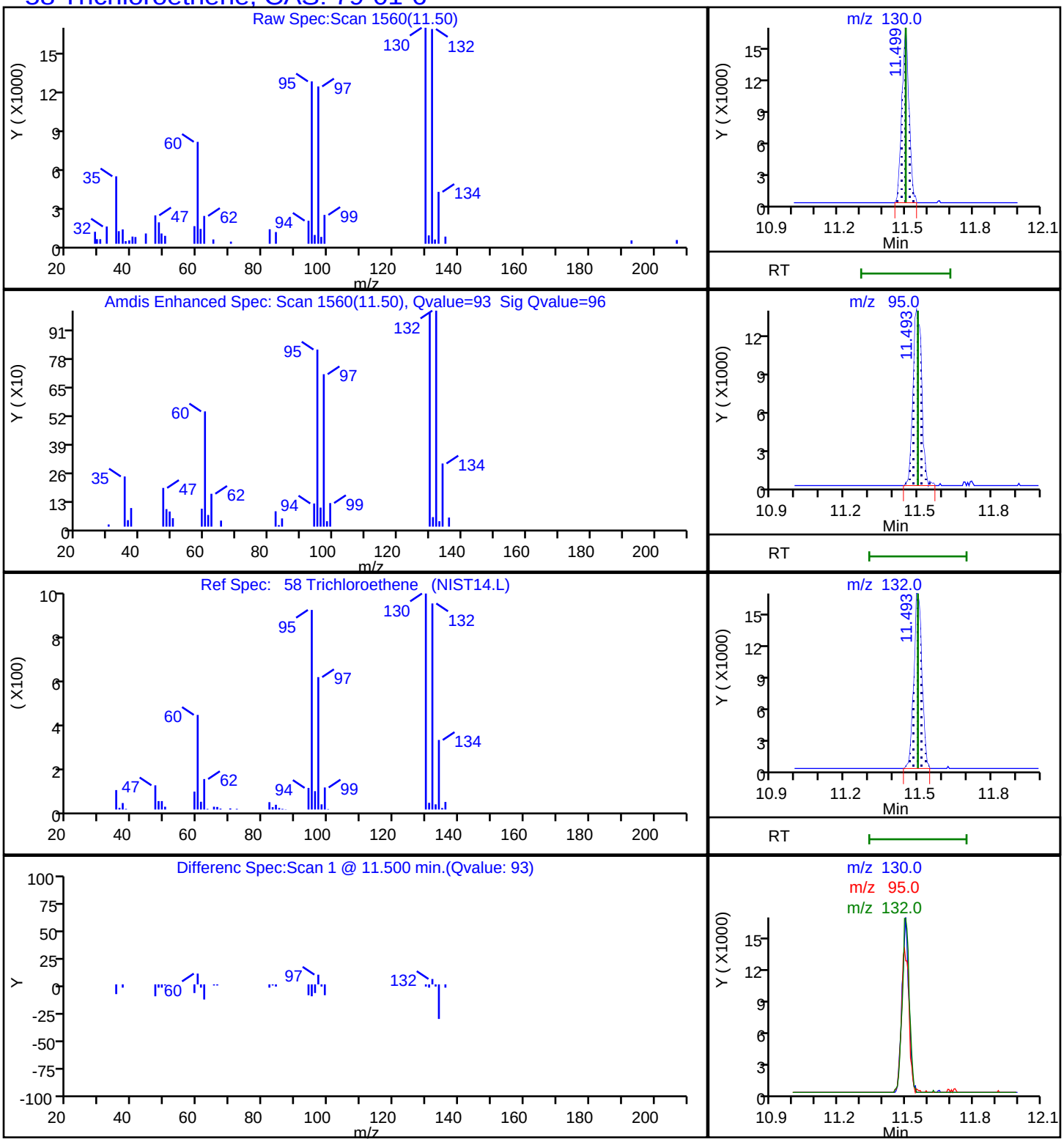
Operator ID: ALS Bottle#: 6 Worklist Smp#: 11

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

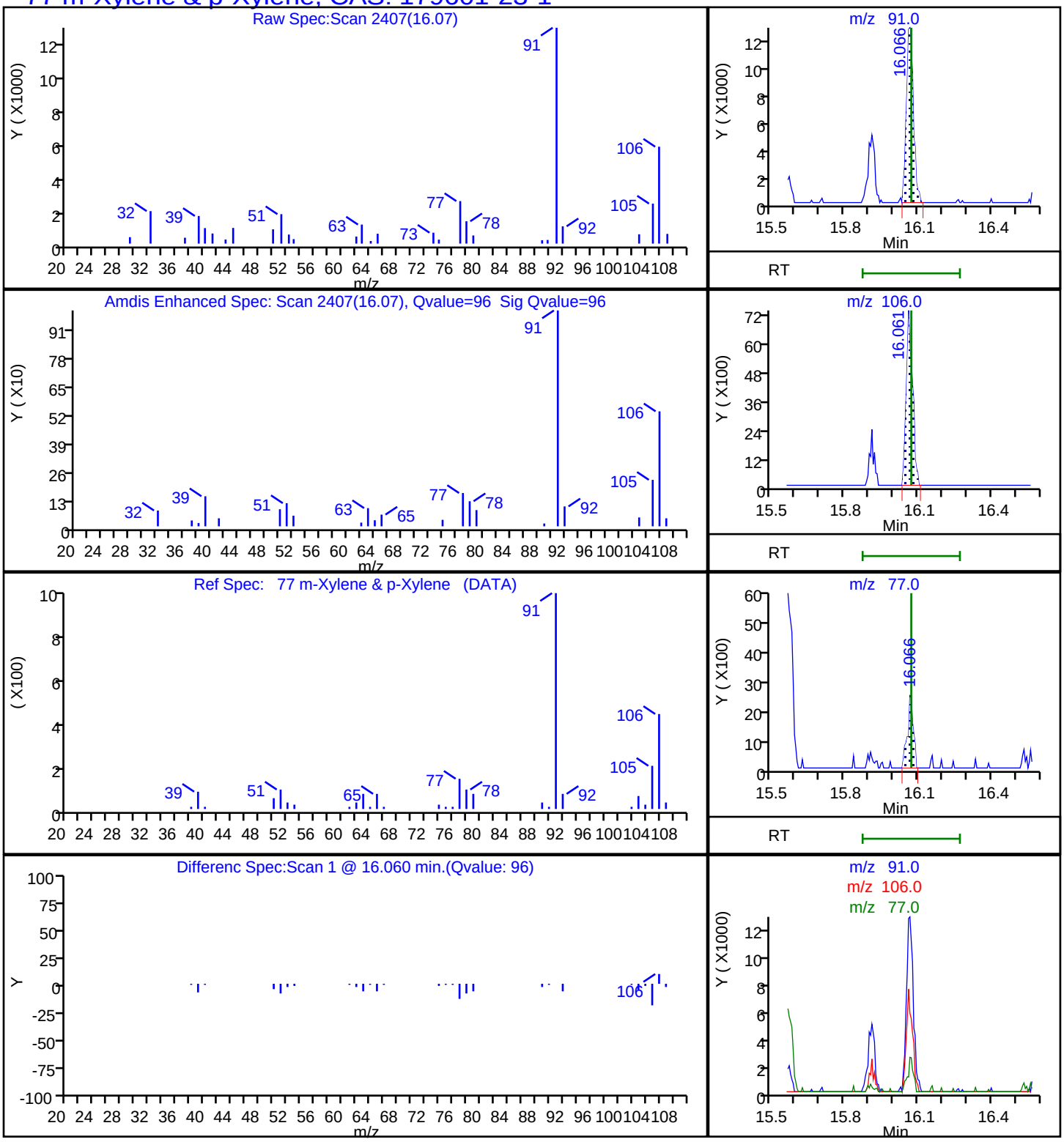
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D				
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR		
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2		
Client ID:	SV-DUP03-A-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D

Injection Date: 23-Aug-2019 18:36:30 Instrument ID: MR

Lims ID: 140-16377-A-2 Lab Sample ID: 140-16377-2

Client ID: SV-DUP03-A-27

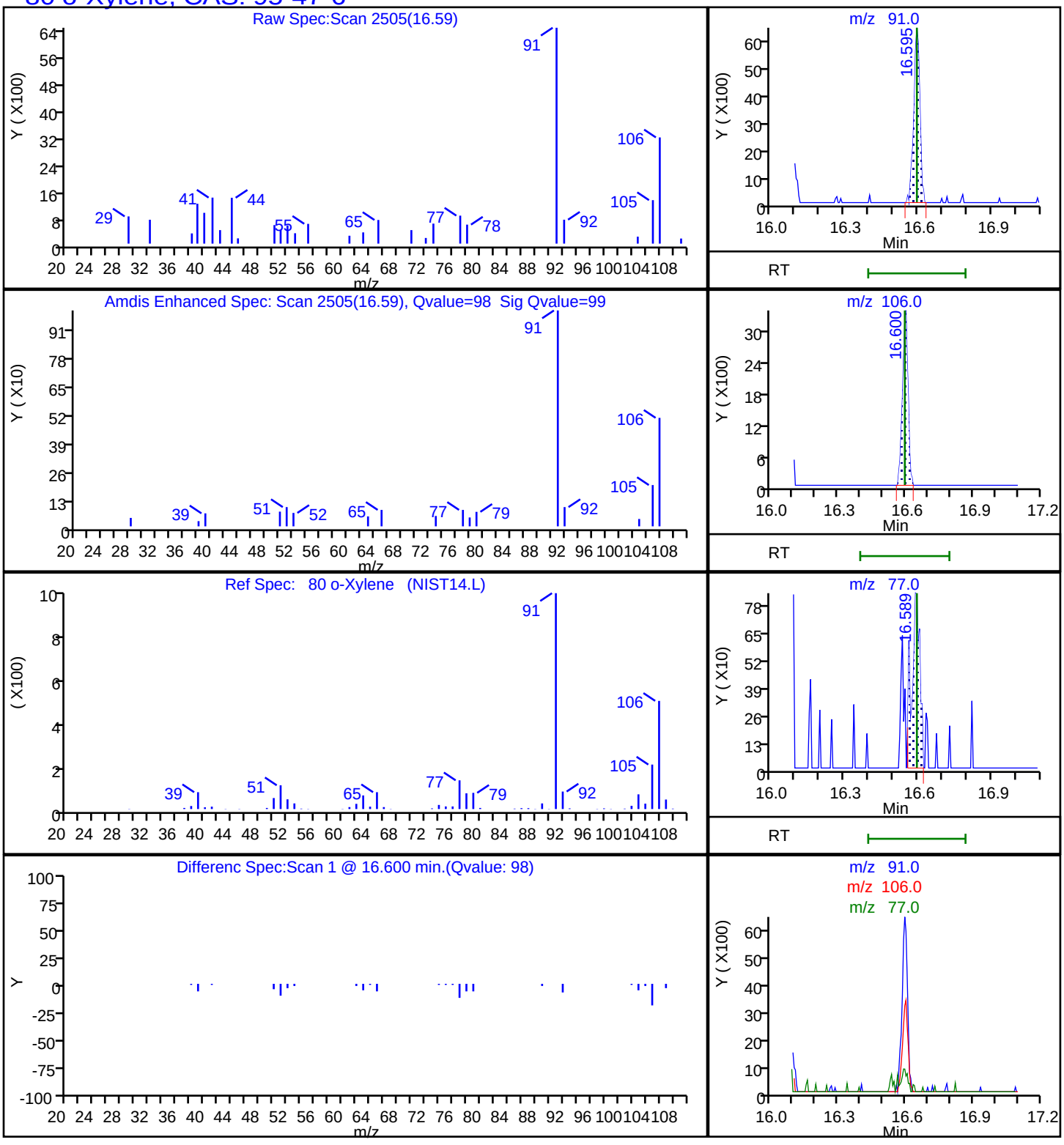
Operator ID: ALS Bottle#: 6 Worklist Smp#: 11

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

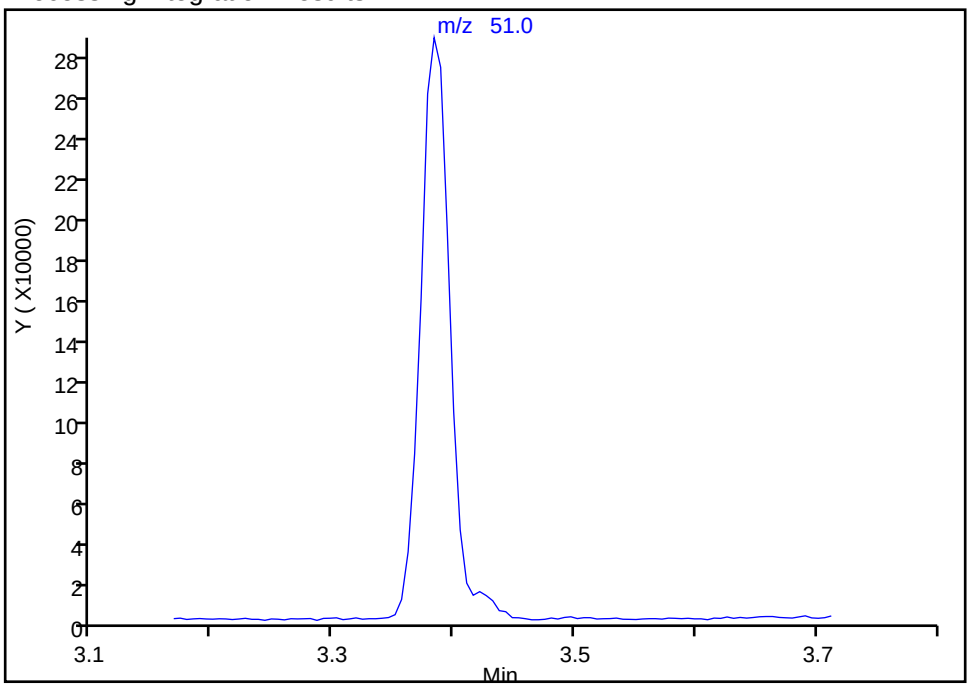
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P106.D				
Injection Date:	23-Aug-2019 18:36:30	Instrument ID:	MR		
Lims ID:	140-16377-A-2	Lab Sample ID:	140-16377-2		
Client ID:	SV-DUP03-A-27				
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

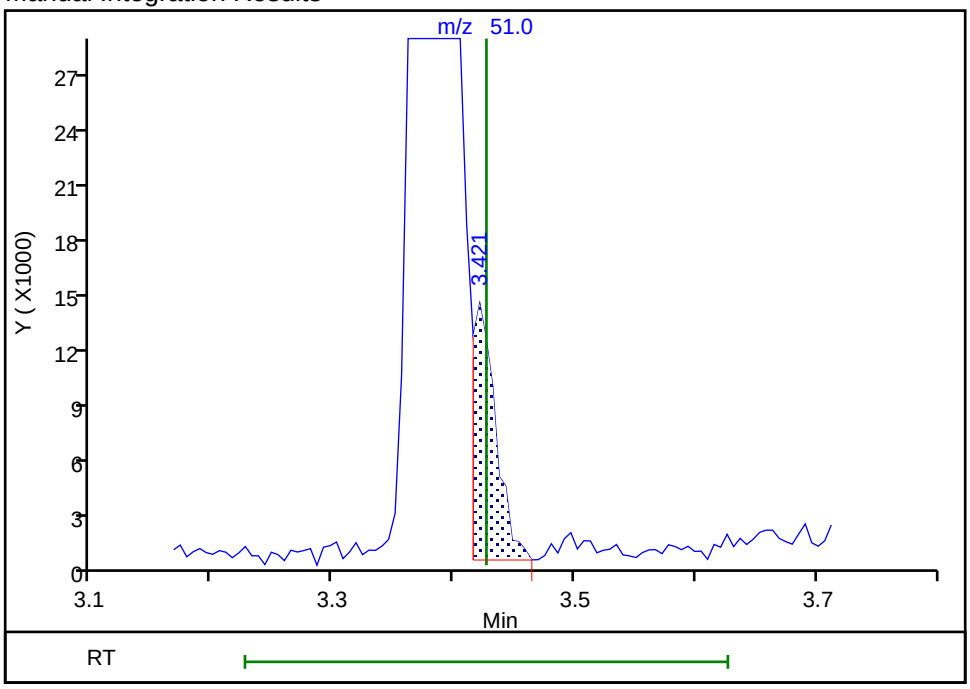
Not Detected
Expected RT: 3.43

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 18762
Amount: 0.097758
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Aug-2019 14:08:26
Audit Action: Split an Integrated Peak Audit Reason: Missed Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	2.1	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	45		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	6.7		3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	150		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	20	B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7	J	3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	*Trichloroethene*	*131.39*	*1100*	*E*	*1.8*	*0.27*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	10	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	180		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	27		15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	580		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	69	B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	6.6	J	14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	*Trichloroethene*	*131.39*	*5900*	*E*	*9.8*	*1.5*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Lims ID:	140-16377-A-3				
Client ID:	SV-173-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 20:28:30	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-013				
Misc. Info.:	140-16377-a-3				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:10:07	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 12:11:49		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.728	9.731	-0.003	93	248279	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.840	-0.003	95	1271047	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.450	-0.003	88	1086251	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.041	-0.003	96	701552	3.51	
40 1,1-Dichloroethene	96	6.694	6.687	0.007	97	246616	3.24	
44 Methylene Chloride	84	7.065	7.064	-0.004	96	40939	0.4383	
47 trans-1,2-Dichloroethene	96	7.921	7.924	-0.003	94	2803	0.0368	
50 1,1-Dichloroethane	63	8.362	8.365	-0.003	98	25126	0.1481	
55 cis-1,2-Dichloroethene	96	9.384	9.382	0.002	95	76881	0.9796	
57 Chloroform	83	9.739	9.731	0.002	65	9457	0.0469	
60 1,1,1-Trichloroethane	97	10.756	10.764	-0.008	63	3689	0.0170	
71 Trichloroethene	130	12.531	12.534	-0.003	95	2549794	24.3	E

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

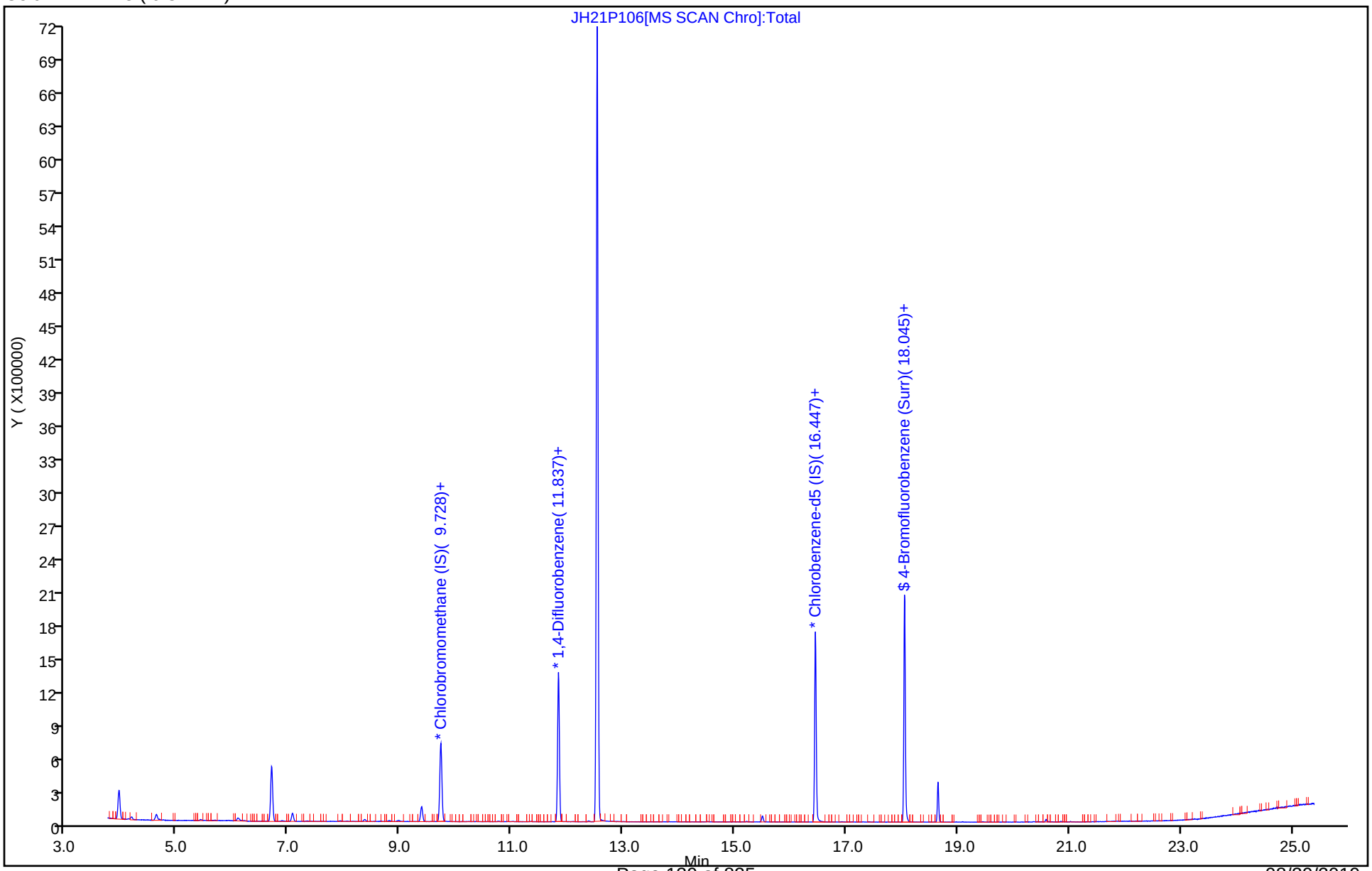
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 12:11:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3	Worklist Smp#:	13
Client ID:	SV-173-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Lims ID:	140-16377-A-3				
Client ID:	SV-173-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 20:28:30	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-013				
Misc. Info.:	140-16377-a-3				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:10:07	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

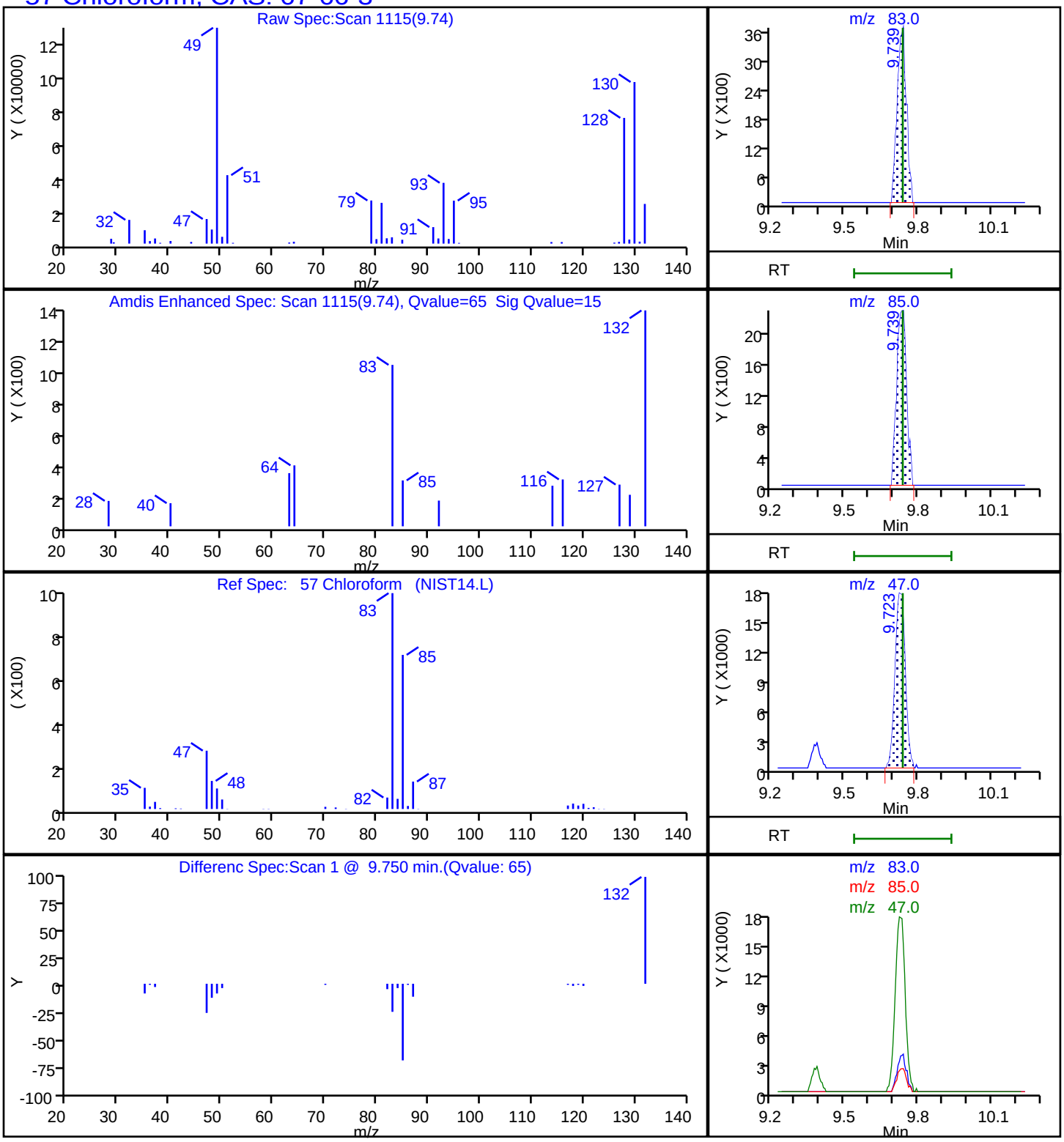
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:11:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.51	87.85

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D		
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3
Client ID:	SV-173-A-27		
Operator ID:	007126	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

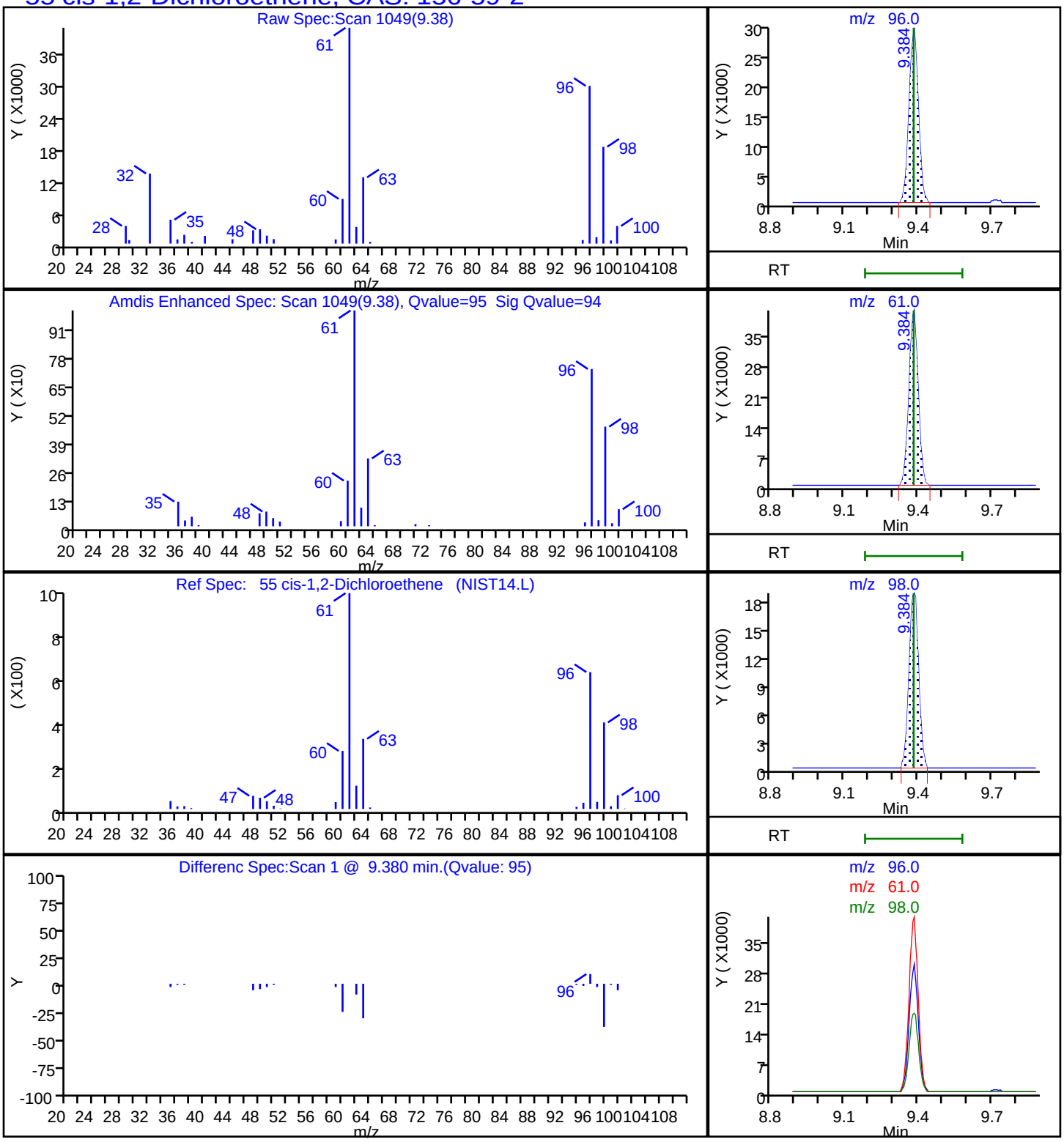


Report Date: 22-Aug-2019 12:11:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3		
Client ID:	SV-173-A-27				
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

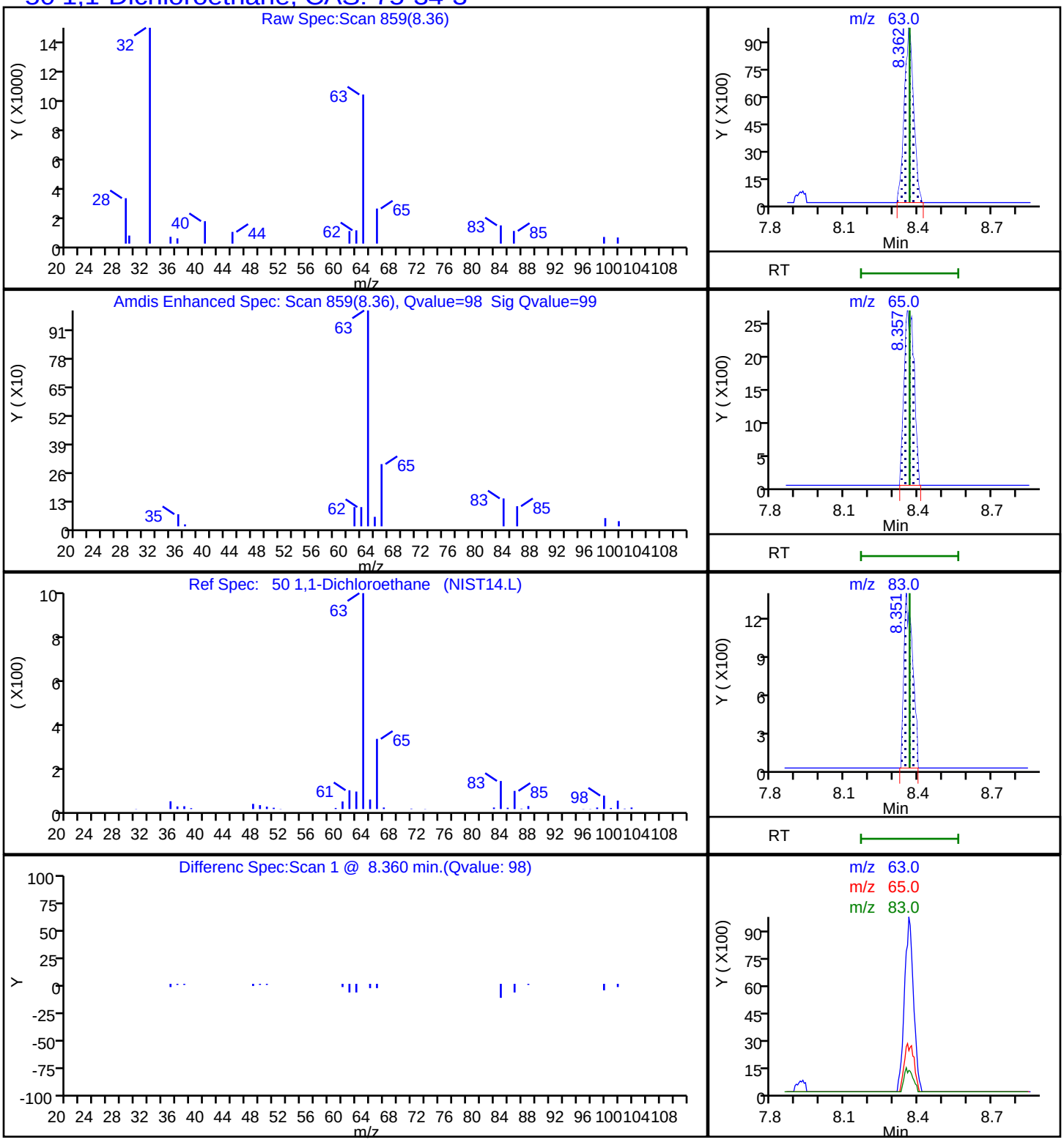
55 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D		
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3
Client ID:	SV-173-A-27		
Operator ID:	007126	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 1,1-Dichloroethane, CAS: 75-34-3

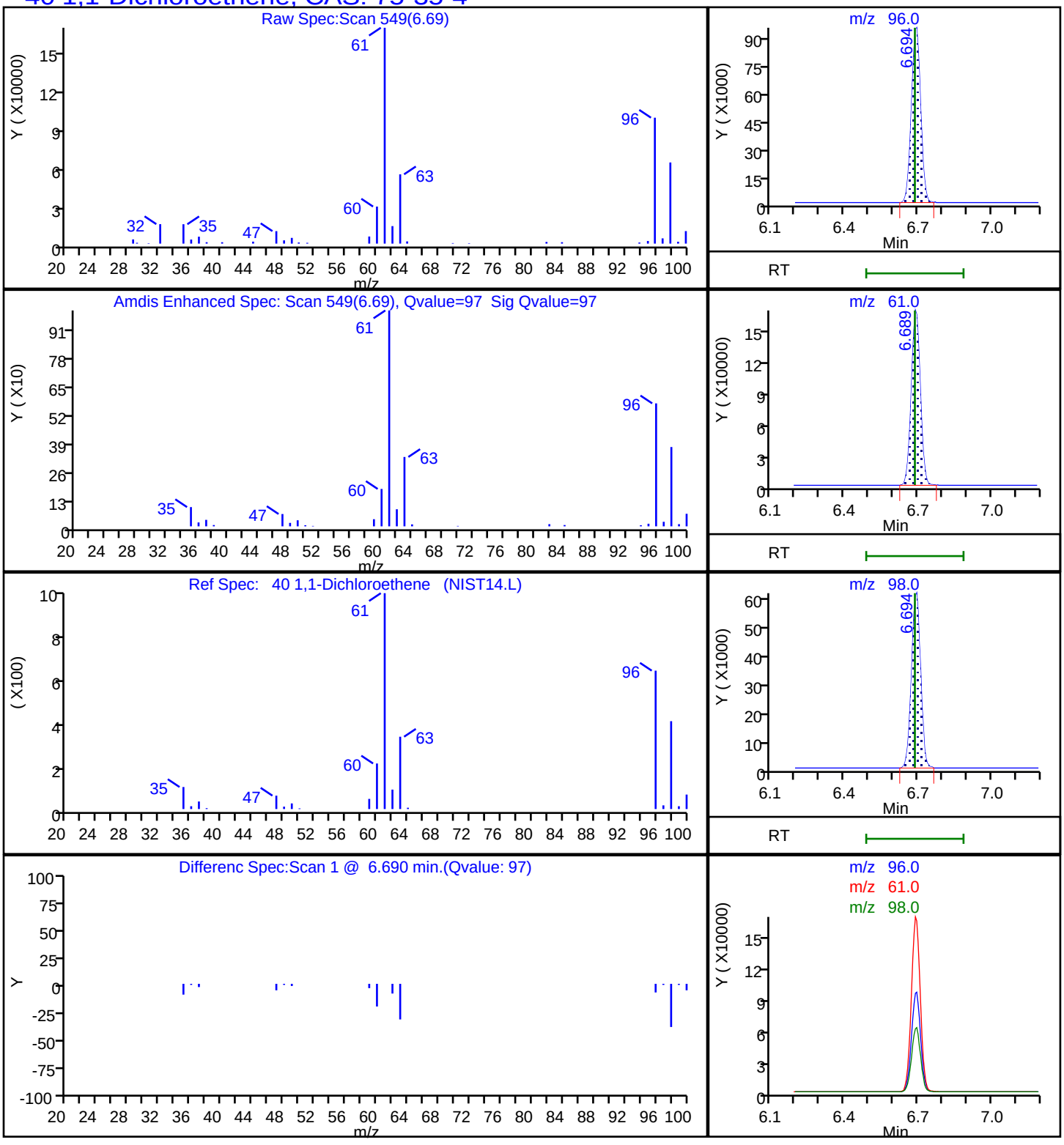


Report Date: 22-Aug-2019 12:11:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3		
Client ID:	SV-173-A-27				
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

40 1,1-Dichloroethene, CAS: 75-35-4

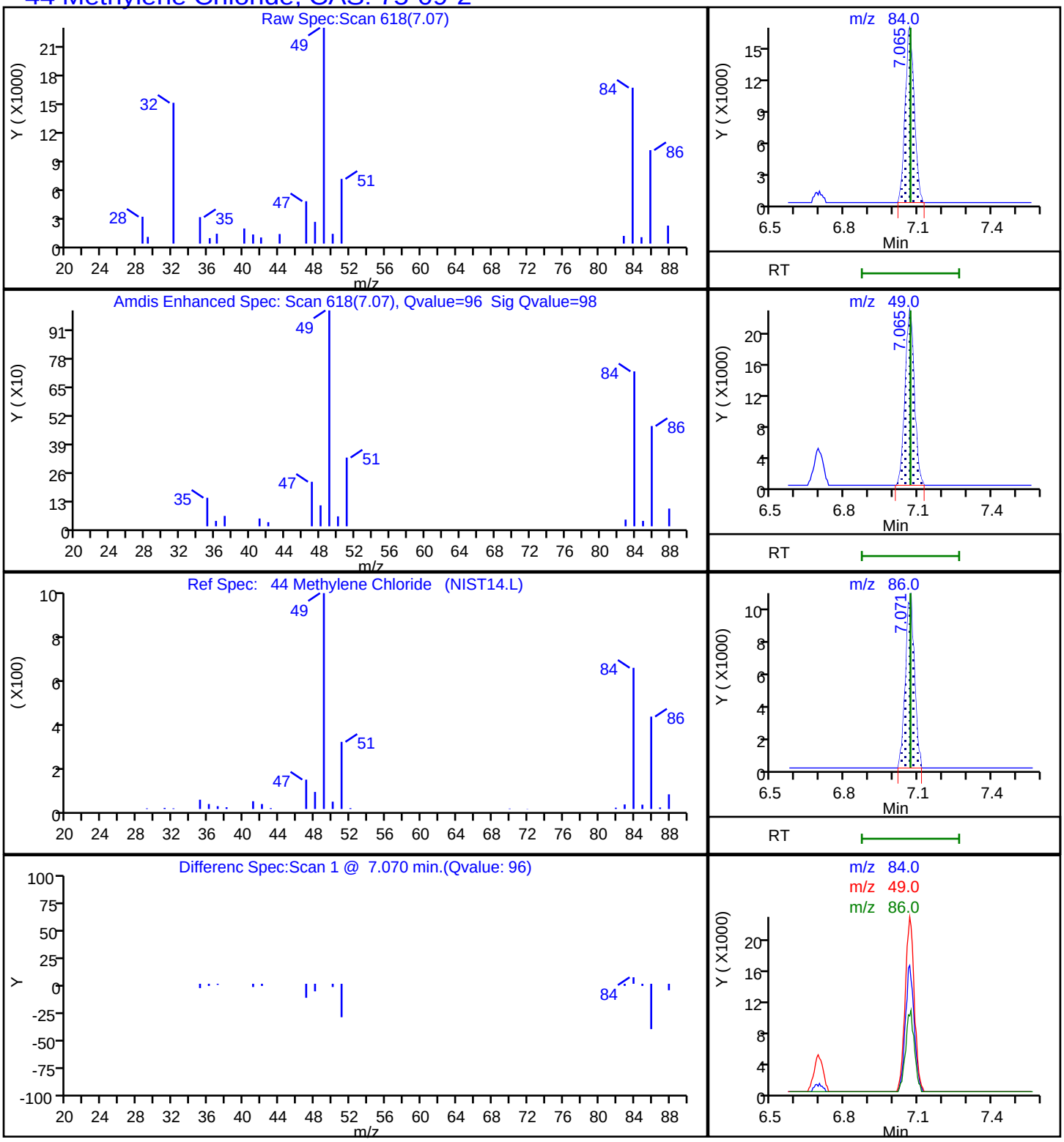


Report Date: 22-Aug-2019 12:11:50 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D				
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3		
Client ID:	SV-173-A-27				
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

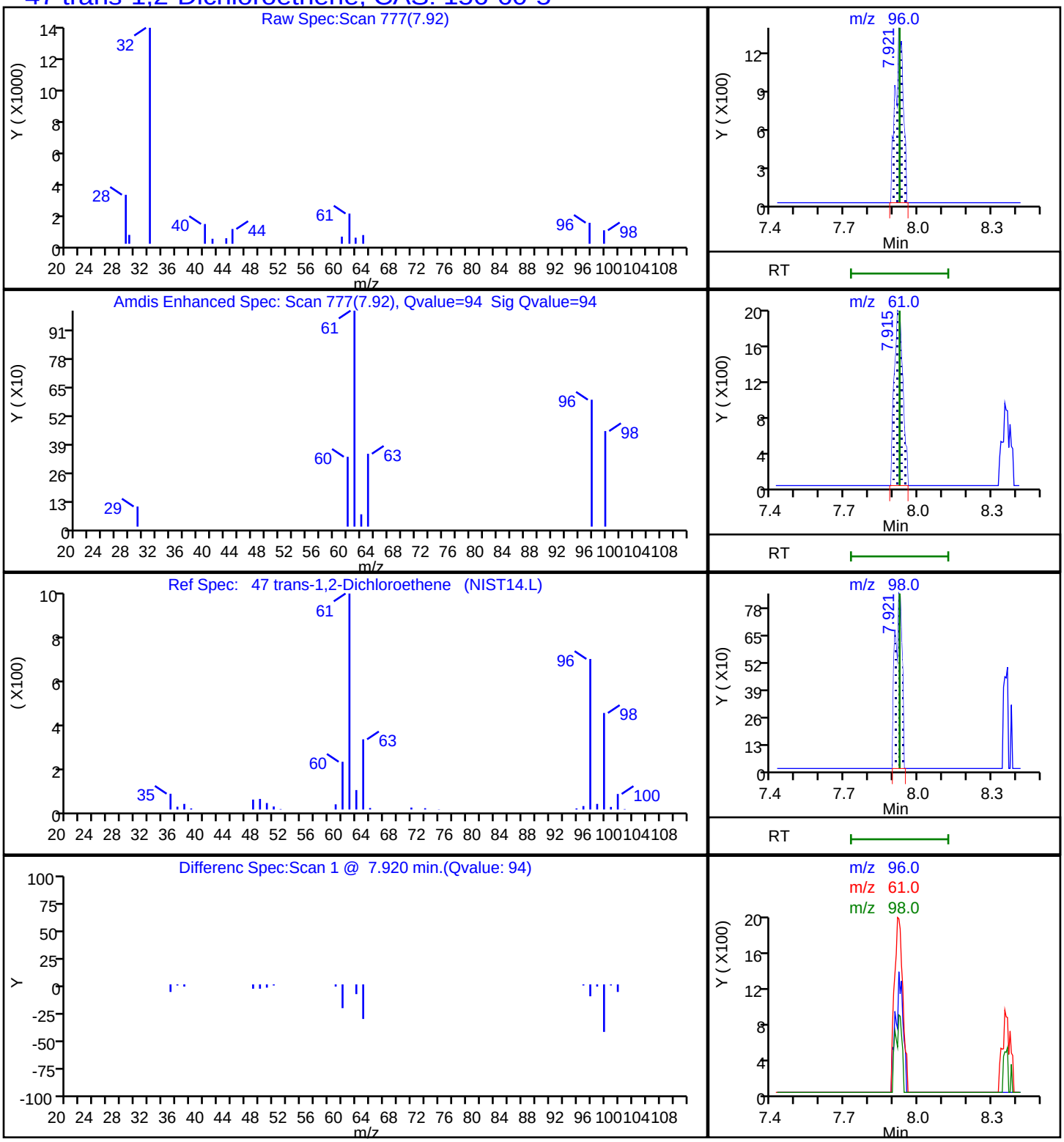
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D		
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3
Client ID:	SV-173-A-27		
Operator ID:	007126	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

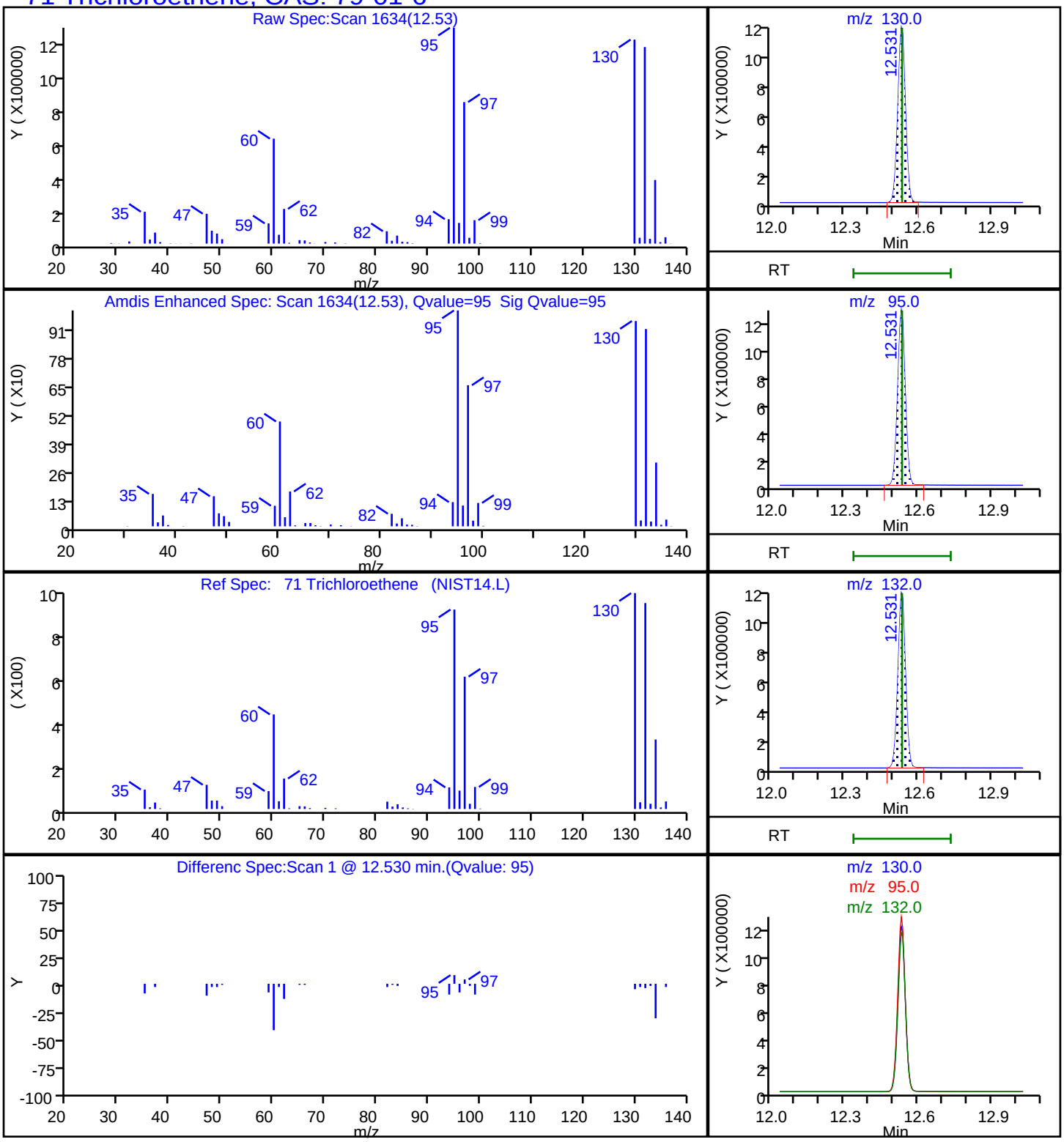
47 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P106.D		
Injection Date:	21-Aug-2019 20:28:30	Instrument ID:	MJ
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3
Client ID:	SV-173-A-27		
Operator ID:	007126	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	1900		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	10000		39	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P107.D				
Lims ID:	140-16377-A-3				
Client ID:	SV-173-A-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 19:23:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	3.6400		
Sample Info:	140-0012811-012				
Misc. Info.:	140-16377-a-3@3.64				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:08:33	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:10:06		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	203774	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1199615	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	964694	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	95	581504	3.50	
27 1,1-Dichloroethene	96	5.621	5.618	0.000	97	82226	1.17	
31 Methylene Chloride	84	5.966	5.966	0.000	97	18020	0.2502	
34 trans-1,2-Dichloroethene	96	6.775	6.776	-0.006	6	788	0.0107	
37 1,1-Dichloroethane	63	7.212	7.208	0.000	98	11178	0.0800	
42 cis-1,2-Dichloroethene	96	8.199	8.199	-0.005	94	30247	0.3626	
44 Chloroform	83	8.549	8.555	0.000	28	4725	0.0276	
58 Trichloroethene	130	11.499	11.499	0.000	96	1104497	10.3	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

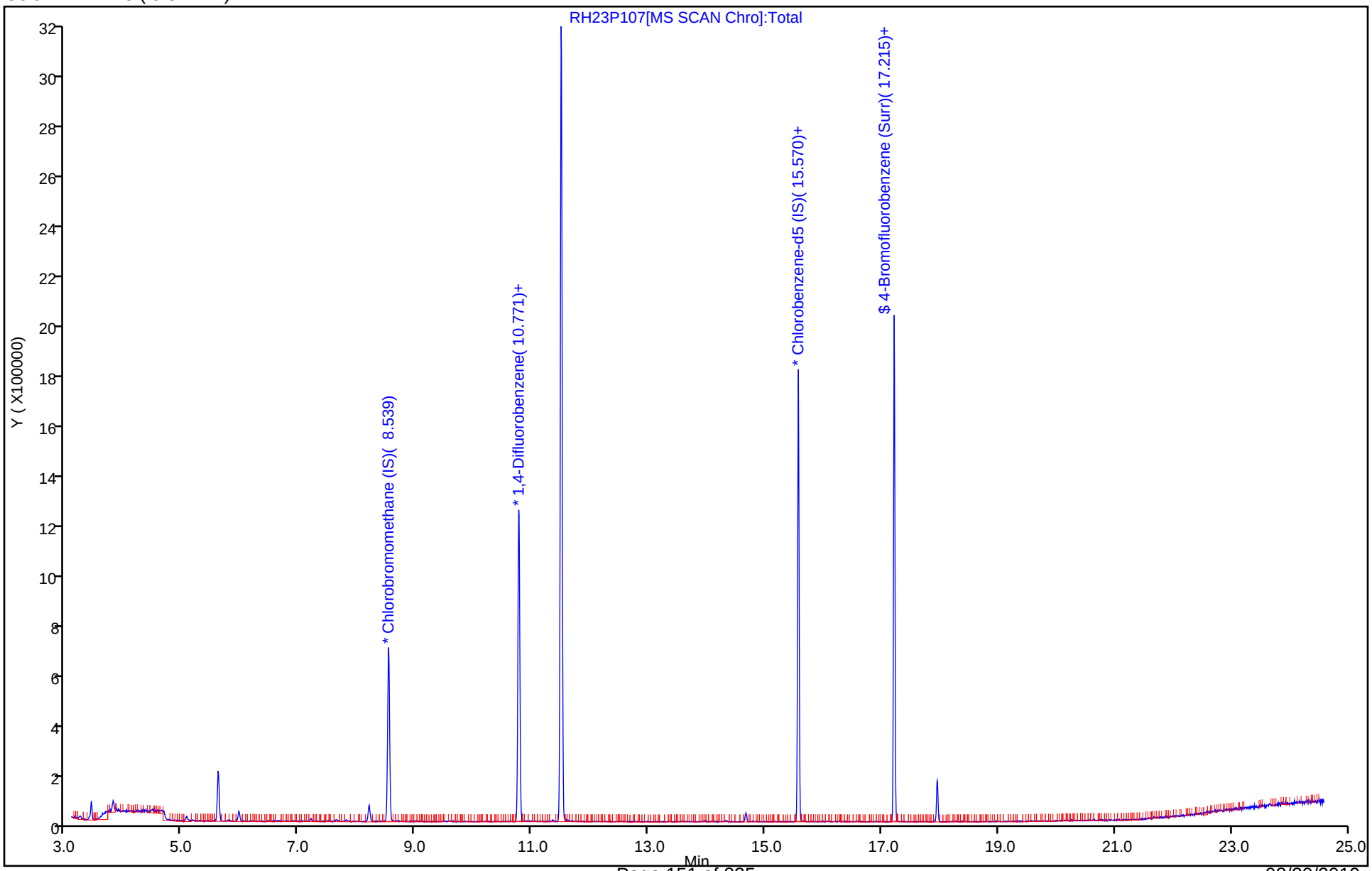
Report Date: 26-Aug-2019 14:10:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P107.D

Injection Date:	23-Aug-2019 19:23:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3	Worklist Smp#:	12
Client ID:	SV-173-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	3.6400	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

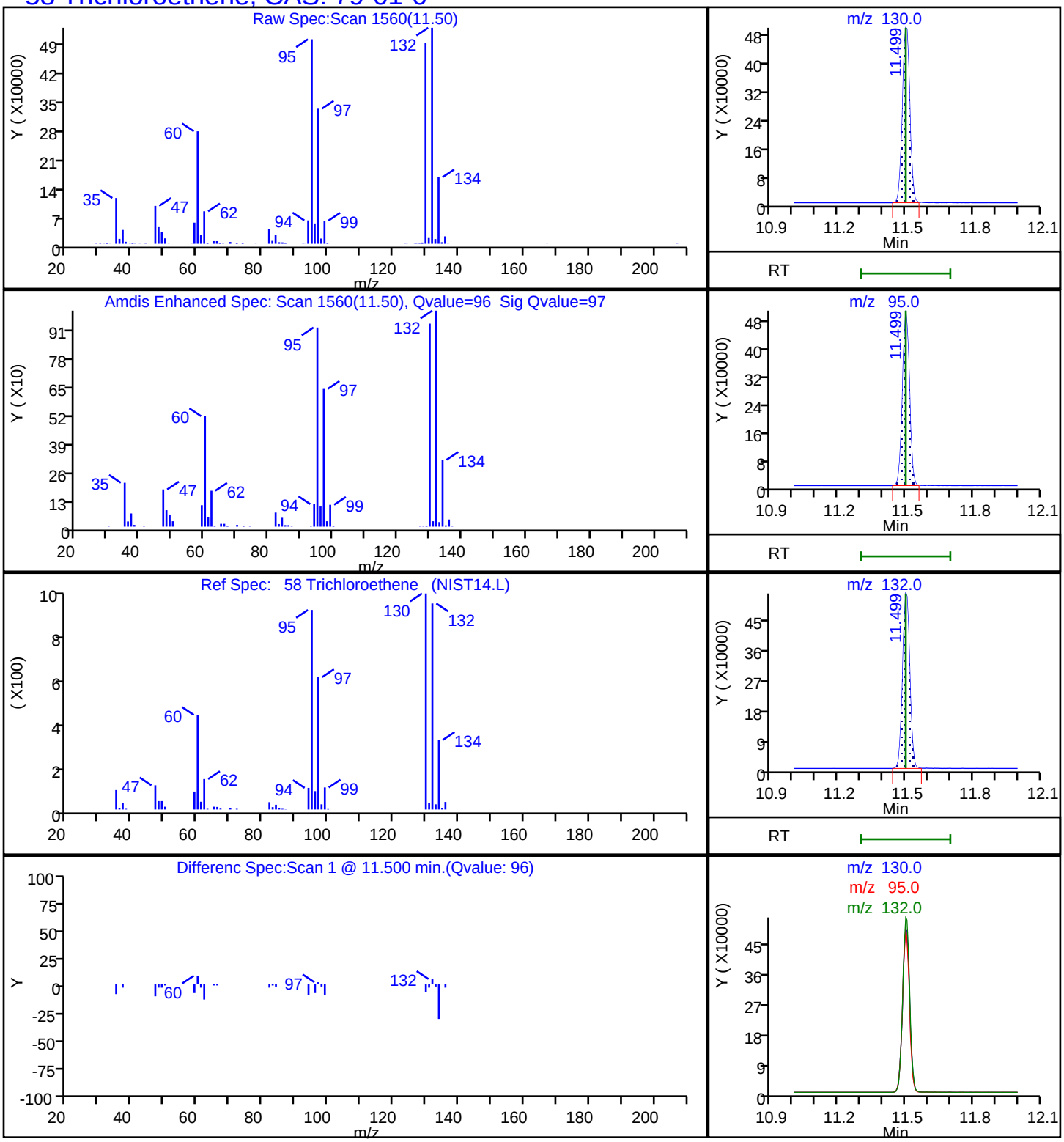
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P107.D				
Lims ID:	140-16377-A-3				
Client ID:	SV-173-A-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 19:23:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	3.6400		
Sample Info:	140-0012811-012				
Misc. Info.:	140-16377-a-3@3.64				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:08:33	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:10:06		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.50	87.41

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P107.D		
Injection Date:	23-Aug-2019 19:23:30	Instrument ID:	MR
Lims ID:	140-16377-A-3	Lab Sample ID:	140-16377-3
Client ID:	SV-173-A-27		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	3.6400
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.82		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	5.7		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	0.39	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.12	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	37		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	0.62	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	3.3		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	22		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	29	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.49	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	200		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D				
Lims ID:	140-16377-A-4				
Client ID:	SV-138-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 01:23:30	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-018				
Misc. Info.:	140-16377-a-4				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 00:04:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 13:08:07		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.722	9.731	-0.009	95	186557	4.00	
* 2 1,4-Difluorobenzene	114	11.831	11.840	-0.009	95	957545	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.446	16.450	-0.004	88	785208	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.044	18.043	-0.004	94	521570	3.61	
19 Chlorodifluoromethane	51	4.154	4.154	-0.004	93	3570	0.0700	
21 Dichlorodifluoromethane	85	4.229	4.224	0.001	96	6163	0.1055	
40 1,1-Dichloroethene	96	6.682	6.680	-0.005	97	64714	1.13	
44 Methylene Chloride	84	7.059	7.062	-0.010	97	118284	1.69	
47 trans-1,2-Dichloroethene	96	7.930	7.916	0.006	73	1417	0.0248	
50 1,1-Dichloroethane	63	8.355	8.357	-0.010	99	20822	0.1634	
55 cis-1,2-Dichloroethene	96	9.372	9.372	-0.010	95	40914	0.6938	
57 Chloroform	83	9.727	9.727	-0.010	28	3849	0.0254	
64 Benzene	78	11.325	11.325	-0.009	93	6710	0.0383	
65 Carbon tetrachloride	117	11.363	11.347	0.007	89	2327	0.0158	
71 Trichloroethene	130	12.530	12.524	-0.004	94	584940	7.39	
80 Toluene	91	14.515	14.510	0.001	92	14916	0.0786	
86 Tetrachloroethene	129	15.628	15.629	-0.005	91	3440	0.0451	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

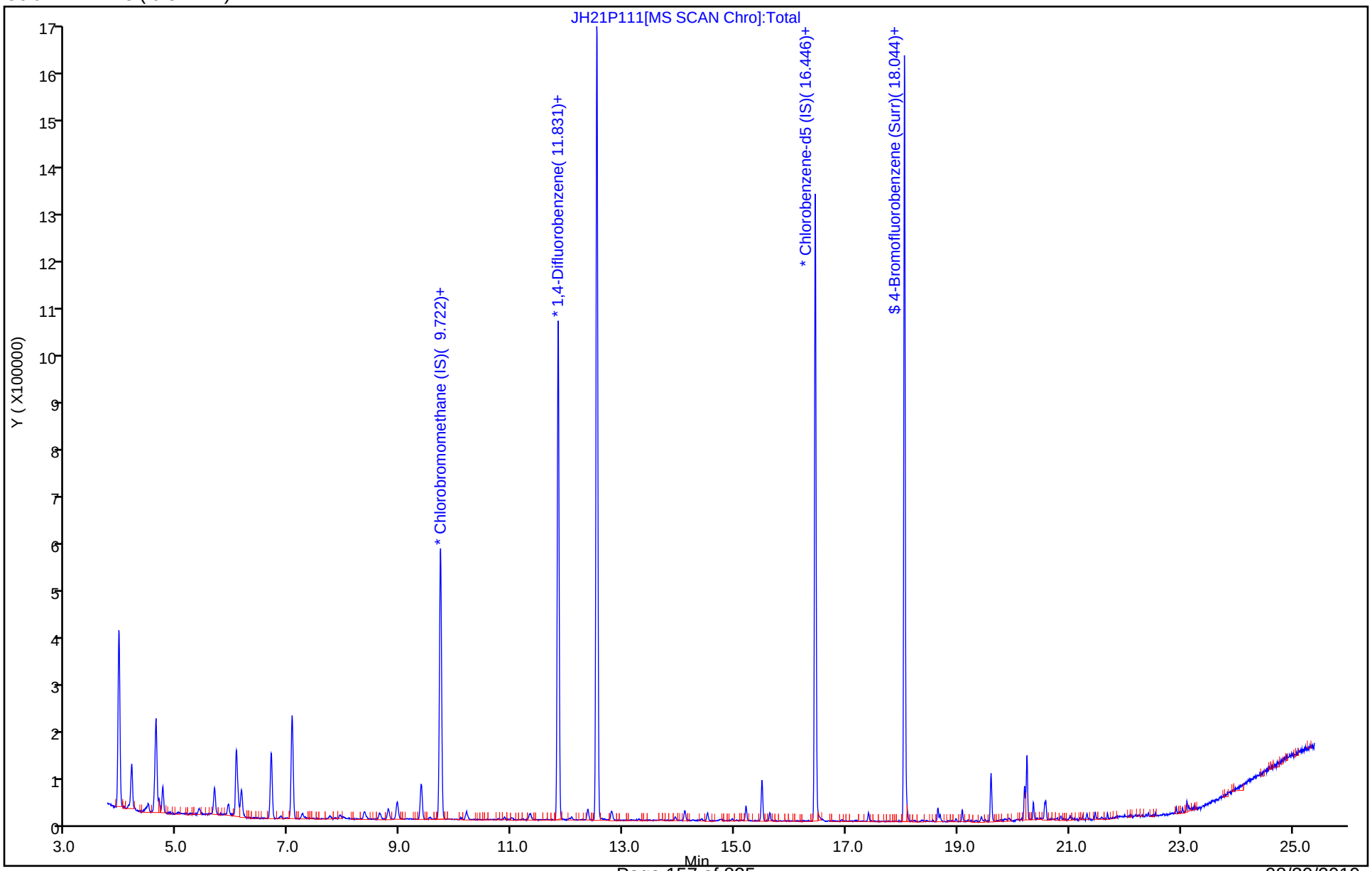
Report Date: 22-Aug-2019 13:08:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D

Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4	Worklist Smp#:	18
Client ID:	SV-138-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D				
Lims ID:	140-16377-A-4				
Client ID:	SV-138-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 01:23:30	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-018				
Misc. Info.:	140-16377-a-4				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 00:04:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

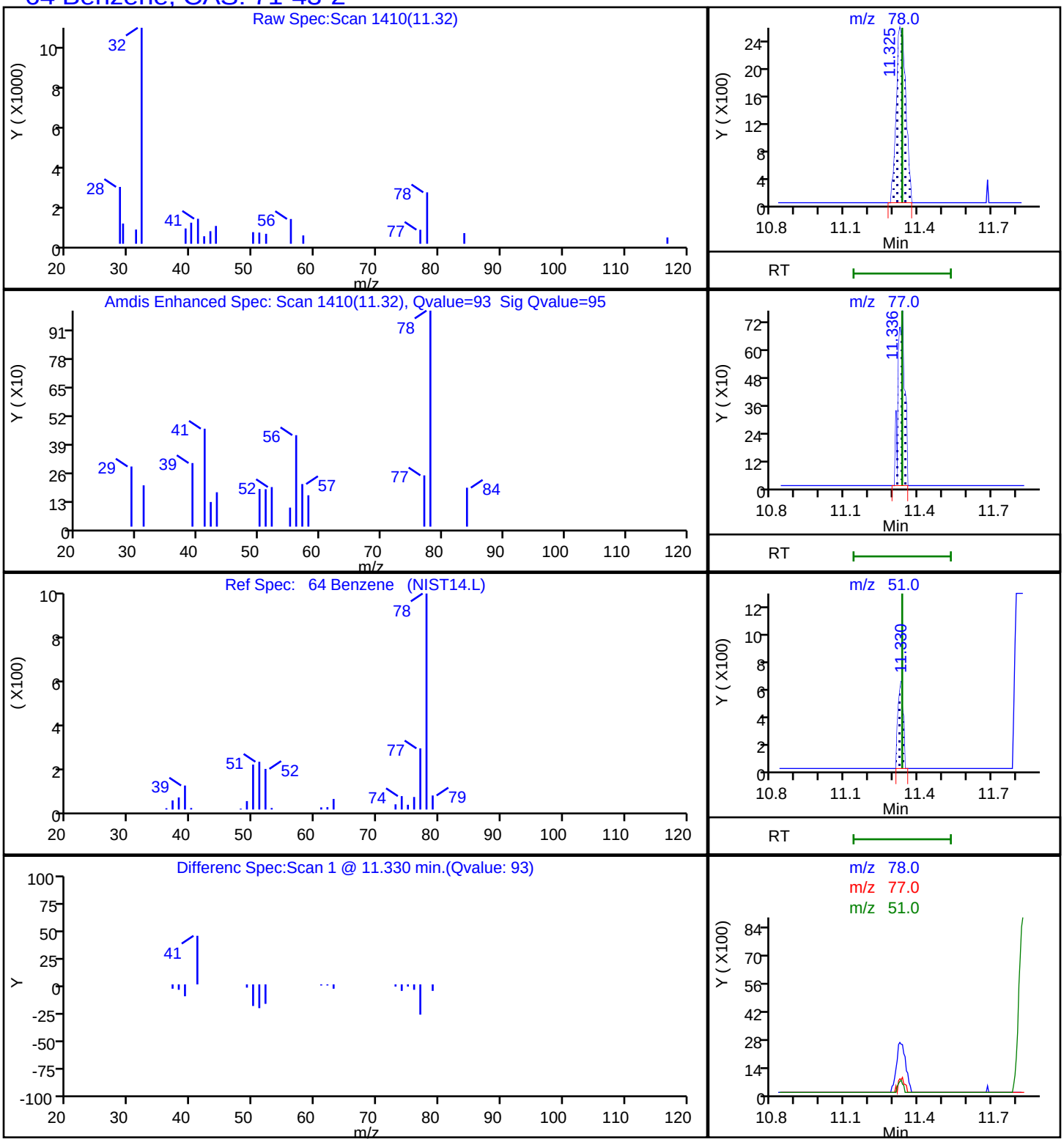
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 13:08:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.61	90.35

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D		
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4
Client ID:	SV-138-A-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D

Injection Date: 22-Aug-2019 01:23:30 Instrument ID: MJ

Lims ID: 140-16377-A-4 Lab Sample ID: 140-16377-4

Client ID: SV-138-A-27

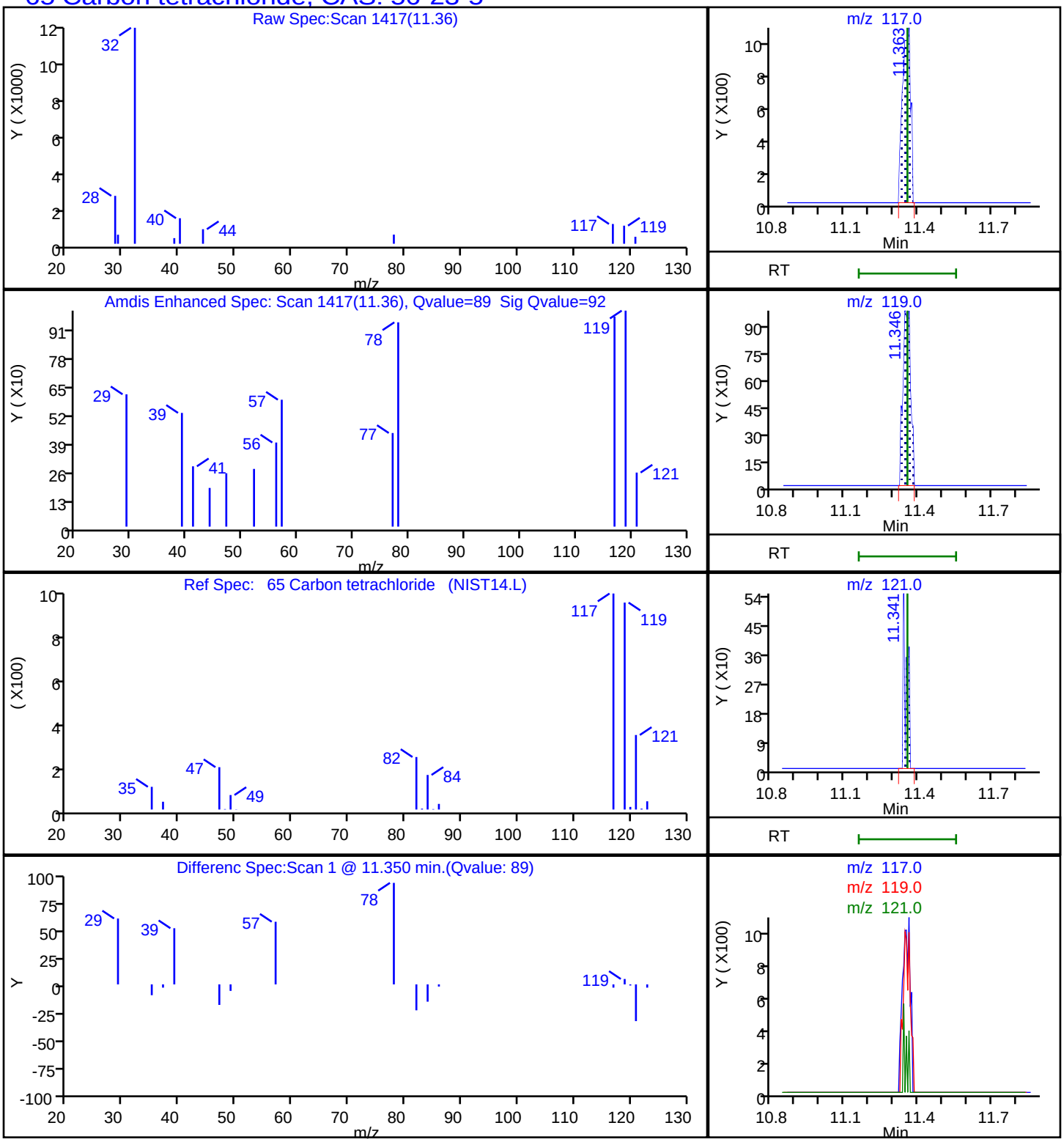
Operator ID: 007126 ALS Bottle#: 11 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

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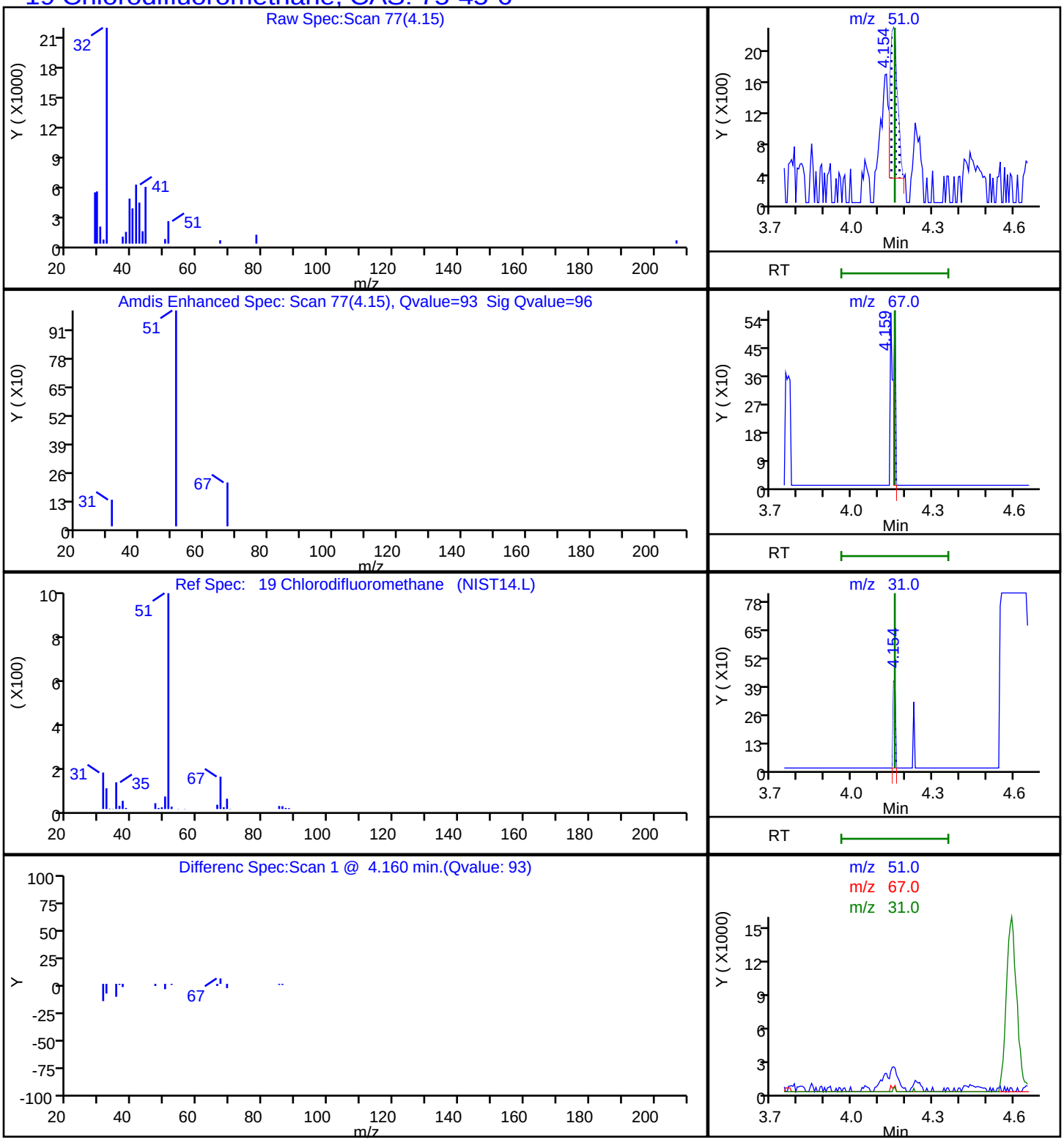
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

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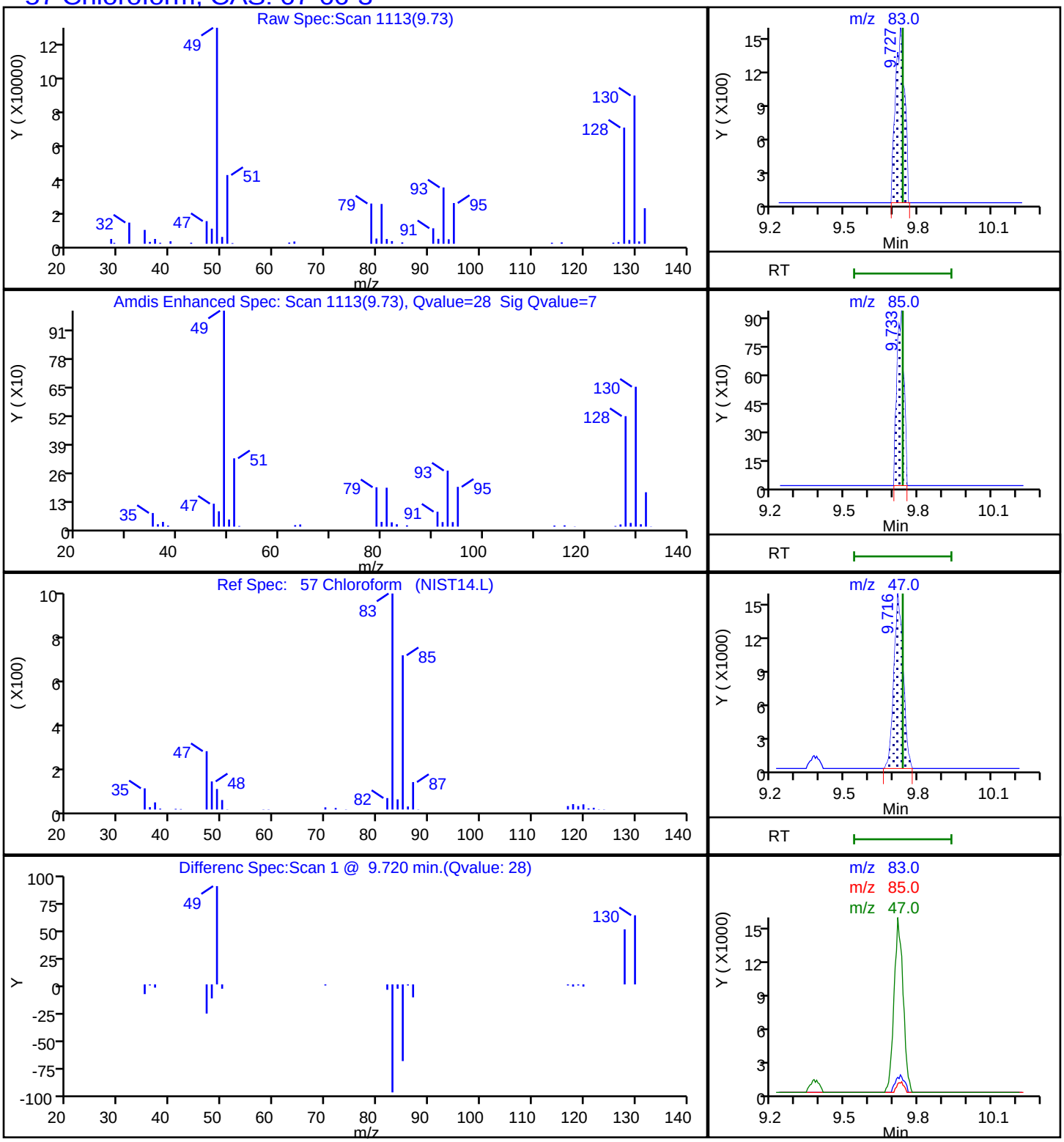
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4
Client ID:	SV-138-A-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3



Report Date: 22-Aug-2019 13:08:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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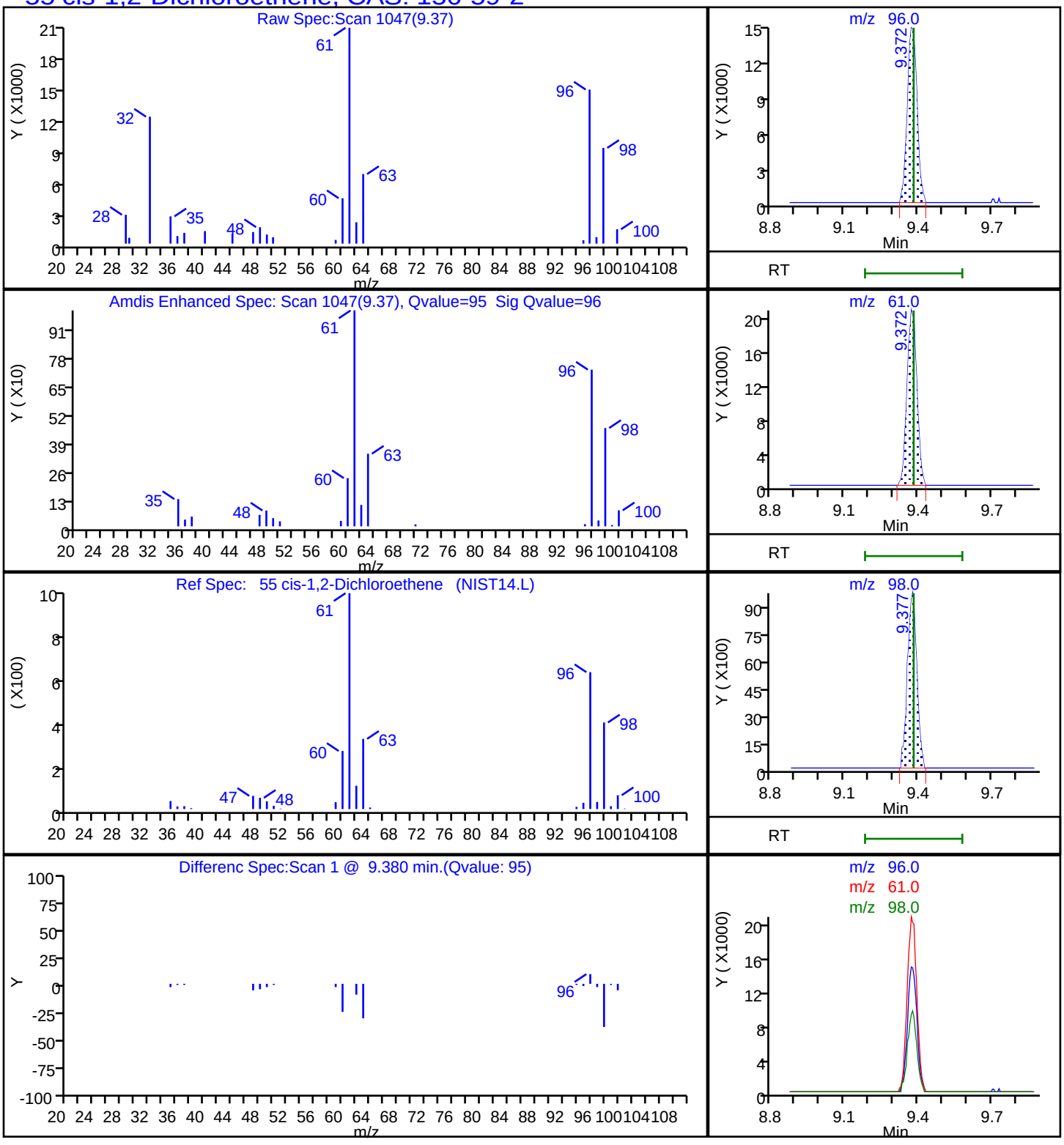
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 22-Aug-2019 13:08:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

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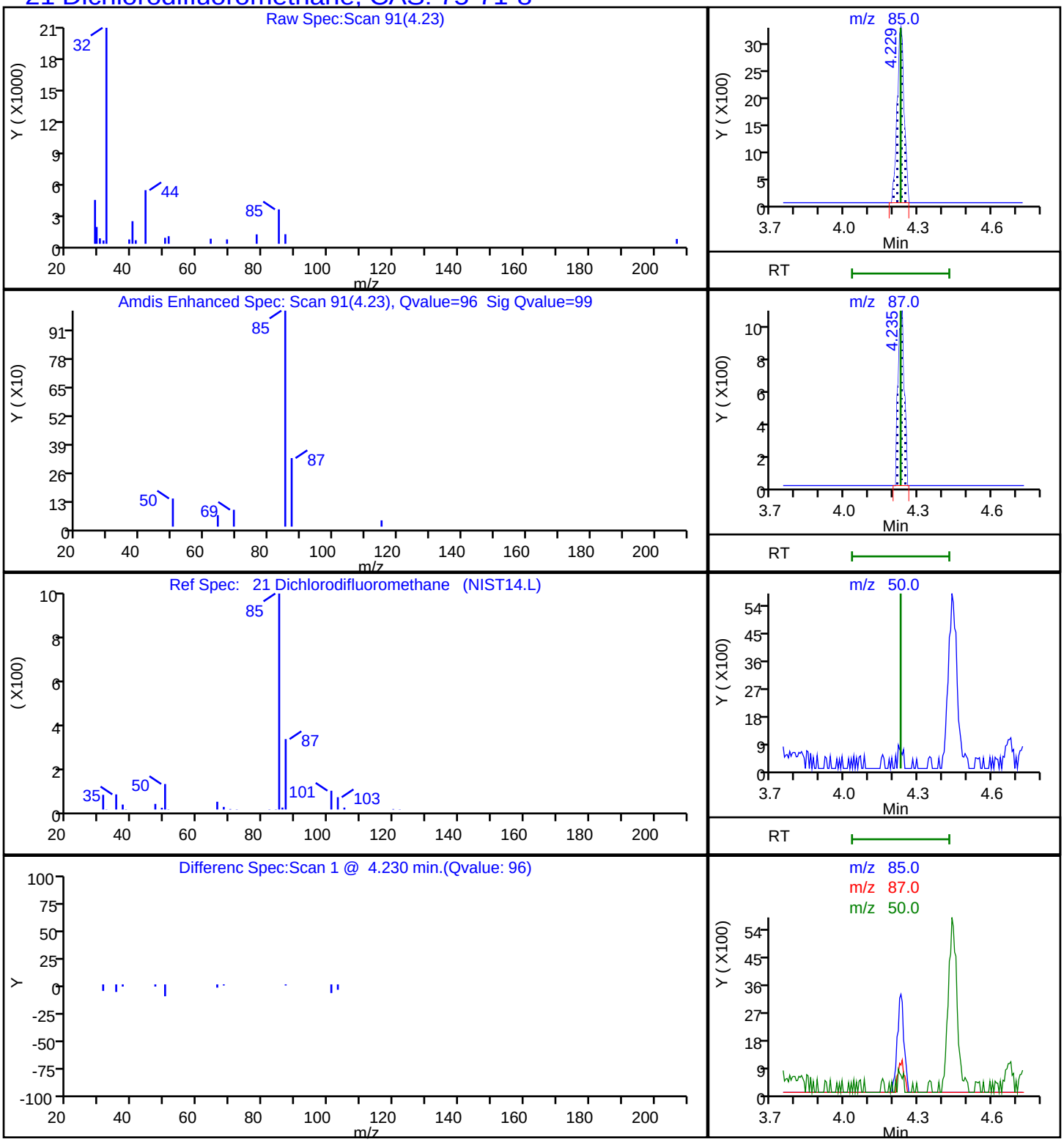
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D				
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8



Report Date: 22-Aug-2019 13:08:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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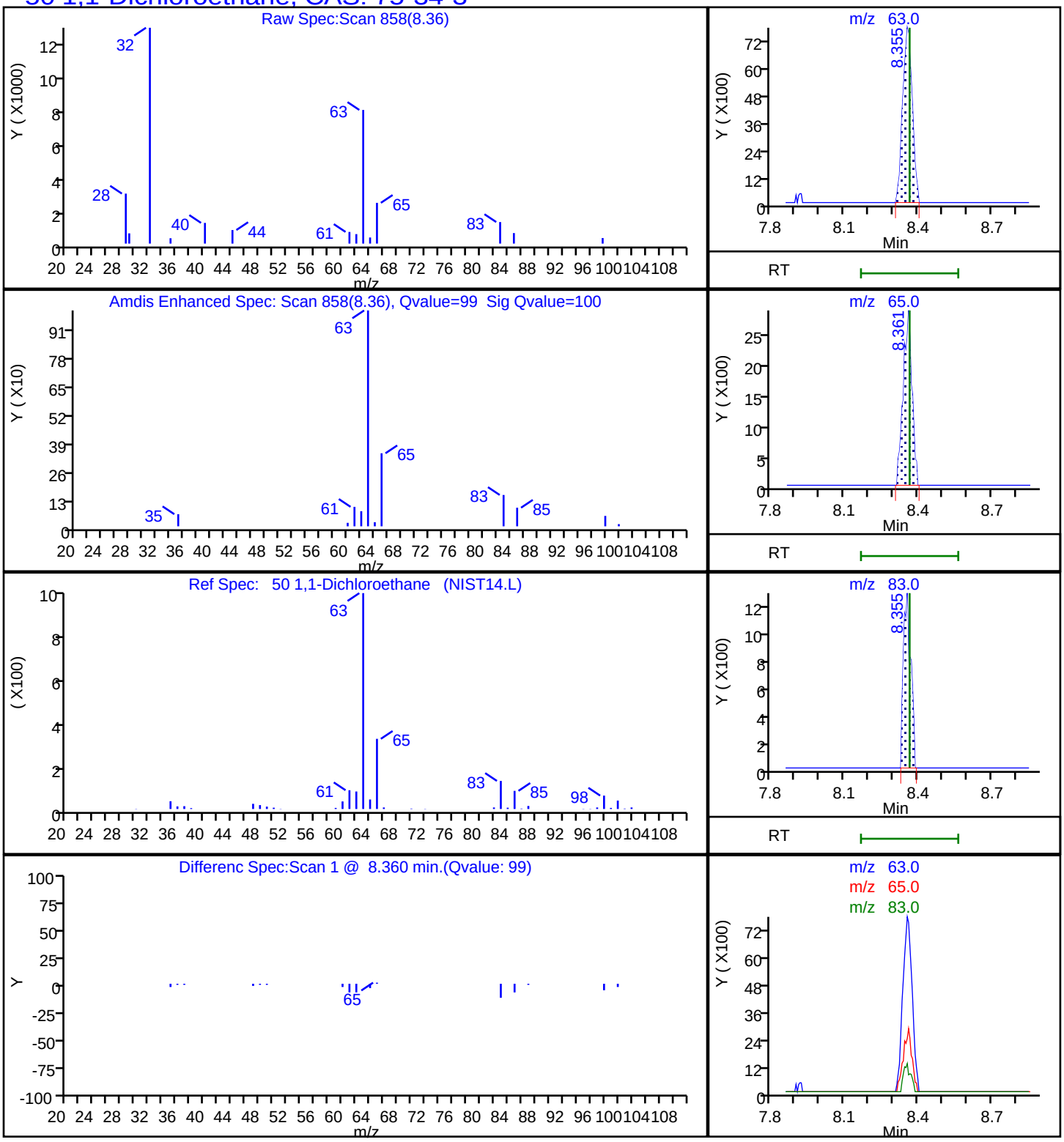
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

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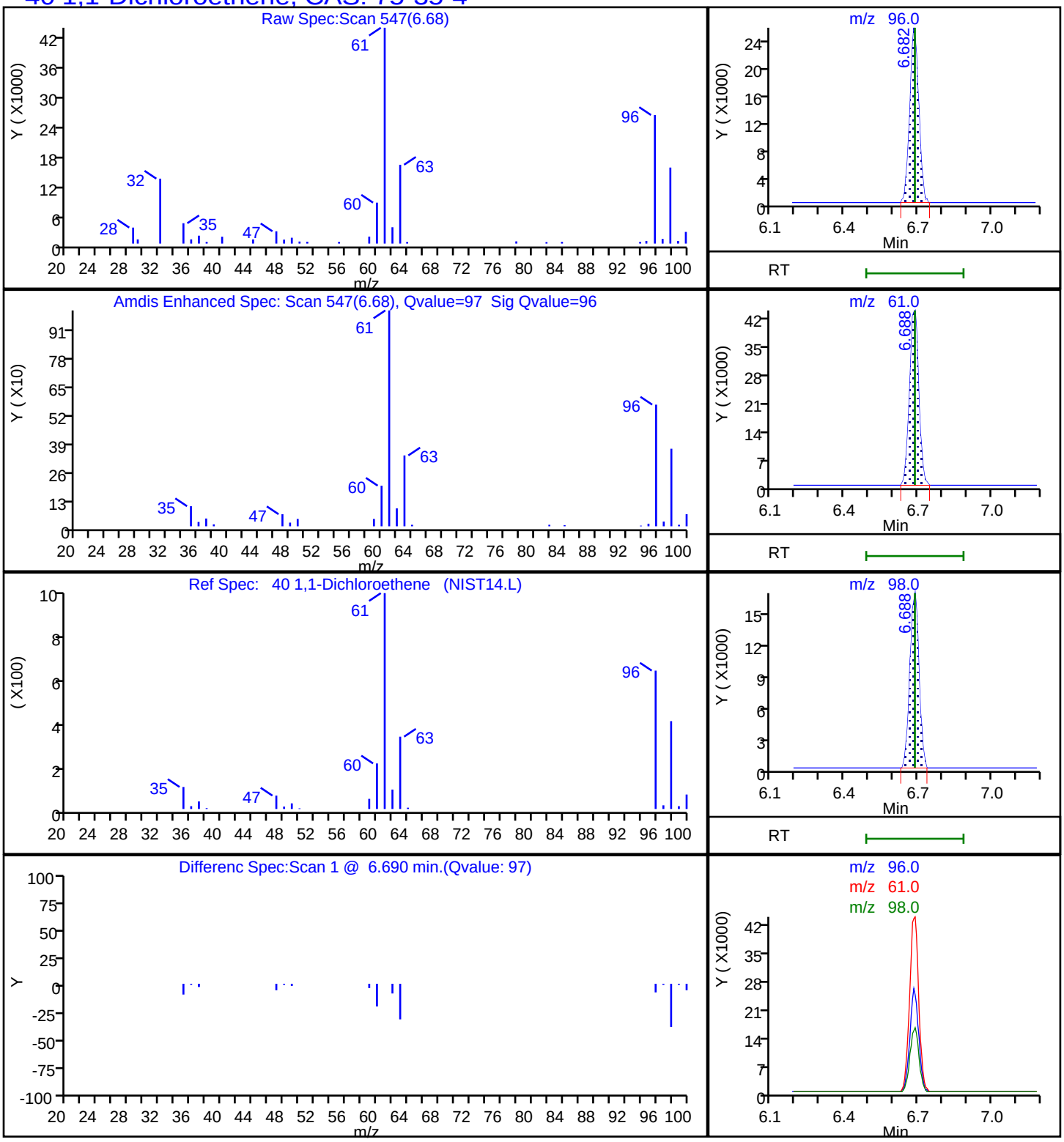
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4
Client ID:	SV-138-A-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

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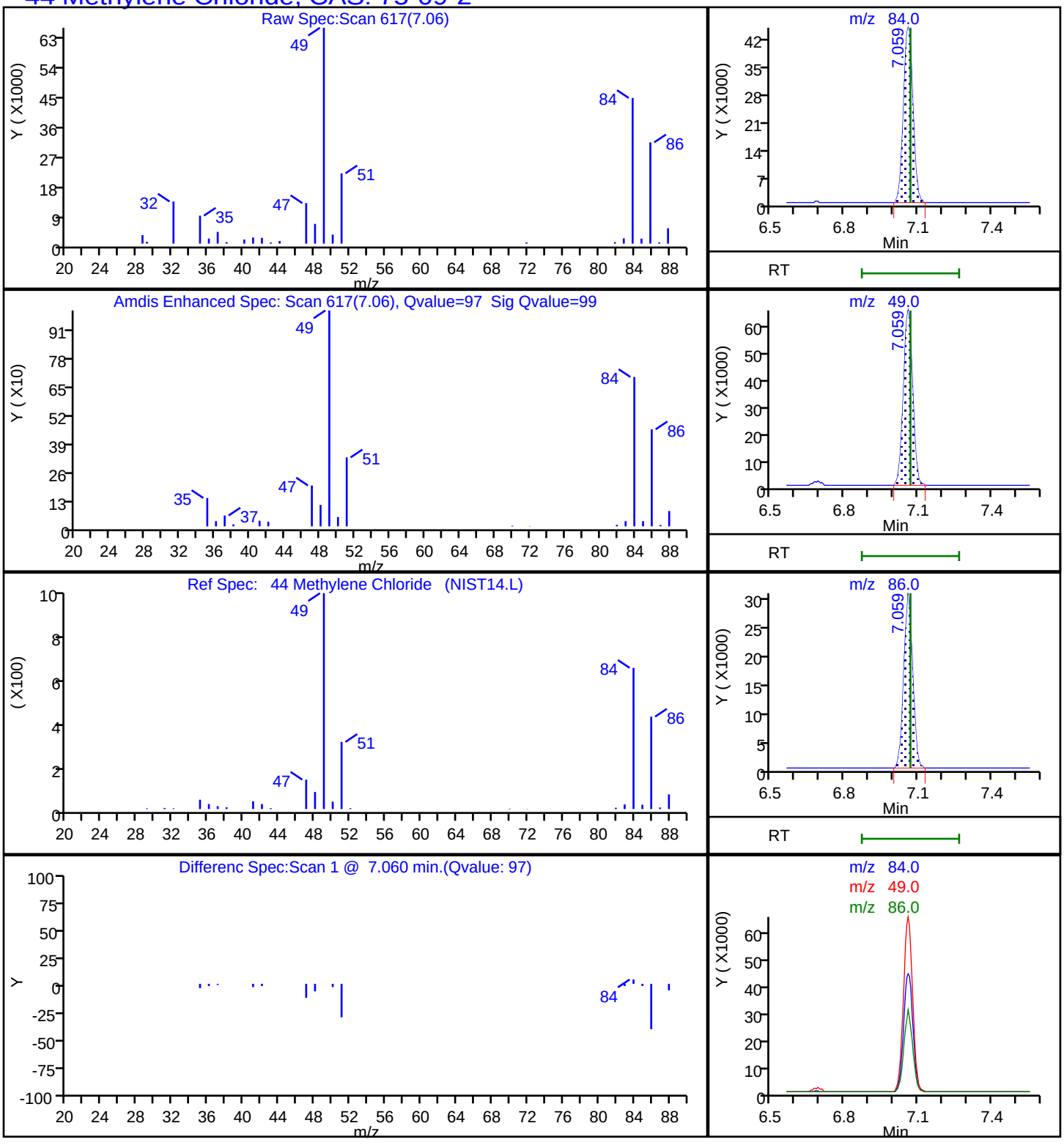
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

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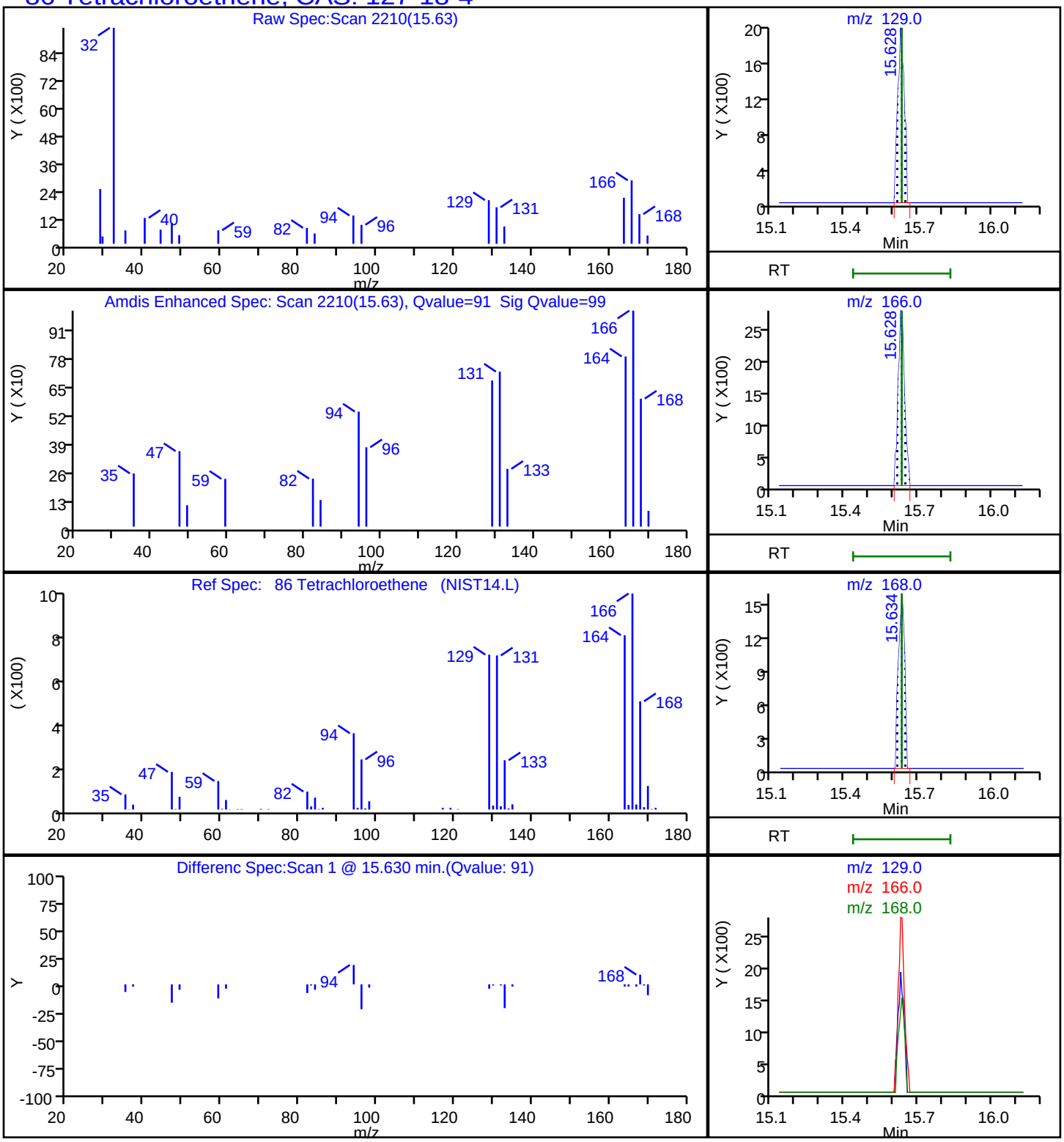
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4
Client ID:	SV-138-A-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

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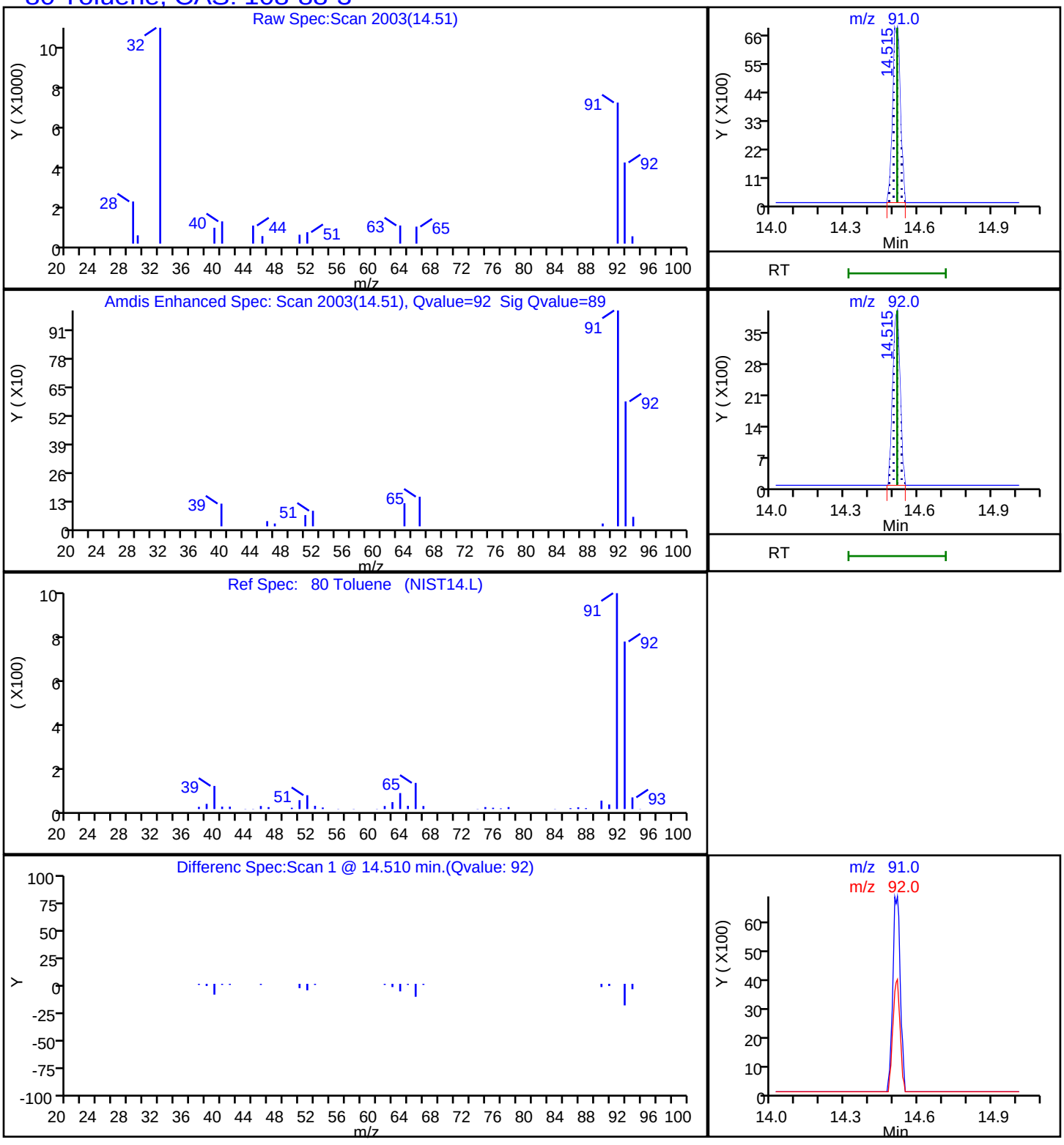
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

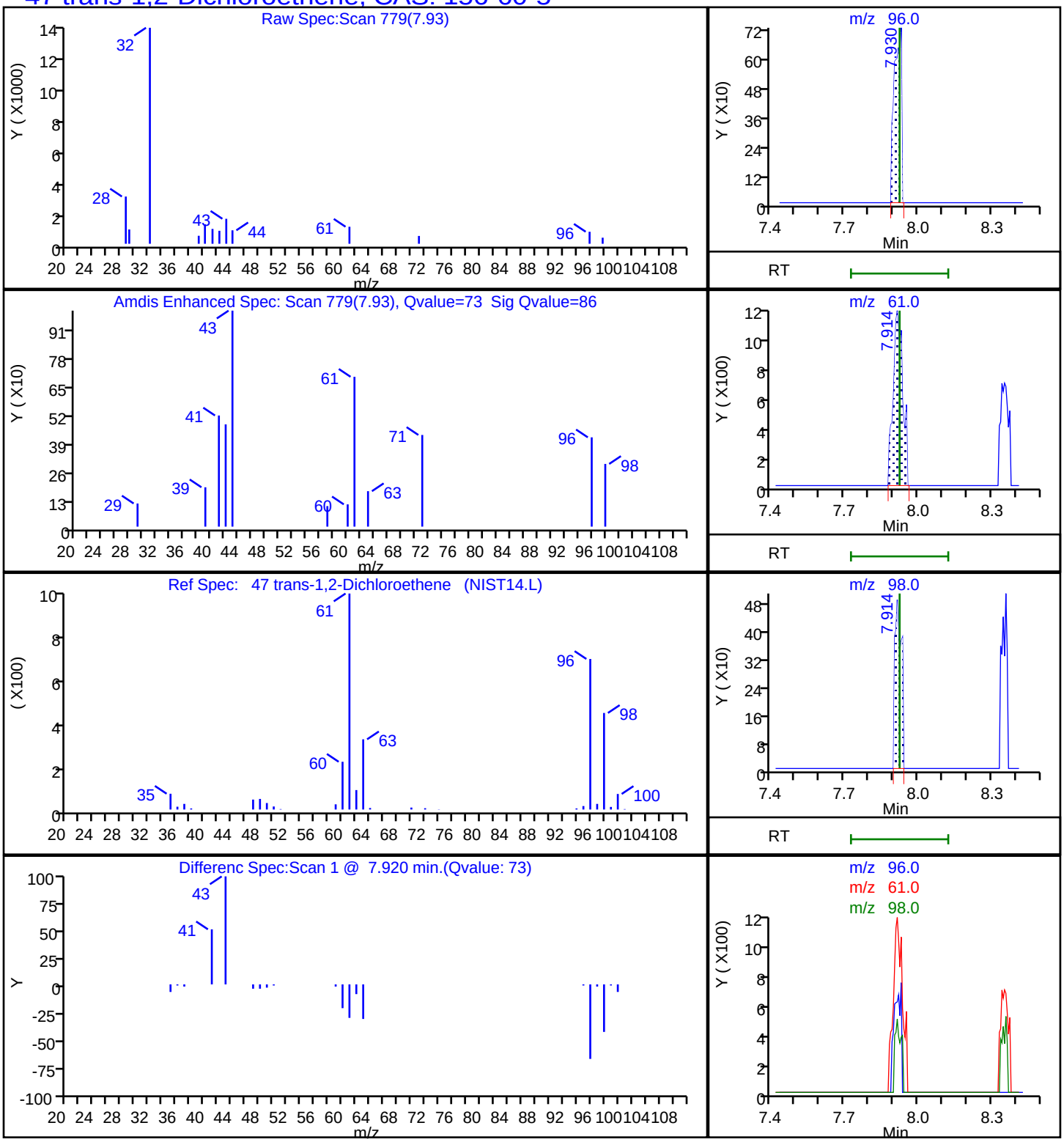
80 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D				
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 trans-1,2-Dichloroethene, CAS: 156-60-5

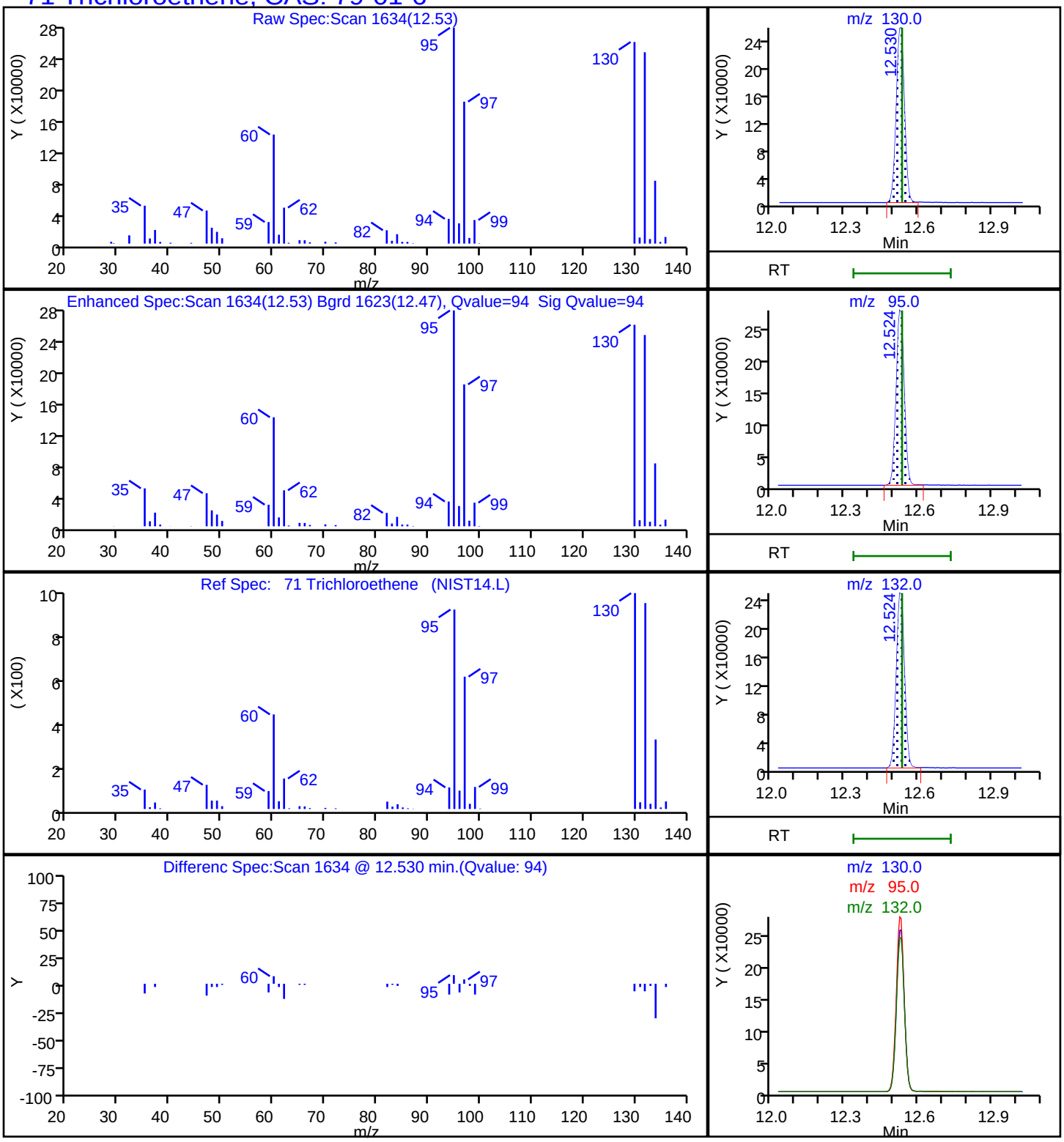


Report Date: 22-Aug-2019 13:08:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P111.D				
Injection Date:	22-Aug-2019 01:23:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-4	Lab Sample ID:	140-16377-4		
Client ID:	SV-138-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	0.99	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	13		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	2.1	J	3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	63		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	15	J B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	Trichloroethene	131.39	400		1.8	0.27
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	4.8	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	52		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	8.5	J	15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	250		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	53	J B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	ND		14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	Trichloroethene	131.39	2200		9.8	1.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D				
Lims ID:	140-16377-A-5				
Client ID:	SV-171-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 21:18:30	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-014				
Misc. Info.:	140-16377-a-5				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:12:16	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 12:12:53		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.718	9.731	-0.013	96	179281	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.840	-0.008	95	915860	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.448	16.450	-0.002	88	787797	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.046	18.041	-0.002	93	517922	3.58	
40 1,1-Dichloroethene	96	6.679	6.687	-0.008	96	76746	1.39	
44 Methylene Chloride	84	7.055	7.064	-0.014	98	22635	0.3356	
50 1,1-Dichloroethane	63	8.352	8.365	-0.013	94	5683	0.0464	
55 cis-1,2-Dichloroethene	96	9.374	9.382	-0.008	96	16283	0.2873	
57 Chloroform	83	9.729	9.731	-0.008	28	3177	0.0218	
71 Trichloroethene	130	12.526	12.534	-0.008	94	669851	8.84	

Reagents:

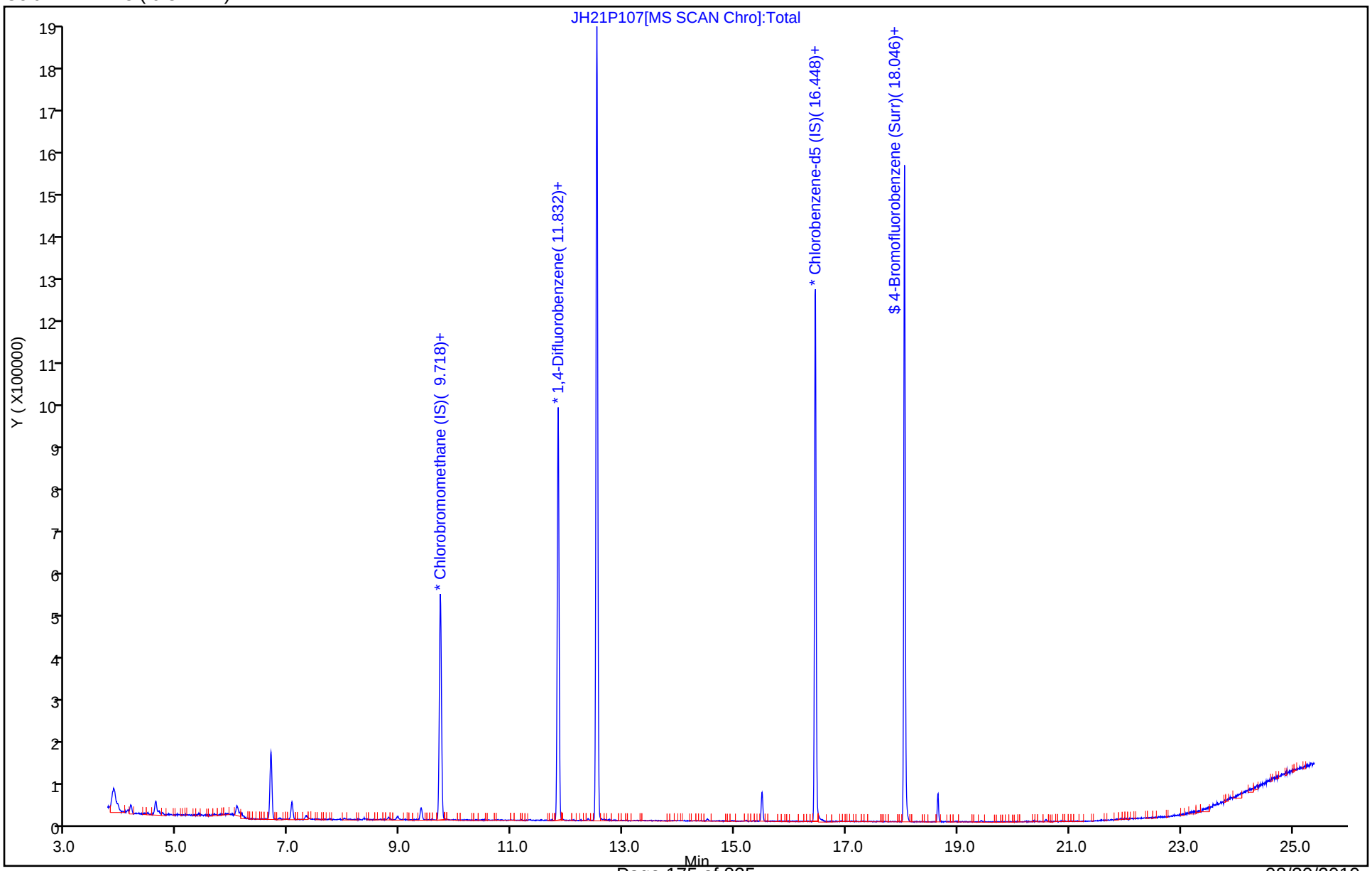
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 12:12:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D				
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5	Worklist Smp#:	14
Client ID:	SV-171-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D				
Lims ID:	140-16377-A-5				
Client ID:	SV-171-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 21:18:30	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-014				
Misc. Info.:	140-16377-a-5				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:12:16	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

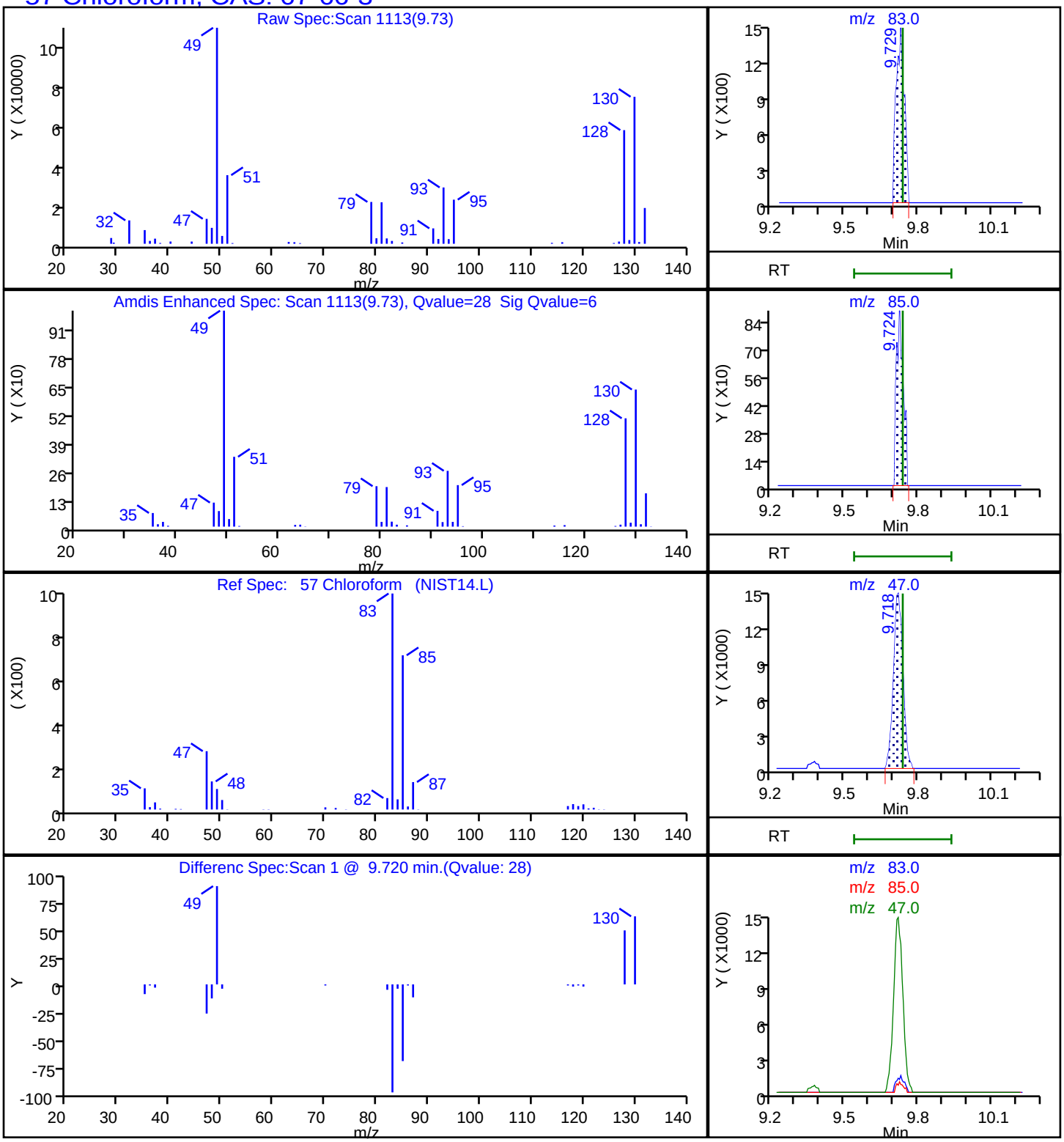
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:12:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.58	89.43

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

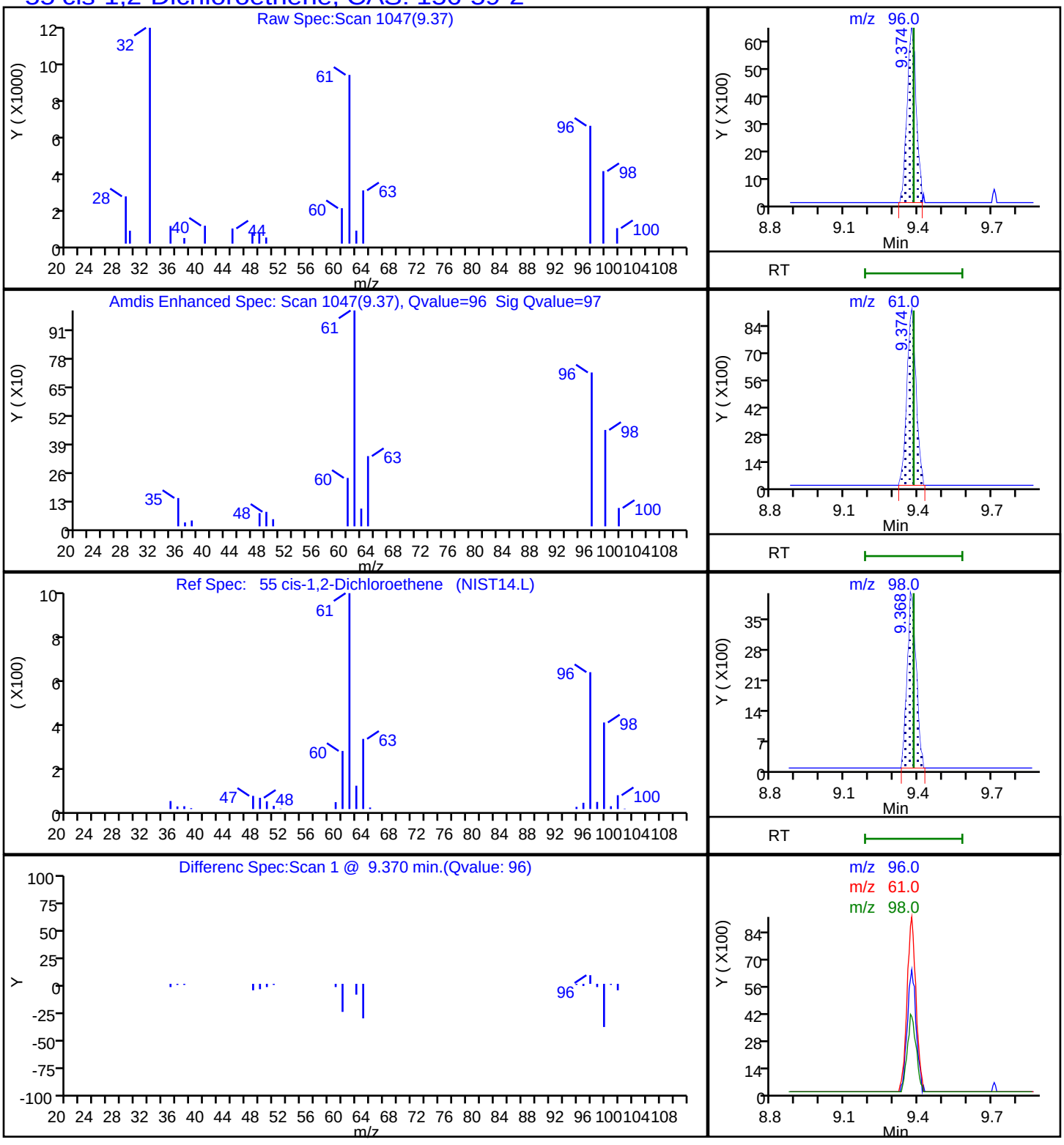
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

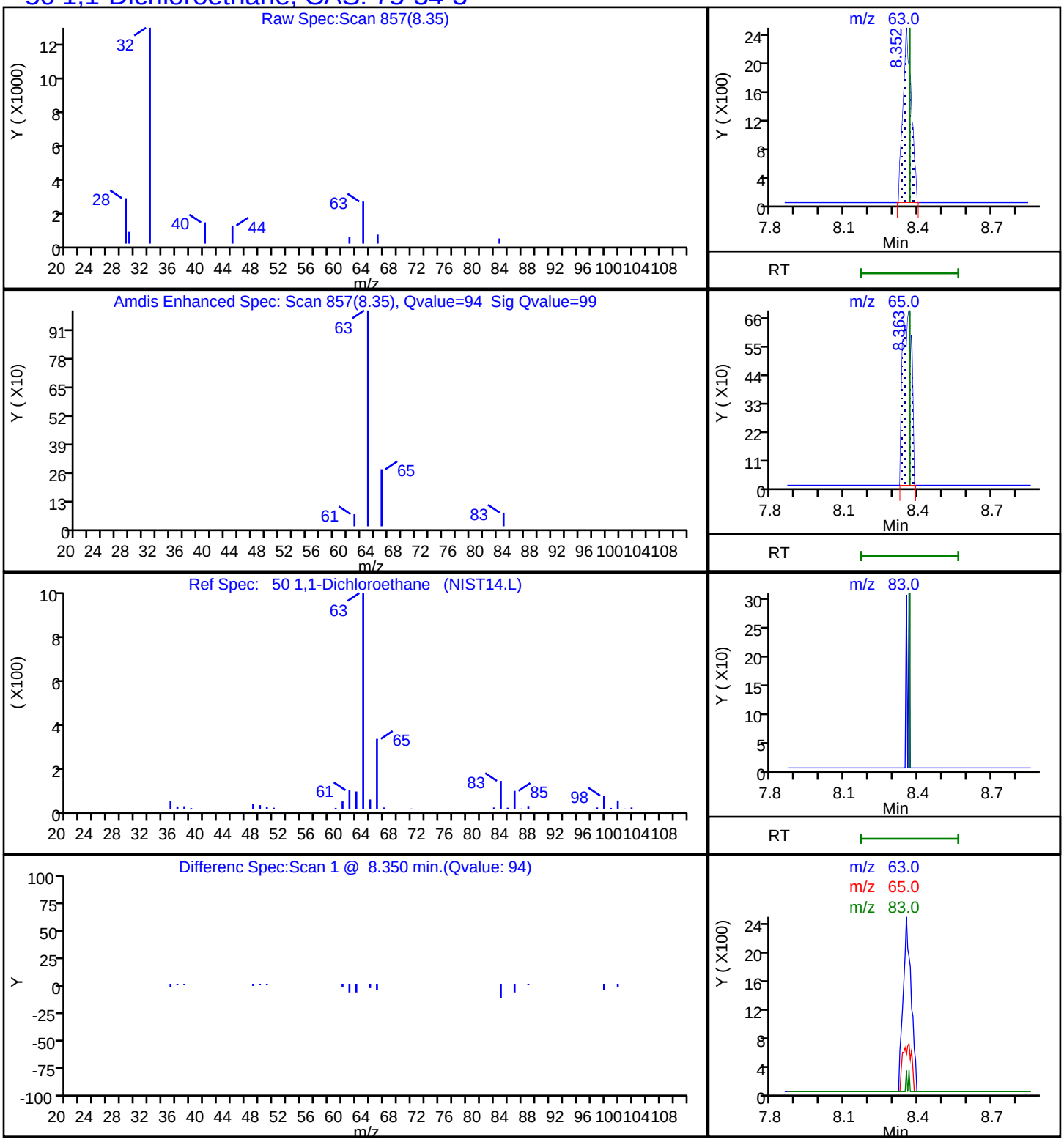
55 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

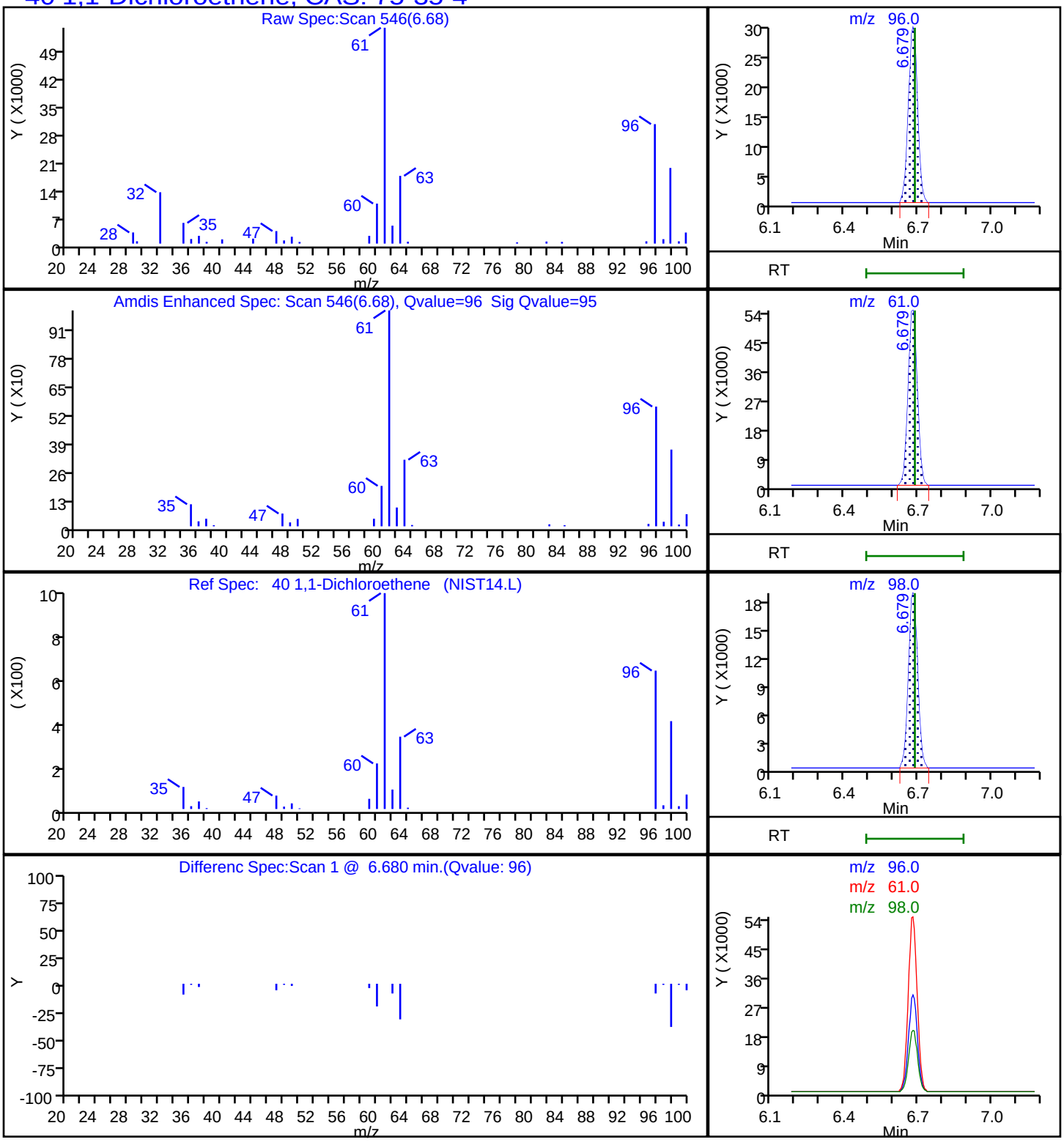
50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

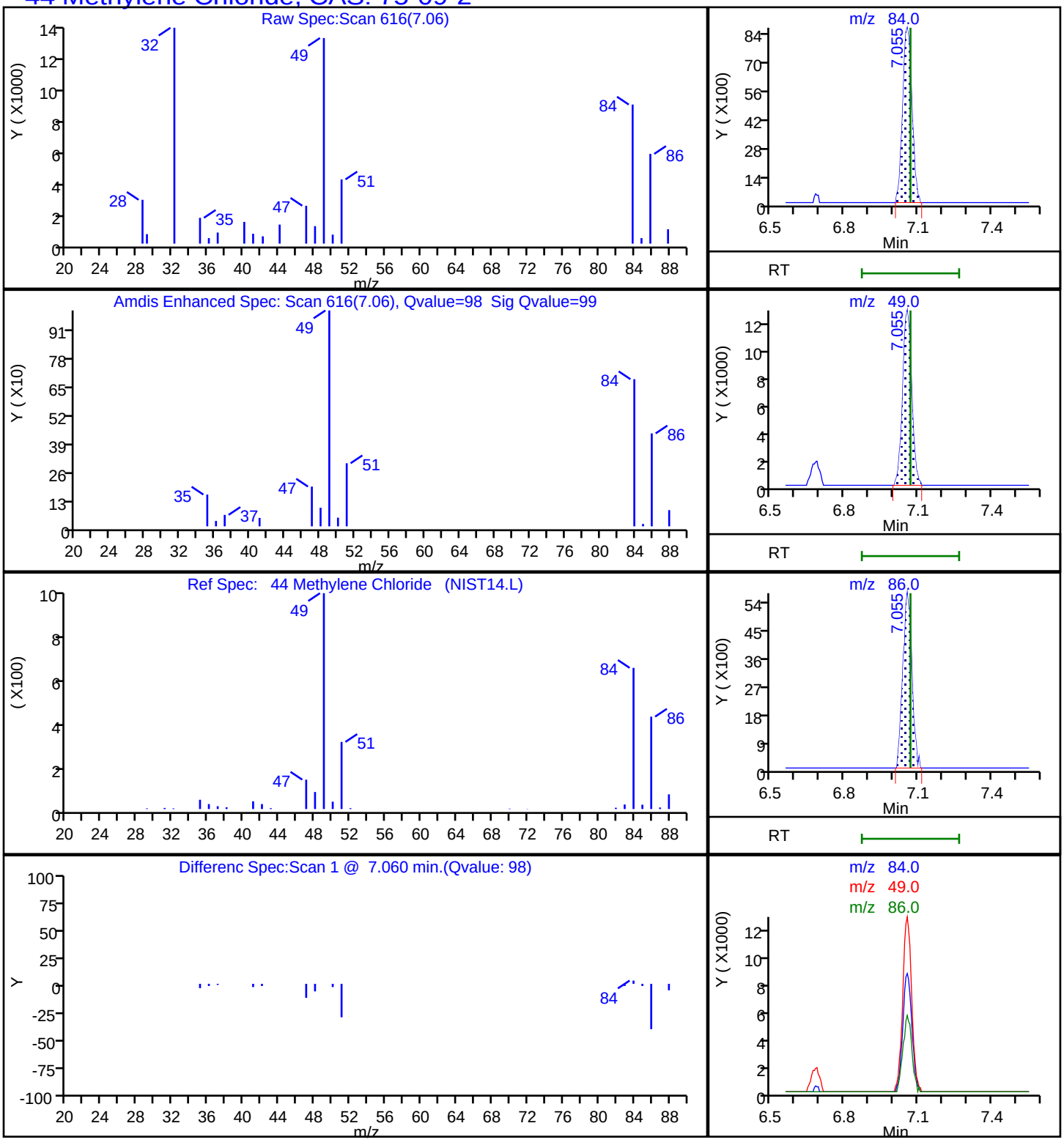


Report Date: 22-Aug-2019 12:12:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

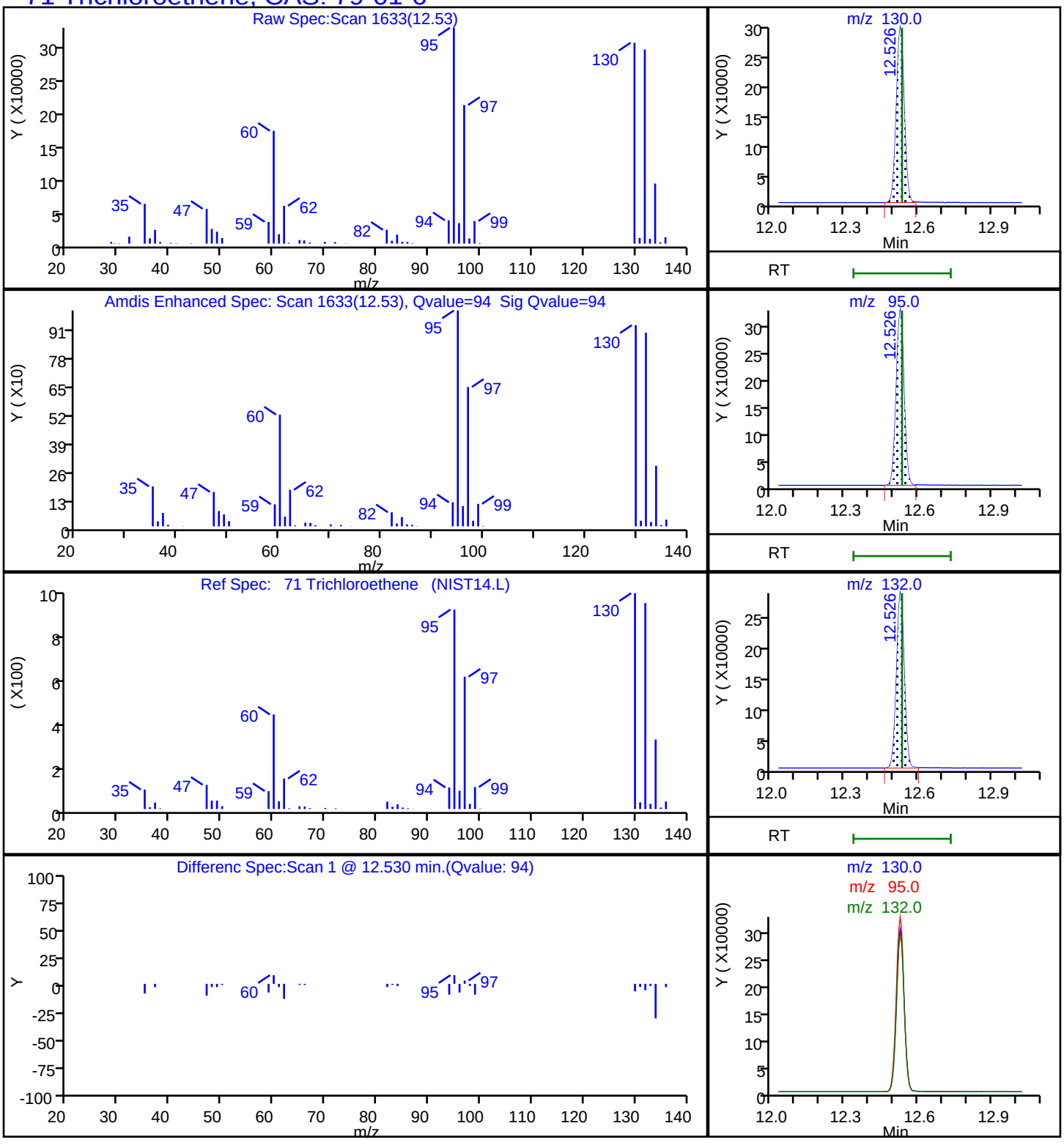


Report Date: 22-Aug-2019 12:12:53 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D		
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5
Client ID:	SV-171-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



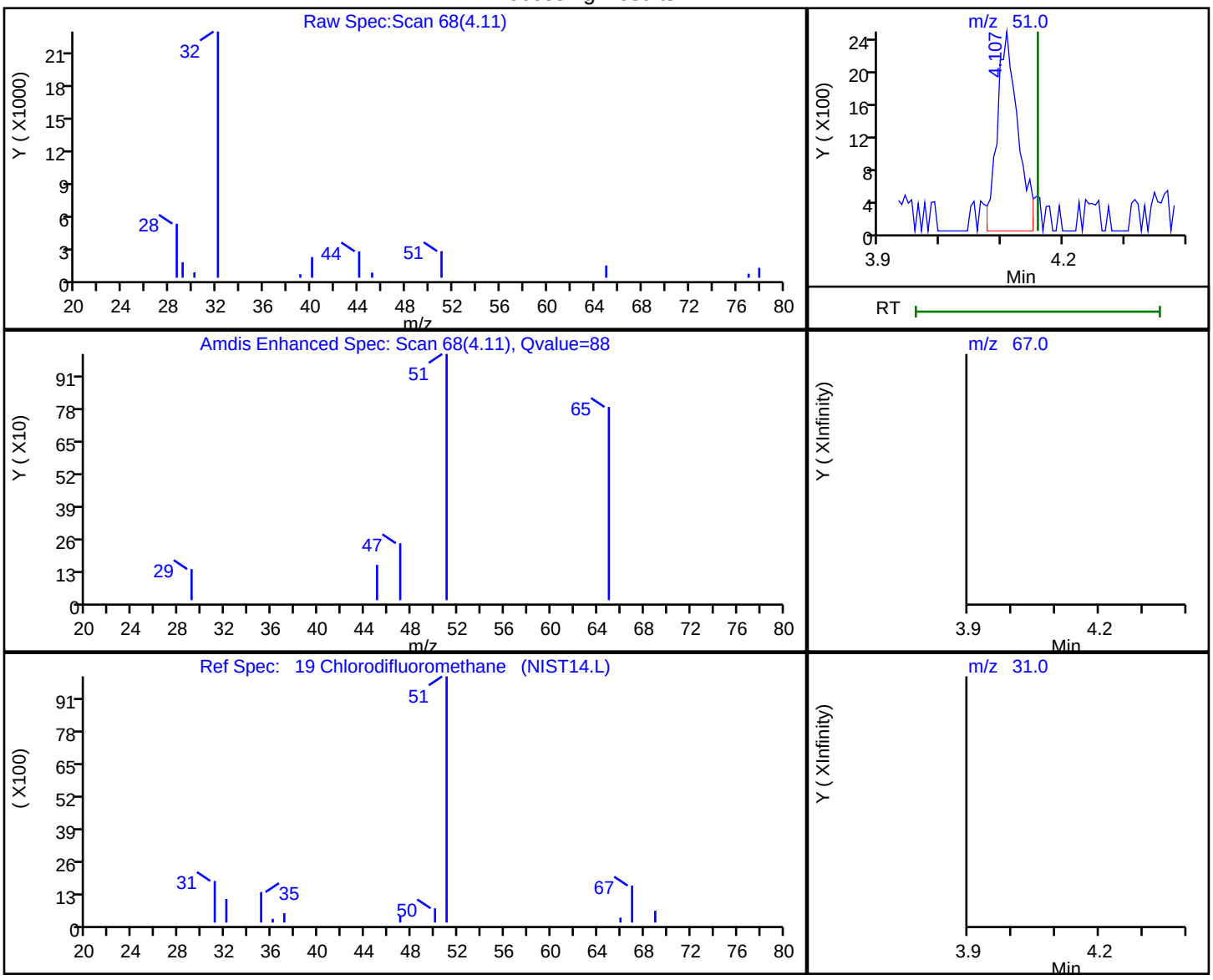
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P107.D				
Injection Date:	21-Aug-2019 21:18:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-5	Lab Sample ID:	140-16377-5		
Client ID:	SV-171-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.11	51.00	5811	0.118605
4.16	67.00	0	
4.16	31.00	0	

Reviewer: khachitpongpanits, 22-Aug-2019 12:12:14

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.5	0.15
56-23-5	Carbon tetrachloride	153.81	ND		1.5	0.13
75-45-6	Chlorodifluoromethane	86.47	ND		1.5	0.41
67-66-3	Chloroform	119.38	5.7		1.5	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	62		1.5	0.19
75-71-8	Dichlorodifluoromethane	120.91	0.43	J	1.5	0.26
75-34-3	1,1-Dichloroethane	98.96	21		1.5	0.13
107-06-2	1,2-Dichloroethane	98.96	ND		1.5	0.19
75-35-4	1,1-Dichloroethene	96.94	230		1.5	0.15
100-41-4	Ethylbenzene	106.17	ND		1.5	0.24
75-09-2	Methylene Chloride	84.93	7.1	J B	7.4	3.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.4	0.97
91-20-3	Naphthalene	128.17	ND		0.74	1.4
127-18-4	Tetrachloroethene	165.83	0.37	J	1.5	0.13
108-88-3	Toluene	92.14	ND		2.2	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	3.2		1.5	0.13
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.5	1.2
71-55-6	1,1,1-Trichloroethane	133.41	30		1.5	0.69
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.5	0.13
79-01-6	*Trichloroethene*	*131.39*	*1400*	*E*	*0.74*	*0.11*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.5	0.67
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.5	0.37
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.5	0.41
75-01-4	Vinyl chloride	62.50	ND		0.74	0.48
1330-20-7	Xylenes, Total	106.17	1.0	J	3.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4	J	4.8	0.48
56-23-5	Carbon tetrachloride	153.81	ND		9.4	0.82
75-45-6	Chlorodifluoromethane	86.47	ND		5.3	1.4
67-66-3	Chloroform	119.38	28		7.3	0.64
156-59-2	cis-1,2-Dichloroethene	96.94	240		5.9	0.74
75-71-8	Dichlorodifluoromethane	120.91	2.1	J	7.4	1.3
75-34-3	1,1-Dichloroethane	98.96	84		6.0	0.53
107-06-2	1,2-Dichloroethane	98.96	ND		6.0	0.75
75-35-4	1,1-Dichloroethene	96.94	900		5.9	0.59
100-41-4	Ethylbenzene	106.17	ND		6.5	1.0
75-09-2	Methylene Chloride	84.93	25	J B	26	10
1634-04-4	Methyl tert-butyl ether	88.15	ND		27	3.5
91-20-3	Naphthalene	128.17	ND		3.9	7.4
127-18-4	Tetrachloroethene	165.83	2.5	J	10	0.88
108-88-3	Toluene	92.14	ND		8.4	5.5
156-60-5	trans-1,2-Dichloroethene	96.94	13		5.9	0.52
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		11	8.8
71-55-6	1,1,1-Trichloroethane	133.41	160		8.1	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.1	0.71
79-01-6	*Trichloroethene*	*131.39*	*7600*	*E*	*4.0*	*0.60*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		7.3	3.3
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		7.3	1.8
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		7.3	2.0
75-01-4	Vinyl chloride	62.50	ND		1.9	1.2
1330-20-7	Xylenes, Total	106.17	4.4	J	13	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D
Lims ID: 140-16377-A-6
Client ID: SV-174-A-27
Sample Type: Client
Inject. Date: 22-Aug-2019 02:13:30 ALS Bottle#: 12 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 3.7200
Sample Info: 140-0012793-019
Misc. Info.: 140-16377-a-6@3.72
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 14:13:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 14:13:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	97	187226	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	96	960719	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.450	0.001	89	828103	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	93	539181	3.54	
21 Dichlorodifluoromethane	85	4.234	4.228	0.006	85	1350	0.0230	
40 1,1-Dichloroethene	96	6.692	6.687	0.005	96	697971	12.1	
44 Methylene Chloride	84	7.069	7.069	0.000	98	26723	0.3794	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	97	9944	0.1732	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	143290	1.12	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	96	196183	3.31	
57 Chloroform	83	9.732	9.737	-0.005	36	46903	0.3087	
60 1,1,1-Trichloroethane	97	10.764	10.765	0.000	97	260863	1.60	
64 Benzene	78	11.340	11.335	0.006	87	4004	0.0228	
71 Trichloroethene	130	12.534	12.534	0.000	92	6006883	75.6	E
80 Toluene	91	14.514	14.514	0.000	91	10669	0.0533	
86 Tetrachloroethene	129	15.633	15.633	0.000	91	1611	0.0200	
90 m-Xylene & p-Xylene	91	16.919	16.924	-0.005	94	7625	0.0386	
94 o-Xylene	91	17.446	17.451	-0.005	95	3290	0.0156	
S 129 Xylenes, Total	100				0		0.0542	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

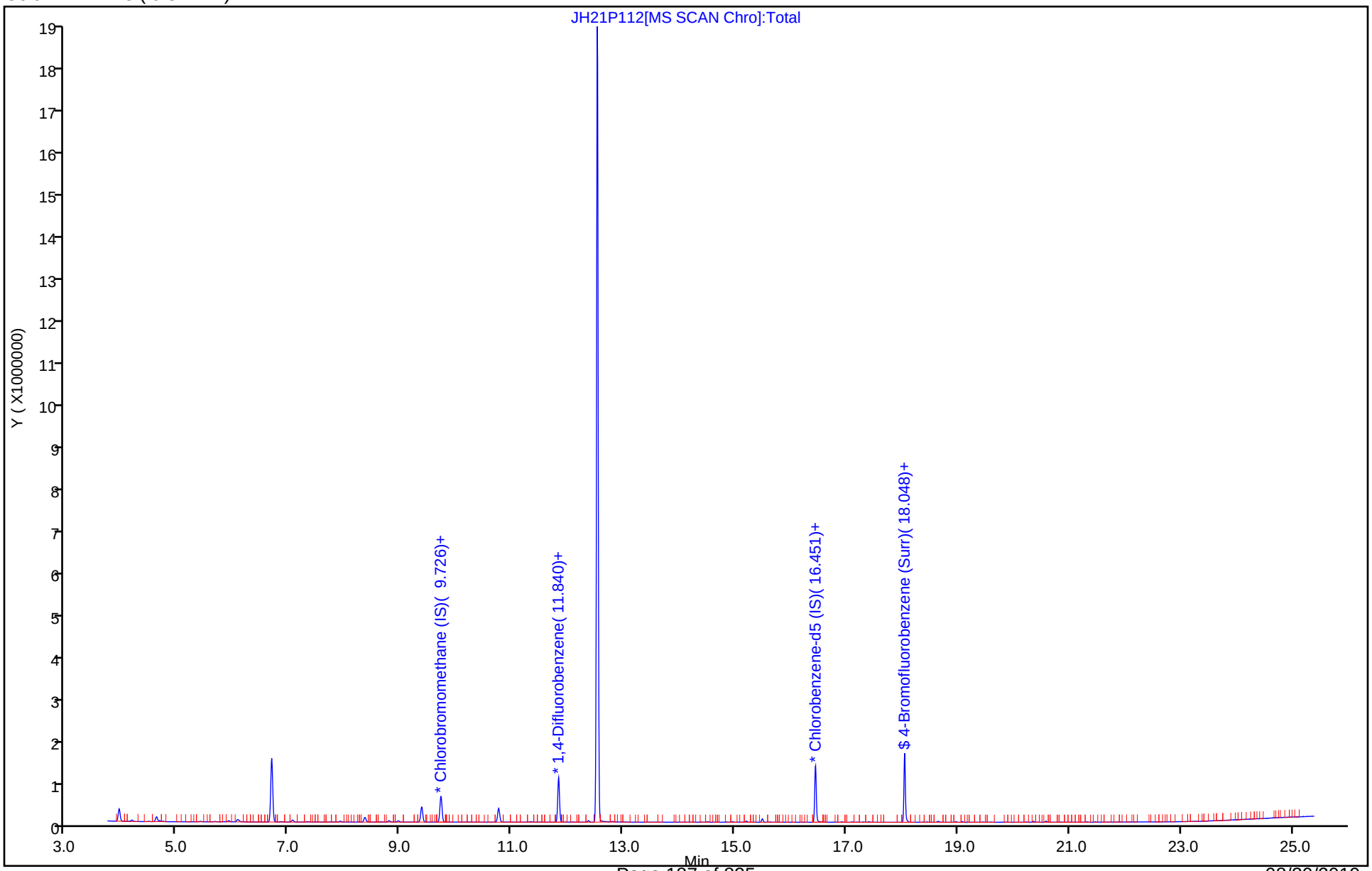
Report Date: 22-Aug-2019 14:13:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D

Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6	Worklist Smp#:	19
Client ID:	SV-174-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	3.7200	ALS Bottle#:	12
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D				
Lims ID:	140-16377-A-6				
Client ID:	SV-174-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 02:13:30	ALS Bottle#:	12	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Sample Info:	140-0012793-019				
Misc. Info.:	140-16377-a-6@3.72				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 14:13:31	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

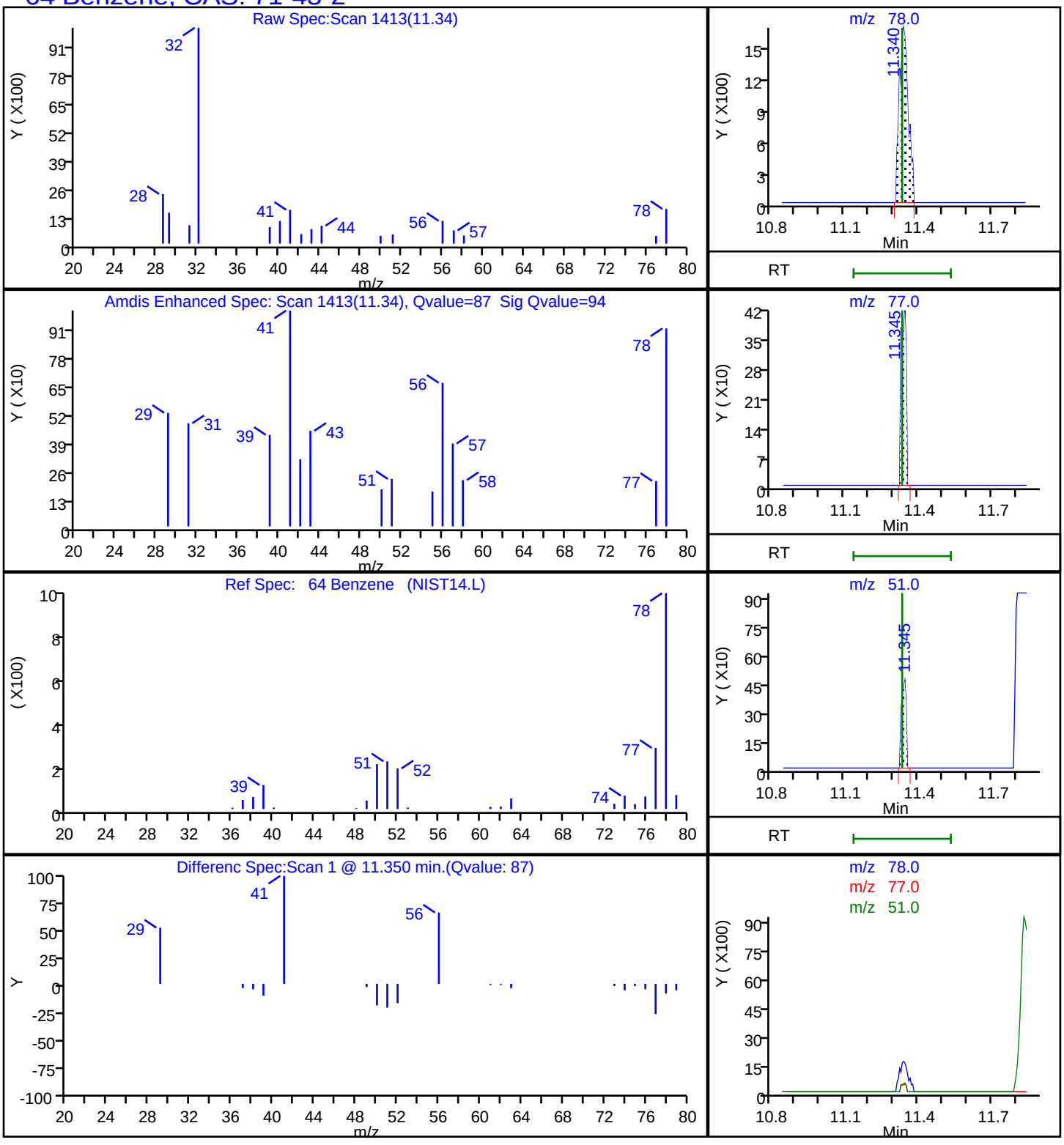
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 14:13:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.54	88.57

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

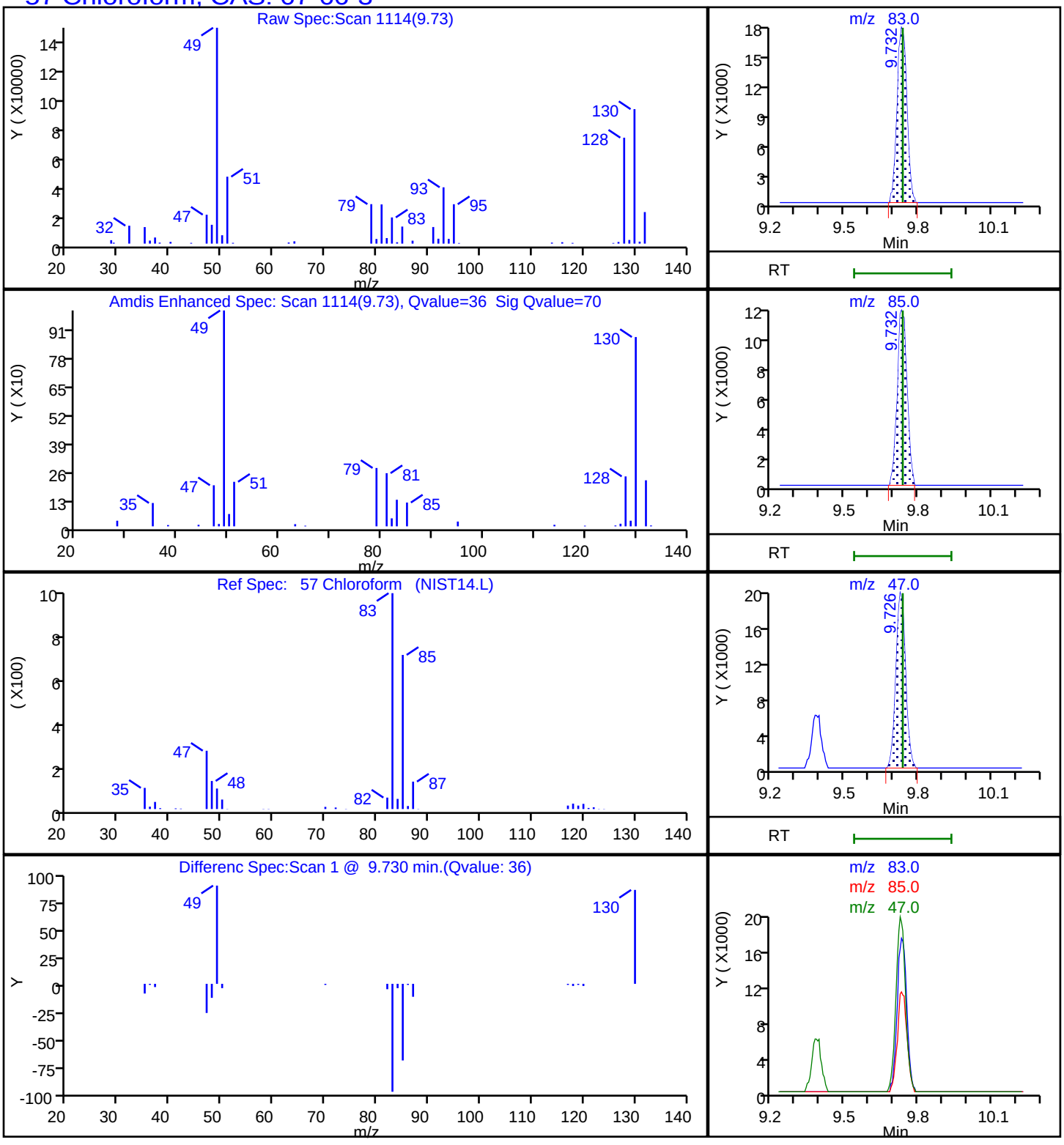
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

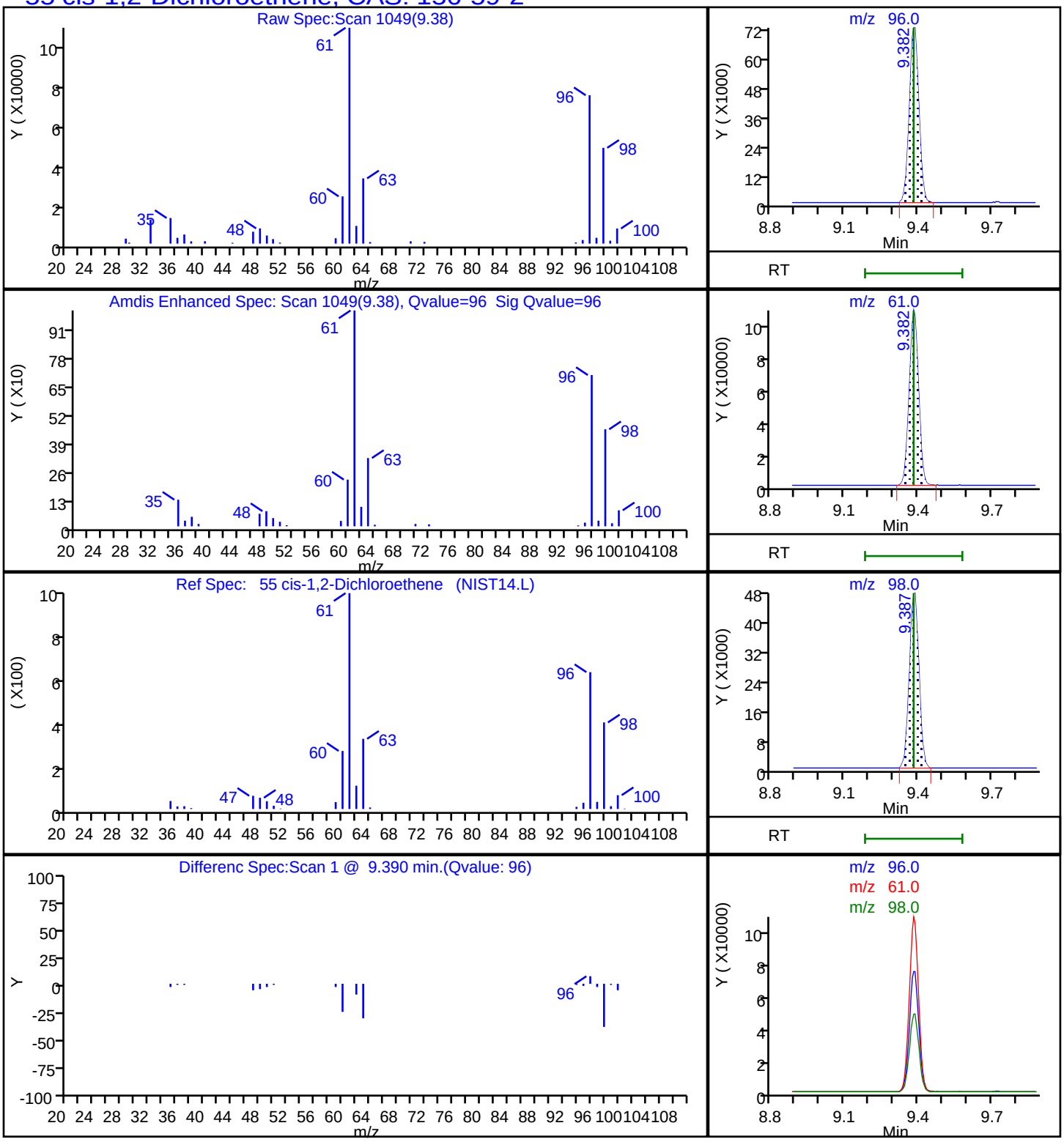
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

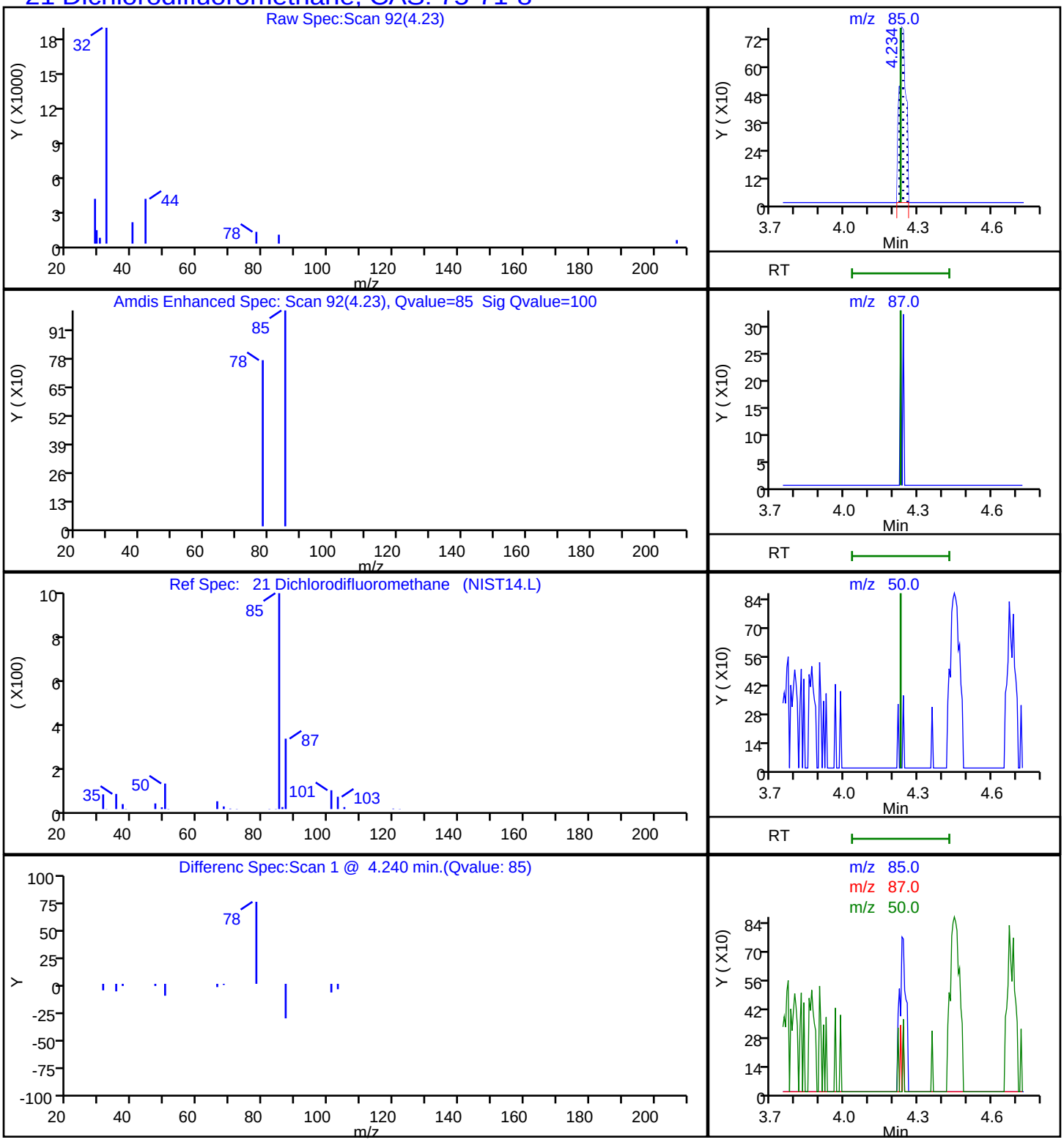
55 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

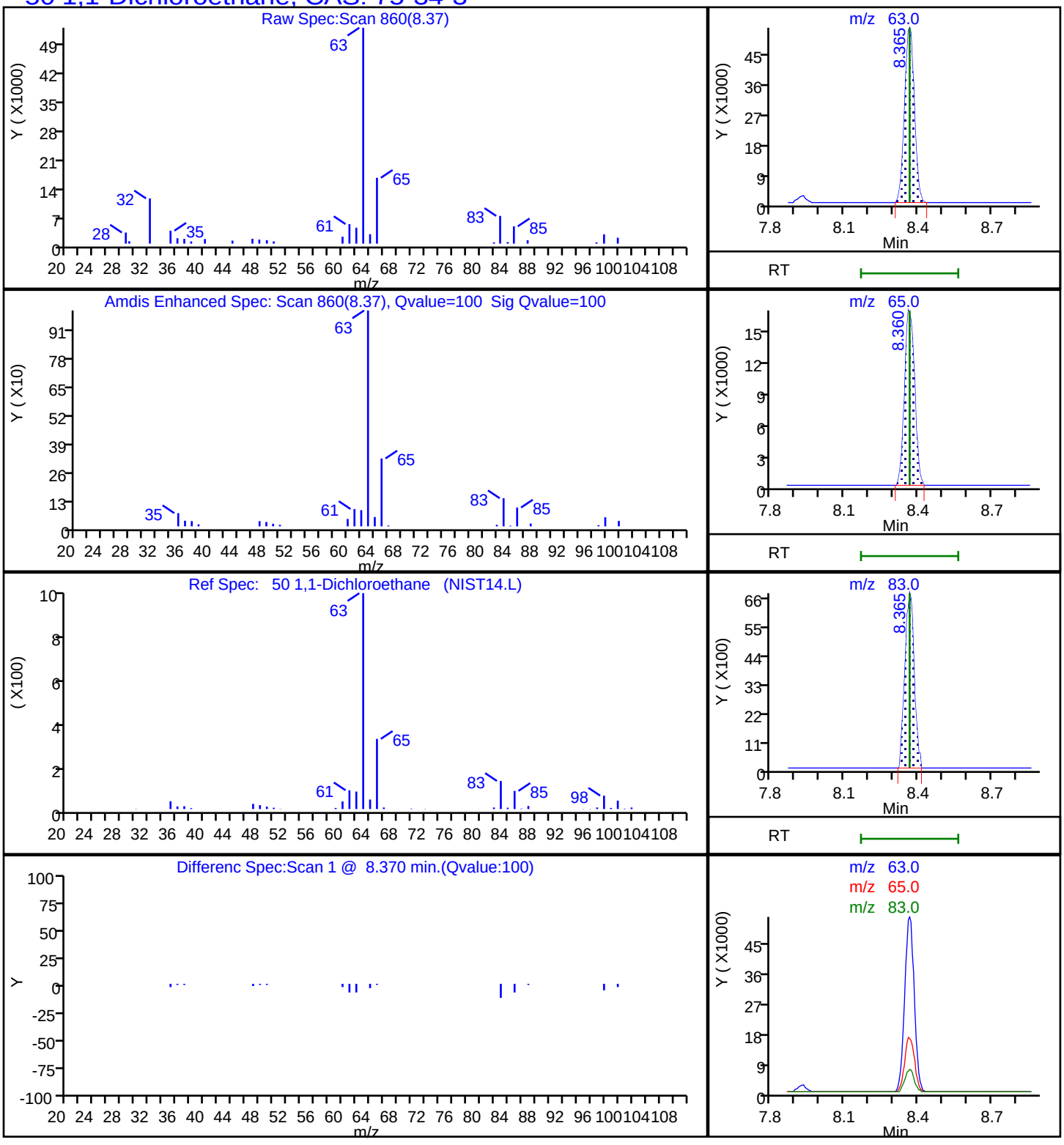
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 1,1-Dichloroethane, CAS: 75-34-3

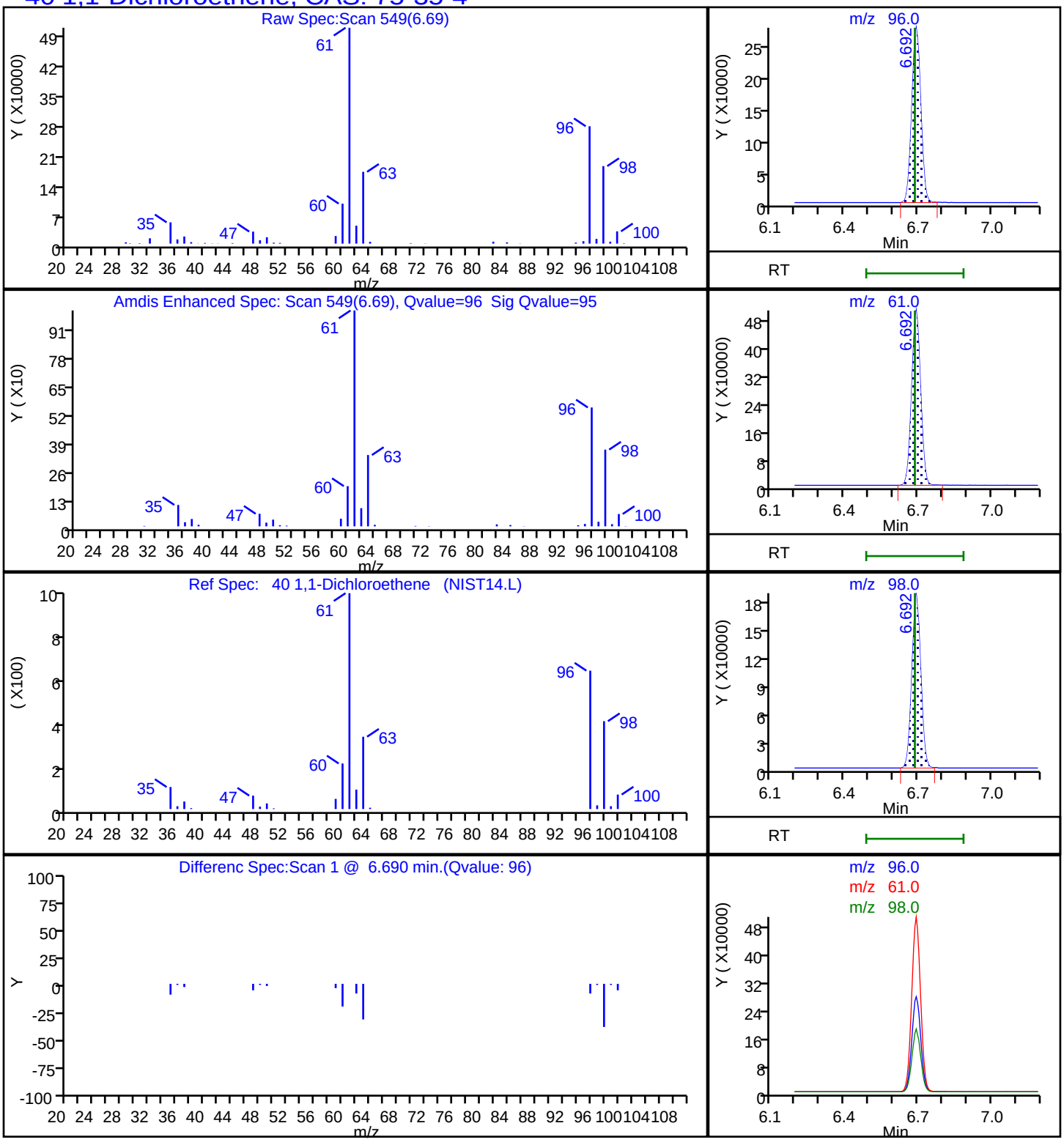


Report Date: 22-Aug-2019 14:13:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

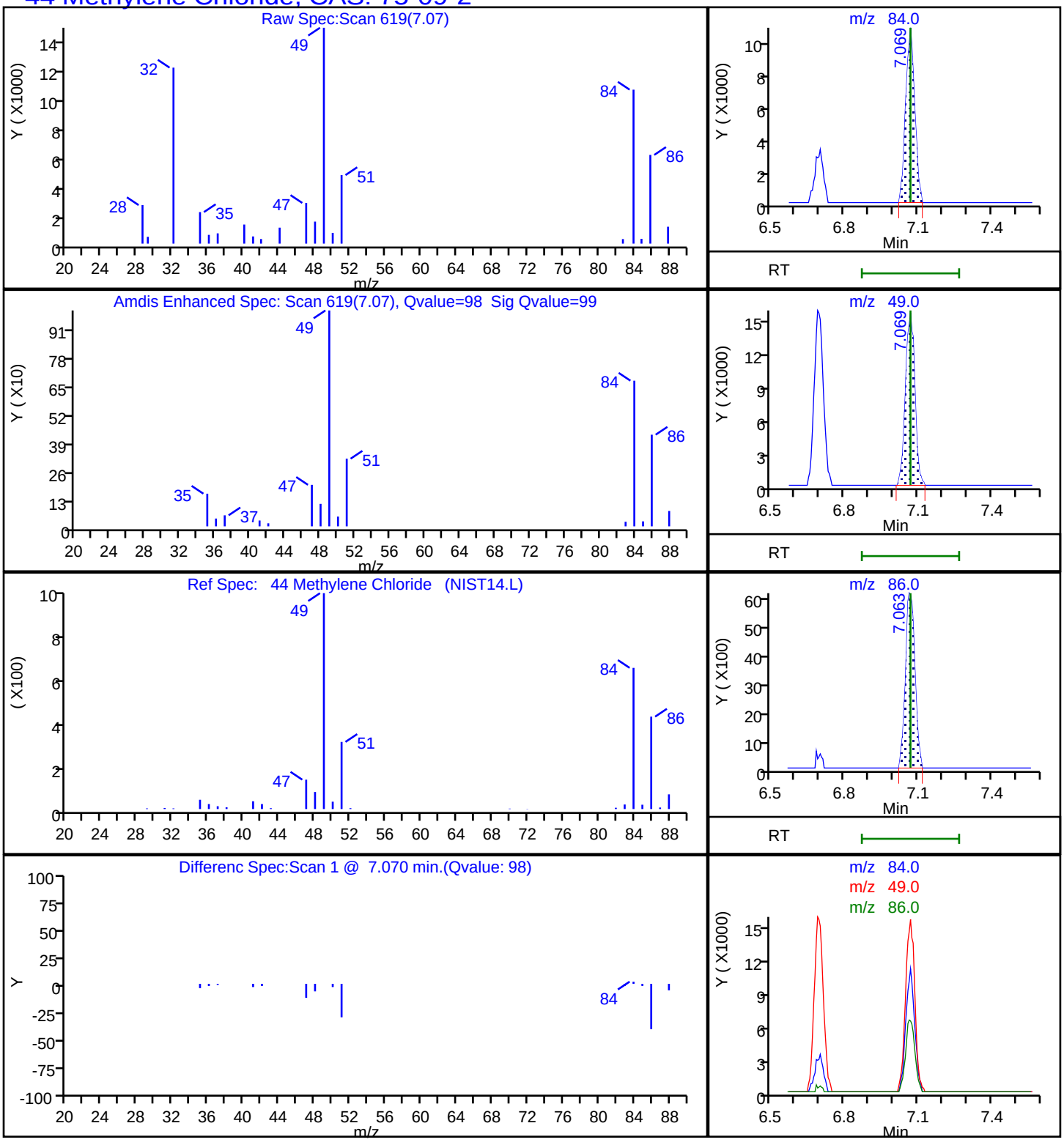
40 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

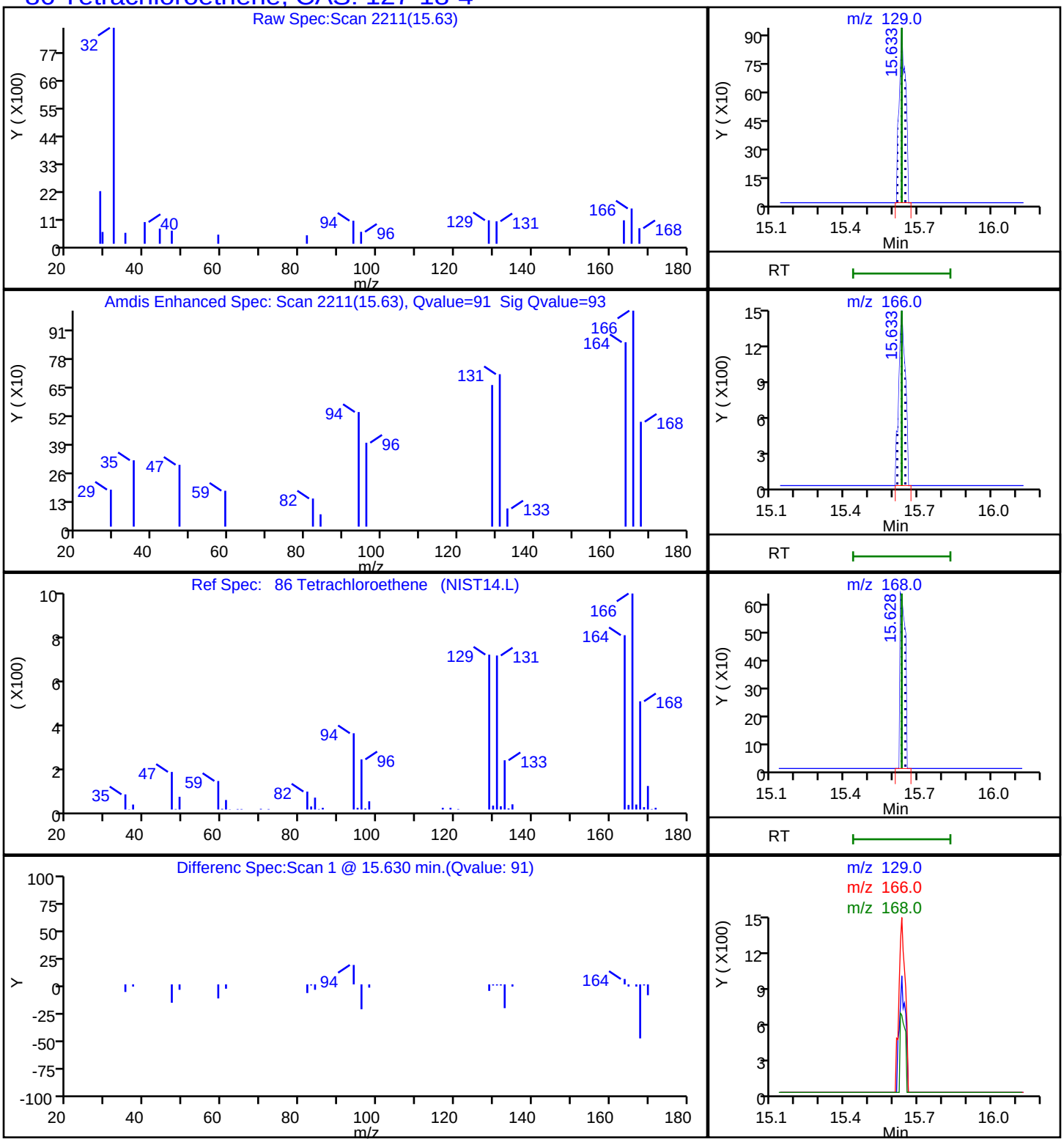
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

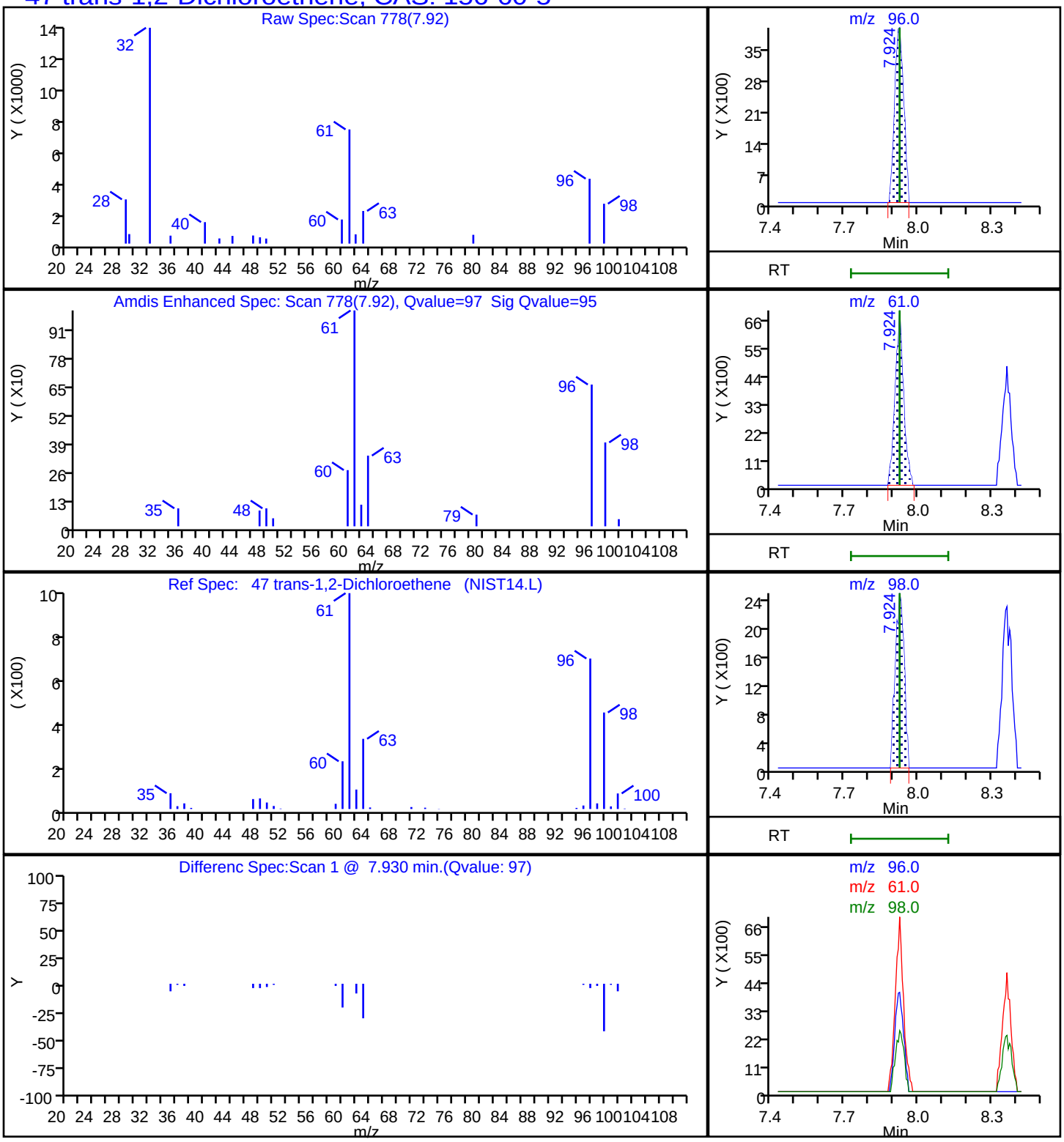
86 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 trans-1,2-Dichloroethene, CAS: 156-60-5

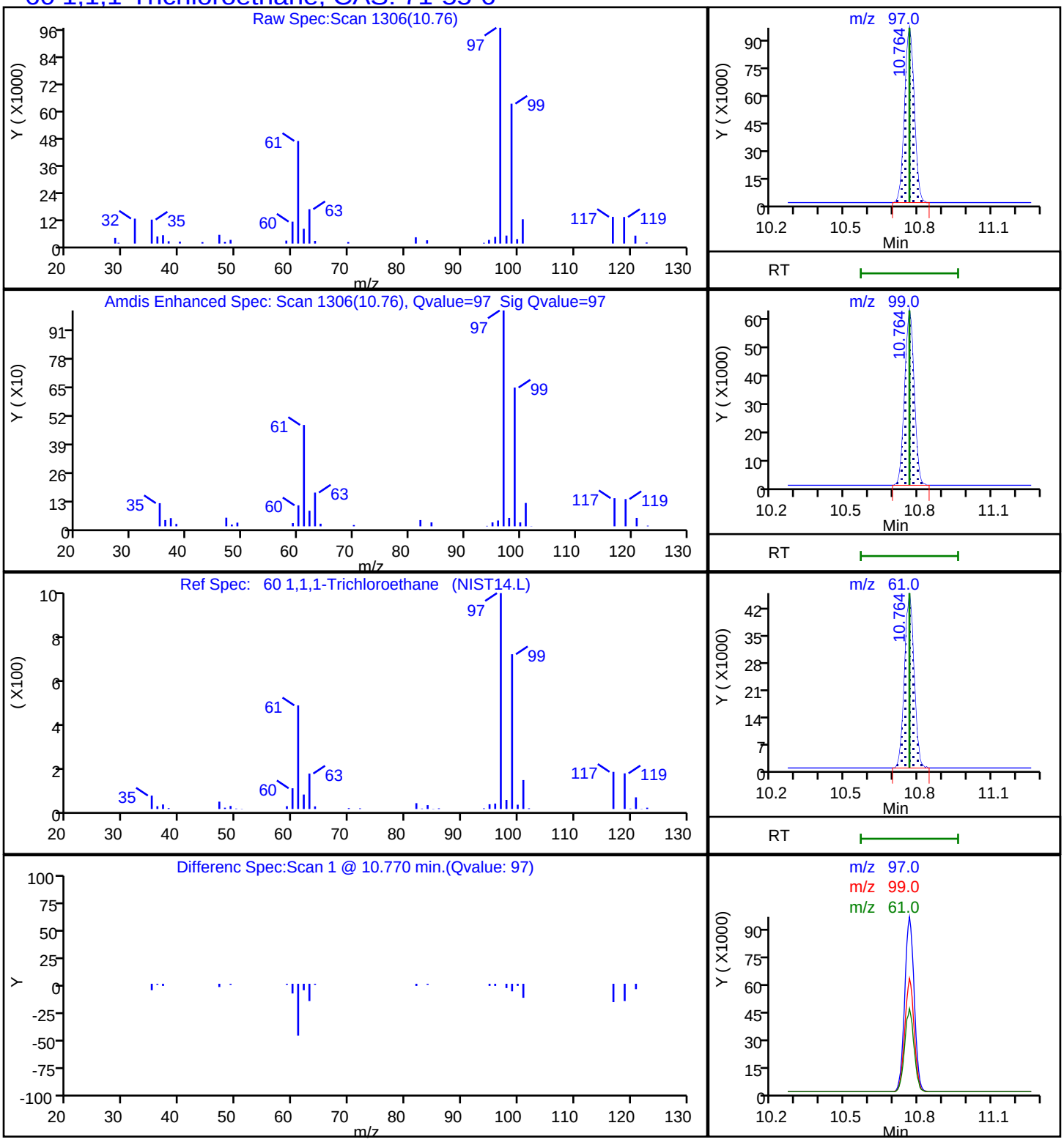


Report Date: 22-Aug-2019 14:13:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D				
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6		
Client ID:	SV-174-A-27				
Operator ID:	007126	ALS Bottle#:	12	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

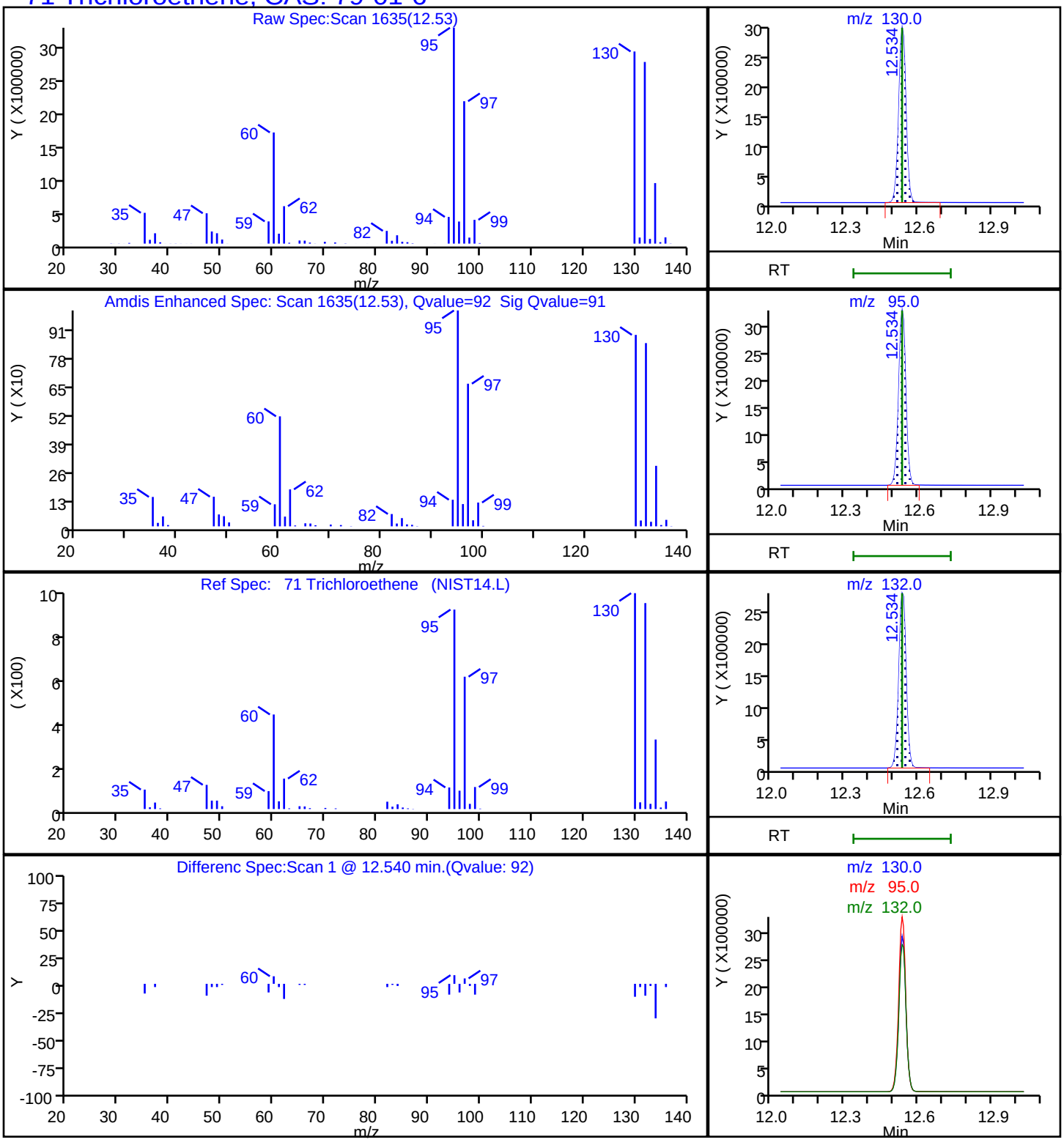
60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

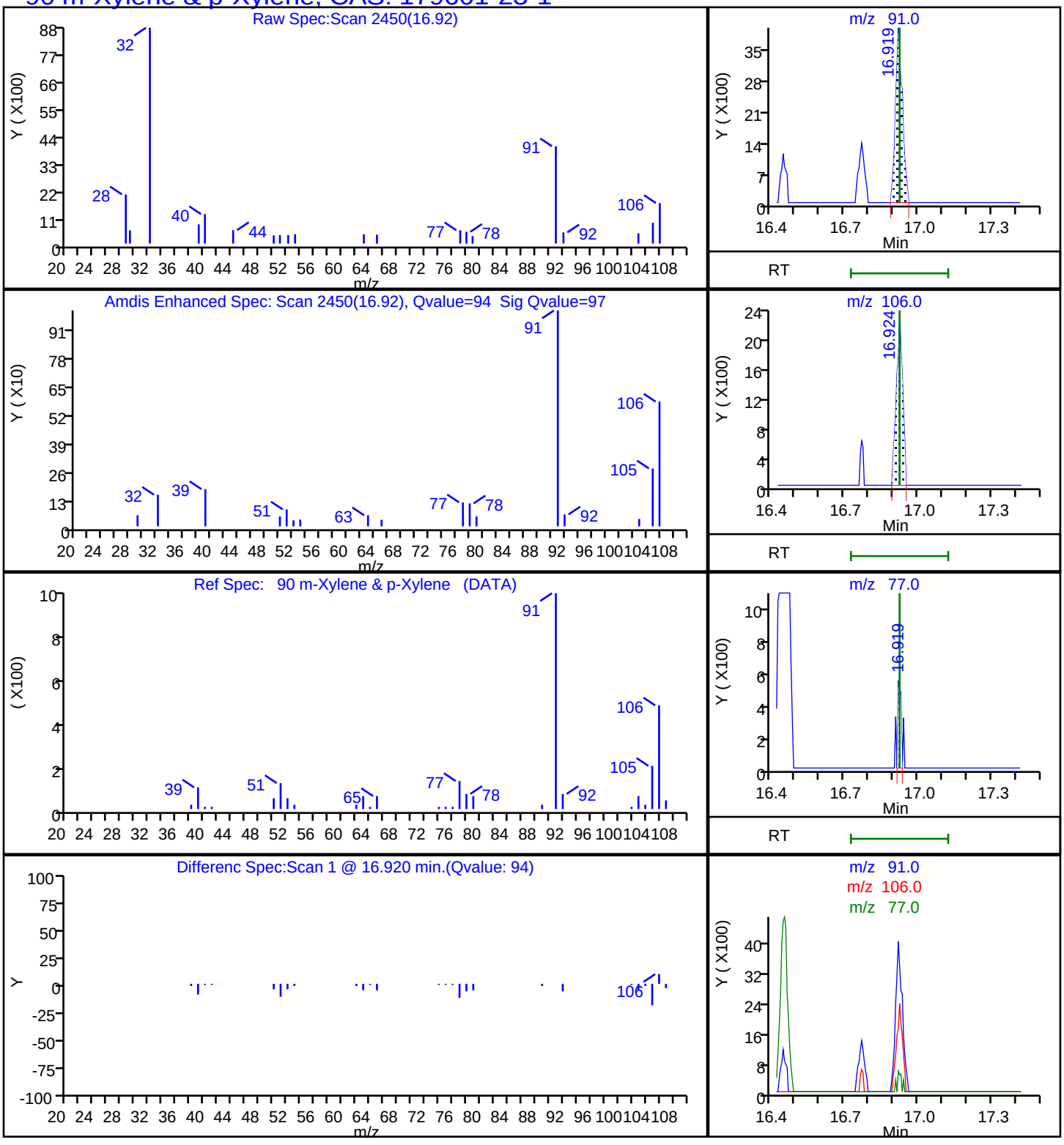


Report Date: 22-Aug-2019 14:13:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D				
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6		
Client ID:	SV-174-A-27				
Operator ID:	007126	ALS Bottle#:	12	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

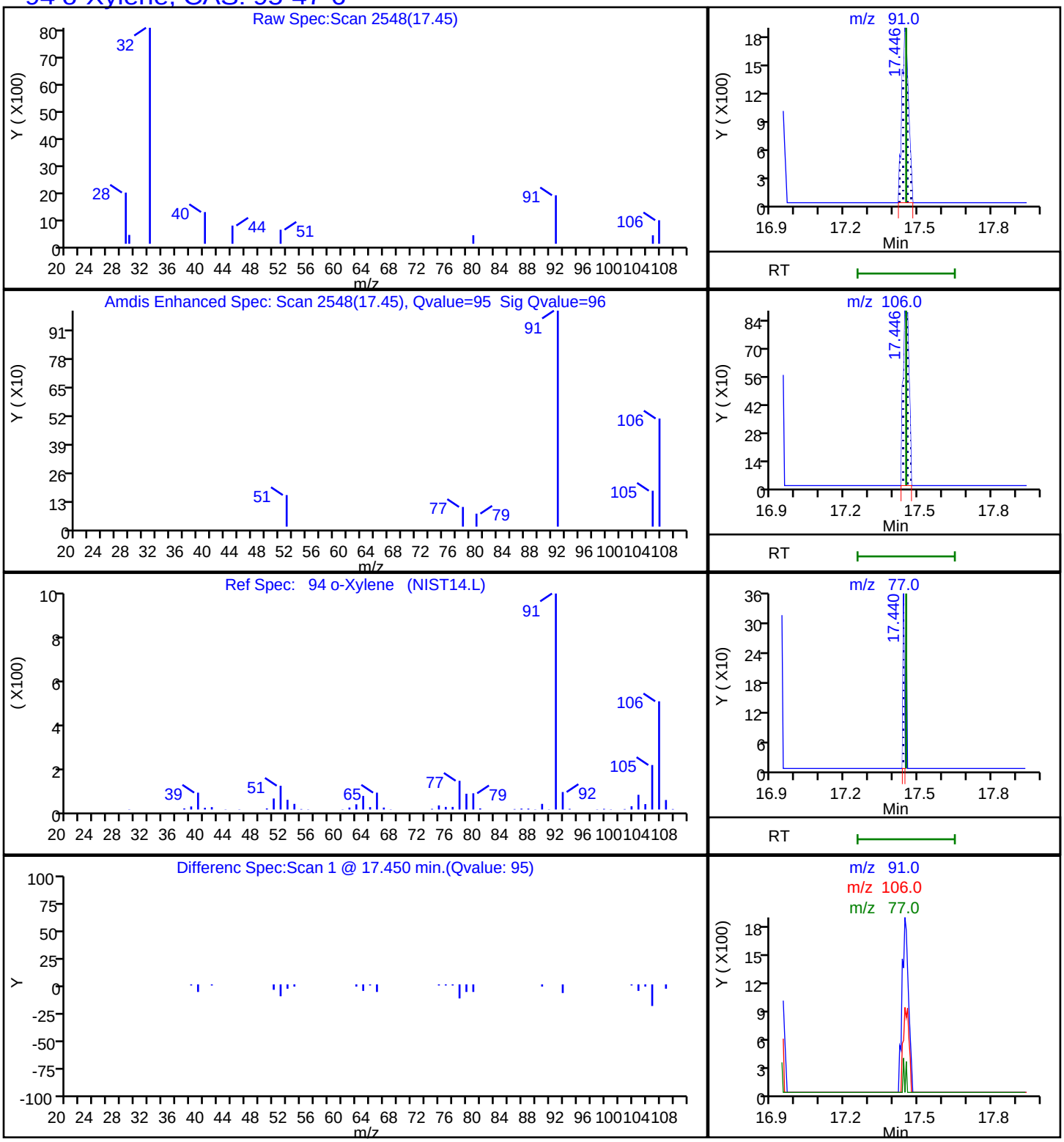
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D		
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	12 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



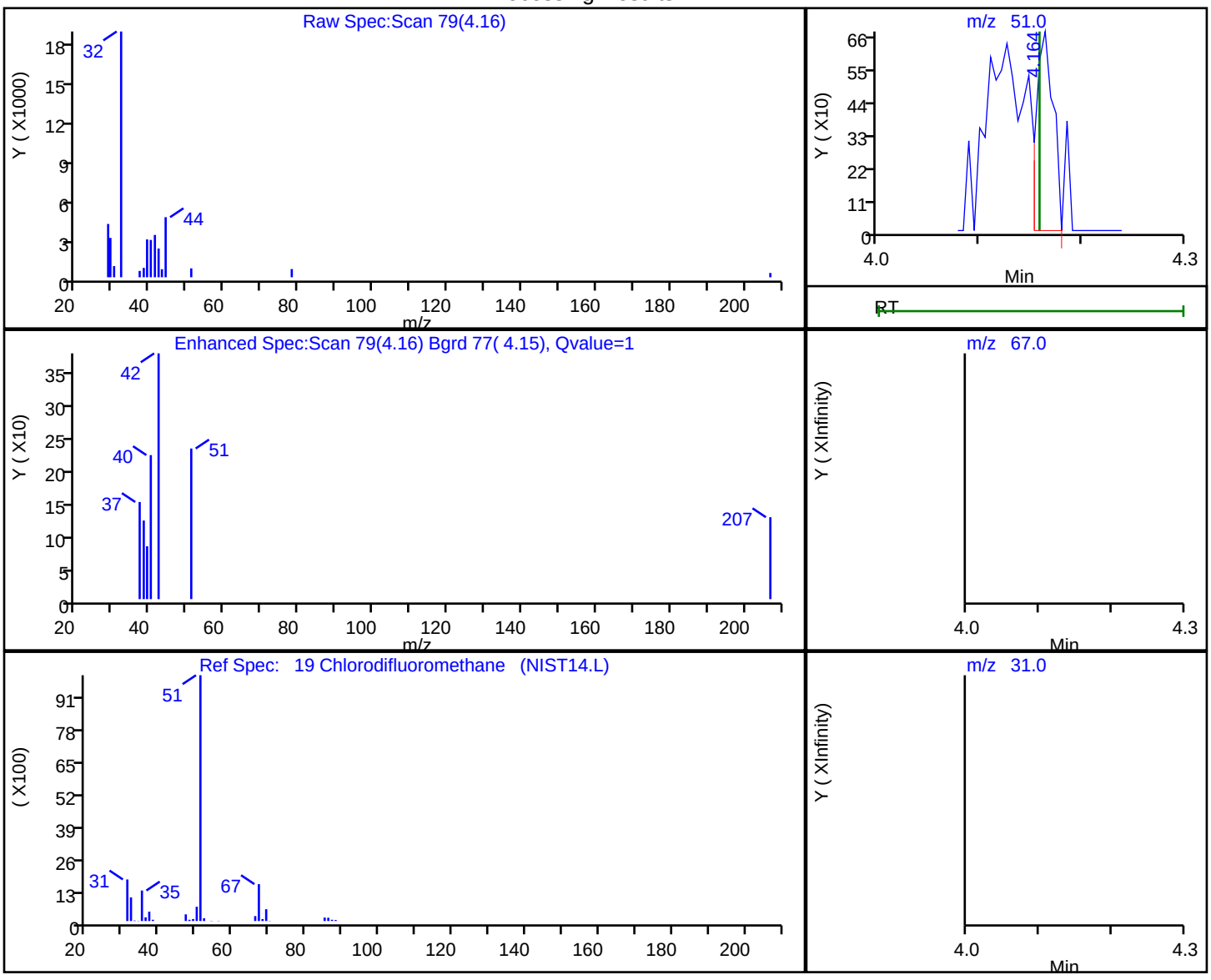
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D				
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6		
Client ID:	SV-174-A-27				
Operator ID:	007126	ALS Bottle#:	12	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.16	51.00	780	0.015245
4.16	67.00	0	
4.16	31.00	0	

Reviewer: khachitpongpanits, 22-Aug-2019 14:11:55

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

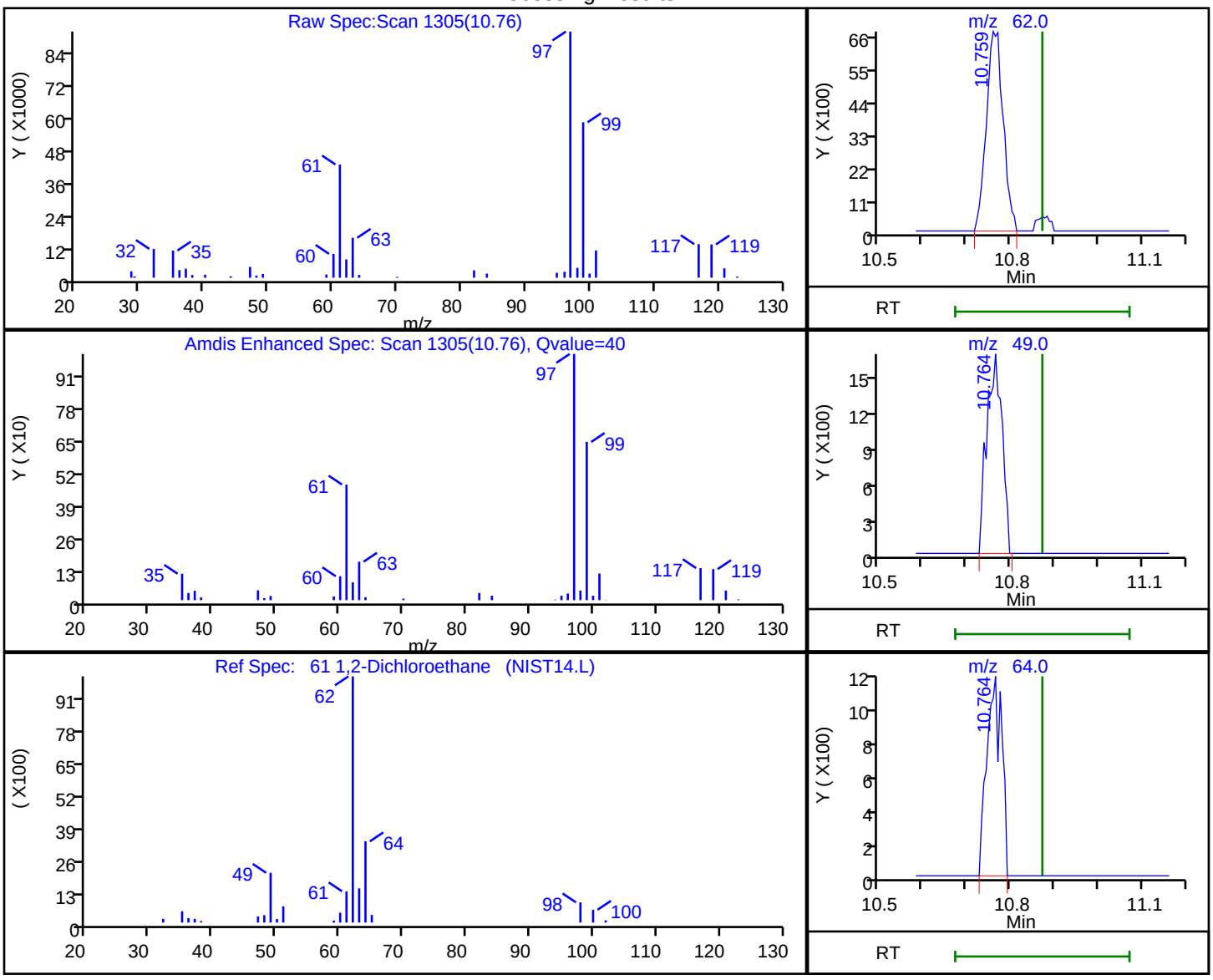
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P112.D				
Injection Date:	22-Aug-2019 02:13:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6		
Client ID:	SV-174-A-27				
Operator ID:	007126	ALS Bottle#:	12	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

61 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.76	62.00	18226	0.165237
10.76	49.00	4040	
10.76	64.00	2785	

Reviewer: khachitpongpanits, 22-Aug-2019 14:13:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	820		6.8	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	4400		36	5.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P102.D
Lims ID: 140-16377-A-6
Client ID: SV-174-A-27
Sample Type: Client
Inject. Date: 27-Aug-2019 15:43:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 3.7200
Sample Info: 140-0012855-007
Misc. Info.: 140-16377-a-6@3.72
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:55:53 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:55:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.725	-0.004	93	222191	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.834	0.001	95	1103557	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.444	0.001	88	888773	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	96	606934	3.72	
19 Chlorodifluoromethane	51	4.169	4.169	0.017	34	1468	0.0242	M
40 1,1-Dichloroethene	96	6.687	6.683	0.001	98	63433	0.9303	
44 Methylene Chloride	84	7.058	7.062	-0.004	96	25810	0.3087	
47 trans-1,2-Dichloroethene	96	7.913	7.914	-0.005	1	780	0.0114	
50 1,1-Dichloroethane	63	8.360	8.355	0.001	97	14196	0.0935	
55 cis-1,2-Dichloroethene	96	9.371	9.371	-0.005	95	18101	0.2577	
57 Chloroform	83	9.721	9.726	-0.010	34	4775	0.0265	
60 1,1,1-Trichloroethane	97	10.759	10.753	0.001	95	25366	0.1307	
71 Trichloroethene	130	12.529	12.529	0.001	96	444016	4.87	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

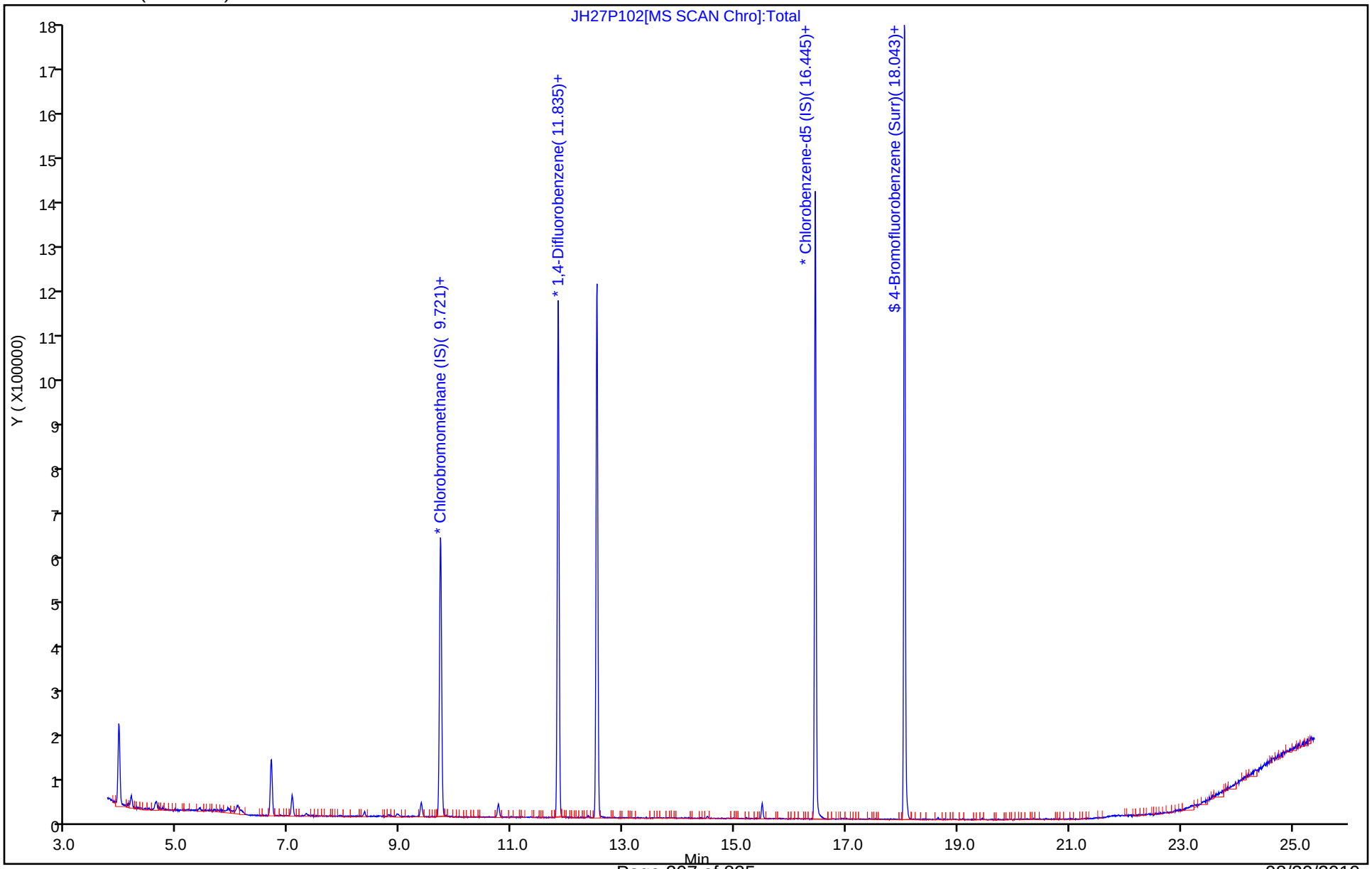
Report Date: 28-Aug-2019 10:55:54 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P102.D

Injection Date:	27-Aug-2019 15:43:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6	Worklist Smp#:	10
Client ID:	SV-174-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	3.7200	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P102.D				
Lims ID:	140-16377-A-6				
Client ID:	SV-174-A-27				
Sample Type:	Client				
Inject. Date:	27-Aug-2019 15:43:30	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	3.7200		
Sample Info:	140-0012855-007				
Misc. Info.:	140-16377-a-6@3.72				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:55:53	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

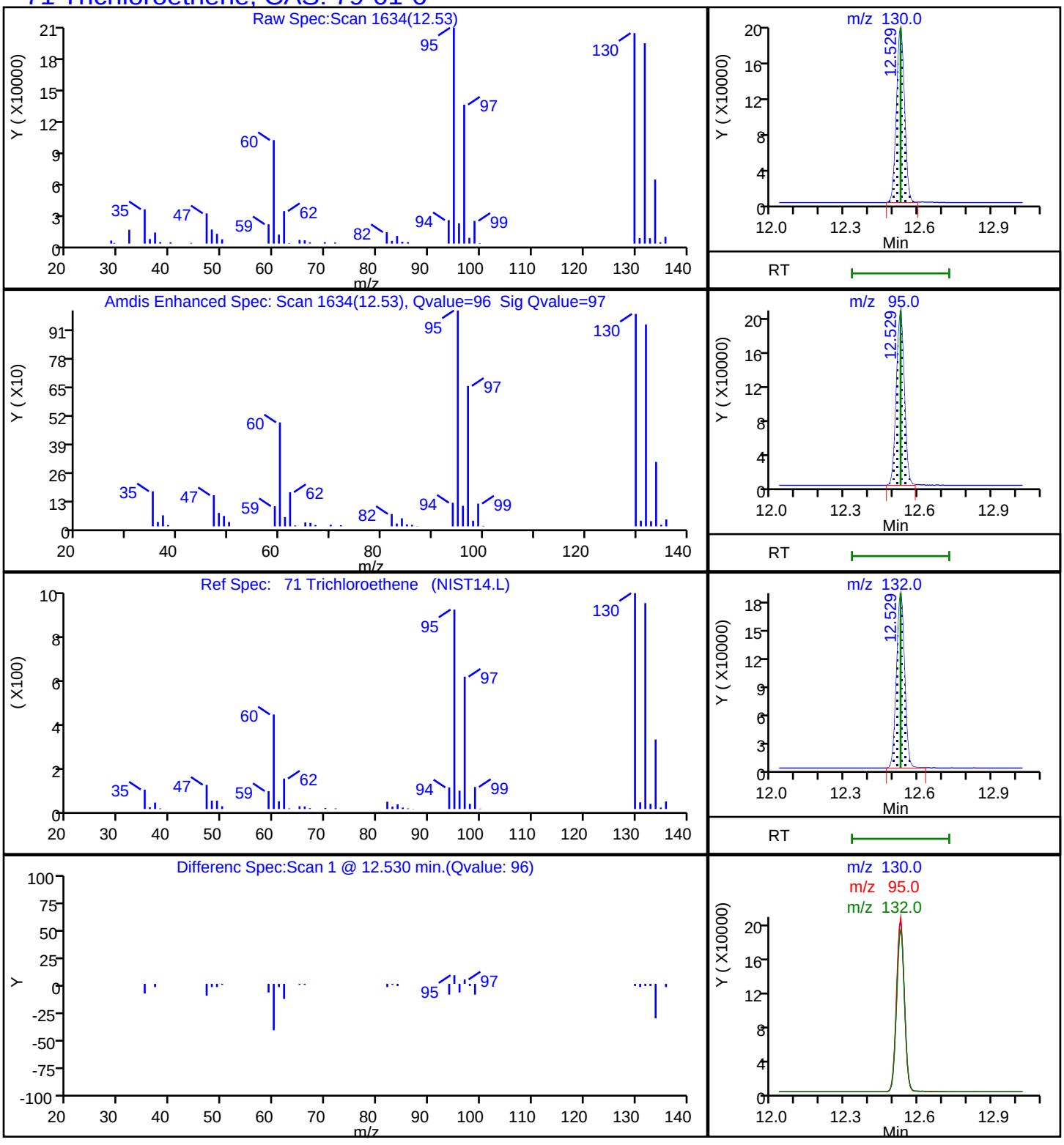
First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:55:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.72	92.89

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JH27P102.D		
Injection Date:	27-Aug-2019 15:43:30	Instrument ID:	MJ
Lims ID:	140-16377-A-6	Lab Sample ID:	140-16377-6
Client ID:	SV-174-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	3.7200
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.092	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.3		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	1.3		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.70		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.3		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	9.2		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	5.3		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	7.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D
Lims ID: 140-16377-A-7
Client ID: SV-093-A-27
Sample Type: Client
Inject. Date: 22-Aug-2019 03:02:30 ALS Bottle#: 13 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-020
Misc. Info.: 140-16377-a-7
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 15:38:59 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 15:38:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.731	-0.006	97	178833	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.840	-0.006	96	947448	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.450	-0.006	89	809865	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.044	-0.001	93	533733	3.59	
21 Dichlorodifluoromethane	85	4.227	4.224	-0.001	39	4652	0.0831	
40 1,1-Dichloroethene	96	6.680	6.680	-0.007	97	14638	0.2667	
44 Methylene Chloride	84	7.057	7.062	-0.012	98	63038	0.9369	
50 1,1-Dichloroethane	63	8.359	8.357	-0.006	99	55260	0.4522	
55 cis-1,2-Dichloroethene	96	9.365	9.373	-0.017	83	2245	0.0397	
57 Chloroform	83	9.714	9.714	-0.023	28	2679	0.0185	M
60 1,1,1-Trichloroethane	97	10.752	10.754	-0.012	83	3812	0.0244	
64 Benzene	78	11.328	11.326	-0.006	94	4592	0.0265	
65 Carbon tetrachloride	117	11.344	11.347	-0.012	55	1887	0.0130	
71 Trichloroethene	130	12.522	12.525	-0.012	94	21128	0.2697	
80 Toluene	91	14.513	14.511	-0.001	93	27311	0.1396	
122 Naphthalene	128	21.689	21.685	-0.001	98	10400	0.0501	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

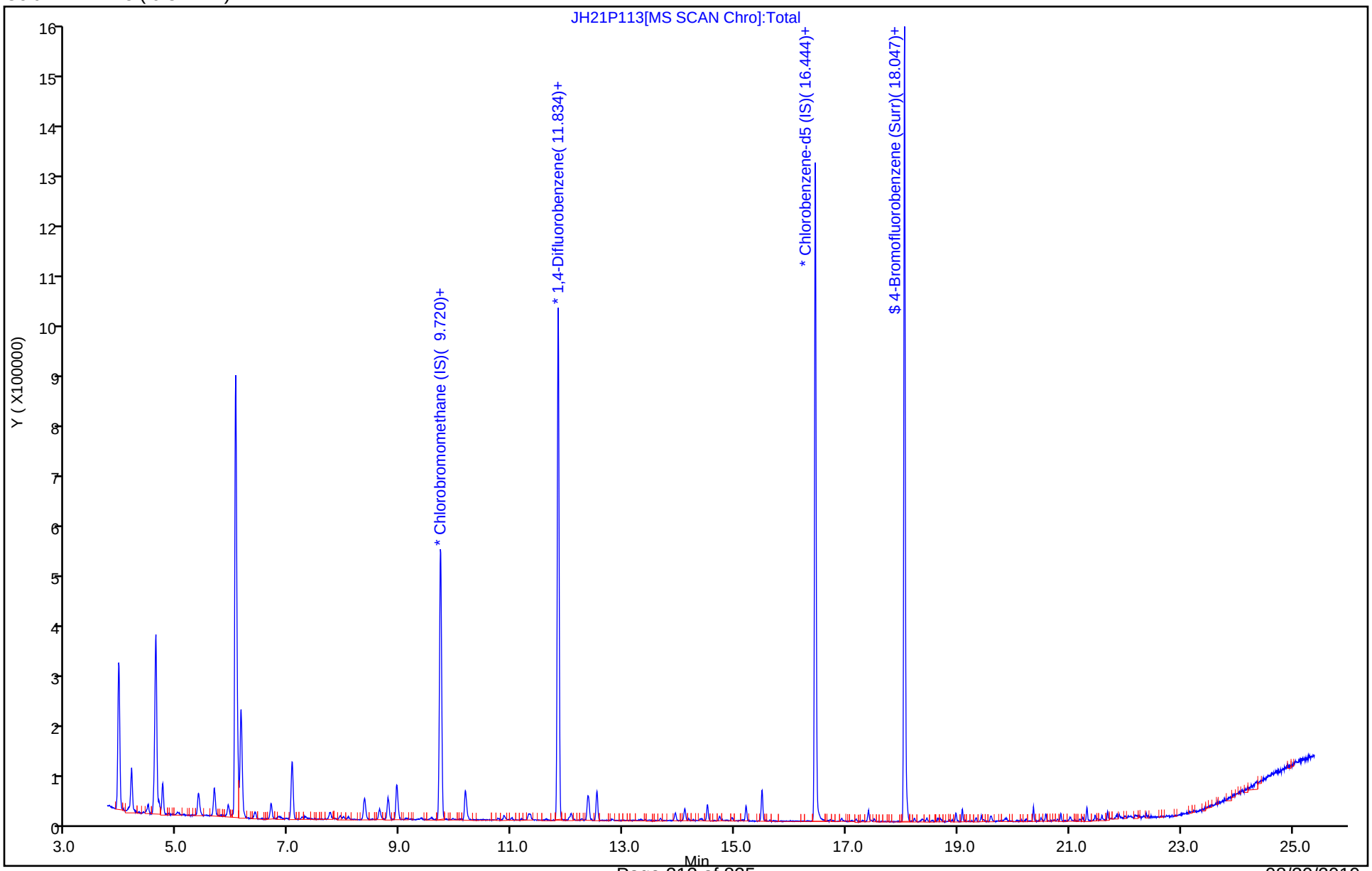
Report Date: 22-Aug-2019 15:39:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D

Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7	Worklist Smp#:	20
Client ID:	SV-093-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D				
Lims ID:	140-16377-A-7				
Client ID:	SV-093-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 03:02:30	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-020				
Misc. Info.:	140-16377-a-7				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 15:38:59	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 15:38:59

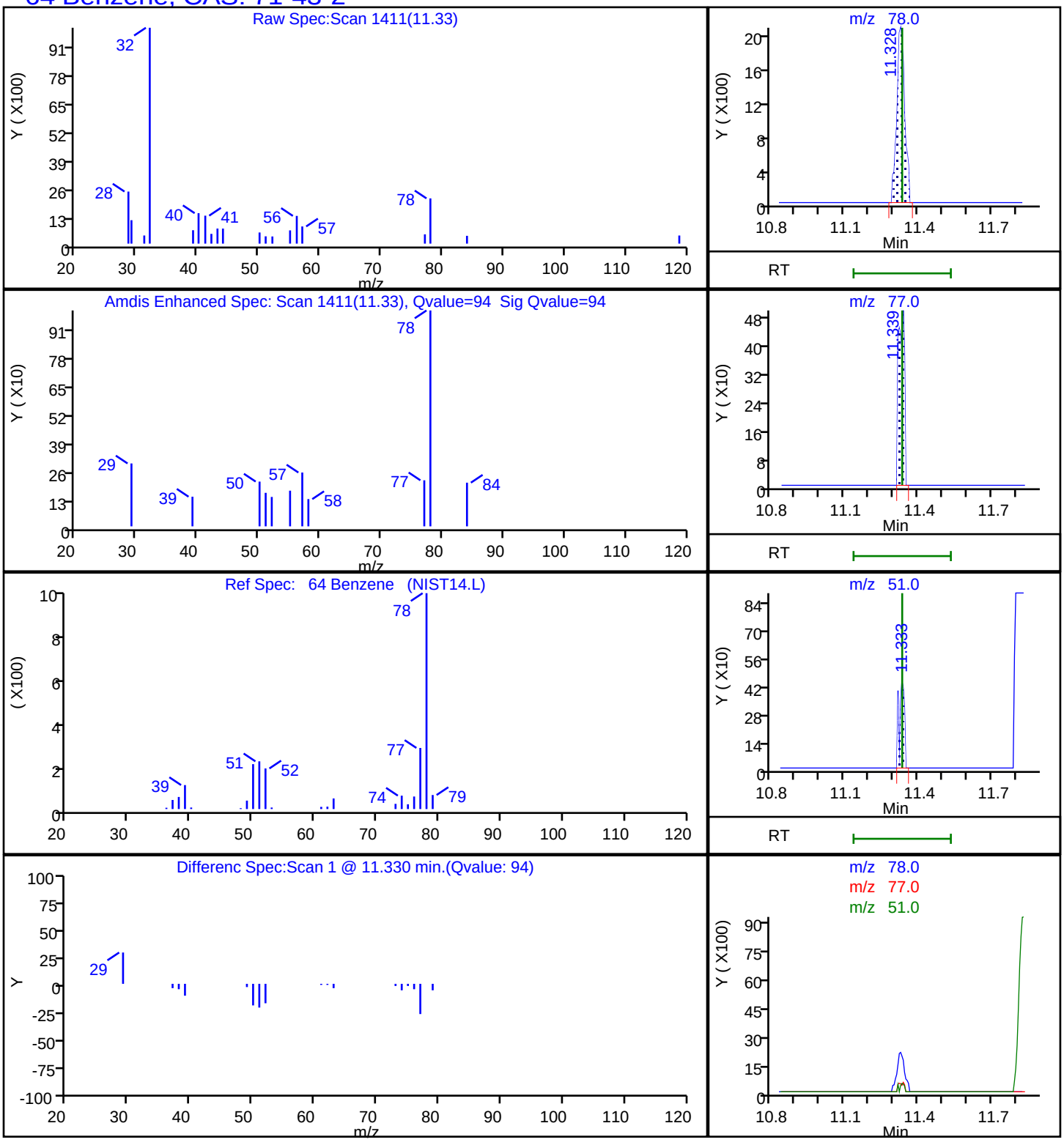
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.59	89.65

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D

Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

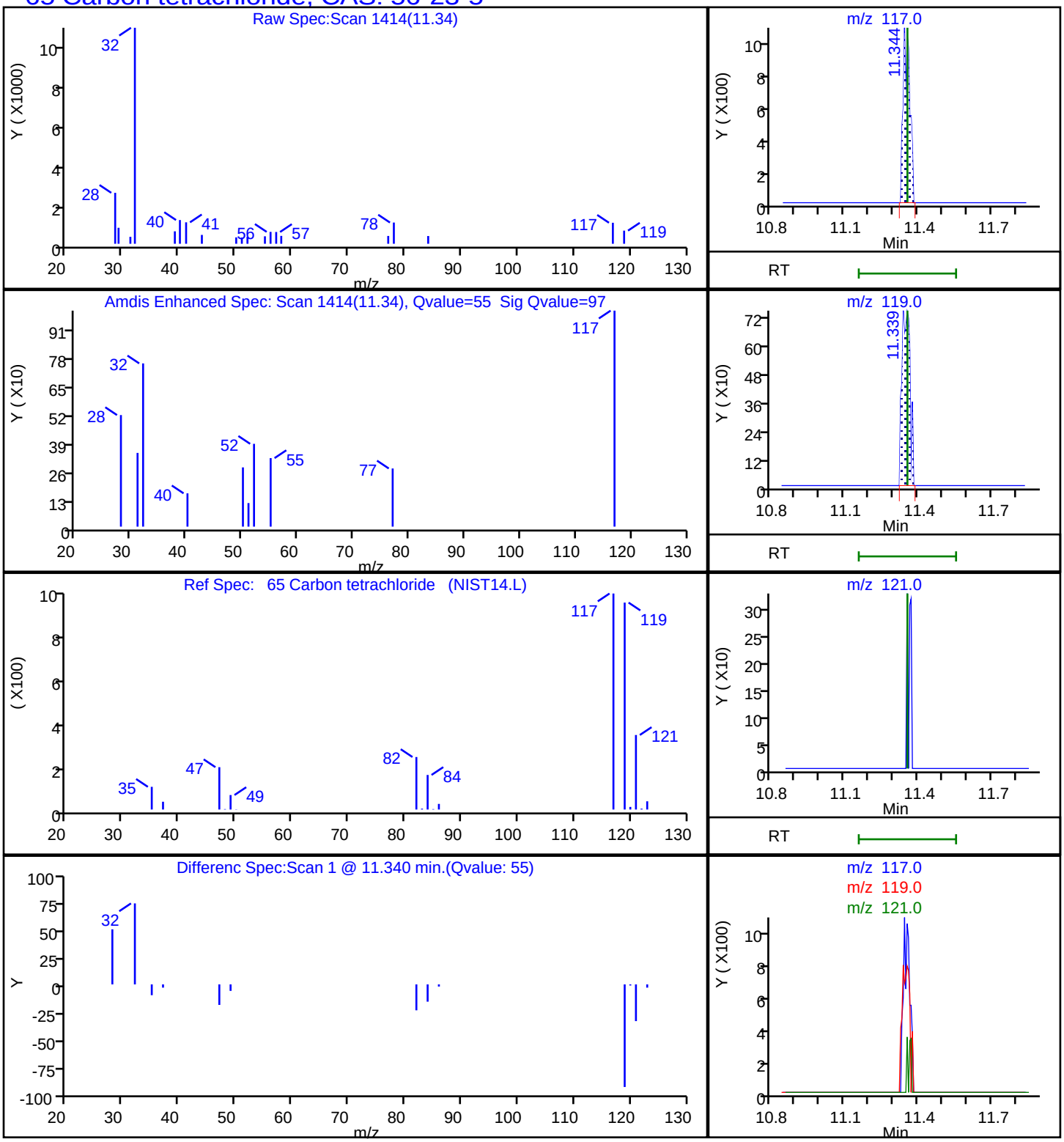


Report Date: 22-Aug-2019 15:39:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D				
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7		
Client ID:	SV-093-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

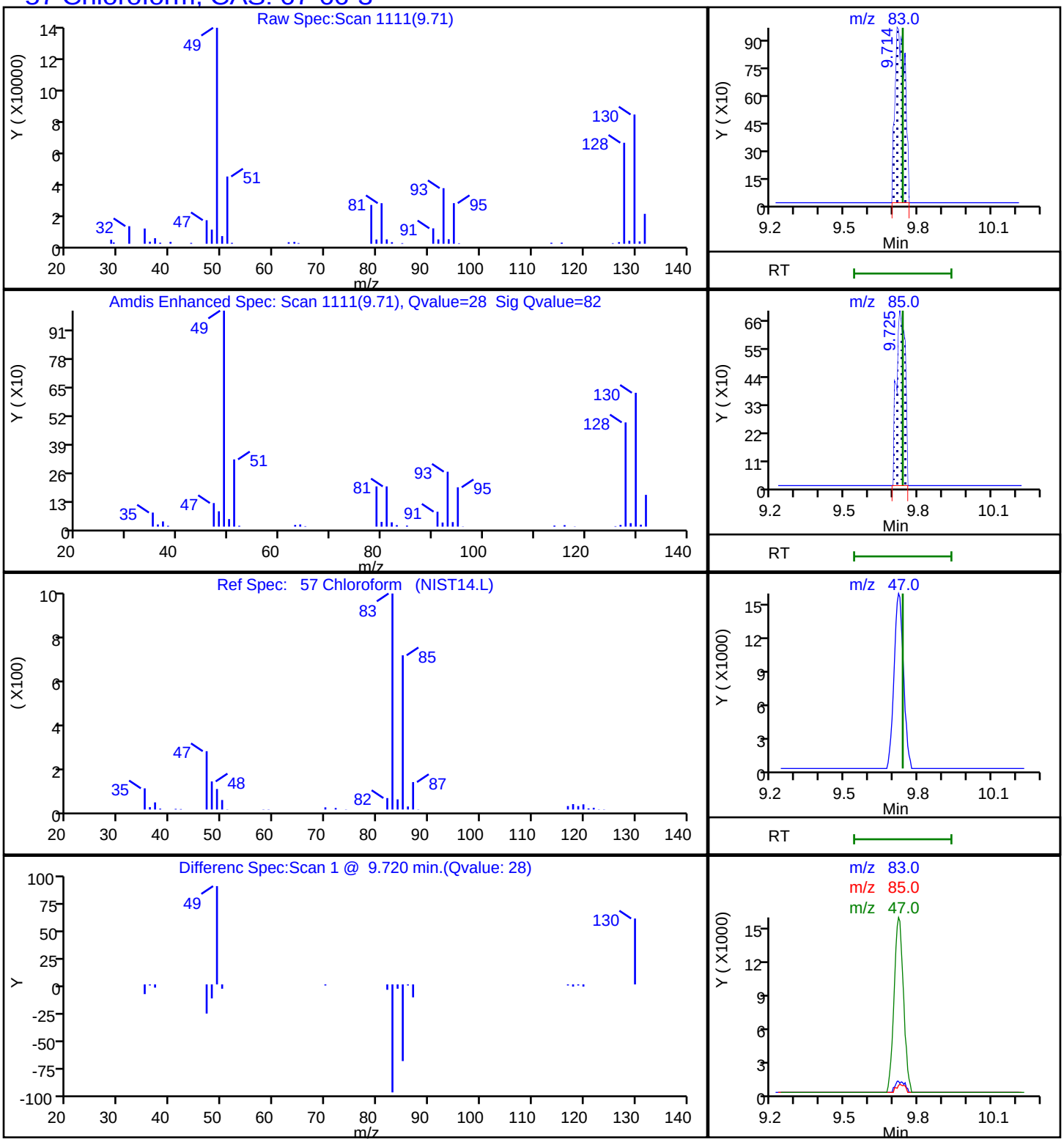
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

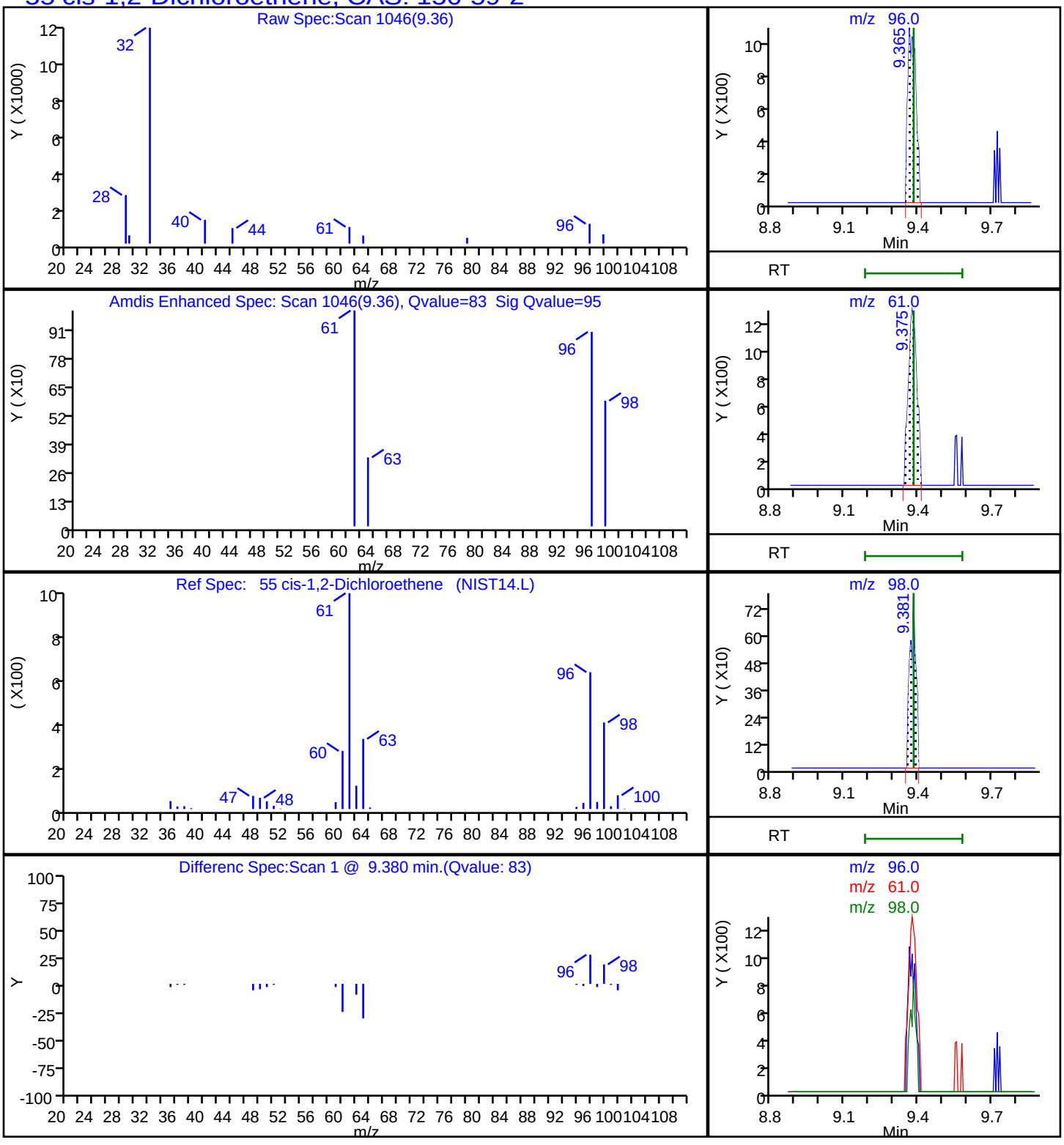
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D				
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7		
Client ID:	SV-093-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2



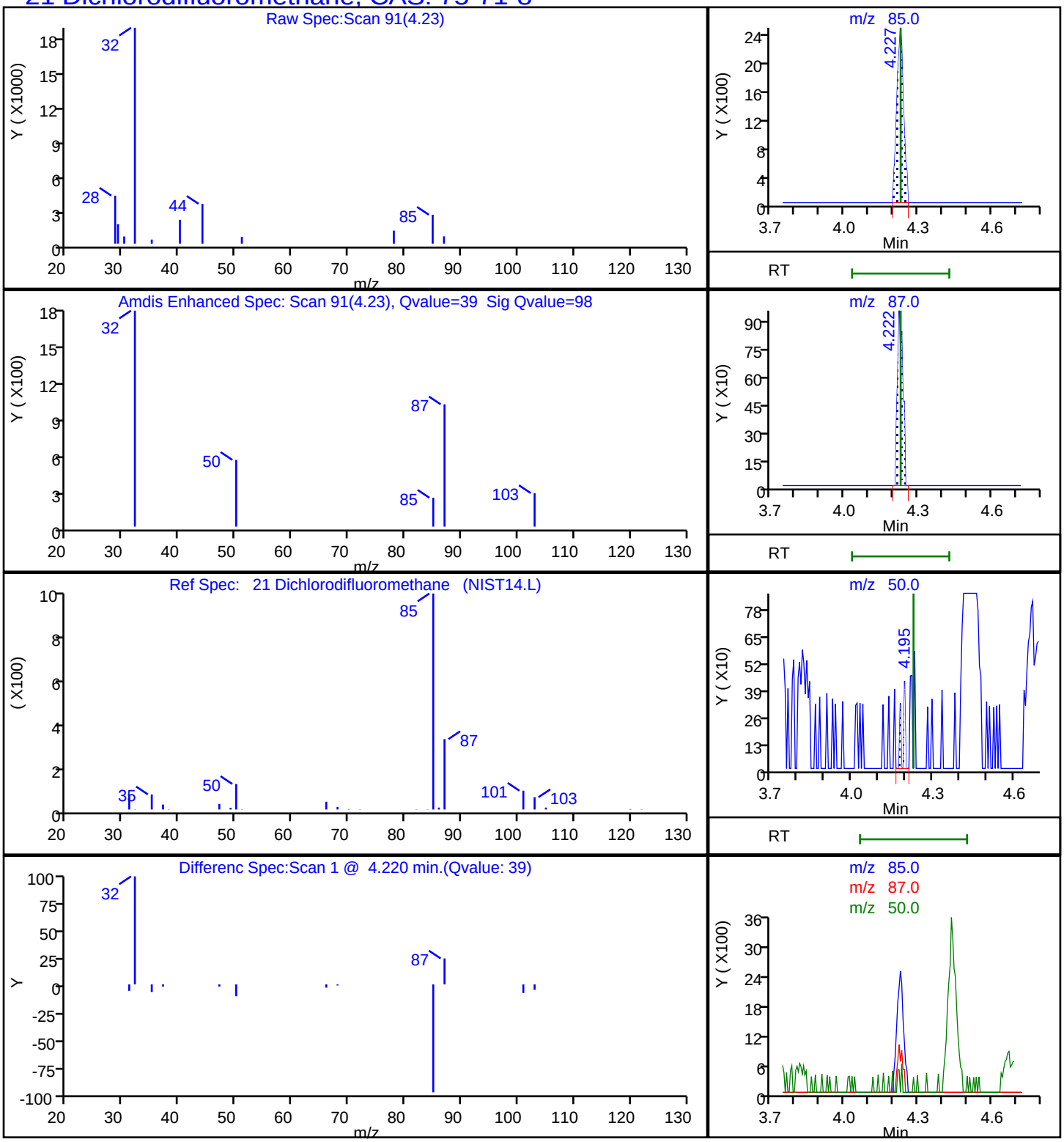
Report Date: 22-Aug-2019 15:39:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D

Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7		
Client ID:	SV-093-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

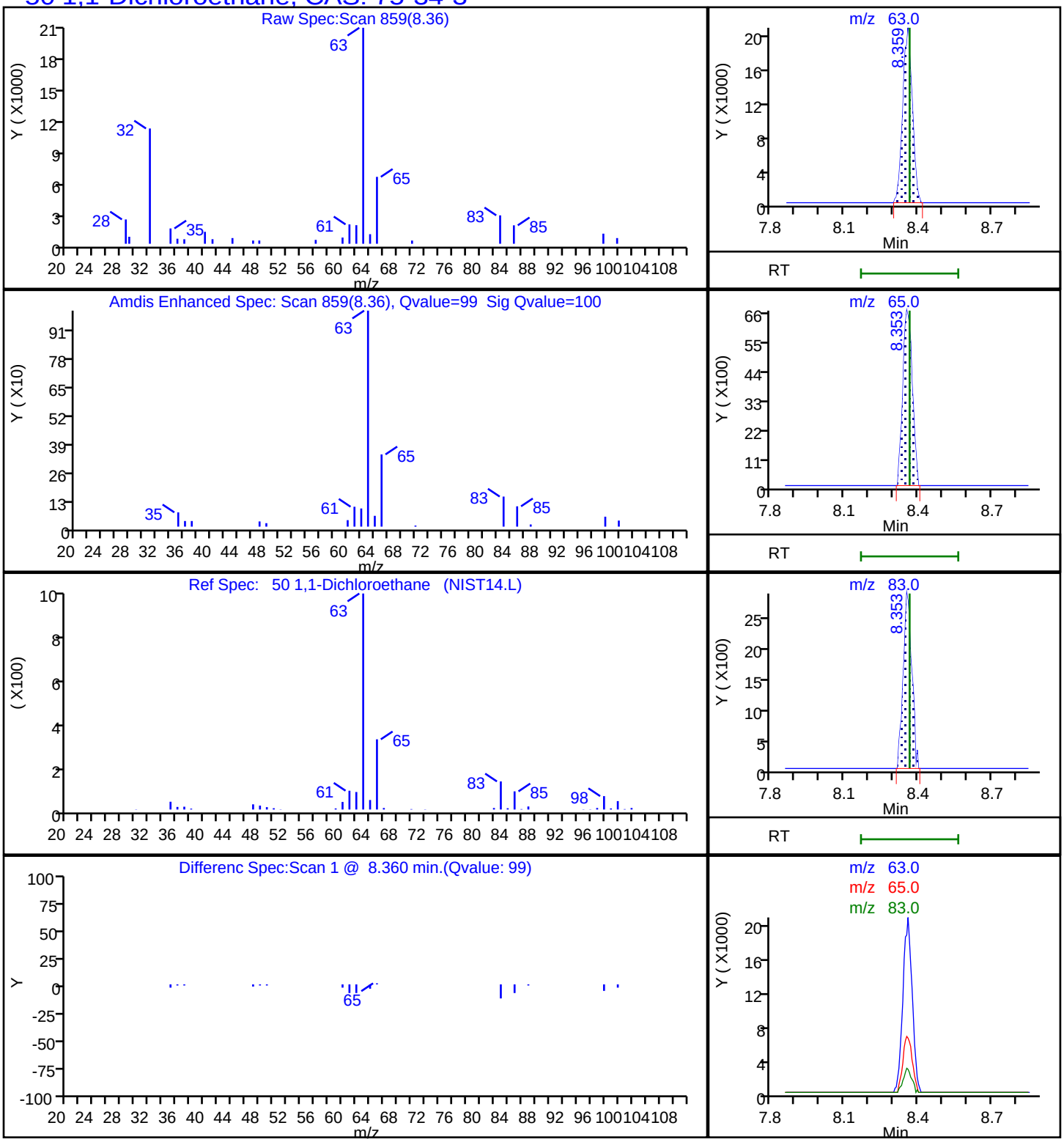


Report Date: 22-Aug-2019 15:39:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 1,1-Dichloroethane, CAS: 75-34-3

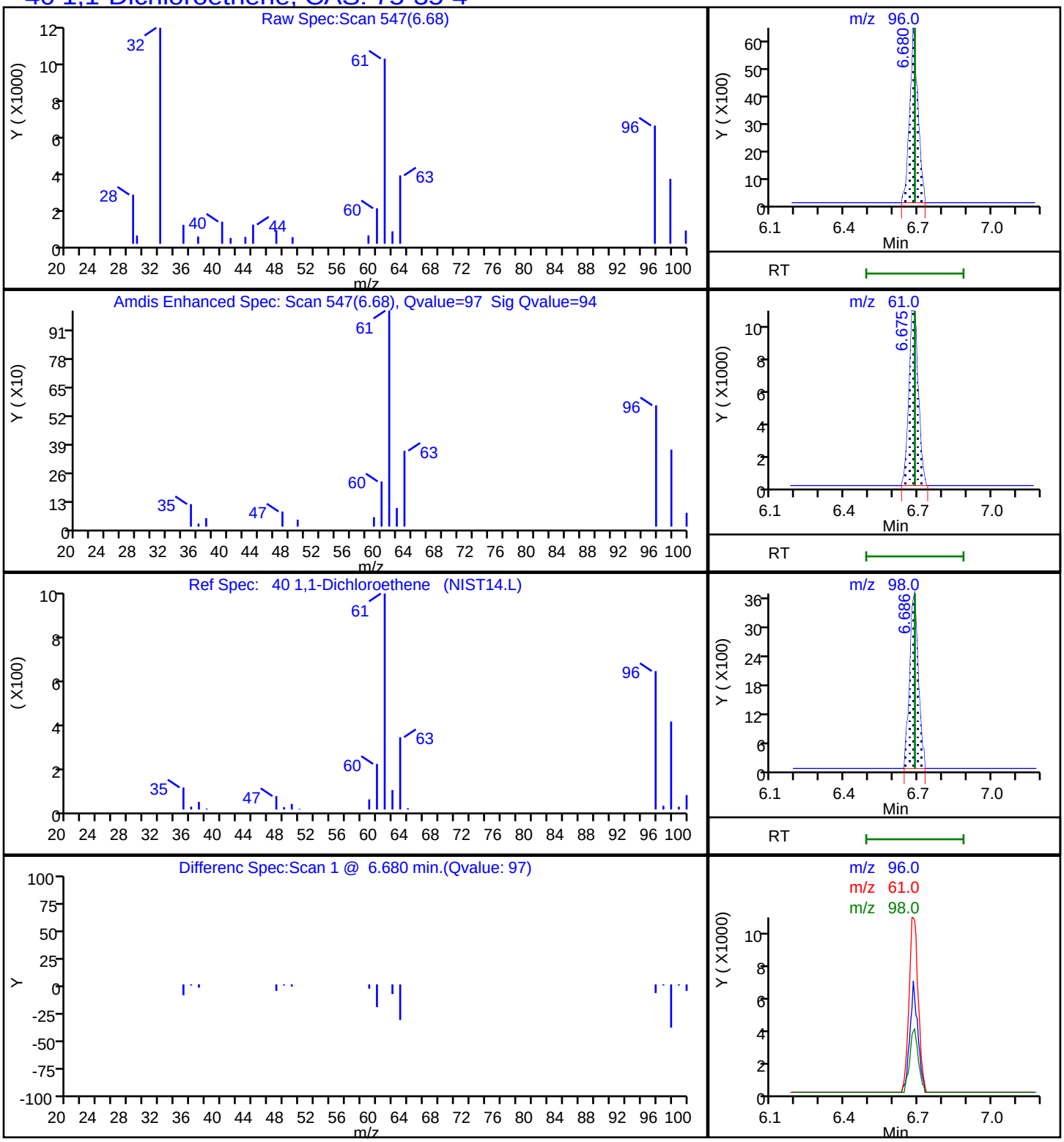


Report Date: 22-Aug-2019 15:39:00 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D				
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7		
Client ID:	SV-093-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

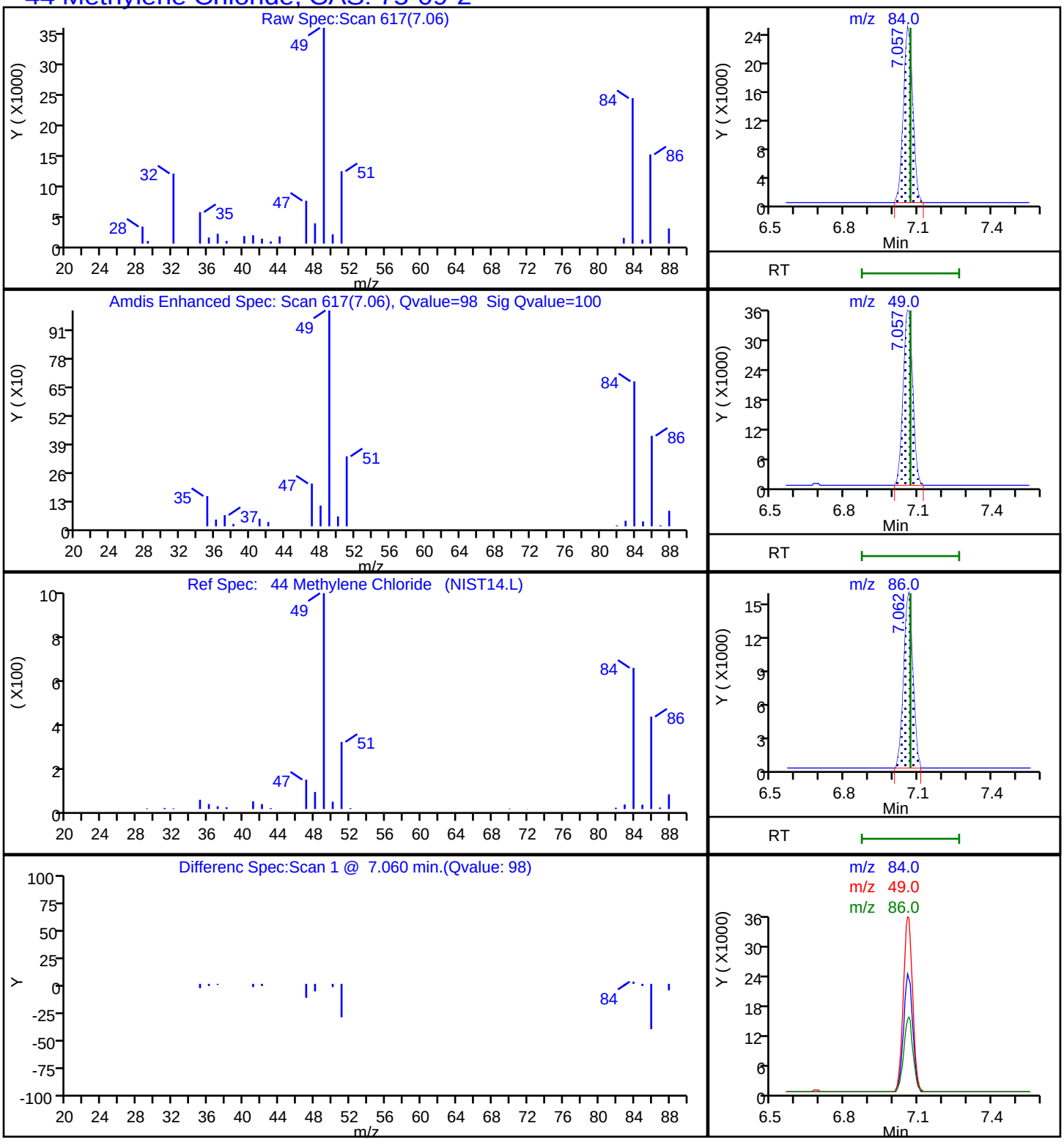
40 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

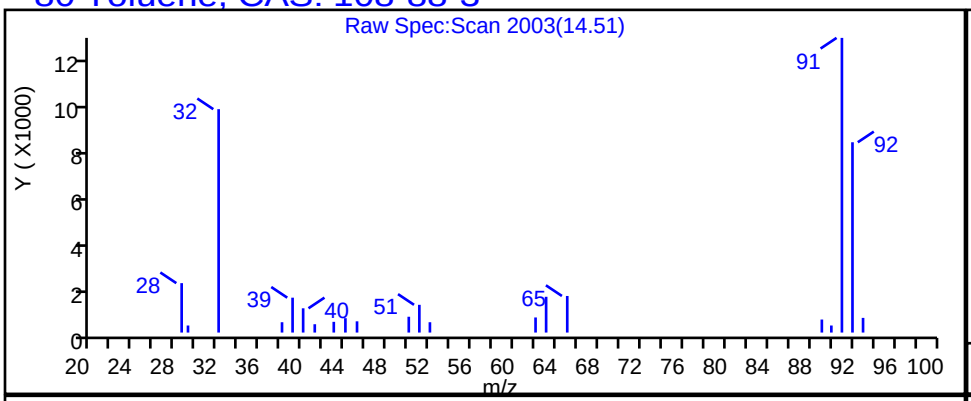
44 Methylene Chloride, CAS: 75-09-2

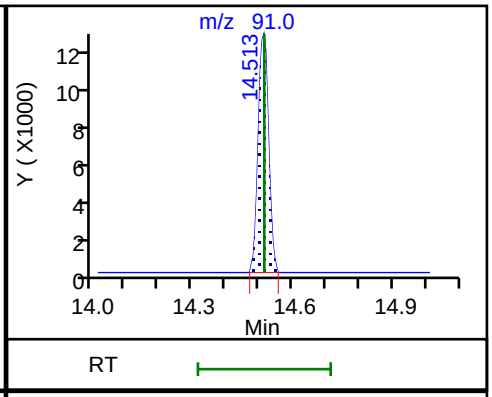


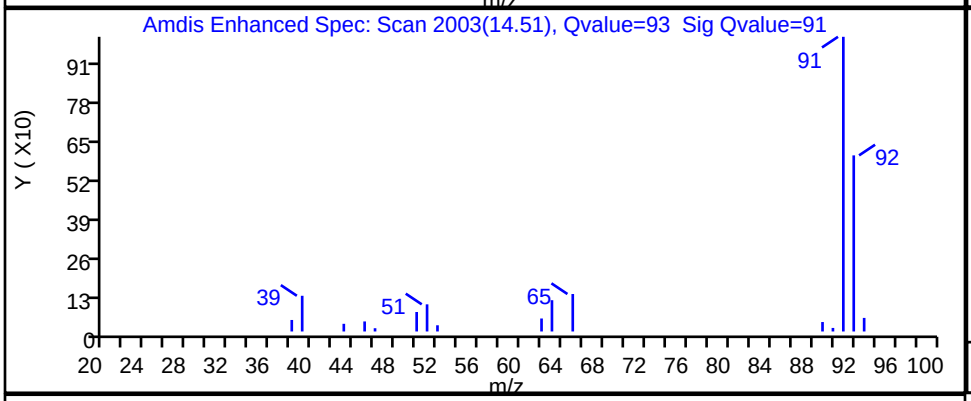
Eurofins TestAmerica, Knoxville

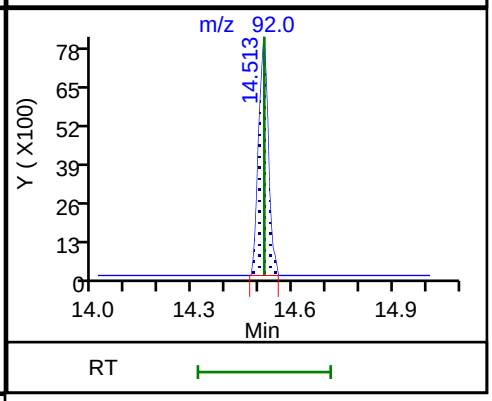
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

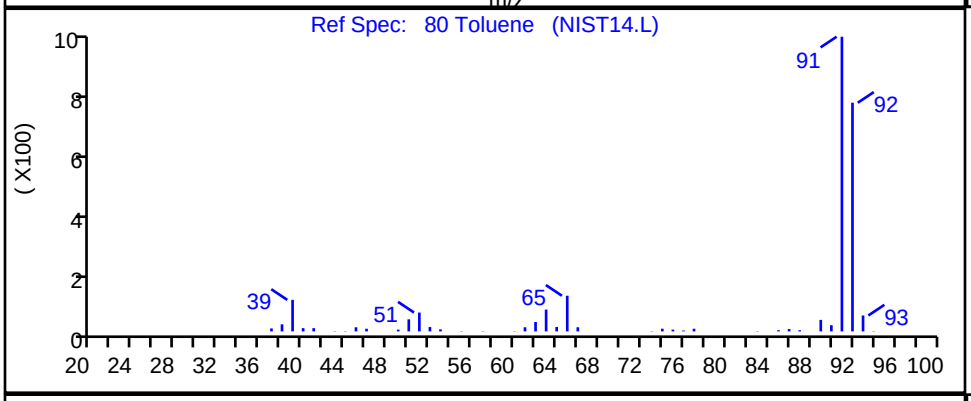
80 Toluene, CAS: 108-88-3

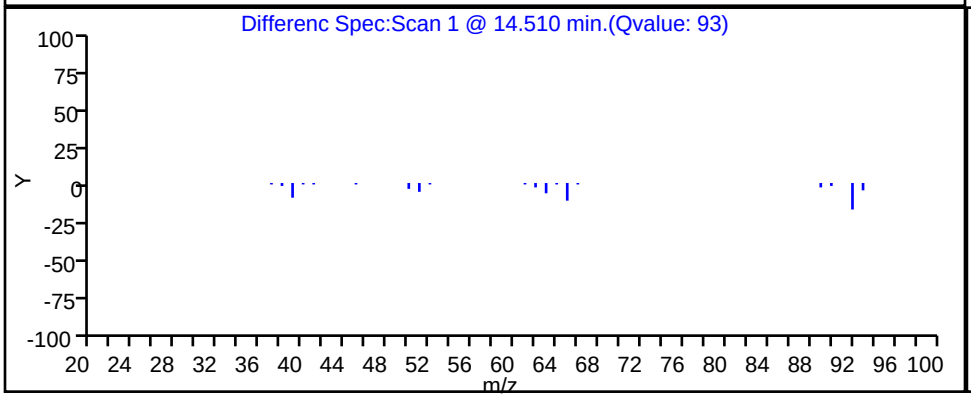


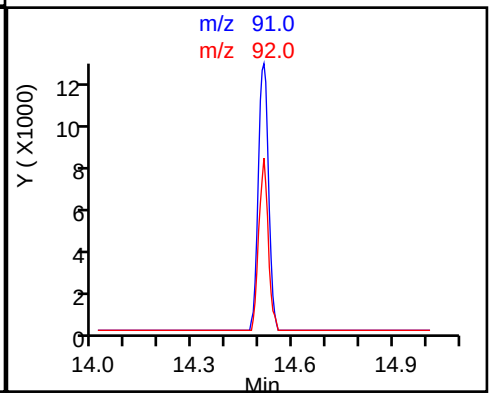








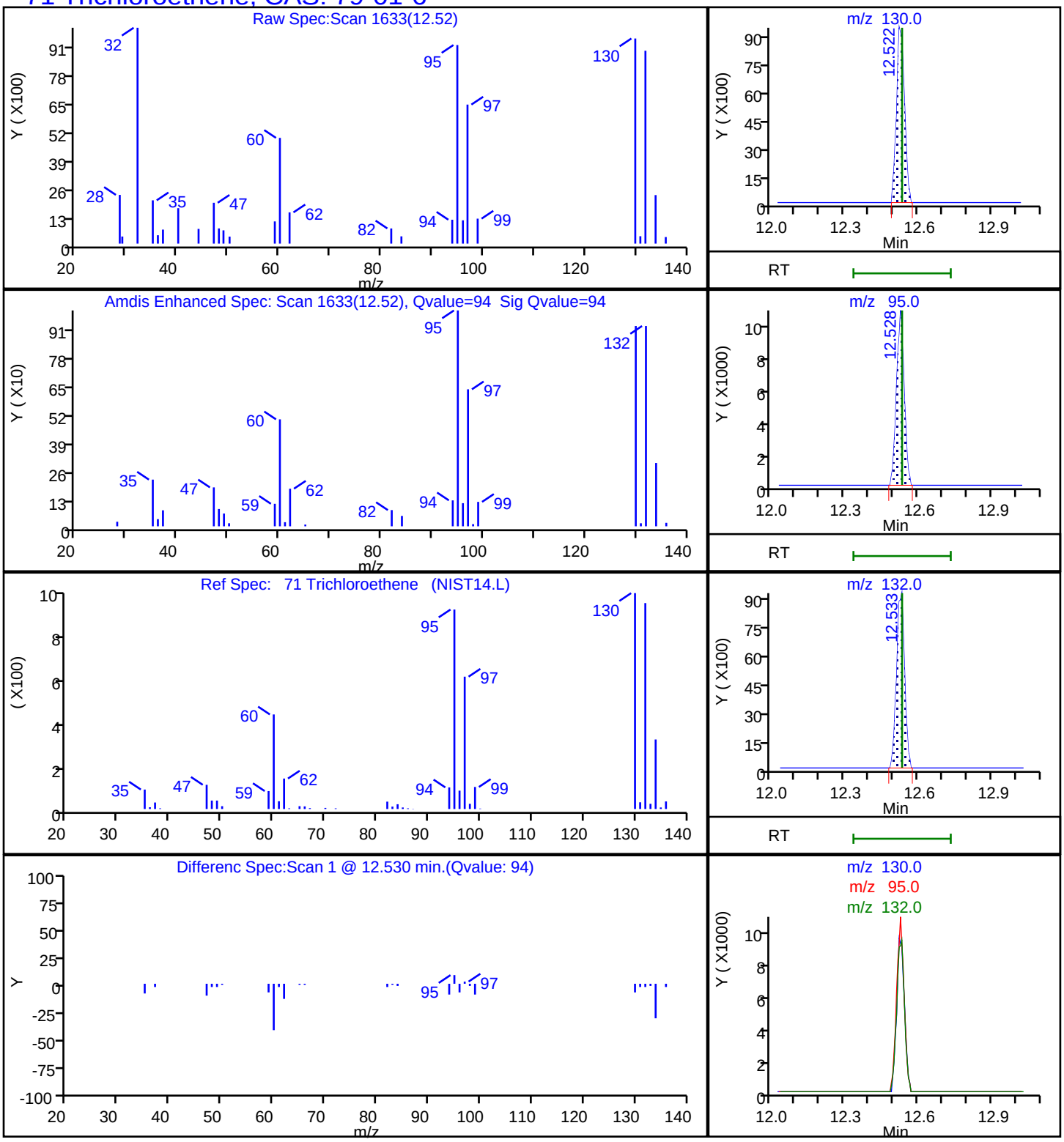




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



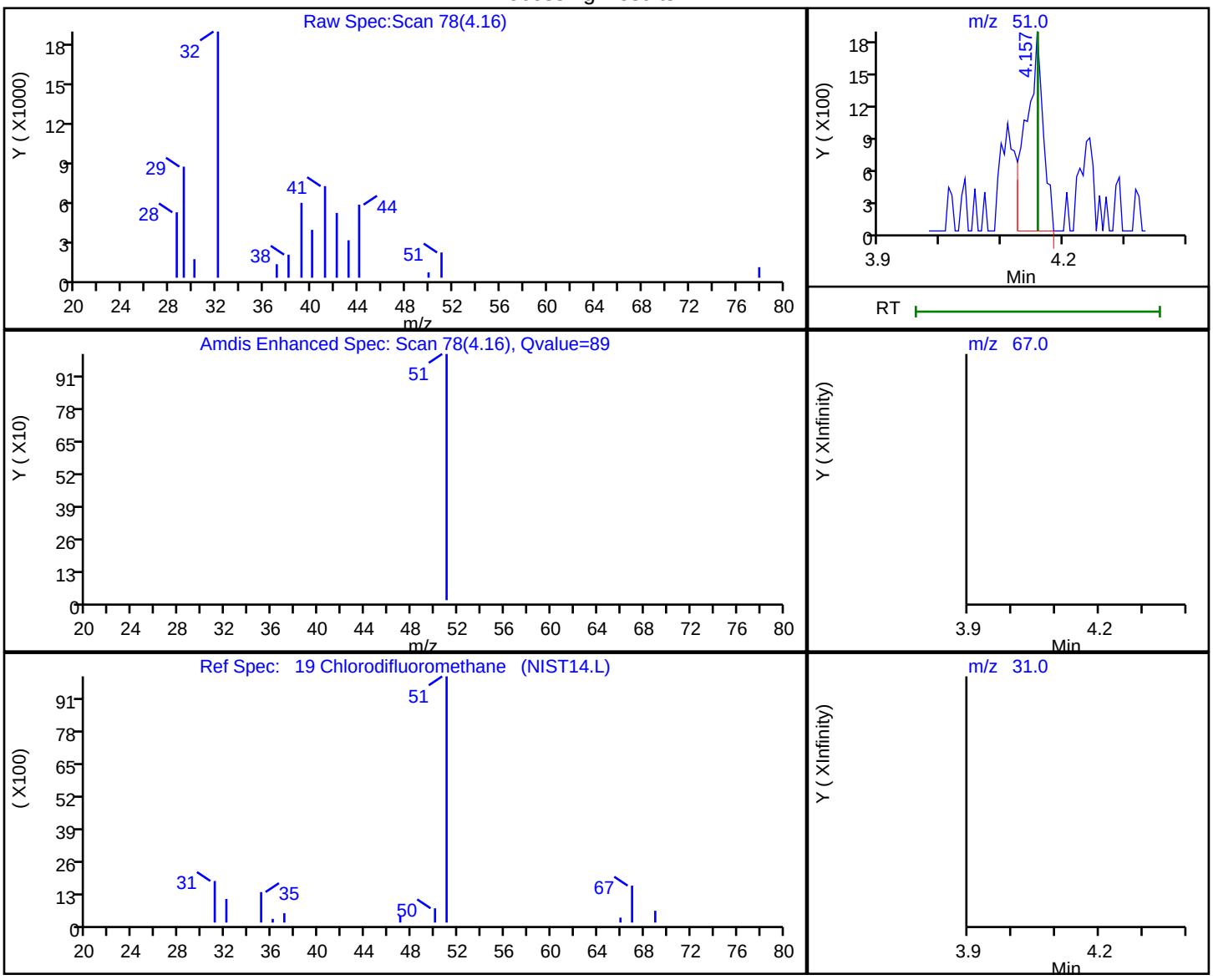
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D				
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7		
Client ID:	SV-093-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.16	51.00	3507	0.071759
4.16	67.00	0	
4.16	31.00	0	

Reviewer: khachitpongpanits, 22-Aug-2019 15:38:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville

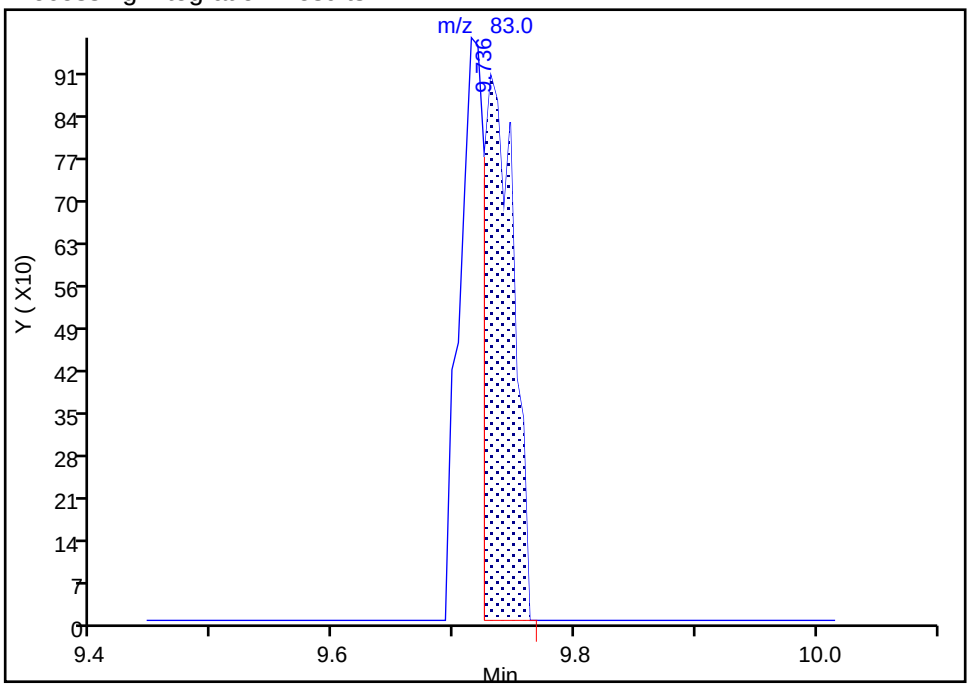
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P113.D		
Injection Date:	22-Aug-2019 03:02:30	Instrument ID:	MJ
Lims ID:	140-16377-A-7	Lab Sample ID:	140-16377-7
Client ID:	SV-093-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

Signal: 1

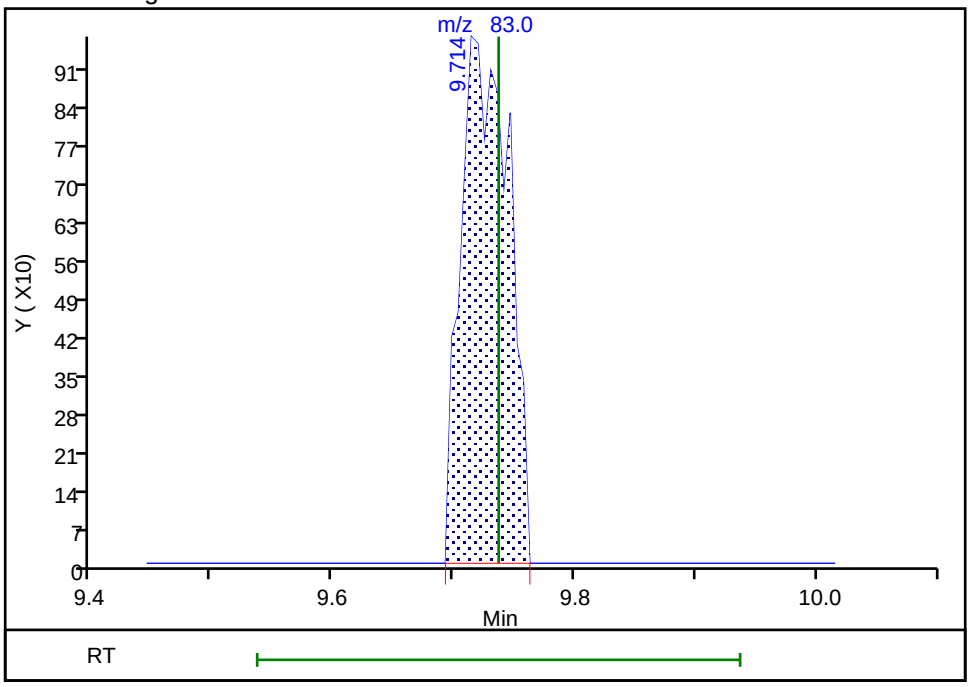
Processing Integration Results

RT: 9.74
Area: 1542
Amount: 0.010625
Amount Units: ppb v/v



Manual Integration Results

RT: 9.71
Area: 2679
Amount: 0.018459
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 22-Aug-2019 15:38:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.44		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	12		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.33	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.12	J	0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.095	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.1		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	63		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.19	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.63	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	10		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.8		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	49		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.4	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	27	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.78	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.38	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	6.2		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	340		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.93	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D
Lims ID: 140-16377-A-8
Client ID: SV-170-A-27
Sample Type: Client
Inject. Date: 22-Aug-2019 05:31:30 ALS Bottle#: 14 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-022
Misc. Info.: 140-16377-a-8
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 17:26:27 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 17:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.731	-0.005	94	243075	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.840	-0.005	95	1247288	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	88	1034214	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.042	0.000	95	657441	3.46	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	34	5058	0.0761	M
21 Dichlorodifluoromethane	85	4.239	4.226	0.011	97	6469	0.0850	
40 1,1-Dichloroethene	96	6.687	6.683	0.000	98	185067	2.48	
44 Methylene Chloride	84	7.069	7.065	0.000	97	141705	1.55	
47 trans-1,2-Dichloroethene	96	7.929	7.920	0.005	45	1422	0.0191	
50 1,1-Dichloroethane	63	8.360	8.361	-0.005	98	14734	0.0887	
55 cis-1,2-Dichloroethene	96	9.377	9.377	-0.005	95	40579	0.5281	
57 Chloroform	83	9.732	9.732	-0.005	28	5116	0.0259	
60 1,1,1-Trichloroethane	97	10.754	10.759	-0.010	95	48152	0.2269	
64 Benzene	78	11.335	11.330	0.001	90	7262	0.0318	
65 Carbon tetrachloride	117	11.362	11.351	0.006	86	2430	0.0127	
71 Trichloroethene	130	12.529	12.529	-0.005	94	1309959	12.7	
80 Toluene	91	14.509	14.509	-0.005	93	20132	0.0806	
86 Tetrachloroethene	129	15.638	15.628	0.005	90	2309	0.0230	
89 Ethylbenzene	91	16.768	16.762	0.000	99	21255	0.0660	
90 m-Xylene & p-Xylene	91	16.919	16.918	-0.005	99	101563	0.4114	
94 o-Xylene	91	17.446	17.445	-0.005	98	72221	0.2751	
105 1,2,4-Trimethylbenzene	105	19.140	19.134	0.000	96	11473	0.0379	
S 129 Xylenes, Total	100				0		0.6865	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00004	Amount Added:	40.00	Units: mL	Run Reagent

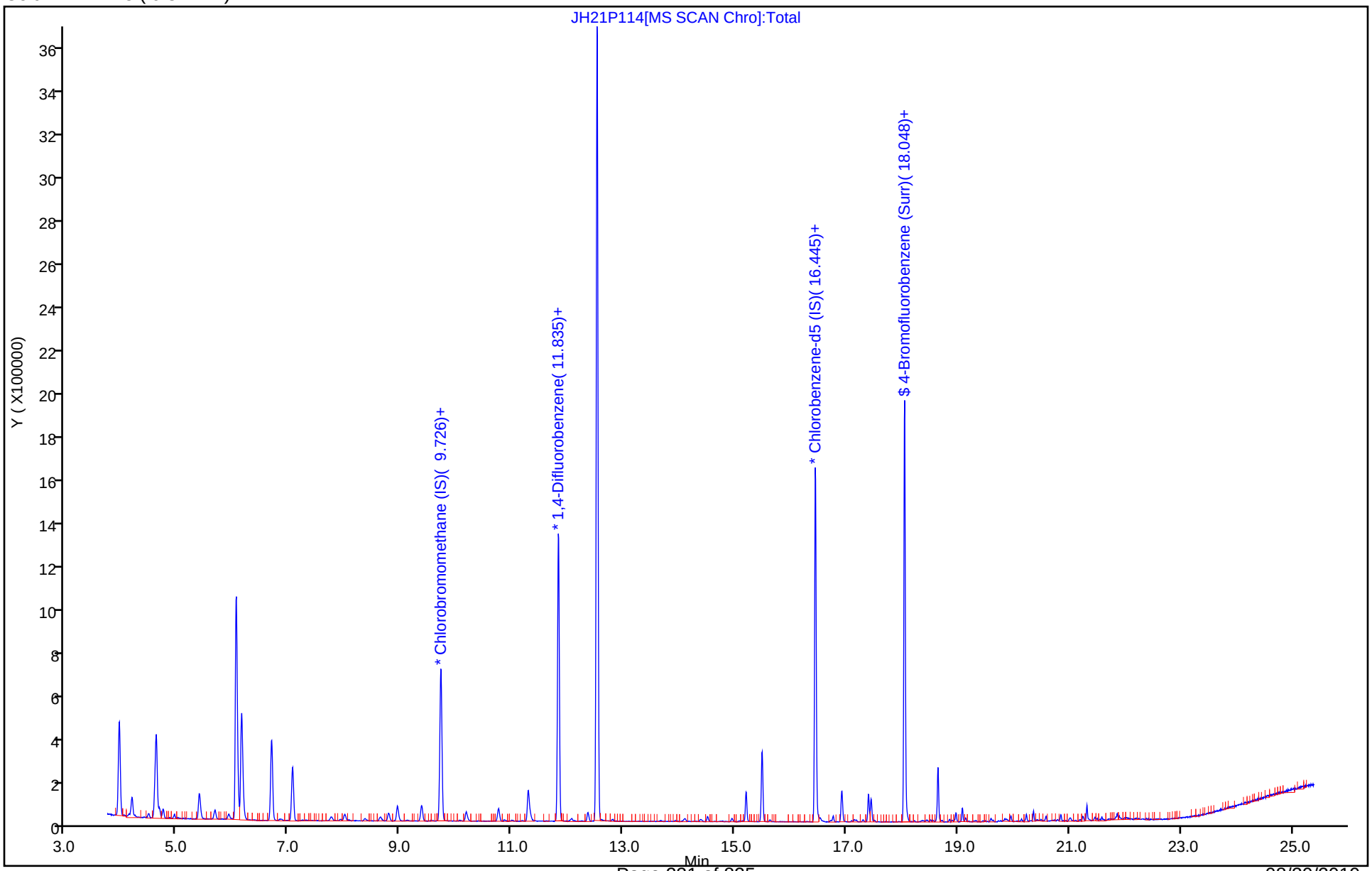
Report Date: 22-Aug-2019 17:26:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D

Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8	Worklist Smp#:	22
Client ID:	SV-170-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D				
Lims ID:	140-16377-A-8				
Client ID:	SV-170-A-27				
Sample Type:	Client				
Inject. Date:	22-Aug-2019 05:31:30	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-022				
Misc. Info.:	140-16377-a-8				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 17:26:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 17:26:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.46	86.47

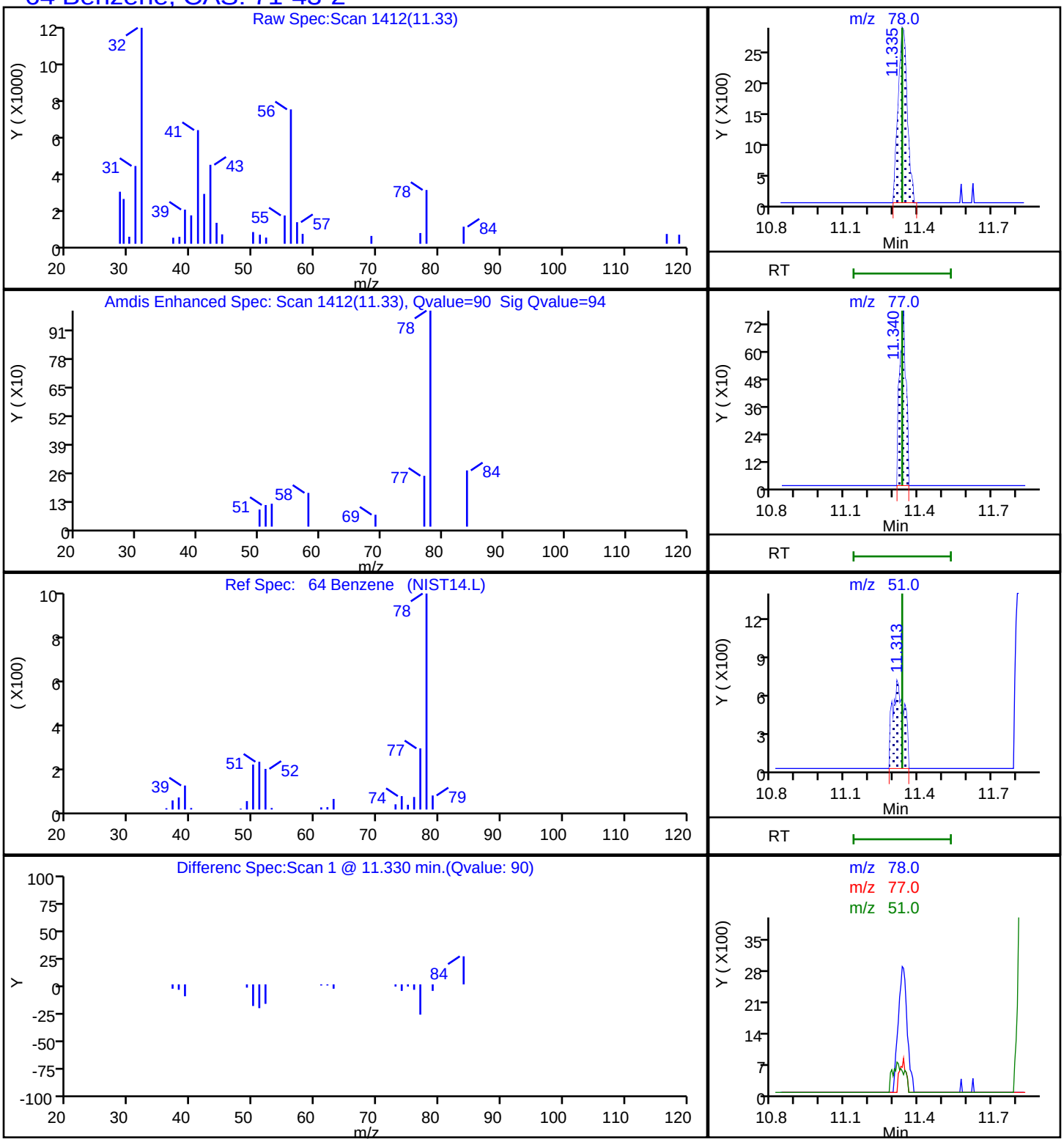
Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D

Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

64 Benzene, CAS: 71-43-2



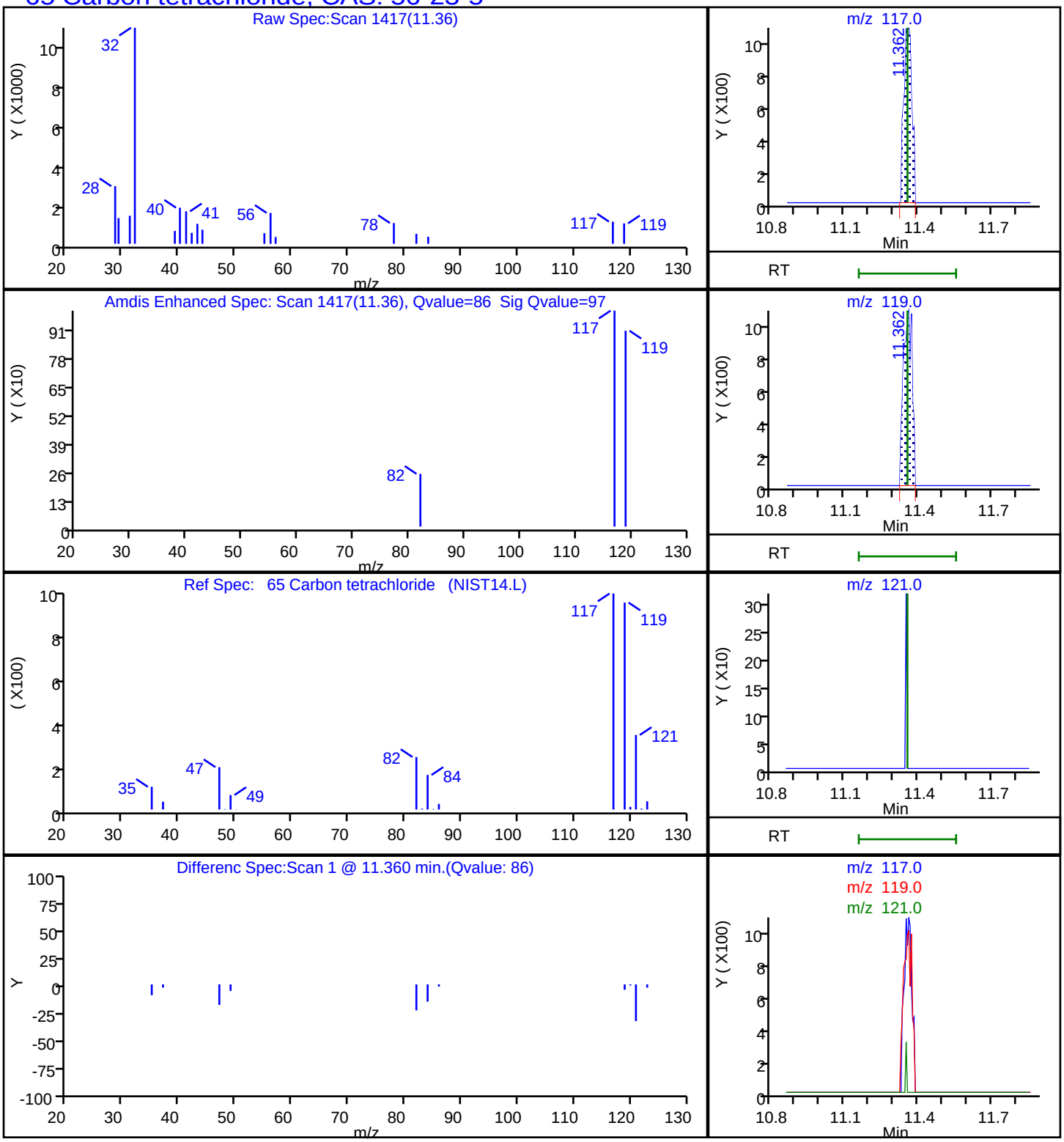
Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D

Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

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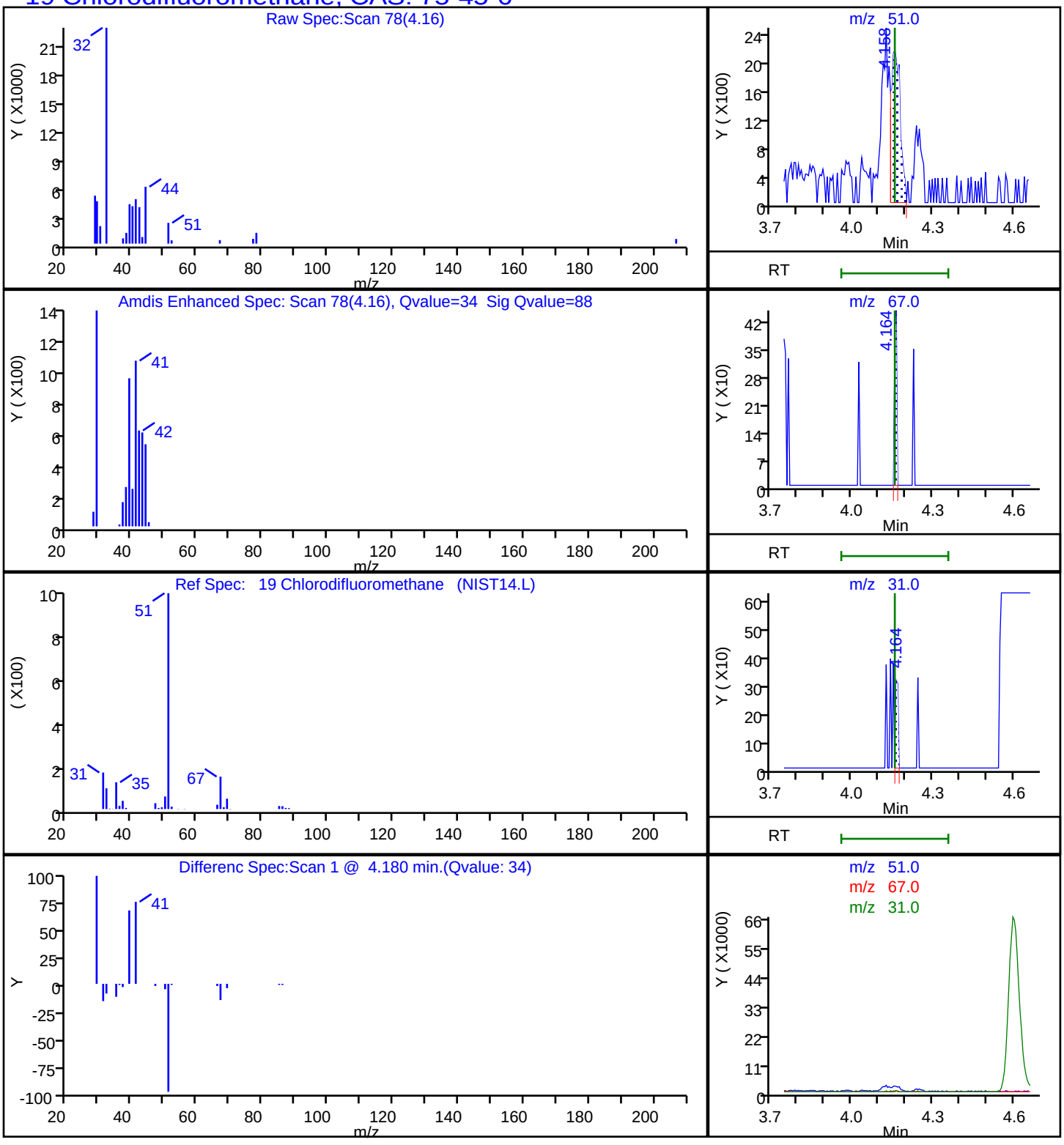
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

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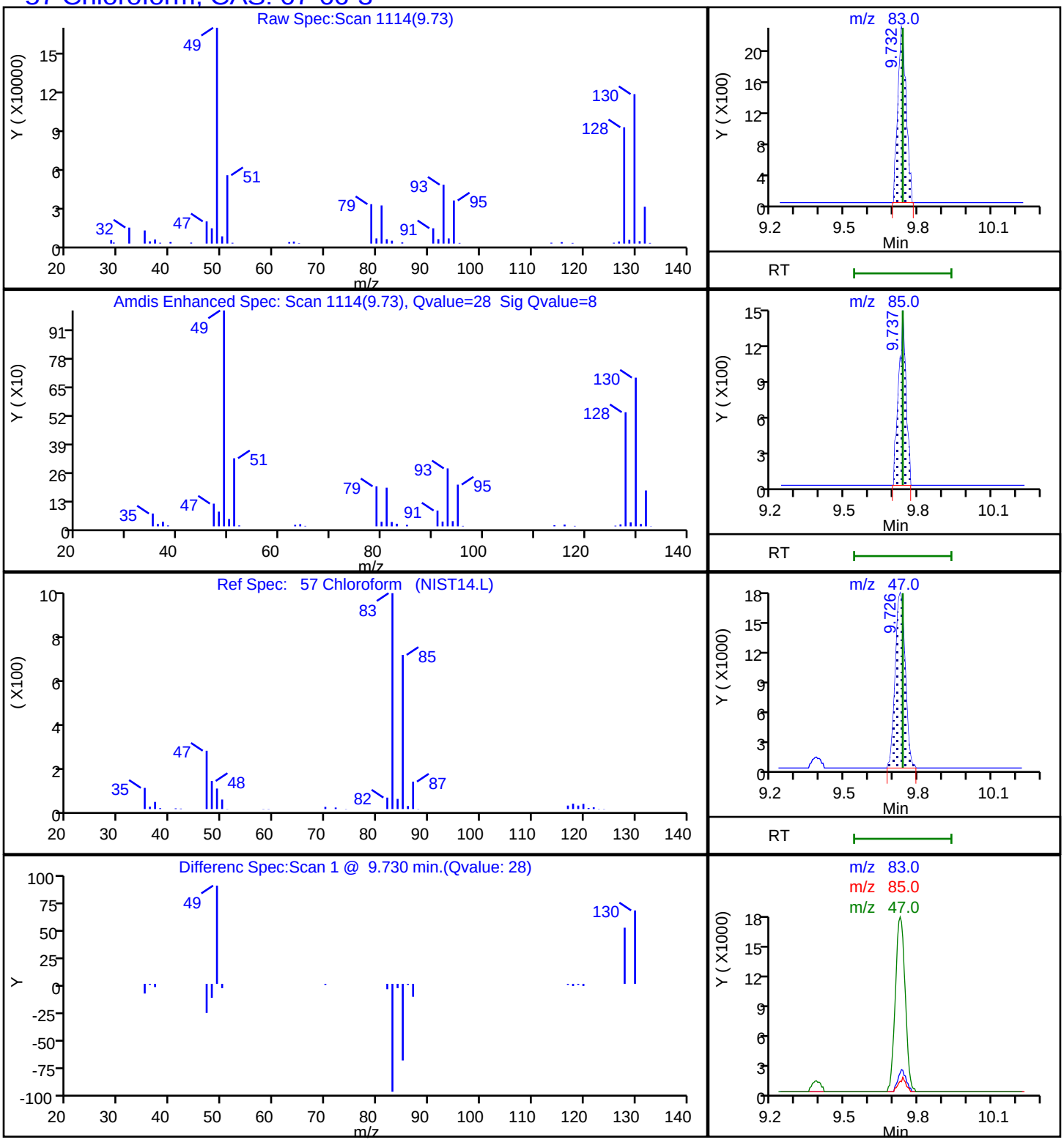
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3



Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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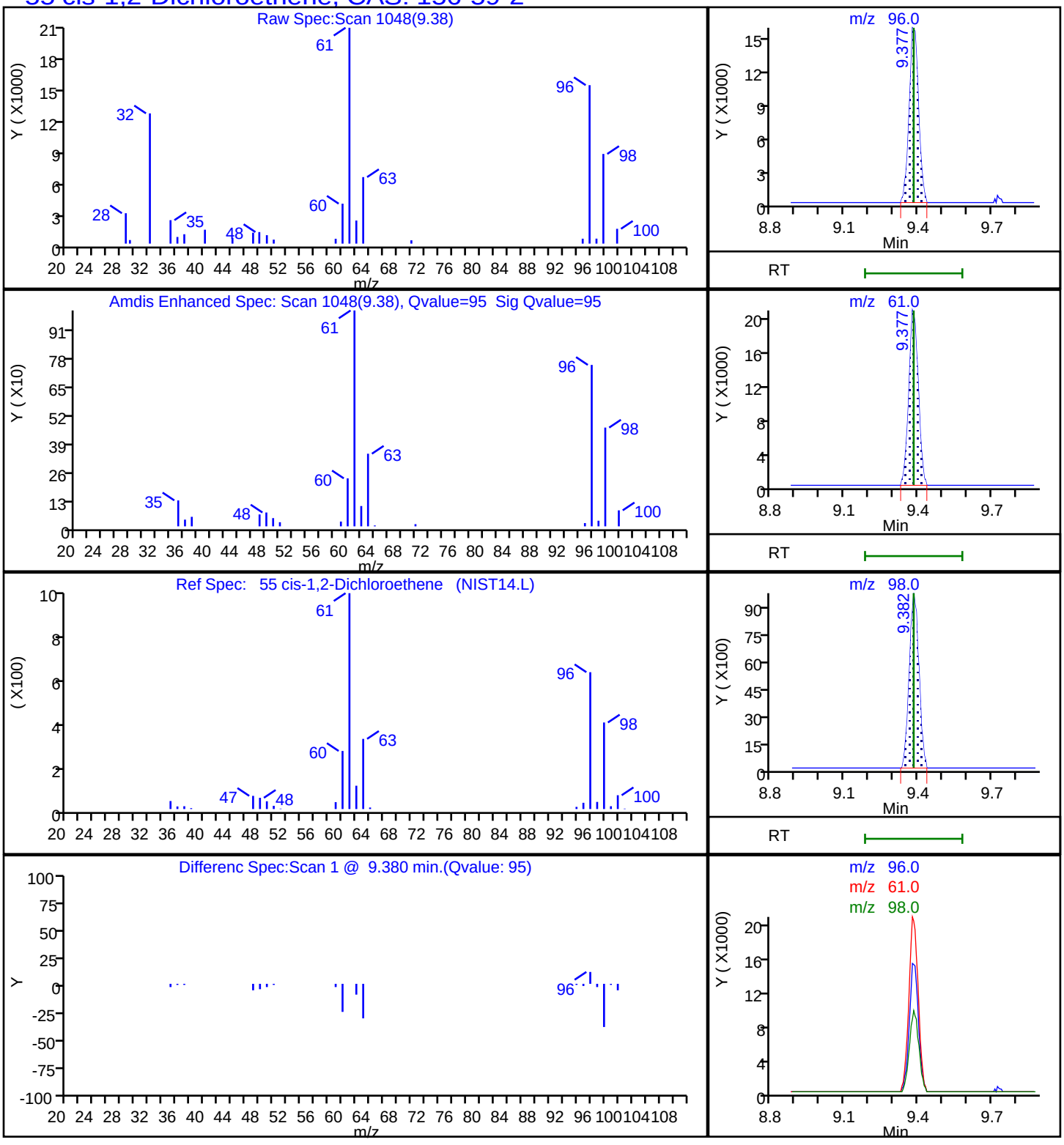
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2

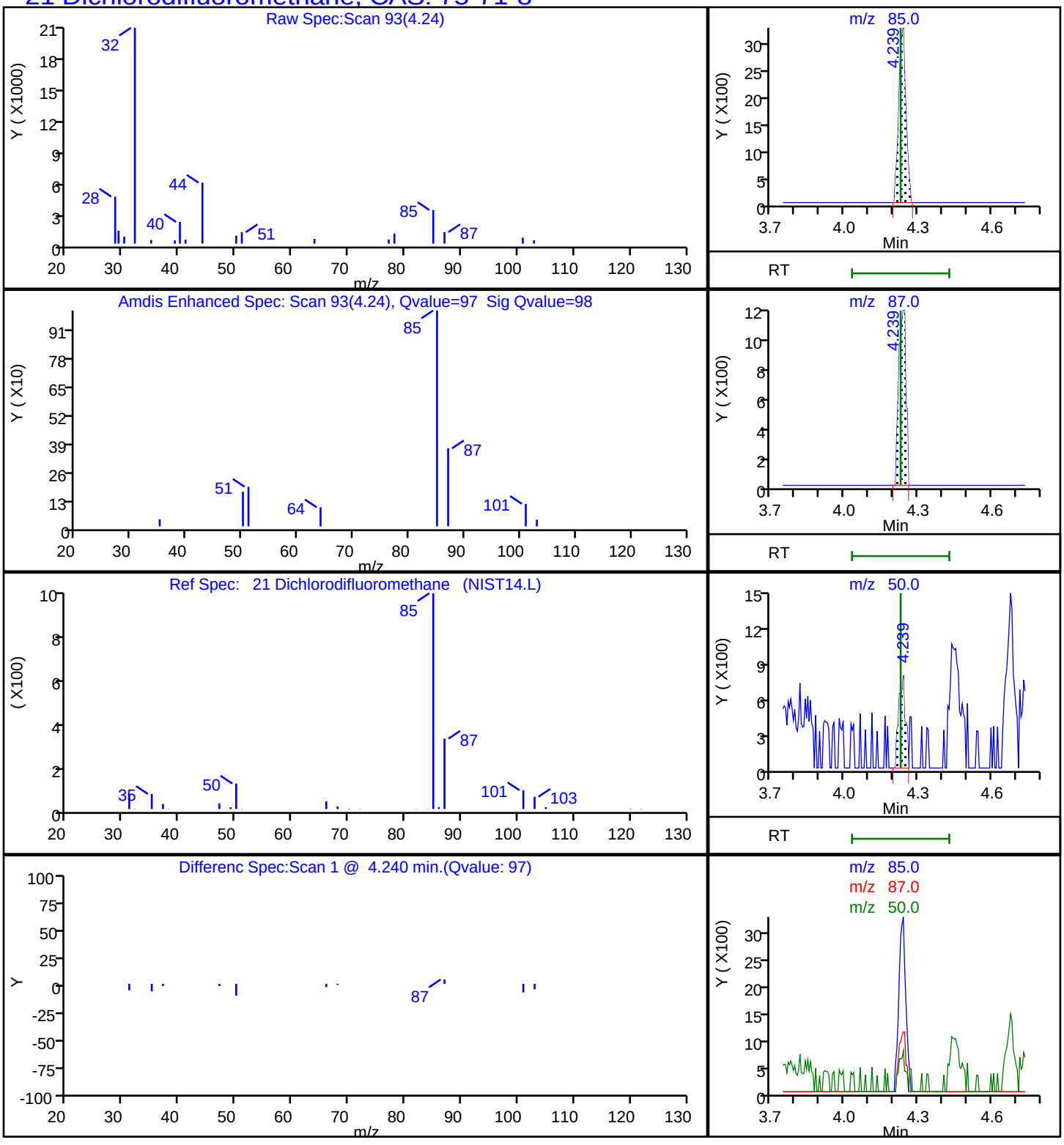


Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D				
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

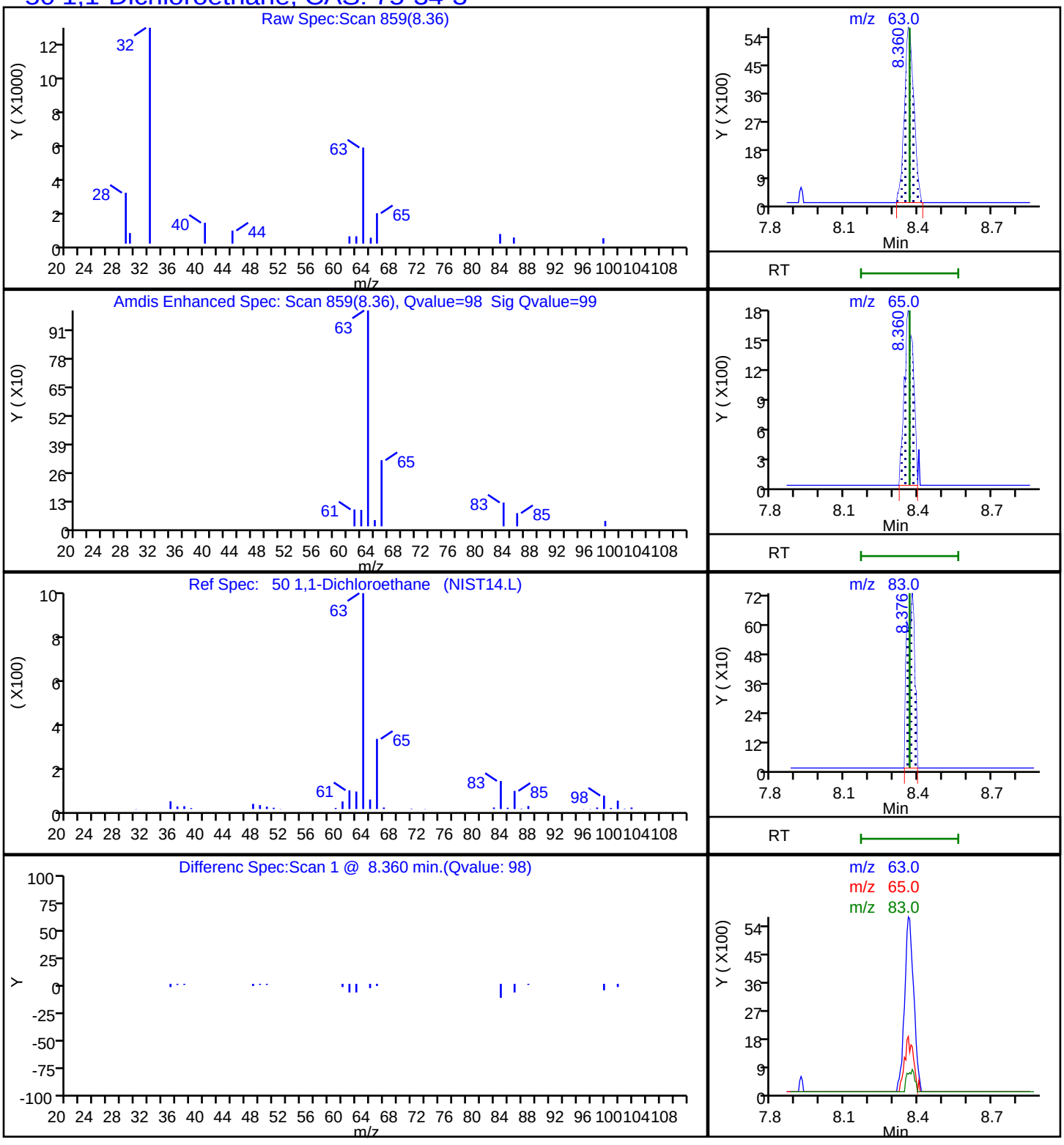


Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

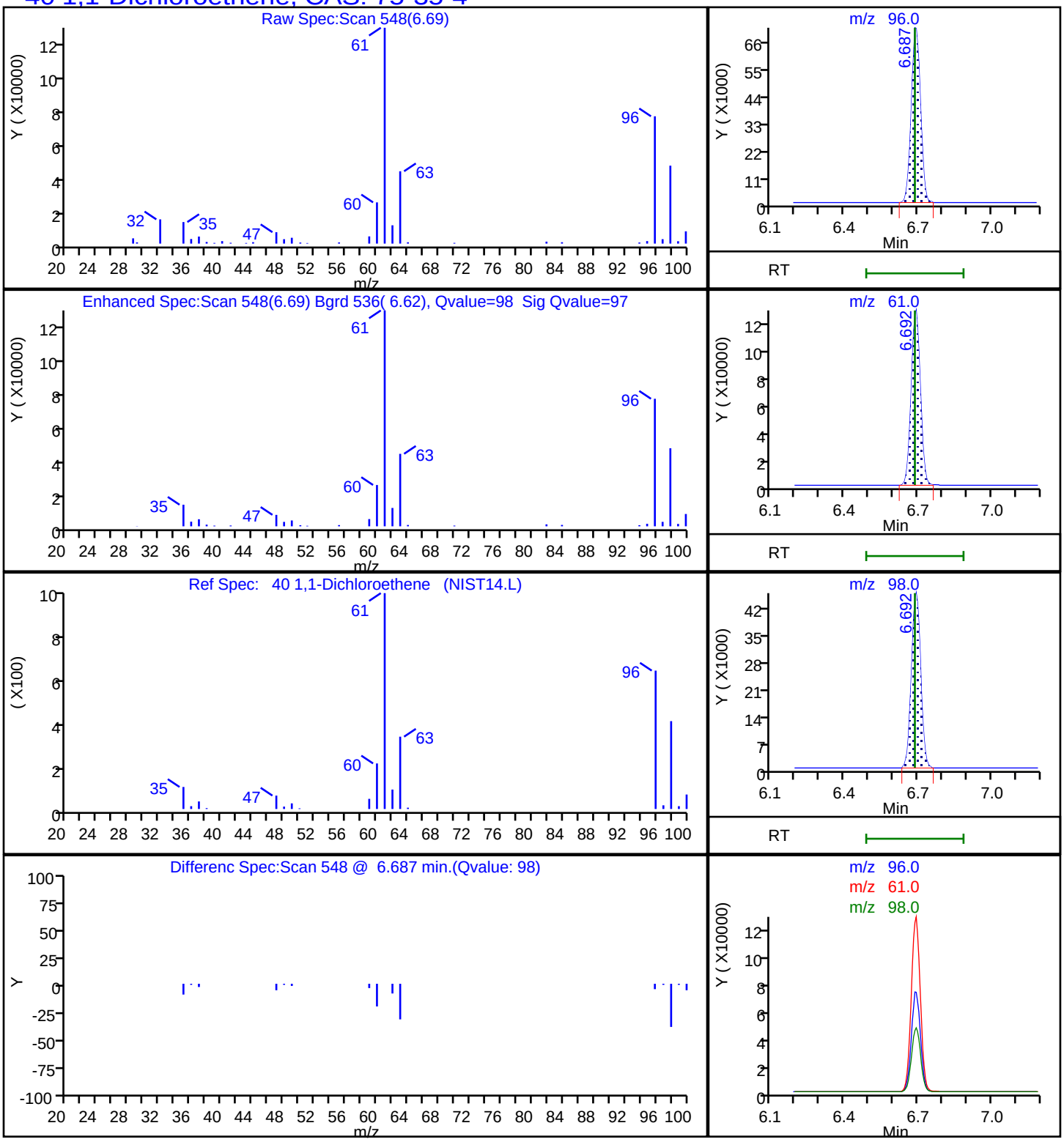
50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

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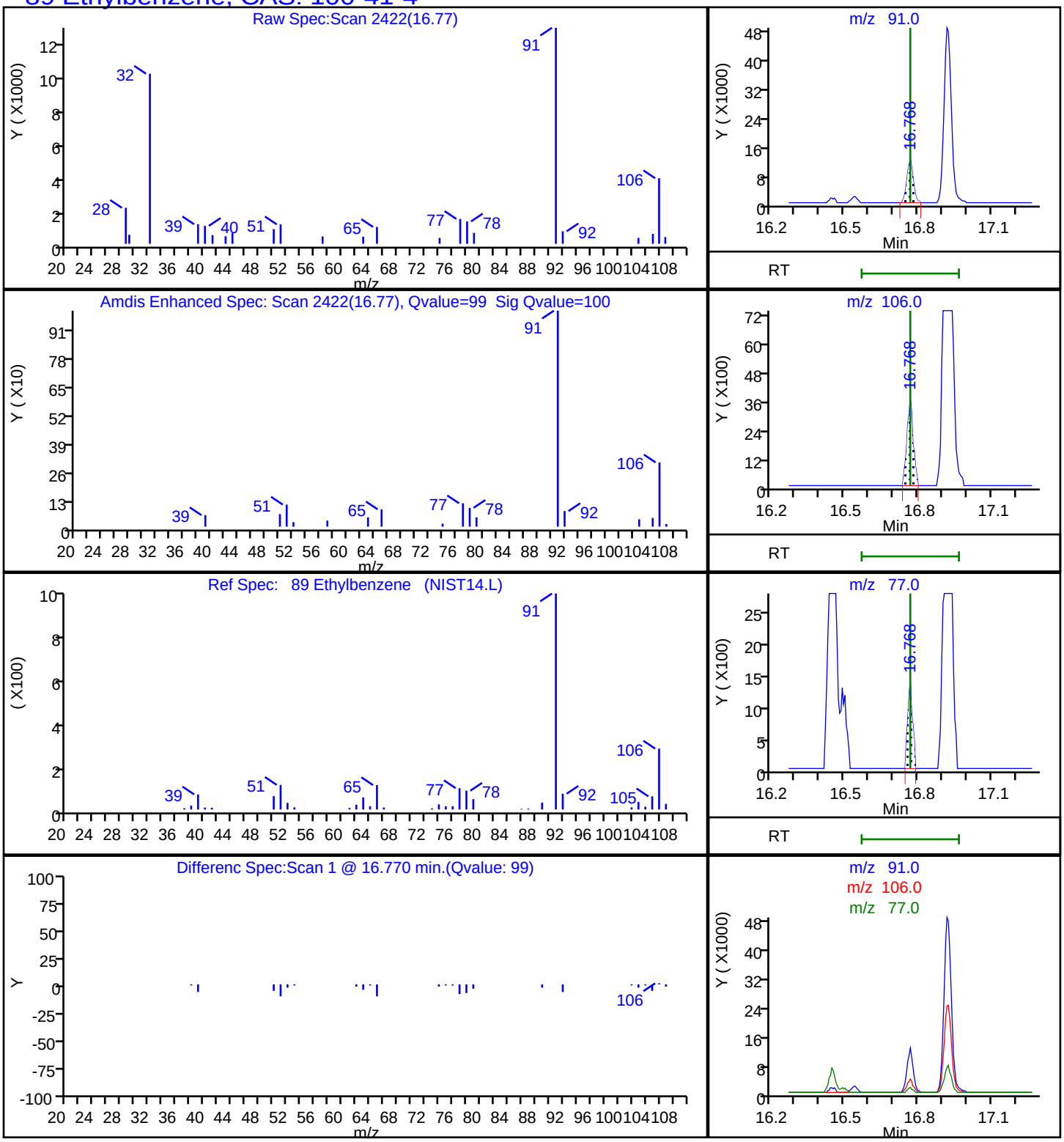
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4



Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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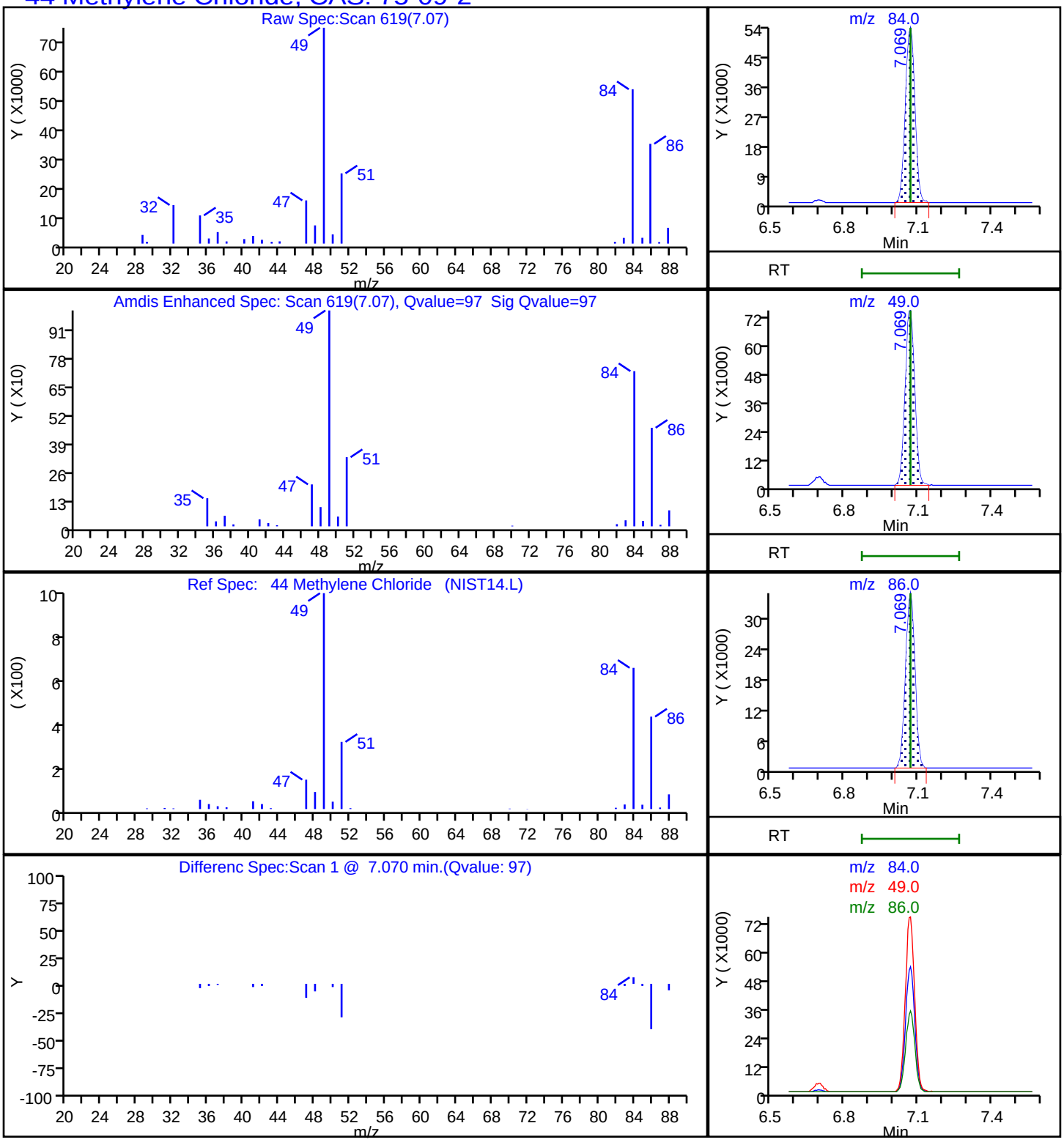
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

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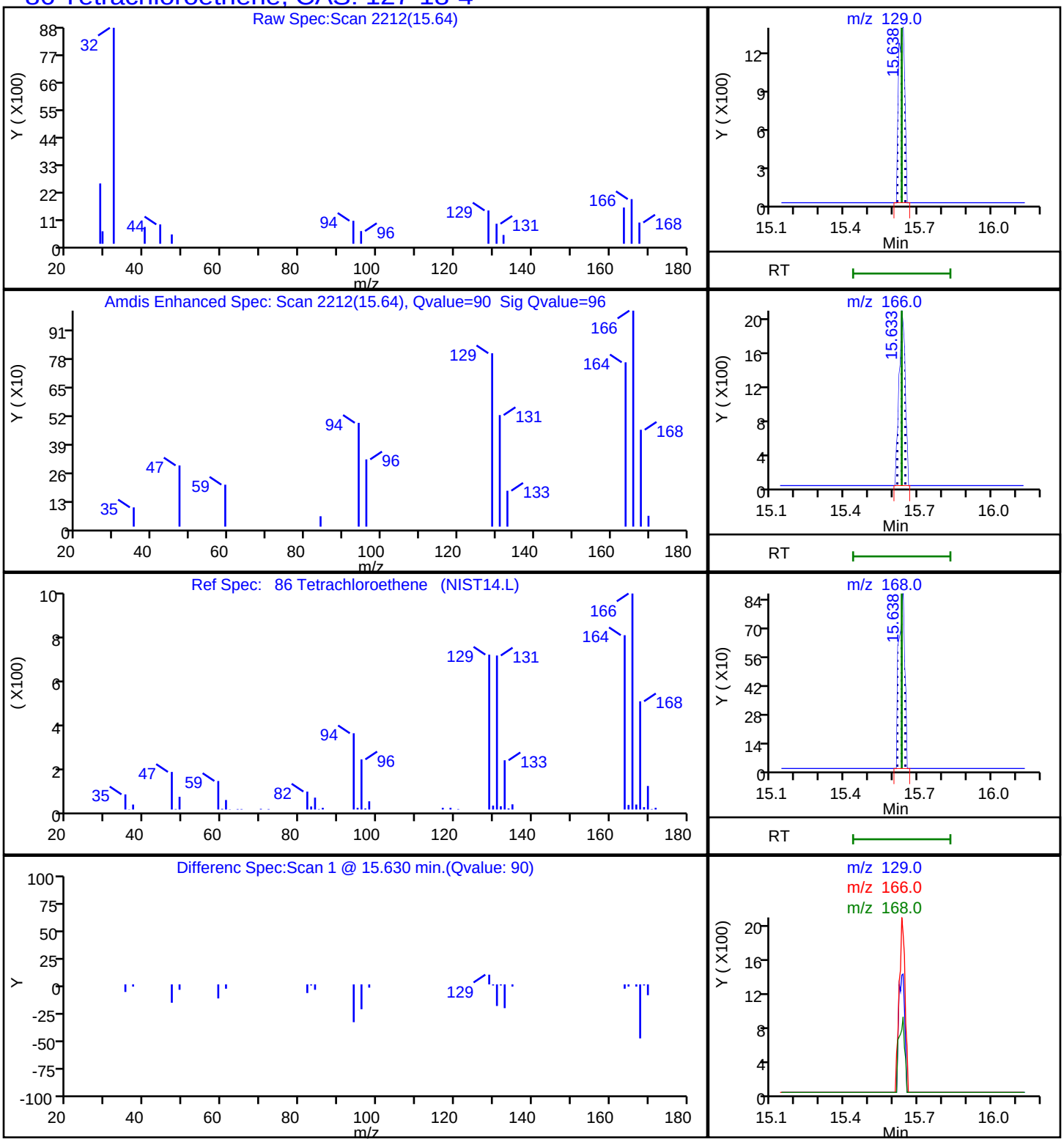
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4

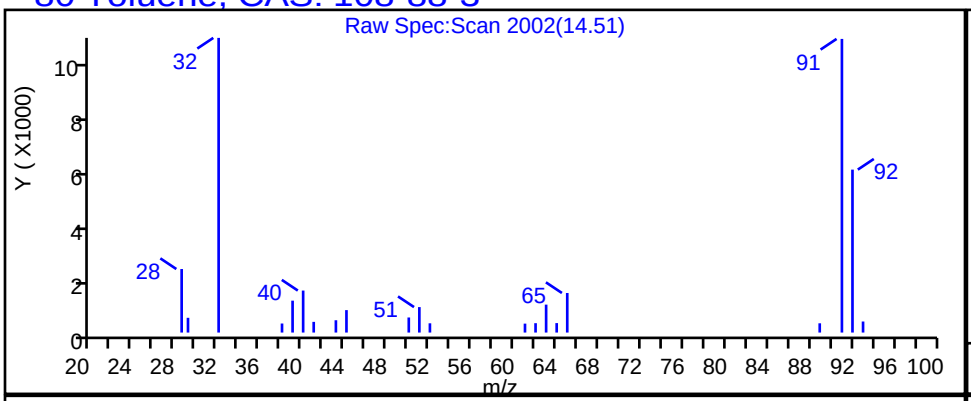


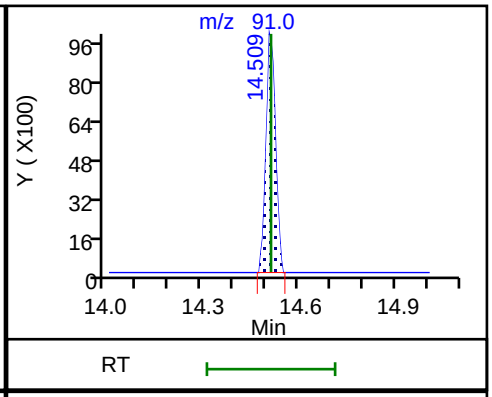
Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

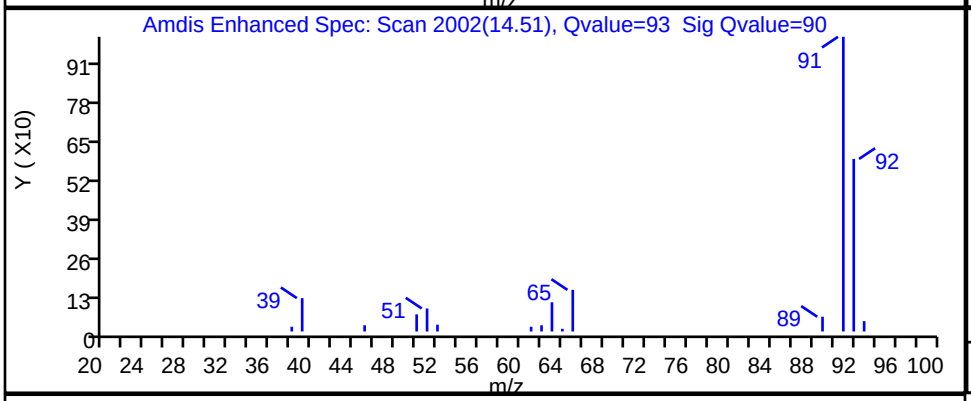
Eurofins TestAmerica, Knoxville

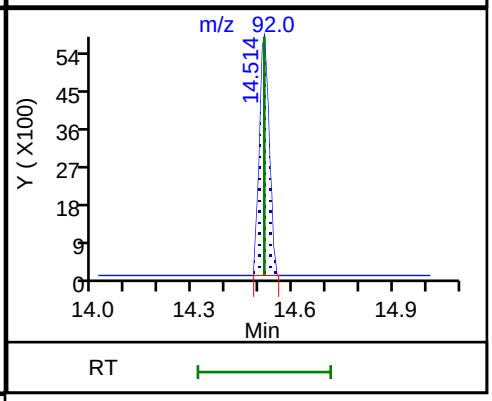
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

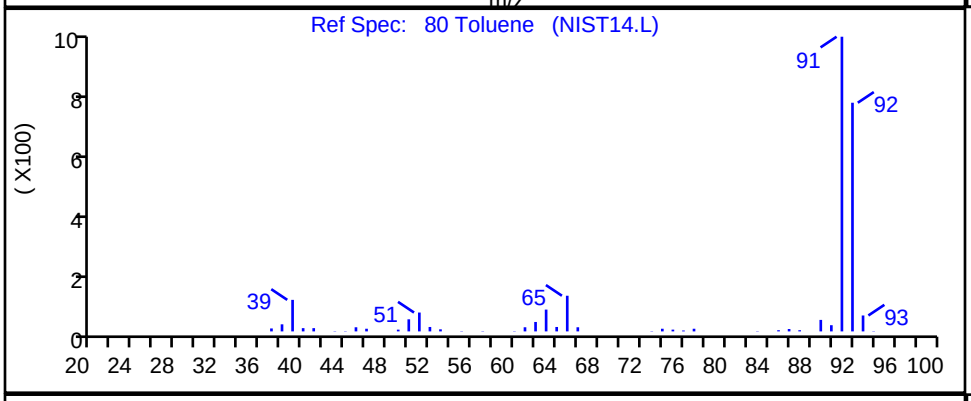
80 Toluene, CAS: 108-88-3

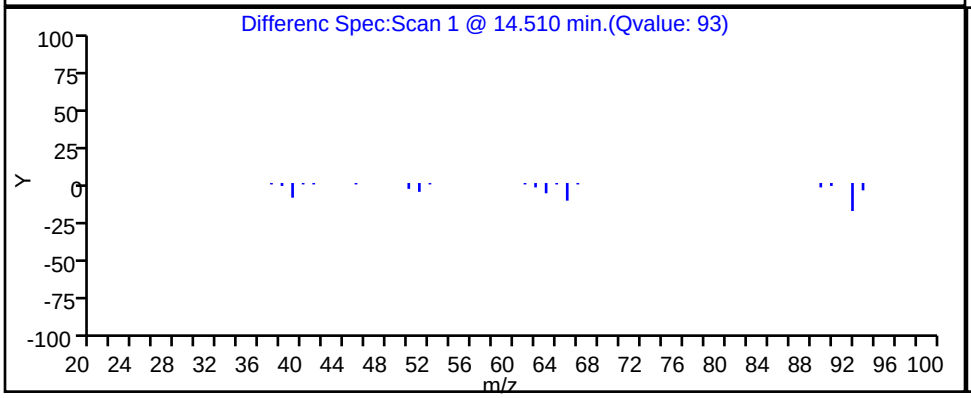


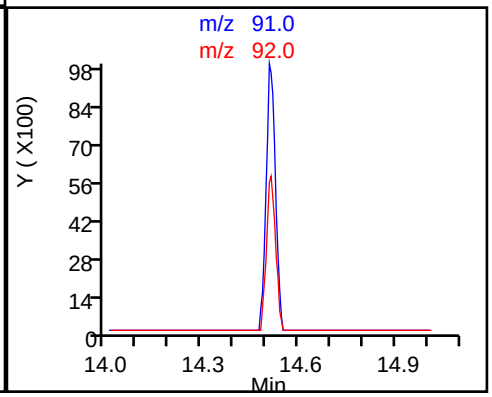








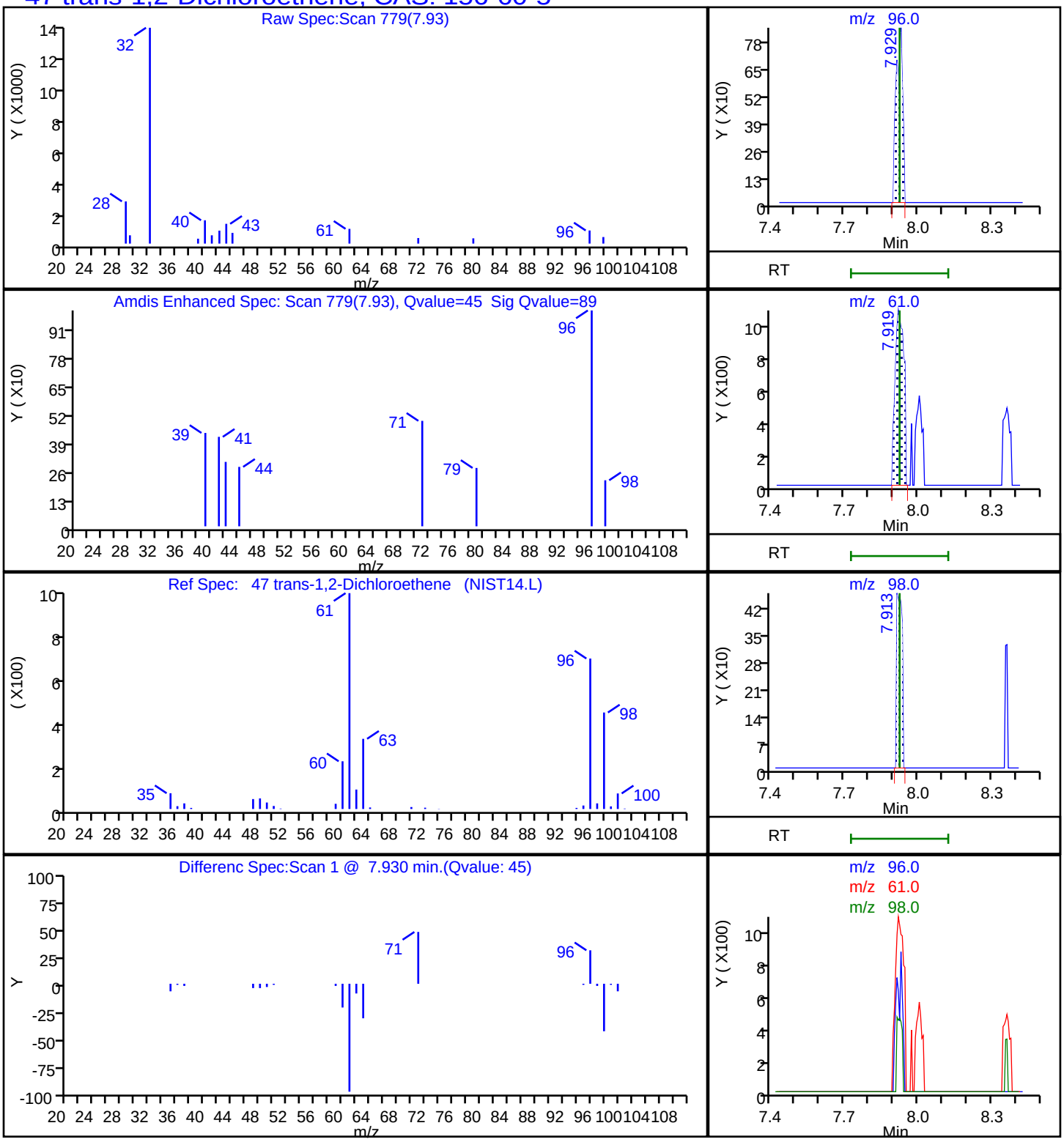




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 trans-1,2-Dichloroethene, CAS: 156-60-5



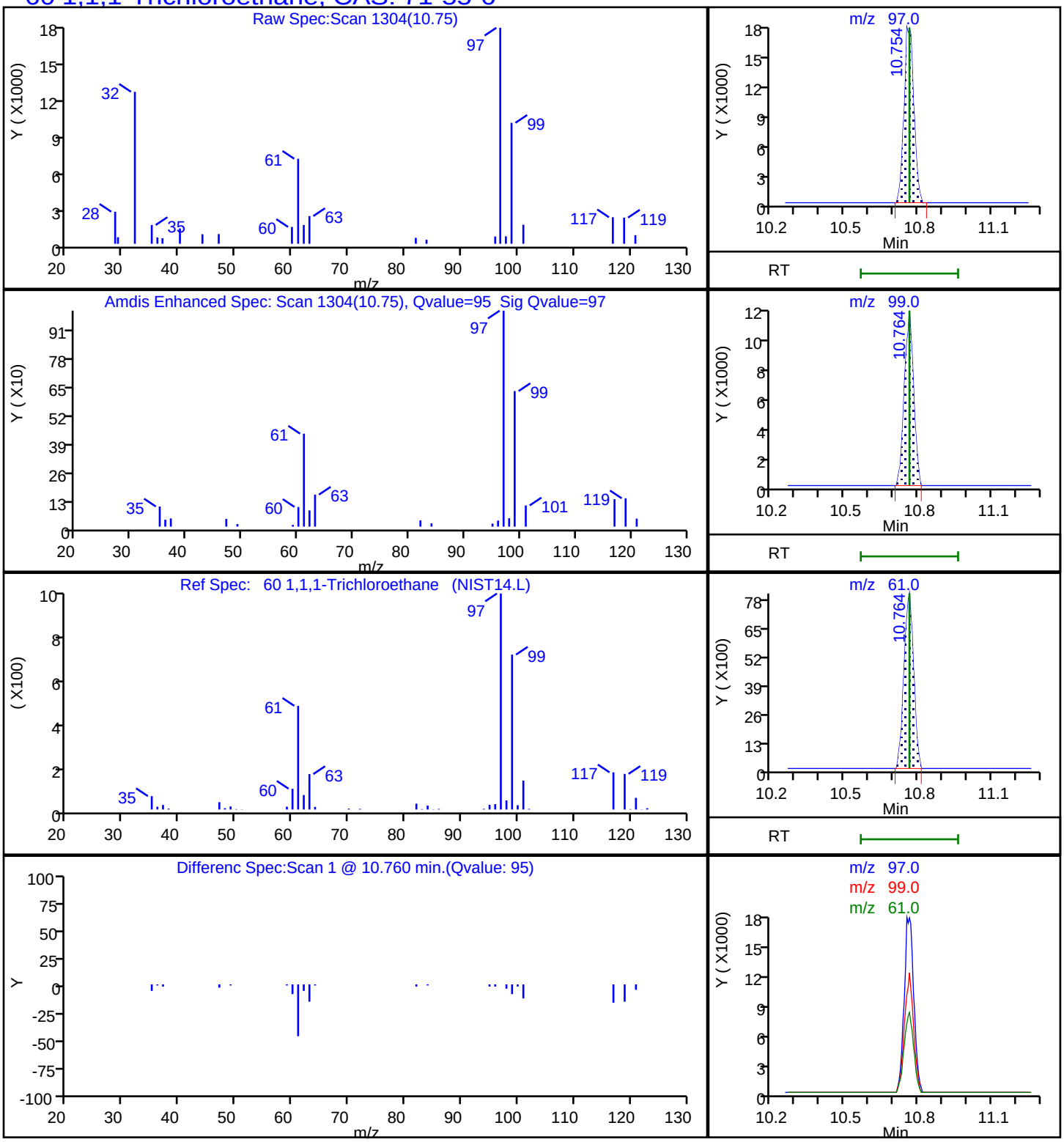
Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D

Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

60 1,1,1-Trichloroethane, CAS: 71-55-6



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Eurofins TestAmerica, Knoxville

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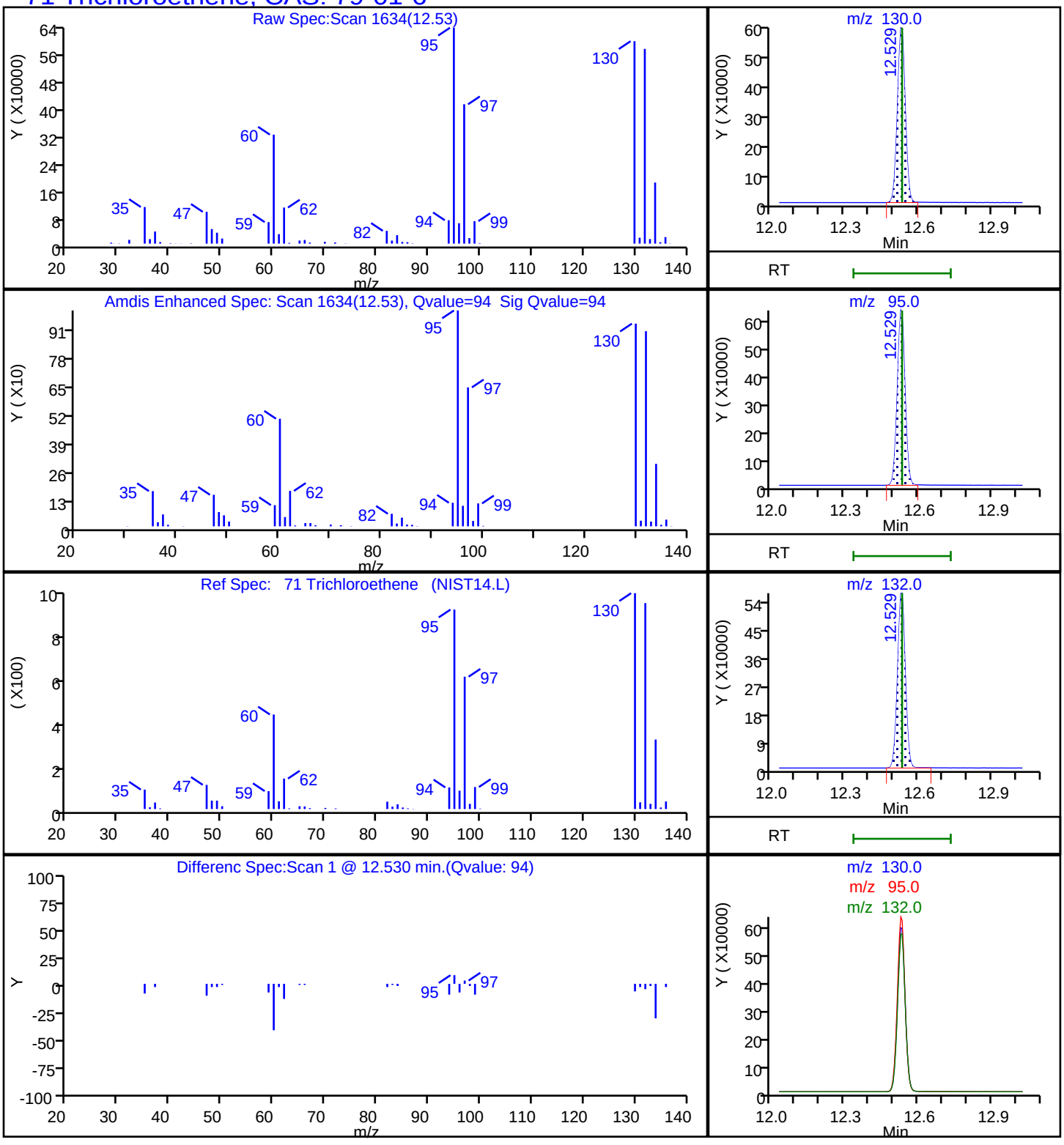
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

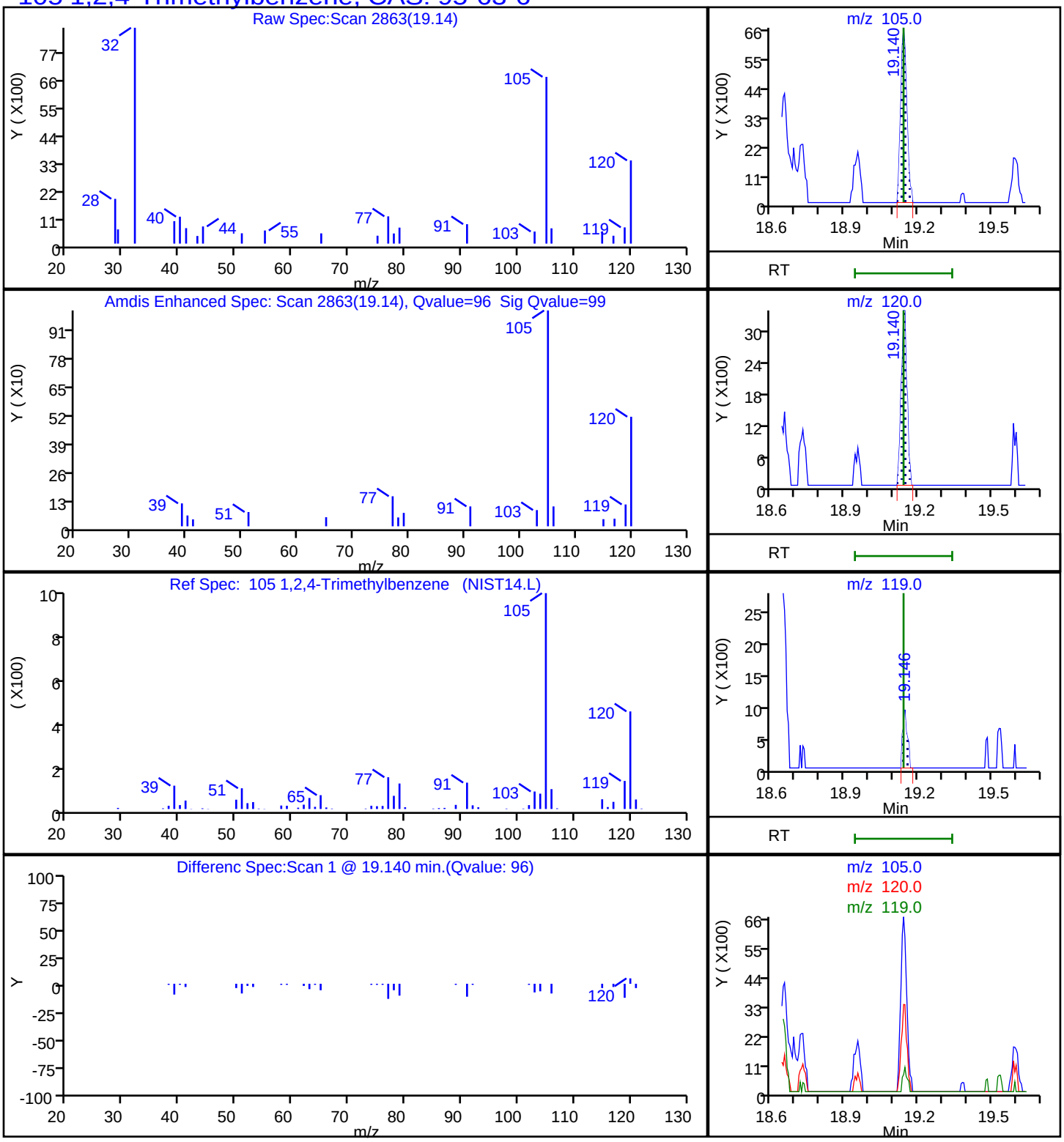


Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

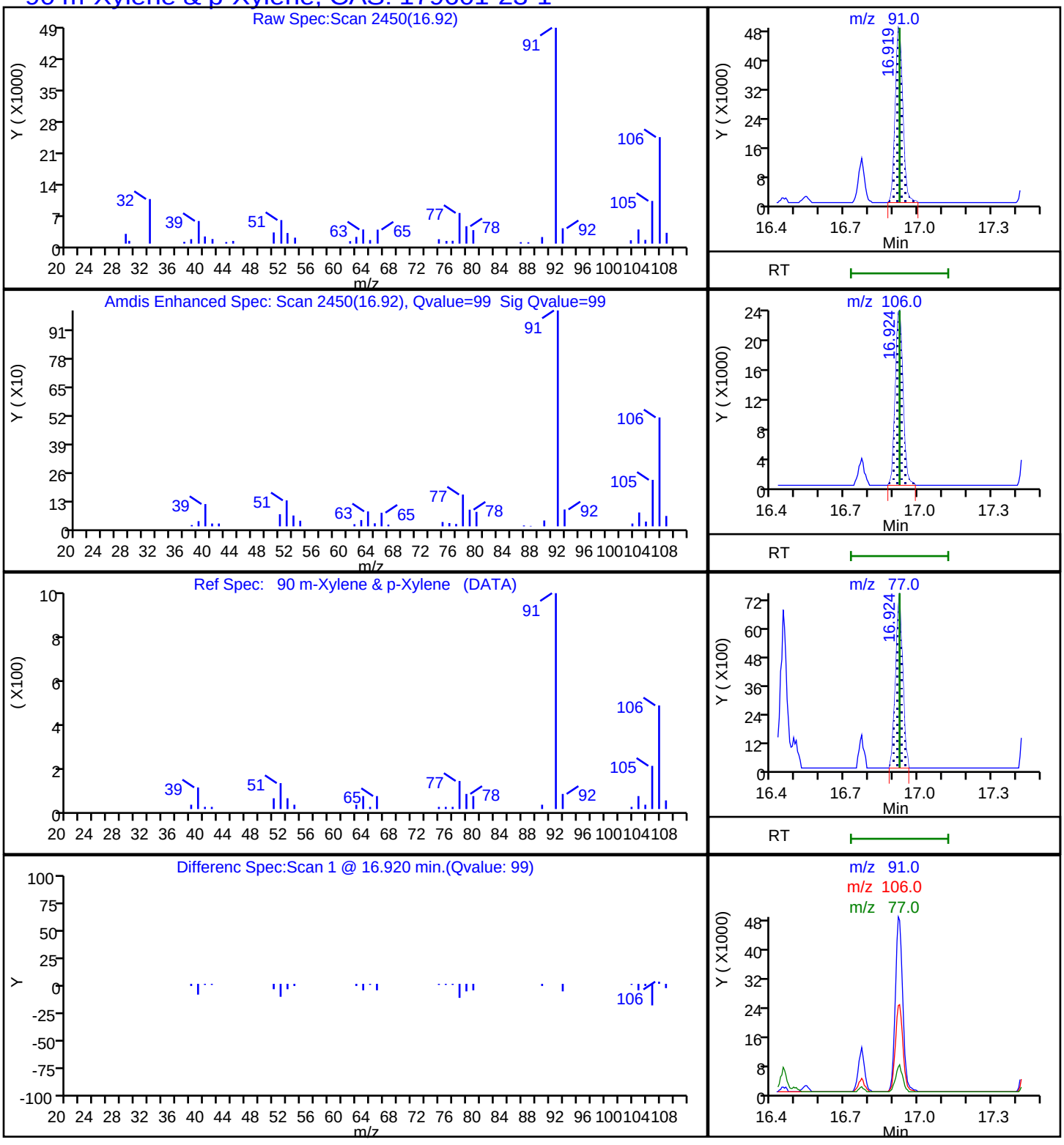


Report Date: 22-Aug-2019 17:26:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

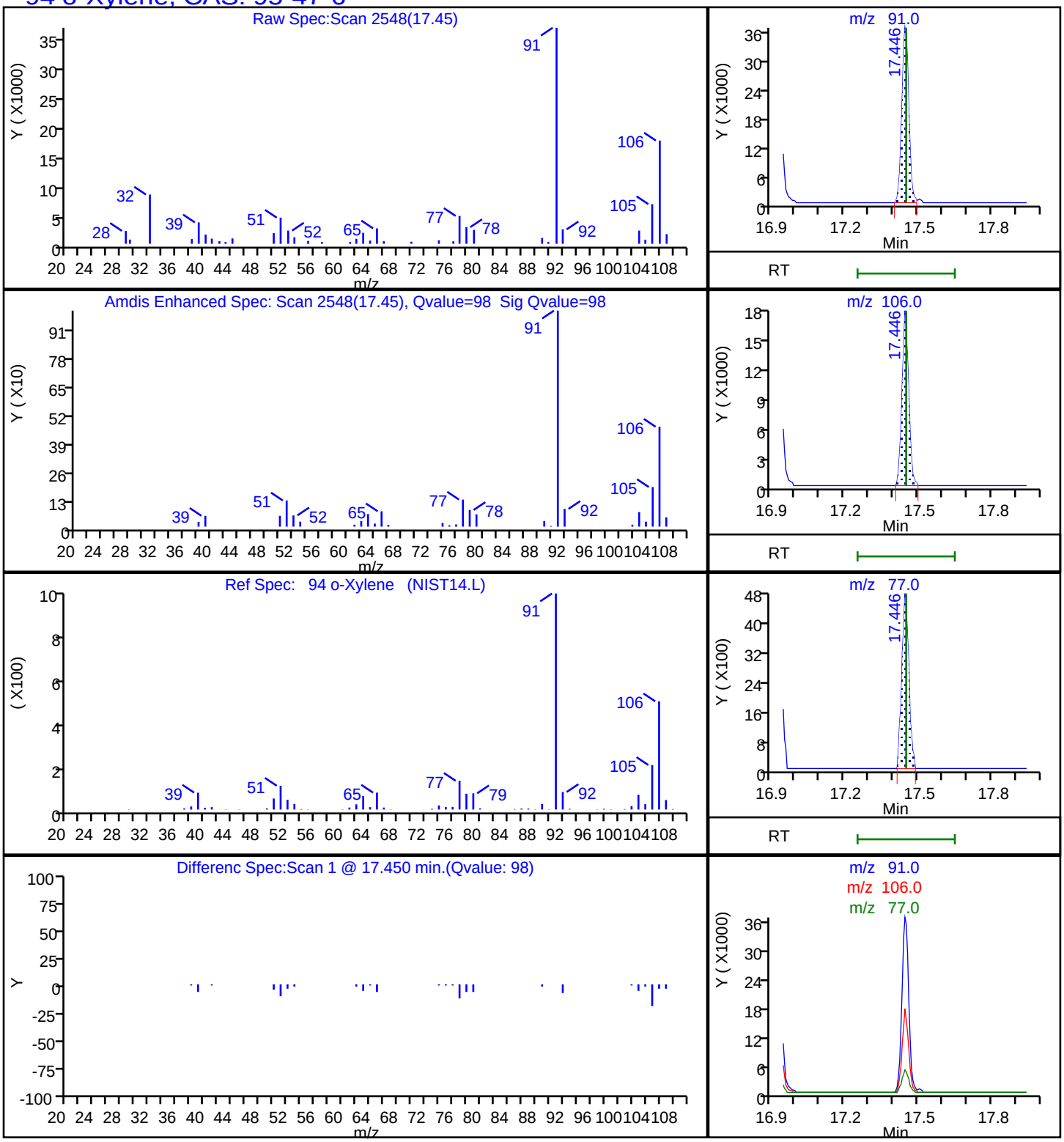
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Eurofins TestAmerica, Knoxville

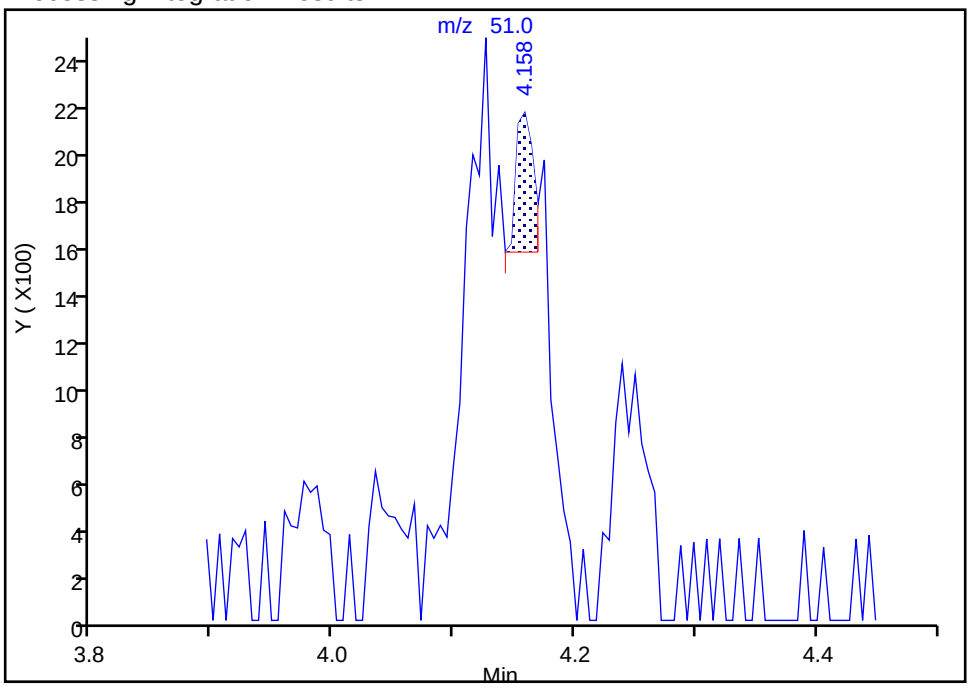
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D				
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8		
Client ID:	SV-170-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

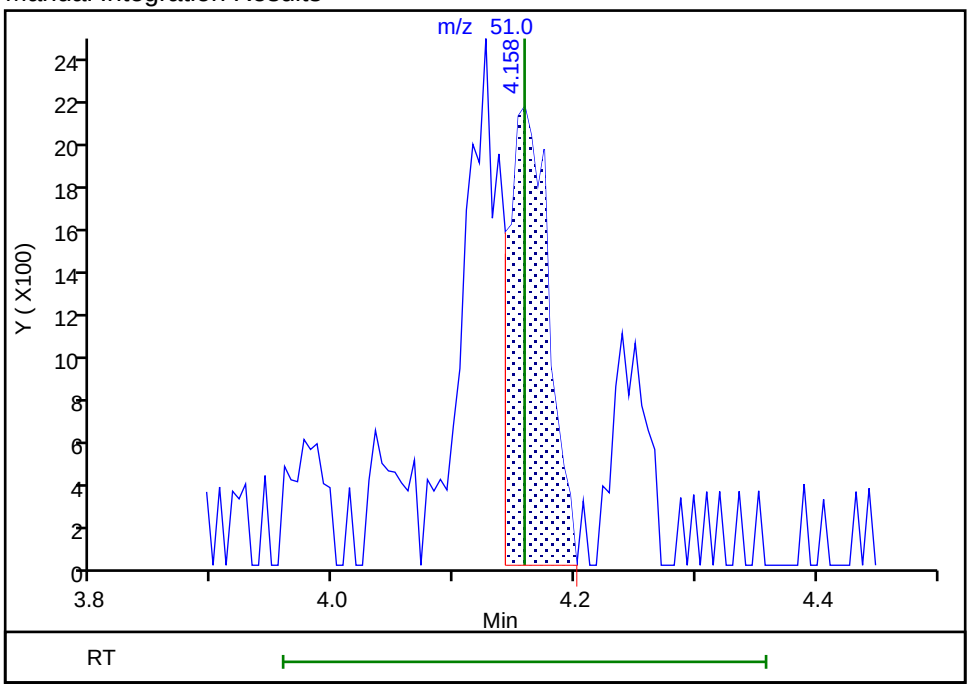
Processing Integration Results

RT: 4.16
Area: 593
Amount: 0.008927
Amount Units: ppb v/v



Manual Integration Results

RT: 4.16
Area: 5058
Amount: 0.076142
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 22-Aug-2019 17:25:39
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

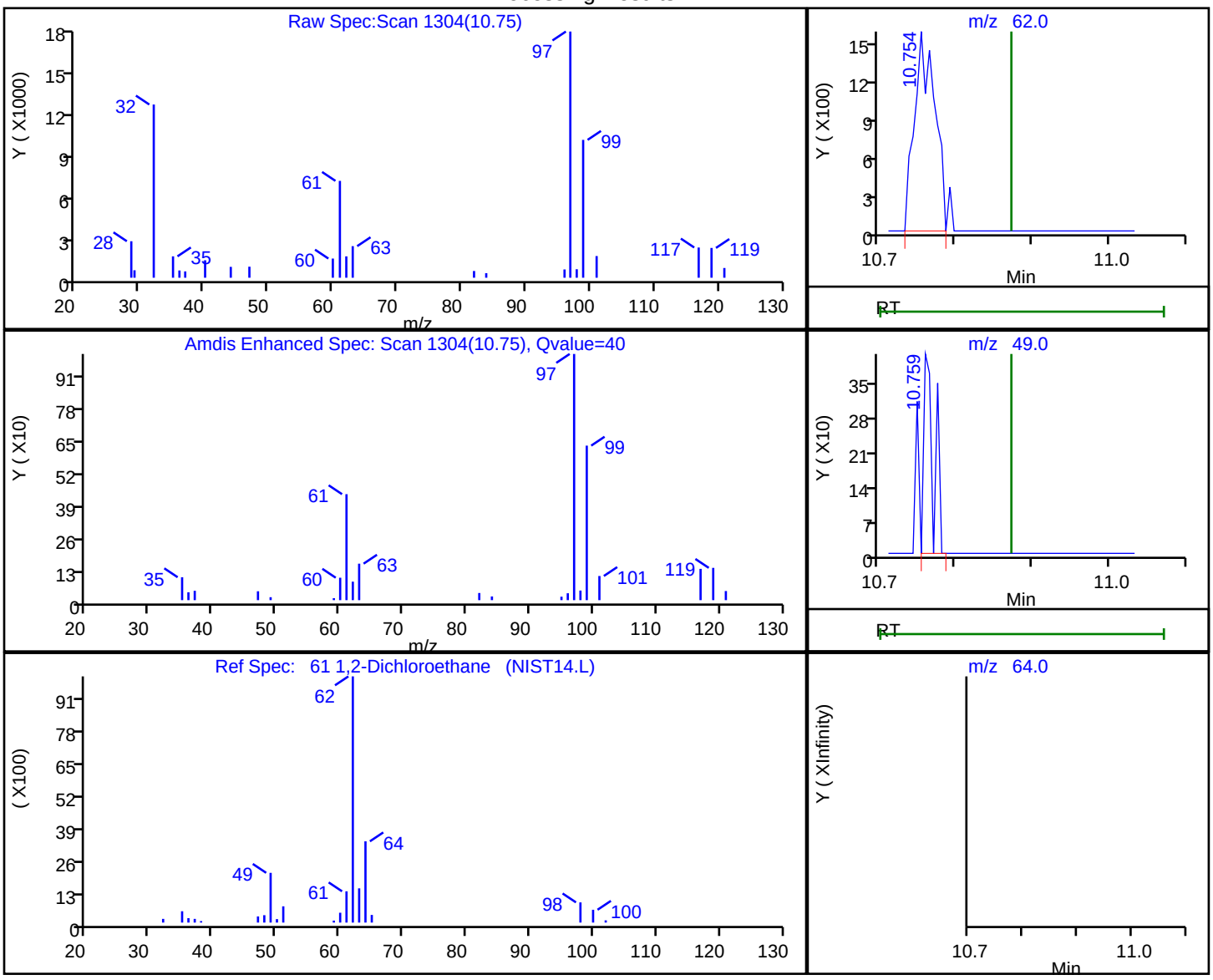
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P114.D		
Injection Date:	22-Aug-2019 05:31:30	Instrument ID:	MJ
Lims ID:	140-16377-A-8	Lab Sample ID:	140-16377-8
Client ID:	SV-170-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

61 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.75	62.00	2831	0.019769
10.76	49.00	358	
10.87	64.00	0	

Reviewer: khachitpongpanits, 22-Aug-2019 17:26:07

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.049	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.21	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	13		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.13	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.23	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.24	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.31	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.50	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.92	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	45		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	18		2.7	0.24
108-88-3	Toluene	92.14	5.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.51	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.3	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D
Lims ID: 140-16377-A-9
Client ID: SV-079-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 17:19:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-012
Misc. Info.: 140-16377-a-9
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:23:20 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:23:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.725	-0.004	94	240640	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	95	1202153	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	88	1002767	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	96	649855	3.53	
19 Chlorodifluoromethane	51	4.159	4.152	0.007	92	4814	0.0732	
21 Dichlorodifluoromethane	85	4.234	4.227	0.007	71	6802	0.0903	
44 Methylene Chloride	84	7.058	7.062	-0.004	97	237035	2.62	
47 trans-1,2-Dichloroethene	96	7.919	7.915	0.002	95	1881	0.0255	
57 Chloroform	83	9.726	9.730	-0.004	34	3986	0.0204	
60 1,1,1-Trichloroethane	97	10.759	10.763	-0.004	96	9798	0.0466	
64 Benzene	78	11.335	11.333	0.002	72	6101	0.0277	
65 Carbon tetrachloride	117	11.346	11.349	-0.009	11	1809	0.009798	
71 Trichloroethene	130	12.529	12.521	0.001	96	540792	5.44	
80 Toluene	91	14.514	14.508	0.001	93	76357	0.3152	
86 Tetrachloroethene	129	15.633	15.637	-0.004	94	52013	0.5344	
89 Ethylbenzene	91	16.763	16.767	-0.004	97	13223	0.0424	
90 m-Xylene & p-Xylene	91	16.919	16.923	-0.004	99	40065	0.1674	
94 o-Xylene	91	17.446	17.450	-0.004	98	22410	0.0880	
105 1,2,4-Trimethylbenzene	105	19.140	19.144	-0.004	96	13823	0.0471	
S 129 Xylenes, Total	100				0		0.2554	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

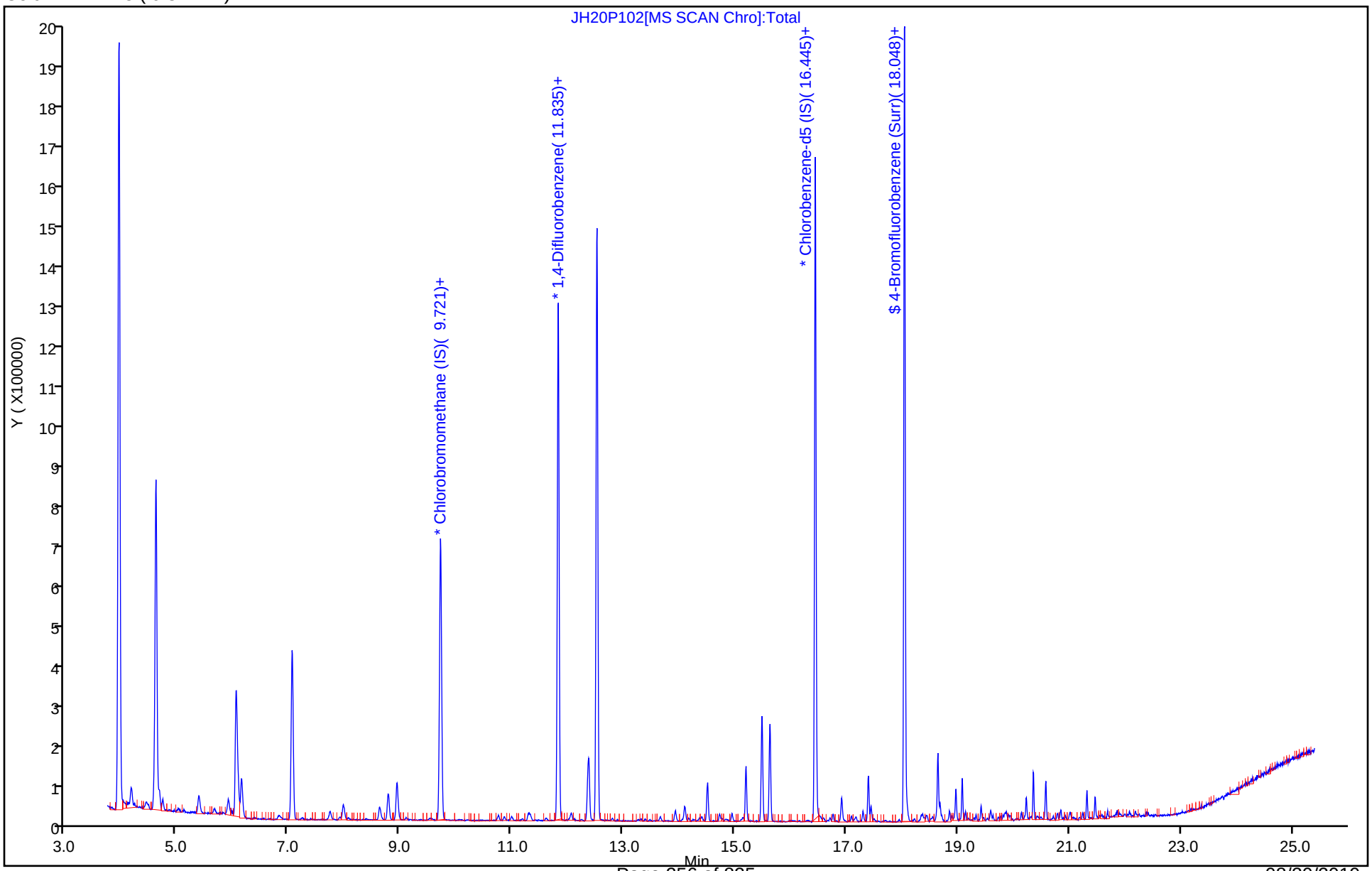
Report Date: 21-Aug-2019 12:23:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D

Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9	Worklist Smp#:	12
Client ID:	SV-079-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Lims ID:	140-16377-A-9				
Client ID:	SV-079-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 17:19:30	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-012				
Misc. Info.:	140-16377-a-9				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:23:20	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

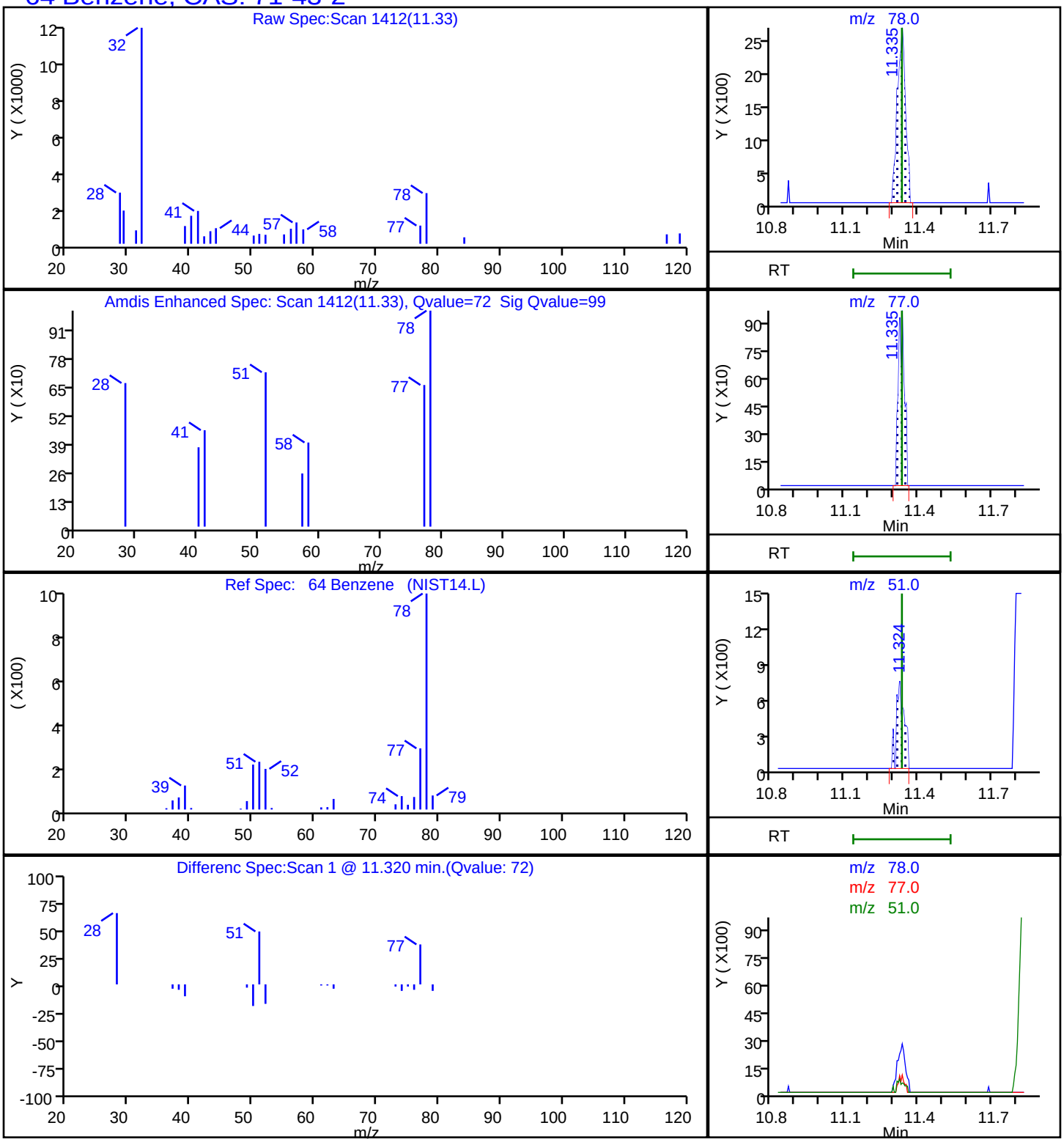
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:23:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.53	88.15

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

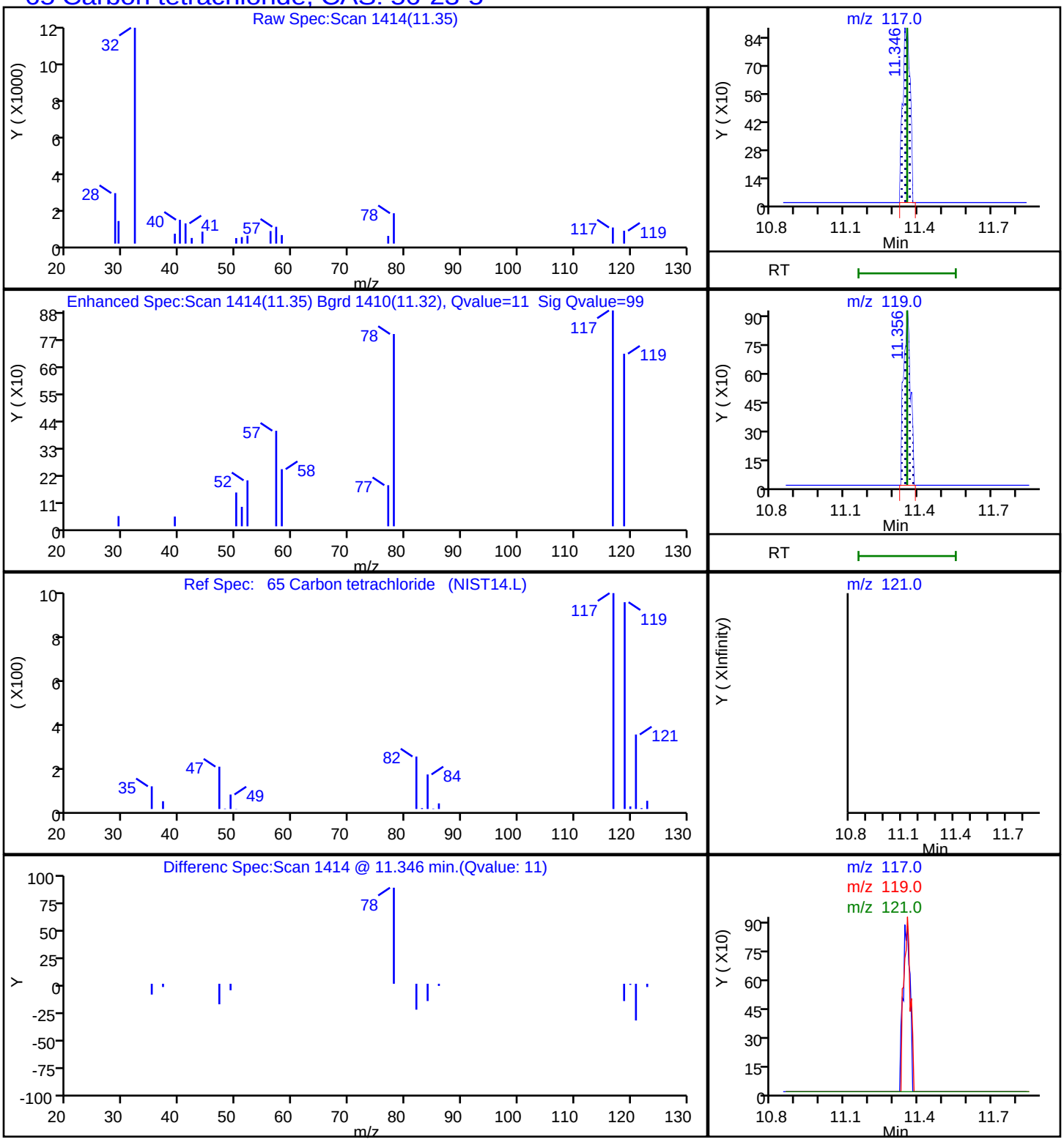
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

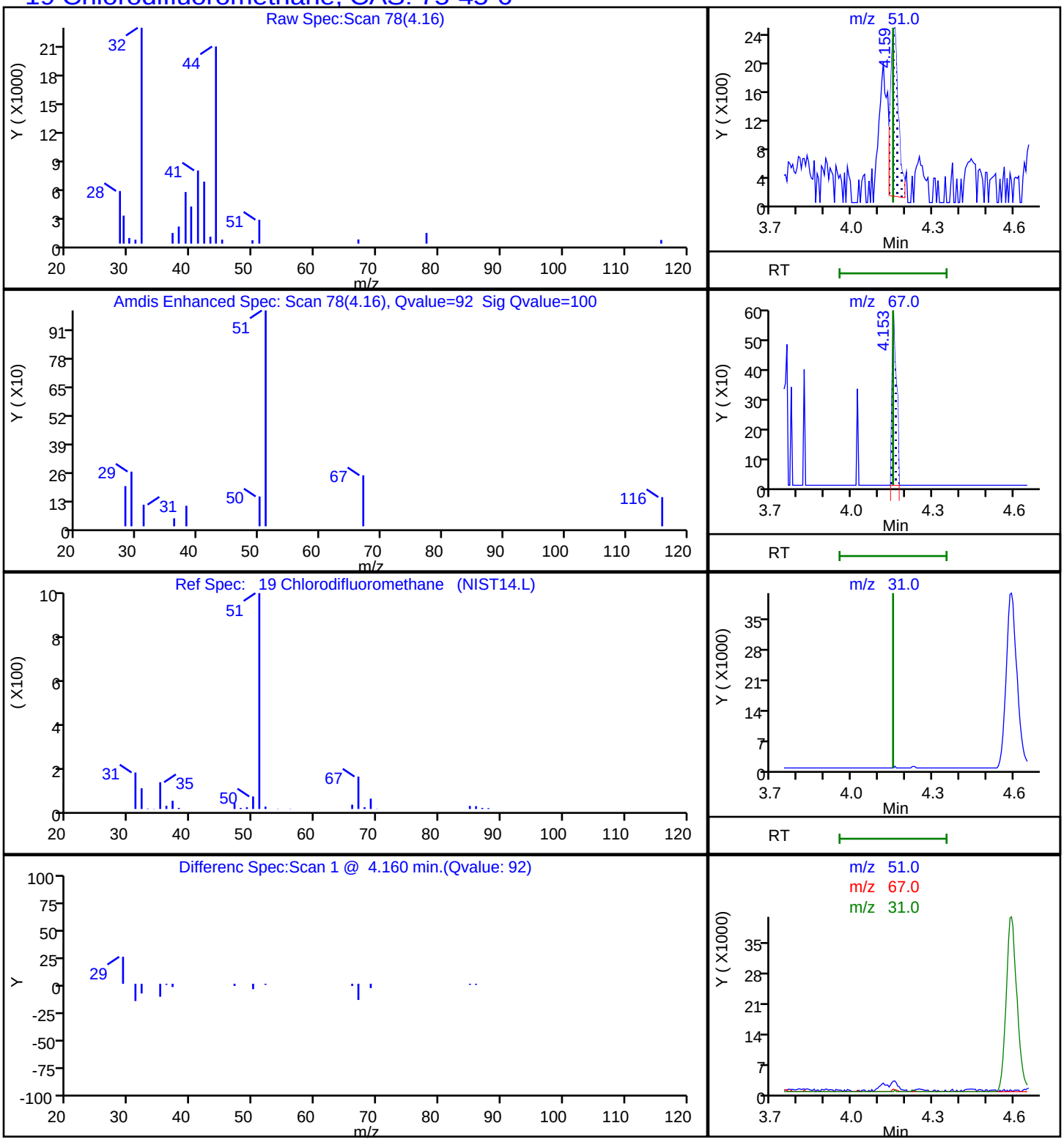
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6



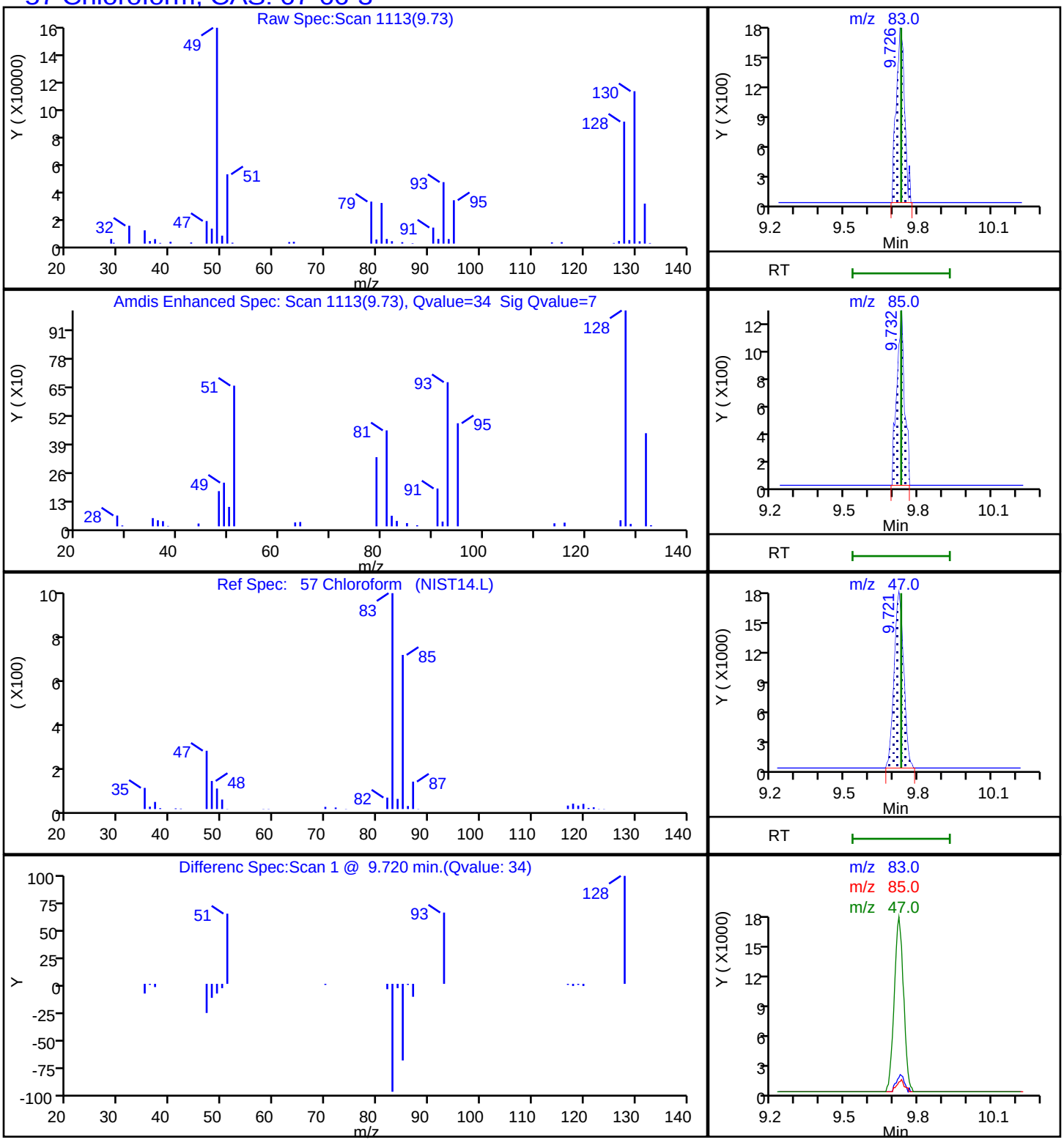
Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D

Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

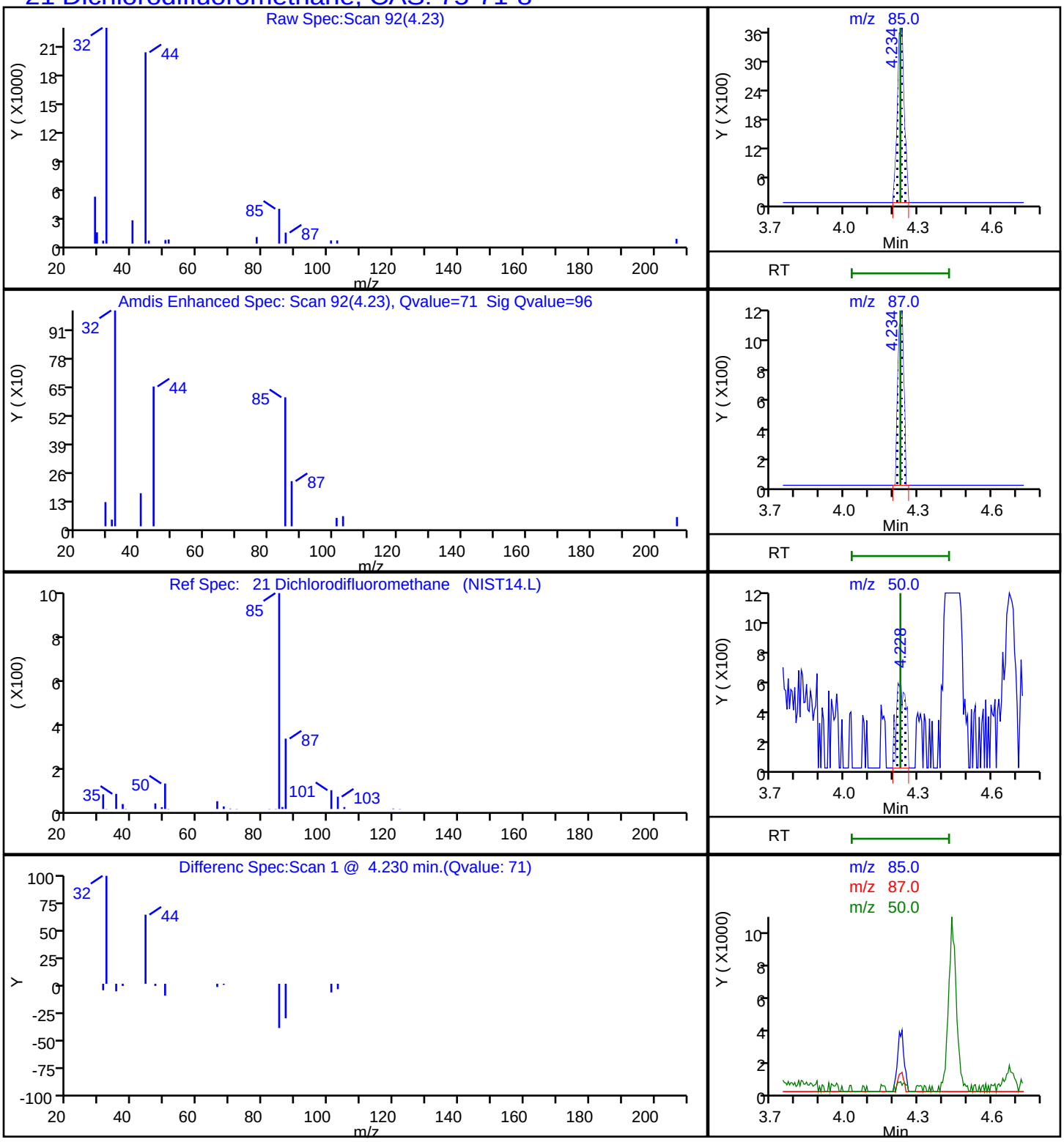


Report Date: 21-Aug-2019 12:23:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

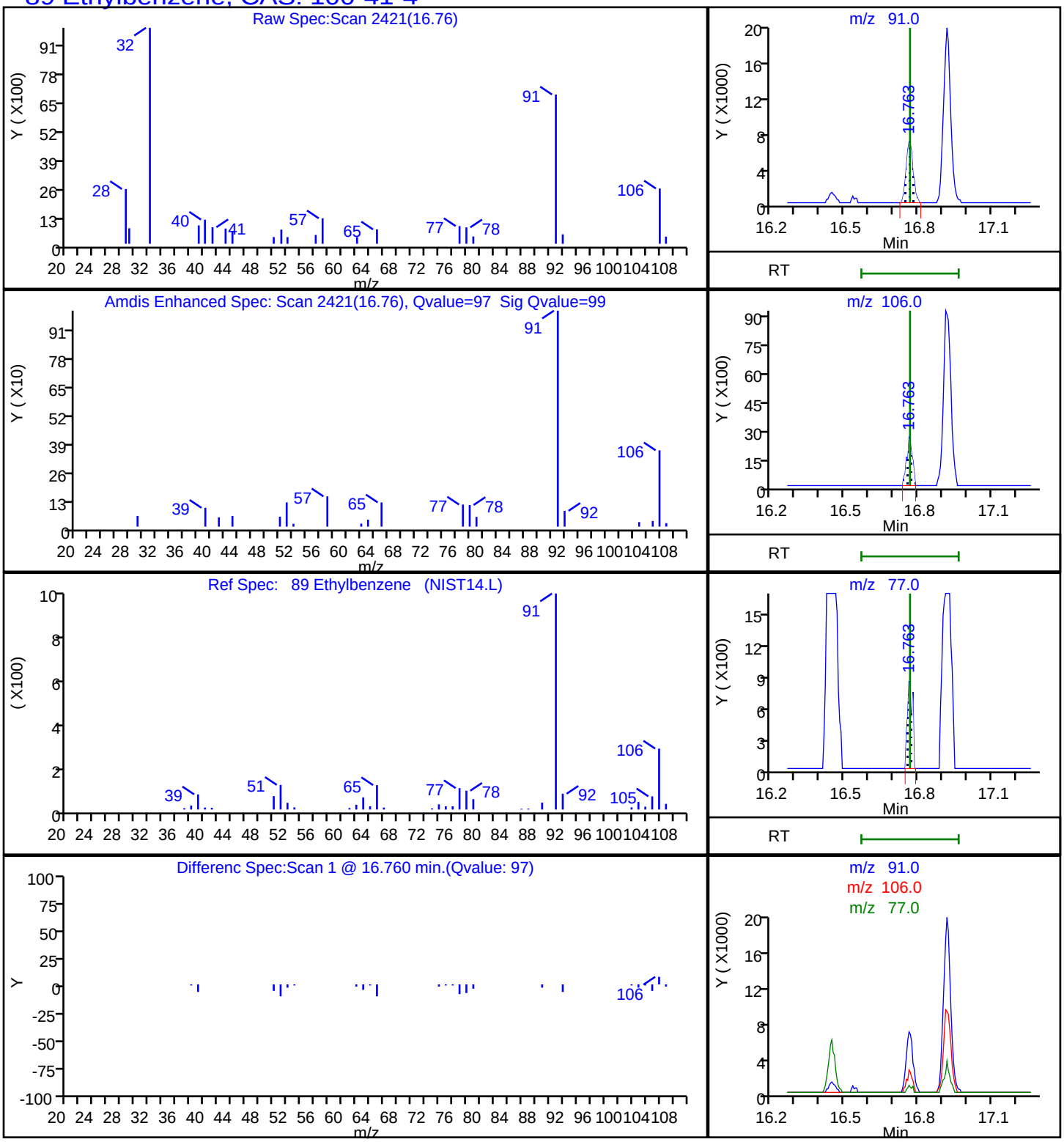


Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

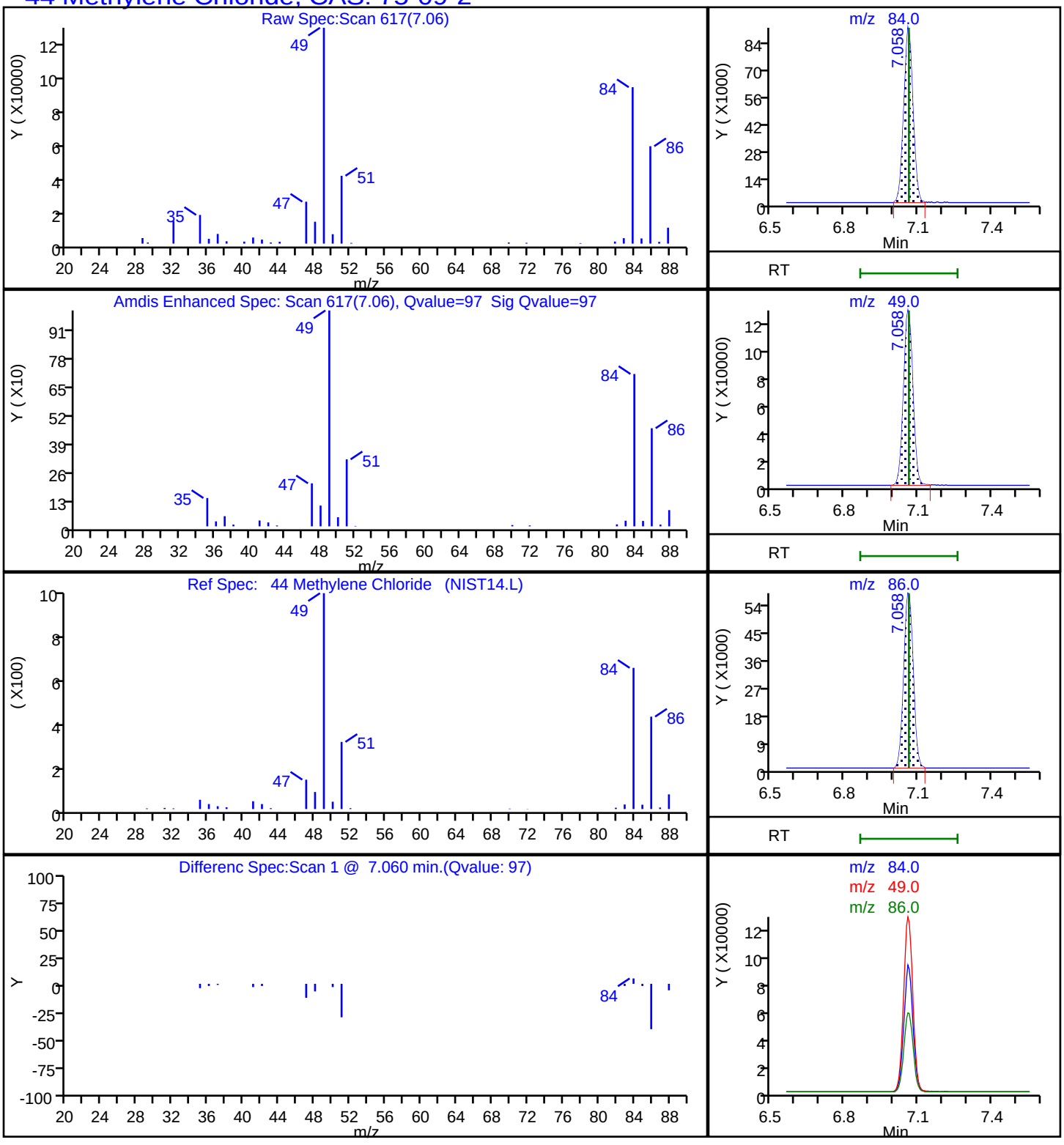
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

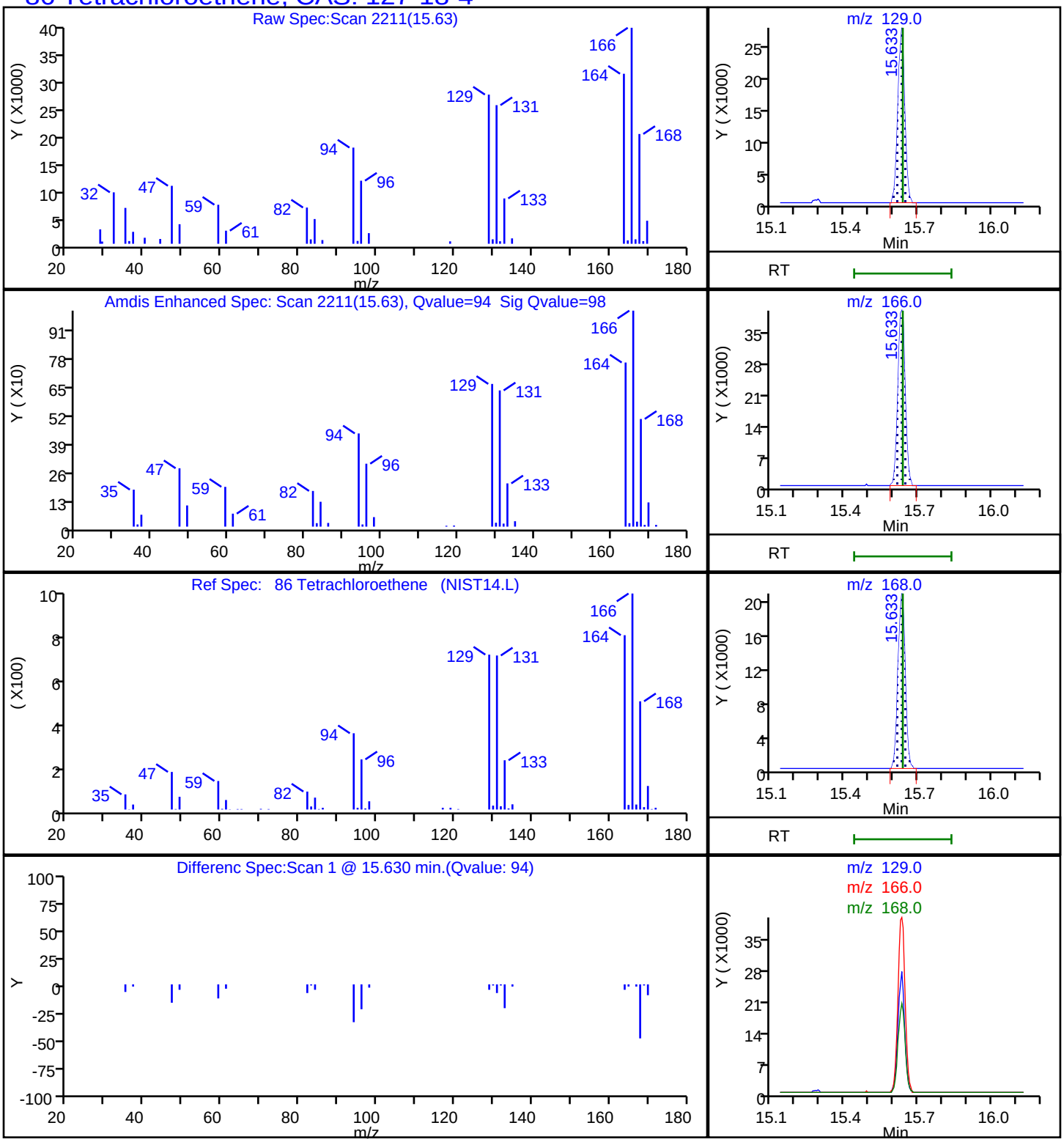


Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4

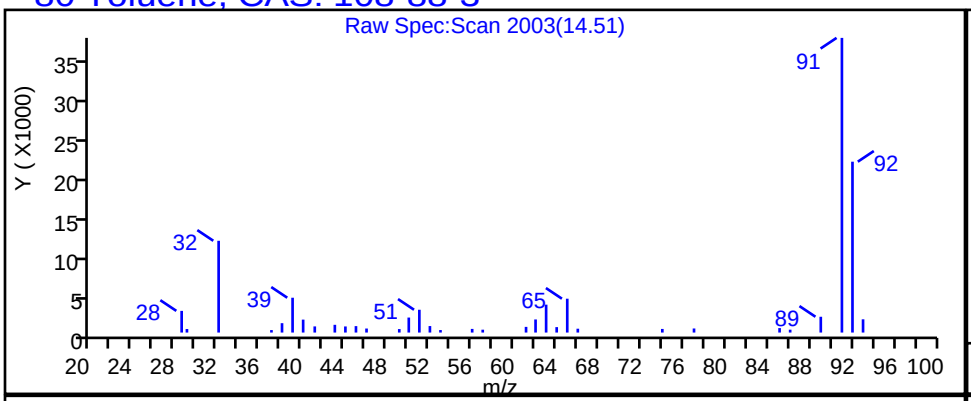


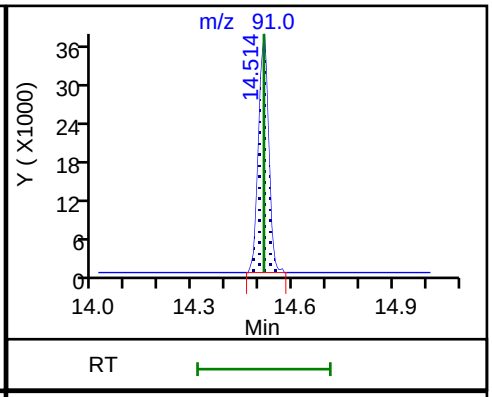
Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

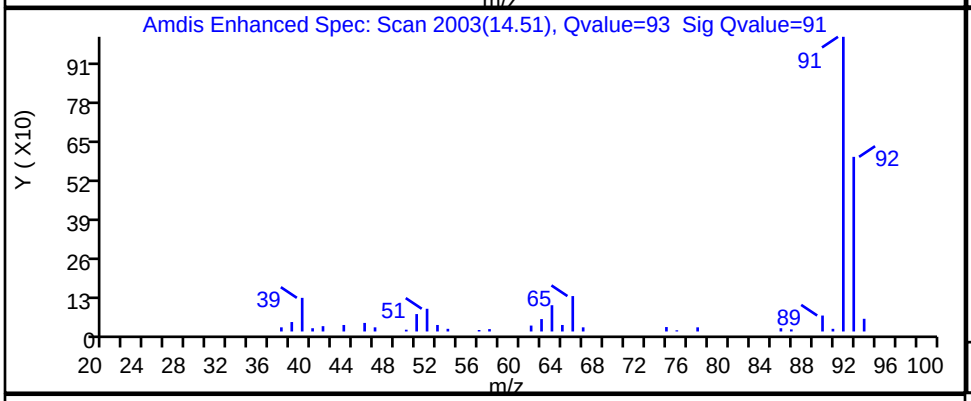
Eurofins TestAmerica, Knoxville

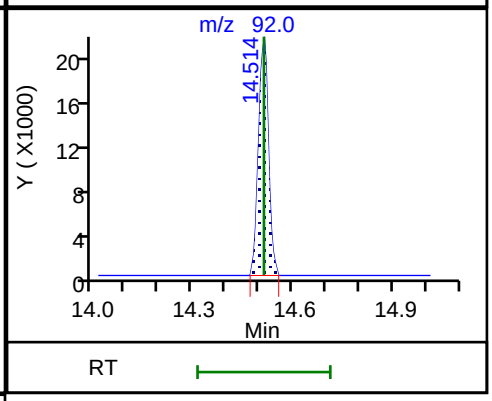
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

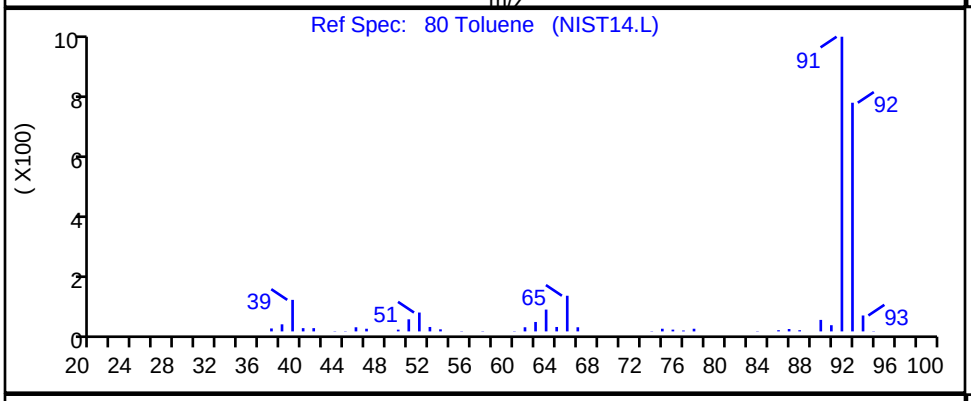
80 Toluene, CAS: 108-88-3

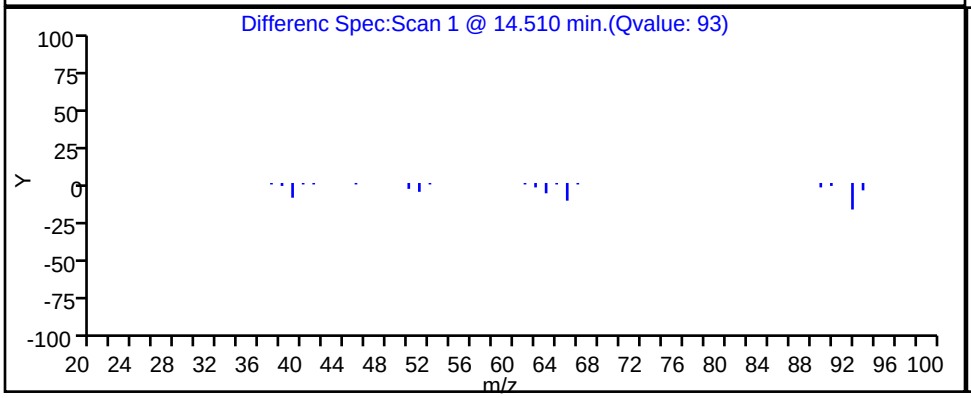


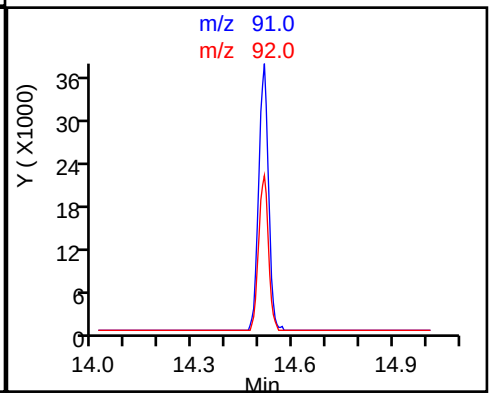










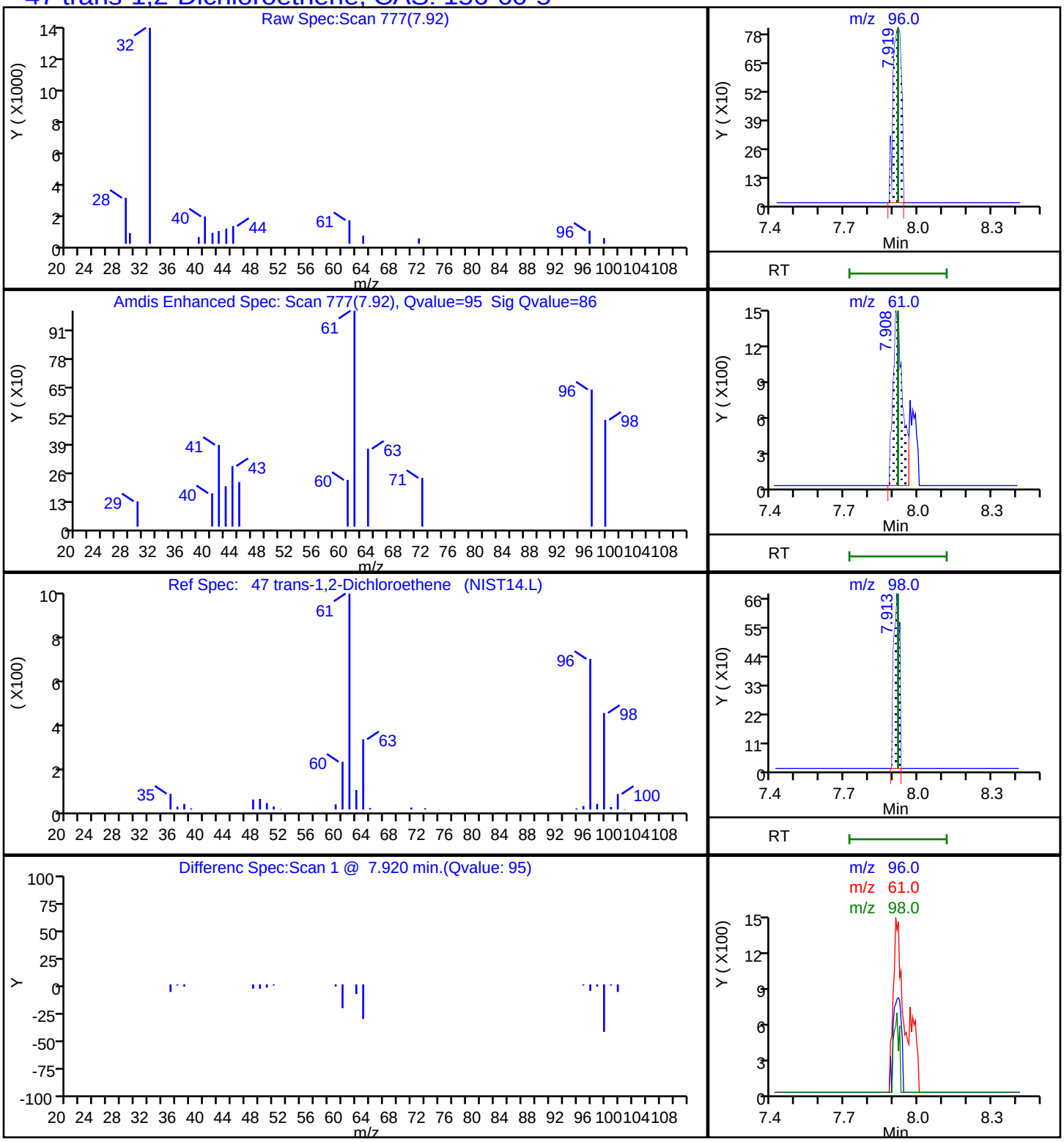


Report Date: 21-Aug-2019 12:23:21 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

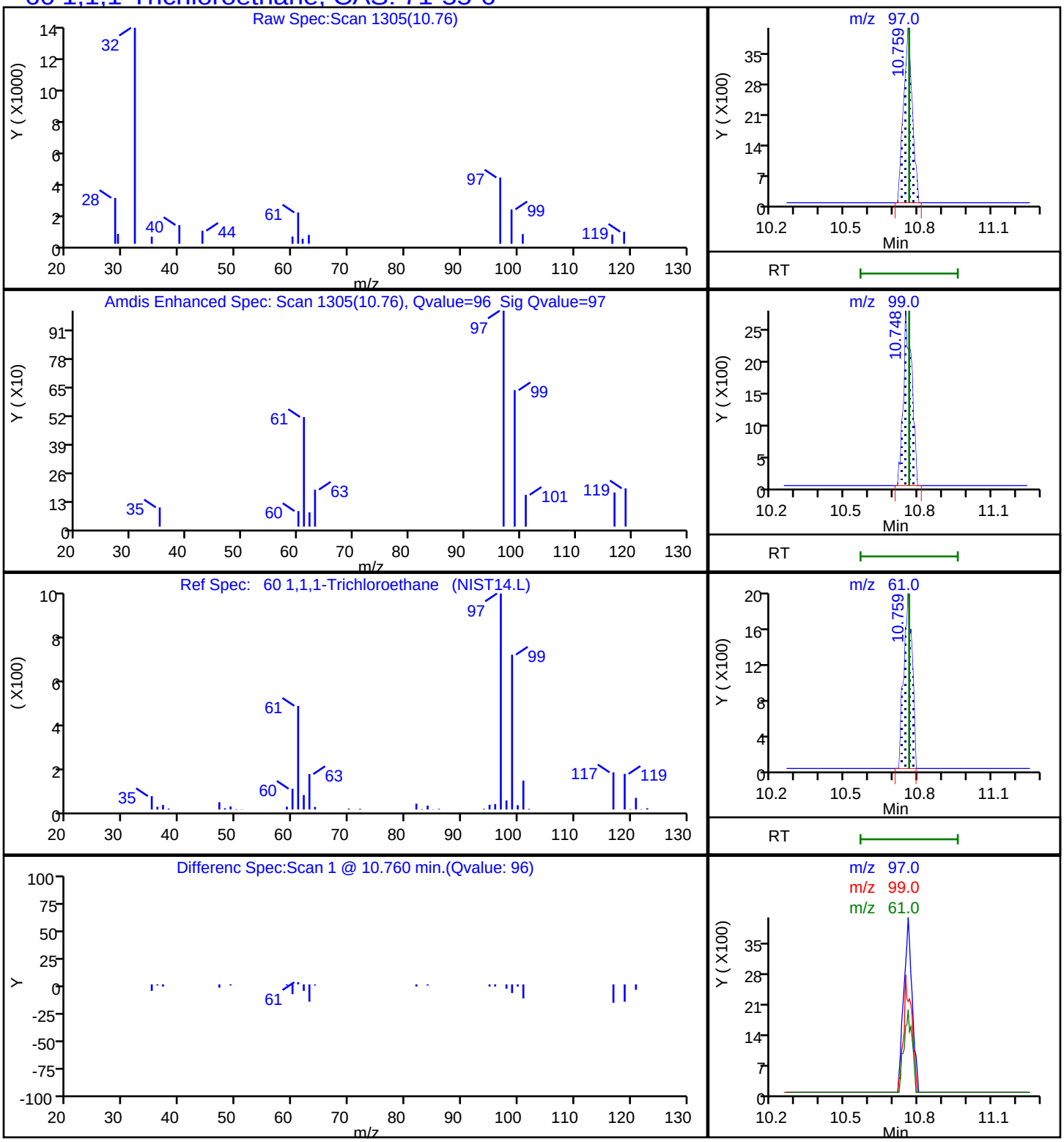
47 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D		
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9
Client ID:	SV-079-A-27		
Operator ID:	007126	ALS Bottle#:	2 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

60 1,1,1-Trichloroethane, CAS: 71-55-6

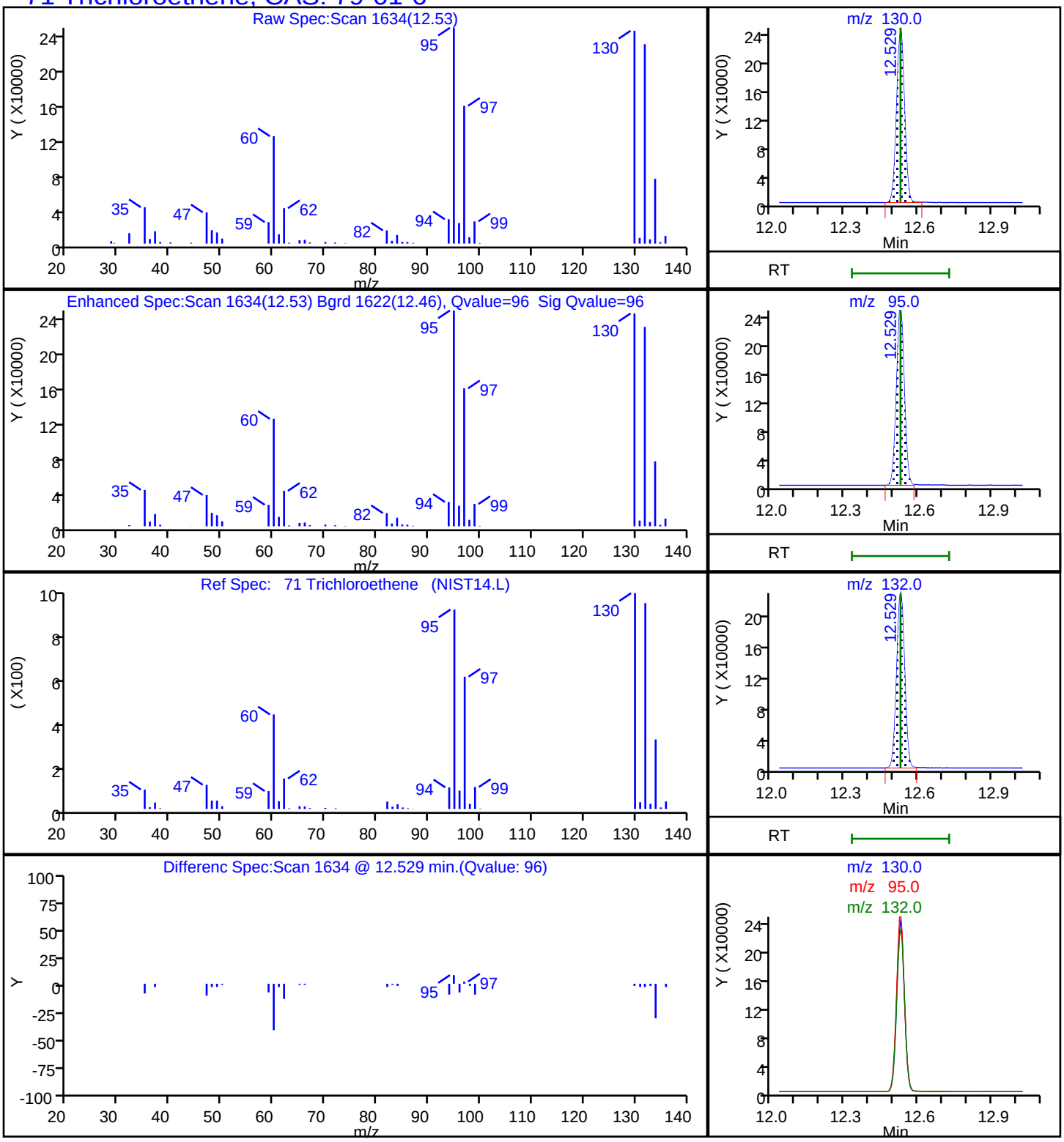


Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6

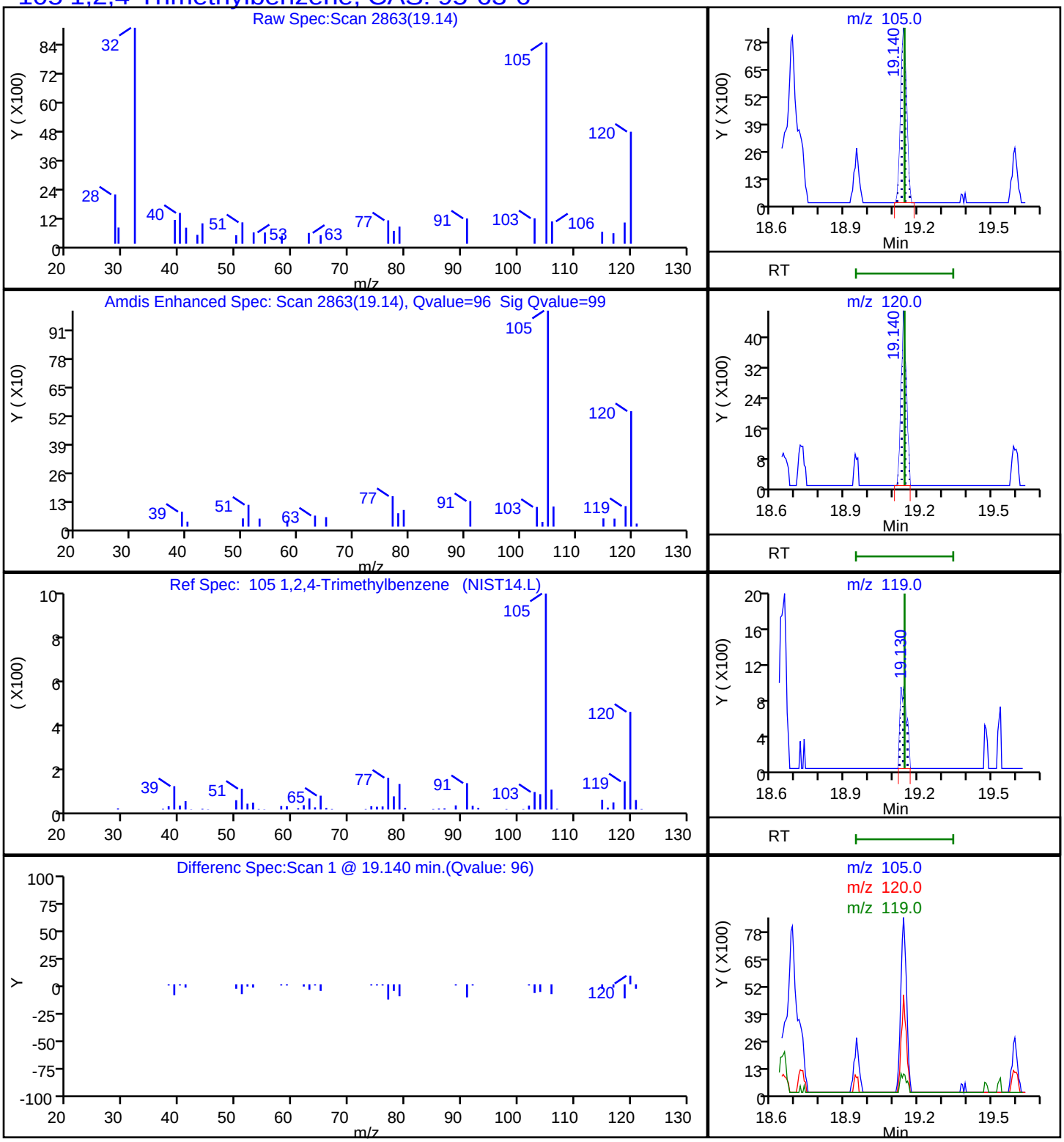


Report Date: 21-Aug-2019 12:23:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

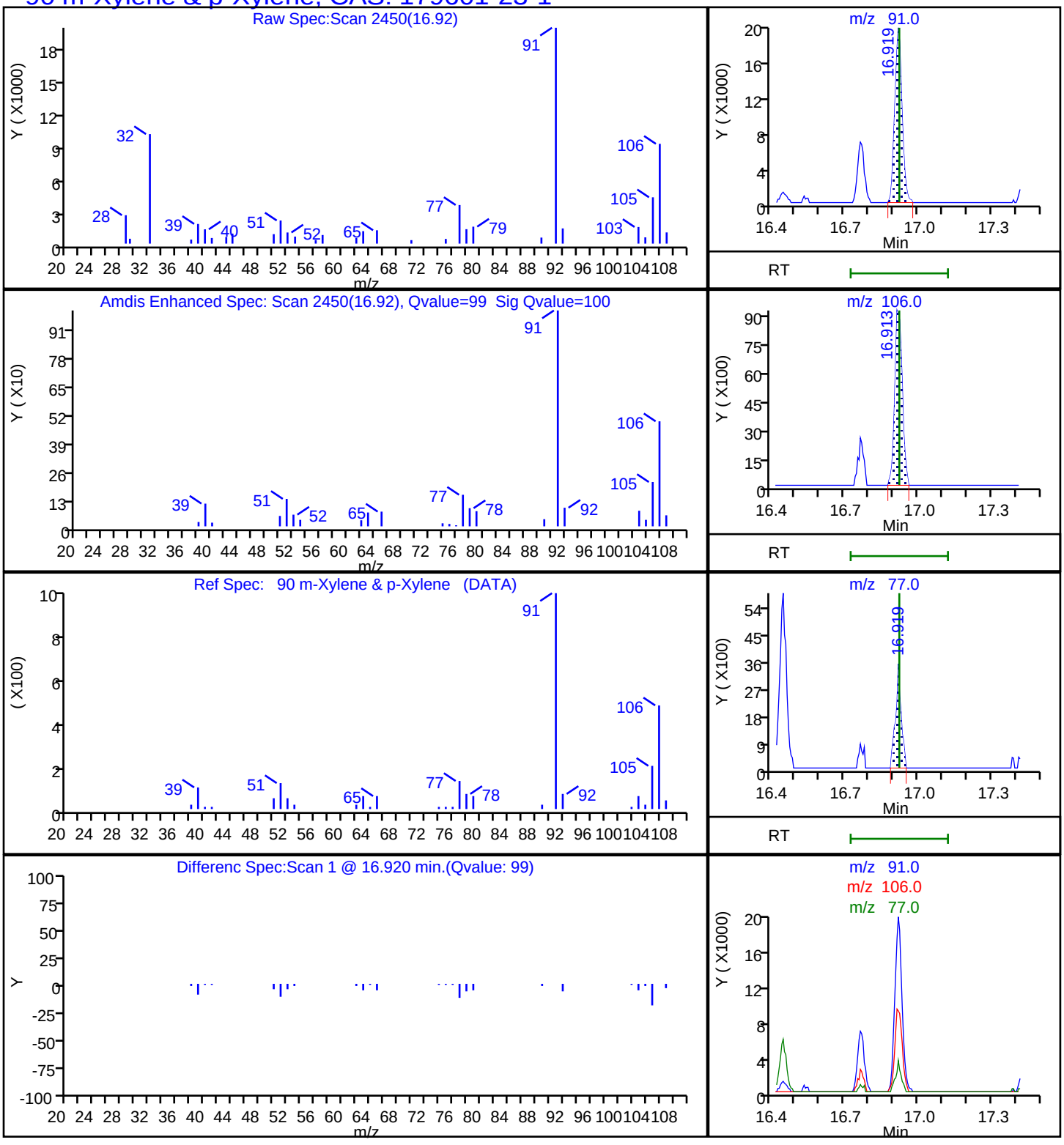


Report Date: 21-Aug-2019 12:23:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

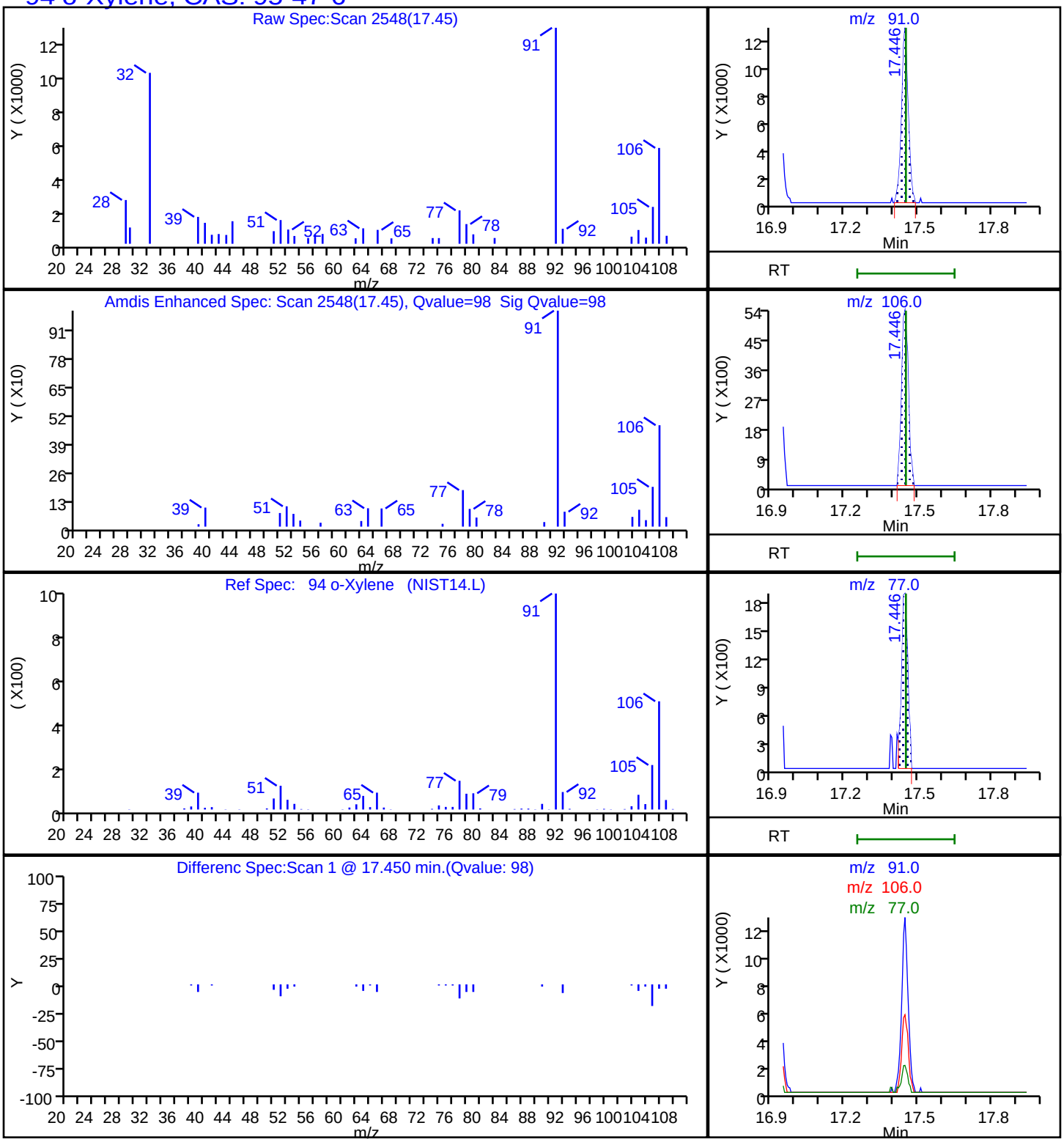


Report Date: 21-Aug-2019 12:23:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



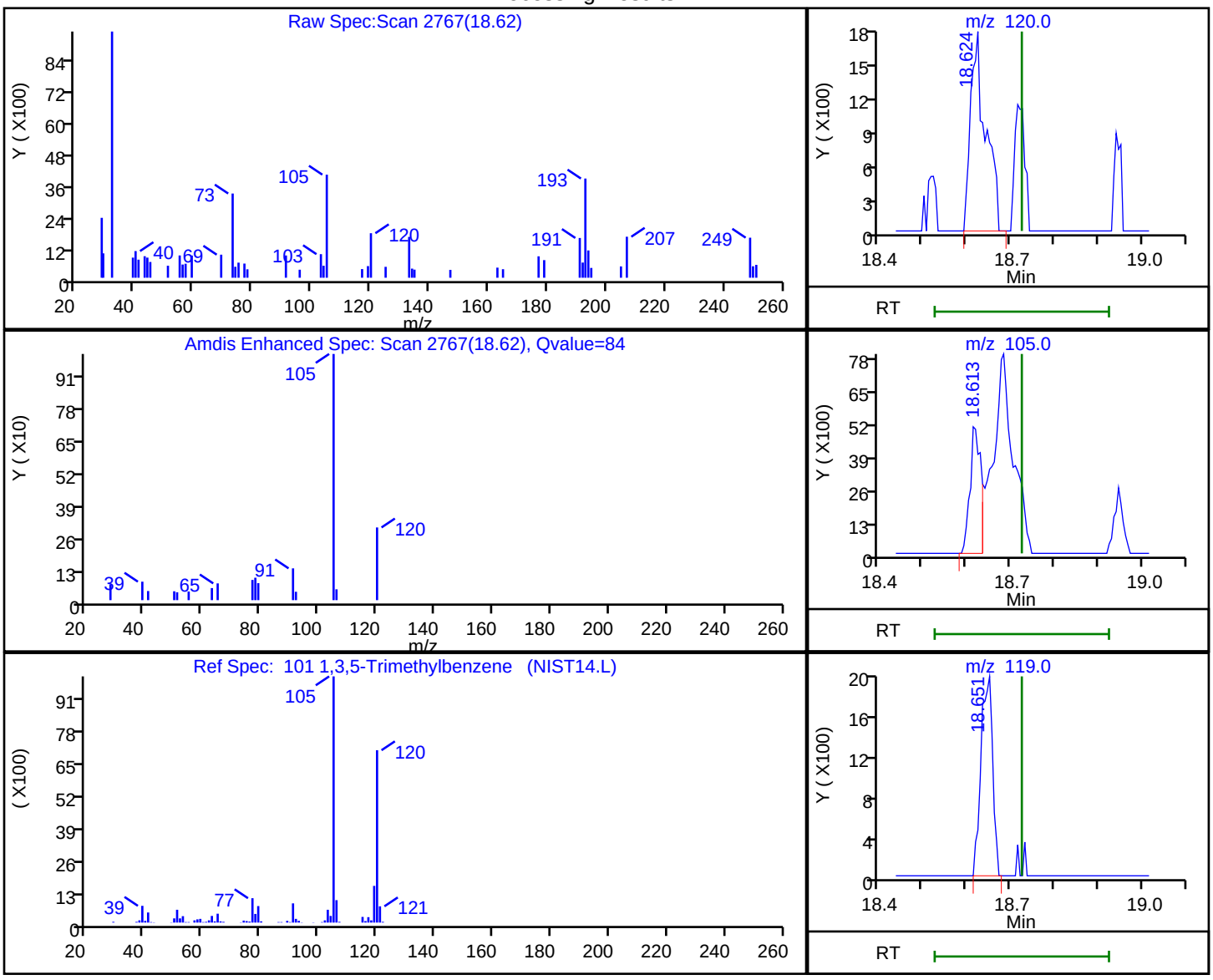
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P102.D				
Injection Date:	20-Aug-2019 17:19:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-9	Lab Sample ID:	140-16377-9		
Client ID:	SV-079-A-27				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.62	120.00	4119	0.031180
18.61	105.00	8673	
18.65	119.00	3629	

Reviewer: khachitpongpanits, 21-Aug-2019 12:23:13

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.048	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.091	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.14	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.26	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.2		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.30	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	29		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	19		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.56	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.4	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D
Lims ID: 140-16377-A-10
Client ID: SV-DUP04-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 18:08:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-013
Misc. Info.: 140-16377-a-10
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:24:27 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:24:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	94	217248	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1094915	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.449	-0.005	88	926637	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.047	0.001	95	592758	3.48	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	41	5234	0.0882	M
21 Dichlorodifluoromethane	85	4.228	4.227	0.001	96	6269	0.0921	
44 Methylene Chloride	84	7.063	7.062	0.001	98	134334	1.64	
47 trans-1,2-Dichloroethene	96	7.923	7.915	0.006	63	1876	0.0282	
57 Chloroform	83	9.720	9.730	-0.010	44	3216	0.0182	
60 1,1,1-Trichloroethane	97	10.753	10.763	-0.010	93	10027	0.0529	
64 Benzene	78	11.329	11.333	-0.004	94	6748	0.0336	
65 Carbon tetrachloride	117	11.350	11.349	-0.005	29	1626	0.009669	
71 Trichloroethene	130	12.528	12.521	0.000	95	496314	5.48	
80 Toluene	91	14.513	14.508	0.000	92	63193	0.2823	
86 Tetrachloroethene	129	15.632	15.637	-0.005	95	49304	0.5482	
89 Ethylbenzene	91	16.767	16.767	0.000	97	10222	0.0354	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	99	34154	0.1544	
94 o-Xylene	91	17.450	17.450	0.000	99	18545	0.0788	
105 1,2,4-Trimethylbenzene	105	19.140	19.144	-0.004	98	12075	0.0445	
S 129 Xylenes, Total	100				0		0.2332	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

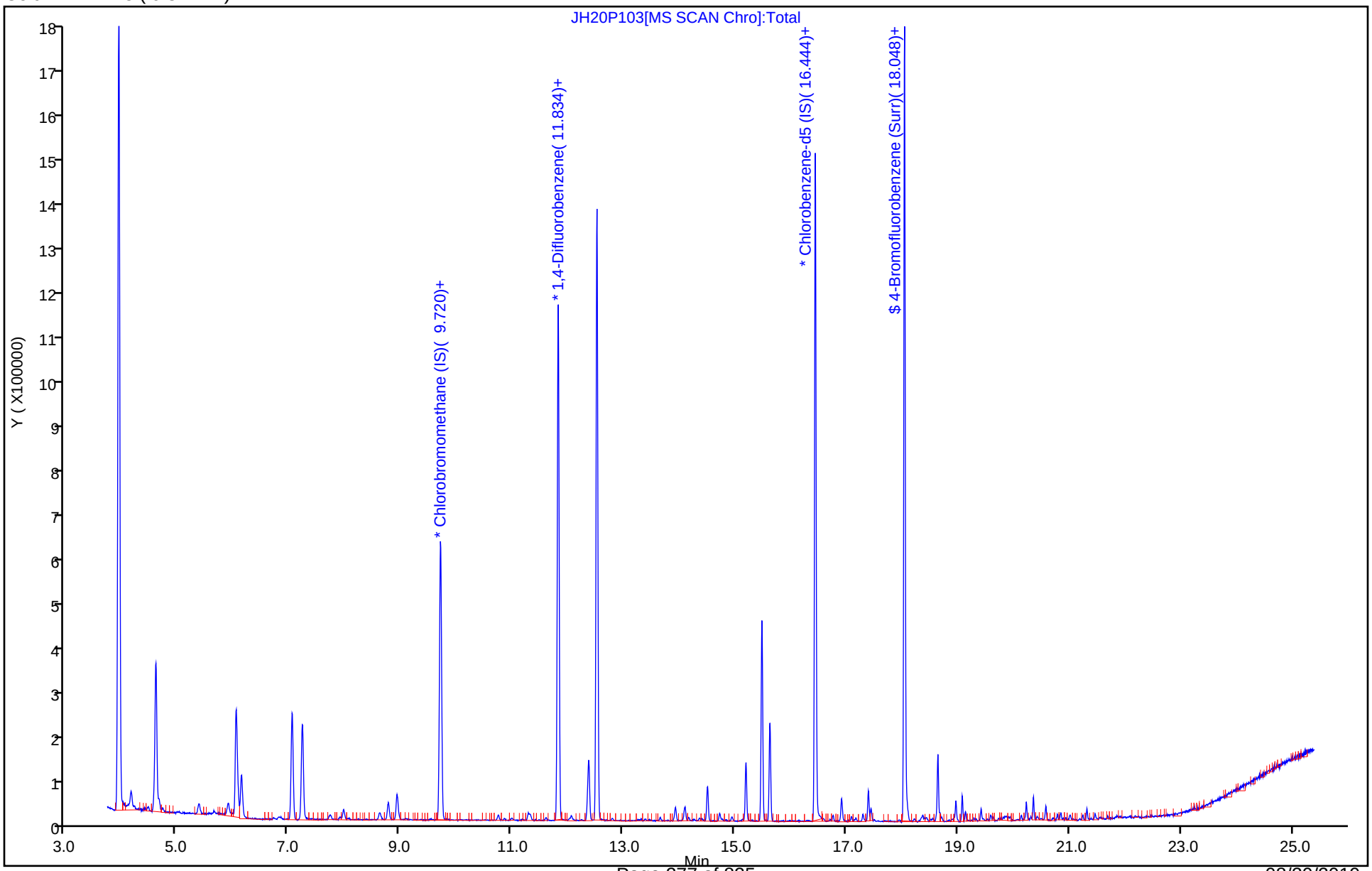
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10	Worklist Smp#:	13
Client ID:	SV-DUP04-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Lims ID:	140-16377-A-10				
Client ID:	SV-DUP04-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 18:08:30	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-013				
Misc. Info.:	140-16377-a-10				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:24:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

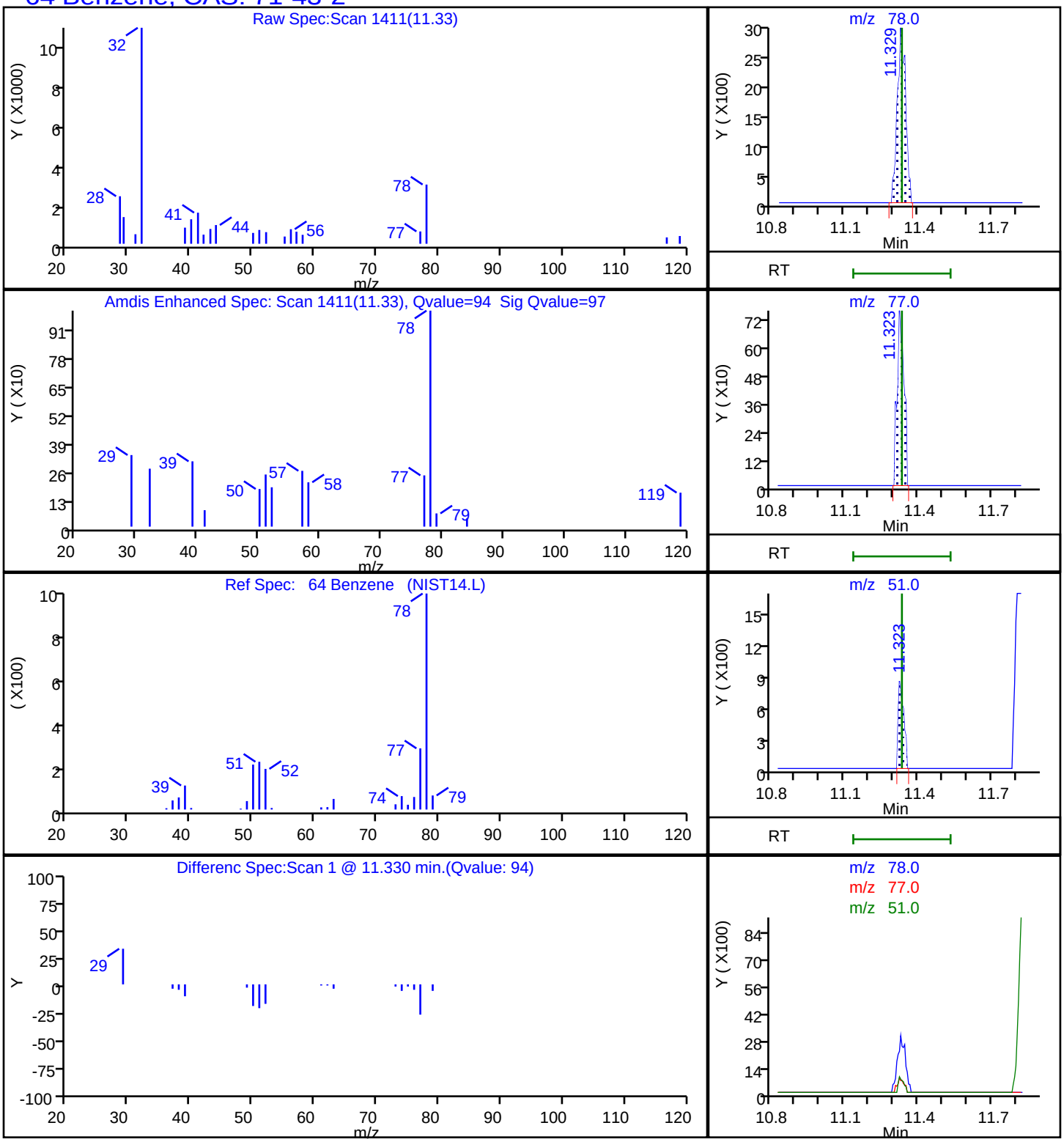
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:24:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.48	87.01

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

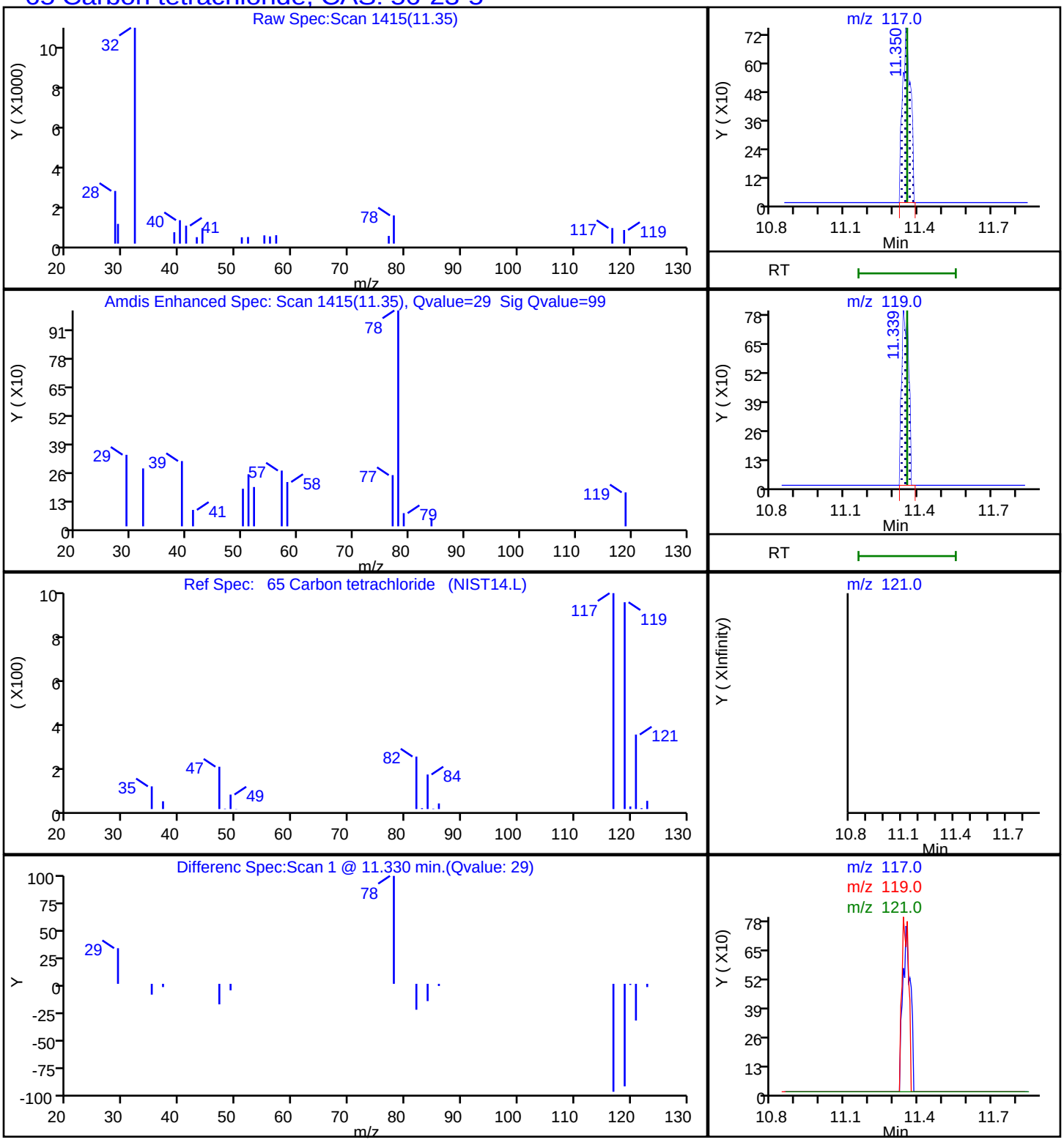
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

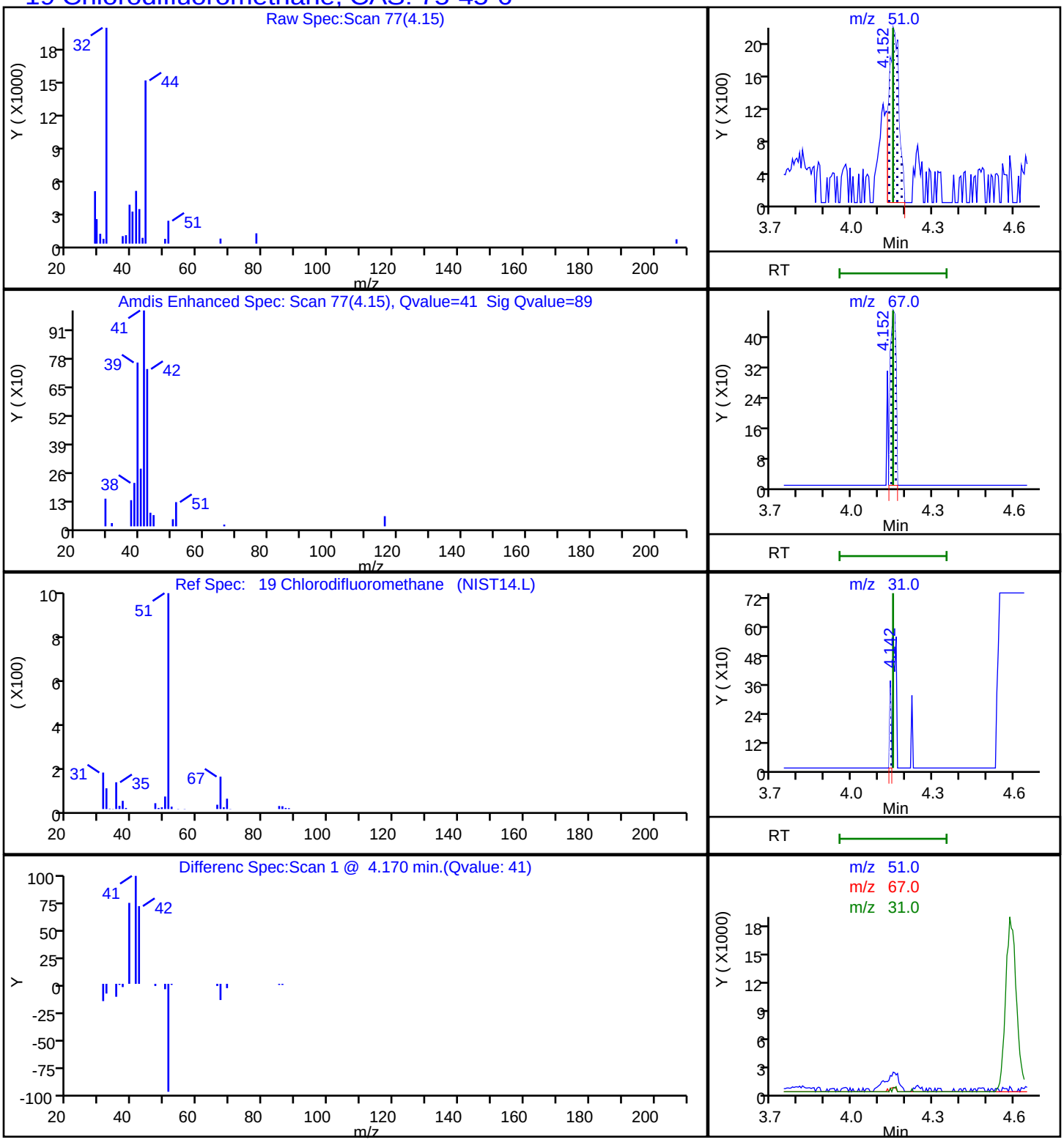
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

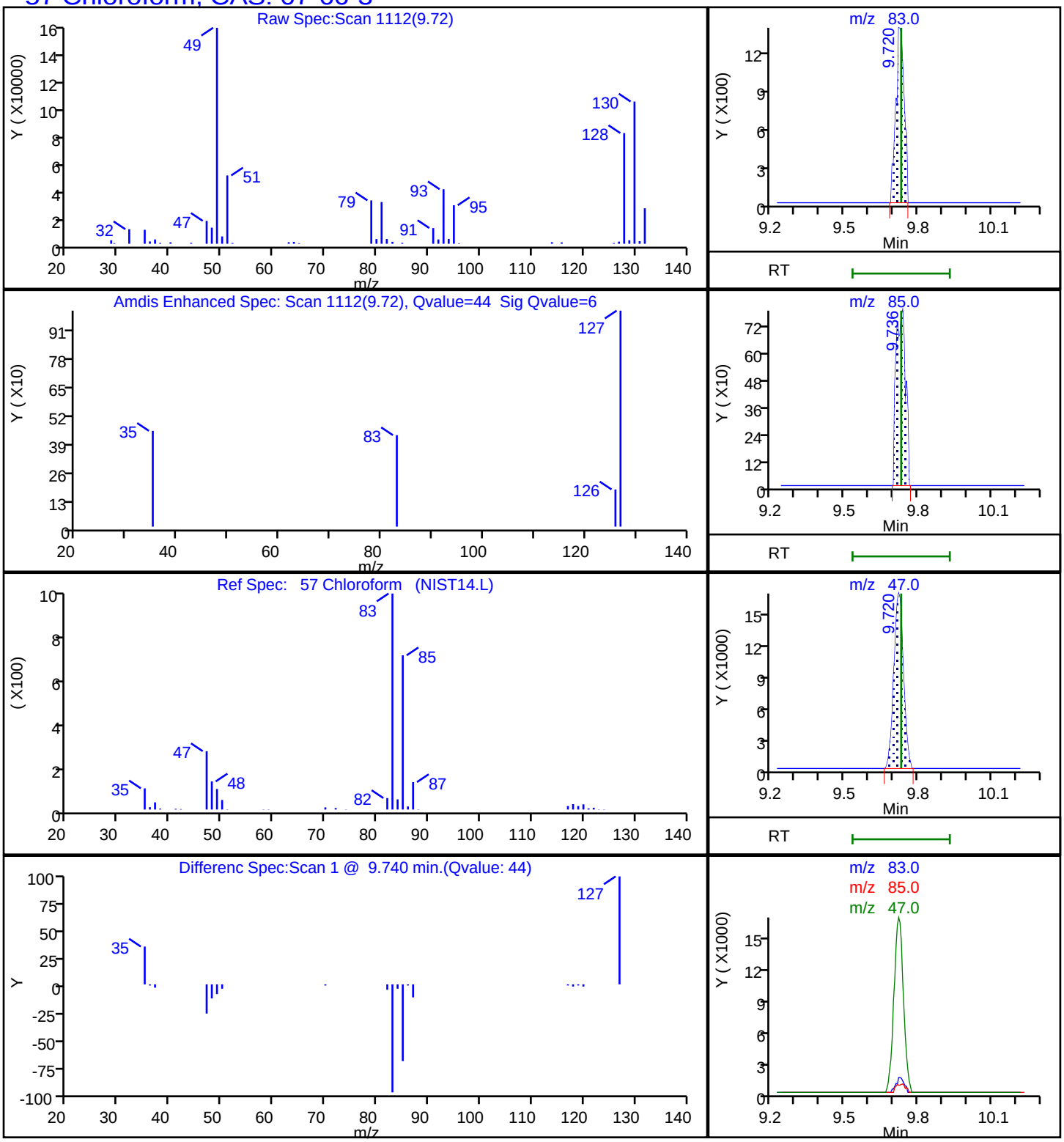
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

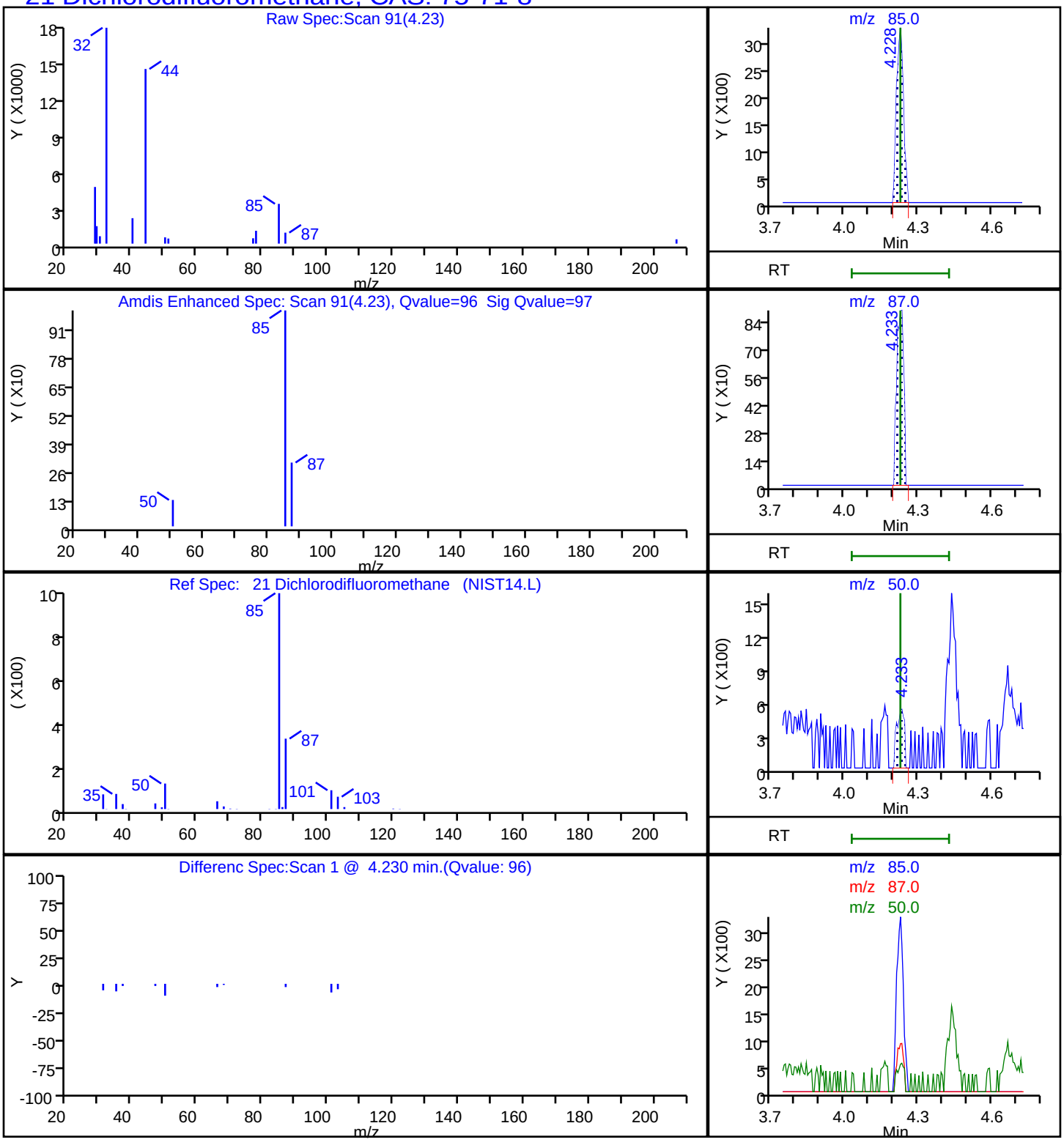


Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10		
Client ID:	SV-DUP04-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

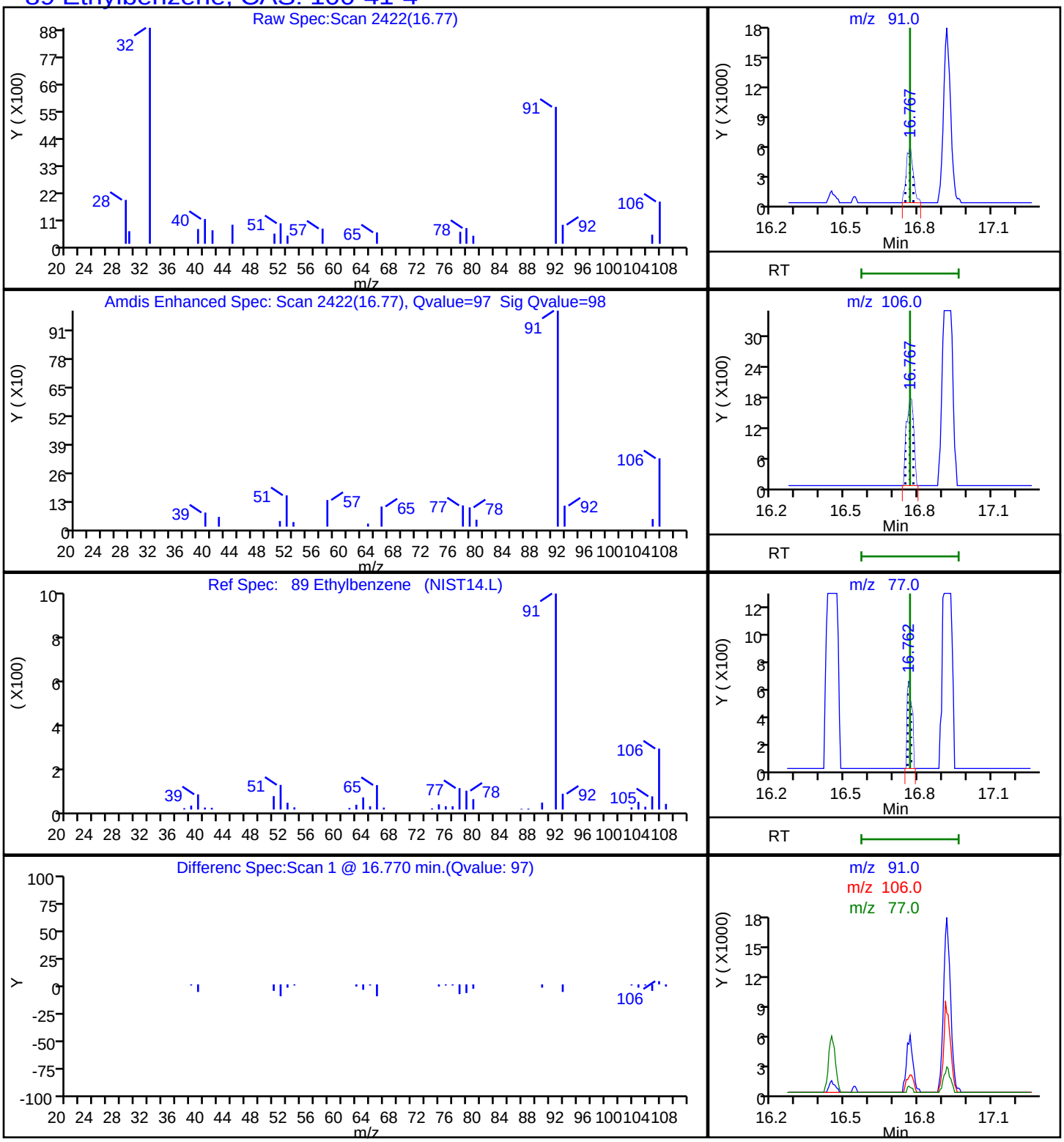
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10		
Client ID:	SV-DUP04-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

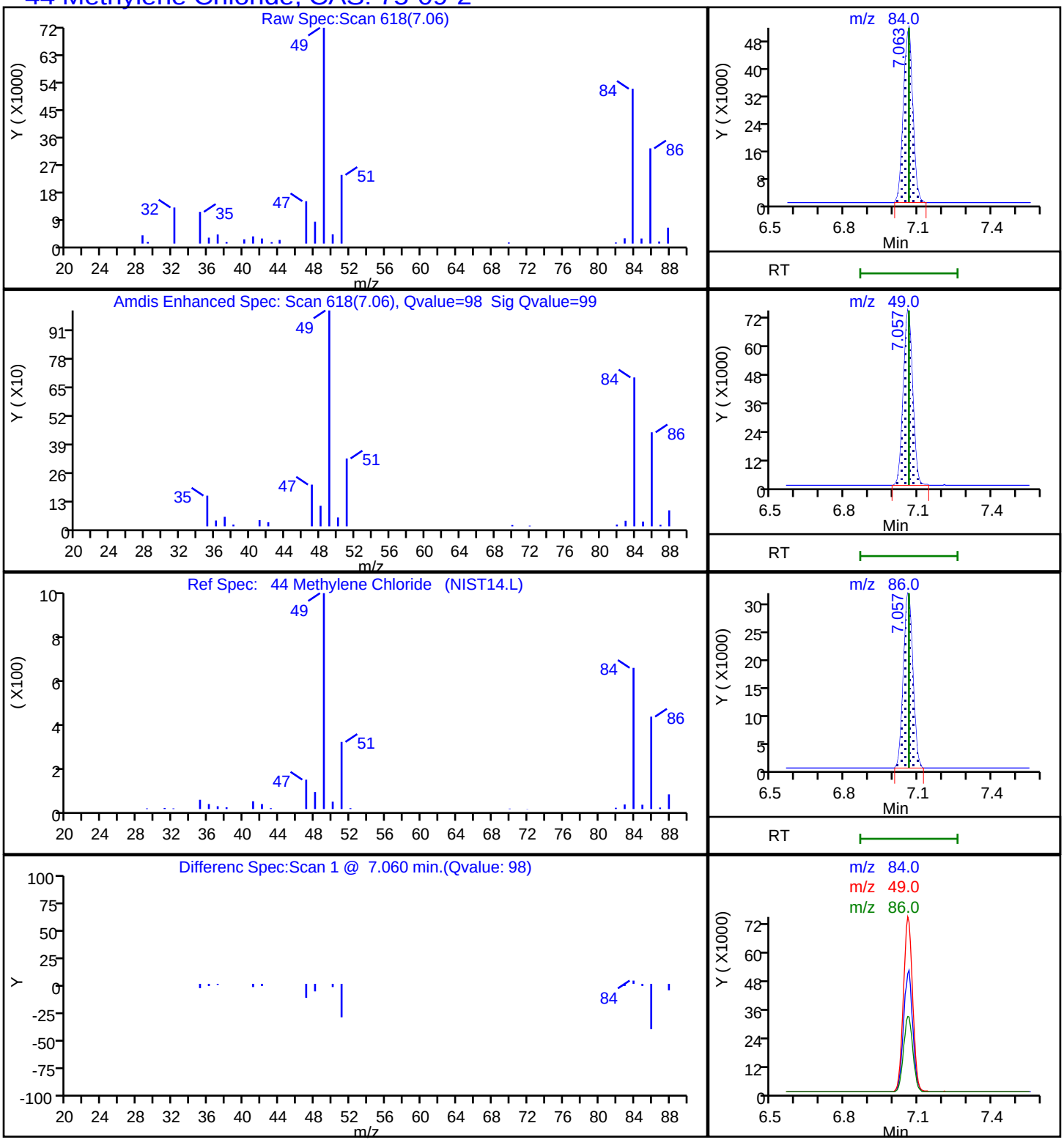
89 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

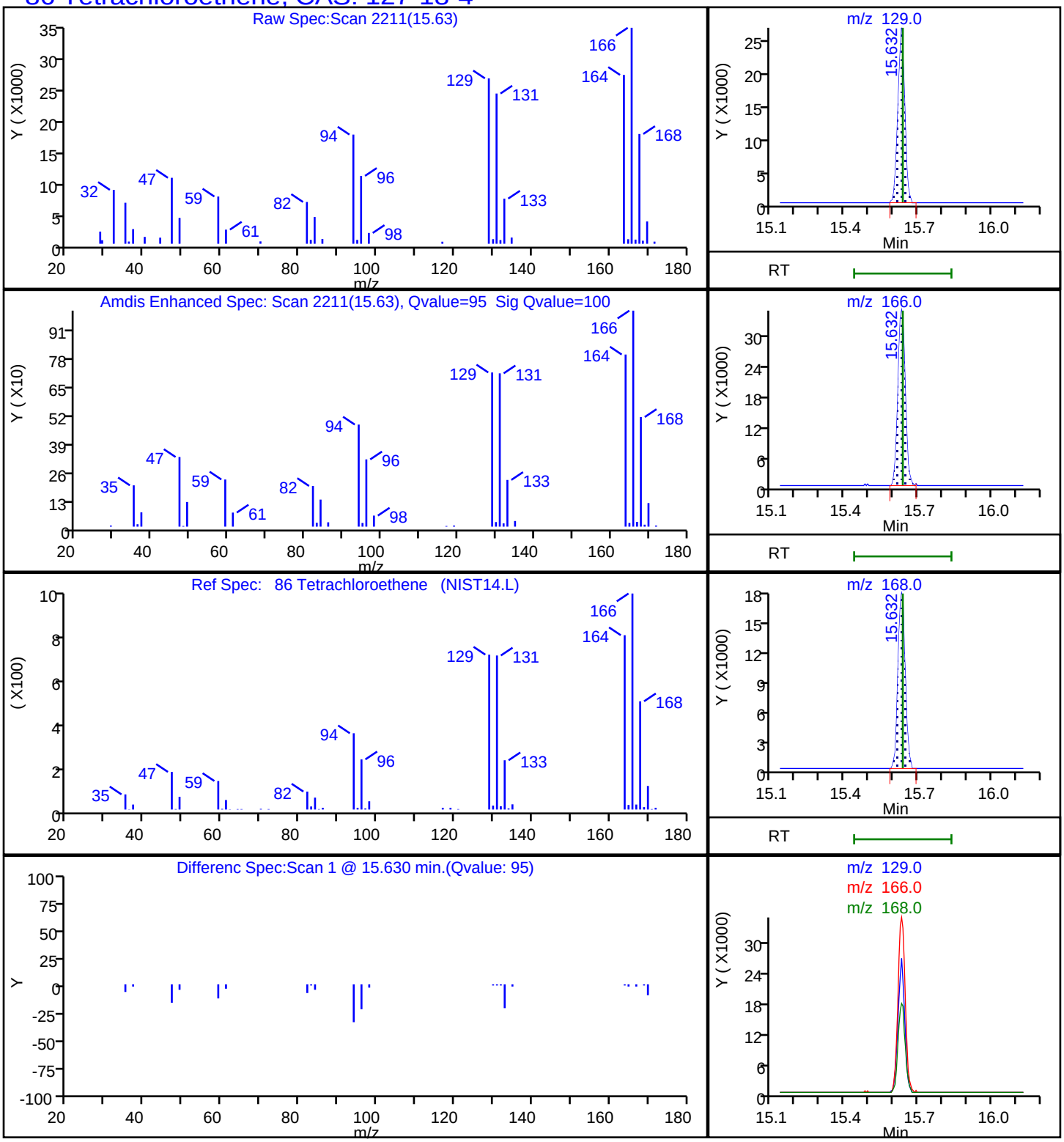


Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

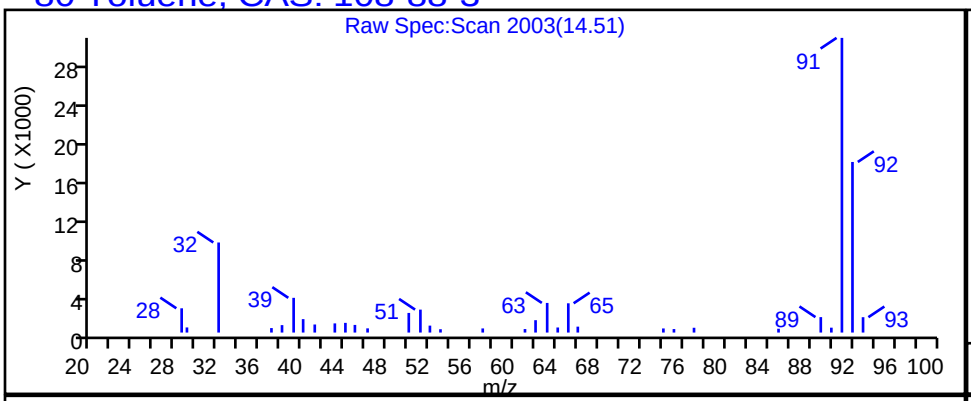
86 Tetrachloroethene, CAS: 127-18-4

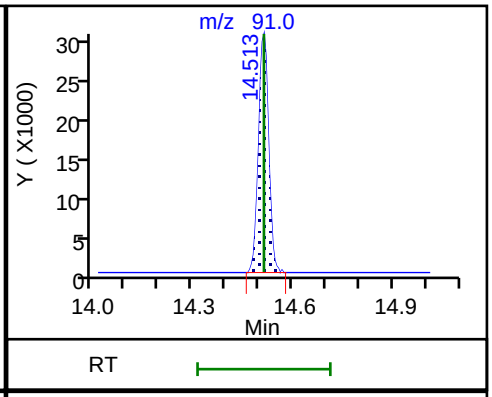


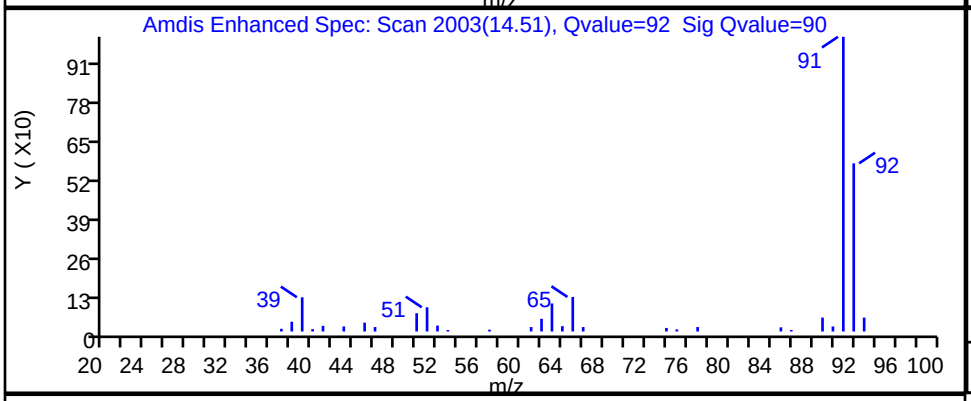
Eurofins TestAmerica, Knoxville

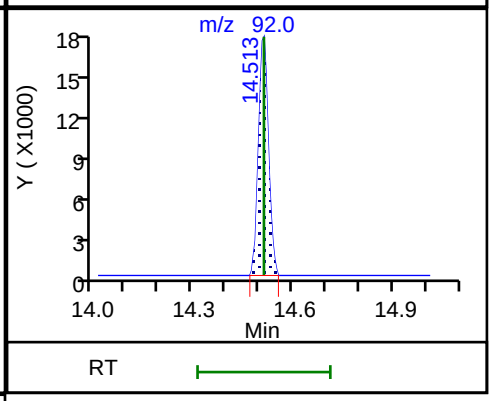
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

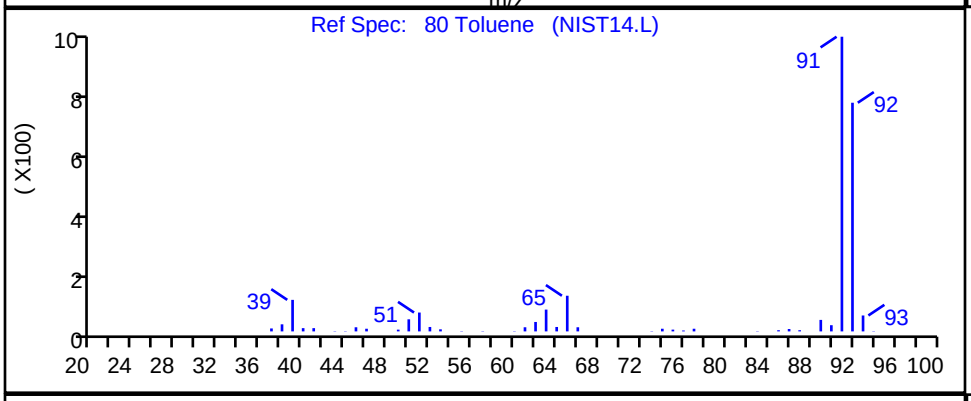
80 Toluene, CAS: 108-88-3

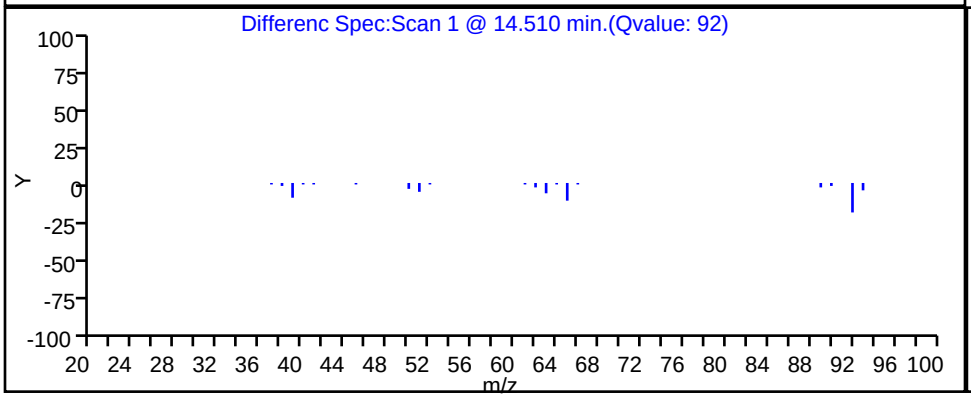


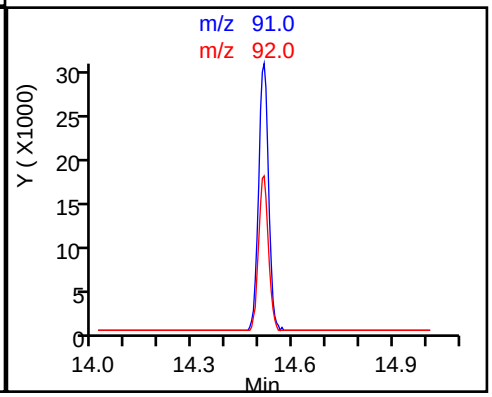








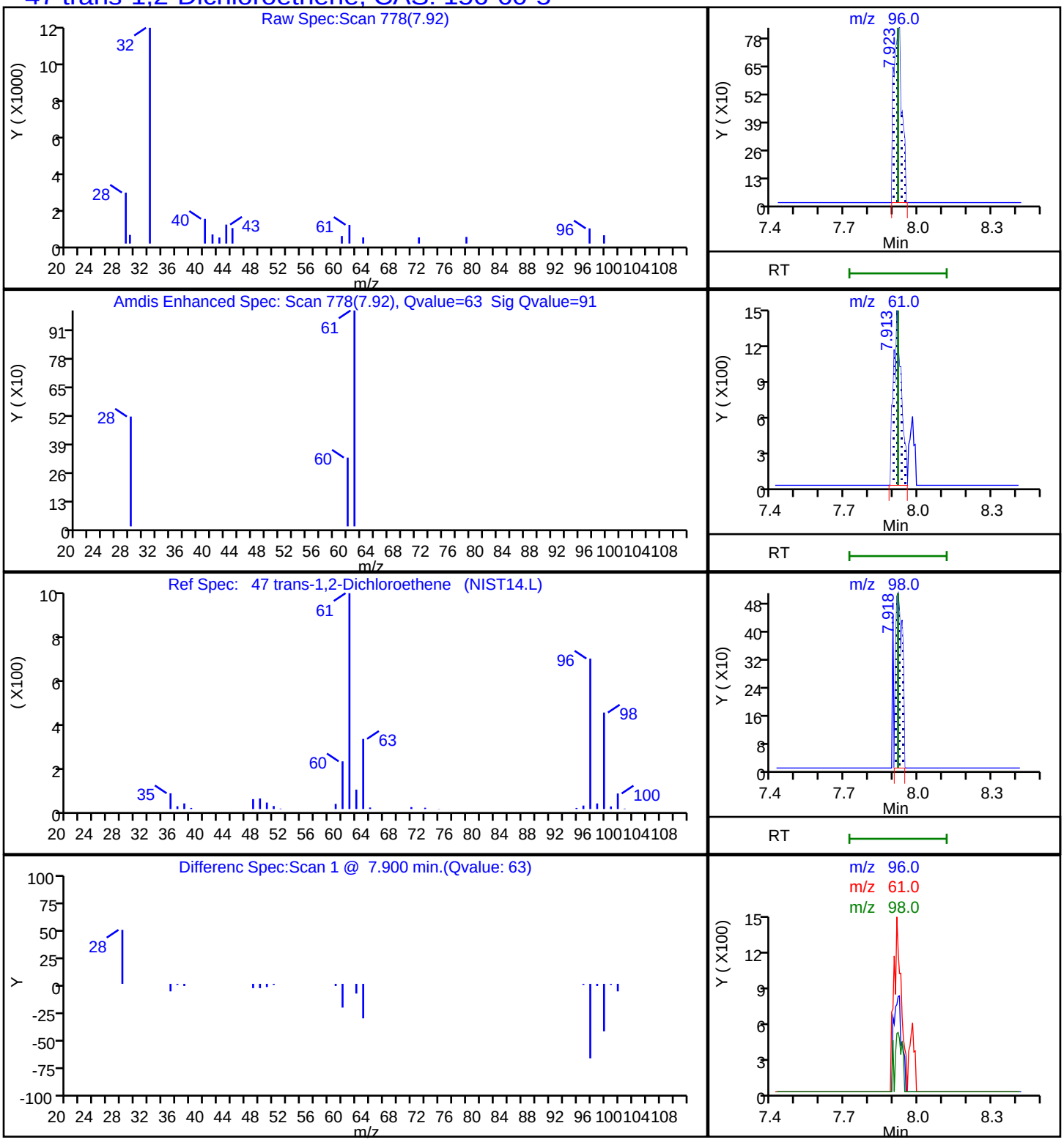




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 trans-1,2-Dichloroethene, CAS: 156-60-5

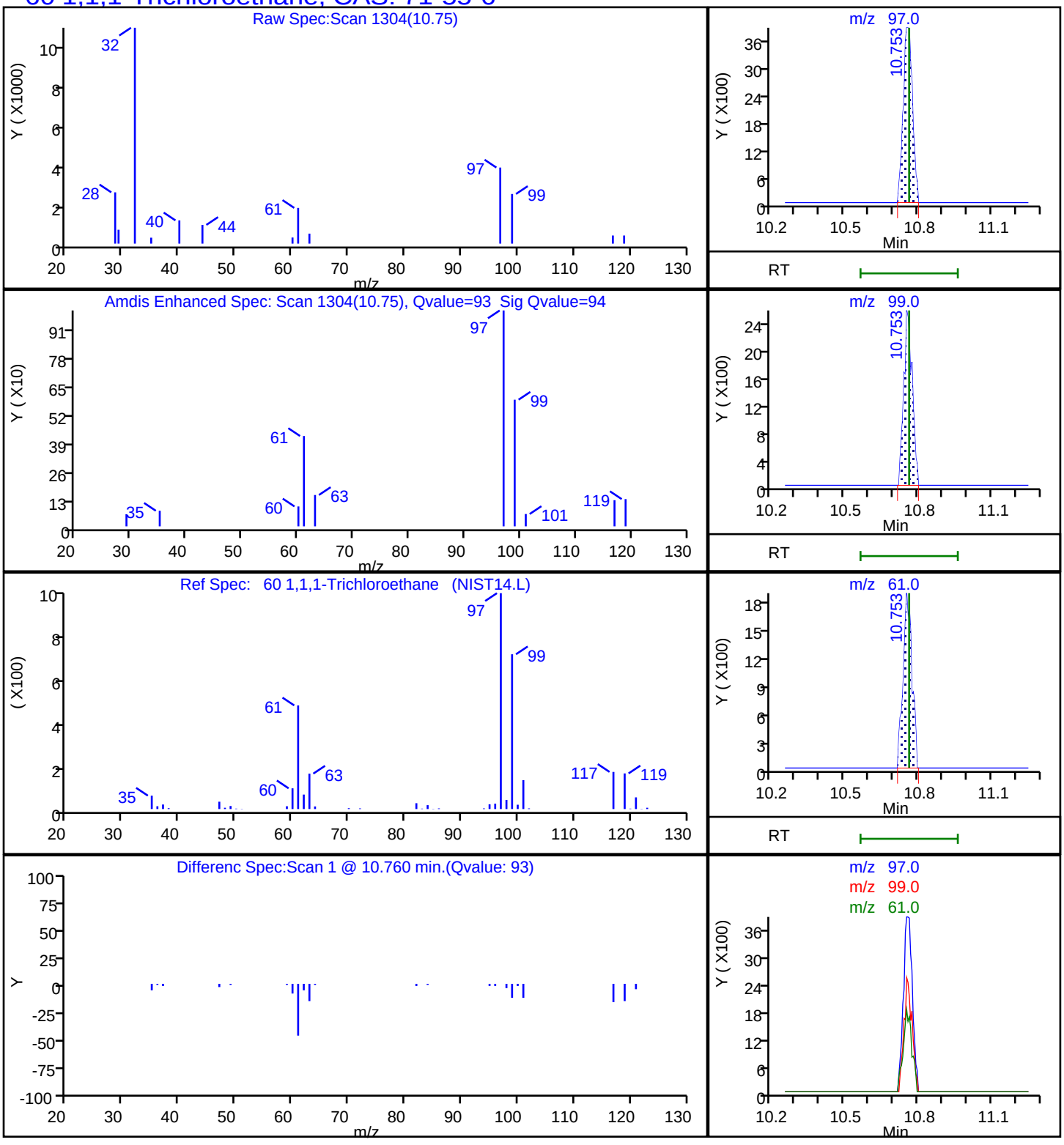


Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

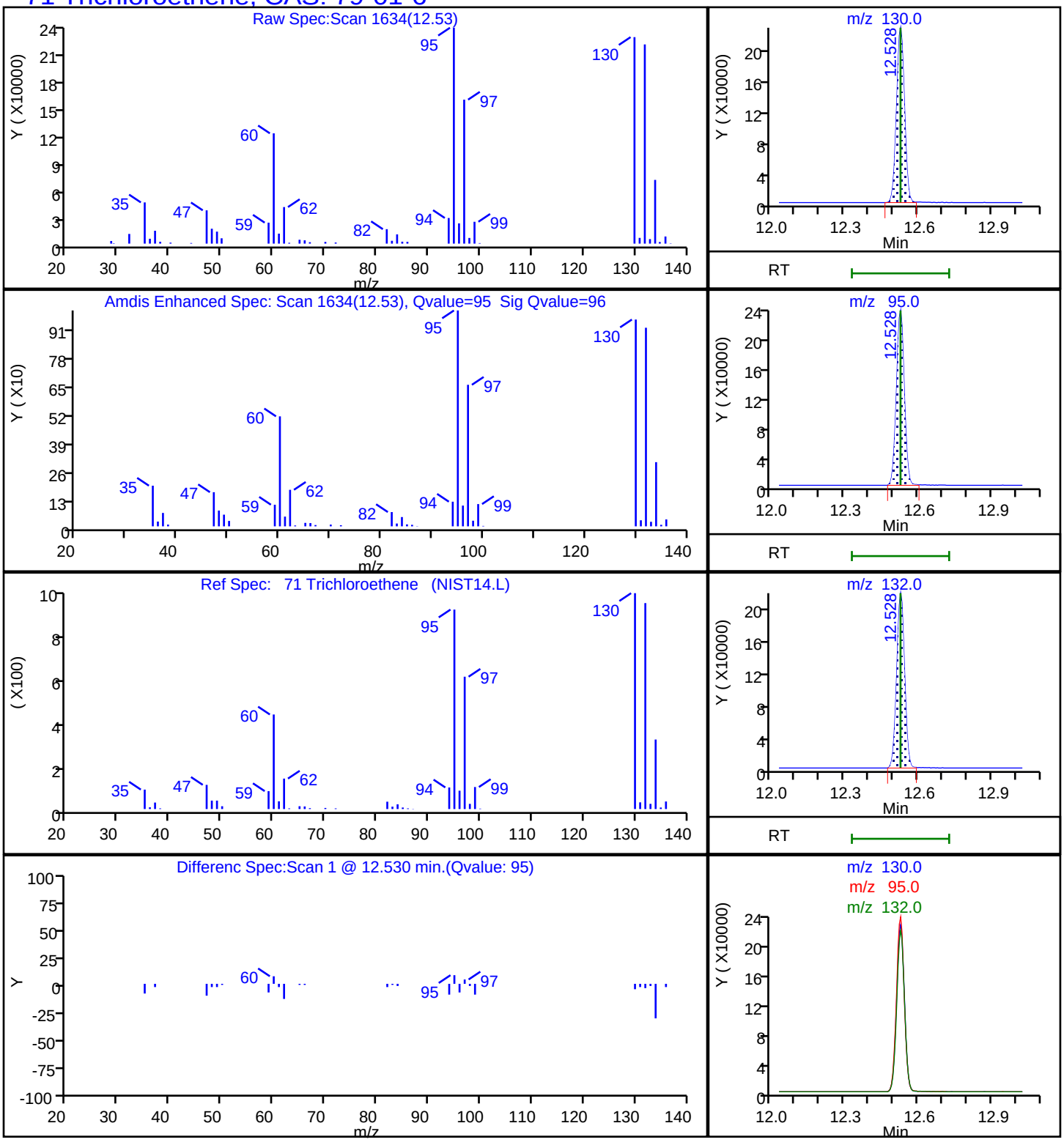
60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

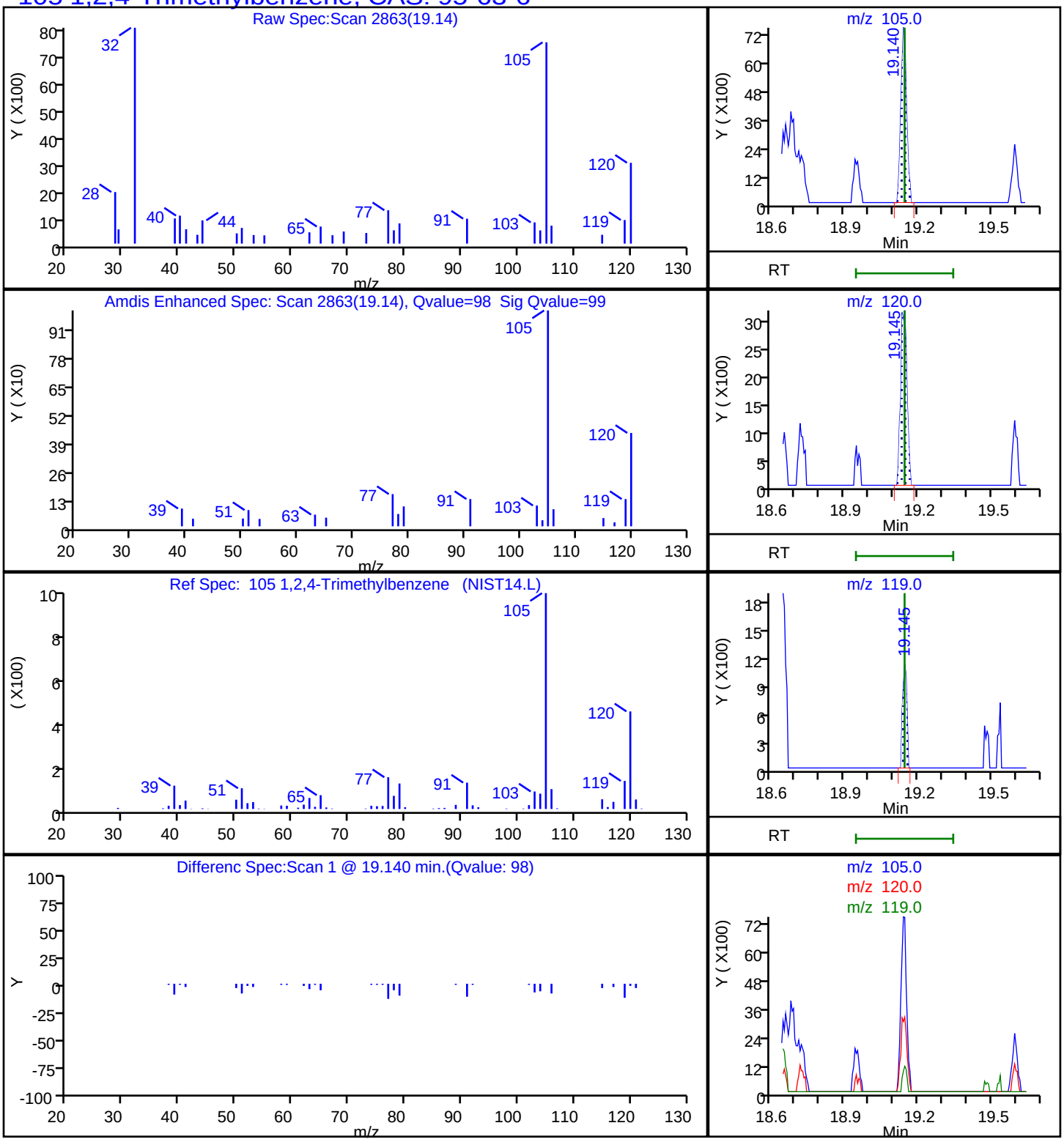


Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

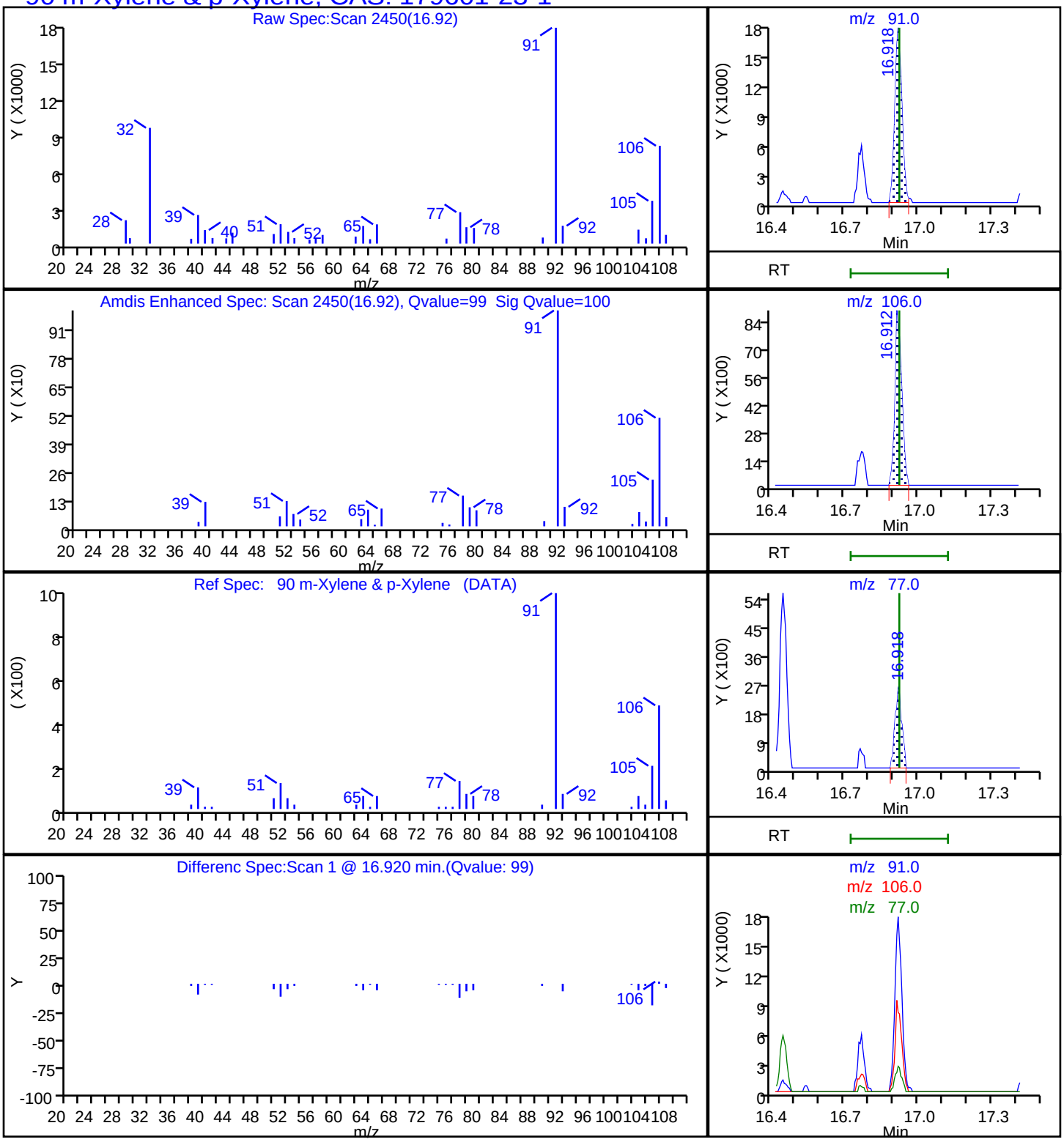


Report Date: 21-Aug-2019 12:24:28 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10		
Client ID:	SV-DUP04-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

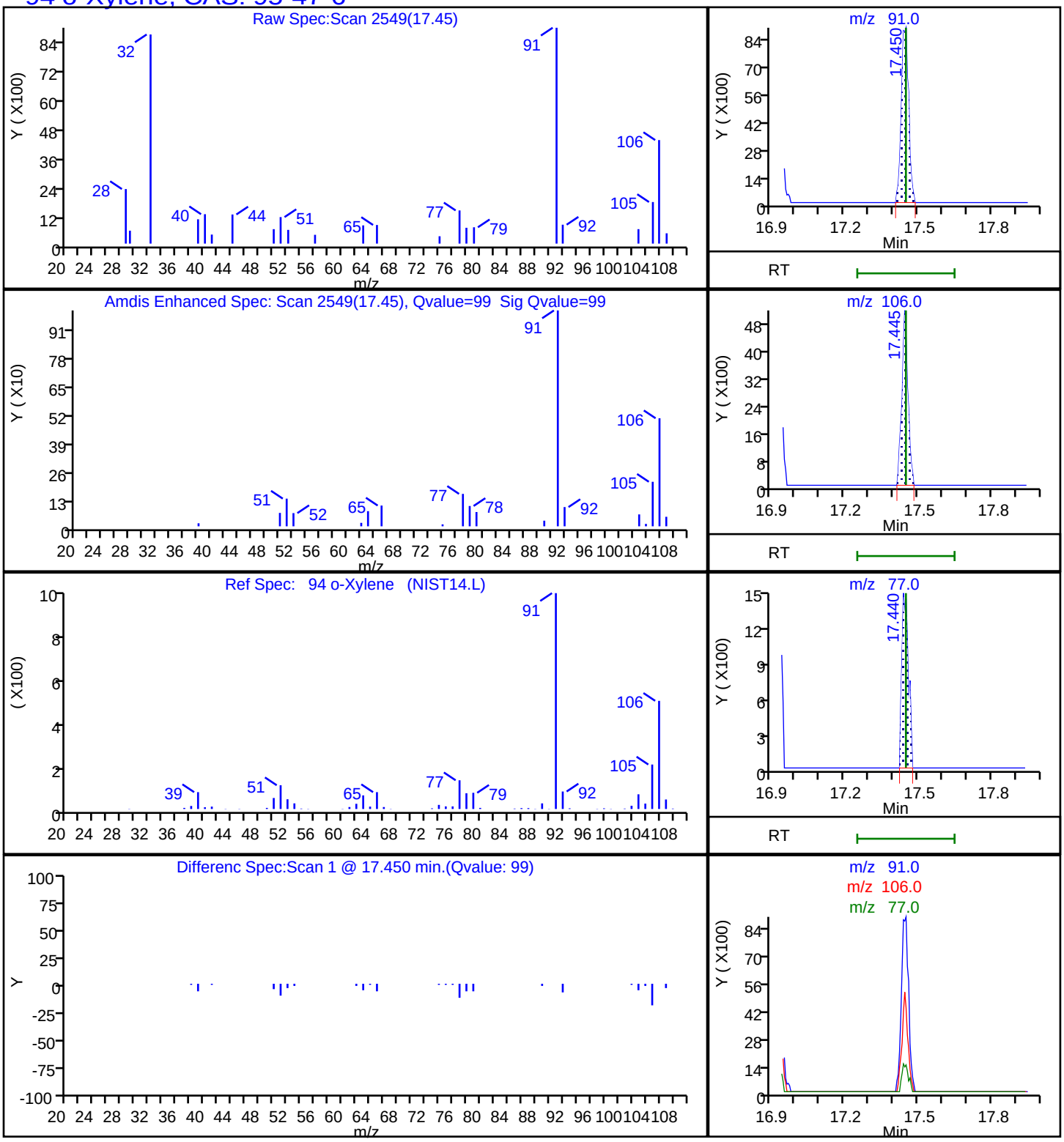
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D		
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10
Client ID:	SV-DUP04-A-27		
Operator ID:	007126	ALS Bottle#:	3 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

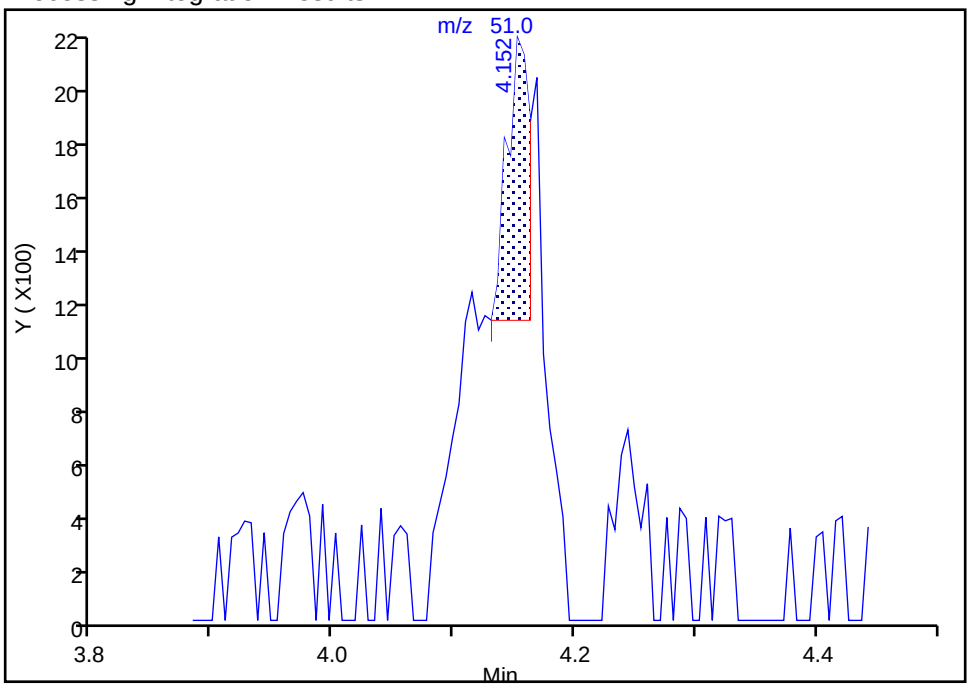
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10		
Client ID:	SV-DUP04-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

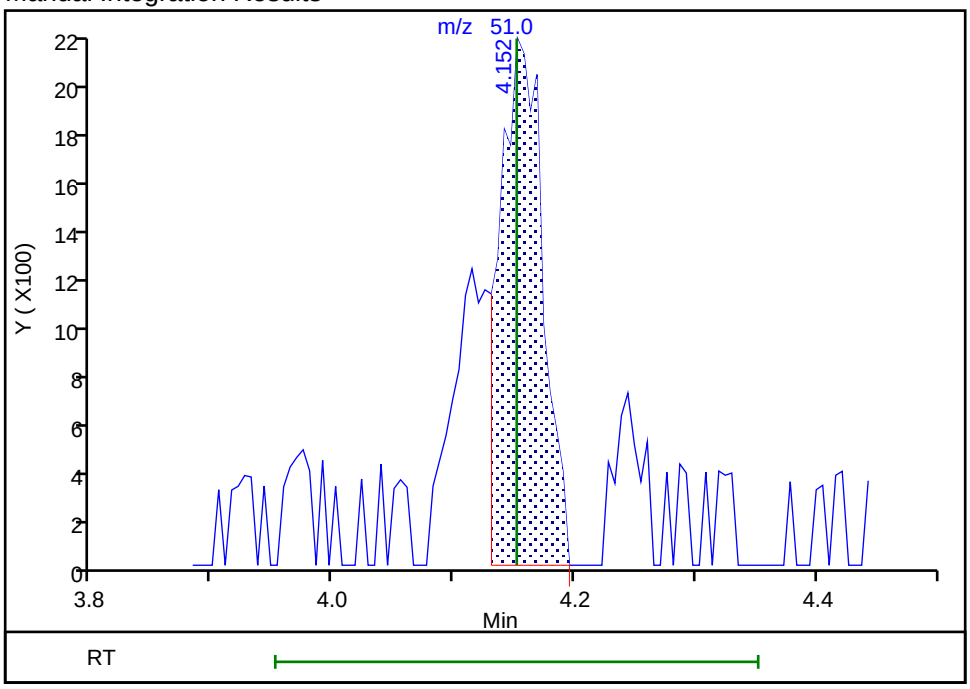
Processing Integration Results

RT: 4.15
Area: 1320
Amount: 0.022233
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 5234
Amount: 0.088158
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 21-Aug-2019 12:23:45

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

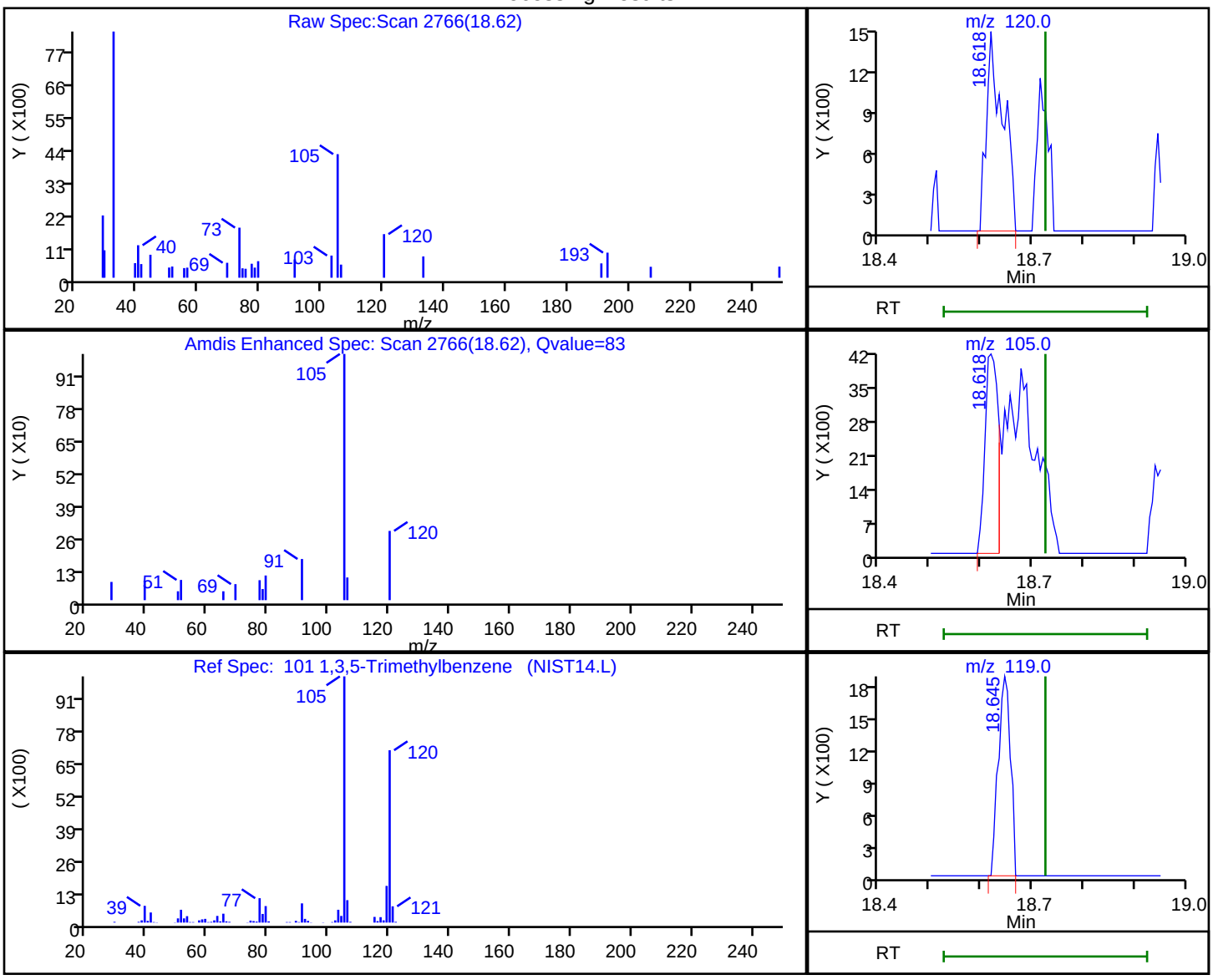
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P103.D				
Injection Date:	20-Aug-2019 18:08:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-10	Lab Sample ID:	140-16377-10		
Client ID:	SV-DUP04-A-27				
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.62	120.00	3330	0.027279
18.62	105.00	7426	
18.64	119.00	3055	

Reviewer: khachitpongpanits, 21-Aug-2019 12:24:22

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.042	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	9.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.58		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.84		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.30		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.1		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.48		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	4.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	32		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	3.0		1.0	2.0
127-18-4	Tetrachloroethene	165.83	5.7		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	5.6		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.4		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	6.6		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	37		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D
Lims ID: 140-16377-A-11
Client ID: SV-139-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 18:57:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-014
Misc. Info.: 140-16377-a-11
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:24:27 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:24:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.725	0.001	95	203135	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.839	-0.005	95	1066461	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.449	-0.005	89	911430	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.047	0.001	95	597324	3.57	
19 Chlorodifluoromethane	51	4.158	4.152	0.006	93	3848	0.0693	
21 Dichlorodifluoromethane	85	4.228	4.227	0.001	97	5771	0.0907	
44 Methylene Chloride	84	7.063	7.062	0.001	97	140202	1.83	
60 1,1,1-Trichloroethane	97	10.769	10.763	0.006	0	2928	0.0165	
64 Benzene	78	11.334	11.333	0.001	58	1632	0.008355	
65 Carbon tetrachloride	117	11.345	11.349	-0.010	28	1801	0.0110	
71 Trichloroethene	130	12.523	12.521	-0.005	90	5355	0.0607	
80 Toluene	91	14.513	14.508	0.000	91	10920	0.0496	
86 Tetrachloroethene	129	15.632	15.637	-0.005	91	14899	0.1684	
89 Ethylbenzene	91	16.767	16.767	0.000	99	57431	0.2024	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	100	263019	1.21	
94 o-Xylene	91	17.445	17.450	-0.005	99	119053	0.5145	
101 1,3,5-Trimethylbenzene	120	18.720	18.715	-0.005	92	32280	0.2688	
105 1,2,4-Trimethylbenzene	105	19.145	19.144	0.001	98	25558	0.0958	
111 1,2,3-Trimethylbenzene	105	19.597	19.589	0.001	97	59402	0.2270	
122 Naphthalene	128	21.689	21.689	0.000	98	26919	0.1153	
S 129 Xylenes, Total	100				0		1.72	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

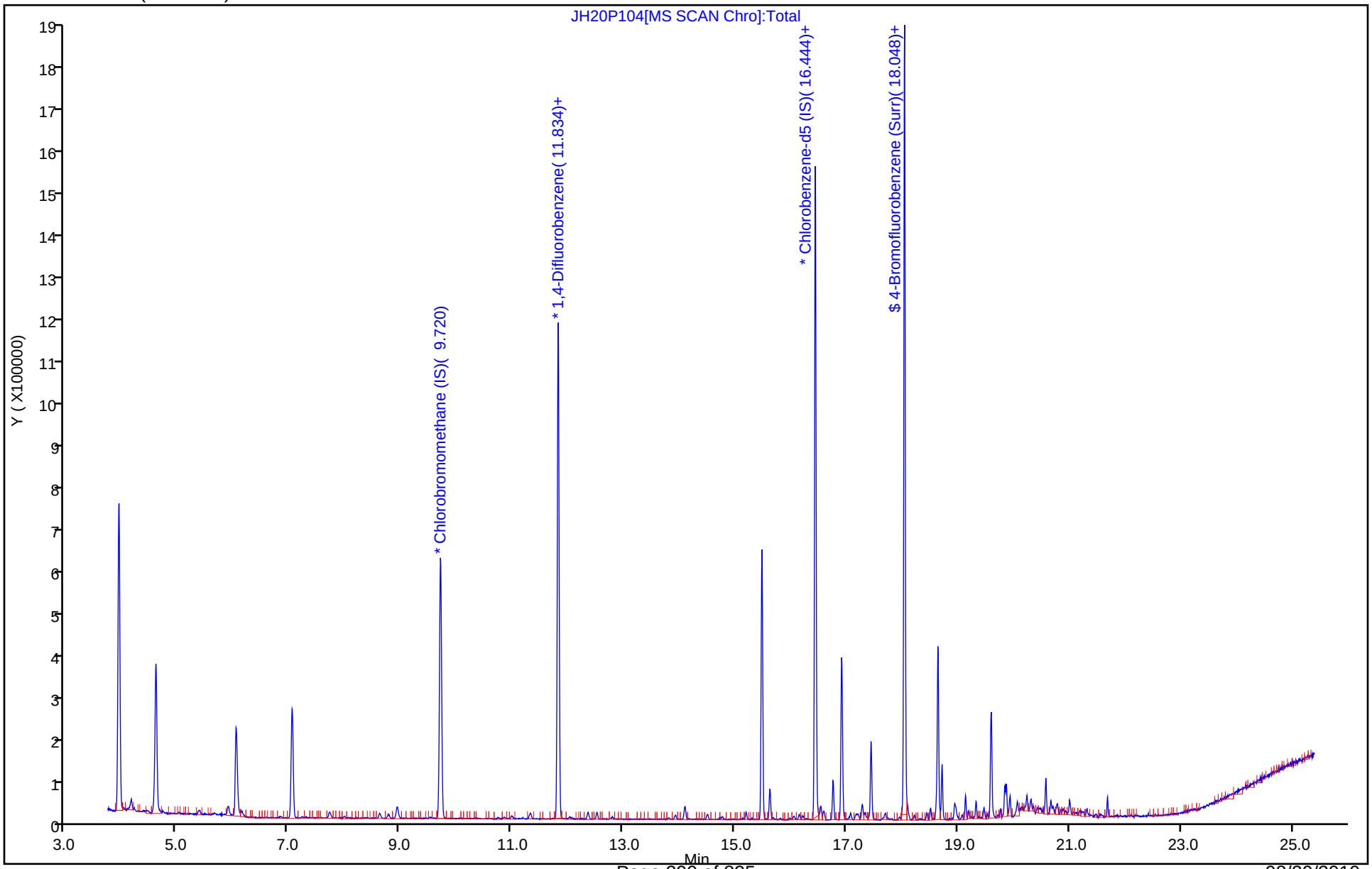
Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D

Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11	Worklist Smp#:	14
Client ID:	SV-139-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
Lims ID:	140-16377-A-11				
Client ID:	SV-139-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 18:57:30	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-014				
Misc. Info.:	140-16377-a-11				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:24:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

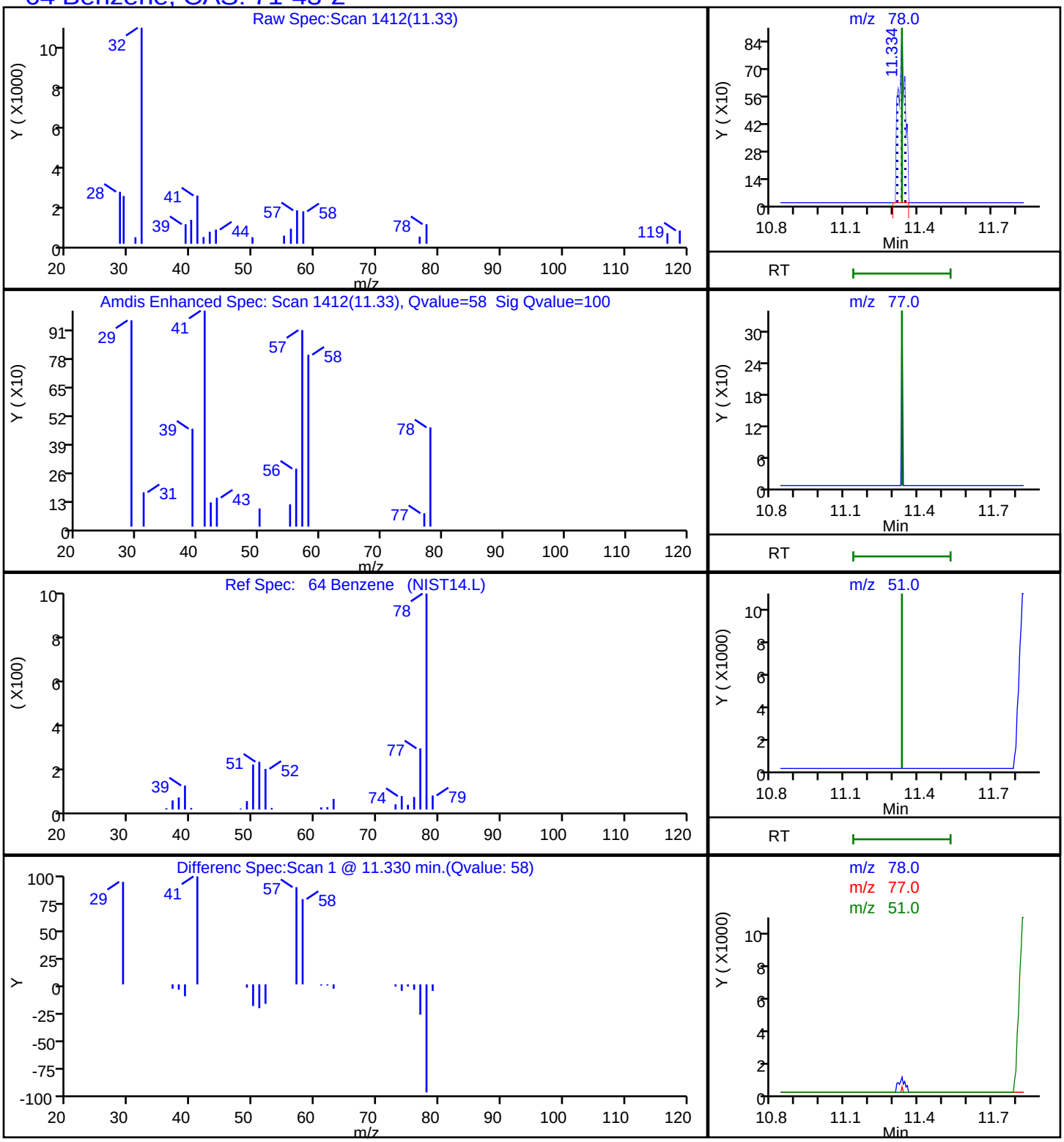
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:24:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.57	89.15

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

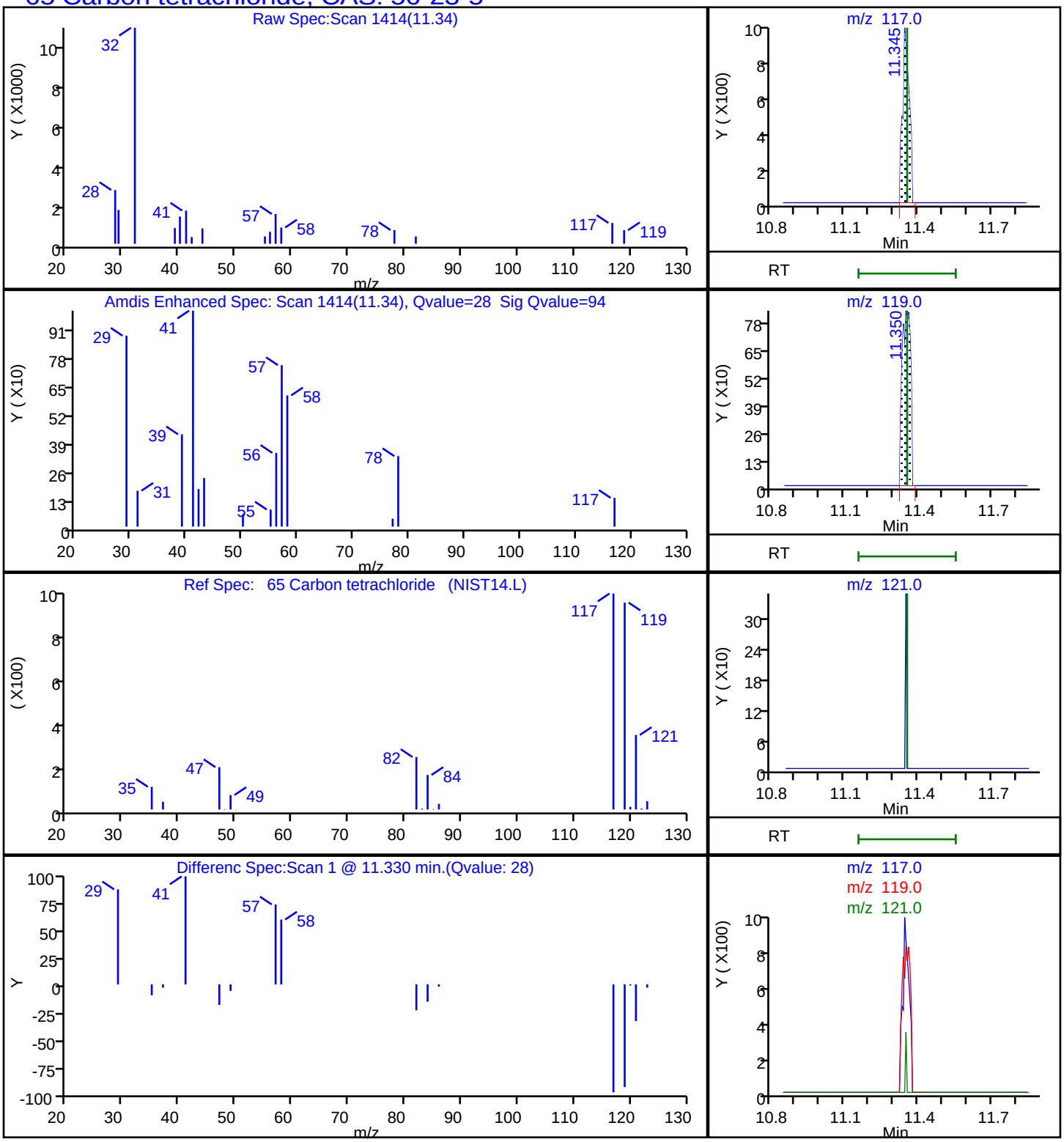


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
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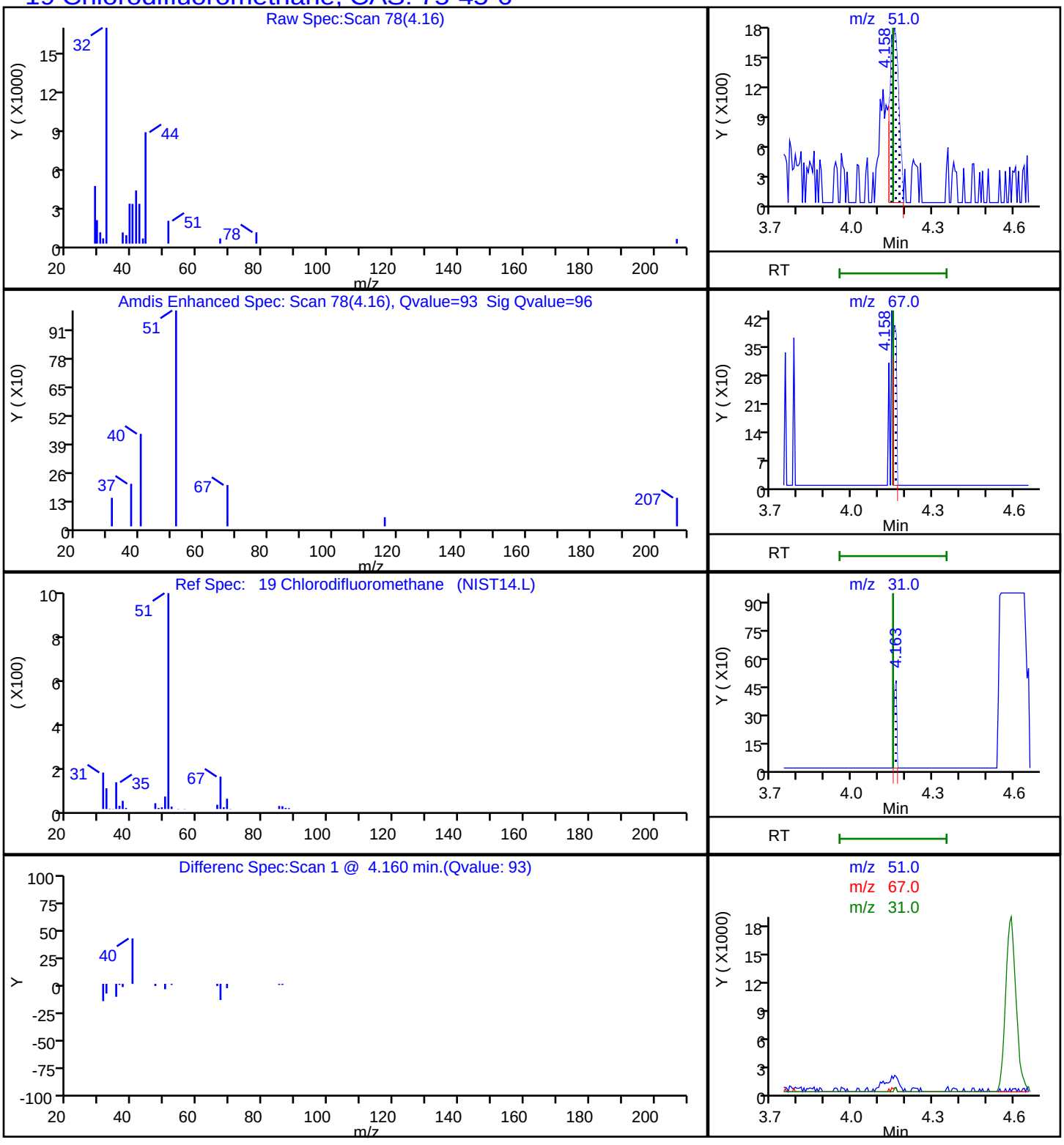
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11		
Client ID:	SV-139-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

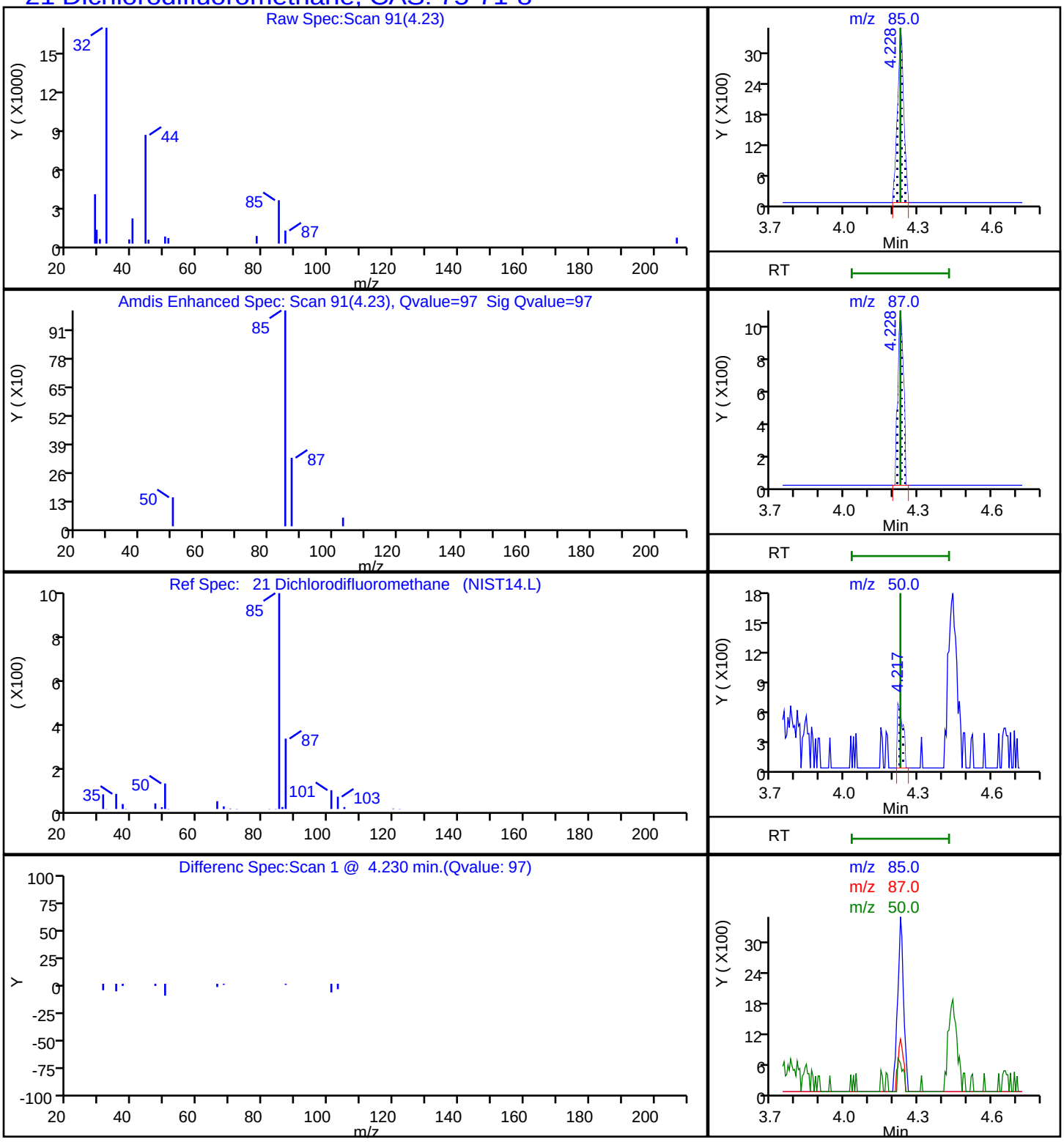


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11		
Client ID:	SV-139-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

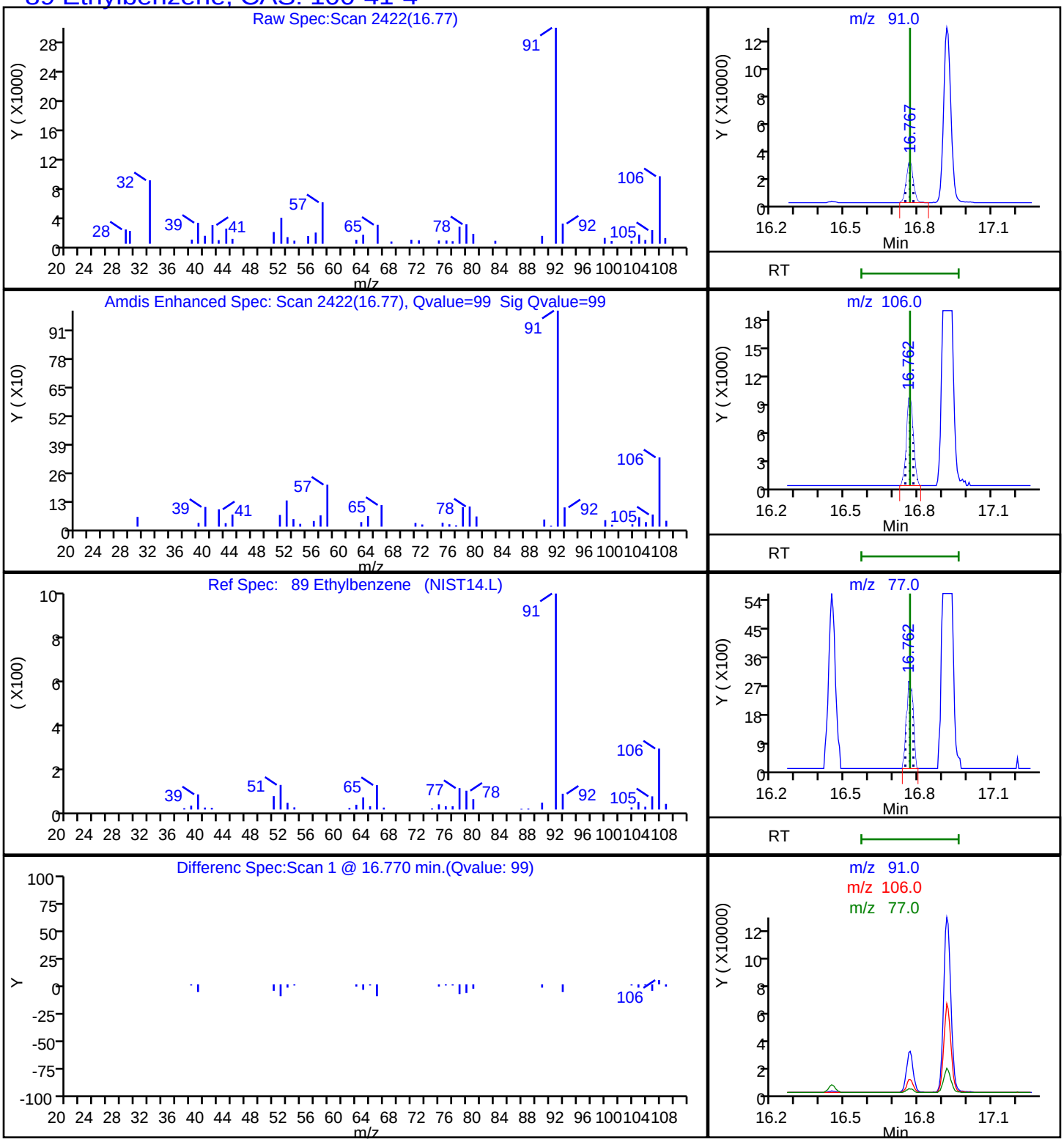


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

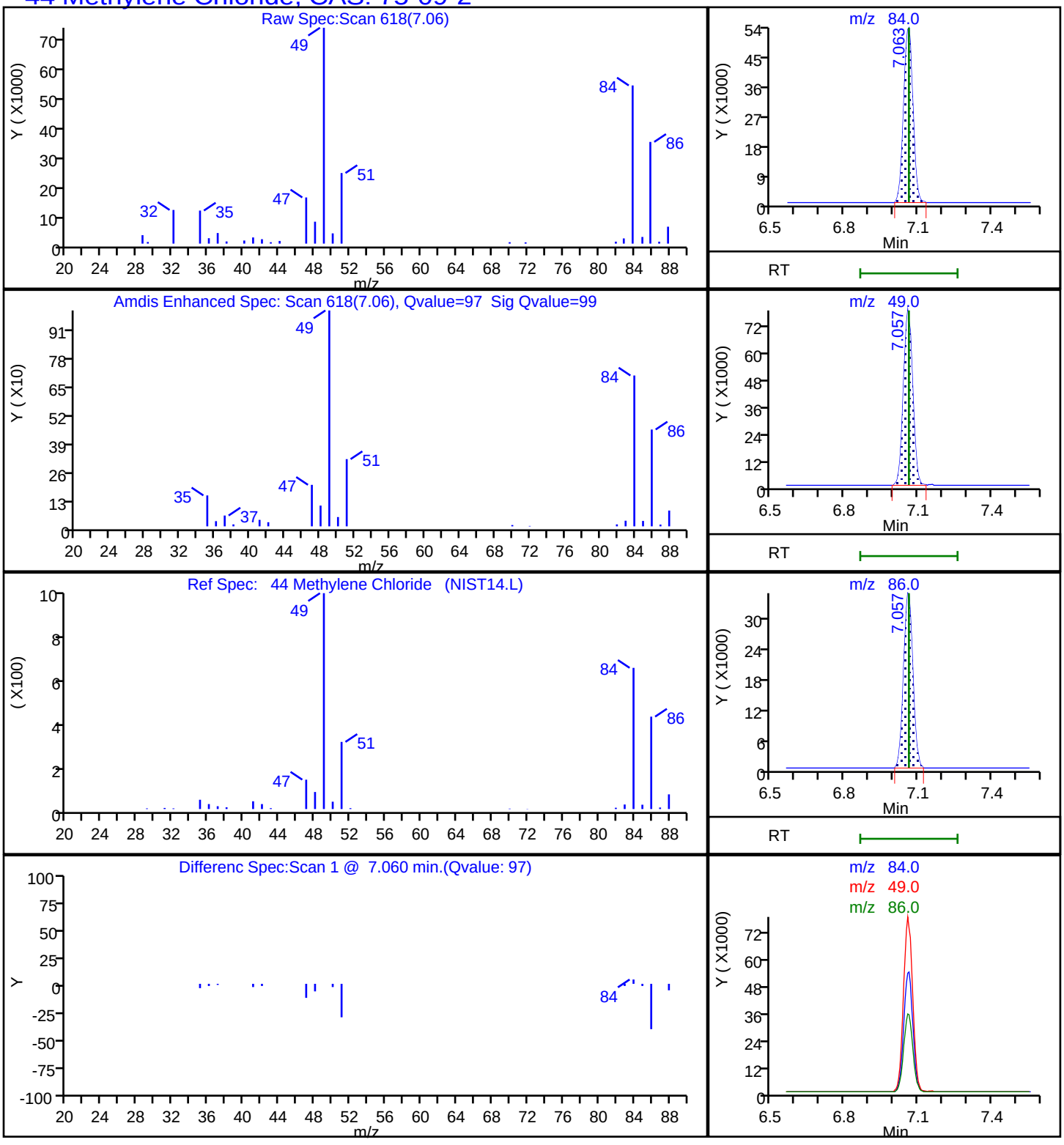


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

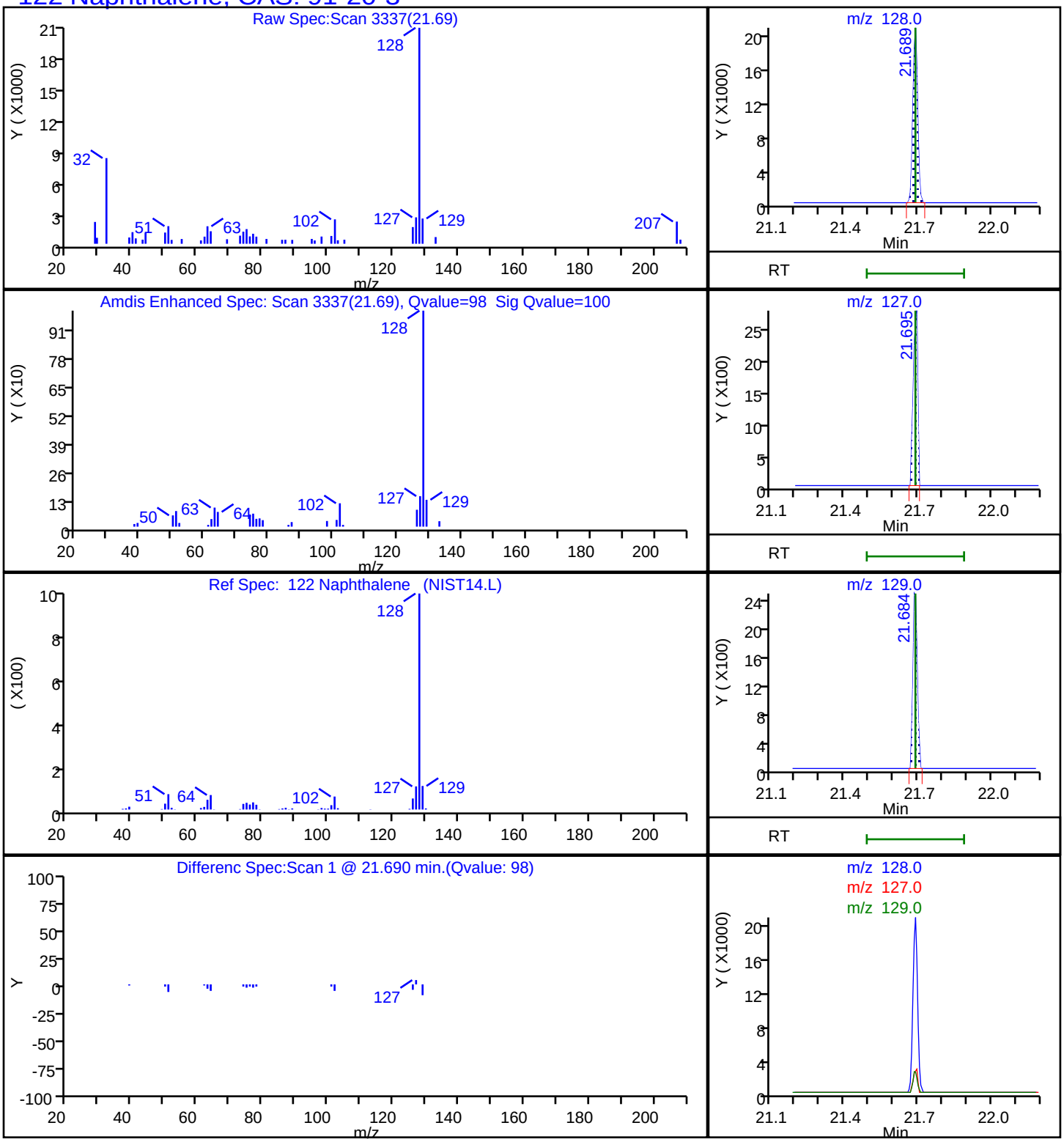
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

122 Naphthalene, CAS: 91-20-3

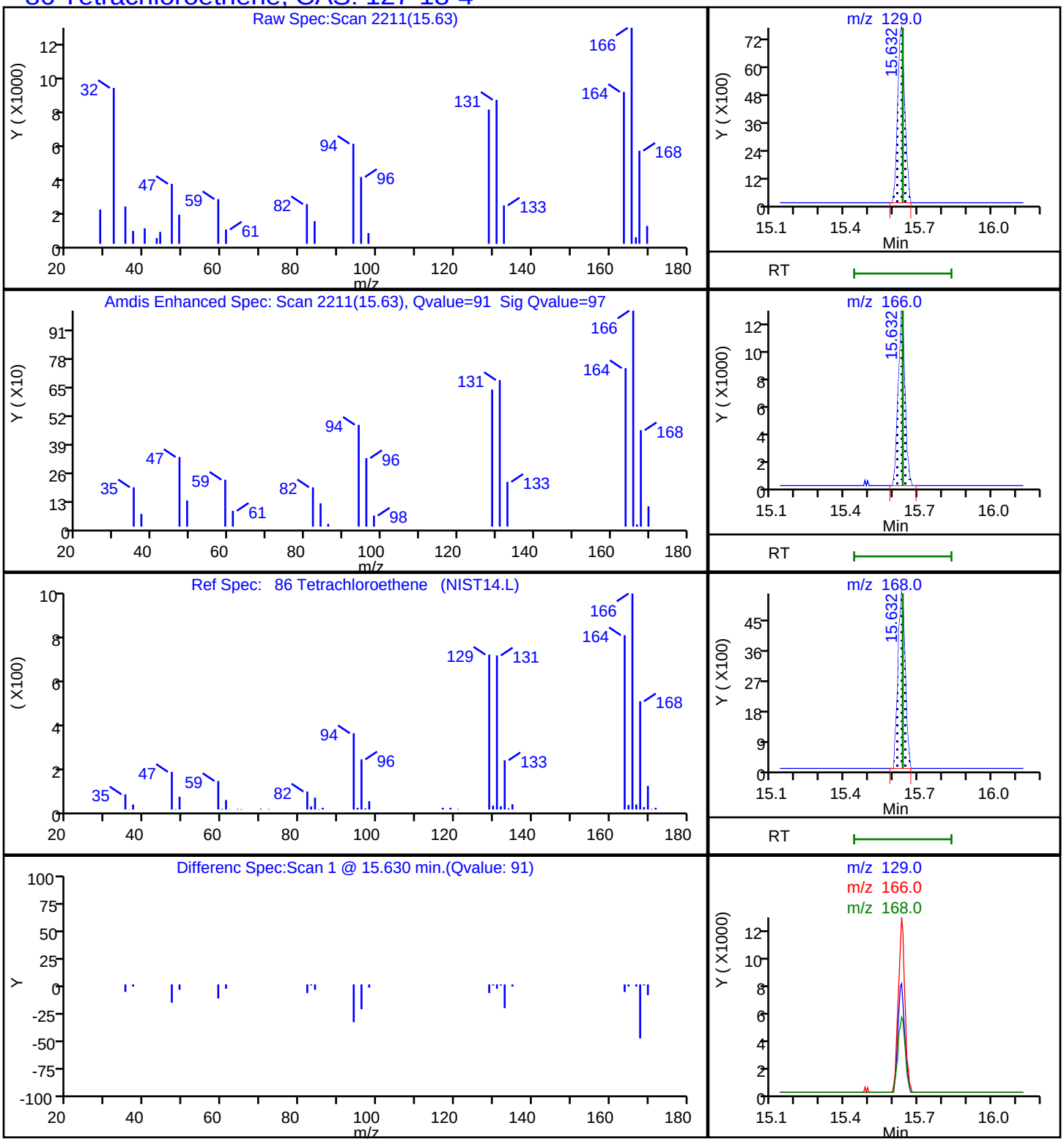


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11		
Client ID:	SV-139-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

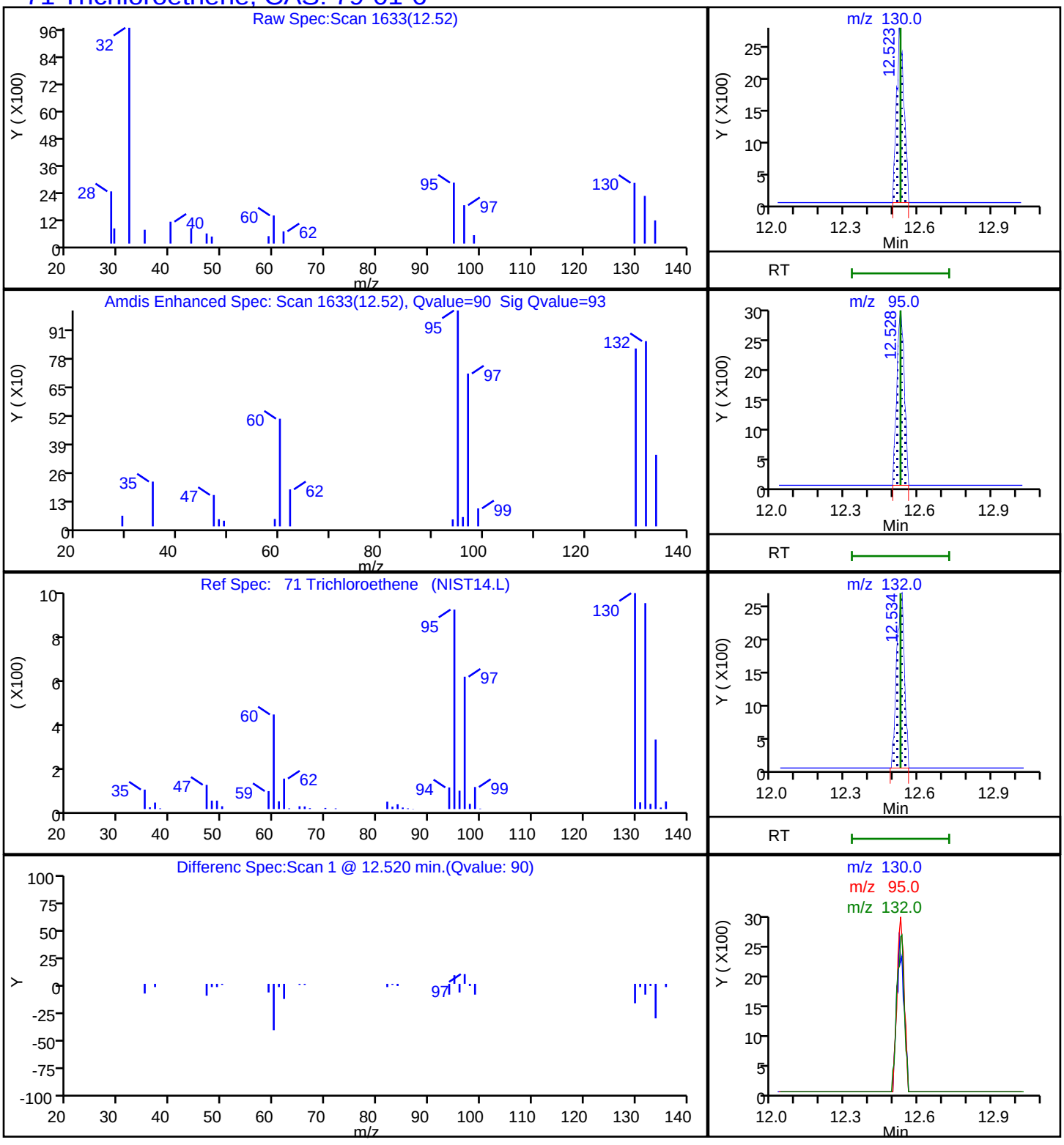
86 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

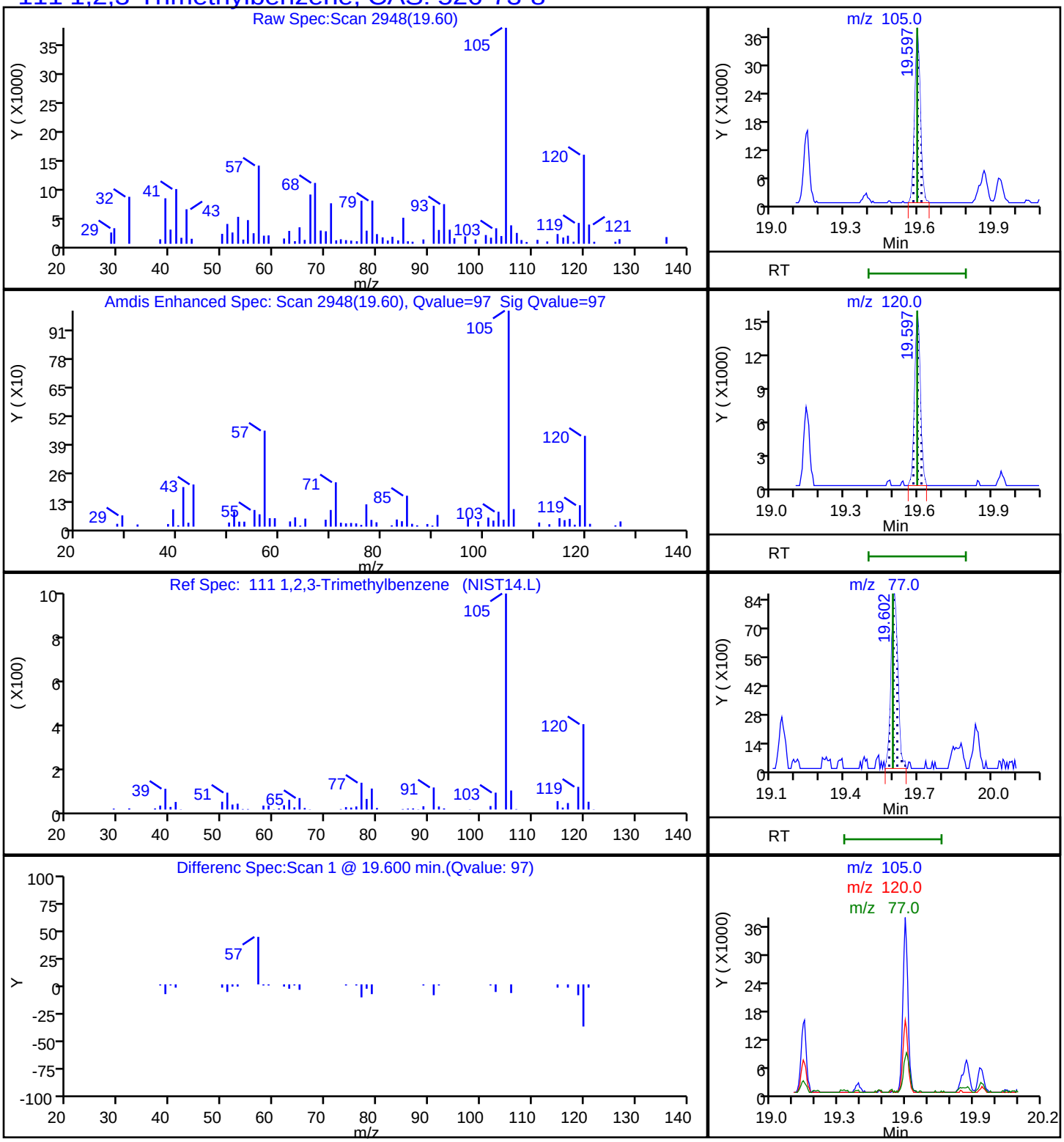


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

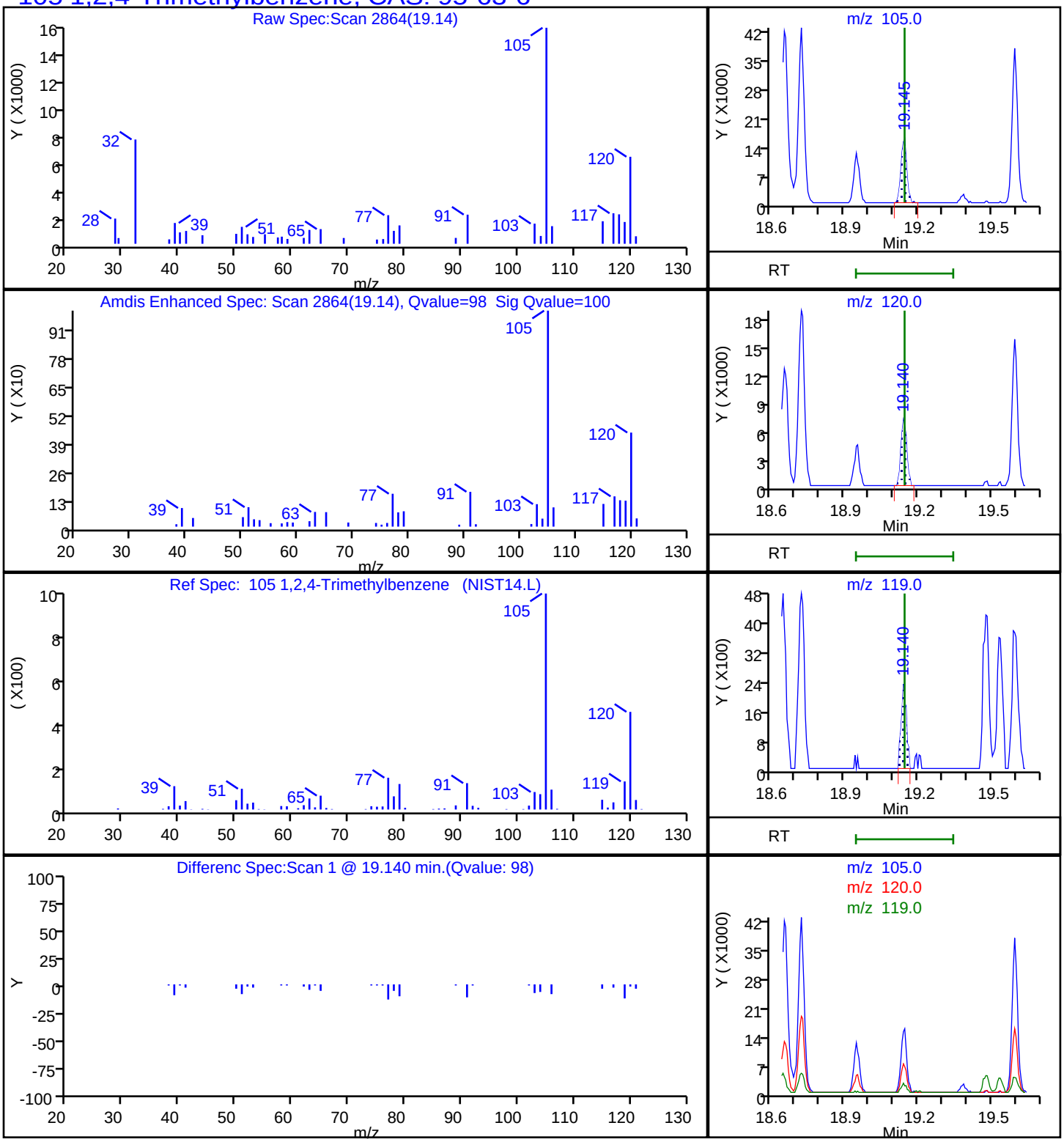


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11		
Client ID:	SV-139-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

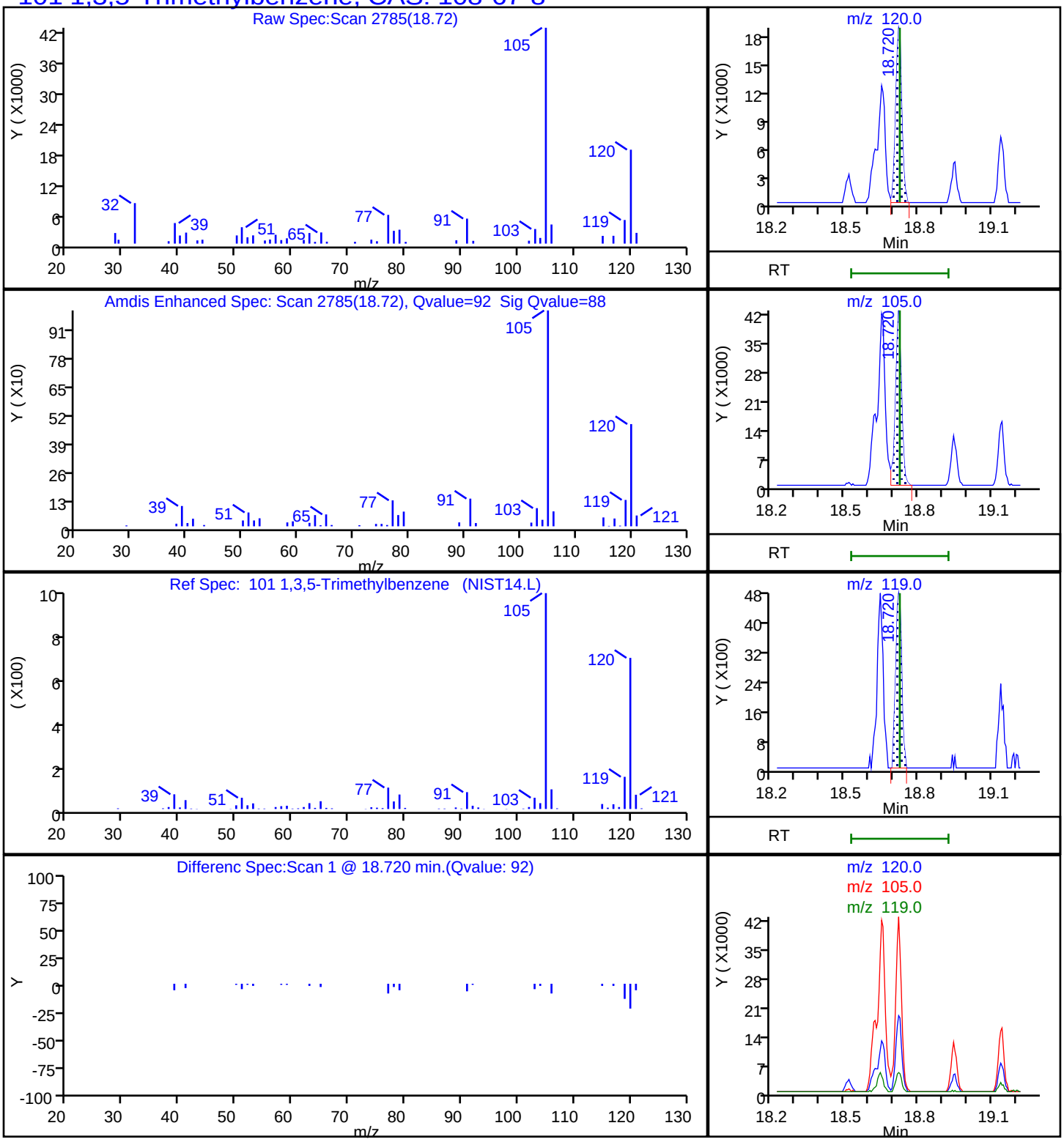


Report Date: 21-Aug-2019 12:24:54 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D				
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11		
Client ID:	SV-139-A-27				
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

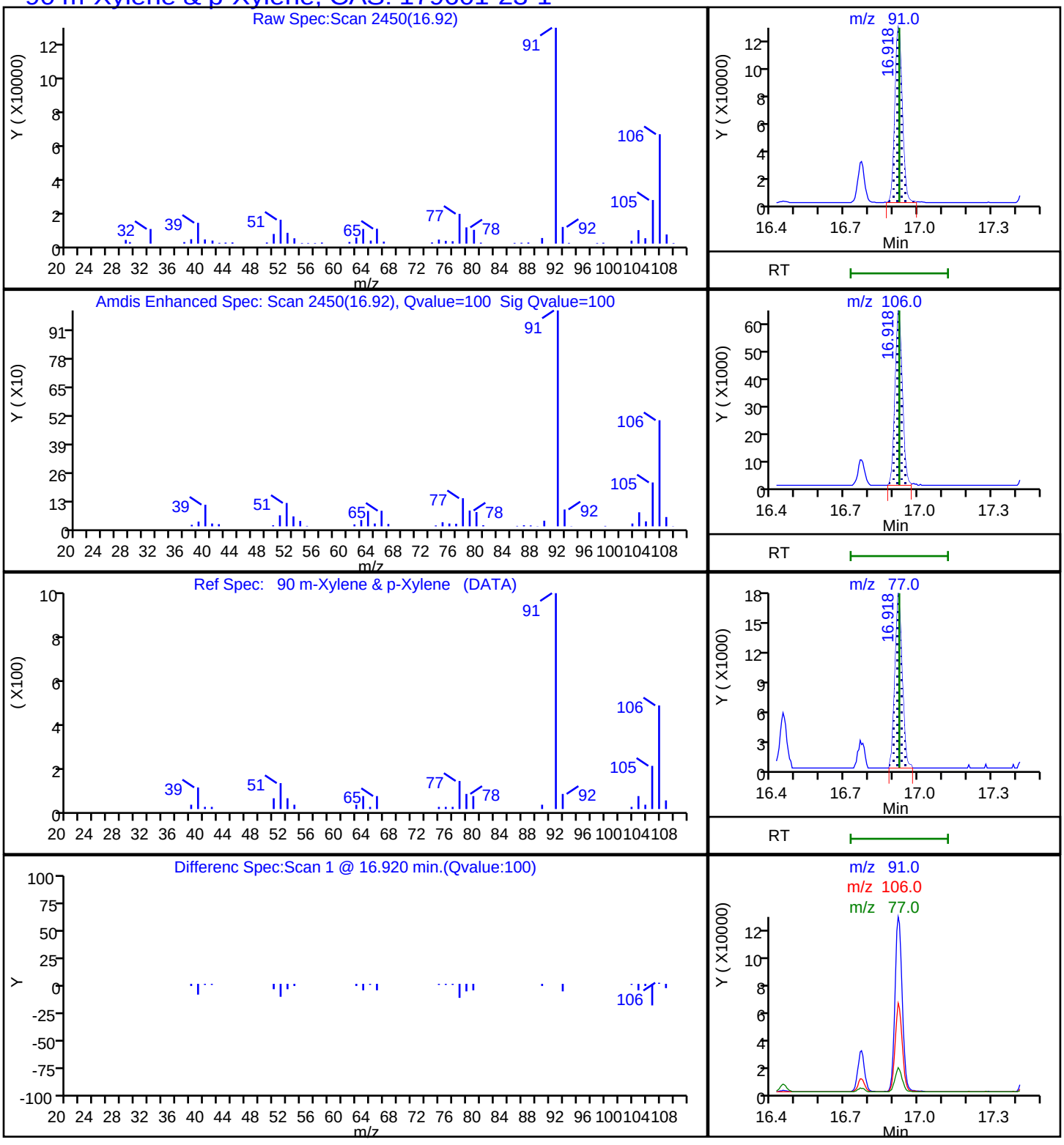
101 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

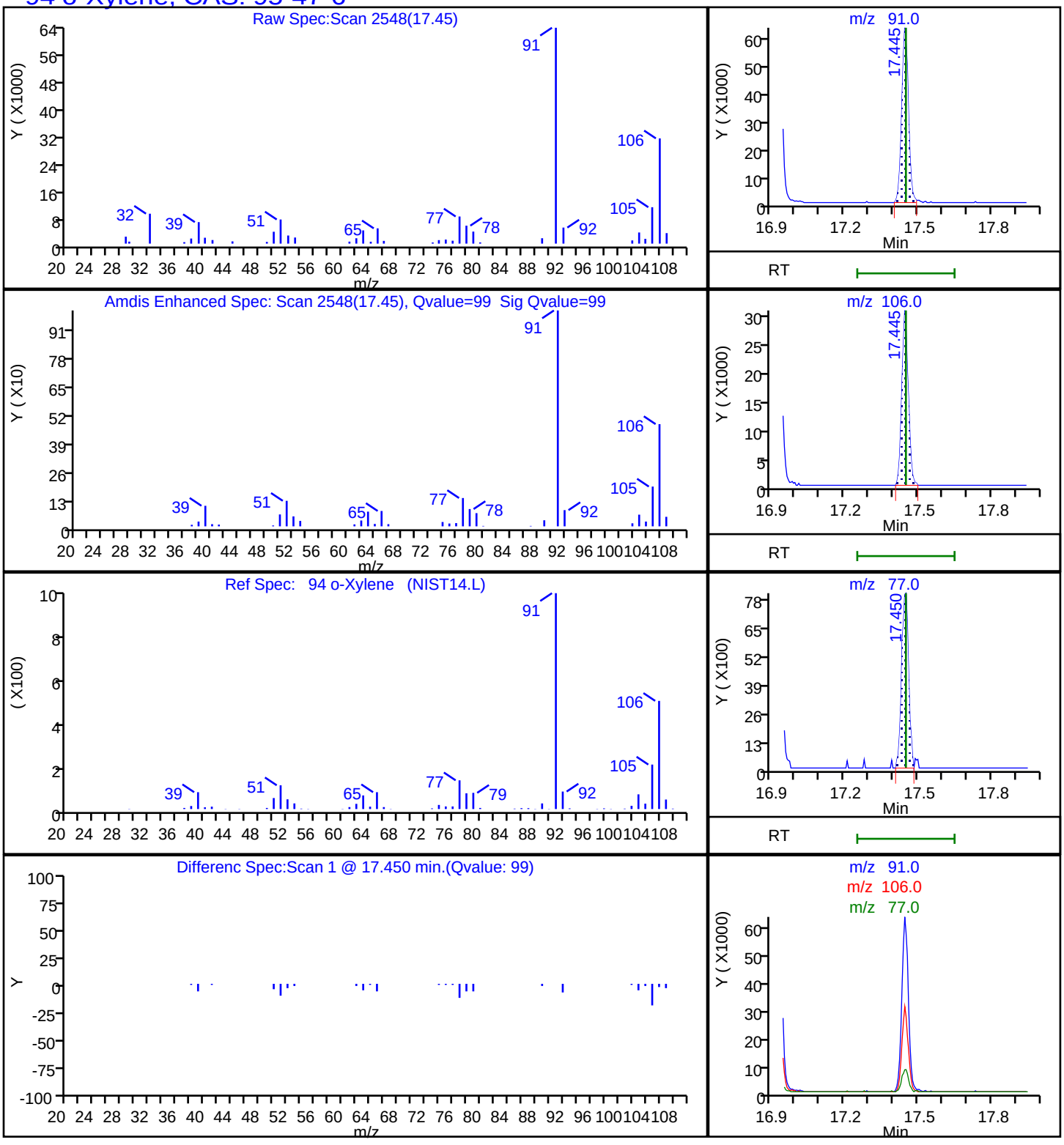
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P104.D		
Injection Date:	20-Aug-2019 18:57:30	Instrument ID:	MJ
Lims ID:	140-16377-A-11	Lab Sample ID:	140-16377-11
Client ID:	SV-139-A-27		
Operator ID:	007126	ALS Bottle#:	4 Worklist Smp#: 14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.10	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.47		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	11		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	22		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	10		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.89		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	1.0		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.66		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*130*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	0.51		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.79		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.22		0.20	0.13
1330-20-7	Xylenes, Total	106.17	13		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.32	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	45		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	11		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	86		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	36		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	4.0		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.6		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*720*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	2.5		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	5.7		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	3.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.57		0.51	0.33
1330-20-7	Xylenes, Total	106.17	58		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D
Lims ID: 140-16377-A-12
Client ID: SV-118-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 19:46:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-015
Misc. Info.: 140-16377-a-12
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:24:27 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:26:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.725	0.001	95	189851	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	95	979666	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	89	839932	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.004	95	571602	3.70	
19 Chlorodifluoromethane	51	4.164	4.152	0.012	34	4278	0.0825	
21 Dichlorodifluoromethane	85	4.234	4.227	0.007	96	5840	0.0982	
25 Vinyl chloride	62	4.637	4.636	0.001	76	2873	0.0445	
40 1,1-Dichloroethene	96	6.687	6.686	0.002	97	251481	4.32	
44 Methylene Chloride	84	7.064	7.062	0.002	98	149794	2.10	
47 trans-1,2-Dichloroethene	96	7.919	7.915	0.002	96	11693	0.2008	
50 1,1-Dichloroethane	63	8.360	8.359	0.002	100	70125	0.5406	
55 cis-1,2-Dichloroethene	96	9.377	9.371	0.002	96	135841	2.26	
57 Chloroform	83	9.726	9.730	-0.004	30	14368	0.0933	
60 1,1,1-Trichloroethane	97	10.759	10.763	-0.004	95	21936	0.1323	
64 Benzene	78	11.329	11.333	-0.004	91	3635	0.0203	
65 Carbon tetrachloride	117	11.351	11.349	-0.004	86	2130	0.0142	
71 Trichloroethene	130	12.529	12.521	0.001	93	2158605	26.6	E
80 Toluene	91	14.514	14.508	0.001	93	36019	0.1775	
89 Ethylbenzene	91	16.768	16.767	0.001	99	76999	0.2945	
90 m-Xylene & p-Xylene	91	16.919	16.923	-0.004	99	392664	1.96	
94 o-Xylene	91	17.451	17.450	0.001	99	151402	0.7100	
101 1,3,5-Trimethylbenzene	120	18.715	18.715	-0.010	91	17539	0.1585	
105 1,2,4-Trimethylbenzene	105	19.140	19.144	-0.004	98	57169	0.2325	
111 1,2,3-Trimethylbenzene	105	19.598	19.589	0.002	96	24389	0.1012	
S 129 Xylenes, Total	100				0		2.67	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

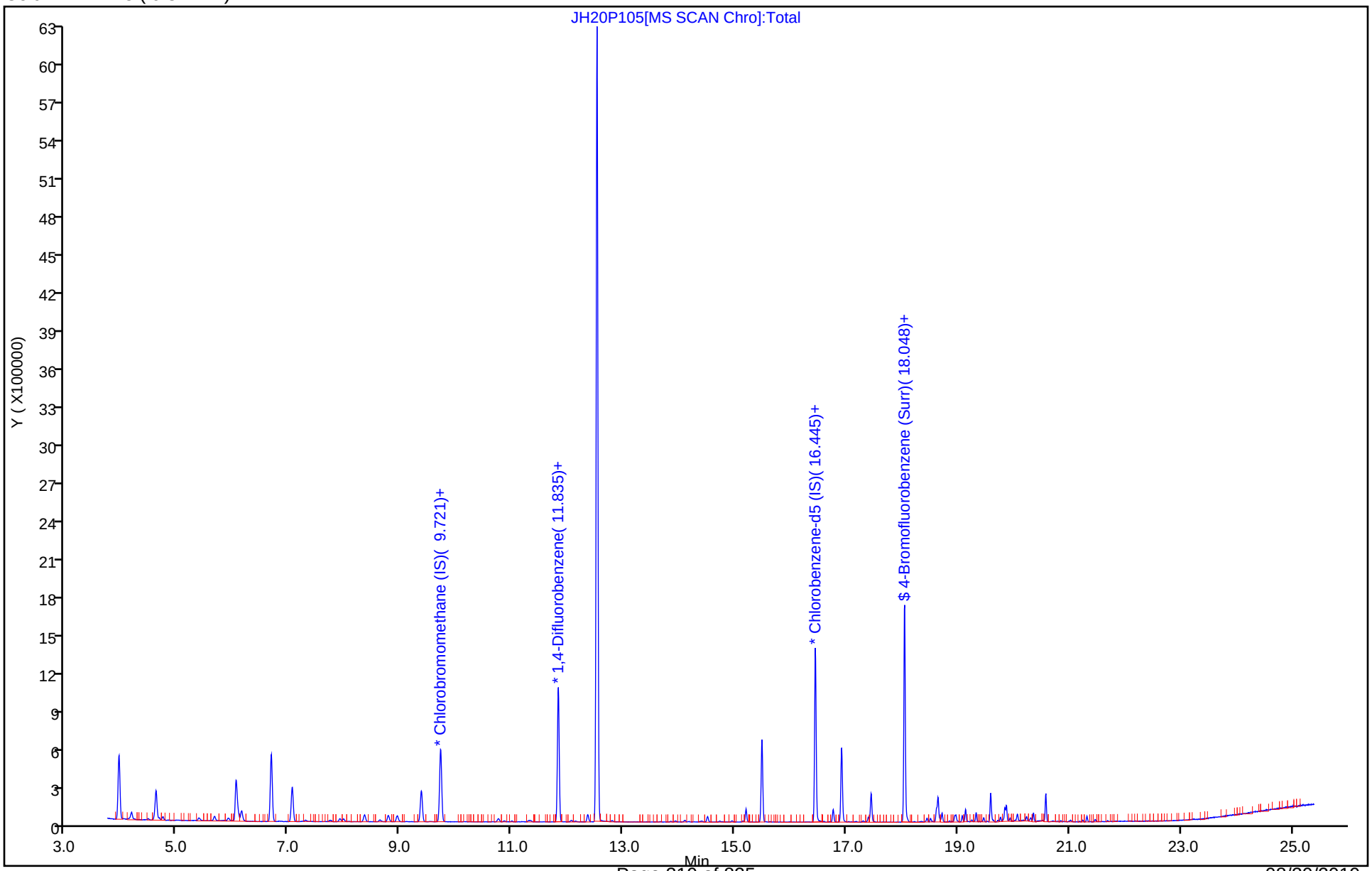
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12	Worklist Smp#:	15
Client ID:	SV-118-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Lims ID:	140-16377-A-12				
Client ID:	SV-118-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 19:46:30	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-015				
Misc. Info.:	140-16377-a-12				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:24:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

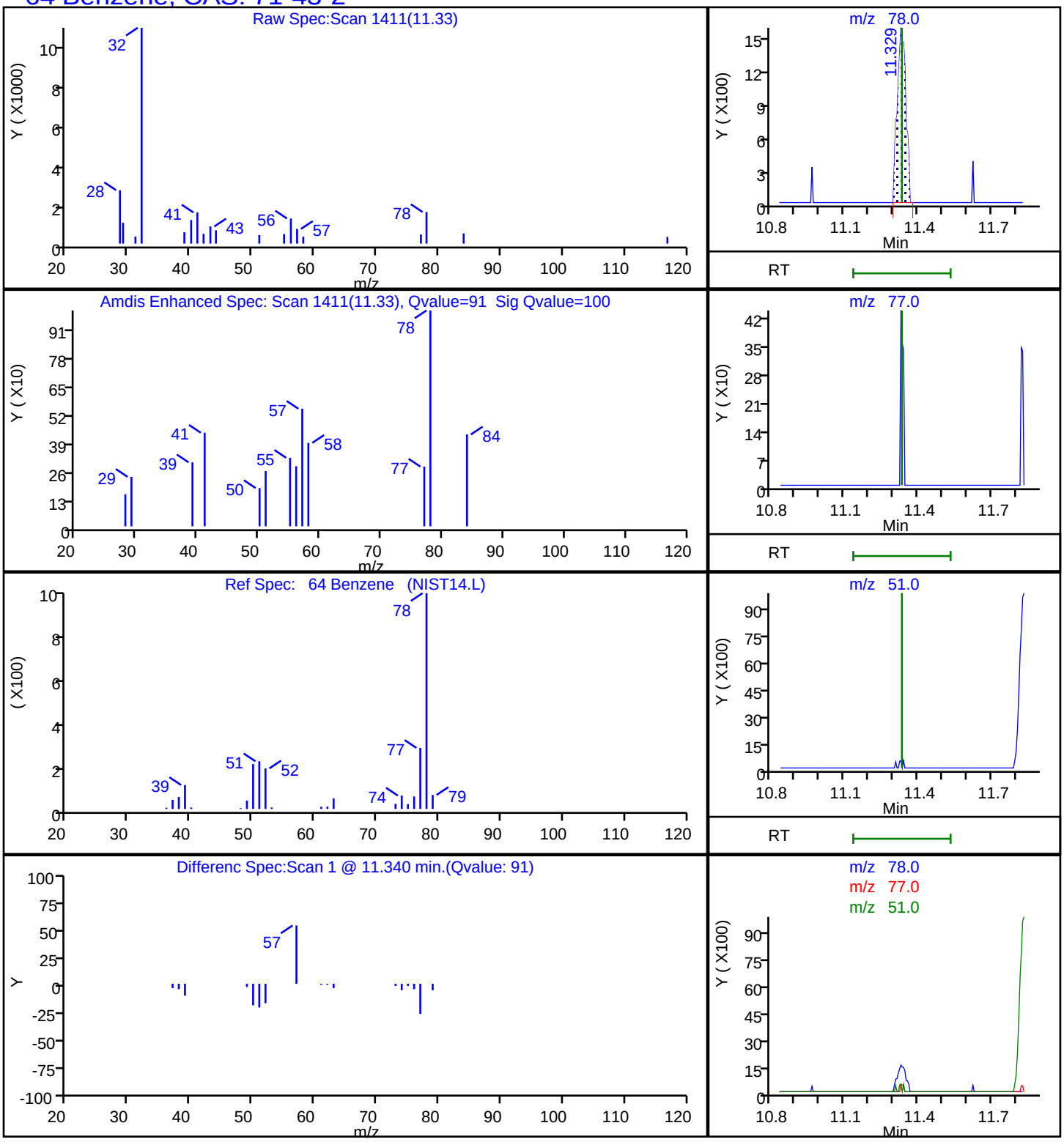
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:26:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.70	92.57

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

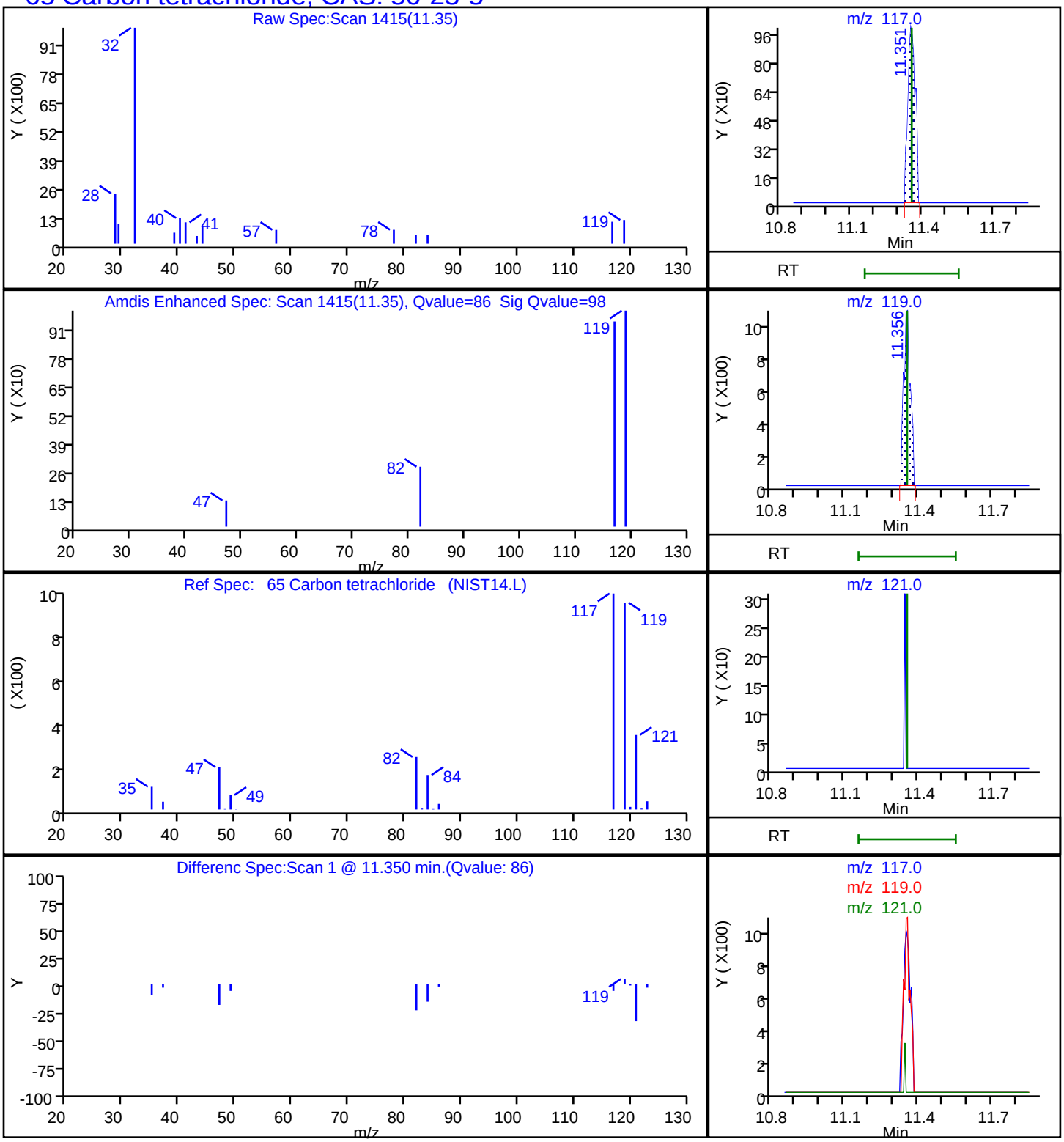


Report Date: 21-Aug-2019 12:26:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12		
Client ID:	SV-118-A-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

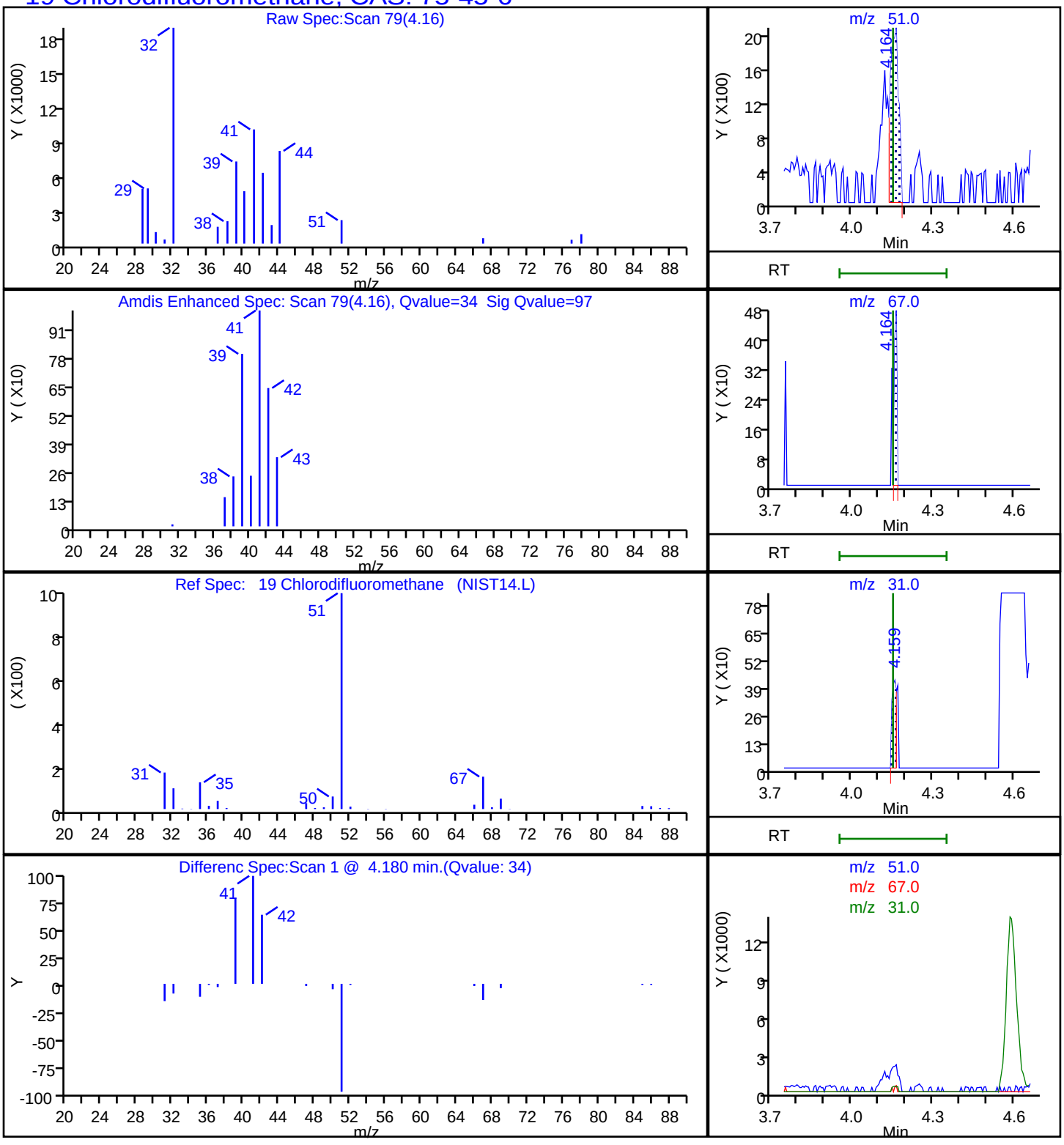
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6

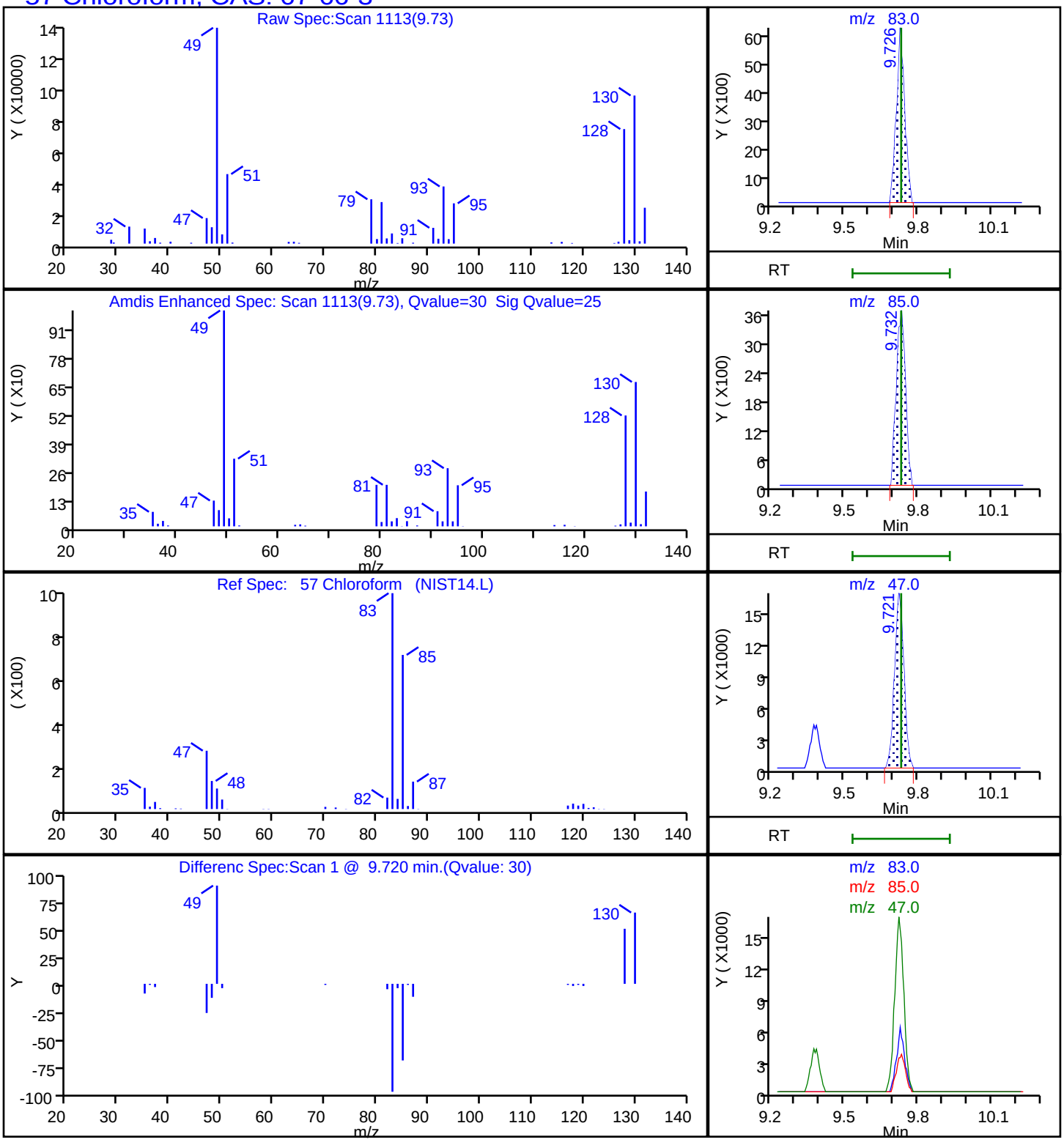


Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

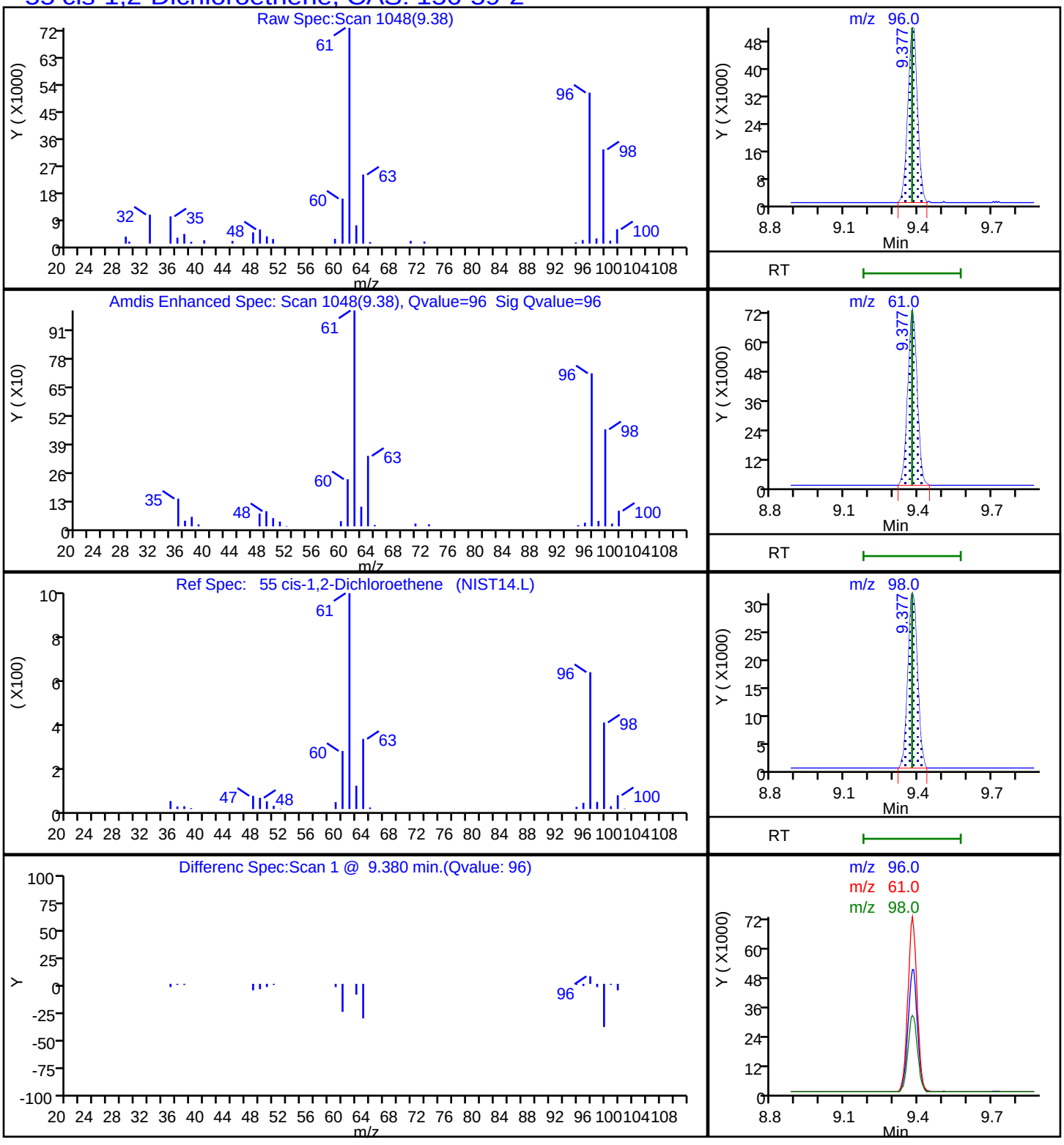


Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

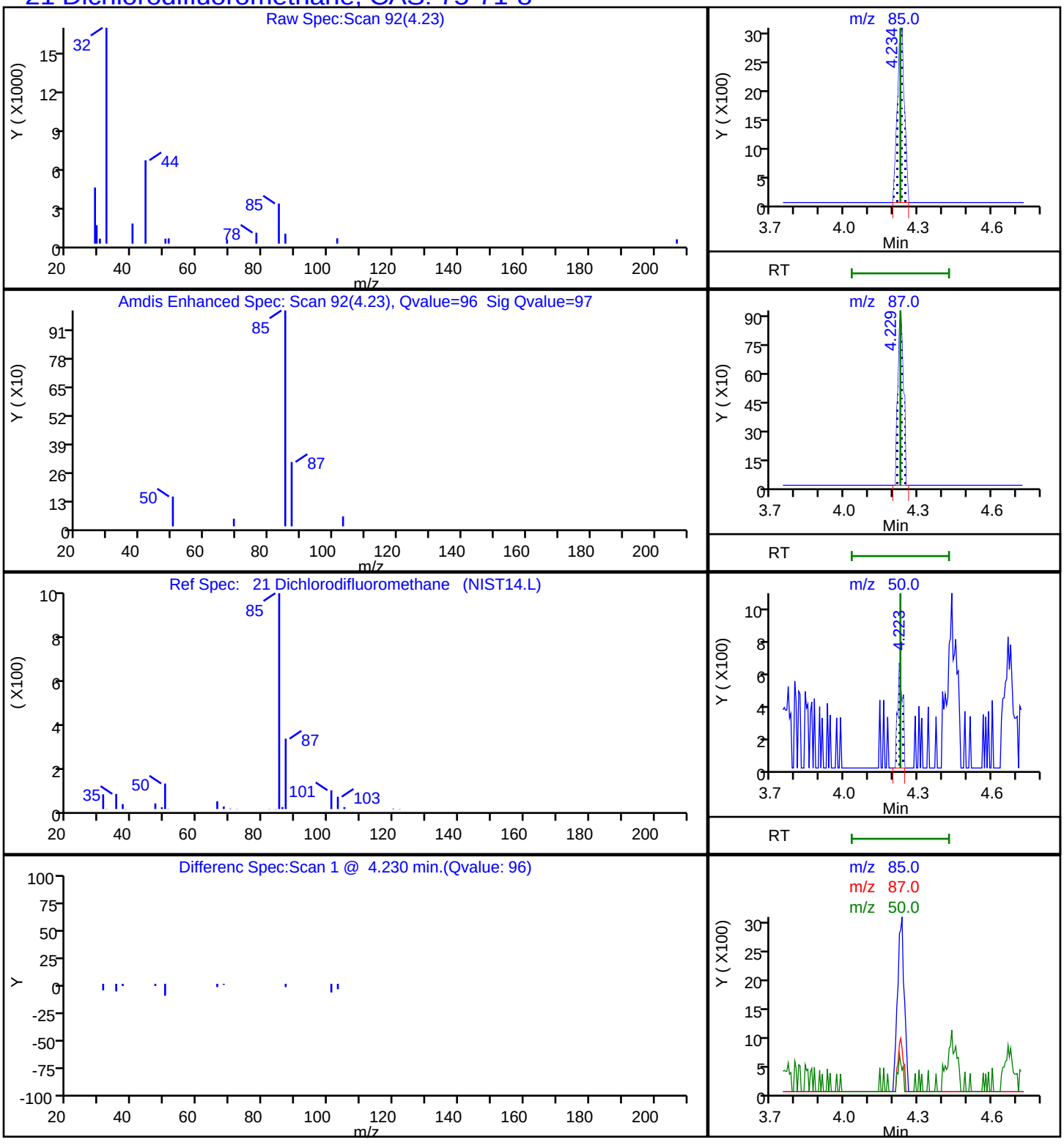
55 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

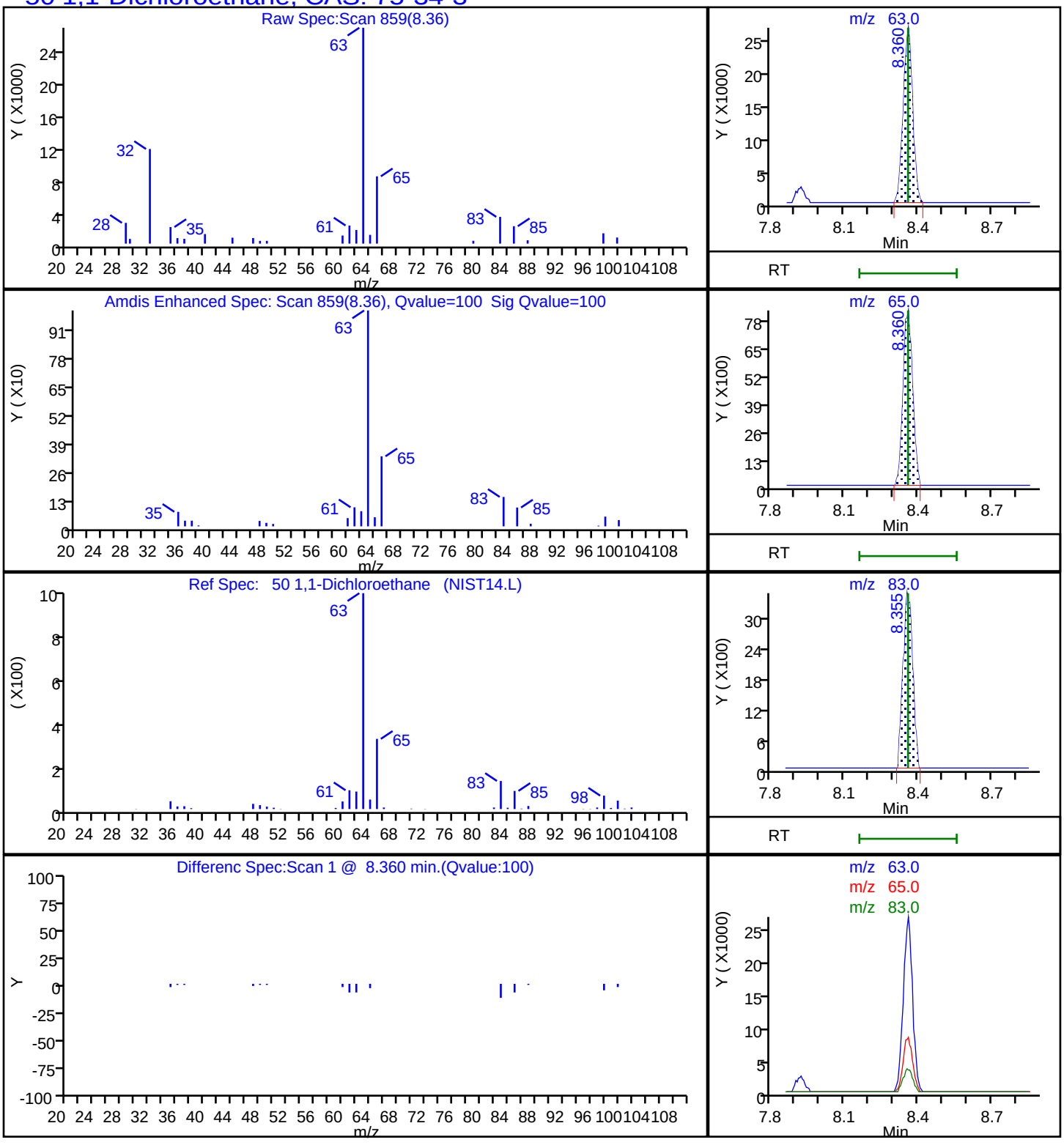
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

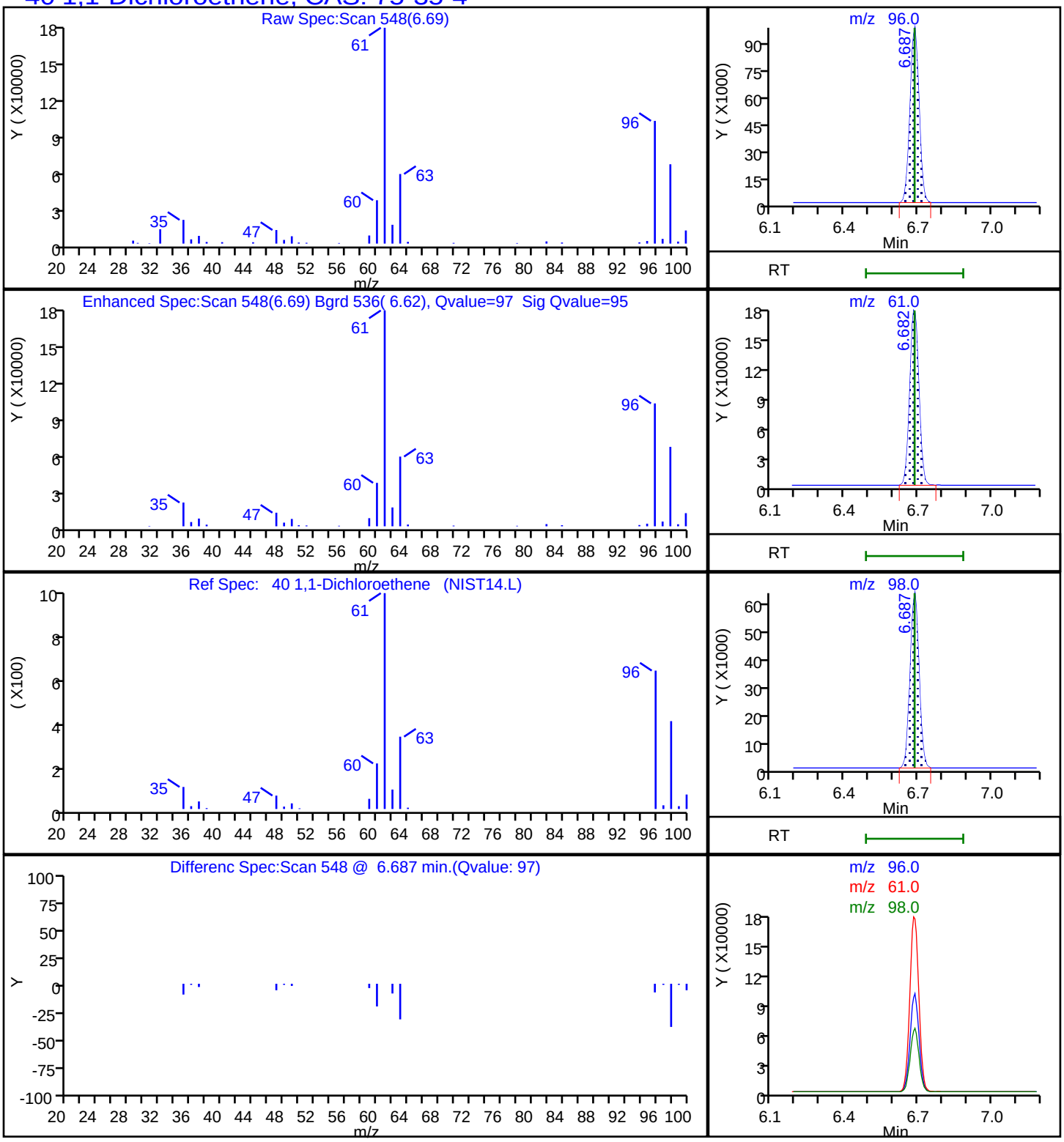
50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

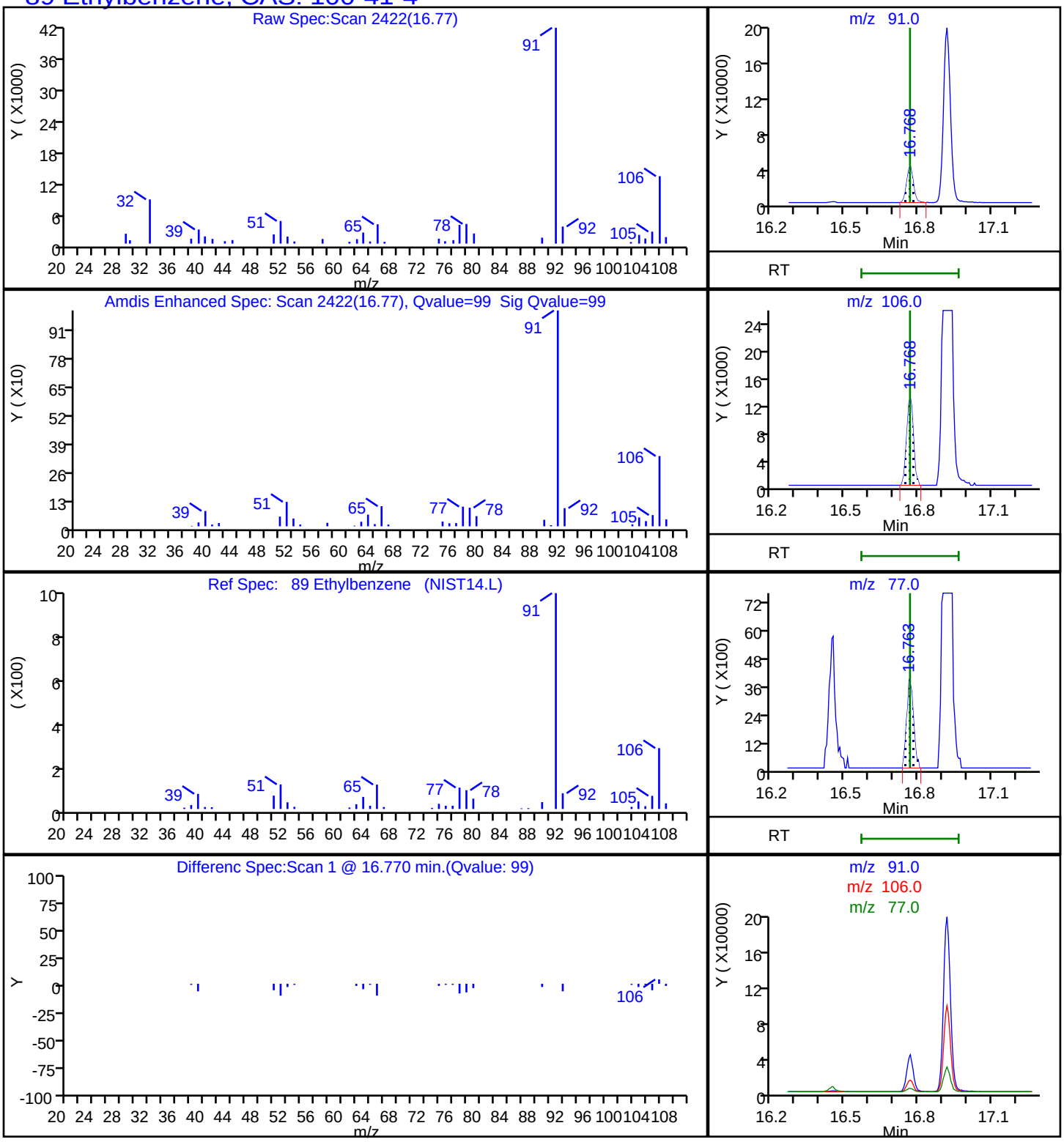
40 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

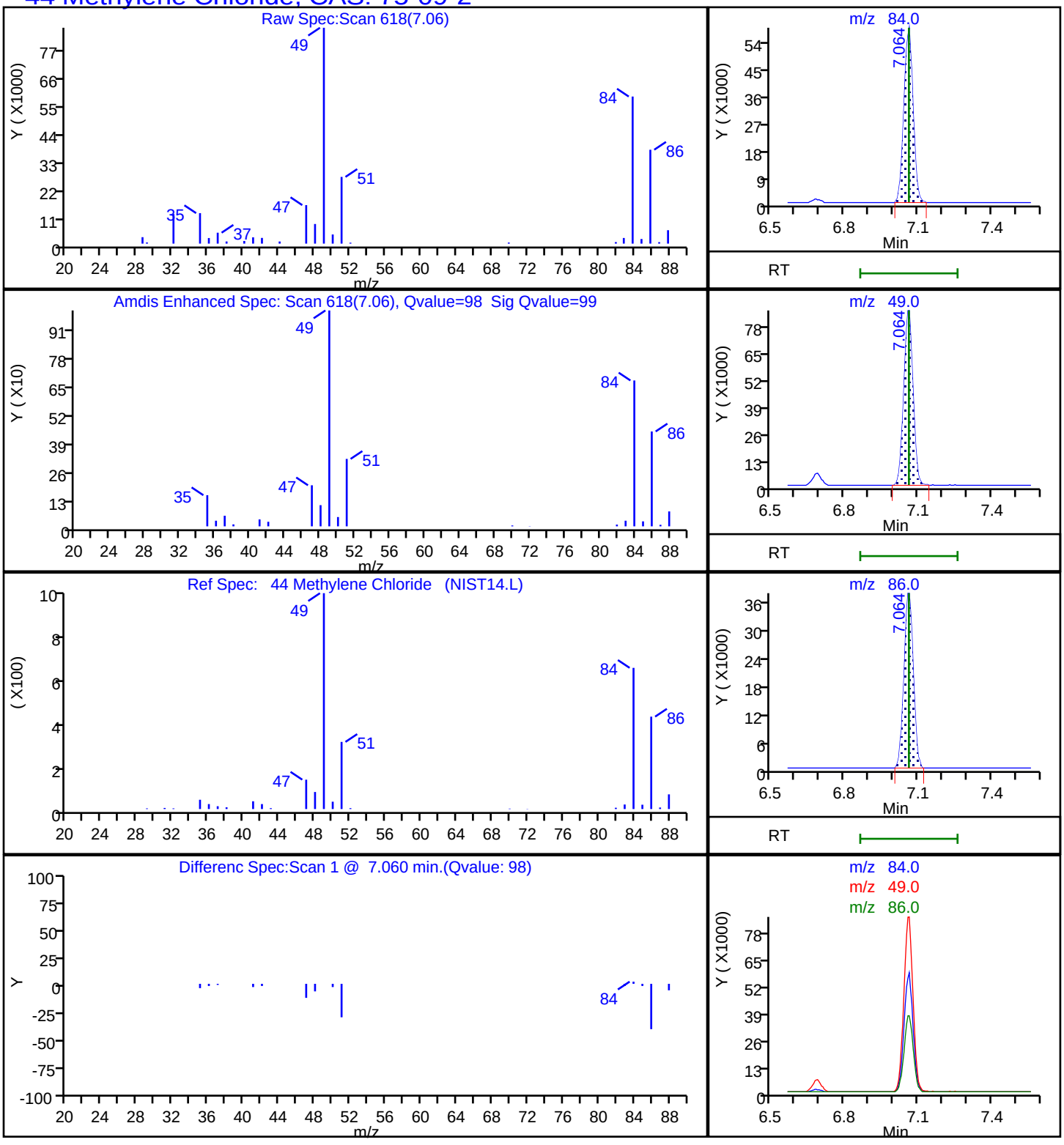


Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12		
Client ID:	SV-118-A-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2

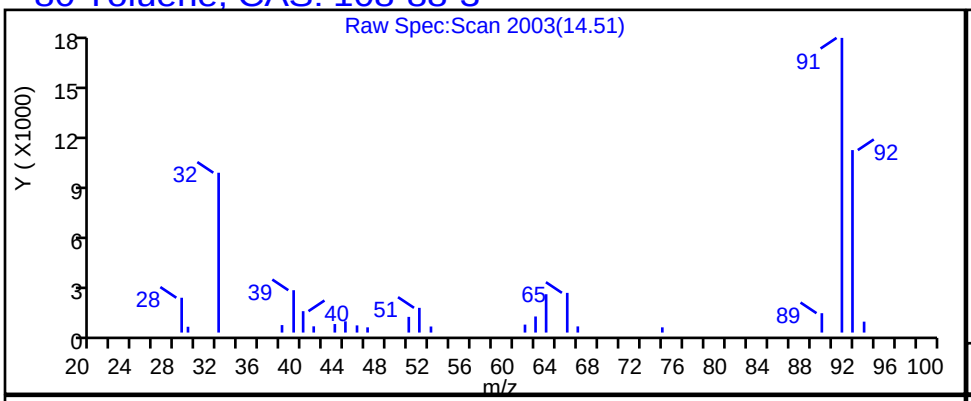


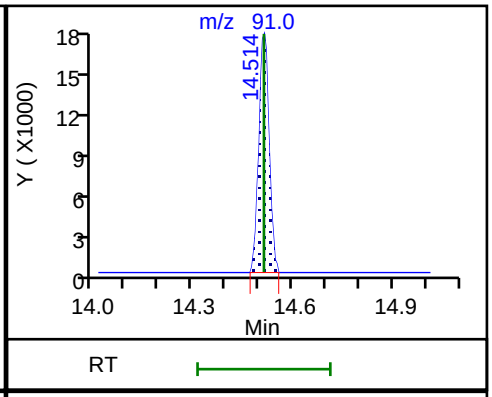
Report Date: 21-Aug-2019 12:26:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

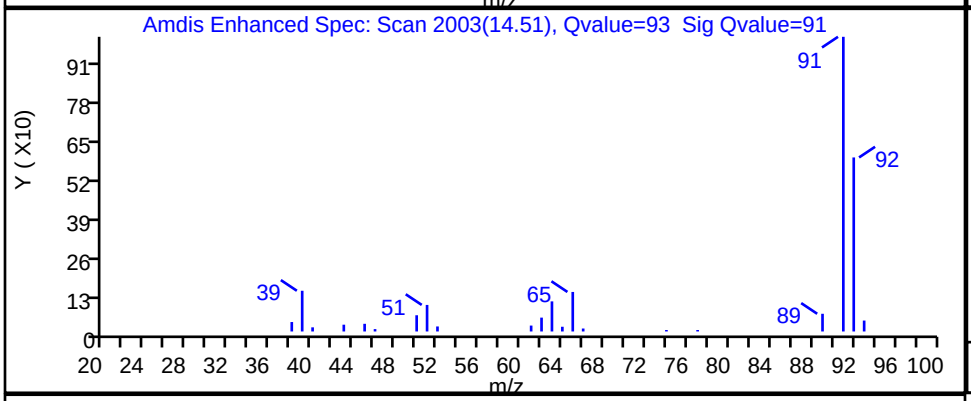
Eurofins TestAmerica, Knoxville

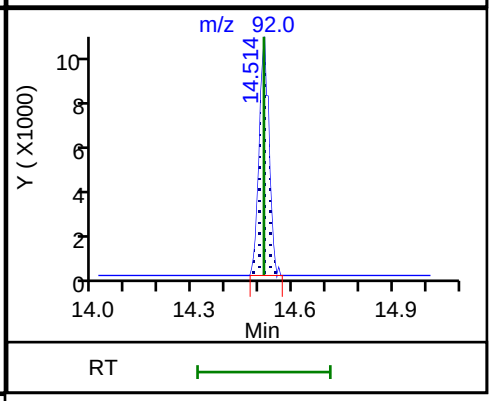
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

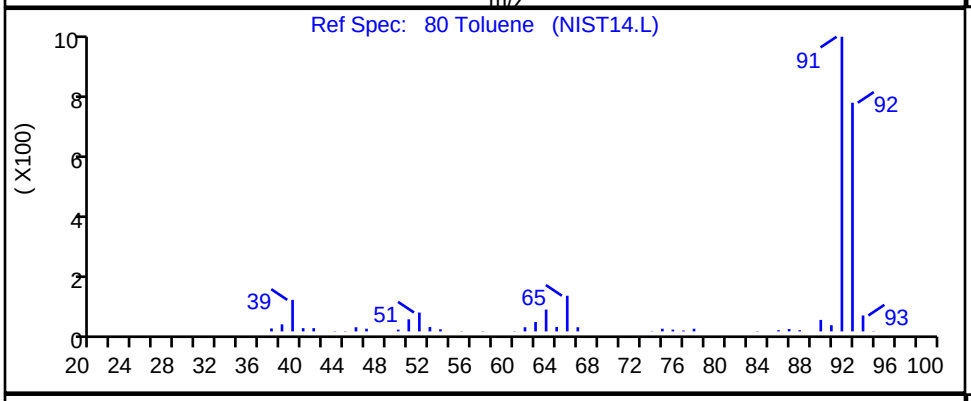
80 Toluene, CAS: 108-88-3

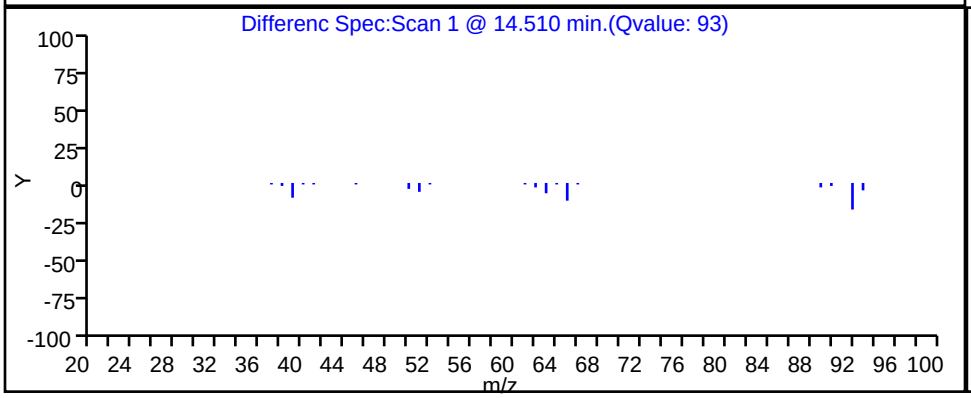


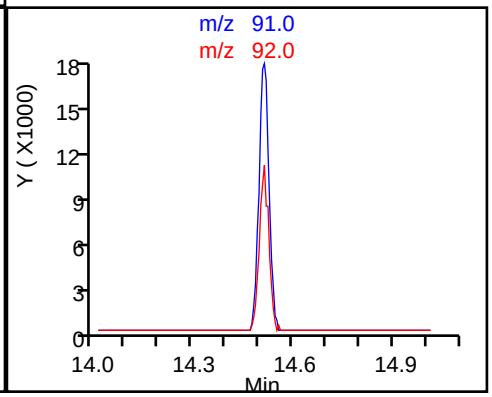










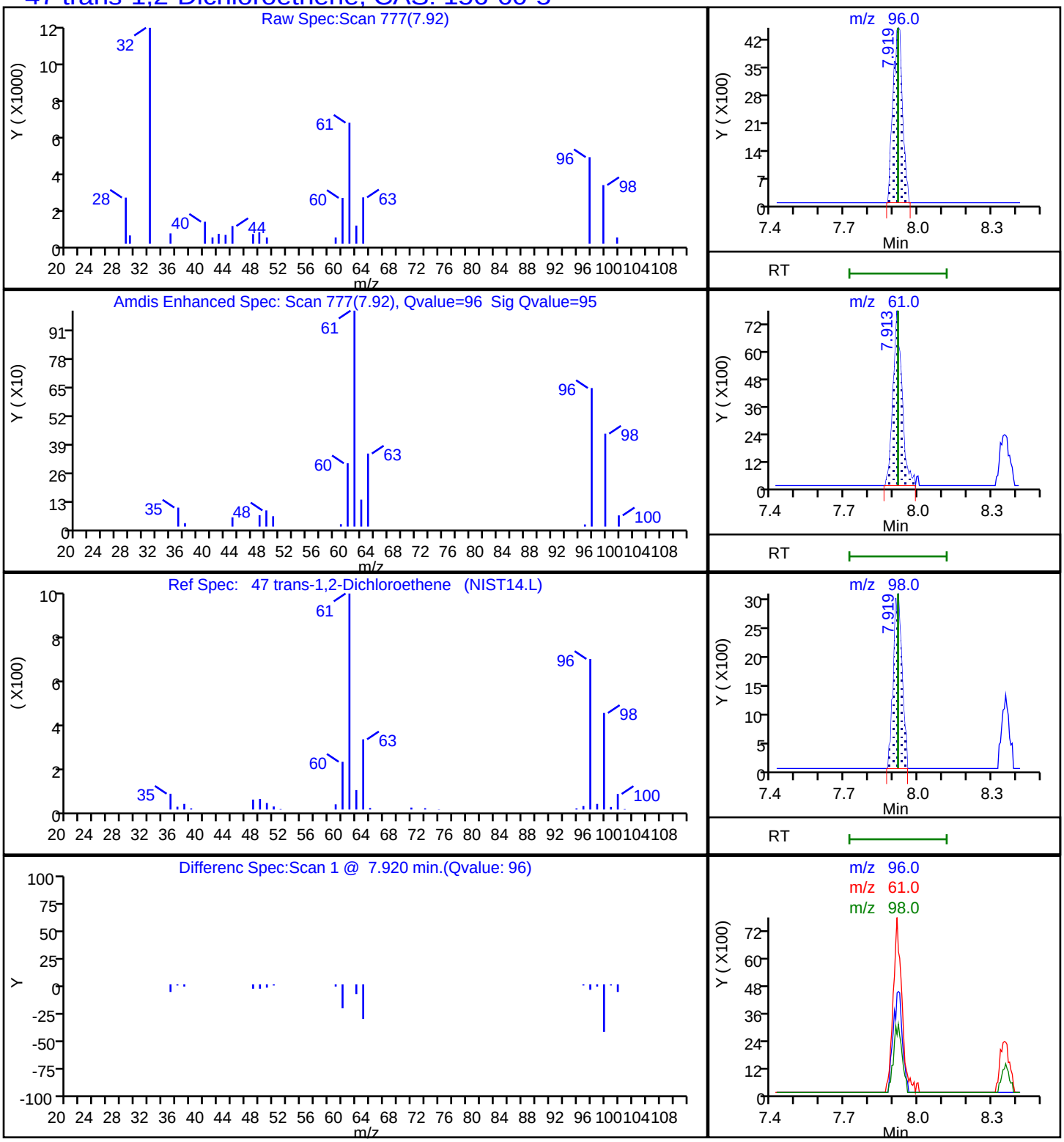


Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12		
Client ID:	SV-118-A-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 trans-1,2-Dichloroethene, CAS: 156-60-5

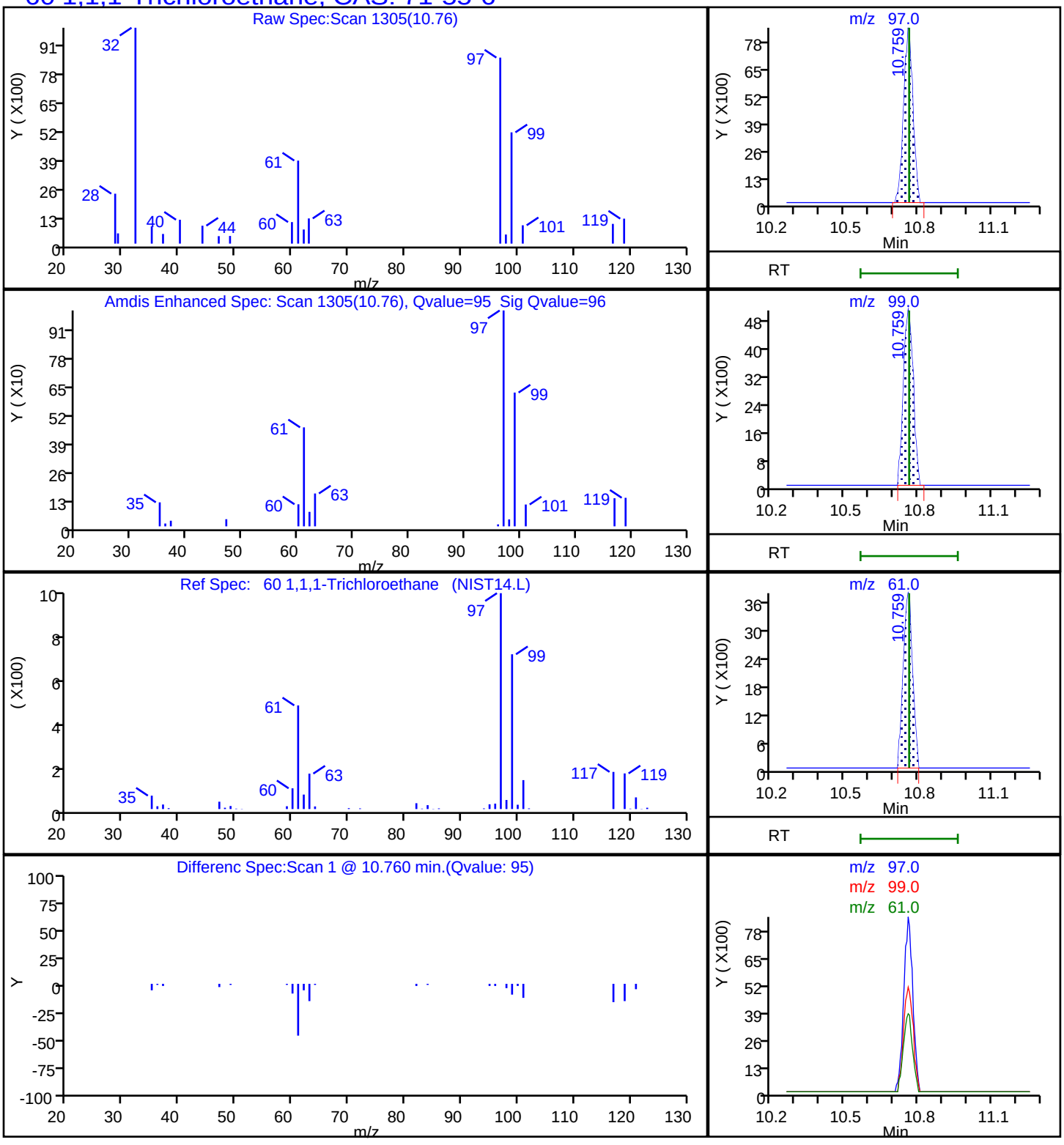


Report Date: 21-Aug-2019 12:26:23 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

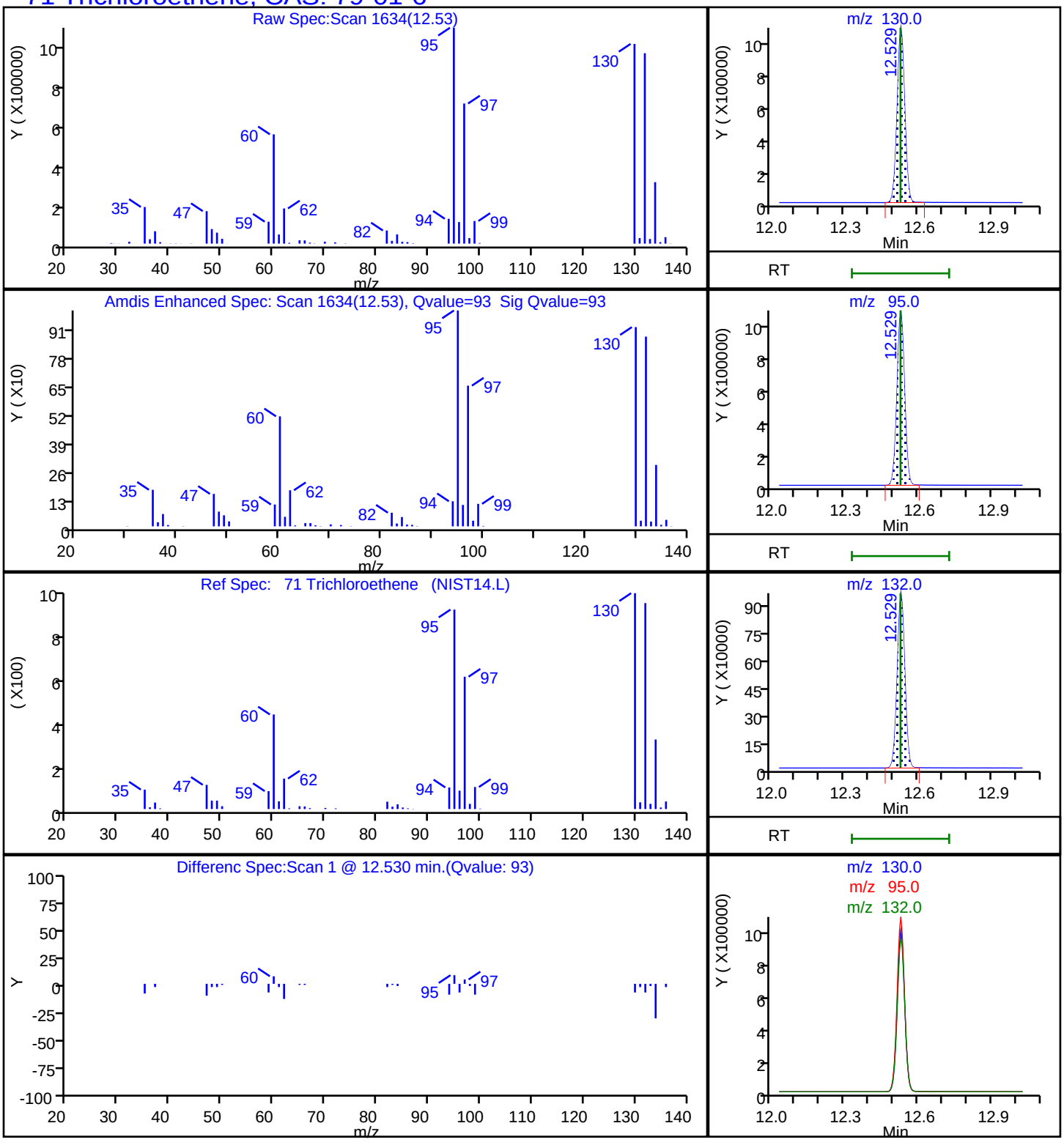
60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

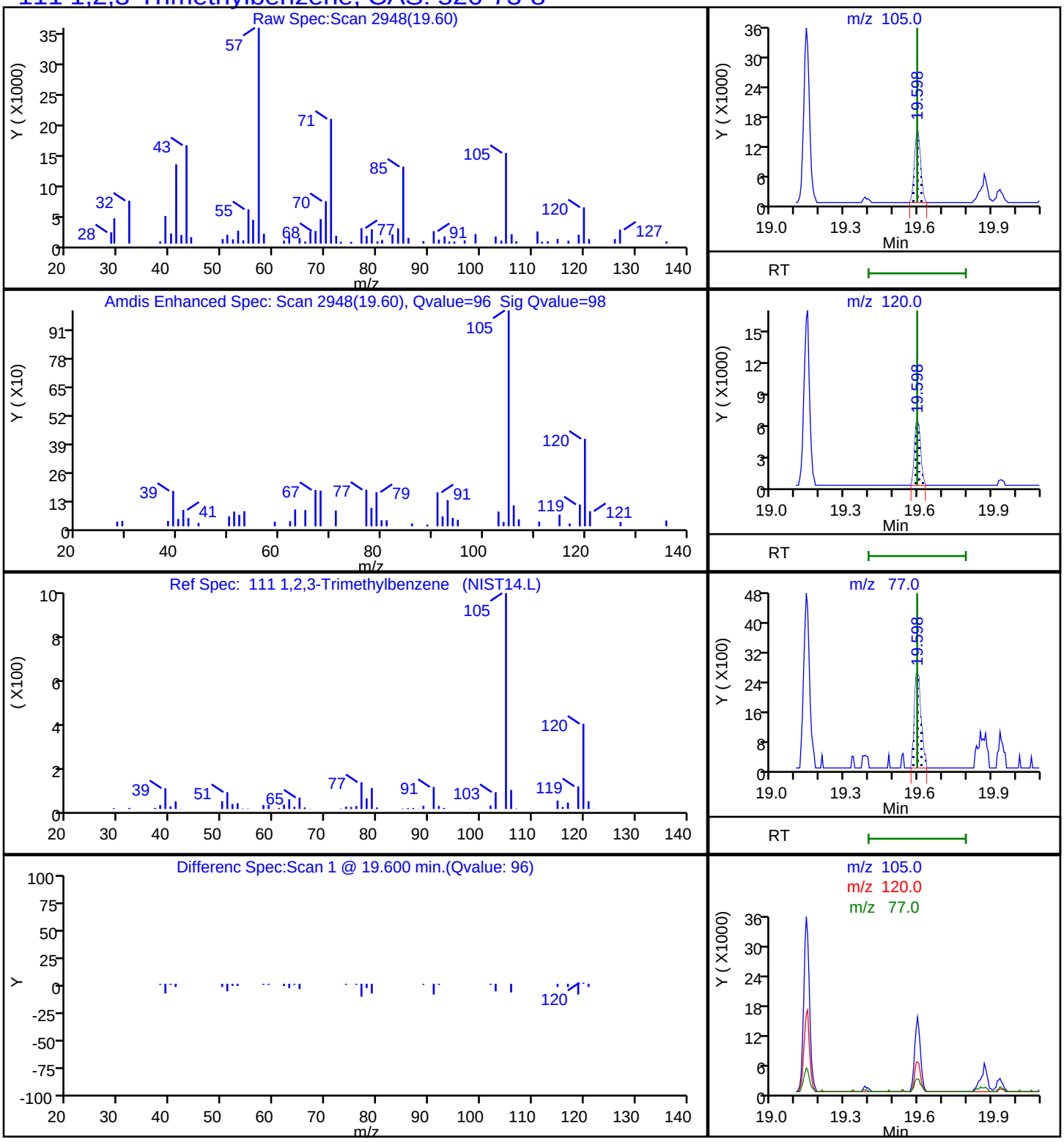
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

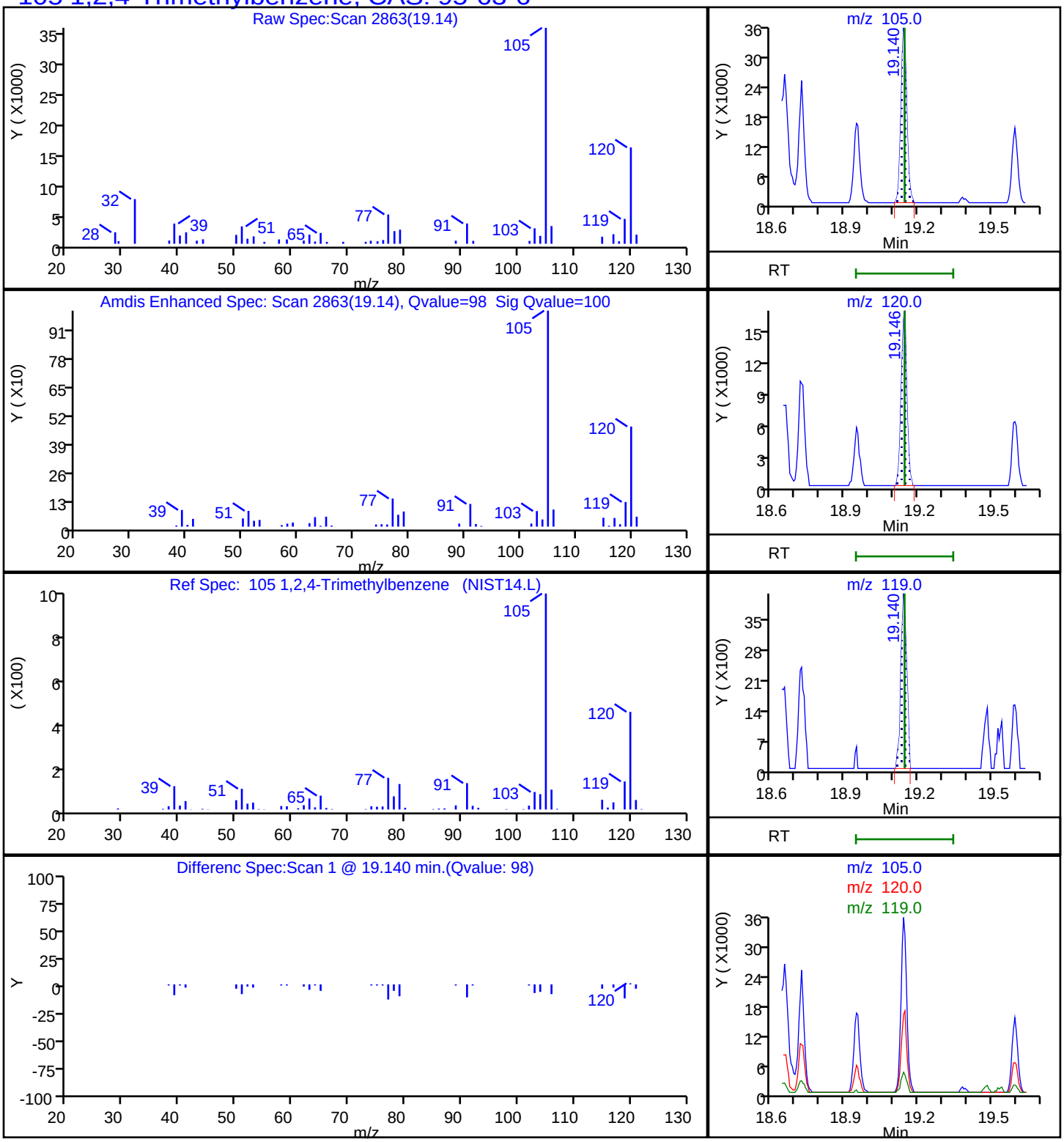


Report Date: 21-Aug-2019 12:26:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

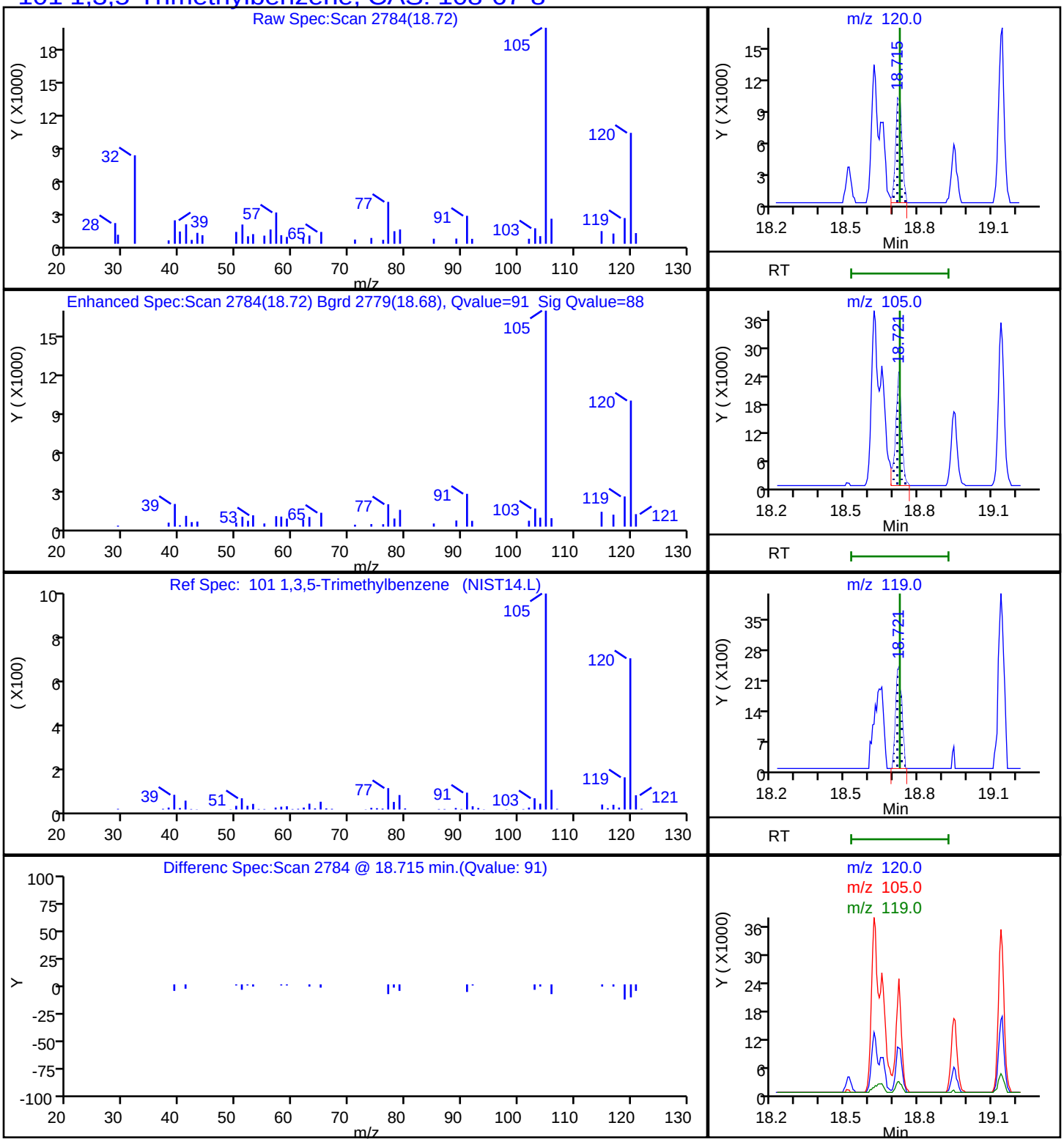


Report Date: 21-Aug-2019 12:26:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D				
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12		
Client ID:	SV-118-A-27				
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

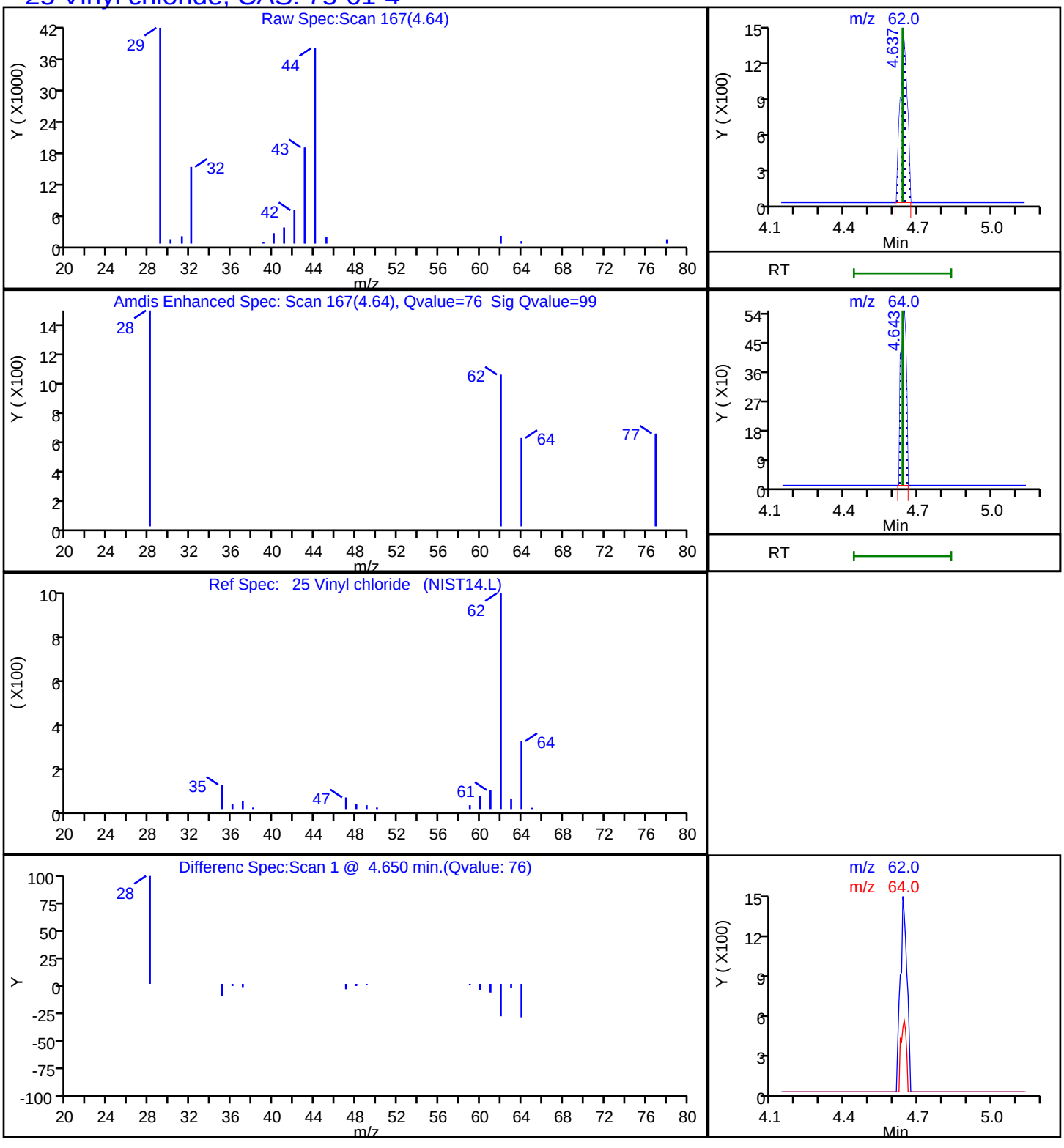
101 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

25 Vinyl chloride, CAS: 75-01-4

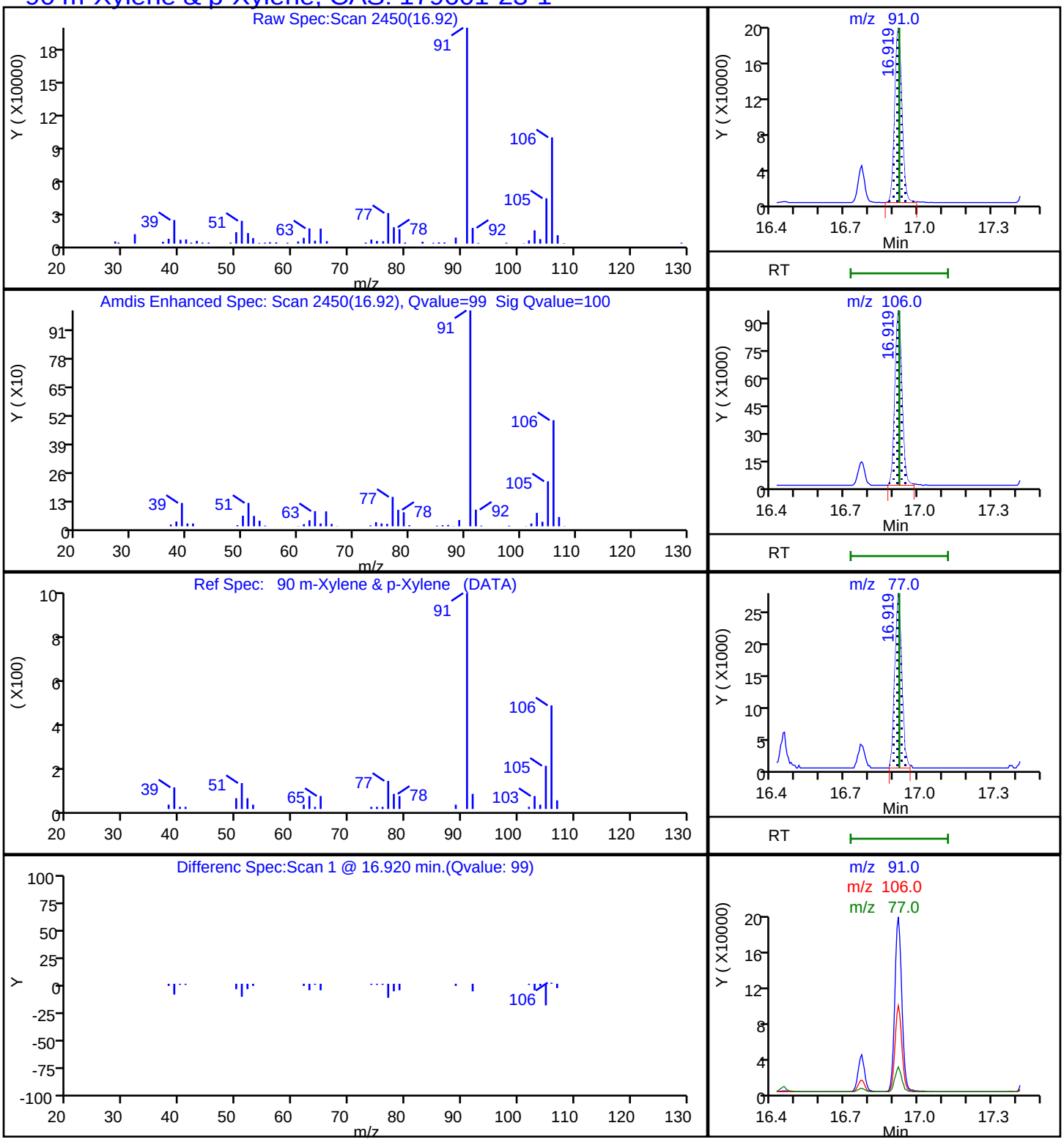


Report Date: 21-Aug-2019 12:26:24 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

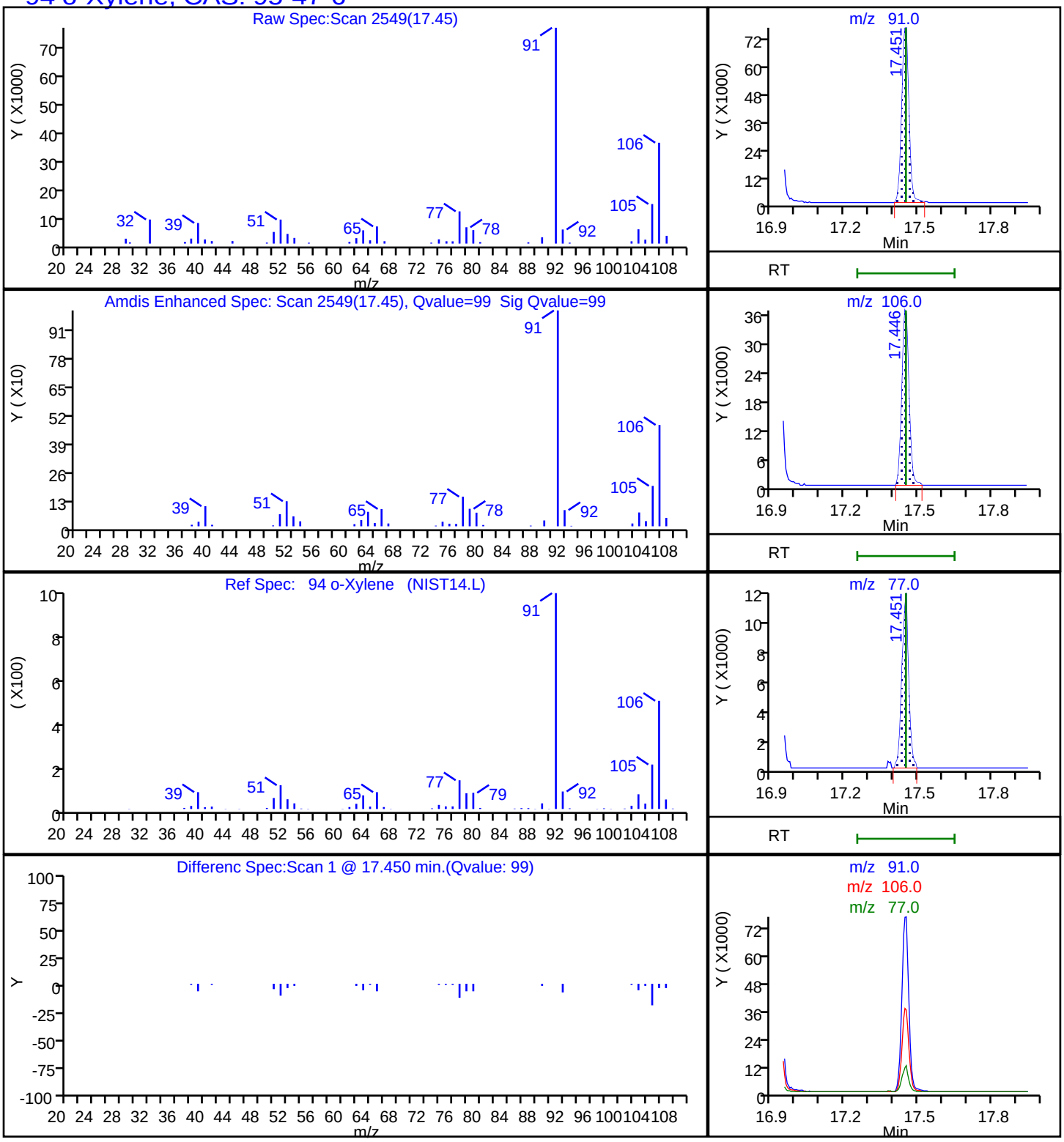
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P105.D		
Injection Date:	20-Aug-2019 19:46:30	Instrument ID:	MJ
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12
Client ID:	SV-118-A-27		
Operator ID:	007126	ALS Bottle#:	5 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	78		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	420		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P108.D				
Lims ID:	140-16377-A-12				
Client ID:	SV-118-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 22:07:30	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-015				
Misc. Info.:	140-16377-a-12				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:14:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 12:14:04		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.731	-0.010	97	188742	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.840	-0.005	95	1009542	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	89	850532	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.041	-0.005	93	557154	3.56	
19 Chlorodifluoromethane	51	4.153	4.164	-0.005	1	942	0.0183	
21 Dichlorodifluoromethane	85	4.228	4.226	0.000	85	1042	0.0176	
40 1,1-Dichloroethene	96	6.681	6.687	-0.006	96	58406	1.01	
44 Methylene Chloride	84	7.058	7.064	-0.011	98	22676	0.3193	
47 trans-1,2-Dichloroethene	96	7.908	7.924	-0.016	90	2464	0.0426	
50 1,1-Dichloroethane	63	8.354	8.365	-0.011	97	14047	0.1089	
55 cis-1,2-Dichloroethene	96	9.371	9.382	-0.011	97	26291	0.4407	
57 Chloroform	83	9.721	9.731	-0.016	36	2864	0.0187	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	88	4126	0.0250	
71 Trichloroethene	130	12.529	12.534	-0.005	93	389930	4.67	
89 Ethylbenzene	91	16.763	16.762	-0.005	98	11508	0.0435	
90 m-Xylene & p-Xylene	91	16.919	16.918	-0.005	99	54643	0.2691	
94 o-Xylene	91	17.446	17.445	-0.005	99	21391	0.0991	
105 1,2,4-Trimethylbenzene	105	19.140	19.133	0.000	96	7173	0.0288	
S 129 Xylenes, Total	100				0		0.3682	

Reagents:

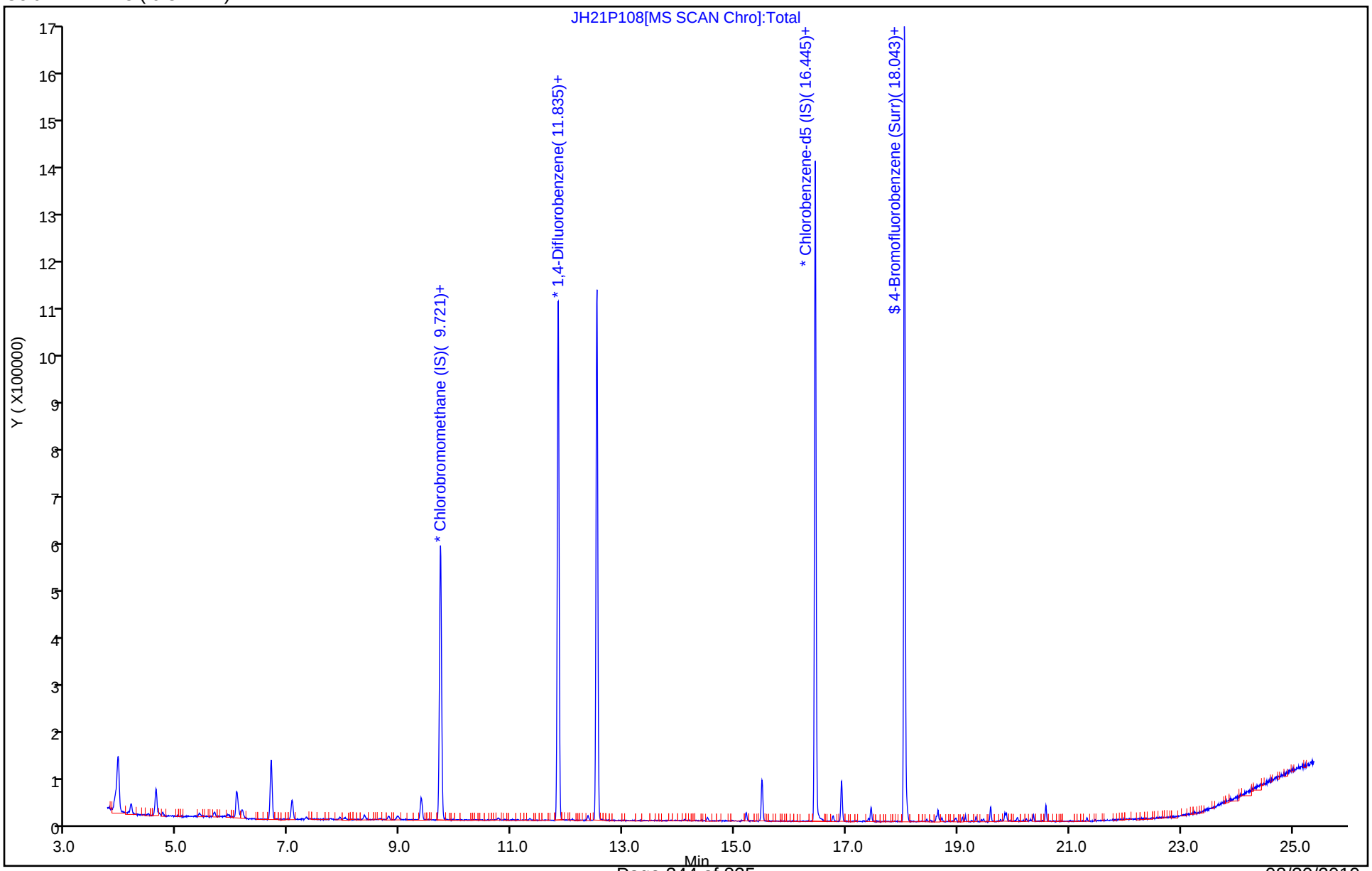
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 22-Aug-2019 12:14:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P108.D				
Injection Date:	21-Aug-2019 22:07:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12	Worklist Smp#:	15
Client ID:	SV-118-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P108.D				
Lims ID:	140-16377-A-12				
Client ID:	SV-118-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 22:07:30	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-015				
Misc. Info.:	140-16377-a-12				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:14:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:14:04

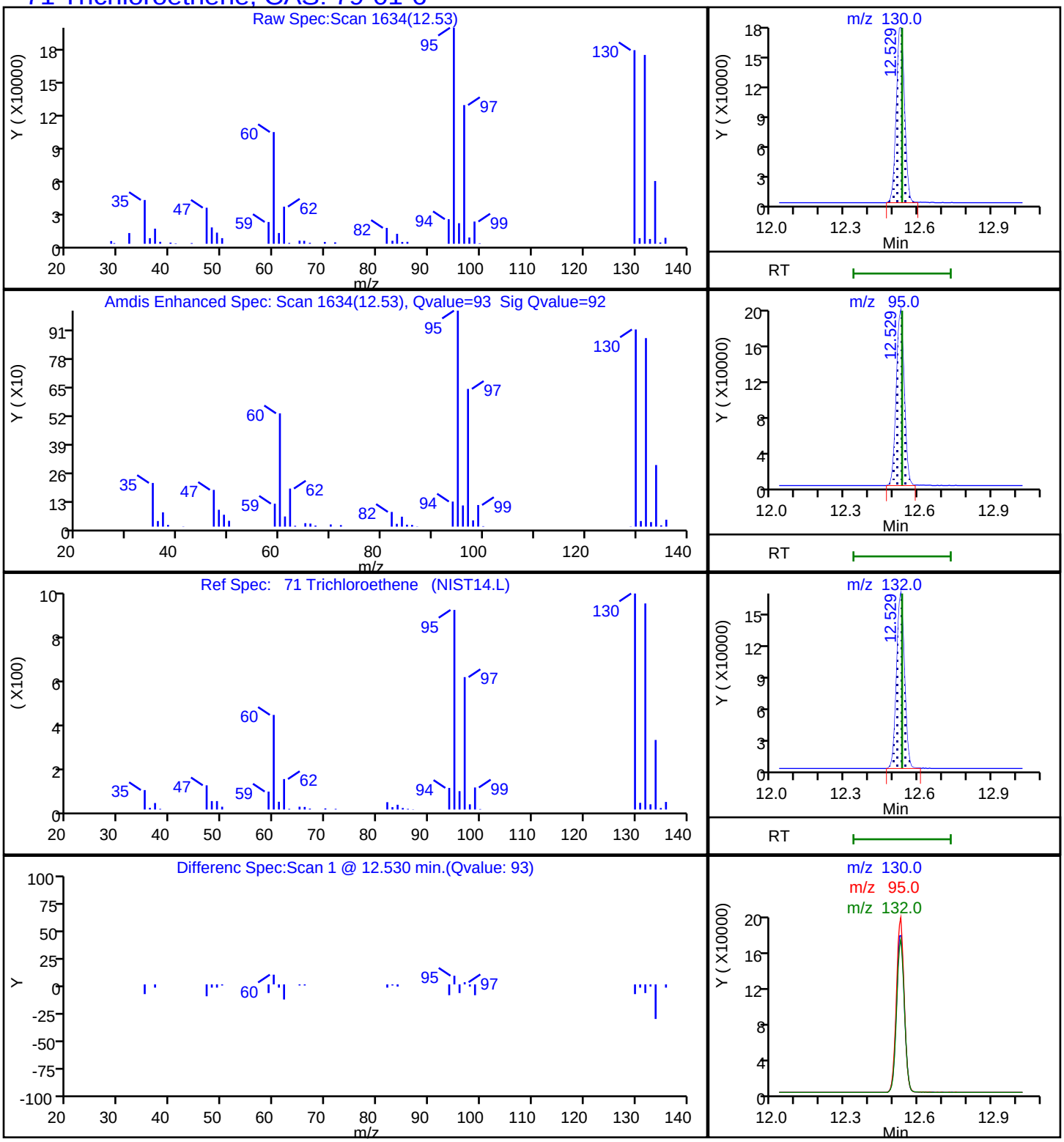
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.56	89.11

Report Date: 22-Aug-2019 12:14:05 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P108.D				
Injection Date:	21-Aug-2019 22:07:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-12	Lab Sample ID:	140-16377-12		
Client ID:	SV-118-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.92		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.070	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.60		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.65		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	3.5		0.40	0.040
100-41-4	Ethylbenzene	106.17	7.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	39		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.070	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.21	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	15		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.9		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.34	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.4		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	2.6		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	14		1.6	0.16
100-41-4	Ethylbenzene	106.17	30		1.7	0.28
75-09-2	Methylene Chloride	84.93	140		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.28	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.2	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	64		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D
Lims ID: 140-16377-A-13
Client ID: SV-015-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 21:24:30 ALS Bottle#: 7 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-017
Misc. Info.: 140-16377-a-13
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:29:44 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:29:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.737	9.725	0.012	92	253233	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.839	0.001	96	1238002	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	87	1007401	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.047	-0.005	95	647408	3.50	
19 Chlorodifluoromethane	51	4.153	4.153	0.001	45	5643	0.0815	a
21 Dichlorodifluoromethane	85	4.223	4.227	-0.004	96	7579	0.0956	
40 1,1-Dichloroethene	96	6.681	6.686	-0.004	97	54592	0.7025	
44 Methylene Chloride	84	7.074	7.062	0.012	96	742015	7.79	
47 trans-1,2-Dichloroethene	96	7.913	7.915	-0.004	1	1093	0.0141	
50 1,1-Dichloroethane	63	8.365	8.359	0.007	99	22375	0.1293	
55 cis-1,2-Dichloroethene	96	9.398	9.371	0.023	97	9642	0.1205	
57 Chloroform	83	9.742	9.730	0.012	76	2861	0.0139	
60 1,1,1-Trichloroethane	97	10.759	10.763	-0.004	97	9360	0.0423	
64 Benzene	78	11.340	11.333	0.007	97	41551	0.1832	
65 Carbon tetrachloride	117	11.356	11.349	0.001	57	2272	0.0119	
71 Trichloroethene	130	12.534	12.521	0.006	96	38042	0.3716	
80 Toluene	91	14.514	14.508	0.001	92	163312	0.6710	
89 Ethylbenzene	91	16.768	16.767	0.001	99	439766	1.40	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	99	574849	2.39	
94 o-Xylene	91	17.445	17.450	-0.005	99	141001	0.5513	
S 129 Xylenes, Total	100				0		2.94	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

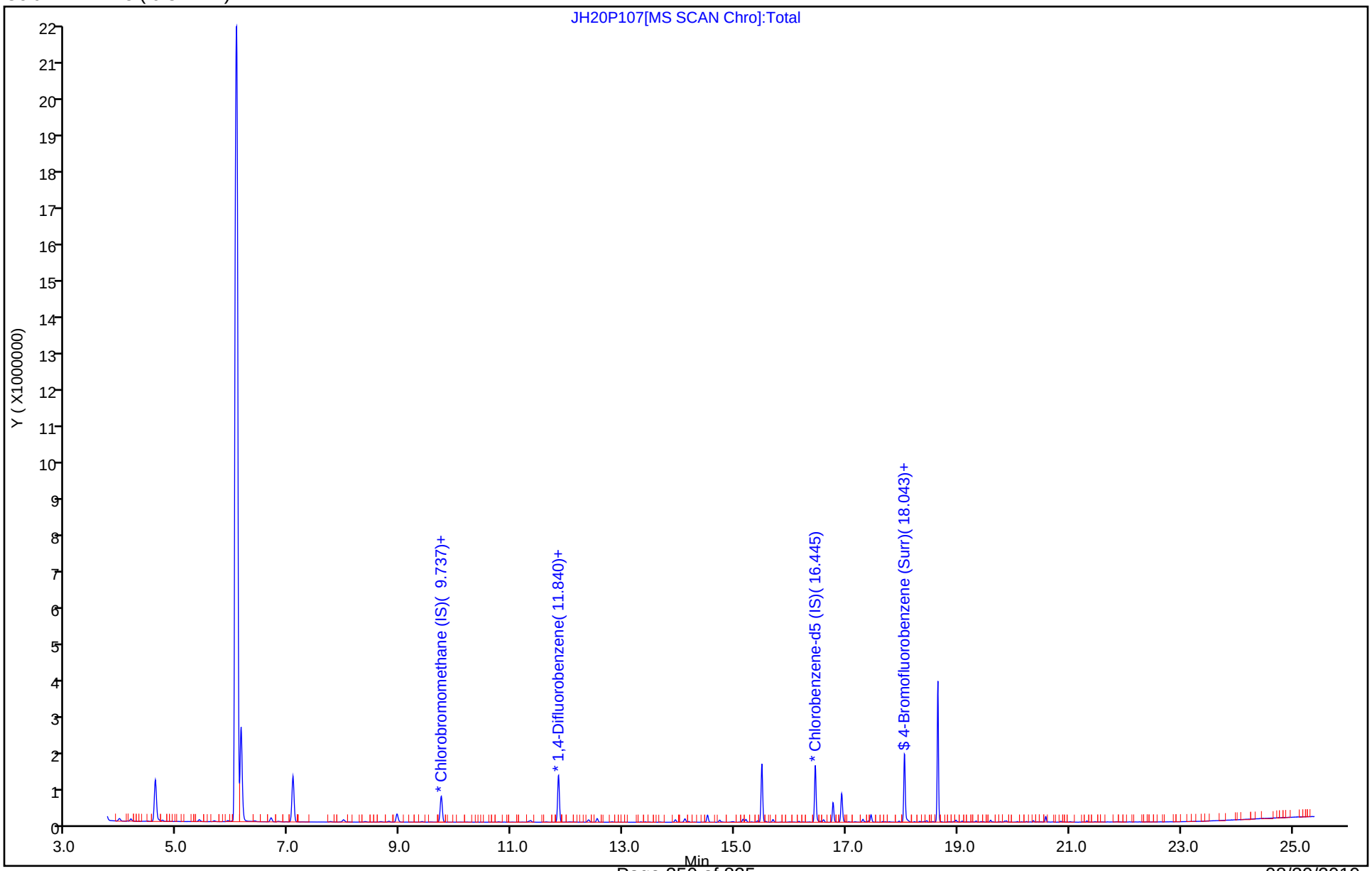
Report Date: 21-Aug-2019 12:29:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D

Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13	Worklist Smp#:	17
Client ID:	SV-015-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Lims ID:	140-16377-A-13				
Client ID:	SV-015-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 21:24:30	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-017				
Misc. Info.:	140-16377-a-13				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:29:44	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

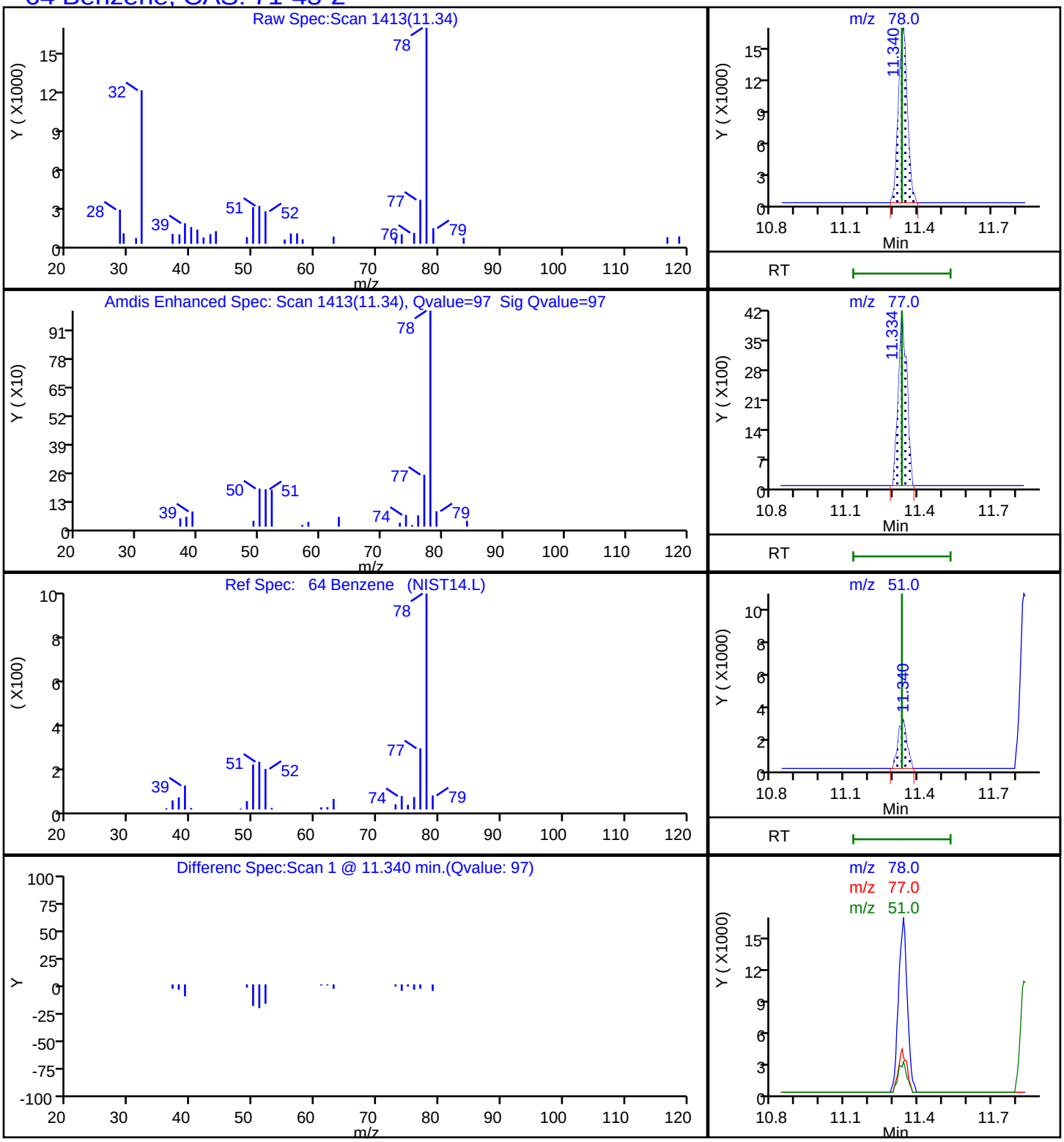
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:29:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.50	87.42

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

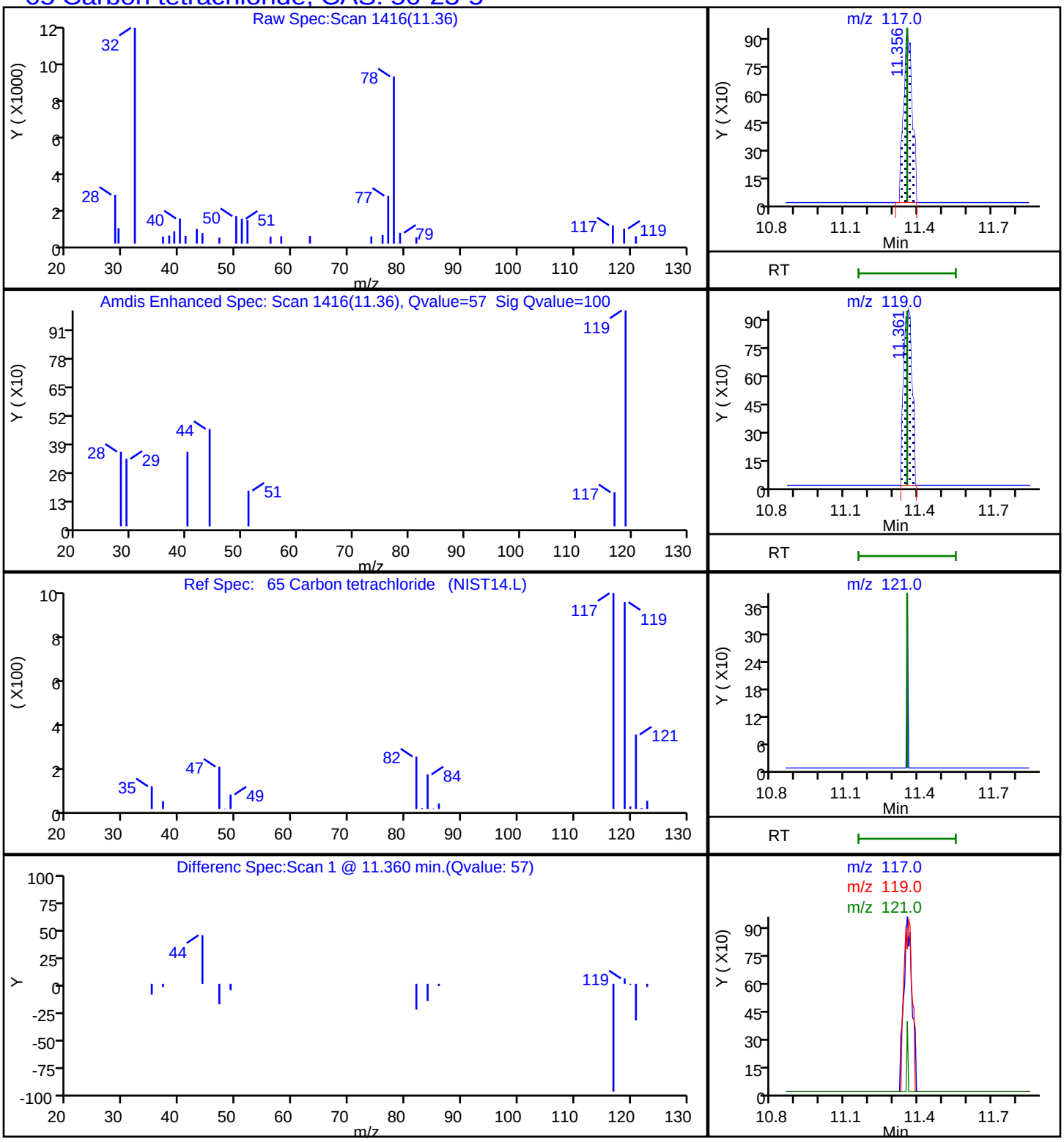
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

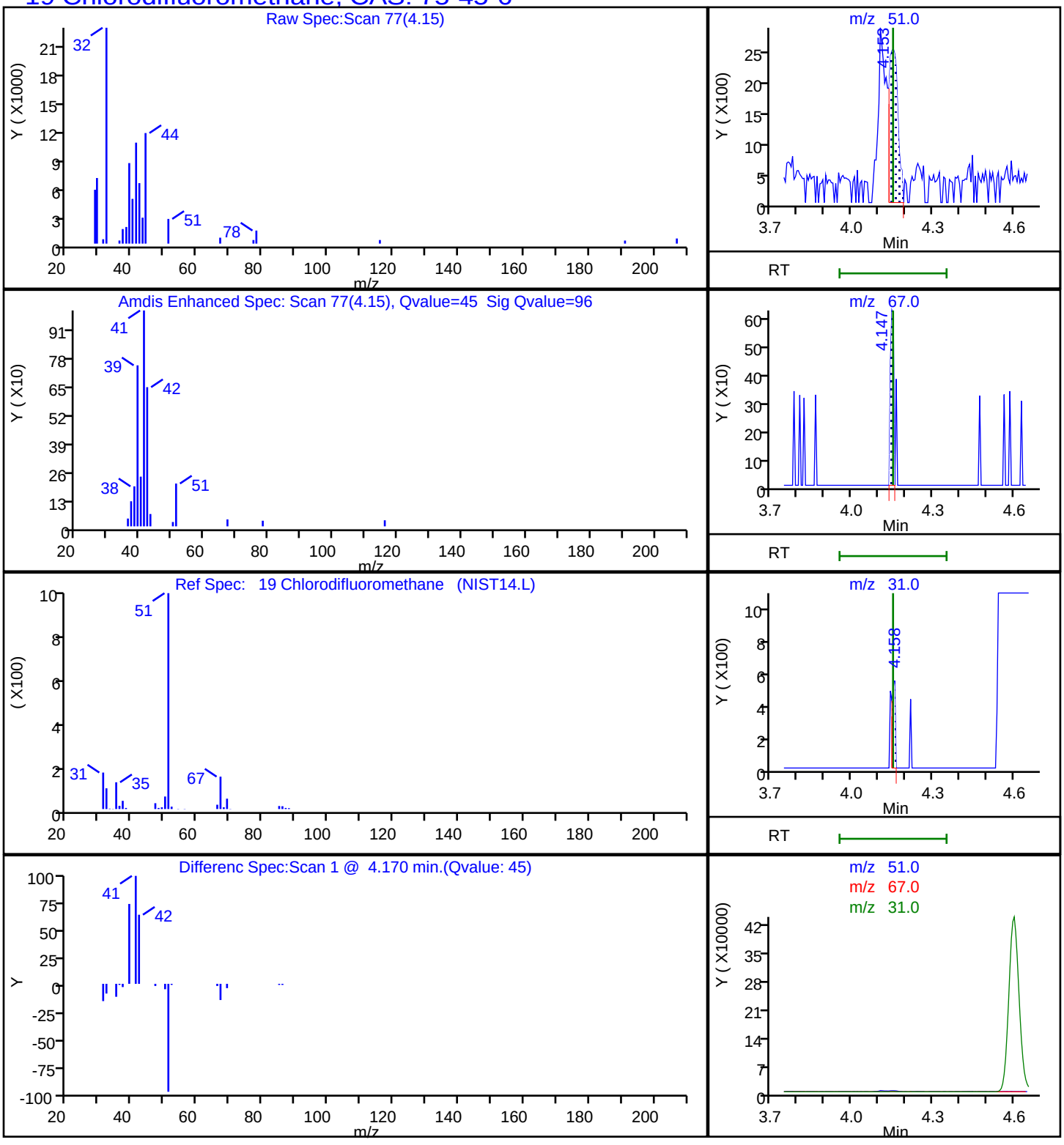
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13		
Client ID:	SV-015-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

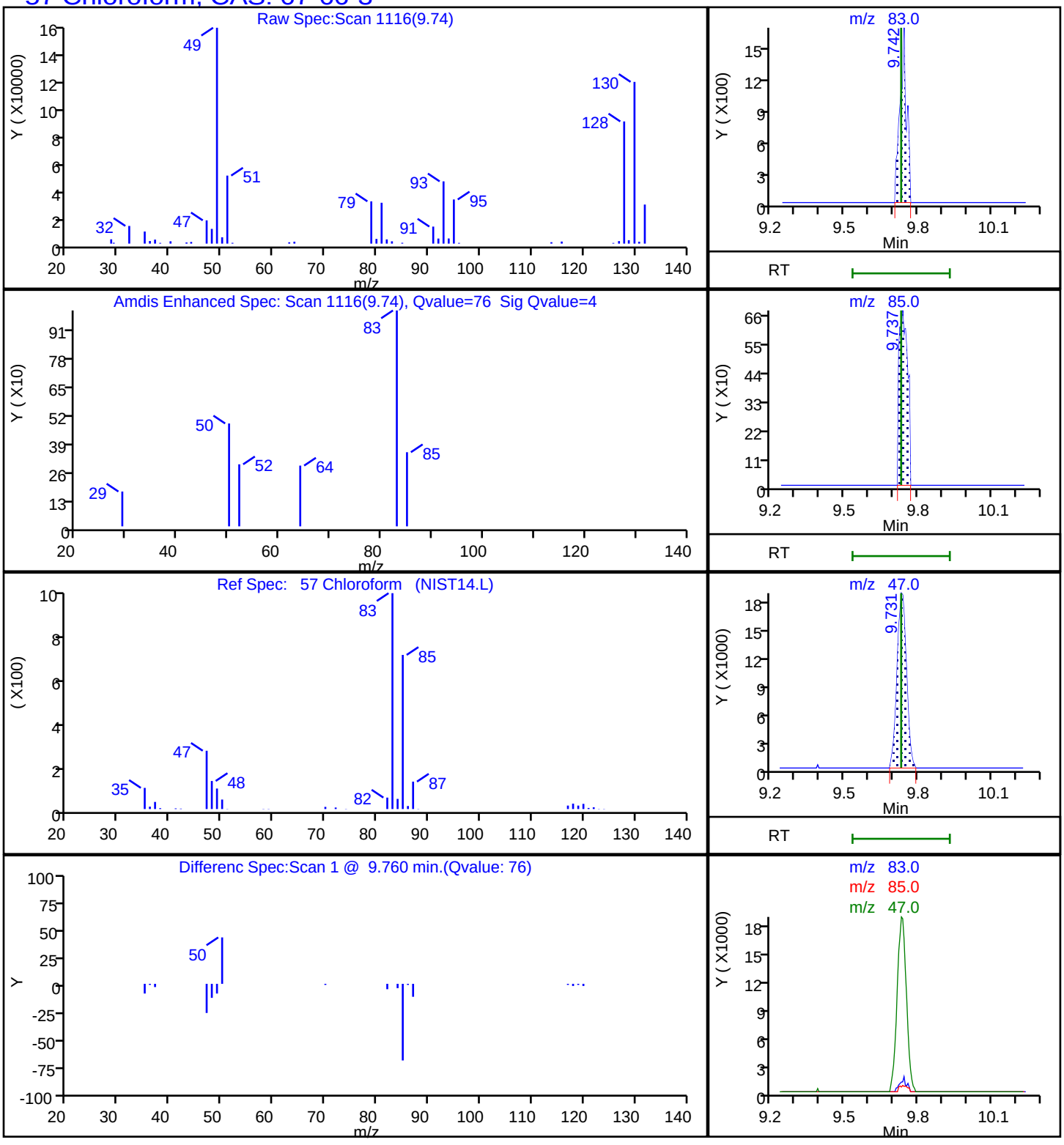


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

57 Chloroform, CAS: 67-66-3

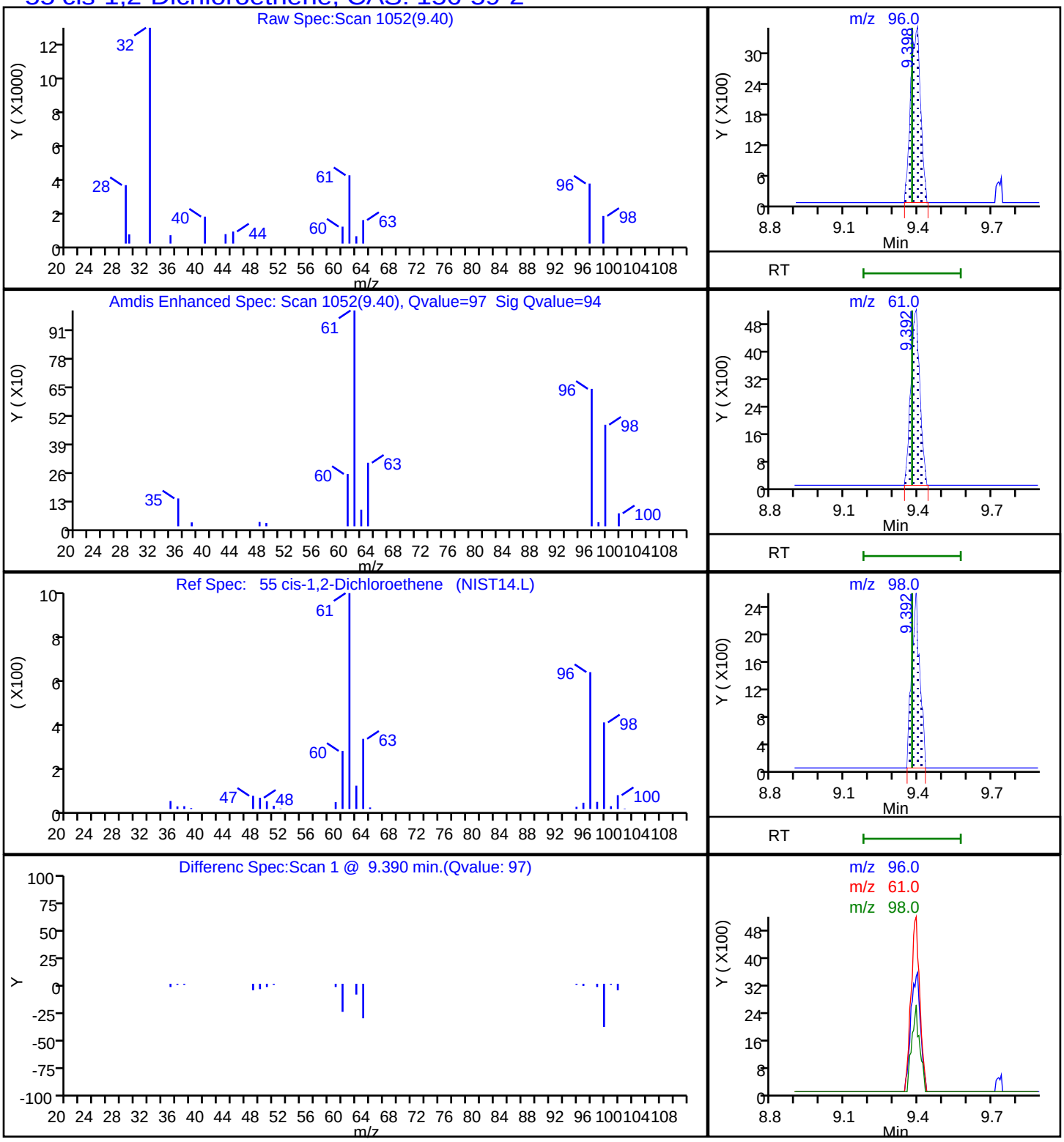


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13		
Client ID:	SV-015-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2

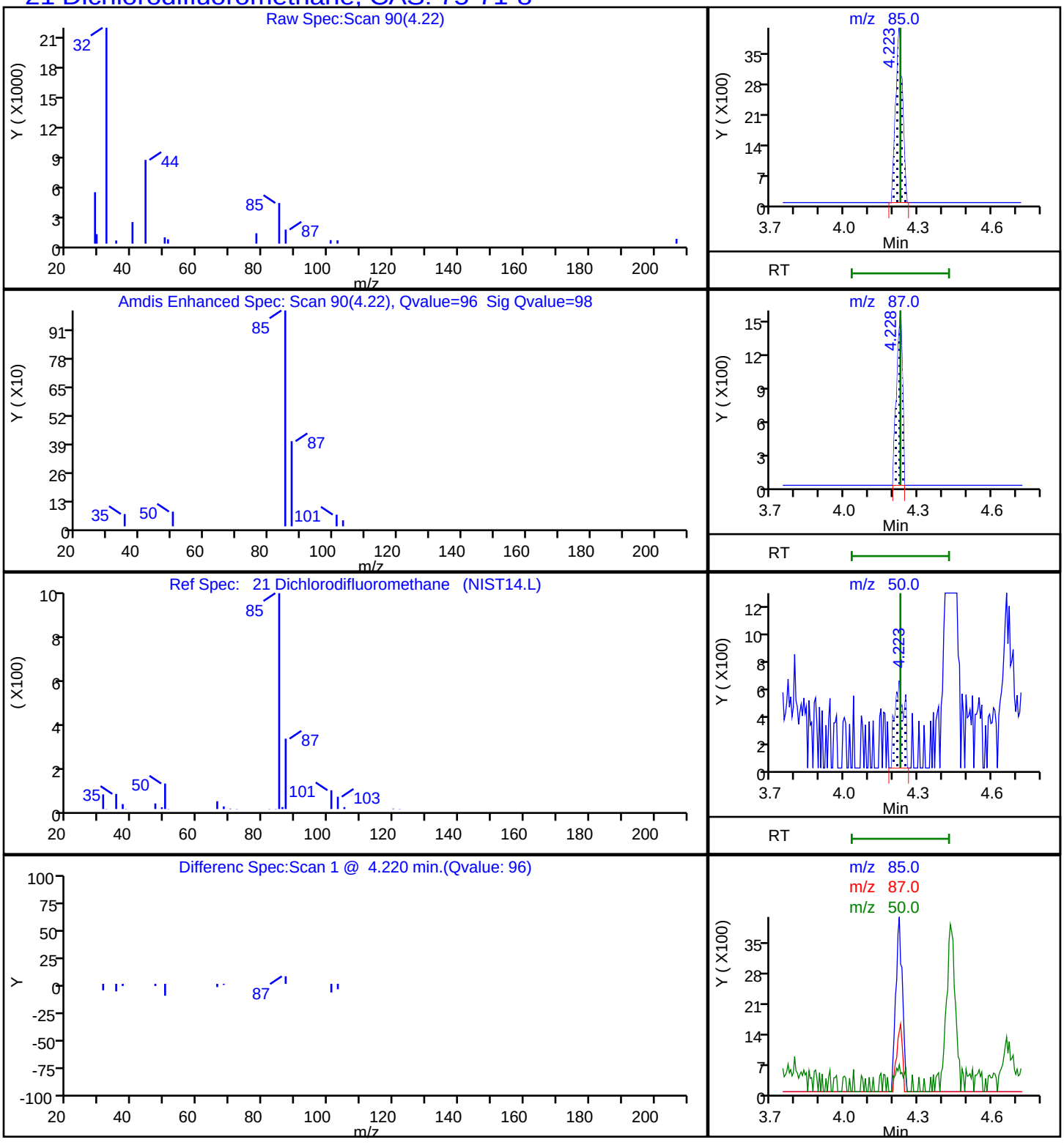


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

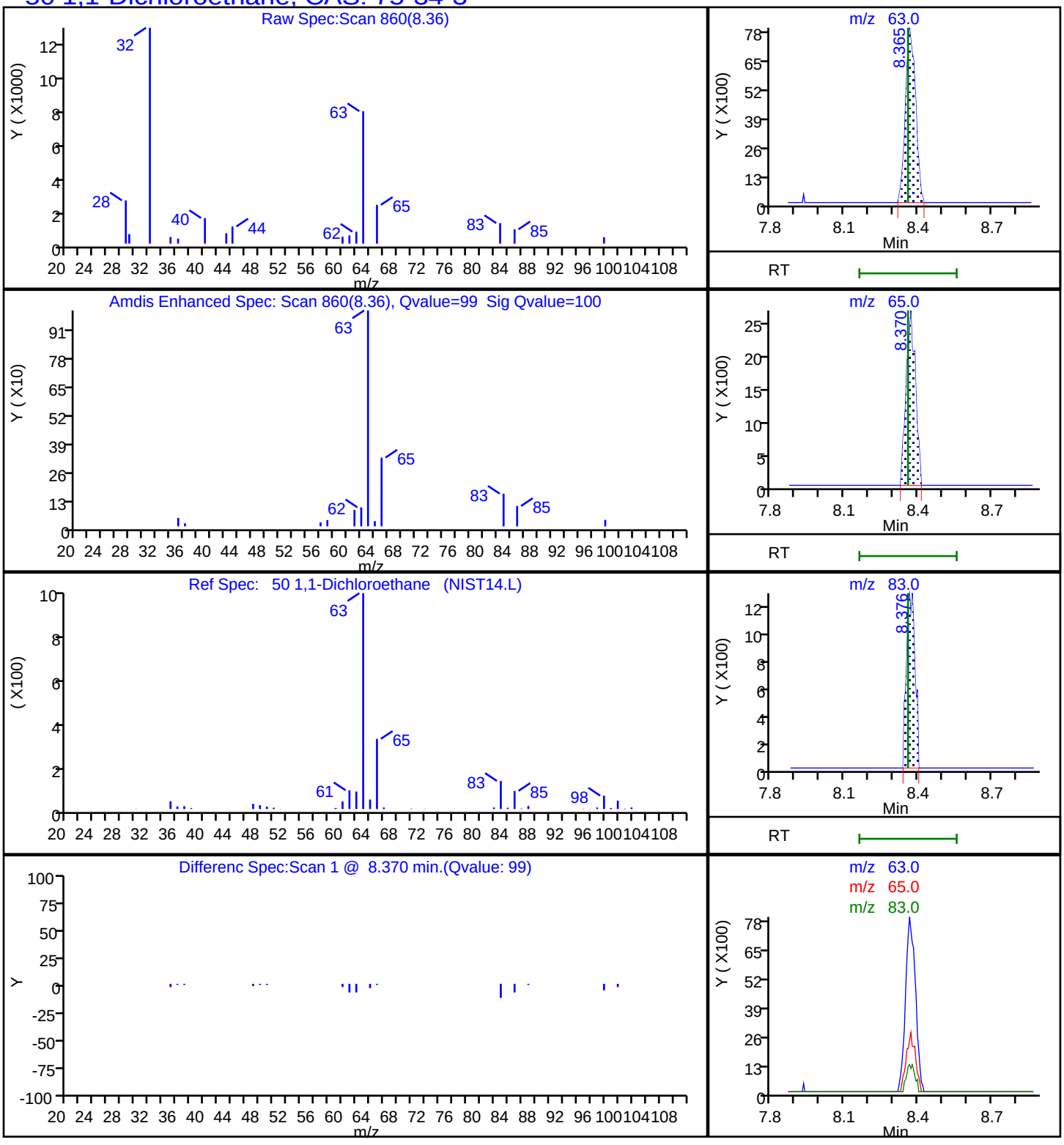
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 1,1-Dichloroethane, CAS: 75-34-3

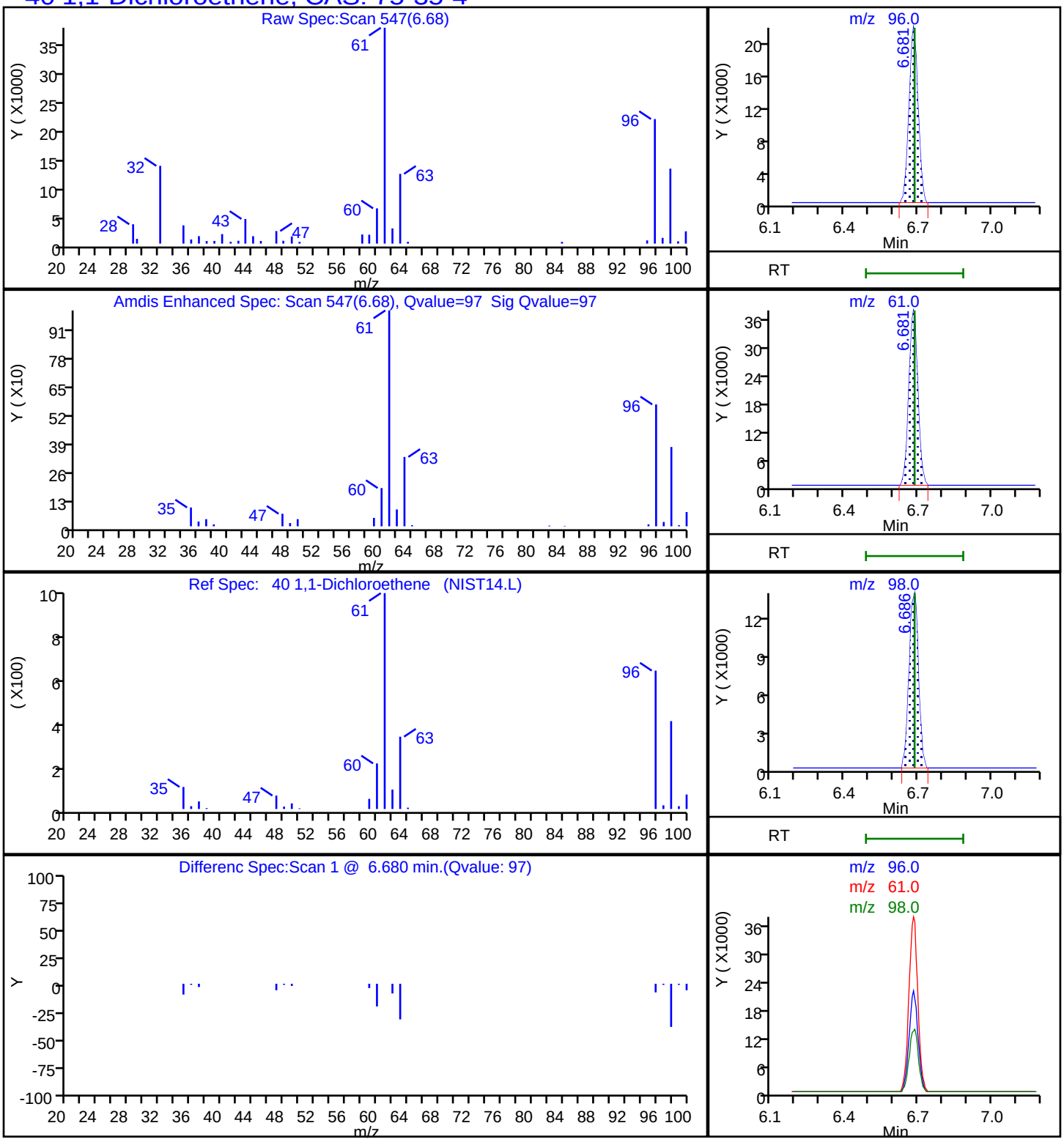


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

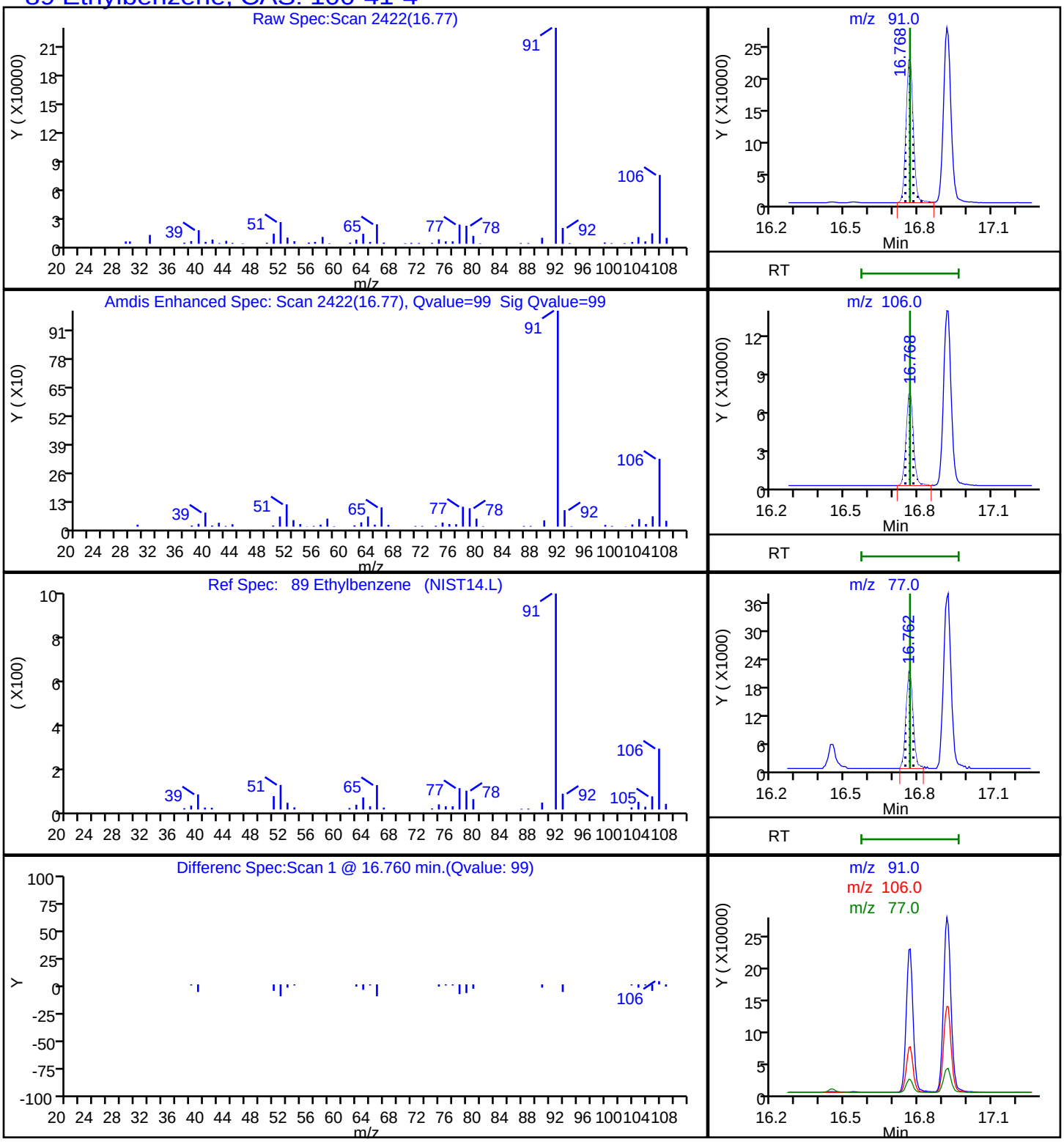


Report Date: 21-Aug-2019 12:29:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

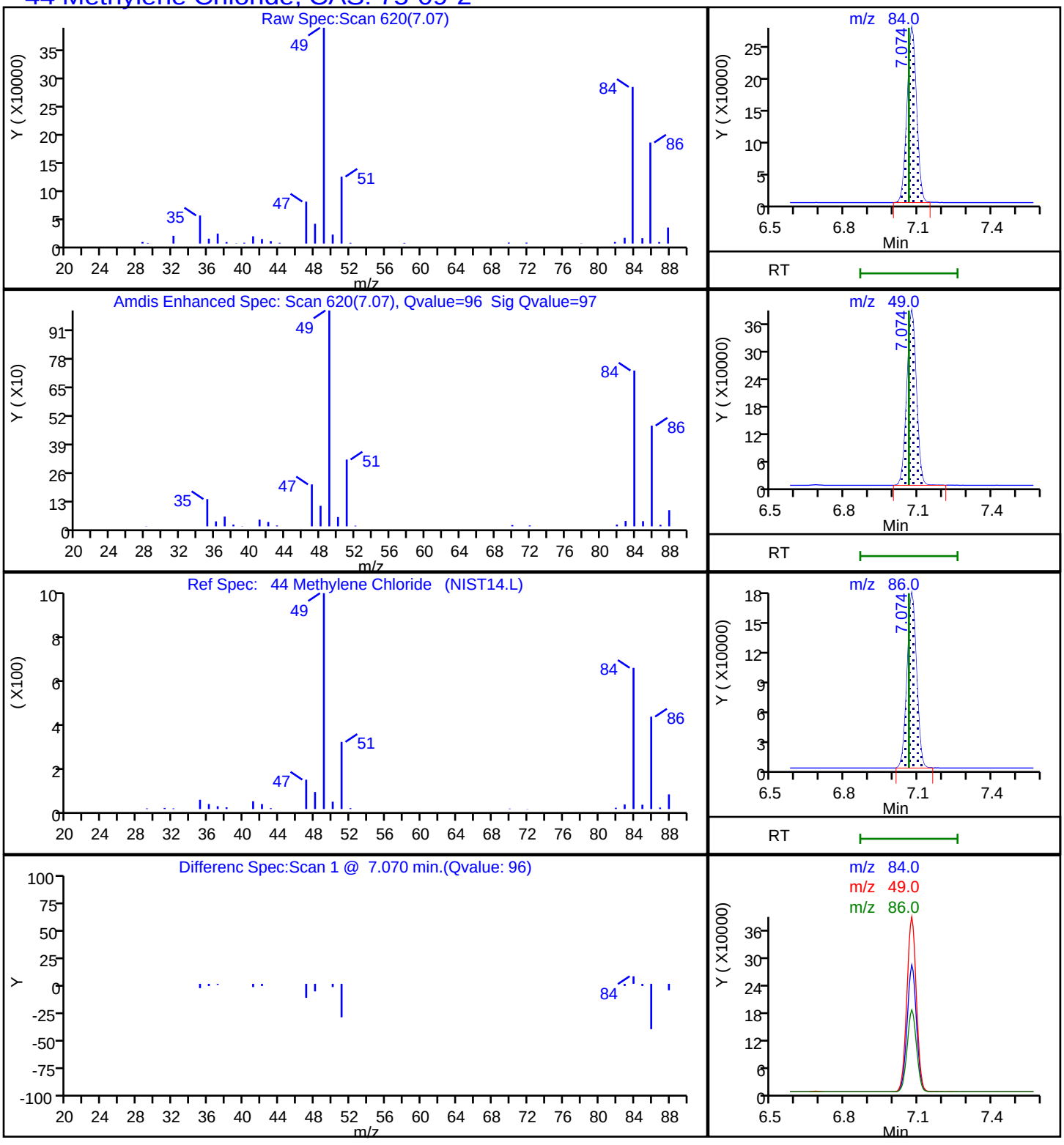


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

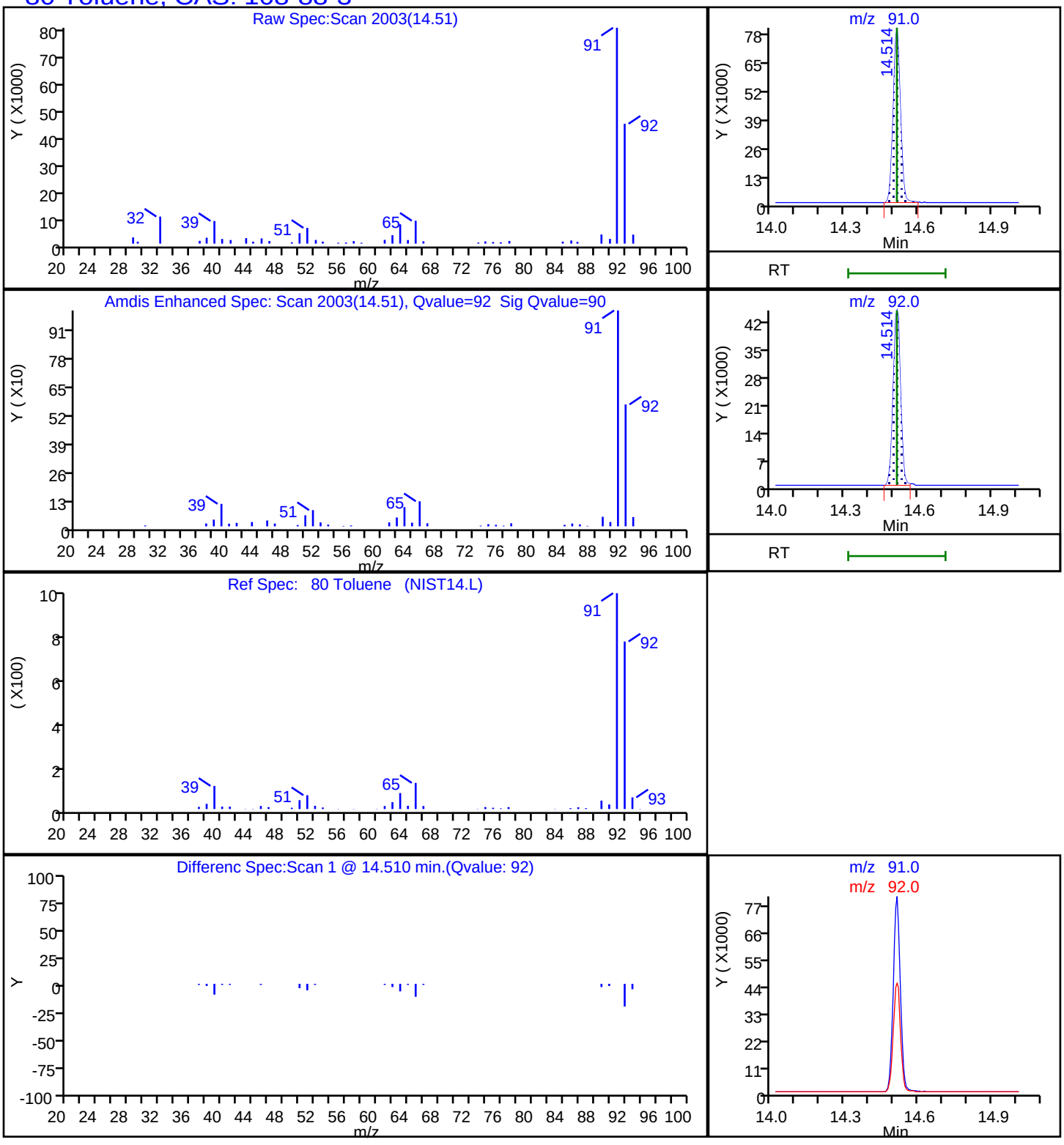
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

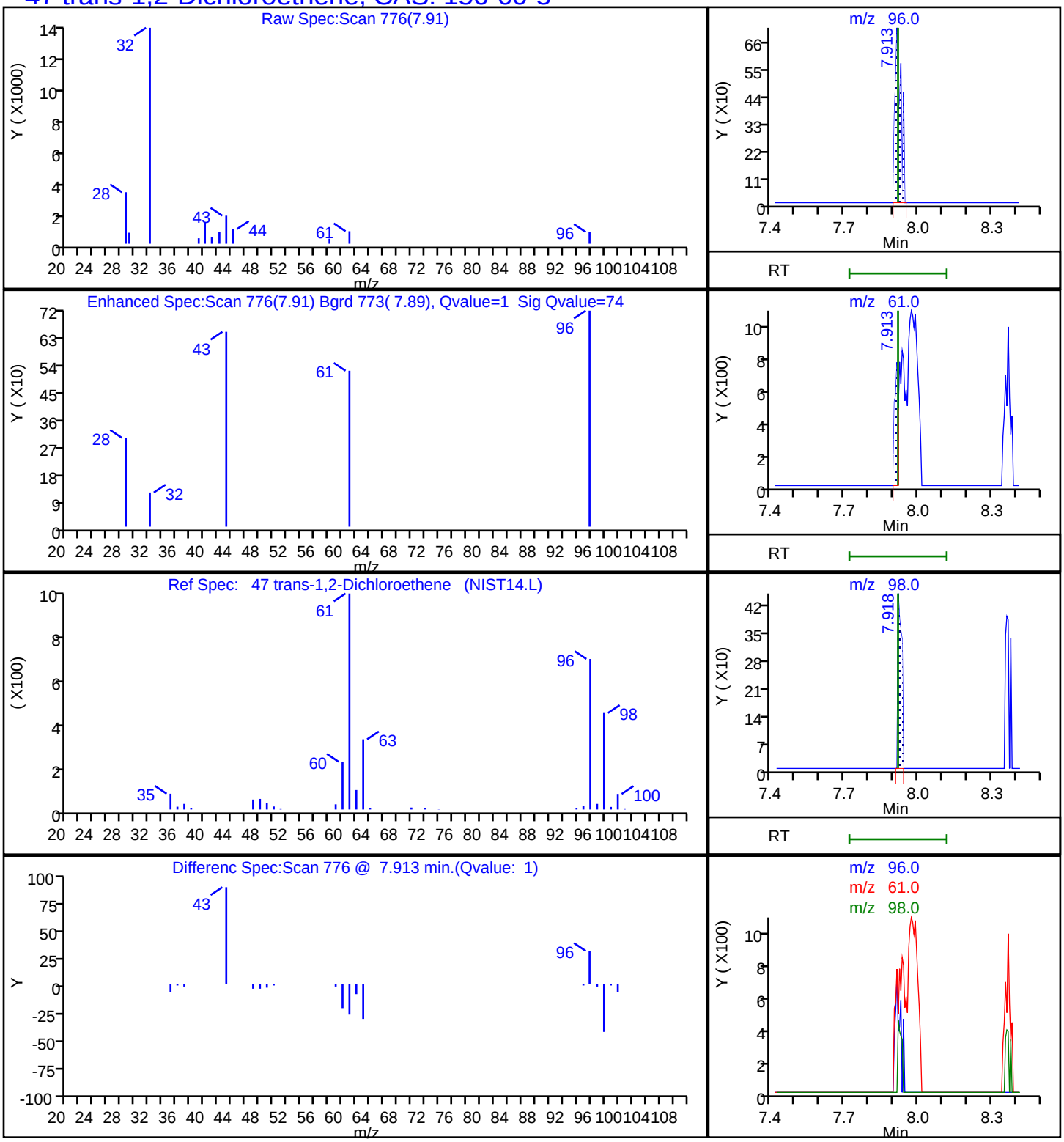
80 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 trans-1,2-Dichloroethene, CAS: 156-60-5

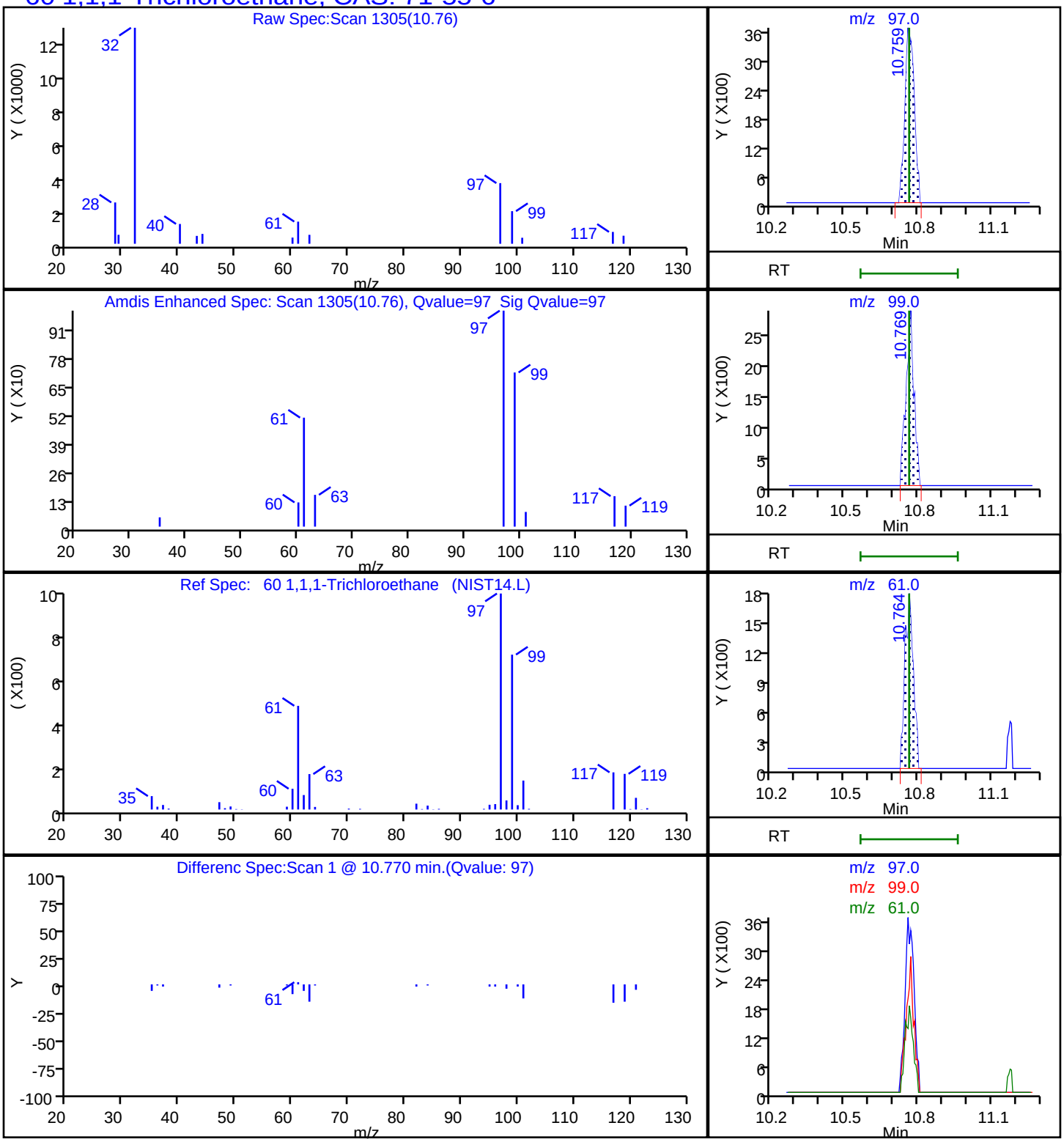


Report Date: 21-Aug-2019 12:29:46 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

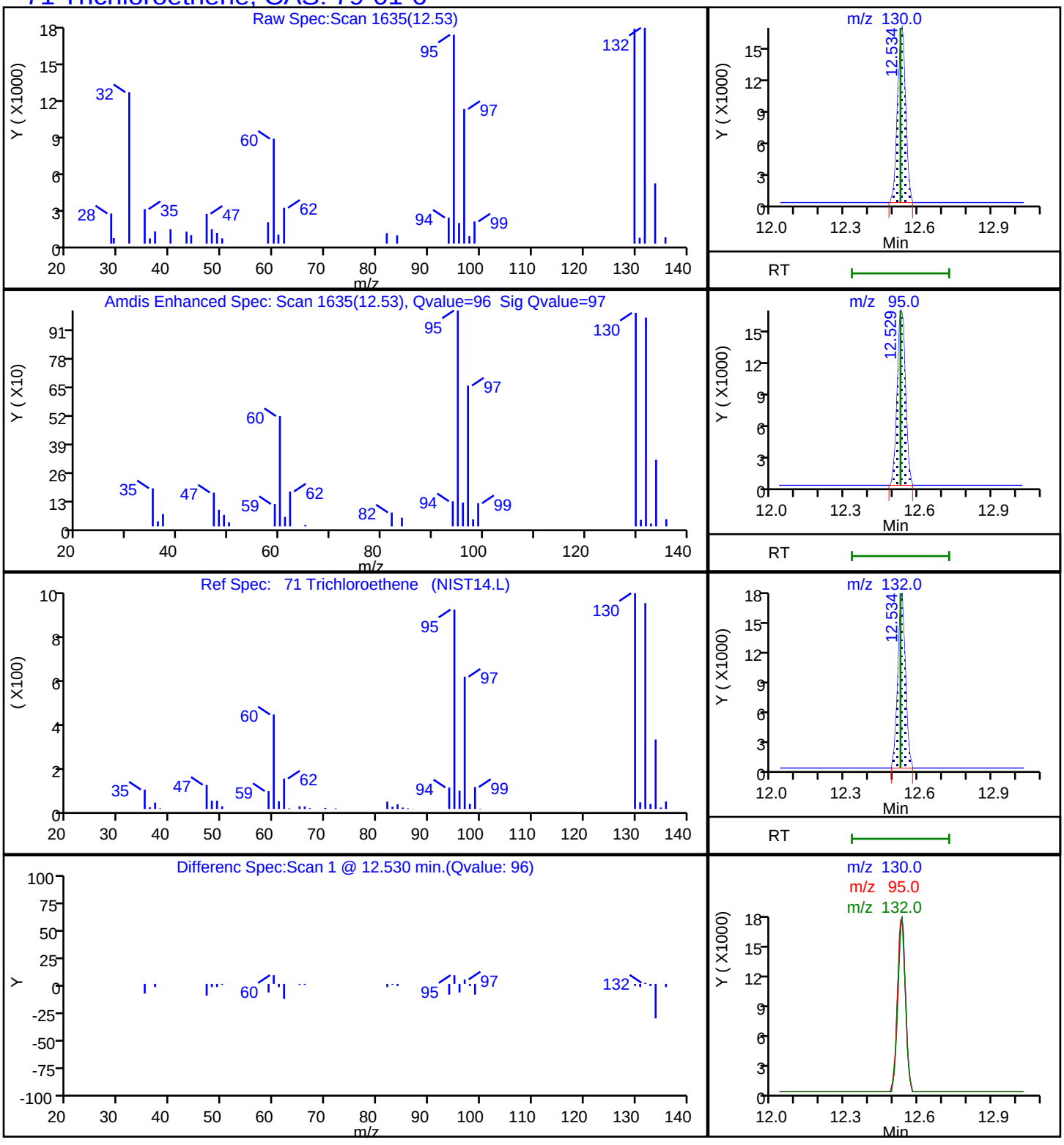
60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

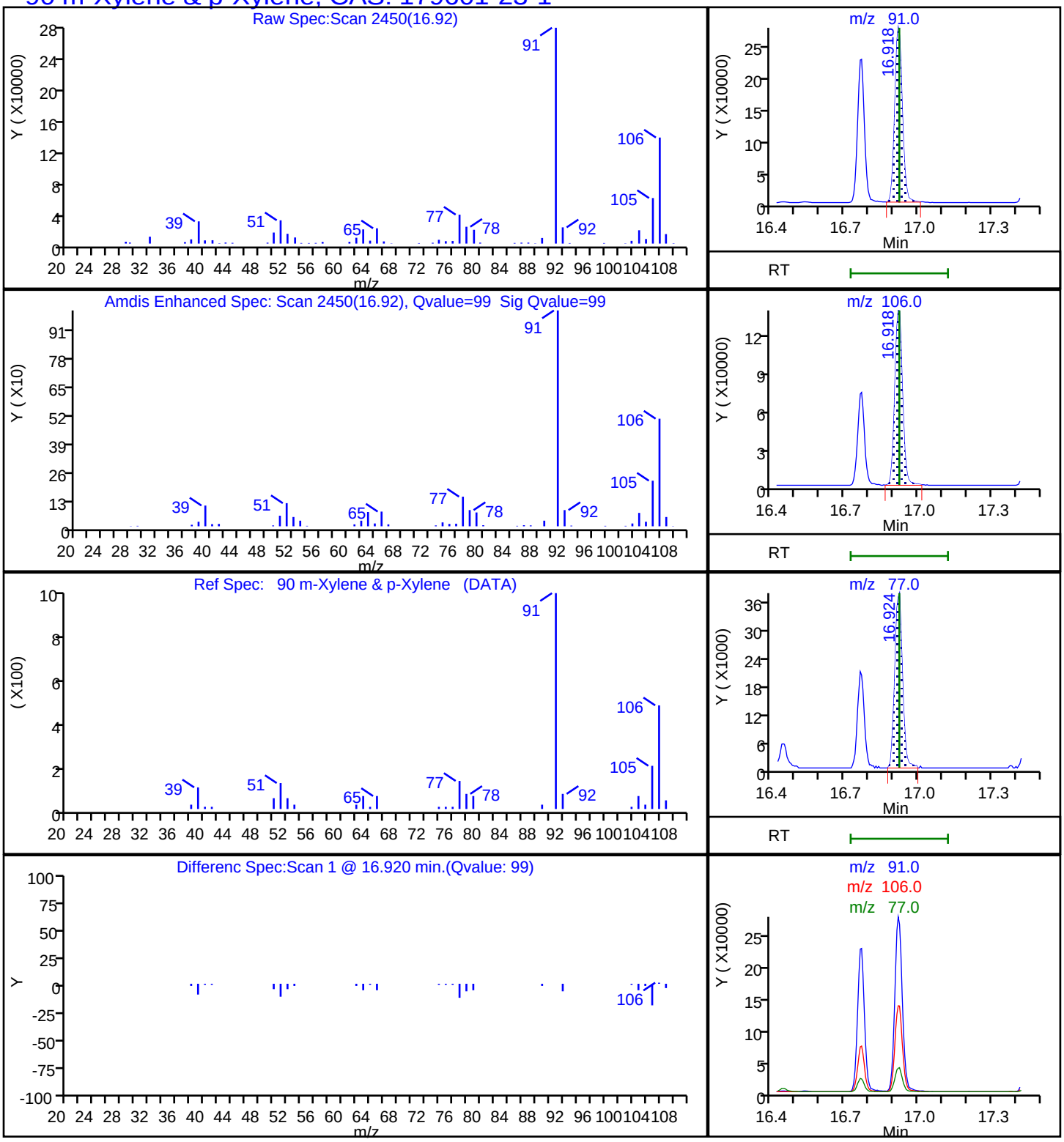


Report Date: 21-Aug-2019 12:29:47 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13		
Client ID:	SV-015-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

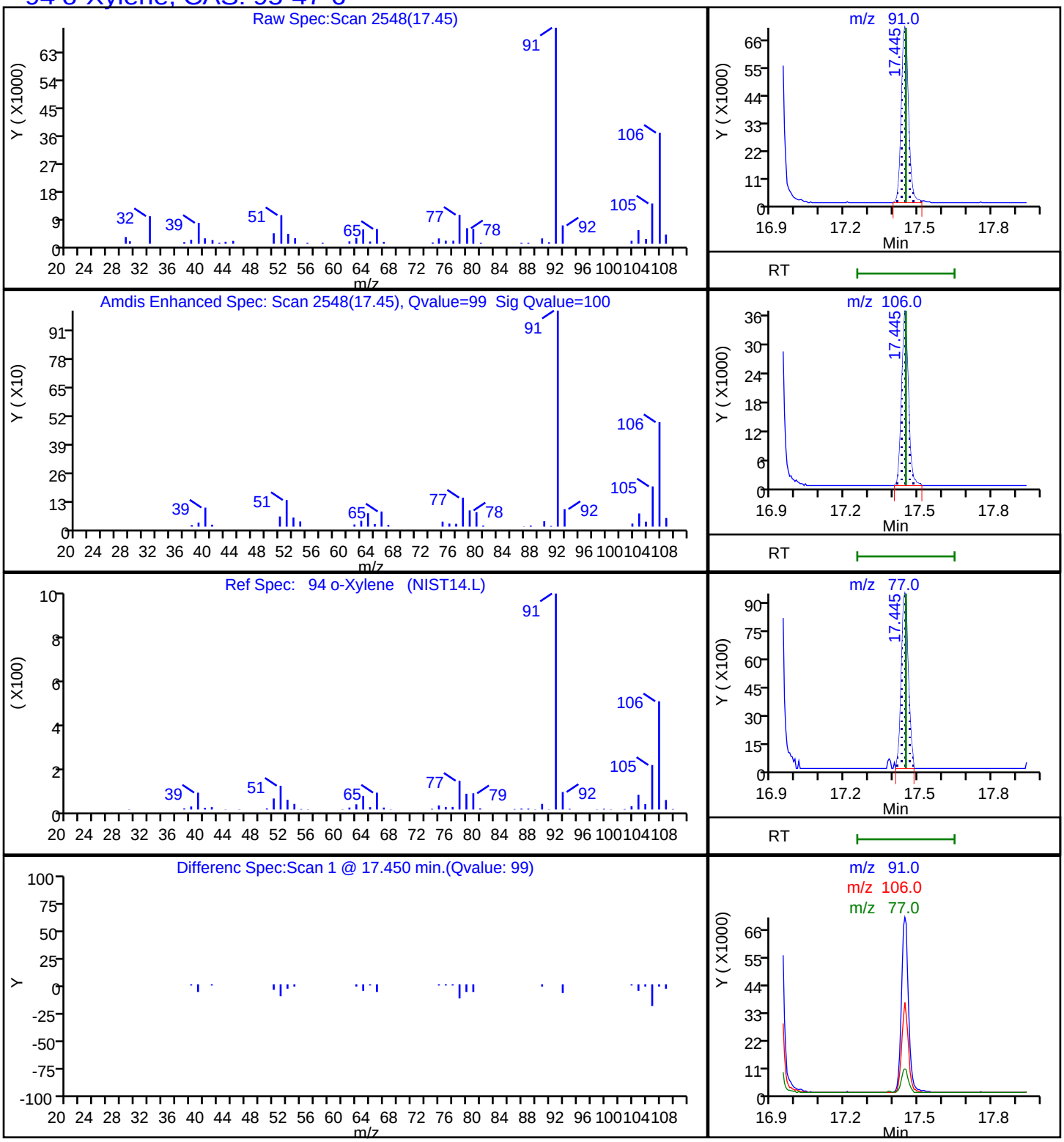
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D		
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13
Client ID:	SV-015-A-27		
Operator ID:	007126	ALS Bottle#:	7 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

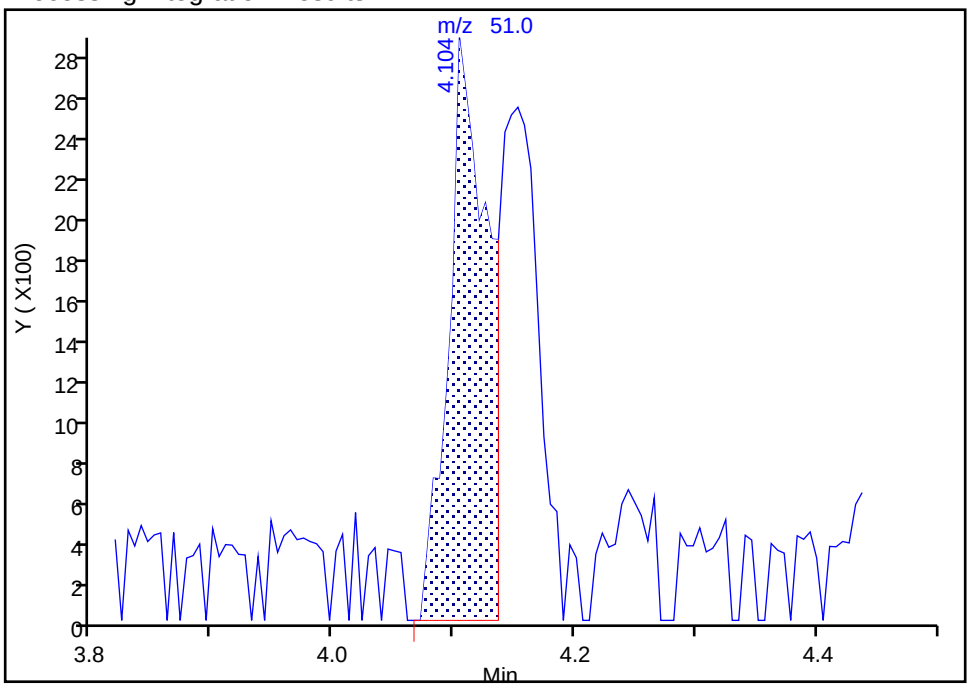
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13		
Client ID:	SV-015-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

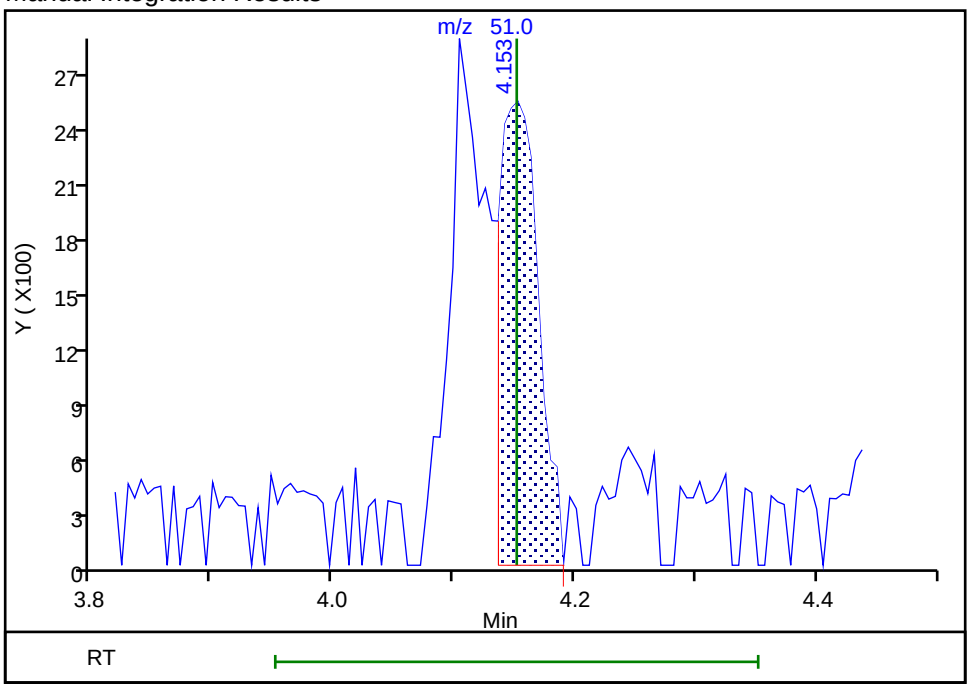
Processing Integration Results

RT: 4.10
Area: 6443
Amount: 0.093101
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 5643
Amount: 0.081541
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 21-Aug-2019 12:29:41

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

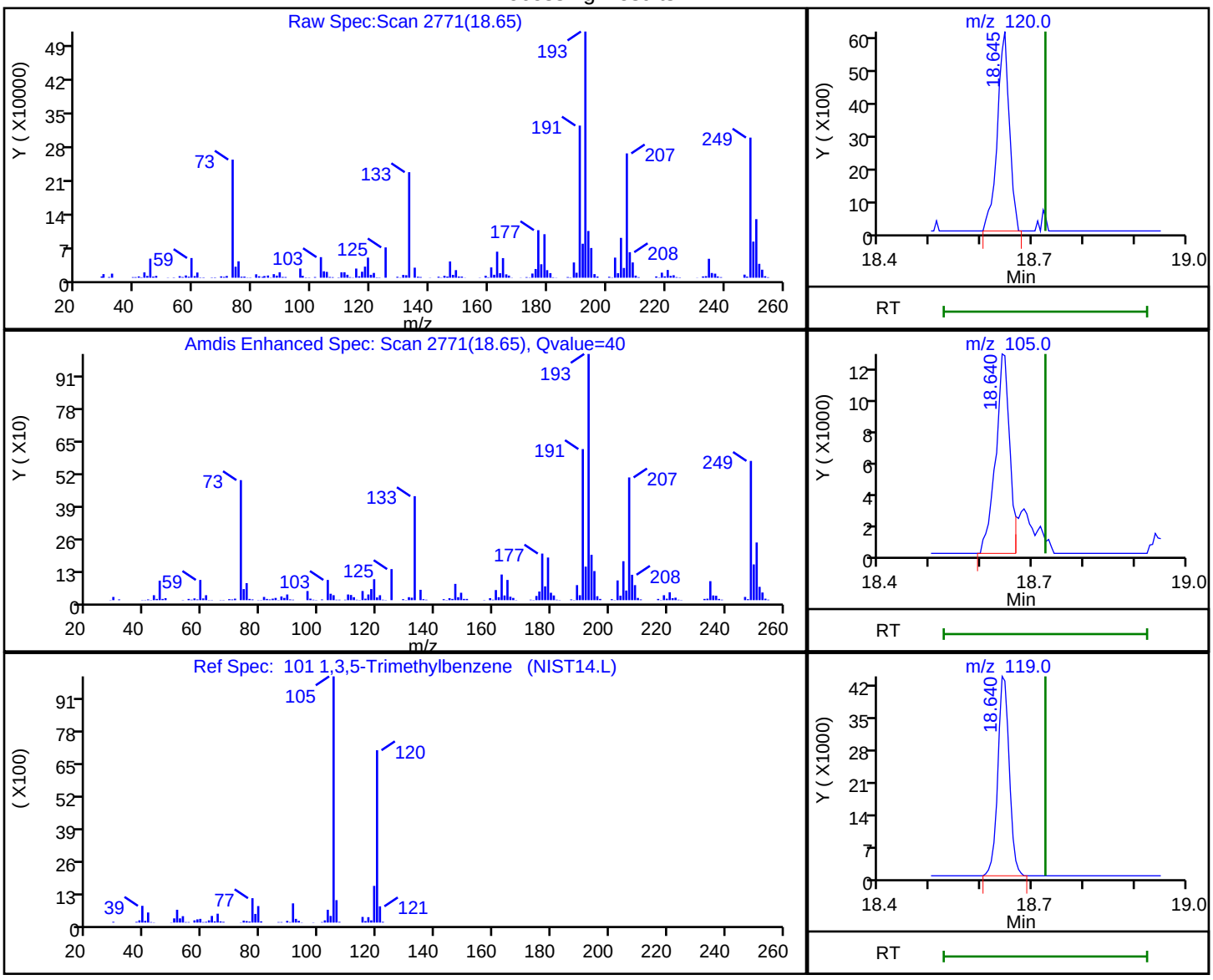
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P107.D				
Injection Date:	20-Aug-2019 21:24:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-13	Lab Sample ID:	140-16377-13		
Client ID:	SV-015-A-27				
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.65	120.00	9954	0.075004
18.64	105.00	23605	
18.64	119.00	67309	

Reviewer: khachitpongpanits, 21-Aug-2019 12:28:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.40		0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	1.2		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	11		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.31	J	0.40	0.035
108-88-3	Toluene	92.14	6.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.52		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	5.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.12	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	6.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	39		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.1	J	2.7	0.24
108-88-3	Toluene	92.14	26		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	32		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.58	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D
Lims ID: 140-16377-A-14
Client ID: SV-078-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 22:14:30 ALS Bottle#: 8 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-018
Misc. Info.: 140-16377-a-14
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:31:14 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:31:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.723	9.725	-0.002	95	175215	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.839	-0.007	95	899727	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.442	16.449	-0.007	88	762309	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.047	-0.002	96	475162	3.39	
19 Chlorodifluoromethane	51	4.150	4.150	-0.002	34	3805	0.0795	M
21 Dichlorodifluoromethane	85	4.225	4.227	-0.002	98	13570	0.2473	
44 Methylene Chloride	84	7.060	7.062	-0.002	98	149247	2.26	
57 Chloroform	83	9.739	9.730	0.009	28	3335	0.0235	
60 1,1,1-Trichloroethane	97	10.756	10.763	-0.007	94	15924	0.1041	
64 Benzene	78	11.331	11.333	-0.002	91	4316	0.0262	
65 Carbon tetrachloride	117	11.348	11.349	-0.007	74	1418	0.0103	
71 Trichloroethene	130	12.526	12.521	-0.002	95	87853	1.18	
80 Toluene	91	14.511	14.508	-0.002	93	251260	1.36	
86 Tetrachloroethene	129	15.624	15.633	-0.013	89	4594	0.0621	
89 Ethylbenzene	91	16.770	16.767	0.003	96	8417	0.0355	
90 m-Xylene & p-Xylene	91	16.921	16.923	-0.002	98	22600	0.1242	
94 o-Xylene	91	17.448	17.450	-0.002	99	24467	0.1264	
101 1,3,5-Trimethylbenzene	120	18.723	18.715	-0.002	90	2375	0.0236	
105 1,2,4-Trimethylbenzene	105	19.137	19.144	-0.007	98	12851	0.0576	
S 129 Xylenes, Total	100				0		0.2506	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

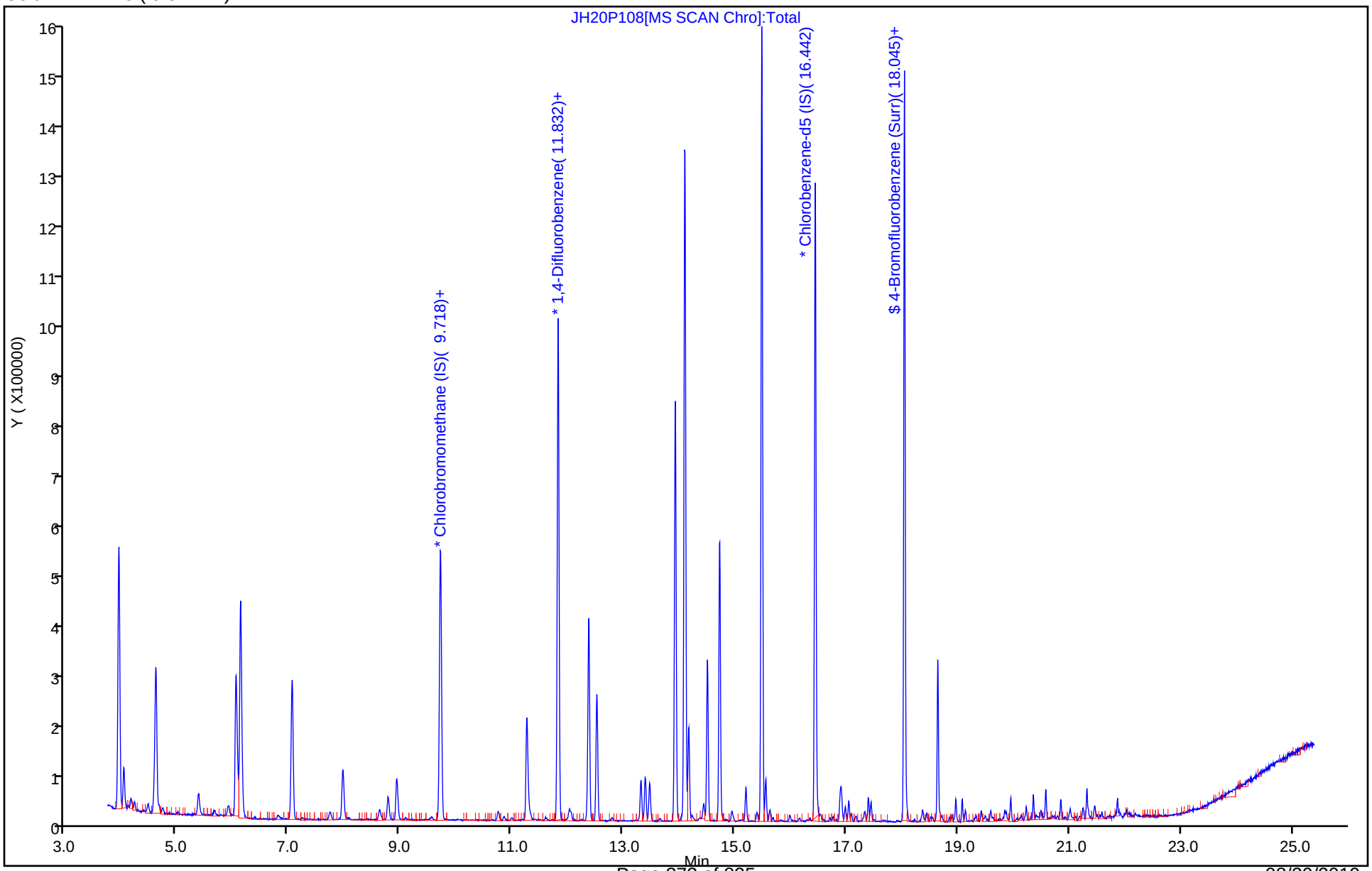
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 21-Aug-2019 12:31:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14	Worklist Smp#:	18
Client ID:	SV-078-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Lims ID:	140-16377-A-14				
Client ID:	SV-078-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 22:14:30	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-018				
Misc. Info.:	140-16377-a-14				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:31:14	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:31:14

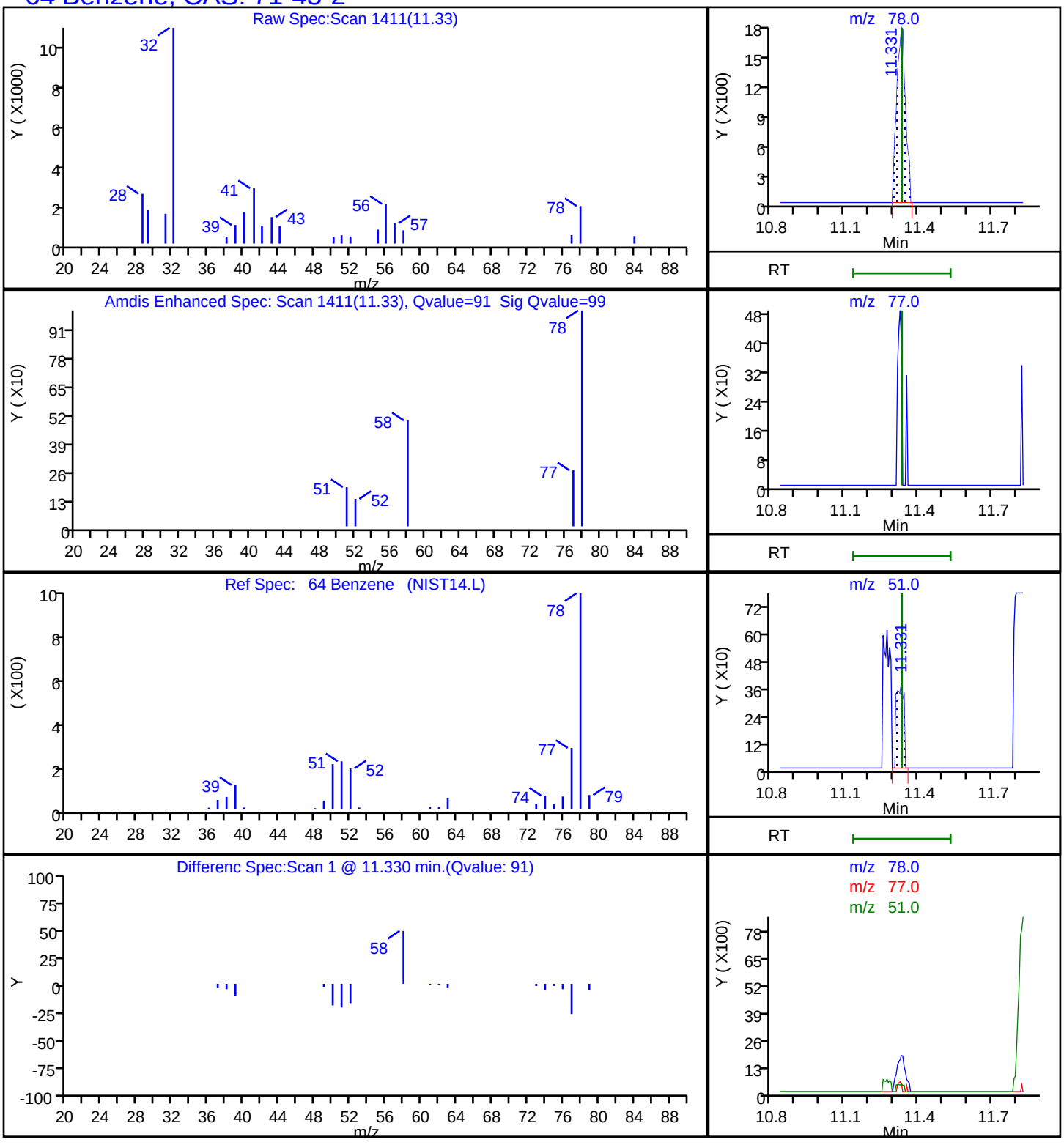
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.39	84.79

Report Date: 21-Aug-2019 12:31:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

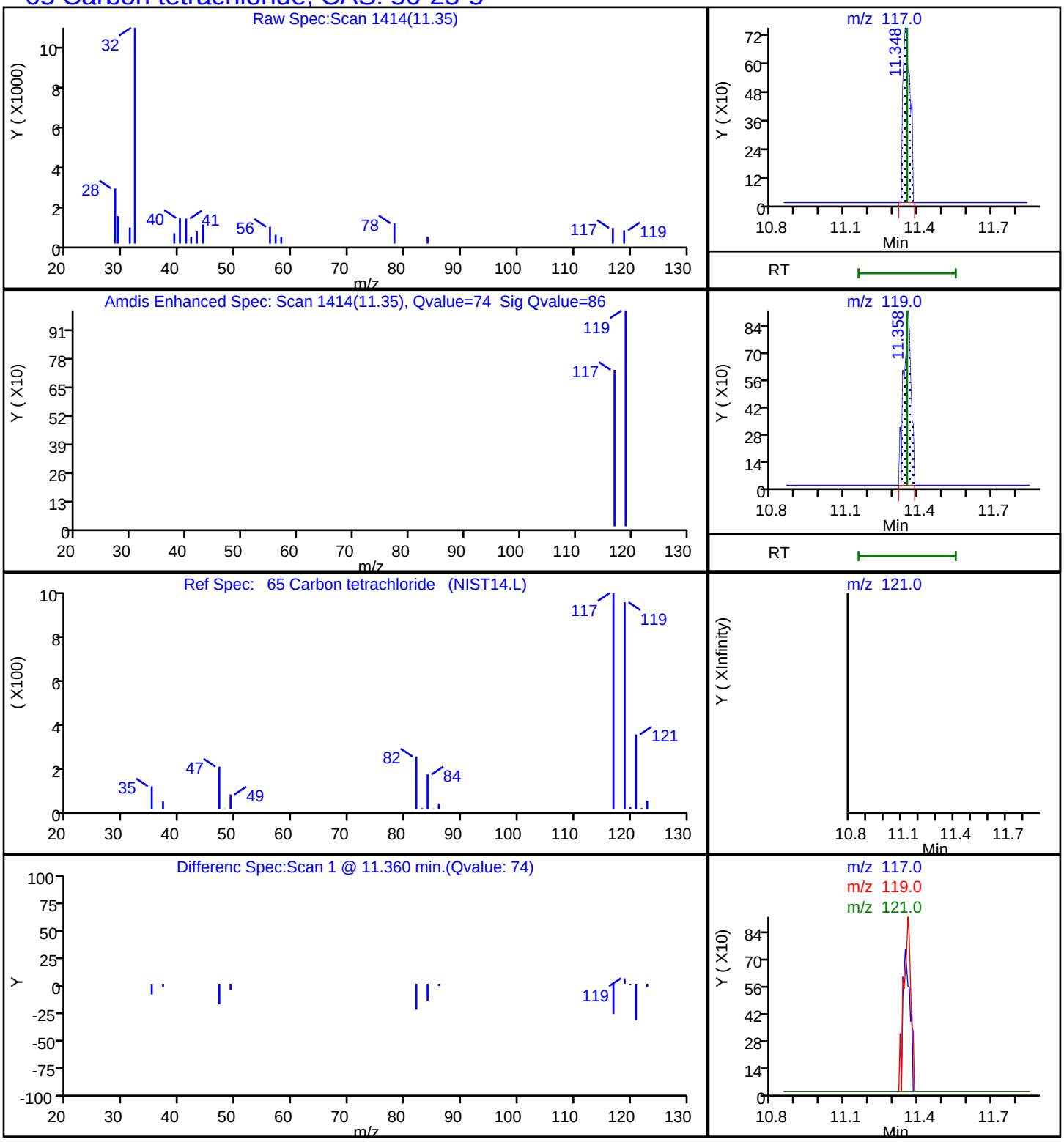
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D		
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14
Client ID:	SV-078-A-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

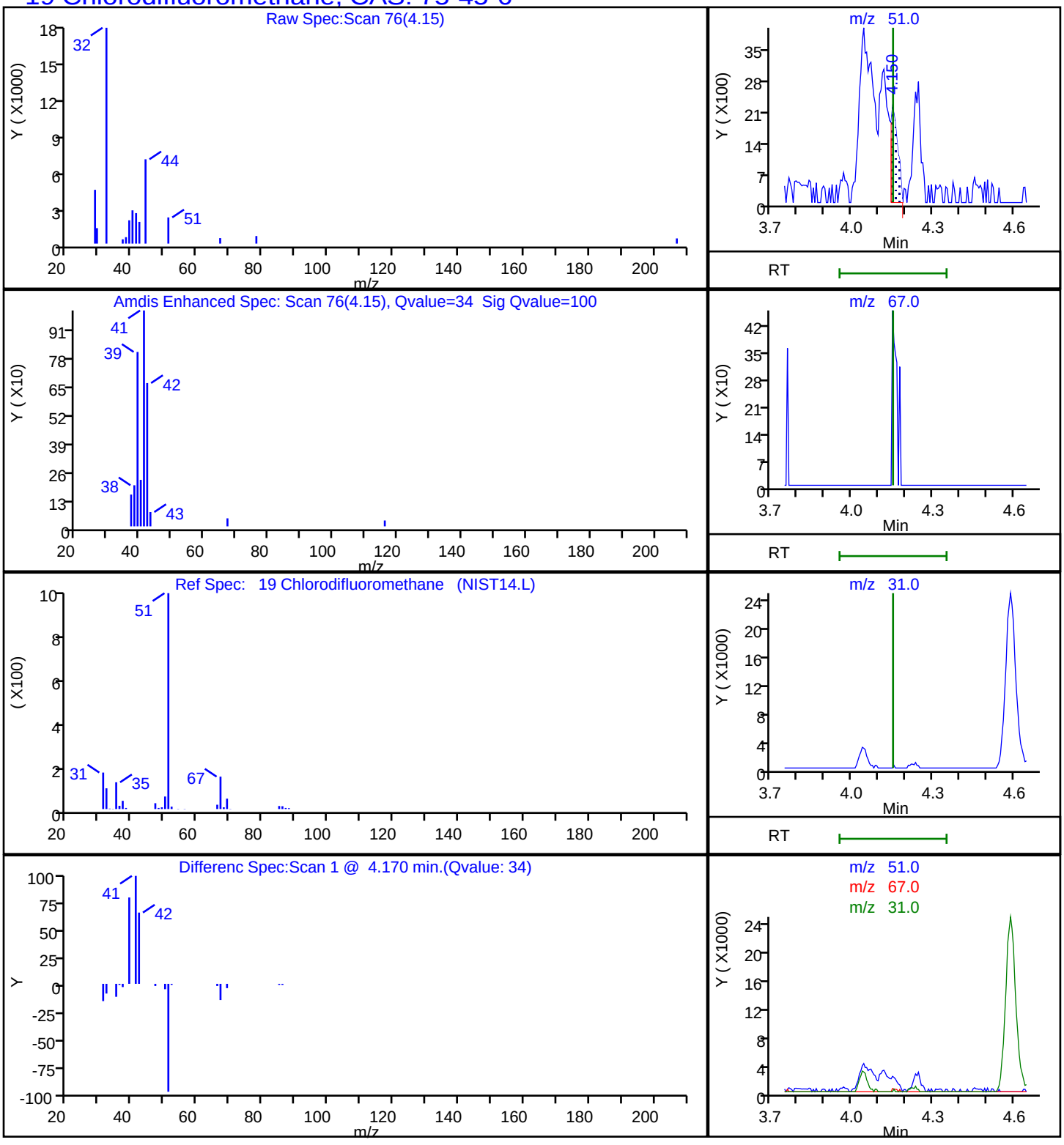
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

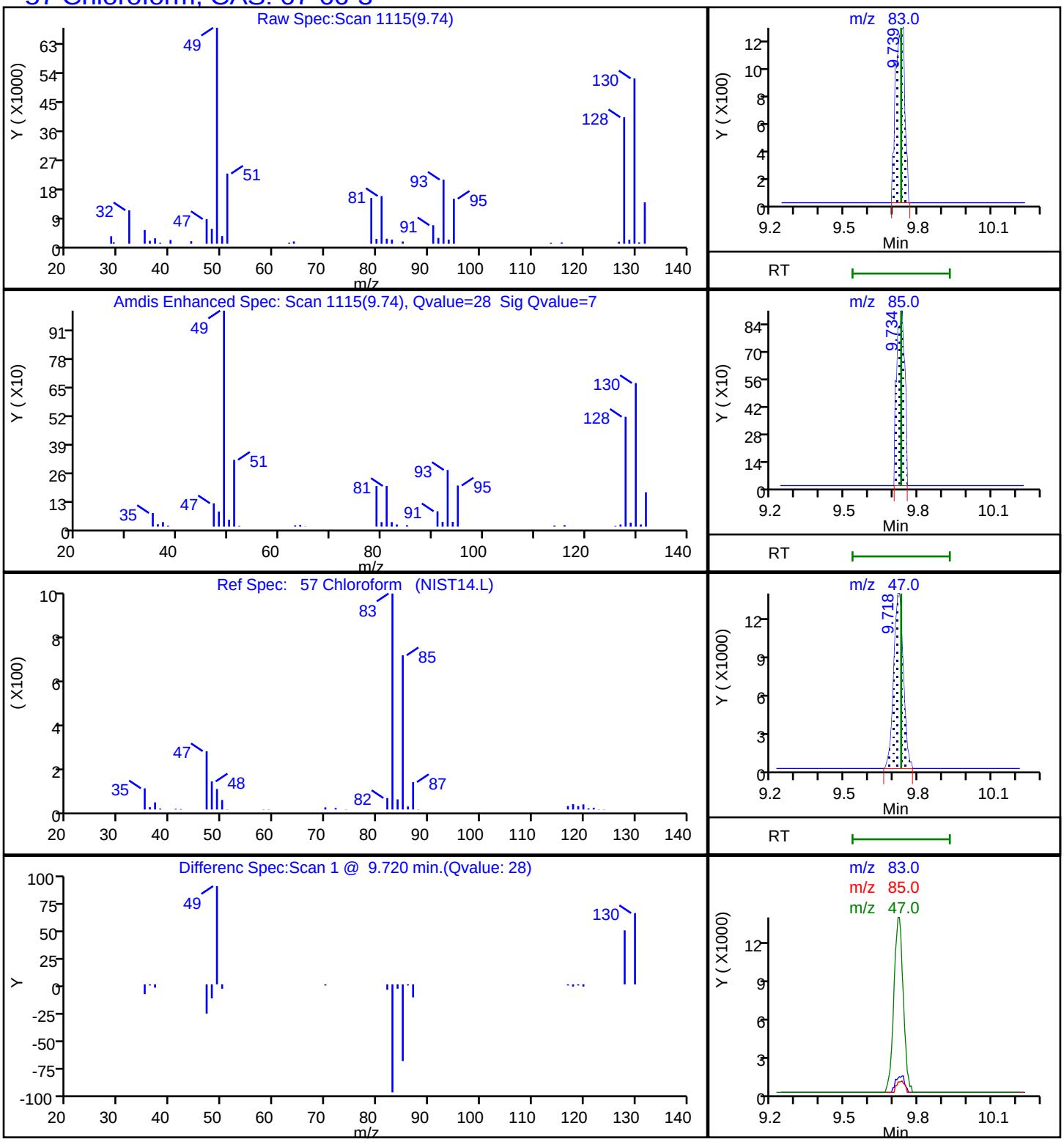
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D		
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14
Client ID:	SV-078-A-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

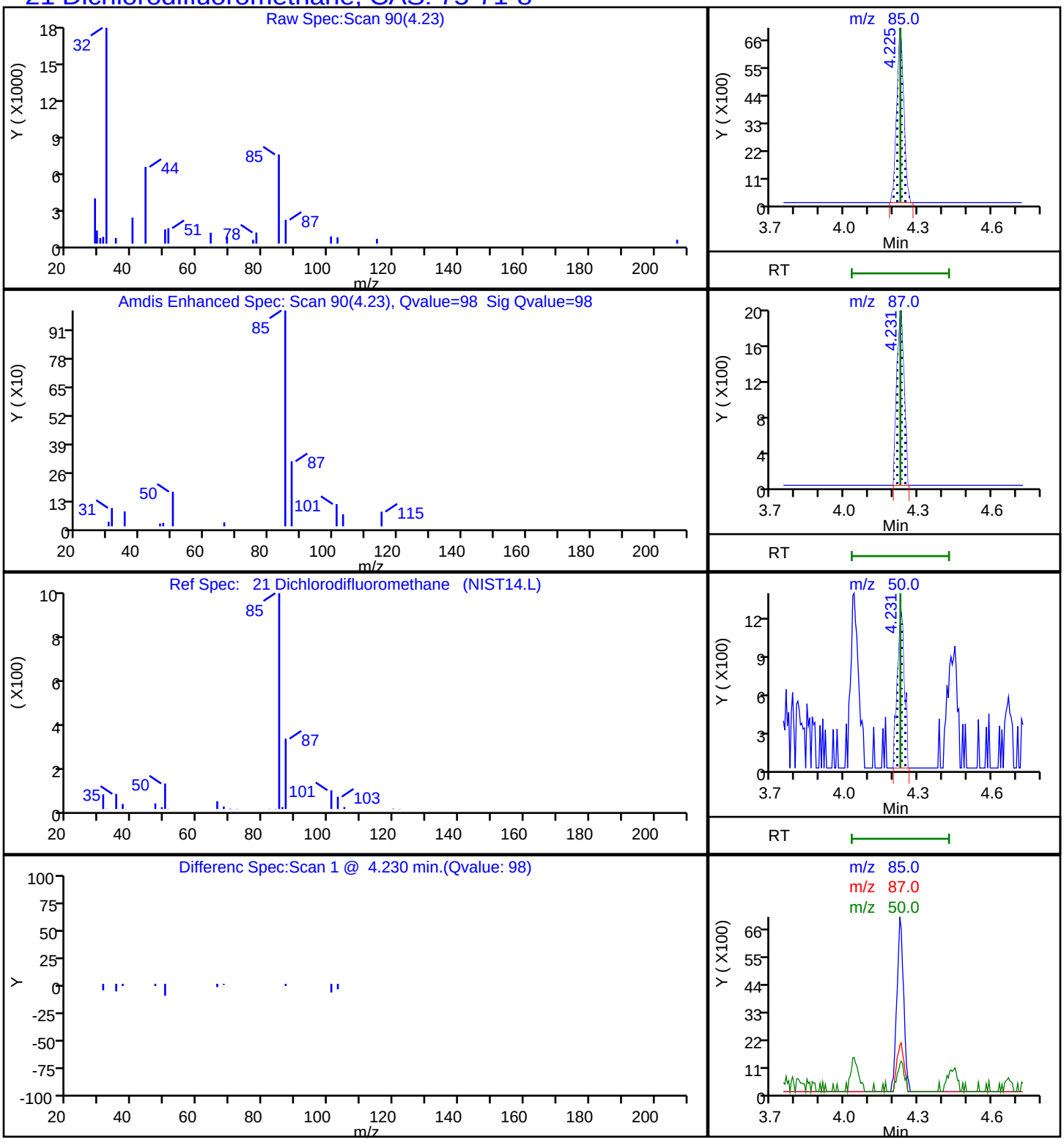
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

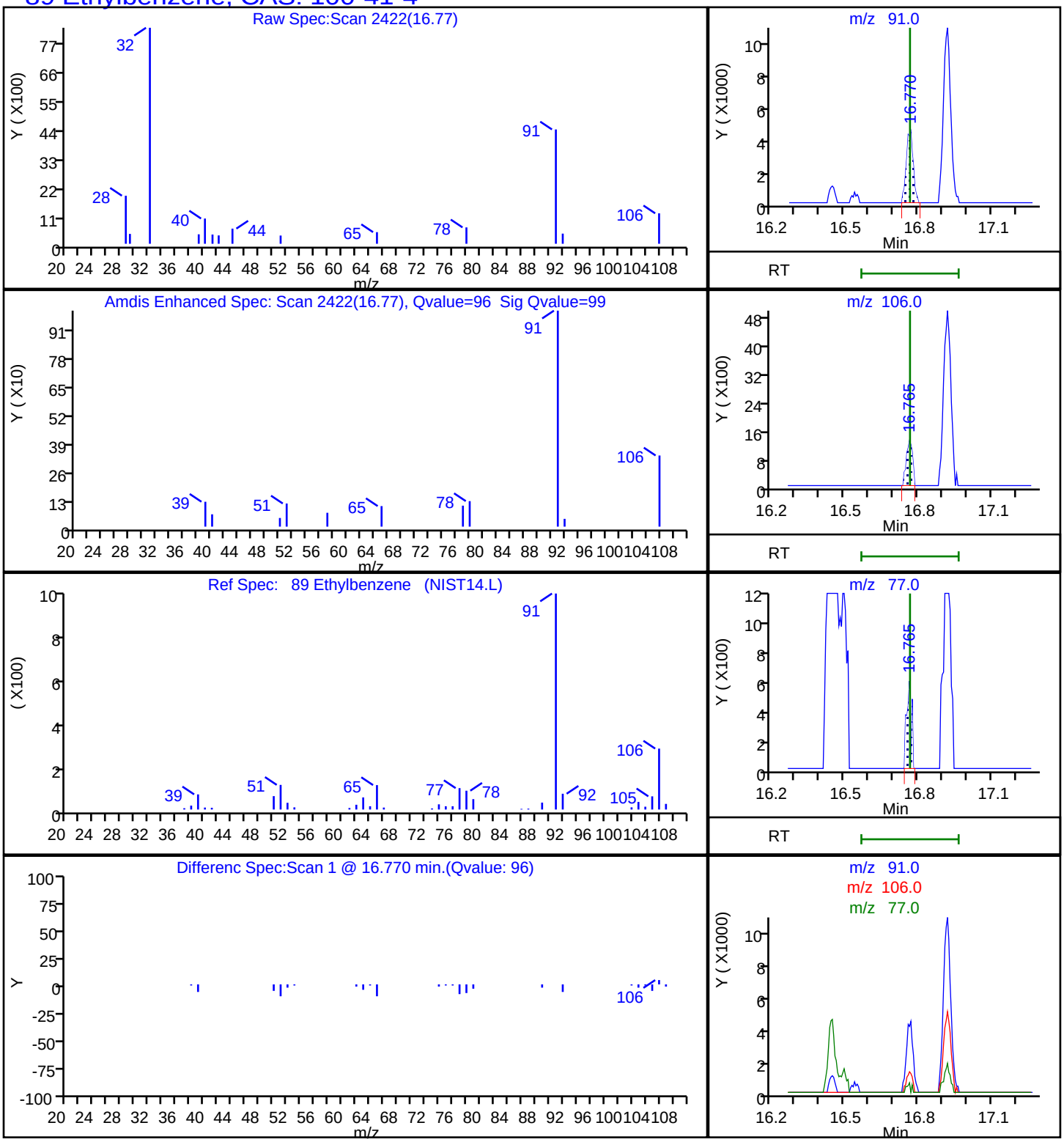
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

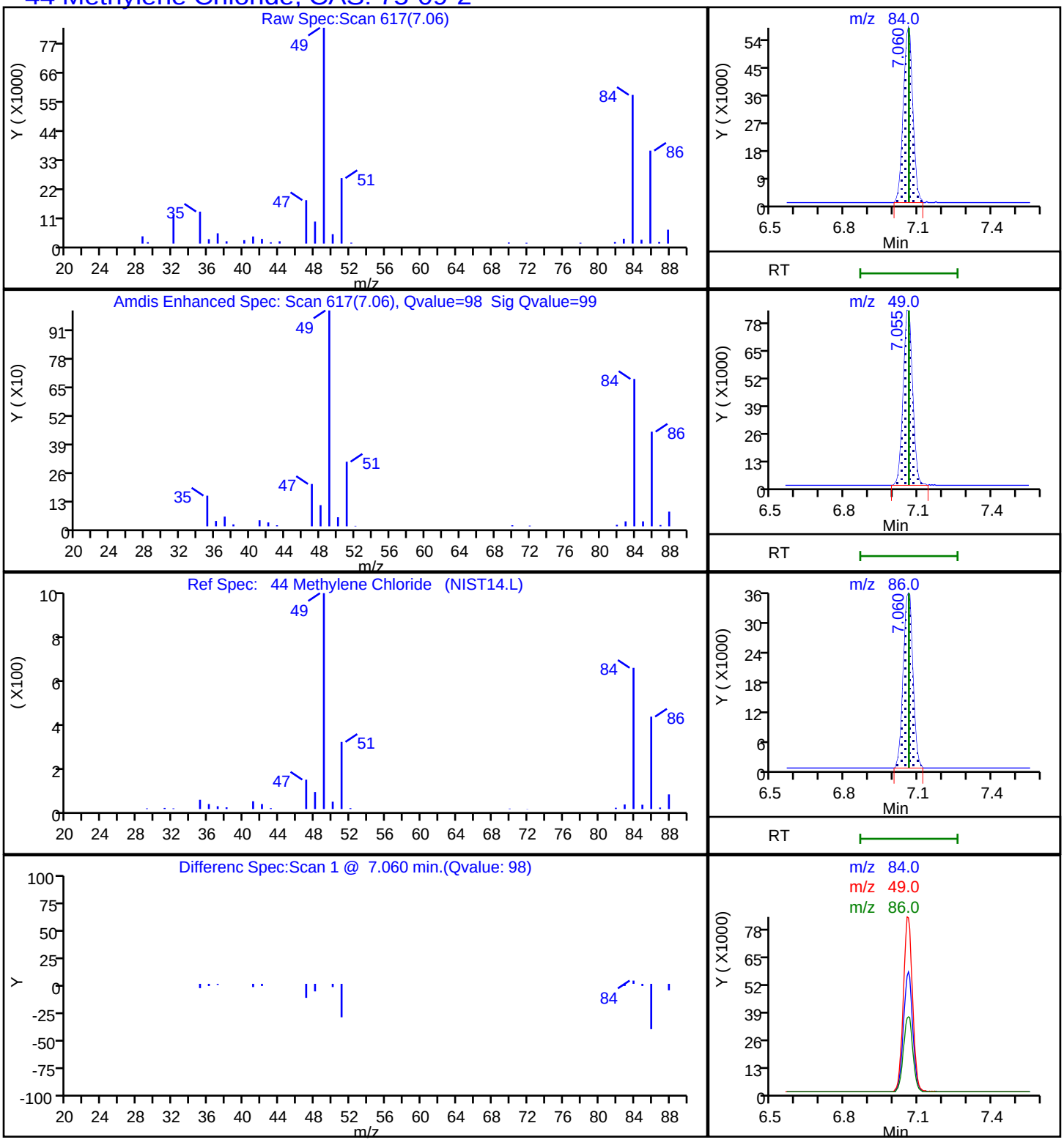


Report Date: 21-Aug-2019 12:31:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

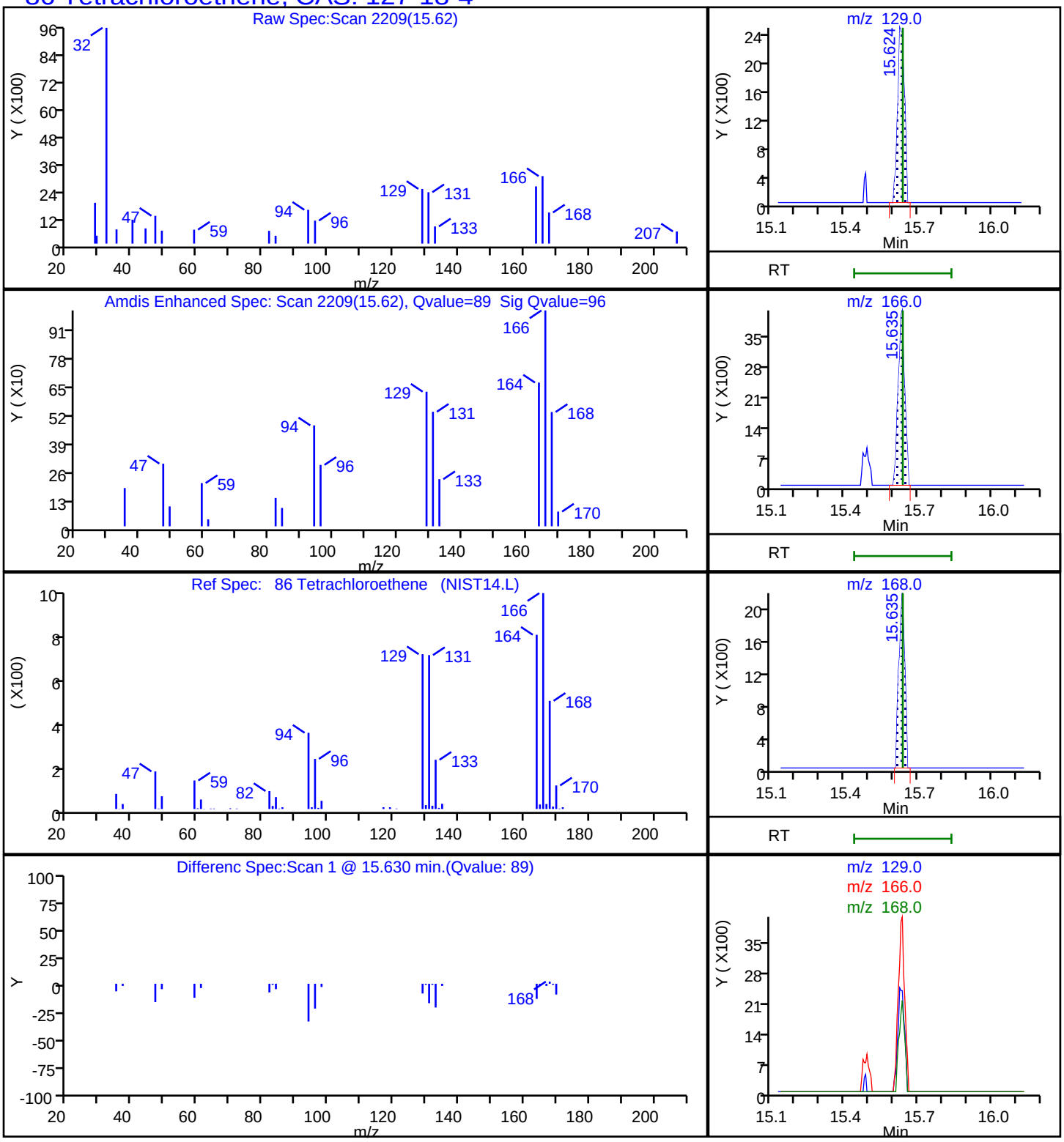
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D		
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14
Client ID:	SV-078-A-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4

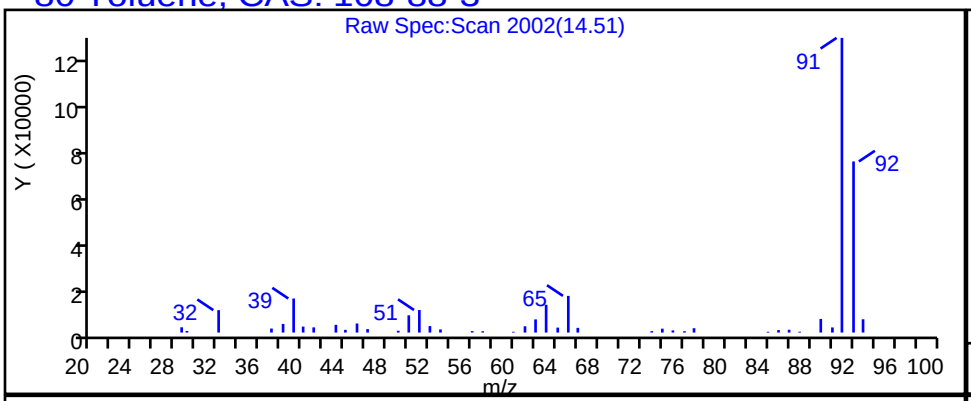


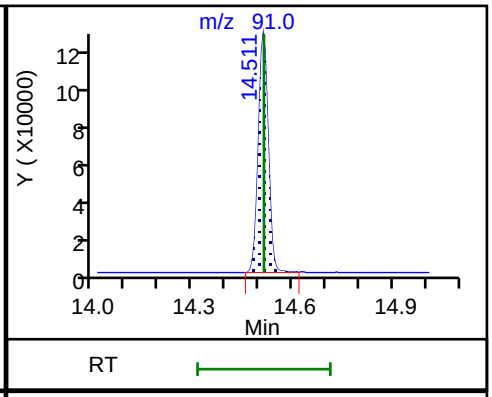
Report Date: 21-Aug-2019 12:31:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

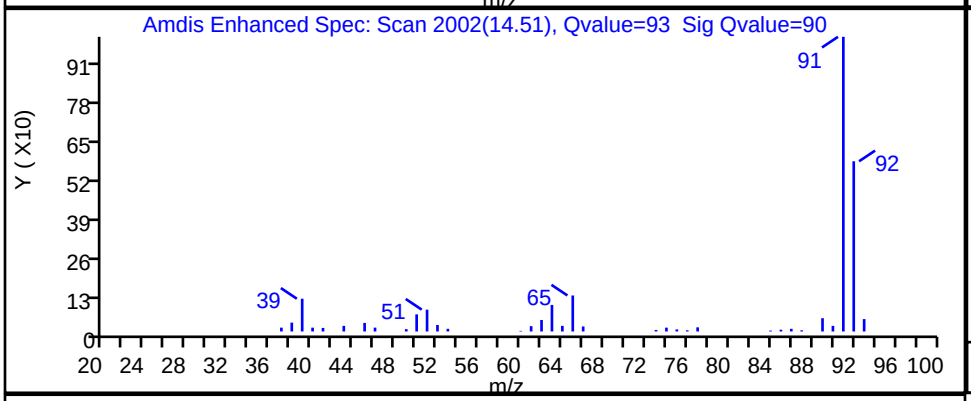
Eurofins TestAmerica, Knoxville

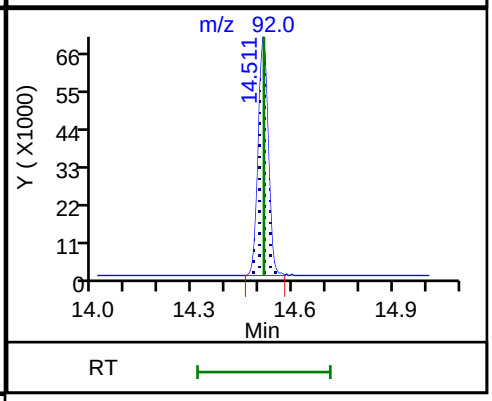
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

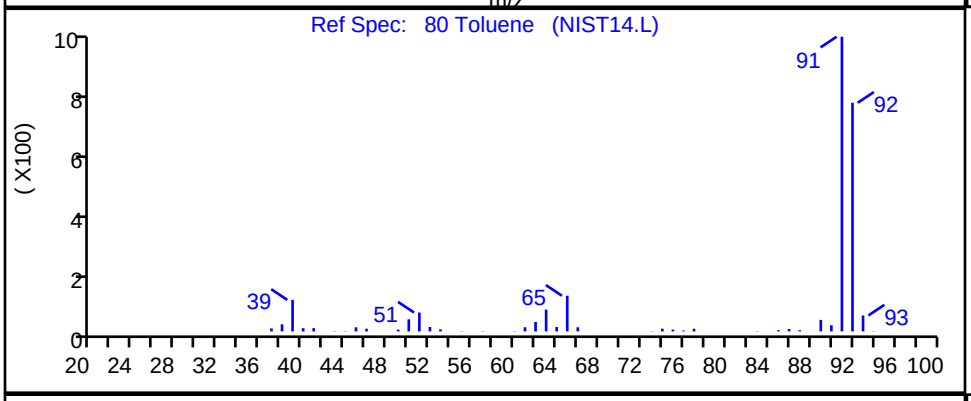
80 Toluene, CAS: 108-88-3

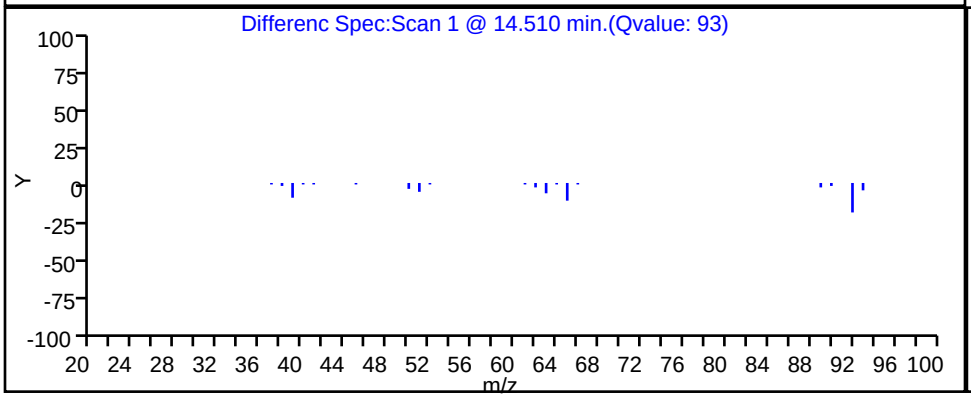


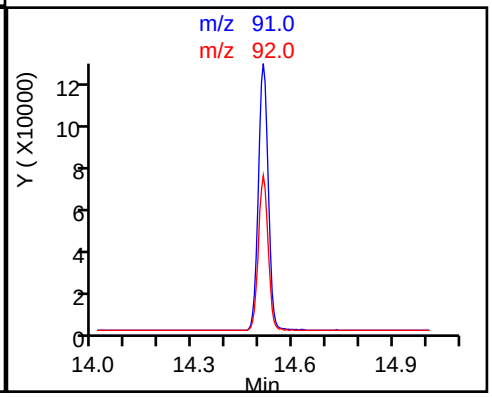










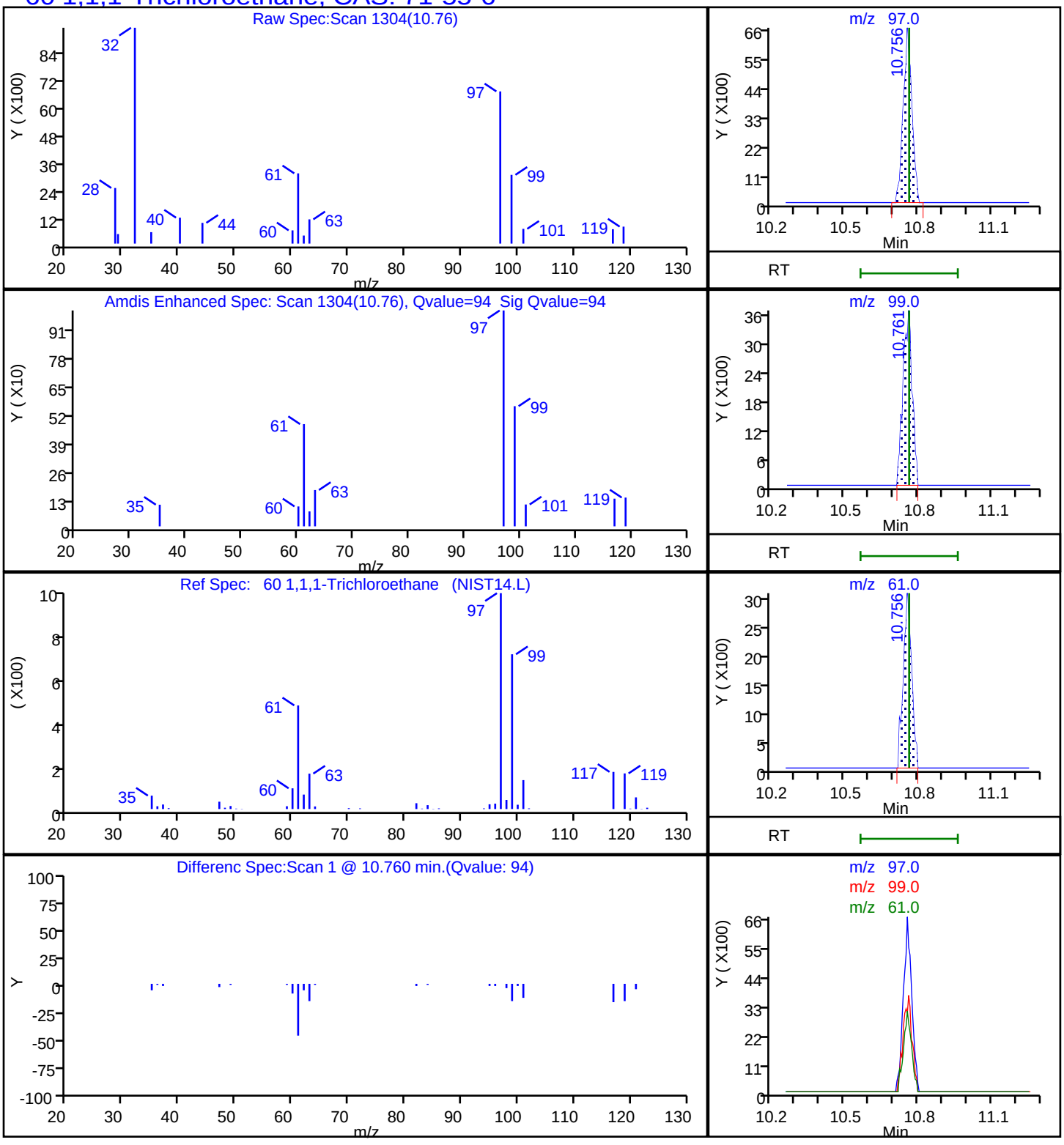


Report Date: 21-Aug-2019 12:31:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

60 1,1,1-Trichloroethane, CAS: 71-55-6

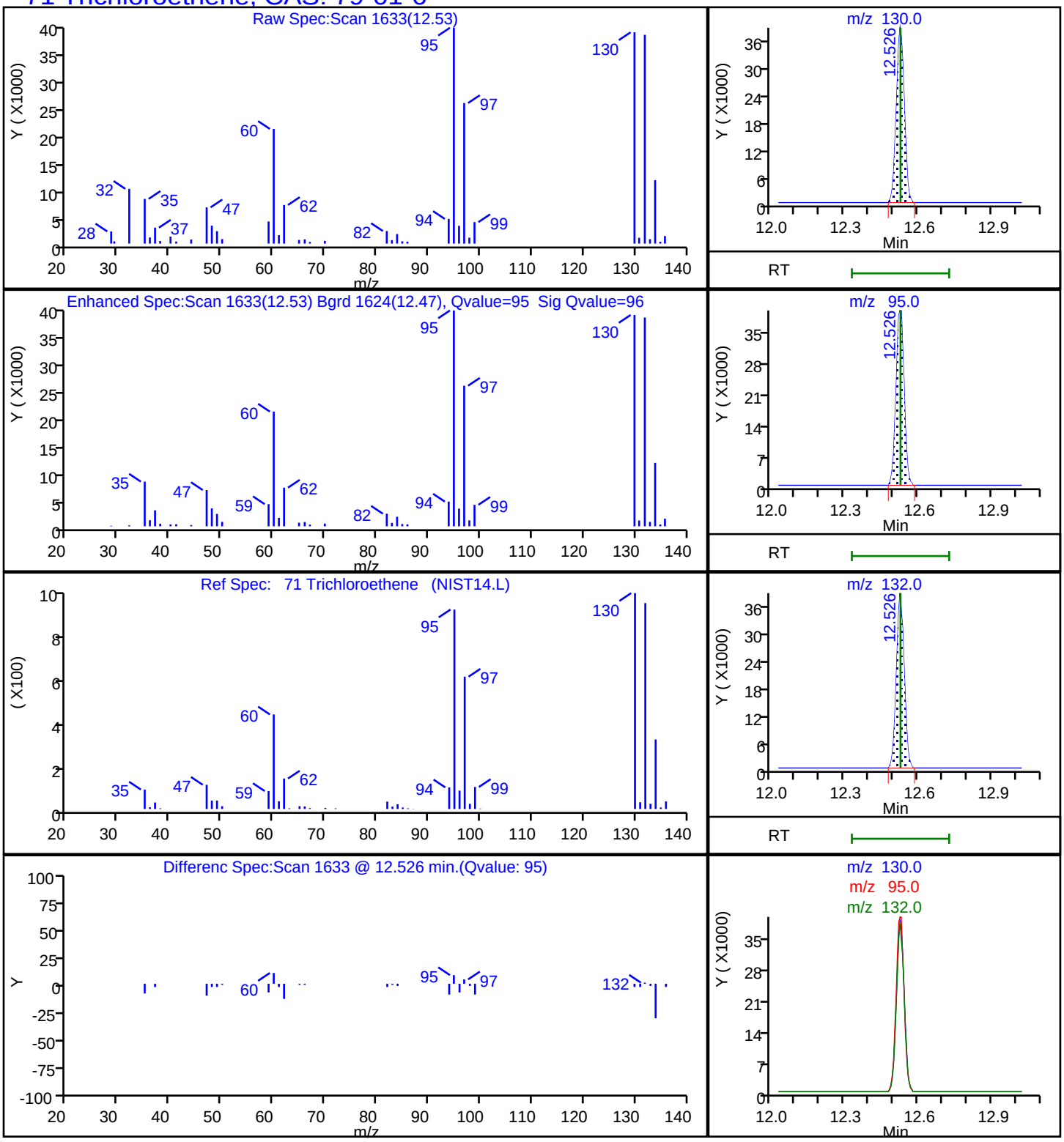


Report Date: 21-Aug-2019 12:31:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

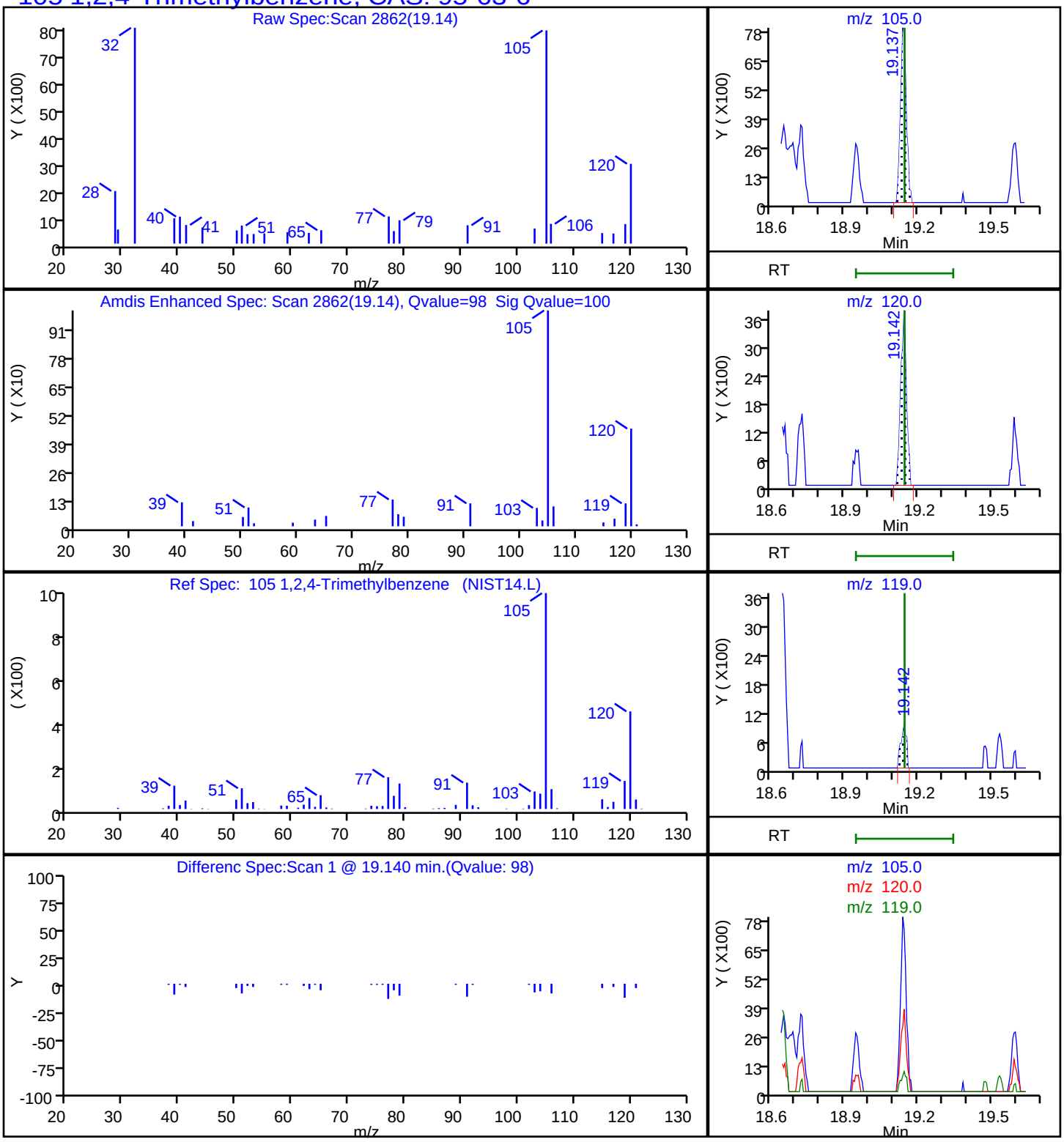
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D		
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14
Client ID:	SV-078-A-27		
Operator ID:	007126	ALS Bottle#:	8 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

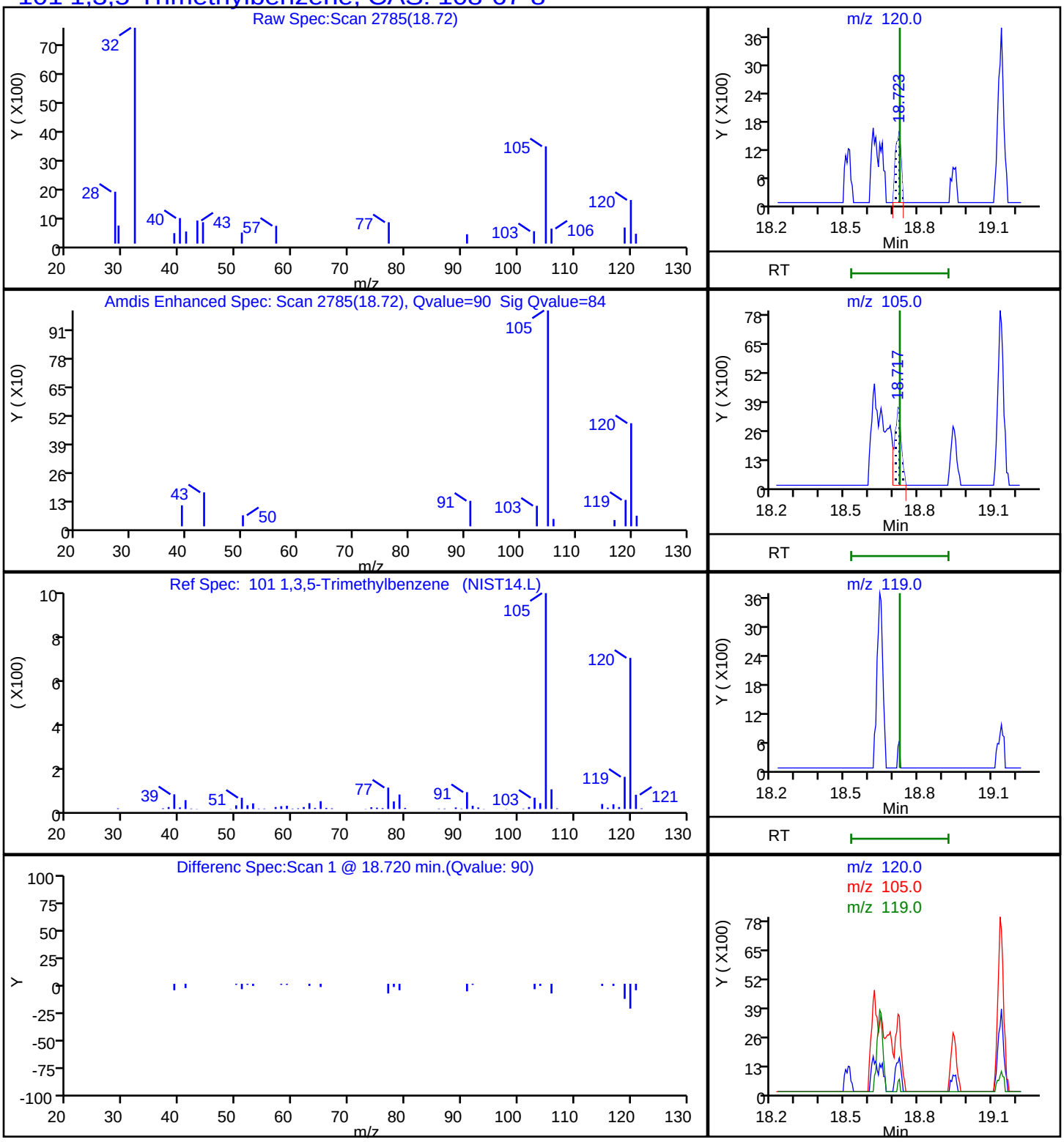


Report Date: 21-Aug-2019 12:31:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

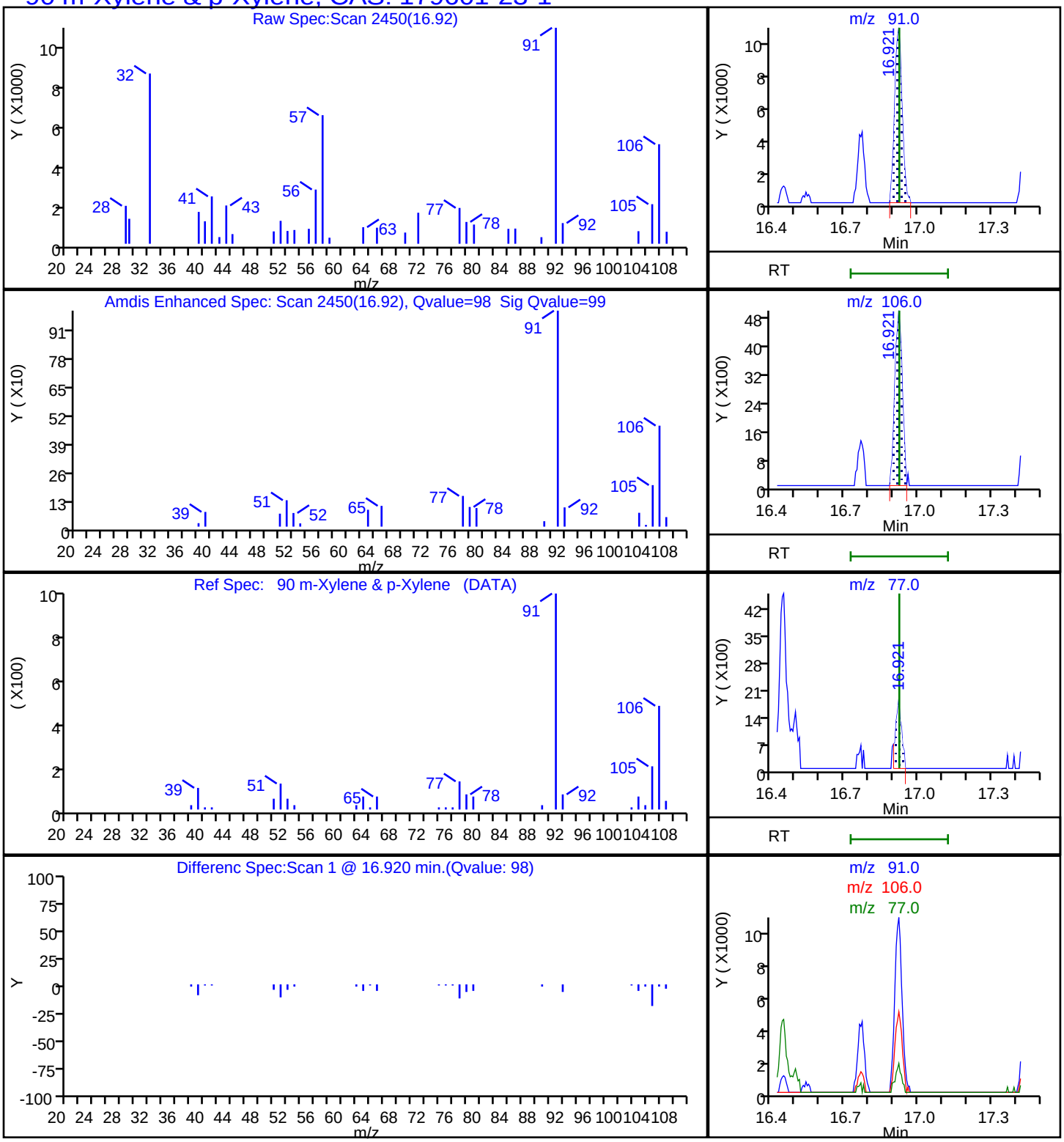


Report Date: 21-Aug-2019 12:31:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

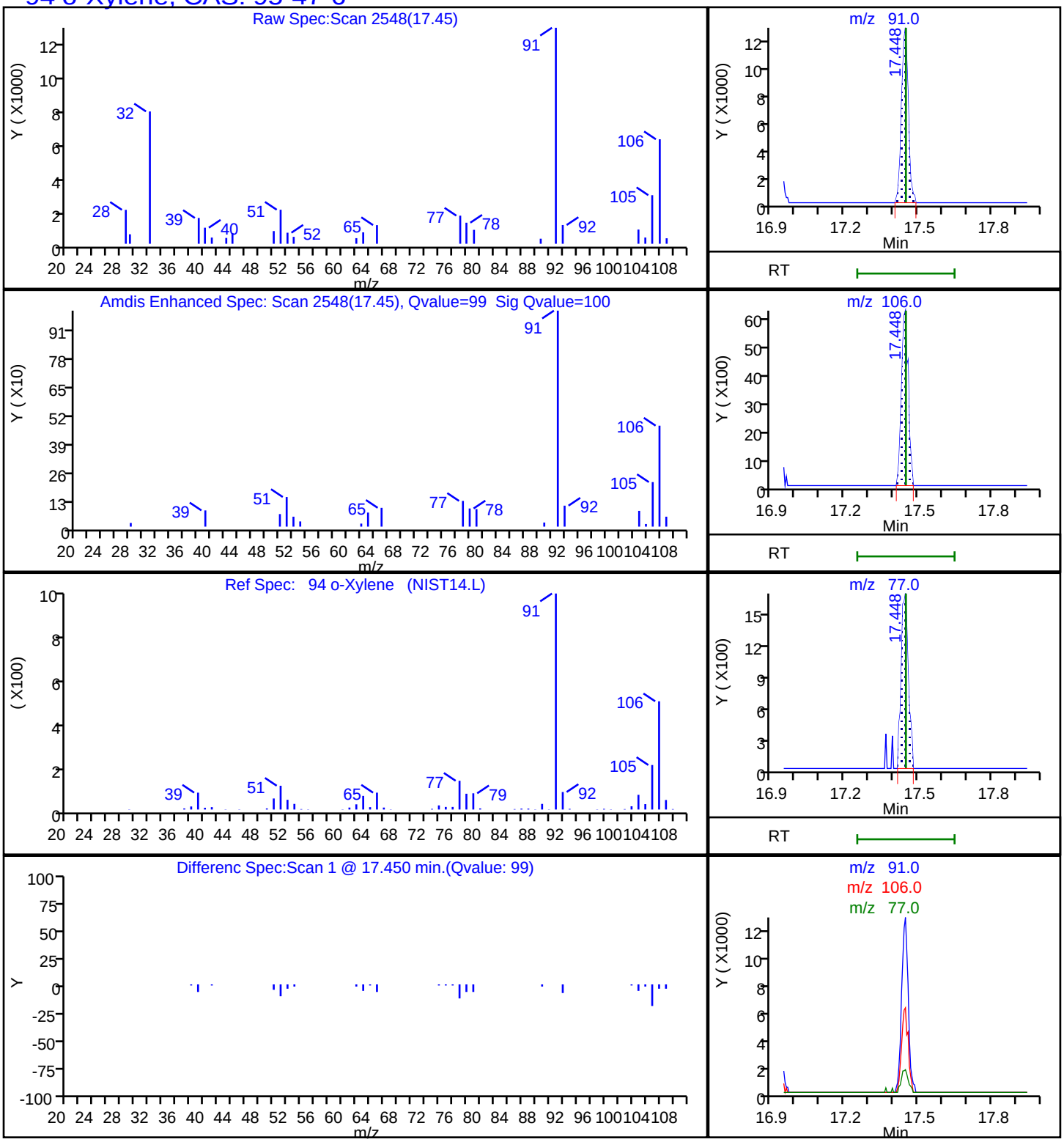


Report Date: 21-Aug-2019 12:31:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

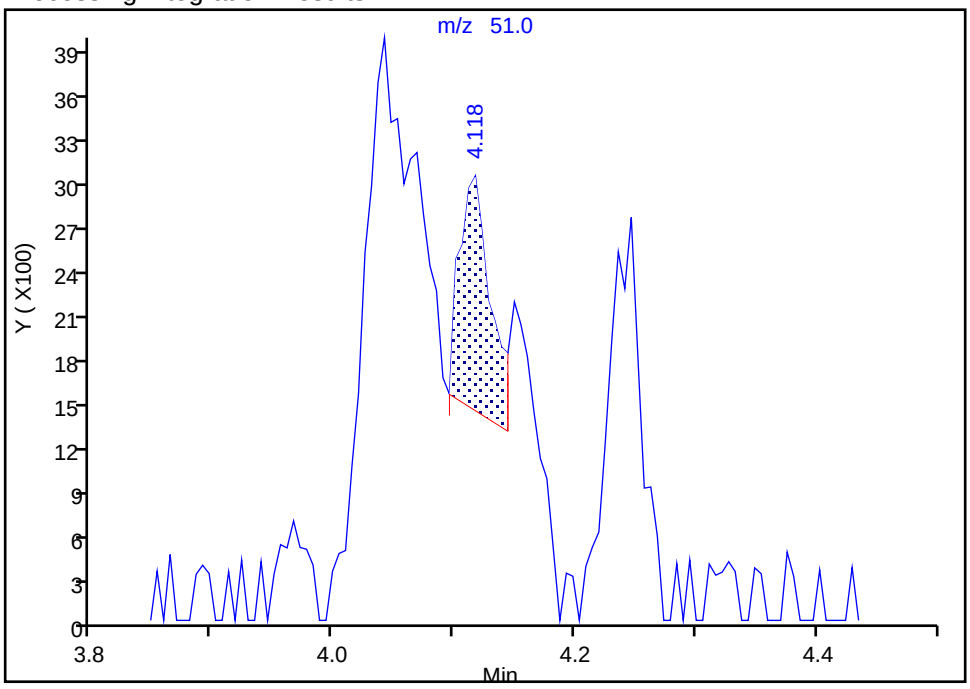
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P108.D				
Injection Date:	20-Aug-2019 22:14:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-14	Lab Sample ID:	140-16377-14		
Client ID:	SV-078-A-27				
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

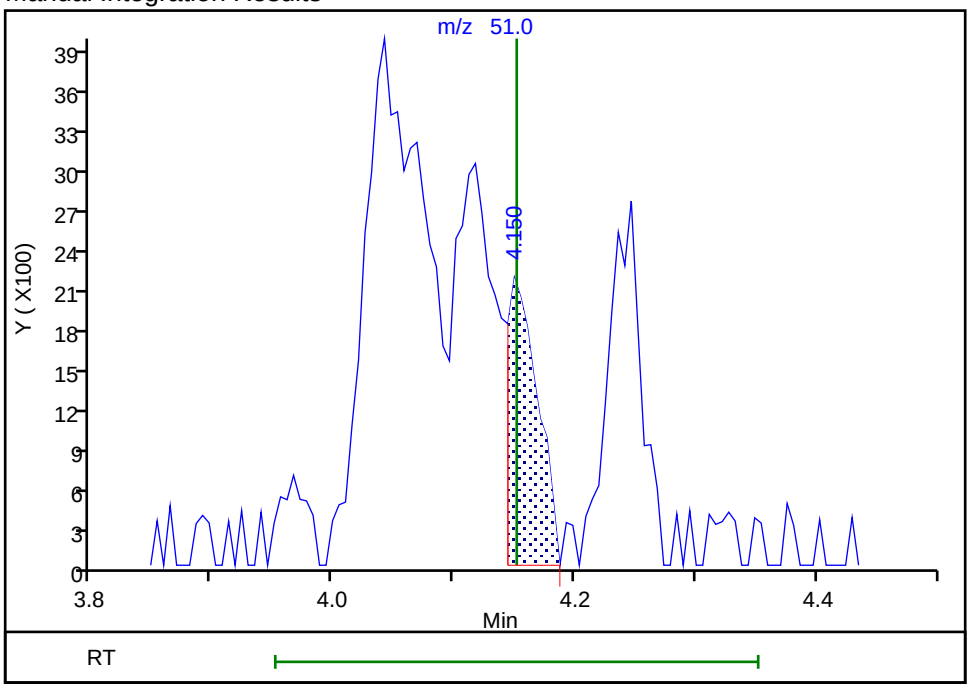
Processing Integration Results

RT: 4.12
Area: 2890
Amount: 0.060355
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 3805
Amount: 0.079464
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 21-Aug-2019 12:30:34

Audit Action: Split an Integrated Peak Audit Reason: Wrong peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.2		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.51		0.40	0.11
67-66-3	Chloroform	119.38	2.7		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.71		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.22	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	6.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.10	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*110*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.0		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	13		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.8		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.52	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.95	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	25		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.41	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*610*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.69	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D
Lims ID: 140-16377-A-15
Client ID: SV-136-A-27
Sample Type: Client
Inject. Date: 20-Aug-2019 23:52:30 ALS Bottle#: 10 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-020
Misc. Info.: 140-16377-a-15
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:35:18 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:35:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.725	0.006	92	257272	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.839	0.001	95	1257055	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.449	-0.005	87	1072869	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.042	18.047	-0.005	96	718876	3.65	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	34	7196	0.1023	M
21 Dichlorodifluoromethane	85	4.222	4.227	-0.005	97	7034	0.0873	
40 1,1-Dichloroethene	96	6.691	6.684	0.006	92	2073	0.0263	
44 Methylene Chloride	84	7.073	7.062	0.011	97	170823	1.76	
47 trans-1,2-Dichloroethene	96	7.934	7.916	0.017	31	1632	0.0207	
55 cis-1,2-Dichloroethene	96	9.397	9.373	0.022	96	11616	0.1428	
57 Chloroform	83	9.736	9.730	0.006	95	111713	0.5351	
64 Benzene	78	11.339	11.333	0.006	97	57237	0.2486	
65 Carbon tetrachloride	117	11.355	11.349	0.000	54	2479	0.0128	
71 Trichloroethene	130	12.534	12.521	0.006	95	2349846	22.6	E
80 Toluene	91	14.513	14.508	0.000	93	341210	1.32	
89 Ethylbenzene	91	16.767	16.767	0.000	97	14655	0.0439	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	98	39144	0.1528	
94 o-Xylene	91	17.440	17.450	-0.010	99	14069	0.0517	
105 1,2,4-Trimethylbenzene	105	19.140	19.144	-0.004	96	8782	0.0280	
S 129 Xylenes, Total	100				0		0.2045	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

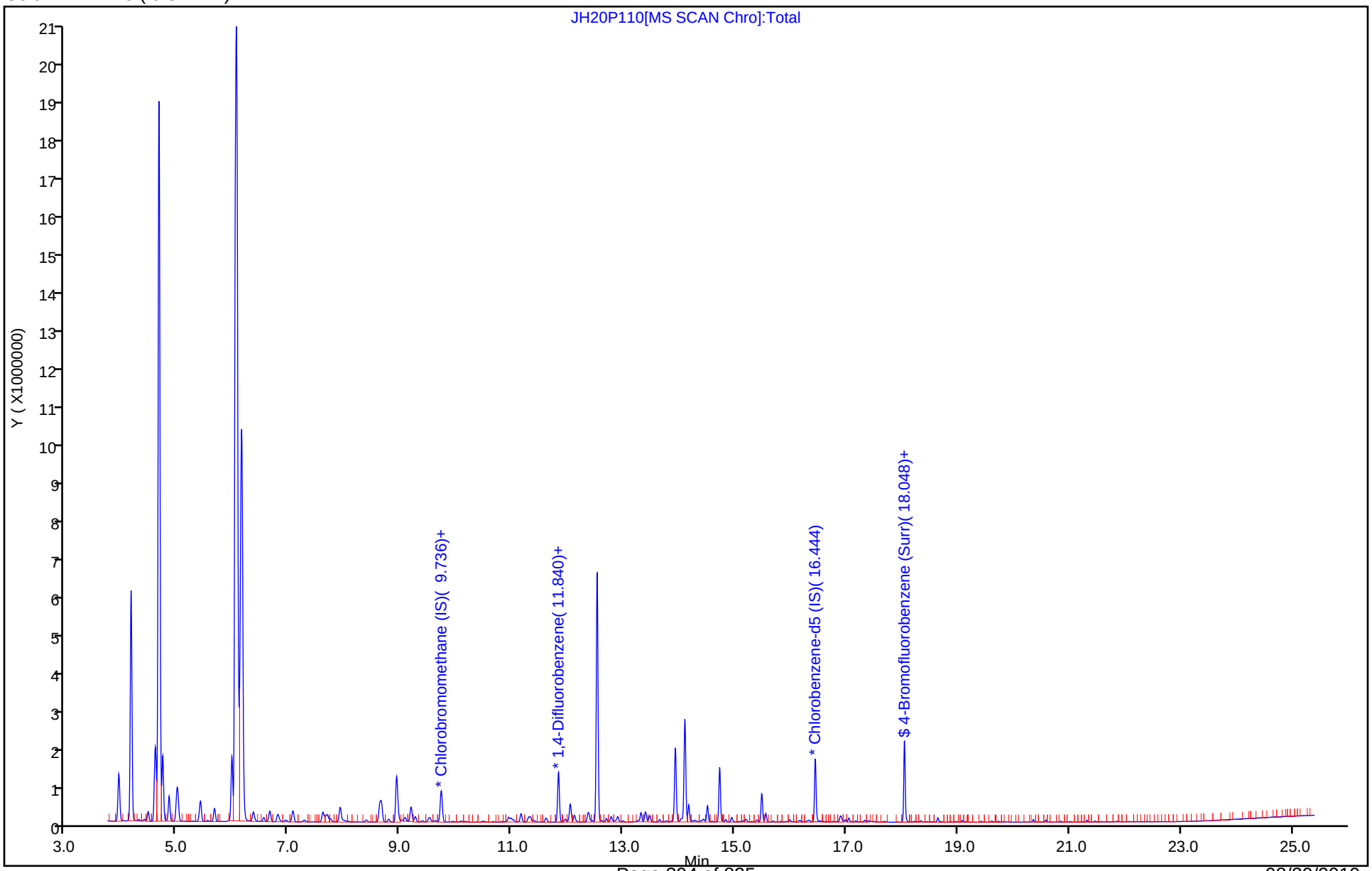
Report Date: 21-Aug-2019 12:35:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D

Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15	Worklist Smp#:	20
Client ID:	SV-136-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Lims ID:	140-16377-A-15				
Client ID:	SV-136-A-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 23:52:30	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-020				
Misc. Info.:	140-16377-a-15				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:35:18	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

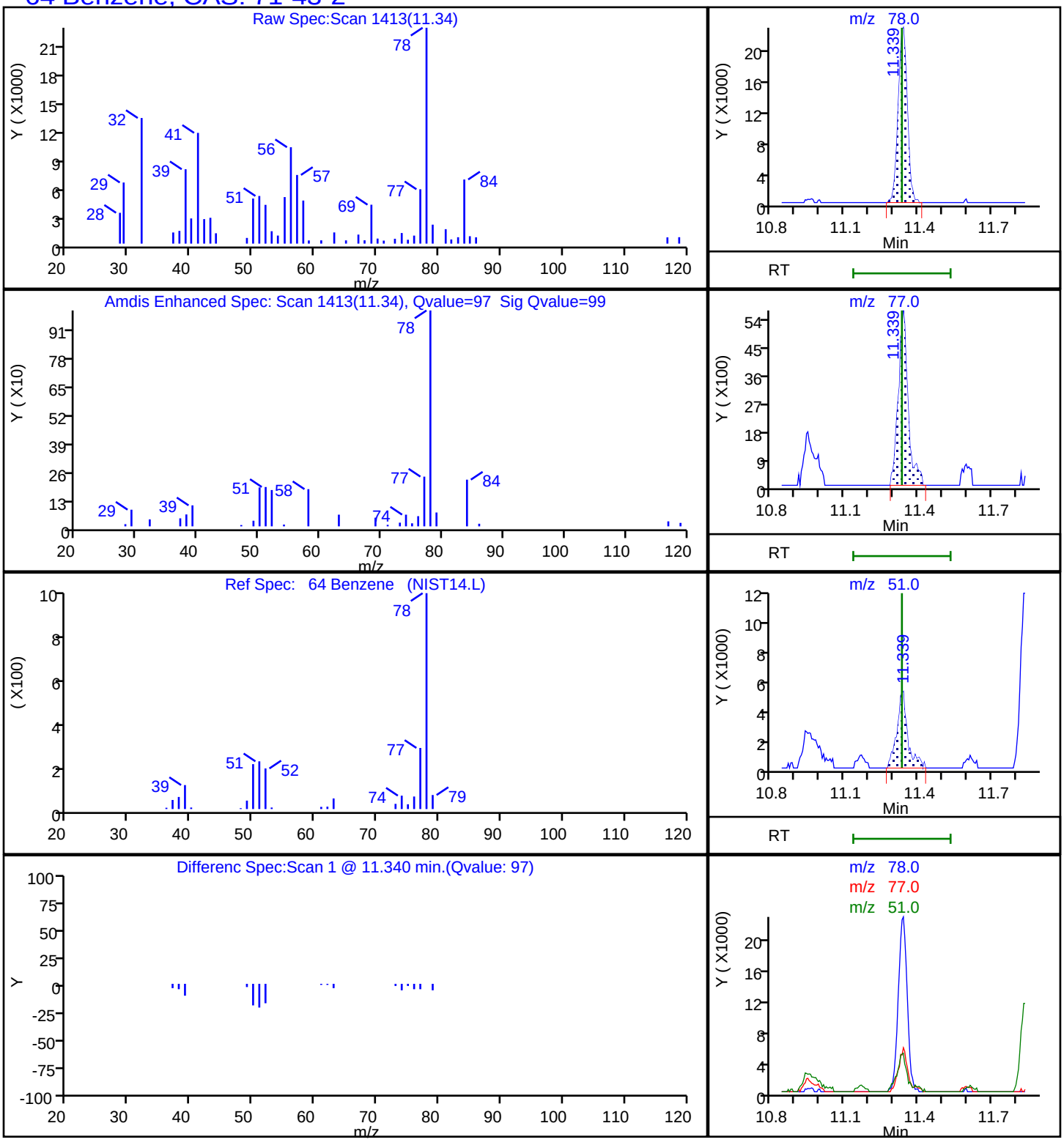
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:35:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.65	91.14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

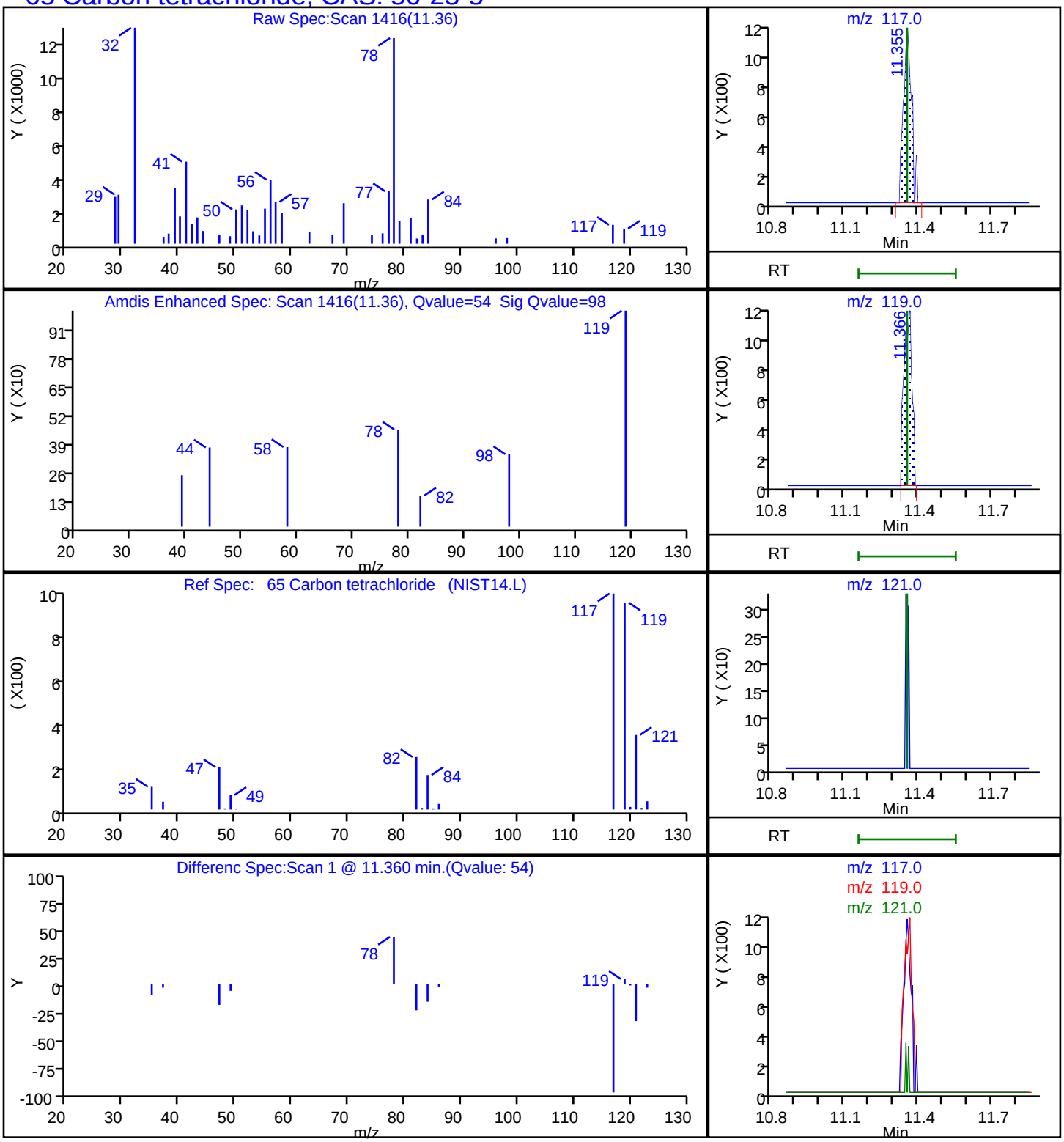


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D

Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

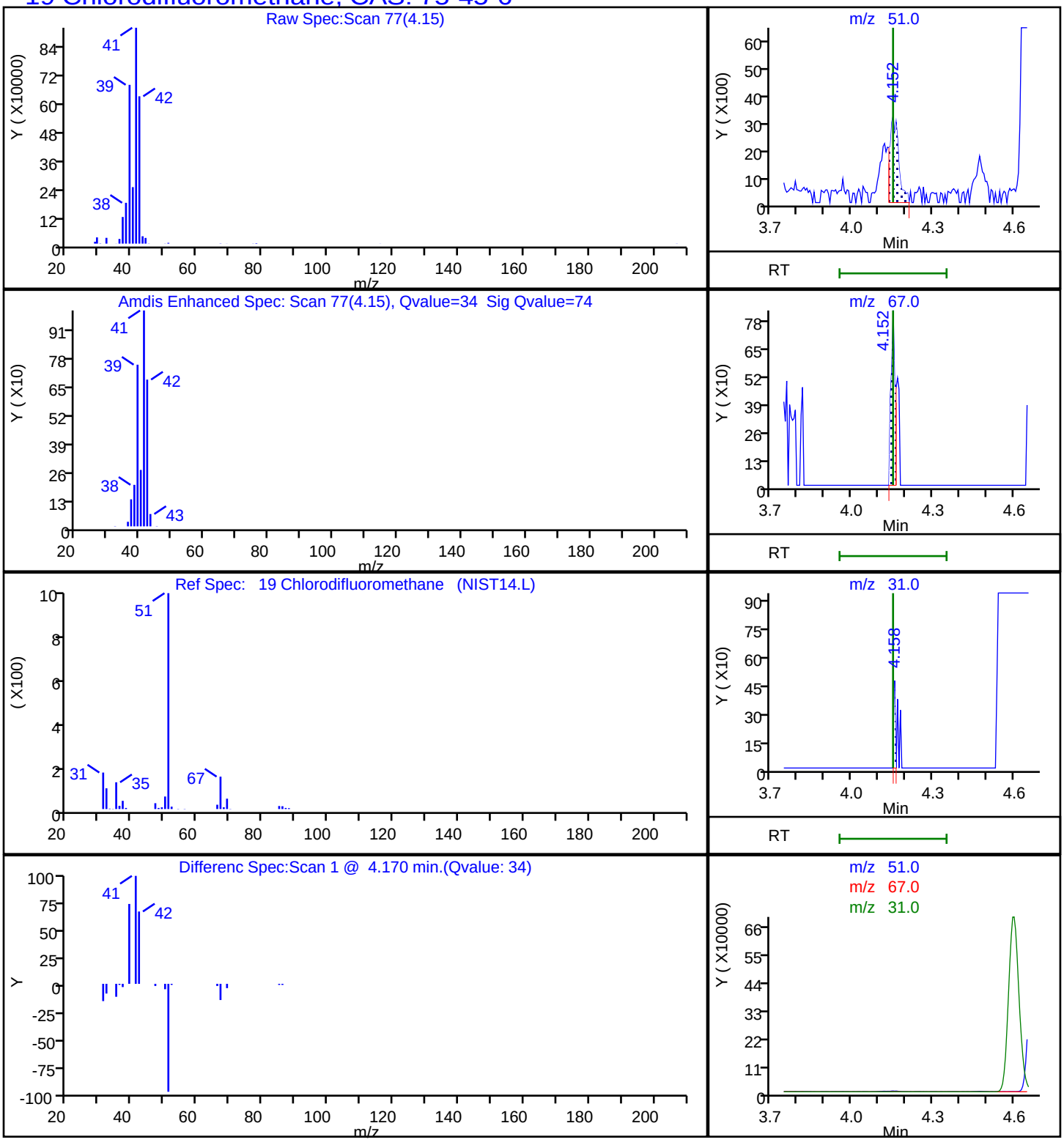
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 Chlorodifluoromethane, CAS: 75-45-6

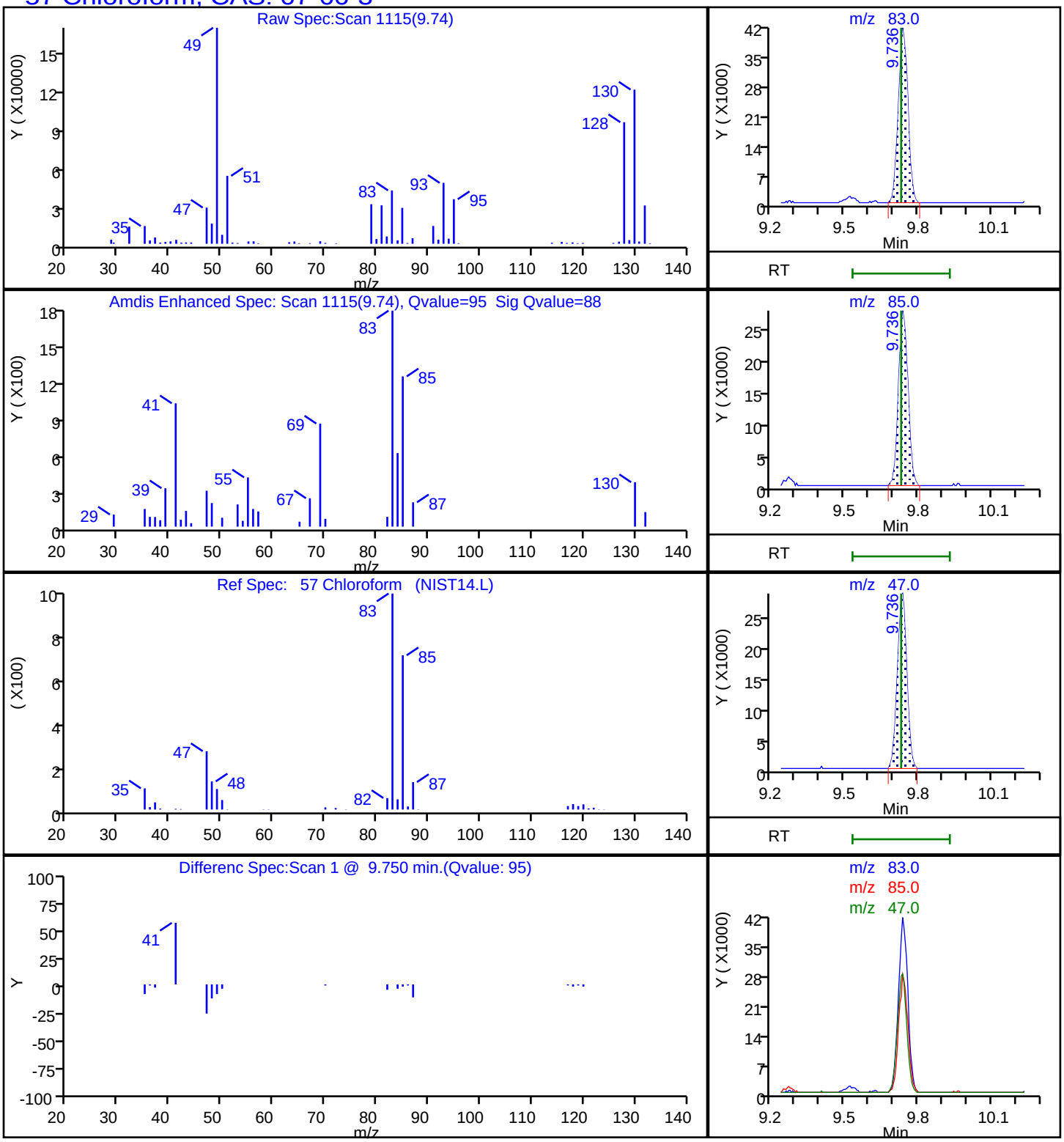


Report Date: 21-Aug-2019 12:35:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

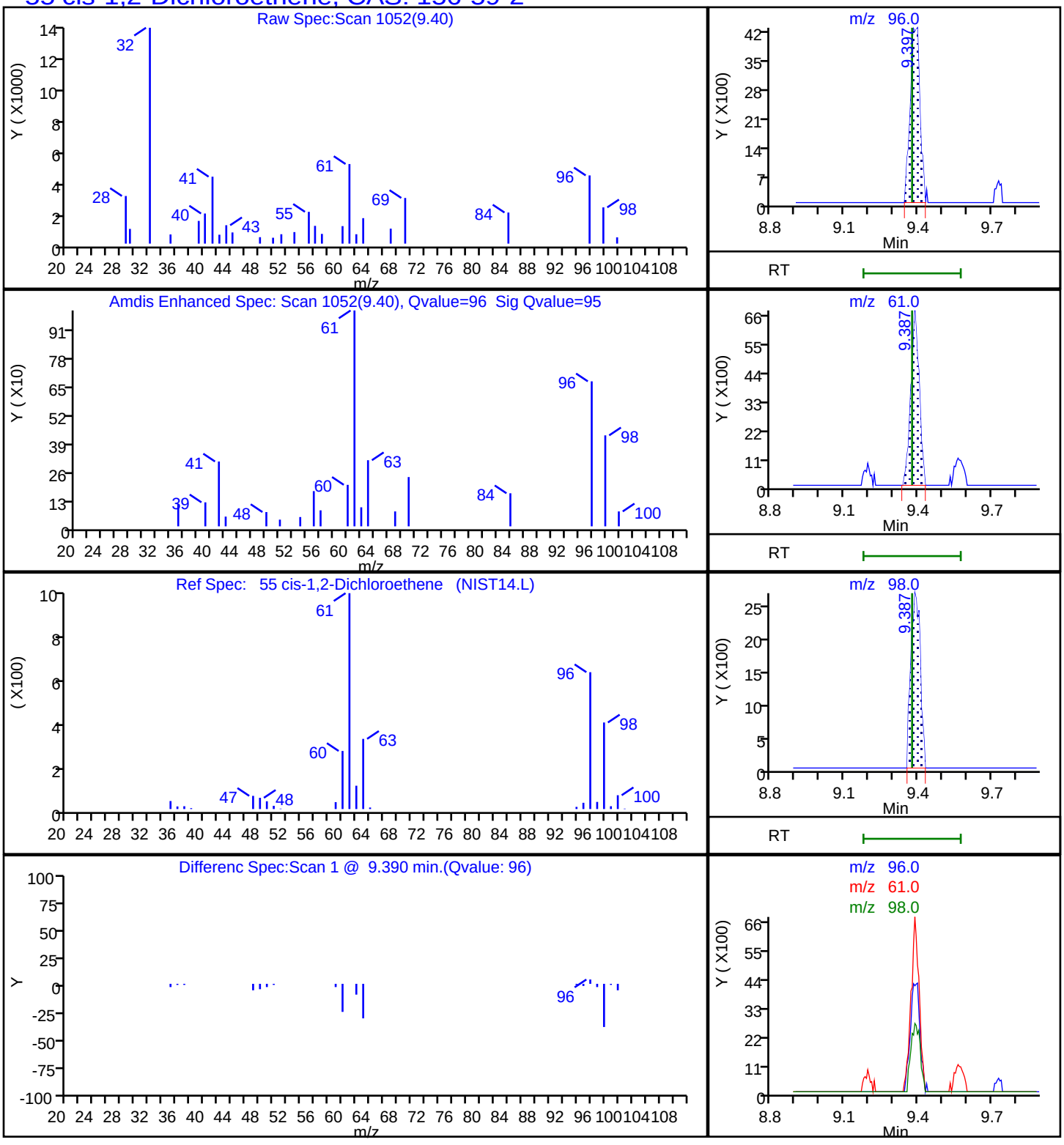
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

55 cis-1,2-Dichloroethene, CAS: 156-59-2

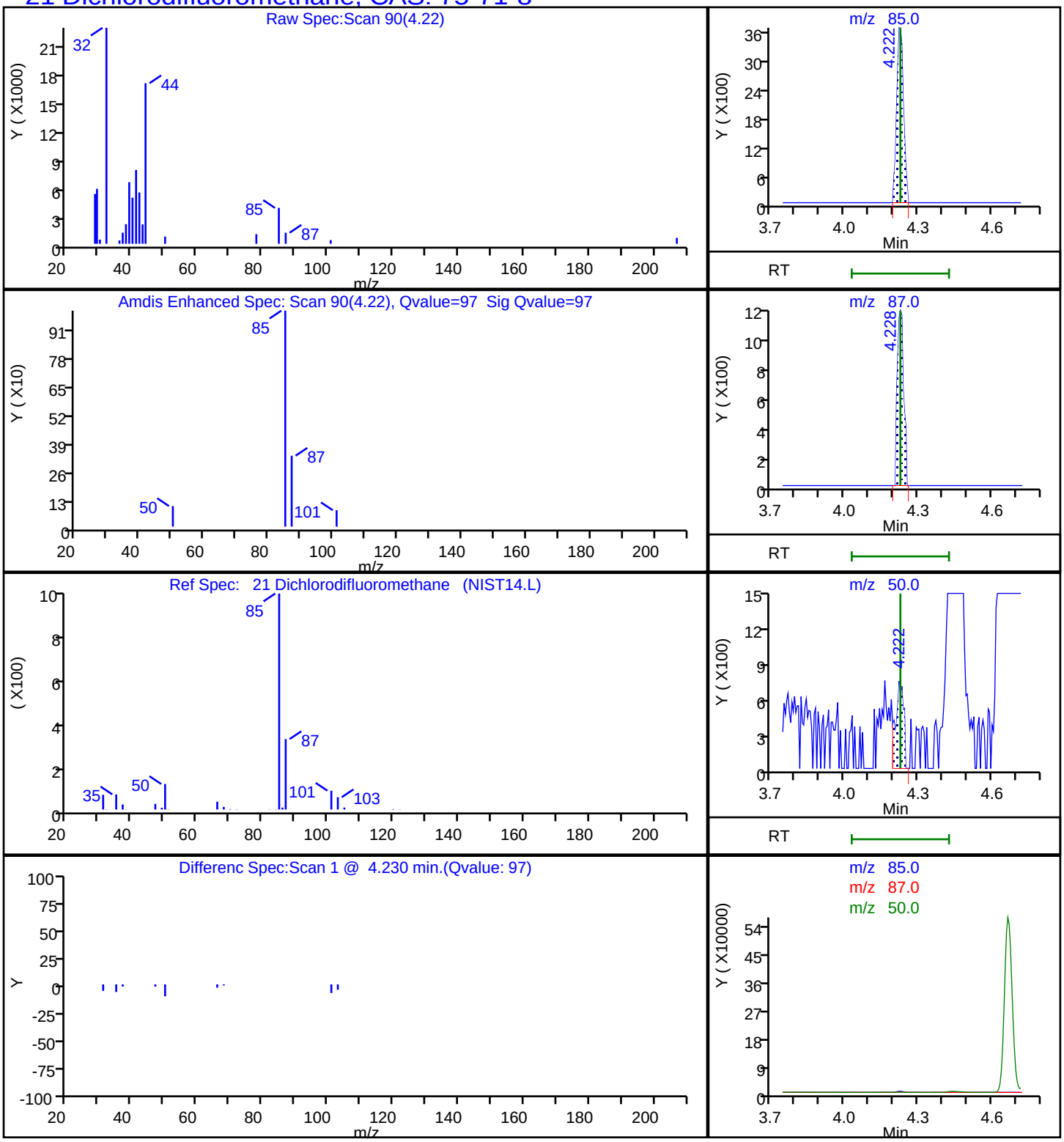


Report Date: 21-Aug-2019 12:35:19 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

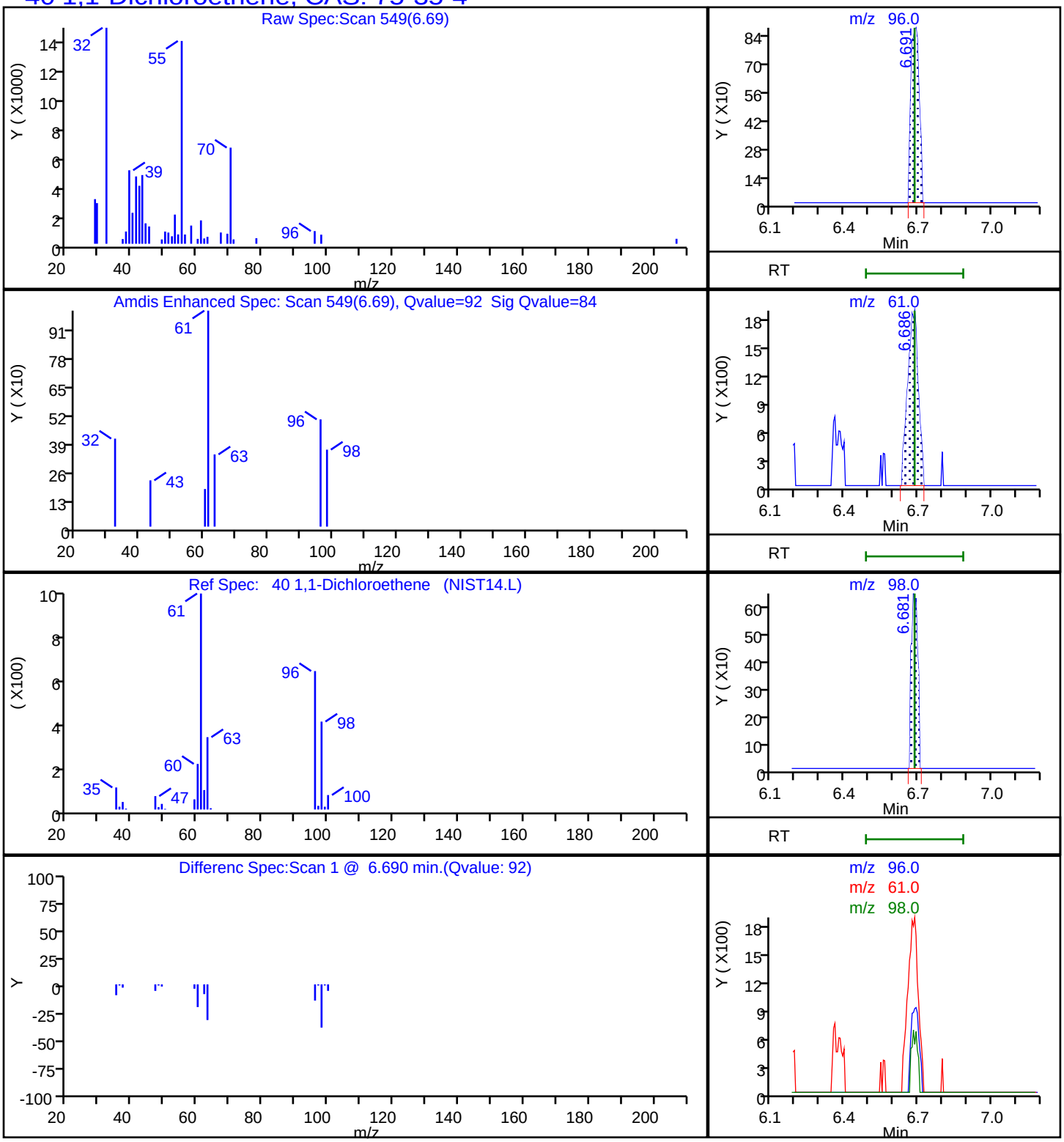
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

40 1,1-Dichloroethene, CAS: 75-35-4

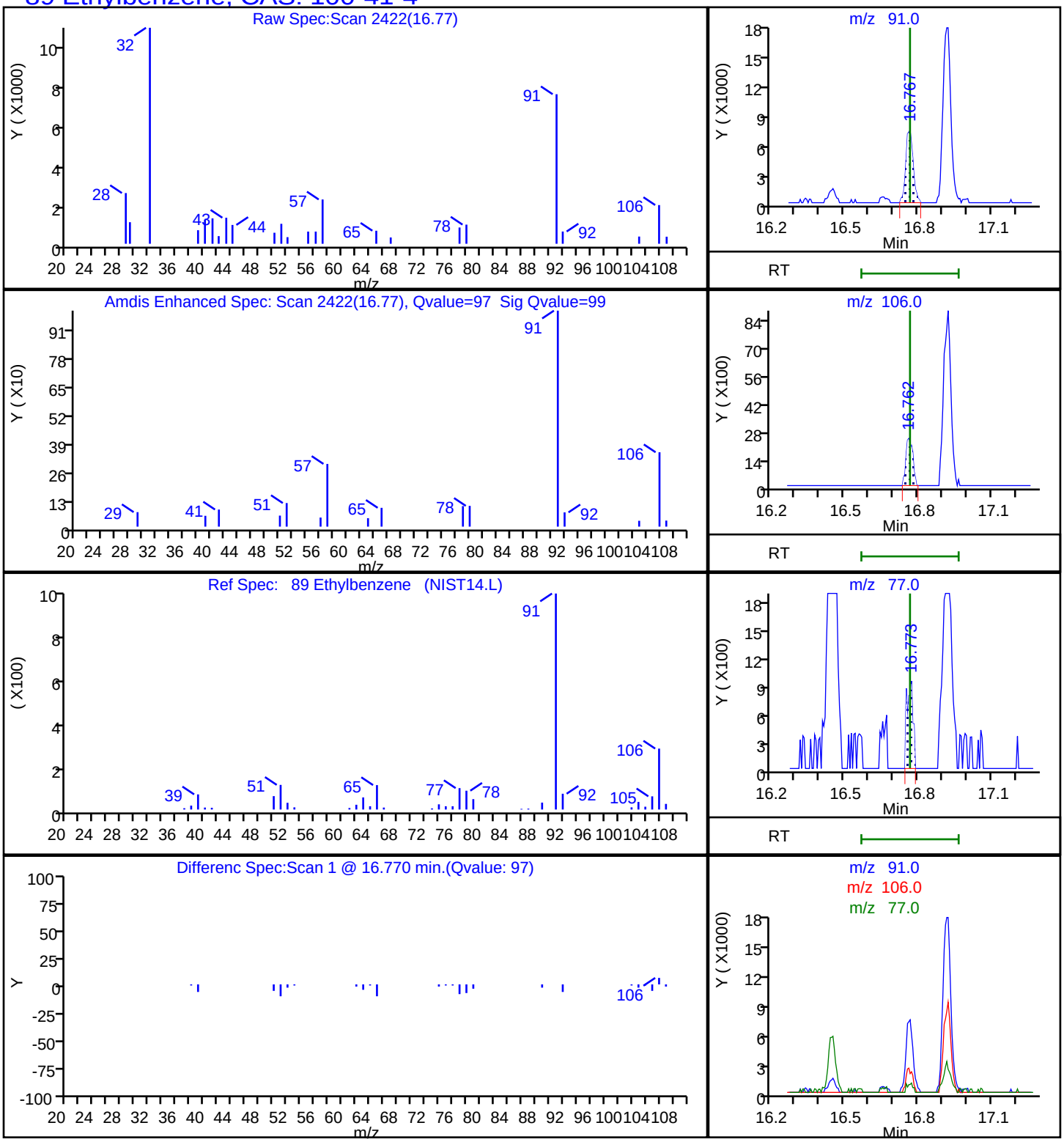


Report Date: 21-Aug-2019 12:35:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

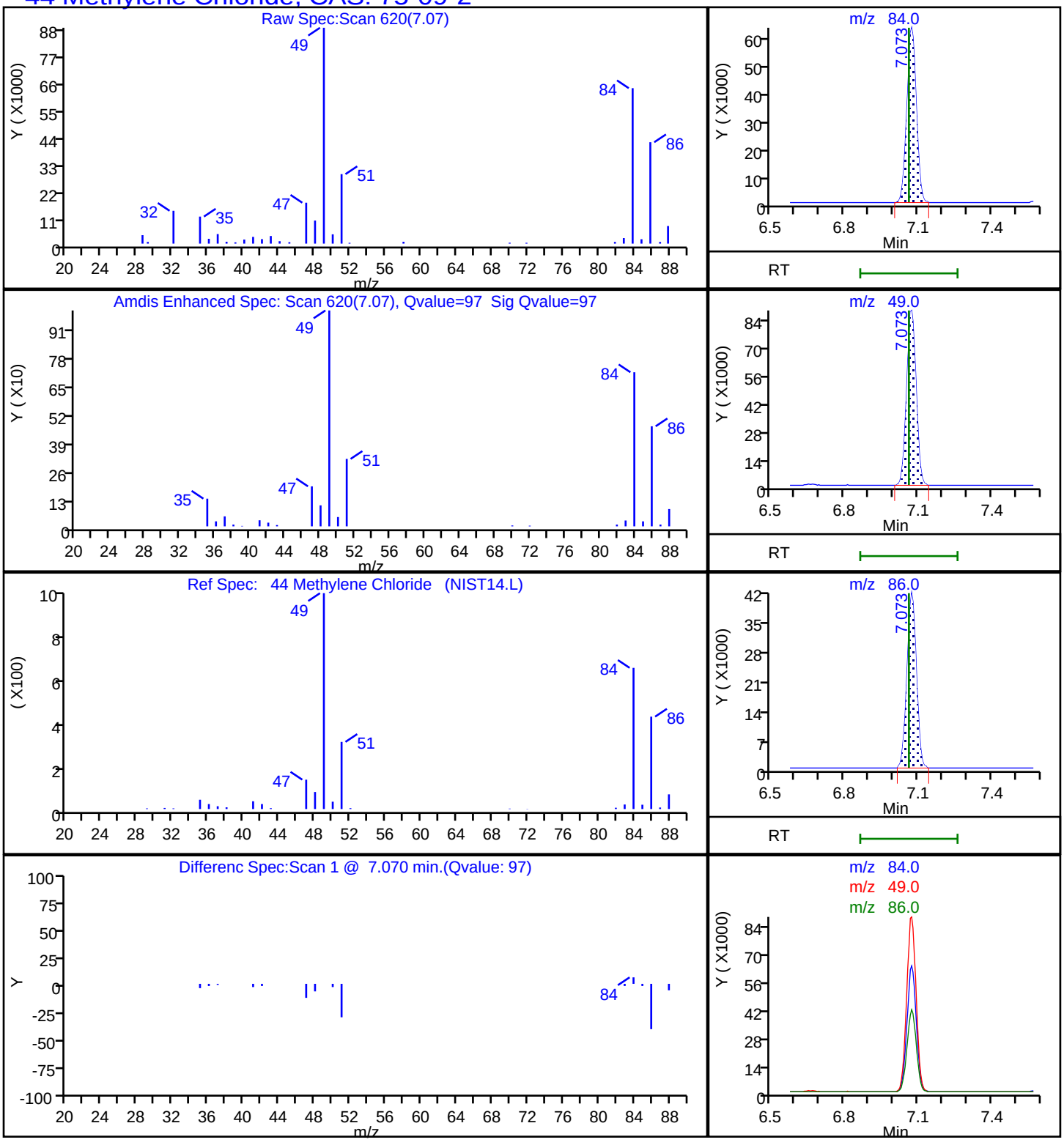


Report Date: 21-Aug-2019 12:35:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

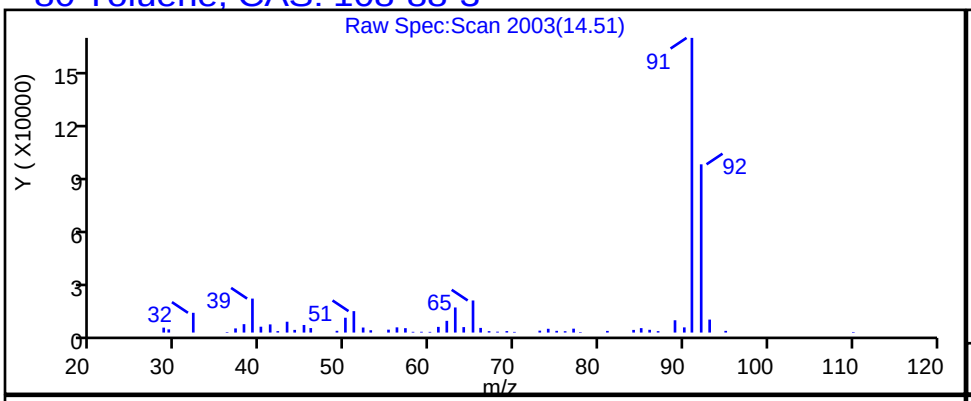
44 Methylene Chloride, CAS: 75-09-2

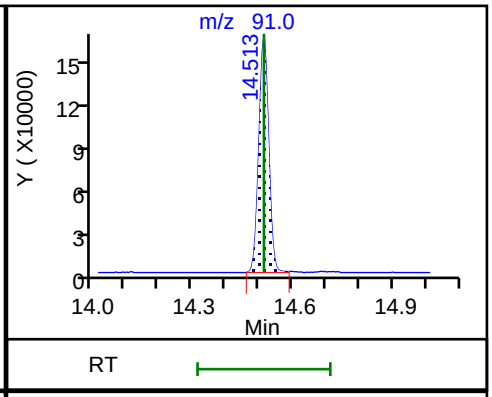


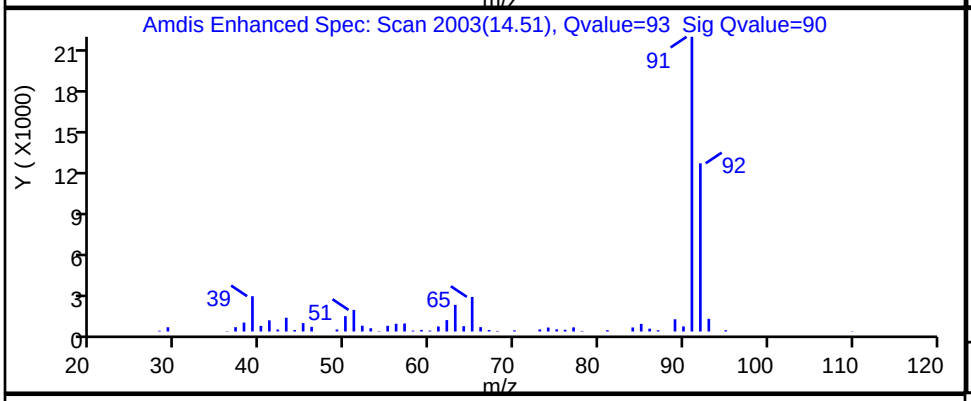
Eurofins TestAmerica, Knoxville

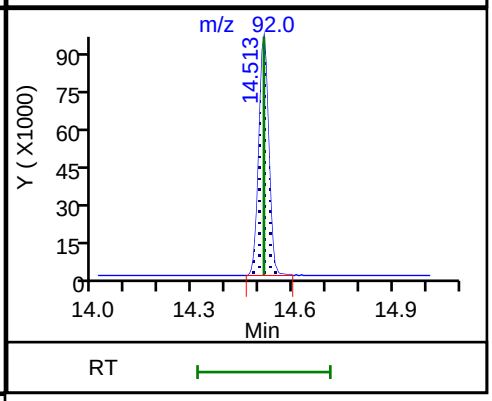
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

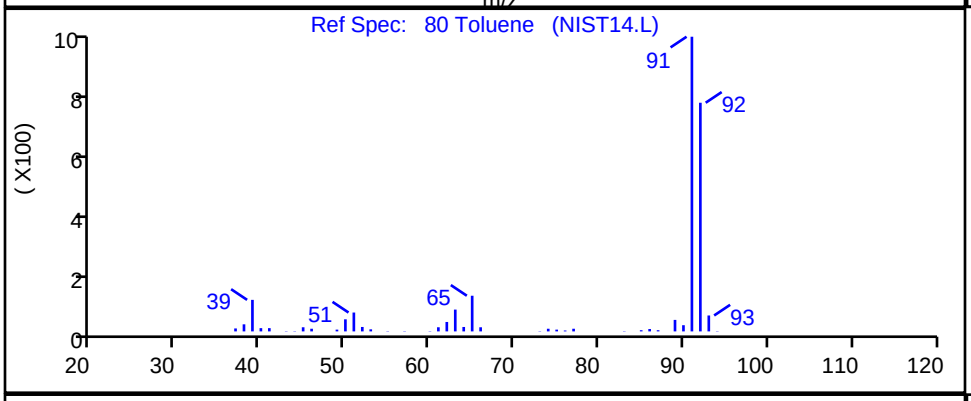
80 Toluene, CAS: 108-88-3

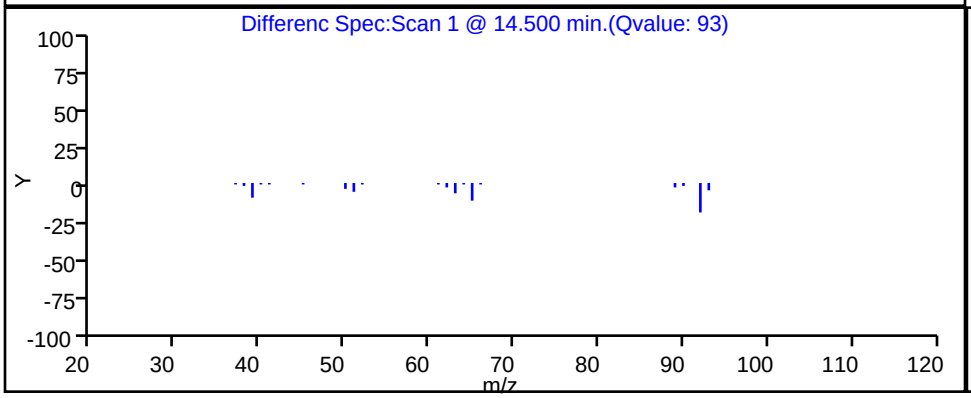


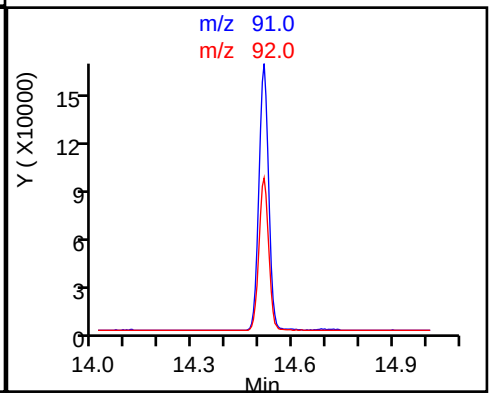










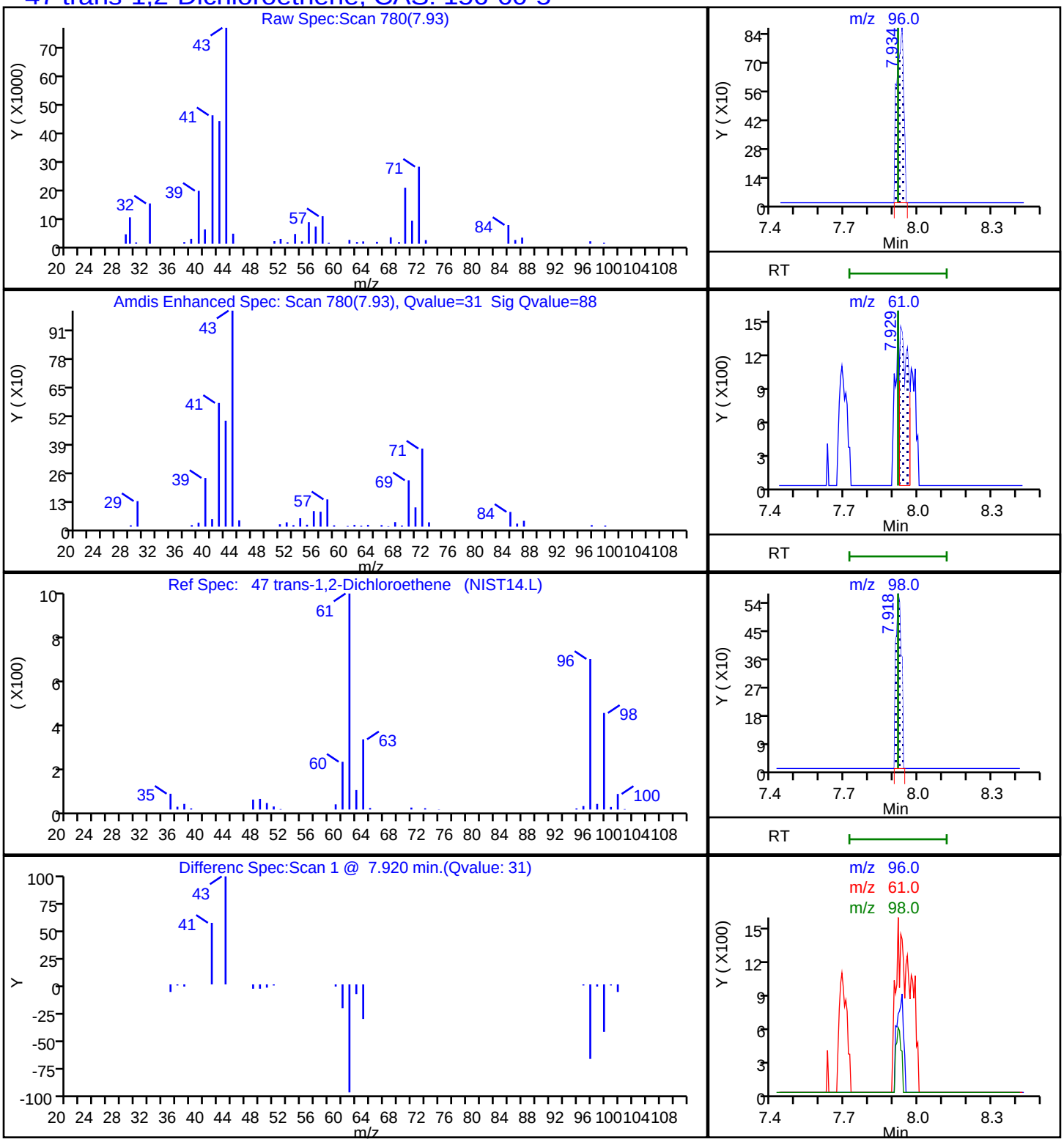


Report Date: 21-Aug-2019 12:35:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

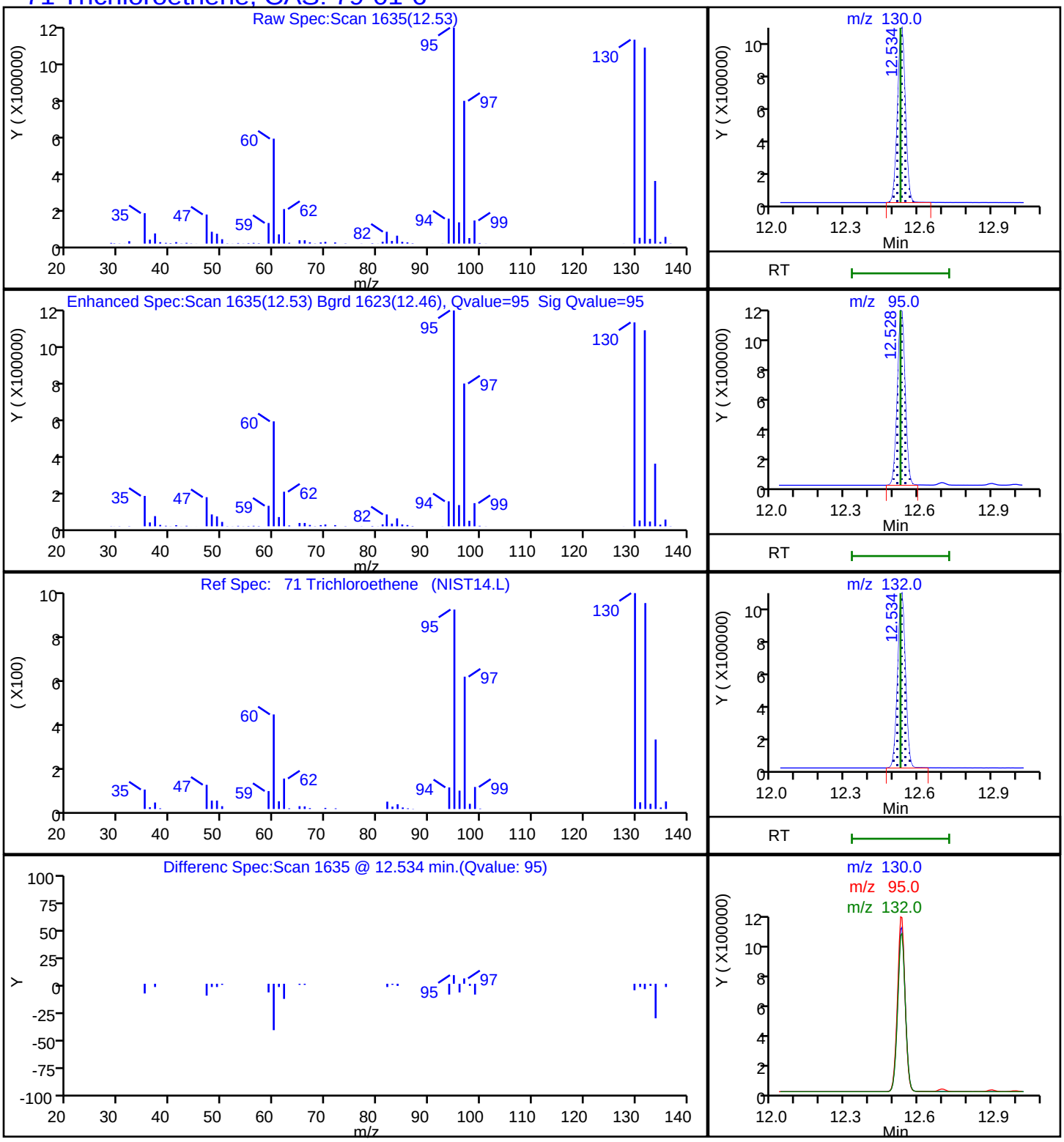
47 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

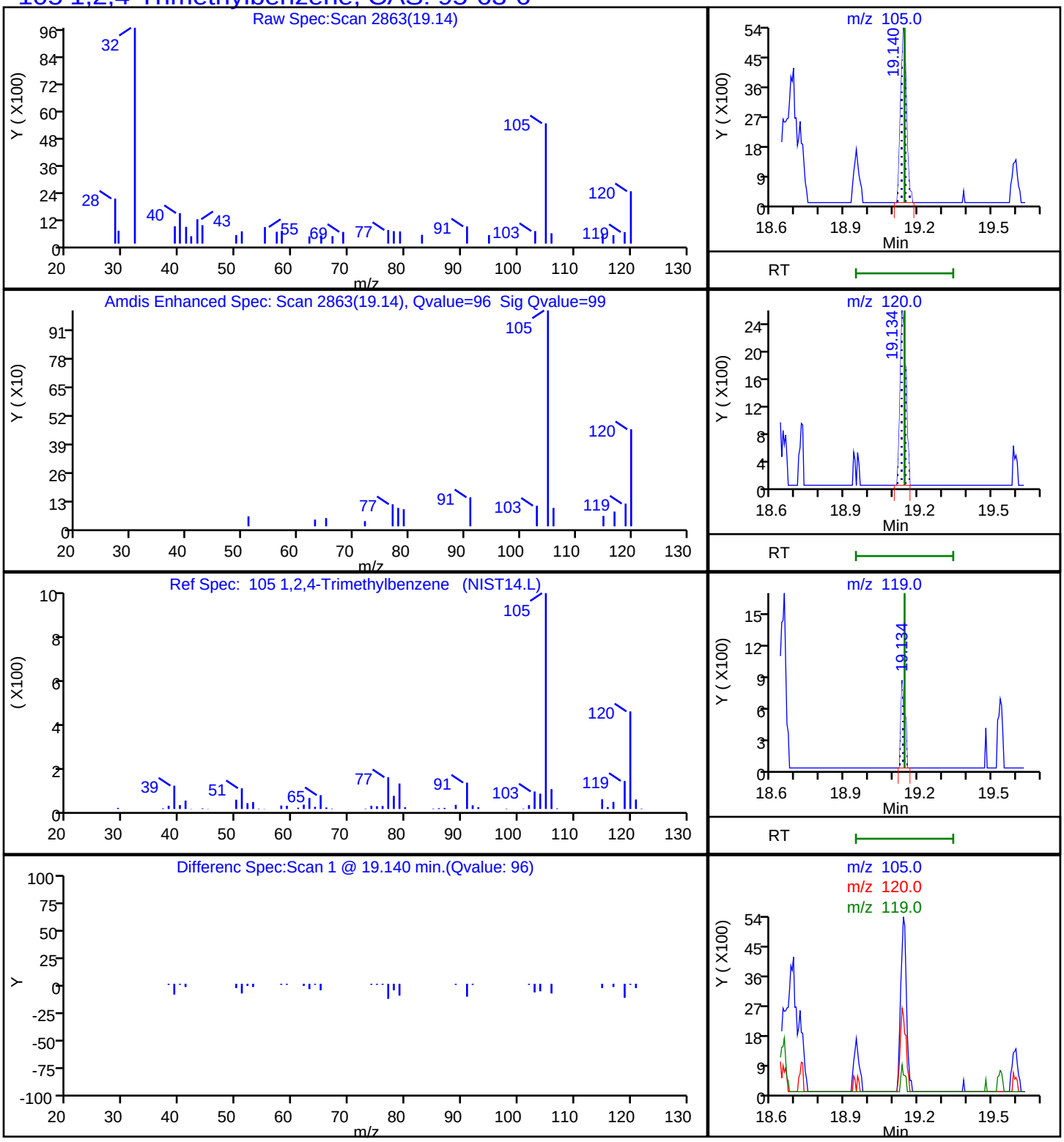
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

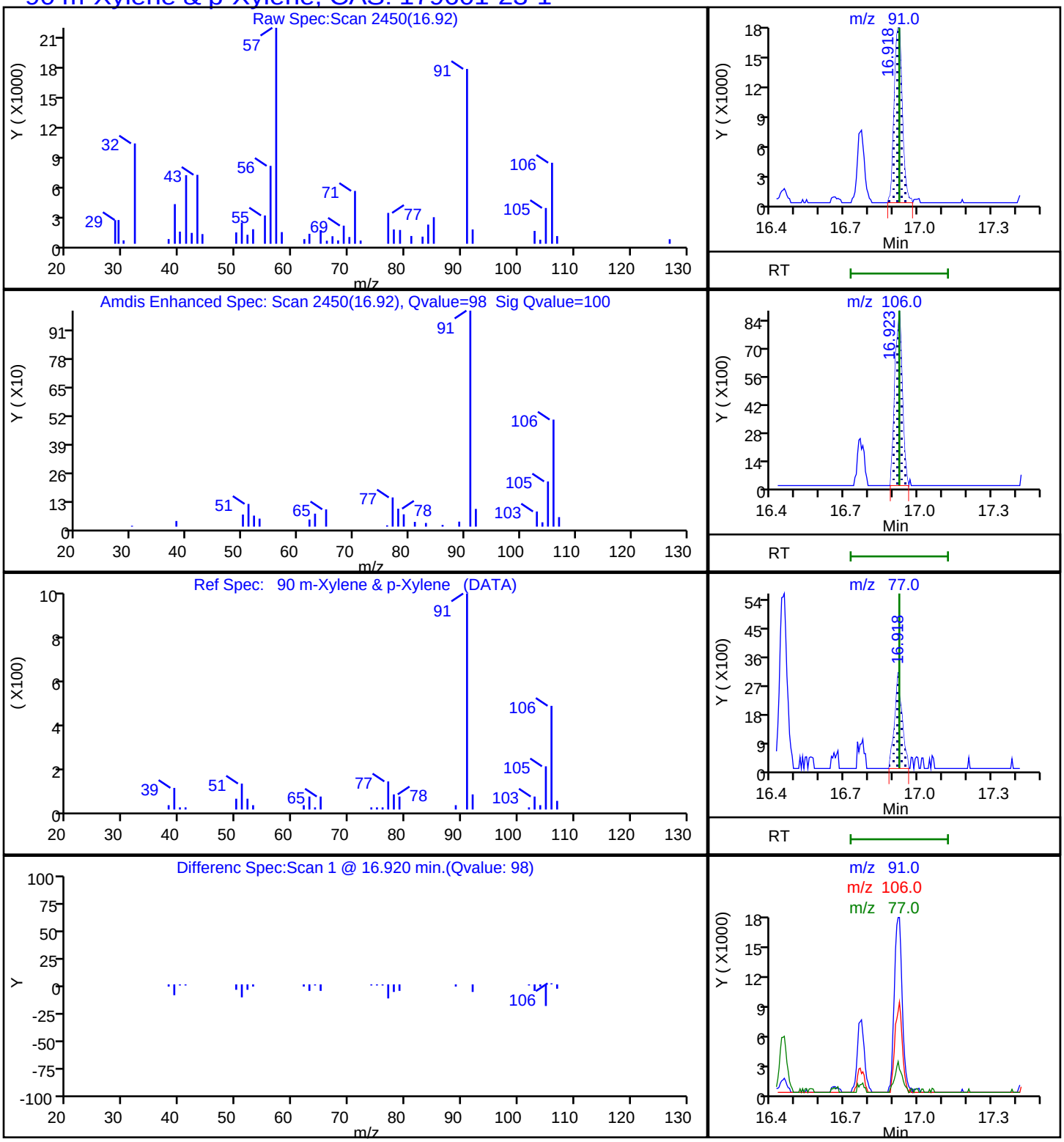


Report Date: 21-Aug-2019 12:35:20 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

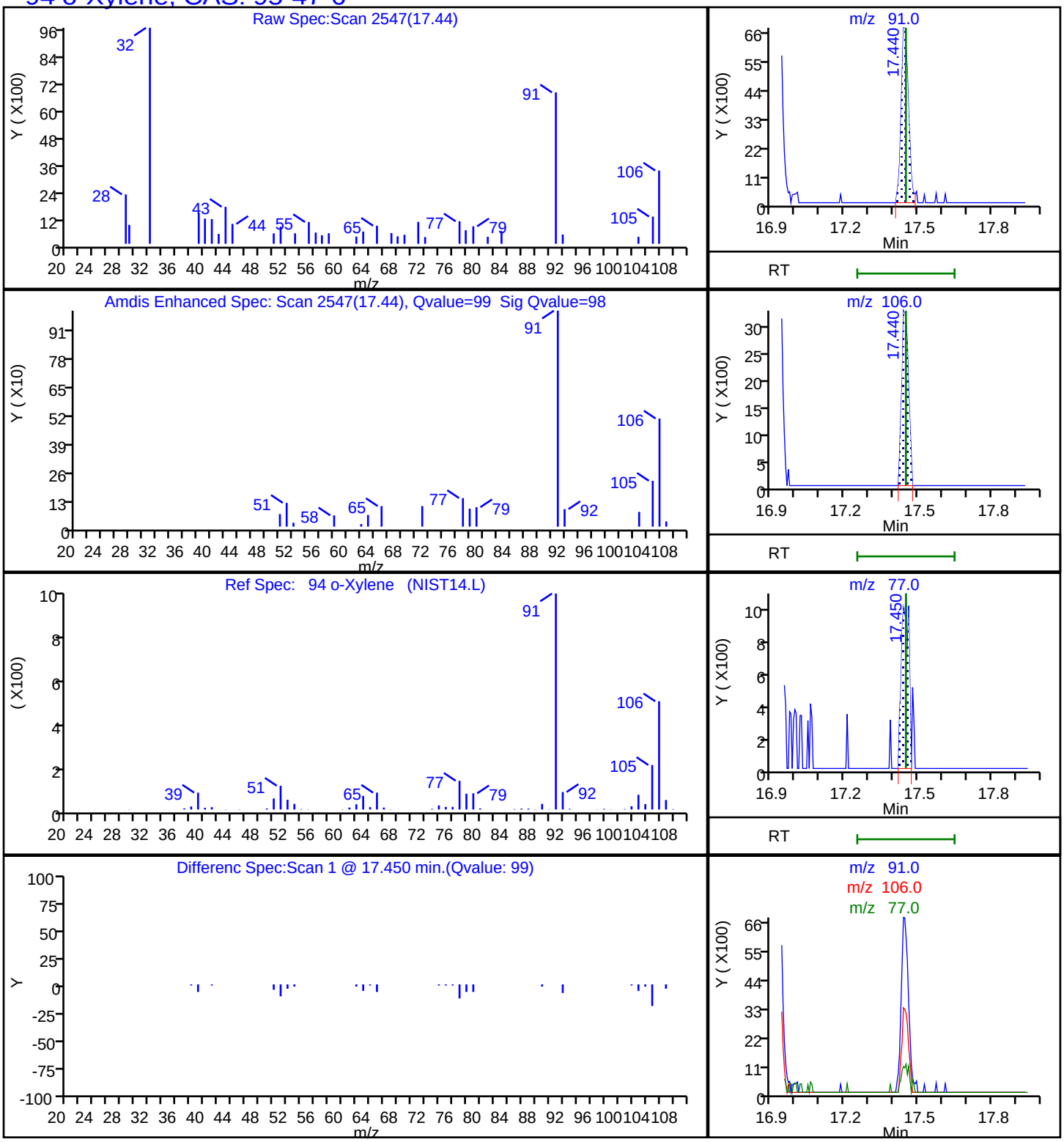
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D		
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15
Client ID:	SV-136-A-27		
Operator ID:	007126	ALS Bottle#:	10 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Eurofins TestAmerica, Knoxville

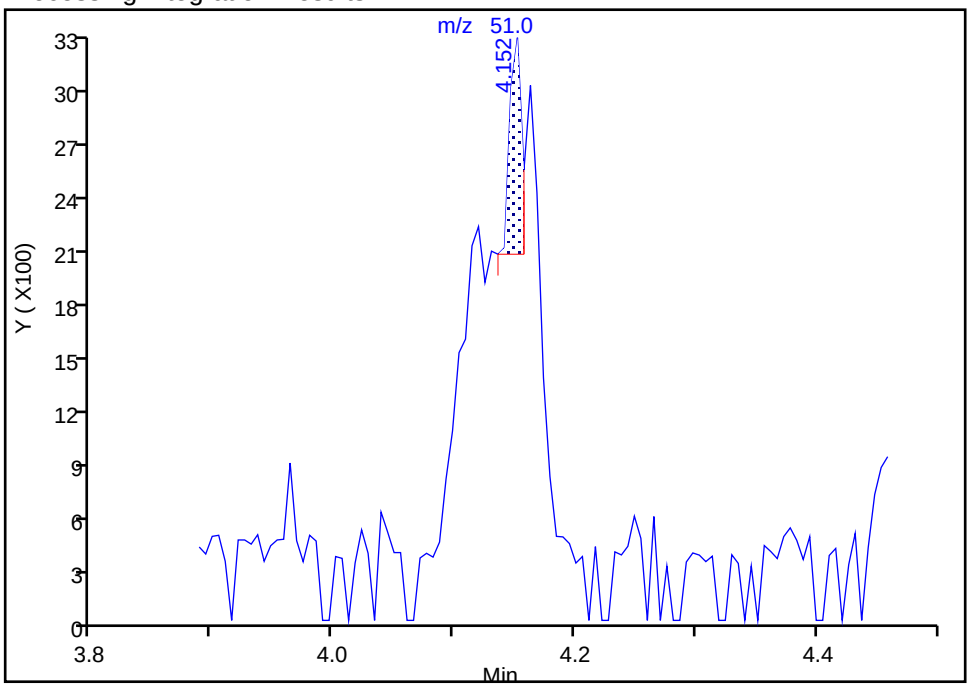
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

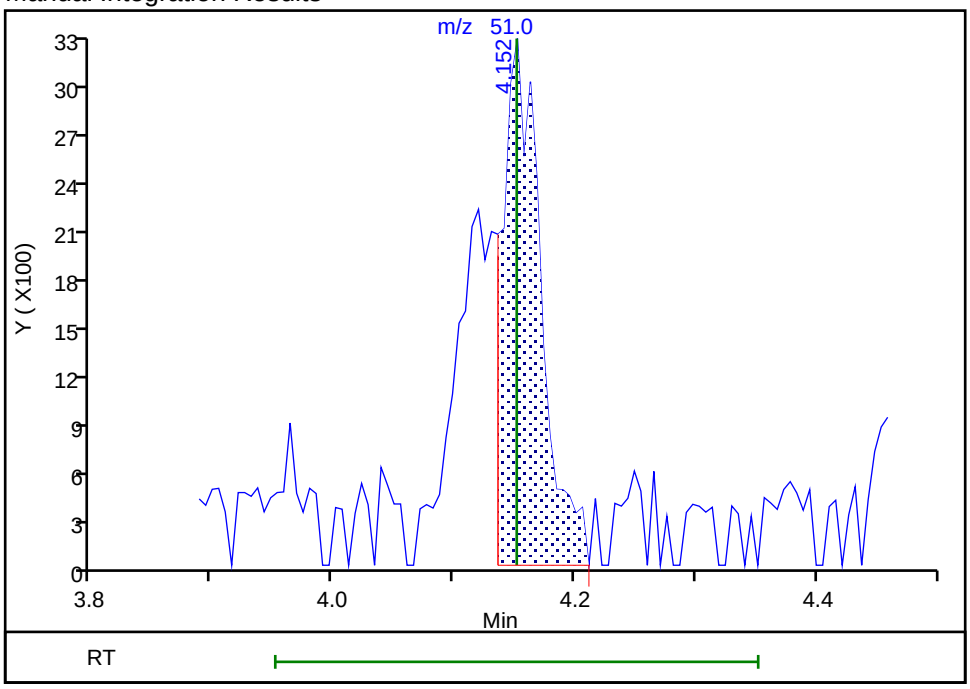
Processing Integration Results

RT: 4.15
Area: 849
Amount: 0.012075
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 7196
Amount: 0.102349
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 21-Aug-2019 12:33:02
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

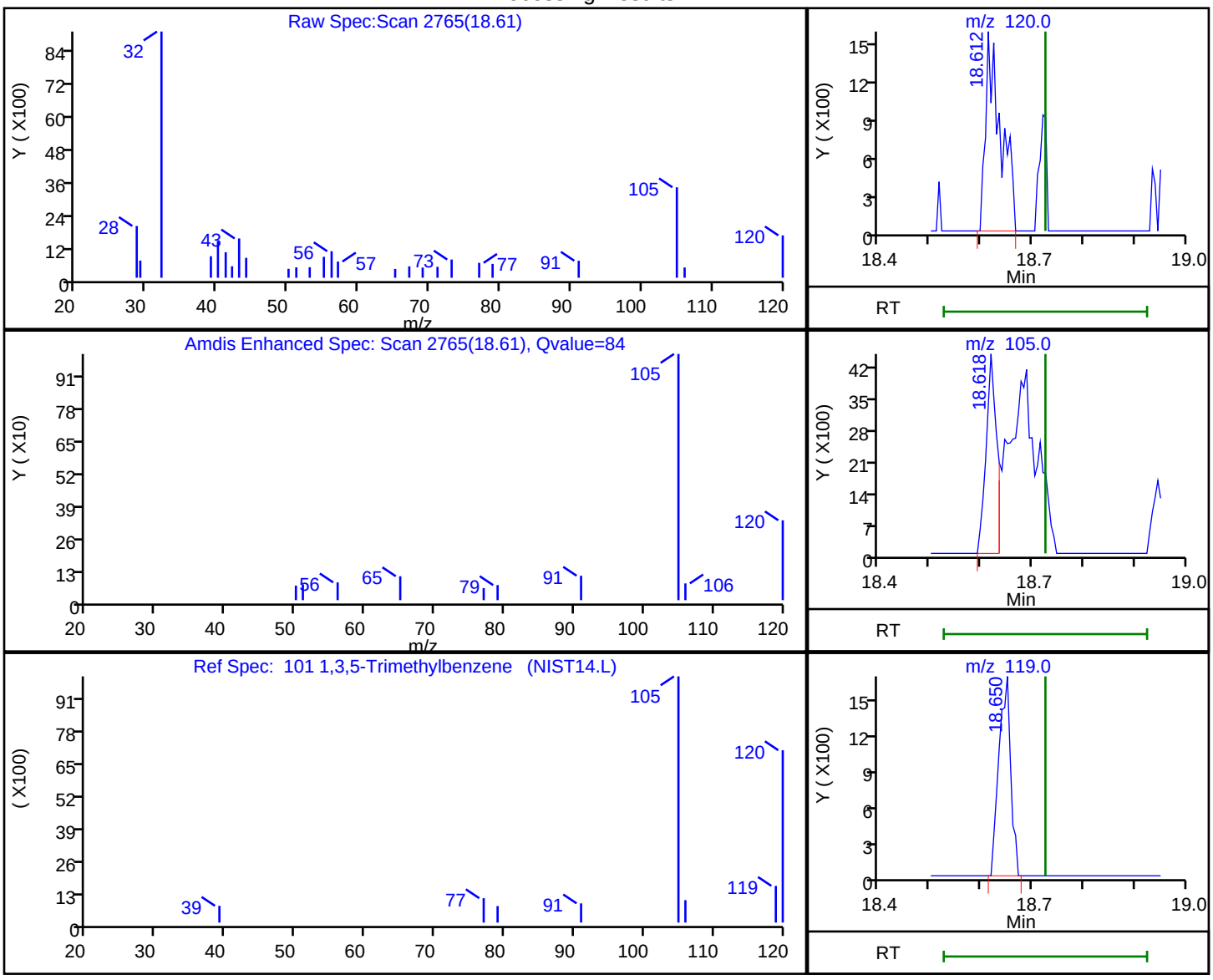
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P110.D				
Injection Date:	20-Aug-2019 23:52:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.61	120.00	3190	0.022570
18.62	105.00	6385	
18.65	119.00	2631	

Reviewer: khachitpongpanits, 21-Aug-2019 12:34:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	92		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	500		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P109.D				
Lims ID:	140-16377-A-15				
Client ID:	SV-136-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 22:56:30	ALS Bottle#:	9	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-016				
Misc. Info.:	140-16377-a-15				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:14:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 12:14:44		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	97	161066	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.840	-0.006	96	793410	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.450	-0.006	89	656566	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.041	-0.001	96	429089	3.56	
21 Dichlorodifluoromethane	85	4.222	4.226	-0.006	90	1125	0.0223	
44 Methylene Chloride	84	7.073	7.064	0.004	98	21762	0.3591	
55 cis-1,2-Dichloroethene	96	9.392	9.382	0.010	14	1392	0.0273	
57 Chloroform	83	9.736	9.731	-0.001	31	19493	0.1491	
64 Benzene	78	11.329	11.329	-0.006	94	9923	0.0683	
71 Trichloroethene	130	12.528	12.534	-0.006	93	363149	5.53	
80 Toluene	91	14.513	14.508	-0.001	92	54696	0.3448	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

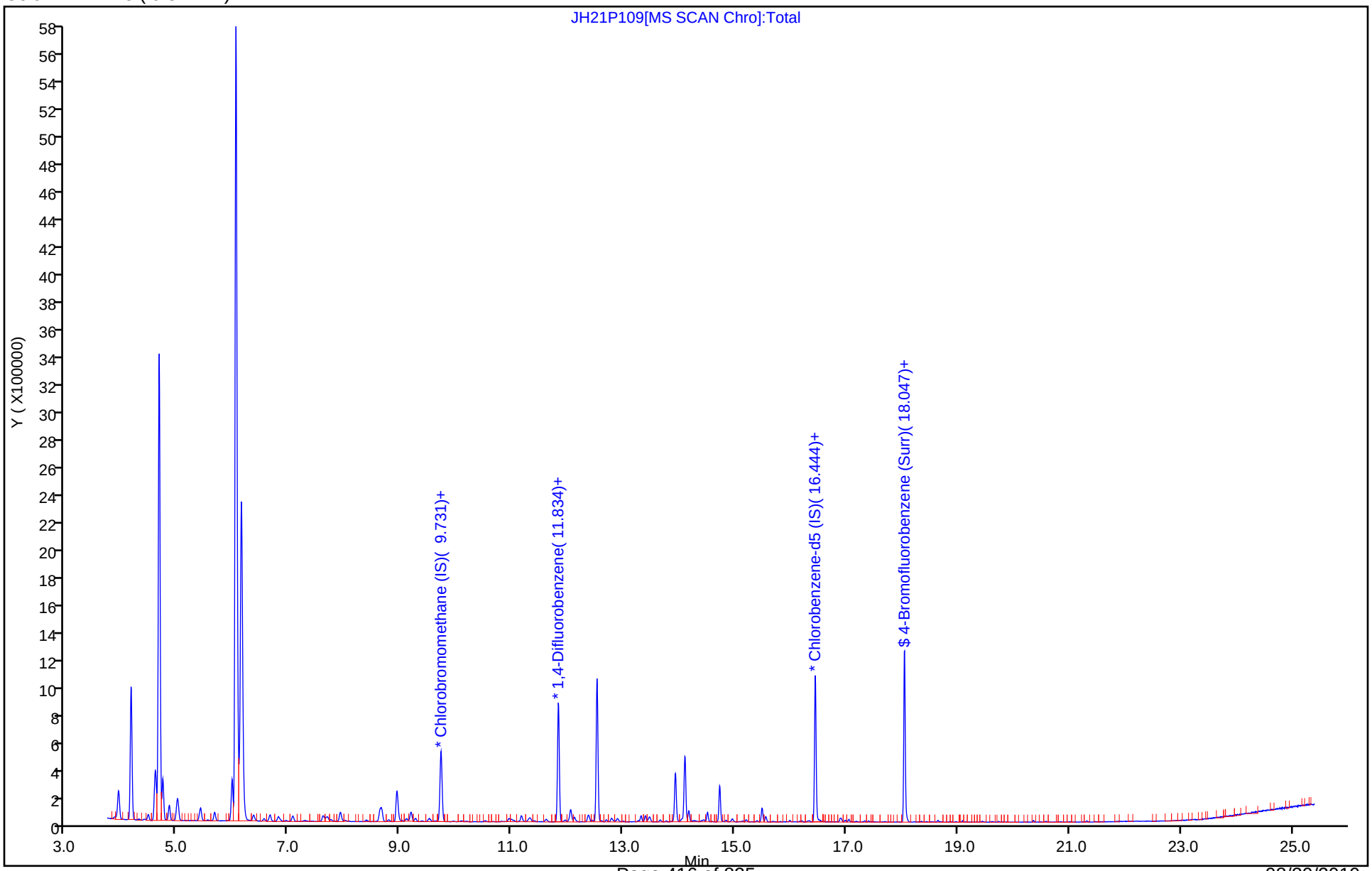
Report Date: 22-Aug-2019 12:14:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P109.D

Injection Date:	21-Aug-2019 22:56:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15	Worklist Smp#:	16
Client ID:	SV-136-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P109.D				
Lims ID:	140-16377-A-15				
Client ID:	SV-136-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 22:56:30	ALS Bottle#:	9	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-016				
Misc. Info.:	140-16377-a-15				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 12:14:04	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 12:14:44		

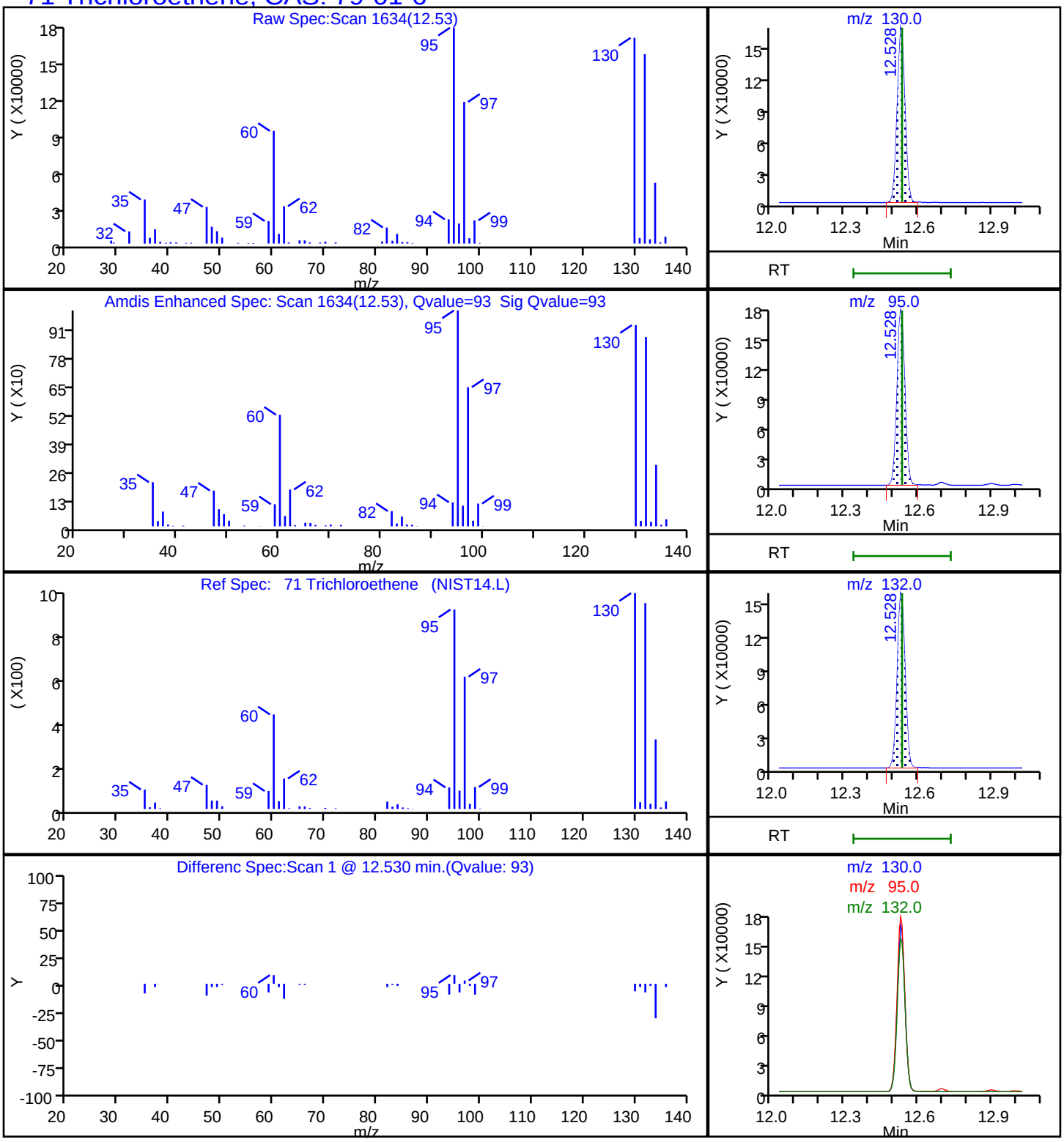
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.56	88.90

Report Date: 22-Aug-2019 12:14:44 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P109.D				
Injection Date:	21-Aug-2019 22:56:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-15	Lab Sample ID:	140-16377-15		
Client ID:	SV-136-A-27				
Operator ID:	007126	ALS Bottle#:	9	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.052	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.36	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	29		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	23		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.15	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	100		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.91	J	2.7	0.24
108-88-3	Toluene	92.14	87		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.82	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.78	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D
Lims ID: 140-16377-A-16
Client ID: SV-076-A-27
Sample Type: Client
Inject. Date: 21-Aug-2019 00:41:30 ALS Bottle#: 11 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-021
Misc. Info.: 140-16377-a-16
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:35:18 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:36:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.747	9.725	0.022	93	260393	4.00	
* 2 1,4-Difluorobenzene	114	11.845	11.839	0.006	95	1273864	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.449	0.001	87	1060863	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.042	18.047	-0.005	96	667981	3.43	
19 Chlorodifluoromethane	51	4.158	4.152	0.006	95	5193	0.0730	
21 Dichlorodifluoromethane	85	4.228	4.227	0.001	95	6736	0.0826	
44 Methylene Chloride	84	7.090	7.062	0.028	97	565541	5.77	
64 Benzene	78	11.345	11.333	0.012	97	7956	0.0341	
65 Carbon tetrachloride	117	11.367	11.349	0.012	84	2054	0.0105	
71 Trichloroethene	130	12.539	12.521	0.011	93	3221	0.0306	
80 Toluene	91	14.519	14.508	0.006	93	1178741	4.60	
86 Tetrachloroethene	129	15.632	15.632	-0.005	94	2763	0.0268	
89 Ethylbenzene	91	16.768	16.767	0.001	99	17093	0.0518	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.005	99	51847	0.2047	
94 o-Xylene	91	17.445	17.450	-0.005	99	16104	0.0598	
105 1,2,4-Trimethylbenzene	105	19.145	19.144	0.001	96	9813	0.0316	
S 129 Xylenes, Total	100				0		0.2645	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

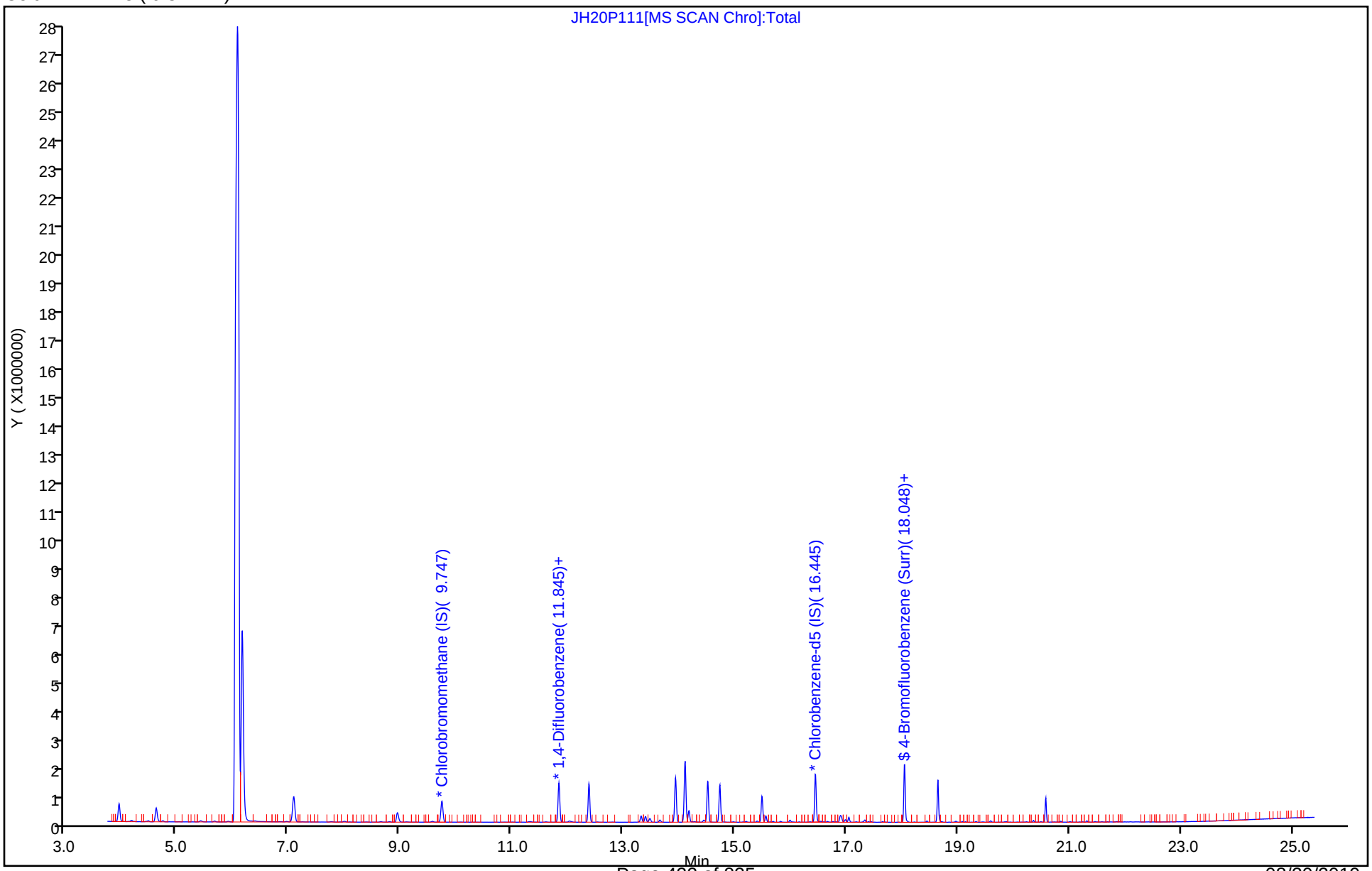
Report Date: 21-Aug-2019 12:36:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D

Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16	Worklist Smp#:	21
Client ID:	SV-076-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Lims ID:	140-16377-A-16				
Client ID:	SV-076-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 00:41:30	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-021				
Misc. Info.:	140-16377-a-16				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:35:18	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

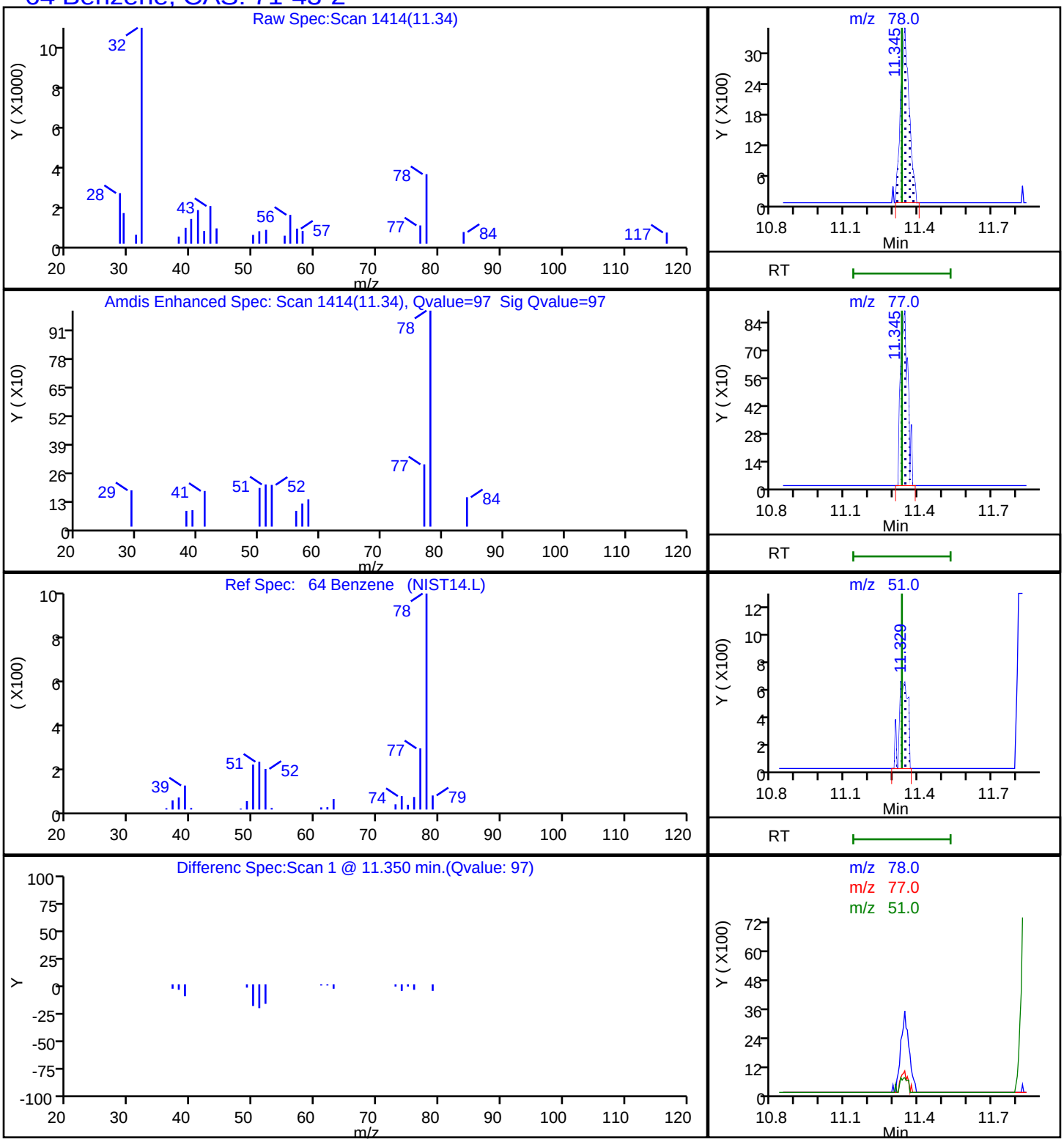
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:36:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.43	85.65

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D

Injection Date: 21-Aug-2019 00:41:30 Instrument ID: MJ

Lims ID: 140-16377-A-16 Lab Sample ID: 140-16377-16

Client ID: SV-076-A-27

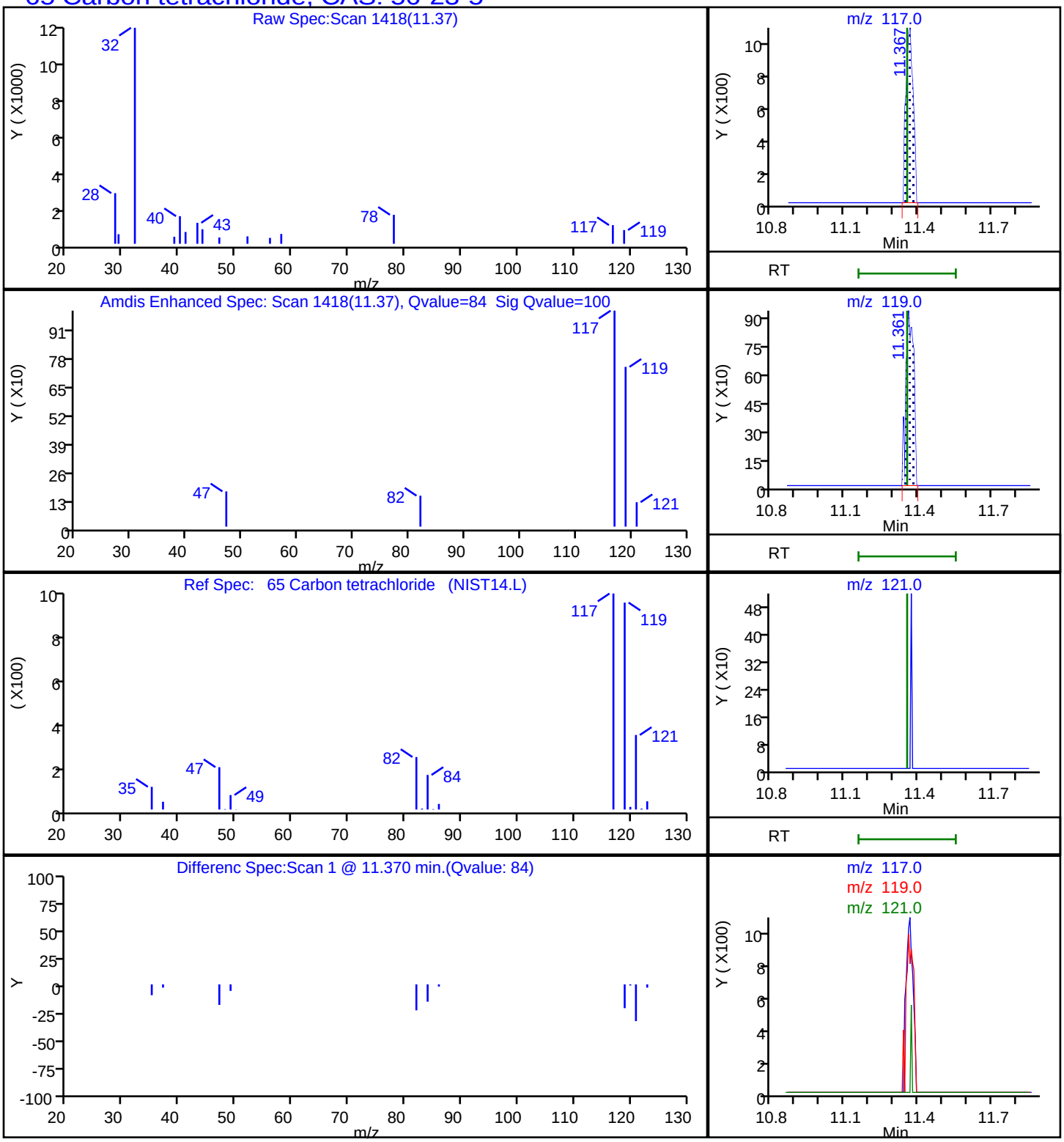
Operator ID: 007126 ALS Bottle#: 11 Worklist Smp#: 21

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

65 Carbon tetrachloride, CAS: 56-23-5

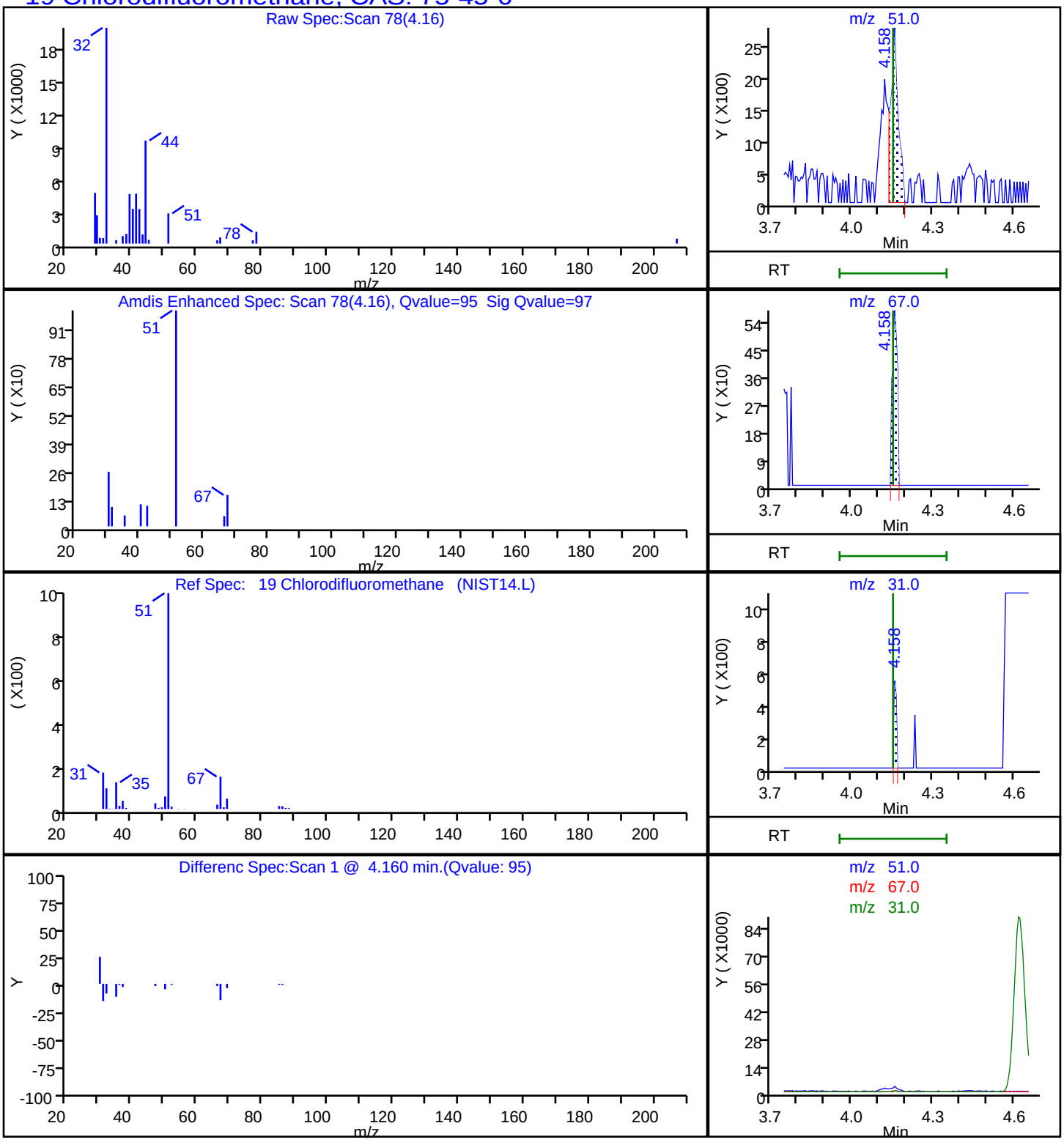


Report Date: 21-Aug-2019 12:36:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

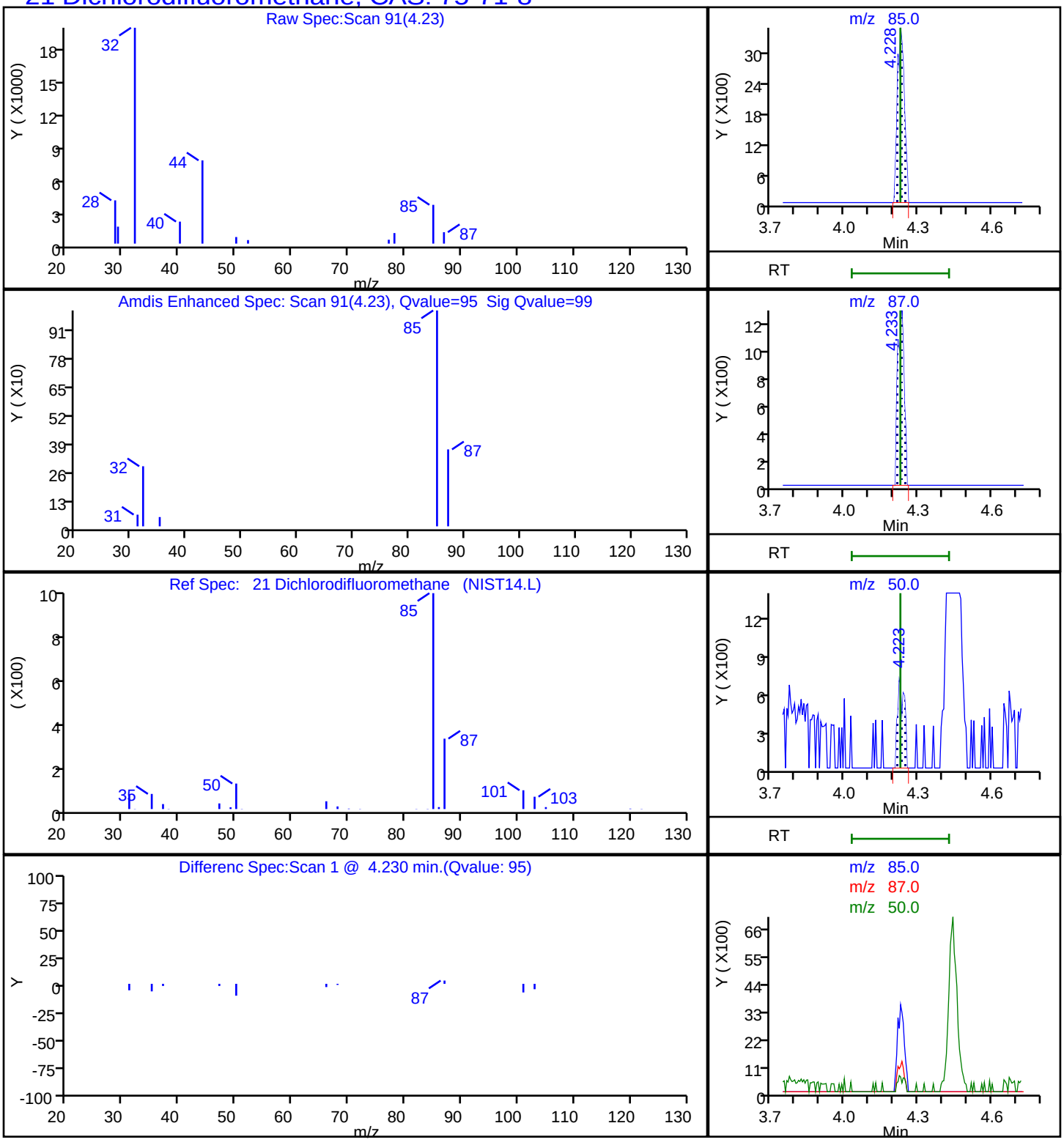
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

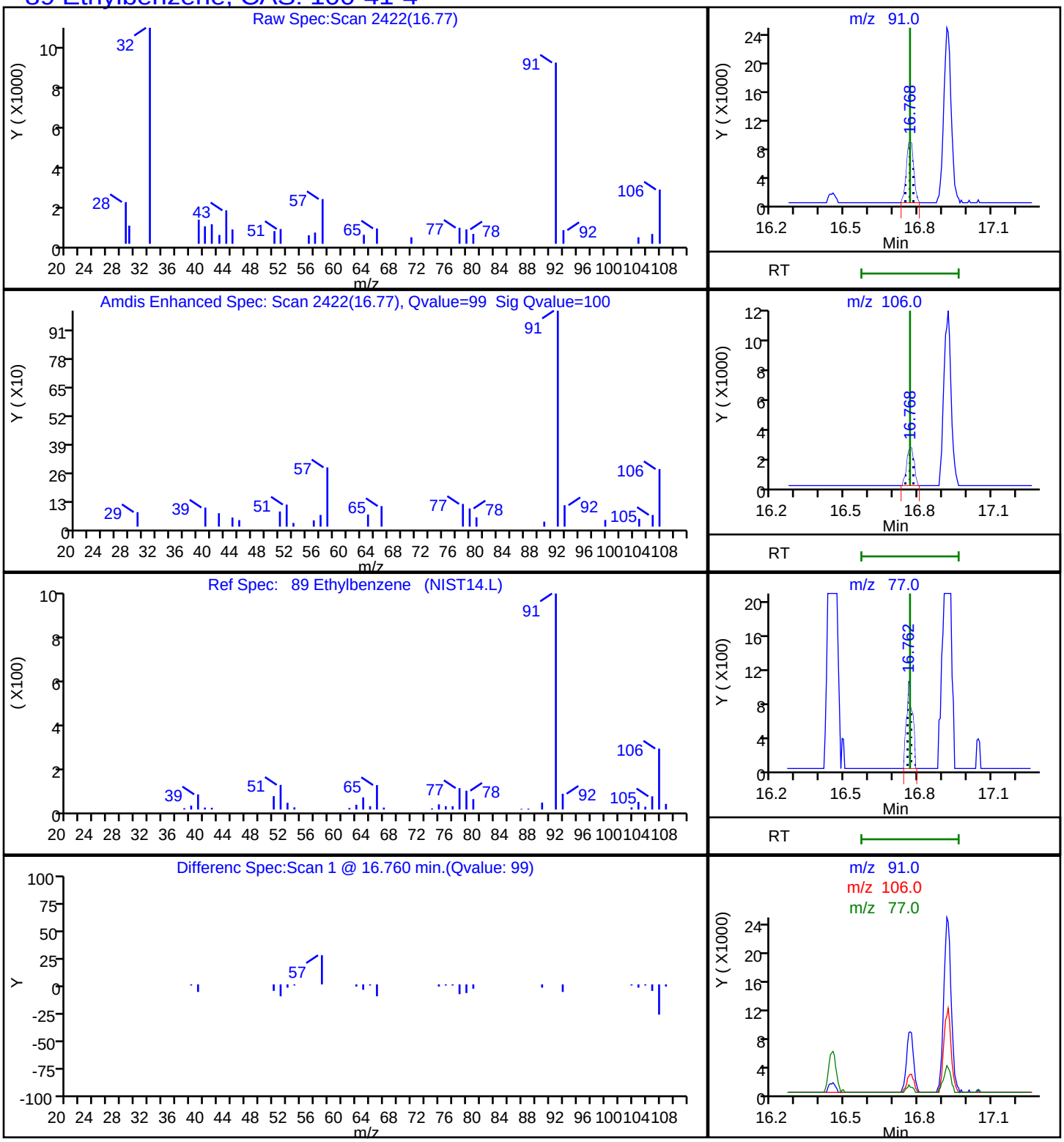
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

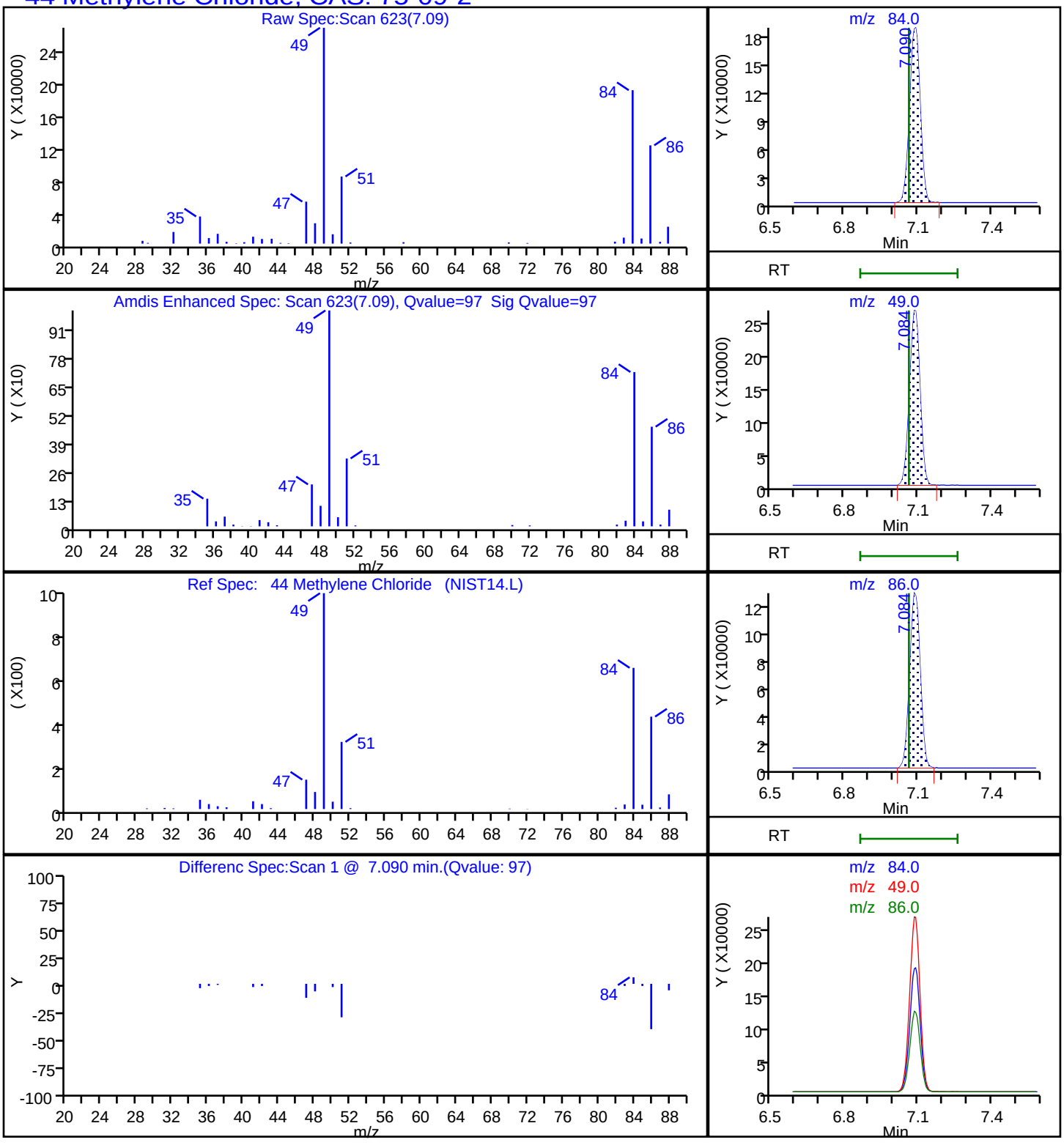


Report Date: 21-Aug-2019 12:36:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

44 Methylene Chloride, CAS: 75-09-2

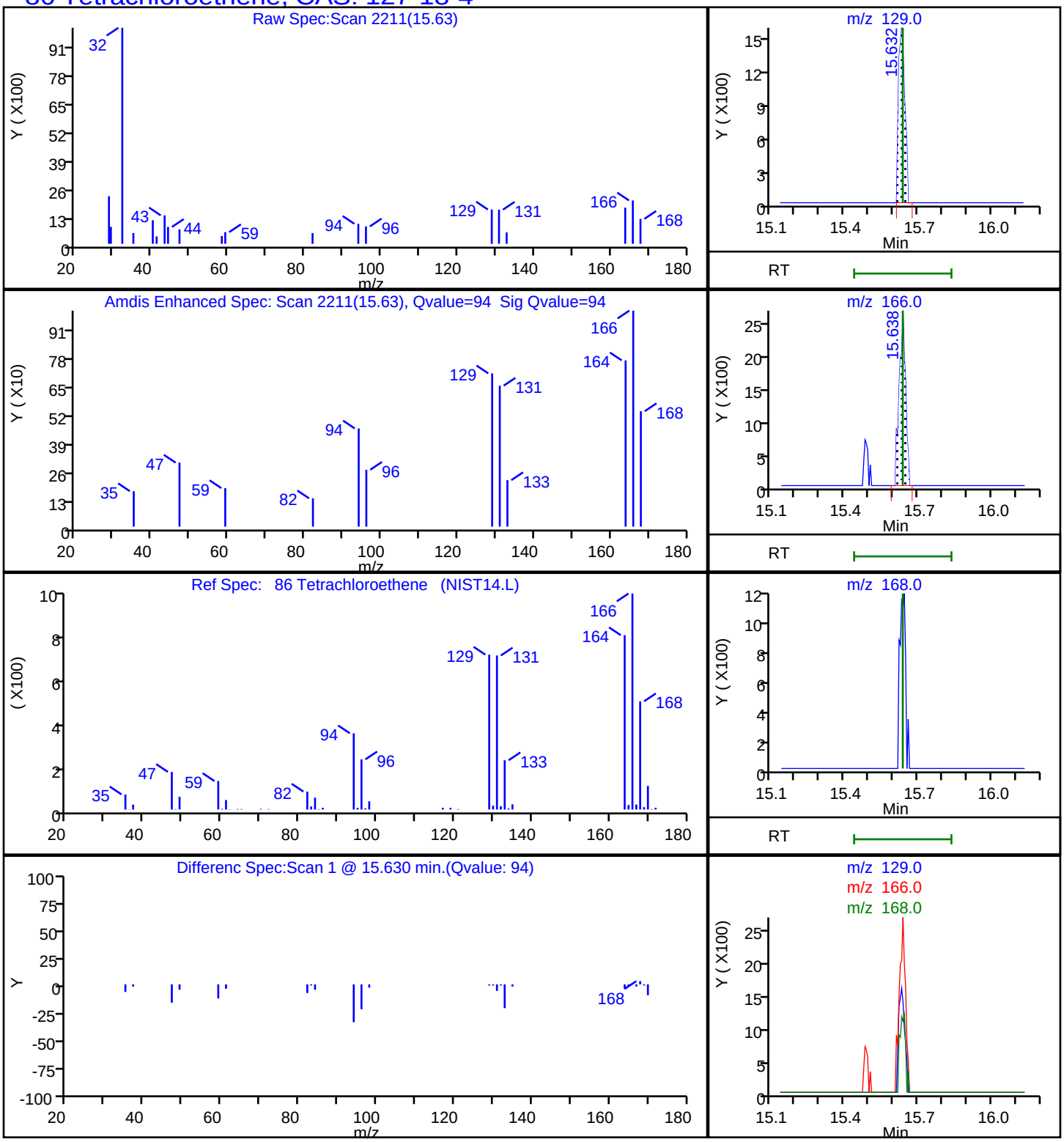


Report Date: 21-Aug-2019 12:36:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

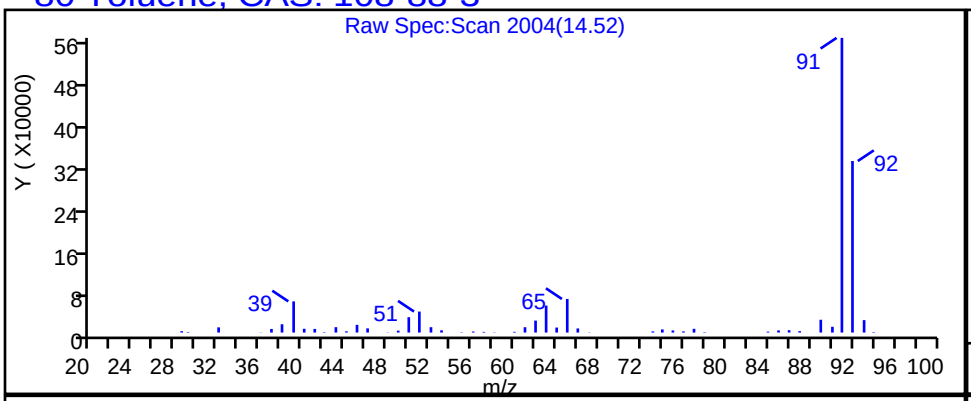
86 Tetrachloroethene, CAS: 127-18-4

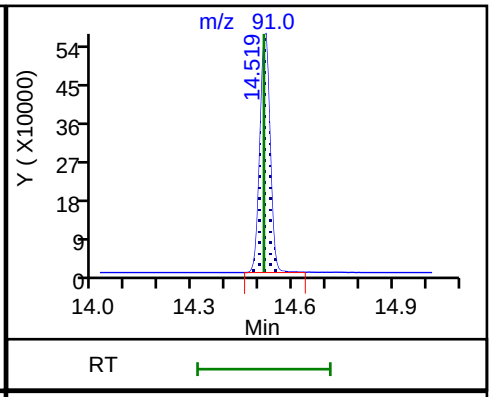


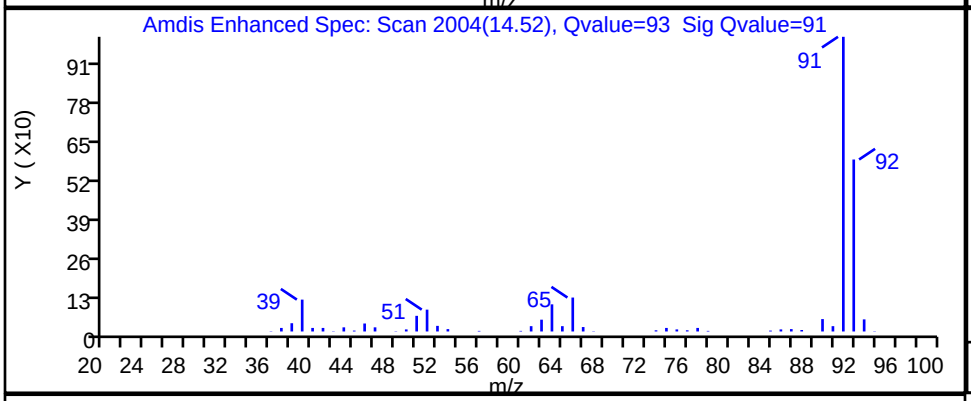
Eurofins TestAmerica, Knoxville

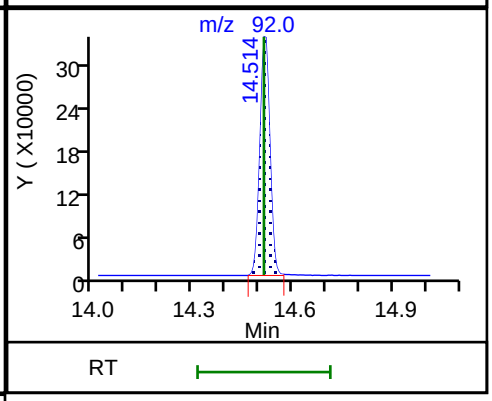
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

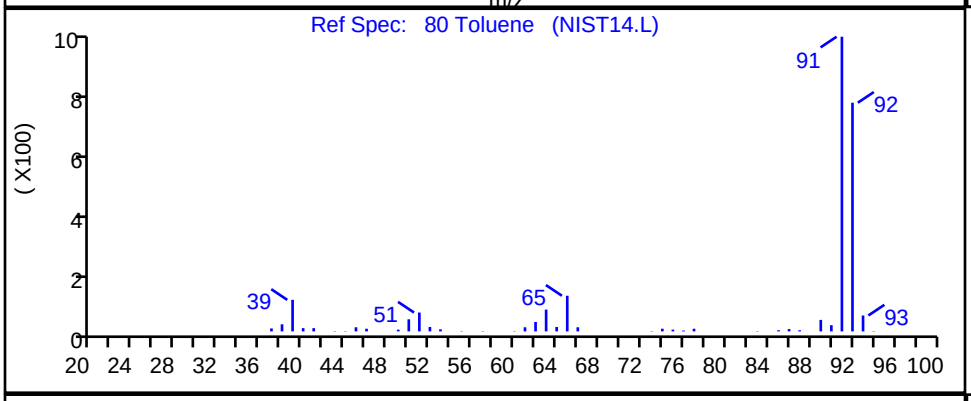
80 Toluene, CAS: 108-88-3

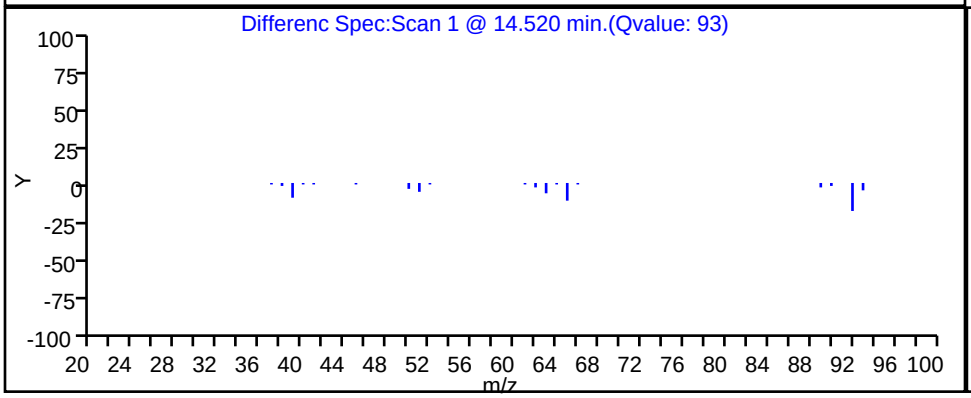


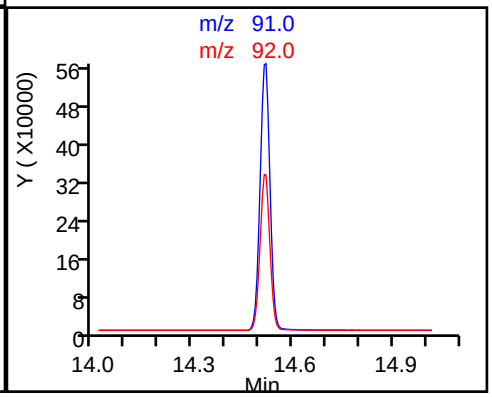








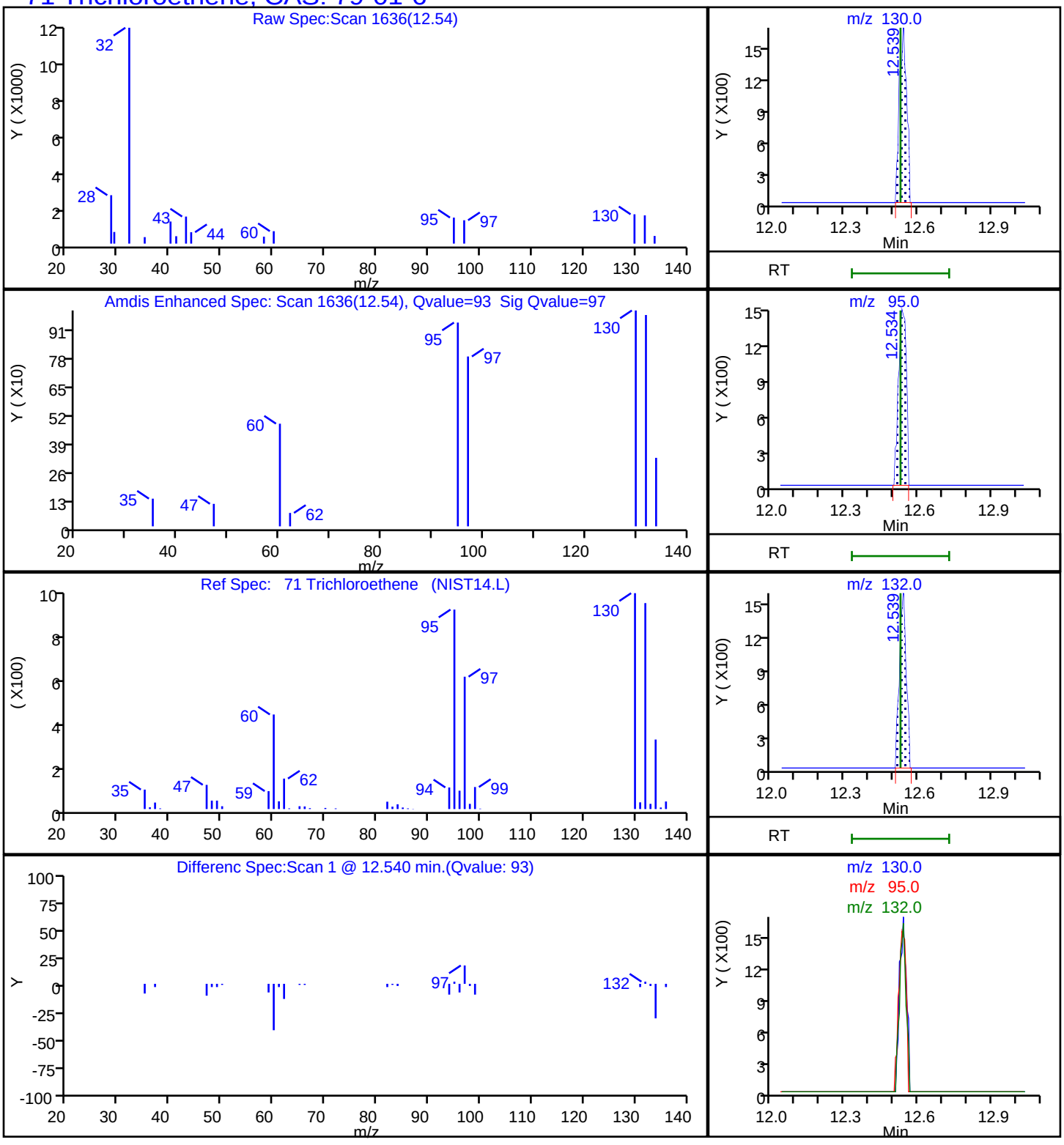




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D		
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16
Client ID:	SV-076-A-27		
Operator ID:	007126	ALS Bottle#:	11 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

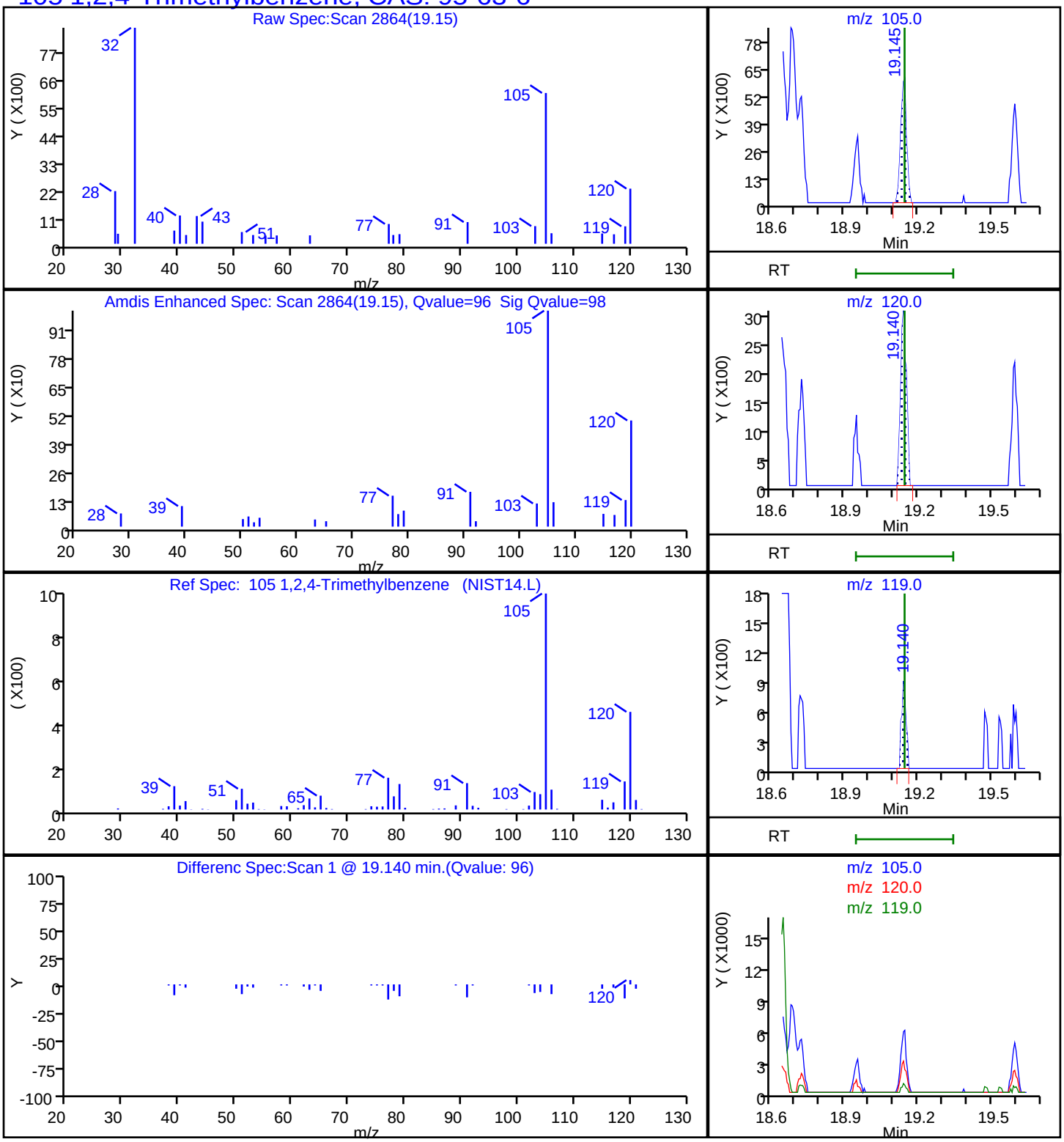


Report Date: 21-Aug-2019 12:36:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

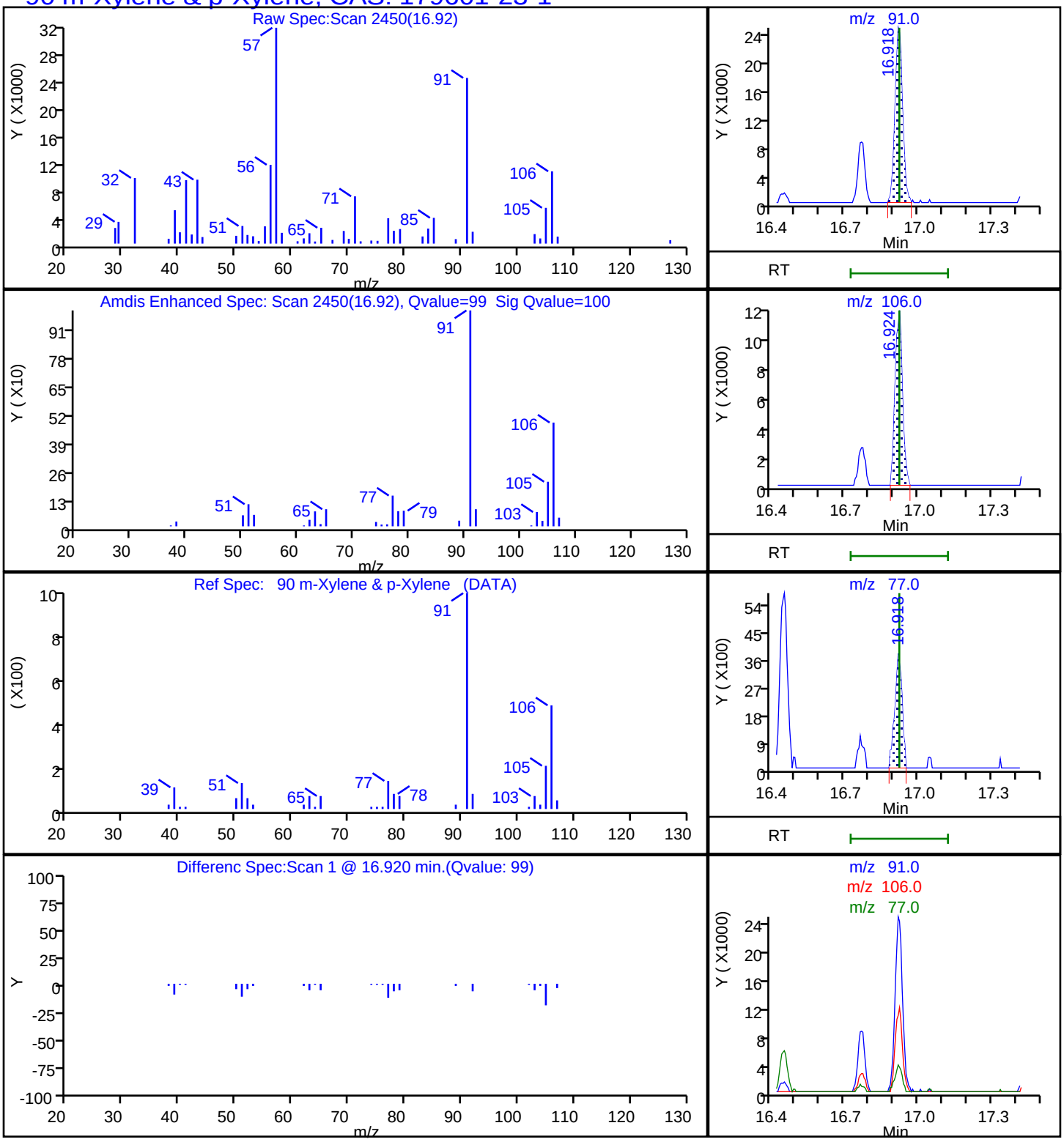


Report Date: 21-Aug-2019 12:36:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

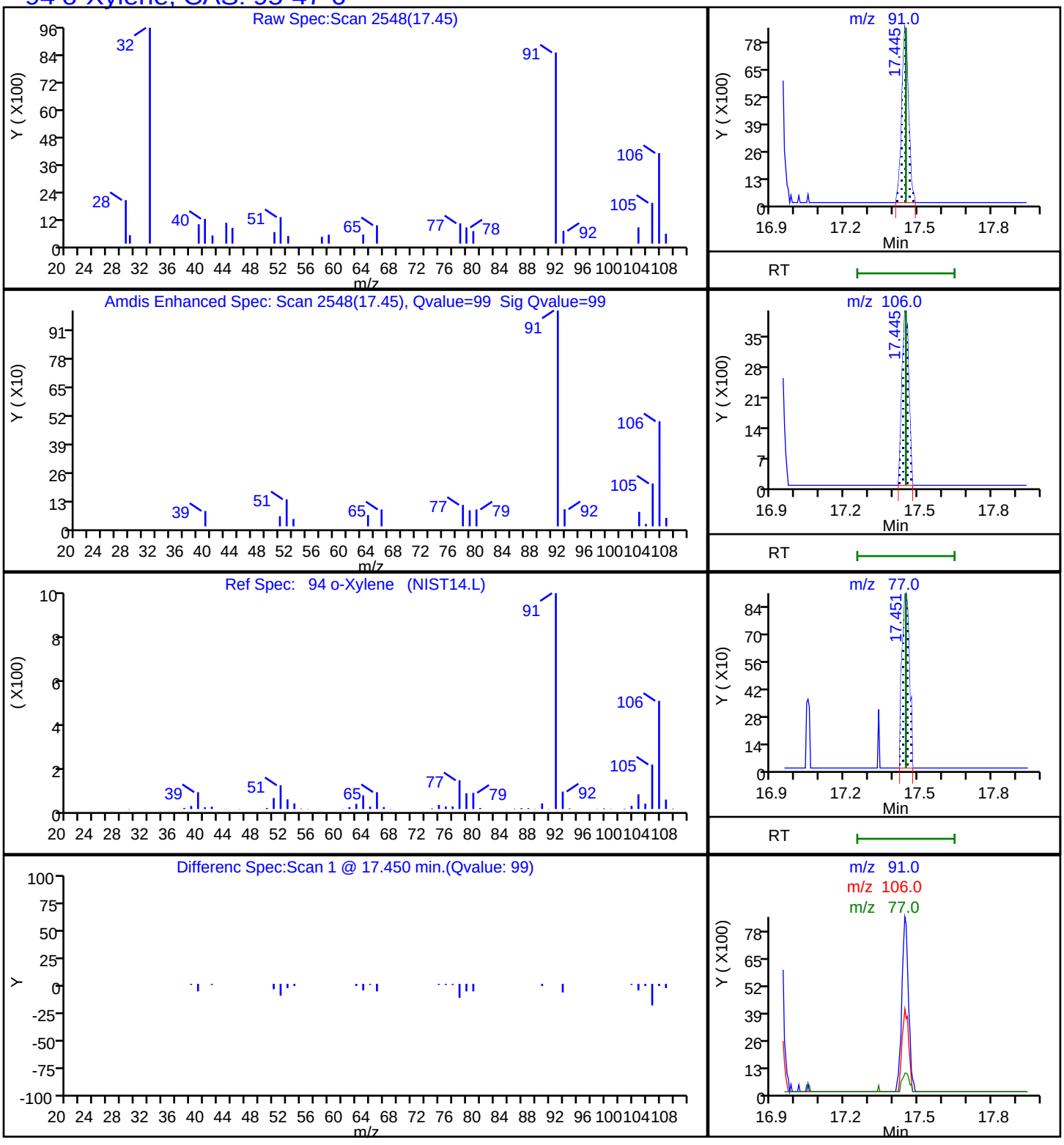


Report Date: 21-Aug-2019 12:36:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P111.D				
Injection Date:	21-Aug-2019 00:41:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-16	Lab Sample ID:	140-16377-16		
Client ID:	SV-076-A-27				
Operator ID:	007126	ALS Bottle#:	11	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.085	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.32	J	0.40	0.11
67-66-3	Chloroform	119.38	0.48		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.30	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	20		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.052	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	2.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	51		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.72	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.81	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.76	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.2	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	79		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.55	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	26		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.88	J	2.7	0.24
108-88-3	Toluene	92.14	4.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	13		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	270		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D
Lims ID: 140-16377-A-17
Client ID: SV-168-A-27
Sample Type: Client
Inject. Date: 21-Aug-2019 02:20:30 ALS Bottle#: 13 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-023
Misc. Info.: 140-16377-a-17
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 01:01:53 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 14:07:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.722	9.725	-0.003	96	191677	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.839	-0.003	95	977491	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.449	-0.002	88	848051	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.044	18.044	-0.003	94	559746	3.59	
19 Chlorodifluoromethane	51	4.155	4.151	0.003	93	3384	0.0646	
21 Dichlorodifluoromethane	85	4.225	4.226	-0.002	97	5700	0.0949	
40 1,1-Dichloroethene	96	6.683	6.684	-0.002	96	234449	3.99	
44 Methylene Chloride	84	7.060	7.060	-0.002	98	108382	1.50	
47 trans-1,2-Dichloroethene	96	7.910	7.915	-0.007	1	607	0.0103	
50 1,1-Dichloroethane	63	8.361	8.356	0.003	96	7833	0.0598	
55 cis-1,2-Dichloroethene	96	9.378	9.373	0.003	91	2328	0.0384	
57 Chloroform	83	9.733	9.728	0.003	29	14802	0.0952	
60 1,1,1-Trichloroethane	97	10.761	10.760	-0.002	97	78754	0.4705	
64 Benzene	78	11.331	11.331	-0.002	95	9074	0.0507	
65 Carbon tetrachloride	117	11.347	11.352	-0.008	58	2542	0.0169	
71 Trichloroethene	130	12.530	12.525	0.002	94	821966	10.2	
80 Toluene	91	14.510	14.510	-0.003	92	49050	0.2394	
86 Tetrachloroethene	129	15.629	15.635	-0.008	91	2139	0.0260	
89 Ethylbenzene	91	16.769	16.764	0.002	96	6729	0.0255	
90 m-Xylene & p-Xylene	91	16.925	16.920	0.002	98	20709	0.1023	
94 o-Xylene	91	17.442	17.447	-0.008	93	9009	0.0418	
105 1,2,4-Trimethylbenzene	105	19.136	19.141	-0.008	96	10936	0.0440	
S 129 Xylenes, Total	100				0		0.1441	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

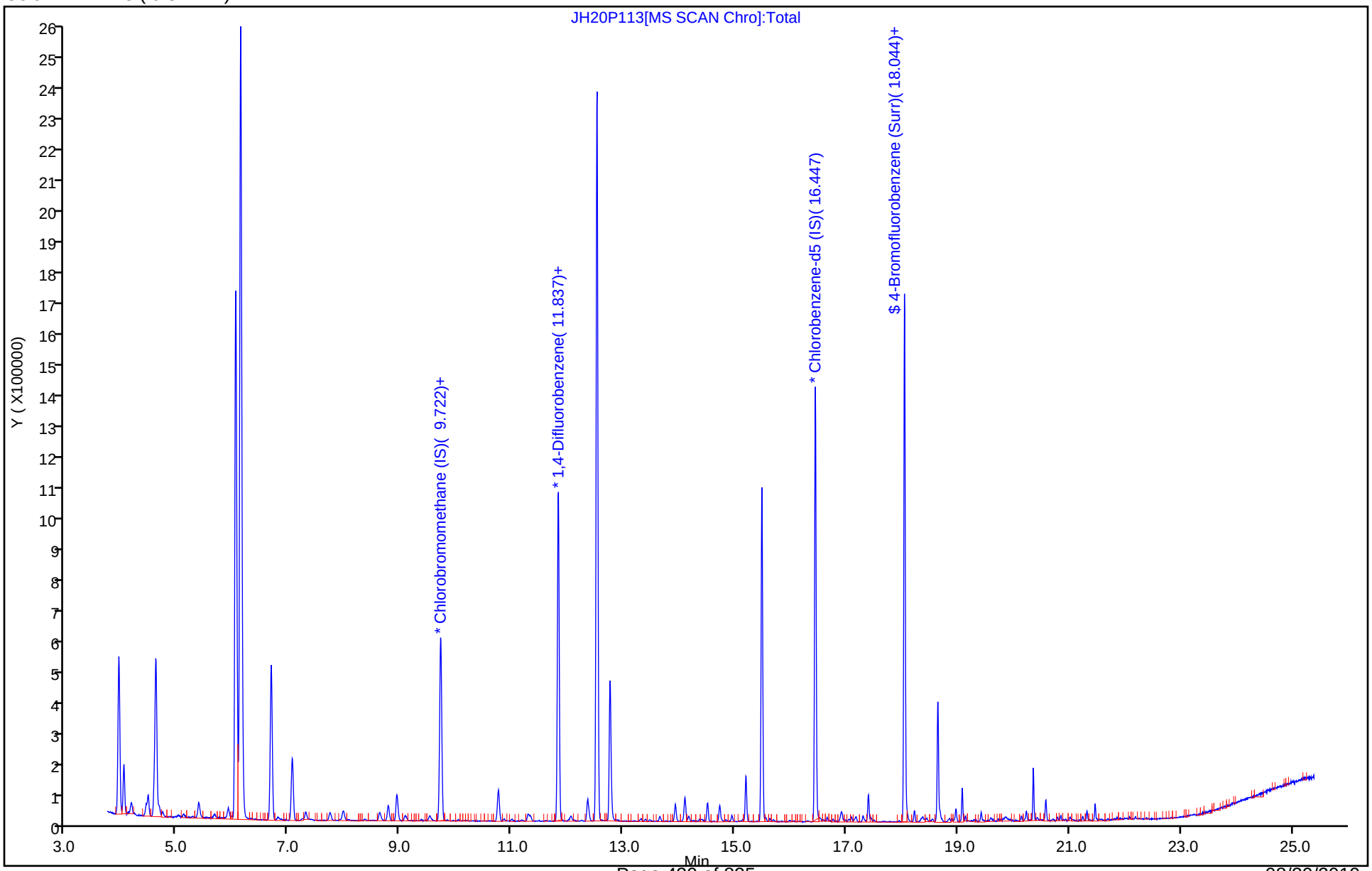
Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D

Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17	Worklist Smp#:	23
Client ID:	SV-168-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Lims ID:	140-16377-A-17				
Client ID:	SV-168-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 02:20:30	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-023				
Misc. Info.:	140-16377-a-17				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 01:01:53	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

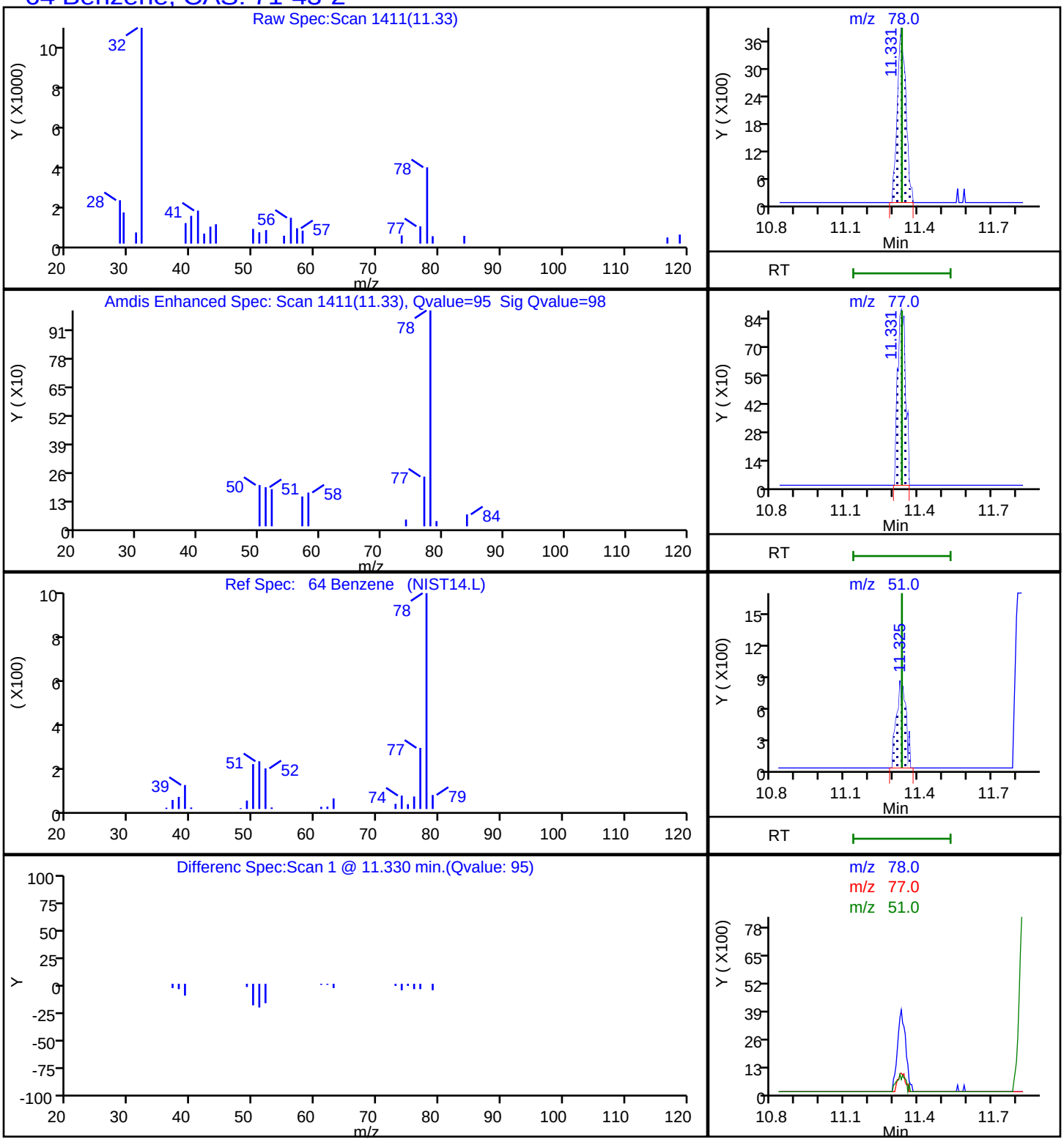
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 14:07:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.59	89.78

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

64 Benzene, CAS: 71-43-2

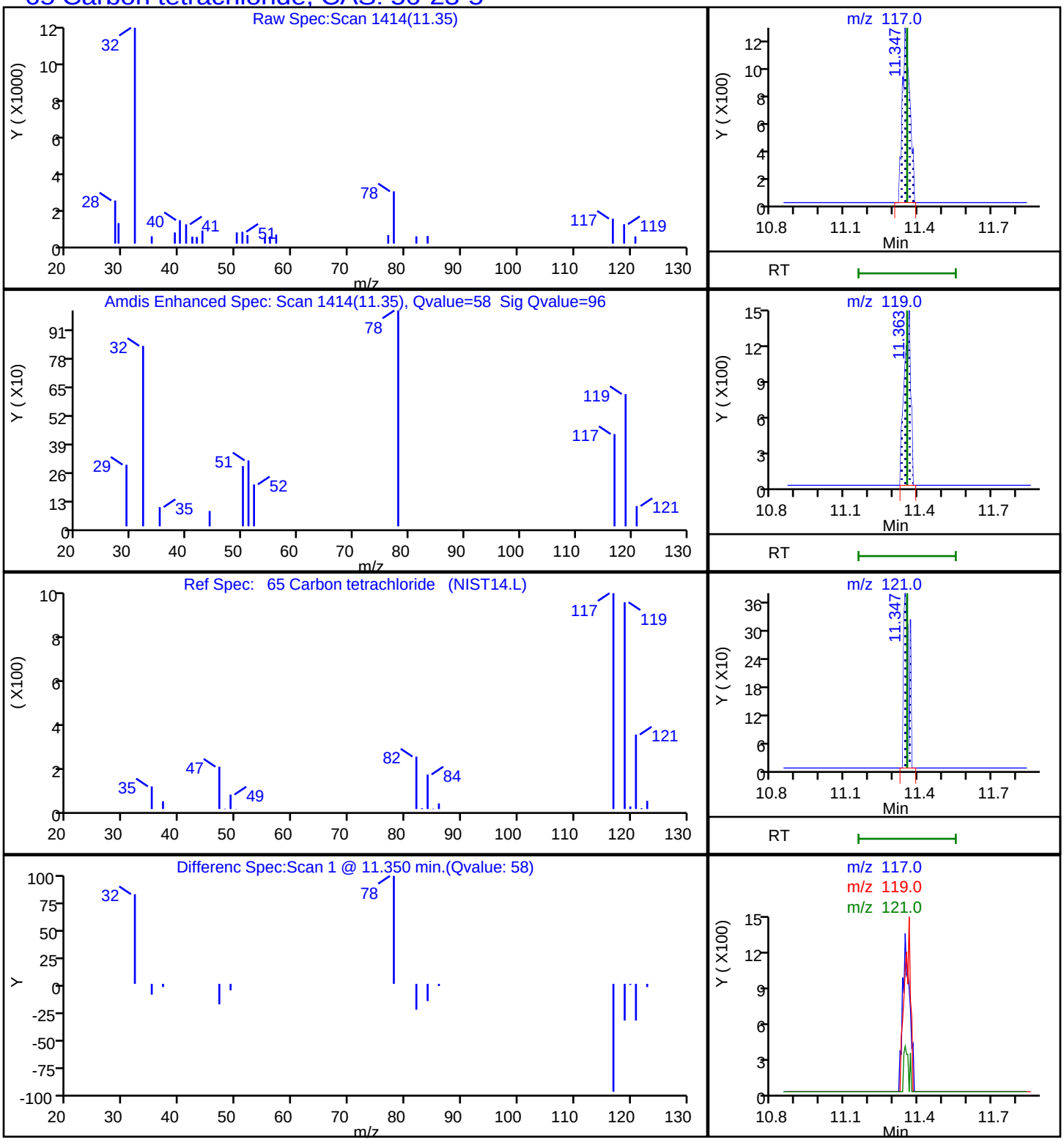


Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
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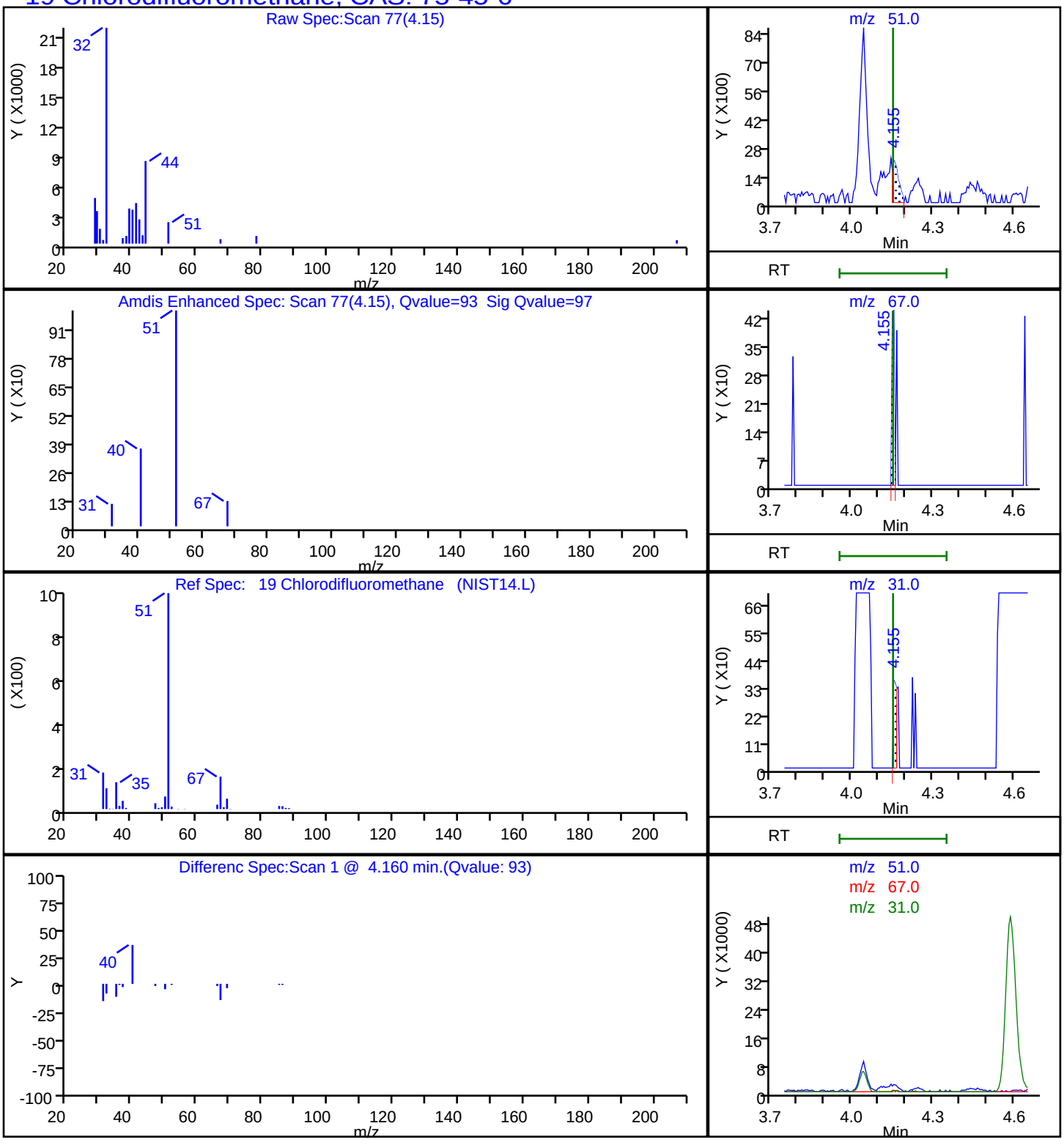
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D		
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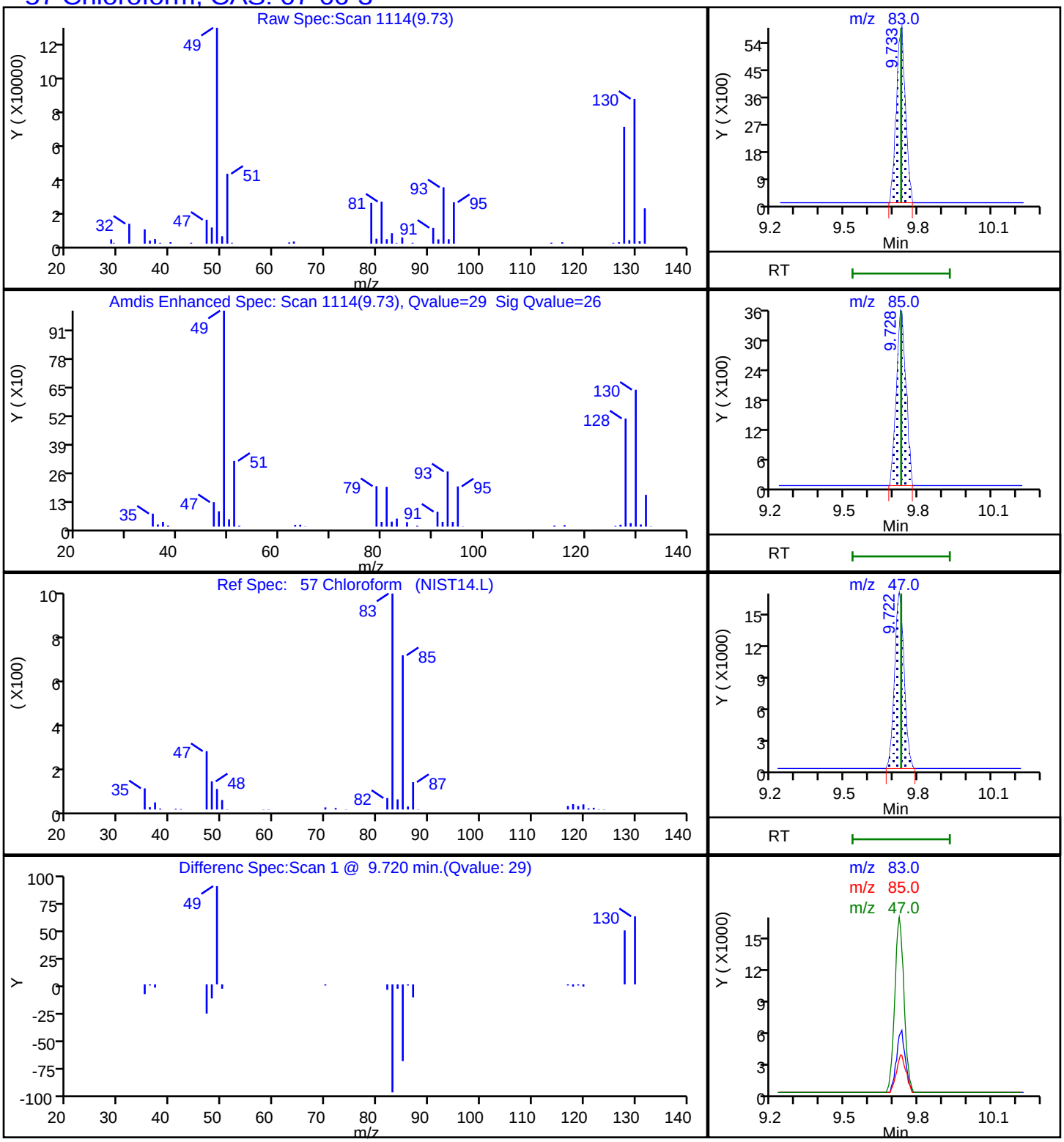
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17
Client ID:	SV-168-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

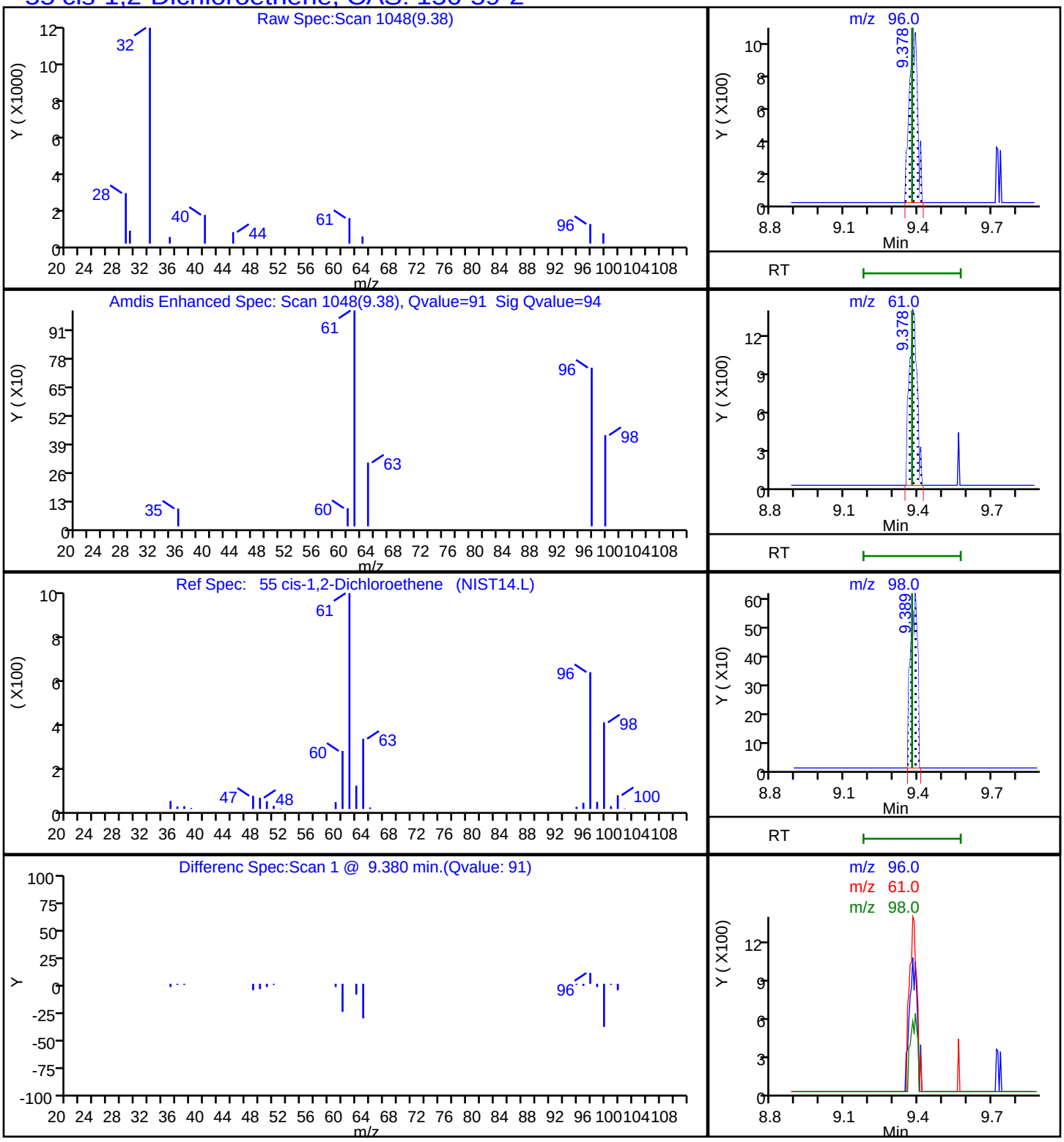
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

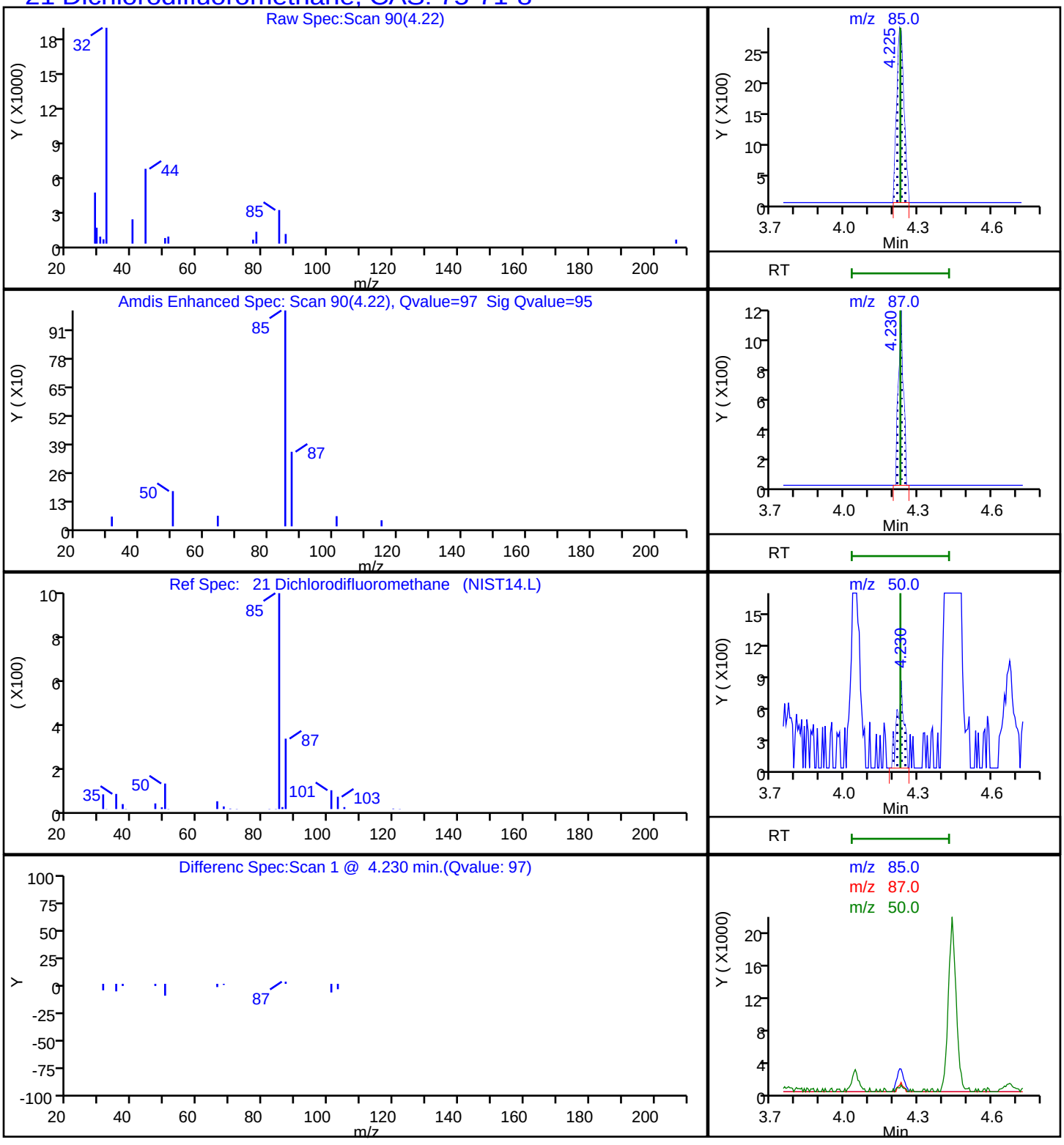
55 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

21 Dichlorodifluoromethane, CAS: 75-71-8

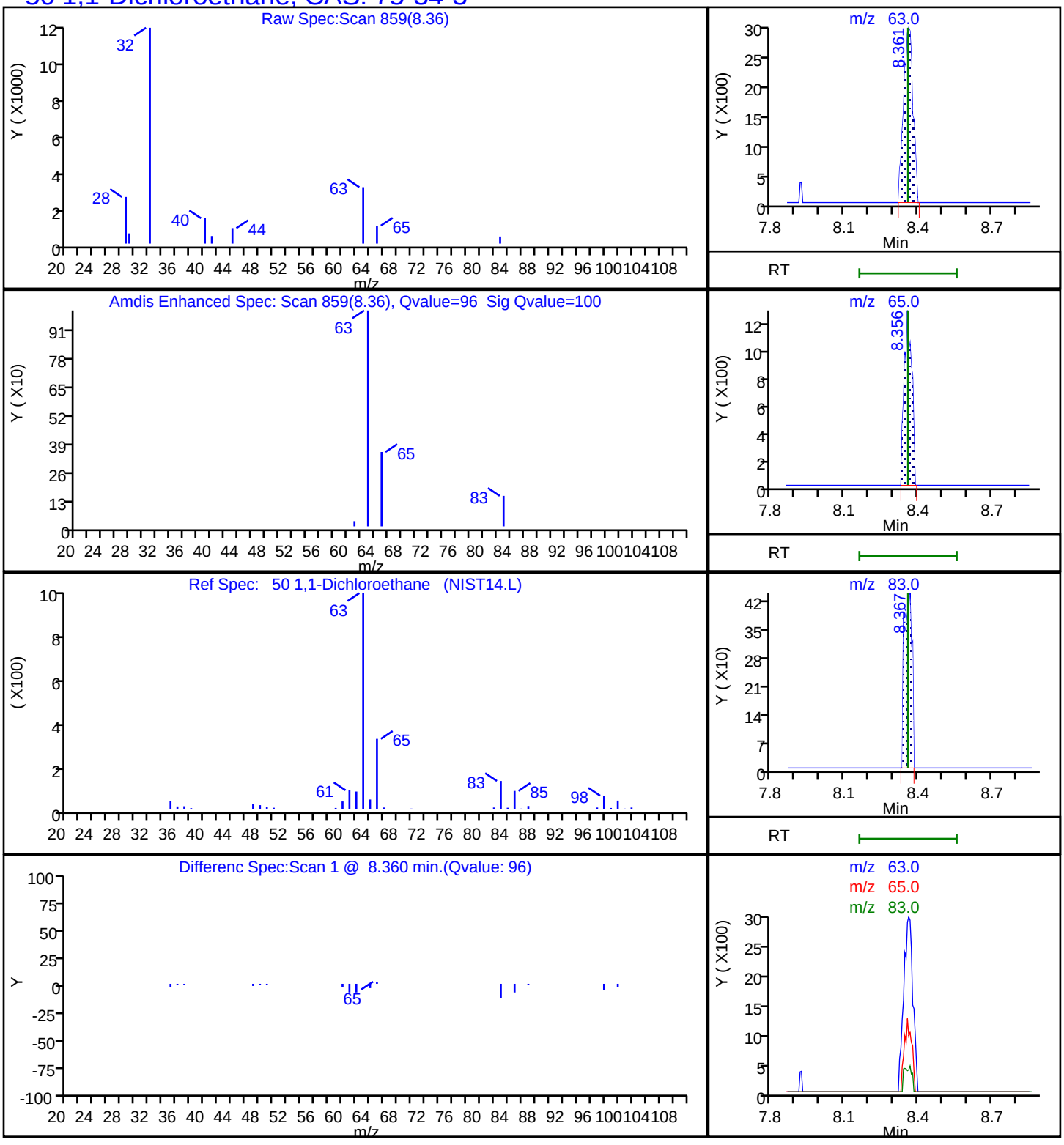


Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

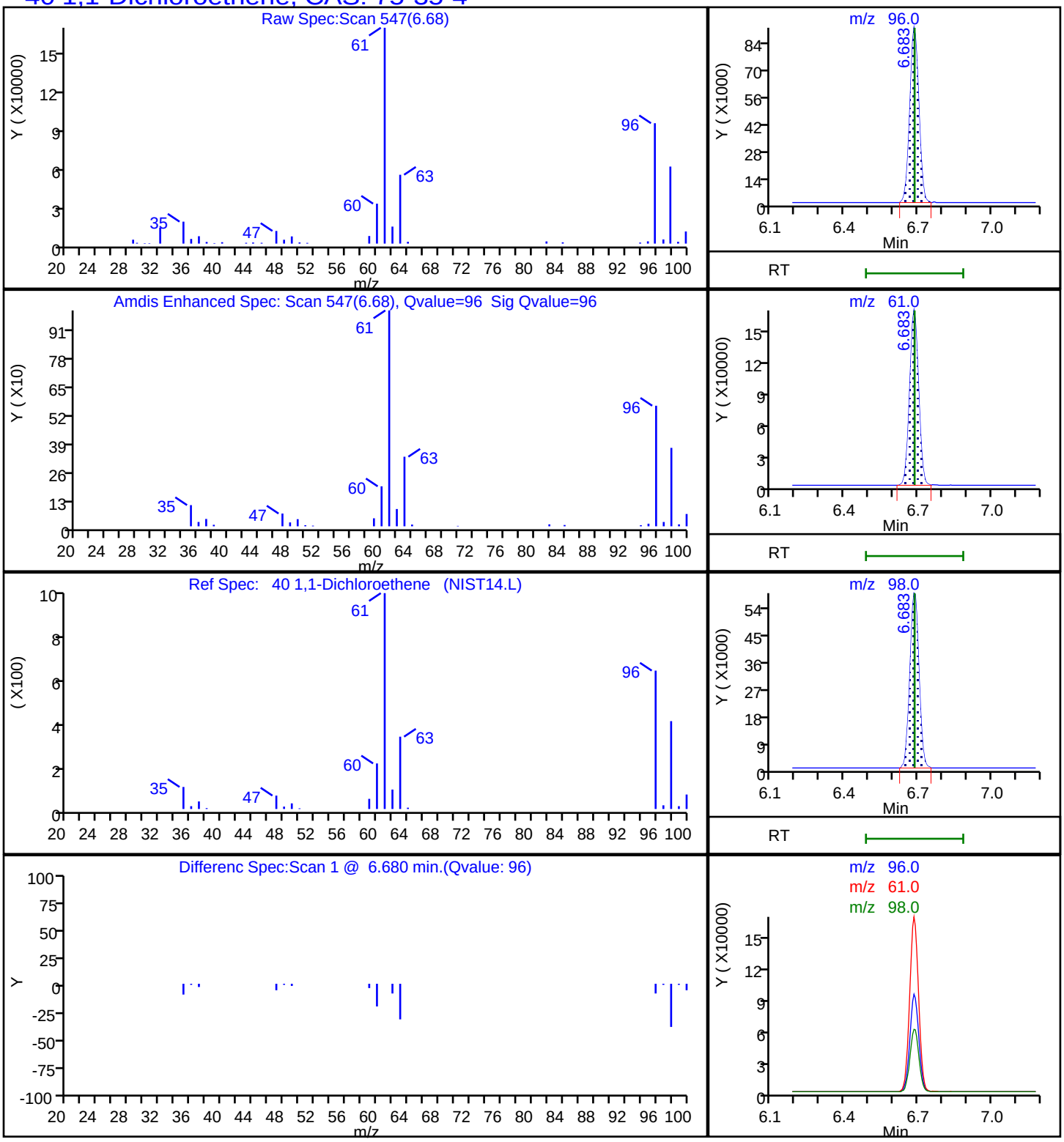
50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

40 1,1-Dichloroethene, CAS: 75-35-4



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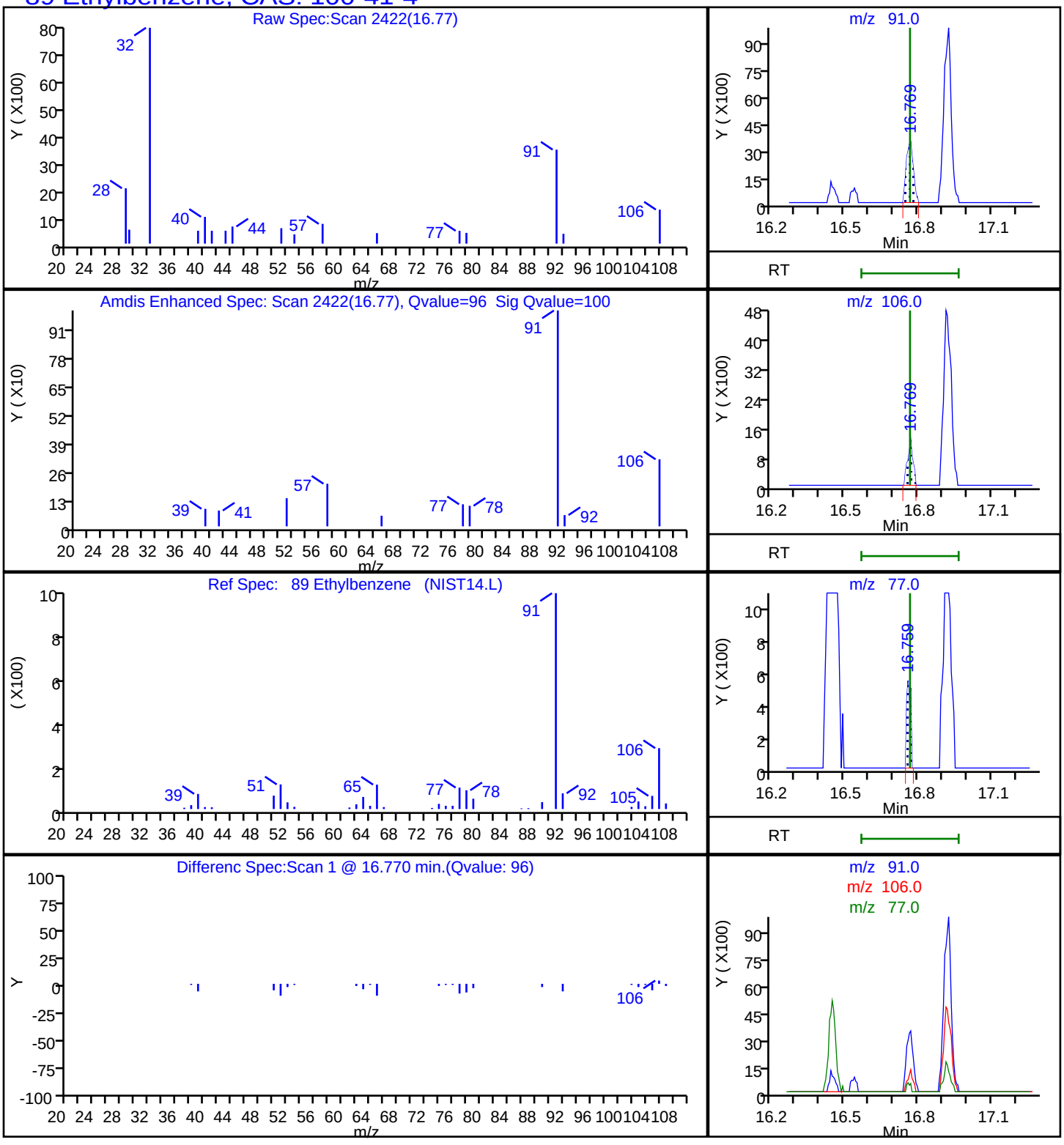
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4



Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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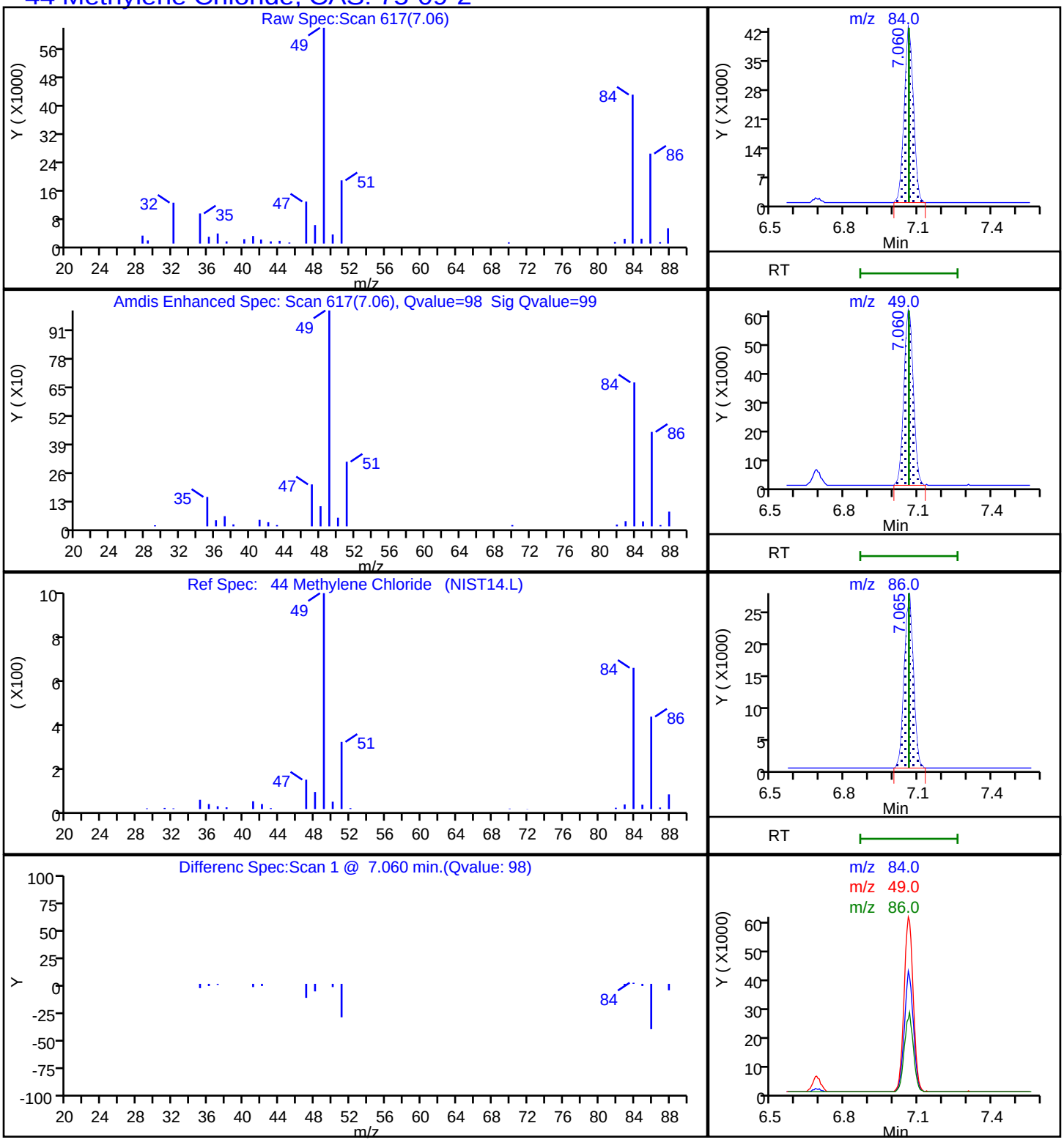
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

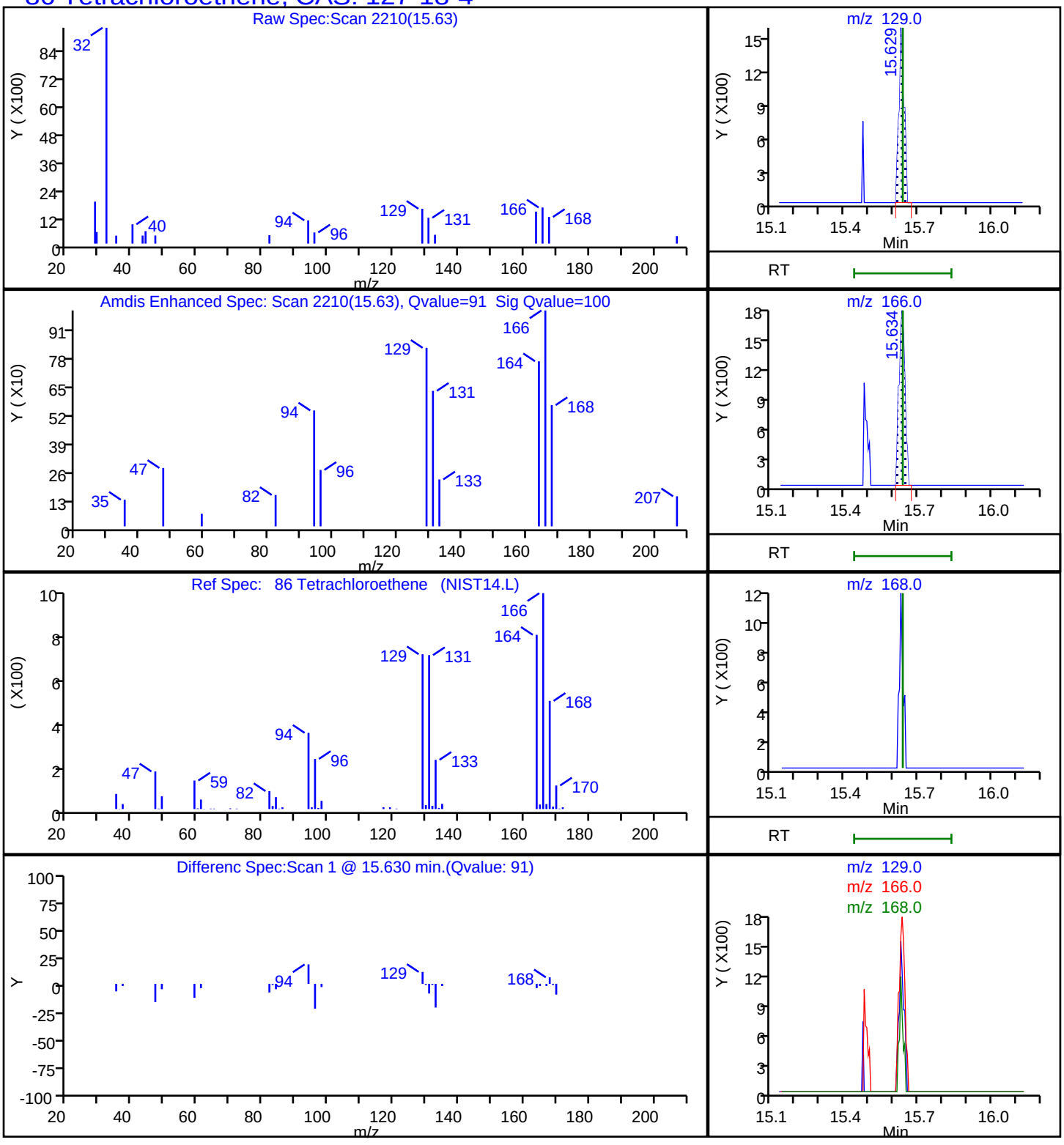
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

86 Tetrachloroethene, CAS: 127-18-4

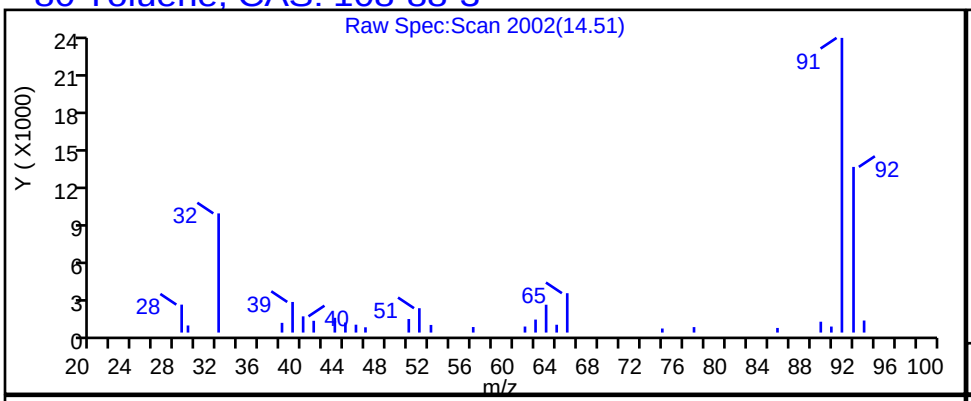


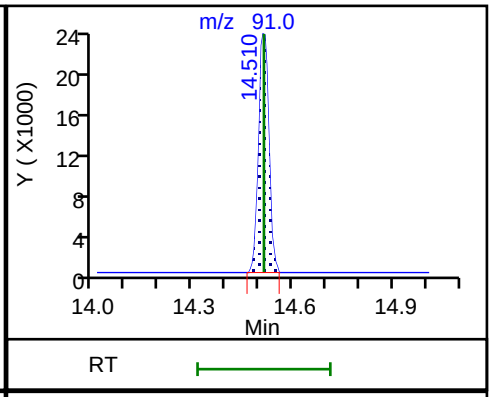
Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

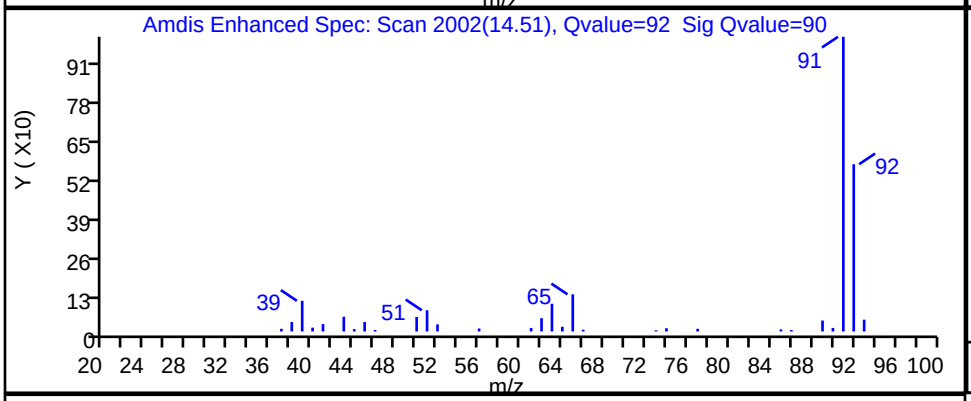
Eurofins TestAmerica, Knoxville

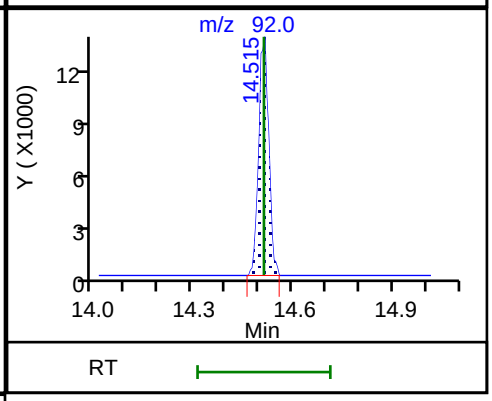
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D		
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17
Client ID:	SV-168-A-27		
Operator ID:	007126	ALS Bottle#:	13 Worklist Smp#: 23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

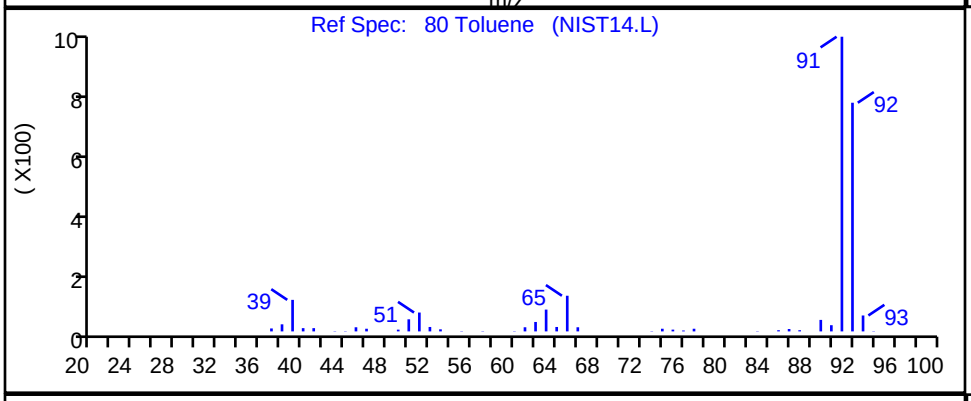
80 Toluene, CAS: 108-88-3

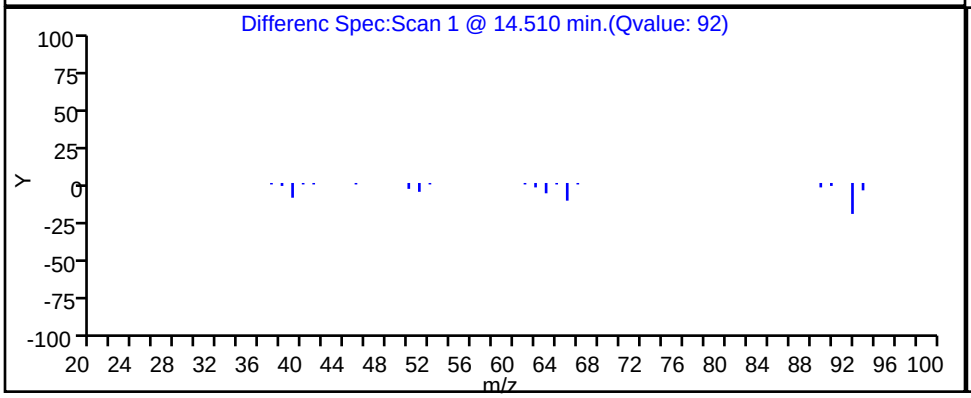


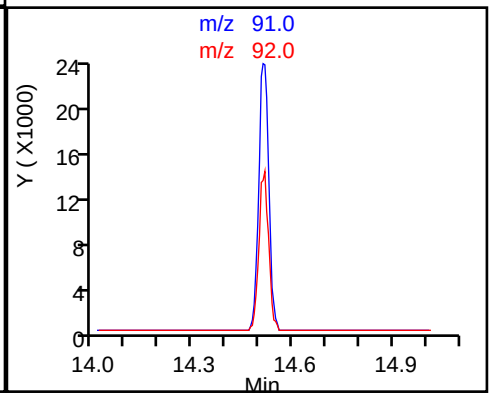








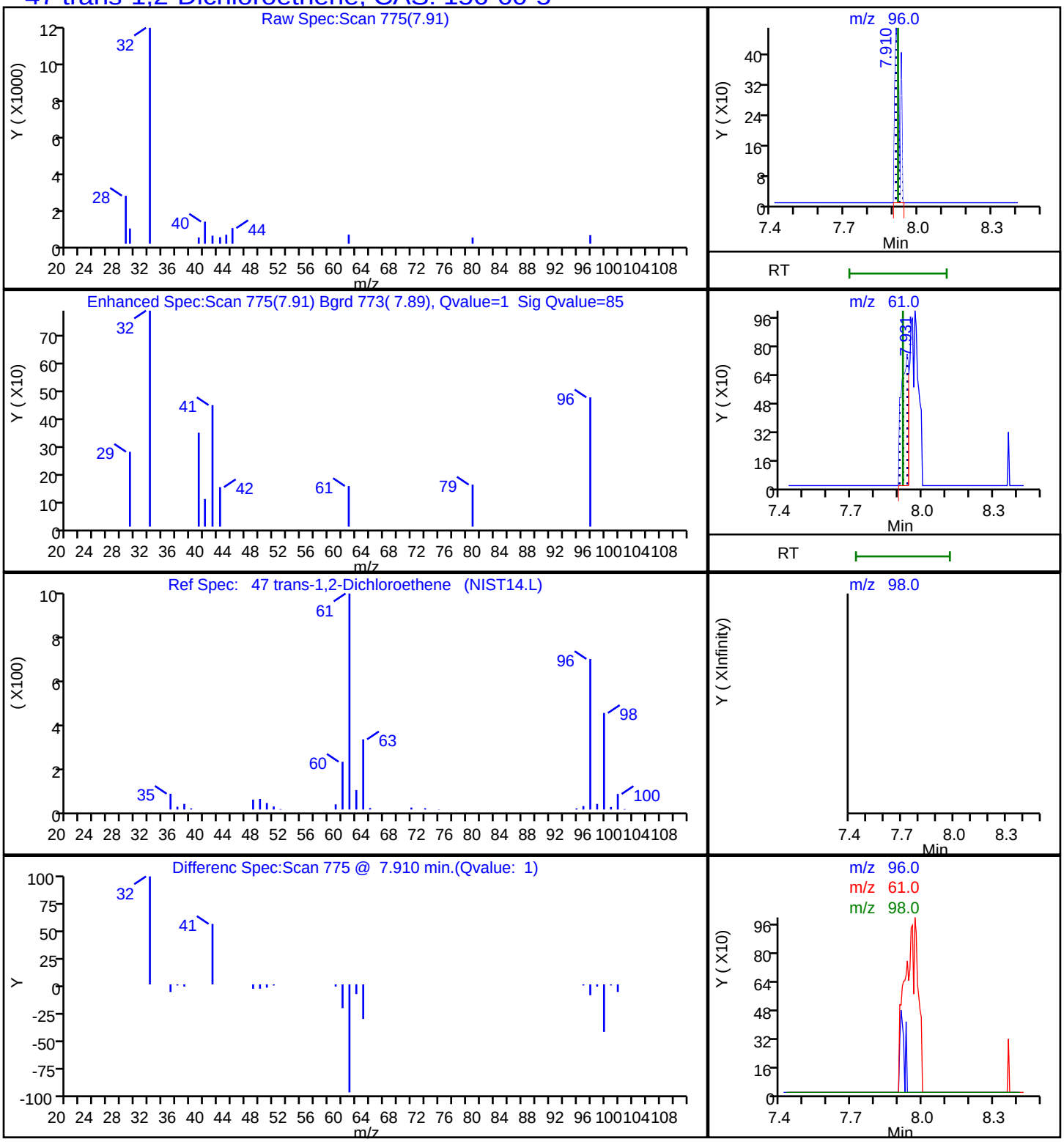




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

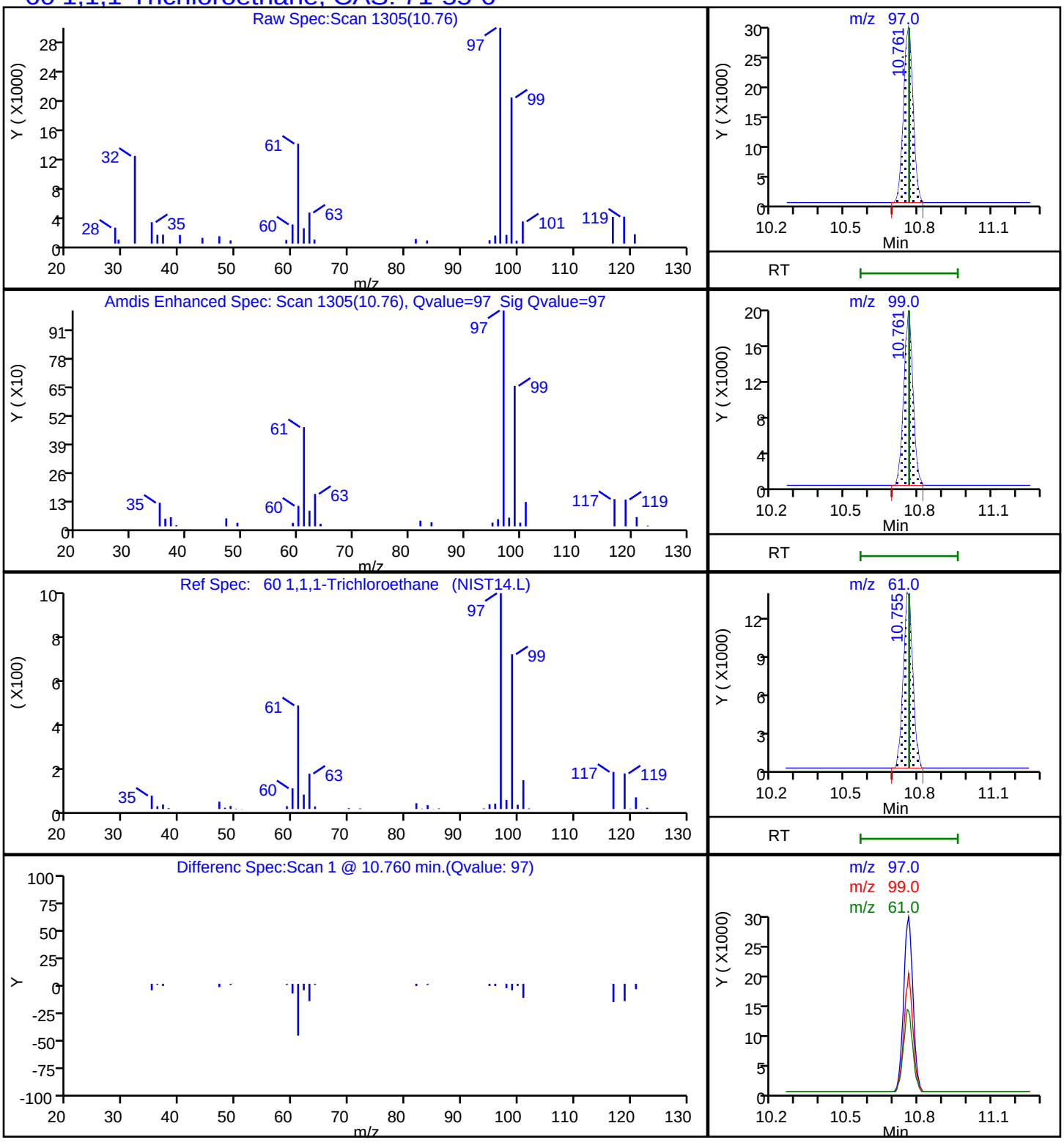
47 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

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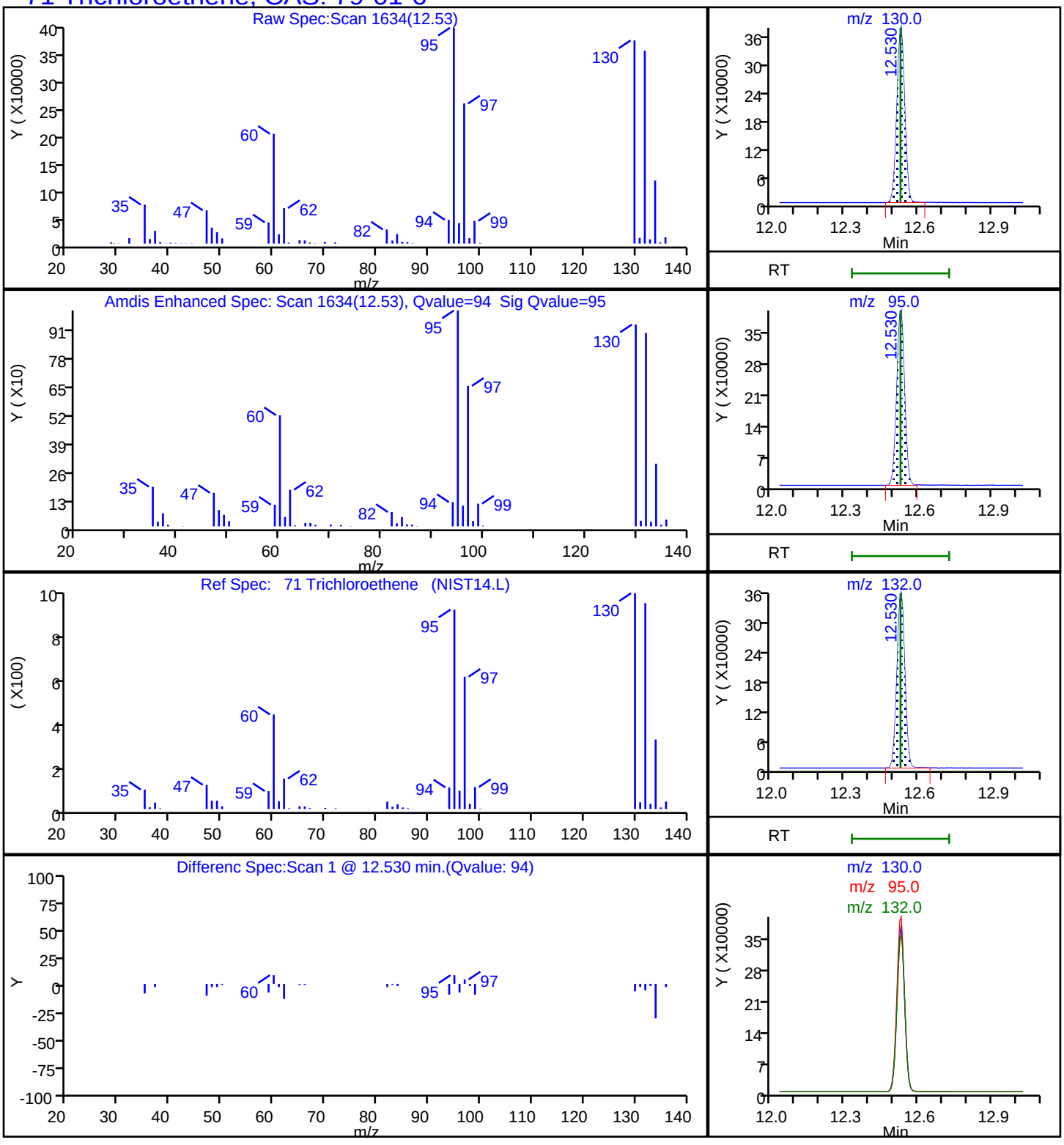
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6



Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

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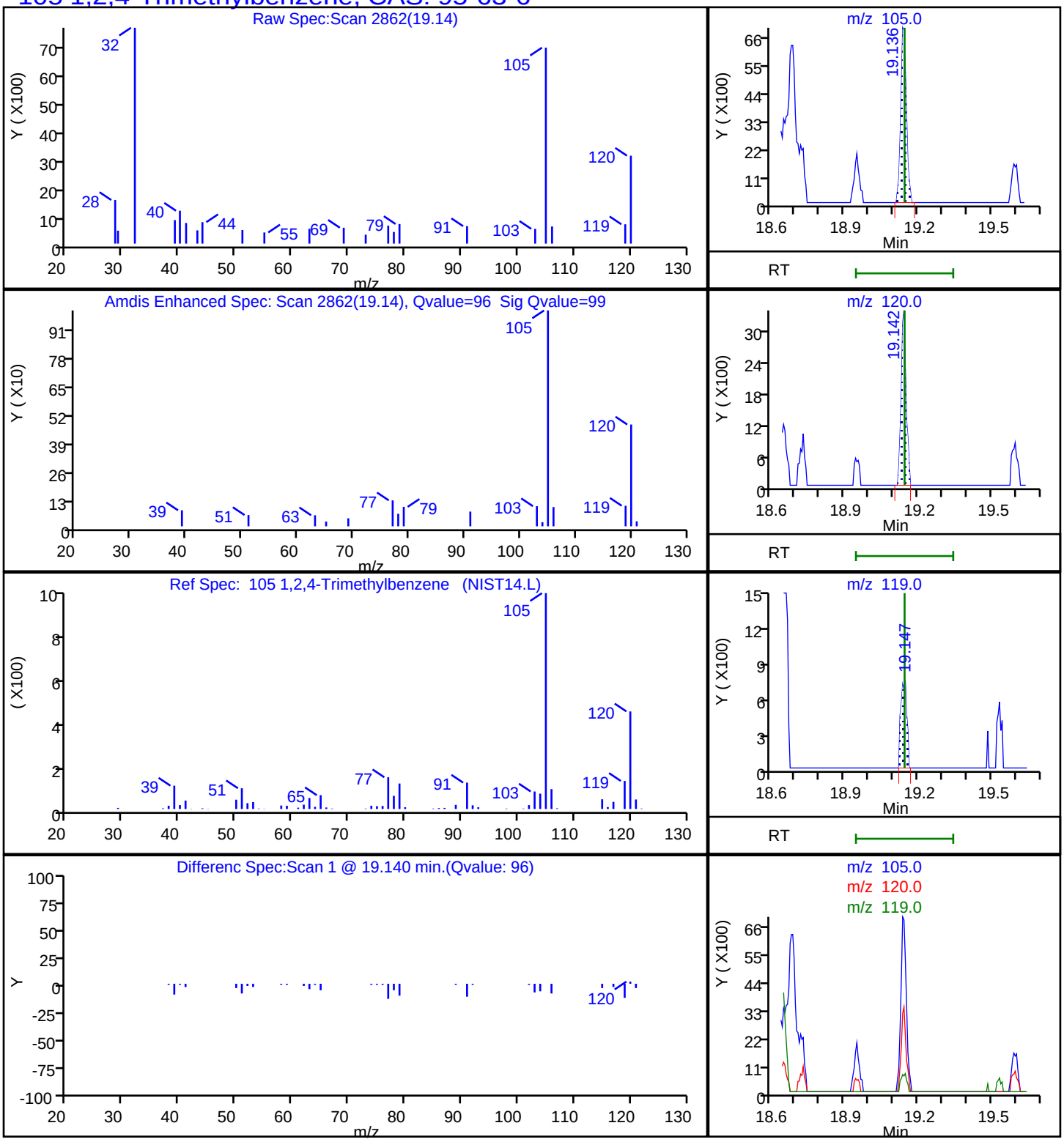
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

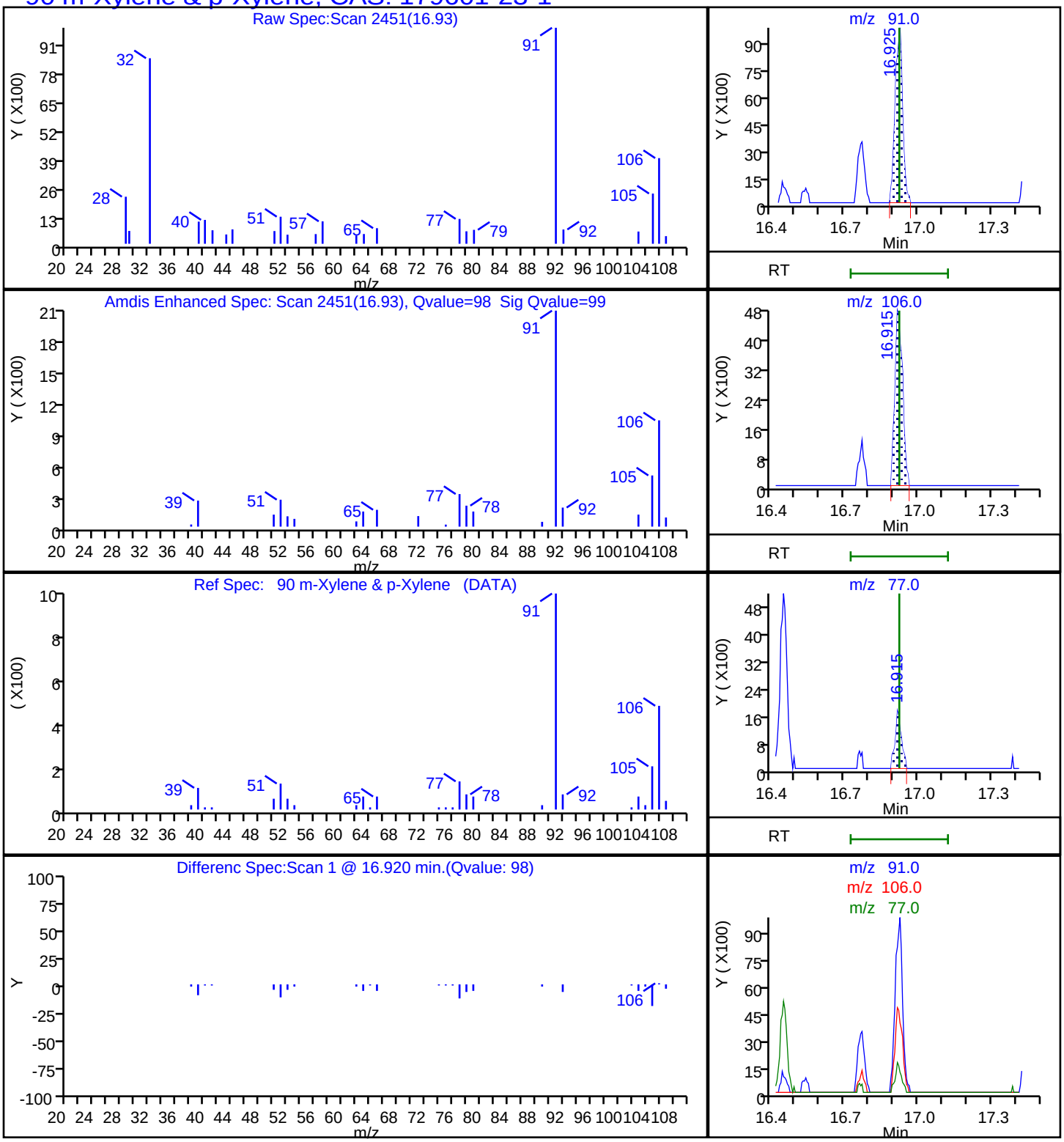


Report Date: 21-Aug-2019 14:07:32 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

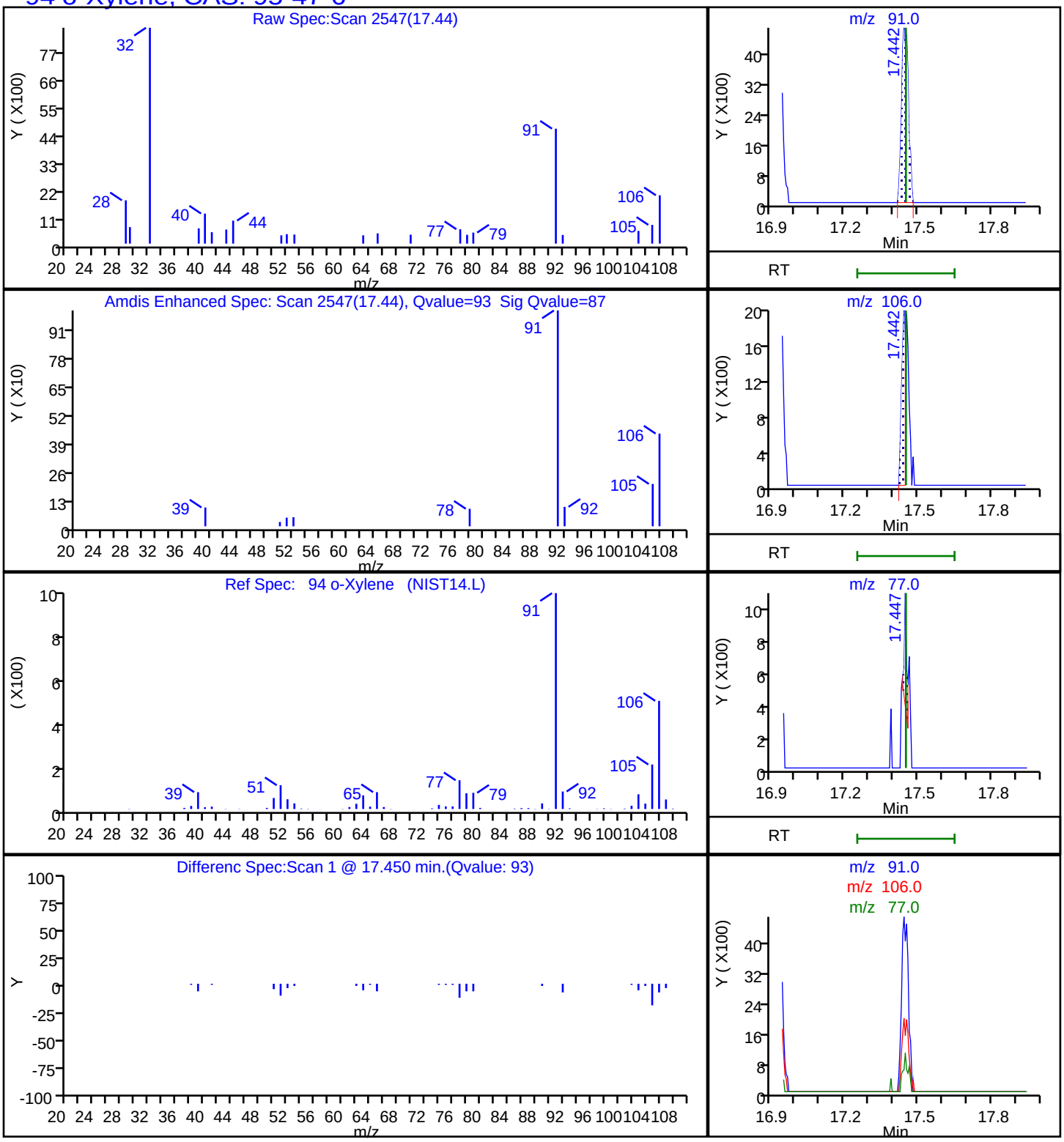
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P113.D				
Injection Date:	21-Aug-2019 02:20:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-17	Lab Sample ID:	140-16377-17		
Client ID:	SV-168-A-27				
Operator ID:	007126	ALS Bottle#:	13	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.038	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.1		0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.0		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	10		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.073	J	0.40	0.035
108-88-3	Toluene	92.14	2.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.56		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.5		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.8		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.24	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	11		1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.79	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	53		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.49	J	2.7	0.24
108-88-3	Toluene	92.14	7.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.0		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	7.3		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	17		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	8.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D
Lims ID: 140-16377-A-18
Client ID: SV-075-A-27
Sample Type: Client
Inject. Date: 21-Aug-2019 03:10:30 ALS Bottle#: 14 Worklist Smp#: 24
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-024
Misc. Info.: 140-16377-a-18
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 01:51:27 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 15:07:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.721	9.725	-0.004	96	182024	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.839	-0.004	96	932399	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.449	-0.004	89	794687	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.043	18.042	-0.004	95	533843	3.66	
19 Chlorodifluoromethane	51	4.153	4.150	0.001	96	30728	0.6177	
21 Dichlorodifluoromethane	85	4.223	4.225	-0.004	96	5375	0.0943	
44 Methylene Chloride	84	7.058	7.059	-0.004	98	95420	1.39	
57 Chloroform	83	9.726	9.726	-0.004	31	1203	0.008144	
60 1,1,1-Trichloroethane	97	10.764	10.759	0.001	75	1971	0.0124	
65 Carbon tetrachloride	117	11.345	11.351	-0.010	23	1099	0.007675	
71 Trichloroethene	130	12.529	12.523	0.001	93	8642	0.1121	
80 Toluene	91	14.509	14.509	-0.004	92	80941	0.4216	
86 Tetrachloroethene	129	15.633	15.633	-0.004	87	1119	0.0145	
89 Ethylbenzene	91	16.763	16.762	-0.005	97	8970	0.0363	
90 m-Xylene & p-Xylene	91	16.919	16.918	-0.004	98	31062	0.1637	
94 o-Xylene	91	17.446	17.445	-0.004	99	17824	0.0883	
101 1,3,5-Trimethylbenzene	120	18.721	18.720	-0.004	93	37787	0.3609	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	-0.004	98	160622	0.6904	
111 1,2,3-Trimethylbenzene	105	19.597	19.591	0.001	98	68204	0.2990	
122 Naphthalene	128	21.690	21.683	0.001	99	413421	2.03	
S 129 Xylenes, Total	100				0		0.2521	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

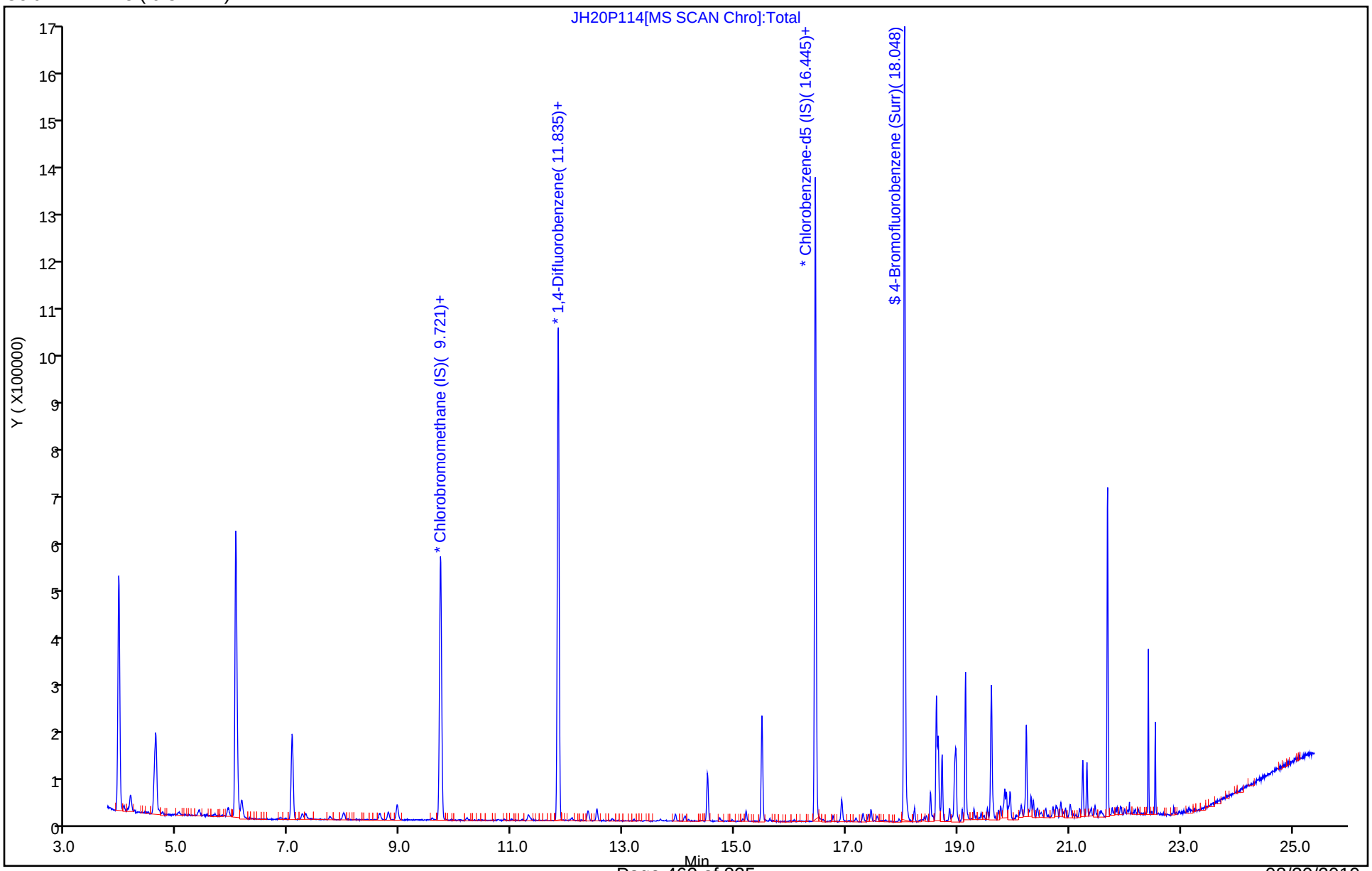
Report Date: 21-Aug-2019 15:07:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D

Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18	Worklist Smp#:	24
Client ID:	SV-075-A-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Lims ID:	140-16377-A-18				
Client ID:	SV-075-A-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 03:10:30	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-024				
Misc. Info.:	140-16377-a-18				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 01:51:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

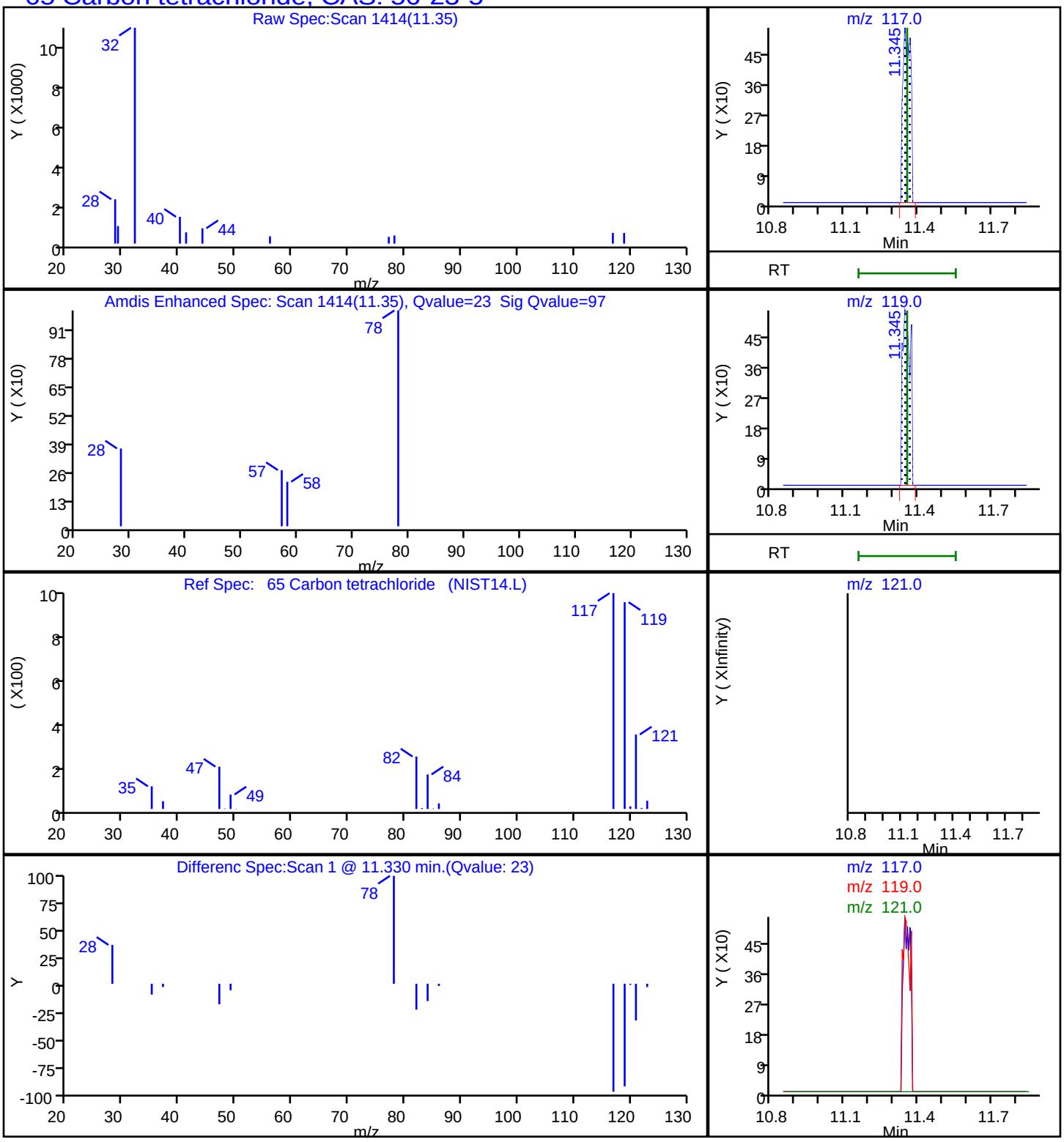
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 15:07:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.66	91.38

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5

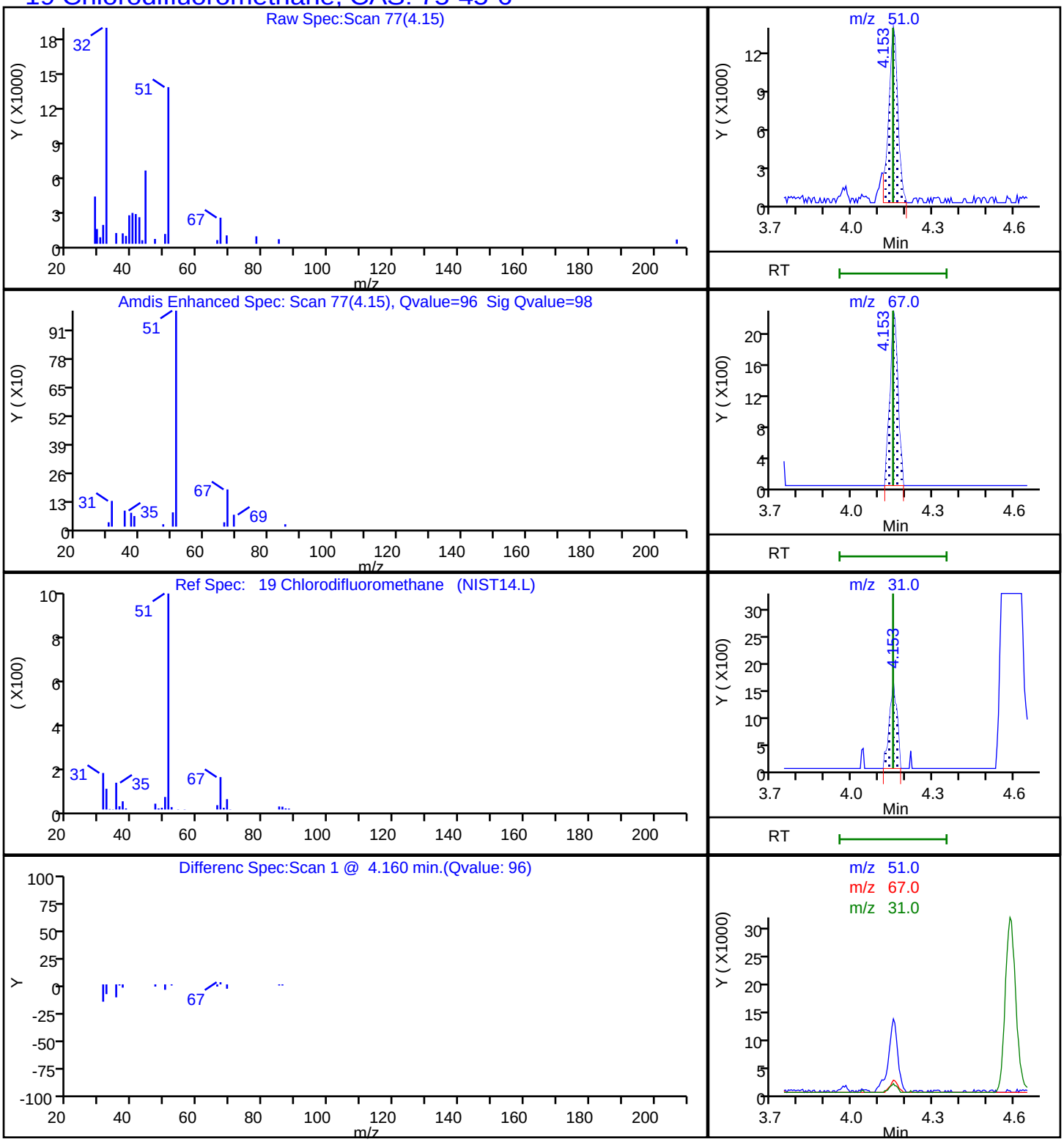


Report Date: 21-Aug-2019 15:07:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D		
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18
Client ID:	SV-075-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

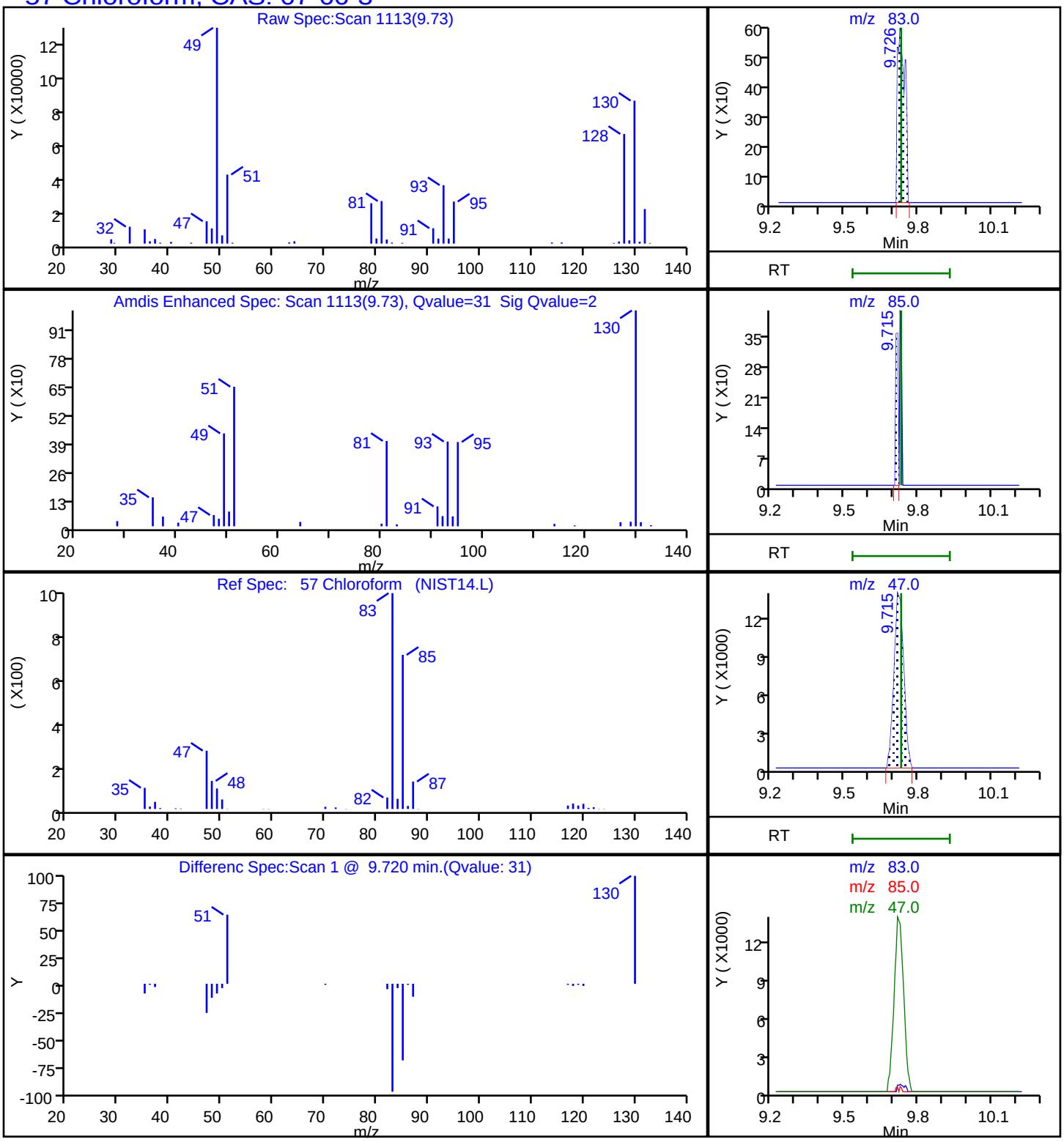
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D		
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18
Client ID:	SV-075-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

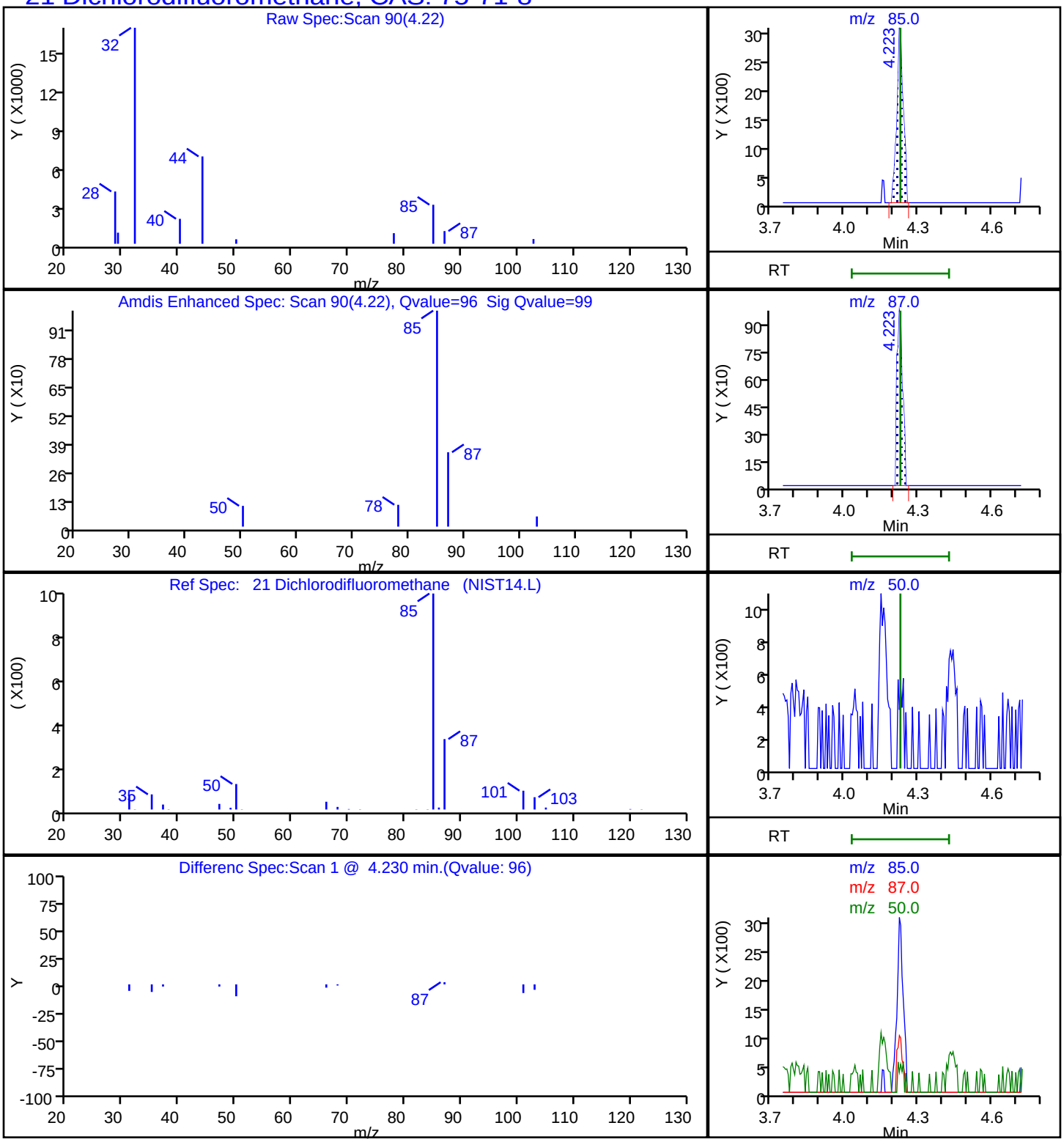
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

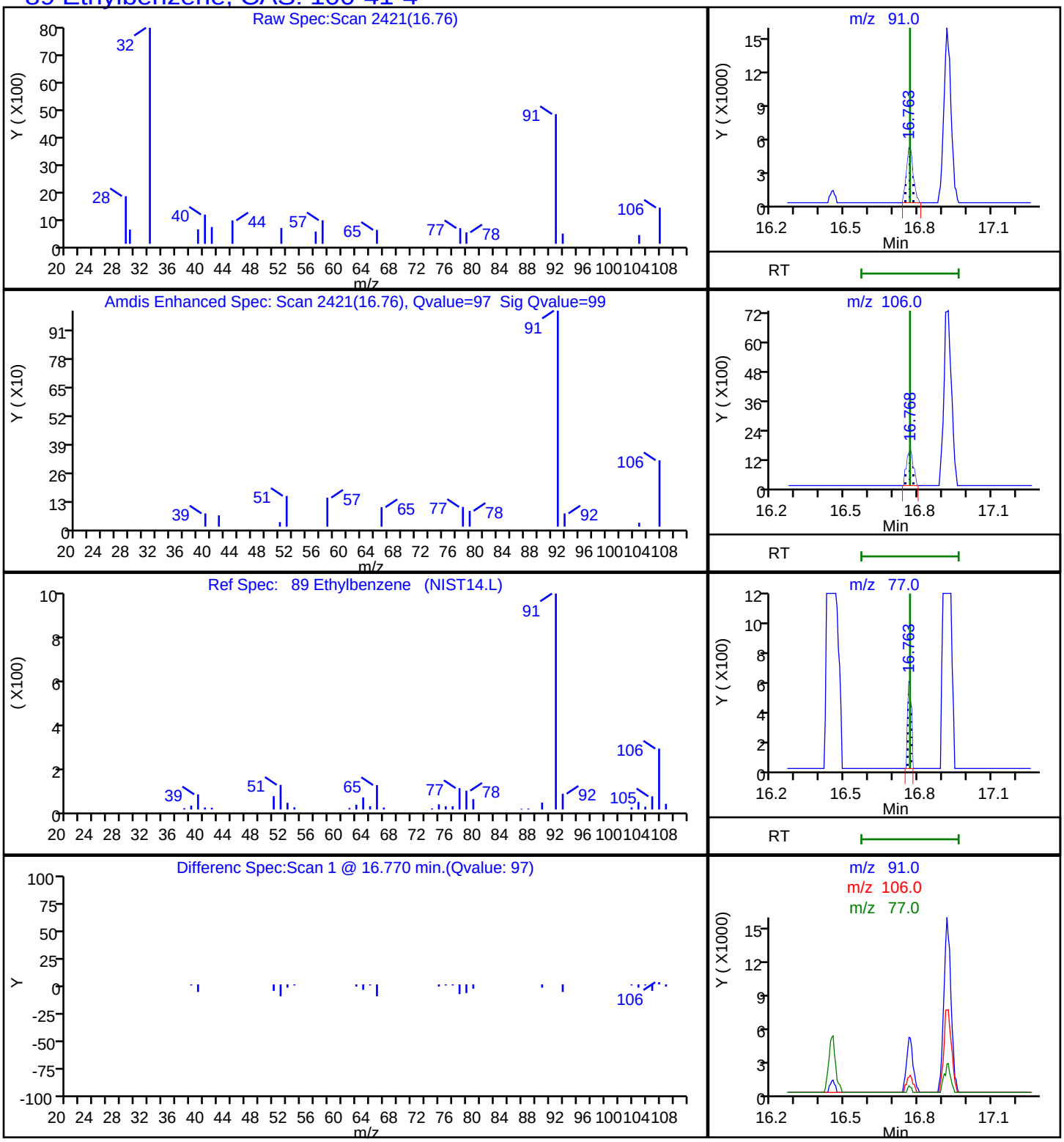
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

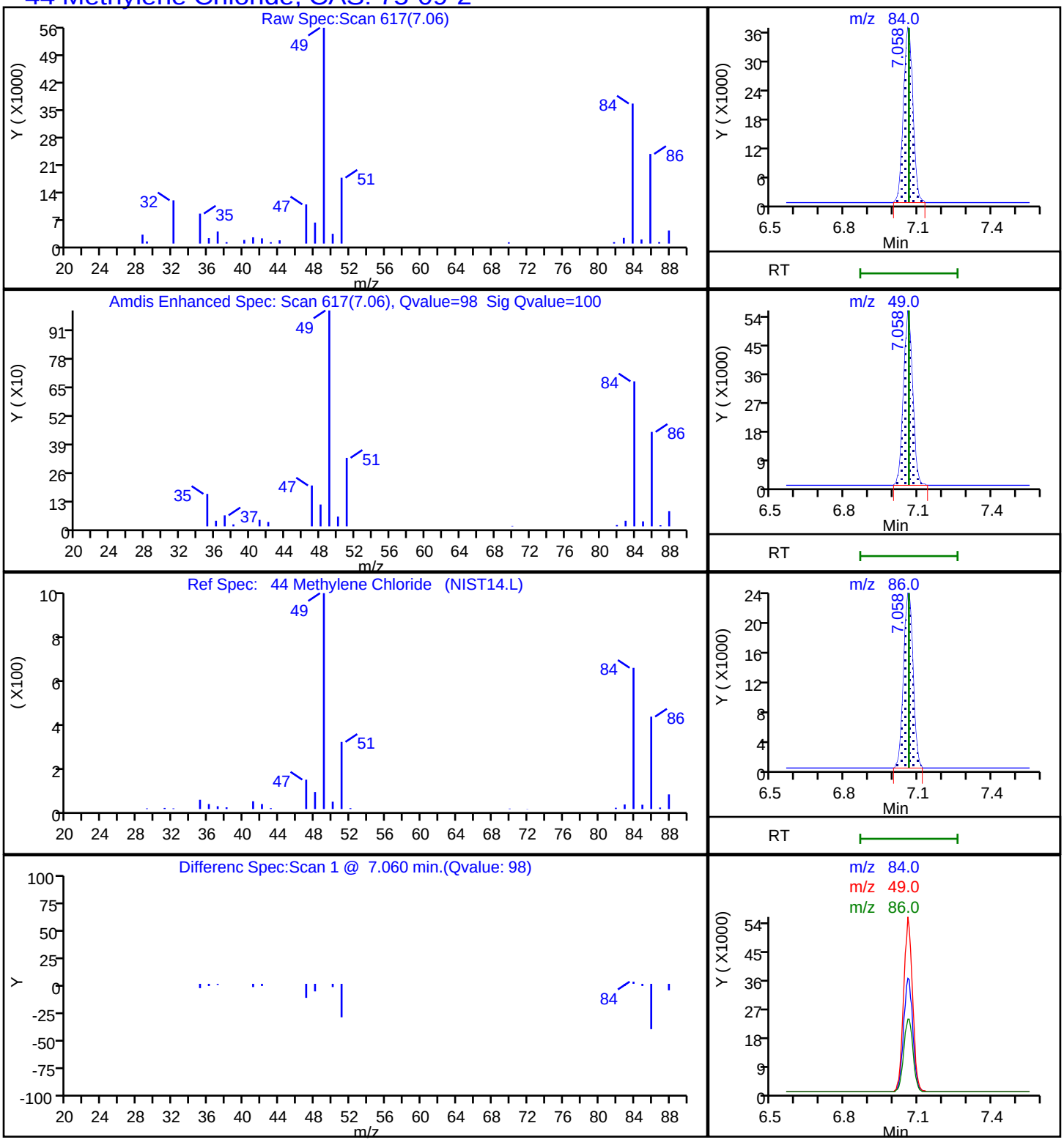


Report Date: 21-Aug-2019 15:07:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

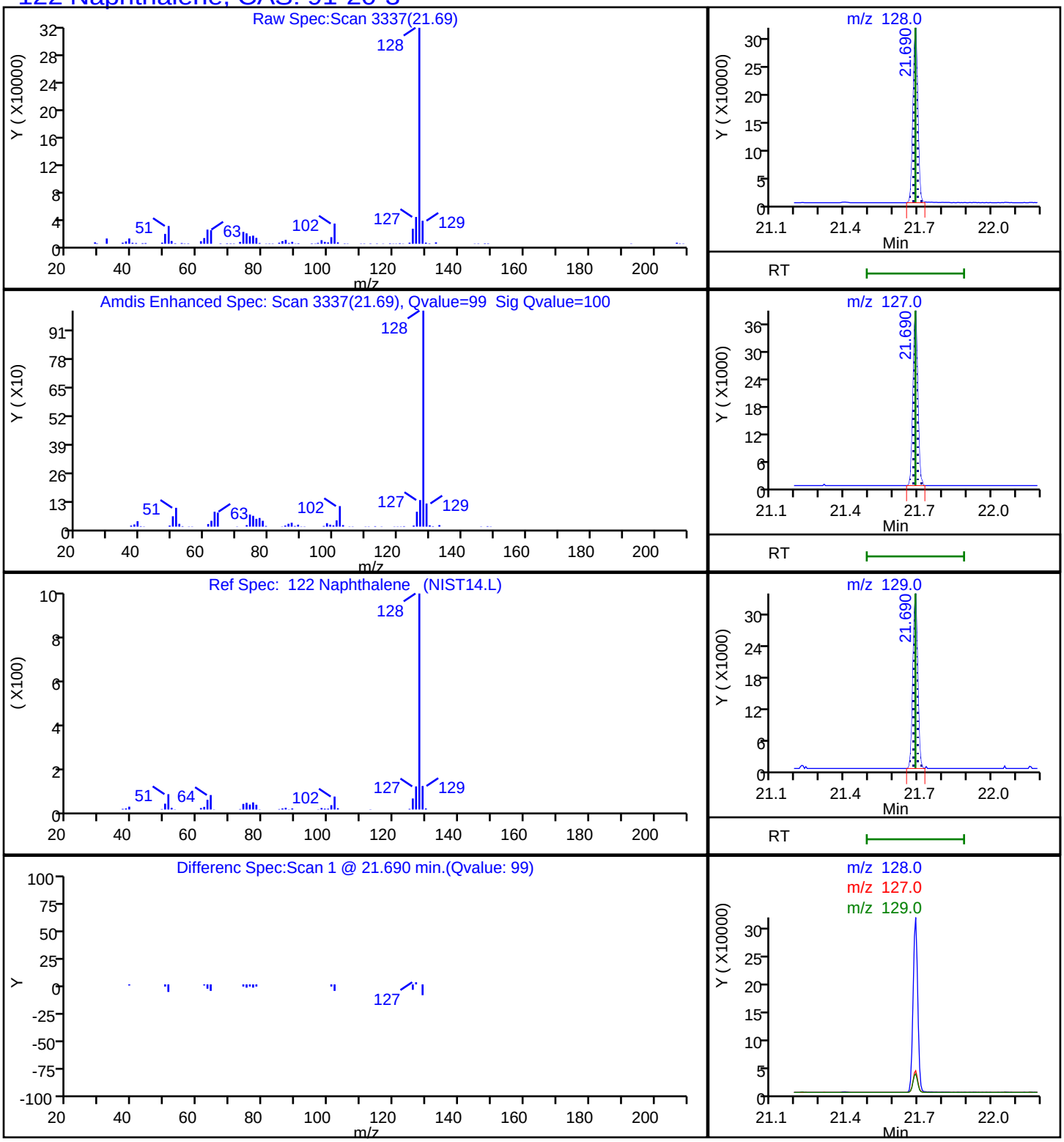
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

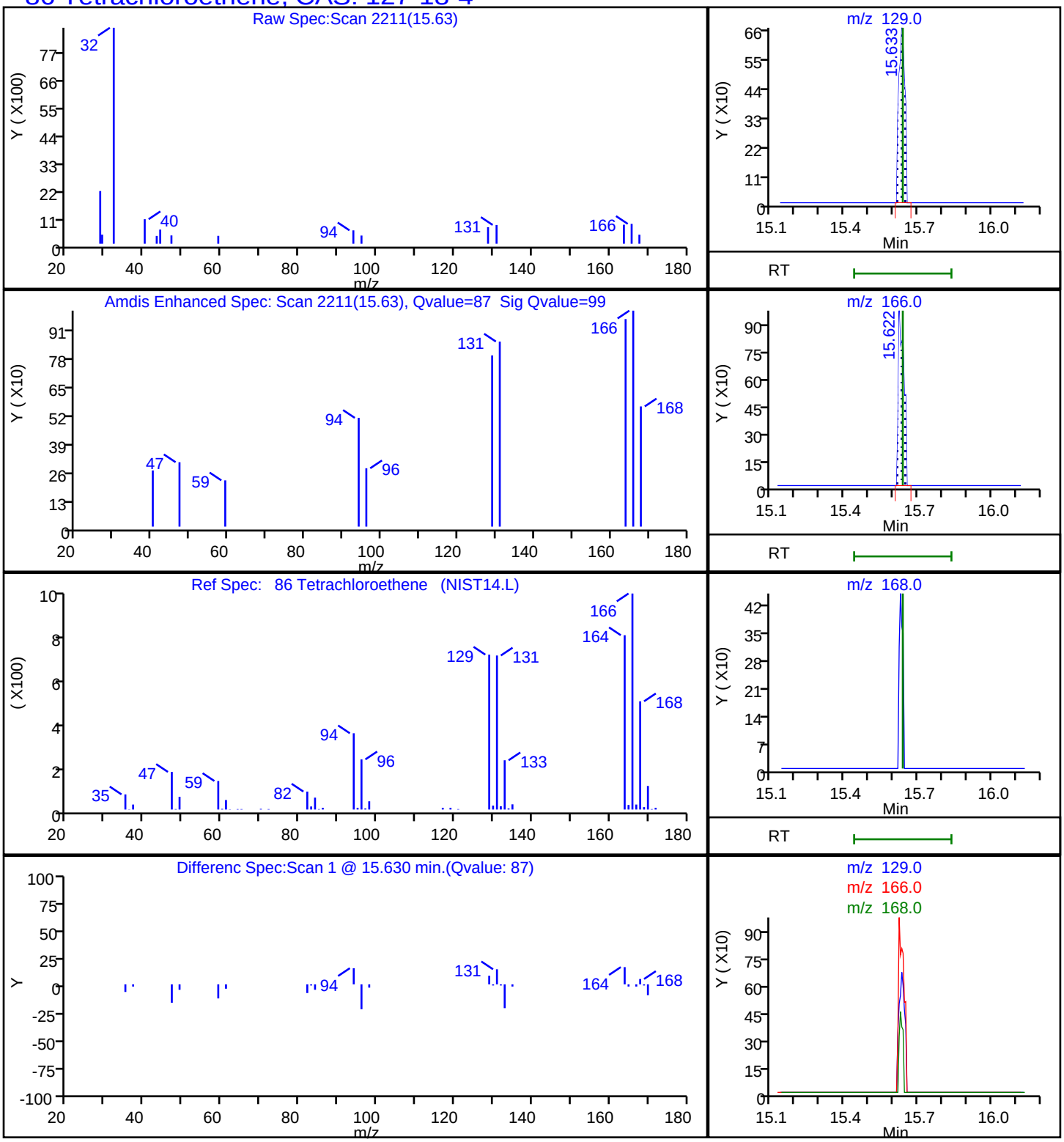
122 Naphthalene, CAS: 91-20-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

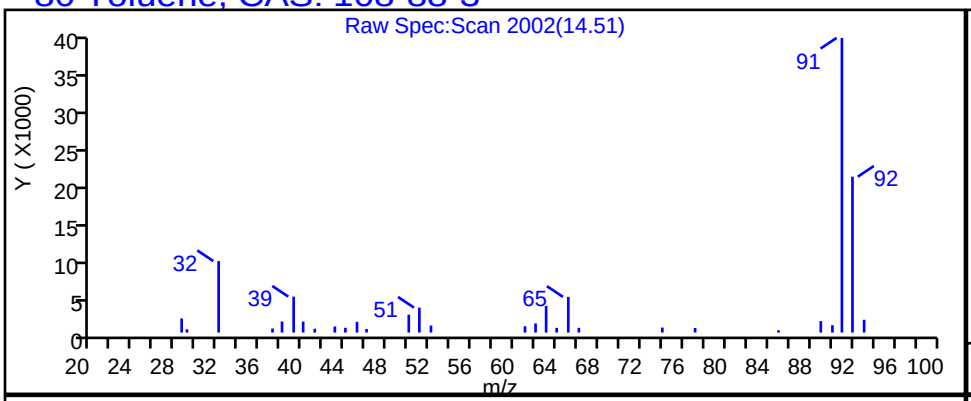
86 Tetrachloroethene, CAS: 127-18-4

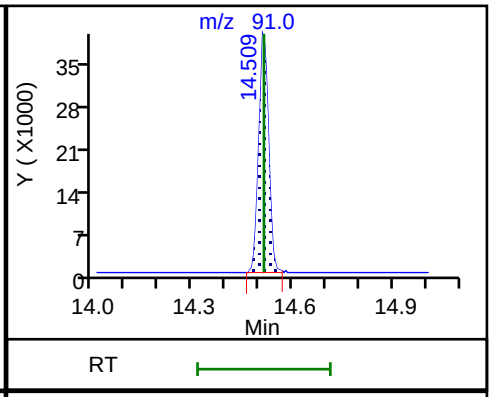


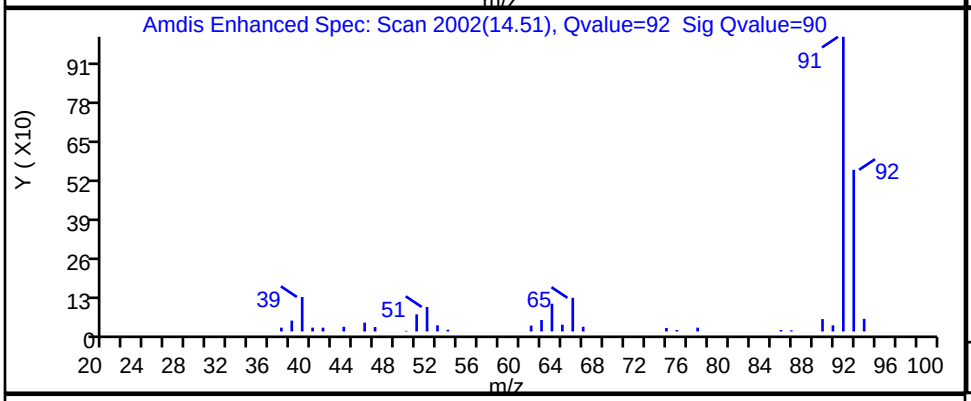
Eurofins TestAmerica, Knoxville

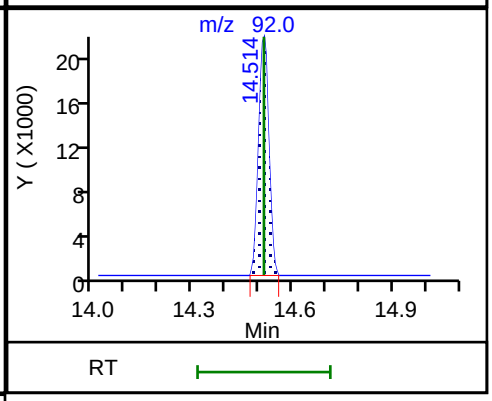
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

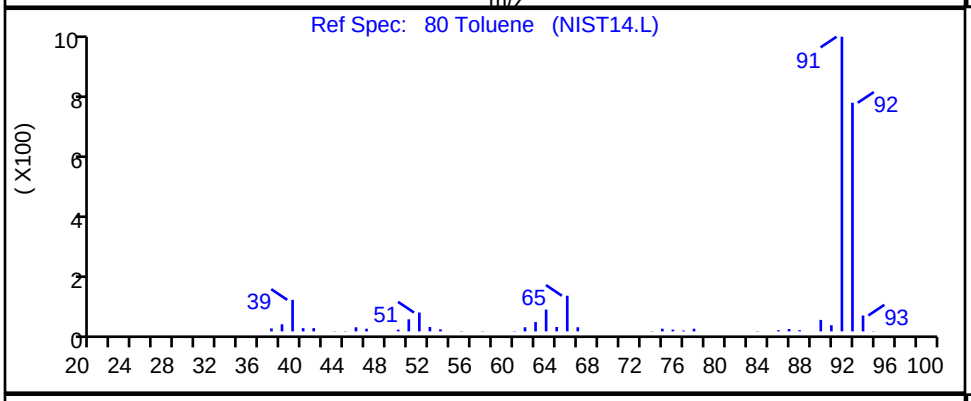
80 Toluene, CAS: 108-88-3

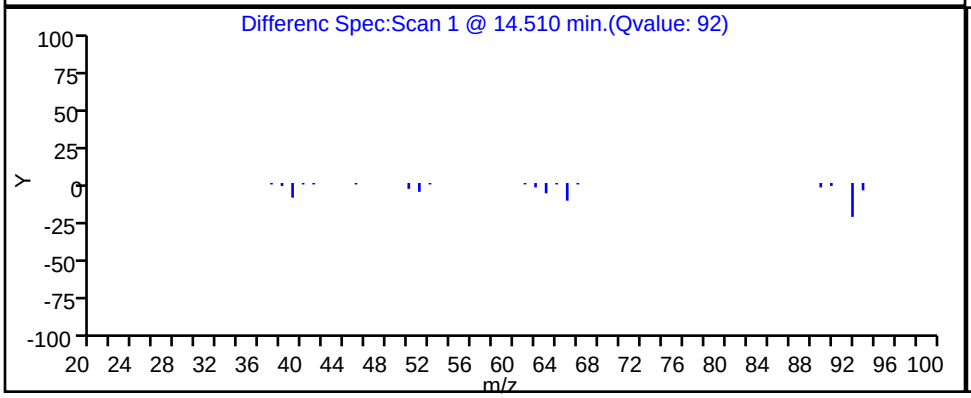


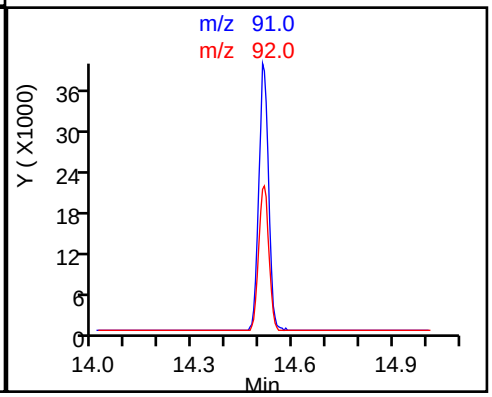








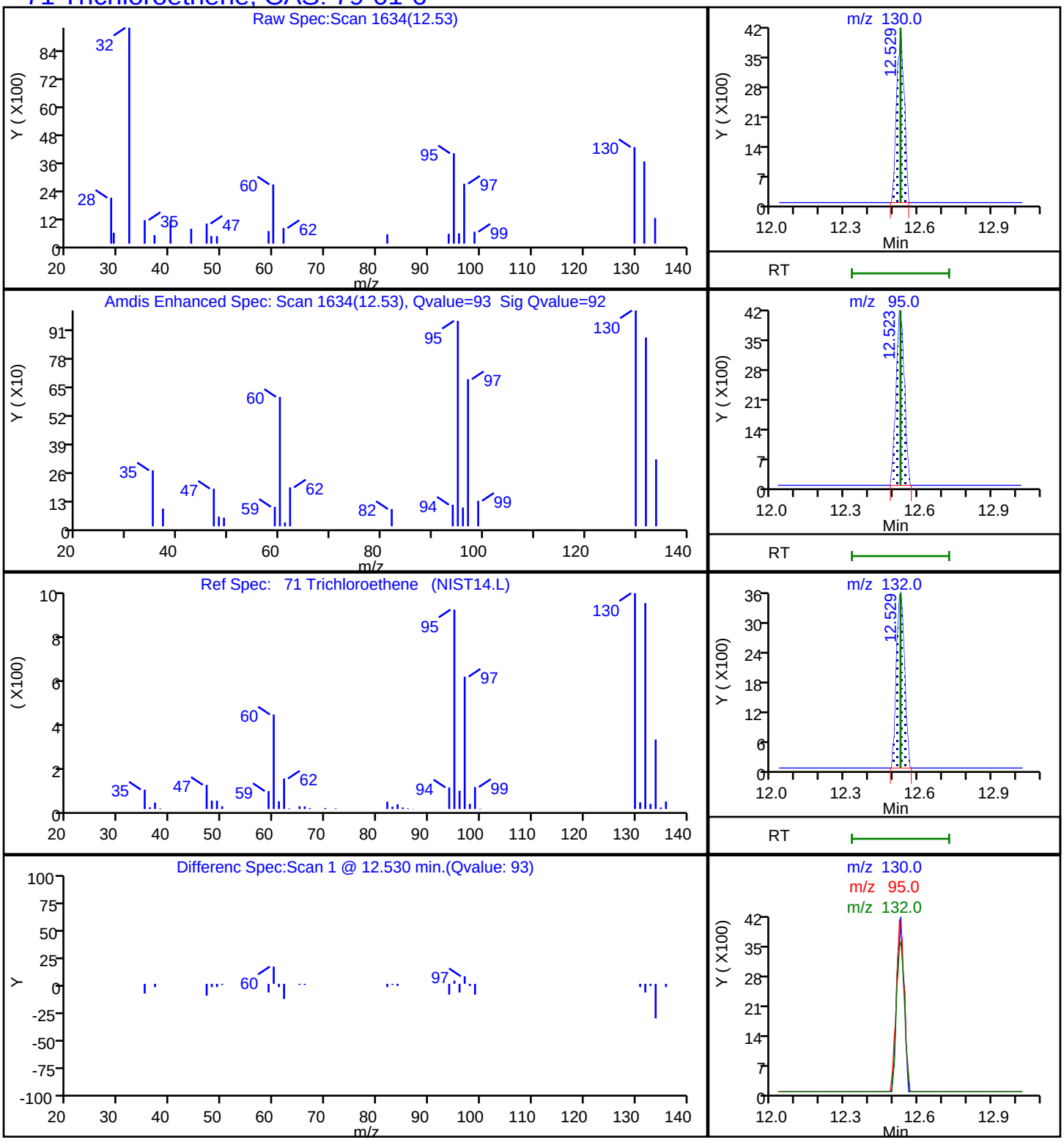




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

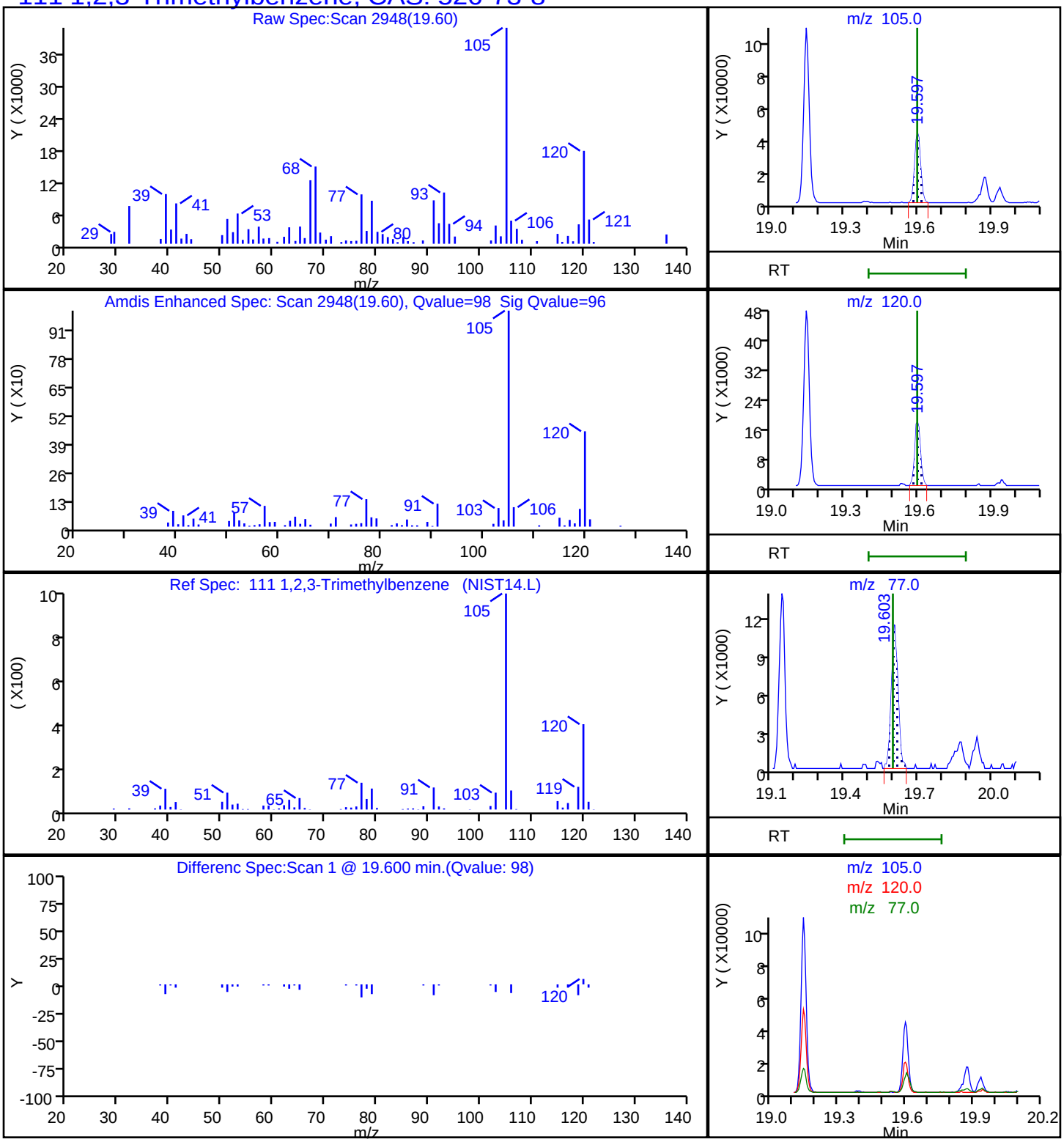
71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D		
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18
Client ID:	SV-075-A-27		
Operator ID:	007126	ALS Bottle#:	14 Worklist Smp#: 24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

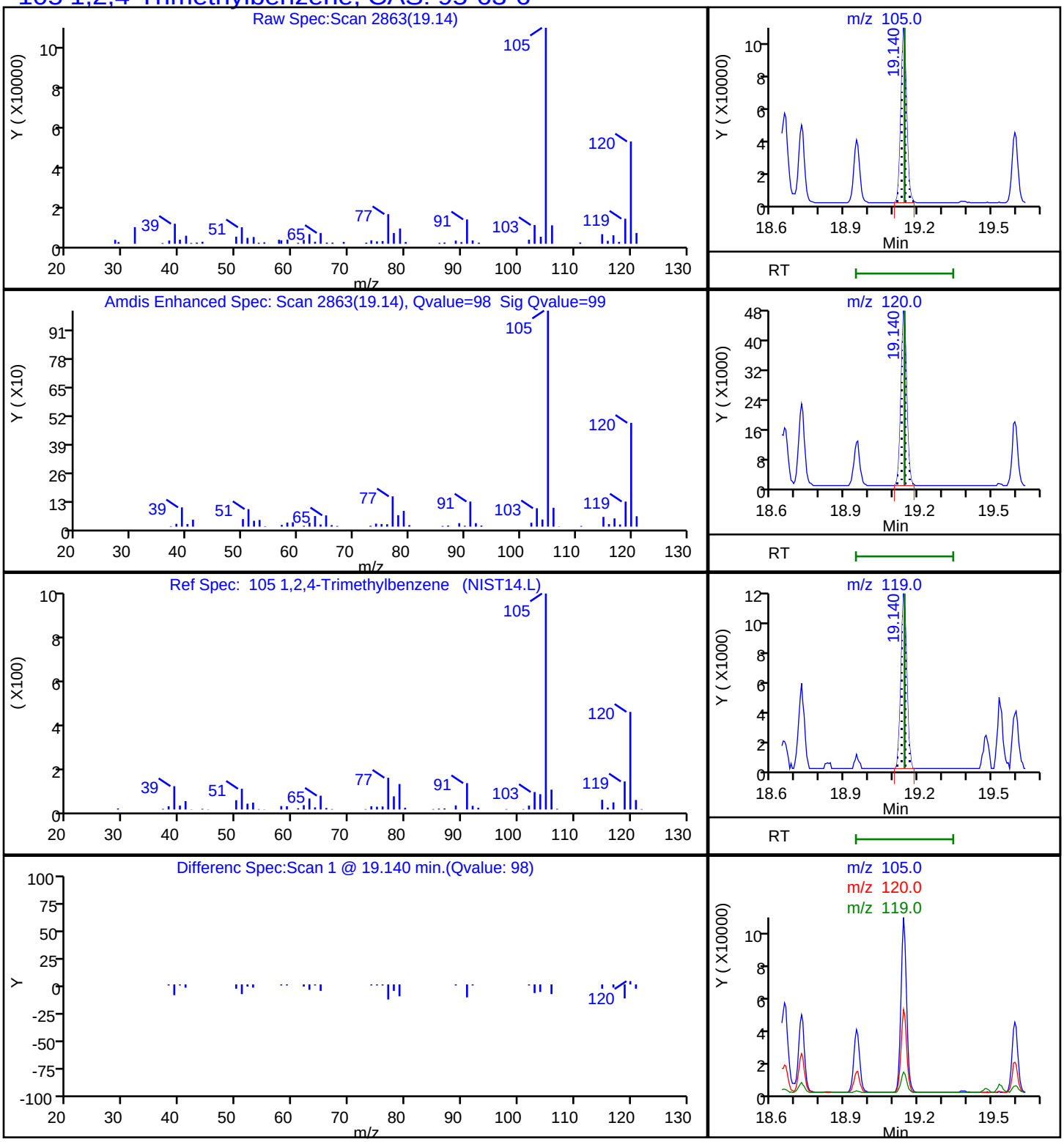


Report Date: 21-Aug-2019 15:07:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

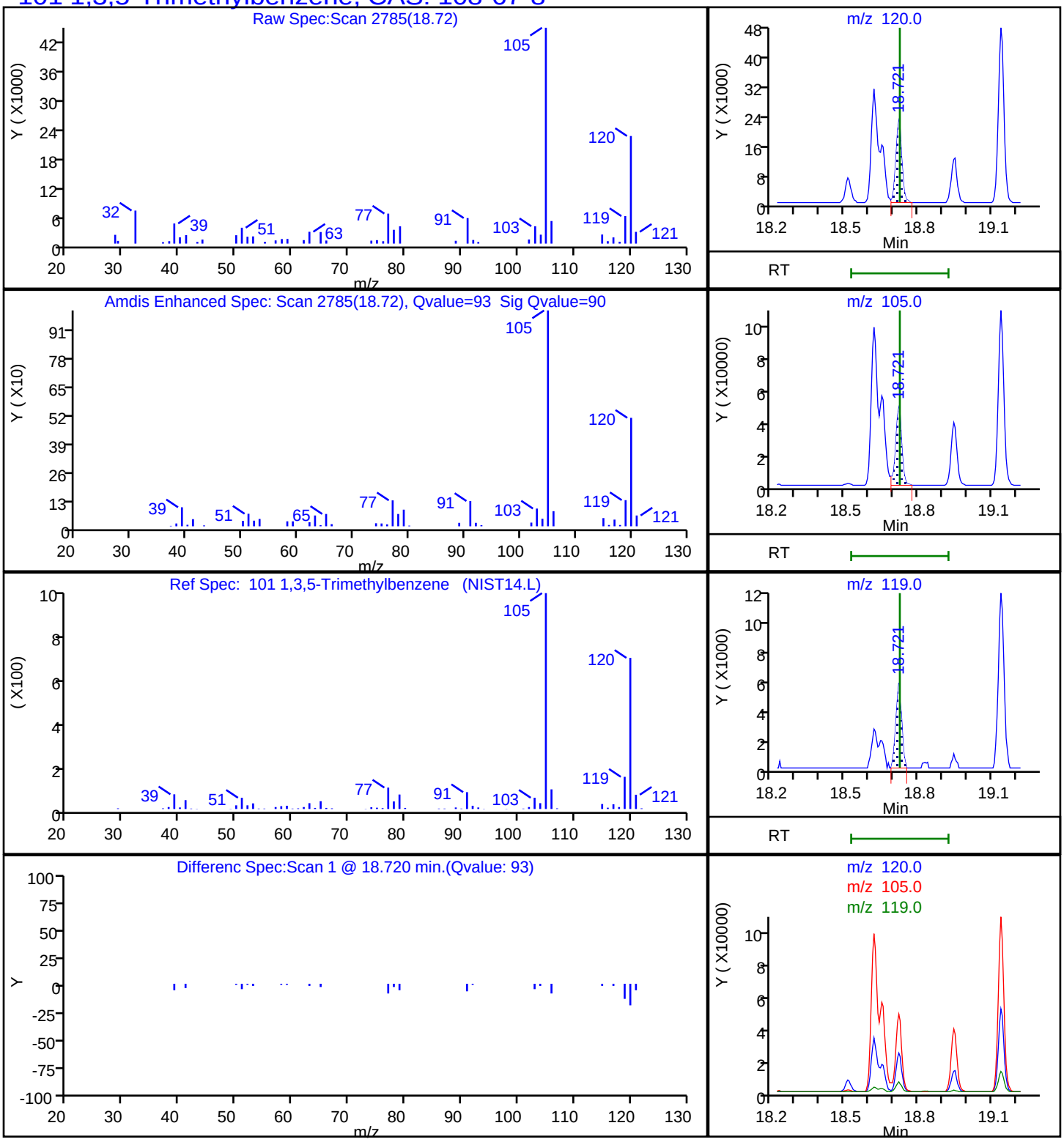


Report Date: 21-Aug-2019 15:07:04 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

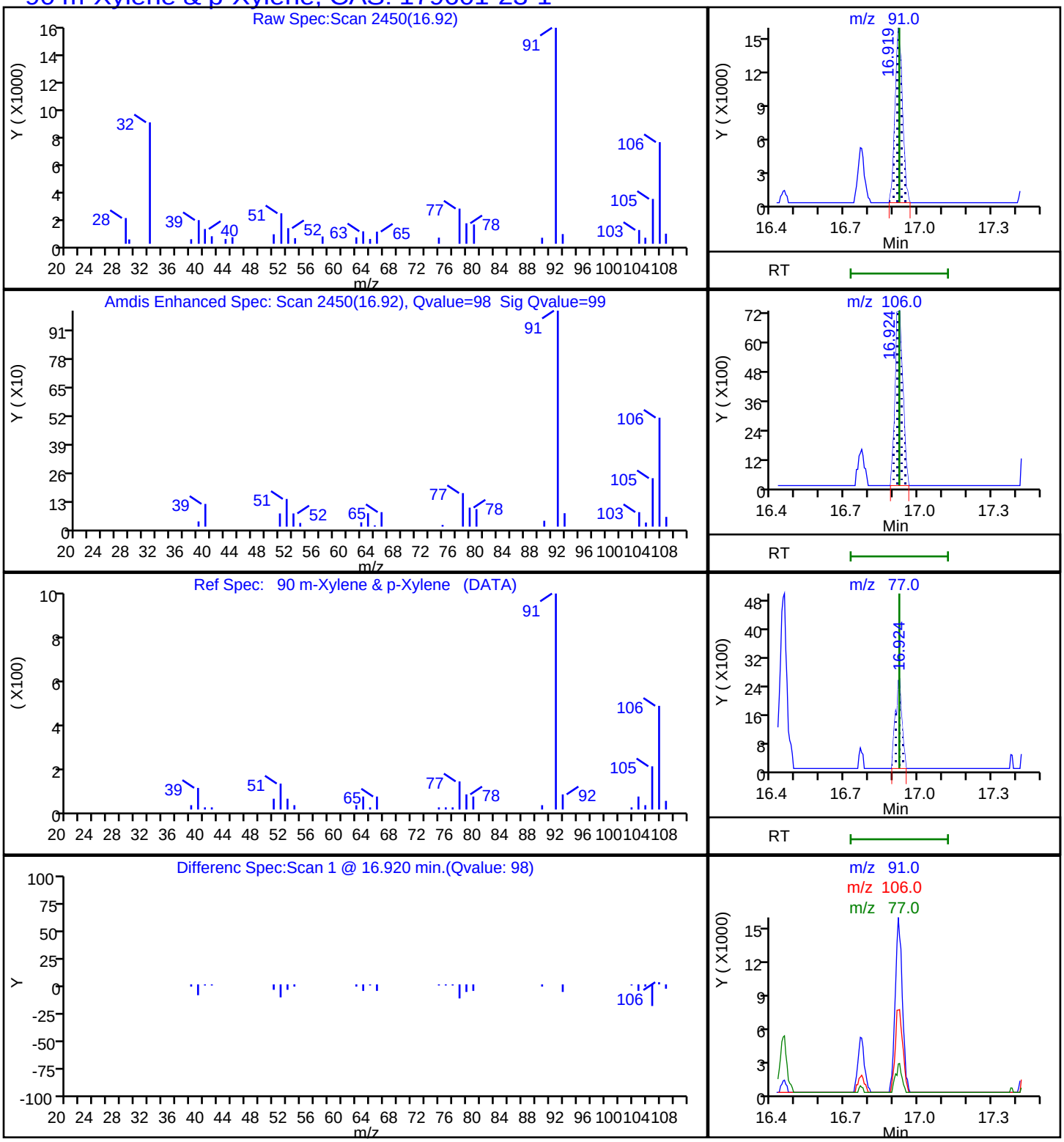
101 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

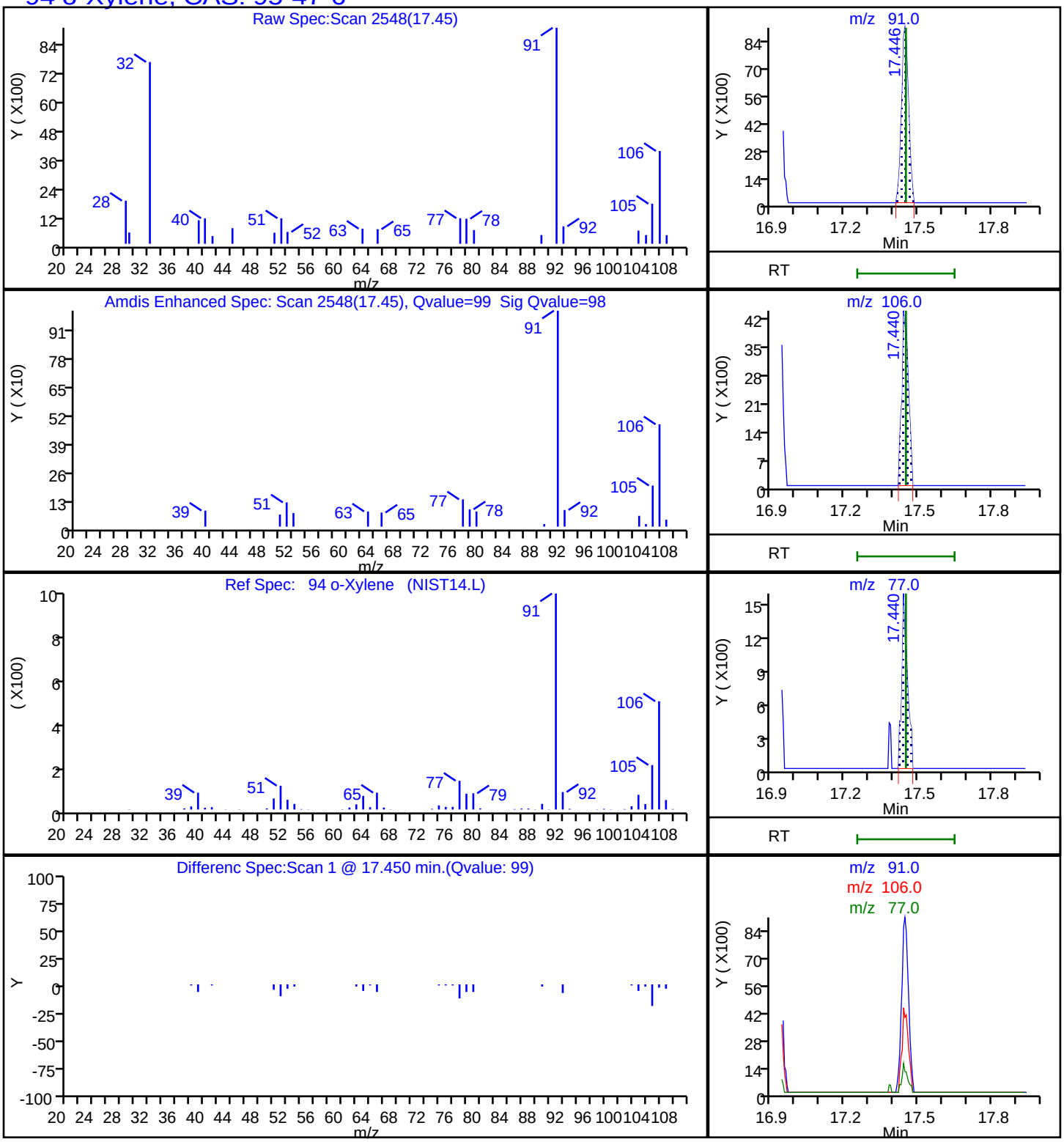
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P114.D				
Injection Date:	21-Aug-2019 03:10:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-18	Lab Sample ID:	140-16377-18		
Client ID:	SV-075-A-27				
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.093	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	4.9		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.93		0.40	0.11
67-66-3	Chloroform	119.38	1.3		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.85		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.72		0.40	0.035
108-88-3	Toluene	92.14	0.62		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.45		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.21	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.32	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	31		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.3		1.4	0.39
67-66-3	Chloroform	119.38	6.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	4.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	4.9		2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.4		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	1.0	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.0	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D
Lims ID: 140-16377-A-19
Client ID: SV-100-B-27
Sample Type: Client
Inject. Date: 21-Aug-2019 04:00:30 ALS Bottle#: 16 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-025
Misc. Info.: 140-16377-a-19
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 02:41:49 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 16:26:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.722	9.725	-0.003	96	183940	4.00	
* 2 1,4-Difluorobenzene	114	11.831	11.839	-0.008	95	948992	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.446	16.449	-0.003	90	807505	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.044	18.044	-0.003	94	528803	3.56	
19 Chlorodifluoromethane	51	4.154	4.151	0.002	96	9334	0.1857	
21 Dichlorodifluoromethane	85	4.230	4.226	0.003	97	9746	0.1692	
44 Methylene Chloride	84	7.059	7.060	-0.003	98	123742	1.79	
57 Chloroform	83	9.722	9.727	-0.008	34	39142	0.2622	
60 1,1,1-Trichloroethane	97	10.755	10.760	-0.008	93	14315	0.0891	
64 Benzene	78	11.331	11.325	-0.002	76	3247	0.0187	
65 Carbon tetrachloride	117	11.352	11.347	-0.003	96	143912	0.9874	
71 Trichloroethene	130	12.530	12.519	0.002	93	100686	1.28	
80 Toluene	91	14.510	14.510	-0.003	92	24334	0.1247	
86 Tetrachloroethene	129	15.634	15.634	-0.003	93	11362	0.1450	
90 m-Xylene & p-Xylene	91	16.920	16.920	-0.003	95	5940	0.0308	
94 o-Xylene	91	17.447	17.447	-0.003	96	7004	0.0342	
105 1,2,4-Trimethylbenzene	105	19.142	19.141	-0.002	96	9667	0.0409	
111 1,2,3-Trimethylbenzene	105	19.593	19.593	-0.003	96	9582	0.0413	
S 129 Xylenes, Total	100				0		0.0650	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

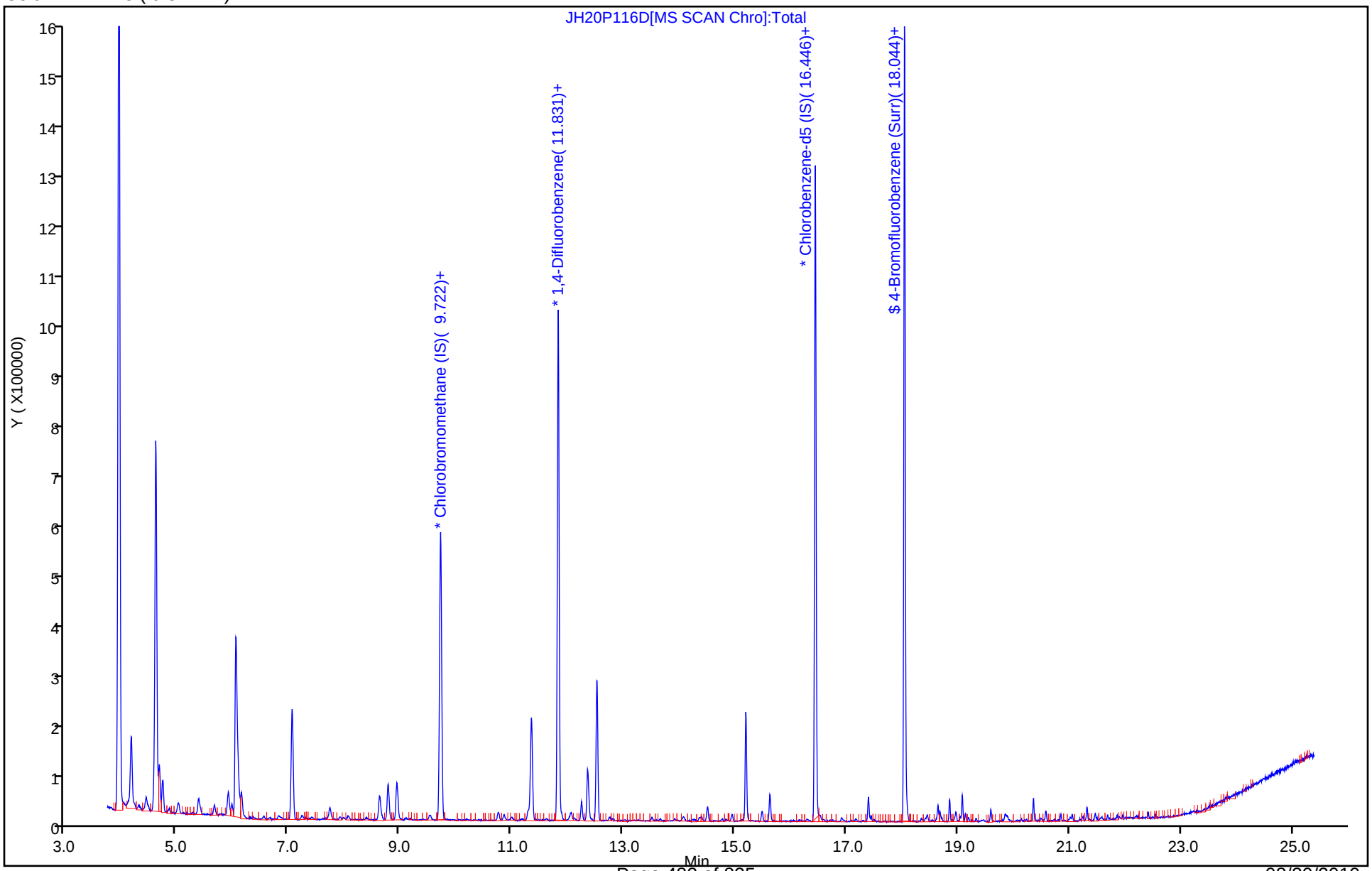
Report Date: 21-Aug-2019 16:26:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D

Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19	Worklist Smp#:	25
Client ID:	SV-100-B-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D				
Lims ID:	140-16377-A-19				
Client ID:	SV-100-B-27				
Sample Type:	Client				
Inject. Date:	21-Aug-2019 04:00:30	ALS Bottle#:	16	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-025				
Misc. Info.:	140-16377-a-19				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 02:41:49	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

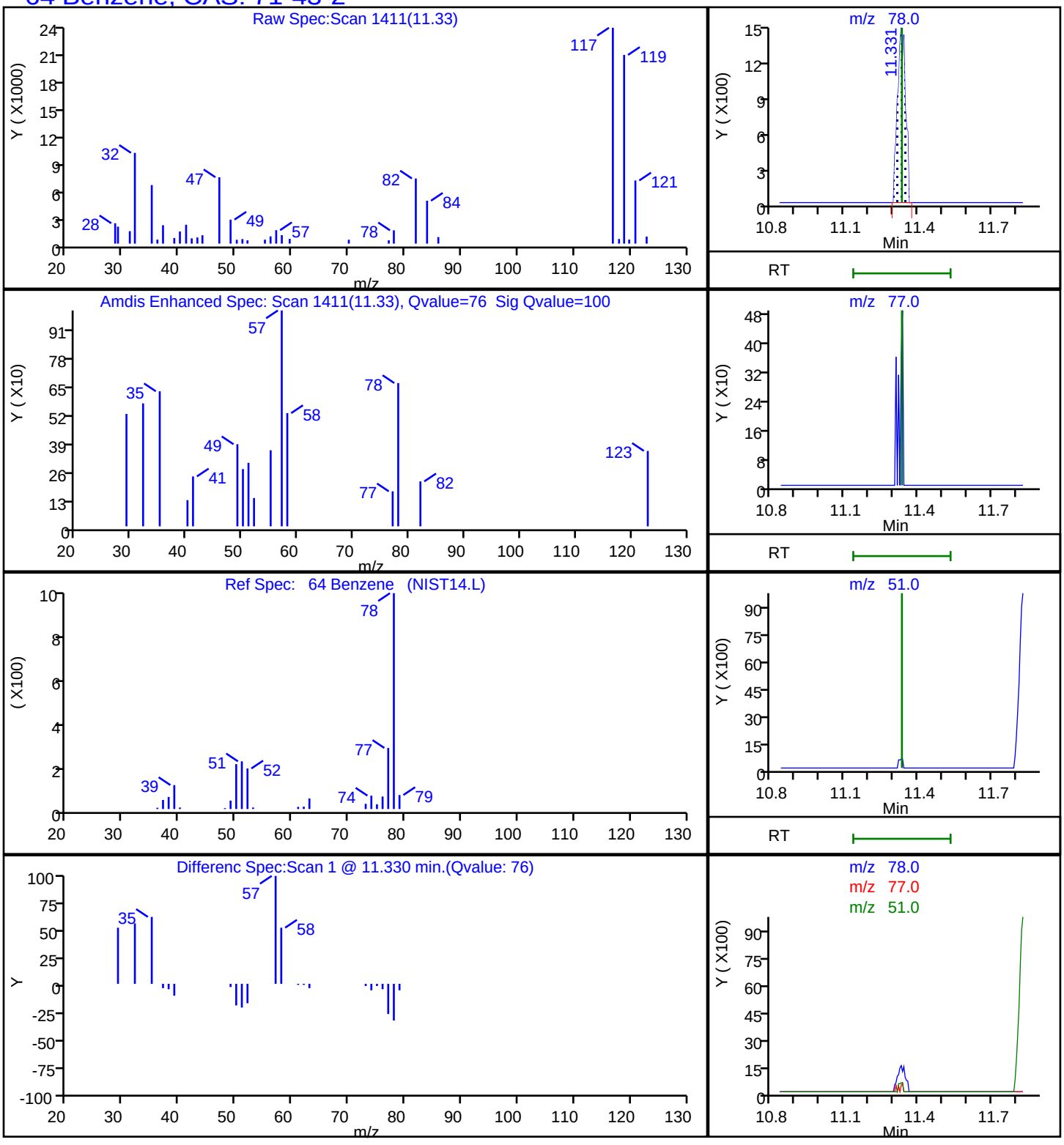
First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 16:26:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.56	89.08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



Report Date: 21-Aug-2019 16:26:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D				
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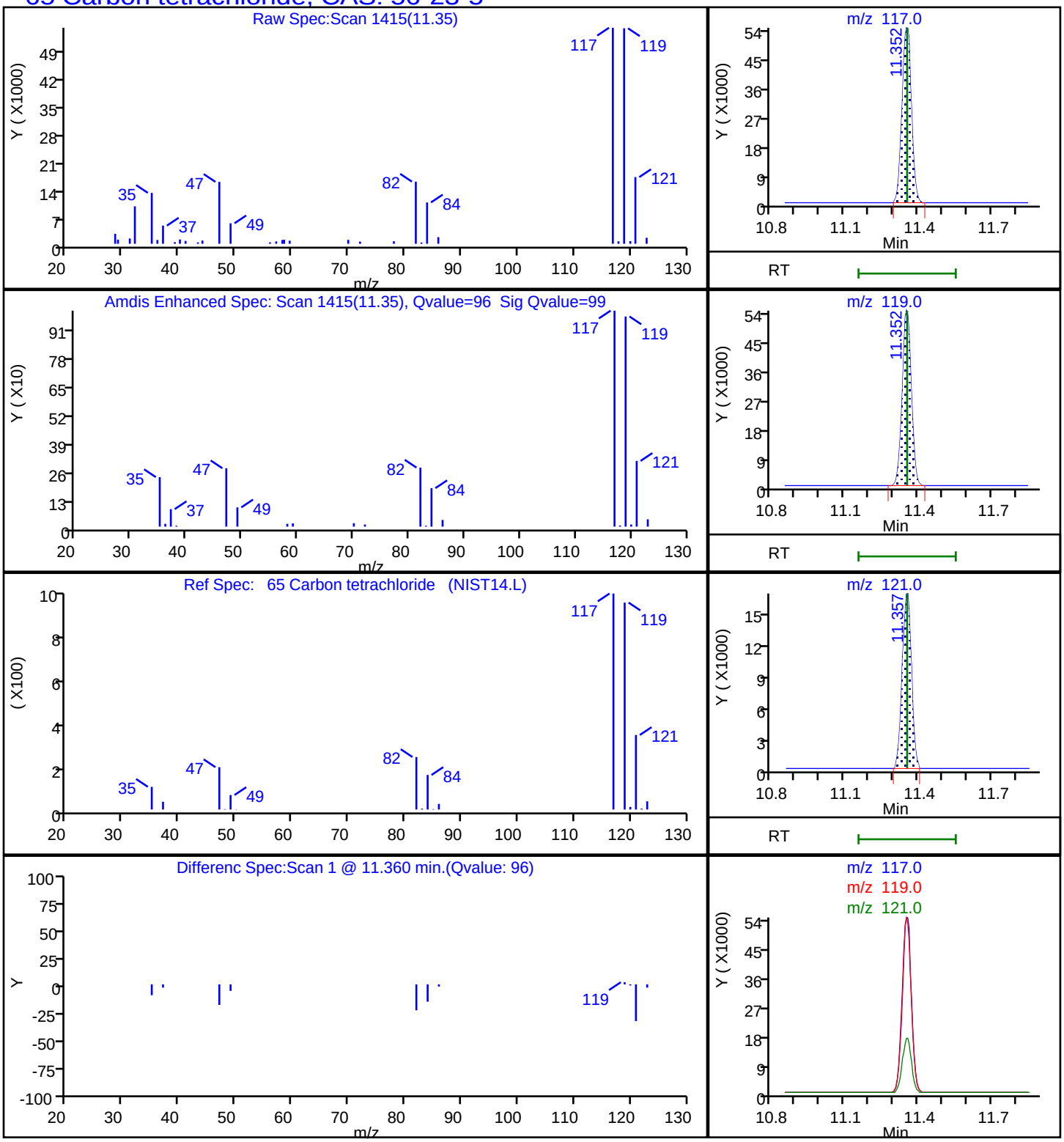
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19		
Client ID:	SV-100-B-27				
Operator ID:	007126	ALS Bottle#:	16	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D				
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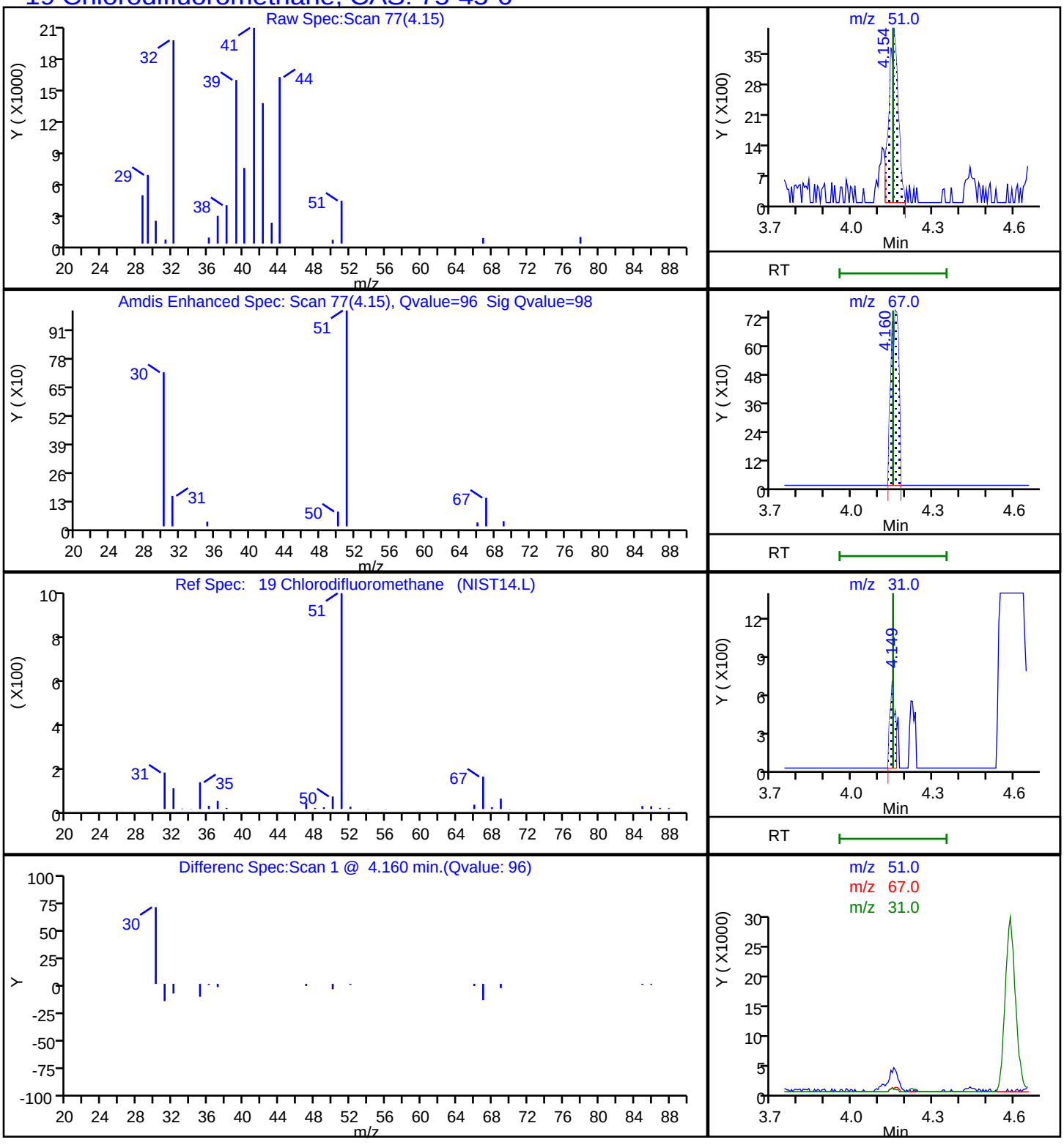
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19		
Client ID:	SV-100-B-27				
Operator ID:	007126	ALS Bottle#:	16	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

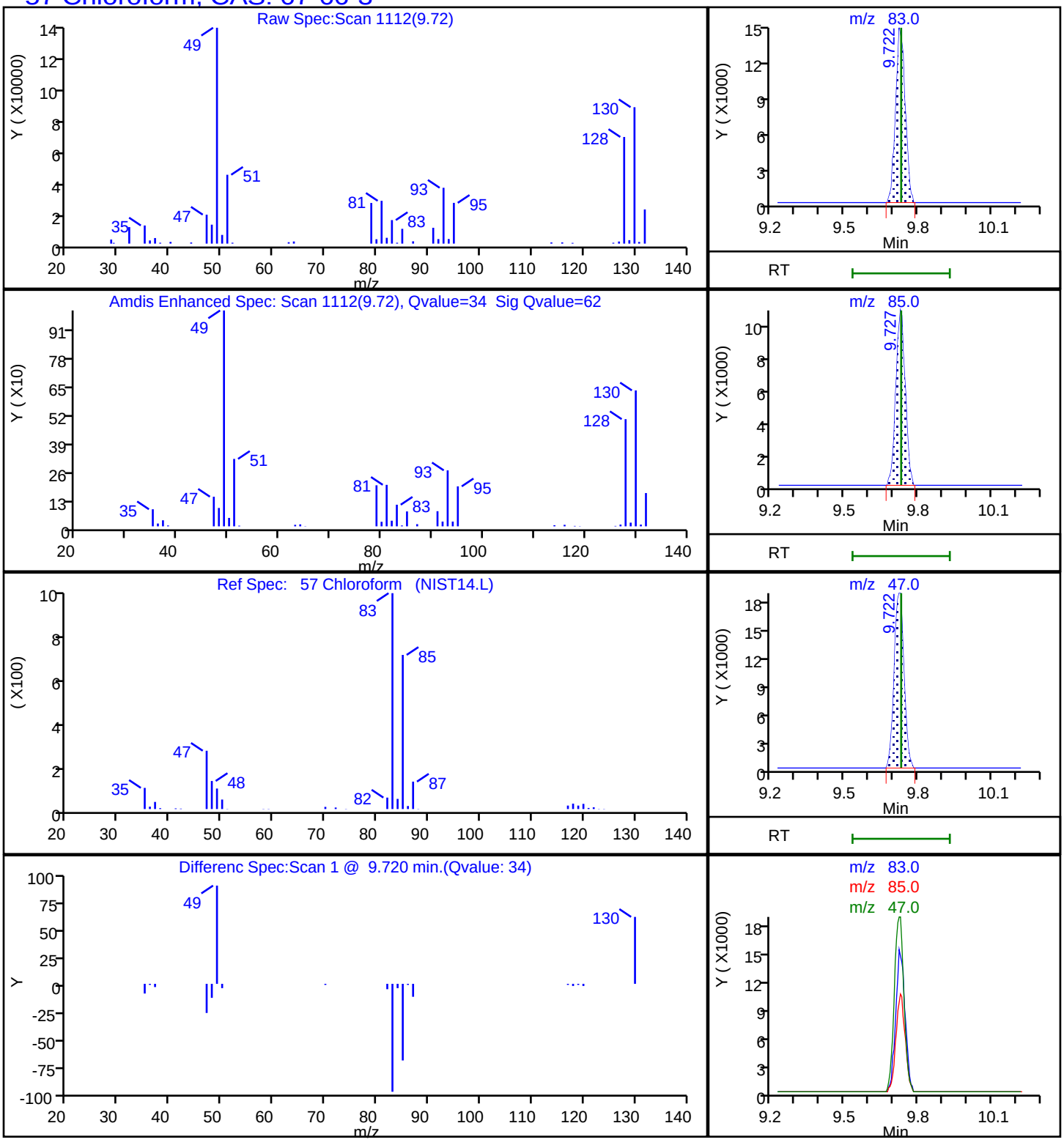
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

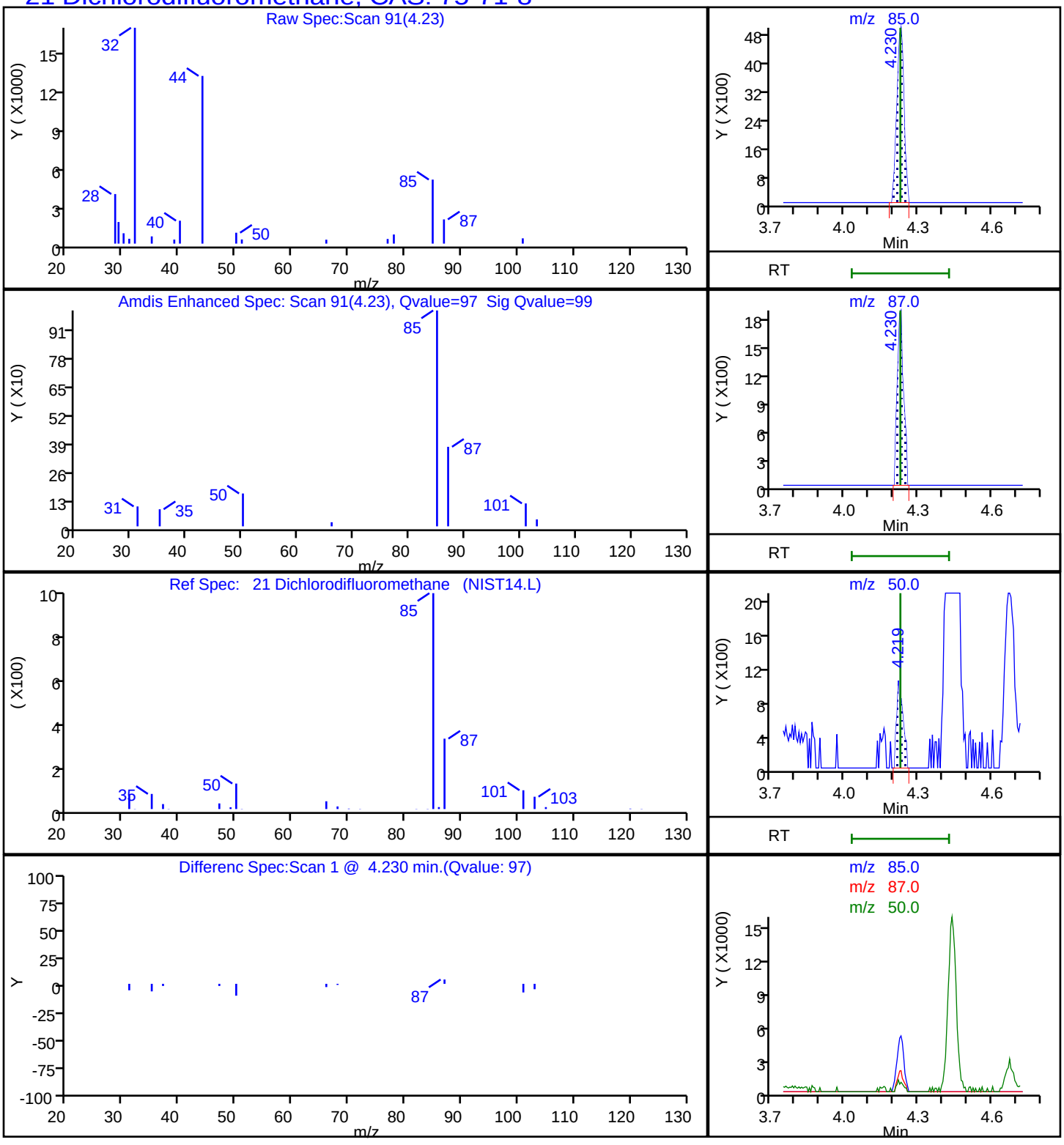
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

21 Dichlorodifluoromethane, CAS: 75-71-8

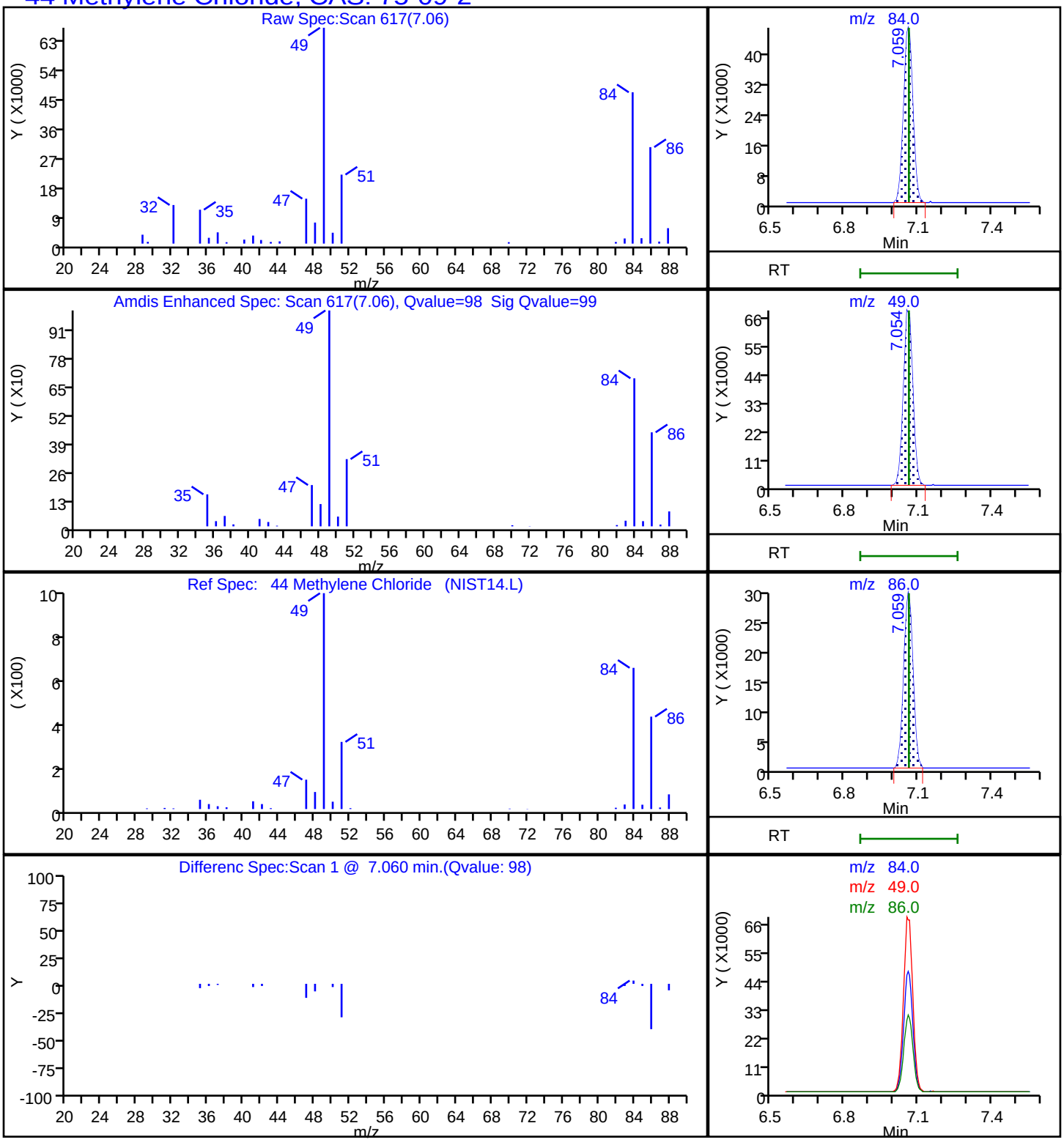


Report Date: 21-Aug-2019 16:26:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

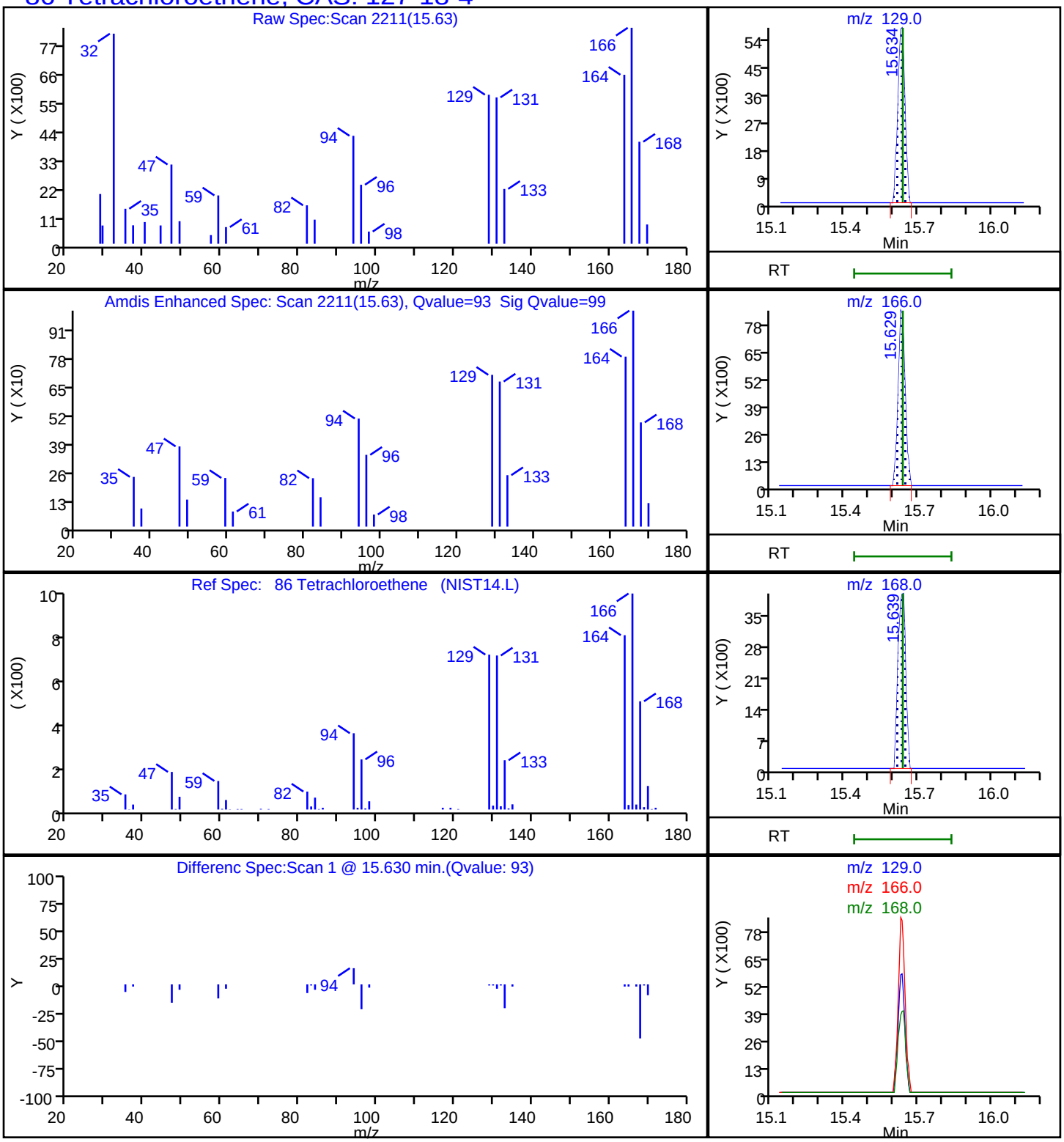


Report Date: 21-Aug-2019 16:26:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

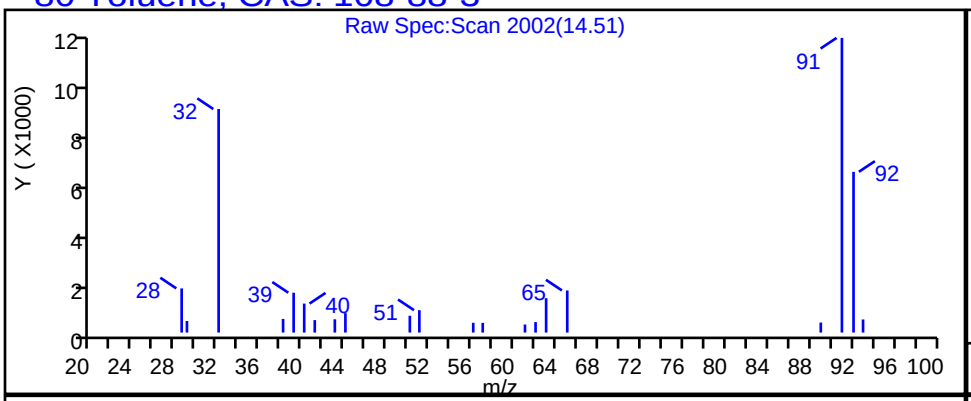
86 Tetrachloroethene, CAS: 127-18-4

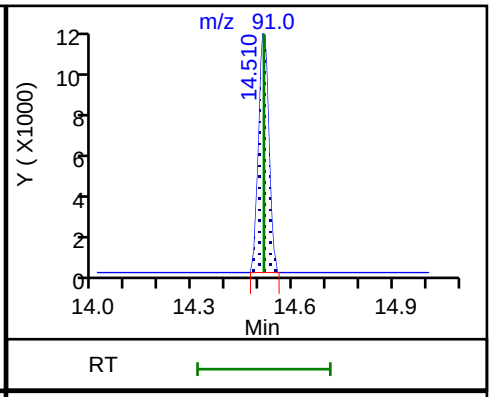


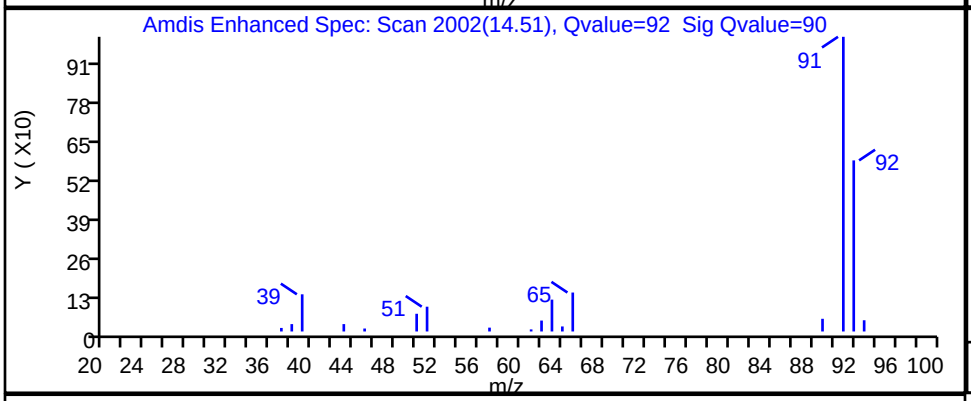
Eurofins TestAmerica, Knoxville

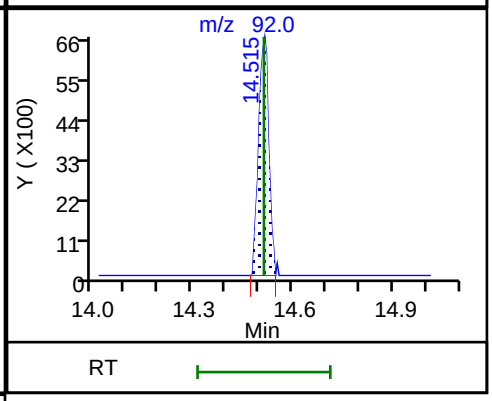
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

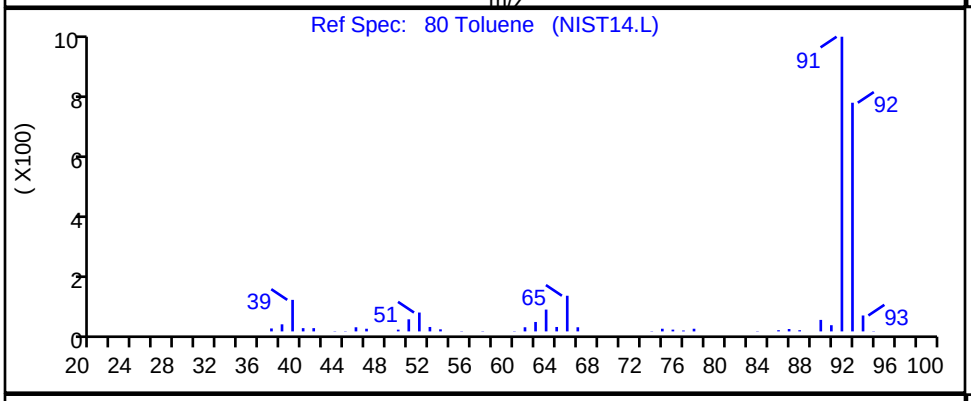
80 Toluene, CAS: 108-88-3

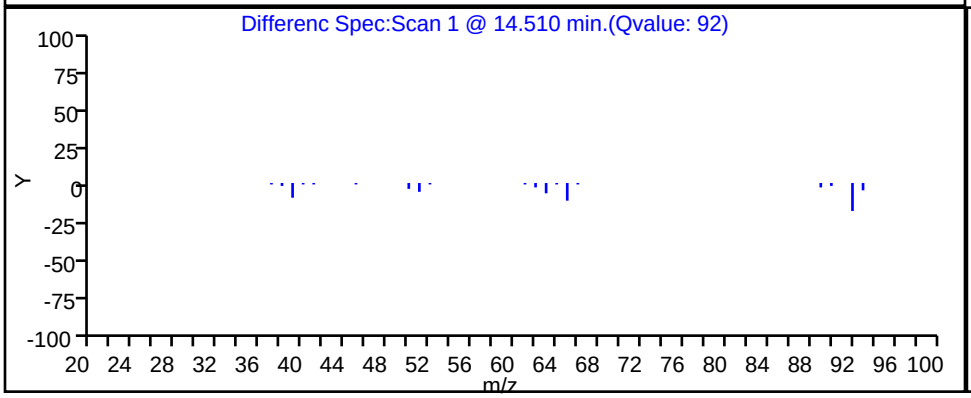


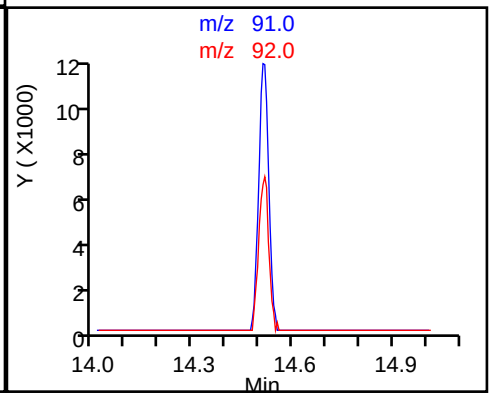








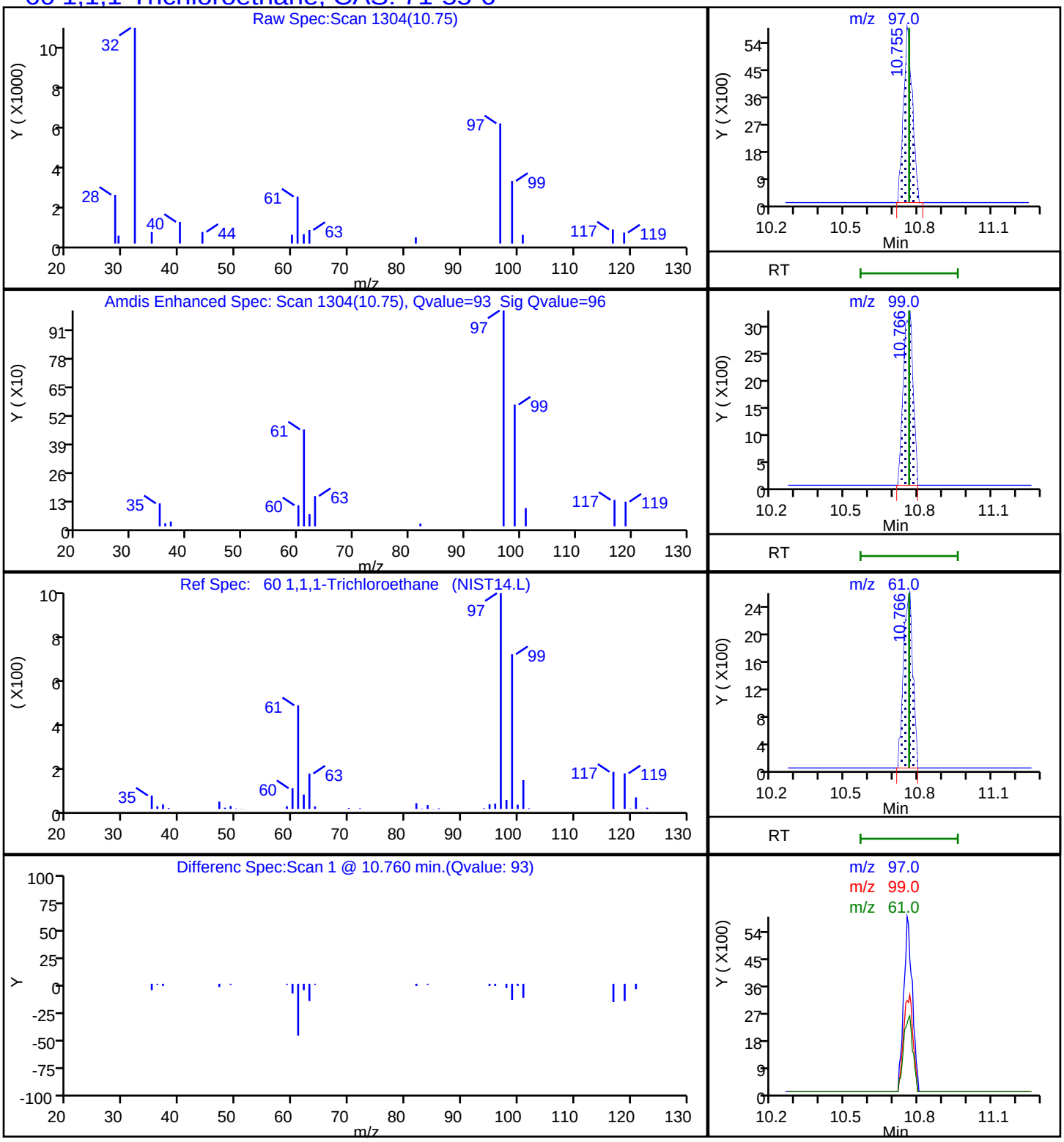




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

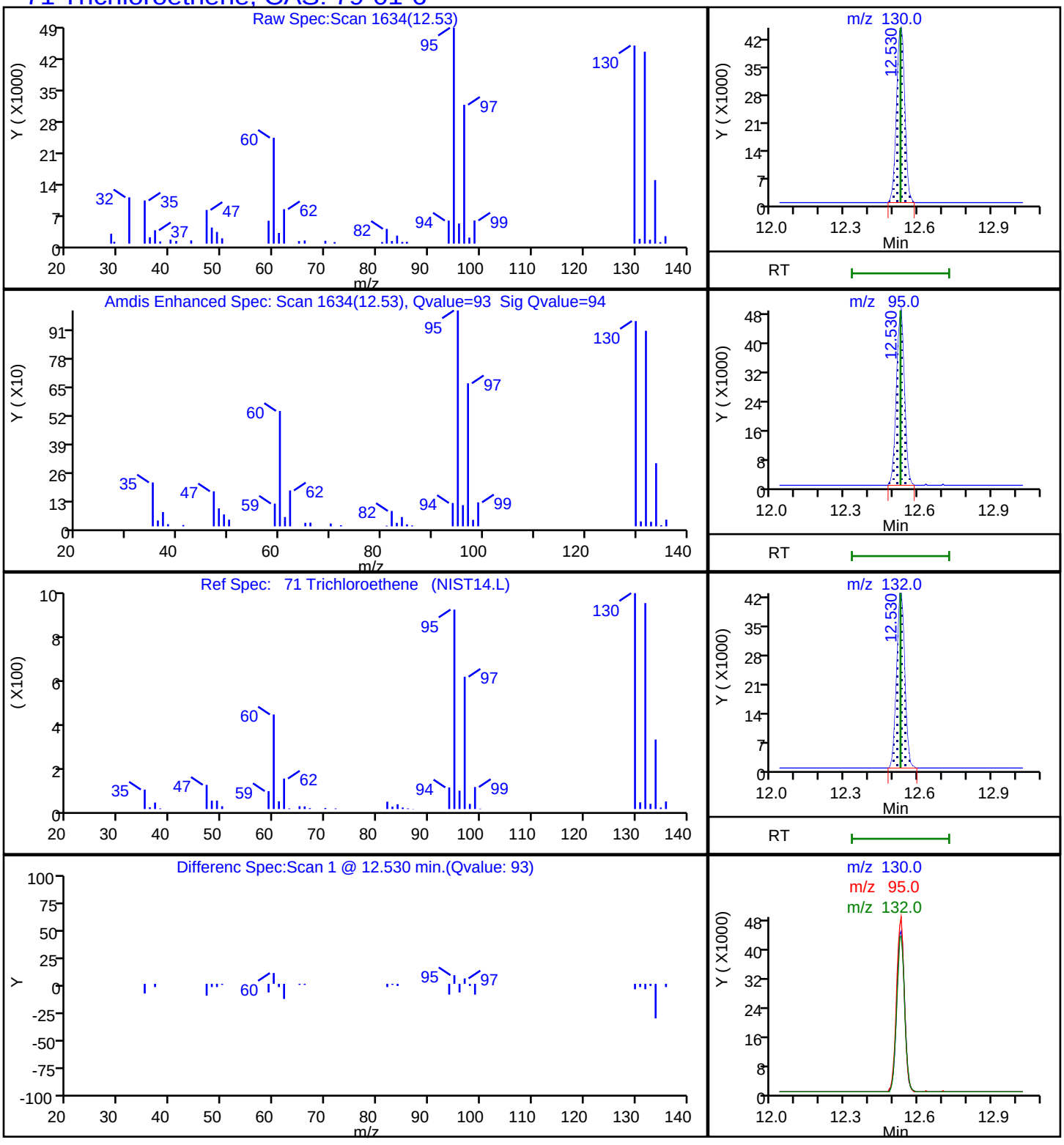
60 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
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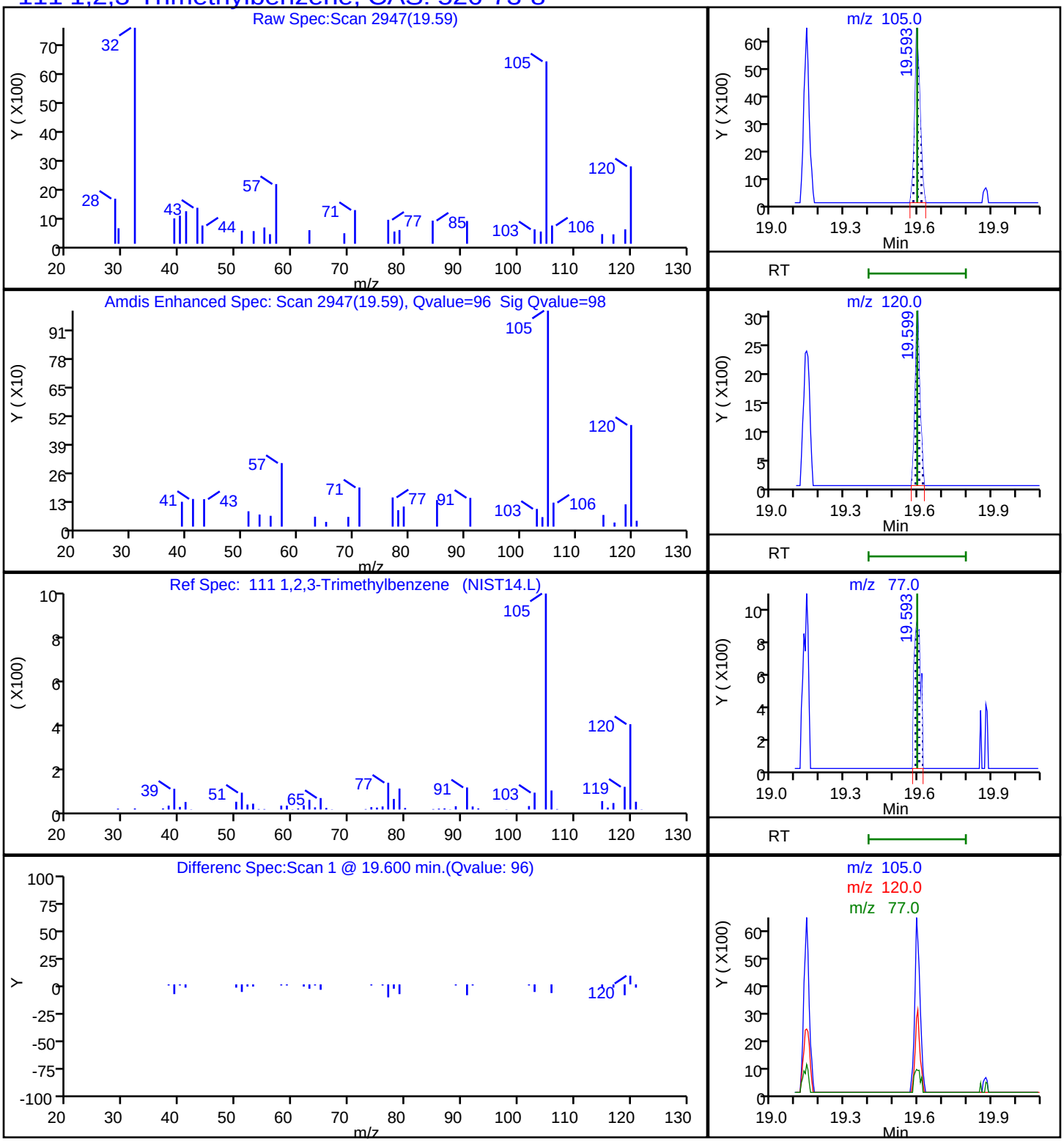
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

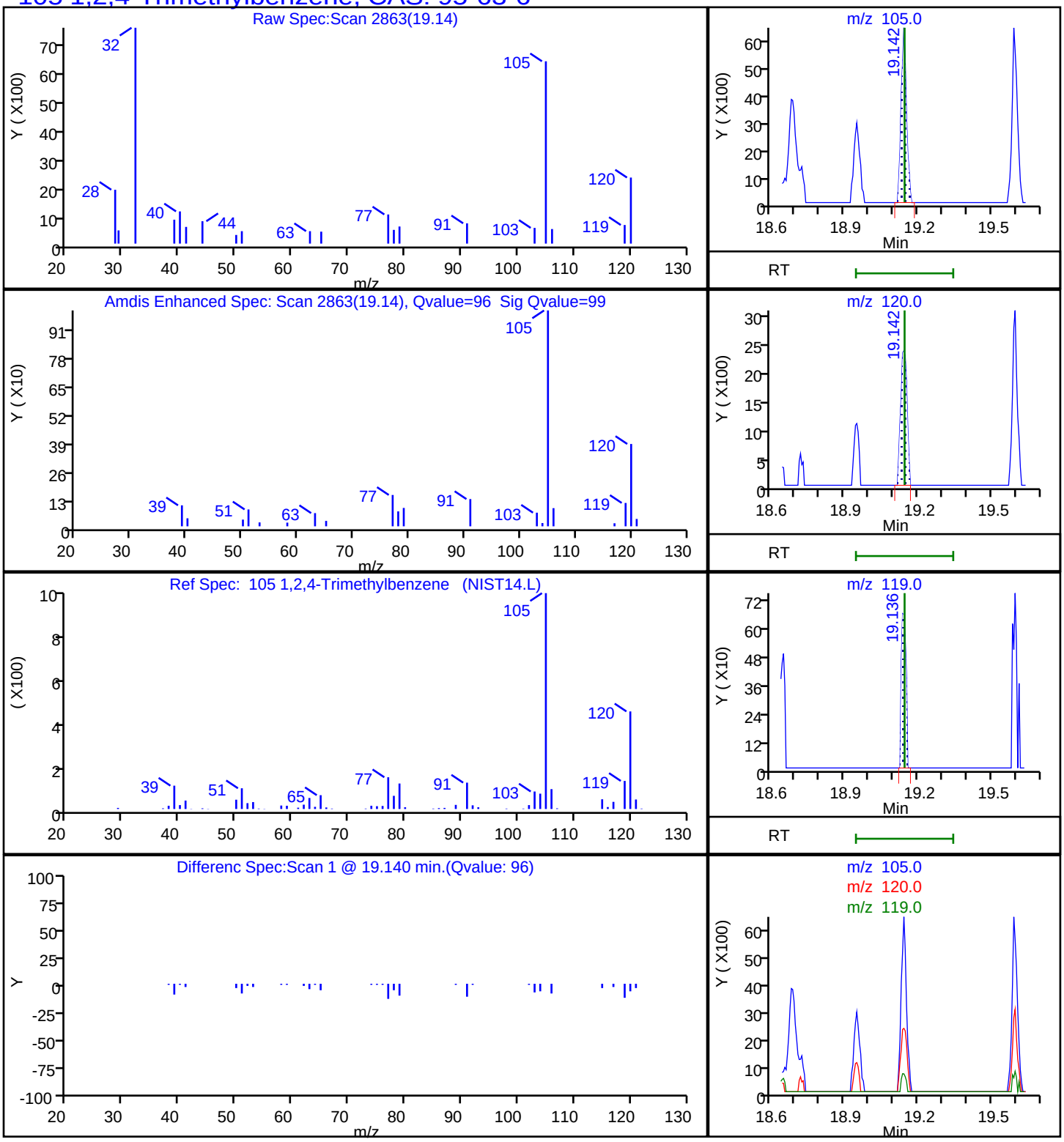
111 1,2,3-Trimethylbenzene, CAS: 526-73-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

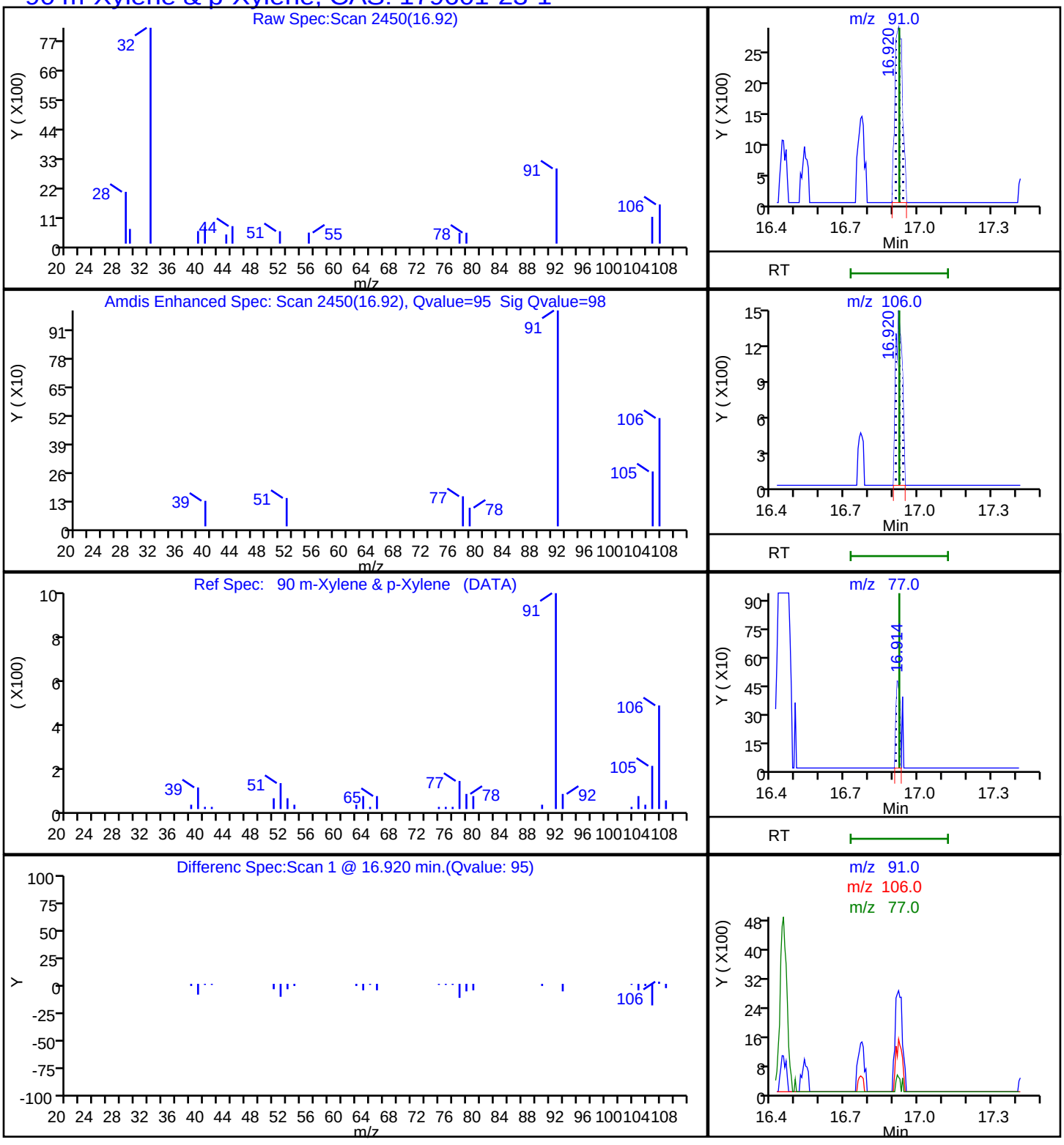


Report Date: 21-Aug-2019 16:26:17 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D				
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19		
Client ID:	SV-100-B-27				
Operator ID:	007126	ALS Bottle#:	16	Worklist Smp#:	25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

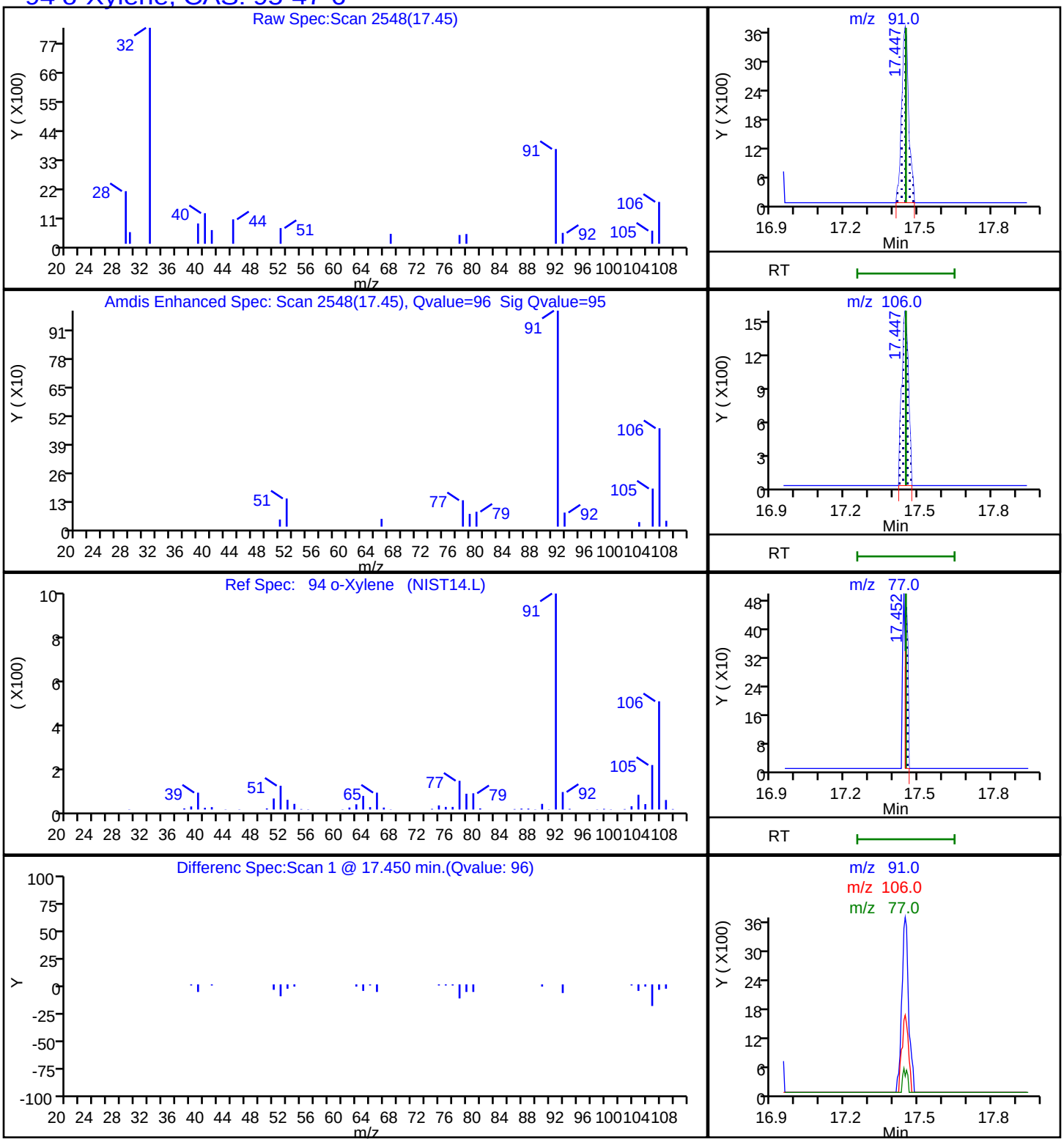
90 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P116D.D		
Injection Date:	21-Aug-2019 04:00:30	Instrument ID:	MJ
Lims ID:	140-16377-A-19	Lab Sample ID:	140-16377-19
Client ID:	SV-100-B-27		
Operator ID:	007126	ALS Bottle#:	16 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.68		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.16	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.67		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	1.7		0.20	0.38
127-18-4	Tetrachloroethene	165.83	12		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	47		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	35		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.3		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	2.7		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.5		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.89		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	4.3		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.1	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.78	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	9.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	85		2.7	0.24
108-88-3	Toluene	92.14	6.2		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	250		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	190		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	6.4		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	13		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	7.2		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D
Lims ID: 140-16377-A-20
Client ID: SV-101-B-27
Sample Type: Client
Inject. Date: 20-Aug-2019 16:29:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-011
Misc. Info.: 140-16377-a-20
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:22:48 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:22:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.722	9.725	-0.003	93	294498	4.00	
* 2 1,4-Difluorobenzene	114	11.836	11.839	-0.003	95	1486019	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.446	16.449	-0.003	87	1206295	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.044	18.047	-0.003	96	770482	3.48	
19 Chlorodifluoromethane	51	4.154	4.152	0.002	97	27804	0.3455	
21 Dichlorodifluoromethane	85	4.224	4.227	-0.003	98	12367	0.1341	
44 Methylene Chloride	84	7.059	7.062	-0.003	96	83878	0.7570	
57 Chloroform	83	9.733	9.730	0.003	28	7662	0.0321	
60 1,1,1-Trichloroethane	97	10.755	10.763	-0.008	96	2400618	9.34	
64 Benzene	78	11.336	11.333	0.003	95	8025	0.0295	
65 Carbon tetrachloride	117	11.352	11.349	-0.003	98	30846	0.1352	
71 Trichloroethene	130	12.530	12.521	0.002	96	866642	7.05	
80 Toluene	91	14.510	14.508	-0.003	93	95709	0.3284	
86 Tetrachloroethene	129	15.629	15.637	-0.008	94	292269	2.50	
89 Ethylbenzene	91	16.764	16.767	-0.003	96	9860	0.0263	
90 m-Xylene & p-Xylene	91	16.920	16.923	-0.003	98	33124	0.1150	
94 o-Xylene	91	17.447	17.450	-0.003	99	18779	0.0613	
101 1,3,5-Trimethylbenzene	120	18.722	18.718	-0.003	94	46673	0.2937	
105 1,2,4-Trimethylbenzene	105	19.142	19.144	-0.002	98	192715	0.5457	
111 1,2,3-Trimethylbenzene	105	19.599	19.589	0.003	98	90345	0.2609	
122 Naphthalene	128	21.686	21.689	-0.003	99	106869	0.3457	
S 129 Xylenes, Total	100				0		0.1764	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

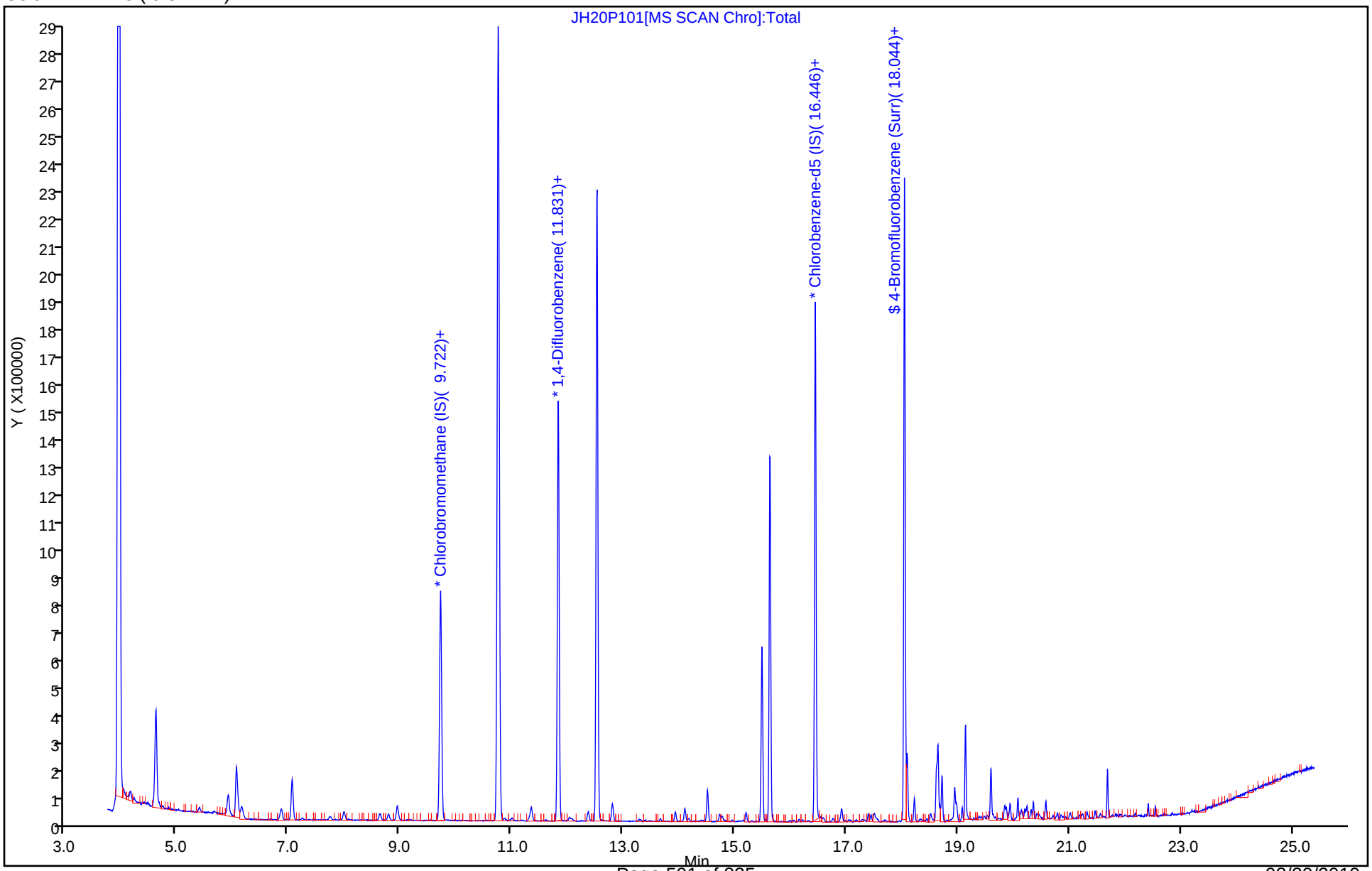
Report Date: 21-Aug-2019 12:22:48 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D

Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20	Worklist Smp#:	11
Client ID:	SV-101-B-27				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Lims ID:	140-16377-A-20				
Client ID:	SV-101-B-27				
Sample Type:	Client				
Inject. Date:	20-Aug-2019 16:29:30	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-011				
Misc. Info.:	140-16377-a-20				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:22:48	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:22:48

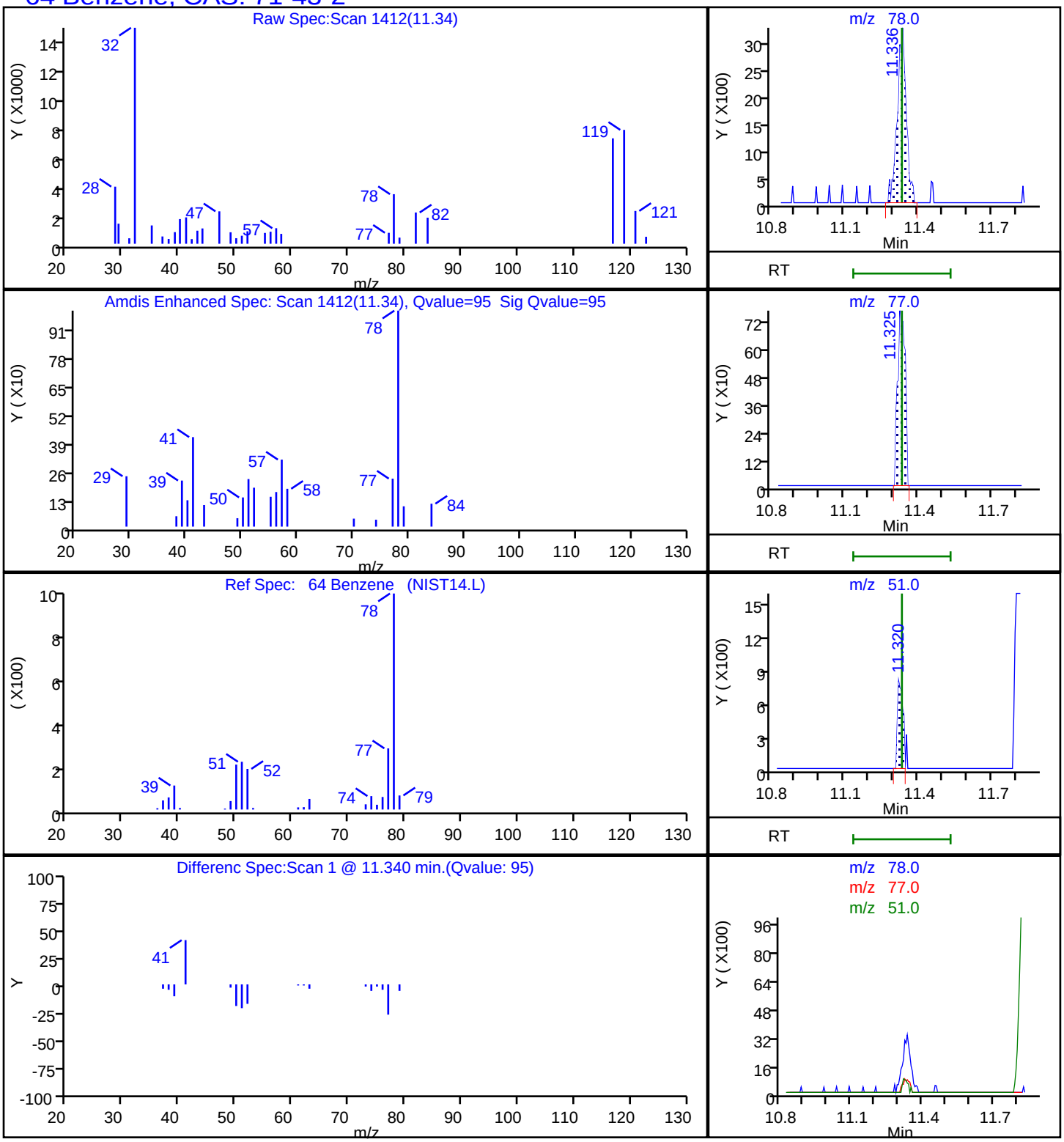
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.48	86.88

Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2

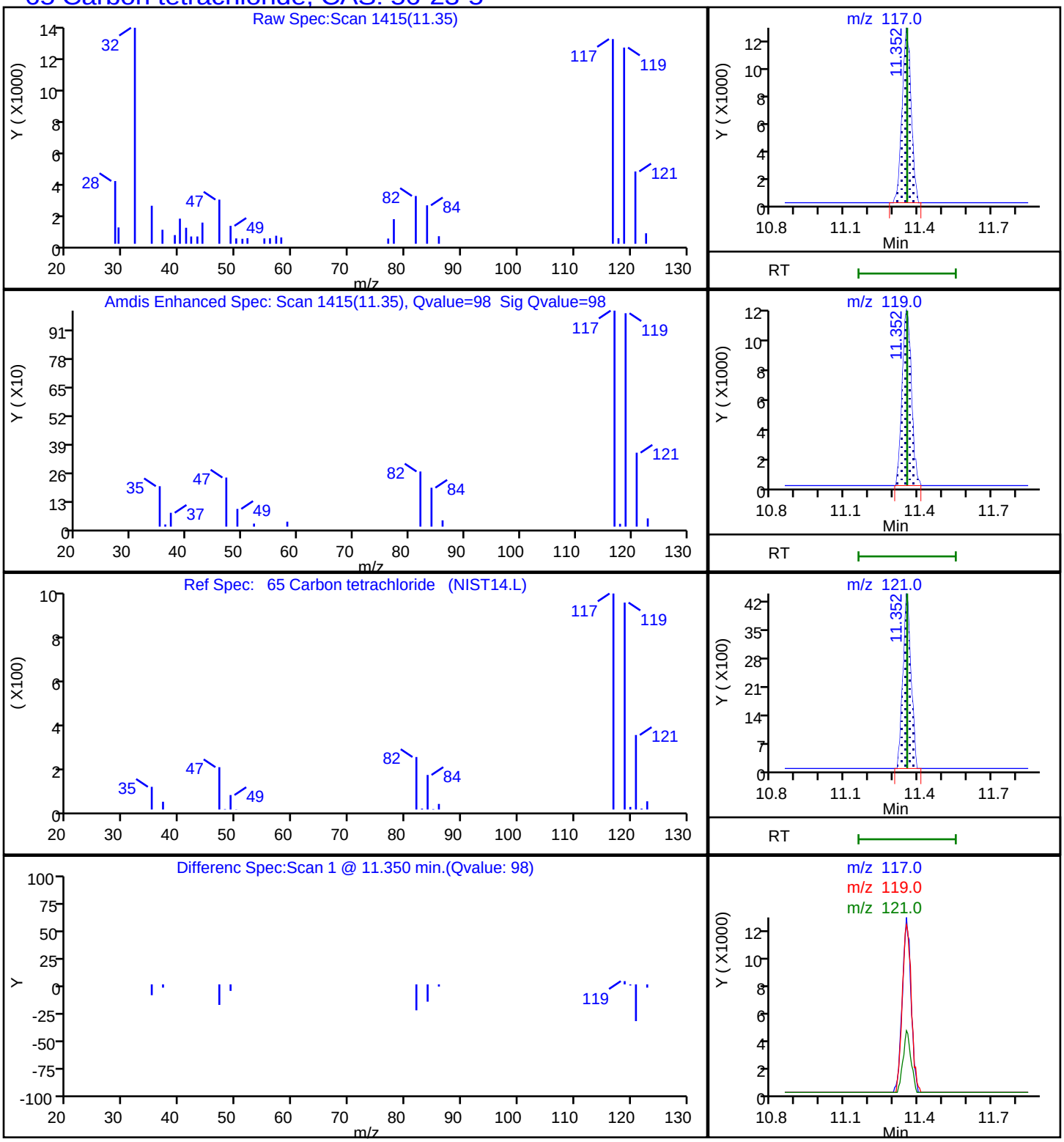


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

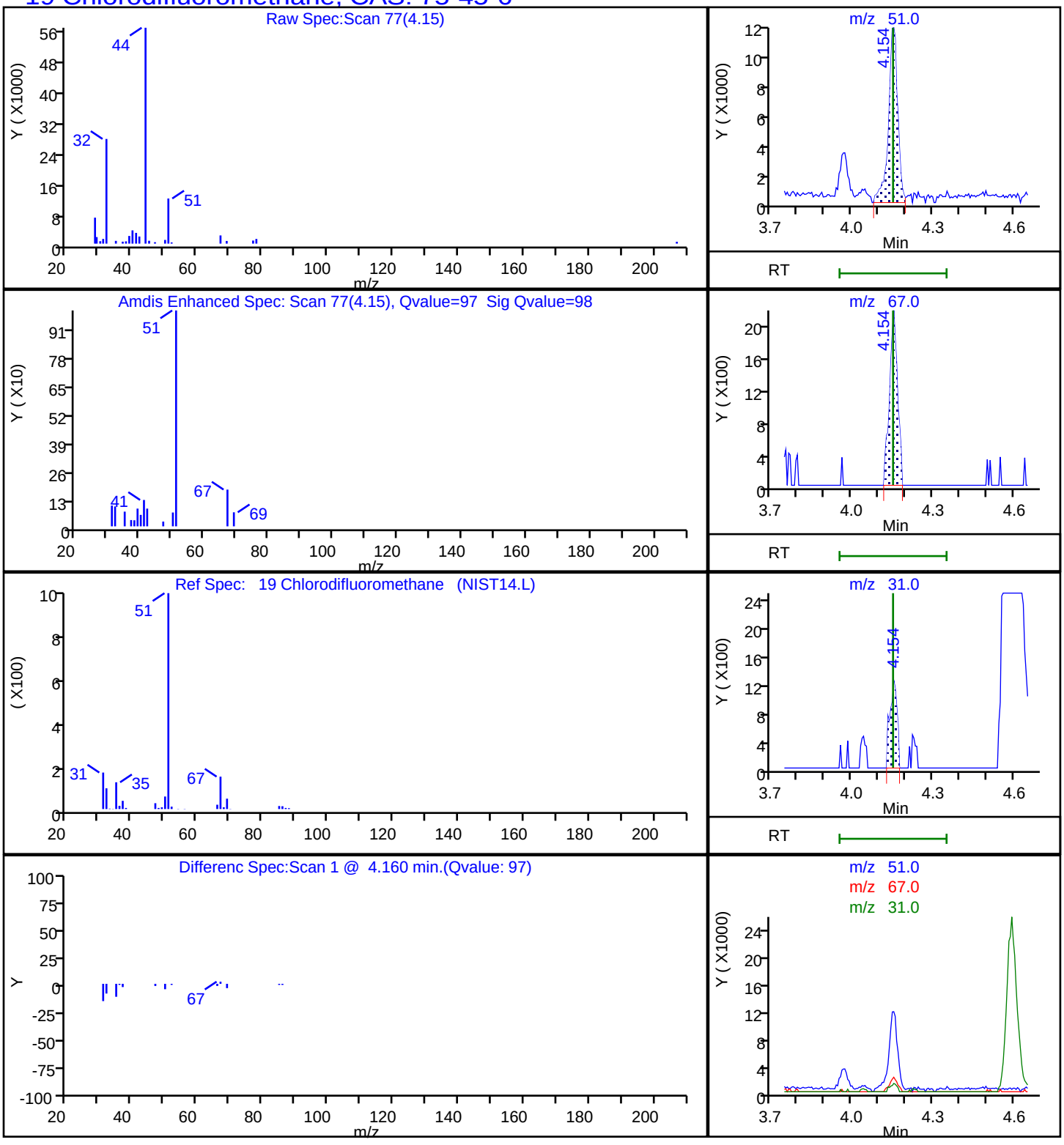
65 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

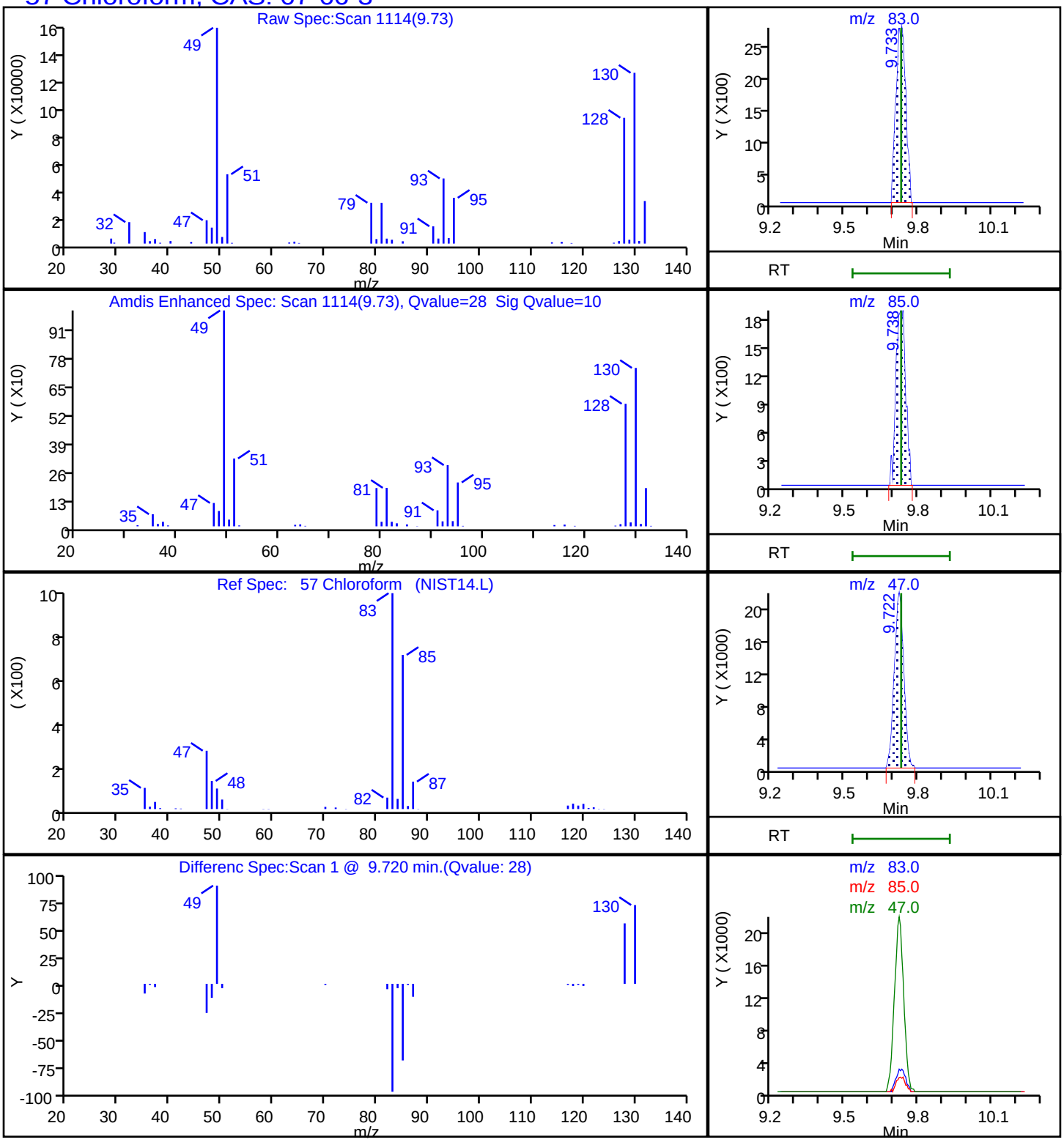
19 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

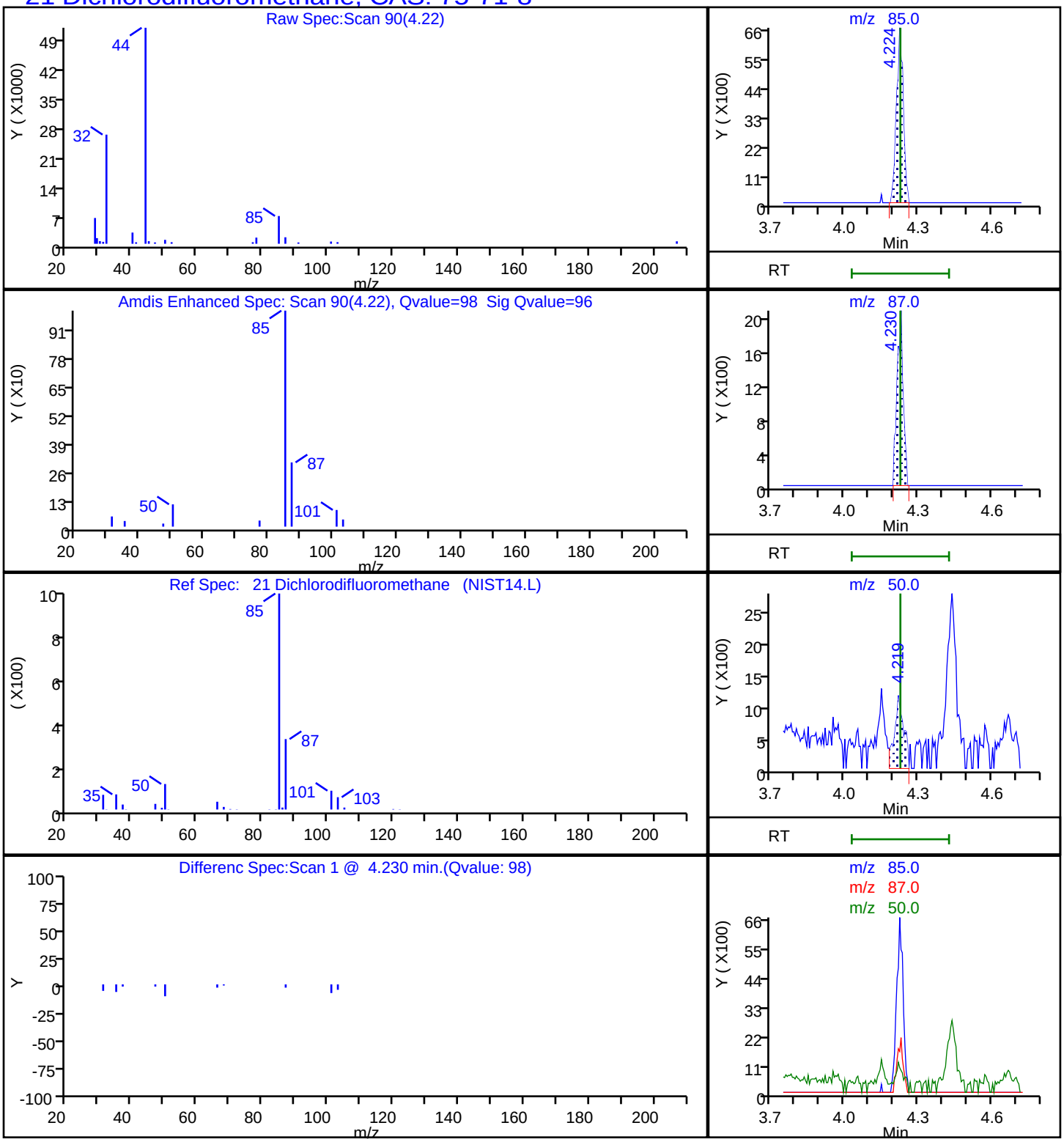
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

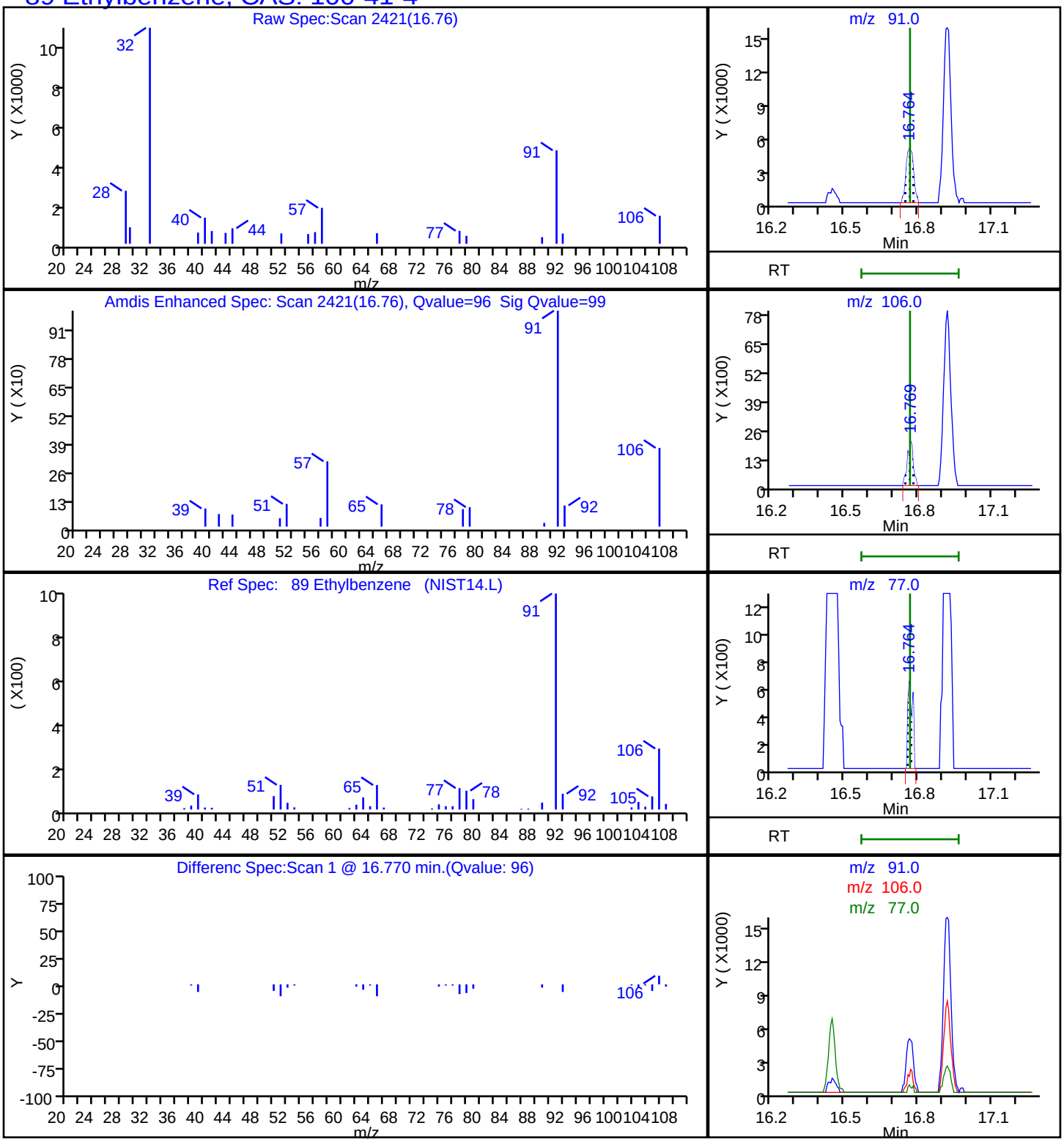
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

89 Ethylbenzene, CAS: 100-41-4

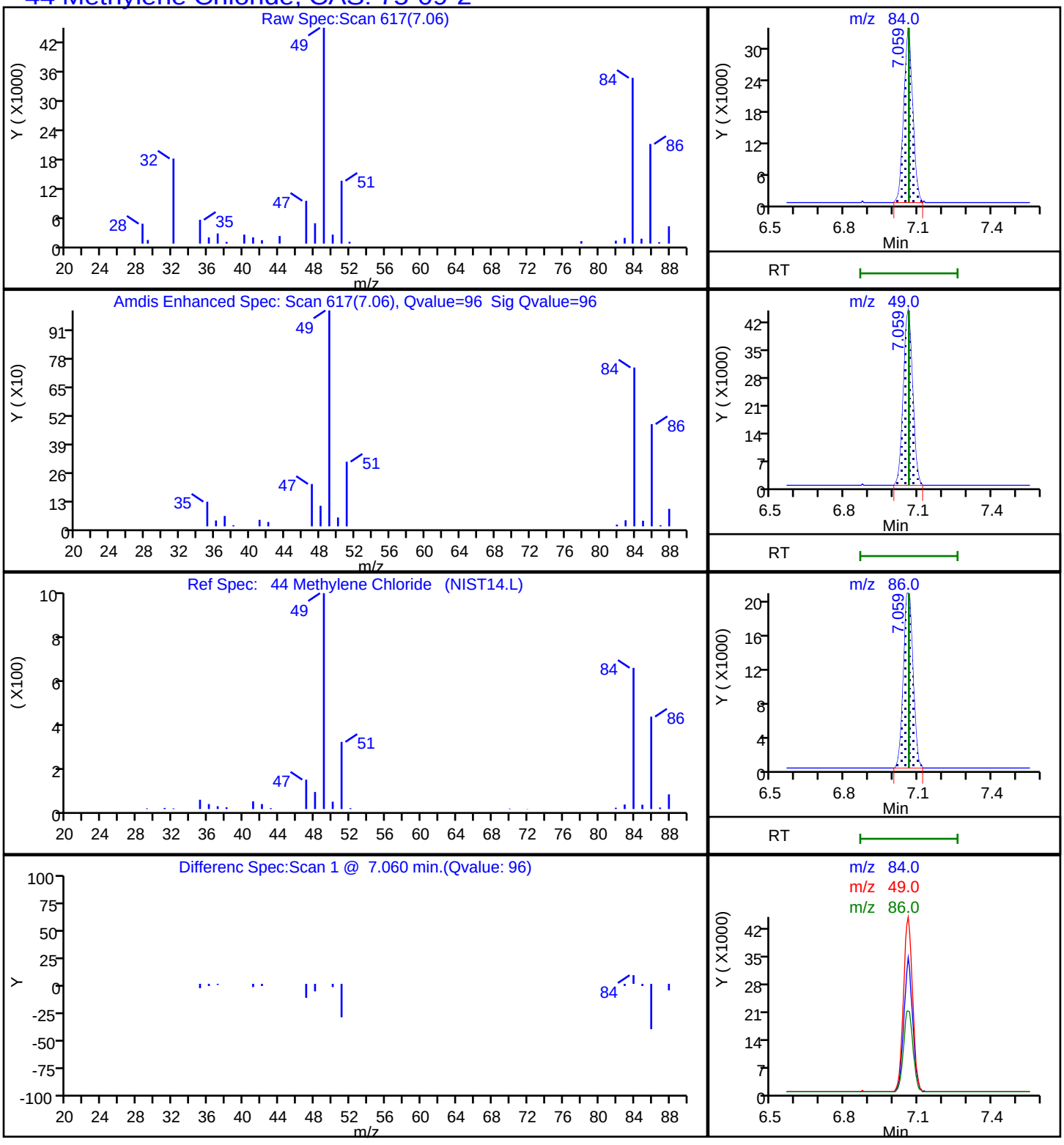


Report Date: 21-Aug-2019 12:22:48 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

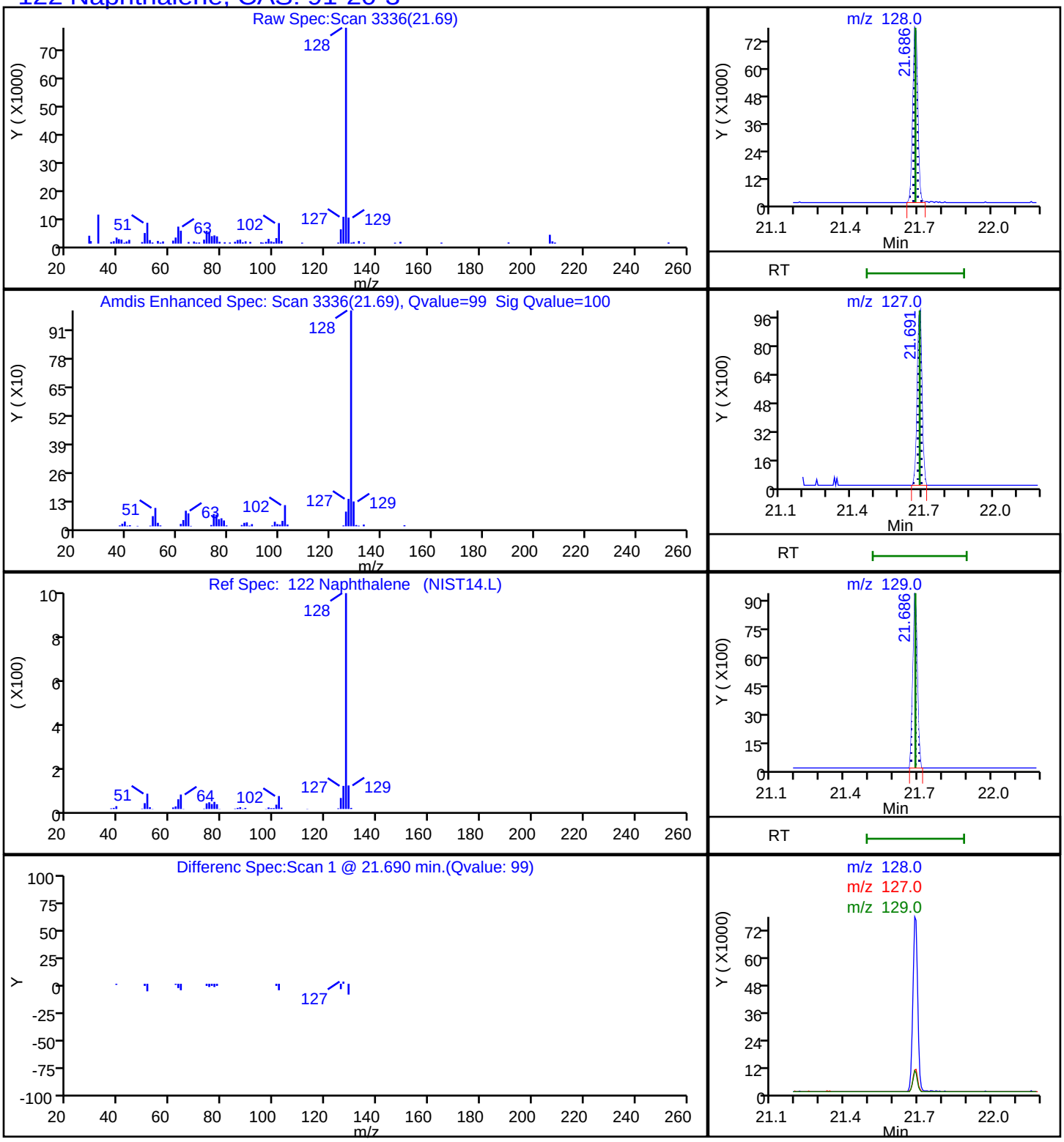
44 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

122 Naphthalene, CAS: 91-20-3

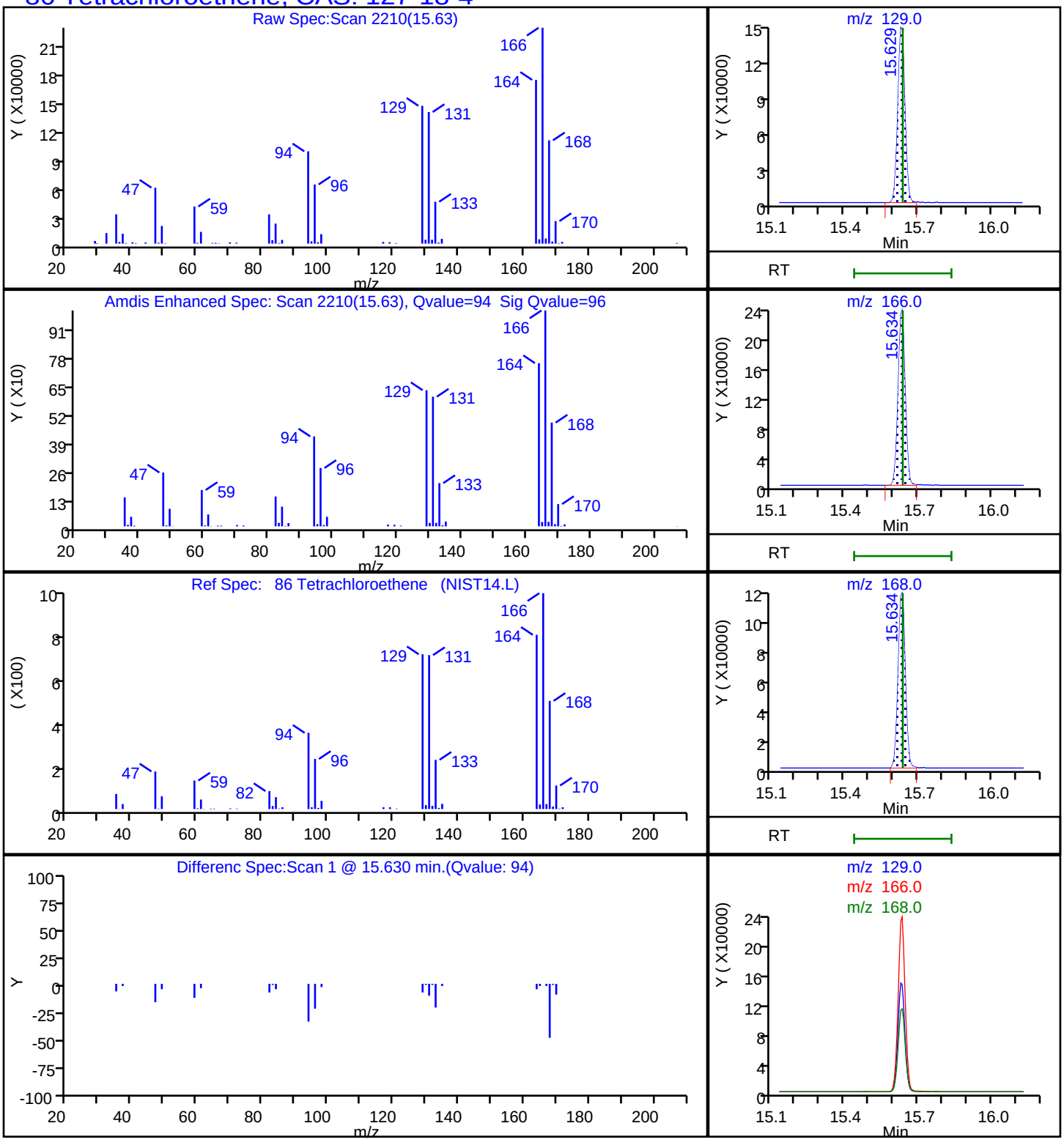


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

86 Tetrachloroethene, CAS: 127-18-4

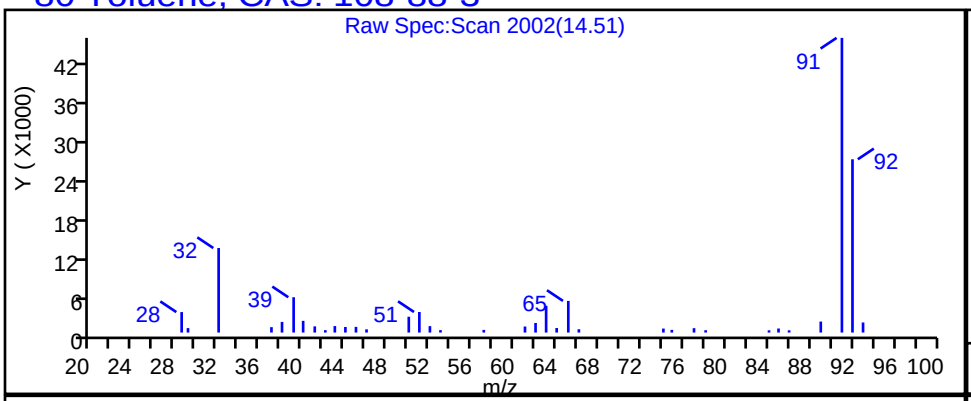


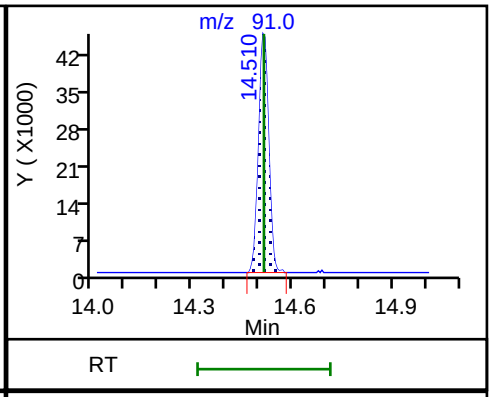
Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

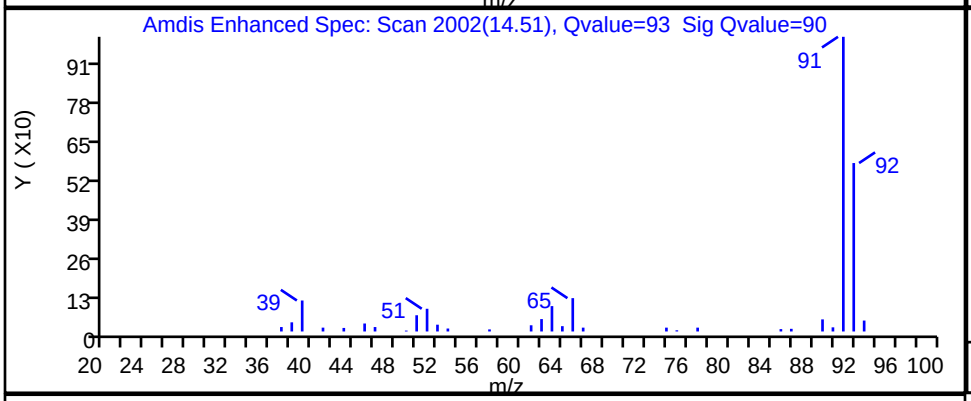
Eurofins TestAmerica, Knoxville

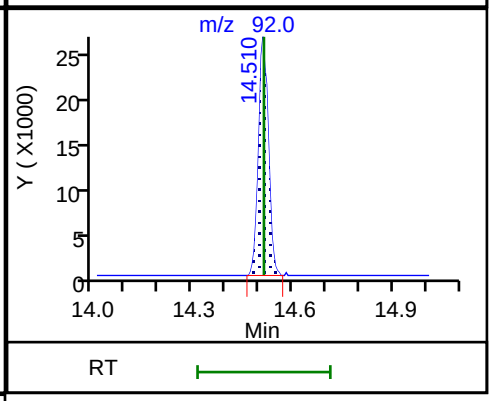
Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

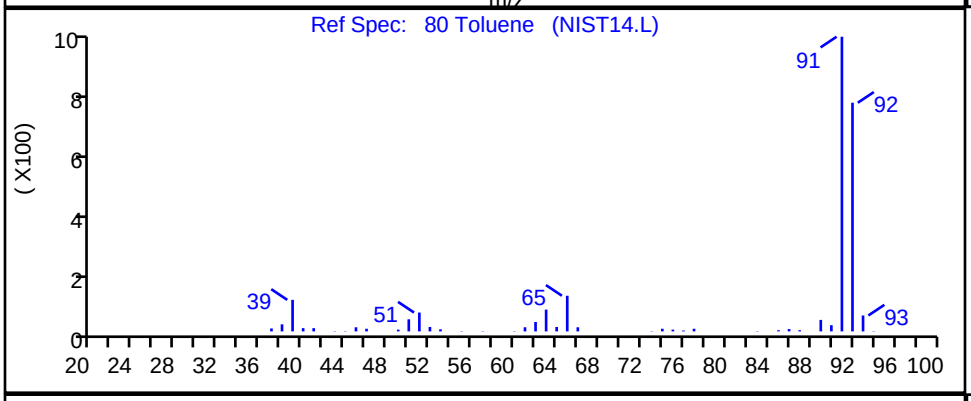
80 Toluene, CAS: 108-88-3

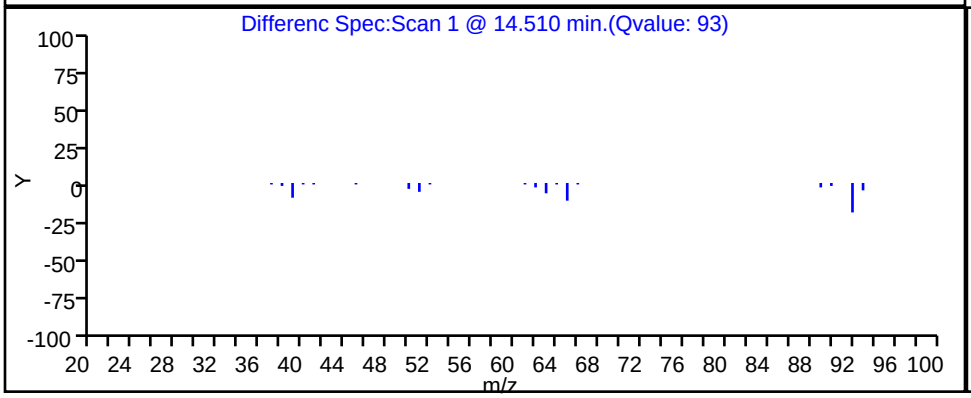


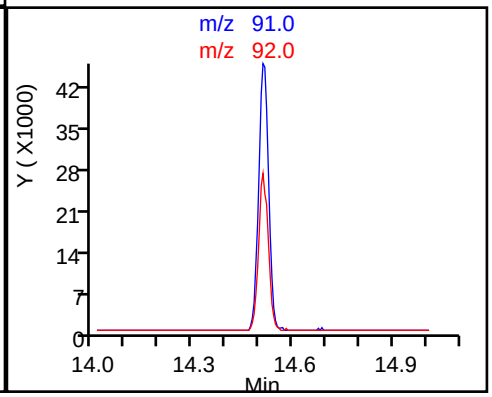










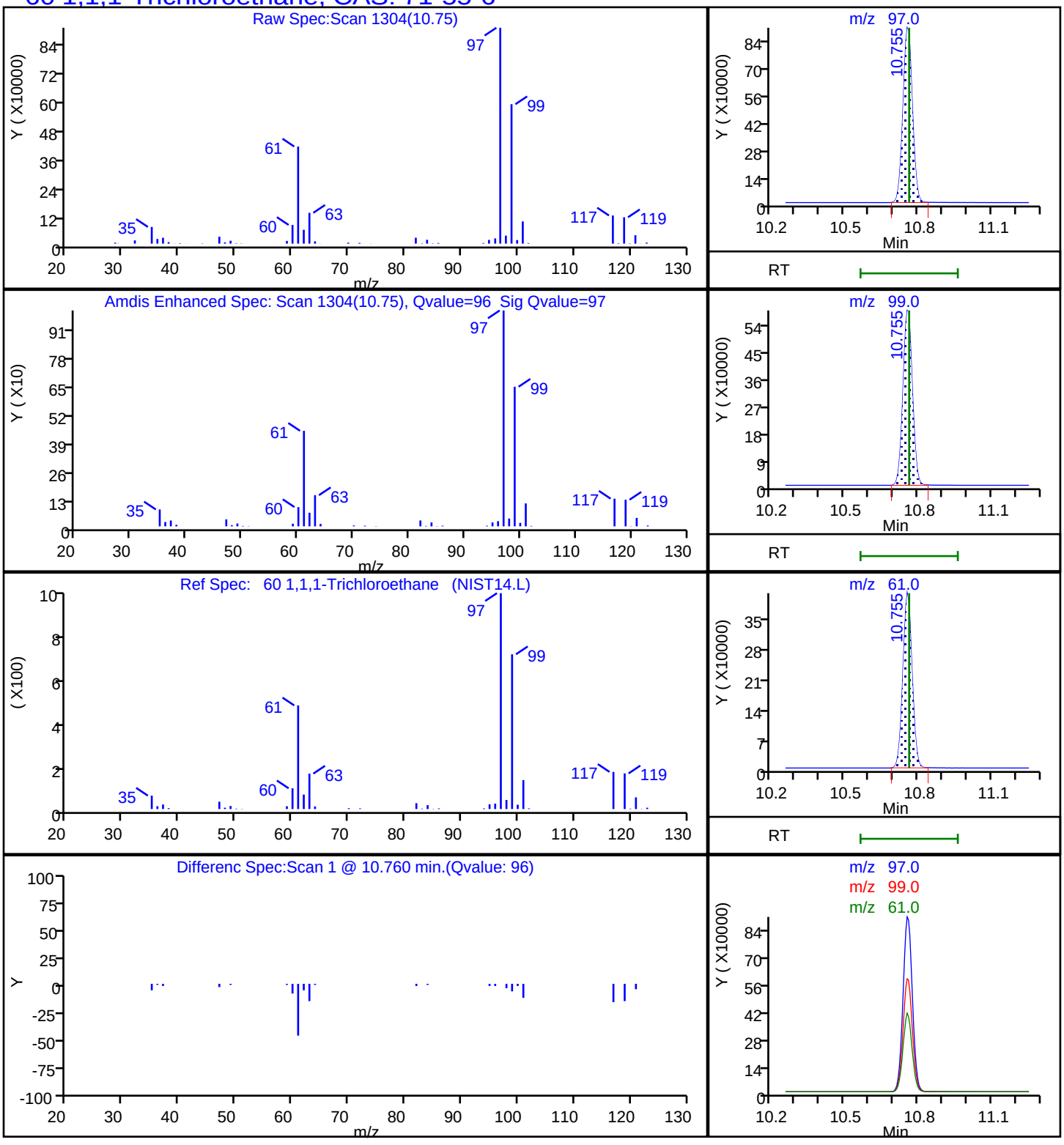


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

60 1,1,1-Trichloroethane, CAS: 71-55-6

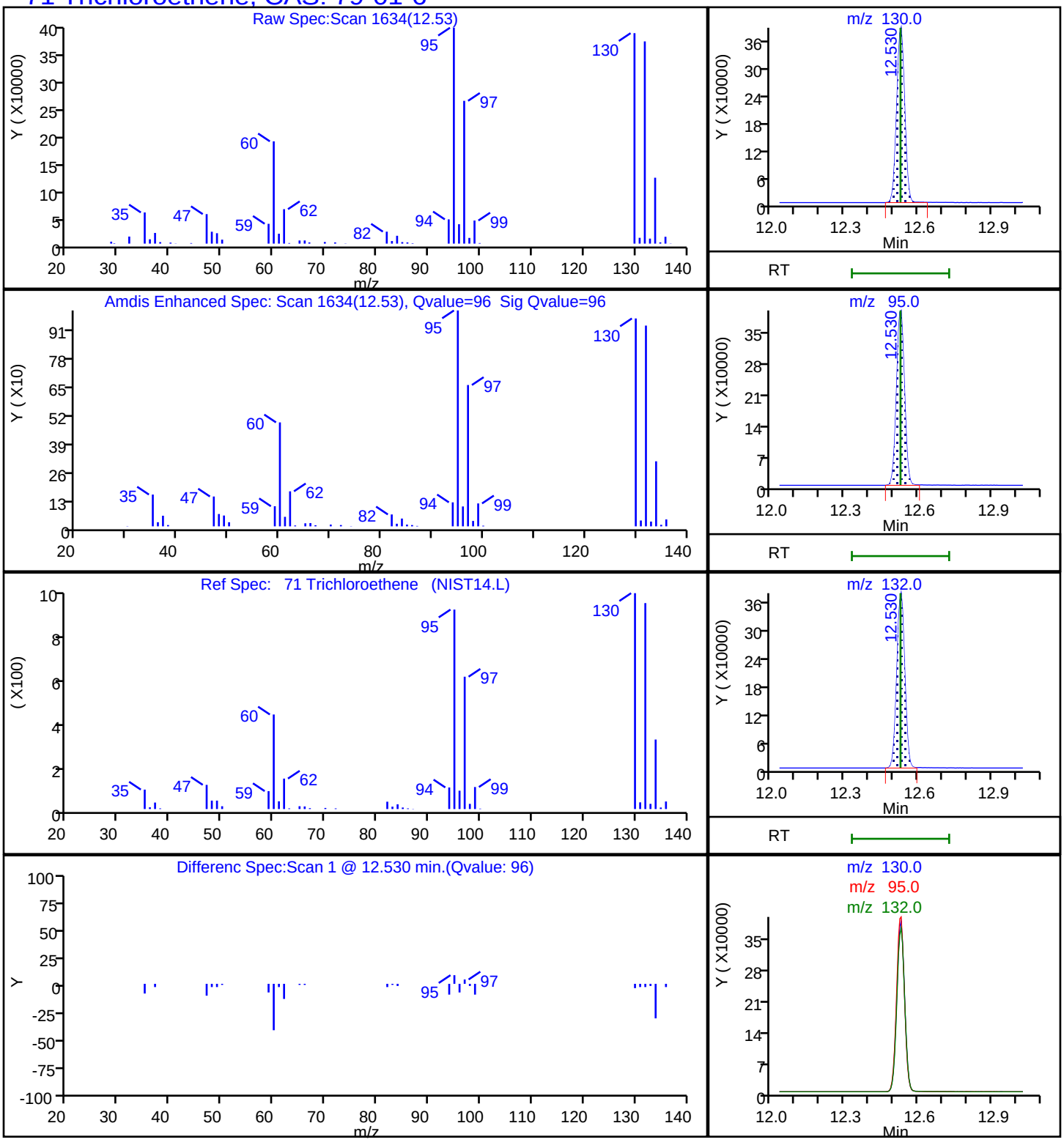


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

71 Trichloroethene, CAS: 79-01-6

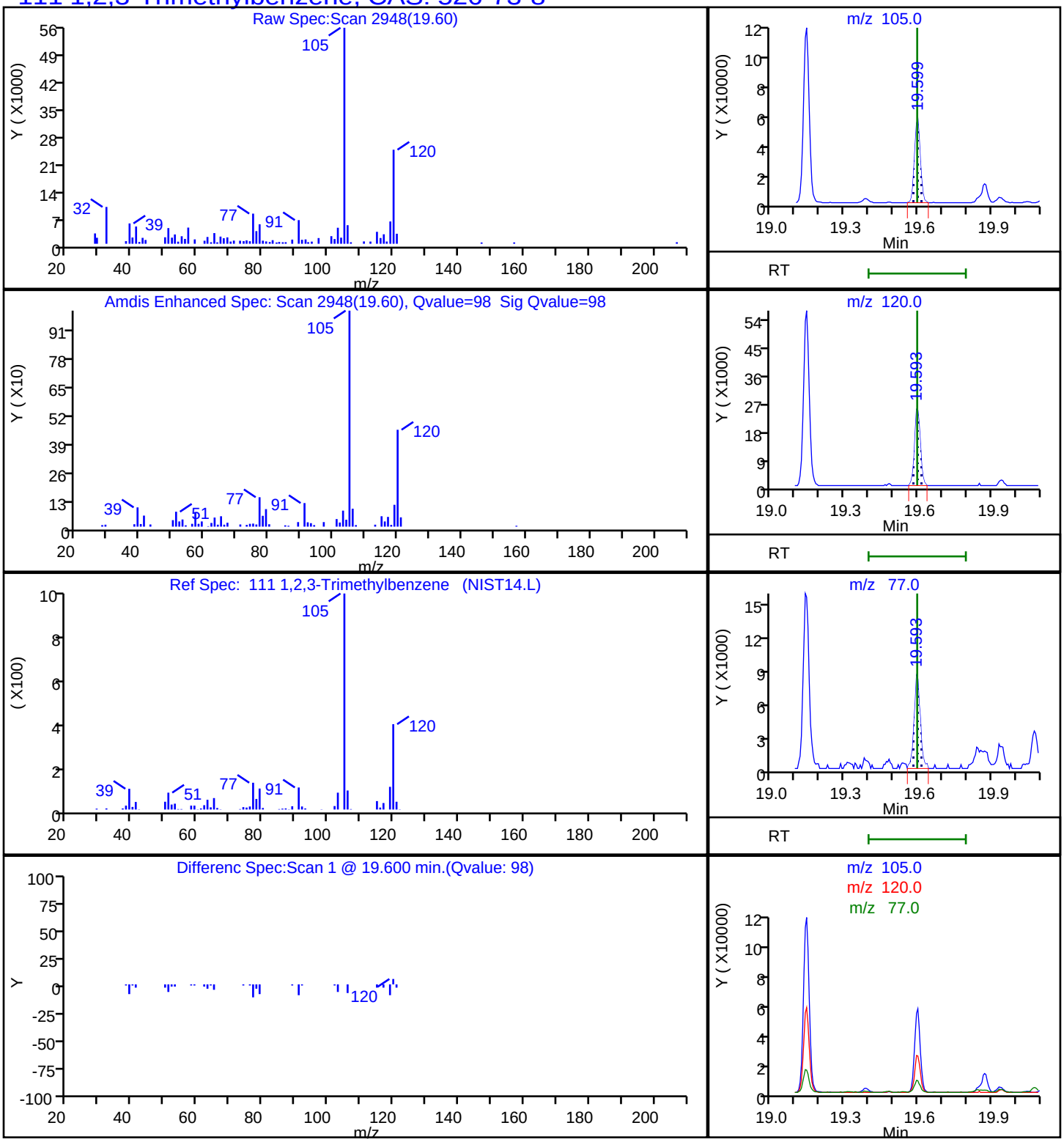


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

111 1,2,3-Trimethylbenzene, CAS: 526-73-8

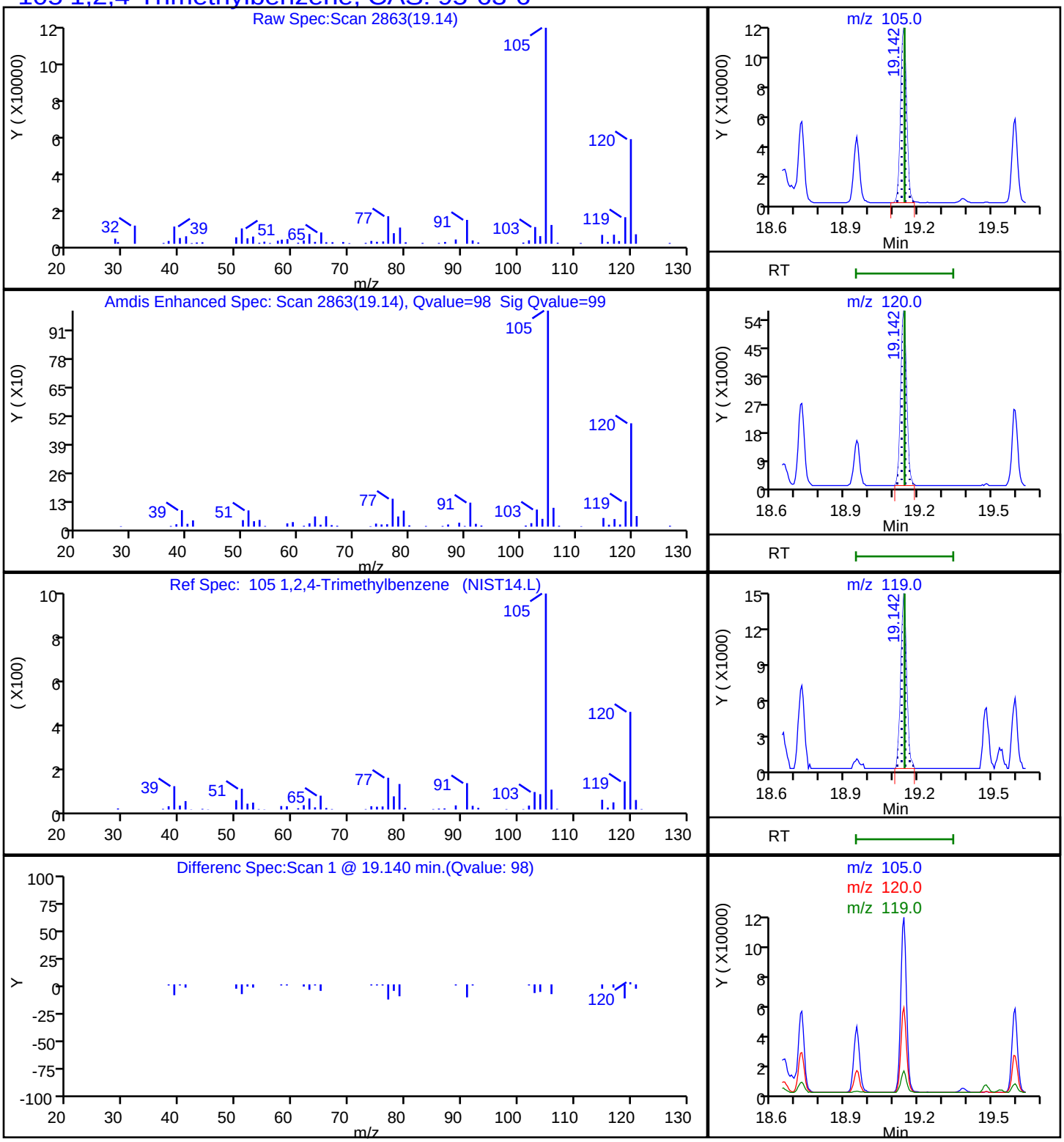


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

105 1,2,4-Trimethylbenzene, CAS: 95-63-6

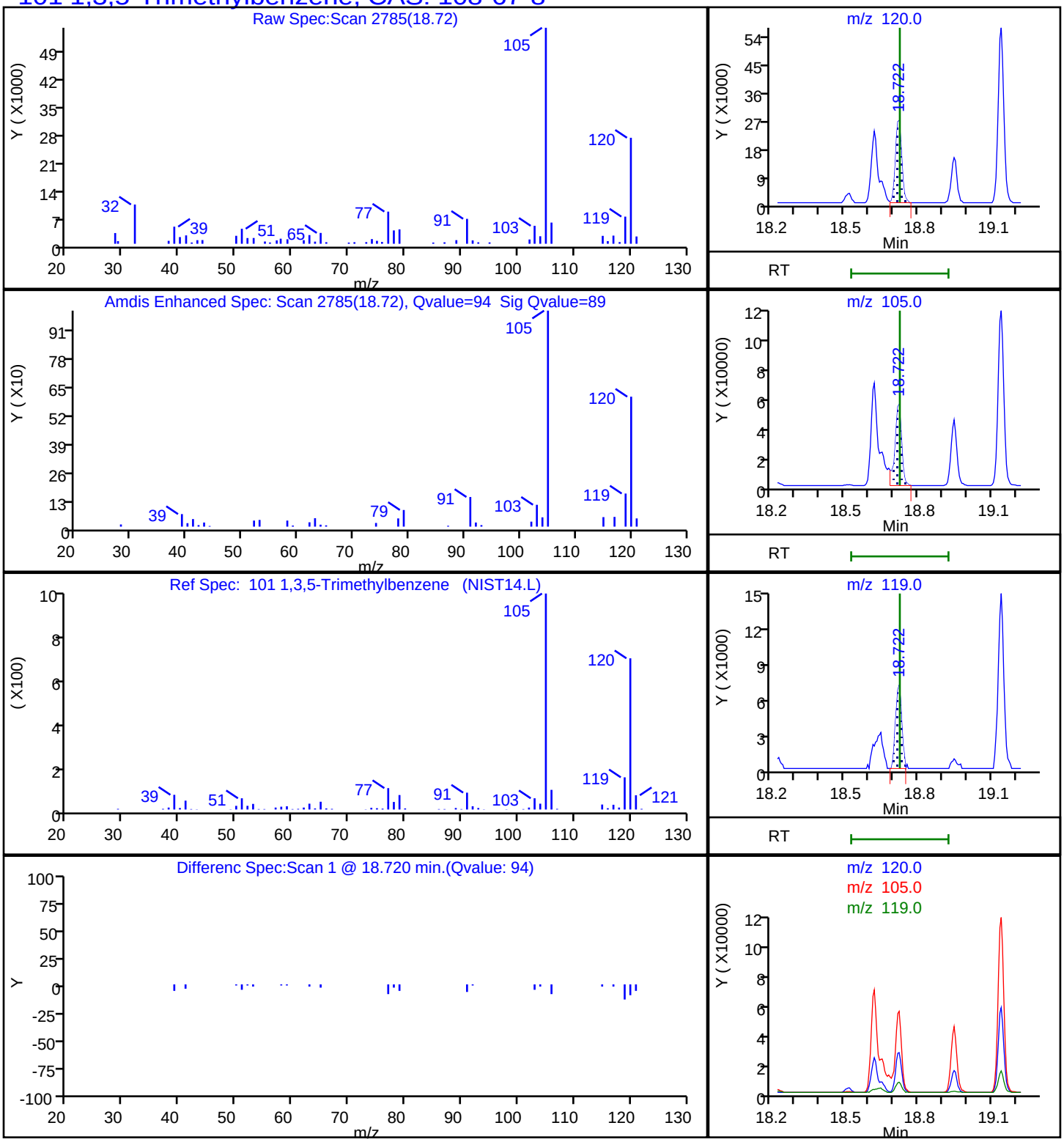


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D		
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20
Client ID:	SV-101-B-27		
Operator ID:	007126	ALS Bottle#:	1 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

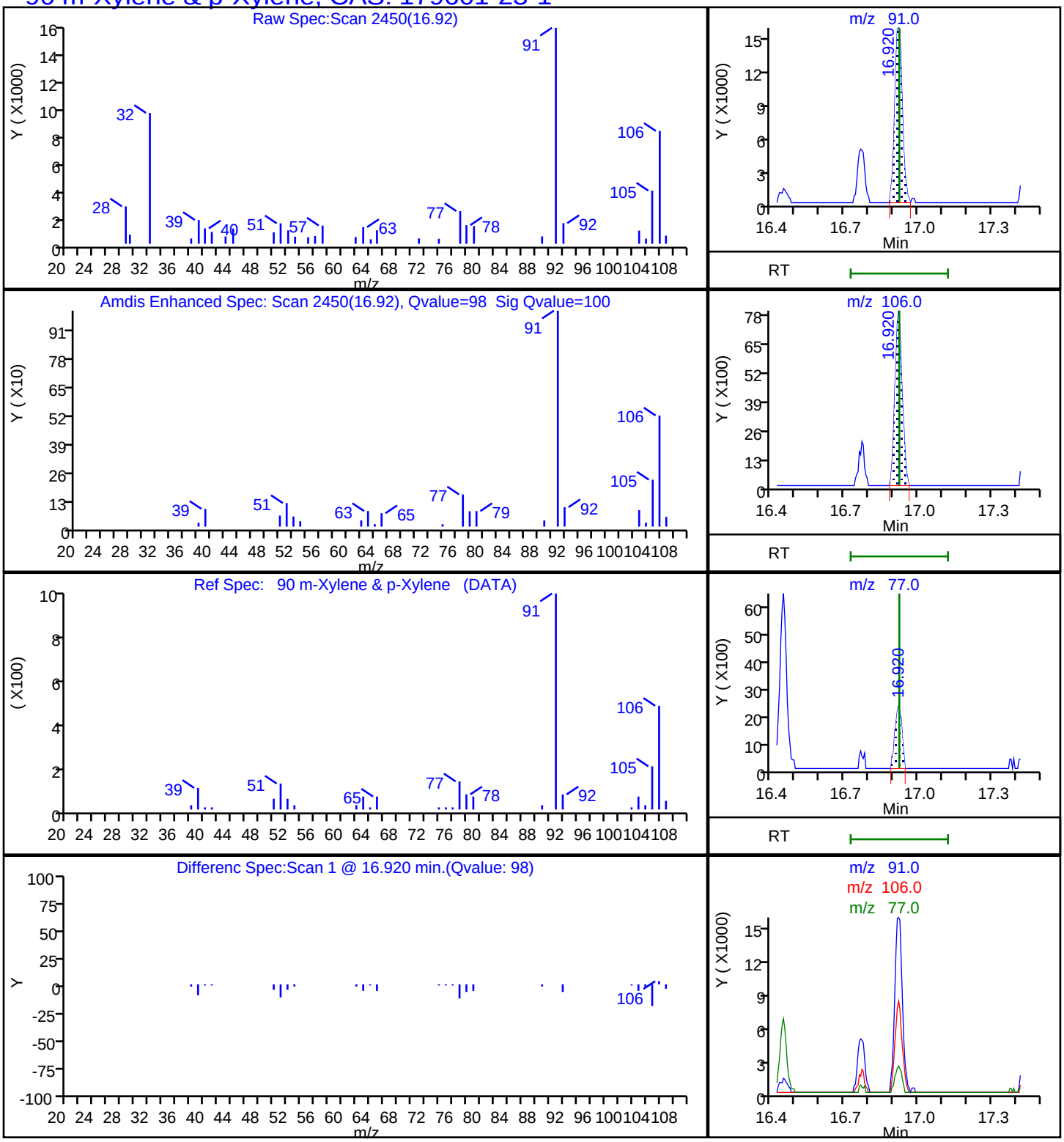


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

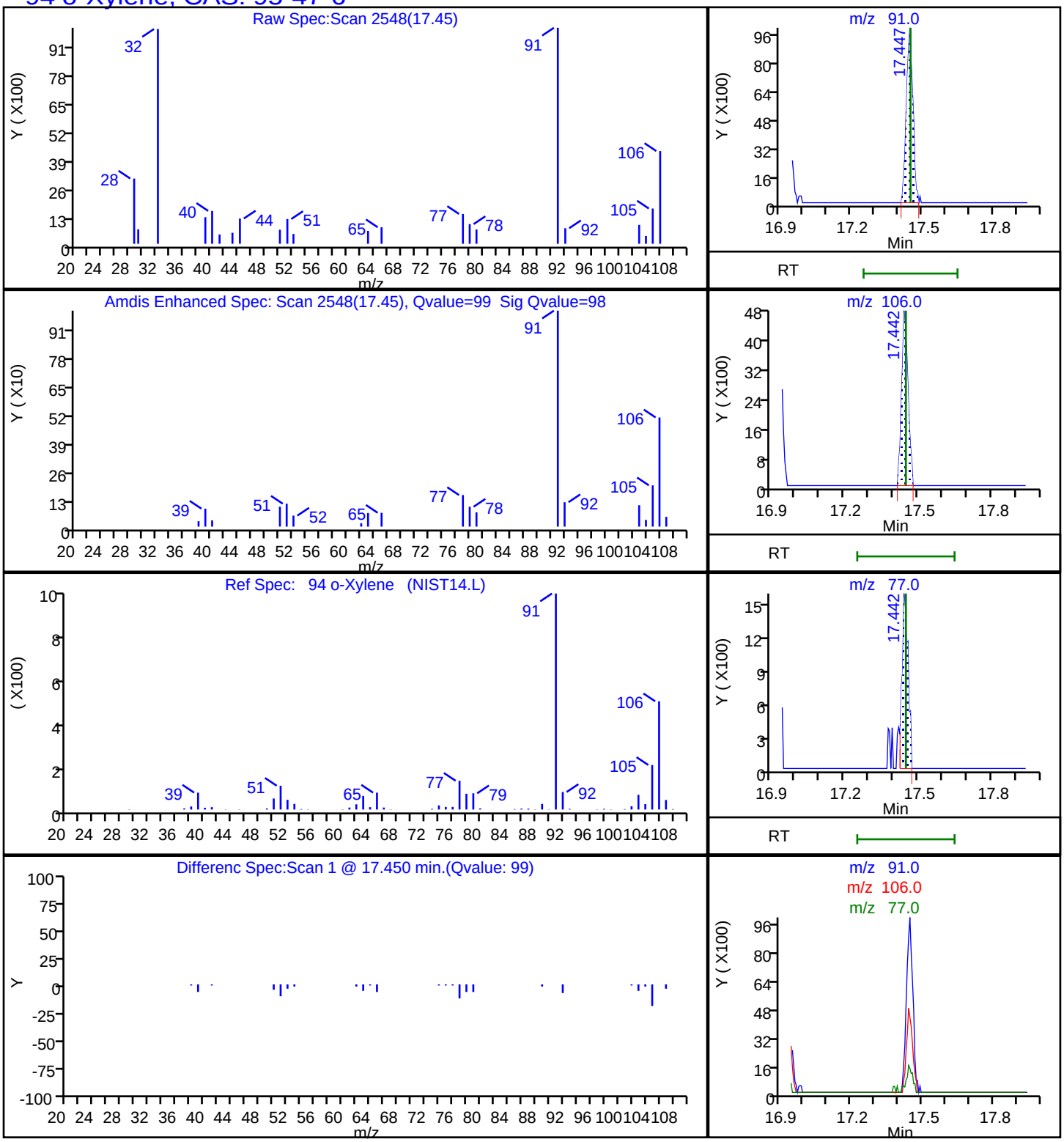


Report Date: 21-Aug-2019 12:22:49 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

94 o-Xylene, CAS: 95-47-6



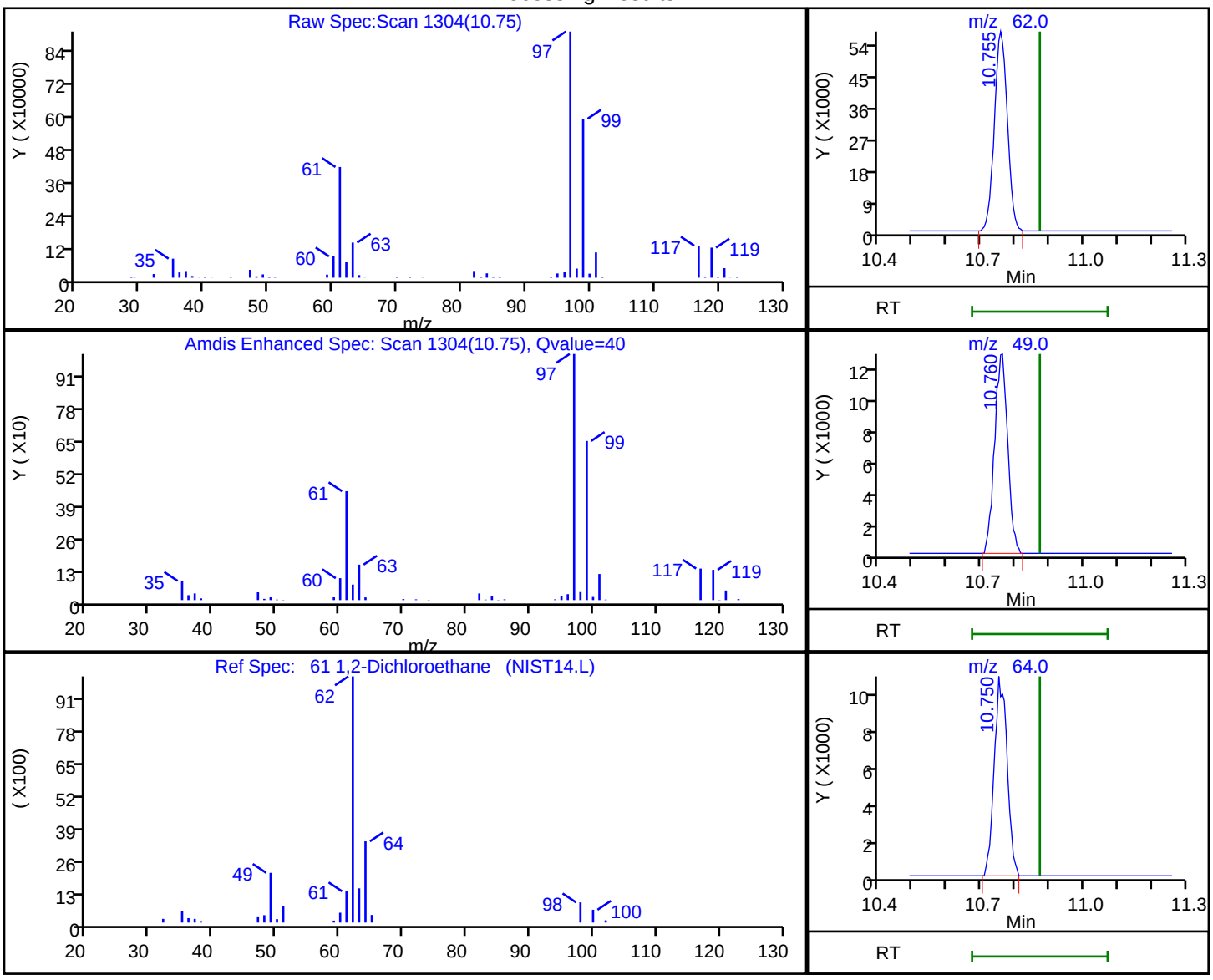
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JH20P101.D				
Injection Date:	20-Aug-2019 16:29:30	Instrument ID:	MJ		
Lims ID:	140-16377-A-20	Lab Sample ID:	140-16377-20		
Client ID:	SV-101-B-27				
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

61 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.75	62.00	153782	0.901351
10.76	49.00	32475	
10.75	64.00	27596	

Reviewer: khachitpongpanits, 21-Aug-2019 12:22:20

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-Jul-2019 20:27:30 ALS Bottle#: 13 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-004
Misc. Info.: 231544
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:23 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:08:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	96	314272	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.845	11.841	0.004	96	1591131	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	91	1435997	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	92	1116210	4.00	4.23	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	746436	8.00	8.69	
20 Propene	41	4.168	4.169	-0.001	97	452211	8.00	7.27	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	785524	8.00	7.98	
22 Chloromethane	52	4.443	4.441	0.002	100	261290	8.00	8.23	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	47	104932	8.00	7.68	
24 Acetaldehyde	44	4.615	4.617	-0.002	93	1644486	40.0	40.2	
25 Vinyl chloride	62	4.642	4.642	0.000	99	896725	8.00	8.40	
26 Butane	43	4.739	4.739	0.000	84	1362610	8.00	8.27	
27 Butadiene	54	4.739	4.741	-0.002	69	668537	8.00	8.28	
28 Bromomethane	94	5.115	5.117	-0.002	98	788699	8.00	8.39	
29 Chloroethane	64	5.277	5.275	0.002	93	397472	8.00	8.46	
30 Ethanol	31	5.384	5.386	-0.002	98	1803133	40.0	42.5	
31 Vinyl bromide	106	5.621	5.618	0.003	98	741427	8.00	8.51	
32 2-Methylbutane	43	5.669	5.669	0.000	90	914602	8.00	8.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	2750738	8.00	8.09	
34 Acrolein	56	5.933	5.930	0.003	96	174522	8.00	8.46	
35 Acetonitrile	40	6.008	6.004	0.004	97	281228	8.00	8.61	
36 Acetone	58	6.051	6.061	-0.010	99	880002	24.0	24.3	
38 Pentane	72	6.154	6.155	-0.001	95	108908	8.00	8.39	
37 Isopropyl alcohol	45	6.148	6.155	-0.007	93	2777741	24.0	26.4	
39 Ethyl ether	31	6.336	6.345	-0.009	91	980136	8.00	8.39	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	799265	8.00	8.29	
41 Acrylonitrile	53	6.804	6.802	0.002	91	559160	8.00	8.67	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	96	1515640	8.00	9.33	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	1829502	8.00	8.16	
44 Methylene Chloride	84	7.068	7.067	0.001	97	890951	8.00	7.53	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	97	900716	8.00	8.22	
46 Carbon disulfide	76	7.251	7.248	0.003	100	2412730	8.00	8.20	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	93	802422	8.00	8.33	
48 2-Methylpentane	43	7.929	7.928	0.001	95	2100541	8.00	7.91	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	2268816	8.00	8.82	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	1771492	8.00	8.25	
51 Vinyl acetate	43	8.461	8.461	0.000	100	2352362	8.00	8.63	
52 2-Butanone (MEK)	72	8.935	8.943	-0.008	98	348079	8.00	8.21	
53 Hexane	56	8.951	8.948	0.003	80	698498	8.00	8.08	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	2819575	8.00	8.58	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	847712	8.00	8.53	
56 Ethyl acetate	43	9.559	9.566	-0.007	98	1936281	8.00	8.57	
57 Chloroform	83	9.742	9.735	0.007	97	2105679	8.00	8.26	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	2711408	8.00	8.86	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	955418	8.00	8.45	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	96	2279639	8.00	8.31	
61 1,2-Dichloroethane	62	10.877	10.873	0.004	98	1568177	8.00	8.58	
62 n-Butanol	31	11.275	11.296	-0.021	94	378008	8.00	8.69	
63 Cyclohexane	69	11.339	11.337	0.002	93	412685	8.00	8.43	
64 Benzene	78	11.345	11.340	0.005	98	2422180	8.00	8.31	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	1624278	8.00	6.65	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	91	564569	8.00	8.59	
67 Thiophene	84	11.608	11.604	0.004	98	1436912	8.00	8.67	
68 Isooctane	57	12.044	12.041	0.003	97	4299338	8.00	8.27	
69 n-Heptane	71	12.394	12.392	0.002	94	866442	8.00	8.64	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	86	1063615	8.00	8.69	
71 Trichloroethene	130	12.539	12.537	0.002	91	1291545	8.00	9.82	
72 Dibromomethane	93	12.630	12.627	0.003	96	1189178	8.00	8.76	
73 Dichlorobromomethane	83	12.765	12.761	0.004	99	2271588	8.00	8.76	
74 1,4-Dioxane	88	12.776	12.787	-0.011	92	324076	8.00	9.50	
75 Methyl methacrylate	41	12.824	12.827	-0.003	89	1279199	8.00	8.96	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	1516089	8.00	8.49	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	2103846	8.00	9.43	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	1653644	8.00	9.10	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	98	1595731	8.00	9.02	
80 Toluene	91	14.524	14.519	0.005	92	3008163	8.00	8.67	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	96	950196	8.00	8.55	
82 2-Hexanone	58	14.949	14.956	-0.007	92	986384	8.00	9.71	
83 n-Octane	85	15.153	15.154	-0.001	95	917763	8.00	8.62	
84 Chlorodibromomethane	129	15.293	15.290	0.003	97	2141207	8.00	8.91	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	1796171	8.00	8.88	
86 Tetrachloroethene	129	15.643	15.637	0.006	96	1182555	8.00	8.48	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	95	3223031	8.00	7.91	
88 Chlorobenzene	112	16.504	16.501	0.003	90	2361273	8.00	8.51	
89 Ethylbenzene	91	16.778	16.773	0.005	100	4015925	8.00	8.98	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	6295808	16.0	18.4	
91 n-Nonane	57	17.311	17.307	0.004	92	2122316	8.00	8.55	
92 Styrene	104	17.397	17.392	0.005	98	2294329	8.00	9.37	
93 Bromoform	173	17.402	17.398	0.004	96	2392675	8.00	9.30	
94 o-Xylene	91	17.456	17.453	0.003	98	3316892	8.00	9.10	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	1948236	8.00	7.67	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	648112	8.00	8.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.015	18.012	0.003	98	4239905	8.00	8.91	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	1148202	8.00	9.04	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	1109333	8.00	9.03	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	4296952	8.00	9.06	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	1702428	8.00	9.00	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	1785812	8.00	9.15	
103 n-Decane	57	18.978	18.974	0.004	91	2689224	8.00	8.57	
104 tert-Butylbenzene	119	19.134	19.133	0.001	89	3853173	8.00	8.84	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	3728010	8.00	8.87	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	5162536	8.00	8.75	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	2584149	8.00	8.83	
108 Benzyl chloride	91	19.489	19.487	0.002	97	3429055	8.00	9.52	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	92	2591316	8.00	8.76	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	4365177	8.00	8.79	
111 1,2,3-Trimethylbenzene	105	19.608	19.603	0.005	99	3630969	8.00	8.81	
112 Butylcyclohexane	83	19.645	19.642	0.003	91	3052992	8.00	8.56	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	3375076	8.00	8.83	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	2504407	8.00	8.70	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	4494512	8.00	8.74	
116 Indene	116	19.973	19.974	-0.001	88	2859932	8.00	8.72	
117 Undecane	57	20.237	20.235	0.002	95	3006478	8.00	8.47	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	1301047	8.00	9.08	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	4041015	8.00	9.03	
120 Dodecane	57	21.324	21.323	0.001	93	2734198	8.00	9.06	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	1991130	8.00	8.47	
122 Naphthalene	128	21.695	21.693	0.002	99	2833111	8.00	7.70	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	94	2425829	8.00	8.56	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	1549901	8.00	8.35	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	861791	8.00	8.57	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	1031248	8.00	8.56	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	9605151	8.00	8.43	
S 129 Xylenes, Total	100				0		24.0	27.5	
S 130 1,2-Dichloroethene, Total	1				0		16.0	16.9	

Reagents:

40L9DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

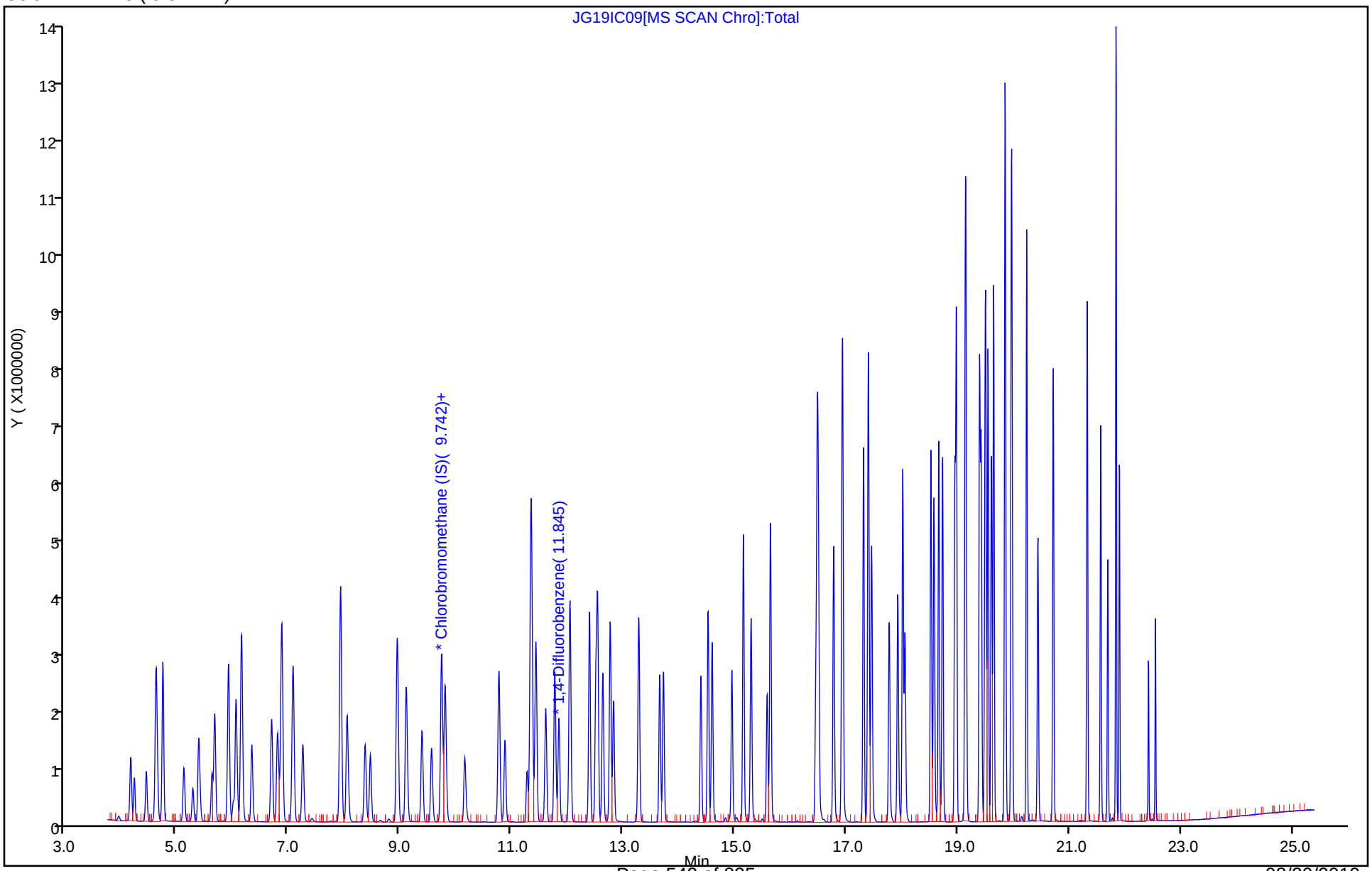
Report Date: 24-Jul-2019 11:35:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D

Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

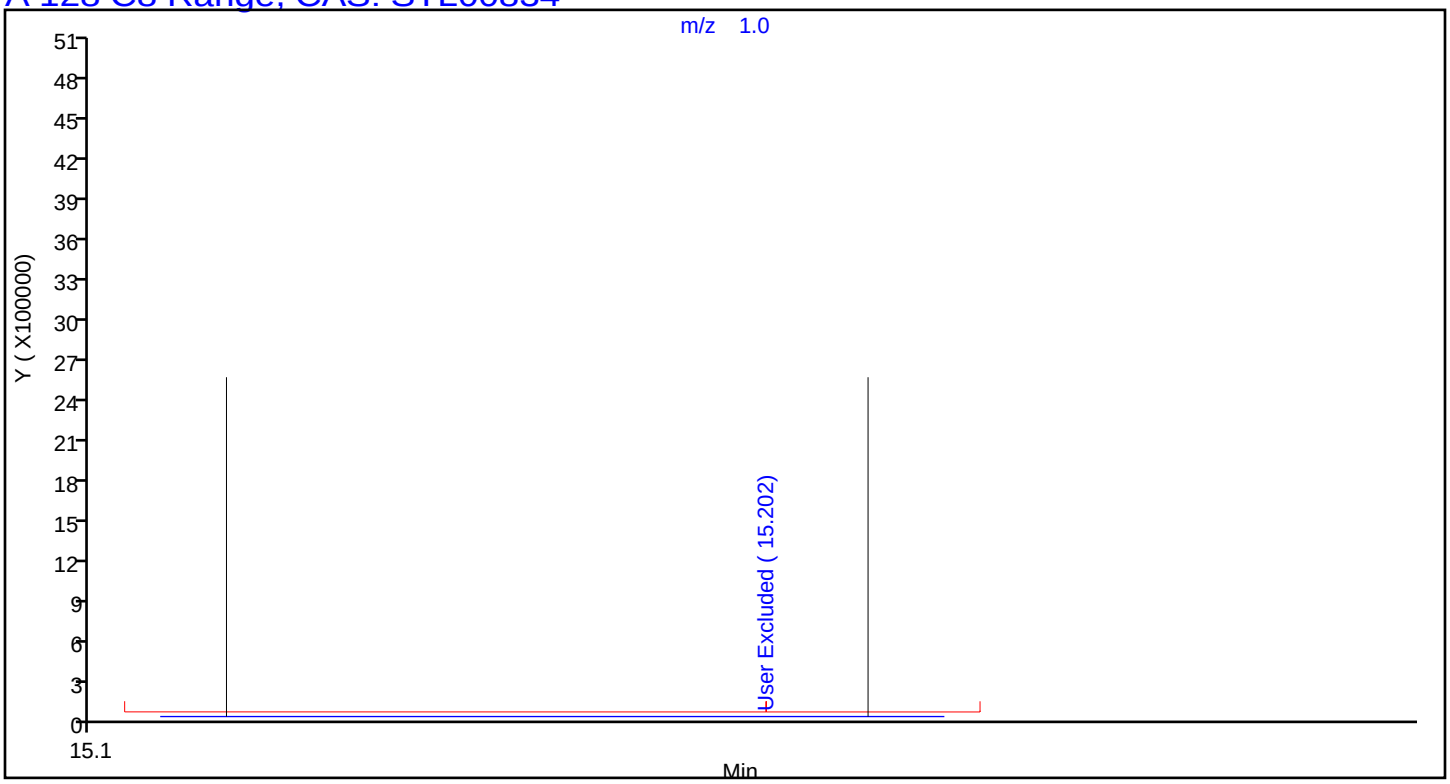


Report Date: 24-Jul-2019 11:35:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC09.D				
Injection Date:	19-Jul-2019 20:27:30	Instrument ID:	MJ		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	13	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 19-Jul-2019 22:08:30 ALS Bottle#: 15 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-006
Misc. Info.: 231543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 14:31:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.736	9.731	0.005	93	345636	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.850	11.841	0.009	96	1832536	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.461	16.453	0.007	89	1681549	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.058	18.052	0.006	91	1240000	4.00	4.01	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	999266	16.0	10.6	
20 Propene	41	4.168	4.169	-0.001	97	592182	16.0	8.66	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	1499187	16.0	13.8	
22 Chloromethane	52	4.443	4.441	0.002	100	462523	16.0	13.2	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	46	175417	16.0	11.7	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	2825329	80.0	62.8	
25 Vinyl chloride	62	4.642	4.642	0.000	99	1689141	16.0	14.4	
26 Butane	43	4.739	4.739	0.000	84	2603044	16.0	14.4	
27 Butadiene	54	4.739	4.741	-0.002	69	1270467	16.0	14.3	
28 Bromomethane	94	5.121	5.117	0.004	98	1514422	16.0	14.6	
29 Chloroethane	64	5.277	5.275	0.002	95	770102	16.0	14.9	
30 Ethanol	31	5.390	5.386	0.004	99	3044070	80.0	65.3	
31 Vinyl bromide	106	5.621	5.618	0.003	97	1459967	16.0	15.2	
32 2-Methylbutane	43	5.669	5.669	0.000	90	1778006	16.0	14.2	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	5466655	16.0	14.6	
34 Acrolein	56	5.933	5.930	0.003	98	314601	16.0	13.9	
35 Acetonitrile	40	6.008	6.004	0.004	97	539412	16.0	15.0	
36 Acetone	58	6.057	6.061	-0.004	100	1556512	48.0	39.1	
38 Pentane	72	6.159	6.155	0.004	92	218971	16.0	15.3	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	75	4474624	48.0	38.7	
39 Ethyl ether	31	6.336	6.345	-0.009	90	1842593	16.0	14.3	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	93	1581117	16.0	14.9	
41 Acrylonitrile	53	6.810	6.802	0.008	92	1066284	16.0	15.0	
42 2-Methyl-2-propanol	59	6.799	6.814	-0.015	96	2352259	16.0	13.2	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	96	3609413	16.0	14.6	
44 Methylene Chloride	84	7.073	7.067	0.006	97	1420525	16.0	10.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	96	1865781	16.0	15.5	
46 Carbon disulfide	76	7.251	7.248	0.003	100	4778388	16.0	14.8	
47 trans-1,2-Dichloroethene	96	7.929	7.922	0.007	93	1559714	16.0	14.7	
48 2-Methylpentane	43	7.934	7.928	0.006	94	4040646	16.0	13.8	
49 Methyl tert-butyl ether	73	8.047	8.066	-0.019	97	4294511	16.0	15.2	
50 1,1-Dichloroethane	63	8.370	8.363	0.007	100	3431571	16.0	14.5	
51 Vinyl acetate	43	8.467	8.461	0.006	100	4347628	16.0	14.5	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	98	640120	16.0	13.7	
53 Hexane	56	8.951	8.948	0.003	81	1355833	16.0	14.3	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	5240908	16.0	14.5	
55 cis-1,2-Dichloroethene	96	9.392	9.384	0.008	98	1644734	16.0	15.1	
56 Ethyl acetate	43	9.564	9.566	-0.002	98	3675059	16.0	14.8	
57 Chloroform	83	9.747	9.735	0.012	97	4117234	16.0	14.7	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	97	5081493	16.0	15.1	
59 Tetrahydrofuran	42	10.156	10.176	-0.020	92	1801950	16.0	14.5	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	97	4497945	16.0	14.9	
61 1,2-Dichloroethane	62	10.882	10.873	0.009	98	3115023	16.0	14.8	
62 n-Butanol	31	11.280	11.296	-0.016	94	580553	16.0	11.6	
63 Cyclohexane	69	11.339	11.337	0.002	93	811291	16.0	14.4	
64 Benzene	78	11.350	11.340	0.010	98	4679288	16.0	13.9	
65 Carbon tetrachloride	117	11.366	11.361	0.005	98	4751427	16.0	16.9	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	90	1085296	16.0	14.3	
67 Thiophene	84	11.614	11.604	0.010	98	2776968	16.0	14.5	
68 Isooctane	57	12.049	12.041	0.008	96	8281518	16.0	13.8	
69 n-Heptane	71	12.399	12.392	0.007	94	1681680	16.0	14.6	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	2056985	16.0	14.6	
71 Trichloroethene	130	12.544	12.537	0.007	93	2209989	16.0	14.6	
72 Dibromomethane	93	12.636	12.627	0.009	96	2348328	16.0	15.0	
73 Dichlorobromomethane	83	12.770	12.761	0.009	99	4508733	16.0	15.1	
74 1,4-Dioxane	88	12.776	12.787	-0.011	91	537847	16.0	13.7	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	2475502	16.0	15.0	
76 Methylcyclohexane	83	13.281	13.277	0.004	92	2972213	16.0	14.5	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.662	-0.004	99	3439475	16.0	13.4	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	98	3240398	16.0	15.5	
79 trans-1,3-Dichloropropene	75	14.395	14.390	0.005	97	3180285	16.0	15.4	
80 Toluene	91	14.524	14.519	0.005	92	5839733	16.0	14.4	
81 1,1,2-Trichloroethane	83	14.599	14.591	0.008	95	1873801	16.0	14.4	
82 2-Hexanone	58	14.954	14.956	-0.002	92	1569231	16.0	13.2	
83 n-Octane	85	15.159	15.154	0.005	93	1786512	16.0	14.3	
84 Chlorodibromomethane	129	15.299	15.290	0.009	98	4340906	16.0	15.4	
85 Ethylene Dibromide	107	15.584	15.579	0.005	98	3574771	16.0	15.1	
86 Tetrachloroethene	129	15.643	15.637	0.006	94	2373157	16.0	14.5	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	94	6097229	16.0	12.8	
88 Chlorobenzene	112	16.504	16.501	0.003	90	4719682	16.0	14.5	
89 Ethylbenzene	91	16.778	16.773	0.005	100	7725788	16.0	14.8	
90 m-Xylene & p-Xylene	91	16.934	16.929	0.005	99	12055501	32.0	30.0	
91 n-Nonane	57	17.316	17.307	0.009	91	4150063	16.0	14.3	
92 Styrene	104	17.397	17.392	0.005	98	4622861	16.0	16.1	
93 Bromoform	173	17.402	17.398	0.004	97	5062797	16.0	16.8	
94 o-Xylene	91	17.461	17.453	0.008	98	6347222	16.0	14.9	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	98	4342084	16.0	14.6	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	97	1267571	16.0	15.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.021	18.012	0.009	98	8162742	16.0	14.6	
98 N-Propylbenzene	120	18.521	18.517	0.004	98	2260539	16.0	15.2	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	2193658	16.0	15.2	
100 4-Ethyltoluene	105	18.666	18.658	0.008	97	8353268	16.0	15.0	
101 1,3,5-Trimethylbenzene	120	18.731	18.726	0.005	91	3349699	16.0	15.1	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	84	3635031	16.0	15.9	
103 n-Decane	57	18.978	18.974	0.004	93	5075517	16.0	13.8	
105 1,2,4-Trimethylbenzene	105	19.150	19.146	0.004	96	7496594	16.0	15.2	
106 sec-Butylbenzene	105	19.398	19.389	0.009	96	10008232	16.0	14.5	
107 1,3-Dichlorobenzene	146	19.425	19.419	0.006	98	5278679	16.0	15.4	
108 Benzyl chloride	91	19.495	19.487	0.008	97	7139166	16.0	16.9	
109 1,4-Dichlorobenzene	146	19.505	19.501	0.004	91	5369180	16.0	15.5	
110 4-Isopropyltoluene	119	19.548	19.542	0.006	96	8636742	16.0	14.9	
111 1,2,3-Trimethylbenzene	105	19.607	19.603	0.004	98	7267371	16.0	15.1	
112 Butylcyclohexane	83	19.651	19.642	0.009	91	5944213	16.0	14.2	
113 2,3-Dihydroindene	117	19.850	19.846	0.004	93	6866158	16.0	15.3	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.004	94	5170636	16.0	15.3	
115 n-Butylbenzene	91	19.963	19.958	0.005	98	8885564	16.0	14.8	
116 Indene	116	19.979	19.974	0.005	89	6055240	16.0	15.8	
117 Undecane	57	20.237	20.235	0.002	94	5651121	16.0	13.6	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	96	2569818	16.0	15.3	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	8007424	16.0	15.3	
120 Dodecane	57	21.324	21.323	0.001	93	3757386	16.0	10.6	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	4126184	16.0	15.0	
122 Naphthalene	128	21.695	21.693	0.002	98	5776864	16.0	13.4	
123 Hexachlorobutadiene	225	21.845	21.841	0.004	93	4683877	16.0	14.1	
124 1,2,3-Trichlorobenzene	180	21.905	21.900	0.005	95	2955030	16.0	13.6	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	99	948200	16.0	8.05	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	100	977205	16.0	6.92	
A 128 C8 Range	1	15.169	(15.120-15.217)		0	18748187	16.0	14.0	
S 129 Xylenes, Total	100				0		48.0	44.9	
S 130 1,2-Dichloroethene, Total	1				0		32.0	29.8	

Reagents:

40L10DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

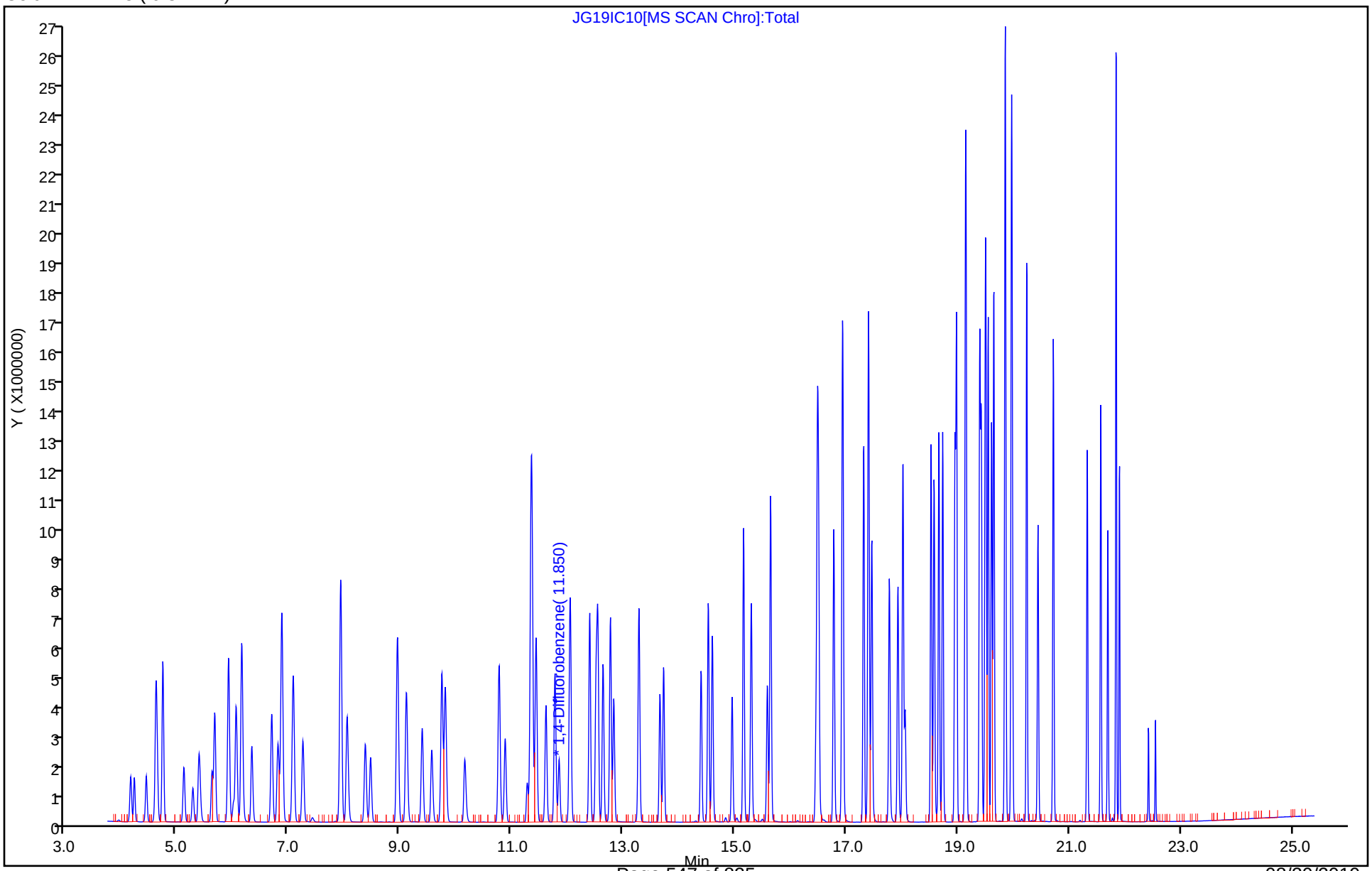
Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D

Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	6
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

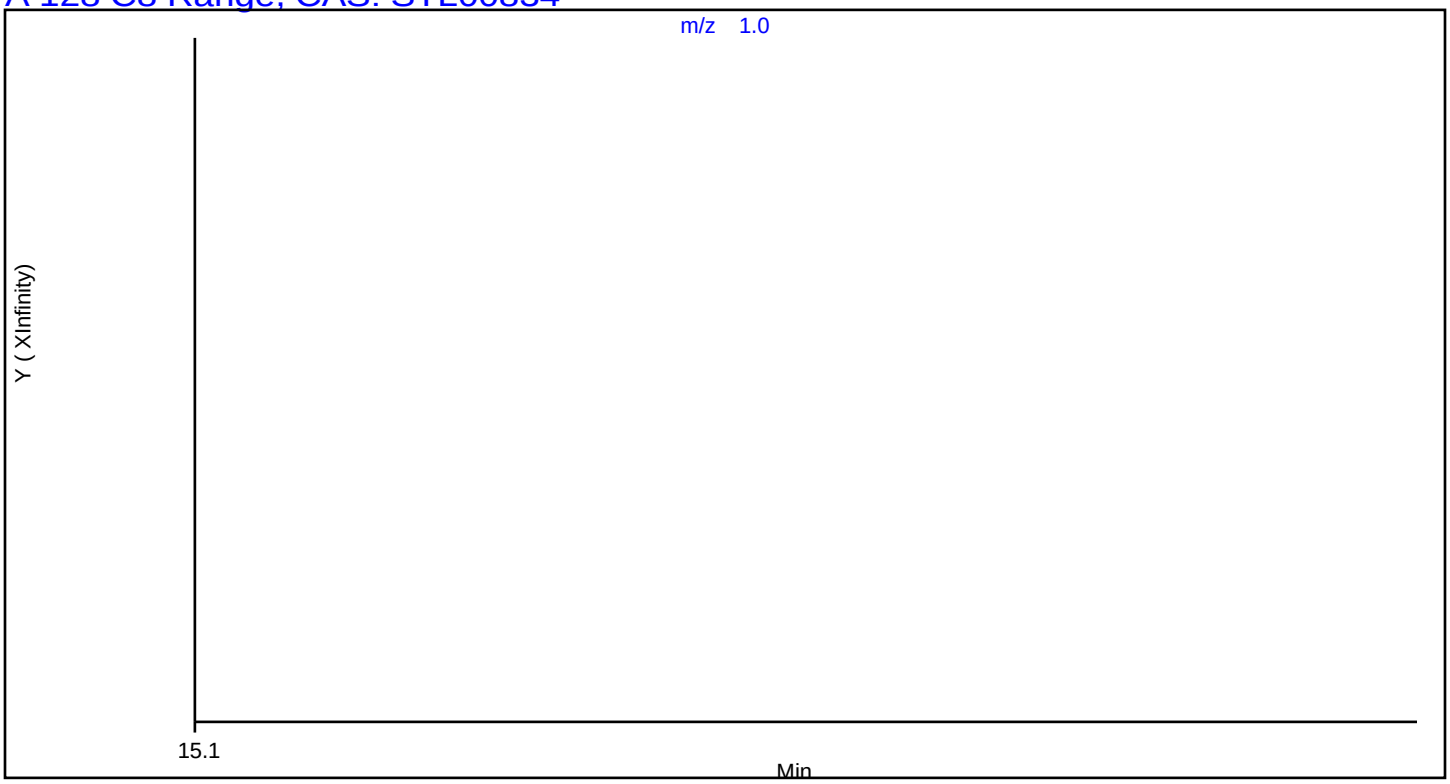


Report Date: 24-Jul-2019 11:35:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



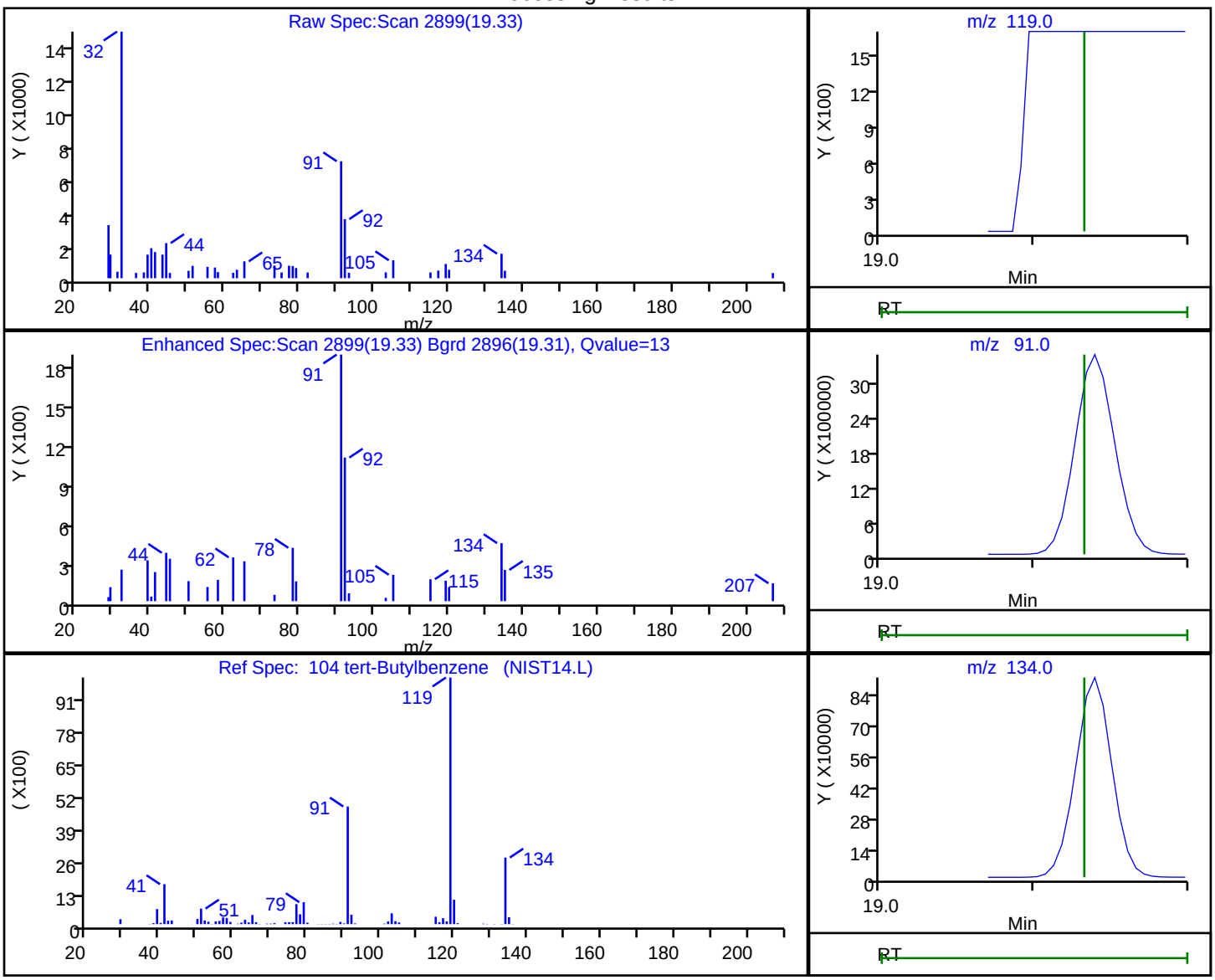
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC10.D				
Injection Date:	19-Jul-2019 22:08:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

104 tert-Butylbenzene, CAS: 98-06-6

Processing Results



RT	Mass	Response	Amount
19.33	119.00	187	0.000418
19.13	91.00	0	
19.13	134.00	0	

Reviewer: tajh, 22-Jul-2019 18:08:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Jul-2019 00:39:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-009
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:38 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 22-Jul-2019 18:21:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.729	9.731	-0.002	97	313712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.837	11.841	-0.004	97	1627560	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.453	16.453	0.000	91	1405662	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.051	18.052	-0.001	89	991098	4.00	3.84	
19 Chlorodifluoromethane	51	4.150	4.155	-0.005	34	2189	0.0200	0.0255	
20 Propene	41	4.172	4.169	0.003	96	17804	0.0200	0.2867	
21 Dichlorodifluoromethane	85	4.225	4.228	-0.003	85	2169	0.0200	0.0221	
22 Chloromethane	52	4.441	4.441	0.000	86	1131	0.0200	0.0357	
24 Acetaldehyde	44	4.618	4.617	0.001	90	11538	0.1000	0.2826	
25 Vinyl chloride	62	4.645	4.642	0.003	86	2330	0.0200	0.0219	
26 Butane	43	4.736	4.739	-0.003	83	4322	0.0200	0.0263	
27 Butadiene	54	4.747	4.741	0.006	60	2150	0.0200	0.0267	
28 Bromomethane	94	5.118	5.117	0.001	87	2266	0.0200	0.0241	
29 Chloroethane	64	5.280	5.275	0.005	19	820	0.0200	0.0175	
30 Ethanol	31	5.387	5.386	0.001	98	7537	0.1000	0.1781	
31 Vinyl bromide	106	5.613	5.618	-0.005	58	2050	0.0200	0.0236	
32 2-Methylbutane	43	5.673	5.669	0.004	80	2930	0.0200	0.0259	
33 Trichlorofluoromethane	101	5.915	5.916	-0.001	95	7213	0.0200	0.0213	
36 Acetone	58	6.076	6.061	0.015	73	2491	0.0600	0.0690	
37 Isopropyl alcohol	45	6.167	6.155	0.012	73	8813	0.0600	0.0840	
39 Ethyl ether	31	6.361	6.345	0.016	1	453	0.0200	0.003886	
40 1,1-Dichloroethene	96	6.695	6.690	0.005	90	2044	0.0200	0.0212	
41 Acrylonitrile	53	6.808	6.802	0.006	51	628	0.0200	0.009754	
42 2-Methyl-2-propanol	59	6.840	6.814	0.026	50	2672	0.0200	0.0165	
43 1,1,2-Trichloro-1,2,2-trif	101	6.872	6.873	-0.001	92	4632	0.0200	0.0207	
44 Methylene Chloride	84	7.066	7.067	-0.001	97	16987	0.0200	0.1439	
45 3-Chloro-1-propene	39	7.082	7.081	0.001	26	2522	0.0200	0.0231	
46 Carbon disulfide	76	7.243	7.248	-0.005	92	6498	0.0200	0.0221	
47 trans-1,2-Dichloroethene	96	7.916	7.922	-0.006	93	1890	0.0200	0.0196	
48 2-Methylpentane	43	7.932	7.928	0.004	94	7408	0.0200	0.0280	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
49 Methyl tert-butyl ether	73	8.099	8.066	0.033	39	3753	0.0200	0.0146	
50 1,1-Dichloroethane	63	8.362	8.363	-0.001	95	4424	0.0200	0.0206	
51 Vinyl acetate	43	8.459	8.461	-0.002	63	4359	0.0200	0.0160	
53 Hexane	56	8.943	8.948	-0.005	81	2077	0.0200	0.0241	
54 Isopropyl ether	45	9.132	9.118	0.014	95	5328	0.0200	0.0162	
55 cis-1,2-Dichloroethene	96	9.390	9.384	0.006	77	1970	0.0200	0.0199	
56 Ethyl acetate	43	9.573	9.566	0.007	90	3872	0.0200	0.0172	
57 Chloroform	83	9.729	9.735	-0.006	31	5814	0.0200	0.0228	
58 Tert-butyl ethyl ether	59	9.836	9.817	0.019	89	4288	0.0200	0.0140	
59 Tetrahydrofuran	42	10.207	10.176	0.031	51	2162	0.0200	0.0192	
60 1,1,1-Trichloroethane	97	10.767	10.767	0.000	93	5753	0.0200	0.0210	
61 1,2-Dichloroethane	62	10.869	10.873	-0.004	92	3702	0.0200	0.0198	
62 n-Butanol	31	11.321	11.296	0.025	55	3821	0.0200	0.0859	
63 Cyclohexane	69	11.326	11.337	-0.011	77	1154	0.0200	0.0231	
64 Benzene	78	11.337	11.340	-0.003	95	7093	0.0200	0.0238	
65 Carbon tetrachloride	117	11.359	11.361	-0.002	93	4218	0.0200	0.0169	
66 2,3-Dimethylpentane	71	11.434	11.430	0.004	87	1248	0.0200	0.0186	
67 Thiophene	84	11.595	11.604	-0.009	89	3464	0.0200	0.0204	
68 Isooctane	57	12.042	12.041	0.001	96	12538	0.0200	0.0236	
69 n-Heptane	71	12.397	12.392	0.005	88	2222	0.0200	0.0217	
70 1,2-Dichloropropane	63	12.504	12.505	-0.001	80	2412	0.0200	0.0193	
71 Trichloroethene	130	12.537	12.537	0.000	90	2786	0.0200	0.0207	
72 Dibromomethane	93	12.623	12.627	-0.004	90	2816	0.0200	0.0203	
73 Dichlorobromomethane	83	12.752	12.761	-0.009	94	5568	0.0200	0.0210	
75 Methyl methacrylate	41	12.833	12.827	0.006	74	3650	0.0200	0.0250	
76 Methylcyclohexane	83	13.279	13.277	0.002	91	3834	0.0200	0.0210	
77 4-Methyl-2-pentanone (MIBK	43	13.677	13.662	0.015	91	5569	0.0200	0.0244	
78 cis-1,3-Dichloropropene	75	13.715	13.718	-0.003	87	3577	0.0200	0.0192	
79 trans-1,3-Dichloropropene	75	14.387	14.390	-0.003	92	2599	0.0200	0.0150	
80 Toluene	91	14.522	14.519	0.003	91	6575	0.0200	0.0194	
81 1,1,2-Trichloroethane	83	14.592	14.591	0.001	88	1827	0.0200	0.0168	
82 2-Hexanone	58	14.963	14.956	0.007	87	1686	0.0200	0.0170	
83 n-Octane	85	15.151	15.154	-0.003	87	2054	0.0200	0.0197	
84 Chlorodibromomethane	129	15.286	15.290	-0.004	95	4650	0.0200	0.0198	
85 Ethylene Dibromide	107	15.576	15.579	-0.003	96	4044	0.0200	0.0204	
86 Tetrachloroethene	129	15.635	15.637	-0.002	87	2956	0.0200	0.0217	
87 2,3-Dimethylheptane	43	16.474	16.478	-0.004	93	11576	0.0200	0.0290	
88 Chlorobenzene	112	16.501	16.501	0.000	83	5493	0.0200	0.0202	
89 Ethylbenzene	91	16.770	16.773	-0.003	97	7777	0.0200	0.0178	
90 m-Xylene & p-Xylene	91	16.921	16.929	-0.008	97	12370	0.0400	0.0369	
91 n-Nonane	57	17.308	17.307	0.001	90	5038	0.0200	0.0207	
92 Styrene	104	17.394	17.392	0.002	87	4123	0.0200	0.0172	
93 Bromoform	173	17.400	17.398	0.002	88	4481	0.0200	0.0178	
94 o-Xylene	91	17.454	17.453	0.001	95	5775	0.0200	0.0162	
95 1,1,2,2-Tetrachloroethane	83	17.766	17.769	-0.003	93	4273	0.0200	0.0172	
96 1,2,3-Trichloropropane	110	17.922	17.923	-0.001	94	1138	0.0200	0.0161	
97 Isopropylbenzene	105	18.013	18.012	0.001	87	7286	0.0200	0.0156	
98 N-Propylbenzene	120	18.513	18.517	-0.004	97	2069	0.0200	0.0166	
99 2-Chlorotoluene	126	18.572	18.572	0.000	95	2142	0.0200	0.0178	
100 4-Ethyltoluene	105	18.659	18.658	0.001	95	8496	0.0200	0.0183	
101 1,3,5-Trimethylbenzene	120	18.723	18.726	-0.003	91	3135	0.0200	0.0169	
102 Alpha Methyl Styrene	118	18.944	18.948	-0.004	84	3087	0.0200	0.0162	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
103 n-Decane	57	18.976	18.974	0.002	88	5340	0.0200	0.0174	
104 tert-Butylbenzene	119	19.132	19.133	-0.001	84	6713	0.0200	0.0157	
105 1,2,4-Trimethylbenzene	105	19.143	19.146	-0.003	75	6858	0.0200	0.0167	
106 sec-Butylbenzene	105	19.390	19.389	0.001	96	8913	0.0200	0.0154	
107 1,3-Dichlorobenzene	146	19.417	19.419	-0.002	95	7001	0.0200	0.0244	
108 Benzyl chloride	91	19.487	19.487	0.000	95	7763	0.0200	0.0220	
109 1,4-Dichlorobenzene	146	19.498	19.501	-0.003	86	7220	0.0200	0.0249	
110 4-Isopropyltoluene	119	19.541	19.542	-0.001	95	7857	0.0200	0.0162	
111 1,2,3-Trimethylbenzene	105	19.600	19.603	-0.003	96	7214	0.0200	0.0179	
112 Butylcyclohexane	83	19.638	19.642	-0.004	81	6127	0.0200	0.0176	
113 2,3-Dihydroindene	117	19.842	19.846	-0.004	91	7559	0.0200	0.0202	
114 1,2-Dichlorobenzene	146	19.847	19.851	-0.004	88	6415	0.0200	0.0228	
115 n-Butylbenzene	91	19.960	19.958	0.002	96	9491	0.0200	0.0189	
116 Indene	116	19.971	19.974	-0.003	88	6716	0.0200	0.0209	
117 Undecane	57	20.235	20.235	0.000	91	5853	0.0200	0.0169	
118 1,2-Dibromo-3-Chloropropan	157	20.439	20.438	0.001	87	2912	0.0200	0.0208	
119 1,2,4,5-Tetramethylbenzene	119	20.714	20.713	0.001	95	8404	0.0200	0.0192	
120 Dodecane	57	21.327	21.323	0.004	87	7479	0.0200	0.0253	
121 1,2,4-Trichlorobenzene	180	21.563	21.565	-0.002	92	9727	0.0200	0.0423	
122 Naphthalene	128	21.693	21.693	0.000	98	13915	0.0200	0.0386	
123 Hexachlorobutadiene	225	21.838	21.841	-0.003	94	5884	0.0200	0.0212	
124 1,2,3-Trichlorobenzene	180	21.902	21.900	0.002	92	8062	0.0200	0.0444	
125 2-Methylnaphthalene	142	22.424	22.424	0.000	96	11130	0.0200	0.1131	
126 1-Methylnaphthalene	142	22.548	22.549	-0.001	98	11702	0.0200	0.0992	
A 128 C8 Range	1	15.161	(15.134-15.188)		0	24948	0.0200	0.0224	
S 129 Xylenes, Total	100				0		0.0600	0.0530	
S 130 1,2-Dichloroethene, Total	1				0		0.0400	0.0395	

Reagents:

40L1-3DQP_00015	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

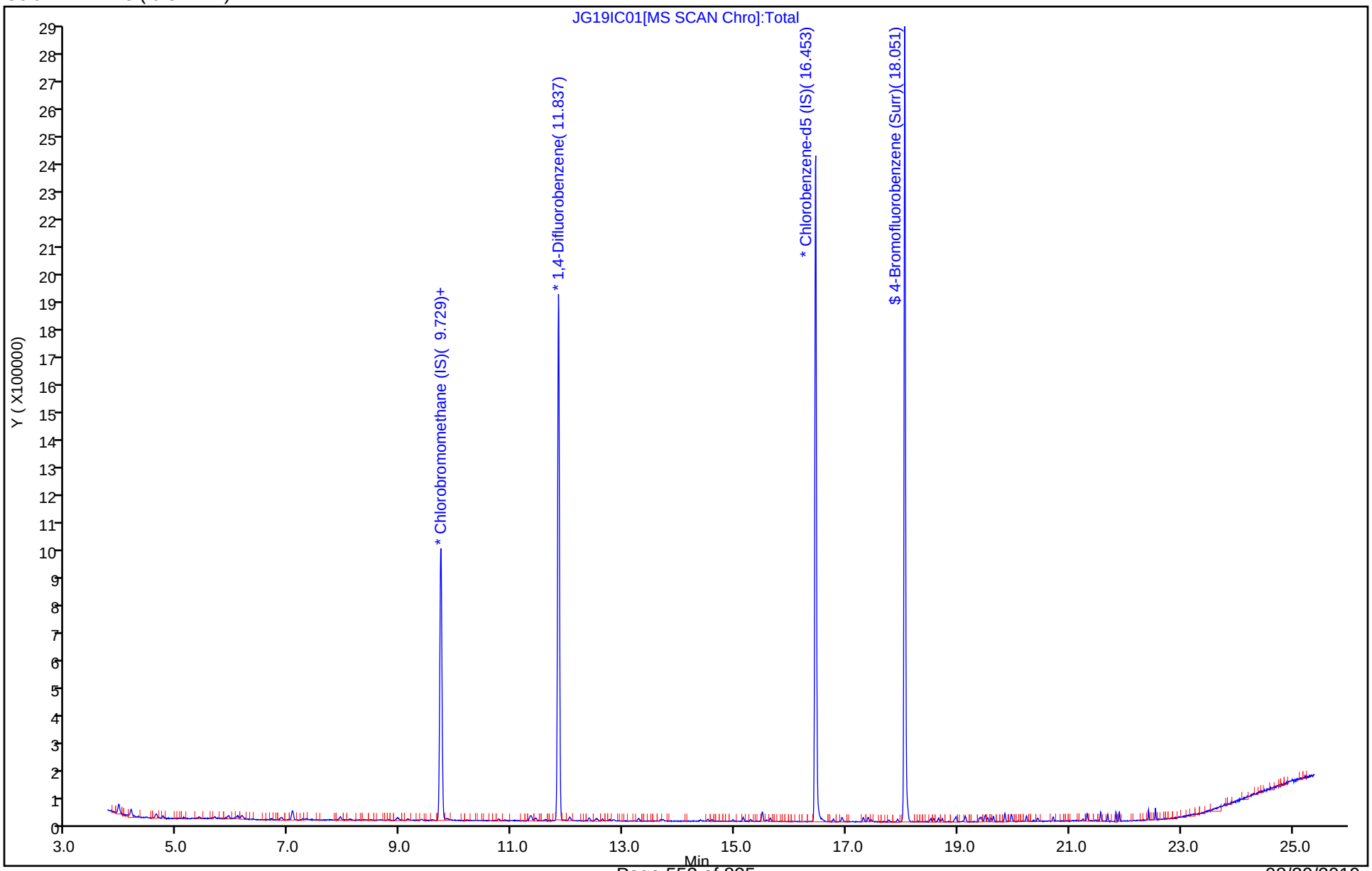
Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D

Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

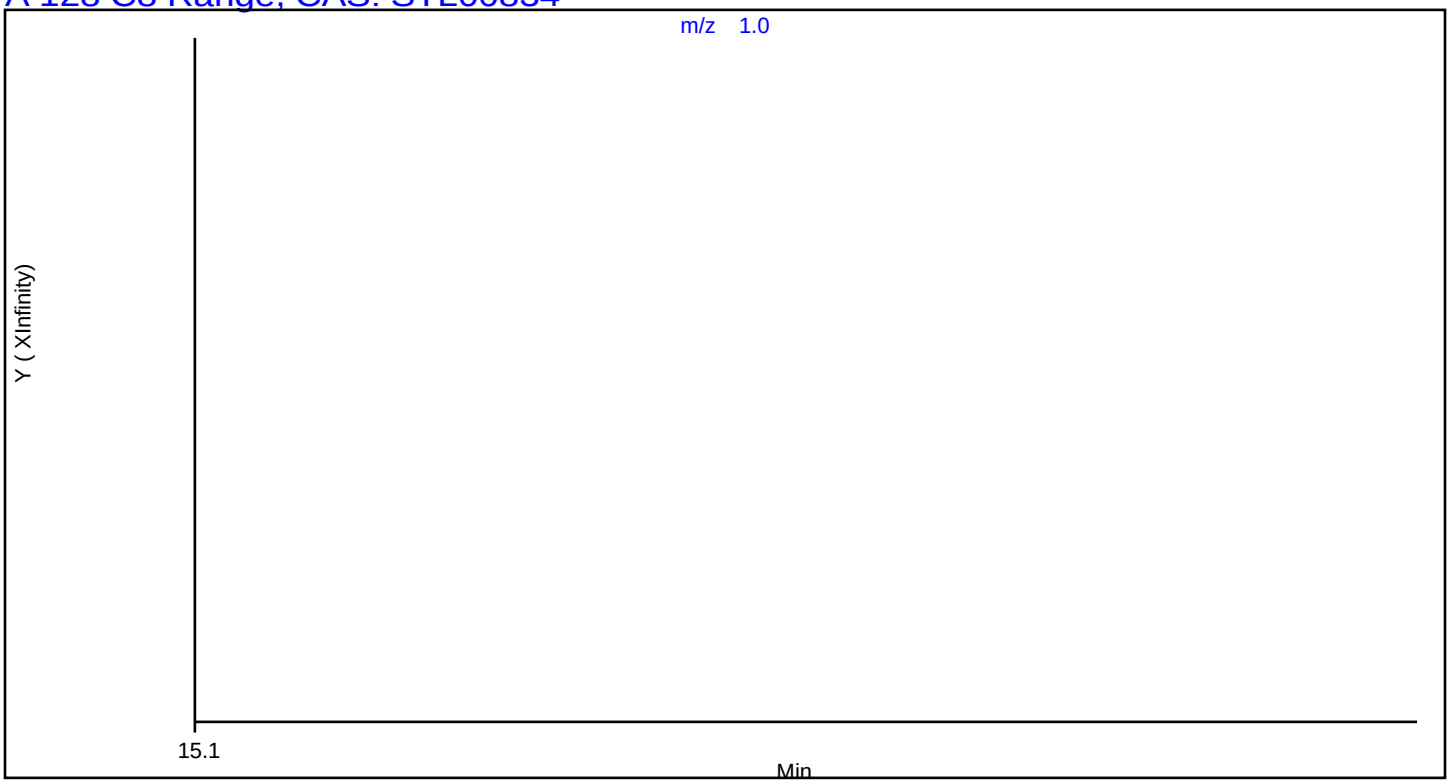


Report Date: 24-Jul-2019 11:35:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



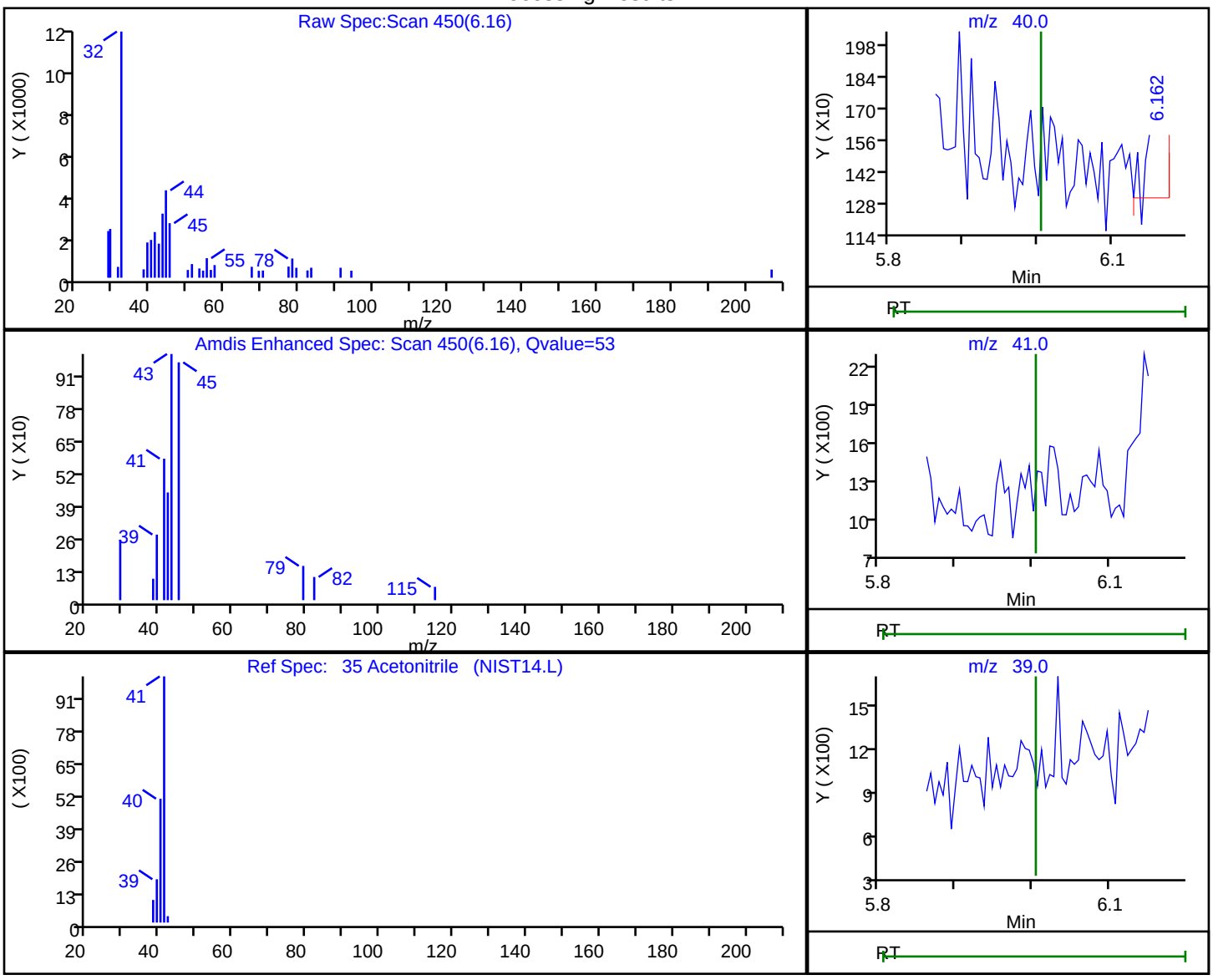
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

35 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.16	40.00	498	0.015280
6.16	41.00	4839	
6.16	39.00	1269	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:34

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

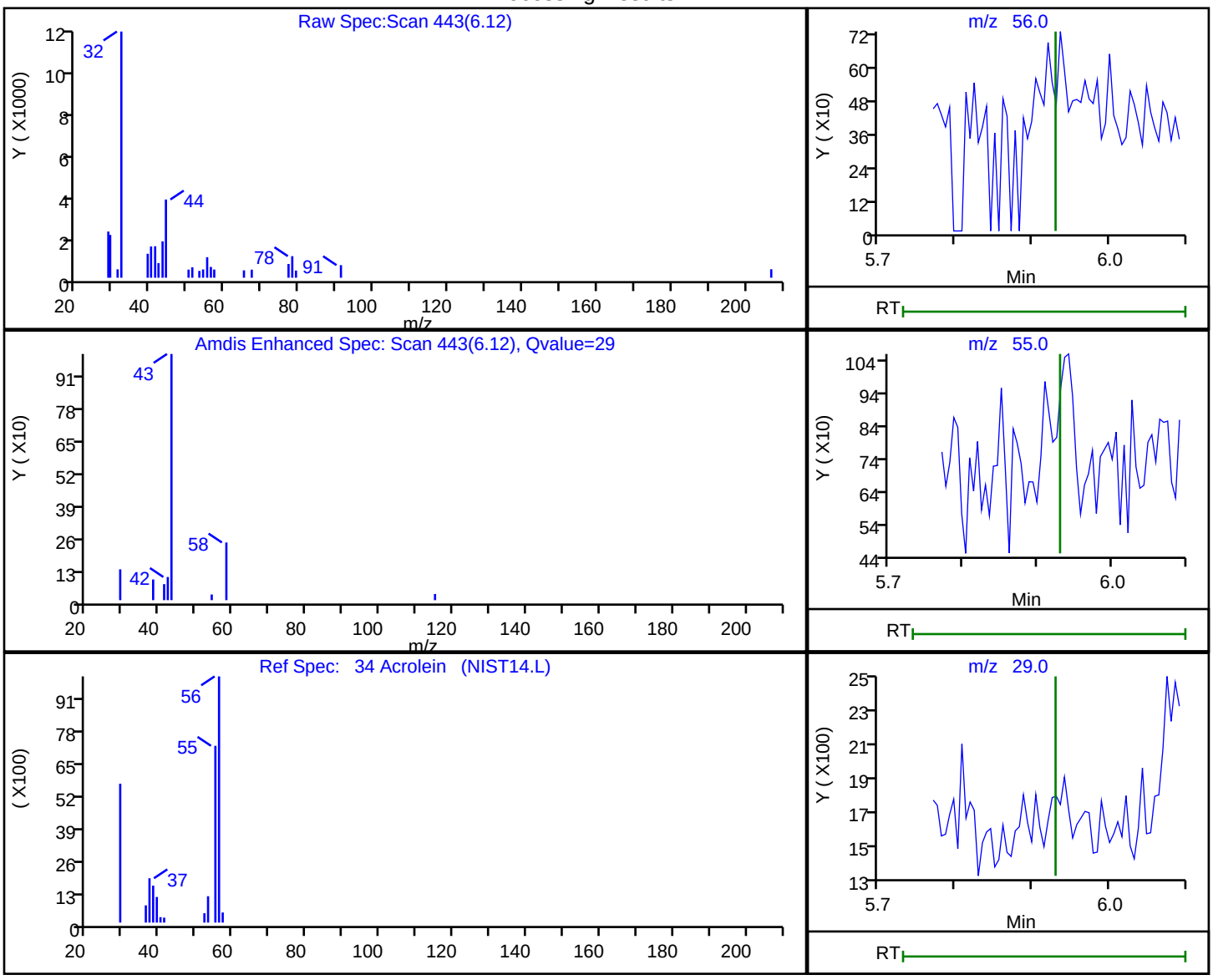
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC01.D				
Injection Date:	20-Jul-2019 00:39:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
6.12	56.00	1445	0.070207
6.12	55.00	363	
5.93	29.00	0	

Reviewer: barlozhetskayaa, 24-Jul-2019 11:11:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Jul-2019 01:29:30 ALS Bottle#: 1 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-010
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:44 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	97	308133	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.844	11.841	0.003	97	1576675	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1365319	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	89	967517	4.00	3.86	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	91	2936	0.0400	0.0349	
20 Propene	41	4.179	4.169	0.010	96	12962	0.0400	0.2125	
21 Dichlorodifluoromethane	85	4.243	4.228	0.015	96	3489	0.0400	0.0362	
22 Chloromethane	52	4.448	4.441	0.007	96	1894	0.0400	0.0609	
24 Acetaldehyde	44	4.625	4.617	0.008	94	18791	0.2000	0.4685	
25 Vinyl chloride	62	4.652	4.642	0.010	95	3946	0.0400	0.0377	
26 Butane	43	4.749	4.739	0.010	84	6602	0.0400	0.0409	
27 Butadiene	54	4.749	4.741	0.008	73	3557	0.0400	0.0449	
28 Bromomethane	94	5.126	5.117	0.009	89	4074	0.0400	0.0442	
29 Chloroethane	64	5.282	5.275	0.007	21	1857	0.0400	0.0403	
30 Ethanol	31	5.405	5.386	0.019	99	12906	0.2000	0.3105	
31 Vinyl bromide	106	5.626	5.618	0.008	94	3454	0.0400	0.0404	
32 2-Methylbutane	43	5.680	5.669	0.011	86	5939	0.0400	0.0533	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	97	13212	0.0400	0.0396	
34 Acrolein	56	5.938	5.930	0.008	25	2511	0.0400	0.1242	
35 Acetonitrile	40	6.008	6.004	0.004	57	1998	0.0400	0.0624	
36 Acetone	58	6.078	6.061	0.017	97	3590	0.1200	0.1012	
37 Isopropyl alcohol	45	6.196	6.155	0.041	92	16701	0.1200	0.1621	
39 Ethyl ether	31	6.357	6.345	0.012	56	1938	0.0400	0.0169	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	89	3774	0.0400	0.0399	
41 Acrylonitrile	53	6.804	6.802	0.002	69	2368	0.0400	0.0374	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	67	5845	0.0400	0.0367	
43 1,1,2-Trichloro-1,2,2-trif	101	6.879	6.873	0.006	91	9393	0.0400	0.0427	
44 Methylene Chloride	84	7.073	7.067	0.006	96	18590	0.0400	0.1604	
45 3-Chloro-1-propene	39	7.094	7.081	0.013	33	2590	0.0400	0.0241	
46 Carbon disulfide	76	7.250	7.248	0.002	96	11849	0.0400	0.0411	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
47 trans-1,2-Dichloroethene	96	7.934	7.922	0.012	86	3780	0.0400	0.0400	
48 2-Methylpentane	43	7.934	7.928	0.006	93	12084	0.0400	0.0464	
49 Methyl tert-butyl ether	73	8.100	8.066	0.034	95	8298	0.0400	0.0329	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	96	8410	0.0400	0.0399	
51 Vinyl acetate	43	8.466	8.461	0.005	98	9068	0.0400	0.0339	
52 2-Butanone (MEK)	72	8.961	8.943	0.018	80	1567	0.0400	0.0377	
53 Hexane	56	8.956	8.948	0.008	87	3869	0.0400	0.0457	
54 Isopropyl ether	45	9.149	9.118	0.031	94	10936	0.0400	0.0339	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	97	3754	0.0400	0.0385	
56 Ethyl acetate	43	9.590	9.566	0.024	94	8442	0.0400	0.0381	
57 Chloroform	83	9.730	9.735	-0.005	35	10551	0.0400	0.0422	
58 Tert-butyl ethyl ether	59	9.849	9.817	0.032	95	9805	0.0400	0.0327	
59 Tetrahydrofuran	42	10.209	10.176	0.033	90	4322	0.0400	0.0390	
60 1,1,1-Trichloroethane	97	10.774	10.767	0.007	96	10466	0.0400	0.0389	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	95	7029	0.0400	0.0388	
62 n-Butanol	31	11.328	11.296	0.032	64	4606	0.0400	0.1069	
63 Cyclohexane	69	11.350	11.337	0.013	77	2068	0.0400	0.0427	
64 Benzene	78	11.333	11.340	-0.007	94	12412	0.0400	0.0430	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	86	8069	0.0400	0.0333	
66 2,3-Dimethylpentane	71	11.436	11.430	0.006	91	2480	0.0400	0.0381	
67 Thiophene	84	11.602	11.604	-0.002	92	6684	0.0400	0.0407	
68 Isooctane	57	12.044	12.041	0.003	96	21744	0.0400	0.0422	
69 n-Heptane	71	12.399	12.392	0.007	94	3833	0.0400	0.0386	
70 1,2-Dichloropropane	63	12.506	12.505	0.001	83	4584	0.0400	0.0378	
71 Trichloroethene	130	12.538	12.537	0.001	86	4953	0.0400	0.0380	
72 Dibromomethane	93	12.630	12.627	0.003	93	5398	0.0400	0.0401	
73 Dichlorobromomethane	83	12.764	12.761	0.003	97	9823	0.0400	0.0382	
74 1,4-Dioxane	88	12.818	12.787	0.031	40	1115	0.0400	0.0330	
75 Methyl methacrylate	41	12.834	12.827	0.007	82	6370	0.0400	0.0450	
76 Methylcyclohexane	83	13.275	13.277	-0.002	93	7431	0.0400	0.0420	
77 4-Methyl-2-pentanone (MIBK	43	13.679	13.662	0.017	97	11558	0.0400	0.0523	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	96	7013	0.0400	0.0390	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	94	5860	0.0400	0.0348	
80 Toluene	91	14.518	14.519	-0.001	92	13283	0.0400	0.0403	
81 1,1,2-Trichloroethane	83	14.593	14.591	0.002	92	4182	0.0400	0.0396	
82 2-Hexanone	58	14.965	14.956	0.009	89	3677	0.0400	0.0381	
83 n-Octane	85	15.153	15.154	-0.001	96	4356	0.0400	0.0430	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	95	8394	0.0400	0.0367	
85 Ethylene Dibromide	107	15.583	15.579	0.004	96	7415	0.0400	0.0385	
86 Tetrachloroethene	129	15.637	15.637	0.000	91	5396	0.0400	0.0407	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	80	18995	0.0400	0.0490	
88 Chlorobenzene	112	16.503	16.501	0.002	95	10571	0.0400	0.0401	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	15849	0.0400	0.0373	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	23792	0.0800	0.0730	
91 n-Nonane	57	17.305	17.307	-0.002	90	9676	0.0400	0.0410	
92 Styrene	104	17.391	17.392	-0.001	95	8335	0.0400	0.0358	
93 Bromoform	173	17.401	17.398	0.003	85	8155	0.0400	0.0333	
94 o-Xylene	91	17.455	17.453	0.002	96	12875	0.0400	0.0371	
95 1,1,2,2-Tetrachloroethane	83	17.773	17.769	0.004	95	8806	0.0400	0.0365	
96 1,2,3-Trichloropropane	110	17.929	17.923	0.006	94	2238	0.0400	0.0326	
97 Isopropylbenzene	105	18.015	18.012	0.003	87	17319	0.0400	0.0383	
98 N-Propylbenzene	120	18.515	18.517	-0.002	97	4134	0.0400	0.0342	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	4391	0.0400	0.0376	
100 4-Ethyltoluene	105	18.660	18.658	0.002	98	17321	0.0400	0.0384	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	5642	0.0400	0.0314	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	86	6248	0.0400	0.0337	
103 n-Decane	57	18.972	18.974	-0.002	89	11227	0.0400	0.0376	
104 tert-Butylbenzene	119	19.134	19.133	0.001	86	13508	0.0400	0.0326	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	94	13691	0.0400	0.0343	
106 sec-Butylbenzene	105	19.387	19.389	-0.003	97	19199	0.0400	0.0342	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	95	11083	0.0400	0.0398	
108 Benzyl chloride	91	19.483	19.487	-0.004	95	12687	0.0400	0.0371	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	89	12077	0.0400	0.0429	
110 4-Isopropyltoluene	119	19.543	19.542	0.000	96	16591	0.0400	0.0351	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	14103	0.0400	0.0360	
112 Butylcyclohexane	83	19.639	19.642	-0.003	86	12855	0.0400	0.0379	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	91	13091	0.0400	0.0360	
114 1,2-Dichlorobenzene	146	19.855	19.851	0.003	84	11041	0.0400	0.0403	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	17973	0.0400	0.0368	
116 Indene	116	19.973	19.974	-0.001	87	11518	0.0400	0.0369	
117 Undecane	57	20.236	20.235	0.001	91	11900	0.0400	0.0353	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	90	5172	0.0400	0.0380	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	95	16233	0.0400	0.0382	
120 Dodecane	57	21.323	21.323	0.000	90	13291	0.0400	0.0463	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	11614	0.0400	0.0520	
122 Naphthalene	128	21.694	21.693	0.001	98	19371	0.0400	0.0554	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	10353	0.0400	0.0384	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	93	10581	0.0400	0.0600	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	99	9794	0.0400	0.1025	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	95	10896	0.0400	0.0951	
A 128 C8 Range	1	15.150	(15.125-15.201)		0	48233	0.0400	0.0445	
S 129 Xylenes, Total	100				0		0.1200	0.1101	
S 130 1,2-Dichloroethene, Total	1				0		0.0800	0.0785	

Reagents:

40L1-3DQP_00015	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D

Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

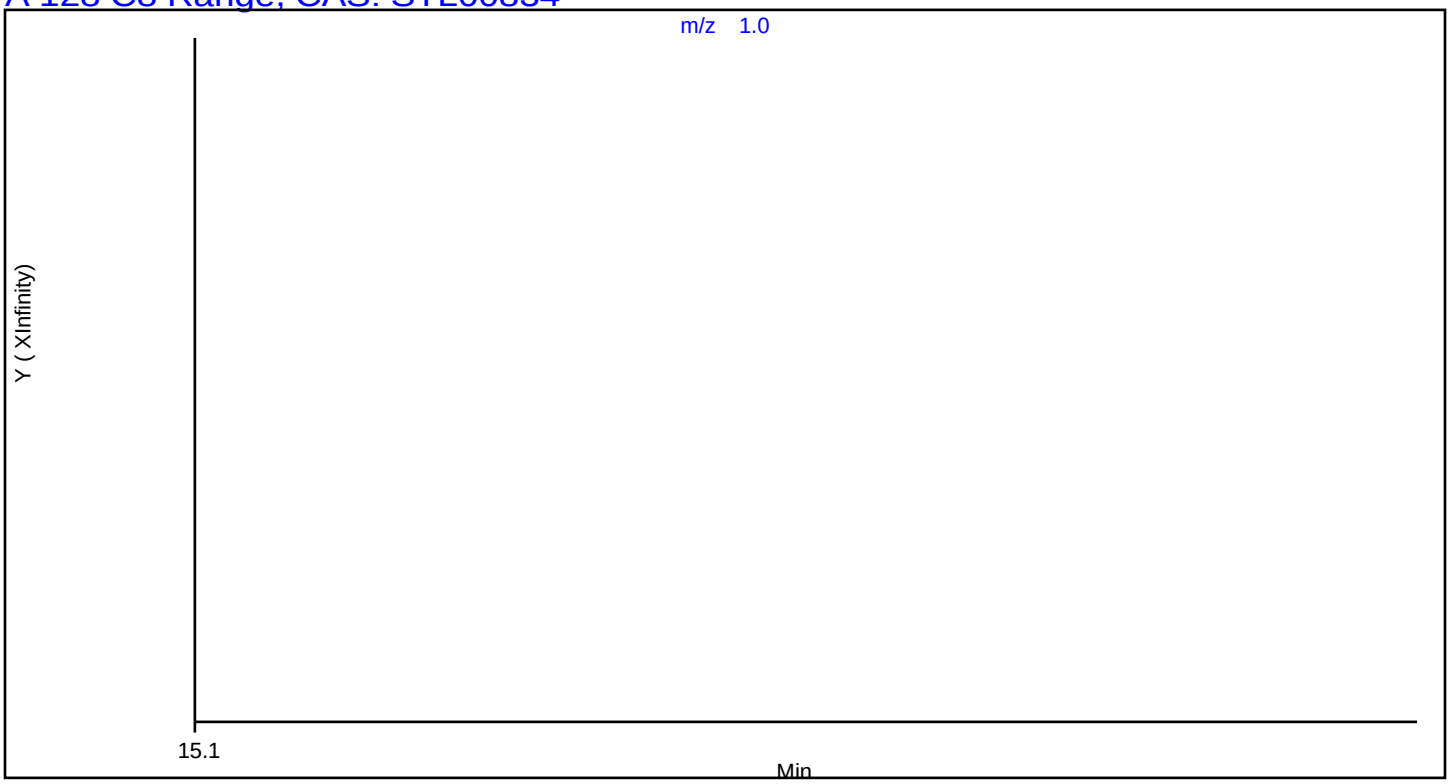


Report Date: 24-Jul-2019 11:35:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC02.D				
Injection Date:	20-Jul-2019 01:29:30	Instrument ID:	MJ		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Jul-2019 02:19:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-011
Misc. Info.: 231550
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:51 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:04:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	295878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1557979	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.455	16.453	0.002	92	1339170	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	969175	4.00	3.94	
19 Chlorodifluoromethane	51	4.163	4.155	0.008	49	9400	0.0800	0.1163	
20 Propene	41	4.168	4.169	-0.001	97	24573	0.0800	0.4196	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	99	9823	0.0800	0.1060	
22 Chloromethane	52	4.437	4.441	-0.004	97	3201	0.0800	0.1071	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.444	0.009	48	1285	0.0800	0.0999	
24 Acetaldehyde	44	4.625	4.617	0.008	94	40868	0.4000	1.06	
25 Vinyl chloride	62	4.647	4.642	0.005	96	8041	0.0800	0.0800	
26 Butane	43	4.744	4.739	0.005	86	15268	0.0800	0.0984	
27 Butadiene	54	4.744	4.741	0.003	67	6693	0.0800	0.0880	
28 Bromomethane	94	5.115	5.117	-0.002	97	7368	0.0800	0.0832	
29 Chloroethane	64	5.276	5.275	0.001	95	3754	0.0800	0.0848	
30 Ethanol	31	5.406	5.386	0.020	97	24890	0.4000	0.6235	
31 Vinyl bromide	106	5.621	5.618	0.003	95	6832	0.0800	0.0833	
32 2-Methylbutane	43	5.664	5.669	-0.005	89	9935	0.0800	0.0929	
33 Trichlorofluoromethane	101	5.922	5.916	0.006	99	25357	0.0800	0.0792	
34 Acrolein	56	5.933	5.930	0.003	27	3864	0.0800	0.1991	
35 Acetonitrile	40	6.008	6.004	0.004	88	2977	0.0800	0.0969	
36 Acetone	58	6.073	6.061	0.012	99	17804	0.2400	0.5227	
38 Pentane	72	6.153	6.155	-0.002	95	769	0.0800	0.0629	
37 Isopropyl alcohol	45	6.186	6.155	0.031	93	29426	0.2400	0.2974	
39 Ethyl ether	31	6.368	6.345	0.023	91	10953	0.0800	0.0996	
40 1,1-Dichloroethene	96	6.691	6.690	0.001	91	7143	0.0800	0.0787	
41 Acrylonitrile	53	6.804	6.802	0.002	94	4815	0.0800	0.0793	
42 2-Methyl-2-propanol	59	6.858	6.814	0.044	95	11655	0.0800	0.0762	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.873	0.012	92	17504	0.0800	0.0829	
44 Methylene Chloride	84	7.068	7.067	0.001	97	20978	0.0800	0.1884	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.084	7.081	0.003	89	4800	0.0800	0.0465	
46 Carbon disulfide	76	7.251	7.248	0.003	96	22693	0.0800	0.0820	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	92	7079	0.0800	0.0780	
48 2-Methylpentane	43	7.934	7.928	0.006	94	21608	0.0800	0.0865	
49 Methyl tert-butyl ether	73	8.090	8.066	0.024	96	19276	0.0800	0.0796	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	98	16257	0.0800	0.0804	
51 Vinyl acetate	43	8.466	8.461	0.005	100	21643	0.0800	0.0843	
52 2-Butanone (MEK)	72	8.956	8.943	0.013	85	3867	0.0800	0.0969	
53 Hexane	56	8.956	8.948	0.008	70	6927	0.0800	0.0851	
54 Isopropyl ether	45	9.139	9.118	0.021	95	25508	0.0800	0.0824	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	96	7489	0.0800	0.0801	
56 Ethyl acetate	43	9.580	9.566	0.014	97	19451	0.0800	0.0915	
57 Chloroform	83	9.736	9.735	0.001	41	19433	0.0800	0.0809	
58 Tert-butyl ethyl ether	59	9.838	9.817	0.021	97	22975	0.0800	0.0797	
59 Tetrahydrofuran	42	10.199	10.176	0.023	92	9466	0.0800	0.0890	
60 1,1,1-Trichloroethane	97	10.769	10.767	0.002	98	21221	0.0800	0.0821	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	14289	0.0800	0.0799	
62 n-Butanol	31	11.334	11.296	0.038	60	6570	0.0800	0.1543	
63 Cyclohexane	69	11.339	11.337	0.002	78	3879	0.0800	0.0810	
64 Benzene	78	11.339	11.340	-0.001	95	23431	0.0800	0.0821	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	15712	0.0800	0.0657	
66 2,3-Dimethylpentane	71	11.431	11.430	0.001	90	5203	0.0800	0.0808	
67 Thiophene	84	11.608	11.604	0.004	96	12792	0.0800	0.0788	
68 Isooctane	57	12.038	12.041	-0.003	96	41834	0.0800	0.0822	
69 n-Heptane	71	12.393	12.392	0.001	95	8011	0.0800	0.0816	
70 1,2-Dichloropropane	63	12.512	12.505	0.007	86	9663	0.0800	0.0806	
71 Trichloroethene	130	12.539	12.537	0.002	90	9792	0.0800	0.0760	
72 Dibromomethane	93	12.625	12.627	-0.002	94	10330	0.0800	0.0777	
73 Dichlorobromomethane	83	12.765	12.761	0.004	98	19545	0.0800	0.0770	
74 1,4-Dioxane	88	12.813	12.787	0.026	83	2253	0.0800	0.0675	
75 Methyl methacrylate	41	12.835	12.827	0.008	88	13074	0.0800	0.0935	
76 Methylcyclohexane	83	13.281	13.277	0.004	91	14186	0.0800	0.0811	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.662	0.012	97	20616	0.0800	0.0944	
78 cis-1,3-Dichloropropene	75	13.722	13.718	0.004	96	12965	0.0800	0.0729	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	95	11970	0.0800	0.0726	
80 Toluene	91	14.518	14.519	-0.001	92	26319	0.0800	0.0813	
81 1,1,2-Trichloroethane	83	14.594	14.591	0.003	94	8519	0.0800	0.0822	
82 2-Hexanone	58	14.970	14.956	0.014	90	6704	0.0800	0.0708	
83 n-Octane	85	15.158	15.154	0.004	95	8125	0.0800	0.0818	
84 Chlorodibromomethane	129	15.293	15.290	0.003	95	16503	0.0800	0.0737	
85 Ethylene Dibromide	107	15.583	15.579	0.004	99	13835	0.0800	0.0733	
86 Tetrachloroethene	129	15.632	15.637	-0.005	91	10387	0.0800	0.0799	
87 2,3-Dimethylheptane	43	16.482	16.478	0.004	92	34084	0.0800	0.0897	
88 Chlorobenzene	112	16.503	16.501	0.002	91	21091	0.0800	0.0815	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	33817	0.0800	0.0811	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	51906	0.1600	0.1624	
91 n-Nonane	57	17.305	17.307	-0.002	91	18648	0.0800	0.0806	
92 Styrene	104	17.391	17.392	-0.001	97	17412	0.0800	0.0762	
93 Bromoform	173	17.396	17.398	-0.002	93	16013	0.0800	0.0667	
94 o-Xylene	91	17.450	17.453	-0.003	97	25861	0.0800	0.0761	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	97	19464	0.0800	0.0822	
96 1,2,3-Trichloropropane	110	17.918	17.923	-0.005	96	5213	0.0800	0.0774	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	90	36474	0.0800	0.0822	
98 N-Propylbenzene	120	18.521	18.517	0.004	97	8913	0.0800	0.0752	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	8964	0.0800	0.0782	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	35480	0.0800	0.0802	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	13741	0.0800	0.0779	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	13291	0.0800	0.0730	
103 n-Decane	57	18.973	18.974	-0.001	90	24361	0.0800	0.0832	
104 tert-Butylbenzene	119	19.134	19.133	0.001	87	31655	0.0800	0.0778	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	95	29703	0.0800	0.0758	
106 sec-Butylbenzene	105	19.392	19.389	0.003	97	42596	0.0800	0.0774	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	21575	0.0800	0.0790	
108 Benzyl chloride	91	19.484	19.487	-0.003	96	23634	0.0800	0.0704	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	89	21946	0.0800	0.0796	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	35725	0.0800	0.0771	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	31632	0.0800	0.0823	
112 Butylcyclohexane	83	19.645	19.642	0.003	89	26215	0.0800	0.0788	
113 2,3-Dihydroindene	117	19.849	19.846	0.003	91	27282	0.0800	0.0765	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	83	21348	0.0800	0.0795	
115 n-Butylbenzene	91	19.957	19.958	-0.001	97	38745	0.0800	0.0808	
116 Indene	116	19.973	19.974	-0.001	86	22568	0.0800	0.0738	
117 Undecane	57	20.237	20.235	0.002	92	26082	0.0800	0.0788	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	89	9511	0.0800	0.0712	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	30517	0.0800	0.0731	
120 Dodecane	57	21.323	21.323	0.000	90	22571	0.0800	0.0802	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	92	16676	0.0800	0.0761	
122 Naphthalene	128	21.695	21.693	0.002	98	26972	0.0800	0.0786	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	21001	0.0800	0.0795	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	14610	0.0800	0.0845	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	97	7799	0.0800	0.0832	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	9565	0.0800	0.0851	
A 128 C8 Range	1	15.163	(15.125-15.201)		0	85223	0.0800	0.0802	
S 129 Xylenes, Total	100				0		0.2400	0.2384	
S 130 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00015	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

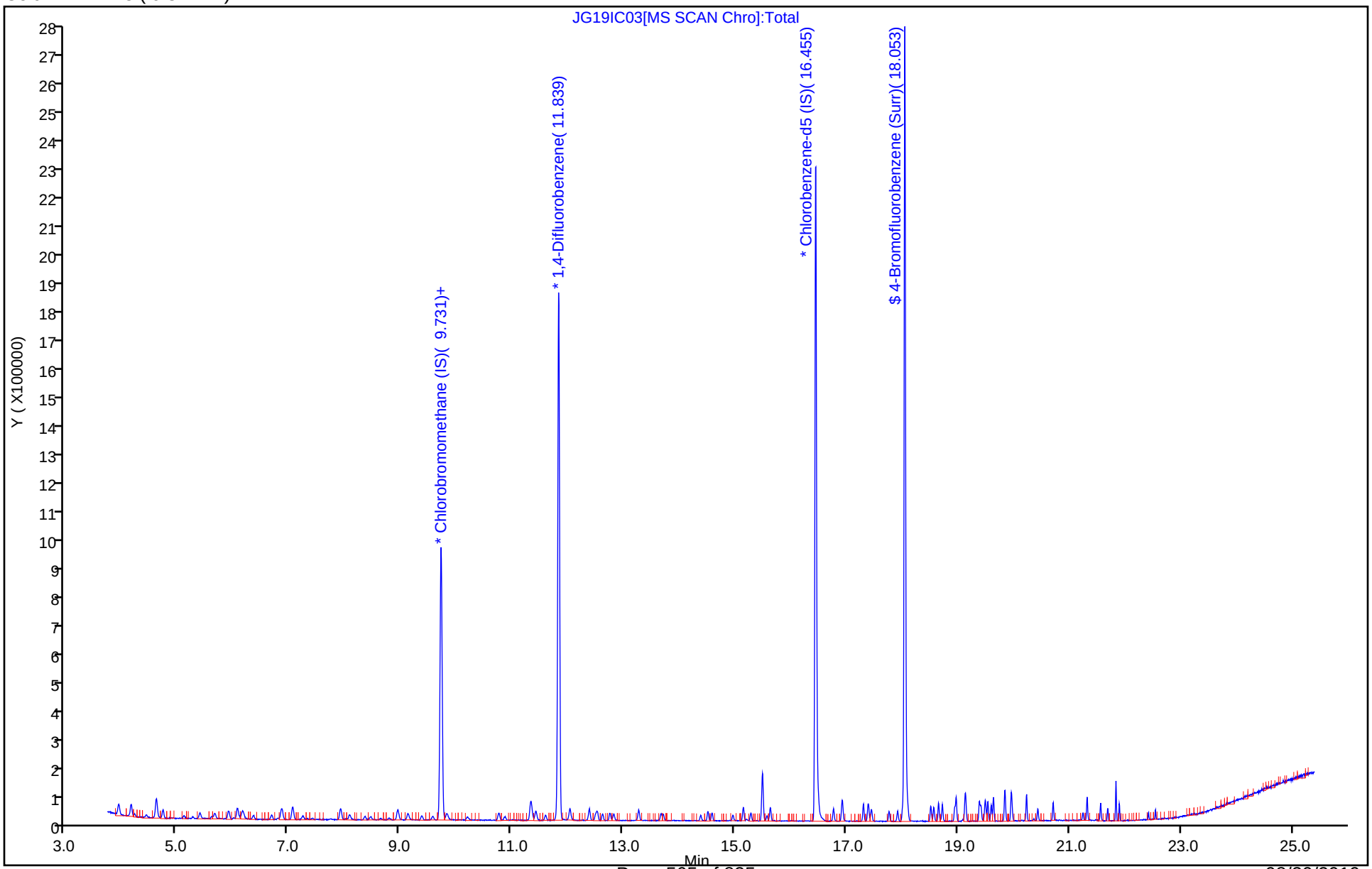
Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D

Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

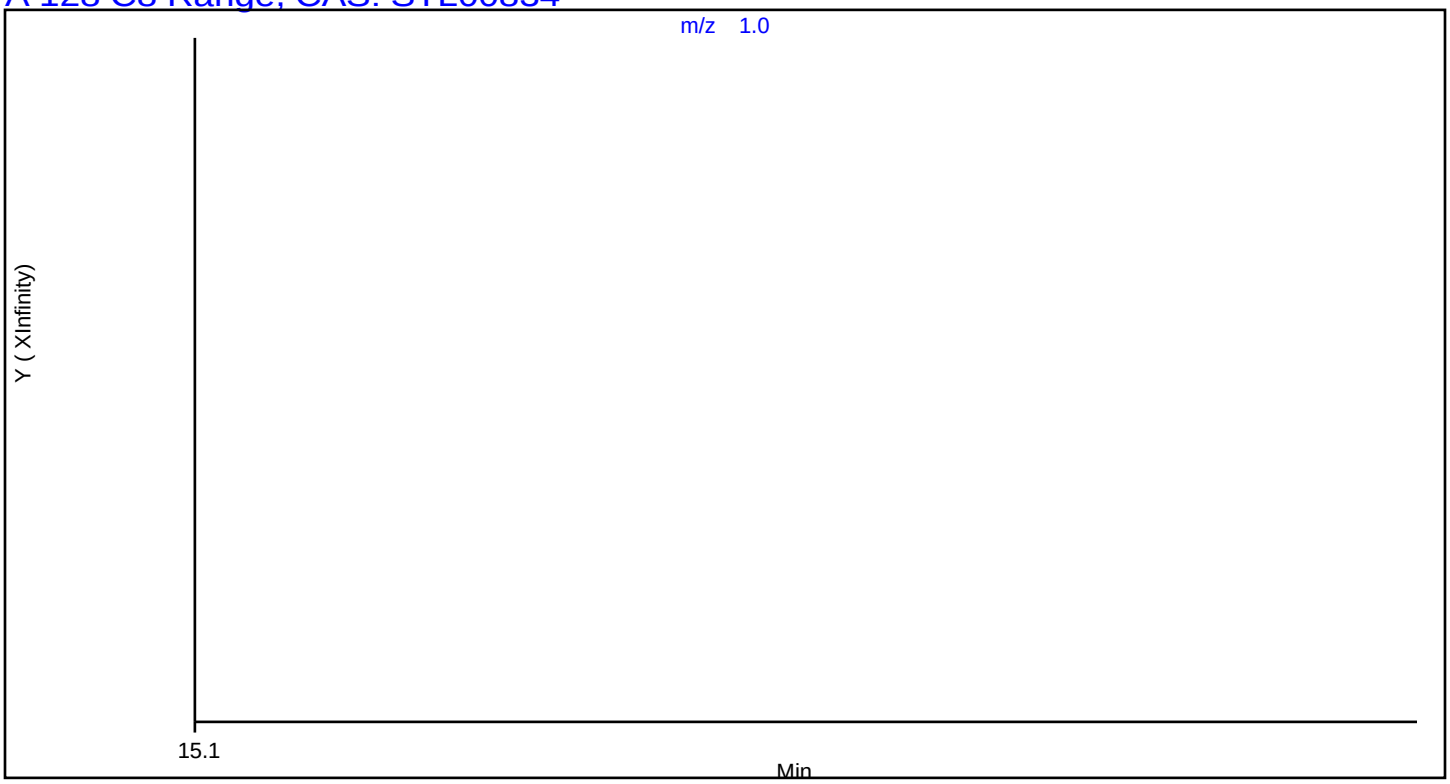


Report Date: 24-Jul-2019 11:35:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC03.D				
Injection Date:	20-Jul-2019 02:19:30	Instrument ID:	MJ		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Jul-2019 03:08:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-012
Misc. Info.: 231549
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:35:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:10:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.731	-0.006	97	296576	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1525139	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1322052	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.052	-0.005	89	956228	4.00	3.94	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	60	11766	0.1600	0.1452	
20 Propene	41	4.168	4.169	-0.001	96	23040	0.1600	0.3925	
21 Dichlorodifluoromethane	85	4.233	4.228	0.005	98	14967	0.1600	0.1611	
22 Chloromethane	52	4.443	4.441	0.002	99	5364	0.1600	0.1791	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.444	0.004	48	2212	0.1600	0.1715	
24 Acetaldehyde	44	4.615	4.617	-0.002	92	61302	0.8000	1.59	
25 Vinyl chloride	62	4.636	4.642	-0.006	98	15377	0.1600	0.1526	
26 Butane	43	4.733	4.739	-0.006	86	24969	0.1600	0.1605	
27 Butadiene	54	4.738	4.741	-0.003	67	12247	0.1600	0.1607	
28 Bromomethane	94	5.115	5.117	-0.002	96	14514	0.1600	0.1635	
29 Chloroethane	64	5.271	5.275	-0.004	83	6682	0.1600	0.1507	
30 Ethanol	31	5.379	5.386	-0.007	98	35944	0.8000	0.8983	
31 Vinyl bromide	106	5.615	5.618	-0.003	93	12262	0.1600	0.1491	
32 2-Methylbutane	43	5.669	5.669	0.000	89	17850	0.1600	0.1666	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	50064	0.1600	0.1561	
34 Acrolein	56	5.927	5.930	-0.003	27	5184	0.1600	0.2664	
35 Acetonitrile	40	6.003	6.004	-0.001	98	4156	0.1600	0.1349	
36 Acetone	58	6.062	6.061	0.001	99	32175	0.4800	0.9425	
38 Pentane	72	6.159	6.155	0.004	77	1905	0.1600	0.1554	
37 Isopropyl alcohol	45	6.153	6.155	-0.002	83	53056	0.4800	0.5350	
39 Ethyl ether	31	6.342	6.345	-0.003	89	19260	0.1600	0.1748	
40 1,1-Dichloroethene	96	6.686	6.690	-0.004	93	14176	0.1600	0.1558	
41 Acrylonitrile	53	6.799	6.802	-0.003	85	10232	0.1600	0.1681	
42 2-Methyl-2-propanol	59	6.820	6.814	0.006	90	25495	0.1600	0.1663	
43 1,1,2-Trichloro-1,2,2-trif	101	6.874	6.873	0.001	94	32378	0.1600	0.1530	
44 Methylene Chloride	84	7.062	7.067	-0.005	97	27618	0.1600	0.2475	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	19027	0.1600	0.1840	
46 Carbon disulfide	76	7.245	7.248	-0.003	99	45848	0.1600	0.1652	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	94	14854	0.1600	0.1633	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	40379	0.1600	0.1612	
49 Methyl tert-butyl ether	73	8.068	8.066	0.002	96	38103	0.1600	0.1569	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	99	33200	0.1600	0.1638	
51 Vinyl acetate	43	8.461	8.461	0.000	100	41821	0.1600	0.1625	
52 2-Butanone (MEK)	72	8.945	8.943	0.002	84	7703	0.1600	0.1926	
53 Hexane	56	8.945	8.948	-0.003	70	13185	0.1600	0.1617	
54 Isopropyl ether	45	9.123	9.118	0.005	95	49024	0.1600	0.1581	
55 cis-1,2-Dichloroethene	96	9.376	9.384	-0.008	98	14886	0.1600	0.1588	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	32163	0.1600	0.1509	
57 Chloroform	83	9.731	9.735	-0.004	31	38772	0.1600	0.1611	
58 Tert-butyl ethyl ether	59	9.817	9.817	0.000	97	43590	0.1600	0.1509	
59 Tetrahydrofuran	42	10.183	10.176	0.006	91	16818	0.1600	0.1577	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	41786	0.1600	0.1614	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	97	28555	0.1600	0.1631	
62 n-Butanol	31	11.301	11.296	0.005	92	8706	0.1600	0.2089	
63 Cyclohexane	69	11.334	11.337	-0.003	71	7692	0.1600	0.1640	
64 Benzene	78	11.339	11.340	-0.001	97	46811	0.1600	0.1676	
65 Carbon tetrachloride	117	11.355	11.361	-0.006	96	41847	0.1600	0.1787	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	91	10044	0.1600	0.1594	
67 Thiophene	84	11.603	11.604	-0.001	97	25688	0.1600	0.1617	
68 Isooctane	57	12.038	12.041	-0.003	97	82779	0.1600	0.1661	
69 n-Heptane	71	12.388	12.392	-0.004	95	15220	0.1600	0.1583	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	19141	0.1600	0.1632	
71 Trichloroethene	130	12.533	12.537	-0.004	91	20397	0.1600	0.1617	
72 Dibromomethane	93	12.619	12.627	-0.008	95	20254	0.1600	0.1557	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	39256	0.1600	0.1580	
74 1,4-Dioxane	88	12.797	12.787	0.010	94	4891	0.1600	0.1496	
75 Methyl methacrylate	41	12.829	12.827	0.002	89	20482	0.1600	0.1496	
76 Methylcyclohexane	83	13.270	13.277	-0.007	92	27810	0.1600	0.1625	
77 4-Methyl-2-pentanone (MIBK	43	13.663	13.662	0.001	98	34261	0.1600	0.1603	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	98	27046	0.1600	0.1553	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	24792	0.1600	0.1522	
80 Toluene	91	14.513	14.519	-0.006	91	52729	0.1600	0.1651	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	93	16524	0.1600	0.1616	
82 2-Hexanone	58	14.954	14.956	-0.002	90	14439	0.1600	0.1544	
83 n-Octane	85	15.153	15.154	-0.001	95	15603	0.1600	0.1592	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	33832	0.1600	0.1529	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	29806	0.1600	0.1600	
86 Tetrachloroethene	129	15.637	15.637	0.000	92	19915	0.1600	0.1552	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	64525	0.1600	0.1720	
88 Chlorobenzene	112	16.503	16.501	0.002	93	41482	0.1600	0.1623	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	66571	0.1600	0.1617	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	98	101976	0.3200	0.3231	
91 n-Nonane	57	17.305	17.307	-0.002	94	36144	0.1600	0.1582	
92 Styrene	104	17.391	17.392	-0.001	97	34466	0.1600	0.1529	
93 Bromoform	173	17.391	17.398	-0.007	88	32899	0.1600	0.1389	
94 o-Xylene	91	17.450	17.453	-0.003	97	52962	0.1600	0.1578	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	38078	0.1600	0.1628	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	10297	0.1600	0.1548	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	97	69310	0.1600	0.1582	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	18439	0.1600	0.1576	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	98	17231	0.1600	0.1524	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	69152	0.1600	0.1584	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	26393	0.1600	0.1515	
102 Alpha Methyl Styrene	118	18.951	18.948	0.003	83	25226	0.1600	0.1404	
103 n-Decane	57	18.973	18.974	-0.001	89	46275	0.1600	0.1602	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	89	60245	0.1600	0.1500	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	58741	0.1600	0.1518	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	82990	0.1600	0.1527	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	41427	0.1600	0.1537	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	38889	0.1600	0.1173	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	40588	0.1600	0.1490	
110 4-Isopropyltoluene	119	19.543	19.542	0.001	96	67309	0.1600	0.1472	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	98	58340	0.1600	0.1537	
112 Butylcyclohexane	83	19.640	19.642	-0.002	89	51968	0.1600	0.1583	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	53750	0.1600	0.1527	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	93	41224	0.1600	0.1556	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	70396	0.1600	0.1488	
116 Indene	116	19.973	19.974	-0.001	88	43463	0.1600	0.1439	
117 Undecane	57	20.231	20.235	-0.004	93	49489	0.1600	0.1515	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	89	17756	0.1600	0.1347	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	57413	0.1600	0.1394	
120 Dodecane	57	21.323	21.323	0.000	91	42424	0.1600	0.1526	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	30585	0.1600	0.1413	
122 Naphthalene	128	21.689	21.693	-0.004	98	48485	0.1600	0.1431	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	40231	0.1600	0.1542	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	94	26384	0.1600	0.1545	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	14014	0.1600	0.1514	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	97	17082	0.1600	0.1539	
A 128 C8 Range	1	15.158	(15.120-15.195)		0	168585	0.1600	0.1607	
S 129 Xylenes, Total	100				0		0.4800	0.4809	
S 130 1,2-Dichloroethene, Total	1				0		0.3200	0.3221	

Reagents:

40L4DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

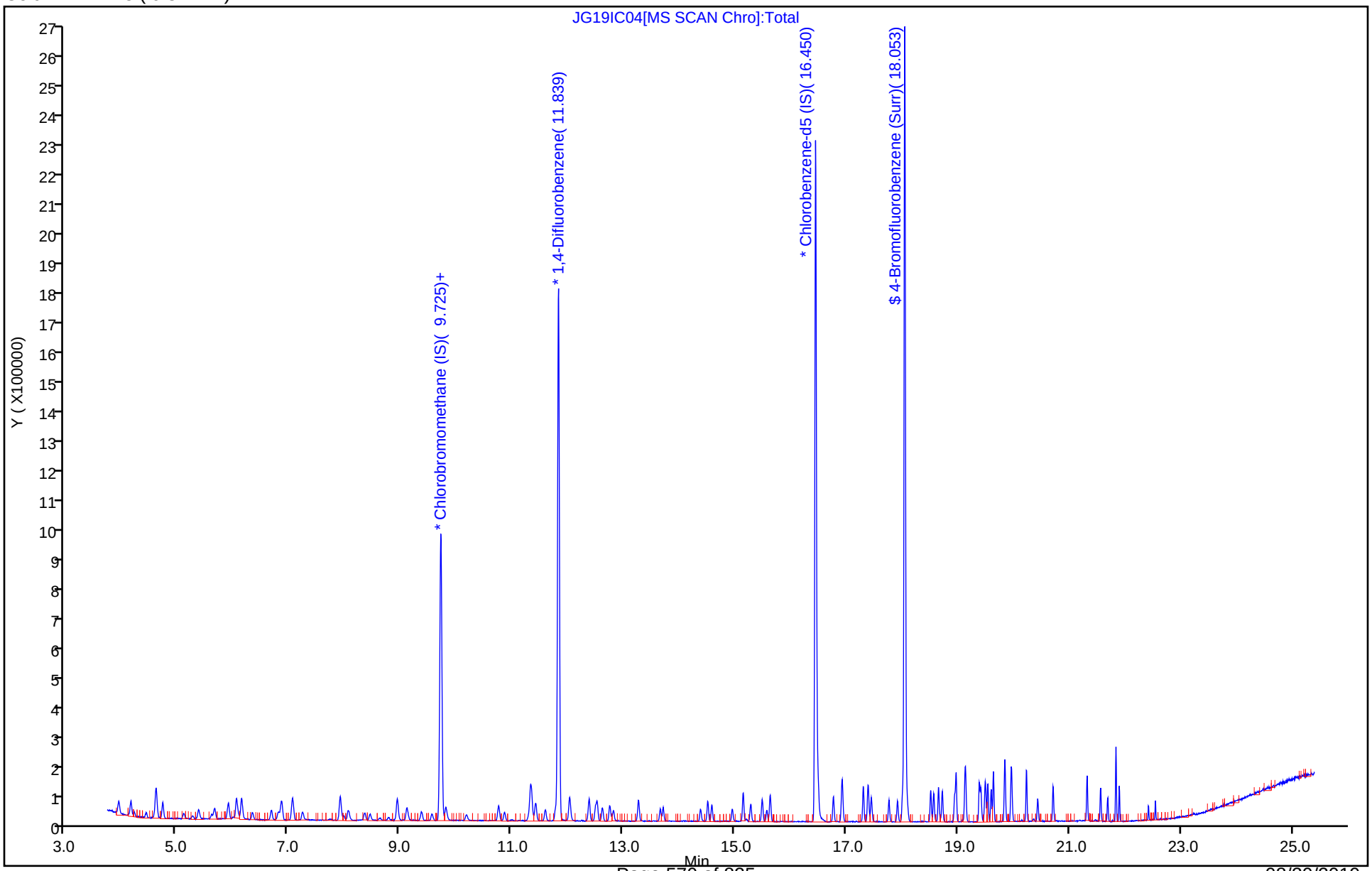
Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D

Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

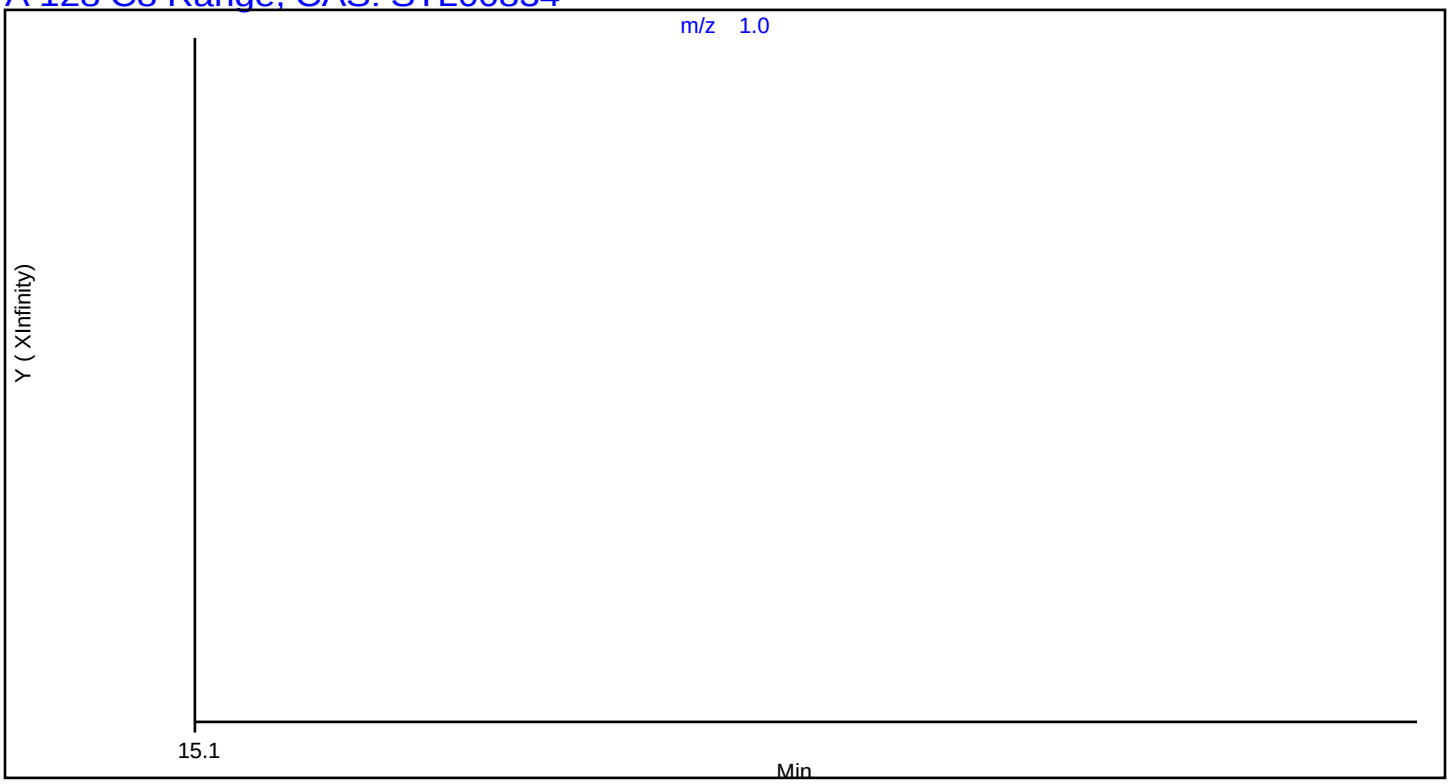


Report Date: 24-Jul-2019 11:35:58 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC04.D				
Injection Date:	20-Jul-2019 03:08:30	Instrument ID:	MJ		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Jul-2019 03:58:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-013
Misc. Info.: 231548
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:11:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	96	287860	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1514422	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.453	-0.004	92	1303933	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	94	960029	4.00	4.01	
19 Chlorodifluoromethane	51	4.157	4.155	0.002	97	25664	0.4000	0.3262	
20 Propene	41	4.168	4.169	-0.001	97	29865	0.4000	0.5241	
21 Dichlorodifluoromethane	85	4.227	4.228	-0.001	100	32988	0.4000	0.3659	
22 Chloromethane	52	4.437	4.441	-0.004	99	11820	0.4000	0.4065	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.444	-0.002	48	4984	0.4000	0.3981	
24 Acetaldehyde	44	4.620	4.617	0.003	92	102533	2.00	2.74	
25 Vinyl chloride	62	4.641	4.642	-0.001	99	38122	0.4000	0.3897	
26 Butane	43	4.738	4.739	-0.001	85	60060	0.4000	0.3979	
27 Butadiene	54	4.738	4.741	-0.003	69	28897	0.4000	0.3906	
28 Bromomethane	94	5.115	5.117	-0.002	97	33566	0.4000	0.3896	
29 Chloroethane	64	5.276	5.275	0.001	85	17457	0.4000	0.4056	
30 Ethanol	31	5.378	5.386	-0.008	99	77636	2.00	2.00	
31 Vinyl bromide	106	5.620	5.618	0.002	96	31635	0.4000	0.3962	
32 2-Methylbutane	43	5.669	5.669	0.000	91	41208	0.4000	0.3962	
33 Trichlorofluoromethane	101	5.916	5.916	0.000	99	125032	0.4000	0.4016	
34 Acrolein	56	5.927	5.930	-0.003	26	8429	0.4000	0.4463	
35 Acetonitrile	40	6.002	6.004	-0.002	97	13678	0.4000	0.4574	
36 Acetone	58	6.056	6.061	-0.005	99	53289	1.20	1.61	
38 Pentane	72	6.158	6.155	0.003	93	4736	0.4000	0.3981	
37 Isopropyl alcohol	45	6.142	6.155	-0.013	83	106236	1.20	1.10	
39 Ethyl ether	31	6.346	6.345	0.001	89	46127	0.4000	0.4312	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	35931	0.4000	0.4067	
41 Acrylonitrile	53	6.804	6.802	0.002	70	24063	0.4000	0.4073	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	95	50767	0.4000	0.3411	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	94	81162	0.4000	0.3951	
44 Methylene Chloride	84	7.067	7.067	0.000	96	46376	0.4000	0.4282	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	96	42725	0.4000	0.4258	
46 Carbon disulfide	76	7.250	7.248	0.002	99	108114	0.4000	0.4014	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	35303	0.4000	0.3999	
48 2-Methylpentane	43	7.923	7.928	-0.005	94	101723	0.4000	0.4183	
49 Methyl tert-butyl ether	73	8.062	8.066	-0.004	96	93799	0.4000	0.3979	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	99	79247	0.4000	0.4029	
51 Vinyl acetate	43	8.461	8.461	0.000	100	102808	0.4000	0.4116	
52 2-Butanone (MEK)	72	8.939	8.943	-0.004	85	16234	0.4000	0.4182	
53 Hexane	56	8.945	8.948	-0.003	71	32898	0.4000	0.4156	
54 Isopropyl ether	45	9.111	9.118	-0.007	96	122430	0.4000	0.4067	
55 cis-1,2-Dichloroethene	96	9.386	9.384	0.002	98	36813	0.4000	0.4046	
56 Ethyl acetate	43	9.558	9.566	-0.008	98	83654	0.4000	0.4043	
57 Chloroform	83	9.730	9.735	-0.005	94	94081	0.4000	0.4027	
58 Tert-butyl ethyl ether	59	9.805	9.817	-0.012	98	111905	0.4000	0.3992	
59 Tetrahydrofuran	42	10.171	10.176	-0.005	92	41979	0.4000	0.4056	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	100739	0.4000	0.4008	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	68517	0.4000	0.3941	
62 n-Butanol	31	11.296	11.296	0.000	93	14337	0.4000	0.3464	
63 Cyclohexane	69	11.339	11.337	0.002	71	18560	0.4000	0.3985	
64 Benzene	78	11.339	11.340	-0.001	97	109508	0.4000	0.3948	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	95	93006	0.4000	0.3999	
66 2,3-Dimethylpentane	71	11.425	11.430	-0.005	92	24680	0.4000	0.3945	
67 Thiophene	84	11.602	11.604	-0.002	97	61762	0.4000	0.3915	
68 Isooctane	57	12.038	12.041	-0.003	97	195788	0.4000	0.3957	
69 n-Heptane	71	12.388	12.392	-0.004	95	37671	0.4000	0.3945	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	46483	0.4000	0.3990	
71 Trichloroethene	130	12.533	12.537	-0.004	90	48185	0.4000	0.3847	
72 Dibromomethane	93	12.624	12.627	-0.003	93	50718	0.4000	0.3926	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	95484	0.4000	0.3870	
74 1,4-Dioxane	88	12.786	12.787	-0.001	96	11915	0.4000	0.3670	
75 Methyl methacrylate	41	12.823	12.827	-0.004	88	54685	0.4000	0.4023	
76 Methylcyclohexane	83	13.275	13.277	-0.002	90	65931	0.4000	0.3880	
77 4-Methyl-2-pentanone (MIBK	43	13.662	13.662	0.000	99	74371	0.4000	0.3504	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	99	66204	0.4000	0.3829	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	61866	0.4000	0.3852	
80 Toluene	91	14.518	14.519	-0.001	92	125493	0.4000	0.3984	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	94	39029	0.4000	0.3870	
82 2-Hexanone	58	14.954	14.956	-0.002	91	31698	0.4000	0.3436	
83 n-Octane	85	15.153	15.154	-0.001	96	38072	0.4000	0.3938	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	84022	0.4000	0.3851	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	97	71880	0.4000	0.3913	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	48787	0.4000	0.3855	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	152008	0.4000	0.4109	
88 Chlorobenzene	112	16.497	16.501	-0.004	91	99536	0.4000	0.3949	
89 Ethylbenzene	91	16.772	16.773	-0.001	99	160080	0.4000	0.3943	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	244225	0.8000	0.7847	
91 n-Nonane	57	17.310	17.307	0.003	93	88275	0.4000	0.3918	
92 Styrene	104	17.390	17.392	-0.002	97	84261	0.4000	0.3789	
93 Bromoform	173	17.396	17.398	-0.002	95	85044	0.4000	0.3640	
94 o-Xylene	91	17.450	17.453	-0.003	97	131150	0.4000	0.3962	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	92559	0.4000	0.4013	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	25000	0.4000	0.3810	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	92	167478	0.4000	0.3876	
98 N-Propylbenzene	120	18.520	18.517	0.003	98	43871	0.4000	0.3802	
99 2-Chlorotoluene	126	18.574	18.572	0.002	97	43746	0.4000	0.3922	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	165010	0.4000	0.3832	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	90	65324	0.4000	0.3803	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	65400	0.4000	0.3689	
103 n-Decane	57	18.972	18.974	-0.002	89	113266	0.4000	0.3974	
104 tert-Butylbenzene	119	19.133	19.133	0.000	89	149859	0.4000	0.3784	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	146313	0.4000	0.3833	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	208334	0.4000	0.3888	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	97	98243	0.4000	0.3697	
108 Benzyl chloride	91	19.488	19.487	0.001	97	113819	0.4000	0.3481	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	96865	0.4000	0.3606	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	175502	0.4000	0.3892	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	98	147741	0.4000	0.3947	
112 Butylcyclohexane	83	19.639	19.642	-0.003	90	126456	0.4000	0.3906	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	132695	0.4000	0.3822	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	96019	0.4000	0.3674	
115 n-Butylbenzene	91	19.956	19.958	-0.002	97	184104	0.4000	0.3945	
116 Indene	116	19.973	19.974	-0.001	91	111455	0.4000	0.3742	
117 Undecane	57	20.236	20.235	0.001	93	126770	0.4000	0.3934	
118 1,2-Dibromo-3-Chloropropan	157	20.441	20.438	0.003	92	45955	0.4000	0.3534	
119 1,2,4,5-Tetramethylbenzene	119	20.715	20.713	0.002	96	155714	0.4000	0.3832	
120 Dodecane	57	21.323	21.323	0.000	91	93805	0.4000	0.3421	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	94	66283	0.4000	0.3106	
122 Naphthalene	128	21.694	21.693	0.001	98	106779	0.4000	0.3195	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	93985	0.4000	0.3653	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	94	56334	0.4000	0.3344	
125 2-Methylnaphthalene	142	22.426	22.424	0.002	98	21173	0.4000	0.2319	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	97	24357	0.4000	0.2226	
A 128 C8 Range	1	15.163	(15.120-15.206)		0	412584	0.4000	0.3986	
S 129 Xylenes, Total	100				0		1.20	1.18	
S 130 1,2-Dichloroethene, Total	1				0		0.8000	0.8045	

Reagents:

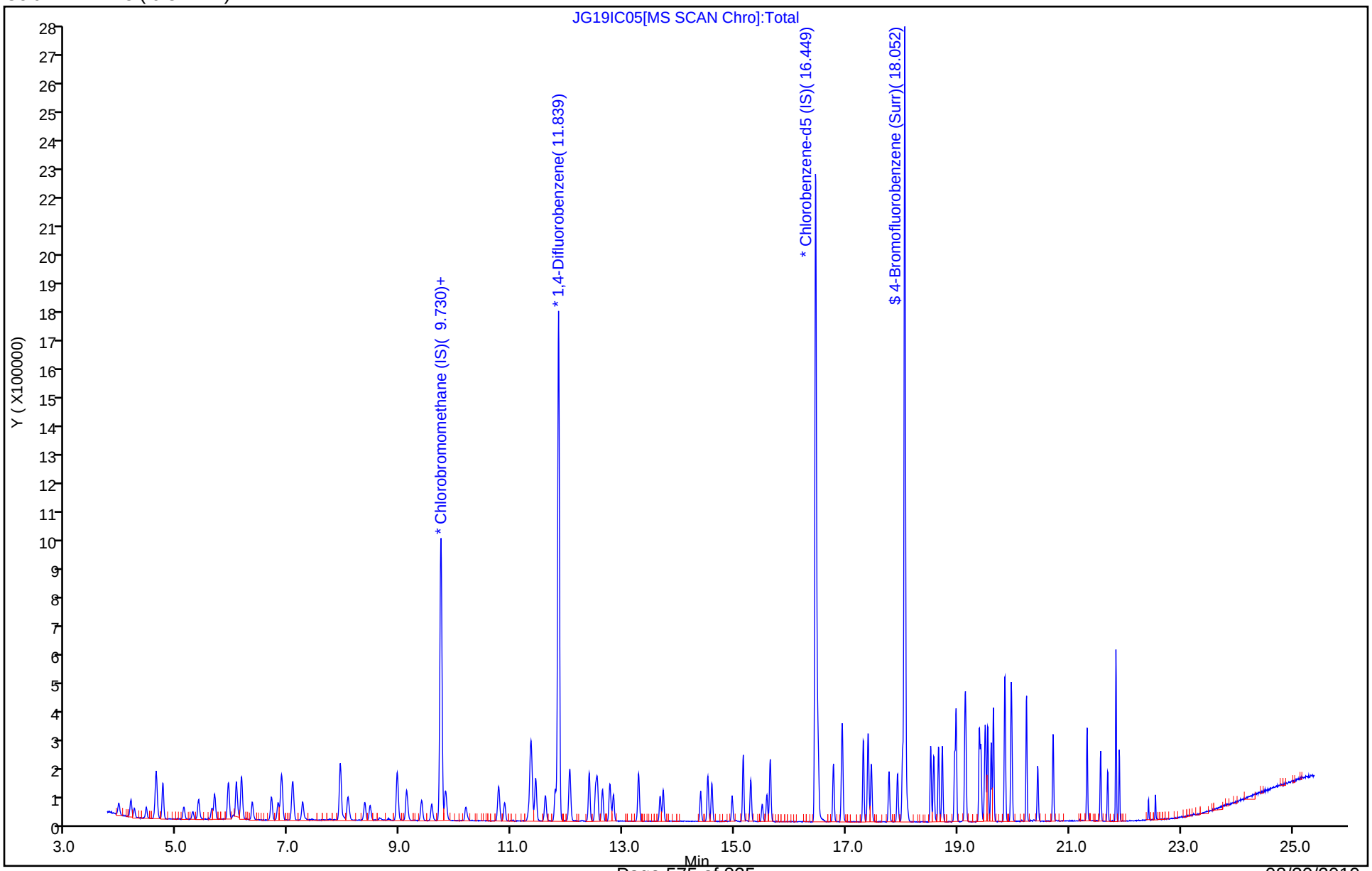
40L5DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



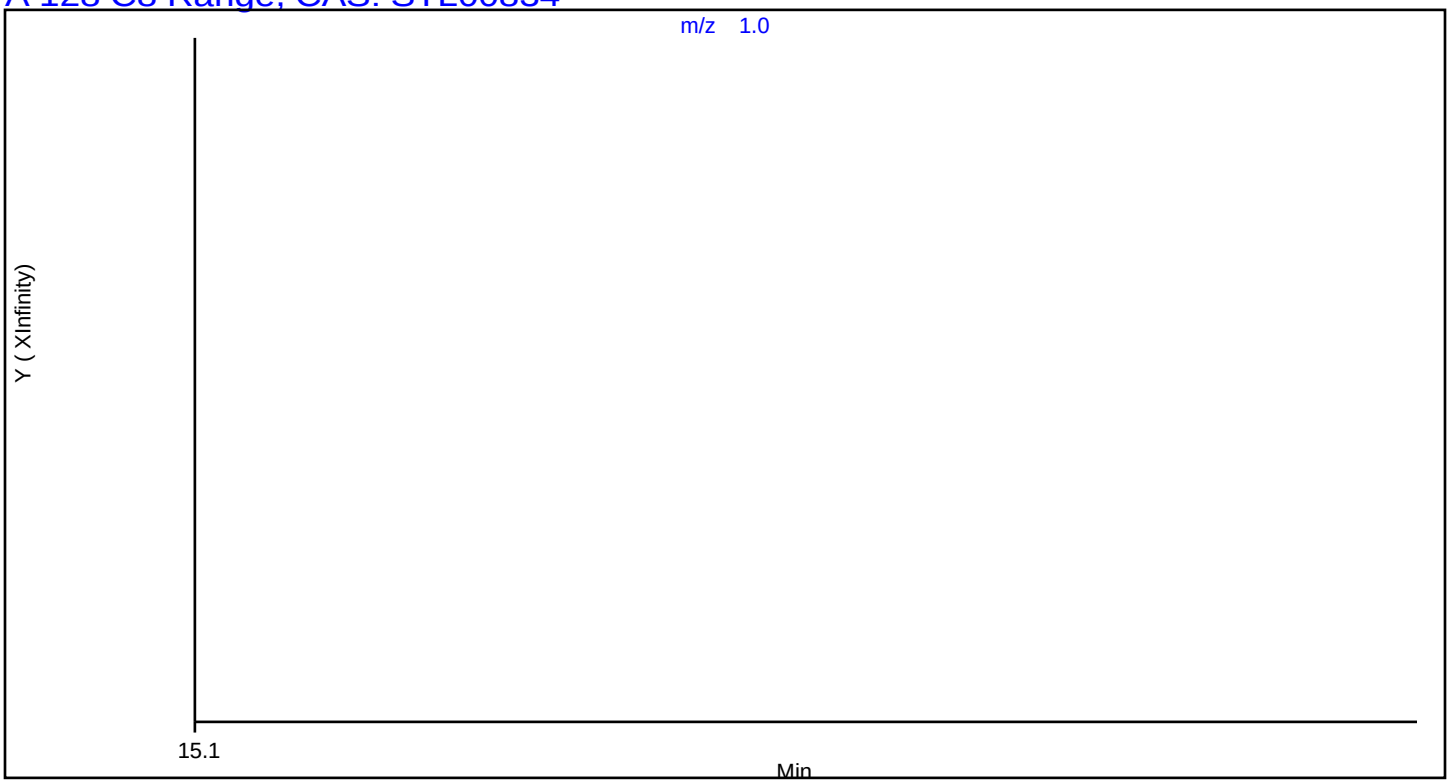
08/30/2019

Report Date: 24-Jul-2019 11:36:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC05.D				
Injection Date:	20-Jul-2019 03:58:30	Instrument ID:	MJ		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Jul-2019 04:48:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-014
Misc. Info.: 231547
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:14 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 11:59:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	275638	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1436209	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.453	-0.003	92	1244130	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.053	18.052	0.001	89	926278	4.00	4.05	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	69702	1.00	0.9253	
20 Propene	41	4.169	4.169	0.000	98	59192	1.00	1.08	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	83071	1.00	0.9623	
22 Chloromethane	52	4.438	4.441	-0.003	100	27769	1.00	1.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.444	-0.001	48	11411	1.00	0.9518	
24 Acetaldehyde	44	4.610	4.617	-0.007	92	197908	5.00	5.52	
25 Vinyl chloride	62	4.637	4.642	-0.005	99	93320	1.00	1.00	
26 Butane	43	4.739	4.739	0.000	85	146719	1.00	1.02	
27 Butadiene	54	4.739	4.741	-0.002	68	68261	1.00	0.9635	
28 Bromomethane	94	5.115	5.117	-0.002	97	78978	1.00	0.9574	
29 Chloroethane	64	5.271	5.275	-0.004	87	39592	1.00	0.9606	
30 Ethanol	31	5.379	5.386	-0.007	98	192417	5.00	5.17	
31 Vinyl bromide	106	5.616	5.618	-0.002	97	74384	1.00	0.9730	
32 2-Methylbutane	43	5.664	5.669	-0.005	91	96302	1.00	0.9670	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	301033	1.00	1.01	
34 Acrolein	56	5.922	5.930	-0.008	93	19989	1.00	1.11	
35 Acetonitrile	40	5.998	6.004	-0.006	97	30044	1.00	1.05	
36 Acetone	58	6.057	6.061	-0.004	99	106237	3.00	3.35	
38 Pentane	72	6.154	6.155	-0.001	95	10942	1.00	0.9607	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	94	285574	3.00	3.10	
39 Ethyl ether	31	6.337	6.345	-0.008	89	107243	1.00	1.05	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	82349	1.00	0.9735	
41 Acrylonitrile	53	6.799	6.802	-0.003	93	58884	1.00	1.04	
42 2-Methyl-2-propanol	59	6.794	6.814	-0.020	97	149308	1.00	1.05	
43 1,1,2-Trichloro-1,2,2-trif	101	6.869	6.873	-0.004	95	192673	1.00	0.9796	
44 Methylene Chloride	84	7.063	7.067	-0.004	96	88979	1.00	0.8580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	96	102639	1.00	1.07	
46 Carbon disulfide	76	7.246	7.248	-0.002	100	254625	1.00	0.9872	
47 trans-1,2-Dichloroethene	96	7.918	7.922	-0.004	91	84422	1.00	1.00	
48 2-Methylpentane	43	7.924	7.928	-0.004	95	235268	1.00	1.01	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	235531	1.00	1.04	
50 1,1-Dichloroethane	63	8.359	8.363	-0.004	100	185591	1.00	0.9854	
51 Vinyl acetate	43	8.456	8.461	-0.005	100	250126	1.00	1.05	
52 2-Butanone (MEK)	72	8.940	8.943	-0.003	95	38700	1.00	1.04	
53 Hexane	56	8.946	8.948	-0.002	73	75679	1.00	1.00	
54 Isopropyl ether	45	9.107	9.118	-0.011	96	301826	1.00	1.05	
55 cis-1,2-Dichloroethene	96	9.381	9.384	-0.003	98	85468	1.00	0.9809	
56 Ethyl acetate	43	9.564	9.566	-0.002	97	203568	1.00	1.03	
57 Chloroform	83	9.731	9.735	-0.004	50	218488	1.00	0.9767	
58 Tert-butyl ethyl ether	59	9.806	9.817	-0.011	98	278520	1.00	1.04	
59 Tetrahydrofuran	42	10.167	10.176	-0.009	92	102525	1.00	1.03	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	234252	1.00	0.9732	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	164559	1.00	1.00	
62 n-Butanol	31	11.280	11.296	-0.016	93	40227	1.00	1.03	
63 Cyclohexane	69	11.334	11.337	-0.003	68	43594	1.00	0.9871	
64 Benzene	78	11.340	11.340	0.000	97	257566	1.00	0.9791	
65 Carbon tetrachloride	117	11.361	11.361	0.000	98	249189	1.00	1.13	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	92	59251	1.00	1.00	
67 Thiophene	84	11.603	11.604	-0.001	98	147708	1.00	0.9872	
68 Isooctane	57	12.039	12.041	-0.002	96	468977	1.00	1.00	
69 n-Heptane	71	12.389	12.392	-0.004	95	89663	1.00	0.99	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	86	110558	1.00	1.00	
71 Trichloroethene	130	12.534	12.537	-0.003	92	114328	1.00	0.9626	
72 Dibromomethane	93	12.625	12.627	-0.002	93	122397	1.00	1.00	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	229761	1.00	0.9820	
74 1,4-Dioxane	88	12.781	12.787	-0.006	97	31384	1.00	1.02	
75 Methyl methacrylate	41	12.824	12.827	-0.003	88	133533	1.00	1.04	
76 Methylcyclohexane	83	13.276	13.277	-0.001	93	159061	1.00	0.9870	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	207313	1.00	1.03	
78 cis-1,3-Dichloropropene	75	13.717	13.718	-0.001	99	165289	1.00	1.01	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	158402	1.00	1.03	
80 Toluene	91	14.519	14.519	0.000	92	306473	1.00	1.02	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	95	98749	1.00	1.03	
82 2-Hexanone	58	14.949	14.956	-0.007	91	95548	1.00	1.09	
83 n-Octane	85	15.154	15.154	0.000	96	91561	1.00	0.99	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	214363	1.00	1.03	
85 Ethylene Dibromide	107	15.573	15.579	-0.006	98	176750	1.00	1.01	
86 Tetrachloroethene	129	15.632	15.637	-0.005	93	119436	1.00	0.9891	
87 2,3-Dimethylheptane	43	16.477	16.478	-0.001	94	361751	1.00	1.02	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	241644	1.00	1.00	
89 Ethylbenzene	91	16.773	16.773	0.000	100	404167	1.00	1.04	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	621917	2.00	2.09	
91 n-Nonane	57	17.305	17.307	-0.002	94	219047	1.00	1.02	
92 Styrene	104	17.391	17.392	-0.001	97	218682	1.00	1.03	
93 Bromoform	173	17.397	17.398	-0.001	95	217537	1.00	0.9757	
94 o-Xylene	91	17.451	17.453	-0.002	97	332666	1.00	1.05	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	235263	1.00	1.07	
96 1,2,3-Trichloropropane	110	17.919	17.923	-0.004	97	65354	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.012	-0.002	98	426827	1.00	1.04	
98 N-Propylbenzene	120	18.516	18.517	-0.001	98	113652	1.00	1.03	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	109844	1.00	1.03	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	429956	1.00	1.05	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	168435	1.00	1.03	
102 Alpha Methyl Styrene	118	18.946	18.948	-0.002	84	176468	1.00	1.04	
103 n-Decane	57	18.973	18.974	-0.001	89	288216	1.00	1.06	
104 tert-Butylbenzene	119	19.129	19.133	-0.004	88	386592	1.00	1.02	
105 1,2,4-Trimethylbenzene	105	19.145	19.146	-0.001	96	379144	1.00	1.04	
106 sec-Butylbenzene	105	19.387	19.389	-0.002	98	536445	1.00	1.05	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	259520	1.00	1.02	
108 Benzyl chloride	91	19.484	19.487	-0.003	97	320685	1.00	1.03	
109 1,4-Dichlorobenzene	146	19.500	19.501	-0.001	91	258631	1.00	1.01	
110 4-Isopropyltoluene	119	19.538	19.542	-0.004	96	451475	1.00	1.05	
111 1,2,3-Trimethylbenzene	105	19.602	19.603	-0.001	99	385477	1.00	1.08	
112 Butylcyclohexane	83	19.640	19.642	-0.002	90	331972	1.00	1.07	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	358478	1.00	1.08	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	255350	1.00	1.02	
115 n-Butylbenzene	91	19.957	19.958	-0.001	96	482850	1.00	1.08	
116 Indene	116	19.974	19.974	0.000	96	304611	1.00	1.07	
117 Undecane	57	20.232	20.235	-0.003	93	337616	1.00	1.10	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.438	-0.002	92	132338	1.00	1.07	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	421150	1.00	1.09	
120 Dodecane	57	21.324	21.323	0.001	92	325888	1.00	1.25	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	94	212510	1.00	1.04	
122 Naphthalene	128	21.695	21.693	0.002	98	340855	1.00	1.07	
123 Hexachlorobutadiene	225	21.840	21.841	-0.001	95	269796	1.00	1.10	
124 1,2,3-Trichlorobenzene	180	21.899	21.900	-0.001	95	183380	1.00	1.14	
125 2-Methylnaphthalene	142	22.421	22.424	-0.003	98	104984	1.00	1.21	
126 1-Methylnaphthalene	142	22.550	22.549	0.001	99	129712	1.00	1.24	
A 128 C8 Range	1	15.148	(15.121-15.207)		0	1013087	1.00	1.03	
S 129 Xylenes, Total	100				0		3.00	3.15	
S 130 1,2-Dichloroethene, Total	1				0		2.00	1.98	

Reagents:

40L6DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

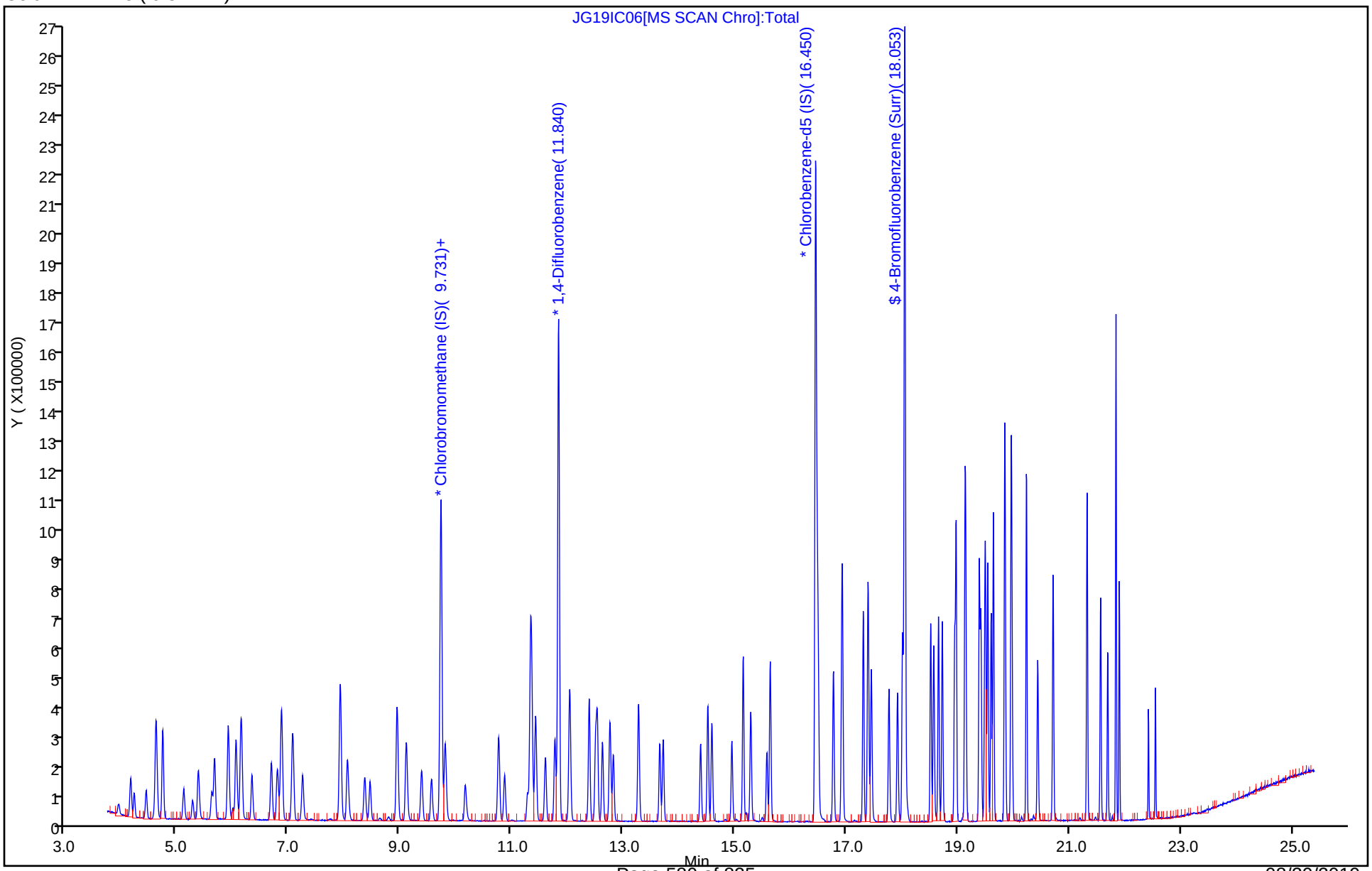
Report Date: 24-Jul-2019 11:36:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D

Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

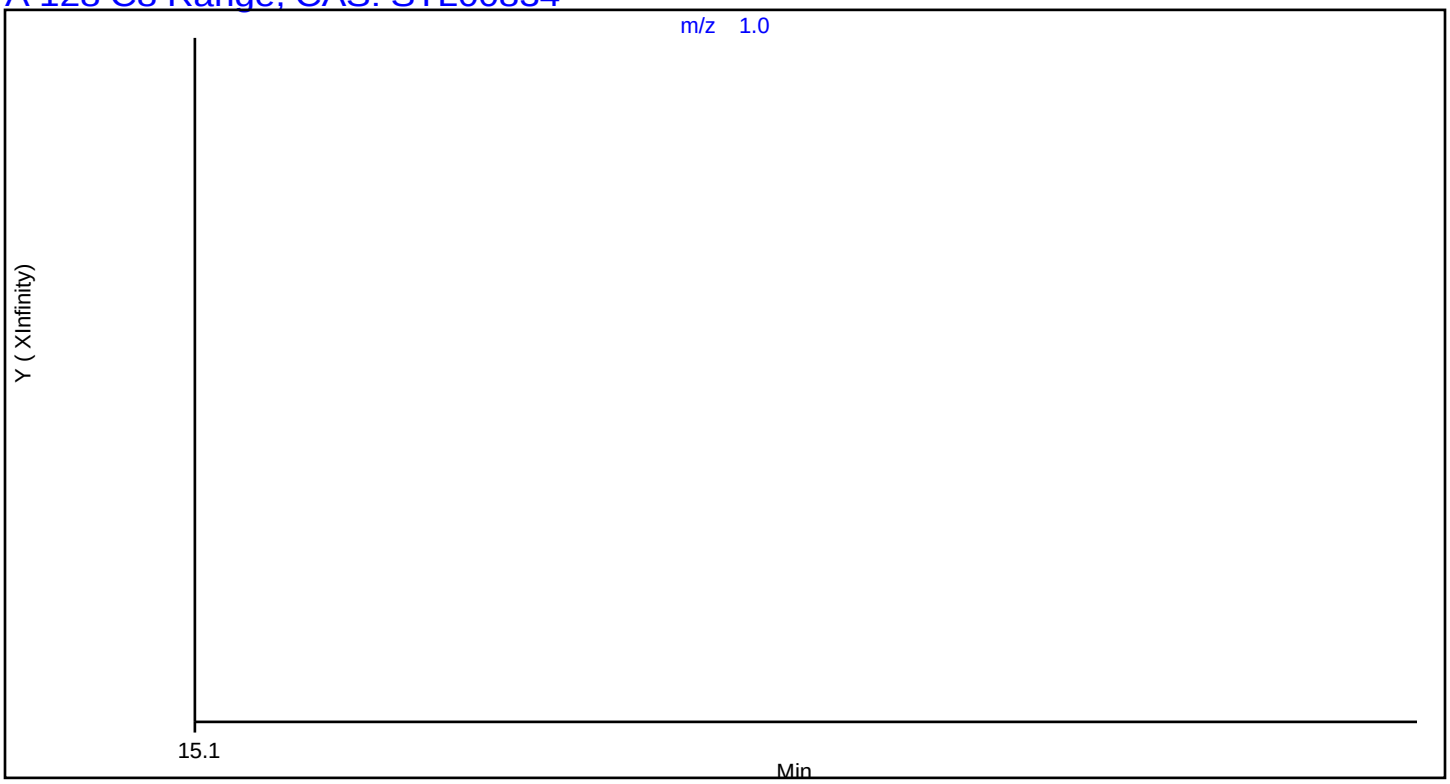


Report Date: 24-Jul-2019 11:36:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC06.D				
Injection Date:	20-Jul-2019 04:48:30	Instrument ID:	MJ		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 20-Jul-2019 05:37:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-015
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:22 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 20-Jul-2019 09:03:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.732	9.731	0.001	95	285692	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.841	11.841	0.000	97	1484056	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.451	16.453	-0.002	92	1253354	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.049	18.052	-0.004	89	913593	4.00	3.97	
19 Chlorodifluoromethane	51	4.153	4.155	-0.002	97	118045	2.00	1.51	
20 Propene	41	4.164	4.169	-0.005	97	83916	2.00	1.48	
21 Dichlorodifluoromethane	85	4.229	4.228	0.001	100	181786	2.00	2.03	
22 Chloromethane	52	4.444	4.441	0.003	100	58261	2.00	2.02	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.444	4.444	0.000	48	25059	2.00	2.02	
24 Acetaldehyde	44	4.616	4.617	-0.001	92	322907	10.0	8.68	
25 Vinyl chloride	62	4.638	4.642	-0.004	99	209135	2.00	2.15	
26 Butane	43	4.740	4.739	0.001	85	320866	2.00	2.14	
27 Butadiene	54	4.740	4.741	-0.001	68	153622	2.00	2.09	
28 Bromomethane	94	5.116	5.117	-0.001	98	179541	2.00	2.10	
29 Chloroethane	64	5.272	5.275	-0.003	89	89853	2.00	2.10	
30 Ethanol	31	5.374	5.386	-0.012	99	411685	10.0	10.7	
31 Vinyl bromide	106	5.617	5.618	-0.001	97	165932	2.00	2.09	
32 2-Methylbutane	43	5.670	5.669	0.001	90	212490	2.00	2.06	
33 Trichlorofluoromethane	101	5.912	5.916	-0.004	100	649561	2.00	2.10	
34 Acrolein	56	5.929	5.930	-0.001	96	34623	2.00	1.85	
35 Acetonitrile	40	6.004	6.004	0.000	98	54608	2.00	1.84	
36 Acetone	58	6.052	6.061	-0.009	99	175926	6.00	5.35	
38 Pentane	72	6.155	6.155	-0.001	95	25557	2.00	2.16	
37 Isopropyl alcohol	45	6.138	6.155	-0.017	93	646180	6.00	6.76	
39 Ethyl ether	31	6.337	6.345	-0.008	90	196183	2.00	1.85	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	186040	2.00	2.12	
41 Acrylonitrile	53	6.795	6.802	-0.007	91	109873	2.00	1.87	
42 2-Methyl-2-propanol	59	6.784	6.814	-0.030	96	349531	2.00	2.37	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.873	-0.003	95	427819	2.00	2.10	
44 Methylene Chloride	84	7.064	7.067	-0.003	96	182263	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.074	7.081	-0.007	97	228907	2.00	2.30	
46 Carbon disulfide	76	7.247	7.248	-0.001	100	558271	2.00	2.09	
47 trans-1,2-Dichloroethene	96	7.919	7.922	-0.003	96	187576	2.00	2.14	
48 2-Methylpentane	43	7.930	7.928	0.002	95	511215	2.00	2.12	
49 Methyl tert-butyl ether	73	8.048	8.066	-0.018	97	465475	2.00	1.99	
50 1,1-Dichloroethane	63	8.360	8.363	-0.003	99	424178	2.00	2.17	
51 Vinyl acetate	43	8.457	8.461	-0.004	100	460683	2.00	1.86	
52 2-Butanone (MEK)	72	8.936	8.943	-0.007	96	74085	2.00	1.92	
53 Hexane	56	8.941	8.948	-0.007	80	165538	2.00	2.11	
54 Isopropyl ether	45	9.108	9.118	-0.010	97	608074	2.00	2.04	
55 cis-1,2-Dichloroethene	96	9.382	9.384	-0.002	99	197127	2.00	2.18	
56 Ethyl acetate	43	9.560	9.566	-0.006	98	413396	2.00	2.01	
57 Chloroform	83	9.737	9.735	0.002	95	498664	2.00	2.15	
58 Tert-butyl ethyl ether	59	9.802	9.817	-0.015	97	575937	2.00	2.07	
59 Tetrahydrofuran	42	10.157	10.176	-0.019	92	201024	2.00	1.96	
60 1,1,1-Trichloroethane	97	10.765	10.767	-0.002	96	532500	2.00	2.13	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	375540	2.00	2.20	
62 n-Butanol	31	11.276	11.296	-0.020	95	89549	2.00	2.21	
63 Cyclohexane	69	11.335	11.337	-0.002	74	96593	2.00	2.12	
64 Benzene	78	11.340	11.340	0.000	98	581894	2.00	2.14	
65 Carbon tetrachloride	117	11.362	11.361	0.001	98	566222	2.00	2.48	
66 2,3-Dimethylpentane	71	11.432	11.430	0.002	91	134278	2.00	2.19	
67 Thiophene	84	11.604	11.604	0.000	97	337291	2.00	2.18	
68 Isooctane	57	12.040	12.041	-0.001	97	1037335	2.00	2.14	
69 n-Heptane	71	12.389	12.392	-0.003	94	203240	2.00	2.17	
70 1,2-Dichloropropane	63	12.502	12.505	-0.003	87	249044	2.00	2.18	
71 Trichloroethene	130	12.535	12.537	-0.002	92	262510	2.00	2.14	
72 Dibromomethane	93	12.626	12.627	-0.001	94	275575	2.00	2.18	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	532485	2.00	2.20	
74 1,4-Dioxane	88	12.771	12.787	-0.016	96	70857	2.00	2.23	
75 Methyl methacrylate	41	12.820	12.827	-0.007	88	272224	2.00	2.04	
76 Methylcyclohexane	83	13.277	13.277	0.000	91	356575	2.00	2.14	
77 4-Methyl-2-pentanone (MIBK	43	13.653	13.662	-0.009	99	481925	2.00	2.32	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	371122	2.00	2.19	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	335403	2.00	2.17	
80 Toluene	91	14.520	14.519	0.001	92	616281	2.00	2.04	
81 1,1,2-Trichloroethane	83	14.590	14.591	-0.001	95	207313	2.00	2.14	
82 2-Hexanone	58	14.950	14.956	-0.006	91	219816	2.00	2.48	
83 n-Octane	85	15.154	15.154	0.000	95	204704	2.00	2.20	
84 Chlorodibromomethane	129	15.289	15.290	-0.001	97	477997	2.00	2.28	
85 Ethylene Dibromide	107	15.579	15.579	0.000	98	389612	2.00	2.21	
86 Tetrachloroethene	129	15.639	15.637	0.001	93	265632	2.00	2.18	
87 2,3-Dimethylheptane	43	16.478	16.478	0.000	94	757889	2.00	2.13	
88 Chlorobenzene	112	16.499	16.501	-0.002	90	515968	2.00	2.13	
89 Ethylbenzene	91	16.774	16.773	0.001	100	806819	2.00	2.07	
90 m-Xylene & p-Xylene	91	16.930	16.929	0.001	99	1270566	4.00	4.25	
91 n-Nonane	57	17.306	17.307	-0.001	94	465939	2.00	2.15	
92 Styrene	104	17.392	17.392	0.000	97	455653	2.00	2.13	
93 Bromoform	173	17.398	17.398	0.000	95	512843	2.00	2.28	
94 o-Xylene	91	17.451	17.453	-0.002	97	676455	2.00	2.13	
95 1,1,2,2-Tetrachloroethane	83	17.769	17.769	0.000	98	494603	2.00	2.23	
96 1,2,3-Trichloropropane	110	17.925	17.923	0.002	97	133722	2.00	2.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.011	18.012	-0.001	98	870746	2.00	2.10	
98 N-Propylbenzene	120	18.517	18.517	0.000	98	233784	2.00	2.11	
99 2-Chlorotoluene	126	18.570	18.572	-0.002	97	227474	2.00	2.12	
100 4-Ethyltoluene	105	18.656	18.658	-0.002	98	895533	2.00	2.16	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	353526	2.00	2.14	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	377525	2.00	2.22	
103 n-Decane	57	18.974	18.974	0.000	89	591844	2.00	2.16	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	815324	2.00	2.14	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	98	792960	2.00	2.16	
106 sec-Butylbenzene	105	19.388	19.389	-0.001	98	1128469	2.00	2.19	
107 1,3-Dichlorobenzene	146	19.415	19.419	-0.004	98	547572	2.00	2.14	
108 Benzyl chloride	91	19.485	19.487	-0.002	97	735170	2.00	2.34	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	94	549492	2.00	2.13	
110 4-Isopropyltoluene	119	19.539	19.542	-0.003	97	960667	2.00	2.22	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	811374	2.00	2.26	
112 Butylcyclohexane	83	19.641	19.642	-0.001	91	682027	2.00	2.19	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	93	741820	2.00	2.22	
114 1,2-Dichlorobenzene	146	19.851	19.851	0.000	95	540039	2.00	2.15	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	1016889	2.00	2.27	
116 Indene	116	19.974	19.974	0.000	91	642582	2.00	2.24	
117 Undecane	57	20.233	20.235	-0.002	93	696186	2.00	2.25	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	94	304127	2.00	2.43	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.713	-0.002	96	924317	2.00	2.37	
120 Dodecane	57	21.319	21.323	-0.004	92	682968	2.00	2.59	
121 1,2,4-Trichlorobenzene	180	21.567	21.565	0.002	93	452405	2.00	2.21	
122 Naphthalene	128	21.690	21.693	-0.003	98	722961	2.00	2.25	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	94	535851	2.00	2.17	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	381083	2.00	2.35	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	252943	2.00	2.88	
126 1-Methylnaphthalene	142	22.546	22.549	-0.003	99	300466	2.00	2.86	
A 128 C8 Range	1	15.164	(15.111-15.218)		0	2208887	2.00	2.22	
S 129 Xylenes, Total	100				0		6.00	6.37	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.32	

Reagents:

40L8DQP_00011	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

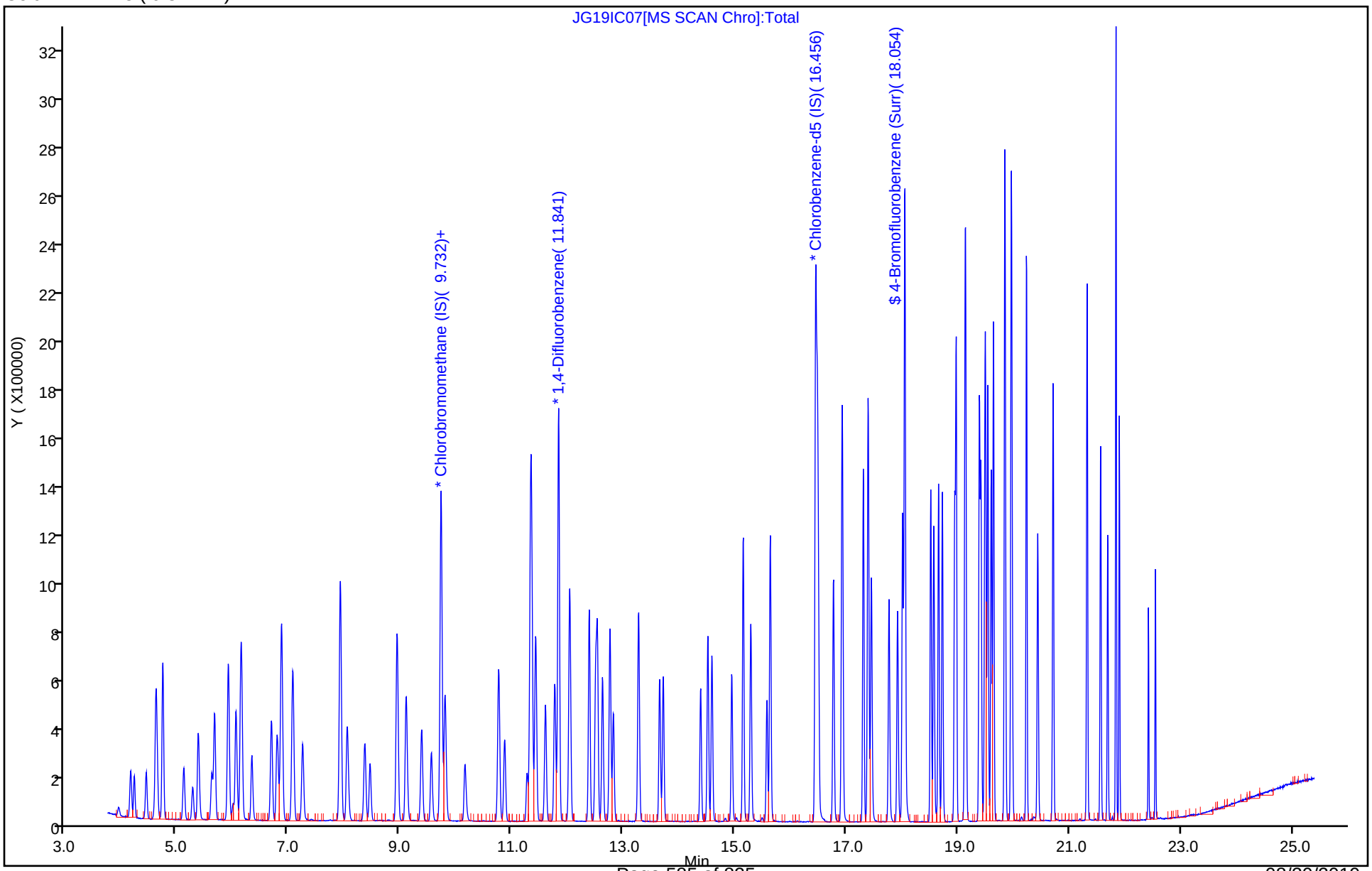
Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D

Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

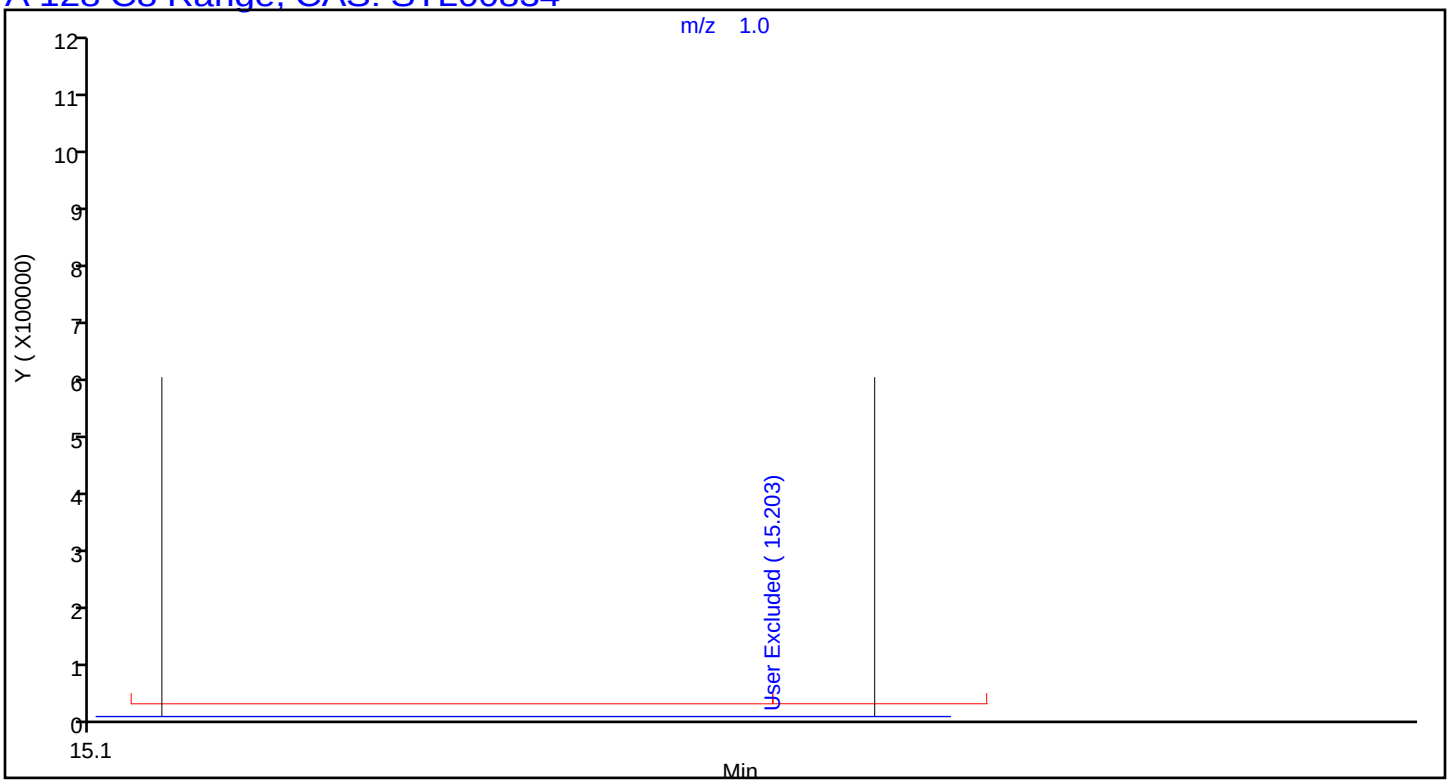


Report Date: 24-Jul-2019 11:36:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC07.D				
Injection Date:	20-Jul-2019 05:37:30	Instrument ID:	MJ		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Jul-2019 06:27:30 ALS Bottle#: 5 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-016
Misc. Info.: 231545
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:36:31 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 24-Jul-2019 10:50:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.730	9.731	-0.001	95	305209	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.841	-0.002	97	1573202	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.454	16.453	0.001	91	1405182	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.052	18.052	0.000	90	1076887	4.00	4.17	
19 Chlorodifluoromethane	51	4.152	4.155	-0.003	97	352408	4.00	4.23	
20 Propene	41	4.162	4.169	-0.007	98	230605	4.00	3.82	
21 Dichlorodifluoromethane	85	4.222	4.228	-0.006	100	385477	4.00	4.03	
22 Chloromethane	52	4.437	4.441	-0.004	100	123458	4.00	4.00	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.437	4.444	-0.007	92	54998	4.00	4.14	
24 Acetaldehyde	44	4.609	4.617	-0.008	93	691533	20.0	17.4	
25 Vinyl chloride	62	4.636	4.642	-0.006	99	421064	4.00	4.06	
26 Butane	43	4.733	4.739	-0.006	84	630660	4.00	3.94	
27 Butadiene	54	4.733	4.741	-0.008	69	308014	4.00	3.93	
28 Bromomethane	94	5.115	5.117	-0.002	98	363015	4.00	3.97	
29 Chloroethane	64	5.271	5.275	-0.004	89	179467	4.00	3.93	
30 Ethanol	31	5.373	5.386	-0.013	98	737472	20.0	17.9	
31 Vinyl bromide	106	5.615	5.618	-0.003	97	335660	4.00	3.97	
32 2-Methylbutane	43	5.663	5.669	-0.006	90	402954	4.00	3.65	
33 Trichlorofluoromethane	101	5.911	5.916	-0.005	99	1305209	4.00	3.95	
34 Acrolein	56	5.927	5.930	-0.003	98	74502	4.00	3.72	
35 Acetonitrile	40	5.997	6.004	-0.007	96	110573	4.00	3.49	
36 Acetone	58	6.045	6.061	-0.016	99	347231	12.0	9.88	
38 Pentane	72	6.147	6.155	-0.008	97	48180	4.00	3.82	
37 Isopropyl alcohol	45	6.131	6.155	-0.024	96	1099732	12.0	10.8	
39 Ethyl ether	31	6.330	6.345	-0.015	90	414082	4.00	3.65	
40 1,1-Dichloroethene	96	6.685	6.690	-0.005	93	361448	4.00	3.86	
41 Acrylonitrile	53	6.798	6.802	-0.004	93	235232	4.00	3.76	
42 2-Methyl-2-propanol	59	6.782	6.814	-0.032	96	590968	4.00	3.74	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.873	-0.005	96	830656	4.00	3.81	
44 Methylene Chloride	84	7.062	7.067	-0.005	96	337568	4.00	2.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.081	-0.008	97	421573	4.00	3.96	
46 Carbon disulfide	76	7.245	7.248	-0.003	100	1095624	4.00	3.84	
47 trans-1,2-Dichloroethene	96	7.923	7.922	0.001	92	364761	4.00	3.90	
48 2-Methylpentane	43	7.923	7.928	-0.005	95	971683	4.00	3.77	
49 Methyl tert-butyl ether	73	8.046	8.066	-0.020	97	941368	4.00	3.77	
50 1,1-Dichloroethane	63	8.364	8.363	0.001	100	768735	4.00	3.69	
51 Vinyl acetate	43	8.455	8.461	-0.006	100	998045	4.00	3.77	
52 2-Butanone (MEK)	72	8.934	8.943	-0.009	96	142067	4.00	3.45	
53 Hexane	56	8.945	8.948	-0.003	80	312844	4.00	3.73	
54 Isopropyl ether	45	9.101	9.118	-0.017	96	1175996	4.00	3.68	
55 cis-1,2-Dichloroethene	96	9.380	9.384	-0.004	98	367352	4.00	3.81	
56 Ethyl acetate	43	9.553	9.566	-0.013	98	806524	4.00	3.68	
57 Chloroform	83	9.736	9.735	0.001	96	909968	4.00	3.67	
58 Tert-butyl ethyl ether	59	9.800	9.817	-0.017	97	1116586	4.00	3.76	
59 Tetrahydrofuran	42	10.155	10.176	-0.021	92	400597	4.00	3.65	
60 1,1,1-Trichloroethane	97	10.763	10.767	-0.004	97	991646	4.00	3.72	
61 1,2-Dichloroethane	62	10.871	10.873	-0.002	98	677290	4.00	3.75	
62 n-Butanol	31	11.269	11.296	-0.027	94	152659	4.00	3.55	
63 Cyclohexane	69	11.339	11.337	0.002	77	187159	4.00	3.87	
64 Benzene	78	11.339	11.340	-0.001	98	1043178	4.00	3.62	
65 Carbon tetrachloride	117	11.360	11.361	-0.001	98	1090465	4.00	4.51	
66 2,3-Dimethylpentane	71	11.430	11.430	0.000	91	245152	4.00	3.77	
67 Thiophene	84	11.602	11.604	-0.002	98	614522	4.00	3.75	
68 Isooctane	57	12.038	12.041	-0.003	96	1894159	4.00	3.69	
69 n-Heptane	71	12.388	12.392	-0.004	95	372781	4.00	3.76	
70 1,2-Dichloropropane	63	12.501	12.505	-0.004	87	454813	4.00	3.76	
71 Trichloroethene	130	12.538	12.537	0.001	94	479951	4.00	3.69	
72 Dibromomethane	93	12.630	12.627	0.003	95	509254	4.00	3.79	
73 Dichlorobromomethane	83	12.759	12.761	-0.002	98	977581	4.00	3.81	
74 1,4-Dioxane	88	12.770	12.787	-0.017	92	131050	4.00	3.89	
75 Methyl methacrylate	41	12.818	12.827	-0.009	89	531980	4.00	3.77	
76 Methylcyclohexane	83	13.275	13.277	-0.002	92	654802	4.00	3.71	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.662	-0.010	99	809261	4.00	3.67	
78 cis-1,3-Dichloropropene	75	13.716	13.718	-0.002	98	702648	4.00	3.91	
79 trans-1,3-Dichloropropene	75	14.389	14.390	-0.001	97	672142	4.00	3.88	
80 Toluene	91	14.518	14.519	-0.001	92	1261809	4.00	3.72	
81 1,1,2-Trichloroethane	83	14.588	14.591	-0.003	96	408402	4.00	3.76	
82 2-Hexanone	58	14.948	14.956	-0.008	91	369071	4.00	3.71	
83 n-Octane	85	15.153	15.154	-0.001	95	387857	4.00	3.72	
84 Chlorodibromomethane	129	15.287	15.290	-0.003	97	935330	4.00	3.98	
85 Ethylene Dibromide	107	15.578	15.579	-0.001	98	756741	4.00	3.82	
86 Tetrachloroethene	129	15.637	15.637	0.000	94	499480	4.00	3.66	
87 2,3-Dimethylheptane	43	16.476	16.478	-0.002	94	1432753	4.00	3.59	
88 Chlorobenzene	112	16.498	16.501	-0.003	90	1006543	4.00	3.71	
89 Ethylbenzene	91	16.772	16.773	-0.001	100	1635567	4.00	3.74	
90 m-Xylene & p-Xylene	91	16.928	16.929	-0.001	99	2589354	8.00	7.72	
91 n-Nonane	57	17.304	17.307	-0.003	93	914349	4.00	3.77	
92 Styrene	104	17.391	17.392	-0.002	97	934523	4.00	3.90	
93 Bromoform	173	17.396	17.398	-0.002	97	1065944	4.00	4.23	
94 o-Xylene	91	17.450	17.453	-0.003	97	1371043	4.00	3.84	
95 1,1,2,2-Tetrachloroethane	83	17.767	17.769	-0.002	98	979510	4.00	3.94	
96 1,2,3-Trichloropropane	110	17.923	17.923	0.000	97	269148	4.00	3.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.012	-0.003	98	1761169	4.00	3.78	
98 N-Propylbenzene	120	18.515	18.517	-0.002	98	476994	4.00	3.84	
99 2-Chlorotoluene	126	18.569	18.572	-0.003	97	468749	4.00	3.90	
100 4-Ethyltoluene	105	18.655	18.658	-0.003	98	1803676	4.00	3.89	
101 1,3,5-Trimethylbenzene	120	18.725	18.726	-0.001	91	711101	4.00	3.84	
102 Alpha Methyl Styrene	118	18.945	18.948	-0.003	84	763807	4.00	4.00	
103 n-Decane	57	18.972	18.974	-0.002	90	1167002	4.00	3.80	
104 tert-Butylbenzene	119	19.133	19.133	0.000	90	1612357	4.00	3.78	
105 1,2,4-Trimethylbenzene	105	19.144	19.146	-0.002	96	1587508	4.00	3.86	
106 sec-Butylbenzene	105	19.386	19.389	-0.003	98	2223634	4.00	3.85	
107 1,3-Dichlorobenzene	146	19.419	19.419	0.000	98	1111022	4.00	3.88	
108 Benzyl chloride	91	19.488	19.487	0.001	97	1469564	4.00	4.17	
109 1,4-Dichlorobenzene	146	19.499	19.501	-0.002	91	1113121	4.00	3.85	
110 4-Isopropyltoluene	119	19.542	19.542	0.000	97	1860896	4.00	3.83	
111 1,2,3-Trimethylbenzene	105	19.601	19.603	-0.002	99	1583203	4.00	3.93	
112 Butylcyclohexane	83	19.645	19.642	0.002	90	1353618	4.00	3.88	
113 2,3-Dihydroindene	117	19.844	19.846	-0.002	93	1463048	4.00	3.91	
114 1,2-Dichlorobenzene	146	19.849	19.851	-0.002	94	1081773	4.00	3.84	
115 n-Butylbenzene	91	19.957	19.958	-0.002	97	1966095	4.00	3.91	
116 Indene	116	19.973	19.974	-0.001	89	1289190	4.00	4.02	
117 Undecane	57	20.236	20.235	0.001	94	1324167	4.00	3.81	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.438	-0.003	94	593312	4.00	4.23	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.713	-0.003	96	1734202	4.00	3.96	
120 Dodecane	57	21.323	21.323	0.000	93	1005845	4.00	3.40	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	871856	4.00	3.79	
122 Naphthalene	128	21.694	21.693	0.001	99	1361853	4.00	3.78	
123 Hexachlorobutadiene	225	21.839	21.841	-0.002	94	1079215	4.00	3.89	
124 1,2,3-Trichlorobenzene	180	21.898	21.900	-0.002	95	675575	4.00	3.72	
125 2-Methylnaphthalene	142	22.420	22.424	-0.004	98	282062	4.00	2.87	
126 1-Methylnaphthalene	142	22.549	22.549	0.000	100	319864	4.00	2.71	
A 128 C8 Range	1	15.163	(15.114-15.211)		0	4158008	4.00	3.73	
S 129 Xylenes, Total	100				0		12.0	11.6	
S 130 1,2-Dichloroethene, Total	1				0		8.00	7.70	

Reagents:

40L8DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

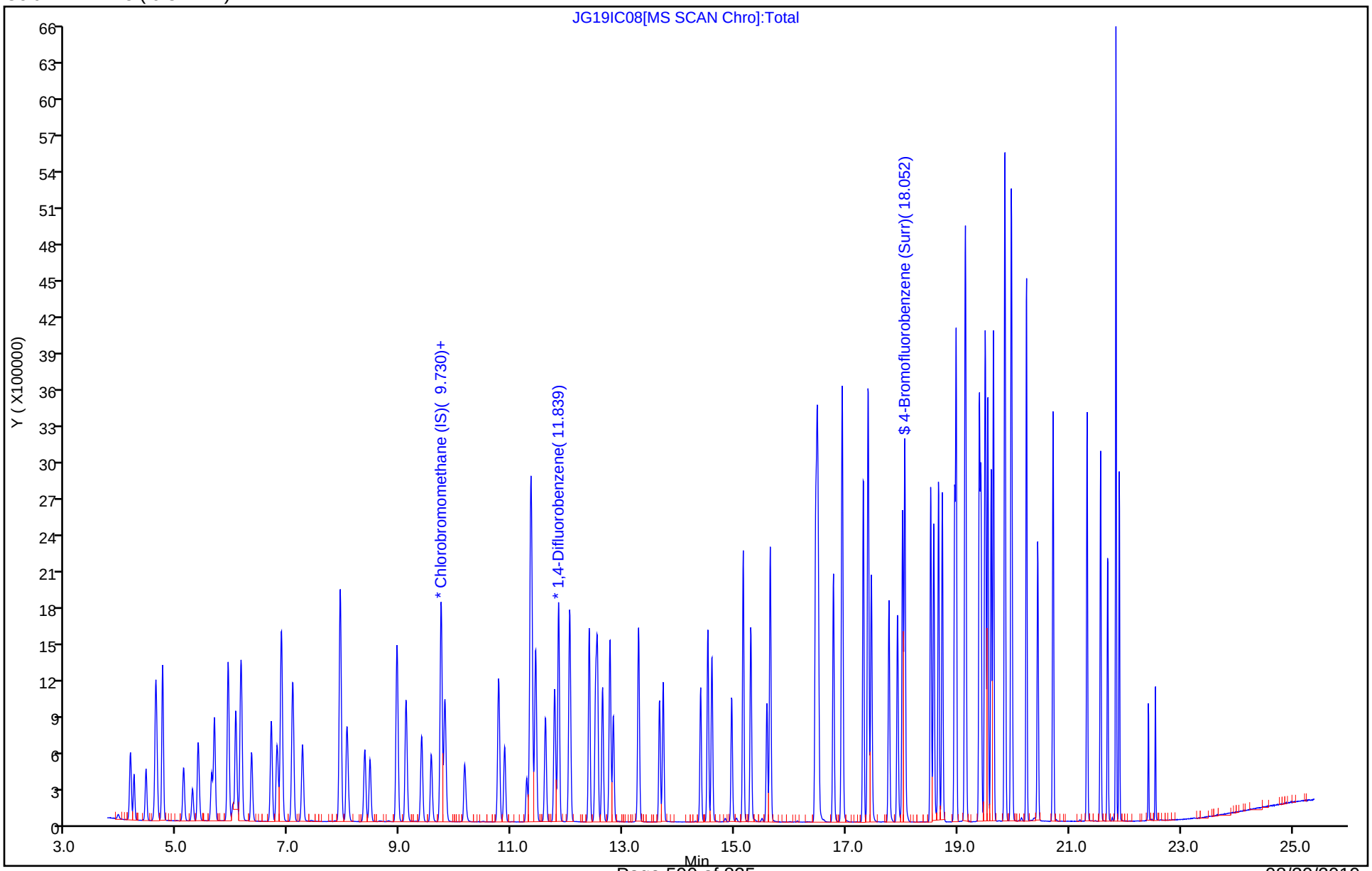
Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

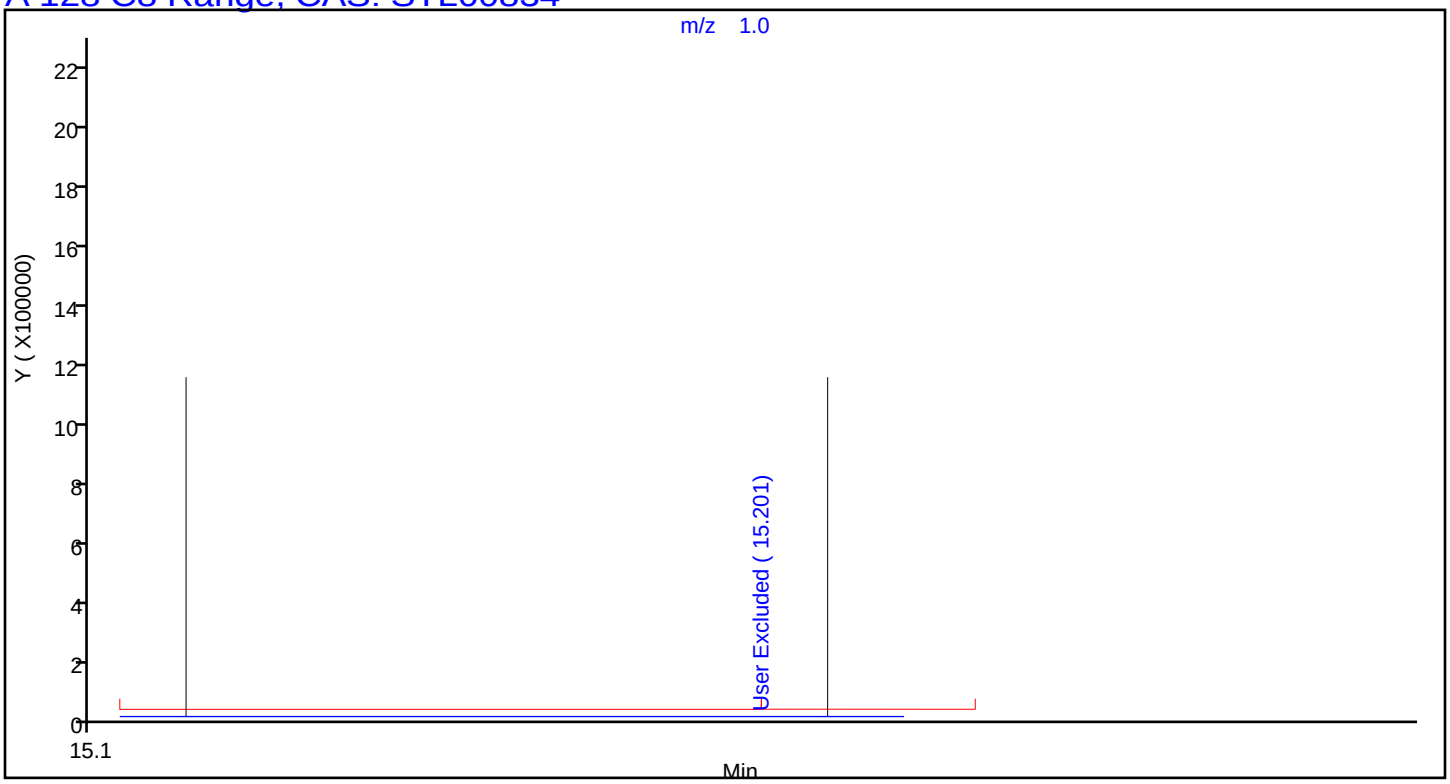


Report Date: 24-Jul-2019 11:36:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Injection Date:	20-Jul-2019 06:27:30	Instrument ID:	MJ		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 12-Aug-2019 13:33:30 ALS Bottle#: 14 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:25 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:41:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	96	286023	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.787	10.781	0.006	95	1651770	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1519455	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	93	1104916	4.00	4.22	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	1686652	8.00	6.90	
7 Propene	41	3.443	3.439	0.004	97	929137	8.00	6.85	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	1563912	8.00	7.07	
9 Chloromethane	52	3.669	3.665	0.004	75	192525	8.00	5.79	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	89	752994	8.00	6.71	
11 Acetaldehyde	44	3.815	3.817	-0.002	95	1258946	40.0	32.4	
12 Vinyl chloride	62	3.831	3.831	0.000	99	625941	8.00	5.95	
13 Butadiene	54	3.917	3.913	0.004	71	495518	8.00	6.49	
14 Butane	43	3.912	3.914	-0.002	84	936426	8.00	5.79	
15 Bromomethane	94	4.230	4.227	0.003	96	565685	8.00	6.34	
16 Chloroethane	64	4.359	4.359	0.000	91	257658	8.00	5.98	
17 Ethanol	31	4.462	4.464	-0.002	98	1413331	40.0	36.4	
18 Vinyl bromide	106	4.656	4.656	0.000	98	557199	8.00	7.48	
19 2-Methylbutane	43	4.699	4.699	0.000	93	798505	8.00	6.62	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	2275267	8.00	8.28	
20 Acrolein	56	4.931	4.936	-0.005	97	262118	8.00	7.71	
24 Acetonitrile	40	5.001	5.001	0.000	98	409722	8.00	8.09	
22 Acetone	58	5.044	5.057	-0.013	99	1102801	24.0	23.2	
25 Pentane	72	5.141	5.138	0.003	95	144745	8.00	7.96	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	3831142	24.0	23.8	
26 Ethyl ether	31	5.303	5.319	-0.016	90	1173779	8.00	7.90	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	95	784721	8.00	7.98	
28 Acrylonitrile	53	5.740	5.738	0.002	91	655074	8.00	8.83	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.021	96	1626595	8.00	8.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	1736390	8.00	8.49	
31 Methylene Chloride	84	5.983	5.978	0.005	96	694114	8.00	6.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	910177	8.00	8.09	
33 Carbon disulfide	76	6.134	6.133	0.001	99	2217616	8.00	8.57	
34 trans-1,2-Dichloroethene	96	6.797	6.788	0.009	98	864916	8.00	8.37	
35 2-Methylpentane	43	6.802	6.803	-0.001	97	2270807	8.00	8.28	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	2381188	8.00	8.54	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	1613695	8.00	8.23	
38 Vinyl acetate	43	7.331	7.328	0.003	100	2922060	8.00	8.54	
40 Hexane	56	7.800	7.796	0.004	78	705905	8.00	7.86	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	415513	8.00	7.92	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	3490545	8.00	8.19	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	903782	8.00	7.72	
43 Ethyl acetate	43	8.404	8.416	-0.012	98	2470352	8.00	8.15	
44 Chloroform	83	8.566	8.560	0.006	97	1952914	8.00	8.12	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	2939694	8.00	8.29	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	1194324	8.00	7.89	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	95	2171599	8.00	8.21	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	1336641	8.00	8.41	
50 n-Butanol	31	10.172	10.195	-0.023	89	529427	8.00	8.38	
51 Cyclohexane	69	10.210	10.210	0.000	89	431615	8.00	8.22	
49 Benzene	78	10.216	10.214	0.002	98	2831483	8.00	8.46	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	2471477	8.00	9.24	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	623415	8.00	8.27	
54 Thiophene	84	10.501	10.499	0.002	97	1481750	8.00	8.74	
55 Isooctane	57	10.997	10.995	0.002	98	4723123	8.00	8.45	
57 n-Heptane	71	11.391	11.387	0.004	95	1003783	8.00	8.60	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	88	1098818	8.00	8.52	
58 Trichloroethene	130	11.515	11.509	0.006	96	1272523	8.00	8.65	
59 Dibromomethane	93	11.601	11.595	0.006	95	1192726	8.00	8.74	
60 Dichlorobromomethane	83	11.752	11.746	0.006	98	2266175	8.00	9.15	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	439902	8.00	8.56	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	1602463	8.00	8.73	
63 Methylcyclohexane	83	12.292	12.288	0.004	93	1674440	8.00	8.70	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	2849090	8.00	8.70	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	97	1747199	8.00	9.04	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	98	1701957	8.00	9.01	
67 Toluene	91	13.597	13.593	0.004	93	3319430	8.00	8.49	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	1043886	8.00	8.61	
69 2-Hexanone	58	14.060	14.066	-0.006	90	1286641	8.00	8.89	
71 n-Octane	85	14.292	14.288	0.004	97	1087004	8.00	8.49	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	2602812	8.00	9.68	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	2118211	8.00	9.11	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	1347530	8.00	8.44	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	2756890	8.00	8.48	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	95	4021656	8.00	8.27	
76 Ethylbenzene	91	15.915	15.914	0.001	99	4848427	8.00	8.84	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	7462791	16.0	17.3	
81 n-Nonane	57	16.498	16.494	0.004	96	2439907	8.00	8.65	
78 Bromoform	173	16.530	16.525	0.005	96	2883880	8.00	12.0	
79 Styrene	104	16.546	16.543	0.003	99	2757815	8.00	9.30	
80 o-Xylene	91	16.606	16.602	0.004	99	3912982	8.00	8.65	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	2910298	8.00	9.14	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	930012	8.00	9.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	5876884	8.00	8.76	
85 N-Propylbenzene	120	17.749	17.745	0.004	99	1575530	8.00	9.24	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	1431553	8.00	8.81	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	6128184	8.00	9.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	2299646	8.00	9.02	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	2518203	8.00	10.3	
90 n-Decane	57	18.283	18.280	0.003	90	3340916	8.00	8.60	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	5297311	8.00	8.89	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	5278660	8.00	8.94	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	7686620	8.00	9.06	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	3534620	8.00	8.79	
96 Benzyl chloride	91	18.800	18.796	0.004	98	4731103	8.00	10.3	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	3569735	8.00	8.99	
97 4-Isopropyltoluene	119	18.876	18.871	0.005	97	6237349	8.00	9.10	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	5201556	8.00	8.95	
99 Butylcyclohexane	83	18.984	18.981	0.003	93	3867887	8.00	8.90	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	5013200	8.00	9.50	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	3650807	8.00	9.31	
102 Indene	116	19.318	19.314	0.004	90	4657904	8.00	9.78	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	6555104	8.00	9.29	
104 Undecane	57	19.641	19.638	0.003	95	4030320	8.00	8.80	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	2064543	8.00	10.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	6095231	8.00	9.27	
107 Dodecane	57	20.715	20.714	0.001	95	3951977	8.00	8.88	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	3415518	8.00	9.11	
109 Naphthalene	128	21.065	21.064	0.001	99	6971398	8.00	9.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	3455578	8.00	9.28	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	3191028	8.00	9.25	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	2133624	8.00	9.60	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	1853907	8.00	8.69	
A 115 C8 Range	1	14.292	(14.244-14.341)		0	11144655	8.00	8.60	
S 116 Xylenes, Total	100				0		24.0	26.0	
S 117 1,2-Dichloroethene, Total	1				0		16.0	16.1	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

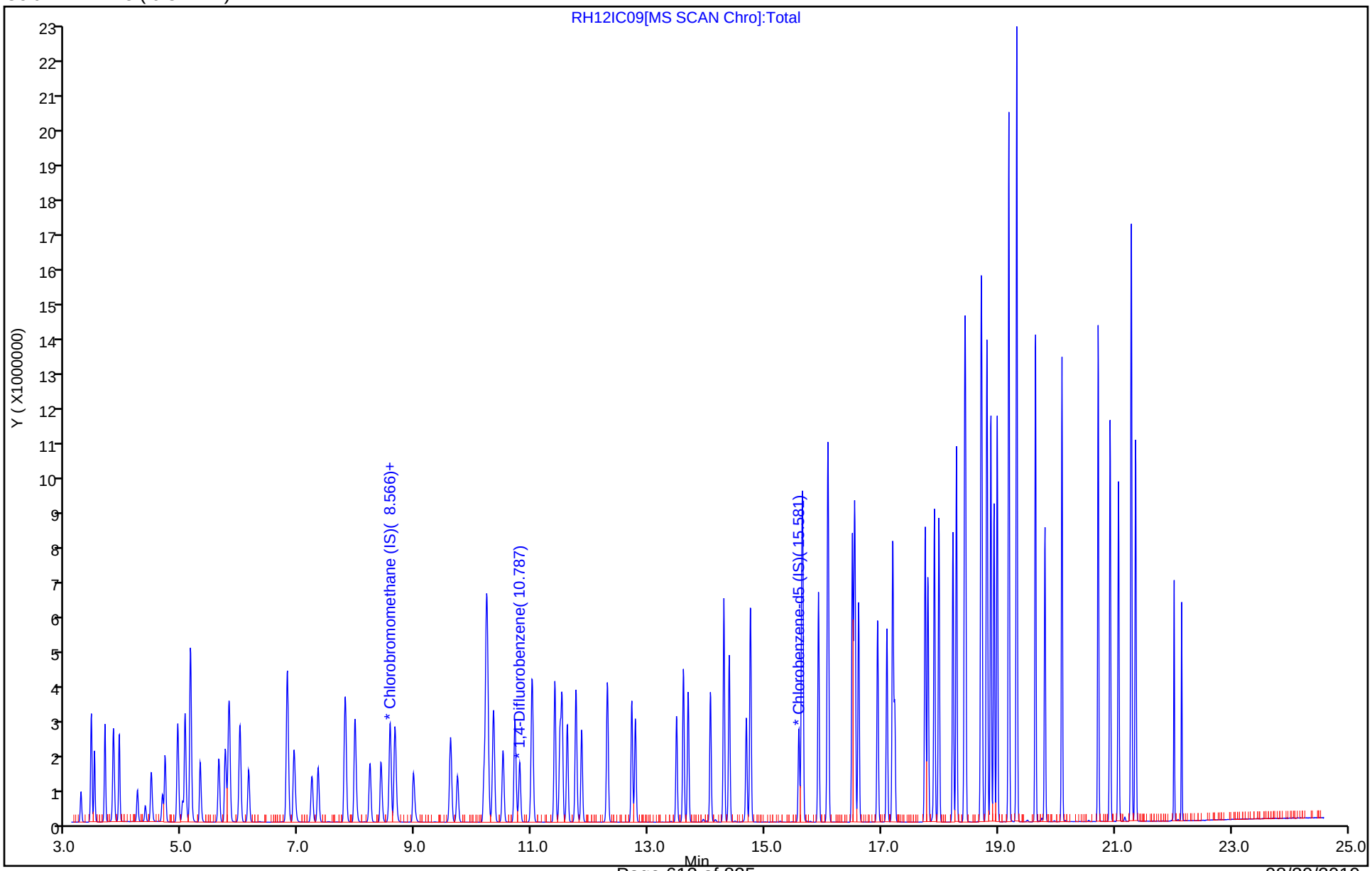
Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D

Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

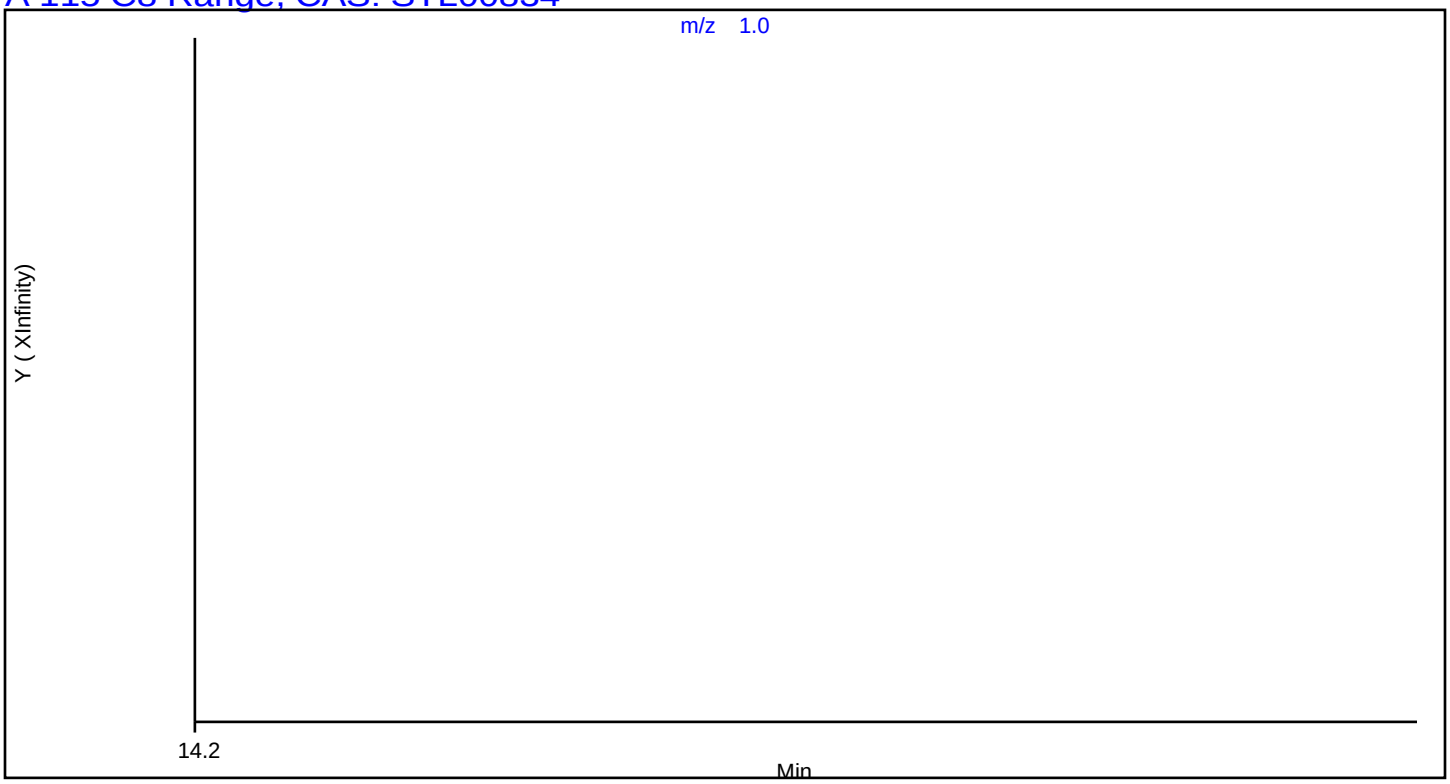


Report Date: 15-Aug-2019 10:42:27 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC09.D				
Injection Date:	12-Aug-2019 13:33:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	14	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 12-Aug-2019 15:13:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:32 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:39:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.560	8.551	0.009	98	331072	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.792	10.781	0.011	95	1796412	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.581	15.577	0.004	88	1698772	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.226	17.221	0.005	94	1189880	4.00	4.06	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	3868393	16.0	13.7	
7 Propene	41	3.437	3.439	-0.002	99	2119366	16.0	13.5	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	3393984	16.0	13.3	
9 Chloromethane	52	3.664	3.665	-0.001	98	474731	16.0	12.3	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	1659392	16.0	12.8	
11 Acetaldehyde	44	3.809	3.817	-0.008	99	2832336	80.0	63.1	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	1441332	16.0	11.8	
13 Butadiene	54	3.912	3.913	-0.001	70	1166818	16.0	13.2	
14 Butane	43	3.912	3.914	-0.002	84	2251310	16.0	12.0	
15 Bromomethane	94	4.225	4.227	-0.002	96	1282109	16.0	12.4	
16 Chloroethane	64	4.359	4.359	0.000	92	604347	16.0	12.1	
17 Ethanol	31	4.467	4.464	0.003	99	3128166	80.0	69.6	
18 Vinyl bromide	106	4.656	4.656	0.000	97	1213472	16.0	14.1	
19 2-Methylbutane	43	4.705	4.699	0.005	92	1570512	16.0	11.2	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	4973718	16.0	15.6	
20 Acrolein	56	4.931	4.936	-0.005	98	585189	16.0	14.9	
24 Acetonitrile	40	5.006	5.001	0.005	98	902567	16.0	15.4	
22 Acetone	58	5.044	5.057	-0.013	99	2425956	48.0	44.2	
25 Pentane	72	5.136	5.138	-0.002	96	328949	16.0	15.6	
23 Isopropyl alcohol	45	5.147	5.149	-0.002	94	8514512	48.0	45.8	
26 Ethyl ether	31	5.303	5.319	-0.016	89	2610293	16.0	15.2	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	1715585	16.0	15.1	
28 Acrylonitrile	53	5.740	5.738	0.002	92	1448282	16.0	16.9	
29 2-Methyl-2-propanol	59	5.734	5.756	-0.022	96	3602839	16.0	15.7	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	3875490	16.0	16.4	
31 Methylene Chloride	84	5.982	5.978	0.004	96	1527458	16.0	13.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	95	1990321	16.0	15.3	
33 Carbon disulfide	76	6.133	6.133	0.000	100	4787033	16.0	16.0	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	1909632	16.0	16.0	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	4932630	16.0	15.5	
36 Methyl tert-butyl ether	73	6.910	6.934	-0.024	98	5191938	16.0	16.1	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	100	3451875	16.0	15.2	
38 Vinyl acetate	43	7.331	7.328	0.003	100	6358946	16.0	16.1	
40 Hexane	56	7.800	7.796	0.004	76	1582904	16.0	15.2	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	96	932661	16.0	15.4	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	7654437	16.0	15.5	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	95	1979693	16.0	14.6	
43 Ethyl acetate	43	8.409	8.416	-0.007	98	5400752	16.0	15.4	
44 Chloroform	83	8.571	8.560	0.011	98	4317049	16.0	15.5	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	96	6547011	16.0	16.0	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	93	2611278	16.0	14.9	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	94	4880217	16.0	15.9	
48 1,2-Dichloroethane	62	9.725	9.715	0.010	97	2896923	16.0	16.8	
50 n-Butanol	31	10.172	10.195	-0.023	66	1165521	16.0	17.0	
51 Cyclohexane	69	10.210	10.210	0.000	90	965096	16.0	16.9	
49 Benzene	78	10.216	10.214	0.002	97	6064258	16.0	16.7	
52 Carbon tetrachloride	117	10.237	10.233	0.004	96	5417313	16.0	18.6	
53 2,3-Dimethylpentane	71	10.340	10.330	0.010	92	1400003	16.0	17.1	
54 Thiophene	84	10.507	10.499	0.008	97	3335042	16.0	18.1	
55 Isooctane	57	11.003	10.995	0.008	98	10552510	16.0	17.4	
57 n-Heptane	71	11.396	11.387	0.009	94	2260833	16.0	17.8	
56 1,2-Dichloropropane	63	11.483	11.474	0.009	88	2458224	16.0	17.5	
58 Trichloroethene	130	11.515	11.509	0.006	96	2831772	16.0	17.7	
59 Dibromomethane	93	11.607	11.595	0.012	95	2629232	16.0	17.7	
60 Dichlorobromomethane	83	11.752	11.746	0.006	99	4971763	16.0	18.5	
61 1,4-Dioxane	88	11.763	11.781	-0.018	94	948586	16.0	17.0	
62 Methyl methacrylate	41	11.849	11.850	-0.001	91	3510561	16.0	17.6	
63 Methylcyclohexane	83	12.292	12.288	0.004	92	3734439	16.0	17.8	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	6323240	16.0	17.7	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	97	3911560	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.483	13.476	0.007	98	3868417	16.0	18.3	
67 Toluene	91	13.597	13.593	0.004	93	7282658	16.0	16.7	
68 1,1,2-Trichloroethane	83	13.677	13.674	0.003	98	2245491	16.0	16.6	
69 2-Hexanone	58	14.060	14.066	-0.006	90	2871804	16.0	17.8	
71 n-Octane	85	14.292	14.288	0.004	96	2355321	16.0	16.4	
70 Chlorodibromomethane	129	14.384	14.379	0.005	97	5765814	16.0	19.2	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	4618343	16.0	17.8	
73 Tetrachloroethene	129	14.750	14.743	0.007	97	3052980	16.0	17.1	
74 Chlorobenzene	112	15.629	15.625	0.004	95	6391037	16.0	17.6	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	96	8293349	16.0	15.3	
76 Ethylbenzene	91	15.915	15.914	0.001	98	10423433	16.0	17.0	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	16680293	32.0	34.6	
81 n-Nonane	57	16.498	16.494	0.004	93	5441512	16.0	17.2	
78 Bromoform	173	16.530	16.525	0.005	97	6776174	16.0	25.2	
79 Styrene	104	16.546	16.543	0.003	99	6253157	16.0	18.9	
80 o-Xylene	91	16.605	16.602	0.003	99	8457498	16.0	16.7	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	6308078	16.0	17.7	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	96	1986065	16.0	17.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.193	17.187	0.006	96	12785204	16.0	17.0	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	3495935	16.0	18.3	e
86 2-Chlorotoluene	126	17.743	17.786	-0.043	97	2409758	16.0	13.3	e
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	12995264	16.0	17.4	e
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	5654785	16.0	20.7	
90 n-Decane	57	18.282	18.280	0.002	91	7099206	16.0	16.3	
91 tert-Butylbenzene	119	18.428	18.424	0.004	93	11832444	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	11579192	16.0	17.5	
94 sec-Butylbenzene	105	18.703	18.702	0.001	96	15544600	16.0	16.4	e
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	7935738	16.0	17.6	
96 Benzyl chloride	91	18.800	18.796	0.004	98	10790181	16.0	20.9	
95 1,4-Dichlorobenzene	146	18.816	18.810	0.006	95	8073237	16.0	18.2	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	13328935	16.0	17.4	e
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	11619317	16.0	17.9	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	8415289	16.0	17.3	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	10583764	16.0	17.9	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	7779620	16.0	17.7	
102 Indene	116	19.318	19.314	0.004	91	9949397	16.0	18.7	
103 n-Butylbenzene	91	19.323	19.318	0.005	98	13056864	16.0	16.6	e
104 Undecane	57	19.641	19.638	0.003	96	8319839	16.0	16.2	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	98	4656553	16.0	21.7	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	12471722	16.0	17.0	e
107 Dodecane	57	20.714	20.714	0.000	96	7339718	16.0	14.7	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	7089441	16.0	16.9	
109 Naphthalene	128	21.065	21.064	0.001	98	13497509	16.0	15.6	e
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	6466368	16.0	15.5	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	6241103	16.0	16.2	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	3791560	16.0	15.3	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	3107373	16.0	13.0	
A 115 C8 Range	1	14.297	(14.244-14.341)		0	23278410	16.0	16.5	
S 116 Xylenes, Total	100				0		48.0	51.4	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.6	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

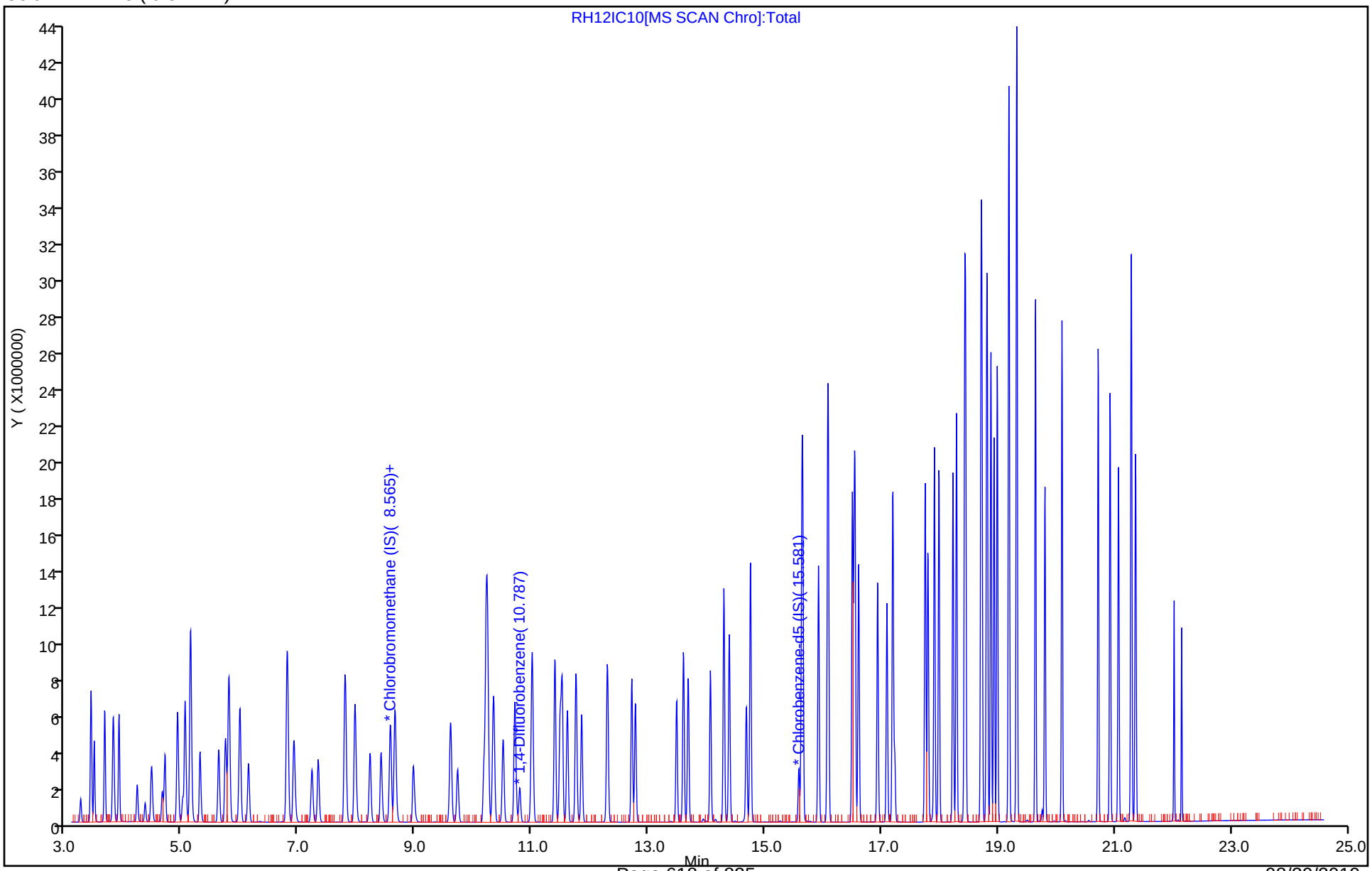
Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D

Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

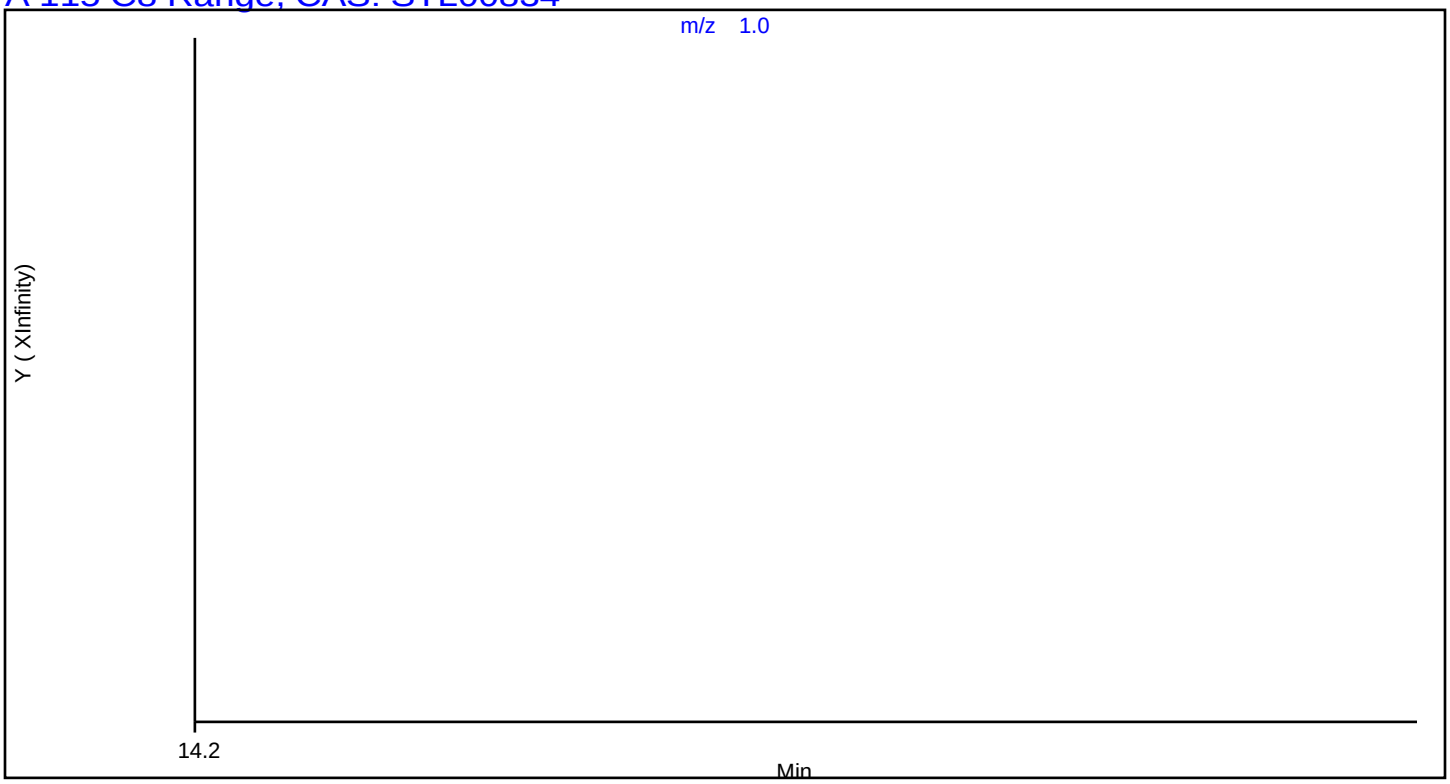


Report Date: 15-Aug-2019 10:42:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC10.D				
Injection Date:	12-Aug-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Aug-2019 17:38:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:39 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	273227	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1657156	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1399213	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	930526	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	35	6169	0.0200	0.0264	
7 Propene	41	3.443	3.439	0.004	98	35147	0.0200	0.2714	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	93	6166	0.0200	0.0292	
9 Chloromethane	52	3.669	3.665	0.004	62	1201	0.0200	0.0378	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	78	5499	0.0200	0.0513	
11 Acetaldehyde	44	3.820	3.817	0.003	98	18977	0.1000	0.5120	
12 Vinyl chloride	62	3.836	3.831	0.005	31	2580	0.0200	0.0257	
13 Butadiene	54	3.907	3.913	-0.006	1	965	0.0200	0.0132	
14 Butane	43	3.917	3.914	0.003	79	5369	0.0200	0.0347	
15 Bromomethane	94	4.235	4.227	0.008	66	2455	0.0200	0.0288	
16 Chloroethane	64	4.354	4.359	-0.005	49	1273	0.0200	0.0309	
17 Ethanol	31	4.478	4.464	0.014	84	7056	0.1000	0.1902	
18 Vinyl bromide	106	4.667	4.656	0.011	29	1260	0.0200	0.0177	
19 2-Methylbutane	43	4.699	4.699	0.000	30	1403	0.0200	0.0122	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	97	5883	0.0200	0.0224	
20 Acrolein	56	4.953	4.936	0.017	35	2463	0.0200	0.0758	
24 Acetonitrile	40	4.990	5.001	-0.011	44	809	0.0200	0.0167	
22 Acetone	58	5.077	5.057	0.020	98	6860	0.0600	0.1513	
23 Isopropyl alcohol	45	5.174	5.149	0.025	90	11087	0.0600	0.0722	
26 Ethyl ether	31	5.341	5.319	0.022	40	3392	0.0200	0.0239	
27 1,1-Dichloroethene	96	5.643	5.626	0.017	26	2637	0.0200	0.0281	
28 Acrylonitrile	53	5.751	5.738	0.013	58	1333	0.0200	0.0188	
29 2-Methyl-2-propanol	59	5.805	5.756	0.049	79	4955	0.0200	0.0262	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	89	4101	0.0200	0.0210	
31 Methylene Chloride	84	5.983	5.978	0.005	97	13935	0.0200	0.1443	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	27	4618	0.0200	0.0429	
33 Carbon disulfide	76	6.128	6.133	-0.005	93	5847	0.0200	0.0237	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	86	2604	0.0200	0.0264	
35 2-Methylpentane	43	6.797	6.803	-0.006	84	7187	0.0200	0.0274	
36 Methyl tert-butyl ether	73	6.937	6.934	0.003	1	462	0.0200	0.001735	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	52	4013	0.0200	0.0214	
38 Vinyl acetate	43	7.325	7.328	-0.003	77	7381	0.0200	0.0226	
40 Hexane	56	7.800	7.796	0.004	52	1891	0.0200	0.0220	
39 2-Butanone (MEK)	72	7.843	7.797	0.046	33	1428	0.0200	0.0285	
41 Isopropyl ether	45	8.010	7.978	0.032	96	8726	0.0200	0.0214	
42 cis-1,2-Dichloroethene	96	8.220	8.214	0.006	31	2563	0.0200	0.0229	
43 Ethyl acetate	43	8.431	8.416	0.015	65	7334	0.0200	0.0253	
44 Chloroform	83	8.549	8.560	-0.011	27	5750	0.0200	0.0250	
45 Tert-butyl ethyl ether	59	8.711	8.665	0.046	42	6434	0.0200	0.0190	
46 Tetrahydrofuran	42	8.992	8.988	0.004	1	138	0.0200	0.000954	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	65	5135	0.0200	0.0203	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	45	4314	0.0200	0.0271	
50 n-Butanol	31	10.232	10.195	0.037	62	2174	0.0200	0.0343	
51 Cyclohexane	69	10.210	10.210	0.000	74	1435	0.0200	0.0272	
49 Benzene	78	10.221	10.214	0.007	92	8633	0.0200	0.0257	
52 Carbon tetrachloride	117	10.237	10.233	0.004	74	5735	0.0200	0.0214	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	88	1703	0.0200	0.0225	
54 Thiophene	84	10.501	10.499	0.002	6	1619	0.0200	0.009518	
55 Isooctane	57	10.992	10.995	-0.003	80	6405	0.0200	0.0114	
57 n-Heptane	71	11.386	11.387	-0.001	91	2945	0.0200	0.0252	
56 1,2-Dichloropropane	63	11.472	11.474	-0.002	55	4135	0.0200	0.0320	
58 Trichloroethene	130	11.504	11.509	-0.005	64	3253	0.0200	0.0220	
59 Dibromomethane	93	11.591	11.595	-0.004	86	3434	0.0200	0.0251	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	57	5155	0.0200	0.0208	
61 1,4-Dioxane	88	11.823	11.781	0.042	39	903	0.0200	0.0175	
62 Methyl methacrylate	41	11.855	11.850	0.005	37	4095	0.0200	0.0222	
63 Methylcyclohexane	83	12.286	12.288	-0.002	84	4324	0.0200	0.0224	
64 4-Methyl-2-pentanone (MIBK	43	12.739	12.718	0.021	92	7697	0.0200	0.0234	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	83	5183	0.0200	0.0267	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	37	3504	0.0200	0.0201	
67 Toluene	91	13.597	13.593	0.004	94	9203	0.0200	0.0256	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	94	2738	0.0200	0.0245	
69 2-Hexanone	58	14.077	14.066	0.011	85	2554	0.0200	0.0192	
71 n-Octane	85	14.281	14.288	-0.007	94	3106	0.0200	0.0263	
70 Chlorodibromomethane	129	14.379	14.379	-0.001	95	5540	0.0200	0.0224	
72 Ethylene Dibromide	107	14.675	14.674	0.001	85	4741	0.0200	0.0221	
73 Tetrachloroethene	129	14.745	14.743	0.002	89	3610	0.0200	0.0246	
74 Chlorobenzene	112	15.630	15.625	0.005	83	7184	0.0200	0.0240	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	9947	0.0200	0.0222	
76 Ethylbenzene	91	15.915	15.914	0.001	97	12124	0.0200	0.0240	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	94	17297	0.0400	0.0436	
81 n-Nonane	57	16.498	16.494	0.004	92	5561	0.0200	0.0214	
78 Bromoform	173	16.525	16.525	0.000	72	4269	0.0200	0.0193	
79 Styrene	104	16.546	16.543	0.003	76	4130	0.0200	0.0151	
80 o-Xylene	91	16.600	16.602	-0.002	95	9841	0.0200	0.0236	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	94	7091	0.0200	0.0242	
83 1,2,3-Trichloropropane	110	17.080	17.086	-0.006	88	2219	0.0200	0.0239	
84 Isopropylbenzene	105	17.183	17.187	-0.004	84	14868	0.0200	0.0241	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	3076	0.0200	0.0196	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 2-Chlorotoluene	126	17.797	17.786	0.011	94	2915	0.0200	0.0195	
88 4-Ethyltoluene	105	17.905	17.902	0.003	97	12586	0.0200	0.0204	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	87	4843	0.0200	0.0206	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	4065	0.0200	0.0181	
90 n-Decane	57	18.277	18.280	-0.003	88	6600	0.0200	0.0185	
91 tert-Butylbenzene	119	18.428	18.424	0.004	94	10200	0.0200	0.0186	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	78	10364	0.0200	0.0191	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	98	15444	0.0200	0.0198	
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	91	7920	0.0200	0.0214	
96 Benzyl chloride	91	18.789	18.796	-0.007	81	7779	0.0200	0.0183	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	89	7186	0.0200	0.0197	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	12499	0.0200	0.0198	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	93	10609	0.0200	0.0198	
99 Butylcyclohexane	83	18.984	18.981	0.003	77	7059	0.0200	0.0176	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	9400	0.0200	0.0193	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	7298	0.0200	0.0202	
102 Indene	116	19.313	19.314	-0.001	79	7584	0.0200	0.0173	
103 n-Butylbenzene	91	19.318	19.318	0.000	93	12293	0.0200	0.0189	
104 Undecane	57	19.636	19.638	-0.002	87	7662	0.0200	0.0182	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	81	3485	0.0200	0.0197	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	12243	0.0200	0.0202	
107 Dodecane	57	20.709	20.714	-0.005	81	6880	0.0200	0.0168	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	91	7729	0.0200	0.0224	
109 Naphthalene	128	21.060	21.064	-0.004	98	15438	0.0200	0.0217	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	89	7410	0.0200	0.0216	
111 1,2,3-Trichlorobenzene	180	21.351	21.356	-0.005	93	9298	0.0200	0.0293	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	97	6448	0.0200	0.0315	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	96	7979	0.0200	0.0406	
A 115 C8 Range	1	14.300	(14.260-14.325)		0	34007	0.0200	0.0262	
S 116 Xylenes, Total	100				0		0.0600	0.0673	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0493	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

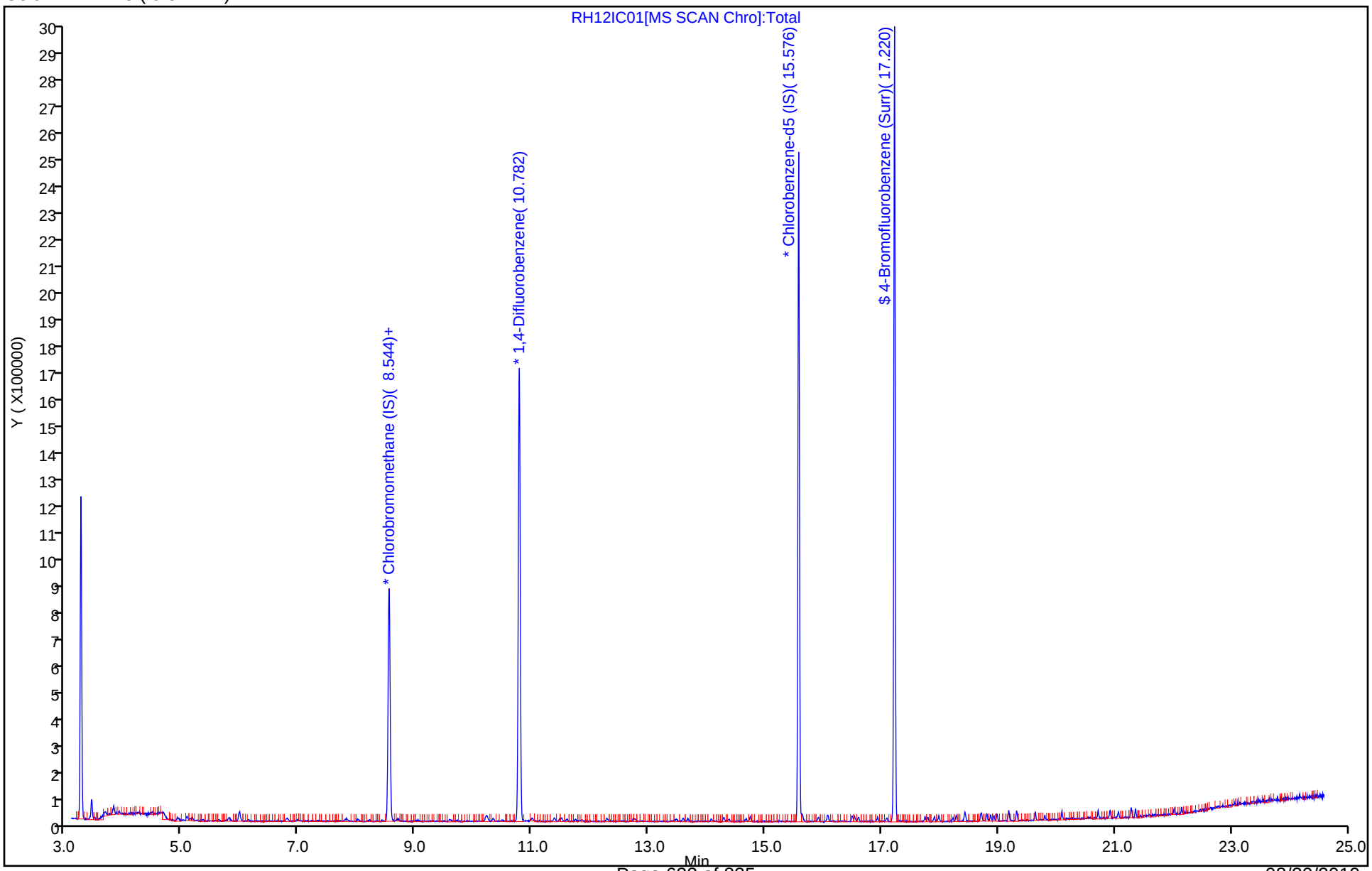
Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D

Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

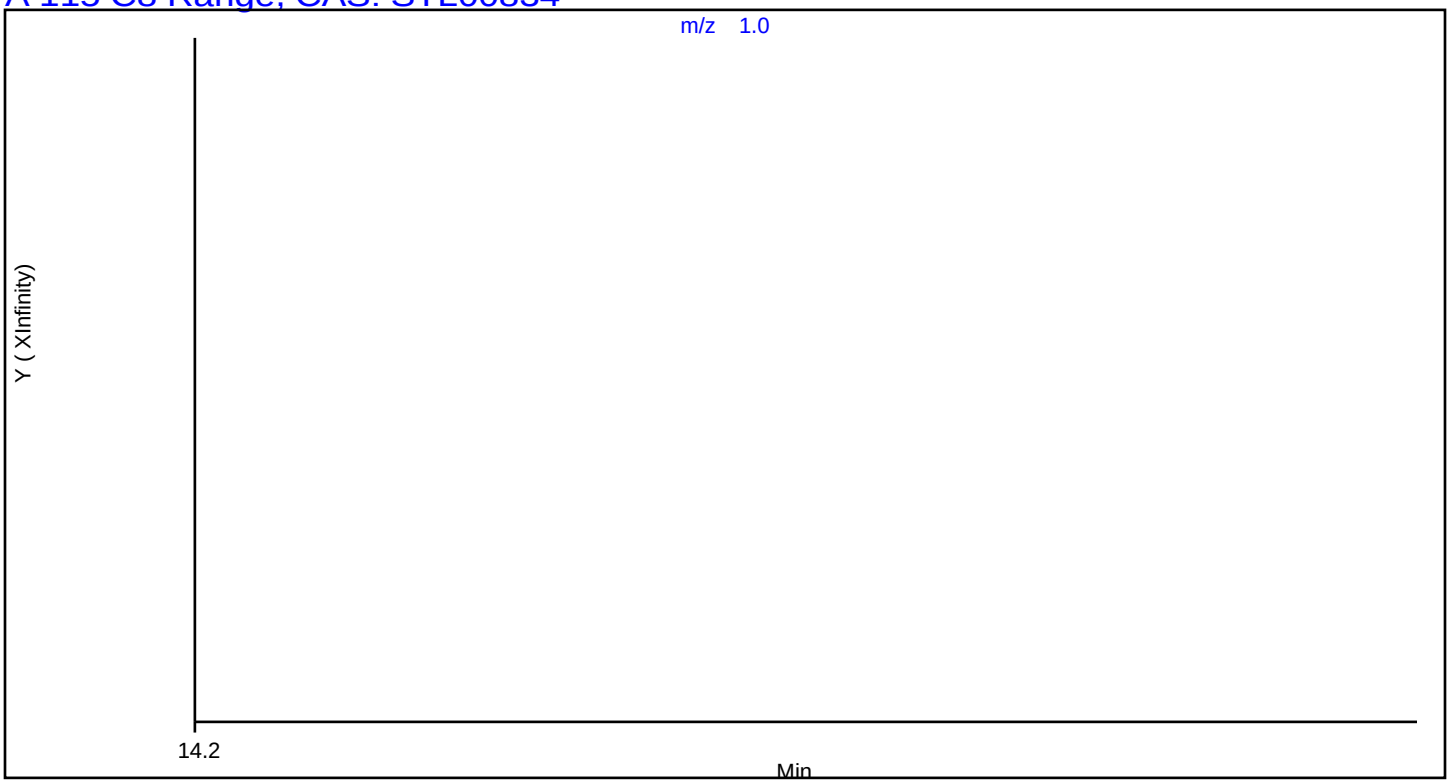


Report Date: 15-Aug-2019 10:42:40 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC01.D				
Injection Date:	12-Aug-2019 17:38:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Aug-2019 18:26:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:44 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 14:49:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	240951	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.777	10.781	-0.004	95	1473828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1287037	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	875394	4.00	3.95	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	48	9535	0.0400	0.0463	
7 Propene	41	3.432	3.439	-0.007	97	36666	0.0400	0.3210	
8 Dichlorodifluoromethane	85	3.481	3.489	-0.008	90	9042	0.0400	0.0485	
9 Chloromethane	52	3.659	3.665	-0.006	95	3186	0.0400	0.1138	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.659	3.669	-0.010	83	7157	0.0400	0.0758	
11 Acetaldehyde	44	3.820	3.817	0.003	92	22643	0.2000	0.6927	
12 Vinyl chloride	62	3.837	3.831	0.006	39	4572	0.0400	0.0516	
13 Butadiene	54	3.907	3.913	-0.006	68	4317	0.0400	0.0671	
14 Butane	43	3.912	3.914	-0.002	80	6815	0.0400	0.0500	
15 Bromomethane	94	4.230	4.227	0.003	87	3387	0.0400	0.0451	
16 Chloroethane	64	4.354	4.359	-0.005	49	1717	0.0400	0.0473	
17 Ethanol	31	4.467	4.464	0.003	74	6705	0.2000	0.2050	
18 Vinyl bromide	106	4.656	4.656	0.000	63	4274	0.0400	0.0681	
19 2-Methylbutane	43	4.689	4.699	-0.010	76	6141	0.0400	0.0604	
21 Trichlorofluoromethane	101	4.910	4.915	-0.005	97	8941	0.0400	0.0386	
20 Acrolein	56	4.931	4.936	-0.005	41	3875	0.0400	0.1352	
24 Acetonitrile	40	5.007	5.001	0.006	69	535	0.0400	0.0125	
22 Acetone	58	5.071	5.057	0.014	99	10977	0.1200	0.2746	
25 Pentane	72	5.142	5.138	0.004	3	364	0.0400	0.0238	
23 Isopropyl alcohol	45	5.163	5.149	0.014	91	17979	0.1200	0.1328	
26 Ethyl ether	31	5.325	5.319	0.006	76	4956	0.0400	0.0396	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	89	4055	0.0400	0.0489	
28 Acrylonitrile	53	5.735	5.738	-0.003	71	2350	0.0400	0.0376	
29 2-Methyl-2-propanol	59	5.778	5.756	0.022	76	7739	0.0400	0.0463	
30 1,1,2-Trichloro-1,2,2-trif	101	5.805	5.798	0.007	90	4530	0.0400	0.0263	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	14484	0.0400	0.1701	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.990	-0.013	36	6566	0.0400	0.0692	
33 Carbon disulfide	76	6.123	6.133	-0.010	63	8103	0.0400	0.0372	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	61	3809	0.0400	0.0437	
35 2-Methylpentane	43	6.808	6.803	0.005	95	11454	0.0400	0.0496	
36 Methyl tert-butyl ether	73	6.964	6.934	0.030	53	5614	0.0400	0.0239	
37 1,1-Dichloroethane	63	7.207	7.217	-0.010	9	7026	0.0400	0.0425	
38 Vinyl acetate	43	7.331	7.328	0.003	99	12777	0.0400	0.0443	
40 Hexane	56	7.795	7.796	-0.001	82	3187	0.0400	0.0421	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	83	1847	0.0400	0.0418	
41 Isopropyl ether	45	8.005	7.978	0.027	97	15231	0.0400	0.0424	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	91	4771	0.0400	0.0484	
43 Ethyl acetate	43	8.431	8.416	0.015	88	12131	0.0400	0.0475	
44 Chloroform	83	8.555	8.560	-0.005	28	9330	0.0400	0.0460	
45 Tert-butyl ethyl ether	59	8.684	8.665	0.019	94	12225	0.0400	0.0409	
46 Tetrahydrofuran	42	9.029	8.988	0.041	93	5933	0.0400	0.0465	
47 1,1,1-Trichloroethane	97	9.596	9.597	-0.001	89	10000	0.0400	0.0449	
48 1,2-Dichloroethane	62	9.720	9.715	0.005	46	5704	0.0400	0.0402	
50 n-Butanol	31	10.221	10.195	0.026	62	2845	0.0400	0.0505	
51 Cyclohexane	69	10.216	10.210	0.006	75	2105	0.0400	0.0449	
49 Benzene	78	10.210	10.214	-0.004	92	12714	0.0400	0.0426	
52 Carbon tetrachloride	117	10.237	10.233	0.004	82	8340	0.0400	0.0349	
53 2,3-Dimethylpentane	71	10.318	10.330	-0.012	87	2071	0.0400	0.0308	
54 Thiophene	84	10.502	10.499	0.003	86	2007	0.0400	0.0133	
55 Isooctane	57	10.987	10.995	-0.008	76	9874	0.0400	0.0198	
57 n-Heptane	71	11.380	11.387	-0.007	90	3898	0.0400	0.0374	
56 1,2-Dichloropropane	63	11.461	11.474	-0.013	62	4493	0.0400	0.0391	
58 Trichloroethene	130	11.510	11.509	0.001	87	4791	0.0400	0.0365	
59 Dibromomethane	93	11.591	11.595	-0.004	93	5749	0.0400	0.0472	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	92	8337	0.0400	0.0377	
61 1,4-Dioxane	88	11.796	11.781	0.015	27	1378	0.0400	0.0300	
62 Methyl methacrylate	41	11.850	11.850	0.000	50	6839	0.0400	0.0418	
63 Methylcyclohexane	83	12.286	12.288	-0.002	83	6242	0.0400	0.0364	
64 4-Methyl-2-pentanone (MIBK	43	12.729	12.718	0.011	75	11686	0.0400	0.0400	
65 cis-1,3-Dichloropropene	75	12.777	12.771	0.006	49	6968	0.0400	0.0404	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	96	6602	0.0400	0.0412	
67 Toluene	91	13.591	13.593	-0.002	94	11848	0.0400	0.0358	
68 1,1,2-Trichloroethane	83	13.683	13.674	0.009	89	4096	0.0400	0.0399	
69 2-Hexanone	58	14.077	14.066	0.011	88	4082	0.0400	0.0333	
71 n-Octane	85	14.292	14.288	0.004	92	4629	0.0400	0.0427	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	7768	0.0400	0.0341	
72 Ethylene Dibromide	107	14.675	14.674	0.001	93	7387	0.0400	0.0375	
73 Tetrachloroethene	129	14.735	14.743	-0.008	89	5547	0.0400	0.0410	
74 Chlorobenzene	112	15.619	15.625	-0.006	37	10958	0.0400	0.0398	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	94	16859	0.0400	0.0409	
76 Ethylbenzene	91	15.915	15.914	0.001	99	17826	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	95	25689	0.0800	0.0704	
81 n-Nonane	57	16.492	16.494	-0.002	91	9320	0.0400	0.0390	
78 Bromoform	173	16.519	16.525	-0.006	93	6218	0.0400	0.0305	
79 Styrene	104	16.546	16.543	0.003	93	8344	0.0400	0.0332	
80 o-Xylene	91	16.600	16.602	-0.002	97	14039	0.0400	0.0367	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	9624	0.0400	0.0357	
83 1,2,3-Trichloropropane	110	17.075	17.086	-0.011	92	2896	0.0400	0.0339	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.183	17.187	-0.004	87	22539	0.0400	0.0397	
85 N-Propylbenzene	120	17.743	17.745	-0.002	97	4793	0.0400	0.0332	
86 2-Chlorotoluene	126	17.781	17.786	-0.005	95	4980	0.0400	0.0362	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	21180	0.0400	0.0374	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	92	7772	0.0400	0.0360	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	6125	0.0400	0.0296	
90 n-Decane	57	18.277	18.280	-0.003	86	12151	0.0400	0.0369	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	19707	0.0400	0.0390	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	94	18855	0.0400	0.0377	
94 sec-Butylbenzene	105	18.703	18.702	0.001	98	27584	0.0400	0.0384	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	14076	0.0400	0.0413	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	13242	0.0400	0.0339	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	89	12727	0.0400	0.0379	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	22669	0.0400	0.0391	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	16683	0.0400	0.0339	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	13926	0.0400	0.0378	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	92	15512	0.0400	0.0347	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	12106	0.0400	0.0365	
102 Indene	116	19.318	19.314	0.004	74	13962	0.0400	0.0346	
103 n-Butylbenzene	91	19.318	19.318	0.000	95	25040	0.0400	0.0419	
104 Undecane	57	19.636	19.638	-0.002	92	13911	0.0400	0.0358	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	85	4732	0.0400	0.0291	
106 1,2,4,5-Tetramethylbenzene	119	20.095	20.094	0.001	96	21801	0.0400	0.0391	
107 Dodecane	57	20.715	20.714	0.001	88	12479	0.0400	0.0331	
108 1,2,4-Trichlorobenzene	180	20.925	20.920	0.005	94	11775	0.0400	0.0371	
109 Naphthalene	128	21.065	21.064	0.001	99	26992	0.0400	0.0412	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	93	12204	0.0400	0.0387	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	90	10787	0.0400	0.0369	
112 2-Methylnaphthalene	142	22.020	22.019	0.001	96	7027	0.0400	0.0373	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	10180	0.0400	0.0563	
A 115 C8 Range	1	14.282	(14.249-14.314)		0	50038	0.0400	0.0433	
S 116 Xylenes, Total	100				0		0.1200	0.1071	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0921	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

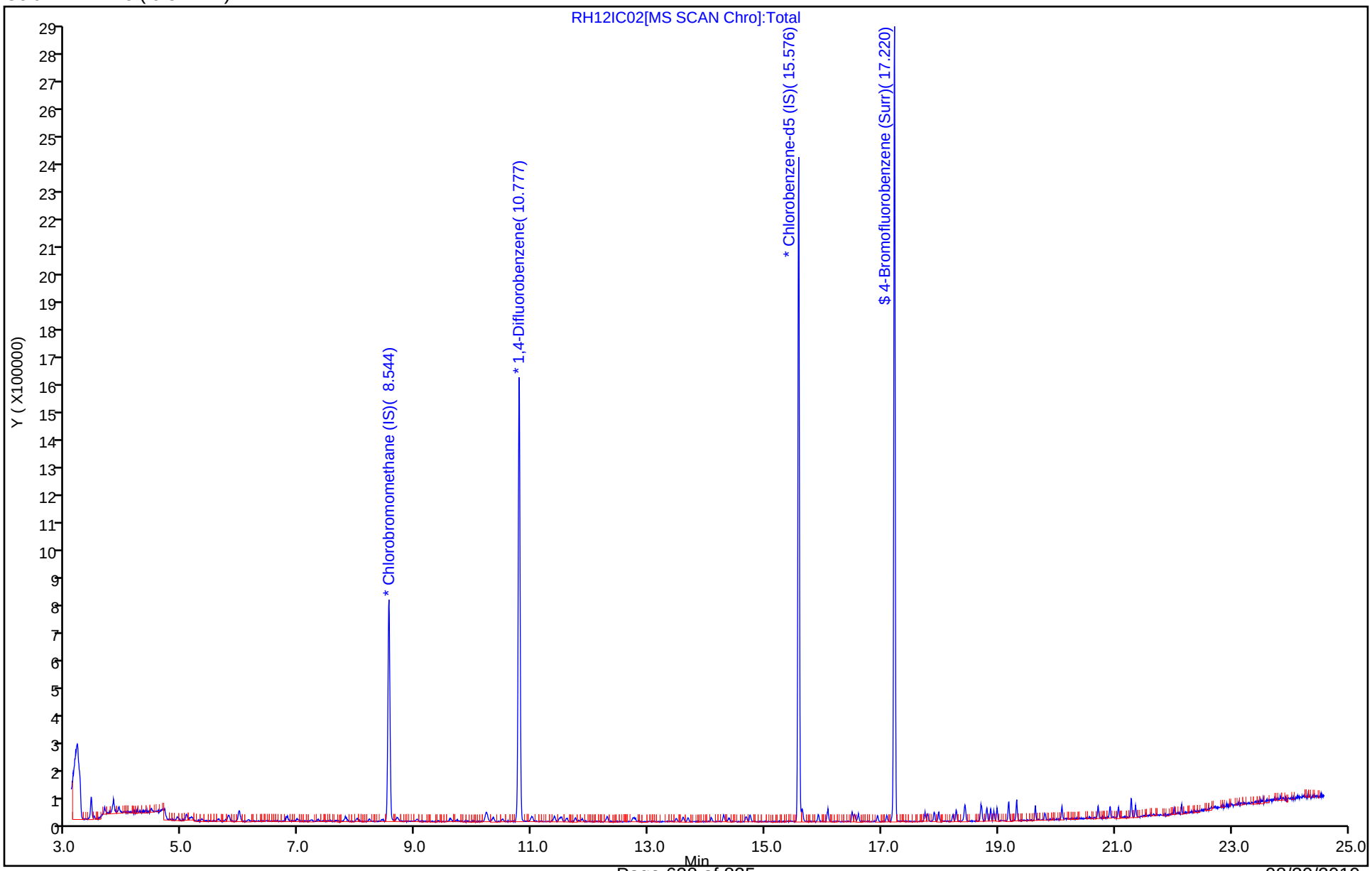
Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D

Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

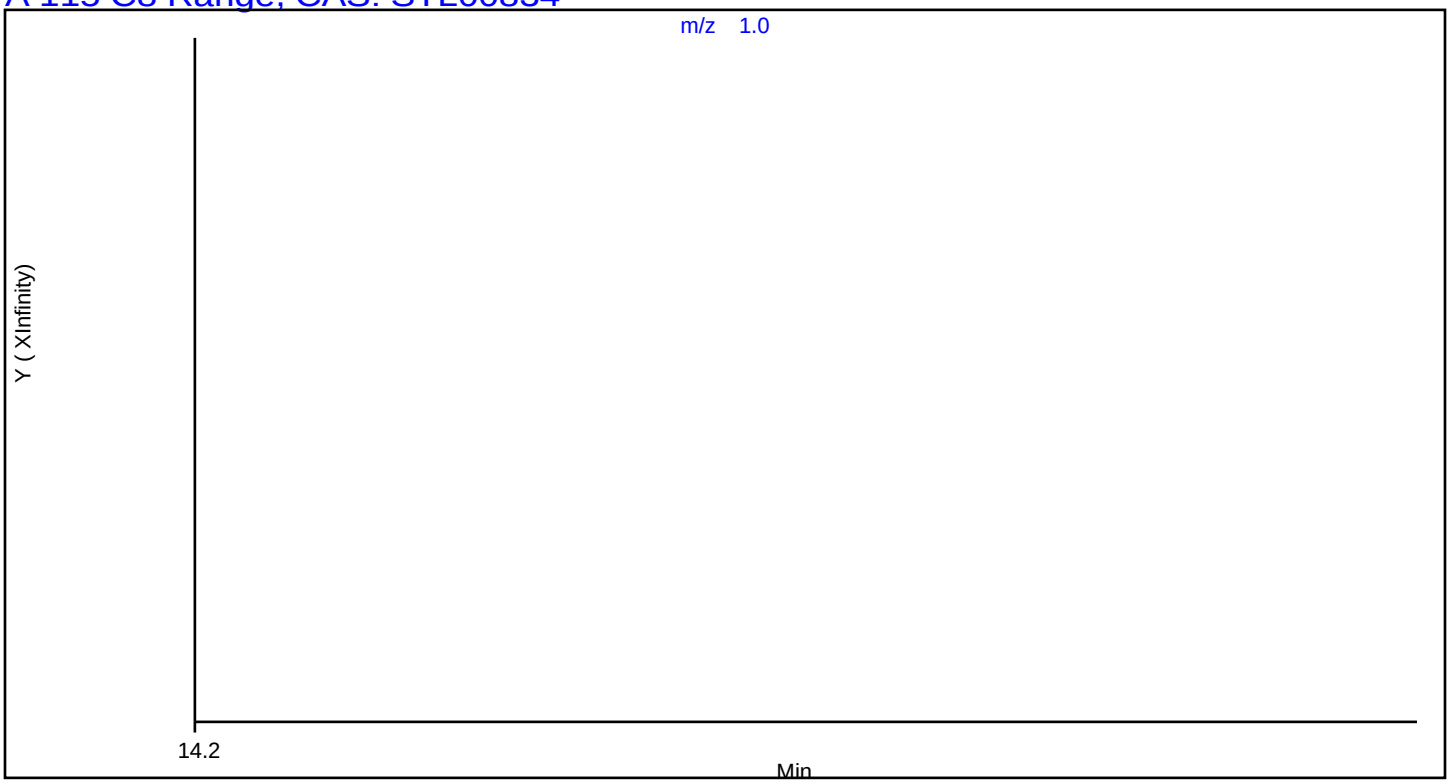


Report Date: 15-Aug-2019 10:42:45 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC02.D				
Injection Date:	12-Aug-2019 18:26:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Aug-2019 19:15:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:50 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:39:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.551	-0.007	97	238260	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1462098	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1307797	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	871146	4.00	3.86	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	84	17104	0.0800	0.0840	
7 Propene	41	3.448	3.439	0.009	98	40013	0.0800	0.3543	
8 Dichlorodifluoromethane	85	3.497	3.489	0.008	99	13627	0.0800	0.0740	
9 Chloromethane	52	3.669	3.665	0.004	93	4474	0.0800	0.1616	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	8302	0.0800	0.0889	
11 Acetaldehyde	44	3.826	3.817	0.009	99	53243	0.4000	1.65	
12 Vinyl chloride	62	3.836	3.831	0.005	36	8343	0.0800	0.0951	
13 Butadiene	54	3.917	3.913	0.004	64	7432	0.0800	0.1168	
14 Butane	43	3.917	3.914	0.003	88	14738	0.0800	0.1094	
15 Bromomethane	94	4.225	4.227	-0.002	71	8093	0.0800	0.1089	
16 Chloroethane	64	4.359	4.359	0.000	69	4278	0.0800	0.1192	
17 Ethanol	31	4.462	4.464	-0.002	41	8773	0.4000	0.2713	
18 Vinyl bromide	106	4.661	4.656	0.005	87	6047	0.0800	0.0975	
19 2-Methylbutane	43	4.699	4.699	0.000	88	10330	0.0800	0.1027	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	98	18776	0.0800	0.0820	
20 Acrolein	56	4.953	4.936	0.017	56	5537	0.0800	0.1954	
24 Acetonitrile	40	5.007	5.001	0.005	88	2524	0.0800	0.0598	
22 Acetone	58	5.071	5.057	0.014	99	18045	0.2400	0.4565	
23 Isopropyl alcohol	45	5.163	5.149	0.014	96	30173	0.2400	0.2254	
26 Ethyl ether	31	5.335	5.319	0.016	81	10342	0.0800	0.0835	
27 1,1-Dichloroethene	96	5.632	5.626	0.006	94	6464	0.0800	0.0789	
28 Acrylonitrile	53	5.740	5.738	0.002	67	3782	0.0800	0.0612	
29 2-Methyl-2-propanol	59	5.783	5.756	0.027	83	14220	0.0800	0.0861	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	12898	0.0800	0.0757	
31 Methylene Chloride	84	5.983	5.978	0.005	96	17663	0.0800	0.2097	
32 3-Chloro-1-propene	39	5.993	5.990	0.003	72	8996	0.0800	0.0959	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.139	6.133	0.006	98	16332	0.0800	0.0758	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	90	5797	0.0800	0.0673	
35 2-Methylpentane	43	6.808	6.803	0.005	92	17316	0.0800	0.0758	
36 Methyl tert-butyl ether	73	6.959	6.934	0.025	95	15453	0.0800	0.0666	
37 1,1-Dichloroethane	63	7.223	7.217	0.006	98	12145	0.0800	0.0743	
38 Vinyl acetate	43	7.341	7.328	0.013	99	20932	0.0800	0.0734	
40 Hexane	56	7.794	7.796	-0.002	72	6114	0.0800	0.0817	
39 2-Butanone (MEK)	72	7.811	7.797	0.014	96	4367	0.0800	0.0999	
41 Isopropyl ether	45	7.994	7.978	0.016	96	27616	0.0800	0.0778	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	92	8632	0.0800	0.0885	
43 Ethyl acetate	43	8.431	8.416	0.015	96	19988	0.0800	0.0791	
44 Chloroform	83	8.555	8.560	-0.005	29	16201	0.0800	0.0808	
45 Tert-butyl ethyl ether	59	8.679	8.665	0.014	96	22608	0.0800	0.0766	
46 Tetrahydrofuran	42	9.018	8.988	0.030	93	11583	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	9.601	9.597	0.004	96	17062	0.0800	0.0774	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	92	11547	0.0800	0.0821	
50 n-Butanol	31	10.210	10.195	0.015	68	4413	0.0800	0.0789	
51 Cyclohexane	69	10.216	10.210	0.006	74	2617	0.0800	0.0563	
49 Benzene	78	10.216	10.214	0.002	93	21586	0.0800	0.0729	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	86	15774	0.0800	0.0666	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	90	5547	0.0800	0.0832	
54 Thiophene	84	10.501	10.499	0.002	90	8334	0.0800	0.0555	
55 Isooctane	57	10.992	10.995	-0.003	97	36777	0.0800	0.0743	
57 n-Heptane	71	11.391	11.387	0.004	93	8204	0.0800	0.0794	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	64	9787	0.0800	0.0858	
58 Trichloroethene	130	11.515	11.509	0.006	91	10022	0.0800	0.0770	
59 Dibromomethane	93	11.596	11.595	0.001	91	9109	0.0800	0.0754	
60 Dichlorobromomethane	83	11.747	11.746	0.001	95	15440	0.0800	0.0704	
61 1,4-Dioxane	88	11.806	11.781	0.025	49	3473	0.0800	0.0763	
62 Methyl methacrylate	41	11.855	11.850	0.005	90	12240	0.0800	0.0753	
63 Methylcyclohexane	83	12.297	12.288	0.009	86	12553	0.0800	0.0737	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	97	22225	0.0800	0.0766	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	94	12719	0.0800	0.0743	
66 trans-1,3-Dichloropropene	75	13.467	13.476	-0.009	92	11493	0.0800	0.0707	
67 Toluene	91	13.591	13.593	-0.002	95	25408	0.0800	0.0755	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	7791	0.0800	0.0747	
69 2-Hexanone	58	14.071	14.066	0.005	90	8340	0.0800	0.0670	
71 n-Octane	85	14.281	14.288	-0.007	95	8484	0.0800	0.0770	
70 Chlorodibromomethane	129	14.373	14.379	-0.006	96	14768	0.0800	0.0638	
72 Ethylene Dibromide	107	14.675	14.674	0.001	95	13260	0.0800	0.0663	
73 Tetrachloroethene	129	14.740	14.743	-0.003	84	10036	0.0800	0.0730	
74 Chlorobenzene	112	15.629	15.625	0.004	94	19939	0.0800	0.0713	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	32761	0.0800	0.0783	
76 Ethylbenzene	91	15.915	15.914	0.001	99	33477	0.0800	0.0709	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	96	54397	0.1600	0.1468	
81 n-Nonane	57	16.498	16.494	0.004	93	16849	0.0800	0.0694	
78 Bromoform	173	16.525	16.525	0.000	93	12693	0.0800	0.0612	
79 Styrene	104	16.541	16.543	-0.002	94	16365	0.0800	0.0641	
80 o-Xylene	91	16.606	16.602	0.004	98	26230	0.0800	0.0674	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.930	0.004	97	18858	0.0800	0.0688	
83 1,2,3-Trichloropropane	110	17.096	17.086	0.010	95	5924	0.0800	0.0682	
84 Isopropylbenzene	105	17.188	17.187	0.001	93	40179	0.0800	0.0696	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	98	9798	0.0800	0.0667	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	10534	0.0800	0.0753	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	98	42363	0.0800	0.0736	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	15853	0.0800	0.0722	
89 Alpha Methyl Styrene	118	18.218	18.223	-0.005	88	13366	0.0800	0.0635	
90 n-Decane	57	18.283	18.280	0.003	89	25144	0.0800	0.0752	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	89	35611	0.0800	0.0694	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	37839	0.0800	0.0744	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	53220	0.0800	0.0729	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	94	25042	0.0800	0.0723	
96 Benzyl chloride	91	18.795	18.796	-0.001	91	25427	0.0800	0.0640	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	27287	0.0800	0.0799	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	96	42494	0.0800	0.0721	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	99	36284	0.0800	0.0725	
99 Butylcyclohexane	83	18.984	18.981	0.003	94	27467	0.0800	0.0734	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33349	0.0800	0.0734	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	86	24634	0.0800	0.0730	
102 Indene	116	19.312	19.314	-0.002	98	27720	0.0800	0.0676	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	43509	0.0800	0.0717	
104 Undecane	57	19.641	19.638	0.003	93	27220	0.0800	0.0690	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	87	10162	0.0800	0.0614	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	96	39484	0.0800	0.0698	
107 Dodecane	57	20.714	20.714	0.000	90	26195	0.0800	0.0684	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	92	24678	0.0800	0.0765	
109 Naphthalene	128	21.065	21.064	0.001	99	53409	0.0800	0.0802	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	91	23134	0.0800	0.0722	
111 1,2,3-Trichlorobenzene	180	21.362	21.356	0.006	93	21407	0.0800	0.0721	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	93	12987	0.0800	0.0679	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	17746	0.0800	0.0966	
A 115 C8 Range	1	14.287	(14.249-14.325)		0	90033	0.0800	0.0785	
S 116 Xylenes, Total	100				0		0.2400	0.2142	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1558	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

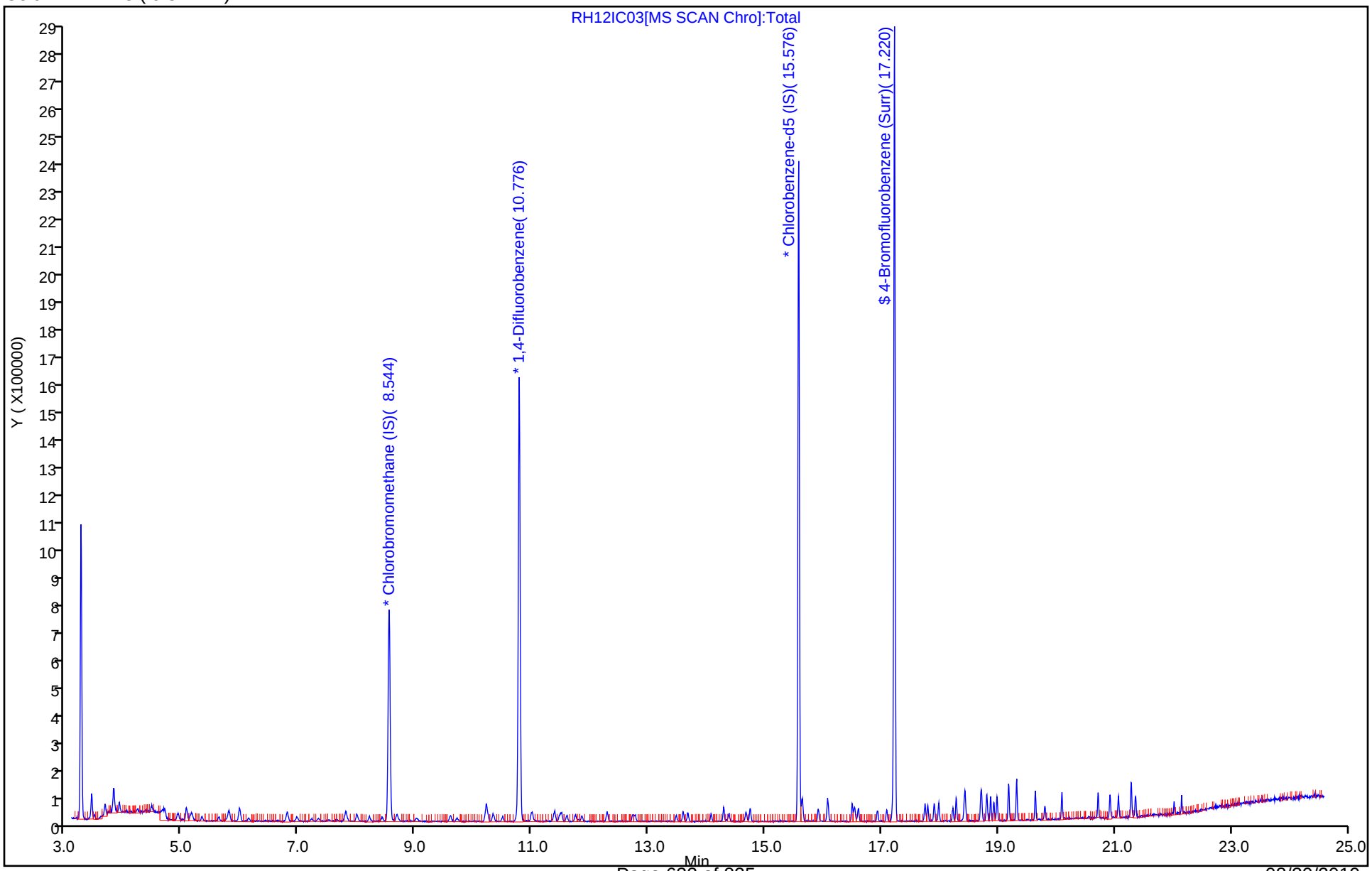
Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D

Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

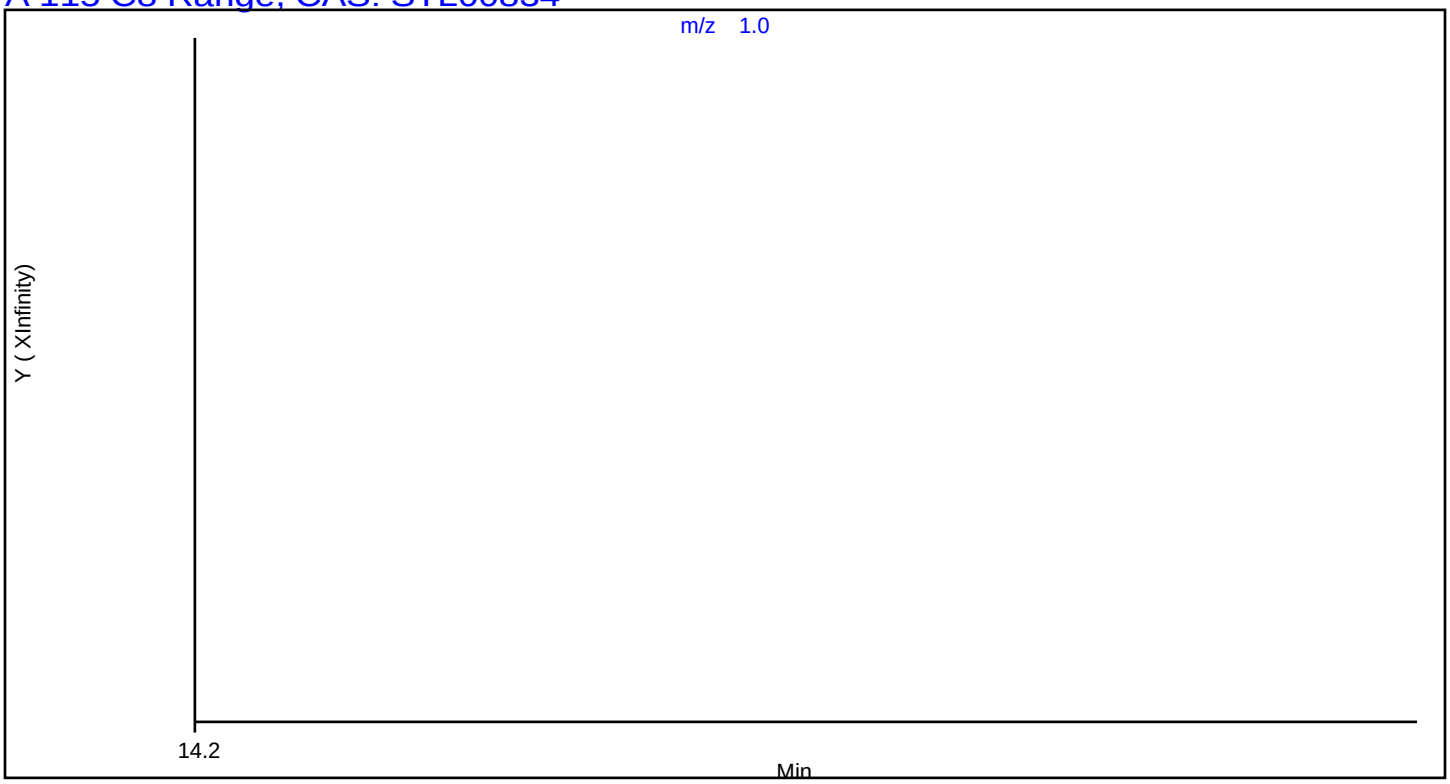


Report Date: 15-Aug-2019 10:42:51 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC03.D				
Injection Date:	12-Aug-2019 19:15:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Aug-2019 20:04:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:55 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 09:00:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	234467	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1479080	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1297368	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	880719	4.00	3.94	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	89	37149	0.1600	0.1854	
7 Propene	41	3.443	3.439	0.004	99	52426	0.1600	0.4717	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	98	31157	0.1600	0.1719	
9 Chloromethane	52	3.664	3.665	-0.001	76	5807	0.1600	0.2132	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.675	3.669	0.006	89	18423	0.1600	0.2004	
11 Acetaldehyde	44	3.820	3.817	0.003	91	65296	0.8000	2.05	
12 Vinyl chloride	62	3.836	3.831	0.005	90	16277	0.1600	0.1886	
13 Butadiene	54	3.912	3.913	-0.001	65	13809	0.1600	0.2205	
14 Butane	43	3.912	3.914	-0.002	86	27416	0.1600	0.2068	
15 Bromomethane	94	4.230	4.227	0.003	88	12536	0.1600	0.1714	
16 Chloroethane	64	4.359	4.359	0.000	86	6308	0.1600	0.1786	
17 Ethanol	31	4.467	4.464	0.003	97	39287	0.8000	1.23	
18 Vinyl bromide	106	4.651	4.656	-0.005	88	11256	0.1600	0.1844	
19 2-Methylbutane	43	4.705	4.699	0.006	93	21554	0.1600	0.2179	
21 Trichlorofluoromethane	101	4.920	4.915	0.005	99	37252	0.1600	0.1654	
20 Acrolein	56	4.936	4.936	0.000	26	5363	0.1600	0.1923	
24 Acetonitrile	40	4.996	5.001	-0.005	90	465	0.1600	0.0112	
22 Acetone	58	5.066	5.057	0.009	98	30505	0.4800	0.7843	
25 Pentane	72	5.136	5.138	-0.002	94	3095	0.1600	0.2078	
23 Isopropyl alcohol	45	5.157	5.149	0.008	97	56079	0.4800	0.4256	
26 Ethyl ether	31	5.330	5.319	0.011	87	20465	0.1600	0.1680	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	98	12986	0.1600	0.1611	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	7796	0.1600	0.1281	
29 2-Methyl-2-propanol	59	5.767	5.756	0.011	92	24598	0.1600	0.1513	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	92	26227	0.1600	0.1565	
31 Methylene Chloride	84	5.977	5.978	-0.001	92	19470	0.1600	0.2349	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.999	5.990	0.009	84	14010	0.1600	0.1518	
33 Carbon disulfide	76	6.139	6.133	0.006	96	32055	0.1600	0.1511	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	95	12429	0.1600	0.1466	
35 2-Methylpentane	43	6.808	6.803	0.005	96	38166	0.1600	0.1697	
36 Methyl tert-butyl ether	73	6.953	6.934	0.019	96	35352	0.1600	0.1547	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	98	26688	0.1600	0.1660	
38 Vinyl acetate	43	7.325	7.328	-0.003	99	43790	0.1600	0.1561	
40 Hexane	56	7.794	7.796	-0.002	71	13205	0.1600	0.1794	
39 2-Butanone (MEK)	72	7.805	7.797	0.008	93	8064	0.1600	0.1874	
41 Isopropyl ether	45	7.983	7.978	0.005	98	56542	0.1600	0.1619	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	94	14471	0.1600	0.1508	
43 Ethyl acetate	43	8.431	8.416	0.015	97	39652	0.1600	0.1595	
44 Chloroform	83	8.560	8.560	0.000	30	32871	0.1600	0.1667	
45 Tert-butyl ethyl ether	59	8.673	8.665	0.008	96	45874	0.1600	0.1578	
46 Tetrahydrofuran	42	9.002	8.988	0.014	93	18911	0.1600	0.1524	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	33477	0.1600	0.1544	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	96	20976	0.1600	0.1474	
50 n-Butanol	31	10.205	10.195	0.010	58	7490	0.1600	0.1324	
51 Cyclohexane	69	10.216	10.210	0.006	72	7444	0.1600	0.1583	
49 Benzene	78	10.210	10.214	-0.004	95	49431	0.1600	0.1650	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	92	35862	0.1600	0.1497	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	10204	0.1600	0.1512	
54 Thiophene	84	10.496	10.499	-0.003	94	22379	0.1600	0.1474	
55 Isooctane	57	10.997	10.995	0.002	96	76319	0.1600	0.1525	
57 n-Heptane	71	11.386	11.387	-0.001	95	15423	0.1600	0.1476	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	80	16693	0.1600	0.1446	
58 Trichloroethene	130	11.510	11.509	0.001	93	18870	0.1600	0.1432	
59 Dibromomethane	93	11.591	11.595	-0.004	94	19319	0.1600	0.1581	
60 Dichlorobromomethane	83	11.747	11.746	0.001	97	32327	0.1600	0.1458	
61 1,4-Dioxane	88	11.785	11.781	0.004	66	7162	0.1600	0.1556	
62 Methyl methacrylate	41	11.855	11.850	0.005	87	25315	0.1600	0.1540	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	25069	0.1600	0.1455	
64 4-Methyl-2-pentanone (MIBK	43	12.723	12.718	0.005	98	42380	0.1600	0.1445	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	95	21987	0.1600	0.1270	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.004	93	21440	0.1600	0.1329	
67 Toluene	91	13.591	13.593	-0.002	92	52282	0.1600	0.1566	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	96	15946	0.1600	0.1541	
69 2-Hexanone	58	14.076	14.066	0.010	91	19028	0.1600	0.1540	
71 n-Octane	85	14.287	14.288	-0.001	97	15835	0.1600	0.1448	
70 Chlorodibromomethane	129	14.384	14.379	0.005	96	28895	0.1600	0.1259	
72 Ethylene Dibromide	107	14.675	14.674	0.001	35	29180	0.1600	0.1470	
73 Tetrachloroethene	129	14.740	14.743	-0.003	93	18774	0.1600	0.1377	
74 Chlorobenzene	112	15.629	15.625	0.004	94	41497	0.1600	0.1495	
75 2,3-Dimethylheptane	43	15.646	15.642	0.004	94	62008	0.1600	0.1493	
76 Ethylbenzene	91	15.915	15.914	0.001	98	67987	0.1600	0.1452	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	103834	0.3200	0.2824	
81 n-Nonane	57	16.492	16.494	-0.002	95	34376	0.1600	0.1427	
78 Bromoform	173	16.519	16.525	-0.006	95	27703	0.1600	0.1347	
79 Styrene	104	16.546	16.543	0.003	98	33105	0.1600	0.1307	
80 o-Xylene	91	16.600	16.602	-0.002	99	55761	0.1600	0.1444	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	96	38115	0.1600	0.1402	
83 1,2,3-Trichloropropane	110	17.091	17.086	0.005	95	12861	0.1600	0.1492	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	87644	0.1600	0.1530	
85 N-Propylbenzene	120	17.749	17.745	0.004	98	21522	0.1600	0.1478	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	22221	0.1600	0.1602	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	88453	0.1600	0.1549	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	33519	0.1600	0.1540	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	91	27551	0.1600	0.1320	
90 n-Decane	57	18.283	18.280	0.002	87	50084	0.1600	0.1510	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	75576	0.1600	0.1485	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	75679	0.1600	0.1501	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	109309	0.1600	0.1510	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	51771	0.1600	0.1508	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	51323	0.1600	0.1303	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	48412	0.1600	0.1429	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	91852	0.1600	0.1570	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	98	78777	0.1600	0.1588	
99 Butylcyclohexane	83	18.984	18.981	0.003	90	58727	0.1600	0.1582	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	66472	0.1600	0.1475	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	92	52296	0.1600	0.1562	
102 Indene	116	19.312	19.314	-0.002	87	55161	0.1600	0.1357	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	92403	0.1600	0.1534	
104 Undecane	57	19.636	19.638	-0.002	94	62883	0.1600	0.1608	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	86	20360	0.1600	0.1240	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	86274	0.1600	0.1537	
107 Dodecane	57	20.714	20.714	0.000	91	59374	0.1600	0.1562	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	48894	0.1600	0.1527	
109 Naphthalene	128	21.065	21.064	0.001	100	96013	0.1600	0.1453	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	93	49887	0.1600	0.1569	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	94	46799	0.1600	0.1588	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	21893	0.1600	0.1154	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	95	27080	0.1600	0.1486	
A 115 C8 Range	1	14.298	(14.260-14.335)		0	176098	0.1600	0.1518	
S 116 Xylenes, Total	100				0		0.4800	0.4268	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.2974	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

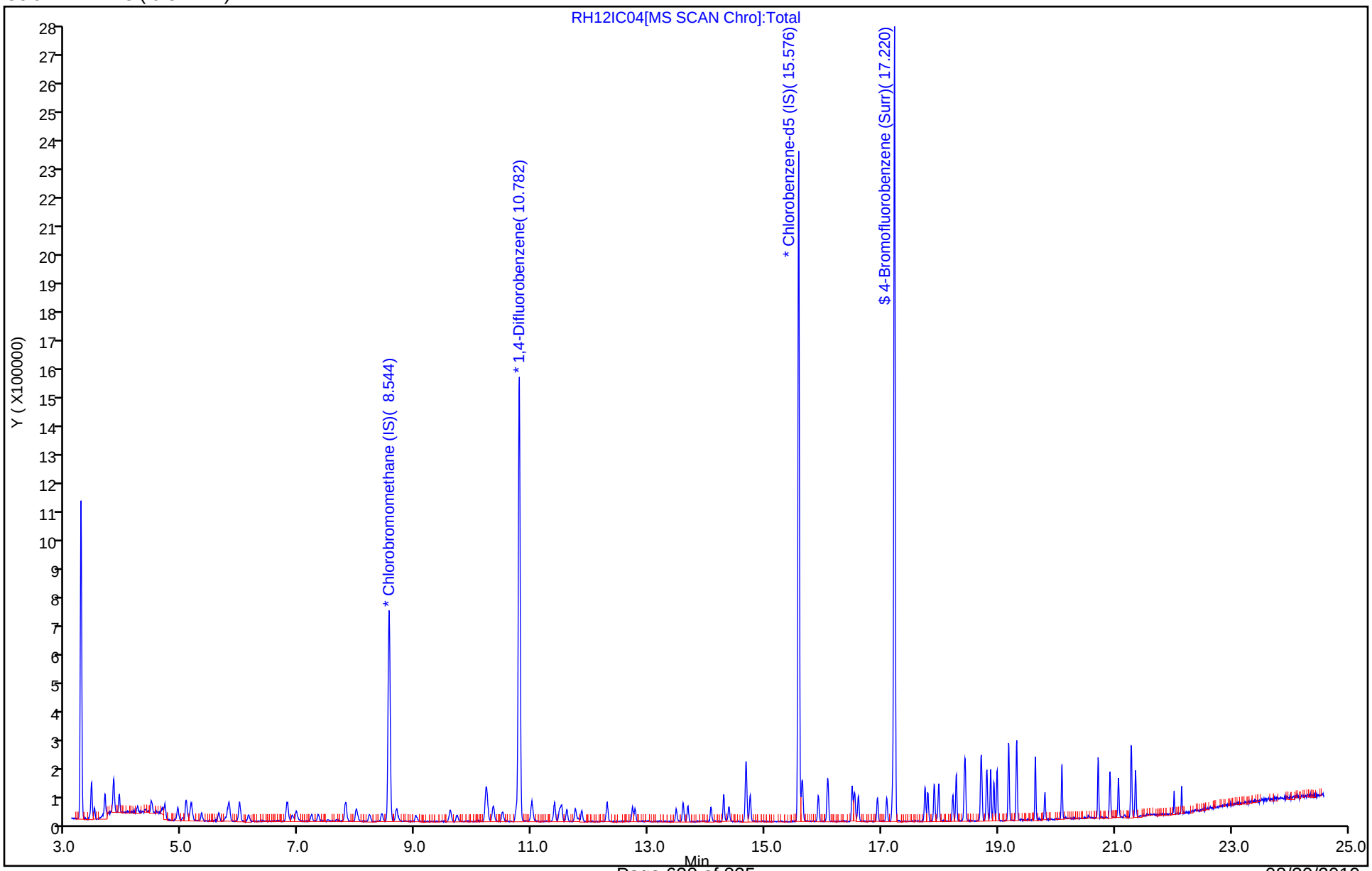
Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D

Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

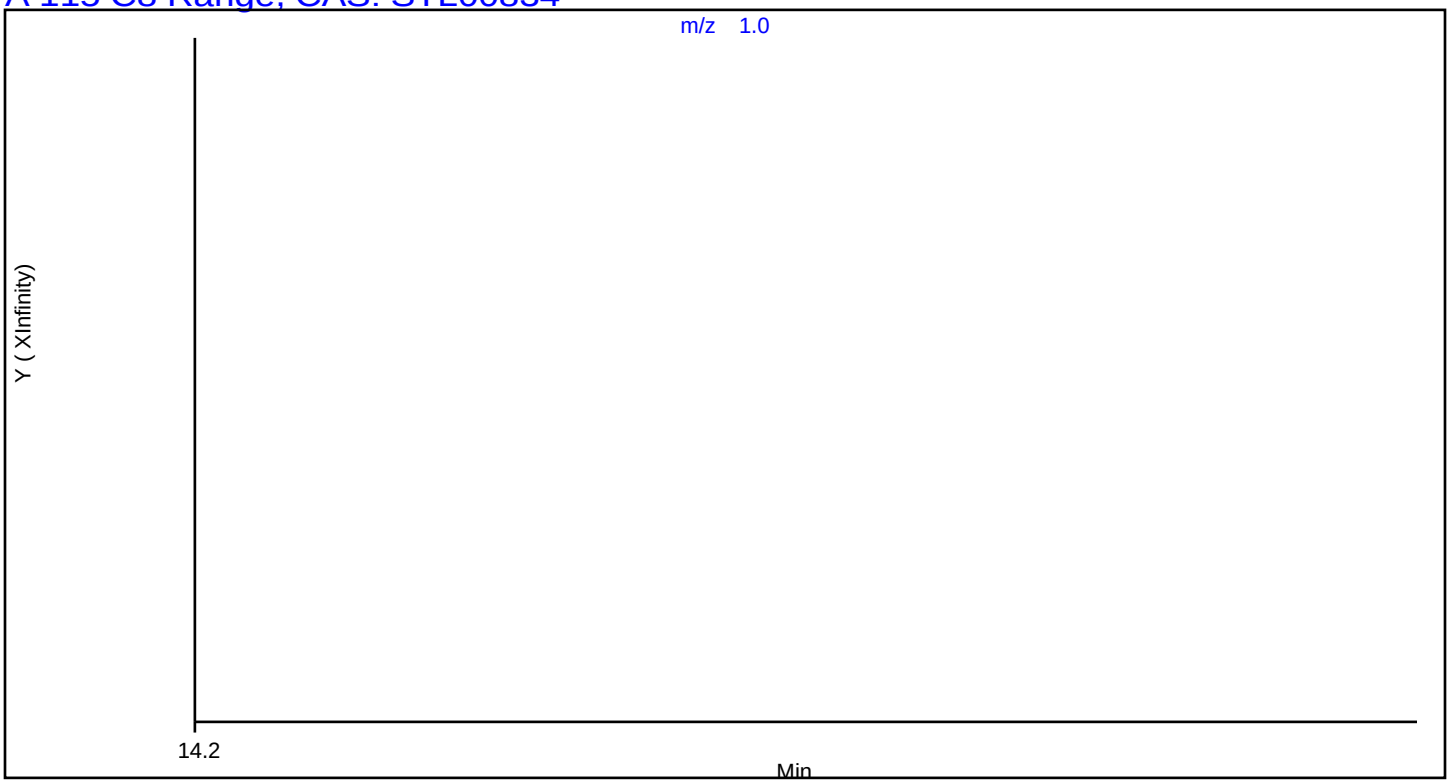


Report Date: 15-Aug-2019 10:42:56 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC04.D				
Injection Date:	12-Aug-2019 20:04:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Aug-2019 20:53:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:02 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	254726	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1567669	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	88	1372435	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	94	942631	4.00	3.98	
6 Chlorodifluoromethane	51	3.426	3.430	-0.004	97	92941	0.4000	0.4270	
7 Propene	41	3.437	3.439	-0.002	97	81472	0.4000	0.6747	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	83727	0.4000	0.4252	
9 Chloromethane	52	3.664	3.665	-0.001	87	15278	0.4000	0.5163	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	83	41905	0.4000	0.4195	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	98077	2.00	2.84	
12 Vinyl chloride	62	3.825	3.831	-0.006	98	36795	0.4000	0.3924	
13 Butadiene	54	3.912	3.913	-0.001	65	30573	0.4000	0.4494	
14 Butane	43	3.912	3.914	-0.002	85	60089	0.4000	0.4171	
15 Bromomethane	94	4.219	4.227	-0.008	96	25893	0.4000	0.3259	
16 Chloroethane	64	4.359	4.359	0.000	85	13196	0.4000	0.3439	
17 Ethanol	31	4.456	4.464	-0.008	99	80407	2.00	2.33	
18 Vinyl bromide	106	4.656	4.656	0.000	91	24652	0.4000	0.3716	
19 2-Methylbutane	43	4.694	4.699	-0.005	91	48082	0.4000	0.4473	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	94313	0.4000	0.3854	
20 Acrolein	56	4.931	4.936	-0.005	92	12417	0.4000	0.4099	
24 Acetonitrile	40	5.001	5.001	0.000	99	18073	0.4000	0.4007	
22 Acetone	58	5.055	5.057	-0.002	99	55059	1.20	1.30	
25 Pentane	72	5.141	5.138	0.003	95	6812	0.4000	0.4209	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	156113	1.20	1.09	
26 Ethyl ether	31	5.319	5.319	0.000	89	49563	0.4000	0.3745	
27 1,1-Dichloroethene	96	5.627	5.626	0.001	97	30801	0.4000	0.3516	
28 Acrylonitrile	53	5.734	5.738	-0.004	91	16277	0.4000	0.2463	
29 2-Methyl-2-propanol	59	5.756	5.756	0.000	95	65062	0.4000	0.3684	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	92	64689	0.4000	0.3553	
31 Methylene Chloride	84	5.977	5.978	-0.001	94	37926	0.4000	0.4212	
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	83	37437	0.4000	0.3735	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.133	6.133	0.000	99	82401	0.4000	0.3576	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	96	36589	0.4000	0.3974	
35 2-Methylpentane	43	6.802	6.803	-0.001	95	88849	0.4000	0.3637	
36 Methyl tert-butyl ether	73	6.931	6.934	-0.003	96	98345	0.4000	0.3962	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	100	63504	0.4000	0.3636	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	115947	0.4000	0.3804	
40 Hexane	56	7.800	7.796	0.004	65	29832	0.4000	0.3730	
39 2-Butanone (MEK)	72	7.794	7.797	-0.003	87	18300	0.4000	0.3915	
41 Isopropyl ether	45	7.972	7.978	-0.006	98	145384	0.4000	0.3832	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	96	39820	0.4000	0.3818	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	105906	0.4000	0.3922	
44 Chloroform	83	8.555	8.560	-0.005	40	83858	0.4000	0.3914	
45 Tert-butyl ethyl ether	59	8.657	8.665	-0.008	97	121332	0.4000	0.3843	
46 Tetrahydrofuran	42	8.991	8.988	0.003	95	51707	0.4000	0.3835	
47 1,1,1-Trichloroethane	97	9.590	9.597	-0.007	95	86648	0.4000	0.3678	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	96	53780	0.4000	0.3566	
50 n-Butanol	31	10.199	10.195	0.004	76	22459	0.4000	0.3746	
51 Cyclohexane	69	10.210	10.210	0.000	75	19248	0.4000	0.3861	
49 Benzene	78	10.215	10.214	0.001	96	119776	0.4000	0.3773	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	88467	0.4000	0.3485	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	91	25882	0.4000	0.3619	
54 Thiophene	84	10.496	10.499	-0.003	96	61784	0.4000	0.3839	
55 Isooctane	57	10.997	10.995	0.002	97	201320	0.4000	0.3796	
57 n-Heptane	71	11.380	11.387	-0.007	95	41187	0.4000	0.3718	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	43914	0.4000	0.3589	
58 Trichloroethene	130	11.504	11.509	-0.005	95	51621	0.4000	0.3697	
59 Dibromomethane	93	11.590	11.595	-0.005	91	45649	0.4000	0.3524	
60 Dichlorobromomethane	83	11.741	11.746	-0.005	96	82518	0.4000	0.3512	
61 1,4-Dioxane	88	11.779	11.781	-0.002	93	17072	0.4000	0.3498	
62 Methyl methacrylate	41	11.849	11.850	-0.001	87	61427	0.4000	0.3527	
63 Methylcyclohexane	83	12.281	12.288	-0.007	90	67432	0.4000	0.3693	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	96	115648	0.4000	0.3720	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	65841	0.4000	0.3589	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	60682	0.4000	0.3555	
67 Toluene	91	13.591	13.593	-0.002	92	134911	0.4000	0.3821	
68 1,1,2-Trichloroethane	83	13.667	13.674	-0.007	96	41040	0.4000	0.3749	
69 2-Hexanone	58	14.060	14.066	-0.006	90	46424	0.4000	0.3552	
71 n-Octane	85	14.287	14.288	-0.001	97	42413	0.4000	0.3666	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	82751	0.4000	0.3408	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	76615	0.4000	0.3649	
73 Tetrachloroethene	129	14.745	14.743	0.002	95	52332	0.4000	0.3629	
74 Chlorobenzene	112	15.619	15.625	-0.006	93	113301	0.4000	0.3858	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	173853	0.4000	0.3958	
76 Ethylbenzene	91	15.915	15.914	0.001	98	192887	0.4000	0.3894	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	300469	0.8000	0.7725	
81 n-Nonane	57	16.492	16.494	-0.002	94	99362	0.4000	0.3898	
78 Bromoform	173	16.525	16.525	0.000	95	84238	0.4000	0.3873	
79 Styrene	104	16.535	16.543	-0.008	98	105671	0.4000	0.3945	
80 o-Xylene	91	16.600	16.602	-0.002	99	160961	0.4000	0.3941	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	113804	0.4000	0.3956	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	91	36511	0.4000	0.4004	
84 Isopropylbenzene	105	17.188	17.187	0.001	94	235069	0.4000	0.3879	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.749	17.745	0.004	98	56029	0.4000	0.3636	
86 2-Chlorotoluene	126	17.786	17.786	0.000	98	57011	0.4000	0.3884	
88 4-Ethyltoluene	105	17.905	17.902	0.003	99	214068	0.4000	0.3544	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	91	83282	0.4000	0.3617	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	86	76630	0.4000	0.3471	
90 n-Decane	57	18.277	18.280	-0.003	86	128610	0.4000	0.3666	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	195971	0.4000	0.3640	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	96	193483	0.4000	0.3627	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	284972	0.4000	0.3720	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	125204	0.4000	0.3447	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	139012	0.4000	0.3336	
95 1,4-Dichlorobenzene	146	18.805	18.810	-0.005	93	128566	0.4000	0.3586	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	221539	0.4000	0.3580	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	94	190536	0.4000	0.3630	
99 Butylcyclohexane	83	18.978	18.981	-0.003	90	143647	0.4000	0.3658	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	172831	0.4000	0.3626	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	128507	0.4000	0.3629	
102 Indene	116	19.312	19.314	-0.002	89	141407	0.4000	0.3287	
103 n-Butylbenzene	91	19.318	19.318	0.000	96	224277	0.4000	0.3519	
104 Undecane	57	19.636	19.638	-0.002	90	145831	0.4000	0.3524	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	92	55688	0.4000	0.3206	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	207789	0.4000	0.3499	
107 Dodecane	57	20.714	20.714	0.000	92	138196	0.4000	0.3437	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	118995	0.4000	0.3513	
109 Naphthalene	128	21.065	21.064	0.001	99	238247	0.4000	0.3407	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	119241	0.4000	0.3545	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	122976	0.4000	0.3946	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	61224	0.4000	0.3050	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	97	65295	0.4000	0.3388	
A 115 C8 Range	1	14.284	(14.249-14.335)		0	459073	0.4000	0.3733	
S 116 Xylenes, Total	100				0		1.20	1.17	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.7792	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

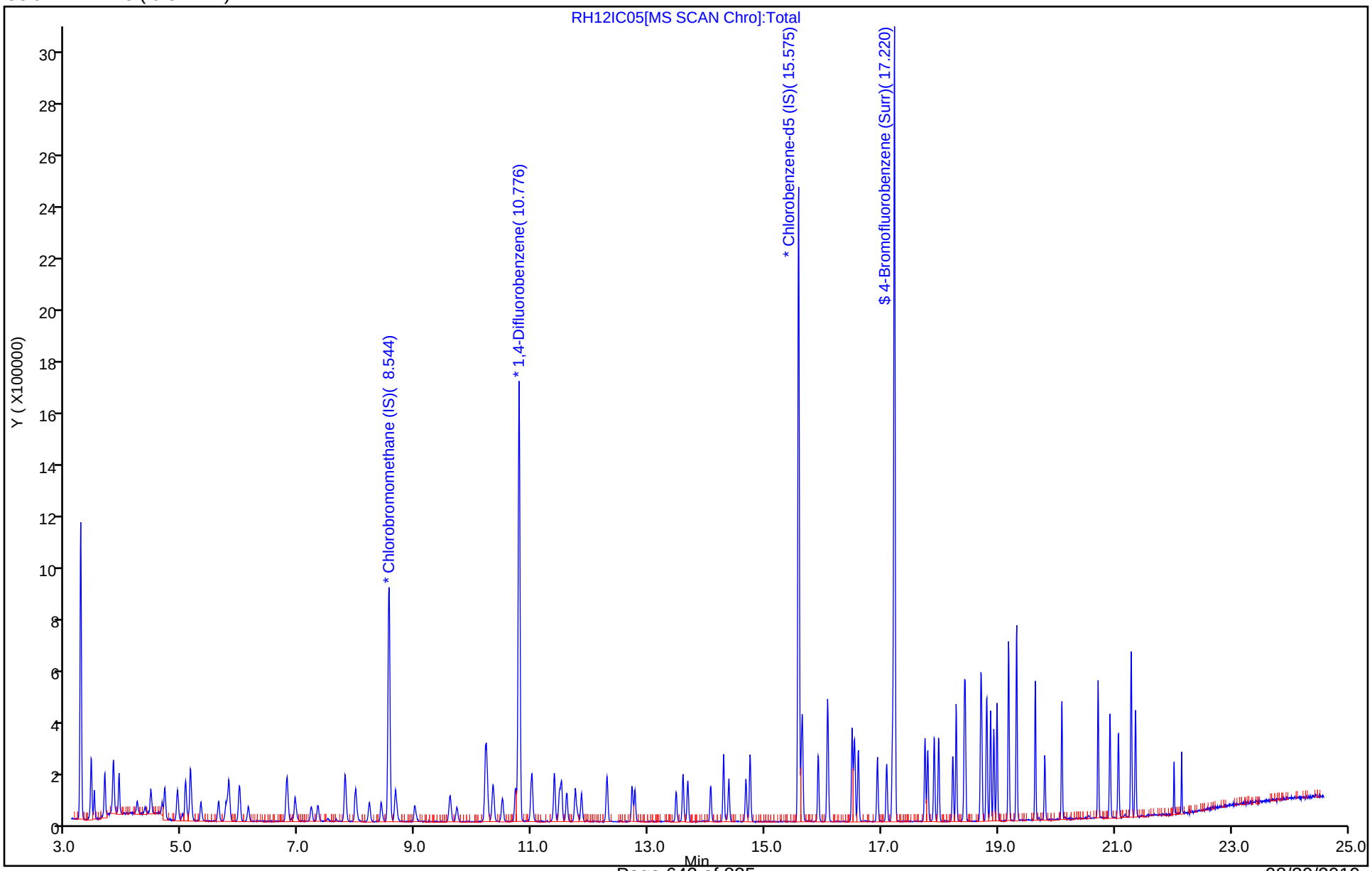
Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D

Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

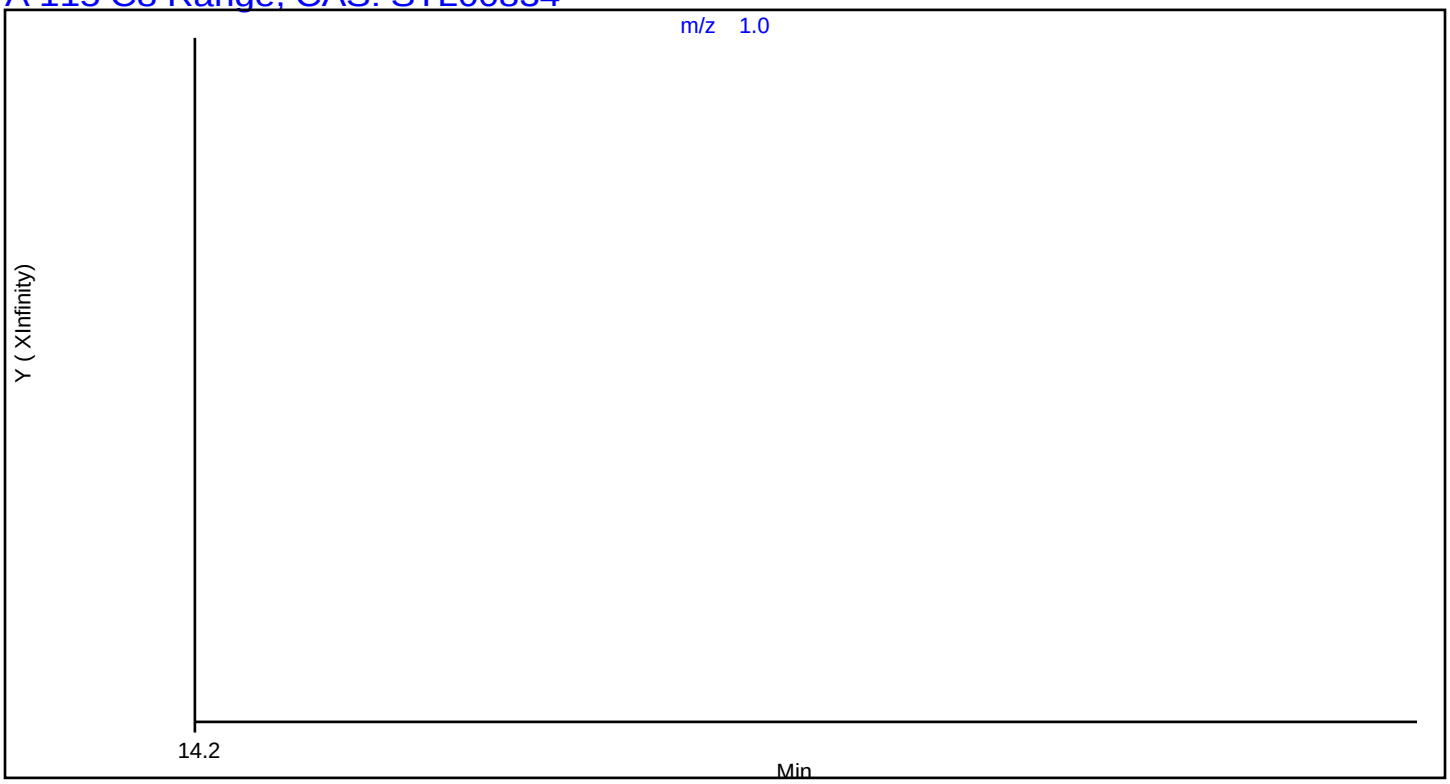


Report Date: 15-Aug-2019 10:43:03 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC05.D				
Injection Date:	12-Aug-2019 20:53:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Aug-2019 21:41:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:08 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:33:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	275742	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.781	-0.005	95	1650362	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1463744	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	1017939	4.00	4.03	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	234758	1.00	1.00	
7 Propene	41	3.443	3.439	0.004	98	163993	1.00	1.25	
8 Dichlorodifluoromethane	85	3.491	3.489	0.002	99	213046	1.00	1.00	
9 Chloromethane	52	3.664	3.665	-0.001	90	32588	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	104417	1.00	0.9657	
11 Acetaldehyde	44	3.815	3.817	-0.002	96	199152	5.00	5.32	
12 Vinyl chloride	62	3.831	3.831	0.000	99	87680	1.00	0.8639	
13 Butadiene	54	3.917	3.913	0.004	67	70305	1.00	0.9547	
14 Butane	43	3.917	3.914	0.003	86	134910	1.00	0.8652	
15 Bromomethane	94	4.230	4.227	0.003	98	78476	1.00	0.9125	
16 Chloroethane	64	4.359	4.359	0.000	90	36301	1.00	0.8739	
17 Ethanol	31	4.457	4.464	-0.007	98	197485	5.00	5.28	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	71900	1.00	1.00	
19 2-Methylbutane	43	4.699	4.699	0.000	96	112317	1.00	0.9653	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	256609	1.00	0.9688	
20 Acrolein	56	4.936	4.936	0.000	95	31359	1.00	0.9562	
24 Acetonitrile	40	5.001	5.001	0.000	96	44589	1.00	0.9132	
22 Acetone	58	5.050	5.057	-0.007	99	140239	3.00	3.07	
25 Pentane	72	5.141	5.138	0.003	73	16387	1.00	0.9353	
23 Isopropyl alcohol	45	5.136	5.149	-0.013	83	434704	3.00	2.81	
26 Ethyl ether	31	5.314	5.319	-0.005	89	139716	1.00	0.9752	
27 1,1-Dichloroethene	96	5.621	5.626	-0.005	96	91670	1.00	0.9667	
28 Acrylonitrile	53	5.729	5.738	-0.009	67	76620	1.00	1.07	
29 2-Methyl-2-propanol	59	5.735	5.756	-0.022	96	187436	1.00	0.9805	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	96	195830	1.00	0.99	
31 Methylene Chloride	84	5.977	5.978	-0.001	96	97104	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	94	106755	1.00	0.9838	
33 Carbon disulfide	76	6.139	6.133	0.006	100	260082	1.00	1.04	
34 trans-1,2-Dichloroethene	96	6.781	6.788	-0.007	97	97862	1.00	0.9818	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	265535	1.00	1.00	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	268658	1.00	1.00	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	183745	1.00	0.9720	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	333540	1.00	1.01	
40 Hexane	56	7.789	7.796	-0.007	73	85998	1.00	0.99	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	95	46530	1.00	0.9195	
41 Isopropyl ether	45	7.967	7.978	-0.011	98	421247	1.00	1.03	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	110184	1.00	0.9761	
43 Ethyl acetate	43	8.409	8.416	-0.007	97	297217	1.00	1.02	
44 Chloroform	83	8.555	8.560	-0.005	96	228386	1.00	0.9847	
45 Tert-butyl ethyl ether	59	8.652	8.665	-0.013	97	345723	1.00	1.01	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	95	147538	1.00	1.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	253956	1.00	1.00	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	160490	1.00	1.01	
50 n-Butanol	31	10.178	10.195	-0.017	86	56795	1.00	0.8998	
51 Cyclohexane	69	10.199	10.210	-0.011	79	50611	1.00	0.9643	
49 Benzene	78	10.210	10.214	-0.004	97	317673	1.00	0.9504	
52 Carbon tetrachloride	117	10.226	10.233	-0.007	95	265046	1.00	0.99	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	74081	1.00	0.9839	
54 Thiophene	84	10.491	10.499	-0.008	97	177597	1.00	1.05	
55 Isooctane	57	10.992	10.995	-0.003	98	546926	1.00	0.9795	
57 n-Heptane	71	11.386	11.387	-0.001	95	114914	1.00	0.9855	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	86	123265	1.00	0.9570	
58 Trichloroethene	130	11.504	11.509	-0.005	98	148333	1.00	1.01	
59 Dibromomethane	93	11.591	11.595	-0.004	95	132070	1.00	0.9685	
60 Dichlorobromomethane	83	11.742	11.746	-0.004	97	241765	1.00	0.9773	
61 1,4-Dioxane	88	11.769	11.781	-0.012	96	49723	1.00	0.9679	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	176236	1.00	0.9611	
63 Methylcyclohexane	83	12.286	12.288	-0.002	94	192630	1.00	1.00	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	315351	1.00	0.9635	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	97	194636	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.476	-0.003	98	174816	1.00	0.9602	
67 Toluene	91	13.591	13.593	-0.002	92	381611	1.00	1.01	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	114417	1.00	0.9800	
69 2-Hexanone	58	14.060	14.066	-0.006	90	136287	1.00	0.9778	
71 n-Octane	85	14.287	14.288	-0.001	97	124478	1.00	1.01	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	96	250080	1.00	0.9657	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	97	227684	1.00	1.02	
73 Tetrachloroethene	129	14.740	14.743	-0.003	96	148518	1.00	0.9656	
74 Chlorobenzene	112	15.624	15.625	-0.001	94	316604	1.00	1.01	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	473323	1.00	1.01	
76 Ethylbenzene	91	15.910	15.914	-0.004	99	523426	1.00	0.99	
77 m-Xylene & p-Xylene	91	16.072	16.074	-0.002	97	824444	2.00	1.99	
81 n-Nonane	57	16.492	16.494	-0.002	95	270114	1.00	0.99	
78 Bromoform	173	16.525	16.525	0.000	95	259604	1.00	1.12	
79 Styrene	104	16.541	16.543	-0.002	99	295221	1.00	1.03	
80 o-Xylene	91	16.600	16.602	-0.002	98	434181	1.00	1.00	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.930	-0.006	99	311891	1.00	1.02	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	94	98558	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	646729	1.00	1.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	168614	1.00	1.03	
86 2-Chlorotoluene	126	17.792	17.786	0.006	97	161679	1.00	1.03	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	655801	1.00	1.02	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	248480	1.00	1.01	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	88	241958	1.00	1.03	
90 n-Decane	57	18.277	18.280	-0.003	88	371710	1.00	0.99	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	575935	1.00	1.00	
92 1,2,4-Trimethylbenzene	105	18.434	18.436	-0.002	96	568798	1.00	1.00	
94 sec-Butylbenzene	105	18.698	18.702	-0.004	99	826217	1.00	1.01	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	375723	1.00	0.9698	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	437373	1.00	0.9842	
95 1,4-Dichlorobenzene	146	18.806	18.810	-0.004	94	372557	1.00	0.9744	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	676095	1.00	1.02	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	582945	1.00	1.04	
99 Butylcyclohexane	83	18.978	18.981	-0.003	93	437506	1.00	1.04	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	511702	1.00	1.01	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	368079	1.00	0.9746	
102 Indene	116	19.313	19.314	-0.002	95	450393	1.00	0.9817	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	691666	1.00	1.02	
104 Undecane	57	19.636	19.638	-0.002	94	450245	1.00	1.02	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.802	-0.004	95	190182	1.00	1.03	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	648777	1.00	1.02	
107 Dodecane	57	20.715	20.714	0.001	92	445044	1.00	1.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	93	353265	1.00	0.9778	
109 Naphthalene	128	21.065	21.064	0.001	99	784592	1.00	1.05	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	342754	1.00	0.9555	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	323470	1.00	0.9731	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	97	200876	1.00	0.9383	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	198072	1.00	0.9635	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	1278165	1.00	0.9872	
S 116 Xylenes, Total	100				0		3.00	2.98	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.96	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

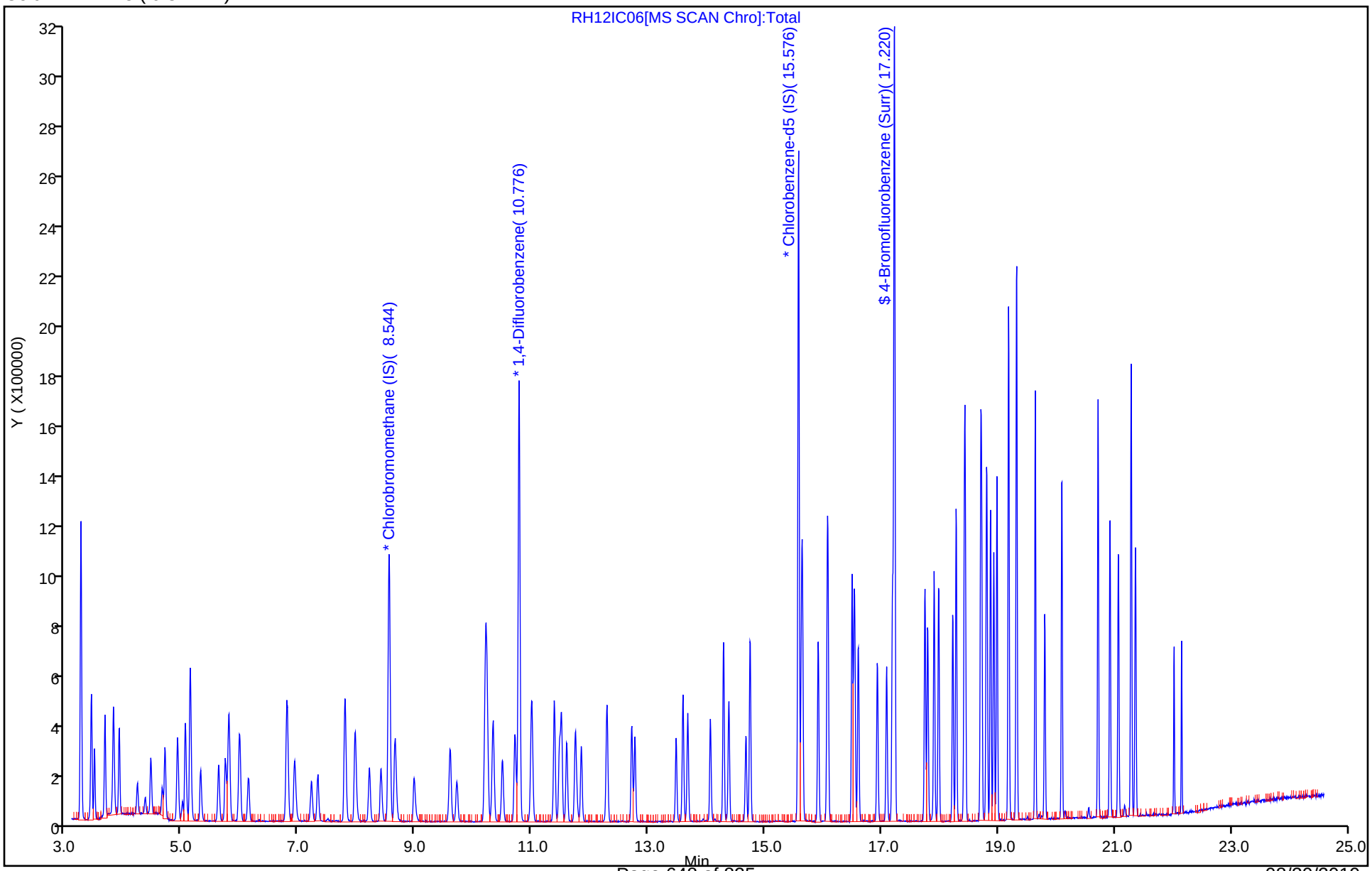
Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D

Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

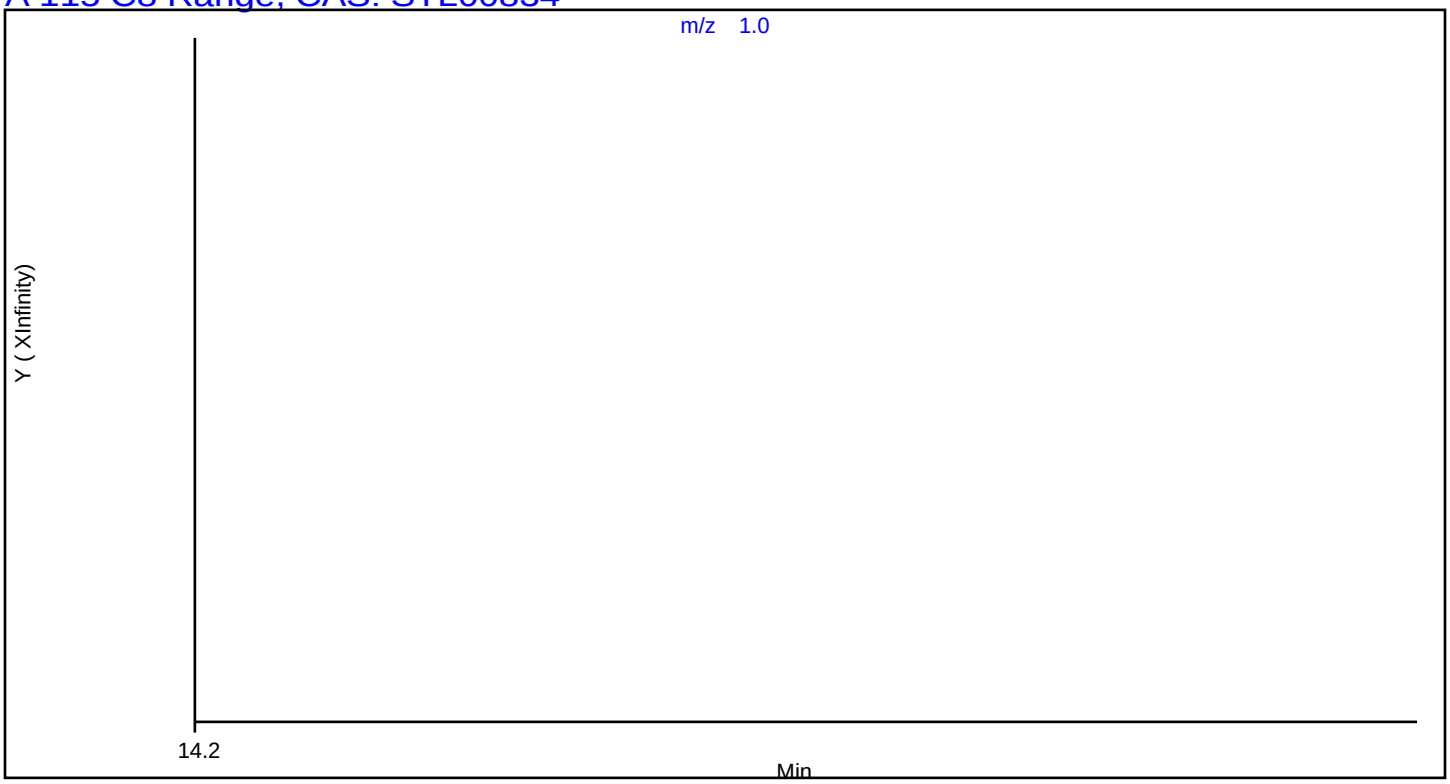


Report Date: 15-Aug-2019 10:43:09 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC06.D				
Injection Date:	12-Aug-2019 21:41:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 12-Aug-2019 22:32:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-013
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:14 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:25:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	97	316194	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.781	10.781	0.000	95	1831413	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.575	15.577	-0.002	89	1574740	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1087615	4.00	4.01	
6 Chlorodifluoromethane	51	3.432	3.430	0.002	97	489629	2.00	1.81	
7 Propene	41	3.437	3.439	-0.002	98	311708	2.00	2.08	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	99	436605	2.00	1.79	
9 Chloromethane	52	3.664	3.665	-0.001	90	67802	2.00	1.85	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	86	248334	2.00	2.00	
11 Acetaldehyde	44	3.815	3.817	-0.002	100	453602	10.0	10.6	
12 Vinyl chloride	62	3.831	3.831	0.000	99	211260	2.00	1.82	
13 Butadiene	54	3.917	3.913	0.004	70	166727	2.00	1.97	
14 Butane	43	3.917	3.914	0.003	84	314498	2.00	1.76	
15 Bromomethane	94	4.224	4.227	-0.003	97	177814	2.00	1.80	
16 Chloroethane	64	4.365	4.359	0.006	93	84809	2.00	1.78	
17 Ethanol	31	4.467	4.464	0.003	98	459971	10.0	10.7	
18 Vinyl bromide	106	4.656	4.656	0.000	97	166629	2.00	2.02	
19 2-Methylbutane	43	4.704	4.699	0.005	93	245568	2.00	1.84	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	608995	2.00	2.00	
20 Acrolein	56	4.931	4.936	-0.005	98	71916	2.00	1.91	
24 Acetonitrile	40	5.001	5.001	0.000	99	113950	2.00	2.04	
22 Acetone	58	5.049	5.057	-0.008	99	316226	6.00	6.03	
25 Pentane	72	5.141	5.138	0.003	96	40997	2.00	2.04	
23 Isopropyl alcohol	45	5.141	5.149	-0.008	92	1105765	6.00	6.22	
26 Ethyl ether	31	5.314	5.319	-0.005	90	335934	2.00	2.04	
27 1,1-Dichloroethene	96	5.626	5.626	0.000	98	220013	2.00	2.02	
28 Acrylonitrile	53	5.740	5.738	0.002	58	175197	2.00	2.14	
29 2-Methyl-2-propanol	59	5.740	5.756	-0.016	95	447503	2.00	2.04	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.798	0.001	97	480563	2.00	2.13	
31 Methylene Chloride	84	5.971	5.978	-0.007	96	207664	2.00	1.86	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.993	5.990	0.003	96	247852	2.00	1.99	
33 Carbon disulfide	76	6.133	6.133	0.000	100	607331	2.00	2.12	
34 trans-1,2-Dichloroethene	96	6.791	6.788	0.003	97	245990	2.00	2.15	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	626319	2.00	2.07	
36 Methyl tert-butyl ether	73	6.926	6.934	-0.008	97	662650	2.00	2.15	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	99	443627	2.00	2.05	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	782313	2.00	2.07	
40 Hexane	56	7.794	7.796	-0.002	74	199557	2.00	2.01	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	116007	2.00	2.00	
41 Isopropyl ether	45	7.961	7.978	-0.017	98	967613	2.00	2.05	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	251302	2.00	1.94	
43 Ethyl acetate	43	8.403	8.416	-0.013	98	678344	2.00	2.02	
44 Chloroform	83	8.565	8.560	0.005	96	527634	2.00	1.98	
45 Tert-butyl ethyl ether	59	8.651	8.665	-0.014	96	795966	2.00	2.03	
46 Tetrahydrofuran	42	8.975	8.988	-0.013	93	336823	2.00	2.01	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	94	579894	2.00	1.98	
48 1,2-Dichloroethane	62	9.719	9.715	0.004	97	352032	2.00	2.00	
50 n-Butanol	31	10.183	10.195	-0.012	85	140726	2.00	2.01	
51 Cyclohexane	69	10.204	10.210	-0.006	83	113375	2.00	1.95	
49 Benzene	78	10.215	10.214	0.001	97	729307	2.00	1.97	
52 Carbon tetrachloride	117	10.231	10.233	-0.002	96	601170	2.00	2.03	
53 2,3-Dimethylpentane	71	10.334	10.330	0.004	93	168847	2.00	2.02	
54 Thiophene	84	10.496	10.499	-0.003	96	401568	2.00	2.14	
55 Isooctane	57	10.992	10.995	-0.003	98	1251451	2.00	2.02	
57 n-Heptane	71	11.385	11.387	-0.002	95	257286	2.00	1.99	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	284844	2.00	1.99	
58 Trichloroethene	130	11.504	11.509	-0.005	95	316261	2.00	1.94	
59 Dibromomethane	93	11.596	11.595	0.001	96	296383	2.00	1.96	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	540886	2.00	1.97	
61 1,4-Dioxane	88	11.768	11.781	-0.013	97	115604	2.00	2.03	
62 Methyl methacrylate	41	11.849	11.850	-0.001	90	409718	2.00	2.01	
63 Methylcyclohexane	83	12.286	12.288	-0.002	91	425455	2.00	1.99	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.718	-0.006	98	729869	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	431545	2.00	2.01	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	410349	2.00	2.09	
67 Toluene	91	13.591	13.593	-0.002	93	854782	2.00	2.11	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	257761	2.00	2.05	
69 2-Hexanone	58	14.060	14.066	-0.006	90	311563	2.00	2.08	
71 n-Octane	85	14.287	14.288	-0.001	97	270992	2.00	2.04	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	588398	2.00	2.11	
72 Ethylene Dibromide	107	14.675	14.674	0.001	98	502874	2.00	2.09	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	320049	2.00	1.93	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	674887	2.00	2.00	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	1047970	2.00	2.08	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1180642	2.00	2.08	
77 m-Xylene & p-Xylene	91	16.071	16.074	-0.003	98	1828793	4.00	4.10	
81 n-Nonane	57	16.492	16.494	-0.002	96	597670	2.00	2.04	
78 Bromoform	173	16.524	16.525	-0.001	96	602865	2.00	2.42	
79 Styrene	104	16.541	16.543	-0.002	98	648614	2.00	2.11	
80 o-Xylene	91	16.600	16.602	-0.002	98	945150	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	679085	2.00	2.06	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	213681	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1394055	2.00	2.00	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	380530	2.00	2.15	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	345097	2.00	2.05	
88 4-Ethyltoluene	105	17.899	17.902	-0.003	99	1459843	2.00	2.11	
87 1,3,5-Trimethylbenzene	120	17.980	17.981	-0.001	92	548438	2.00	2.08	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	95	556967	2.00	2.20	
90 n-Decane	57	18.282	18.280	0.002	87	841732	2.00	2.09	
91 tert-Butylbenzene	119	18.422	18.424	-0.002	93	1266574	2.00	2.05	
92 1,2,4-Trimethylbenzene	105	18.433	18.436	-0.003	97	1265159	2.00	2.07	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1818636	2.00	2.07	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	98	823821	2.00	1.98	
96 Benzyl chloride	91	18.795	18.796	-0.001	97	1036549	2.00	2.17	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	93	825864	2.00	2.01	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1450854	2.00	2.04	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	1247184	2.00	2.07	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	943389	2.00	2.09	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	93	1132215	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	82	806766	2.00	1.99	
102 Indene	116	19.312	19.314	-0.002	91	1024994	2.00	2.08	
103 n-Butylbenzene	91	19.318	19.318	0.000	99	1506674	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	94	997760	2.00	2.10	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	425196	2.00	2.13	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1412707	2.00	2.07	
107 Dodecane	57	20.714	20.714	0.000	93	1029333	2.00	2.23	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	759967	2.00	1.96	
109 Naphthalene	128	21.065	21.064	0.001	99	1612650	2.00	2.01	
110 Hexachlorobutadiene	225	21.286	21.284	0.002	96	776012	2.00	2.01	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727177	2.00	2.03	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	552616	2.00	2.40	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	524544	2.00	2.37	
A 115 C8 Range	1	14.279	(14.238-14.346)		0	2875636	2.00	2.00	
S 116 Xylenes, Total	100				0		6.00	6.11	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.09	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

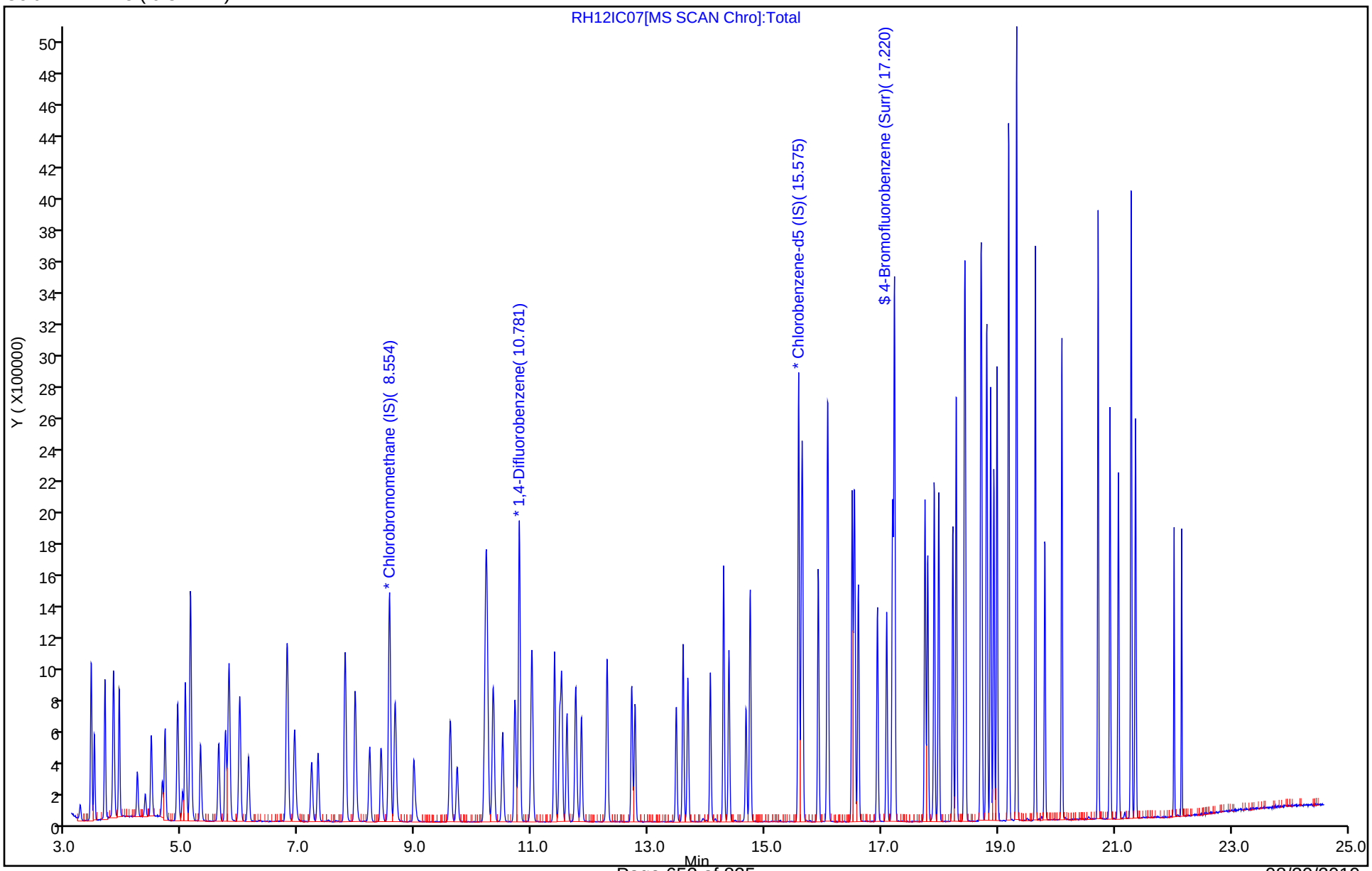
Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D

Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

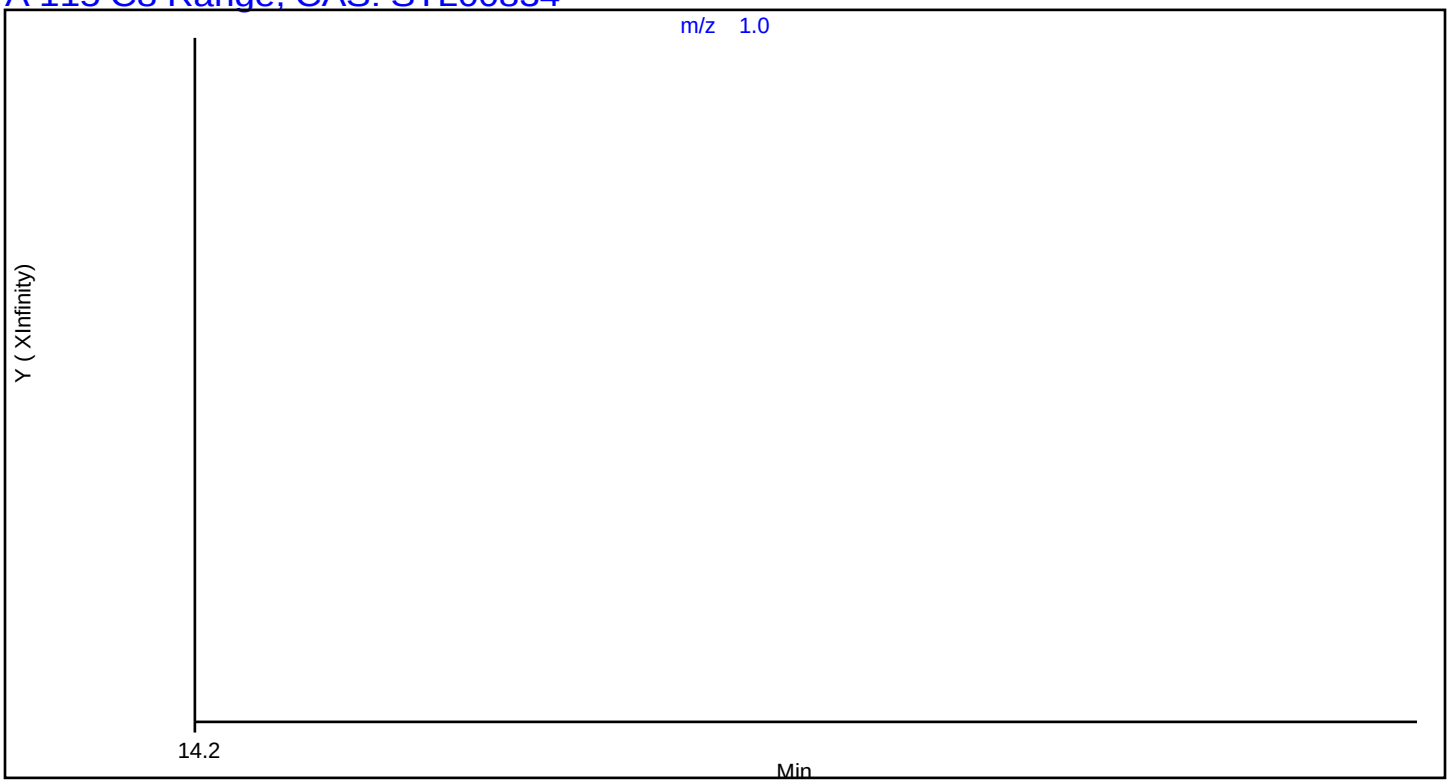


Report Date: 15-Aug-2019 10:43:16 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC07.D				
Injection Date:	12-Aug-2019 22:32:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Aug-2019 23:20:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:43:20 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.551	-0.002	98	321233	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1837540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	88	1634867	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	92	1153368	4.00	4.09	
6 Chlorodifluoromethane	51	3.427	3.430	-0.003	97	1038164	4.00	3.78	
7 Propene	41	3.432	3.439	-0.007	98	612203	4.00	4.02	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	941193	4.00	3.79	
9 Chloromethane	52	3.664	3.665	-0.001	99	140377	4.00	3.76	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	495086	4.00	3.93	
11 Acetaldehyde	44	3.815	3.817	-0.002	99	749118	20.0	17.2	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	390377	4.00	3.30	
13 Butadiene	54	3.912	3.913	-0.001	69	315900	4.00	3.68	
14 Butane	43	3.912	3.914	-0.002	84	601193	4.00	3.31	
15 Bromomethane	94	4.219	4.227	-0.008	94	325261	4.00	3.25	
16 Chloroethane	64	4.359	4.359	0.000	91	149002	4.00	3.08	
17 Ethanol	31	4.457	4.464	-0.007	98	811380	20.0	18.6	
18 Vinyl bromide	106	4.651	4.656	-0.005	97	291926	4.00	3.49	
19 2-Methylbutane	43	4.699	4.699	0.000	94	444864	4.00	3.28	
21 Trichlorofluoromethane	101	4.915	4.915	0.000	99	1268687	4.00	4.11	
20 Acrolein	56	4.926	4.936	-0.010	98	148082	4.00	3.88	
24 Acetonitrile	40	4.996	5.001	-0.005	97	248929	4.00	4.38	
22 Acetone	58	5.044	5.057	-0.013	99	638695	12.0	12.0	
25 Pentane	72	5.125	5.138	-0.013	68	83201	4.00	4.08	
23 Isopropyl alcohol	45	5.131	5.149	-0.018	84	2244654	12.0	12.4	
26 Ethyl ether	31	5.303	5.319	-0.016	89	691635	4.00	4.14	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	436351	4.00	3.95	
28 Acrylonitrile	53	5.735	5.738	-0.004	91	363112	4.00	4.36	
29 2-Methyl-2-propanol	59	5.729	5.756	-0.027	96	934472	4.00	4.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	97	958858	4.00	4.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	96	399350	4.00	3.52	
32 3-Chloro-1-propene	39	5.988	5.990	-0.002	95	491788	4.00	3.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.133	-0.005	99	1208336	4.00	4.16	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	97	489823	4.00	4.22	
35 2-Methylpentane	43	6.797	6.803	-0.006	97	1282861	4.00	4.16	
36 Methyl tert-butyl ether	73	6.915	6.934	-0.019	97	1330133	4.00	4.25	
37 1,1-Dichloroethane	63	7.217	7.217	0.000	100	894337	4.00	4.06	
38 Vinyl acetate	43	7.325	7.328	-0.003	100	1598765	4.00	4.16	
40 Hexane	56	7.794	7.796	-0.002	76	400434	4.00	3.97	
39 2-Butanone (MEK)	72	7.784	7.797	-0.013	97	231513	4.00	3.93	
41 Isopropyl ether	45	7.962	7.978	-0.016	97	1932735	4.00	4.04	
42 cis-1,2-Dichloroethene	96	8.210	8.214	-0.004	95	506769	4.00	3.85	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	1395118	4.00	4.10	
44 Chloroform	83	8.566	8.560	0.006	97	1090897	4.00	4.04	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	1649006	4.00	4.14	
46 Tetrahydrofuran	42	8.965	8.988	-0.023	94	684785	4.00	4.03	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	1190165	4.00	4.01	
48 1,2-Dichloroethane	62	9.714	9.715	-0.001	97	740042	4.00	4.19	
50 n-Butanol	31	10.178	10.195	-0.017	87	295549	4.00	4.21	
51 Cyclohexane	69	10.205	10.210	-0.005	84	239599	4.00	4.10	
49 Benzene	78	10.216	10.214	0.002	98	1512569	4.00	4.06	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	97	1301234	4.00	4.37	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	340329	4.00	4.06	
54 Thiophene	84	10.496	10.499	-0.003	96	819107	4.00	4.34	
55 Isooctane	57	10.997	10.995	0.002	98	2580622	4.00	4.15	
57 n-Heptane	71	11.386	11.387	-0.001	95	546078	4.00	4.21	
56 1,2-Dichloropropane	63	11.477	11.474	0.003	87	593910	4.00	4.14	
58 Trichloroethene	130	11.510	11.509	0.001	96	679471	4.00	4.15	
59 Dibromomethane	93	11.596	11.595	0.001	95	632141	4.00	4.16	
60 Dichlorobromomethane	83	11.747	11.746	0.001	99	1178556	4.00	4.28	
61 1,4-Dioxane	88	11.763	11.781	-0.018	95	248953	4.00	4.35	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	861534	4.00	4.22	
63 Methylcyclohexane	83	12.286	12.288	-0.002	92	892859	4.00	4.17	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	98	1521901	4.00	4.18	
65 cis-1,3-Dichloropropene	75	12.772	12.771	0.001	98	913127	4.00	4.25	
66 trans-1,3-Dichloropropene	75	13.478	13.476	0.002	97	885988	4.00	4.36	
67 Toluene	91	13.597	13.593	0.004	93	1776875	4.00	4.22	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	99	547625	4.00	4.20	
69 2-Hexanone	58	14.060	14.066	-0.006	89	668912	4.00	4.30	
71 n-Octane	85	14.292	14.288	0.004	97	568804	4.00	4.13	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	1309608	4.00	4.53	
72 Ethylene Dibromide	107	14.675	14.674	0.001	97	1092982	4.00	4.37	
73 Tetrachloroethene	129	14.745	14.743	0.002	96	693690	4.00	4.04	
74 Chlorobenzene	112	15.624	15.625	-0.001	92	1461212	4.00	4.18	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	96	2223594	4.00	4.25	
76 Ethylbenzene	91	15.915	15.914	0.001	98	2538724	4.00	4.30	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	97	4001961	8.00	8.64	
81 n-Nonane	57	16.492	16.494	-0.002	96	1327887	4.00	4.37	
78 Bromoform	173	16.525	16.525	0.000	97	1422909	4.00	5.49	
79 Styrene	104	16.541	16.543	-0.002	98	1449351	4.00	4.54	
80 o-Xylene	91	16.600	16.602	-0.002	99	2019938	4.00	4.15	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	99	1491704	4.00	4.35	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	96	469621	4.00	4.32	
84 Isopropylbenzene	105	17.188	17.187	0.001	95	3033081	4.00	4.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	790107	4.00	4.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	715846	4.00	4.09	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	3091126	4.00	4.30	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	1155375	4.00	4.21	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	1222128	4.00	4.65	
90 n-Decane	57	18.283	18.280	0.003	87	1777720	4.00	4.25	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	93	2742434	4.00	4.28	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	97	2756637	4.00	4.34	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	3969502	4.00	4.35	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	99	1782763	4.00	4.12	
96 Benzyl chloride	91	18.800	18.796	0.004	97	2244471	4.00	4.52	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	1782054	4.00	4.17	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3163292	4.00	4.29	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2606254	4.00	4.17	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	1994481	4.00	4.26	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2425370	4.00	4.27	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	1757169	4.00	4.17	
102 Indene	116	19.313	19.314	-0.002	90	2201908	4.00	4.30	
103 n-Butylbenzene	91	19.318	19.318	0.000	98	3226973	4.00	4.25	
104 Undecane	57	19.636	19.638	-0.002	95	2100599	4.00	4.26	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	97	956590	4.00	4.62	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	3062915	4.00	4.33	
107 Dodecane	57	20.715	20.714	0.001	93	2157082	4.00	4.50	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	1638588	4.00	4.06	
109 Naphthalene	128	21.065	21.064	0.001	99	3144071	4.00	3.77	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	96	1748268	4.00	4.36	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	96	1545006	4.00	4.16	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	99	677421	4.00	2.83	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	717771	4.00	3.13	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	5900294	4.00	4.09	
S 116 Xylenes, Total	100				0		12.0	12.8	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.07	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

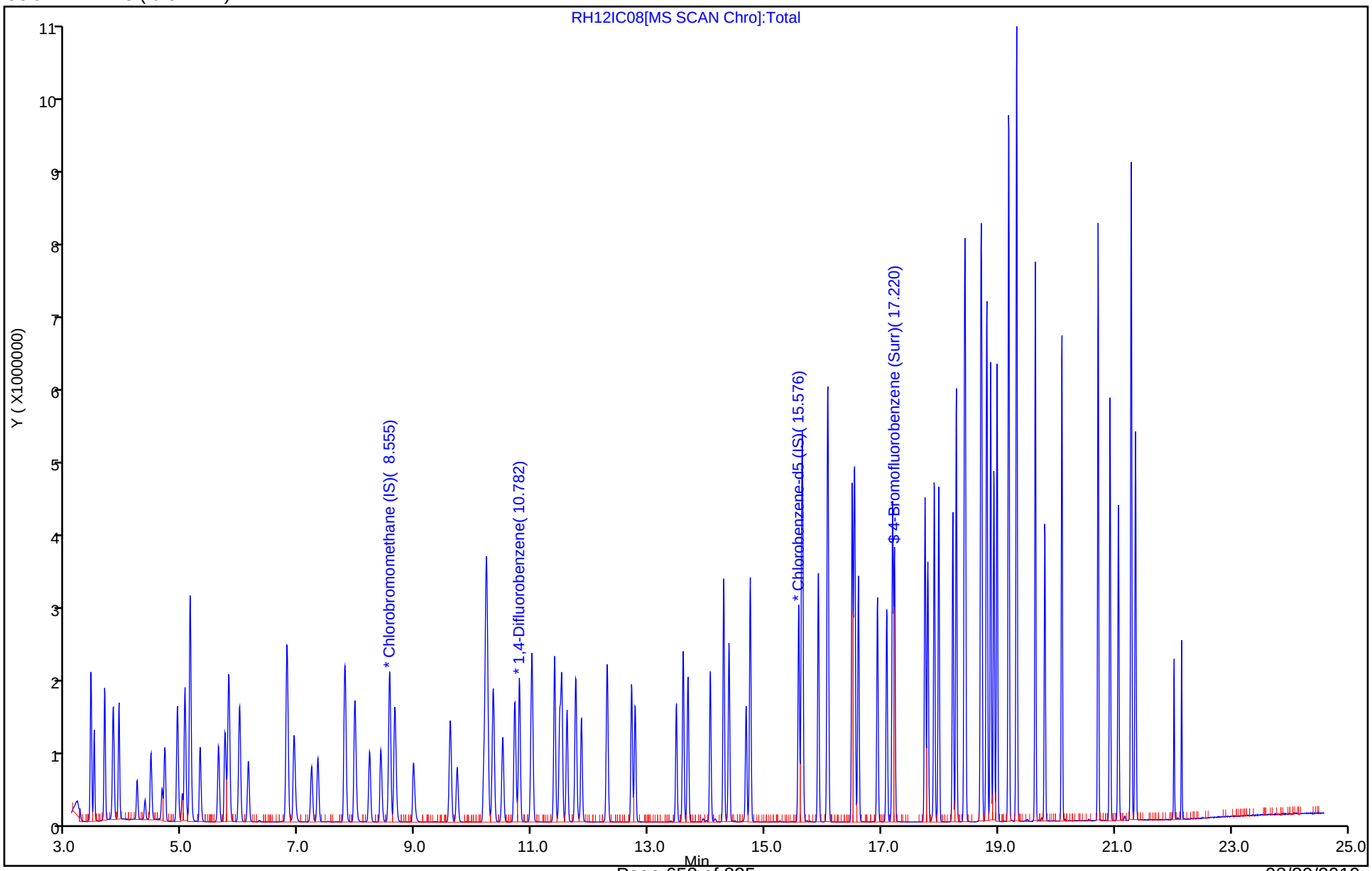
Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

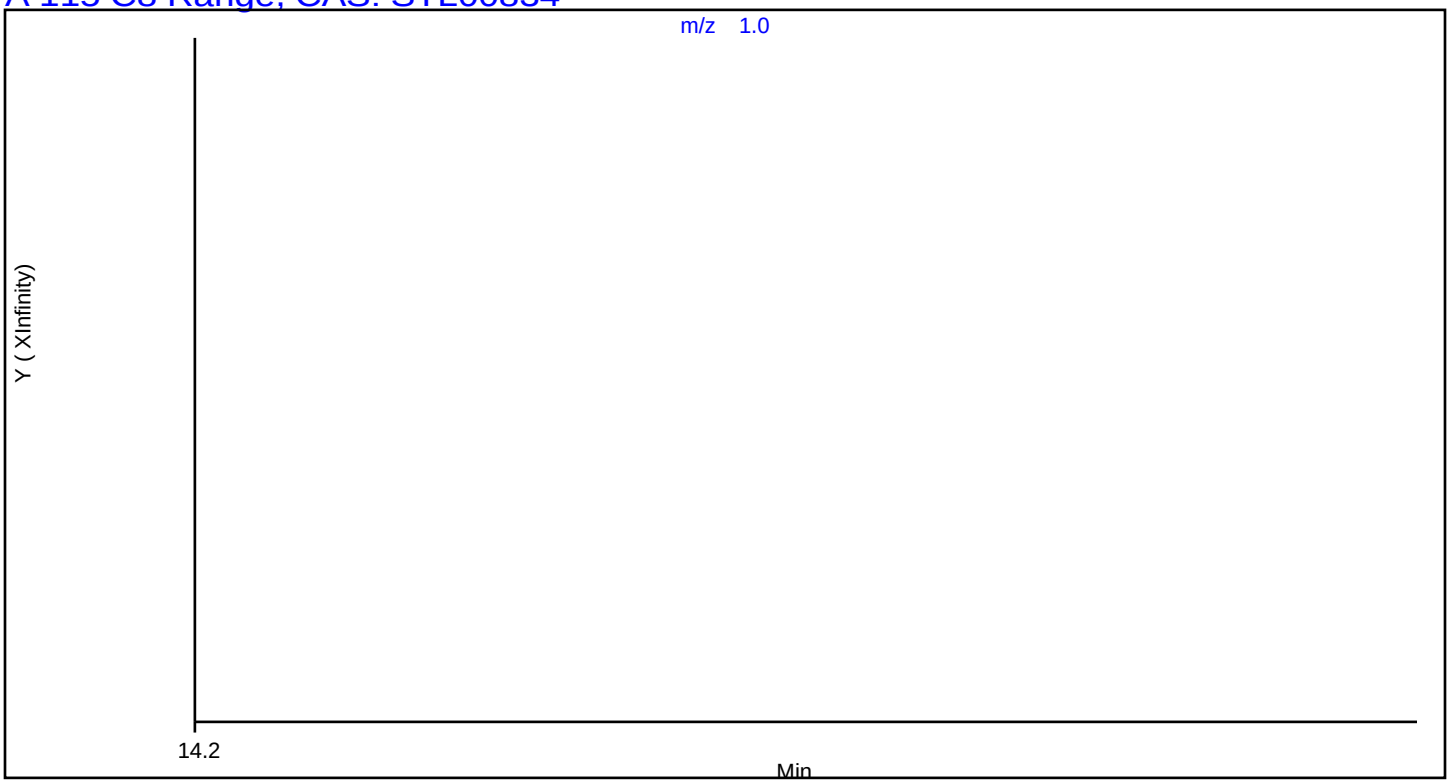


Report Date: 15-Aug-2019 10:43:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Injection Date:	12-Aug-2019 23:20:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Jul-2019 12:28:30 ALS Bottle#: 10 Worklist Smp#: 30
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012415-029
Misc. Info.: 231539(S94)
Operator ID: 403648 Instrument ID: MJ
Sublist:

Method: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jul-2019 11:38:33 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 20-Jul-2019 13:14:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	95	274664	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.841	-0.001	97	1422205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.456	16.453	0.003	91	1231744	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.054	18.052	0.002	89	937163	4.00	4.14	
19 Chlorodifluoromethane	51	4.158	4.155	0.003	97	130636	2.00	1.74	
20 Propene	41	4.169	4.169	0.000	97	91061	2.00	1.67	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	161912	2.00	1.88	
22 Chloromethane	52	4.438	4.441	-0.003	100	52048	2.00	1.88	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.444	0.005	48	22866	2.00	1.91	
24 Acetaldehyde	44	4.621	4.617	0.004	92	256331	10.0	7.17	
25 Vinyl chloride	62	4.643	4.642	0.001	99	189280	2.00	2.03	
26 Butane	43	4.739	4.739	0.000	85	295045	2.00	2.05	
27 Butadiene	54	4.745	4.741	0.004	67	135553	2.00	1.92	
28 Bromomethane	94	5.116	5.117	-0.001	98	157964	2.00	1.92	
29 Chloroethane	64	5.283	5.275	0.008	89	80362	2.00	1.96	
30 Ethanol	31	5.385	5.386	-0.001	98	274147	10.0	7.40	
31 Vinyl bromide	106	5.622	5.618	0.004	97	158319	2.00	2.08	
32 2-Methylbutane	43	5.670	5.669	0.001	92	203035	2.00	2.05	
33 Trichlorofluoromethane	101	5.917	5.916	0.001	100	581099	2.00	1.96	
34 Acrolein	56	5.928	5.930	-0.002	26	38584	2.00	2.14	
35 Acetonitrile	40	6.004	6.004	0.000	96	45265	2.00	1.59	
36 Acetone	58	6.063	6.061	0.002	99	49838	2.00	1.58	
38 Pentane	72	6.160	6.155	0.005	96	23125	2.00	2.04	
37 Isopropyl alcohol	45	6.149	6.155	-0.006	94	223972	2.00	2.44	
39 Ethyl ether	31	6.342	6.345	-0.003	89	173794	2.00	1.70	
40 1,1-Dichloroethene	96	6.692	6.690	0.002	93	166820	2.00	1.98	
41 Acrylonitrile	53	6.805	6.802	0.003	54	92949	2.00	1.65	
42 2-Methyl-2-propanol	59	6.805	6.814	-0.009	95	278687	2.00	1.96	
43 1,1,2-Trichloro-1,2,2-trif	101	6.875	6.873	0.002	95	363927	2.00	1.86	
44 Methylene Chloride	84	7.069	7.067	0.002	96	158646	2.00	1.54	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.081	-0.002	97	171950	2.00	1.80	
46 Carbon disulfide	76	7.252	7.248	0.004	100	503733	2.00	1.96	
47 trans-1,2-Dichloroethene	96	7.924	7.922	0.002	93	155665	2.00	1.85	
48 2-Methylpentane	43	7.929	7.928	0.001	95	388446	2.00	1.67	
49 Methyl tert-butyl ether	73	8.053	8.066	-0.013	97	368158	2.00	1.64	
50 1,1-Dichloroethane	63	8.365	8.363	0.002	100	315408	2.00	1.68	
51 Vinyl acetate	43	8.462	8.461	0.001	100	373043	2.00	1.57	
52 2-Butanone (MEK)	72	8.941	8.943	-0.002	95	59334	2.00	1.60	
53 Hexane	56	8.946	8.948	-0.002	77	132378	2.00	1.75	
54 Isopropyl ether	45	9.113	9.118	-0.005	96	485926	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.387	9.384	0.003	99	154488	2.00	1.78	
56 Ethyl acetate	43	9.559	9.566	-0.007	97	310905	2.00	1.57	
57 Chloroform	83	9.737	9.735	0.002	96	373034	2.00	1.67	
58 Tert-butyl ethyl ether	59	9.807	9.817	-0.010	97	418746	2.00	1.57	
59 Tetrahydrofuran	42	10.162	10.176	-0.014	92	159172	2.00	1.61	
60 1,1,1-Trichloroethane	97	10.764	10.767	-0.003	97	400840	2.00	1.67	
61 1,2-Dichloroethane	62	10.872	10.873	-0.001	98	278292	2.00	1.70	
62 n-Butanol	31	11.286	11.296	-0.010	64	74175	2.00	1.91	
63 Cyclohexane	69	11.340	11.337	0.003	73	78867	2.00	1.80	
64 Benzene	78	11.340	11.340	0.000	97	438518	2.00	1.68	
65 Carbon tetrachloride	117	11.361	11.361	0.000	96	454012	2.00	2.08	
66 2,3-Dimethylpentane	71	11.426	11.430	-0.004	90	100308	2.00	1.71	
67 Thiophene	84	11.604	11.604	0.000	97	245342	2.00	1.66	
68 Isooctane	57	12.039	12.041	-0.002	97	808269	2.00	1.74	
69 n-Heptane	71	12.394	12.392	0.002	95	153802	2.00	1.72	
70 1,2-Dichloropropane	63	12.507	12.505	0.002	87	185370	2.00	1.69	
71 Trichloroethene	130	12.540	12.537	0.003	93	200047	2.00	1.70	
72 Dibromomethane	93	12.631	12.627	0.004	94	215885	2.00	1.78	
73 Dichlorobromomethane	83	12.760	12.761	-0.001	98	398744	2.00	1.72	
74 1,4-Dioxane	88	12.782	12.787	-0.005	95	54123	2.00	1.78	
75 Methyl methacrylate	41	12.825	12.827	-0.002	88	209117	2.00	1.64	
76 Methylcyclohexane	83	13.277	13.277	0.000	92	334376	2.00	2.10	
77 4-Methyl-2-pentanone (MIBK	43	13.659	13.662	-0.004	99	359756	2.00	1.80	
78 cis-1,3-Dichloropropene	75	13.718	13.718	0.000	99	285639	2.00	1.76	
79 trans-1,3-Dichloropropene	75	14.390	14.390	0.000	97	269835	2.00	1.78	
80 Toluene	91	14.519	14.519	0.000	92	520816	2.00	1.75	
81 1,1,2-Trichloroethane	83	14.589	14.591	-0.002	94	168159	2.00	1.77	
82 2-Hexanone	58	14.950	14.956	-0.006	91	165032	2.00	1.89	
83 n-Octane	85	15.154	15.154	0.000	96	160766	2.00	1.76	
84 Chlorodibromomethane	129	15.288	15.290	-0.002	97	362042	2.00	1.76	
85 Ethylene Dibromide	107	15.579	15.579	0.000	97	308281	2.00	1.78	
86 Tetrachloroethene	129	15.638	15.637	0.001	93	206298	2.00	1.73	
87 2,3-Dimethylheptane	43	16.483	16.478	0.005	94	549502	2.00	1.57	
88 Chlorobenzene	112	16.499	16.501	-0.002	91	419046	2.00	1.76	
89 Ethylbenzene	91	16.773	16.773	0.000	100	650469	2.00	1.70	
90 m-Xylene & p-Xylene	91	16.929	16.929	0.000	99	1027384	4.00	3.49	
91 n-Nonane	57	17.311	17.307	0.004	94	382913	2.00	1.80	
92 Styrene	104	17.392	17.392	0.000	97	362854	2.00	1.73	
93 Bromoform	173	17.397	17.398	-0.001	94	356750	2.00	1.62	
94 o-Xylene	91	17.456	17.453	0.003	97	529548	2.00	1.69	
95 1,1,2,2-Tetrachloroethane	83	17.768	17.769	-0.001	98	391296	2.00	1.80	
96 1,2,3-Trichloropropane	110	17.924	17.923	0.001	97	105524	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.016	18.012	0.004	98	695973	2.00	1.70	
98 N-Propylbenzene	120	18.522	18.517	0.005	98	188998	2.00	1.73	
99 2-Chlorotoluene	126	18.575	18.572	0.003	97	194678	2.00	1.85	
100 4-Ethyltoluene	105	18.661	18.658	0.003	98	674463	2.00	1.66	
101 1,3,5-Trimethylbenzene	120	18.726	18.726	0.000	91	315405	2.00	1.94	
102 Alpha Methyl Styrene	118	18.947	18.948	-0.001	84	293576	2.00	1.75	
103 n-Decane	57	18.973	18.974	-0.001	89	487884	2.00	1.81	
104 tert-Butylbenzene	119	19.135	19.133	0.002	89	636933	2.00	1.70	
105 1,2,4-Trimethylbenzene	105	19.146	19.146	0.000	96	622242	2.00	1.73	
106 sec-Butylbenzene	105	19.393	19.389	0.004	98	893172	2.00	1.76	
107 1,3-Dichlorobenzene	146	19.420	19.419	0.001	98	451945	2.00	1.80	
108 Benzyl chloride	91	19.490	19.487	0.003	97	564628	2.00	1.83	
109 1,4-Dichlorobenzene	146	19.501	19.501	0.000	91	452286	2.00	1.78	
110 4-Isopropyltoluene	119	19.544	19.542	0.002	98	743286	2.00	1.75	
111 1,2,3-Trimethylbenzene	105	19.603	19.603	0.000	98	462780	2.00	1.31	
112 Butylcyclohexane	83	19.646	19.642	0.004	90	533083	2.00	1.74	
113 2,3-Dihydroindene	117	19.845	19.846	-0.001	92	557324	2.00	1.70	
114 1,2-Dichlorobenzene	146	19.850	19.851	-0.001	94	432238	2.00	1.75	
115 n-Butylbenzene	91	19.963	19.958	0.005	97	816521	2.00	1.85	
116 Indene	116	19.974	19.974	0.000	88	433186	2.00	1.54	
117 Undecane	57	20.238	20.235	0.003	94	556918	2.00	1.83	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.438	-0.001	93	164906	2.00	1.34	
119 1,2,4,5-Tetramethylbenzene	119	20.716	20.713	0.003	96	677306	2.00	1.76	
120 Dodecane	57	21.324	21.323	0.001	92	564912	2.00	2.18	
121 1,2,4-Trichlorobenzene	180	21.566	21.565	0.001	93	368640	2.00	1.83	
122 Naphthalene	128	21.695	21.693	0.002	98	590000	2.00	1.87	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	443133	2.00	1.82	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	328156	2.00	2.06	
125 2-Methylnaphthalene	142	22.422	22.424	-0.002	99	236290	2.00	2.74	
126 1-Methylnaphthalene	142	22.551	22.549	0.002	99	220463	2.00	2.13	
A 128 C8 Range	1	15.169	(15.114-15.211)		0	1770809	2.00	1.81	
S 129 Xylenes, Total	100				0		6.00	5.19	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.63	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

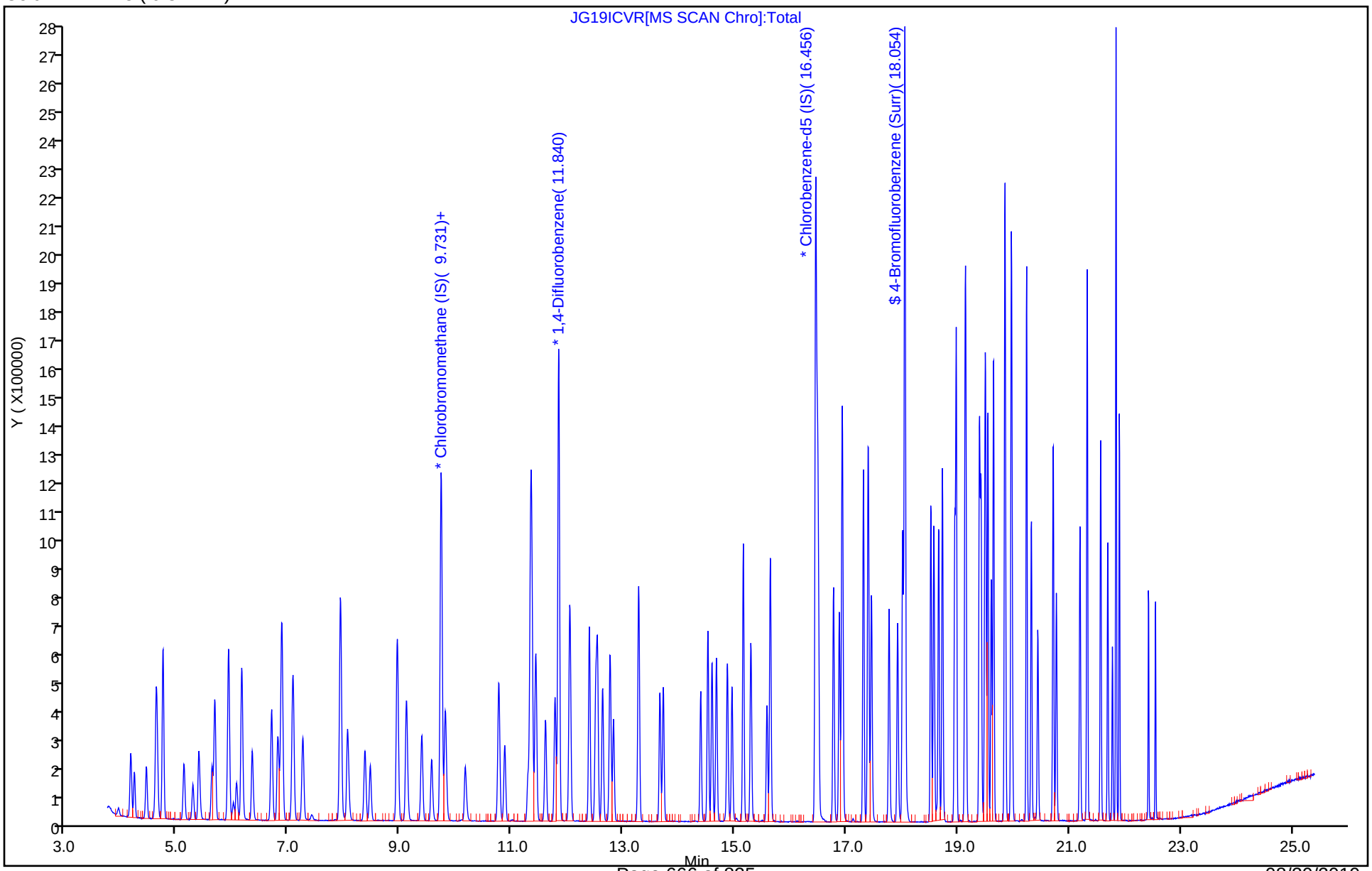
Report Date: 24-Jul-2019 11:38:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19ICVR.D

Injection Date:	20-Jul-2019 12:28:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	30
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Aug-2019 09:08:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:14:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	96	253683	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	1303711	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	1153268	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	791299	4.00	3.73	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	140233	2.00	2.02	
20 Propene	41	4.168	4.168	0.000	99	102701	2.00	2.05	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	162726	2.00	2.05	
22 Chloromethane	52	4.442	4.442	0.000	99	59380	2.00	2.32	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.442	0.000	52	31140	2.00	2.82	
24 Acetaldehyde	44	4.614	4.614	0.000	99	335267	10.0	10.2	
25 Vinyl chloride	62	4.636	4.636	0.000	99	203700	2.00	2.36	
26 Butane	43	4.738	4.738	0.000	85	289304	2.00	2.17	
27 Butadiene	54	4.738	4.738	0.000	67	149242	2.00	2.29	
28 Bromomethane	94	5.115	5.115	0.000	98	190572	2.00	2.51	
29 Chloroethane	64	5.271	5.271	0.000	96	90928	2.00	2.40	
30 Ethanol	31	5.373	5.373	0.000	96	292951	10.0	8.56	
31 Vinyl bromide	106	5.615	5.615	0.000	97	176919	2.00	2.51	
32 2-Methylbutane	43	5.663	5.663	0.000	92	202422	2.00	2.21	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	99	587720	2.00	2.14	
34 Acrolein	56	5.927	5.927	0.000	93	37487	2.00	2.25	
35 Acetonitrile	40	6.002	6.002	0.000	98	52365	2.00	1.99	
36 Acetone	58	6.051	6.051	0.000	99	174033	6.00	5.96	
37 Isopropyl alcohol	45	6.137	6.137	0.000	92	466046	6.00	5.49	
38 Pentane	72	6.153	6.153	0.000	95	26216	2.00	2.50	
39 Ethyl ether	31	6.336	6.336	0.000	93	147637	2.00	1.57	
40 1,1-Dichloroethene	96	6.685	6.685	0.000	97	157442	2.00	2.02	
42 2-Methyl-2-propanol	59	6.793	6.793	0.000	96	192214	2.00	1.47	
41 Acrylonitrile	53	6.798	6.798	0.000	93	91637	2.00	1.76	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	96	343383	2.00	1.90	
44 Methylene Chloride	84	7.062	7.062	0.000	98	151483	2.00	1.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	133792	2.00	1.51	
46 Carbon disulfide	76	7.245	7.245	0.000	100	467334	2.00	1.97	
47 trans-1,2-Dichloroethene	96	7.917	7.917	0.000	98	155527	2.00	2.00	
48 2-Methylpentane	43	7.923	7.923	0.000	95	360610	2.00	1.68	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	316378	2.00	1.52	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	284628	2.00	1.64	
51 Vinyl acetate	43	8.455	8.455	0.000	100	338956	2.00	1.54	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	51062	2.00	1.49	
53 Hexane	56	8.939	8.939	0.000	77	115383	2.00	1.65	
54 Isopropyl ether	45	9.106	9.106	0.000	96	398274	2.00	1.50	
55 cis-1,2-Dichloroethene	96	9.375	9.375	0.000	96	150788	2.00	1.88	
56 Ethyl acetate	43	9.558	9.558	0.000	99	244275	2.00	1.34	
57 Chloroform	83	9.730	9.730	0.000	96	332915	2.00	1.62	
58 Tert-butyl ethyl ether	59	9.800	9.800	0.000	96	353901	2.00	1.43	
59 Tetrahydrofuran	42	10.166	10.166	0.000	93	135564	2.00	1.49	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	97	326346	2.00	1.47	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	97	210580	2.00	1.41	
62 n-Butanol	31	11.280	11.280	0.000	88	44862	2.00	1.26	
64 Benzene	78	11.333	11.333	0.000	97	428186	2.00	1.79	
63 Cyclohexane	69	11.333	11.333	0.000	79	69151	2.00	1.72	
65 Carbon tetrachloride	117	11.355	11.355	0.000	96	349140	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	93	95758	2.00	1.78	
67 Thiophene	84	11.602	11.602	0.000	96	247294	2.00	1.82	
68 Isooctane	57	12.038	12.038	0.000	98	700715	2.00	1.65	
69 n-Heptane	71	12.388	12.388	0.000	93	142922	2.00	1.74	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	90	174019	2.00	1.74	
71 Trichloroethene	130	12.528	12.528	0.000	96	202209	2.00	1.88	
72 Dibromomethane	93	12.624	12.624	0.000	95	195792	2.00	1.76	
73 Dichlorobromomethane	83	12.754	12.754	0.000	98	340004	2.00	1.60	
74 1,4-Dioxane	88	12.775	12.775	0.000	88	42155	2.00	1.51	
75 Methyl methacrylate	41	12.818	12.818	0.000	92	149600	2.00	1.28	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	256278	2.00	1.75	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	240847	2.00	1.32	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	95	255522	2.00	1.72	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	98	226876	2.00	1.60	
80 Toluene	91	14.513	14.513	0.000	93	499176	2.00	1.79	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	98	161010	2.00	1.80	
82 2-Hexanone	58	14.948	14.948	0.000	92	117421	2.00	1.44	
83 n-Octane	85	15.153	15.153	0.000	95	145666	2.00	1.70	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	339491	2.00	1.76	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	287640	2.00	1.77	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	188814	2.00	1.69	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	96	514887	2.00	1.57	
88 Chlorobenzene	112	16.498	16.498	0.000	94	404501	2.00	1.81	
89 Ethylbenzene	91	16.767	16.767	0.000	99	597357	2.00	1.66	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	904412	4.00	3.29	
91 n-Nonane	57	17.305	17.305	0.000	93	320297	2.00	1.61	
92 Styrene	104	17.385	17.385	0.000	98	352314	2.00	1.79	
93 Bromoform	173	17.391	17.391	0.000	96	401076	2.00	1.94	
94 o-Xylene	91	17.450	17.450	0.000	99	480378	2.00	1.64	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	99	374020	2.00	1.83	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	89861	2.00	1.55	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.009	18.009	0.000	97	629353	2.00	1.65	
98 N-Propylbenzene	120	18.515	18.515	0.000	99	178418	2.00	1.75	
99 2-Chlorotoluene	126	18.569	18.569	0.000	97	185080	2.00	1.88	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	635771	2.00	1.67	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	93	265064	2.00	1.74	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	278713	2.00	1.78	
103 n-Decane	57	18.972	18.972	0.000	90	406955	2.00	1.61	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	569403	2.00	1.63	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	547416	2.00	1.62	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	797174	2.00	1.68	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	98	438961	2.00	1.87	
108 Benzyl chloride	91	19.483	19.483	0.000	98	459736	2.00	1.59	
109 1,4-Dichlorobenzene	146	19.499	19.499	0.000	94	436901	2.00	1.84	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	96	632993	2.00	1.59	
111 1,2,3-Trimethylbenzene	105	19.596	19.596	0.000	98	536626	2.00	1.62	
112 Butylcyclohexane	83	19.639	19.639	0.000	95	524677	2.00	1.83	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	555188	2.00	1.81	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	425968	2.00	1.84	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	669164	2.00	1.62	
116 Indene	116	19.967	19.967	0.000	89	470937	2.00	1.79	
117 Undecane	57	20.231	20.231	0.000	96	427711	2.00	1.50	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	97	199367	2.00	1.73	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	526588	2.00	1.47	
120 Dodecane	57	21.318	21.318	0.000	94	360950	2.00	1.49	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	334504	2.00	1.77	
122 Naphthalene	128	21.689	21.689	0.000	99	490658	2.00	1.66	
123 Hexachlorobutadiene	225	21.839	21.839	0.000	94	432658	2.00	1.90	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	95	264363	2.00	1.77	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	98	152708	2.00	1.89	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	98	138618	2.00	1.43	
A 128 C8 Range	1	15.163	(15.109-15.217)		0	1465889	2.00	1.60	
S 129 Xylenes, Total	100				0		6.00	4.93	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.88	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

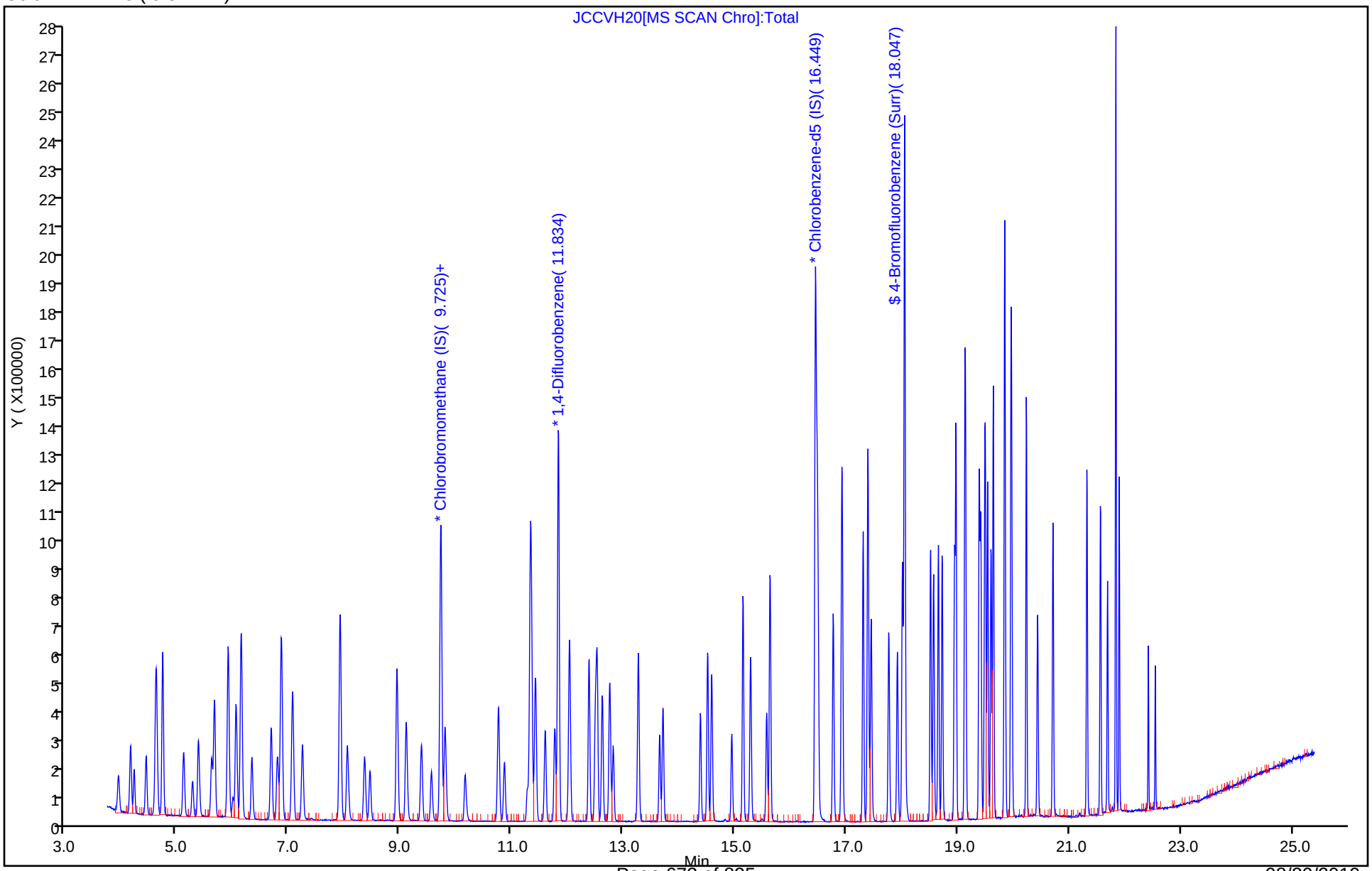
Report Date: 21-Aug-2019 12:14:31 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20.D

Injection Date:	20-Aug-2019 09:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

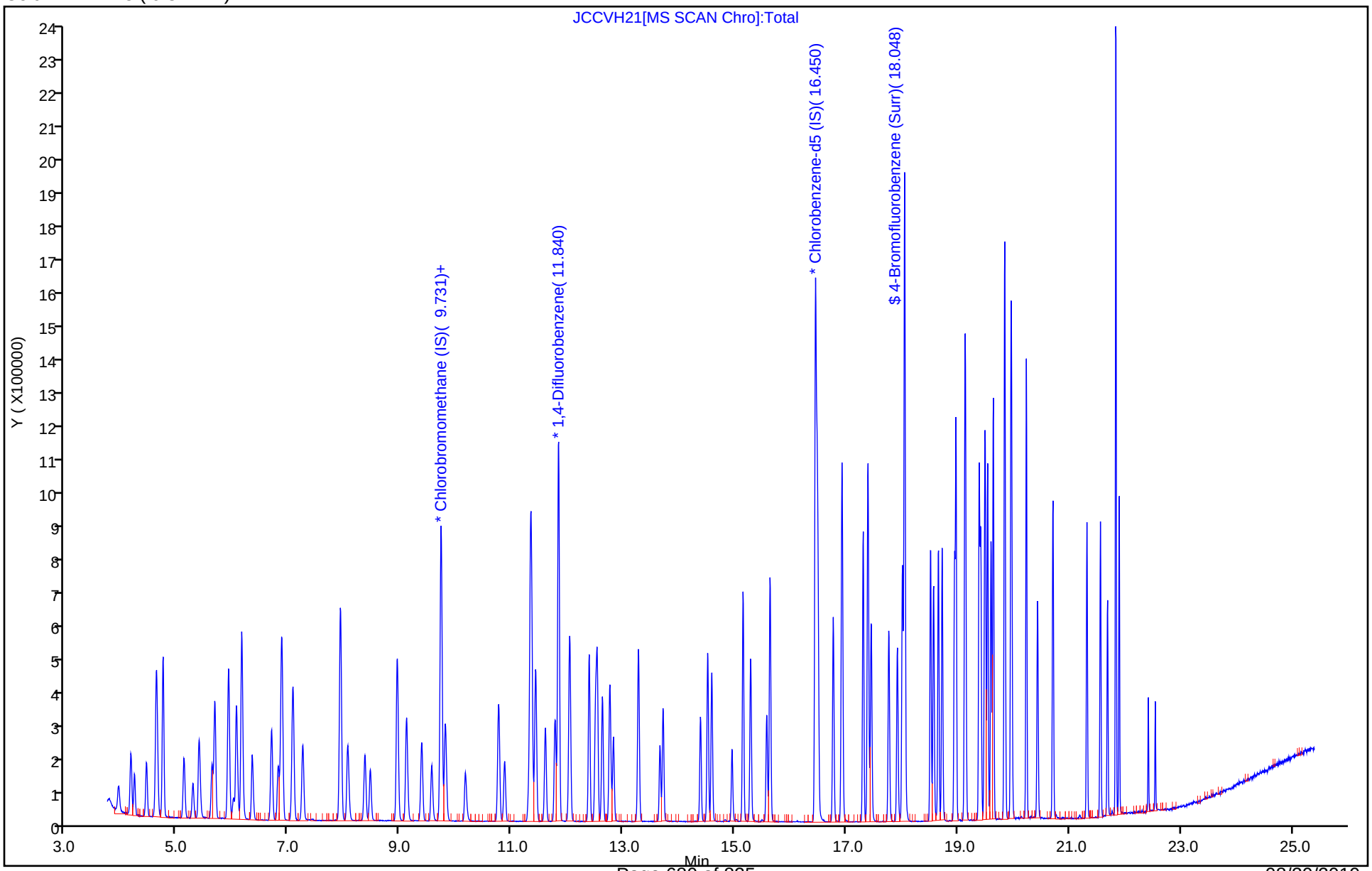
Report Date: 22-Aug-2019 11:07:12 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21.D

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



08/30/2019

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-Aug-2019 08:11:30 ALS Bottle#: 7 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012855-002
Misc. Info.: p92
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:39:25 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	97	238218	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.834	0.000	95	1260984	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.444	0.000	88	1074888	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	716191	4.00	3.63	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	137671	2.00	2.11	
20 Propene	41	4.168	4.168	0.000	98	102544	2.00	2.17	
21 Dichlorodifluoromethane	85	4.222	4.222	0.000	100	157397	2.00	2.11	
22 Chloromethane	52	4.437	4.437	0.000	100	61807	2.00	2.57	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.443	0.000	94	30193	2.00	2.91	
24 Acetaldehyde	44	4.615	4.615	0.000	99	356510	10.0	11.5	
25 Vinyl chloride	62	4.636	4.636	0.000	99	207570	2.00	2.56	
27 Butadiene	54	4.733	4.733	0.000	66	151991	2.00	2.48	
26 Butane	43	4.738	4.738	0.000	86	298254	2.00	2.39	
28 Bromomethane	94	5.110	5.110	0.000	99	190694	2.00	2.67	
29 Chloroethane	64	5.271	5.271	0.000	98	92154	2.00	2.59	
30 Ethanol	31	5.384	5.384	0.000	96	348784	10.0	10.9	
31 Vinyl bromide	106	5.615	5.615	0.000	98	176720	2.00	2.67	
32 2-Methylbutane	43	5.664	5.664	0.000	93	215232	2.00	2.50	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	100	513690	2.00	1.99	
34 Acrolein	56	5.927	5.927	0.000	95	44357	2.00	2.84	
35 Acetonitrile	40	6.003	6.003	0.000	100	65824	2.00	2.66	
36 Acetone	58	6.056	6.056	0.000	98	208913	6.00	7.62	
37 Isopropyl alcohol	45	6.148	6.148	0.000	93	507301	6.00	6.37	
38 Pentane	72	6.148	6.148	0.000	97	26706	2.00	2.71	
39 Ethyl ether	31	6.336	6.336	0.000	92	170249	2.00	1.92	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	97	158508	2.00	2.17	
41 Acrylonitrile	53	6.799	6.799	0.000	79	106580	2.00	2.18	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	192341	2.00	1.56	
43 1,1,2-Trichloro-1,2,2-trif	101	6.863	6.863	0.000	95	353774	2.00	2.08	
44 Methylene Chloride	84	7.062	7.062	0.000	98	162549	2.00	1.81	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	140541	2.00	1.69	
46 Carbon disulfide	76	7.245	7.245	0.000	99	486121	2.00	2.18	
47 trans-1,2-Dichloroethene	96	7.918	7.918	0.000	96	160173	2.00	2.19	
48 2-Methylpentane	43	7.923	7.923	0.000	96	379457	2.00	1.89	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	371838	2.00	1.91	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	99	314937	2.00	1.93	
51 Vinyl acetate	43	8.456	8.456	0.000	100	397258	2.00	1.92	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	64994	2.00	2.02	
53 Hexane	56	8.940	8.940	0.000	79	127201	2.00	1.94	
54 Isopropyl ether	45	9.107	9.107	0.000	97	474646	2.00	1.91	
55 cis-1,2-Dichloroethene	96	9.376	9.376	0.000	96	163713	2.00	2.17	
56 Ethyl acetate	43	9.558	9.558	0.000	98	319362	2.00	1.87	
57 Chloroform	83	9.731	9.731	0.000	95	362268	2.00	1.87	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	426599	2.00	1.84	
59 Tetrahydrofuran	42	10.161	10.161	0.000	94	162085	2.00	1.89	
60 1,1,1-Trichloroethane	97	10.758	10.758	0.000	97	348488	2.00	1.68	
61 1,2-Dichloroethane	62	10.866	10.866	0.000	97	219625	2.00	1.52	
62 n-Butanol	31	11.285	11.285	0.000	88	43786	2.00	1.27	
63 Cyclohexane	69	11.328	11.328	0.000	83	73044	2.00	1.88	
64 Benzene	78	11.334	11.334	0.000	97	477441	2.00	2.07	
65 Carbon tetrachloride	117	11.355	11.355	0.000	97	353733	2.00	1.83	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	106994	2.00	2.05	
67 Thiophene	84	11.597	11.597	0.000	96	274688	2.00	2.09	
68 Isooctane	57	12.033	12.033	0.000	98	776028	2.00	1.88	
69 n-Heptane	71	12.388	12.388	0.000	94	156410	2.00	1.97	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	194465	2.00	2.00	
71 Trichloroethene	130	12.528	12.528	0.000	96	209946	2.00	2.01	
72 Dibromomethane	93	12.619	12.619	0.000	96	211503	2.00	1.97	
73 Dichlorobromomethane	83	12.754	12.754	0.000	99	356677	2.00	1.74	
74 1,4-Dioxane	88	12.775	12.775	0.000	87	51079	2.00	1.89	
75 Methyl methacrylate	41	12.818	12.818	0.000	93	191167	2.00	1.69	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	279276	2.00	1.97	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	266639	2.00	1.51	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	94	277941	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	243137	2.00	1.84	
80 Toluene	91	14.513	14.513	0.000	93	535089	2.00	2.06	
81 1,1,2-Trichloroethane	83	14.583	14.583	0.000	97	177176	2.00	2.13	
82 2-Hexanone	58	14.949	14.949	0.000	92	124869	2.00	1.64	
83 n-Octane	85	15.148	15.148	0.000	95	155478	2.00	1.95	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	350459	2.00	1.95	
85 Ethylene Dibromide	107	15.567	15.567	0.000	98	304790	2.00	2.01	
86 Tetrachloroethene	129	15.632	15.632	0.000	94	197210	2.00	1.89	
87 2,3-Dimethylheptane	43	16.471	16.471	0.000	96	549565	2.00	1.80	
88 Chlorobenzene	112	16.493	16.493	0.000	94	420646	2.00	2.02	
89 Ethylbenzene	91	16.767	16.767	0.000	99	655741	2.00	1.96	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	996544	4.00	3.88	
91 n-Nonane	57	17.305	17.305	0.000	94	343639	2.00	1.85	
92 Styrene	104	17.386	17.386	0.000	99	378623	2.00	2.07	
93 Bromoform	173	17.391	17.391	0.000	95	391286	2.00	2.03	
94 o-Xylene	91	17.445	17.445	0.000	99	526455	2.00	1.93	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	98	417311	2.00	2.19	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	101202	2.00	1.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.004	18.004	0.000	96	696473	2.00	1.96	
98 N-Propylbenzene	120	18.510	18.510	0.000	99	195522	2.00	2.06	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	193865	2.00	2.11	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	703830	2.00	1.98	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	296417	2.00	2.09	
102 Alpha Methyl Styrene	118	18.940	18.940	0.000	87	306614	2.00	2.10	
103 n-Decane	57	18.967	18.967	0.000	89	451745	2.00	1.92	
104 tert-Butylbenzene	119	19.129	19.129	0.000	91	638506	2.00	1.96	
105 1,2,4-Trimethylbenzene	105	19.139	19.139	0.000	96	610551	2.00	1.94	
106 sec-Butylbenzene	105	19.387	19.387	0.000	98	909167	2.00	2.06	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	456637	2.00	2.08	
108 Benzyl chloride	91	19.484	19.484	0.000	98	522902	2.00	1.94	
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	94	453337	2.00	2.05	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	739942	2.00	1.99	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	600099	2.00	1.94	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	562299	2.00	2.11	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	94	609050	2.00	2.13	
114 1,2-Dichlorobenzene	146	19.844	19.844	0.000	96	452134	2.00	2.10	
115 n-Butylbenzene	91	19.957	19.957	0.000	98	786336	2.00	2.04	
116 Indene	116	19.968	19.968	0.000	94	512013	2.00	2.09	
117 Undecane	57	20.231	20.231	0.000	96	520041	2.00	1.96	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.436	0.000	97	232500	2.00	2.17	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	661873	2.00	1.98	
120 Dodecane	57	21.318	21.318	0.000	95	452051	2.00	2.00	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	387486	2.00	2.20	
122 Naphthalene	128	21.689	21.689	0.000	99	624363	2.00	2.27	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	94	527469	2.00	2.49	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	336530	2.00	2.42	
125 2-Methylnaphthalene	142	22.421	22.421	0.000	99	191359	2.00	2.54	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	98	177960	2.00	1.97	
A 128 C8 Range	1	15.158	(15.115-15.201)		0	1562083	2.00	1.83	
S 129 Xylenes, Total	100				0		6.00	5.81	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.37	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

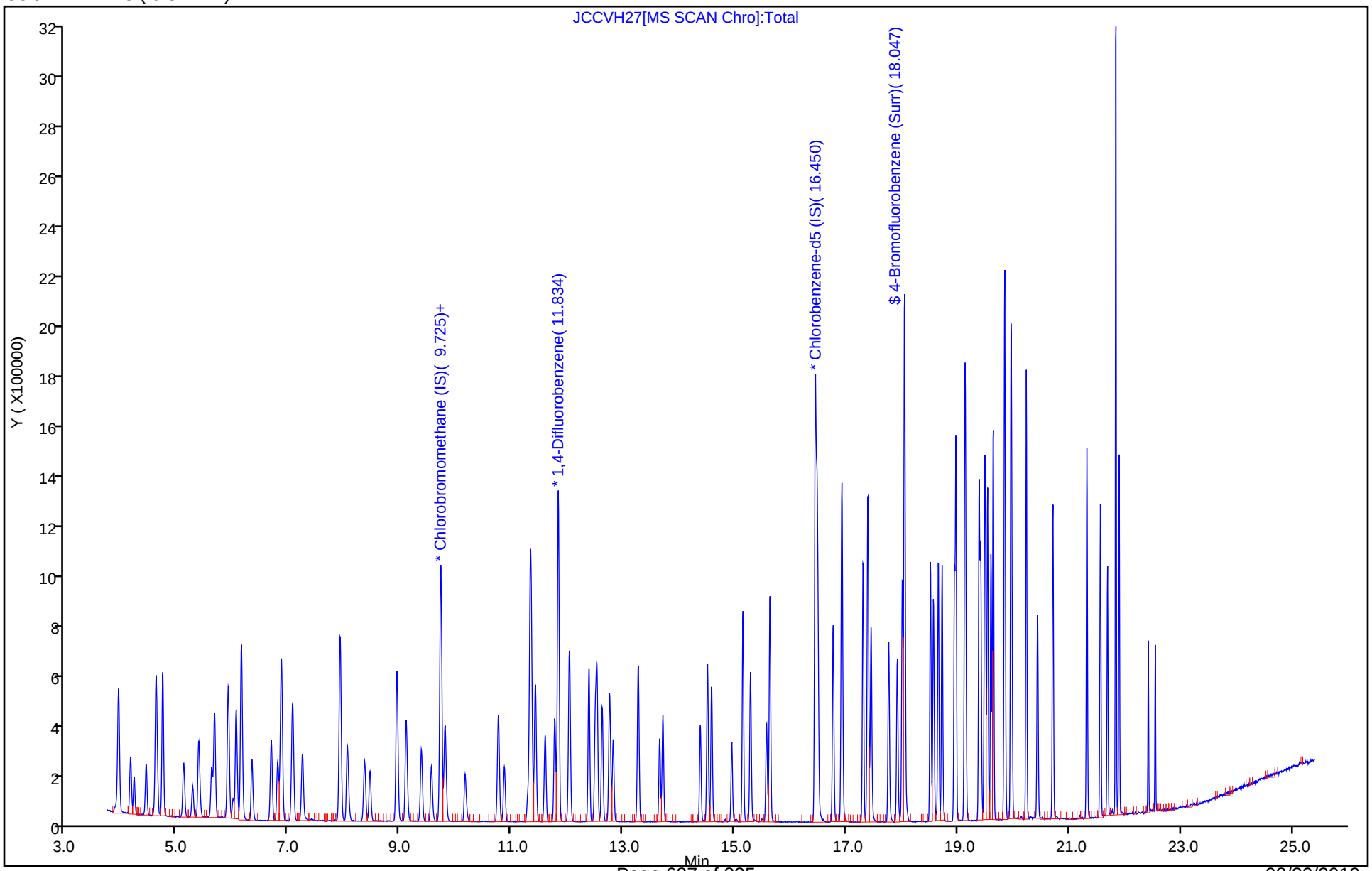
Report Date: 28-Aug-2019 10:39:27 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27.D

Injection Date:	27-Aug-2019 08:11:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-Aug-2019 00:56:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 12:53:23 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0318

First Level Reviewer: liul Date: 15-Aug-2019 12:53:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.551	-0.013	97	280567	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.781	0.001	95	1667707	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.576	15.577	-0.001	89	1428519	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.221	-0.001	91	985825	4.00	4.00	
6 Chlorodifluoromethane	51	3.427	3.430	-0.004	97	496839	2.00	2.07	
7 Propene	41	3.437	3.439	-0.002	99	290502	2.00	2.18	
8 Dichlorodifluoromethane	85	3.486	3.489	-0.003	100	523962	2.00	2.42	
9 Chloromethane	52	3.664	3.665	-0.001	63	52984	2.00	1.63	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	325648	2.00	2.96	
11 Acetaldehyde	44	3.809	3.817	-0.008	97	353288	10.0	9.28	
12 Vinyl chloride	62	3.826	3.831	-0.005	99	188121	2.00	1.82	
13 Butadiene	54	3.906	3.913	-0.007	69	142421	2.00	1.90	
14 Butane	43	3.912	3.914	-0.002	84	275227	2.00	1.73	
15 Bromomethane	94	4.219	4.227	-0.008	97	165432	2.00	1.89	
16 Chloroethane	64	4.354	4.359	-0.005	93	77012	2.00	1.82	
17 Ethanol	31	4.451	4.464	-0.013	98	340620	10.0	8.94	
18 Vinyl bromide	106	4.651	4.656	-0.005	98	156532	2.00	2.14	
19 2-Methylbutane	43	4.699	4.699	0.000	92	212214	2.00	1.79	
21 Trichlorofluoromethane	101	4.909	4.915	-0.006	99	578470	2.00	2.15	
20 Acrolein	56	4.926	4.936	-0.010	96	74819	2.00	2.24	
24 Acetonitrile	40	4.990	5.001	-0.011	97	106694	2.00	2.15	
22 Acetone	58	5.055	5.057	-0.002	99	108340	2.00	2.33	
25 Pentane	72	5.125	5.138	-0.013	95	35398	2.00	1.99	
23 Isopropyl alcohol	45	5.130	5.149	-0.019	93	411672	2.00	2.61	
26 Ethyl ether	31	5.308	5.319	-0.011	88	326546	2.00	2.24	
27 1,1-Dichloroethene	96	5.616	5.626	-0.010	96	196958	2.00	2.04	
28 Acrylonitrile	53	5.734	5.738	-0.004	61	167417	2.00	2.30	
29 2-Methyl-2-propanol	59	5.724	5.756	-0.032	96	421667	2.00	2.17	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.798	-0.004	95	437530	2.00	2.18	
31 Methylene Chloride	84	5.972	5.978	-0.006	95	188455	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.982	5.990	-0.008	95	250779	2.00	2.27	
33 Carbon disulfide	76	6.128	6.133	-0.005	99	552247	2.00	2.18	
34 trans-1,2-Dichloroethene	96	6.786	6.788	-0.002	98	223824	2.00	2.21	
35 2-Methylpentane	43	6.802	6.803	-0.001	96	542597	2.00	2.02	
36 Methyl tert-butyl ether	73	6.921	6.934	-0.013	97	603760	2.00	2.21	
37 1,1-Dichloroethane	63	7.212	7.217	-0.005	99	422805	2.00	2.20	
38 Vinyl acetate	43	7.320	7.328	-0.008	100	773683	2.00	2.30	
40 Hexane	56	7.794	7.796	-0.002	74	188439	2.00	2.14	
39 2-Butanone (MEK)	72	7.778	7.797	-0.019	96	108774	2.00	2.11	
41 Isopropyl ether	45	7.956	7.978	-0.022	97	941717	2.00	2.25	
42 cis-1,2-Dichloroethene	96	8.215	8.214	0.001	95	238996	2.00	2.08	
43 Ethyl acetate	43	8.404	8.416	-0.012	97	622964	2.00	2.09	
44 Chloroform	83	8.560	8.560	0.000	96	515510	2.00	2.18	
45 Tert-butyl ethyl ether	59	8.646	8.665	-0.019	96	721045	2.00	2.07	
46 Tetrahydrofuran	42	8.964	8.988	-0.024	94	327339	2.00	2.20	
47 1,1,1-Trichloroethane	97	9.595	9.597	-0.002	95	557226	2.00	2.15	
48 1,2-Dichloroethane	62	9.709	9.715	-0.006	97	353401	2.00	2.20	
50 n-Butanol	31	10.178	10.195	-0.017	90	142474	2.00	2.23	
51 Cyclohexane	69	10.199	10.210	-0.011	76	113450	2.00	2.14	
49 Benzene	78	10.210	10.214	-0.004	96	743588	2.00	2.20	
52 Carbon tetrachloride	117	10.232	10.233	-0.001	96	598112	2.00	2.21	
53 2,3-Dimethylpentane	71	10.329	10.330	-0.001	92	154719	2.00	2.03	
54 Thiophene	84	10.491	10.499	-0.009	96	376935	2.00	2.20	
55 Isooctane	57	10.992	10.995	-0.003	98	1225374	2.00	2.17	
57 n-Heptane	71	11.386	11.387	-0.001	95	252526	2.00	2.14	
56 1,2-Dichloropropane	63	11.467	11.474	-0.007	89	279428	2.00	2.15	
58 Trichloroethene	130	11.504	11.509	-0.005	96	314349	2.00	2.12	
59 Dibromomethane	93	11.596	11.595	0.001	95	303422	2.00	2.20	
60 Dichlorobromomethane	83	11.747	11.746	0.001	98	544985	2.00	2.18	
61 1,4-Dioxane	88	11.763	11.781	-0.018	97	115096	2.00	2.22	
62 Methyl methacrylate	41	11.844	11.850	-0.006	90	391081	2.00	2.11	
63 Methylcyclohexane	83	12.286	12.288	-0.002	93	511159	2.00	2.63	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.718	-0.011	97	707381	2.00	2.14	
65 cis-1,3-Dichloropropene	75	12.766	12.771	-0.005	98	441227	2.00	2.26	
66 trans-1,3-Dichloropropene	75	13.472	13.476	-0.004	97	415560	2.00	2.34	
67 Toluene	91	13.591	13.593	-0.002	93	854006	2.00	2.32	
68 1,1,2-Trichloroethane	83	13.672	13.674	-0.002	98	259635	2.00	2.28	
69 2-Hexanone	58	14.055	14.066	-0.011	90	322895	2.00	2.37	
71 n-Octane	85	14.287	14.288	-0.001	98	269357	2.00	2.24	
70 Chlorodibromomethane	129	14.378	14.379	-0.001	98	584492	2.00	2.31	
72 Ethylene Dibromide	107	14.670	14.674	-0.004	98	498804	2.00	2.28	
73 Tetrachloroethene	129	14.745	14.743	0.002	94	323404	2.00	2.15	
74 Chlorobenzene	112	15.624	15.625	-0.001	93	692514	2.00	2.27	
75 2,3-Dimethylheptane	43	15.640	15.642	-0.002	95	937319	2.00	2.05	
76 Ethylbenzene	91	15.910	15.914	-0.004	98	1169380	2.00	2.27	
77 m-Xylene & p-Xylene	91	16.077	16.074	0.003	98	1874676	4.00	4.63	
81 n-Nonane	57	16.492	16.494	-0.002	96	612738	2.00	2.31	
78 Bromoform	173	16.525	16.525	0.000	97	583215	2.00	2.58	
79 Styrene	104	16.541	16.543	-0.002	98	653467	2.00	2.34	
80 o-Xylene	91	16.600	16.602	-0.002	98	946514	2.00	2.23	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.930	-0.001	98	699256	2.00	2.34	
83 1,2,3-Trichloropropane	110	17.085	17.086	-0.001	95	220875	2.00	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	1412873	2.00	2.24	
85 N-Propylbenzene	120	17.743	17.745	-0.002	99	368693	2.00	2.30	
86 2-Chlorotoluene	126	17.792	17.786	0.006	98	353641	2.00	2.31	
88 4-Ethyltoluene	105	17.900	17.902	-0.002	99	1357626	2.00	2.16	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	91	609824	2.00	2.54	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	89	535601	2.00	2.33	
90 n-Decane	57	18.277	18.280	-0.003	87	825560	2.00	2.26	
91 tert-Butylbenzene	119	18.423	18.424	-0.001	92	1246898	2.00	2.23	
92 1,2,4-Trimethylbenzene	105	18.439	18.436	0.003	96	1263074	2.00	2.27	
94 sec-Butylbenzene	105	18.703	18.702	0.001	99	1840044	2.00	2.31	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	98	800949	2.00	2.12	
96 Benzyl chloride	91	18.795	18.796	-0.001	98	1061175	2.00	2.45	
95 1,4-Dichlorobenzene	146	18.811	18.810	0.001	94	817135	2.00	2.19	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1429517	2.00	2.22	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	899194	2.00	1.65	
99 Butylcyclohexane	83	18.978	18.981	-0.003	92	883622	2.00	2.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	1109919	2.00	2.24	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	82	801739	2.00	2.18	
102 Indene	116	19.312	19.314	-0.002	89	859159	2.00	1.92	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1500703	2.00	2.26	
104 Undecane	57	19.636	19.638	-0.002	95	977429	2.00	2.27	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.802	0.001	96	345164	2.00	1.91	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	97	1325179	2.00	2.14	
107 Dodecane	57	20.714	20.714	0.000	92	959397	2.00	2.29	
108 1,2,4-Trichlorobenzene	180	20.919	20.920	-0.001	94	749549	2.00	2.13	
109 Naphthalene	128	21.065	21.064	0.001	99	1577721	2.00	2.17	
110 Hexachlorobutadiene	225	21.281	21.284	-0.003	95	742725	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	727565	2.00	2.24	
112 2-Methylnaphthalene	142	22.019	22.019	0.000	98	619722	2.00	2.97	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	98	585758	2.00	2.92	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	2869701	2.00	2.19	
S 116 Xylenes, Total	100				0		6.00	6.86	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.29	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

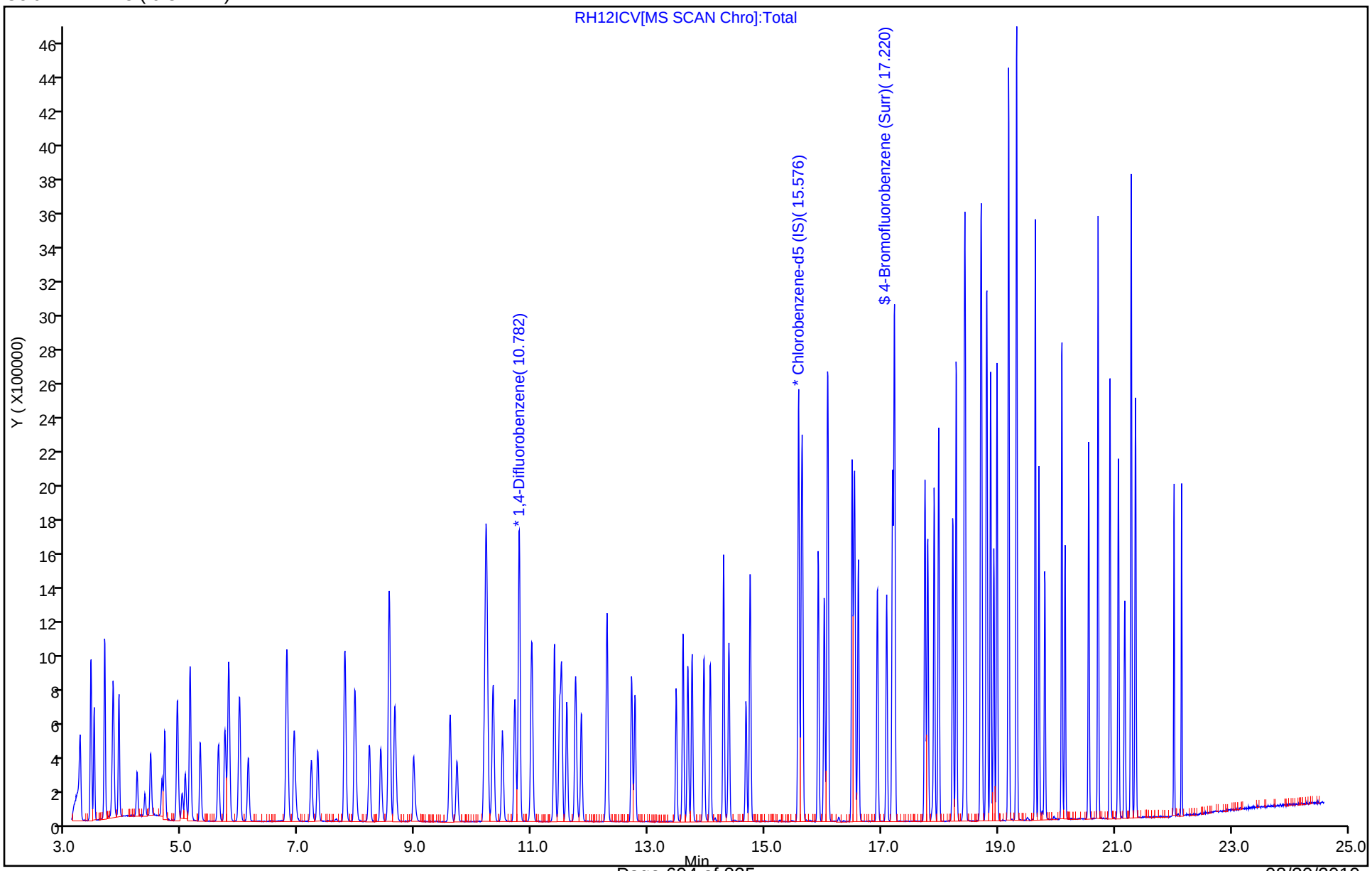
Report Date: 15-Aug-2019 12:53:25 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12ICV.D

Injection Date:	13-Aug-2019 00:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

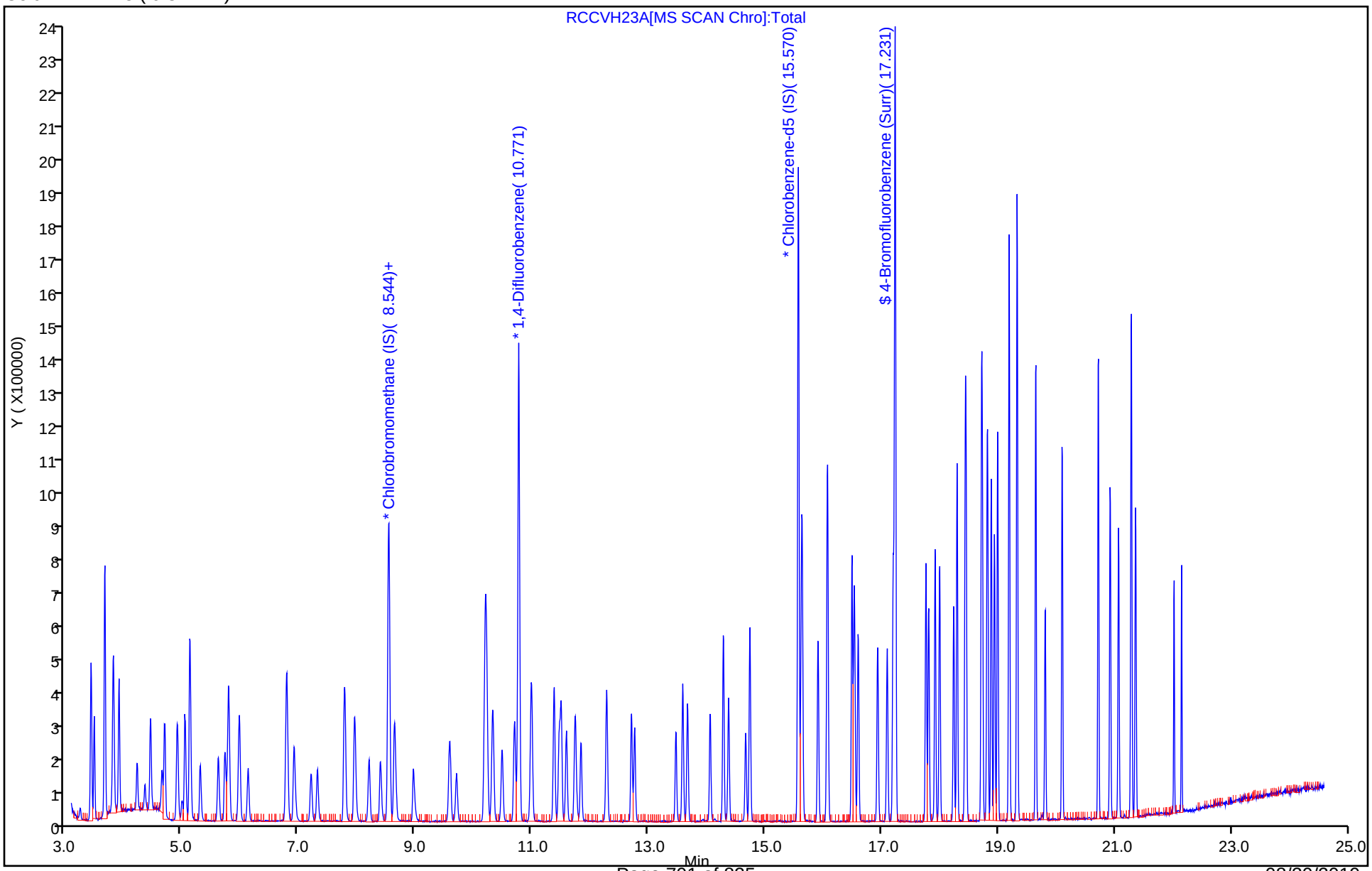
Report Date: 26-Aug-2019 13:54:07 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A.D

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	19-Jul-2019 19:07:30	ALS Bottle#:	16	Worklist Smp#:	2
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012415-002				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	24-Jul-2019 11:38:27	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: barlozhetskayaa		Date:	19-Jul-2019 19:39:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.306	4.306	0.000	0	828399	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

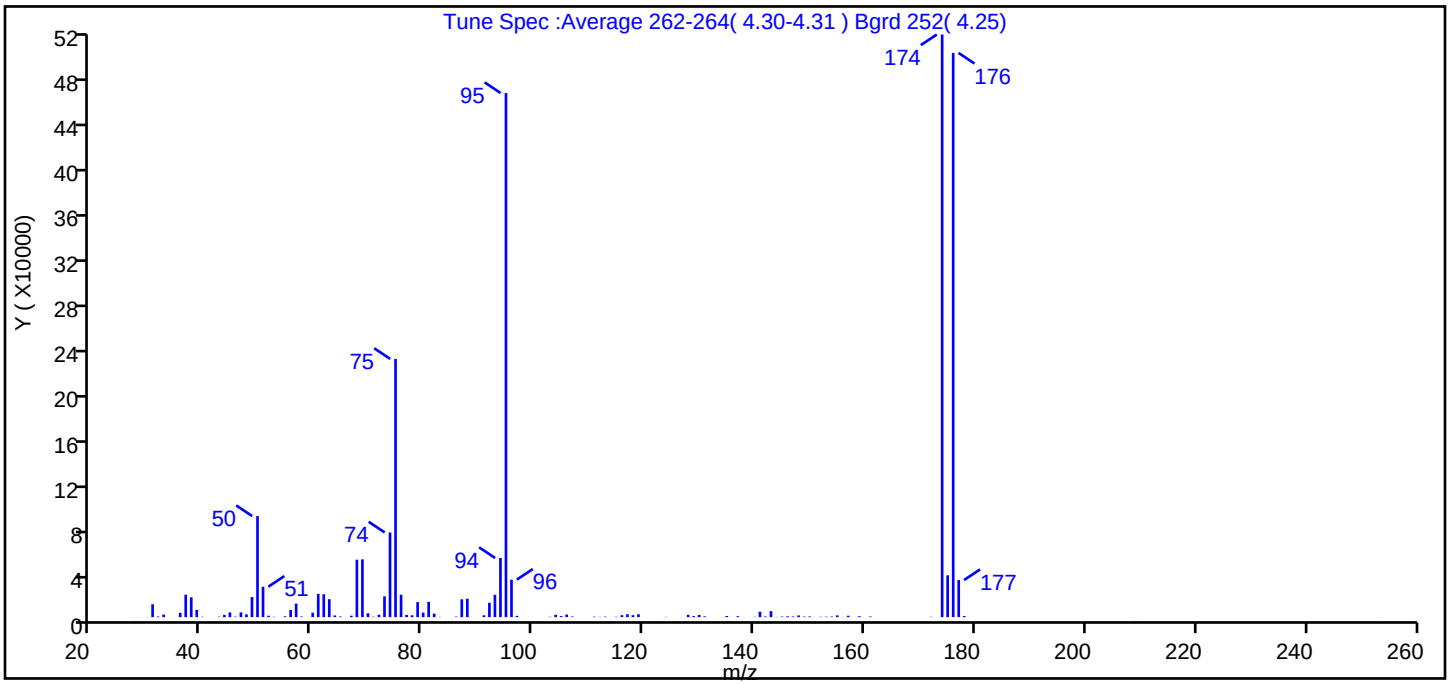
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D
Injection Date: 19-Jul-2019 19:07:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 2
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.3
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	111.2
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (96.8)
177	5 to 9% of m/z 176	7.1 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D\MJ_TO15.rslt\spectra.d
Injection Date: 19-Jul-2019 19:07:30
Spectrum: Tune Spec :Average 262-264(4.30-4.31) Bgrd 252(4.25)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	136	61.00	20664	93.00	19888	142.00	589
29.00	33	62.00	20344	94.00	52616	143.00	5335
30.00	124	63.00	15980	95.00	466240	144.00	128
31.00	11442	64.00	1511	96.00	33360	145.00	519
32.00	551	65.00	548	97.00	1139	146.00	752
33.00	2289	67.00	1272	103.00	298	147.00	574
36.00	3821	68.00	51096	104.00	2073	148.00	1517
37.00	19992	69.00	51384	105.00	928	149.00	484
38.00	17656	70.00	3470	106.00	2342	150.00	613
39.00	6478	71.00	354	107.00	574	152.00	331
40.00	335	72.00	2145	111.00	415	153.00	436
43.00	347	73.00	18504	112.00	206	154.00	525
44.00	2006	74.00	75344	113.00	447	155.00	1569
45.00	4220	75.00	229696	115.00	350	156.00	116
46.00	421	76.00	19944	116.00	1745	157.00	1286
47.00	4244	77.00	2052	117.00	2600	159.00	779
48.00	2466	78.00	1644	118.00	1746	161.00	584
49.00	17832	79.00	13400	119.00	2613	172.00	287
50.00	89920	80.00	4033	124.00	216	174.00	518336
51.00	27072	81.00	13591	128.00	2051	175.00	37224
52.00	1237	82.00	3133	129.00	948	176.00	501952
53.00	303	83.00	224	130.00	1963	177.00	32984
55.00	757	86.00	469	131.00	670	178.00	989
56.00	6316	87.00	15895	135.00	1018	209.00	101
57.00	12036	88.00	16370	137.00	844	253.00	64
58.00	555	91.00	1643	140.00	248		
60.00	3991	92.00	12801	141.00	4852		

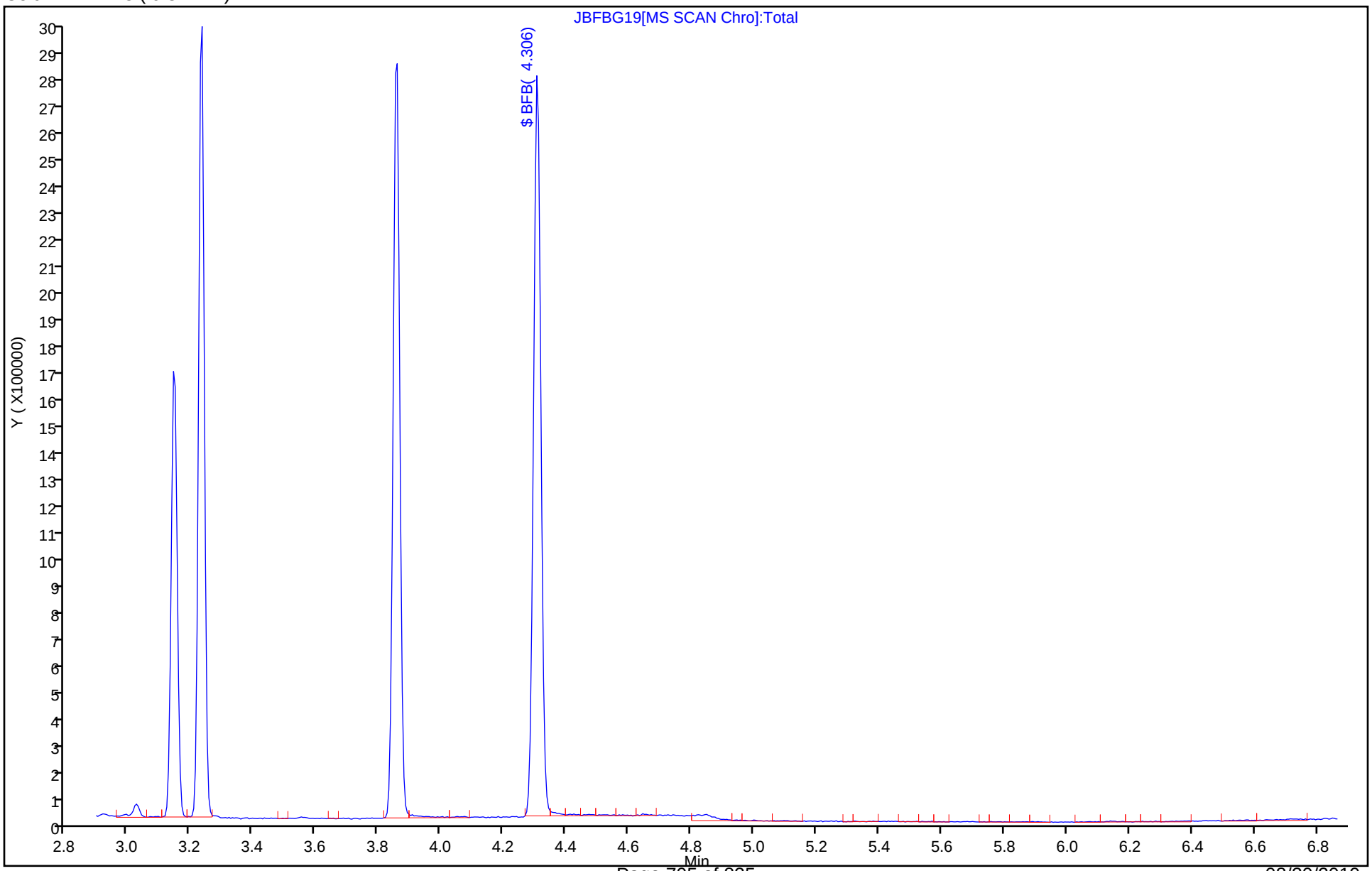
Report Date: 24-Jul-2019 11:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JBFBG19.D

Injection Date:	19-Jul-2019 19:07:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-Aug-2019 08:38:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:13:06 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:13:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.319	4.319	0.000	0	839138	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

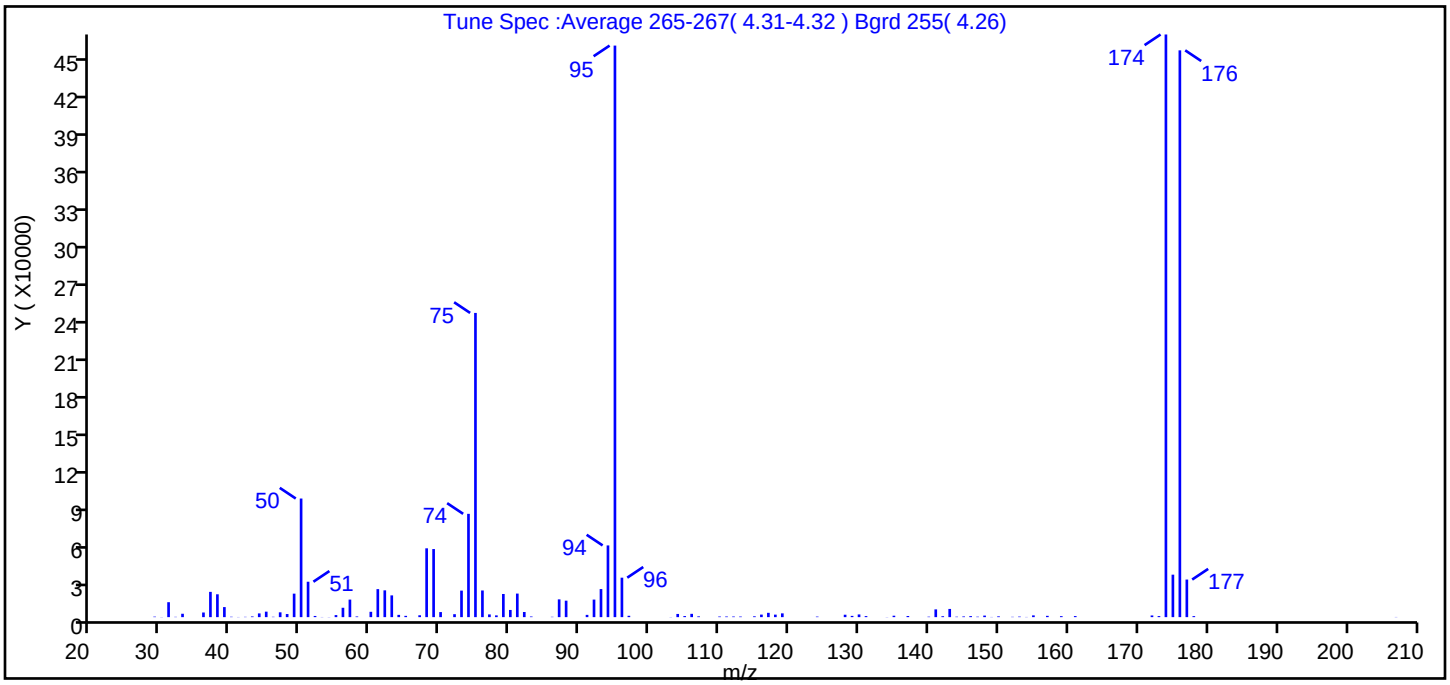
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D
Injection Date: 20-Aug-2019 08:38:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.8
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	101.9
175	5 to 9% of m/z 174	7.4 (7.3)
176	Greater than 95% but less than 101% of m/z 174	99.2 (97.3)
177	5 to 9% of m/z 176	6.6 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D\MJ_TO15.rslt\spectra.d
Injection Date: 20-Aug-2019 08:38:30
Spectrum: Tune Spec :Average 265-267(4.31-4.32) Bgrd 255(4.26)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	394	58.00	540	92.00	13949	137.00	895
30.00	113	60.00	4245	93.00	22304	140.00	367
31.00	11872	61.00	22264	94.00	56984	141.00	6167
32.00	239	62.00	21296	95.00	454144	142.00	728
33.00	2695	63.00	17288	96.00	31360	143.00	6521
36.00	3691	64.00	1805	97.00	1081	144.00	354
37.00	20080	65.00	1031	103.00	113	145.00	557
38.00	18160	67.00	1482	104.00	2544	146.00	824
39.00	7990	68.00	54688	105.00	852	147.00	363
40.00	310	69.00	54104	106.00	2632	148.00	1236
41.00	129	70.00	4028	107.00	608	149.00	144
42.00	243	72.00	2350	110.00	500	150.00	620
43.00	548	73.00	21088	111.00	512	152.00	251
44.00	2965	74.00	82088	112.00	499	153.00	439
45.00	4366	75.00	241728	113.00	467	154.00	152
46.00	284	76.00	21192	115.00	666	155.00	1398
47.00	3830	77.00	2179	116.00	2028	157.00	1035
48.00	2467	78.00	1403	117.00	3431	159.00	774
49.00	18672	79.00	18400	118.00	1994	161.00	853
50.00	94248	80.00	5711	119.00	3008	172.00	1329
51.00	28136	81.00	18720	124.00	439	173.00	850
52.00	943	82.00	4083	128.00	1925	174.00	462976
53.00	126	83.00	509	129.00	1001	175.00	33752
54.00	115	86.00	265	130.00	2144	176.00	450368
55.00	1625	87.00	14126	131.00	843	177.00	29864
56.00	7451	88.00	13085	134.00	109	178.00	804
57.00	13945	91.00	1807	135.00	1137	207.00	142

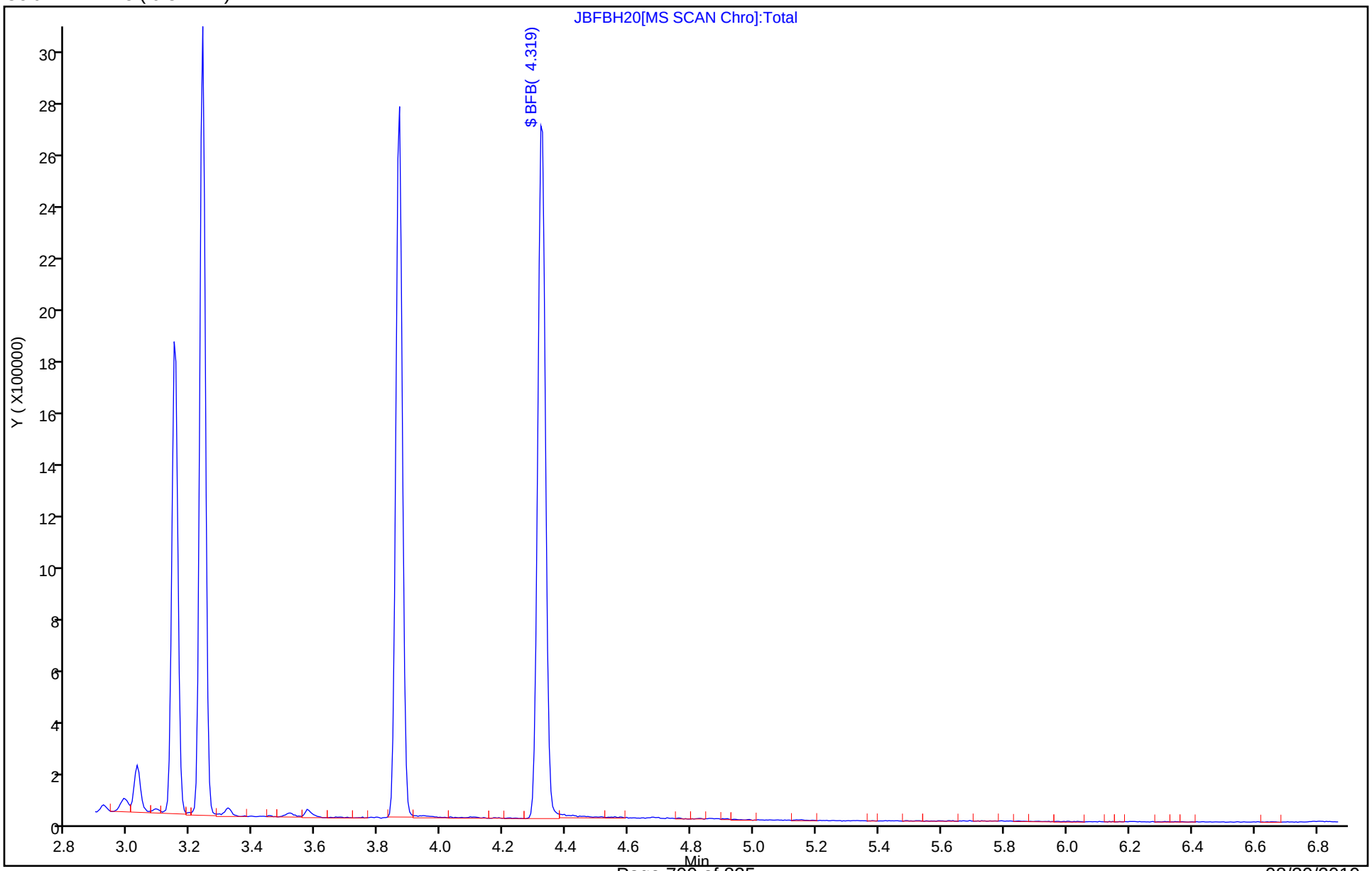
Report Date: 21-Aug-2019 12:13:06 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JBFBH20.D

Injection Date:	20-Aug-2019 08:38:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Aug-2019 09:15:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:06:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	22-Aug-2019 11:06:11		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.330	4.330	0.000	0	691629	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

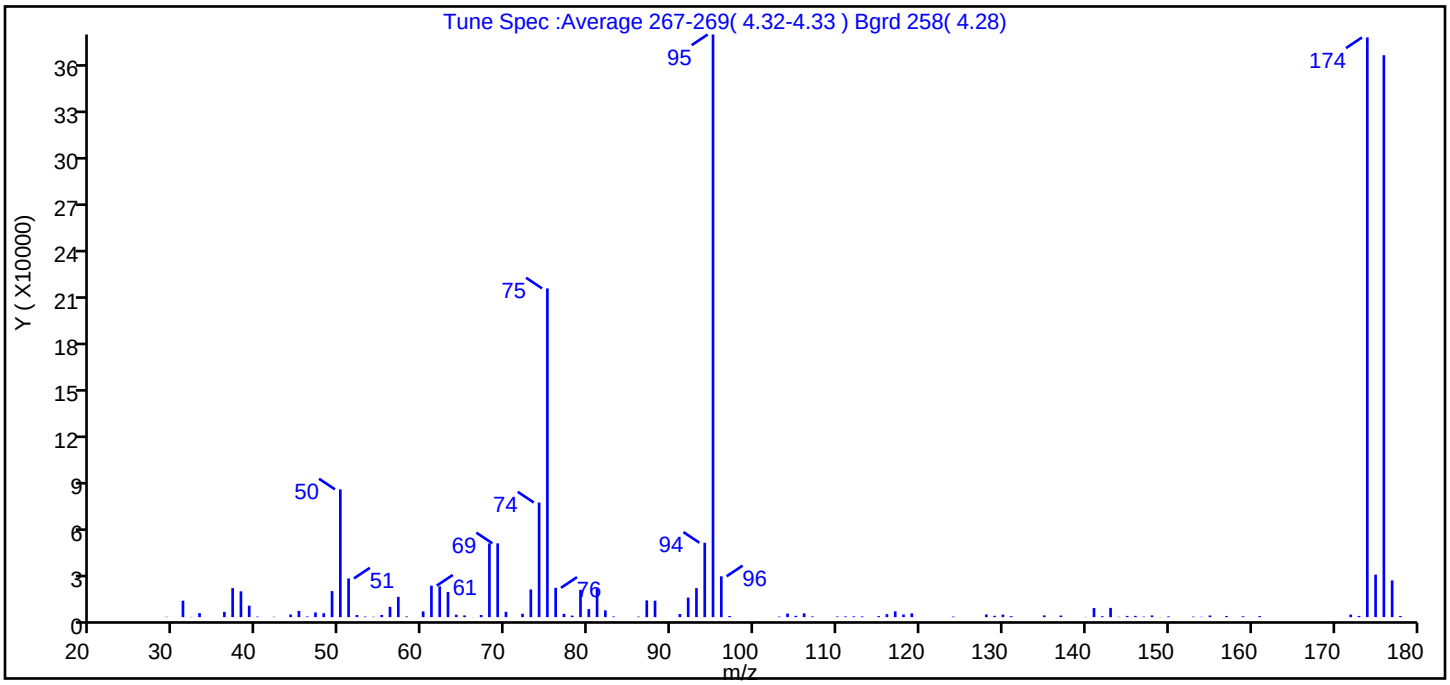
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D
Injection Date: 21-Aug-2019 09:15:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.9
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	99.5
175	5 to 9% of m/z 174	7.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	96.4 (96.9)
177	5 to 9% of m/z 176	6.3 (6.5)

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D\MJ_TO15.rslt\spectra.d
Injection Date: 21-Aug-2019 09:15:30
Spectrum: Tune Spec :Average 267-269(4.32-4.33) Bgrd 258(4.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	219	61.00	20424	92.00	12675	137.00	1048
31.00	10677	62.00	19944	93.00	18808	140.00	147
32.00	161	63.00	16285	94.00	48232	141.00	5882
33.00	2612	64.00	1567	95.00	377728	142.00	617
36.00	3432	65.00	1131	96.00	26488	143.00	5993
37.00	18848	66.00	101	97.00	779	144.00	223
38.00	16736	67.00	1378	103.00	349	145.00	790
39.00	7436	68.00	47776	104.00	2297	146.00	850
40.00	357	69.00	47856	105.00	872	147.00	352
42.00	239	70.00	3446	106.00	2480	148.00	1132
44.00	1736	72.00	2182	107.00	469	149.00	116
45.00	4065	73.00	17960	110.00	438	150.00	487
46.00	440	74.00	74312	111.00	488	153.00	361
47.00	3056	75.00	213120	112.00	501	154.00	221
48.00	2518	76.00	19008	113.00	491	155.00	1071
49.00	16896	77.00	2159	115.00	666	157.00	771
50.00	82832	78.00	995	116.00	1929	159.00	570
51.00	25096	79.00	17688	117.00	3766	161.00	660
52.00	1384	80.00	5209	118.00	1714	172.00	1667
53.00	407	81.00	18216	119.00	2466	173.00	770
54.00	246	82.00	4392	124.00	391	174.00	375808
55.00	1414	83.00	445	128.00	1733	175.00	27528
56.00	6701	86.00	341	129.00	869	176.00	364288
57.00	13140	87.00	10867	130.00	1649	177.00	23824
58.00	461	88.00	10681	131.00	623	178.00	717
60.00	3739	91.00	2039	135.00	1129		

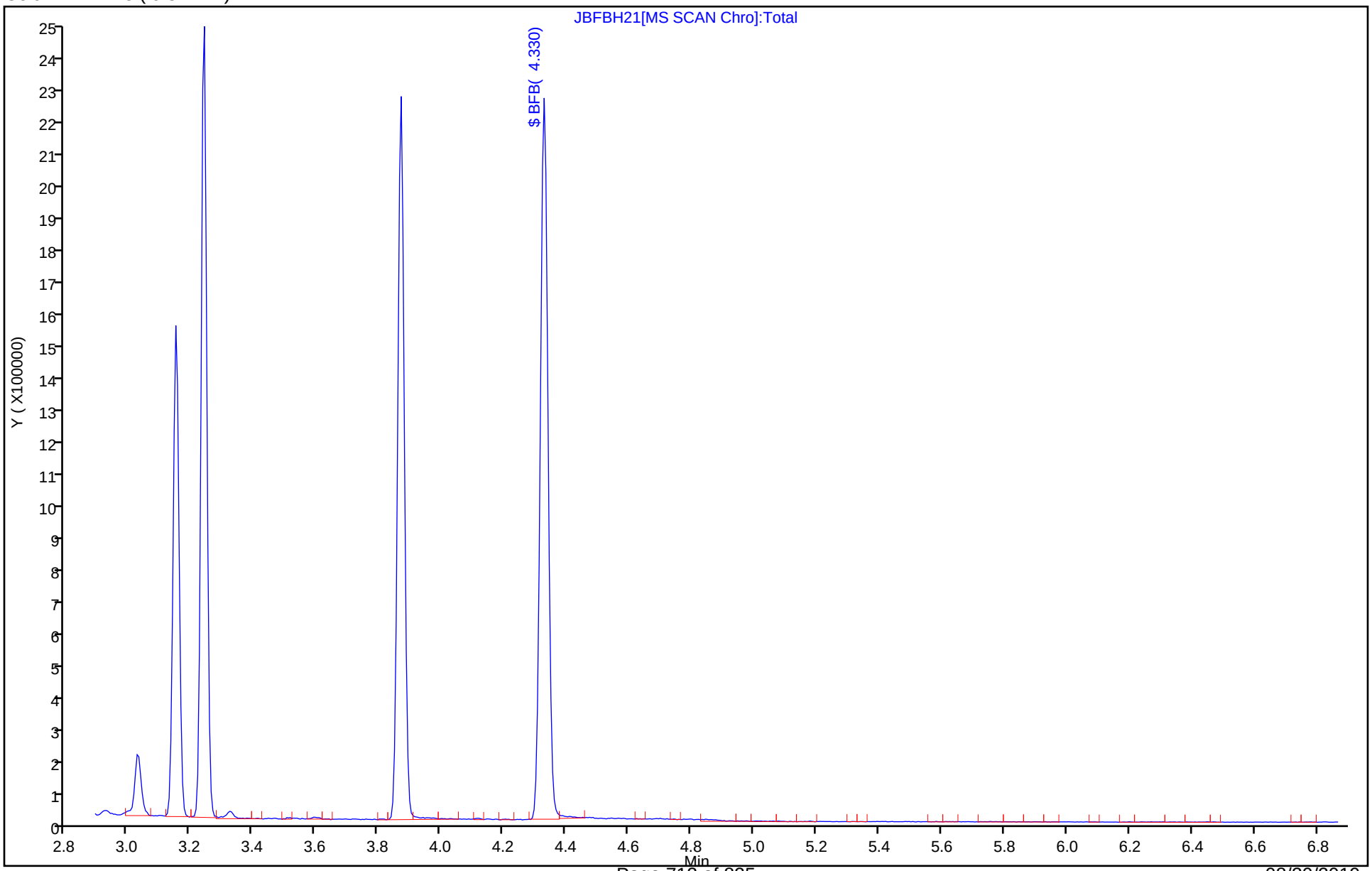
Report Date: 22-Aug-2019 11:06:11 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JBFBH21.D

Injection Date:	21-Aug-2019 09:15:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Aug-2019 07:42:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012855-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:38:37	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: khachitpongpanits		Date:	28-Aug-2019 10:38:37		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.298	4.298	0.000	0	755903	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

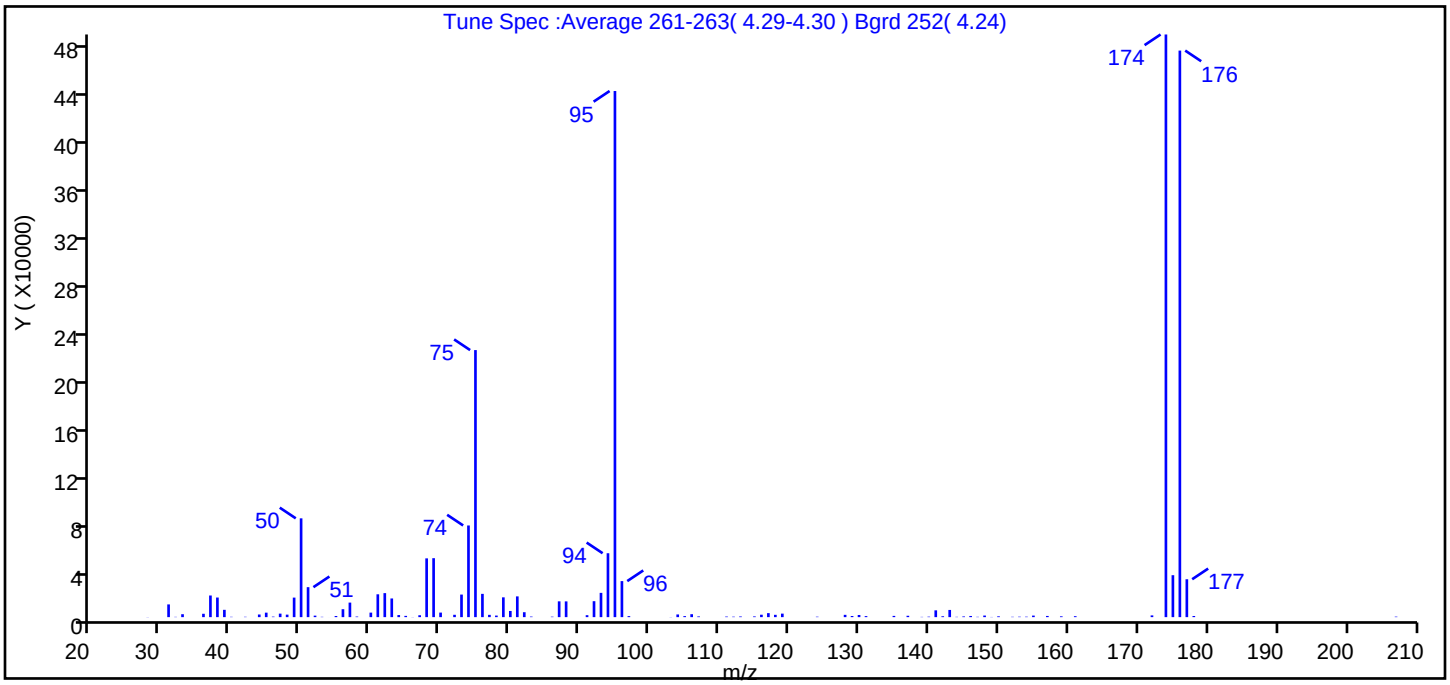
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D
Injection Date: 27-Aug-2019 07:42:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	50.8
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	110.7
175	5 to 9% of m/z 174	8.0 (7.2)
176	Greater than 95% but less than 101% of m/z 174	107.7 (97.2)
177	5 to 9% of m/z 176	7.2 (6.7)

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D\MJ_TO15.rslt\spectra.d
Injection Date: 27-Aug-2019 07:42:30
Spectrum: Tune Spec :Average 261-263(4.29-4.30) Bgrd 252(4.24)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	101	61.00	18880	92.00	13183	139.00	215
31.00	10517	62.00	19848	93.00	20064	140.00	400
32.00	237	63.00	15438	94.00	52808	141.00	5622
33.00	2428	64.00	1715	95.00	434752	142.00	728
36.00	2785	65.00	1050	96.00	29776	143.00	5953
37.00	17880	66.00	103	97.00	845	144.00	256
38.00	16206	67.00	1562	103.00	107	145.00	580
39.00	6046	68.00	48568	104.00	2221	146.00	966
40.00	275	69.00	48720	105.00	849	147.00	265
42.00	291	70.00	3761	106.00	2435	148.00	1318
44.00	2184	72.00	1943	107.00	580	149.00	151
45.00	3709	73.00	18656	111.00	486	150.00	665
46.00	427	74.00	75752	112.00	387	152.00	286
47.00	2907	75.00	220672	113.00	551	153.00	378
48.00	2070	76.00	19240	115.00	606	154.00	381
49.00	16146	77.00	1901	116.00	2010	155.00	1282
50.00	81648	78.00	1305	117.00	3313	157.00	986
51.00	24768	79.00	16366	118.00	1921	159.00	670
52.00	1240	80.00	5101	119.00	2912	161.00	782
53.00	262	81.00	17152	124.00	370	172.00	1445
54.00	15	82.00	4075	128.00	1907	174.00	481472
55.00	938	83.00	468	129.00	934	175.00	34664
56.00	6558	86.00	384	130.00	1783	176.00	468160
57.00	12018	87.00	13061	131.00	872	177.00	31312
58.00	488	88.00	13026	135.00	1032	178.00	932
60.00	3733	91.00	1618	137.00	1134	207.00	416

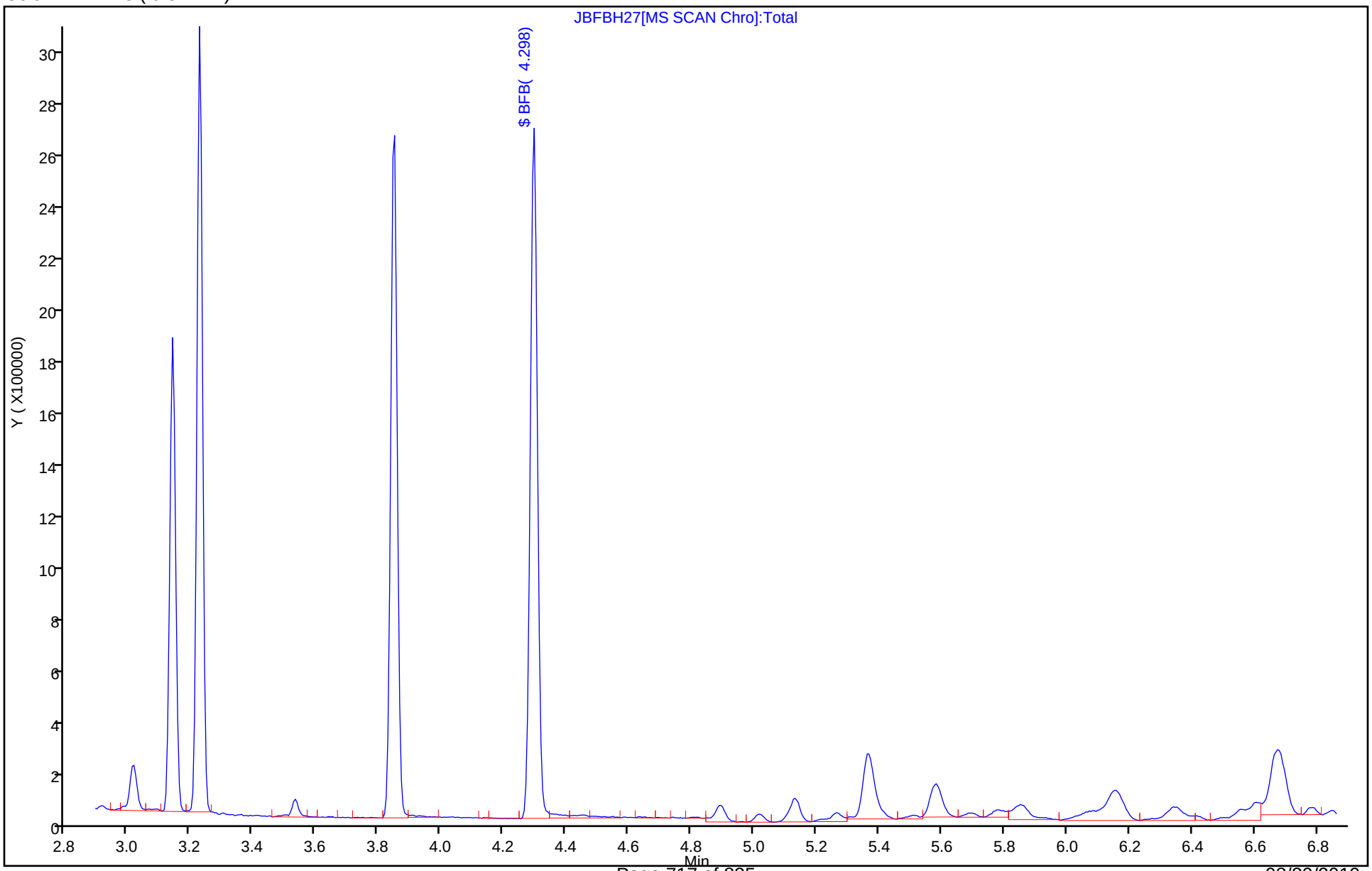
Report Date: 28-Aug-2019 10:38:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JBFBH27.D

Injection Date:	27-Aug-2019 07:42:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Aug-2019 13:04:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012700-001
Misc. Info.: BFB
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Aug-2019 10:42:21 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 13-Aug-2019 08:29:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.124	6.124	0.000	0	861667	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

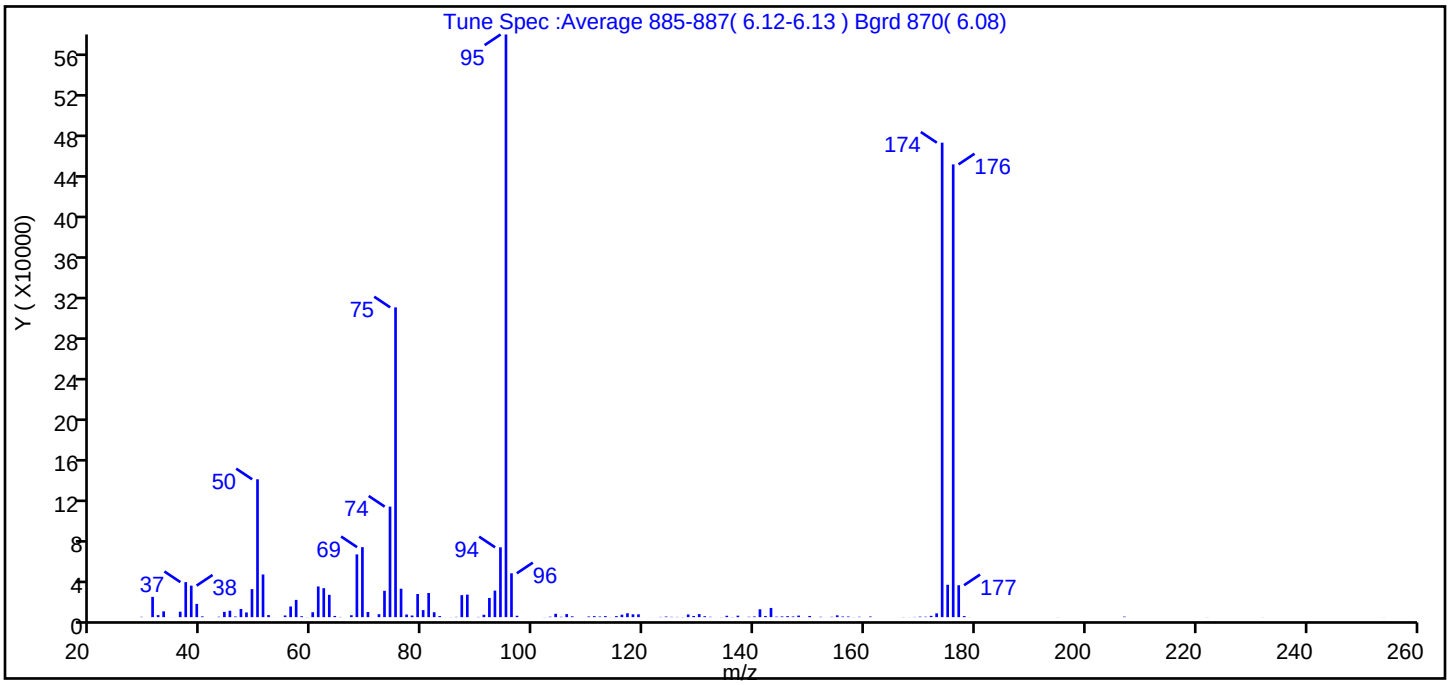
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D
Injection Date: 12-Aug-2019 13:04:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.7
75	30 to 60% of m/z 95	53.2
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.7 (0.8)
174	50 to 120% of m/z 95	81.4
175	5 to 9% of m/z 174	5.6 (6.8)
176	Greater than 95% but less than 101% of m/z 174	77.7 (95.4)
177	5 to 9% of m/z 176	5.5 (7.0)

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	314	67.00	1865	107.00	807	146.00	967
31.00	19936	68.00	61744	110.00	659	147.00	651
32.00	1974	69.00	68888	111.00	971	148.00	1520
33.00	5717	70.00	5076	112.00	604	149.00	48
34.00	38	72.00	2904	113.00	1020	150.00	1173
35.00	51	73.00	25936	114.00	71	152.00	361
36.00	5387	74.00	108784	115.00	1038	153.00	41
37.00	34456	75.00	304896	116.00	2434	154.00	351
38.00	31016	76.00	28008	117.00	3832	155.00	1782
39.00	13052	77.00	2595	118.00	2790	156.00	605
40.00	759	78.00	1581	119.00	2773	157.00	617
43.00	402	79.00	22768	121.00	48	158.00	99
44.00	5203	80.00	6953	123.00	234	159.00	371
45.00	6314	81.00	23760	124.00	596	161.00	619
46.00	658	82.00	4804	125.00	296	166.00	41
47.00	8049	83.00	1058	126.00	229	167.00	131
48.00	4635	84.00	62	127.00	144	168.00	90
49.00	27576	85.00	111	128.00	2630	169.00	215
50.00	135680	86.00	272	129.00	1132	170.00	531
51.00	42000	87.00	21680	130.00	2976	171.00	447
52.00	2022	88.00	22152	131.00	916	172.00	1277
53.00	50	90.00	235	132.00	346	173.00	3743
55.00	1631	91.00	2363	133.00	34	174.00	467008
56.00	10495	92.00	18880	134.00	105	175.00	31856
57.00	16984	93.00	26120	135.00	1369	176.00	445632
58.00	880	94.00	68728	136.00	142	177.00	31408
59.00	109	95.00	573504	137.00	1446	178.00	1058
60.00	4824	96.00	43160	139.00	367	179.00	61
61.00	30200	97.00	1360	140.00	691	195.00	95
62.00	28504	102.00	113	141.00	7746	207.00	531
63.00	21960	103.00	453	142.00	1157	222.00	104
64.00	1194	104.00	3311	143.00	9053	232.00	73
65.00	210	105.00	379	144.00	487	254.00	76

Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14
Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 13:04:30
Spectrum: Tune Spec :Average 885-887(6.12-6.13) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	37	106.00	3012	145.00	701		

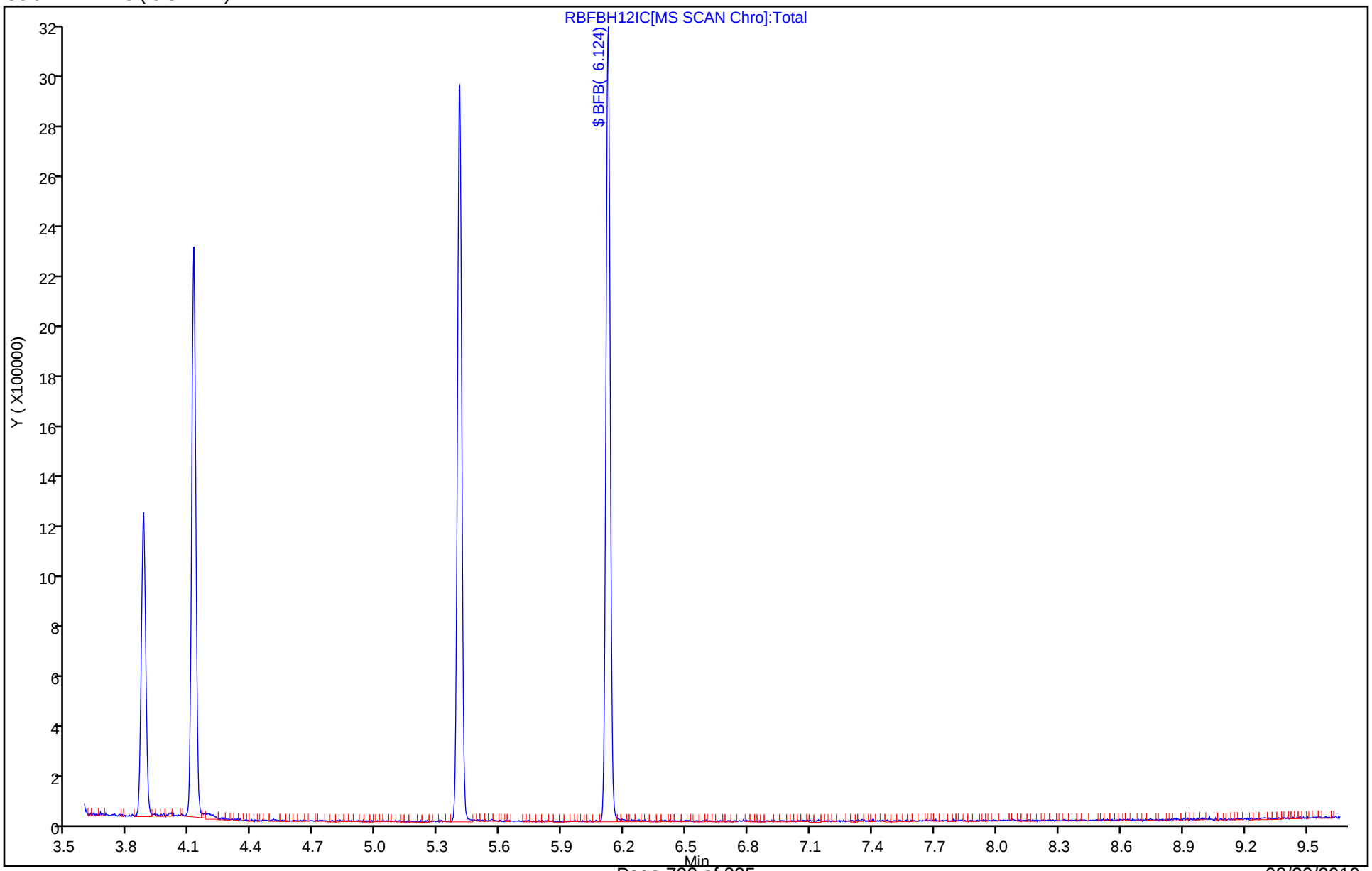
Report Date: 15-Aug-2019 10:42:22 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RBFBH12IC.D

Injection Date:	12-Aug-2019 13:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	23-Aug-2019 10:17:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:52:14	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:52:14		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.115	6.115	0.000	0	721026	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

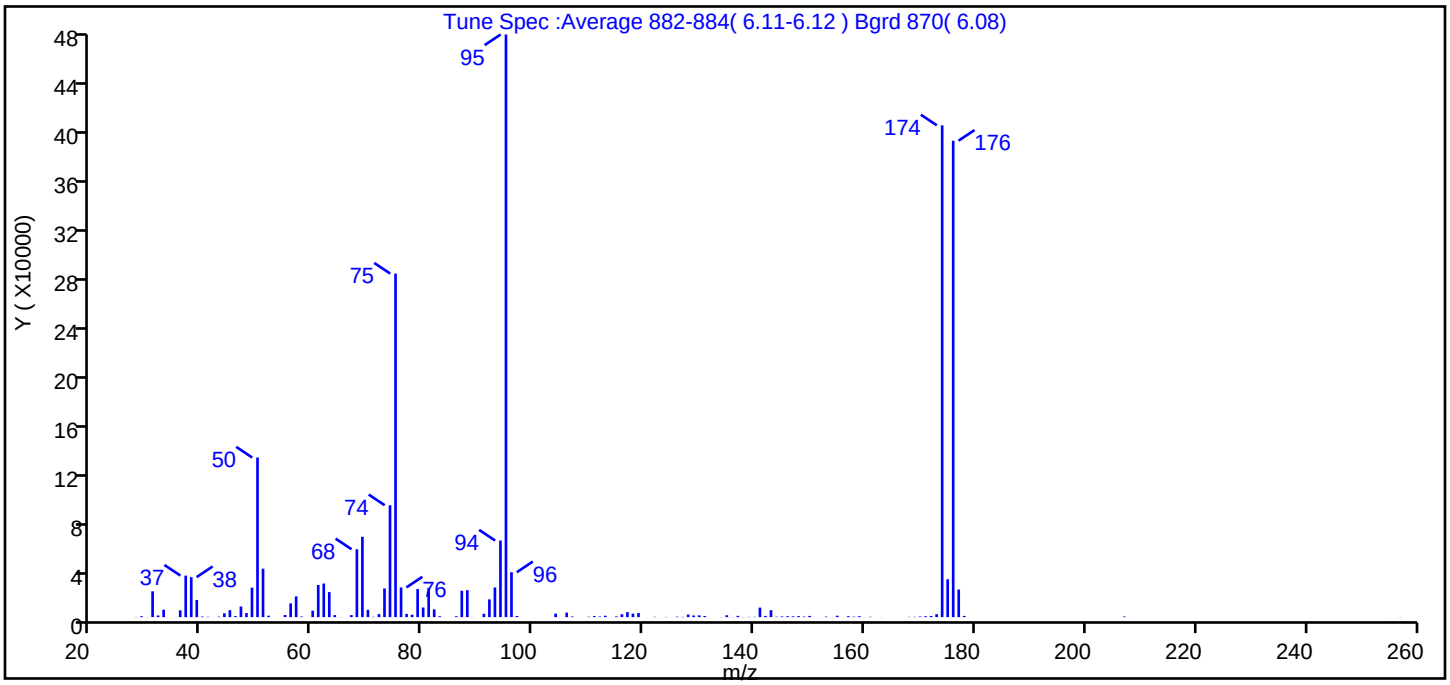
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D
Injection Date: 23-Aug-2019 10:17:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	27.4
75	30 to 60% of m/z 95	59.0
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	84.4
175	5 to 9% of m/z 174	6.5 (7.7)
176	Greater than 95% but less than 101% of m/z 174	81.8 (96.9)
177	5 to 9% of m/z 176	4.7 (5.8)

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D\MR_TO15.rslt\spectra.d
Injection Date: 23-Aug-2019 10:17:30
Spectrum: Tune Spec :Average 882-884(6.11-6.12) Bgrd 870(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	166	63.00	20416	104.00	2871	144.00	346
29.00	739	64.00	1653	106.00	3685	145.00	570
30.00	123	65.00	124	107.00	548	146.00	743
31.00	21048	67.00	1669	110.00	338	147.00	640
32.00	1358	68.00	55320	111.00	877	148.00	842
33.00	6070	69.00	65480	112.00	519	149.00	431
34.00	35	70.00	5960	113.00	1137	150.00	1000
36.00	5544	71.00	283	115.00	628	152.00	37
37.00	33856	72.00	2507	116.00	2371	153.00	467
38.00	32592	73.00	23400	117.00	4096	154.00	94
39.00	13957	74.00	91224	118.00	2868	155.00	1158
40.00	497	75.00	280000	119.00	3334	157.00	791
41.00	300	76.00	24208	122.00	278	158.00	413
43.00	386	77.00	2660	123.00	54	159.00	764
44.00	3136	78.00	1976	124.00	192	160.00	79
45.00	5717	79.00	22856	126.00	415	161.00	278
46.00	844	80.00	7857	127.00	238	163.00	63
47.00	8677	81.00	23808	128.00	2122	168.00	223
48.00	3330	82.00	6309	129.00	1374	169.00	258
49.00	24040	83.00	704	130.00	1481	170.00	547
50.00	130112	86.00	761	131.00	950	171.00	751
51.00	39496	87.00	21496	134.00	107	172.00	950
52.00	1187	88.00	21960	135.00	1556	173.00	2386
55.00	1736	89.00	74	136.00	97	174.00	400832
56.00	11214	91.00	2726	137.00	1079	175.00	30856
57.00	16896	92.00	14497	138.00	103	176.00	388288
58.00	500	93.00	24192	139.00	220	177.00	22496
59.00	10	94.00	62432	140.00	248	178.00	1000
60.00	5298	95.00	474880	141.00	7782	207.00	538
61.00	26208	96.00	36616	142.00	1019	255.00	43
62.00	27384	97.00	925	143.00	5665	257.00	131

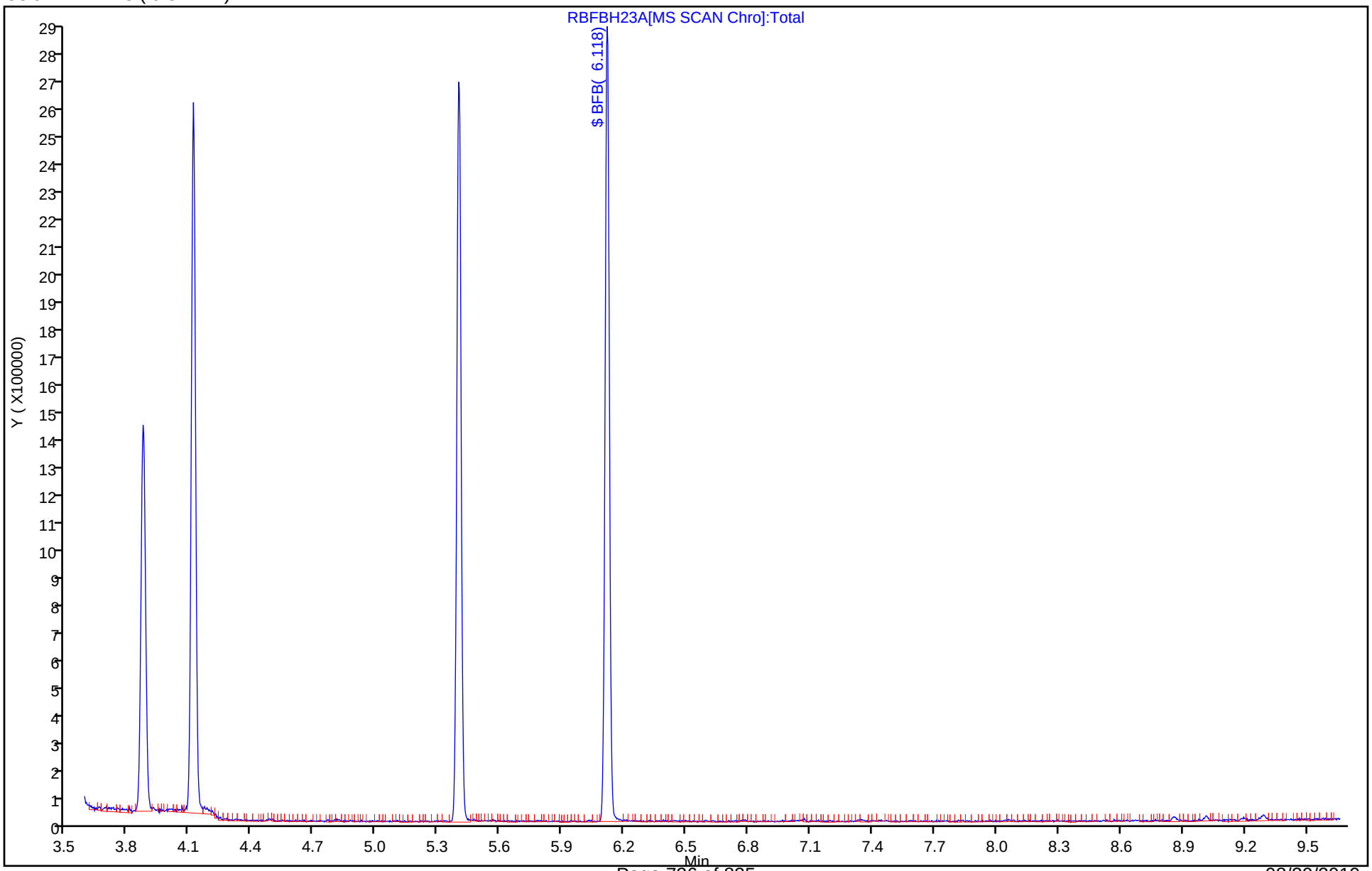
Report Date: 26-Aug-2019 13:52:15 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RBFBH23A.D

Injection Date:	23-Aug-2019 10:17:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-Aug-2019 10:41:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012792-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:15:28 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:15:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	-0.001	93	274886	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.833	11.839	-0.006	95	1397265	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.443	16.449	-0.006	88	1208366	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	783557	4.00	3.53	
20 Propene	41	4.168	4.168	0.000	98	21810		0.4008	
44 Methylene Chloride	84	7.062	7.062	0.000	98	15669		0.1515	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

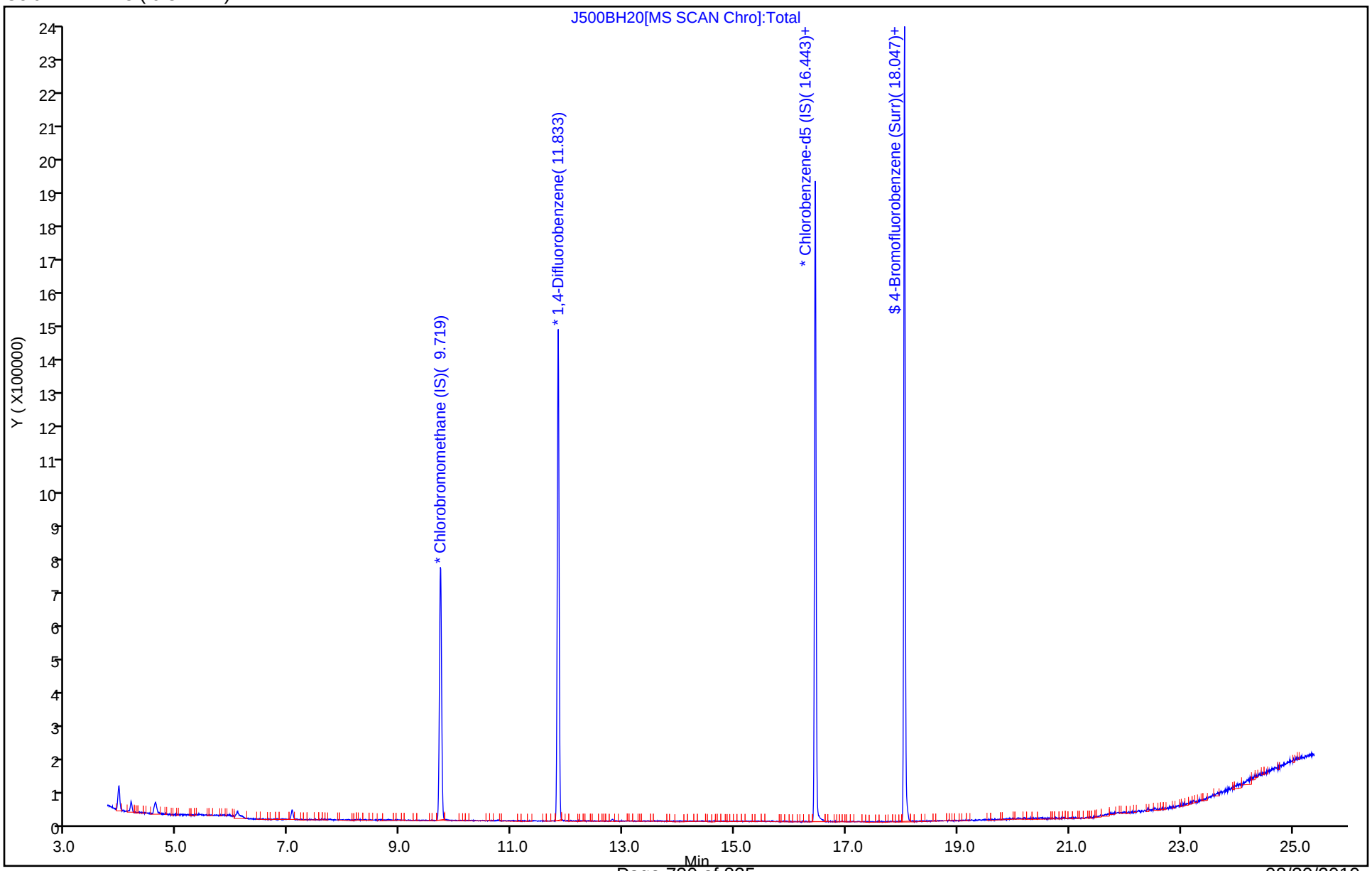
Report Date: 21-Aug-2019 12:15:30 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D

Injection Date:	20-Aug-2019 10:41:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\J500BH20.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-Aug-2019 10:41:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012792-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:15:28	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:15:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.53	88.21

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 21-Aug-2019 12:47:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:57 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.720	9.731	-0.011	93	253739	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.840	-0.006	95	1276524	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	88	1050767	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	95	635663	4.00	3.29	
20 Propene	41	4.163	4.174	-0.011	98	26573		0.5291	
44 Methylene Chloride	84	7.063	7.069	-0.006	97	16593		0.1738	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

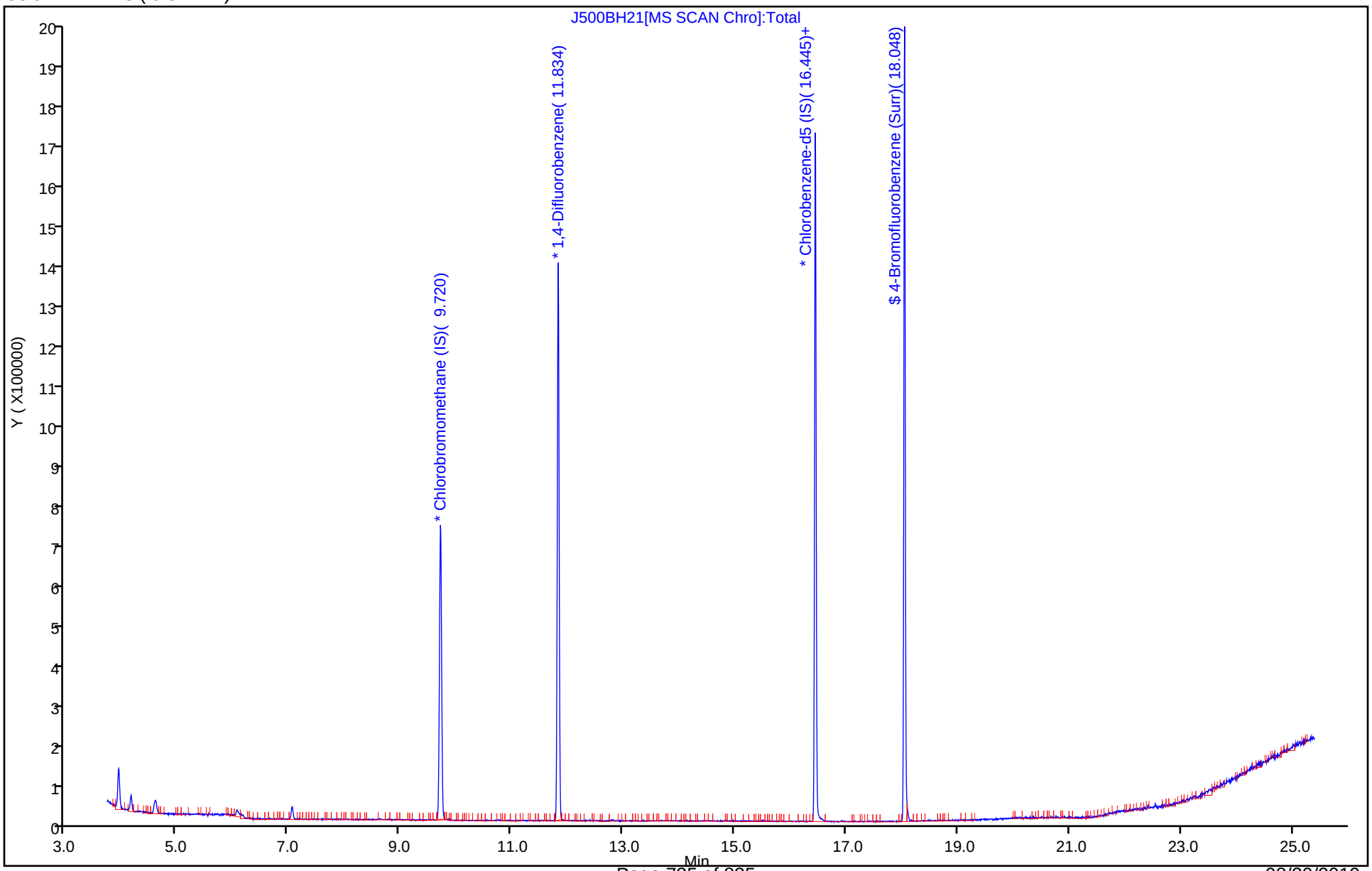
Report Date: 22-Aug-2019 11:07:58 Chrom Revision: 2.3 13-Aug-2019 08:14:14

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D

Injection Date:	21-Aug-2019 12:47:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Aug-2019 12:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:57	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

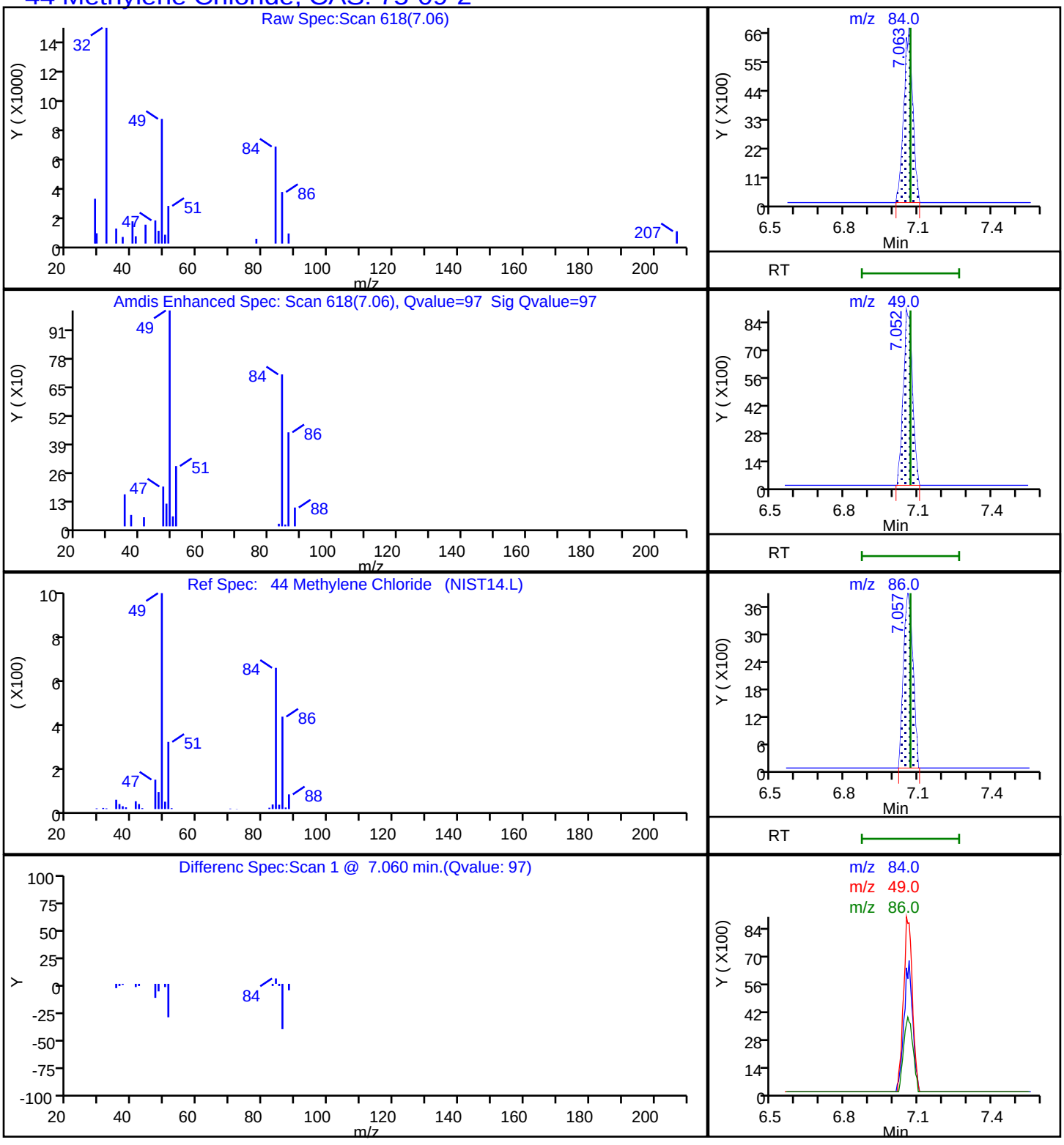
First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.29	82.29

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\J500BH21.D
Injection Date: 21-Aug-2019 12:47:30 Instrument ID: MJ
Lims ID: mb
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 23-Aug-2019 12:46:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:48 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	229492	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1275766	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1067734	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	94	642612	4.00	3.49	
7 Propene	41	3.437	3.437	0.000	95	23523		0.2162	7
31 Methylene Chloride	84	5.961	5.966	-0.005	96	12969		0.1599	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

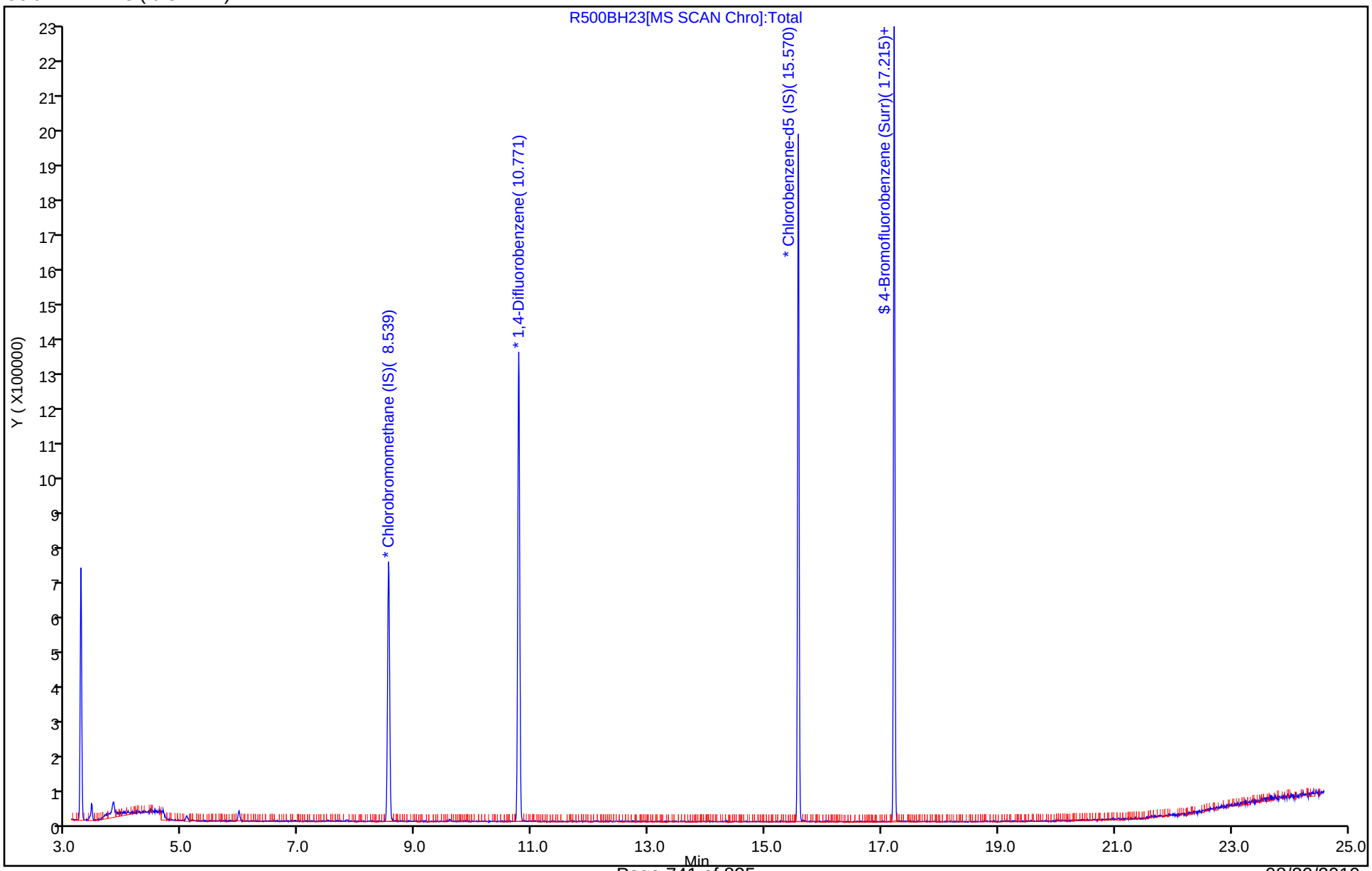
Report Date: 26-Aug-2019 13:54:49 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D

Injection Date:	23-Aug-2019 12:46:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

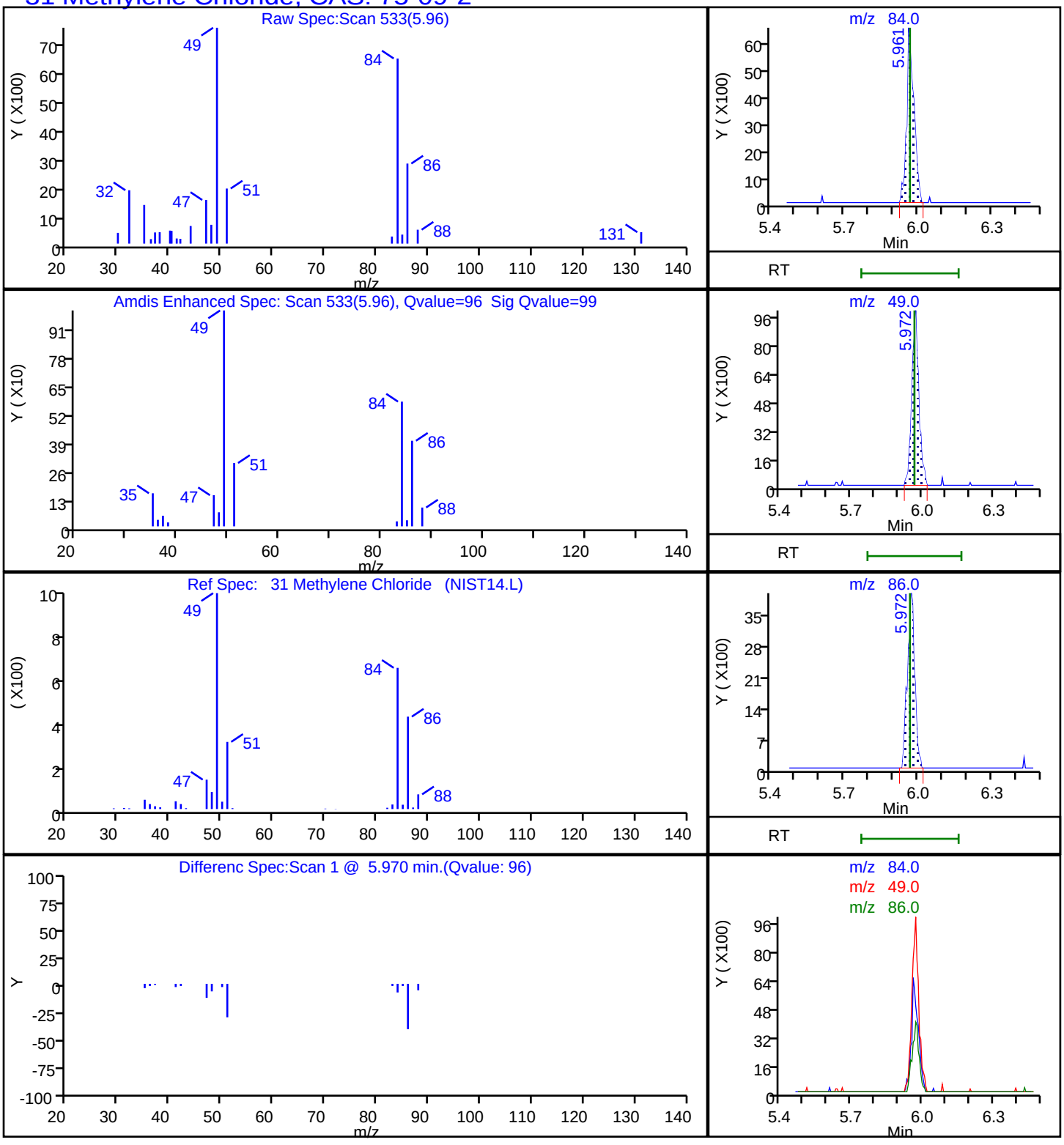
Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-Aug-2019 12:46:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:48	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 13:54:48		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.49	87.27

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\R500BH23.D
Injection Date: 23-Aug-2019 12:46:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Aug-2019 10:12:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012866-004
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:40:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:40:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.723	9.725	-0.002	93	259379	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.834	-0.002	95	1342867	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.447	16.444	0.003	87	1080755	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.047	-0.002	96	675619	4.00	3.40	
20 Propene	41	4.166	4.168	-0.002	99	18865		0.3674	
44 Methylene Chloride	84	7.066	7.062	0.004	98	29735		0.3047	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

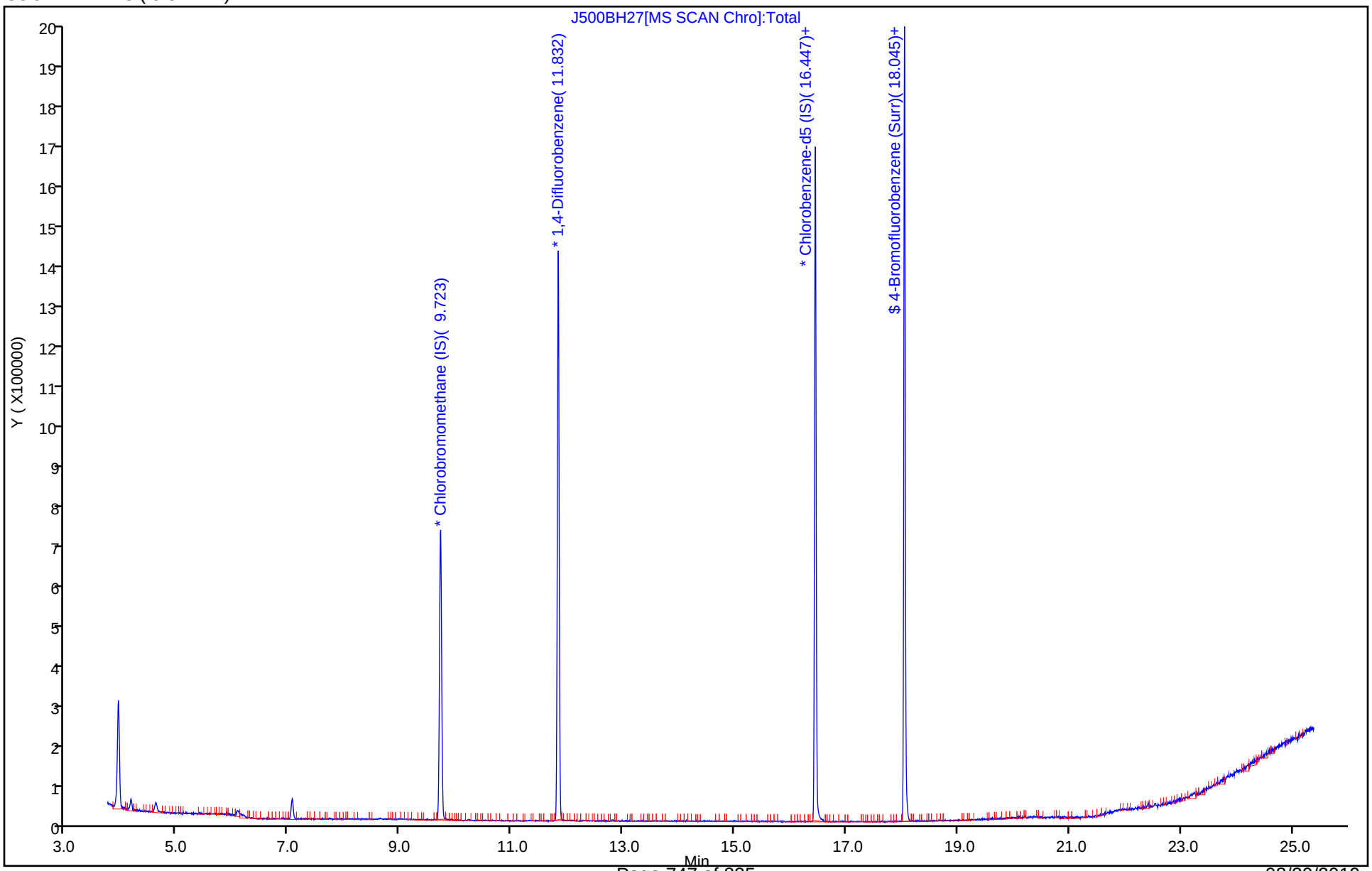
Report Date: 28-Aug-2019 10:40:31 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D

Injection Date:	27-Aug-2019 10:12:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	27-Aug-2019 10:12:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012866-004				
Misc. Info.:	500ML BLK				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:40:29	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

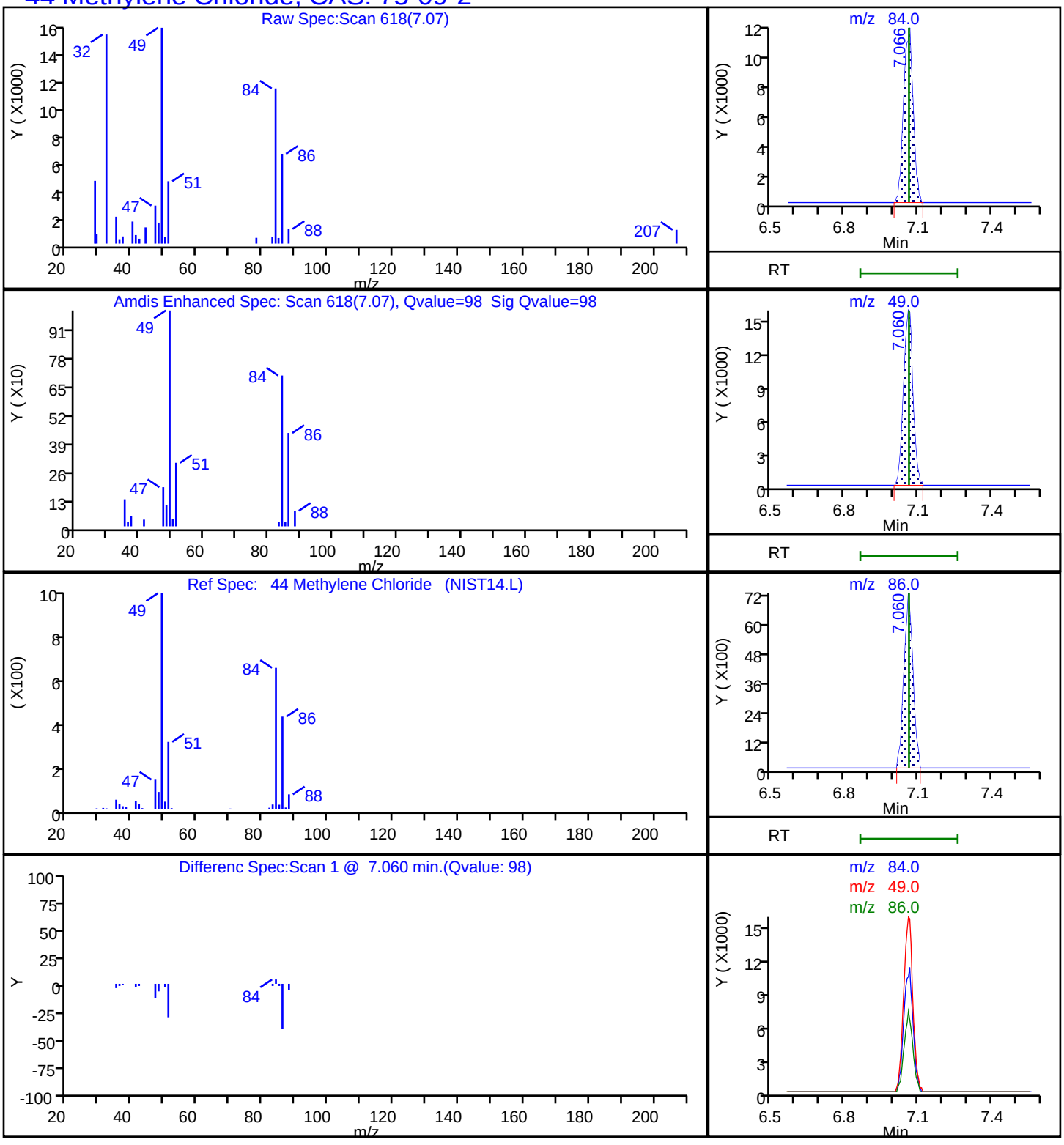
First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:40:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.40	85.04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\J500BH27.D
Injection Date: 27-Aug-2019 10:12:30 Instrument ID: MJ
Lims ID: mb
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32828/1002

Matrix: Air Lab File ID: JCCVH20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 09:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.79		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.74		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.02		0.080	0.022
67-66-3	Chloroform	119.38	1.62		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.88		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.05		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.64		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.41		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.02		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.66		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.59		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.52		0.40	0.052
91-20-3	Naphthalene	128.17	1.66		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.69		0.080	0.0070
108-88-3	Toluene	92.14	1.79		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.00		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.77		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.47		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.80		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.88		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.62		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.62		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.74		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.36		0.040	0.026
1330-20-7	Xylenes, Total	106.17	4.93		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Aug-2019 09:08:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-Aug-2019 12:14:29 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0308

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	96	253683	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.839	11.839	0.000	95	1303711	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.449	16.449	0.000	88	1153268	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	791299	4.00	3.73	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	140233	2.00	2.02	
20 Propene	41	4.168	4.168	0.000	99	102701	2.00	2.05	
21 Dichlorodifluoromethane	85	4.227	4.227	0.000	100	162726	2.00	2.05	
22 Chloromethane	52	4.442	4.442	0.000	99	59380	2.00	2.32	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.442	4.442	0.000	52	31140	2.00	2.82	
24 Acetaldehyde	44	4.614	4.614	0.000	99	335267	10.0	10.2	
25 Vinyl chloride	62	4.636	4.636	0.000	99	203700	2.00	2.36	
26 Butane	43	4.738	4.738	0.000	85	289304	2.00	2.17	
27 Butadiene	54	4.738	4.738	0.000	67	149242	2.00	2.29	
28 Bromomethane	94	5.115	5.115	0.000	98	190572	2.00	2.51	
29 Chloroethane	64	5.271	5.271	0.000	96	90928	2.00	2.40	
30 Ethanol	31	5.373	5.373	0.000	96	292951	10.0	8.56	
31 Vinyl bromide	106	5.615	5.615	0.000	97	176919	2.00	2.51	
32 2-Methylbutane	43	5.663	5.663	0.000	92	202422	2.00	2.21	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	99	587720	2.00	2.14	
34 Acrolein	56	5.927	5.927	0.000	93	37487	2.00	2.25	
35 Acetonitrile	40	6.002	6.002	0.000	98	52365	2.00	1.99	
36 Acetone	58	6.051	6.051	0.000	99	174033	6.00	5.96	
37 Isopropyl alcohol	45	6.137	6.137	0.000	92	466046	6.00	5.49	
38 Pentane	72	6.153	6.153	0.000	95	26216	2.00	2.50	
39 Ethyl ether	31	6.336	6.336	0.000	93	147637	2.00	1.57	
40 1,1-Dichloroethene	96	6.685	6.685	0.000	97	157442	2.00	2.02	
42 2-Methyl-2-propanol	59	6.793	6.793	0.000	96	192214	2.00	1.47	
41 Acrylonitrile	53	6.798	6.798	0.000	93	91637	2.00	1.76	
43 1,1,2-Trichloro-1,2,2-trif	101	6.868	6.868	0.000	96	343383	2.00	1.90	
44 Methylene Chloride	84	7.062	7.062	0.000	98	151483	2.00	1.59	
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	133792	2.00	1.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.245	7.245	0.000	100	467334	2.00	1.97	
47 trans-1,2-Dichloroethene	96	7.917	7.917	0.000	98	155527	2.00	2.00	
48 2-Methylpentane	43	7.923	7.923	0.000	95	360610	2.00	1.68	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	316378	2.00	1.52	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	100	284628	2.00	1.64	
51 Vinyl acetate	43	8.455	8.455	0.000	100	338956	2.00	1.54	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	51062	2.00	1.49	
53 Hexane	56	8.939	8.939	0.000	77	115383	2.00	1.65	
54 Isopropyl ether	45	9.106	9.106	0.000	96	398274	2.00	1.50	
55 cis-1,2-Dichloroethene	96	9.375	9.375	0.000	96	150788	2.00	1.88	
56 Ethyl acetate	43	9.558	9.558	0.000	99	244275	2.00	1.34	
57 Chloroform	83	9.730	9.730	0.000	96	332915	2.00	1.62	
58 Tert-butyl ethyl ether	59	9.800	9.800	0.000	96	353901	2.00	1.43	
59 Tetrahydrofuran	42	10.166	10.166	0.000	93	135564	2.00	1.49	
60 1,1,1-Trichloroethane	97	10.763	10.763	0.000	97	326346	2.00	1.47	
61 1,2-Dichloroethane	62	10.871	10.871	0.000	97	210580	2.00	1.41	
62 n-Butanol	31	11.280	11.280	0.000	88	44862	2.00	1.26	
64 Benzene	78	11.333	11.333	0.000	97	428186	2.00	1.79	
63 Cyclohexane	69	11.333	11.333	0.000	79	69151	2.00	1.72	
65 Carbon tetrachloride	117	11.355	11.355	0.000	96	349140	2.00	1.74	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	93	95758	2.00	1.78	
67 Thiophene	84	11.602	11.602	0.000	96	247294	2.00	1.82	
68 Isooctane	57	12.038	12.038	0.000	98	700715	2.00	1.65	
69 n-Heptane	71	12.388	12.388	0.000	93	142922	2.00	1.74	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	90	174019	2.00	1.74	
71 Trichloroethene	130	12.528	12.528	0.000	96	202209	2.00	1.88	
72 Dibromomethane	93	12.624	12.624	0.000	95	195792	2.00	1.76	
73 Dichlorobromomethane	83	12.754	12.754	0.000	98	340004	2.00	1.60	
74 1,4-Dioxane	88	12.775	12.775	0.000	88	42155	2.00	1.51	
75 Methyl methacrylate	41	12.818	12.818	0.000	92	149600	2.00	1.28	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	256278	2.00	1.75	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	240847	2.00	1.32	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	95	255522	2.00	1.72	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	98	226876	2.00	1.60	
80 Toluene	91	14.513	14.513	0.000	93	499176	2.00	1.79	
81 1,1,2-Trichloroethane	83	14.588	14.588	0.000	98	161010	2.00	1.80	
82 2-Hexanone	58	14.948	14.948	0.000	92	117421	2.00	1.44	
83 n-Octane	85	15.153	15.153	0.000	95	145666	2.00	1.70	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	339491	2.00	1.76	
85 Ethylene Dibromide	107	15.572	15.572	0.000	98	287640	2.00	1.77	
86 Tetrachloroethene	129	15.637	15.637	0.000	93	188814	2.00	1.69	
87 2,3-Dimethylheptane	43	16.476	16.476	0.000	96	514887	2.00	1.57	
88 Chlorobenzene	112	16.498	16.498	0.000	94	404501	2.00	1.81	
89 Ethylbenzene	91	16.767	16.767	0.000	99	597357	2.00	1.66	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	904412	4.00	3.29	
91 n-Nonane	57	17.305	17.305	0.000	93	320297	2.00	1.61	
92 Styrene	104	17.385	17.385	0.000	98	352314	2.00	1.79	
93 Bromoform	173	17.391	17.391	0.000	96	401076	2.00	1.94	
94 o-Xylene	91	17.450	17.450	0.000	99	480378	2.00	1.64	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	99	374020	2.00	1.83	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	89861	2.00	1.55	
97 Isopropylbenzene	105	18.009	18.009	0.000	97	629353	2.00	1.65	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.515	18.515	0.000	99	178418	2.00	1.75	
99 2-Chlorotoluene	126	18.569	18.569	0.000	97	185080	2.00	1.88	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	635771	2.00	1.67	
101 1,3,5-Trimethylbenzene	120	18.725	18.725	0.000	93	265064	2.00	1.74	
102 Alpha Methyl Styrene	118	18.945	18.945	0.000	87	278713	2.00	1.78	
103 n-Decane	57	18.972	18.972	0.000	90	406955	2.00	1.61	
104 tert-Butylbenzene	119	19.128	19.128	0.000	91	569403	2.00	1.63	
105 1,2,4-Trimethylbenzene	105	19.144	19.144	0.000	96	547416	2.00	1.62	
106 sec-Butylbenzene	105	19.386	19.386	0.000	98	797174	2.00	1.68	
107 1,3-Dichlorobenzene	146	19.413	19.413	0.000	98	438961	2.00	1.87	
108 Benzyl chloride	91	19.483	19.483	0.000	98	459736	2.00	1.59	
109 1,4-Dichlorobenzene	146	19.499	19.499	0.000	94	436901	2.00	1.84	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	96	632993	2.00	1.59	
111 1,2,3-Trimethylbenzene	105	19.596	19.596	0.000	98	536626	2.00	1.62	
112 Butylcyclohexane	83	19.639	19.639	0.000	95	524677	2.00	1.83	
113 2,3-Dihydroindene	117	19.844	19.844	0.000	94	555188	2.00	1.81	
114 1,2-Dichlorobenzene	146	19.849	19.849	0.000	97	425968	2.00	1.84	
115 n-Butylbenzene	91	19.957	19.957	0.000	97	669164	2.00	1.62	
116 Indene	116	19.967	19.967	0.000	89	470937	2.00	1.79	
117 Undecane	57	20.231	20.231	0.000	96	427711	2.00	1.50	
118 1,2-Dibromo-3-Chloropropan	157	20.435	20.435	0.000	97	199367	2.00	1.73	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	526588	2.00	1.47	
120 Dodecane	57	21.318	21.318	0.000	94	360950	2.00	1.49	
121 1,2,4-Trichlorobenzene	180	21.565	21.565	0.000	93	334504	2.00	1.77	
122 Naphthalene	128	21.689	21.689	0.000	99	490658	2.00	1.66	
123 Hexachlorobutadiene	225	21.839	21.839	0.000	94	432658	2.00	1.90	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	95	264363	2.00	1.77	
125 2-Methylnaphthalene	142	22.420	22.420	0.000	98	152708	2.00	1.89	
126 1-Methylnaphthalene	142	22.544	22.544	0.000	98	138618	2.00	1.43	
A 128 C8 Range	1	15.163	(15.109-15.217)		0	1465889	2.00	1.60	
S 129 Xylenes, Total	100				0		6.00	4.93	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.88	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

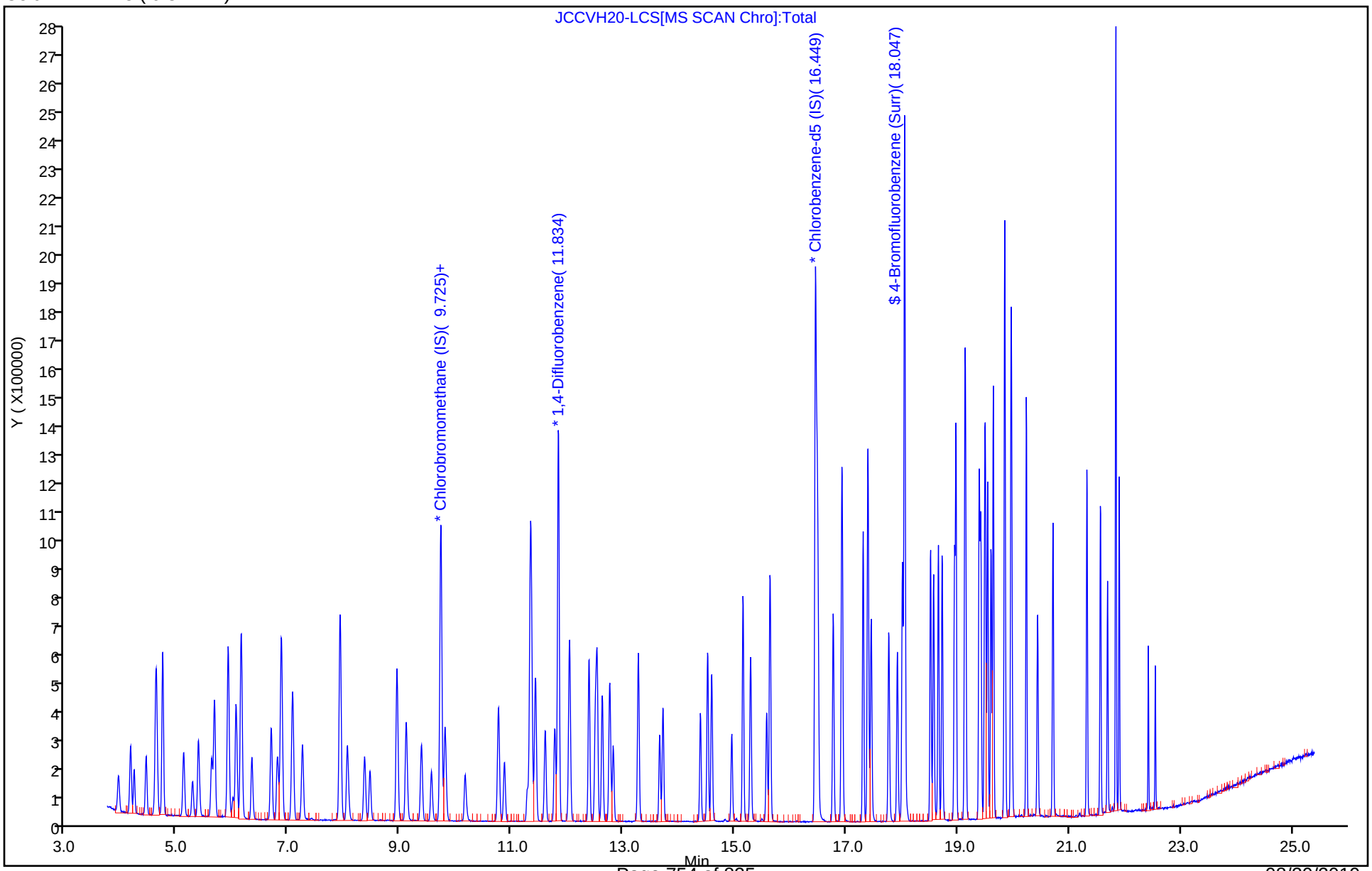
Report Date: 21-Aug-2019 12:14:33 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d

Injection Date:	20-Aug-2019 09:08:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\JCCVH20-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	20-Aug-2019 09:08:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12792.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-Aug-2019 12:14:29	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0308				

First Level Reviewer: khachitpongpanits Date: 21-Aug-2019 12:14:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.73	93.33

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32829/1002

Matrix: Air Lab File ID: JCCVH21-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 09:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.91		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.97		0.080	0.022
67-66-3	Chloroform	119.38	1.79		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.00		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.84		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.45		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.69		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.77		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.69		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.68		0.080	0.0070
108-88-3	Toluene	92.14	1.81		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.15		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.68		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.63		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.89		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.86		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.73		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.69		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.82		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.45		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 21-Aug-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-002
Misc. Info.: P92
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 11:07:11 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.731	9.731	0.000	96	199329	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.840	11.840	0.000	95	1060369	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.450	16.450	0.000	88	927535	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.048	0.000	94	623668	4.00	3.66	
19 Chlorodifluoromethane	51	4.158	4.158	0.000	97	107456	2.00	1.97	
20 Propene	41	4.174	4.174	0.000	99	81183	2.00	2.06	
21 Dichlorodifluoromethane	85	4.228	4.228	0.000	100	125038	2.00	2.00	
22 Chloromethane	52	4.443	4.443	0.000	100	47617	2.00	2.36	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.449	4.449	0.000	49	22111	2.00	2.55	
24 Acetaldehyde	44	4.621	4.621	0.000	99	275608	10.0	10.6	
25 Vinyl chloride	62	4.642	4.642	0.000	99	165764	2.00	2.45	
27 Butadiene	54	4.745	4.745	0.000	66	122203	2.00	2.39	
26 Butane	43	4.745	4.745	0.000	86	248483	2.00	2.38	
28 Bromomethane	94	5.116	5.116	0.000	98	151379	2.00	2.54	
29 Chloroethane	64	5.283	5.283	0.000	95	75562	2.00	2.54	
30 Ethanol	31	5.390	5.390	0.000	97	269988	10.0	10.0	
31 Vinyl bromide	106	5.621	5.621	0.000	97	136550	2.00	2.47	
32 2-Methylbutane	43	5.670	5.670	0.000	92	177866	2.00	2.47	
33 Trichlorofluoromethane	101	5.917	5.917	0.000	99	420105	2.00	1.95	
34 Acrolein	56	5.928	5.928	0.000	95	32132	2.00	2.46	
35 Acetonitrile	40	6.003	6.003	0.000	100	50180	2.00	2.42	
36 Acetone	58	6.057	6.057	0.000	98	153794	6.00	6.70	
37 Isopropyl alcohol	45	6.154	6.154	0.000	91	358055	6.00	5.37	
38 Pentane	72	6.154	6.154	0.000	94	20920	2.00	2.54	
39 Ethyl ether	31	6.342	6.342	0.000	92	134256	2.00	1.81	
40 1,1-Dichloroethene	96	6.687	6.687	0.000	96	129306	2.00	2.11	
41 Acrylonitrile	53	6.805	6.805	0.000	99	79827	2.00	1.95	
42 2-Methyl-2-propanol	59	6.810	6.810	0.000	96	133293	2.00	1.29	
43 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.870	0.000	95	291733	2.00	2.05	
44 Methylene Chloride	84	7.069	7.069	0.000	99	132750	2.00	1.77	
45 3-Chloro-1-propene	39	7.079	7.079	0.000	98	117291	2.00	1.69	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.251	7.251	0.000	100	395886	2.00	2.12	
47 trans-1,2-Dichloroethene	96	7.924	7.924	0.000	95	131119	2.00	2.15	
48 2-Methylpentane	43	7.929	7.929	0.000	95	317906	2.00	1.89	
49 Methyl tert-butyl ether	73	8.058	8.058	0.000	97	270126	2.00	1.65	
50 1,1-Dichloroethane	63	8.365	8.365	0.000	100	250529	2.00	1.84	
51 Vinyl acetate	43	8.462	8.462	0.000	100	297234	2.00	1.72	
52 2-Butanone (MEK)	72	8.941	8.941	0.000	95	46953	2.00	1.75	
53 Hexane	56	8.946	8.946	0.000	76	102985	2.00	1.88	
54 Isopropyl ether	45	9.113	9.113	0.000	97	352895	2.00	1.69	
55 cis-1,2-Dichloroethene	96	9.382	9.382	0.000	97	128697	2.00	2.04	
56 Ethyl acetate	43	9.565	9.565	0.000	98	237774	2.00	1.66	
57 Chloroform	83	9.737	9.737	0.000	96	288768	2.00	1.79	
58 Tert-butyl ethyl ether	59	9.807	9.807	0.000	97	308695	2.00	1.59	
59 Tetrahydrofuran	42	10.167	10.167	0.000	94	121005	2.00	1.69	
60 1,1,1-Trichloroethane	97	10.764	10.764	0.000	97	283388	2.00	1.63	
61 1,2-Dichloroethane	62	10.872	10.872	0.000	97	176986	2.00	1.45	
62 n-Butanol	31	11.297	11.297	0.000	87	31621	2.00	1.09	
63 Cyclohexane	69	11.329	11.329	0.000	86	59511	2.00	1.83	
64 Benzene	78	11.334	11.334	0.000	97	371554	2.00	1.91	
65 Carbon tetrachloride	117	11.356	11.356	0.000	97	298810	2.00	1.83	
66 2,3-Dimethylpentane	71	11.431	11.431	0.000	92	84063	2.00	1.92	
67 Thiophene	84	11.603	11.603	0.000	95	209581	2.00	1.90	
68 Isooctane	57	12.039	12.039	0.000	98	606979	2.00	1.75	
69 n-Heptane	71	12.389	12.389	0.000	94	120249	2.00	1.80	
70 1,2-Dichloropropane	63	12.502	12.502	0.000	91	152210	2.00	1.87	
71 Trichloroethene	130	12.534	12.534	0.000	95	163295	2.00	1.86	
72 Dibromomethane	93	12.626	12.626	0.000	95	165991	2.00	1.84	
73 Dichlorobromomethane	83	12.760	12.760	0.000	98	285099	2.00	1.65	
74 1,4-Dioxane	88	12.787	12.787	0.000	94	34732	2.00	1.53	
75 Methyl methacrylate	41	12.825	12.825	0.000	92	142072	2.00	1.49	
76 Methylcyclohexane	83	13.271	13.271	0.000	95	219261	2.00	1.84	
77 4-Methyl-2-pentanone (MIBK	43	13.658	13.658	0.000	98	177814	2.00	1.20	
78 cis-1,3-Dichloropropene	75	13.712	13.712	0.000	95	214240	2.00	1.77	
79 trans-1,3-Dichloropropene	75	14.385	14.385	0.000	98	186504	2.00	1.63	
80 Toluene	91	14.514	14.514	0.000	93	405777	2.00	1.81	
81 1,1,2-Trichloroethane	83	14.589	14.589	0.000	97	135400	2.00	1.89	
82 2-Hexanone	58	14.949	14.949	0.000	91	80018	2.00	1.22	
83 n-Octane	85	15.149	15.149	0.000	96	118954	2.00	1.73	
84 Chlorodibromomethane	129	15.283	15.283	0.000	97	276201	2.00	1.78	
85 Ethylene Dibromide	107	15.574	15.574	0.000	97	232067	2.00	1.78	
86 Tetrachloroethene	129	15.633	15.633	0.000	93	151383	2.00	1.68	
87 2,3-Dimethylheptane	43	16.472	16.472	0.000	96	447626	2.00	1.70	
88 Chlorobenzene	112	16.499	16.499	0.000	93	331027	2.00	1.85	
89 Ethylbenzene	91	16.768	16.768	0.000	99	489308	2.00	1.69	
90 m-Xylene & p-Xylene	91	16.924	16.924	0.000	100	755368	4.00	3.41	
91 n-Nonane	57	17.306	17.306	0.000	95	268622	2.00	1.68	
92 Styrene	104	17.386	17.386	0.000	99	287309	2.00	1.82	
93 Bromoform	173	17.392	17.392	0.000	95	309343	2.00	1.86	
94 o-Xylene	91	17.451	17.451	0.000	99	394598	2.00	1.68	
95 1,1,2,2-Tetrachloroethane	83	17.763	17.763	0.000	99	320411	2.00	1.95	
96 1,2,3-Trichloropropane	110	17.919	17.919	0.000	97	75676	2.00	1.62	
97 Isopropylbenzene	105	18.010	18.010	0.000	97	523209	2.00	1.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.516	18.516	0.000	99	147407	2.00	1.80	
99 2-Chlorotoluene	126	18.570	18.570	0.000	98	147382	2.00	1.86	
100 4-Ethyltoluene	105	18.656	18.656	0.000	98	535369	2.00	1.75	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	221987	2.00	1.82	
102 Alpha Methyl Styrene	118	18.946	18.946	0.000	90	228750	2.00	1.81	
103 n-Decane	57	18.968	18.968	0.000	90	344835	2.00	1.70	
104 tert-Butylbenzene	119	19.129	19.129	0.000	93	480507	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.140	19.140	0.000	96	459050	2.00	1.69	
106 sec-Butylbenzene	105	19.388	19.388	0.000	98	682532	2.00	1.79	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	347474	2.00	1.84	
108 Benzyl chloride	91	19.484	19.484	0.000	98	396506	2.00	1.70	
109 1,4-Dichlorobenzene	146	19.495	19.495	0.000	94	340070	2.00	1.78	
110 4-Isopropyltoluene	119	19.538	19.538	0.000	97	558182	2.00	1.74	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	459871	2.00	1.73	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	432349	2.00	1.88	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	93	459892	2.00	1.86	
114 1,2-Dichlorobenzene	146	19.845	19.845	0.000	95	339955	2.00	1.83	
115 n-Butylbenzene	91	19.958	19.958	0.000	97	600991	2.00	1.81	
116 Indene	116	19.969	19.969	0.000	94	391727	2.00	1.85	
117 Undecane	57	20.232	20.232	0.000	95	393138	2.00	1.72	
118 1,2-Dibromo-3-Chloropropan	157	20.437	20.437	0.000	97	168666	2.00	1.82	
119 1,2,4,5-Tetramethylbenzene	119	20.711	20.711	0.000	97	480911	2.00	1.66	
120 Dodecane	57	21.319	21.319	0.000	93	258253	2.00	1.32	
121 1,2,4-Trichlorobenzene	180	21.561	21.561	0.000	93	254985	2.00	1.68	
122 Naphthalene	128	21.690	21.690	0.000	99	402542	2.00	1.69	
123 Hexachlorobutadiene	225	21.841	21.841	0.000	95	374324	2.00	2.05	
124 1,2,3-Trichlorobenzene	180	21.900	21.900	0.000	95	208397	2.00	1.74	
125 2-Methylnaphthalene	142	22.422	22.422	0.000	98	89153	2.00	1.37	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	97	83517	2.00	1.07	
A 128 C8 Range	1	15.154	(15.115-15.212)		0	1249165	2.00	1.70	
S 129 Xylenes, Total	100				0		6.00	5.09	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.19	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

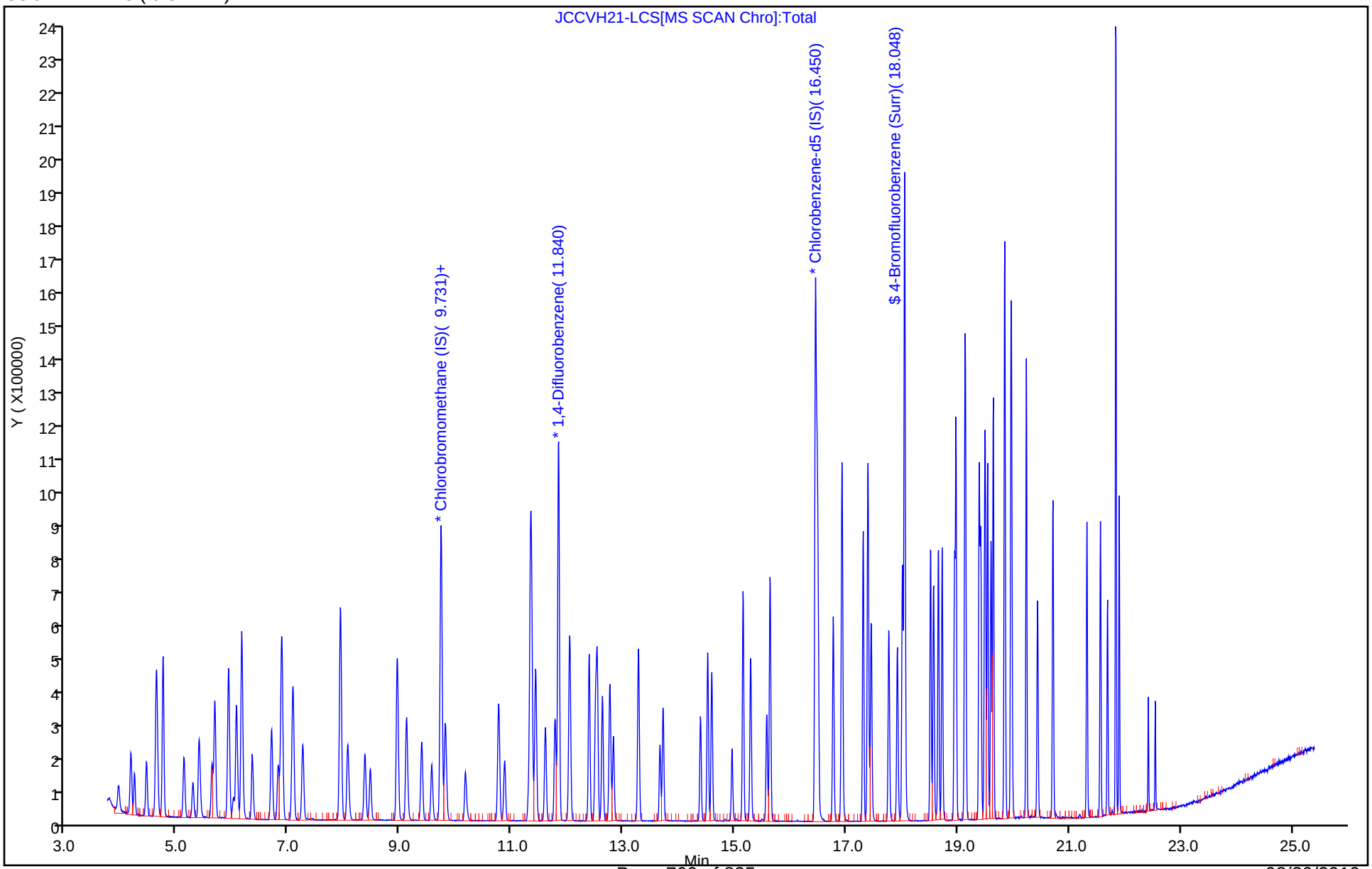
Report Date: 22-Aug-2019 11:07:15 Chrom Revision: 2.3 13-Aug-2019 08:14:14

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d

Injection Date:	21-Aug-2019 09:44:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JCCVH21-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Aug-2019 09:44:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012793-002				
Misc. Info.:	P92				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	22-Aug-2019 11:07:11	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 11:07:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.66	91.46

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32868/1002

Matrix: Air Lab File ID: RCCVH23A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 10:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.08		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.07		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.17		0.080	0.022
67-66-3	Chloroform	119.38	1.09		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.06		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.40		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.06		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.12		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.05		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.03		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.04		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.10		0.40	0.052
91-20-3	Naphthalene	128.17	1.12		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.973		0.080	0.0070
108-88-3	Toluene	92.14	1.11		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.14		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.10		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.04		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.14		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.11		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.28		0.040	0.026
1330-20-7	Xylenes, Total	106.17	3.32		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Aug-2019 10:44:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012811-002
Misc. Info.: P93
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:54:06 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	96	214839	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1262239	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	1055014	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.231	0.000	94	686800	4.00	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	97	215549	1.00	1.17	
7 Propene	41	3.437	3.437	0.000	99	142404	1.00	1.40	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	100	231889	1.00	1.40	
9 Chloromethane	52	3.659	3.659	0.000	74	38698	1.00	1.55	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	90	212819	1.00	2.53	
11 Acetaldehyde	44	3.815	3.815	0.000	98	219163	5.00	7.52	
12 Vinyl chloride	62	3.826	3.826	0.000	99	101087	1.00	1.28	
14 Butane	43	3.912	3.912	0.000	84	142012	1.00	1.17	
13 Butadiene	54	3.912	3.912	0.000	70	73412	1.00	1.28	
15 Bromomethane	94	4.225	4.225	0.000	95	85746	1.00	1.28	
16 Chloroethane	64	4.354	4.354	0.000	91	40280	1.00	1.24	
17 Ethanol	31	4.451	4.451	0.000	98	228470	5.00	7.83	
18 Vinyl bromide	106	4.651	4.651	0.000	96	83045	1.00	1.48	
19 2-Methylbutane	43	4.694	4.694	0.000	94	116140	1.00	1.28	
21 Trichlorofluoromethane	101	4.910	4.910	0.000	99	220932	1.00	1.07	
20 Acrolein	56	4.926	4.926	0.000	96	27734	1.00	1.09	
24 Acetonitrile	40	4.996	4.996	0.000	93	37915	1.00	1.00	
22 Acetone	58	5.044	5.044	0.000	99	109186	3.00	3.06	
23 Isopropyl alcohol	45	5.125	5.125	0.000	84	383082	3.00	3.17	
25 Pentane	72	5.131	5.131	0.000	71	14343	1.00	1.05	
26 Ethyl ether	31	5.303	5.303	0.000	90	107892	1.00	0.9666	
27 1,1-Dichloroethene	96	5.621	5.621	0.000	95	77225	1.00	1.05	
29 2-Methyl-2-propanol	59	5.729	5.729	0.000	96	156365	1.00	1.05	
28 Acrylonitrile	53	5.729	5.729	0.000	60	62367	1.00	1.12	
30 1,1,2-Trichloro-1,2,2-trif	101	5.789	5.789	0.000	95	175819	1.00	1.15	
31 Methylene Chloride	84	5.966	5.966	0.000	95	78979	1.00	1.04	
32 3-Chloro-1-propene	39	5.983	5.983	0.000	95	94088	1.00	1.11	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.128	6.128	0.000	98	214295	1.00	1.10	
34 trans-1,2-Dichloroethene	96	6.781	6.781	0.000	98	88864	1.00	1.14	
35 2-Methylpentane	43	6.792	6.792	0.000	96	229604	1.00	1.11	
36 Methyl tert-butyl ether	73	6.921	6.921	0.000	97	230527	1.00	1.10	
37 1,1-Dichloroethane	63	7.212	7.212	0.000	99	156811	1.00	1.06	
38 Vinyl acetate	43	7.320	7.320	0.000	100	270195	1.00	1.05	
39 2-Butanone (MEK)	72	7.773	7.773	0.000	88	39362	1.00	1.00	
40 Hexane	56	7.784	7.784	0.000	72	71071	1.00	1.05	
41 Isopropyl ether	45	7.956	7.956	0.000	97	353007	1.00	1.10	
42 cis-1,2-Dichloroethene	96	8.204	8.204	0.000	94	92941	1.00	1.06	
43 Ethyl acetate	43	8.393	8.393	0.000	97	250101	1.00	1.10	
44 Chloroform	83	8.549	8.549	0.000	50	197756	1.00	1.09	
45 Tert-butyl ethyl ether	59	8.641	8.641	0.000	96	297994	1.00	1.12	
46 Tetrahydrofuran	42	8.959	8.959	0.000	93	121871	1.00	1.07	
47 1,1,1-Trichloroethane	97	9.590	9.590	0.000	95	207320	1.00	1.04	
48 1,2-Dichloroethane	62	9.703	9.703	0.000	96	135434	1.00	1.12	
50 n-Butanol	31	10.178	10.178	0.000	87	45423	1.00	0.9409	
51 Cyclohexane	69	10.205	10.205	0.000	76	40910	1.00	1.02	
49 Benzene	78	10.205	10.205	0.000	97	275654	1.00	1.08	
52 Carbon tetrachloride	117	10.221	10.221	0.000	94	218204	1.00	1.07	
53 2,3-Dimethylpentane	71	10.324	10.324	0.000	91	59849	1.00	1.04	
54 Thiophene	84	10.491	10.491	0.000	96	148413	1.00	1.15	
55 Isooctane	57	10.987	10.987	0.000	97	450395	1.00	1.05	
57 n-Heptane	71	11.380	11.380	0.000	95	92684	1.00	1.04	
56 1,2-Dichloropropane	63	11.467	11.467	0.000	86	101732	1.00	1.03	
58 Trichloroethene	130	11.499	11.499	0.000	93	115225	1.00	1.02	
59 Dibromomethane	93	11.591	11.591	0.000	95	113473	1.00	1.09	
60 Dichlorobromomethane	83	11.736	11.736	0.000	97	193161	1.00	1.02	
61 1,4-Dioxane	88	11.758	11.758	0.000	94	41271	1.00	1.05	
62 Methyl methacrylate	41	11.839	11.839	0.000	90	139552	1.00	1.00	
63 Methylcyclohexane	83	12.281	12.281	0.000	90	151920	1.00	1.03	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.707	0.000	98	254423	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.761	12.761	0.000	98	149160	1.00	1.01	
66 trans-1,3-Dichloropropene	75	13.473	13.473	0.000	96	138092	1.00	1.05	
67 Toluene	91	13.586	13.586	0.000	92	301431	1.00	1.11	
68 1,1,2-Trichloroethane	83	13.667	13.667	0.000	97	91386	1.00	1.09	
69 2-Hexanone	58	14.055	14.055	0.000	90	106110	1.00	1.06	
71 n-Octane	85	14.282	14.282	0.000	98	89702	1.00	1.01	
70 Chlorodibromomethane	129	14.373	14.373	0.000	97	182000	1.00	0.9751	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	174938	1.00	1.08	
73 Tetrachloroethene	129	14.734	14.734	0.000	93	107840	1.00	0.9728	
74 Chlorobenzene	112	15.619	15.619	0.000	91	240710	1.00	1.07	
75 2,3-Dimethylheptane	43	15.635	15.635	0.000	94	378059	1.00	1.12	
76 Ethylbenzene	91	15.905	15.905	0.000	99	393893	1.00	1.03	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	98	676190	2.00	2.26	
81 n-Nonane	57	16.492	16.492	0.000	95	205874	1.00	1.05	
78 Bromoform	173	16.519	16.519	0.000	94	176750	1.00	1.06	
79 Styrene	104	16.536	16.536	0.000	97	216411	1.00	1.05	
80 o-Xylene	91	16.595	16.595	0.000	99	332839	1.00	1.06	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.929	0.000	98	255841	1.00	1.16	
83 1,2,3-Trichloropropane	110	17.096	17.096	0.000	94	79421	1.00	1.13	
84 Isopropylbenzene	105	17.199	17.199	0.000	94	512728	1.00	1.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.760	17.760	0.000	99	130651	1.00	1.10	
86 2-Chlorotoluene	126	17.803	17.803	0.000	97	127772	1.00	1.13	
88 4-Ethyltoluene	105	17.916	17.916	0.000	99	521440	1.00	1.12	
87 1,3,5-Trimethylbenzene	120	17.997	17.997	0.000	92	197067	1.00	1.11	
89 Alpha Methyl Styrene	118	18.234	18.234	0.000	87	185451	1.00	1.09	
90 n-Decane	57	18.293	18.293	0.000	86	313062	1.00	1.16	
91 tert-Butylbenzene	119	18.434	18.434	0.000	92	452930	1.00	1.09	
92 1,2,4-Trimethylbenzene	105	18.450	18.450	0.000	98	454653	1.00	1.11	
94 sec-Butylbenzene	105	18.714	18.714	0.000	99	664599	1.00	1.13	
93 1,3-Dichlorobenzene	146	18.730	18.730	0.000	97	304801	1.00	1.09	
96 Benzyl chloride	91	18.811	18.811	0.000	97	352160	1.00	1.10	
95 1,4-Dichlorobenzene	146	18.822	18.822	0.000	94	307941	1.00	1.12	
97 4-Isopropyltoluene	119	18.881	18.881	0.000	96	541258	1.00	1.14	
98 1,2,3-Trimethylbenzene	105	18.935	18.935	0.000	99	458906	1.00	1.14	
99 Butylcyclohexane	83	18.989	18.989	0.000	93	364296	1.00	1.21	
101 2,3-Dihydroindene	117	19.189	19.189	0.000	92	408184	1.00	1.11	
100 1,2-Dichlorobenzene	146	19.189	19.189	0.000	82	290096	1.00	1.07	
102 Indene	116	19.323	19.323	0.000	93	356745	1.00	1.08	
103 n-Butylbenzene	91	19.329	19.329	0.000	97	558738	1.00	1.14	
104 Undecane	57	19.642	19.642	0.000	91	368980	1.00	1.16	
105 1,2-Dibromo-3-Chloropropan	157	19.809	19.809	0.000	92	133549	1.00	1.00	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.094	0.000	98	512924	1.00	1.12	
107 Dodecane	57	20.720	20.720	0.000	91	362803	1.00	1.17	
108 1,2,4-Trichlorobenzene	180	20.925	20.925	0.000	93	286465	1.00	1.10	
109 Naphthalene	128	21.065	21.065	0.000	99	599410	1.00	1.12	
110 Hexachlorobutadiene	225	21.286	21.286	0.000	94	268952	1.00	1.04	
111 1,2,3-Trichlorobenzene	180	21.356	21.356	0.000	95	267087	1.00	1.11	
112 2-Methylnaphthalene	142	22.020	22.020	0.000	98	206507	1.00	1.34	
113 1-Methylnaphthalene	142	22.149	22.149	0.000	99	200336	1.00	1.35	
A 115 C8 Range	1	14.282	(14.233-14.330)		0	985467	1.00	1.00	
S 116 Xylenes, Total	100				0		3.00	3.32	
S 117 1,2-Dichloroethene, Total	1				0		2.00	2.20	

Reagents:

40CV101P_00093	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

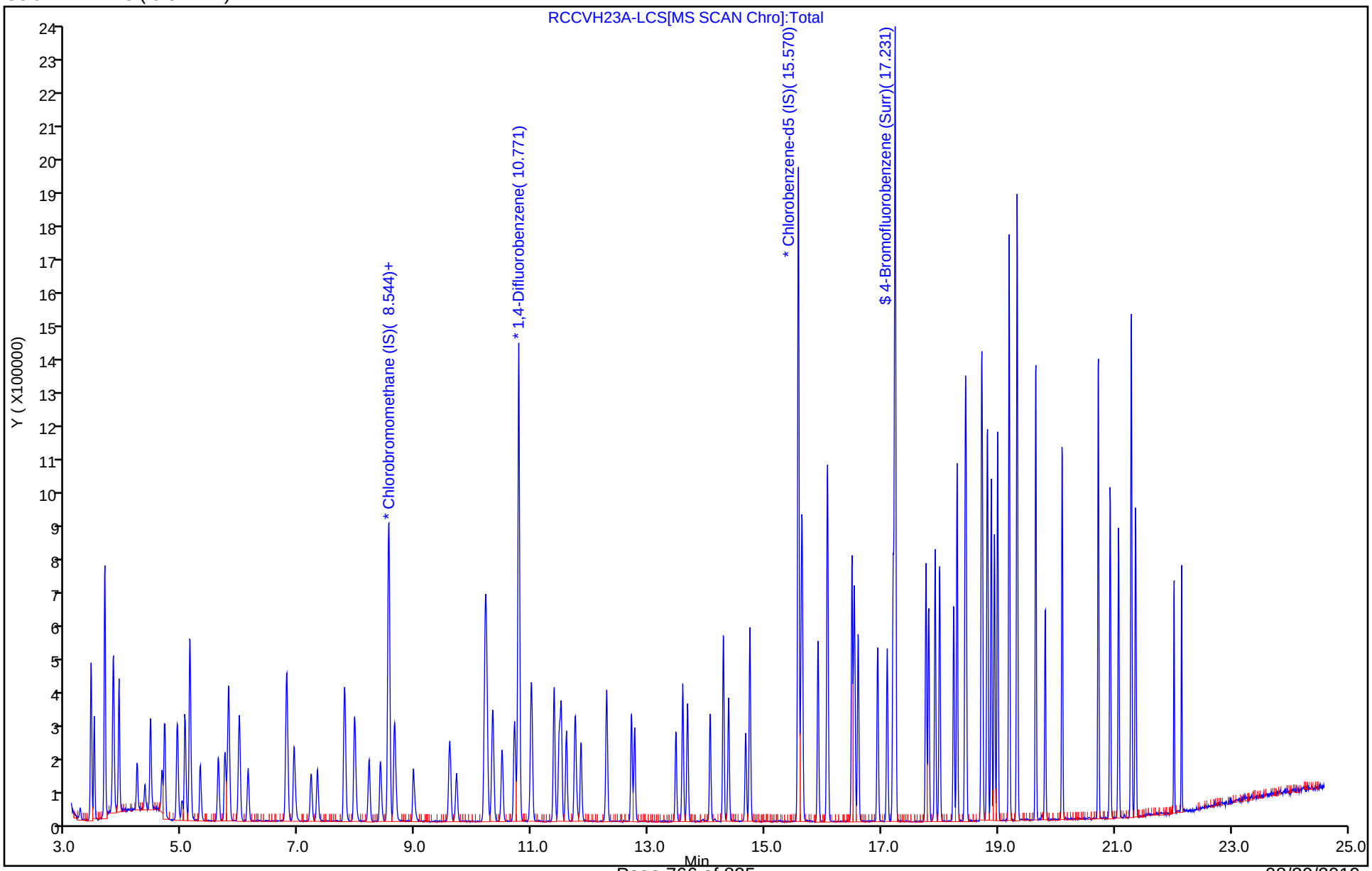
Report Date: 26-Aug-2019 13:54:09 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d

Injection Date:	23-Aug-2019 10:44:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RCCVH23A-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Aug-2019 10:44:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012811-002				
Misc. Info.:	P93				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 13:54:06	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:54:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.40

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32985/1002

Matrix: Air Lab File ID: JCCVH27-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 08:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.07		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.83		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.11		0.080	0.022
67-66-3	Chloroform	119.38	1.87		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.17		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.11		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.93		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.52		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.17		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.96		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.81		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.91		0.40	0.052
91-20-3	Naphthalene	128.17	2.27		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.89		0.080	0.0070
108-88-3	Toluene	92.14	2.06		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.19		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.20		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.68		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.13		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.01		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.94		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.94		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.09		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.56		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.81		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 27-Aug-2019 08:11:30 ALS Bottle#: 7 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012855-002
Misc. Info.: p92
Operator ID: 403648 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Aug-2019 10:39:25 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.725	9.725	0.000	97	238218	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.834	11.834	0.000	95	1260984	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.444	16.444	0.000	88	1074888	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.047	18.047	0.000	96	716191	4.00	3.63	
19 Chlorodifluoromethane	51	4.152	4.152	0.000	97	137671	2.00	2.11	
20 Propene	41	4.168	4.168	0.000	98	102544	2.00	2.17	
21 Dichlorodifluoromethane	85	4.222	4.222	0.000	100	157397	2.00	2.11	
22 Chloromethane	52	4.437	4.437	0.000	100	61807	2.00	2.57	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.443	4.443	0.000	94	30193	2.00	2.91	
24 Acetaldehyde	44	4.615	4.615	0.000	99	356510	10.0	11.5	
25 Vinyl chloride	62	4.636	4.636	0.000	99	207570	2.00	2.56	
27 Butadiene	54	4.733	4.733	0.000	66	151991	2.00	2.48	
26 Butane	43	4.738	4.738	0.000	86	298254	2.00	2.39	
28 Bromomethane	94	5.110	5.110	0.000	99	190694	2.00	2.67	
29 Chloroethane	64	5.271	5.271	0.000	98	92154	2.00	2.59	
30 Ethanol	31	5.384	5.384	0.000	96	348784	10.0	10.9	
31 Vinyl bromide	106	5.615	5.615	0.000	98	176720	2.00	2.67	
32 2-Methylbutane	43	5.664	5.664	0.000	93	215232	2.00	2.50	
33 Trichlorofluoromethane	101	5.911	5.911	0.000	100	513690	2.00	1.99	
34 Acrolein	56	5.927	5.927	0.000	95	44357	2.00	2.84	
35 Acetonitrile	40	6.003	6.003	0.000	100	65824	2.00	2.66	
36 Acetone	58	6.056	6.056	0.000	98	208913	6.00	7.62	
37 Isopropyl alcohol	45	6.148	6.148	0.000	93	507301	6.00	6.37	
38 Pentane	72	6.148	6.148	0.000	97	26706	2.00	2.71	
39 Ethyl ether	31	6.336	6.336	0.000	92	170249	2.00	1.92	
40 1,1-Dichloroethene	96	6.686	6.686	0.000	97	158508	2.00	2.17	
41 Acrylonitrile	53	6.799	6.799	0.000	79	106580	2.00	2.18	
42 2-Methyl-2-propanol	59	6.799	6.799	0.000	94	192341	2.00	1.56	
43 1,1,2-Trichloro-1,2,2-trif	101	6.863	6.863	0.000	95	353774	2.00	2.08	
44 Methylene Chloride	84	7.062	7.062	0.000	98	162549	2.00	1.81	
45 3-Chloro-1-propene	39	7.073	7.073	0.000	97	140541	2.00	1.69	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.245	7.245	0.000	99	486121	2.00	2.18	
47 trans-1,2-Dichloroethene	96	7.918	7.918	0.000	96	160173	2.00	2.19	
48 2-Methylpentane	43	7.923	7.923	0.000	96	379457	2.00	1.89	
49 Methyl tert-butyl ether	73	8.052	8.052	0.000	97	371838	2.00	1.91	
50 1,1-Dichloroethane	63	8.359	8.359	0.000	99	314937	2.00	1.93	
51 Vinyl acetate	43	8.456	8.456	0.000	100	397258	2.00	1.92	
52 2-Butanone (MEK)	72	8.934	8.934	0.000	96	64994	2.00	2.02	
53 Hexane	56	8.940	8.940	0.000	79	127201	2.00	1.94	
54 Isopropyl ether	45	9.107	9.107	0.000	97	474646	2.00	1.91	
55 cis-1,2-Dichloroethene	96	9.376	9.376	0.000	96	163713	2.00	2.17	
56 Ethyl acetate	43	9.558	9.558	0.000	98	319362	2.00	1.87	
57 Chloroform	83	9.731	9.731	0.000	95	362268	2.00	1.87	
58 Tert-butyl ethyl ether	59	9.806	9.806	0.000	96	426599	2.00	1.84	
59 Tetrahydrofuran	42	10.161	10.161	0.000	94	162085	2.00	1.89	
60 1,1,1-Trichloroethane	97	10.758	10.758	0.000	97	348488	2.00	1.68	
61 1,2-Dichloroethane	62	10.866	10.866	0.000	97	219625	2.00	1.52	
62 n-Butanol	31	11.285	11.285	0.000	88	43786	2.00	1.27	
63 Cyclohexane	69	11.328	11.328	0.000	83	73044	2.00	1.88	
64 Benzene	78	11.334	11.334	0.000	97	477441	2.00	2.07	
65 Carbon tetrachloride	117	11.355	11.355	0.000	97	353733	2.00	1.83	
66 2,3-Dimethylpentane	71	11.425	11.425	0.000	92	106994	2.00	2.05	
67 Thiophene	84	11.597	11.597	0.000	96	274688	2.00	2.09	
68 Isooctane	57	12.033	12.033	0.000	98	776028	2.00	1.88	
69 n-Heptane	71	12.388	12.388	0.000	94	156410	2.00	1.97	
70 1,2-Dichloropropane	63	12.501	12.501	0.000	92	194465	2.00	2.00	
71 Trichloroethene	130	12.528	12.528	0.000	96	209946	2.00	2.01	
72 Dibromomethane	93	12.619	12.619	0.000	96	211503	2.00	1.97	
73 Dichlorobromomethane	83	12.754	12.754	0.000	99	356677	2.00	1.74	
74 1,4-Dioxane	88	12.775	12.775	0.000	87	51079	2.00	1.89	
75 Methyl methacrylate	41	12.818	12.818	0.000	93	191167	2.00	1.69	
76 Methylcyclohexane	83	13.270	13.270	0.000	96	279276	2.00	1.97	
77 4-Methyl-2-pentanone (MIBK	43	13.652	13.652	0.000	98	266639	2.00	1.51	
78 cis-1,3-Dichloropropene	75	13.711	13.711	0.000	94	277941	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.384	14.384	0.000	97	243137	2.00	1.84	
80 Toluene	91	14.513	14.513	0.000	93	535089	2.00	2.06	
81 1,1,2-Trichloroethane	83	14.583	14.583	0.000	97	177176	2.00	2.13	
82 2-Hexanone	58	14.949	14.949	0.000	92	124869	2.00	1.64	
83 n-Octane	85	15.148	15.148	0.000	95	155478	2.00	1.95	
84 Chlorodibromomethane	129	15.282	15.282	0.000	97	350459	2.00	1.95	
85 Ethylene Dibromide	107	15.567	15.567	0.000	98	304790	2.00	2.01	
86 Tetrachloroethene	129	15.632	15.632	0.000	94	197210	2.00	1.89	
87 2,3-Dimethylheptane	43	16.471	16.471	0.000	96	549565	2.00	1.80	
88 Chlorobenzene	112	16.493	16.493	0.000	94	420646	2.00	2.02	
89 Ethylbenzene	91	16.767	16.767	0.000	99	655741	2.00	1.96	
90 m-Xylene & p-Xylene	91	16.923	16.923	0.000	99	996544	4.00	3.88	
91 n-Nonane	57	17.305	17.305	0.000	94	343639	2.00	1.85	
92 Styrene	104	17.386	17.386	0.000	99	378623	2.00	2.07	
93 Bromoform	173	17.391	17.391	0.000	95	391286	2.00	2.03	
94 o-Xylene	91	17.445	17.445	0.000	99	526455	2.00	1.93	
95 1,1,2,2-Tetrachloroethane	83	17.762	17.762	0.000	98	417311	2.00	2.19	
96 1,2,3-Trichloropropane	110	17.918	17.918	0.000	98	101202	2.00	1.87	
97 Isopropylbenzene	105	18.004	18.004	0.000	96	696473	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.510	18.510	0.000	99	195522	2.00	2.06	
99 2-Chlorotoluene	126	18.569	18.569	0.000	98	193865	2.00	2.11	
100 4-Ethyltoluene	105	18.655	18.655	0.000	98	703830	2.00	1.98	
101 1,3,5-Trimethylbenzene	120	18.720	18.720	0.000	93	296417	2.00	2.09	
102 Alpha Methyl Styrene	118	18.940	18.940	0.000	87	306614	2.00	2.10	
103 n-Decane	57	18.967	18.967	0.000	89	451745	2.00	1.92	
104 tert-Butylbenzene	119	19.129	19.129	0.000	91	638506	2.00	1.96	
105 1,2,4-Trimethylbenzene	105	19.139	19.139	0.000	96	610551	2.00	1.94	
106 sec-Butylbenzene	105	19.387	19.387	0.000	98	909167	2.00	2.06	
107 1,3-Dichlorobenzene	146	19.414	19.414	0.000	97	456637	2.00	2.08	
108 Benzyl chloride	91	19.484	19.484	0.000	98	522902	2.00	1.94	
109 1,4-Dichlorobenzene	146	19.494	19.494	0.000	94	453337	2.00	2.05	
110 4-Isopropyltoluene	119	19.537	19.537	0.000	97	739942	2.00	1.99	
111 1,2,3-Trimethylbenzene	105	19.597	19.597	0.000	98	600099	2.00	1.94	
112 Butylcyclohexane	83	19.640	19.640	0.000	94	562299	2.00	2.11	
113 2,3-Dihydroindene	117	19.839	19.839	0.000	94	609050	2.00	2.13	
114 1,2-Dichlorobenzene	146	19.844	19.844	0.000	96	452134	2.00	2.10	
115 n-Butylbenzene	91	19.957	19.957	0.000	98	786336	2.00	2.04	
116 Indene	116	19.968	19.968	0.000	94	512013	2.00	2.09	
117 Undecane	57	20.231	20.231	0.000	96	520041	2.00	1.96	
118 1,2-Dibromo-3-Chloropropan	157	20.436	20.436	0.000	97	232500	2.00	2.17	
119 1,2,4,5-Tetramethylbenzene	119	20.710	20.710	0.000	97	661873	2.00	1.98	
120 Dodecane	57	21.318	21.318	0.000	95	452051	2.00	2.00	
121 1,2,4-Trichlorobenzene	180	21.560	21.560	0.000	93	387486	2.00	2.20	
122 Naphthalene	128	21.689	21.689	0.000	99	624363	2.00	2.27	
123 Hexachlorobutadiene	225	21.840	21.840	0.000	94	527469	2.00	2.49	
124 1,2,3-Trichlorobenzene	180	21.899	21.899	0.000	94	336530	2.00	2.42	
125 2-Methylnaphthalene	142	22.421	22.421	0.000	99	191359	2.00	2.54	
126 1-Methylnaphthalene	142	22.545	22.545	0.000	98	177960	2.00	1.97	
A 128 C8 Range	1	15.158	(15.115-15.201)		0	1562083	2.00	1.83	
S 129 Xylenes, Total	100				0		6.00	5.81	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.37	

Reagents:

40CV101P_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

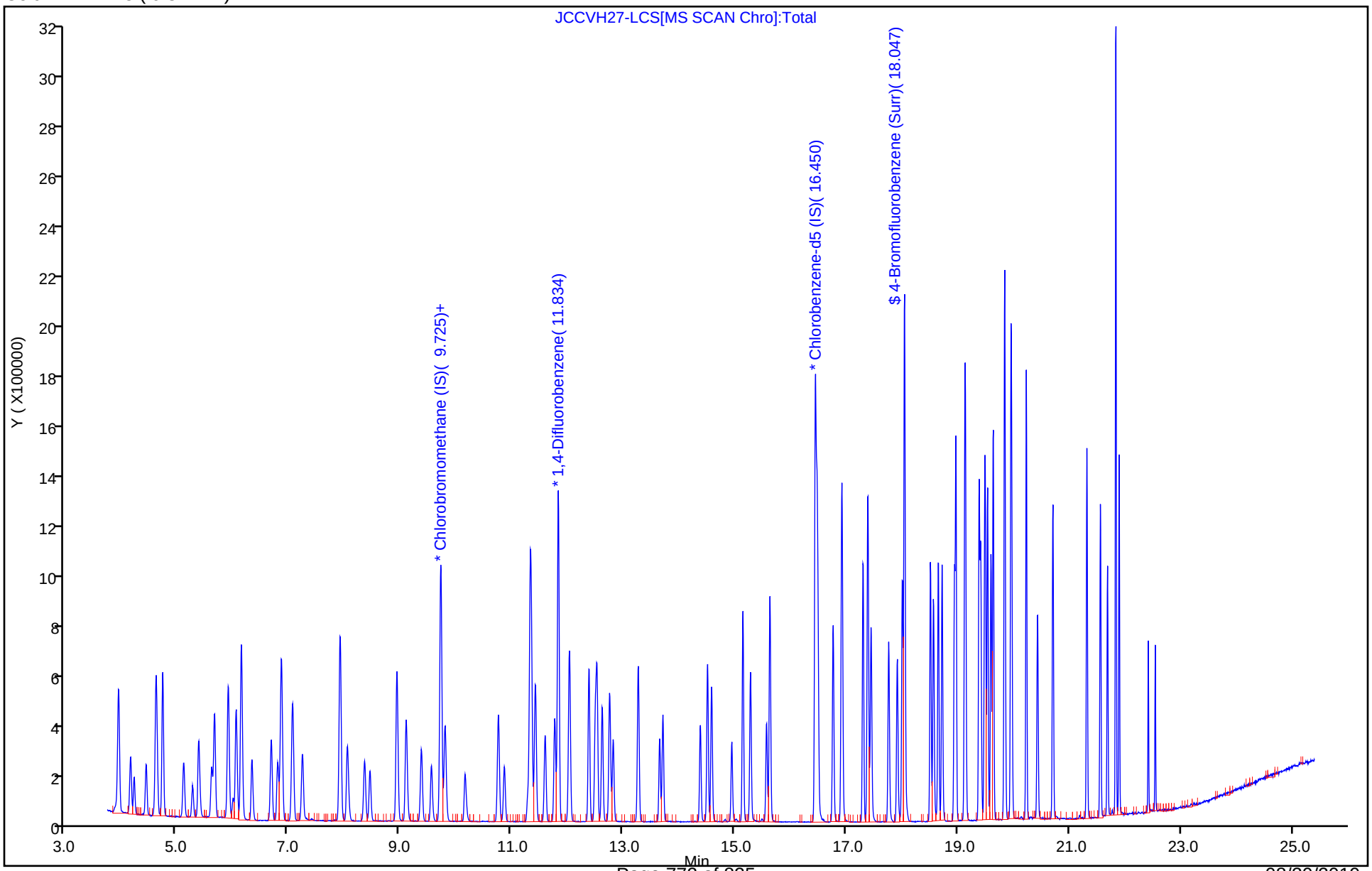
Report Date: 28-Aug-2019 10:39:35 Chrom Revision: 2.3 22-Aug-2019 12:55:36

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d

Injection Date:	27-Aug-2019 08:11:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



08/30/2019

TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\JCCVH27-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	27-Aug-2019 08:11:30	ALS Bottle#:	7	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012855-002				
Misc. Info.:	p92				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190825-12855.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-Aug-2019 10:39:25	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

First Level Reviewer: khachitpongpanits Date: 28-Aug-2019 10:39:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.63	90.63

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 07/19/2019 19:07

Analysis Batch Number: 31858 End Date: 07/20/2019 12:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31858/2		07/19/2019 19:07	1	JBFBG19.D	RTX-5 0.32(mm)
IC 140-31858/4		07/19/2019 20:27	1	JG19IC09.D	RTX-5 0.32(mm)
IC 140-31858/6		07/19/2019 22:08	1	JG19IC10.D	RTX-5 0.32(mm)
IC 140-31858/9		07/20/2019 00:39	1	JG19IC01.D	RTX-5 0.32(mm)
IC 140-31858/10		07/20/2019 01:29	1	JG19IC02.D	RTX-5 0.32(mm)
IC 140-31858/11		07/20/2019 02:19	1	JG19IC03.D	RTX-5 0.32(mm)
IC 140-31858/12		07/20/2019 03:08	1	JG19IC04.D	RTX-5 0.32(mm)
IC 140-31858/13		07/20/2019 03:58	1	JG19IC05.D	RTX-5 0.32(mm)
IC 140-31858/14		07/20/2019 04:48	1	JG19IC06.D	RTX-5 0.32(mm)
ICIS 140-31858/15		07/20/2019 05:37	1	JG19IC07.D	RTX-5 0.32(mm)
IC 140-31858/16		07/20/2019 06:27	1	JG19IC08.D	RTX-5 0.32(mm)
ICV 140-31858/30		07/20/2019 12:28	1	JG19ICVR.D	RTX-5 0.32(mm)

190719.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	21.5	7/19/2019	7:07:02 PM
BLK	16 - 201 mL	21.2	7/19/2019	7:36:56 PM
IC09	12 - 201 mL	9.5	7/19/2019	8:27:42 PM
BLK	14 - 201 mL	21.2	7/19/2019	9:18:14 PM
IC10	15 - 200 mL	29.4	7/19/2019	10:08:35 PM
BLK	16 - 201 mL	21	7/19/2019	10:59:16 PM
BLK	16 - 200 mL	19.6	7/19/2019	11:49:51 PM
IC01	1 - 51 mL	29.1	7/20/2019	12:39:37 AM
IC02	1 - 101 mL	28.6	7/20/2019	1:29:09 AM
IC03	1 - 201 mL	27.7	7/20/2019	2:19:01 AM
IC04	2 - 201 mL	23.5	7/20/2019	3:08:19 AM
IC05	3 - 202 mL	26.1	7/20/2019	3:58:27 AM
IC06	4 - 201 mL	29.8	7/20/2019	4:47:59 AM
IC07	5 - 101 mL	24.9	7/20/2019	5:37:55 AM
IC08	5 - 201 mL	23.3	7/20/2019	6:27:23 AM
BLK	6 - 201 mL	20.4	7/20/2019	7:17:39 AM
ICV	7 - 101 mL	25.2	7/20/2019	8:08:17 AM
LCS	8 - 101 mL	32.7	7/20/2019	8:59:34 AM
BLK	16 - 501 mL	19.9	7/20/2019	9:55:04 AM
MB	16 - 501 mL	19.4	7/20/2019	10:51:09 AM
ICV	10 - 101 mL	17.6	7/20/2019	12:28:34 PM

MJ ICAL WL 12415

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	7/28/19	Instrument:	HJ	Chrom WL #:	12415	TALS Batch & Event #	TO14/15: 31858 / 2054	DOD5: 31861 / 2057
							DOD: 31859 / 2055	OHIO: 31860 / 2056

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA	In ICV	NA
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	NA	→	→		NA		→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA	→	→		NA		→
19. Is the intercept less than the RL for each curve? [F6]	NA	→	→		NA		→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA	→	na		NA	→	na
21. Is low point RSE ≤ 50 %? Meets 50 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: [signature] 7/28/19

2nd Level Reviewer/Date: AS 7/24/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL		✓			na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	NA	→	→		✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na				

Analyst/date: AS 7/24/19

Comments: UR 8, # 19, 20, 104, 1+2 methylnapl. Meets

2nd Level Reviewer/date: 07/24/19

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MR Start Date: 08/12/2019 13:04

Analysis Batch Number: 32571 End Date: 08/13/2019 03:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32571/1		08/12/2019 13:04	1	RBFBH12IC.D	RTX-5 0.32(mm)
IC 140-32571/2		08/12/2019 13:33	1	RH12IC09.D	RTX-5 0.32(mm)
IC 140-32571/4		08/12/2019 15:13	1	RH12IC10.D	RTX-5 0.32(mm)
IC 140-32571/7		08/12/2019 17:38	1	RH12IC01.D	RTX-5 0.32(mm)
IC 140-32571/8		08/12/2019 18:26	1	RH12IC02.D	RTX-5 0.32(mm)
140-15873-A-1 MDLV		08/12/2019 18:26	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:26	1		RTX-5 0.32(mm)
IC 140-32571/9		08/12/2019 19:15	1	RH12IC03.D	RTX-5 0.32(mm)
140-15873-A-2 MDLV		08/12/2019 19:15	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:15	1		RTX-5 0.32(mm)
IC 140-32571/10		08/12/2019 20:04	1	RH12IC04.D	RTX-5 0.32(mm)
140-15873-A-3 MDLV		08/12/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:04	1		RTX-5 0.32(mm)
IC 140-32571/11		08/12/2019 20:53	1	RH12IC05.D	RTX-5 0.32(mm)
140-15873-A-4 MDLV		08/12/2019 20:53	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:53	1		RTX-5 0.32(mm)
IC 140-32571/12		08/12/2019 21:41	1	RH12IC06.D	RTX-5 0.32(mm)
ICIS 140-32571/13		08/12/2019 22:32	1	RH12IC07.D	RTX-5 0.32(mm)
IC 140-32571/14		08/12/2019 23:20	1	RH12IC08.D	RTX-5 0.32(mm)
ICV 140-32571/16		08/13/2019 00:56	1	RH12ICV.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 03:33	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/12/19	Instrument:	MR	Chrom WL #:	12700	TALS Batch & Event #	TO14/15: 2089 / 32571	DOD5: 2090 / 32572
							DOD: 2092 / 32574	OHIO: 2091 / 32573

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	pts removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		na
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	in ICV	na
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	na	→	→		na	→	→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	na	→	→		na	→	→
19. Is the intercept less than the RL for each curve? [F6]	na	→	→		na	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	na	→	na		na	na	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? #10 ↑ICV must be ND [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 8/13/19 **2nd Level Reviewer/Date:** 08/14/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	na	→			na	→	→
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/15/19 **2nd Level Reviewer/date:** 08/15/19

Comments: 1,2 Dichloro-1,1,2,2- tetra fluoroethane must be ND- ↑ in ICV.

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/20/2019 08:38

Analysis Batch Number: 32828 End Date: 08/21/2019 04:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32828/1		08/20/2019 08:38	1	JBFBH20.D	RTX-5 0.32(mm)
CCVIS 140-32828/2		08/20/2019 09:08	1	JCCVH20.D	RTX-5 0.32(mm)
LCS 140-32828/1002		08/20/2019 09:08	1	JCCVH20-LCS.d	RTX-5 0.32(mm)
MB 140-32828/4		08/20/2019 10:41	1	J500BH20.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 11:30	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 12:19	1		RTX-5 0.32(mm)
ZZZZZ		08/20/2019 13:08	1		RTX-5 0.32(mm)
140-16377-1		08/20/2019 14:06	1	JH20P201.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 15:39	1		RTX-5 0.32(mm)
140-16377-20		08/20/2019 16:29	1	JH20P101.D	RTX-5 0.32(mm)
140-16377-9		08/20/2019 17:19	1	JH20P102.D	RTX-5 0.32(mm)
140-16377-10		08/20/2019 18:08	1	JH20P103.D	RTX-5 0.32(mm)
140-16377-11		08/20/2019 18:57	1	JH20P104.D	RTX-5 0.32(mm)
140-16377-12		08/20/2019 19:46	1	JH20P105.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 20:36	1		RTX-5 0.32(mm)
140-16377-13		08/20/2019 21:24	1	JH20P107.D	RTX-5 0.32(mm)
140-16377-14		08/20/2019 22:14	1	JH20P108.D	RTX-5 0.32(mm)
ZZZZZ		08/20/2019 23:02	1		RTX-5 0.32(mm)
140-16377-15		08/20/2019 23:52	1	JH20P110.D	RTX-5 0.32(mm)
140-16377-16		08/21/2019 00:41	1	JH20P111.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 01:31	1		RTX-5 0.32(mm)
140-16377-17		08/21/2019 02:20	1	JH20P113.D	RTX-5 0.32(mm)
140-16377-18		08/21/2019 03:10	1	JH20P114.D	RTX-5 0.32(mm)
140-16377-19		08/21/2019 04:00	1	JH20P116D.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 04:50	1		RTX-5 0.32(mm)

190820.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	21.6	8/20/2019	8:38:43 AM
CCV	1 - 100 mL	29	8/20/2019	9:08:07 AM
DNU	16 - 100 mL	21.4	8/20/2019	10:07:31 AM
MB	16 - 501 mL	20.8	8/20/2019	10:41:46 AM
16369-16	11 - 101 mL	3.7	8/20/2019	11:30:39 AM
16369-17	13 - 100 mL	3.7	8/20/2019	12:19:35 PM
16369-18	14 - 101 mL	3.7	8/20/2019	1:08:52 PM
16377-01	1 - 101 mL	6.4	8/20/2019	2:06:44 PM
DNU	15 - 51 mL	9.7	8/20/2019	3:10:08 PM
16349-06	15 - 250 mL	5.7	8/20/2019	3:39:06 PM
16377-20	1 - 101 mL	3.6	8/20/2019	4:29:28 PM
16377-09	2 - 102 mL	7.7	8/20/2019	5:19:01 PM
16377-10	3 - 102 mL	6.5	8/20/2019	6:08:11 PM
16377-11	4 - 102 mL	7.8	8/20/2019	6:57:35 PM
16377-12	5 - 102 mL	7.8	8/20/2019	7:46:36 PM
16349-03	6 - 250 mL	4.1	8/20/2019	8:35:58 PM
16377-13	7 - 101 mL	6.7	8/20/2019	9:24:41 PM
16377-14	8 - 101 mL	6.6	8/20/2019	10:14:23 PM
16349-04	9 - 250 mL	3.8	8/20/2019	11:02:47 PM
16377-15	10 - 101 mL	6	8/20/2019	11:52:23 PM
16377-16	11 - 101 mL	7.1	8/21/2019	12:41:56 AM
16349-05	12 - 21 mL	7.3	8/21/2019	1:31:06 AM
16377-17	13 - 102 mL	7.9	8/21/2019	2:20:52 AM
16377-18	14 - 101 mL	5.9	8/21/2019	3:10:48 AM
16377-19	16 - 101 mL	6.4	8/21/2019	4:00:18 AM
16377-19	16 - 101 mL	3.6	8/21/2019	4:50:32 AM

MJ WL 12792

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/20/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12792	CCAL Batch #	32828		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MJS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MJS
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawarn K. 8/21/2019		**2nd Level Reviewer/date** 08/21/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason 140-16349-3 NT / 140-16349-4 NT 140-16349-6 NT	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☑ (2) Reporting Limit – Dilution, Non-Target (NCM#19272) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MJS
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		MS
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	CSXPL	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-328284 **200 mL blank ID:** ✓	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphannee M.	**Date:** 8/21/2019	**2nd Level Reviewer :** ✓	**Date:** 8/21/19
Comments:		**Comments:**	
Cr lines 5, 6, 11			

Example Calculation: 140-16349-5 TCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$12.97852 \times \frac{500}{20} \times 1.0 = 324.46$

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/21/2019 09:15

Analysis Batch Number: 32829 End Date: 08/22/2019 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32829/1		08/21/2019 09:15	1	JBFBH21.D	RTX-5 0.32(mm)
CCVIS 140-32829/2		08/21/2019 09:44	1	JCCVH21.D	RTX-5 0.32(mm)
LCS 140-32829/1002		08/21/2019 09:44	1	JCCVH21-LCS.d	RTX-5 0.32(mm)
MB 140-32829/4		08/21/2019 12:47	1	J500BH21.D	RTX-5 0.32(mm)
ZZZZZ		08/21/2019 15:29	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:09	1		RTX-5 0.32(mm)
ZZZZZ		08/21/2019 17:59	1		RTX-5 0.32(mm)
140-16377-3		08/21/2019 20:28	1	JH21P106.D	RTX-5 0.32(mm)
140-16377-5		08/21/2019 21:18	1	JH21P107.D	RTX-5 0.32(mm)
140-16377-12 DL		08/21/2019 22:07	1	JH21P108.D	RTX-5 0.32(mm)
140-16377-15 DL		08/21/2019 22:56	1	JH21P109.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 00:34	1		RTX-5 0.32(mm)
140-16377-4		08/22/2019 01:23	1	JH21P111.D	RTX-5 0.32(mm)
140-16377-6		08/22/2019 02:13	3.72	JH21P112.D	RTX-5 0.32(mm)
140-16377-7		08/22/2019 03:02	1	JH21P113.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 04:41	1		RTX-5 0.32(mm)
140-16377-8		08/22/2019 05:31	1	JH21P114.D	RTX-5 0.32(mm)
ZZZZZ		08/22/2019 06:21	2.95		RTX-5 0.32(mm)
ZZZZZ		08/22/2019 07:10	1		RTX-5 0.32(mm)

190821.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	20.9	8/21/2019	9:15:15 AM
CCV	5 - 100 mL	28.5	8/21/2019	9:44:27 AM
LCSD	5 - 100 mL	28.3	8/21/2019	10:53:05 AM
DNU	16 - 101 mL	21	8/21/2019	12:16:56 PM
MB	16 - 500 mL	20.4	8/21/2019	12:47:42 PM
DNU	STD- 50 mL	11	8/21/2019	2:59:43 PM
16369-23	1 - 100 mL	3.5	8/21/2019	3:29:21 PM
16369-24	2 - 101 mL	3.7	8/21/2019	4:19:09 PM
16367-04	3 - 101 mL	3.5	8/21/2019	5:09:48 PM
16367-08	4 - 100 mL	3.3	8/21/2019	5:59:06 PM
DRY	STD- 200 mL	10.6	8/21/2019	6:48:23 PM
16377-02	5 - 101 mL	5.6	8/21/2019	7:38:25 PM
16377-03	6 - 11 mL	9.5	8/21/2019	8:28:31 PM
16377-05	7 - 11 mL	9.5	8/21/2019	9:18:33 PM
16377-12	8 - 30 mL	6.8	8/21/2019	10:07:46 PM
16377-13	9 - 31 mL	3.6	8/21/2019	10:56:26 PM
DRY	STD- 200 mL	10.2	8/21/2019	11:44:49 PM
16367-05	10 - 100 mL	3.4	8/22/2019	12:34:33 AM
16377-04	11 - 101 mL	3.8	8/22/2019	1:23:36 AM
16377-06	12 - 102 mL	8	8/22/2019	2:12:58 AM
16377-07	13 - 100 mL	3.5	8/22/2019	3:02:22 AM
DRY	STD- 200 mL	9.7	8/22/2019	3:51:49 AM
16377-08	14 - 101 mL	5	8/22/2019	4:41:34 AM
16377-08	14 - 100 mL	3.5	8/22/2019	5:31:12 AM
16363-01	15 - 11 mL	11	8/22/2019	6:20:59 AM
16388-03	16 - 21 mL	8.8	8/22/2019	7:10:54 AM

MJ WL 12793

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/21/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12793	CCAL Batch #	32829		
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Sophonna H 8/23/2019		**2nd Level Reviewer/date** 08/23/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32829/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		MS
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?		Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphaporn Kh. **Date:** 8/23/2019	**2nd Level Reviewer:** ✓ **Date:** 08/26/19
Comments:	**Comments:**
Example Calculation: 140-16377-5 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
8.844193 x 500 / 11 x 1.0 = 402.01	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MR Start Date: 08/23/2019 10:17

Analysis Batch Number: 32868 End Date: 08/24/2019 06:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32868/1		08/23/2019 10:17	1	RBFBH23A.D	RTX-5 0.32(mm)
CCVIS 140-32868/2		08/23/2019 10:44	1	RCCVH23A.D	RTX-5 0.32(mm)
LCS 140-32868/1002		08/23/2019 10:44	1	RCCVH23A-LCS.d	RTX-5 0.32(mm)
MB 140-32868/4		08/23/2019 12:46	1	R500BH23.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 15:21	2.87		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:08	1.45		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 16:57	1.53		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 17:48	1.89		RTX-5 0.32(mm)
140-16377-2		08/23/2019 18:36	1	RH23P106.D	RTX-5 0.32(mm)
140-16377-3 DL		08/23/2019 19:23	3.64	RH23P107.D	RTX-5 0.32(mm)
ZZZZZ		08/23/2019 21:47	1.76		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 22:35	5.03		RTX-5 0.32(mm)
ZZZZZ		08/23/2019 23:22	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 00:10	1.47		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:00	4.15		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 01:50	1.52		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 02:42	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 03:35	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 04:23	1.67		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 05:16	1		RTX-5 0.32(mm)
ZZZZZ		08/24/2019 06:09	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 8/23/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12811	CCAL Batch #	372868		
ICAL Chrom WL #	12700	ICAL Batch # / Event #	372571 / 2089	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Dichlorodifluoromethane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Supharoma Kh. 8/26/2019		**2nd Level Reviewer/date** ✓ 08/26/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ on screen	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	ns
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19376) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	ns
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32868/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Siphawone Kh. **Date:** 8/26/2019	**2nd Level Reviewer :** ✓ **Date:** 08/27/19
Comments:	**Comments:**
Example Calculation: 140-16376-8 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
$\frac{4.222734 \times 500 \times 5.03}{100} = 106.20$	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Instrument ID: MJ Start Date: 08/27/2019 07:42

Analysis Batch Number: 32985 End Date: 08/27/2019 15:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32985/1		08/27/2019 07:42	1	JBFBH27.D	RTX-5 0.32(mm)
CCVIS 140-32985/2		08/27/2019 08:11	1	JCCVH27.D	RTX-5 0.32(mm)
LCS 140-32985/1002		08/27/2019 08:11	1	JCCVH27-LCS.d	RTX-5 0.32(mm)
MB 140-32985/4		08/27/2019 10:12	1	J500BH27.D	RTX-5 0.32(mm)
ZZZZZ		08/27/2019 11:02	1		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 12:41	1		RTX-5 0.32(mm)
ZZZZZ		08/27/2019 14:52	1.52		RTX-5 0.32(mm)
140-16377-6 DL		08/27/2019 15:43	3.72	JH27P102.D	RTX-5 0.32(mm)

190827.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	34.9	8/27/2019	7:42:19 AM
CCV	7 - 101 mL	25	8/27/2019	8:11:21 AM
DNU	16 - 101 mL	34.7	8/27/2019	9:41:12 AM
MB	16 - 502 mL	34.5	8/27/2019	10:12:25 AM
MB	16 - 200 mL	34.1	8/27/2019	11:02:00 AM
16377-06	14 - 31 mL	9.8	8/27/2019	11:51:56 AM
16376-06	15 - 30 mL	5.8	8/27/2019	12:41:25 PM
DNU	16 - 100 mL	7.6	8/27/2019	2:22:51 PM
16376-13	1 - 14 mL	12.3	8/27/2019	2:52:46 PM
16377-06	2 - 11 mL	10.6	8/27/2019	3:43:30 PM
16439-01	3 - 501 mL	8	8/27/2019	4:33:23 PM
16426-02	4 - 21 mL	9	8/27/2019	5:22:56 PM
16426-05	5 - 500 mL	3.8	8/27/2019	6:14:01 PM
16426-06	6 - 696 mL	3.6	8/27/2019	7:06:39 PM
16426-08	7 - 200 mL	4.1	8/27/2019	7:56:37 PM
16426-03	16 - 100 mL	6.8	8/27/2019	8:46:47 PM

MJ WL 12855

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 8/27/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12855	CCAL Batch #	32985		33066
ICAL Chrom WL #	12415	ICAL Batch # / Event #	31858 / 2054	/	31860 / 2056

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		na
2. Did BFB meet tune criteria? [F8]	/	□ [Failed TO-14A, but passes TO-15]	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	/	List Target analytes outside CCV limits:	/
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3- , 1,4- , and 1,2-dichlorobenzene	/		/
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	/		/
Analyst/date Suphanana Kh 8/28/2019.		**2nd Level Reviewer/date** 08 28 19	
7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/	Corrected vol line 9,10 8/28/19	/
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/	8/28/19	/
9. Can dilution history verified? [Mgmt Report]	/		/
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	/	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	/
11. All runs - peaks ID'd correctly and false positives removed?	/		/
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	/		/
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	/	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	/
14. Samples outside calibration range scheduled for dilution?	/	□ ICAL – Range Exceeded; Minimum Dilution	/

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	/	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	/
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	ns
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		ns
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	ns
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32985/4, 140-33066/4 **200 mL blank ID:** 140-32985/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		ns
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphannee Ph.	Date: 8/28/2019	2nd Level Reviewer:	Date: 8/28/19
Comments:		**Comments:**	

Example Calculation: 140-16377-b TCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$4.865337 \times \frac{500}{10} \times 3.72 = 904.95$

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32828/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32828/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32828/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-1	SV-116-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-20	SV-101-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-9	SV-079-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-10	SV-DUP04-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-11	SV-139-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-12	SV-118-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-13	SV-015-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-14	SV-078-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-15	SV-136-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-16	SV-076-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-17	SV-168-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-18	SV-075-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-19	SV-100-B-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32828/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003
BFB 140-32828/1		TO 15 LL		40 mL
CCVIS 140-32828/2		TO 15 LL		
MB 140-32828/4		TO 15 LL		
140-16377-A-1	SV-116-A-27	TO 15 LL	T	
140-16377-A-20	SV-101-B-27	TO 15 LL	T	
140-16377-A-9	SV-079-A-27	TO 15 LL	T	
140-16377-A-10	SV-DUP04-A-27	TO 15 LL	T	
140-16377-A-11	SV-139-A-27	TO 15 LL	T	
140-16377-A-12	SV-118-A-27	TO 15 LL	T	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32828 Batch Start Date: 08/20/19 08:38 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
140-16377-A-13	SV-015-A-27	TO 15 LL	T						
140-16377-A-14	SV-078-A-27	TO 15 LL	T						
140-16377-A-15	SV-136-A-27	TO 15 LL	T						
140-16377-A-16	SV-076-A-27	TO 15 LL	T						
140-16377-A-17	SV-168-A-27	TO 15 LL	T						
140-16377-A-18	SV-075-A-27	TO 15 LL	T						
140-16377-A-19	SV-100-B-27	TO 15 LL	T						
LCS 140-32828/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32829/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32829/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32829/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-3	SV-173-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16377-A-5	SV-171-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
140-16377-A-12	SV-118-A-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16377-A-15	SV-136-A-27	TO 15 LL	T	30 mL	500 mL	1	1		40 mL
140-16377-A-4	SV-138-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-6	SV-174-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-7	SV-093-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-8	SV-170-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-32829/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32829/1		TO 15 LL		40 mL					
CCVIS 140-32829/2		TO 15 LL							
MB 140-32829/4		TO 15 LL							
140-16377-A-3	SV-173-A-27	TO 15 LL	T						
140-16377-A-5	SV-171-A-27	TO 15 LL	T						
140-16377-A-12	SV-118-A-27	TO 15 LL	T						
140-16377-A-15	SV-136-A-27	TO 15 LL	T						
140-16377-A-4	SV-138-A-27	TO 15 LL	T						
140-16377-A-6	SV-174-A-27	TO 15 LL	T						
140-16377-A-7	SV-093-A-27	TO 15 LL	T						
140-16377-A-8	SV-170-A-27	TO 15 LL	T						
LCS 140-32829/1002		TO 15 LL							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32829 Batch Start Date: 08/21/19 09:15 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32868 Batch Start Date: 08/23/19 10:17 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00093	40MXISSURP 00004
BFB 140-32868/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32868/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-32868/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-2	SV-DUP03-A-27	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16377-A-3	SV-173-A-27	TO 15 LL	T	10 mL	500 mL	1	1		40 mL
LCS 140-32868/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32868/1		TO 15 LL		40 mL					
CCVIS 140-32868/2		TO 15 LL							
MB 140-32868/4		TO 15 LL							
140-16377-A-2	SV-DUP03-A-27	TO 15 LL	T						
140-16377-A-3	SV-173-A-27	TO 15 LL	T						
LCS 140-32868/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16377-1

SDG No.:

Batch Number: 32985 Batch Start Date: 08/27/19 07:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00092	40MXISSURP 00004
BFB 140-32985/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32985/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32985/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16377-A-6	SV-174-A-27	TO 15 LL	T	11 mL	500 mL	1	1		40 mL
LCS 140-32985/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32985/1		TO 15 LL		40 mL					
CCVIS 140-32985/2		TO 15 LL							
MB 140-32985/4		TO 15 LL							
140-16377-A-6	SV-174-A-27	TO 15 LL	T						
LCS 140-32985/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16377-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16377-3	1	-4.4	0.85	0.85	31.0	3.11	3.11		3.64	3.64	08/23/19 11:36	Taj, Holly M
140-16377-6	1	-3.9	0.87	0.87	32.9	3.24	3.24		3.72	3.72	08/21/19 13:50	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND	*	1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND	*	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND	*	2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND	*	0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND	*	0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND	*	5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND	*	1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15799-1

SDG No.:

Client Sample ID: 09735 Lab Sample ID: 140-15799-13

Matrix: Air Lab File ID: GG01LOT15799.D

Analysis Method: TO-15 Date Collected: 06/28/2019 15:20

Sample wt/vol: 200(mL) Date Analyzed: 07/01/2019 14:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31181 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D				
Lims ID:	140-15799-A-13				
Client ID:	09735				
Sample Type:	Client				
Inject. Date:	01-Jul-2019 14:18:30	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012175-005				
Misc. Info.:	09735				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190627-12175.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	02-Jul-2019 15:20:34	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	02-Jul-2019 15:22:25		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	95	360511	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.329	0.006	95	2031465	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.010	16.010	0.000	87	1805839	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.633	0.000	97	1216973	4.38	
7 Propene	41	3.840	3.834	0.006	97	32675	0.2807	
31 Methylene Chloride	84	6.557	6.552	0.005	96	22489	0.1555	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

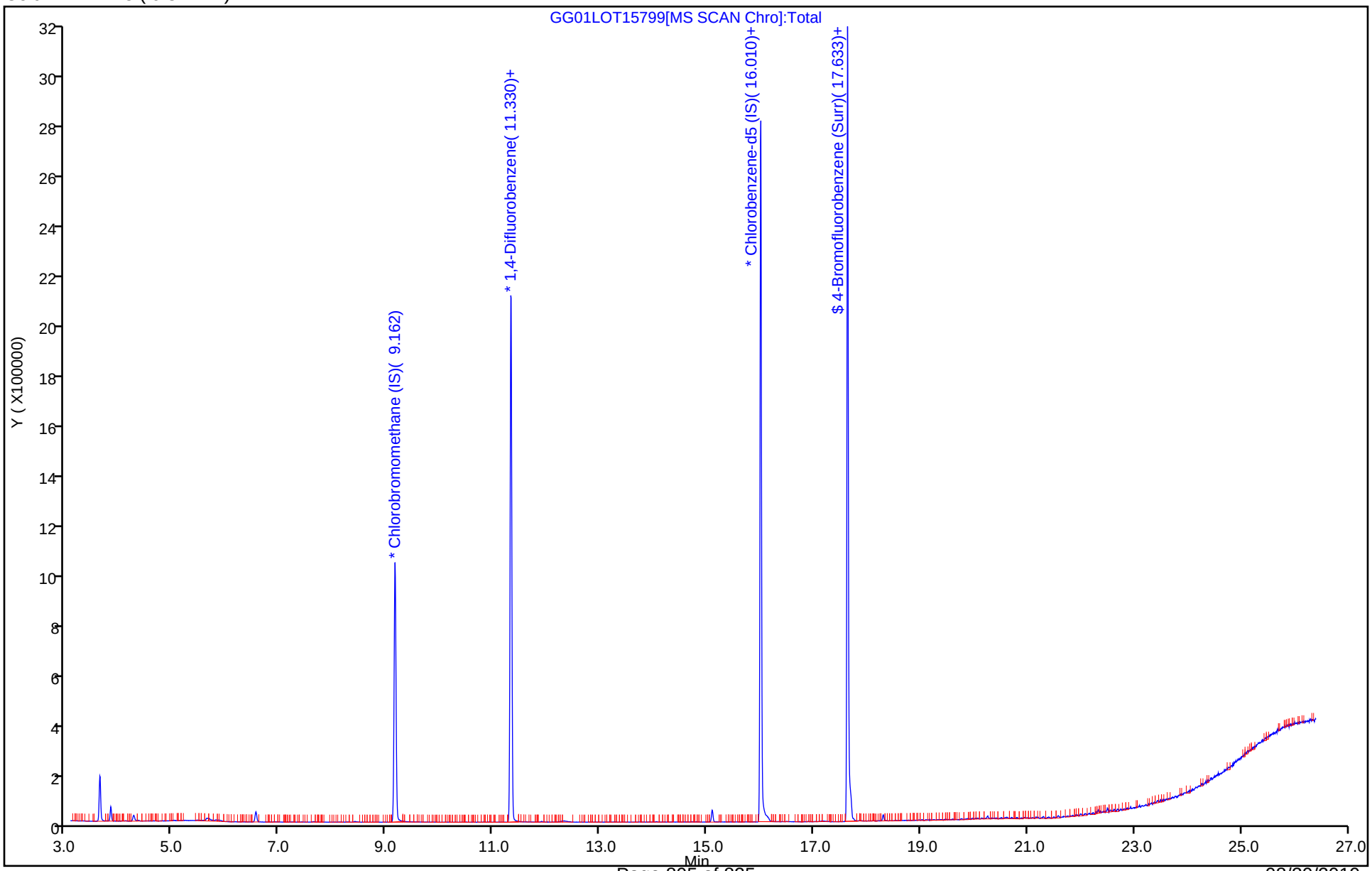
Report Date: 02-Jul-2019 15:22:26 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190627-12175.b\GG01LOT15799.D

Injection Date:	01-Jul-2019 14:18:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-15799-A-13	Lab Sample ID:	140-15799-13	Worklist Smp#:	5
Client ID:	09735				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15818-1

SDG No.:

Client Sample ID: 11554 Lab Sample ID: 140-15818-11

Matrix: Air Lab File ID: HG04LOT15818.D

Analysis Method: TO-15 Date Collected: 07/01/2019 10:10

Sample wt/vol: 200(mL) Date Analyzed: 07/05/2019 05:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31307 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D
Lims ID: 140-15818-A-11
Client ID: 11554
Sample Type: Client
Inject. Date: 05-Jul-2019 05:25:30 ALS Bottle#: 1 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012211-023
Misc. Info.: 11554
Operator ID: AFB Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 08:25:59 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 08:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	87	283374	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1354218	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	87	1065007	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.255	17.281	-0.026	97	661926	3.65	
7 Propene	41	3.554	3.547	0.005	99	17412	0.2235	
31 Methylene Chloride	84	6.081	6.078	0.000	97	18749	0.1606	
33 Carbon disulfide	76	6.236	6.238	-0.006	90	4409	0.0141	
45 1,1,1-Trichloroethane	97	9.663	9.657	0.000	95	5088	0.0209	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

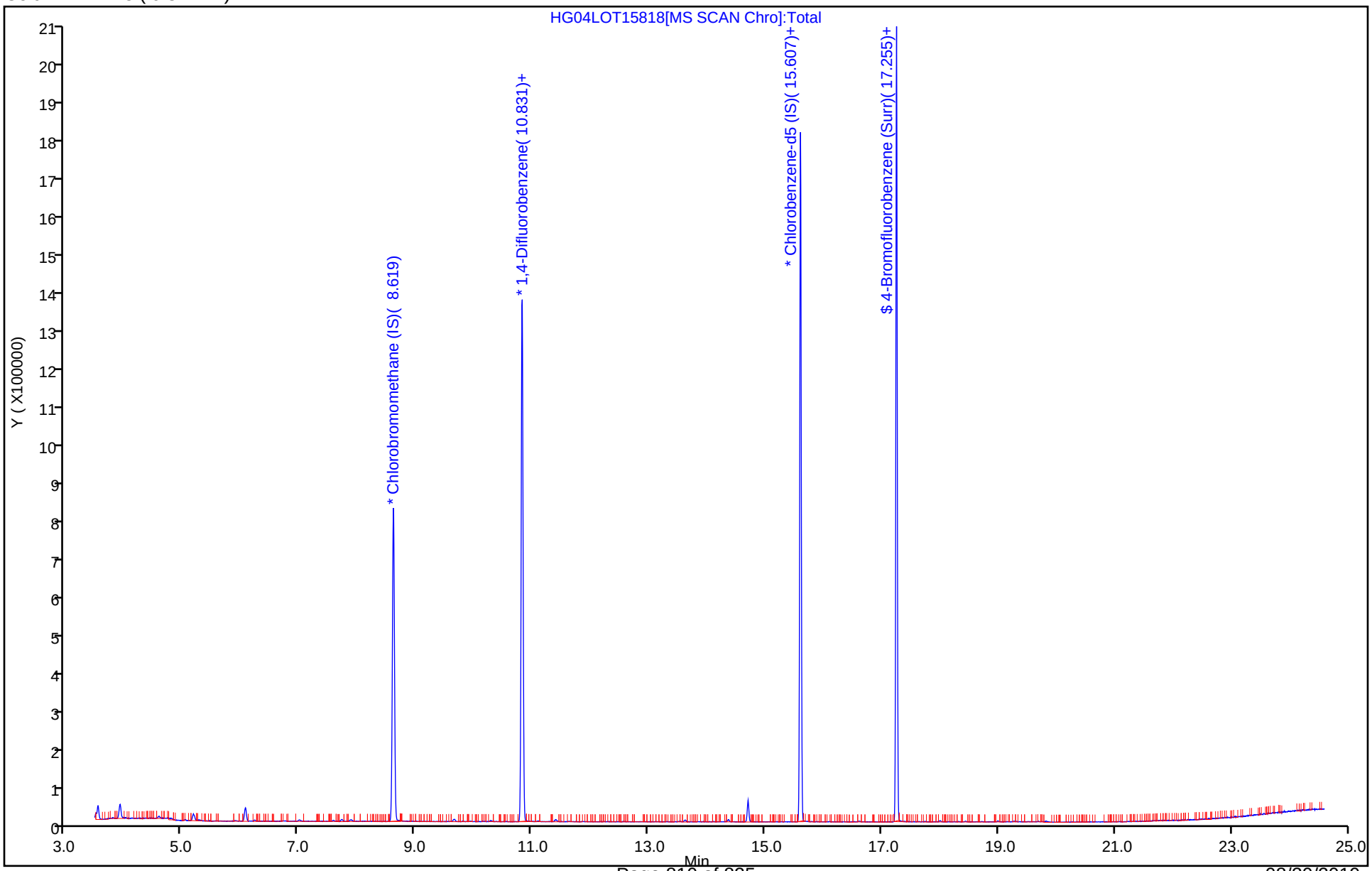
Report Date: 08-Jul-2019 08:26:27 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190701-12211.b\HG04LOT15818.D

Injection Date:	05-Jul-2019 05:25:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	140-15818-A-11	Lab Sample ID:	140-15818-11	Worklist Smp#:	23
Client ID:	11554				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15841-1

SDG No.:

Client Sample ID: 10746 Lab Sample ID: 140-15841-14

Matrix: Air Lab File ID: HG06LOT15841.D

Analysis Method: TO-15 Date Collected: 07/03/2019 09:20

Sample wt/vol: 200(mL) Date Analyzed: 07/06/2019 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31401 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D
Lims ID: 140-15841-A-14
Client ID: 10746
Sample Type: Client
Inject. Date: 06-Jul-2019 14:02:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012246-004
Misc. Info.: 200mL 10746
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Jul-2019 12:30:24 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 08-Jul-2019 12:31:45

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.624	8.624	0.000	85	391331	4.00	
*	2 1,4-Difluorobenzene	114	10.831	10.831	0.000	94	1867475	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	86	1457045	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.276	17.281	-0.005	97	883485	3.56	
	7 Propene	41	3.554	3.554	0.000	98	24277	0.2256	
	31 Methylene Chloride	84	6.086	6.081	0.005	94	34631	0.2148	
	33 Carbon disulfide	76	6.247	6.242	0.005	96	8915	0.0207	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

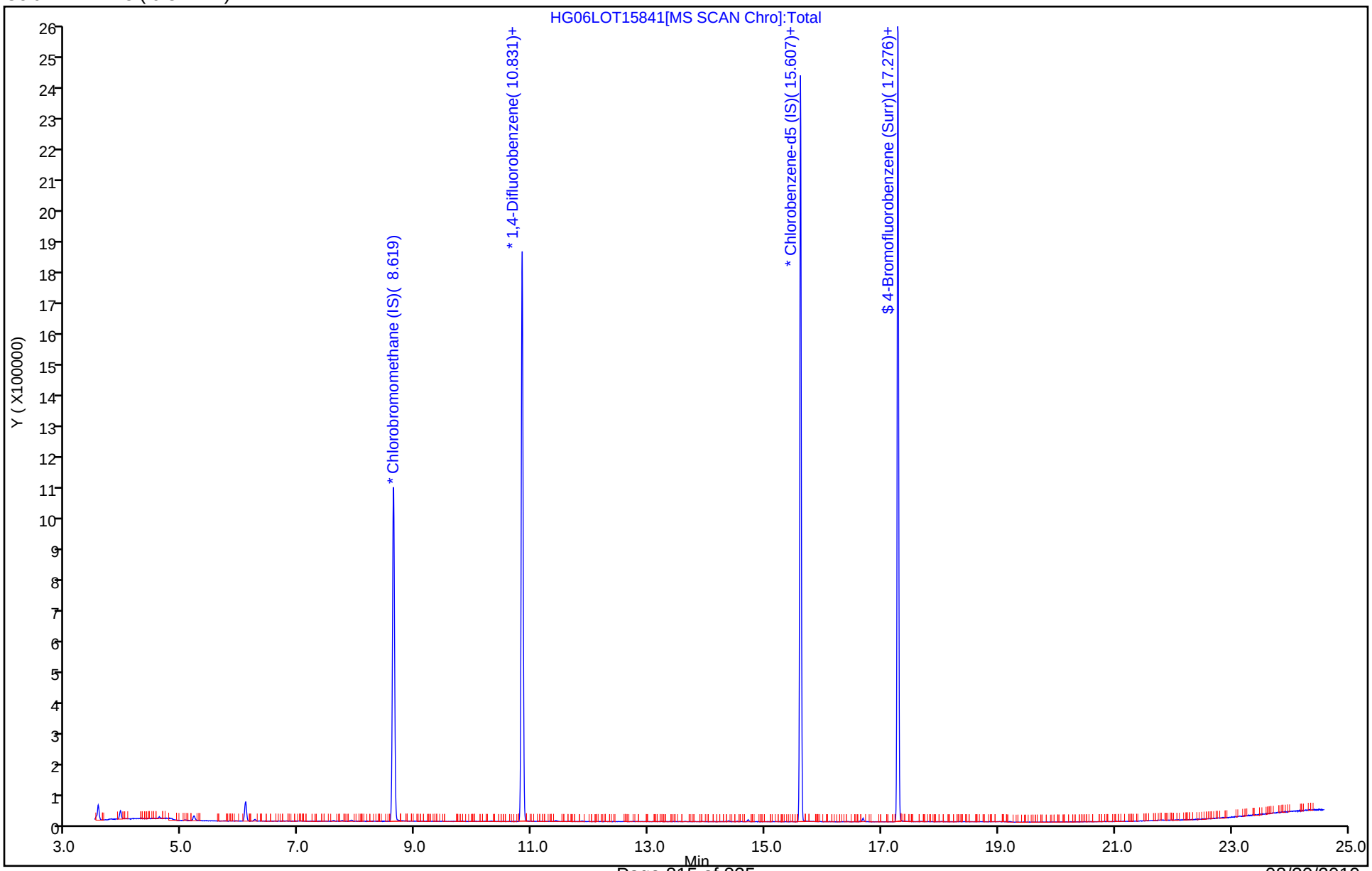
Report Date: 08-Jul-2019 12:31:46 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190704-12246.b\HG06LOT15841.D

Injection Date:	06-Jul-2019 14:02:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-15841-A-14	Lab Sample ID:	140-15841-14	Worklist Smp#:	4
Client ID:	10746				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



08/30/2019

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	*	0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND	*	0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15955-1

SDG No.:

Client Sample ID: 10500 Lab Sample ID: 140-15955-1

Matrix: Air Lab File ID: G11L15955.D

Analysis Method: TO-15 Date Collected: 07/10/2019 17:10

Sample wt/vol: 200(mL) Date Analyzed: 07/12/2019 07:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31526 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND	*	0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D
Lims ID: 140-15955-A-1
Client ID: 10500
Sample Type: Client
Inject. Date: 12-Jul-2019 07:00:30 ALS Bottle#: 13 Worklist Smp#: 26
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012293-026
Misc. Info.: 10500
Operator ID: HMT Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 12-Jul-2019 05:43:43 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: khachitpongpanits Date: 12-Jul-2019 18:45:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.624	-0.005	91	191399	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.831	-0.005	95	915360	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	95	707556	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.250	17.255	-0.005	93	460220	3.82	
7 Propene	41	3.549	3.547	0.000	99	15452	0.2936	
45 1,1,1-Trichloroethane	97	9.668	9.657	0.005	97	2965	0.0181	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

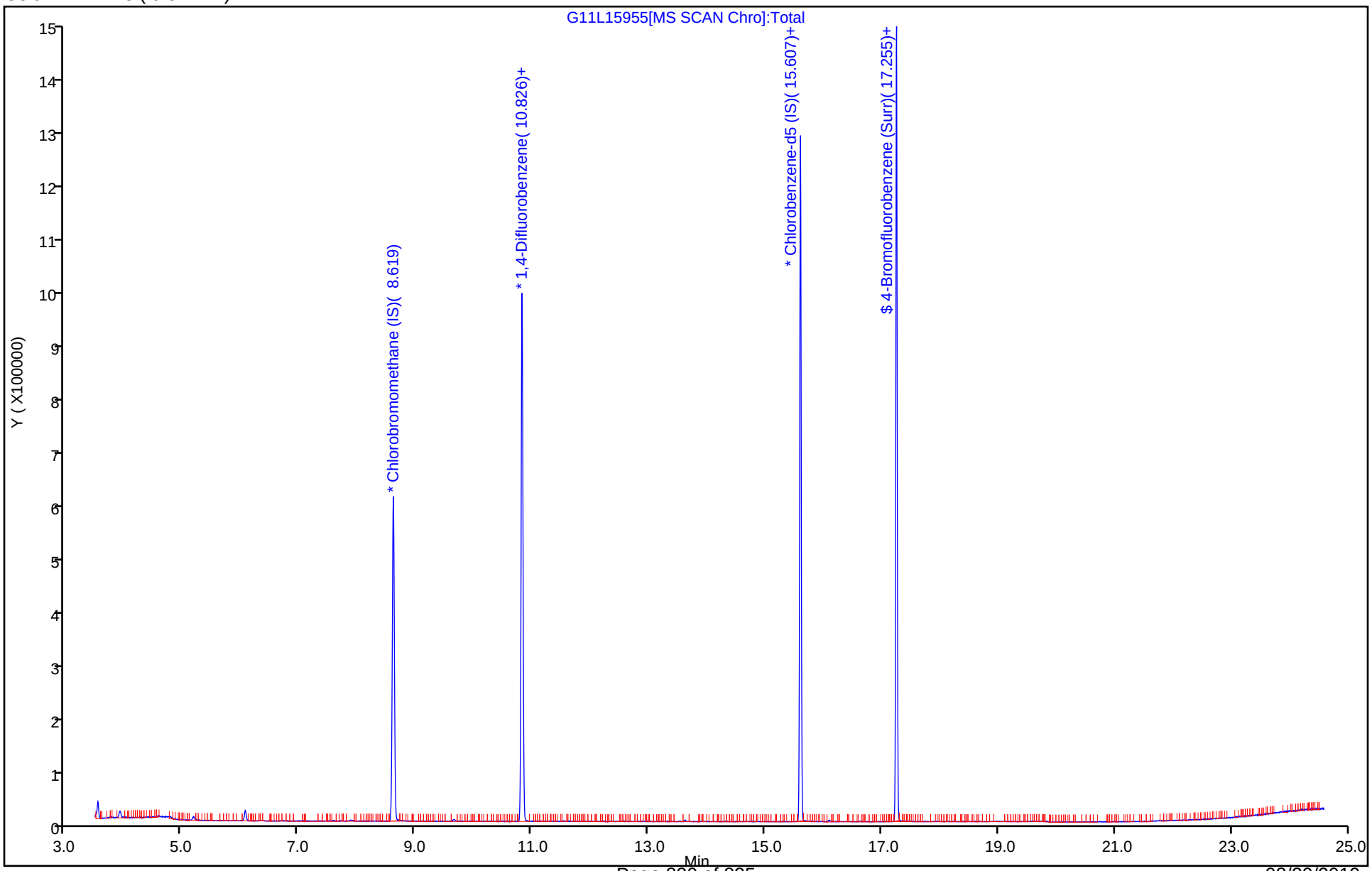
Report Date: 12-Jul-2019 18:45:23 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190710-12293.b\G11L15955.D

Injection Date:	12-Jul-2019 07:00:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15955-A-1	Lab Sample ID:	140-15955-1	Worklist Smp#:	26
Client ID:	10500				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

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TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/ LARSON/ OBRIEN/ PRYOR	COC No: 6 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 22	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/ PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-379-3900		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Rush (Specify):		
P O # 112IC03588			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-116-A-27	8/15/19	0856	8/15/19	1054	-30	0	8136	10796	X									X					CUSTODY SEALS INTACT
SV-DUP03-A-27	"	0000	"	0000	-30	0	8529	09586	X									X					RECEIVED AMBIENT
SV-173-A-27	"	0902	"	1100	-30	0	7074	11885	X									X					SFD 8-19-19
SV-138-A-27	"	0904	"	1102	-29	2	10653	09641	X									X					FEDEX #
SV-171-A-27	"	0906	"	1104	-30	0	8548	11706	X									X					7760 0655 8067 M SAT
SV-174-A-27	"	0910	"	1106	-30	0	12006	11136	X									X					22 CANS / 23 FLOWS (R)
SV-093-A-27	"	0913	"	1108	-30	0	7281	11861	X									X					5 T's
SV-170-A-27	"	0915	"	1110	-30	0	7374	11277	X									X					
SV-079-A-27	"	0938	"	1117	-30	0	7492	11645	X									X					
SV-DUP04-A-27	"	0000	"	0000	-30	-1	8137	09636	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

140-16377 Chain of Custody

Special Instructions/QC Requirements & Comments: MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETAKWX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

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TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Apanavage	Samples Collected By: Mullis/Lawson/OBrien/Pryor	COC No: 7 of 9 COCs
Company Name: Tetra Tech Inc	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste 200	Email: Tony.Apanavage@tetratech.com		
City/State/Zip: Germantown, MD, 20874	Site Contact: Mullis/Pryor		For Lab Use Only:
Phone: 301-528-3021	Tel/Fax: 410-279-2700		Walk-in Client:
FAX:	Analysis Turnaround Time		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 Days		Job / SDG No.:
Site/Location: MRC, Balt., MD	Rush (Specifiy):		(See below for Add'l Items)
P O # 112I008388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-139-A-27	8/15/19	0950	8/15/19	1120	-30	0	7679	11138	X									X					
SV-118-A-27		0953		1123	-28	1	09553	11517	X									X					
SV-015-A-27		1507		1612	-26	1	11273	10523	X									X					
SV-078-A-27		1002		1130	-30	0	10860	11770	X									X					
SV-136-A-27		1005		1134	-28	0	10292	11773	X									X					
SV-076-A-27		1010		1137	-30	0	8551	10333	X									X					
SV-168-A-27		1013		1140	-25	3	7426	09741	X									X					
SV-075-A-27		1019		1143	-29	0	7441	11543	X									X					
SV-100-B-27		1024		1147	-29	1	11490	11891	X									X					
SV-101-B-27		1028		1153	-29	0	11922	09735	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

11743
09814

Special Instructions/QC Requirements & Comments: ☆MRC Indoor Air/Soil Vapor Sampling Round 27 August 2019

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by:	Date / Time: 8/16/19 1300	Received by:
Relinquished by:	Date / Time: 8/16/19 1700	Received by: STA KNX 8-17-19 10:30
Lab Use Only: Shipper Name:	Opened by:	Condition:

Void: Flow Controller ID: 7075 & Canister ID: 09814

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16377

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** _____

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?				☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 8-19-19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/19/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT	140-16377-a-1	10796	15841	B	1	0.0	13:47	
HMT	140-16377-a-2	09586	15841	B	1	0.0	13:48	
HMT	140-16377-a-3	11885	15955	B	1	0.0	13:49	
HMT	140-16377-a-4	09641	15818	B	1	0.0	13:50	
HMT	140-16377-a-5	11706	15955	B	1	0.0	13:51	
HMT	140-16377-a-6	11136	15841	B	1	0.0	13:52	
HMT	140-16377-a-7	11861	15818	B	1	0.0	13:53	
HMT	140-16377-a-8	11277	15841	B	1	0.0	13:54	
HMT	140-16377-a-9	11645	15818	B	1	0.0	13:55	
HMT	140-16377-a-10	09636	15818	B	1	0.0	13:56	
HMT	140-16377-a-11	11138	15955	B	1	0.0	13:57	
HMT	140-16377-a-12	11517	15799	B	1	0.0	13:58	
HMT	140-16377-a-13	10523	15841	B	1	-2.6	13:59	
HMT	140-16377-a-14	11770	15818	B	1	0.0	14:00	
HMT	140-16377-a-15	11773	15841	B	1	-1.6	14:01	
HMT	140-16377-a-16	10333	15955	B	1	0.0	14:02	
HMT	140-16377-a-17	09741	15955	B	1	0.0	14:03	
HMT	140-16377-a-18	11543	15841	B	1	0.0	14:04	
HMT	140-16377-a-19	11891	15955	B	1	0.0	14:05	
HMT	140-16377-a-20	09735	15799	B	1	-1.2	14:06	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

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ANALYTICAL REPORT

Job Number: 140-16893-1

Job Description: Middle River - MRC

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Diana L Lange
Project Management Assistant II
10/11/2019 2:02 PM

Designee for
Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
10/11/2019

cc: Ms. Michelle Woeber

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16893-1
Project/Site: Middle River - MRC

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16893-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Client Sample ID: IA-018-A-27-RS

Lab Sample ID: 140-16893-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.25		0.080	0.0080	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.34		0.080	0.022	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087		0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24		0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.23		0.080	0.014	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.030	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.016	J	0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.31		0.080	0.0080	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12		0.080	0.013	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.61	B	0.40	0.16	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	1.8		0.040	0.076	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.052	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.89		0.12	0.078	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.46		0.040	0.0060	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.037	J	0.080	0.036	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12		0.080	0.020	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.041	J	0.080	0.022	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.52		0.16	0.024	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.78		0.26	0.026	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	0.50	0.044	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.28	0.078	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.43		0.39	0.034	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.95		0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.1		0.40	0.069	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.12	J	0.32	0.028	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.065	J	0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.2		0.32	0.032	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.51		0.35	0.056	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	2.1	B	1.4	0.56	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	9.2		0.21	0.40	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.35	J	0.54	0.047	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		0.45	0.29	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2.5		0.21	0.032	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.18	J	0.39	0.18	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.59		0.39	0.098	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.20	J	0.39	0.11	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3		0.69	0.10	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-015-A-27-RS

Lab Sample ID: 140-16893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.062	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.58		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-015-A-27-RS (Continued)

Lab Sample ID: 140-16893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	6.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.99		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.88	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.39	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.43	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.82	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.4	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.40	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	24		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.3		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-168-A-27-RS

Lab Sample ID: 140-16893-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.1	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	3.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.74	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.8	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	13		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-021-A-27-RS

Lab Sample ID: 140-16893-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.3	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.96		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-021-A-27-RS (Continued)

Lab Sample ID: 140-16893-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.54	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.48	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-136-A-27-RS

Lab Sample ID: 140-16893-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.086	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.5	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.42	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.37	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.2	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.4		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.8	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-117-A-27-RS

Lab Sample ID: 140-16893-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.069	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.46		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.10	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.2	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.63	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-117-A-27-RS (Continued)

Lab Sample ID: 140-16893-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.45	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.2	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	8.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-079-A-27-RS

Lab Sample ID: 140-16893-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.076	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.063	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.51		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.085	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.31		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.62	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.48	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.25	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.47	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.45	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.78		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-018-A-27-RS
Lab Sample ID: 140-16893-1

Date Collected: 10/02/19 15:31
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.25**		0.080	0.0080	ppb v/v			10/04/19 01:56	1
Carbon tetrachloride	**0.075**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
Chlorodifluoromethane	**0.34**		0.080	0.022	ppb v/v			10/04/19 01:56	1
Chloroform	**0.087**		0.080	0.0070	ppb v/v			10/04/19 01:56	1
cis-1,2-Dichloroethene	**0.24**		0.080	0.010	ppb v/v			10/04/19 01:56	1
Dichlorodifluoromethane	**0.23**		0.080	0.014	ppb v/v			10/04/19 01:56	1
1,1-Dichloroethane	**0.030**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
1,2-Dichloroethane	**0.016**	**J**	0.080	0.010	ppb v/v			10/04/19 01:56	1
1,1-Dichloroethene	**0.31**		0.080	0.0080	ppb v/v			10/04/19 01:56	1
Ethylbenzene	**0.12**		0.080	0.013	ppb v/v			10/04/19 01:56	1
Methylene Chloride	**0.61**	**B**	0.40	0.16	ppb v/v			10/04/19 01:56	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/04/19 01:56	1
Naphthalene	**1.8**		0.040	0.076	ppb v/v			10/04/19 01:56	1
Tetrachloroethene	**0.052**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
Toluene	**0.89**		0.12	0.078	ppb v/v			10/04/19 01:56	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/04/19 01:56	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/04/19 01:56	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/04/19 01:56	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/04/19 01:56	1
Trichloroethene	**0.46**		0.040	0.0060	ppb v/v			10/04/19 01:56	1
1,2,3-Trimethylbenzene	**0.037**	**J**	0.080	0.036	ppb v/v			10/04/19 01:56	1
1,2,4-Trimethylbenzene	**0.12**		0.080	0.020	ppb v/v			10/04/19 01:56	1
1,3,5-Trimethylbenzene	**0.041**	**J**	0.080	0.022	ppb v/v			10/04/19 01:56	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/04/19 01:56	1
Xylenes, Total	**0.52**		0.16	0.024	ppb v/v			10/04/19 01:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.78**		0.26	0.026	ug/m3			10/04/19 01:56	1
Carbon tetrachloride	**0.47**	**J**	0.50	0.044	ug/m3			10/04/19 01:56	1
Chlorodifluoromethane	**1.2**		0.28	0.078	ug/m3			10/04/19 01:56	1
Chloroform	**0.43**		0.39	0.034	ug/m3			10/04/19 01:56	1
cis-1,2-Dichloroethene	**0.95**		0.32	0.040	ug/m3			10/04/19 01:56	1
Dichlorodifluoromethane	**1.1**		0.40	0.069	ug/m3			10/04/19 01:56	1
1,1-Dichloroethane	**0.12**	**J**	0.32	0.028	ug/m3			10/04/19 01:56	1
1,2-Dichloroethane	**0.065**	**J**	0.32	0.040	ug/m3			10/04/19 01:56	1
1,1-Dichloroethene	**1.2**		0.32	0.032	ug/m3			10/04/19 01:56	1
Ethylbenzene	**0.51**		0.35	0.056	ug/m3			10/04/19 01:56	1
Methylene Chloride	**2.1**	**B**	1.4	0.56	ug/m3			10/04/19 01:56	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/04/19 01:56	1
Naphthalene	**9.2**		0.21	0.40	ug/m3			10/04/19 01:56	1
Tetrachloroethene	**0.35**	**J**	0.54	0.047	ug/m3			10/04/19 01:56	1
Toluene	**3.3**		0.45	0.29	ug/m3			10/04/19 01:56	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/04/19 01:56	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/04/19 01:56	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/04/19 01:56	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/04/19 01:56	1
Trichloroethene	**2.5**		0.21	0.032	ug/m3			10/04/19 01:56	1
1,2,3-Trimethylbenzene	**0.18**	**J**	0.39	0.18	ug/m3			10/04/19 01:56	1
1,2,4-Trimethylbenzene	**0.59**		0.39	0.098	ug/m3			10/04/19 01:56	1

Client Sample ID: IA-018-A-27-RS **Lab Sample ID: 140-16893-1**
Date Collected: 10/02/19 15:31 **Matrix: Air**
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.20**	**J**	0.39	0.11	ug/m3			10/04/19 01:56	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/04/19 01:56	1
Xylenes, Total	**2.3**		0.69	0.10	ug/m3			10/04/19 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/04/19 01:56*	*1*

Client Sample ID: IA-015-A-27-RS
Lab Sample ID: 140-16893-2

Date Collected: 10/02/19 15:35
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	0.40	0.040	ppb v/v			10/08/19 15:43	1
Carbon tetrachloride	**0.062**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
Chlorodifluoromethane	**0.58**		0.40	0.11	ppb v/v			10/08/19 15:43	1
Chloroform	**0.087**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 15:43	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			10/08/19 15:43	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 15:43	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 15:43	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			10/08/19 15:43	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			10/08/19 15:43	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 15:43	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 15:43	1
Tetrachloroethene	**0.059**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
Toluene	**6.3**		0.60	0.39	ppb v/v			10/08/19 15:43	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 18:17	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 15:43	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 15:43	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 15:43	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 15:43	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 15:43	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 15:43	1
Xylenes, Total	**0.99**		0.80	0.12	ppb v/v			10/08/19 15:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.88**	**J**	1.3	0.13	ug/m3			10/08/19 15:43	1
Carbon tetrachloride	**0.39**	**J**	2.5	0.22	ug/m3			10/08/19 15:43	1
Chlorodifluoromethane	**2.1**		1.4	0.39	ug/m3			10/08/19 15:43	1
Chloroform	**0.43**	**J**	2.0	0.17	ug/m3			10/08/19 15:43	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 15:43	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			10/08/19 15:43	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 15:43	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 15:43	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 15:43	1
Ethylbenzene	**0.82**	**J**	1.7	0.28	ug/m3			10/08/19 15:43	1
Methylene Chloride	**5.4**	**J B**	6.9	2.8	ug/m3			10/08/19 15:43	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 15:43	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 15:43	1
Tetrachloroethene	**0.40**	**J**	2.7	0.24	ug/m3			10/08/19 15:43	1
Toluene	**24**		2.3	1.5	ug/m3			10/08/19 15:43	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 15:43	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 18:17	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 15:43	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 15:43	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 15:43	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 15:43	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 15:43	1

Client Sample ID: IA-015-A-27-RS
Lab Sample ID: 140-16893-2

Date Collected: 10/02/19 15:35
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 15:43	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 15:43	1
Xylenes, Total	**4.3**		3.5	0.52	ug/m3			10/08/19 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 15:43*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 18:17*	*1*

Client Sample ID: IA-168-A-27-RS
Lab Sample ID: 140-16893-3

Date Collected: 10/02/19 15:43
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			10/08/19 16:35	1
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			10/08/19 16:35	1
Chloroform	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 16:35	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			10/08/19 16:35	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 16:35	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 16:35	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			10/08/19 16:35	1
Methylene Chloride	**1.1**	**J B**	2.0	0.80	ppb v/v			10/08/19 16:35	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 16:35	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 16:35	1
Tetrachloroethene	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
Toluene	**3.4**		0.60	0.39	ppb v/v			10/08/19 16:35	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 19:03	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 16:35	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 16:35	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 16:35	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 16:35	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 16:35	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 16:35	1
Xylenes, Total	**0.74**	**J**	0.80	0.12	ppb v/v			10/08/19 16:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			10/08/19 16:35	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			10/08/19 16:35	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			10/08/19 16:35	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			10/08/19 16:35	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 16:35	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 16:35	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 16:35	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 16:35	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 16:35	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			10/08/19 16:35	1
Methylene Chloride	**3.8**	**J B**	6.9	2.8	ug/m3			10/08/19 16:35	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 16:35	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 16:35	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 16:35	1
Toluene	**13**		2.3	1.5	ug/m3			10/08/19 16:35	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 16:35	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 19:03	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 16:35	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 16:35	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 16:35	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 16:35	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 16:35	1

Client Sample ID: IA-168-A-27-RS
Lab Sample ID: 140-16893-3

Date Collected: 10/02/19 15:43
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 16:35	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 16:35	1
Xylenes, Total	**3.2**	**J**	3.5	0.52	ug/m3			10/08/19 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 16:35*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 19:03*	*1*

Client Sample ID: IA-021-A-27-RS
Lab Sample ID: 140-16893-4

Date Collected: 10/02/19 15:46
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			10/08/19 17:28	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 17:28	1
Chloroform	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 17:28	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			10/08/19 17:28	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 17:28	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 17:28	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			10/08/19 17:28	1
Methylene Chloride	**1.3**	**J B**	2.0	0.80	ppb v/v			10/08/19 17:28	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 17:28	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 17:28	1
Tetrachloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
Toluene	**0.96**		0.60	0.39	ppb v/v			10/08/19 17:28	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 19:47	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 17:28	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 17:28	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 17:28	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 17:28	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 17:28	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 17:28	1
Xylenes, Total	**0.54**	**J**	0.80	0.12	ppb v/v			10/08/19 17:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			10/08/19 17:28	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			10/08/19 17:28	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 17:28	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			10/08/19 17:28	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 17:28	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			10/08/19 17:28	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 17:28	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 17:28	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 17:28	1
Ethylbenzene	**0.48**	**J**	1.7	0.28	ug/m3			10/08/19 17:28	1
Methylene Chloride	**4.6**	**J B**	6.9	2.8	ug/m3			10/08/19 17:28	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 17:28	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 17:28	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			10/08/19 17:28	1
Toluene	**3.6**		2.3	1.5	ug/m3			10/08/19 17:28	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 17:28	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 19:47	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 17:28	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 17:28	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 17:28	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 17:28	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 17:28	1

Client Sample ID: IA-021-A-27-RS
Lab Sample ID: 140-16893-4
Date Collected: 10/02/19 15:46
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 17:28	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 17:28	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			10/08/19 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*10/08/19 17:28*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*10/09/19 19:47*	*1*

Client Sample ID: IA-136-A-27-RS
Lab Sample ID: 140-16893-5

Date Collected: 10/02/19 15:50
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			10/08/19 18:21	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 18:21	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 18:21	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			10/08/19 18:21	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 18:21	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 18:21	1
Ethylbenzene	**0.086**	**J**	0.40	0.065	ppb v/v			10/08/19 18:21	1
Methylene Chloride	**1.5**	**J B**	2.0	0.80	ppb v/v			10/08/19 18:21	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 18:21	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 18:21	1
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
Toluene	**1.2**		0.60	0.39	ppb v/v			10/08/19 18:21	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 20:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 18:21	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 18:21	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 18:21	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 18:21	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 18:21	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 18:21	1
Xylenes, Total	**0.42**	**J**	0.80	0.12	ppb v/v			10/08/19 18:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			10/08/19 18:21	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			10/08/19 18:21	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 18:21	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			10/08/19 18:21	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 18:21	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 18:21	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 18:21	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 18:21	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 18:21	1
Ethylbenzene	**0.37**	**J**	1.7	0.28	ug/m3			10/08/19 18:21	1
Methylene Chloride	**5.2**	**J B**	6.9	2.8	ug/m3			10/08/19 18:21	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 18:21	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 18:21	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 18:21	1
Toluene	**4.4**		2.3	1.5	ug/m3			10/08/19 18:21	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 18:21	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 20:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 18:21	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 18:21	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 18:21	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 18:21	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 18:21	1

Client Sample ID: IA-136-A-27-RS
Lab Sample ID: 140-16893-5

Date Collected: 10/02/19 15:50
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 18:21	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 18:21	1
Xylenes, Total	**1.8**	**J**	3.5	0.52	ug/m3			10/08/19 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 18:21*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 20:31*	*1*

Client Sample ID: IA-117-A-27-RS
Lab Sample ID: 140-16893-6

Date Collected: 10/02/19 15:53
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			10/08/19 19:15	1
Carbon tetrachloride	**0.069**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
Chlorodifluoromethane	**0.46**		0.40	0.11	ppb v/v			10/08/19 19:15	1
Chloroform	**0.059**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 19:15	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			10/08/19 19:15	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 19:15	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 19:15	1
Ethylbenzene	**0.10**	**J**	0.40	0.065	ppb v/v			10/08/19 19:15	1
Methylene Chloride	**1.2**	**J B**	2.0	0.80	ppb v/v			10/08/19 19:15	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 19:15	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 19:15	1
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
Toluene	**2.4**		0.60	0.39	ppb v/v			10/08/19 19:15	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 21:14	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 19:15	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 19:15	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 19:15	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 19:15	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 19:15	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 19:15	1
Xylenes, Total	**0.63**	**J**	0.80	0.12	ppb v/v			10/08/19 19:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.50**	**J**	1.3	0.13	ug/m3			10/08/19 19:15	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			10/08/19 19:15	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			10/08/19 19:15	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			10/08/19 19:15	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 19:15	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			10/08/19 19:15	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 19:15	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 19:15	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 19:15	1
Ethylbenzene	**0.45**	**J**	1.7	0.28	ug/m3			10/08/19 19:15	1
Methylene Chloride	**4.2**	**J B**	6.9	2.8	ug/m3			10/08/19 19:15	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 19:15	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 19:15	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			10/08/19 19:15	1
Toluene	**8.9**		2.3	1.5	ug/m3			10/08/19 19:15	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 19:15	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 21:14	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 19:15	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 19:15	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 19:15	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 19:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 19:15	1

Client Sample ID: IA-117-A-27-RS
Lab Sample ID: 140-16893-6

Date Collected: 10/02/19 15:53
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 19:15	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 19:15	1
Xylenes, Total	**2.7**	**J**	3.5	0.52	ug/m3			10/08/19 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/08/19 19:15*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 21:14*	*1*

Client Sample ID: IA-079-A-27-RS
Lab Sample ID: 140-16893-7

Date Collected: 10/02/19 15:56
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			10/08/19 20:09	1
Carbon tetrachloride	**0.076**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 20:09	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
cis-1,2-Dichloroethene	**0.063**	**J**	0.40	0.050	ppb v/v			10/08/19 20:09	1
Dichlorodifluoromethane	**0.51**		0.40	0.070	ppb v/v			10/08/19 20:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 20:09	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 20:09	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			10/08/19 20:09	1
Methylene Chloride	**2.6**	**B**	2.0	0.80	ppb v/v			10/08/19 20:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 20:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 20:09	1
Tetrachloroethene	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
Toluene	**1.8**		0.60	0.39	ppb v/v			10/08/19 20:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 21:59	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 20:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
Trichloroethene	**0.085**	**J**	0.20	0.030	ppb v/v			10/08/19 20:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 20:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 20:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 20:09	1
Vinyl chloride	**0.31**		0.20	0.13	ppb v/v			10/08/19 20:09	1
Xylenes, Total	**0.62**	**J**	0.80	0.12	ppb v/v			10/08/19 20:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			10/08/19 20:09	1
Carbon tetrachloride	**0.48**	**J**	2.5	0.22	ug/m3			10/08/19 20:09	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 20:09	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			10/08/19 20:09	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.6	0.20	ug/m3			10/08/19 20:09	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 20:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 20:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 20:09	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 20:09	1
Ethylbenzene	**0.47**	**J**	1.7	0.28	ug/m3			10/08/19 20:09	1
Methylene Chloride	**9.1**	**B**	6.9	2.8	ug/m3			10/08/19 20:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 20:09	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 20:09	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 20:09	1
Toluene	**6.9**		2.3	1.5	ug/m3			10/08/19 20:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 20:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 21:59	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 20:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 20:09	1
Trichloroethene	**0.45**	**J**	1.1	0.16	ug/m3			10/08/19 20:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 20:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 20:09	1

Client Sample ID: IA-079-A-27-RS
Lab Sample ID: 140-16893-7

Date Collected: 10/02/19 15:56
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 20:09	1
Vinyl chloride	**0.78**		0.51	0.33	ug/m3			10/08/19 20:09	1
Xylenes, Total	**2.7**	**J**	3.5	0.52	ug/m3			10/08/19 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 20:09*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 21:59*	*1*

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	BFB (60-140)						
140-16893-1	IA-018-A-27-RS	98						
140-16893-2	IA-015-A-27-RS	94						
140-16893-2	IA-015-A-27-RS	105						
140-16893-3	IA-168-A-27-RS	94						
140-16893-3	IA-168-A-27-RS	102						
140-16893-4	IA-021-A-27-RS	93						
140-16893-4	IA-021-A-27-RS	103						
140-16893-5	IA-136-A-27-RS	94						
140-16893-5	IA-136-A-27-RS	102						
140-16893-6	IA-117-A-27-RS	96						
140-16893-6	IA-117-A-27-RS	105						
140-16893-7	IA-079-A-27-RS	94						
140-16893-7	IA-079-A-27-RS	105						
LCS 140-34104/1002	Lab Control Sample	106						
LCS 140-34203/1002	Lab Control Sample	102						
LCS 140-34215/1002	Lab Control Sample	106						
MB 140-34104/5	Method Blank	98						
MB 140-34203/7	Method Blank	91						
MB 140-34215/4	Method Blank	102						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-34104/5
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			10/03/19 13:07	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			10/03/19 13:07	1
Chloroform	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			10/03/19 13:07	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			10/03/19 13:07	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			10/03/19 13:07	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			10/03/19 13:07	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			10/03/19 13:07	1
Methylene Chloride	0.208	J	0.40	0.16	ppb v/v			10/03/19 13:07	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/03/19 13:07	1
Naphthalene	ND		0.040	0.076	ppb v/v			10/03/19 13:07	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Toluene	ND		0.12	0.078	ppb v/v			10/03/19 13:07	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/03/19 13:07	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/03/19 13:07	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			10/03/19 13:07	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			10/03/19 13:07	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			10/03/19 13:07	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			10/03/19 13:07	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/03/19 13:07	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			10/03/19 13:07	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			10/03/19 13:07	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			10/03/19 13:07	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			10/03/19 13:07	1
Chloroform	ND		0.39	0.034	ug/m3			10/03/19 13:07	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			10/03/19 13:07	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			10/03/19 13:07	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			10/03/19 13:07	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			10/03/19 13:07	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			10/03/19 13:07	1
Ethylbenzene	ND		0.35	0.056	ug/m3			10/03/19 13:07	1
Methylene Chloride	0.724	J	1.4	0.56	ug/m3			10/03/19 13:07	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/03/19 13:07	1
Naphthalene	ND		0.21	0.40	ug/m3			10/03/19 13:07	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			10/03/19 13:07	1
Toluene	ND		0.45	0.29	ug/m3			10/03/19 13:07	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/03/19 13:07	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/03/19 13:07	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/03/19 13:07	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/03/19 13:07	1
Trichloroethene	ND		0.21	0.032	ug/m3			10/03/19 13:07	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			10/03/19 13:07	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34104/5
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			10/03/19 13:07	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			10/03/19 13:07	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/03/19 13:07	1
Xylenes, Total	ND		0.69	0.10	ug/m3			10/03/19 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/03/19 13:07*	*1*

Lab Sample ID: LCS 140-34104/1002
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.70		ppb v/v		85	70 - 130
Carbon tetrachloride	2.00	1.88		ppb v/v		94	70 - 130
Chlorodifluoromethane	2.00	1.79		ppb v/v		90	60 - 140
Chloroform	2.00	1.71		ppb v/v		86	70 - 130
cis-1,2-Dichloroethene	2.00	2.01		ppb v/v		101	70 - 130
Dichlorodifluoromethane	2.00	2.33		ppb v/v		117	60 - 140
1,1-Dichloroethane	2.00	1.78		ppb v/v		89	70 - 130
1,2-Dichloroethane	2.00	1.62		ppb v/v		81	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
Methylene Chloride	2.00	1.72		ppb v/v		86	70 - 130
Methyl tert-butyl ether	2.00	1.75		ppb v/v		88	60 - 140
Naphthalene	2.00	2.60		ppb v/v		130	60 - 140
Tetrachloroethene	2.00	1.84		ppb v/v		92	70 - 130
Toluene	2.00	1.96		ppb v/v		98	70 - 130
trans-1,2-Dichloroethene	2.00	1.98		ppb v/v		99	70 - 130
1,2,4-Trichlorobenzene	2.00	2.57		ppb v/v		128	60 - 140
1,1,1-Trichloroethane	2.00	1.72		ppb v/v		86	70 - 130
1,1,2-Trichloroethane	2.00	2.00		ppb v/v		100	70 - 130
Trichloroethene	2.00	1.81		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	2.00	2.48		ppb v/v		124	70 - 130
1,2,4-Trimethylbenzene	2.00	2.33		ppb v/v		116	70 - 130
1,3,5-Trimethylbenzene	2.00	2.23		ppb v/v		112	70 - 130
Vinyl chloride	2.00	2.06		ppb v/v		103	70 - 130
Xylenes, Total	6.00	5.95		ppb v/v		99	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.43		ug/m3		85	70 - 130
Carbon tetrachloride	13	11.8		ug/m3		94	70 - 130
Chlorodifluoromethane	7.1	6.33		ug/m3		90	60 - 140
Chloroform	9.8	8.36		ug/m3		86	70 - 130
cis-1,2-Dichloroethene	7.9	7.98		ug/m3		101	70 - 130
Dichlorodifluoromethane	9.9	11.5		ug/m3		117	60 - 140
1,1-Dichloroethane	8.1	7.21		ug/m3		89	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-34104/1002
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	6.56		ug/m3		81	70 - 130
1,1-Dichloroethene	7.9	8.37		ug/m3		106	70 - 130
Ethylbenzene	8.7	8.40		ug/m3		97	70 - 130
Methylene Chloride	6.9	5.96		ug/m3		86	70 - 130
Methyl tert-butyl ether	7.2	6.32		ug/m3		88	60 - 140
Naphthalene	10	13.6		ug/m3		130	60 - 140
Tetrachloroethene	14	12.5		ug/m3		92	70 - 130
Toluene	7.5	7.39		ug/m3		98	70 - 130
trans-1,2-Dichloroethene	7.9	7.86		ug/m3		99	70 - 130
1,2,4-Trichlorobenzene	15	19.1		ug/m3		128	60 - 140
1,1,1-Trichloroethane	11	9.40		ug/m3		86	70 - 130
1,1,2-Trichloroethane	11	10.9		ug/m3		100	70 - 130
Trichloroethene	11	9.74		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	9.8	12.2		ug/m3		124	70 - 130
1,2,4-Trimethylbenzene	9.8	11.4		ug/m3		116	70 - 130
1,3,5-Trimethylbenzene	9.8	11.0		ug/m3		112	70 - 130
Vinyl chloride	5.1	5.27		ug/m3		103	70 - 130
Xylenes, Total	26	25.8		ug/m3		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*

Lab Sample ID: MB 140-34203/7
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			10/08/19 13:54	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			10/08/19 13:54	1
Chloroform	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			10/08/19 13:54	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			10/08/19 13:54	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			10/08/19 13:54	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			10/08/19 13:54	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			10/08/19 13:54	1
Methylene Chloride	0.192	J	0.40	0.16	ppb v/v			10/08/19 13:54	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/08/19 13:54	1
Naphthalene	ND		0.040	0.076	ppb v/v			10/08/19 13:54	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Toluene	ND		0.12	0.078	ppb v/v			10/08/19 13:54	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/08/19 13:54	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			10/08/19 13:54	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			10/08/19 13:54	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34203/7
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			10/08/19 13:54	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			10/08/19 13:54	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/08/19 13:54	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			10/08/19 13:54	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			10/08/19 13:54	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			10/08/19 13:54	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			10/08/19 13:54	1
Chloroform	ND		0.39	0.034	ug/m3			10/08/19 13:54	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			10/08/19 13:54	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			10/08/19 13:54	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			10/08/19 13:54	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			10/08/19 13:54	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			10/08/19 13:54	1
Ethylbenzene	ND		0.35	0.056	ug/m3			10/08/19 13:54	1
Methylene Chloride	0.666	J	1.4	0.56	ug/m3			10/08/19 13:54	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/08/19 13:54	1
Naphthalene	ND		0.21	0.40	ug/m3			10/08/19 13:54	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			10/08/19 13:54	1
Toluene	ND		0.45	0.29	ug/m3			10/08/19 13:54	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/08/19 13:54	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/08/19 13:54	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/08/19 13:54	1
Trichloroethene	ND		0.21	0.032	ug/m3			10/08/19 13:54	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			10/08/19 13:54	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			10/08/19 13:54	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			10/08/19 13:54	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/08/19 13:54	1
Xylenes, Total	ND		0.69	0.10	ug/m3			10/08/19 13:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*10/08/19 13:54*	*1*

Lab Sample ID: LCS 140-34203/1002
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Carbon tetrachloride	2.00	1.73		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.03		ppb v/v		102	60 - 140
Chloroform	2.00	1.82		ppb v/v		91	70 - 130
cis-1,2-Dichloroethene	2.00	1.71		ppb v/v		86	70 - 130
Dichlorodifluoromethane	2.00	1.95		ppb v/v		98	60 - 140
1,1-Dichloroethane	2.00	1.80		ppb v/v		90	70 - 130
1,2-Dichloroethane	2.00	1.78		ppb v/v		89	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-34203/1002
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	2.00	1.73		ppb v/v		86	70 - 130
Ethylbenzene	2.00	1.85		ppb v/v		92	70 - 130
Methylene Chloride	2.00	1.49		ppb v/v		75	70 - 130
Methyl tert-butyl ether	2.00	2.09		ppb v/v		105	60 - 140
Naphthalene	2.00	2.07		ppb v/v		104	60 - 140
Tetrachloroethene	2.00	1.86		ppb v/v		93	70 - 130
Toluene	2.00	1.84		ppb v/v		92	70 - 130
trans-1,2-Dichloroethene	2.00	1.79		ppb v/v		90	70 - 130
1,1,1-Trichloroethane	2.00	1.81		ppb v/v		91	70 - 130
1,1,2-Trichloroethane	2.00	1.92		ppb v/v		96	70 - 130
Trichloroethene	2.00	1.82		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trimethylbenzene	2.00	2.03		ppb v/v		102	70 - 130
1,3,5-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
Vinyl chloride	2.00	2.16		ppb v/v		108	70 - 130
Xylenes, Total	6.00	5.73		ppb v/v		96	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.67		ug/m3		89	70 - 130
Carbon tetrachloride	13	10.9		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.18		ug/m3		102	60 - 140
Chloroform	9.8	8.87		ug/m3		91	70 - 130
cis-1,2-Dichloroethene	7.9	6.80		ug/m3		86	70 - 130
Dichlorodifluoromethane	9.9	9.65		ug/m3		98	60 - 140
1,1-Dichloroethane	8.1	7.30		ug/m3		90	70 - 130
1,2-Dichloroethane	8.1	7.20		ug/m3		89	70 - 130
1,1-Dichloroethene	7.9	6.84		ug/m3		86	70 - 130
Ethylbenzene	8.7	8.02		ug/m3		92	70 - 130
Methylene Chloride	6.9	5.18		ug/m3		75	70 - 130
Methyl tert-butyl ether	7.2	7.54		ug/m3		105	60 - 140
Naphthalene	10	10.9		ug/m3		104	60 - 140
Tetrachloroethene	14	12.6		ug/m3		93	70 - 130
Toluene	7.5	6.94		ug/m3		92	70 - 130
trans-1,2-Dichloroethene	7.9	7.10		ug/m3		90	70 - 130
1,1,1-Trichloroethane	11	9.88		ug/m3		91	70 - 130
1,1,2-Trichloroethane	11	10.5		ug/m3		96	70 - 130
Trichloroethene	11	9.76		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	9.8	9.83		ug/m3		100	70 - 130
1,2,4-Trimethylbenzene	9.8	10.0		ug/m3		102	70 - 130
1,3,5-Trimethylbenzene	9.8	9.53		ug/m3		97	70 - 130
Vinyl chloride	5.1	5.52		ug/m3		108	70 - 130
Xylenes, Total	26	24.9		ug/m3		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34215/4
Matrix: Air
Analysis Batch: 34215

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/09/19 13:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/09/19 13:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 13:47*	*1*

Lab Sample ID: LCS 140-34215/1002
Matrix: Air
Analysis Batch: 34215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			4.00	3.99		ppb v/v		100	60 - 140		

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			30	29.6		ug/m3		100	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Air - GC/MS VOA

Analysis Batch: 34104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-1	IA-018-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34104/5	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34104/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 34203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-2	IA-015-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-3	IA-168-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-4	IA-021-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-5	IA-136-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-6	IA-117-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-7	IA-079-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34203/7	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34203/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 34215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-2	IA-015-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-3	IA-168-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-4	IA-021-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-5	IA-136-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-6	IA-117-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-7	IA-079-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34215/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34215/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Client Sample ID: IA-018-A-27-RS
Date Collected: 10/02/19 15:31
Date Received: 10/03/19 09:30

Lab Sample ID: 140-16893-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/04/19 01:56	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-015-A-27-RS
Date Collected: 10/02/19 15:35
Date Received: 10/03/19 09:30

Lab Sample ID: 140-16893-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 18:17	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 15:43	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-168-A-27-RS
Date Collected: 10/02/19 15:43
Date Received: 10/03/19 09:30

Lab Sample ID: 140-16893-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 19:03	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 16:35	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-021-A-27-RS
Date Collected: 10/02/19 15:46
Date Received: 10/03/19 09:30

Lab Sample ID: 140-16893-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 19:47	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 17:28	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-136-A-27-RS
Date Collected: 10/02/19 15:50
Date Received: 10/03/19 09:30

Lab Sample ID: 140-16893-5
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 20:31	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 18:21	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-117-A-27-RS — Lab Sample ID: 140-16893-6

Date Collected: 10/02/19 15:53 **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 21:14	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 19:15	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-079-A-27-RS — Lab Sample ID: 140-16893-7

Date Collected: 10/02/19 15:56 **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 21:59	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 20:09	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-34104/5

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/03/19 13:07	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-34203/7

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34203	10/08/19 13:54	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-34215/4

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34215	10/09/19 13:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-34104/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/03/19 09:54	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-34203/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34203	10/08/19 11:25	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-34215/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34215	10/09/19 11:20	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 140-16893-1
Project/Site: Middle River - MRC

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16893-1	IA-018-A-27-RS	Air	10/02/19 15:31	10/03/19 09:30	Air Canister (6-Liter) #10190
140-16893-2	IA-015-A-27-RS	Air	10/02/19 15:35	10/03/19 09:30	Air Canister (6-Liter) #10210
140-16893-3	IA-168-A-27-RS	Air	10/02/19 15:43	10/03/19 09:30	Air Canister (6-Liter) #11997
140-16893-4	IA-021-A-27-RS	Air	10/02/19 15:46	10/03/19 09:30	Air Canister (6-Liter) #10069
140-16893-5	IA-136-A-27-RS	Air	10/02/19 15:50	10/03/19 09:30	Air Canister (6-Liter) #11561
140-16893-6	IA-117-A-27-RS	Air	10/02/19 15:53	10/03/19 09:30	Air Canister (6-Liter) #11696
140-16893-7	IA-079-A-27-RS	Air	10/02/19 15:56	10/03/19 09:30	Air Canister (6-Liter) #10369

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27-RS	140-16893-1	98
IA-015-A-27-RS	140-16893-2	105
IA-015-A-27-RS	140-16893-2	94
IA-168-A-27-RS	140-16893-3	102
IA-168-A-27-RS	140-16893-3	94
IA-021-A-27-RS	140-16893-4	103
IA-021-A-27-RS	140-16893-4	93
IA-136-A-27-RS	140-16893-5	102
IA-136-A-27-RS	140-16893-5	94
IA-117-A-27-RS	140-16893-6	105
IA-117-A-27-RS	140-16893-6	96
IA-079-A-27-RS	140-16893-7	105
IA-079-A-27-RS	140-16893-7	94
	MB 140-34104/5	98
	MB 140-34203/7	91
	MB 140-34215/4	102
	LCS 140-34104/1002	106
	LCS 140-34203/1002	102
	LCS 140-34215/1002	106

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVJ03-LCS.d

Lab ID: LCS 140-34104/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.70	85	70-130	
Carbon tetrachloride	2.00	1.88	94	70-130	
Chlorodifluoromethane	2.00	1.79	90	60-140	
Chloroform	2.00	1.71	86	70-130	
cis-1,2-Dichloroethene	2.00	2.01	101	70-130	
Dichlorodifluoromethane	2.00	2.33	117	60-140	
1,1-Dichloroethane	2.00	1.78	89	70-130	
1,2-Dichloroethane	2.00	1.62	81	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.94	97	70-130	
Methylene Chloride	2.00	1.72	86	70-130	
Methyl tert-butyl ether	2.00	1.75	88	60-140	
Naphthalene	2.00	2.60	130	60-140	
Tetrachloroethene	2.00	1.84	92	70-130	
Toluene	2.00	1.96	98	70-130	
trans-1,2-Dichloroethene	2.00	1.98	99	70-130	
1,2,4-Trichlorobenzene	2.00	2.57	128	60-140	
1,1,1-Trichloroethane	2.00	1.72	86	70-130	
1,1,2-Trichloroethane	2.00	2.00	100	70-130	
Trichloroethene	2.00	1.81	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.48	124	70-130	
1,2,4-Trimethylbenzene	2.00	2.33	116	70-130	
1,3,5-Trimethylbenzene	2.00	2.23	112	70-130	
Vinyl chloride	2.00	2.06	103	70-130	
Xylenes, Total	6.00	5.95	99	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: HJ08CCVISA-LCS.d

Lab ID: LCS 140-34203/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.73	87	70-130	
Chlorodifluoromethane	2.00	2.03	102	60-140	
Chloroform	2.00	1.82	91	70-130	
cis-1,2-Dichloroethene	2.00	1.71	86	70-130	
Dichlorodifluoromethane	2.00	1.95	98	60-140	
1,1-Dichloroethane	2.00	1.80	90	70-130	
1,2-Dichloroethane	2.00	1.78	89	70-130	
1,1-Dichloroethene	2.00	1.73	86	70-130	
Ethylbenzene	2.00	1.85	92	70-130	
Methylene Chloride	2.00	1.49	75	70-130	
Methyl tert-butyl ether	2.00	2.09	105	60-140	
Naphthalene	2.00	2.07	104	60-140	
Tetrachloroethene	2.00	1.86	93	70-130	
Toluene	2.00	1.84	92	70-130	
trans-1,2-Dichloroethene	2.00	1.79	90	70-130	
1,1,1-Trichloroethane	2.00	1.81	91	70-130	
1,1,2-Trichloroethane	2.00	1.92	96	70-130	
Trichloroethene	2.00	1.82	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	2.03	102	70-130	
1,3,5-Trimethylbenzene	2.00	1.94	97	70-130	
Vinyl chloride	2.00	2.16	108	70-130	
Xylenes, Total	6.00	5.73	96	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVJ09-LCS.d

Lab ID: LCS 140-34215/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,2,4-Trichlorobenzene	4.00	3.99	100	60-140	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GJ09MB500.D Lab Sample ID: MB 140-34215/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 10/09/2019 13:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019 11:20
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019 18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019 19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019 19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019 20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019 21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019 21:59

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08mb500.D Lab Sample ID: MB 140-34203/7

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MH Date Analyzed: 10/08/2019 13:54

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019 15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019 16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019 17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019 18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019 19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019 20:09

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: R500BJ03.D Lab Sample ID: MB 140-34104/5

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 10/03/2019 13:07

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019 09:54
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019 01:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBI06IC.D BFB Injection Date: 09/06/2019

Instrument ID: MG BFB Injection Time: 11:35

Analysis Batch No.: 33324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	85.2	
175	5.0 - 9.0 % of mass 174	6.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	81.7	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33324/2	GI06LVL09.D	09/06/2019	12:11
	IC 140-33324/4	GI06LVL10.D	09/06/2019	13:43
	IC 140-33324/7	GI06LVL01.D	09/06/2019	15:53
	IC 140-33324/8	GI06LVL02.D	09/06/2019	16:37
	IC 140-33324/9	GI06LVL03.D	09/06/2019	17:20
	IC 140-33324/10	GI06LVL04.D	09/06/2019	18:05
	IC 140-33324/11	GI06LVL05.D	09/06/2019	18:52
	IC 140-33324/12	GI06LVL06.D	09/06/2019	19:37
	ICIS 140-33324/13	GI06LVL07.D	09/06/2019	20:20
	IC 140-33324/14	GI06LVL08.D	09/06/2019	21:05
	ICV 140-33324/16	GI06ICV.D	09/06/2019	22:30

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBJ09.D BFB Injection Date: 10/09/2019

Instrument ID: MG BFB Injection Time: 10:42

Analysis Batch No.: 34215

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	52.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	80.0	
175	5.0 - 9.0 % of mass 174	5.4	(6.7) 1
176	95.0 - 101.0 % of mass 174	78.0	(97.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34215/2	GCCVJ09.D	10/09/2019	11:20
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019	11:20
	MB 140-34215/4	GJ09MB500.D	10/09/2019	13:47
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019	18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019	19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019	19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019	20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019	21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019	21:59

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HBFBI24.D BFB Injection Date: 09/24/2019

Instrument ID: MH BFB Injection Time: 20:48

Analysis Batch No.: 33708

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.3	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	92.6	
175	5.0 - 9.0 % of mass 174	6.5	(7.0) 1
176	95.0 - 101.0 % of mass 174	89.6	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33708/3	HI24ICL9.D	09/24/2019	22:09
	IC 140-33708/5	HI24ICL10.D	09/24/2019	23:55
	IC 140-33708/8	HI24ICL1.D	09/25/2019	02:33
	IC 140-33708/9	HI24ICL2.D	09/25/2019	03:25
	IC 140-33708/10	HI24ICL3.D	09/25/2019	04:18
	IC 140-33708/11	HI24ICL4.D	09/25/2019	05:11
	IC 140-33708/12	HI24ICL5.D	09/25/2019	06:04
	IC 140-33708/13	HI24ICL6.D	09/25/2019	06:59
	ICIS 140-33708/14	HI24ICL7.D	09/25/2019	07:53
	IC 140-33708/15	HI24ICL8.D	09/25/2019	08:47
	ICV 140-33708/17	HI24ICV.D	09/25/2019	10:36

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08BFBA.D BFB Injection Date: 10/08/2019

Instrument ID: MH BFB Injection Time: 10:57

Analysis Batch No.: 34203

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	102.7	
175	5.0 - 9.0 % of mass 174	7.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	100.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.4	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34203/2	HJ08CCVISA.D	10/08/2019	11:25
	LCS 140-34203/1002	HJ08CCVISA-LCS.d	10/08/2019	11:25
	MB 140-34203/7	HJ08mb500.D	10/08/2019	13:54
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019	15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019	16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019	17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019	18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019	19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019	20:09

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBI03IC.D BFB Injection Date: 09/03/2019

Instrument ID: MR BFB Injection Time: 09:57

Analysis Batch No.: 33257

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	92.7	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	88.9	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33257/2	RI03IC09.D	09/03/2019	10:26
	IC 140-33257/4	RI03IC10.D	09/03/2019	12:02
	IC 140-33257/7	RI03IC01.D	09/03/2019	14:26
	IC 140-33257/8	RI03IC02.D	09/03/2019	15:13
	IC 140-33257/9	RI03IC03.D	09/03/2019	16:02
	IC 140-33257/10	RI03IC04.D	09/03/2019	16:51
	IC 140-33257/11	RI03IC05.D	09/03/2019	17:39
	IC 140-33257/12	RI03IC06.D	09/03/2019	18:27
	IC 140-33257/14	RI03IC08.D	09/03/2019	20:02
	ICV 140-33257/18	RI03ICV.D	09/03/2019	23:14
	ICIS 140-33257/23	RI03IC07R.D	09/04/2019	09:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBJ03.D BFB Injection Date: 10/03/2019

Instrument ID: MR BFB Injection Time: 09:26

Analysis Batch No.: 34104

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	93.4	
175	5.0 - 9.0 % of mass 174	6.4	(6.8) 1
176	95.0 - 101.0 % of mass 174	90.4	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34104/2	RCCVJ03.D	10/03/2019	09:54
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019	09:54
	MB 140-34104/5	R500BJ03.D	10/03/2019	13:07
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019	01:56

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33324/13 Date Analyzed: 09/06/2019 20:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GI06LVL07.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		303435	9.07	1680639	11.24	1481798	15.94
UPPER LIMIT		424809	9.40	2352895	11.57	2074517	16.27
LOWER LIMIT		182061	8.74	1008383	10.91	889079	15.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33324/16		306320	9.08	1708663	11.25	1486245	15.94

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34215/2 Date Analyzed: 10/09/2019 11:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVJ09.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		200883	9.06	1190950	11.23	1031378	15.92
UPPER LIMIT		281236	9.39	1667330	11.56	1443929	16.25
LOWER LIMIT		120530	8.73	714570	10.90	618827	15.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34215/1002		200883	9.06	1190950	11.23	1031378	15.92
MB 140-34215/4		200350	9.05	1179056	11.23	1039594	15.92
140-16893-2	IA-015-A-27-RS	191848	9.07	1101836	11.23	1025167	15.92
140-16893-3	IA-168-A-27-RS	211679	9.07	1284918	11.23	1113463	15.92
140-16893-4	IA-021-A-27-RS	198924	9.05	1201549	11.23	1030165	15.92
140-16893-5	IA-136-A-27-RS	201195	9.06	1220779	11.23	1078859	15.92
140-16893-6	IA-117-A-27-RS	200487	9.06	1180298	11.23	1093432	15.92
140-16893-7	IA-079-A-27-RS	184954	9.05	1098906	11.23	1033768	15.92

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33708/14 Date Analyzed: 09/25/2019 07:53

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HI24ICL7.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		342797	8.61	1766041	10.82	1461250	15.60
UPPER LIMIT		479916	8.94	2472457	11.15	2045750	15.93
LOWER LIMIT		205678	8.28	1059625	10.49	876750	15.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33708/17		331168	8.60	1738771	10.82	1436957	15.60

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34203/2 Date Analyzed: 10/08/2019 11:25

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HJ08CCVISA.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212050	8.60	1098033	10.81	875648	15.59
UPPER LIMIT		296870	8.93	1537246	11.14	1225907	15.92
LOWER LIMIT		127230	8.27	658820	10.48	525389	15.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34203/1002		212050	8.60	1098033	10.81	875648	15.59
MB 140-34203/7		211459	8.60	1098093	10.81	829172	15.59
140-16893-2	IA-015-A-27-RS	172804	8.61	897103	10.82	707375	15.59
140-16893-3	IA-168-A-27-RS	172867	8.62	872183	10.82	682169	15.59
140-16893-4	IA-021-A-27-RS	175850	8.61	885161	10.81	665564	15.59
140-16893-5	IA-136-A-27-RS	171262	8.61	867656	10.82	693298	15.59
140-16893-6	IA-117-A-27-RS	175455	8.61	883566	10.82	722851	15.59
140-16893-7	IA-079-A-27-RS	174264	8.61	881823	10.82	690713	15.59

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33257/23 Date Analyzed: 09/04/2019 09:04

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RI03IC07R.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		371029	8.53	2202831	10.77	1824871	15.57
UPPER LIMIT		519441	8.86	3083963	11.10	2554819	15.90
LOWER LIMIT		222617	8.20	1321699	10.44	1094923	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33257/18		487104	8.53	2786219	10.77	2417964	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34104/2 Date Analyzed: 10/03/2019 09:54

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVJ03.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		317552	8.52	1834746	10.75	1448340	15.55
UPPER LIMIT		444573	8.85	2568644	11.08	2027676	15.88
LOWER LIMIT		190531	8.19	1100848	10.42	869004	15.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34104/1002		317552	8.52	1834746	10.75	1448340	15.55
MB 140-34104/5		355321	8.52	1932990	10.75	1453188	15.55
140-16893-1	IA-018-A-27-RS	426440	8.52	2443133	10.75	1926577	15.55

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.34		0.080	0.022
67-66-3	Chloroform	119.38	0.087		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.24		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	0.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.030	J	0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.016	J	0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.31		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.12		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.61	B	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	1.8		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.052	J	0.080	0.0070
108-88-3	Toluene	92.14	0.89		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.46		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.037	J	0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.041	J	0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	0.52		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.78		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	0.47	J	0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	1.2		0.28	0.078
67-66-3	Chloroform	119.38	0.43		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	0.95		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	1.1		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	0.12	J	0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	0.065	J	0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	1.2		0.32	0.032
100-41-4	Ethylbenzene	106.17	0.51		0.35	0.056
75-09-2	Methylene Chloride	84.93	2.1	B	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	9.2		0.21	0.40
127-18-4	Tetrachloroethene	165.83	0.35	J	0.54	0.047
108-88-3	Toluene	92.14	3.3		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	2.5		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.59		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	J	0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	2.3		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.062	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.58		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.059	J	0.40	0.035
108-88-3	Toluene	92.14	6.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.99		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.88	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.1		1.4	0.39
67-66-3	Chloroform	119.38	0.43	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.82	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.4	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.40	J	2.7	0.24
108-88-3	Toluene	92.14	24		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.1	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.74	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	3.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.042	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.3	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.54	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.48	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.5	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.42	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	4.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.059	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.2	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	2.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.63	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	8.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.076	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.063	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	1.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.085	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.31		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.62	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.48	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.25	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.47	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	6.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.45	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.78		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.9036	+++++ 1.9457	1.9689 1.8518	2.0192 1.8477	2.1224 2.2230	Ave		1.9853				6.6		30.0			
Propene	+++++ 1.6384	+++++ 1.3618	+++++ 1.1789	+++++ 1.1007	+++++ 1.2720	Ave		1.3103				15.9		30.0			
Dichlorodifluoromethane	3.4649 2.9861	3.3626 3.0980	2.9887 2.9409	3.1895 2.9147	3.3957 3.4911	Ave		3.1832				7.2		30.0			
Chloromethane	+++++ 0.3784	+++++ 0.3671	+++++ 0.3522	0.4773 0.3433	0.4530 0.3981	Ave		0.3956				12.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.1590 2.0879	2.2841 2.1259	2.0128 2.0134	2.1984 1.9583	2.3155 2.4036	Ave		2.1559				6.7		30.0			
Vinyl chloride	1.3990 1.2668	1.4794 1.2600	1.2332 1.2236	1.3121 1.2004	1.4095 1.4275	Ave		1.3212				7.5		30.0			
Butane	+++++ 2.0377	+++++ 1.9832	2.2909 1.9144	2.2681 1.9240	2.2747 2.2489	Ave		2.1177				7.9		30.0			
1,3-Butadiene	+++++ 1.0226	+++++ 1.0231	1.0018 0.9957	1.0614 0.9764	1.1424 1.1720	Ave		1.0494				6.8		30.0			
Bromomethane	+++++ 1.0969	+++++ 1.1018	1.0942 1.0786	1.1919 1.0684	1.2274 1.2974	Ave		1.1446				7.3		30.0			
Chloroethane	+++++ 0.6378	+++++ 0.6205	0.6302 0.6148	0.6448 0.6144	0.7097 0.7476	Ave		0.6525				7.6		30.0			
Ethanol	+++++ 0.5340	+++++ 0.5329	+++++ 0.5230	0.5427 0.5461	0.6061 0.5888	Ave		0.5534				5.7		30.0			
Vinyl bromide	1.1045 1.0478	1.1842 1.0266	1.0141 1.0226	1.1017 1.0117	1.1608 1.2383	Ave		1.0912				7.4		30.0			
2-Methylbutane	+++++ 1.3756	+++++ 1.3388	1.4029 1.3298	1.5184 1.3626	1.5407 1.6120	Ave		1.4351				7.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	3.2134 2.8687	3.1413 2.8371	2.7865 2.7958	2.9680 2.8596	3.1137 3.4403	Ave		3.0025				7.2		30.0			
Acrolein	+++++ 0.1771	+++++ 0.1875	+++++ 0.1956	0.2485 0.2203	0.2630 0.2703	Ave		0.2232				17.0		30.0			
Acetonitrile	+++++ 0.4352	+++++ 0.4072	+++++ 0.4117	0.4258 0.4680	0.5251 0.4966	Ave		0.4528				9.9		30.0			
Acetone	+++++ 0.5631	+++++ 0.4946	+++++ 0.4755	+++++ 0.4989	0.8257 0.5307	Ave		0.5647				23.3		30.0			
Pentane	+++++ 0.1959	+++++ 0.1915	0.2023 0.1929	0.2096 0.1989	0.2337 0.2423	Ave		0.2084				9.3		30.0			
Isopropyl alcohol	1.5453 1.3728	1.5737 1.3834	1.4911 1.3839	1.2772 1.4381	1.5363 1.5779	Ave		1.4580				7.0		30.0			
Ethyl ether	+++++ 1.0105	+++++ 0.9120	1.0603 0.9704	0.9454 1.0731	1.1075 1.1221	Ave		1.0252				7.6		30.0			
1,1-Dichloroethene	1.5548 1.2208	1.4734 1.2557	1.2356 1.2140	1.3306 1.2030	1.3594 1.5004	Ave		1.3348				9.9		30.0			
Acrylonitrile	+++++ 0.8676	+++++ 0.8749	0.8898 0.8539	0.8183 0.9165	0.9857 1.0262	Ave		0.9041				7.7		30.0			
tert-Butyl alcohol	+++++ 2.0530	+++++ 2.1910	+++++ 2.0976	1.8405 2.2612	2.2786 2.5616	Ave		2.1834				10.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8657 2.5421	2.9363 2.5469	2.5394 2.4698	2.6442 2.4375	2.8013 2.8547	Ave		2.6638				6.9		30.0			
Methylene Chloride	+++++ 1.4544	+++++ 1.2747	+++++ 1.1677	+++++ 1.1073	2.0996 1.3047	Lin2	0.3800	1.1203							0.9920		0.9900
3-Chloropropene	+++++ 1.1632	+++++ 1.2007	1.2072 1.1248	1.2701 1.1891	1.2630 1.3518	Ave		1.2212				5.8		30.0			
Carbon disulfide	+++++ 3.5549	+++++ 3.5664	3.4062 3.4595	3.7101 3.4544	3.9304 4.2975	Ave		3.6724				8.3		30.0			
trans-1,2-Dichloroethene	1.4769 1.2382	1.3959 1.2751	1.2539 1.2356	1.3082 1.2222	1.3845 1.4631	Ave		1.3254				7.3		30.0			
2-Methylpentane	+++++ 3.1451	+++++ 3.1737	3.2815 3.0421	3.3064 3.0445	3.6164 3.4189	Ave		3.2536				6.0		30.0			
Methyl tert-butyl ether	+++++ 3.4227	+++++ 3.4827	3.4386 3.3912	3.2502 3.5618	3.8228 4.0775	Ave		3.5559				7.5		30.0			
1,1-Dichloroethane	2.4516 2.1933	2.4716 2.2639	2.2679 2.1995	2.4379 2.3058	2.4833 2.6425	Ave		2.3717				6.2		30.0			
Vinyl acetate	+++++ 3.0080	+++++ 3.1575	2.9767 3.1634	2.5332 3.5911	3.2268 4.0086	Ave		3.2082				13.6		30.0			
2-Butanone (MEK)	+++++ 0.5688	+++++ 0.5894	+++++ 0.5730	0.5415 0.6106	0.6785 0.6957	Ave		0.6082				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0650	+++++ 1.0826	1.1709 1.0464	1.1997 1.0580	1.2204 1.2415	Ave		1.1356				7.1		30.0			
cis-1,2-Dichloroethene	1.4604 1.2517	1.4639 1.3100	1.2273 1.2625	1.3206 1.2757	1.3890 1.5371	Ave		1.3498				7.9		30.0			
Ethyl acetate	+++++ 2.5026	+++++ 2.6416	2.4666 2.6391	2.0976 2.9368	2.7311 3.3882	Ave		2.6754				14.1		30.0			
Chloroform	+++++ 2.3890	2.8256 2.4665	2.4757 2.3621	2.6065 2.5051	2.7285 2.9605	Ave		2.5911				8.0		30.0			
Tetrahydrofuran	+++++ 1.4132	+++++ 1.4577	1.5393 1.4522	1.3596 1.5738	1.5953 1.8010	Ave		1.5240				9.1		30.0			
1,1,1-Trichloroethane	3.0880 2.6914	2.9595 2.7798	2.7207 2.6896	2.8035 2.7815	2.9944 3.2466	Ave		2.8755				6.6		30.0			
1,2-Dichloroethane	+++++ 0.2829	0.4076 0.2825	0.2755 0.2773	0.2868 0.3377	0.3661 0.4441	Ave		0.3289				19.4		30.0			
Cyclohexane	+++++ 0.1202	+++++ 0.1195	0.1176 0.1136	0.1297 0.1229	0.1582 0.1624	Ave		0.1305				14.5		30.0			
Benzene	+++++ 0.5992	0.9161 0.6085	0.6606 0.5920	0.6461 0.6817	0.7911 0.8753	Ave		0.7079				17.3		30.0			
1-Butanol	+++++ 0.0726	+++++ 0.0748	+++++ 0.0714	0.0668 0.0902	0.0998 +++++	Ave		0.0793				16.2		30.0			
Carbon tetrachloride	0.4686 0.4696	0.5434 0.4745	0.4061 0.4632	0.4293 0.5259	0.5459 +++++	Ave		0.4807				10.1		30.0			
2,3-Dimethylpentane	+++++ 0.1770	+++++ 0.1779	0.1721 0.1687	0.1788 0.1879	0.2275 +++++	Ave		0.1843				10.8		30.0			
Thiophene	+++++ 0.3403	+++++ 0.3443	0.3335 0.3344	0.3506 0.3923	0.4435 +++++	Ave		0.3627				11.3		30.0			
2,2,4-Trimethylpentane	+++++ 1.2865	+++++ 1.2594	1.2802 1.1922	1.3149 1.3236	1.6911 1.7663	Ave		1.3893				15.4		30.0			
Heptane	+++++ 0.2469	+++++ 0.2519	0.2549 0.2461	0.2502 0.2836	0.3221 +++++	Ave		0.2651				10.6		30.0			
1,2-Dichloropropane	+++++ 0.2300	+++++ 0.2333	0.2276 0.2336	0.2273 0.2784	0.2999 +++++	Ave		0.2472				11.9		30.0			
Trichloroethene	0.3355 0.2758	0.4322 0.2831	0.2772 0.2668	0.3038 0.3049	0.3610 0.4429	Ave		0.3283				19.6		30.0			
Dibromomethane	+++++ 0.2393	+++++ 0.2444	0.2486 0.2321	0.2489 0.2746	0.3212 +++++	Ave		0.2584				11.9		30.0			
Bromodichloromethane	+++++ 0.3861	+++++ 0.3985	0.3655 0.3945	0.3747 0.4834	0.5045 +++++	Ave		0.4153				13.3		30.0			
1,4-Dioxane	+++++ 0.0974	+++++ 0.1032	0.0941 0.1017	0.0845 0.1152	0.1177 +++++	Ave		0.1020				11.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2722	+++++ 0.2849	0.2517 0.2901	0.2145 0.3666	0.3320 +++++	Ave		0.2874				17.4		30.0			
Methylcyclohexane	0.5197 0.4647	0.6327 0.4605	0.4423 0.4340	0.4697 0.4820	0.5908 0.6546	Ave		0.5151				15.8		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5491	+++++ 0.5601	0.5203 0.5427	0.4363 0.6541	0.6630 +++++	Ave		0.5608				14.0		30.0			
cis-1,3-Dichloropropene	+++++ 0.2900	+++++ 0.2933	0.2959 0.2867	0.2814 0.3686	0.3929 +++++	Ave		0.3155				14.4		30.0			
trans-1,3-Dichloropropene	+++++ 0.2791	+++++ 0.2875	0.2866 0.2822	0.2629 0.3855	0.3277 +++++	Ave		0.3016				13.9		30.0			
Toluene	+++++ 0.7197	+++++ 0.7519	0.7104 0.7788	0.6714 0.9695	0.7996 1.0043	Ave		0.8007				15.2		30.0			
1,1,2-Trichloroethane	+++++ 0.2014	+++++ 0.2065	0.2075 0.2111	0.1945 0.2680	0.2318 0.2889	Ave		0.2262				15.2		30.0			
2-Hexanone	+++++ 0.2728	+++++ 0.2892	+++++ 0.2896	0.1927 0.3704	0.2714 0.3704	Ave		0.2938				21.1		30.0			
C8 Range	+++++ 2.6458	+++++ 2.7368	+++++ 2.7129	2.5970 3.1347	2.9255 3.1074	Ave		2.8372				7.7		30.0			
Octane	+++++ 0.2947	+++++ 0.3053	0.2745 0.3076	0.2736 0.3510	0.3125 0.3575	Ave		0.3096				10.1		30.0			
Dibromochloromethane	+++++ 0.3715	0.4683 0.3886	0.3160 0.4040	0.3291 0.5261	0.4035 +++++	Ave		0.4009				17.3		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.3351	+++++ 0.3310	0.3378 0.3271	0.3332 0.4284	0.3988 0.4942	Ave		0.3732				16.5		30.0			
Tetrachloroethene	0.3199 0.2720	0.4122 0.2750	0.2843 0.2746	0.2923 0.3322	0.3108 0.3628	Ave		0.3136				14.5		30.0			
Chlorobenzene	+++++ 0.5302	+++++ 0.5368	0.5327 0.5435	0.5268 0.6915	0.6283 0.7565	Ave		0.5933				15.0		30.0			
Ethylbenzene	+++++ 0.9424	1.3793 0.9940	0.8755 1.0494	0.8255 1.3224	1.0406 1.3726	Ave		1.0891				19.7		30.0			
m-Xylene & p-Xylene	+++++ 0.7496	1.0773 0.7868	0.7015 0.8166	0.6151 1.0149	0.8104 1.0314	Ave		0.8448				19.0		30.0			
Nonane	+++++ 0.5860	+++++ 0.6119	+++++ 0.6199	0.5116 0.7204	0.6168 0.7008	Ave		0.6239				11.2		30.0			
Bromoform	+++++ 0.3185	0.3597 0.3390	0.2305 0.3680	0.2459 0.4950	0.3266 +++++	Ave		0.3354				24.3		30.0			
Styrene	+++++ 0.4787	+++++ 0.5099	0.4490 0.5319	0.4022 0.7159	0.5420 +++++	Ave		0.5185				19.2		30.0			
o-Xylene	0.7941 0.8770	1.1596 0.9089	0.8117 0.9230	0.7255 1.1314	0.9223 1.1626	Ave		0.9416				16.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5900	+++++ 0.6059	0.5466 0.5974	0.4987 0.7378	0.6368 0.7540	Ave		0.6209				14.1		30.0			
1,2,3-Trichloropropane	+++++ 0.1647	+++++ 0.1723	0.1634 0.1765	0.1413 0.2264	0.1844 +++++	Ave		0.1756				14.9		30.0			
Isopropylbenzene	+++++ 1.2090	+++++ 1.2470	1.0885 1.2621	0.9884 1.5173	1.2566 1.5403	Ave		1.2637				15.0		30.0			
Propylbenzene	+++++ 0.3073	+++++ 0.3248	0.2787 0.3350	0.2525 0.4194	0.3256 0.4379	Ave		0.3352				19.1		30.0			
2-Chlorotoluene	+++++ 0.2764	+++++ 0.2926	+++++ 0.2978	0.2407 0.3653	0.3035 0.3849	Ave		0.3087				16.2		30.0			
4-Ethyltoluene	+++++ 1.0644	+++++ 1.1127	1.0587 1.1470	0.8732 1.4542	1.1547 1.5081	Ave		1.1716				18.0		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5205	0.6315 0.5343	0.4660 0.5306	0.4258 0.6413	0.5319 0.6674	Ave		0.5499				14.8		30.0			
Alpha Methyl Styrene	+++++ 0.4271	+++++ 0.4675	+++++ 0.4859	0.3240 0.6334	0.4482 +++++	Ave		0.4643				21.6		30.0			
Decane	+++++ 0.7272	+++++ 0.7423	0.7079 0.7248	0.6409 0.8596	0.8113 0.8305	Ave		0.7556				9.6		30.0			
tert-Butylbenzene	+++++ 1.1502	+++++ 1.1637	1.0345 1.1546	0.9100 1.3839	1.2038 1.3970	Ave		1.1747				13.8		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9827	+++++ 1.0060	0.9105 1.0083	0.7976 1.2444	1.0467 1.2593	Ave		1.0319				15.1		30.0			
sec-Butylbenzene	+++++ 1.4981	+++++ 1.5238	1.3923 1.5116	1.2156 1.8069	1.5712 1.7893	Ave		1.5386				12.6		30.0			
1,3-Dichlorobenzene	+++++ 0.5609	+++++ 0.5693	0.5963 0.5716	0.5172 0.7578	0.6463 0.8663	Ave		0.6357				18.6		30.0			
Benzyl chloride	+++++ 0.6826	0.9581 0.7463	0.6736 0.7214	0.5356 1.0371	0.7509 +++++	Ave		0.7632				21.1		30.0			
1,4-Dichlorobenzene	+++++ 0.5422	+++++ 0.5501	0.5825 0.5475	0.5170 0.7442	0.6450 0.8582	Ave		0.6233				19.3		30.0			
4-Isopropyltoluene	+++++ 1.2545	+++++ 1.2782	1.1885 1.2769	1.0055 1.5760	1.3254 1.6205	Ave		1.3157				15.2		30.0			
1,2,3-Trimethylbenzene	+++++ 1.0331	+++++ 1.0628	0.9715 1.0573	0.8414 1.2858	1.0915 1.3213	Ave		1.0831				14.5		30.0			
Indane	+++++ 0.8906	+++++ 0.9110	0.8538 0.9229	0.7545 1.1521	0.9664 1.1911	Ave		0.9553				15.4		30.0			
1,2-Dichlorobenzene	+++++ 0.5980	+++++ 0.6000	0.6106 0.6032	0.5235 0.7856	0.6674 0.8774	Ave		0.6582				17.7		30.0			
Butylbenzene	+++++ 1.1303	+++++ 1.1427	1.1372 1.1203	0.9352 1.3947	1.2496 1.3787	Ave		1.1861				12.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7506	+++++ 0.7697	0.7206 0.7730	0.5987 1.0079	0.8045 1.0691	Ave		0.8118				18.9		30.0			
Undecane	+++++ 0.8014	+++++ 0.8070	0.8934 0.7625	0.7127 0.9129	0.9036 0.8957	Ave		0.8362				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3361	+++++ 0.3477	0.3197 0.3510	0.2526 0.4608	0.3481 +++++	Ave		0.3452				17.8		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.1589	+++++ 1.1945	1.2030 1.1268	0.9406 1.3957	1.2531 1.4781	Ave		1.2188				13.5		30.0			
Dodecane	+++++ 0.4532	+++++ 0.6040	+++++ 0.4964	0.5615 0.6107	0.6881 0.7534	Ave		0.5953				17.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4846	+++++ 0.5424	0.6100 0.4929	0.4373 0.6466	0.5723 +++++	Ave		0.5409				13.7		30.0			
Naphthalene	+++++ 1.0932	+++++ 1.1869	1.4691 1.0113	0.9337 1.2998	1.2529 1.5280	Ave		1.2219				17.1		30.0			
Hexachlorobutadiene	+++++ 0.5204	+++++ 0.5693	0.5882 0.5592	0.4760 0.6738	0.6008 +++++	Ave		0.5697				11.0		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4299	+++++ 0.5149	0.6310 0.4371	0.4174 0.5680	0.5328 +++++	Ave		0.5044				15.9		30.0			
2-Methylnaphthalene	+++++ 0.2493	+++++ 0.3915	+++++ 0.1903	0.3026 0.3098	0.3494 +++++	Ave		0.2988				23.9		50.0			
1-Methylnaphthalene	+++++ 0.2223	+++++ 0.3528	+++++ 0.1824	0.2985 0.2303	0.3417 0.5044	Ave		0.3046				35.7		50.0			
4-Bromofluorobenzene (Surr)	0.6819 0.6781	0.7160 0.6827	0.6730 0.6779	0.6785 0.7172	0.6900 0.7894	Ave		0.6985				5.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 143650	+++++ 295192	12144 577644	24527 1099754	57005 2225632	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 123636	+++++ 206614	+++++ 367734	+++++ 655117	+++++ 1273461	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	5471 225338	9544 470027	18434 917378	38742 1734828	91206 3495201	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 28552	+++++ 55691	+++++ 109860	5798 204342	12166 398574	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	3409 157561	6483 322529	12415 628031	26703 1165575	62193 2406359	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2209 95598	4199 191166	7606 381669	15938 714460	37859 1429180	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 153775	+++++ 300883	14130 597160	27550 1145157	61096 2251543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 77166	+++++ 155217	6179 310591	12892 581136	30685 1173397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 82775	+++++ 167167	6749 336438	14478 635897	32967 1298868	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 48130	+++++ 94145	3887 191783	7832 365684	19062 748494	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 201476	+++++ 404221	+++++ 815655	32963 1625166	81394 2947666	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	1744 79074	3361 155754	6255 318973	13382 602160	31177 1239747	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 103811	+++++ 203120	8653 414806	18444 810977	41382 1613845	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	5074 216484	8916 430437	17187 872098	36052 1702009	83632 3444338	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 13361	+++++ 28446	+++++ 61026	3019 131091	7063 270664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 32844	+++++ 61782	+++++ 128415	5172 278577	14103 497142	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127481	+++++ 225108	+++++ 444971	+++++ 890812	66529 1593844	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 14781	+++++ 29047	1248 60170	2546 118364	6278 242543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	7320 310786	13400 629646	27591 1295072	46541 2567814	123788 4739239	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 76255	+++++ 138361	6540 302703	11484 638674	29746 1123439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2455 92122	4182 190519	7621 378693	16162 716022	36512 1502103	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 65475	+++++ 132732	5488 266374	9940 545503	26474 1027416	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 154929	+++++ 332416	+++++ 654315	22356 1345850	61202 2564549	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4525 191837	8334 386409	15663 770406	32118 1450769	75241 2858047	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Lin2	+++++ 109752	+++++ 193389	+++++ 364239	+++++ 659033	56393 1306171	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 87779	+++++ 182164	7446 350862	15428 707734	33922 1353410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 268261	+++++ 541088	21009 1079129	45066 2056031	105567 4302478	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2332 93436	3962 193449	7734 385433	15890 727437	37186 1464809	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 237341	+++++ 481512	20240 948942	40162 1812032	97133 3422914	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 258286	+++++ 528388	21209 1057831	39480 2119925	102677 4082227	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	3871 165511	7015 343479	13988 686099	29612 1372380	66700 2645566	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 226997	+++++ 479044	18360 986781	30770 2137380	86669 4013252	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 42923	+++++ 89416	+++++ 178747	6578 363441	18223 696485	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 80372	+++++ 164254	7222 326404	14572 629718	32780 1242958	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2306 94456	4155 198745	7570 393830	16041 759264	37306 1538934	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 188856	+++++ 400774	15214 823215	25479 1747973	73354 3392110	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 180278	8020 374204	15270 736824	31661 1491015	73286 2963984	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 106648	+++++ 221164	9494 452981	16515 936713	42847 1803135	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	4876 203100	8400 421743	16781 838974	34054 1655540	80426 3250383	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 114508	5137 237423	9341 483663	19284 1021579	46114 1931491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 48661	+++++ 100380	3988 198095	8720 371726	19927 706213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 242551	11544 511309	22395 1032624	43446 2062596	99661 3807337	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 29403	+++++ 62850	+++++ 124456	4491 272833	12572 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Carbon tetrachloride	DFBZ	Ave	4072 190078	6848 398753	13766 807930	28869 1591111	68766 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,3-Dimethylpentane	DFBZ	Ave	+++++ 71652	+++++ 149491	5835 294230	12022 568397	28657 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Thiophene	DFBZ	Ave	+++++ 137749	+++++ 289287	11305 583213	23575 1186778	55874 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 520750	+++++ 1058286	43400 2079393	88421 4004540	213033 7682801	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 99941	+++++ 211680	8641 429332	16827 858075	40573 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichloropropane	DFBZ	Ave	+++++ 93077	+++++ 196058	7715 407387	15287 842399	37778 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Trichloroethene	DFBZ	Ave	2915 111619	5447 237865	9397 465340	20427 922603	45477 1926421	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 96871	+++++ 205342	8427 404792	16736 830888	40456 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Bromodichloromethane	DFBZ	Ave	+++++ 156287	+++++ 334830	12392 688080	25197 1462641	63549 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dioxane	DFBZ	Ave	+++++ 39416	+++++ 86721	3189 177462	5681 348540	14826 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 110169	+++++ 239389	8532 505926	14427 1109239	41817 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methylcyclohexane	DFBZ	Ave	4516 188099	7973 386954	14995 756950	31583 1458305	74422 2847422	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 222266	+++++ 470662	17639 946677	29341 1979038	83515 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 117398	+++++ 246436	10030 500043	18924 1115238	49491 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 98838	+++++ 212978	8642 428692	15455 1002239	42775 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Toluene	CBZd 5	Ave	+++++ 254863	+++++ 557053	21422 1183227	39464 2520816	104385 4966980	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 71302	+++++ 152985	6257 320748	11430 696913	30261 1428785	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 96613	+++++ 214279	+++++ 439916	11325 963125	35424 1831800	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 936876	+++++ 2027688	+++++ 4121729	152650 8150575	381906 15368293	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 104351	+++++ 226222	8277 467389	16083 912580	40797 1768115	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 131535	5626 287903	9528 613834	19347 1367950	52675 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 118644	+++++ 245214	10187 496917	19585 1113826	52062 2444046	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2428 96316	4952 203783	8573 417134	17183 863844	40577 1794246	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 187744	+++++ 397736	16063 825756	30968 1797896	82023 3741443	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 333712	16571 736442	26400 1594284	48523 3438466	135845 6788262	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 530861	25887 1165828	42306 2481444	72310 5277635	211594 10202140	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 207514	+++++ 453353	+++++ 941883	30071 1873058	80514 3465909	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 112783	4322 251164	6952 559050	14453 1286991	42632 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 169510	+++++ 377786	13540 808080	23641 1861497	70755 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
o-Xylene	CBZd 5	Ave	6027 310566	13932 673428	24476 1402277	42643 2941831	120400 5749717	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 208917	+++++ 448925	16482 907606	29315 1918461	83135 3729146	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 58337	+++++ 127670	4926 268190	8308 588718	24078 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Isopropylbenzene	CBZd 5	Ave	+++++ 428100	+++++ 923891	32825 1917551	58099 3945046	164042 7617941	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 108816	+++++ 240647	8404 508903	14843 1090521	42505 2165788	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 97873	+++++ 216815	+++++ 452416	14146 949760	39623 1903546	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 376905	+++++ 824369	31925 1742670	51328 3780961	150740 7458705	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 184313	7587 395833	14053 806131	25029 1667531	69431 3300851	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 151255	+++++ 346367	+++++ 738180	19043 1646834	58506 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Decane	CBZd 5	Ave	+++++ 257513	+++++ 549946	21346 1101191	37672 2235162	105909 4107502	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 407290	+++++ 862214	31197 1754173	53492 3598324	157141 6908946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 347982	+++++ 745361	27456 1531875	46884 3235493	136640 6228342	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 530477	+++++ 1128972	41986 2296570	71451 4698192	205108 8849404	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 198615	+++++ 421757	17981 868408	30403 1970431	84363 4284620	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 241718	11511 552952	20313 1096000	31481 2696669	98023 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 192006	+++++ 407546	17565 831745	30391 1934892	84201 4244224	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 444210	+++++ 946994	35840 1939991	59105 4097767	173018 8014661	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 365811	+++++ 787432	29297 1606346	49455 3343083	142485 6534743	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 315362	+++++ 674925	25747 1402159	44351 2995540	126162 5890993	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 211768	+++++ 444503	18412 916514	30770 2042593	87121 4339427	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 400248	+++++ 846629	34293 1702027	54970 3626453	163131 6818592	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 265797	+++++ 570253	21730 1174363	35194 2620707	105026 5287488	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 283797	+++++ 597931	26942 1158450	41891 2373745	117964 4429686	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 119029	+++++ 257587	9642 533283	14850 1198041	45441 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 410365	+++++ 884994	36278 1712012	55288 3628958	163586 7310052	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 160463	+++++ 447519	+++++ 754162	33004 1587989	89823 3726029	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 171616	+++++ 401853	18396 748852	25702 1681341	74708 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Naphthalene	CBZd5	Ave	+++++ 387097	+++++ 879398	44301 1536423	54883 3379542	163561 7557003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 184267	+++++ 421818	17736 849561	27979 1752055	78428 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 152214	+++++ 381460	19028 664129	24534 1476859	69556 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2-Methylnaphthalene	CBZd5	Ave	+++++ 88291	+++++ 290055	+++++ 289145	17789 805463	45613 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 78719	+++++ 261428	+++++ 277130	17548 598866	44612 2494568	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1035061 960516	860195 1011605	1014670 1029964	997113 932426	900768 976018	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-0.8						50			
Propene	+++++	+++++	+++++	+++++	+++++	25.0						50
Dichlorodifluoromethane	8.8						50					
Chloromethane	+++++	+++++	+++++	20.7						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.1						50					
Vinyl chloride	5.9						50					
Butane	+++++	+++++	8.2						50			
1,3-Butadiene	+++++	+++++	-4.5						50			
Bromomethane	+++++	+++++	-4.4						50			
Chloroethane	+++++	+++++	-3.4						50			
Ethanol	+++++	+++++	+++++	-1.9						50		
Vinyl bromide	1.2						50					
2-Methylbutane	+++++	+++++	-2.2						50			
Trichlorofluoromethane	7.0						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	11.4						50		
Acetonitrile	+++++	+++++	+++++	-6.0						50		
Acetone	+++++	+++++	+++++	+++++	46.2						80	
Pentane	+++++	+++++	-2.9						50			
Isopropyl alcohol	6.0						50					
Ethyl ether	+++++	+++++	3.4						50			
1,1-Dichloroethene	16.5						50					
Acrylonitrile	+++++	+++++	-1.6						50			
tert-Butyl alcohol	+++++	+++++	+++++	-15.7						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	7.6						50					
Methylene Chloride	+++++	+++++	+++++	+++++	2.6						80	
3-Chloropropene	+++++	+++++	-1.1						50			
Carbon disulfide	+++++	+++++	-7.2						50			
trans-1,2-Dichloroethene	11.4						50					
2-Methylpentane	+++++	+++++	0.9						50			
Methyl tert-butyl ether	+++++	+++++	-3.3						50			
1,1-Dichloroethane	3.4						50					
Vinyl acetate	+++++	+++++	-7.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	-11.0						50		
Hexane	+++++	+++++	3.1						50			
cis-1,2-Dichloroethene	8.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-7.8						50			
Chloroform	+++++	9.1						50				
Tetrahydrofuran	+++++	+++++	1.0						50			
1,1,1-Trichloroethane	7.4						50					
1,2-Dichloroethane	+++++	23.9						50				
Cyclohexane	+++++	+++++	-9.9						50			
Benzene	+++++	29.4						50				
1-Butanol	+++++	+++++	+++++	-15.7 +++++						50		
Carbon tetrachloride	-2.5			+++++			50					
2,3-Dimethylpentane	+++++	+++++	-6.6	+++++					50			
Thiophene	+++++	+++++	-8.1	+++++					50			
2,2,4-Trimethylpentane	+++++	+++++	-7.8						50			
Heptane	+++++	+++++	-3.9	+++++					50			
1,2-Dichloropropane	+++++	+++++	-7.9	+++++					50			
Trichloroethene	2.2						50					
Dibromomethane	+++++	+++++	-3.8	+++++					50			
Bromodichloromethane	+++++	+++++	-12.0	+++++					50			
1,4-Dioxane	+++++	+++++	-7.7	+++++					50			
Methyl methacrylate	+++++	+++++	-12.4	+++++					50			
Methylcyclohexane	0.9						50					
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-7.2	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	+++++	-6.2	+++++					50			
trans-1,3-Dichloropropene	+++++	+++++	-5.0	+++++					50			
Toluene	+++++	+++++	-11.3						50			
1,1,2-Trichloroethane	+++++	+++++	-8.3						50			
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	+++++	-11.3						50			
Dibromochloromethane	+++++	16.8		+++++				50				
1,2-Dibromoethane (EDB)	+++++	+++++	-9.5						50			
Tetrachloroethene	2.0						50					
Chlorobenzene	+++++	+++++	-10.2						50			
Ethylbenzene	+++++	26.6						50				
m-Xylene & p-Xylene	+++++	27.5						50				
Nonane	+++++	+++++	+++++	-18.0						50		
Bromoform	+++++	7.3		+++++				50				
Styrene	+++++	+++++	-13.4	+++++					50			
o-Xylene	-15.7						50					
1,1,2,2-Tetrachloroethane	+++++	+++++	-12.0						50			
1,2,3-Trichloropropane	+++++	+++++	-7.0	+++++					50			
Isopropylbenzene	+++++	+++++	-13.9						50			
Propylbenzene	+++++	+++++	-16.8						50			
2-Chlorotoluene	+++++	+++++	+++++	-22.1						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-9.6						50			
1,3,5-Trimethylbenzene	+++++	14.8						50				
Alpha Methyl Styrene	+++++	+++++	+++++	-30.2 +++++						50		
Decane	+++++	+++++	-6.3						50			
tert-Butylbenzene	+++++	+++++	-11.9						50			
1,2,4-Trimethylbenzene	+++++	+++++	-11.8						50			
sec-Butylbenzene	+++++	+++++	-9.5						50			
1,3-Dichlorobenzene	+++++	+++++	-6.2						50			
Benzyl chloride	+++++	25.5		+++++				50				
1,4-Dichlorobenzene	+++++	+++++	-6.6						50			
4-Isopropyltoluene	+++++	+++++	-9.7						50			
1,2,3-Trimethylbenzene	+++++	+++++	-10.3						50			
Indane	+++++	+++++	-10.6						50			
1,2-Dichlorobenzene	+++++	+++++	-7.2						50			
Butylbenzene	+++++	+++++	-4.1						50			
Indene	+++++	+++++	-11.2						50			
Undecane	+++++	+++++	6.8						50			
1,2-Dibromo-3-Chloropropane	+++++	+++++	-7.4	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-1.3						50			
Dodecane	+++++	+++++	+++++	-5.7						50		
1,2,4-Trichlorobenzene	+++++	+++++	12.8	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	+++++	20.2						80			
Hexachlorobutadiene	+++++	+++++	3.2	+++++					50			
1,2,3-Trichlorobenzene	+++++	+++++	25.1	+++++					50			
2-Methylnaphthalene	+++++	+++++	+++++	1.3 +++++						80		
1-Methylnaphthalene	+++++	+++++	+++++	-2.0						80		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.0172	3.3329 3.0710	2.9803 3.1411	2.9793 3.0449	3.0027 3.1333	Ave		3.0781				3.7		30.0			
Propene	+++++ 1.7598	+++++ 1.8435	+++++ 1.4469	+++++ 1.3412	+++++ 1.3091	Ave		1.5401				16.0		30.0			
Dichlorodifluoromethane	+++++ 4.6117	4.9070 4.6511	4.5525 4.7256	4.5387 4.4481	4.7083 4.4396	Ave		4.6203				3.2		30.0			
Chloromethane	+++++ 0.5095	+++++ 0.5171	0.5372 0.5017	0.5814 0.4369	0.5201 0.4147	Ave		0.5023				10.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.4182 3.1361	3.3762 3.1857	3.1070 3.1962	3.1504 2.8905	3.1681 2.7818	Ave		3.1410				6.1		30.0			
Vinyl chloride	2.0790 1.6733	1.9148 1.6945	1.6286 1.6655	1.6403 1.4961	1.6997 1.4117	Ave		1.6903				11.2		30.0			
1,3-Butadiene	+++++ 1.2870	+++++ 1.2886	1.2429 1.2732	1.2547 1.1407	1.3025 1.0818	Ave		1.2339				6.5		30.0			
Butane	+++++ 2.2973	+++++ 2.4515	2.2886 2.2285	2.3651 1.9694	2.3219 1.8140	Ave		2.2170				9.7		30.0			
Bromomethane	+++++ 1.5878	+++++ 1.5952	1.5170 1.6025	1.5574 1.4863	1.5913 1.4876	Ave		1.5531				3.2		30.0			
Chloroethane	+++++ 0.7352	0.8125 0.7465	0.8745 0.7409	0.7719 0.6943	0.7736 0.6892	Ave		0.7598				7.6		30.0			
Ethanol	0.6750 0.6123	0.6741 0.6855	0.6072 0.6933	0.5902 0.5665	0.6296 0.5133	Ave		0.6247				9.4		30.0			
Vinyl bromide	+++++ 1.5653	+++++ 1.5914	1.6609 1.5836	1.5758 1.4916	1.6044 1.4711	Ave		1.5680				3.9		30.0			
2-Methylbutane	+++++ 1.7846	+++++ 1.7977	1.9931 1.7877	1.8458 1.6661	1.8566 1.5439	Ave		1.7844				7.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 4.3997	4.7091 4.3688	4.3519 4.3813	4.4087 4.1898	4.4317 4.1180	Ave		4.3732				3.8		30.0			
Acrolein	+++++ 0.5931	+++++ 0.5729	+++++ 0.6033	0.6118 0.5511	0.5975 0.5764	Ave		0.5866				3.6		30.0			
Acetonitrile	+++++ 0.7412	+++++ 0.7970	+++++ 0.7635	0.7986 0.7045	0.7851 0.6794	Ave		0.7528				6.2		30.0			
Acetone	+++++ 0.7601	+++++ 0.9456	+++++ 0.7650	0.8896 0.7152	0.7976 0.6841	Ave		0.7939				11.8		30.0			
Pentane	+++++ 0.2227	+++++ 0.2244	0.2146 0.2125	0.2300 0.2007	0.2279 0.1906	Ave		0.2154				6.4		30.0			
Isopropyl alcohol	+++++ 2.0203	+++++ 2.2573	+++++ 2.3187	1.9212 1.9759	2.0275 +++++	QuaF		2.4754	-0.020447						0.9980		0.9900
Ethyl ether	+++++ 1.8408	+++++ 1.8255	1.7772 1.7867	1.8421 1.6795	1.8613 1.6206	Ave		1.7792				4.8		30.0			
1,1-Dichloroethene	+++++ 1.5300	1.7399 1.5384	1.5642 1.5445	1.5038 1.5038	1.5168 1.4941	Ave		1.5484				4.9		30.0			
tert-Butyl alcohol	+++++ 1.8258	+++++ 2.0966	+++++ 2.2228	1.6909 1.8250	1.7801 1.8950	Ave		1.9052				9.9		30.0			
Acrylonitrile	+++++ 1.2606	+++++ 1.2760	1.2979 1.2950	1.2358 1.2474	1.2908 1.2160	Ave		1.2649				2.4		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 3.4979	+++++ 3.4734	3.5427 3.4156	3.5908 3.2147	3.5467 3.1115	Ave		3.4242				5.0		30.0			
Methylene Chloride	+++++ 1.7549	+++++ 1.6036	+++++ 1.4906	3.4692 1.3838	2.2362 +++++	Ave		1.9897				39.4	*	30.0			
3-Chloropropene	+++++ 1.4184	+++++ 1.5844	1.4035 1.4248	1.4387 1.3193	1.4190 1.1834	Ave		1.3989				8.1		30.0			
Carbon disulfide	+++++ 4.6084	+++++ 4.6033	4.5407 4.6416	4.6121 4.4757	4.6739 4.3880	Ave		4.5680				2.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.5372	+++++ 1.5575	1.5303 1.5596	1.5501 1.5176	1.5691 1.4910	Ave		1.5390				1.7		30.0			
2-Methylpentane	+++++ 3.6882	+++++ 3.7115	3.6573 3.6564	3.6642 3.4510	3.7231 3.2529	Ave		3.6006				4.6		30.0			
Methyl tert-butyl ether	3.3498 3.1065	3.2139 3.2444	2.8656 3.3624	2.9805 3.0170	3.0449 3.1311	Ave		3.1316				5.2		30.0			
1,1-Dichloroethane	+++++ 2.9967	+++++ 3.0159	3.0135 3.0294	2.9509 2.9327	3.0800 2.9213	Ave		2.9925				1.8		30.0			
Vinyl acetate	+++++ 4.2011	+++++ 4.4554	+++++ 4.6461	+++++ 4.5047	3.9512 4.4857	Ave		4.3740				5.8		30.0			
2-Butanone (MEK)	+++++ 0.7027	+++++ 0.7541	0.7185 0.7431	0.7132 0.7135	0.7029 0.7086	Ave		0.7196				2.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2879	+++++ 1.2988	1.3275 1.2761	1.3234 1.2459	1.3049 1.2133	Ave		1.2847				3.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.6110	1.7331 1.6277	1.6371 1.6351	1.5904 1.6048	1.6371 1.5982	Ave		1.6305				2.6		30.0			
Ethyl acetate	3.7301 3.7241	3.2683 3.8306	3.2975 3.8895	3.2962 3.7773	3.5754 3.7733	Ave		3.6162				6.7		30.0			
Chloroform	+++++ 3.5050	+++++ 3.4982	3.5057 3.4922	3.5158 3.3582	3.5713 3.3356	Ave		3.4728				2.4		30.0			
Tetrahydrofuran	1.8618 1.7632	1.7085 1.8385	1.7943 1.8743	1.6158 1.8215	1.7130 1.8110	Ave		1.7802				4.5		30.0			
1,1,1-Trichloroethane	+++++ 3.1880	3.4405 3.3082	2.9826 3.3688	3.0889 3.2674	3.1540 3.3075	Ave		3.2340				4.4		30.0			
1,2-Dichloroethane	+++++ 0.4562	0.4881 0.4677	0.4356 0.4651	0.4447 0.4484	0.4648 0.4466	Ave		0.4575				3.5		30.0			
1-Butanol	+++++ 0.0980	+++++ 0.1260	+++++ 0.1331	+++++ 0.1168	0.0864 0.1189	Ave		0.1132				15.6		30.0			
Cyclohexane	+++++ 0.1340	+++++ 0.1390	0.1290 0.1343	0.1317 0.1289	0.1377 0.1245	Ave		0.1324				3.6		30.0			
Benzene	+++++ 0.8866	0.9482 0.8963	0.8848 0.8779	0.8773 0.8313	0.8874 0.7938	Ave		0.8760				4.9		30.0			
Carbon tetrachloride	0.7254 0.6592	0.6502 0.6487	0.6129 0.6835	0.6174 0.6404	0.6501 0.5761	Ave		0.6464				6.3		30.0			
2,3-Dimethylpentane	+++++ 0.1859	+++++ 0.1933	0.1829 0.1865	0.1824 0.1784	0.1926 0.1743	Ave		0.1845				3.5		30.0			
Thiophene	+++++ 0.5122	+++++ 0.5312	0.5021 0.5188	0.4927 0.5026	0.5144 0.4977	Ave		0.5090				2.5		30.0			
2,2,4-Trimethylpentane	+++++ 1.4914	+++++ 1.5186	1.4649 1.5070	1.4512 1.4587	1.4938 1.4335	Ave		1.4774				2.0		30.0			
Heptane	+++++ 0.2845	0.2841 0.2911	0.2768 0.2880	0.2724 0.2844	0.2797 0.2829	Ave		0.2827				2.0		30.0			
1,2-Dichloropropane	+++++ 0.3648	0.4080 0.3755	0.3575 0.3731	0.3458 0.3576	0.3700 0.3516	Ave		0.3671				5.0		30.0			
Trichloroethene	0.4330 0.3843	0.4298 0.3885	0.3828 0.3814	0.3789 0.3680	0.3905 0.3642	Ave		0.3901				6.0		30.0			
Dibromomethane	+++++ 0.4090	0.4434 0.4461	0.4024 0.4086	0.3952 0.3858	0.4060 0.3796	Ave		0.4085				5.6		30.0			
Bromodichloromethane	0.6965 0.6706	0.6434 0.6715	0.6048 0.6955	0.6105 0.6696	0.6613 0.6608	Ave		0.6585				4.7		30.0			
1,4-Dioxane	+++++ 0.1204	+++++ 0.1382	+++++ 0.1436	0.1087 0.1258	0.1236 0.1187	Ave		0.1256				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4084	+++++ 0.4252	+++++ 0.4278	0.3201 0.4112	0.3765 0.4020	Ave		0.3959				9.5		30.0			
Methylcyclohexane	+++++ 0.5059	0.5295 0.5272	0.5045 0.5174	0.4863 0.5093	0.5040 0.5092	Ave		0.5104				2.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7584	+++++ 0.8024	+++++ 0.8096	0.6229 0.7894	0.7047 0.7803	Ave		0.7525				8.9		30.0			
cis-1,3-Dichloropropene	0.4938 0.4900	0.4244 0.5253	0.4134 0.5302	0.4268 0.5144	0.4607 0.5167	Ave		0.4796				9.4		30.0			
trans-1,3-Dichloropropene	0.4826 0.5169	0.4296 0.5665	0.4145 0.5837	0.4208 0.5681	0.4741 0.5704	Ave		0.5027				13.4		30.0			
Toluene	+++++ 1.2466	+++++ 1.2829	1.2361 1.2497	1.2443 1.1769	1.2548 1.1303	Ave		1.2277				4.0		30.0			
1,1,2-Trichloroethane	+++++ 0.4192	0.4473 0.4282	0.4072 0.4130	0.4094 0.3830	0.4239 0.3665	Ave		0.4109				5.9		30.0			
2-Hexanone	+++++ 0.3892	+++++ 0.4381	+++++ 0.4545	0.2604 0.4483	0.3369 0.4507	Ave		0.3969				18.6		30.0			
C8 Range	+++++ 3.0631	+++++ 3.1739	+++++ 3.0954	2.9514 2.9465	3.0471 2.8165	Ave		3.0134				3.9		30.0			
Octane	+++++ 0.3654	0.3736 0.3727	0.3377 0.3644	0.3480 0.3465	0.3646 0.3298	Ave		0.3559				4.4		30.0			
Dibromochloromethane	0.7894 0.8229	0.7430 0.7681	0.6761 0.8772	0.7081 0.8215	0.7807 0.7877	Ave		0.7775				7.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.7500	0.7269 0.7792	0.6893 0.7749	0.7002 0.7366	0.7469 0.7223	Ave		0.7363				4.1		30.0			
Tetrachloroethene	0.5729 0.4740	0.5256 0.4766	0.4809 0.4613	0.4773 0.4229	0.4827 0.4025	Ave		0.4777				10.0		30.0			
Chlorobenzene	+++++ 0.9810	1.0564 0.9984	0.9636 0.9835	0.9603 0.9249	0.9920 0.8857	Ave		0.9718				4.9		30.0			
Ethylbenzene	+++++ 1.5990	1.6358 1.6376	1.5004 1.6051	1.5339 1.5147	1.5973 1.4395	Ave		1.5626				4.4		30.0			
m-Xylene & p-Xylene	+++++ 1.2598	1.2874 1.2666	1.1693 1.2285	1.1817 1.1113	1.2482 1.0009	Ave		1.1948				7.7		30.0			
Nonane	+++++ 0.8648	0.8083 0.8877	0.7553 0.8669	0.8082 0.8004	0.8349 0.7227	Ave		0.8166				6.6		30.0			
Bromoform	+++++ 0.8489	+++++ 0.6423	0.6164 1.0093	0.6458 0.9575	0.7604 0.8852	Ave		0.7957				19.1		30.0			
Styrene	0.8596 0.8933	0.7755 0.9308	0.7416 0.9020	0.7917 0.8330	0.8506 0.7606	Ave		0.8339				7.7		30.0			
o-Xylene	+++++ 1.2896	1.3529 1.2981	1.2586 1.2221	1.2752 1.1179	1.3026 1.0495	Ave		1.2407				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 1.0587	0.9899 1.0934	0.9556 1.0657	0.9836 0.9954	1.0400 0.9462	Ave		1.0143				5.1		30.0			
1,2,3-Trichloropropane	+++++ 0.2491	0.2462 0.2584	0.2346 0.2540	0.2456 0.2408	0.2508 0.2378	Ave		0.2464				3.1		30.0			
Isopropylbenzene	+++++ 1.7162	+++++ 1.7678	1.6821 1.7185	1.6927 1.6002	1.7340 1.5086	Ave		1.6775				5.0		30.0			
Propylbenzene	0.4347 0.4619	0.4102 0.4772	0.4030 0.4752	0.4233 0.4643	0.4530 0.4554	Ave		0.4458				5.9		30.0			
2-Chlorotoluene	+++++ 0.4363	0.4437 0.4432	0.4185 0.4295	0.4210 0.4046	0.4401 0.3903	Ave		0.4252				4.3		30.0			
4-Ethyltoluene	1.6880 1.7410	1.5113 1.7948	1.5224 1.7592	1.5702 1.6671	1.6964 1.5749	Ave		1.6525				6.1		30.0			
1,3,5-Trimethylbenzene	0.7463 0.6997	0.7001 0.7088	0.6435 0.6882	0.6651 0.6528	0.6963 0.6212	Ave		0.6822				5.4		30.0			
Alpha Methyl Styrene	+++++ 0.6927	+++++ 0.7400	+++++ 0.7406	0.5529 0.7395	0.6410 0.7321	Ave		0.6913				10.3		30.0			
Decane	1.0263 1.1328	0.9925 1.1438	0.9720 1.1070	1.0486 1.0122	1.1246 0.9069	Ave		1.0467				7.6		30.0			
tert-Butylbenzene	+++++ 1.5567	1.5733 1.5615	1.4947 1.5280	1.4966 1.4039	1.5632 1.2584	Ave		1.4929				6.9		30.0			
1,2,4-Trimethylbenzene	1.5485 1.5154	1.4013 1.5290	1.3576 1.4667	1.4373 1.3401	1.5154 1.1954	Ave		1.4307				7.7		30.0			
sec-Butylbenzene	+++++ 2.2203	2.1285 2.2636	2.0519 2.2124	2.1292 2.0220	2.2147 1.7583	Ave		2.1112				7.4		30.0			
1,3-Dichlorobenzene	0.9870 0.9417	0.8209 0.9942	0.8151 0.9853	0.8378 0.9482	0.8993 0.8765	Ave		0.9106				7.7		30.0			
Benzyl chloride	+++++ 0.6750	+++++ 0.9083	+++++ 1.0157	0.3413 1.0431	0.4678 1.0687	Lin1	-0.179	1.0611							0.9970		0.9900
1,4-Dichlorobenzene	0.8528 0.8672	0.7355 0.9357	0.7143 0.9317	0.7371 0.9279	0.8017 0.8858	Ave		0.8390				10.3		30.0			
4-Isopropyltoluene	1.6732 1.7634	1.5788 1.7827	1.5237 1.7168	1.6666 1.5732	1.7407 1.4370	Ave		1.6456				6.9		30.0			
1,2,3-Trimethylbenzene	1.5682 1.5249	1.4477 1.6370	1.4314 1.4514	1.4734 1.3433	1.5359 1.2699	Ave		1.4683				7.3		30.0			
Indane	1.3984 1.3718	1.2388 1.5071	1.1958 1.3693	1.2762 1.2569	1.3409 1.0901	Ave		1.3045				9.0		30.0			
1,2-Dichlorobenzene	1.0229 0.9674	0.9032 1.0083	0.8390 0.9934	0.8953 0.9436	0.9329 0.8531	Ave		0.9359				6.8		30.0			
Indene	+++++ 1.1131	+++++ 1.2922	+++++ 1.1661	0.9242 1.1190	1.0289 0.9954	Ave		1.0913				11.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	+++++ 1.7750	+++++ 1.8214	+++++ 1.7404	1.5190 1.5414	1.6954 1.3078	Ave		1.6286				11.2		30.0			
Undecane	+++++ 1.2523	+++++ 1.3019	+++++ 1.2681	+++++ 1.1808	1.1821 1.0361	Ave		1.2036				7.9		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4548	+++++ 0.5219	0.2470 0.5574	0.2920 0.5742	0.3689 0.5999	Ave		0.4520				29.8		30.0			
1,2,4,5-Tetramethylbenzene	1.4947 1.6528	1.3551 1.8976	1.3171 1.6339	1.4553 1.5970	1.5771 1.5053	Ave		1.5486				10.7		30.0			
Dodecane	+++++ 1.1426	+++++ 1.2800	+++++ 1.2179	+++++ 1.1895	1.0035 1.1089	Ave		1.1571				8.3		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4936	+++++ 0.6412	+++++ 0.5925	0.3245 +++++	0.3747 +++++	Lin1	-0.062	0.6164							0.9930		0.9900
Naphthalene	+++++ 1.2657	0.8539 1.5485	0.7864 1.1243	0.8403 1.5972	0.9947 1.7325	QuaF		1.2867	0.0282762						0.9970		0.9900
Hexachlorobutadiene	1.0036 0.9352	0.9400 0.9880	0.8759 1.0125	0.9025 0.9211	0.9104 0.7987	Ave		0.9288				6.9		30.0			
1,2,3-Trichlorobenzene	+++++ 0.6182	0.5119 0.7308	0.4646 0.6216	0.4723 0.7651	0.5214 0.8265	Ave		0.6147				21.8		30.0			
2-Methylnaphthalene	0.3064 0.2492	0.2263 0.3232	0.2107 +++++	0.2007 +++++	0.2105 +++++	Ave		0.2467				20.0		50.0			
1-Methylnaphthalene	0.3565 0.3623	0.3124 0.4233	0.3090 +++++	0.2928 +++++	0.3112 +++++	Ave		0.3382				13.5		50.0			
4-Bromofluorobenzene (Surr)	0.6171 0.6569	0.6222 0.6579	0.6294 0.6443	0.6357 0.6140	0.6466 0.5855	Ave		0.6310				3.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 258080	12327 526371	22114 1051947	43196 2300206	103822 4338806	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 150527	+++++ 315975	+++++ 484559	+++++ 1013193	+++++ 1812795	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 394462	18149 797184	33779 1582580	65805 3360254	162795 6147725	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 43576	+++++ 88624	3986 168019	8429 330079	17983 574215	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	6751 268246	12487 546017	23054 1070401	45676 2183541	109541 3851999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	4106 143127	7082 290432	12084 557770	23782 1130201	58771 1954790	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 110081	+++++ 220869	9222 426377	18191 861724	45035 1498007	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 196500	+++++ 420180	16981 746307	34290 1487756	80282 2511969	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 135817	+++++ 273421	11256 536658	22580 1122793	55023 2059946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 62882	3005 127950	6489 248124	11191 524474	26750 954347	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	6666 261855	12467 587431	22527 1160909	42784 2139925	108838 3554027	0.100 5.00	0.200 10.0	0.400 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 133892	+++++ 272770	12324 530342	22847 1126793	55473 2037031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 152650	+++++ 308121	14789 598691	26761 1258620	64196 2137876	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 376331	17417 748808	32291 1467266	63919 3165059	153233 5702329	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 50728	+++++ 98189	+++++ 202039	8870 416349	20661 798221	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 63400	+++++ 136603	+++++ 255701	11579 532165	27147 940740	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 195039	+++++ 486234	+++++ 768541	38693 1620868	82734 2841852	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 19047	+++++ 38454	1592 71176	3334 151611	7881 263861	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	QuaF	+++++ 518417	+++++ 1160710	+++++ 2329523	83562 4478030	210316 +++++	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 +++++
Ethyl ether	CBM	Ave	+++++ 157454	+++++ 312892	13187 598345	26707 1268732	64358 2244138	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 130868	6435 263675	11606 517241	21803 1135983	52447 2068932	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 156169	+++++ 359357	+++++ 744416	24516 1378689	61549 2624089	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 107825	+++++ 218710	9630 433673	17917 942315	44632 1683899	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 299195	+++++ 595343	26287 1143879	52062 2428459	122633 4308645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 150109	+++++ 274860	+++++ 499185	50298 1045351	77321 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 121319	+++++ 271563	10414 477175	20859 996619	49063 1638711	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 394178	+++++ 788999	33692 1554444	66869 3381044	161607 6076214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 131483	+++++ 266946	11355 522287	22474 1146408	54254 2064580	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 315473	+++++ 636153	27137 1224511	53125 2606951	128733 4504406	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	6616 265718	11887 556080	21263 1126040	43213 2279152	105281 4335737	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 256323	+++++ 516914	22360 1014519	42784 2215457	106496 4045169	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 359344	+++++ 763645	+++++ 1555969	+++++ 3402957	136617 6211522	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 60107	+++++ 129259	5331 248875	10341 538970	24304 981260	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 110164	+++++ 222617	9850 427376	19188 941205	45120 1680027	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 137797	6410 278981	12147 547573	23059 1212279	56606 2213145	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	7367 318538	12088 656558	24467 1302569	47790 2853515	123623 5225034	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 299799	+++++ 599583	26012 1169537	50974 2536881	123484 4618898	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	3677 150812	6319 315123	13314 627682	23427 1376011	59229 2507772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 272684	12725 567012	22131 1128184	44785 2468268	109055 4580060	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 204250	9652 412948	17098 809776	34172 1764440	84489 3192664	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 43891	+++++ 111292	+++++ 231779	+++++ 459733	15699 850224	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 59975	+++++ 122723	5064 233772	10125 507432	25031 890031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 396929	18751 791442	34726 1528423	67419 3271364	161306 5674454	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	7608 295125	12857 572784	24054 1189938	47444 2520053	118158 4117865	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 83232	+++++ 170678	7180 324669	14015 702072	35003 1245859	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 229319	+++++ 469033	19708 903327	37862 1977770	93498 3557854	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 667738	+++++ 1340921	57497 2623805	111529 5740323	271516 10246881	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 127392	5618 257052	10865 501419	20936 1119365	50832 2021836	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 163324	8069 331588	14031 649565	26576 1407448	67250 2512982	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4541 172044	8499 343047	15023 664068	29121 1448188	70988 2603661	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 183116	8769 393896	15792 711391	30368 1518384	73801 2713344	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	7305 300223	12723 592955	23738 1210924	46919 2635124	120207 4723400	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 53916	+++++ 122001	+++++ 249976	8350 495003	22473 848749	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 182847	+++++ 375501	+++++ 744857	24601 1618228	68426 2873694	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 226504	10471 465542	19799 900896	37370 2004192	91601 3640003	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 339545	+++++ 708531	+++++ 1409528	47870 3106672	128098 5577877	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	5179 219375	8393 463810	16224 923104	32800 2024214	83737 3693129	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	4016 188190	6769 413927	13027 859037	25754 1960990	69361 3680539	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453859	+++++ 937343	38844 1839181	76160 4062800	183594 7293412	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 152636	7048 312845	12797 607746	25056 1322300	62020 2364559	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 141717	+++++ 320107	+++++ 668835	15937 1547506	49289 2908225	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1371382	+++++ 2802607	+++++ 5389224	226816 11595308	553854 20132590	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 133039	5887 272318	10613 536311	21302 1196166	53349 2127711	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	6570 299597	11706 561197	21246 1290979	43336 2835933	114222 5082414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 273072	11452 569336	21661 1140314	42855 2542909	109287 4660782	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4768 172587	8281 348207	15113 678939	29210 1459978	70628 2596812	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 357164	16645 729491	30282 1447415	58773 3192681	145143 5715223	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 582181	25773 1196436	47150 2362105	93879 5228794	233703 9288196	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 917354	40569 1850763	73493 3615792	144646 7672406	365259 12916434	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 314861	12735 648556	23735 1275706	49467 2762958	122153 4662972	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 309075	+++++ 469293	19371 1485352	39523 3305524	111253 5711552	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	7154 325232	12219 680077	23305 1327357	48453 2875566	124454 4907648	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 469536	21316 948407	39551 1798567	78046 3859106	190593 6772116	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 385450	15597 798854	30032 1568376	60200 3436226	152170 6105282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 90692	3879 188785	7373 373834	15033 831137	36695 1534416	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 624842	+++++ 1291576	52862 2528962	103604 5524128	253709 9733848	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	3618 168177	6463 348652	12666 699326	25908 1602900	66273 2938574	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 158859	6991 323777	13152 632133	25767 1396566	64387 2518282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	14048 633870	23811 1311330	47844 2589001	96101 5754889	248207 10161779	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	6211 254742	11031 517860	20221 1012751	40705 2253557	101880 4008116	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 252208	+++++ 540626	+++++ 1089948	33843 2552865	93782 4723728	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	8541 412455	15638 835714	30546 1629098	64178 3494119	164541 5851784	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 566776	24788 1140875	46971 2248680	91598 4846271	228719 8120000	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	12887 551741	22079 1117140	42663 2158520	87972 4626128	221725 7713396	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 808374	33536 1653844	64482 3255913	130315 6980187	324044 11345386	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	8214 342858	12934 726374	25616 1449949	51280 3273154	131580 5655538	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Lin1	+++++ 245776	+++++ 663636	+++++ 1494791	20890 3600699	68451 6895733	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7097 315726	11588 683630	22449 1371140	45113 3203334	117301 5715506	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	13925 642036	24875 1302455	47883 2526501	102001 5430794	254695 9272439	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	13051 555204	22809 1196043	44983 2135883	90182 4637042	224726 8194003	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	11638 499443	19518 1101095	37579 2015184	78111 4338946	196198 7033477	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8513 352213	14230 736659	26365 1461945	54798 3257369	136502 5504414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 405284	+++++ 944116	+++++ 1716157	56568 3862763	150544 6422664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 646251	+++++ 1330772	+++++ 2561258	92968 5320956	248059 8438576	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 455960	+++++ 951215	+++++ 1866246	+++++ 4076087	172958 6685309	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 165576	+++++ 381341	7761 820334	17870 1982271	53981 3870648	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12439 601768	21351 1386418	41391 2404482	89073 5512969	230745 9712688	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 416010	+++++ 935208	+++++ 1792287	+++++ 4106299	146819 7155088	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Lin1	+++++ 179722	+++++ 468499	+++++ 872017	19861 +++++	54822 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 +++++	0.400 +++++
Naphthalene	CBZd5	QuaF	+++++ 460821	13454 1131343	24712 1654527	51432 5513643	145539 11178875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	8352 340491	14811 721866	27526 1489988	55239 3179700	133209 5153691	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 225092	8066 533916	14601 914779	28906 2641091	76295 5332766	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	2550 90748	3565 236143	6623 +++++	12284 +++++	30794 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	2967 131930	4923 309255	9711 +++++	17919 +++++	45529 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1027190 956665	980386 961381	989017 948130	972701 1059784	946075 944497	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
QuaF = Quadratic ISTD forced zero

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	8.3						50				
Propene	+++++	+++++	+++++	+++++	+++++	14.3						50
Dichlorodifluoromethane	+++++	6.2						50				
Chloromethane	+++++	+++++	6.9						50			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	8.8						50					
Vinyl chloride	23.0						50					
1,3-Butadiene	+++++	+++++	0.7						50			
Butane	+++++	+++++	3.2						50			
Bromomethane	+++++	+++++	-2.3						50			
Chloroethane	+++++	6.9						50				
Ethanol	8.1						50					
Vinyl bromide	+++++	+++++	5.9						50			
2-Methylbutane	+++++	+++++	11.7						50			
Trichlorofluoromethane	+++++	7.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	4.3						50		
Acetonitrile	+++++	+++++	+++++	6.1						50		
Acetone	+++++	+++++	+++++	12.1						80		
Pentane	+++++	+++++	-0.4						50			
Isopropyl alcohol	+++++	+++++	+++++	-22.2 +++++						50		
Ethyl ether	+++++	+++++	-0.1						50			
1,1-Dichloroethene	+++++	12.4						50				
tert-Butyl alcohol	+++++	+++++	+++++	-11.2						50		
Acrylonitrile	+++++	+++++	2.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	3.5						50			
Methylene Chloride	+++++	+++++	+++++	74.4 +++++						80		
3-Chloropropene	+++++	+++++	0.3						50			
Carbon disulfide	+++++	+++++	-0.6						50			
trans-1,2-Dichloroethene	+++++	+++++	-0.6						50			
2-Methylpentane	+++++	+++++	1.6						50			
Methyl tert-butyl ether	7.0						50					
1,1-Dichloroethane	+++++	+++++	0.7						50			
Vinyl acetate	+++++	+++++	+++++	+++++	-9.7						50	
2-Butanone (MEK)	+++++	+++++	-0.2						50			
Hexane	+++++	+++++	3.3						50			
cis-1,2-Dichloroethene	+++++	6.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	3.1						50					
Chloroform	+++++	+++++	0.9						50			
Tetrahydrofuran	4.6						50					
1,1,1-Trichloroethane	+++++	6.4						50				
1,2-Dichloroethane	+++++	6.7						50				
1-Butanol	+++++	+++++	+++++	+++++	-23.7						50	
Cyclohexane	+++++	+++++	-2.5						50			
Benzene	+++++	8.3						50				
Carbon tetrachloride	12.2						50					
2,3-Dimethylpentane	+++++	+++++	-0.9						50			
Thiophene	+++++	+++++	-1.3						50			
2,2,4-Trimethylpentane	+++++	+++++	-0.8						50			
Heptane	+++++	0.5						50				
1,2-Dichloropropane	+++++	11.2						50				
Trichloroethene	11.0						50					
Dibromomethane	+++++	8.6						50				
Bromodichloromethane	5.8						50					
1,4-Dioxane	+++++	+++++	+++++	-13.5						50		
Methyl methacrylate	+++++	+++++	+++++	-19.1						50		
Methylcyclohexane	+++++	3.8						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	-17.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	3.0						50					
trans-1,3-Dichloropropene	-4.0						50					
Toluene	+++++	+++++	0.7						50			
1,1,2-Trichloroethane	+++++	8.9						50				
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	5.0						50				
Dibromochloromethane	1.5						50					
1,2-Dibromoethane (EDB)	+++++	-1.3						50				
Tetrachloroethene	19.9						50					
Chlorobenzene	+++++	8.7						50				
Ethylbenzene	+++++	4.7						50				
m-Xylene & p-Xylene	+++++	7.7						50				
Nonane	+++++	-1.0						50				
Bromoform	+++++	+++++	-22.5						50			
Styrene	3.1						50					
o-Xylene	+++++	9.0						50				
1,1,2,2-Tetrachloroethane	+++++	-2.4						50				
1,2,3-Trichloropropane	+++++	-0.1						50				
Isopropylbenzene	+++++	+++++	0.3						50			
Propylbenzene	-2.5						50					
2-Chlorotoluene	+++++	4.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	2.1						50					
1,3,5-Trimethylbenzene	9.4						50					
Alpha Methyl Styrene	+++++	+++++	+++++	-20.0						50		
Decane	-1.9						50					
tert-Butylbenzene	+++++	5.4						50				
1,2,4-Trimethylbenzene	8.2						50					
sec-Butylbenzene	+++++	0.8						50				
1,3-Dichlorobenzene	8.4						50					
Benzyl chloride	+++++	+++++	+++++	37.3						50		
1,4-Dichlorobenzene	1.6						50					
4-Isopropyltoluene	1.7						50					
1,2,3-Trimethylbenzene	6.8						50					
Indane	7.2						50					
1,2-Dichlorobenzene	9.3						50					
Indene	+++++	+++++	+++++	-15.3						50		
Butylbenzene	+++++	+++++	+++++	-6.7						50		
Undecane	+++++	+++++	+++++	+++++	-1.8						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	-45.4						50			
1,2,4,5-Tetramethylbenzene	-3.5						50					
Dodecane	+++++	+++++	+++++	+++++	-13.3						50	
1,2,4-Trichlorobenzene	+++++	+++++	+++++ +++++	15.9 +++++						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	-33.7						80				
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-16.7						50				
2-Methylnaphthalene	24.2	+++++	+++++	+++++			80					
1-Methylnaphthalene	5.4	+++++	+++++	+++++			80					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.7260	+++++ 2.6680	2.5843 2.5009	3.1164 2.3259	3.0059 2.3069	Ave		2.6543				11.0		30.0			
Propene	+++++ 1.9442	+++++ 1.6367	+++++ 1.4437	+++++ 1.2575	+++++ 1.2209	Ave		1.5006				19.9		30.0			
Dichlorodifluoromethane	+++++ 2.2785	+++++ 2.1933	2.4600 2.0613	2.5803 2.0814	2.5119 1.8830	Ave		2.2562				10.9		30.0			
Chloromethane	+++++ 0.5554	+++++ 0.4767	+++++ 0.4326	0.3883 0.3434	0.4816 0.3386	Ave		0.4310				18.5		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.0704	+++++ 1.6453	2.1437 1.5512	2.1811 1.3073	2.1242 +++++	Ave		1.8605				18.9		30.0			
Vinyl chloride	1.7291 1.2883	1.6251 1.5737	1.6212 1.1646	1.3532 1.0197	1.3998 0.8114	Ave		1.3586				21.7		30.0			
1,3-Butadiene	+++++ 1.0156	+++++ 1.1823	+++++ 1.0162	1.2794 0.7642	1.2388 0.6544	Ave		1.0216				23.3		30.0			
Butane	+++++ 1.8934	+++++ 2.2335	2.4101 1.8806	2.5004 1.4508	2.2121 1.2365	Ave		1.9772				22.8		30.0			
Bromomethane	+++++ 1.2859	+++++ 1.4808	1.9045 1.1757	1.5746 1.0547	1.4408 0.8315	Ave		1.3436				24.7		30.0			
Chloroethane	+++++ 0.5130	+++++ 0.6525	0.7561 0.4710	0.5613 0.4310	0.5850 +++++	Ave		0.5671				19.6		30.0			
Ethanol	+++++ 0.6058	+++++ 0.6726	+++++ 0.5847	0.6715 0.5590	0.6550 0.5356	Ave		0.6120				9.1		30.0			
Vinyl bromide	+++++ 1.1611	1.2192 1.1781	1.0641 1.1689	1.1263 1.1369	1.1332 1.0430	Ave		1.1368				4.9		30.0			
2-Methylbutane	+++++ 1.5253	+++++ 1.6120	1.7274 1.5439	1.5192 1.4120	1.6922 1.3512	Ave		1.5479				8.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.3282	3.3774 3.3203	3.0491 3.2570	3.3050 3.1386	3.4667 3.0258	Ave		3.2520				4.6		30.0			
Acrolein	+++++ 0.3645	+++++ 0.3873	+++++ 0.4333	+++++ 0.3449	0.4416 0.3410	Ave		0.3855				11.3		30.0			
Acetonitrile	+++++ 0.6425	+++++ 0.6542	+++++ 0.6025	0.4649 0.5769	0.5491 0.5355	Ave		0.5751				11.4		30.0			
Acetone	+++++ 0.6576	+++++ 0.6345	+++++ 0.5939	+++++ 0.5462	0.8838 0.5119	Ave		0.6380				20.7		30.0			
Pentane	+++++ 0.2223	+++++ 0.2394	+++++ 0.2318	0.2204 0.2239	0.2420 0.2223	Ave		0.2289				3.9		30.0			
Isopropyl alcohol	2.0445 1.8052	1.9846 1.9795	1.9329 1.7719	1.8817 1.7209	1.8939 1.6692	Ave		1.8684				6.6		30.0			
Ethyl ether	+++++ 1.5177	+++++ 1.6254	1.6032 1.5133	1.7440 1.4199	1.6884 1.3733	Ave		1.5607				8.2		30.0			
1,1-Dichloroethene	+++++ 1.2768	1.3859 1.2885	1.2342 1.3283	1.3969 1.2458	1.3854 1.1635	Ave		1.3006				6.2		30.0			
Acrylonitrile	+++++ 0.9656	+++++ 1.0127	+++++ 0.9799	0.9002 0.9252	1.0388 0.8895	Ave		0.9589				5.9		30.0			
tert-Butyl alcohol	+++++ 2.2589	+++++ 2.4248	2.6173 2.2857	2.3278 2.1550	2.3602 2.1201	Ave		2.3187				6.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.6175	+++++ 2.7892	2.7427 2.6846	3.0147 2.6294	2.9235 2.5912	Ave		2.7491				5.6		30.0			
Methylene Chloride	+++++ 1.3354	+++++ 1.2126	+++++ 1.1602	2.6564 1.1104	1.7848 +++++	Ave		1.5433				38.7	*	30.0			
3-Chloropropene	+++++ 1.2873	+++++ 1.3056	1.3978 1.1673	1.3442 1.1350	1.4259 1.1393	Ave		1.2753				9.1		30.0			
Carbon disulfide	+++++ 3.4529	+++++ 3.5063	3.4533 3.4547	3.3067 3.3496	3.6966 3.1287	Ave		3.4186				4.8		30.0			
trans-1,2-Dichloroethene	+++++ 1.3377	1.4290 1.4552	1.3966 1.4046	1.4119 1.3783	1.4326 1.3593	Ave		1.4006				2.7		30.0			
2-Methylpentane	+++++ 3.2013	3.5636 3.4610	3.3036 3.3080	3.3865 2.9713	3.5514 3.0086	Ave		3.3061				6.5		30.0			
Methyl tert-butyl ether	+++++ 3.3757	+++++ 3.4980	3.2509 3.4526	3.3858 3.2852	3.6039 3.1045	Ave		3.3696				4.6		30.0			
1,1-Dichloroethane	+++++ 2.3751	2.5086 2.4366	2.3878 2.3574	2.6268 2.2552	2.5766 2.1291	Ave		2.4059				6.4		30.0			
Vinyl acetate	+++++ 3.8272	+++++ 4.0947	3.6725 3.8070	3.4480 3.7636	3.9587 3.7530	Ave		3.7906				5.0		30.0			
2-Butanone (MEK)	+++++ 0.6406	+++++ 0.6920	+++++ 0.6145	0.8285 0.6299	0.6904 0.6279	Ave		0.6748				11.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0578	+++++ 1.1373	1.1561 1.0624	1.0809 1.0023	1.2326 1.0306	Ave		1.0950				6.9		30.0			
cis-1,2-Dichloroethene	+++++ 1.3435	1.2993 1.5183	1.4238 1.4577	1.6617 1.4469	1.5505 1.3823	Ave		1.4538				7.6		30.0			
Ethyl acetate	+++++ 3.4335	3.6328 3.6172	3.4839 3.4462	3.6366 3.2360	3.6466 3.1830	Ave		3.4795				5.0		30.0			
Chloroform	+++++ 2.8766	3.3067 2.9575	2.8469 2.8373	2.8829 2.6787	3.0078 2.6848	Ave		2.8977				6.5		30.0			
Tetrahydrofuran	+++++ 1.6509	+++++ 1.7784	1.8287 1.7135	1.8905 1.5948	1.7994 1.5531	Ave		1.7262				6.9		30.0			
1,1,1-Trichloroethane	3.1493 2.9120	2.7773 3.0058	3.1579 2.8040	2.9223 2.9352	3.0377 2.9169	Ave		2.9618				4.3		30.0			
1,2-Dichloroethane	0.2772 0.3249	0.3255 0.3104	0.3283 0.3135	0.3510 0.2972	0.3094 0.3136	Ave		0.3151				6.2		30.0			
1-Butanol	+++++ 0.1107	+++++ 0.1129	+++++ 0.1075	+++++ 0.1038	0.1111 0.1181	Ave		0.1107				4.4		30.0			
Cyclohexane	+++++ 0.1108	+++++ 0.1126	+++++ 0.1137	0.1250 0.1081	0.1068 0.1228	Ave		0.1143				6.2		30.0			
Benzene	0.8148 0.7633	0.7768 0.7472	0.8289 0.7582	0.7659 0.7154	0.7351 0.8087	Ave		0.7714				4.7		30.0			
Carbon tetrachloride	0.4284 0.5464	0.4512 0.5598	0.4562 0.5438	0.4715 0.5486	0.4674 0.6278	Ave		0.5101				12.5		30.0			
2,3-Dimethylpentane	+++++ 0.1674	+++++ 0.1604	0.1567 0.1638	0.1353 0.1587	0.1485 0.1690	Ave		0.1575				7.0		30.0			
Thiophene	+++++ 0.4125	+++++ 0.4015	0.3879 0.3931	0.3945 0.4035	0.3859 0.4239	Ave		0.4003				3.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2152	+++++ 1.2029	1.2047 1.2281	1.2110 1.1081	1.1994 1.2202	Ave		1.1987				3.2		30.0			
Heptane	+++++ 0.2567	+++++ 0.2633	0.2564 0.2627	0.2576 0.2467	0.2297 0.2668	Ave		0.2550				4.7		30.0			
1,2-Dichloropropane	+++++ 0.2875	+++++ 0.2853	0.2886 0.2742	0.2668 0.2610	0.2744 0.2861	Ave		0.2780				3.8		30.0			
Trichloroethene	0.3443 0.3307	0.3294 0.3414	0.3054 0.3496	0.2980 0.3375	0.3176 0.3660	Ave		0.3320				6.2		30.0			
Dibromomethane	+++++ 0.2929	0.3072 0.3004	0.2903 0.3027	0.2794 0.2903	0.2834 0.3143	Ave		0.2957				3.8		30.0			
Bromodichloromethane	+++++ 0.5006	+++++ 0.5142	0.4580 0.5123	0.4424 0.5019	0.4411 0.5546	Ave		0.4906				8.1		30.0			
1,4-Dioxane	+++++ 0.1152	+++++ 0.1173	+++++ 0.1199	0.0955 0.1120	0.1043 0.1186	Ave		0.1118				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3384	+++++ 0.3460	+++++ 0.3548	0.3136 0.3373	0.3141 0.3787	Ave		0.3404				6.7		30.0			
Methylcyclohexane	+++++ 0.4108	+++++ 0.4335	0.4149 0.4351	0.4105 0.4196	0.4068 0.4495	Ave		0.4226				3.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.6415	+++++ 0.6570	0.5895 0.6473	0.5935 0.6201	0.6100 0.6877	Ave		0.6308				5.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.3946	0.3260 0.4246	0.3207 0.3972	0.3823 0.4089	0.3656 0.4479	Ave		0.3853				11.0		30.0			
trans-1,3-Dichloropropene	+++++ 0.4033	0.3798 0.4680	0.3772 0.4433	0.3949 0.4700	0.3892 0.4703	Ave		0.4218				9.6		30.0			
Toluene	0.9562 0.9189	0.9026 1.0574	0.9539 1.0300	0.9146 1.0514	0.9898 1.0020	Ave		0.9777				5.8		30.0			
1,1,2-Trichloroethane	0.3388 0.2793	0.3166 0.3263	0.2823 0.3184	0.2886 0.3143	0.2927 0.3012	Ave		0.3059				6.5		30.0			
2-Hexanone	+++++ 0.3140	+++++ 0.3662	0.2945 0.3604	0.3113 0.3634	0.3152 0.3599	Ave		0.3356				8.8		30.0			
C8 Range	+++++ 2.6253	+++++ 2.7699	+++++ 2.6896	2.7491 2.5049	2.6475 2.7844	Ave		2.6815				3.7		30.0			
Octane	+++++ 0.2855	+++++ 0.3380	0.2430 0.3146	0.2799 0.3324	0.2893 0.3385	Ave		0.3027				11.3		30.0			
Dibromochloromethane	+++++ 0.5738	+++++ 0.6863	0.4237 0.6666	0.4750 0.7579	0.5177 0.7947	Ave		0.6120				22.1		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.5404	0.4995 0.6364	0.4875 0.6071	0.5154 0.6400	0.5458 0.6582	Ave		0.5700				11.6		30.0			
Tetrachloroethene	0.4005 0.3534	0.3815 0.4068	0.3673 0.3984	0.3877 0.4361	0.3741 0.4304	Ave		0.3936				6.7		30.0			
Chlorobenzene	0.8304 0.7683	0.7277 0.8883	0.7903 0.8599	0.7645 0.9287	0.8042 0.9197	Ave		0.8282				8.3		30.0			
Ethylbenzene	1.2805 1.2363	1.2724 1.4718	1.1953 1.3918	1.2874 1.4464	1.2489 1.4273	Ave		1.3258				7.5		30.0			
m-Xylene & p-Xylene	0.9455 0.9833	0.9495 1.1219	0.9686 1.1134	0.9707 1.1476	0.9742 +++++	Ave		1.0194				8.1		30.0			
Nonane	0.5919 0.6341	0.6105 0.7288	0.5577 0.7162	0.6265 0.7258	0.6303 0.6954	Ave		0.6517				9.3		30.0			
Bromoform	+++++ 0.5845	+++++ 0.7183	0.4066 0.7053	0.4255 +++++	0.5158 +++++	Ave		0.5593				24.0		30.0			
Styrene	+++++ 0.6801	+++++ 0.7967	0.5210 0.8121	0.5315 0.8848	0.6132 0.8801	Ave		0.7149				20.8		30.0			
o-Xylene	1.0478 0.9975	0.9320 1.0711	0.9431 1.0951	1.0039 1.1021	1.0321 1.1197	Ave		1.0345				6.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.6895 0.7678	0.6522 0.7971	0.6792 0.8315	0.7130 0.8513	0.7531 0.8668	Ave		0.7601				10.0		30.0			
1,2,3-Trichloropropane	+++++ 0.2154	0.2596 0.2394	0.2135 0.2552	0.2351 0.2558	0.2255 0.2547	Ave		0.2394				7.6		30.0			
Isopropylbenzene	1.5102 1.5033	1.4056 1.6590	1.4118 1.6352	1.4167 1.6748	1.5710 +++++	Ave		1.5319				7.1		30.0			
Propylbenzene	+++++ 0.3955	0.3562 0.4385	0.3841 0.4413	0.3703 0.4723	0.4092 +++++	Ave		0.4084				9.7		30.0			
2-Chlorotoluene	+++++ 0.3661	0.3747 0.4076	0.3340 0.4108	0.3773 0.4367	0.3875 +++++	Ave		0.3869				8.1		30.0			
4-Ethyltoluene	+++++ 1.4994	+++++ 1.6944	1.3559 1.7289	1.3397 1.7395	1.5426 +++++	Ave		1.5572				10.9		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5864	+++++ 0.6547	0.5372 0.6390	0.5500 0.6738	0.5916 0.7107	Ave		0.6179				9.9		30.0			
Alpha Methyl Styrene	+++++ 0.5224	+++++ 0.6349	+++++ 0.6612	0.4050 0.7336	0.4511 0.7891	Ave		0.5996				24.1		30.0			
Decane	+++++ 0.8374	+++++ 0.9465	+++++ 0.9426	0.8014 0.9125	0.8459 0.9096	Ave		0.8851				6.4		30.0			
tert-Butylbenzene	+++++ 1.2746	+++++ 1.4997	1.2146 1.4649	1.2480 1.6001	1.3155 1.5569	Ave		1.3968				10.8		30.0			
1,2,4-Trimethylbenzene	1.2028 1.2553	1.1447 1.4812	1.1638 1.4659	1.2236 1.5654	1.2861 +++++	Ave		1.3099				11.8		30.0			
sec-Butylbenzene	+++++ 1.8690	+++++ 2.2054	1.7755 2.2283	1.8000 2.3529	1.9751 +++++	Ave		2.0295				11.4		30.0			
1,3-Dichlorobenzene	+++++ 0.8984	+++++ 1.0244	0.9172 1.0444	0.9105 1.1397	0.9240 1.0821	Ave		0.9926				9.3		30.0			
Benzyl chloride	+++++ 0.8980	+++++ 1.1805	0.7853 1.0109	0.7742 +++++	0.8369 +++++	Ave		0.9143				17.1		30.0			
1,4-Dichlorobenzene	0.9320 0.9020	0.8097 1.0419	0.9008 0.9990	0.8499 1.1436	0.9042 1.1157	Ave		0.9599				11.6		30.0			
4-Isopropyltoluene	1.2738 1.5148	1.2821 1.7152	1.3632 1.6510	1.4649 1.7846	1.5176 +++++	Ave		1.5075				12.2		30.0			
1,2,3-Trimethylbenzene	1.1397 1.2760	1.1040 1.4204	1.2047 1.4129	1.2732 1.4633	1.2567 +++++	Ave		1.2834				9.8		30.0			
Indane	+++++ 1.1644	+++++ 1.3331	1.1191 1.3630	1.1504 1.5135	1.1552 1.3466	Ave		1.2682				11.1		30.0			
1,2-Dichlorobenzene	0.9716 0.8829	0.8386 0.9926	0.8219 0.9879	0.8992 1.1198	0.8924 0.9970	Ave		0.9404				9.6		30.0			
Indene	+++++ 0.9756	+++++ 1.1838	+++++ 1.1752	0.8020 1.3866	0.9174 1.2488	Ave		1.0985				18.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.5405 1.5136	1.4542 1.7535	1.5116 1.7283	1.5236 1.8209	1.5176 +++++	Ave		1.5960				8.3		30.0			
Undecane	+++++ 0.9944	+++++ 1.1367	+++++ 1.1008	0.9856 1.1400	0.9832 1.1336	Ave		1.0677				7.1		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4053	+++++ 0.4840	0.2499 0.4850	0.3113 +++++	0.3288 +++++	Ave		0.3774				25.6		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.4176	+++++ 1.6182	1.2965 1.4778	1.3345 1.7614	1.3349 +++++	Ave		1.4630				11.7		30.0			
Dodecane	+++++ 0.9887	+++++ 1.1112	+++++ 1.1554	+++++ 1.1970	0.9210 1.1713	Ave		1.0908				10.2		30.0			
1,2,4-Trichlorobenzene	0.8334 0.8256	0.7767 0.9382	0.7824 0.8703	0.8445 1.1053	0.7977 1.1092	Ave		0.8883				14.0		30.0			
Naphthalene	2.0153 1.7387	1.6688 1.9345	1.6648 1.7128	1.6791 2.1275	1.5832 +++++	Ave		1.7916				10.4		30.0			
Hexachlorobutadiene	0.6778 0.7081	0.7782 0.8206	0.7176 0.8078	0.7780 0.9153	0.7040 0.8414	Ave		0.7749				9.6		30.0			
1,2,3-Trichlorobenzene	1.0622 0.7905	0.7736 0.9168	0.8319 0.8354	0.8725 1.0918	0.7797 1.0720	Ave		0.9026				14.1		30.0			
2-Methylnaphthalene	+++++ 0.7436	+++++ 0.8342	+++++ 0.4785	+++++ 0.8163	+++++ 0.8021	Ave		0.7349				20.0		50.0			
1-Methylnaphthalene	+++++ 0.7392	+++++ 0.7597	+++++ 0.4609	+++++ 0.7235	+++++ 0.6914	Ave		0.6749				18.1		50.0			
4-Bromofluorobenzene (Surr)	0.5765 0.5768	0.5739 0.6155	0.5703 0.6054	0.5863 0.6287	0.5784 0.5987	Ave		0.5911				3.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 219441	+++++ 494961	16054 1018776	37407 2348774	88870 4724731	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 156506	+++++ 303639	+++++ 588113	+++++ 1269857	+++++ 2500503	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 183416	+++++ 406890	15282 839671	30972 2101908	74265 3856645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 44708	+++++ 88443	+++++ 176223	4661 346832	14239 693560	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 166670	+++++ 305222	13317 631884	26181 1320196	62802 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Vinyl chloride	CBM	Ave	3313 103708	5237 291942	10071 474399	16243 1029765	41385 1661803	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 81755	+++++ 219332	+++++ 413950	15357 771748	36625 1340227	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 152419	+++++ 414338	14972 766058	30013 1465050	65401 2532410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 103516	+++++ 274719	11831 478925	18901 1065063	42598 1702886	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 41293	+++++ 121039	4697 191853	6737 435262	17294 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Ethanol	CBM	Ave	+++++ 243829	+++++ 623885	+++++ 1190978	40300 2822321	96824 5484760	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 93465	3929 218556	6610 476165	13519 1148135	33504 2136147	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 122786	+++++ 299043	10731 628901	18236 1425882	50031 2767410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 267920	10884 615965	18941 1326757	39671 3169467	102492 6197158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 29346	+++++ 71857	+++++ 176527	+++++ 348337	13055 698308	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 51720	+++++ 121363	+++++ 245426	5580 582616	16233 1096753	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 158806	+++++ 353148	+++++ 725820	+++++ 1654698	78390 3145268	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 17893	+++++ 44407	+++++ 94410	2645 226085	7156 455388	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11752 435961	19186 1101651	36022 2165369	67760 5213569	167975 10255859	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 122175	+++++ 301541	9959 616460	20934 1433907	49916 2812660	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 102785	4466 239031	7667 541093	16768 1258021	40958 2383041	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 77731	+++++ 187864	+++++ 399181	10806 934361	30713 1821857	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 181842	+++++ 449829	16259 931101	27942 2176270	69778 4342222	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 210707	+++++ 517442	17038 1093608	36187 2655319	86433 5307039	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 107501	+++++ 224958	+++++ 472620	31886 1121306	52768 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 103629	+++++ 242216	8683 475507	16135 1146190	42156 2333432	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 277961	+++++ 650466	21452 1407313	39691 3382615	109289 6407900	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 107685	4605 269961	8676 572169	16947 1391908	42354 2783877	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 257703	11484 642069	20522 1347528	40649 3000565	104996 6161875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 271742	+++++ 648935	20195 1406422	40641 3317514	106549 6358374	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 191196	8084 452018	14833 960313	31531 2277375	76177 4360528	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 308087	+++++ 759618	22814 1550812	41387 3800716	117037 7686543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 51572	+++++ 128379	+++++ 250304	9945 636144	20411 1285975	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85156	+++++ 210994	7182 432765	12975 1012153	36443 2110781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 108153	4187 281658	8845 593822	19946 1461188	45839 2831075	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 276396	11707 671035	21642 1403825	43652 3267852	107812 6519087	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 231564	10656 548666	17685 1155781	34605 2705091	88925 5498611	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 132901	+++++ 329928	11360 698015	22692 1610482	53198 3180934	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	6034 234415	8950 557623	19617 1142217	35077 2964078	89808 5973969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3073 146276	5862 341855	11614 716206	24357 1682455	54501 3298299	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 49826	+++++ 124400	+++++ 245687	+++++ 587477	19570 1242418	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 49894	+++++ 124018	+++++ 259810	8676 611764	18817 1291544	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	9034 343664	13990 822928	29324 1732232	53145 4049317	129476 8504918	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4750 246027	8126 616542	16140 1242435	32718 3105309	82320 6601975	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 75390	+++++ 176630	5543 374263	9391 898330	26163 1777213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 185736	+++++ 442182	13723 898134	27373 2283966	67963 4458082	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 547133	+++++ 1324872	42620 2805646	84031 6272565	211257 12833072	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 115588	+++++ 290028	9072 600275	17873 1396634	40457 2805393	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 129462	+++++ 314183	10210 626326	18516 1477336	48324 3008646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3817 148885	5933 376006	10806 798633	20676 1910661	55942 3849636	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 131893	5532 330920	10271 691506	19384 1643327	49916 3305615	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 225379	+++++ 566326	16203 1170432	30697 2840812	77686 5832457	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 51868	+++++ 129226	+++++ 273917	6626 633790	18371 1247808	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 152368	+++++ 381120	+++++ 810493	21764 1909381	55330 3983049	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 184946	+++++ 477484	14678 993926	28483 2375366	71644 4727152	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 288813	+++++ 723671	20857 1478879	41180 3510335	107444 7232492	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 177650	5872 467682	11346 907449	26525 2314593	64389 4710253	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 159588	5834 426975	11139 838028	22630 2144122	56564 4441543	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	8499 363606	13865 964843	28166 1947337	52417 4796384	143846 9463414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	3011 110540	4864 297744	8335 602007	16538 1433844	42543 2844825	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 124236	+++++ 334091	8696 681395	17840 1657957	45806 3399102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1182032	+++++ 3050806	+++++ 6144751	190756 14179004	466318 29283193	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 112993	+++++ 308402	7174 594761	16040 1516549	42048 3196625	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 227075	+++++ 626193	12512 1260220	27226 3457683	75235 7505025	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 213842	7673 580652	14394 1147731	29539 2919521	79328 6216264	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3560 139836	5861 371188	10846 753130	22221 1989330	54373 4065061	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7381 304012	11179 810531	23336 1625792	43813 4236877	116875 8686236	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	11381 489233	19545 1342943	35296 2631374	73785 6598286	181497 13479819	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16808 778233	29171 2047299	57204 4209823	111265 10470526	283166 +++++	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 +++++
Nonane	CBZd 5	Ave	5261 250934	9378 664979	16468 1353990	35904 3311198	91602 6567091	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 231275	+++++ 655431	12006 1333496	24384 +++++	74964 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 269110	+++++ 726918	15385 1535403	30460 4036484	89120 8312171	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9313 394718	14317 977284	27849 2070387	57536 5027892	149999 10574999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	6128 303835	10018 727258	20054 1572025	40863 3883559	109448 8186594	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 85244	3987 218447	6305 482487	13476 1166777	32774 2405567	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	13423 594874	21592 1513692	41687 3091481	81194 7640100	228313 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propylbenzene	CBZd 5	Ave	+++++ 156505	5471 400140	11343 834225	21220 2154443	59470 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 144883	5756 371923	9862 776733	21624 1992363	56318 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 593308	+++++ 1546060	40037 3268553	76782 7935354	224183 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 232045	+++++ 597390	15863 1208158	31521 3073985	85979 6711519	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 206714	+++++ 579320	+++++ 1249980	23210 3346770	65556 7451929	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 331365	+++++ 863597	+++++ 1782051	45930 4162906	122940 8590182	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 504364	+++++ 1368395	35865 2769458	71523 7299538	191186 14703312	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10691 496740	17584 1351477	34364 2771424	70127 7141354	186908 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 739600	+++++ 2012250	52428 4212854	103163 10733538	287037 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 355492	+++++ 934677	27082 1974523	52180 5199306	134286 10219340	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 355341	+++++ 1077107	23187 1911127	44372 +++++	121625 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	8284 356925	12438 950700	26600 1888678	48709 5217028	131413 10536468	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	11322 599428	19695 1565012	40253 3121329	83958 8141205	220551 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10130 504915	16958 1296053	35572 2671168	72971 6675523	182641 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 460776	+++++ 1216324	33045 2576919	65933 6904704	167879 12717942	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8636 349367	12882 905677	24269 1867790	51537 5108636	129699 9415816	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 386043	+++++ 1080114	+++++ 2221880	45967 6325607	133321 11794325	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	13692 598930	22338 1599950	44636 3267502	87320 8307001	220549 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 393485	+++++ 1037149	+++++ 2081162	56488 5200472	142886 10705948	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 160389	+++++ 441614	7380 916988	17844 +++++	47784 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 560939	+++++ 1476473	38284 2793851	76485 8035274	194002 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 391221	+++++ 1013886	+++++ 2184461	+++++ 5460527	133853 11061506	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7407 326688	11931 856029	23104 1645400	48402 5042191	115933 10475148	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	17912 688030	25635 1765089	49158 3238137	96234 9705570	230088 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	6024 280210	11954 748771	21188 1527206	44590 4175503	102309 7946181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	9441 312804	11884 836533	24564 1579413	50004 4980903	113317 10123830	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 294266	+++++ 761167	+++++ 904624	+++++ 3724073	+++++ 7575277	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 292533	+++++ 693175	+++++ 871340	+++++ 3300680	+++++ 6530127	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1024776 912943	881623 1123246	841925 1144637	840097 1433981	840618 1413499	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-2.6						50			
Propene	+++++	+++++	+++++	+++++	+++++	29.6						50
Dichlorodifluoromethane	+++++	+++++	9.0						50			
Chloromethane	+++++	+++++	+++++	-9.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	15.2	+++++					50			
Vinyl chloride	27.3						50					
1,3-Butadiene	+++++	+++++	+++++	25.2						50		
Butane	+++++	+++++	21.9						50			
Bromomethane	+++++	+++++	41.8						50			
Chloroethane	+++++	+++++	33.3	+++++					50			
Ethanol	+++++	+++++	+++++	9.7						50		
Vinyl bromide	+++++	7.3						50				
2-Methylbutane	+++++	+++++	11.6						50			
Trichlorofluoromethane	+++++	3.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	14.6						50	
Acetonitrile	+++++	+++++	+++++	-19.2						50		
Acetone	+++++	+++++	+++++	+++++	38.5						80	
Pentane	+++++	+++++	+++++	-3.7						50		
Isopropyl alcohol	9.4						50					
Ethyl ether	+++++	+++++	2.7						50			
1,1-Dichloroethene	+++++	6.6						50				
Acrylonitrile	+++++	+++++	+++++	-6.1						50		
tert-Butyl alcohol	+++++	+++++	12.9						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-0.2						50			
Methylene Chloride	+++++	+++++	+++++	72.1 +++++						80		
3-Chloropropene	+++++	+++++	9.6						50			
Carbon disulfide	+++++	+++++	1.0						50			
trans-1,2-Dichloroethene	+++++	2.0						50				
2-Methylpentane	+++++	7.8						50				
Methyl tert-butyl ether	+++++	+++++	-3.5						50			
1,1-Dichloroethane	+++++	4.3						50				
Vinyl acetate	+++++	+++++	-3.1						50			
2-Butanone (MEK)	+++++	+++++	+++++	22.8						50		
Hexane	+++++	+++++	5.6						50			
cis-1,2-Dichloroethene	+++++	-10.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	4.4						50				
Chloroform	+++++	14.1						50				
Tetrahydrofuran	+++++	+++++	5.9						50			
1,1,1-Trichloroethane	6.3						50					
1,2-Dichloroethane	-12.0						50					
1-Butanol	+++++	+++++	+++++	+++++	0.4						50	
Cyclohexane	+++++	+++++	+++++	9.4						50		
Benzene	5.6						50					
Carbon tetrachloride	-16.0						50					
2,3-Dimethylpentane	+++++	+++++	-0.5						50			
Thiophene	+++++	+++++	-3.1						50			
2,2,4-Trimethylpentane	+++++	+++++	0.5						50			
Heptane	+++++	+++++	0.6						50			
1,2-Dichloropropane	+++++	+++++	3.8						50			
Trichloroethene	3.7						50					
Dibromomethane	+++++	3.9						50				
Bromodichloromethane	+++++	+++++	-6.6						50			
1,4-Dioxane	+++++	+++++	+++++	-14.6						50		
Methyl methacrylate	+++++	+++++	+++++	-7.9						50		
Methylcyclohexane	+++++	+++++	-1.8						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-6.5						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-15.4						50				
trans-1,3-Dichloropropene	+++++	-10.0						50				
Toluene	-2.2						50					
1,1,2-Trichloroethane	10.8						50					
2-Hexanone	+++++	+++++	-12.2						50			
Octane	+++++	+++++	-19.7						50			
Dibromochloromethane	+++++	+++++	-30.8						50			
1,2-Dibromoethane (EDB)	+++++	-12.4						50				
Tetrachloroethene	1.8						50					
Chlorobenzene	0.3						50					
Ethylbenzene	-3.4						50					
m-Xylene & p-Xylene	-7.2			+++++			50					
Nonane	-9.2						50					
Bromoform	+++++	+++++	-27.3 +++++	+++++					50			
Styrene	+++++	+++++	-27.1						50			
o-Xylene	1.3						50					
1,1,2,2-Tetrachloroethane	-9.3						50					
1,2,3-Trichloropropane	+++++	8.4						50				
Isopropylbenzene	-1.4			+++++			50					
Propylbenzene	+++++	-12.8		+++++				50				
2-Chlorotoluene	+++++	-3.1		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-12.9	+++++					50			
1,3,5-Trimethylbenzene	+++++	+++++	-13.1						50			
Alpha Methyl Styrene	+++++	+++++	+++++	-32.5						50		
Decane	+++++	+++++	+++++	-9.5						50		
tert-Butylbenzene	+++++	+++++	-13.0						50			
1,2,4-Trimethylbenzene	-8.2			+++++			50					
sec-Butylbenzene	+++++	+++++	-12.5	+++++					50			
1,3-Dichlorobenzene	+++++	+++++	-7.6						50			
Benzyl chloride	+++++	+++++	-14.1 +++++	+++++					50			
1,4-Dichlorobenzene	-2.9						50					
4-Isopropyltoluene	-15.5			+++++			50					
1,2,3-Trimethylbenzene	-11.2			+++++			50					
Indane	+++++	+++++	-11.8						50			
1,2-Dichlorobenzene	3.3						50					
Indene	+++++	+++++	+++++	-27.0						50		
Butylbenzene	-3.5			+++++			50					
Undecane	+++++	+++++	+++++	-7.7						50		
1,2-Dibromo-3-Chloropropane	+++++	+++++	-33.8 +++++	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-11.4	+++++					50			
Dodecane	+++++	+++++	+++++	+++++	-15.6						50	
1,2,4-Trichlorobenzene	-6.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	12.5			+++++			80					
Hexachlorobutadiene	-12.5						50					
1,2,3-Trichlorobenzene	17.7						50					
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	1.2						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	9.5						80

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	1.940		1.95	2.00	-2.3	35.0
Propene	Ave	1.310	1.352		2.06	2.00	3.2	35.0
Dichlorodifluoromethane	Ave	3.183	3.054		1.92	2.00	-4.1	35.0
Chloromethane	Ave	0.3956	0.3716		1.88	2.00	-6.1	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.118		1.96	2.00	-1.8	35.0
Acetaldehyde	Ave	0.5522	0.5102		9.24	10.0	-7.6	35.0
Vinyl chloride	Ave	1.321	1.311		1.98	2.00	-0.8	35.0
1,3-Butadiene	Ave	1.049	1.031		1.96	2.00	-1.8	35.0
Butane	Ave	2.118	2.060		1.95	2.00	-2.7	35.0
Bromomethane	Ave	1.145	1.096		1.91	2.00	-4.3	35.0
Chloroethane	Ave	0.6525	0.6485		1.99	2.00	-0.6	35.0
Ethanol	Ave	0.5534	0.4260		7.70	10.0	-23.0	35.0
Vinyl bromide	Ave	1.091	1.130		2.07	2.00	3.5	35.0
2-Methylbutane	Ave	1.435	1.456		2.03	2.00	1.5	35.0
Trichlorofluoromethane	Ave	3.002	2.919		1.94	2.00	-2.8	35.0
Acrolein	Ave	0.2232	0.2462		2.21	2.00	10.3	35.0
Acetonitrile	Ave	0.4528	0.4087		1.81	2.00	-9.7	35.0
Acetone	Ave	0.5647	0.6253		2.21	2.00	10.7	35.0
Pentane	Ave	0.2084	0.2177		2.09	2.00	4.5	35.0
Isopropyl alcohol	Ave	1.458	1.782		2.44	2.00	22.2	35.0
Ethyl ether	Ave	1.025	1.034		2.02	2.00	0.9	35.0
1,1-Dichloroethene	Ave	1.335	1.269		1.90	2.00	-4.9	35.0
Acrylonitrile	Ave	0.9041	0.8833		1.95	2.00	-2.3	35.0
tert-Butyl alcohol	Ave	2.183	2.179		2.00	2.00	-0.2	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.613		1.96	2.00	-1.9	35.0
Methylene Chloride	Lin2		1.291		1.97	2.00	-1.7	35.0
3-Chloropropene	Ave	1.221	1.234		2.02	2.00	1.0	35.0
Carbon disulfide	Ave	3.672	3.554		1.94	2.00	-3.2	35.0
trans-1,2-Dichloroethene	Ave	1.325	1.260		1.90	2.00	-4.9	35.0
2-Methylpentane	Ave	3.254	2.935		1.80	2.00	-9.8	35.0
Methyl tert-butyl ether	Ave	3.556	3.421		1.92	2.00	-3.8	35.0
1,1-Dichloroethane	Ave	2.372	2.268		1.91	2.00	-4.4	35.0
Vinyl acetate	Ave	3.208	3.181		1.98	2.00	-0.8	35.0
2-Butanone (MEK)	Ave	0.6082	0.5714		1.88	2.00	-6.1	35.0
Hexane	Ave	1.136	1.075		1.89	2.00	-5.3	35.0
Isopropyl ether	Ave	4.583	4.576		2.00	2.00	-0.2	35.0
cis-1,2-Dichloroethene	Ave	1.350	1.317		1.95	2.00	-2.4	35.0
Ethyl acetate	Ave	2.675	2.453		1.83	2.00	-8.3	35.0
Chloroform	Ave	2.591	2.466		1.90	2.00	-4.8	35.0
Tert-butyl ethyl ether	Ave	4.209	3.873		1.84	2.00	-8.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.434		1.88	2.00	-5.9	35.0
1,1,1-Trichloroethane	Ave	2.876	2.744		1.91	2.00	-4.6	35.0
1,2-Dichloroethane	Ave	0.3289	0.2815		1.71	2.00	-14.4	35.0
1-Butanol	Ave	0.0793	0.0722		1.82	2.00	-8.9	35.0
Benzene	Ave	0.7079	0.6214		1.76	2.00	-12.2	35.0
Cyclohexane	Ave	0.1305	0.1210		1.85	2.00	-7.3	35.0
Carbon tetrachloride	Ave	0.4807	0.4793		1.99	2.00	-0.3	35.0
2,3-Dimethylpentane	Ave	0.1843	0.1706		1.85	2.00	-7.4	35.0
Thiophene	Ave	0.3627	0.3377		1.86	2.00	-6.9	35.0
2,2,4-Trimethylpentane	Ave	1.389	1.260		1.81	2.00	-9.3	35.0
Heptane	Ave	0.2651	0.2529		1.91	2.00	-4.6	35.0
1,2-Dichloropropane	Ave	0.2472	0.2327		1.88	2.00	-5.9	35.0
Trichloroethene	Ave	0.3283	0.2876		1.75	2.00	-12.4	35.0
Dibromomethane	Ave	0.2584	0.2414		1.87	2.00	-6.6	35.0
Bromodichloromethane	Ave	0.4153	0.3953		1.90	2.00	-4.8	35.0
1,4-Dioxane	Ave	0.1020	0.0955		1.87	2.00	-6.4	35.0
Methyl methacrylate	Ave	0.2874	0.2700		1.88	2.00	-6.1	35.0
Methylcyclohexane	Ave	0.5151	0.5483		2.13	2.00	6.4	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.5349		1.91	2.00	-4.6	35.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3000		1.90	2.00	-4.9	35.0
trans-1,3-Dichloropropene	Ave	0.3016	0.2944		1.95	2.00	-2.4	35.0
Toluene	Ave	0.8007	0.7679		1.92	2.00	-4.1	35.0
1,1,2-Trichloroethane	Ave	0.2262	0.2040		1.80	2.00	-9.8	35.0
2-Hexanone	Ave	0.2938	0.2683		1.83	2.00	-8.7	35.0
Octane	Ave	0.3096	0.3166		2.05	2.00	2.3	35.0
Dibromochloromethane	Ave	0.4009	0.3875		1.93	2.00	-3.3	35.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3287		1.76	2.00	-11.9	35.0
Tetrachloroethene	Ave	0.3136	0.2828		1.80	2.00	-9.8	35.0
Chlorobenzene	Ave	0.5933	0.5516		1.86	2.00	-7.0	35.0
2,3-Dimethylheptane	Ave	0.9740	0.8902		1.83	2.00	-8.6	35.0
Ethylbenzene	Ave	1.089	1.014		1.86	2.00	-6.9	35.0
m-Xylene & p-Xylene	Ave	0.8448	0.8052		3.81	4.00	-4.7	35.0
Nonane	Ave	0.6239	0.6248		2.00	2.00	0.1	35.0
Bromoform	Ave	0.3354	0.3190		1.90	2.00	-4.9	35.0
Styrene	Ave	0.5185	0.5094		1.96	2.00	-1.8	35.0
o-Xylene	Ave	0.9416	0.9055		1.92	2.00	-3.8	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.5935		1.91	2.00	-4.4	35.0
1,2,3-Trichloropropane	Ave	0.1756	0.1721		1.96	2.00	-2.0	35.0
Isopropylbenzene	Ave	1.264	1.292		2.05	2.00	2.3	35.0
Propylbenzene	Ave	0.3352	0.3351		2.00	2.00	-0.0	35.0
2-Chlorotoluene	Ave	0.3087	0.2995		1.94	2.00	-3.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.082		1.85	2.00	-7.6	35.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.6127		2.23	2.00	11.4	35.0
Alpha Methyl Styrene	Ave	0.4643	0.4486		1.93	2.00	-3.4	35.0
Decane	Ave	0.7556	0.7543		2.00	2.00	-0.2	35.0
tert-Butylbenzene	Ave	1.175	1.178		2.01	2.00	0.3	35.0
1,2,4-Trimethylbenzene	Ave	1.032	1.022		1.98	2.00	-1.0	35.0
sec-Butylbenzene	Ave	1.539	1.539		2.00	2.00	0.0	35.0
1,3-Dichlorobenzene	Ave	0.6357	0.5730		1.80	2.00	-9.9	35.0
Benzyl chloride	Ave	0.7632	0.7718		2.02	2.00	1.1	35.0
1,4-Dichlorobenzene	Ave	0.6233	0.5480		1.76	2.00	-12.1	35.0
4-Isopropyltoluene	Ave	1.316	1.269		1.93	2.00	-3.6	35.0
1,2,3-Trimethylbenzene	Ave	1.083	0.7977		1.47	2.00	-26.4	35.0
Butylcyclohexane	Ave	0.9117	0.8768		1.92	2.00	-3.8	35.0
1,2-Dichlorobenzene	Ave	0.6582	0.6075		1.85	2.00	-7.7	35.0
Indane	Ave	0.9553	0.9042		1.89	2.00	-5.4	35.0
Butylbenzene	Ave	1.186	1.163		1.96	2.00	-2.0	35.0
Indene	Ave	0.8118	0.6672		1.64	2.00	-17.8	35.0
Undecane	Ave	0.8362	0.8042		1.92	2.00	-3.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.2889		1.67	2.00	-16.3	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.136		1.86	2.00	-6.8	35.0
Dodecane	Ave	0.5953	0.5751		1.93	2.00	-3.4	35.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5385		1.99	2.00	-0.4	35.0
Naphthalene	Ave	1.222	1.177		1.93	2.00	-3.7	35.0
Hexachlorobutadiene	Ave	0.5697	0.5288		1.86	2.00	-7.2	35.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.5315		2.11	2.00	5.4	35.0
2-Methylnaphthalene	Ave	0.2988	0.5515		3.69	2.00	84.6*	50.0
1-Methylnaphthalene	Ave	0.3046	0.4919		3.23	2.00	61.5*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.6835		3.91	4.00	-2.1	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	2.484		5.01	4.00	25.1	30.0
Propene	Ave	1.310	1.454		4.44	4.00	10.9	30.0
Dichlorodifluoromethane	Ave	3.183	4.190		5.26	4.00	31.6*	30.0
Chloromethane	Ave	0.3956	0.4291		4.34	4.00	8.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.512		4.66	4.00	16.5	30.0
Acetaldehyde	Ave	0.5522	0.5476		19.8	20.0	-0.8	30.0
Vinyl chloride	Ave	1.321	1.562		4.73	4.00	18.2	30.0
1,3-Butadiene	Ave	1.049	1.213		4.62	4.00	15.6	30.0
Butane	Ave	2.118	2.301		4.35	4.00	8.7	30.0
Bromomethane	Ave	1.145	1.417		4.95	4.00	23.8	30.0
Chloroethane	Ave	0.6525	0.7773		4.77	4.00	19.1	30.0
Ethanol	Ave	0.5534	0.6379		23.1	20.0	15.3	30.0
Vinyl bromide	Ave	1.091	1.310		4.80	4.00	20.0	30.0
2-Methylbutane	Ave	1.435	1.608		4.48	4.00	12.0	30.0
Trichlorofluoromethane	Ave	3.002	4.493		5.99	4.00	49.7*	30.0
Acrolein	Ave	0.2232	0.2738		4.91	4.00	22.7	30.0
Acetonitrile	Ave	0.4528	0.5310		4.69	4.00	17.3	30.0
Acetone	Ave	0.5647	0.6633		14.1	12.0	17.5	30.0
Isopropyl alcohol	Ave	1.458	1.827		15.0	12.0	25.3	30.0
Pentane	Ave	0.2084	0.2707		5.20	4.00	29.9	30.0
Ethyl ether	Ave	1.025	1.209		4.72	4.00	17.9	30.0
1,1-Dichloroethene	Ave	1.335	1.277		3.83	4.00	-4.3	30.0
tert-Butyl alcohol	Ave	2.183	2.277		4.17	4.00	4.3	30.0
Acrylonitrile	Ave	0.9041	0.8415		3.72	4.00	-6.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.774		4.17	4.00	4.1	30.0
Methylene Chloride	Lin2		1.252		4.13	4.00	3.3	30.0
3-Chloropropene	Ave	1.221	1.450		4.75	4.00	18.7	30.0
Carbon disulfide	Ave	3.672	3.713		4.04	4.00	1.1	30.0
trans-1,2-Dichloroethene	Ave	1.325	1.312		3.96	4.00	-1.0	30.0
2-Methylpentane	Ave	3.254	3.064		3.77	4.00	-5.8	30.0
Methyl tert-butyl ether	Ave	3.556	3.714		4.18	4.00	4.4	30.0
1,1-Dichloroethane	Ave	2.372	2.459		4.15	4.00	3.7	30.0
Vinyl acetate	Ave	3.208	3.056		3.81	4.00	-4.8	30.0
2-Butanone (MEK)	Ave	0.6082	0.5882		3.87	4.00	-3.3	30.0
Hexane	Ave	1.136	1.089		3.84	4.00	-4.1	30.0
Isopropyl ether	Ave	4.583	4.366		3.81	4.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.350	1.318		3.91	4.00	-2.4	30.0
Ethyl acetate	Ave	2.675	2.662		3.98	4.00	-0.5	30.0
Chloroform	Ave	2.591	2.872		4.43	4.00	10.9	30.0
Tert-butyl ethyl ether	Ave	4.209	4.326		4.11	4.00	2.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.418		3.72	4.00	-7.0	30.0
1,1,1-Trichloroethane	Ave	2.876	3.395		4.72	4.00	18.1	30.0
1,2-Dichloroethane	Ave	0.3289	0.3342		4.06	4.00	1.6	30.0
1-Butanol	Ave	0.0793	0.0720		3.63	4.00	-9.1	30.0
Benzene	Ave	0.7079	0.6003		3.39	4.00	-15.2	30.0
Cyclohexane	Ave	0.1305	0.1170		3.59	4.00	-10.3	30.0
Carbon tetrachloride	Ave	0.4807	0.5553		4.62	4.00	15.5	30.0
2,3-Dimethylpentane	Ave	0.1843	0.1654		3.59	4.00	-10.2	30.0
Thiophene	Ave	0.3627	0.3276		3.61	4.00	-9.7	30.0
2,2,4-Trimethylpentane	Ave	1.389	1.189		3.42	4.00	-14.4	30.0
Heptane	Ave	0.2651	0.2456		3.71	4.00	-7.3	30.0
1,2-Dichloropropane	Ave	0.2472	0.2386		3.86	4.00	-3.5	30.0
Trichloroethene	Ave	0.3283	0.2680		3.27	4.00	-18.4	30.0
Dibromomethane	Ave	0.2584	0.2639		4.08	4.00	2.1	30.0
Bromodichloromethane	Ave	0.4153	0.4492		4.33	4.00	8.2	30.0
1,4-Dioxane	Ave	0.1020	0.0940		3.69	4.00	-7.8	30.0
Methyl methacrylate	Ave	0.2874	0.2798		3.89	4.00	-2.7	30.0
Methylcyclohexane	Ave	0.5151	0.4362		3.39	4.00	-15.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.4948		3.53	4.00	-11.8	30.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3006		3.81	4.00	-4.7	30.0
trans-1,3-Dichloropropene	Ave	0.3016	0.3142		4.17	4.00	4.2	30.0
Toluene	Ave	0.8007	0.7523		3.76	4.00	-6.0	30.0
1,1,2-Trichloroethane	Ave	0.2262	0.2139		3.78	4.00	-5.4	30.0
2-Hexanone	Ave	0.2938	0.2501		3.41	4.00	-14.9	30.0
Octane	Ave	0.3096	0.3048		3.94	4.00	-1.6	30.0
Dibromochloromethane	Ave	0.4009	0.4303		4.29	4.00	7.3	30.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3355		3.60	4.00	-10.1	30.0
Tetrachloroethene	Ave	0.3136	0.2879		3.67	4.00	-8.2	30.0
Chlorobenzene	Ave	0.5933	0.5504		3.71	4.00	-7.2	30.0
2,3-Dimethylheptane	Ave	0.9740	0.9349		3.84	4.00	-4.0	30.0
Ethylbenzene	Ave	1.089	1.037		3.81	4.00	-4.7	30.0
m-Xylene & p-Xylene	Ave	0.8448	0.8457		8.01	8.00	0.1	30.0
Nonane	Ave	0.6239	0.6044		3.88	4.00	-3.1	30.0
Bromoform	Ave	0.3354	0.3464		4.13	4.00	3.3	30.0
Styrene	Ave	0.5185	0.5280		4.07	4.00	1.8	30.0
o-Xylene	Ave	0.9416	0.9321		3.96	4.00	-1.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.6227		4.01	4.00	0.3	30.0
1,2,3-Trichloropropane	Ave	0.1756	0.1850		4.21	4.00	5.4	30.0
Isopropylbenzene	Ave	1.264	1.261		3.99	4.00	-0.2	30.0
Propylbenzene	Ave	0.3352	0.3261		3.89	4.00	-2.7	30.0
2-Chlorotoluene	Ave	0.3087	0.2926		3.79	4.00	-5.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.110		3.79	4.00	-5.3	30.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.5176		3.76	4.00	-5.9	30.0
Alpha Methyl Styrene	Ave	0.4643	0.4744		4.09	4.00	2.2	30.0
Decane	Ave	0.7556	0.7255		3.84	4.00	-4.0	30.0
tert-Butylbenzene	Ave	1.175	1.194		4.07	4.00	1.6	30.0
1,2,4-Trimethylbenzene	Ave	1.032	1.082		4.19	4.00	4.8	30.0
sec-Butylbenzene	Ave	1.539	1.560		4.06	4.00	1.4	30.0
1,3-Dichlorobenzene	Ave	0.6357	0.5994		3.77	4.00	-5.7	30.0
Benzyl chloride	Ave	0.7632	0.9082		4.76	4.00	19.0	30.0
1,4-Dichlorobenzene	Ave	0.6233	0.5707		3.66	4.00	-8.4	30.0
4-Isopropyltoluene	Ave	1.316	1.289		3.92	4.00	-2.0	30.0
1,2,3-Trimethylbenzene	Ave	1.083	1.093		4.04	4.00	0.9	30.0
Butylcyclohexane	Ave	0.9117	0.9287		4.07	4.00	1.9	30.0
1,2-Dichlorobenzene	Ave	0.6582	0.6339		3.85	4.00	-3.7	30.0
Indane	Ave	0.9553	0.9572		4.01	4.00	0.2	30.0
Butylbenzene	Ave	1.186	1.288		4.34	4.00	8.6	30.0
Indene	Ave	0.8118	0.8244		4.06	4.00	1.6	30.0
Undecane	Ave	0.8362	0.7332		3.51	4.00	-12.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.3292		3.82	4.00	-4.6	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.188		3.90	4.00	-2.6	30.0
Dodecane	Ave	0.5953	0.4311		2.90	4.00	-27.6	30.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5389		3.99	4.00	-0.4	30.0
Naphthalene	Ave	1.222	1.138		3.73	4.00	-6.9	30.0
Hexachlorobutadiene	Ave	0.5697	0.6211		4.36	4.00	9.0	30.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.4466		3.54	4.00	-11.5	30.0
2-Methylnaphthalene	Ave	0.2988	0.2245		3.01	4.00	-24.9	50.0
1-Methylnaphthalene	Ave	0.3046	0.2038		2.68	4.00	-33.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.7372		4.22	4.00	5.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.279		2.13	2.00	6.5	35.0
Propene	Ave	1.540	1.598		2.07	2.00	3.7	35.0
Dichlorodifluoromethane	Ave	4.620	5.026		2.18	2.00	8.8	35.0
Chloromethane	Ave	0.5023	0.5185		2.06	2.00	3.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.399		2.16	2.00	8.2	35.0
Acetaldehyde	Ave	0.6093	0.5874		9.64	10.0	-3.6	35.0
Vinyl chloride	Ave	1.690	1.792		2.12	2.00	6.0	35.0
1,3-Butadiene	Ave	1.234	1.311		2.12	2.00	6.2	35.0
Butane	Ave	2.217	2.378		2.15	2.00	7.3	35.0
Bromomethane	Ave	1.553	1.626		2.09	2.00	4.7	35.0
Chloroethane	Ave	0.7598	0.7795		2.05	2.00	2.6	35.0
Ethanol	Ave	0.6247	0.5577		8.93	10.0	-10.7	35.0
Vinyl bromide	Ave	1.568	1.739		2.22	2.00	10.9	35.0
2-Methylbutane	Ave	1.784	1.873		2.10	2.00	5.0	35.0
Trichlorofluoromethane	Ave	4.373	4.702		2.15	2.00	7.5	35.0
Acrolein	Ave	0.5866	0.7206		2.46	2.00	22.9	35.0
Acetonitrile	Ave	0.7528	0.7977		2.12	2.00	6.0	35.0
Acetone	Ave	0.7939	0.8323		2.10	2.00	4.8	35.0
Isopropyl alcohol	QuaF		3.049		2.52	2.00	25.8	35.0
Pentane	Ave	0.2154	0.2386		2.22	2.00	10.8	35.0
Ethyl ether	Ave	1.779	2.022		2.27	2.00	13.7	35.0
1,1-Dichloroethene	Ave	1.548	1.641		2.12	2.00	6.0	35.0
tert-Butyl alcohol	Ave	1.905	2.402		2.52	2.00	26.1	35.0
Acrylonitrile	Ave	1.265	1.447		2.29	2.00	14.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.746		2.19	2.00	9.4	35.0
Methylene Chloride	Ave	1.990	1.700		1.71	2.00	-14.6	35.0
3-Chloropropene	Ave	1.399	1.524		2.18	2.00	8.9	35.0
Carbon disulfide	Ave	4.568	4.914		2.15	2.00	7.6	35.0
trans-1,2-Dichloroethene	Ave	1.539	1.655		2.15	2.00	7.5	35.0
2-Methylpentane	Ave	3.601	3.616		2.01	2.00	0.4	35.0
Methyl tert-butyl ether	Ave	3.132	3.593		2.29	2.00	14.7	35.0
1,1-Dichloroethane	Ave	2.993	3.280		2.19	2.00	9.6	35.0
Vinyl acetate	Ave	4.374	4.984		2.28	2.00	13.9	35.0
2-Butanone (MEK)	Ave	0.7196	0.7929		2.20	2.00	10.2	35.0
Hexane	Ave	1.285	1.366		2.13	2.00	6.3	35.0
Isopropyl ether	Ave	5.622	6.364		2.26	2.00	13.2	35.0
cis-1,2-Dichloroethene	Ave	1.630	1.769		2.17	2.00	8.5	35.0
Ethyl acetate	Ave	3.616	3.988		2.21	2.00	10.3	35.0
Chloroform	Ave	3.473	3.769		2.17	2.00	8.5	35.0
Tert-butyl ethyl ether	Ave	3.861	4.239		2.20	2.00	9.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	2.022		2.27	2.00	13.6	35.0
1,1,1-Trichloroethane	Ave	3.234	3.536		2.19	2.00	9.3	35.0
1,2-Dichloroethane	Ave	0.4575	0.4953		2.17	2.00	8.3	35.0
1-Butanol	Ave	0.1132	0.1361		2.40	2.00	20.2	35.0
Cyclohexane	Ave	0.1324	0.1449		2.19	2.00	9.5	35.0
Benzene	Ave	0.8760	0.9599		2.19	2.00	9.6	35.0
Carbon tetrachloride	Ave	0.6464	0.7261		2.25	2.00	12.3	35.0
2,3-Dimethylpentane	Ave	0.1845	0.1939		2.10	2.00	5.1	35.0
Thiophene	Ave	0.5090	0.5398		2.12	2.00	6.1	35.0
2,2,4-Trimethylpentane	Ave	1.477	1.619		2.19	2.00	9.6	35.0
Heptane	Ave	0.2827	0.3058		2.16	2.00	8.2	35.0
1,2-Dichloropropane	Ave	0.3671	0.3985		2.17	2.00	8.6	35.0
Trichloroethene	Ave	0.3901	0.4179		2.14	2.00	7.1	35.0
Dibromomethane	Ave	0.4085	0.4464		2.19	2.00	9.3	35.0
Bromodichloromethane	Ave	0.6585	0.7419		2.25	2.00	12.7	35.0
1,4-Dioxane	Ave	0.1256	0.1495		2.38	2.00	19.1	35.0
Methyl methacrylate	Ave	0.3959	0.4487		2.27	2.00	13.3	35.0
Methylcyclohexane	Ave	0.5104	0.6618		2.59	2.00	29.7	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.8397		2.23	2.00	11.6	35.0
cis-1,3-Dichloropropene	Ave	0.4796	0.5660		2.36	2.00	18.0	35.0
trans-1,3-Dichloropropene	Ave	0.5027	0.6212		2.47	2.00	23.6	35.0
Toluene	Ave	1.228	1.366		2.23	2.00	11.3	35.0
1,1,2-Trichloroethane	Ave	0.4109	0.4508		2.19	2.00	9.7	35.0
2-Hexanone	Ave	0.3969	0.4569		2.30	2.00	15.1	35.0
Octane	Ave	0.3559	0.3969		2.23	2.00	11.5	35.0
Dibromochloromethane	Ave	0.7775	0.9366		2.41	2.00	20.5	35.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.8401		2.28	2.00	14.1	35.0
Tetrachloroethene	Ave	0.4777	0.5084		2.13	2.00	6.4	35.0
Chlorobenzene	Ave	0.9718	1.083		2.23	2.00	11.4	35.0
2,3-Dimethylheptane	Ave	1.229	1.255		2.04	2.00	2.0	35.0
Ethylbenzene	Ave	1.563	1.755		2.25	2.00	12.3	35.0
m-Xylene & p-Xylene	Ave	1.195	1.360		4.55	4.00	13.8	35.0
Nonane	Ave	0.8166	0.9457		2.32	2.00	15.8	35.0
Bromoform	Ave	0.7957	1.025		2.58	2.00	28.8	35.0
Styrene	Ave	0.8339	1.001		2.40	2.00	20.1	35.0
o-Xylene	Ave	1.241	1.362		2.20	2.00	9.8	35.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.153		2.27	2.00	13.7	35.0
1,2,3-Trichloropropane	Ave	0.2464	0.2764		2.24	2.00	12.2	35.0
Isopropylbenzene	Ave	1.678	1.929		2.30	2.00	15.0	35.0
Propylbenzene	Ave	0.4458	0.5200		2.33	2.00	16.6	35.0
2-Chlorotoluene	Ave	0.4252	0.4813		2.26	2.00	13.2	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.822		2.21	2.00	10.3	35.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.8546		2.51	2.00	25.3	35.0
Alpha Methyl Styrene	Ave	0.6913	0.7852		2.27	2.00	13.6	35.0
Decane	Ave	1.047	1.236		2.36	2.00	18.1	35.0
tert-Butylbenzene	Ave	1.493	1.675		2.24	2.00	12.2	35.0
1,2,4-Trimethylbenzene	Ave	1.431	1.627		2.28	2.00	13.8	35.0
sec-Butylbenzene	Ave	2.111	2.430		2.30	2.00	15.1	35.0
1,3-Dichlorobenzene	Ave	0.9106	1.064		2.34	2.00	16.8	35.0
Benzyl chloride	Lin1		0.9874		2.03	2.00	1.5	35.0
1,4-Dichlorobenzene	Ave	0.8390	1.001		2.39	2.00	19.3	35.0
4-Isopropyltoluene	Ave	1.646	1.868		2.27	2.00	13.5	35.0
1,2,3-Trimethylbenzene	Ave	1.468	1.206		1.64	2.00	-17.9	35.0
Butylcyclohexane	Ave	1.200	1.242		2.07	2.00	3.6	35.0
1,2-Dichlorobenzene	Ave	0.9359	1.077		2.30	2.00	15.0	35.0
Indane	Ave	1.305	1.476		2.26	2.00	13.2	35.0
Indene	Ave	1.091	1.103		2.02	2.00	1.1	35.0
Butylbenzene	Ave	1.629	1.953		2.40	2.00	19.9	35.0
Undecane	Ave	1.204	1.403		2.33	2.00	16.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4618		2.04	2.00	2.2	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.712		2.21	2.00	10.6	35.0
Dodecane	Ave	1.157	1.412		2.44	2.00	22.0	35.0
1,2,4-Trichlorobenzene	Lin1		0.6892		2.34	2.00	16.9	35.0
Naphthalene	QuaF		1.655		2.44	2.00	22.1	35.0
Hexachlorobutadiene	Ave	0.9288	1.063		2.29	2.00	14.4	35.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.8048		2.62	2.00	30.9	35.0
2-Methylnaphthalene	Ave	0.2467	0.4052		3.28	2.00	64.2*	50.0
1-Methylnaphthalene	Ave	0.3382	0.5864		3.47	2.00	73.4*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6558		4.16	4.00	3.9	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.125		2.03	2.00	1.5	30.0
Propene	Ave	1.540	1.651		2.14	2.00	7.2	30.0
Dichlorodifluoromethane	Ave	4.620	4.510		1.95	2.00	-2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.421		2.18	2.00	8.9	30.0
Chloromethane	Ave	0.5023	0.5710		2.27	2.00	13.7	30.0
Acetaldehyde	Ave	0.6093	0.7283		12.0	10.0	19.5	30.0
Vinyl chloride	Ave	1.690	1.825		2.16	2.00	7.9	30.0
1,3-Butadiene	Ave	1.234	1.339		2.17	2.00	8.5	30.0
Butane	Ave	2.217	2.542		2.29	2.00	14.7	30.0
Bromomethane	Ave	1.553	1.728		2.23	2.00	11.3	30.0
Chloroethane	Ave	0.7598	0.7789		2.05	2.00	2.5	30.0
Ethanol	Ave	0.6247	0.6770		10.8	10.0	8.4	30.0
Vinyl bromide	Ave	1.568	1.648		2.10	2.00	5.1	30.0
2-Methylbutane	Ave	1.784	1.898		2.13	2.00	6.4	30.0
Trichlorofluoromethane	Ave	4.373	4.046		1.85	2.00	-7.5	30.0
Acrolein	Ave	0.5866	0.4894		1.67	2.00	-16.6	30.0
Acetonitrile	Ave	0.7528	0.7368		1.96	2.00	-2.1	30.0
Acetone	Ave	0.7939	0.7969		6.02	6.00	0.4	30.0
Isopropyl alcohol	QuaF		1.948		4.92	6.00	-18.0	30.0
Pentane	Ave	0.2154	0.1908		1.77	2.00	-11.4	30.0
Ethyl ether	Ave	1.779	1.646		1.85	2.00	-7.5	30.0
1,1-Dichloroethene	Ave	1.548	1.336		1.73	2.00	-13.7	30.0
tert-Butyl alcohol	Ave	1.905	2.267		2.38	2.00	19.0	30.0
Acrylonitrile	Ave	1.265	1.154		1.82	2.00	-8.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.244		1.89	2.00	-5.3	30.0
Methylene Chloride	Ave	1.990	1.483		1.49	2.00	-25.4	30.0
3-Chloropropene	Ave	1.399	1.393		1.99	2.00	-0.4	30.0
Carbon disulfide	Ave	4.568	4.116		1.80	2.00	-9.9	30.0
trans-1,2-Dichloroethene	Ave	1.539	1.378		1.79	2.00	-10.5	30.0
2-Methylpentane	Ave	3.601	3.329		1.85	2.00	-7.5	30.0
Methyl tert-butyl ether	Ave	3.132	3.275		2.09	2.00	4.6	30.0
1,1-Dichloroethane	Ave	2.993	2.697		1.80	2.00	-9.9	30.0
Vinyl acetate	Ave	4.374	4.111		1.88	2.00	-6.0	30.0
2-Butanone (MEK)	Ave	0.7196	0.6198		1.72	2.00	-13.9	30.0
Hexane	Ave	1.285	1.138		1.77	2.00	-11.4	30.0
Isopropyl ether	Ave	5.622	5.232		1.86	2.00	-6.9	30.0
cis-1,2-Dichloroethene	Ave	1.630	1.398		1.71	2.00	-14.3	30.0
Ethyl acetate	Ave	3.616	3.483		1.93	2.00	-3.7	30.0
Chloroform	Ave	3.473	3.153		1.82	2.00	-9.2	30.0
Tert-butyl ethyl ether	Ave	3.861	4.204		2.18	2.00	8.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	1.634		1.84	2.00	-8.2	30.0
1,1,1-Trichloroethane	Ave	3.234	2.928		1.81	2.00	-9.4	30.0
1,2-Dichloroethane	Ave	0.4575	0.4071		1.78	2.00	-11.0	30.0
1-Butanol	Ave	0.1132	0.0943		1.66	2.00	-16.8	30.0
Cyclohexane	Ave	0.1324	0.1128		1.70	2.00	-14.8	30.0
Benzene	Ave	0.8760	0.7775		1.78	2.00	-11.2	30.0
Carbon tetrachloride	Ave	0.6464	0.5602		1.73	2.00	-13.3	30.0
2,3-Dimethylpentane	Ave	0.1845	0.1608		1.74	2.00	-12.9	30.0
Thiophene	Ave	0.5090	0.4519		1.78	2.00	-11.2	30.0
2,2,4-Trimethylpentane	Ave	1.477	1.324		1.79	2.00	-10.4	30.0
Heptane	Ave	0.2827	0.2380		1.68	2.00	-15.8	30.0
1,2-Dichloropropane	Ave	0.3671	0.3369		1.84	2.00	-8.2	30.0
Trichloroethene	Ave	0.3901	0.3543		1.82	2.00	-9.2	30.0
Dibromomethane	Ave	0.4085	0.3992		1.95	2.00	-2.3	30.0
Bromodichloromethane	Ave	0.6585	0.5983		1.82	2.00	-9.1	30.0
1,4-Dioxane	Ave	0.1256	0.1020		1.63	2.00	-18.7	30.0
Methyl methacrylate	Ave	0.3959	0.3720		1.88	2.00	-6.0	30.0
Methylcyclohexane	Ave	0.5104	0.4283		1.68	2.00	-16.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.7118		1.89	2.00	-5.4	30.0
cis-1,3-Dichloropropene	Ave	0.4796	0.4614		1.92	2.00	-3.8	30.0
trans-1,3-Dichloropropene	Ave	0.5027	0.5022		2.00	2.00	-0.1	30.0
Toluene	Ave	1.228	1.130		1.84	2.00	-7.9	30.0
1,1,2-Trichloroethane	Ave	0.4109	0.3951		1.92	2.00	-3.8	30.0
2-Hexanone	Ave	0.3969	0.3756		1.89	2.00	-5.4	30.0
Octane	Ave	0.3559	0.3154		1.77	2.00	-11.4	30.0
Dibromochloromethane	Ave	0.7775	0.7476		1.92	2.00	-3.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.7066		1.92	2.00	-4.0	30.0
Tetrachloroethene	Ave	0.4777	0.4444		1.86	2.00	-7.0	30.0
Chlorobenzene	Ave	0.9718	0.9189		1.89	2.00	-5.4	30.0
2,3-Dimethylheptane	Ave	1.229	1.269		2.06	2.00	3.2	30.0
Ethylbenzene	Ave	1.563	1.443		1.85	2.00	-7.6	30.0
m-Xylene & p-Xylene	Ave	1.195	1.143		3.83	4.00	-4.3	30.0
Nonane	Ave	0.8166	0.7867		1.93	2.00	-3.7	30.0
Bromoform	Ave	0.7957	0.6923		1.74	2.00	-13.0	30.0
Styrene	Ave	0.8339	0.8320		2.00	2.00	-0.2	30.0
o-Xylene	Ave	1.241	1.181		1.90	2.00	-4.8	30.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.034		2.04	2.00	1.9	30.0
1,2,3-Trichloropropane	Ave	0.2464	0.2376		1.93	2.00	-3.6	30.0
Isopropylbenzene	Ave	1.678	1.634		1.95	2.00	-2.6	30.0
Propylbenzene	Ave	0.4458	0.4332		1.94	2.00	-2.8	30.0
2-Chlorotoluene	Ave	0.4252	0.4180		1.97	2.00	-1.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.654		2.00	2.00	0.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.6615		1.94	2.00	-3.0	30.0
Alpha Methyl Styrene	Ave	0.6913	0.6430		1.86	2.00	-7.0	30.0
Decane	Ave	1.047	1.091		2.08	2.00	4.2	30.0
tert-Butylbenzene	Ave	1.493	1.487		1.99	2.00	-0.4	30.0
1,2,4-Trimethylbenzene	Ave	1.431	1.456		2.03	2.00	1.7	30.0
sec-Butylbenzene	Ave	2.111	2.163		2.05	2.00	2.5	30.0
1,3-Dichlorobenzene	Ave	0.9106	0.9754		2.14	2.00	7.1	30.0
Benzyl chloride	Lin1		0.9342		1.93	2.00	-3.6	30.0
1,4-Dichlorobenzene	Ave	0.8390	0.9052		2.16	2.00	7.9	30.0
4-Isopropyltoluene	Ave	1.646	1.706		2.07	2.00	3.7	30.0
1,2,3-Trimethylbenzene	Ave	1.468	1.468		2.00	2.00	-0.0	30.0
Butylcyclohexane	Ave	1.200	1.191		1.99	2.00	-0.7	30.0
1,2-Dichlorobenzene	Ave	0.9359	1.009		2.16	2.00	7.8	30.0
Indane	Ave	1.305	1.369		2.10	2.00	5.0	30.0
Indene	Ave	1.091	1.124		2.06	2.00	3.0	30.0
Butylbenzene	Ave	1.629	1.797		2.21	2.00	10.4	30.0
Undecane	Ave	1.204	1.246		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4658		2.06	2.00	3.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.626		2.10	2.00	5.0	30.0
Dodecane	Ave	1.157	1.164		2.01	2.00	0.6	30.0
Naphthalene	QuaF		1.393		2.07	2.00	3.6	30.0
Hexachlorobutadiene	Ave	0.9288	0.9860		2.12	2.00	6.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.6841		2.23	2.00	11.3	30.0
2-Methylnaphthalene	Ave	0.2467	0.2810		2.28	2.00	13.9	50.0
1-Methylnaphthalene	Ave	0.3382	0.3928		2.32	2.00	16.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6443		4.08	4.00	2.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.732		2.06	2.00	2.9	35.0
Propene	Ave	1.501	1.699		2.26	2.00	13.2	35.0
Dichlorodifluoromethane	Ave	2.256	2.760		2.45	2.00	22.3	35.0
Chloromethane	Ave	0.4310	0.3773		1.75	2.00	-12.4	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.270		2.44	2.00	22.0	35.0
Acetaldehyde	Ave	0.5247	0.3531		6.73	10.0	-32.7	35.0
Vinyl chloride	Ave	1.359	0.9812		1.44	2.00	-27.8	35.0
1,3-Butadiene	Ave	1.022	0.7543		1.48	2.00	-26.2	35.0
Butane	Ave	1.977	1.415		1.43	2.00	-28.4	35.0
Bromomethane	Ave	1.344	0.9665		1.44	2.00	-28.1	35.0
Chloroethane	Ave	0.5671	0.4065		1.43	2.00	-28.3	35.0
Ethanol	Ave	0.6120	0.4984		8.14	10.0	-18.6	35.0
Vinyl bromide	Ave	1.137	1.219		2.15	2.00	7.3	35.0
2-Methylbutane	Ave	1.548	1.534		1.98	2.00	-0.9	35.0
Trichlorofluoromethane	Ave	3.252	3.201		1.97	2.00	-1.6	35.0
Acrolein	Ave	0.3855	0.4188		2.17	2.00	8.6	35.0
Acetonitrile	Ave	0.5751	0.5773		2.01	2.00	0.4	35.0
Acetone	Ave	0.6380	0.7053		2.21	2.00	10.6	35.0
Isopropyl alcohol	Ave	1.868	2.287		2.45	2.00	22.4	35.0
Pentane	Ave	0.2289	0.2400		2.10	2.00	4.9	35.0
Ethyl ether	Ave	1.561	1.593		2.04	2.00	2.1	35.0
1,1-Dichloroethene	Ave	1.301	1.293		1.99	2.00	-0.6	35.0
tert-Butyl alcohol	Ave	2.319	2.427		2.09	2.00	4.6	35.0
Acrylonitrile	Ave	0.9589	1.005		2.10	2.00	4.8	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.703		1.97	2.00	-1.7	35.0
Methylene Chloride	Ave	1.543	1.252		1.62	2.00	-18.9	35.0
3-Chloropropene	Ave	1.275	1.271		1.99	2.00	-0.4	35.0
Carbon disulfide	Ave	3.419	3.454		2.02	2.00	1.0	35.0
trans-1,2-Dichloroethene	Ave	1.401	1.393		1.99	2.00	-0.5	35.0
2-Methylpentane	Ave	3.306	3.047		1.84	2.00	-7.9	35.0
Methyl tert-butyl ether	Ave	3.370	3.639		2.16	2.00	8.0	35.0
1,1-Dichloroethane	Ave	2.406	2.463		2.05	2.00	2.4	35.0
Vinyl acetate	Ave	3.791	4.194		2.21	2.00	10.6	35.0
2-Butanone (MEK)	Ave	0.6748	0.6866		2.03	2.00	1.7	35.0
Hexane	Ave	1.095	1.086		1.98	2.00	-0.8	35.0
Isopropyl ether	Ave	5.017	5.309		2.12	2.00	5.8	35.0
cis-1,2-Dichloroethene	Ave	1.454	1.556		2.14	2.00	7.1	35.0
Ethyl acetate	Ave	3.480	3.357		1.93	2.00	-3.5	35.0
Chloroform	Ave	2.898	2.853		1.97	2.00	-1.6	35.0
Tert-butyl ethyl ether	Ave	4.084	4.068		1.99	2.00	-0.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.770		2.05	2.00	2.6	35.0
1,1,1-Trichloroethane	Ave	2.962	2.890		1.95	2.00	-2.4	35.0
1,2-Dichloroethane	Ave	0.3151	0.2985		1.89	2.00	-5.3	35.0
1-Butanol	Ave	0.1107	0.1186		2.14	2.00	7.1	35.0
Benzene	Ave	0.7714	0.7541		1.96	2.00	-2.2	35.0
Cyclohexane	Ave	0.1143	0.1058		1.85	2.00	-7.5	35.0
Carbon tetrachloride	Ave	0.5101	0.5533		2.17	2.00	8.5	35.0
2,3-Dimethylpentane	Ave	0.1575	0.1596		2.03	2.00	1.3	35.0
Thiophene	Ave	0.4003	0.3973		1.98	2.00	-0.8	35.0
2,2,4-Trimethylpentane	Ave	1.199	1.190		1.99	2.00	-0.7	35.0
Heptane	Ave	0.2550	0.2538		1.99	2.00	-0.5	35.0
1,2-Dichloropropane	Ave	0.2780	0.2746		1.98	2.00	-1.2	35.0
Trichloroethene	Ave	0.3320	0.3339		2.01	2.00	0.6	35.0
Dibromomethane	Ave	0.2957	0.2899		1.96	2.00	-1.9	35.0
Bromodichloromethane	Ave	0.4906	0.4819		1.96	2.00	-1.8	35.0
1,4-Dioxane	Ave	0.1118	0.1164		2.08	2.00	4.1	35.0
Methyl methacrylate	Ave	0.3404	0.3414		2.01	2.00	0.3	35.0
Methylcyclohexane	Ave	0.4226	0.5207		2.46	2.00	23.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.6336		2.01	2.00	0.4	35.0
cis-1,3-Dichloropropene	Ave	0.3853	0.4115		2.14	2.00	6.8	35.0
trans-1,3-Dichloropropene	Ave	0.4218	0.4365		2.07	2.00	3.5	35.0
Toluene	Ave	0.9777	0.9801		2.01	2.00	0.3	35.0
1,1,2-Trichloroethane	Ave	0.3059	0.2919		1.91	2.00	-4.6	35.0
2-Hexanone	Ave	0.3356	0.3387		2.02	2.00	0.9	35.0
Octane	Ave	0.3027	0.3198		2.11	2.00	5.7	35.0
Dibromochloromethane	Ave	0.6120	0.6302		2.06	2.00	3.0	35.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5866		2.06	2.00	2.9	35.0
Tetrachloroethene	Ave	0.3936	0.3980		2.02	2.00	1.1	35.0
Chlorobenzene	Ave	0.8282	0.8745		2.11	2.00	5.6	35.0
2,3-Dimethylheptane	Ave	1.121	0.9897		1.77	2.00	-11.7	35.0
Ethylbenzene	Ave	1.326	1.366		2.06	2.00	3.0	35.0
m-Xylene & p-Xylene	Ave	1.019	1.100		4.31	4.00	7.9	35.0
Nonane	Ave	0.6517	0.7107		2.18	2.00	9.0	35.0
Bromoform	Ave	0.5593	0.6738		2.41	2.00	20.5	35.0
Styrene	Ave	0.7149	0.7951		2.22	2.00	11.2	35.0
o-Xylene	Ave	1.034	1.046		2.02	2.00	1.1	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.7895		2.08	2.00	3.9	35.0
1,2,3-Trichloropropane	Ave	0.2394	0.2468		2.06	2.00	3.1	35.0
Isopropylbenzene	Ave	1.532	1.677		2.19	2.00	9.5	35.0
Propylbenzene	Ave	0.4084	0.4371		2.14	2.00	7.0	35.0
2-Chlorotoluene	Ave	0.3869	0.4052		2.10	2.00	4.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.535		1.97	2.00	-1.4	35.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.7185		2.33	2.00	16.3	35.0
Alpha Methyl Styrene	Ave	0.5996	0.5702		1.90	2.00	-4.9	35.0
Decane	Ave	0.8851	0.8755		1.98	2.00	-1.1	35.0
tert-Butylbenzene	Ave	1.397	1.438		2.06	2.00	3.0	35.0
1,2,4-Trimethylbenzene	Ave	1.310	1.413		2.16	2.00	7.9	35.0
sec-Butylbenzene	Ave	2.029	2.108		2.08	2.00	3.9	35.0
1,3-Dichlorobenzene	Ave	0.9926	0.9918		2.00	2.00	-0.0	35.0
Benzyl chloride	Ave	0.9143	1.133		2.48	2.00	23.9	35.0
1,4-Dichlorobenzene	Ave	0.9599	0.9877		2.06	2.00	2.9	35.0
4-Isopropyltoluene	Ave	1.507	1.570		2.08	2.00	4.1	35.0
1,2,3-Trimethylbenzene	Ave	1.283	0.9702		1.51	2.00	-24.4	35.0
Butylcyclohexane	Ave	1.022	0.9653		1.89	2.00	-5.5	35.0
1,2-Dichlorobenzene	Ave	0.9404	0.9869		2.10	2.00	4.9	35.0
Indane	Ave	1.268	1.314		2.07	2.00	3.6	35.0
Indene	Ave	1.098	0.9838		1.79	2.00	-10.4	35.0
Butylbenzene	Ave	1.596	1.641		2.06	2.00	2.8	35.0
Undecane	Ave	1.068	0.9949		1.86	2.00	-6.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.3741		1.98	2.00	-0.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.380		1.89	2.00	-5.7	35.0
Dodecane	Ave	1.091	0.9112		1.67	2.00	-16.5	35.0
1,2,4-Trichlorobenzene	Ave	0.8883	0.8582		1.93	2.00	-3.4	35.0
Naphthalene	Ave	1.792	1.752		1.96	2.00	-2.2	35.0
Hexachlorobutadiene	Ave	0.7749	0.7587		1.96	2.00	-2.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9026	0.8675		1.92	2.00	-3.9	35.0
2-Methylnaphthalene	Ave	0.7349	0.6386		1.74	2.00	-13.1	50.0
1-Methylnaphthalene	Ave	0.6749	0.5762		1.71	2.00	-14.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.5775		3.91	4.00	-2.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.376		1.79	2.00	-10.5	30.0
Propene	Ave	1.501	1.390		1.85	2.00	-7.4	30.0
Dichlorodifluoromethane	Ave	2.256	2.633		2.33	2.00	16.7	30.0
Chloromethane	Ave	0.4310	0.4225		1.96	2.00	-2.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.379		2.56	2.00	27.9	30.0
Acetaldehyde	Ave	0.5247	0.5919		11.3	10.0	12.8	30.0
Vinyl chloride	Ave	1.359	1.401		2.06	2.00	3.1	30.0
1,3-Butadiene	Ave	1.022	1.036		2.03	2.00	1.4	30.0
Butane	Ave	1.977	1.981		2.00	2.00	0.2	30.0
Bromomethane	Ave	1.344	1.287		1.92	2.00	-4.2	30.0
Chloroethane	Ave	0.5671	0.4910		1.73	2.00	-13.4	30.0
Ethanol	Ave	0.6120	0.5898		9.64	10.0	-3.6	30.0
Vinyl bromide	Ave	1.137	1.168		2.06	2.00	2.8	30.0
2-Methylbutane	Ave	1.548	1.250		1.61	2.00	-19.3	30.0
Trichlorofluoromethane	Ave	3.252	3.102		1.91	2.00	-4.6	30.0
Acrolein	Ave	0.3855	0.4153		2.16	2.00	7.8	30.0
Acetonitrile	Ave	0.5751	0.4658		1.62	2.00	-19.0	30.0
Acetone	Ave	0.6380	0.5749		5.41	6.00	-9.9	30.0
Isopropyl alcohol	Ave	1.868	1.581		5.08	6.00	-15.4	30.0
Pentane	Ave	0.2289	0.2181		1.91	2.00	-4.7	30.0
Ethyl ether	Ave	1.561	1.028		1.32	2.00	-34.2*	30.0
1,1-Dichloroethene	Ave	1.301	1.373		2.11	2.00	5.5	30.0
tert-Butyl alcohol	Ave	2.319	2.074		1.79	2.00	-10.6	30.0
Acrylonitrile	Ave	0.9589	0.9276		1.93	2.00	-3.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.835		2.06	2.00	3.1	30.0
Methylene Chloride	Ave	1.543	1.324		1.72	2.00	-14.2	30.0
3-Chloropropene	Ave	1.275	1.073		1.68	2.00	-15.9	30.0
Carbon disulfide	Ave	3.419	3.692		2.16	2.00	8.0	30.0
trans-1,2-Dichloroethene	Ave	1.401	1.387		1.98	2.00	-0.9	30.0
2-Methylpentane	Ave	3.306	2.510		1.52	2.00	-24.1	30.0
Methyl tert-butyl ether	Ave	3.370	2.953		1.75	2.00	-12.4	30.0
1,1-Dichloroethane	Ave	2.406	2.144		1.78	2.00	-10.9	30.0
Vinyl acetate	Ave	3.791	2.920		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.6748	0.5737		1.70	2.00	-15.0	30.0
Hexane	Ave	1.095	0.8949		1.63	2.00	-18.3	30.0
Isopropyl ether	Ave	5.017	3.742		1.49	2.00	-25.4	30.0
cis-1,2-Dichloroethene	Ave	1.454	1.464		2.01	2.00	0.7	30.0
Ethyl acetate	Ave	3.480	2.581		1.48	2.00	-25.8	30.0
Chloroform	Ave	2.898	2.482		1.71	2.00	-14.4	30.0
Tert-butyl ethyl ether	Ave	4.084	3.319		1.63	2.00	-18.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.271		1.47	2.00	-26.3	30.0
1,1,1-Trichloroethane	Ave	2.962	2.551		1.72	2.00	-13.9	30.0
1,2-Dichloroethane	Ave	0.3151	0.2554		1.62	2.00	-18.9	30.0
1-Butanol	Ave	0.1107	0.0691		1.25	2.00	-37.5*	30.0
Benzene	Ave	0.7714	0.6553		1.70	2.00	-15.1	30.0
Cyclohexane	Ave	0.1143	0.0883		1.55	2.00	-22.7	30.0
Carbon tetrachloride	Ave	0.5101	0.4798		1.88	2.00	-5.9	30.0
2,3-Dimethylpentane	Ave	0.1575	0.1479		1.88	2.00	-6.1	30.0
Thiophene	Ave	0.4003	0.3721		1.86	2.00	-7.1	30.0
2,2,4-Trimethylpentane	Ave	1.199	0.9737		1.62	2.00	-18.8	30.0
Heptane	Ave	0.2550	0.2126		1.67	2.00	-16.6	30.0
1,2-Dichloropropane	Ave	0.2780	0.2420		1.74	2.00	-12.9	30.0
Trichloroethene	Ave	0.3320	0.3010		1.81	2.00	-9.3	30.0
Dibromomethane	Ave	0.2957	0.2844		1.92	2.00	-3.8	30.0
Bromodichloromethane	Ave	0.4906	0.4215		1.72	2.00	-14.1	30.0
1,4-Dioxane	Ave	0.1118	0.1185		2.12	2.00	5.9	30.0
Methyl methacrylate	Ave	0.3404	0.2396		1.41	2.00	-29.6	30.0
Methylcyclohexane	Ave	0.4226	0.3810		1.80	2.00	-9.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.4675		1.48	2.00	-25.9	30.0
cis-1,3-Dichloropropene	Ave	0.3853	0.3584		1.86	2.00	-7.0	30.0
trans-1,3-Dichloropropene	Ave	0.4218	0.3874		1.84	2.00	-8.1	30.0
Toluene	Ave	0.9777	0.9588		1.96	2.00	-1.9	30.0
1,1,2-Trichloroethane	Ave	0.3059	0.3052		2.00	2.00	-0.2	30.0
2-Hexanone	Ave	0.3356	0.2972		1.77	2.00	-11.4	30.0
Octane	Ave	0.3027	0.2862		1.89	2.00	-5.4	30.0
Dibromochloromethane	Ave	0.6120	0.5634		1.84	2.00	-7.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5707		2.00	2.00	0.1	30.0
Tetrachloroethene	Ave	0.3936	0.3626		1.84	2.00	-7.9	30.0
Chlorobenzene	Ave	0.8282	0.8437		2.04	2.00	1.9	30.0
2,3-Dimethylheptane	Ave	1.121	0.8987		1.60	2.00	-19.8	30.0
Ethylbenzene	Ave	1.326	1.283		1.94	2.00	-3.2	30.0
m-Xylene & p-Xylene	Ave	1.019	0.999		3.92	4.00	-2.0	30.0
Nonane	Ave	0.6517	0.5943		1.82	2.00	-8.8	30.0
Bromoform	Ave	0.5593	0.4532		1.62	2.00	-19.0	30.0
Styrene	Ave	0.7149	0.7870		2.20	2.00	10.1	30.0
o-Xylene	Ave	1.034	1.051		2.03	2.00	1.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.9266		2.44	2.00	21.9	30.0
1,2,3-Trichloropropane	Ave	0.2394	0.2631		2.20	2.00	9.9	30.0
Isopropylbenzene	Ave	1.532	1.667		2.18	2.00	8.8	30.0
Propylbenzene	Ave	0.4084	0.4908		2.40	2.00	20.2	30.0
2-Chlorotoluene	Ave	0.3869	0.4639		2.40	2.00	19.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.762		2.26	2.00	13.2	30.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.6902		2.23	2.00	11.7	30.0
Alpha Methyl Styrene	Ave	0.5996	0.7164		2.39	2.00	19.5	30.0
Decane	Ave	0.8851	0.8983		2.03	2.00	1.5	30.0
tert-Butylbenzene	Ave	1.397	1.553		2.22	2.00	11.2	30.0
1,2,4-Trimethylbenzene	Ave	1.310	1.524		2.33	2.00	16.4	30.0
sec-Butylbenzene	Ave	2.029	2.295		2.26	2.00	13.1	30.0
1,3-Dichlorobenzene	Ave	0.9926	1.174		2.37	2.00	18.3	30.0
Benzyl chloride	Ave	0.9143	1.195		2.61	2.00	30.7*	30.0
1,4-Dichlorobenzene	Ave	0.9599	1.189		2.48	2.00	23.9	30.0
4-Isopropyltoluene	Ave	1.507	1.856		2.46	2.00	23.1	30.0
1,2,3-Trimethylbenzene	Ave	1.283	1.594		2.48	2.00	24.2	30.0
Butylcyclohexane	Ave	1.022	1.234		2.42	2.00	20.8	30.0
1,2-Dichlorobenzene	Ave	0.9404	1.181		2.51	2.00	25.5	30.0
Indane	Ave	1.268	1.521		2.40	2.00	19.9	30.0
Indene	Ave	1.098	1.368		2.49	2.00	24.5	30.0
Butylbenzene	Ave	1.596	1.951		2.45	2.00	22.3	30.0
Undecane	Ave	1.068	1.106		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.4391		2.33	2.00	16.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.822		2.49	2.00	24.5	30.0
Dodecane	Ave	1.091	1.033		1.89	2.00	-5.3	30.0
1,2,4-Trichlorobenzene	Ave	0.8883	1.141		2.57	2.00	28.4	30.0
Naphthalene	Ave	1.792	2.325		2.60	2.00	29.8	30.0
Hexachlorobutadiene	Ave	0.7749	0.8949		2.31	2.00	15.5	30.0
1,2,3-Trichlorobenzene	Ave	0.9026	1.022		2.27	2.00	13.3	30.0
2-Methylnaphthalene	Ave	0.7349	0.2796		0.761	2.00	-62.0*	50.0
1-Methylnaphthalene	Ave	0.6749	0.2589		0.767	2.00	-61.6*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.6272		4.24	4.00	6.1	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.208	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.724	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.192	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.666	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34104/1002

Matrix: Air Lab File ID: RCCVJ03-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 09:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.70		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.88		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.79		0.080	0.022
67-66-3	Chloroform	119.38	1.71		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.01		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.33		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.78		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.62		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.94		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.72		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.75		0.40	0.052
91-20-3	Naphthalene	128.17	2.60		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.84		0.080	0.0070
108-88-3	Toluene	92.14	1.96		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.98		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.57		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.72		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.00		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.81		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.48		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	2.33		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.23		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.06		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.95		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34203/1002

Matrix: Air Lab File ID: HJ08CCVISA-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 11:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.78		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.73		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.03		0.080	0.022
67-66-3	Chloroform	119.38	1.82		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.71		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.95		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.80		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.78		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.73		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.85		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.49		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	2.09		0.40	0.052
91-20-3	Naphthalene	128.17	2.07		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.86		0.080	0.0070
108-88-3	Toluene	92.14	1.84		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.79		0.080	0.0070
71-55-6	1,1,1-Trichloroethane	133.41	1.81		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.92		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.82		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.00		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	2.03		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.94		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.16		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.73		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34215/1002

Matrix: Air Lab File ID: GCCVJ09-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	3.99		0.080	0.064

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MG Start Date: 09/06/2019 11:35

Analysis Batch Number: 33324 End Date: 09/06/2019 22:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33324/1		09/06/2019 11:35	1	GBFBI06IC.D	RTX-5 0.32(mm)
IC 140-33324/2		09/06/2019 12:11	1	GI06LVL09.D	RTX-5 0.32(mm)
IC 140-33324/4		09/06/2019 13:43	1	GI06LVL10.D	RTX-5 0.32(mm)
IC 140-33324/7		09/06/2019 15:53	1	GI06LVL01.D	RTX-5 0.32(mm)
IC 140-33324/8		09/06/2019 16:37	1	GI06LVL02.D	RTX-5 0.32(mm)
IC 140-33324/9		09/06/2019 17:20	1	GI06LVL03.D	RTX-5 0.32(mm)
IC 140-33324/10		09/06/2019 18:05	1	GI06LVL04.D	RTX-5 0.32(mm)
IC 140-33324/11		09/06/2019 18:52	1	GI06LVL05.D	RTX-5 0.32(mm)
IC 140-33324/12		09/06/2019 19:37	1	GI06LVL06.D	RTX-5 0.32(mm)
ICIS 140-33324/13		09/06/2019 20:20	1	GI06LVL07.D	RTX-5 0.32(mm)
IC 140-33324/14		09/06/2019 21:05	1	GI06LVL08.D	RTX-5 0.32(mm)
ICV 140-33324/16		09/06/2019 22:30	1	GI06ICV.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MG Start Date: 10/09/2019 10:42

Analysis Batch Number: 34215 End Date: 10/10/2019 07:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34215/1		10/09/2019 10:42	1	GBFBJ09.D	RTX-5 0.32(mm)
CCVIS 140-34215/2		10/09/2019 11:20	1	GCCVJ09.D	RTX-5 0.32(mm)
LCS 140-34215/1002		10/09/2019 11:20	1	GCCVJ09-LCS.d	RTX-5 0.32(mm)
MB 140-34215/4		10/09/2019 13:47	1	GJ09MB500.D	RTX-5 0.32(mm)
ZZZZZ		10/09/2019 14:32	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 15:17	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 16:03	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 16:48	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 17:30	1		RTX-5 0.32(mm)
140-16893-2		10/09/2019 18:17	1	GJ09p105.D	RTX-5 0.32(mm)
140-16893-3		10/09/2019 19:03	1	GJ09p106.D	RTX-5 0.32(mm)
140-16893-4		10/09/2019 19:47	1	GJ09p107.D	RTX-5 0.32(mm)
140-16893-5		10/09/2019 20:31	1	GJ09p108.D	RTX-5 0.32(mm)
140-16893-6		10/09/2019 21:14	1	GJ09p109.D	RTX-5 0.32(mm)
140-16893-7		10/09/2019 21:59	1	GJ09p110.D	RTX-5 0.32(mm)
ZZZZZ		10/09/2019 22:41	3.48		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 23:24	3.48		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 00:06	3.54		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 00:53	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 01:40	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 03:08	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 03:51	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 04:37	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 05:22	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 06:07	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 06:50	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 07:32	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MH Start Date: 09/24/2019 20:48

Analysis Batch Number: 33708 End Date: 09/25/2019 10:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33708/1		09/24/2019 20:48	1	HBFBI24.D	RTX-5 0.32(mm)
IC 140-33708/3		09/24/2019 22:09	1	HI24ICL9.D	RTX-5 0.32(mm)
IC 140-33708/5		09/24/2019 23:55	1	HI24ICL10.D	RTX-5 0.32(mm)
IC 140-33708/8		09/25/2019 02:33	1	HI24ICL1.D	RTX-5 0.32(mm)
IC 140-33708/9		09/25/2019 03:25	1	HI24ICL2.D	RTX-5 0.32(mm)
IC 140-33708/10		09/25/2019 04:18	1	HI24ICL3.D	RTX-5 0.32(mm)
IC 140-33708/11		09/25/2019 05:11	1	HI24ICL4.D	RTX-5 0.32(mm)
IC 140-33708/12		09/25/2019 06:04	1	HI24ICL5.D	RTX-5 0.32(mm)
IC 140-33708/13		09/25/2019 06:59	1	HI24ICL6.D	RTX-5 0.32(mm)
ICIS 140-33708/14		09/25/2019 07:53	1	HI24ICL7.D	RTX-5 0.32(mm)
IC 140-33708/15		09/25/2019 08:47	1	HI24ICL8.D	RTX-5 0.32(mm)
ICV 140-33708/17		09/25/2019 10:36	1	HI24ICV.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MH Start Date: 10/08/2019 10:57

Analysis Batch Number: 34203 End Date: 10/09/2019 06:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34203/1		10/08/2019 10:57	1	HJ08BFBA.D	RTX-5 0.32(mm)
CCVIS 140-34203/2		10/08/2019 11:25	1	HJ08CCVISA.D	RTX-5 0.32(mm)
LCS 140-34203/1002		10/08/2019 11:25	1	HJ08CCVISA-LCS.d	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 13:54	1		RTX-5 0.32(mm)
MB 140-34203/7		10/08/2019 13:54	1	HJ08mb500.D	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 14:49	1		RTX-5 0.32(mm)
140-16893-2		10/08/2019 15:43	1	HJ08p101.D	RTX-5 0.32(mm)
140-16893-3		10/08/2019 16:35	1	HJ08p102.D	RTX-5 0.32(mm)
140-16893-4		10/08/2019 17:28	1	HJ08p103.D	RTX-5 0.32(mm)
140-16893-5		10/08/2019 18:21	1	HJ08p104.D	RTX-5 0.32(mm)
140-16893-6		10/08/2019 19:15	1	HJ08p105.D	RTX-5 0.32(mm)
140-16893-7		10/08/2019 20:09	1	HJ08p106.D	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 21:05	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 22:00	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 22:54	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 23:48	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 00:43	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 01:35	3.82		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 02:27	3.67		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 03:21	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 04:16	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 05:12	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 06:08	1		RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MR Start Date: 09/03/2019 09:57

Analysis Batch Number: 33257 End Date: 09/04/2019 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33257/1		09/03/2019 09:57	1	RBFBI03IC.D	RTX-5 0.32(mm)
IC 140-33257/2		09/03/2019 10:26	1	RI03IC09.D	RTX-5 0.32(mm)
IC 140-33257/4		09/03/2019 12:02	1	RI03IC10.D	RTX-5 0.32(mm)
IC 140-33257/7		09/03/2019 14:26	1	RI03IC01.D	RTX-5 0.32(mm)
IC 140-33257/8		09/03/2019 15:13	1	RI03IC02.D	RTX-5 0.32(mm)
140-15873-A-5 MDLV		09/03/2019 15:13	1		RTX-5 0.32(mm)
IC 140-33257/9		09/03/2019 16:02	1	RI03IC03.D	RTX-5 0.32(mm)
140-15873-A-6 MDLV		09/03/2019 16:02	1		RTX-5 0.32(mm)
IC 140-33257/10		09/03/2019 16:51	1	RI03IC04.D	RTX-5 0.32(mm)
140-15873-A-7 MDLV		09/03/2019 16:51	1		RTX-5 0.32(mm)
IC 140-33257/11		09/03/2019 17:39	1	RI03IC05.D	RTX-5 0.32(mm)
140-15873-A-8 MDLV		09/03/2019 17:39	1		RTX-5 0.32(mm)
IC 140-33257/12		09/03/2019 18:27	1	RI03IC06.D	RTX-5 0.32(mm)
IC 140-33257/14		09/03/2019 20:02	1	RI03IC08.D	RTX-5 0.32(mm)
ICV 140-33257/18		09/03/2019 23:14	1	RI03ICV.D	RTX-5 0.32(mm)
ZZZZZ		09/04/2019 01:44	1		RTX-5 0.32(mm)
ICIS 140-33257/23		09/04/2019 09:04	1	RI03IC07R.D	RTX-5 0.32(mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MR Start Date: 10/03/2019 09:26

Analysis Batch Number: 34104 End Date: 10/04/2019 01:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34104/1		10/03/2019 09:26	1	RBFBJ03.D	RTX-5 0.32(mm)
CCVIS 140-34104/2		10/03/2019 09:54	1	RCCVJ03.D	RTX-5 0.32(mm)
LCS 140-34104/1002		10/03/2019 09:54	1	RCCVJ03-LCS.d	RTX-5 0.32(mm)
ZZZZZ		10/03/2019 12:15	1		RTX-5 0.32(mm)
MB 140-34104/5		10/03/2019 13:07	1	R500BJ03.D	RTX-5 0.32(mm)
ZZZZZ		10/03/2019 14:02	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 14:54	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 17:18	12.57		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 19:47	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 20:41	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 21:28	147.17		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 22:21	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 23:15	1		RTX-5 0.32(mm)
ZZZZZ		10/04/2019 00:09	1		RTX-5 0.32(mm)
ZZZZZ		10/04/2019 01:02	1		RTX-5 0.32(mm)
140-16893-1		10/04/2019 01:56	1	RJ03P110.D	RTX-5 0.32(mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34104 Batch Start Date: 10/03/19 09:26 Batch Analyst: Taj, Holly M

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00096	40MXISSURP 00004
BFB 140-34104/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34104/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-34104/5		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-1	IA-018-A-27-RS	TO 15 LL	T	500 mL	500 mL	1	1		40 mL
LCS 140-34104/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-34104/1		TO 15 LL		40 mL					
CCVIS 140-34104/2		TO 15 LL							
MB 140-34104/5		TO 15 LL							
140-16893-A-1	IA-018-A-27-RS	TO 15 LL	T						
LCS 140-34104/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34203 Batch Start Date: 10/08/19 10:57 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00099	40MXISSURP 00004
BFB 140-34203/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34203/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-34203/7		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-34203/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-34203/1		TO 15 LL		40 mL					
CCVIS 140-34203/2		TO 15 LL							
MB 140-34203/7		TO 15 LL							
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T						
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T						
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T						
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T						
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T						
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T						
LCS 140-34203/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34203 Batch Start Date: 10/08/19 10:57 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34215 Batch Start Date: 10/09/19 10:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00098	40MXISSURP 00004
BFB 140-34215/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34215/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-34215/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-34215/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-34215/1		TO 15 LL		40 mL					
CCVIS 140-34215/2		TO 15 LL							
MB 140-34215/4		TO 15 LL							
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T						
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T						
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T						
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T						
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T						
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T						
LCS 140-34215/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34215 Batch Start Date: 10/09/19 10:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND	*	1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND	*	1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	0.24	B	0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D				
Lims ID:	140-16528-A-6				
Client ID:	10536				
Sample Type:	Client				
Inject. Date:	06-Sep-2019 06:01:30	ALS Bottle#:	15	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012929-024				
Misc. Info.:	10536				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	06-Sep-2019 04:46:48	Calib Date:	27-Aug-2019 22:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190826-12863.b\HH27ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				
First Level Reviewer: tajh		Date:	06-Sep-2019 08:39:41		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.603	0.001	89	314678	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.810	0.006	95	1557534	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.596	0.000	88	1186477	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.266	17.245	0.021	96	805141	3.91	
9 Chloromethane	52	3.771	3.766	0.005	99	2431	0.1149	
31 Methylene Chloride	84	6.066	6.061	0.005	96	24639	0.2352	
45 1,1,1-Trichloroethane	97	9.648	9.642	0.006	95	18114	0.0689	
113 Naphthalene	128	21.142	21.137	0.005	1	184	0.0727	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

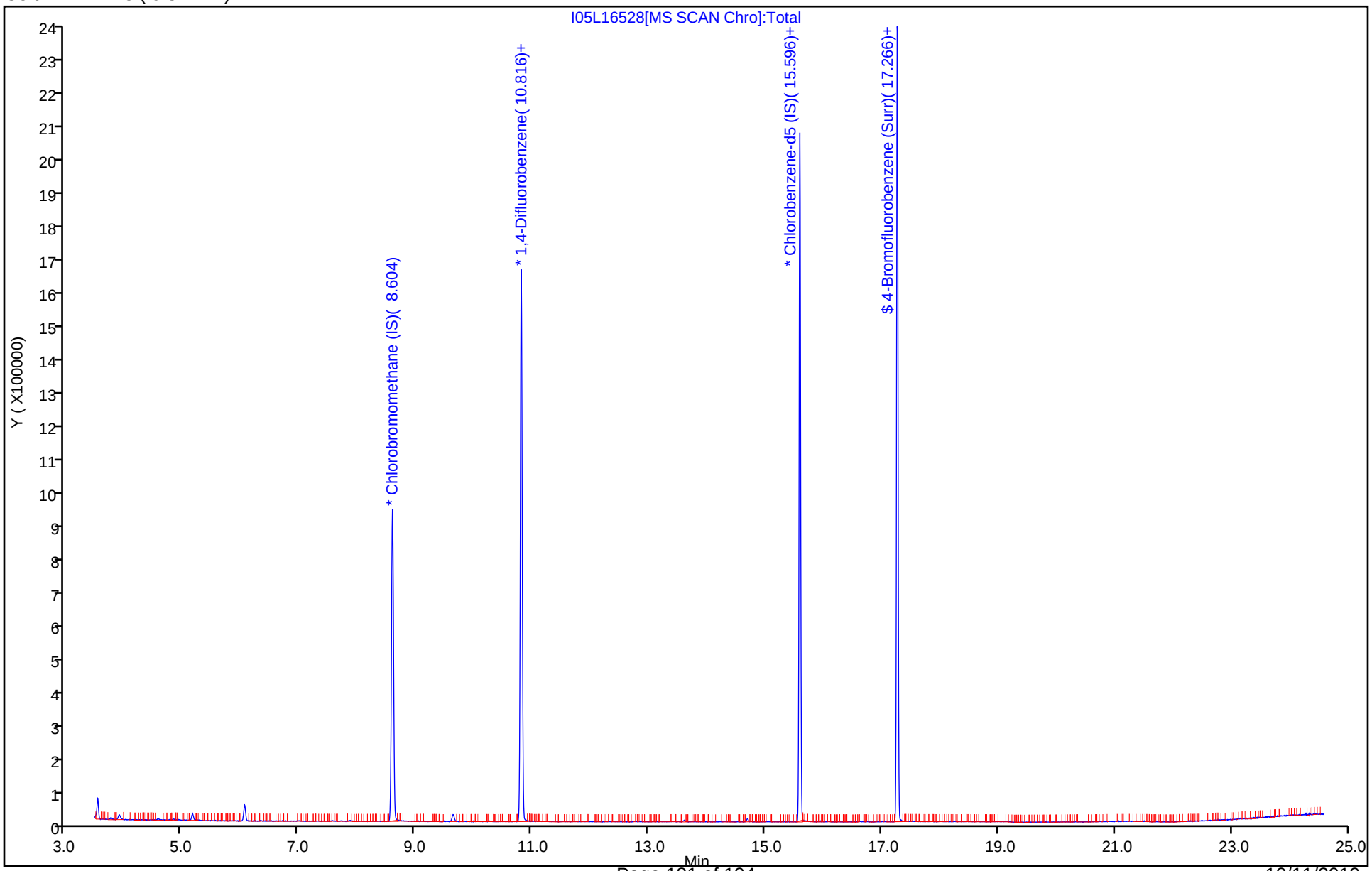
Report Date: 06-Sep-2019 08:39:41 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D

Injection Date:	06-Sep-2019 06:01:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-16528-A-6	Lab Sample ID:	140-16528-6	Worklist Smp#:	24
Client ID:	10536				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

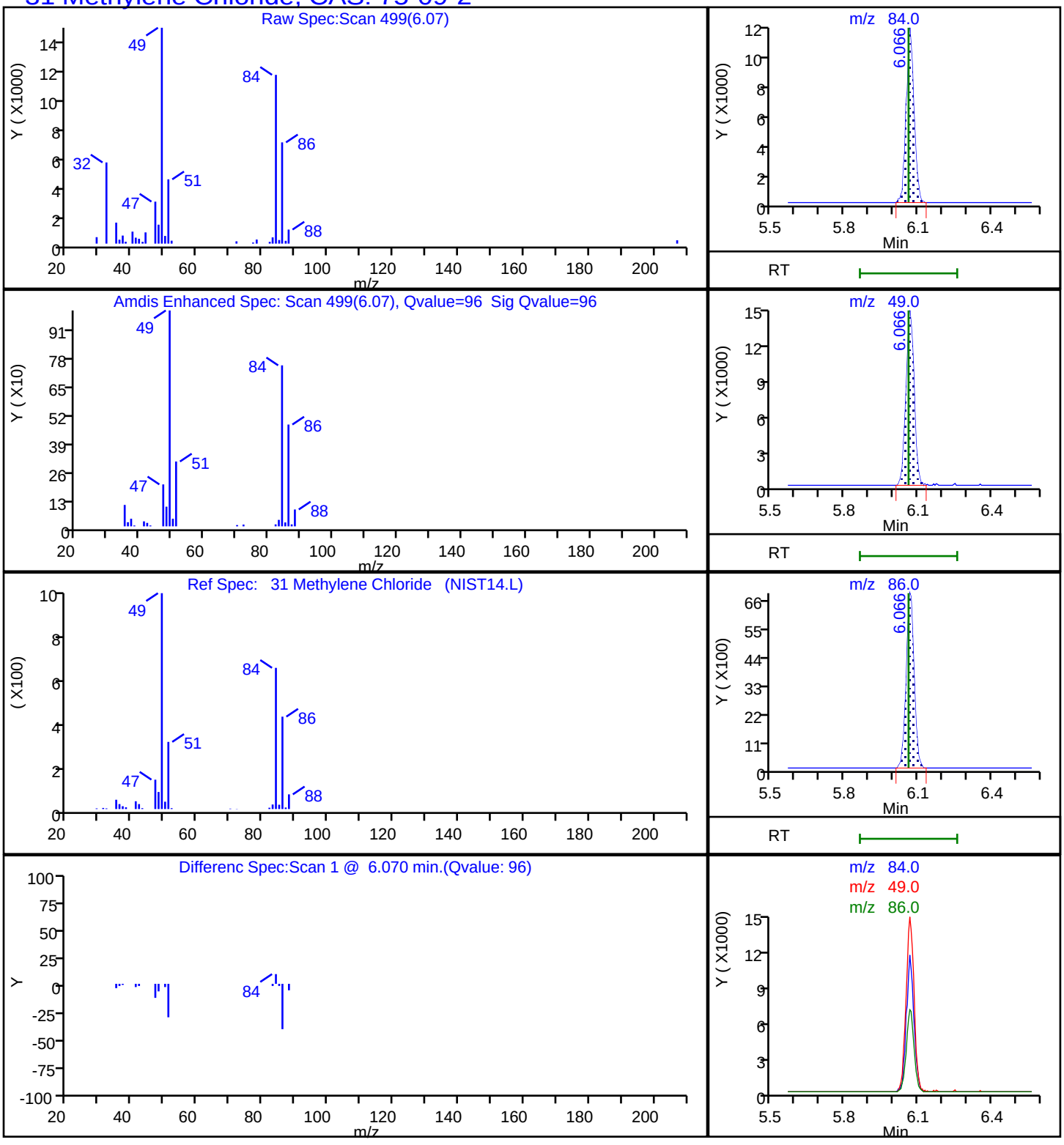
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D				
Injection Date:	06-Sep-2019 06:01:30	Instrument ID:	MH		
Lims ID:	140-16528-A-6	Lab Sample ID:	140-16528-6		
Client ID:	10536				
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	0.20		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D
Lims ID: 140-16580-A-16
Client ID: 11299
Sample Type: Client
Inject. Date: 11-Sep-2019 06:59:30 ALS Bottle#: 15 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012992-025
Misc. Info.: 11299
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 11-Sep-2019 10:13:57 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0339

First Level Reviewer: tajh Date: 11-Sep-2019 10:13:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.544	-0.022	96	165428	4.00	
* 2 1,4-Difluorobenzene	114	10.760	10.771	-0.011	94	926968	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.565	-0.006	87	752422	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.022	94	398172	3.58	
7 Propene	41	3.437	3.439	-0.011	95	22321	0.3597	7
22 Acetone	58	5.055	5.048	-0.005	100	18266	0.6923	
31 Methylene Chloride	84	5.961	5.967	-0.021	96	12891	0.2020	
39 2-Butanone (MEK)	72	7.800	7.759	0.022	98	4434	0.1589	
50 n-Butanol	31	10.189	10.168	0.006	92	2893	0.1128	
69 2-Hexanone	58	14.055	14.045	0.006	92	6654	0.1054	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

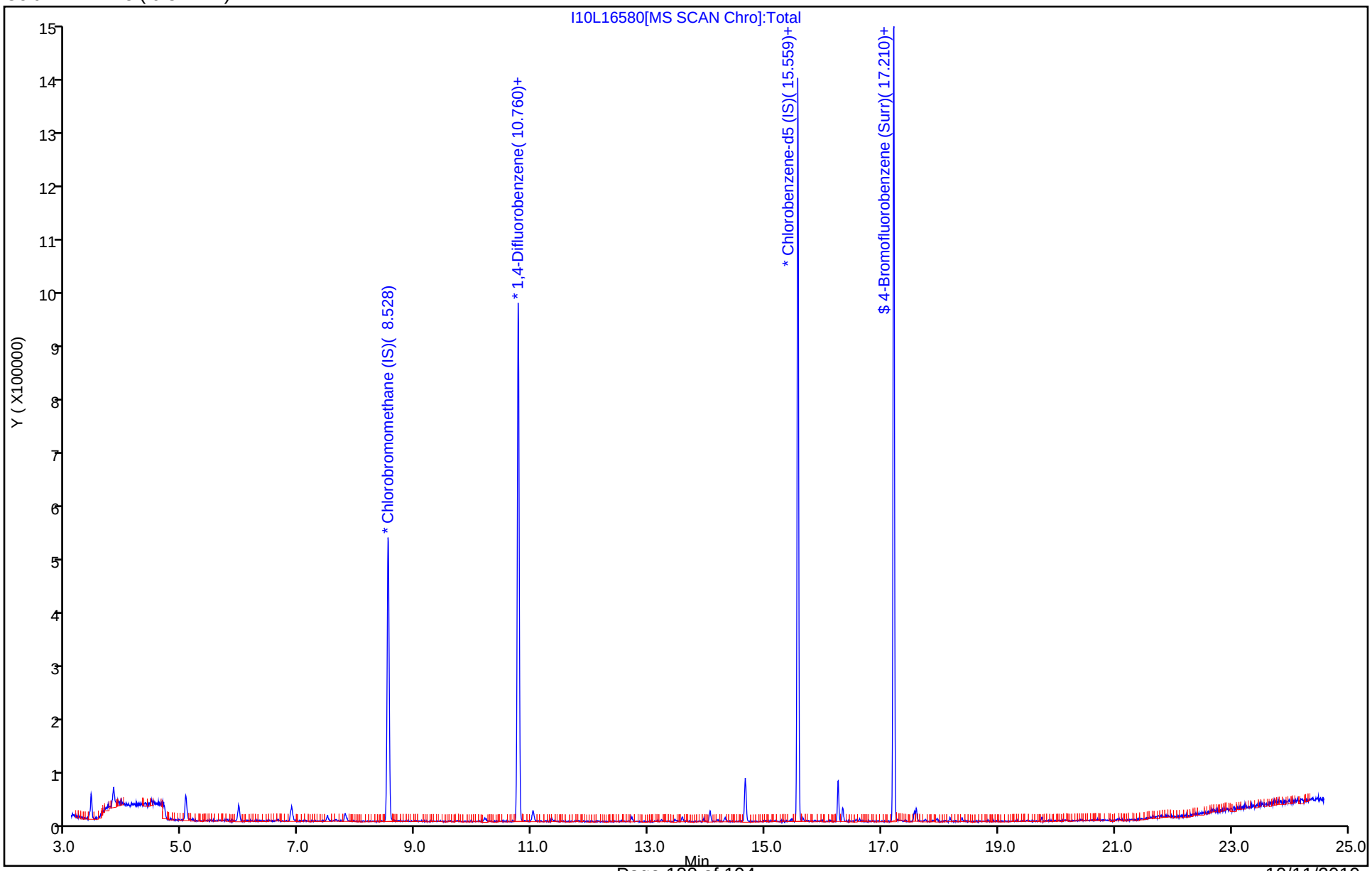
Report Date: 11-Sep-2019 10:13:58 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D

Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16	Worklist Smp#:	25
Client ID:	11299				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D

Injection Date: 11-Sep-2019 06:59:30 Instrument ID: MR

Lims ID: 140-16580-A-16 Lab Sample ID: 140-16580-16

Client ID: 11299

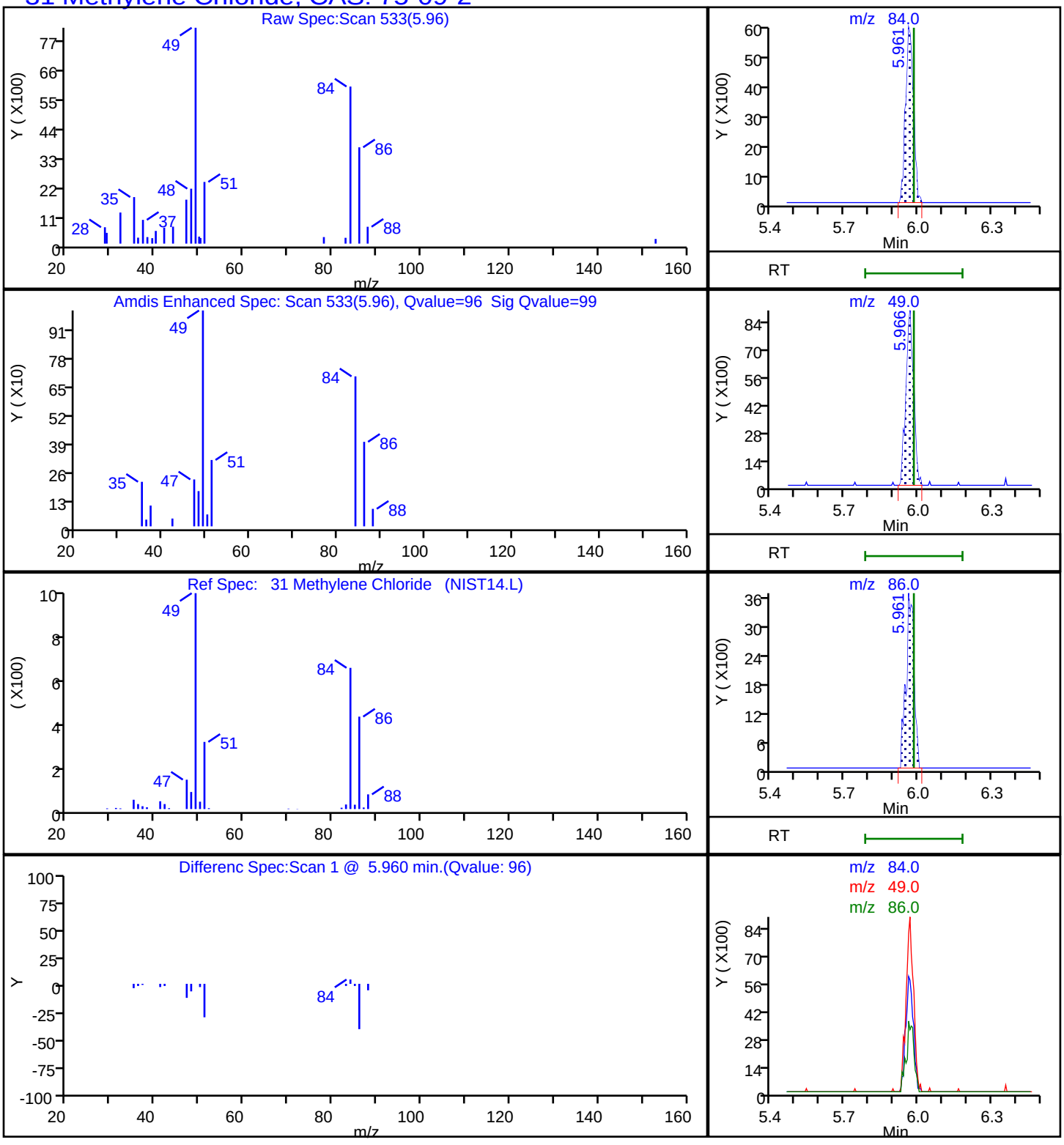
Operator ID: ALS Bottle#: 15 Worklist Smp#: 25

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



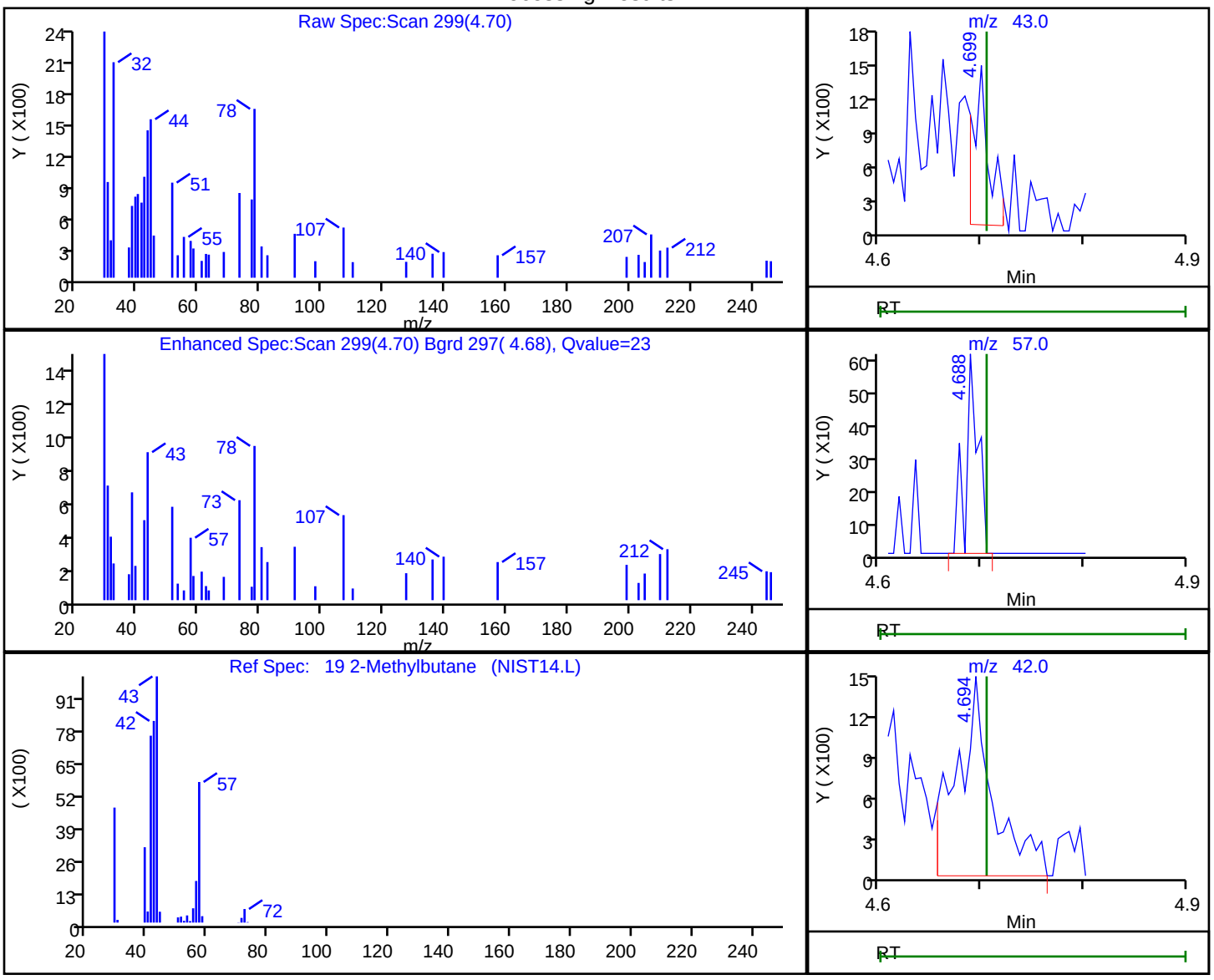
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D		
Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16
Client ID:	11299		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.70	43.00	1507	0.023541
4.69	57.00	527	
4.69	42.00	3639	

Reviewer: tajh, 11-Sep-2019 10:13:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

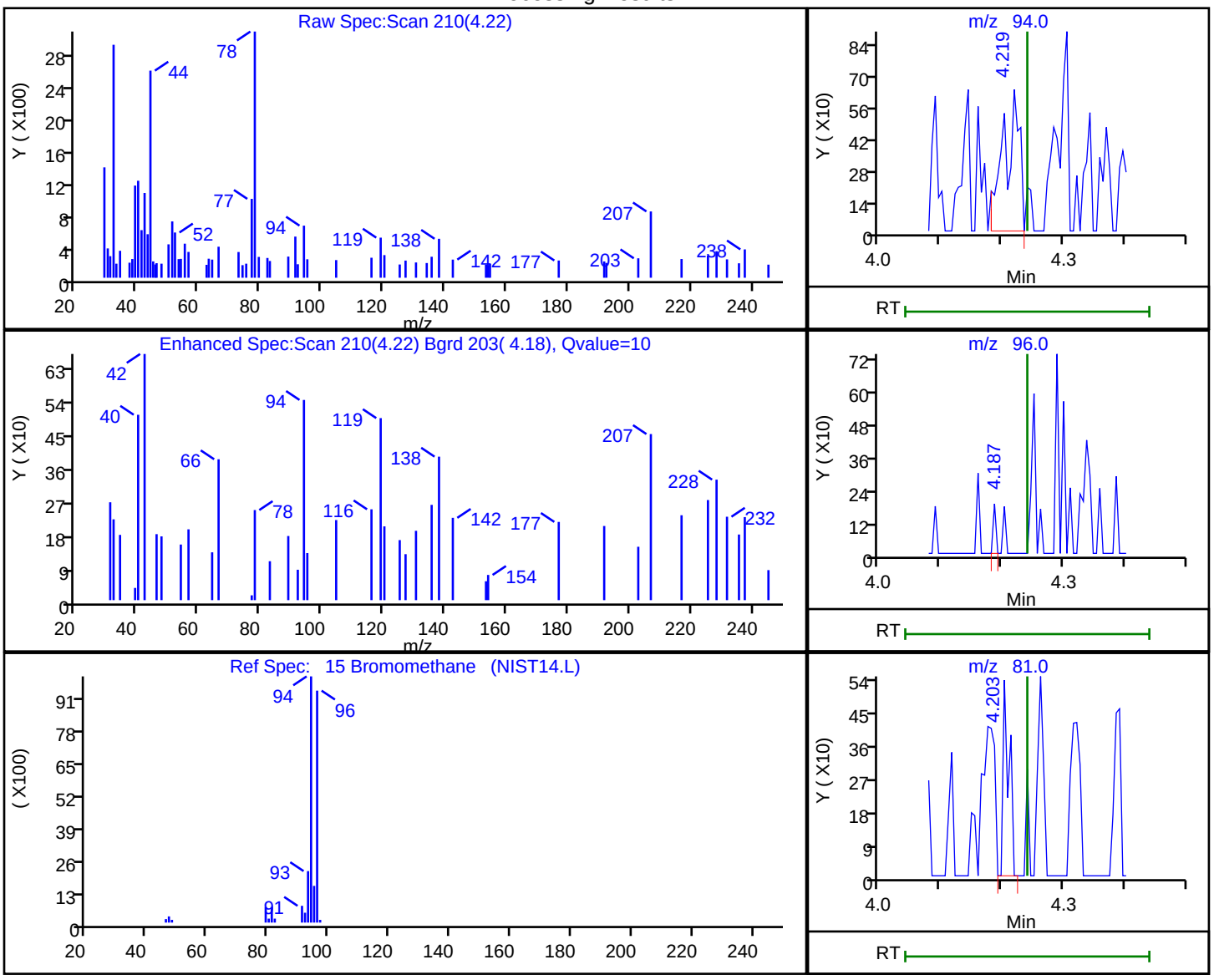
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D		
Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16
Client ID:	11299		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

15 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
4.22	94.00	1136	0.020444
4.19	96.00	59	
4.20	81.00	364	

Reviewer: tajh, 11-Sep-2019 10:13:43

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

140-16893 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Martin	Samples Collected By: Mullis/O'Brien	COC No: 1 of 1 COCs
Company Name: TETRA TECH INC	Phone: 301-515-3021		
Address: 20251 Century Blvd. Ste. 200	Email: mike.martin@tetratech.com		
City/State/Zip: Germantown, MD, 20874			For Lab Use Only:
Phone: 410-279-2700	Site Contact: Josh Mullis		Walk-in Client:
FAX: —	Tel/Fax 410-279-2700		Lab Sampling:
Project Name: MRC Indoor Air - Rush	Analysis Turnaround Time		
Site/Location: MRC Building A	Standard (Specific):		Job / SDG No.:
P O #	Rush (Specifiy): 5DAY TAT		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27-RS	10/2/19	0722	10/2/19	1531	-32	-4	10145	10190		X							X						
IA-015-A-27-RS		0728		1535	-26	2	11648	10210		X							X						
IA-168-A-27-RS		0743		1543	-30	-5	11272	11997		X							X						
IA-021-A-27-RS		0746		1546	-29	-3	11512	10069		X							X						
IA-176-A-27-RS		0750		1550	-30	-3	11238	11561		X							X						
IA-117-A-27-RS		0753		1553	-28	1	11260	11696		X							X						
IA-079-A-27-RS		0756		1556	-30	4	11815	10369		X							X						
						10/2/19																	

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes, Fedex Po trk# 7764 4701 0313, Custody seal intact 4700 9401 RT: 20.0°C CT: 20.0°C
KW 10/3/19

Special Instructions/QC Requirements & Comments: MRC Building A Emergency Resample 10/2/19

Samples Shipped by:	Date / Time: 10/2/19 1645	Samples Received by:	10/2/19 1645
Samples Relinquished by:	Date / Time: 10/2/19 1700	Received by: ETA 10/3/19 0930	
Relinquished by:	Date / Time:	Received by:	10 cans, 10 flows

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16893

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400245 PM Instructions: _____

Sample Receiving Associate: Ken Wilson Date: 10/3/19

QA026R32.doc, 062719

ANALYTICAL REPORT

Job Number: 140-16893-1

Job Description: Middle River - MRC

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Samantha Brenner



Approved for release.
Diana L Lange
Project Management Assistant II
10/11/2019 1:59 PM

Designee for
Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
10/11/2019

cc: Amy Thomson

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16893-1
Project/Site: Middle River - MRC

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16893-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Client Sample ID: IA-018-A-27-RS

Lab Sample ID: 140-16893-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.25		0.080	0.0080	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.075	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.34		0.080	0.022	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087		0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.24		0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.23		0.080	0.014	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.030	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.016	J	0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.31		0.080	0.0080	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12		0.080	0.013	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.61	B	0.40	0.16	ppb v/v	1		TO 15 LL	Total/NA
Naphthalene	1.8		0.040	0.076	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.052	J	0.080	0.0070	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.89		0.12	0.078	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.46		0.040	0.0060	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.037	J	0.080	0.036	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.12		0.080	0.020	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.041	J	0.080	0.022	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.52		0.16	0.024	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.78		0.26	0.026	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.47	J	0.50	0.044	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.2		0.28	0.078	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.43		0.39	0.034	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.95		0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.1		0.40	0.069	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.12	J	0.32	0.028	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.065	J	0.32	0.040	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	1.2		0.32	0.032	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.51		0.35	0.056	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	2.1	B	1.4	0.56	ug/m3	1		TO 15 LL	Total/NA
Naphthalene	9.2		0.21	0.40	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.35	J	0.54	0.047	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		0.45	0.29	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	2.5		0.21	0.032	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.18	J	0.39	0.18	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.59		0.39	0.098	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.20	J	0.39	0.11	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3		0.69	0.10	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-015-A-27-RS

Lab Sample ID: 140-16893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.062	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.58		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.087	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.19	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-015-A-27-RS (Continued)

Lab Sample ID: 140-16893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	6.3		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.99		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.88	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.39	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.43	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.82	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.4	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.40	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	24		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.3		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-168-A-27-RS

Lab Sample ID: 140-16893-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.072	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.1	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	3.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.74	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.57	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.8	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	13		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-021-A-27-RS

Lab Sample ID: 140-16893-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.071	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.3	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.041	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.96		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-021-A-27-RS (Continued)

Lab Sample ID: 140-16893-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.54	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.45	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.21	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.48	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-136-A-27-RS

Lab Sample ID: 140-16893-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.073	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.50		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.086	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.5	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.42	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.46	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.24	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.37	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.2	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.4		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.8	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-117-A-27-RS

Lab Sample ID: 140-16893-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.069	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.46		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.059	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.10	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.2	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.63	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-117-A-27-RS (Continued)

Lab Sample ID: 140-16893-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.45	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.2	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.28	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	8.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: IA-079-A-27-RS

Lab Sample ID: 140-16893-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.076	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.47		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.063	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.51		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.6	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.043	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.8		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.085	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.31		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.62	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.48	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.29	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.25	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.47	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.1	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.29	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.9		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.45	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.78		0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.7	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-018-A-27-RS
Lab Sample ID: 140-16893-1

Date Collected: 10/02/19 15:31
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.25**		0.080	0.0080	ppb v/v			10/04/19 01:56	1
Carbon tetrachloride	**0.075**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
Chlorodifluoromethane	**0.34**		0.080	0.022	ppb v/v			10/04/19 01:56	1
Chloroform	**0.087**		0.080	0.0070	ppb v/v			10/04/19 01:56	1
cis-1,2-Dichloroethene	**0.24**		0.080	0.010	ppb v/v			10/04/19 01:56	1
Dichlorodifluoromethane	**0.23**		0.080	0.014	ppb v/v			10/04/19 01:56	1
1,1-Dichloroethane	**0.030**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
1,2-Dichloroethane	**0.016**	**J**	0.080	0.010	ppb v/v			10/04/19 01:56	1
1,1-Dichloroethene	**0.31**		0.080	0.0080	ppb v/v			10/04/19 01:56	1
Ethylbenzene	**0.12**		0.080	0.013	ppb v/v			10/04/19 01:56	1
Methylene Chloride	**0.61**	**B**	0.40	0.16	ppb v/v			10/04/19 01:56	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/04/19 01:56	1
Naphthalene	**1.8**		0.040	0.076	ppb v/v			10/04/19 01:56	1
Tetrachloroethene	**0.052**	**J**	0.080	0.0070	ppb v/v			10/04/19 01:56	1
Toluene	**0.89**		0.12	0.078	ppb v/v			10/04/19 01:56	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/04/19 01:56	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/04/19 01:56	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/04/19 01:56	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/04/19 01:56	1
Trichloroethene	**0.46**		0.040	0.0060	ppb v/v			10/04/19 01:56	1
1,2,3-Trimethylbenzene	**0.037**	**J**	0.080	0.036	ppb v/v			10/04/19 01:56	1
1,2,4-Trimethylbenzene	**0.12**		0.080	0.020	ppb v/v			10/04/19 01:56	1
1,3,5-Trimethylbenzene	**0.041**	**J**	0.080	0.022	ppb v/v			10/04/19 01:56	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/04/19 01:56	1
Xylenes, Total	**0.52**		0.16	0.024	ppb v/v			10/04/19 01:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.78**		0.26	0.026	ug/m3			10/04/19 01:56	1
Carbon tetrachloride	**0.47**	**J**	0.50	0.044	ug/m3			10/04/19 01:56	1
Chlorodifluoromethane	**1.2**		0.28	0.078	ug/m3			10/04/19 01:56	1
Chloroform	**0.43**		0.39	0.034	ug/m3			10/04/19 01:56	1
cis-1,2-Dichloroethene	**0.95**		0.32	0.040	ug/m3			10/04/19 01:56	1
Dichlorodifluoromethane	**1.1**		0.40	0.069	ug/m3			10/04/19 01:56	1
1,1-Dichloroethane	**0.12**	**J**	0.32	0.028	ug/m3			10/04/19 01:56	1
1,2-Dichloroethane	**0.065**	**J**	0.32	0.040	ug/m3			10/04/19 01:56	1
1,1-Dichloroethene	**1.2**		0.32	0.032	ug/m3			10/04/19 01:56	1
Ethylbenzene	**0.51**		0.35	0.056	ug/m3			10/04/19 01:56	1
Methylene Chloride	**2.1**	**B**	1.4	0.56	ug/m3			10/04/19 01:56	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/04/19 01:56	1
Naphthalene	**9.2**		0.21	0.40	ug/m3			10/04/19 01:56	1
Tetrachloroethene	**0.35**	**J**	0.54	0.047	ug/m3			10/04/19 01:56	1
Toluene	**3.3**		0.45	0.29	ug/m3			10/04/19 01:56	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/04/19 01:56	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/04/19 01:56	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/04/19 01:56	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/04/19 01:56	1
Trichloroethene	**2.5**		0.21	0.032	ug/m3			10/04/19 01:56	1
1,2,3-Trimethylbenzene	**0.18**	**J**	0.39	0.18	ug/m3			10/04/19 01:56	1
1,2,4-Trimethylbenzene	**0.59**		0.39	0.098	ug/m3			10/04/19 01:56	1

Client Sample ID: IA-018-A-27-RS
Lab Sample ID: 140-16893-1

Date Collected: 10/02/19 15:31
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.20**	**J**	0.39	0.11	ug/m3			10/04/19 01:56	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/04/19 01:56	1
Xylenes, Total	**2.3**		0.69	0.10	ug/m3			10/04/19 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/04/19 01:56*	*1*

Client Sample ID: IA-015-A-27-RS
Lab Sample ID: 140-16893-2

Date Collected: 10/02/19 15:35
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.28**	**J**	0.40	0.040	ppb v/v			10/08/19 15:43	1
Carbon tetrachloride	**0.062**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
Chlorodifluoromethane	**0.58**		0.40	0.11	ppb v/v			10/08/19 15:43	1
Chloroform	**0.087**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 15:43	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			10/08/19 15:43	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 15:43	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 15:43	1
Ethylbenzene	**0.19**	**J**	0.40	0.065	ppb v/v			10/08/19 15:43	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			10/08/19 15:43	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 15:43	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 15:43	1
Tetrachloroethene	**0.059**	**J**	0.40	0.035	ppb v/v			10/08/19 15:43	1
Toluene	**6.3**		0.60	0.39	ppb v/v			10/08/19 15:43	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 18:17	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 15:43	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 15:43	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 15:43	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 15:43	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 15:43	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 15:43	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 15:43	1
Xylenes, Total	**0.99**		0.80	0.12	ppb v/v			10/08/19 15:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.88**	**J**	1.3	0.13	ug/m3			10/08/19 15:43	1
Carbon tetrachloride	**0.39**	**J**	2.5	0.22	ug/m3			10/08/19 15:43	1
Chlorodifluoromethane	**2.1**		1.4	0.39	ug/m3			10/08/19 15:43	1
Chloroform	**0.43**	**J**	2.0	0.17	ug/m3			10/08/19 15:43	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 15:43	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			10/08/19 15:43	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 15:43	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 15:43	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 15:43	1
Ethylbenzene	**0.82**	**J**	1.7	0.28	ug/m3			10/08/19 15:43	1
Methylene Chloride	**5.4**	**J B**	6.9	2.8	ug/m3			10/08/19 15:43	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 15:43	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 15:43	1
Tetrachloroethene	**0.40**	**J**	2.7	0.24	ug/m3			10/08/19 15:43	1
Toluene	**24**		2.3	1.5	ug/m3			10/08/19 15:43	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 15:43	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 18:17	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 15:43	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 15:43	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 15:43	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 15:43	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 15:43	1

Client Sample ID: IA-015-A-27-RS
Lab Sample ID: 140-16893-2
Date Collected: 10/02/19 15:35
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 15:43	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 15:43	1
Xylenes, Total	**4.3**		3.5	0.52	ug/m3			10/08/19 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 15:43*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 18:17*	*1*

Client Sample ID: IA-168-A-27-RS
Lab Sample ID: 140-16893-3

Date Collected: 10/02/19 15:43
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			10/08/19 16:35	1
Carbon tetrachloride	**0.072**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
Chlorodifluoromethane	**0.44**		0.40	0.11	ppb v/v			10/08/19 16:35	1
Chloroform	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 16:35	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			10/08/19 16:35	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 16:35	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 16:35	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			10/08/19 16:35	1
Methylene Chloride	**1.1**	**J B**	2.0	0.80	ppb v/v			10/08/19 16:35	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 16:35	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 16:35	1
Tetrachloroethene	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 16:35	1
Toluene	**3.4**		0.60	0.39	ppb v/v			10/08/19 16:35	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 19:03	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 16:35	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 16:35	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 16:35	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 16:35	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 16:35	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 16:35	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 16:35	1
Xylenes, Total	**0.74**	**J**	0.80	0.12	ppb v/v			10/08/19 16:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			10/08/19 16:35	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			10/08/19 16:35	1
Chlorodifluoromethane	**1.5**		1.4	0.39	ug/m3			10/08/19 16:35	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			10/08/19 16:35	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 16:35	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 16:35	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 16:35	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 16:35	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 16:35	1
Ethylbenzene	**0.57**	**J**	1.7	0.28	ug/m3			10/08/19 16:35	1
Methylene Chloride	**3.8**	**J B**	6.9	2.8	ug/m3			10/08/19 16:35	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 16:35	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 16:35	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 16:35	1
Toluene	**13**		2.3	1.5	ug/m3			10/08/19 16:35	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 16:35	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 19:03	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 16:35	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 16:35	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 16:35	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 16:35	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 16:35	1

Client Sample ID: IA-168-A-27-RS
Lab Sample ID: 140-16893-3
Date Collected: 10/02/19 15:43
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 16:35	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 16:35	1
Xylenes, Total	**3.2**	**J**	3.5	0.52	ug/m3			10/08/19 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 16:35*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 19:03*	*1*

Client Sample ID: IA-021-A-27-RS
Lab Sample ID: 140-16893-4

Date Collected: 10/02/19 15:46
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			10/08/19 17:28	1
Carbon tetrachloride	**0.071**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 17:28	1
Chloroform	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 17:28	1
Dichlorodifluoromethane	**0.49**		0.40	0.070	ppb v/v			10/08/19 17:28	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 17:28	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 17:28	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			10/08/19 17:28	1
Methylene Chloride	**1.3**	**J B**	2.0	0.80	ppb v/v			10/08/19 17:28	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 17:28	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 17:28	1
Tetrachloroethene	**0.041**	**J**	0.40	0.035	ppb v/v			10/08/19 17:28	1
Toluene	**0.96**		0.60	0.39	ppb v/v			10/08/19 17:28	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 19:47	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 17:28	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 17:28	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 17:28	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 17:28	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 17:28	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 17:28	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 17:28	1
Xylenes, Total	**0.54**	**J**	0.80	0.12	ppb v/v			10/08/19 17:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			10/08/19 17:28	1
Carbon tetrachloride	**0.45**	**J**	2.5	0.22	ug/m3			10/08/19 17:28	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 17:28	1
Chloroform	**0.21**	**J**	2.0	0.17	ug/m3			10/08/19 17:28	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 17:28	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			10/08/19 17:28	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 17:28	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 17:28	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 17:28	1
Ethylbenzene	**0.48**	**J**	1.7	0.28	ug/m3			10/08/19 17:28	1
Methylene Chloride	**4.6**	**J B**	6.9	2.8	ug/m3			10/08/19 17:28	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 17:28	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 17:28	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			10/08/19 17:28	1
Toluene	**3.6**		2.3	1.5	ug/m3			10/08/19 17:28	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 17:28	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 19:47	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 17:28	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 17:28	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 17:28	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 17:28	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 17:28	1

Client Sample ID: IA-021-A-27-RS
Lab Sample ID: 140-16893-4

Date Collected: 10/02/19 15:46
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 17:28	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 17:28	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			10/08/19 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*10/08/19 17:28*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*10/09/19 19:47*	*1*

Client Sample ID: IA-136-A-27-RS
Lab Sample ID: 140-16893-5

Date Collected: 10/02/19 15:50
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.15**	**J**	0.40	0.040	ppb v/v			10/08/19 18:21	1
Carbon tetrachloride	**0.073**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 18:21	1
Chloroform	**0.049**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 18:21	1
Dichlorodifluoromethane	**0.50**		0.40	0.070	ppb v/v			10/08/19 18:21	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 18:21	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 18:21	1
Ethylbenzene	**0.086**	**J**	0.40	0.065	ppb v/v			10/08/19 18:21	1
Methylene Chloride	**1.5**	**J B**	2.0	0.80	ppb v/v			10/08/19 18:21	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 18:21	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 18:21	1
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 18:21	1
Toluene	**1.2**		0.60	0.39	ppb v/v			10/08/19 18:21	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 20:31	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 18:21	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 18:21	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 18:21	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 18:21	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 18:21	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 18:21	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 18:21	1
Xylenes, Total	**0.42**	**J**	0.80	0.12	ppb v/v			10/08/19 18:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.47**	**J**	1.3	0.13	ug/m3			10/08/19 18:21	1
Carbon tetrachloride	**0.46**	**J**	2.5	0.22	ug/m3			10/08/19 18:21	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 18:21	1
Chloroform	**0.24**	**J**	2.0	0.17	ug/m3			10/08/19 18:21	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 18:21	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 18:21	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 18:21	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 18:21	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 18:21	1
Ethylbenzene	**0.37**	**J**	1.7	0.28	ug/m3			10/08/19 18:21	1
Methylene Chloride	**5.2**	**J B**	6.9	2.8	ug/m3			10/08/19 18:21	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 18:21	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 18:21	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 18:21	1
Toluene	**4.4**		2.3	1.5	ug/m3			10/08/19 18:21	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 18:21	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 20:31	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 18:21	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 18:21	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 18:21	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 18:21	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 18:21	1

Client Sample ID: IA-136-A-27-RS
Lab Sample ID: 140-16893-5

Date Collected: 10/02/19 15:50
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 18:21	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 18:21	1
Xylenes, Total	**1.8**	**J**	3.5	0.52	ug/m3			10/08/19 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 18:21*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 20:31*	*1*

Client Sample ID: IA-117-A-27-RS
Lab Sample ID: 140-16893-6

Date Collected: 10/02/19 15:53
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.16**	**J**	0.40	0.040	ppb v/v			10/08/19 19:15	1
Carbon tetrachloride	**0.069**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
Chlorodifluoromethane	**0.46**		0.40	0.11	ppb v/v			10/08/19 19:15	1
Chloroform	**0.059**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
cis-1,2-Dichloroethene	ND		0.40	0.050	ppb v/v			10/08/19 19:15	1
Dichlorodifluoromethane	**0.48**		0.40	0.070	ppb v/v			10/08/19 19:15	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 19:15	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 19:15	1
Ethylbenzene	**0.10**	**J**	0.40	0.065	ppb v/v			10/08/19 19:15	1
Methylene Chloride	**1.2**	**J B**	2.0	0.80	ppb v/v			10/08/19 19:15	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 19:15	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 19:15	1
Tetrachloroethene	**0.042**	**J**	0.40	0.035	ppb v/v			10/08/19 19:15	1
Toluene	**2.4**		0.60	0.39	ppb v/v			10/08/19 19:15	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 21:14	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 19:15	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 19:15	1
Trichloroethene	ND		0.20	0.030	ppb v/v			10/08/19 19:15	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 19:15	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 19:15	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 19:15	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			10/08/19 19:15	1
Xylenes, Total	**0.63**	**J**	0.80	0.12	ppb v/v			10/08/19 19:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.50**	**J**	1.3	0.13	ug/m3			10/08/19 19:15	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			10/08/19 19:15	1
Chlorodifluoromethane	**1.6**		1.4	0.39	ug/m3			10/08/19 19:15	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			10/08/19 19:15	1
cis-1,2-Dichloroethene	ND		1.6	0.20	ug/m3			10/08/19 19:15	1
Dichlorodifluoromethane	**2.4**		2.0	0.35	ug/m3			10/08/19 19:15	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 19:15	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 19:15	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 19:15	1
Ethylbenzene	**0.45**	**J**	1.7	0.28	ug/m3			10/08/19 19:15	1
Methylene Chloride	**4.2**	**J B**	6.9	2.8	ug/m3			10/08/19 19:15	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 19:15	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 19:15	1
Tetrachloroethene	**0.28**	**J**	2.7	0.24	ug/m3			10/08/19 19:15	1
Toluene	**8.9**		2.3	1.5	ug/m3			10/08/19 19:15	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 19:15	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 21:14	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 19:15	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 19:15	1
Trichloroethene	ND		1.1	0.16	ug/m3			10/08/19 19:15	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 19:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 19:15	1

Client Sample ID: IA-117-A-27-RS
Lab Sample ID: 140-16893-6

Date Collected: 10/02/19 15:53
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 19:15	1
Vinyl chloride	ND		0.51	0.33	ug/m3			10/08/19 19:15	1
Xylenes, Total	**2.7**	**J**	3.5	0.52	ug/m3			10/08/19 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/08/19 19:15*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 21:14*	*1*

Client Sample ID: IA-079-A-27-RS
Lab Sample ID: 140-16893-7

Date Collected: 10/02/19 15:56
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.17**	**J**	0.40	0.040	ppb v/v			10/08/19 20:09	1
Carbon tetrachloride	**0.076**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
Chlorodifluoromethane	**0.47**		0.40	0.11	ppb v/v			10/08/19 20:09	1
Chloroform	**0.060**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
cis-1,2-Dichloroethene	**0.063**	**J**	0.40	0.050	ppb v/v			10/08/19 20:09	1
Dichlorodifluoromethane	**0.51**		0.40	0.070	ppb v/v			10/08/19 20:09	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			10/08/19 20:09	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			10/08/19 20:09	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			10/08/19 20:09	1
Methylene Chloride	**2.6**	**B**	2.0	0.80	ppb v/v			10/08/19 20:09	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			10/08/19 20:09	1
Naphthalene	ND		0.20	0.38	ppb v/v			10/08/19 20:09	1
Tetrachloroethene	**0.043**	**J**	0.40	0.035	ppb v/v			10/08/19 20:09	1
Toluene	**1.8**		0.60	0.39	ppb v/v			10/08/19 20:09	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			10/09/19 21:59	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			10/08/19 20:09	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			10/08/19 20:09	1
Trichloroethene	**0.085**	**J**	0.20	0.030	ppb v/v			10/08/19 20:09	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			10/08/19 20:09	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			10/08/19 20:09	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			10/08/19 20:09	1
Vinyl chloride	**0.31**		0.20	0.13	ppb v/v			10/08/19 20:09	1
Xylenes, Total	**0.62**	**J**	0.80	0.12	ppb v/v			10/08/19 20:09	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.54**	**J**	1.3	0.13	ug/m3			10/08/19 20:09	1
Carbon tetrachloride	**0.48**	**J**	2.5	0.22	ug/m3			10/08/19 20:09	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			10/08/19 20:09	1
Chloroform	**0.29**	**J**	2.0	0.17	ug/m3			10/08/19 20:09	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.6	0.20	ug/m3			10/08/19 20:09	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			10/08/19 20:09	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			10/08/19 20:09	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			10/08/19 20:09	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			10/08/19 20:09	1
Ethylbenzene	**0.47**	**J**	1.7	0.28	ug/m3			10/08/19 20:09	1
Methylene Chloride	**9.1**	**B**	6.9	2.8	ug/m3			10/08/19 20:09	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			10/08/19 20:09	1
Naphthalene	ND		1.0	2.0	ug/m3			10/08/19 20:09	1
Tetrachloroethene	**0.29**	**J**	2.7	0.24	ug/m3			10/08/19 20:09	1
Toluene	**6.9**		2.3	1.5	ug/m3			10/08/19 20:09	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			10/08/19 20:09	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			10/09/19 21:59	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			10/08/19 20:09	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			10/08/19 20:09	1
Trichloroethene	**0.45**	**J**	1.1	0.16	ug/m3			10/08/19 20:09	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			10/08/19 20:09	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			10/08/19 20:09	1

Client Sample ID: IA-079-A-27-RS
Lab Sample ID: 140-16893-7
Date Collected: 10/02/19 15:56
Matrix: Air
Date Received: 10/03/19 09:30
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			10/08/19 20:09	1
Vinyl chloride	**0.78**		0.51	0.33	ug/m3			10/08/19 20:09	1
Xylenes, Total	**2.7**	**J**	3.5	0.52	ug/m3			10/08/19 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/08/19 20:09*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*10/09/19 21:59*	*1*

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16893-1	IA-018-A-27-RS	98								
140-16893-2	IA-015-A-27-RS	94								
140-16893-2	IA-015-A-27-RS	105								
140-16893-3	IA-168-A-27-RS	94								
140-16893-3	IA-168-A-27-RS	102								
140-16893-4	IA-021-A-27-RS	93								
140-16893-4	IA-021-A-27-RS	103								
140-16893-5	IA-136-A-27-RS	94								
140-16893-5	IA-136-A-27-RS	102								
140-16893-6	IA-117-A-27-RS	96								
140-16893-6	IA-117-A-27-RS	105								
140-16893-7	IA-079-A-27-RS	94								
140-16893-7	IA-079-A-27-RS	105								
LCS 140-34104/1002	Lab Control Sample	106								
LCS 140-34203/1002	Lab Control Sample	102								
LCS 140-34215/1002	Lab Control Sample	106								
MB 140-34104/5	Method Blank	98								
MB 140-34203/7	Method Blank	91								
MB 140-34215/4	Method Blank	102								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-34104/5
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			10/03/19 13:07	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			10/03/19 13:07	1
Chloroform	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			10/03/19 13:07	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			10/03/19 13:07	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			10/03/19 13:07	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			10/03/19 13:07	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			10/03/19 13:07	1
Methylene Chloride	0.208	J	0.40	0.16	ppb v/v			10/03/19 13:07	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/03/19 13:07	1
Naphthalene	ND		0.040	0.076	ppb v/v			10/03/19 13:07	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Toluene	ND		0.12	0.078	ppb v/v			10/03/19 13:07	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/03/19 13:07	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/03/19 13:07	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/03/19 13:07	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			10/03/19 13:07	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			10/03/19 13:07	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			10/03/19 13:07	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			10/03/19 13:07	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/03/19 13:07	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			10/03/19 13:07	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			10/03/19 13:07	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			10/03/19 13:07	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			10/03/19 13:07	1
Chloroform	ND		0.39	0.034	ug/m3			10/03/19 13:07	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			10/03/19 13:07	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			10/03/19 13:07	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			10/03/19 13:07	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			10/03/19 13:07	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			10/03/19 13:07	1
Ethylbenzene	ND		0.35	0.056	ug/m3			10/03/19 13:07	1
Methylene Chloride	0.724	J	1.4	0.56	ug/m3			10/03/19 13:07	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/03/19 13:07	1
Naphthalene	ND		0.21	0.40	ug/m3			10/03/19 13:07	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			10/03/19 13:07	1
Toluene	ND		0.45	0.29	ug/m3			10/03/19 13:07	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/03/19 13:07	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/03/19 13:07	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/03/19 13:07	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/03/19 13:07	1
Trichloroethene	ND		0.21	0.032	ug/m3			10/03/19 13:07	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			10/03/19 13:07	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34104/5
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			10/03/19 13:07	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			10/03/19 13:07	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/03/19 13:07	1
Xylenes, Total	ND		0.69	0.10	ug/m3			10/03/19 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/03/19 13:07*	*1*

Lab Sample ID: LCS 140-34104/1002
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.70		ppb v/v		85	70 - 130
Carbon tetrachloride	2.00	1.88		ppb v/v		94	70 - 130
Chlorodifluoromethane	2.00	1.79		ppb v/v		90	60 - 140
Chloroform	2.00	1.71		ppb v/v		86	70 - 130
cis-1,2-Dichloroethene	2.00	2.01		ppb v/v		101	70 - 130
Dichlorodifluoromethane	2.00	2.33		ppb v/v		117	60 - 140
1,1-Dichloroethane	2.00	1.78		ppb v/v		89	70 - 130
1,2-Dichloroethane	2.00	1.62		ppb v/v		81	70 - 130
1,1-Dichloroethene	2.00	2.11		ppb v/v		106	70 - 130
Ethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
Methylene Chloride	2.00	1.72		ppb v/v		86	70 - 130
Methyl tert-butyl ether	2.00	1.75		ppb v/v		88	60 - 140
Naphthalene	2.00	2.60		ppb v/v		130	60 - 140
Tetrachloroethene	2.00	1.84		ppb v/v		92	70 - 130
Toluene	2.00	1.96		ppb v/v		98	70 - 130
trans-1,2-Dichloroethene	2.00	1.98		ppb v/v		99	70 - 130
1,2,4-Trichlorobenzene	2.00	2.57		ppb v/v		128	60 - 140
1,1,1-Trichloroethane	2.00	1.72		ppb v/v		86	70 - 130
1,1,2-Trichloroethane	2.00	2.00		ppb v/v		100	70 - 130
Trichloroethene	2.00	1.81		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	2.00	2.48		ppb v/v		124	70 - 130
1,2,4-Trimethylbenzene	2.00	2.33		ppb v/v		116	70 - 130
1,3,5-Trimethylbenzene	2.00	2.23		ppb v/v		112	70 - 130
Vinyl chloride	2.00	2.06		ppb v/v		103	70 - 130
Xylenes, Total	6.00	5.95		ppb v/v		99	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.43		ug/m3		85	70 - 130
Carbon tetrachloride	13	11.8		ug/m3		94	70 - 130
Chlorodifluoromethane	7.1	6.33		ug/m3		90	60 - 140
Chloroform	9.8	8.36		ug/m3		86	70 - 130
cis-1,2-Dichloroethene	7.9	7.98		ug/m3		101	70 - 130
Dichlorodifluoromethane	9.9	11.5		ug/m3		117	60 - 140
1,1-Dichloroethane	8.1	7.21		ug/m3		89	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-34104/1002
Matrix: Air
Analysis Batch: 34104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	6.56		ug/m3		81	70 - 130
1,1-Dichloroethene	7.9	8.37		ug/m3		106	70 - 130
Ethylbenzene	8.7	8.40		ug/m3		97	70 - 130
Methylene Chloride	6.9	5.96		ug/m3		86	70 - 130
Methyl tert-butyl ether	7.2	6.32		ug/m3		88	60 - 140
Naphthalene	10	13.6		ug/m3		130	60 - 140
Tetrachloroethene	14	12.5		ug/m3		92	70 - 130
Toluene	7.5	7.39		ug/m3		98	70 - 130
trans-1,2-Dichloroethene	7.9	7.86		ug/m3		99	70 - 130
1,2,4-Trichlorobenzene	15	19.1		ug/m3		128	60 - 140
1,1,1-Trichloroethane	11	9.40		ug/m3		86	70 - 130
1,1,2-Trichloroethane	11	10.9		ug/m3		100	70 - 130
Trichloroethene	11	9.74		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	9.8	12.2		ug/m3		124	70 - 130
1,2,4-Trimethylbenzene	9.8	11.4		ug/m3		116	70 - 130
1,3,5-Trimethylbenzene	9.8	11.0		ug/m3		112	70 - 130
Vinyl chloride	5.1	5.27		ug/m3		103	70 - 130
Xylenes, Total	26	25.8		ug/m3		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*

Lab Sample ID: MB 140-34203/7
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			10/08/19 13:54	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			10/08/19 13:54	1
Chloroform	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			10/08/19 13:54	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			10/08/19 13:54	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			10/08/19 13:54	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			10/08/19 13:54	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			10/08/19 13:54	1
Methylene Chloride	0.192	J	0.40	0.16	ppb v/v			10/08/19 13:54	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			10/08/19 13:54	1
Naphthalene	ND		0.040	0.076	ppb v/v			10/08/19 13:54	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Toluene	ND		0.12	0.078	ppb v/v			10/08/19 13:54	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			10/08/19 13:54	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			10/08/19 13:54	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			10/08/19 13:54	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			10/08/19 13:54	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34203/7
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			10/08/19 13:54	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			10/08/19 13:54	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			10/08/19 13:54	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			10/08/19 13:54	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			10/08/19 13:54	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			10/08/19 13:54	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			10/08/19 13:54	1
Chloroform	ND		0.39	0.034	ug/m3			10/08/19 13:54	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			10/08/19 13:54	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			10/08/19 13:54	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			10/08/19 13:54	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			10/08/19 13:54	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			10/08/19 13:54	1
Ethylbenzene	ND		0.35	0.056	ug/m3			10/08/19 13:54	1
Methylene Chloride	0.666	J	1.4	0.56	ug/m3			10/08/19 13:54	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			10/08/19 13:54	1
Naphthalene	ND		0.21	0.40	ug/m3			10/08/19 13:54	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			10/08/19 13:54	1
Toluene	ND		0.45	0.29	ug/m3			10/08/19 13:54	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			10/08/19 13:54	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			10/08/19 13:54	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			10/08/19 13:54	1
Trichloroethene	ND		0.21	0.032	ug/m3			10/08/19 13:54	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			10/08/19 13:54	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			10/08/19 13:54	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			10/08/19 13:54	1
Vinyl chloride	ND		0.10	0.066	ug/m3			10/08/19 13:54	1
Xylenes, Total	ND		0.69	0.10	ug/m3			10/08/19 13:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*10/08/19 13:54*	*1*

Lab Sample ID: LCS 140-34203/1002
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Carbon tetrachloride	2.00	1.73		ppb v/v		87	70 - 130
Chlorodifluoromethane	2.00	2.03		ppb v/v		102	60 - 140
Chloroform	2.00	1.82		ppb v/v		91	70 - 130
cis-1,2-Dichloroethene	2.00	1.71		ppb v/v		86	70 - 130
Dichlorodifluoromethane	2.00	1.95		ppb v/v		98	60 - 140
1,1-Dichloroethane	2.00	1.80		ppb v/v		90	70 - 130
1,2-Dichloroethane	2.00	1.78		ppb v/v		89	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-34203/1002
Matrix: Air
Analysis Batch: 34203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	2.00	1.73		ppb v/v		86	70 - 130
Ethylbenzene	2.00	1.85		ppb v/v		92	70 - 130
Methylene Chloride	2.00	1.49		ppb v/v		75	70 - 130
Methyl tert-butyl ether	2.00	2.09		ppb v/v		105	60 - 140
Naphthalene	2.00	2.07		ppb v/v		104	60 - 140
Tetrachloroethene	2.00	1.86		ppb v/v		93	70 - 130
Toluene	2.00	1.84		ppb v/v		92	70 - 130
trans-1,2-Dichloroethene	2.00	1.79		ppb v/v		90	70 - 130
1,1,1-Trichloroethane	2.00	1.81		ppb v/v		91	70 - 130
1,1,2-Trichloroethane	2.00	1.92		ppb v/v		96	70 - 130
Trichloroethene	2.00	1.82		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trimethylbenzene	2.00	2.03		ppb v/v		102	70 - 130
1,3,5-Trimethylbenzene	2.00	1.94		ppb v/v		97	70 - 130
Vinyl chloride	2.00	2.16		ppb v/v		108	70 - 130
Xylenes, Total	6.00	5.73		ppb v/v		96	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.67		ug/m3		89	70 - 130
Carbon tetrachloride	13	10.9		ug/m3		87	70 - 130
Chlorodifluoromethane	7.1	7.18		ug/m3		102	60 - 140
Chloroform	9.8	8.87		ug/m3		91	70 - 130
cis-1,2-Dichloroethene	7.9	6.80		ug/m3		86	70 - 130
Dichlorodifluoromethane	9.9	9.65		ug/m3		98	60 - 140
1,1-Dichloroethane	8.1	7.30		ug/m3		90	70 - 130
1,2-Dichloroethane	8.1	7.20		ug/m3		89	70 - 130
1,1-Dichloroethene	7.9	6.84		ug/m3		86	70 - 130
Ethylbenzene	8.7	8.02		ug/m3		92	70 - 130
Methylene Chloride	6.9	5.18		ug/m3		75	70 - 130
Methyl tert-butyl ether	7.2	7.54		ug/m3		105	60 - 140
Naphthalene	10	10.9		ug/m3		104	60 - 140
Tetrachloroethene	14	12.6		ug/m3		93	70 - 130
Toluene	7.5	6.94		ug/m3		92	70 - 130
trans-1,2-Dichloroethene	7.9	7.10		ug/m3		90	70 - 130
1,1,1-Trichloroethane	11	9.88		ug/m3		91	70 - 130
1,1,2-Trichloroethane	11	10.5		ug/m3		96	70 - 130
Trichloroethene	11	9.76		ug/m3		91	70 - 130
1,2,3-Trimethylbenzene	9.8	9.83		ug/m3		100	70 - 130
1,2,4-Trimethylbenzene	9.8	10.0		ug/m3		102	70 - 130
1,3,5-Trimethylbenzene	9.8	9.53		ug/m3		97	70 - 130
Vinyl chloride	5.1	5.52		ug/m3		108	70 - 130
Xylenes, Total	26	24.9		ug/m3		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-34215/4
Matrix: Air
Analysis Batch: 34215

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			10/09/19 13:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			10/09/19 13:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*10/09/19 13:47*	*1*

Lab Sample ID: LCS 140-34215/1002
Matrix: Air
Analysis Batch: 34215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			4.00	3.99		ppb v/v		100	60 - 140		

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			30	29.6		ug/m3		100	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Air - GC/MS VOA

Analysis Batch: 34104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-1	IA-018-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34104/5	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34104/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 34203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-2	IA-015-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-3	IA-168-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-4	IA-021-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-5	IA-136-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-6	IA-117-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-7	IA-079-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34203/7	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34203/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 34215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16893-2	IA-015-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-3	IA-168-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-4	IA-021-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-5	IA-136-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-6	IA-117-A-27-RS	Total/NA	Air	TO 15 LL	
140-16893-7	IA-079-A-27-RS	Total/NA	Air	TO 15 LL	
MB 140-34215/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-34215/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: IA-018-A-27-RS — Lab Sample ID: 140-16893-1

Date Collected: 10/02/19 15:31 — **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/04/19 01:56	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: IA-015-A-27-RS — Lab Sample ID: 140-16893-2

Date Collected: 10/02/19 15:35 — **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 18:17	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 15:43	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-168-A-27-RS — Lab Sample ID: 140-16893-3

Date Collected: 10/02/19 15:43 — **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 19:03	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 16:35	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-021-A-27-RS — Lab Sample ID: 140-16893-4

Date Collected: 10/02/19 15:46 — **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 19:47	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 17:28	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-136-A-27-RS — Lab Sample ID: 140-16893-5

Date Collected: 10/02/19 15:50 — **Matrix: Air**
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 20:31	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 18:21	S1K	TAL KNX
	Instrument ID: MH									

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Client Sample ID: IA-117-A-27-RS
Lab Sample ID: 140-16893-6
Date Collected: 10/02/19 15:53
Matrix: Air
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 21:14	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 19:15	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: IA-079-A-27-RS
Lab Sample ID: 140-16893-7
Date Collected: 10/02/19 15:56
Matrix: Air
Date Received: 10/03/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34215	10/09/19 21:59	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	34203	10/08/19 20:09	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-34104/5
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/03/19 13:07	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-34203/7
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34203	10/08/19 13:54	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-34215/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34215	10/09/19 13:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-34104/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34104	10/03/19 09:54	HMT	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-34203/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34203	10/08/19 11:25	S1K	TAL KNX
	Instrument ID: MH									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-34215/1002

Date Collected: N/A **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	34215	10/09/19 11:20	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16893-1	IA-018-A-27-RS	Air	10/02/19 15:31	10/03/19 09:30	Air Canister (6-Liter) #10190
140-16893-2	IA-015-A-27-RS	Air	10/02/19 15:35	10/03/19 09:30	Air Canister (6-Liter) #10210
140-16893-3	IA-168-A-27-RS	Air	10/02/19 15:43	10/03/19 09:30	Air Canister (6-Liter) #11997
140-16893-4	IA-021-A-27-RS	Air	10/02/19 15:46	10/03/19 09:30	Air Canister (6-Liter) #10069
140-16893-5	IA-136-A-27-RS	Air	10/02/19 15:50	10/03/19 09:30	Air Canister (6-Liter) #11561
140-16893-6	IA-117-A-27-RS	Air	10/02/19 15:53	10/03/19 09:30	Air Canister (6-Liter) #11696
140-16893-7	IA-079-A-27-RS	Air	10/02/19 15:56	10/03/19 09:30	Air Canister (6-Liter) #10369

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27-RS	140-16893-1	98
IA-015-A-27-RS	140-16893-2	105
IA-015-A-27-RS	140-16893-2	94
IA-168-A-27-RS	140-16893-3	102
IA-168-A-27-RS	140-16893-3	94
IA-021-A-27-RS	140-16893-4	103
IA-021-A-27-RS	140-16893-4	93
IA-136-A-27-RS	140-16893-5	102
IA-136-A-27-RS	140-16893-5	94
IA-117-A-27-RS	140-16893-6	105
IA-117-A-27-RS	140-16893-6	96
IA-079-A-27-RS	140-16893-7	105
IA-079-A-27-RS	140-16893-7	94
	MB 140-34104/5	98
	MB 140-34203/7	91
	MB 140-34215/4	102
	LCS 140-34104/1002	106
	LCS 140-34203/1002	102
	LCS 140-34215/1002	106

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVJ03-LCS.d

Lab ID: LCS 140-34104/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.70	85	70-130	
Carbon tetrachloride	2.00	1.88	94	70-130	
Chlorodifluoromethane	2.00	1.79	90	60-140	
Chloroform	2.00	1.71	86	70-130	
cis-1,2-Dichloroethene	2.00	2.01	101	70-130	
Dichlorodifluoromethane	2.00	2.33	117	60-140	
1,1-Dichloroethane	2.00	1.78	89	70-130	
1,2-Dichloroethane	2.00	1.62	81	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.94	97	70-130	
Methylene Chloride	2.00	1.72	86	70-130	
Methyl tert-butyl ether	2.00	1.75	88	60-140	
Naphthalene	2.00	2.60	130	60-140	
Tetrachloroethene	2.00	1.84	92	70-130	
Toluene	2.00	1.96	98	70-130	
trans-1,2-Dichloroethene	2.00	1.98	99	70-130	
1,2,4-Trichlorobenzene	2.00	2.57	128	60-140	
1,1,1-Trichloroethane	2.00	1.72	86	70-130	
1,1,2-Trichloroethane	2.00	2.00	100	70-130	
Trichloroethene	2.00	1.81	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.48	124	70-130	
1,2,4-Trimethylbenzene	2.00	2.33	116	70-130	
1,3,5-Trimethylbenzene	2.00	2.23	112	70-130	
Vinyl chloride	2.00	2.06	103	70-130	
Xylenes, Total	6.00	5.95	99	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: HJ08CCVISA-LCS.d

Lab ID: LCS 140-34203/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.73	87	70-130	
Chlorodifluoromethane	2.00	2.03	102	60-140	
Chloroform	2.00	1.82	91	70-130	
cis-1,2-Dichloroethene	2.00	1.71	86	70-130	
Dichlorodifluoromethane	2.00	1.95	98	60-140	
1,1-Dichloroethane	2.00	1.80	90	70-130	
1,2-Dichloroethane	2.00	1.78	89	70-130	
1,1-Dichloroethene	2.00	1.73	86	70-130	
Ethylbenzene	2.00	1.85	92	70-130	
Methylene Chloride	2.00	1.49	75	70-130	
Methyl tert-butyl ether	2.00	2.09	105	60-140	
Naphthalene	2.00	2.07	104	60-140	
Tetrachloroethene	2.00	1.86	93	70-130	
Toluene	2.00	1.84	92	70-130	
trans-1,2-Dichloroethene	2.00	1.79	90	70-130	
1,1,1-Trichloroethane	2.00	1.81	91	70-130	
1,1,2-Trichloroethane	2.00	1.92	96	70-130	
Trichloroethene	2.00	1.82	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	2.03	102	70-130	
1,3,5-Trimethylbenzene	2.00	1.94	97	70-130	
Vinyl chloride	2.00	2.16	108	70-130	
Xylenes, Total	6.00	5.73	96	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVJ09-LCS.d

Lab ID: LCS 140-34215/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,2,4-Trichlorobenzene	4.00	3.99	100	60-140	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GJ09MB500.D Lab Sample ID: MB 140-34215/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 10/09/2019 13:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019 11:20
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019 18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019 19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019 19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019 20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019 21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019 21:59

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08mb500.D Lab Sample ID: MB 140-34203/7

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MH Date Analyzed: 10/08/2019 13:54

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019 15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019 16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019 17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019 18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019 19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019 20:09

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: R500BJ03.D Lab Sample ID: MB 140-34104/5

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 10/03/2019 13:07

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019 09:54
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019 01:56

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBI06IC.D BFB Injection Date: 09/06/2019

Instrument ID: MG BFB Injection Time: 11:35

Analysis Batch No.: 33324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	85.2	
175	5.0 - 9.0 % of mass 174	6.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	81.7	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33324/2	GI06LVL09.D	09/06/2019	12:11
	IC 140-33324/4	GI06LVL10.D	09/06/2019	13:43
	IC 140-33324/7	GI06LVL01.D	09/06/2019	15:53
	IC 140-33324/8	GI06LVL02.D	09/06/2019	16:37
	IC 140-33324/9	GI06LVL03.D	09/06/2019	17:20
	IC 140-33324/10	GI06LVL04.D	09/06/2019	18:05
	IC 140-33324/11	GI06LVL05.D	09/06/2019	18:52
	IC 140-33324/12	GI06LVL06.D	09/06/2019	19:37
	ICIS 140-33324/13	GI06LVL07.D	09/06/2019	20:20
	IC 140-33324/14	GI06LVL08.D	09/06/2019	21:05
	ICV 140-33324/16	GI06ICV.D	09/06/2019	22:30

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBJ09.D BFB Injection Date: 10/09/2019

Instrument ID: MG BFB Injection Time: 10:42

Analysis Batch No.: 34215

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	52.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	80.0	
175	5.0 - 9.0 % of mass 174	5.4	(6.7) 1
176	95.0 - 101.0 % of mass 174	78.0	(97.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34215/2	GCCVJ09.D	10/09/2019	11:20
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019	11:20
	MB 140-34215/4	GJ09MB500.D	10/09/2019	13:47
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019	18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019	19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019	19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019	20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019	21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019	21:59

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HBFBI24.D BFB Injection Date: 09/24/2019

Instrument ID: MH BFB Injection Time: 20:48

Analysis Batch No.: 33708

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.3	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	92.6	
175	5.0 - 9.0 % of mass 174	6.5	(7.0) 1
176	95.0 - 101.0 % of mass 174	89.6	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33708/3	HI24ICL9.D	09/24/2019	22:09
	IC 140-33708/5	HI24ICL10.D	09/24/2019	23:55
	IC 140-33708/8	HI24ICL1.D	09/25/2019	02:33
	IC 140-33708/9	HI24ICL2.D	09/25/2019	03:25
	IC 140-33708/10	HI24ICL3.D	09/25/2019	04:18
	IC 140-33708/11	HI24ICL4.D	09/25/2019	05:11
	IC 140-33708/12	HI24ICL5.D	09/25/2019	06:04
	IC 140-33708/13	HI24ICL6.D	09/25/2019	06:59
	ICIS 140-33708/14	HI24ICL7.D	09/25/2019	07:53
	IC 140-33708/15	HI24ICL8.D	09/25/2019	08:47
	ICV 140-33708/17	HI24ICV.D	09/25/2019	10:36

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08BFBA.D BFB Injection Date: 10/08/2019

Instrument ID: MH BFB Injection Time: 10:57

Analysis Batch No.: 34203

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	102.7	
175	5.0 - 9.0 % of mass 174	7.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	100.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.4	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34203/2	HJ08CCVISA.D	10/08/2019	11:25
	LCS 140-34203/1002	HJ08CCVISA-LCS.d	10/08/2019	11:25
	MB 140-34203/7	HJ08mb500.D	10/08/2019	13:54
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019	15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019	16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019	17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019	18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019	19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019	20:09

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBI03IC.D BFB Injection Date: 09/03/2019

Instrument ID: MR BFB Injection Time: 09:57

Analysis Batch No.: 33257

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	92.7	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	88.9	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33257/2	RI03IC09.D	09/03/2019	10:26
	IC 140-33257/4	RI03IC10.D	09/03/2019	12:02
	IC 140-33257/7	RI03IC01.D	09/03/2019	14:26
	IC 140-33257/8	RI03IC02.D	09/03/2019	15:13
	IC 140-33257/9	RI03IC03.D	09/03/2019	16:02
	IC 140-33257/10	RI03IC04.D	09/03/2019	16:51
	IC 140-33257/11	RI03IC05.D	09/03/2019	17:39
	IC 140-33257/12	RI03IC06.D	09/03/2019	18:27
	IC 140-33257/14	RI03IC08.D	09/03/2019	20:02
	ICV 140-33257/18	RI03ICV.D	09/03/2019	23:14
	ICIS 140-33257/23	RI03IC07R.D	09/04/2019	09:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBJ03.D BFB Injection Date: 10/03/2019

Instrument ID: MR BFB Injection Time: 09:26

Analysis Batch No.: 34104

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	93.4	
175	5.0 - 9.0 % of mass 174	6.4	(6.8) 1
176	95.0 - 101.0 % of mass 174	90.4	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34104/2	RCCVJ03.D	10/03/2019	09:54
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019	09:54
	MB 140-34104/5	R500BJ03.D	10/03/2019	13:07
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019	01:56

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33324/13 Date Analyzed: 09/06/2019 20:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GI06LVL07.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		303435	9.07	1680639	11.24	1481798	15.94
UPPER LIMIT		424809	9.40	2352895	11.57	2074517	16.27
LOWER LIMIT		182061	8.74	1008383	10.91	889079	15.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33324/16		306320	9.08	1708663	11.25	1486245	15.94

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34215/2 Date Analyzed: 10/09/2019 11:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVJ09.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		200883	9.06	1190950	11.23	1031378	15.92
UPPER LIMIT		281236	9.39	1667330	11.56	1443929	16.25
LOWER LIMIT		120530	8.73	714570	10.90	618827	15.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34215/1002		200883	9.06	1190950	11.23	1031378	15.92
MB 140-34215/4		200350	9.05	1179056	11.23	1039594	15.92
140-16893-2	IA-015-A-27-RS	191848	9.07	1101836	11.23	1025167	15.92
140-16893-3	IA-168-A-27-RS	211679	9.07	1284918	11.23	1113463	15.92
140-16893-4	IA-021-A-27-RS	198924	9.05	1201549	11.23	1030165	15.92
140-16893-5	IA-136-A-27-RS	201195	9.06	1220779	11.23	1078859	15.92
140-16893-6	IA-117-A-27-RS	200487	9.06	1180298	11.23	1093432	15.92
140-16893-7	IA-079-A-27-RS	184954	9.05	1098906	11.23	1033768	15.92

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33708/14 Date Analyzed: 09/25/2019 07:53

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HI24ICL7.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		342797	8.61	1766041	10.82	1461250	15.60
UPPER LIMIT		479916	8.94	2472457	11.15	2045750	15.93
LOWER LIMIT		205678	8.28	1059625	10.49	876750	15.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33708/17		331168	8.60	1738771	10.82	1436957	15.60

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34203/2 Date Analyzed: 10/08/2019 11:25

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HJ08CCVISA.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212050	8.60	1098033	10.81	875648	15.59
UPPER LIMIT		296870	8.93	1537246	11.14	1225907	15.92
LOWER LIMIT		127230	8.27	658820	10.48	525389	15.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34203/1002		212050	8.60	1098033	10.81	875648	15.59
MB 140-34203/7		211459	8.60	1098093	10.81	829172	15.59
140-16893-2	IA-015-A-27-RS	172804	8.61	897103	10.82	707375	15.59
140-16893-3	IA-168-A-27-RS	172867	8.62	872183	10.82	682169	15.59
140-16893-4	IA-021-A-27-RS	175850	8.61	885161	10.81	665564	15.59
140-16893-5	IA-136-A-27-RS	171262	8.61	867656	10.82	693298	15.59
140-16893-6	IA-117-A-27-RS	175455	8.61	883566	10.82	722851	15.59
140-16893-7	IA-079-A-27-RS	174264	8.61	881823	10.82	690713	15.59

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33257/23 Date Analyzed: 09/04/2019 09:04

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RI03IC07R.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		371029	8.53	2202831	10.77	1824871	15.57
UPPER LIMIT		519441	8.86	3083963	11.10	2554819	15.90
LOWER LIMIT		222617	8.20	1321699	10.44	1094923	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33257/18		487104	8.53	2786219	10.77	2417964	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34104/2 Date Analyzed: 10/03/2019 09:54

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVJ03.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		317552	8.52	1834746	10.75	1448340	15.55
UPPER LIMIT		444573	8.85	2568644	11.08	2027676	15.88
LOWER LIMIT		190531	8.19	1100848	10.42	869004	15.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34104/1002		317552	8.52	1834746	10.75	1448340	15.55
MB 140-34104/5		355321	8.52	1932990	10.75	1453188	15.55
140-16893-1	IA-018-A-27-RS	426440	8.52	2443133	10.75	1926577	15.55

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.34		0.080	0.022
67-66-3	Chloroform	119.38	0.087		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.24		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	0.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.030	J	0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.016	J	0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.31		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.12		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.61	B	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	1.8		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.052	J	0.080	0.0070
108-88-3	Toluene	92.14	0.89		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.46		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.037	J	0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.041	J	0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	0.52		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.78		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	0.47	J	0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	1.2		0.28	0.078
67-66-3	Chloroform	119.38	0.43		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	0.95		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	1.1		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	0.12	J	0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	0.065	J	0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	1.2		0.32	0.032
100-41-4	Ethylbenzene	106.17	0.51		0.35	0.056
75-09-2	Methylene Chloride	84.93	2.1	B	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	9.2		0.21	0.40
127-18-4	Tetrachloroethene	165.83	0.35	J	0.54	0.047
108-88-3	Toluene	92.14	3.3		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	2.5		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.59		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	J	0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	2.3		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D
Lims ID: 140-16893-A-1
Client ID: IA-018-A-27-RS
Sample Type: Client
Inject. Date: 04-Oct-2019 01:56:30 ALS Bottle#: 10 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013261-019
Misc. Info.: 140-16893-a-1
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Oct-2019 11:18:08 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0331

First Level Reviewer: tajh Date: 04-Oct-2019 11:07:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.517	8.522	-0.005	91	426440	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.749	0.000	93	2443133	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.554	0.000	85	1926577	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.199	17.215	-0.016	96	1117064	3.92	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	96	96233	0.3401	
8 Dichlorodifluoromethane	85	3.481	3.480	0.001	97	54968	0.2285	
27 1,1-Dichloroethene	96	5.600	5.600	0.000	94	42760	0.3084	
31 Methylene Chloride	84	5.956	5.950	0.006	96	100445	0.6105	
37 1,1-Dichloroethane	63	7.201	7.185	0.016	43	7683	0.0300	
42 cis-1,2-Dichloroethene	96	8.188	8.183	0.006	85	37254	0.2404	
44 Chloroform	83	8.533	8.528	0.005	29	27006	0.0874	
47 1,1,1-Trichloroethane	97	9.574	9.563	0.011	55	7518	0.0238	
48 1,2-Dichloroethane	62	9.671	9.682	-0.011	21	3068	0.0159	
49 Benzene	78	10.183	10.178	0.005	94	115528	0.2452	
52 Carbon tetrachloride	117	10.194	10.205	-0.011	76	23354	0.0750	
58 Trichloroethene	130	11.477	11.477	0.000	95	92992	0.4586	
67 Toluene	91	13.564	13.569	-0.005	93	417350	0.8863	
73 Tetrachloroethene	129	14.718	14.723	-0.005	89	9801	0.0517	
76 Ethylbenzene	91	15.888	15.894	-0.006	97	74314	0.1164	
77 m-Xylene & p-Xylene	91	16.050	16.050	0.000	96	185853	0.3785	
80 o-Xylene	91	16.579	16.578	0.001	99	71068	0.1426	
87 1,3,5-Trimethylbenzene	120	17.959	17.980	-0.021	90	12067	0.0405	
92 1,2,4-Trimethylbenzene	105	18.417	18.433	-0.016	96	75109	0.1191	
98 1,2,3-Trimethylbenzene	105	18.908	18.924	-0.016	95	22834	0.0369	
109 Naphthalene	128	21.049	21.054	-0.005	100	1511341	1.75	
S 116 Xylenes, Total	100				0		0.5212	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

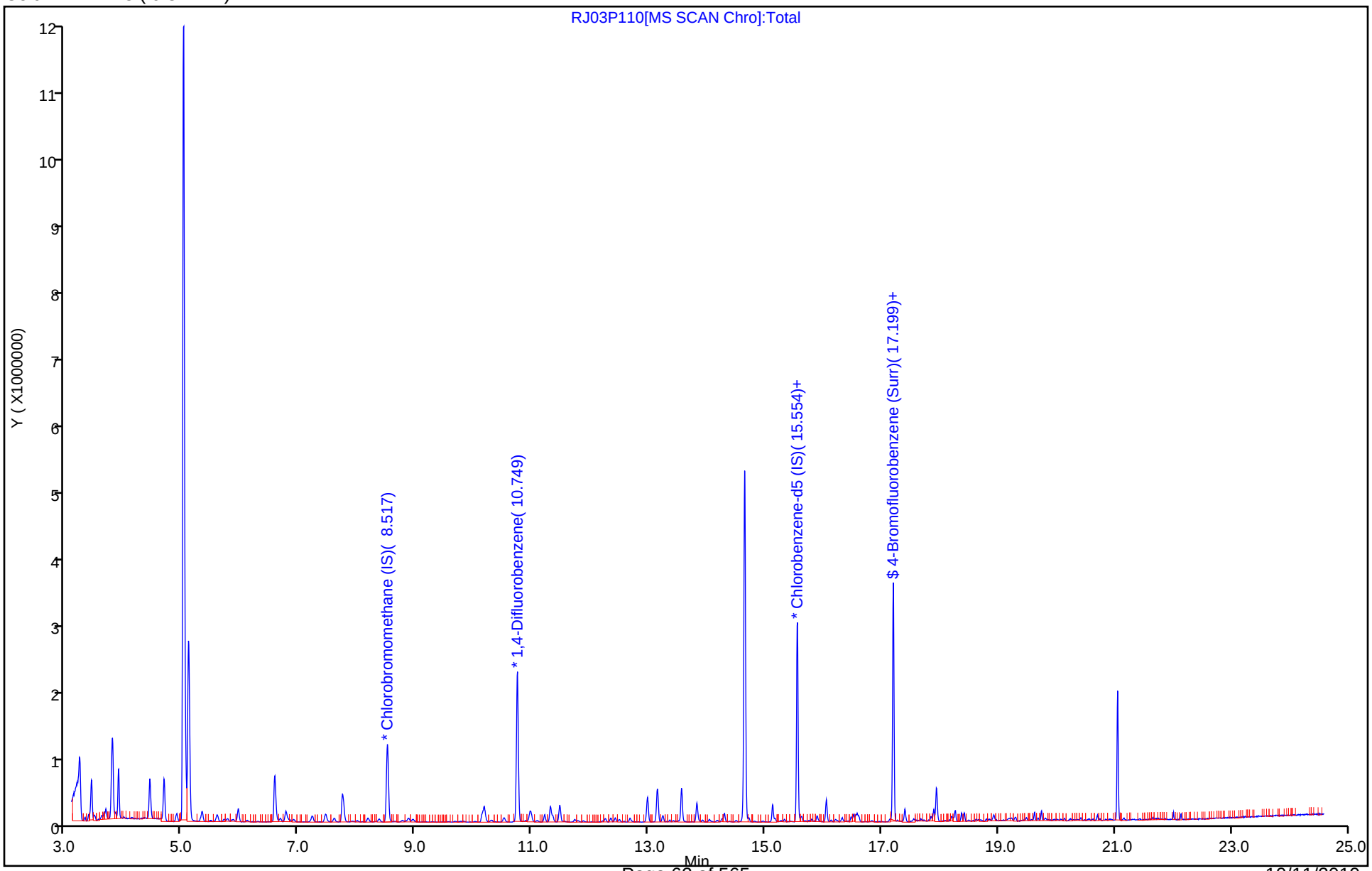
Report Date: 04-Oct-2019 11:19:45 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1	Worklist Smp#:	19
Client ID:	IA-018-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D				
Lims ID:	140-16893-A-1				
Client ID:	IA-018-A-27-RS				
Sample Type:	Client				
Inject. Date:	04-Oct-2019 01:56:30	ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013261-019				
Misc. Info.:	140-16893-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Oct-2019 11:18:08	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0331				
First Level Reviewer: tajh		Date:	04-Oct-2019 11:07:24		

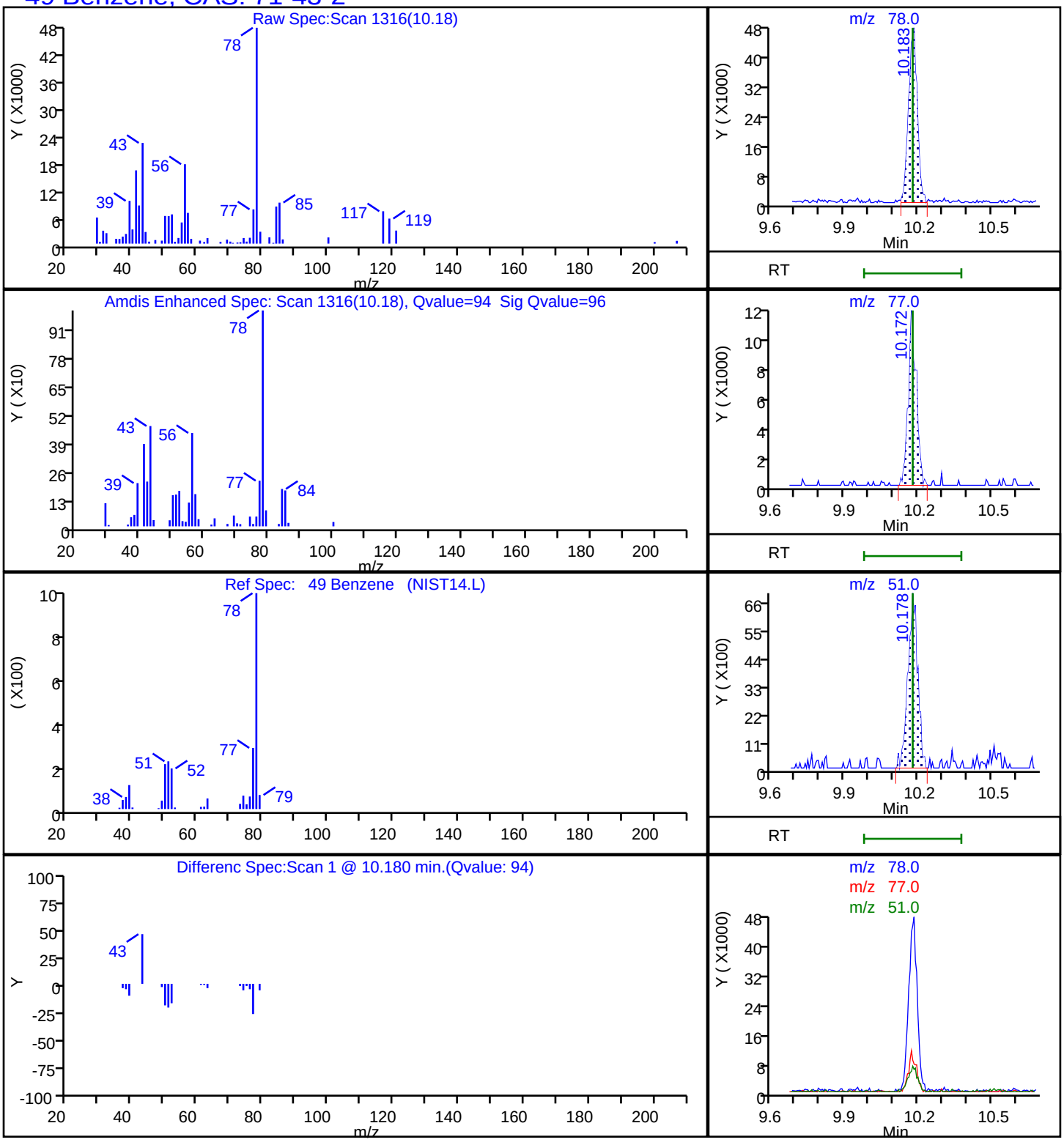
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.92	98.10

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

49 Benzene, CAS: 71-43-2

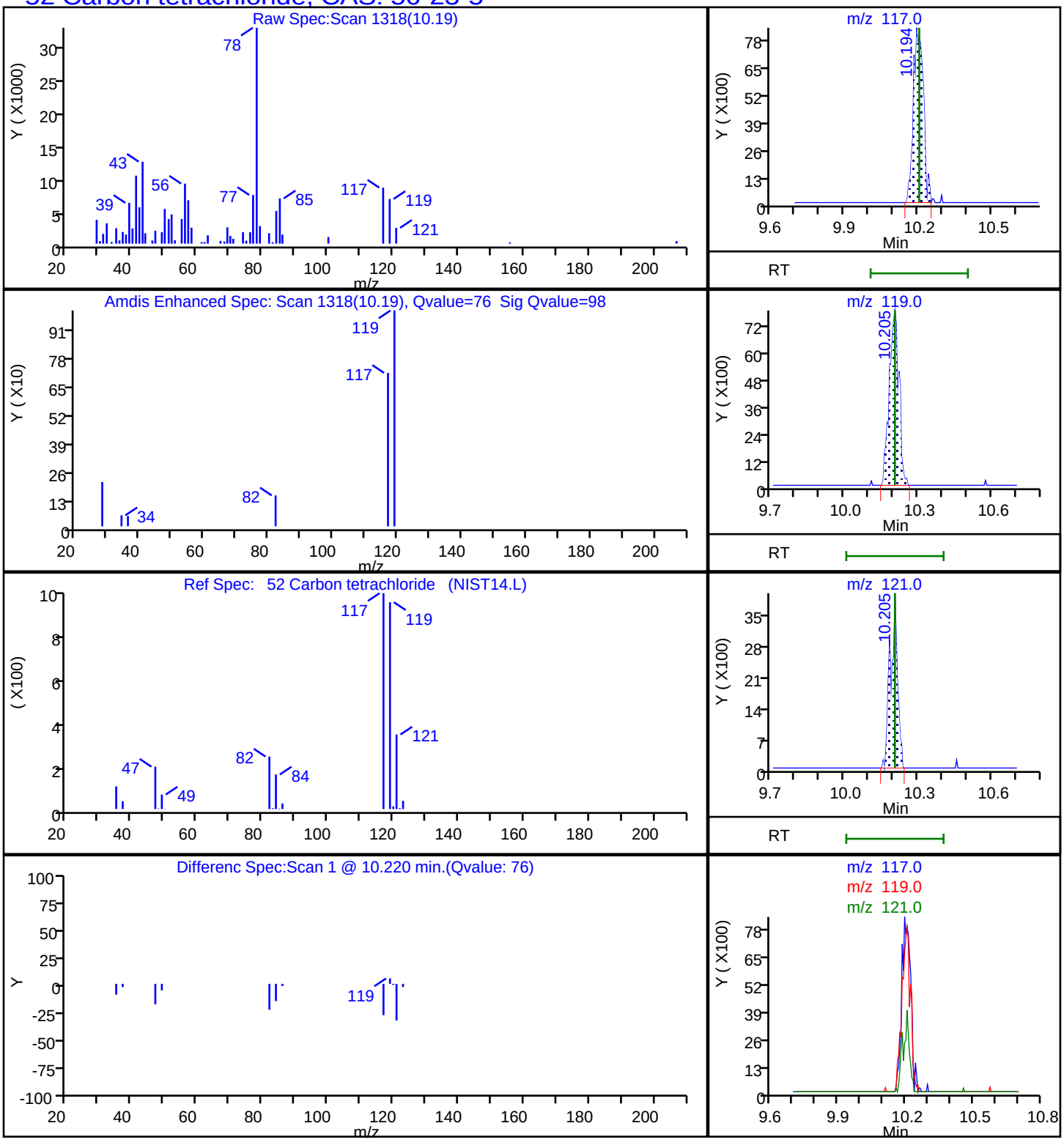


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

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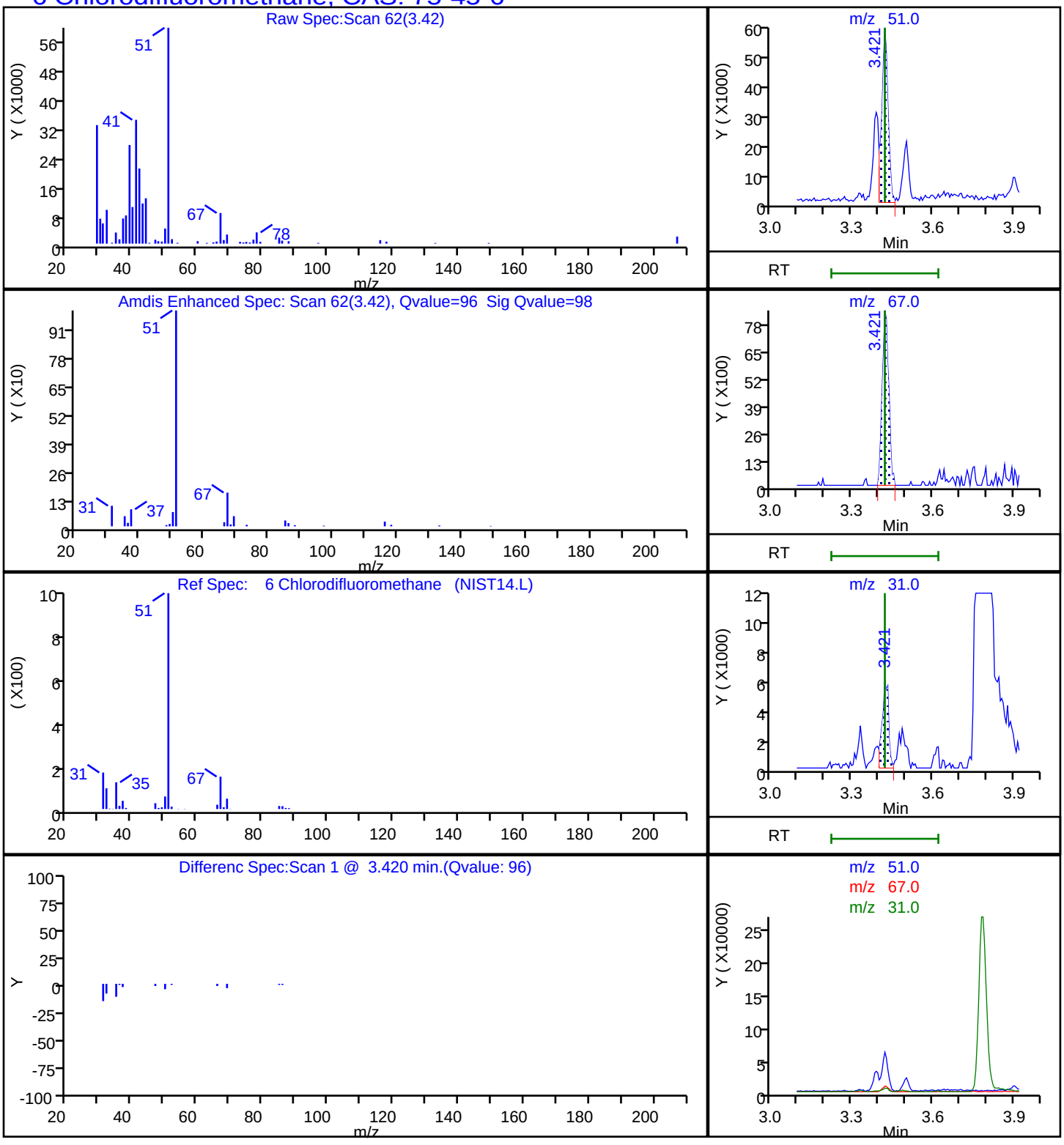
Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

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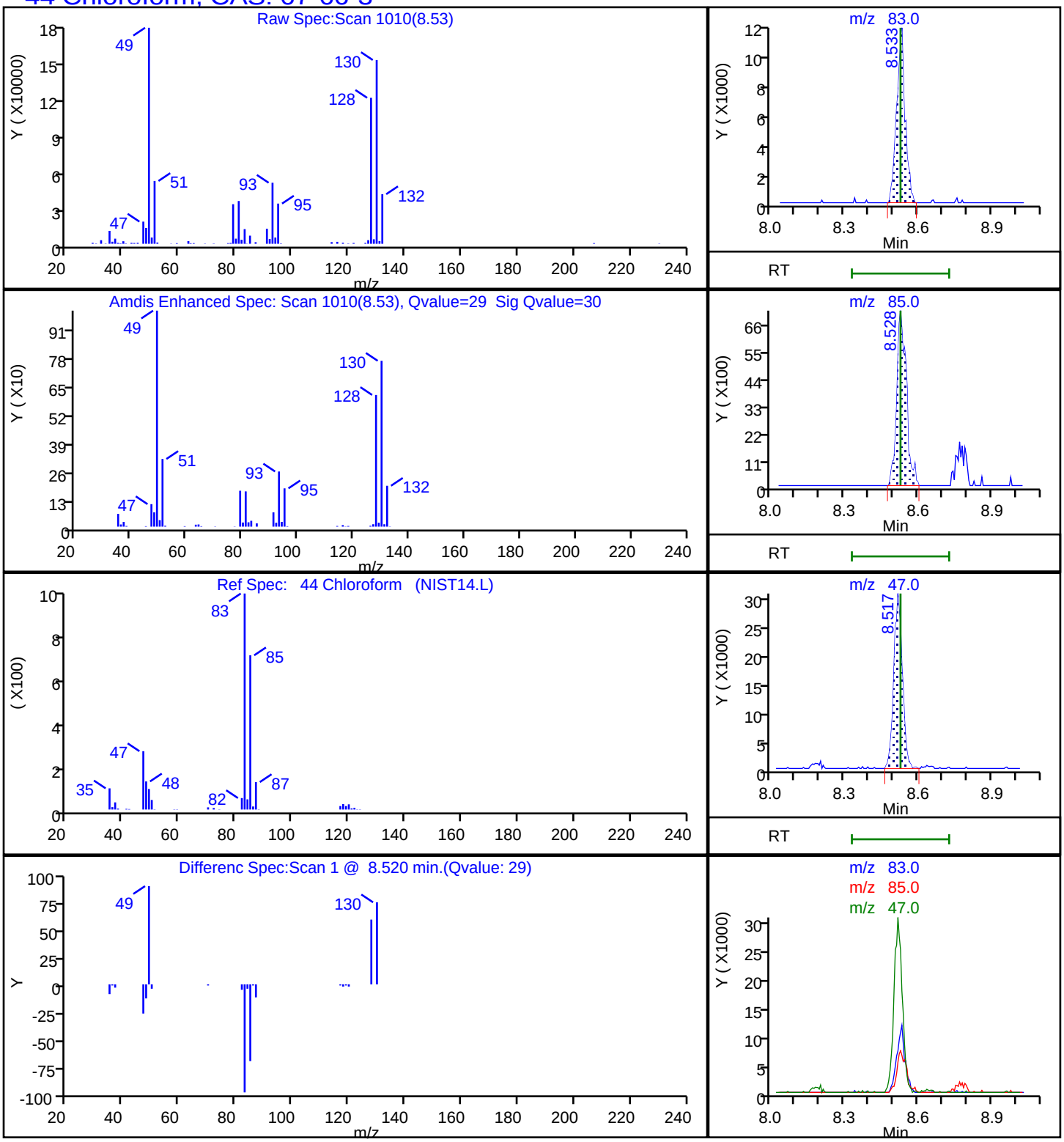
Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

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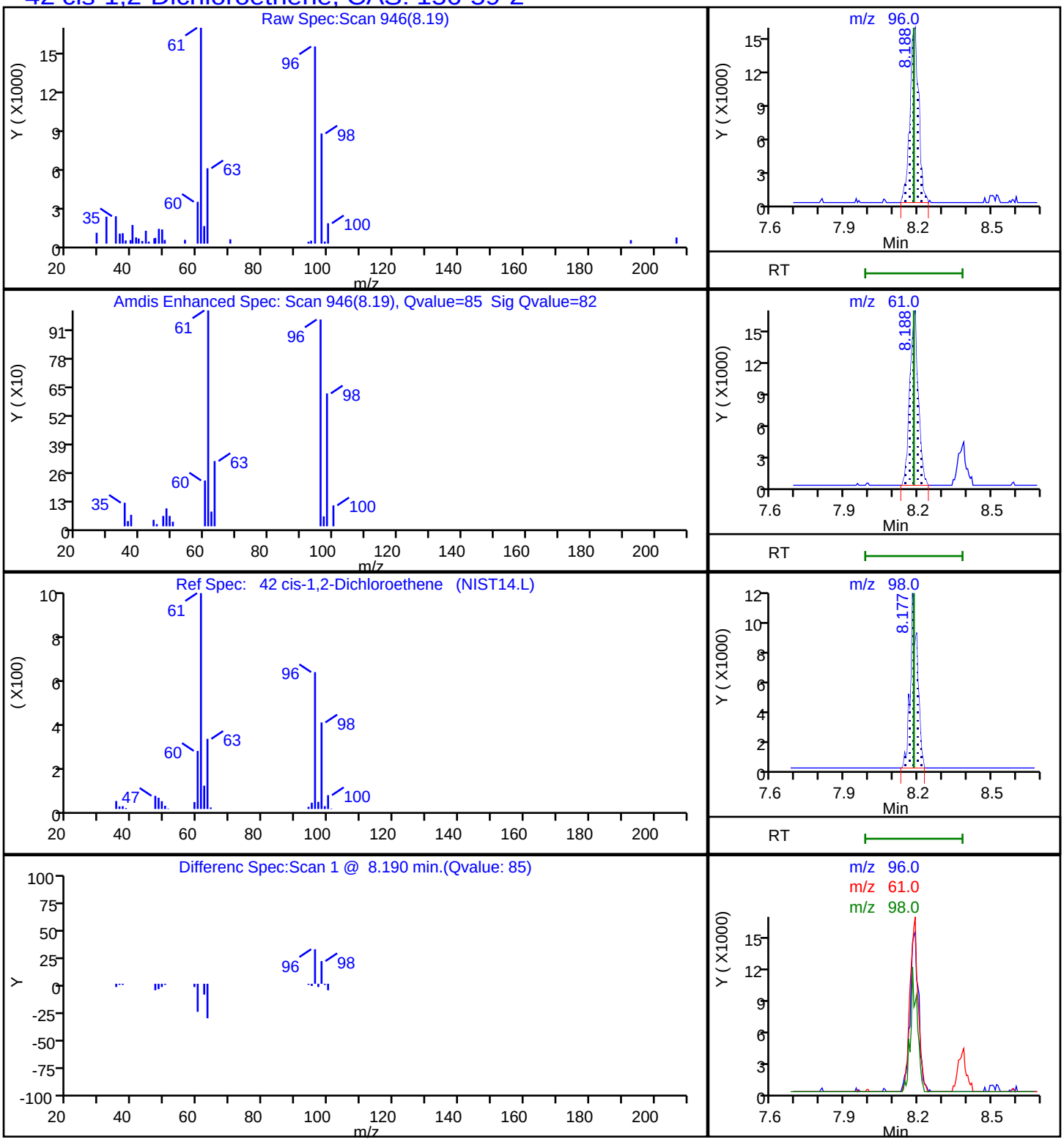
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2



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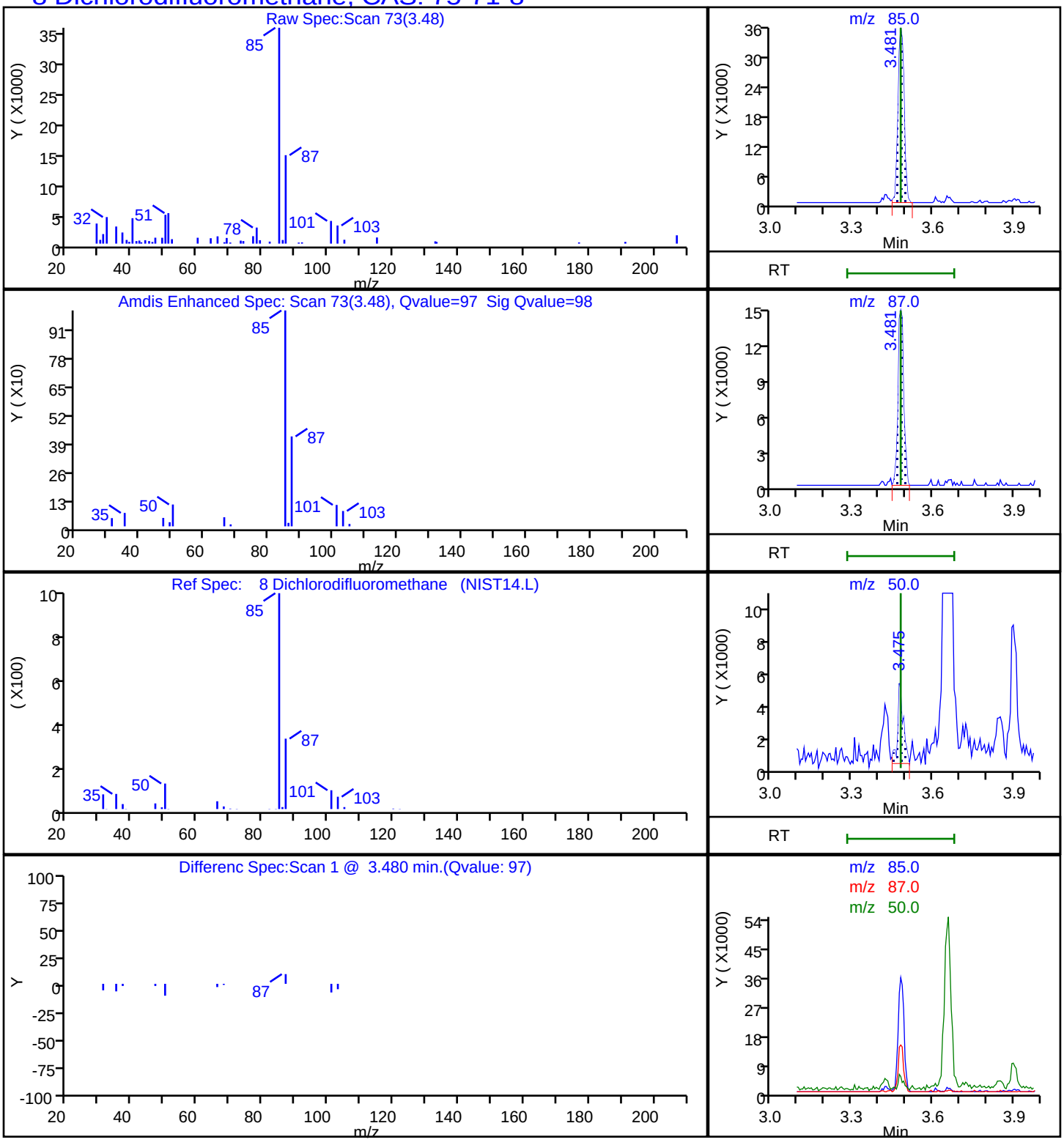
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

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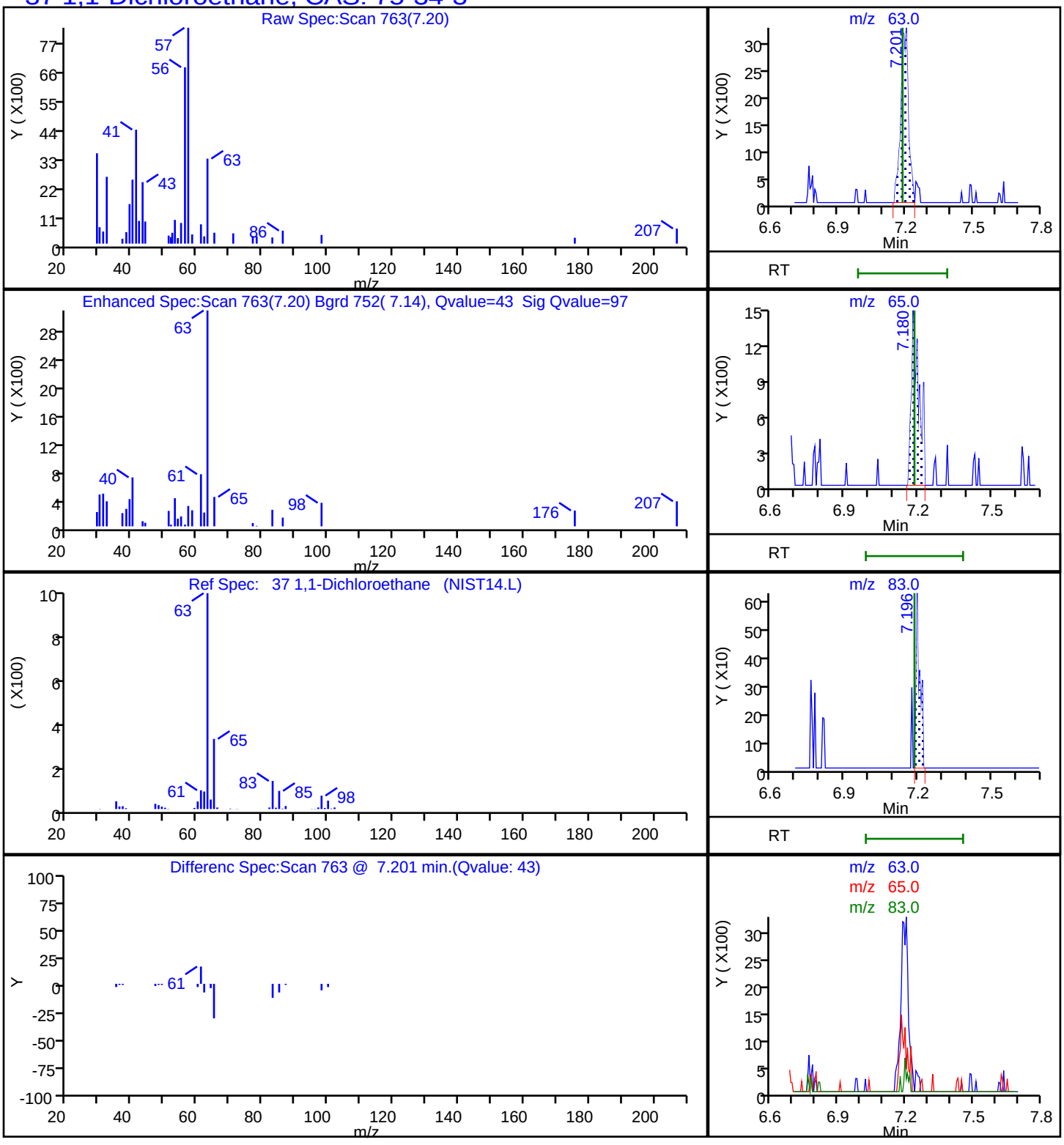
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date: 04-Oct-2019 01:56:30 Instrument ID: MR

Lims ID: 140-16893-A-1 Lab Sample ID: 140-16893-1

Client ID: IA-018-A-27-RS

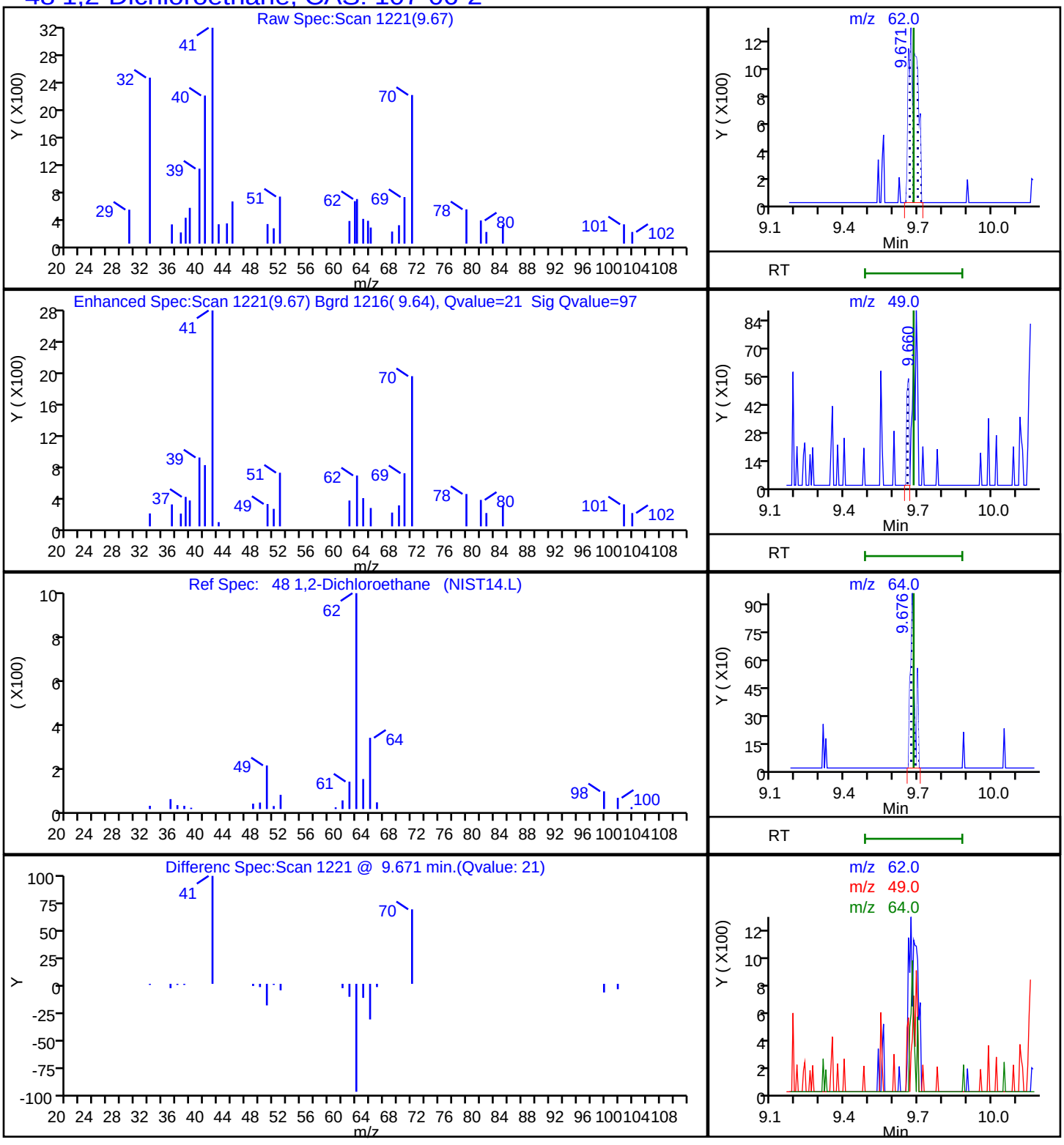
Operator ID: ALS Bottle#: 10 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2



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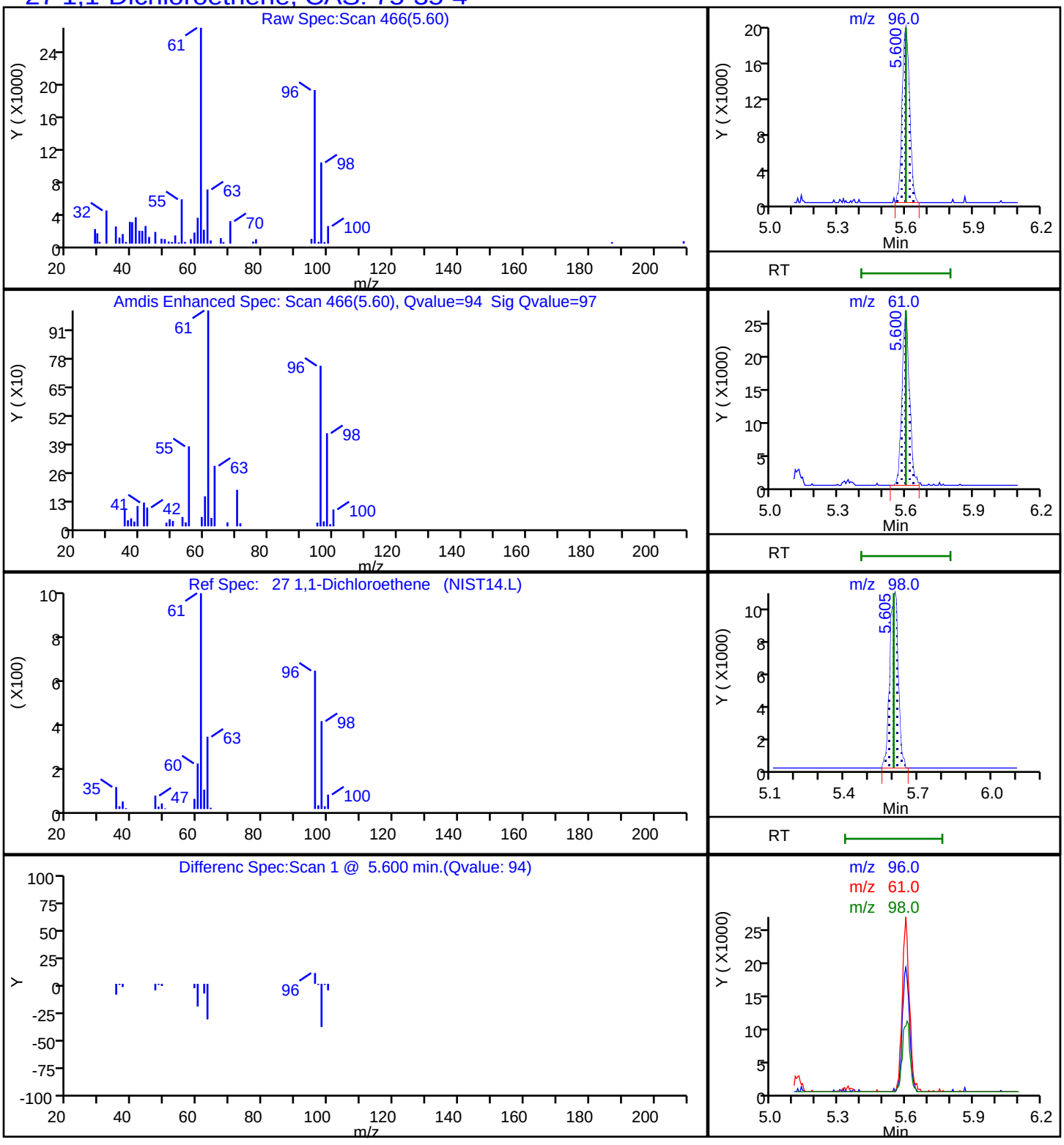
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



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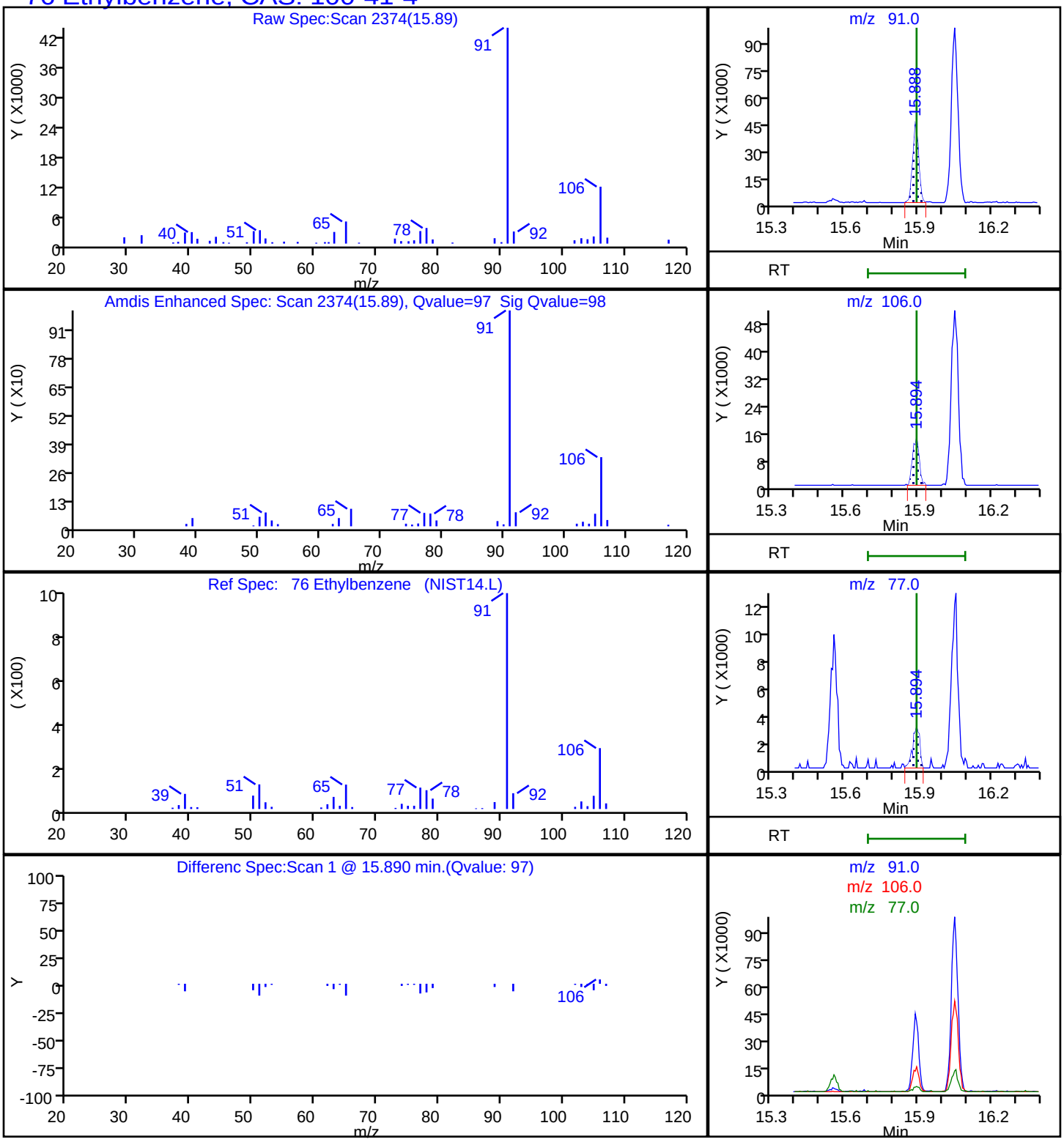
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4



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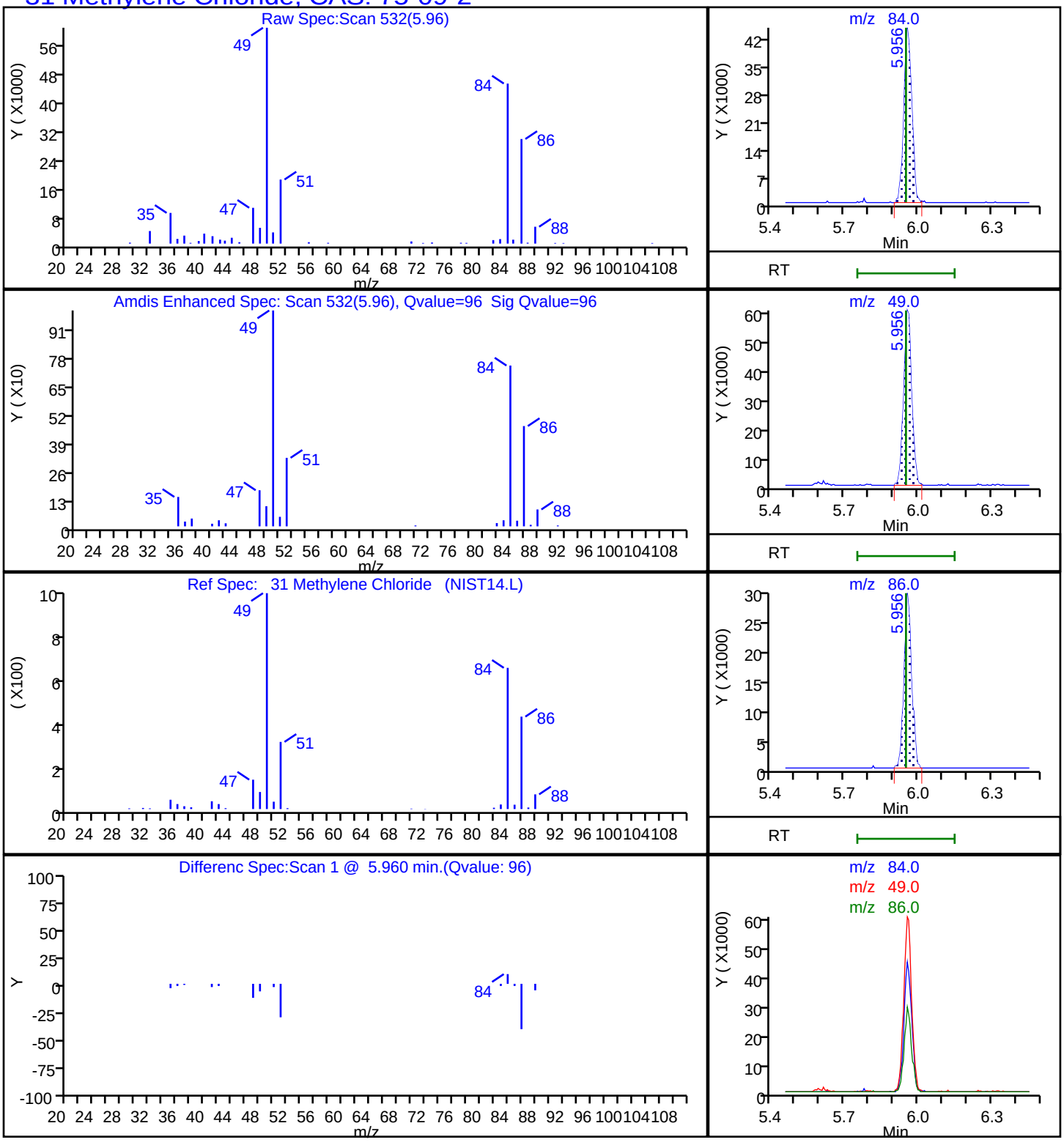
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



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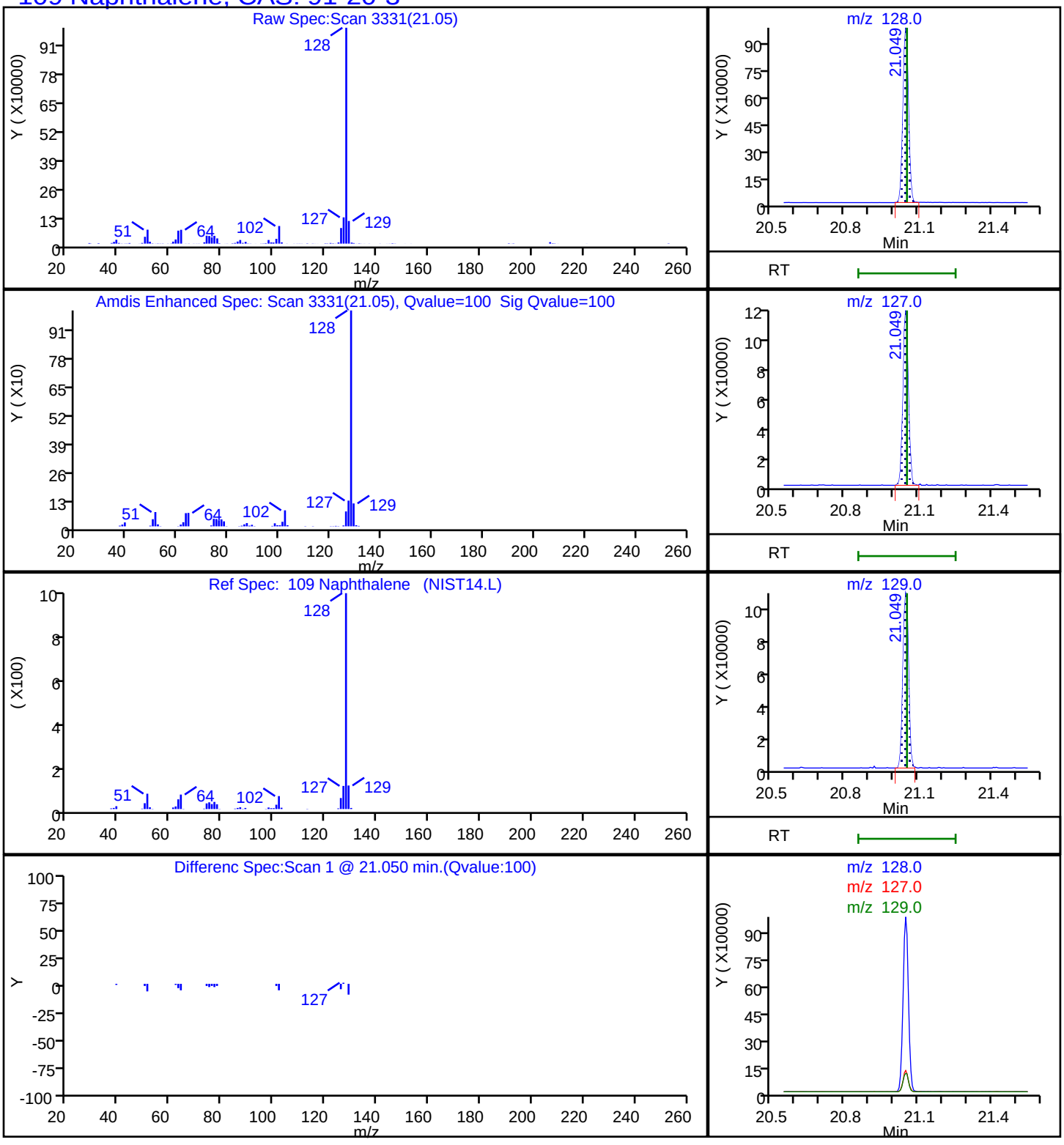
Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

109 Naphthalene, CAS: 91-20-3



Report Date: 04-Oct-2019 11:19:46 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

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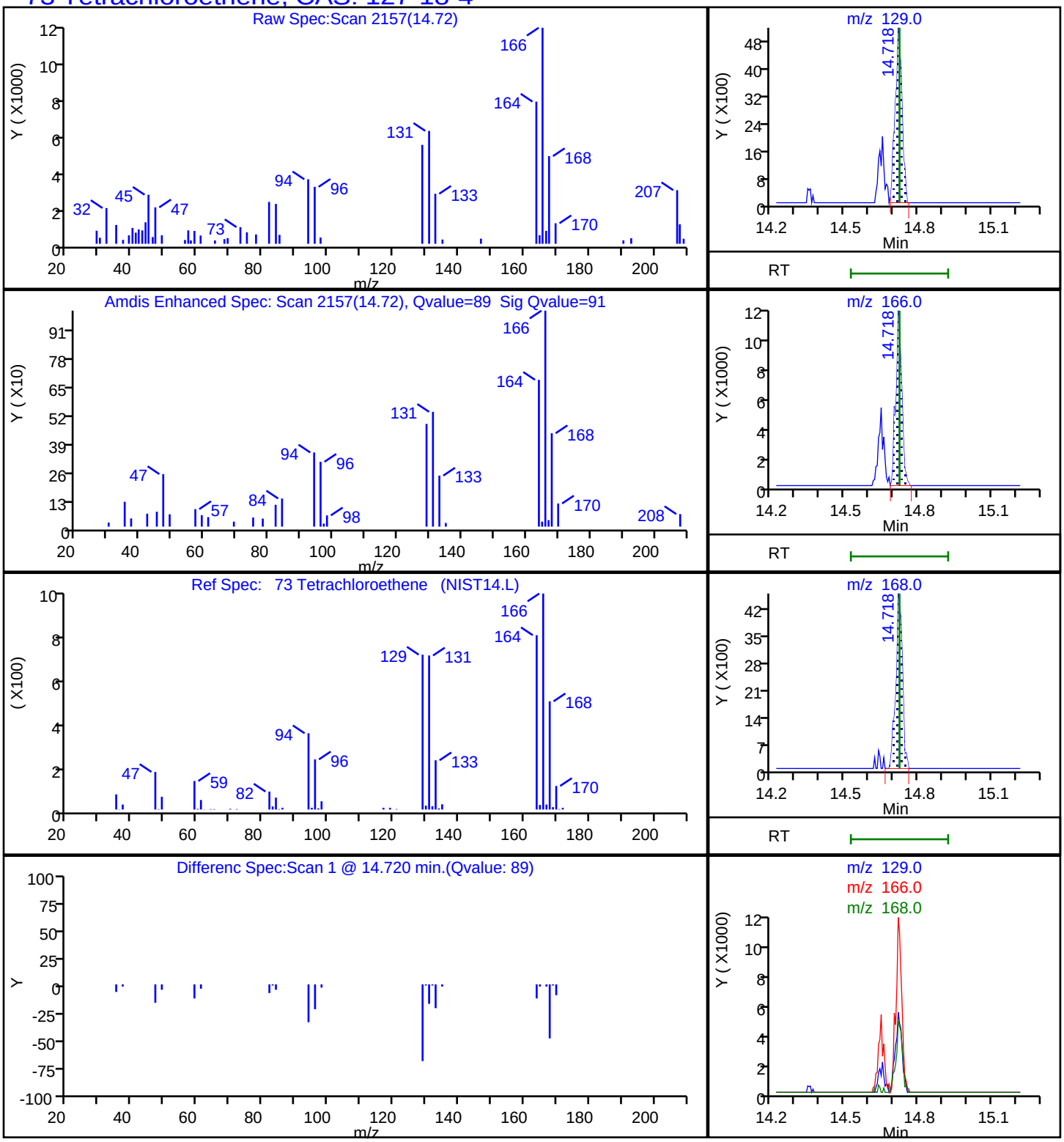
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

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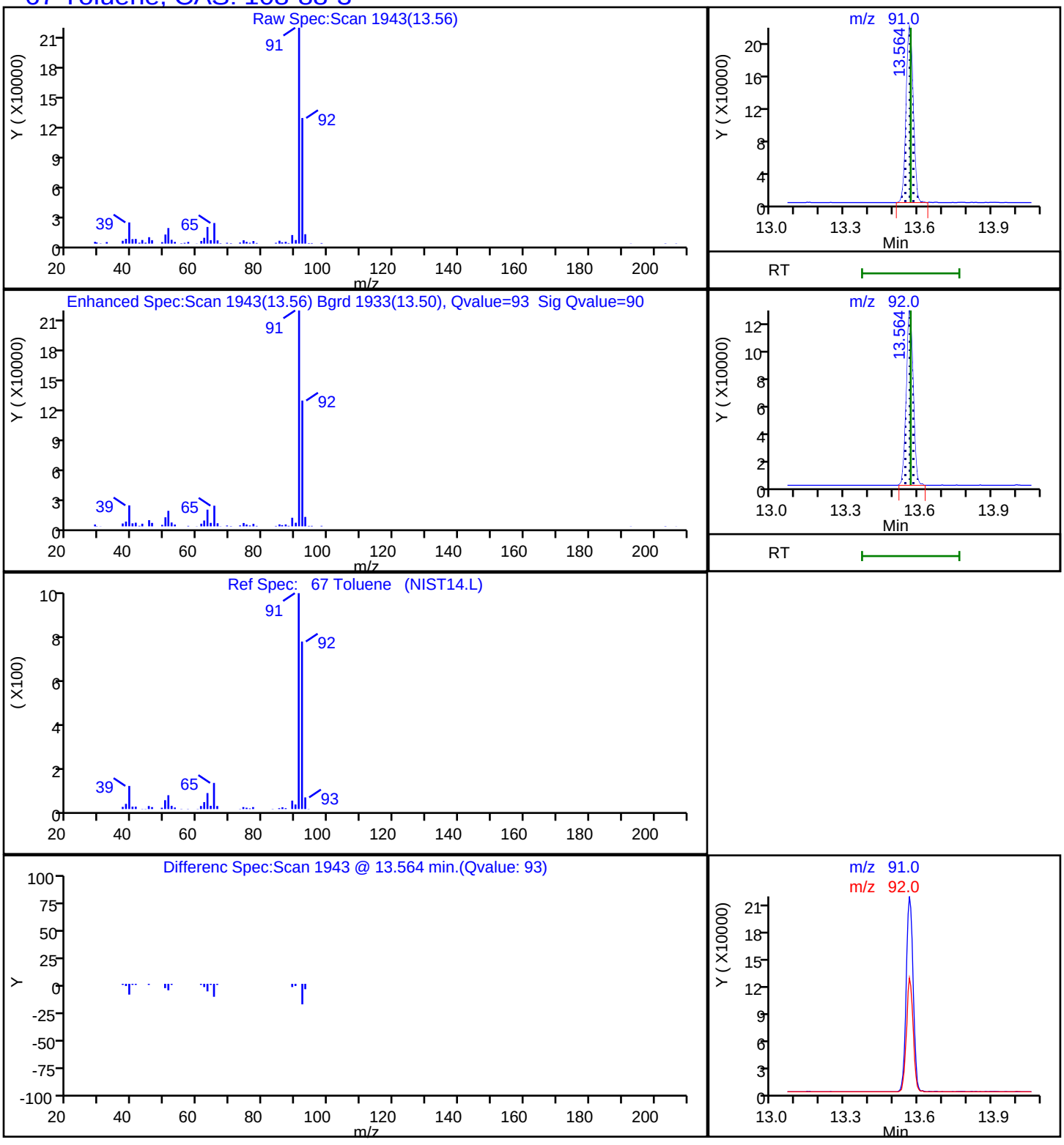
Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

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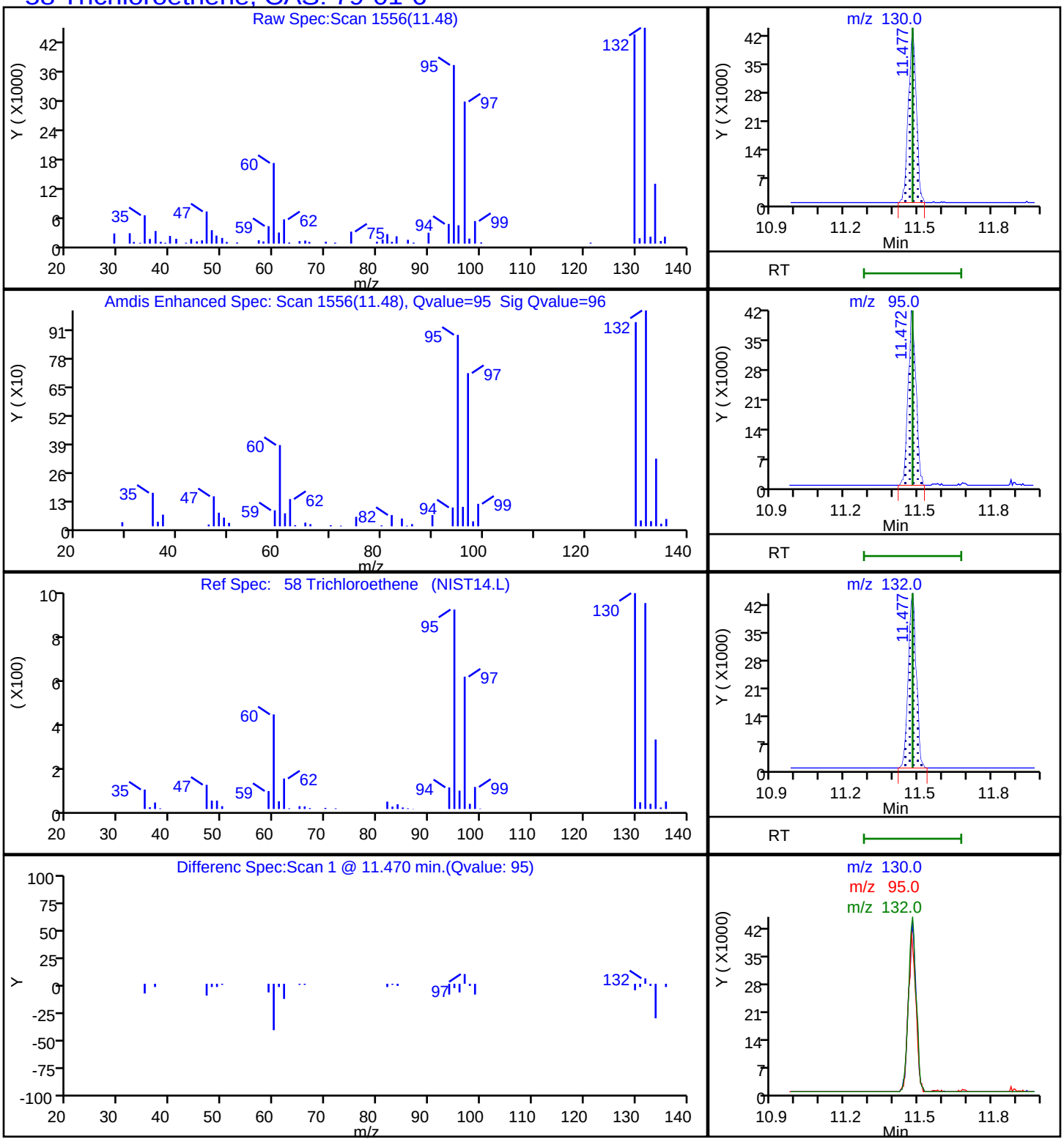
Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

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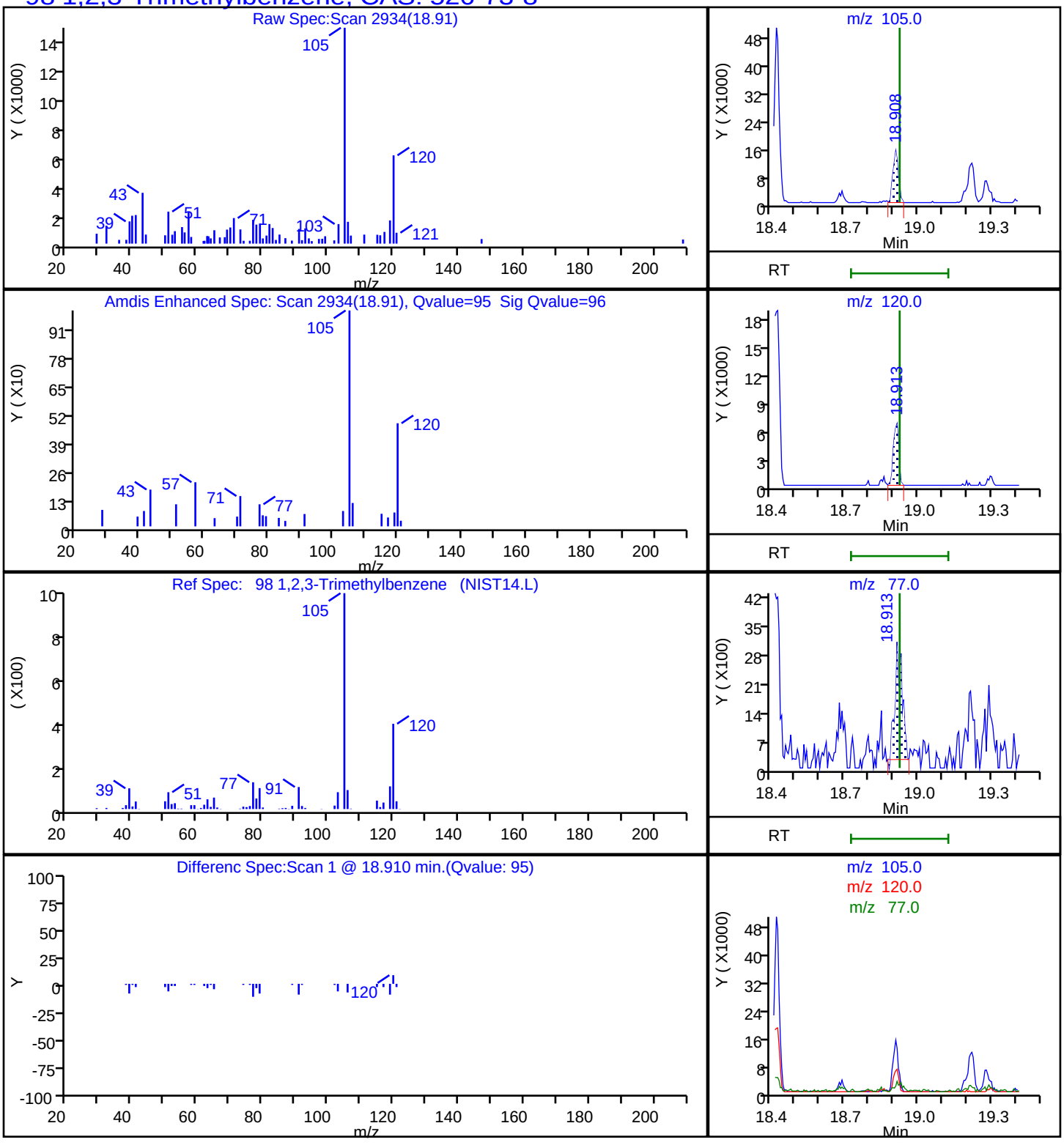
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1		
Client ID:	IA-018-A-27-RS				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

98 1,2,3-Trimethylbenzene, CAS: 526-73-8



Eurofins TestAmerica, Knoxville

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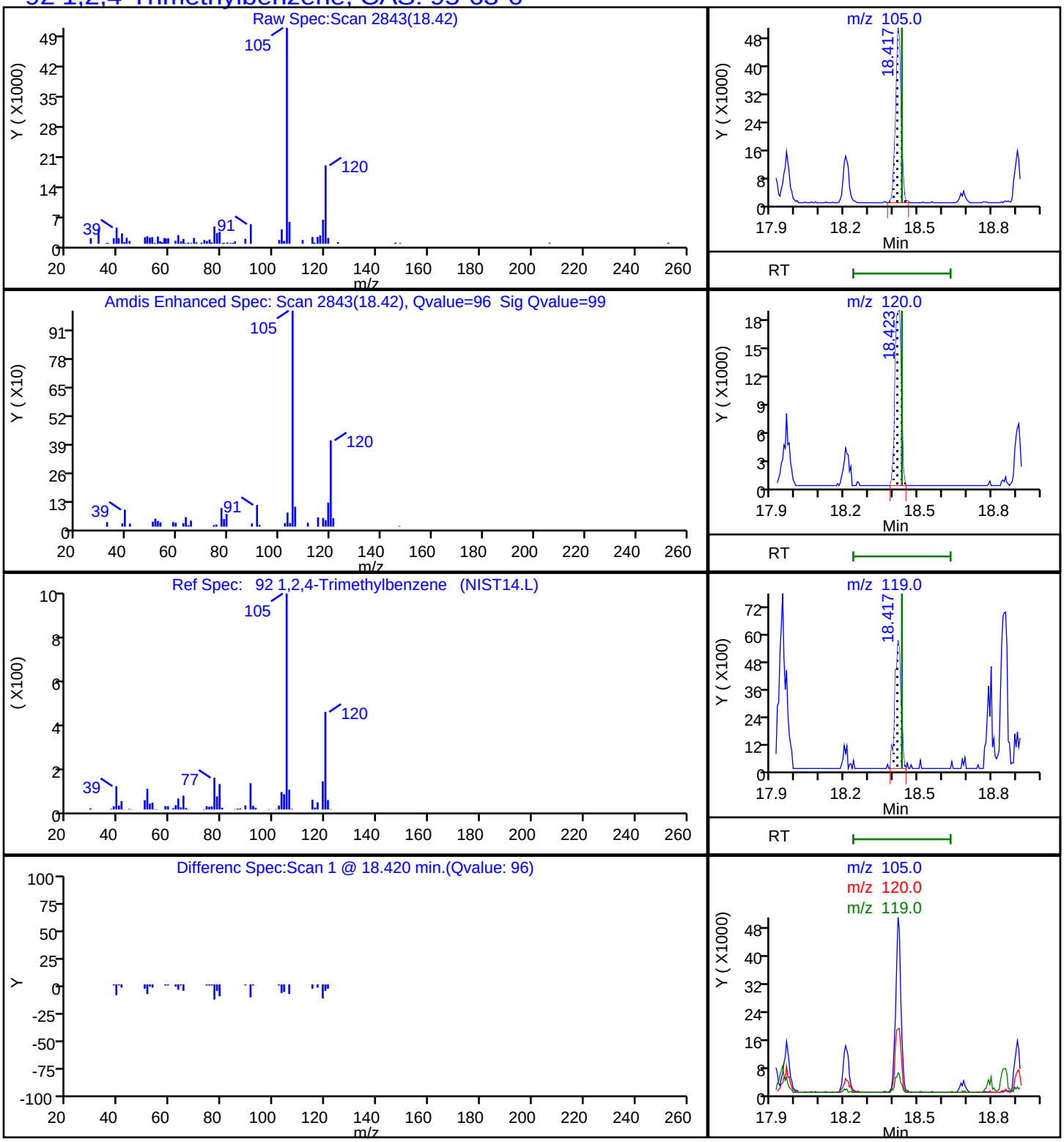
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1		
Client ID:	IA-018-A-27-RS				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date: 04-Oct-2019 01:56:30 Instrument ID: MR

Lims ID: 140-16893-A-1 Lab Sample ID: 140-16893-1

Client ID: IA-018-A-27-RS

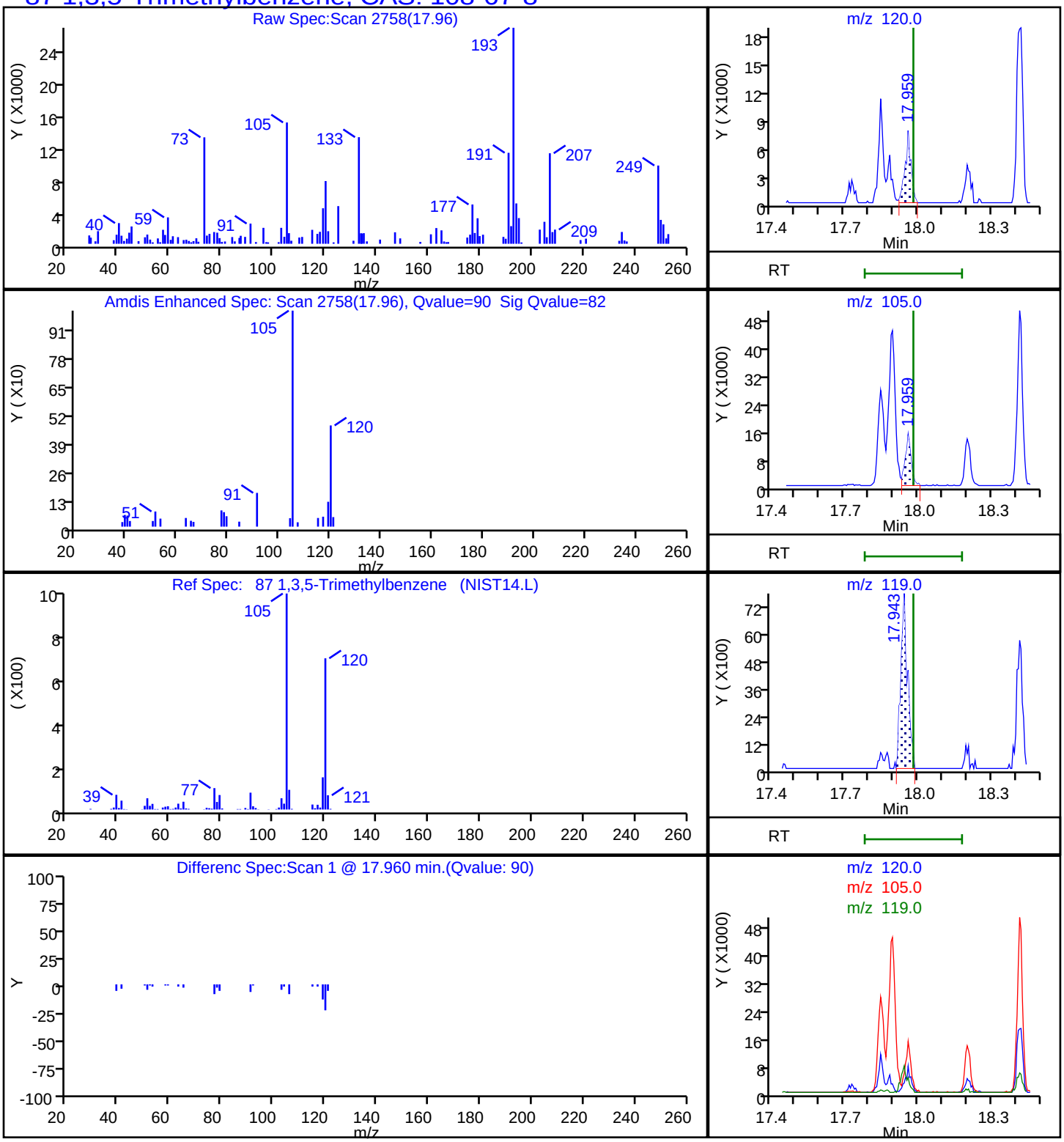
Operator ID: ALS Bottle#: 10 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

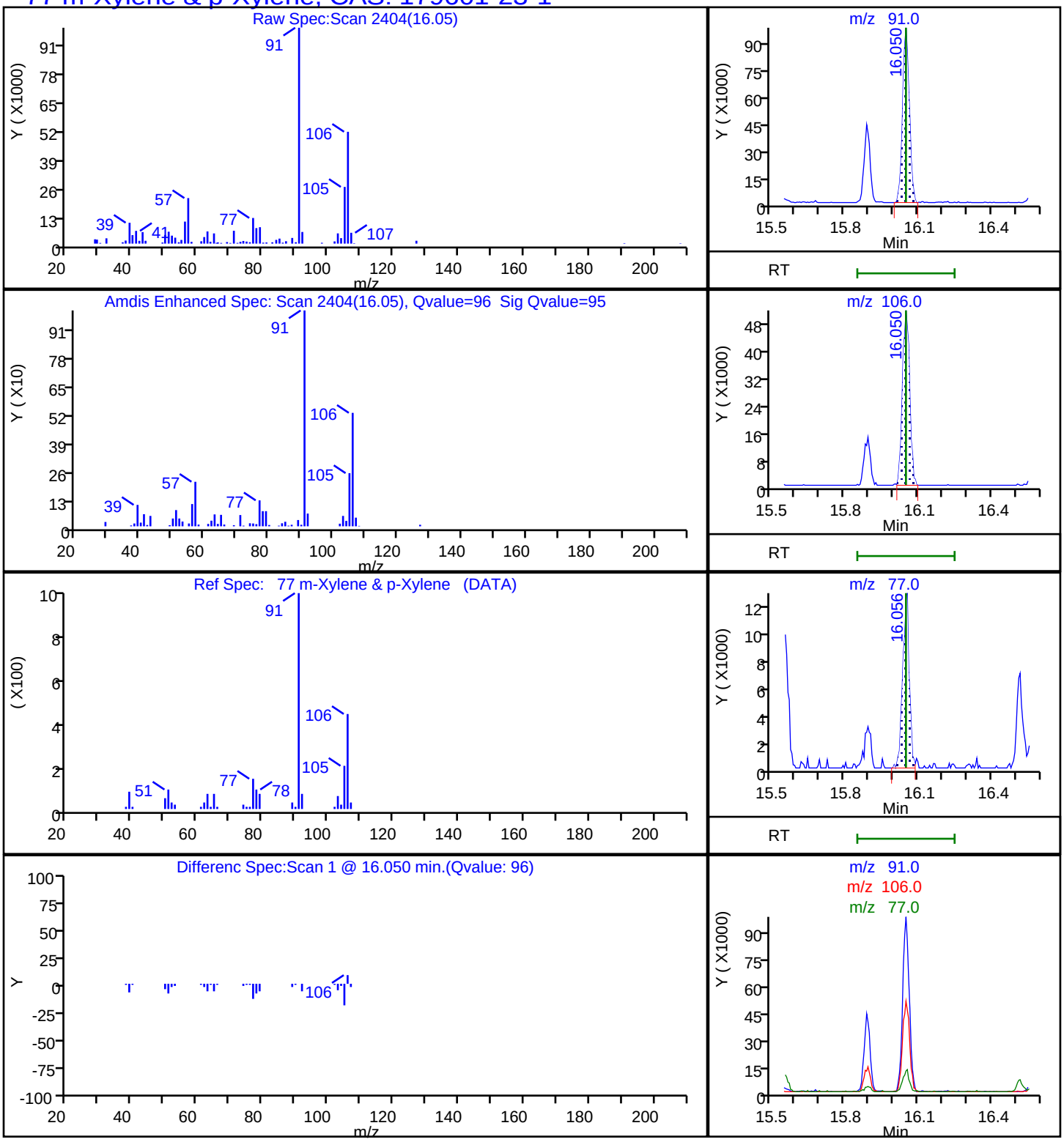
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D				
Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR		
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1		
Client ID:	IA-018-A-27-RS				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

77 m-Xylene & p-Xylene, CAS: 179601-23-1

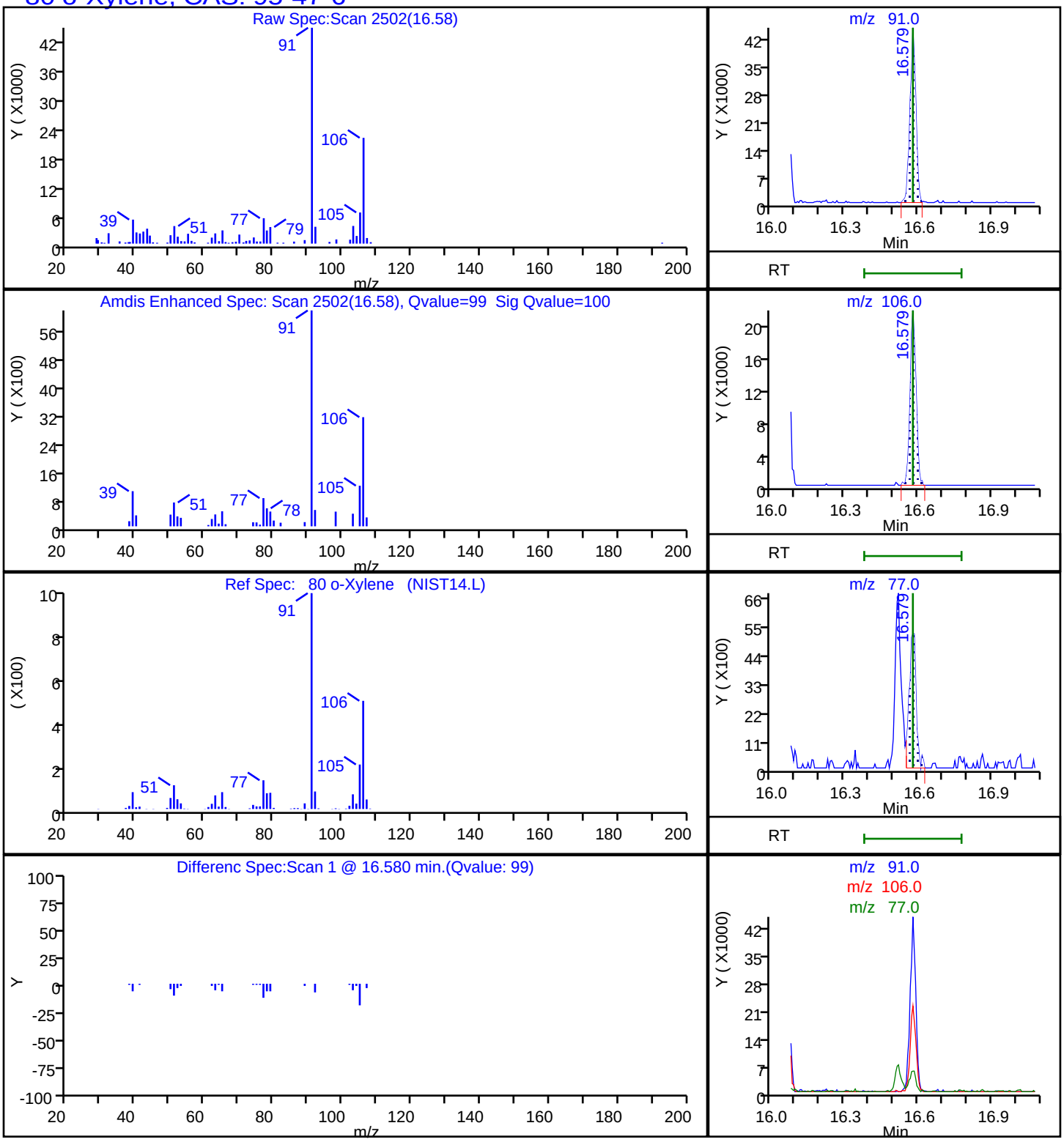


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D

Injection Date:	04-Oct-2019 01:56:30	Instrument ID:	MR
Lims ID:	140-16893-A-1	Lab Sample ID:	140-16893-1
Client ID:	IA-018-A-27-RS		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.062	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.58		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.059	J	0.40	0.035
108-88-3	Toluene	92.14	6.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.99		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.88	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.1		1.4	0.39
67-66-3	Chloroform	119.38	0.43	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.82	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.4	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.40	J	2.7	0.24
108-88-3	Toluene	92.14	24		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D
Lims ID: 140-16893-A-2
Client ID: IA-015-A-27-RS
Sample Type: Client
Inject. Date: 08-Oct-2019 15:43:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-008
Misc. Info.: 140-16893-A-2
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Oct-2019 20:45:03 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:15:50

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.614	8.604	0.010	98	172804	4.00	
*	2 1,4-Difluorobenzene	114	10.816	10.811	0.006	95	897103	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	707375	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	418476	3.75	
	6 Chlorodifluoromethane	51	3.533	3.531	0.000	96	15423	0.1160	
	8 Dichlorodifluoromethane	85	3.590	3.588	0.000	100	18734	0.0939	
	31 Methylene Chloride	84	6.076	6.057	0.015	96	26804	0.3118	
	43 Chloroform	83	8.629	8.614	0.010	27	2614	0.0174	
	47 Benzene	78	10.252	10.247	0.000	95	10830	0.0551	
	50 Carbon tetrachloride	117	10.283	10.268	0.010	94	1805	0.0125	
	65 Toluene	91	13.607	13.607	0.000	92	272473	1.25	
	73 Tetrachloroethene	129	14.754	14.759	-0.005	85	1003	0.0119	
	76 Ethylbenzene	91	15.927	15.932	-0.005	99	10452	0.0378	
	78 m-Xylene & p-Xylene	91	16.093	16.093	0.000	98	30389	0.1438	
	82 o-Xylene	91	16.620	16.620	0.000	97	11831	0.0539	
S	121 Xylenes, Total	100				0		0.1977	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

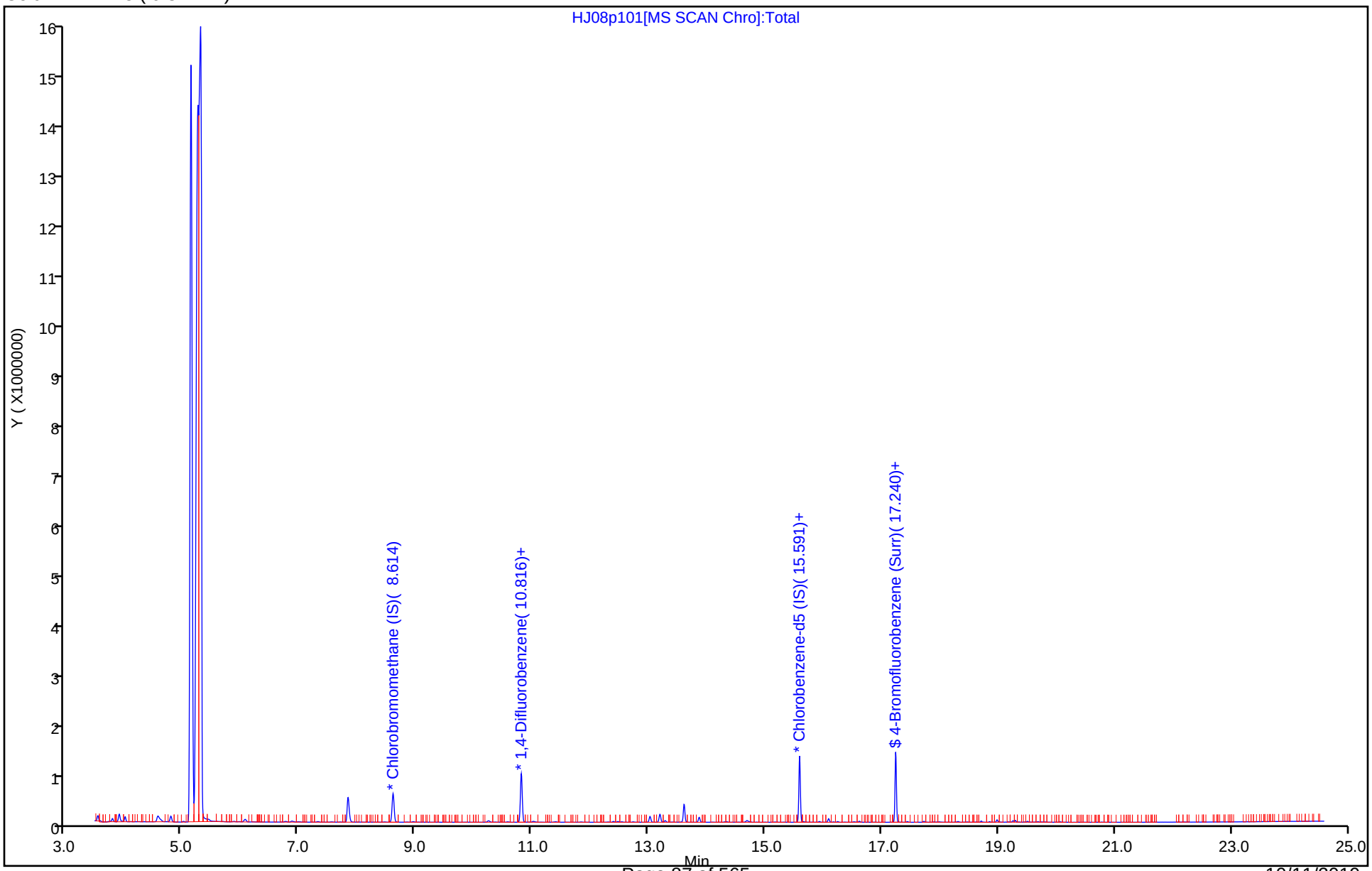
Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D

Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2	Worklist Smp#:	8
Client ID:	IA-015-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D				
Lims ID:	140-16893-A-2				
Client ID:	IA-015-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 15:43:30	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-008				
Misc. Info.:	140-16893-A-2				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Oct-2019 20:45:03	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				
First Level Reviewer: khachitpongpanits		Date:	09-Oct-2019 10:15:50		

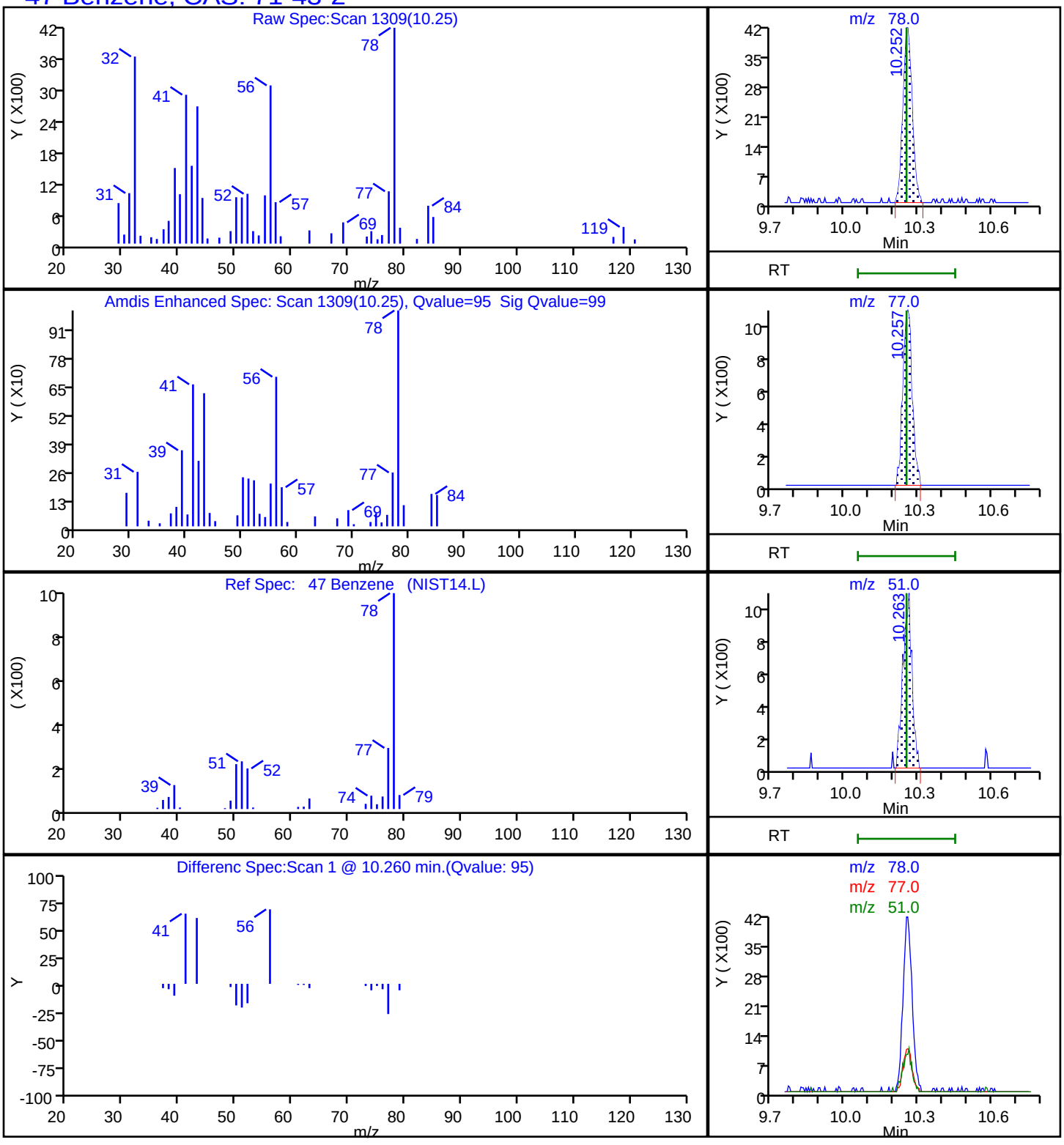
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.75	93.76

Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 Benzene, CAS: 71-43-2



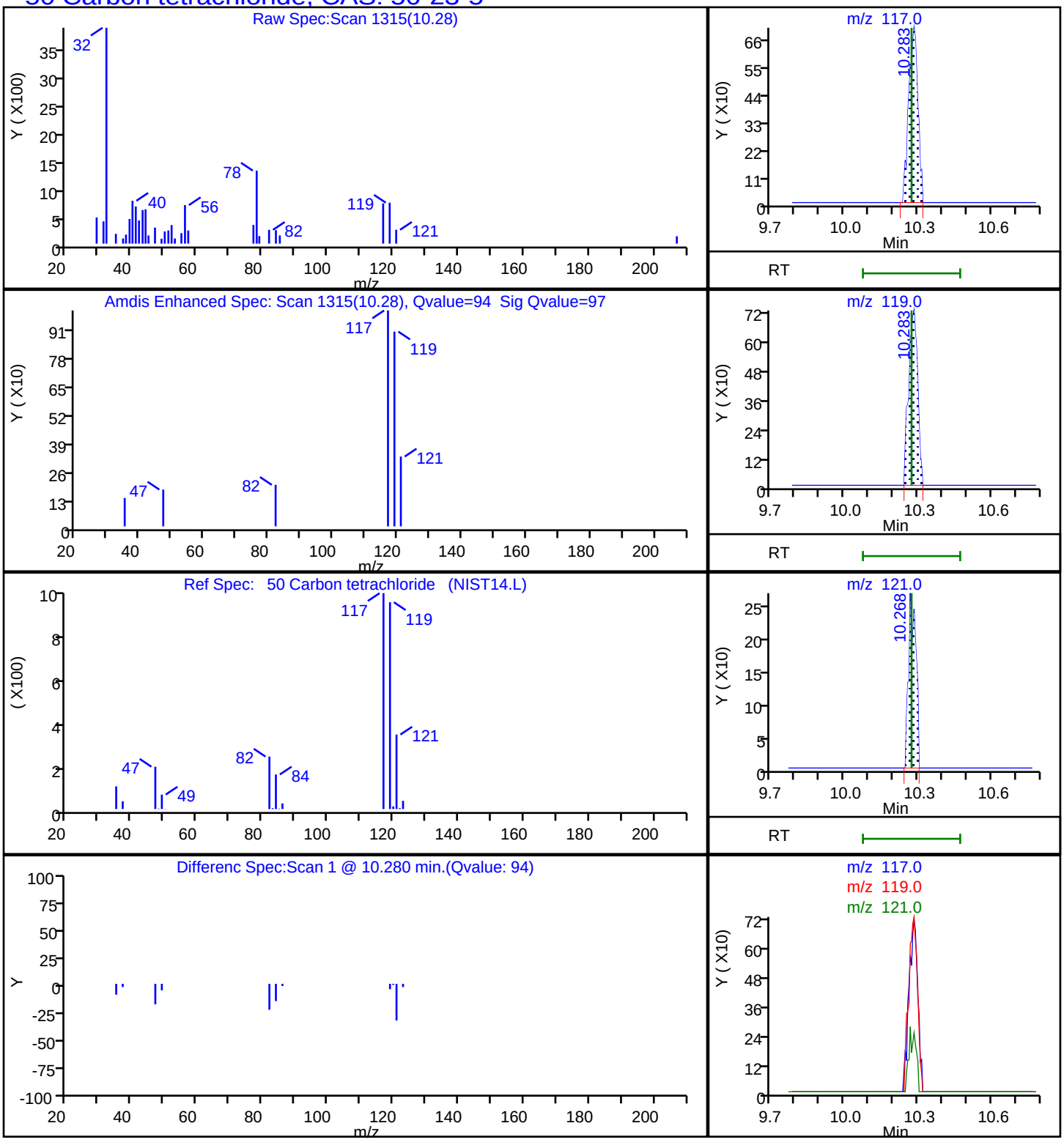
Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D

Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Carbon tetrachloride, CAS: 56-23-5



Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D

Injection Date: 08-Oct-2019 15:43:30 Instrument ID: MH

Lims ID: 140-16893-A-2 Lab Sample ID: 140-16893-2

Client ID: IA-015-A-27-RS

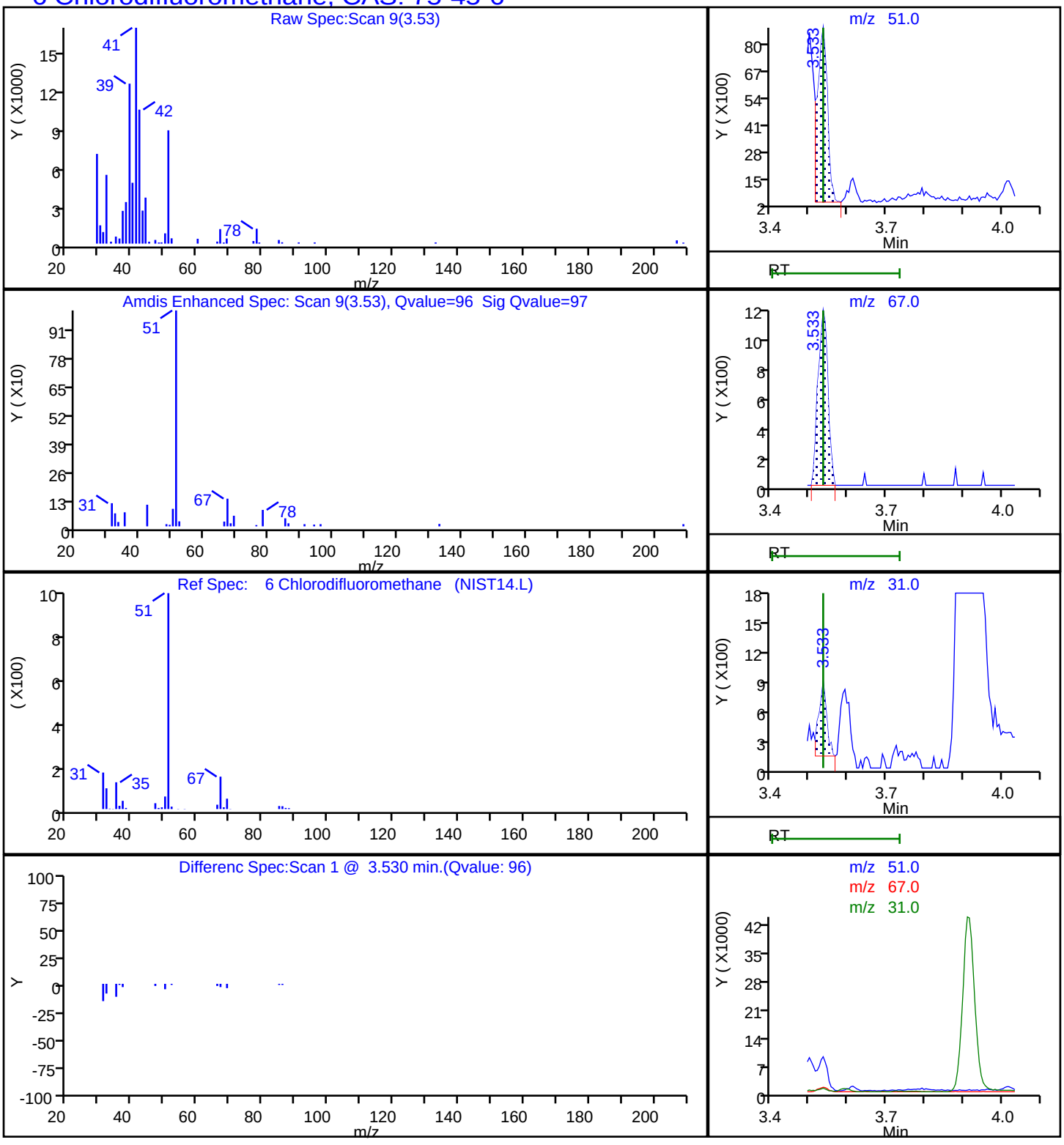
Operator ID: afb ALS Bottle#: 1 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

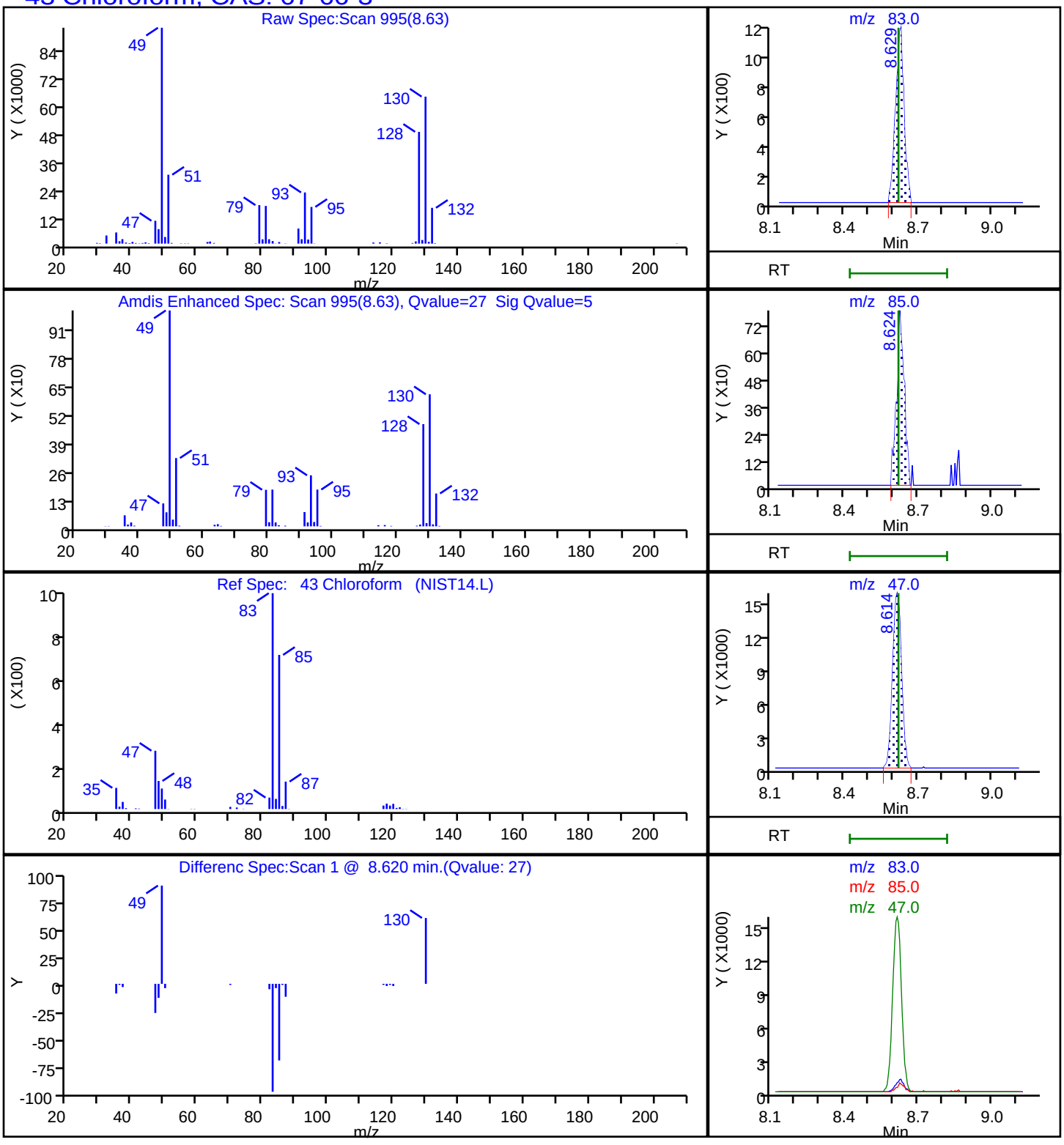


Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

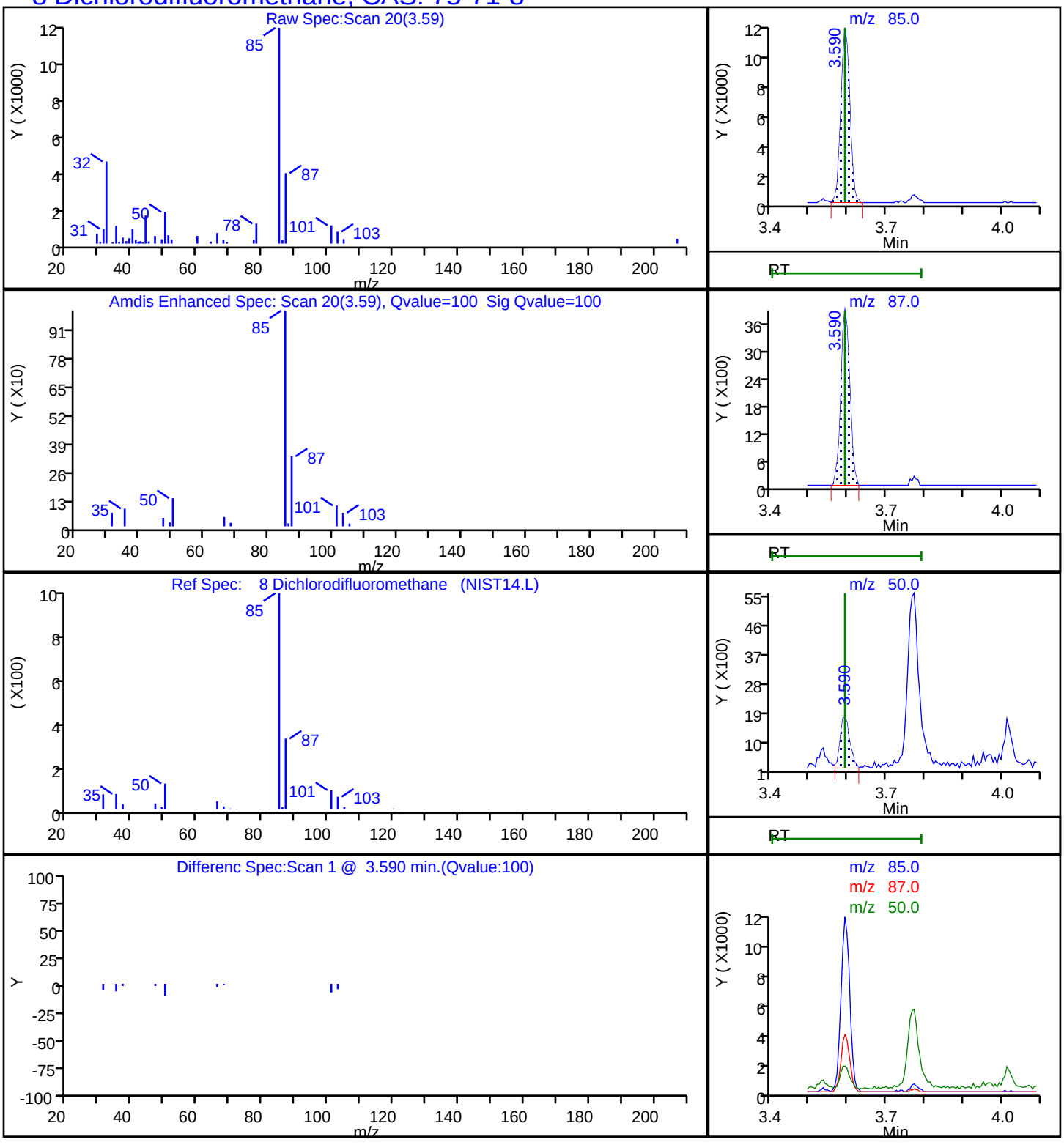
43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D				
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH		
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2		
Client ID:	IA-015-A-27-RS				
Operator ID:	afb	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

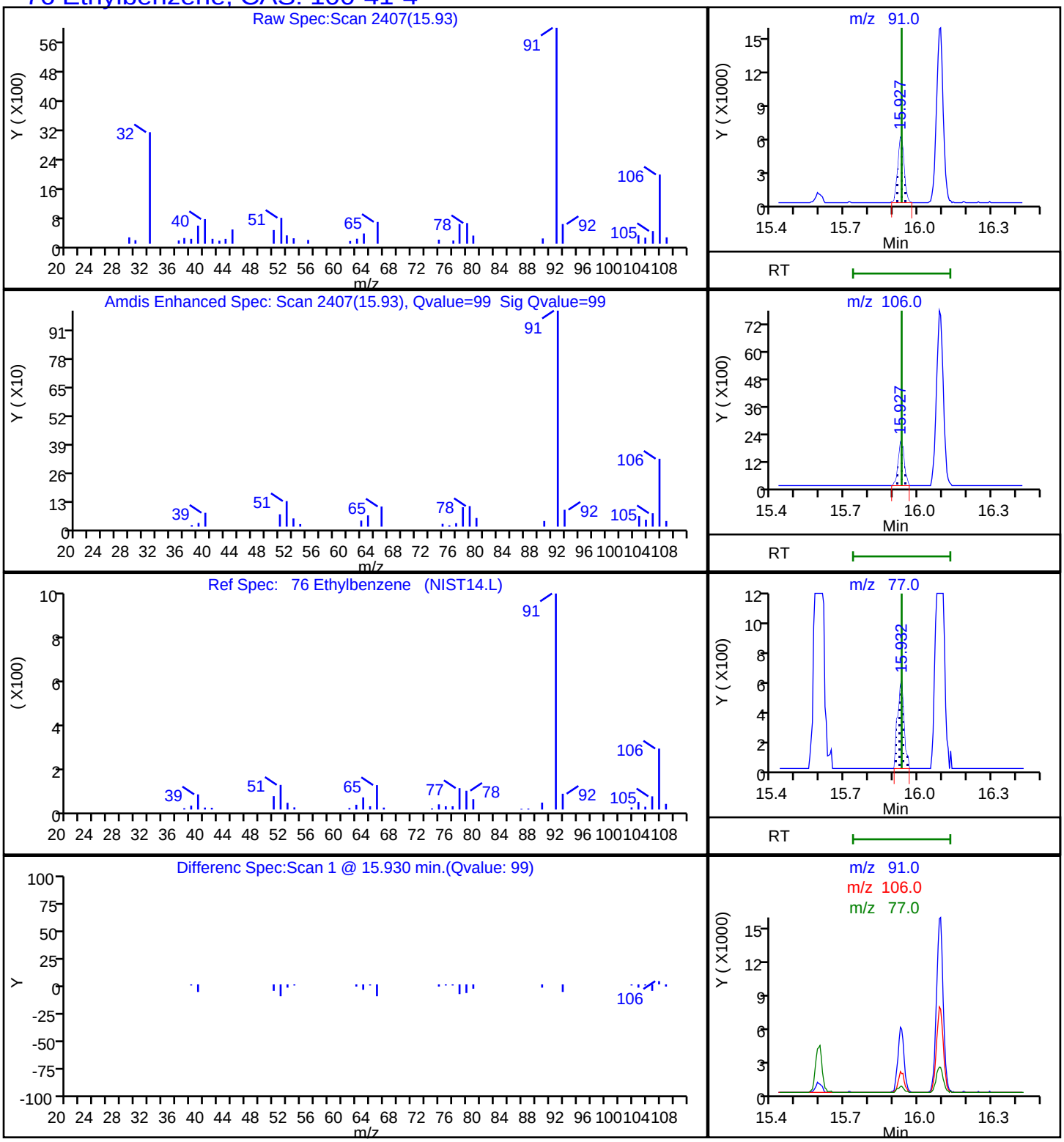
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

76 Ethylbenzene, CAS: 100-41-4

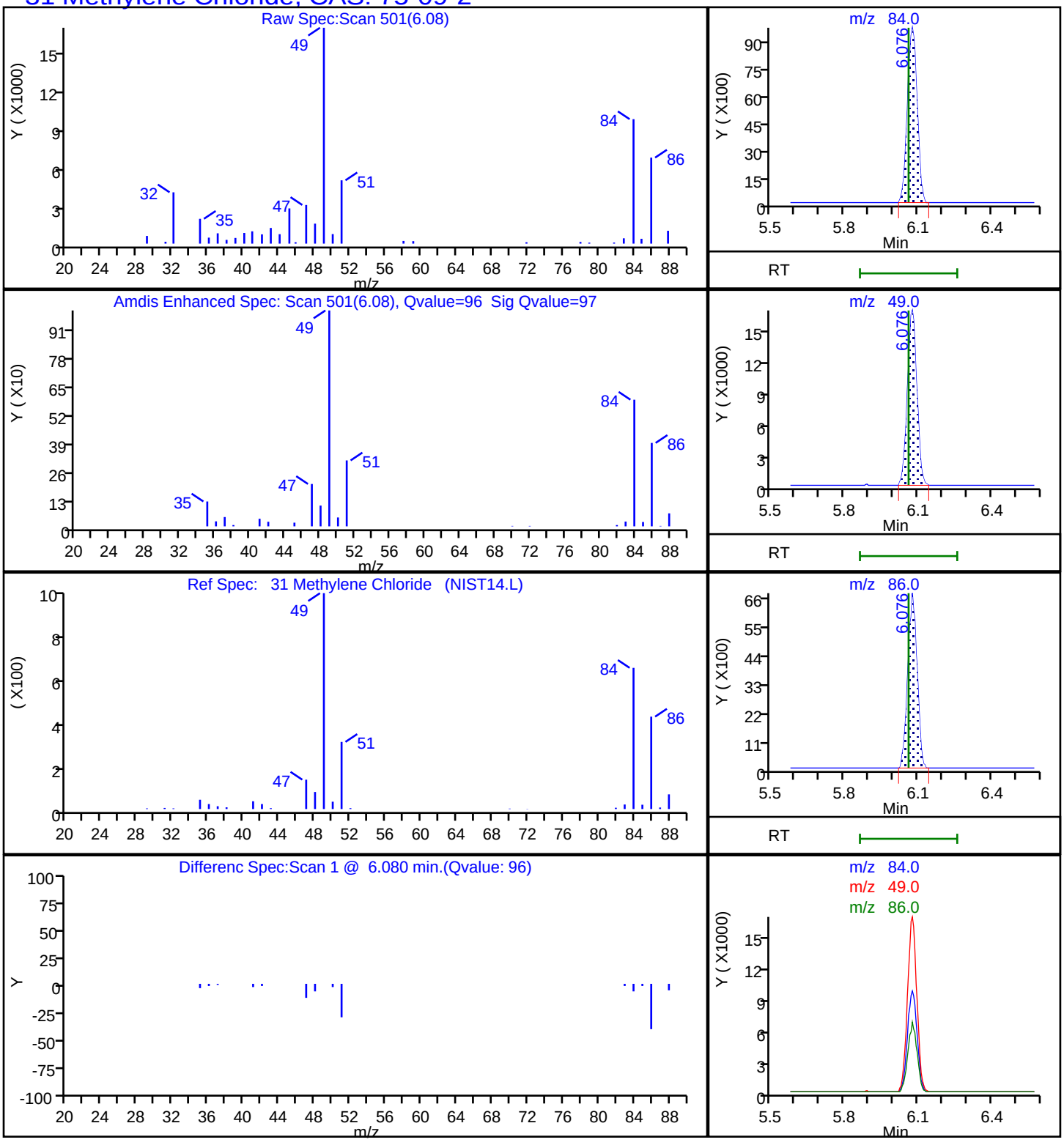


Report Date: 09-Oct-2019 10:15:51 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D				
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH		
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2		
Client ID:	IA-015-A-27-RS				
Operator ID:	afb	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

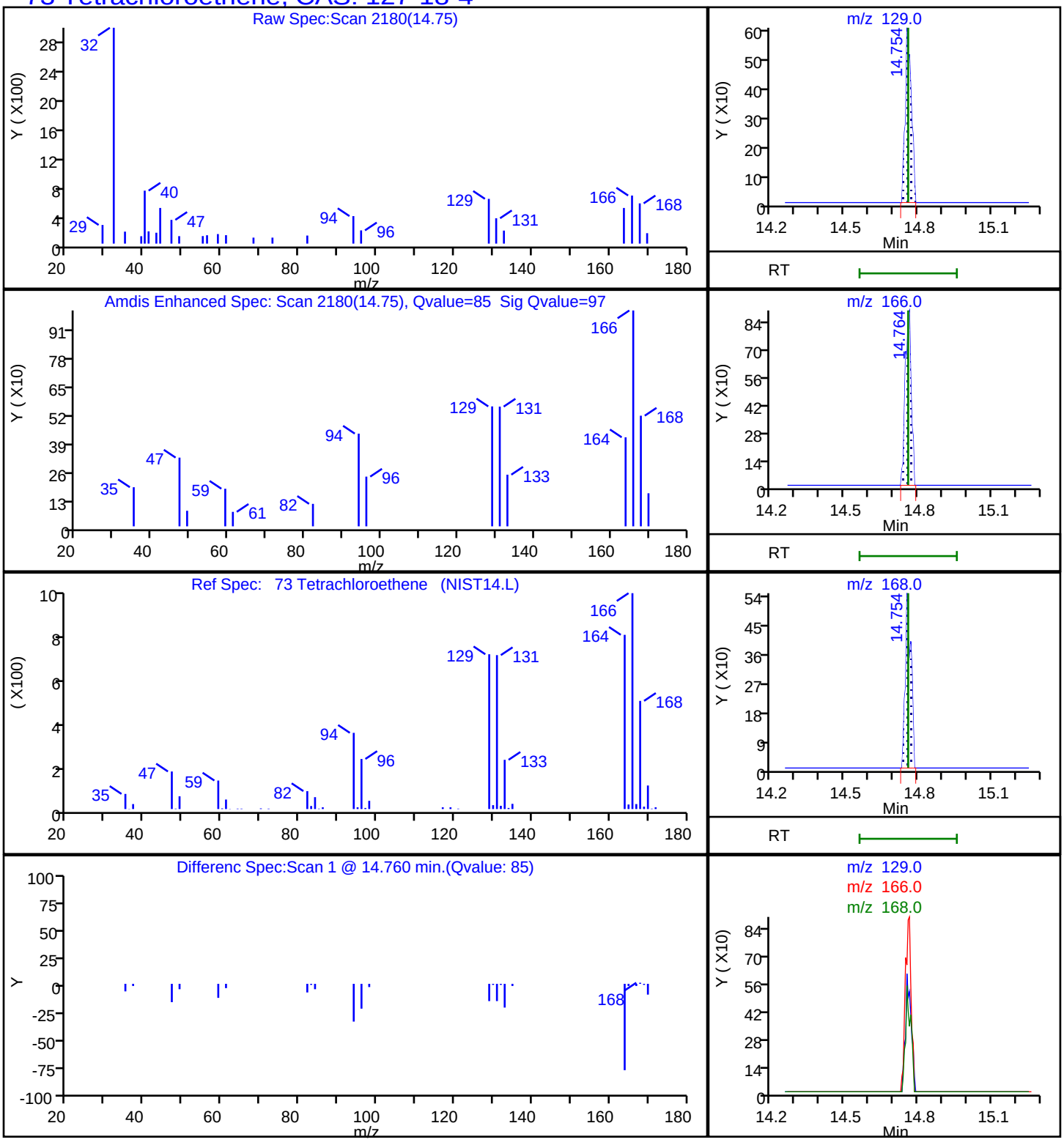
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

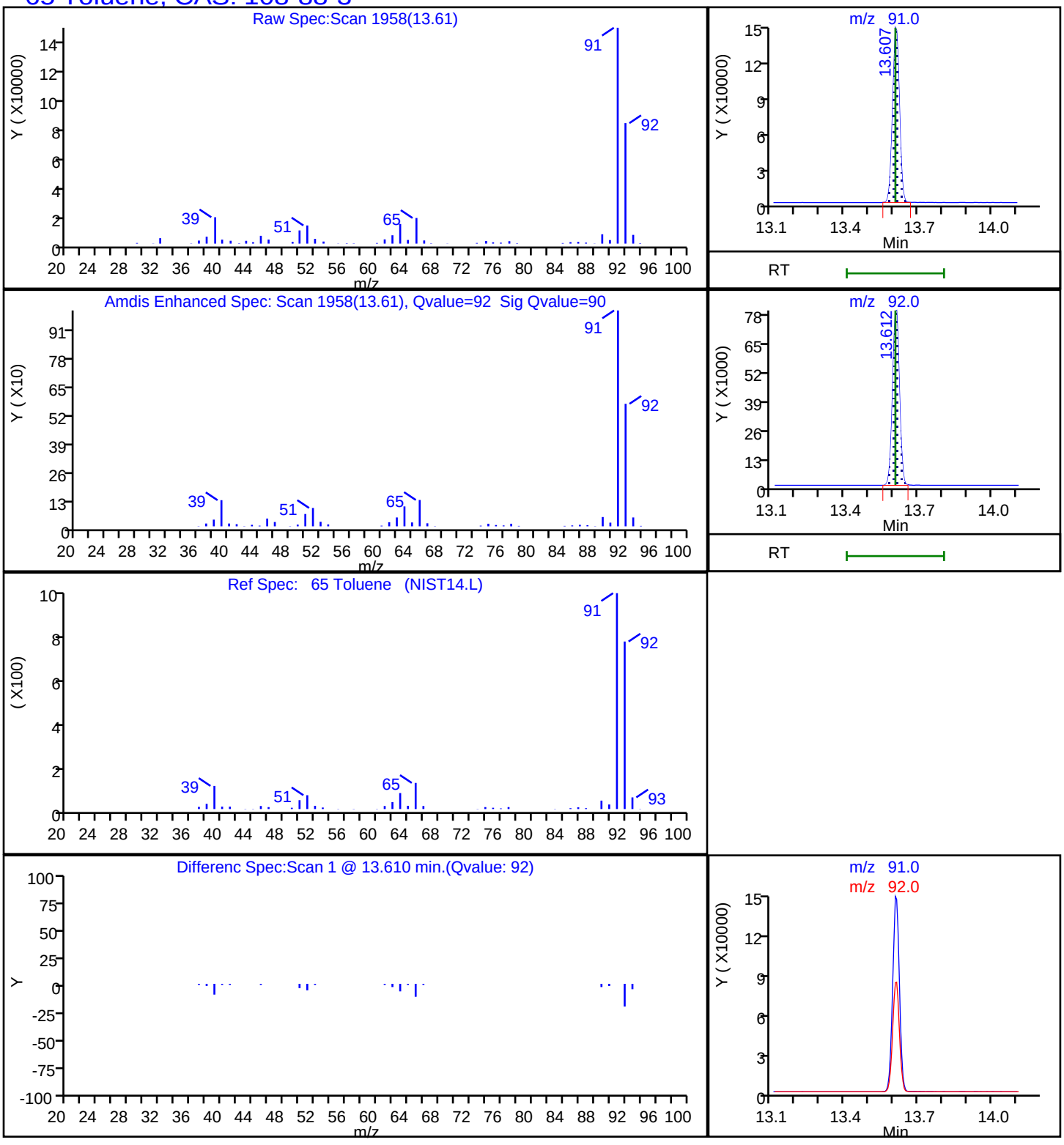
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D				
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH		
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2		
Client ID:	IA-015-A-27-RS				
Operator ID:	afb	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

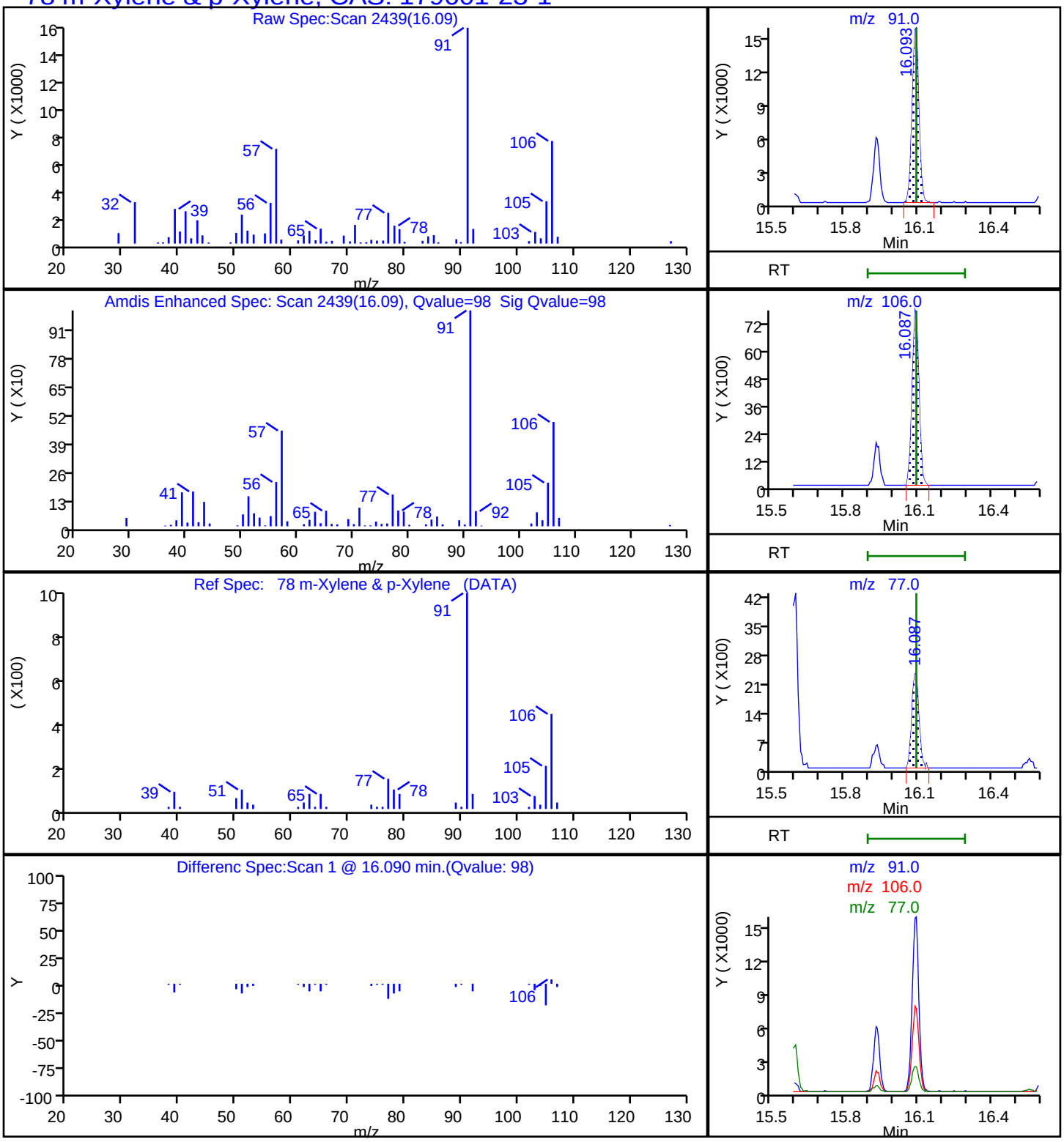


Report Date: 09-Oct-2019 10:15:52 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

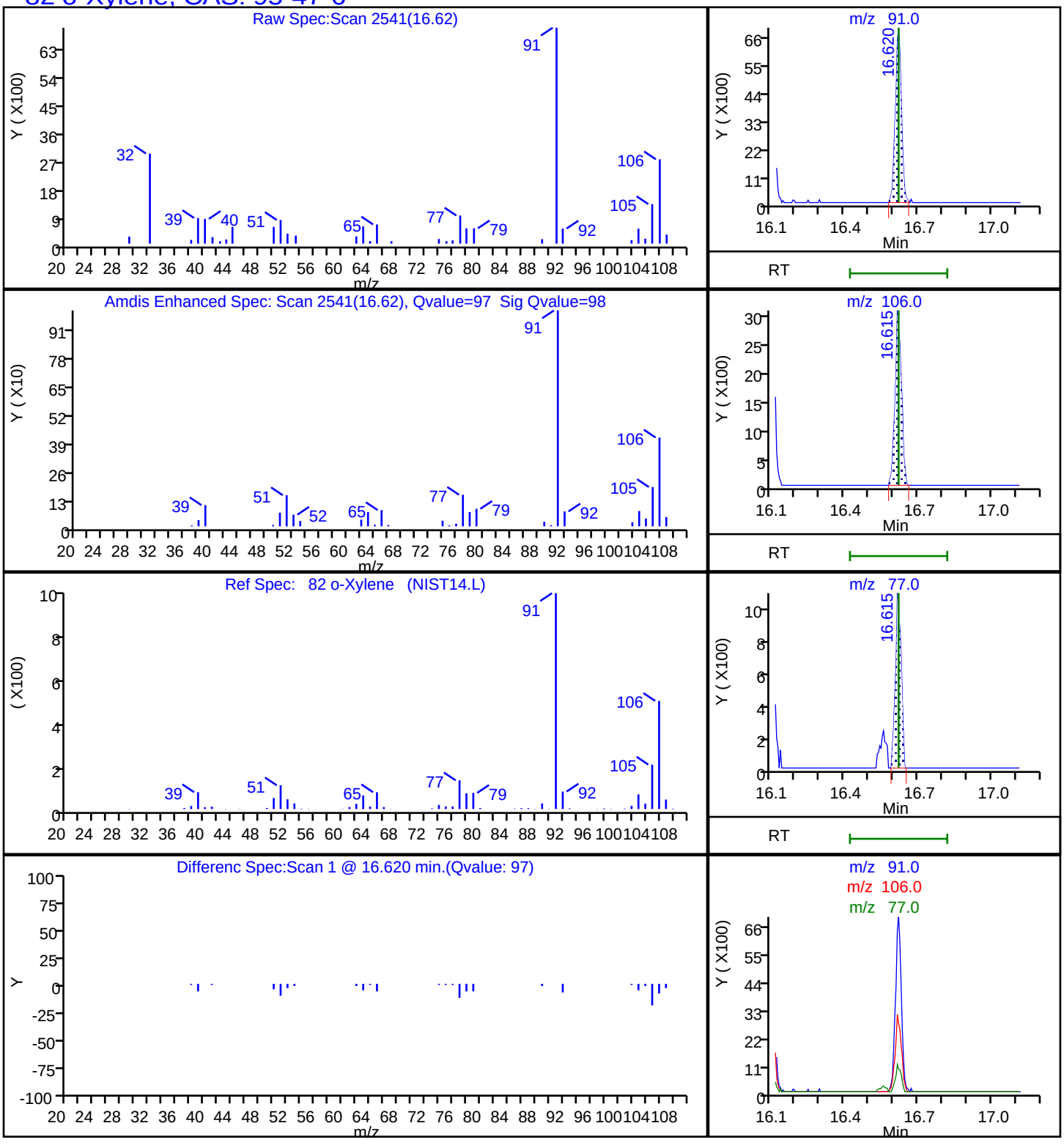
78 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p101.D		
Injection Date:	08-Oct-2019 15:43:30	Instrument ID:	MH
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2
Client ID:	IA-015-A-27-RS		
Operator ID:	afb	ALS Bottle#:	1 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p105.D
Lims ID: 140-16893-A-2
Client ID: IA-015-A-27-RS
Sample Type: Client
Inject. Date: 09-Oct-2019 18:17:30 ALS Bottle#: 5 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-010
Misc. Info.: 140-16893-A-2
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:38:23 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:38:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.065	9.059	0.006	97	191848	4.00	
* 2 1,4-Difluorobenzene	114	11.227	11.233	-0.006	96	1101836	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1025167	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	85	750480	4.19	
6 Chlorodifluoromethane	51	3.791	3.785	0.000	94	11571	0.1215	
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	99	17414	0.1141	
31 Methylene Chloride	84	6.476	6.471	0.005	98	31285	0.2431	
44 Chloroform	83	9.070	9.059	0.000	27	2360	0.0190	
50 Benzene	78	10.704	10.699	0.005	97	10584	0.0543	
52 Carbon tetrachloride	117	10.726	10.715	0.006	54	2226	0.0168	
67 Toluene	91	13.966	13.966	0.000	94	198079	0.9652	
73 Tetrachloroethene	129	15.099	15.104	-0.005	87	800	0.0100	
78 Ethylbenzene	91	16.258	16.258	0.000	99	8595	0.0308	
79 m-Xylene & p-Xylene	91	16.414	16.420	-0.006	98	25961	0.1199	
83 o-Xylene	91	16.943	16.943	0.000	97	10785	0.0447	
S 124 Xylenes, Total	100				0		0.1646	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

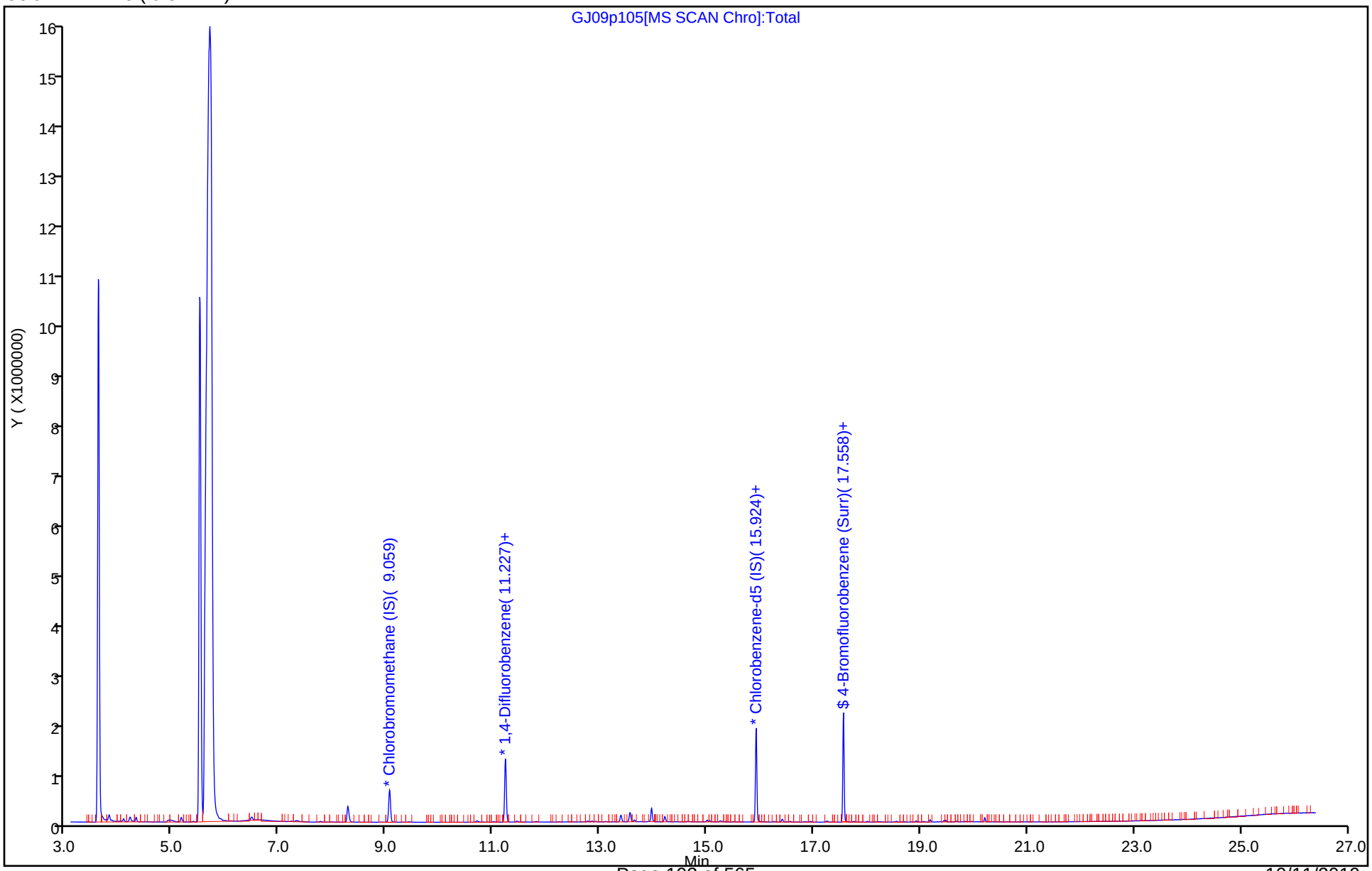
Report Date: 10-Oct-2019 10:38:57 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p105.D

Injection Date:	09-Oct-2019 18:17:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-2	Lab Sample ID:	140-16893-2	Worklist Smp#:	10
Client ID:	IA-015-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p105.D				
Lims ID:	140-16893-A-2				
Client ID:	IA-015-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 18:17:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-010				
Misc. Info.:	140-16893-A-2				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:38:23	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:38:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.81

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.1	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.74	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	3.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Lims ID:	140-16893-A-3				
Client ID:	IA-168-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 16:35:30	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-009				
Misc. Info.:	140-16893-A-3				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:16:19	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				
First Level Reviewer: khachitpongpanits		Date:	09-Oct-2019 10:18:52		

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.619	8.604	0.015	98	172867	4.00	
*	2 1,4-Difluorobenzene	114	10.821	10.811	0.011	95	872183	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	682169	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	405958	3.77	
	6 Chlorodifluoromethane	51	3.533	3.531	0.000	46	11631	0.0874	
	8 Dichlorodifluoromethane	85	3.595	3.588	0.005	100	19817	0.0992	
	31 Methylene Chloride	84	6.087	6.057	0.026	96	18857	0.2193	
	43 Chloroform	83	8.635	8.614	0.016	27	1289	0.008589	
	47 Benzene	78	10.257	10.247	0.005	95	6483	0.0339	
	50 Carbon tetrachloride	117	10.273	10.268	0.000	92	2038	0.0145	
	65 Toluene	91	13.612	13.607	0.005	93	143652	0.6861	
	73 Tetrachloroethene	129	14.764	14.759	0.005	89	704	0.008642	
	76 Ethylbenzene	91	15.932	15.932	0.000	97	7005	0.0263	
	78 m-Xylene & p-Xylene	91	16.093	16.093	0.000	63	22463	0.1102	
	82 o-Xylene	91	16.620	16.620	0.000	97	7903	0.0373	
	111 1,2,4-Trichlorobenzene	180	20.982	20.992	-0.010	90	1033	0.1111	
S	121 Xylenes, Total	100				0		0.1476	

Reagents:

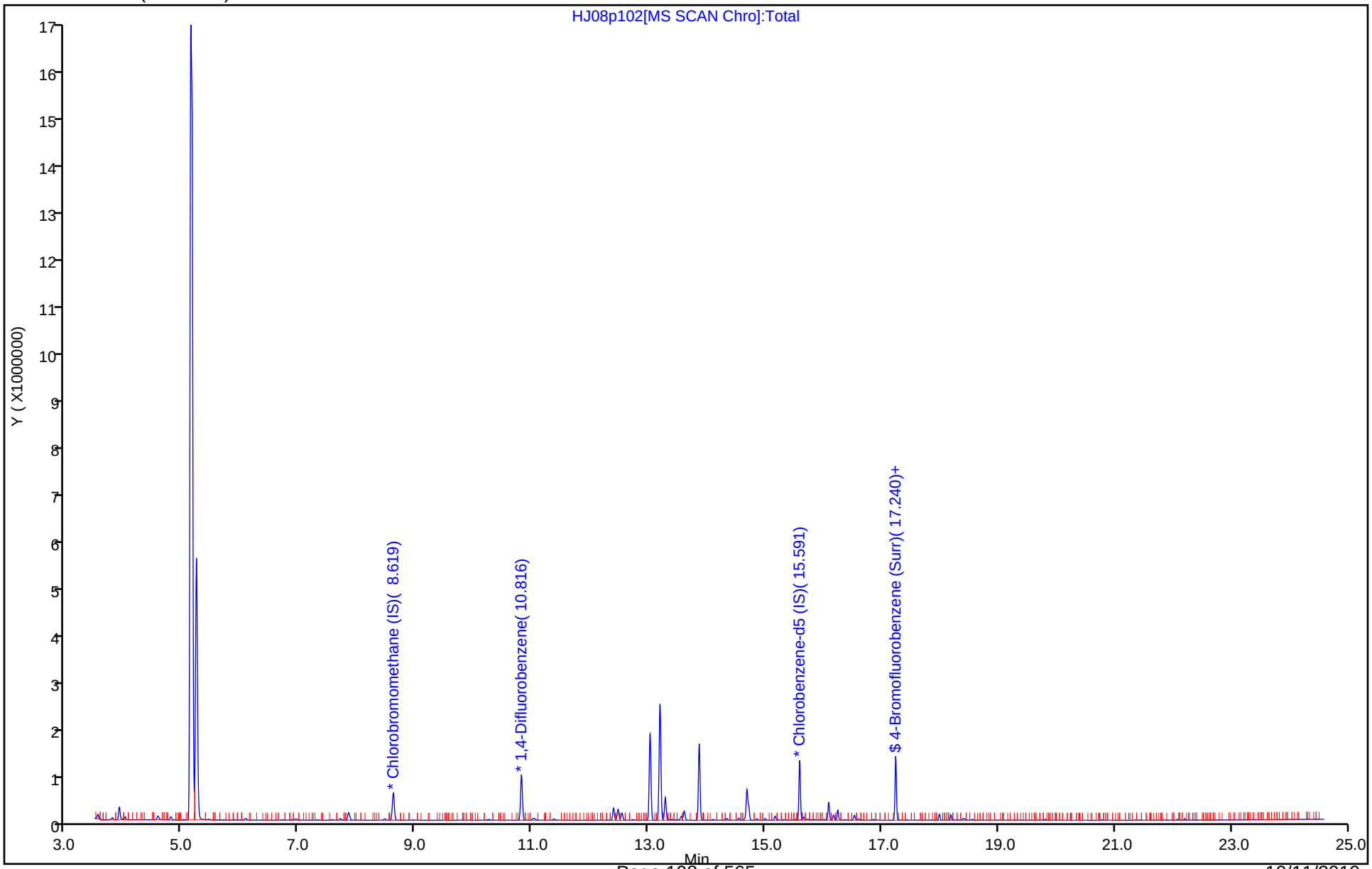
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 09-Oct-2019 10:18:55 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3	Worklist Smp#:	9
Client ID:	IA-168-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Lims ID:	140-16893-A-3				
Client ID:	IA-168-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 16:35:30	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-009				
Misc. Info.:	140-16893-A-3				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:16:19	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				
First Level Reviewer: khachitpongpanits		Date:	09-Oct-2019 10:18:52		

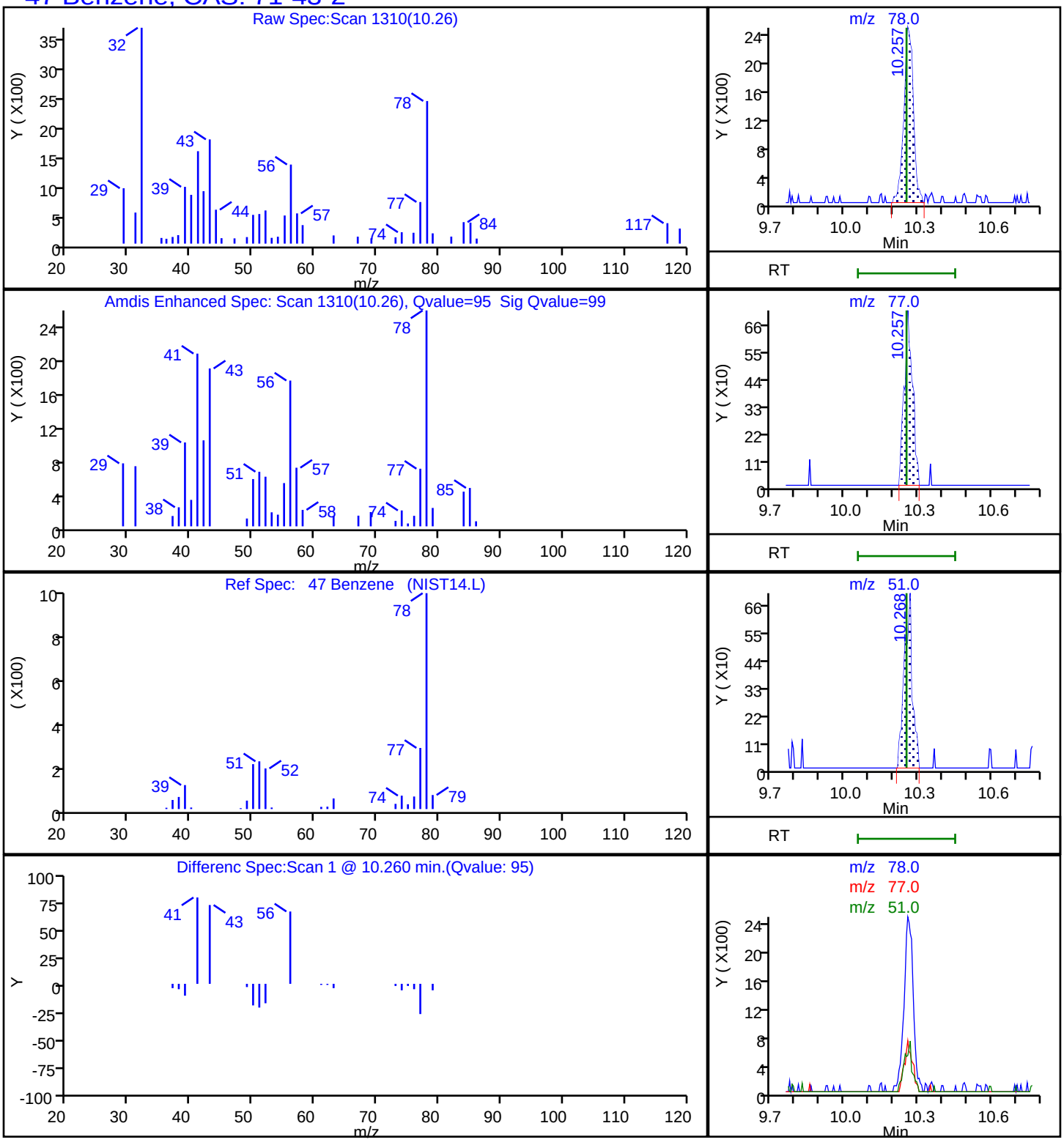
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.77	94.31

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 Benzene, CAS: 71-43-2



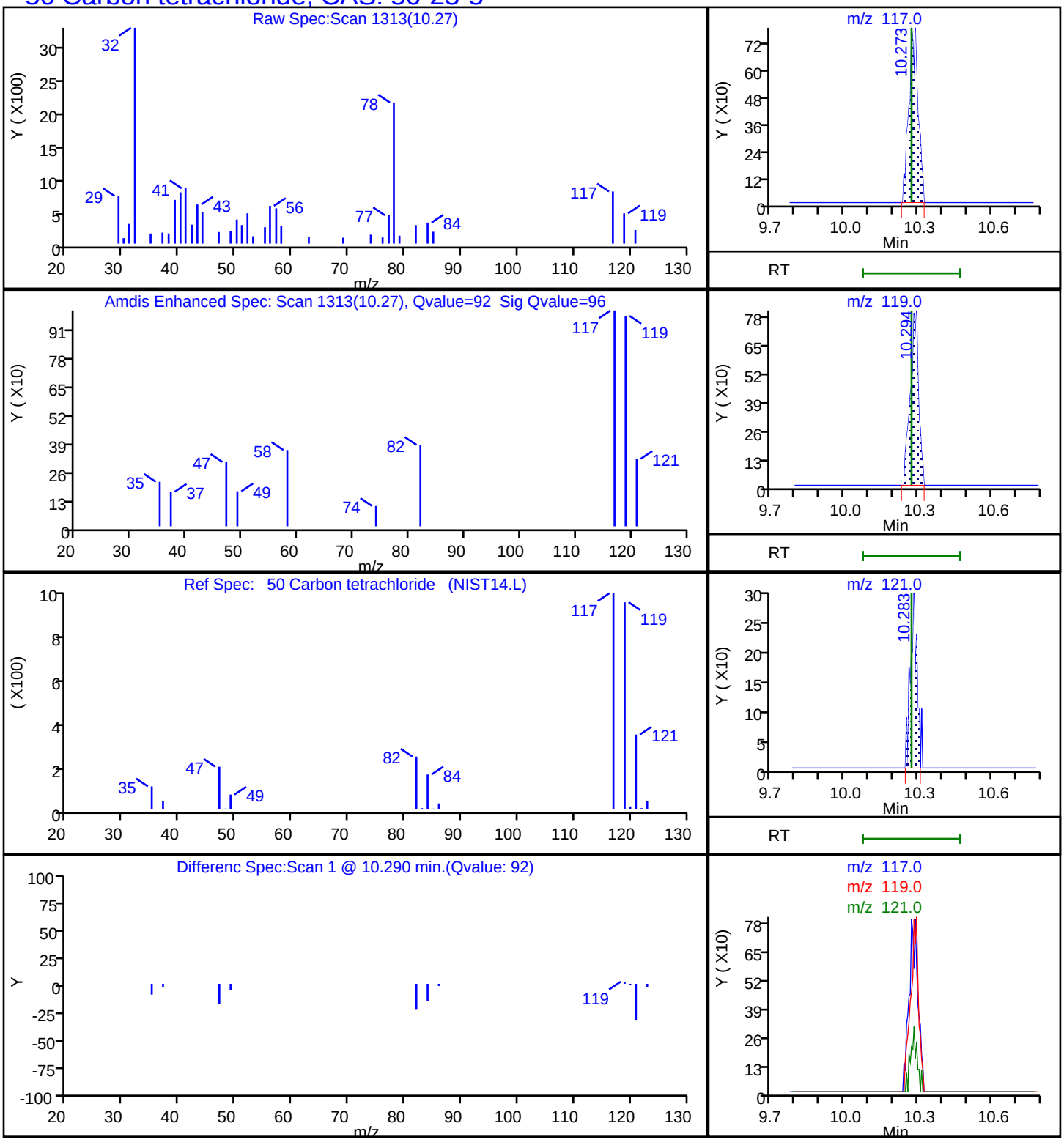
Report Date: 09-Oct-2019 10:18:55 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH		
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3		
Client ID:	IA-168-A-27-RS				
Operator ID:	afb	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Carbon tetrachloride, CAS: 56-23-5



Report Date: 09-Oct-2019 10:18:55 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date: 08-Oct-2019 16:35:30 Instrument ID: MH

Lims ID: 140-16893-A-3 Lab Sample ID: 140-16893-3

Client ID: IA-168-A-27-RS

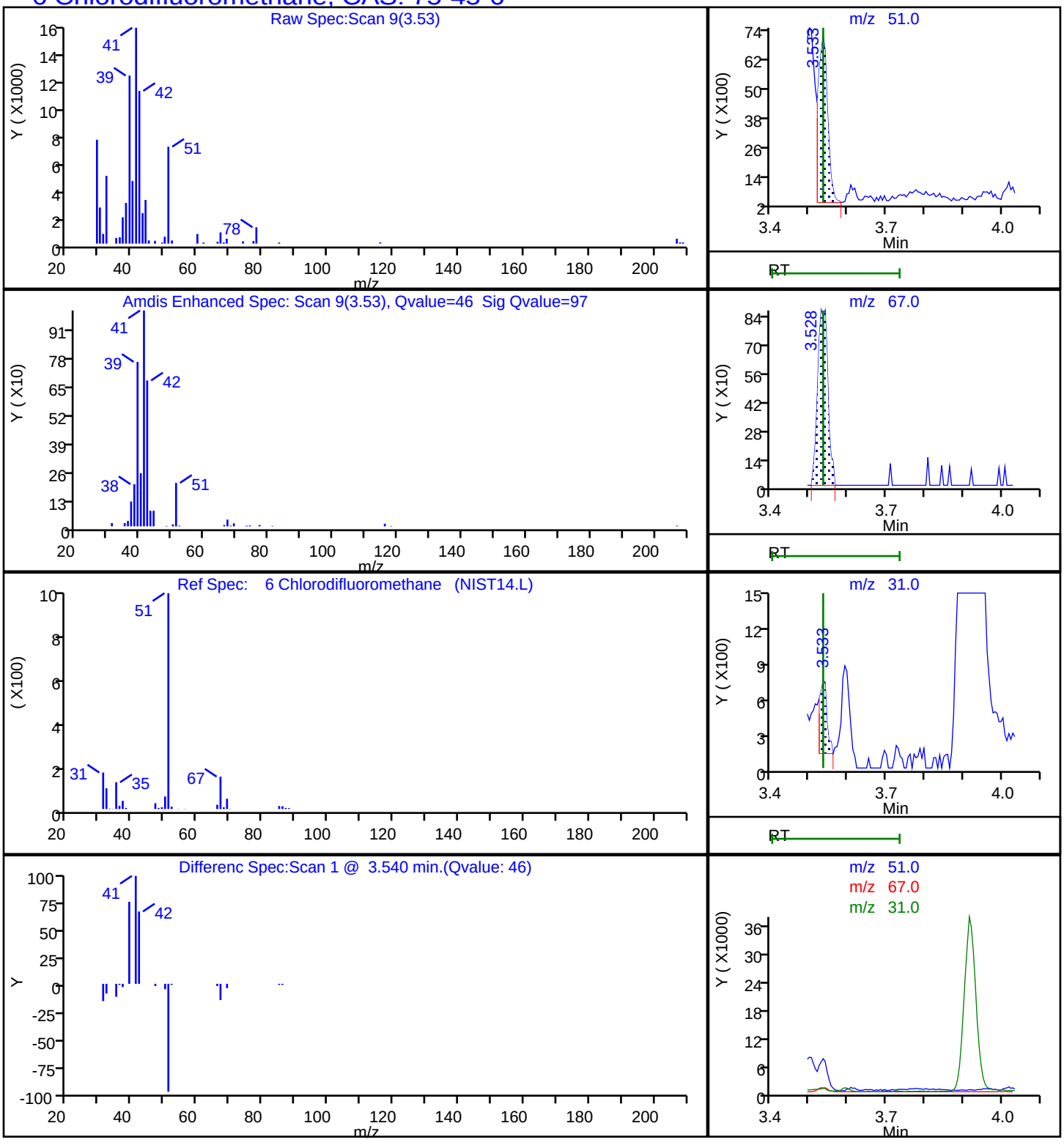
Operator ID: afb ALS Bottle#: 2 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

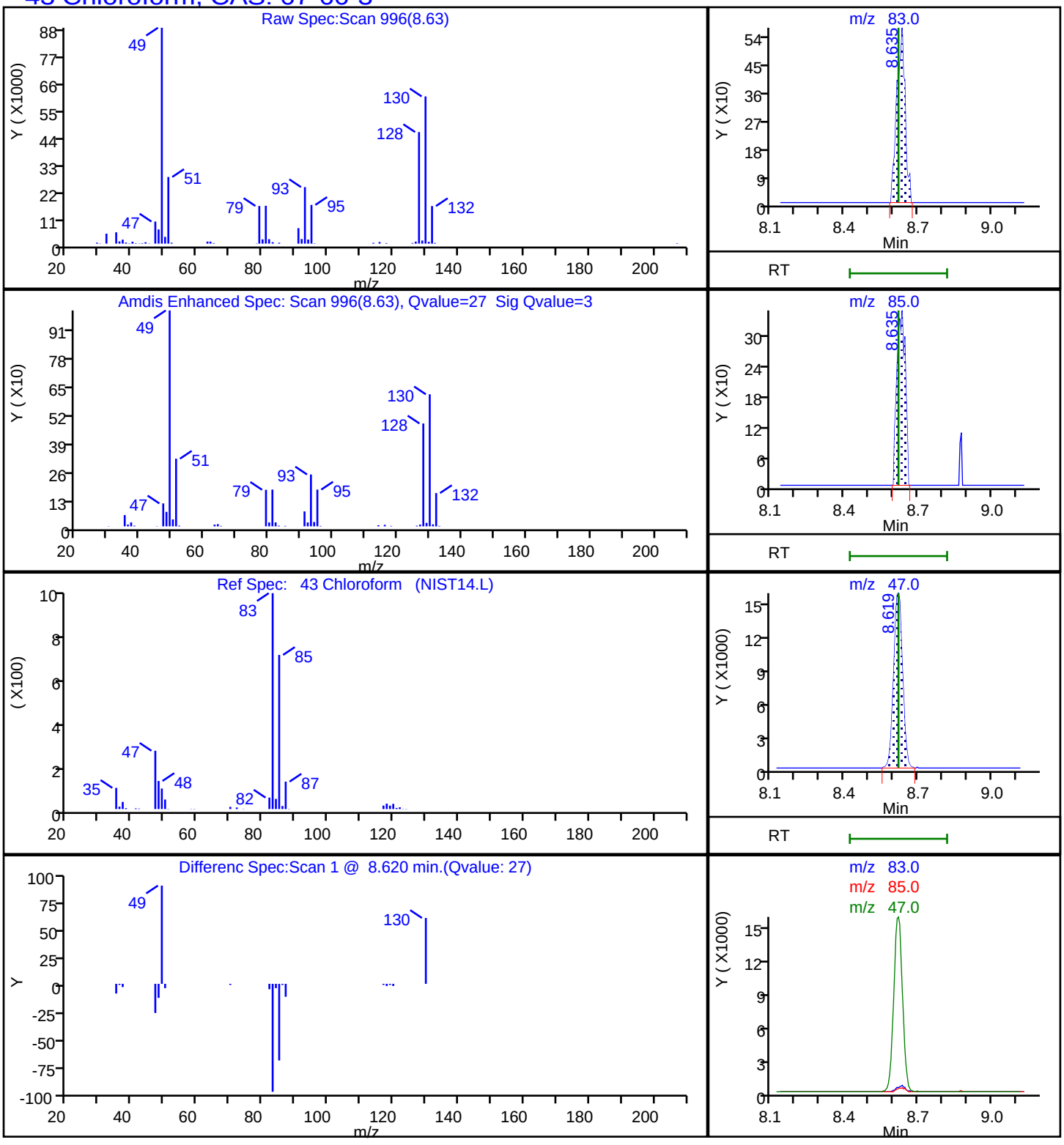


Report Date: 09-Oct-2019 10:18:55 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D		
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

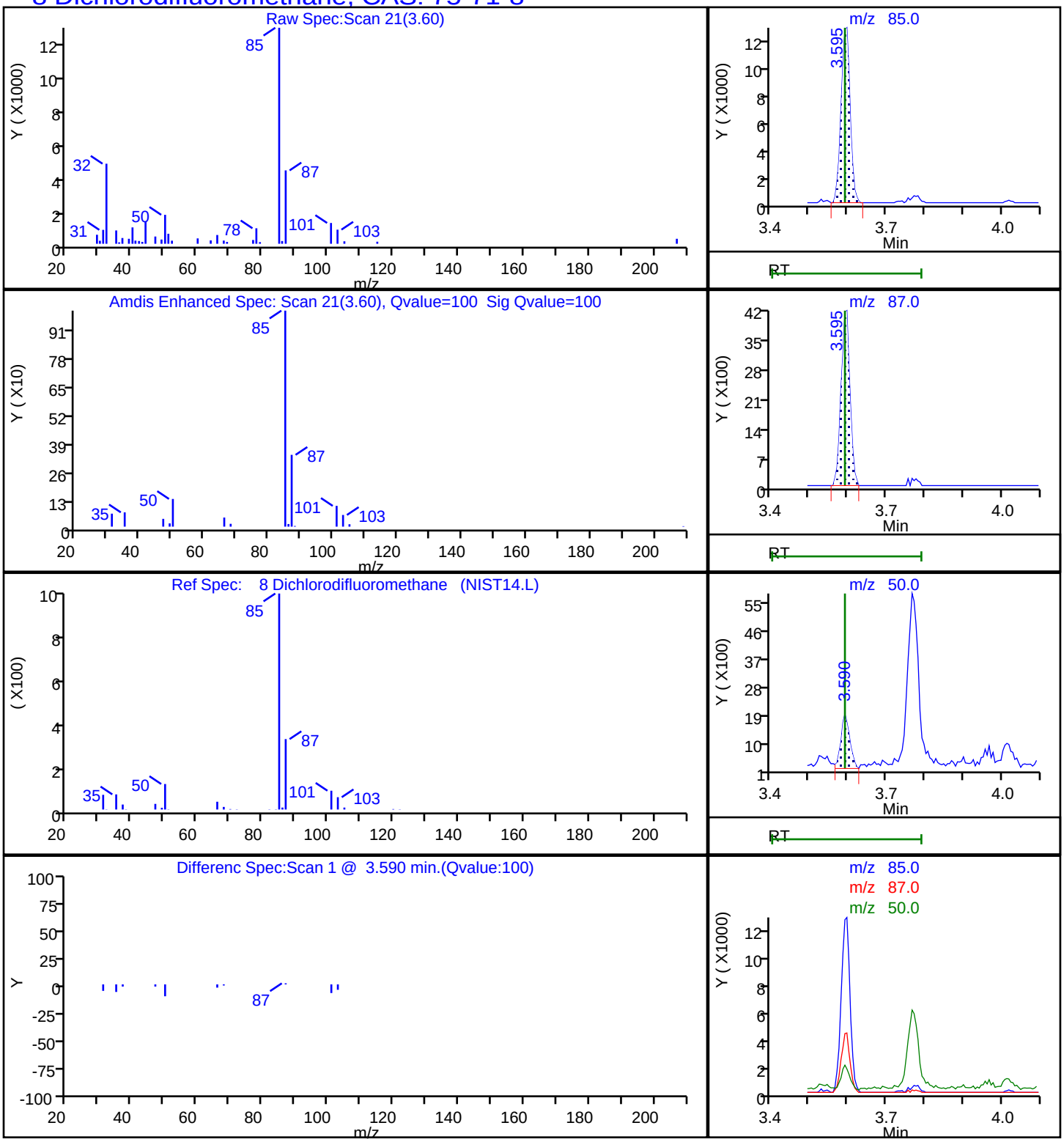
43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH		
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3		
Client ID:	IA-168-A-27-RS				
Operator ID:	afb	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

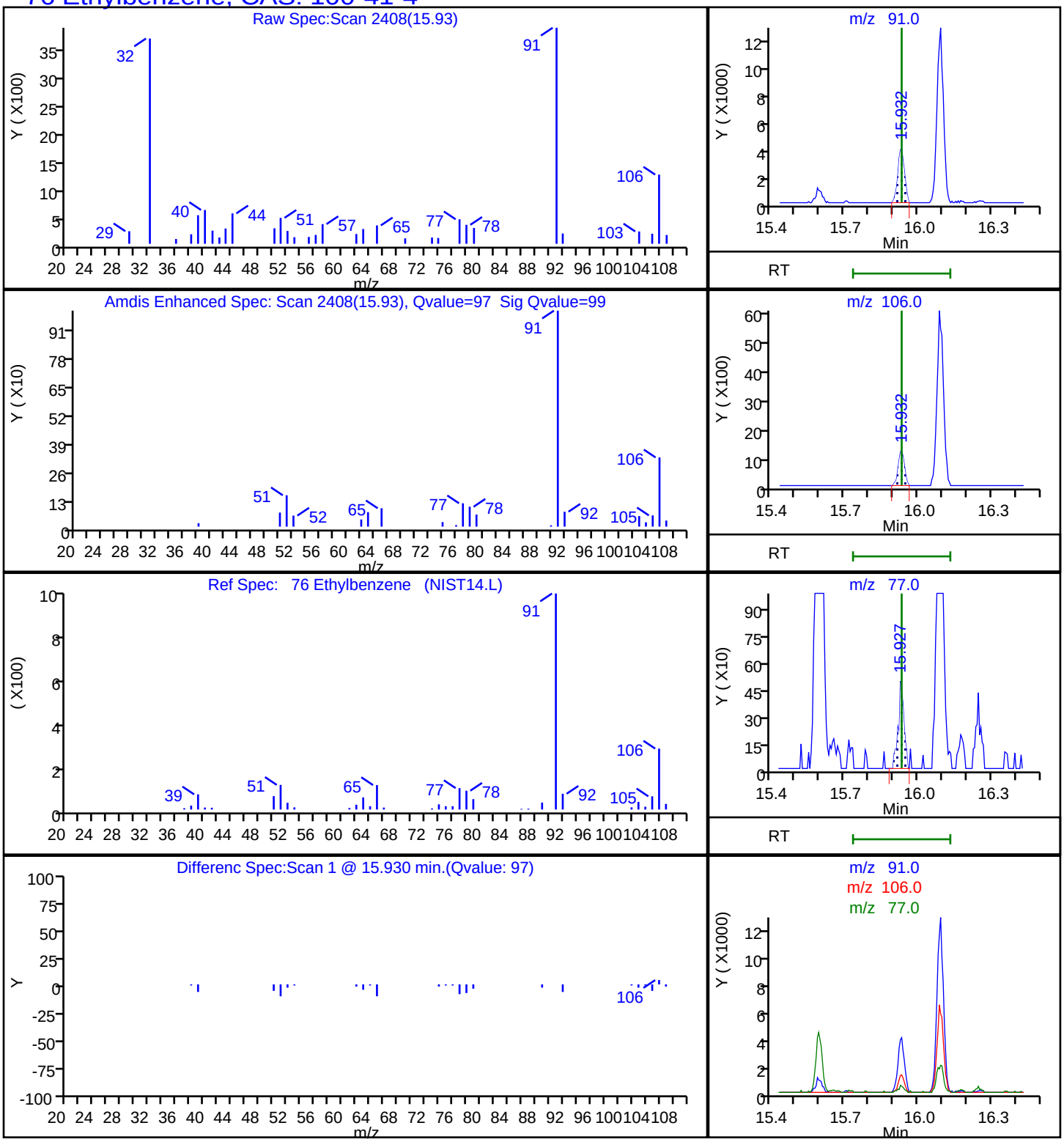


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

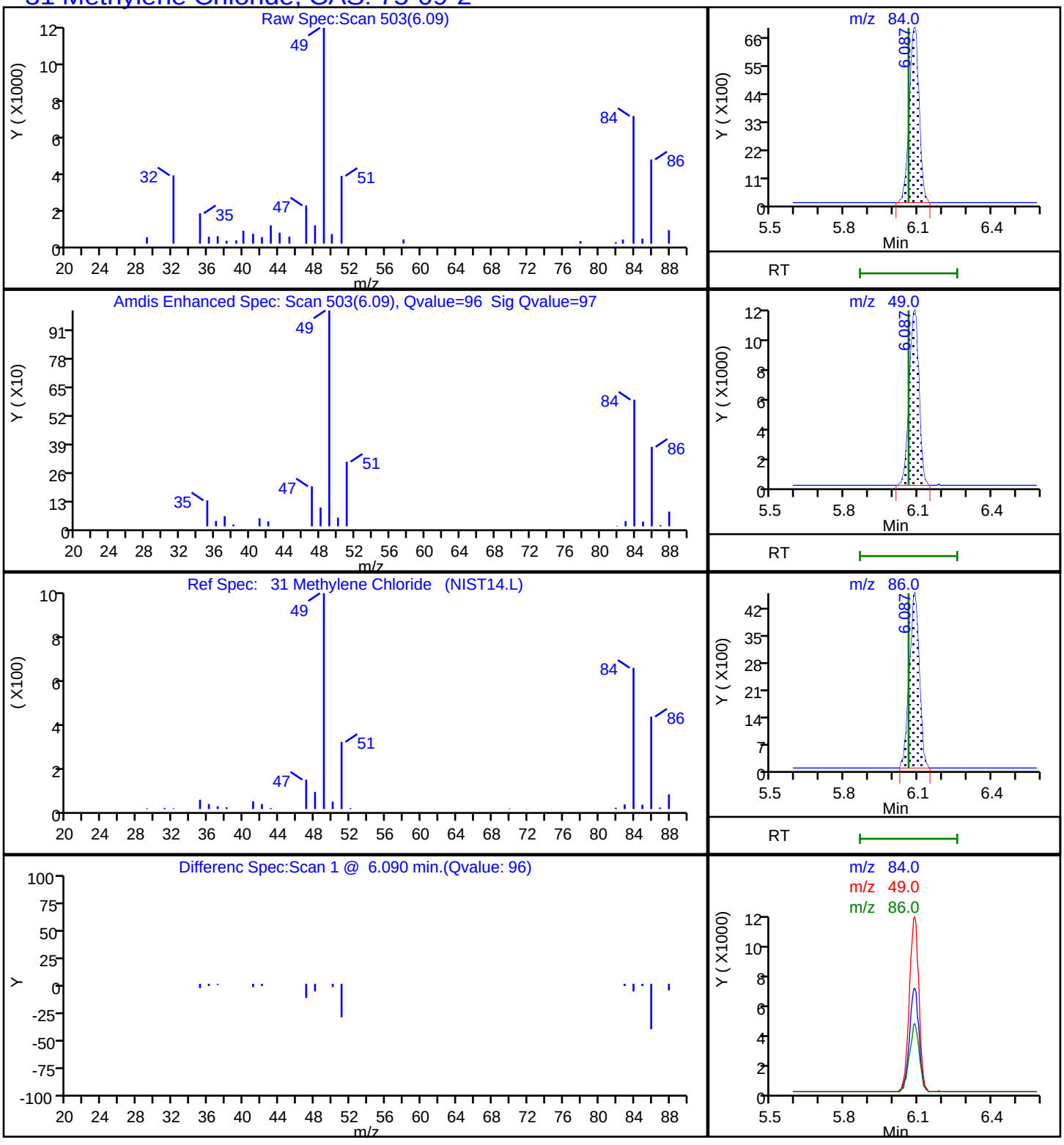
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D		
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

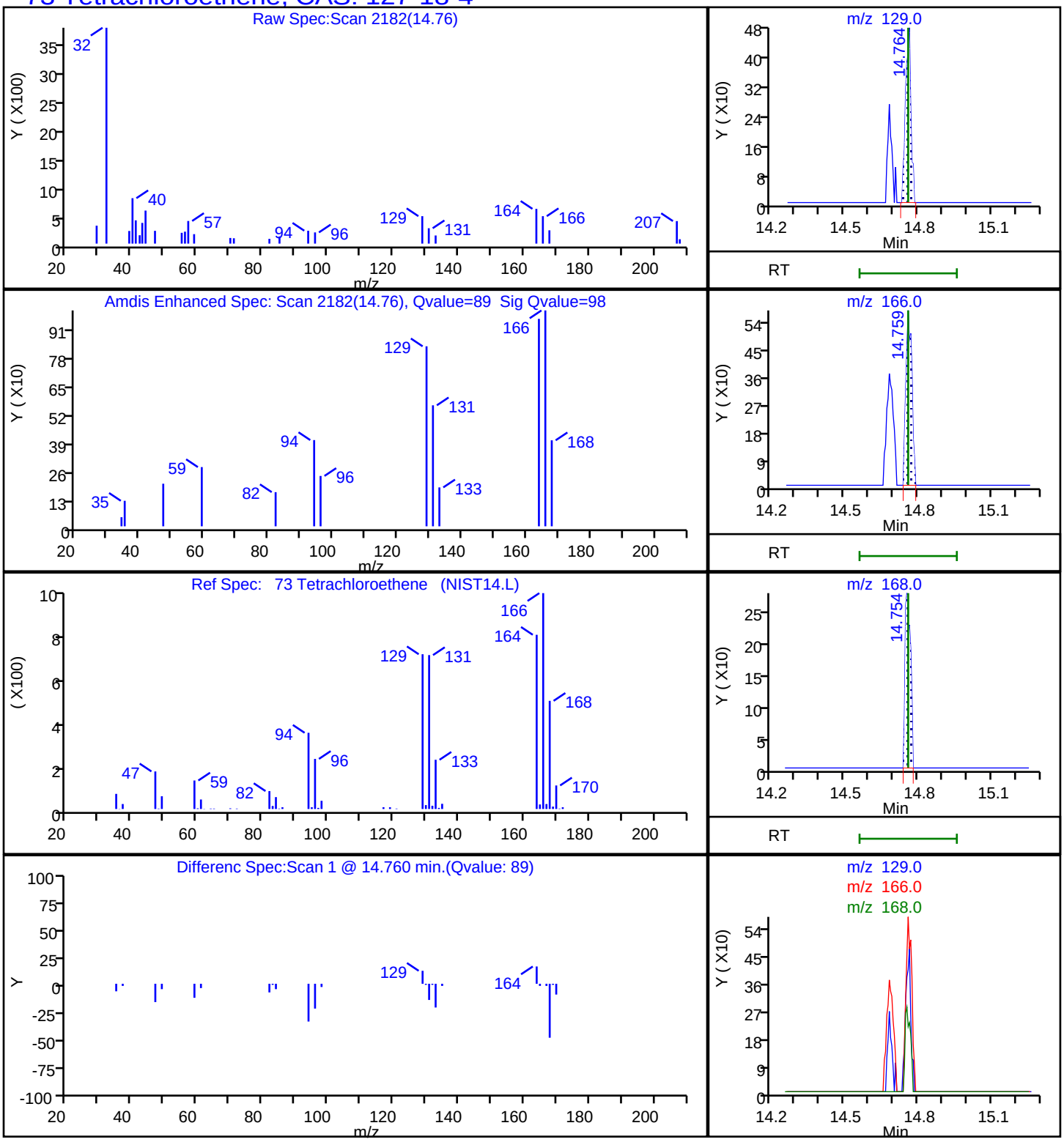


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

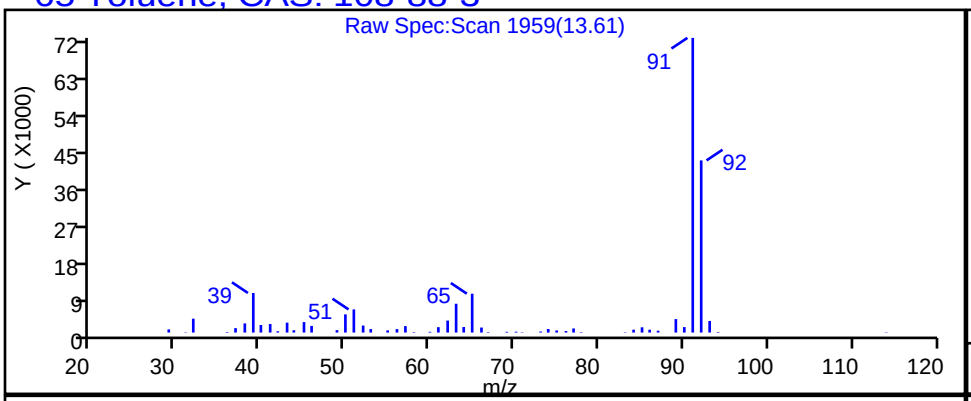
73 Tetrachloroethene, CAS: 127-18-4

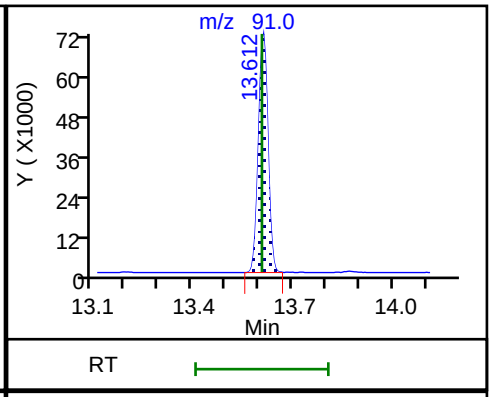


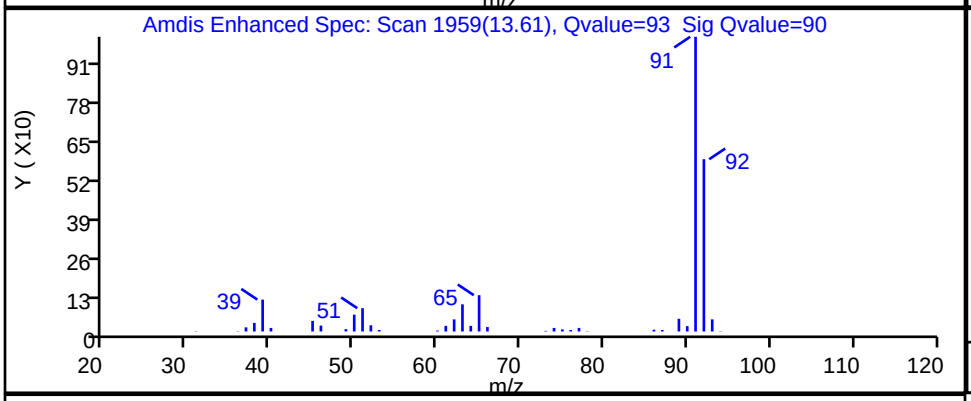
Eurofins TestAmerica, Knoxville

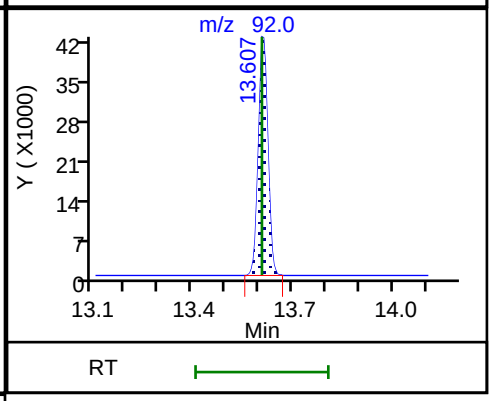
Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D		
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

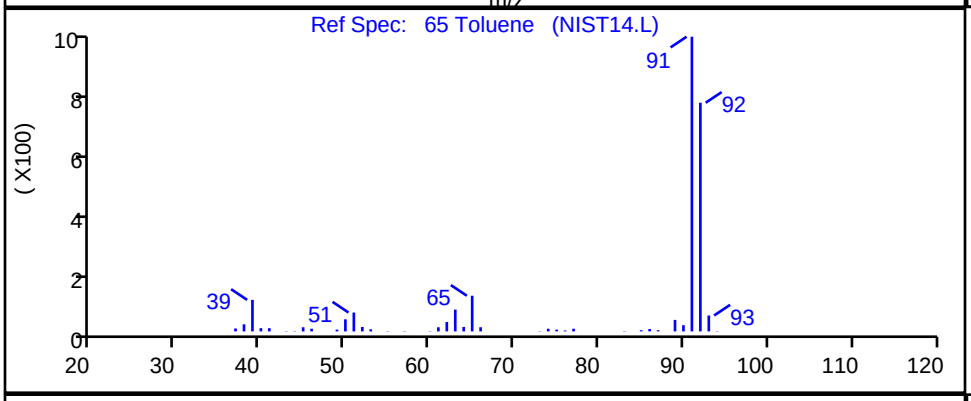
65 Toluene, CAS: 108-88-3

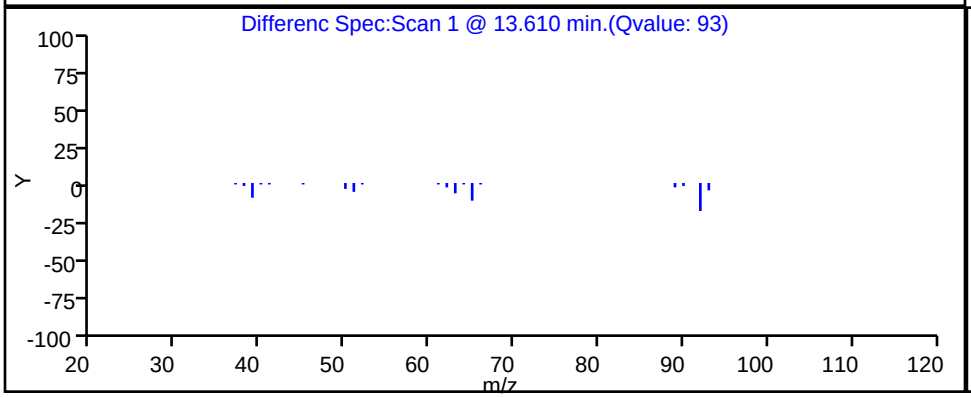


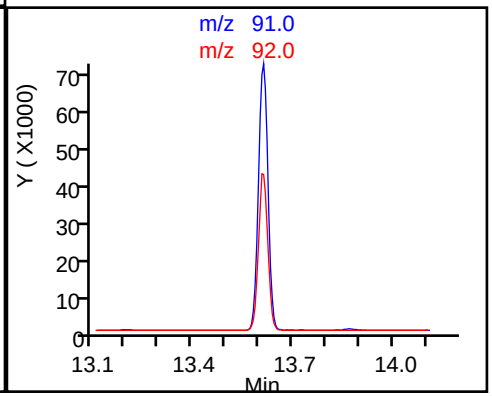








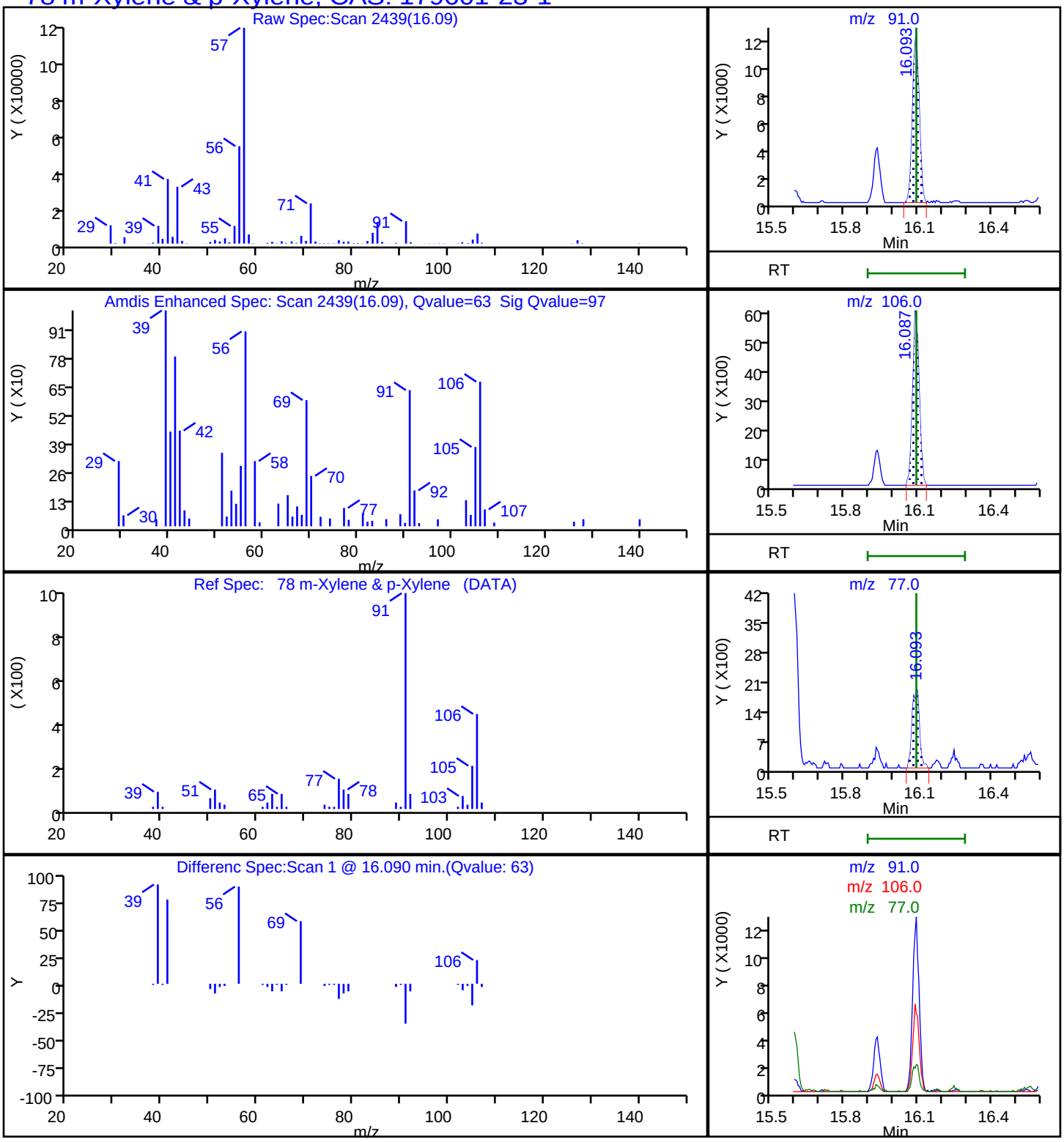




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH		
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3		
Client ID:	IA-168-A-27-RS				
Operator ID:	afb	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1



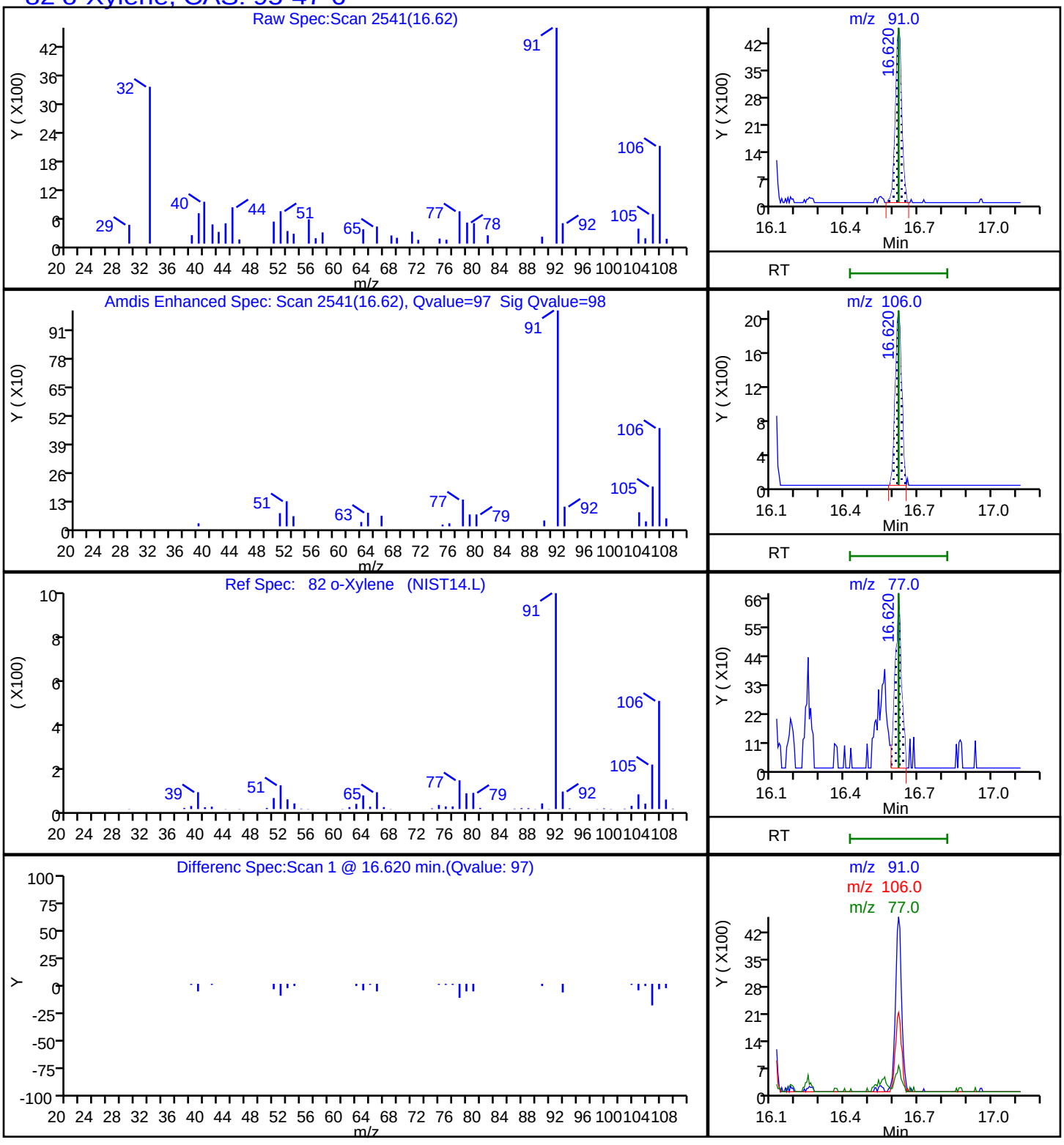
Report Date: 09-Oct-2019 10:18:57 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D

Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3
Client ID:	IA-168-A-27-RS		
Operator ID:	afb	ALS Bottle#:	2 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



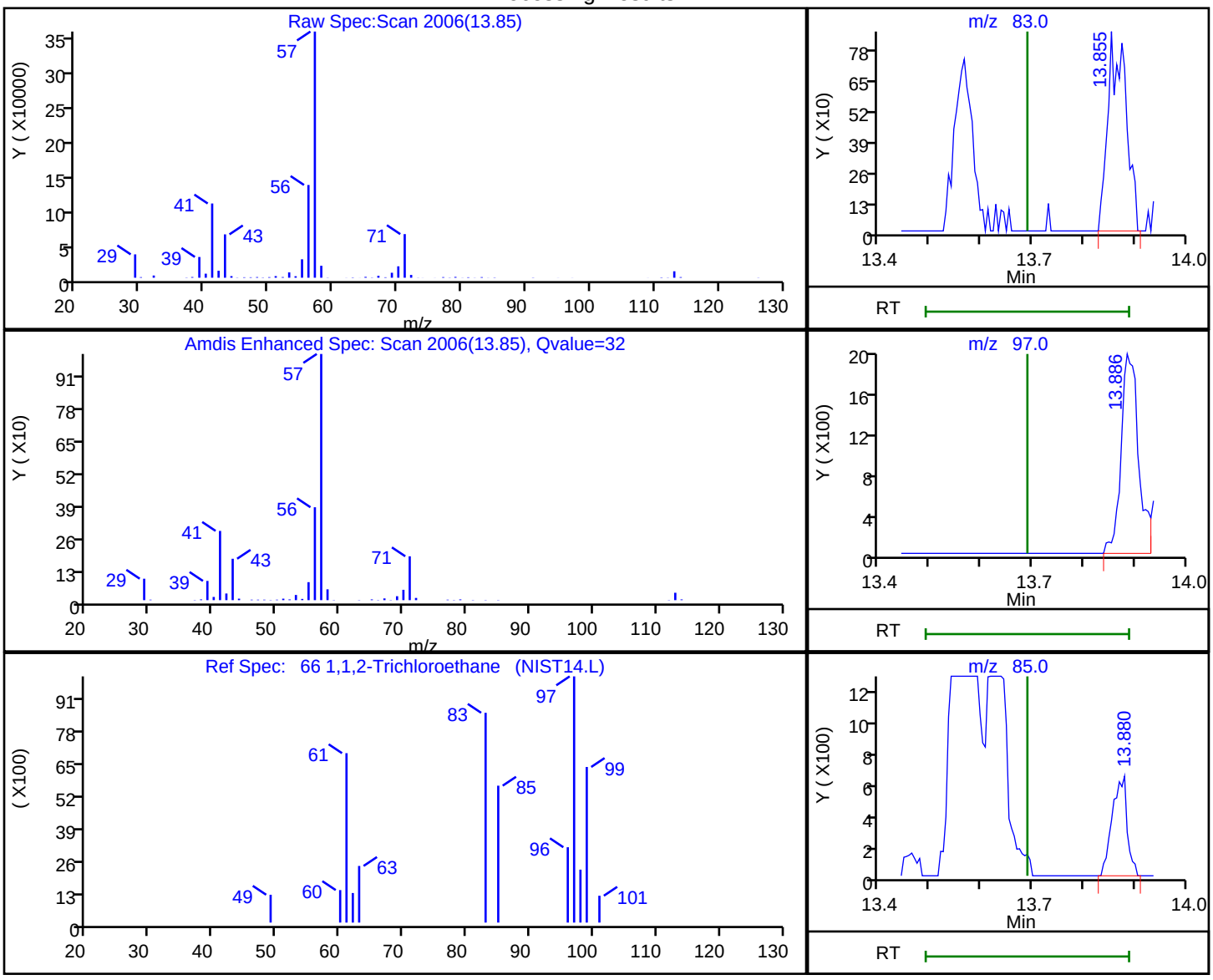
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p102.D				
Injection Date:	08-Oct-2019 16:35:30	Instrument ID:	MH		
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3		
Client ID:	IA-168-A-27-RS				
Operator ID:	afb	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

66 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.85	83.00	2113	0.030156
13.89	97.00	4670	
13.88	85.00	1312	

Reviewer: khachitpongpanits, 09-Oct-2019 10:16:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p106.D
Lims ID: 140-16893-A-3
Client ID: IA-168-A-27-RS
Sample Type: Client
Inject. Date: 09-Oct-2019 19:03:30 ALS Bottle#: 6 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-011
Misc. Info.: 140-16893-A-3
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:39:15 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:39:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.065	9.059	0.006	96	211679	4.00	
* 2 1,4-Difluorobenzene	114	11.232	11.233	-0.001	96	1284918	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1113463	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.552	17.558	-0.006	85	793625	4.08	
6 Chlorodifluoromethane	51	3.791	3.785	0.000	95	10083	0.0960	
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	100	19882	0.1180	
44 Chloroform	83	9.065	9.059	-0.005	27	1281	0.009342	
50 Benzene	78	10.699	10.699	0.000	91	6645	0.0292	
52 Carbon tetrachloride	117	10.726	10.715	0.006	94	1927	0.0125	
67 Toluene	91	13.966	13.966	0.000	94	109440	0.4910	
78 Ethylbenzene	91	16.253	16.258	-0.005	98	6091	0.0201	
79 m-Xylene & p-Xylene	91	16.409	16.420	-0.011	75	18410	0.0783	
83 o-Xylene	91	16.943	16.943	0.000	98	6737	0.0257	
S 124 Xylenes, Total	100				0		0.1040	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

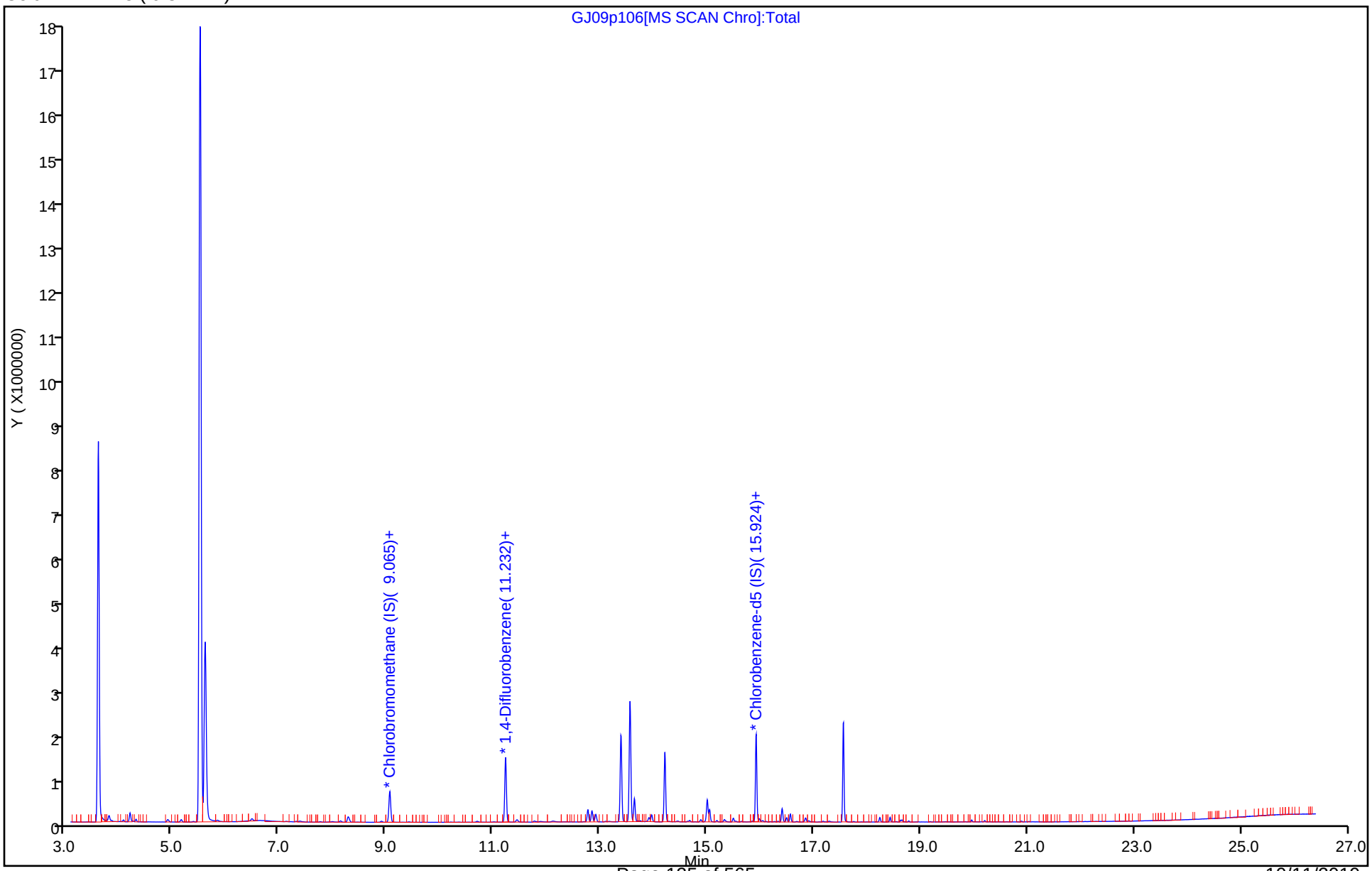
Report Date: 10-Oct-2019 10:39:28 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p106.D

Injection Date:	09-Oct-2019 19:03:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-3	Lab Sample ID:	140-16893-3	Worklist Smp#:	11
Client ID:	IA-168-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p106.D				
Lims ID:	140-16893-A-3				
Client ID:	IA-168-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 19:03:30	ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-011				
Misc. Info.:	140-16893-A-3				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:39:15	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:39:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.08	102.04

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.042	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.3	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.54	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.48	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D
Lims ID: 140-16893-A-4
Client ID: IA-021-A-27-RS
Sample Type: Client
Inject. Date: 08-Oct-2019 17:28:30 ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-010
Misc. Info.: 140-16893-A-4
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Oct-2019 10:19:34 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:19:34

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.609	8.604	0.005	98	175850	4.00	
*	2 1,4-Difluorobenzene	114	10.811	10.811	0.001	95	885161	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	665564	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	390581	3.72	
	6 Chlorodifluoromethane	51	3.533	3.531	0.000	96	12668	0.0936	
	8 Dichlorodifluoromethane	85	3.595	3.588	0.005	99	20009	0.0985	
	31 Methylene Chloride	84	6.071	6.057	0.010	97	23363	0.2671	
	43 Chloroform	83	8.609	8.614	-0.010	27	1297	0.008495	
	47 Benzene	78	10.252	10.247	0.000	95	5690	0.0294	
	50 Carbon tetrachloride	117	10.283	10.268	0.010	92	2032	0.0142	
	65 Toluene	91	13.612	13.607	0.005	92	39322	0.1925	
	73 Tetrachloroethene	129	14.759	14.759	0.000	91	650	0.008178	
	76 Ethylbenzene	91	15.927	15.932	-0.005	98	5763	0.0222	
	78 m-Xylene & p-Xylene	91	16.093	16.093	0.000	63	15909	0.0800	
	82 o-Xylene	91	16.620	16.620	0.000	98	5856	0.0284	
S	121 Xylenes, Total	100				0		0.1084	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

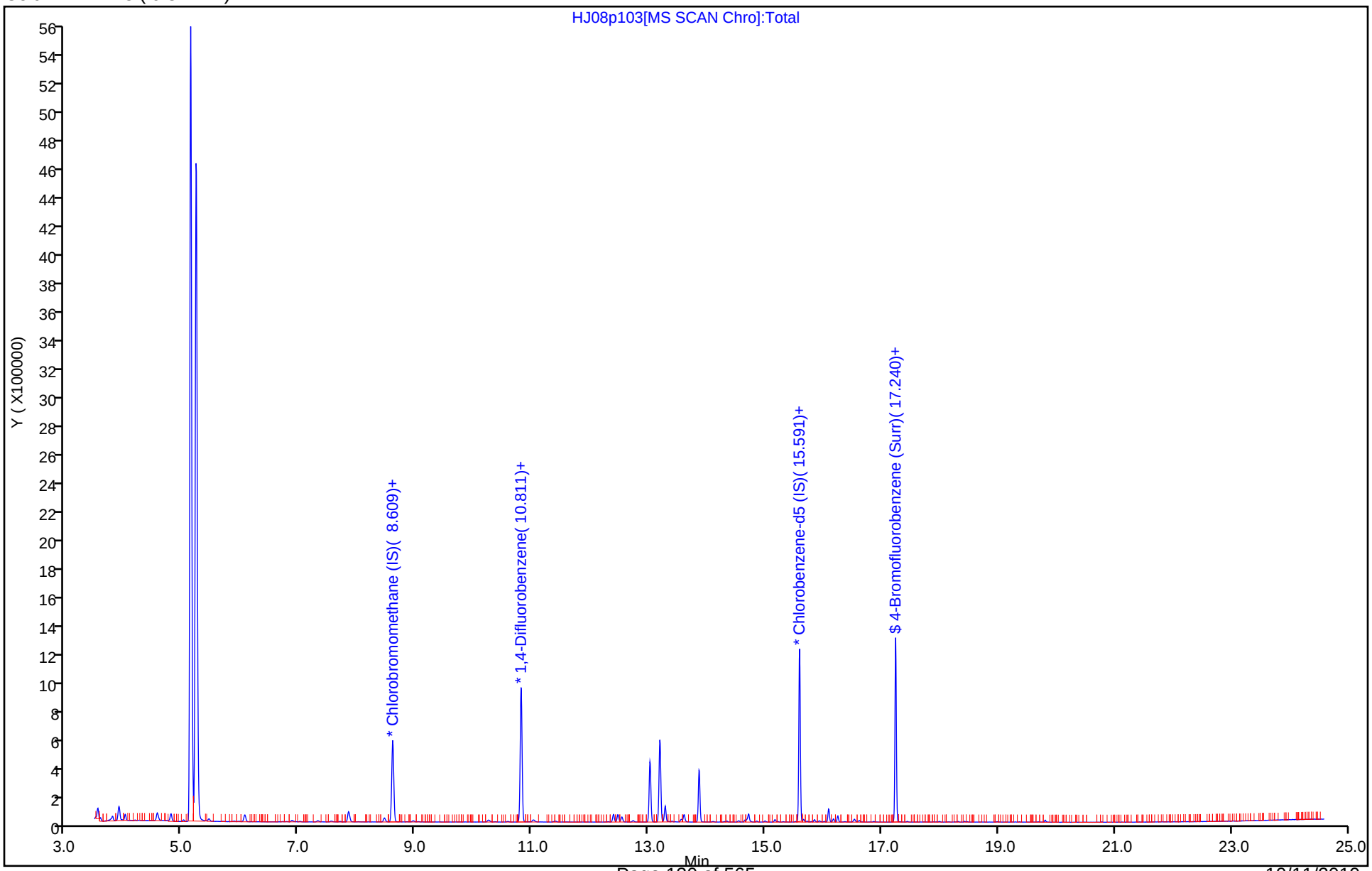
Report Date: 09-Oct-2019 10:19:35 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D

Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4	Worklist Smp#:	10
Client ID:	IA-021-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Lims ID:	140-16893-A-4				
Client ID:	IA-021-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 17:28:30	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-010				
Misc. Info.:	140-16893-A-4				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:19:34	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				

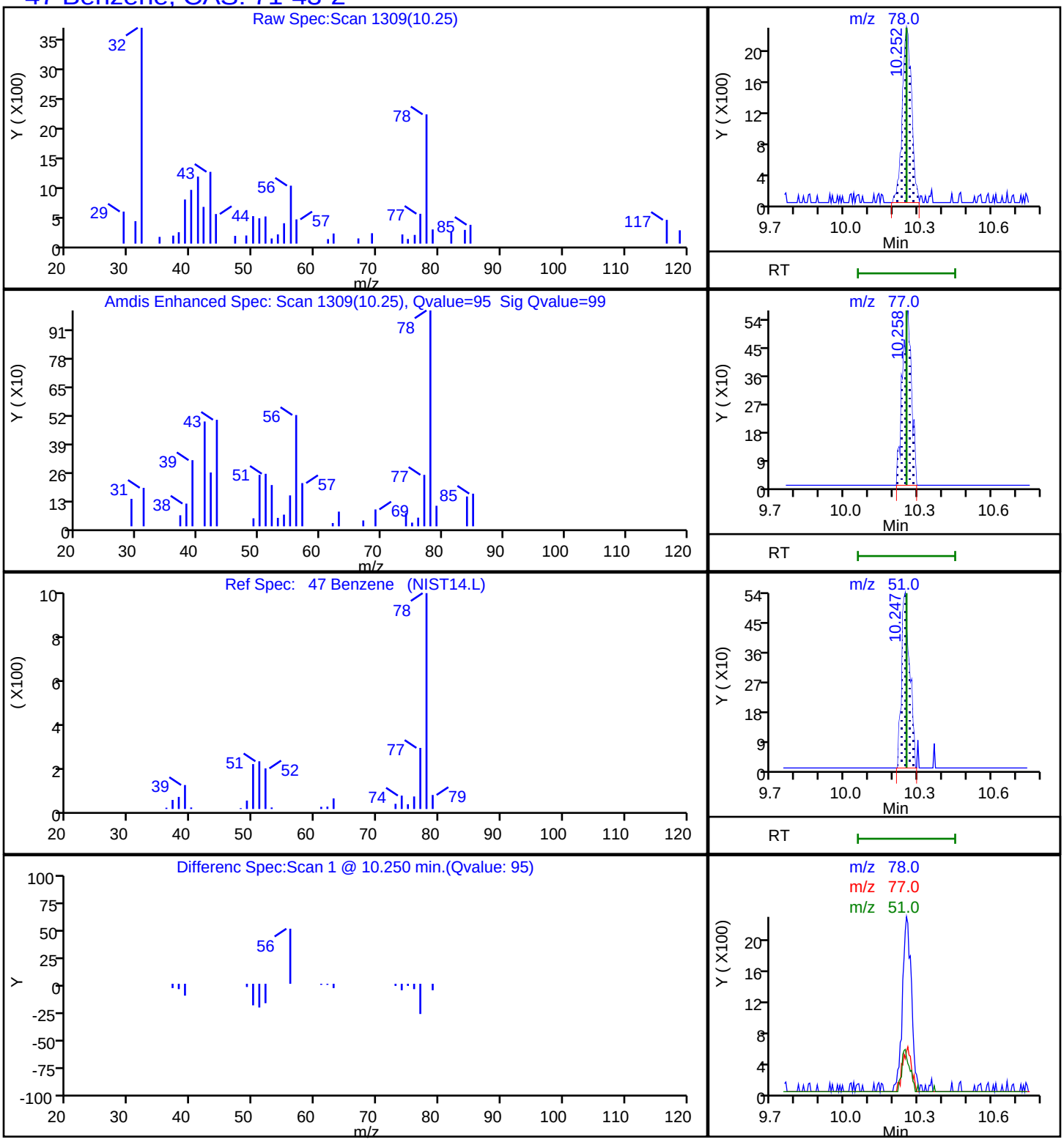
First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:19:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.72	93.01

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D		
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4
Client ID:	IA-021-A-27-RS		
Operator ID:	afb	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

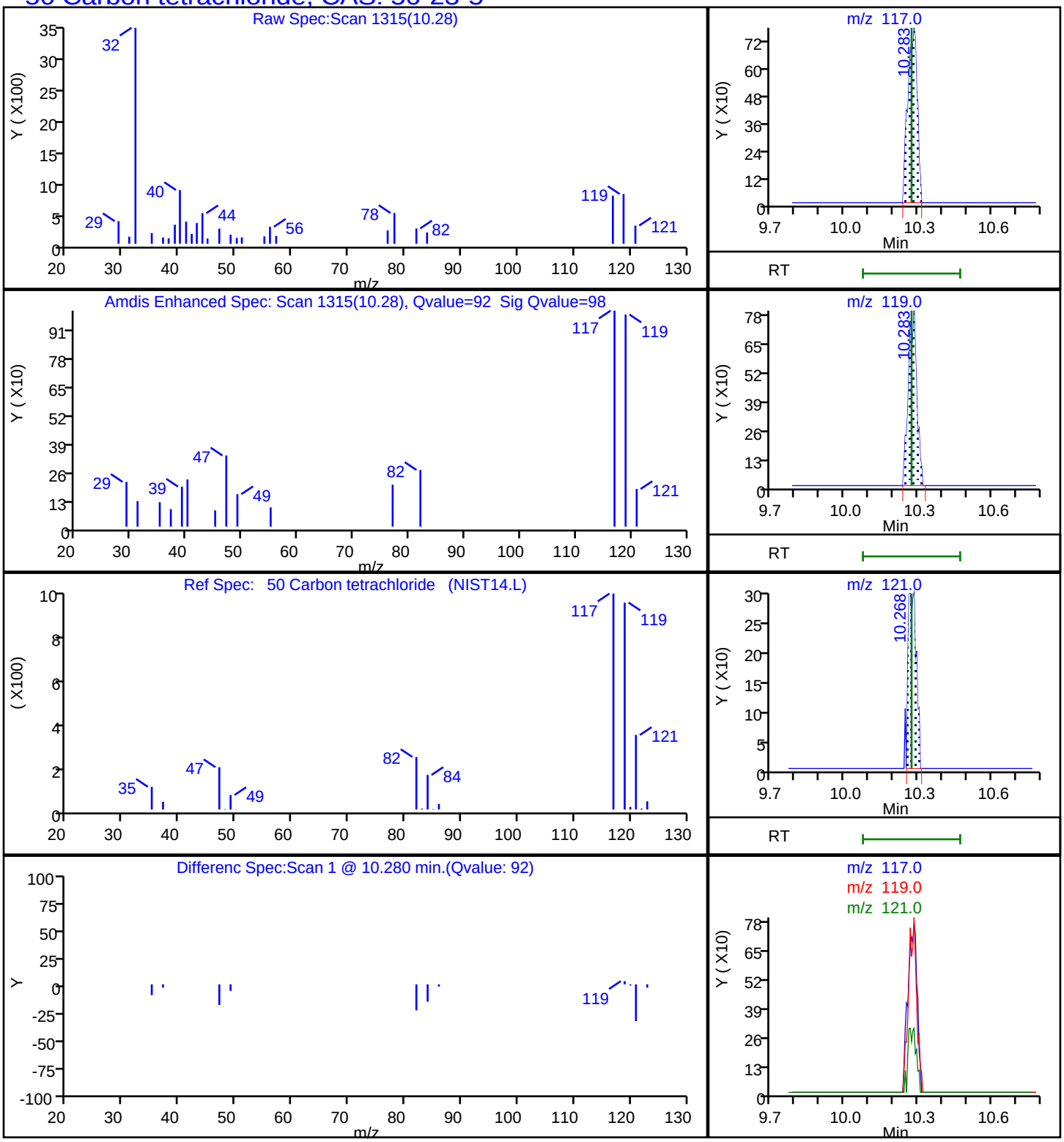
47 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D
Injection Date: 08-Oct-2019 17:28:30 Instrument ID: MH
Lims ID: 140-16893-A-4 Lab Sample ID: 140-16893-4
Client ID: IA-021-A-27-RS
Operator ID: afb ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

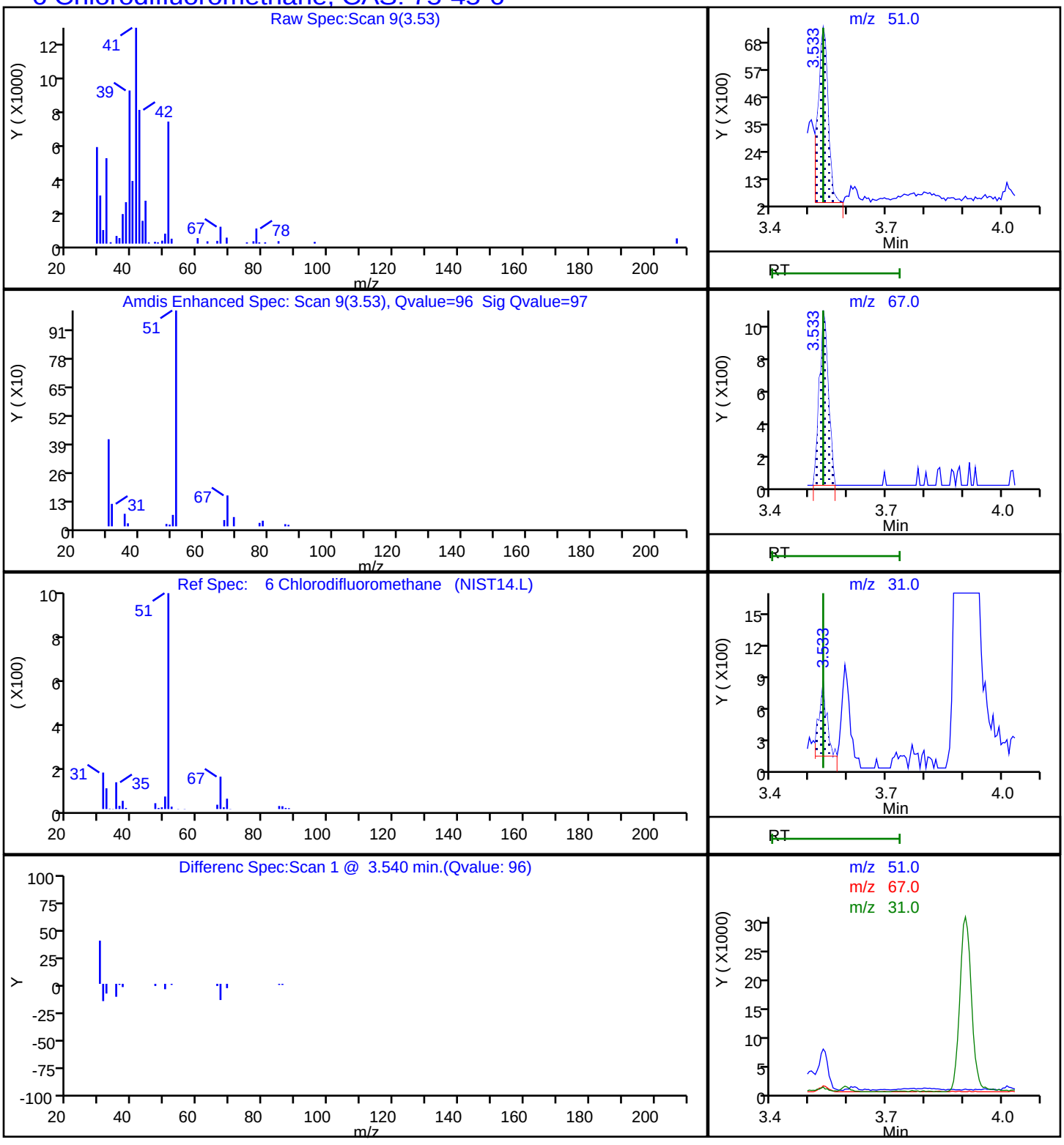
50 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

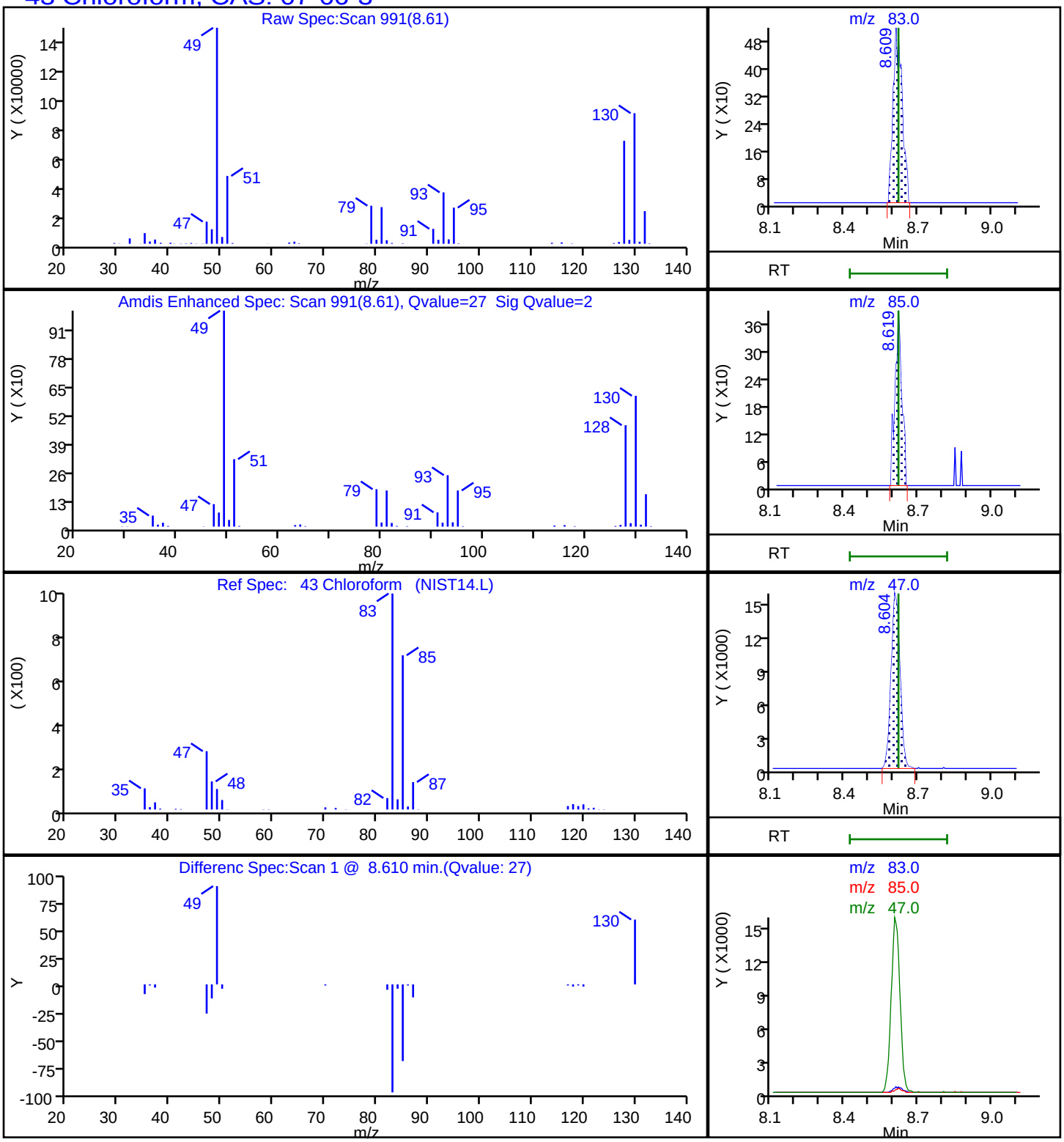
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D		
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4
Client ID:	IA-021-A-27-RS		
Operator ID:	afb	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

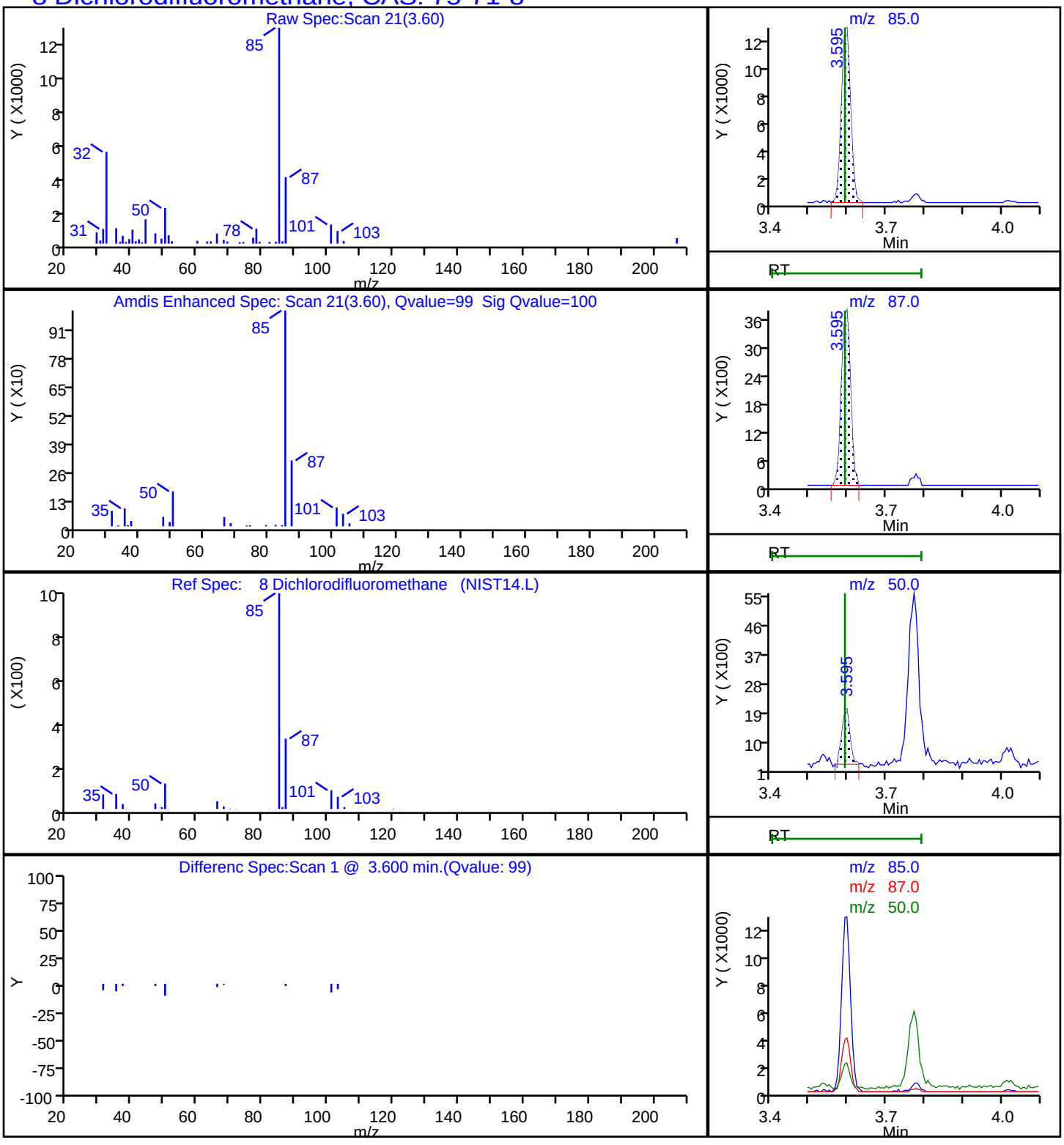
43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

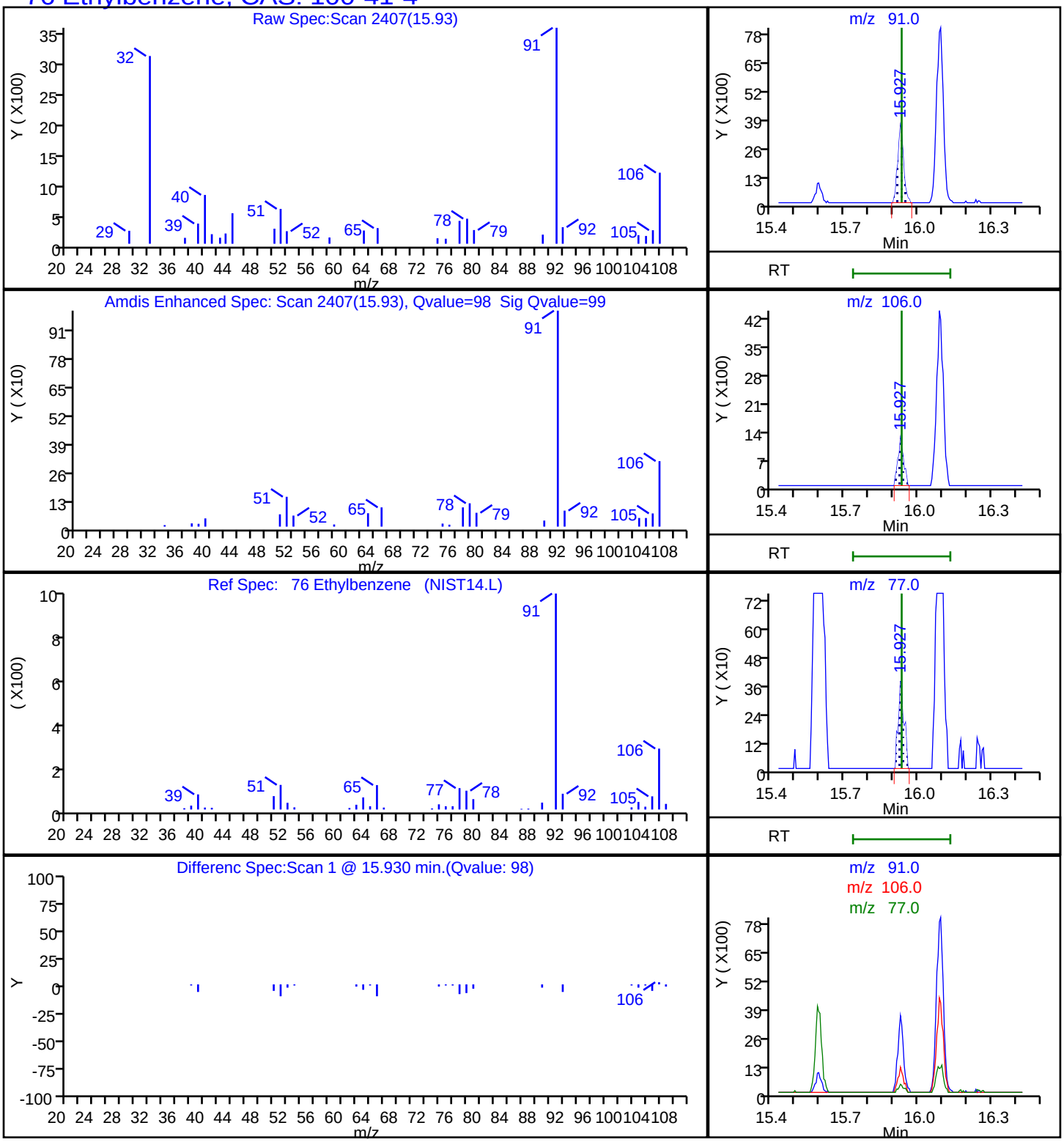
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

76 Ethylbenzene, CAS: 100-41-4

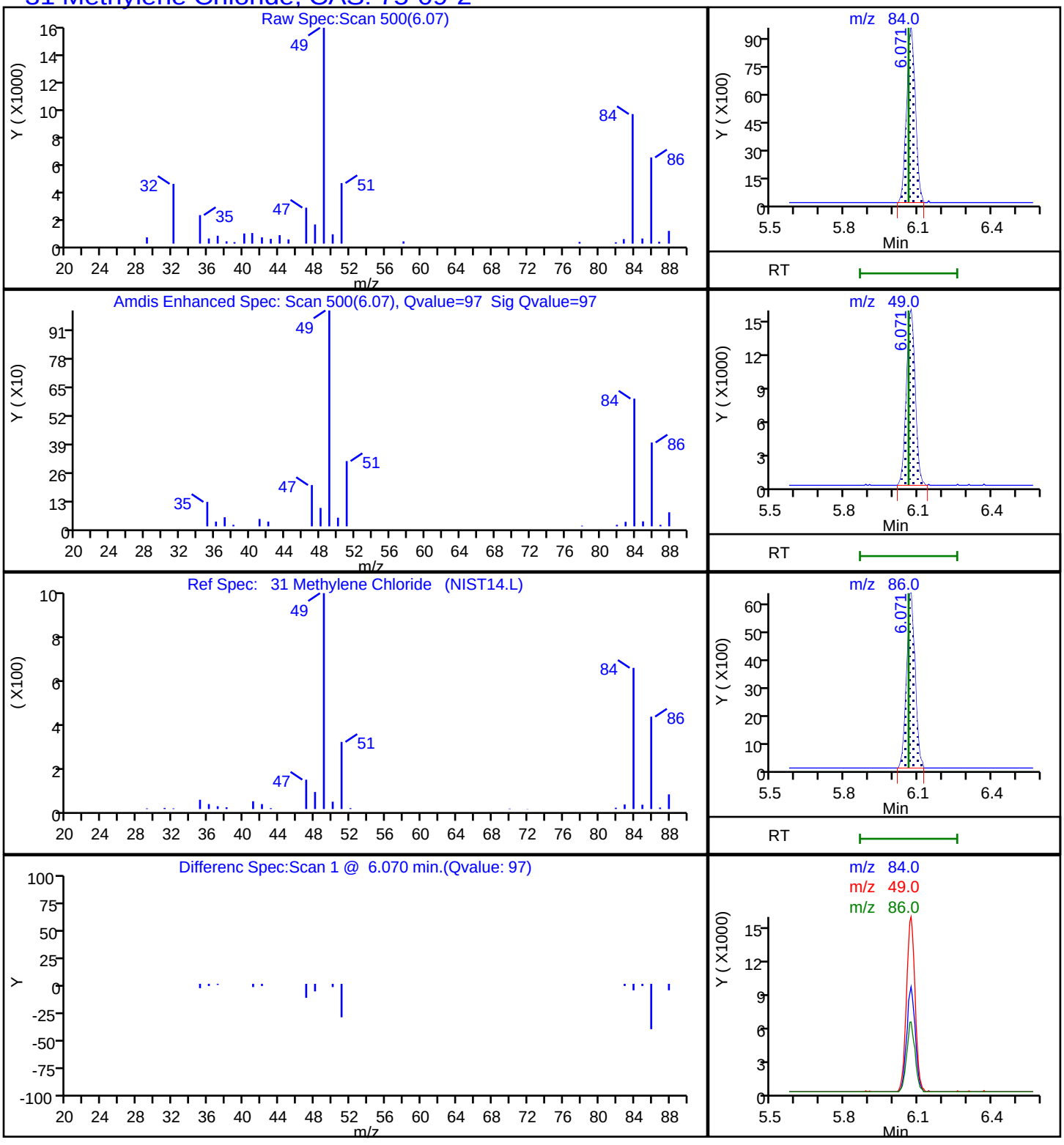


Report Date: 09-Oct-2019 10:19:35 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

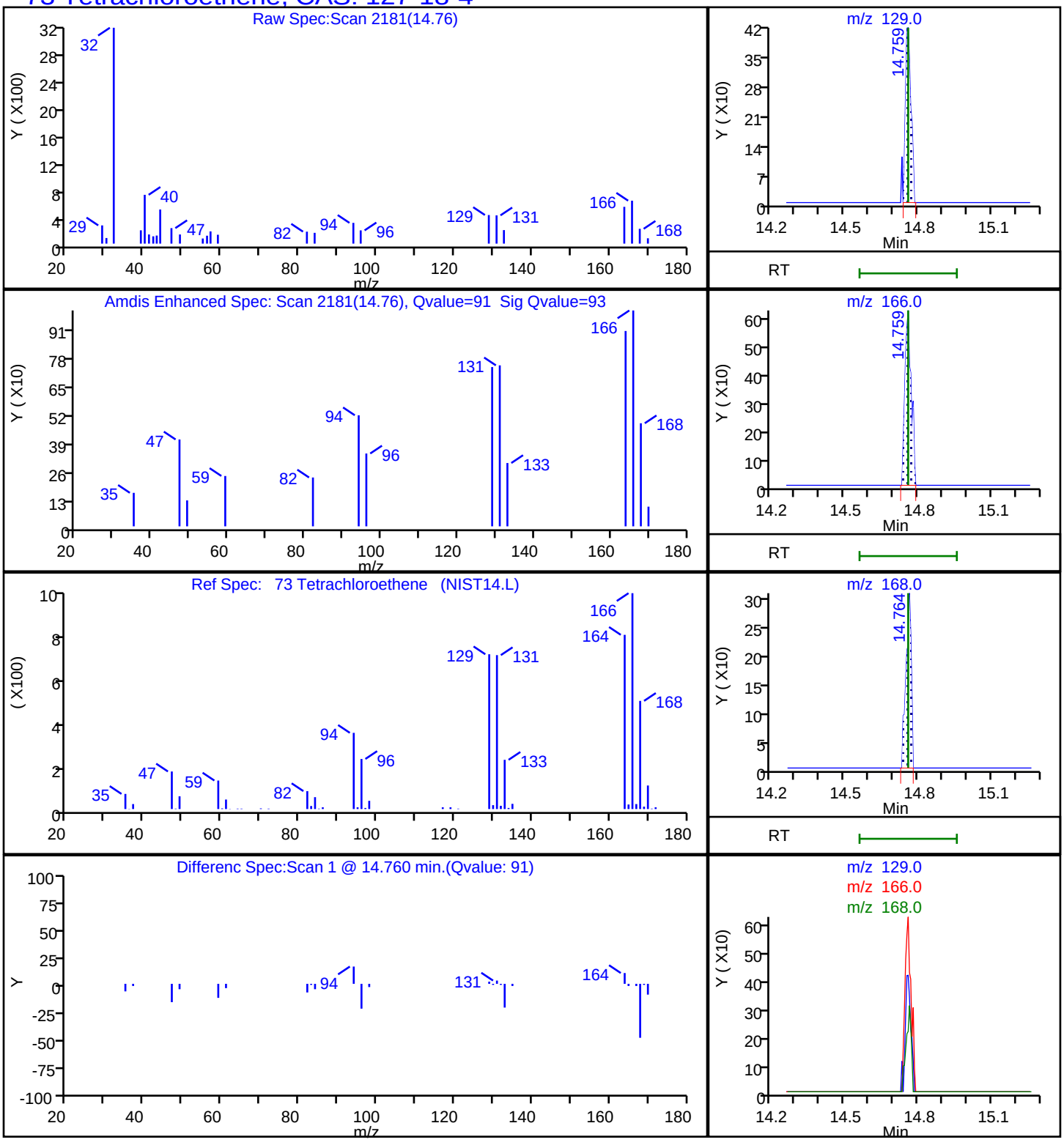
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

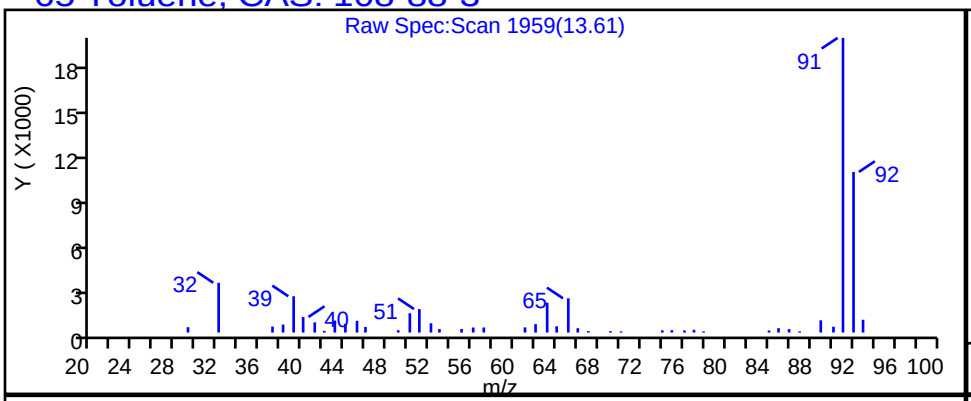
73 Tetrachloroethene, CAS: 127-18-4

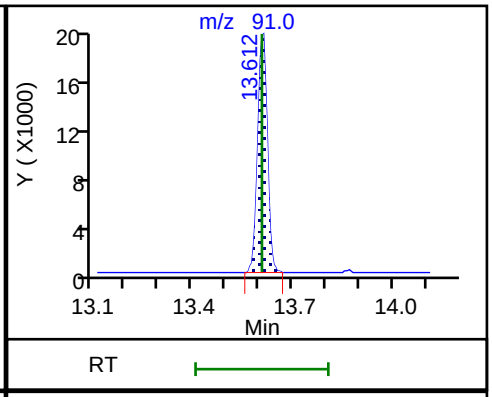


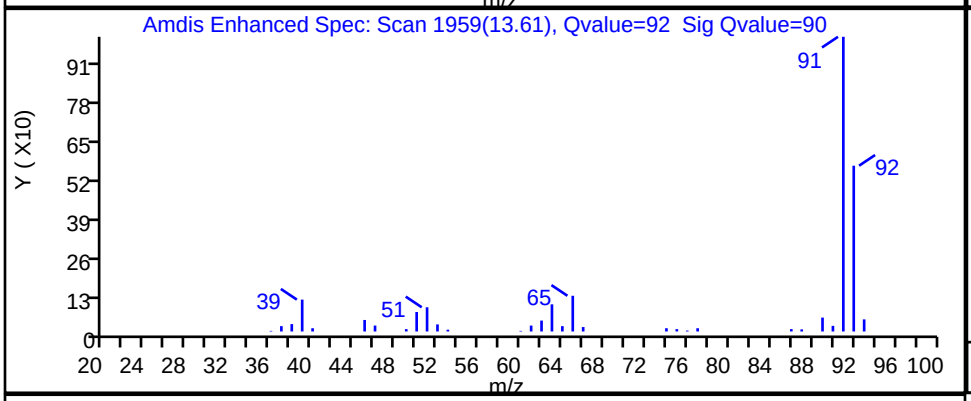
Eurofins TestAmerica, Knoxville

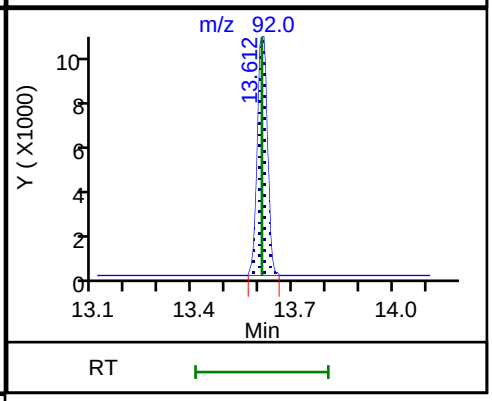
Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

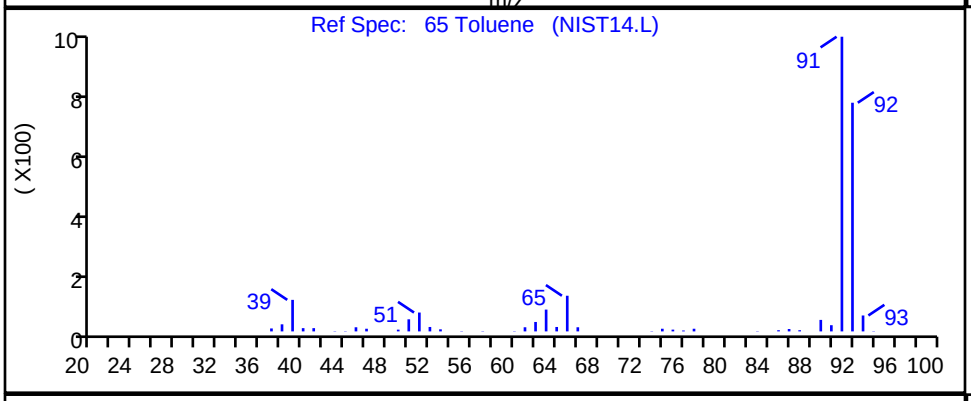
65 Toluene, CAS: 108-88-3

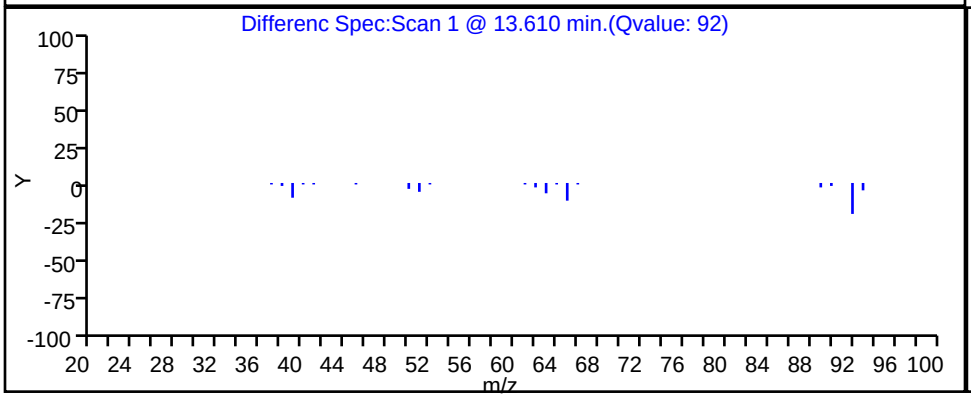


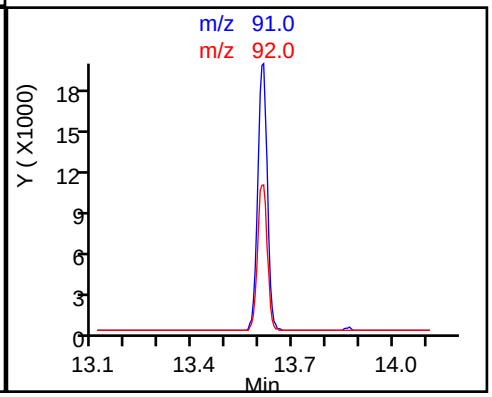










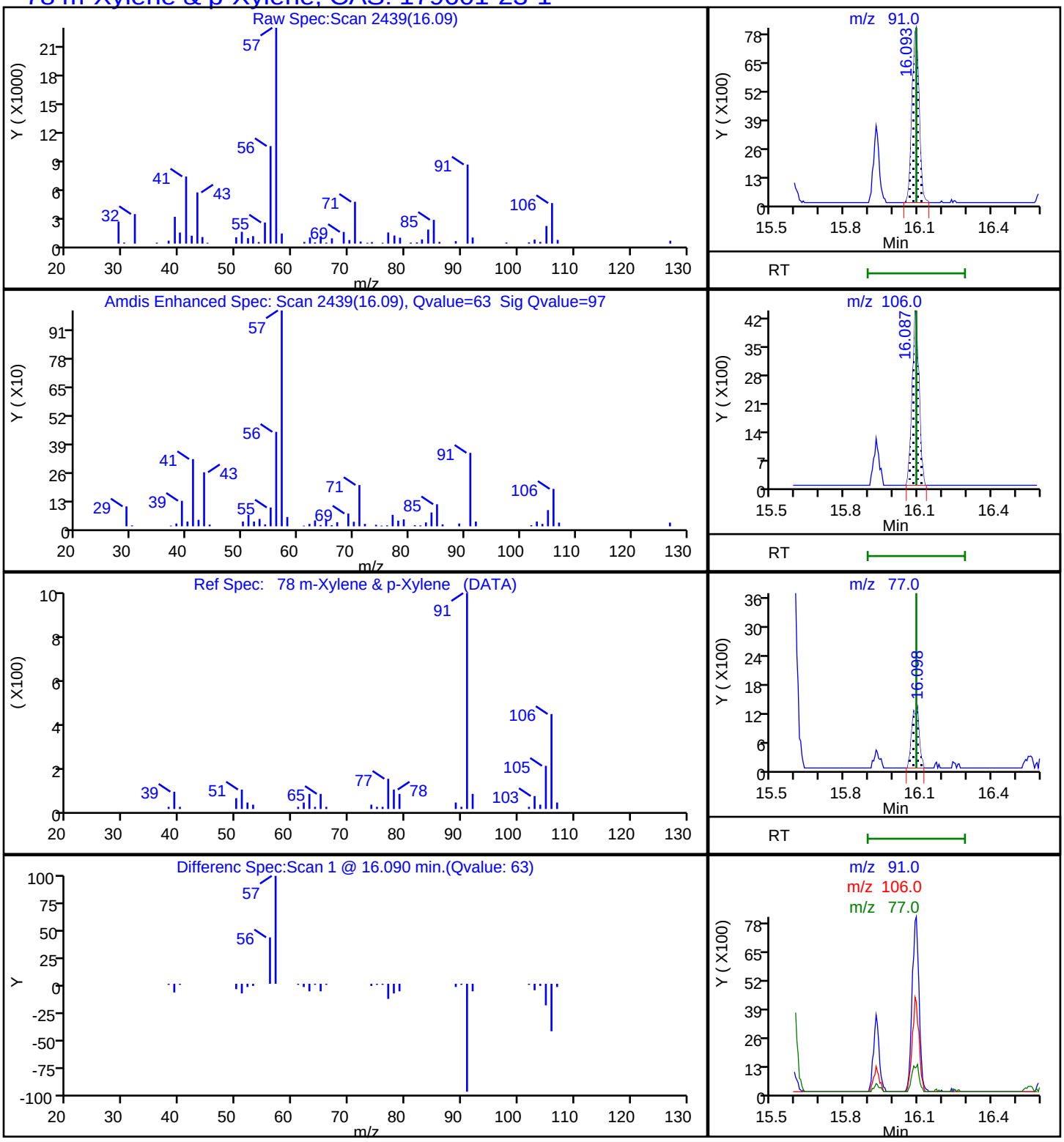


Report Date: 09-Oct-2019 10:19:35 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1



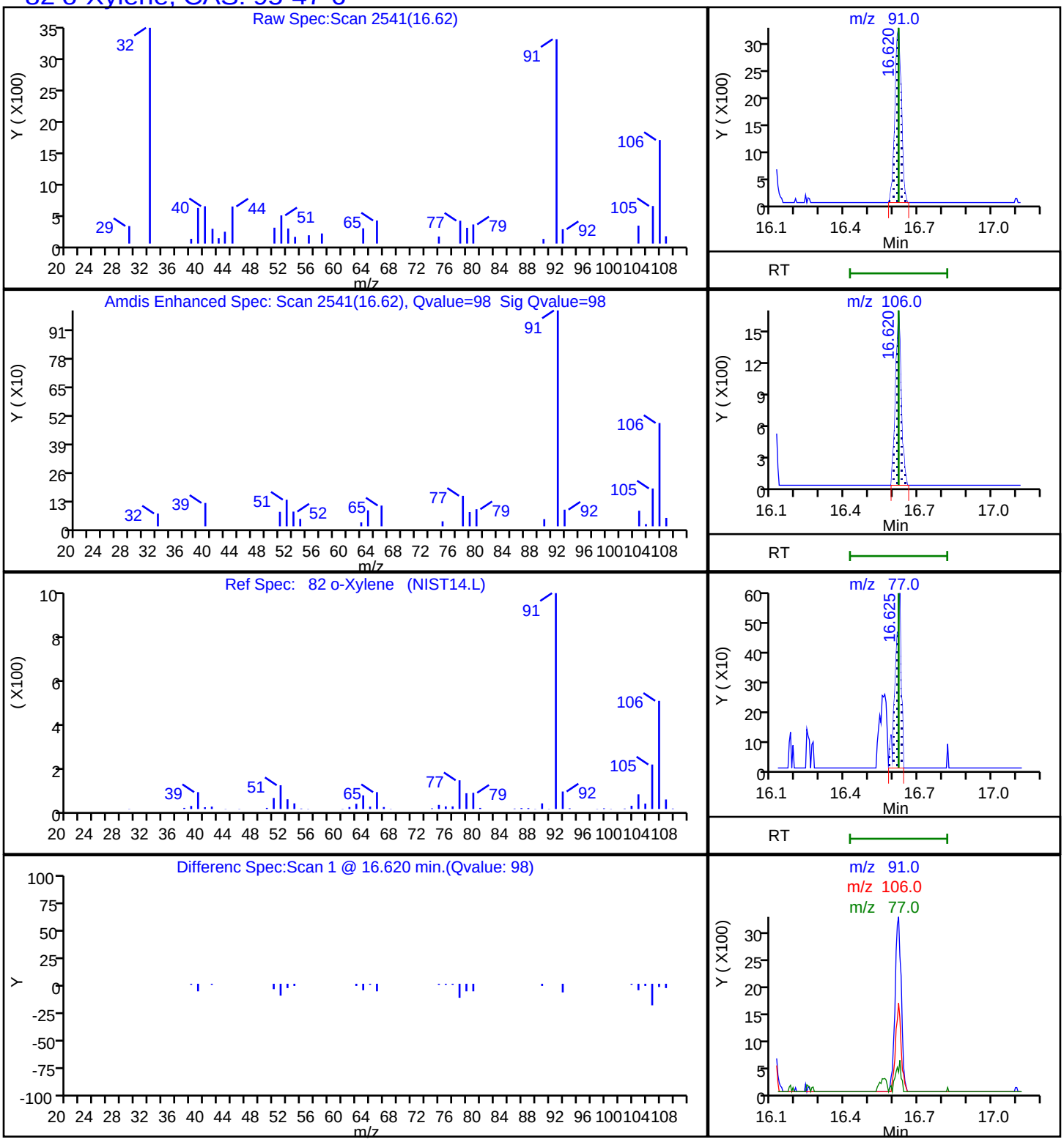
Report Date: 09-Oct-2019 10:19:35 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D

Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4
Client ID:	IA-021-A-27-RS		
Operator ID:	afb	ALS Bottle#:	3 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



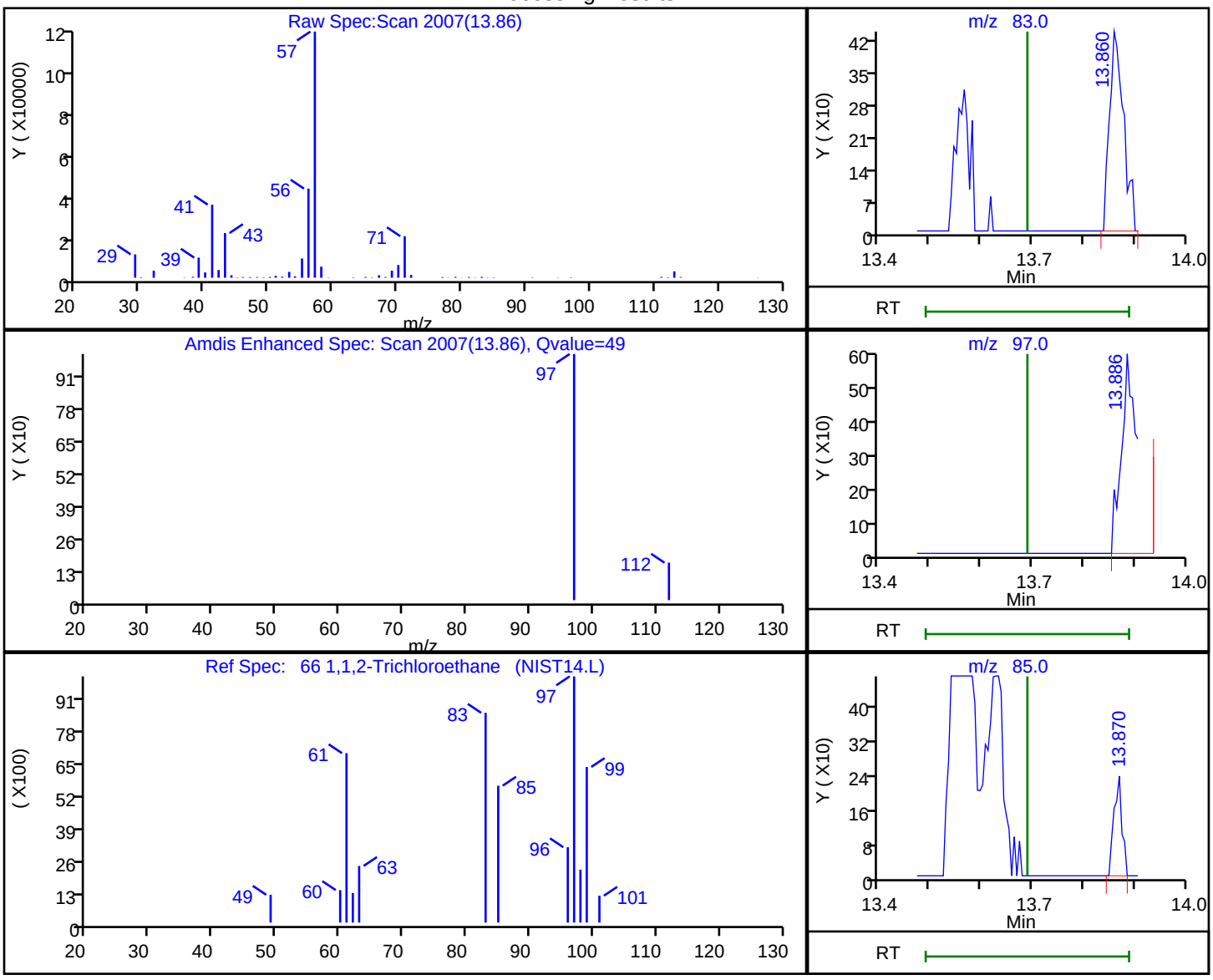
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p103.D				
Injection Date:	08-Oct-2019 17:28:30	Instrument ID:	MH		
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4		
Client ID:	IA-021-A-27-RS				
Operator ID:	afb	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

66 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.86	83.00	833	0.012185
13.89	97.00	1330	
13.87	85.00	256	

Reviewer: khachitpongpanits, 09-Oct-2019 10:19:22

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p107.D
Lims ID: 140-16893-A-4
Client ID: IA-021-A-27-RS
Sample Type: Client
Inject. Date: 09-Oct-2019 19:47:30 ALS Bottle#: 7 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-012
Misc. Info.: 140-16893-A-4
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:39:15 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:39:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.054	9.059	-0.005	96	198924	4.00	
* 2 1,4-Difluorobenzene	114	11.227	11.233	-0.006	96	1201549	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1030165	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.552	17.558	-0.006	85	737649	4.10	
6 Chlorodifluoromethane	51	3.791	3.785	0.000	96	9560	0.0968	
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	100	19467	0.1230	
31 Methylene Chloride	84	6.471	6.471	0.000	97	27362	0.1519	
44 Chloroform	83	9.065	9.059	-0.005	32	1127	0.008746	
50 Benzene	78	10.688	10.699	-0.011	94	6052	0.0285	
52 Carbon tetrachloride	117	10.726	10.715	0.006	91	2142	0.0148	
67 Toluene	91	13.961	13.966	-0.005	94	32506	0.1576	
73 Tetrachloroethene	129	15.104	15.104	0.000	86	578	0.007156	
78 Ethylbenzene	91	16.253	16.258	-0.005	98	5916	0.0211	
79 m-Xylene & p-Xylene	91	16.409	16.420	-0.011	64	16171	0.0743	
83 o-Xylene	91	16.938	16.943	-0.005	97	6363	0.0262	
S 124 Xylenes, Total	100				0		0.1006	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

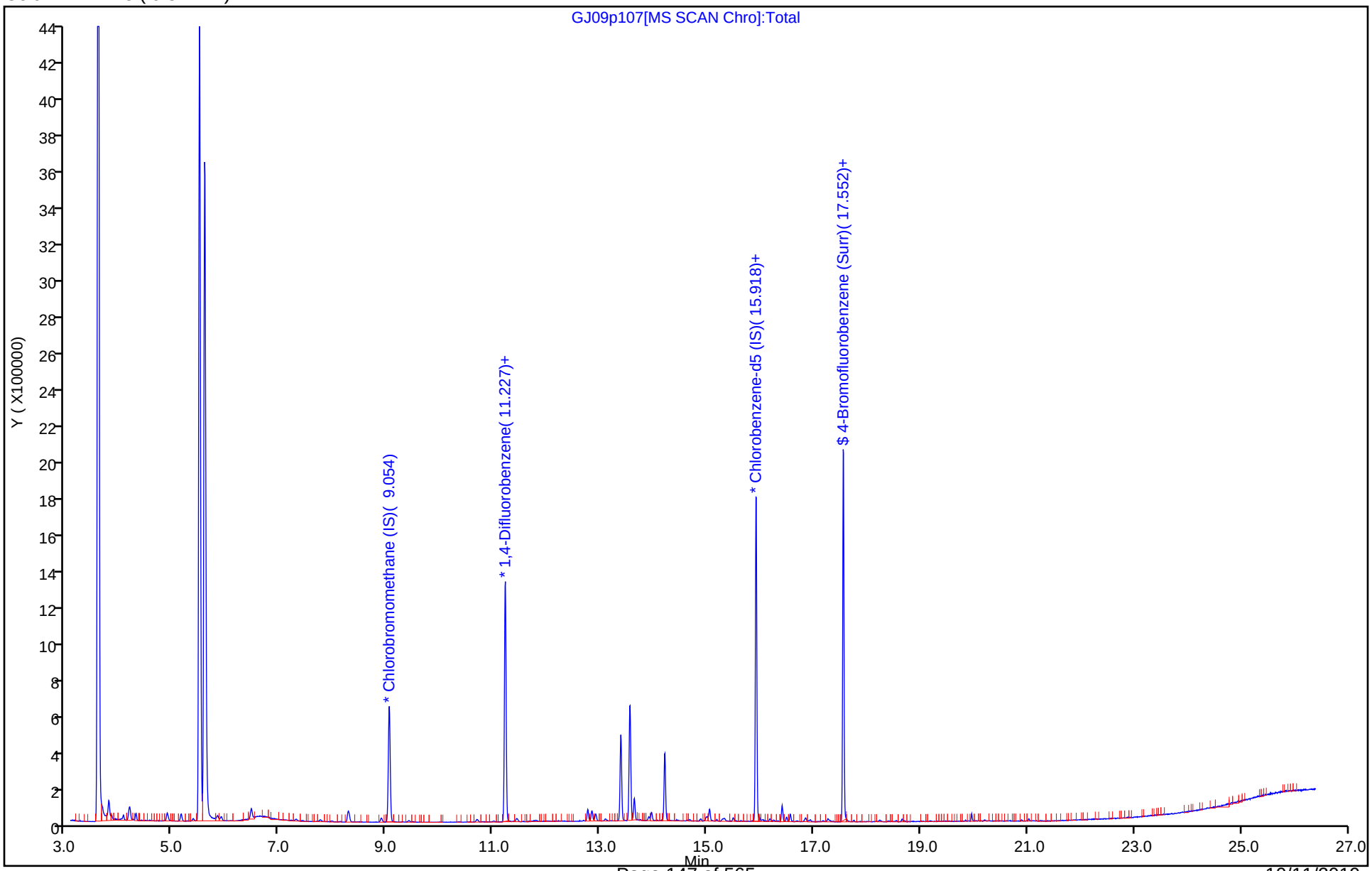
Report Date: 10-Oct-2019 10:39:53 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p107.D

Injection Date:	09-Oct-2019 19:47:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-4	Lab Sample ID:	140-16893-4	Worklist Smp#:	12
Client ID:	IA-021-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p107.D				
Lims ID:	140-16893-A-4				
Client ID:	IA-021-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 19:47:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-012				
Misc. Info.:	140-16893-A-4				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:39:15	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:39:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.10	102.52

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.5	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.42	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	4.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D
Lims ID: 140-16893-A-5
Client ID: IA-136-A-27-RS
Sample Type: Client
Inject. Date: 08-Oct-2019 18:21:30 ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-011
Misc. Info.: 140-16893-A-5
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Oct-2019 10:20:03 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:20:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.614	8.604	0.010	98	171262	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.811	0.006	95	867656	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	693298	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	412457	3.77	
6 Chlorodifluoromethane	51	3.533	3.531	0.000	46	12411	0.0942	
8 Dichlorodifluoromethane	85	3.595	3.588	0.005	100	19876	0.1005	
31 Methylene Chloride	84	6.071	6.057	0.010	96	25671	0.3013	
43 Chloroform	83	8.629	8.614	0.010	33	1460	0.009819	
47 Benzene	78	10.257	10.247	0.005	95	5617	0.0296	
50 Carbon tetrachloride	117	10.273	10.268	0.000	80	2055	0.0147	
65 Toluene	91	13.606	13.607	-0.001	93	49347	0.2319	
73 Tetrachloroethene	129	14.764	14.759	0.005	70	696	0.008407	
76 Ethylbenzene	91	15.932	15.932	0.000	97	4661	0.0172	
78 m-Xylene & p-Xylene	91	16.092	16.093	-0.001	51	12991	0.0627	
82 o-Xylene	91	16.620	16.620	0.000	98	4840	0.0225	
S 121 Xylenes, Total	100				0		0.0852	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

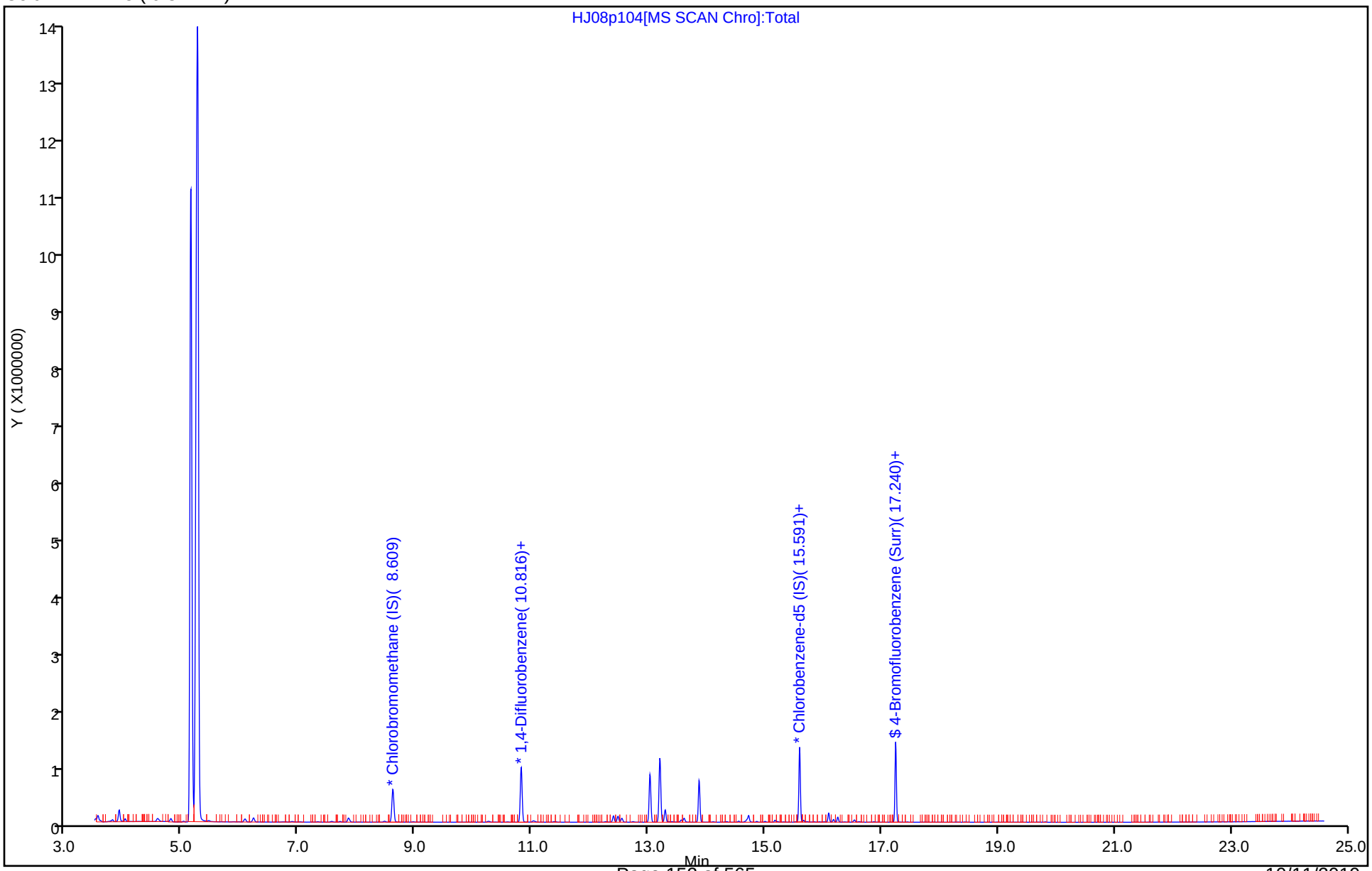
Report Date: 09-Oct-2019 10:20:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D

Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5	Worklist Smp#:	11
Client ID:	IA-136-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Lims ID:	140-16893-A-5				
Client ID:	IA-136-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 18:21:30	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-011				
Misc. Info.:	140-16893-A-5				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:20:03	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:20:03

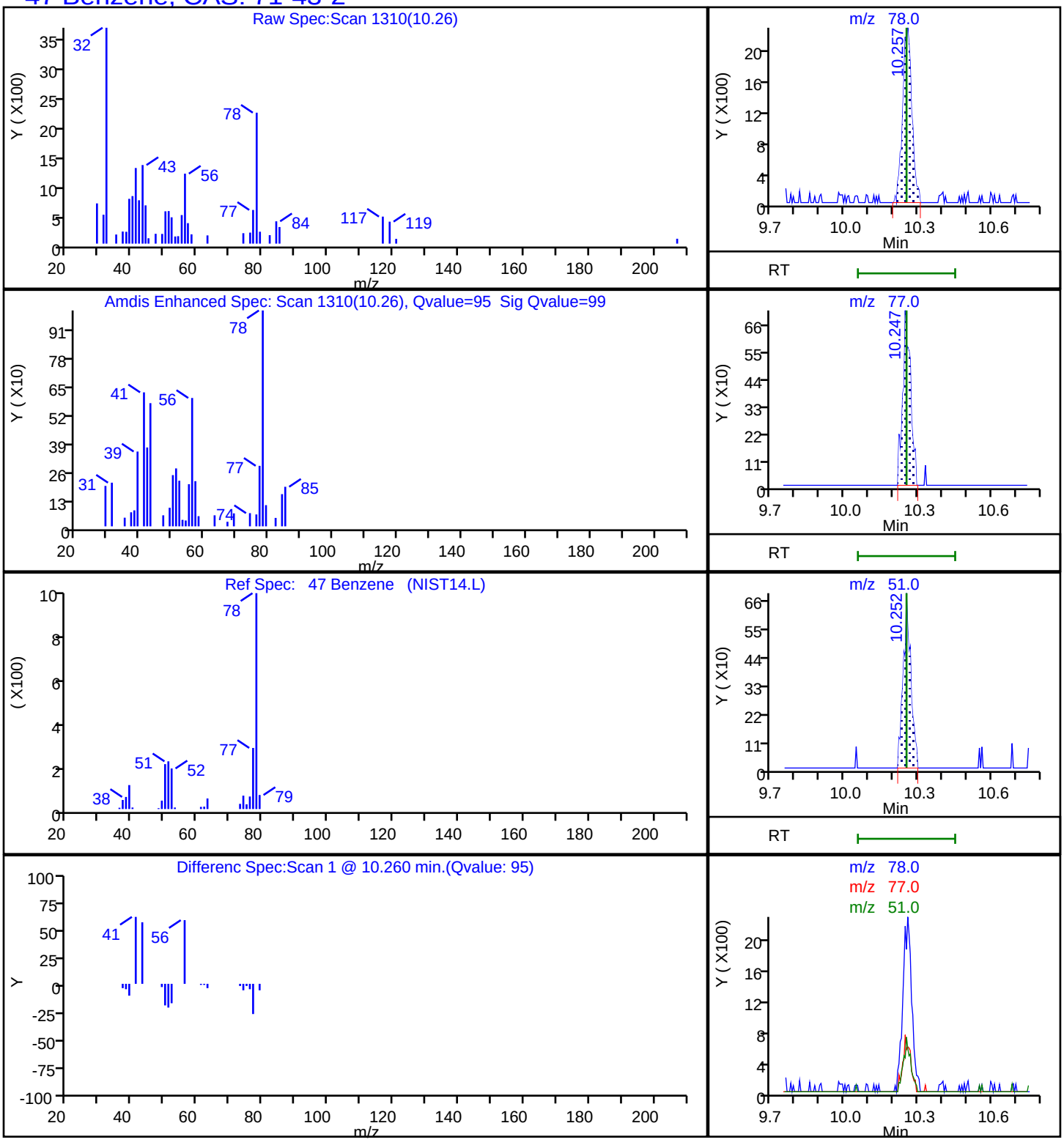
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.77	94.29

Report Date: 09-Oct-2019 10:20:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

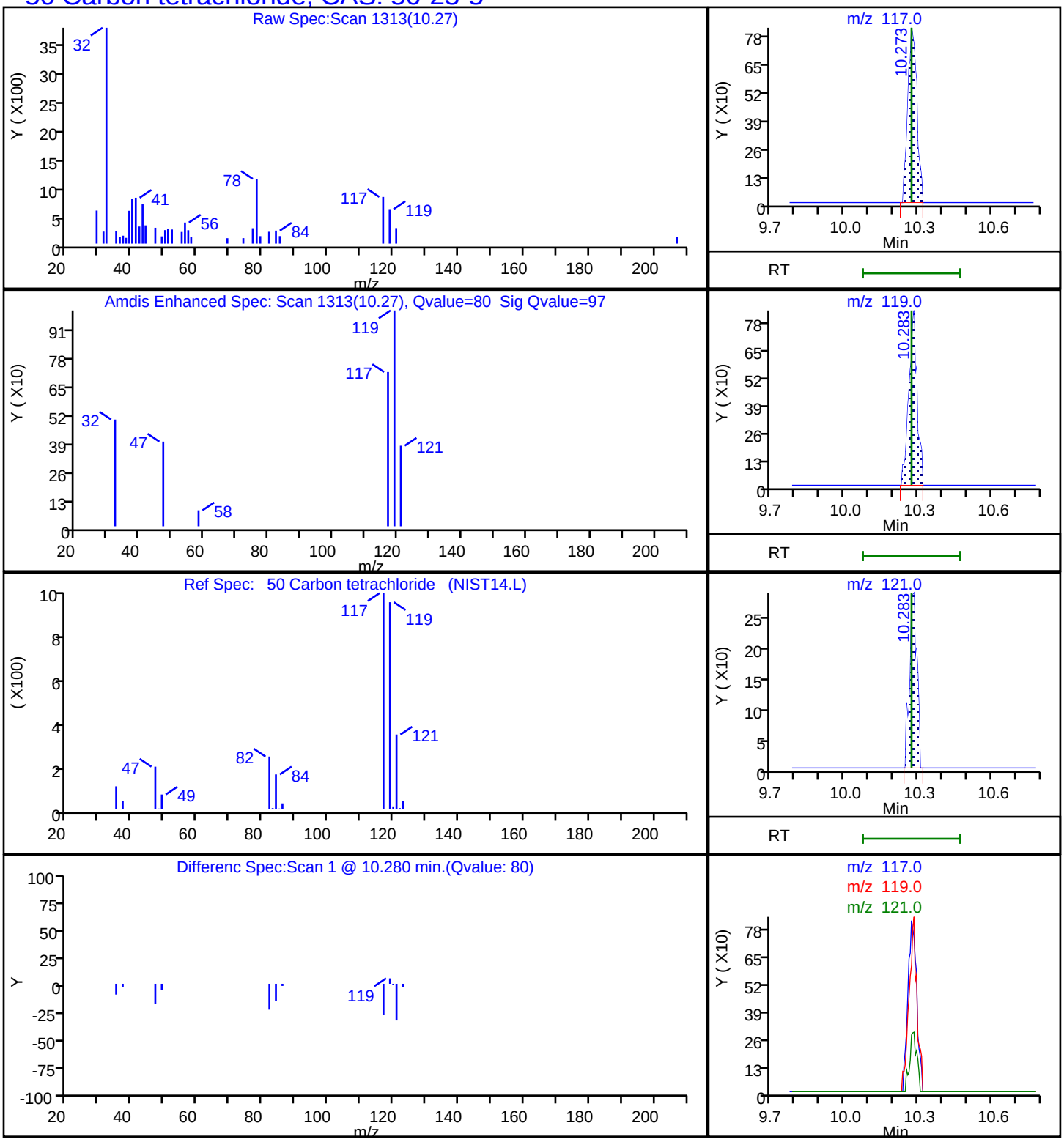
47 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Carbon tetrachloride, CAS: 56-23-5

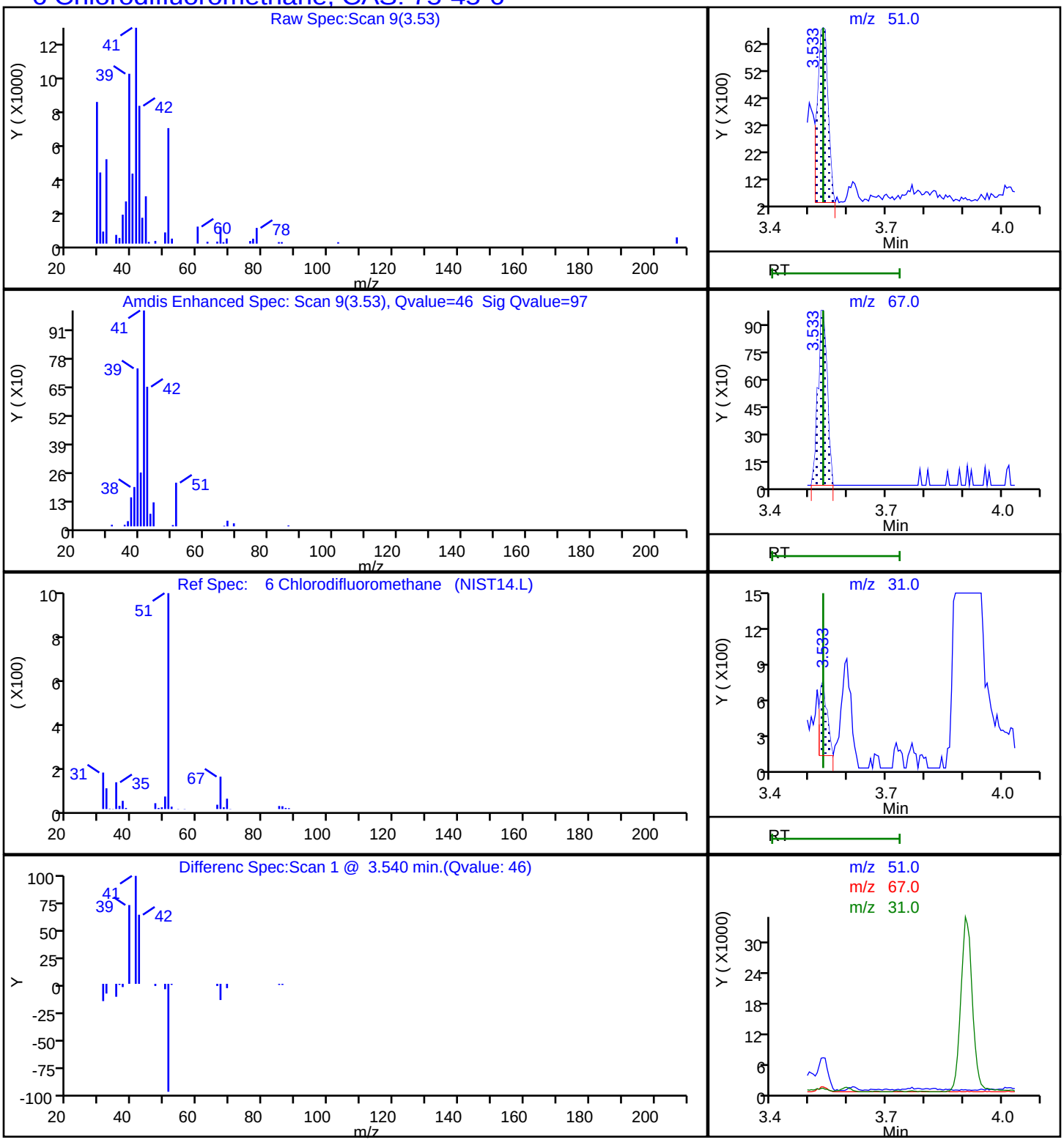


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D

Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5
Client ID:	IA-136-A-27-RS		
Operator ID:	afb	ALS Bottle#:	4 Worklist Smp#: 11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

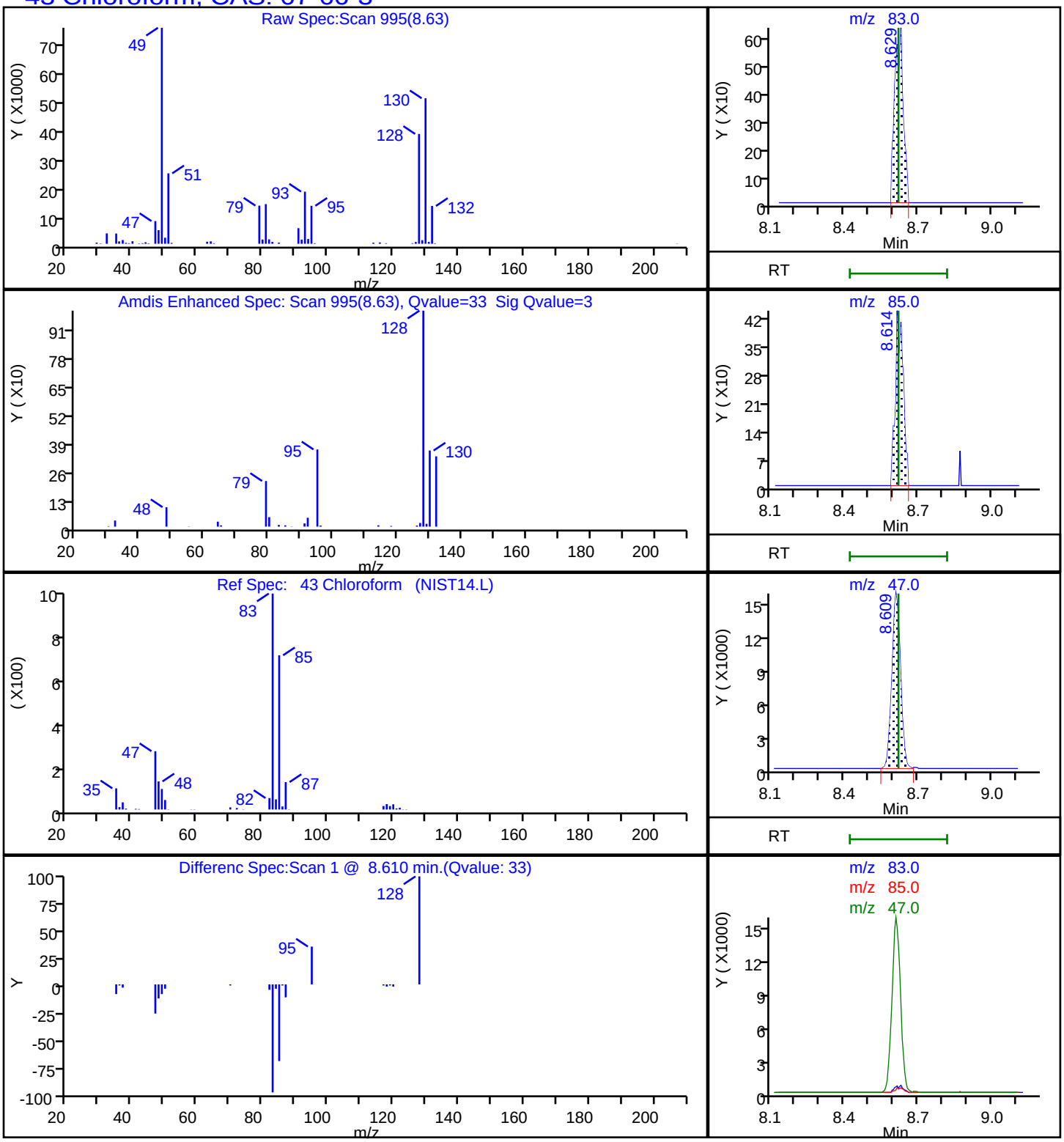


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D

Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

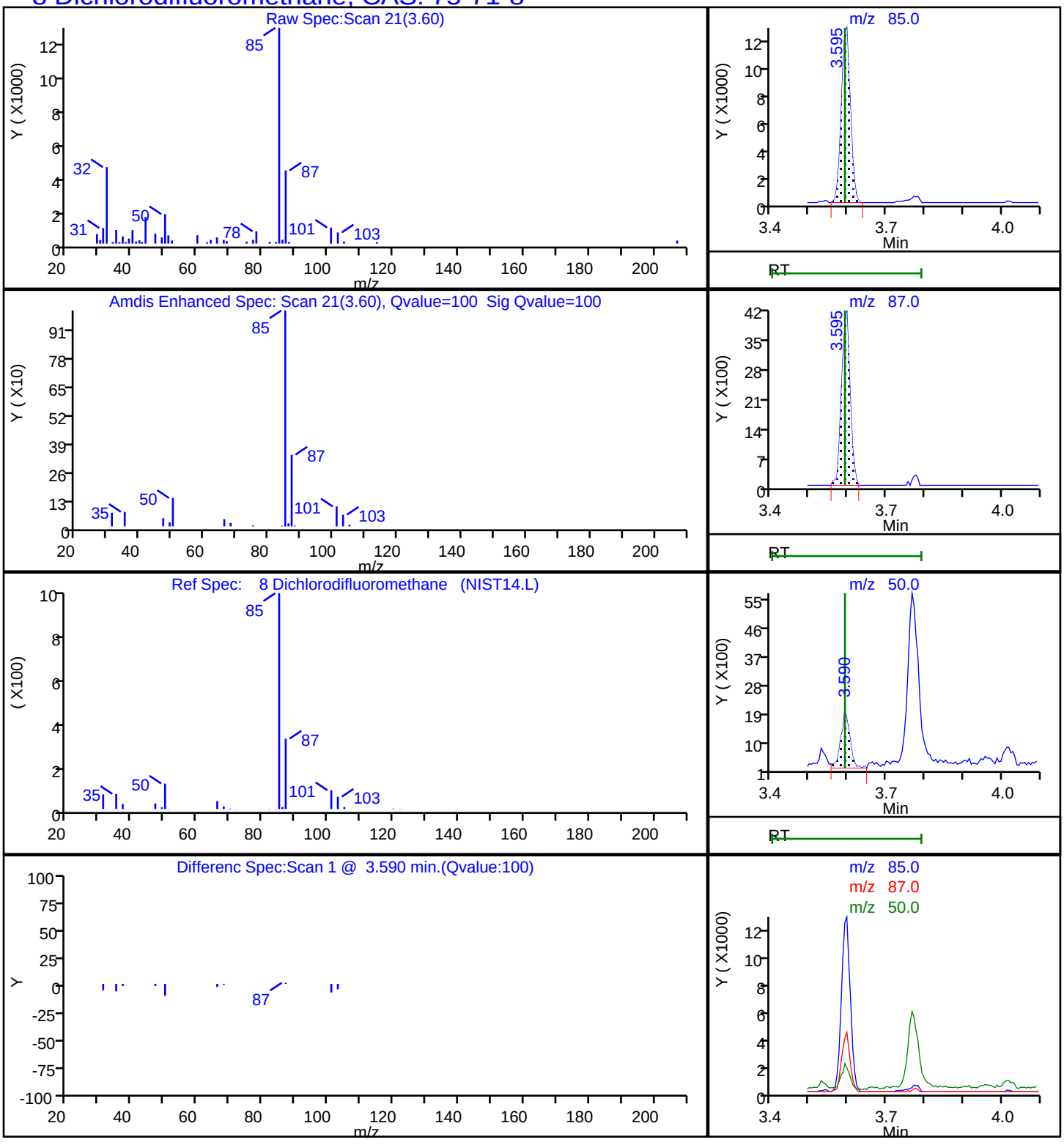
43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

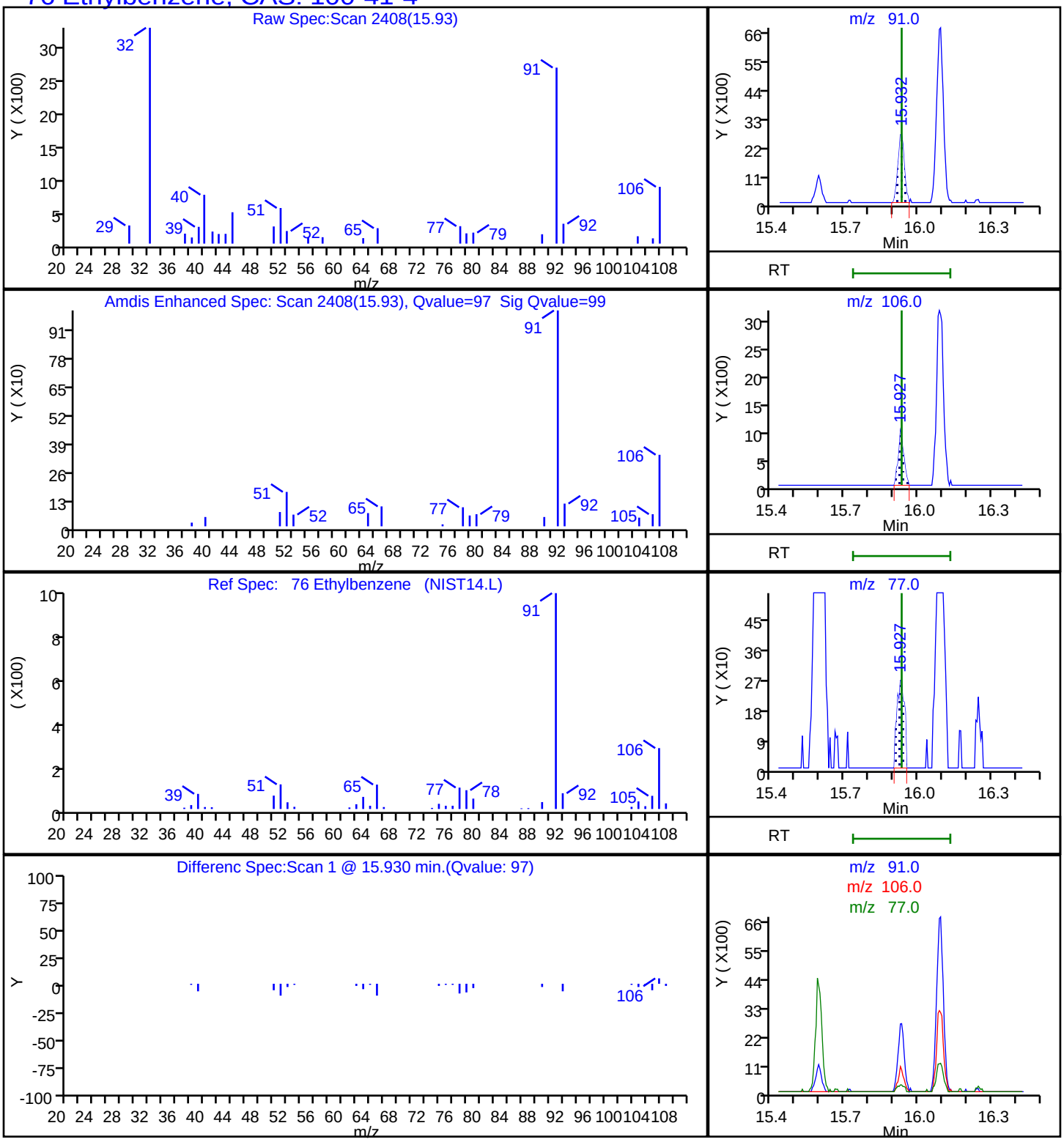


Report Date: 09-Oct-2019 10:20:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

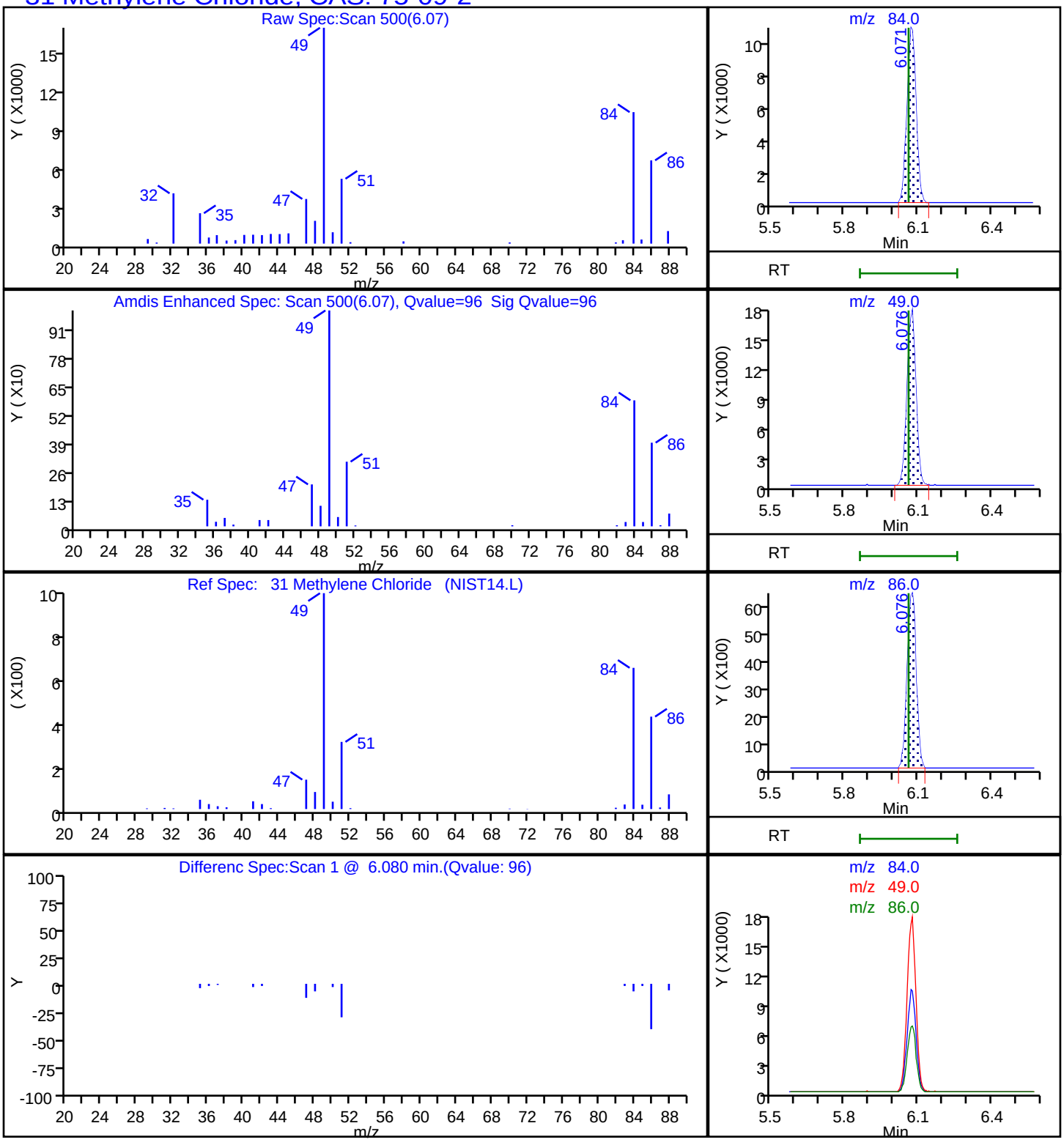
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

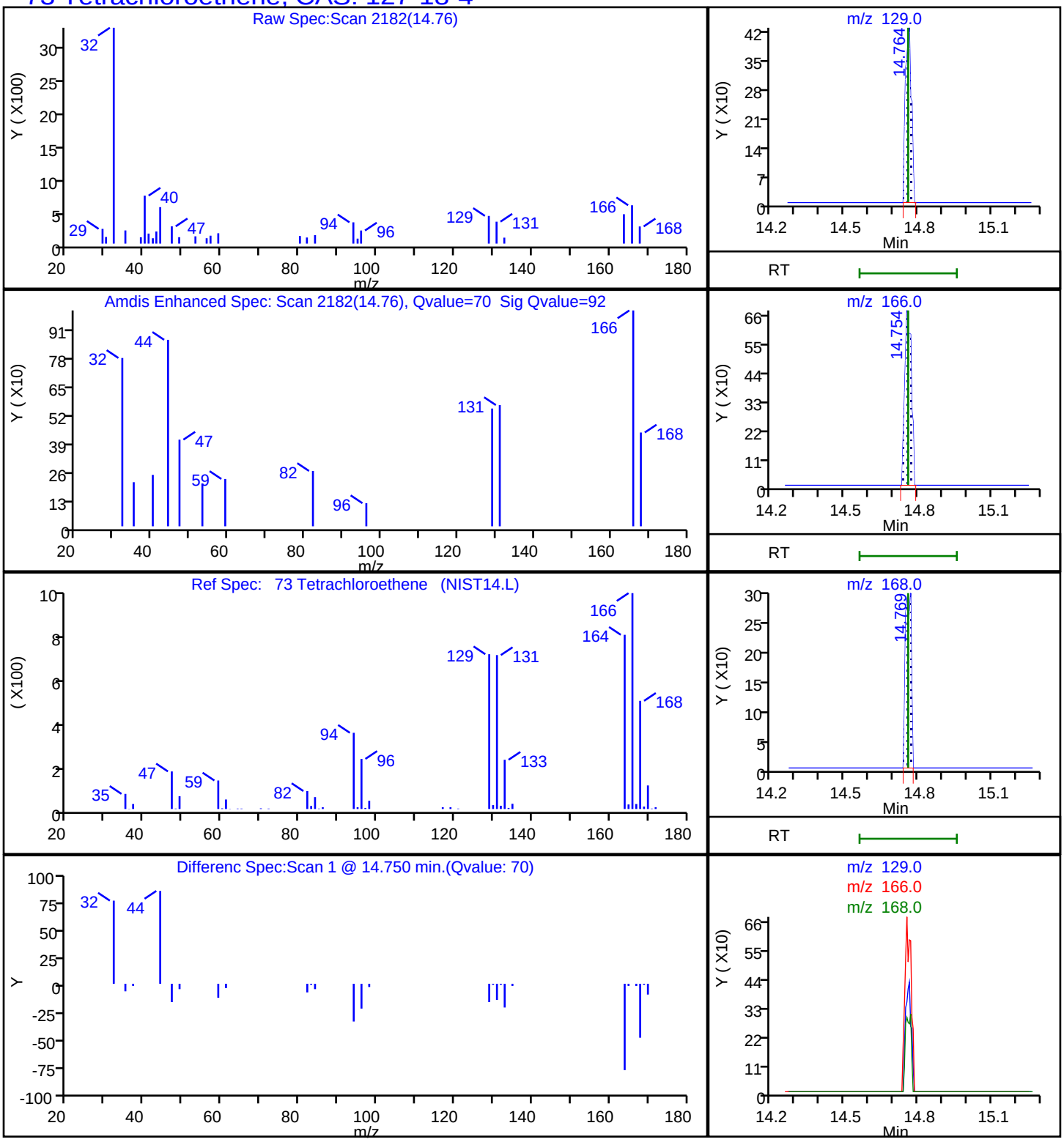
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

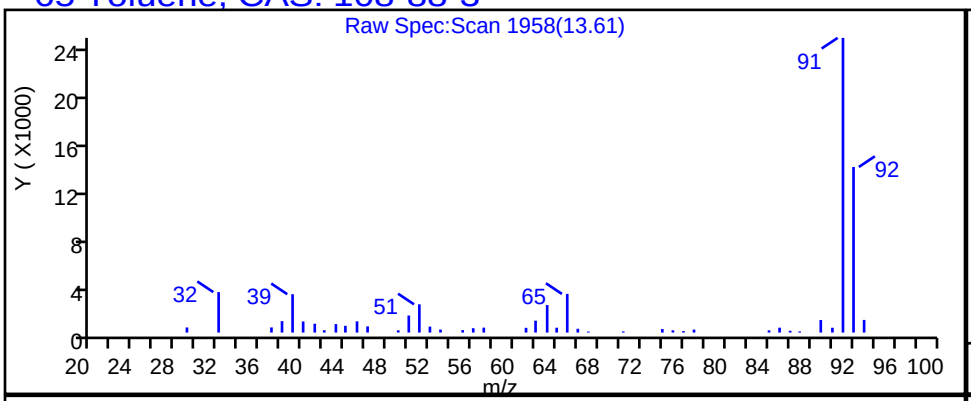
73 Tetrachloroethene, CAS: 127-18-4

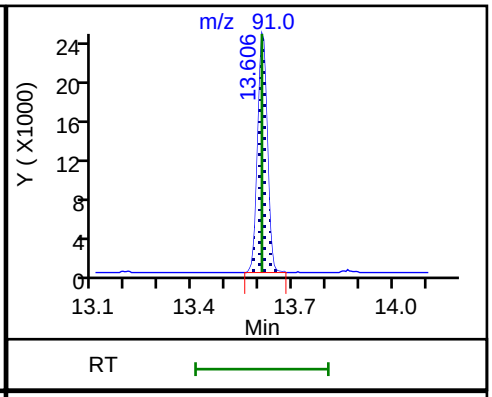


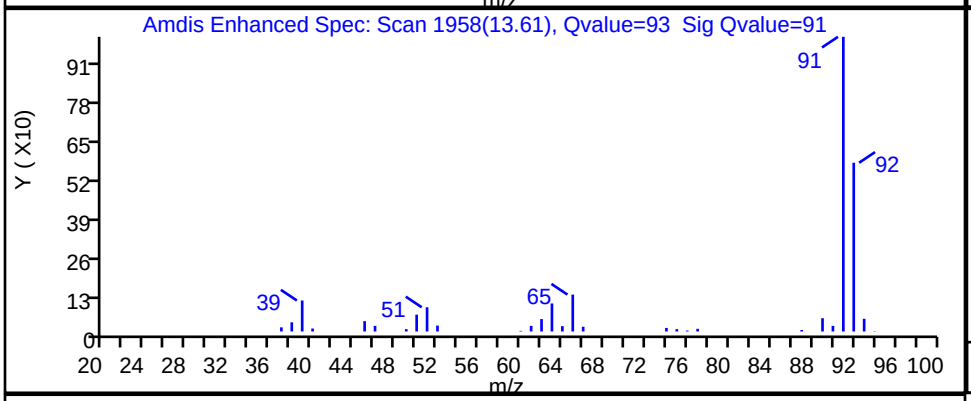
Eurofins TestAmerica, Knoxville

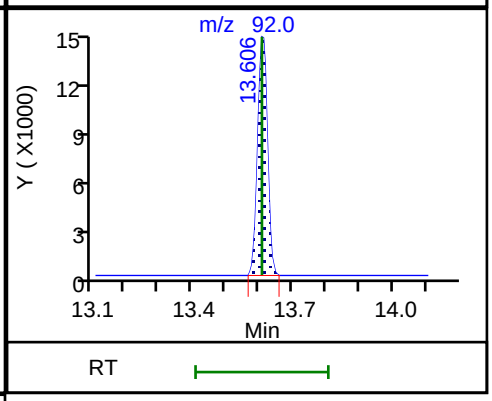
Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

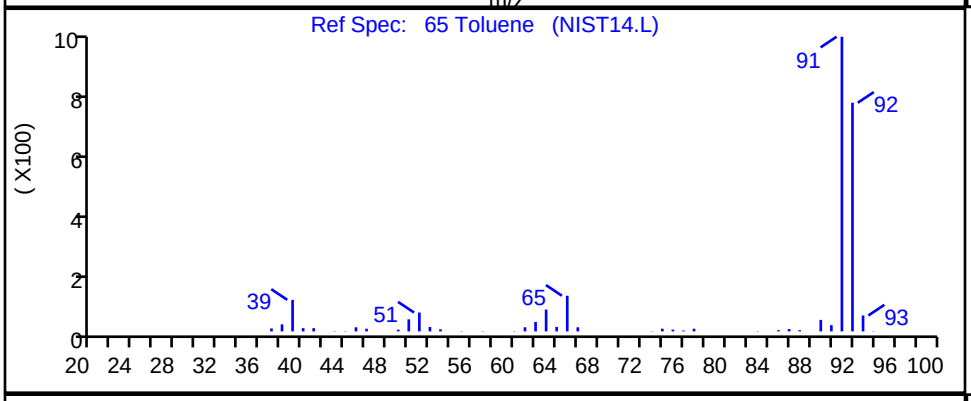
65 Toluene, CAS: 108-88-3

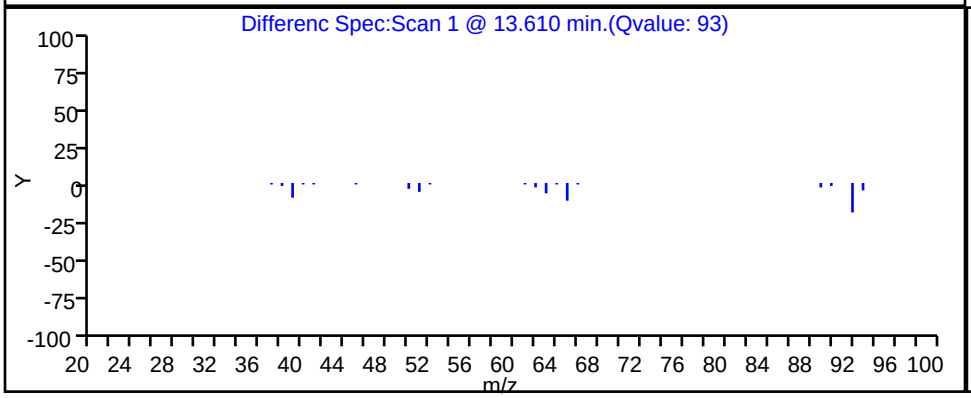


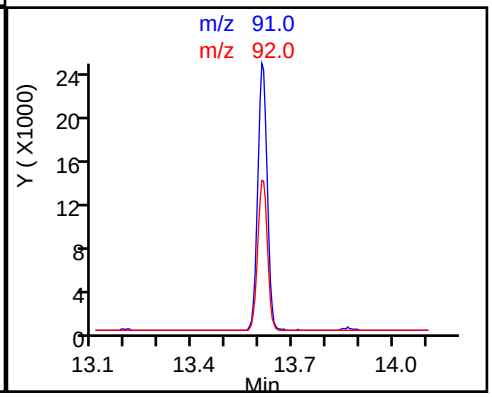








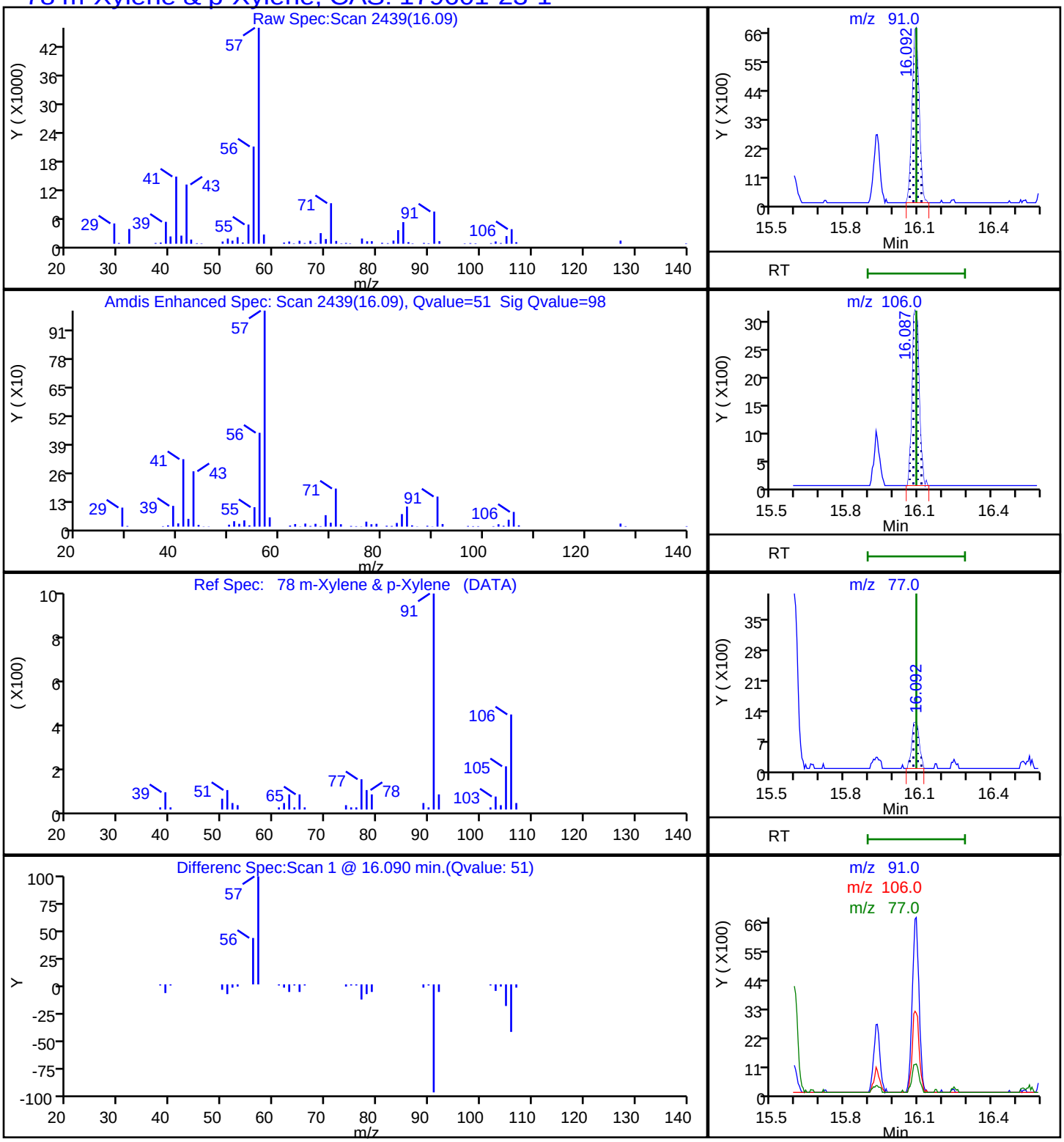




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

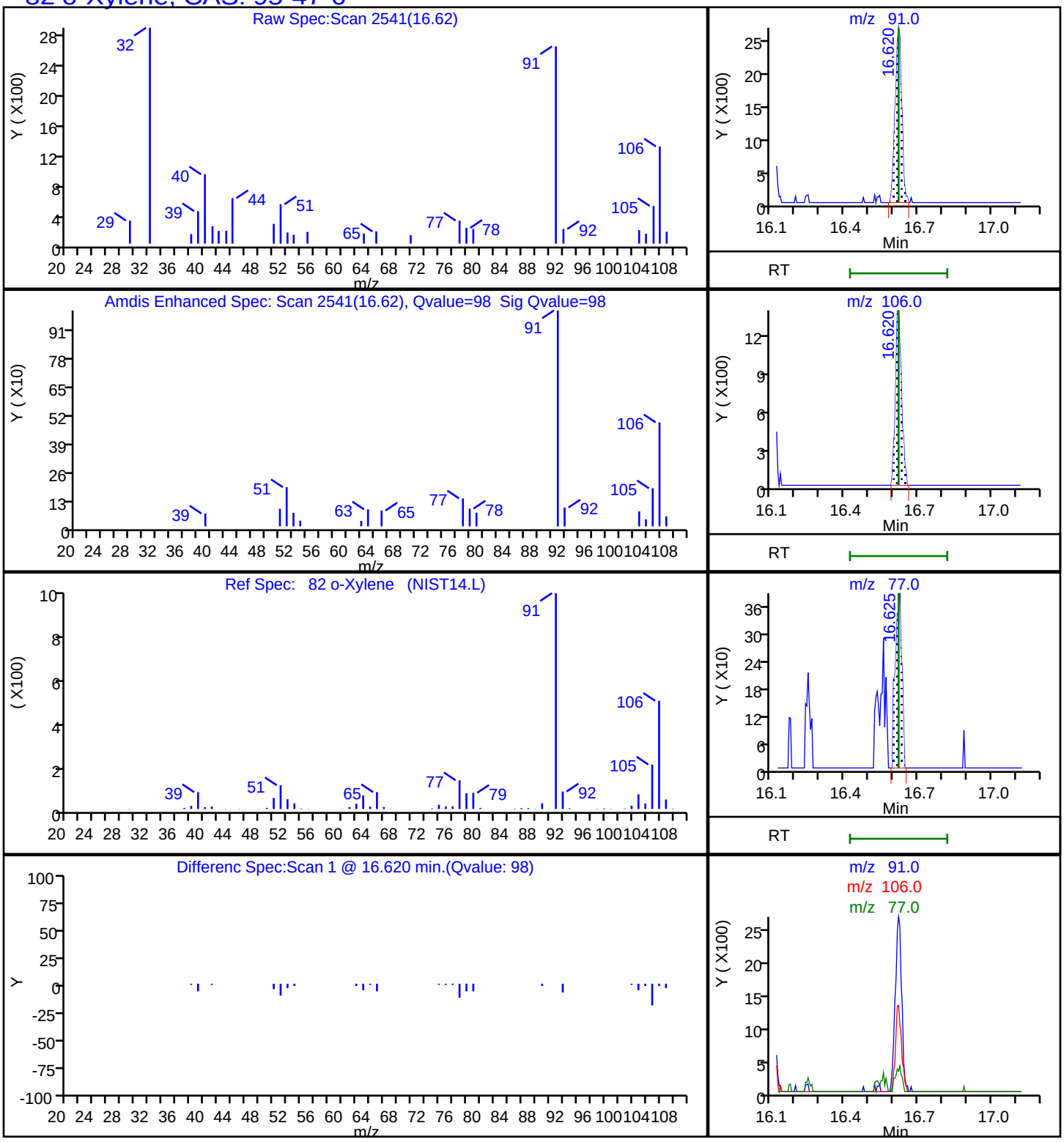
78 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

82 o-Xylene, CAS: 95-47-6



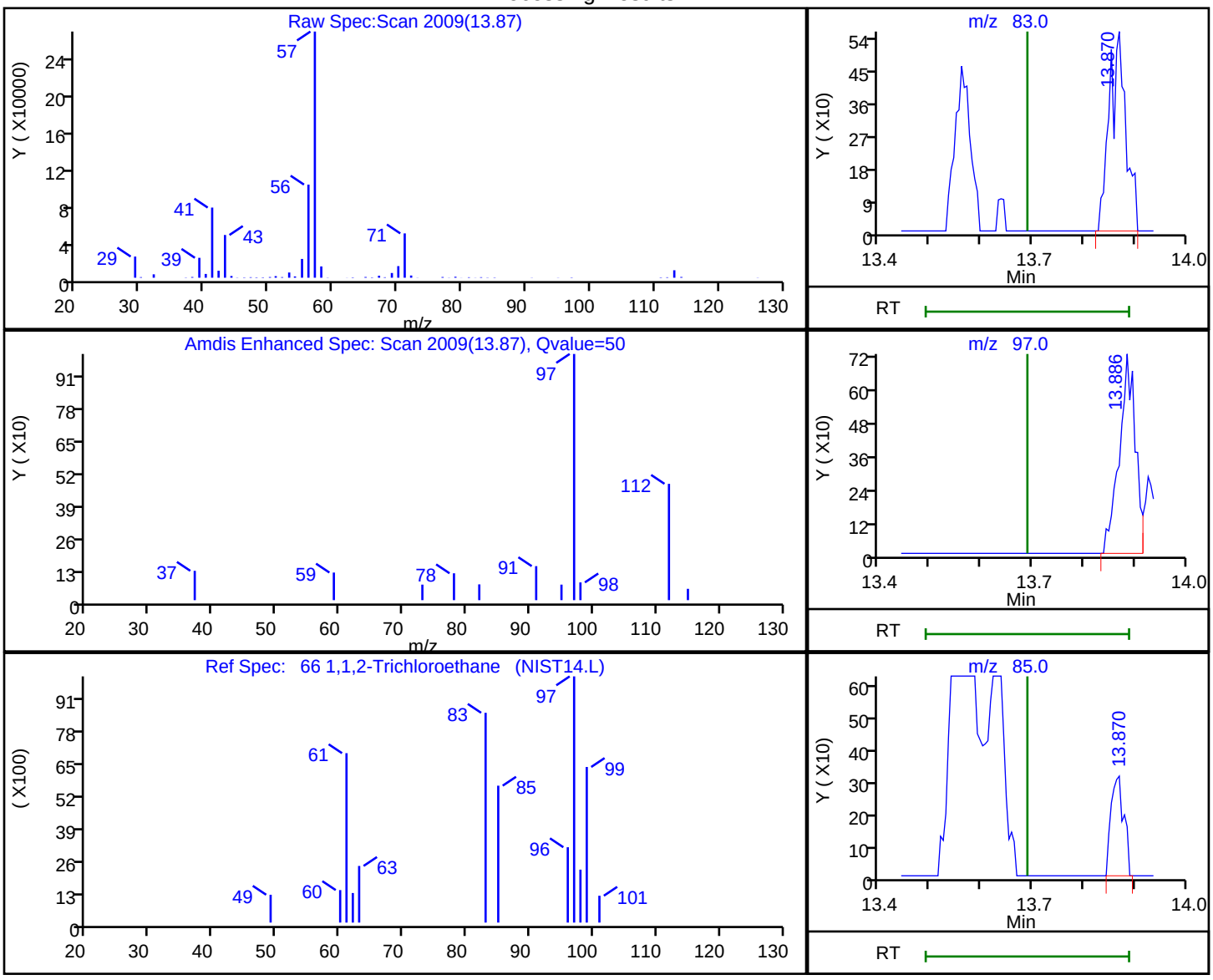
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p104.D				
Injection Date:	08-Oct-2019 18:21:30	Instrument ID:	MH		
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5		
Client ID:	IA-136-A-27-RS				
Operator ID:	afb	ALS Bottle#:	4	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

66 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.87	83.00	1240	0.017413
13.89	97.00	1615	
13.87	85.00	548	

Reviewer: khachitpongpanits, 09-Oct-2019 10:19:53

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p108.D
Lims ID: 140-16893-A-5
Client ID: IA-136-A-27-RS
Sample Type: Client
Inject. Date: 09-Oct-2019 20:31:30 ALS Bottle#: 8 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-013
Misc. Info.: 140-16893-A-5
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:39:15 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:40:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.059	9.059	0.000	96	201195	4.00	
* 2 1,4-Difluorobenzene	114	11.232	11.233	-0.001	96	1220779	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1078859	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	91	769805	4.09	
6 Chlorodifluoromethane	51	3.791	3.785	0.000	94	11023	0.1104	
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	99	18076	0.1129	
31 Methylene Chloride	84	6.476	6.471	0.005	97	31054	0.2119	
44 Chloroform	83	9.070	9.059	0.000	27	1349	0.0104	
50 Benzene	78	10.698	10.699	-0.001	95	6879	0.0318	
52 Carbon tetrachloride	117	10.725	10.715	0.005	95	2299	0.0157	
67 Toluene	91	13.966	13.966	0.000	94	43250	0.2003	
73 Tetrachloroethene	129	15.099	15.104	-0.005	87	805	0.009517	
78 Ethylbenzene	91	16.258	16.258	0.000	98	4963	0.0169	
79 m-Xylene & p-Xylene	91	16.409	16.420	-0.011	50	13662	0.0600	
83 o-Xylene	91	16.943	16.943	0.000	95	5198	0.0205	
S 124 Xylenes, Total	100				0		0.0804	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

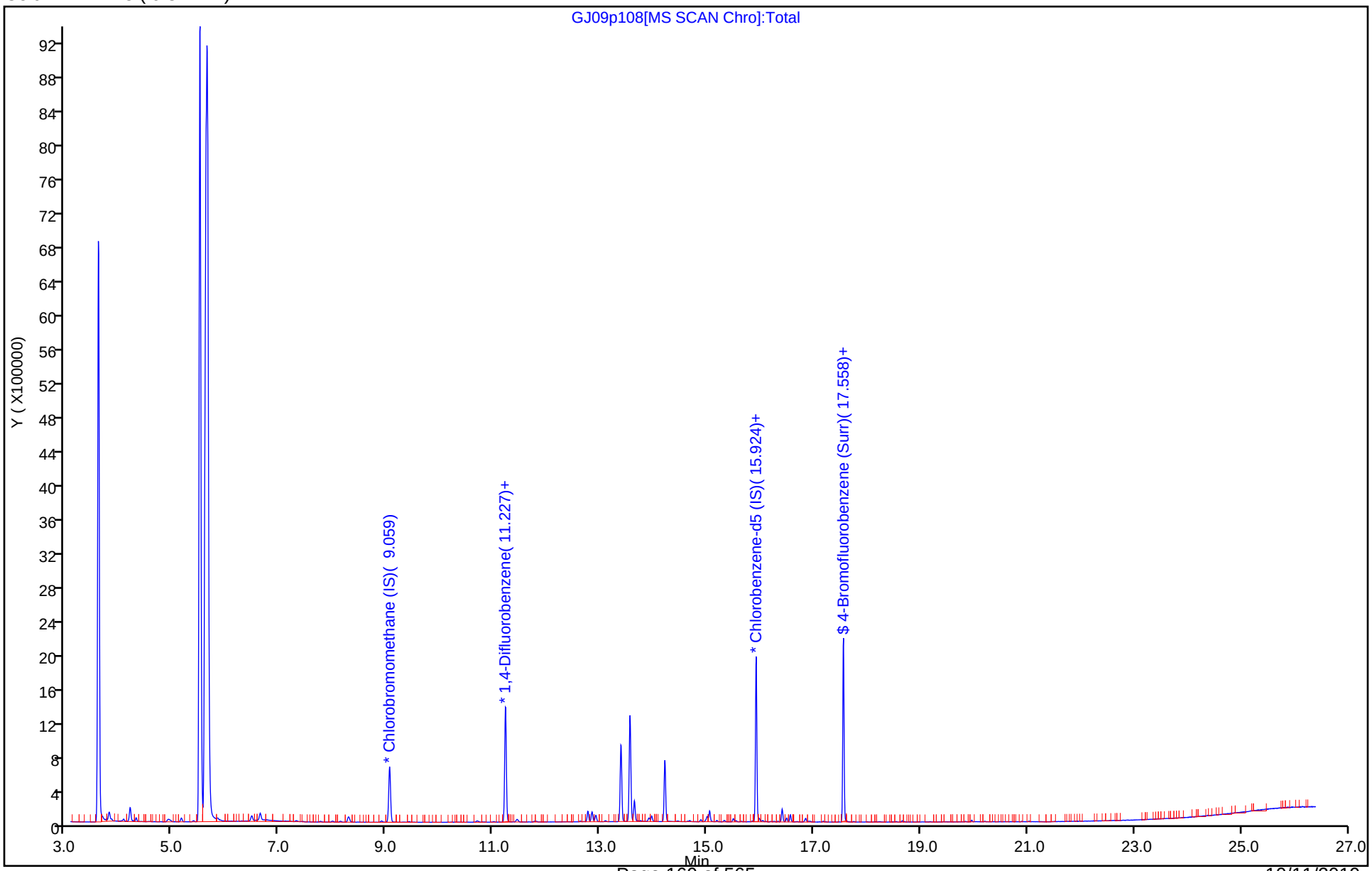
Report Date: 10-Oct-2019 10:40:15 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p108.D

Injection Date:	09-Oct-2019 20:31:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-5	Lab Sample ID:	140-16893-5	Worklist Smp#:	13
Client ID:	IA-136-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p108.D				
Lims ID:	140-16893-A-5				
Client ID:	IA-136-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 20:31:30	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-013				
Misc. Info.:	140-16893-A-5				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:39:15	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:40:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.16

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.059	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.2	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	2.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.63	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	8.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D
Lims ID: 140-16893-A-6
Client ID: IA-117-A-27-RS
Sample Type: Client
Inject. Date: 08-Oct-2019 19:15:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-012
Misc. Info.: 140-16893-A-6
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Oct-2019 10:20:39 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:20:39

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.614	8.604	0.010	98	175455	4.00	
*	2 1,4-Difluorobenzene	114	10.816	10.811	0.006	95	883566	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	722851	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	439329	3.85	
	6 Chlorodifluoromethane	51	3.533	3.531	0.000	97	12550	0.0930	
	8 Dichlorodifluoromethane	85	3.590	3.588	0.000	100	19528	0.0964	
	31 Methylene Chloride	84	6.071	6.057	0.010	96	21260	0.2436	
	43 Chloroform	83	8.614	8.614	-0.005	32	1784	0.0117	
	47 Benzene	78	10.257	10.247	0.005	97	6101	0.0315	
	50 Carbon tetrachloride	117	10.283	10.268	0.010	87	1978	0.0139	
	65 Toluene	91	13.612	13.607	0.005	92	104549	0.4712	
	73 Tetrachloroethene	129	14.764	14.759	0.005	61	723	0.008376	
	76 Ethylbenzene	91	15.927	15.932	-0.005	97	5886	0.0208	
	78 m-Xylene & p-Xylene	91	16.087	16.093	-0.006	43	21014	0.0973	
	82 o-Xylene	91	16.620	16.620	0.000	98	6489	0.0289	
S	121 Xylenes, Total	100				0		0.1263	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

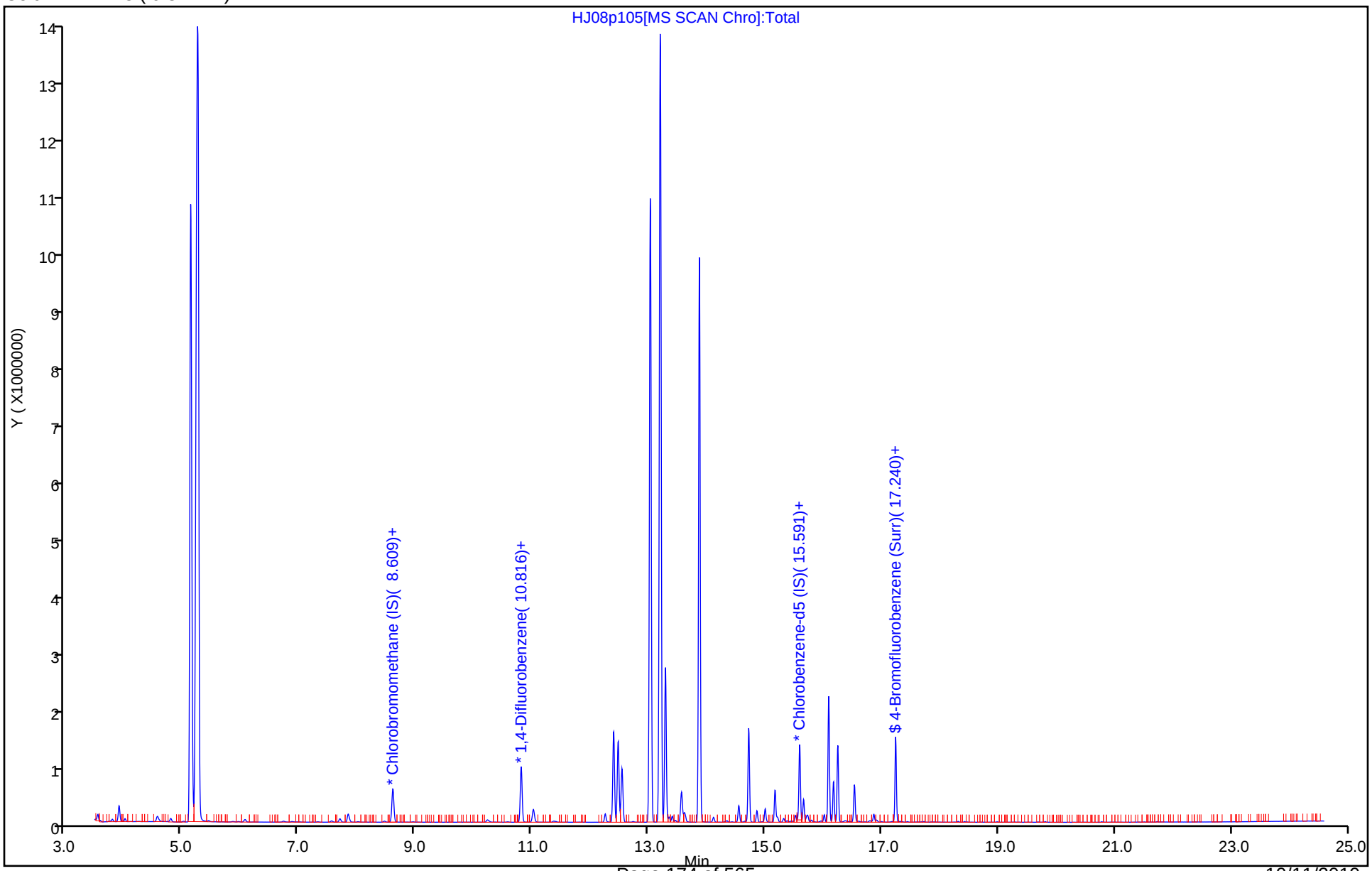
Report Date: 09-Oct-2019 10:20:39 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D

Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6	Worklist Smp#:	12
Client ID:	IA-117-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Lims ID:	140-16893-A-6				
Client ID:	IA-117-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 19:15:30	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-012				
Misc. Info.:	140-16893-A-6				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:20:39	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				
First Level Reviewer: khachitpongpanits		Date:	09-Oct-2019 10:20:39		

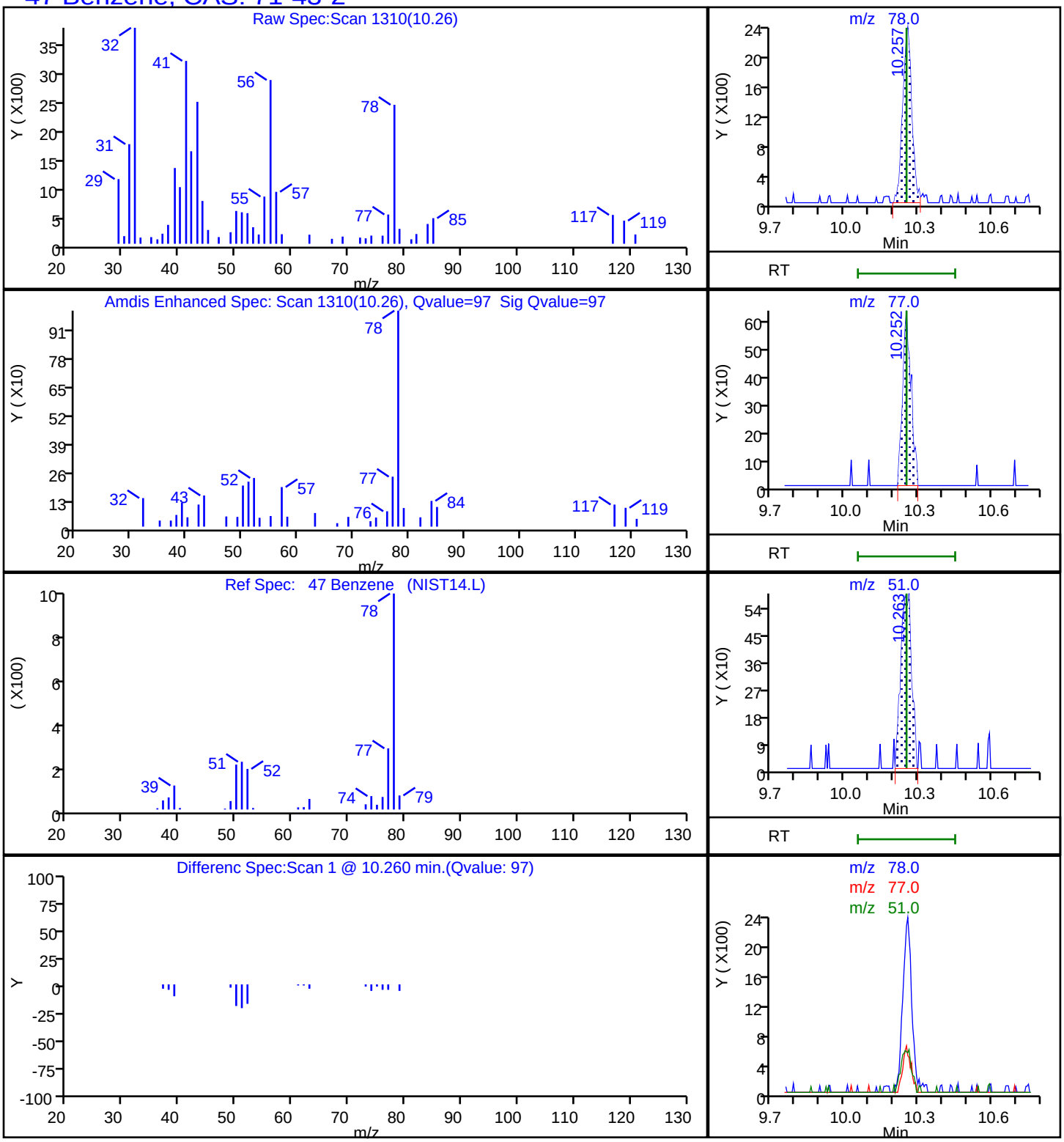
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.85	96.32

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D

Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6
Client ID:	IA-117-A-27-RS		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 Benzene, CAS: 71-43-2



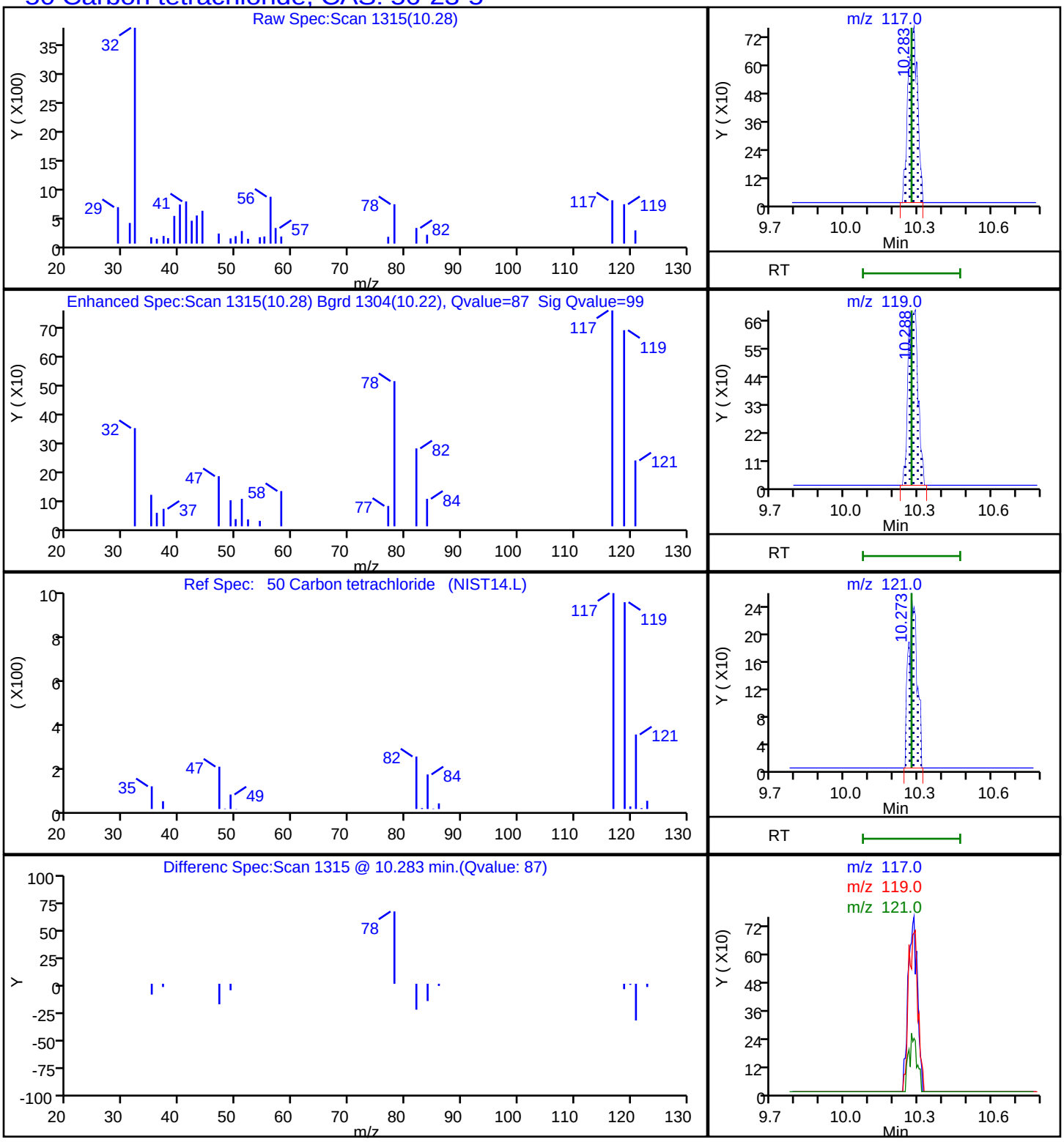
Report Date: 09-Oct-2019 10:20:39 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D

Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

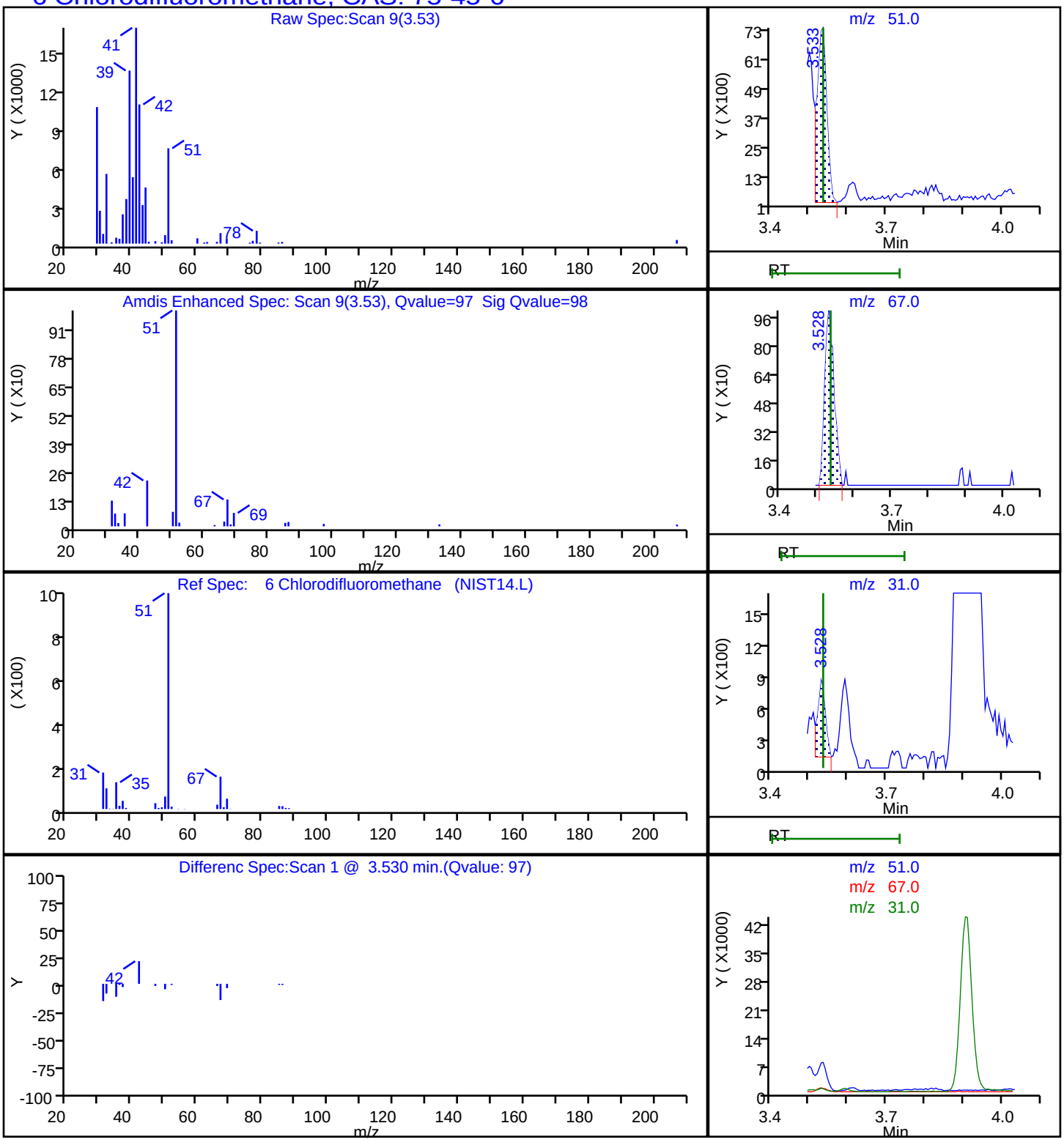
50 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

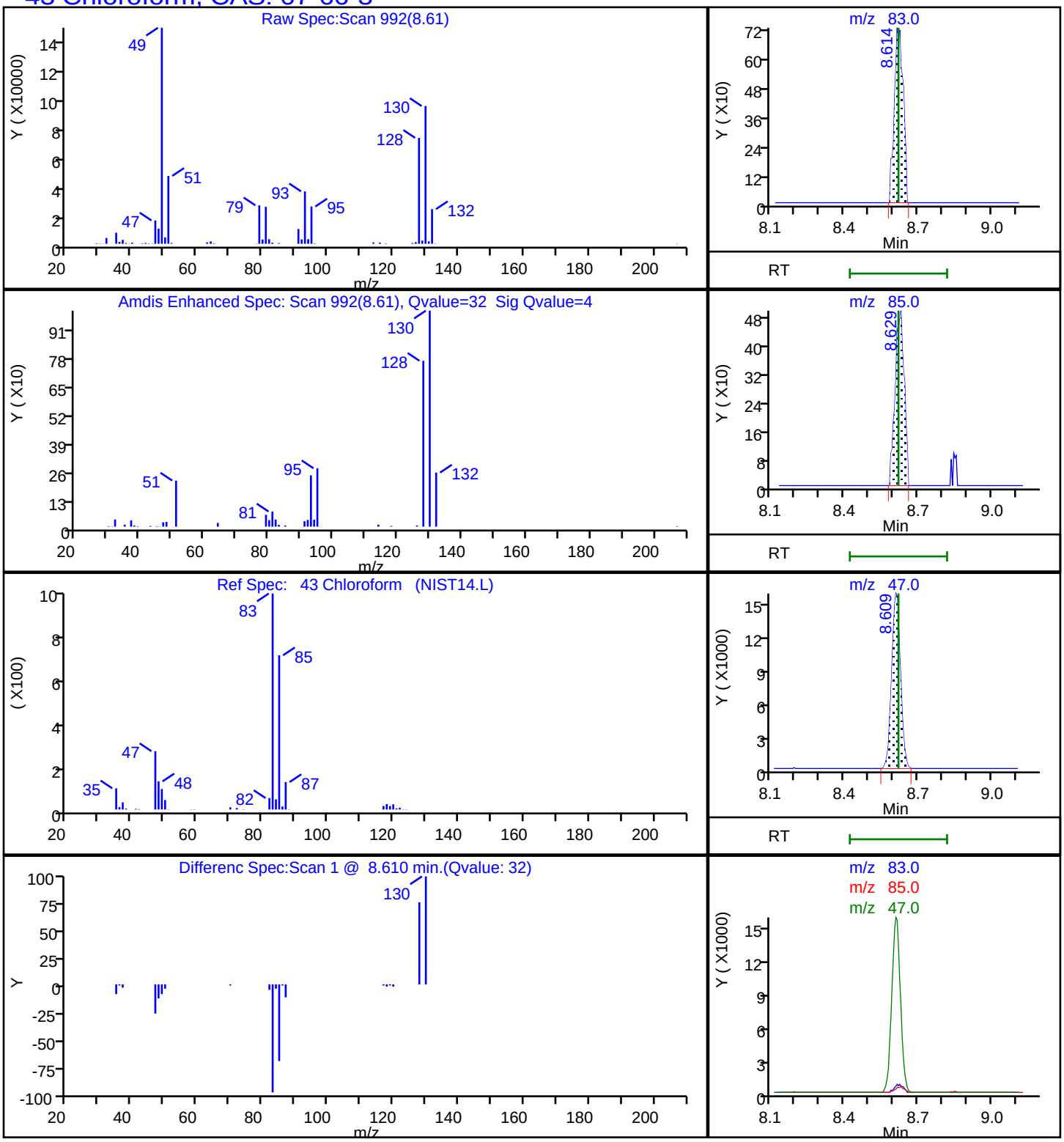
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

43 Chloroform, CAS: 67-66-3

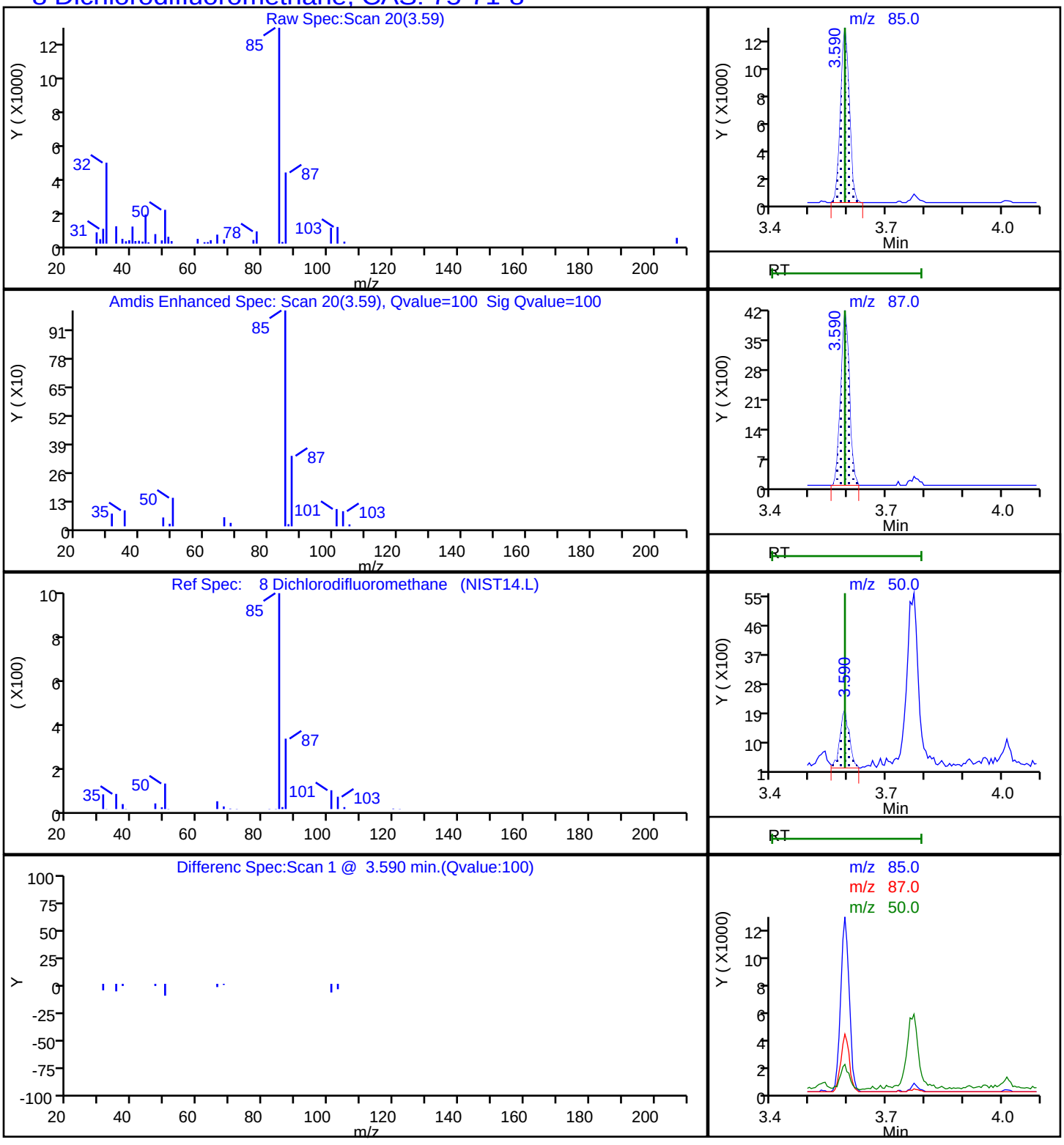


Report Date: 09-Oct-2019 10:20:39 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

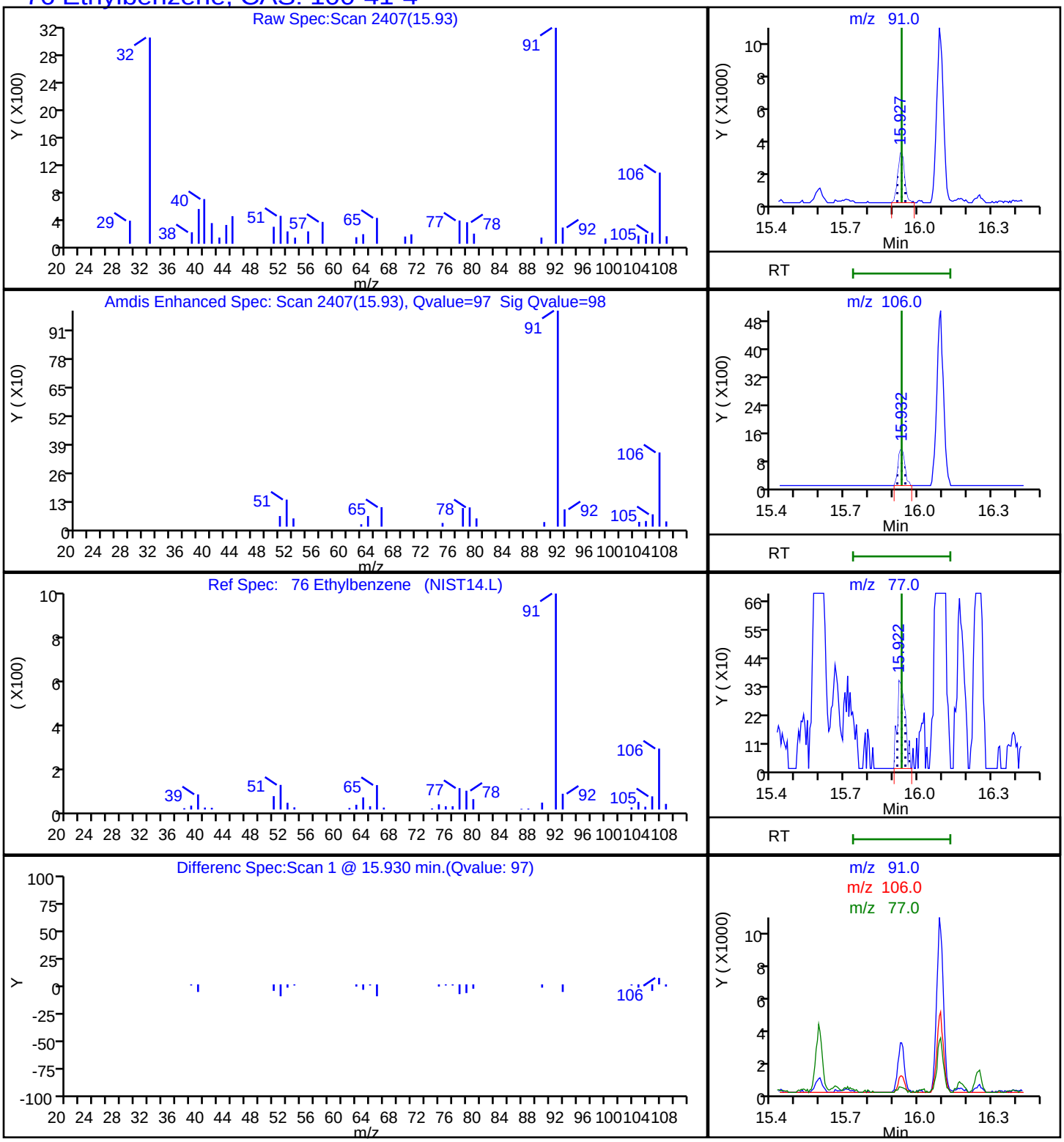


Report Date: 09-Oct-2019 10:20:40 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D		
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6
Client ID:	IA-117-A-27-RS		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

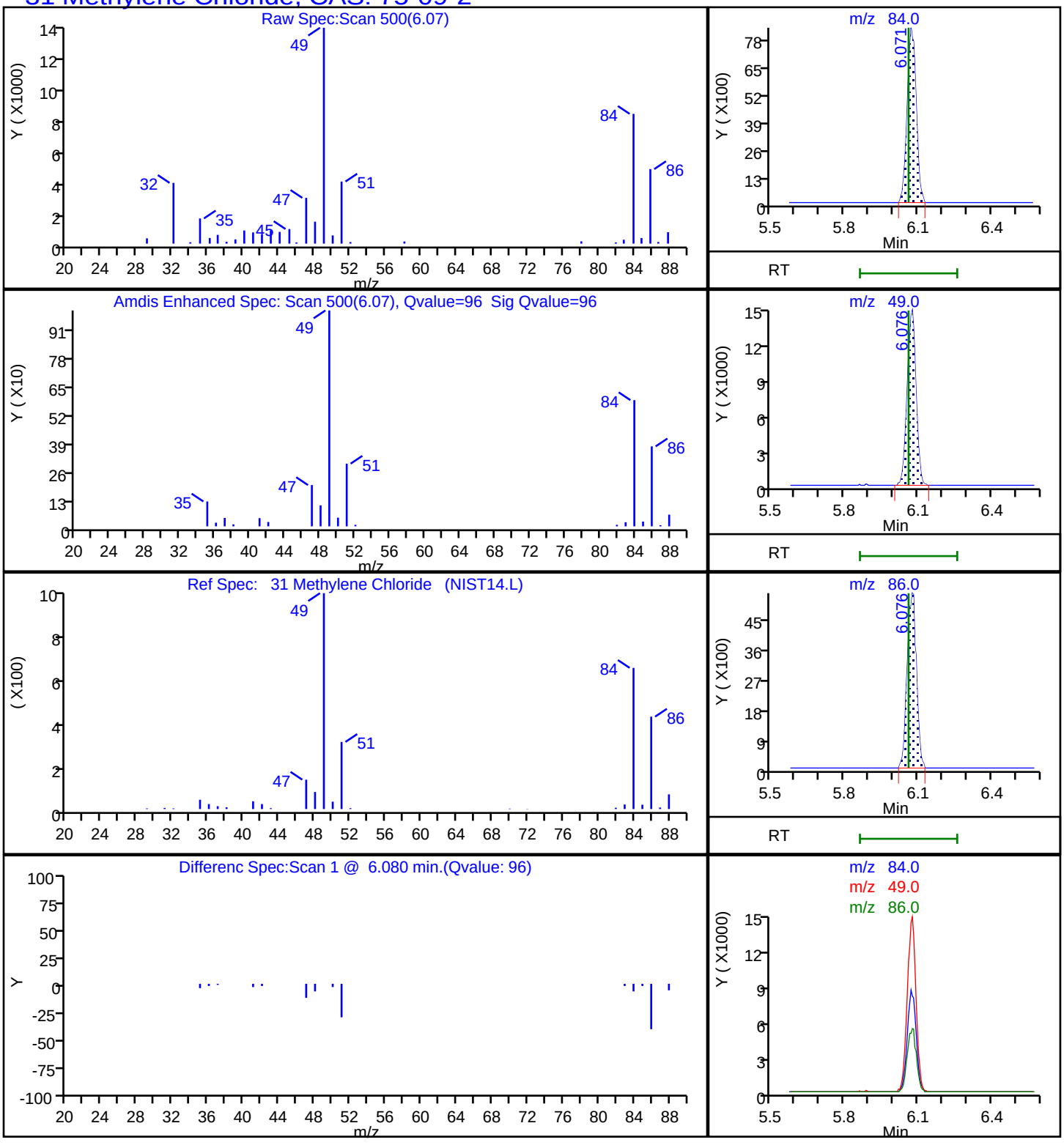
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

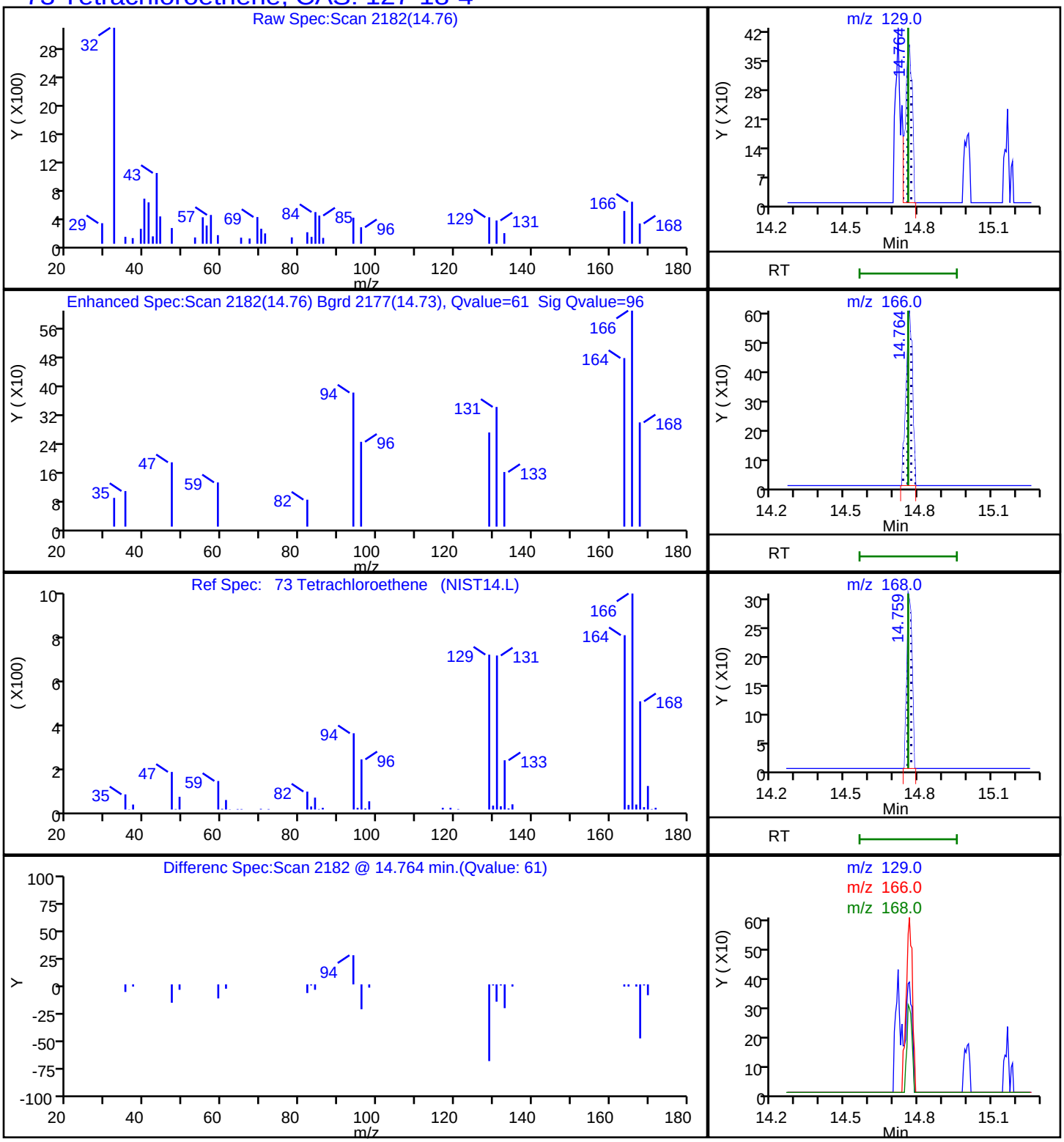
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

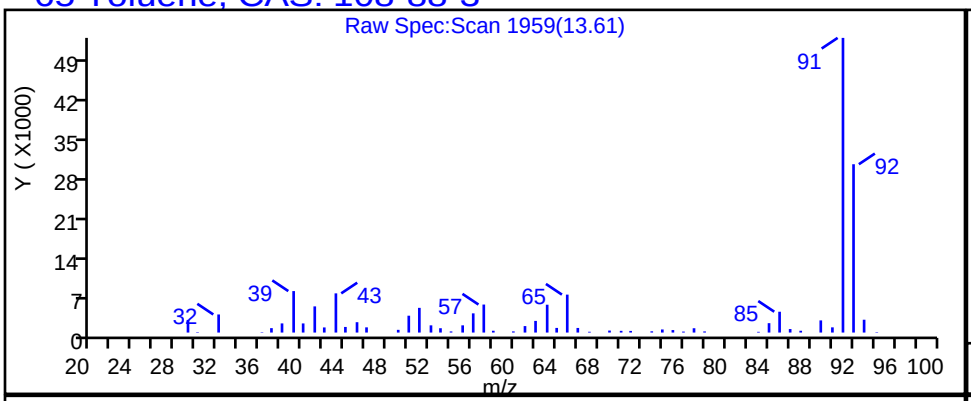
73 Tetrachloroethene, CAS: 127-18-4

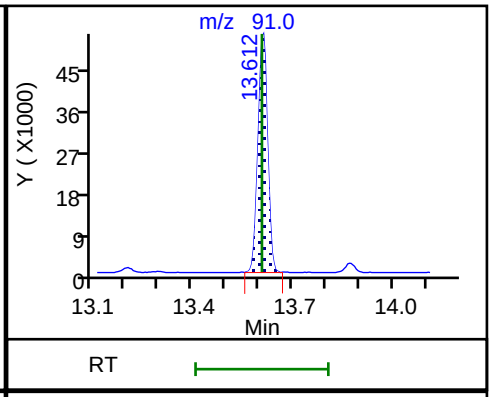


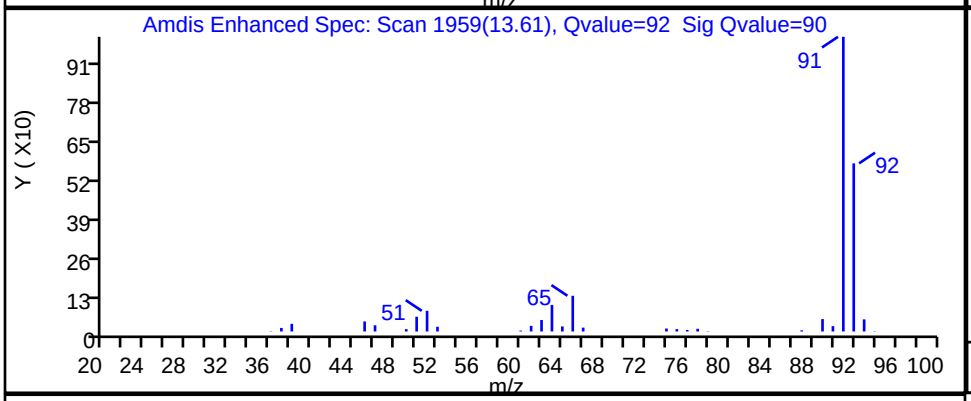
Eurofins TestAmerica, Knoxville

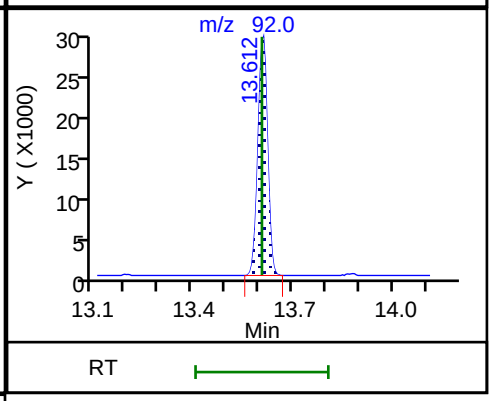
Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D		
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6
Client ID:	IA-117-A-27-RS		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

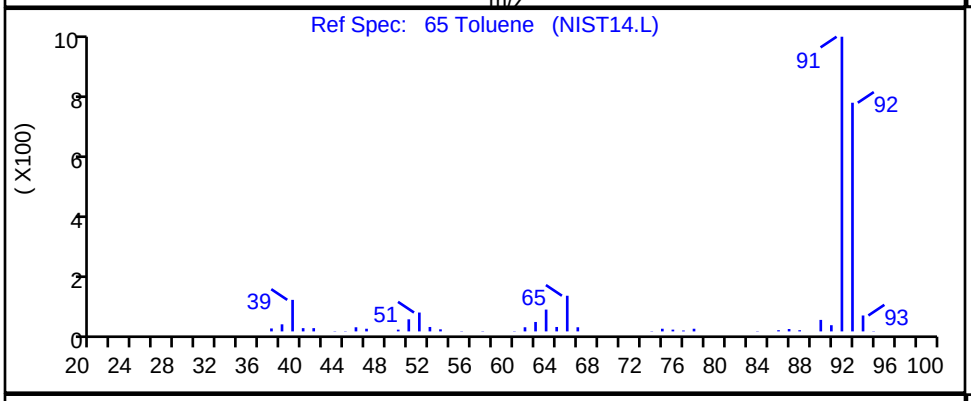
65 Toluene, CAS: 108-88-3

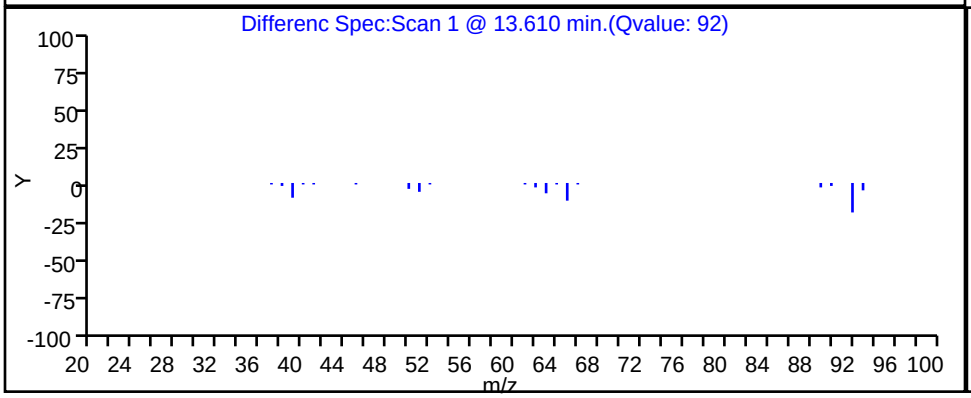


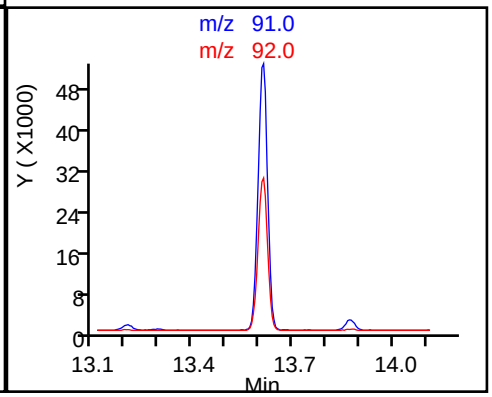








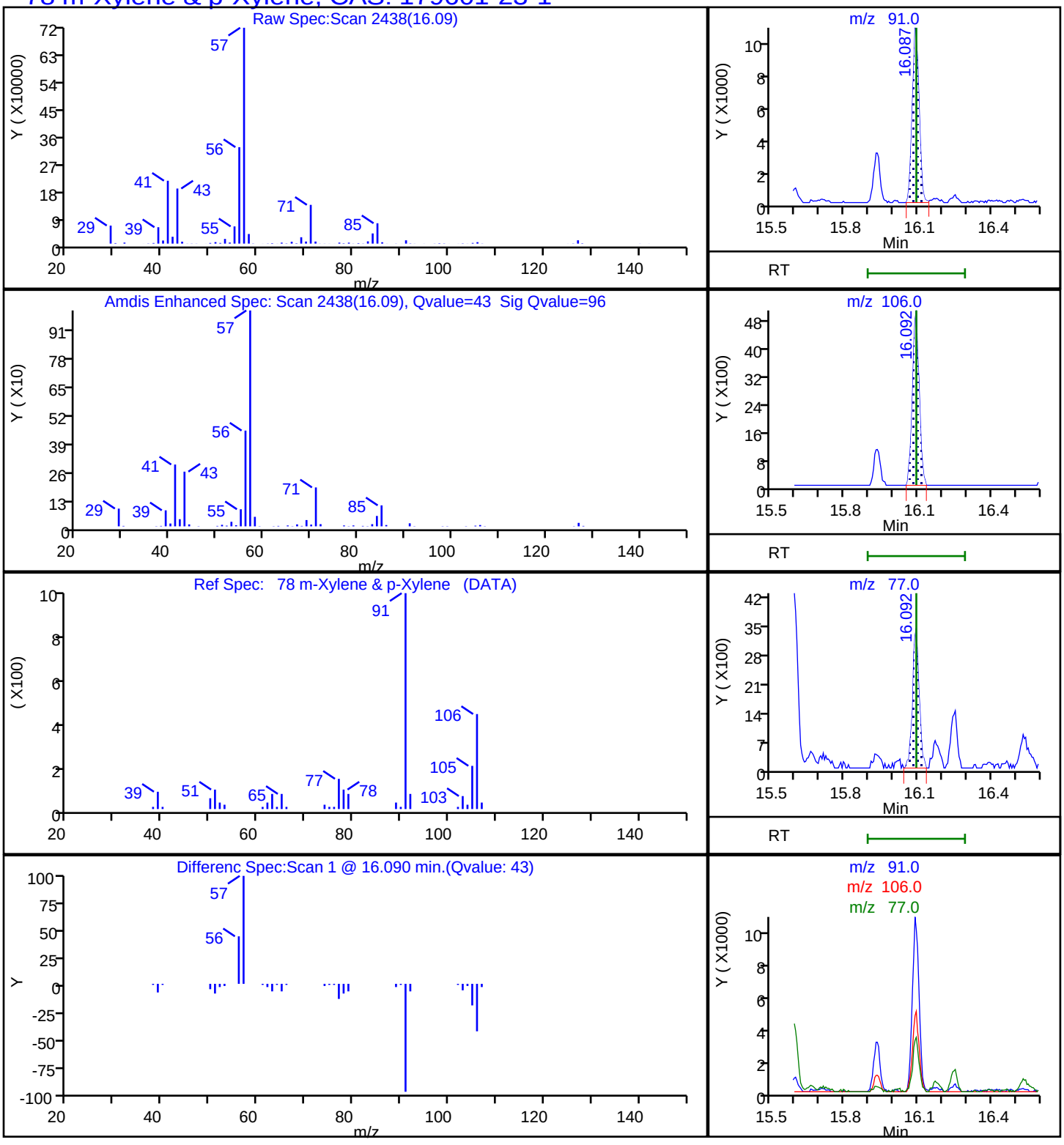




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

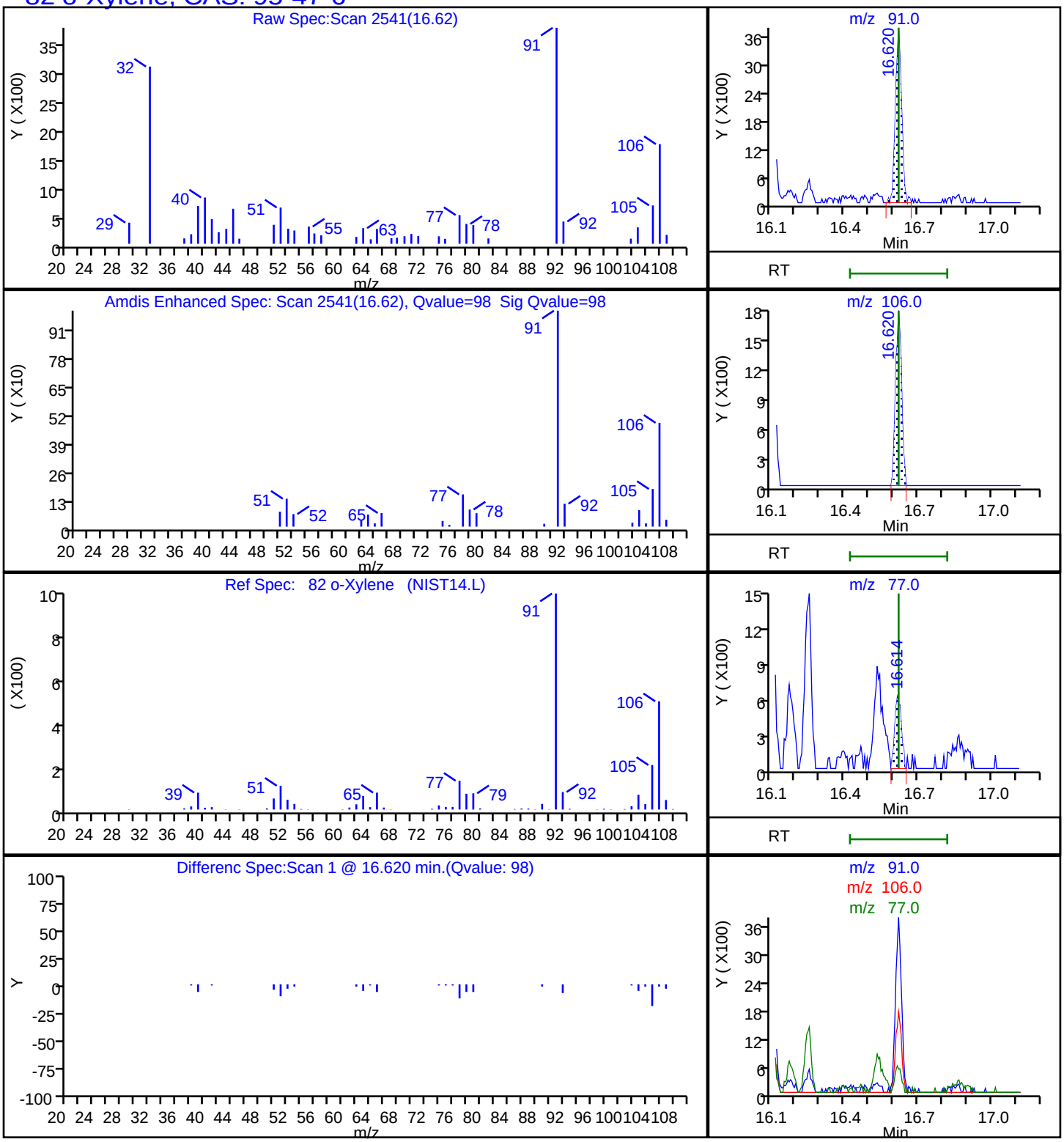
78 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D		
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6
Client ID:	IA-117-A-27-RS		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



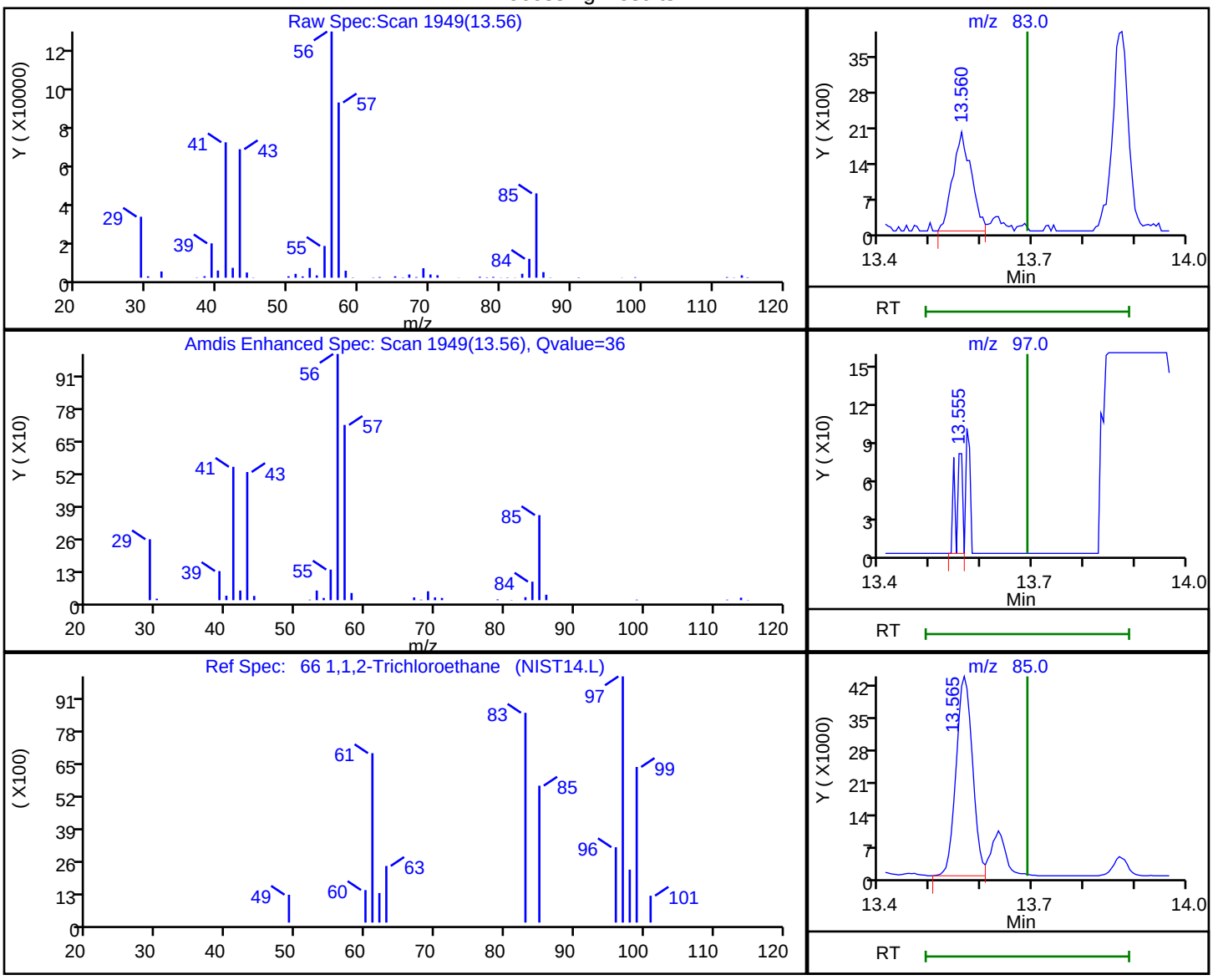
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p105.D				
Injection Date:	08-Oct-2019 19:15:30	Instrument ID:	MH		
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6		
Client ID:	IA-117-A-27-RS				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

66 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.56	83.00	4927	0.066360
13.55	97.00	73	
13.57	85.00	97500	

Reviewer: khachitpongpanits, 09-Oct-2019 10:20:29

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p109.D				
Lims ID:	140-16893-A-6				
Client ID:	IA-117-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 21:14:30	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-014				
Misc. Info.:	140-16893-A-6				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:40:33	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	10-Oct-2019 10:41:07		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.059	9.059	0.000	96	200487	4.00	
* 2 1,4-Difluorobenzene	114	11.227	11.233	-0.006	96	1180298	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1093432	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	85	800173	4.19	
6 Chlorodifluoromethane	51	3.791	3.785	0.000	95	11431	0.1149	
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	100	19324	0.1211	
44 Chloroform	83	9.070	9.059	0.000	33	1719	0.0132	
50 Benzene	78	10.704	10.699	0.005	62	5964	0.0286	
52 Carbon tetrachloride	117	10.731	10.715	0.011	80	2089	0.0147	
67 Toluene	91	13.966	13.966	0.000	94	76843	0.3511	
78 Ethylbenzene	91	16.258	16.258	0.000	96	5185	0.0174	
79 m-Xylene & p-Xylene	91	16.409	16.420	-0.011	42	16026	0.0694	
83 o-Xylene	91	16.943	16.943	0.000	96	5687	0.0221	
S 124 Xylenes, Total	100				0		0.0915	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

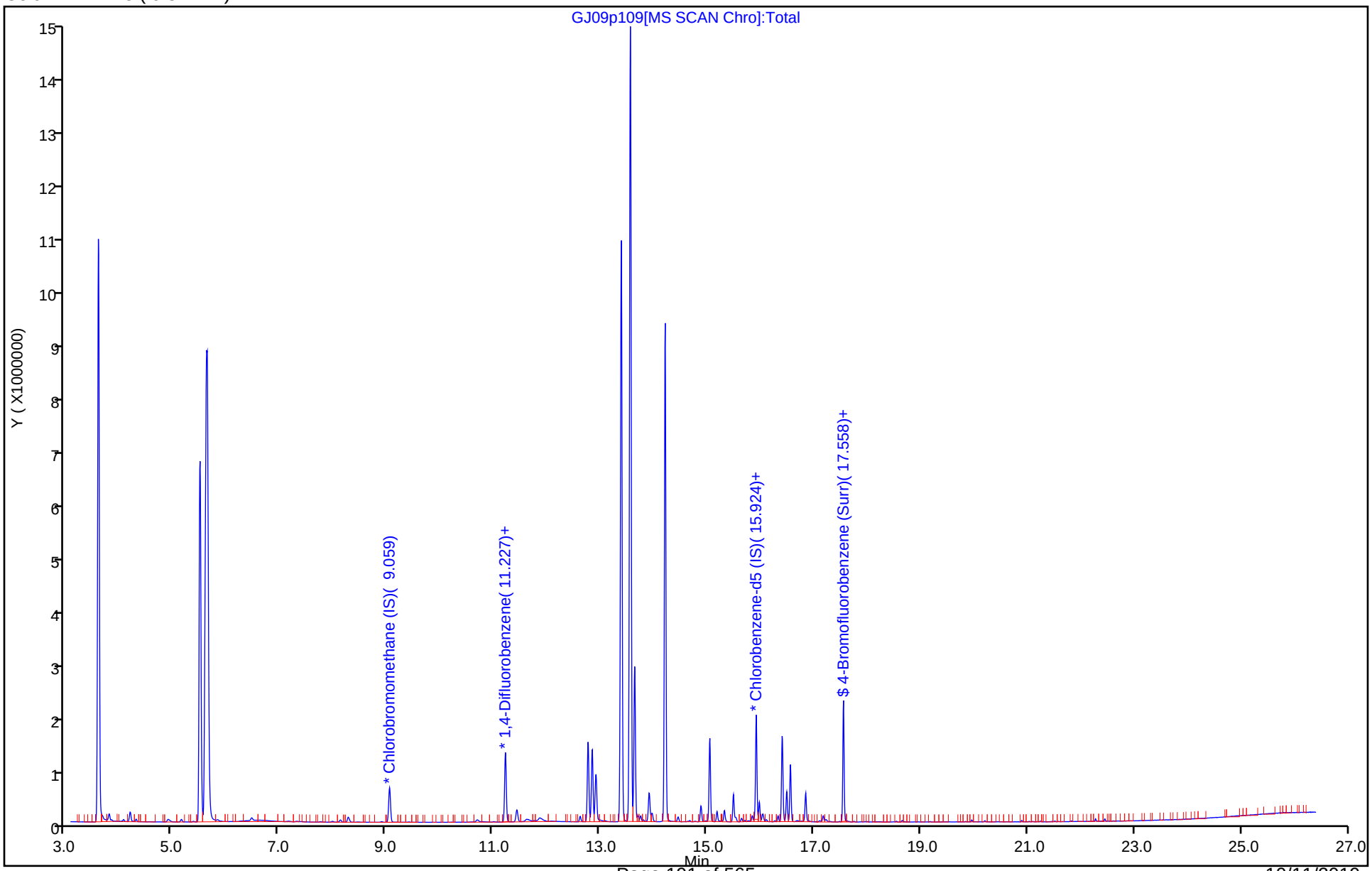
Report Date: 10-Oct-2019 10:41:07 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p109.D

Injection Date:	09-Oct-2019 21:14:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-6	Lab Sample ID:	140-16893-6	Worklist Smp#:	14
Client ID:	IA-117-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p109.D				
Lims ID:	140-16893-A-6				
Client ID:	IA-117-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 21:14:30	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-014				
Misc. Info.:	140-16893-A-6				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:40:33	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	10-Oct-2019 10:41:07		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.77

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.076	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.063	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	1.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.085	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.31		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.62	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.48	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.25	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.47	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	6.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.45	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.78		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D
Lims ID: 140-16893-A-7
Client ID: IA-079-A-27-RS
Sample Type: Client
Inject. Date: 08-Oct-2019 20:09:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-013
Misc. Info.: 140-16893-A-7
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Oct-2019 10:21:05 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:21:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.614	8.604	0.010	98	174264	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.811	0.006	95	881823	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	690713	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.261	-0.021	96	407973	3.74	
6 Chlorodifluoromethane	51	3.528	3.531	-0.005	92	12619	0.0941	
8 Dichlorodifluoromethane	85	3.590	3.588	0.000	99	20360	0.1011	
12 Vinyl chloride	62	3.931	3.929	0.000	99	4513	0.0613	
31 Methylene Chloride	84	6.076	6.057	0.015	97	45572	0.5257	
41 cis-1,2-Dichloroethene	96	8.278	8.283	0.005	93	889	0.0125	
43 Chloroform	83	8.619	8.614	0.000	27	1802	0.0119	
47 Benzene	78	10.252	10.247	0.000	93	6509	0.0337	
50 Carbon tetrachloride	117	10.283	10.268	0.010	82	2177	0.0153	
56 Trichloroethene	130	11.529	11.539	-0.005	92	1455	0.0169	
65 Toluene	91	13.612	13.607	0.005	92	77628	0.3662	
73 Tetrachloroethene	129	14.759	14.759	0.000	88	710	0.008608	
76 Ethylbenzene	91	15.927	15.932	-0.005	97	5891	0.0218	
78 m-Xylene & p-Xylene	91	16.087	16.093	-0.006	59	19353	0.0938	
82 o-Xylene	91	16.620	16.620	0.000	97	6330	0.0295	
S 121 Xylenes, Total	100				0		0.1233	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

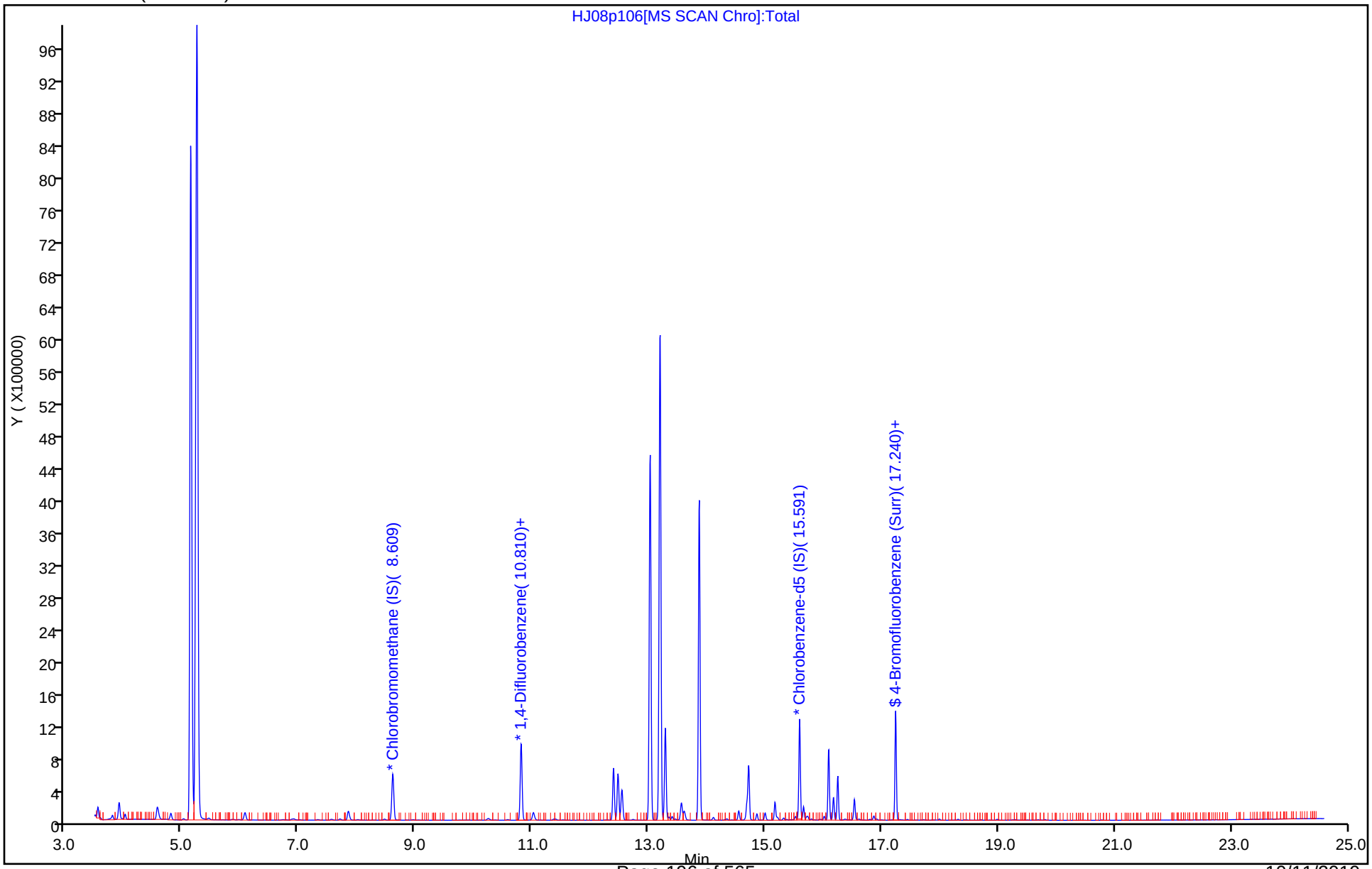
Report Date: 09-Oct-2019 10:21:06 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D

Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7	Worklist Smp#:	13
Client ID:	IA-079-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Lims ID:	140-16893-A-7				
Client ID:	IA-079-A-27-RS				
Sample Type:	Client				
Inject. Date:	08-Oct-2019 20:09:30	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-013				
Misc. Info.:	140-16893-A-7				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Oct-2019 10:21:05	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				

First Level Reviewer: khachitpongpanits Date: 09-Oct-2019 10:21:05

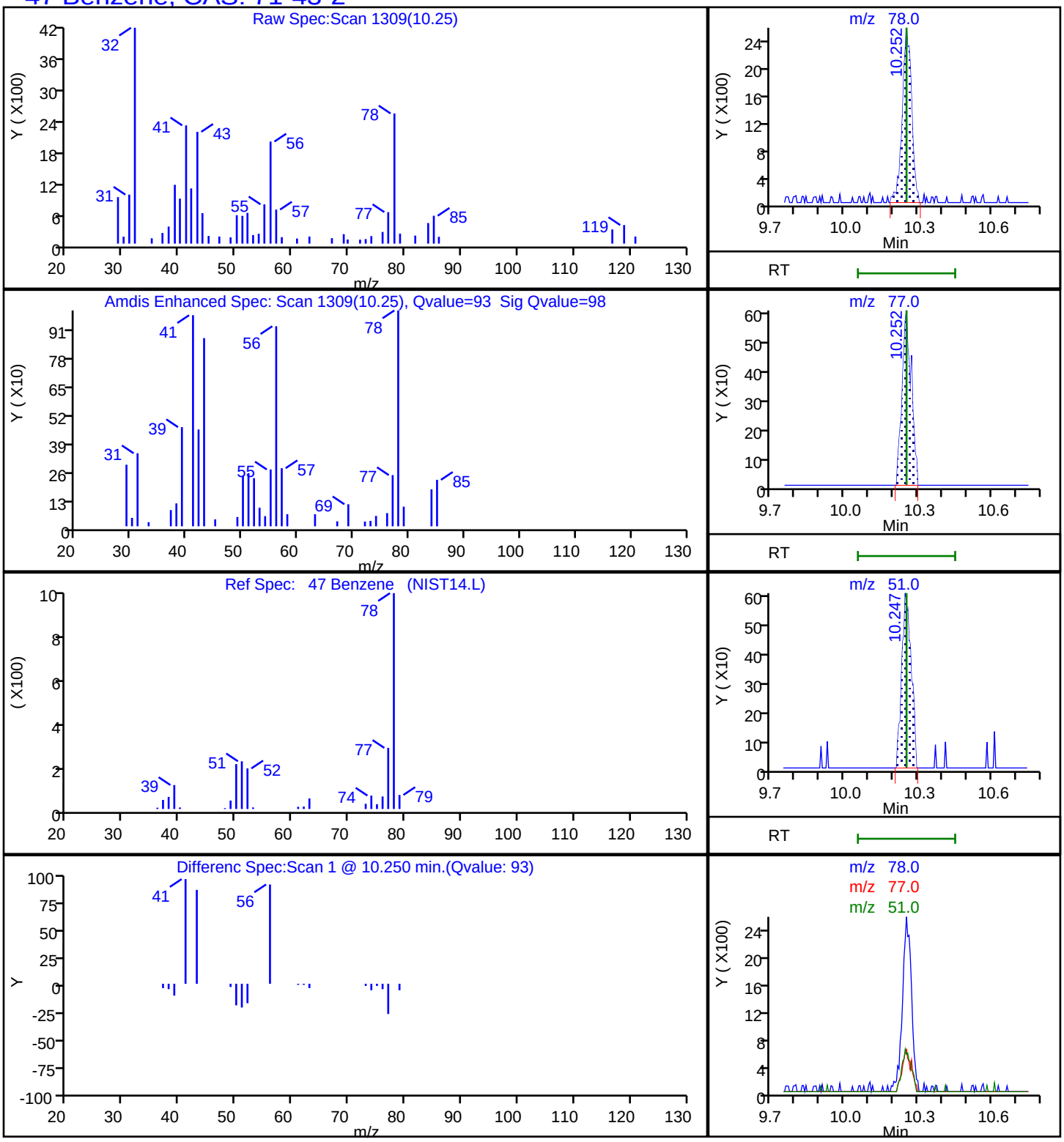
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.74	93.61

Report Date: 09-Oct-2019 10:21:06 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D		
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7
Client ID:	IA-079-A-27-RS		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 Benzene, CAS: 71-43-2



Report Date: 09-Oct-2019 10:21:06 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

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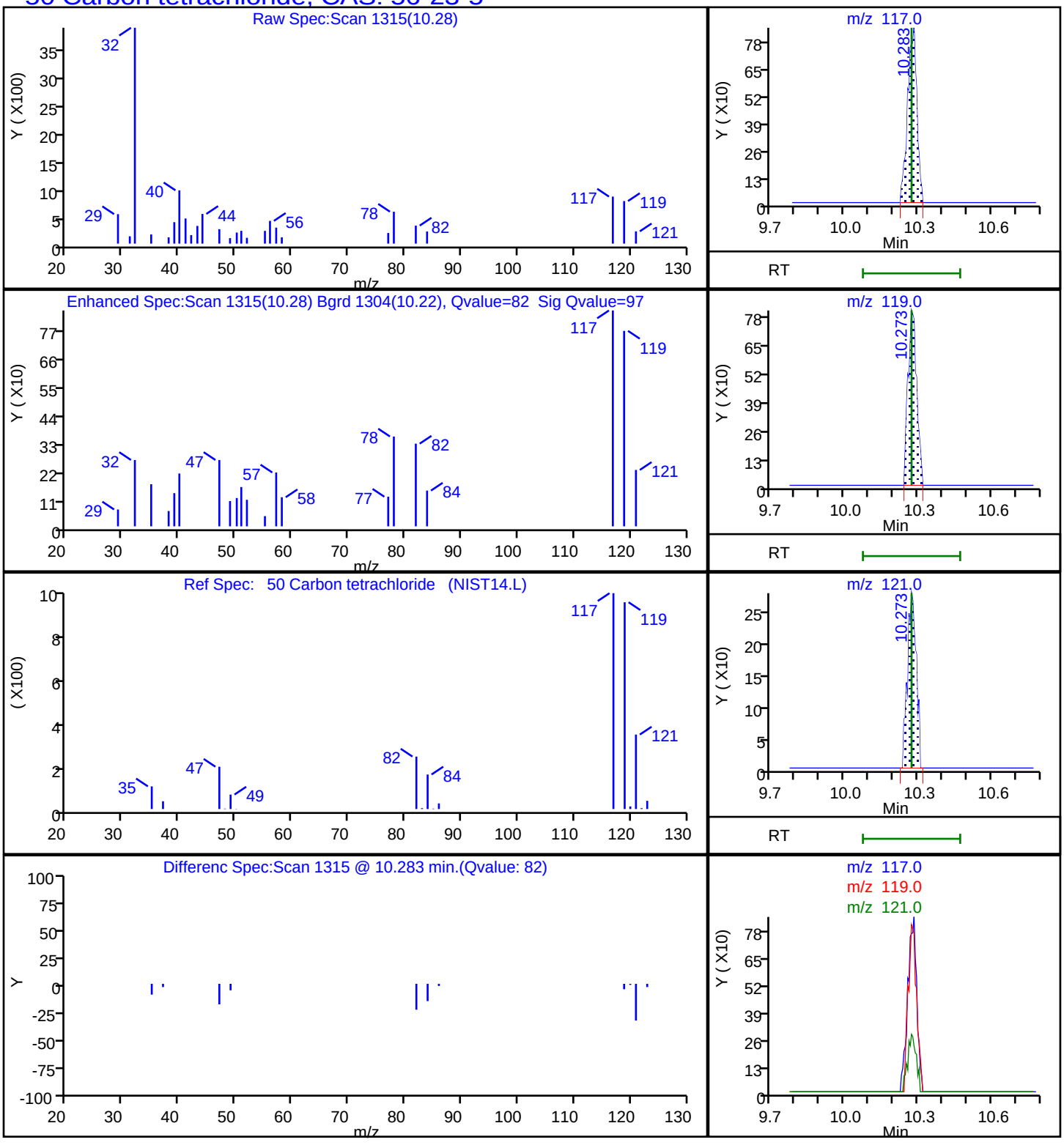
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
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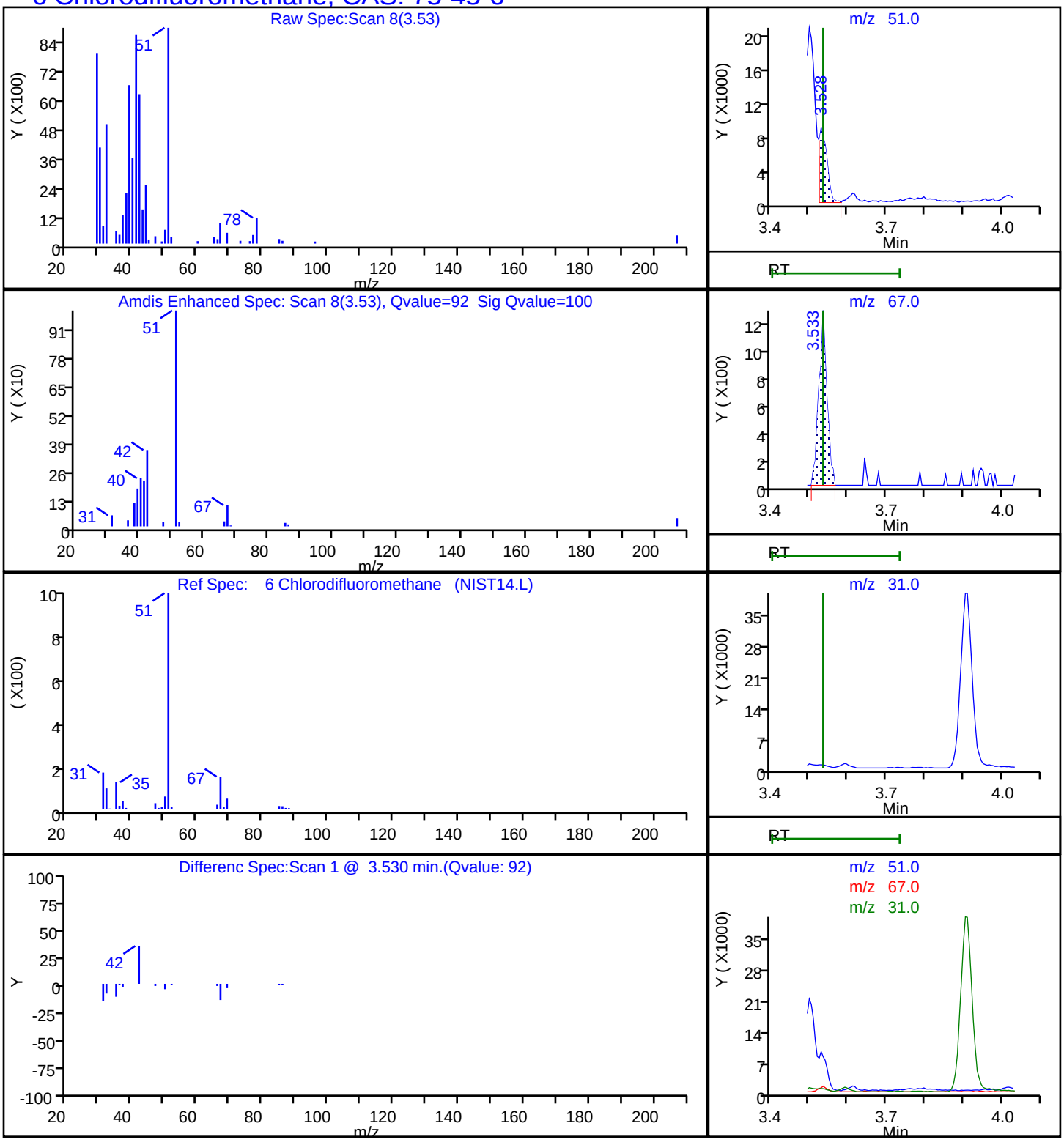
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
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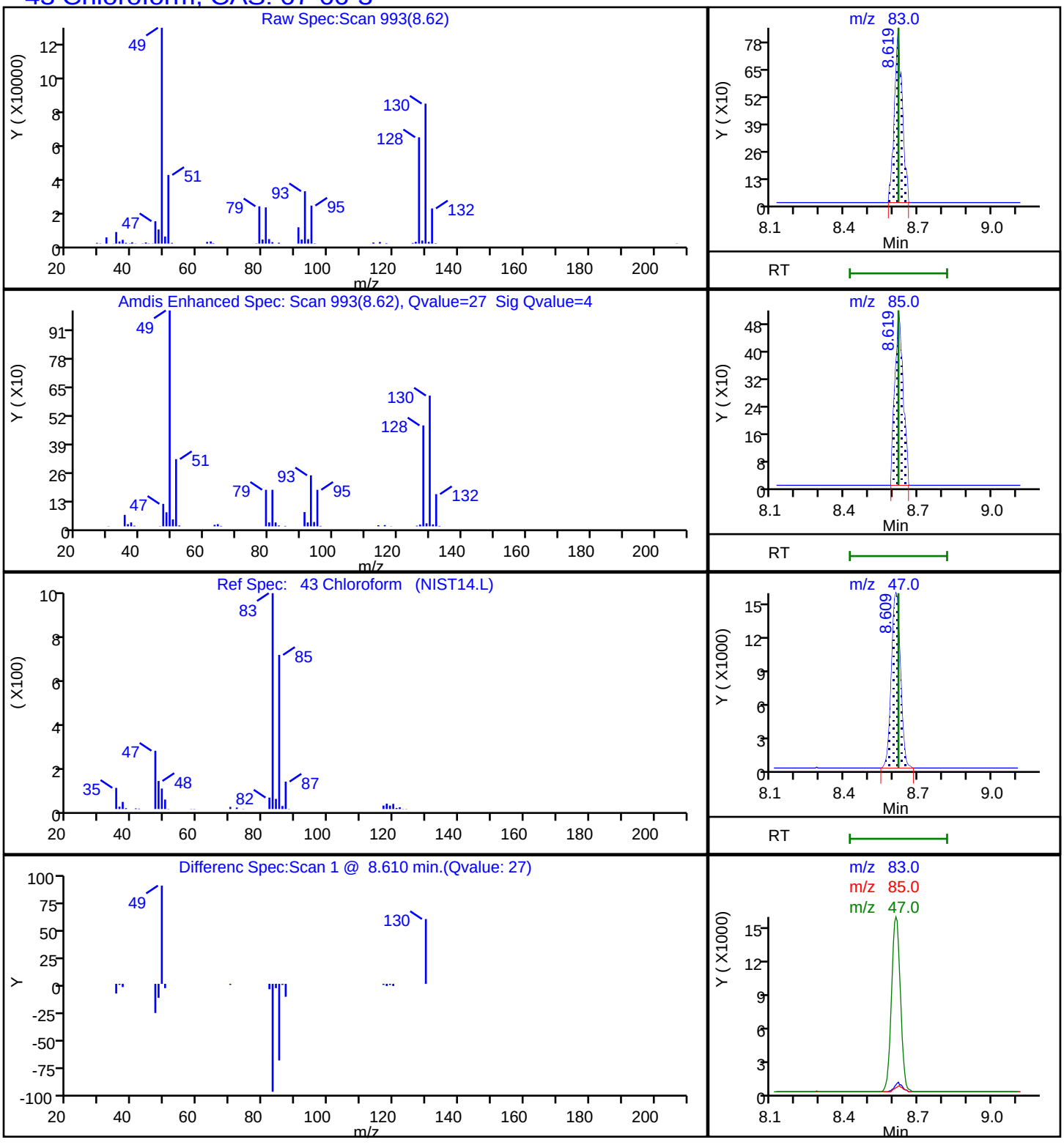
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
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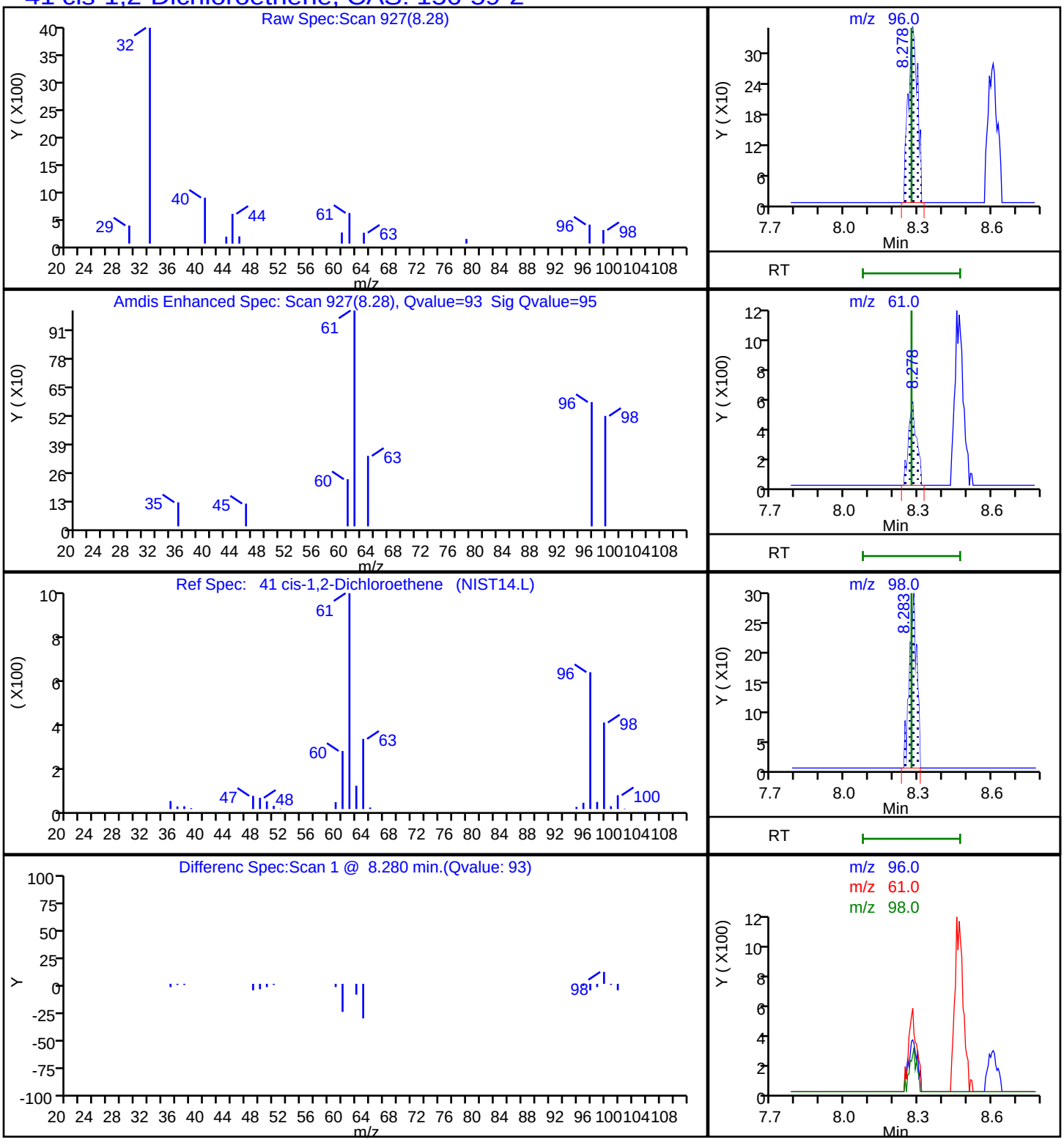
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
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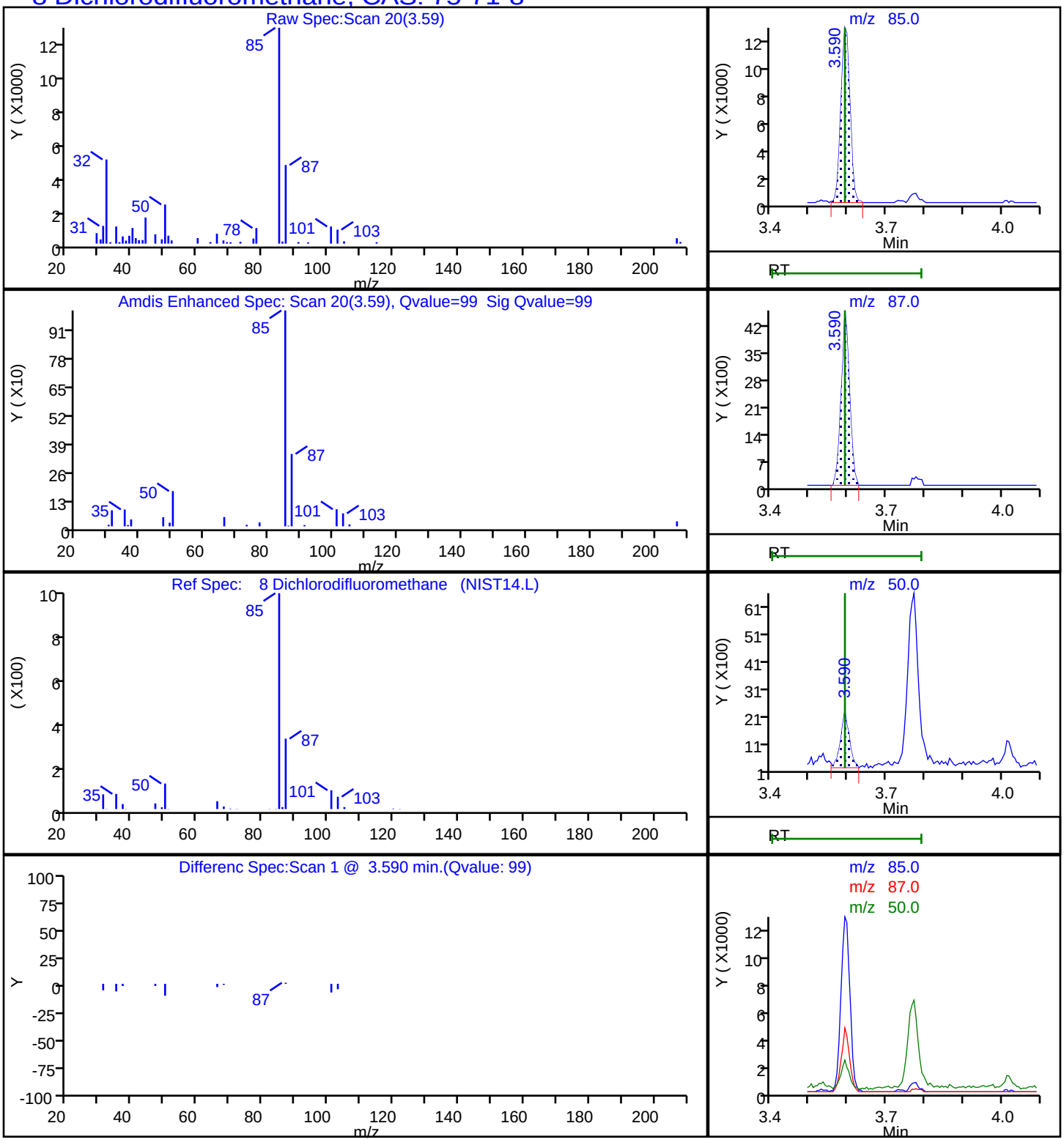
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
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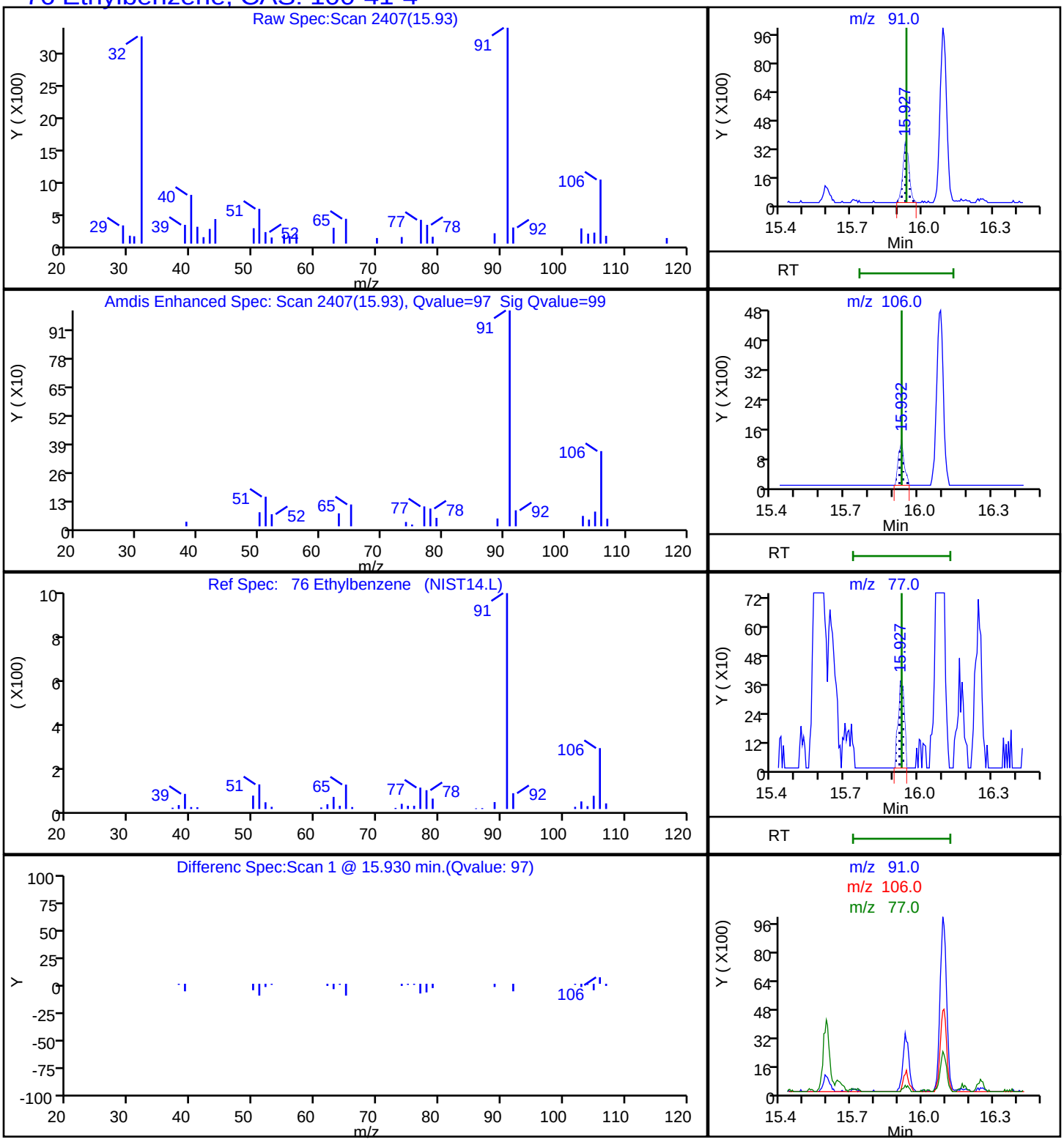
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

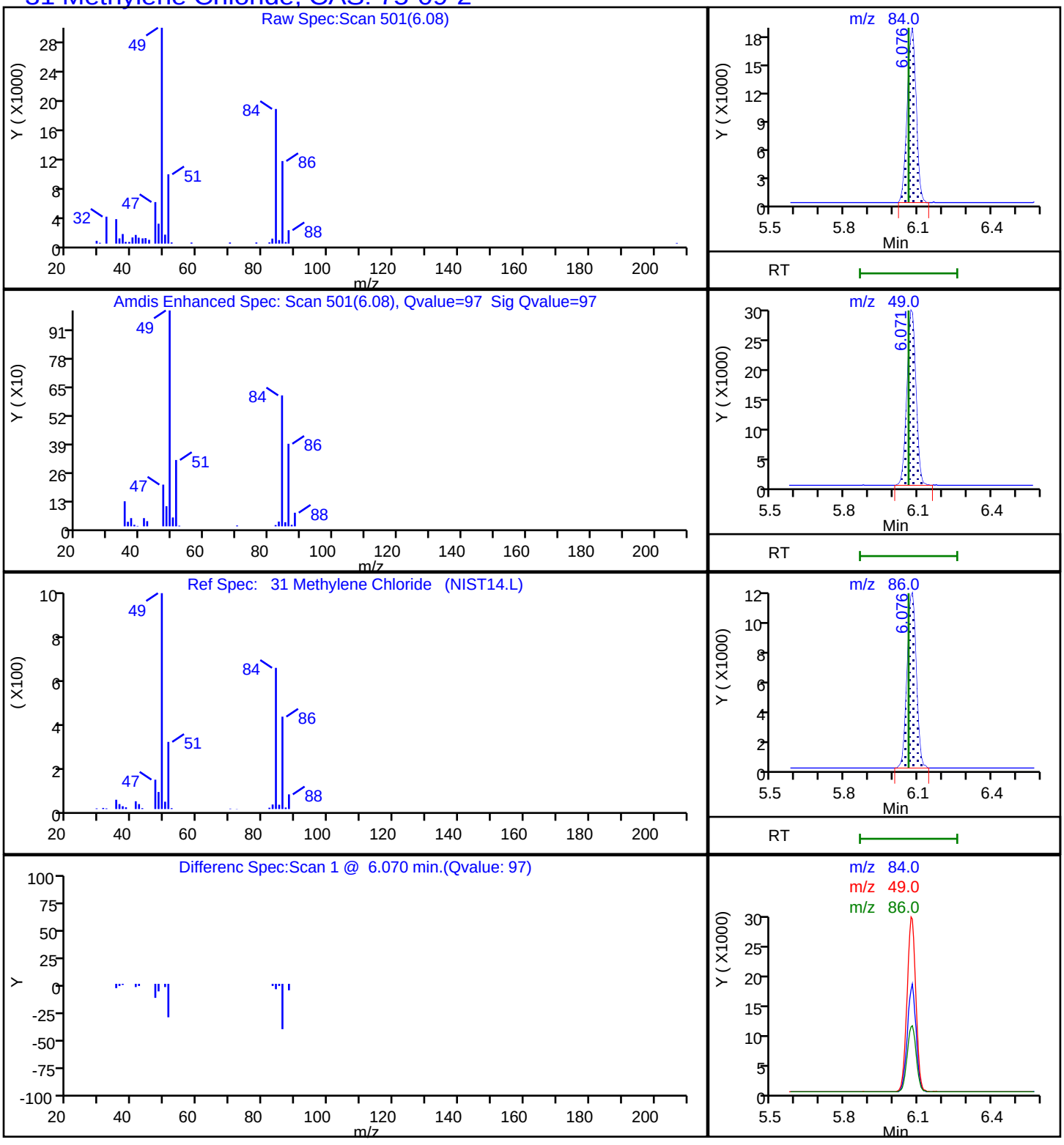
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

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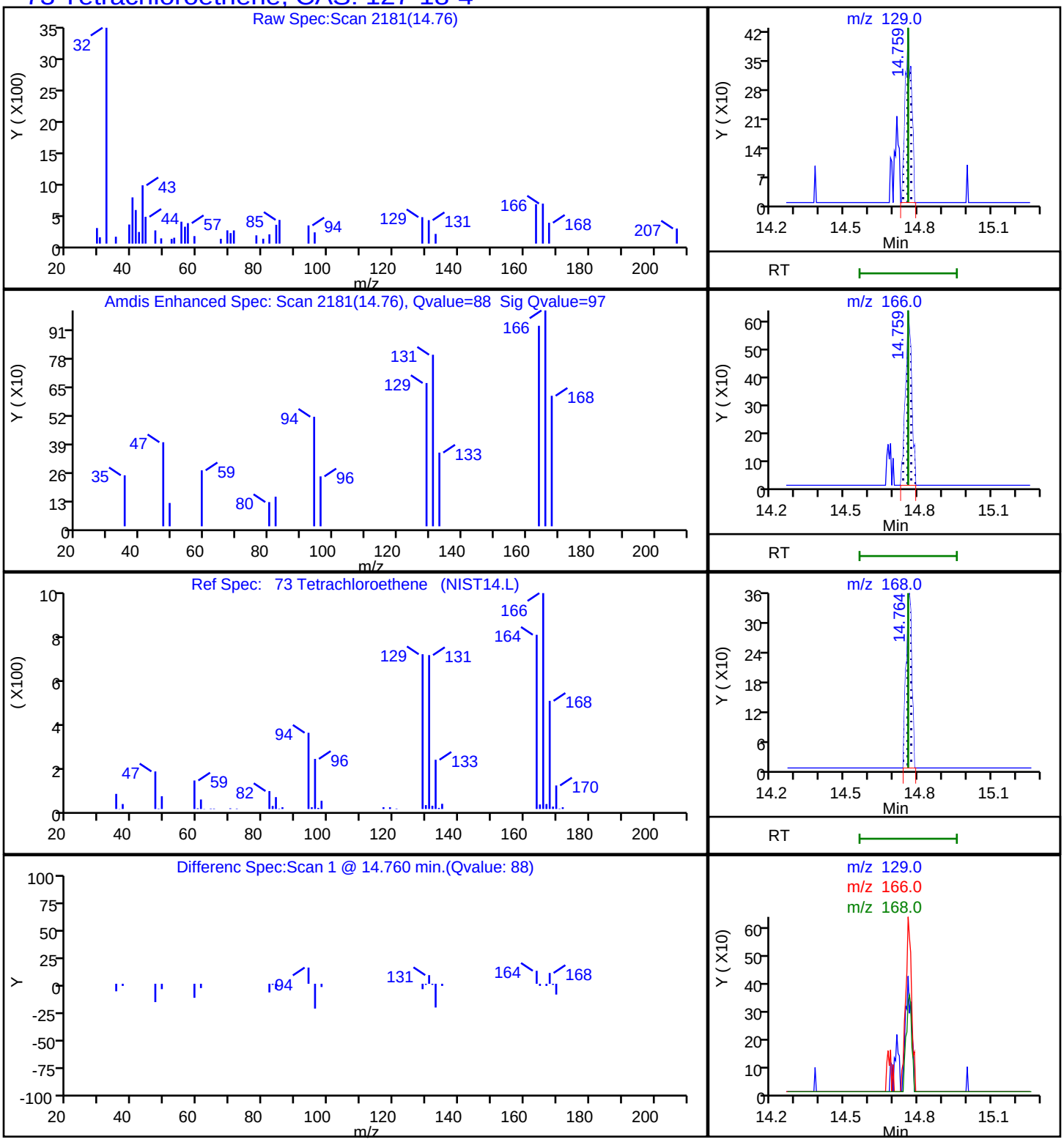
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

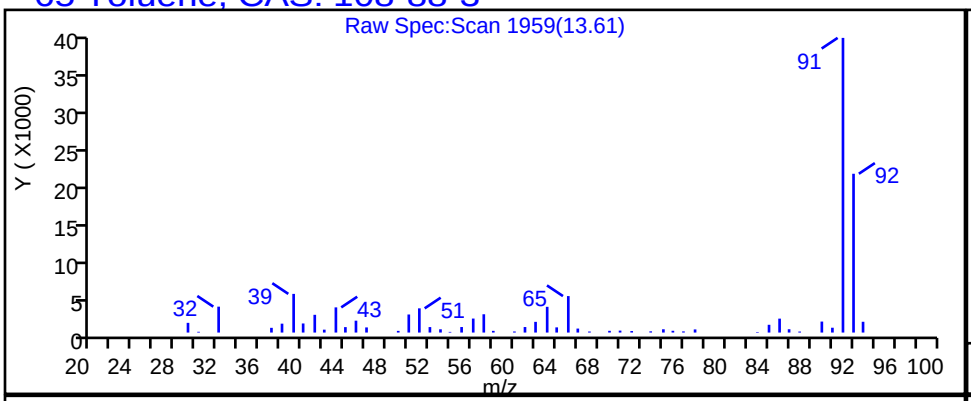
73 Tetrachloroethene, CAS: 127-18-4

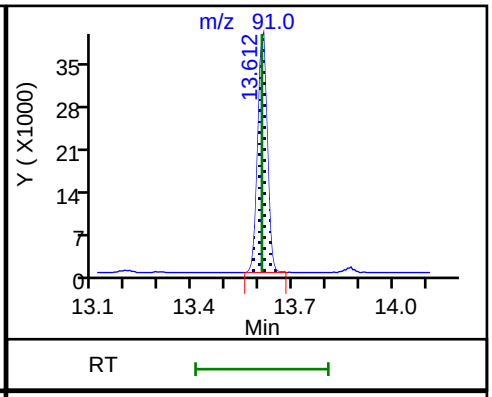


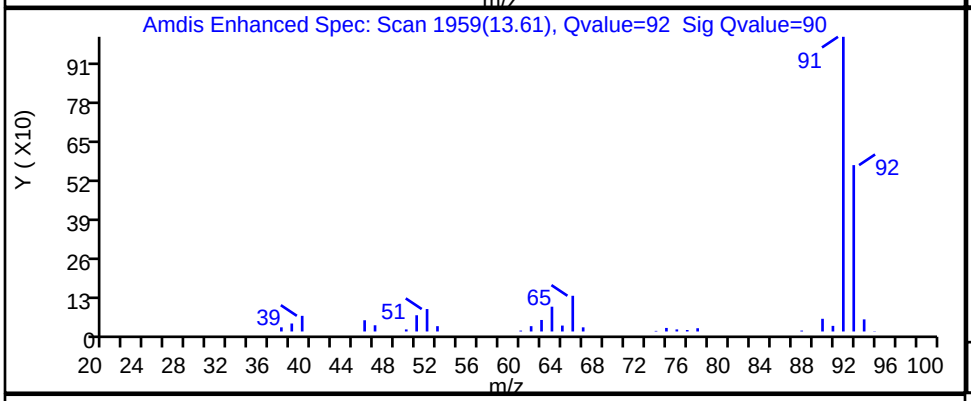
Eurofins TestAmerica, Knoxville

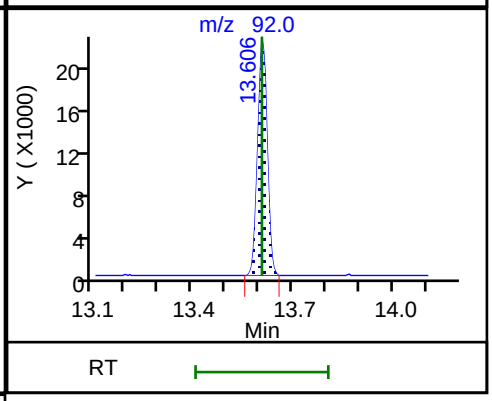
Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

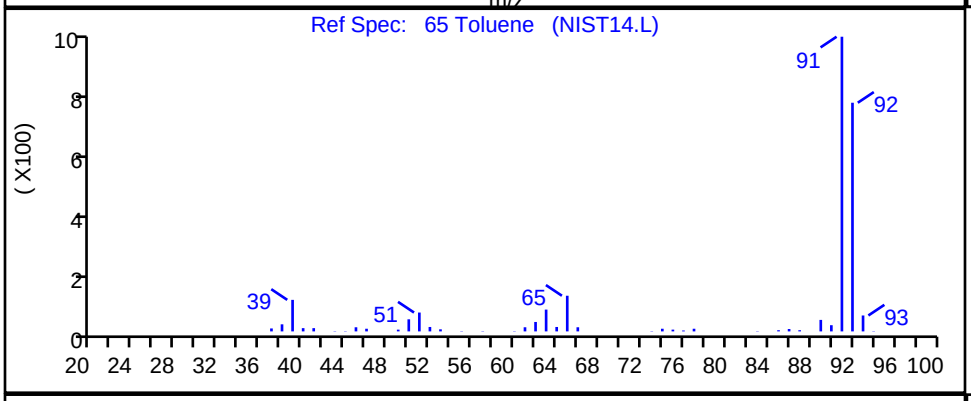
65 Toluene, CAS: 108-88-3

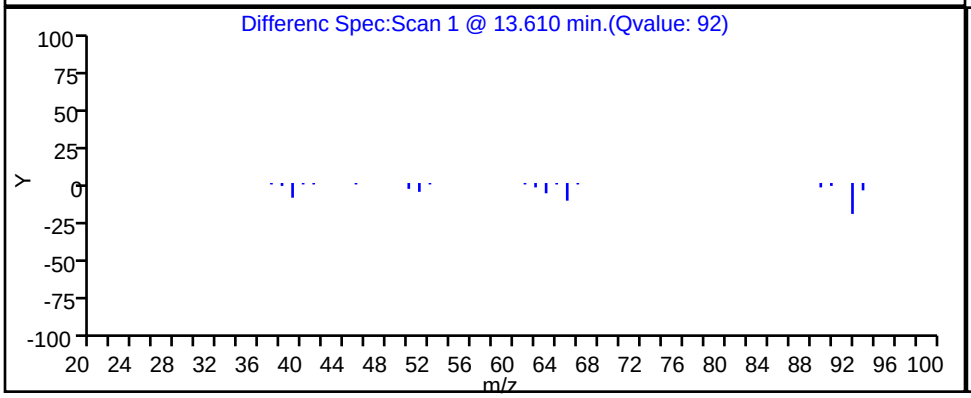


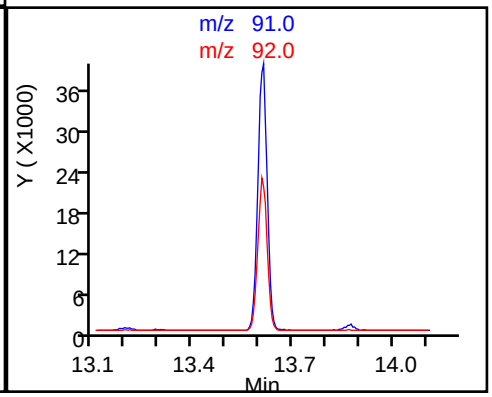








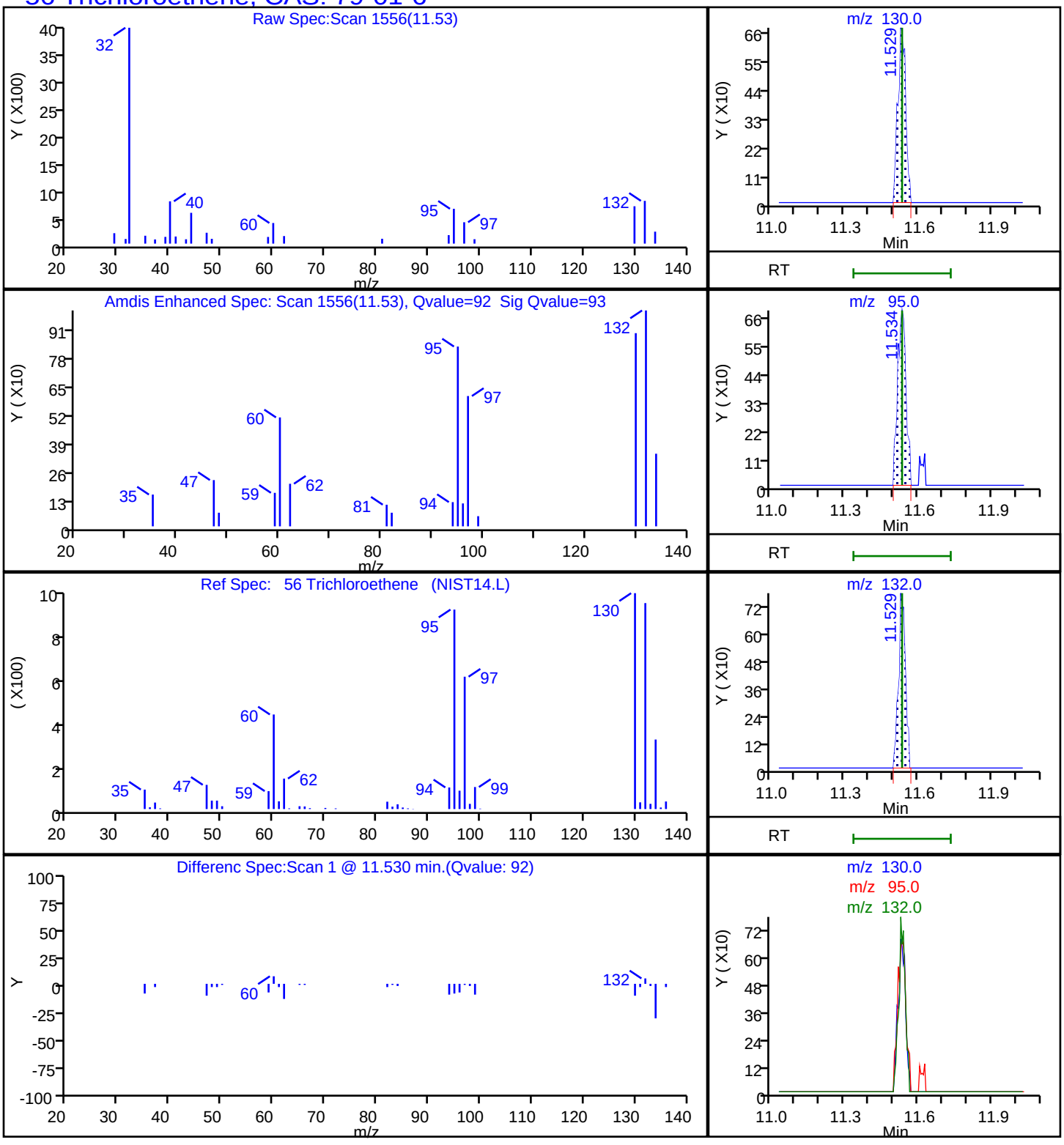




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

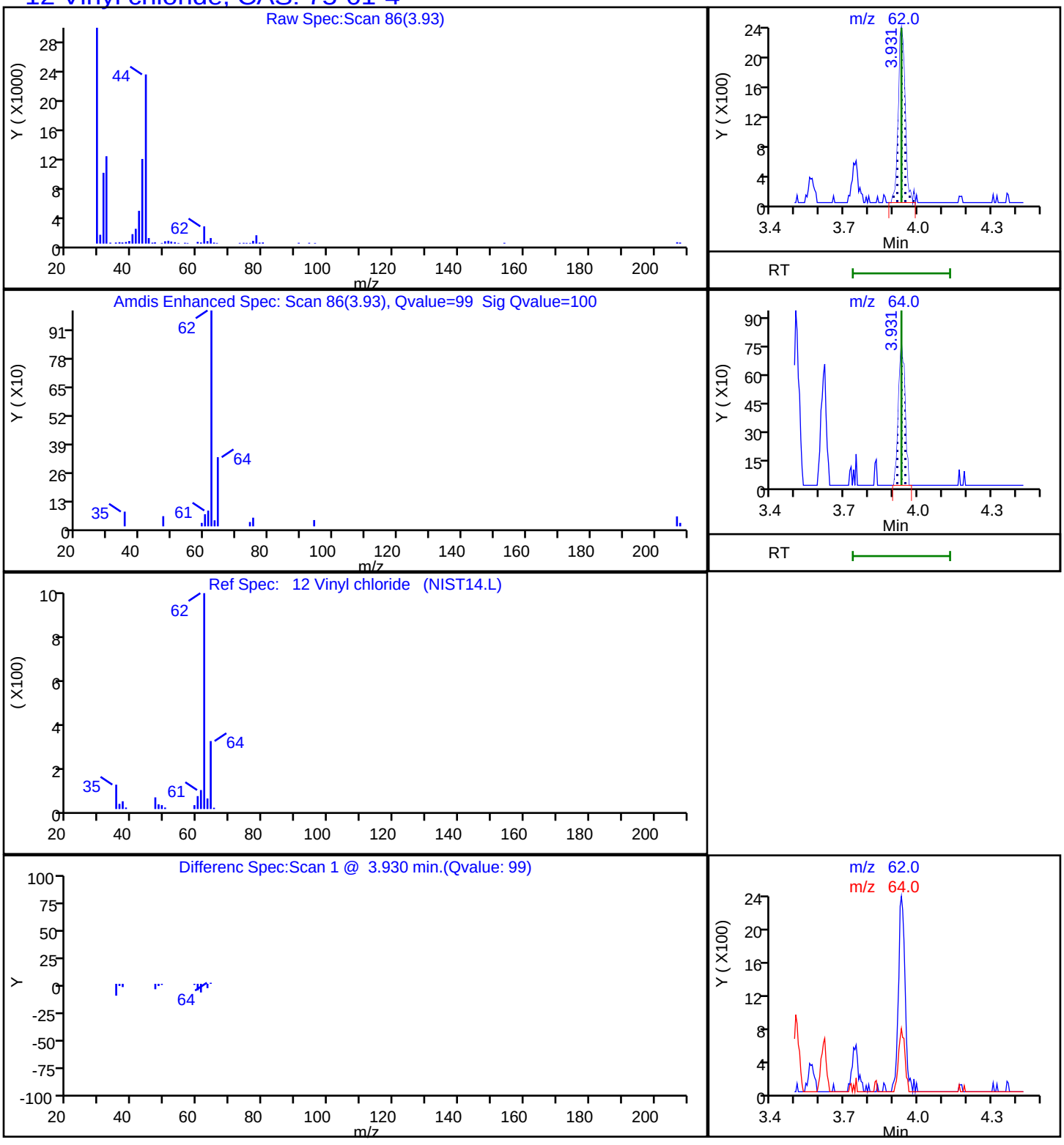
56 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

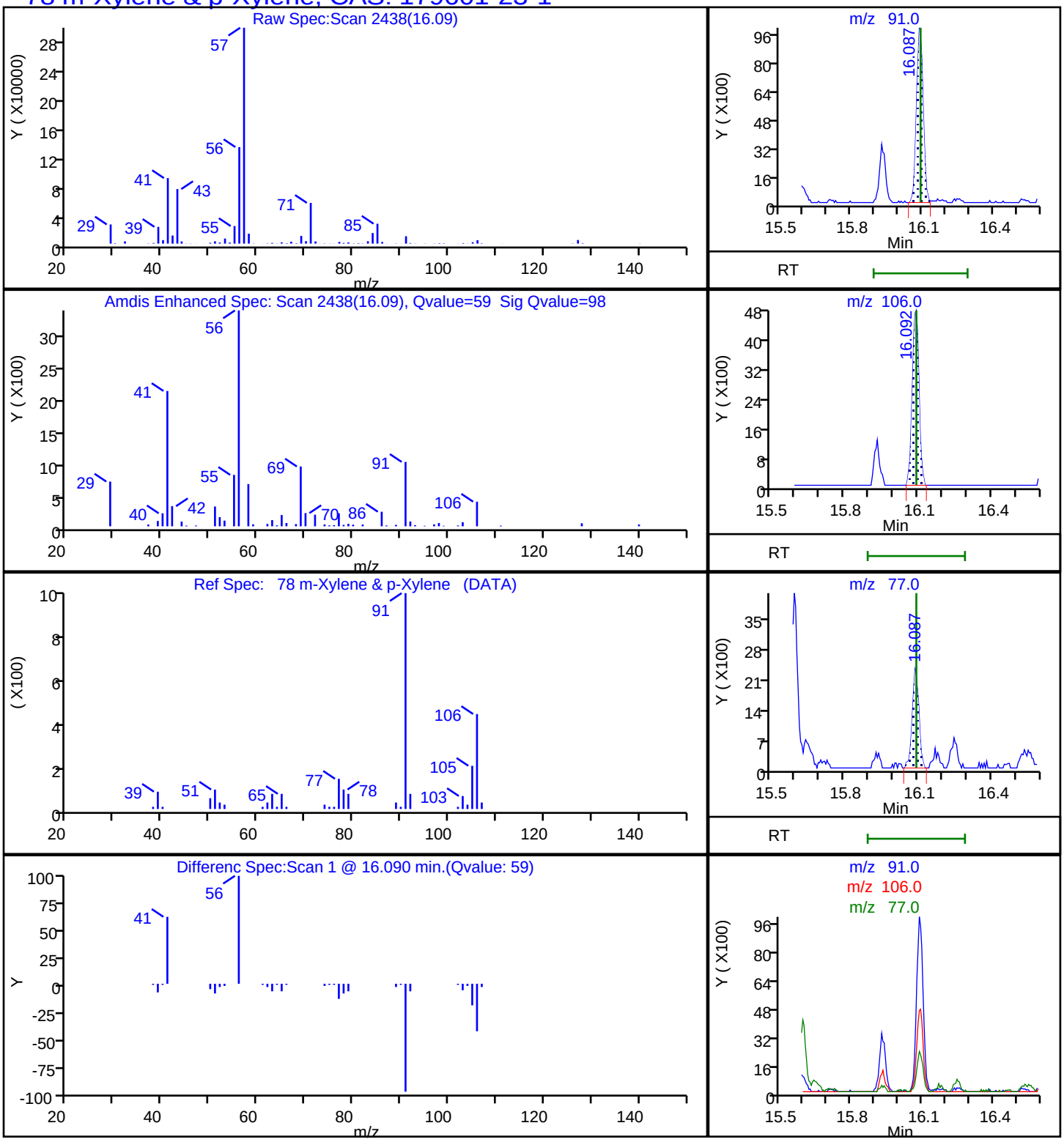
12 Vinyl chloride, CAS: 75-01-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

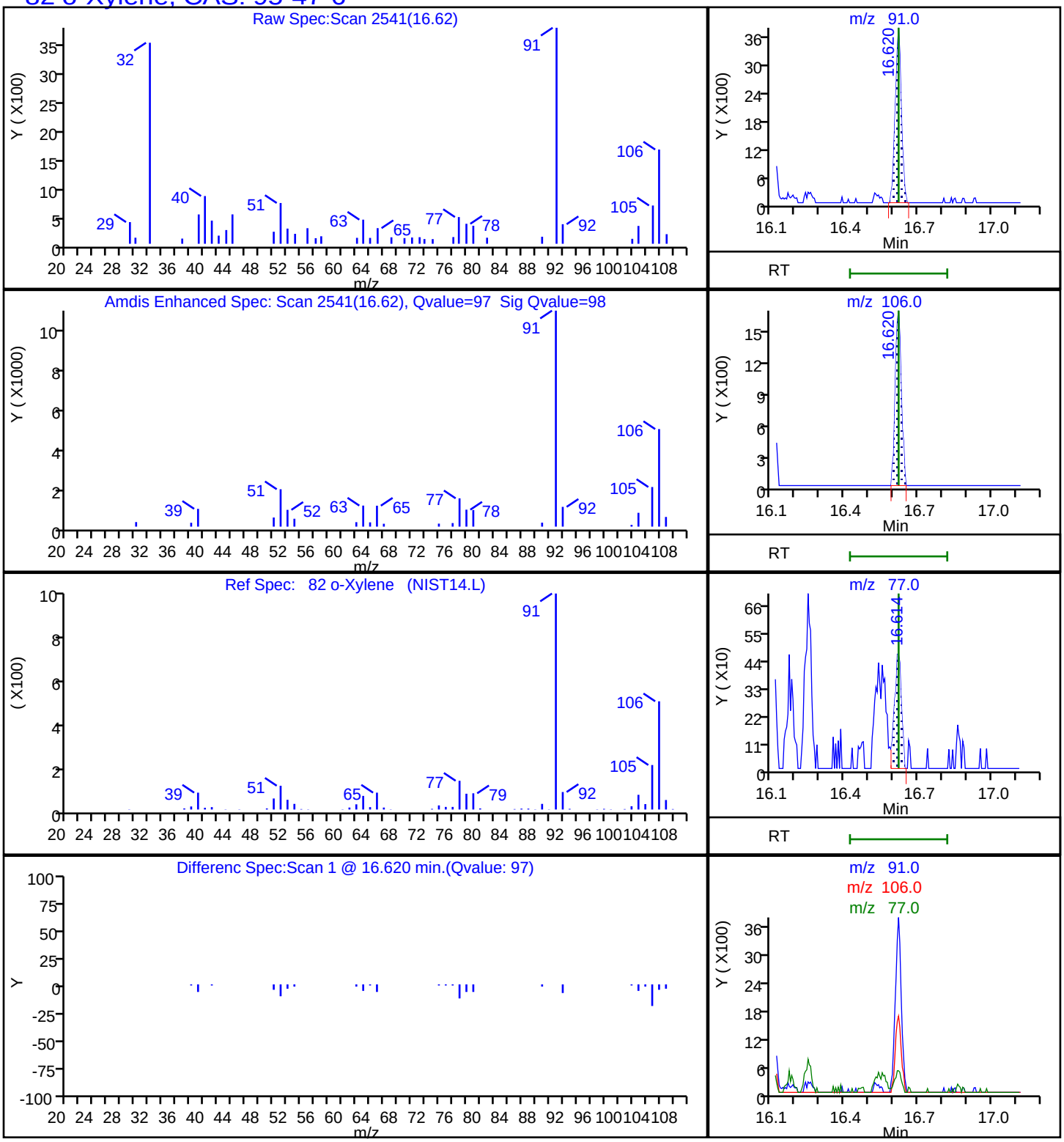


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D

Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7
Client ID:	IA-079-A-27-RS		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



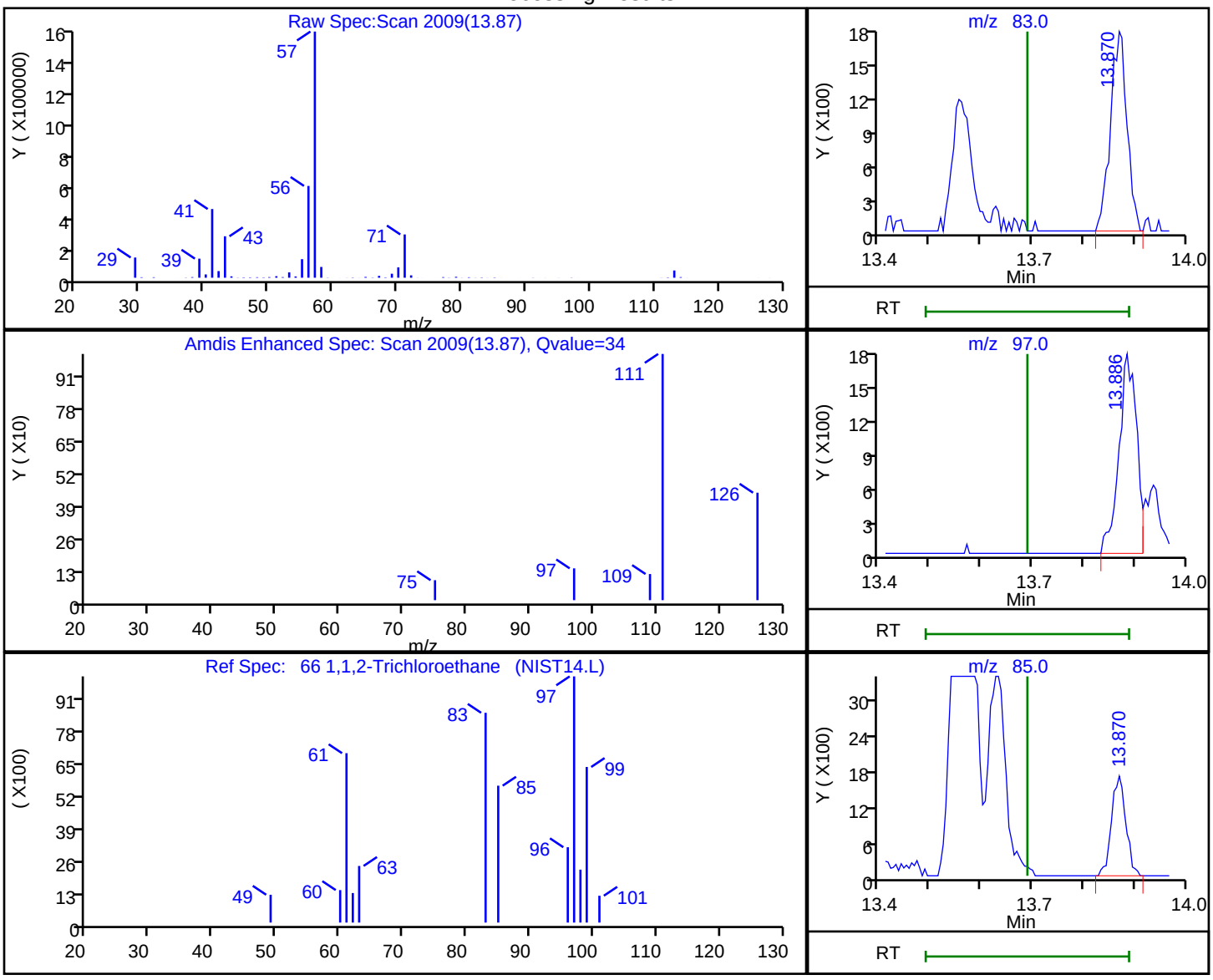
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08p106.D				
Injection Date:	08-Oct-2019 20:09:30	Instrument ID:	MH		
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7		
Client ID:	IA-079-A-27-RS				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

66 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
13.87	83.00	3922	0.055282
13.89	97.00	4216	
13.87	85.00	3275	

Reviewer: khachitpongpanits, 09-Oct-2019 10:20:56

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p110.D
Lims ID: 140-16893-A-7
Client ID: IA-079-A-27-RS
Sample Type: Client
Inject. Date: 09-Oct-2019 21:59:30 ALS Bottle#: 10 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-015
Misc. Info.: 140-16893-A-7
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:42:14 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:42:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.054	9.059	-0.005	97	184954	4.00	
* 2 1,4-Difluorobenzene	114	11.227	11.233	-0.006	96	1098906	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1033768	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	90	755815	4.19	
6 Chlorodifluoromethane	51	3.786	3.786	-0.005	96	9268	0.1010	M
8 Dichlorodifluoromethane	85	3.856	3.853	0.000	99	18194	0.1236	
12 Vinyl chloride	62	4.228	4.222	0.006	96	3321	0.0544	
31 Methylene Chloride	84	6.476	6.471	0.005	97	47446	0.5767	
42 cis-1,2-Dichloroethene	96	8.725	8.725	0.000	86	769	0.0123	
44 Chloroform	83	9.059	9.059	-0.011	27	1728	0.0144	
50 Benzene	78	10.699	10.699	0.000	93	6812	0.0350	
52 Carbon tetrachloride	117	10.715	10.715	-0.005	79	2329	0.0176	
58 Trichloroethene	130	11.939	11.933	0.000	45	1280	0.0142	
67 Toluene	91	13.966	13.966	0.000	94	57934	0.2800	
73 Tetrachloroethene	129	15.099	15.104	-0.005	80	661	0.008155	
78 Ethylbenzene	91	16.247	16.258	-0.011	95	5110	0.0182	
79 m-Xylene & p-Xylene	91	16.409	16.420	-0.011	43	15043	0.0689	
83 o-Xylene	91	16.938	16.943	-0.005	96	5499	0.0226	
S 124 Xylenes, Total	100				0		0.0915	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

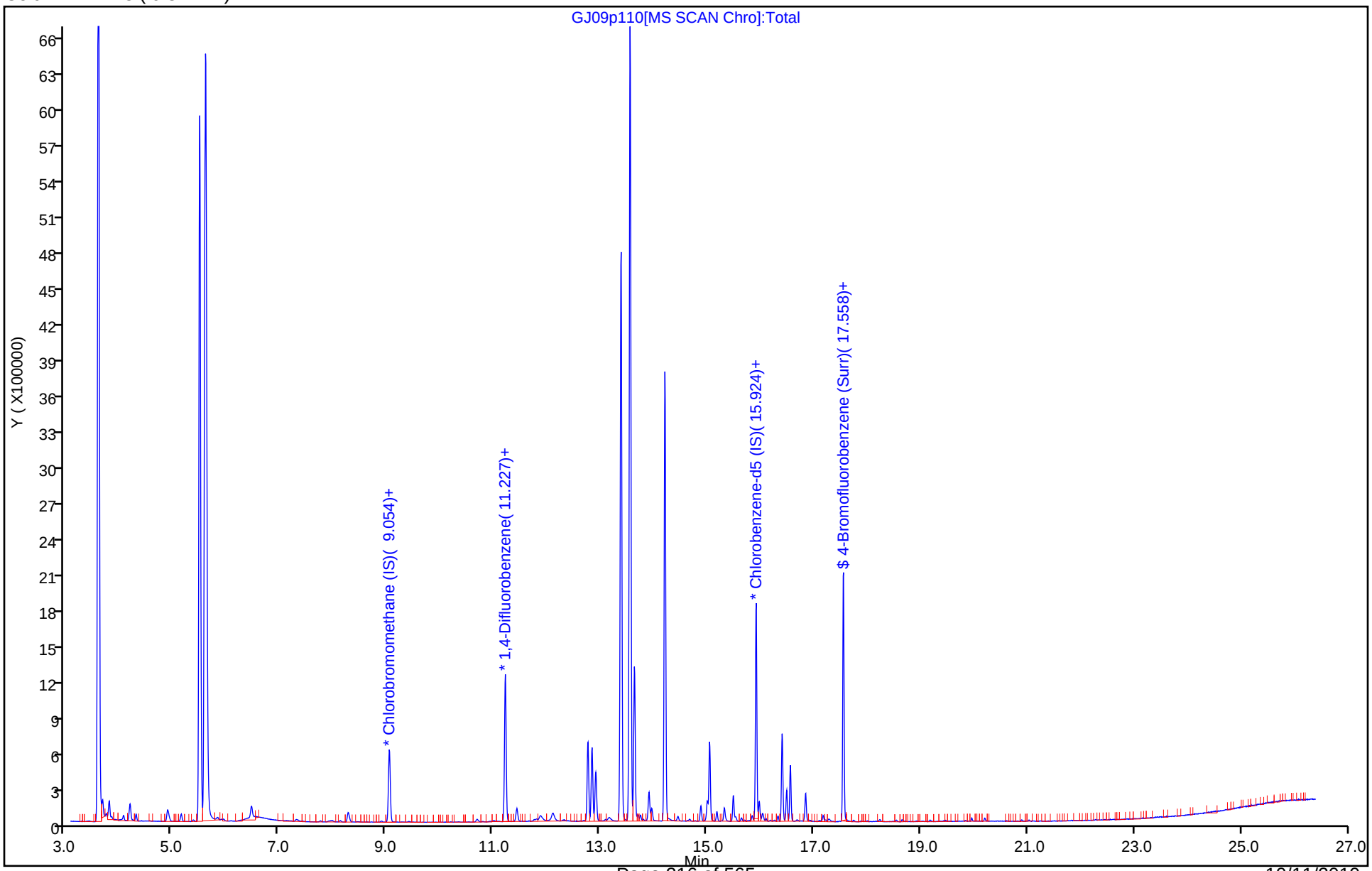
Report Date: 10-Oct-2019 10:42:14 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p110.D

Injection Date:	09-Oct-2019 21:59:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-16893-A-7	Lab Sample ID:	140-16893-7	Worklist Smp#:	15
Client ID:	IA-079-A-27-RS				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09p110.D				
Lims ID:	140-16893-A-7				
Client ID:	IA-079-A-27-RS				
Sample Type:	Client				
Inject. Date:	09-Oct-2019 21:59:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-015				
Misc. Info.:	140-16893-A-7				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:42:14	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:42:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.68

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.9036	+++++ 1.9457	1.9689 1.8518	2.0192 1.8477	2.1224 2.2230	Ave		1.9853				6.6		30.0			
Propene	+++++ 1.6384	+++++ 1.3618	+++++ 1.1789	+++++ 1.1007	+++++ 1.2720	Ave		1.3103				15.9		30.0			
Dichlorodifluoromethane	3.4649 2.9861	3.3626 3.0980	2.9887 2.9409	3.1895 2.9147	3.3957 3.4911	Ave		3.1832				7.2		30.0			
Chloromethane	+++++ 0.3784	+++++ 0.3671	+++++ 0.3522	0.4773 0.3433	0.4530 0.3981	Ave		0.3956				12.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.1590 2.0879	2.2841 2.1259	2.0128 2.0134	2.1984 1.9583	2.3155 2.4036	Ave		2.1559				6.7		30.0			
Vinyl chloride	1.3990 1.2668	1.4794 1.2600	1.2332 1.2236	1.3121 1.2004	1.4095 1.4275	Ave		1.3212				7.5		30.0			
Butane	+++++ 2.0377	+++++ 1.9832	2.2909 1.9144	2.2681 1.9240	2.2747 2.2489	Ave		2.1177				7.9		30.0			
1,3-Butadiene	+++++ 1.0226	+++++ 1.0231	1.0018 0.9957	1.0614 0.9764	1.1424 1.1720	Ave		1.0494				6.8		30.0			
Bromomethane	+++++ 1.0969	+++++ 1.1018	1.0942 1.0786	1.1919 1.0684	1.2274 1.2974	Ave		1.1446				7.3		30.0			
Chloroethane	+++++ 0.6378	+++++ 0.6205	0.6302 0.6148	0.6448 0.6144	0.7097 0.7476	Ave		0.6525				7.6		30.0			
Ethanol	+++++ 0.5340	+++++ 0.5329	+++++ 0.5230	0.5427 0.5461	0.6061 0.5888	Ave		0.5534				5.7		30.0			
Vinyl bromide	1.1045 1.0478	1.1842 1.0266	1.0141 1.0226	1.1017 1.0117	1.1608 1.2383	Ave		1.0912				7.4		30.0			
2-Methylbutane	+++++ 1.3756	+++++ 1.3388	1.4029 1.3298	1.5184 1.3626	1.5407 1.6120	Ave		1.4351				7.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	3.2134 2.8687	3.1413 2.8371	2.7865 2.7958	2.9680 2.8596	3.1137 3.4403	Ave		3.0025				7.2		30.0			
Acrolein	+++++ 0.1771	+++++ 0.1875	+++++ 0.1956	0.2485 0.2203	0.2630 0.2703	Ave		0.2232				17.0		30.0			
Acetonitrile	+++++ 0.4352	+++++ 0.4072	+++++ 0.4117	0.4258 0.4680	0.5251 0.4966	Ave		0.4528				9.9		30.0			
Acetone	+++++ 0.5631	+++++ 0.4946	+++++ 0.4755	+++++ 0.4989	0.8257 0.5307	Ave		0.5647				23.3		30.0			
Pentane	+++++ 0.1959	+++++ 0.1915	0.2023 0.1929	0.2096 0.1989	0.2337 0.2423	Ave		0.2084				9.3		30.0			
Isopropyl alcohol	1.5453 1.3728	1.5737 1.3834	1.4911 1.3839	1.2772 1.4381	1.5363 1.5779	Ave		1.4580				7.0		30.0			
Ethyl ether	+++++ 1.0105	+++++ 0.9120	1.0603 0.9704	0.9454 1.0731	1.1075 1.1221	Ave		1.0252				7.6		30.0			
1,1-Dichloroethene	1.5548 1.2208	1.4734 1.2557	1.2356 1.2140	1.3306 1.2030	1.3594 1.5004	Ave		1.3348				9.9		30.0			
Acrylonitrile	+++++ 0.8676	+++++ 0.8749	0.8898 0.8539	0.8183 0.9165	0.9857 1.0262	Ave		0.9041				7.7		30.0			
tert-Butyl alcohol	+++++ 2.0530	+++++ 2.1910	+++++ 2.0976	1.8405 2.2612	2.2786 2.5616	Ave		2.1834				10.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8657 2.5421	2.9363 2.5469	2.5394 2.4698	2.6442 2.4375	2.8013 2.8547	Ave		2.6638				6.9		30.0			
Methylene Chloride	+++++ 1.4544	+++++ 1.2747	+++++ 1.1677	+++++ 1.1073	2.0996 1.3047	Lin2	0.3800	1.1203							0.9920		0.9900
3-Chloropropene	+++++ 1.1632	+++++ 1.2007	1.2072 1.1248	1.2701 1.1891	1.2630 1.3518	Ave		1.2212				5.8		30.0			
Carbon disulfide	+++++ 3.5549	+++++ 3.5664	3.4062 3.4595	3.7101 3.4544	3.9304 4.2975	Ave		3.6724				8.3		30.0			
trans-1,2-Dichloroethene	1.4769 1.2382	1.3959 1.2751	1.2539 1.2356	1.3082 1.2222	1.3845 1.4631	Ave		1.3254				7.3		30.0			
2-Methylpentane	+++++ 3.1451	+++++ 3.1737	3.2815 3.0421	3.3064 3.0445	3.6164 3.4189	Ave		3.2536				6.0		30.0			
Methyl tert-butyl ether	+++++ 3.4227	+++++ 3.4827	3.4386 3.3912	3.2502 3.5618	3.8228 4.0775	Ave		3.5559				7.5		30.0			
1,1-Dichloroethane	2.4516 2.1933	2.4716 2.2639	2.2679 2.1995	2.4379 2.3058	2.4833 2.6425	Ave		2.3717				6.2		30.0			
Vinyl acetate	+++++ 3.0080	+++++ 3.1575	2.9767 3.1634	2.5332 3.5911	3.2268 4.0086	Ave		3.2082				13.6		30.0			
2-Butanone (MEK)	+++++ 0.5688	+++++ 0.5894	+++++ 0.5730	0.5415 0.6106	0.6785 0.6957	Ave		0.6082				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0650	+++++ 1.0826	1.1709 1.0464	1.1997 1.0580	1.2204 1.2415	Ave		1.1356				7.1		30.0			
cis-1,2-Dichloroethene	1.4604 1.2517	1.4639 1.3100	1.2273 1.2625	1.3206 1.2757	1.3890 1.5371	Ave		1.3498				7.9		30.0			
Ethyl acetate	+++++ 2.5026	+++++ 2.6416	2.4666 2.6391	2.0976 2.9368	2.7311 3.3882	Ave		2.6754				14.1		30.0			
Chloroform	+++++ 2.3890	2.8256 2.4665	2.4757 2.3621	2.6065 2.5051	2.7285 2.9605	Ave		2.5911				8.0		30.0			
Tetrahydrofuran	+++++ 1.4132	+++++ 1.4577	1.5393 1.4522	1.3596 1.5738	1.5953 1.8010	Ave		1.5240				9.1		30.0			
1,1,1-Trichloroethane	3.0880 2.6914	2.9595 2.7798	2.7207 2.6896	2.8035 2.7815	2.9944 3.2466	Ave		2.8755				6.6		30.0			
1,2-Dichloroethane	+++++ 0.2829	0.4076 0.2825	0.2755 0.2773	0.2868 0.3377	0.3661 0.4441	Ave		0.3289				19.4		30.0			
Cyclohexane	+++++ 0.1202	+++++ 0.1195	0.1176 0.1136	0.1297 0.1229	0.1582 0.1624	Ave		0.1305				14.5		30.0			
Benzene	+++++ 0.5992	0.9161 0.6085	0.6606 0.5920	0.6461 0.6817	0.7911 0.8753	Ave		0.7079				17.3		30.0			
1-Butanol	+++++ 0.0726	+++++ 0.0748	+++++ 0.0714	0.0668 0.0902	0.0998 +++++	Ave		0.0793				16.2		30.0			
Carbon tetrachloride	0.4686 0.4696	0.5434 0.4745	0.4061 0.4632	0.4293 0.5259	0.5459 +++++	Ave		0.4807				10.1		30.0			
2,3-Dimethylpentane	+++++ 0.1770	+++++ 0.1779	0.1721 0.1687	0.1788 0.1879	0.2275 +++++	Ave		0.1843				10.8		30.0			
Thiophene	+++++ 0.3403	+++++ 0.3443	0.3335 0.3344	0.3506 0.3923	0.4435 +++++	Ave		0.3627				11.3		30.0			
2,2,4-Trimethylpentane	+++++ 1.2865	+++++ 1.2594	1.2802 1.1922	1.3149 1.3236	1.6911 1.7663	Ave		1.3893				15.4		30.0			
Heptane	+++++ 0.2469	+++++ 0.2519	0.2549 0.2461	0.2502 0.2836	0.3221 +++++	Ave		0.2651				10.6		30.0			
1,2-Dichloropropane	+++++ 0.2300	+++++ 0.2333	0.2276 0.2336	0.2273 0.2784	0.2999 +++++	Ave		0.2472				11.9		30.0			
Trichloroethene	0.3355 0.2758	0.4322 0.2831	0.2772 0.2668	0.3038 0.3049	0.3610 0.4429	Ave		0.3283				19.6		30.0			
Dibromomethane	+++++ 0.2393	+++++ 0.2444	0.2486 0.2321	0.2489 0.2746	0.3212 +++++	Ave		0.2584				11.9		30.0			
Bromodichloromethane	+++++ 0.3861	+++++ 0.3985	0.3655 0.3945	0.3747 0.4834	0.5045 +++++	Ave		0.4153				13.3		30.0			
1,4-Dioxane	+++++ 0.0974	+++++ 0.1032	0.0941 0.1017	0.0845 0.1152	0.1177 +++++	Ave		0.1020				11.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2722	+++++ 0.2849	0.2517 0.2901	0.2145 0.3666	0.3320 +++++	Ave		0.2874				17.4		30.0			
Methylcyclohexane	0.5197 0.4647	0.6327 0.4605	0.4423 0.4340	0.4697 0.4820	0.5908 0.6546	Ave		0.5151				15.8		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5491	+++++ 0.5601	0.5203 0.5427	0.4363 0.6541	0.6630 +++++	Ave		0.5608				14.0		30.0			
cis-1,3-Dichloropropene	+++++ 0.2900	+++++ 0.2933	0.2959 0.2867	0.2814 0.3686	0.3929 +++++	Ave		0.3155				14.4		30.0			
trans-1,3-Dichloropropene	+++++ 0.2791	+++++ 0.2875	0.2866 0.2822	0.2629 0.3855	0.3277 +++++	Ave		0.3016				13.9		30.0			
Toluene	+++++ 0.7197	+++++ 0.7519	0.7104 0.7788	0.6714 0.9695	0.7996 1.0043	Ave		0.8007				15.2		30.0			
1,1,2-Trichloroethane	+++++ 0.2014	+++++ 0.2065	0.2075 0.2111	0.1945 0.2680	0.2318 0.2889	Ave		0.2262				15.2		30.0			
2-Hexanone	+++++ 0.2728	+++++ 0.2892	+++++ 0.2896	0.1927 0.3704	0.2714 0.3704	Ave		0.2938				21.1		30.0			
C8 Range	+++++ 2.6458	+++++ 2.7368	+++++ 2.7129	2.5970 3.1347	2.9255 3.1074	Ave		2.8372				7.7		30.0			
Octane	+++++ 0.2947	+++++ 0.3053	0.2745 0.3076	0.2736 0.3510	0.3125 0.3575	Ave		0.3096				10.1		30.0			
Dibromochloromethane	+++++ 0.3715	0.4683 0.3886	0.3160 0.4040	0.3291 0.5261	0.4035 +++++	Ave		0.4009				17.3		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.3351	+++++ 0.3310	0.3378 0.3271	0.3332 0.4284	0.3988 0.4942	Ave		0.3732				16.5		30.0			
Tetrachloroethene	0.3199 0.2720	0.4122 0.2750	0.2843 0.2746	0.2923 0.3322	0.3108 0.3628	Ave		0.3136				14.5		30.0			
Chlorobenzene	+++++ 0.5302	+++++ 0.5368	0.5327 0.5435	0.5268 0.6915	0.6283 0.7565	Ave		0.5933				15.0		30.0			
Ethylbenzene	+++++ 0.9424	1.3793 0.9940	0.8755 1.0494	0.8255 1.3224	1.0406 1.3726	Ave		1.0891				19.7		30.0			
m-Xylene & p-Xylene	+++++ 0.7496	1.0773 0.7868	0.7015 0.8166	0.6151 1.0149	0.8104 1.0314	Ave		0.8448				19.0		30.0			
Nonane	+++++ 0.5860	+++++ 0.6119	+++++ 0.6199	0.5116 0.7204	0.6168 0.7008	Ave		0.6239				11.2		30.0			
Bromoform	+++++ 0.3185	0.3597 0.3390	0.2305 0.3680	0.2459 0.4950	0.3266 +++++	Ave		0.3354				24.3		30.0			
Styrene	+++++ 0.4787	+++++ 0.5099	0.4490 0.5319	0.4022 0.7159	0.5420 +++++	Ave		0.5185				19.2		30.0			
o-Xylene	0.7941 0.8770	1.1596 0.9089	0.8117 0.9230	0.7255 1.1314	0.9223 1.1626	Ave		0.9416				16.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5900	+++++ 0.6059	0.5466 0.5974	0.4987 0.7378	0.6368 0.7540	Ave		0.6209				14.1		30.0			
1,2,3-Trichloropropane	+++++ 0.1647	+++++ 0.1723	0.1634 0.1765	0.1413 0.2264	0.1844 +++++	Ave		0.1756				14.9		30.0			
Isopropylbenzene	+++++ 1.2090	+++++ 1.2470	1.0885 1.2621	0.9884 1.5173	1.2566 1.5403	Ave		1.2637				15.0		30.0			
Propylbenzene	+++++ 0.3073	+++++ 0.3248	0.2787 0.3350	0.2525 0.4194	0.3256 0.4379	Ave		0.3352				19.1		30.0			
2-Chlorotoluene	+++++ 0.2764	+++++ 0.2926	+++++ 0.2978	0.2407 0.3653	0.3035 0.3849	Ave		0.3087				16.2		30.0			
4-Ethyltoluene	+++++ 1.0644	+++++ 1.1127	1.0587 1.1470	0.8732 1.4542	1.1547 1.5081	Ave		1.1716				18.0		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5205	0.6315 0.5343	0.4660 0.5306	0.4258 0.6413	0.5319 0.6674	Ave		0.5499				14.8		30.0			
Alpha Methyl Styrene	+++++ 0.4271	+++++ 0.4675	+++++ 0.4859	0.3240 0.6334	0.4482 +++++	Ave		0.4643				21.6		30.0			
Decane	+++++ 0.7272	+++++ 0.7423	0.7079 0.7248	0.6409 0.8596	0.8113 0.8305	Ave		0.7556				9.6		30.0			
tert-Butylbenzene	+++++ 1.1502	+++++ 1.1637	1.0345 1.1546	0.9100 1.3839	1.2038 1.3970	Ave		1.1747				13.8		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9827	+++++ 1.0060	0.9105 1.0083	0.7976 1.2444	1.0467 1.2593	Ave		1.0319				15.1		30.0			
sec-Butylbenzene	+++++ 1.4981	+++++ 1.5238	1.3923 1.5116	1.2156 1.8069	1.5712 1.7893	Ave		1.5386				12.6		30.0			
1,3-Dichlorobenzene	+++++ 0.5609	+++++ 0.5693	0.5963 0.5716	0.5172 0.7578	0.6463 0.8663	Ave		0.6357				18.6		30.0			
Benzyl chloride	+++++ 0.6826	0.9581 0.7463	0.6736 0.7214	0.5356 1.0371	0.7509 +++++	Ave		0.7632				21.1		30.0			
1,4-Dichlorobenzene	+++++ 0.5422	+++++ 0.5501	0.5825 0.5475	0.5170 0.7442	0.6450 0.8582	Ave		0.6233				19.3		30.0			
4-Isopropyltoluene	+++++ 1.2545	+++++ 1.2782	1.1885 1.2769	1.0055 1.5760	1.3254 1.6205	Ave		1.3157				15.2		30.0			
1,2,3-Trimethylbenzene	+++++ 1.0331	+++++ 1.0628	0.9715 1.0573	0.8414 1.2858	1.0915 1.3213	Ave		1.0831				14.5		30.0			
Indane	+++++ 0.8906	+++++ 0.9110	0.8538 0.9229	0.7545 1.1521	0.9664 1.1911	Ave		0.9553				15.4		30.0			
1,2-Dichlorobenzene	+++++ 0.5980	+++++ 0.6000	0.6106 0.6032	0.5235 0.7856	0.6674 0.8774	Ave		0.6582				17.7		30.0			
Butylbenzene	+++++ 1.1303	+++++ 1.1427	1.1372 1.1203	0.9352 1.3947	1.2496 1.3787	Ave		1.1861				12.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7506	+++++ 0.7697	0.7206 0.7730	0.5987 1.0079	0.8045 1.0691	Ave		0.8118				18.9		30.0			
Undecane	+++++ 0.8014	+++++ 0.8070	0.8934 0.7625	0.7127 0.9129	0.9036 0.8957	Ave		0.8362				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3361	+++++ 0.3477	0.3197 0.3510	0.2526 0.4608	0.3481 +++++	Ave		0.3452				17.8		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.1589	+++++ 1.1945	1.2030 1.1268	0.9406 1.3957	1.2531 1.4781	Ave		1.2188				13.5		30.0			
Dodecane	+++++ 0.4532	+++++ 0.6040	+++++ 0.4964	0.5615 0.6107	0.6881 0.7534	Ave		0.5953				17.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4846	+++++ 0.5424	0.6100 0.4929	0.4373 0.6466	0.5723 +++++	Ave		0.5409				13.7		30.0			
Naphthalene	+++++ 1.0932	+++++ 1.1869	1.4691 1.0113	0.9337 1.2998	1.2529 1.5280	Ave		1.2219				17.1		30.0			
Hexachlorobutadiene	+++++ 0.5204	+++++ 0.5693	0.5882 0.5592	0.4760 0.6738	0.6008 +++++	Ave		0.5697				11.0		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4299	+++++ 0.5149	0.6310 0.4371	0.4174 0.5680	0.5328 +++++	Ave		0.5044				15.9		30.0			
2-Methylnaphthalene	+++++ 0.2493	+++++ 0.3915	+++++ 0.1903	0.3026 0.3098	0.3494 +++++	Ave		0.2988				23.9		50.0			
1-Methylnaphthalene	+++++ 0.2223	+++++ 0.3528	+++++ 0.1824	0.2985 0.2303	0.3417 0.5044	Ave		0.3046				35.7		50.0			
4-Bromofluorobenzene (Surr)	0.6819 0.6781	0.7160 0.6827	0.6730 0.6779	0.6785 0.7172	0.6900 0.7894	Ave		0.6985				5.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 143650	+++++ 295192	12144 577644	24527 1099754	57005 2225632	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 123636	+++++ 206614	+++++ 367734	+++++ 655117	+++++ 1273461	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	5471 225338	9544 470027	18434 917378	38742 1734828	91206 3495201	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 28552	+++++ 55691	+++++ 109860	5798 204342	12166 398574	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	3409 157561	6483 322529	12415 628031	26703 1165575	62193 2406359	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2209 95598	4199 191166	7606 381669	15938 714460	37859 1429180	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 153775	+++++ 300883	14130 597160	27550 1145157	61096 2251543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 77166	+++++ 155217	6179 310591	12892 581136	30685 1173397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 82775	+++++ 167167	6749 336438	14478 635897	32967 1298868	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 48130	+++++ 94145	3887 191783	7832 365684	19062 748494	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 201476	+++++ 404221	+++++ 815655	32963 1625166	81394 2947666	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	1744 79074	3361 155754	6255 318973	13382 602160	31177 1239747	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 103811	+++++ 203120	8653 414806	18444 810977	41382 1613845	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	5074 216484	8916 430437	17187 872098	36052 1702009	83632 3444338	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 13361	+++++ 28446	+++++ 61026	3019 131091	7063 270664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 32844	+++++ 61782	+++++ 128415	5172 278577	14103 497142	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127481	+++++ 225108	+++++ 444971	+++++ 890812	66529 1593844	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 14781	+++++ 29047	1248 60170	2546 118364	6278 242543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	7320 310786	13400 629646	27591 1295072	46541 2567814	123788 4739239	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 76255	+++++ 138361	6540 302703	11484 638674	29746 1123439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2455 92122	4182 190519	7621 378693	16162 716022	36512 1502103	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 65475	+++++ 132732	5488 266374	9940 545503	26474 1027416	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 154929	+++++ 332416	+++++ 654315	22356 1345850	61202 2564549	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4525 191837	8334 386409	15663 770406	32118 1450769	75241 2858047	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Lin2	+++++ 109752	+++++ 193389	+++++ 364239	+++++ 659033	56393 1306171	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 87779	+++++ 182164	7446 350862	15428 707734	33922 1353410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 268261	+++++ 541088	21009 1079129	45066 2056031	105567 4302478	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2332 93436	3962 193449	7734 385433	15890 727437	37186 1464809	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 237341	+++++ 481512	20240 948942	40162 1812032	97133 3422914	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 258286	+++++ 528388	21209 1057831	39480 2119925	102677 4082227	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	3871 165511	7015 343479	13988 686099	29612 1372380	66700 2645566	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 226997	+++++ 479044	18360 986781	30770 2137380	86669 4013252	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 42923	+++++ 89416	+++++ 178747	6578 363441	18223 696485	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 80372	+++++ 164254	7222 326404	14572 629718	32780 1242958	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2306 94456	4155 198745	7570 393830	16041 759264	37306 1538934	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 188856	+++++ 400774	15214 823215	25479 1747973	73354 3392110	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 180278	8020 374204	15270 736824	31661 1491015	73286 2963984	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 106648	+++++ 221164	9494 452981	16515 936713	42847 1803135	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	4876 203100	8400 421743	16781 838974	34054 1655540	80426 3250383	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 114508	5137 237423	9341 483663	19284 1021579	46114 1931491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 48661	+++++ 100380	3988 198095	8720 371726	19927 706213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 242551	11544 511309	22395 1032624	43446 2062596	99661 3807337	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 29403	+++++ 62850	+++++ 124456	4491 272833	12572 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Carbon tetrachloride	DFBZ	Ave	4072 190078	6848 398753	13766 807930	28869 1591111	68766 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,3-Dimethylpentane	DFBZ	Ave	+++++ 71652	+++++ 149491	5835 294230	12022 568397	28657 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Thiophene	DFBZ	Ave	+++++ 137749	+++++ 289287	11305 583213	23575 1186778	55874 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 520750	+++++ 1058286	43400 2079393	88421 4004540	213033 7682801	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 99941	+++++ 211680	8641 429332	16827 858075	40573 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichloropropane	DFBZ	Ave	+++++ 93077	+++++ 196058	7715 407387	15287 842399	37778 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Trichloroethene	DFBZ	Ave	2915 111619	5447 237865	9397 465340	20427 922603	45477 1926421	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 96871	+++++ 205342	8427 404792	16736 830888	40456 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Bromodichloromethane	DFBZ	Ave	+++++ 156287	+++++ 334830	12392 688080	25197 1462641	63549 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dioxane	DFBZ	Ave	+++++ 39416	+++++ 86721	3189 177462	5681 348540	14826 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 110169	+++++ 239389	8532 505926	14427 1109239	41817 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methylcyclohexane	DFBZ	Ave	4516 188099	7973 386954	14995 756950	31583 1458305	74422 2847422	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 222266	+++++ 470662	17639 946677	29341 1979038	83515 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 117398	+++++ 246436	10030 500043	18924 1115238	49491 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 98838	+++++ 212978	8642 428692	15455 1002239	42775 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Toluene	CBZd 5	Ave	+++++ 254863	+++++ 557053	21422 1183227	39464 2520816	104385 4966980	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 71302	+++++ 152985	6257 320748	11430 696913	30261 1428785	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 96613	+++++ 214279	+++++ 439916	11325 963125	35424 1831800	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 936876	+++++ 2027688	+++++ 4121729	152650 8150575	381906 15368293	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 104351	+++++ 226222	8277 467389	16083 912580	40797 1768115	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 131535	5626 287903	9528 613834	19347 1367950	52675 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 118644	+++++ 245214	10187 496917	19585 1113826	52062 2444046	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2428 96316	4952 203783	8573 417134	17183 863844	40577 1794246	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 187744	+++++ 397736	16063 825756	30968 1797896	82023 3741443	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 333712	16571 736442	26400 1594284	48523 3438466	135845 6788262	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 530861	25887 1165828	42306 2481444	72310 5277635	211594 10202140	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 207514	+++++ 453353	+++++ 941883	30071 1873058	80514 3465909	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 112783	4322 251164	6952 559050	14453 1286991	42632 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 169510	+++++ 377786	13540 808080	23641 1861497	70755 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
o-Xylene	CBZd 5	Ave	6027 310566	13932 673428	24476 1402277	42643 2941831	120400 5749717	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 208917	+++++ 448925	16482 907606	29315 1918461	83135 3729146	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 58337	+++++ 127670	4926 268190	8308 588718	24078 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Isopropylbenzene	CBZd 5	Ave	+++++ 428100	+++++ 923891	32825 1917551	58099 3945046	164042 7617941	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 108816	+++++ 240647	8404 508903	14843 1090521	42505 2165788	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 97873	+++++ 216815	+++++ 452416	14146 949760	39623 1903546	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 376905	+++++ 824369	31925 1742670	51328 3780961	150740 7458705	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 184313	7587 395833	14053 806131	25029 1667531	69431 3300851	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 151255	+++++ 346367	+++++ 738180	19043 1646834	58506 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Decane	CBZd 5	Ave	+++++ 257513	+++++ 549946	21346 1101191	37672 2235162	105909 4107502	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 407290	+++++ 862214	31197 1754173	53492 3598324	157141 6908946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 347982	+++++ 745361	27456 1531875	46884 3235493	136640 6228342	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 530477	+++++ 1128972	41986 2296570	71451 4698192	205108 8849404	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 198615	+++++ 421757	17981 868408	30403 1970431	84363 4284620	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 241718	11511 552952	20313 1096000	31481 2696669	98023 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 192006	+++++ 407546	17565 831745	30391 1934892	84201 4244224	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 444210	+++++ 946994	35840 1939991	59105 4097767	173018 8014661	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 365811	+++++ 787432	29297 1606346	49455 3343083	142485 6534743	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 315362	+++++ 674925	25747 1402159	44351 2995540	126162 5890993	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 211768	+++++ 444503	18412 916514	30770 2042593	87121 4339427	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 400248	+++++ 846629	34293 1702027	54970 3626453	163131 6818592	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 265797	+++++ 570253	21730 1174363	35194 2620707	105026 5287488	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 283797	+++++ 597931	26942 1158450	41891 2373745	117964 4429686	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 119029	+++++ 257587	9642 533283	14850 1198041	45441 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 410365	+++++ 884994	36278 1712012	55288 3628958	163586 7310052	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 160463	+++++ 447519	+++++ 754162	33004 1587989	89823 3726029	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 171616	+++++ 401853	18396 748852	25702 1681341	74708 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Naphthalene	CBZd5	Ave	+++++ 387097	+++++ 879398	44301 1536423	54883 3379542	163561 7557003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 184267	+++++ 421818	17736 849561	27979 1752055	78428 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 152214	+++++ 381460	19028 664129	24534 1476859	69556 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2-Methylnaphthalene	CBZd5	Ave	+++++ 88291	+++++ 290055	+++++ 289145	17789 805463	45613 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 78719	+++++ 261428	+++++ 277130	17548 598866	44612 2494568	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1035061 960516	860195 1011605	1014670 1029964	997113 932426	900768 976018	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-0.8						50			
Propene	+++++	+++++	+++++	+++++	+++++	25.0						50
Dichlorodifluoromethane	8.8						50					
Chloromethane	+++++	+++++	+++++	20.7						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.1						50					
Vinyl chloride	5.9						50					
Butane	+++++	+++++	8.2						50			
1,3-Butadiene	+++++	+++++	-4.5						50			
Bromomethane	+++++	+++++	-4.4						50			
Chloroethane	+++++	+++++	-3.4						50			
Ethanol	+++++	+++++	+++++	-1.9						50		
Vinyl bromide	1.2						50					
2-Methylbutane	+++++	+++++	-2.2						50			
Trichlorofluoromethane	7.0						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	11.4						50		
Acetonitrile	+++++	+++++	+++++	-6.0						50		
Acetone	+++++	+++++	+++++	+++++	46.2						80	
Pentane	+++++	+++++	-2.9						50			
Isopropyl alcohol	6.0						50					
Ethyl ether	+++++	+++++	3.4						50			
1,1-Dichloroethene	16.5						50					
Acrylonitrile	+++++	+++++	-1.6						50			
tert-Butyl alcohol	+++++	+++++	+++++	-15.7						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	7.6						50					
Methylene Chloride	+++++	+++++	+++++	+++++	2.6						80	
3-Chloropropene	+++++	+++++	-1.1						50			
Carbon disulfide	+++++	+++++	-7.2						50			
trans-1,2-Dichloroethene	11.4						50					
2-Methylpentane	+++++	+++++	0.9						50			
Methyl tert-butyl ether	+++++	+++++	-3.3						50			
1,1-Dichloroethane	3.4						50					
Vinyl acetate	+++++	+++++	-7.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	-11.0						50		
Hexane	+++++	+++++	3.1						50			
cis-1,2-Dichloroethene	8.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-7.8						50			
Chloroform	+++++	9.1						50				
Tetrahydrofuran	+++++	+++++	1.0						50			
1,1,1-Trichloroethane	7.4						50					
1,2-Dichloroethane	+++++	23.9						50				
Cyclohexane	+++++	+++++	-9.9						50			
Benzene	+++++	29.4						50				
1-Butanol	+++++	+++++	+++++	-15.7 +++++						50		
Carbon tetrachloride	-2.5			+++++			50					
2,3-Dimethylpentane	+++++	+++++	-6.6	+++++					50			
Thiophene	+++++	+++++	-8.1	+++++					50			
2,2,4-Trimethylpentane	+++++	+++++	-7.8						50			
Heptane	+++++	+++++	-3.9	+++++					50			
1,2-Dichloropropane	+++++	+++++	-7.9	+++++					50			
Trichloroethene	2.2						50					
Dibromomethane	+++++	+++++	-3.8	+++++					50			
Bromodichloromethane	+++++	+++++	-12.0	+++++					50			
1,4-Dioxane	+++++	+++++	-7.7	+++++					50			
Methyl methacrylate	+++++	+++++	-12.4	+++++					50			
Methylcyclohexane	0.9						50					
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-7.2	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	+++++	-6.2	+++++					50			
trans-1,3-Dichloropropene	+++++	+++++	-5.0	+++++					50			
Toluene	+++++	+++++	-11.3						50			
1,1,2-Trichloroethane	+++++	+++++	-8.3						50			
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	+++++	-11.3						50			
Dibromochloromethane	+++++	16.8		+++++				50				
1,2-Dibromoethane (EDB)	+++++	+++++	-9.5						50			
Tetrachloroethene	2.0						50					
Chlorobenzene	+++++	+++++	-10.2						50			
Ethylbenzene	+++++	26.6						50				
m-Xylene & p-Xylene	+++++	27.5						50				
Nonane	+++++	+++++	+++++	-18.0						50		
Bromoform	+++++	7.3		+++++				50				
Styrene	+++++	+++++	-13.4	+++++					50			
o-Xylene	-15.7						50					
1,1,2,2-Tetrachloroethane	+++++	+++++	-12.0						50			
1,2,3-Trichloropropane	+++++	+++++	-7.0	+++++					50			
Isopropylbenzene	+++++	+++++	-13.9						50			
Propylbenzene	+++++	+++++	-16.8						50			
2-Chlorotoluene	+++++	+++++	+++++	-22.1						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-9.6						50			
1,3,5-Trimethylbenzene	+++++	14.8						50				
Alpha Methyl Styrene	+++++	+++++	+++++	-30.2 +++++						50		
Decane	+++++	+++++	-6.3						50			
tert-Butylbenzene	+++++	+++++	-11.9						50			
1,2,4-Trimethylbenzene	+++++	+++++	-11.8						50			
sec-Butylbenzene	+++++	+++++	-9.5						50			
1,3-Dichlorobenzene	+++++	+++++	-6.2						50			
Benzyl chloride	+++++	25.5		+++++				50				
1,4-Dichlorobenzene	+++++	+++++	-6.6						50			
4-Isopropyltoluene	+++++	+++++	-9.7						50			
1,2,3-Trimethylbenzene	+++++	+++++	-10.3						50			
Indane	+++++	+++++	-10.6						50			
1,2-Dichlorobenzene	+++++	+++++	-7.2						50			
Butylbenzene	+++++	+++++	-4.1						50			
Indene	+++++	+++++	-11.2						50			
Undecane	+++++	+++++	6.8						50			
1,2-Dibromo-3-Chloropropane	+++++	+++++	-7.4	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-1.3						50			
Dodecane	+++++	+++++	+++++	-5.7						50		
1,2,4-Trichlorobenzene	+++++	+++++	12.8	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	+++++	20.2						80			
Hexachlorobutadiene	+++++	+++++	3.2	+++++					50			
1,2,3-Trichlorobenzene	+++++	+++++	25.1	+++++					50			
2-Methylnaphthalene	+++++	+++++	+++++	1.3 +++++						80		
1-Methylnaphthalene	+++++	+++++	+++++	-2.0						80		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 06-Sep-2019 12:11:30 ALS Bottle#: 14 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-002
Misc. Info.: 245075
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:31:49 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 06-Sep-2019 14:12:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.081	9.073	0.008	96	297595	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.254	11.247	0.007	95	1512747	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1300046	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.574	17.570	0.004	91	932426	4.00	4.11	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	96	1099754	8.00	7.45	
7 Propene	41	3.802	3.803	-0.001	99	655117	8.00	6.72	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	1734828	8.00	7.33	
9 Chloromethane	52	4.044	4.046	-0.002	100	204342	8.00	6.94	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	92	1165575	8.00	7.27	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	1469149	40.0	35.8	
12 Vinyl chloride	62	4.228	4.226	0.002	99	714460	8.00	7.27	
13 Butane	43	4.314	4.316	-0.002	85	1145157	8.00	7.27	
14 Butadiene	54	4.314	4.317	-0.003	67	581136	8.00	7.44	
15 Bromomethane	94	4.654	4.652	0.002	99	635897	8.00	7.47	
16 Chloroethane	64	4.805	4.800	0.005	98	365684	8.00	7.53	
17 Ethanol	31	4.923	4.923	0.000	95	1625166	40.0	39.5	
18 Vinyl bromide	106	5.117	5.115	0.002	99	602160	8.00	7.42	
19 2-Methylbutane	43	5.166	5.168	-0.002	91	810977	8.00	7.60	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	100	1702009	8.00	7.62	
21 Acrolein	56	5.409	5.410	-0.001	93	131091	8.00	7.89	
22 Acetonitrile	40	5.479	5.479	0.000	99	278577	8.00	8.27	
23 Acetone	58	5.522	5.533	-0.011	98	890812	24.0	21.2	
24 Pentane	72	5.624	5.625	-0.001	98	118364	8.00	7.63	
25 Isopropyl alcohol	45	5.635	5.652	-0.017	98	2567814	24.0	23.7	
26 Ethyl ether	31	5.791	5.807	-0.016	96	638674	8.00	8.37	
27 1,1-Dichloroethene	96	6.126	6.125	0.001	97	716022	8.00	7.21	
28 Acrylonitrile	53	6.239	6.233	0.006	95	545503	8.00	8.11	
30 2-Methyl-2-propanol	59	6.255	6.293	-0.038	94	1345850	8.00	8.29	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	98	1450769	8.00	7.32	
31 Methylene Chloride	84	6.487	6.483	0.004	98	659033	8.00	7.57	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.503	6.498	0.005	95	707734	8.00	7.79	
33 Carbon disulfide	76	6.654	6.651	0.003	99	2056031	8.00	7.53	
34 trans-1,2-Dichloroethene	96	7.312	7.308	0.004	98	727437	8.00	7.38	
35 2-Methylpentane	43	7.328	7.326	0.002	95	1812032	8.00	7.49	
36 Methyl tert-butyl ether	73	7.436	7.459	-0.023	97	2119925	8.00	8.01	
37 1,1-Dichloroethane	63	7.743	7.739	0.004	100	1372380	8.00	7.78	
38 Vinyl acetate	43	7.846	7.844	0.002	100	2137380	8.00	8.95	
39 2-Butanone (MEK)	72	8.299	8.311	-0.012	98	363441	8.00	8.03	
40 Hexane	56	8.326	8.321	0.005	90	629718	8.00	7.45	
41 Isopropyl ether	45	8.482	8.496	-0.014	98	2699918	8.00	7.92	
42 cis-1,2-Dichloroethene	96	8.746	8.736	0.010	95	759264	8.00	7.56	
43 Ethyl acetate	43	8.924	8.933	-0.009	99	1747973	8.00	8.78	
44 Chloroform	83	9.097	9.086	0.011	97	1491015	8.00	7.73	
45 Tert-butyl ethyl ether	59	9.167	9.185	-0.018	96	2542366	8.00	8.12	
46 Tetrahydrofuran	42	9.491	9.513	-0.022	95	936713	8.00	8.26	
47 1,1,1-Trichloroethane	97	10.127	10.122	0.005	96	1655540	8.00	7.74	
48 1,2-Dichloroethane	62	10.240	10.230	0.010	98	1021579	8.00	8.21	
49 Cyclohexane	69	10.720	10.714	0.006	94	371726	8.00	7.53	
50 Benzene	78	10.720	10.715	0.005	97	2062596	8.00	7.70	
51 n-Butanol	31	10.693	10.735	-0.042	78	272833	8.00	9.10	
52 Carbon tetrachloride	117	10.742	10.739	0.003	97	1591111	8.00	8.75	
53 2,3-Dimethylpentane	71	10.833	10.830	0.003	91	568397	8.00	8.16	
54 Thiophene	84	10.990	10.984	0.006	97	1186778	8.00	8.65	
55 Isooctane	57	11.470	11.463	0.007	99	4004540	8.00	7.62	
56 n-Heptane	71	11.836	11.830	0.006	91	858075	8.00	8.56	
57 1,2-Dichloropropane	63	11.923	11.919	0.004	90	842399	8.00	9.01	
58 Trichloroethene	130	11.960	11.954	0.006	96	922603	8.00	7.43	
59 Dibromomethane	93	12.047	12.039	0.008	96	830888	8.00	8.50	
60 Dichlorobromomethane	83	12.187	12.181	0.006	99	1462641	8.00	9.31	
61 1,4-Dioxane	88	12.198	12.221	-0.023	90	348540	8.00	9.04	
62 Methyl methacrylate	41	12.273	12.273	0.000	93	1109239	8.00	10.2	
63 Methylcyclohexane	83	12.721	12.715	0.006	95	1458305	8.00	7.49	
64 4-Methyl-2-pentanone (MIBK	43	13.114	13.129	-0.015	97	1979038	8.00	9.33	
65 cis-1,3-Dichloropropene	75	13.174	13.167	0.007	95	1115238	8.00	9.35	
66 trans-1,3-Dichloropropene	75	13.858	13.855	0.003	99	1002239	8.00	10.2	
67 Toluene	91	13.988	13.981	0.007	95	2520816	8.00	9.69	
68 1,1,2-Trichloroethane	83	14.058	14.055	0.003	98	696913	8.00	9.48	
69 2-Hexanone	58	14.441	14.447	-0.006	93	963125	8.00	10.1	
70 n-Octane	85	14.657	14.657	-0.001	93	912580	8.00	9.07	
71 Chlorodibromomethane	129	14.759	14.756	0.003	98	1367950	8.00	10.5	
72 Ethylene Dibromide	107	15.050	15.045	0.005	99	1113826	8.00	9.18	
73 Tetrachloroethene	129	15.120	15.116	0.004	96	863844	8.00	8.47	
75 Chlorobenzene	112	15.988	15.987	0.001	94	1797896	8.00	9.32	
74 2,3-Dimethylheptane	43	15.999	15.995	0.004	96	2624092	8.00	8.29	
78 Ethylbenzene	91	16.274	16.270	0.004	98	3438466	8.00	9.71	
79 m-Xylene & p-Xylene	91	16.436	16.431	0.005	98	5277635	16.0	19.2	
80 n-Nonane	57	16.840	16.839	0.001	91	1873058	8.00	9.24	
81 Bromoform	173	16.889	16.884	0.005	97	1286991	8.00	11.8	
82 Styrene	104	16.900	16.894	0.006	98	1861497	8.00	11.0	
83 o-Xylene	91	16.959	16.955	0.004	98	2941831	8.00	9.61	
84 1,1,2,2-Tetrachloroethane	83	17.283	17.277	0.006	99	1918461	8.00	9.51	
85 1,2,3-Trichloropropane	110	17.439	17.436	0.003	98	588718	8.00	10.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.541	17.538	0.003	96	3945046	8.00	9.61	
87 N-Propylbenzene	120	18.070	18.068	0.002	99	1090521	8.00	10.0	
88 2-Chlorotoluene	126	18.118	18.115	0.003	97	949760	8.00	9.47	
89 4-Ethyltoluene	105	18.221	18.216	0.005	98	3780961	8.00	9.93	
90 1,3,5-Trimethylbenzene	120	18.291	18.287	0.004	93	1667531	8.00	9.33	
92 Alpha Methyl Styrene	118	18.517	18.513	0.004	90	1646834	8.00	10.9	
93 n-Decane	57	18.566	18.562	0.004	90	2235162	8.00	9.10	
94 tert-Butylbenzene	119	18.706	18.704	0.002	94	3598324	8.00	9.42	
95 1,2,4-Trimethylbenzene	105	18.722	18.717	0.005	95	3235493	8.00	9.65	
96 sec-Butylbenzene	105	18.970	18.968	0.002	98	4698192	8.00	9.40	
97 1,3-Dichlorobenzene	146	18.992	18.988	0.004	99	1970431	8.00	9.54	
98 Benzyl chloride	91	19.062	19.058	0.004	98	2696669	8.00	10.9	
99 1,4-Dichlorobenzene	146	19.078	19.072	0.006	95	1934892	8.00	9.55	
100 4-Isopropyltoluene	119	19.132	19.127	0.005	97	4097767	8.00	9.58	
101 1,2,3-Trimethylbenzene	105	19.186	19.182	0.004	98	3343083	8.00	9.50	
102 Butylcyclohexane	83	19.235	19.231	0.004	94	2637187	8.00	8.90	
103 2,3-Dihydroindene	117	19.429	19.425	0.004	94	2995540	8.00	9.65	
104 1,2-Dichlorobenzene	146	19.429	19.426	0.003	93	2042593	8.00	9.55	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	3626453	8.00	9.41	
106 Indene	116	19.558	19.554	0.004	83	2620707	8.00	9.93	
107 Undecane	57	19.855	19.850	0.005	96	2373745	8.00	8.73	
108 1,2-Dibromo-3-Chloropropan	157	20.022	20.018	0.004	99	1198041	8.00	10.7	
109 1,2,4,5-Tetramethylbenzene	119	20.302	20.298	0.004	98	3628958	8.00	9.16	
110 Dodecane	57	20.906	20.904	0.002	97	1587989	8.00	8.21	
111 1,2,4-Trichlorobenzene	180	21.117	21.112	0.005	94	1681341	8.00	9.56	
112 Naphthalene	128	21.257	21.252	0.005	99	3379542	8.00	8.51	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	93	1752055	8.00	9.46	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	1476859	8.00	9.01	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	805463	8.00	8.29	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	598866	8.00	6.05	
A 122 C8 Range	1	14.659	(14.598-14.705)		0	8150575	8.00	8.84	
S 123 1,2-Dichloroethene, Total	1				0		16.0	14.9	
S 124 Xylenes, Total	100				0		24.0	28.8	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

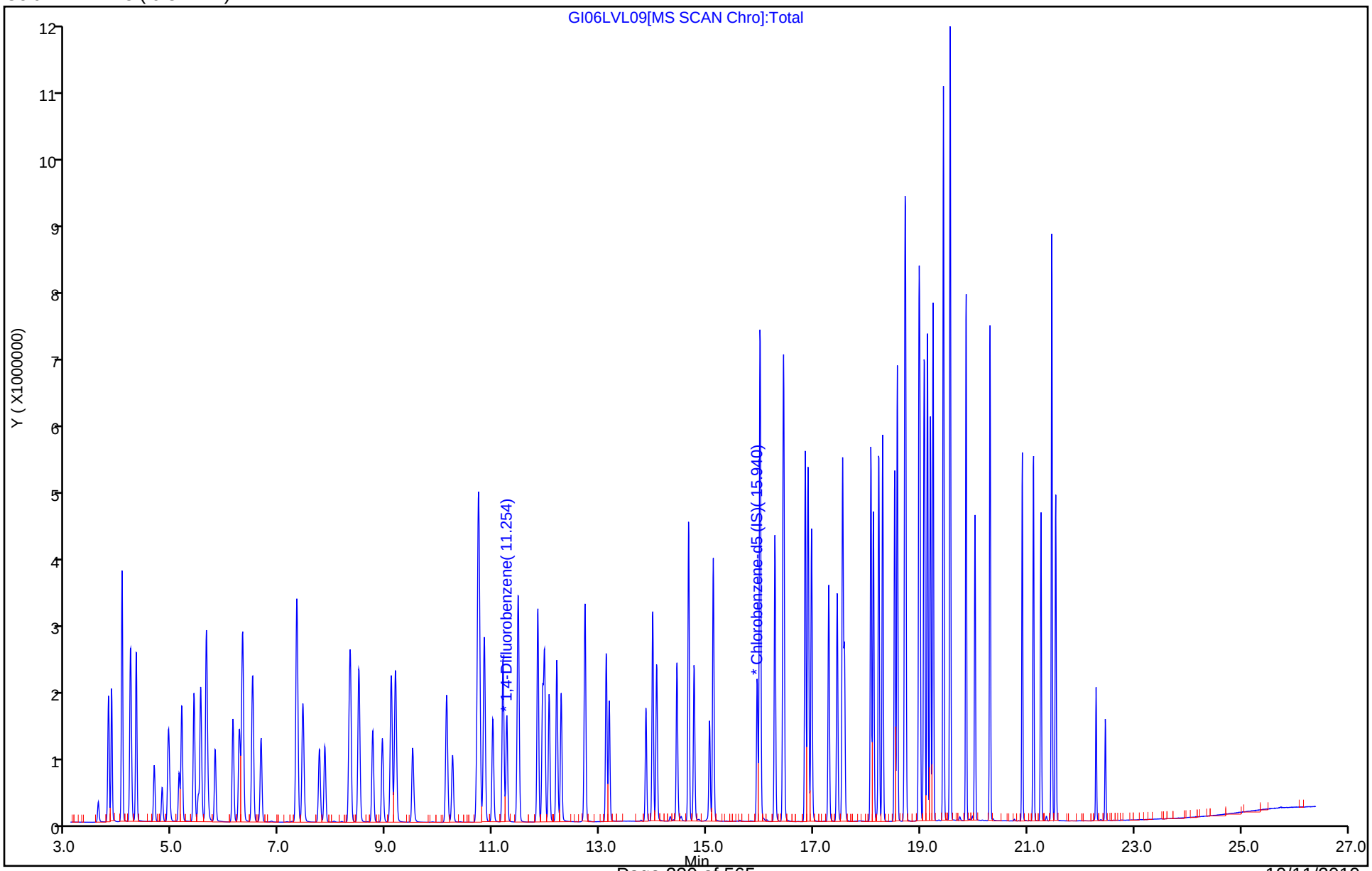
Report Date: 09-Sep-2019 18:31:51 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL09.D

Injection Date:	06-Sep-2019 12:11:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

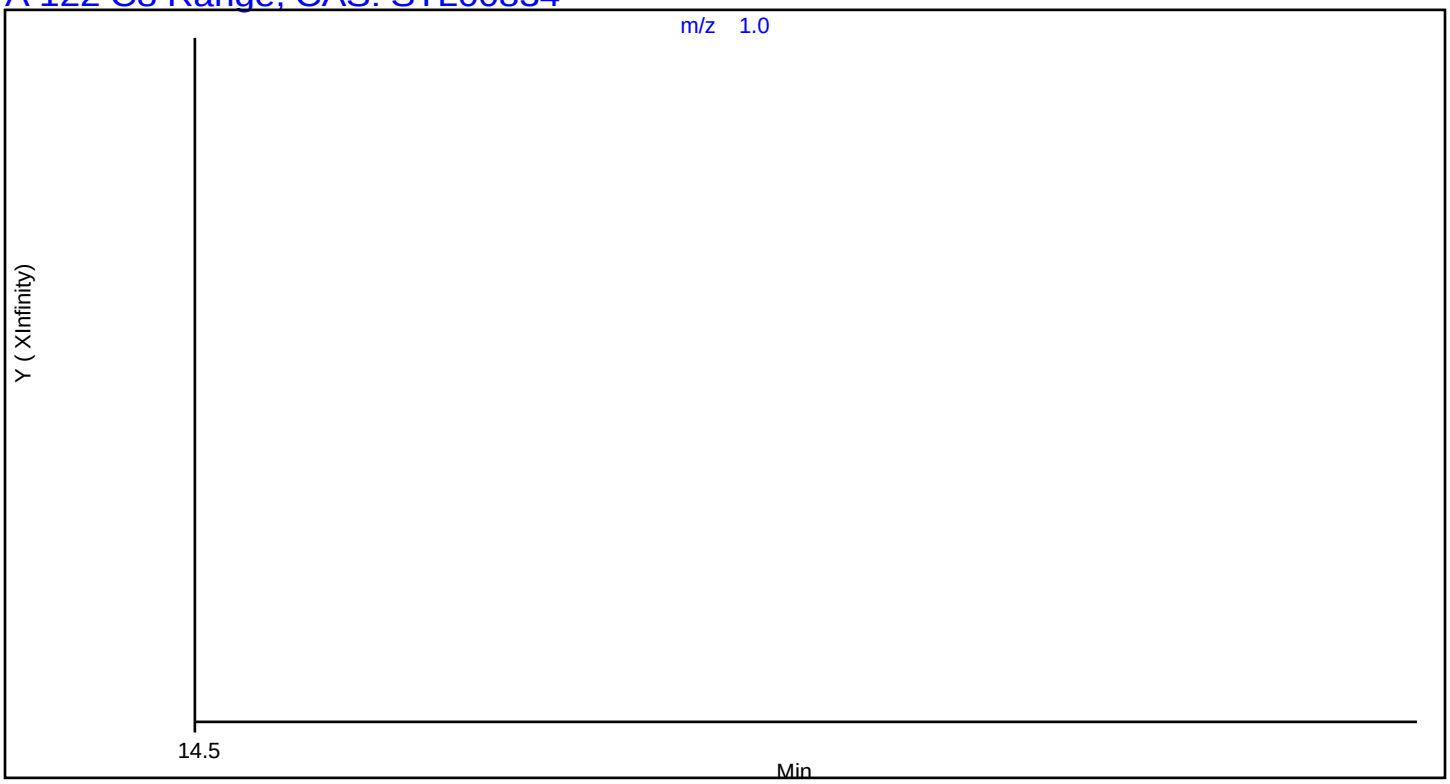


Report Date: 09-Sep-2019 18:31:51 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL09.D				
Injection Date:	06-Sep-2019 12:11:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	007126	ALS Bottle#:	14	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL10.D
Lims ID: IC 10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 06-Sep-2019 13:43:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-004
Misc. Info.: 245074
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:31:56 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 06-Sep-2019 15:01:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.086	9.073	0.013	95	250291	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.259	11.247	0.012	94	1087415	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.945	15.939	0.006	87	1236423	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.579	17.570	0.009	91	976018	4.00	4.52	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	97	2225632	16.0	17.9	
7 Propene	41	3.802	3.803	-0.001	99	1273461	16.0	15.5	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	3495201	16.0	17.5	
9 Chloromethane	52	4.044	4.046	-0.002	99	398574	16.0	16.1	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	96	2406359	16.0	17.8	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	2588212	80.0	74.9	
12 Vinyl chloride	62	4.228	4.226	0.002	99	1429180	16.0	17.3	
13 Butane	43	4.314	4.316	-0.002	85	2251543	16.0	17.0	
14 Butadiene	54	4.319	4.317	0.002	67	1173397	16.0	17.9	
15 Bromomethane	94	4.654	4.652	0.002	99	1298868	16.0	18.1	
16 Chloroethane	64	4.805	4.800	0.005	99	748494	16.0	18.3	
17 Ethanol	31	4.934	4.923	0.011	95	2947666	80.0	85.1	
18 Vinyl bromide	106	5.123	5.115	0.008	99	1239747	16.0	18.2	
19 2-Methylbutane	43	5.171	5.168	0.003	91	1613845	16.0	18.0	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	100	3444338	16.0	18.3	
21 Acrolein	56	5.414	5.410	0.004	93	270664	16.0	19.4	
22 Acetonitrile	40	5.489	5.479	0.010	99	497142	16.0	17.5	
23 Acetone	58	5.527	5.533	-0.006	98	1593844	48.0	45.1	
24 Pentane	72	5.630	5.625	0.005	97	242543	16.0	18.6	
25 Isopropyl alcohol	45	5.651	5.652	-0.001	95	4739239	48.0	51.9	
26 Ethyl ether	31	5.797	5.807	-0.010	94	1123439	16.0	17.5	
27 1,1-Dichloroethene	96	6.131	6.125	0.006	98	1502103	16.0	18.0	
28 Acrylonitrile	53	6.250	6.233	0.017	96	1027416	16.0	18.2	
30 2-Methyl-2-propanol	59	6.261	6.293	-0.032	95	2564549	16.0	18.8	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	97	2858047	16.0	17.1	
31 Methylene Chloride	84	6.492	6.483	0.009	97	1306171	16.0	18.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.509	6.498	0.011	96	1353410	16.0	17.7	
33 Carbon disulfide	76	6.654	6.651	0.003	99	4302478	16.0	18.7	
34 trans-1,2-Dichloroethene	96	7.317	7.308	0.009	99	1464809	16.0	17.7	
35 2-Methylpentane	43	7.334	7.326	0.008	94	3422914	16.0	16.8	
36 Methyl tert-butyl ether	73	7.442	7.459	-0.017	97	4082227	16.0	18.3	
37 1,1-Dichloroethane	63	7.749	7.739	0.010	100	2645566	16.0	17.8	
38 Vinyl acetate	43	7.851	7.844	0.007	100	4013252	16.0	20.0	
39 2-Butanone (MEK)	72	8.310	8.311	-0.001	97	696485	16.0	18.3	
40 Hexane	56	8.331	8.321	0.010	91	1242958	16.0	17.5	
41 Isopropyl ether	45	8.488	8.496	-0.008	97	5141541	16.0	17.9	
42 cis-1,2-Dichloroethene	96	8.746	8.736	0.010	94	1538934	16.0	18.2	
43 Ethyl acetate	43	8.930	8.933	-0.003	99	3392110	16.0	20.3	
44 Chloroform	83	9.102	9.086	0.016	97	2963984	16.0	18.3	
45 Tert-butyl ethyl ether	59	9.172	9.185	-0.013	95	4933753	16.0	18.7	
46 Tetrahydrofuran	42	9.496	9.513	-0.017	95	1803135	16.0	18.9	
47 1,1,1-Trichloroethane	97	10.132	10.122	0.010	96	3250383	16.0	18.1	
48 1,2-Dichloroethane	62	10.246	10.230	0.016	98	1931491	16.0	21.6	
49 Cyclohexane	69	10.720	10.714	0.006	94	706213	16.0	19.9	
50 Benzene	78	10.725	10.715	0.010	96	3807337	16.0	19.8	
51 n-Butanol	31	10.693	10.735	-0.042	74	531512	16.0	24.7	
52 Carbon tetrachloride	117	10.747	10.739	0.008	98	3142870	16.0	24.0	
53 2,3-Dimethylpentane	71	10.839	10.830	0.009	91	1123284	16.0	22.4	
54 Thiophene	84	10.995	10.984	0.011	96	2360213	16.0	23.9	
55 Isooctane	57	11.470	11.463	0.007	99	7682801	16.0	20.3	
56 n-Heptane	71	11.836	11.830	0.006	90	1671815	16.0	23.2	
57 1,2-Dichloropropane	63	11.928	11.919	0.009	90	1591260	16.0	23.7	
58 Trichloroethene	130	11.966	11.954	0.012	98	1926421	16.0	21.6	
59 Dibromomethane	93	12.052	12.039	0.013	95	1642803	16.0	23.4	
60 Dichlorobromomethane	83	12.192	12.181	0.011	99	2953006	16.0	26.2	
61 1,4-Dioxane	88	12.203	12.221	-0.018	89	669812	16.0	24.2	
62 Methyl methacrylate	41	12.278	12.273	0.005	94	2159295	16.0	27.6	
63 Methylcyclohexane	83	12.721	12.715	0.006	95	2847422	16.0	20.3	
64 4-Methyl-2-pentanone (MIBK	43	13.120	13.129	-0.009	97	3642509	16.0	23.9	
65 cis-1,3-Dichloropropene	75	13.174	13.167	0.007	94	2354006	16.0	27.4	
66 trans-1,3-Dichloropropene	75	13.864	13.855	0.009	99	2202720	16.0	23.6	
67 Toluene	91	13.988	13.981	0.007	95	4966980	16.0	20.1	
68 1,1,2-Trichloroethane	83	14.063	14.055	0.008	98	1428785	16.0	20.4	
69 2-Hexanone	58	14.441	14.447	-0.006	94	1831800	16.0	20.2	
70 n-Octane	85	14.662	14.657	0.005	92	1768115	16.0	18.5	
71 Chlorodibromomethane	129	14.764	14.756	0.008	98	2937829	16.0	23.7	
72 Ethylene Dibromide	107	15.050	15.045	0.005	99	2444046	16.0	21.2	
73 Tetrachloroethene	129	15.120	15.116	0.004	96	1794246	16.0	18.5	
75 Chlorobenzene	112	15.994	15.987	0.007	95	3741443	16.0	20.4	
74 2,3-Dimethylheptane	43	16.005	15.995	0.010	93	4446755	16.0	14.8	
78 Ethylbenzene	91	16.274	16.270	0.004	98	6788262	16.0	20.2	
79 m-Xylene & p-Xylene	91	16.436	16.431	0.005	98	10202140	32.0	39.1	
80 n-Nonane	57	16.846	16.839	0.007	89	3465909	16.0	18.0	
81 Bromoform	173	16.889	16.884	0.005	99	3007794	16.0	29.0	
82 Styrene	104	16.900	16.894	0.006	97	3840602	16.0	24.0	
83 o-Xylene	91	16.964	16.955	0.009	98	5749717	16.0	19.8	
84 1,1,2,2-Tetrachloroethane	83	17.283	17.277	0.006	100	3729146	16.0	19.4	
85 1,2,3-Trichloropropane	110	17.444	17.436	0.008	97	1189113	16.0	21.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.541	17.538	0.003	96	7617941	16.0	19.5	
87 N-Propylbenzene	120	18.075	18.068	0.007	100	2165788	16.0	20.9	
88 2-Chlorotoluene	126	18.118	18.115	0.003	97	1903546	16.0	19.9	
89 4-Ethyltoluene	105	18.221	18.216	0.005	98	7458705	16.0	20.6	
90 1,3,5-Trimethylbenzene	120	18.296	18.287	0.009	94	3300851	16.0	19.4	
92 Alpha Methyl Styrene	118	18.517	18.513	0.004	91	3380903	16.0	23.6	
93 n-Decane	57	18.566	18.562	0.004	91	4107502	16.0	17.6	
94 tert-Butylbenzene	119	18.712	18.704	0.008	94	6908946	16.0	19.0	
95 1,2,4-Trimethylbenzene	105	18.722	18.717	0.005	95	6228342	16.0	19.5	
96 sec-Butylbenzene	105	18.976	18.968	0.008	98	8849404	16.0	18.6	
97 1,3-Dichlorobenzene	146	18.992	18.988	0.004	98	4284620	16.0	21.8	
98 Benzyl chloride	91	19.067	19.058	0.009	99	5593727	16.0	23.7	
99 1,4-Dichlorobenzene	146	19.078	19.072	0.006	96	4244224	16.0	22.0	
100 4-Isopropyltoluene	119	19.132	19.127	0.005	97	8014661	16.0	19.7	
101 1,2,3-Trimethylbenzene	105	19.186	19.182	0.004	98	6534743	16.0	19.5	
102 Butylcyclohexane	83	19.240	19.231	0.009	95	4939007	16.0	17.5	
103 2,3-Dihydroindene	117	19.434	19.425	0.009	94	5890993	16.0	19.9	
104 1,2-Dichlorobenzene	146	19.434	19.426	0.008	84	4339427	16.0	21.3	
105 n-Butylbenzene	91	19.558	19.553	0.005	99	6818592	16.0	18.6	
106 Indene	116	19.558	19.554	0.004	92	5287488	16.0	21.1	
107 Undecane	57	19.855	19.850	0.005	94	4429686	16.0	17.1	
108 1,2-Dibromo-3-Chloropropan	157	20.022	20.018	0.004	96	2493163	16.0	23.4	
109 1,2,4,5-Tetramethylbenzene	119	20.302	20.298	0.004	98	7310052	16.0	19.4	
110 Dodecane	57	20.906	20.904	0.002	98	3726029	16.0	20.2	
111 1,2,4-Trichlorobenzene	180	21.117	21.112	0.005	94	4083132	16.0	24.4	
112 Naphthalene	128	21.257	21.252	0.005	99	7557003	16.0	20.0	
113 Hexachlorobutadiene	225	21.462	21.457	0.005	90	4546307	16.0	25.8	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	3586460	16.0	23.0	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	3085830	16.0	33.4	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	2494568	16.0	26.5	
A 122 C8 Range	1	14.657	(14.603-14.710)		0	15368293	16.0	17.5	
S 123 1,2-Dichloroethene, Total	1				0		32.0	35.9	
S 124 Xylenes, Total	100				0		48.0	58.8	

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

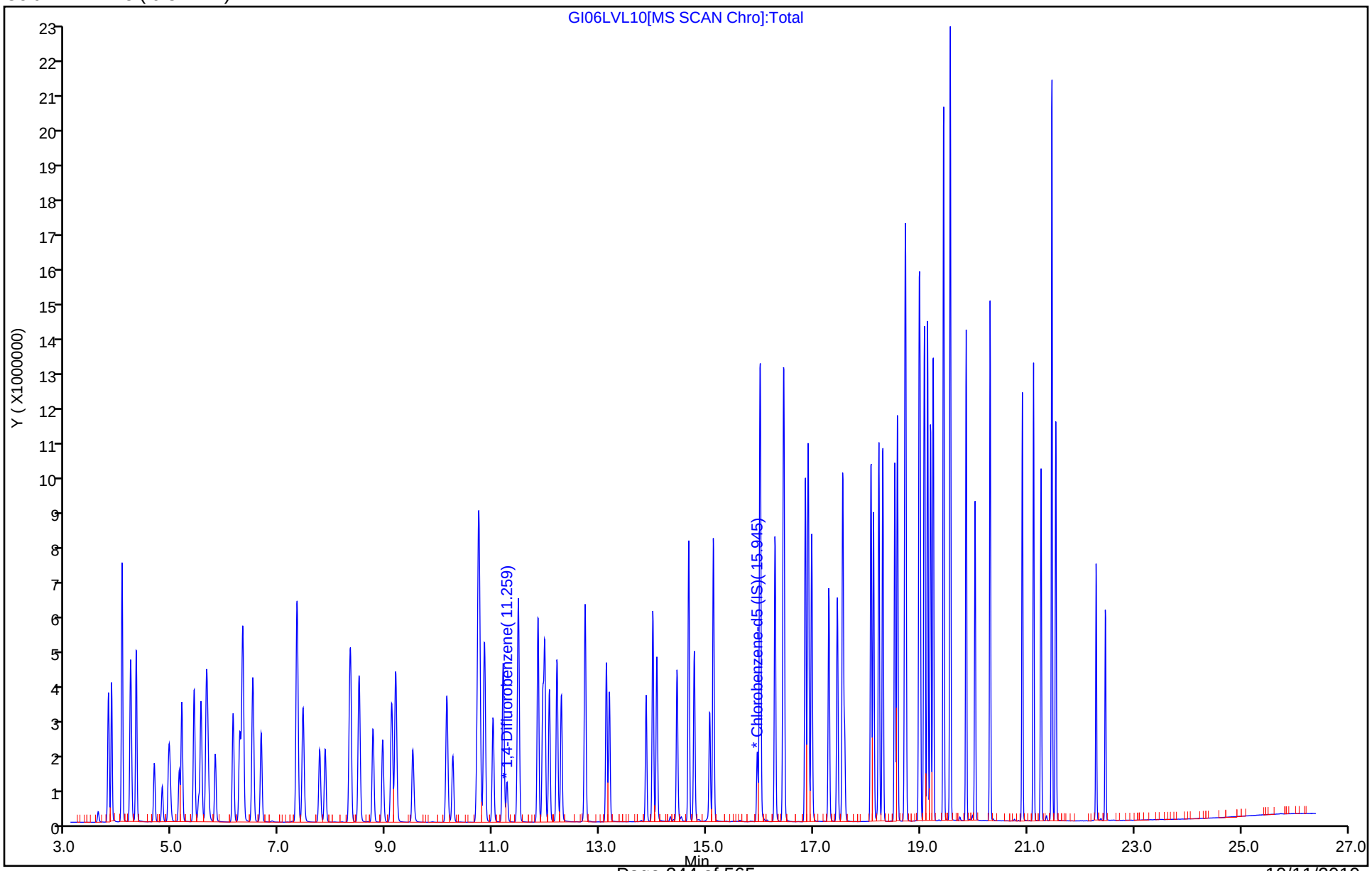
Report Date: 09-Sep-2019 18:31:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL10.D

Injection Date:	06-Sep-2019 13:43:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC 10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

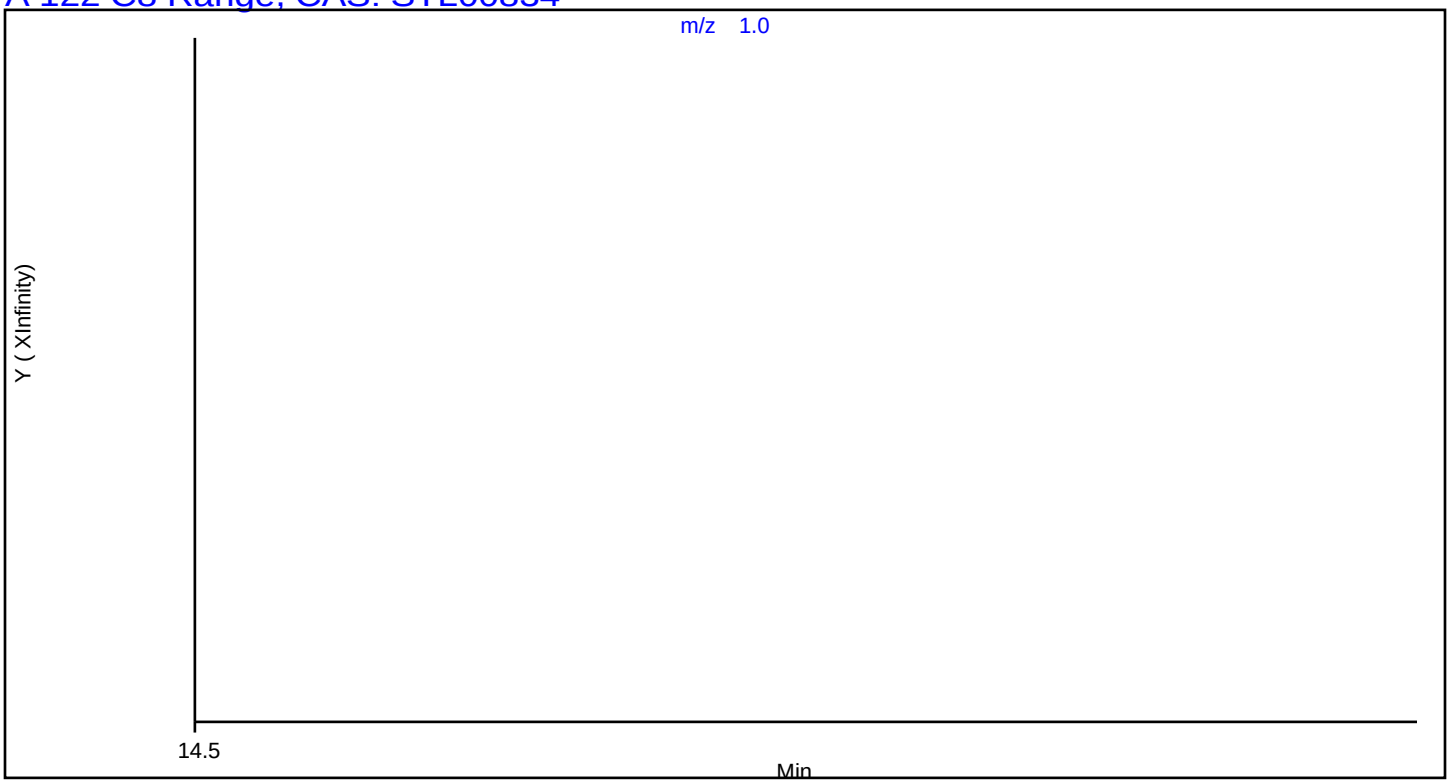


Report Date: 09-Sep-2019 18:31:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL10.D				
Injection Date:	06-Sep-2019 13:43:30	Instrument ID:	MG		
Lims ID:	IC 10				
Client ID:					
Operator ID:	007126	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 06-Sep-2019 15:53:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-007
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:04 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 09-Sep-2019 18:07:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	96	315799	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	95	1737826	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.934	15.939	-0.005	87	1517952	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	1035061	4.00	3.90	
6 Chlorodifluoromethane	51	3.796	3.791	0.005	34	4044	0.0200	0.0258	
7 Propene	41	3.802	3.803	-0.001	99	45284	0.0200	0.4377	
8 Dichlorodifluoromethane	85	3.861	3.856	0.005	100	5471	0.0200	0.0218	
9 Chloromethane	52	4.044	4.046	-0.002	71	1182	0.0200	0.0378	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	91	3409	0.0200	0.0200	
11 Acetaldehyde	44	4.211	4.207	0.004	99	75553	0.1000	1.73	
12 Vinyl chloride	62	4.228	4.226	0.002	95	2209	0.0200	0.0212	
13 Butane	43	4.319	4.316	0.003	85	4222	0.0200	0.0253	
14 Butadiene	54	4.319	4.317	0.002	62	1918	0.0200	0.0231	
15 Bromomethane	94	4.648	4.652	-0.004	94	2185	0.0200	0.0242	
16 Chloroethane	64	4.799	4.800	-0.001	95	1167	0.0200	0.0227	
17 Ethanol	31	4.950	4.923	0.027	95	6275	0.1000	0.1436	
18 Vinyl bromide	106	5.112	5.115	-0.003	92	1744	0.0200	0.0202	
19 2-Methylbutane	43	5.166	5.168	-0.002	94	2823	0.0200	0.0249	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	98	5074	0.0200	0.0214	
21 Acrolein	56	5.419	5.410	0.009	42	1113	0.0200	0.0632	
23 Acetone	58	5.554	5.533	0.021	97	9762	0.0600	0.2190	
24 Pentane	72	5.619	5.625	-0.006	94	294	0.0200	0.0179	
25 Isopropyl alcohol	45	5.705	5.652	0.053	95	7320	0.0600	0.0636	
26 Ethyl ether	31	5.829	5.807	0.022	94	1953	0.0200	0.0241	
27 1,1-Dichloroethene	96	6.131	6.125	0.006	96	2455	0.0200	0.0233	
28 Acrylonitrile	53	6.234	6.233	0.001	72	1307	0.0200	0.0183	
30 2-Methyl-2-propanol	59	6.379	6.293	0.086	95	3373	0.0200	0.0196	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	95	4525	0.0200	0.0215	
31 Methylene Chloride	84	6.482	6.483	-0.001	97	26501	0.0200	-0.0396	
32 3-Chloro-1-propene	39	6.503	6.498	0.005	96	2463	0.0200	0.0255	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.654	6.651	0.003	97	6658	0.0200	0.0230	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	94	2332	0.0200	0.0223	
35 2-Methylpentane	43	7.328	7.326	0.002	94	6999	0.0200	0.0272	
36 Methyl tert-butyl ether	73	7.506	7.459	0.047	95	5133	0.0200	0.0183	
37 1,1-Dichloroethane	63	7.738	7.739	-0.001	96	3871	0.0200	0.0207	
38 Vinyl acetate	43	7.851	7.844	0.007	98	5007	0.0200	0.0198	
39 2-Butanone (MEK)	72	8.347	8.311	0.036	91	1347	0.0200	0.0281	
40 Hexane	56	8.315	8.321	-0.006	79	2332	0.0200	0.0260	
41 Isopropyl ether	45	8.531	8.496	0.035	97	6294	0.0200	0.0174	
42 cis-1,2-Dichloroethene	96	8.725	8.736	-0.011	91	2306	0.0200	0.0216	
43 Ethyl acetate	43	8.957	8.933	0.024	94	3225	0.0200	0.0153	
44 Chloroform	83	9.086	9.086	0.000	87	4860	0.0200	0.0238	
45 Tert-butyl ethyl ether	59	9.221	9.185	0.036	94	5464	0.0200	0.0164	
46 Tetrahydrofuran	42	9.550	9.513	0.037	92	2913	0.0200	0.0242	
47 1,1,1-Trichloroethane	97	10.121	10.122	-0.001	96	4876	0.0200	0.0215	
48 1,2-Dichloroethane	62	10.224	10.230	-0.006	92	2443	0.0200	0.0171	
49 Cyclohexane	69	10.704	10.714	-0.010	77	1197	0.0200	0.0211	
50 Benzene	78	10.709	10.715	-0.006	97	7324	0.0200	0.0238	
51 n-Butanol	31	10.796	10.735	0.061	67	847	0.0200	0.0246	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	97	4072	0.0200	0.0195	
53 2,3-Dimethylpentane	71	10.833	10.830	0.003	91	1566	0.0200	0.0196	
54 Thiophene	84	10.984	10.984	0.000	95	3065	0.0200	0.0195	
55 Isooctane	57	11.464	11.463	0.001	98	13793	0.0200	0.0229	
56 n-Heptane	71	11.825	11.830	-0.005	91	2569	0.0200	0.0223	
57 1,2-Dichloropropane	63	11.923	11.919	0.004	87	2151	0.0200	0.0200	
58 Trichloroethene	130	11.955	11.954	0.001	94	2915	0.0200	0.0204	
59 Dibromomethane	93	12.030	12.039	-0.009	94	2542	0.0200	0.0226	
60 Dichlorobromomethane	83	12.181	12.181	0.000	95	3434	0.0200	0.0190	
61 1,4-Dioxane	88	12.273	12.221	0.052	49	617	0.0200	0.0139	
62 Methyl methacrylate	41	12.284	12.273	0.011	87	2020	0.0200	0.0162	
63 Methylcyclohexane	83	12.710	12.715	-0.005	94	4516	0.0200	0.0202	
64 4-Methyl-2-pentanone (MIBK	43	13.152	13.129	0.023	96	5003	0.0200	0.0205	
65 cis-1,3-Dichloropropene	75	13.168	13.167	0.001	94	2554	0.0200	0.0186	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	92	2243	0.0200	0.0196	
67 Toluene	91	13.977	13.981	-0.004	94	5921	0.0200	0.0195	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.003	91	1653	0.0200	0.0193	
69 2-Hexanone	58	14.462	14.447	0.015	92	1604	0.0200	0.0144	
70 n-Octane	85	14.651	14.657	-0.006	94	2381	0.0200	0.0203	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	94	2302	0.0200	0.0151	
72 Ethylene Dibromide	107	15.045	15.045	0.000	95	2678	0.0200	0.0189	
73 Tetrachloroethene	129	15.115	15.116	-0.001	95	2428	0.0200	0.0204	
75 Chlorobenzene	112	15.983	15.987	-0.004	52	4383	0.0200	0.0195	
74 2,3-Dimethylheptane	43	15.988	15.995	-0.007	96	7690	0.0200	0.0208	
78 Ethylbenzene	91	16.274	16.270	0.004	98	7205	0.0200	0.0174	
79 m-Xylene & p-Xylene	91	16.425	16.431	-0.006	97	10095	0.0400	0.0315	
80 n-Nonane	57	16.835	16.839	-0.004	91	4631	0.0200	0.0196	
81 Bromoform	173	16.878	16.884	-0.006	92	1621	0.0200	0.0127	
82 Styrene	104	16.889	16.894	-0.005	98	3148	0.0200	0.0160	
83 o-Xylene	91	16.954	16.955	-0.001	98	6027	0.0200	0.0169	
84 1,1,2,2-Tetrachloroethane	83	17.272	17.277	-0.005	96	3859	0.0200	0.0164	
85 1,2,3-Trichloropropane	110	17.428	17.436	-0.008	94	1052	0.0200	0.0158	
86 Isopropylbenzene	105	17.536	17.538	-0.002	87	8558	0.0200	0.0178	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.064	18.068	-0.004	99	2011	0.0200	0.0158	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	96	1914	0.0200	0.0163	
89 4-Ethyltoluene	105	18.210	18.216	-0.006	98	7511	0.0200	0.0169	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	92	3153	0.0200	0.0151	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	87	2699	0.0200	0.0153	
93 n-Decane	57	18.561	18.562	-0.001	90	5520	0.0200	0.0193	
94 tert-Butylbenzene	119	18.701	18.704	-0.003	91	7435	0.0200	0.0167	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	93	6805	0.0200	0.0174	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	97	9922	0.0200	0.0170	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	97	5034	0.0200	0.0209	
98 Benzyl chloride	91	19.057	19.058	-0.001	96	4234	0.0200	0.0146	
99 1,4-Dichlorobenzene	146	19.067	19.072	-0.005	92	4984	0.0200	0.0211	
100 4-Isopropyltoluene	119	19.121	19.127	-0.006	97	7759	0.0200	0.0155	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	97	6365	0.0200	0.0155	
102 Butylcyclohexane	83	19.229	19.231	-0.002	92	6633	0.0200	0.0192	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	89	7305	0.0200	0.0202	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	85	5036	0.0200	0.0202	
105 n-Butylbenzene	91	19.553	19.553	0.000	96	7598	0.0200	0.0169	
106 Indene	116	19.553	19.554	-0.001	82	5449	0.0200	0.0177	
107 Undecane	57	19.849	19.850	-0.001	95	6166	0.0200	0.0194	
108 1,2-Dibromo-3-Chloropropan	157	20.016	20.018	-0.002	91	2307	0.0200	0.0176	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	98	8222	0.0200	0.0178	
110 Dodecane	57	20.901	20.904	-0.003	94	5591	0.0200	0.0247	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	94	5917	0.0200	0.0288	
112 Naphthalene	128	21.251	21.252	-0.001	99	16382	0.0200	0.0353	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	94	4732	0.0200	0.0219	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	6757	0.0200	0.0353	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	9296	0.0200	0.0820	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	98	9464	0.0200	0.0819	
A 122 C8 Range	1	14.646	(14.609-14.683)		0	20783	0.0200	0.0193	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0439	
S 124 Xylenes, Total	100				0		0.0600	0.0484	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

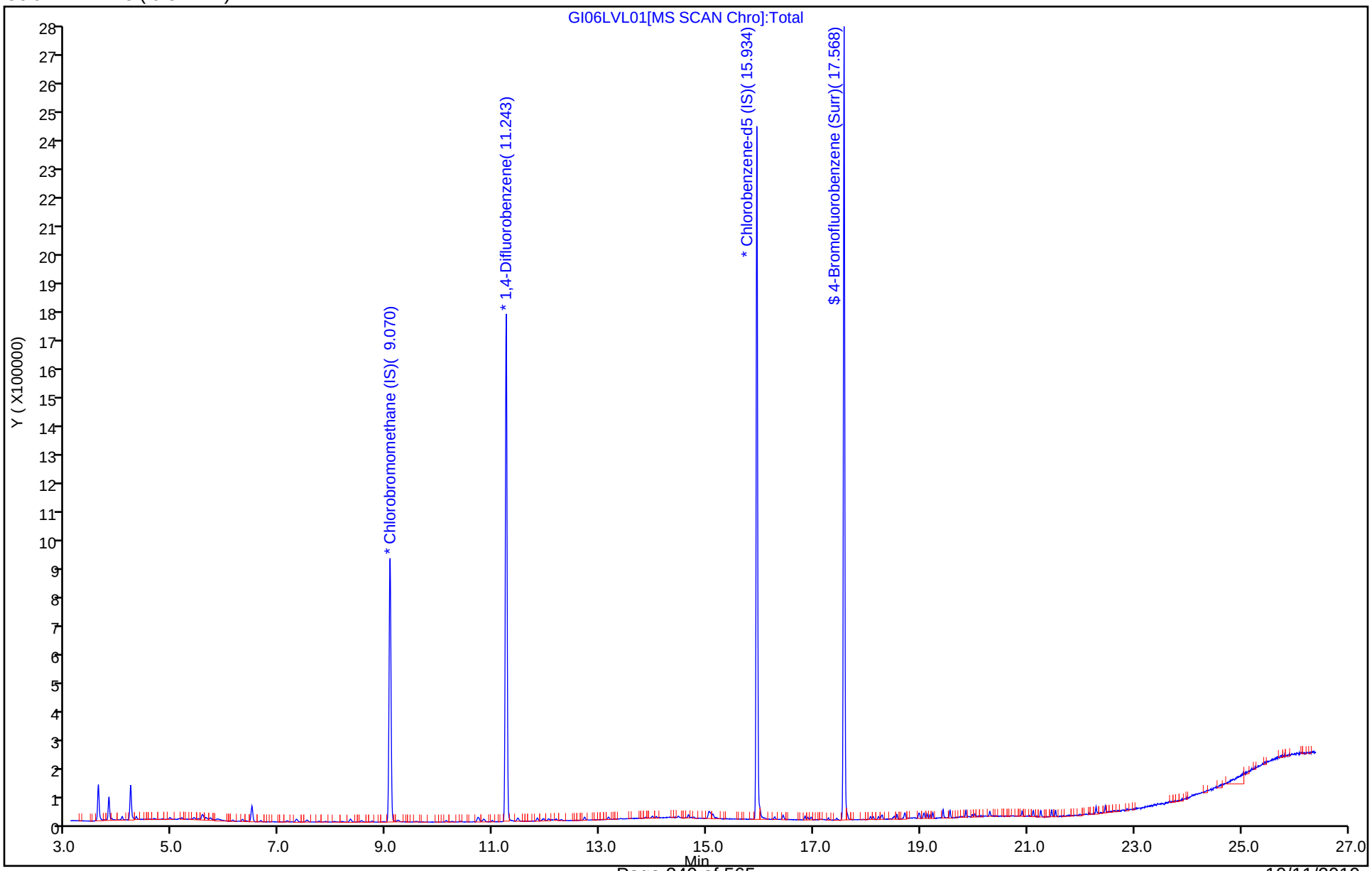
Report Date: 09-Sep-2019 18:32:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL01.D

Injection Date:	06-Sep-2019 15:53:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

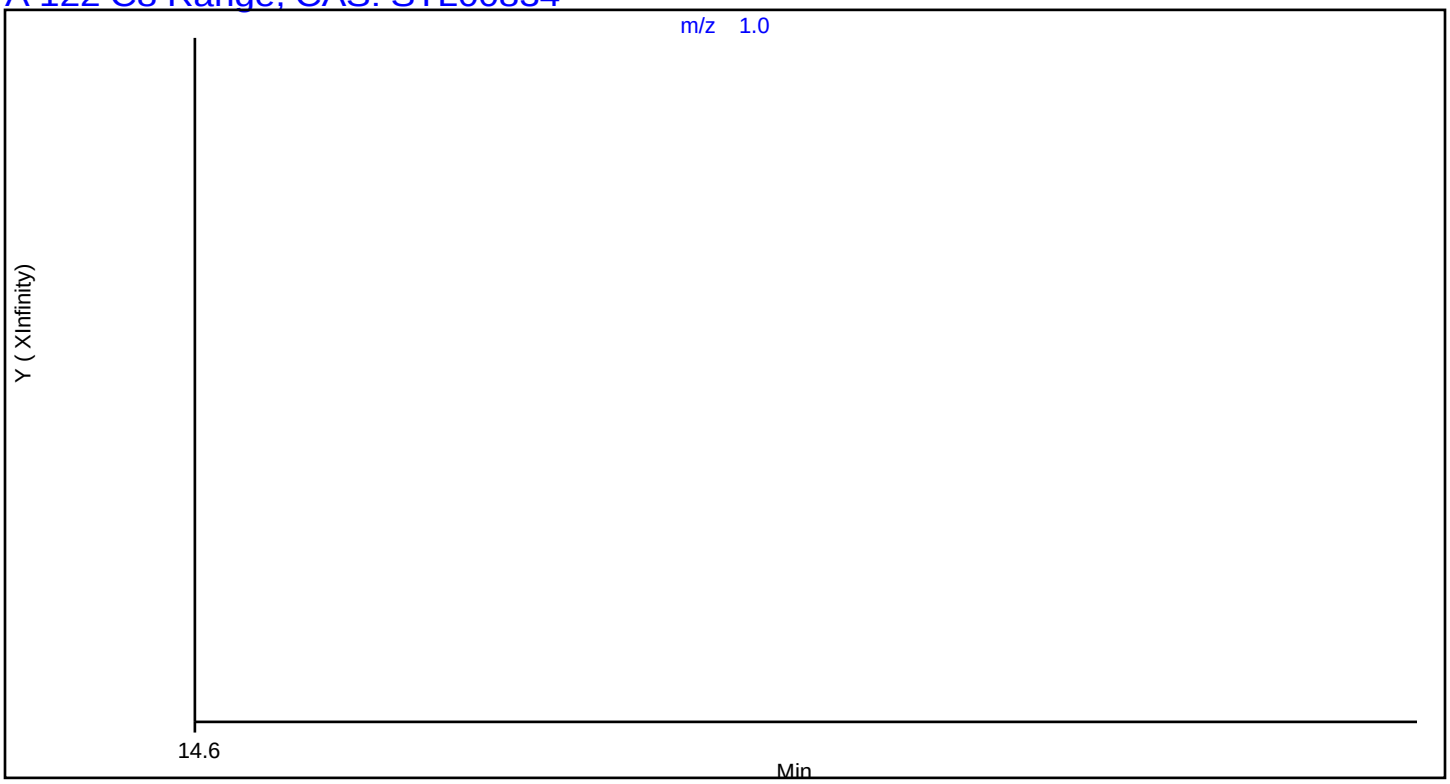


Report Date: 09-Sep-2019 18:32:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL01.D				
Injection Date:	06-Sep-2019 15:53:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 06-Sep-2019 16:37:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-008
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:11 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 07-Sep-2019 13:14:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	96	283829	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	94	1260188	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.934	15.939	-0.005	87	1201436	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	860195	4.00	4.10	
6 Chlorodifluoromethane	51	3.796	3.791	0.005	40	7011	0.0400	0.0498	
7 Propene	41	3.807	3.803	0.004	99	46536	0.0400	0.5005	
8 Dichlorodifluoromethane	85	3.861	3.856	0.005	100	9544	0.0400	0.0423	
9 Chloromethane	52	4.050	4.046	0.004	57	1975	0.0400	0.0704	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.053	-0.003	92	6483	0.0400	0.0424	
11 Acetaldehyde	44	4.211	4.207	0.004	99	89978	0.2000	2.30	
12 Vinyl chloride	62	4.228	4.226	0.002	97	4199	0.0400	0.0448	
13 Butane	43	4.319	4.316	0.003	86	7136	0.0400	0.0475	
14 Butadiene	54	4.319	4.317	0.002	61	3210	0.0400	0.0431	
15 Bromomethane	94	4.654	4.652	0.002	98	3697	0.0400	0.0455	
16 Chloroethane	64	4.805	4.800	0.005	96	2067	0.0400	0.0446	
17 Ethanol	31	4.939	4.923	0.016	95	11399	0.2000	0.2903	
18 Vinyl bromide	106	5.112	5.115	-0.003	95	3361	0.0400	0.0434	
19 2-Methylbutane	43	5.171	5.168	0.003	86	4745	0.0400	0.0466	
20 Trichlorofluoromethane	101	5.392	5.395	-0.003	99	8916	0.0400	0.0419	
21 Acrolein	56	5.419	5.410	0.009	92	2238	0.0400	0.1413	
22 Acetonitrile	40	5.489	5.479	0.010	97	2000	0.0400	0.0622	
23 Acetone	58	5.549	5.533	0.016	98	16824	0.1200	0.4198	
24 Pentane	72	5.635	5.625	0.010	92	510	0.0400	0.0345	
25 Isopropyl alcohol	45	5.689	5.652	0.037	97	13400	0.1200	0.1295	
26 Ethyl ether	31	5.824	5.807	0.017	92	3409	0.0400	0.0469	
27 1,1-Dichloroethene	96	6.126	6.125	0.001	96	4182	0.0400	0.0442	
28 Acrylonitrile	53	6.228	6.233	-0.005	82	2687	0.0400	0.0419	
30 2-Methyl-2-propanol	59	6.363	6.293	0.070	97	7664	0.0400	0.0495	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	96	8334	0.0400	0.0441	
31 Methylene Chloride	84	6.482	6.483	-0.001	97	26049	0.0400	-0.0115	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.492	6.499	-0.007	31	3830	0.0400	0.0442	
33 Carbon disulfide	76	6.649	6.651	-0.002	98	11772	0.0400	0.0452	
34 trans-1,2-Dichloroethene	96	7.301	7.308	-0.007	96	3962	0.0400	0.0421	
35 2-Methylpentane	43	7.323	7.326	-0.003	94	10461	0.0400	0.0453	
36 Methyl tert-butyl ether	73	7.495	7.459	0.036	97	10627	0.0400	0.0421	
37 1,1-Dichloroethane	63	7.733	7.739	-0.006	99	7015	0.0400	0.0417	
38 Vinyl acetate	43	7.846	7.844	0.002	100	9260	0.0400	0.0407	
39 2-Butanone (MEK)	72	8.326	8.311	0.015	88	2830	0.0400	0.0656	
40 Hexane	56	8.315	8.321	-0.006	71	3974	0.0400	0.0493	
41 Isopropyl ether	45	8.520	8.496	0.024	97	13717	0.0400	0.0422	
42 cis-1,2-Dichloroethene	96	8.736	8.736	0.000	93	4155	0.0400	0.0434	
43 Ethyl acetate	43	8.946	8.933	0.013	98	7450	0.0400	0.0392	
44 Chloroform	83	9.081	9.086	-0.005	69	8020	0.0400	0.0436	
45 Tert-butyl ethyl ether	59	9.216	9.185	0.031	95	11643	0.0400	0.0390	
46 Tetrahydrofuran	42	9.545	9.513	0.032	90	4960	0.0400	0.0459	
47 1,1,1-Trichloroethane	97	10.116	10.122	-0.006	96	8400	0.0400	0.0412	
48 1,2-Dichloroethane	62	10.224	10.230	-0.006	94	5137	0.0400	0.0496	
49 Cyclohexane	69	10.715	10.714	0.001	74	2130	0.0400	0.0518	
50 Benzene	78	10.709	10.715	-0.006	96	11544	0.0400	0.0518	
51 n-Butanol	31	10.790	10.735	0.055	57	1603	0.0400	0.0642	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	96	6848	0.0400	0.0452	
53 2,3-Dimethylpentane	71	10.823	10.830	-0.007	92	2983	0.0400	0.0514	
54 Thiophene	84	10.979	10.984	-0.005	95	6226	0.0400	0.0545	
55 Isooctane	57	11.459	11.463	-0.004	98	22836	0.0400	0.0522	
56 n-Heptane	71	11.831	11.830	0.001	91	4616	0.0400	0.0553	
57 1,2-Dichloropropane	63	11.917	11.919	-0.002	91	4287	0.0400	0.0551	
58 Trichloroethene	130	11.944	11.954	-0.010	94	5447	0.0400	0.0527	
59 Dibromomethane	93	12.036	12.039	-0.003	96	4742	0.0400	0.0582	
60 Dichlorobromomethane	83	12.176	12.181	-0.005	98	7071	0.0400	0.0540	
61 1,4-Dioxane	88	12.251	12.221	0.030	68	1387	0.0400	0.0432	
62 Methyl methacrylate	41	12.278	12.273	0.005	91	4817	0.0400	0.0532	
63 Methylcyclohexane	83	12.715	12.715	0.000	95	7973	0.0400	0.0491	
64 4-Methyl-2-pentanone (MIBK	43	13.152	13.129	0.023	97	8246	0.0400	0.0467	
65 cis-1,3-Dichloropropene	75	13.163	13.167	-0.004	96	6123	0.0400	0.0616	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	97	5380	0.0400	0.0594	
67 Toluene	91	13.977	13.981	-0.004	94	13170	0.0400	0.0548	
68 1,1,2-Trichloroethane	83	14.058	14.055	0.003	97	3778	0.0400	0.0556	
69 2-Hexanone	58	14.462	14.447	0.015	92	3807	0.0400	0.0431	
70 n-Octane	85	14.656	14.657	-0.001	93	4824	0.0400	0.0519	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	96	5626	0.0400	0.0467	
72 Ethylene Dibromide	107	15.045	15.045	0.000	98	6339	0.0400	0.0566	
73 Tetrachloroethene	129	15.115	15.116	-0.001	94	4952	0.0400	0.0526	
75 Chlorobenzene	112	15.983	15.987	-0.004	96	10010	0.0400	0.0562	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	96	14496	0.0400	0.0496	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	16571	0.0400	0.0507	
79 m-Xylene & p-Xylene	91	16.425	16.431	-0.006	98	25887	0.0800	0.1020	
80 n-Nonane	57	16.840	16.839	0.001	93	10048	0.0400	0.0536	
81 Bromoform	173	16.884	16.884	0.000	94	4322	0.0400	0.0429	
82 Styrene	104	16.889	16.894	-0.005	98	8682	0.0400	0.0557	
83 o-Xylene	91	16.954	16.955	-0.001	99	13932	0.0400	0.0493	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	8837	0.0400	0.0474	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	95	2680	0.0400	0.0508	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.536	17.538	-0.002	91	18394	0.0400	0.0485	
87 N-Propylbenzene	120	18.064	18.068	-0.004	99	4723	0.0400	0.0469	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	97	4814	0.0400	0.0519	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	98	18022	0.0400	0.0512	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	93	7587	0.0400	0.0459	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	91	6672	0.0400	0.0478	
93 n-Decane	57	18.561	18.562	-0.001	90	12263	0.0400	0.0540	
94 tert-Butylbenzene	119	18.706	18.704	0.002	92	17128	0.0400	0.0485	
95 1,2,4-Trimethylbenzene	105	18.712	18.717	-0.005	95	15815	0.0400	0.0510	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	23101	0.0400	0.0500	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	97	11512	0.0400	0.0603	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	11511	0.0400	0.0502	
99 1,4-Dichlorobenzene	146	19.067	19.072	-0.005	94	11284	0.0400	0.0603	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	96	18899	0.0400	0.0478	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	98	16057	0.0400	0.0494	
102 Butylcyclohexane	83	19.229	19.231	-0.002	92	14546	0.0400	0.0531	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	92	15936	0.0400	0.0555	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	84	11542	0.0400	0.0584	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	18825	0.0400	0.0528	
106 Indene	116	19.553	19.554	-0.001	80	13048	0.0400	0.0535	
107 Undecane	57	19.849	19.850	-0.001	96	14367	0.0400	0.0572	
108 1,2-Dibromo-3-Chloropropan	157	20.017	20.018	-0.002	94	5328	0.0400	0.0514	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	97	18054	0.0400	0.0493	
110 Dodecane	57	20.901	20.904	-0.003	95	13688	0.0400	0.0766	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	94	12262	0.0400	0.0755	
112 Naphthalene	128	21.251	21.252	-0.001	99	29666	0.0400	0.0808	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	95	9967	0.0400	0.0583	
114 1,2,3-Trichlorobenzene	180	21.526	21.531	-0.005	96	13302	0.0400	0.0878	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	18182	0.0400	0.2026	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	98	19543	0.0400	0.2136	
A 122 C8 Range	1	14.651	(14.609-14.694)		0	44007	0.0400	0.0516	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0855	
S 124 Xylenes, Total	100				0		0.1200	0.1513	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

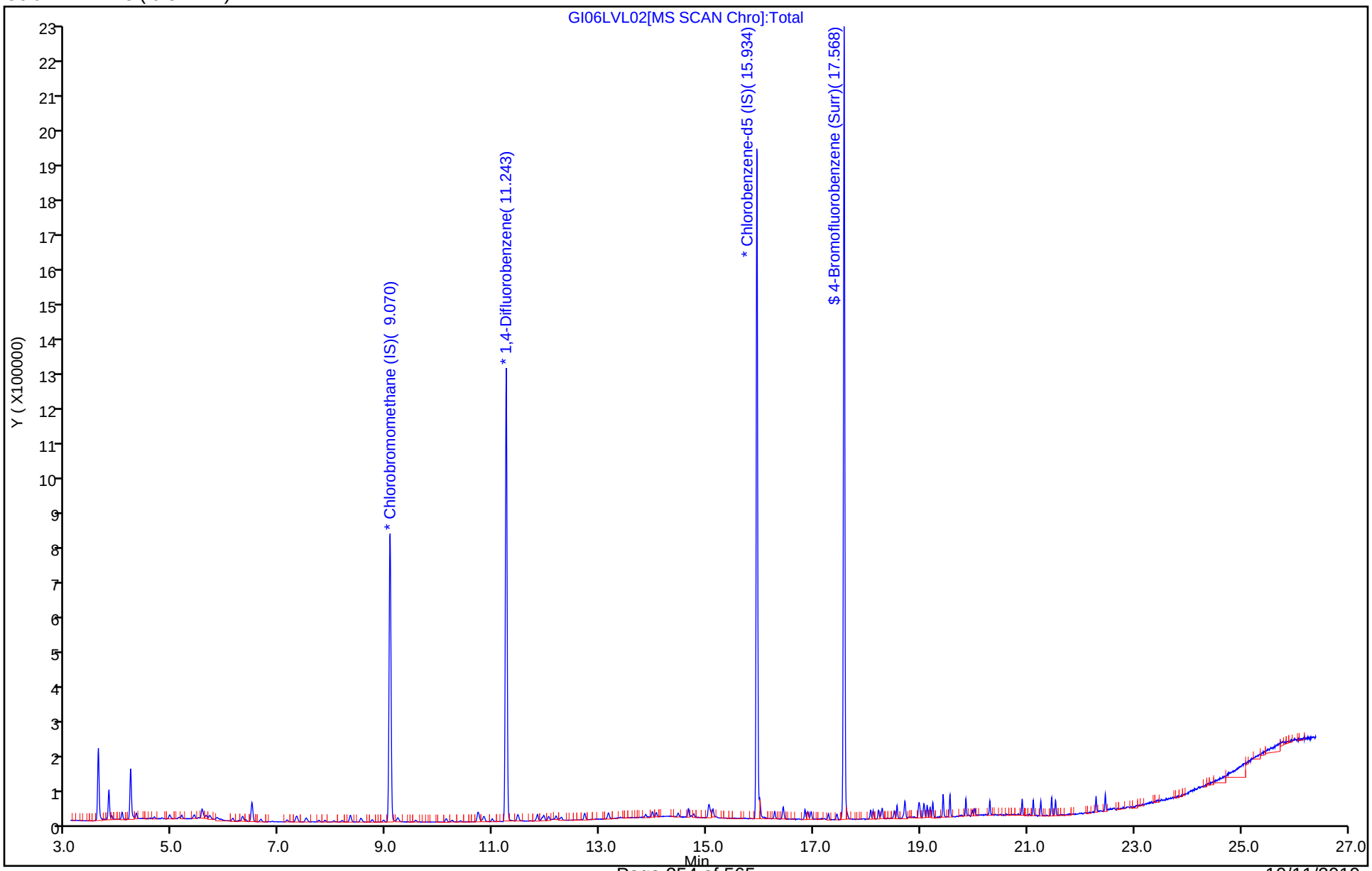
Report Date: 09-Sep-2019 18:32:12 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL02.D

Injection Date:	06-Sep-2019 16:37:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

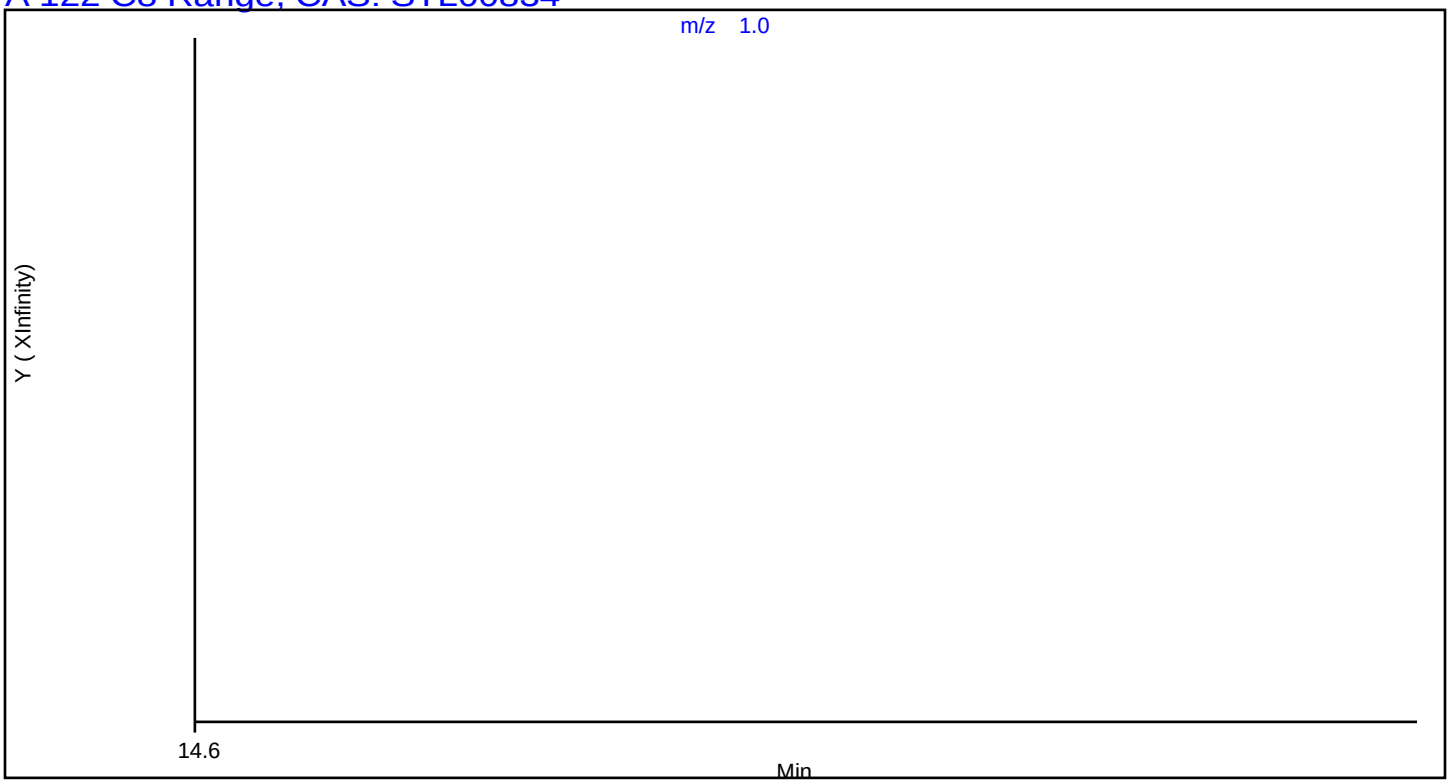


Report Date: 09-Sep-2019 18:32:12 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL02.D				
Injection Date:	06-Sep-2019 16:37:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 06-Sep-2019 17:20:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-009
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:18 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 09-Sep-2019 18:10:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.065	9.073	-0.008	96	308395	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	94	1694983	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.935	15.939	-0.005	87	1507767	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	1014670	4.00	3.85	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	97	12144	0.0800	0.0793	
7 Propene	41	3.802	3.803	-0.001	99	50631	0.0800	0.5012	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	18434	0.0800	0.0751	
9 Chloromethane	52	4.050	4.046	0.004	63	2913	0.0800	0.0955	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	91	12415	0.0800	0.0747	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	115578	0.4000	2.71	
12 Vinyl chloride	62	4.222	4.226	-0.004	98	7606	0.0800	0.0747	
13 Butane	43	4.314	4.316	-0.002	86	14130	0.0800	0.0865	
14 Butadiene	54	4.319	4.317	0.002	65	6179	0.0800	0.0764	
15 Bromomethane	94	4.654	4.652	0.002	98	6749	0.0800	0.0765	
16 Chloroethane	64	4.799	4.800	-0.001	97	3887	0.0800	0.0773	
17 Ethanol	31	4.929	4.923	0.006	96	21742	0.4000	0.5096	
18 Vinyl bromide	106	5.112	5.115	-0.003	98	6255	0.0800	0.0743	
19 2-Methylbutane	43	5.166	5.168	-0.002	89	8653	0.0800	0.0782	
20 Trichlorofluoromethane	101	5.392	5.395	-0.003	99	17187	0.0800	0.0742	
21 Acrolein	56	5.409	5.410	-0.001	96	5075	0.0800	0.2949	
22 Acetonitrile	40	5.473	5.479	-0.006	100	2864	0.0800	0.0820	
23 Acetone	58	5.538	5.533	0.005	99	30987	0.2400	0.7117	
24 Pentane	72	5.630	5.625	0.005	97	1248	0.0800	0.0777	
25 Isopropyl alcohol	45	5.667	5.652	0.015	92	27591	0.2400	0.2455	
26 Ethyl ether	31	5.818	5.807	0.011	97	6540	0.0800	0.0827	
27 1,1-Dichloroethene	96	6.120	6.125	-0.005	97	7621	0.0800	0.0741	
28 Acrylonitrile	53	6.228	6.233	-0.005	95	5488	0.0800	0.0787	
30 2-Methyl-2-propanol	59	6.320	6.293	0.027	97	15791	0.0800	0.0938	
29 1,1,2-Trichloro-1,2,2-trif	101	6.304	6.307	-0.003	96	15663	0.0800	0.0763	
31 Methylene Chloride	84	6.482	6.483	-0.001	98	29773	0.0800	0.005523	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.498	6.499	-0.001	95	7446	0.0800	0.0791	
33 Carbon disulfide	76	6.649	6.651	-0.002	99	21009	0.0800	0.0742	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	99	7734	0.0800	0.0757	
35 2-Methylpentane	43	7.323	7.326	-0.003	95	20240	0.0800	0.0807	
36 Methyl tert-butyl ether	73	7.474	7.459	0.015	96	21209	0.0800	0.0774	
37 1,1-Dichloroethane	63	7.733	7.739	-0.006	99	13988	0.0800	0.0765	
38 Vinyl acetate	43	7.846	7.844	0.002	100	18360	0.0800	0.0742	
39 2-Butanone (MEK)	72	8.315	8.311	0.004	89	5529	0.0800	0.1179	
40 Hexane	56	8.315	8.321	-0.006	64	7222	0.0800	0.0825	
41 Isopropyl ether	45	8.509	8.496	0.013	97	28394	0.0800	0.0804	
42 cis-1,2-Dichloroethene	96	8.730	8.736	-0.006	96	7570	0.0800	0.0727	
43 Ethyl acetate	43	8.941	8.933	0.008	98	15214	0.0800	0.0738	
44 Chloroform	83	9.075	9.086	-0.011	28	15270	0.0800	0.0764	
45 Tert-butyl ethyl ether	59	9.199	9.185	0.014	95	24293	0.0800	0.0749	
46 Tetrahydrofuran	42	9.528	9.513	0.015	94	9494	0.0800	0.0808	
47 1,1,1-Trichloroethane	97	10.122	10.122	0.000	97	16781	0.0800	0.0757	
48 1,2-Dichloroethane	62	10.224	10.230	-0.006	96	9341	0.0800	0.0670	
49 Cyclohexane	69	10.720	10.714	0.006	74	3988	0.0800	0.0721	
50 Benzene	78	10.715	10.715	0.000	96	22395	0.0800	0.0747	
51 n-Butanol	31	10.763	10.735	0.028	74	2958	0.0800	0.0881	
52 Carbon tetrachloride	117	10.742	10.739	0.003	96	13766	0.0800	0.0676	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	91	5835	0.0800	0.0747	
54 Thiophene	84	10.979	10.984	-0.005	97	11305	0.0800	0.0736	
55 Isooctane	57	11.459	11.463	-0.004	98	43400	0.0800	0.0737	
56 n-Heptane	71	11.831	11.830	0.001	90	8641	0.0800	0.0769	
57 1,2-Dichloropropane	63	11.912	11.919	-0.007	88	7715	0.0800	0.0737	
58 Trichloroethene	130	11.950	11.954	-0.004	96	9397	0.0800	0.0675	
59 Dibromomethane	93	12.036	12.039	-0.003	95	8427	0.0800	0.0770	
60 Dichlorobromomethane	83	12.176	12.181	-0.005	98	12392	0.0800	0.0704	
61 1,4-Dioxane	88	12.235	12.221	0.014	87	3189	0.0800	0.0738	
62 Methyl methacrylate	41	12.273	12.273	0.000	94	8532	0.0800	0.0701	
63 Methylcyclohexane	83	12.715	12.715	0.000	94	14995	0.0800	0.0687	
64 4-Methyl-2-pentanone (MIBK	43	13.141	13.129	0.012	95	17639	0.0800	0.0742	
65 cis-1,3-Dichloropropene	75	13.163	13.167	-0.004	94	10030	0.0800	0.0750	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	98	8642	0.0800	0.0760	
67 Toluene	91	13.982	13.981	0.001	94	21422	0.0800	0.0710	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.002	98	6257	0.0800	0.0734	
69 2-Hexanone	58	14.452	14.447	0.005	94	8520	0.0800	0.0769	
70 n-Octane	85	14.657	14.657	0.000	93	8277	0.0800	0.0709	
71 Chlorodibromomethane	129	14.759	14.756	0.003	97	9528	0.0800	0.0631	
72 Ethylene Dibromide	107	15.039	15.045	-0.006	100	10187	0.0800	0.0724	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	8573	0.0800	0.0725	
75 Chlorobenzene	112	15.988	15.987	0.001	92	16063	0.0800	0.0718	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	96	28455	0.0800	0.0775	
78 Ethylbenzene	91	16.269	16.270	-0.001	99	26400	0.0800	0.0643	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	42306	0.1600	0.1328	
80 n-Nonane	57	16.835	16.839	-0.004	93	16602	0.0800	0.0706	
81 Bromoform	173	16.878	16.884	-0.006	95	6952	0.0800	0.0550	
82 Styrene	104	16.894	16.894	0.000	98	13540	0.0800	0.0693	
83 o-Xylene	91	16.954	16.955	-0.001	99	24476	0.0800	0.0690	
84 1,1,2,2-Tetrachloroethane	83	17.272	17.277	-0.005	99	16482	0.0800	0.0704	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	98	4926	0.0800	0.0744	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.536	17.538	-0.002	95	32825	0.0800	0.0689	
87 N-Propylbenzene	120	18.064	18.068	-0.004	99	8404	0.0800	0.0665	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	97	7737	0.0800	0.0665	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	99	31925	0.0800	0.0723	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	94	14053	0.0800	0.0678	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	90	11651	0.0800	0.0666	
93 n-Decane	57	18.561	18.562	-0.001	90	21346	0.0800	0.0749	
94 tert-Butylbenzene	119	18.701	18.704	-0.003	93	31197	0.0800	0.0705	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	96	27456	0.0800	0.0706	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	41986	0.0800	0.0724	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	98	17981	0.0800	0.0750	
98 Benzyl chloride	91	19.057	19.058	-0.001	97	20313	0.0800	0.0706	
99 1,4-Dichlorobenzene	146	19.067	19.072	-0.005	93	17565	0.0800	0.0748	
100 4-Isopropyltoluene	119	19.121	19.127	-0.006	97	35840	0.0800	0.0723	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	99	29297	0.0800	0.0718	
102 Butylcyclohexane	83	19.229	19.231	-0.002	92	25230	0.0800	0.0734	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	92	25747	0.0800	0.0715	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	83	18412	0.0800	0.0742	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	34293	0.0800	0.0767	
106 Indene	116	19.553	19.554	-0.001	78	21730	0.0800	0.0710	
107 Undecane	57	19.849	19.850	-0.001	97	26942	0.0800	0.0855	
108 1,2-Dibromo-3-Chloropropan	157	20.017	20.018	-0.001	93	9642	0.0800	0.0741	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	97	36278	0.0800	0.0790	
110 Dodecane	57	20.901	20.904	-0.003	95	24677	0.0800	0.1100	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	94	18396	0.0800	0.0902	
112 Naphthalene	128	21.251	21.252	-0.001	99	44301	0.0800	0.0962	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	96	17736	0.0800	0.0826	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	19028	0.0800	0.1001	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	18452	0.0800	0.1638	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	19332	0.0800	0.1684	
A 122 C8 Range	1	14.652	(14.609-14.694)		0	74157	0.0800	0.0693	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1484	
S 124 Xylenes, Total	100				0		0.2400	0.2018	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

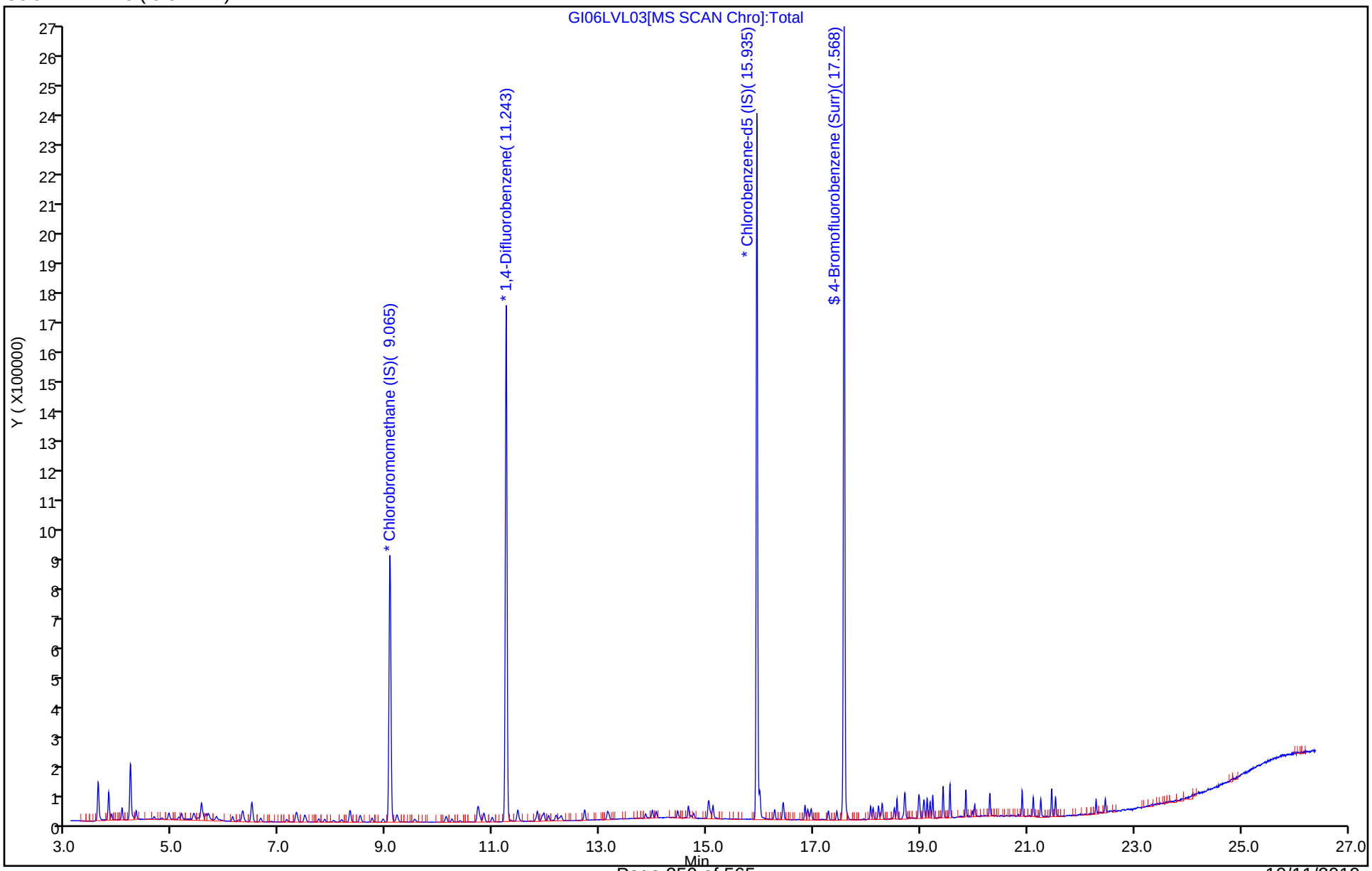
Report Date: 09-Sep-2019 18:32:19 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL03.D

Injection Date:	06-Sep-2019 17:20:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

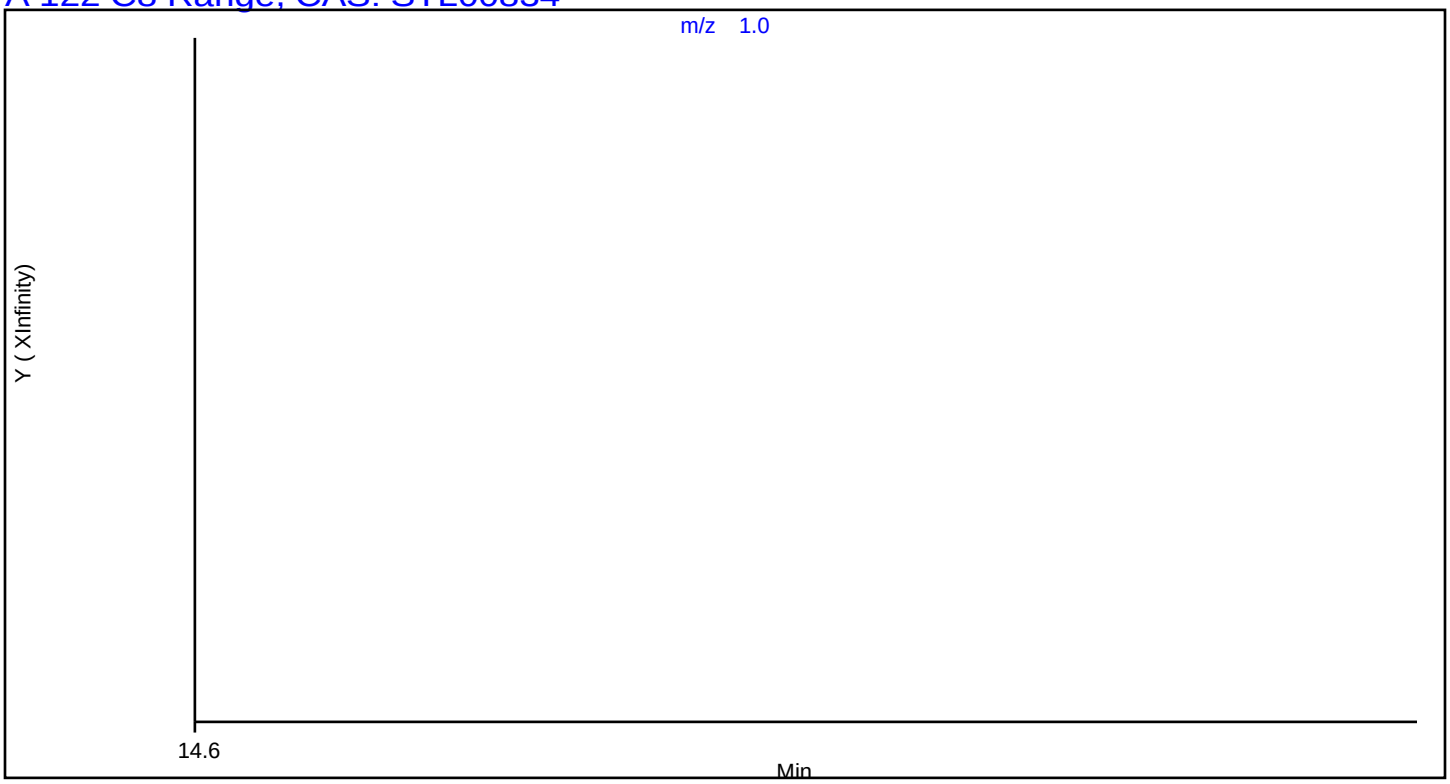


Report Date: 09-Sep-2019 18:32:19 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL03.D				
Injection Date:	06-Sep-2019 17:20:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 06-Sep-2019 18:05:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-010
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:25 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	96	303669	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	94	1681080	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1469501	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	997113	4.00	3.89	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	96	24527	0.1600	0.1627	
7 Propene	41	3.802	3.803	-0.001	99	56735	0.1600	0.5703	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	38742	0.1600	0.1603	
9 Chloromethane	52	4.044	4.046	-0.002	64	5798	0.1600	0.1930	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.053	-0.003	90	26703	0.1600	0.1632	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	99368	0.8000	2.37	
12 Vinyl chloride	62	4.222	4.226	-0.004	98	15938	0.1600	0.1589	
13 Butane	43	4.314	4.316	-0.002	86	27550	0.1600	0.1714	
14 Butadiene	54	4.314	4.317	-0.003	64	12892	0.1600	0.1618	
15 Bromomethane	94	4.654	4.652	0.002	98	14478	0.1600	0.1666	
16 Chloroethane	64	4.794	4.800	-0.006	96	7832	0.1600	0.1581	
17 Ethanol	31	4.918	4.923	-0.005	96	32963	0.8000	0.7846	
18 Vinyl bromide	106	5.112	5.115	-0.003	98	13382	0.1600	0.1615	
19 2-Methylbutane	43	5.166	5.168	-0.002	90	18444	0.1600	0.1693	
20 Trichlorofluoromethane	101	5.392	5.395	-0.003	99	36052	0.1600	0.1582	
21 Acrolein	56	5.409	5.410	-0.001	91	3019	0.1600	0.1782	
22 Acetonitrile	40	5.473	5.479	-0.006	99	5172	0.1600	0.1505	
23 Acetone	58	5.538	5.533	0.005	98	28312	0.4800	0.6604	
24 Pentane	72	5.624	5.625	-0.001	98	2546	0.1600	0.1609	
25 Isopropyl alcohol	45	5.657	5.652	0.005	94	46541	0.4800	0.4205	
26 Ethyl ether	31	5.813	5.807	0.006	95	11484	0.1600	0.1476	
27 1,1-Dichloroethene	96	6.120	6.125	-0.005	98	16162	0.1600	0.1595	
28 Acrylonitrile	53	6.228	6.233	-0.005	94	9940	0.1600	0.1448	
30 2-Methyl-2-propanol	59	6.309	6.293	0.016	73	22356	0.1600	0.1349	
29 1,1,2-Trichloro-1,2,2-trif	101	6.304	6.307	-0.003	96	32118	0.1600	0.1588	
31 Methylene Chloride	84	6.476	6.483	-0.007	98	37304	0.1600	0.0994	
32 3-Chloro-1-propene	39	6.492	6.499	-0.007	93	15428	0.1600	0.1664	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.649	6.651	-0.002	99	45066	0.1600	0.1616	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	98	15890	0.1600	0.1579	
35 2-Methylpentane	43	7.323	7.326	-0.003	96	40162	0.1600	0.1626	
36 Methyl tert-butyl ether	73	7.463	7.459	0.004	96	39480	0.1600	0.1462	
37 1,1-Dichloroethane	63	7.738	7.739	-0.001	99	29612	0.1600	0.1645	
38 Vinyl acetate	43	7.841	7.844	-0.003	100	30770	0.1600	0.1263	
39 2-Butanone (MEK)	72	8.315	8.311	0.004	84	6578	0.1600	0.1425	
40 Hexane	56	8.320	8.321	-0.001	75	14572	0.1600	0.1690	
41 Isopropyl ether	45	8.498	8.496	0.002	98	50863	0.1600	0.1462	
42 cis-1,2-Dichloroethene	96	8.736	8.736	0.000	94	16041	0.1600	0.1565	
43 Ethyl acetate	43	8.935	8.933	0.002	99	25479	0.1600	0.1254	
44 Chloroform	83	9.075	9.086	-0.011	94	31661	0.1600	0.1610	
45 Tert-butyl ethyl ether	59	9.189	9.185	0.004	96	45309	0.1600	0.1418	
46 Tetrahydrofuran	42	9.523	9.513	0.010	95	16515	0.1600	0.1427	
47 1,1,1-Trichloroethane	97	10.116	10.122	-0.006	98	34054	0.1600	0.1560	
48 1,2-Dichloroethane	62	10.224	10.230	-0.006	97	19284	0.1600	0.1395	
49 Cyclohexane	69	10.709	10.714	-0.005	91	8720	0.1600	0.1590	
50 Benzene	78	10.709	10.715	-0.006	97	43446	0.1600	0.1460	
51 n-Butanol	31	10.758	10.735	0.023	74	4491	0.1600	0.1348	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	98	28869	0.1600	0.1429	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	92	12022	0.1600	0.1552	
54 Thiophene	84	10.979	10.984	-0.005	97	23575	0.1600	0.1547	
55 Isooctane	57	11.459	11.463	-0.004	99	88421	0.1600	0.1514	
56 n-Heptane	71	11.826	11.830	-0.004	92	16827	0.1600	0.1510	
57 1,2-Dichloropropane	63	11.912	11.919	-0.007	89	15287	0.1600	0.1472	
58 Trichloroethene	130	11.950	11.954	-0.004	96	20427	0.1600	0.1480	
59 Dibromomethane	93	12.036	12.039	-0.003	96	16736	0.1600	0.1541	
60 Dichlorobromomethane	83	12.176	12.181	-0.005	98	25197	0.1600	0.1444	
61 1,4-Dioxane	88	12.230	12.221	0.009	94	5681	0.1600	0.1326	
62 Methyl methacrylate	41	12.273	12.273	0.000	93	14427	0.1600	0.1194	
63 Methylcyclohexane	83	12.715	12.715	0.000	94	31583	0.1600	0.1459	
64 4-Methyl-2-pentanone (MIBK	43	13.136	13.129	0.007	96	29341	0.1600	0.1245	
65 cis-1,3-Dichloropropene	75	13.163	13.167	-0.004	97	18924	0.1600	0.1427	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	98	15455	0.1600	0.1395	
67 Toluene	91	13.977	13.981	-0.004	94	39464	0.1600	0.1342	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.002	98	11430	0.1600	0.1375	
69 2-Hexanone	58	14.452	14.447	0.005	93	11325	0.1600	0.1049	
70 n-Octane	85	14.656	14.657	-0.001	94	16083	0.1600	0.1414	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	98	19347	0.1600	0.1314	
72 Ethylene Dibromide	107	15.045	15.045	0.000	99	19585	0.1600	0.1429	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	17183	0.1600	0.1491	
75 Chlorobenzene	112	15.988	15.987	0.001	94	30968	0.1600	0.1421	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	97	55551	0.1600	0.1553	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	48523	0.1600	0.1213	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	72310	0.3200	0.2330	
80 n-Nonane	57	16.840	16.839	0.001	93	30071	0.1600	0.1312	
81 Bromoform	173	16.884	16.884	0.000	95	14453	0.1600	0.1173	
82 Styrene	104	16.894	16.894	0.000	99	23641	0.1600	0.1241	
83 o-Xylene	91	16.954	16.955	-0.001	99	42643	0.1600	0.1233	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	29315	0.1600	0.1285	
85 1,2,3-Trichloropropane	110	17.439	17.436	0.003	98	8308	0.1600	0.1288	
86 Isopropylbenzene	105	17.536	17.538	-0.002	96	58099	0.1600	0.1251	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.070	18.068	0.002	99	14843	0.1600	0.1206	
88 2-Chlorotoluene	126	18.118	18.115	0.003	97	14146	0.1600	0.1247	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	98	51328	0.1600	0.1192	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	94	25029	0.1600	0.1239	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	90	19043	0.1600	0.1116	
93 n-Decane	57	18.561	18.562	-0.001	90	37672	0.1600	0.1357	
94 tert-Butylbenzene	119	18.701	18.704	-0.003	92	53492	0.1600	0.1239	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	96	46884	0.1600	0.1237	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	71451	0.1600	0.1264	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	98	30403	0.1600	0.1302	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	31481	0.1600	0.1123	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	95	30391	0.1600	0.1327	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	97	59105	0.1600	0.1223	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	98	49455	0.1600	0.1243	
102 Butylcyclohexane	83	19.229	19.231	-0.002	94	46976	0.1600	0.1403	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	94	44351	0.1600	0.1264	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	95	30770	0.1600	0.1272	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	54970	0.1600	0.1262	
106 Indene	116	19.553	19.554	-0.001	77	35194	0.1600	0.1180	
107 Undecane	57	19.849	19.850	-0.001	96	41891	0.1600	0.1364	
108 1,2-Dibromo-3-Chloropropan	157	20.017	20.018	-0.002	94	14850	0.1600	0.1171	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	97	55288	0.1600	0.1235	
110 Dodecane	57	20.906	20.904	0.002	96	33004	0.1600	0.1509	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	93	25702	0.1600	0.1293	
112 Naphthalene	128	21.251	21.252	-0.001	99	54883	0.1600	0.1223	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	96	27979	0.1600	0.1337	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	96	24534	0.1600	0.1324	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	98	17789	0.1600	0.1620	
116 1-Methylnaphthalene	142	22.465	22.460	0.005	99	17548	0.1600	0.1568	
A 122 C8 Range	1	14.651	(14.609-14.705)		0	152650	0.1600	0.1465	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3145	
S 124 Xylenes, Total	100				0		0.4800	0.3562	

Reagents:

40L5DQP_00012	Amount Added: 80.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

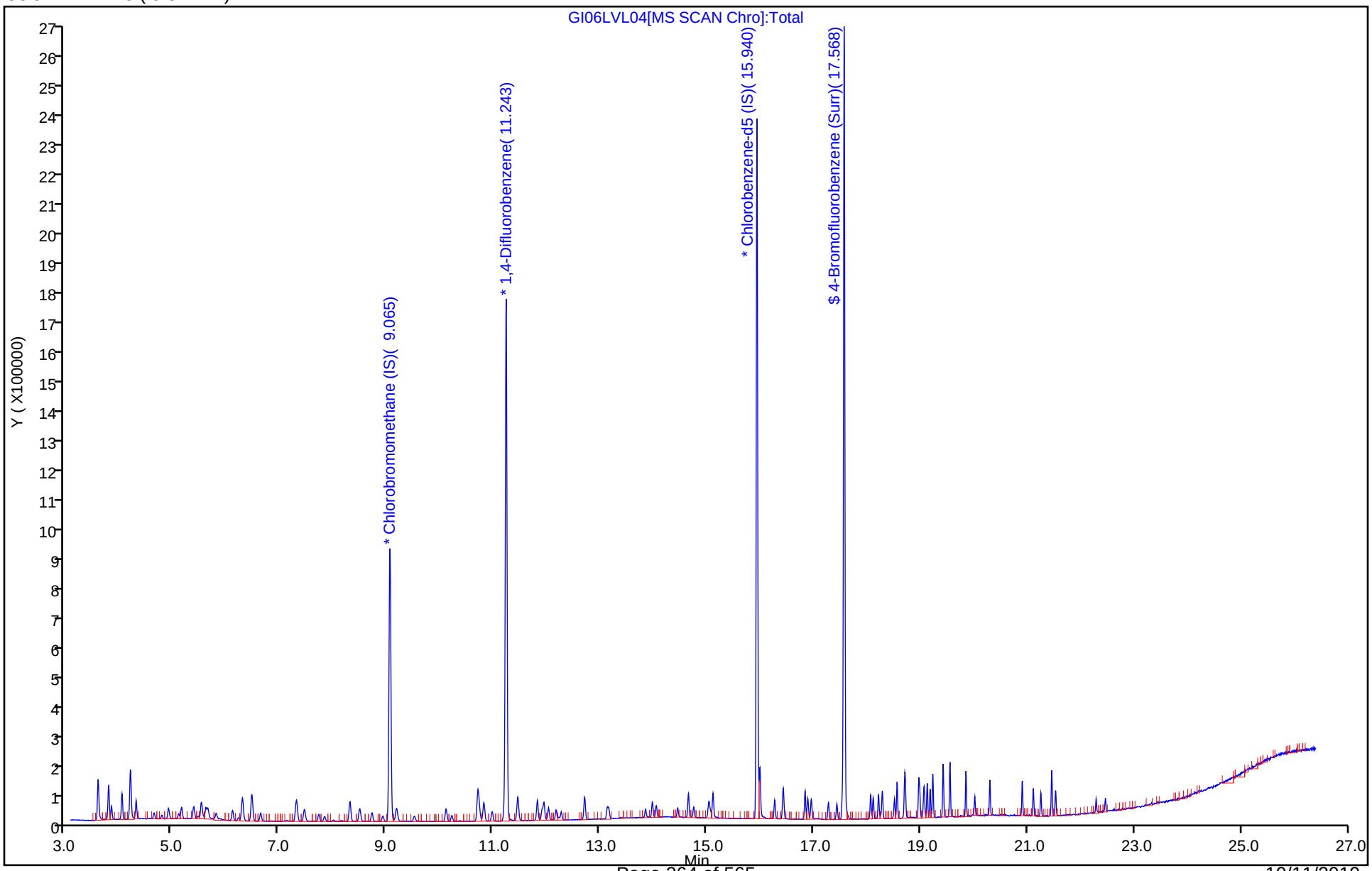
Report Date: 09-Sep-2019 18:32:26 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL04.D

Injection Date:	06-Sep-2019 18:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

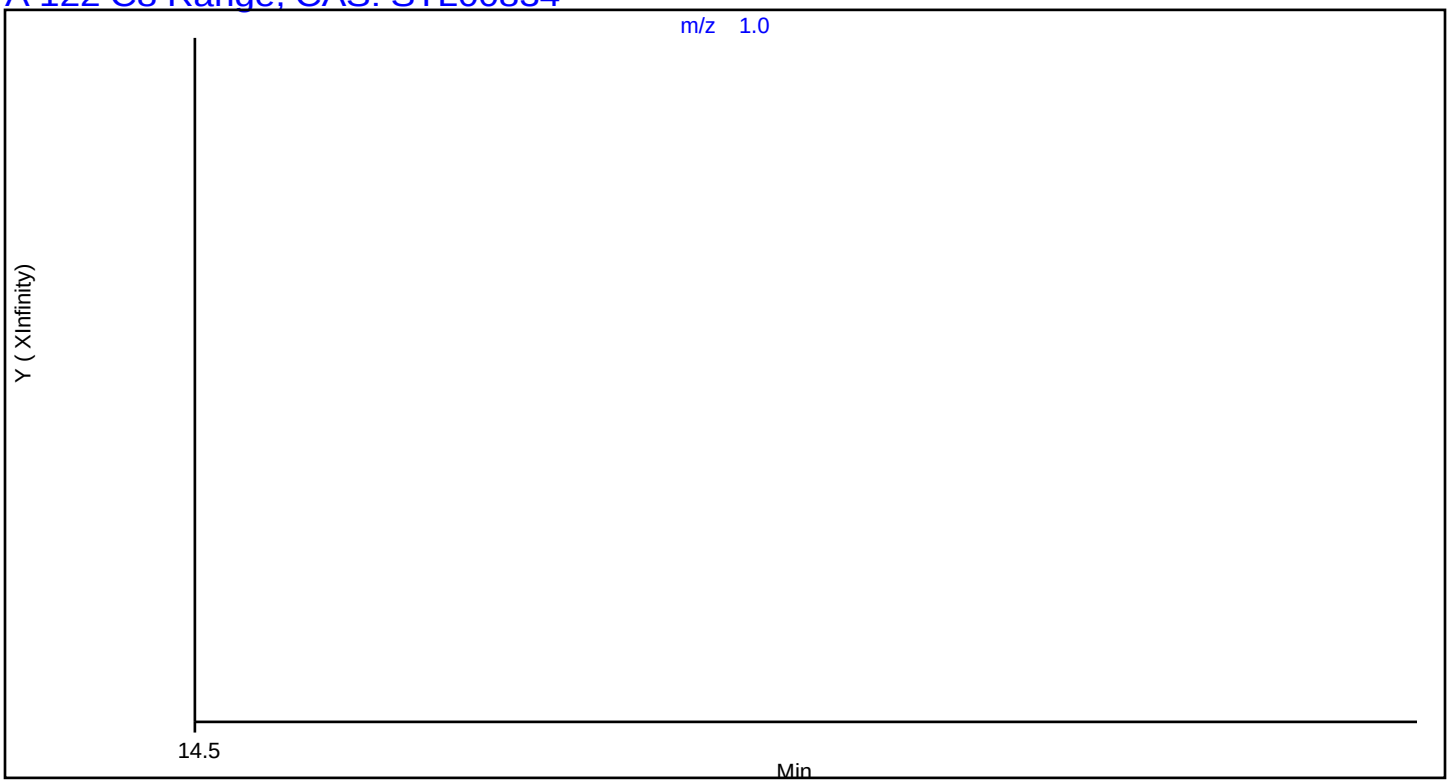


Report Date: 09-Sep-2019 18:32:26 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL04.D				
Injection Date:	06-Sep-2019 18:05:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 06-Sep-2019 18:52:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-011
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:32 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	97	268591	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	94	1259707	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1305417	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.569	17.570	-0.001	91	900768	4.00	3.95	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	97	57005	0.4000	0.4276	
7 Propene	41	3.802	3.803	-0.001	99	74734	0.4000	0.8494	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	91206	0.4000	0.4267	
9 Chloromethane	52	4.045	4.046	-0.002	60	12166	0.4000	0.4580	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.053	-0.003	95	62193	0.4000	0.4296	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	163197	2.00	4.40	
12 Vinyl chloride	62	4.222	4.226	-0.004	99	37859	0.4000	0.4268	
13 Butane	43	4.314	4.316	-0.002	86	61096	0.4000	0.4296	
14 Butadiene	54	4.314	4.317	-0.003	66	30685	0.4000	0.4355	
15 Bromomethane	94	4.648	4.652	-0.004	99	32967	0.4000	0.4289	
16 Chloroethane	64	4.799	4.800	-0.001	99	19062	0.4000	0.4351	
17 Ethanol	31	4.907	4.923	-0.016	96	81394	2.00	2.19	
18 Vinyl bromide	106	5.118	5.115	0.003	98	31177	0.4000	0.4255	
19 2-Methylbutane	43	5.166	5.168	-0.002	91	41382	0.4000	0.4294	
20 Trichlorofluoromethane	101	5.393	5.395	-0.002	99	83632	0.4000	0.4148	
21 Acrolein	56	5.403	5.410	-0.007	91	7063	0.4000	0.4713	
22 Acetonitrile	40	5.473	5.479	-0.006	99	14103	0.4000	0.4638	
23 Acetone	58	5.527	5.533	-0.006	98	66529	1.20	1.75	
24 Pentane	72	5.619	5.625	-0.006	98	6278	0.4000	0.4487	
25 Isopropyl alcohol	45	5.635	5.652	-0.017	93	123788	1.20	1.26	
26 Ethyl ether	31	5.802	5.807	-0.005	96	29746	0.4000	0.4321	
27 1,1-Dichloroethene	96	6.121	6.125	-0.004	97	36512	0.4000	0.4074	
28 Acrylonitrile	53	6.223	6.233	-0.010	97	26474	0.4000	0.4361	
30 2-Methyl-2-propanol	59	6.277	6.293	-0.016	95	61202	0.4000	0.4175	
29 1,1,2-Trichloro-1,2,2-trif	101	6.304	6.307	-0.003	96	75241	0.4000	0.4207	
31 Methylene Chloride	84	6.476	6.483	-0.007	98	56393	0.4000	0.4105	
32 3-Chloro-1-propene	39	6.493	6.499	-0.006	94	33922	0.4000	0.4137	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.649	6.651	-0.002	99	105567	0.4000	0.4281	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	98	37186	0.4000	0.4178	
35 2-Methylpentane	43	7.323	7.326	-0.003	95	97133	0.4000	0.4446	
36 Methyl tert-butyl ether	73	7.452	7.459	-0.007	96	102677	0.4000	0.4300	
37 1,1-Dichloroethane	63	7.733	7.739	-0.006	100	66700	0.4000	0.4188	
38 Vinyl acetate	43	7.841	7.844	-0.003	100	86669	0.4000	0.4023	
39 2-Butanone (MEK)	72	8.304	8.311	-0.007	97	18223	0.4000	0.4462	
40 Hexane	56	8.321	8.321	0.000	83	32780	0.4000	0.4299	
41 Isopropyl ether	45	8.488	8.496	-0.008	97	132302	0.4000	0.4299	
42 cis-1,2-Dichloroethene	96	8.730	8.736	-0.006	95	37306	0.4000	0.4116	
43 Ethyl acetate	43	8.925	8.933	-0.008	99	73354	0.4000	0.4083	
44 Chloroform	83	9.081	9.086	-0.005	97	73286	0.4000	0.4212	
45 Tert-butyl ethyl ether	59	9.178	9.185	-0.007	96	121566	0.4000	0.4301	
46 Tetrahydrofuran	42	9.512	9.513	-0.001	94	42847	0.4000	0.4187	
47 1,1,1-Trichloroethane	97	10.116	10.122	-0.006	97	80426	0.4000	0.4165	
48 1,2-Dichloroethane	62	10.230	10.230	0.000	97	46114	0.4000	0.4451	
49 Cyclohexane	69	10.709	10.714	-0.005	87	19927	0.4000	0.4849	
50 Benzene	78	10.709	10.715	-0.006	97	99661	0.4000	0.4471	
51 n-Butanol	31	10.731	10.735	-0.004	63	12572	0.4000	0.5037	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	98	68766	0.4000	0.4542	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	91	28657	0.4000	0.4938	
54 Thiophene	84	10.979	10.984	-0.005	96	55874	0.4000	0.4892	
55 Isooctane	57	11.459	11.463	-0.004	99	213033	0.4000	0.4869	
56 n-Heptane	71	11.826	11.830	-0.004	92	40573	0.4000	0.4860	
57 1,2-Dichloropropane	63	11.917	11.919	-0.002	90	37778	0.4000	0.4854	
58 Trichloroethene	130	11.950	11.954	-0.004	97	45477	0.4000	0.4398	
59 Dibromomethane	93	12.036	12.039	-0.003	97	40456	0.4000	0.4971	
60 Dichlorobromomethane	83	12.176	12.181	-0.005	99	63549	0.4000	0.4859	
61 1,4-Dioxane	88	12.214	12.221	-0.007	92	14826	0.4000	0.4617	
62 Methyl methacrylate	41	12.273	12.273	0.000	93	41817	0.4000	0.4620	
63 Methylcyclohexane	83	12.715	12.715	0.000	94	74422	0.4000	0.4588	
64 4-Methyl-2-pentanone (MIBK	43	13.125	13.129	-0.004	97	83515	0.4000	0.4729	
65 cis-1,3-Dichloropropene	75	13.163	13.167	-0.004	94	49491	0.4000	0.4980	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	98	42775	0.4000	0.4345	
67 Toluene	91	13.977	13.981	-0.004	94	104385	0.4000	0.3995	
68 1,1,2-Trichloroethane	83	14.047	14.055	-0.008	99	30261	0.4000	0.4099	
69 2-Hexanone	58	14.446	14.447	-0.001	92	35424	0.4000	0.3695	
70 n-Octane	85	14.657	14.657	0.000	94	40797	0.4000	0.4038	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	98	52675	0.4000	0.4026	
72 Ethylene Dibromide	107	15.045	15.045	0.000	99	52062	0.4000	0.4275	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	40577	0.4000	0.3965	
75 Chlorobenzene	112	15.983	15.987	-0.004	94	82023	0.4000	0.4236	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	96	141340	0.4000	0.4447	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	135845	0.4000	0.3822	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	211594	0.8000	0.7674	
80 n-Nonane	57	16.841	16.839	0.002	93	80514	0.4000	0.3954	
81 Bromoform	173	16.884	16.884	0.000	96	42632	0.4000	0.3895	
82 Styrene	104	16.895	16.894	0.001	99	70755	0.4000	0.4181	
83 o-Xylene	91	16.954	16.955	-0.001	99	120400	0.4000	0.3918	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	83135	0.4000	0.4103	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	98	24078	0.4000	0.4202	
86 Isopropylbenzene	105	17.536	17.538	-0.002	96	164042	0.4000	0.3978	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.065	18.068	-0.003	99	42505	0.4000	0.3886	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	97	39623	0.4000	0.3932	
89 4-Ethyltoluene	105	18.216	18.216	0.000	98	150740	0.4000	0.3942	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	93	69431	0.4000	0.3869	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	90	58506	0.4000	0.3861	
93 n-Decane	57	18.561	18.562	-0.001	89	105909	0.4000	0.4295	
94 tert-Butylbenzene	119	18.701	18.704	-0.003	91	157141	0.4000	0.4099	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	96	136640	0.4000	0.4057	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	205108	0.4000	0.4085	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	99	84363	0.4000	0.4066	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	98023	0.4000	0.3935	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	94	84201	0.4000	0.4139	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	97	173018	0.4000	0.4029	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	98	142485	0.4000	0.4031	
102 Butylcyclohexane	83	19.229	19.231	-0.002	93	126025	0.4000	0.4236	
103 2,3-Dihydroindene	117	19.424	19.425	-0.001	94	126162	0.4000	0.4047	
104 1,2-Dichlorobenzene	146	19.424	19.426	-0.002	94	87121	0.4000	0.4056	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	163131	0.4000	0.4214	
106 Indene	116	19.553	19.554	-0.001	78	105026	0.4000	0.3964	
107 Undecane	57	19.850	19.850	0.000	97	117964	0.4000	0.4323	
108 1,2-Dibromo-3-Chloropropan	157	20.017	20.018	-0.001	97	45441	0.4000	0.4034	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	98	163586	0.4000	0.4113	
110 Dodecane	57	20.906	20.904	0.002	97	89823	0.4000	0.4623	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	93	74708	0.4000	0.4232	
112 Naphthalene	128	21.252	21.252	0.000	99	163561	0.4000	0.4102	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	96	78428	0.4000	0.4219	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	96	69556	0.4000	0.4225	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	45613	0.4000	0.4677	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	44612	0.4000	0.4487	
A 122 C8 Range	1	14.647	(14.598-14.705)		0	381906	0.4000	0.4125	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.8294	
S 124 Xylenes, Total	100				0		1.20	1.16	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

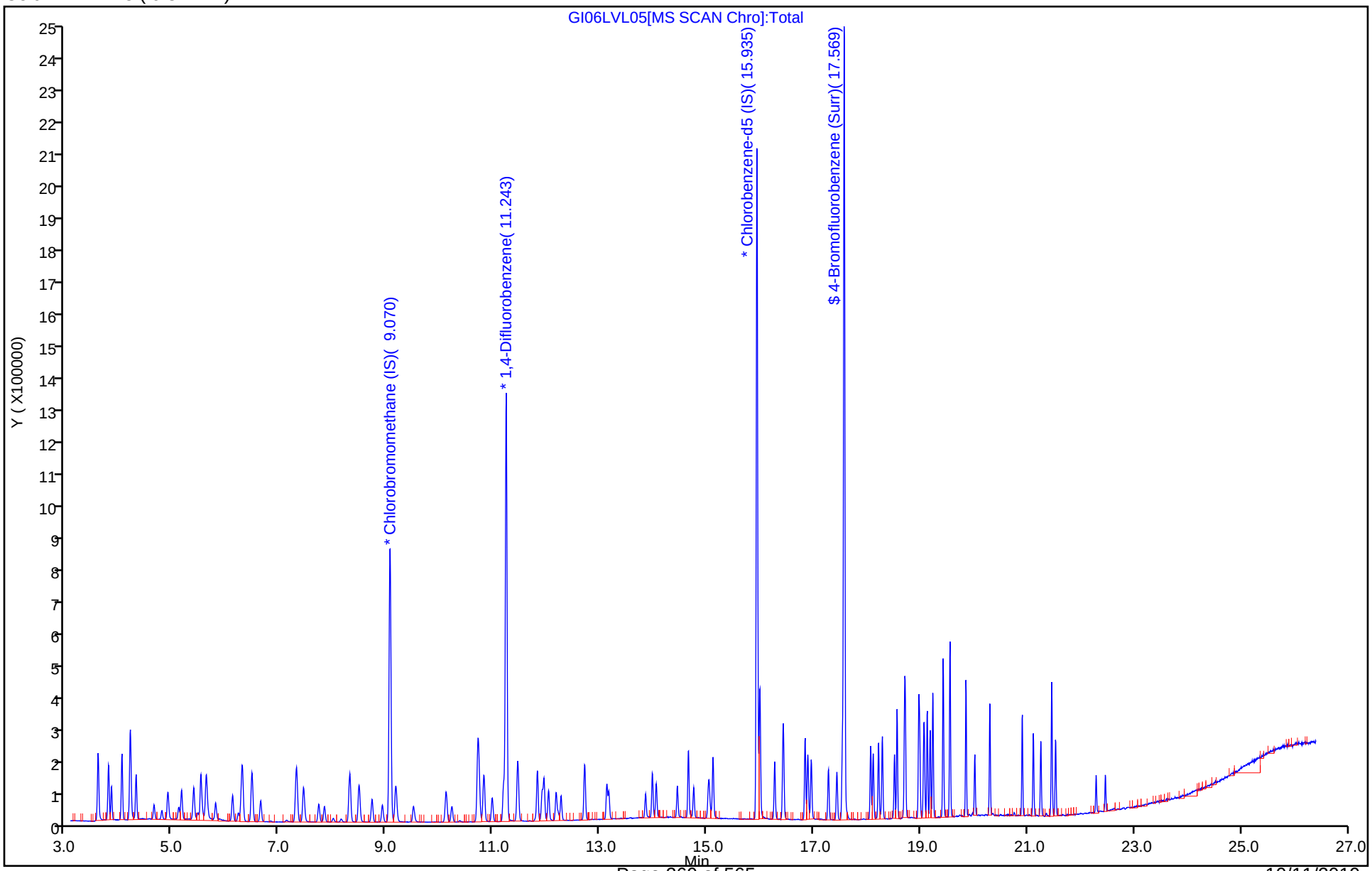
Report Date: 09-Sep-2019 18:32:33 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL05.D

Injection Date:	06-Sep-2019 18:52:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

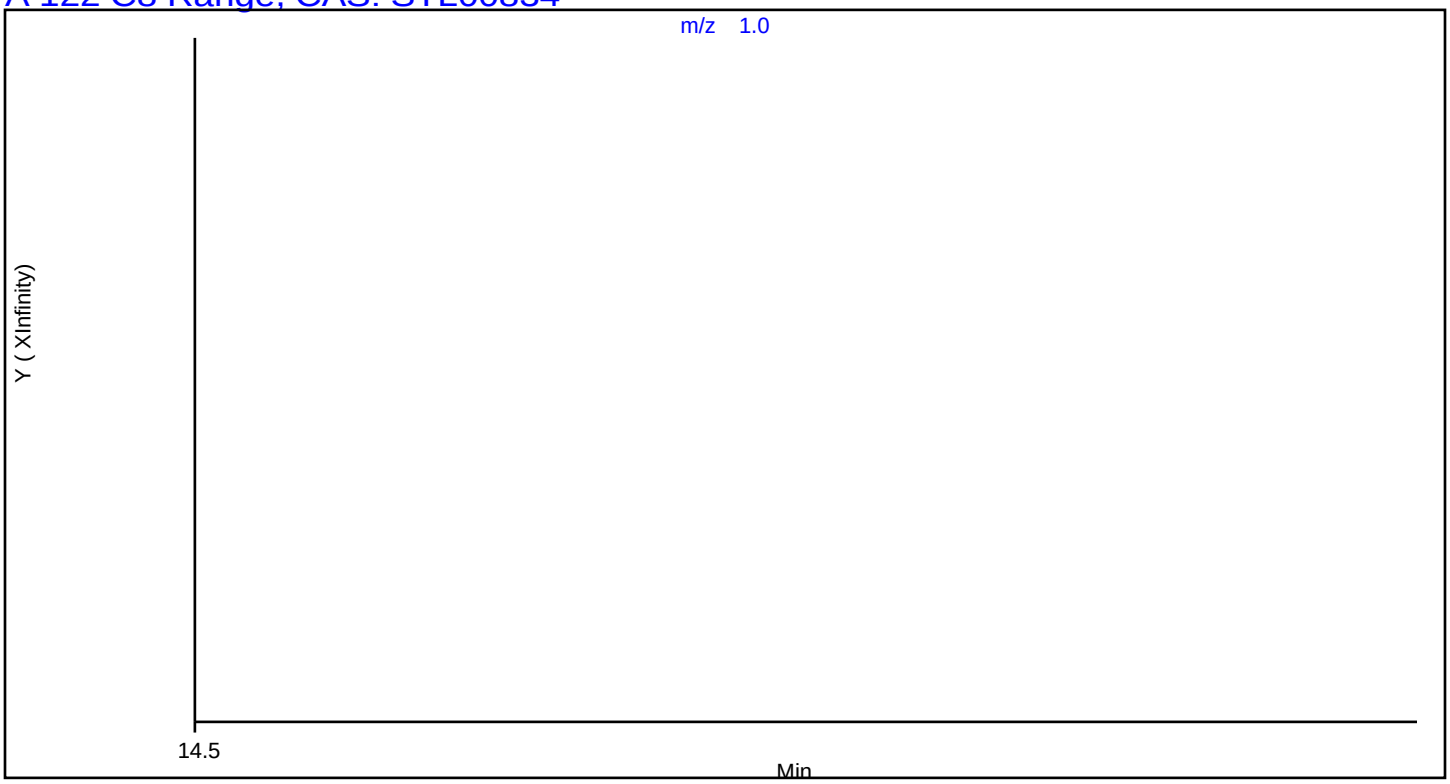


Report Date: 09-Sep-2019 18:32:33 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL05.D				
Injection Date:	06-Sep-2019 18:52:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 06-Sep-2019 19:37:30 ALS Bottle#: 4 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-012
Misc. Info.: 245273
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:38 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 07-Sep-2019 13:21:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	97	301853	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.249	11.247	0.002	94	1619074	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1416418	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	960516	4.00	3.88	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	97	143650	1.00	0.9588	
7 Propene	41	3.807	3.803	0.004	99	123636	1.00	1.25	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	225338	1.00	0.9381	
9 Chloromethane	52	4.050	4.046	0.004	98	28552	1.00	0.9564	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	92	157561	1.00	0.9685	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	260923	5.00	6.26	
12 Vinyl chloride	62	4.228	4.226	0.002	99	95598	1.00	0.9589	
13 Butane	43	4.319	4.316	0.003	86	153775	1.00	0.9622	
14 Butadiene	54	4.319	4.317	0.002	65	77166	1.00	0.9744	
15 Bromomethane	94	4.654	4.652	0.002	99	82775	1.00	0.9583	
16 Chloroethane	64	4.799	4.800	-0.001	99	48130	1.00	0.9775	
17 Ethanol	31	4.912	4.923	-0.011	95	201476	5.00	4.82	
18 Vinyl bromide	106	5.117	5.115	0.002	99	79074	1.00	0.9602	
19 2-Methylbutane	43	5.171	5.168	0.003	91	103811	1.00	0.9586	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	99	216484	1.00	0.9555	
21 Acrolein	56	5.409	5.410	-0.001	94	13361	1.00	0.7933	
22 Acetonitrile	40	5.479	5.479	0.000	99	32844	1.00	0.9612	
23 Acetone	58	5.527	5.533	-0.006	98	127481	3.00	2.99	
24 Pentane	72	5.624	5.625	-0.001	97	14781	1.00	0.9400	
25 Isopropyl alcohol	45	5.635	5.652	-0.017	96	310786	3.00	2.82	
26 Ethyl ether	31	5.802	5.807	-0.005	96	76255	1.00	0.9857	
27 1,1-Dichloroethene	96	6.126	6.125	0.001	96	92122	1.00	0.9146	
28 Acrylonitrile	53	6.234	6.233	0.001	97	65475	1.00	0.9597	
30 2-Methyl-2-propanol	59	6.277	6.293	-0.016	95	154929	1.00	0.9403	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	98	191837	1.00	0.9543	
31 Methylene Chloride	84	6.482	6.483	-0.001	98	109752	1.00	0.9590	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.498	6.499	-0.001	95	87779	1.00	0.9525	
33 Carbon disulfide	76	6.649	6.651	-0.002	99	268261	1.00	0.9680	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	98	93436	1.00	0.9342	
35 2-Methylpentane	43	7.328	7.326	0.002	95	237341	1.00	0.9667	
36 Methyl tert-butyl ether	73	7.447	7.459	-0.012	97	258286	1.00	0.9625	
37 1,1-Dichloroethane	63	7.738	7.739	-0.001	100	165511	1.00	0.9248	
38 Vinyl acetate	43	7.841	7.844	-0.003	100	226997	1.00	0.9376	
39 2-Butanone (MEK)	72	8.299	8.311	-0.012	97	42923	1.00	0.9352	
40 Hexane	56	8.320	8.321	-0.001	92	80372	1.00	0.9379	
41 Isopropyl ether	45	8.488	8.496	-0.008	98	335474	1.00	0.9700	
42 cis-1,2-Dichloroethene	96	8.736	8.736	0.000	95	94456	1.00	0.9273	
43 Ethyl acetate	43	8.924	8.933	-0.009	99	188856	1.00	0.9354	
44 Chloroform	83	9.086	9.086	0.000	96	180278	1.00	0.9220	
45 Tert-butyl ethyl ether	59	9.172	9.185	-0.013	96	307103	1.00	0.9669	
46 Tetrahydrofuran	42	9.501	9.513	-0.012	96	106648	1.00	0.9273	
47 1,1,1-Trichloroethane	97	10.122	10.122	0.000	96	203100	1.00	0.9360	
48 1,2-Dichloroethane	62	10.229	10.230	-0.001	98	114508	1.00	0.8600	
49 Cyclohexane	69	10.715	10.714	0.001	91	48661	1.00	0.9212	
50 Benzene	78	10.715	10.715	0.000	97	242551	1.00	0.8465	
51 n-Butanol	31	10.725	10.735	-0.010	66	29403	1.00	0.9165	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	97	190078	1.00	0.9768	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	92	71652	1.00	0.9607	
54 Thiophene	84	10.984	10.984	0.000	96	137749	1.00	0.9383	
55 Isooctane	57	11.464	11.463	0.001	99	520750	1.00	0.9260	
56 n-Heptane	71	11.831	11.830	0.001	92	99941	1.00	0.9313	
57 1,2-Dichloropropane	63	11.917	11.919	-0.002	90	93077	1.00	0.9304	
58 Trichloroethene	130	11.955	11.954	0.001	97	111619	1.00	0.8399	
59 Dibromomethane	93	12.036	12.039	-0.003	97	96871	1.00	0.9261	
60 Dichlorobromomethane	83	12.181	12.181	0.000	98	156287	1.00	0.9297	
61 1,4-Dioxane	88	12.208	12.221	-0.013	92	39416	1.00	0.9550	
62 Methyl methacrylate	41	12.268	12.273	-0.005	93	110169	1.00	0.9470	
63 Methylcyclohexane	83	12.715	12.715	0.000	95	188099	1.00	0.9022	
64 4-Methyl-2-pentanone (MIBK	43	13.125	13.129	-0.004	97	222266	1.00	0.9791	
65 cis-1,3-Dichloropropene	75	13.168	13.167	0.001	93	117398	1.00	0.9192	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	99	98838	1.00	0.9254	
67 Toluene	91	13.982	13.981	0.001	95	254863	1.00	0.8989	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.002	98	71302	1.00	0.8902	
69 2-Hexanone	58	14.446	14.447	-0.001	94	96613	1.00	0.9287	
70 n-Octane	85	14.656	14.657	-0.001	94	104351	1.00	0.9519	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	98	131535	1.00	0.9266	
72 Ethylene Dibromide	107	15.045	15.045	0.000	98	118644	1.00	0.8978	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	96316	1.00	0.8673	
75 Chlorobenzene	112	15.988	15.987	0.001	94	187744	1.00	0.8936	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	97	355199	1.00	1.03	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	333712	1.00	0.8653	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	530861	2.00	1.77	
80 n-Nonane	57	16.840	16.839	0.001	93	207514	1.00	0.9393	
81 Bromoform	173	16.884	16.884	0.000	96	112783	1.00	0.9496	
82 Styrene	104	16.894	16.894	0.000	98	169510	1.00	0.9232	
83 o-Xylene	91	16.954	16.955	-0.001	98	310566	1.00	0.9314	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	208917	1.00	0.9502	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	98	58337	1.00	0.9382	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.541	17.538	0.003	96	428100	1.00	0.9567	
87 N-Propylbenzene	120	18.070	18.068	0.002	99	108816	1.00	0.9169	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	97	97873	1.00	0.8952	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	98	376905	1.00	0.9085	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	94	184313	1.00	0.9465	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	90	151255	1.00	0.9199	
93 n-Decane	57	18.561	18.562	-0.001	90	257513	1.00	0.9625	
94 tert-Butylbenzene	119	18.706	18.704	0.002	93	407290	1.00	0.9791	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	95	347982	1.00	0.9523	
96 sec-Butylbenzene	105	18.970	18.968	0.002	98	530477	1.00	0.9737	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	99	198615	1.00	0.8823	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	241718	1.00	0.8944	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	94	192006	1.00	0.8699	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	97	444210	1.00	0.9535	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	98	365811	1.00	0.9538	
102 Butylcyclohexane	83	19.235	19.231	0.004	94	315943	1.00	0.9786	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	94	315362	1.00	0.9323	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	81	211768	1.00	0.9086	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	400248	1.00	0.9530	
106 Indene	116	19.553	19.554	-0.001	78	265797	1.00	0.9247	
107 Undecane	57	19.849	19.850	-0.001	97	283797	1.00	0.9585	
108 1,2-Dibromo-3-Chloropropan	157	20.017	20.018	-0.002	98	119029	1.00	0.9739	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	98	410365	1.00	0.9508	
110 Dodecane	57	20.906	20.904	0.002	97	160463	1.00	0.7612	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	94	171616	1.00	0.8960	
112 Naphthalene	128	21.251	21.252	-0.001	99	387097	1.00	0.8947	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	96	184267	1.00	0.9135	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	96	152214	1.00	0.8521	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	88291	1.00	0.8344	
116 1-Methylnaphthalene	142	22.465	22.460	0.005	99	78719	1.00	0.7297	
A 122 C8 Range	1	14.646	(14.598-14.716)		0	936876	1.00	0.9325	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.86	
S 124 Xylenes, Total	100				0		3.00	2.71	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

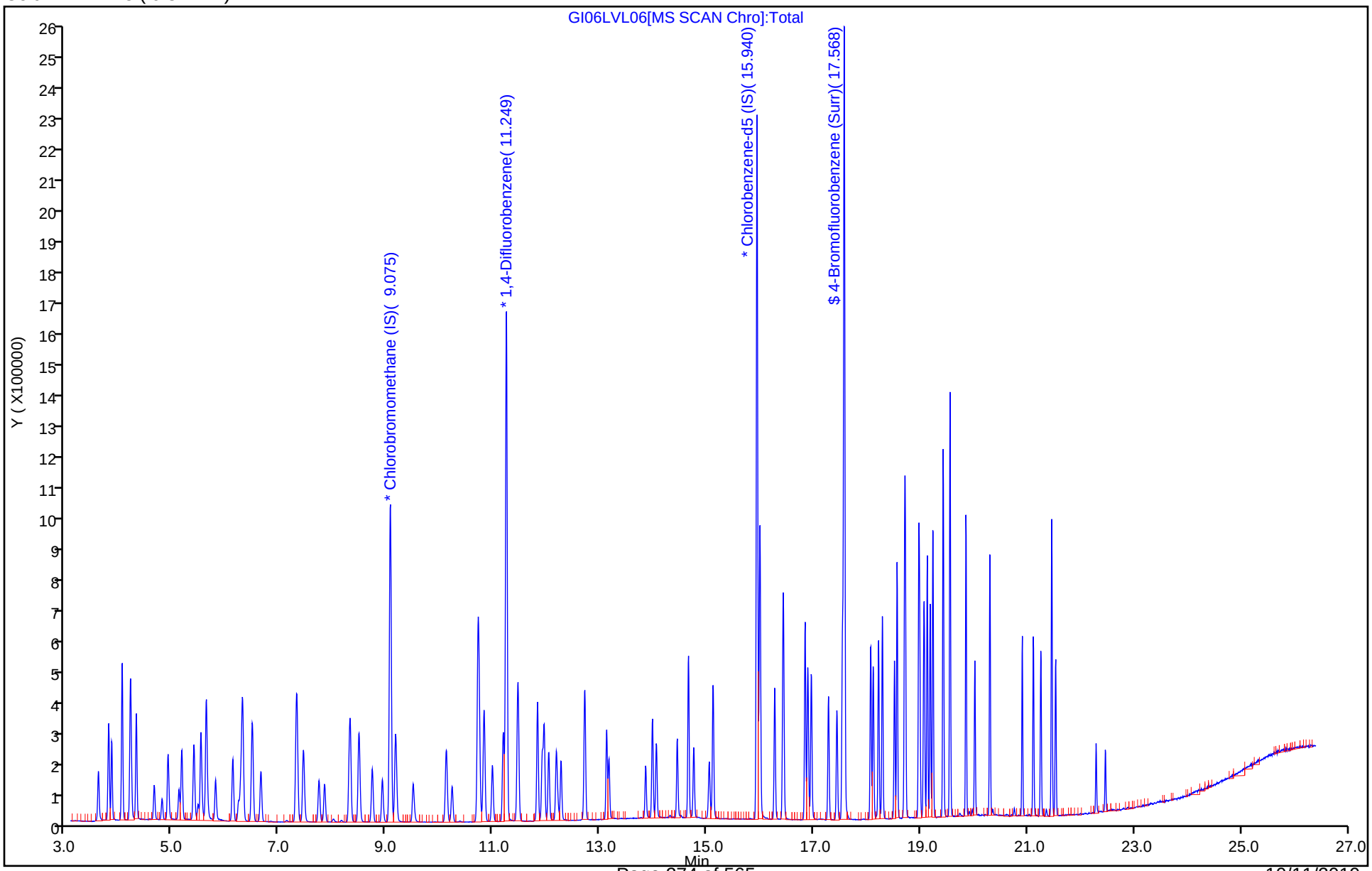
Report Date: 09-Sep-2019 18:32:40 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL06.D

Injection Date:	06-Sep-2019 19:37:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

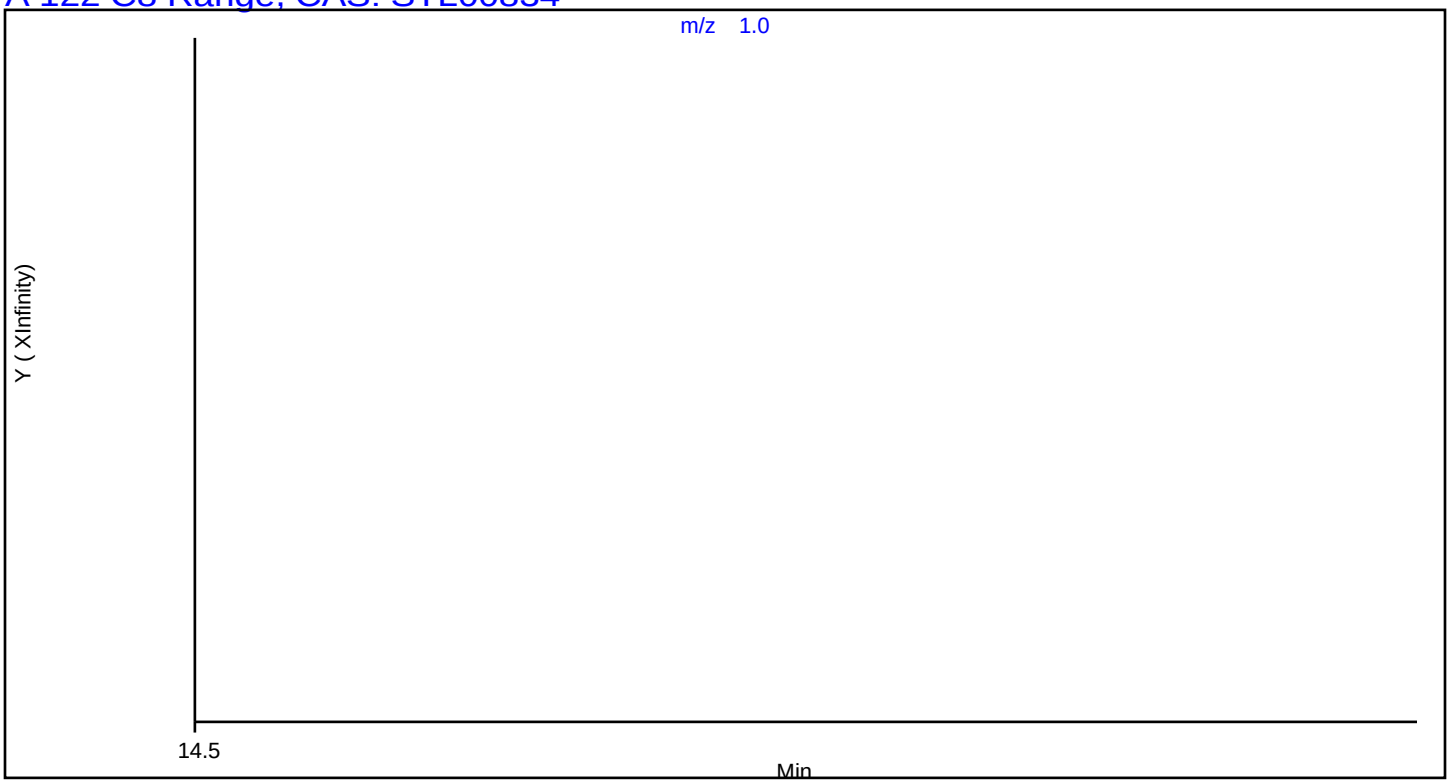


Report Date: 09-Sep-2019 18:32:40 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL06.D				
Injection Date:	06-Sep-2019 19:37:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 06-Sep-2019 20:20:30 ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-013
Misc. Info.: 245077
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:47 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: barlozhetskayaa Date: 07-Sep-2019 13:07:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.070	9.073	-0.003	96	303435	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.243	11.247	-0.004	92	1680639	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1481798	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	90	1011605	4.00	3.91	
6 Chlorodifluoromethane	51	3.785	3.791	-0.006	79	295192	2.00	1.96	
7 Propene	41	3.802	3.803	-0.001	99	206614	2.00	2.08	
8 Dichlorodifluoromethane	85	3.850	3.856	-0.006	96	470027	2.00	1.95	
9 Chloromethane	52	4.044	4.046	-0.002	58	55691	2.00	1.86	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.053	-0.003	91	322529	2.00	1.97	
11 Acetaldehyde	44	4.206	4.207	-0.001	98	425381	10.0	10.2	
12 Vinyl chloride	62	4.222	4.226	-0.004	94	191166	2.00	1.91	
13 Butane	43	4.314	4.316	-0.002	86	300883	2.00	1.87	
14 Butadiene	54	4.314	4.317	-0.003	66	155217	2.00	1.95	
15 Bromomethane	94	4.648	4.652	-0.004	99	167167	2.00	1.93	
16 Chloroethane	64	4.794	4.800	-0.006	94	94145	2.00	1.90	
17 Ethanol	31	4.902	4.923	-0.021	95	404221	10.0	9.63	
18 Vinyl bromide	106	5.112	5.115	-0.003	99	155754	2.00	1.88	
19 2-Methylbutane	43	5.166	5.168	-0.002	90	203120	2.00	1.87	
20 Trichlorofluoromethane	101	5.392	5.395	-0.003	98	430437	2.00	1.89	
21 Acrolein	56	5.403	5.410	-0.007	6	28446	2.00	1.68	
22 Acetonitrile	40	5.473	5.479	-0.006	94	61782	2.00	1.80	
23 Acetone	58	5.522	5.533	-0.011	88	225108	6.00	5.25	
24 Pentane	72	5.619	5.625	-0.006	71	29047	2.00	1.84	
25 Isopropyl alcohol	45	5.619	5.652	-0.033	84	629646	6.00	5.69	
26 Ethyl ether	31	5.791	5.807	-0.016	96	138361	2.00	1.78	
27 1,1-Dichloroethene	96	6.120	6.125	-0.005	97	190519	2.00	1.88	
28 Acrylonitrile	53	6.228	6.233	-0.005	87	132732	2.00	1.94	
30 2-Methyl-2-propanol	59	6.244	6.293	-0.049	95	332416	2.00	2.01	
29 1,1,2-Trichloro-1,2,2-trif	101	6.304	6.307	-0.003	98	386409	2.00	1.91	
31 Methylene Chloride	84	6.482	6.483	-0.001	95	193389	2.00	1.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.498	6.499	-0.001	91	182164	2.00	1.97	
33 Carbon disulfide	76	6.649	6.651	-0.002	98	541088	2.00	1.94	
34 trans-1,2-Dichloroethene	96	7.307	7.308	-0.001	99	193449	2.00	1.92	
35 2-Methylpentane	43	7.323	7.326	-0.003	95	481512	2.00	1.95	
36 Methyl tert-butyl ether	73	7.436	7.459	-0.023	97	528388	2.00	1.96	
37 1,1-Dichloroethane	63	7.738	7.739	-0.001	100	343479	2.00	1.91	
38 Vinyl acetate	43	7.835	7.844	-0.009	100	479044	2.00	1.97	
39 2-Butanone (MEK)	72	8.293	8.311	-0.018	94	89416	2.00	1.94	
40 Hexane	56	8.320	8.321	-0.001	90	164254	2.00	1.91	
41 Isopropyl ether	45	8.477	8.496	-0.019	98	680649	2.00	1.96	
42 cis-1,2-Dichloroethene	96	8.736	8.736	0.000	94	198745	2.00	1.94	
43 Ethyl acetate	43	8.919	8.933	-0.014	98	400774	2.00	1.97	
44 Chloroform	83	9.081	9.086	-0.005	64	374204	2.00	1.90	
45 Tert-butyl ethyl ether	59	9.167	9.185	-0.018	95	631822	2.00	1.98	
46 Tetrahydrofuran	42	9.491	9.513	-0.022	95	221164	2.00	1.91	
47 1,1,1-Trichloroethane	97	10.121	10.122	-0.001	87	421743	2.00	1.93	
48 1,2-Dichloroethane	62	10.224	10.230	-0.006	97	237423	2.00	1.72	
49 Cyclohexane	69	10.709	10.714	-0.005	81	100380	2.00	1.83	
50 Benzene	78	10.715	10.715	0.000	96	511309	2.00	1.72	
51 n-Butanol	31	10.698	10.735	-0.037	39	62850	2.00	1.89	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	96	398753	2.00	1.97	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	92	149491	2.00	1.93	
54 Thiophene	84	10.984	10.984	0.000	96	289287	2.00	1.90	
55 Isooctane	57	11.459	11.463	-0.004	99	1058286	2.00	1.81	
56 n-Heptane	71	11.825	11.830	-0.005	91	211680	2.00	1.90	
57 1,2-Dichloropropane	63	11.917	11.919	-0.002	88	196058	2.00	1.89	
58 Trichloroethene	130	11.955	11.954	0.001	96	237865	2.00	1.72	
59 Dibromomethane	93	12.036	12.039	-0.003	89	205342	2.00	1.89	
60 Dichlorobromomethane	83	12.181	12.181	0.000	99	334830	2.00	1.92	
61 1,4-Dioxane	88	12.198	12.221	-0.023	59	86721	2.00	2.02	
62 Methyl methacrylate	41	12.262	12.273	-0.011	83	239389	2.00	1.98	
63 Methylcyclohexane	83	12.710	12.715	-0.005	95	386954	2.00	1.79	
64 4-Methyl-2-pentanone (MIBK	43	13.114	13.129	-0.015	98	470662	2.00	2.00	
65 cis-1,3-Dichloropropene	75	13.163	13.167	-0.004	91	246436	2.00	1.86	
66 trans-1,3-Dichloropropene	75	13.853	13.855	-0.002	99	212978	2.00	1.91	
67 Toluene	91	13.977	13.981	-0.004	92	557053	2.00	1.88	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.002	95	152985	2.00	1.83	
69 2-Hexanone	58	14.435	14.447	-0.012	93	214279	2.00	1.97	
70 n-Octane	85	14.656	14.657	-0.001	94	226222	2.00	1.97	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	97	287903	2.00	1.94	
72 Ethylene Dibromide	107	15.045	15.045	0.000	95	245214	2.00	1.77	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	203783	2.00	1.75	
75 Chlorobenzene	112	15.988	15.987	0.001	65	397736	2.00	1.81	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	94	725259	2.00	2.01	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	736442	2.00	1.83	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	1165828	4.00	3.73	
80 n-Nonane	57	16.835	16.839	-0.004	93	453353	2.00	1.96	
81 Bromoform	173	16.884	16.884	0.000	92	251164	2.00	2.02	
82 Styrene	104	16.894	16.894	0.000	86	377786	2.00	1.97	
83 o-Xylene	91	16.954	16.955	-0.001	80	673428	2.00	1.93	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	448925	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	87	127670	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.536	17.538	-0.002	96	923891	2.00	1.97	
87 N-Propylbenzene	120	18.064	18.068	-0.004	95	240647	2.00	1.94	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	54	216815	2.00	1.90	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	98	824369	2.00	1.90	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	93	395833	2.00	1.94	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	87	346367	2.00	2.01	
93 n-Decane	57	18.561	18.562	-0.001	87	549946	2.00	1.96	
94 tert-Butylbenzene	119	18.701	18.704	-0.003	88	862214	2.00	1.98	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	92	745361	2.00	1.95	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	1128972	2.00	1.98	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	99	421757	2.00	1.79	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	552952	2.00	1.96	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	95	407546	2.00	1.76	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	81	946994	2.00	1.94	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	87	787432	2.00	1.96	
102 Butylcyclohexane	83	19.229	19.231	-0.002	91	668140	2.00	1.98	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	90	674925	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	80	444503	2.00	1.82	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	846629	2.00	1.93	
106 Indene	116	19.553	19.554	-0.001	79	570253	2.00	1.90	
107 Undecane	57	19.849	19.850	-0.001	97	597931	2.00	1.93	
108 1,2-Dibromo-3-Chloropropan	157	20.016	20.018	-0.002	99	257587	2.00	2.01	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	97	884994	2.00	1.96	
110 Dodecane	57	20.901	20.904	-0.003	97	447519	2.00	2.03	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	93	401853	2.00	2.01	
112 Naphthalene	128	21.251	21.252	-0.001	99	879398	2.00	1.94	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	85	421818	2.00	2.00	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	381460	2.00	2.04	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	290055	2.00	2.62	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	261428	2.00	2.32	
A 122 C8 Range	1	14.651	(14.598-14.705)		0	2027688	2.00	1.93	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.87	
S 124 Xylenes, Total	100				0		6.00	5.66	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

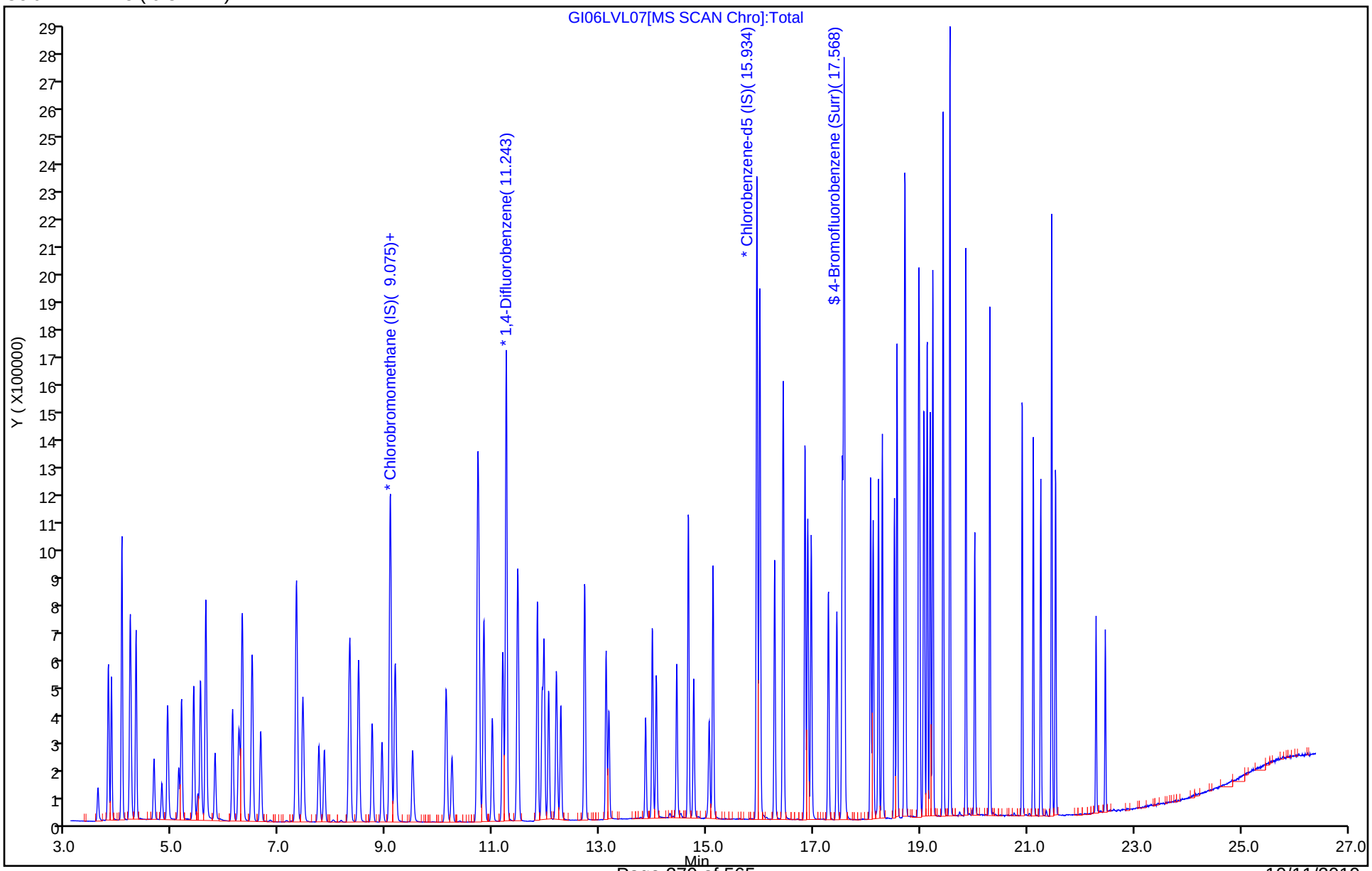
Report Date: 09-Sep-2019 18:32:49 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL07.D

Injection Date:	06-Sep-2019 20:20:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

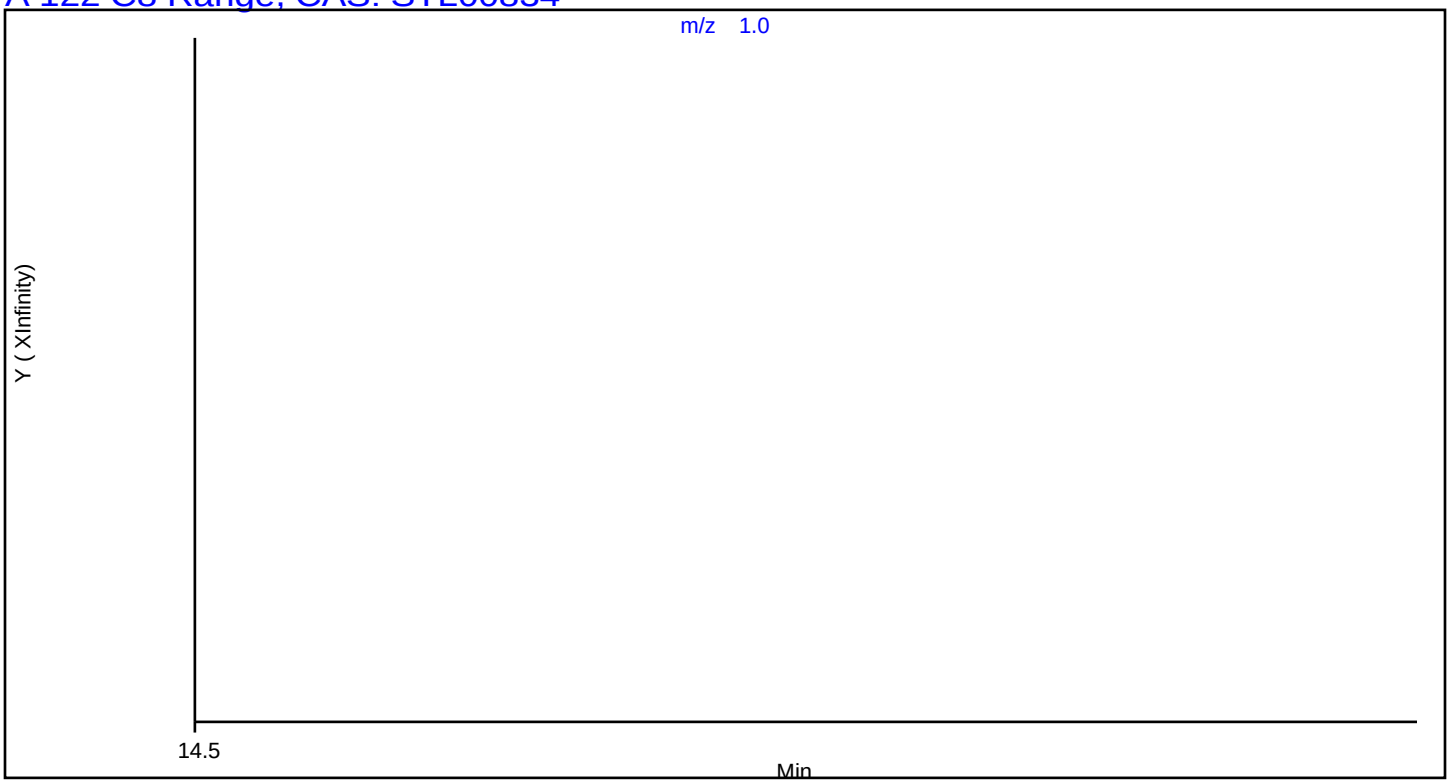


Report Date: 09-Sep-2019 18:32:49 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL07.D				
Injection Date:	06-Sep-2019 20:20:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 06-Sep-2019 21:05:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-014
Misc. Info.: 245076
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:32:55 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 09-Sep-2019 14:17:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.081	9.073	0.008	95	311933	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.249	11.247	0.001	94	1744223	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1519296	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	91	1029964	4.00	3.88	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	96	577644	4.00	3.73	
7 Propene	41	3.802	3.803	-0.001	99	367734	4.00	3.60	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	917378	4.00	3.70	
9 Chloromethane	52	4.050	4.046	0.004	98	109860	4.00	3.56	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	98	628031	4.00	3.74	
11 Acetaldehyde	44	4.206	4.207	-0.001	99	776557	20.0	18.0	
12 Vinyl chloride	62	4.228	4.226	0.002	99	381669	4.00	3.70	
13 Butane	43	4.319	4.316	0.003	85	597160	4.00	3.62	
14 Butadiene	54	4.319	4.317	0.002	67	310591	4.00	3.80	
15 Bromomethane	94	4.654	4.652	0.002	99	336438	4.00	3.77	
16 Chloroethane	64	4.799	4.800	-0.001	99	191783	4.00	3.77	
17 Ethanol	31	4.912	4.923	-0.011	95	815655	20.0	18.9	
18 Vinyl bromide	106	5.117	5.115	0.002	99	318973	4.00	3.75	
19 2-Methylbutane	43	5.171	5.168	0.003	91	414806	4.00	3.71	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	99	872098	4.00	3.72	
21 Acrolein	56	5.409	5.410	-0.001	92	61026	4.00	3.51	
22 Acetonitrile	40	5.479	5.479	0.000	99	128415	4.00	3.64	
23 Acetone	58	5.522	5.533	-0.011	98	444971	12.0	10.1	
24 Pentane	72	5.624	5.625	-0.001	95	60170	4.00	3.70	
25 Isopropyl alcohol	45	5.630	5.652	-0.022	92	1295072	12.0	11.4	
26 Ethyl ether	31	5.797	5.807	-0.010	95	302703	4.00	3.79	
27 1,1-Dichloroethene	96	6.126	6.125	0.001	97	378693	4.00	3.64	
28 Acrylonitrile	53	6.239	6.233	0.006	96	266374	4.00	3.78	
30 2-Methyl-2-propanol	59	6.250	6.293	-0.043	94	654315	4.00	3.84	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	98	770406	4.00	3.71	
31 Methylene Chloride	84	6.487	6.483	0.004	98	364239	4.00	3.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.503	6.499	0.004	95	350862	4.00	3.68	
33 Carbon disulfide	76	6.654	6.651	0.003	99	1079129	4.00	3.77	
34 trans-1,2-Dichloroethene	96	7.312	7.308	0.004	99	385433	4.00	3.73	
35 2-Methylpentane	43	7.328	7.326	0.002	95	948942	4.00	3.74	
36 Methyl tert-butyl ether	73	7.441	7.459	-0.018	97	1057831	4.00	3.81	
37 1,1-Dichloroethane	63	7.743	7.739	0.004	100	686099	4.00	3.71	
38 Vinyl acetate	43	7.846	7.844	0.002	100	986781	4.00	3.94	
39 2-Butanone (MEK)	72	8.299	8.311	-0.012	98	178747	4.00	3.77	
40 Hexane	56	8.326	8.321	0.005	92	326404	4.00	3.69	
41 Isopropyl ether	45	8.482	8.496	-0.014	98	1354993	4.00	3.79	
42 cis-1,2-Dichloroethene	96	8.741	8.736	0.005	95	393830	4.00	3.74	
43 Ethyl acetate	43	8.924	8.933	-0.009	99	823215	4.00	3.95	
44 Chloroform	83	9.092	9.086	0.006	97	736824	4.00	3.65	
45 Tert-butyl ethyl ether	59	9.167	9.185	-0.018	95	1260903	4.00	3.84	
46 Tetrahydrofuran	42	9.491	9.513	-0.022	96	452981	4.00	3.81	
47 1,1,1-Trichloroethane	97	10.127	10.122	0.005	95	838974	4.00	3.74	
48 1,2-Dichloroethane	62	10.235	10.230	0.005	98	483663	4.00	3.37	
49 Cyclohexane	69	10.715	10.714	0.001	84	198095	4.00	3.48	
50 Benzene	78	10.720	10.715	0.005	97	1032624	4.00	3.35	
51 n-Butanol	31	10.698	10.735	-0.037	77	124456	4.00	3.60	
52 Carbon tetrachloride	117	10.742	10.739	0.003	97	807930	4.00	3.85	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	91	294230	4.00	3.66	
54 Thiophene	84	10.990	10.984	0.006	96	583213	4.00	3.69	
55 Isooctane	57	11.464	11.463	0.001	99	2079393	4.00	3.43	
56 n-Heptane	71	11.831	11.830	0.001	91	429332	4.00	3.71	
57 1,2-Dichloropropane	63	11.923	11.919	0.004	90	407387	4.00	3.78	
58 Trichloroethene	130	11.955	11.954	0.001	97	465340	4.00	3.25	
59 Dibromomethane	93	12.041	12.039	0.002	97	404792	4.00	3.59	
60 Dichlorobromomethane	83	12.181	12.181	0.000	99	688080	4.00	3.80	
61 1,4-Dioxane	88	12.198	12.221	-0.023	90	177462	4.00	3.99	
62 Methyl methacrylate	41	12.268	12.273	-0.005	94	505926	4.00	4.04	
63 Methylcyclohexane	83	12.715	12.715	0.000	95	756950	4.00	3.37	
64 4-Methyl-2-pentanone (MIBK	43	13.114	13.129	-0.015	97	946677	4.00	3.87	
65 cis-1,3-Dichloropropene	75	13.168	13.167	0.001	94	500043	4.00	3.63	
66 trans-1,3-Dichloropropene	75	13.858	13.855	0.003	99	428692	4.00	3.74	
67 Toluene	91	13.982	13.981	0.001	94	1183227	4.00	3.89	
68 1,1,2-Trichloroethane	83	14.058	14.055	0.003	98	320748	4.00	3.73	
69 2-Hexanone	58	14.435	14.447	-0.012	93	439916	4.00	3.94	
70 n-Octane	85	14.656	14.657	-0.001	93	467389	4.00	3.97	
71 Chlorodibromomethane	129	14.759	14.756	0.003	98	613834	4.00	4.03	
72 Ethylene Dibromide	107	15.045	15.045	0.000	98	496917	4.00	3.51	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	417134	4.00	3.50	
75 Chlorobenzene	112	15.988	15.987	0.001	94	825756	4.00	3.66	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	95	1413041	4.00	3.82	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	1594284	4.00	3.85	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	2481444	8.00	7.73	
80 n-Nonane	57	16.840	16.839	0.001	92	941883	4.00	3.97	
81 Bromoform	173	16.884	16.884	0.000	97	559050	4.00	4.39	
82 Styrene	104	16.894	16.894	0.000	98	808080	4.00	4.10	
83 o-Xylene	91	16.954	16.955	-0.001	98	1402277	4.00	3.92	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	907606	4.00	3.85	
85 1,2,3-Trichloropropane	110	17.439	17.436	0.003	98	268190	4.00	4.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.536	17.538	-0.002	96	1917551	4.00	4.00	
87 N-Propylbenzene	120	18.070	18.068	0.002	99	508903	4.00	4.00	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	97	452416	4.00	3.86	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	98	1742670	4.00	3.92	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	93	806131	4.00	3.86	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	90	738180	4.00	4.19	
93 n-Decane	57	18.561	18.562	-0.001	90	1101191	4.00	3.84	
94 tert-Butylbenzene	119	18.706	18.704	0.002	92	1754173	4.00	3.93	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	95	1531875	4.00	3.91	
96 sec-Butylbenzene	105	18.970	18.968	0.002	98	2296570	4.00	3.93	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	99	868408	4.00	3.60	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	1096000	4.00	3.78	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	95	831745	4.00	3.51	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	97	1939991	4.00	3.88	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	98	1606346	4.00	3.90	
102 Butylcyclohexane	83	19.229	19.231	-0.002	94	1345380	4.00	3.89	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	94	1402159	4.00	3.86	
104 1,2-Dichlorobenzene	146	19.429	19.426	0.003	94	916514	4.00	3.67	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	1702027	4.00	3.78	
106 Indene	116	19.553	19.554	-0.001	81	1174363	4.00	3.81	
107 Undecane	57	19.849	19.850	-0.001	96	1158450	4.00	3.65	
108 1,2-Dibromo-3-Chloropropan	157	20.016	20.018	-0.002	99	533283	4.00	4.07	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	98	1712012	4.00	3.70	
110 Dodecane	57	20.906	20.904	0.002	97	754162	4.00	3.34	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	94	748852	4.00	3.65	
112 Naphthalene	128	21.251	21.252	-0.001	99	1536423	4.00	3.31	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	95	849561	4.00	3.93	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	95	664129	4.00	3.47	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	289145	4.00	2.55	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	99	277130	4.00	2.40	
A 122 C8 Range	1	14.651	(14.598-14.705)		0	4121729	4.00	3.82	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.47	
S 124 Xylenes, Total	100				0		12.0	11.7	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

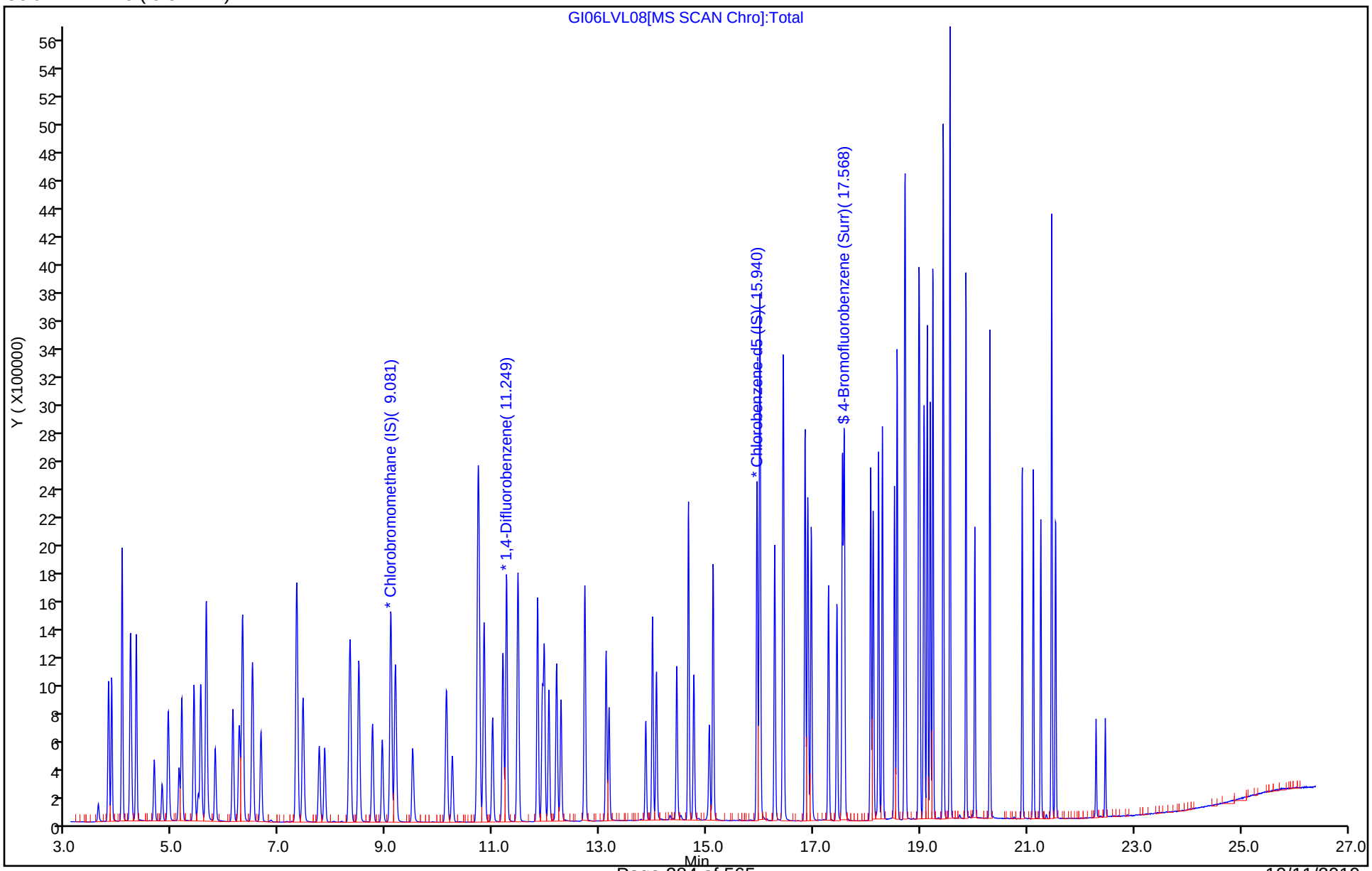
Report Date: 09-Sep-2019 18:32:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Injection Date:	06-Sep-2019 21:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

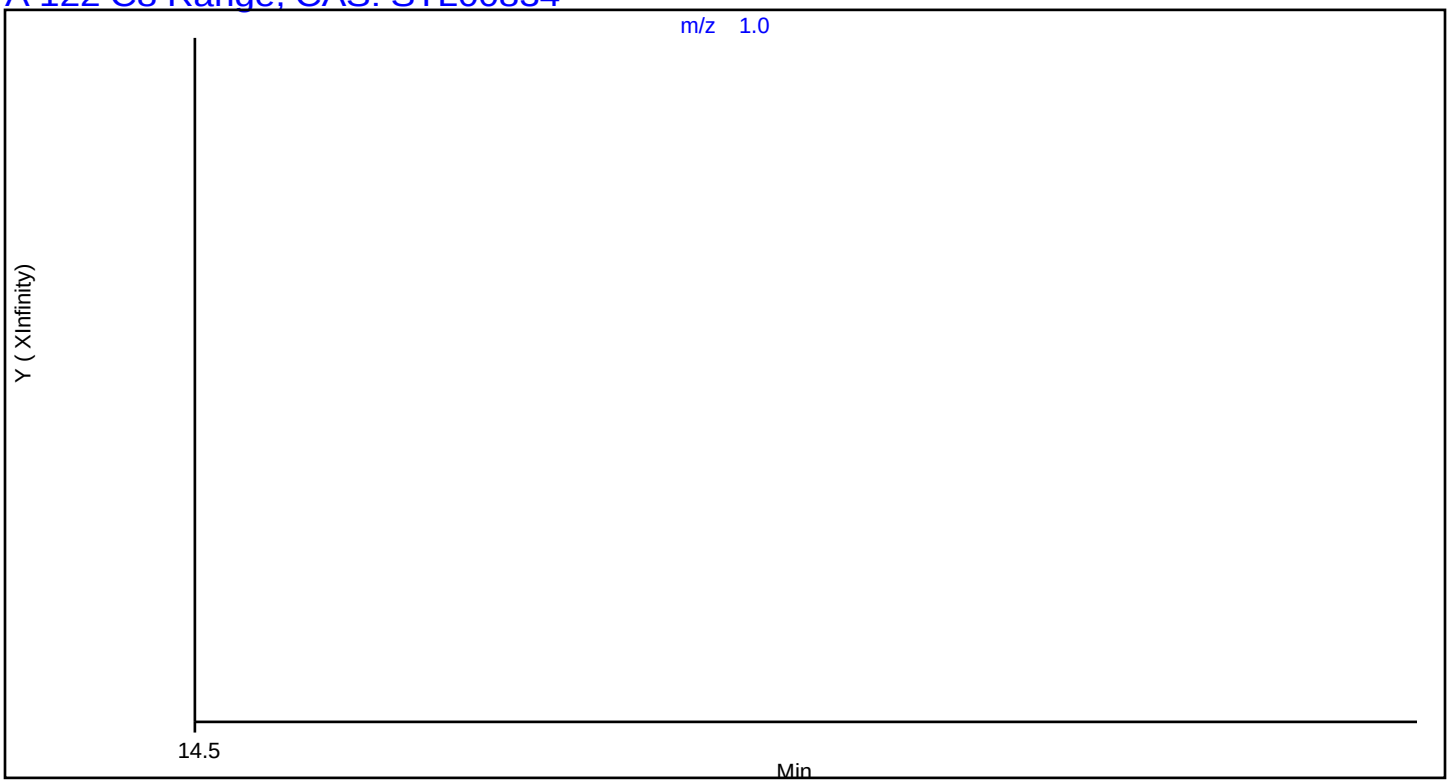


Report Date: 09-Sep-2019 18:32:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Injection Date:	06-Sep-2019 21:05:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.0172	3.3329 3.0710	2.9803 3.1411	2.9793 3.0449	3.0027 3.1333	Ave		3.0781				3.7		30.0			
Propene	+++++ 1.7598	+++++ 1.8435	+++++ 1.4469	+++++ 1.3412	+++++ 1.3091	Ave		1.5401				16.0		30.0			
Dichlorodifluoromethane	+++++ 4.6117	4.9070 4.6511	4.5525 4.7256	4.5387 4.4481	4.7083 4.4396	Ave		4.6203				3.2		30.0			
Chloromethane	+++++ 0.5095	+++++ 0.5171	0.5372 0.5017	0.5814 0.4369	0.5201 0.4147	Ave		0.5023				10.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.4182 3.1361	3.3762 3.1857	3.1070 3.1962	3.1504 2.8905	3.1681 2.7818	Ave		3.1410				6.1		30.0			
Vinyl chloride	2.0790 1.6733	1.9148 1.6945	1.6286 1.6655	1.6403 1.4961	1.6997 1.4117	Ave		1.6903				11.2		30.0			
1,3-Butadiene	+++++ 1.2870	+++++ 1.2886	1.2429 1.2732	1.2547 1.1407	1.3025 1.0818	Ave		1.2339				6.5		30.0			
Butane	+++++ 2.2973	+++++ 2.4515	2.2886 2.2285	2.3651 1.9694	2.3219 1.8140	Ave		2.2170				9.7		30.0			
Bromomethane	+++++ 1.5878	+++++ 1.5952	1.5170 1.6025	1.5574 1.4863	1.5913 1.4876	Ave		1.5531				3.2		30.0			
Chloroethane	+++++ 0.7352	0.8125 0.7465	0.8745 0.7409	0.7719 0.6943	0.7736 0.6892	Ave		0.7598				7.6		30.0			
Ethanol	0.6750 0.6123	0.6741 0.6855	0.6072 0.6933	0.5902 0.5665	0.6296 0.5133	Ave		0.6247				9.4		30.0			
Vinyl bromide	+++++ 1.5653	+++++ 1.5914	1.6609 1.5836	1.5758 1.4916	1.6044 1.4711	Ave		1.5680				3.9		30.0			
2-Methylbutane	+++++ 1.7846	+++++ 1.7977	1.9931 1.7877	1.8458 1.6661	1.8566 1.5439	Ave		1.7844				7.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 4.3997	4.7091 4.3688	4.3519 4.3813	4.4087 4.1898	4.4317 4.1180	Ave		4.3732				3.8		30.0			
Acrolein	+++++ 0.5931	+++++ 0.5729	+++++ 0.6033	0.6118 0.5511	0.5975 0.5764	Ave		0.5866				3.6		30.0			
Acetonitrile	+++++ 0.7412	+++++ 0.7970	+++++ 0.7635	0.7986 0.7045	0.7851 0.6794	Ave		0.7528				6.2		30.0			
Acetone	+++++ 0.7601	+++++ 0.9456	+++++ 0.7650	0.8896 0.7152	0.7976 0.6841	Ave		0.7939				11.8		30.0			
Pentane	+++++ 0.2227	+++++ 0.2244	0.2146 0.2125	0.2300 0.2007	0.2279 0.1906	Ave		0.2154				6.4		30.0			
Isopropyl alcohol	+++++ 2.0203	+++++ 2.2573	+++++ 2.3187	1.9212 1.9759	2.0275 +++++	QuaF		2.4754	-0.020447						0.9980		0.9900
Ethyl ether	+++++ 1.8408	+++++ 1.8255	1.7772 1.7867	1.8421 1.6795	1.8613 1.6206	Ave		1.7792				4.8		30.0			
1,1-Dichloroethene	+++++ 1.5300	1.7399 1.5384	1.5642 1.5445	1.5038 1.5038	1.5168 1.4941	Ave		1.5484				4.9		30.0			
tert-Butyl alcohol	+++++ 1.8258	+++++ 2.0966	+++++ 2.2228	1.6909 1.8250	1.7801 1.8950	Ave		1.9052				9.9		30.0			
Acrylonitrile	+++++ 1.2606	+++++ 1.2760	1.2979 1.2950	1.2358 1.2474	1.2908 1.2160	Ave		1.2649				2.4		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 3.4979	+++++ 3.4734	3.5427 3.4156	3.5908 3.2147	3.5467 3.1115	Ave		3.4242				5.0		30.0			
Methylene Chloride	+++++ 1.7549	+++++ 1.6036	+++++ 1.4906	3.4692 1.3838	2.2362 +++++	Ave		1.9897				39.4	*	30.0			
3-Chloropropene	+++++ 1.4184	+++++ 1.5844	1.4035 1.4248	1.4387 1.3193	1.4190 1.1834	Ave		1.3989				8.1		30.0			
Carbon disulfide	+++++ 4.6084	+++++ 4.6033	4.5407 4.6416	4.6121 4.4757	4.6739 4.3880	Ave		4.5680				2.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.5372	+++++ 1.5575	1.5303 1.5596	1.5501 1.5176	1.5691 1.4910	Ave		1.5390				1.7		30.0			
2-Methylpentane	+++++ 3.6882	+++++ 3.7115	3.6573 3.6564	3.6642 3.4510	3.7231 3.2529	Ave		3.6006				4.6		30.0			
Methyl tert-butyl ether	3.3498 3.1065	3.2139 3.2444	2.8656 3.3624	2.9805 3.0170	3.0449 3.1311	Ave		3.1316				5.2		30.0			
1,1-Dichloroethane	+++++ 2.9967	+++++ 3.0159	3.0135 3.0294	2.9509 2.9327	3.0800 2.9213	Ave		2.9925				1.8		30.0			
Vinyl acetate	+++++ 4.2011	+++++ 4.4554	+++++ 4.6461	+++++ 4.5047	3.9512 4.4857	Ave		4.3740				5.8		30.0			
2-Butanone (MEK)	+++++ 0.7027	+++++ 0.7541	0.7185 0.7431	0.7132 0.7135	0.7029 0.7086	Ave		0.7196				2.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2879	+++++ 1.2988	1.3275 1.2761	1.3234 1.2459	1.3049 1.2133	Ave		1.2847				3.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.6110	1.7331 1.6277	1.6371 1.6351	1.5904 1.6048	1.6371 1.5982	Ave		1.6305				2.6		30.0			
Ethyl acetate	3.7301 3.7241	3.2683 3.8306	3.2975 3.8895	3.2962 3.7773	3.5754 3.7733	Ave		3.6162				6.7		30.0			
Chloroform	+++++ 3.5050	+++++ 3.4982	3.5057 3.4922	3.5158 3.3582	3.5713 3.3356	Ave		3.4728				2.4		30.0			
Tetrahydrofuran	1.8618 1.7632	1.7085 1.8385	1.7943 1.8743	1.6158 1.8215	1.7130 1.8110	Ave		1.7802				4.5		30.0			
1,1,1-Trichloroethane	+++++ 3.1880	3.4405 3.3082	2.9826 3.3688	3.0889 3.2674	3.1540 3.3075	Ave		3.2340				4.4		30.0			
1,2-Dichloroethane	+++++ 0.4562	0.4881 0.4677	0.4356 0.4651	0.4447 0.4484	0.4648 0.4466	Ave		0.4575				3.5		30.0			
1-Butanol	+++++ 0.0980	+++++ 0.1260	+++++ 0.1331	+++++ 0.1168	0.0864 0.1189	Ave		0.1132				15.6		30.0			
Cyclohexane	+++++ 0.1340	+++++ 0.1390	0.1290 0.1343	0.1317 0.1289	0.1377 0.1245	Ave		0.1324				3.6		30.0			
Benzene	+++++ 0.8866	0.9482 0.8963	0.8848 0.8779	0.8773 0.8313	0.8874 0.7938	Ave		0.8760				4.9		30.0			
Carbon tetrachloride	0.7254 0.6592	0.6502 0.6487	0.6129 0.6835	0.6174 0.6404	0.6501 0.5761	Ave		0.6464				6.3		30.0			
2,3-Dimethylpentane	+++++ 0.1859	+++++ 0.1933	0.1829 0.1865	0.1824 0.1784	0.1926 0.1743	Ave		0.1845				3.5		30.0			
Thiophene	+++++ 0.5122	+++++ 0.5312	0.5021 0.5188	0.4927 0.5026	0.5144 0.4977	Ave		0.5090				2.5		30.0			
2,2,4-Trimethylpentane	+++++ 1.4914	+++++ 1.5186	1.4649 1.5070	1.4512 1.4587	1.4938 1.4335	Ave		1.4774				2.0		30.0			
Heptane	+++++ 0.2845	0.2841 0.2911	0.2768 0.2880	0.2724 0.2844	0.2797 0.2829	Ave		0.2827				2.0		30.0			
1,2-Dichloropropane	+++++ 0.3648	0.4080 0.3755	0.3575 0.3731	0.3458 0.3576	0.3700 0.3516	Ave		0.3671				5.0		30.0			
Trichloroethene	0.4330 0.3843	0.4298 0.3885	0.3828 0.3814	0.3789 0.3680	0.3905 0.3642	Ave		0.3901				6.0		30.0			
Dibromomethane	+++++ 0.4090	0.4434 0.4461	0.4024 0.4086	0.3952 0.3858	0.4060 0.3796	Ave		0.4085				5.6		30.0			
Bromodichloromethane	0.6965 0.6706	0.6434 0.6715	0.6048 0.6955	0.6105 0.6696	0.6613 0.6608	Ave		0.6585				4.7		30.0			
1,4-Dioxane	+++++ 0.1204	+++++ 0.1382	+++++ 0.1436	0.1087 0.1258	0.1236 0.1187	Ave		0.1256				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4084	+++++ 0.4252	+++++ 0.4278	0.3201 0.4112	0.3765 0.4020	Ave		0.3959				9.5		30.0			
Methylcyclohexane	+++++ 0.5059	0.5295 0.5272	0.5045 0.5174	0.4863 0.5093	0.5040 0.5092	Ave		0.5104				2.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7584	+++++ 0.8024	+++++ 0.8096	0.6229 0.7894	0.7047 0.7803	Ave		0.7525				8.9		30.0			
cis-1,3-Dichloropropene	0.4938 0.4900	0.4244 0.5253	0.4134 0.5302	0.4268 0.5144	0.4607 0.5167	Ave		0.4796				9.4		30.0			
trans-1,3-Dichloropropene	0.4826 0.5169	0.4296 0.5665	0.4145 0.5837	0.4208 0.5681	0.4741 0.5704	Ave		0.5027				13.4		30.0			
Toluene	+++++ 1.2466	+++++ 1.2829	1.2361 1.2497	1.2443 1.1769	1.2548 1.1303	Ave		1.2277				4.0		30.0			
1,1,2-Trichloroethane	+++++ 0.4192	0.4473 0.4282	0.4072 0.4130	0.4094 0.3830	0.4239 0.3665	Ave		0.4109				5.9		30.0			
2-Hexanone	+++++ 0.3892	+++++ 0.4381	+++++ 0.4545	0.2604 0.4483	0.3369 0.4507	Ave		0.3969				18.6		30.0			
C8 Range	+++++ 3.0631	+++++ 3.1739	+++++ 3.0954	2.9514 2.9465	3.0471 2.8165	Ave		3.0134				3.9		30.0			
Octane	+++++ 0.3654	0.3736 0.3727	0.3377 0.3644	0.3480 0.3465	0.3646 0.3298	Ave		0.3559				4.4		30.0			
Dibromochloromethane	0.7894 0.8229	0.7430 0.7681	0.6761 0.8772	0.7081 0.8215	0.7807 0.7877	Ave		0.7775				7.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.7500	0.7269 0.7792	0.6893 0.7749	0.7002 0.7366	0.7469 0.7223	Ave		0.7363				4.1		30.0			
Tetrachloroethene	0.5729 0.4740	0.5256 0.4766	0.4809 0.4613	0.4773 0.4229	0.4827 0.4025	Ave		0.4777				10.0		30.0			
Chlorobenzene	+++++ 0.9810	1.0564 0.9984	0.9636 0.9835	0.9603 0.9249	0.9920 0.8857	Ave		0.9718				4.9		30.0			
Ethylbenzene	+++++ 1.5990	1.6358 1.6376	1.5004 1.6051	1.5339 1.5147	1.5973 1.4395	Ave		1.5626				4.4		30.0			
m-Xylene & p-Xylene	+++++ 1.2598	1.2874 1.2666	1.1693 1.2285	1.1817 1.1113	1.2482 1.0009	Ave		1.1948				7.7		30.0			
Nonane	+++++ 0.8648	0.8083 0.8877	0.7553 0.8669	0.8082 0.8004	0.8349 0.7227	Ave		0.8166				6.6		30.0			
Bromoform	+++++ 0.8489	+++++ 0.6423	0.6164 1.0093	0.6458 0.9575	0.7604 0.8852	Ave		0.7957				19.1		30.0			
Styrene	0.8596 0.8933	0.7755 0.9308	0.7416 0.9020	0.7917 0.8330	0.8506 0.7606	Ave		0.8339				7.7		30.0			
o-Xylene	+++++ 1.2896	1.3529 1.2981	1.2586 1.2221	1.2752 1.1179	1.3026 1.0495	Ave		1.2407				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 1.0587	0.9899 1.0934	0.9556 1.0657	0.9836 0.9954	1.0400 0.9462	Ave		1.0143				5.1		30.0			
1,2,3-Trichloropropane	+++++ 0.2491	0.2462 0.2584	0.2346 0.2540	0.2456 0.2408	0.2508 0.2378	Ave		0.2464				3.1		30.0			
Isopropylbenzene	+++++ 1.7162	+++++ 1.7678	1.6821 1.7185	1.6927 1.6002	1.7340 1.5086	Ave		1.6775				5.0		30.0			
Propylbenzene	0.4347 0.4619	0.4102 0.4772	0.4030 0.4752	0.4233 0.4643	0.4530 0.4554	Ave		0.4458				5.9		30.0			
2-Chlorotoluene	+++++ 0.4363	0.4437 0.4432	0.4185 0.4295	0.4210 0.4046	0.4401 0.3903	Ave		0.4252				4.3		30.0			
4-Ethyltoluene	1.6880 1.7410	1.5113 1.7948	1.5224 1.7592	1.5702 1.6671	1.6964 1.5749	Ave		1.6525				6.1		30.0			
1,3,5-Trimethylbenzene	0.7463 0.6997	0.7001 0.7088	0.6435 0.6882	0.6651 0.6528	0.6963 0.6212	Ave		0.6822				5.4		30.0			
Alpha Methyl Styrene	+++++ 0.6927	+++++ 0.7400	+++++ 0.7406	0.5529 0.7395	0.6410 0.7321	Ave		0.6913				10.3		30.0			
Decane	1.0263 1.1328	0.9925 1.1438	0.9720 1.1070	1.0486 1.0122	1.1246 0.9069	Ave		1.0467				7.6		30.0			
tert-Butylbenzene	+++++ 1.5567	1.5733 1.5615	1.4947 1.5280	1.4966 1.4039	1.5632 1.2584	Ave		1.4929				6.9		30.0			
1,2,4-Trimethylbenzene	1.5485 1.5154	1.4013 1.5290	1.3576 1.4667	1.4373 1.3401	1.5154 1.1954	Ave		1.4307				7.7		30.0			
sec-Butylbenzene	+++++ 2.2203	2.1285 2.2636	2.0519 2.2124	2.1292 2.0220	2.2147 1.7583	Ave		2.1112				7.4		30.0			
1,3-Dichlorobenzene	0.9870 0.9417	0.8209 0.9942	0.8151 0.9853	0.8378 0.9482	0.8993 0.8765	Ave		0.9106				7.7		30.0			
Benzyl chloride	+++++ 0.6750	+++++ 0.9083	+++++ 1.0157	0.3413 1.0431	0.4678 1.0687	Lin1	-0.179	1.0611							0.9970		0.9900
1,4-Dichlorobenzene	0.8528 0.8672	0.7355 0.9357	0.7143 0.9317	0.7371 0.9279	0.8017 0.8858	Ave		0.8390				10.3		30.0			
4-Isopropyltoluene	1.6732 1.7634	1.5788 1.7827	1.5237 1.7168	1.6666 1.5732	1.7407 1.4370	Ave		1.6456				6.9		30.0			
1,2,3-Trimethylbenzene	1.5682 1.5249	1.4477 1.6370	1.4314 1.4514	1.4734 1.3433	1.5359 1.2699	Ave		1.4683				7.3		30.0			
Indane	1.3984 1.3718	1.2388 1.5071	1.1958 1.3693	1.2762 1.2569	1.3409 1.0901	Ave		1.3045				9.0		30.0			
1,2-Dichlorobenzene	1.0229 0.9674	0.9032 1.0083	0.8390 0.9934	0.8953 0.9436	0.9329 0.8531	Ave		0.9359				6.8		30.0			
Indene	+++++ 1.1131	+++++ 1.2922	+++++ 1.1661	0.9242 1.1190	1.0289 0.9954	Ave		1.0913				11.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	+++++ 1.7750	+++++ 1.8214	+++++ 1.7404	1.5190 1.5414	1.6954 1.3078	Ave		1.6286				11.2		30.0			
Undecane	+++++ 1.2523	+++++ 1.3019	+++++ 1.2681	+++++ 1.1808	1.1821 1.0361	Ave		1.2036				7.9		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4548	+++++ 0.5219	0.2470 0.5574	0.2920 0.5742	0.3689 0.5999	Ave		0.4520				29.8		30.0			
1,2,4,5-Tetramethylbenzene	1.4947 1.6528	1.3551 1.8976	1.3171 1.6339	1.4553 1.5970	1.5771 1.5053	Ave		1.5486				10.7		30.0			
Dodecane	+++++ 1.1426	+++++ 1.2800	+++++ 1.2179	+++++ 1.1895	1.0035 1.1089	Ave		1.1571				8.3		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4936	+++++ 0.6412	+++++ 0.5925	0.3245 +++++	0.3747 +++++	Lin1	-0.062	0.6164							0.9930		0.9900
Naphthalene	+++++ 1.2657	0.8539 1.5485	0.7864 1.1243	0.8403 1.5972	0.9947 1.7325	QuaF		1.2867	0.0282762						0.9970		0.9900
Hexachlorobutadiene	1.0036 0.9352	0.9400 0.9880	0.8759 1.0125	0.9025 0.9211	0.9104 0.7987	Ave		0.9288				6.9		30.0			
1,2,3-Trichlorobenzene	+++++ 0.6182	0.5119 0.7308	0.4646 0.6216	0.4723 0.7651	0.5214 0.8265	Ave		0.6147				21.8		30.0			
2-Methylnaphthalene	0.3064 0.2492	0.2263 0.3232	0.2107 +++++	0.2007 +++++	0.2105 +++++	Ave		0.2467				20.0		50.0			
1-Methylnaphthalene	0.3565 0.3623	0.3124 0.4233	0.3090 +++++	0.2928 +++++	0.3112 +++++	Ave		0.3382				13.5		50.0			
4-Bromofluorobenzene (Surr)	0.6171 0.6569	0.6222 0.6579	0.6294 0.6443	0.6357 0.6140	0.6466 0.5855	Ave		0.6310				3.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 258080	12327 526371	22114 1051947	43196 2300206	103822 4338806	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 150527	+++++ 315975	+++++ 484559	+++++ 1013193	+++++ 1812795	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 394462	18149 797184	33779 1582580	65805 3360254	162795 6147725	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 43576	+++++ 88624	3986 168019	8429 330079	17983 574215	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	6751 268246	12487 546017	23054 1070401	45676 2183541	109541 3851999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	4106 143127	7082 290432	12084 557770	23782 1130201	58771 1954790	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 110081	+++++ 220869	9222 426377	18191 861724	45035 1498007	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 196500	+++++ 420180	16981 746307	34290 1487756	80282 2511969	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 135817	+++++ 273421	11256 536658	22580 1122793	55023 2059946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 62882	3005 127950	6489 248124	11191 524474	26750 954347	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	6666 261855	12467 587431	22527 1160909	42784 2139925	108838 3554027	0.100 5.00	0.200 10.0	0.400 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 133892	+++++ 272770	12324 530342	22847 1126793	55473 2037031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 152650	+++++ 308121	14789 598691	26761 1258620	64196 2137876	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 376331	17417 748808	32291 1467266	63919 3165059	153233 5702329	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 50728	+++++ 98189	+++++ 202039	8870 416349	20661 798221	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 63400	+++++ 136603	+++++ 255701	11579 532165	27147 940740	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 195039	+++++ 486234	+++++ 768541	38693 1620868	82734 2841852	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 19047	+++++ 38454	1592 71176	3334 151611	7881 263861	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	QuaF	+++++ 518417	+++++ 1160710	+++++ 2329523	83562 4478030	210316 +++++	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 +++++
Ethyl ether	CBM	Ave	+++++ 157454	+++++ 312892	13187 598345	26707 1268732	64358 2244138	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 130868	6435 263675	11606 517241	21803 1135983	52447 2068932	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 156169	+++++ 359357	+++++ 744416	24516 1378689	61549 2624089	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 107825	+++++ 218710	9630 433673	17917 942315	44632 1683899	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 299195	+++++ 595343	26287 1143879	52062 2428459	122633 4308645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 150109	+++++ 274860	+++++ 499185	50298 1045351	77321 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 121319	+++++ 271563	10414 477175	20859 996619	49063 1638711	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 394178	+++++ 788999	33692 1554444	66869 3381044	161607 6076214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 131483	+++++ 266946	11355 522287	22474 1146408	54254 2064580	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 315473	+++++ 636153	27137 1224511	53125 2606951	128733 4504406	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	6616 265718	11887 556080	21263 1126040	43213 2279152	105281 4335737	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 256323	+++++ 516914	22360 1014519	42784 2215457	106496 4045169	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 359344	+++++ 763645	+++++ 1555969	+++++ 3402957	136617 6211522	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 60107	+++++ 129259	5331 248875	10341 538970	24304 981260	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 110164	+++++ 222617	9850 427376	19188 941205	45120 1680027	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 137797	6410 278981	12147 547573	23059 1212279	56606 2213145	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

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RESPONSE AND CONCENTRATION

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SDG No.:

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Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

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			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	7367 318538	12088 656558	24467 1302569	47790 2853515	123623 5225034	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 299799	+++++ 599583	26012 1169537	50974 2536881	123484 4618898	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	3677 150812	6319 315123	13314 627682	23427 1376011	59229 2507772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 272684	12725 567012	22131 1128184	44785 2468268	109055 4580060	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 204250	9652 412948	17098 809776	34172 1764440	84489 3192664	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 43891	+++++ 111292	+++++ 231779	+++++ 459733	15699 850224	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 59975	+++++ 122723	5064 233772	10125 507432	25031 890031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 396929	18751 791442	34726 1528423	67419 3271364	161306 5674454	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	7608 295125	12857 572784	24054 1189938	47444 2520053	118158 4117865	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 83232	+++++ 170678	7180 324669	14015 702072	35003 1245859	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 229319	+++++ 469033	19708 903327	37862 1977770	93498 3557854	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 667738	+++++ 1340921	57497 2623805	111529 5740323	271516 10246881	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 127392	5618 257052	10865 501419	20936 1119365	50832 2021836	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 163324	8069 331588	14031 649565	26576 1407448	67250 2512982	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4541 172044	8499 343047	15023 664068	29121 1448188	70988 2603661	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 183116	8769 393896	15792 711391	30368 1518384	73801 2713344	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	7305 300223	12723 592955	23738 1210924	46919 2635124	120207 4723400	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 53916	+++++ 122001	+++++ 249976	8350 495003	22473 848749	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 182847	+++++ 375501	+++++ 744857	24601 1618228	68426 2873694	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 226504	10471 465542	19799 900896	37370 2004192	91601 3640003	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 339545	+++++ 708531	+++++ 1409528	47870 3106672	128098 5577877	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

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RESPONSE AND CONCENTRATION

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SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	5179 219375	8393 463810	16224 923104	32800 2024214	83737 3693129	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	4016 188190	6769 413927	13027 859037	25754 1960990	69361 3680539	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453859	+++++ 937343	38844 1839181	76160 4062800	183594 7293412	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 152636	7048 312845	12797 607746	25056 1322300	62020 2364559	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 141717	+++++ 320107	+++++ 668835	15937 1547506	49289 2908225	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1371382	+++++ 2802607	+++++ 5389224	226816 11595308	553854 20132590	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 133039	5887 272318	10613 536311	21302 1196166	53349 2127711	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	6570 299597	11706 561197	21246 1290979	43336 2835933	114222 5082414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 273072	11452 569336	21661 1140314	42855 2542909	109287 4660782	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4768 172587	8281 348207	15113 678939	29210 1459978	70628 2596812	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 357164	16645 729491	30282 1447415	58773 3192681	145143 5715223	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 582181	25773 1196436	47150 2362105	93879 5228794	233703 9288196	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 917354	40569 1850763	73493 3615792	144646 7672406	365259 12916434	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 314861	12735 648556	23735 1275706	49467 2762958	122153 4662972	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 309075	+++++ 469293	19371 1485352	39523 3305524	111253 5711552	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	7154 325232	12219 680077	23305 1327357	48453 2875566	124454 4907648	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 469536	21316 948407	39551 1798567	78046 3859106	190593 6772116	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 385450	15597 798854	30032 1568376	60200 3436226	152170 6105282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 90692	3879 188785	7373 373834	15033 831137	36695 1534416	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 624842	+++++ 1291576	52862 2528962	103604 5524128	253709 9733848	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	3618 168177	6463 348652	12666 699326	25908 1602900	66273 2938574	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

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SDG No.:

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			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 158859	6991 323777	13152 632133	25767 1396566	64387 2518282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	14048 633870	23811 1311330	47844 2589001	96101 5754889	248207 10161779	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	6211 254742	11031 517860	20221 1012751	40705 2253557	101880 4008116	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 252208	+++++ 540626	+++++ 1089948	33843 2552865	93782 4723728	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	8541 412455	15638 835714	30546 1629098	64178 3494119	164541 5851784	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 566776	24788 1140875	46971 2248680	91598 4846271	228719 8120000	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	12887 551741	22079 1117140	42663 2158520	87972 4626128	221725 7713396	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 808374	33536 1653844	64482 3255913	130315 6980187	324044 11345386	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	8214 342858	12934 726374	25616 1449949	51280 3273154	131580 5655538	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Lin1	+++++ 245776	+++++ 663636	+++++ 1494791	20890 3600699	68451 6895733	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7097 315726	11588 683630	22449 1371140	45113 3203334	117301 5715506	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	13925 642036	24875 1302455	47883 2526501	102001 5430794	254695 9272439	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	13051 555204	22809 1196043	44983 2135883	90182 4637042	224726 8194003	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	11638 499443	19518 1101095	37579 2015184	78111 4338946	196198 7033477	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8513 352213	14230 736659	26365 1461945	54798 3257369	136502 5504414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 405284	+++++ 944116	+++++ 1716157	56568 3862763	150544 6422664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 646251	+++++ 1330772	+++++ 2561258	92968 5320956	248059 8438576	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 455960	+++++ 951215	+++++ 1866246	+++++ 4076087	172958 6685309	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 165576	+++++ 381341	7761 820334	17870 1982271	53981 3870648	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12439 601768	21351 1386418	41391 2404482	89073 5512969	230745 9712688	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 416010	+++++ 935208	+++++ 1792287	+++++ 4106299	146819 7155088	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

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1,2,4-Trichlorobenzene	CBZd5	Lin1	+++++ 179722	+++++ 468499	+++++ 872017	19861 +++++	54822 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 +++++	0.400 +++++
Naphthalene	CBZd5	QuaF	+++++ 460821	13454 1131343	24712 1654527	51432 5513643	145539 11178875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	8352 340491	14811 721866	27526 1489988	55239 3179700	133209 5153691	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 225092	8066 533916	14601 914779	28906 2641091	76295 5332766	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	2550 90748	3565 236143	6623 +++++	12284 +++++	30794 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	2967 131930	4923 309255	9711 +++++	17919 +++++	45529 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1027190 956665	980386 961381	989017 948130	972701 1059784	946075 944497	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
QuaF = Quadratic ISTD forced zero

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	8.3						50				
Propene	+++++	+++++	+++++	+++++	+++++	14.3						50
Dichlorodifluoromethane	+++++	6.2						50				
Chloromethane	+++++	+++++	6.9						50			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	8.8						50					
Vinyl chloride	23.0						50					
1,3-Butadiene	+++++	+++++	0.7						50			
Butane	+++++	+++++	3.2						50			
Bromomethane	+++++	+++++	-2.3						50			
Chloroethane	+++++	6.9						50				
Ethanol	8.1						50					
Vinyl bromide	+++++	+++++	5.9						50			
2-Methylbutane	+++++	+++++	11.7						50			
Trichlorofluoromethane	+++++	7.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	4.3						50		
Acetonitrile	+++++	+++++	+++++	6.1						50		
Acetone	+++++	+++++	+++++	12.1						80		
Pentane	+++++	+++++	-0.4						50			
Isopropyl alcohol	+++++	+++++	+++++	-22.2 +++++						50		
Ethyl ether	+++++	+++++	-0.1						50			
1,1-Dichloroethene	+++++	12.4						50				
tert-Butyl alcohol	+++++	+++++	+++++	-11.2						50		
Acrylonitrile	+++++	+++++	2.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	3.5						50			
Methylene Chloride	+++++	+++++	+++++	74.4 +++++						80		
3-Chloropropene	+++++	+++++	0.3						50			
Carbon disulfide	+++++	+++++	-0.6						50			
trans-1,2-Dichloroethene	+++++	+++++	-0.6						50			
2-Methylpentane	+++++	+++++	1.6						50			
Methyl tert-butyl ether	7.0						50					
1,1-Dichloroethane	+++++	+++++	0.7						50			
Vinyl acetate	+++++	+++++	+++++	+++++	-9.7						50	
2-Butanone (MEK)	+++++	+++++	-0.2						50			
Hexane	+++++	+++++	3.3						50			
cis-1,2-Dichloroethene	+++++	6.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	3.1						50					
Chloroform	+++++	+++++	0.9						50			
Tetrahydrofuran	4.6						50					
1,1,1-Trichloroethane	+++++	6.4						50				
1,2-Dichloroethane	+++++	6.7						50				
1-Butanol	+++++	+++++	+++++	+++++	-23.7						50	
Cyclohexane	+++++	+++++	-2.5						50			
Benzene	+++++	8.3						50				
Carbon tetrachloride	12.2						50					
2,3-Dimethylpentane	+++++	+++++	-0.9						50			
Thiophene	+++++	+++++	-1.3						50			
2,2,4-Trimethylpentane	+++++	+++++	-0.8						50			
Heptane	+++++	0.5						50				
1,2-Dichloropropane	+++++	11.2						50				
Trichloroethene	11.0						50					
Dibromomethane	+++++	8.6						50				
Bromodichloromethane	5.8						50					
1,4-Dioxane	+++++	+++++	+++++	-13.5						50		
Methyl methacrylate	+++++	+++++	+++++	-19.1						50		
Methylcyclohexane	+++++	3.8						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	-17.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	3.0						50					
trans-1,3-Dichloropropene	-4.0						50					
Toluene	+++++	+++++	0.7						50			
1,1,2-Trichloroethane	+++++	8.9						50				
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	5.0						50				
Dibromochloromethane	1.5						50					
1,2-Dibromoethane (EDB)	+++++	-1.3						50				
Tetrachloroethene	19.9						50					
Chlorobenzene	+++++	8.7						50				
Ethylbenzene	+++++	4.7						50				
m-Xylene & p-Xylene	+++++	7.7						50				
Nonane	+++++	-1.0						50				
Bromoform	+++++	+++++	-22.5						50			
Styrene	3.1						50					
o-Xylene	+++++	9.0						50				
1,1,2,2-Tetrachloroethane	+++++	-2.4						50				
1,2,3-Trichloropropane	+++++	-0.1						50				
Isopropylbenzene	+++++	+++++	0.3						50			
Propylbenzene	-2.5						50					
2-Chlorotoluene	+++++	4.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	2.1						50					
1,3,5-Trimethylbenzene	9.4						50					
Alpha Methyl Styrene	+++++	+++++	+++++	-20.0						50		
Decane	-1.9						50					
tert-Butylbenzene	+++++	5.4						50				
1,2,4-Trimethylbenzene	8.2						50					
sec-Butylbenzene	+++++	0.8						50				
1,3-Dichlorobenzene	8.4						50					
Benzyl chloride	+++++	+++++	+++++	37.3						50		
1,4-Dichlorobenzene	1.6						50					
4-Isopropyltoluene	1.7						50					
1,2,3-Trimethylbenzene	6.8						50					
Indane	7.2						50					
1,2-Dichlorobenzene	9.3						50					
Indene	+++++	+++++	+++++	-15.3						50		
Butylbenzene	+++++	+++++	+++++	-6.7						50		
Undecane	+++++	+++++	+++++	+++++	-1.8						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	-45.4						50			
1,2,4,5-Tetramethylbenzene	-3.5						50					
Dodecane	+++++	+++++	+++++	+++++	-13.3						50	
1,2,4-Trichlorobenzene	+++++	+++++	+++++ +++++	15.9 +++++						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	-33.7						80				
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-16.7						50				
2-Methylnaphthalene	24.2	+++++	+++++	+++++			80					
1-Methylnaphthalene	5.4	+++++	+++++	+++++			80					

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL9.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Sep-2019 22:09:30 ALS Bottle#: 14 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-003
Misc. Info.: 245075
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:02 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 08:15:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.608	0.011	97	377714	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.821	10.815	0.006	95	1967648	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	87	1726035	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.245	17.242	0.003	97	1059784	4.00	3.89	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	96	2300206	8.00	7.91	
7 Propene	41	3.539	3.540	-0.001	99	1013193	8.00	6.97	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	3360254	8.00	7.70	
9 Chloromethane	52	3.766	3.766	0.000	98	330079	8.00	6.96	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	90	2183541	8.00	7.36	
11 Acetaldehyde	44	3.916	3.918	-0.002	98	2049746	40.0	35.6	
12 Vinyl chloride	62	3.931	3.932	-0.001	99	1130201	8.00	7.08	
14 Butane	43	4.014	4.016	-0.002	84	1487756	8.00	7.11	
13 Butadiene	54	4.014	4.016	-0.002	71	861724	8.00	7.40	
15 Bromomethane	94	4.329	4.328	0.001	99	1122793	8.00	7.66	
16 Chloroethane	64	4.464	4.465	-0.001	98	524474	8.00	7.31	
17 Ethanol	31	4.572	4.567	0.005	93	2139925	40.0	36.3	
18 Vinyl bromide	106	4.758	4.757	0.001	99	1126793	8.00	7.61	
19 2-Methylbutane	43	4.805	4.804	0.001	93	1258620	8.00	7.47	
21 Trichlorofluoromethane	101	5.022	5.019	0.003	99	3165059	8.00	7.66	
20 Acrolein	56	5.037	5.035	0.002	94	416349	8.00	7.52	
22 Acetonitrile	40	5.110	5.105	0.005	97	532165	8.00	7.49	
23 Acetone	58	5.151	5.155	-0.004	97	1620868	24.0	21.6	
24 Pentane	72	5.234	5.235	-0.001	96	151611	8.00	7.45	
25 Isopropyl alcohol	45	5.244	5.244	0.000	97	4478030	24.0	23.9	
26 Ethyl ether	31	5.404	5.409	-0.005	95	1268732	8.00	7.55	
27 1,1-Dichloroethene	96	5.720	5.717	0.003	96	1135983	8.00	7.77	
28 Acrylonitrile	53	5.839	5.830	0.008	94	942315	8.00	7.89	
29 2-Methyl-2-propanol	59	5.828	5.837	-0.009	90	1378689	8.00	7.66	
30 1,1,2-Trichloro-1,2,2-trif	101	5.895	5.892	0.003	98	2428459	8.00	7.51	
31 Methylene Chloride	84	6.071	6.066	0.005	99	1045351	8.00	5.56	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.087	6.079	0.008	96	996619	8.00	7.54	
33 Carbon disulfide	76	6.226	6.221	0.005	99	3381044	8.00	7.84	
34 trans-1,2-Dichloroethene	96	6.877	6.867	0.010	96	1146408	8.00	7.89	
35 2-Methylpentane	43	6.888	6.882	0.006	95	2606951	8.00	7.67	
36 Methyl tert-butyl ether	73	6.996	7.005	-0.009	94	2279152	8.00	7.71	
37 1,1-Dichloroethane	63	7.301	7.292	0.009	100	2215457	8.00	7.84	
38 Vinyl acetate	43	7.405	7.399	0.006	100	3402957	8.00	8.24	
39 2-Butanone (MEK)	72	7.849	7.856	-0.007	97	538970	8.00	7.93	
40 Hexane	56	7.865	7.861	0.003	80	941205	8.00	7.76	
171 Isopropyl ether	45	8.025	8.029	-0.004	98	4178712	8.00	7.87	
41 cis-1,2-Dichloroethene	96	8.283	8.275	0.008	96	1212279	8.00	7.87	
42 Ethyl acetate	43	8.464	8.470	-0.006	99	2853515	8.00	8.36	
43 Chloroform	83	8.629	8.618	0.011	98	2536881	8.00	7.74	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	98	2935942	8.00	8.05	
44 Tetrahydrofuran	42	9.022	9.038	-0.016	95	1376011	8.00	8.19	
45 1,1,1-Trichloroethane	97	9.653	9.645	0.008	97	2468268	8.00	8.08	
46 1,2-Dichloroethane	62	9.772	9.761	0.011	97	1764440	8.00	7.84	
49 n-Butanol	31	10.216	10.231	-0.015	80	459733	8.00	8.25	
48 Cyclohexane	69	10.252	10.249	0.003	94	507432	8.00	7.79	
47 Benzene	78	10.263	10.254	0.009	98	3271364	8.00	7.59	
50 Carbon tetrachloride	117	10.283	10.276	0.007	99	2520053	8.00	7.93	
51 2,3-Dimethylpentane	71	10.382	10.375	0.007	90	702072	8.00	7.73	
52 Thiophene	84	10.542	10.534	0.008	98	1977770	8.00	7.90	
53 Isooctane	57	11.033	11.028	0.005	99	5740323	8.00	7.90	
55 n-Heptane	71	11.420	11.415	0.005	92	1119365	8.00	8.05	
54 1,2-Dichloropropane	63	11.508	11.501	0.007	92	1407448	8.00	7.79	
56 Trichloroethene	130	11.544	11.537	0.007	96	1448188	8.00	7.55	
57 Dibromomethane	93	11.632	11.623	0.009	93	1518384	8.00	7.56	
58 Dichlorobromomethane	83	11.777	11.772	0.005	99	2635124	8.00	8.14	
59 1,4-Dioxane	88	11.787	11.802	-0.015	89	495003	8.00	8.01	
60 Methyl methacrylate	41	11.875	11.875	0.000	93	1618228	8.00	8.31	
61 Methylcyclohexane	83	12.314	12.312	0.002	94	2004192	8.00	7.98	
62 4-Methyl-2-pentanone (MIBK	43	12.733	12.738	-0.005	97	3106672	8.00	8.39	
63 cis-1,3-Dichloropropene	75	12.795	12.788	0.007	95	2024214	8.00	8.58	
64 trans-1,3-Dichloropropene	75	13.498	13.493	0.005	99	1960990	8.00	9.04	
65 Toluene	91	13.617	13.611	0.006	94	4062800	8.00	7.67	
66 1,1,2-Trichloroethane	83	13.694	13.692	0.002	97	1322300	8.00	7.46	
69 2-Hexanone	58	14.082	14.086	-0.004	93	1547506	8.00	9.04	
71 n-Octane	85	14.309	14.306	0.003	94	1196166	8.00	7.79	
70 Chlorodibromomethane	129	14.403	14.398	0.004	98	2835933	8.00	8.45	
72 Ethylene Dibromide	107	14.692	14.689	0.003	98	2542909	8.00	8.00	
73 Tetrachloroethene	129	14.764	14.762	0.002	95	1459978	8.00	7.08	
74 Chlorobenzene	112	15.643	15.643	0.000	94	3192681	8.00	7.61	
75 2,3-Dimethylheptane	43	15.664	15.661	0.003	96	3735095	8.00	7.04	
76 Ethylbenzene	91	15.938	15.933	0.005	98	5228794	8.00	7.75	
78 m-Xylene & p-Xylene	91	16.098	16.095	0.003	97	7672406	16.0	14.9	
81 n-Nonane	57	16.516	16.516	0.000	92	2762958	8.00	7.84	
79 Bromoform	173	16.547	16.546	0.001	96	3305524	8.00	9.63	
80 Styrene	104	16.563	16.562	0.001	99	2875566	8.00	7.99	
82 o-Xylene	91	16.625	16.621	0.004	99	3859106	8.00	7.21	
83 1,1,2,2-Tetrachloroethane	83	16.951	16.950	0.000	99	3436226	8.00	7.85	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	831137	8.00	7.82	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.214	17.210	0.004	96	5524128	8.00	7.63	
86 N-Propylbenzene	120	17.777	17.773	0.004	99	1602900	8.00	8.33	
87 2-Chlorotoluene	126	17.824	17.820	0.004	98	1396566	8.00	7.61	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	5754889	8.00	8.07	
89 1,3,5-Trimethylbenzene	120	18.015	18.011	0.004	92	2253557	8.00	7.66	
90 Alpha Methyl Styrene	118	18.258	18.254	0.004	88	2552865	8.00	8.56	
91 n-Decane	57	18.320	18.316	0.004	89	3494119	8.00	7.74	
92 tert-Butylbenzene	119	18.460	18.460	0.000	90	4846271	8.00	7.52	
93 1,2,4-Trimethylbenzene	105	18.475	18.473	0.002	96	4626128	8.00	7.49	
95 sec-Butylbenzene	105	18.744	18.740	0.004	99	6980187	8.00	7.66	
94 1,3-Dichlorobenzene	146	18.759	18.756	0.003	98	3273154	8.00	8.33	
96 Benzyl chloride	91	18.842	18.837	0.005	98	3600699	8.00	8.03	
97 1,4-Dichlorobenzene	146	18.852	18.849	0.003	95	3203334	8.00	8.85	
98 4-Isopropyltoluene	119	18.914	18.913	0.001	97	5430794	8.00	7.65	
99 1,2,3-Trimethylbenzene	105	18.971	18.967	0.004	99	4637042	8.00	7.32	
100 Butylcyclohexane	83	19.028	19.024	0.004	93	3626204	8.00	7.01	
102 2,3-Dihydroindene	117	19.225	19.224	0.001	94	4338946	8.00	7.71	
101 1,2-Dichlorobenzene	146	19.225	19.225	0.000	85	3257369	8.00	8.07	
103 Indene	116	19.359	19.359	0.000	91	3862763	8.00	8.20	
104 n-Butylbenzene	91	19.364	19.365	-0.001	98	5320956	8.00	7.57	
105 Undecane	57	19.690	19.689	0.001	95	4076087	8.00	7.85	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	99	1982271	8.00	10.2	
107 1,2,4,5-Tetramethylbenzene	119	20.150	20.145	0.005	97	5512969	8.00	8.25	
110 Dodecane	57	20.780	20.781	-0.001	97	4106299	8.00	8.22	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	93	2805002	8.00	10.6	
113 Naphthalene	128	21.132	21.133	-0.001	99	5513643	8.00	8.39	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	90	3179700	8.00	7.93	
116 1,2,3-Trichlorobenzene	180	21.431	21.428	0.003	95	2641091	8.00	9.96	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	822581	8.00	7.73	
118 1-Methylnaphthalene	142	22.202	22.201	0.001	100	1007785	8.00	6.91	
A 120 C8 Range	1	14.314	(14.258-14.361)		0	11595308	8.00	7.82	
S 121 Xylenes, Total	100				0		24.0	22.1	
S 122 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L9DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

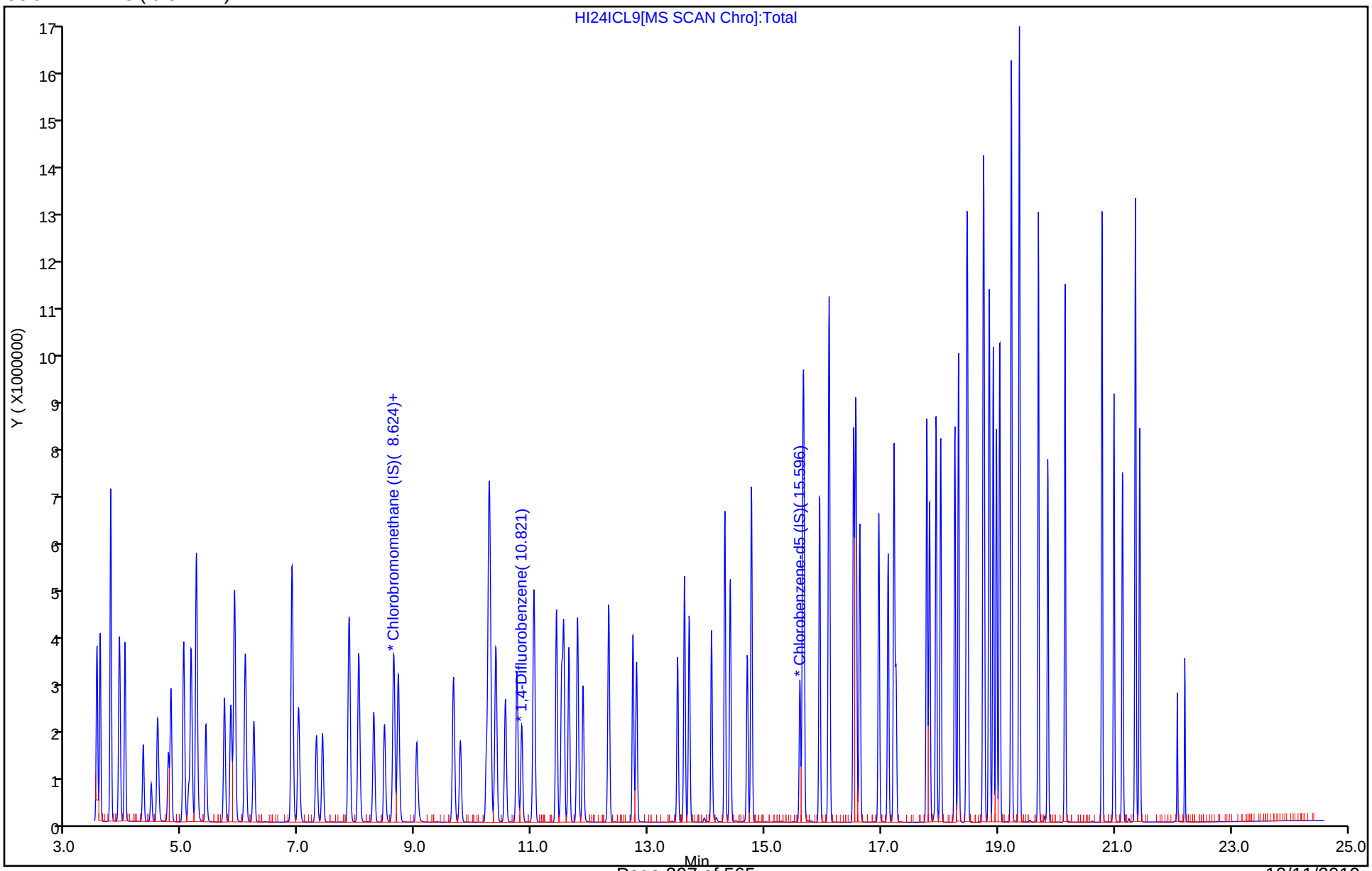
Report Date: 25-Sep-2019 16:13:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL9.D

Injection Date:	24-Sep-2019 22:09:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L9			Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

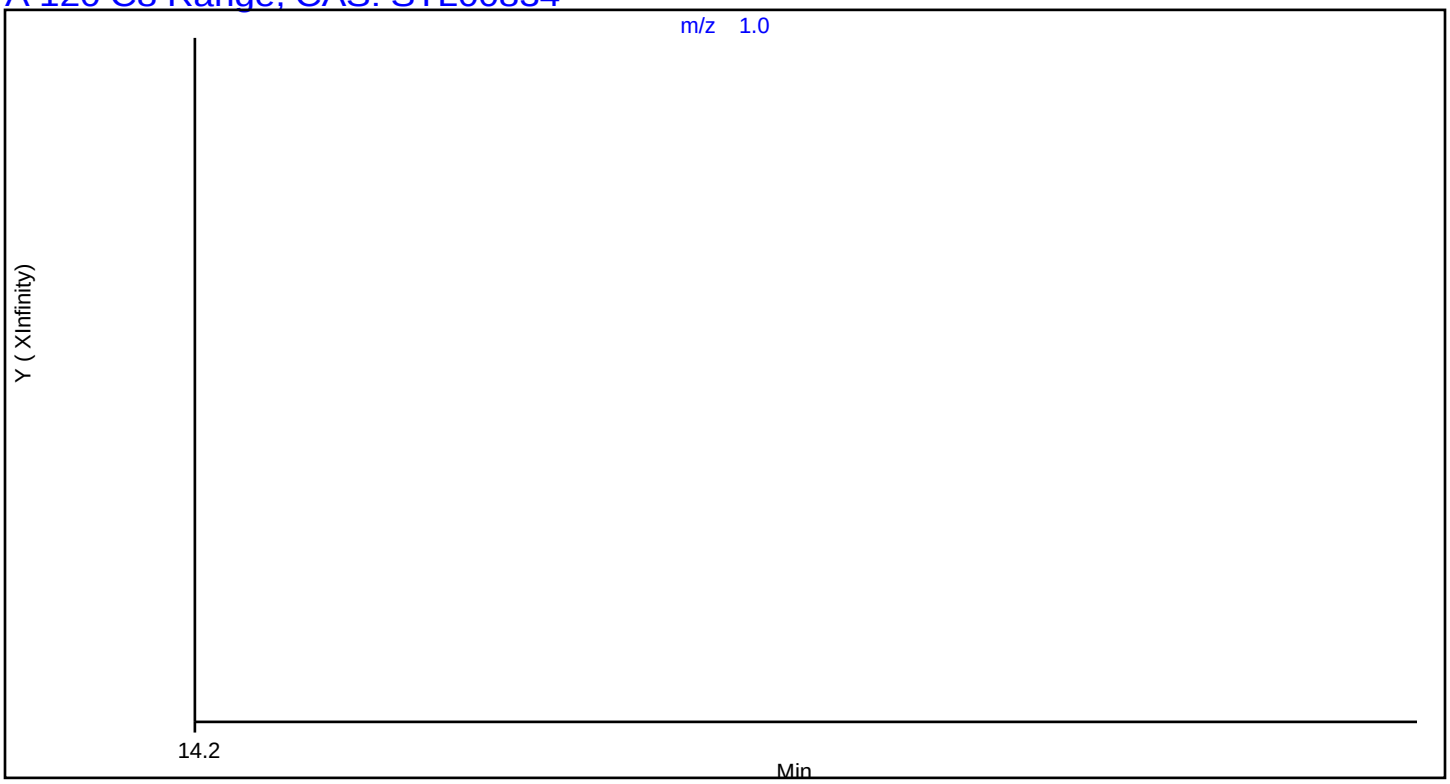


Report Date: 25-Sep-2019 16:13:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL9.D				
Injection Date:	24-Sep-2019 22:09:30	Instrument ID:	MH		
Lims ID:	IC L9				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	14	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 24-Sep-2019 23:55:30 ALS Bottle#: 15 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-005
Misc. Info.: 245074
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:17:29 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 08:14:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.619	8.608	0.011	97	346183	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.826	10.815	0.011	95	1787021	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	87	1613105	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.245	17.242	0.003	97	944497	4.00	3.71	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	96	4338806	16.0	16.3	
7 Propene	41	3.538	3.540	-0.002	99	1812795	16.0	13.6	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	6147725	16.0	15.4	
9 Chloromethane	52	3.761	3.766	-0.005	98	574215	16.0	13.2	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	90	3851999	16.0	14.2	
11 Acetaldehyde	44	3.916	3.918	-0.002	99	3418852	80.0	64.8	
12 Vinyl chloride	62	3.931	3.932	-0.001	99	1954790	16.0	13.4	
14 Butane	43	4.014	4.016	-0.002	83	2511969	16.0	13.1	
13 Butadiene	54	4.014	4.016	-0.002	72	1498007	16.0	14.0	
15 Bromomethane	94	4.329	4.328	0.001	99	2059946	16.0	15.3	
16 Chloroethane	64	4.469	4.465	0.004	97	954347	16.0	14.5	
17 Ethanol	31	4.577	4.567	0.010	92	3554027	80.0	65.7	
18 Vinyl bromide	106	4.758	4.757	0.001	99	2037031	16.0	15.0	
19 2-Methylbutane	43	4.805	4.804	0.001	90	2137876	16.0	13.8	
21 Trichlorofluoromethane	101	5.022	5.019	0.003	100	5702329	16.0	15.1	
20 Acrolein	56	5.037	5.035	0.002	93	798221	16.0	15.7	
22 Acetonitrile	40	5.115	5.105	0.010	99	940740	16.0	14.4	
23 Acetone	58	5.151	5.155	-0.004	97	2841852	48.0	41.4	
24 Pentane	72	5.239	5.235	0.004	96	263861	16.0	14.2	
25 Isopropyl alcohol	45	5.249	5.244	0.005	98	7444728	48.0	NQ	
26 Ethyl ether	31	5.404	5.409	-0.005	95	2244138	16.0	14.6	
27 1,1-Dichloroethene	96	5.725	5.717	0.008	96	2068932	16.0	15.4	
28 Acrylonitrile	53	5.838	5.830	0.008	94	1683899	16.0	15.4	
29 2-Methyl-2-propanol	59	5.828	5.837	-0.009	92	2624089	16.0	15.9	
30 1,1,2-Trichloro-1,2,2-trif	101	5.895	5.892	0.003	97	4308645	16.0	14.5	
31 Methylene Chloride	84	6.076	6.066	0.010	99	1839004	16.0	10.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.086	6.079	0.007	96	1638711	16.0	13.5	
33 Carbon disulfide	76	6.226	6.221	0.005	99	6076214	16.0	15.4	
34 trans-1,2-Dichloroethene	96	6.877	6.867	0.010	96	2064580	16.0	15.5	
35 2-Methylpentane	43	6.888	6.882	0.006	95	4504406	16.0	14.5	
36 Methyl tert-butyl ether	73	6.991	7.005	-0.014	97	4335737	16.0	16.0	
37 1,1-Dichloroethane	63	7.301	7.292	0.009	100	4045169	16.0	15.6	
38 Vinyl acetate	43	7.404	7.399	0.005	100	6211522	16.0	16.4	
39 2-Butanone (MEK)	72	7.849	7.856	-0.007	97	981260	16.0	15.8	
40 Hexane	56	7.864	7.861	0.003	81	1680027	16.0	15.1	
171 Isopropyl ether	45	8.025	8.029	-0.004	99	7414931	16.0	15.2	
41 cis-1,2-Dichloroethene	96	8.283	8.275	0.008	97	2213145	16.0	15.7	
42 Ethyl acetate	43	8.469	8.470	-0.001	99	5225034	16.0	16.7	
43 Chloroform	83	8.634	8.618	0.016	98	4618898	16.0	15.4	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	97	5591369	16.0	16.7	
44 Tetrahydrofuran	42	9.017	9.038	-0.021	95	2507772	16.0	16.3	
45 1,1,1-Trichloroethane	97	9.653	9.645	0.008	97	4580060	16.0	16.4	
46 1,2-Dichloroethane	62	9.771	9.761	0.010	97	3192664	16.0	15.6	
49 n-Butanol	31	10.216	10.231	-0.015	79	850224	16.0	16.8	
48 Cyclohexane	69	10.252	10.249	0.003	95	890031	16.0	15.0	
47 Benzene	78	10.262	10.254	0.008	97	5674454	16.0	14.5	
50 Carbon tetrachloride	117	10.288	10.276	0.012	98	4117865	16.0	14.3	
51 2,3-Dimethylpentane	71	10.381	10.375	0.006	90	1245859	16.0	15.1	
52 Thiophene	84	10.547	10.534	0.013	98	3557854	16.0	15.6	
53 Isooctane	57	11.033	11.028	0.005	99	10246881	16.0	15.5	
55 n-Heptane	71	11.420	11.415	0.005	91	2021836	16.0	16.0	
54 1,2-Dichloropropane	63	11.508	11.501	0.007	93	2512982	16.0	15.3	
56 Trichloroethene	130	11.544	11.537	0.007	96	2603661	16.0	14.9	
57 Dibromomethane	93	11.632	11.623	0.009	92	2713344	16.0	14.9	
58 Dichlorobromomethane	83	11.777	11.772	0.005	99	4723400	16.0	16.1	
59 1,4-Dioxane	88	11.787	11.802	-0.015	87	848749	16.0	15.1	
60 Methyl methacrylate	41	11.875	11.875	0.000	94	2873694	16.0	16.2	
61 Methylcyclohexane	83	12.319	12.312	0.007	95	3640003	16.0	16.0	
62 4-Methyl-2-pentanone (MIBK	43	12.733	12.738	-0.005	97	5577877	16.0	16.6	
63 cis-1,3-Dichloropropene	75	12.795	12.788	0.007	94	3693129	16.0	17.2	
64 trans-1,3-Dichloropropene	75	13.498	13.493	0.005	99	3680539	16.0	18.2	
65 Toluene	91	13.617	13.611	0.006	94	7293412	16.0	14.7	
66 1,1,2-Trichloroethane	83	13.699	13.692	0.007	97	2364559	16.0	14.3	
69 2-Hexanone	58	14.082	14.086	-0.004	93	2908225	16.0	18.2	
71 n-Octane	85	14.309	14.306	0.003	93	2127711	16.0	14.8	
70 Chlorodibromomethane	129	14.402	14.398	0.004	98	5082414	16.0	16.2	
72 Ethylene Dibromide	107	14.697	14.689	0.008	99	4660782	16.0	15.7	
73 Tetrachloroethene	129	14.769	14.762	0.007	95	2596812	16.0	13.5	
74 Chlorobenzene	112	15.648	15.643	0.005	94	5715223	16.0	14.6	
75 2,3-Dimethylheptane	43	15.669	15.661	0.008	96	5872976	16.0	11.8	
76 Ethylbenzene	91	15.937	15.933	0.004	98	9288196	16.0	14.7	
78 m-Xylene & p-Xylene	91	16.098	16.095	0.003	97	12916434	32.0	26.8	
81 n-Nonane	57	16.516	16.516	0.000	89	4662972	16.0	14.2	
79 Bromoform	173	16.547	16.546	0.001	96	5711552	16.0	17.8	
80 Styrene	104	16.568	16.562	0.006	98	4907648	16.0	14.6	
82 o-Xylene	91	16.625	16.621	0.004	99	6772116	16.0	13.5	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	6105282	16.0	14.9	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	1534416	16.0	15.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.214	17.210	0.004	97	9733848	16.0	14.4	
86 N-Propylbenzene	120	17.777	17.773	0.004	99	2938574	16.0	16.3	
87 2-Chlorotoluene	126	17.824	17.820	0.004	97	2518282	16.0	14.7	
88 4-Ethyltoluene	105	17.937	17.933	0.004	99	10161779	16.0	15.2	
89 1,3,5-Trimethylbenzene	120	18.015	18.011	0.004	92	4008116	16.0	14.6	
90 Alpha Methyl Styrene	118	18.258	18.254	0.004	89	4723728	16.0	16.9	
91 n-Decane	57	18.320	18.316	0.004	90	5851784	16.0	13.9	
92 tert-Butylbenzene	119	18.460	18.460	0.000	91	8120000	16.0	13.5	
93 1,2,4-Trimethylbenzene	105	18.480	18.473	0.007	96	7713396	16.0	13.4	
95 sec-Butylbenzene	105	18.744	18.740	0.004	98	11345386	16.0	13.3	
94 1,3-Dichlorobenzene	146	18.764	18.756	0.008	98	5655538	16.0	15.4	
96 Benzyl chloride	91	18.842	18.837	0.005	98	6895733	16.0	16.3	
97 1,4-Dichlorobenzene	146	18.857	18.849	0.008	96	5715506	16.0	16.9	
98 4-Isopropyltoluene	119	18.919	18.913	0.006	96	9272439	16.0	14.0	
99 1,2,3-Trimethylbenzene	105	18.971	18.967	0.004	98	8194003	16.0	13.8	
100 Butylcyclohexane	83	19.028	19.024	0.004	94	6103925	16.0	12.6	
102 2,3-Dihydroindene	117	19.230	19.224	0.006	94	7033477	16.0	13.4	
101 1,2-Dichlorobenzene	146	19.230	19.225	0.005	85	5504414	16.0	14.6	
103 Indene	116	19.359	19.359	0.000	92	6422664	16.0	14.6	
104 n-Butylbenzene	91	19.369	19.365	0.004	98	8438576	16.0	12.8	
105 Undecane	57	19.690	19.689	0.001	94	6685309	16.0	13.8	
106 1,2-Dibromo-3-Chloropropan	157	19.855	19.850	0.005	95	3870648	16.0	21.2	
107 1,2,4,5-Tetramethylbenzene	119	20.150	20.145	0.005	97	9712688	16.0	15.6	
110 Dodecane	57	20.785	20.781	0.004	99	7155088	16.0	15.3	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	93	6070017	16.0	24.5	
113 Naphthalene	128	21.137	21.133	0.004	99	11178875	16.0	16.0	
115 Hexachlorobutadiene	225	21.359	21.356	0.003	90	5153691	16.0	13.8	
116 1,2,3-Trichlorobenzene	180	21.431	21.428	0.003	95	5332766	16.0	21.5	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	2765358	16.0	27.8	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	100	2661162	16.0	19.5	
A 120 C8 Range	1	14.309	(14.258-14.361)		0	20132590	16.0	15.0	
S 121 Xylenes, Total	100				0		48.0	40.3	
S 122 1,2-Dichloroethene, Total	1				0		32.0	31.2	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Reagents:

40L10DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

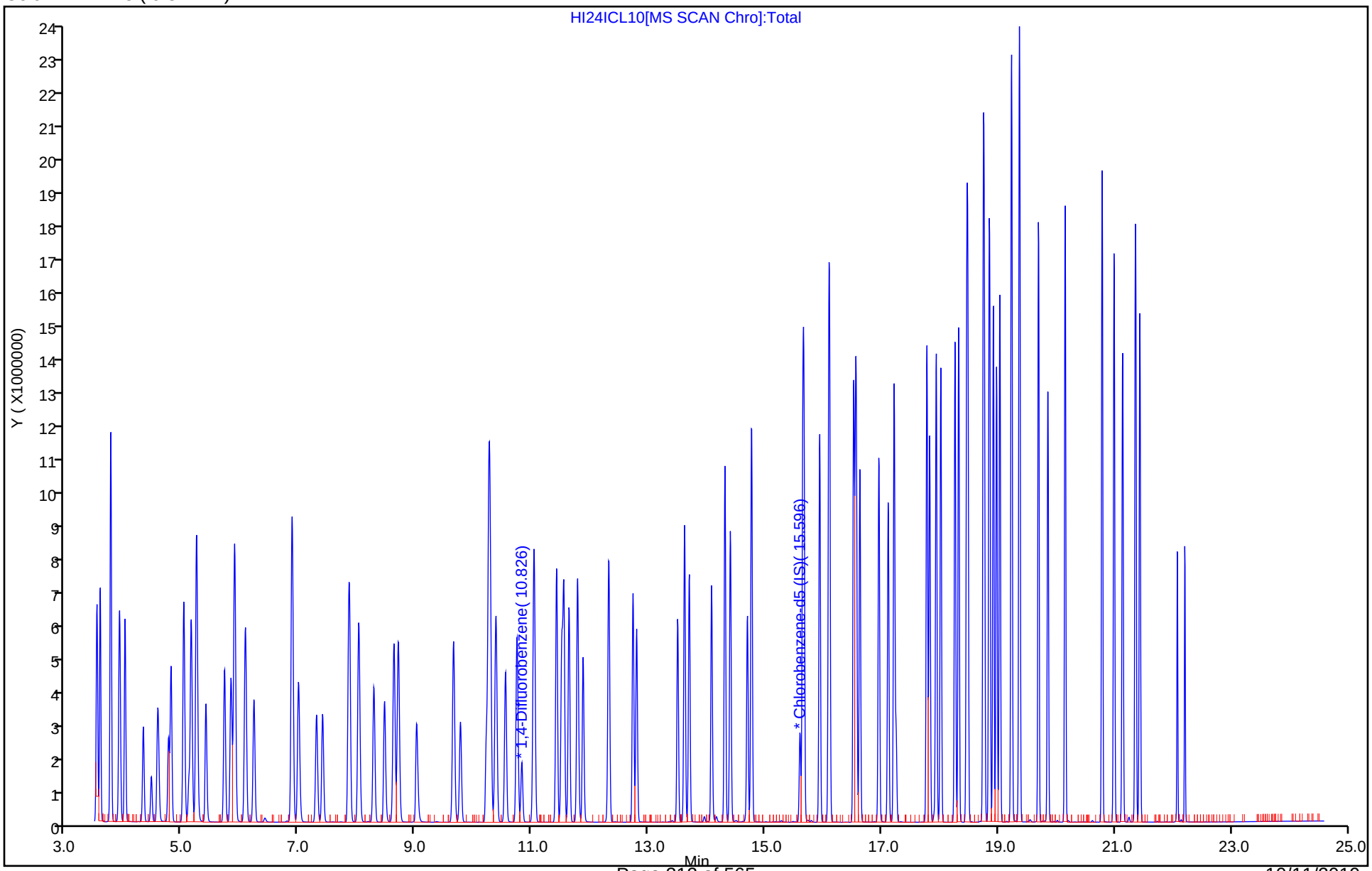
Report Date: 25-Sep-2019 16:17:31 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL10.D

Injection Date:	24-Sep-2019 23:55:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L10			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

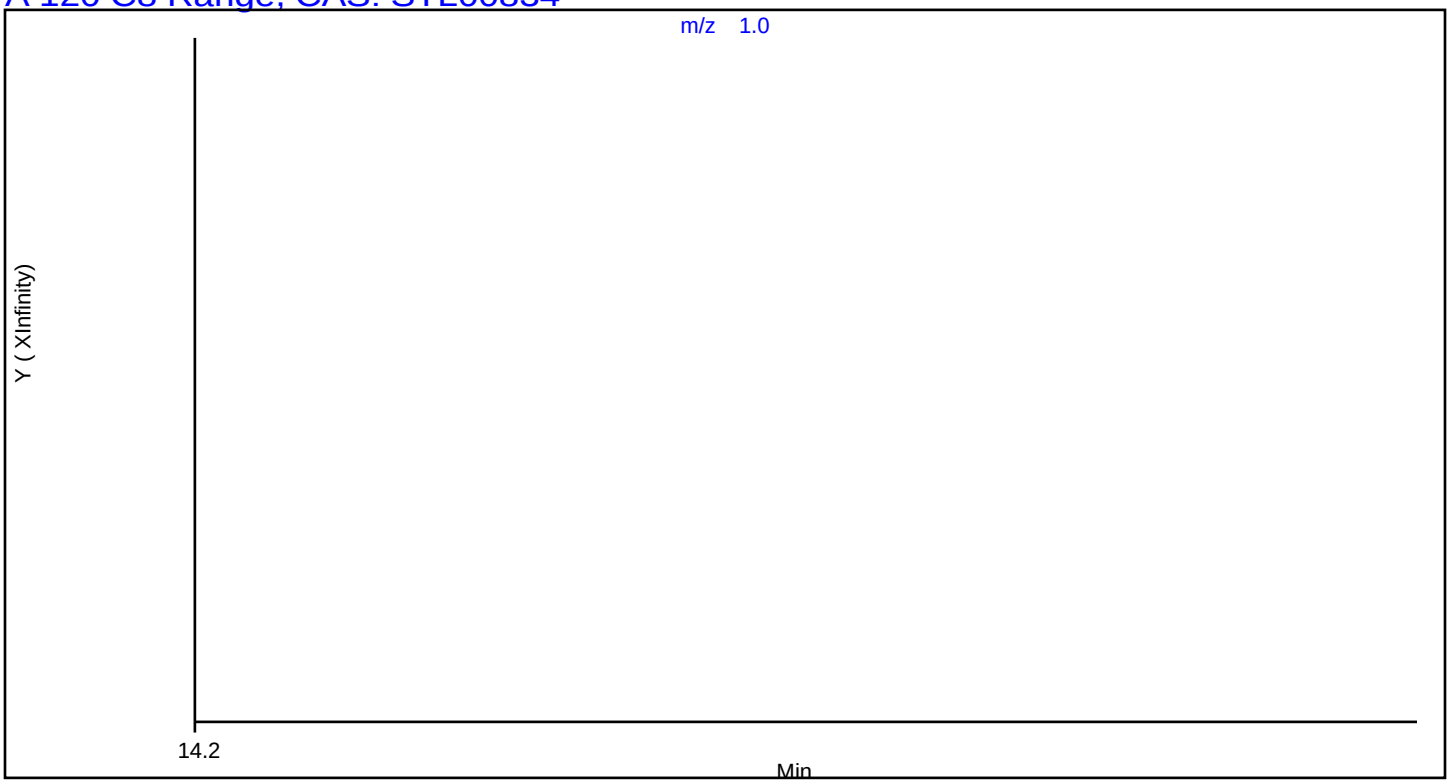


Report Date: 25-Sep-2019 16:17:31 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL10.D				
Injection Date:	24-Sep-2019 23:55:30	Instrument ID:	MH		
Lims ID:	IC L10				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	15	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL1.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Sep-2019 02:33:30 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-008
Misc. Info.: 245276
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:17 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 08:17:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.608	-0.004	96	395003	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.810	10.815	-0.005	95	2097685	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.594	-0.003	89	1664463	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	96	1027190	4.00	3.91	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	97	7029	0.0200	0.0231	
7 Propene	41	3.539	3.540	-0.001	99	49880	0.0200	0.3280	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	10176	0.0200	0.0223	
9 Chloromethane	52	3.771	3.766	0.005	57	2069	0.0200	0.0417	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.776	3.773	0.003	91	6751	0.0200	0.0218	
11 Acetaldehyde	44	3.926	3.918	0.008	98	11034	0.1000	0.1834	
12 Vinyl chloride	62	3.937	3.932	0.005	71	4106	0.0200	0.0246	
14 Butane	43	4.019	4.016	0.003	85	5359	0.0200	0.0245	
13 Butadiene	54	4.019	4.016	0.003	68	3345	0.0200	0.0275	
15 Bromomethane	94	4.335	4.328	0.007	97	4729	0.0200	0.0308	
16 Chloroethane	64	4.469	4.465	0.004	96	1797	0.0200	0.0239	
17 Ethanol	31	4.572	4.567	0.005	96	6666	0.1000	0.1081	
18 Vinyl bromide	106	4.758	4.757	0.001	97	3979	0.0200	0.0257	
19 2-Methylbutane	43	4.810	4.804	0.006	89	5736	0.0200	0.0326	
21 Trichlorofluoromethane	101	5.022	5.019	0.003	99	10313	0.0200	0.0239	
20 Acrolein	56	5.043	5.035	0.008	85	2337	0.0200	0.0403	
22 Acetonitrile	40	5.115	5.105	0.010	98	1848	0.0200	0.0249	
23 Acetone	58	5.172	5.155	0.017	98	7582	0.0600	0.0967	
24 Pentane	72	5.229	5.235	-0.006	98	472	0.0200	0.0222	
25 Isopropyl alcohol	45	5.265	5.244	0.021	95	12773	0.0600	0.0523	
26 Ethyl ether	31	5.430	5.409	0.021	96	4269	0.0200	0.0243	
27 1,1-Dichloroethene	96	5.714	5.717	-0.003	97	3750	0.0200	0.0245	
28 Acrylonitrile	53	5.828	5.830	-0.002	91	3517	0.0200	0.0282	
29 2-Methyl-2-propanol	59	5.870	5.837	0.033	89	2943	0.0200	0.0156	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	95	8370	0.0200	0.0248	
31 Methylene Chloride	84	6.061	6.066	-0.005	99	34207	0.0200	0.1741	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	93	3800	0.0200	0.0275	
33 Carbon disulfide	76	6.221	6.221	0.000	100	11024	0.0200	0.0244	
34 trans-1,2-Dichloroethene	96	6.862	6.867	-0.005	97	3778	0.0200	0.0249	
35 2-Methylpentane	43	6.883	6.882	0.001	93	8619	0.0200	0.0242	
36 Methyl tert-butyl ether	73	7.043	7.005	0.038	90	6616	0.0200	0.0214	
37 1,1-Dichloroethane	63	7.291	7.292	-0.001	99	7058	0.0200	0.0239	
38 Vinyl acetate	43	7.405	7.399	0.006	99	8012	0.0200	0.0185	
39 2-Butanone (MEK)	72	7.880	7.856	0.024	86	1553	0.0200	0.0219	
40 Hexane	56	7.865	7.861	0.004	74	3473	0.0200	0.0274	
171 Isopropyl ether	45	8.051	8.029	0.022	98	13083	0.0200	0.0236	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	94	4018	0.0200	0.0250	
42 Ethyl acetate	43	8.485	8.470	0.015	98	7367	0.0200	0.0206	
43 Chloroform	83	8.614	8.618	-0.004	44	8168	0.0200	0.0238	
173 Tert-butyl ethyl ether	59	8.733	8.710	0.023	94	7691	0.0200	0.0202	
44 Tetrahydrofuran	42	9.074	9.038	0.036	92	3677	0.0200	0.0209	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	96	7463	0.0200	0.0234	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	96	5667	0.0200	0.0236	
49 n-Butanol	31	10.247	10.231	0.016	46	1300	0.0200	0.0219	
48 Cyclohexane	69	10.242	10.249	-0.007	69	1795	0.0200	0.0259	
47 Benzene	78	10.252	10.254	-0.002	96	11581	0.0200	0.0252	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	96	7608	0.0200	0.0224	
51 2,3-Dimethylpentane	71	10.371	10.375	-0.004	89	2473	0.0200	0.0256	
52 Thiophene	84	10.526	10.534	-0.008	98	6413	0.0200	0.0240	
53 Isooctane	57	11.028	11.028	0.000	98	18877	0.0200	0.0244	
55 n-Heptane	71	11.415	11.415	0.000	94	3375	0.0200	0.0228	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	89	4472	0.0200	0.0232	
56 Trichloroethene	130	11.534	11.537	-0.003	91	4541	0.0200	0.0222	
57 Dibromomethane	93	11.617	11.623	-0.006	97	5314	0.0200	0.0248	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	7305	0.0200	0.0212	
59 1,4-Dioxane	88	11.829	11.802	0.027	70	1359	0.0200	0.0206	
60 Methyl methacrylate	41	11.886	11.875	0.011	93	4110	0.0200	0.0198	
61 Methylcyclohexane	83	12.309	12.312	-0.003	91	5996	0.0200	0.0224	
62 4-Methyl-2-pentanone (MIBK	43	12.754	12.738	0.016	92	6509	0.0200	0.0165	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	97	5179	0.0200	0.0206	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	95	4016	0.0200	0.0192	
65 Toluene	91	13.612	13.611	0.001	93	12831	0.0200	0.0251	
66 1,1,2-Trichloroethane	83	13.694	13.692	0.002	96	4076	0.0200	0.0238	
69 2-Hexanone	58	14.098	14.086	0.012	90	2072	0.0200	0.0125	
71 n-Octane	85	14.304	14.306	-0.002	94	3554	0.0200	0.0240	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	97	6570	0.0200	0.0203	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	99	6775	0.0200	0.0221	
73 Tetrachloroethene	129	14.764	14.762	0.002	95	4768	0.0200	0.0240	
74 Chlorobenzene	112	15.643	15.643	0.000	95	9818	0.0200	0.0243	
75 2,3-Dimethylheptane	43	15.664	15.661	0.003	95	12548	0.0200	0.0245	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	15351	0.0200	0.0236	
78 m-Xylene & p-Xylene	91	16.098	16.095	0.003	98	23648	0.0400	0.0476	
81 n-Nonane	57	16.516	16.516	0.000	89	7627	0.0200	0.0224	
79 Bromoform	173	16.542	16.546	-0.004	93	5897	0.0200	0.0178	
80 Styrene	104	16.558	16.562	-0.004	98	7154	0.0200	0.0206	
82 o-Xylene	91	16.620	16.621	-0.001	98	13010	0.0200	0.0252	
83 1,1,2,2-Tetrachloroethane	83	16.951	16.950	0.000	98	9391	0.0200	0.0223	
84 1,2,3-Trichloropropane	110	17.116	17.110	0.006	96	2428	0.0200	0.0237	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	93	17594	0.0200	0.0252	
86 N-Propylbenzene	120	17.772	17.773	-0.001	98	3618	0.0200	0.0195	
87 2-Chlorotoluene	126	17.824	17.820	0.004	97	4156	0.0200	0.0235	
88 4-Ethyltoluene	105	17.933	17.933	-0.001	98	14048	0.0200	0.0204	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	6211	0.0200	0.0219	
90 Alpha Methyl Styrene	118	18.248	18.254	-0.006	88	5000	0.0200	0.0174	
91 n-Decane	57	18.315	18.316	-0.001	90	8541	0.0200	0.0196	
92 tert-Butylbenzene	119	18.460	18.460	0.000	91	14424	0.0200	0.0232	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	12887	0.0200	0.0216	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	98	19520	0.0200	0.0222	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	8214	0.0200	0.0217	
96 Benzyl chloride	91	18.837	18.837	0.000	60	2980	0.0200	0.1750	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	92	7097	0.0200	0.0203	
98 4-Isopropyltoluene	119	18.914	18.913	0.001	96	13925	0.0200	0.0203	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	98	13051	0.0200	0.0214	
100 Butylcyclohexane	83	19.023	19.024	-0.001	89	10748	0.0200	0.0215	
102 2,3-Dihydroindene	117	19.225	19.224	0.001	91	11638	0.0200	0.0214	
101 1,2-Dichlorobenzene	146	19.225	19.225	0.000	84	8513	0.0200	0.0219	
103 Indene	116	19.359	19.359	0.000	88	7684	0.0200	0.0169	
104 n-Butylbenzene	91	19.364	19.365	-0.001	95	11886	0.0200	0.0175	
105 Undecane	57	19.685	19.689	-0.004	94	7510	0.0200	0.0150	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	89	2493	0.0200	0.0133	
107 1,2,4,5-Tetramethylbenzene	119	20.145	20.145	0.000	96	12439	0.0200	0.0193	
110 Dodecane	57	20.780	20.781	-0.001	95	5427	0.0200	0.0113	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	92	4026	0.0200	0.1170	
113 Naphthalene	128	21.137	21.133	0.004	98	9369	0.0200	0.0175	
115 Hexachlorobutadiene	225	21.359	21.356	0.003	90	8352	0.0200	0.0216	
116 1,2,3-Trichlorobenzene	180	21.431	21.428	0.003	93	5438	0.0200	0.0213	
117 2-Methylnaphthalene	142	22.078	22.073	0.005	98	2550	0.0200	0.0248	
118 1-Methylnaphthalene	142	22.202	22.201	0.001	98	2967	0.0200	0.0211	
A 120 C8 Range	1	14.302	(14.273-14.346)		0	40530	0.0200	0.0256	
S 121 Xylenes, Total	100				0		0.0600	0.0728	
S 122 1,2-Dichloroethene, Total	1				0		0.0400	0.0498	

Reagents:

40L1-3DQP_00017	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

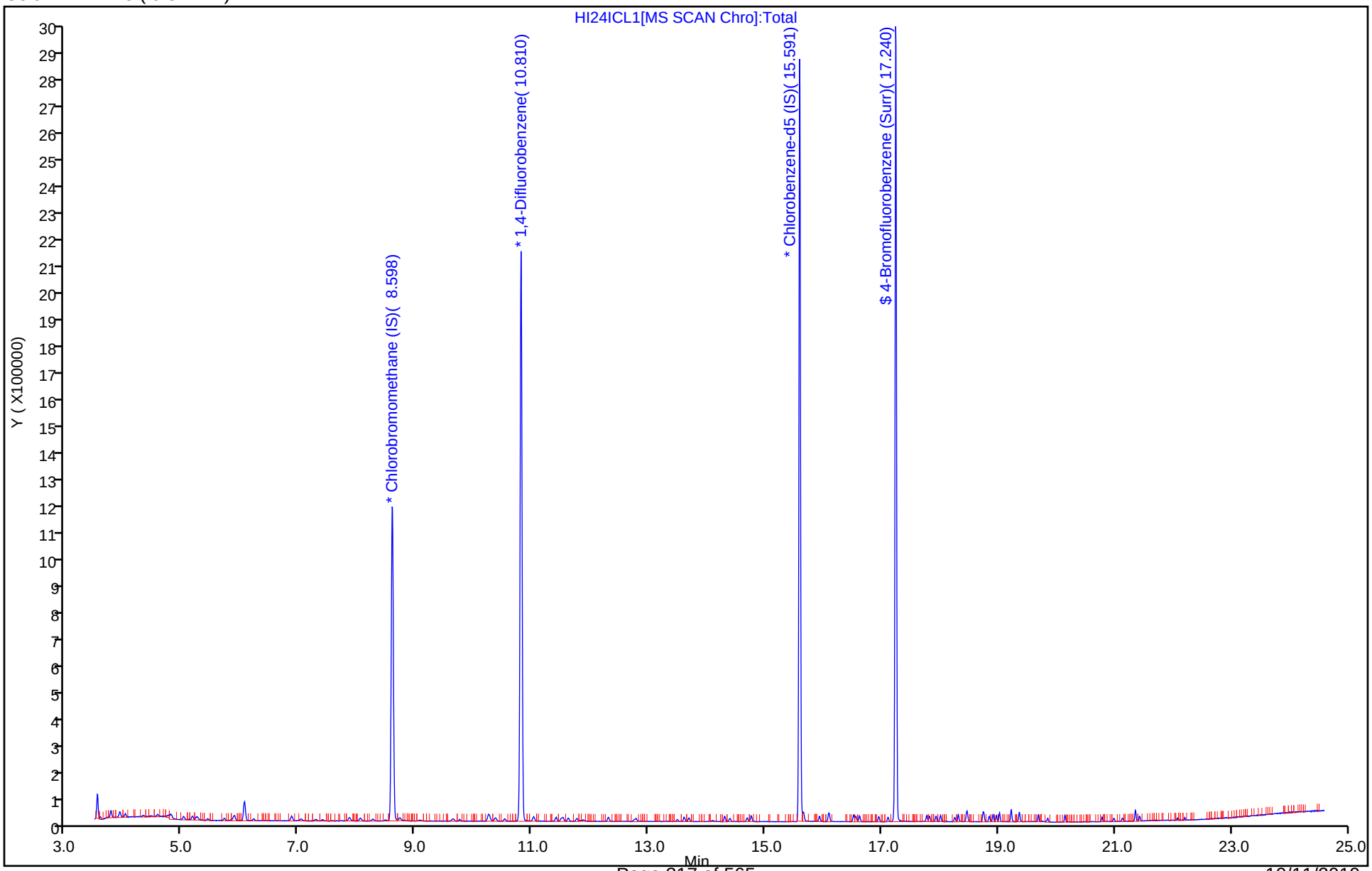
Report Date: 25-Sep-2019 16:13:18 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL1.D

Injection Date:	25-Sep-2019 02:33:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

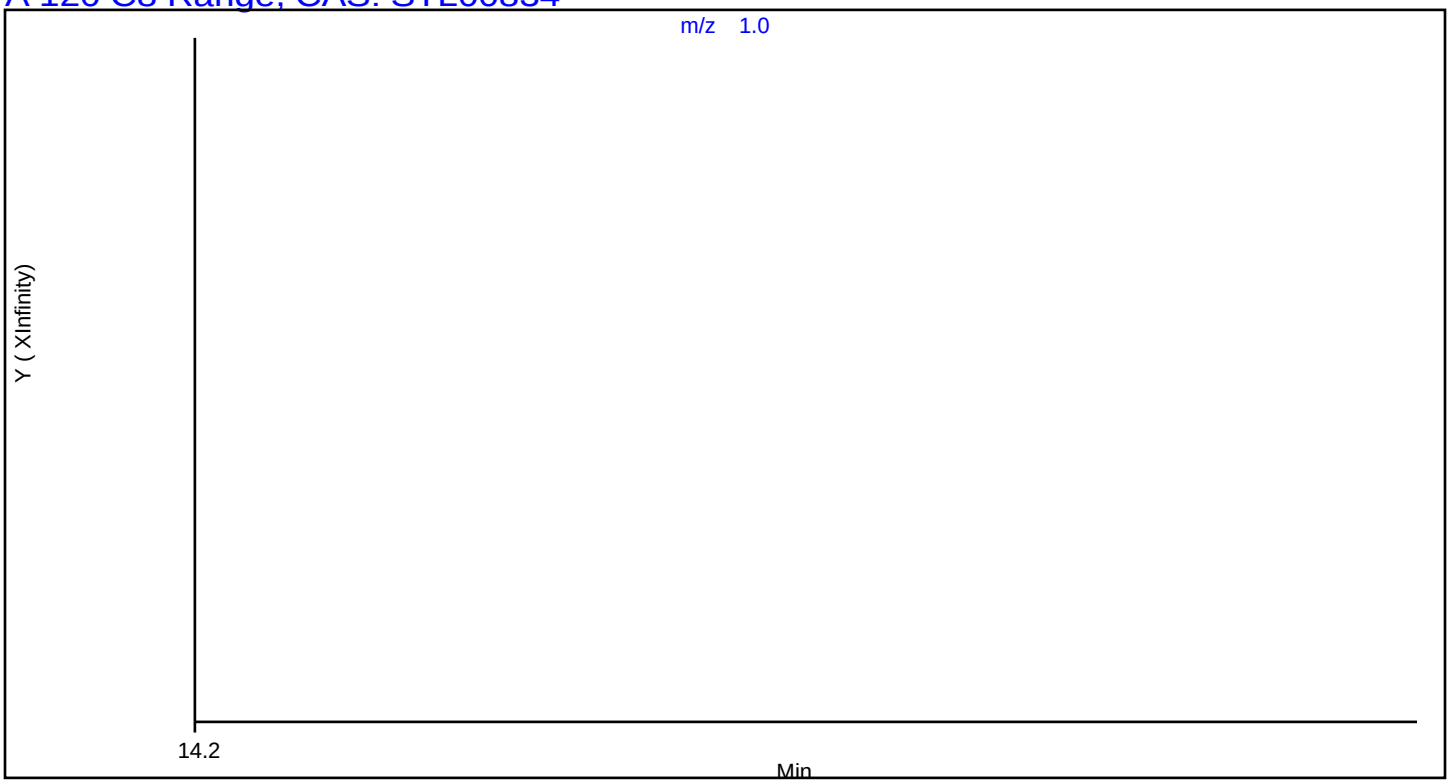


Report Date: 25-Sep-2019 16:13:18 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL1.D				
Injection Date:	25-Sep-2019 02:33:30	Instrument ID:	MH		
Lims ID:	IC L1				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL2.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Sep-2019 03:25:30 ALS Bottle#: 2 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-009
Misc. Info.: 245276
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:23 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: barlozhetskayaa Date: 25-Sep-2019 14:08:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.603	8.608	-0.005	96	369859	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.810	10.815	-0.005	95	1977478	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.594	-0.003	89	1575562	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	95	980386	4.00	3.94	
6 Chlorodifluoromethane	51	3.533	3.529	0.004	43	12327	0.0400	0.0433	
7 Propene	41	3.544	3.540	0.004	99	48847	0.0400	0.3430	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	18149	0.0400	0.0425	
9 Chloromethane	52	3.766	3.766	0.000	65	2242	0.0400	0.0483	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.776	3.773	0.003	92	12487	0.0400	0.0430	
11 Acetaldehyde	44	3.926	3.918	0.008	97	18059	0.2000	0.3206	
12 Vinyl chloride	62	3.931	3.932	-0.001	54	7082	0.0400	0.0453	
14 Butane	43	4.019	4.016	0.003	84	9644	0.0400	0.0470	
13 Butadiene	54	4.019	4.016	0.003	71	5170	0.0400	0.0453	
15 Bromomethane	94	4.329	4.328	0.001	96	6430	0.0400	0.0448	
16 Chloroethane	64	4.469	4.465	0.004	97	3005	0.0400	0.0428	
17 Ethanol	31	4.572	4.567	0.005	94	12467	0.2000	0.2158	
18 Vinyl bromide	106	4.758	4.757	0.001	97	6840	0.0400	0.0472	
19 2-Methylbutane	43	4.800	4.804	-0.004	91	8576	0.0400	0.0520	
21 Trichlorofluoromethane	101	5.022	5.019	0.003	99	17417	0.0400	0.0431	
20 Acrolein	56	5.037	5.035	0.002	91	2885	0.0400	0.0532	
22 Acetonitrile	40	5.105	5.105	-0.001	97	3432	0.0400	0.0493	
23 Acetone	58	5.167	5.155	0.012	98	12724	0.1200	0.1733	
24 Pentane	72	5.249	5.235	0.014	93	858	0.0400	0.0431	
25 Isopropyl alcohol	45	5.254	5.244	0.010	95	22663	0.1200	0.0991	
26 Ethyl ether	31	5.425	5.409	0.016	91	7317	0.0400	0.0445	
27 1,1-Dichloroethene	96	5.725	5.717	0.008	96	6435	0.0400	0.0449	
28 Acrylonitrile	53	5.833	5.830	0.003	96	5677	0.0400	0.0485	
29 2-Methyl-2-propanol	59	5.864	5.837	0.027	89	6630	0.0400	0.0376	
30 1,1,2-Trichloro-1,2,2-trif	101	5.895	5.892	0.003	96	14848	0.0400	0.0469	
31 Methylene Chloride	84	6.066	6.066	0.000	98	34965	0.0400	0.1900	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	96	5745	0.0400	0.0444	
33 Carbon disulfide	76	6.221	6.221	0.000	98	19362	0.0400	0.0458	
34 trans-1,2-Dichloroethene	96	6.862	6.867	-0.005	96	6313	0.0400	0.0444	
35 2-Methylpentane	43	6.882	6.882	0.000	96	15342	0.0400	0.0461	
36 Methyl tert-butyl ether	73	7.027	7.005	0.022	92	11887	0.0400	0.0411	
37 1,1-Dichloroethane	63	7.291	7.292	-0.001	99	12302	0.0400	0.0445	
38 Vinyl acetate	43	7.399	7.399	0.000	99	13598	0.0400	0.0336	
39 2-Butanone (MEK)	72	7.875	7.856	0.019	88	2897	0.0400	0.0435	
40 Hexane	56	7.854	7.861	-0.007	78	5642	0.0400	0.0475	
171 Isopropyl ether	45	8.045	8.029	0.016	98	22284	0.0400	0.0429	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	97	6410	0.0400	0.0425	
42 Ethyl acetate	43	8.485	8.470	0.015	98	12088	0.0400	0.0362	
43 Chloroform	83	8.614	8.618	-0.004	28	14734	0.0400	0.0459	
173 Tert-butyl ethyl ether	59	8.728	8.710	0.018	96	14014	0.0400	0.0393	
44 Tetrahydrofuran	42	9.058	9.038	0.020	92	6319	0.0400	0.0384	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	95	12725	0.0400	0.0426	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	97	9652	0.0400	0.0427	
49 n-Butanol	31	10.257	10.231	0.026	47	1865	0.0400	0.0333	
48 Cyclohexane	69	10.252	10.249	0.003	71	2949	0.0400	0.0451	
47 Benzene	78	10.247	10.254	-0.007	97	18751	0.0400	0.0433	
50 Carbon tetrachloride	117	10.268	10.276	-0.008	95	12857	0.0400	0.0402	
51 2,3-Dimethylpentane	71	10.371	10.375	-0.004	89	4053	0.0400	0.0444	
52 Thiophene	84	10.536	10.534	0.002	97	10781	0.0400	0.0428	
53 Isooctane	57	11.027	11.028	-0.001	97	31330	0.0400	0.0429	
55 n-Heptane	71	11.410	11.415	-0.005	91	5618	0.0400	0.0402	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	87	8069	0.0400	0.0445	
56 Trichloroethene	130	11.539	11.537	0.002	96	8499	0.0400	0.0441	
57 Dibromomethane	93	11.622	11.623	-0.001	94	8769	0.0400	0.0434	
58 Dichlorobromomethane	83	11.767	11.772	-0.005	98	12723	0.0400	0.0391	
59 1,4-Dioxane	88	11.829	11.802	0.027	89	2555	0.0400	0.0412	
60 Methyl methacrylate	41	11.880	11.875	0.005	91	7117	0.0400	0.0364	
61 Methylcyclohexane	83	12.314	12.312	0.002	93	10471	0.0400	0.0415	
62 4-Methyl-2-pentanone (MIBK	43	12.749	12.738	0.011	97	12237	0.0400	0.0329	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	98	8393	0.0400	0.0354	
64 trans-1,3-Dichloropropene	75	13.488	13.493	-0.005	95	6769	0.0400	0.0342	
65 Toluene	91	13.606	13.611	-0.005	93	21664	0.0400	0.0448	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	7048	0.0400	0.0436	
69 2-Hexanone	58	14.097	14.086	0.011	90	3418	0.0400	0.0219	
71 n-Octane	85	14.309	14.306	0.003	95	5887	0.0400	0.0420	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	11706	0.0400	0.0382	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	99	11452	0.0400	0.0395	
73 Tetrachloroethene	129	14.759	14.762	-0.003	96	8281	0.0400	0.0440	
74 Chlorobenzene	112	15.643	15.643	0.000	95	16645	0.0400	0.0435	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	95	21694	0.0400	0.0448	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	25773	0.0400	0.0419	
78 m-Xylene & p-Xylene	91	16.092	16.095	-0.003	99	40569	0.0800	0.0862	
81 n-Nonane	57	16.516	16.516	0.000	94	12735	0.0400	0.0396	
79 Bromoform	173	16.547	16.546	0.001	93	10073	0.0400	0.0321	
80 Styrene	104	16.563	16.562	0.001	97	12219	0.0400	0.0372	
82 o-Xylene	91	16.620	16.621	-0.001	98	21316	0.0400	0.0436	
83 1,1,2,2-Tetrachloroethane	83	16.945	16.950	-0.005	98	15597	0.0400	0.0390	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	3879	0.0400	0.0400	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.214	17.210	0.004	97	28796	0.0400	0.0436	
86 N-Propylbenzene	120	17.772	17.773	-0.001	98	6463	0.0400	0.0368	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	97	6991	0.0400	0.0417	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	98	23811	0.0400	0.0366	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	11031	0.0400	0.0411	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	85	7983	0.0400	0.0293	
91 n-Decane	57	18.315	18.316	-0.001	90	15638	0.0400	0.0379	
92 tert-Butylbenzene	119	18.460	18.460	0.000	90	24788	0.0400	0.0422	
93 1,2,4-Trimethylbenzene	105	18.475	18.473	0.002	96	22079	0.0400	0.0392	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	98	33536	0.0400	0.0403	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	12934	0.0400	0.0361	
96 Benzyl chloride	91	18.832	18.837	-0.005	95	4754	0.0400	0.1796	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	93	11588	0.0400	0.0351	
98 4-Isopropyltoluene	119	18.909	18.913	-0.004	96	24875	0.0400	0.0384	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	98	22809	0.0400	0.0394	
100 Butylcyclohexane	83	19.023	19.024	-0.001	91	19690	0.0400	0.0417	
102 2,3-Dihydroindene	117	19.219	19.224	-0.005	92	19518	0.0400	0.0380	
101 1,2-Dichlorobenzene	146	19.224	19.225	-0.001	83	14230	0.0400	0.0386	
103 Indene	116	19.359	19.359	0.000	89	12667	0.0400	0.0295	
104 n-Butylbenzene	91	19.364	19.365	-0.001	97	21042	0.0400	0.0328	
105 Undecane	57	19.690	19.689	0.001	95	14052	0.0400	0.0296	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	88	3831	0.0400	0.0215	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	96	21351	0.0400	0.0350	
110 Dodecane	57	20.780	20.781	-0.001	93	9882	0.0400	0.0217	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	93	5316	0.0400	0.1232	
113 Naphthalene	128	21.132	21.133	-0.001	98	13454	0.0400	0.0265	
115 Hexachlorobutadiene	225	21.359	21.356	0.003	92	14811	0.0400	0.0405	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	93	8066	0.0400	0.0333	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	98	3565	0.0400	0.0367	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	97	4923	0.0400	0.0370	
A 120 C8 Range	1	14.304	(14.263-14.346)		0	64297	0.0400	0.0432	
S 121 Xylenes, Total	100				0		0.1200	0.1298	
S 122 1,2-Dichloroethene, Total	1				0		0.0800	0.0869	

Reagents:

40L1-3DQP_00017	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

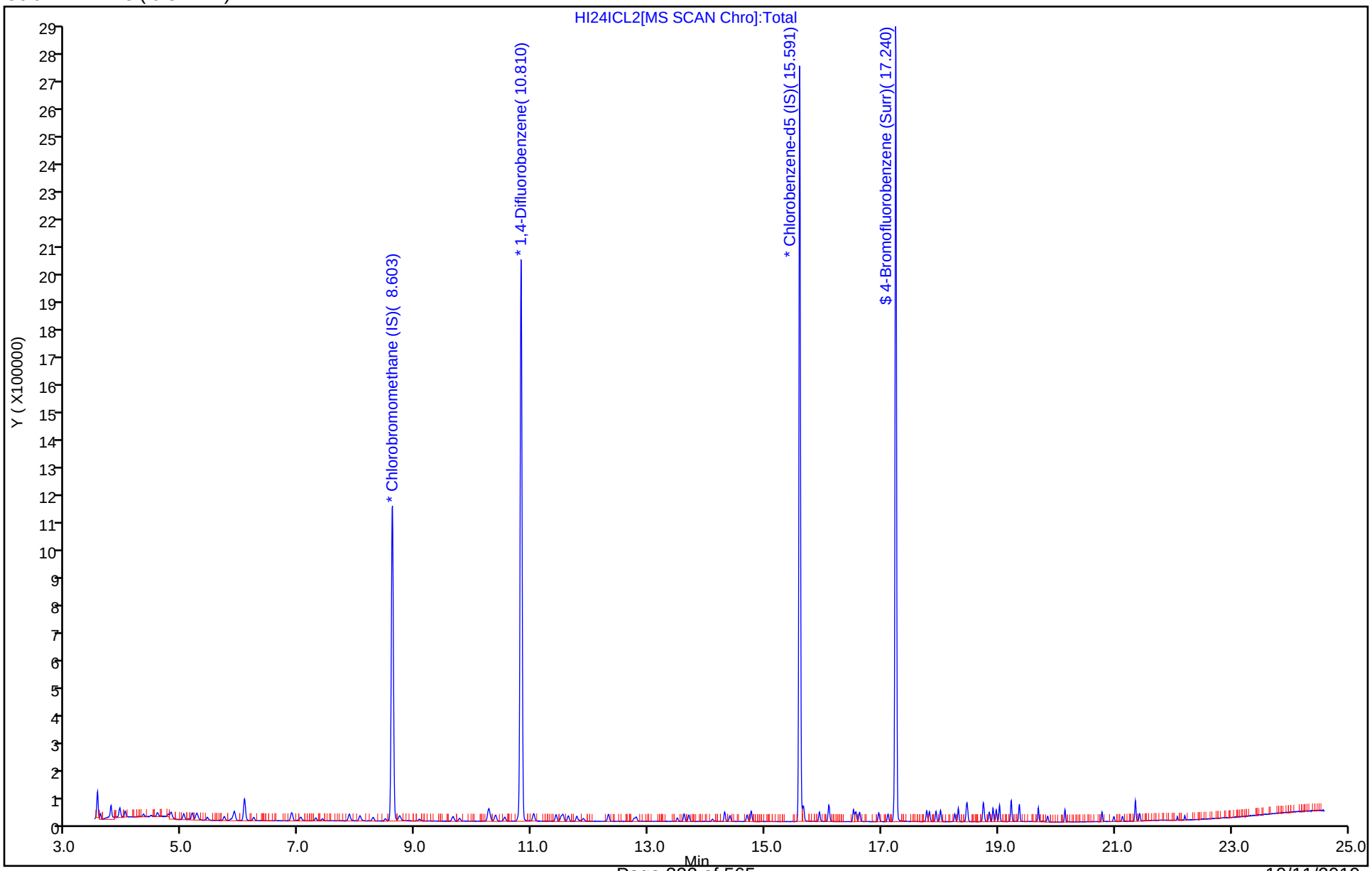
Report Date: 25-Sep-2019 16:13:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL2.D

Injection Date:	25-Sep-2019 03:25:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

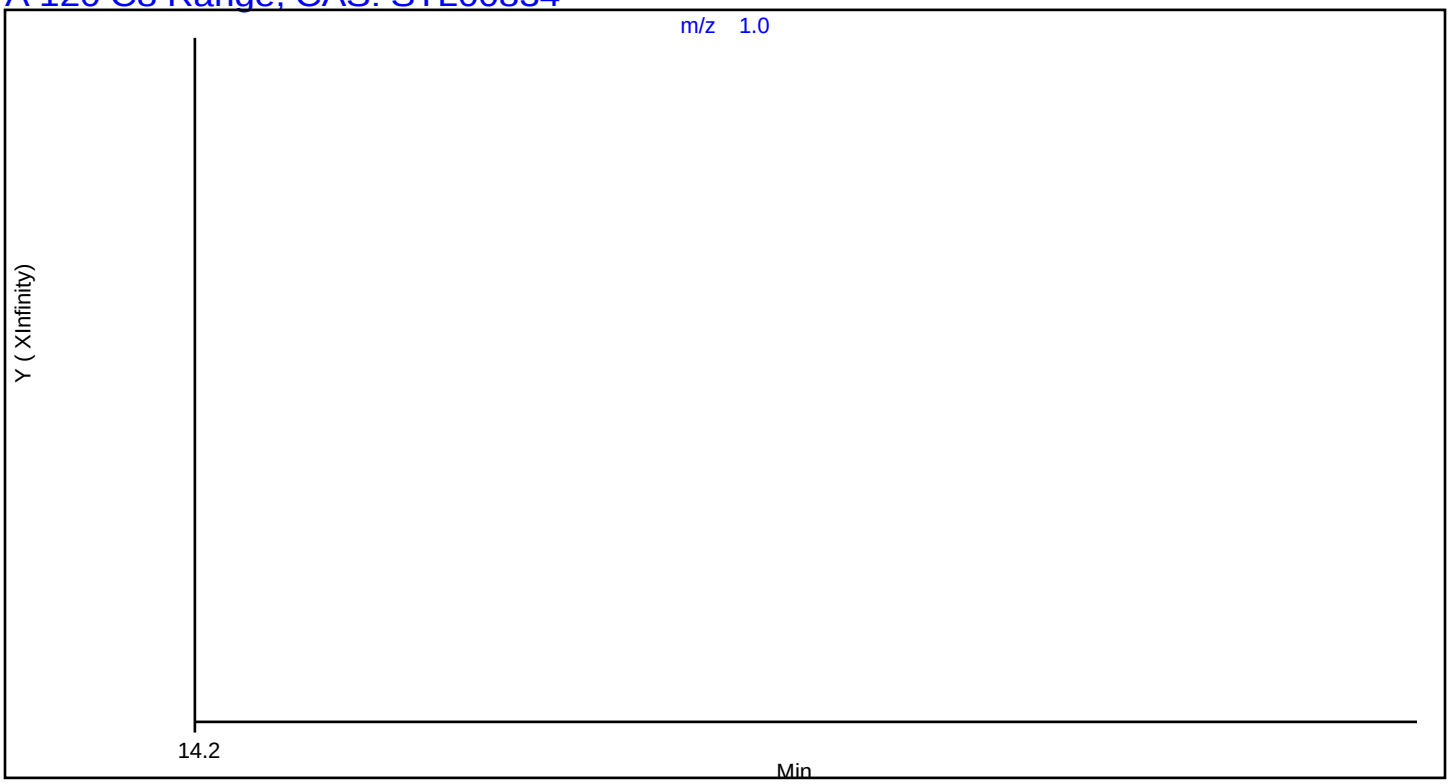


Report Date: 25-Sep-2019 16:13:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL2.D				
Injection Date:	25-Sep-2019 03:25:30	Instrument ID:	MH		
Lims ID:	IC L2				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	2	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL3.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Sep-2019 04:18:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-010
Misc. Info.: 245276
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:30 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: barlozhetskayaa Date: 25-Sep-2019 13:58:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.598	8.608	-0.010	98	370998	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.810	10.815	-0.005	95	1962428	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.594	-0.003	89	1571292	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	95	989017	4.00	3.99	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	97	22114	0.0800	0.0775	
7 Propene	41	3.544	3.540	0.004	99	53619	0.0800	0.3754	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	33779	0.0800	0.0788	
9 Chloromethane	52	3.766	3.766	0.000	74	3986	0.0800	0.0856	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.776	3.773	0.003	90	23054	0.0800	0.0791	
11 Acetaldehyde	44	3.921	3.918	0.003	96	31051	0.4000	0.5495	
12 Vinyl chloride	62	3.931	3.932	-0.001	98	12084	0.0800	0.0771	
14 Butane	43	4.019	4.016	0.003	84	16981	0.0800	0.0826	
13 Butadiene	54	4.019	4.016	0.003	70	9222	0.0800	0.0806	
15 Bromomethane	94	4.329	4.328	0.001	98	11256	0.0800	0.0781	
16 Chloroethane	64	4.469	4.465	0.004	98	6489	0.0800	0.0921	
17 Ethanol	31	4.567	4.567	0.000	95	22527	0.4000	0.3888	
18 Vinyl bromide	106	4.758	4.757	0.001	98	12324	0.0800	0.0847	
19 2-Methylbutane	43	4.805	4.804	0.001	92	14789	0.0800	0.0894	
21 Trichlorofluoromethane	101	5.017	5.019	-0.002	99	32291	0.0800	0.0796	
20 Acrolein	56	5.037	5.035	0.002	93	4623	0.0800	0.0850	
22 Acetonitrile	40	5.099	5.105	-0.006	98	6147	0.0800	0.0880	
23 Acetone	58	5.161	5.155	0.006	98	23068	0.2400	0.3133	
24 Pentane	72	5.234	5.235	-0.001	96	1592	0.0800	0.0797	
25 Isopropyl alcohol	45	5.249	5.244	0.005	94	41794	0.2400	0.1823	
26 Ethyl ether	31	5.420	5.409	0.011	94	13187	0.0800	0.0799	
27 1,1-Dichloroethene	96	5.714	5.717	-0.003	96	11606	0.0800	0.0808	
28 Acrylonitrile	53	5.828	5.830	-0.002	95	9630	0.0800	0.0821	
29 2-Methyl-2-propanol	59	5.854	5.837	0.017	87	12202	0.0800	0.0691	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	96	26287	0.0800	0.0828	
31 Methylene Chloride	84	6.066	6.066	0.000	98	39666	0.0800	0.2149	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	97	10414	0.0800	0.0803	
33 Carbon disulfide	76	6.221	6.221	0.000	100	33692	0.0800	0.0795	
34 trans-1,2-Dichloroethene	96	6.867	6.867	0.000	95	11355	0.0800	0.0795	
35 2-Methylpentane	43	6.877	6.882	-0.005	95	27137	0.0800	0.0813	
36 Methyl tert-butyl ether	73	7.012	7.005	0.007	91	21263	0.0800	0.0732	
37 1,1-Dichloroethane	63	7.291	7.292	-0.001	100	22360	0.0800	0.0806	
38 Vinyl acetate	43	7.399	7.399	0.000	99	25303	0.0800	0.0624	
39 2-Butanone (MEK)	72	7.859	7.856	0.003	86	5331	0.0800	0.0799	
40 Hexane	56	7.854	7.861	-0.007	69	9850	0.0800	0.0827	
171 Isopropyl ether	45	8.035	8.029	0.006	97	41271	0.0800	0.0791	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	97	12147	0.0800	0.0803	
42 Ethyl acetate	43	8.480	8.470	0.010	98	24467	0.0800	0.0729	
43 Chloroform	83	8.614	8.618	-0.004	91	26012	0.0800	0.0808	
173 Tert-butyl ethyl ether	59	8.722	8.710	0.012	95	25344	0.0800	0.0708	
44 Tetrahydrofuran	42	9.058	9.038	0.020	95	13314	0.0800	0.0806	
45 1,1,1-Trichloroethane	97	9.637	9.645	-0.008	96	22131	0.0800	0.0738	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	97	17098	0.0800	0.0762	
49 n-Butanol	31	10.252	10.231	0.021	49	3068	0.0800	0.0552	
48 Cyclohexane	69	10.252	10.249	0.003	72	5064	0.0800	0.0780	
47 Benzene	78	10.252	10.254	-0.002	97	34726	0.0800	0.0808	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	95	24054	0.0800	0.0759	
51 2,3-Dimethylpentane	71	10.376	10.375	0.001	89	7180	0.0800	0.0793	
52 Thiophene	84	10.531	10.534	-0.003	97	19708	0.0800	0.0789	
53 Isooctane	57	11.028	11.028	0.000	98	57497	0.0800	0.0793	
55 n-Heptane	71	11.415	11.415	0.000	94	10865	0.0800	0.0783	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	89	14031	0.0800	0.0779	
56 Trichloroethene	130	11.529	11.537	-0.008	95	15023	0.0800	0.0785	
57 Dibromomethane	93	11.617	11.623	-0.006	96	15792	0.0800	0.0788	
58 Dichlorobromomethane	83	11.767	11.772	-0.005	98	23738	0.0800	0.0735	
59 1,4-Dioxane	88	11.813	11.802	0.011	93	3948	0.0800	0.0641	
60 Methyl methacrylate	41	11.880	11.875	0.005	92	12369	0.0800	0.0637	
61 Methylcyclohexane	83	12.309	12.312	-0.003	94	19799	0.0800	0.0791	
62 4-Methyl-2-pentanone (MIBK	43	12.743	12.738	0.005	98	23910	0.0800	0.0648	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	96	16224	0.0800	0.0690	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	98	13027	0.0800	0.0660	
65 Toluene	91	13.607	13.611	-0.004	92	38844	0.0800	0.0805	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	12797	0.0800	0.0793	
69 2-Hexanone	58	14.092	14.086	0.006	92	7308	0.0800	0.0469	
71 n-Octane	85	14.304	14.306	-0.002	95	10613	0.0800	0.0759	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	97	21246	0.0800	0.0696	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	97	21661	0.0800	0.0749	
73 Tetrachloroethene	129	14.759	14.762	-0.003	95	15113	0.0800	0.0805	
74 Chlorobenzene	112	15.643	15.643	0.000	94	30282	0.0800	0.0793	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	95	40236	0.0800	0.0833	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	47150	0.0800	0.0768	
78 m-Xylene & p-Xylene	91	16.093	16.095	-0.002	99	73493	0.1600	0.1566	
81 n-Nonane	57	16.516	16.516	0.000	93	23735	0.0800	0.0740	
79 Bromoform	173	16.547	16.546	0.001	93	19371	0.0800	0.0620	
80 Styrene	104	16.563	16.562	0.001	99	23305	0.0800	0.0711	
82 o-Xylene	91	16.620	16.621	-0.001	99	39551	0.0800	0.0811	
83 1,1,2,2-Tetrachloroethane	83	16.951	16.950	0.000	98	30032	0.0800	0.0754	
84 1,2,3-Trichloropropane	110	17.106	17.110	-0.004	97	7373	0.0800	0.0762	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	97	52862	0.0800	0.0802	
86 N-Propylbenzene	120	17.772	17.773	-0.001	98	12666	0.0800	0.0723	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	13152	0.0800	0.0787	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	98	47844	0.0800	0.0737	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	20221	0.0800	0.0755	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	87	15554	0.0800	0.0573	
91 n-Decane	57	18.315	18.316	-0.001	90	30546	0.0800	0.0743	
92 tert-Butylbenzene	119	18.460	18.460	0.000	90	46971	0.0800	0.0801	
93 1,2,4-Trimethylbenzene	105	18.475	18.473	0.002	96	42663	0.0800	0.0759	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	98	64482	0.0800	0.0778	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	25616	0.0800	0.0716	
96 Benzyl chloride	91	18.837	18.837	0.000	96	9860	0.0800	0.1919	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	93	22449	0.0800	0.0681	
98 4-Isopropyltoluene	119	18.914	18.913	0.001	96	47883	0.0800	0.0741	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	44983	0.0800	0.0780	
100 Butylcyclohexane	83	19.023	19.024	-0.001	91	37342	0.0800	0.0792	
102 2,3-Dihydroindene	117	19.225	19.224	0.001	92	37579	0.0800	0.0733	
101 1,2-Dichlorobenzene	146	19.225	19.225	0.000	82	26365	0.0800	0.0717	
103 Indene	116	19.359	19.359	0.000	86	25189	0.0800	0.0588	
104 n-Butylbenzene	91	19.364	19.365	-0.001	97	42117	0.0800	0.0658	
105 Undecane	57	19.690	19.689	0.001	95	28819	0.0800	0.0610	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	89	7761	0.0800	0.0437	
107 1,2,4,5-Tetramethylbenzene	119	20.145	20.145	0.000	96	41391	0.0800	0.0680	
110 Dodecane	57	20.780	20.781	-0.001	93	21415	0.0800	0.0471	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	9912	0.0800	0.1422	
113 Naphthalene	128	21.132	21.133	-0.001	98	24712	0.0800	0.0488	
115 Hexachlorobutadiene	225	21.359	21.356	0.003	92	27526	0.0800	0.0754	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	14601	0.0800	0.0605	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	98	6623	0.0800	0.0683	
118 1-Methylnaphthalene	142	22.202	22.201	0.001	97	9711	0.0800	0.0731	
A 120 C8 Range	1	14.297	(14.263-14.346)		0	115984	0.0800	0.0785	
S 121 Xylenes, Total	100				0		0.2400	0.2377	
S 122 1,2-Dichloroethene, Total	1				0		0.1600	0.1599	

Reagents:

40L1-3DQP_00017	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

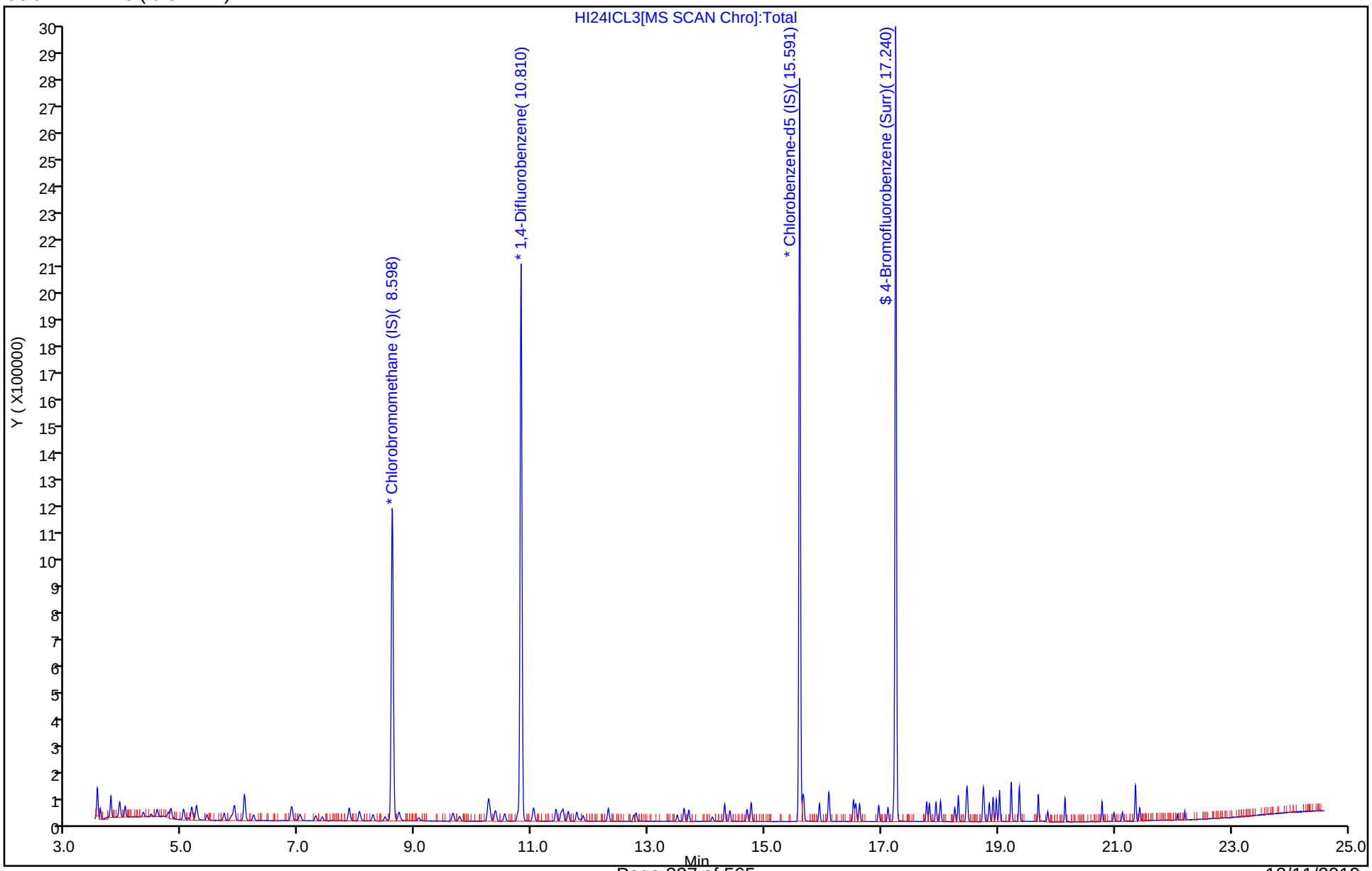
Report Date: 25-Sep-2019 16:13:31 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL3.D

Injection Date:	25-Sep-2019 04:18:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

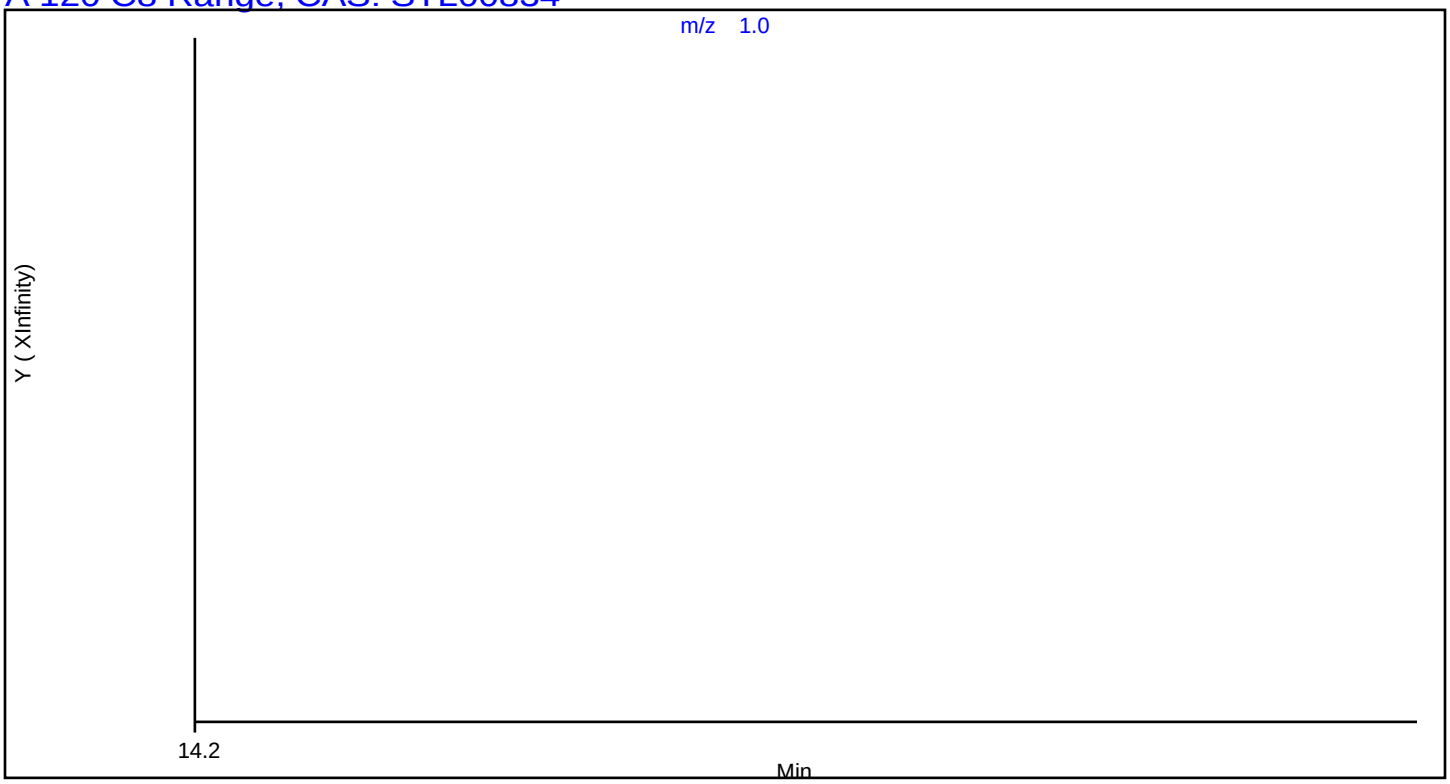


Report Date: 25-Sep-2019 16:13:31 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL3.D				
Injection Date:	25-Sep-2019 04:18:30	Instrument ID:	MH		
Lims ID:	IC L3				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL4.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Sep-2019 05:11:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-011
Misc. Info.: 245275
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:37 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: barlozhetskayaa Date: 25-Sep-2019 11:57:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.603	8.608	-0.005	97	362463	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.810	10.815	-0.005	95	1921273	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.594	-0.003	89	1530117	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	95	972701	4.00	4.03	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	96	43196	0.1600	0.1549	
7 Propene	41	3.538	3.540	-0.002	99	62537	0.1600	0.4481	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	65805	0.1600	0.1572	
9 Chloromethane	52	3.766	3.766	0.000	98	8429	0.1600	0.1852	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	91	45676	0.1600	0.1605	
11 Acetaldehyde	44	3.916	3.918	-0.002	96	55270	0.8000	1.00	
12 Vinyl chloride	62	3.926	3.932	-0.006	99	23782	0.1600	0.1553	
14 Butane	43	4.014	4.016	-0.002	85	34290	0.1600	0.1707	
13 Butadiene	54	4.014	4.016	-0.002	69	18191	0.1600	0.1627	
15 Bromomethane	94	4.324	4.328	-0.004	98	22580	0.1600	0.1604	
16 Chloroethane	64	4.458	4.465	-0.007	99	11191	0.1600	0.1625	
17 Ethanol	31	4.562	4.567	-0.005	94	42784	0.8000	0.7558	
18 Vinyl bromide	106	4.758	4.757	0.001	97	22847	0.1600	0.1608	
19 2-Methylbutane	43	4.805	4.804	0.001	92	26761	0.1600	0.1655	
21 Trichlorofluoromethane	101	5.017	5.019	-0.002	99	63919	0.1600	0.1613	
20 Acrolein	56	5.032	5.035	-0.003	91	8870	0.1600	0.1669	
22 Acetonitrile	40	5.104	5.105	-0.001	99	11579	0.1600	0.1698	
23 Acetone	58	5.156	5.155	0.001	98	38693	0.4800	0.5379	
24 Pentane	72	5.239	5.235	0.004	98	3334	0.1600	0.1708	
25 Isopropyl alcohol	45	5.249	5.244	0.005	93	83562	0.4800	0.3737	
26 Ethyl ether	31	5.409	5.409	0.000	94	26707	0.1600	0.1657	
27 1,1-Dichloroethene	96	5.714	5.717	-0.003	94	21803	0.1600	0.1554	
28 Acrylonitrile	53	5.823	5.830	-0.007	95	17917	0.1600	0.1563	
29 2-Methyl-2-propanol	59	5.844	5.837	0.007	87	24516	0.1600	0.1420	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	96	52062	0.1600	0.1678	
31 Methylene Chloride	84	6.061	6.066	-0.005	98	50298	0.1600	0.2790	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	95	20859	0.1600	0.1645	
33 Carbon disulfide	76	6.216	6.221	-0.005	99	66869	0.1600	0.1615	
34 trans-1,2-Dichloroethene	96	6.862	6.867	-0.005	95	22474	0.1600	0.1611	
35 2-Methylpentane	43	6.877	6.882	-0.005	95	53125	0.1600	0.1628	
36 Methyl tert-butyl ether	73	7.012	7.005	0.007	92	43213	0.1600	0.1523	
37 1,1-Dichloroethane	63	7.286	7.292	-0.006	100	42784	0.1600	0.1578	
38 Vinyl acetate	43	7.399	7.399	0.000	99	51648	0.1600	0.1303	
39 2-Butanone (MEK)	72	7.854	7.856	-0.002	86	10341	0.1600	0.1586	
40 Hexane	56	7.864	7.861	0.003	71	19188	0.1600	0.1648	
171 Isopropyl ether	45	8.030	8.029	0.001	98	80399	0.1600	0.1578	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	97	23059	0.1600	0.1561	
42 Ethyl acetate	43	8.474	8.470	0.004	98	47790	0.1600	0.1458	
43 Chloroform	83	8.609	8.618	-0.009	95	50974	0.1600	0.1620	
173 Tert-butyl ethyl ether	59	8.712	8.710	0.002	96	50630	0.1600	0.1447	
44 Tetrahydrofuran	42	9.048	9.038	0.010	95	23427	0.1600	0.1452	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	96	44785	0.1600	0.1528	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	97	34172	0.1600	0.1555	
49 n-Butanol	31	10.242	10.231	0.011	49	5660	0.1600	0.1041	
48 Cyclohexane	69	10.247	10.249	-0.002	72	10125	0.1600	0.1592	
47 Benzene	78	10.247	10.254	-0.007	97	67419	0.1600	0.1602	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	96	47444	0.1600	0.1528	
51 2,3-Dimethylpentane	71	10.376	10.375	0.001	91	14015	0.1600	0.1581	
52 Thiophene	84	10.526	10.534	-0.008	98	37862	0.1600	0.1549	
53 Isooctane	57	11.027	11.028	-0.001	99	111529	0.1600	0.1572	
55 n-Heptane	71	11.415	11.415	0.000	94	20936	0.1600	0.1542	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	89	26576	0.1600	0.1507	
56 Trichloroethene	130	11.534	11.537	-0.003	95	29121	0.1600	0.1554	
57 Dibromomethane	93	11.622	11.623	-0.001	96	30368	0.1600	0.1548	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	46919	0.1600	0.1484	
59 1,4-Dioxane	88	11.803	11.802	0.001	90	8350	0.1600	0.1384	
60 Methyl methacrylate	41	11.875	11.875	0.000	93	24601	0.1600	0.1294	
61 Methylcyclohexane	83	12.309	12.312	-0.003	93	37370	0.1600	0.1524	
62 4-Methyl-2-pentanone (MIBK	43	12.743	12.738	0.005	97	47870	0.1600	0.1324	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	95	32800	0.1600	0.1424	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	97	25754	0.1600	0.1339	
65 Toluene	91	13.606	13.611	-0.005	93	76160	0.1600	0.1622	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	25056	0.1600	0.1594	
69 2-Hexanone	58	14.092	14.086	0.006	91	15937	0.1600	0.1050	
71 n-Octane	85	14.304	14.306	-0.002	95	21302	0.1600	0.1565	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	43336	0.1600	0.1457	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	98	42855	0.1600	0.1522	
73 Tetrachloroethene	129	14.759	14.762	-0.003	95	29210	0.1600	0.1599	
74 Chlorobenzene	112	15.643	15.643	0.000	93	58773	0.1600	0.1581	
75 2,3-Dimethylheptane	43	15.663	15.661	0.002	94	79684	0.1600	0.1694	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	93879	0.1600	0.1571	
78 m-Xylene & p-Xylene	91	16.092	16.095	-0.003	98	144646	0.3200	0.3165	
81 n-Nonane	57	16.516	16.516	0.000	93	49467	0.1600	0.1584	
79 Bromoform	173	16.547	16.546	0.001	94	39523	0.1600	0.1298	
80 Styrene	104	16.558	16.562	-0.004	98	48453	0.1600	0.1519	
82 o-Xylene	91	16.620	16.621	-0.001	98	78046	0.1600	0.1644	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	60200	0.1600	0.1552	
84 1,2,3-Trichloropropane	110	17.105	17.110	-0.005	97	15033	0.1600	0.1595	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	97	103604	0.1600	0.1615	
86 N-Propylbenzene	120	17.772	17.773	-0.001	99	25908	0.1600	0.1519	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	25767	0.1600	0.1584	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	98	96101	0.1600	0.1520	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	91	40705	0.1600	0.1560	
90 Alpha Methyl Styrene	118	18.258	18.254	0.004	88	33843	0.1600	0.1280	
91 n-Decane	57	18.315	18.316	-0.001	89	64178	0.1600	0.1603	
92 tert-Butylbenzene	119	18.460	18.460	0.000	94	91598	0.1600	0.1604	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	87972	0.1600	0.1607	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	99	130315	0.1600	0.1614	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	51280	0.1600	0.1472	
96 Benzyl chloride	91	18.837	18.837	0.000	96	20890	0.1600	0.2197	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	93	45113	0.1600	0.1406	
98 4-Isopropyltoluene	119	18.909	18.913	-0.004	97	102001	0.1600	0.1620	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	90182	0.1600	0.1606	
100 Butylcyclohexane	83	19.023	19.024	-0.001	91	76265	0.1600	0.1662	
102 2,3-Dihydroindene	117	19.224	19.224	0.000	93	78111	0.1600	0.1565	
101 1,2-Dichlorobenzene	146	19.224	19.225	-0.001	82	54798	0.1600	0.1531	
103 Indene	116	19.359	19.359	0.000	89	56568	0.1600	0.1355	
104 n-Butylbenzene	91	19.364	19.365	-0.001	96	92968	0.1600	0.1492	
105 Undecane	57	19.690	19.689	0.001	95	64693	0.1600	0.1405	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	91	17870	0.1600	0.1033	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	96	89073	0.1600	0.1504	
110 Dodecane	57	20.780	20.781	-0.001	94	50662	0.1600	0.1145	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	93	19861	0.1600	0.1855	
113 Naphthalene	128	21.132	21.133	-0.001	99	51432	0.1600	0.1043	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	92	55239	0.1600	0.1555	
116 1,2,3-Trichlorobenzene	180	21.431	21.428	0.003	95	28906	0.1600	0.1229	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	99	12284	0.1600	0.1302	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	100	17919	0.1600	0.1385	
A 120 C8 Range	1	14.297	(14.263-14.366)		0	226816	0.1600	0.1567	
S 121 Xylenes, Total	100				0		0.4800	0.4809	
S 122 1,2-Dichloroethene, Total	1				0		0.3200	0.3172	

Reagents:

40L4DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

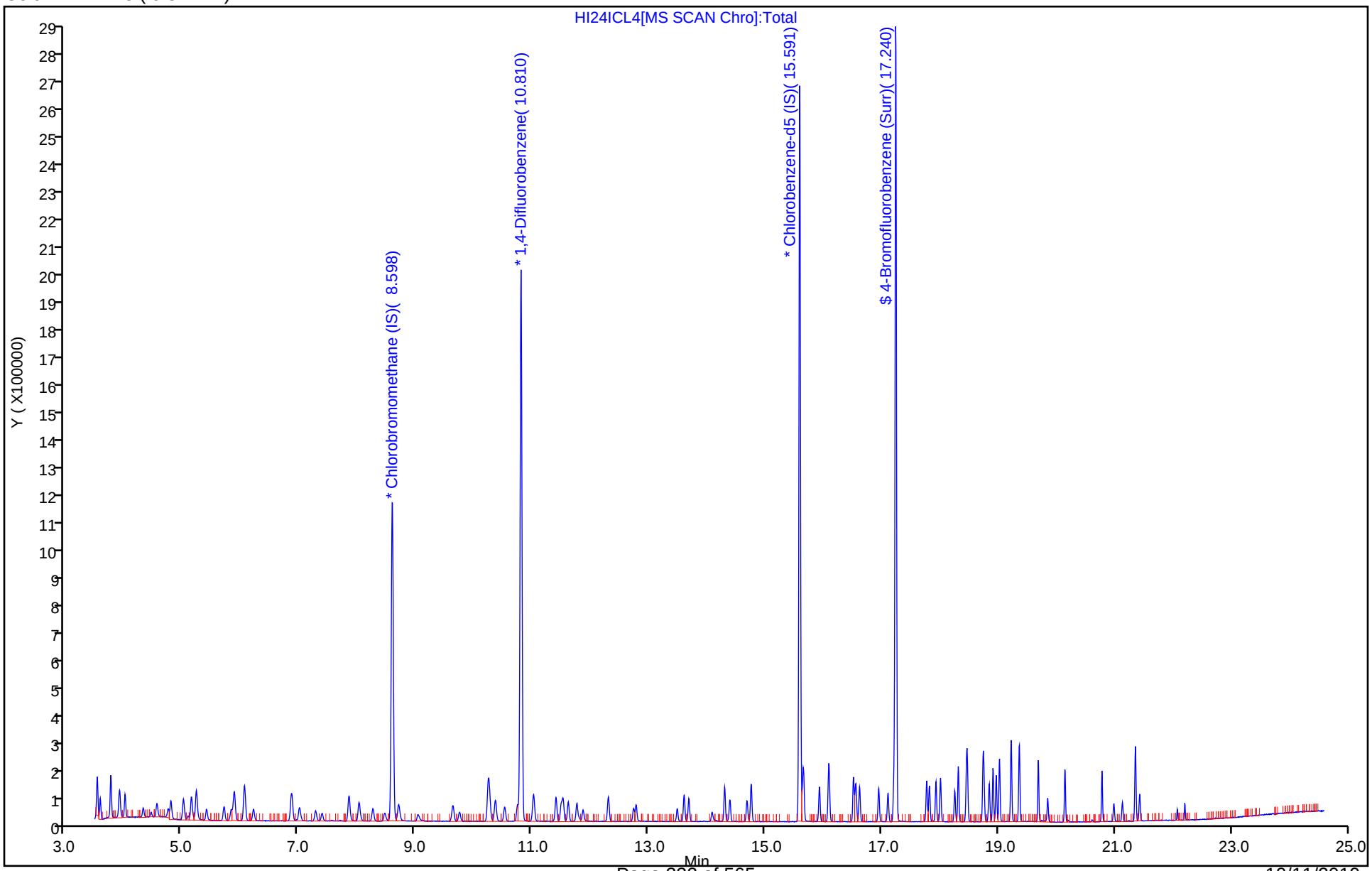
Report Date: 25-Sep-2019 16:13:38 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL4.D

Injection Date:	25-Sep-2019 05:11:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L4			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

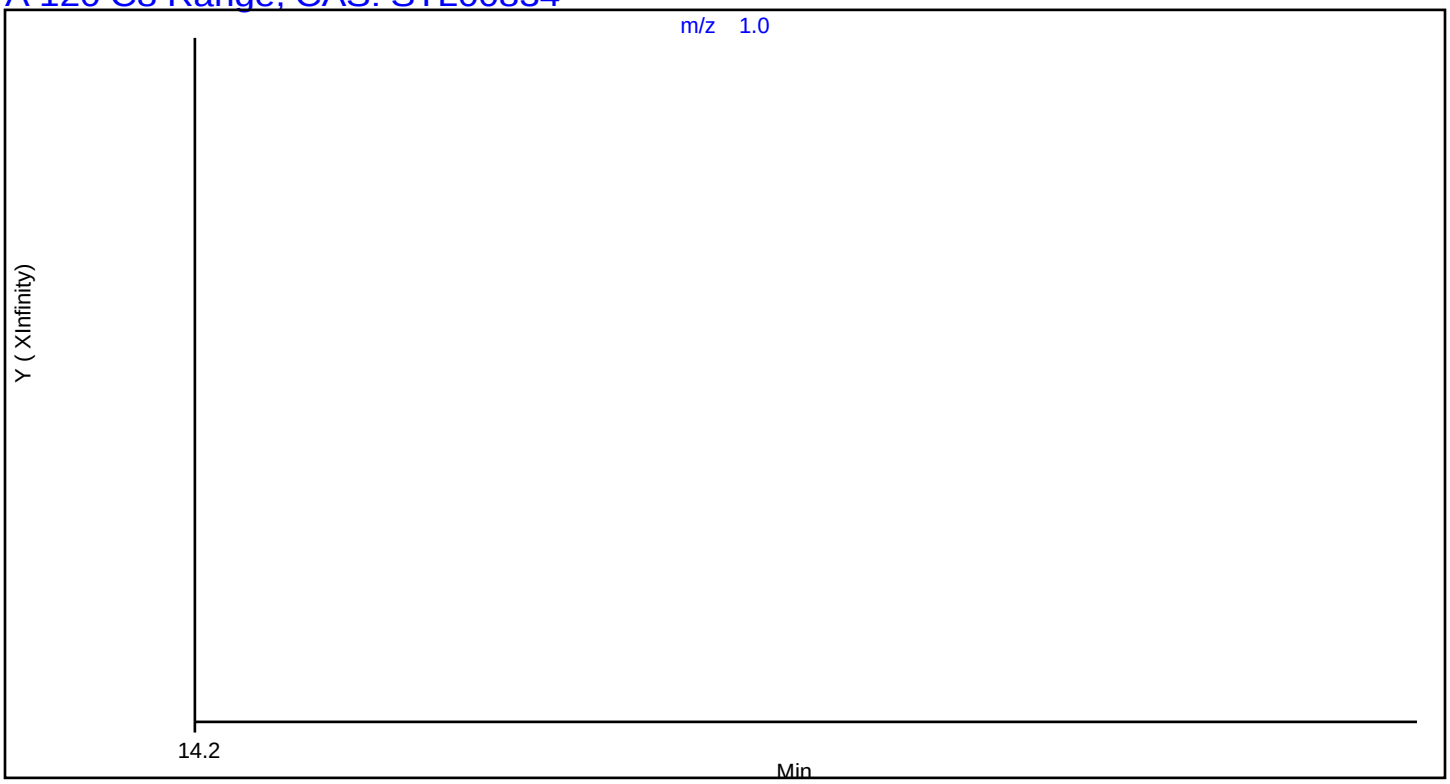


Report Date: 25-Sep-2019 16:13:38 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL4.D				
Injection Date:	25-Sep-2019 05:11:30	Instrument ID:	MH		
Lims ID:	IC L4				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL5.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 25-Sep-2019 06:04:30 ALS Bottle#: 4 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-012
Misc. Info.: 245274
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:45 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: barlozhetskayaa Date: 25-Sep-2019 13:51:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.608	-0.004	98	345764	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.810	10.815	-0.005	95	1817643	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.594	-0.003	89	1463139	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	95	946075	4.00	4.10	
6 Chlorodifluoromethane	51	3.533	3.529	0.004	96	103822	0.4000	0.3902	
7 Propene	41	3.544	3.540	0.004	99	85540	0.4000	0.6425	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	162795	0.4000	0.4076	
9 Chloromethane	52	3.766	3.766	0.000	98	17983	0.4000	0.4142	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	91	109541	0.4000	0.4034	
11 Acetaldehyde	44	3.916	3.918	-0.002	97	115774	2.00	2.20	
12 Vinyl chloride	62	3.936	3.932	0.004	98	58771	0.4000	0.4022	
14 Butane	43	4.019	4.016	0.003	84	80282	0.4000	0.4189	
13 Butadiene	54	4.019	4.016	0.003	72	45035	0.4000	0.4222	
15 Bromomethane	94	4.329	4.328	0.001	99	55023	0.4000	0.4098	
16 Chloroethane	64	4.464	4.465	-0.001	98	26750	0.4000	0.4073	
17 Ethanol	31	4.562	4.567	-0.005	93	108838	2.00	2.02	
18 Vinyl bromide	106	4.758	4.757	0.001	99	55473	0.4000	0.4093	
19 2-Methylbutane	43	4.805	4.804	0.001	92	64196	0.4000	0.4162	
21 Trichlorofluoromethane	101	5.017	5.019	-0.002	100	153233	0.4000	0.4054	
20 Acrolein	56	5.037	5.035	0.002	95	20661	0.4000	0.4075	
22 Acetonitrile	40	5.099	5.105	-0.006	99	27147	0.4000	0.4172	
23 Acetone	58	5.151	5.155	-0.004	98	82734	1.20	1.21	
24 Pentane	72	5.234	5.235	-0.001	80	7881	0.4000	0.4233	
25 Isopropyl alcohol	45	5.234	5.244	-0.010	84	210316	1.20	0.99	
26 Ethyl ether	31	5.404	5.409	-0.005	93	64358	0.4000	0.4185	
27 1,1-Dichloroethene	96	5.720	5.717	0.003	97	52447	0.4000	0.3919	
28 Acrylonitrile	53	5.828	5.830	-0.002	95	44632	0.4000	0.4082	
29 2-Methyl-2-propanol	59	5.833	5.837	-0.004	87	61549	0.4000	0.3737	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	96	122633	0.4000	0.4143	
31 Methylene Chloride	84	6.061	6.066	-0.005	98	77321	0.4000	0.4496	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	95	49063	0.4000	0.4057	
33 Carbon disulfide	76	6.221	6.221	0.000	99	161607	0.4000	0.4093	
34 trans-1,2-Dichloroethene	96	6.867	6.867	0.000	96	54254	0.4000	0.4078	
35 2-Methylpentane	43	6.882	6.882	0.000	98	128733	0.4000	0.4136	
36 Methyl tert-butyl ether	73	7.001	7.005	-0.004	93	105281	0.4000	0.3889	
37 1,1-Dichloroethane	63	7.286	7.292	-0.006	100	106496	0.4000	0.4117	
38 Vinyl acetate	43	7.394	7.399	-0.005	100	136617	0.4000	0.3613	
39 2-Butanone (MEK)	72	7.854	7.856	-0.002	94	24304	0.4000	0.3907	
40 Hexane	56	7.864	7.861	0.003	77	45120	0.4000	0.4063	
171 Isopropyl ether	45	8.025	8.029	-0.004	98	196026	0.4000	0.4034	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	97	56606	0.4000	0.4016	
42 Ethyl acetate	43	8.464	8.470	-0.006	99	123623	0.4000	0.3955	
43 Chloroform	83	8.614	8.618	-0.004	96	123484	0.4000	0.4114	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	96	130023	0.4000	0.3896	
44 Tetrahydrofuran	42	9.032	9.038	-0.006	95	59229	0.4000	0.3849	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	96	109055	0.4000	0.3901	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	97	84489	0.4000	0.4064	
49 n-Butanol	31	10.232	10.231	0.001	65	15699	0.4000	0.3051	
48 Cyclohexane	69	10.247	10.249	-0.002	81	25031	0.4000	0.4161	
47 Benzene	78	10.252	10.254	-0.002	97	161306	0.4000	0.4052	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	96	118158	0.4000	0.4023	
51 2,3-Dimethylpentane	71	10.376	10.375	0.001	91	35003	0.4000	0.4174	
52 Thiophene	84	10.531	10.534	-0.003	98	93498	0.4000	0.4043	
53 Isooctane	57	11.027	11.028	-0.001	98	271516	0.4000	0.4044	
55 n-Heptane	71	11.410	11.415	-0.005	93	50832	0.4000	0.3958	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	90	67250	0.4000	0.4031	
56 Trichloroethene	130	11.534	11.537	-0.003	95	70988	0.4000	0.4004	
57 Dibromomethane	93	11.622	11.623	-0.001	96	73801	0.4000	0.3976	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	120207	0.4000	0.4018	
59 1,4-Dioxane	88	11.803	11.802	0.001	95	22473	0.4000	0.3939	
60 Methyl methacrylate	41	11.870	11.875	-0.005	92	68426	0.4000	0.3804	
61 Methylcyclohexane	83	12.309	12.312	-0.003	94	91601	0.4000	0.3950	
62 4-Methyl-2-pentanone (MIBK	43	12.738	12.738	0.000	97	128098	0.4000	0.3746	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	96	83737	0.4000	0.3843	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	98	69361	0.4000	0.3772	
65 Toluene	91	13.607	13.611	-0.005	93	183594	0.4000	0.4088	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	62020	0.4000	0.4127	
69 2-Hexanone	58	14.082	14.086	-0.004	92	49289	0.4000	0.3395	
71 n-Octane	85	14.304	14.306	-0.002	96	53349	0.4000	0.4098	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	114222	0.4000	0.4016	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	98	109287	0.4000	0.4058	
73 Tetrachloroethene	129	14.759	14.762	-0.003	95	70628	0.4000	0.4042	
74 Chlorobenzene	112	15.643	15.643	0.000	94	145143	0.4000	0.4083	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	95	195239	0.4000	0.4341	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	233703	0.4000	0.4089	
78 m-Xylene & p-Xylene	91	16.092	16.095	-0.003	98	365259	0.8000	0.8357	
81 n-Nonane	57	16.516	16.516	0.000	94	122153	0.4000	0.4090	
79 Bromoform	173	16.542	16.546	-0.004	94	111253	0.4000	0.3822	
80 Styrene	104	16.558	16.562	-0.004	99	124454	0.4000	0.4080	
82 o-Xylene	91	16.620	16.621	-0.001	98	190593	0.4000	0.4200	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	152170	0.4000	0.4101	
84 1,2,3-Trichloropropane	110	17.105	17.110	-0.005	98	36695	0.4000	0.4072	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	97	253709	0.4000	0.4135	
86 N-Propylbenzene	120	17.772	17.773	-0.001	99	66273	0.4000	0.4064	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	64387	0.4000	0.4139	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	248207	0.4000	0.4106	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	91	101880	0.4000	0.4083	
90 Alpha Methyl Styrene	118	18.258	18.254	0.004	90	93782	0.4000	0.3709	
91 n-Decane	57	18.315	18.316	-0.001	89	164541	0.4000	0.4298	
92 tert-Butylbenzene	119	18.460	18.460	0.000	89	228719	0.4000	0.4188	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	221725	0.4000	0.4237	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	99	324044	0.4000	0.4196	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	131580	0.4000	0.3950	
96 Benzyl chloride	91	18.837	18.837	0.000	97	68451	0.4000	0.3446	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	93	117301	0.4000	0.3822	
98 4-Isopropyltoluene	119	18.909	18.913	-0.004	97	254695	0.4000	0.4231	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	224726	0.4000	0.4184	
100 Butylcyclohexane	83	19.023	19.024	-0.001	91	186371	0.4000	0.4247	
102 2,3-Dihydroindene	117	19.225	19.224	0.001	93	196198	0.4000	0.4112	
101 1,2-Dichlorobenzene	146	19.225	19.225	0.000	82	136502	0.4000	0.3987	
103 Indene	116	19.359	19.359	0.000	89	150544	0.4000	0.3771	
104 n-Butylbenzene	91	19.364	19.365	-0.001	97	248059	0.4000	0.4164	
105 Undecane	57	19.690	19.689	0.001	96	172958	0.4000	0.3929	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	92	53981	0.4000	0.3265	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	96	230745	0.4000	0.4074	
110 Dodecane	57	20.780	20.781	-0.001	94	146819	0.4000	0.3469	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	54822	0.4000	0.3444	
113 Naphthalene	128	21.132	21.133	-0.001	99	145539	0.4000	0.3072	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	92	133209	0.4000	0.3921	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	76295	0.4000	0.3393	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	99	30794	0.4000	0.3412	
118 1-Methylnaphthalene	142	22.202	22.201	0.001	100	45529	0.4000	0.3680	
A 120 C8 Range	1	14.297	(14.263-14.356)		0	553854	0.4000	0.4045	
S 121 Xylenes, Total	100				0		1.20	1.26	
S 122 1,2-Dichloroethene, Total	1				0		0.8000	0.8094	

Reagents:

40L5DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

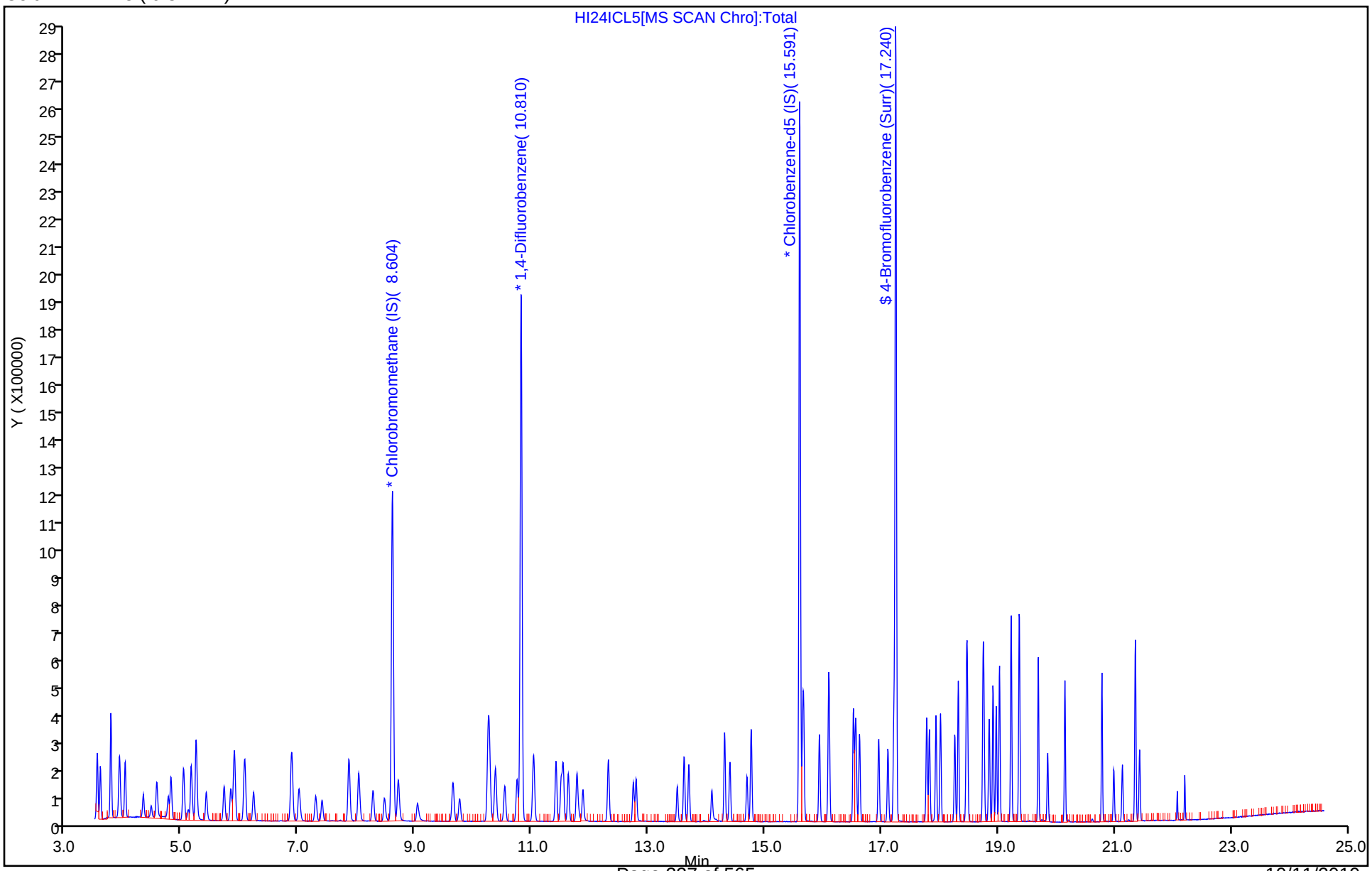
Report Date: 25-Sep-2019 16:13:47 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL5.D

Injection Date:	25-Sep-2019 06:04:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

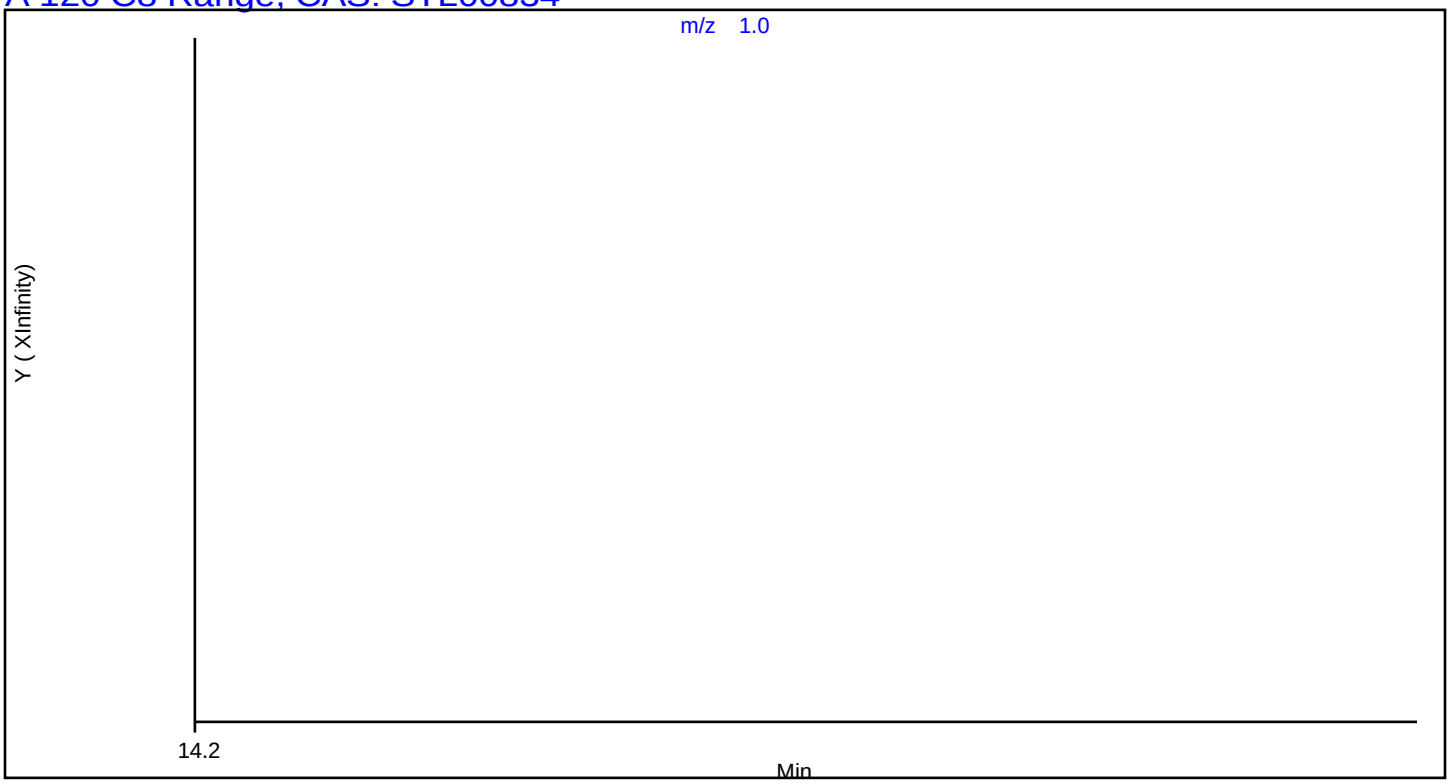


Report Date: 25-Sep-2019 16:13:47 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL5.D				
Injection Date:	25-Sep-2019 06:04:30	Instrument ID:	MH		
Lims ID:	IC L5				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	4	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL6.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Sep-2019 06:59:30 ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-013
Misc. Info.: 245273
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:13:54 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 08:19:50

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.603	8.608	-0.005	98	342141	4.00	4.00	
*	2 1,4-Difluorobenzene	114	10.816	10.815	0.001	95	1790868	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	89	1456350	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	95	956665	4.00	4.16	
	6 Chlorodifluoromethane	51	3.528	3.529	-0.001	97	258080	1.00	0.9802	
	7 Propene	41	3.538	3.540	-0.002	99	150527	1.00	1.14	
	8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	394462	1.00	1.00	
	9 Chloromethane	52	3.766	3.766	0.000	98	43576	1.00	1.01	
	10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	91	268246	1.00	1.00	
	11 Acetaldehyde	44	3.911	3.918	-0.007	98	273904	5.00	5.26	
	12 Vinyl chloride	62	3.931	3.932	-0.001	99	143127	1.00	0.9899	
	14 Butane	43	4.014	4.016	-0.002	84	196500	1.00	1.04	
	13 Butadiene	54	4.014	4.016	-0.002	69	110081	1.00	1.04	
	15 Bromomethane	94	4.324	4.328	-0.004	99	135817	1.00	1.02	
	16 Chloroethane	64	4.458	4.465	-0.007	98	62882	1.00	0.9675	
	17 Ethanol	31	4.557	4.567	-0.010	94	261855	5.00	4.90	
	18 Vinyl bromide	106	4.753	4.757	-0.004	98	133892	1.00	1.00	
	19 2-Methylbutane	43	4.800	4.804	-0.004	90	152650	1.00	1.00	
	21 Trichlorofluoromethane	101	5.017	5.019	-0.002	100	376331	1.00	1.01	
	20 Acrolein	56	5.027	5.035	-0.008	95	50728	1.00	1.01	
	22 Acetonitrile	40	5.099	5.105	-0.006	100	63400	1.00	0.9847	
	23 Acetone	58	5.146	5.155	-0.009	98	195039	3.00	2.87	
	24 Pentane	72	5.229	5.235	-0.007	95	19047	1.00	1.03	
	25 Isopropyl alcohol	45	5.229	5.244	-0.016	93	518417	3.00	2.50	
	26 Ethyl ether	31	5.399	5.409	-0.010	93	157454	1.00	1.03	
	27 1,1-Dichloroethene	96	5.709	5.717	-0.008	96	130868	1.00	0.9881	
	28 Acrylonitrile	53	5.823	5.830	-0.007	91	107825	1.00	1.00	
	29 2-Methyl-2-propanol	59	5.818	5.837	-0.019	90	156169	1.00	0.9583	
	30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	96	299195	1.00	1.02	
	31 Methylene Chloride	84	6.061	6.066	-0.005	98	150109	1.00	0.8820	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	95	121319	1.00	1.01	
33 Carbon disulfide	76	6.221	6.221	0.000	99	394178	1.00	1.01	
34 trans-1,2-Dichloroethene	96	6.862	6.867	-0.005	96	131483	1.00	1.00	
35 2-Methylpentane	43	6.877	6.882	-0.005	95	315473	1.00	1.02	
36 Methyl tert-butyl ether	73	6.991	7.005	-0.014	93	265718	1.00	0.99	
37 1,1-Dichloroethane	63	7.286	7.292	-0.006	100	256323	1.00	1.00	
38 Vinyl acetate	43	7.394	7.399	-0.005	100	359344	1.00	0.9605	
39 2-Butanone (MEK)	72	7.849	7.856	-0.007	95	60107	1.00	0.9766	
40 Hexane	56	7.859	7.861	-0.002	76	110164	1.00	1.00	
171 Isopropyl ether	45	8.019	8.029	-0.010	98	488134	1.00	1.02	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	98	137797	1.00	0.9880	
42 Ethyl acetate	43	8.459	8.470	-0.011	98	318538	1.00	1.03	
43 Chloroform	83	8.614	8.618	-0.004	97	299799	1.00	1.01	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	97	333328	1.00	1.01	
44 Tetrahydrofuran	42	9.027	9.038	-0.011	94	150812	1.00	0.99	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	97	272684	1.00	0.9858	
46 1,2-Dichloroethane	62	9.756	9.761	-0.005	97	204250	1.00	1.00	
49 n-Butanol	31	10.221	10.231	-0.010	79	43891	1.00	0.8658	
48 Cyclohexane	69	10.247	10.249	-0.002	82	59975	1.00	1.01	
47 Benzene	78	10.252	10.254	-0.002	98	396929	1.00	1.01	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	96	295125	1.00	1.02	
51 2,3-Dimethylpentane	71	10.366	10.375	-0.009	90	83232	1.00	1.01	
52 Thiophene	84	10.531	10.534	-0.003	98	229319	1.00	1.01	
53 Isooctane	57	11.027	11.028	-0.001	98	667738	1.00	1.01	
55 n-Heptane	71	11.410	11.415	-0.005	93	127392	1.00	1.01	
54 1,2-Dichloropropane	63	11.503	11.501	0.002	91	163324	1.00	0.99	
56 Trichloroethene	130	11.534	11.537	-0.003	95	172044	1.00	0.9849	
57 Dibromomethane	93	11.622	11.623	-0.001	96	183116	1.00	1.00	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	300223	1.00	1.02	
59 1,4-Dioxane	88	11.792	11.802	-0.010	94	53916	1.00	0.9590	
60 Methyl methacrylate	41	11.870	11.875	-0.005	92	182847	1.00	1.03	
61 Methylcyclohexane	83	12.309	12.312	-0.003	93	226504	1.00	0.99	
62 4-Methyl-2-pentanone (MIBK	43	12.733	12.738	-0.005	98	339545	1.00	1.01	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	96	219375	1.00	1.02	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	99	188190	1.00	1.03	
65 Toluene	91	13.612	13.611	0.001	93	453859	1.00	1.02	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	152636	1.00	1.02	
69 2-Hexanone	58	14.082	14.086	-0.004	92	141717	1.00	0.9808	
71 n-Octane	85	14.304	14.306	-0.002	96	133039	1.00	1.03	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	299597	1.00	1.06	
72 Ethylene Dibromide	107	14.687	14.689	-0.002	98	273072	1.00	1.02	
73 Tetrachloroethene	129	14.759	14.762	-0.003	95	172587	1.00	0.99	
74 Chlorobenzene	112	15.643	15.643	0.000	93	357164	1.00	1.01	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	95	480441	1.00	1.07	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	582181	1.00	1.02	
78 m-Xylene & p-Xylene	91	16.092	16.095	-0.003	98	917354	2.00	2.11	
81 n-Nonane	57	16.516	16.516	0.000	94	314861	1.00	1.06	
79 Bromoform	173	16.547	16.546	0.001	94	309075	1.00	1.07	
80 Styrene	104	16.563	16.562	0.001	99	325232	1.00	1.07	
82 o-Xylene	91	16.620	16.621	-0.001	99	469536	1.00	1.04	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	385450	1.00	1.04	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	90692	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	95	624842	1.00	1.02	
86 N-Propylbenzene	120	17.772	17.773	-0.001	99	168177	1.00	1.04	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	158859	1.00	1.03	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	633870	1.00	1.05	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	254742	1.00	1.03	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	87	252208	1.00	1.00	
91 n-Decane	57	18.315	18.316	-0.001	89	412455	1.00	1.08	
92 tert-Butylbenzene	119	18.460	18.460	0.000	90	566776	1.00	1.04	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	551741	1.00	1.06	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	99	808374	1.00	1.05	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	342858	1.00	1.03	
96 Benzyl chloride	91	18.837	18.837	0.000	97	245776	1.00	0.8044	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	95	315726	1.00	1.03	
98 4-Isopropyltoluene	119	18.909	18.913	-0.004	97	642036	1.00	1.07	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	555204	1.00	1.04	
100 Butylcyclohexane	83	19.023	19.024	-0.001	92	455578	1.00	1.04	
102 2,3-Dihydroindene	117	19.224	19.224	0.000	93	499443	1.00	1.05	
101 1,2-Dichlorobenzene	146	19.224	19.225	-0.001	83	352213	1.00	1.03	
103 Indene	116	19.359	19.359	0.000	97	405284	1.00	1.02	
104 n-Butylbenzene	91	19.364	19.365	-0.001	97	646251	1.00	1.09	
105 Undecane	57	19.690	19.689	0.001	96	455960	1.00	1.04	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	97	165576	1.00	1.01	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	96	601768	1.00	1.07	
110 Dodecane	57	20.780	20.781	-0.001	94	416010	1.00	0.9875	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	179722	1.00	0.9021	
113 Naphthalene	128	21.132	21.133	-0.001	99	460821	1.00	0.9633	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	92	340491	1.00	1.01	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	225092	1.00	1.01	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	90748	1.00	1.01	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	100	131930	1.00	1.07	
A 120 C8 Range	1	14.299	(14.258-14.351)		0	1371382	1.00	1.02	
S 121 Xylenes, Total	100				0		3.00	3.15	
S 122 1,2-Dichloroethene, Total	1				0		2.00	1.99	

Reagents:

40L6DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

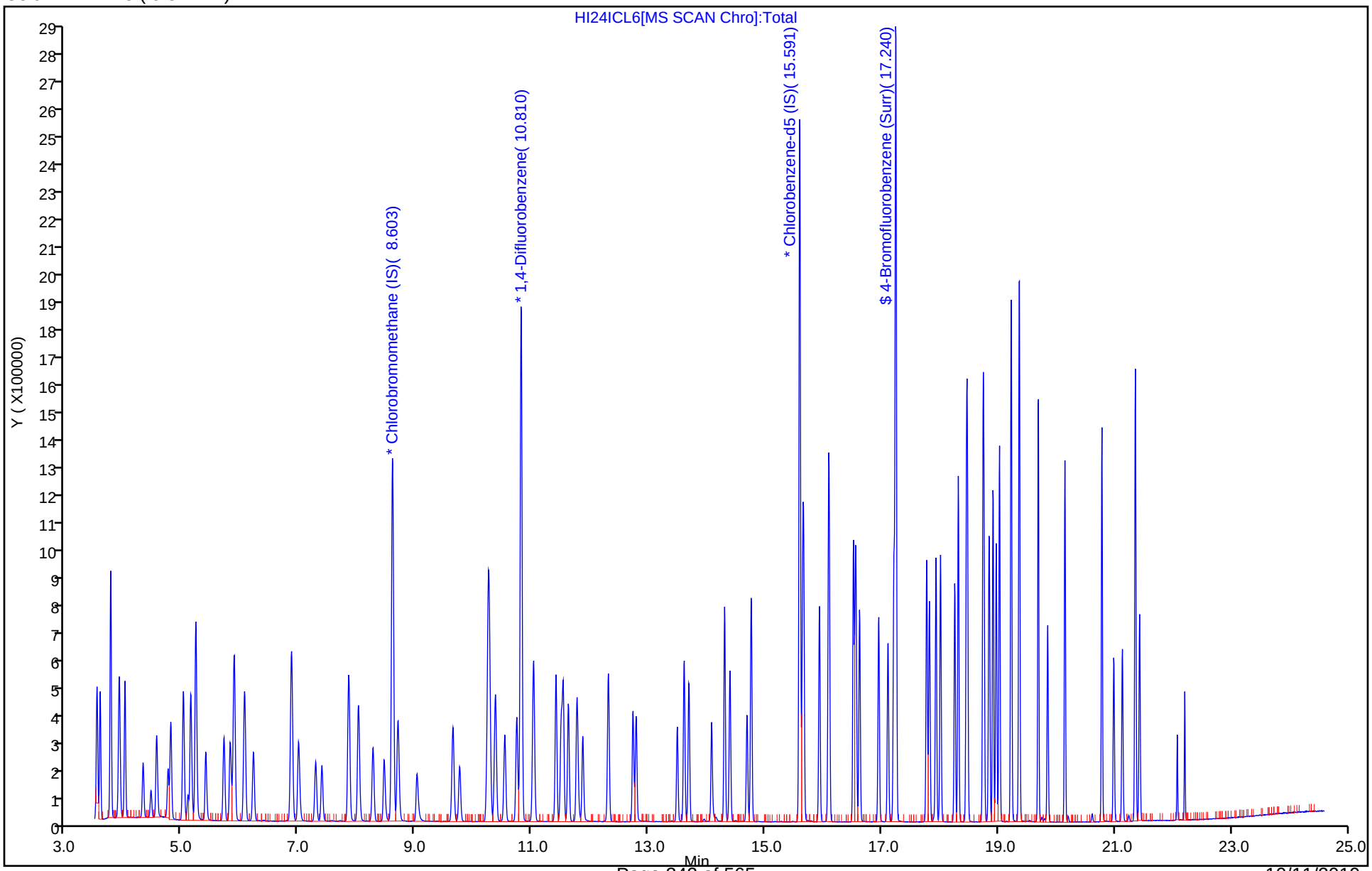
Report Date: 25-Sep-2019 16:13:55 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL6.D

Injection Date:	25-Sep-2019 06:59:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

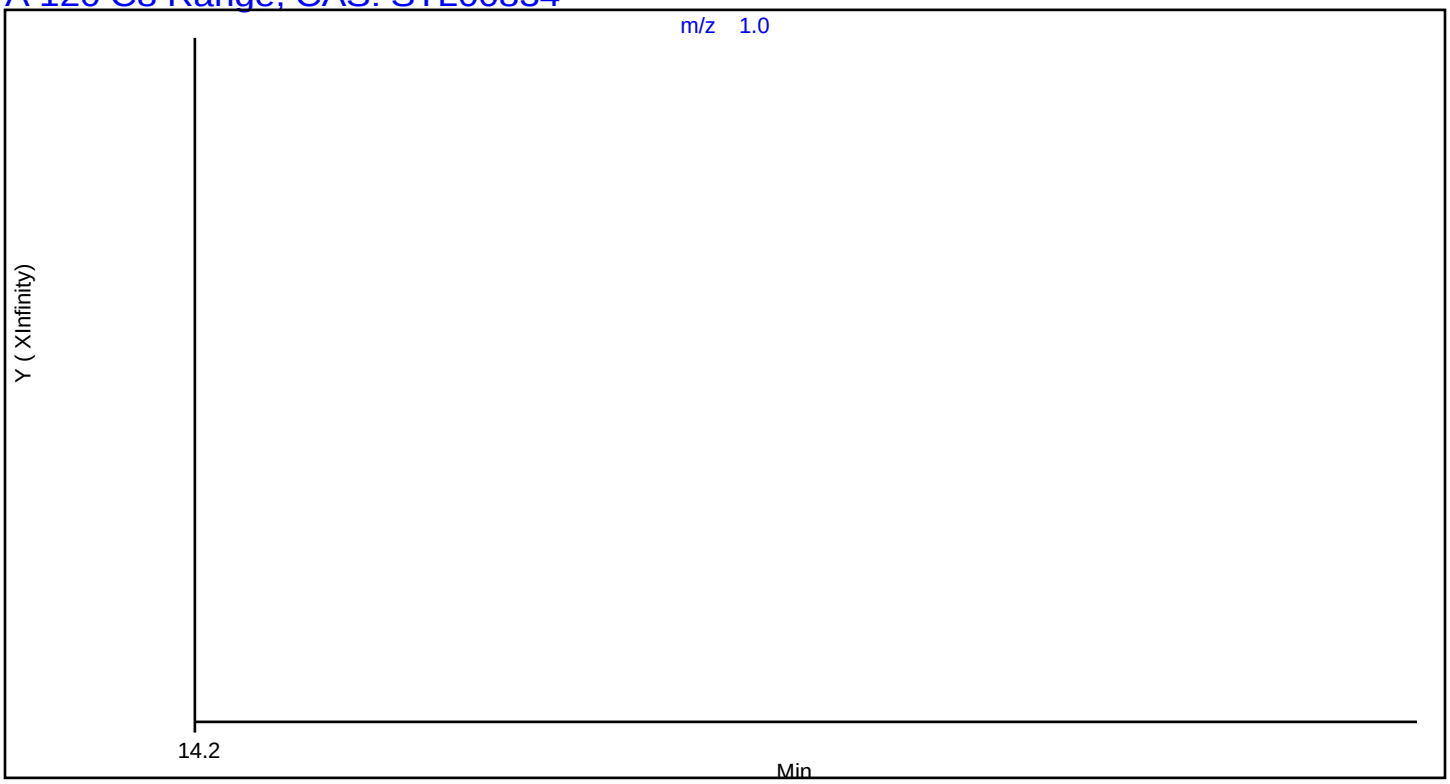


Report Date: 25-Sep-2019 16:13:56 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL6.D				
Injection Date:	25-Sep-2019 06:59:30	Instrument ID:	MH		
Lims ID:	IC L6				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	5	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL7.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 25-Sep-2019 07:53:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-014
Misc. Info.: 245077
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:14:01 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 16:12:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.609	8.608	0.001	98	342797	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.815	0.001	95	1766041	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	88	1461250	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.245	17.242	0.003	96	961381	4.00	4.17	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	96	526371	2.00	2.00	
7 Propene	41	3.538	3.540	-0.002	98	315975	2.00	2.39	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	797184	2.00	2.01	
9 Chloromethane	52	3.766	3.766	0.000	98	88624	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	91	546017	2.00	2.03	
11 Acetaldehyde	44	3.916	3.918	-0.002	96	592754	10.0	11.4	
12 Vinyl chloride	62	3.931	3.932	-0.001	99	290432	2.00	2.00	
14 Butane	43	4.014	4.016	-0.002	85	420180	2.00	2.21	
13 Butadiene	54	4.014	4.016	-0.002	66	220869	2.00	2.09	
15 Bromomethane	94	4.324	4.328	-0.004	98	273421	2.00	2.05	
16 Chloroethane	64	4.464	4.465	-0.001	98	127950	2.00	1.96	
17 Ethanol	31	4.562	4.567	-0.005	93	587431	10.0	11.0	
18 Vinyl bromide	106	4.753	4.757	-0.004	99	272770	2.00	2.03	
19 2-Methylbutane	43	4.800	4.804	-0.004	91	308121	2.00	2.01	
21 Trichlorofluoromethane	101	5.017	5.019	-0.002	100	748808	2.00	2.00	
20 Acrolein	56	5.032	5.035	-0.003	95	98189	2.00	1.95	
22 Acetonitrile	40	5.099	5.105	-0.006	98	136603	2.00	2.12	
23 Acetone	58	5.146	5.155	-0.009	98	486234	6.00	7.15	
24 Pentane	72	5.234	5.235	-0.001	93	38454	2.00	2.08	
25 Isopropyl alcohol	45	5.229	5.244	-0.016	91	1160710	6.00	5.74	
26 Ethyl ether	31	5.399	5.409	-0.010	94	312892	2.00	2.05	
27 1,1-Dichloroethene	96	5.714	5.717	-0.003	96	263675	2.00	1.99	
28 Acrylonitrile	53	5.828	5.830	-0.002	93	218710	2.00	2.02	
29 2-Methyl-2-propanol	59	5.818	5.837	-0.019	91	359357	2.00	2.20	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	97	595343	2.00	2.03	
31 Methylene Chloride	84	6.066	6.066	0.000	98	274860	2.00	1.61	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	96	271563	2.00	2.27	
33 Carbon disulfide	76	6.221	6.221	0.000	99	788999	2.00	2.02	
34 trans-1,2-Dichloroethene	96	6.867	6.867	0.000	96	266946	2.00	2.02	
35 2-Methylpentane	43	6.882	6.882	0.000	95	636153	2.00	2.06	
36 Methyl tert-butyl ether	73	6.991	7.005	-0.014	94	556080	2.00	2.07	
37 1,1-Dichloroethane	63	7.291	7.292	-0.001	100	516914	2.00	2.02	
38 Vinyl acetate	43	7.394	7.399	-0.005	100	763645	2.00	2.04	
39 2-Butanone (MEK)	72	7.844	7.856	-0.012	96	129259	2.00	2.10	
40 Hexane	56	7.859	7.861	-0.002	77	222617	2.00	2.02	
171 Isopropyl ether	45	8.019	8.029	-0.010	98	998686	2.00	2.07	
41 cis-1,2-Dichloroethene	96	8.273	8.275	-0.002	97	278981	2.00	2.00	
42 Ethyl acetate	43	8.459	8.470	-0.011	99	656558	2.00	2.12	
43 Chloroform	83	8.619	8.618	0.001	97	599583	2.00	2.01	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	98	712028	2.00	2.15	
44 Tetrahydrofuran	42	9.022	9.038	-0.016	95	315123	2.00	2.07	
45 1,1,1-Trichloroethane	97	9.647	9.645	0.002	97	567012	2.00	2.05	
46 1,2-Dichloroethane	62	9.761	9.761	0.000	97	412948	2.00	2.04	
49 n-Butanol	31	10.216	10.231	-0.015	83	111292	2.00	2.23	
48 Cyclohexane	69	10.247	10.249	-0.002	84	122723	2.00	2.10	
47 Benzene	78	10.252	10.254	-0.002	98	791442	2.00	2.05	
50 Carbon tetrachloride	117	10.278	10.276	0.002	97	572784	2.00	2.01	
51 2,3-Dimethylpentane	71	10.371	10.375	-0.004	91	170678	2.00	2.09	
52 Thiophene	84	10.536	10.534	0.002	98	469033	2.00	2.09	
53 Isooctane	57	11.027	11.028	-0.001	98	1340921	2.00	2.06	
55 n-Heptane	71	11.415	11.415	0.000	93	257052	2.00	2.06	
54 1,2-Dichloropropane	63	11.503	11.501	0.002	91	331588	2.00	2.05	
56 Trichloroethene	130	11.534	11.537	-0.003	95	343047	2.00	1.99	
57 Dibromomethane	93	11.622	11.623	-0.001	95	393896	2.00	2.18	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	592955	2.00	2.04	
59 1,4-Dioxane	88	11.787	11.802	-0.015	92	122001	2.00	2.20	
60 Methyl methacrylate	41	11.870	11.875	-0.005	95	375501	2.00	2.15	
61 Methylcyclohexane	83	12.314	12.312	0.002	94	465542	2.00	2.07	
62 4-Methyl-2-pentanone (MIBK	43	12.728	12.738	-0.010	97	708531	2.00	2.13	
63 cis-1,3-Dichloropropene	75	12.790	12.788	0.002	96	463810	2.00	2.19	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	99	413927	2.00	2.25	
65 Toluene	91	13.612	13.611	0.001	93	937343	2.00	2.09	
66 1,1,2-Trichloroethane	83	13.694	13.692	0.002	97	312845	2.00	2.08	
69 2-Hexanone	58	14.077	14.086	-0.009	92	320107	2.00	2.21	
71 n-Octane	85	14.304	14.306	-0.002	96	272318	2.00	2.09	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	561197	2.00	1.98	
72 Ethylene Dibromide	107	14.692	14.689	0.003	98	569336	2.00	2.12	
73 Tetrachloroethene	129	14.759	14.762	-0.003	94	348207	2.00	2.00	
74 Chlorobenzene	112	15.643	15.643	0.000	93	729491	2.00	2.05	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	95	990092	2.00	2.20	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	1196436	2.00	2.10	
78 m-Xylene & p-Xylene	91	16.092	16.095	-0.003	98	1850763	4.00	4.24	
81 n-Nonane	57	16.516	16.516	0.000	94	648556	2.00	2.17	
79 Bromoform	173	16.547	16.546	0.001	96	469293	2.00	1.61	
80 Styrene	104	16.563	16.562	0.001	99	680077	2.00	2.23	
82 o-Xylene	91	16.620	16.621	-0.001	99	948407	2.00	2.09	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	798854	2.00	2.16	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	188785	2.00	2.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	96	1291576	2.00	2.11	
86 N-Propylbenzene	120	17.772	17.773	-0.001	99	348652	2.00	2.14	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	323777	2.00	2.08	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	1311330	2.00	2.17	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	517860	2.00	2.08	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	87	540626	2.00	2.14	
91 n-Decane	57	18.315	18.316	-0.001	89	835714	2.00	2.19	
92 tert-Butylbenzene	119	18.460	18.460	0.000	90	1140875	2.00	2.09	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	1117140	2.00	2.14	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	99	1653844	2.00	2.14	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	726374	2.00	2.18	
96 Benzyl chloride	91	18.837	18.837	0.000	97	663636	2.00	1.88	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	95	683630	2.00	2.23	
98 4-Isopropyltoluene	119	18.914	18.913	0.001	97	1302455	2.00	2.17	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	1196043	2.00	2.23	
100 Butylcyclohexane	83	19.023	19.024	-0.001	92	970988	2.00	2.22	
102 2,3-Dihydroindene	117	19.224	19.224	0.000	93	1101095	2.00	2.31	
101 1,2-Dichlorobenzene	146	19.224	19.225	-0.001	80	736659	2.00	2.15	
103 Indene	116	19.359	19.359	0.000	96	944116	2.00	2.37	
104 n-Butylbenzene	91	19.364	19.365	-0.001	98	1330772	2.00	2.24	
105 Undecane	57	19.690	19.689	0.001	96	951215	2.00	2.16	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	98	381341	2.00	2.31	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	97	1386418	2.00	2.45	
110 Dodecane	57	20.780	20.781	-0.001	95	935208	2.00	2.21	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	468499	2.00	2.18	
113 Naphthalene	128	21.132	21.133	-0.001	99	1131343	2.00	2.29	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	92	721866	2.00	2.13	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	533916	2.00	2.38	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	236143	2.00	2.62	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	100	309255	2.00	2.50	
A 120 C8 Range	1	14.304	(14.258-14.351)		0	2802607	2.00	2.11	
S 121 Xylenes, Total	100				0		6.00	6.33	
S 122 1,2-Dichloroethene, Total	1				0		4.00	4.02	

Reagents:

40L7DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

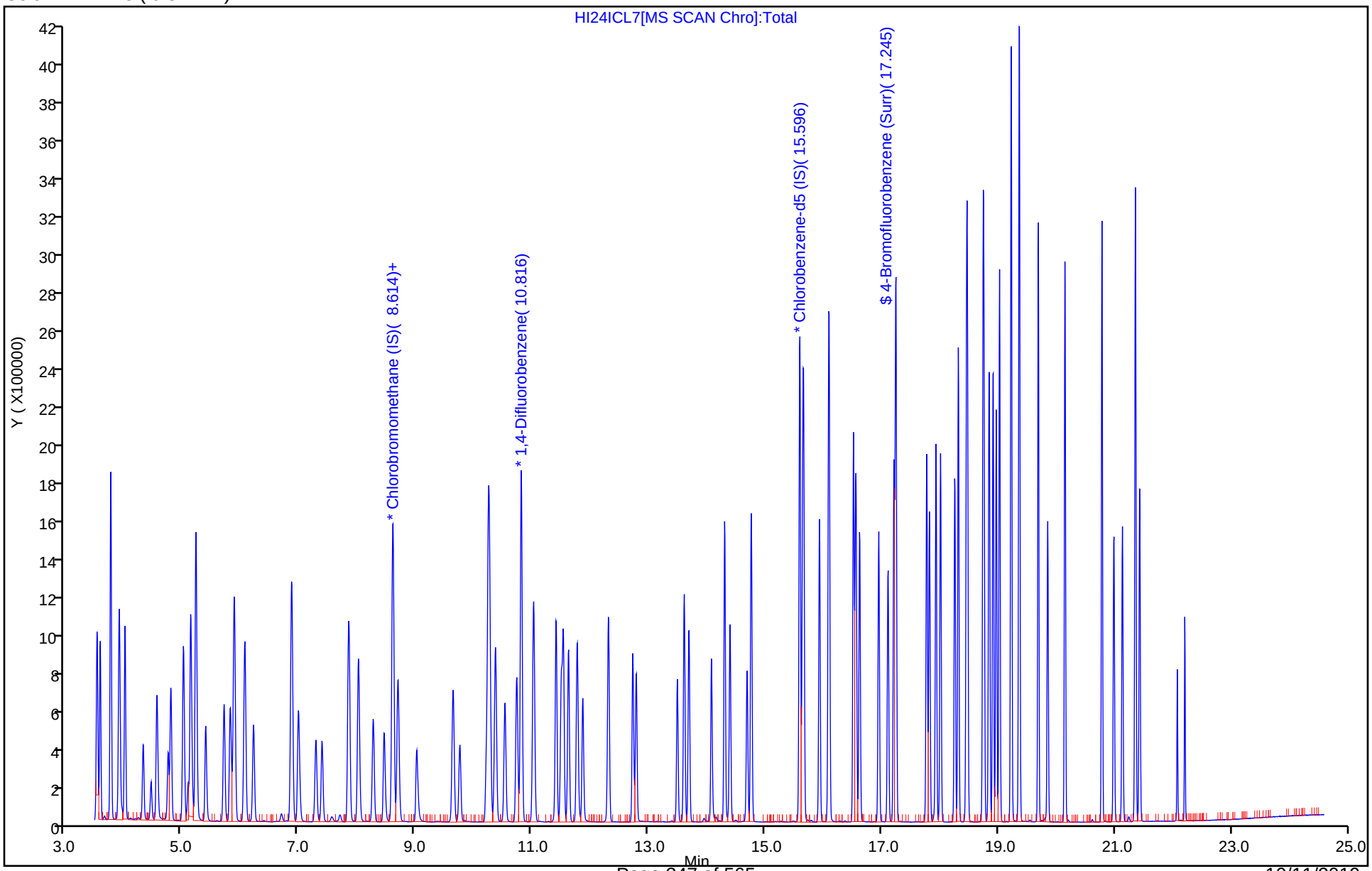
Report Date: 25-Sep-2019 16:14:03 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL7.D

Injection Date:	25-Sep-2019 07:53:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	ICIS L7			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

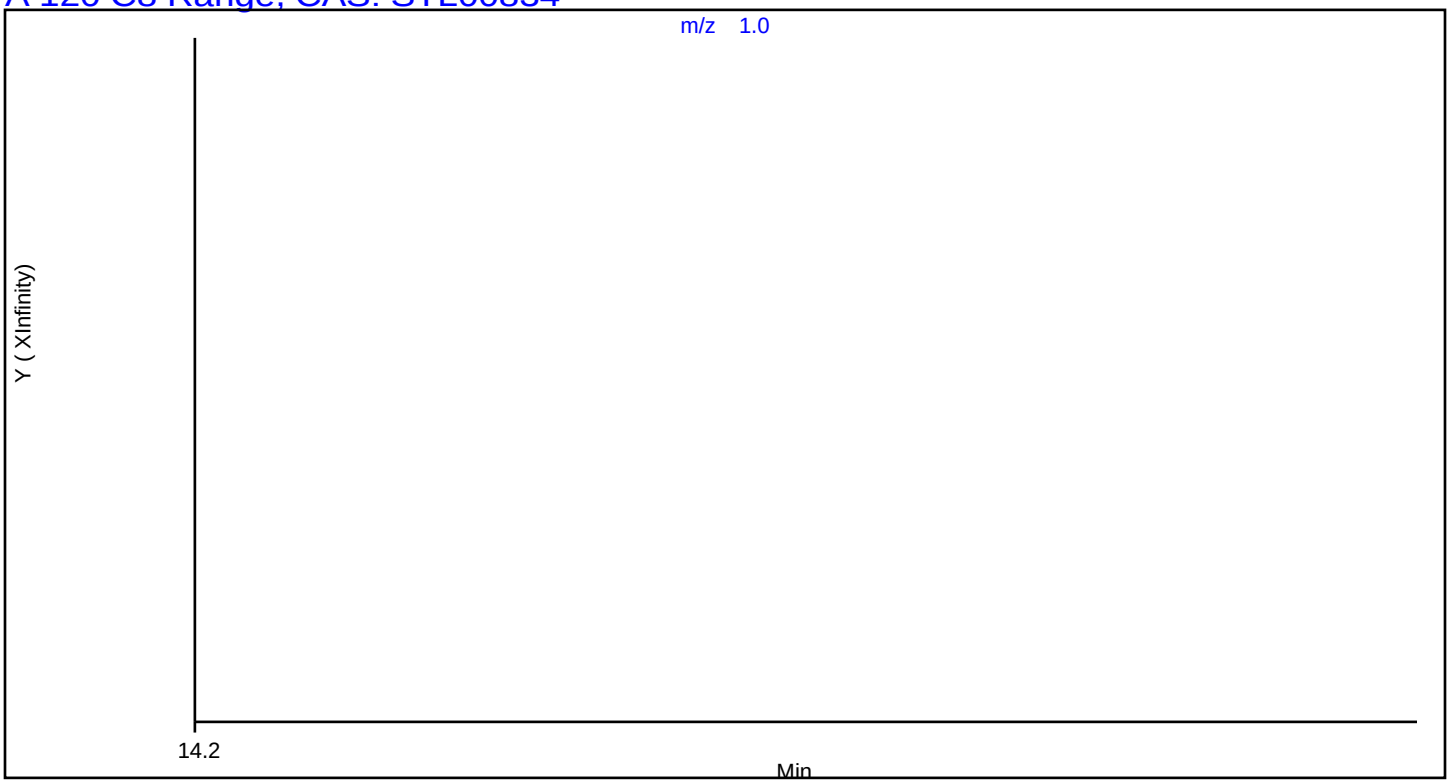


Report Date: 25-Sep-2019 16:14:03 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL7.D				
Injection Date:	25-Sep-2019 07:53:30	Instrument ID:	MH		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 25-Sep-2019 08:47:30 ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-015
Misc. Info.: 245076
Operator ID: AFB Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:14:09 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: tajh Date: 25-Sep-2019 09:50:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.614	8.608	0.006	98	334895	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.815	0.001	95	1741049	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	88	1471651	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.245	17.242	0.003	96	948130	4.00	4.08	
6 Chlorodifluoromethane	51	3.528	3.529	-0.001	96	1051947	4.00	4.08	
7 Propene	41	3.538	3.540	-0.002	99	484559	4.00	3.76	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	1582580	4.00	4.09	
9 Chloromethane	52	3.766	3.766	0.000	98	168019	4.00	4.00	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.773	-0.002	91	1070401	4.00	4.07	
11 Acetaldehyde	44	3.916	3.918	-0.002	99	1033678	20.0	20.3	
12 Vinyl chloride	62	3.931	3.932	-0.001	99	557770	4.00	3.94	
14 Butane	43	4.014	4.016	-0.002	84	746307	4.00	4.02	
13 Butadiene	54	4.014	4.016	-0.002	70	426377	4.00	4.13	
15 Bromomethane	94	4.324	4.328	-0.004	99	536658	4.00	4.13	
16 Chloroethane	64	4.464	4.465	-0.001	98	248124	4.00	3.90	
17 Ethanol	31	4.567	4.567	0.000	93	1160909	20.0	22.2	
18 Vinyl bromide	106	4.758	4.757	0.001	98	530342	4.00	4.04	
19 2-Methylbutane	43	4.805	4.804	0.001	91	598691	4.00	4.01	
21 Trichlorofluoromethane	101	5.017	5.019	-0.002	100	1467266	4.00	4.01	
20 Acrolein	56	5.032	5.035	-0.003	95	202039	4.00	4.11	
22 Acetonitrile	40	5.104	5.105	-0.001	97	255701	4.00	4.06	
23 Acetone	58	5.146	5.155	-0.009	98	768541	12.0	11.6	
24 Pentane	72	5.234	5.235	-0.001	70	71176	4.00	3.95	
25 Isopropyl alcohol	45	5.234	5.244	-0.010	85	2329523	12.0	12.5	
26 Ethyl ether	31	5.399	5.409	-0.010	94	598345	4.00	4.02	
27 1,1-Dichloroethene	96	5.719	5.717	0.002	96	517241	4.00	3.99	
28 Acrylonitrile	53	5.828	5.830	-0.002	94	433673	4.00	4.09	
29 2-Methyl-2-propanol	59	5.818	5.837	-0.019	92	744416	4.00	4.67	
30 1,1,2-Trichloro-1,2,2-trif	101	5.890	5.892	-0.002	97	1143879	4.00	3.99	
31 Methylene Chloride	84	6.071	6.066	0.005	98	499185	4.00	3.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.081	6.079	0.002	95	477175	4.00	4.07	
33 Carbon disulfide	76	6.221	6.221	0.000	99	1554444	4.00	4.06	
34 trans-1,2-Dichloroethene	96	6.872	6.867	0.005	96	522287	4.00	4.05	
35 2-Methylpentane	43	6.882	6.882	0.000	96	1224511	4.00	4.06	
36 Methyl tert-butyl ether	73	6.991	7.005	-0.014	95	1126040	4.00	4.29	
37 1,1-Dichloroethane	63	7.296	7.292	0.004	100	1014519	4.00	4.05	
38 Vinyl acetate	43	7.399	7.399	0.000	100	1555969	4.00	4.25	
39 2-Butanone (MEK)	72	7.844	7.856	-0.012	96	248875	4.00	4.13	
40 Hexane	56	7.859	7.861	-0.002	79	427376	4.00	3.97	
171 Isopropyl ether	45	8.019	8.029	-0.010	98	1935352	4.00	4.11	
41 cis-1,2-Dichloroethene	96	8.278	8.275	0.003	97	547573	4.00	4.01	
42 Ethyl acetate	43	8.464	8.470	-0.006	99	1302569	4.00	4.30	
43 Chloroform	83	8.624	8.618	0.006	97	1169537	4.00	4.02	
173 Tert-butyl ethyl ether	59	8.702	8.710	-0.008	98	1432897	4.00	4.43	
44 Tetrahydrofuran	42	9.017	9.038	-0.021	95	627682	4.00	4.21	
45 1,1,1-Trichloroethane	97	9.647	9.645	0.002	97	1128184	4.00	4.17	
46 1,2-Dichloroethane	62	9.766	9.761	0.005	97	809776	4.00	4.07	
49 n-Butanol	31	10.211	10.231	-0.020	66	231779	4.00	4.70	
48 Cyclohexane	69	10.252	10.249	0.003	93	233772	4.00	4.06	
47 Benzene	78	10.257	10.254	0.003	98	1528423	4.00	4.01	
50 Carbon tetrachloride	117	10.278	10.276	0.002	97	1189938	4.00	4.23	
51 2,3-Dimethylpentane	71	10.376	10.375	0.001	90	324669	4.00	4.04	
52 Thiophene	84	10.536	10.534	0.002	98	903327	4.00	4.08	
53 Isooctane	57	11.027	11.028	-0.001	99	2623805	4.00	4.08	
55 n-Heptane	71	11.415	11.415	0.000	93	501419	4.00	4.08	
54 1,2-Dichloropropane	63	11.503	11.501	0.002	92	649565	4.00	4.07	
56 Trichloroethene	130	11.539	11.537	0.002	95	664068	4.00	3.91	
57 Dibromomethane	93	11.627	11.623	0.004	95	711391	4.00	4.00	
58 Dichlorobromomethane	83	11.772	11.772	0.000	99	1210924	4.00	4.23	
59 1,4-Dioxane	88	11.787	11.802	-0.015	91	249976	4.00	4.57	
60 Methyl methacrylate	41	11.870	11.875	-0.005	92	744857	4.00	4.32	
61 Methylcyclohexane	83	12.314	12.312	0.002	93	900896	4.00	4.06	
62 4-Methyl-2-pentanone (MIBK	43	12.728	12.738	-0.010	97	1409528	4.00	4.30	
63 cis-1,3-Dichloropropene	75	12.790	12.788	0.002	95	923104	4.00	4.42	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	99	859037	4.00	4.64	
65 Toluene	91	13.612	13.611	0.001	93	1839181	4.00	4.07	
66 1,1,2-Trichloroethane	83	13.694	13.692	0.002	97	607746	4.00	4.02	
69 2-Hexanone	58	14.077	14.086	-0.009	92	668835	4.00	4.58	
71 n-Octane	85	14.309	14.306	0.003	95	536311	4.00	4.10	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	1290979	4.00	4.51	
72 Ethylene Dibromide	107	14.692	14.689	0.003	98	1140314	4.00	4.21	
73 Tetrachloroethene	129	14.764	14.762	0.002	95	678939	4.00	3.86	
74 Chlorobenzene	112	15.643	15.643	0.000	94	1447415	4.00	4.05	
75 2,3-Dimethylheptane	43	15.663	15.661	0.002	95	1842703	4.00	4.07	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	2362105	4.00	4.11	
78 m-Xylene & p-Xylene	91	16.098	16.095	0.003	98	3615792	8.00	8.23	
81 n-Nonane	57	16.516	16.516	0.000	93	1275706	4.00	4.25	
79 Bromoform	173	16.547	16.546	0.001	96	1485352	4.00	5.07	
80 Styrene	104	16.563	16.562	0.001	99	1327357	4.00	4.33	
82 o-Xylene	91	16.625	16.621	0.004	99	1798567	4.00	3.94	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	1568376	4.00	4.20	
84 1,2,3-Trichloropropane	110	17.111	17.110	0.001	98	373834	4.00	4.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	96	2528962	4.00	4.10	
86 N-Propylbenzene	120	17.772	17.773	-0.001	99	699326	4.00	4.26	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	632133	4.00	4.04	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	2589001	4.00	4.26	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	1012751	4.00	4.04	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	88	1089948	4.00	4.29	
91 n-Decane	57	18.315	18.316	-0.001	89	1629098	4.00	4.23	
92 tert-Butylbenzene	119	18.460	18.460	0.000	92	2248680	4.00	4.09	
93 1,2,4-Trimethylbenzene	105	18.475	18.473	0.002	96	2158520	4.00	4.10	
95 sec-Butylbenzene	105	18.744	18.740	0.004	99	3255913	4.00	4.19	
94 1,3-Dichlorobenzene	146	18.759	18.756	0.003	98	1449949	4.00	4.33	
96 Benzyl chloride	91	18.837	18.837	0.000	97	1494791	4.00	4.00	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	94	1371140	4.00	4.44	
98 4-Isopropyltoluene	119	18.914	18.913	0.001	97	2526501	4.00	4.17	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	2135883	4.00	3.95	
100 Butylcyclohexane	83	19.023	19.024	-0.001	92	1721514	4.00	3.90	
102 2,3-Dihydroindene	117	19.224	19.224	0.000	94	2015184	4.00	4.20	
101 1,2-Dichlorobenzene	146	19.224	19.225	-0.001	83	1461945	4.00	4.25	
103 Indene	116	19.359	19.359	0.000	90	1716157	4.00	4.27	
104 n-Butylbenzene	91	19.364	19.365	-0.001	98	2561258	4.00	4.27	
105 Undecane	57	19.690	19.689	0.001	95	1866246	4.00	4.21	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	99	820334	4.00	4.93	
107 1,2,4,5-Tetramethylbenzene	119	20.144	20.145	-0.001	97	2404482	4.00	4.22	
110 Dodecane	57	20.780	20.781	-0.001	95	1792287	4.00	4.21	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	872017	4.00	3.95	
113 Naphthalene	128	21.132	21.133	-0.001	99	1654527	4.00	3.26	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	91	1489988	4.00	4.36	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	914779	4.00	4.04	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	155227	4.00	1.71	
118 1-Methylnaphthalene	142	22.201	22.201	0.000	100	230562	4.00	1.85	
A 120 C8 Range	1	14.302	(14.258-14.361)		0	5389224	4.00	4.11	
S 121 Xylenes, Total	100				0		12.0	12.2	
S 122 1,2-Dichloroethene, Total	1				0		8.00	8.06	

Reagents:

40L8DQP_00013	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

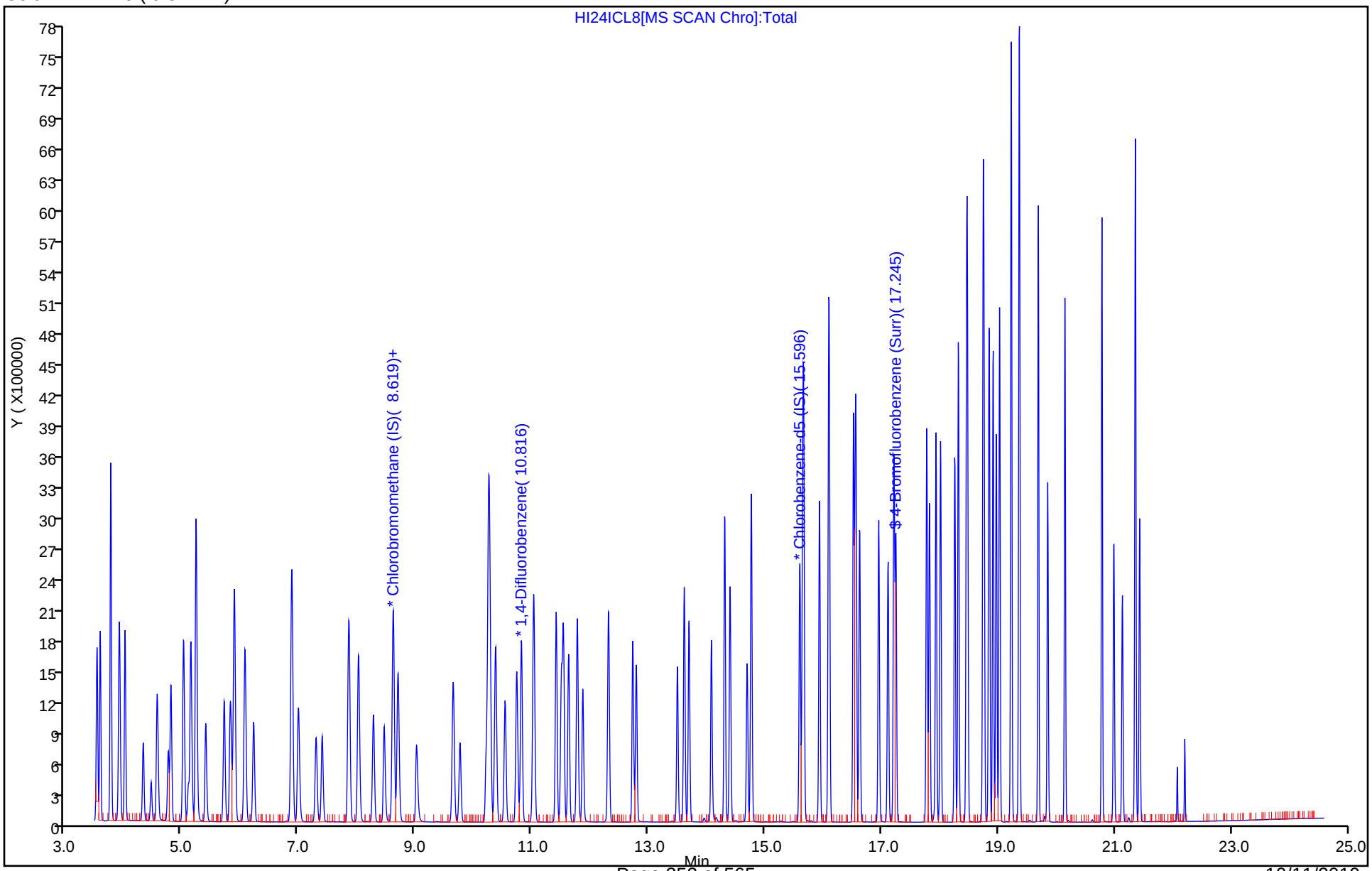
Report Date: 25-Sep-2019 16:14:11 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Injection Date:	25-Sep-2019 08:47:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	IC L8			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

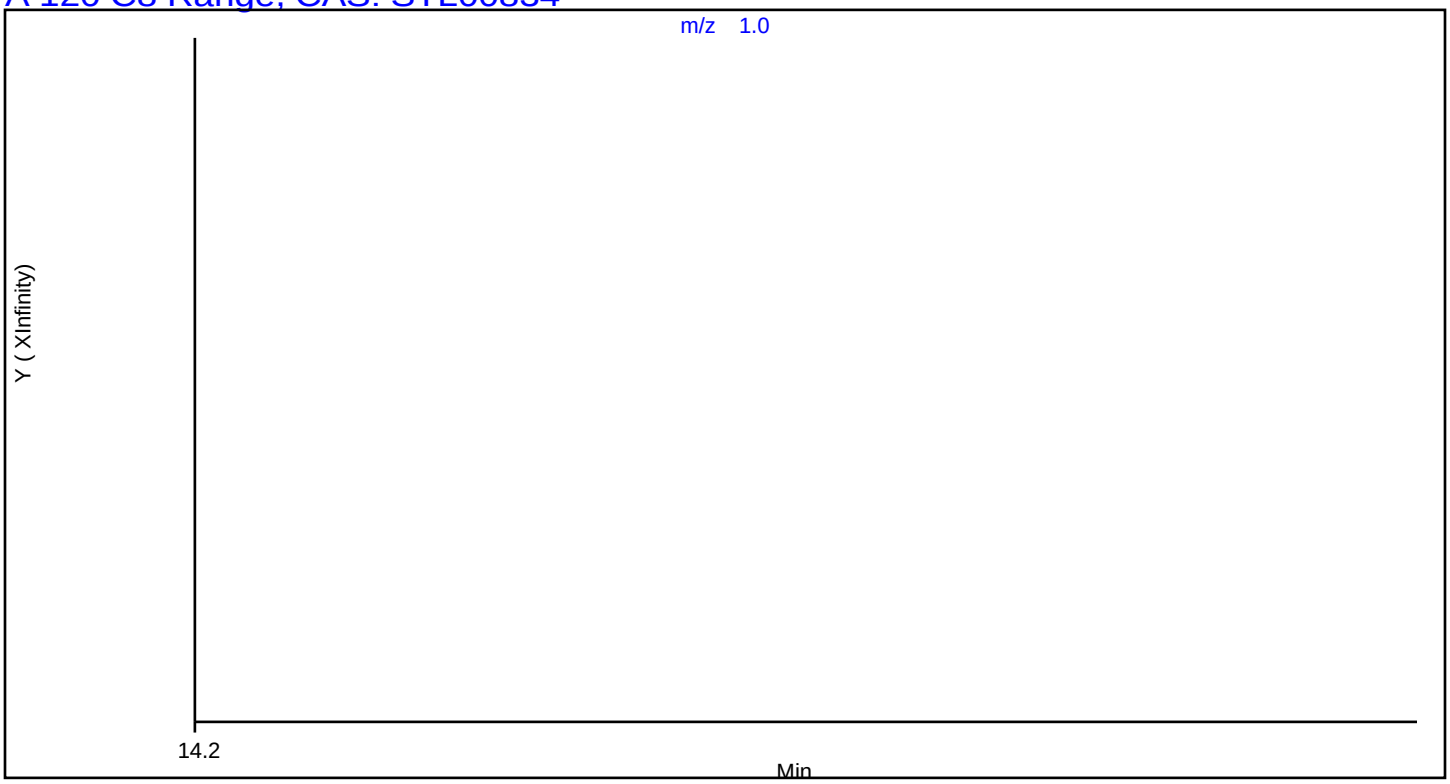


Report Date: 25-Sep-2019 16:14:11 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Injection Date:	25-Sep-2019 08:47:30	Instrument ID:	MH		
Lims ID:	IC L8				
Client ID:					
Operator ID:	AFB	ALS Bottle#:	7	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.7260	+++++ 2.6680	2.5843 2.5009	3.1164 2.3259	3.0059 2.3069	Ave		2.6543				11.0		30.0			
Propene	+++++ 1.9442	+++++ 1.6367	+++++ 1.4437	+++++ 1.2575	+++++ 1.2209	Ave		1.5006				19.9		30.0			
Dichlorodifluoromethane	+++++ 2.2785	+++++ 2.1933	2.4600 2.0613	2.5803 2.0814	2.5119 1.8830	Ave		2.2562				10.9		30.0			
Chloromethane	+++++ 0.5554	+++++ 0.4767	+++++ 0.4326	0.3883 0.3434	0.4816 0.3386	Ave		0.4310				18.5		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.0704	+++++ 1.6453	2.1437 1.5512	2.1811 1.3073	2.1242 +++++	Ave		1.8605				18.9		30.0			
Vinyl chloride	1.7291 1.2883	1.6251 1.5737	1.6212 1.1646	1.3532 1.0197	1.3998 0.8114	Ave		1.3586				21.7		30.0			
1,3-Butadiene	+++++ 1.0156	+++++ 1.1823	+++++ 1.0162	1.2794 0.7642	1.2388 0.6544	Ave		1.0216				23.3		30.0			
Butane	+++++ 1.8934	+++++ 2.2335	2.4101 1.8806	2.5004 1.4508	2.2121 1.2365	Ave		1.9772				22.8		30.0			
Bromomethane	+++++ 1.2859	+++++ 1.4808	1.9045 1.1757	1.5746 1.0547	1.4408 0.8315	Ave		1.3436				24.7		30.0			
Chloroethane	+++++ 0.5130	+++++ 0.6525	0.7561 0.4710	0.5613 0.4310	0.5850 +++++	Ave		0.5671				19.6		30.0			
Ethanol	+++++ 0.6058	+++++ 0.6726	+++++ 0.5847	0.6715 0.5590	0.6550 0.5356	Ave		0.6120				9.1		30.0			
Vinyl bromide	+++++ 1.1611	1.2192 1.1781	1.0641 1.1689	1.1263 1.1369	1.1332 1.0430	Ave		1.1368				4.9		30.0			
2-Methylbutane	+++++ 1.5253	+++++ 1.6120	1.7274 1.5439	1.5192 1.4120	1.6922 1.3512	Ave		1.5479				8.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.3282	3.3774 3.3203	3.0491 3.2570	3.3050 3.1386	3.4667 3.0258	Ave		3.2520				4.6		30.0			
Acrolein	+++++ 0.3645	+++++ 0.3873	+++++ 0.4333	+++++ 0.3449	0.4416 0.3410	Ave		0.3855				11.3		30.0			
Acetonitrile	+++++ 0.6425	+++++ 0.6542	+++++ 0.6025	0.4649 0.5769	0.5491 0.5355	Ave		0.5751				11.4		30.0			
Acetone	+++++ 0.6576	+++++ 0.6345	+++++ 0.5939	+++++ 0.5462	0.8838 0.5119	Ave		0.6380				20.7		30.0			
Pentane	+++++ 0.2223	+++++ 0.2394	+++++ 0.2318	0.2204 0.2239	0.2420 0.2223	Ave		0.2289				3.9		30.0			
Isopropyl alcohol	2.0445 1.8052	1.9846 1.9795	1.9329 1.7719	1.8817 1.7209	1.8939 1.6692	Ave		1.8684				6.6		30.0			
Ethyl ether	+++++ 1.5177	+++++ 1.6254	1.6032 1.5133	1.7440 1.4199	1.6884 1.3733	Ave		1.5607				8.2		30.0			
1,1-Dichloroethene	+++++ 1.2768	1.3859 1.2885	1.2342 1.3283	1.3969 1.2458	1.3854 1.1635	Ave		1.3006				6.2		30.0			
Acrylonitrile	+++++ 0.9656	+++++ 1.0127	+++++ 0.9799	0.9002 0.9252	1.0388 0.8895	Ave		0.9589				5.9		30.0			
tert-Butyl alcohol	+++++ 2.2589	+++++ 2.4248	2.6173 2.2857	2.3278 2.1550	2.3602 2.1201	Ave		2.3187				6.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.6175	+++++ 2.7892	2.7427 2.6846	3.0147 2.6294	2.9235 2.5912	Ave		2.7491				5.6		30.0			
Methylene Chloride	+++++ 1.3354	+++++ 1.2126	+++++ 1.1602	2.6564 1.1104	1.7848 +++++	Ave		1.5433				38.7	*	30.0			
3-Chloropropene	+++++ 1.2873	+++++ 1.3056	1.3978 1.1673	1.3442 1.1350	1.4259 1.1393	Ave		1.2753				9.1		30.0			
Carbon disulfide	+++++ 3.4529	+++++ 3.5063	3.4533 3.4547	3.3067 3.3496	3.6966 3.1287	Ave		3.4186				4.8		30.0			
trans-1,2-Dichloroethene	+++++ 1.3377	1.4290 1.4552	1.3966 1.4046	1.4119 1.3783	1.4326 1.3593	Ave		1.4006				2.7		30.0			
2-Methylpentane	+++++ 3.2013	3.5636 3.4610	3.3036 3.3080	3.3865 2.9713	3.5514 3.0086	Ave		3.3061				6.5		30.0			
Methyl tert-butyl ether	+++++ 3.3757	+++++ 3.4980	3.2509 3.4526	3.3858 3.2852	3.6039 3.1045	Ave		3.3696				4.6		30.0			
1,1-Dichloroethane	+++++ 2.3751	2.5086 2.4366	2.3878 2.3574	2.6268 2.2552	2.5766 2.1291	Ave		2.4059				6.4		30.0			
Vinyl acetate	+++++ 3.8272	+++++ 4.0947	3.6725 3.8070	3.4480 3.7636	3.9587 3.7530	Ave		3.7906				5.0		30.0			
2-Butanone (MEK)	+++++ 0.6406	+++++ 0.6920	+++++ 0.6145	0.8285 0.6299	0.6904 0.6279	Ave		0.6748				11.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0578	+++++ 1.1373	1.1561 1.0624	1.0809 1.0023	1.2326 1.0306	Ave		1.0950				6.9		30.0			
cis-1,2-Dichloroethene	+++++ 1.3435	1.2993 1.5183	1.4238 1.4577	1.6617 1.4469	1.5505 1.3823	Ave		1.4538				7.6		30.0			
Ethyl acetate	+++++ 3.4335	3.6328 3.6172	3.4839 3.4462	3.6366 3.2360	3.6466 3.1830	Ave		3.4795				5.0		30.0			
Chloroform	+++++ 2.8766	3.3067 2.9575	2.8469 2.8373	2.8829 2.6787	3.0078 2.6848	Ave		2.8977				6.5		30.0			
Tetrahydrofuran	+++++ 1.6509	+++++ 1.7784	1.8287 1.7135	1.8905 1.5948	1.7994 1.5531	Ave		1.7262				6.9		30.0			
1,1,1-Trichloroethane	3.1493 2.9120	2.7773 3.0058	3.1579 2.8040	2.9223 2.9352	3.0377 2.9169	Ave		2.9618				4.3		30.0			
1,2-Dichloroethane	0.2772 0.3249	0.3255 0.3104	0.3283 0.3135	0.3510 0.2972	0.3094 0.3136	Ave		0.3151				6.2		30.0			
1-Butanol	+++++ 0.1107	+++++ 0.1129	+++++ 0.1075	+++++ 0.1038	0.1111 0.1181	Ave		0.1107				4.4		30.0			
Cyclohexane	+++++ 0.1108	+++++ 0.1126	+++++ 0.1137	0.1250 0.1081	0.1068 0.1228	Ave		0.1143				6.2		30.0			
Benzene	0.8148 0.7633	0.7768 0.7472	0.8289 0.7582	0.7659 0.7154	0.7351 0.8087	Ave		0.7714				4.7		30.0			
Carbon tetrachloride	0.4284 0.5464	0.4512 0.5598	0.4562 0.5438	0.4715 0.5486	0.4674 0.6278	Ave		0.5101				12.5		30.0			
2,3-Dimethylpentane	+++++ 0.1674	+++++ 0.1604	0.1567 0.1638	0.1353 0.1587	0.1485 0.1690	Ave		0.1575				7.0		30.0			
Thiophene	+++++ 0.4125	+++++ 0.4015	0.3879 0.3931	0.3945 0.4035	0.3859 0.4239	Ave		0.4003				3.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2152	+++++ 1.2029	1.2047 1.2281	1.2110 1.1081	1.1994 1.2202	Ave		1.1987				3.2		30.0			
Heptane	+++++ 0.2567	+++++ 0.2633	0.2564 0.2627	0.2576 0.2467	0.2297 0.2668	Ave		0.2550				4.7		30.0			
1,2-Dichloropropane	+++++ 0.2875	+++++ 0.2853	0.2886 0.2742	0.2668 0.2610	0.2744 0.2861	Ave		0.2780				3.8		30.0			
Trichloroethene	0.3443 0.3307	0.3294 0.3414	0.3054 0.3496	0.2980 0.3375	0.3176 0.3660	Ave		0.3320				6.2		30.0			
Dibromomethane	+++++ 0.2929	0.3072 0.3004	0.2903 0.3027	0.2794 0.2903	0.2834 0.3143	Ave		0.2957				3.8		30.0			
Bromodichloromethane	+++++ 0.5006	+++++ 0.5142	0.4580 0.5123	0.4424 0.5019	0.4411 0.5546	Ave		0.4906				8.1		30.0			
1,4-Dioxane	+++++ 0.1152	+++++ 0.1173	+++++ 0.1199	0.0955 0.1120	0.1043 0.1186	Ave		0.1118				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3384	+++++ 0.3460	+++++ 0.3548	0.3136 0.3373	0.3141 0.3787	Ave		0.3404				6.7		30.0			
Methylcyclohexane	+++++ 0.4108	+++++ 0.4335	0.4149 0.4351	0.4105 0.4196	0.4068 0.4495	Ave		0.4226				3.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.6415	+++++ 0.6570	0.5895 0.6473	0.5935 0.6201	0.6100 0.6877	Ave		0.6308				5.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.3946	0.3260 0.4246	0.3207 0.3972	0.3823 0.4089	0.3656 0.4479	Ave		0.3853				11.0		30.0			
trans-1,3-Dichloropropene	+++++ 0.4033	0.3798 0.4680	0.3772 0.4433	0.3949 0.4700	0.3892 0.4703	Ave		0.4218				9.6		30.0			
Toluene	0.9562 0.9189	0.9026 1.0574	0.9539 1.0300	0.9146 1.0514	0.9898 1.0020	Ave		0.9777				5.8		30.0			
1,1,2-Trichloroethane	0.3388 0.2793	0.3166 0.3263	0.2823 0.3184	0.2886 0.3143	0.2927 0.3012	Ave		0.3059				6.5		30.0			
2-Hexanone	+++++ 0.3140	+++++ 0.3662	0.2945 0.3604	0.3113 0.3634	0.3152 0.3599	Ave		0.3356				8.8		30.0			
C8 Range	+++++ 2.6253	+++++ 2.7699	+++++ 2.6896	2.7491 2.5049	2.6475 2.7844	Ave		2.6815				3.7		30.0			
Octane	+++++ 0.2855	+++++ 0.3380	0.2430 0.3146	0.2799 0.3324	0.2893 0.3385	Ave		0.3027				11.3		30.0			
Dibromochloromethane	+++++ 0.5738	+++++ 0.6863	0.4237 0.6666	0.4750 0.7579	0.5177 0.7947	Ave		0.6120				22.1		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.5404	0.4995 0.6364	0.4875 0.6071	0.5154 0.6400	0.5458 0.6582	Ave		0.5700				11.6		30.0			
Tetrachloroethene	0.4005 0.3534	0.3815 0.4068	0.3673 0.3984	0.3877 0.4361	0.3741 0.4304	Ave		0.3936				6.7		30.0			
Chlorobenzene	0.8304 0.7683	0.7277 0.8883	0.7903 0.8599	0.7645 0.9287	0.8042 0.9197	Ave		0.8282				8.3		30.0			
Ethylbenzene	1.2805 1.2363	1.2724 1.4718	1.1953 1.3918	1.2874 1.4464	1.2489 1.4273	Ave		1.3258				7.5		30.0			
m-Xylene & p-Xylene	0.9455 0.9833	0.9495 1.1219	0.9686 1.1134	0.9707 1.1476	0.9742 +++++	Ave		1.0194				8.1		30.0			
Nonane	0.5919 0.6341	0.6105 0.7288	0.5577 0.7162	0.6265 0.7258	0.6303 0.6954	Ave		0.6517				9.3		30.0			
Bromoform	+++++ 0.5845	+++++ 0.7183	0.4066 0.7053	0.4255 +++++	0.5158 +++++	Ave		0.5593				24.0		30.0			
Styrene	+++++ 0.6801	+++++ 0.7967	0.5210 0.8121	0.5315 0.8848	0.6132 0.8801	Ave		0.7149				20.8		30.0			
o-Xylene	1.0478 0.9975	0.9320 1.0711	0.9431 1.0951	1.0039 1.1021	1.0321 1.1197	Ave		1.0345				6.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.6895 0.7678	0.6522 0.7971	0.6792 0.8315	0.7130 0.8513	0.7531 0.8668	Ave		0.7601				10.0		30.0			
1,2,3-Trichloropropane	+++++ 0.2154	0.2596 0.2394	0.2135 0.2552	0.2351 0.2558	0.2255 0.2547	Ave		0.2394				7.6		30.0			
Isopropylbenzene	1.5102 1.5033	1.4056 1.6590	1.4118 1.6352	1.4167 1.6748	1.5710 +++++	Ave		1.5319				7.1		30.0			
Propylbenzene	+++++ 0.3955	0.3562 0.4385	0.3841 0.4413	0.3703 0.4723	0.4092 +++++	Ave		0.4084				9.7		30.0			
2-Chlorotoluene	+++++ 0.3661	0.3747 0.4076	0.3340 0.4108	0.3773 0.4367	0.3875 +++++	Ave		0.3869				8.1		30.0			
4-Ethyltoluene	+++++ 1.4994	+++++ 1.6944	1.3559 1.7289	1.3397 1.7395	1.5426 +++++	Ave		1.5572				10.9		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5864	+++++ 0.6547	0.5372 0.6390	0.5500 0.6738	0.5916 0.7107	Ave		0.6179				9.9		30.0			
Alpha Methyl Styrene	+++++ 0.5224	+++++ 0.6349	+++++ 0.6612	0.4050 0.7336	0.4511 0.7891	Ave		0.5996				24.1		30.0			
Decane	+++++ 0.8374	+++++ 0.9465	+++++ 0.9426	0.8014 0.9125	0.8459 0.9096	Ave		0.8851				6.4		30.0			
tert-Butylbenzene	+++++ 1.2746	+++++ 1.4997	1.2146 1.4649	1.2480 1.6001	1.3155 1.5569	Ave		1.3968				10.8		30.0			
1,2,4-Trimethylbenzene	1.2028 1.2553	1.1447 1.4812	1.1638 1.4659	1.2236 1.5654	1.2861 +++++	Ave		1.3099				11.8		30.0			
sec-Butylbenzene	+++++ 1.8690	+++++ 2.2054	1.7755 2.2283	1.8000 2.3529	1.9751 +++++	Ave		2.0295				11.4		30.0			
1,3-Dichlorobenzene	+++++ 0.8984	+++++ 1.0244	0.9172 1.0444	0.9105 1.1397	0.9240 1.0821	Ave		0.9926				9.3		30.0			
Benzyl chloride	+++++ 0.8980	+++++ 1.1805	0.7853 1.0109	0.7742 +++++	0.8369 +++++	Ave		0.9143				17.1		30.0			
1,4-Dichlorobenzene	0.9320 0.9020	0.8097 1.0419	0.9008 0.9990	0.8499 1.1436	0.9042 1.1157	Ave		0.9599				11.6		30.0			
4-Isopropyltoluene	1.2738 1.5148	1.2821 1.7152	1.3632 1.6510	1.4649 1.7846	1.5176 +++++	Ave		1.5075				12.2		30.0			
1,2,3-Trimethylbenzene	1.1397 1.2760	1.1040 1.4204	1.2047 1.4129	1.2732 1.4633	1.2567 +++++	Ave		1.2834				9.8		30.0			
Indane	+++++ 1.1644	+++++ 1.3331	1.1191 1.3630	1.1504 1.5135	1.1552 1.3466	Ave		1.2682				11.1		30.0			
1,2-Dichlorobenzene	0.9716 0.8829	0.8386 0.9926	0.8219 0.9879	0.8992 1.1198	0.8924 0.9970	Ave		0.9404				9.6		30.0			
Indene	+++++ 0.9756	+++++ 1.1838	+++++ 1.1752	0.8020 1.3866	0.9174 1.2488	Ave		1.0985				18.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.5405 1.5136	1.4542 1.7535	1.5116 1.7283	1.5236 1.8209	1.5176 +++++	Ave		1.5960				8.3		30.0			
Undecane	+++++ 0.9944	+++++ 1.1367	+++++ 1.1008	0.9856 1.1400	0.9832 1.1336	Ave		1.0677				7.1		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4053	+++++ 0.4840	0.2499 0.4850	0.3113 +++++	0.3288 +++++	Ave		0.3774				25.6		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.4176	+++++ 1.6182	1.2965 1.4778	1.3345 1.7614	1.3349 +++++	Ave		1.4630				11.7		30.0			
Dodecane	+++++ 0.9887	+++++ 1.1112	+++++ 1.1554	+++++ 1.1970	0.9210 1.1713	Ave		1.0908				10.2		30.0			
1,2,4-Trichlorobenzene	0.8334 0.8256	0.7767 0.9382	0.7824 0.8703	0.8445 1.1053	0.7977 1.1092	Ave		0.8883				14.0		30.0			
Naphthalene	2.0153 1.7387	1.6688 1.9345	1.6648 1.7128	1.6791 2.1275	1.5832 +++++	Ave		1.7916				10.4		30.0			
Hexachlorobutadiene	0.6778 0.7081	0.7782 0.8206	0.7176 0.8078	0.7780 0.9153	0.7040 0.8414	Ave		0.7749				9.6		30.0			
1,2,3-Trichlorobenzene	1.0622 0.7905	0.7736 0.9168	0.8319 0.8354	0.8725 1.0918	0.7797 1.0720	Ave		0.9026				14.1		30.0			
2-Methylnaphthalene	+++++ 0.7436	+++++ 0.8342	+++++ 0.4785	+++++ 0.8163	+++++ 0.8021	Ave		0.7349				20.0		50.0			
1-Methylnaphthalene	+++++ 0.7392	+++++ 0.7597	+++++ 0.4609	+++++ 0.7235	+++++ 0.6914	Ave		0.6749				18.1		50.0			
4-Bromofluorobenzene (Surr)	0.5765 0.5768	0.5739 0.6155	0.5703 0.6054	0.5863 0.6287	0.5784 0.5987	Ave		0.5911				3.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 219441	+++++ 494961	16054 1018776	37407 2348774	88870 4724731	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 156506	+++++ 303639	+++++ 588113	+++++ 1269857	+++++ 2500503	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 183416	+++++ 406890	15282 839671	30972 2101908	74265 3856645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 44708	+++++ 88443	+++++ 176223	4661 346832	14239 693560	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 166670	+++++ 305222	13317 631884	26181 1320196	62802 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Vinyl chloride	CBM	Ave	3313 103708	5237 291942	10071 474399	16243 1029765	41385 1661803	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 81755	+++++ 219332	+++++ 413950	15357 771748	36625 1340227	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 152419	+++++ 414338	14972 766058	30013 1465050	65401 2532410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 103516	+++++ 274719	11831 478925	18901 1065063	42598 1702886	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 41293	+++++ 121039	4697 191853	6737 435262	17294 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Ethanol	CBM	Ave	+++++ 243829	+++++ 623885	+++++ 1190978	40300 2822321	96824 5484760	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 93465	3929 218556	6610 476165	13519 1148135	33504 2136147	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 122786	+++++ 299043	10731 628901	18236 1425882	50031 2767410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 267920	10884 615965	18941 1326757	39671 3169467	102492 6197158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 29346	+++++ 71857	+++++ 176527	+++++ 348337	13055 698308	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 51720	+++++ 121363	+++++ 245426	5580 582616	16233 1096753	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 158806	+++++ 353148	+++++ 725820	+++++ 1654698	78390 3145268	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 17893	+++++ 44407	+++++ 94410	2645 226085	7156 455388	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11752 435961	19186 1101651	36022 2165369	67760 5213569	167975 10255859	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 122175	+++++ 301541	9959 616460	20934 1433907	49916 2812660	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 102785	4466 239031	7667 541093	16768 1258021	40958 2383041	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 77731	+++++ 187864	+++++ 399181	10806 934361	30713 1821857	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 181842	+++++ 449829	16259 931101	27942 2176270	69778 4342222	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 210707	+++++ 517442	17038 1093608	36187 2655319	86433 5307039	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 107501	+++++ 224958	+++++ 472620	31886 1121306	52768 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 103629	+++++ 242216	8683 475507	16135 1146190	42156 2333432	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 277961	+++++ 650466	21452 1407313	39691 3382615	109289 6407900	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 107685	4605 269961	8676 572169	16947 1391908	42354 2783877	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 257703	11484 642069	20522 1347528	40649 3000565	104996 6161875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 271742	+++++ 648935	20195 1406422	40641 3317514	106549 6358374	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 191196	8084 452018	14833 960313	31531 2277375	76177 4360528	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 308087	+++++ 759618	22814 1550812	41387 3800716	117037 7686543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 51572	+++++ 128379	+++++ 250304	9945 636144	20411 1285975	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85156	+++++ 210994	7182 432765	12975 1012153	36443 2110781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 108153	4187 281658	8845 593822	19946 1461188	45839 2831075	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 276396	11707 671035	21642 1403825	43652 3267852	107812 6519087	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 231564	10656 548666	17685 1155781	34605 2705091	88925 5498611	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 132901	+++++ 329928	11360 698015	22692 1610482	53198 3180934	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	6034 234415	8950 557623	19617 1142217	35077 2964078	89808 5973969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3073 146276	5862 341855	11614 716206	24357 1682455	54501 3298299	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 49826	+++++ 124400	+++++ 245687	+++++ 587477	19570 1242418	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 49894	+++++ 124018	+++++ 259810	8676 611764	18817 1291544	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	9034 343664	13990 822928	29324 1732232	53145 4049317	129476 8504918	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4750 246027	8126 616542	16140 1242435	32718 3105309	82320 6601975	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 75390	+++++ 176630	5543 374263	9391 898330	26163 1777213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 185736	+++++ 442182	13723 898134	27373 2283966	67963 4458082	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 547133	+++++ 1324872	42620 2805646	84031 6272565	211257 12833072	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 115588	+++++ 290028	9072 600275	17873 1396634	40457 2805393	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 129462	+++++ 314183	10210 626326	18516 1477336	48324 3008646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3817 148885	5933 376006	10806 798633	20676 1910661	55942 3849636	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 131893	5532 330920	10271 691506	19384 1643327	49916 3305615	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 225379	+++++ 566326	16203 1170432	30697 2840812	77686 5832457	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 51868	+++++ 129226	+++++ 273917	6626 633790	18371 1247808	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 152368	+++++ 381120	+++++ 810493	21764 1909381	55330 3983049	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 184946	+++++ 477484	14678 993926	28483 2375366	71644 4727152	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 288813	+++++ 723671	20857 1478879	41180 3510335	107444 7232492	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 177650	5872 467682	11346 907449	26525 2314593	64389 4710253	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd5	Ave	+++++ 159588	5834 426975	11139 838028	22630 2144122	56564 4441543	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd5	Ave	8499 363606	13865 964843	28166 1947337	52417 4796384	143846 9463414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd5	Ave	3011 110540	4864 297744	8335 602007	16538 1433844	42543 2844825	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd5	Ave	+++++ 124236	+++++ 334091	8696 681395	17840 1657957	45806 3399102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1182032	+++++ 3050806	+++++ 6144751	190756 14179004	466318 29283193	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd5	Ave	+++++ 112993	+++++ 308402	7174 594761	16040 1516549	42048 3196625	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd5	Ave	+++++ 227075	+++++ 626193	12512 1260220	27226 3457683	75235 7505025	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd5	Ave	+++++ 213842	7673 580652	14394 1147731	29539 2919521	79328 6216264	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd5	Ave	3560 139836	5861 371188	10846 753130	22221 1989330	54373 4065061	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd5	Ave	7381 304012	11179 810531	23336 1625792	43813 4236877	116875 8686236	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd5	Ave	11381 489233	19545 1342943	35296 2631374	73785 6598286	181497 13479819	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd5	Ave	16808 778233	29171 2047299	57204 4209823	111265 10470526	283166 +++++	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 +++++
Nonane	CBZd5	Ave	5261 250934	9378 664979	16468 1353990	35904 3311198	91602 6567091	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd5	Ave	+++++ 231275	+++++ 655431	12006 1333496	24384 +++++	74964 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd5	Ave	+++++ 269110	+++++ 726918	15385 1535403	30460 4036484	89120 8312171	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd5	Ave	9313 394718	14317 977284	27849 2070387	57536 5027892	149999 10574999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd5	Ave	6128 303835	10018 727258	20054 1572025	40863 3883559	109448 8186594	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd5	Ave	+++++ 85244	3987 218447	6305 482487	13476 1166777	32774 2405567	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd5	Ave	13423 594874	21592 1513692	41687 3091481	81194 7640100	228313 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propylbenzene	CBZd5	Ave	+++++ 156505	5471 400140	11343 834225	21220 2154443	59470 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 144883	5756 371923	9862 776733	21624 1992363	56318 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 593308	+++++ 1546060	40037 3268553	76782 7935354	224183 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 232045	+++++ 597390	15863 1208158	31521 3073985	85979 6711519	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 206714	+++++ 579320	+++++ 1249980	23210 3346770	65556 7451929	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 331365	+++++ 863597	+++++ 1782051	45930 4162906	122940 8590182	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 504364	+++++ 1368395	35865 2769458	71523 7299538	191186 14703312	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10691 496740	17584 1351477	34364 2771424	70127 7141354	186908 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 739600	+++++ 2012250	52428 4212854	103163 10733538	287037 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 355492	+++++ 934677	27082 1974523	52180 5199306	134286 10219340	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 355341	+++++ 1077107	23187 1911127	44372 +++++	121625 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	8284 356925	12438 950700	26600 1888678	48709 5217028	131413 10536468	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	11322 599428	19695 1565012	40253 3121329	83958 8141205	220551 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10130 504915	16958 1296053	35572 2671168	72971 6675523	182641 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 460776	+++++ 1216324	33045 2576919	65933 6904704	167879 12717942	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8636 349367	12882 905677	24269 1867790	51537 5108636	129699 9415816	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 386043	+++++ 1080114	+++++ 2221880	45967 6325607	133321 11794325	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	13692 598930	22338 1599950	44636 3267502	87320 8307001	220549 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 393485	+++++ 1037149	+++++ 2081162	56488 5200472	142886 10705948	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 160389	+++++ 441614	7380 916988	17844 +++++	47784 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 560939	+++++ 1476473	38284 2793851	76485 8035274	194002 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 391221	+++++ 1013886	+++++ 2184461	+++++ 5460527	133853 11061506	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7407 326688	11931 856029	23104 1645400	48402 5042191	115933 10475148	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	17912 688030	25635 1765089	49158 3238137	96234 9705570	230088 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	6024 280210	11954 748771	21188 1527206	44590 4175503	102309 7946181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	9441 312804	11884 836533	24564 1579413	50004 4980903	113317 10123830	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 294266	+++++ 761167	+++++ 904624	+++++ 3724073	+++++ 7575277	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 292533	+++++ 693175	+++++ 871340	+++++ 3300680	+++++ 6530127	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1024776 912943	881623 1123246	841925 1144637	840097 1433981	840618 1413499	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-2.6						50			
Propene	+++++	+++++	+++++	+++++	+++++	29.6						50
Dichlorodifluoromethane	+++++	+++++	9.0						50			
Chloromethane	+++++	+++++	+++++	-9.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	15.2	+++++					50			
Vinyl chloride	27.3						50					
1,3-Butadiene	+++++	+++++	+++++	25.2						50		
Butane	+++++	+++++	21.9						50			
Bromomethane	+++++	+++++	41.8						50			
Chloroethane	+++++	+++++	33.3	+++++					50			
Ethanol	+++++	+++++	+++++	9.7						50		
Vinyl bromide	+++++	7.3						50				
2-Methylbutane	+++++	+++++	11.6						50			
Trichlorofluoromethane	+++++	3.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	14.6						50	
Acetonitrile	+++++	+++++	+++++	-19.2						50		
Acetone	+++++	+++++	+++++	+++++	38.5						80	
Pentane	+++++	+++++	+++++	-3.7						50		
Isopropyl alcohol	9.4						50					
Ethyl ether	+++++	+++++	2.7						50			
1,1-Dichloroethene	+++++	6.6						50				
Acrylonitrile	+++++	+++++	+++++	-6.1						50		
tert-Butyl alcohol	+++++	+++++	12.9						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-0.2						50			
Methylene Chloride	+++++	+++++	+++++	72.1 +++++						80		
3-Chloropropene	+++++	+++++	9.6						50			
Carbon disulfide	+++++	+++++	1.0						50			
trans-1,2-Dichloroethene	+++++	2.0						50				
2-Methylpentane	+++++	7.8						50				
Methyl tert-butyl ether	+++++	+++++	-3.5						50			
1,1-Dichloroethane	+++++	4.3						50				
Vinyl acetate	+++++	+++++	-3.1						50			
2-Butanone (MEK)	+++++	+++++	+++++	22.8						50		
Hexane	+++++	+++++	5.6						50			
cis-1,2-Dichloroethene	+++++	-10.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	4.4						50				
Chloroform	+++++	14.1						50				
Tetrahydrofuran	+++++	+++++	5.9						50			
1,1,1-Trichloroethane	6.3						50					
1,2-Dichloroethane	-12.0						50					
1-Butanol	+++++	+++++	+++++	+++++	0.4						50	
Cyclohexane	+++++	+++++	+++++	9.4						50		
Benzene	5.6						50					
Carbon tetrachloride	-16.0						50					
2,3-Dimethylpentane	+++++	+++++	-0.5						50			
Thiophene	+++++	+++++	-3.1						50			
2,2,4-Trimethylpentane	+++++	+++++	0.5						50			
Heptane	+++++	+++++	0.6						50			
1,2-Dichloropropane	+++++	+++++	3.8						50			
Trichloroethene	3.7						50					
Dibromomethane	+++++	3.9						50				
Bromodichloromethane	+++++	+++++	-6.6						50			
1,4-Dioxane	+++++	+++++	+++++	-14.6						50		
Methyl methacrylate	+++++	+++++	+++++	-7.9						50		
Methylcyclohexane	+++++	+++++	-1.8						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-6.5						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-15.4						50				
trans-1,3-Dichloropropene	+++++	-10.0						50				
Toluene	-2.2						50					
1,1,2-Trichloroethane	10.8						50					
2-Hexanone	+++++	+++++	-12.2						50			
Octane	+++++	+++++	-19.7						50			
Dibromochloromethane	+++++	+++++	-30.8						50			
1,2-Dibromoethane (EDB)	+++++	-12.4						50				
Tetrachloroethene	1.8						50					
Chlorobenzene	0.3						50					
Ethylbenzene	-3.4						50					
m-Xylene & p-Xylene	-7.2			+++++			50					
Nonane	-9.2						50					
Bromoform	+++++	+++++	-27.3 +++++	+++++					50			
Styrene	+++++	+++++	-27.1						50			
o-Xylene	1.3						50					
1,1,2,2-Tetrachloroethane	-9.3						50					
1,2,3-Trichloropropane	+++++	8.4						50				
Isopropylbenzene	-1.4			+++++			50					
Propylbenzene	+++++	-12.8		+++++				50				
2-Chlorotoluene	+++++	-3.1		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-12.9	+++++					50			
1,3,5-Trimethylbenzene	+++++	+++++	-13.1						50			
Alpha Methyl Styrene	+++++	+++++	+++++	-32.5						50		
Decane	+++++	+++++	+++++	-9.5						50		
tert-Butylbenzene	+++++	+++++	-13.0						50			
1,2,4-Trimethylbenzene	-8.2			+++++			50					
sec-Butylbenzene	+++++	+++++	-12.5	+++++					50			
1,3-Dichlorobenzene	+++++	+++++	-7.6						50			
Benzyl chloride	+++++	+++++	-14.1 +++++	+++++					50			
1,4-Dichlorobenzene	-2.9						50					
4-Isopropyltoluene	-15.5			+++++			50					
1,2,3-Trimethylbenzene	-11.2			+++++			50					
Indane	+++++	+++++	-11.8						50			
1,2-Dichlorobenzene	3.3						50					
Indene	+++++	+++++	+++++	-27.0						50		
Butylbenzene	-3.5			+++++			50					
Undecane	+++++	+++++	+++++	-7.7						50		
1,2-Dibromo-3-Chloropropane	+++++	+++++	-33.8 +++++	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-11.4	+++++					50			
Dodecane	+++++	+++++	+++++	+++++	-15.6						50	
1,2,4-Trichlorobenzene	-6.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	12.5			+++++			80					
Hexachlorobutadiene	-12.5						50					
1,2,3-Trichlorobenzene	17.7						50					
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	1.2						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	9.5						80

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 03-Sep-2019 10:26:30 ALS Bottle#: 8 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:33:43 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:51:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.537	0.002	92	504925	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	93	2830280	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	85	2280964	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	98	1433981	4.00	4.25	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	97	2348774	8.00	7.01	
7 Propene	41	3.437	3.433	0.004	99	1269857	8.00	6.70	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	2101908	8.00	7.38	
9 Chloromethane	52	3.664	3.661	0.003	100	346832	8.00	6.38	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	85	1320196	8.00	5.62	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	1942954	40.0	29.3	
12 Vinyl chloride	62	3.826	3.823	0.003	99	1029765	8.00	6.00	
13 Butadiene	54	3.912	3.909	0.003	70	771748	8.00	5.98	
14 Butane	43	3.912	3.909	0.003	84	1465050	8.00	5.87	
15 Bromomethane	94	4.225	4.221	0.004	96	1065063	8.00	6.28	
16 Chloroethane	64	4.359	4.357	0.002	95	435262	8.00	6.08	
17 Ethanol	31	4.462	4.461	0.001	96	2822321	40.0	36.5	
18 Vinyl bromide	106	4.651	4.649	0.002	98	1148135	8.00	8.00	
19 2-Methylbutane	43	4.694	4.695	-0.001	94	1425882	8.00	7.30	
21 Trichlorofluoromethane	101	4.910	4.911	-0.001	99	3169467	8.00	7.72	
20 Acrolein	56	4.926	4.929	-0.003	95	348337	8.00	7.16	
24 Acetonitrile	40	4.996	5.002	-0.006	99	582616	8.00	8.03	
22 Acetone	58	5.039	5.050	-0.011	98	1654698	24.0	20.5	
25 Pentane	72	5.131	5.133	-0.002	71	226085	8.00	7.83	
23 Isopropyl alcohol	45	5.131	5.142	-0.011	83	5213569	24.0	22.1	
26 Ethyl ether	31	5.298	5.312	-0.014	94	1433907	8.00	7.28	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	99	1258021	8.00	7.66	
28 Acrylonitrile	53	5.729	5.728	0.001	95	934361	8.00	7.72	
29 2-Methyl-2-propanol	59	5.718	5.745	-0.027	96	2176270	8.00	7.44	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	95	2655319	8.00	7.65	
32 3-Chloro-1-propene	39	5.983	5.964	0.019	96	1146190	8.00	7.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	98	1121306	8.00	5.76	
33 Carbon disulfide	76	6.128	6.125	0.003	99	3382615	8.00	7.84	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	97	1391908	8.00	7.87	
35 2-Methylpentane	43	6.797	6.795	0.002	95	3000565	8.00	7.19	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	97	3317514	8.00	7.80	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	99	2277375	8.00	7.50	
38 Vinyl acetate	43	7.315	7.318	-0.003	100	3800716	8.00	7.94	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	96	636144	8.00	7.47	
40 Hexane	56	7.784	7.785	-0.001	84	1012153	8.00	7.32	
41 Isopropyl ether	45	7.945	7.963	-0.018	98	4678822	8.00	7.39	
42 cis-1,2-Dichloroethene	96	8.204	8.203	0.001	91	1461188	8.00	7.96	
43 Ethyl acetate	43	8.393	8.402	-0.009	99	3267852	8.00	7.44	
44 Chloroform	83	8.555	8.549	0.006	96	2705091	8.00	7.40	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	95	4012888	8.00	7.78	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	96	1610482	8.00	7.39	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	94	2964078	8.00	7.93	
48 1,2-Dichloroethane	62	9.709	9.701	0.008	96	1682455	8.00	7.55	
50 n-Butanol	31	10.151	10.176	-0.025	82	587477	8.00	7.50	
49 Benzene	78	10.205	10.199	0.006	96	4049317	8.00	7.42	
51 Cyclohexane	69	10.199	10.200	-0.001	95	611764	8.00	7.57	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	96	3105309	8.00	8.60	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	92	898330	8.00	8.06	
54 Thiophene	84	10.485	10.482	0.003	96	2283966	8.00	8.06	
55 Isooctane	57	10.987	10.986	0.001	99	6272565	8.00	7.40	
57 n-Heptane	71	11.375	11.378	-0.003	93	1396634	8.00	7.74	
56 1,2-Dichloropropane	63	11.467	11.464	0.003	90	1477336	8.00	7.51	
58 Trichloroethene	130	11.499	11.496	0.003	95	1910661	8.00	8.13	
59 Dibromomethane	93	11.591	11.587	0.004	92	1643327	8.00	7.86	
60 Dichlorobromomethane	83	11.736	11.735	0.001	98	2840812	8.00	8.18	
61 1,4-Dioxane	88	11.742	11.759	-0.017	87	633790	8.00	8.01	
62 Methyl methacrylate	41	11.833	11.836	-0.003	94	1909381	8.00	7.93	
63 Methylcyclohexane	83	12.281	12.276	0.005	96	2375366	8.00	7.94	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	3510335	8.00	7.86	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	95	2314593	8.00	8.49	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	99	2144122	8.00	8.91	
67 Toluene	91	13.586	13.584	0.002	93	4796384	8.00	8.60	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	96	1433844	8.00	8.22	
69 2-Hexanone	58	14.044	14.055	-0.011	91	1657957	8.00	8.66	
71 n-Octane	85	14.281	14.283	-0.002	95	1516549	8.00	8.79	
70 Chlorodibromomethane	129	14.373	14.370	0.003	97	3457683	8.00	9.91	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	2919521	8.00	8.98	
73 Tetrachloroethene	129	14.734	14.736	-0.002	98	1989330	8.00	8.86	
74 Chlorobenzene	112	15.619	15.615	0.004	96	4236877	8.00	8.97	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	97	5019244	8.00	7.86	
76 Ethylbenzene	91	15.905	15.904	0.001	97	6598286	8.00	8.73	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	10470526	16.0	18.0	
81 n-Nonane	57	16.487	16.488	-0.001	94	3311198	8.00	8.91	
78 Bromoform	173	16.519	16.519	0.000	98	4142191	8.00	13.0	
79 Styrene	104	16.535	16.535	0.000	98	4036484	8.00	9.90	
80 o-Xylene	91	16.595	16.595	0.000	99	5027892	8.00	8.52	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	99	3883559	8.00	8.96	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	1166777	8.00	8.55	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	7640100	8.00	8.75	
85 N-Propylbenzene	120	17.749	17.749	0.000	100	2154443	8.00	9.25	
86 2-Chlorotoluene	126	17.792	17.789	0.003	96	1992363	8.00	9.03	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	7935354	8.00	8.94	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	3073985	8.00	8.72	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	3346770	8.00	9.79	
90 n-Decane	57	18.283	18.286	-0.003	90	4162906	8.00	8.25	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	95	7299538	8.00	9.16	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	7141354	8.00	9.56	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	10733538	8.00	9.27	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	5199306	8.00	9.19	
96 Benzyl chloride	91	18.800	18.798	0.002	99	6053316	8.00	11.6	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	97	5217028	8.00	9.53	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	8141205	8.00	9.47	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	6675523	8.00	9.12	
99 Butylcyclohexane	83	18.984	18.983	0.001	95	4967219	8.00	8.53	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	6904704	8.00	9.55	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	5108636	8.00	9.53	
102 Indene	116	19.313	19.315	-0.002	91	6325607	8.00	10.1	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	8307001	8.00	9.13	
104 Undecane	57	19.636	19.638	-0.002	96	5200472	8.00	8.54	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	2765964	8.00	12.9	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	8035274	8.00	9.63	
107 Dodecane	57	20.715	20.713	0.002	95	5460527	8.00	8.78	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	5042191	8.00	9.95	
109 Naphthalene	128	21.060	21.060	0.000	99	9705570	8.00	9.50	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	4175503	8.00	9.45	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	4980903	8.00	9.68	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	3724073	8.00	8.89	
113 1-Methylnaphthalene	142	22.144	22.143	0.001	97	3300680	8.00	8.58	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	14179004	8.00	7.47	
S 116 Xylenes, Total	100				0		24.0	26.5	
S 117 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

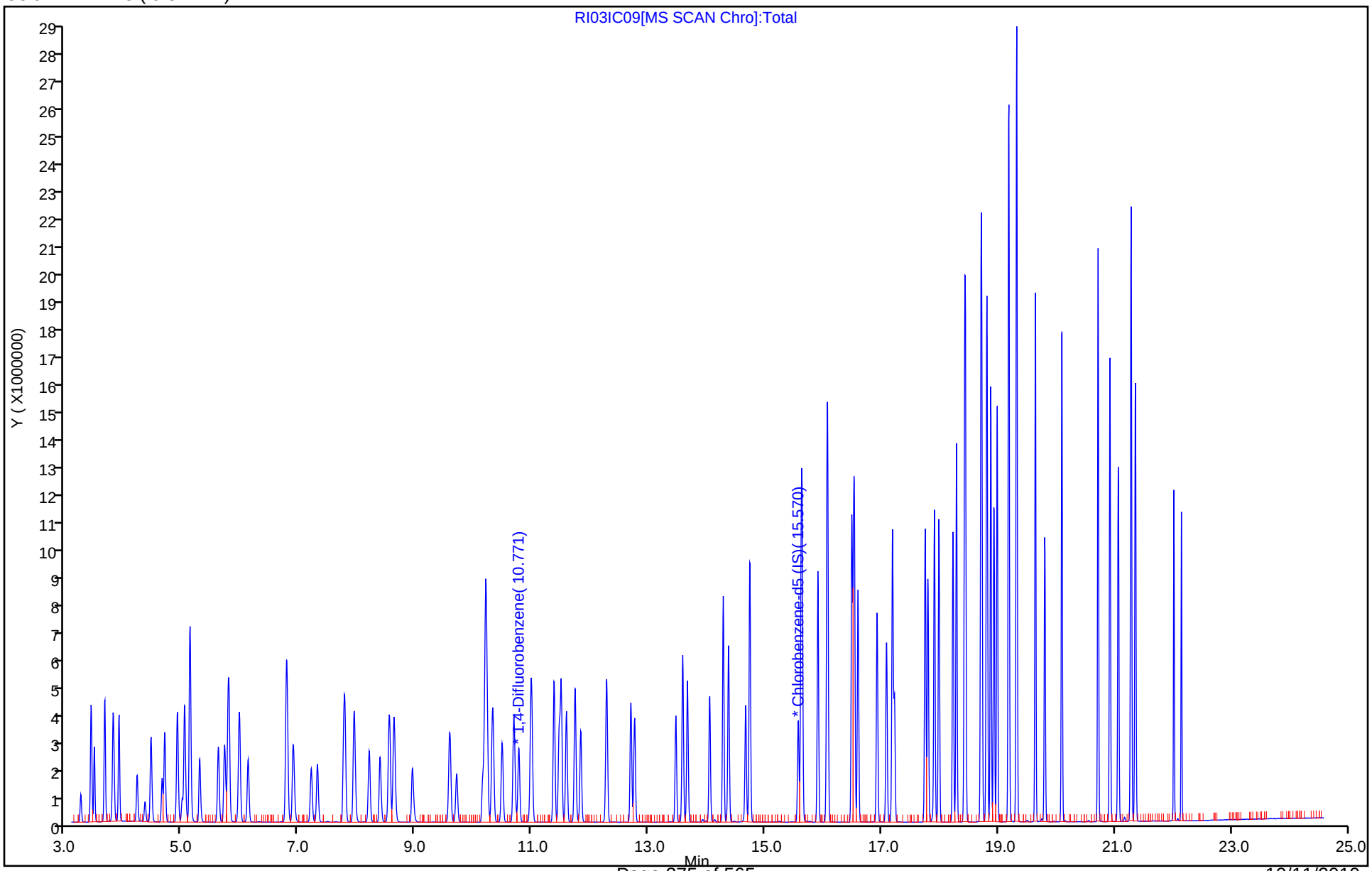
Report Date: 04-Sep-2019 17:33:46 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D

Injection Date:	03-Sep-2019 10:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

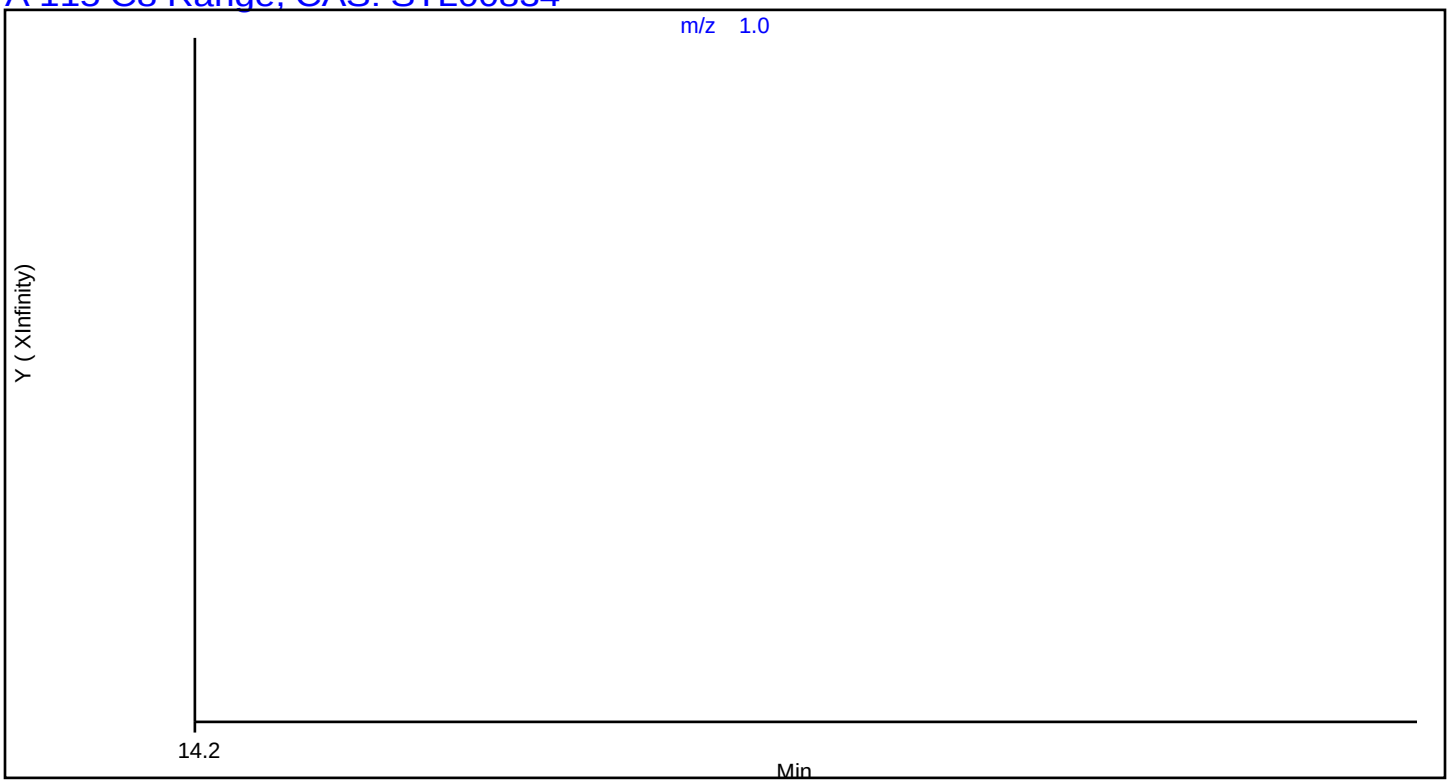


Report Date: 04-Sep-2019 17:33:46 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D				
Injection Date:	03-Sep-2019 10:26:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	8	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D
Lims ID: IC 10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 03-Sep-2019 12:02:30 ALS Bottle#: 9 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:33:54 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 17:20:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.537	0.012	95	512022	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.770	0.012	94	2629211	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	85	2361044	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1413499	4.00	4.05	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	97	4724731	16.0	13.9	
7 Propene	41	3.432	3.433	-0.001	99	2500503	16.0	13.0	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	3856645	16.0	13.4	
9 Chloromethane	52	3.658	3.661	-0.003	100	693560	16.0	12.6	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	92	2492992	16.0	10.5	
11 Acetaldehyde	44	3.809	3.811	-0.002	100	3138649	80.0	46.7	
12 Vinyl chloride	62	3.825	3.823	0.002	99	1661803	16.0	9.56	
13 Butadiene	54	3.906	3.909	-0.003	70	1340227	16.0	10.2	
14 Butane	43	3.906	3.909	-0.003	84	2532410	16.0	10.0	
15 Bromomethane	94	4.219	4.221	-0.002	95	1702886	16.0	9.90	
16 Chloroethane	64	4.359	4.357	0.002	90	729119	16.0	10.0	
17 Ethanol	31	4.473	4.461	0.012	97	5484760	80.0	70.0	
18 Vinyl bromide	106	4.650	4.649	0.001	99	2136147	16.0	14.7	
19 2-Methylbutane	43	4.694	4.695	-0.001	93	2767410	16.0	14.0	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	99	6197158	16.0	14.9	
20 Acrolein	56	4.931	4.929	0.002	95	698308	16.0	14.2	
24 Acetonitrile	40	5.006	5.002	0.004	98	1096753	16.0	14.9	
22 Acetone	58	5.044	5.050	-0.006	98	3145268	48.0	38.5	
25 Pentane	72	5.130	5.133	-0.003	97	455388	16.0	15.5	
23 Isopropyl alcohol	45	5.141	5.142	-0.001	98	10255859	48.0	42.9	
26 Ethyl ether	31	5.298	5.312	-0.014	93	2812660	16.0	14.1	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	99	2383041	16.0	14.3	
28 Acrylonitrile	53	5.740	5.728	0.012	94	1821857	16.0	14.8	
29 2-Methyl-2-propanol	59	5.729	5.745	-0.016	96	4342222	16.0	14.6	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	96	5307039	16.0	15.1	
32 3-Chloro-1-propene	39	5.988	5.964	0.024	95	2333432	16.0	14.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.977	5.969	0.008	98	2166319	16.0	11.0	
33 Carbon disulfide	76	6.128	6.125	0.003	100	6407900	16.0	14.6	
34 trans-1,2-Dichloroethene	96	6.786	6.779	0.007	98	2783877	16.0	15.5	
35 2-Methylpentane	43	6.797	6.795	0.002	95	6161875	16.0	14.6	
36 Methyl tert-butyl ether	73	6.904	6.927	-0.023	97	6358374	16.0	14.7	
37 1,1-Dichloroethane	63	7.217	7.208	0.009	100	4360528	16.0	14.2	
38 Vinyl acetate	43	7.325	7.318	0.007	100	7686543	16.0	15.8	
39 2-Butanone (MEK)	72	7.773	7.782	-0.009	96	1285975	16.0	14.9	
40 Hexane	56	7.794	7.785	0.009	84	2110781	16.0	15.1	
41 Isopropyl ether	45	7.951	7.963	-0.012	98	9477981	16.0	14.8	
42 cis-1,2-Dichloroethene	96	8.215	8.203	0.012	91	2831075	16.0	15.2	
43 Ethyl acetate	43	8.398	8.402	-0.004	98	6519087	16.0	14.6	
44 Chloroform	83	8.565	8.549	0.016	97	5498611	16.0	14.8	
45 Tert-butyl ethyl ether	59	8.641	8.649	-0.008	95	8124559	16.0	15.5	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	95	3180934	16.0	14.4	
47 1,1,1-Trichloroethane	97	9.595	9.586	0.009	95	5973969	16.0	15.8	
48 1,2-Dichloroethane	62	9.714	9.701	0.013	96	3298299	16.0	15.9	
50 n-Butanol	31	10.156	10.176	-0.020	86	1242418	16.0	17.1	
49 Benzene	78	10.210	10.199	0.011	96	8504918	16.0	16.8	
51 Cyclohexane	69	10.205	10.200	0.005	93	1291544	16.0	17.2	
52 Carbon tetrachloride	117	10.232	10.222	0.010	97	6601975	16.0	19.7	
53 2,3-Dimethylpentane	71	10.334	10.324	0.010	92	1777213	16.0	17.2	
54 Thiophene	84	10.496	10.482	0.014	96	4458082	16.0	16.9	
55 Isooctane	57	10.997	10.986	0.011	99	12833072	16.0	16.3	
57 n-Heptane	71	11.386	11.378	0.008	93	2805393	16.0	16.7	
56 1,2-Dichloropropane	63	11.472	11.464	0.008	90	3008646	16.0	16.5	
58 Trichloroethene	130	11.504	11.496	0.008	96	3849636	16.0	17.6	
59 Dibromomethane	93	11.596	11.587	0.009	92	3305615	16.0	17.0	
60 Dichlorobromomethane	83	11.741	11.735	0.006	99	5832457	16.0	18.1	
61 1,4-Dioxane	88	11.747	11.759	-0.012	87	1247808	16.0	17.0	
62 Methyl methacrylate	41	11.838	11.836	0.002	93	3983049	16.0	17.8	
63 Methylcyclohexane	83	12.286	12.276	0.010	95	4727152	16.0	17.0	
64 4-Methyl-2-pentanone (MIBK	43	12.701	12.705	-0.004	98	7232492	16.0	17.4	
65 cis-1,3-Dichloropropene	75	12.766	12.759	0.007	95	4710253	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.472	13.467	0.005	99	4441543	16.0	17.8	
67 Toluene	91	13.591	13.584	0.007	94	9463414	16.0	16.4	
68 1,1,2-Trichloroethane	83	13.672	13.665	0.007	95	2844825	16.0	15.8	
69 2-Hexanone	58	14.049	14.055	-0.006	91	3399102	16.0	17.2	
71 n-Octane	85	14.287	14.283	0.004	95	3196625	16.0	17.9	
70 Chlorodibromomethane	129	14.378	14.370	0.008	97	7505025	16.0	20.8	
72 Ethylene Dibromide	107	14.669	14.664	0.005	98	6216264	16.0	18.5	
73 Tetrachloroethene	129	14.740	14.736	0.004	98	4065061	16.0	17.5	
74 Chlorobenzene	112	15.619	15.615	0.004	96	8686236	16.0	17.8	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	96	10019065	16.0	15.1	
76 Ethylbenzene	91	15.910	15.904	0.006	97	13479819	16.0	17.2	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	93	19401940	32.0	32.2	e
81 n-Nonane	57	16.492	16.488	0.004	92	6567091	16.0	17.1	
78 Bromoform	173	16.519	16.519	0.000	97	8457732	16.0	25.6	
79 Styrene	104	16.535	16.535	0.000	98	8312171	16.0	19.7	
80 o-Xylene	91	16.600	16.595	0.005	99	10574999	16.0	17.3	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	99	8186594	16.0	18.2	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	2405567	16.0	17.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	15600596	16.0	17.3	e
85 N-Propylbenzene	120	17.743	17.749	-0.006	97	4706259	16.0	19.5	e
86 2-Chlorotoluene	126	17.743	17.789	-0.046	96	3057385	16.0	13.4	e
88 4-Ethyltoluene	105	17.905	17.907	-0.002	97	15674889	16.0	17.1	e
87 1,3,5-Trimethylbenzene	120	17.986	17.983	0.003	94	6711519	16.0	18.4	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	7451929	16.0	21.1	
90 n-Decane	57	18.288	18.286	0.002	91	8590182	16.0	16.4	
91 tert-Butylbenzene	119	18.428	18.425	0.003	94	14703312	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	13988235	16.0	18.1	e
94 sec-Butylbenzene	105	18.698	18.703	-0.005	97	16935248	16.0	14.1	e
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	98	10219340	16.0	17.4	
96 Benzyl chloride	91	18.800	18.798	0.002	99	12638085	16.0	23.4	
95 1,4-Dichlorobenzene	146	18.816	18.811	0.005	96	10536468	16.0	18.6	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	89	14552055	16.0	16.4	e
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	97	13486782	16.0	17.8	e
99 Butylcyclohexane	83	18.983	18.983	0.000	94	10280341	16.0	17.0	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	12717942	16.0	17.0	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	9415816	16.0	17.0	
102 Indene	116	19.312	19.315	-0.003	91	11794325	16.0	18.2	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	14429567	16.0	15.3	e
104 Undecane	57	19.641	19.638	0.003	96	10705948	16.0	17.0	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	94	6313108	16.0	28.3	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	96	13934904	16.0	16.1	e
107 Dodecane	57	20.714	20.713	0.001	95	11061506	16.0	17.2	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	10475148	16.0	20.0	
109 Naphthalene	128	21.054	21.060	-0.006	99	16171061	16.0	15.3	e
110 Hexachlorobutadiene	225	21.286	21.283	0.003	92	7946181	16.0	17.4	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	10123830	16.0	19.0	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	7575277	16.0	17.5	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	6530127	16.0	16.4	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	29283193	16.0	16.6	
S 116 Xylenes, Total	100				0		48.0	49.6	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.7	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

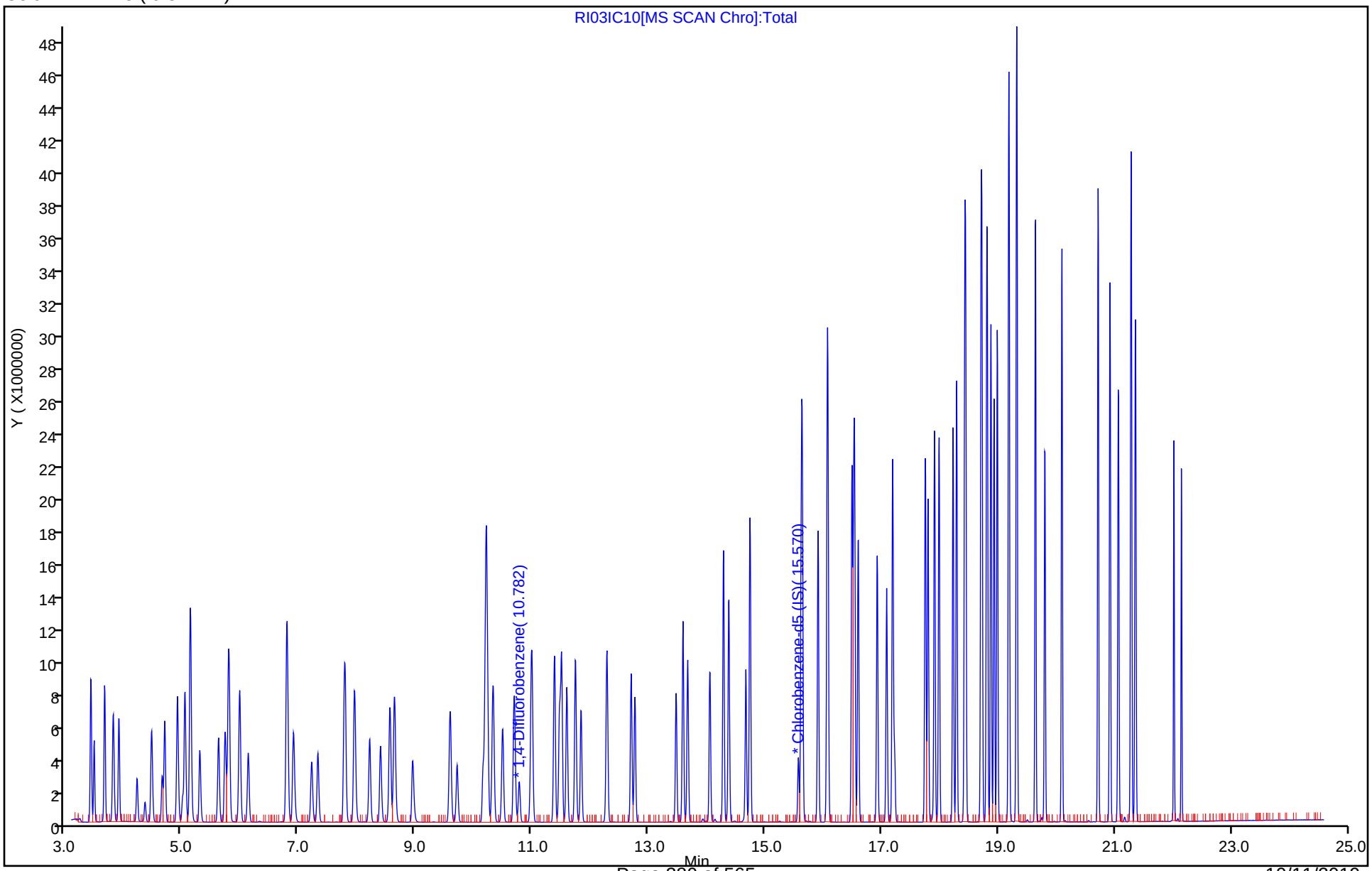
Report Date: 04-Sep-2019 17:33:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D

Injection Date:	03-Sep-2019 12:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC 10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

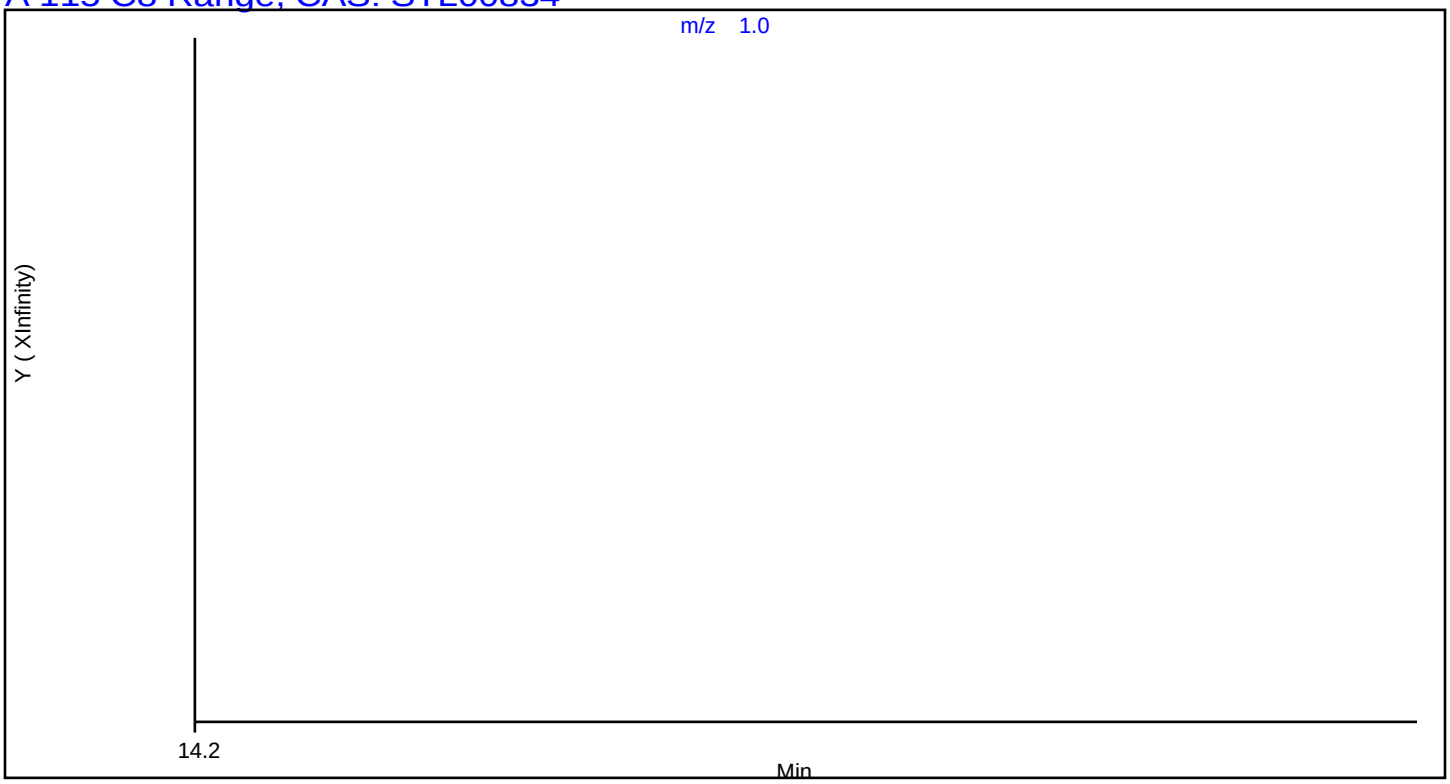


Report Date: 04-Sep-2019 17:33:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D				
Injection Date:	03-Sep-2019 12:02:30	Instrument ID:	MR		
Lims ID:	IC 10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	9	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Sep-2019 14:26:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:04 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	94	383199	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	2217357	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1777627	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1024776	4.00	3.90	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	40	6123	0.0200	0.0241	
7 Propene	41	3.432	3.433	-0.001	99	49459	0.0200	0.3440	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	73	6535	0.0200	0.0302	
9 Chloromethane	52	3.658	3.661	-0.003	28	366	0.0200	0.008865	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	88	7333	0.0200	0.0411	
11 Acetaldehyde	44	3.804	3.811	-0.007	96	17172	0.1000	0.3416	
12 Vinyl chloride	62	3.815	3.823	-0.008	36	3313	0.0200	0.0255	
13 Butadiene	54	3.906	3.909	-0.003	58	3104	0.0200	0.0317	
14 Butane	43	3.901	3.909	-0.008	73	6848	0.0200	0.0362	
15 Bromomethane	94	4.219	4.221	-0.002	71	5052	0.0200	0.0392	
16 Chloroethane	64	4.370	4.357	0.013	44	1617	0.0200	0.0298	
17 Ethanol	31	4.467	4.461	0.006	96	8207	0.1000	0.1400	
18 Vinyl bromide	106	4.645	4.649	-0.004	55	2289	0.0200	0.0210	
19 2-Methylbutane	43	4.704	4.695	0.009	53	3866	0.0200	0.0261	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	95	7793	0.0200	0.0250	
20 Acrolein	56	4.926	4.929	-0.003	45	2951	0.0200	0.0799	
24 Acetonitrile	40	5.060	5.002	0.058	22	1057	0.0200	0.0192	
22 Acetone	58	5.060	5.050	0.010	99	9882	0.0600	0.1617	
25 Pentane	72	5.136	5.133	0.003	60	89	0.0200	0.004059	
23 Isopropyl alcohol	45	5.157	5.142	0.015	90	11752	0.0600	0.0657	
26 Ethyl ether	31	5.330	5.312	0.018	78	3599	0.0200	0.0241	
27 1,1-Dichloroethene	96	5.610	5.615	-0.005	45	3361	0.0200	0.0270	
28 Acrylonitrile	53	5.729	5.728	0.001	1	1010	0.0200	0.0110	
29 2-Methyl-2-propanol	59	5.794	5.745	0.049	87	5915	0.0200	0.0266	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	91	4891	0.0200	0.0186	
32 3-Chloro-1-propene	39	5.788	5.964	-0.176	44	1699	0.0200	0.0139	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	98	23402	0.0200	0.1583	
33 Carbon disulfide	76	6.123	6.125	-0.002	81	6047	0.0200	0.0185	
34 trans-1,2-Dichloroethene	96	6.780	6.779	0.001	93	2990	0.0200	0.0223	
35 2-Methylpentane	43	6.797	6.795	0.002	80	6401	0.0200	0.0202	
36 Methyl tert-butyl ether	73	6.980	6.927	0.053	48	5269	0.0200	0.0163	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	5	2998	0.0200	0.0130	
38 Vinyl acetate	43	7.331	7.318	0.013	86	6805	0.0200	0.0187	
39 2-Butanone (MEK)	72	7.805	7.782	0.023	86	1214	0.0200	0.0188	
40 Hexane	56	7.789	7.785	0.004	76	1509	0.0200	0.0144	
41 Isopropyl ether	45	7.994	7.963	0.031	87	8113	0.0200	0.0169	
42 cis-1,2-Dichloroethene	96	8.209	8.203	0.006	35	2870	0.0200	0.0206	
43 Ethyl acetate	43	8.420	8.402	0.018	67	4019	0.0200	0.0121	
44 Chloroform	83	8.555	8.549	0.006	27	6419	0.0200	0.0231	
45 Tert-butyl ethyl ether	59	8.684	8.649	0.035	92	8242	0.0200	0.0211	
46 Tetrahydrofuran	42	8.959	8.968	-0.009	1	52	0.0200	0.000314	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	55	6034	0.0200	0.0213	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	28	3073	0.0200	0.0176	
50 n-Butanol	31	10.199	10.176	0.023	57	1655	0.0200	0.0270	
49 Benzene	78	10.194	10.199	-0.005	92	9034	0.0200	0.0211	
51 Cyclohexane	69	10.205	10.200	0.005	50	1112	0.0200	0.0176	
52 Carbon tetrachloride	117	10.226	10.222	0.004	60	4750	0.0200	0.0168	
53 2,3-Dimethylpentane	71	10.334	10.324	0.010	74	1829	0.0200	0.0210	
54 Thiophene	84	10.490	10.482	0.008	33	4671	0.0200	0.0210	
55 Isooctane	57	10.987	10.986	0.001	93	13486	0.0200	0.0203	
57 n-Heptane	71	11.375	11.378	-0.003	93	3097	0.0200	0.0219	
56 1,2-Dichloropropane	63	11.466	11.464	0.002	38	3104	0.0200	0.0201	
58 Trichloroethene	130	11.493	11.496	-0.003	47	3817	0.0200	0.0207	
59 Dibromomethane	93	11.590	11.587	0.003	83	4028	0.0200	0.0246	
60 Dichlorobromomethane	83	11.736	11.735	0.001	60	4749	0.0200	0.0175	
61 1,4-Dioxane	88	11.785	11.759	0.026	40	1347	0.0200	0.0217	
62 Methyl methacrylate	41	11.844	11.836	0.008	22	4352	0.0200	0.0231	
63 Methylcyclohexane	83	12.275	12.276	-0.001	90	4250	0.0200	0.0181	
64 4-Methyl-2-pentanone (MIBK	43	12.728	12.705	0.023	69	5760	0.0200	0.0165	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	85	4546	0.0200	0.0213	
66 trans-1,3-Dichloropropene	75	13.472	13.467	0.005	64	3523	0.0200	0.0188	
67 Toluene	91	13.586	13.584	0.002	96	8499	0.0200	0.0196	
68 1,1,2-Trichloroethane	83	13.672	13.665	0.007	87	3011	0.0200	0.0222	
69 2-Hexanone	58	14.076	14.055	0.021	85	2966	0.0200	0.0199	
71 n-Octane	85	14.292	14.283	0.009	95	2562	0.0200	0.0190	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	92	3574	0.0200	0.0131	
72 Ethylene Dibromide	107	14.670	14.664	0.006	49	4375	0.0200	0.0173	
73 Tetrachloroethene	129	14.745	14.736	0.009	87	3560	0.0200	0.0204	
74 Chlorobenzene	112	15.613	15.615	-0.002	89	7381	0.0200	0.0201	
75 2,3-Dimethylheptane	43	15.629	15.634	-0.005	95	10890	0.0200	0.0219	
76 Ethylbenzene	91	15.899	15.904	-0.005	97	11381	0.0200	0.0193	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	16808	0.0400	0.0371	
81 n-Nonane	57	16.492	16.488	0.004	95	5261	0.0200	0.0182	
78 Bromoform	173	16.514	16.519	-0.005	85	3714	0.0200	0.0149	
79 Styrene	104	16.535	16.535	0.000	51	4313	0.0200	0.0136	
80 o-Xylene	91	16.595	16.595	0.000	96	9313	0.0200	0.0203	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	96	6128	0.0200	0.0181	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	85	2596	0.0200	0.0244	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	46	13423	0.0200	0.0197	
85 N-Propylbenzene	120	17.754	17.749	0.005	98	3141	0.0200	0.0173	
86 2-Chlorotoluene	126	17.792	17.789	0.003	94	3567	0.0200	0.0207	
88 4-Ethyltoluene	105	17.910	17.907	0.003	97	11987	0.0200	0.0173	
87 1,3,5-Trimethylbenzene	120	17.980	17.983	-0.003	94	4837	0.0200	0.0176	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	3539	0.0200	0.0133	
90 n-Decane	57	18.288	18.286	0.002	91	5892	0.0200	0.0150	
91 tert-Butylbenzene	119	18.417	18.425	-0.008	83	10010	0.0200	0.0161	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	94	10691	0.0200	0.0184	
94 sec-Butylbenzene	105	18.698	18.703	-0.005	96	14564	0.0200	0.0161	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	92	7543	0.0200	0.0171	
96 Benzyl chloride	91	18.800	18.798	0.002	80	6940	0.0200	0.0171	
95 1,4-Dichlorobenzene	146	18.805	18.811	-0.006	93	8284	0.0200	0.0194	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	11322	0.0200	0.0169	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	97	10130	0.0200	0.0178	
99 Butylcyclohexane	83	18.983	18.983	0.000	91	7654	0.0200	0.0169	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	90	8965	0.0200	0.0159	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	8636	0.0200	0.0207	
102 Indene	116	19.318	19.315	0.003	87	7668	0.0200	0.0157	
103 n-Butylbenzene	91	19.323	19.320	0.003	97	13692	0.0200	0.0193	
104 Undecane	57	19.641	19.638	0.003	88	6270	0.0200	0.0132	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	81	2639	0.0200	0.0157	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	99	10743	0.0200	0.0165	
107 Dodecane	57	20.709	20.713	-0.004	89	5914	0.0200	0.0122	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	85	7407	0.0200	0.0188	
109 Naphthalene	128	21.059	21.060	-0.001	98	17912	0.0200	0.0225	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	81	6024	0.0200	0.0175	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	90	9441	0.0200	0.0235	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	93	13005	0.0200	0.0398	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	96	15695	0.0200	0.0523	
A 115 C8 Range	1	14.274	(14.249-14.314)		0	30047	0.0200	0.0202	
S 116 Xylenes, Total	100				0		0.0600	0.0574	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0429	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

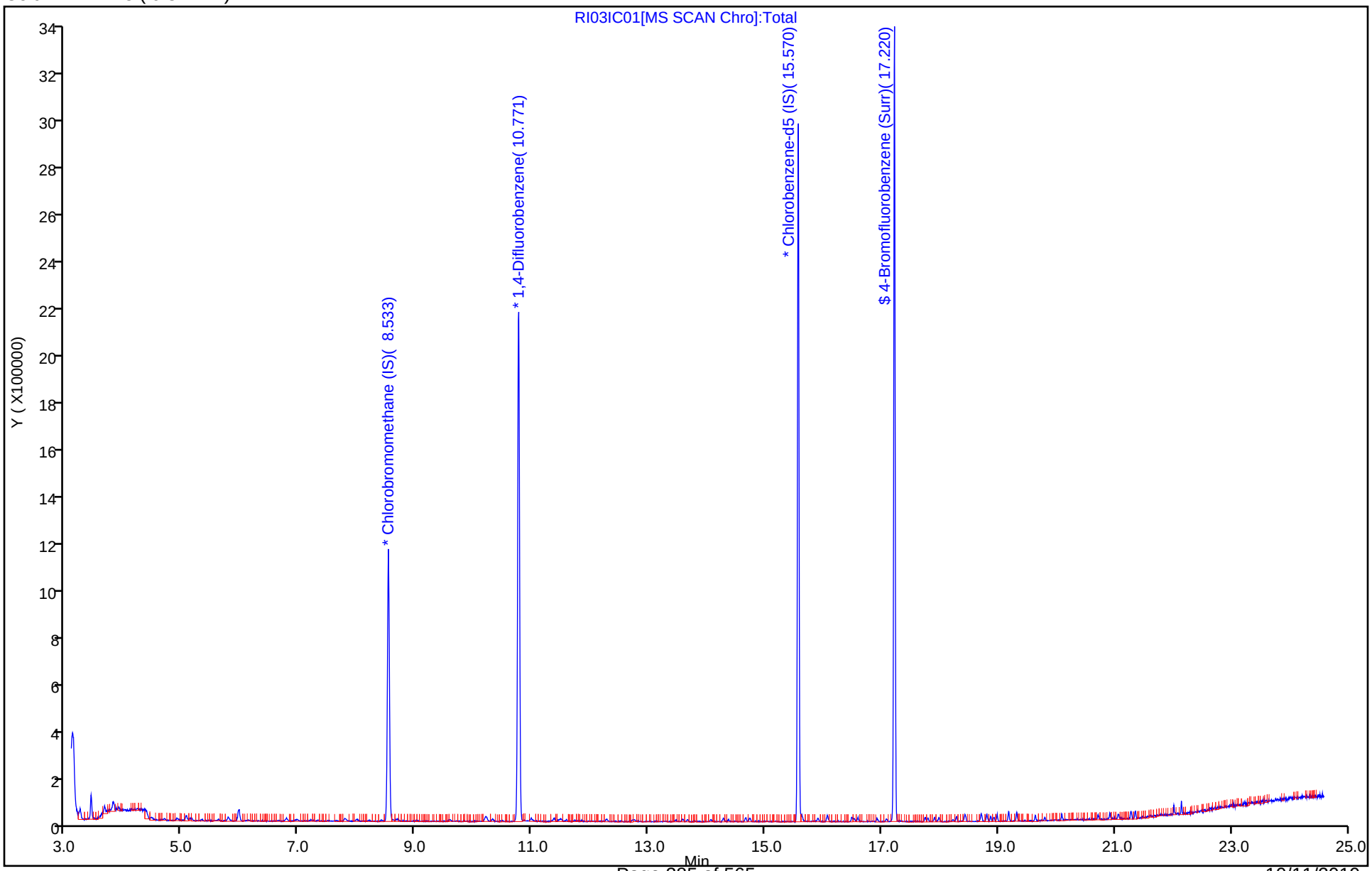
Report Date: 04-Sep-2019 17:34:06 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D

Injection Date:	03-Sep-2019 14:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

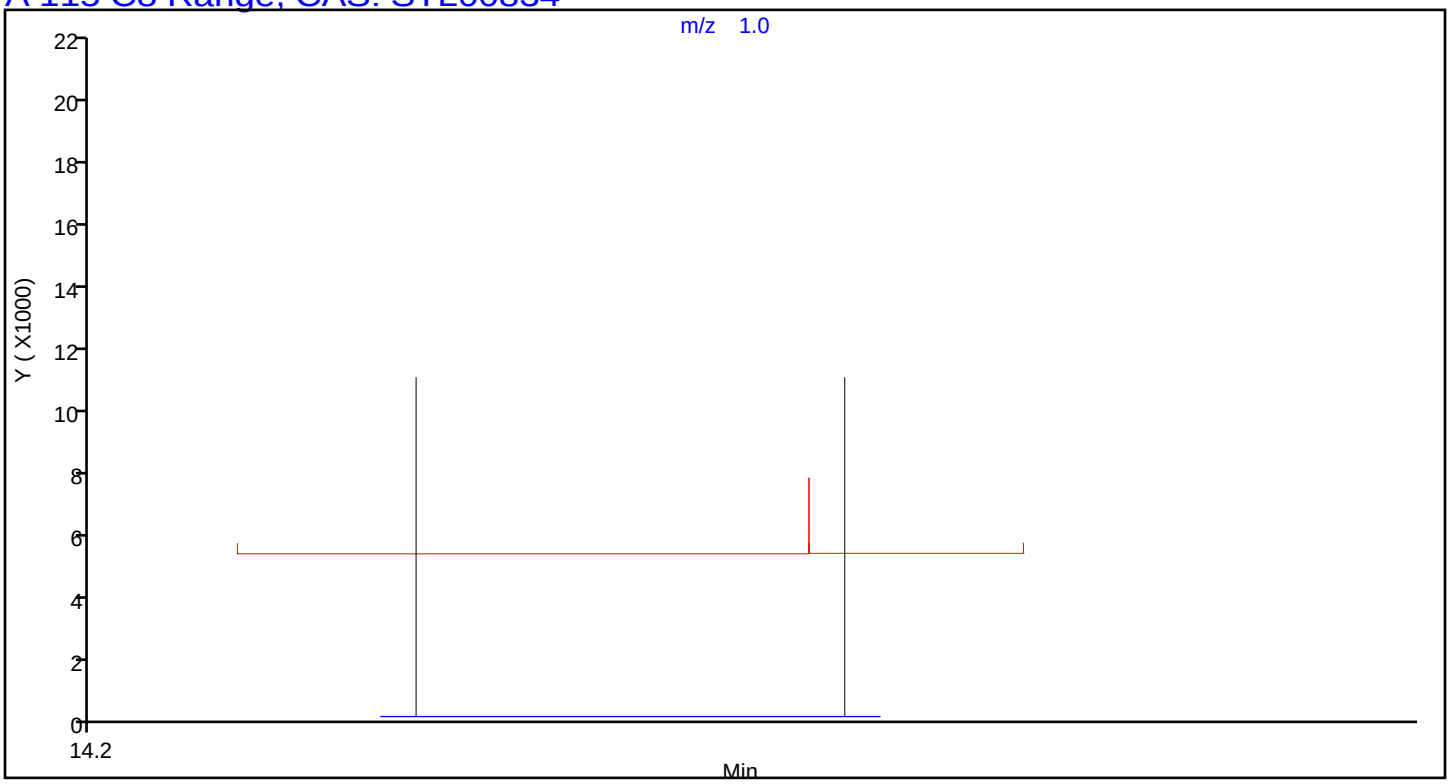
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D				
Injection Date:	03-Sep-2019 14:26:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Sep-2019 15:13:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:12 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	95	322255	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1800958	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1536108	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	881623	4.00	3.88	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	47	10237	0.0400	0.0479	
7 Propene	41	3.427	3.433	-0.006	99	49766	0.0400	0.4116	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	96	8523	0.0400	0.0469	
9 Chloromethane	52	3.664	3.661	0.003	81	3197	0.0400	0.0921	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	89	10647	0.0400	0.0710	
11 Acetaldehyde	44	3.809	3.811	-0.002	98	31541	0.2000	0.7462	
12 Vinyl chloride	62	3.820	3.823	-0.003	39	5237	0.0400	0.0478	
13 Butadiene	54	3.906	3.909	-0.003	57	3417	0.0400	0.0415	
14 Butane	43	3.912	3.909	0.003	76	6359	0.0400	0.0399	
15 Bromomethane	94	4.225	4.221	0.004	79	6593	0.0400	0.0609	
16 Chloroethane	64	4.349	4.357	-0.008	16	1348	0.0400	0.0295	
17 Ethanol	31	4.467	4.461	0.006	96	12783	0.2000	0.2593	
18 Vinyl bromide	106	4.651	4.649	0.002	76	3929	0.0400	0.0429	
19 2-Methylbutane	43	4.694	4.695	-0.001	90	7344	0.0400	0.0589	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	97	10884	0.0400	0.0415	
20 Acrolein	56	4.931	4.929	0.002	39	3432	0.0400	0.1105	
24 Acetonitrile	40	4.990	5.002	-0.012	83	3811	0.0400	0.0823	
22 Acetone	58	5.071	5.050	0.021	97	17079	0.1200	0.3323	
25 Pentane	72	5.131	5.133	-0.002	45	747	0.0400	0.0405	
23 Isopropyl alcohol	45	5.163	5.142	0.021	97	19186	0.1200	0.1275	
26 Ethyl ether	31	5.335	5.312	0.023	77	5336	0.0400	0.0424	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	92	4466	0.0400	0.0426	
28 Acrylonitrile	53	5.729	5.728	0.001	54	2352	0.0400	0.0304	
29 2-Methyl-2-propanol	59	5.772	5.745	0.027	92	9651	0.0400	0.0517	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	90	8314	0.0400	0.0375	
32 3-Chloro-1-propene	39	5.993	5.964	0.029	48	6738	0.0400	0.0656	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	96	21473	0.0400	0.1727	
33 Carbon disulfide	76	6.128	6.125	0.003	72	11605	0.0400	0.0421	
34 trans-1,2-Dichloroethene	96	6.786	6.779	0.007	67	4605	0.0400	0.0408	
35 2-Methylpentane	43	6.797	6.795	0.002	95	11484	0.0400	0.0431	
36 Methyl tert-butyl ether	73	6.953	6.927	0.026	73	10797	0.0400	0.0398	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	95	8084	0.0400	0.0417	
38 Vinyl acetate	43	7.314	7.318	-0.004	94	9791	0.0400	0.0321	
39 2-Butanone (MEK)	72	7.811	7.782	0.029	92	2931	0.0400	0.0539	
40 Hexane	56	7.794	7.785	0.009	64	3675	0.0400	0.0417	
41 Isopropyl ether	45	7.988	7.963	0.025	97	17054	0.0400	0.0422	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	57	4187	0.0400	0.0357	
43 Ethyl acetate	43	8.420	8.402	0.018	97	11707	0.0400	0.0418	
44 Chloroform	83	8.549	8.549	0.000	28	10656	0.0400	0.0456	
45 Tert-butyl ethyl ether	59	8.668	8.649	0.019	93	12204	0.0400	0.0371	
46 Tetrahydrofuran	42	9.008	8.968	0.040	76	6384	0.0400	0.0459	
47 1,1,1-Trichloroethane	97	9.585	9.586	-0.001	95	8950	0.0400	0.0375	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	91	5862	0.0400	0.0413	
50 n-Butanol	31	10.199	10.176	0.023	60	3164	0.0400	0.0635	
49 Benzene	78	10.194	10.199	-0.005	94	13990	0.0400	0.0403	
51 Cyclohexane	69	10.205	10.200	0.005	76	1898	0.0400	0.0369	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	73	8126	0.0400	0.0354	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	90	2943	0.0400	0.0415	
54 Thiophene	84	10.474	10.482	-0.008	88	6228	0.0400	0.0346	
55 Isooctane	57	10.992	10.986	0.006	95	20863	0.0400	0.0387	
57 n-Heptane	71	11.391	11.378	0.013	91	4989	0.0400	0.0435	
56 1,2-Dichloropropane	63	11.472	11.464	0.008	63	4881	0.0400	0.0390	
58 Trichloroethene	130	11.488	11.496	-0.008	87	5933	0.0400	0.0397	
59 Dibromomethane	93	11.596	11.587	0.009	91	5532	0.0400	0.0416	
60 Dichlorobromomethane	83	11.742	11.735	0.007	94	7632	0.0400	0.0346	
61 1,4-Dioxane	88	11.779	11.759	0.020	10	1634	0.0400	0.0325	
62 Methyl methacrylate	41	11.849	11.836	0.013	86	5569	0.0400	0.0363	
63 Methylcyclohexane	83	12.265	12.276	-0.011	87	7957	0.0400	0.0418	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.705	0.007	96	9739	0.0400	0.0343	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	69	5872	0.0400	0.0338	
66 trans-1,3-Dichloropropene	75	13.473	13.467	0.006	93	5834	0.0400	0.0360	
67 Toluene	91	13.586	13.584	0.002	90	13865	0.0400	0.0369	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	85	4864	0.0400	0.0414	
69 2-Hexanone	58	14.066	14.055	0.011	90	4578	0.0400	0.0355	
71 n-Octane	85	14.287	14.283	0.004	92	5174	0.0400	0.0445	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	92	6152	0.0400	0.0262	
72 Ethylene Dibromide	107	14.664	14.664	0.000	56	7673	0.0400	0.0351	
73 Tetrachloroethene	129	14.740	14.736	0.004	92	5861	0.0400	0.0388	
74 Chlorobenzene	112	15.613	15.615	-0.002	92	11179	0.0400	0.0351	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	91	15671	0.0400	0.0364	
76 Ethylbenzene	91	15.904	15.904	0.000	97	19545	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	98	29171	0.0800	0.0745	
81 n-Nonane	57	16.487	16.488	-0.001	91	9378	0.0400	0.0375	
78 Bromoform	173	16.519	16.519	0.000	70	5964	0.0400	0.0278	
79 Styrene	104	16.541	16.535	0.006	88	6981	0.0400	0.0254	
80 o-Xylene	91	16.595	16.595	0.000	98	14317	0.0400	0.0360	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.923	0.006	95	10018	0.0400	0.0343	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	93	3987	0.0400	0.0434	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	21592	0.0400	0.0367	
85 N-Propylbenzene	120	17.743	17.749	-0.006	98	5471	0.0400	0.0349	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	5756	0.0400	0.0387	
88 4-Ethyltoluene	105	17.900	17.907	-0.007	98	19621	0.0400	0.0328	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	97	7721	0.0400	0.0325	
89 Alpha Methyl Styrene	118	18.218	18.225	-0.007	87	4965	0.0400	0.0216	
90 n-Decane	57	18.288	18.286	0.002	89	10205	0.0400	0.0300	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	17123	0.0400	0.0319	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	17584	0.0400	0.0350	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	24562	0.0400	0.0315	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	95	13285	0.0400	0.0349	
96 Benzyl chloride	91	18.795	18.798	-0.003	89	10770	0.0400	0.0307	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	92	12438	0.0400	0.0337	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	98	19695	0.0400	0.0340	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	97	16958	0.0400	0.0344	
99 Butylcyclohexane	83	18.984	18.983	0.001	91	13824	0.0400	0.0352	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	89	14958	0.0400	0.0307	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	12882	0.0400	0.0357	
102 Indene	116	19.312	19.315	-0.003	76	12109	0.0400	0.0287	
103 n-Butylbenzene	91	19.323	19.320	0.003	98	22338	0.0400	0.0364	
104 Undecane	57	19.636	19.638	-0.002	92	12555	0.0400	0.0306	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	84	4430	0.0400	0.0306	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	95	19336	0.0400	0.0344	
107 Dodecane	57	20.709	20.713	-0.004	88	9377	0.0400	0.0224	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	91	11931	0.0400	0.0350	
109 Naphthalene	128	21.060	21.060	0.000	98	25635	0.0400	0.0373	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	91	11954	0.0400	0.0402	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	92	11884	0.0400	0.0343	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	97	11611	0.0400	0.0411	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	97	13945	0.0400	0.0538	
A 115 C8 Range	1	14.274	(14.249-14.314)		0	51184	0.0400	0.0424	
S 116 Xylenes, Total	100				0		0.1200	0.1106	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0766	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

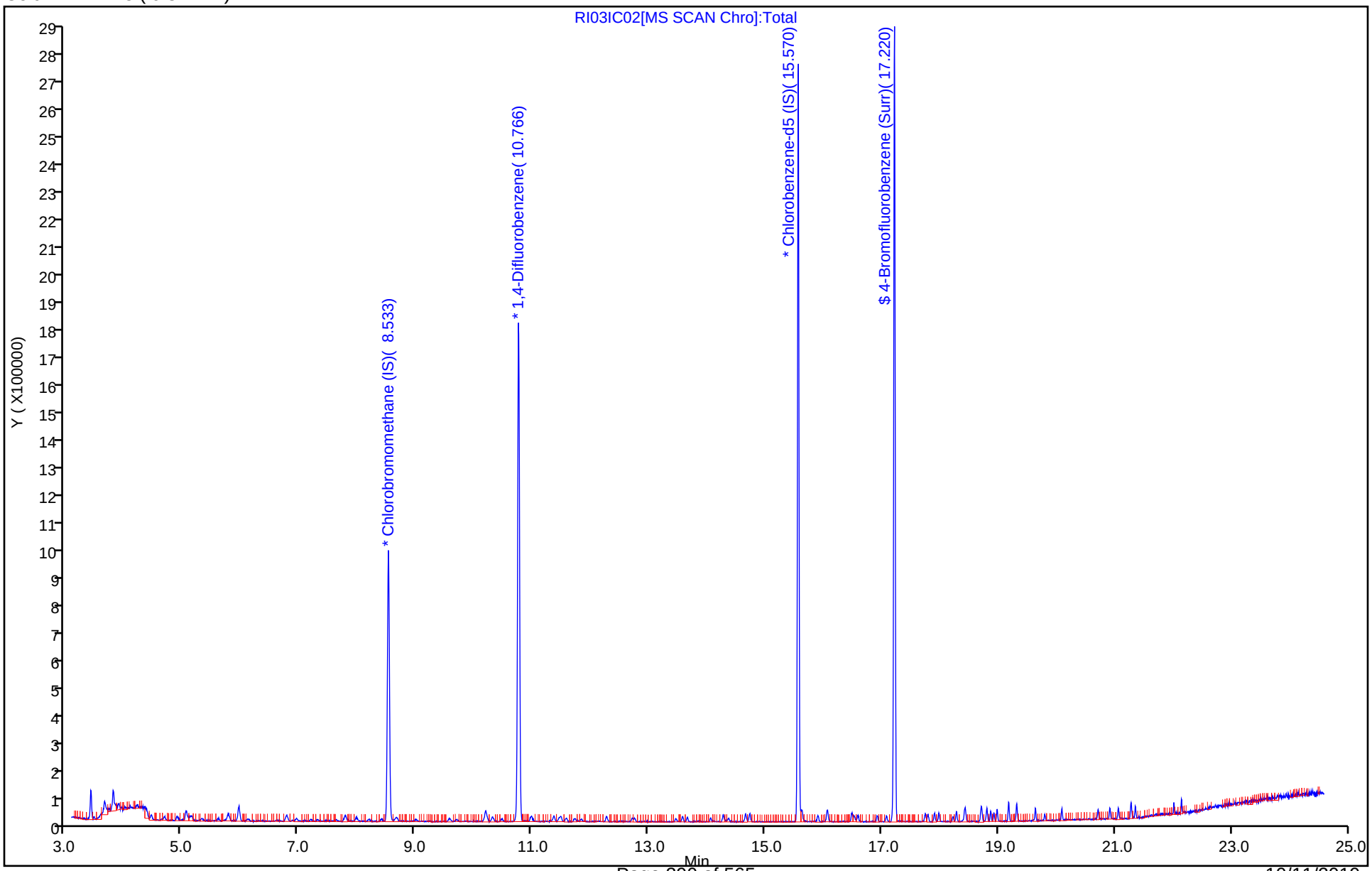
Report Date: 04-Sep-2019 17:34:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D

Injection Date:	03-Sep-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

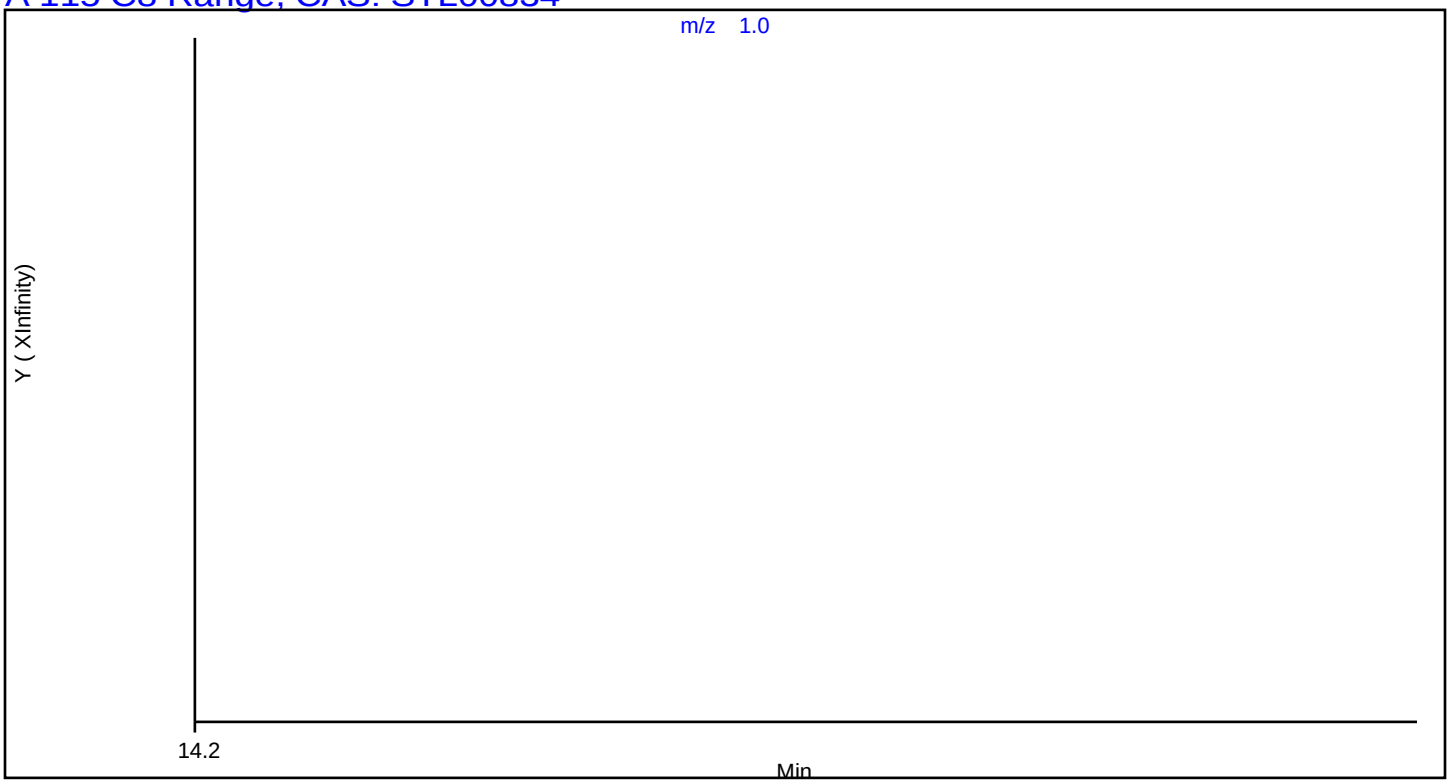


Report Date: 04-Sep-2019 17:34:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D				
Injection Date:	03-Sep-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Sep-2019 16:02:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:20 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.537	0.001	95	310604	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	1768898	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1476402	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	841925	4.00	3.86	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	83	16054	0.0800	0.0779	
7 Propene	41	3.437	3.433	0.004	96	49558	0.0800	0.4253	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	97	15282	0.0800	0.0872	
9 Chloromethane	52	3.658	3.661	-0.003	89	5315	0.0800	0.1588	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	82	13317	0.0800	0.0922	
11 Acetaldehyde	44	3.815	3.811	0.004	98	59817	0.4000	1.47	
12 Vinyl chloride	62	3.826	3.823	0.003	99	10071	0.0800	0.0955	
13 Butadiene	54	3.912	3.909	0.003	61	7411	0.0800	0.0934	
14 Butane	43	3.917	3.909	0.008	87	14972	0.0800	0.0975	
15 Bromomethane	94	4.225	4.221	0.004	93	11831	0.0800	0.1134	
16 Chloroethane	64	4.365	4.357	0.008	83	4697	0.0800	0.1067	
17 Ethanol	31	4.467	4.461	0.006	96	24741	0.4000	0.5206	
18 Vinyl bromide	106	4.656	4.649	0.007	95	6610	0.0800	0.0749	
19 2-Methylbutane	43	4.699	4.695	0.004	94	10731	0.0800	0.0893	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	96	18941	0.0800	0.0750	
20 Acrolein	56	4.942	4.929	0.013	58	6559	0.0800	0.2191	
24 Acetonitrile	40	5.001	5.002	-0.001	41	7033	0.0800	0.1575	
22 Acetone	58	5.060	5.050	0.010	98	29377	0.2400	0.5930	
25 Pentane	72	5.130	5.133	-0.003	85	904	0.0800	0.0509	
23 Isopropyl alcohol	45	5.157	5.142	0.015	95	36022	0.2400	0.2483	
26 Ethyl ether	31	5.330	5.312	0.018	91	9959	0.0800	0.0822	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	96	7667	0.0800	0.0759	
28 Acrylonitrile	53	5.729	5.728	0.001	50	4051	0.0800	0.0544	
29 2-Methyl-2-propanol	59	5.761	5.745	0.016	95	16259	0.0800	0.0903	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.792	0.007	87	17038	0.0800	0.0798	
32 3-Chloro-1-propene	39	5.988	5.964	0.024	88	8683	0.0800	0.0877	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.961	5.969	-0.008	96	23197	0.0800	0.1936	
33 Carbon disulfide	76	6.128	6.125	0.003	98	21452	0.0800	0.0808	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	97	8676	0.0800	0.0798	
35 2-Methylpentane	43	6.802	6.795	0.007	93	20522	0.0800	0.0799	
36 Methyl tert-butyl ether	73	6.948	6.927	0.021	95	20195	0.0800	0.0772	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	98	14833	0.0800	0.0794	
38 Vinyl acetate	43	7.320	7.318	0.002	99	22814	0.0800	0.0775	
39 2-Butanone (MEK)	72	7.794	7.782	0.012	92	6508	0.0800	0.1242	
40 Hexane	56	7.778	7.785	-0.007	63	7182	0.0800	0.0845	
41 Isopropyl ether	45	7.978	7.963	0.015	97	30227	0.0800	0.0776	
42 cis-1,2-Dichloroethene	96	8.193	8.203	-0.010	95	8845	0.0800	0.0784	
43 Ethyl acetate	43	8.409	8.402	0.007	99	21642	0.0800	0.0801	
44 Chloroform	83	8.544	8.549	-0.005	29	17685	0.0800	0.0786	
45 Tert-butyl ethyl ether	59	8.673	8.649	0.024	95	25668	0.0800	0.0809	
46 Tetrahydrofuran	42	8.997	8.968	0.029	92	11360	0.0800	0.0848	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	91	19617	0.0800	0.0853	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	96	11614	0.0800	0.0833	
50 n-Butanol	31	10.194	10.176	0.018	67	3934	0.0800	0.0804	
49 Benzene	78	10.194	10.199	-0.005	95	29324	0.0800	0.0860	
51 Cyclohexane	69	10.210	10.200	0.010	74	4317	0.0800	0.0854	
52 Carbon tetrachloride	117	10.215	10.222	-0.007	82	16140	0.0800	0.0715	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	88	5543	0.0800	0.0796	
54 Thiophene	84	10.469	10.482	-0.013	95	13723	0.0800	0.0775	
55 Isooctane	57	10.981	10.986	-0.005	98	42620	0.0800	0.0804	
57 n-Heptane	71	11.386	11.378	0.008	94	9072	0.0800	0.0804	
56 1,2-Dichloropropane	63	11.467	11.464	0.002	78	10210	0.0800	0.0831	
58 Trichloroethene	130	11.499	11.496	0.003	89	10806	0.0800	0.0736	
59 Dibromomethane	93	11.580	11.587	-0.007	95	10271	0.0800	0.0786	
60 Dichlorobromomethane	83	11.742	11.735	0.007	94	16203	0.0800	0.0747	
61 1,4-Dioxane	88	11.774	11.759	0.015	51	3216	0.0800	0.0650	
62 Methyl methacrylate	41	11.844	11.836	0.008	91	10330	0.0800	0.0686	
63 Methylcyclohexane	83	12.270	12.276	-0.006	87	14678	0.0800	0.0785	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.705	0.007	96	20857	0.0800	0.0748	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	95	11346	0.0800	0.0666	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	97	11139	0.0800	0.0716	
67 Toluene	91	13.580	13.584	-0.004	89	28166	0.0800	0.0781	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	95	8335	0.0800	0.0738	
69 2-Hexanone	58	14.066	14.055	0.011	90	8696	0.0800	0.0702	
71 n-Octane	85	14.281	14.283	-0.002	94	7174	0.0800	0.0642	
70 Chlorodibromomethane	129	14.373	14.370	0.003	96	12512	0.0800	0.0554	
72 Ethylene Dibromide	107	14.664	14.664	0.000	57	14394	0.0800	0.0684	
73 Tetrachloroethene	129	14.740	14.736	0.004	96	10846	0.0800	0.0747	
74 Chlorobenzene	112	15.613	15.615	-0.002	97	23336	0.0800	0.0763	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	33015	0.0800	0.0798	
76 Ethylbenzene	91	15.910	15.904	0.006	98	35296	0.0800	0.0721	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	97	57204	0.1600	0.1520	
81 n-Nonane	57	16.487	16.488	-0.001	93	16468	0.0800	0.0685	
78 Bromoform	173	16.525	16.519	0.006	93	12006	0.0800	0.0582	
79 Styrene	104	16.535	16.535	0.000	95	15385	0.0800	0.0583	
80 o-Xylene	91	16.595	16.595	0.000	97	27849	0.0800	0.0729	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	97	20054	0.0800	0.0715	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	90	6305	0.0800	0.0714	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	89	41687	0.0800	0.0737	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	11343	0.0800	0.0752	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	9862	0.0800	0.0691	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	99	40037	0.0800	0.0697	
87 1,3,5-Trimethylbenzene	120	17.980	17.983	-0.003	92	15863	0.0800	0.0696	
89 Alpha Methyl Styrene	118	18.229	18.225	0.004	83	9778	0.0800	0.0442	
90 n-Decane	57	18.288	18.286	0.002	88	22136	0.0800	0.0678	
91 tert-Butylbenzene	119	18.428	18.425	0.003	94	35865	0.0800	0.0696	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	34364	0.0800	0.0711	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	52428	0.0800	0.0700	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	95	27082	0.0800	0.0739	
96 Benzyl chloride	91	18.800	18.798	0.002	90	23187	0.0800	0.0687	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	92	26600	0.0800	0.0751	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	40253	0.0800	0.0723	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	35572	0.0800	0.0751	
99 Butylcyclohexane	83	18.983	18.983	0.000	94	28053	0.0800	0.0744	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33045	0.0800	0.0706	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	24269	0.0800	0.0699	
102 Indene	116	19.312	19.315	-0.003	73	23565	0.0800	0.0581	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	44636	0.0800	0.0758	
104 Undecane	57	19.636	19.638	-0.002	95	27334	0.0800	0.0694	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	83	7380	0.0800	0.0530	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	97	38284	0.0800	0.0709	
107 Dodecane	57	20.714	20.713	0.001	91	21867	0.0800	0.0543	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	23104	0.0800	0.0705	
109 Naphthalene	128	21.060	21.060	0.000	99	49158	0.0800	0.0743	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	92	21188	0.0800	0.0741	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	93	24564	0.0800	0.0737	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	20349	0.0800	0.0750	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	26341	0.0800	0.1057	
A 115 C8 Range	1	14.281	(14.249-14.314)		0	92513	0.0800	0.0780	
S 116 Xylenes, Total	100				0		0.2400	0.2250	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

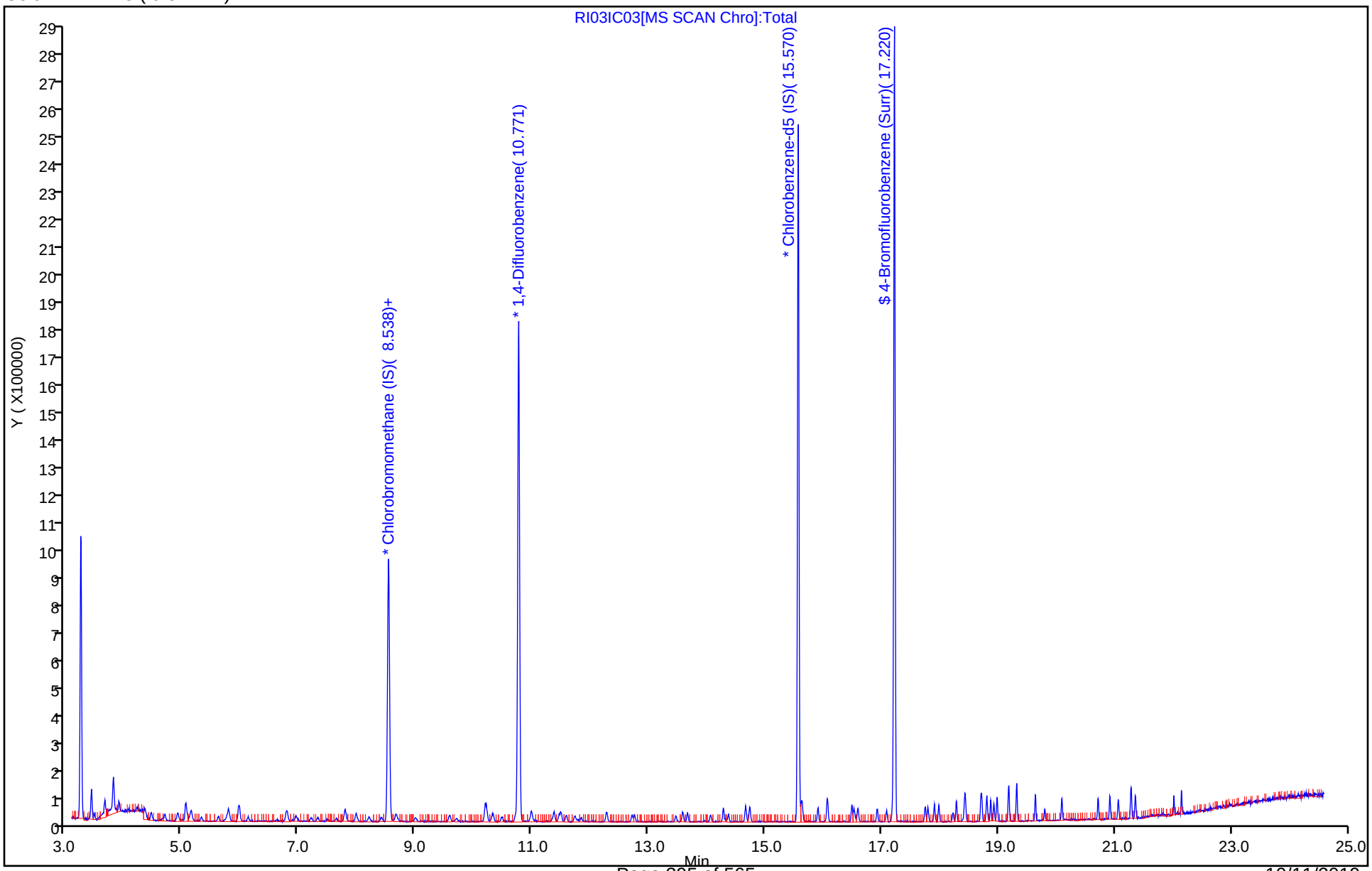
Report Date: 04-Sep-2019 17:34:22 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D

Injection Date:	03-Sep-2019 16:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

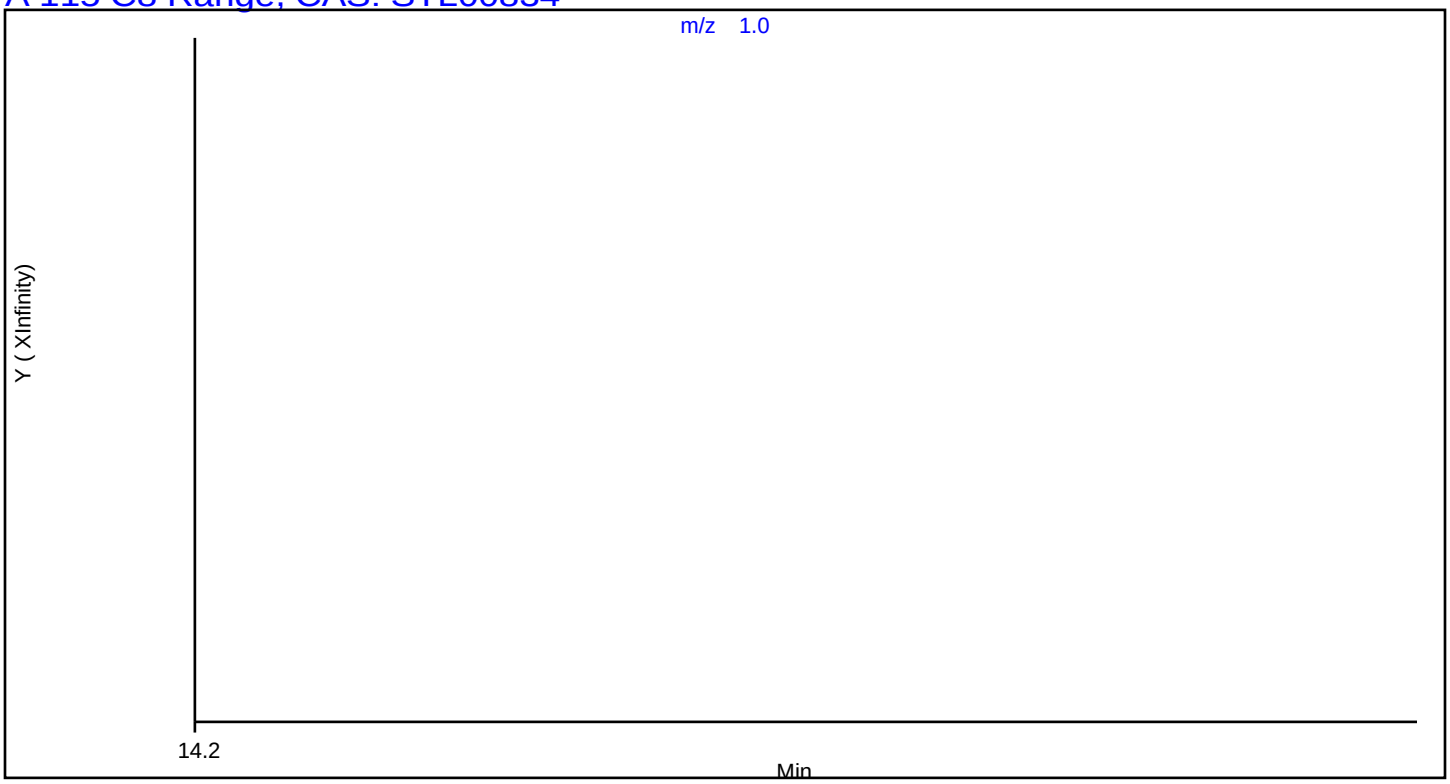


Report Date: 04-Sep-2019 17:34:22 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D				
Injection Date:	03-Sep-2019 16:02:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Sep-2019 16:51:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:28 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.537	0.001	96	300084	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1734738	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1432801	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	96	840097	4.00	3.97	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	67	37407	0.1600	0.1879	
7 Propene	41	3.432	3.433	-0.001	98	62431	0.1600	0.5546	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	97	30972	0.1600	0.1830	
9 Chloromethane	52	3.664	3.661	0.003	77	4661	0.1600	0.1442	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	85	26181	0.1600	0.1876	
11 Acetaldehyde	44	3.815	3.811	0.004	99	64870	0.8000	1.65	
12 Vinyl chloride	62	3.826	3.823	0.003	53	16243	0.1600	0.1594	
13 Butadiene	54	3.912	3.909	0.003	69	15357	0.1600	0.2004	
14 Butane	43	3.912	3.909	0.003	83	30013	0.1600	0.2023	
15 Bromomethane	94	4.225	4.221	0.004	97	18901	0.1600	0.1875	
16 Chloroethane	64	4.349	4.357	-0.008	77	6737	0.1600	0.1584	
17 Ethanol	31	4.456	4.461	-0.005	97	40300	0.8000	0.8777	
18 Vinyl bromide	106	4.651	4.649	0.002	92	13519	0.1600	0.1585	
19 2-Methylbutane	43	4.699	4.695	0.004	86	18236	0.1600	0.1570	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	97	39671	0.1600	0.1626	
20 Acrolein	56	4.931	4.929	0.002	94	6278	0.1600	0.2171	
24 Acetonitrile	40	4.996	5.002	-0.006	71	5580	0.1600	0.1293	
22 Acetone	58	5.055	5.050	0.005	100	42477	0.4800	0.8875	
25 Pentane	72	5.141	5.133	0.008	95	2645	0.1600	0.1541	
23 Isopropyl alcohol	45	5.147	5.142	0.005	93	67760	0.4800	0.4834	
26 Ethyl ether	31	5.319	5.312	0.007	89	20934	0.1600	0.1788	
27 1,1-Dichloroethene	96	5.610	5.615	-0.005	99	16768	0.1600	0.1719	
28 Acrylonitrile	53	5.729	5.728	0.001	89	10806	0.1600	0.1502	
29 2-Methyl-2-propanol	59	5.756	5.745	0.011	97	27942	0.1600	0.1606	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	95	36187	0.1600	0.1755	
32 3-Chloro-1-propene	39	5.982	5.964	0.018	78	16135	0.1600	0.1686	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	31886	0.1600	0.2754	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	39691	0.1600	0.1548	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	96	16947	0.1600	0.1613	
35 2-Methylpentane	43	6.797	6.795	0.002	95	40649	0.1600	0.1639	
36 Methyl tert-butyl ether	73	6.937	6.927	0.010	95	40641	0.1600	0.1608	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	99	31531	0.1600	0.1747	
38 Vinyl acetate	43	7.320	7.318	0.002	99	41387	0.1600	0.1455	
39 2-Butanone (MEK)	72	7.789	7.782	0.007	89	9945	0.1600	0.1964	
40 Hexane	56	7.773	7.785	-0.012	66	12975	0.1600	0.1579	
41 Isopropyl ether	45	7.972	7.963	0.009	97	63993	0.1600	0.1700	
42 cis-1,2-Dichloroethene	96	8.210	8.203	0.007	85	19946	0.1600	0.1829	
43 Ethyl acetate	43	8.409	8.402	0.007	97	43652	0.1600	0.1672	
44 Chloroform	83	8.538	8.549	-0.011	30	34605	0.1600	0.1592	
45 Tert-butyl ethyl ether	59	8.652	8.649	0.003	96	49243	0.1600	0.1607	
46 Tetrahydrofuran	42	8.991	8.968	0.023	96	22692	0.1600	0.1752	
47 1,1,1-Trichloroethane	97	9.585	9.586	-0.001	93	35077	0.1600	0.1579	
48 1,2-Dichloroethane	62	9.698	9.701	-0.003	95	24357	0.1600	0.1782	
50 n-Butanol	31	10.189	10.176	0.013	56	6856	0.1600	0.1428	
49 Benzene	78	10.205	10.199	0.006	95	53145	0.1600	0.1589	
51 Cyclohexane	69	10.199	10.200	-0.001	72	8676	0.1600	0.1751	
52 Carbon tetrachloride	117	10.226	10.222	0.004	95	32718	0.1600	0.1479	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	90	9391	0.1600	0.1375	
54 Thiophene	84	10.485	10.482	0.003	96	27373	0.1600	0.1577	
55 Isooctane	57	10.987	10.986	0.001	97	84031	0.1600	0.1616	
57 n-Heptane	71	11.380	11.378	0.002	93	17873	0.1600	0.1616	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	85	18516	0.1600	0.1536	
58 Trichloroethene	130	11.499	11.496	0.003	91	20676	0.1600	0.1436	
59 Dibromomethane	93	11.580	11.587	-0.007	91	19384	0.1600	0.1512	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	96	30697	0.1600	0.1443	
61 1,4-Dioxane	88	11.768	11.759	0.009	90	6626	0.1600	0.1366	
62 Methyl methacrylate	41	11.833	11.836	-0.003	88	21764	0.1600	0.1474	
63 Methylcyclohexane	83	12.275	12.276	-0.001	94	28483	0.1600	0.1554	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.705	0.002	96	41180	0.1600	0.1505	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	98	26525	0.1600	0.1587	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	96	22630	0.1600	0.1498	
67 Toluene	91	13.586	13.584	0.002	93	52417	0.1600	0.1497	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	95	16538	0.1600	0.1510	
69 2-Hexanone	58	14.055	14.055	0.000	92	17840	0.1600	0.1484	
71 n-Octane	85	14.281	14.283	-0.002	96	16040	0.1600	0.1480	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	96	27226	0.1600	0.1242	
72 Ethylene Dibromide	107	14.664	14.664	0.000	26	29539	0.1600	0.1447	
73 Tetrachloroethene	129	14.734	14.736	-0.002	92	22221	0.1600	0.1576	
74 Chlorobenzene	112	15.619	15.615	0.004	95	43813	0.1600	0.1477	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	94	63126	0.1600	0.1573	
76 Ethylbenzene	91	15.904	15.904	0.000	97	73785	0.1600	0.1554	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	111265	0.3200	0.3047	
81 n-Nonane	57	16.487	16.488	-0.001	88	35904	0.1600	0.1538	
78 Bromoform	173	16.519	16.519	0.000	92	24384	0.1600	0.1217	
79 Styrene	104	16.530	16.535	-0.005	98	30460	0.1600	0.1189	
80 o-Xylene	91	16.595	16.595	0.000	97	57536	0.1600	0.1553	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	97	40863	0.1600	0.1501	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	94	13476	0.1600	0.1572	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	95	81194	0.1600	0.1480	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	21220	0.1600	0.1450	
86 2-Chlorotoluene	126	17.797	17.789	0.008	96	21624	0.1600	0.1560	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	99	76782	0.1600	0.1377	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.003	91	31521	0.1600	0.1424	
89 Alpha Methyl Styrene	118	18.229	18.225	0.004	93	23210	0.1600	0.1081	
90 n-Decane	57	18.282	18.286	-0.004	85	45930	0.1600	0.1449	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	71523	0.1600	0.1430	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	70127	0.1600	0.1495	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	103163	0.1600	0.1419	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	96	52180	0.1600	0.1468	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	44372	0.1600	0.1355	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	94	48709	0.1600	0.1417	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	83958	0.1600	0.1555	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	72971	0.1600	0.1587	
99 Butylcyclohexane	83	18.983	18.983	0.000	94	57227	0.1600	0.1564	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	91	65933	0.1600	0.1451	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	87	51537	0.1600	0.1530	
102 Indene	116	19.318	19.315	0.003	66	45967	0.1600	0.1168	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	87320	0.1600	0.1527	
104 Undecane	57	19.636	19.638	-0.002	90	56488	0.1600	0.1477	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	88	17844	0.1600	0.1320	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	98	76485	0.1600	0.1460	
107 Dodecane	57	20.714	20.713	0.001	90	49510	0.1600	0.1267	
108 1,2,4-Trichlorobenzene	180	20.914	20.919	-0.005	93	48402	0.1600	0.1521	
109 Naphthalene	128	21.060	21.060	0.000	99	96234	0.1600	0.1500	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	93	44590	0.1600	0.1607	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	95	50004	0.1600	0.1547	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	96	26264	0.1600	0.0998	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	97	35910	0.1600	0.1485	
A 115 C8 Range	1	14.287	(14.249-14.324)		0	190756	0.1600	0.1640	
S 116 Xylenes, Total	100				0		0.4800	0.4600	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.3442	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

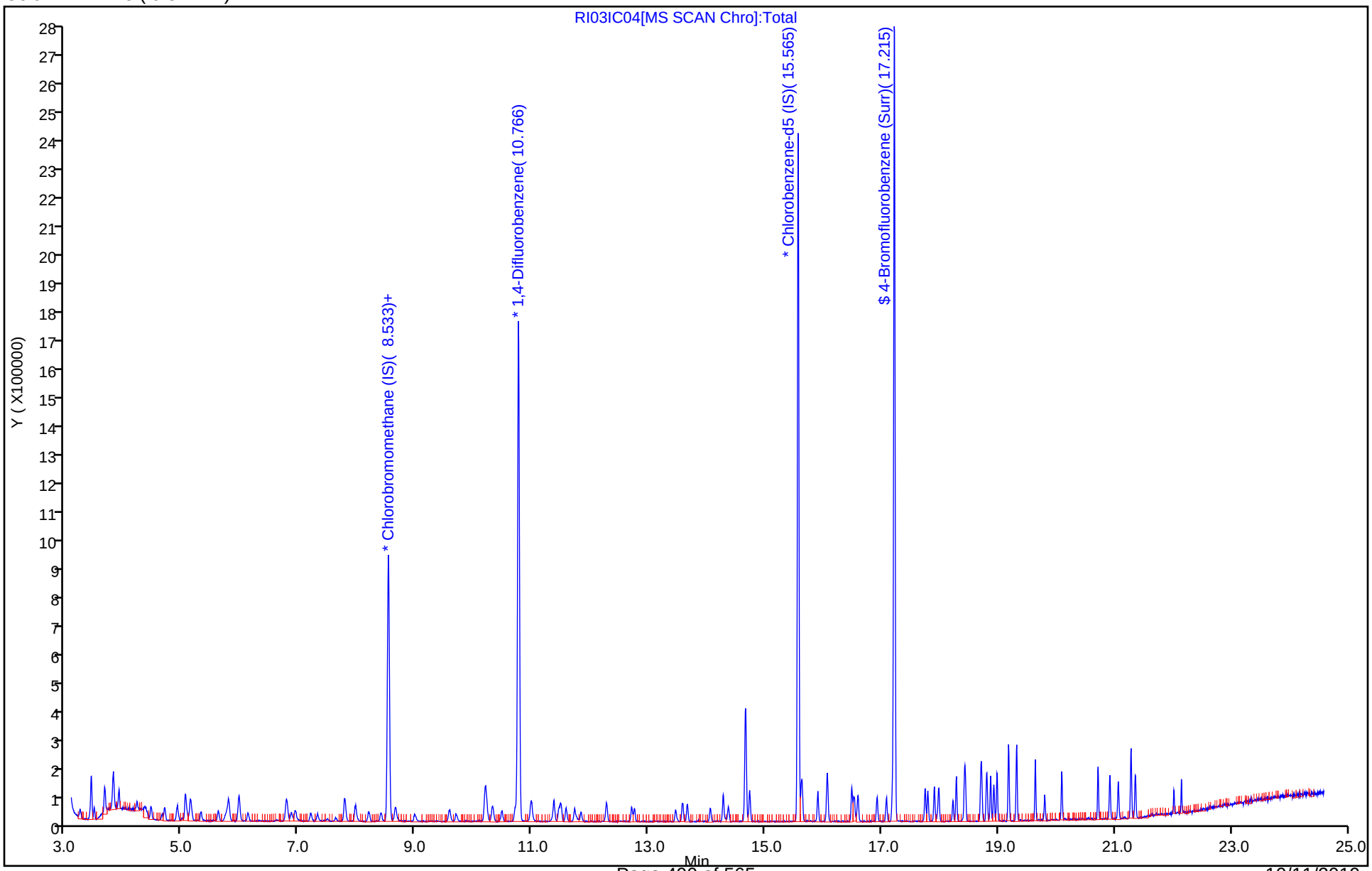
Report Date: 04-Sep-2019 17:34:30 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D

Injection Date:	03-Sep-2019 16:51:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

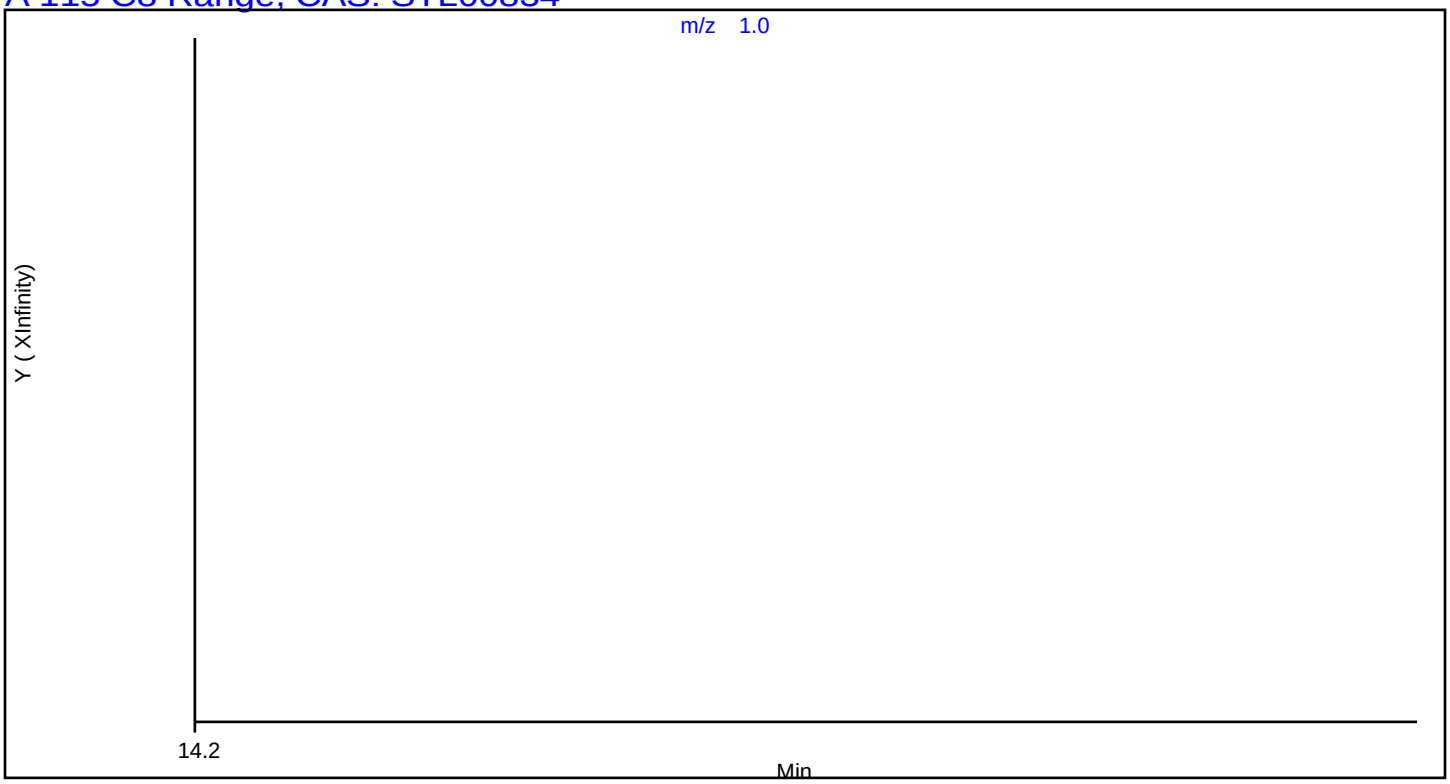


Report Date: 04-Sep-2019 17:34:30 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D				
Injection Date:	03-Sep-2019 16:51:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Sep-2019 17:39:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:37 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:01:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	98	295648	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	1761355	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1453308	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	95	840618	4.00	3.91	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	96	88870	0.4000	0.4530	
7 Propene	41	3.437	3.433	0.004	99	87404	0.4000	0.7880	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	74265	0.4000	0.4453	
9 Chloromethane	52	3.658	3.661	-0.003	84	14239	0.4000	0.4470	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	62802	0.4000	0.4567	
11 Acetaldehyde	44	3.815	3.811	0.004	99	114953	2.00	2.96	
12 Vinyl chloride	62	3.820	3.823	-0.003	98	41385	0.4000	0.4121	
13 Butadiene	54	3.906	3.909	-0.003	70	36625	0.4000	0.4851	
14 Butane	43	3.906	3.909	-0.003	83	65401	0.4000	0.4475	
15 Bromomethane	94	4.219	4.221	-0.002	94	42598	0.4000	0.4290	
16 Chloroethane	64	4.354	4.357	-0.003	89	17294	0.4000	0.4126	
17 Ethanol	31	4.456	4.461	-0.005	97	96824	2.00	2.14	
18 Vinyl bromide	106	4.645	4.649	-0.004	97	33504	0.4000	0.3988	
19 2-Methylbutane	43	4.694	4.695	-0.001	94	50031	0.4000	0.4373	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	97	102492	0.4000	0.4264	
20 Acrolein	56	4.926	4.929	-0.003	93	13055	0.4000	0.4582	
24 Acetonitrile	40	4.990	5.002	-0.012	96	16233	0.4000	0.3819	
22 Acetone	58	5.044	5.050	-0.006	99	78390	1.20	1.66	
25 Pentane	72	5.130	5.133	-0.003	73	7156	0.4000	0.4230	
23 Isopropyl alcohol	45	5.141	5.142	-0.001	89	167975	1.20	1.22	
26 Ethyl ether	31	5.308	5.312	-0.004	92	49916	0.4000	0.4327	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	99	40958	0.4000	0.4261	
28 Acrylonitrile	53	5.729	5.728	0.001	95	30713	0.4000	0.4334	
29 2-Methyl-2-propanol	59	5.745	5.745	0.000	95	69778	0.4000	0.4071	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	93	86433	0.4000	0.4254	
32 3-Chloro-1-propene	39	5.982	5.964	0.018	97	42156	0.4000	0.4472	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	52768	0.4000	0.4626	
33 Carbon disulfide	76	6.128	6.125	0.003	99	109289	0.4000	0.4325	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	97	42354	0.4000	0.4091	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	104996	0.4000	0.4297	
36 Methyl tert-butyl ether	73	6.921	6.927	-0.006	97	106549	0.4000	0.4278	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	98	76177	0.4000	0.4284	
38 Vinyl acetate	43	7.314	7.318	-0.004	100	117037	0.4000	0.4177	
39 2-Butanone (MEK)	72	7.789	7.782	0.007	88	20411	0.4000	0.4092	
40 Hexane	56	7.784	7.785	-0.001	67	36443	0.4000	0.4503	
41 Isopropyl ether	45	7.961	7.963	-0.002	98	155958	0.4000	0.4205	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	92	45839	0.4000	0.4266	
43 Ethyl acetate	43	8.398	8.402	-0.004	97	107812	0.4000	0.4192	
44 Chloroform	83	8.538	8.549	-0.011	36	88925	0.4000	0.4152	
45 Tert-butyl ethyl ether	59	8.641	8.649	-0.008	95	126910	0.4000	0.4204	
46 Tetrahydrofuran	42	8.970	8.968	0.002	93	53198	0.4000	0.4170	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	97	89808	0.4000	0.4102	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	96	54501	0.4000	0.3928	
50 n-Butanol	31	10.183	10.176	0.007	82	19570	0.4000	0.4015	
49 Benzene	78	10.199	10.199	0.000	95	129476	0.4000	0.3812	
51 Cyclohexane	69	10.189	10.200	-0.012	77	18817	0.4000	0.3740	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	96	82320	0.4000	0.3665	
53 2,3-Dimethylpentane	71	10.329	10.324	0.005	89	26163	0.4000	0.3773	
54 Thiophene	84	10.480	10.482	-0.002	93	67963	0.4000	0.3855	
55 Isooctane	57	10.981	10.986	-0.005	97	211257	0.4000	0.4002	
57 n-Heptane	71	11.364	11.378	-0.014	94	40457	0.4000	0.3603	
56 1,2-Dichloropropane	63	11.461	11.464	-0.003	87	48324	0.4000	0.3948	
58 Trichloroethene	130	11.493	11.496	-0.003	95	55942	0.4000	0.3827	
59 Dibromomethane	93	11.585	11.587	-0.002	96	49916	0.4000	0.3834	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	97	77686	0.4000	0.3596	
61 1,4-Dioxane	88	11.763	11.759	0.004	77	18371	0.4000	0.3731	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	55330	0.4000	0.3691	
63 Methylcyclohexane	83	12.281	12.276	0.005	92	71644	0.4000	0.3850	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.705	0.002	98	107444	0.4000	0.3868	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	99	64389	0.4000	0.3795	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	97	56564	0.4000	0.3691	
67 Toluene	91	13.586	13.584	0.002	92	143846	0.4000	0.4050	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	42543	0.4000	0.3828	
69 2-Hexanone	58	14.055	14.055	0.000	91	45806	0.4000	0.3757	
71 n-Octane	85	14.276	14.283	-0.007	96	42048	0.4000	0.3824	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	97	75235	0.4000	0.3384	
72 Ethylene Dibromide	107	14.664	14.664	0.000	96	79328	0.4000	0.3830	
73 Tetrachloroethene	129	14.734	14.736	-0.002	94	54373	0.4000	0.3802	
74 Chlorobenzene	112	15.613	15.615	-0.002	95	116875	0.4000	0.3884	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	160394	0.4000	0.3940	
76 Ethylbenzene	91	15.904	15.904	0.000	98	181497	0.4000	0.3768	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	97	283166	0.8000	0.7645	
81 n-Nonane	57	16.487	16.488	-0.001	93	91602	0.4000	0.3869	
78 Bromoform	173	16.519	16.519	0.000	95	74964	0.4000	0.3689	
79 Styrene	104	16.535	16.535	0.000	99	89120	0.4000	0.3431	
80 o-Xylene	91	16.595	16.595	0.000	99	149999	0.4000	0.3991	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	98	109448	0.4000	0.3963	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	94	32774	0.4000	0.3769	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	95	228313	0.4000	0.4102	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	59470	0.4000	0.4008	
86 2-Chlorotoluene	126	17.792	17.789	0.003	98	56318	0.4000	0.4007	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	224183	0.4000	0.3962	
87 1,3,5-Trimethylbenzene	120	17.975	17.983	-0.008	92	85979	0.4000	0.3830	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	65556	0.4000	0.3009	
90 n-Decane	57	18.282	18.286	-0.004	87	122940	0.4000	0.3823	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	191186	0.4000	0.3767	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	186908	0.4000	0.3927	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	287037	0.4000	0.3893	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	96	134286	0.4000	0.3724	
96 Benzyl chloride	91	18.795	18.798	-0.003	97	121625	0.4000	0.3661	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	95	131413	0.4000	0.3768	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	220551	0.4000	0.4027	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	182641	0.4000	0.3917	
99 Butylcyclohexane	83	18.983	18.983	0.000	92	144694	0.4000	0.3898	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	167879	0.4000	0.3644	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	129699	0.4000	0.3796	
102 Indene	116	19.312	19.315	-0.003	91	133321	0.4000	0.3340	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	220549	0.4000	0.3803	
104 Undecane	57	19.636	19.638	-0.002	93	142886	0.4000	0.3683	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	91	47784	0.4000	0.3485	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	194002	0.4000	0.3650	
107 Dodecane	57	20.714	20.713	0.001	92	133853	0.4000	0.3378	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	92	115933	0.4000	0.3592	
109 Naphthalene	128	21.060	21.060	0.000	99	230088	0.4000	0.3535	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	102309	0.4000	0.3634	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	113317	0.4000	0.3455	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	73998	0.4000	0.2771	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	99	78290	0.4000	0.3193	
A 115 C8 Range	1	14.281	(14.244-14.319)		0	466318	0.4000	0.3949	
S 116 Xylenes, Total	100				0		1.20	1.16	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.8357	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

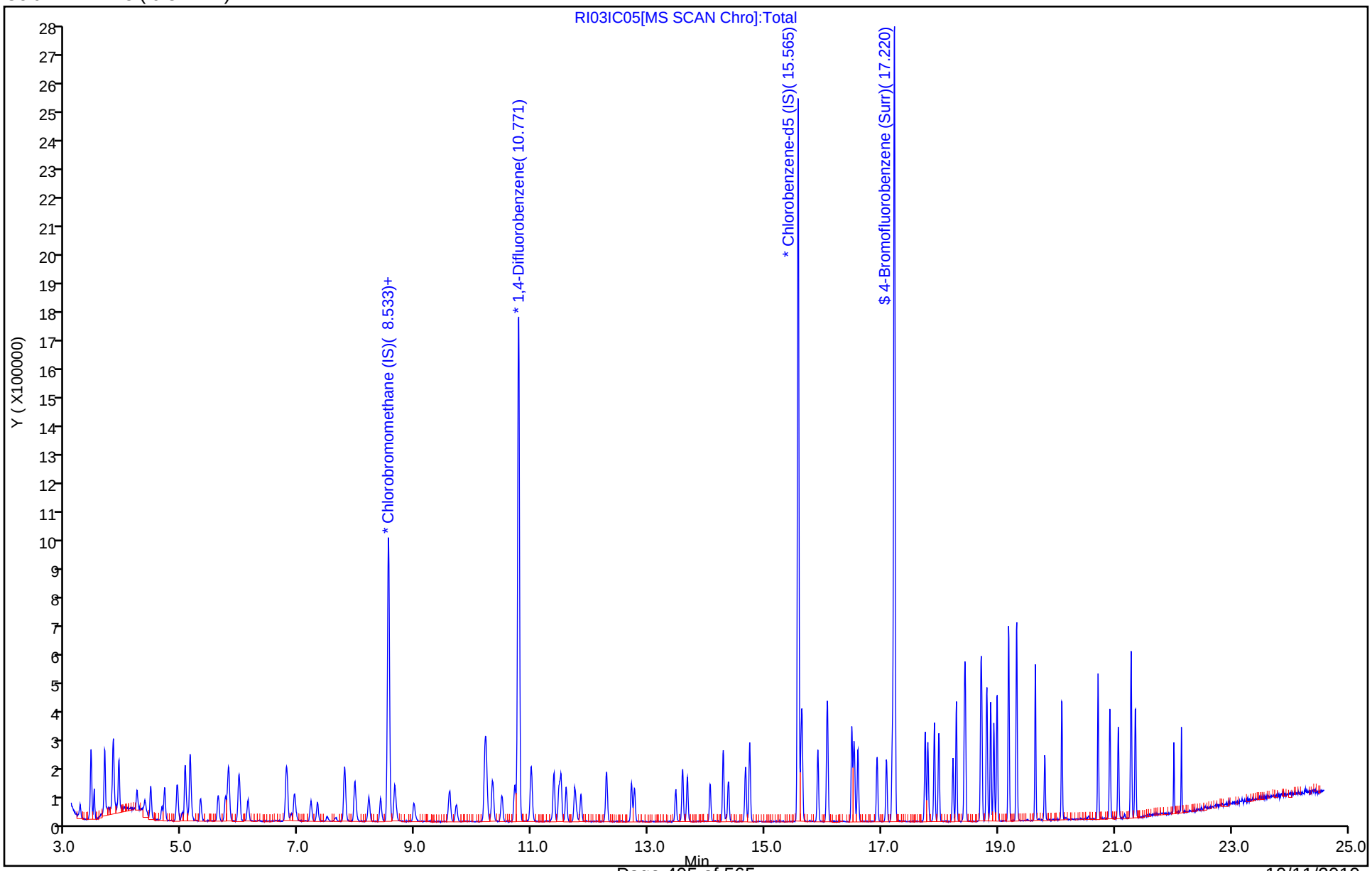
Report Date: 04-Sep-2019 17:34:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D

Injection Date:	03-Sep-2019 17:39:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

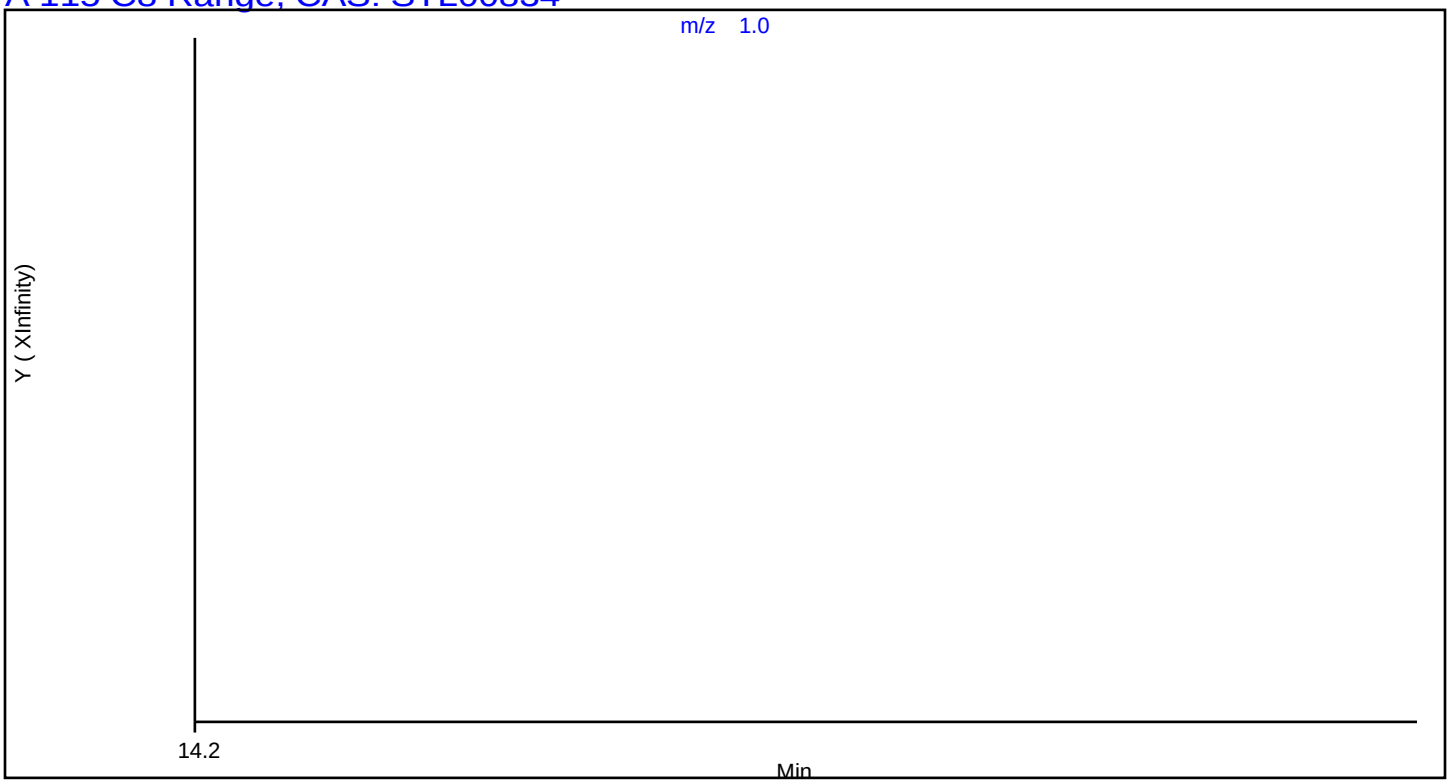


Report Date: 04-Sep-2019 17:34:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D				
Injection Date:	03-Sep-2019 17:39:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Sep-2019 18:27:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:45 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 17:32:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.537	-0.009	97	322001	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1800992	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1582837	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	95	912943	4.00	3.90	
6 Chlorodifluoromethane	51	3.421	3.428	-0.007	97	219441	1.00	1.03	
7 Propene	41	3.427	3.433	-0.006	98	156506	1.00	1.30	
8 Dichlorodifluoromethane	85	3.480	3.486	-0.006	99	183416	1.00	1.01	
9 Chloromethane	52	3.653	3.661	-0.008	90	44708	1.00	1.29	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	87	166670	1.00	1.11	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	239506	5.00	5.67	
12 Vinyl chloride	62	3.820	3.823	-0.003	99	103708	1.00	0.9482	
13 Butadiene	54	3.901	3.909	-0.008	69	81755	1.00	0.99	
14 Butane	43	3.901	3.909	-0.008	84	152419	1.00	0.9576	
15 Bromomethane	94	4.214	4.221	-0.007	97	103516	1.00	0.9571	
16 Chloroethane	64	4.343	4.357	-0.014	94	41293	1.00	0.9045	
17 Ethanol	31	4.446	4.461	-0.015	98	243829	5.00	4.95	
18 Vinyl bromide	106	4.640	4.649	-0.009	98	93465	1.00	1.02	
19 2-Methylbutane	43	4.683	4.695	-0.012	94	122786	1.00	0.9854	
21 Trichlorofluoromethane	101	4.904	4.911	-0.007	98	267920	1.00	1.02	
20 Acrolein	56	4.926	4.929	-0.003	93	29346	1.00	0.9458	
24 Acetonitrile	40	4.985	5.002	-0.017	97	51720	1.00	1.12	
22 Acetone	58	5.039	5.050	-0.011	99	158806	3.00	3.09	
25 Pentane	72	5.125	5.133	-0.008	72	17893	1.00	0.9712	
23 Isopropyl alcohol	45	5.120	5.142	-0.022	84	435961	3.00	2.90	
26 Ethyl ether	31	5.298	5.312	-0.014	91	122175	1.00	0.9725	
27 1,1-Dichloroethene	96	5.605	5.615	-0.010	98	102785	1.00	0.9817	
28 Acrylonitrile	53	5.718	5.728	-0.010	62	77731	1.00	1.01	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	181842	1.00	0.9742	
30 1,1,2-Trichloro-1,2,2-trif	101	5.783	5.792	-0.009	95	210707	1.00	0.9521	
32 3-Chloro-1-propene	39	5.977	5.964	0.013	95	103629	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	97	107501	1.00	0.8653	
33 Carbon disulfide	76	6.117	6.125	-0.008	99	277961	1.00	1.01	
34 trans-1,2-Dichloroethene	96	6.770	6.779	-0.009	98	107685	1.00	0.9551	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	257703	1.00	0.9683	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	96	271742	1.00	1.00	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	191196	1.00	0.9872	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	308087	1.00	1.01	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	88	51572	1.00	0.9493	
40 Hexane	56	7.784	7.785	-0.001	78	85156	1.00	0.9660	
41 Isopropyl ether	45	7.945	7.963	-0.018	97	395302	1.00	0.9787	
42 cis-1,2-Dichloroethene	96	8.193	8.203	-0.010	93	108153	1.00	0.9241	
43 Ethyl acetate	43	8.393	8.402	-0.009	98	276396	1.00	0.9868	
44 Chloroform	83	8.544	8.549	-0.005	97	231564	1.00	0.99	
45 Tert-butyl ethyl ether	59	8.636	8.649	-0.013	96	326220	1.00	0.99	
46 Tetrahydrofuran	42	8.954	8.968	-0.014	96	132901	1.00	0.9564	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	234415	1.00	0.9832	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	96	146276	1.00	1.03	
50 n-Butanol	31	10.167	10.176	-0.009	83	49826	1.00	1.00	
49 Benzene	78	10.194	10.199	-0.005	96	343664	1.00	0.9894	
51 Cyclohexane	69	10.199	10.200	-0.001	68	49894	1.00	0.9698	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	95	246027	1.00	1.07	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	91	75390	1.00	1.06	
54 Thiophene	84	10.474	10.482	-0.008	96	185736	1.00	1.03	
55 Isooctane	57	10.981	10.986	-0.005	98	547133	1.00	1.01	
57 n-Heptane	71	11.370	11.378	-0.008	93	115588	1.00	1.01	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	89	129462	1.00	1.03	
58 Trichloroethene	130	11.494	11.496	-0.002	95	148885	1.00	1.00	
59 Dibromomethane	93	11.585	11.587	-0.002	92	131893	1.00	0.99	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	97	225379	1.00	1.02	
61 1,4-Dioxane	88	11.752	11.759	-0.007	92	51868	1.00	1.03	
62 Methyl methacrylate	41	11.828	11.836	-0.008	93	152368	1.00	0.99	
63 Methylcyclohexane	83	12.275	12.276	-0.001	93	184946	1.00	0.9721	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	288813	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	97	177650	1.00	1.02	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	97	159588	1.00	0.9562	
67 Toluene	91	13.580	13.584	-0.004	94	363606	1.00	0.9398	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	94	110540	1.00	0.9133	
69 2-Hexanone	58	14.050	14.055	-0.005	91	124236	1.00	0.9355	
71 n-Octane	85	14.281	14.283	-0.002	96	112993	1.00	0.9435	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	98	227075	1.00	0.9377	
72 Ethylene Dibromide	107	14.659	14.664	-0.005	98	213842	1.00	0.9480	
73 Tetrachloroethene	129	14.734	14.736	-0.002	95	139836	1.00	0.8977	
74 Chlorobenzene	112	15.613	15.615	-0.002	94	304012	1.00	0.9276	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	423354	1.00	0.9548	
76 Ethylbenzene	91	15.905	15.904	0.000	98	489233	1.00	0.9325	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	778233	2.00	1.93	
81 n-Nonane	57	16.487	16.488	-0.001	96	250934	1.00	0.9730	
78 Bromoform	173	16.519	16.519	0.000	95	231275	1.00	1.04	
79 Styrene	104	16.530	16.535	-0.005	99	269110	1.00	0.9512	
80 o-Xylene	91	16.595	16.595	0.000	98	394718	1.00	0.9643	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	98	303835	1.00	1.01	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	94	85244	1.00	0.9000	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	93	594874	1.00	0.9813	
85 N-Propylbenzene	120	17.743	17.749	-0.006	99	156505	1.00	0.9684	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	144883	1.00	0.9464	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	593308	1.00	0.9629	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	232045	1.00	0.9490	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	206714	1.00	0.8712	
90 n-Decane	57	18.283	18.286	-0.003	88	331365	1.00	0.9461	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	94	504364	1.00	0.9125	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	496740	1.00	0.9584	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	739600	1.00	0.9210	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	355492	1.00	0.9051	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	355341	1.00	0.9822	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	95	356925	1.00	0.9397	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	599428	1.00	1.00	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	504915	1.00	0.99	
99 Butylcyclohexane	83	18.978	18.983	-0.005	94	395896	1.00	0.9793	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	460776	1.00	0.9182	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	349367	1.00	0.9388	
102 Indene	116	19.312	19.315	-0.003	90	386043	1.00	0.8881	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	598930	1.00	0.9484	
104 Undecane	57	19.636	19.638	-0.002	93	393485	1.00	0.9313	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	92	160389	1.00	1.07	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	560939	1.00	0.9690	
107 Dodecane	57	20.715	20.713	0.001	93	391221	1.00	0.9064	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	326688	1.00	0.9294	
109 Naphthalene	128	21.060	21.060	0.000	99	688030	1.00	0.9705	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	280210	1.00	0.9139	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	312804	1.00	0.8757	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	294266	1.00	1.01	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	292533	1.00	1.10	
A 115 C8 Range	1	14.281	(14.233-14.319)		0	1182032	1.00	0.9790	
S 116 Xylenes, Total	100				0		3.00	2.89	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.88	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

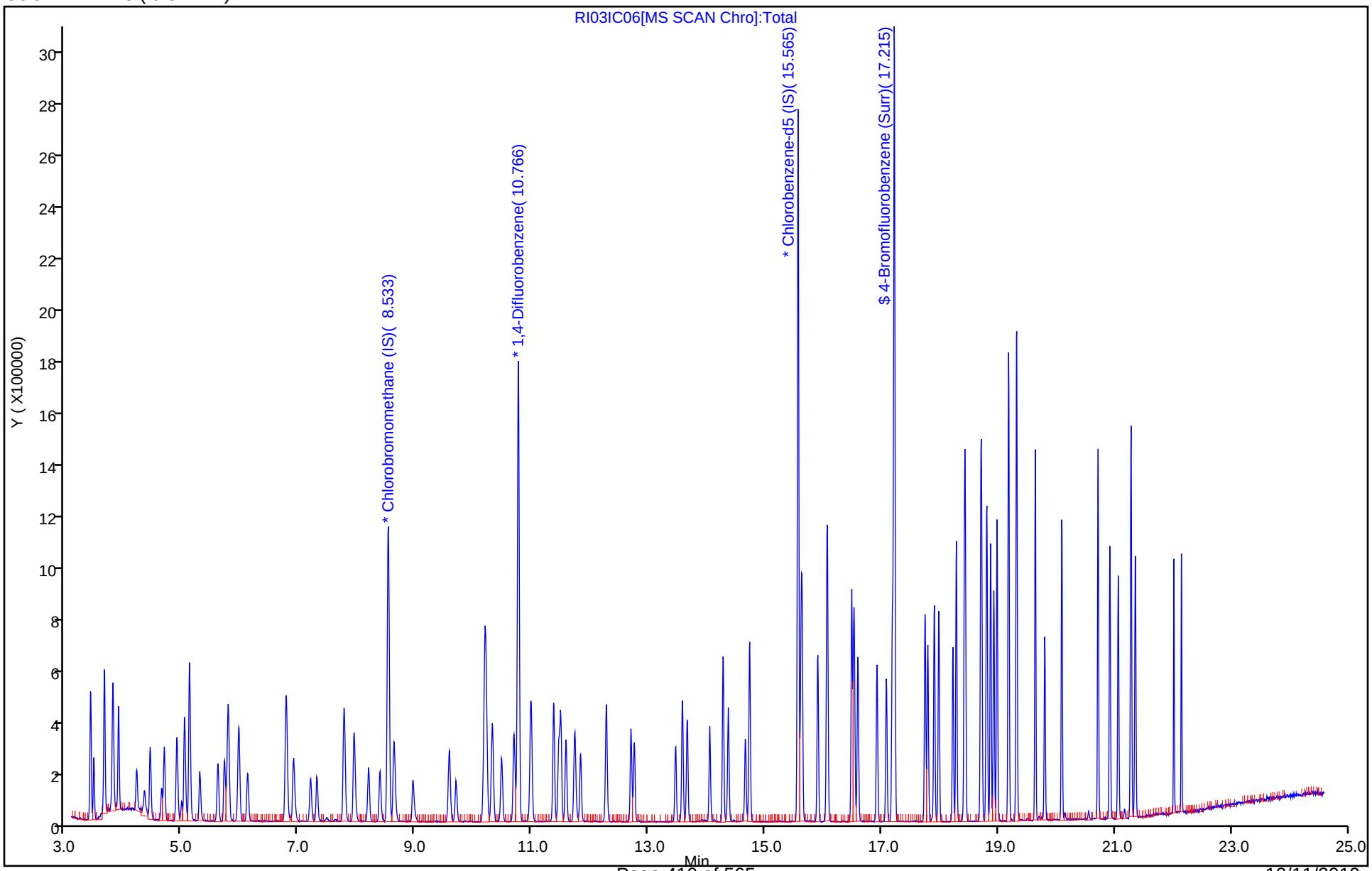
Report Date: 04-Sep-2019 17:34:47 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D

Injection Date:	03-Sep-2019 18:27:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

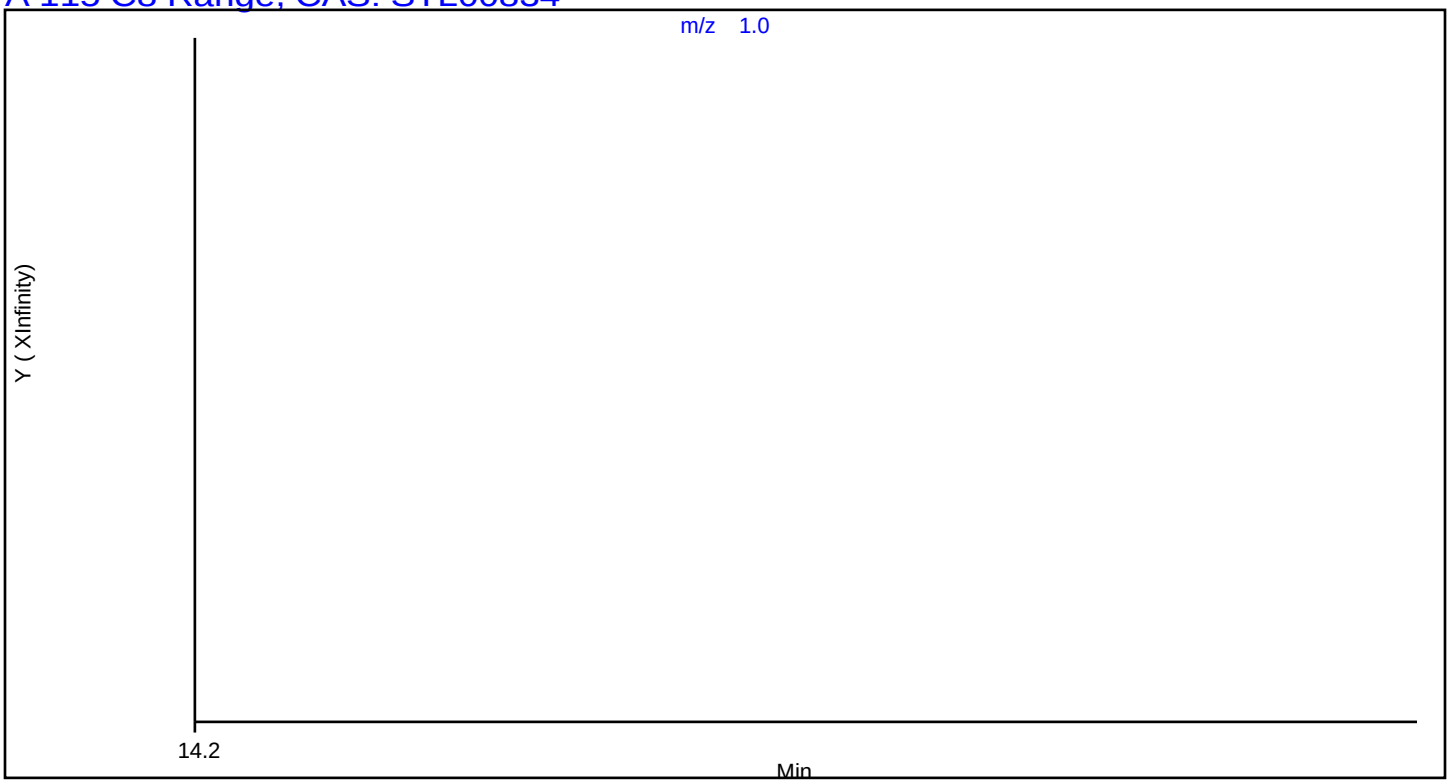


Report Date: 04-Sep-2019 17:34:47 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D				
Injection Date:	03-Sep-2019 18:27:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 03-Sep-2019 20:02:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:55 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:54:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.537	0.007	96	407356	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.770	0.006	94	2284606	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1890582	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	1144637	4.00	4.10	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	97	1018776	4.00	3.77	
7 Propene	41	3.432	3.433	-0.001	99	588113	4.00	3.85	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	839671	4.00	3.65	
9 Chloromethane	52	3.664	3.661	0.003	100	176223	4.00	4.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	631884	4.00	3.34	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	913585	20.0	17.1	
12 Vinyl chloride	62	3.826	3.823	0.003	99	474399	4.00	3.43	
13 Butadiene	54	3.912	3.909	0.003	68	413950	4.00	3.98	
14 Butane	43	3.912	3.909	0.003	85	766058	4.00	3.80	
15 Bromomethane	94	4.219	4.221	-0.002	96	478925	4.00	3.50	
16 Chloroethane	64	4.359	4.357	0.002	95	191853	4.00	3.32	
17 Ethanol	31	4.456	4.461	-0.005	98	1190978	20.0	19.1	
18 Vinyl bromide	106	4.651	4.649	0.002	98	476165	4.00	4.11	
19 2-Methylbutane	43	4.694	4.695	-0.001	95	628901	4.00	3.99	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	99	1326757	4.00	4.01	
20 Acrolein	56	4.926	4.929	-0.003	96	176527	4.00	4.50	
24 Acetonitrile	40	4.996	5.002	-0.006	98	245426	4.00	4.19	
22 Acetone	58	5.039	5.050	-0.011	98	725820	12.0	11.2	
25 Pentane	72	5.136	5.133	0.003	72	94410	4.00	4.05	
23 Isopropyl alcohol	45	5.131	5.142	-0.011	82	2165369	12.0	11.4	
26 Ethyl ether	31	5.298	5.312	-0.014	94	616460	4.00	3.88	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	99	541093	4.00	4.09	
28 Acrylonitrile	53	5.729	5.728	0.001	95	399181	4.00	4.09	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	931101	4.00	3.94	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	95	1093608	4.00	3.91	
32 3-Chloro-1-propene	39	5.983	5.964	0.018	96	475507	4.00	3.66	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	472620	4.00	3.01	
33 Carbon disulfide	76	6.128	6.125	0.003	100	1407313	4.00	4.04	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	98	572169	4.00	4.01	
35 2-Methylpentane	43	6.791	6.795	-0.004	95	1347528	4.00	4.00	
36 Methyl tert-butyl ether	73	6.910	6.927	-0.017	97	1406422	4.00	4.10	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	100	960313	4.00	3.92	
38 Vinyl acetate	43	7.320	7.318	0.002	100	1550812	4.00	4.02	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	96	250304	4.00	3.64	
40 Hexane	56	7.789	7.785	0.004	81	432765	4.00	3.88	
41 Isopropyl ether	45	7.951	7.963	-0.012	97	2023462	4.00	3.96	
42 cis-1,2-Dichloroethene	96	8.210	8.203	0.007	93	593822	4.00	4.01	
43 Ethyl acetate	43	8.393	8.402	-0.009	98	1403825	4.00	3.96	
44 Chloroform	83	8.555	8.549	0.006	97	1155781	4.00	3.92	
45 Tert-butyl ethyl ether	59	8.636	8.649	-0.013	96	1648802	4.00	3.96	
46 Tetrahydrofuran	42	8.959	8.968	-0.009	95	698015	4.00	3.97	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	94	1142217	4.00	3.79	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	96	716206	4.00	3.98	
50 n-Butanol	31	10.156	10.176	-0.020	85	245687	4.00	3.89	
49 Benzene	78	10.205	10.199	0.006	96	1732232	4.00	3.93	
51 Cyclohexane	69	10.205	10.200	0.005	83	259810	4.00	3.98	
52 Carbon tetrachloride	117	10.226	10.222	0.004	95	1242435	4.00	4.26	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	93	374263	4.00	4.16	
54 Thiophene	84	10.485	10.482	0.003	96	898134	4.00	3.93	
55 Isooctane	57	10.987	10.986	0.001	98	2805646	4.00	4.10	
57 n-Heptane	71	11.380	11.378	0.002	94	600275	4.00	4.12	
56 1,2-Dichloropropane	63	11.467	11.464	0.003	89	626326	4.00	3.94	
58 Trichloroethene	130	11.499	11.496	0.003	96	798633	4.00	4.21	
59 Dibromomethane	93	11.591	11.587	0.004	93	691506	4.00	4.09	
60 Dichlorobromomethane	83	11.736	11.735	0.001	98	1170432	4.00	4.18	
61 1,4-Dioxane	88	11.747	11.759	-0.012	89	273917	4.00	4.29	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	810493	4.00	4.17	
63 Methylcyclohexane	83	12.281	12.276	0.005	93	993926	4.00	4.12	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	1478879	4.00	4.10	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	96	907449	4.00	4.12	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	99	838028	4.00	4.20	
67 Toluene	91	13.586	13.584	0.002	93	1947337	4.00	4.21	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	96	602007	4.00	4.16	
69 2-Hexanone	58	14.050	14.055	-0.005	91	681395	4.00	4.30	
71 n-Octane	85	14.281	14.283	-0.002	97	594761	4.00	4.16	
70 Chlorodibromomethane	129	14.373	14.370	0.003	98	1260220	4.00	4.36	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	1147731	4.00	4.26	
73 Tetrachloroethene	129	14.734	14.736	-0.002	97	753130	4.00	4.05	
74 Chlorobenzene	112	15.619	15.615	0.004	95	1625792	4.00	4.15	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	96	2253286	4.00	4.25	
76 Ethylbenzene	91	15.904	15.904	0.000	98	2631374	4.00	4.20	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	4209823	8.00	8.74	
81 n-Nonane	57	16.487	16.488	-0.001	95	1353990	4.00	4.40	
78 Bromoform	173	16.514	16.519	-0.005	96	1333496	4.00	5.04	
79 Styrene	104	16.535	16.535	0.000	99	1535403	4.00	4.54	
80 o-Xylene	91	16.595	16.595	0.000	99	2070387	4.00	4.23	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	99	1572025	4.00	4.38	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	482487	4.00	4.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	3091481	4.00	4.27	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	834225	4.00	4.32	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	776733	4.00	4.25	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	3268553	4.00	4.44	
87 1,3,5-Trimethylbenzene	120	17.986	17.983	0.003	92	1208158	4.00	4.14	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	1249980	4.00	4.41	
90 n-Decane	57	18.283	18.286	-0.004	89	1782051	4.00	4.26	
91 tert-Butylbenzene	119	18.428	18.425	0.003	93	2769458	4.00	4.19	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	2771424	4.00	4.48	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	4212854	4.00	4.39	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	1974523	4.00	4.21	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	1911127	4.00	4.42	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	96	1888678	4.00	4.16	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3121329	4.00	4.38	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2671168	4.00	4.40	
99 Butylcyclohexane	83	18.984	18.983	0.001	93	2007247	4.00	4.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2576919	4.00	4.30	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	1867790	4.00	4.20	
102 Indene	116	19.312	19.315	-0.003	92	2221880	4.00	4.28	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	3267502	4.00	4.33	
104 Undecane	57	19.636	19.638	-0.002	95	2081162	4.00	4.12	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	916988	4.00	5.14	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	2793851	4.00	4.04	
107 Dodecane	57	20.714	20.713	0.001	94	2184461	4.00	4.24	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	1645400	4.00	3.92	
109 Naphthalene	128	21.060	21.060	0.000	99	3238137	4.00	3.82	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	95	1527206	4.00	4.17	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	1579413	4.00	3.70	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	904624	4.00	2.60	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	871340	4.00	2.73	
A 115 C8 Range	1	14.281	(14.227-14.335)		0	6144751	4.00	4.01	
S 116 Xylenes, Total	100				0		12.0	13.0	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.02	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

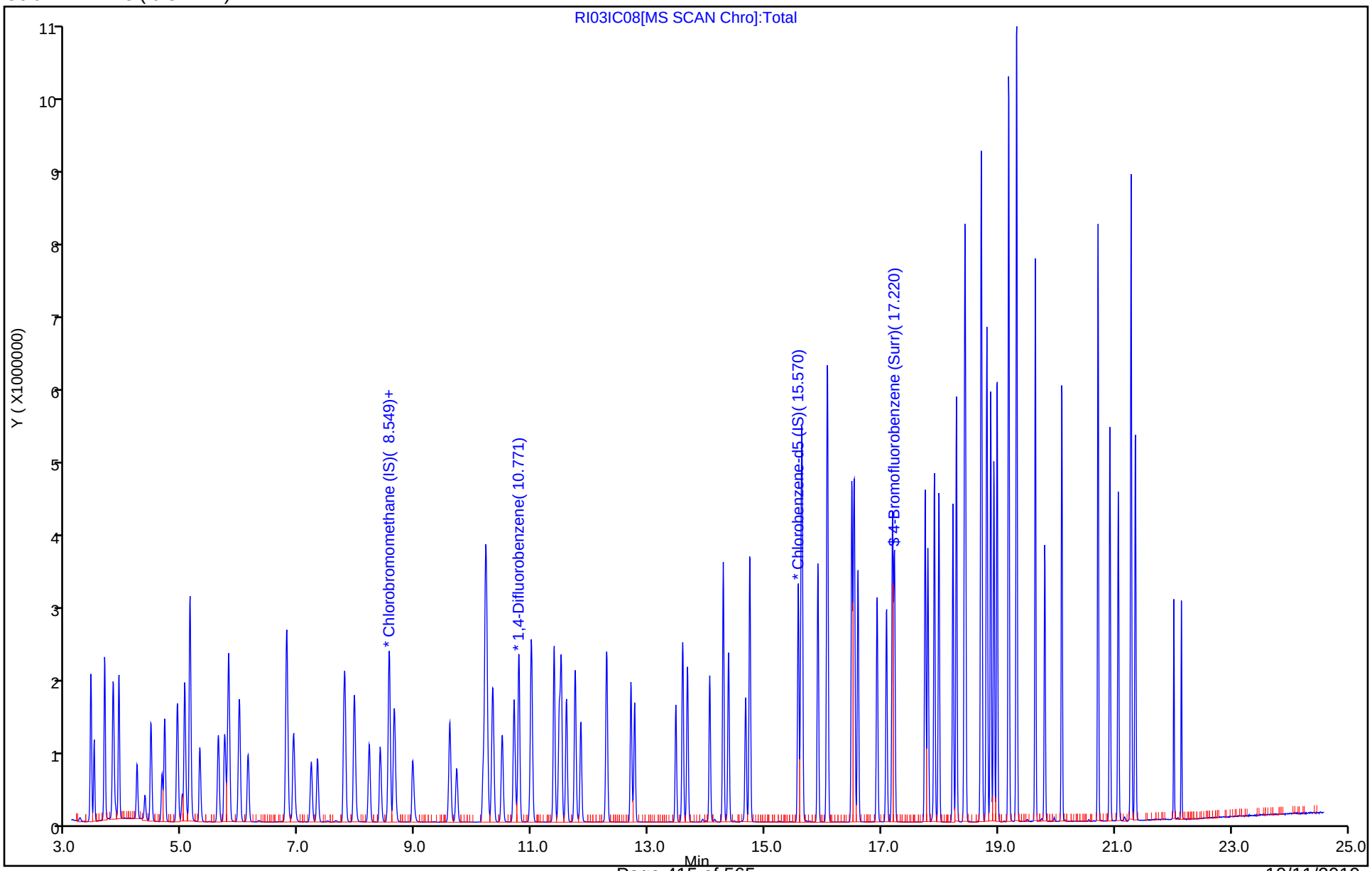
Report Date: 04-Sep-2019 17:34:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D

Injection Date:	03-Sep-2019 20:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

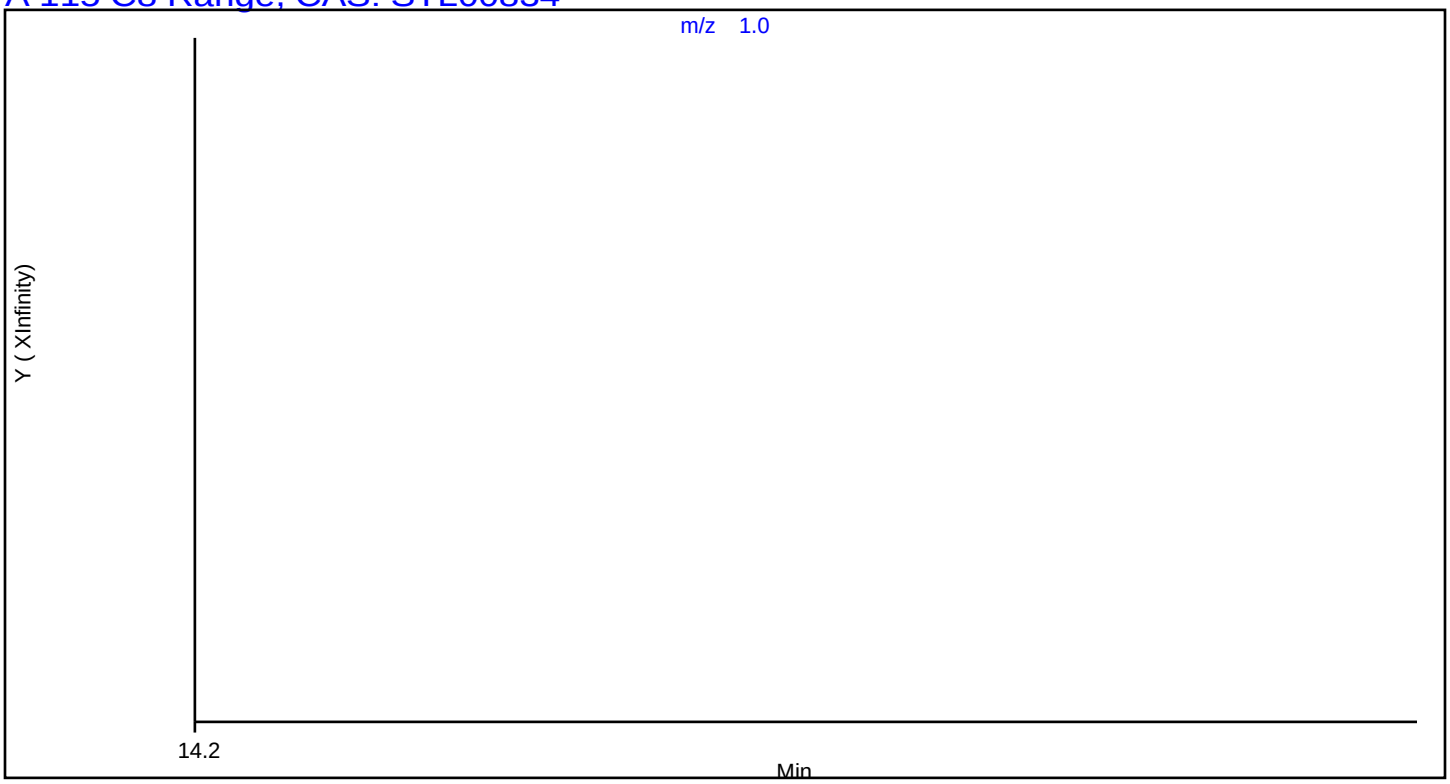


Report Date: 04-Sep-2019 17:34:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D				
Injection Date:	03-Sep-2019 20:02:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 04-Sep-2019 09:04:30 ALS Bottle#: 6 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:35:03 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 13:49:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	97	371029	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.765	10.770	-0.005	94	2202831	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1824871	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.220	0.011	96	1123246	4.00	4.17	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	97	494961	2.00	2.01	
7 Propene	41	3.437	3.433	0.004	99	303639	2.00	2.18	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	99	406890	2.00	1.94	
9 Chloromethane	52	3.664	3.661	0.003	95	88443	2.00	2.21	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	84	305222	2.00	1.77	
11 Acetaldehyde	44	3.815	3.811	0.004	98	589441	10.0	12.1	
12 Vinyl chloride	62	3.831	3.823	0.008	99	291942	2.00	2.32	
13 Butadiene	54	3.917	3.909	0.008	68	219332	2.00	2.31	
14 Butane	43	3.912	3.909	0.003	85	414338	2.00	2.26	
15 Bromomethane	94	4.224	4.221	0.003	94	274719	2.00	2.20	
16 Chloroethane	64	4.359	4.357	0.002	98	121039	2.00	2.30	
17 Ethanol	31	4.462	4.461	0.001	97	623885	10.0	11.0	
18 Vinyl bromide	106	4.650	4.649	0.001	97	218556	2.00	2.07	
19 2-Methylbutane	43	4.699	4.695	0.004	94	299043	2.00	2.08	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	99	615965	2.00	2.04	
20 Acrolein	56	4.925	4.929	-0.004	96	71857	2.00	2.01	
24 Acetonitrile	40	4.996	5.002	-0.006	99	121363	2.00	2.28	
22 Acetone	58	5.044	5.050	-0.006	99	353148	6.00	5.97	
25 Pentane	72	5.136	5.133	0.003	74	44407	2.00	2.09	
23 Isopropyl alcohol	45	5.130	5.142	-0.012	89	1101651	6.00	6.36	
26 Ethyl ether	31	5.303	5.312	-0.009	93	301541	2.00	2.08	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	98	239031	2.00	1.98	
28 Acrylonitrile	53	5.724	5.728	-0.004	60	187864	2.00	2.11	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	449829	2.00	2.09	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	97	517442	2.00	2.03	
32 3-Chloro-1-propene	39	5.977	5.964	0.013	94	242216	2.00	2.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	97	224958	2.00	1.57	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	650466	2.00	2.05	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	97	269961	2.00	2.08	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	642069	2.00	2.09	
36 Methyl tert-butyl ether	73	6.904	6.927	-0.023	97	648935	2.00	2.08	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	452018	2.00	2.03	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	759618	2.00	2.16	
39 2-Butanone (MEK)	72	7.762	7.782	-0.020	95	128379	2.00	2.05	
40 Hexane	56	7.778	7.785	-0.007	77	210994	2.00	2.08	
41 Isopropyl ether	45	7.945	7.963	-0.018	98	974715	2.00	2.09	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	93	281658	2.00	2.09	
43 Ethyl acetate	43	8.387	8.402	-0.015	98	671035	2.00	2.08	
44 Chloroform	83	8.544	8.549	-0.005	96	548666	2.00	2.04	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	96	816412	2.00	2.16	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	95	329928	2.00	2.06	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	557623	2.00	2.03	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	95	341855	2.00	1.97	
50 n-Butanol	31	10.161	10.176	-0.015	85	124400	2.00	2.04	
49 Benzene	78	10.194	10.199	-0.005	96	822928	2.00	1.94	
51 Cyclohexane	69	10.188	10.200	-0.012	72	124018	2.00	1.97	
52 Carbon tetrachloride	117	10.215	10.222	-0.007	96	616542	2.00	2.19	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	92	176630	2.00	2.04	
54 Thiophene	84	10.480	10.482	-0.002	95	442182	2.00	2.01	
55 Isooctane	57	10.981	10.986	-0.005	98	1324872	2.00	2.01	
57 n-Heptane	71	11.369	11.378	-0.009	94	290028	2.00	2.07	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	88	314183	2.00	2.05	
58 Trichloroethene	130	11.493	11.496	-0.003	95	376006	2.00	2.06	
59 Dibromomethane	93	11.580	11.587	-0.007	94	330920	2.00	2.03	
60 Dichlorobromomethane	83	11.725	11.735	-0.010	98	566326	2.00	2.10	
61 1,4-Dioxane	88	11.736	11.759	-0.023	92	129226	2.00	2.10	
62 Methyl methacrylate	41	11.828	11.836	-0.008	93	381120	2.00	2.03	
63 Methylcyclohexane	83	12.270	12.276	-0.006	95	477484	2.00	2.05	
64 4-Methyl-2-pentanone (MIBK	43	12.691	12.705	-0.015	98	723671	2.00	2.08	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	96	467682	2.00	2.20	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	98	426975	2.00	2.22	
67 Toluene	91	13.575	13.584	-0.009	93	964843	2.00	2.16	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	297744	2.00	2.13	
69 2-Hexanone	58	14.044	14.055	-0.011	91	334091	2.00	2.18	
71 n-Octane	85	14.281	14.283	-0.002	96	308402	2.00	2.23	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	96	626193	2.00	2.24	
72 Ethylene Dibromide	107	14.659	14.664	-0.005	97	580652	2.00	2.23	
73 Tetrachloroethene	129	14.729	14.736	-0.007	96	371188	2.00	2.07	
74 Chlorobenzene	112	15.613	15.615	-0.002	94	810531	2.00	2.15	
75 2,3-Dimethylheptane	43	15.629	15.634	-0.005	96	1107768	2.00	2.17	
76 Ethylbenzene	91	15.899	15.904	-0.005	98	1342943	2.00	2.22	
77 m-Xylene & p-Xylene	91	16.061	16.067	-0.006	97	2047299	4.00	4.40	
81 n-Nonane	57	16.487	16.488	-0.001	95	664979	2.00	2.24	
78 Bromoform	173	16.519	16.519	0.000	97	655431	2.00	2.57	
79 Styrene	104	16.535	16.535	0.000	99	726918	2.00	2.23	
80 o-Xylene	91	16.595	16.595	0.000	99	977284	2.00	2.07	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.923	0.011	99	727258	2.00	2.10	
83 1,2,3-Trichloropropane	110	17.101	17.085	0.016	96	218447	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.204	17.187	0.017	95	1513692	2.00	2.17	
85 N-Propylbenzene	120	17.765	17.749	0.016	99	400140	2.00	2.15	
86 2-Chlorotoluene	126	17.808	17.789	0.019	97	371923	2.00	2.11	
88 4-Ethyltoluene	105	17.921	17.907	0.014	100	1546060	2.00	2.18	
87 1,3,5-Trimethylbenzene	120	17.997	17.983	0.014	93	597390	2.00	2.12	
89 Alpha Methyl Styrene	118	18.239	18.225	0.014	90	579320	2.00	2.12	
90 n-Decane	57	18.293	18.286	0.007	89	863597	2.00	2.14	
91 tert-Butylbenzene	119	18.439	18.425	0.014	92	1368395	2.00	2.15	
92 1,2,4-Trimethylbenzene	105	18.450	18.440	0.010	96	1351477	2.00	2.26	
94 sec-Butylbenzene	105	18.714	18.703	0.011	99	2012250	2.00	2.17	
93 1,3-Dichlorobenzene	146	18.730	18.720	0.010	98	934677	2.00	2.06	
96 Benzyl chloride	91	18.805	18.798	0.007	99	1077107	2.00	2.58	
95 1,4-Dichlorobenzene	146	18.822	18.811	0.011	96	950700	2.00	2.17	
97 4-Isopropyltoluene	119	18.881	18.871	0.010	97	1565012	2.00	2.28	
98 1,2,3-Trimethylbenzene	105	18.935	18.926	0.009	98	1296053	2.00	2.21	
99 Butylcyclohexane	83	18.989	18.983	0.006	94	1013362	2.00	2.17	
101 2,3-Dihydroindene	117	19.188	19.180	0.008	94	1216324	2.00	2.10	
100 1,2-Dichlorobenzene	146	19.188	19.182	0.006	87	905677	2.00	2.11	
102 Indene	116	19.323	19.315	0.008	90	1080114	2.00	2.16	
103 n-Butylbenzene	91	19.329	19.320	0.008	98	1599950	2.00	2.20	
104 Undecane	57	19.641	19.638	0.003	95	1037149	2.00	2.13	
105 1,2-Dibromo-3-Chloropropan	157	19.808	19.801	0.007	94	441614	2.00	2.56	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	1476473	2.00	2.21	
107 Dodecane	57	20.714	20.713	0.001	94	1013886	2.00	2.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	856029	2.00	2.11	
109 Naphthalene	128	21.065	21.060	0.005	99	1765089	2.00	2.16	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	95	748771	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	836533	2.00	2.03	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	761167	2.00	2.27	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	693175	2.00	2.25	
A 115 C8 Range	1	14.276	(14.233-14.319)		0	3050806	2.00	2.07	
S 116 Xylenes, Total	100				0		6.00	6.47	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.17	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

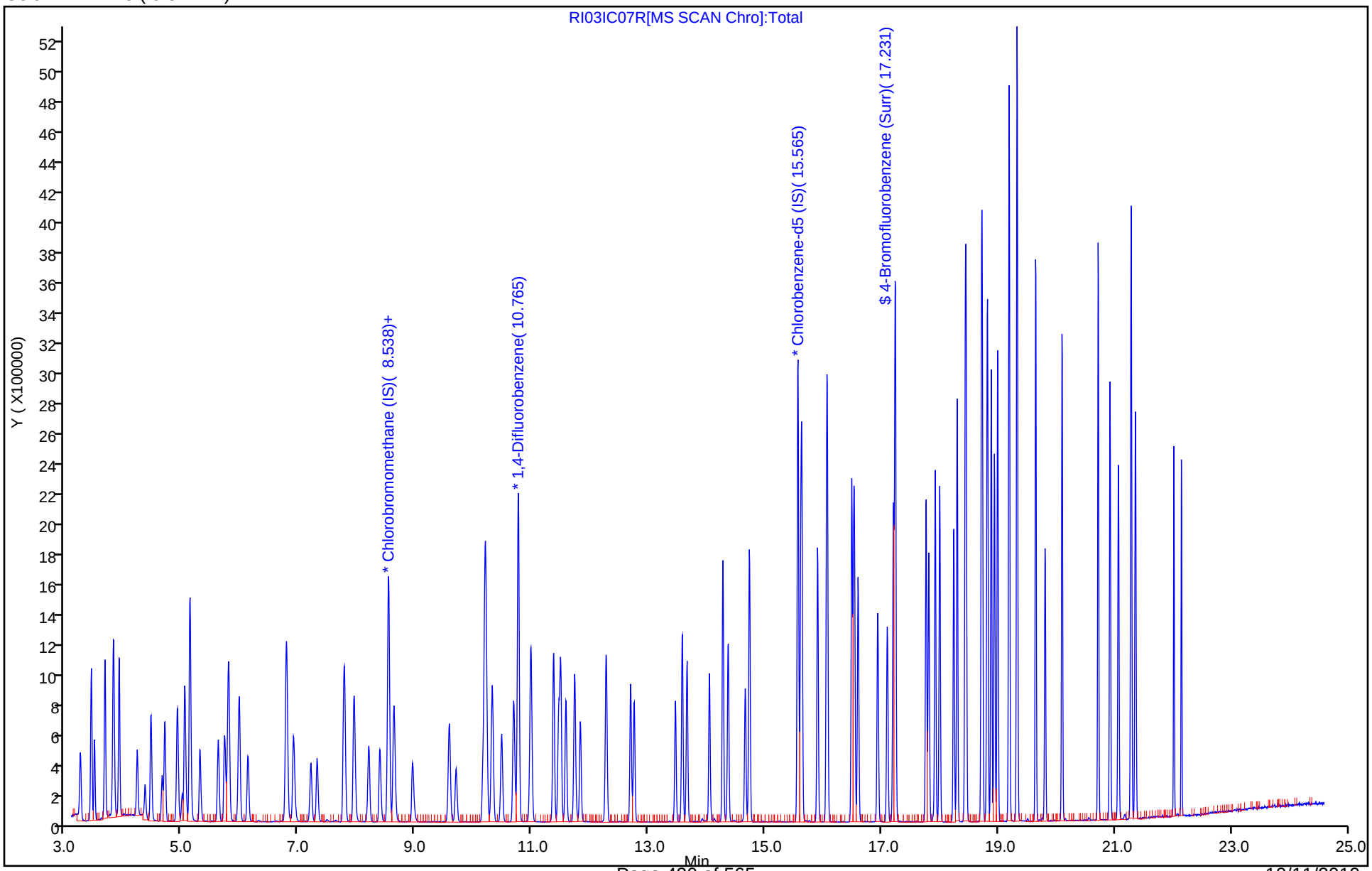
Report Date: 04-Sep-2019 17:35:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Injection Date:	04-Sep-2019 09:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	23
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

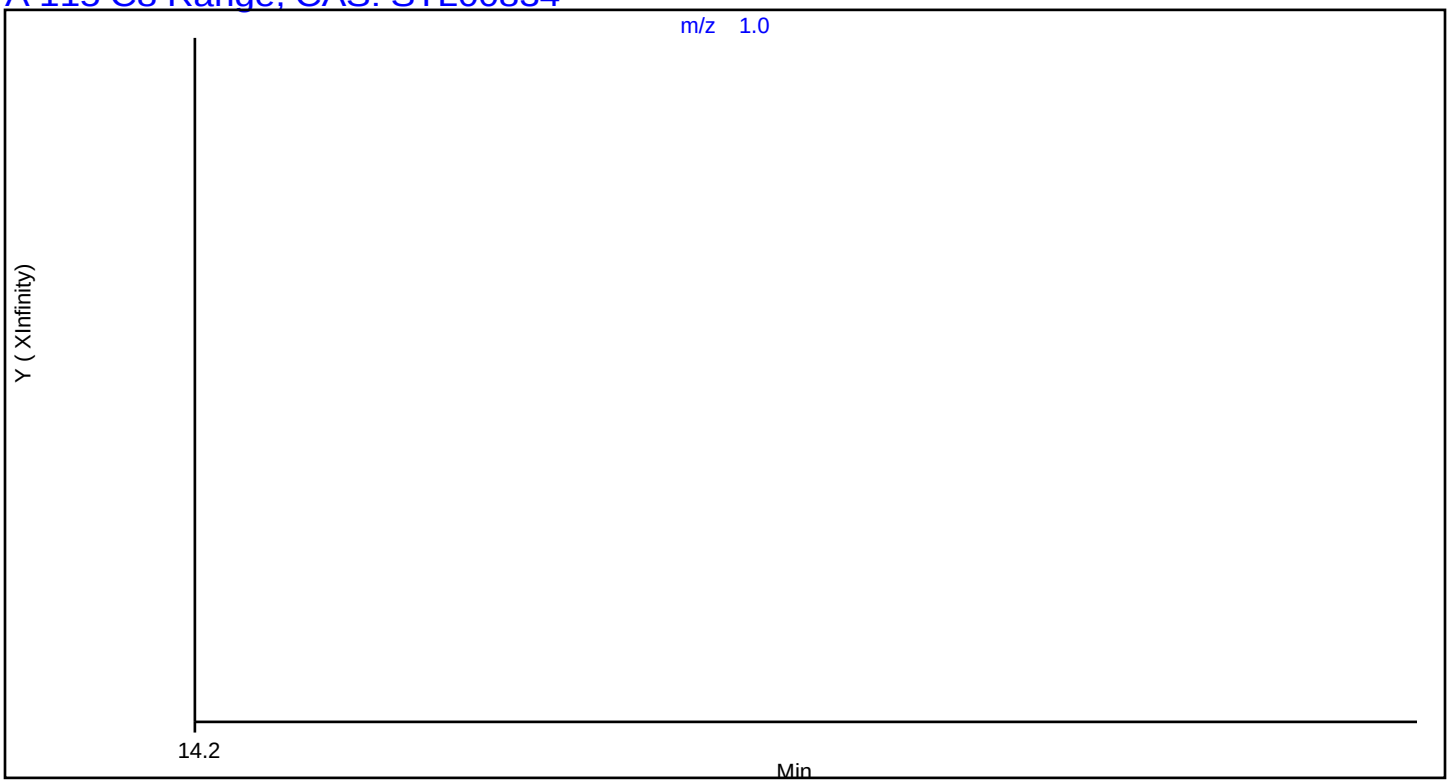


Report Date: 04-Sep-2019 17:35:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Injection Date:	04-Sep-2019 09:04:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	1.940		1.95	2.00	-2.3	35.0
Propene	Ave	1.310	1.352		2.06	2.00	3.2	35.0
Dichlorodifluoromethane	Ave	3.183	3.054		1.92	2.00	-4.1	35.0
Chloromethane	Ave	0.3956	0.3716		1.88	2.00	-6.1	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.118		1.96	2.00	-1.8	35.0
Acetaldehyde	Ave	0.5522	0.5102		9.24	10.0	-7.6	35.0
Vinyl chloride	Ave	1.321	1.311		1.98	2.00	-0.8	35.0
1,3-Butadiene	Ave	1.049	1.031		1.96	2.00	-1.8	35.0
Butane	Ave	2.118	2.060		1.95	2.00	-2.7	35.0
Bromomethane	Ave	1.145	1.096		1.91	2.00	-4.3	35.0
Chloroethane	Ave	0.6525	0.6485		1.99	2.00	-0.6	35.0
Ethanol	Ave	0.5534	0.4260		7.70	10.0	-23.0	35.0
Vinyl bromide	Ave	1.091	1.130		2.07	2.00	3.5	35.0
2-Methylbutane	Ave	1.435	1.456		2.03	2.00	1.5	35.0
Trichlorofluoromethane	Ave	3.002	2.919		1.94	2.00	-2.8	35.0
Acrolein	Ave	0.2232	0.2462		2.21	2.00	10.3	35.0
Acetonitrile	Ave	0.4528	0.4087		1.81	2.00	-9.7	35.0
Acetone	Ave	0.5647	0.6253		2.21	2.00	10.7	35.0
Pentane	Ave	0.2084	0.2177		2.09	2.00	4.5	35.0
Isopropyl alcohol	Ave	1.458	1.782		2.44	2.00	22.2	35.0
Ethyl ether	Ave	1.025	1.034		2.02	2.00	0.9	35.0
1,1-Dichloroethene	Ave	1.335	1.269		1.90	2.00	-4.9	35.0
Acrylonitrile	Ave	0.9041	0.8833		1.95	2.00	-2.3	35.0
tert-Butyl alcohol	Ave	2.183	2.179		2.00	2.00	-0.2	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.613		1.96	2.00	-1.9	35.0
Methylene Chloride	Lin2		1.291		1.97	2.00	-1.7	35.0
3-Chloropropene	Ave	1.221	1.234		2.02	2.00	1.0	35.0
Carbon disulfide	Ave	3.672	3.554		1.94	2.00	-3.2	35.0
trans-1,2-Dichloroethene	Ave	1.325	1.260		1.90	2.00	-4.9	35.0
2-Methylpentane	Ave	3.254	2.935		1.80	2.00	-9.8	35.0
Methyl tert-butyl ether	Ave	3.556	3.421		1.92	2.00	-3.8	35.0
1,1-Dichloroethane	Ave	2.372	2.268		1.91	2.00	-4.4	35.0
Vinyl acetate	Ave	3.208	3.181		1.98	2.00	-0.8	35.0
2-Butanone (MEK)	Ave	0.6082	0.5714		1.88	2.00	-6.1	35.0
Hexane	Ave	1.136	1.075		1.89	2.00	-5.3	35.0
Isopropyl ether	Ave	4.583	4.576		2.00	2.00	-0.2	35.0
cis-1,2-Dichloroethene	Ave	1.350	1.317		1.95	2.00	-2.4	35.0
Ethyl acetate	Ave	2.675	2.453		1.83	2.00	-8.3	35.0
Chloroform	Ave	2.591	2.466		1.90	2.00	-4.8	35.0
Tert-butyl ethyl ether	Ave	4.209	3.873		1.84	2.00	-8.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.434		1.88	2.00	-5.9	35.0
1,1,1-Trichloroethane	Ave	2.876	2.744		1.91	2.00	-4.6	35.0
1,2-Dichloroethane	Ave	0.3289	0.2815		1.71	2.00	-14.4	35.0
1-Butanol	Ave	0.0793	0.0722		1.82	2.00	-8.9	35.0
Benzene	Ave	0.7079	0.6214		1.76	2.00	-12.2	35.0
Cyclohexane	Ave	0.1305	0.1210		1.85	2.00	-7.3	35.0
Carbon tetrachloride	Ave	0.4807	0.4793		1.99	2.00	-0.3	35.0
2,3-Dimethylpentane	Ave	0.1843	0.1706		1.85	2.00	-7.4	35.0
Thiophene	Ave	0.3627	0.3377		1.86	2.00	-6.9	35.0
2,2,4-Trimethylpentane	Ave	1.389	1.260		1.81	2.00	-9.3	35.0
Heptane	Ave	0.2651	0.2529		1.91	2.00	-4.6	35.0
1,2-Dichloropropane	Ave	0.2472	0.2327		1.88	2.00	-5.9	35.0
Trichloroethene	Ave	0.3283	0.2876		1.75	2.00	-12.4	35.0
Dibromomethane	Ave	0.2584	0.2414		1.87	2.00	-6.6	35.0
Bromodichloromethane	Ave	0.4153	0.3953		1.90	2.00	-4.8	35.0
1,4-Dioxane	Ave	0.1020	0.0955		1.87	2.00	-6.4	35.0
Methyl methacrylate	Ave	0.2874	0.2700		1.88	2.00	-6.1	35.0
Methylcyclohexane	Ave	0.5151	0.5483		2.13	2.00	6.4	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.5349		1.91	2.00	-4.6	35.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3000		1.90	2.00	-4.9	35.0
trans-1,3-Dichloropropene	Ave	0.3016	0.2944		1.95	2.00	-2.4	35.0
Toluene	Ave	0.8007	0.7679		1.92	2.00	-4.1	35.0
1,1,2-Trichloroethane	Ave	0.2262	0.2040		1.80	2.00	-9.8	35.0
2-Hexanone	Ave	0.2938	0.2683		1.83	2.00	-8.7	35.0
Octane	Ave	0.3096	0.3166		2.05	2.00	2.3	35.0
Dibromochloromethane	Ave	0.4009	0.3875		1.93	2.00	-3.3	35.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3287		1.76	2.00	-11.9	35.0
Tetrachloroethene	Ave	0.3136	0.2828		1.80	2.00	-9.8	35.0
Chlorobenzene	Ave	0.5933	0.5516		1.86	2.00	-7.0	35.0
2,3-Dimethylheptane	Ave	0.9740	0.8902		1.83	2.00	-8.6	35.0
Ethylbenzene	Ave	1.089	1.014		1.86	2.00	-6.9	35.0
m-Xylene & p-Xylene	Ave	0.8448	0.8052		3.81	4.00	-4.7	35.0
Nonane	Ave	0.6239	0.6248		2.00	2.00	0.1	35.0
Bromoform	Ave	0.3354	0.3190		1.90	2.00	-4.9	35.0
Styrene	Ave	0.5185	0.5094		1.96	2.00	-1.8	35.0
o-Xylene	Ave	0.9416	0.9055		1.92	2.00	-3.8	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.5935		1.91	2.00	-4.4	35.0
1,2,3-Trichloropropane	Ave	0.1756	0.1721		1.96	2.00	-2.0	35.0
Isopropylbenzene	Ave	1.264	1.292		2.05	2.00	2.3	35.0
Propylbenzene	Ave	0.3352	0.3351		2.00	2.00	-0.0	35.0
2-Chlorotoluene	Ave	0.3087	0.2995		1.94	2.00	-3.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.082		1.85	2.00	-7.6	35.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.6127		2.23	2.00	11.4	35.0
Alpha Methyl Styrene	Ave	0.4643	0.4486		1.93	2.00	-3.4	35.0
Decane	Ave	0.7556	0.7543		2.00	2.00	-0.2	35.0
tert-Butylbenzene	Ave	1.175	1.178		2.01	2.00	0.3	35.0
1,2,4-Trimethylbenzene	Ave	1.032	1.022		1.98	2.00	-1.0	35.0
sec-Butylbenzene	Ave	1.539	1.539		2.00	2.00	0.0	35.0
1,3-Dichlorobenzene	Ave	0.6357	0.5730		1.80	2.00	-9.9	35.0
Benzyl chloride	Ave	0.7632	0.7718		2.02	2.00	1.1	35.0
1,4-Dichlorobenzene	Ave	0.6233	0.5480		1.76	2.00	-12.1	35.0
4-Isopropyltoluene	Ave	1.316	1.269		1.93	2.00	-3.6	35.0
1,2,3-Trimethylbenzene	Ave	1.083	0.7977		1.47	2.00	-26.4	35.0
Butylcyclohexane	Ave	0.9117	0.8768		1.92	2.00	-3.8	35.0
1,2-Dichlorobenzene	Ave	0.6582	0.6075		1.85	2.00	-7.7	35.0
Indane	Ave	0.9553	0.9042		1.89	2.00	-5.4	35.0
Butylbenzene	Ave	1.186	1.163		1.96	2.00	-2.0	35.0
Indene	Ave	0.8118	0.6672		1.64	2.00	-17.8	35.0
Undecane	Ave	0.8362	0.8042		1.92	2.00	-3.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.2889		1.67	2.00	-16.3	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.136		1.86	2.00	-6.8	35.0
Dodecane	Ave	0.5953	0.5751		1.93	2.00	-3.4	35.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5385		1.99	2.00	-0.4	35.0
Naphthalene	Ave	1.222	1.177		1.93	2.00	-3.7	35.0
Hexachlorobutadiene	Ave	0.5697	0.5288		1.86	2.00	-7.2	35.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.5315		2.11	2.00	5.4	35.0
2-Methylnaphthalene	Ave	0.2988	0.5515		3.69	2.00	84.6*	50.0
1-Methylnaphthalene	Ave	0.3046	0.4919		3.23	2.00	61.5*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.6835		3.91	4.00	-2.1	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Sep-2019 22:30:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012979-016
Misc. Info.: S98
Operator ID: 007126 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 09-Sep-2019 18:33:23 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0314

First Level Reviewer: tajh Date: 07-Sep-2019 07:23:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.075	9.073	0.002	95	306320	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.248	11.247	0.001	92	1708663	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.940	15.939	0.001	87	1486245	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.568	17.570	-0.002	90	1015863	4.00	3.91	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	80	297165	2.00	1.95	
7 Propene	41	3.807	3.803	0.004	99	207060	2.00	2.06	
8 Dichlorodifluoromethane	85	3.861	3.856	0.005	96	467773	2.00	1.92	
9 Chloromethane	52	4.050	4.046	0.004	58	56913	2.00	1.88	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.055	4.053	0.002	91	324383	2.00	1.96	
11 Acetaldehyde	44	4.206	4.207	-0.001	98	390671	10.0	9.24	
12 Vinyl chloride	62	4.228	4.226	0.002	88	200797	2.00	1.98	
13 Butane	43	4.319	4.316	0.003	86	315562	2.00	1.95	
14 Butadiene	54	4.319	4.317	0.002	65	157832	2.00	1.96	
15 Bromomethane	94	4.654	4.652	0.002	99	167818	2.00	1.91	
16 Chloroethane	64	4.799	4.800	-0.001	89	99326	2.00	1.99	
17 Ethanol	31	4.912	4.923	-0.011	95	326203	10.0	7.70	
18 Vinyl bromide	106	5.117	5.115	0.002	98	173057	2.00	2.07	
19 2-Methylbutane	43	5.171	5.168	0.003	90	223063	2.00	2.03	
20 Trichlorofluoromethane	101	5.398	5.395	0.003	98	447016	2.00	1.94	
21 Acrolein	56	5.409	5.410	-0.001	16	37712	2.00	2.21	
22 Acetonitrile	40	5.473	5.479	-0.006	94	62591	2.00	1.81	
23 Acetone	58	5.533	5.533	0.000	45	95764	2.00	2.21	
24 Pentane	72	5.624	5.625	-0.001	96	33347	2.00	2.09	
25 Isopropyl alcohol	45	5.635	5.652	-0.017	58	272946	2.00	2.44	
26 Ethyl ether	31	5.802	5.807	-0.005	96	158360	2.00	2.02	
27 1,1-Dichloroethene	96	6.126	6.125	0.001	96	194405	2.00	1.90	
28 Acrylonitrile	53	6.234	6.233	0.001	97	135293	2.00	1.95	
30 2-Methyl-2-propanol	59	6.261	6.293	-0.032	92	333663	2.00	2.00	
29 1,1,2-Trichloro-1,2,2-trif	101	6.309	6.307	0.002	95	400172	2.00	1.96	
31 Methylene Chloride	84	6.487	6.483	0.004	94	197790	2.00	1.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.498	6.499	-0.001	90	188938	2.00	2.02	
33 Carbon disulfide	76	6.654	6.651	0.003	98	544304	2.00	1.94	
34 trans-1,2-Dichloroethene	96	7.312	7.308	0.004	99	193009	2.00	1.90	
35 2-Methylpentane	43	7.328	7.326	0.002	95	449524	2.00	1.80	
36 Methyl tert-butyl ether	73	7.447	7.459	-0.012	97	523970	2.00	1.92	
37 1,1-Dichloroethane	63	7.738	7.739	-0.001	100	347389	2.00	1.91	
38 Vinyl acetate	43	7.841	7.844	-0.004	100	487255	2.00	1.98	
39 2-Butanone (MEK)	72	8.299	8.311	-0.012	94	87508	2.00	1.88	
40 Hexane	56	8.326	8.321	0.005	91	164683	2.00	1.89	
41 Isopropyl ether	45	8.482	8.496	-0.014	98	700809	2.00	2.00	
42 cis-1,2-Dichloroethene	96	8.736	8.736	0.000	94	201705	2.00	1.95	
43 Ethyl acetate	43	8.924	8.933	-0.009	98	375673	2.00	1.83	
44 Chloroform	83	9.086	9.086	0.000	68	377683	2.00	1.90	
45 Tert-butyl ethyl ether	59	9.172	9.185	-0.013	95	593216	2.00	1.84	
46 Tetrahydrofuran	42	9.496	9.513	-0.017	96	219623	2.00	1.88	
47 1,1,1-Trichloroethane	97	10.121	10.122	-0.001	96	420244	2.00	1.91	
48 1,2-Dichloroethane	62	10.229	10.230	-0.001	97	240531	2.00	1.71	
49 Cyclohexane	69	10.715	10.714	0.001	80	103347	2.00	1.85	
50 Benzene	78	10.715	10.715	0.000	96	530896	2.00	1.76	
51 n-Butanol	31	10.715	10.735	-0.020	52	61719	2.00	1.82	
52 Carbon tetrachloride	117	10.736	10.739	-0.003	95	409435	2.00	1.99	
53 2,3-Dimethylpentane	71	10.828	10.830	-0.002	92	145783	2.00	1.85	
54 Thiophene	84	10.990	10.984	0.006	95	288507	2.00	1.86	
55 Isooctane	57	11.464	11.463	0.001	99	1076519	2.00	1.81	
56 n-Heptane	71	11.831	11.830	0.001	90	216062	2.00	1.91	
57 1,2-Dichloropropane	63	11.923	11.919	0.004	88	198787	2.00	1.88	
58 Trichloroethene	130	11.955	11.954	0.001	96	245734	2.00	1.75	
59 Dibromomethane	93	12.041	12.039	0.002	91	206230	2.00	1.87	
60 Dichlorobromomethane	83	12.181	12.181	0.000	99	337682	2.00	1.90	
61 1,4-Dioxane	88	12.203	12.221	-0.018	66	81570	2.00	1.87	
62 Methyl methacrylate	41	12.268	12.273	-0.005	85	230623	2.00	1.88	
63 Methylcyclohexane	83	12.715	12.715	0.000	95	468398	2.00	2.13	
64 4-Methyl-2-pentanone (MIBK	43	13.120	13.129	-0.009	97	456951	2.00	1.91	
65 cis-1,3-Dichloropropene	75	13.168	13.167	0.001	93	256306	2.00	1.90	
66 trans-1,3-Dichloropropene	75	13.858	13.855	0.003	98	218748	2.00	1.95	
67 Toluene	91	13.982	13.981	0.001	92	570669	2.00	1.92	
68 1,1,2-Trichloroethane	83	14.053	14.055	-0.002	88	151560	2.00	1.80	
69 2-Hexanone	58	14.441	14.447	-0.006	94	199388	2.00	1.83	
70 n-Octane	85	14.656	14.657	-0.001	93	235249	2.00	2.05	
71 Chlorodibromomethane	129	14.754	14.756	-0.002	97	287927	2.00	1.93	
72 Ethylene Dibromide	107	15.045	15.045	0.000	94	244236	2.00	1.76	
73 Tetrachloroethene	129	15.115	15.116	-0.001	96	210158	2.00	1.80	
75 Chlorobenzene	112	15.988	15.987	0.001	74	409898	2.00	1.86	
74 2,3-Dimethylheptane	43	15.994	15.995	-0.001	95	661527	2.00	1.83	
78 Ethylbenzene	91	16.269	16.270	-0.001	98	753222	2.00	1.86	
79 m-Xylene & p-Xylene	91	16.431	16.431	0.000	98	1196710	4.00	3.81	
80 n-Nonane	57	16.840	16.839	0.001	92	464268	2.00	2.00	
81 Bromoform	173	16.884	16.884	0.000	93	237079	2.00	1.90	
82 Styrene	104	16.894	16.894	0.000	87	378511	2.00	1.96	
83 o-Xylene	91	16.954	16.955	-0.001	79	672864	2.00	1.92	
84 1,1,2,2-Tetrachloroethane	83	17.277	17.277	0.000	99	441026	2.00	1.91	
85 1,2,3-Trichloropropane	110	17.434	17.436	-0.002	87	127884	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.536	17.538	-0.002	96	960205	2.00	2.05	
87 N-Propylbenzene	120	18.070	18.068	0.002	95	248991	2.00	2.00	
88 2-Chlorotoluene	126	18.113	18.115	-0.002	54	222531	2.00	1.94	
89 4-Ethyltoluene	105	18.215	18.216	-0.001	97	804137	2.00	1.85	
90 1,3,5-Trimethylbenzene	120	18.286	18.287	-0.001	93	455299	2.00	2.23	
92 Alpha Methyl Styrene	118	18.512	18.513	-0.001	87	333359	2.00	1.93	
93 n-Decane	57	18.561	18.562	-0.001	88	560501	2.00	2.00	
94 tert-Butylbenzene	119	18.706	18.704	0.002	87	875174	2.00	2.01	
95 1,2,4-Trimethylbenzene	105	18.717	18.717	0.000	91	759286	2.00	1.98	
96 sec-Butylbenzene	105	18.965	18.968	-0.003	98	1143760	2.00	2.00	
97 1,3-Dichlorobenzene	146	18.987	18.988	-0.001	99	425770	2.00	1.80	
98 Benzyl chloride	91	19.057	19.058	-0.001	98	573549	2.00	2.02	
99 1,4-Dichlorobenzene	146	19.073	19.072	0.001	94	407200	2.00	1.76	
100 4-Isopropyltoluene	119	19.127	19.127	0.000	83	942904	2.00	1.93	
101 1,2,3-Trimethylbenzene	105	19.181	19.182	-0.001	82	592751	2.00	1.47	
102 Butylcyclohexane	83	19.235	19.231	0.004	92	651531	2.00	1.92	
103 2,3-Dihydroindene	117	19.423	19.425	-0.002	89	671910	2.00	1.89	
104 1,2-Dichlorobenzene	146	19.423	19.426	-0.003	80	451455	2.00	1.85	
105 n-Butylbenzene	91	19.553	19.553	0.000	97	863912	2.00	1.96	
106 Indene	116	19.553	19.554	-0.001	70	495824	2.00	1.64	
107 Undecane	57	19.849	19.850	-0.001	97	597630	2.00	1.92	
108 1,2-Dibromo-3-Chloropropan	157	20.016	20.018	-0.002	99	214659	2.00	1.67	
109 1,2,4,5-Tetramethylbenzene	119	20.297	20.298	-0.001	97	844360	2.00	1.86	
110 Dodecane	57	20.906	20.904	0.002	97	427370	2.00	1.93	
111 1,2,4-Trichlorobenzene	180	21.111	21.112	-0.001	91	400201	2.00	1.99	
112 Naphthalene	128	21.251	21.252	-0.001	99	874544	2.00	1.93	
113 Hexachlorobutadiene	225	21.456	21.457	-0.001	86	392975	2.00	1.86	
114 1,2,3-Trichlorobenzene	180	21.532	21.531	0.001	94	394973	2.00	2.11	
115 2-Methylnaphthalene	142	22.287	22.287	0.000	99	409841	2.00	3.69	
116 1-Methylnaphthalene	142	22.459	22.460	-0.001	98	365561	2.00	3.23	
A 122 C8 Range	1	14.659	(14.598-14.705)		0	2111089	2.00	2.00	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.85	
S 124 Xylenes, Total	100				0		6.00	5.74	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

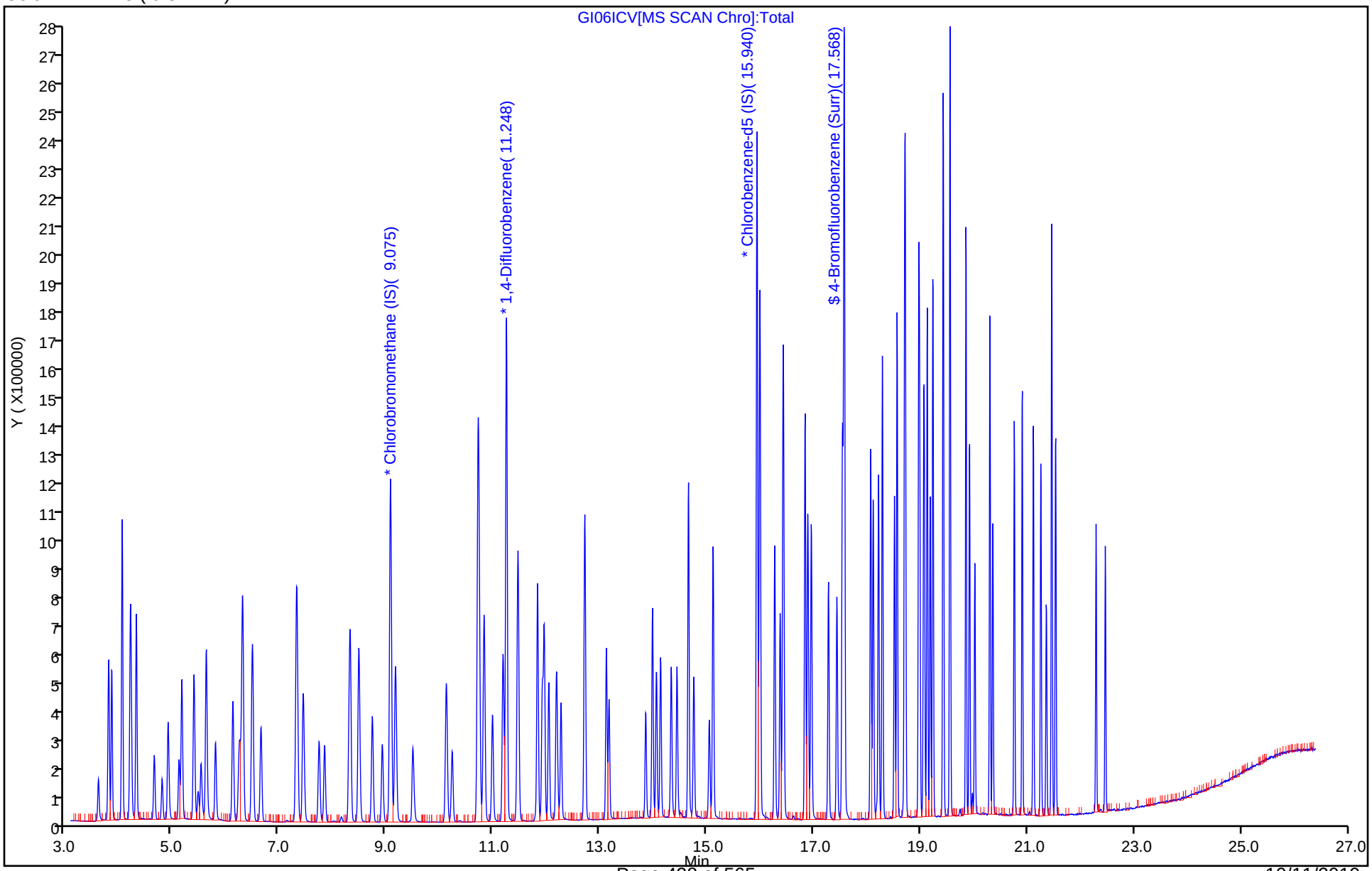
Report Date: 09-Sep-2019 18:38:47 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06ICV.D

Injection Date:	06-Sep-2019 22:30:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICV			Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	2.484		5.01	4.00	25.1	30.0
Propene	Ave	1.310	1.454		4.44	4.00	10.9	30.0
Dichlorodifluoromethane	Ave	3.183	4.190		5.26	4.00	31.6*	30.0
Chloromethane	Ave	0.3956	0.4291		4.34	4.00	8.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.512		4.66	4.00	16.5	30.0
Acetaldehyde	Ave	0.5522	0.5476		19.8	20.0	-0.8	30.0
Vinyl chloride	Ave	1.321	1.562		4.73	4.00	18.2	30.0
1,3-Butadiene	Ave	1.049	1.213		4.62	4.00	15.6	30.0
Butane	Ave	2.118	2.301		4.35	4.00	8.7	30.0
Bromomethane	Ave	1.145	1.417		4.95	4.00	23.8	30.0
Chloroethane	Ave	0.6525	0.7773		4.77	4.00	19.1	30.0
Ethanol	Ave	0.5534	0.6379		23.1	20.0	15.3	30.0
Vinyl bromide	Ave	1.091	1.310		4.80	4.00	20.0	30.0
2-Methylbutane	Ave	1.435	1.608		4.48	4.00	12.0	30.0
Trichlorofluoromethane	Ave	3.002	4.493		5.99	4.00	49.7*	30.0
Acrolein	Ave	0.2232	0.2738		4.91	4.00	22.7	30.0
Acetonitrile	Ave	0.4528	0.5310		4.69	4.00	17.3	30.0
Acetone	Ave	0.5647	0.6633		14.1	12.0	17.5	30.0
Isopropyl alcohol	Ave	1.458	1.827		15.0	12.0	25.3	30.0
Pentane	Ave	0.2084	0.2707		5.20	4.00	29.9	30.0
Ethyl ether	Ave	1.025	1.209		4.72	4.00	17.9	30.0
1,1-Dichloroethene	Ave	1.335	1.277		3.83	4.00	-4.3	30.0
tert-Butyl alcohol	Ave	2.183	2.277		4.17	4.00	4.3	30.0
Acrylonitrile	Ave	0.9041	0.8415		3.72	4.00	-6.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.774		4.17	4.00	4.1	30.0
Methylene Chloride	Lin2		1.252		4.13	4.00	3.3	30.0
3-Chloropropene	Ave	1.221	1.450		4.75	4.00	18.7	30.0
Carbon disulfide	Ave	3.672	3.713		4.04	4.00	1.1	30.0
trans-1,2-Dichloroethene	Ave	1.325	1.312		3.96	4.00	-1.0	30.0
2-Methylpentane	Ave	3.254	3.064		3.77	4.00	-5.8	30.0
Methyl tert-butyl ether	Ave	3.556	3.714		4.18	4.00	4.4	30.0
1,1-Dichloroethane	Ave	2.372	2.459		4.15	4.00	3.7	30.0
Vinyl acetate	Ave	3.208	3.056		3.81	4.00	-4.8	30.0
2-Butanone (MEK)	Ave	0.6082	0.5882		3.87	4.00	-3.3	30.0
Hexane	Ave	1.136	1.089		3.84	4.00	-4.1	30.0
Isopropyl ether	Ave	4.583	4.366		3.81	4.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.350	1.318		3.91	4.00	-2.4	30.0
Ethyl acetate	Ave	2.675	2.662		3.98	4.00	-0.5	30.0
Chloroform	Ave	2.591	2.872		4.43	4.00	10.9	30.0
Tert-butyl ethyl ether	Ave	4.209	4.326		4.11	4.00	2.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.418		3.72	4.00	-7.0	30.0
1,1,1-Trichloroethane	Ave	2.876	3.395		4.72	4.00	18.1	30.0
1,2-Dichloroethane	Ave	0.3289	0.3342		4.06	4.00	1.6	30.0
1-Butanol	Ave	0.0793	0.0720		3.63	4.00	-9.1	30.0
Benzene	Ave	0.7079	0.6003		3.39	4.00	-15.2	30.0
Cyclohexane	Ave	0.1305	0.1170		3.59	4.00	-10.3	30.0
Carbon tetrachloride	Ave	0.4807	0.5553		4.62	4.00	15.5	30.0
2,3-Dimethylpentane	Ave	0.1843	0.1654		3.59	4.00	-10.2	30.0
Thiophene	Ave	0.3627	0.3276		3.61	4.00	-9.7	30.0
2,2,4-Trimethylpentane	Ave	1.389	1.189		3.42	4.00	-14.4	30.0
Heptane	Ave	0.2651	0.2456		3.71	4.00	-7.3	30.0
1,2-Dichloropropane	Ave	0.2472	0.2386		3.86	4.00	-3.5	30.0
Trichloroethene	Ave	0.3283	0.2680		3.27	4.00	-18.4	30.0
Dibromomethane	Ave	0.2584	0.2639		4.08	4.00	2.1	30.0
Bromodichloromethane	Ave	0.4153	0.4492		4.33	4.00	8.2	30.0
1,4-Dioxane	Ave	0.1020	0.0940		3.69	4.00	-7.8	30.0
Methyl methacrylate	Ave	0.2874	0.2798		3.89	4.00	-2.7	30.0
Methylcyclohexane	Ave	0.5151	0.4362		3.39	4.00	-15.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.4948		3.53	4.00	-11.8	30.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3006		3.81	4.00	-4.7	30.0
trans-1,3-Dichloropropene	Ave	0.3016	0.3142		4.17	4.00	4.2	30.0
Toluene	Ave	0.8007	0.7523		3.76	4.00	-6.0	30.0
1,1,2-Trichloroethane	Ave	0.2262	0.2139		3.78	4.00	-5.4	30.0
2-Hexanone	Ave	0.2938	0.2501		3.41	4.00	-14.9	30.0
Octane	Ave	0.3096	0.3048		3.94	4.00	-1.6	30.0
Dibromochloromethane	Ave	0.4009	0.4303		4.29	4.00	7.3	30.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3355		3.60	4.00	-10.1	30.0
Tetrachloroethene	Ave	0.3136	0.2879		3.67	4.00	-8.2	30.0
Chlorobenzene	Ave	0.5933	0.5504		3.71	4.00	-7.2	30.0
2,3-Dimethylheptane	Ave	0.9740	0.9349		3.84	4.00	-4.0	30.0
Ethylbenzene	Ave	1.089	1.037		3.81	4.00	-4.7	30.0
m-Xylene & p-Xylene	Ave	0.8448	0.8457		8.01	8.00	0.1	30.0
Nonane	Ave	0.6239	0.6044		3.88	4.00	-3.1	30.0
Bromoform	Ave	0.3354	0.3464		4.13	4.00	3.3	30.0
Styrene	Ave	0.5185	0.5280		4.07	4.00	1.8	30.0
o-Xylene	Ave	0.9416	0.9321		3.96	4.00	-1.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.6227		4.01	4.00	0.3	30.0
1,2,3-Trichloropropane	Ave	0.1756	0.1850		4.21	4.00	5.4	30.0
Isopropylbenzene	Ave	1.264	1.261		3.99	4.00	-0.2	30.0
Propylbenzene	Ave	0.3352	0.3261		3.89	4.00	-2.7	30.0
2-Chlorotoluene	Ave	0.3087	0.2926		3.79	4.00	-5.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.110		3.79	4.00	-5.3	30.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.5176		3.76	4.00	-5.9	30.0
Alpha Methyl Styrene	Ave	0.4643	0.4744		4.09	4.00	2.2	30.0
Decane	Ave	0.7556	0.7255		3.84	4.00	-4.0	30.0
tert-Butylbenzene	Ave	1.175	1.194		4.07	4.00	1.6	30.0
1,2,4-Trimethylbenzene	Ave	1.032	1.082		4.19	4.00	4.8	30.0
sec-Butylbenzene	Ave	1.539	1.560		4.06	4.00	1.4	30.0
1,3-Dichlorobenzene	Ave	0.6357	0.5994		3.77	4.00	-5.7	30.0
Benzyl chloride	Ave	0.7632	0.9082		4.76	4.00	19.0	30.0
1,4-Dichlorobenzene	Ave	0.6233	0.5707		3.66	4.00	-8.4	30.0
4-Isopropyltoluene	Ave	1.316	1.289		3.92	4.00	-2.0	30.0
1,2,3-Trimethylbenzene	Ave	1.083	1.093		4.04	4.00	0.9	30.0
Butylcyclohexane	Ave	0.9117	0.9287		4.07	4.00	1.9	30.0
1,2-Dichlorobenzene	Ave	0.6582	0.6339		3.85	4.00	-3.7	30.0
Indane	Ave	0.9553	0.9572		4.01	4.00	0.2	30.0
Butylbenzene	Ave	1.186	1.288		4.34	4.00	8.6	30.0
Indene	Ave	0.8118	0.8244		4.06	4.00	1.6	30.0
Undecane	Ave	0.8362	0.7332		3.51	4.00	-12.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.3292		3.82	4.00	-4.6	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.188		3.90	4.00	-2.6	30.0
Dodecane	Ave	0.5953	0.4311		2.90	4.00	-27.6	30.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5389		3.99	4.00	-0.4	30.0
Naphthalene	Ave	1.222	1.138		3.73	4.00	-6.9	30.0
Hexachlorobutadiene	Ave	0.5697	0.6211		4.36	4.00	9.0	30.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.4466		3.54	4.00	-11.5	30.0
2-Methylnaphthalene	Ave	0.2988	0.2245		3.01	4.00	-24.9	50.0
1-Methylnaphthalene	Ave	0.3046	0.2038		2.68	4.00	-33.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.7372		4.22	4.00	5.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GCCVJ09.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Oct-2019 11:20:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-002
Misc. Info.: P98
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:07:03 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:07:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.059	9.059	0.000	97	200883	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.233	11.233	0.000	96	1190950	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1031378	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	86	760316	4.00	4.22	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	96	499022	4.00	5.01	
7 Propene	41	3.807	3.807	0.000	98	292017	4.00	4.44	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	841643	4.00	5.26	
9 Chloromethane	52	4.045	4.045	0.000	97	86203	4.00	4.34	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.050	0.000	93	504692	4.00	4.66	
11 Acetaldehyde	44	4.206	4.206	0.000	100	550025	20.0	19.8	
12 Vinyl chloride	62	4.222	4.222	0.000	99	313774	4.00	4.73	
14 Butadiene	54	4.314	4.314	0.000	69	243723	4.00	4.62	
13 Butane	43	4.314	4.314	0.000	84	462288	4.00	4.35	
15 Bromomethane	94	4.648	4.648	0.000	98	284744	4.00	4.95	
16 Chloroethane	64	4.794	4.794	0.000	97	156151	4.00	4.77	
17 Ethanol	31	4.897	4.897	0.000	97	640675	20.0	23.1	
18 Vinyl bromide	106	5.112	5.112	0.000	98	263096	4.00	4.80	
19 2-Methylbutane	43	5.161	5.161	0.000	89	322952	4.00	4.48	
20 Trichlorofluoromethane	101	5.387	5.387	0.000	100	902611	4.00	5.99	
21 Acrolein	56	5.398	5.398	0.000	93	54993	4.00	4.91	
22 Acetonitrile	40	5.463	5.463	0.000	98	106670	4.00	4.69	
23 Acetone	58	5.511	5.511	0.000	98	399733	12.0	14.1	
25 Isopropyl alcohol	45	5.608	5.608	0.000	98	1100970	12.0	15.0	
24 Pentane	72	5.614	5.614	0.000	99	54383	4.00	5.20	
26 Ethyl ether	31	5.781	5.781	0.000	93	242842	4.00	4.72	
27 1,1-Dichloroethene	96	6.115	6.115	0.000	95	256492	4.00	3.83	
30 2-Methyl-2-propanol	59	6.218	6.218	0.000	94	457400	4.00	4.17	
28 Acrylonitrile	53	6.223	6.223	0.000	56	169038	4.00	3.72	
29 1,1,2-Trichloro-1,2,2-trif	101	6.293	6.293	0.000	95	557221	4.00	4.17	
31 Methylene Chloride	84	6.471	6.471	0.000	98	251576	4.00	4.13	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.487	6.487	0.000	98	291320	4.00	4.75	
33 Carbon disulfide	76	6.638	6.638	0.000	100	745898	4.00	4.04	
34 trans-1,2-Dichloroethene	96	7.296	7.296	0.000	96	263655	4.00	3.96	
35 2-Methylpentane	43	7.312	7.312	0.000	93	615480	4.00	3.77	
36 Methyl tert-butyl ether	73	7.420	7.420	0.000	96	745996	4.00	4.18	
37 1,1-Dichloroethane	63	7.728	7.728	0.000	100	493964	4.00	4.15	
38 Vinyl acetate	43	7.825	7.825	0.000	100	613837	4.00	3.81	
39 2-Butanone (MEK)	72	8.278	8.278	0.000	98	118163	4.00	3.87	
40 Hexane	56	8.310	8.310	0.000	91	218824	4.00	3.84	
41 Isopropyl ether	45	8.461	8.461	0.000	96	876999	4.00	3.81	
42 cis-1,2-Dichloroethene	96	8.725	8.725	0.000	97	264753	4.00	3.91	
43 Ethyl acetate	43	8.903	8.903	0.000	98	534817	4.00	3.98	
44 Chloroform	83	9.070	9.070	0.000	97	577002	4.00	4.43	
45 Tert-butyl ethyl ether	59	9.151	9.151	0.000	96	869025	4.00	4.11	
46 Tetrahydrofuran	42	9.469	9.469	0.000	94	284864	4.00	3.72	
47 1,1,1-Trichloroethane	97	10.106	10.106	0.000	96	682067	4.00	4.72	
48 1,2-Dichloroethane	62	10.213	10.213	0.000	98	397952	4.00	4.06	
51 n-Butanol	31	10.656	10.656	0.000	86	85767	4.00	3.63	
49 Cyclohexane	69	10.699	10.699	0.000	75	139366	4.00	3.59	
50 Benzene	78	10.699	10.699	0.000	98	714877	4.00	3.39	
52 Carbon tetrachloride	117	10.720	10.720	0.000	97	661360	4.00	4.62	
53 2,3-Dimethylpentane	71	10.812	10.812	0.000	90	196999	4.00	3.59	
54 Thiophene	84	10.974	10.974	0.000	97	390154	4.00	3.61	
55 Isooctane	57	11.448	11.448	0.000	98	1415608	4.00	3.42	
56 n-Heptane	71	11.815	11.815	0.000	91	292534	4.00	3.71	
57 1,2-Dichloropropane	63	11.907	11.907	0.000	86	284141	4.00	3.86	
58 Trichloroethene	130	11.939	11.939	0.000	95	319160	4.00	3.27	
59 Dibromomethane	93	12.025	12.025	0.000	93	314235	4.00	4.08	
60 Dichlorobromomethane	83	12.165	12.165	0.000	99	535024	4.00	4.33	
61 1,4-Dioxane	88	12.176	12.176	0.000	93	111911	4.00	3.69	
62 Methyl methacrylate	41	12.252	12.252	0.000	91	333198	4.00	3.89	
63 Methylcyclohexane	83	12.699	12.699	0.000	94	519505	4.00	3.39	
64 4-Methyl-2-pentanone (MIBK	43	13.098	13.098	0.000	98	589309	4.00	3.53	
65 cis-1,3-Dichloropropene	75	13.152	13.152	0.000	97	357953	4.00	3.81	
66 trans-1,3-Dichloropropene	75	13.842	13.842	0.000	98	324008	4.00	4.17	
67 Toluene	91	13.966	13.966	0.000	94	775924	4.00	3.76	
68 1,1,2-Trichloroethane	83	14.042	14.042	0.000	98	220653	4.00	3.78	
69 2-Hexanone	58	14.419	14.419	0.000	93	257939	4.00	3.41	
70 n-Octane	85	14.641	14.641	0.000	92	314344	4.00	3.94	
71 Chlorodibromomethane	129	14.743	14.743	0.000	98	443842	4.00	4.29	
72 Ethylene Dibromide	107	15.034	15.034	0.000	98	346039	4.00	3.60	
73 Tetrachloroethene	129	15.104	15.104	0.000	93	296898	4.00	3.67	
75 Chlorobenzene	112	15.972	15.972	0.000	92	567615	4.00	3.71	
74 2,3-Dimethylheptane	43	15.983	15.983	0.000	94	964274	4.00	3.84	
78 Ethylbenzene	91	16.258	16.258	0.000	99	1070045	4.00	3.81	
79 m-Xylene & p-Xylene	91	16.420	16.420	0.000	99	1744551	8.00	8.01	
80 n-Nonane	57	16.830	16.830	0.000	90	623394	4.00	3.88	
81 Bromoform	173	16.873	16.873	0.000	94	357226	4.00	4.13	
82 Styrene	104	16.884	16.884	0.000	98	544559	4.00	4.07	
83 o-Xylene	91	16.943	16.943	0.000	98	961295	4.00	3.96	
84 1,1,2,2-Tetrachloroethane	83	17.261	17.261	0.000	98	642235	4.00	4.01	
85 1,2,3-Trichloropropane	110	17.423	17.423	0.000	97	190811	4.00	4.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.525	17.525	0.000	97	1300229	4.00	3.99	
87 N-Propylbenzene	120	18.054	18.054	0.000	99	336276	4.00	3.89	
88 2-Chlorotoluene	126	18.102	18.102	0.000	98	301826	4.00	3.79	
89 4-Ethyltoluene	105	18.205	18.205	0.000	98	1144438	4.00	3.79	
90 1,3,5-Trimethylbenzene	120	18.275	18.275	0.000	92	533785	4.00	3.76	
92 Alpha Methyl Styrene	118	18.501	18.501	0.000	88	489295	4.00	4.09	
93 n-Decane	57	18.550	18.550	0.000	92	748209	4.00	3.84	
94 tert-Butylbenzene	119	18.690	18.690	0.000	91	1231426	4.00	4.07	
95 1,2,4-Trimethylbenzene	105	18.706	18.706	0.000	96	1115448	4.00	4.19	
96 sec-Butylbenzene	105	18.960	18.960	0.000	97	1609006	4.00	4.06	
97 1,3-Dichlorobenzene	146	18.976	18.976	0.000	98	618196	4.00	3.77	
98 Benzyl chloride	91	19.046	19.046	0.000	97	936684	4.00	4.76	
99 1,4-Dichlorobenzene	146	19.062	19.062	0.000	95	588569	4.00	3.66	
100 4-Isopropyltoluene	119	19.116	19.116	0.000	96	1329672	4.00	3.92	
101 1,2,3-Trimethylbenzene	105	19.170	19.170	0.000	99	1127138	4.00	4.04	
102 Butylcyclohexane	83	19.224	19.224	0.000	92	957829	4.00	4.07	
103 2,3-Dihydroindene	117	19.413	19.413	0.000	93	987281	4.00	4.01	
104 1,2-Dichlorobenzene	146	19.413	19.413	0.000	79	653745	4.00	3.85	
106 Indene	116	19.542	19.542	0.000	77	850264	4.00	4.06	
105 n-Butylbenzene	91	19.542	19.542	0.000	96	1328251	4.00	4.34	
107 Undecane	57	19.844	19.844	0.000	95	756210	4.00	3.51	
108 1,2-Dibromo-3-Chloropropan	157	20.006	20.006	0.000	92	339524	4.00	3.82	
109 1,2,4,5-Tetramethylbenzene	119	20.292	20.292	0.000	97	1224760	4.00	3.90	
110 Dodecane	57	20.896	20.896	0.000	96	444638	4.00	2.90	
111 1,2,4-Trichlorobenzene	180	21.106	21.106	0.000	94	555823	4.00	3.99	
112 Naphthalene	128	21.241	21.241	0.000	99	1173858	4.00	3.73	
113 Hexachlorobutadiene	225	21.446	21.446	0.000	95	640545	4.00	4.36	
114 1,2,3-Trichlorobenzene	180	21.521	21.521	0.000	94	460603	4.00	3.54	
115 2-Methylnaphthalene	142	22.276	22.276	0.000	100	231578	4.00	3.01	
116 1-Methylnaphthalene	142	22.449	22.449	0.000	100	210178	4.00	2.68	
A 122 C8 Range	1	14.681	(14.582-14.765)		0	2902942	4.00	3.97	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.87	
S 124 Xylenes, Total	100				0		12.0	12.0	

Reagents:

40CV101P_00098	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

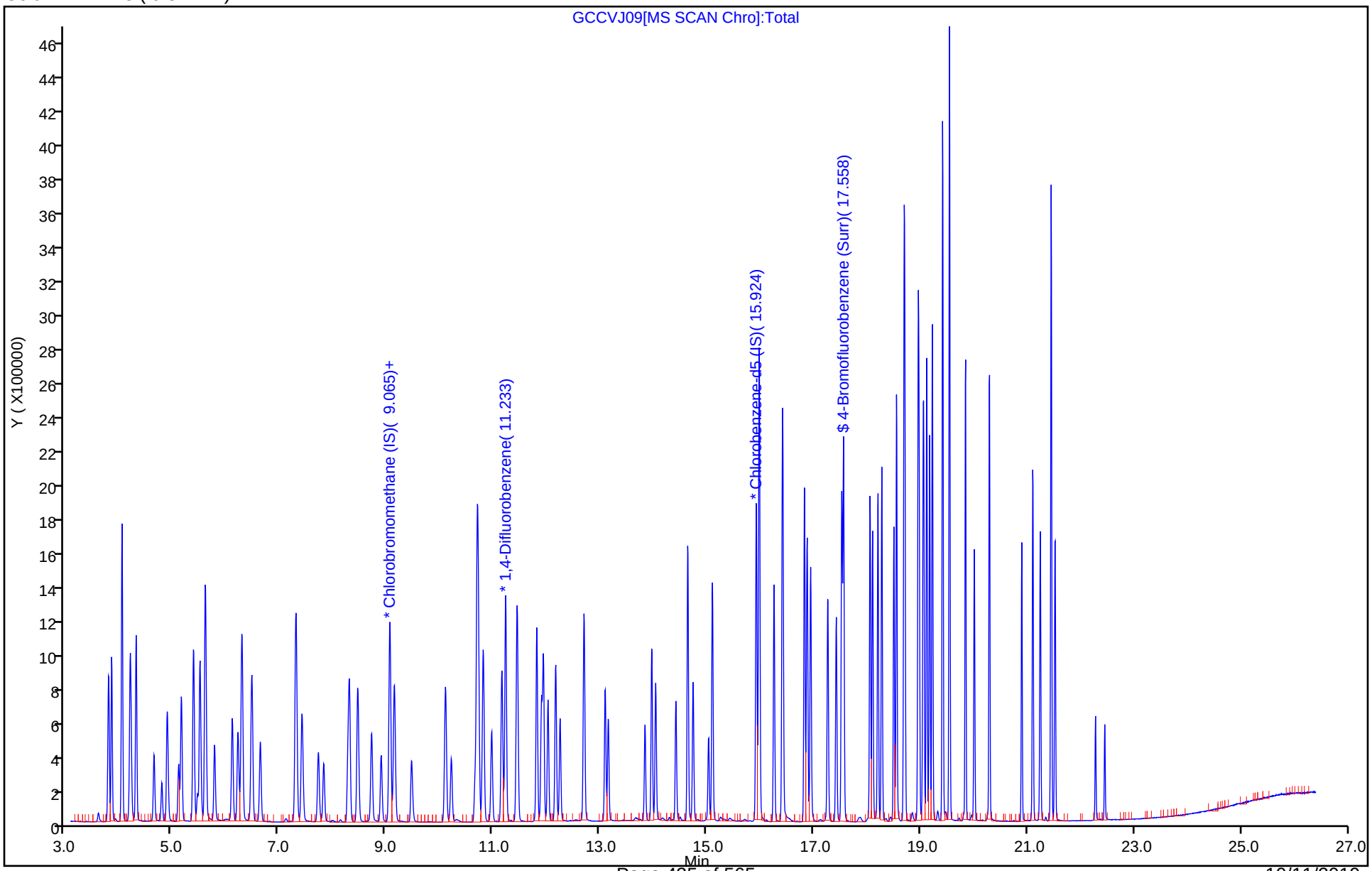
Report Date: 10-Oct-2019 10:07:06 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GCCVJ09.D

Injection Date:	09-Oct-2019 11:20:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.279		2.13	2.00	6.5	35.0
Propene	Ave	1.540	1.598		2.07	2.00	3.7	35.0
Dichlorodifluoromethane	Ave	4.620	5.026		2.18	2.00	8.8	35.0
Chloromethane	Ave	0.5023	0.5185		2.06	2.00	3.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.399		2.16	2.00	8.2	35.0
Acetaldehyde	Ave	0.6093	0.5874		9.64	10.0	-3.6	35.0
Vinyl chloride	Ave	1.690	1.792		2.12	2.00	6.0	35.0
1,3-Butadiene	Ave	1.234	1.311		2.12	2.00	6.2	35.0
Butane	Ave	2.217	2.378		2.15	2.00	7.3	35.0
Bromomethane	Ave	1.553	1.626		2.09	2.00	4.7	35.0
Chloroethane	Ave	0.7598	0.7795		2.05	2.00	2.6	35.0
Ethanol	Ave	0.6247	0.5577		8.93	10.0	-10.7	35.0
Vinyl bromide	Ave	1.568	1.739		2.22	2.00	10.9	35.0
2-Methylbutane	Ave	1.784	1.873		2.10	2.00	5.0	35.0
Trichlorofluoromethane	Ave	4.373	4.702		2.15	2.00	7.5	35.0
Acrolein	Ave	0.5866	0.7206		2.46	2.00	22.9	35.0
Acetonitrile	Ave	0.7528	0.7977		2.12	2.00	6.0	35.0
Acetone	Ave	0.7939	0.8323		2.10	2.00	4.8	35.0
Isopropyl alcohol	QuaF		3.049		2.52	2.00	25.8	35.0
Pentane	Ave	0.2154	0.2386		2.22	2.00	10.8	35.0
Ethyl ether	Ave	1.779	2.022		2.27	2.00	13.7	35.0
1,1-Dichloroethene	Ave	1.548	1.641		2.12	2.00	6.0	35.0
tert-Butyl alcohol	Ave	1.905	2.402		2.52	2.00	26.1	35.0
Acrylonitrile	Ave	1.265	1.447		2.29	2.00	14.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.746		2.19	2.00	9.4	35.0
Methylene Chloride	Ave	1.990	1.700		1.71	2.00	-14.6	35.0
3-Chloropropene	Ave	1.399	1.524		2.18	2.00	8.9	35.0
Carbon disulfide	Ave	4.568	4.914		2.15	2.00	7.6	35.0
trans-1,2-Dichloroethene	Ave	1.539	1.655		2.15	2.00	7.5	35.0
2-Methylpentane	Ave	3.601	3.616		2.01	2.00	0.4	35.0
Methyl tert-butyl ether	Ave	3.132	3.593		2.29	2.00	14.7	35.0
1,1-Dichloroethane	Ave	2.993	3.280		2.19	2.00	9.6	35.0
Vinyl acetate	Ave	4.374	4.984		2.28	2.00	13.9	35.0
2-Butanone (MEK)	Ave	0.7196	0.7929		2.20	2.00	10.2	35.0
Hexane	Ave	1.285	1.366		2.13	2.00	6.3	35.0
Isopropyl ether	Ave	5.622	6.364		2.26	2.00	13.2	35.0
cis-1,2-Dichloroethene	Ave	1.630	1.769		2.17	2.00	8.5	35.0
Ethyl acetate	Ave	3.616	3.988		2.21	2.00	10.3	35.0
Chloroform	Ave	3.473	3.769		2.17	2.00	8.5	35.0
Tert-butyl ethyl ether	Ave	3.861	4.239		2.20	2.00	9.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	2.022		2.27	2.00	13.6	35.0
1,1,1-Trichloroethane	Ave	3.234	3.536		2.19	2.00	9.3	35.0
1,2-Dichloroethane	Ave	0.4575	0.4953		2.17	2.00	8.3	35.0
1-Butanol	Ave	0.1132	0.1361		2.40	2.00	20.2	35.0
Cyclohexane	Ave	0.1324	0.1449		2.19	2.00	9.5	35.0
Benzene	Ave	0.8760	0.9599		2.19	2.00	9.6	35.0
Carbon tetrachloride	Ave	0.6464	0.7261		2.25	2.00	12.3	35.0
2,3-Dimethylpentane	Ave	0.1845	0.1939		2.10	2.00	5.1	35.0
Thiophene	Ave	0.5090	0.5398		2.12	2.00	6.1	35.0
2,2,4-Trimethylpentane	Ave	1.477	1.619		2.19	2.00	9.6	35.0
Heptane	Ave	0.2827	0.3058		2.16	2.00	8.2	35.0
1,2-Dichloropropane	Ave	0.3671	0.3985		2.17	2.00	8.6	35.0
Trichloroethene	Ave	0.3901	0.4179		2.14	2.00	7.1	35.0
Dibromomethane	Ave	0.4085	0.4464		2.19	2.00	9.3	35.0
Bromodichloromethane	Ave	0.6585	0.7419		2.25	2.00	12.7	35.0
1,4-Dioxane	Ave	0.1256	0.1495		2.38	2.00	19.1	35.0
Methyl methacrylate	Ave	0.3959	0.4487		2.27	2.00	13.3	35.0
Methylcyclohexane	Ave	0.5104	0.6618		2.59	2.00	29.7	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.8397		2.23	2.00	11.6	35.0
cis-1,3-Dichloropropene	Ave	0.4796	0.5660		2.36	2.00	18.0	35.0
trans-1,3-Dichloropropene	Ave	0.5027	0.6212		2.47	2.00	23.6	35.0
Toluene	Ave	1.228	1.366		2.23	2.00	11.3	35.0
1,1,2-Trichloroethane	Ave	0.4109	0.4508		2.19	2.00	9.7	35.0
2-Hexanone	Ave	0.3969	0.4569		2.30	2.00	15.1	35.0
Octane	Ave	0.3559	0.3969		2.23	2.00	11.5	35.0
Dibromochloromethane	Ave	0.7775	0.9366		2.41	2.00	20.5	35.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.8401		2.28	2.00	14.1	35.0
Tetrachloroethene	Ave	0.4777	0.5084		2.13	2.00	6.4	35.0
Chlorobenzene	Ave	0.9718	1.083		2.23	2.00	11.4	35.0
2,3-Dimethylheptane	Ave	1.229	1.255		2.04	2.00	2.0	35.0
Ethylbenzene	Ave	1.563	1.755		2.25	2.00	12.3	35.0
m-Xylene & p-Xylene	Ave	1.195	1.360		4.55	4.00	13.8	35.0
Nonane	Ave	0.8166	0.9457		2.32	2.00	15.8	35.0
Bromoform	Ave	0.7957	1.025		2.58	2.00	28.8	35.0
Styrene	Ave	0.8339	1.001		2.40	2.00	20.1	35.0
o-Xylene	Ave	1.241	1.362		2.20	2.00	9.8	35.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.153		2.27	2.00	13.7	35.0
1,2,3-Trichloropropane	Ave	0.2464	0.2764		2.24	2.00	12.2	35.0
Isopropylbenzene	Ave	1.678	1.929		2.30	2.00	15.0	35.0
Propylbenzene	Ave	0.4458	0.5200		2.33	2.00	16.6	35.0
2-Chlorotoluene	Ave	0.4252	0.4813		2.26	2.00	13.2	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.822		2.21	2.00	10.3	35.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.8546		2.51	2.00	25.3	35.0
Alpha Methyl Styrene	Ave	0.6913	0.7852		2.27	2.00	13.6	35.0
Decane	Ave	1.047	1.236		2.36	2.00	18.1	35.0
tert-Butylbenzene	Ave	1.493	1.675		2.24	2.00	12.2	35.0
1,2,4-Trimethylbenzene	Ave	1.431	1.627		2.28	2.00	13.8	35.0
sec-Butylbenzene	Ave	2.111	2.430		2.30	2.00	15.1	35.0
1,3-Dichlorobenzene	Ave	0.9106	1.064		2.34	2.00	16.8	35.0
Benzyl chloride	Lin1		0.9874		2.03	2.00	1.5	35.0
1,4-Dichlorobenzene	Ave	0.8390	1.001		2.39	2.00	19.3	35.0
4-Isopropyltoluene	Ave	1.646	1.868		2.27	2.00	13.5	35.0
1,2,3-Trimethylbenzene	Ave	1.468	1.206		1.64	2.00	-17.9	35.0
Butylcyclohexane	Ave	1.200	1.242		2.07	2.00	3.6	35.0
1,2-Dichlorobenzene	Ave	0.9359	1.077		2.30	2.00	15.0	35.0
Indane	Ave	1.305	1.476		2.26	2.00	13.2	35.0
Indene	Ave	1.091	1.103		2.02	2.00	1.1	35.0
Butylbenzene	Ave	1.629	1.953		2.40	2.00	19.9	35.0
Undecane	Ave	1.204	1.403		2.33	2.00	16.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4618		2.04	2.00	2.2	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.712		2.21	2.00	10.6	35.0
Dodecane	Ave	1.157	1.412		2.44	2.00	22.0	35.0
1,2,4-Trichlorobenzene	Lin1		0.6892		2.34	2.00	16.9	35.0
Naphthalene	QuaF		1.655		2.44	2.00	22.1	35.0
Hexachlorobutadiene	Ave	0.9288	1.063		2.29	2.00	14.4	35.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.8048		2.62	2.00	30.9	35.0
2-Methylnaphthalene	Ave	0.2467	0.4052		3.28	2.00	64.2*	50.0
1-Methylnaphthalene	Ave	0.3382	0.5864		3.47	2.00	73.4*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6558		4.16	4.00	3.9	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 25-Sep-2019 10:36:30 ALS Bottle#: 8 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013112-017
Misc. Info.: S98
Operator ID: AFB Instrument ID: MH
Sublist:

Method: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 25-Sep-2019 16:17:29 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: barlozhetskayaa Date: 25-Sep-2019 11:56:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.608	-0.004	97	331168	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.815	0.001	95	1738771	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.594	0.002	89	1436957	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.242	-0.002	96	942386	4.00	4.16	
6 Chlorodifluoromethane	51	3.523	3.529	-0.006	96	543001	2.00	2.13	
7 Propene	41	3.533	3.540	-0.007	99	264550	2.00	2.07	
8 Dichlorodifluoromethane	85	3.585	3.590	-0.005	100	832296	2.00	2.18	
9 Chloromethane	52	3.761	3.766	-0.005	99	85857	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.766	3.773	-0.007	92	562848	2.00	2.16	
11 Acetaldehyde	44	3.911	3.918	-0.007	95	486314	10.0	9.64	
12 Vinyl chloride	62	3.926	3.932	-0.006	99	296790	2.00	2.12	
14 Butane	43	4.009	4.016	-0.007	84	393793	2.00	2.15	
13 Butadiene	54	4.009	4.016	-0.007	70	217007	2.00	2.12	
15 Bromomethane	94	4.319	4.328	-0.009	99	269295	2.00	2.09	
16 Chloroethane	64	4.459	4.465	-0.006	98	129080	2.00	2.05	
17 Ethanol	31	4.557	4.567	-0.010	93	461759	10.0	8.93	
18 Vinyl bromide	106	4.748	4.757	-0.009	99	288005	2.00	2.22	
19 2-Methylbutane	43	4.794	4.804	-0.010	90	310126	2.00	2.10	
21 Trichlorofluoromethane	101	5.012	5.019	-0.007	99	778511	2.00	2.15	
20 Acrolein	56	5.027	5.035	-0.008	95	119325	2.00	2.46	
22 Acetonitrile	40	5.094	5.105	-0.011	99	132084	2.00	2.12	
23 Acetone	58	5.141	5.155	-0.014	98	137815	2.00	2.10	
24 Pentane	72	5.234	5.235	-0.001	96	39510	2.00	2.22	
25 Isopropyl alcohol	45	5.229	5.244	-0.015	94	504840	2.00	2.52	
26 Ethyl ether	31	5.394	5.409	-0.015	94	334848	2.00	2.27	
27 1,1-Dichloroethene	96	5.709	5.717	-0.008	95	271723	2.00	2.12	
28 Acrylonitrile	53	5.823	5.830	-0.007	93	239539	2.00	2.29	
29 2-Methyl-2-propanol	59	5.813	5.837	-0.024	92	397706	2.00	2.52	
30 1,1,2-Trichloro-1,2,2-trif	101	5.885	5.892	-0.007	97	620305	2.00	2.19	
31 Methylene Chloride	84	6.061	6.066	-0.005	98	281483	2.00	1.71	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.079	-0.003	95	252362	2.00	2.18	
33 Carbon disulfide	76	6.216	6.221	-0.005	99	813679	2.00	2.15	
34 trans-1,2-Dichloroethene	96	6.862	6.867	-0.005	96	274026	2.00	2.15	
35 2-Methylpentane	43	6.877	6.882	-0.005	96	598805	2.00	2.01	
36 Methyl tert-butyl ether	73	6.986	7.005	-0.019	95	595020	2.00	2.29	
37 1,1-Dichloroethane	63	7.286	7.292	-0.006	100	543077	2.00	2.19	
38 Vinyl acetate	43	7.389	7.399	-0.010	100	825204	2.00	2.28	
39 2-Butanone (MEK)	72	7.839	7.856	-0.017	96	131289	2.00	2.20	
40 Hexane	56	7.854	7.861	-0.007	79	226136	2.00	2.13	
171 Isopropyl ether	45	8.014	8.029	-0.015	98	1053736	2.00	2.26	
41 cis-1,2-Dichloroethene	96	8.268	8.275	-0.007	97	292850	2.00	2.17	
42 Ethyl acetate	43	8.459	8.470	-0.011	99	660405	2.00	2.21	
43 Chloroform	83	8.614	8.618	-0.004	97	624024	2.00	2.17	
173 Tert-butyl ethyl ether	59	8.697	8.710	-0.013	98	701968	2.00	2.20	
44 Tetrahydrofuran	42	9.017	9.038	-0.021	94	334781	2.00	2.27	
45 1,1,1-Trichloroethane	97	9.642	9.645	-0.003	97	585464	2.00	2.19	
46 1,2-Dichloroethane	62	9.761	9.761	0.000	97	430611	2.00	2.17	
49 n-Butanol	31	10.211	10.231	-0.020	81	118356	2.00	2.40	
48 Cyclohexane	69	10.247	10.249	-0.002	83	125980	2.00	2.19	
47 Benzene	78	10.252	10.254	-0.002	98	834540	2.00	2.19	
50 Carbon tetrachloride	117	10.273	10.276	-0.003	96	631277	2.00	2.25	
51 2,3-Dimethylpentane	71	10.371	10.375	-0.004	91	168561	2.00	2.10	
52 Thiophene	84	10.531	10.534	-0.003	98	469299	2.00	2.12	
53 Isooctane	57	11.022	11.028	-0.006	98	1407511	2.00	2.19	
55 n-Heptane	71	11.410	11.415	-0.005	93	265872	2.00	2.16	
54 1,2-Dichloropropane	63	11.498	11.501	-0.003	92	346460	2.00	2.17	
56 Trichloroethene	130	11.534	11.537	-0.003	95	363352	2.00	2.14	
57 Dibromomethane	93	11.622	11.623	-0.001	95	388077	2.00	2.19	
58 Dichlorobromomethane	83	11.772	11.772	0.000	98	645030	2.00	2.25	
59 1,4-Dioxane	88	11.787	11.802	-0.015	92	129971	2.00	2.38	
60 Methyl methacrylate	41	11.870	11.875	-0.005	92	390082	2.00	2.27	
61 Methylcyclohexane	83	12.309	12.312	-0.003	93	575354	2.00	2.59	
62 4-Methyl-2-pentanone (MIBK	43	12.728	12.738	-0.010	97	730039	2.00	2.23	
63 cis-1,3-Dichloropropene	75	12.785	12.788	-0.003	96	492105	2.00	2.36	
64 trans-1,3-Dichloropropene	75	13.493	13.493	0.000	99	446333	2.00	2.47	
65 Toluene	91	13.612	13.611	0.001	93	981755	2.00	2.23	
66 1,1,2-Trichloroethane	83	13.689	13.692	-0.003	97	323851	2.00	2.19	
69 2-Hexanone	58	14.077	14.086	-0.009	92	328271	2.00	2.30	
71 n-Octane	85	14.304	14.306	-0.002	96	285128	2.00	2.23	
70 Chlorodibromomethane	129	14.397	14.398	-0.001	98	672931	2.00	2.41	
72 Ethylene Dibromide	107	14.692	14.689	0.003	100	603586	2.00	2.28	
73 Tetrachloroethene	129	14.759	14.762	-0.003	94	365296	2.00	2.13	
74 Chlorobenzene	112	15.643	15.643	0.000	94	777966	2.00	2.23	
75 2,3-Dimethylheptane	43	15.658	15.661	-0.003	96	901408	2.00	2.04	
76 Ethylbenzene	91	15.932	15.933	-0.001	99	1260663	2.00	2.25	
78 m-Xylene & p-Xylene	91	16.093	16.095	-0.002	98	1954098	4.00	4.55	
81 n-Nonane	57	16.516	16.516	0.000	94	679486	2.00	2.32	
79 Bromoform	173	16.547	16.546	0.001	94	736411	2.00	2.58	
80 Styrene	104	16.563	16.562	0.001	99	719297	2.00	2.40	
82 o-Xylene	91	16.620	16.621	-0.001	99	978390	2.00	2.20	
83 1,1,2,2-Tetrachloroethane	83	16.950	16.950	0.000	99	828261	2.00	2.27	
84 1,2,3-Trichloropropane	110	17.106	17.110	-0.004	98	198575	2.00	2.24	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.209	17.210	-0.001	96	1386227	2.00	2.30	
86 N-Propylbenzene	120	17.772	17.773	-0.001	98	373630	2.00	2.33	
87 2-Chlorotoluene	126	17.819	17.820	-0.001	98	345783	2.00	2.26	
88 4-Ethyltoluene	105	17.932	17.933	-0.001	99	1309397	2.00	2.21	
89 1,3,5-Trimethylbenzene	120	18.010	18.011	-0.001	92	614016	2.00	2.51	
90 Alpha Methyl Styrene	118	18.253	18.254	-0.001	87	564160	2.00	2.27	
91 n-Decane	57	18.315	18.316	-0.001	89	887844	2.00	2.36	
92 tert-Butylbenzene	119	18.454	18.460	-0.006	89	1203548	2.00	2.24	
93 1,2,4-Trimethylbenzene	105	18.470	18.473	-0.003	96	1169267	2.00	2.28	
95 sec-Butylbenzene	105	18.739	18.740	-0.001	99	1746179	2.00	2.30	
94 1,3-Dichlorobenzene	146	18.754	18.756	-0.002	98	764433	2.00	2.34	
96 Benzyl chloride	91	18.837	18.837	0.000	97	709440	2.00	2.03	
97 1,4-Dichlorobenzene	146	18.847	18.849	-0.002	96	718861	2.00	2.39	
98 4-Isopropyltoluene	119	18.909	18.913	-0.004	97	1341810	2.00	2.27	
99 1,2,3-Trimethylbenzene	105	18.966	18.967	-0.001	99	866615	2.00	1.64	
100 Butylcyclohexane	83	19.023	19.024	-0.001	92	892635	2.00	2.07	
102 2,3-Dihydroindene	117	19.225	19.224	0.001	93	1060743	2.00	2.26	
101 1,2-Dichlorobenzene	146	19.225	19.225	0.000	83	773543	2.00	2.30	
103 Indene	116	19.359	19.359	0.000	90	792734	2.00	2.02	
104 n-Butylbenzene	91	19.364	19.365	-0.001	97	1402974	2.00	2.40	
105 Undecane	57	19.685	19.689	-0.004	96	1007742	2.00	2.33	
106 1,2-Dibromo-3-Chloropropan	157	19.850	19.850	0.000	98	331812	2.00	2.04	
107 1,2,4,5-Tetramethylbenzene	119	20.145	20.145	0.000	96	1230362	2.00	2.21	
110 Dodecane	57	20.780	20.781	-0.001	95	1014395	2.00	2.44	
111 1,2,4-Trichlorobenzene	180	20.987	20.987	0.000	94	495175	2.00	2.34	
113 Naphthalene	128	21.132	21.133	-0.001	99	1189074	2.00	2.44	
115 Hexachlorobutadiene	225	21.354	21.356	-0.002	91	763612	2.00	2.29	
116 1,2,3-Trichlorobenzene	180	21.426	21.428	-0.002	95	578260	2.00	2.62	
117 2-Methylnaphthalene	142	22.072	22.073	-0.001	100	291116	2.00	3.28	E
118 1-Methylnaphthalene	142	22.202	22.201	0.001	100	421365	2.00	3.47	E
A 120 C8 Range	1	14.297	(14.258-14.361)		0	2892534	2.00	2.21	
S 121 Xylenes, Total	100				0		6.00	6.75	
S 122 1,2-Dichloroethene, Total	1				0		4.00	4.32	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40CV101S_00104	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

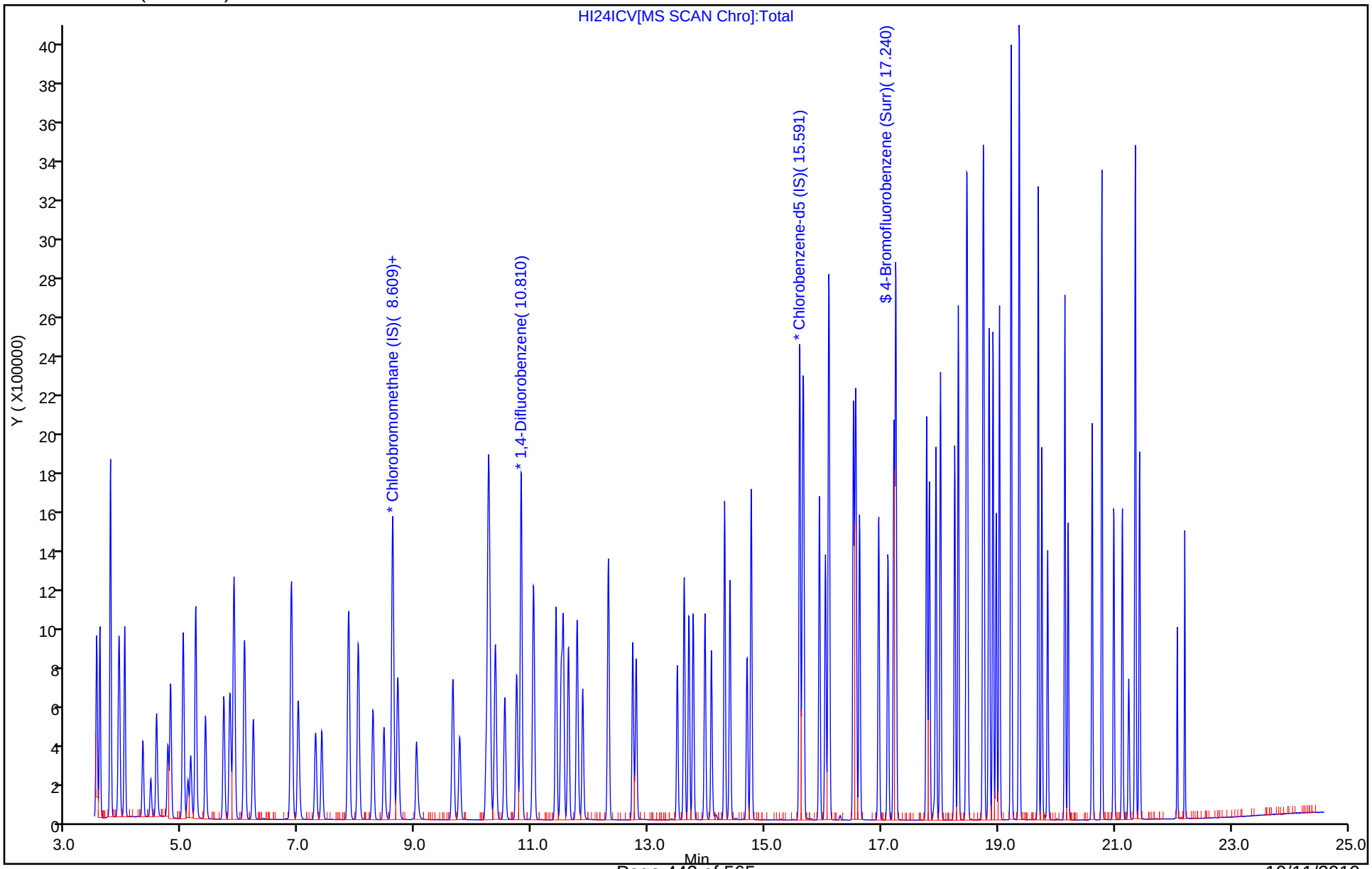
Report Date: 25-Sep-2019 16:27:52 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICV.D

Injection Date:	25-Sep-2019 10:36:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.125		2.03	2.00	1.5	30.0
Propene	Ave	1.540	1.651		2.14	2.00	7.2	30.0
Dichlorodifluoromethane	Ave	4.620	4.510		1.95	2.00	-2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.421		2.18	2.00	8.9	30.0
Chloromethane	Ave	0.5023	0.5710		2.27	2.00	13.7	30.0
Acetaldehyde	Ave	0.6093	0.7283		12.0	10.0	19.5	30.0
Vinyl chloride	Ave	1.690	1.825		2.16	2.00	7.9	30.0
1,3-Butadiene	Ave	1.234	1.339		2.17	2.00	8.5	30.0
Butane	Ave	2.217	2.542		2.29	2.00	14.7	30.0
Bromomethane	Ave	1.553	1.728		2.23	2.00	11.3	30.0
Chloroethane	Ave	0.7598	0.7789		2.05	2.00	2.5	30.0
Ethanol	Ave	0.6247	0.6770		10.8	10.0	8.4	30.0
Vinyl bromide	Ave	1.568	1.648		2.10	2.00	5.1	30.0
2-Methylbutane	Ave	1.784	1.898		2.13	2.00	6.4	30.0
Trichlorofluoromethane	Ave	4.373	4.046		1.85	2.00	-7.5	30.0
Acrolein	Ave	0.5866	0.4894		1.67	2.00	-16.6	30.0
Acetonitrile	Ave	0.7528	0.7368		1.96	2.00	-2.1	30.0
Acetone	Ave	0.7939	0.7969		6.02	6.00	0.4	30.0
Isopropyl alcohol	QuaF		1.948		4.92	6.00	-18.0	30.0
Pentane	Ave	0.2154	0.1908		1.77	2.00	-11.4	30.0
Ethyl ether	Ave	1.779	1.646		1.85	2.00	-7.5	30.0
1,1-Dichloroethene	Ave	1.548	1.336		1.73	2.00	-13.7	30.0
tert-Butyl alcohol	Ave	1.905	2.267		2.38	2.00	19.0	30.0
Acrylonitrile	Ave	1.265	1.154		1.82	2.00	-8.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.244		1.89	2.00	-5.3	30.0
Methylene Chloride	Ave	1.990	1.483		1.49	2.00	-25.4	30.0
3-Chloropropene	Ave	1.399	1.393		1.99	2.00	-0.4	30.0
Carbon disulfide	Ave	4.568	4.116		1.80	2.00	-9.9	30.0
trans-1,2-Dichloroethene	Ave	1.539	1.378		1.79	2.00	-10.5	30.0
2-Methylpentane	Ave	3.601	3.329		1.85	2.00	-7.5	30.0
Methyl tert-butyl ether	Ave	3.132	3.275		2.09	2.00	4.6	30.0
1,1-Dichloroethane	Ave	2.993	2.697		1.80	2.00	-9.9	30.0
Vinyl acetate	Ave	4.374	4.111		1.88	2.00	-6.0	30.0
2-Butanone (MEK)	Ave	0.7196	0.6198		1.72	2.00	-13.9	30.0
Hexane	Ave	1.285	1.138		1.77	2.00	-11.4	30.0
Isopropyl ether	Ave	5.622	5.232		1.86	2.00	-6.9	30.0
cis-1,2-Dichloroethene	Ave	1.630	1.398		1.71	2.00	-14.3	30.0
Ethyl acetate	Ave	3.616	3.483		1.93	2.00	-3.7	30.0
Chloroform	Ave	3.473	3.153		1.82	2.00	-9.2	30.0
Tert-butyl ethyl ether	Ave	3.861	4.204		2.18	2.00	8.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	1.634		1.84	2.00	-8.2	30.0
1,1,1-Trichloroethane	Ave	3.234	2.928		1.81	2.00	-9.4	30.0
1,2-Dichloroethane	Ave	0.4575	0.4071		1.78	2.00	-11.0	30.0
1-Butanol	Ave	0.1132	0.0943		1.66	2.00	-16.8	30.0
Cyclohexane	Ave	0.1324	0.1128		1.70	2.00	-14.8	30.0
Benzene	Ave	0.8760	0.7775		1.78	2.00	-11.2	30.0
Carbon tetrachloride	Ave	0.6464	0.5602		1.73	2.00	-13.3	30.0
2,3-Dimethylpentane	Ave	0.1845	0.1608		1.74	2.00	-12.9	30.0
Thiophene	Ave	0.5090	0.4519		1.78	2.00	-11.2	30.0
2,2,4-Trimethylpentane	Ave	1.477	1.324		1.79	2.00	-10.4	30.0
Heptane	Ave	0.2827	0.2380		1.68	2.00	-15.8	30.0
1,2-Dichloropropane	Ave	0.3671	0.3369		1.84	2.00	-8.2	30.0
Trichloroethene	Ave	0.3901	0.3543		1.82	2.00	-9.2	30.0
Dibromomethane	Ave	0.4085	0.3992		1.95	2.00	-2.3	30.0
Bromodichloromethane	Ave	0.6585	0.5983		1.82	2.00	-9.1	30.0
1,4-Dioxane	Ave	0.1256	0.1020		1.63	2.00	-18.7	30.0
Methyl methacrylate	Ave	0.3959	0.3720		1.88	2.00	-6.0	30.0
Methylcyclohexane	Ave	0.5104	0.4283		1.68	2.00	-16.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.7118		1.89	2.00	-5.4	30.0
cis-1,3-Dichloropropene	Ave	0.4796	0.4614		1.92	2.00	-3.8	30.0
trans-1,3-Dichloropropene	Ave	0.5027	0.5022		2.00	2.00	-0.1	30.0
Toluene	Ave	1.228	1.130		1.84	2.00	-7.9	30.0
1,1,2-Trichloroethane	Ave	0.4109	0.3951		1.92	2.00	-3.8	30.0
2-Hexanone	Ave	0.3969	0.3756		1.89	2.00	-5.4	30.0
Octane	Ave	0.3559	0.3154		1.77	2.00	-11.4	30.0
Dibromochloromethane	Ave	0.7775	0.7476		1.92	2.00	-3.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.7066		1.92	2.00	-4.0	30.0
Tetrachloroethene	Ave	0.4777	0.4444		1.86	2.00	-7.0	30.0
Chlorobenzene	Ave	0.9718	0.9189		1.89	2.00	-5.4	30.0
2,3-Dimethylheptane	Ave	1.229	1.269		2.06	2.00	3.2	30.0
Ethylbenzene	Ave	1.563	1.443		1.85	2.00	-7.6	30.0
m-Xylene & p-Xylene	Ave	1.195	1.143		3.83	4.00	-4.3	30.0
Nonane	Ave	0.8166	0.7867		1.93	2.00	-3.7	30.0
Bromoform	Ave	0.7957	0.6923		1.74	2.00	-13.0	30.0
Styrene	Ave	0.8339	0.8320		2.00	2.00	-0.2	30.0
o-Xylene	Ave	1.241	1.181		1.90	2.00	-4.8	30.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.034		2.04	2.00	1.9	30.0
1,2,3-Trichloropropane	Ave	0.2464	0.2376		1.93	2.00	-3.6	30.0
Isopropylbenzene	Ave	1.678	1.634		1.95	2.00	-2.6	30.0
Propylbenzene	Ave	0.4458	0.4332		1.94	2.00	-2.8	30.0
2-Chlorotoluene	Ave	0.4252	0.4180		1.97	2.00	-1.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.654		2.00	2.00	0.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.6615		1.94	2.00	-3.0	30.0
Alpha Methyl Styrene	Ave	0.6913	0.6430		1.86	2.00	-7.0	30.0
Decane	Ave	1.047	1.091		2.08	2.00	4.2	30.0
tert-Butylbenzene	Ave	1.493	1.487		1.99	2.00	-0.4	30.0
1,2,4-Trimethylbenzene	Ave	1.431	1.456		2.03	2.00	1.7	30.0
sec-Butylbenzene	Ave	2.111	2.163		2.05	2.00	2.5	30.0
1,3-Dichlorobenzene	Ave	0.9106	0.9754		2.14	2.00	7.1	30.0
Benzyl chloride	Lin1		0.9342		1.93	2.00	-3.6	30.0
1,4-Dichlorobenzene	Ave	0.8390	0.9052		2.16	2.00	7.9	30.0
4-Isopropyltoluene	Ave	1.646	1.706		2.07	2.00	3.7	30.0
1,2,3-Trimethylbenzene	Ave	1.468	1.468		2.00	2.00	-0.0	30.0
Butylcyclohexane	Ave	1.200	1.191		1.99	2.00	-0.7	30.0
1,2-Dichlorobenzene	Ave	0.9359	1.009		2.16	2.00	7.8	30.0
Indane	Ave	1.305	1.369		2.10	2.00	5.0	30.0
Indene	Ave	1.091	1.124		2.06	2.00	3.0	30.0
Butylbenzene	Ave	1.629	1.797		2.21	2.00	10.4	30.0
Undecane	Ave	1.204	1.246		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4658		2.06	2.00	3.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.626		2.10	2.00	5.0	30.0
Dodecane	Ave	1.157	1.164		2.01	2.00	0.6	30.0
Naphthalene	QuaF		1.393		2.07	2.00	3.6	30.0
Hexachlorobutadiene	Ave	0.9288	0.9860		2.12	2.00	6.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.6841		2.23	2.00	11.3	30.0
2-Methylnaphthalene	Ave	0.2467	0.2810		2.28	2.00	13.9	50.0
1-Methylnaphthalene	Ave	0.3382	0.3928		2.32	2.00	16.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6443		4.08	4.00	2.1	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08CCVISA.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Oct-2019 11:25:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-002
Misc. Info.: P99
Operator ID: afb Instrument ID: MH
Sublist: chrom-MH_TO15*sub7

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Oct-2019 16:39:42 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: barlozhetskayaa Date: 08-Oct-2019 16:39:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.604	0.000	97	212050	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.811	10.811	0.000	95	1098033	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	875648	4.00	4.00	s
$ 4 4-Bromofluorobenzene (Surr	95	17.261	17.261	0.000	96	564181	4.00	4.08	
6 Chlorodifluoromethane	51	3.533	3.533	0.000	96	331373	2.00	2.03	
7 Propene	41	3.544	3.544	0.000	99	175004	2.00	2.14	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	478127	2.00	1.95	
9 Chloromethane	52	3.771	3.771	0.000	97	60544	2.00	2.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.771	0.000	92	362739	2.00	2.18	
11 Acetaldehyde	44	3.916	3.916	0.000	97	386068	10.0	12.0	
12 Vinyl chloride	62	3.931	3.931	0.000	99	193460	2.00	2.16	
14 Butane	43	4.014	4.014	0.000	84	269556	2.00	2.29	
13 Butadiene	54	4.014	4.014	0.000	68	141956	2.00	2.17	
15 Bromomethane	94	4.329	4.329	0.000	98	183215	2.00	2.23	
16 Chloroethane	64	4.464	4.464	0.000	97	82587	2.00	2.05	
17 Ethanol	31	4.557	4.557	0.000	95	358883	10.0	10.8	
18 Vinyl bromide	106	4.758	4.758	0.000	97	174711	2.00	2.10	
19 2-Methylbutane	43	4.800	4.800	0.000	92	201251	2.00	2.13	
21 Trichlorofluoromethane	101	5.017	5.017	0.000	100	428978	2.00	1.85	
20 Acrolein	56	5.032	5.032	0.000	94	51891	2.00	1.67	
22 Acetonitrile	40	5.099	5.099	0.000	99	78120	2.00	1.96	
23 Acetone	58	5.141	5.141	0.000	98	253483	6.00	6.02	
25 Isopropyl alcohol	45	5.229	5.229	0.000	92	619569	6.00	4.92	
24 Pentane	72	5.229	5.229	0.000	94	20232	2.00	1.77	
26 Ethyl ether	31	5.399	5.399	0.000	93	174518	2.00	1.85	
27 1,1-Dichloroethene	96	5.714	5.714	0.000	95	141596	2.00	1.73	
29 2-Methyl-2-propanol	59	5.813	5.813	0.000	97	240311	2.00	2.38	
28 Acrylonitrile	53	5.823	5.823	0.000	94	122346	2.00	1.82	
30 1,1,2-Trichloro-1,2,2-trif	101	5.885	5.885	0.000	97	343905	2.00	1.89	
31 Methylene Chloride	84	6.061	6.061	0.000	96	157274	2.00	1.49	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.076	6.076	0.000	95	147702	2.00	1.99	
33 Carbon disulfide	76	6.221	6.221	0.000	100	436397	2.00	1.80	
34 trans-1,2-Dichloroethene	96	6.867	6.867	0.000	95	146083	2.00	1.79	
35 2-Methylpentane	43	6.877	6.877	0.000	96	352973	2.00	1.85	
36 Methyl tert-butyl ether	73	6.986	6.986	0.000	96	347275	2.00	2.09	
37 1,1-Dichloroethane	63	7.286	7.286	0.000	99	285936	2.00	1.80	
38 Vinyl acetate	43	7.394	7.394	0.000	100	435853	2.00	1.88	
39 2-Butanone (MEK)	72	7.839	7.839	0.000	95	65716	2.00	1.72	
40 Hexane	56	7.854	7.854	0.000	79	120628	2.00	1.77	
171 Isopropyl ether	45	8.014	8.014	0.000	97	554734	2.00	1.86	
41 cis-1,2-Dichloroethene	96	8.273	8.273	0.000	97	148206	2.00	1.71	
42 Ethyl acetate	43	8.459	8.459	0.000	98	369240	2.00	1.93	
43 Chloroform	83	8.619	8.619	0.000	97	334344	2.00	1.82	
173 Tert-butyl ethyl ether	59	8.691	8.691	0.000	97	445725	2.00	2.18	
44 Tetrahydrofuran	42	9.012	9.012	0.000	94	173255	2.00	1.84	
45 1,1,1-Trichloroethane	97	9.637	9.637	0.000	97	310492	2.00	1.81	
46 1,2-Dichloroethane	62	9.756	9.756	0.000	96	223514	2.00	1.78	
49 n-Butanol	31	10.216	10.216	0.000	84	51748	2.00	1.66	
48 Cyclohexane	69	10.247	10.247	0.000	90	61922	2.00	1.70	
47 Benzene	78	10.252	10.252	0.000	98	426862	2.00	1.78	
50 Carbon tetrachloride	117	10.273	10.273	0.000	96	307538	2.00	1.73	
51 2,3-Dimethylpentane	71	10.366	10.366	0.000	91	88272	2.00	1.74	
52 Thiophene	84	10.531	10.531	0.000	97	248105	2.00	1.78	
53 Isooctane	57	11.022	11.022	0.000	98	726977	2.00	1.79	
55 n-Heptane	71	11.410	11.410	0.000	94	130655	2.00	1.68	
54 1,2-Dichloropropane	63	11.498	11.498	0.000	91	184961	2.00	1.84	
56 Trichloroethene	130	11.534	11.534	0.000	95	194524	2.00	1.82	
57 Dibromomethane	93	11.622	11.622	0.000	95	219175	2.00	1.95	
58 Dichlorobromomethane	83	11.767	11.767	0.000	98	328485	2.00	1.82	
59 1,4-Dioxane	88	11.782	11.782	0.000	95	56022	2.00	1.63	
60 Methyl methacrylate	41	11.865	11.865	0.000	90	204228	2.00	1.88	
61 Methylcyclohexane	83	12.309	12.309	0.000	91	235154	2.00	1.68	
62 4-Methyl-2-pentanone (MIBK	43	12.723	12.723	0.000	97	390787	2.00	1.89	
63 cis-1,3-Dichloropropene	75	12.785	12.785	0.000	97	253333	2.00	1.92	
64 trans-1,3-Dichloropropene	75	13.488	13.488	0.000	98	219884	2.00	2.00	
65 Toluene	91	13.607	13.607	0.000	93	494947	2.00	1.84	
66 1,1,2-Trichloroethane	83	13.689	13.689	0.000	97	172987	2.00	1.92	
69 2-Hexanone	58	14.072	14.072	0.000	91	164449	2.00	1.89	
71 n-Octane	85	14.304	14.304	0.000	96	138074	2.00	1.77	
70 Chlorodibromomethane	129	14.392	14.392	0.000	98	327328	2.00	1.92	
72 Ethylene Dibromide	107	14.687	14.687	0.000	98	309378	2.00	1.92	
73 Tetrachloroethene	129	14.759	14.759	0.000	94	194567	2.00	1.86	
74 Chlorobenzene	112	15.643	15.643	0.000	93	402317	2.00	1.89	
75 2,3-Dimethylheptane	43	15.658	15.658	0.000	94	555766	2.00	2.06	
76 Ethylbenzene	91	15.932	15.932	0.000	99	631884	2.00	1.85	
78 m-Xylene & p-Xylene	91	16.093	16.093	0.000	98	1000946	4.00	3.83	
81 n-Nonane	57	16.511	16.511	0.000	94	344450	2.00	1.93	
79 Bromoform	173	16.542	16.542	0.000	93	303116	2.00	1.74	
80 Styrene	104	16.558	16.558	0.000	99	364261	2.00	2.00	
82 o-Xylene	91	16.620	16.620	0.000	99	517172	2.00	1.90	
83 1,1,2,2-Tetrachloroethane	83	16.961	16.961	0.000	99	452567	2.00	2.04	
84 1,2,3-Trichloropropane	110	17.126	17.126	0.000	97	104014	2.00	1.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	17.230	17.230	0.000	96	715284	2.00	1.95	
86 N-Propylbenzene	120	17.803	17.803	0.000	98	189673	2.00	1.94	
87 2-Chlorotoluene	126	17.845	17.845	0.000	98	182987	2.00	1.97	
88 4-Ethyltoluene	105	17.958	17.958	0.000	99	723994	2.00	2.00	
89 1,3,5-Trimethylbenzene	120	18.036	18.036	0.000	92	289616	2.00	1.94	
90 Alpha Methyl Styrene	118	18.279	18.279	0.000	87	281514	2.00	1.86	
91 n-Decane	57	18.341	18.341	0.000	89	477684	2.00	2.08	
92 tert-Butylbenzene	119	18.480	18.480	0.000	91	650874	2.00	1.99	
93 1,2,4-Trimethylbenzene	105	18.496	18.496	0.000	96	637279	2.00	2.03	
95 sec-Butylbenzene	105	18.759	18.759	0.000	99	947039	2.00	2.05	
94 1,3-Dichlorobenzene	146	18.775	18.775	0.000	98	427055	2.00	2.14	
96 Benzyl chloride	91	18.858	18.858	0.000	97	409012	2.00	1.93	
97 1,4-Dichlorobenzene	146	18.868	18.868	0.000	94	396321	2.00	2.16	
98 4-Isopropyltoluene	119	18.930	18.930	0.000	97	747132	2.00	2.07	
99 1,2,3-Trimethylbenzene	105	18.987	18.987	0.000	98	642535	2.00	2.00	
100 Butylcyclohexane	83	19.044	19.044	0.000	91	521583	2.00	1.99	
102 2,3-Dihydroindene	117	19.240	19.240	0.000	93	599440	2.00	2.10	
101 1,2-Dichlorobenzene	146	19.240	19.240	0.000	83	441698	2.00	2.16	
103 Indene	116	19.375	19.375	0.000	89	492190	2.00	2.06	
104 n-Butylbenzene	91	19.380	19.380	0.000	97	786975	2.00	2.21	
105 Undecane	57	19.700	19.700	0.000	95	545721	2.00	2.07	
106 1,2-Dibromo-3-Chloropropan	157	19.860	19.860	0.000	96	203931	2.00	2.06	
107 1,2,4,5-Tetramethylbenzene	119	20.155	20.155	0.000	97	711994	2.00	2.10	
110 Dodecane	57	20.785	20.785	0.000	93	509813	2.00	2.01	
111 1,2,4-Trichlorobenzene	180	20.992	20.992	0.000	94	250794	2.00	1.96	
113 Naphthalene	128	21.137	21.137	0.000	99	610011	2.00	2.07	
115 Hexachlorobutadiene	225	21.359	21.359	0.000	92	431684	2.00	2.12	
116 1,2,3-Trichlorobenzene	180	21.432	21.432	0.000	95	299503	2.00	2.23	
117 2-Methylnaphthalene	142	22.072	22.072	0.000	99	123043	2.00	2.28	E
118 1-Methylnaphthalene	142	22.202	22.202	0.000	99	171984	2.00	2.32	E
A 120 C8 Range	1	14.299	(14.253-14.356)		0	1532603	2.00	1.85	
S 121 Xylenes, Total	100				0		6.00	5.73	
S 122 1,2-Dichloroethene, Total	1				0		4.00	3.51	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

s - Failed ISTD Recovery Test

Reagents:

40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent
40CV101P_00099	Amount Added: 50.00	Units: ml	

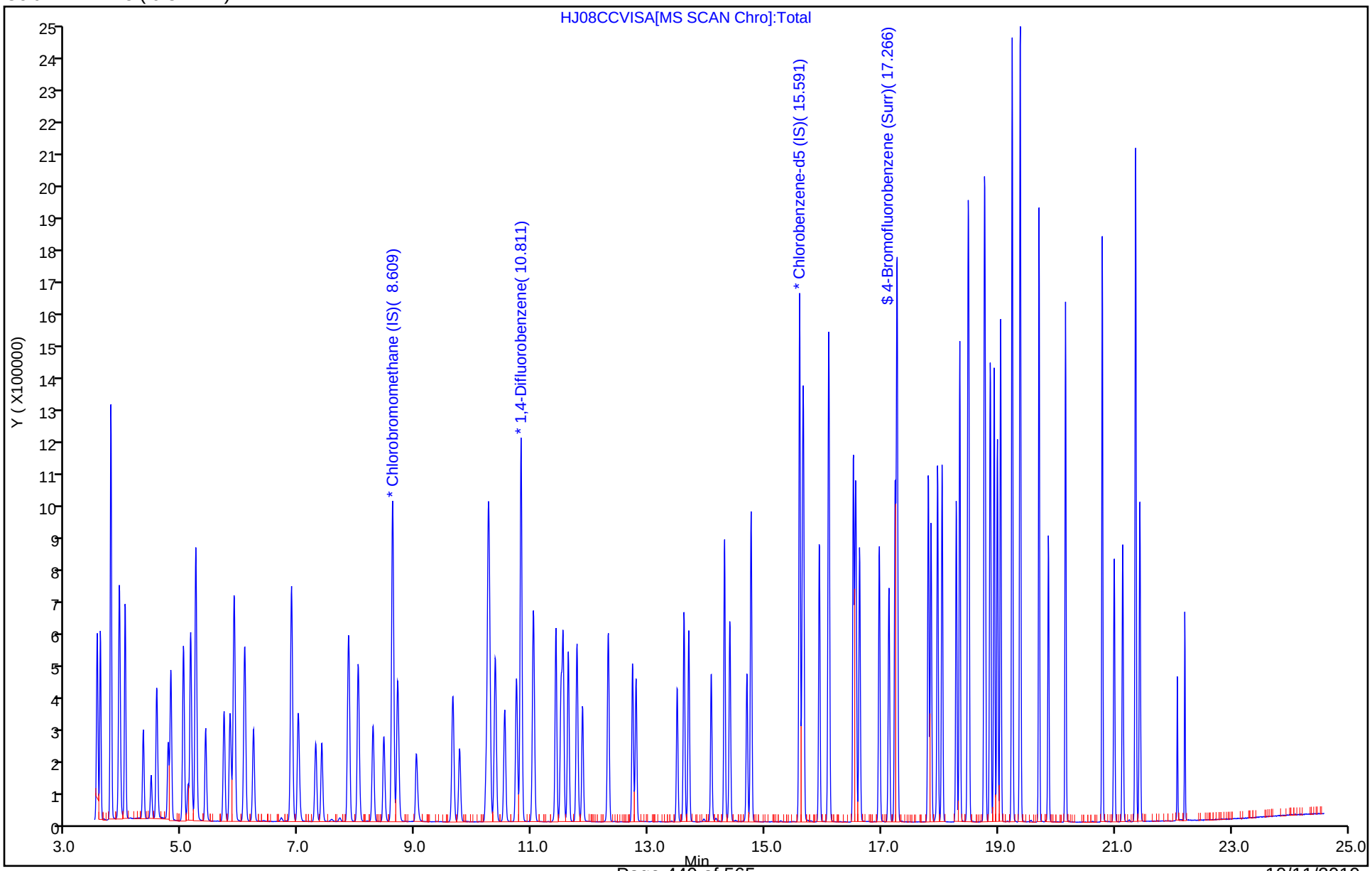
Report Date: 08-Oct-2019 16:39:43 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08CCVISA.D

Injection Date:	08-Oct-2019 11:25:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.732		2.06	2.00	2.9	35.0
Propene	Ave	1.501	1.699		2.26	2.00	13.2	35.0
Dichlorodifluoromethane	Ave	2.256	2.760		2.45	2.00	22.3	35.0
Chloromethane	Ave	0.4310	0.3773		1.75	2.00	-12.4	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.270		2.44	2.00	22.0	35.0
Acetaldehyde	Ave	0.5247	0.3531		6.73	10.0	-32.7	35.0
Vinyl chloride	Ave	1.359	0.9812		1.44	2.00	-27.8	35.0
1,3-Butadiene	Ave	1.022	0.7543		1.48	2.00	-26.2	35.0
Butane	Ave	1.977	1.415		1.43	2.00	-28.4	35.0
Bromomethane	Ave	1.344	0.9665		1.44	2.00	-28.1	35.0
Chloroethane	Ave	0.5671	0.4065		1.43	2.00	-28.3	35.0
Ethanol	Ave	0.6120	0.4984		8.14	10.0	-18.6	35.0
Vinyl bromide	Ave	1.137	1.219		2.15	2.00	7.3	35.0
2-Methylbutane	Ave	1.548	1.534		1.98	2.00	-0.9	35.0
Trichlorofluoromethane	Ave	3.252	3.201		1.97	2.00	-1.6	35.0
Acrolein	Ave	0.3855	0.4188		2.17	2.00	8.6	35.0
Acetonitrile	Ave	0.5751	0.5773		2.01	2.00	0.4	35.0
Acetone	Ave	0.6380	0.7053		2.21	2.00	10.6	35.0
Isopropyl alcohol	Ave	1.868	2.287		2.45	2.00	22.4	35.0
Pentane	Ave	0.2289	0.2400		2.10	2.00	4.9	35.0
Ethyl ether	Ave	1.561	1.593		2.04	2.00	2.1	35.0
1,1-Dichloroethene	Ave	1.301	1.293		1.99	2.00	-0.6	35.0
tert-Butyl alcohol	Ave	2.319	2.427		2.09	2.00	4.6	35.0
Acrylonitrile	Ave	0.9589	1.005		2.10	2.00	4.8	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.703		1.97	2.00	-1.7	35.0
Methylene Chloride	Ave	1.543	1.252		1.62	2.00	-18.9	35.0
3-Chloropropene	Ave	1.275	1.271		1.99	2.00	-0.4	35.0
Carbon disulfide	Ave	3.419	3.454		2.02	2.00	1.0	35.0
trans-1,2-Dichloroethene	Ave	1.401	1.393		1.99	2.00	-0.5	35.0
2-Methylpentane	Ave	3.306	3.047		1.84	2.00	-7.9	35.0
Methyl tert-butyl ether	Ave	3.370	3.639		2.16	2.00	8.0	35.0
1,1-Dichloroethane	Ave	2.406	2.463		2.05	2.00	2.4	35.0
Vinyl acetate	Ave	3.791	4.194		2.21	2.00	10.6	35.0
2-Butanone (MEK)	Ave	0.6748	0.6866		2.03	2.00	1.7	35.0
Hexane	Ave	1.095	1.086		1.98	2.00	-0.8	35.0
Isopropyl ether	Ave	5.017	5.309		2.12	2.00	5.8	35.0
cis-1,2-Dichloroethene	Ave	1.454	1.556		2.14	2.00	7.1	35.0
Ethyl acetate	Ave	3.480	3.357		1.93	2.00	-3.5	35.0
Chloroform	Ave	2.898	2.853		1.97	2.00	-1.6	35.0
Tert-butyl ethyl ether	Ave	4.084	4.068		1.99	2.00	-0.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.770		2.05	2.00	2.6	35.0
1,1,1-Trichloroethane	Ave	2.962	2.890		1.95	2.00	-2.4	35.0
1,2-Dichloroethane	Ave	0.3151	0.2985		1.89	2.00	-5.3	35.0
1-Butanol	Ave	0.1107	0.1186		2.14	2.00	7.1	35.0
Benzene	Ave	0.7714	0.7541		1.96	2.00	-2.2	35.0
Cyclohexane	Ave	0.1143	0.1058		1.85	2.00	-7.5	35.0
Carbon tetrachloride	Ave	0.5101	0.5533		2.17	2.00	8.5	35.0
2,3-Dimethylpentane	Ave	0.1575	0.1596		2.03	2.00	1.3	35.0
Thiophene	Ave	0.4003	0.3973		1.98	2.00	-0.8	35.0
2,2,4-Trimethylpentane	Ave	1.199	1.190		1.99	2.00	-0.7	35.0
Heptane	Ave	0.2550	0.2538		1.99	2.00	-0.5	35.0
1,2-Dichloropropane	Ave	0.2780	0.2746		1.98	2.00	-1.2	35.0
Trichloroethene	Ave	0.3320	0.3339		2.01	2.00	0.6	35.0
Dibromomethane	Ave	0.2957	0.2899		1.96	2.00	-1.9	35.0
Bromodichloromethane	Ave	0.4906	0.4819		1.96	2.00	-1.8	35.0
1,4-Dioxane	Ave	0.1118	0.1164		2.08	2.00	4.1	35.0
Methyl methacrylate	Ave	0.3404	0.3414		2.01	2.00	0.3	35.0
Methylcyclohexane	Ave	0.4226	0.5207		2.46	2.00	23.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.6336		2.01	2.00	0.4	35.0
cis-1,3-Dichloropropene	Ave	0.3853	0.4115		2.14	2.00	6.8	35.0
trans-1,3-Dichloropropene	Ave	0.4218	0.4365		2.07	2.00	3.5	35.0
Toluene	Ave	0.9777	0.9801		2.01	2.00	0.3	35.0
1,1,2-Trichloroethane	Ave	0.3059	0.2919		1.91	2.00	-4.6	35.0
2-Hexanone	Ave	0.3356	0.3387		2.02	2.00	0.9	35.0
Octane	Ave	0.3027	0.3198		2.11	2.00	5.7	35.0
Dibromochloromethane	Ave	0.6120	0.6302		2.06	2.00	3.0	35.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5866		2.06	2.00	2.9	35.0
Tetrachloroethene	Ave	0.3936	0.3980		2.02	2.00	1.1	35.0
Chlorobenzene	Ave	0.8282	0.8745		2.11	2.00	5.6	35.0
2,3-Dimethylheptane	Ave	1.121	0.9897		1.77	2.00	-11.7	35.0
Ethylbenzene	Ave	1.326	1.366		2.06	2.00	3.0	35.0
m-Xylene & p-Xylene	Ave	1.019	1.100		4.31	4.00	7.9	35.0
Nonane	Ave	0.6517	0.7107		2.18	2.00	9.0	35.0
Bromoform	Ave	0.5593	0.6738		2.41	2.00	20.5	35.0
Styrene	Ave	0.7149	0.7951		2.22	2.00	11.2	35.0
o-Xylene	Ave	1.034	1.046		2.02	2.00	1.1	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.7895		2.08	2.00	3.9	35.0
1,2,3-Trichloropropane	Ave	0.2394	0.2468		2.06	2.00	3.1	35.0
Isopropylbenzene	Ave	1.532	1.677		2.19	2.00	9.5	35.0
Propylbenzene	Ave	0.4084	0.4371		2.14	2.00	7.0	35.0
2-Chlorotoluene	Ave	0.3869	0.4052		2.10	2.00	4.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.535		1.97	2.00	-1.4	35.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.7185		2.33	2.00	16.3	35.0
Alpha Methyl Styrene	Ave	0.5996	0.5702		1.90	2.00	-4.9	35.0
Decane	Ave	0.8851	0.8755		1.98	2.00	-1.1	35.0
tert-Butylbenzene	Ave	1.397	1.438		2.06	2.00	3.0	35.0
1,2,4-Trimethylbenzene	Ave	1.310	1.413		2.16	2.00	7.9	35.0
sec-Butylbenzene	Ave	2.029	2.108		2.08	2.00	3.9	35.0
1,3-Dichlorobenzene	Ave	0.9926	0.9918		2.00	2.00	-0.0	35.0
Benzyl chloride	Ave	0.9143	1.133		2.48	2.00	23.9	35.0
1,4-Dichlorobenzene	Ave	0.9599	0.9877		2.06	2.00	2.9	35.0
4-Isopropyltoluene	Ave	1.507	1.570		2.08	2.00	4.1	35.0
1,2,3-Trimethylbenzene	Ave	1.283	0.9702		1.51	2.00	-24.4	35.0
Butylcyclohexane	Ave	1.022	0.9653		1.89	2.00	-5.5	35.0
1,2-Dichlorobenzene	Ave	0.9404	0.9869		2.10	2.00	4.9	35.0
Indane	Ave	1.268	1.314		2.07	2.00	3.6	35.0
Indene	Ave	1.098	0.9838		1.79	2.00	-10.4	35.0
Butylbenzene	Ave	1.596	1.641		2.06	2.00	2.8	35.0
Undecane	Ave	1.068	0.9949		1.86	2.00	-6.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.3741		1.98	2.00	-0.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.380		1.89	2.00	-5.7	35.0
Dodecane	Ave	1.091	0.9112		1.67	2.00	-16.5	35.0
1,2,4-Trichlorobenzene	Ave	0.8883	0.8582		1.93	2.00	-3.4	35.0
Naphthalene	Ave	1.792	1.752		1.96	2.00	-2.2	35.0
Hexachlorobutadiene	Ave	0.7749	0.7587		1.96	2.00	-2.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9026	0.8675		1.92	2.00	-3.9	35.0
2-Methylnaphthalene	Ave	0.7349	0.6386		1.74	2.00	-13.1	50.0
1-Methylnaphthalene	Ave	0.6749	0.5762		1.71	2.00	-14.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.5775		3.91	4.00	-2.3	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 03-Sep-2019 23:14:30 ALS Bottle#: 14 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:40:33 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: wilesd Date: 04-Sep-2019 14:13:59

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	95	487104	4.00	4.00	
*	2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	93	2786219	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	85	2417964	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	96	1396394	4.00	3.91	
	6 Chlorodifluoromethane	51	3.416	3.428	-0.012	97	665323	2.00	2.06	
	7 Propene	41	3.421	3.433	-0.012	97	413807	2.00	2.26	
	8 Dichlorodifluoromethane	85	3.475	3.486	-0.011	99	672148	2.00	2.45	
	9 Chloromethane	52	3.653	3.661	-0.008	100	91896	2.00	1.75	
	10 1,2-Dichloro-1,1,2,2-tetra	135	3.658	3.669	-0.011	92	552858	2.00	2.44	
	11 Acetaldehyde	44	3.804	3.811	-0.007	99	429996	10.0	6.73	
	12 Vinyl chloride	62	3.815	3.823	-0.008	99	238960	2.00	1.44	
	13 Butadiene	54	3.901	3.909	-0.008	70	183715	2.00	1.48	
	14 Butane	43	3.901	3.909	-0.008	84	344684	2.00	1.43	
	15 Bromomethane	94	4.214	4.221	-0.007	95	235399	2.00	1.44	
	16 Chloroethane	64	4.343	4.357	-0.014	97	99012	2.00	1.43	
	17 Ethanol	31	4.446	4.461	-0.015	96	606976	10.0	8.14	
	18 Vinyl bromide	106	4.640	4.649	-0.009	98	296995	2.00	2.15	
	19 2-Methylbutane	43	4.688	4.695	-0.007	92	373695	2.00	1.98	
	21 Trichlorofluoromethane	101	4.904	4.911	-0.007	99	779708	2.00	1.97	
	20 Acrolein	56	4.915	4.929	-0.014	96	101991	2.00	2.17	
	24 Acetonitrile	40	4.985	5.002	-0.017	99	140600	2.00	2.01	
	22 Acetone	58	5.039	5.050	-0.011	98	171786	2.00	2.21	
	25 Pentane	72	5.125	5.133	-0.008	96	58449	2.00	2.10	
	23 Isopropyl alcohol	45	5.120	5.142	-0.022	57	556913	2.00	2.45	
	26 Ethyl ether	31	5.292	5.312	-0.020	94	387936	2.00	2.04	
	27 1,1-Dichloroethene	96	5.605	5.615	-0.010	99	314926	2.00	1.99	
	28 Acrylonitrile	53	5.718	5.728	-0.010	98	244845	2.00	2.10	
	29 2-Methyl-2-propanol	59	5.713	5.745	-0.032	95	590985	2.00	2.09	
	30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	95	658349	2.00	1.97	
	32 3-Chloro-1-propene	39	5.972	5.964	0.008	94	309446	2.00	1.99	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.961	5.969	-0.008	98	305021	2.00	1.62	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	841334	2.00	2.02	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	98	339348	2.00	1.99	
35 2-Methylpentane	43	6.786	6.795	-0.009	95	741984	2.00	1.84	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	97	886199	2.00	2.16	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	599900	2.00	2.05	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	1021435	2.00	2.21	
39 2-Butanone (MEK)	72	7.762	7.782	-0.020	97	167215	2.00	2.03	
40 Hexane	56	7.784	7.785	-0.001	81	264570	2.00	1.98	
41 Isopropyl ether	45	7.945	7.963	-0.018	99	1292979	2.00	2.12	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	92	379084	2.00	2.14	
43 Ethyl acetate	43	8.387	8.402	-0.015	98	817609	2.00	1.93	
44 Chloroform	83	8.544	8.549	-0.005	94	694731	2.00	1.97	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	95	990828	2.00	1.99	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	96	431175	2.00	2.05	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	703869	2.00	1.95	
48 1,2-Dichloroethane	62	9.698	9.701	-0.003	95	415771	2.00	1.89	
50 n-Butanol	31	10.156	10.176	-0.020	85	165163	2.00	2.14	
49 Benzene	78	10.199	10.199	0.000	96	1050500	2.00	1.96	
51 Cyclohexane	69	10.199	10.200	-0.001	78	147325	2.00	1.85	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	95	770798	2.00	2.17	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	93	222336	2.00	2.03	
54 Thiophene	84	10.480	10.482	-0.002	96	553518	2.00	1.98	
55 Isooctane	57	10.981	10.986	-0.005	98	1657413	2.00	1.99	
57 n-Heptane	71	11.375	11.378	-0.003	94	353567	2.00	1.99	
56 1,2-Dichloropropane	63	11.461	11.464	-0.003	91	382586	2.00	1.98	
58 Trichloroethene	130	11.499	11.496	0.003	97	465209	2.00	2.01	
59 Dibromomethane	93	11.580	11.587	-0.007	92	403892	2.00	1.96	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	98	671356	2.00	1.96	
61 1,4-Dioxane	88	11.747	11.759	-0.012	91	162220	2.00	2.08	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	475620	2.00	2.01	
63 Methylcyclohexane	83	12.275	12.276	-0.001	94	725366	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	882651	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	96	573285	2.00	2.14	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	99	527739	2.00	2.07	
67 Toluene	91	13.580	13.584	-0.004	94	1184965	2.00	2.01	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	352895	2.00	1.91	
69 2-Hexanone	58	14.049	14.055	-0.006	90	409519	2.00	2.02	
71 n-Octane	85	14.281	14.283	-0.002	95	386605	2.00	2.11	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	98	761861	2.00	2.06	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	709124	2.00	2.06	
73 Tetrachloroethene	129	14.734	14.736	-0.002	97	481215	2.00	2.02	
74 Chlorobenzene	112	15.613	15.615	-0.002	97	1057290	2.00	2.11	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	97	1196491	2.00	1.77	
76 Ethylbenzene	91	15.904	15.904	0.000	98	1651398	2.00	2.06	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	2658947	4.00	4.31	
81 n-Nonane	57	16.487	16.488	-0.001	94	859191	2.00	2.18	
78 Bromoform	173	16.514	16.519	-0.005	97	814612	2.00	2.41	
79 Styrene	104	16.530	16.535	-0.005	100	961242	2.00	2.22	
80 o-Xylene	91	16.589	16.595	-0.006	99	1264728	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	99	954479	2.00	2.08	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	96	298332	2.00	2.06	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	94	2027212	2.00	2.19	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	528427	2.00	2.14	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	489927	2.00	2.10	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	1855796	2.00	1.97	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	868605	2.00	2.33	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	689322	2.00	1.90	
90 n-Decane	57	18.282	18.286	-0.004	88	1058480	2.00	1.98	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	95	1738756	2.00	2.06	
92 1,2,4-Trimethylbenzene	105	18.433	18.440	-0.007	97	1708749	2.00	2.16	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	2548640	2.00	2.08	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	97	1199012	2.00	2.00	
96 Benzyl chloride	91	18.795	18.798	-0.003	99	1369312	2.00	2.48	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	96	1194099	2.00	2.06	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1897958	2.00	2.08	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	1172985	2.00	1.51	
99 Butylcyclohexane	83	18.978	18.983	-0.005	94	1166971	2.00	1.89	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	1589081	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	1193116	2.00	2.10	
102 Indene	116	19.312	19.315	-0.003	90	1189391	2.00	1.79	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	1984272	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	96	1202812	2.00	1.86	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	452311	2.00	1.98	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	98	1668110	2.00	1.89	
107 Dodecane	57	20.714	20.713	0.001	94	1101670	2.00	1.67	
108 1,2,4-Trichlorobenzene	180	20.914	20.919	-0.005	93	1037594	2.00	1.93	
109 Naphthalene	128	21.060	21.060	0.000	99	2118031	2.00	1.96	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	96	917213	2.00	1.96	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	1048759	2.00	1.92	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	772072	2.00	1.74	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	696658	2.00	1.71	
A 115 C8 Range	1	14.281	(14.233-14.319)		0	3787954	2.00	2.03	
S 116 Xylenes, Total	100				0		6.00	6.34	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.13	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

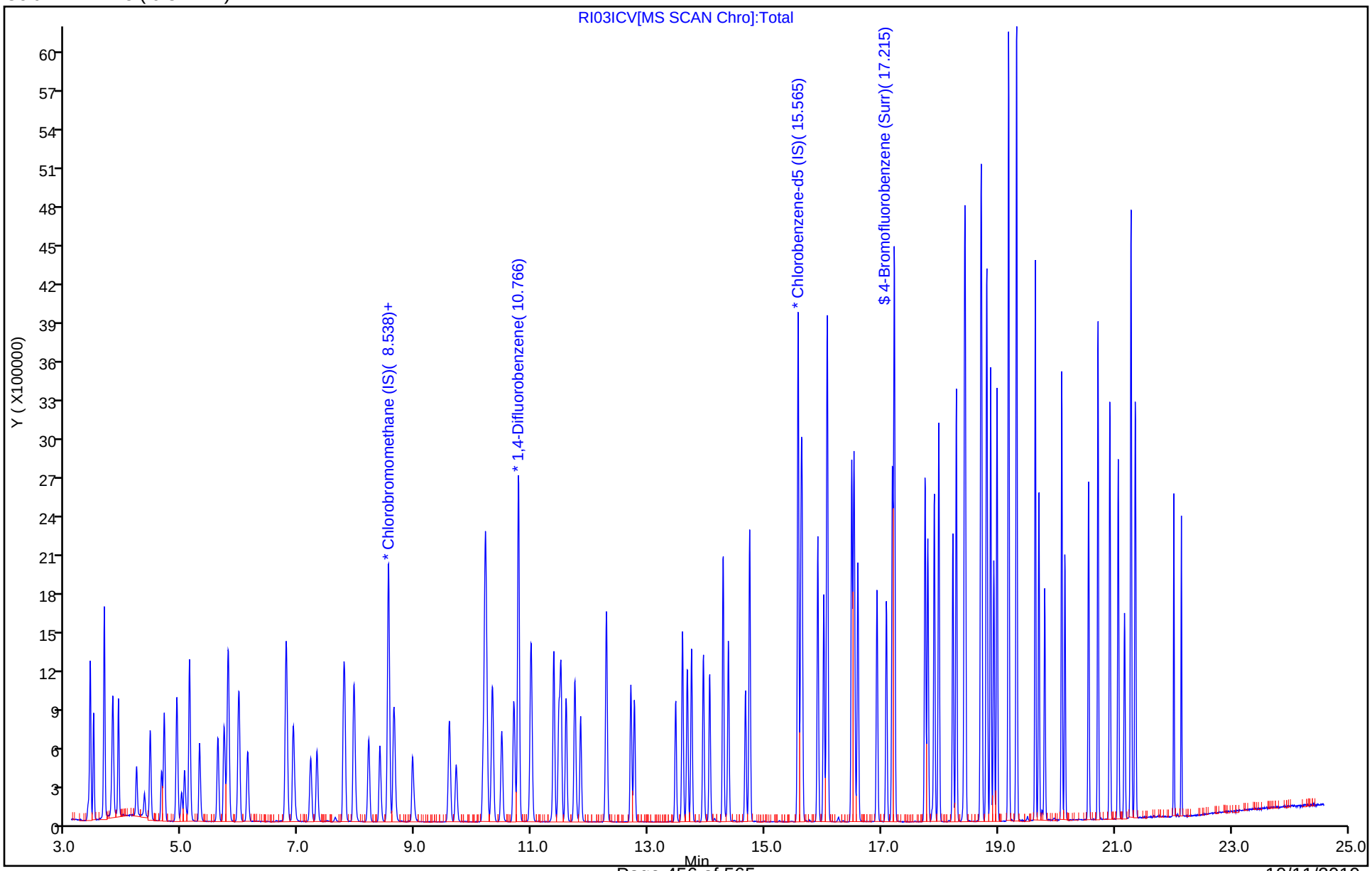
Report Date: 04-Sep-2019 17:40:38 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03ICV.D

Injection Date:	03-Sep-2019 23:14:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	18
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.376		1.79	2.00	-10.5	30.0
Propene	Ave	1.501	1.390		1.85	2.00	-7.4	30.0
Dichlorodifluoromethane	Ave	2.256	2.633		2.33	2.00	16.7	30.0
Chloromethane	Ave	0.4310	0.4225		1.96	2.00	-2.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.379		2.56	2.00	27.9	30.0
Acetaldehyde	Ave	0.5247	0.5919		11.3	10.0	12.8	30.0
Vinyl chloride	Ave	1.359	1.401		2.06	2.00	3.1	30.0
1,3-Butadiene	Ave	1.022	1.036		2.03	2.00	1.4	30.0
Butane	Ave	1.977	1.981		2.00	2.00	0.2	30.0
Bromomethane	Ave	1.344	1.287		1.92	2.00	-4.2	30.0
Chloroethane	Ave	0.5671	0.4910		1.73	2.00	-13.4	30.0
Ethanol	Ave	0.6120	0.5898		9.64	10.0	-3.6	30.0
Vinyl bromide	Ave	1.137	1.168		2.06	2.00	2.8	30.0
2-Methylbutane	Ave	1.548	1.250		1.61	2.00	-19.3	30.0
Trichlorofluoromethane	Ave	3.252	3.102		1.91	2.00	-4.6	30.0
Acrolein	Ave	0.3855	0.4153		2.16	2.00	7.8	30.0
Acetonitrile	Ave	0.5751	0.4658		1.62	2.00	-19.0	30.0
Acetone	Ave	0.6380	0.5749		5.41	6.00	-9.9	30.0
Isopropyl alcohol	Ave	1.868	1.581		5.08	6.00	-15.4	30.0
Pentane	Ave	0.2289	0.2181		1.91	2.00	-4.7	30.0
Ethyl ether	Ave	1.561	1.028		1.32	2.00	-34.2*	30.0
1,1-Dichloroethene	Ave	1.301	1.373		2.11	2.00	5.5	30.0
tert-Butyl alcohol	Ave	2.319	2.074		1.79	2.00	-10.6	30.0
Acrylonitrile	Ave	0.9589	0.9276		1.93	2.00	-3.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.835		2.06	2.00	3.1	30.0
Methylene Chloride	Ave	1.543	1.324		1.72	2.00	-14.2	30.0
3-Chloropropene	Ave	1.275	1.073		1.68	2.00	-15.9	30.0
Carbon disulfide	Ave	3.419	3.692		2.16	2.00	8.0	30.0
trans-1,2-Dichloroethene	Ave	1.401	1.387		1.98	2.00	-0.9	30.0
2-Methylpentane	Ave	3.306	2.510		1.52	2.00	-24.1	30.0
Methyl tert-butyl ether	Ave	3.370	2.953		1.75	2.00	-12.4	30.0
1,1-Dichloroethane	Ave	2.406	2.144		1.78	2.00	-10.9	30.0
Vinyl acetate	Ave	3.791	2.920		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.6748	0.5737		1.70	2.00	-15.0	30.0
Hexane	Ave	1.095	0.8949		1.63	2.00	-18.3	30.0
Isopropyl ether	Ave	5.017	3.742		1.49	2.00	-25.4	30.0
cis-1,2-Dichloroethene	Ave	1.454	1.464		2.01	2.00	0.7	30.0
Ethyl acetate	Ave	3.480	2.581		1.48	2.00	-25.8	30.0
Chloroform	Ave	2.898	2.482		1.71	2.00	-14.4	30.0
Tert-butyl ethyl ether	Ave	4.084	3.319		1.63	2.00	-18.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.271		1.47	2.00	-26.3	30.0
1,1,1-Trichloroethane	Ave	2.962	2.551		1.72	2.00	-13.9	30.0
1,2-Dichloroethane	Ave	0.3151	0.2554		1.62	2.00	-18.9	30.0
1-Butanol	Ave	0.1107	0.0691		1.25	2.00	-37.5*	30.0
Benzene	Ave	0.7714	0.6553		1.70	2.00	-15.1	30.0
Cyclohexane	Ave	0.1143	0.0883		1.55	2.00	-22.7	30.0
Carbon tetrachloride	Ave	0.5101	0.4798		1.88	2.00	-5.9	30.0
2,3-Dimethylpentane	Ave	0.1575	0.1479		1.88	2.00	-6.1	30.0
Thiophene	Ave	0.4003	0.3721		1.86	2.00	-7.1	30.0
2,2,4-Trimethylpentane	Ave	1.199	0.9737		1.62	2.00	-18.8	30.0
Heptane	Ave	0.2550	0.2126		1.67	2.00	-16.6	30.0
1,2-Dichloropropane	Ave	0.2780	0.2420		1.74	2.00	-12.9	30.0
Trichloroethene	Ave	0.3320	0.3010		1.81	2.00	-9.3	30.0
Dibromomethane	Ave	0.2957	0.2844		1.92	2.00	-3.8	30.0
Bromodichloromethane	Ave	0.4906	0.4215		1.72	2.00	-14.1	30.0
1,4-Dioxane	Ave	0.1118	0.1185		2.12	2.00	5.9	30.0
Methyl methacrylate	Ave	0.3404	0.2396		1.41	2.00	-29.6	30.0
Methylcyclohexane	Ave	0.4226	0.3810		1.80	2.00	-9.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.4675		1.48	2.00	-25.9	30.0
cis-1,3-Dichloropropene	Ave	0.3853	0.3584		1.86	2.00	-7.0	30.0
trans-1,3-Dichloropropene	Ave	0.4218	0.3874		1.84	2.00	-8.1	30.0
Toluene	Ave	0.9777	0.9588		1.96	2.00	-1.9	30.0
1,1,2-Trichloroethane	Ave	0.3059	0.3052		2.00	2.00	-0.2	30.0
2-Hexanone	Ave	0.3356	0.2972		1.77	2.00	-11.4	30.0
Octane	Ave	0.3027	0.2862		1.89	2.00	-5.4	30.0
Dibromochloromethane	Ave	0.6120	0.5634		1.84	2.00	-7.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5707		2.00	2.00	0.1	30.0
Tetrachloroethene	Ave	0.3936	0.3626		1.84	2.00	-7.9	30.0
Chlorobenzene	Ave	0.8282	0.8437		2.04	2.00	1.9	30.0
2,3-Dimethylheptane	Ave	1.121	0.8987		1.60	2.00	-19.8	30.0
Ethylbenzene	Ave	1.326	1.283		1.94	2.00	-3.2	30.0
m-Xylene & p-Xylene	Ave	1.019	0.999		3.92	4.00	-2.0	30.0
Nonane	Ave	0.6517	0.5943		1.82	2.00	-8.8	30.0
Bromoform	Ave	0.5593	0.4532		1.62	2.00	-19.0	30.0
Styrene	Ave	0.7149	0.7870		2.20	2.00	10.1	30.0
o-Xylene	Ave	1.034	1.051		2.03	2.00	1.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.9266		2.44	2.00	21.9	30.0
1,2,3-Trichloropropane	Ave	0.2394	0.2631		2.20	2.00	9.9	30.0
Isopropylbenzene	Ave	1.532	1.667		2.18	2.00	8.8	30.0
Propylbenzene	Ave	0.4084	0.4908		2.40	2.00	20.2	30.0
2-Chlorotoluene	Ave	0.3869	0.4639		2.40	2.00	19.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.762		2.26	2.00	13.2	30.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.6902		2.23	2.00	11.7	30.0
Alpha Methyl Styrene	Ave	0.5996	0.7164		2.39	2.00	19.5	30.0
Decane	Ave	0.8851	0.8983		2.03	2.00	1.5	30.0
tert-Butylbenzene	Ave	1.397	1.553		2.22	2.00	11.2	30.0
1,2,4-Trimethylbenzene	Ave	1.310	1.524		2.33	2.00	16.4	30.0
sec-Butylbenzene	Ave	2.029	2.295		2.26	2.00	13.1	30.0
1,3-Dichlorobenzene	Ave	0.9926	1.174		2.37	2.00	18.3	30.0
Benzyl chloride	Ave	0.9143	1.195		2.61	2.00	30.7*	30.0
1,4-Dichlorobenzene	Ave	0.9599	1.189		2.48	2.00	23.9	30.0
4-Isopropyltoluene	Ave	1.507	1.856		2.46	2.00	23.1	30.0
1,2,3-Trimethylbenzene	Ave	1.283	1.594		2.48	2.00	24.2	30.0
Butylcyclohexane	Ave	1.022	1.234		2.42	2.00	20.8	30.0
1,2-Dichlorobenzene	Ave	0.9404	1.181		2.51	2.00	25.5	30.0
Indane	Ave	1.268	1.521		2.40	2.00	19.9	30.0
Indene	Ave	1.098	1.368		2.49	2.00	24.5	30.0
Butylbenzene	Ave	1.596	1.951		2.45	2.00	22.3	30.0
Undecane	Ave	1.068	1.106		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.4391		2.33	2.00	16.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.822		2.49	2.00	24.5	30.0
Dodecane	Ave	1.091	1.033		1.89	2.00	-5.3	30.0
1,2,4-Trichlorobenzene	Ave	0.8883	1.141		2.57	2.00	28.4	30.0
Naphthalene	Ave	1.792	2.325		2.60	2.00	29.8	30.0
Hexachlorobutadiene	Ave	0.7749	0.8949		2.31	2.00	15.5	30.0
1,2,3-Trichlorobenzene	Ave	0.9026	1.022		2.27	2.00	13.3	30.0
2-Methylnaphthalene	Ave	0.7349	0.2796		0.761	2.00	-62.0*	50.0
1-Methylnaphthalene	Ave	0.6749	0.2589		0.767	2.00	-61.6*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.6272		4.24	4.00	6.1	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RCCVJ03.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Oct-2019 09:54:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013261-002
Misc. Info.: P96
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Oct-2019 11:18:08 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0331

First Level Reviewer: tajh Date: 04-Oct-2019 11:17:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.522	0.000	91	317552	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.749	0.000	93	1834746	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.554	0.000	85	1448340	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.215	0.000	96	908349	4.00	4.24	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	97	377262	2.00	1.79	
7 Propene	41	3.432	3.432	0.000	97	220699	2.00	1.85	
8 Dichlorodifluoromethane	85	3.480	3.480	0.000	100	418016	2.00	2.33	
9 Chloromethane	52	3.658	3.658	0.000	98	67086	2.00	1.96	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.664	0.000	88	377717	2.00	2.56	
11 Acetaldehyde	44	3.804	3.804	0.000	99	469880	10.0	11.3	
12 Vinyl chloride	62	3.820	3.820	0.000	99	222386	2.00	2.06	
13 Butadiene	54	3.901	3.901	0.000	69	164533	2.00	2.03	
14 Butane	43	3.901	3.901	0.000	85	314570	2.00	2.00	
15 Bromomethane	94	4.214	4.214	0.000	94	204410	2.00	1.92	
16 Chloroethane	64	4.349	4.349	0.000	94	77955	2.00	1.73	
17 Ethanol	31	4.440	4.440	0.000	98	468223	10.0	9.64	
18 Vinyl bromide	106	4.640	4.640	0.000	97	185457	2.00	2.06	
19 2-Methylbutane	43	4.683	4.683	0.000	89	198397	2.00	1.61	
21 Trichlorofluoromethane	101	4.899	4.899	0.000	97	492470	2.00	1.91	
20 Acrolein	56	4.909	4.909	0.000	27	65946	2.00	2.16	
24 Acetonitrile	40	4.985	4.985	0.000	100	73954	2.00	1.62	
22 Acetone	58	5.023	5.023	0.000	96	273823	6.00	5.41	
23 Isopropyl alcohol	45	5.103	5.103	0.000	92	753231	6.00	5.08	
25 Pentane	72	5.120	5.120	0.000	96	34635	2.00	1.91	
26 Ethyl ether	31	5.287	5.287	0.000	89	163162	2.00	1.32	
27 1,1-Dichloroethene	96	5.600	5.600	0.000	96	217937	2.00	2.11	
29 2-Methyl-2-propanol	59	5.697	5.697	0.000	94	329242	2.00	1.79	
28 Acrylonitrile	53	5.707	5.707	0.000	95	147282	2.00	1.93	
30 1,1,2-Trichloro-1,2,2-trif	101	5.772	5.772	0.000	97	450092	2.00	2.06	
31 Methylene Chloride	84	5.950	5.950	0.000	95	210265	2.00	1.72	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.961	5.961	0.000	96	170312	2.00	1.68	
33 Carbon disulfide	76	6.106	6.106	0.000	100	586263	2.00	2.16	
34 trans-1,2-Dichloroethene	96	6.759	6.759	0.000	94	220300	2.00	1.98	
35 2-Methylpentane	43	6.780	6.780	0.000	94	398488	2.00	1.52	
36 Methyl tert-butyl ether	73	6.888	6.888	0.000	96	468789	2.00	1.75	
37 1,1-Dichloroethane	63	7.185	7.185	0.000	100	340348	2.00	1.78	
38 Vinyl acetate	43	7.293	7.293	0.000	99	463638	2.00	1.54	
39 2-Butanone (MEK)	72	7.746	7.746	0.000	97	91095	2.00	1.70	
40 Hexane	56	7.762	7.762	0.000	93	142086	2.00	1.63	
41 Isopropyl ether	45	7.929	7.929	0.000	95	594081	2.00	1.49	
42 cis-1,2-Dichloroethene	96	8.183	8.183	0.000	85	232434	2.00	2.01	
43 Ethyl acetate	43	8.371	8.371	0.000	99	409763	2.00	1.48	
44 Chloroform	83	8.528	8.528	0.000	96	394021	2.00	1.71	
45 Tert-butyl ethyl ether	59	8.614	8.614	0.000	95	526949	2.00	1.63	
46 Tetrahydrofuran	42	8.937	8.937	0.000	95	201877	2.00	1.47	
47 1,1,1-Trichloroethane	97	9.563	9.563	0.000	94	405110	2.00	1.72	
48 1,2-Dichloroethane	62	9.682	9.682	0.000	95	234305	2.00	1.62	
50 n-Butanol	31	10.140	10.140	0.000	79	63422	2.00	1.25	
51 Cyclohexane	69	10.178	10.178	0.000	63	80998	2.00	1.55	
49 Benzene	78	10.178	10.178	0.000	94	601145	2.00	1.70	
52 Carbon tetrachloride	117	10.205	10.205	0.000	96	440187	2.00	1.88	
53 2,3-Dimethylpentane	71	10.302	10.302	0.000	90	135692	2.00	1.88	
54 Thiophene	84	10.458	10.458	0.000	93	341339	2.00	1.86	
55 Isooctane	57	10.965	10.965	0.000	98	893203	2.00	1.62	
57 n-Heptane	71	11.359	11.359	0.000	90	195028	2.00	1.67	
56 1,2-Dichloropropane	63	11.445	11.445	0.000	91	222031	2.00	1.74	
58 Trichloroethene	130	11.477	11.477	0.000	95	276088	2.00	1.81	
59 Dibromomethane	93	11.569	11.569	0.000	93	260932	2.00	1.92	
60 Dichlorobromomethane	83	11.715	11.715	0.000	98	386695	2.00	1.72	
61 1,4-Dioxane	88	11.725	11.725	0.000	39	108689	2.00	2.12	
62 Methyl methacrylate	41	11.817	11.817	0.000	96	219824	2.00	1.41	
63 Methylcyclohexane	83	12.259	12.259	0.000	95	349517	2.00	1.80	
64 4-Methyl-2-pentanone (MIBK	43	12.680	12.680	0.000	96	428892	2.00	1.48	
65 cis-1,3-Dichloropropene	75	12.739	12.739	0.000	94	328746	2.00	1.86	
66 trans-1,3-Dichloropropene	75	13.451	13.451	0.000	97	280555	2.00	1.84	
67 Toluene	91	13.569	13.569	0.000	93	694333	2.00	1.96	
68 1,1,2-Trichloroethane	83	13.650	13.650	0.000	95	221042	2.00	2.00	
69 2-Hexanone	58	14.033	14.033	0.000	93	215239	2.00	1.77	
71 n-Octane	85	14.270	14.270	0.000	91	207259	2.00	1.89	
70 Chlorodibromomethane	129	14.357	14.357	0.000	97	408020	2.00	1.84	
72 Ethylene Dibromide	107	14.648	14.648	0.000	97	413252	2.00	2.00	
73 Tetrachloroethene	129	14.723	14.723	0.000	95	262562	2.00	1.84	
74 Chlorobenzene	112	15.602	15.602	0.000	98	610947	2.00	2.04	
75 2,3-Dimethylheptane	43	15.624	15.624	0.000	95	650794	2.00	1.60	
76 Ethylbenzene	91	15.894	15.894	0.000	97	929017	2.00	1.94	
77 m-Xylene & p-Xylene	91	16.050	16.050	0.000	96	1446405	4.00	3.92	
81 n-Nonane	57	16.476	16.476	0.000	91	430396	2.00	1.82	
78 Bromoform	173	16.508	16.508	0.000	95	328167	2.00	1.62	
79 Styrene	104	16.519	16.519	0.000	97	569942	2.00	2.20	
80 o-Xylene	91	16.578	16.578	0.000	99	761027	2.00	2.03	
82 1,1,2,2-Tetrachloroethane	83	16.913	16.913	0.000	99	670990	2.00	2.44	
83 1,2,3-Trichloropropane	110	17.080	17.080	0.000	96	190508	2.00	2.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.182	0.000	94	1207090	2.00	2.18	
85 N-Propylbenzene	120	17.743	17.743	0.000	100	355409	2.00	2.40	
86 2-Chlorotoluene	126	17.792	17.792	0.000	96	335923	2.00	2.40	
88 4-Ethyltoluene	105	17.900	17.900	0.000	100	1276216	2.00	2.26	
87 1,3,5-Trimethylbenzene	120	17.980	17.980	0.000	93	499795	2.00	2.23	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	93	518812	2.00	2.39	
90 n-Decane	57	18.282	18.282	0.000	91	650497	2.00	2.03	
91 tert-Butylbenzene	119	18.423	18.423	0.000	95	1124857	2.00	2.22	
92 1,2,4-Trimethylbenzene	105	18.433	18.433	0.000	96	1103679	2.00	2.33	
94 sec-Butylbenzene	105	18.698	18.698	0.000	99	1661873	2.00	2.26	
93 1,3-Dichlorobenzene	146	18.714	18.714	0.000	95	850022	2.00	2.37	
96 Benzyl chloride	91	18.795	18.795	0.000	99	865366	2.00	2.61	
95 1,4-Dichlorobenzene	146	18.805	18.805	0.000	98	861182	2.00	2.48	
97 4-Isopropyltoluene	119	18.870	18.870	0.000	97	1344349	2.00	2.46	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	97	1154500	2.00	2.48	
99 Butylcyclohexane	83	18.978	18.978	0.000	98	893700	2.00	2.42	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	85	854901	2.00	2.51	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	94	1101160	2.00	2.40	
102 Indene	116	19.307	19.307	0.000	92	990355	2.00	2.49	
103 n-Butylbenzene	91	19.312	19.312	0.000	98	1412928	2.00	2.45	
104 Undecane	57	19.636	19.636	0.000	95	801233	2.00	2.07	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	94	317992	2.00	2.33	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	98	1319277	2.00	2.49	
107 Dodecane	57	20.709	20.709	0.000	96	747813	2.00	1.89	
108 1,2,4-Trichlorobenzene	180	20.909	20.909	0.000	93	826066	2.00	2.57	
109 Naphthalene	128	21.054	21.054	0.000	100	1683778	2.00	2.60	
110 Hexachlorobutadiene	225	21.275	21.275	0.000	94	648079	2.00	2.31	
111 1,2,3-Trichlorobenzene	180	21.345	21.345	0.000	96	740438	2.00	2.27	
112 2-Methylnaphthalene	142	22.009	22.009	0.000	98	202460	2.00	0.7608	
113 1-Methylnaphthalene	142	22.138	22.138	0.000	96	187481	2.00	0.7672	
A 115 C8 Range	1	14.265	(14.222-14.308)		0	1853216	2.00	1.51	
S 116 Xylenes, Total	100				0		6.00	5.95	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.00	

Reagents:

40CV101P_00096	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

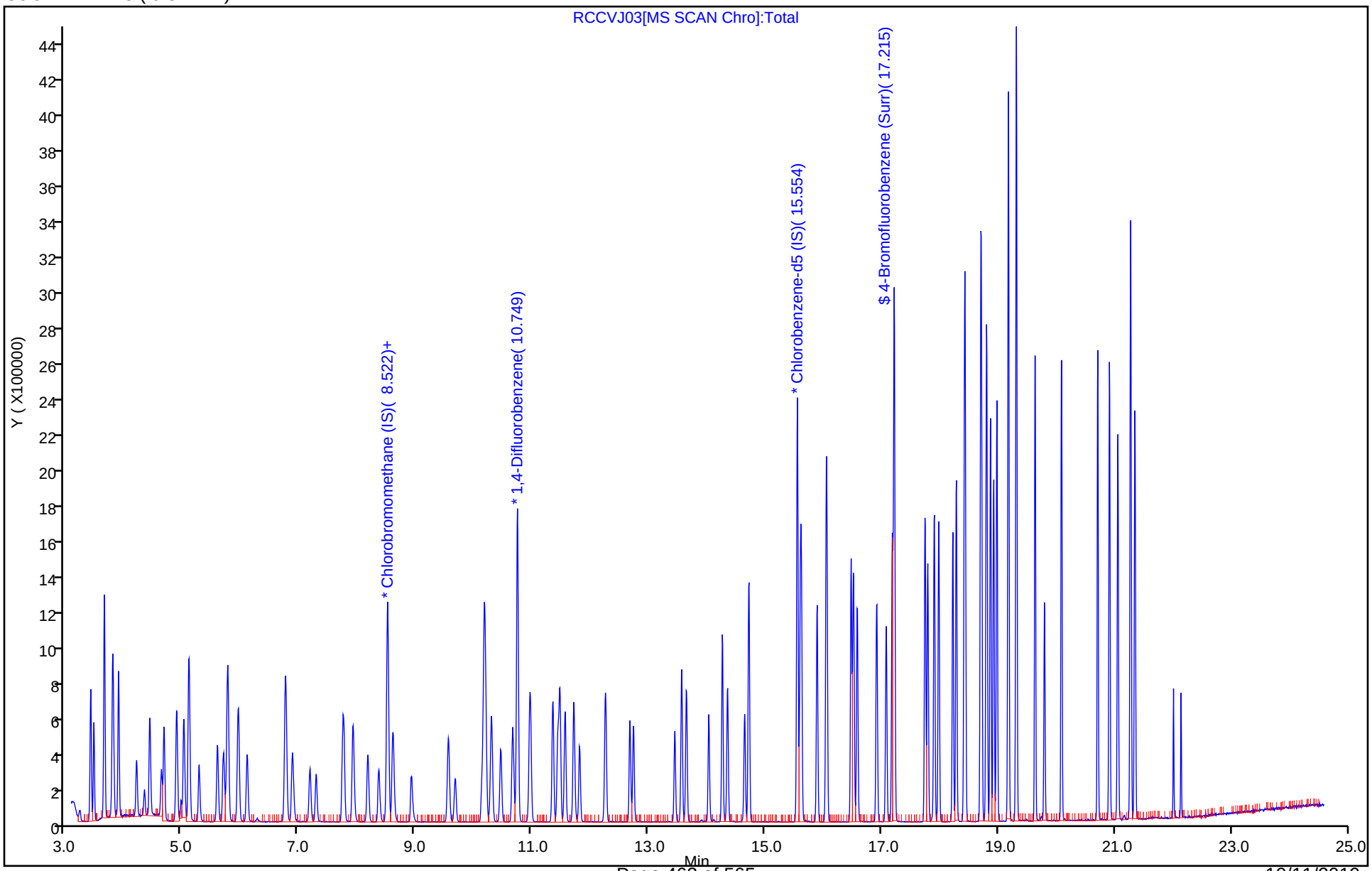
Report Date: 04-Oct-2019 11:18:10 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RCCVJ03.D

Injection Date:	03-Oct-2019 09:54:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GBFBI06IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	06-Sep-2019 11:35:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012979-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	09-Sep-2019 18:31:46	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.246	5.246	0.000	0	900584	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

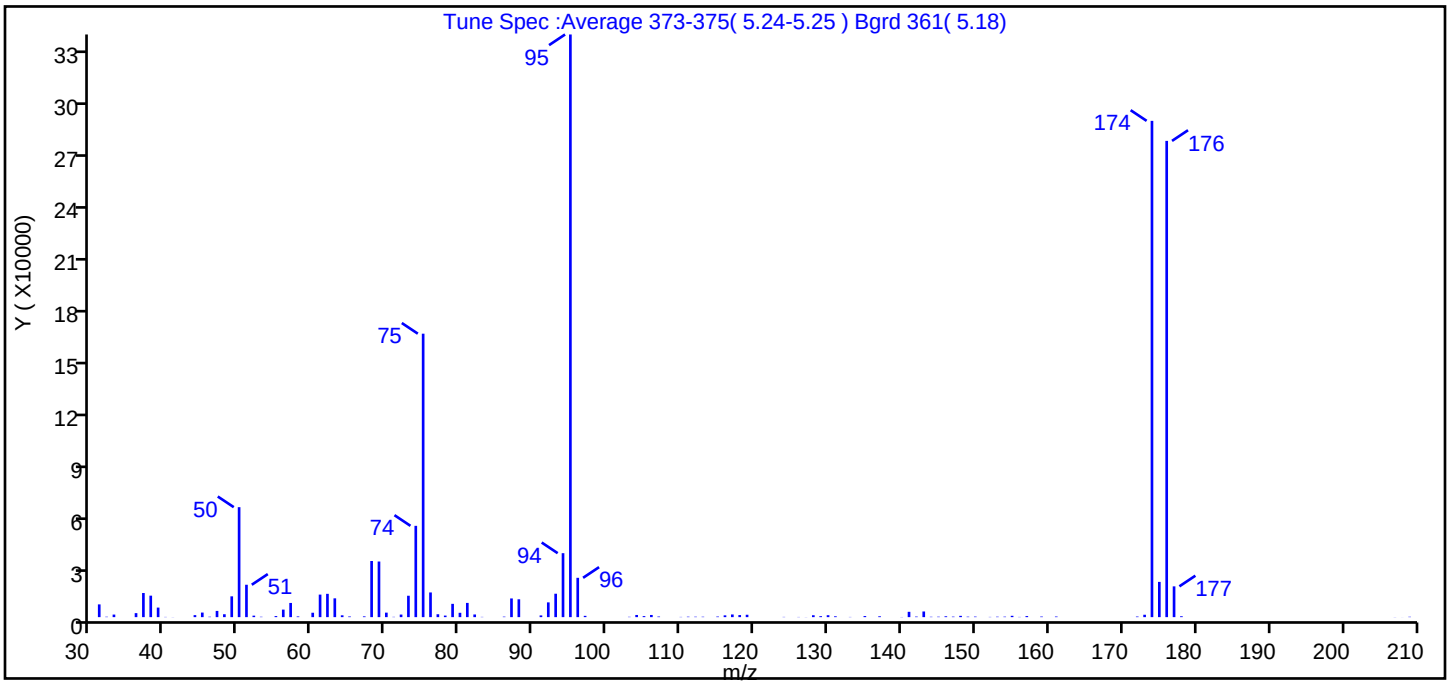
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GBFBI06IC.D
Injection Date: 06-Sep-2019 11:35:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.9
75	30 to 60% of m/z 95	48.6
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	85.2
175	5 to 9% of m/z 174	6.1 (7.1)
176	Greater than 95% but less than 101% of m/z 174	81.7 (96.0)
177	5 to 9% of m/z 176	5.3 (6.5)

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GBFBI06IC.D\MG_TO15.rslt\spectra.d
Injection Date: 06-Sep-2019 11:35:30
Spectrum: Tune Spec :Average 373-375(5.24-5.25) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	7418	65.00	386	103.00	191	144.00	215
32.00	239	67.00	442	104.00	1265	145.00	255
33.00	1499	68.00	32656	105.00	596	146.00	496
36.00	2334	69.00	32352	106.00	1265	147.00	297
37.00	14033	70.00	2619	107.00	342	148.00	757
38.00	12494	71.00	166	110.00	134	149.00	277
39.00	5558	72.00	1501	111.00	264	150.00	314
40.00	131	73.00	12451	112.00	251	152.00	135
41.00	55	74.00	53104	113.00	241	153.00	261
44.00	1169	75.00	164864	115.00	346	154.00	281
45.00	2662	76.00	14362	116.00	1042	155.00	779
46.00	238	77.00	1682	117.00	1555	156.00	129
47.00	3621	78.00	906	118.00	1212	157.00	619
48.00	1690	79.00	7735	119.00	1388	159.00	340
49.00	12104	80.00	2530	124.00	140	161.00	357
50.00	63960	81.00	8275	126.00	112	172.00	351
51.00	18840	82.00	1553	127.00	55	173.00	1391
52.00	869	83.00	148	128.00	1107	174.00	288640
53.00	217	86.00	287	129.00	557	175.00	20504
55.00	624	87.00	10877	130.00	1123	176.00	276992
56.00	4385	88.00	10384	131.00	491	177.00	17904
57.00	8257	91.00	1001	133.00	119	178.00	507
58.00	409	92.00	8588	135.00	631	207.00	61
60.00	2568	93.00	13622	137.00	494	208.00	26
61.00	13112	94.00	37200	140.00	90	209.00	214
62.00	13557	95.00	338880	141.00	3101		
63.00	10937	96.00	22872	142.00	328		
64.00	1066	97.00	759	143.00	3296		

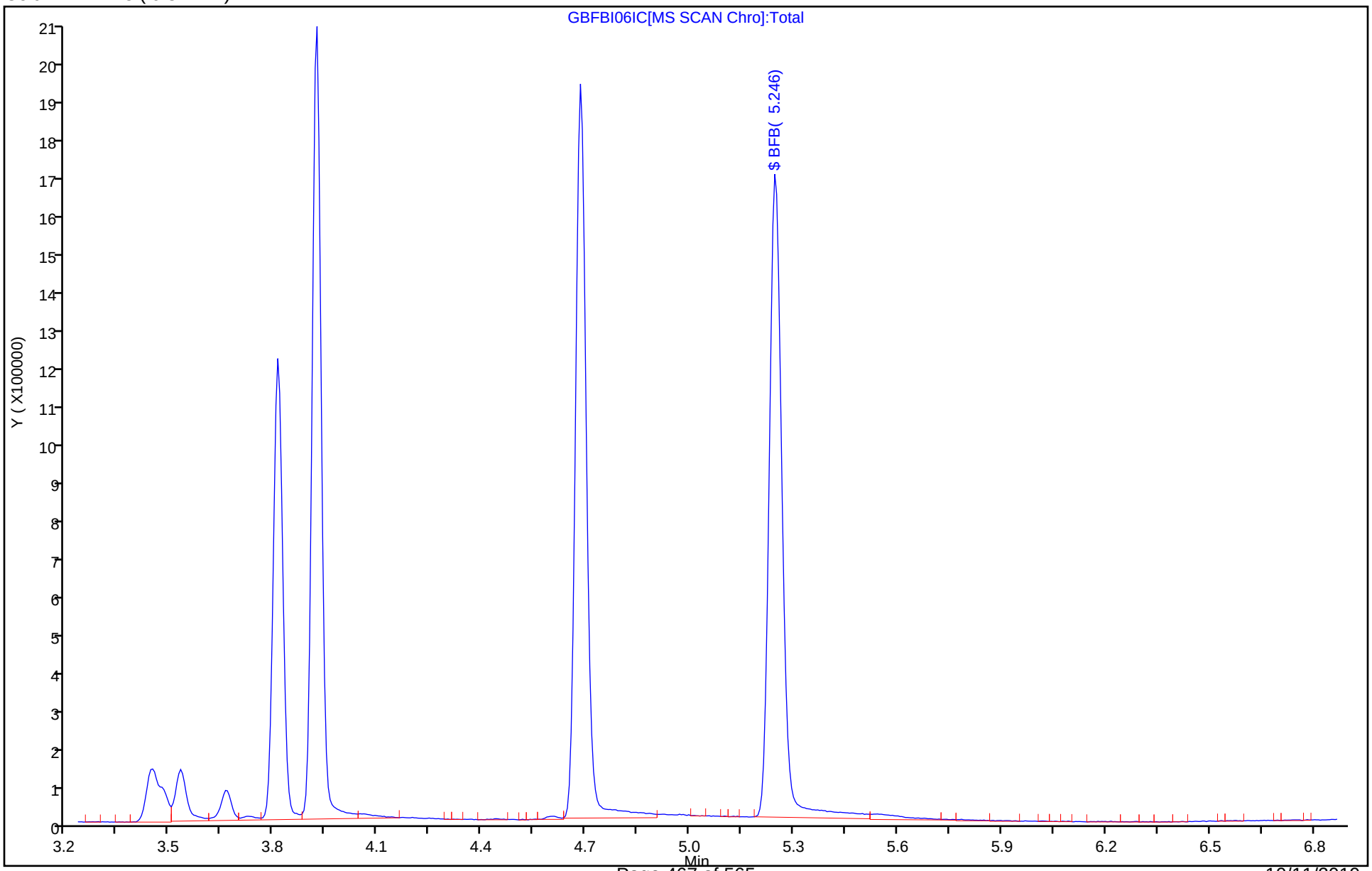
Report Date: 09-Sep-2019 18:31:46 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GBFBI06IC.D

Injection Date:	06-Sep-2019 11:35:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GBFBJ09.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	09-Oct-2019 10:42:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:05:03	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				
First Level Reviewer: khachitpongpanits		Date:	10-Oct-2019 10:05:03		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.203	5.203	0.000	0	873967	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

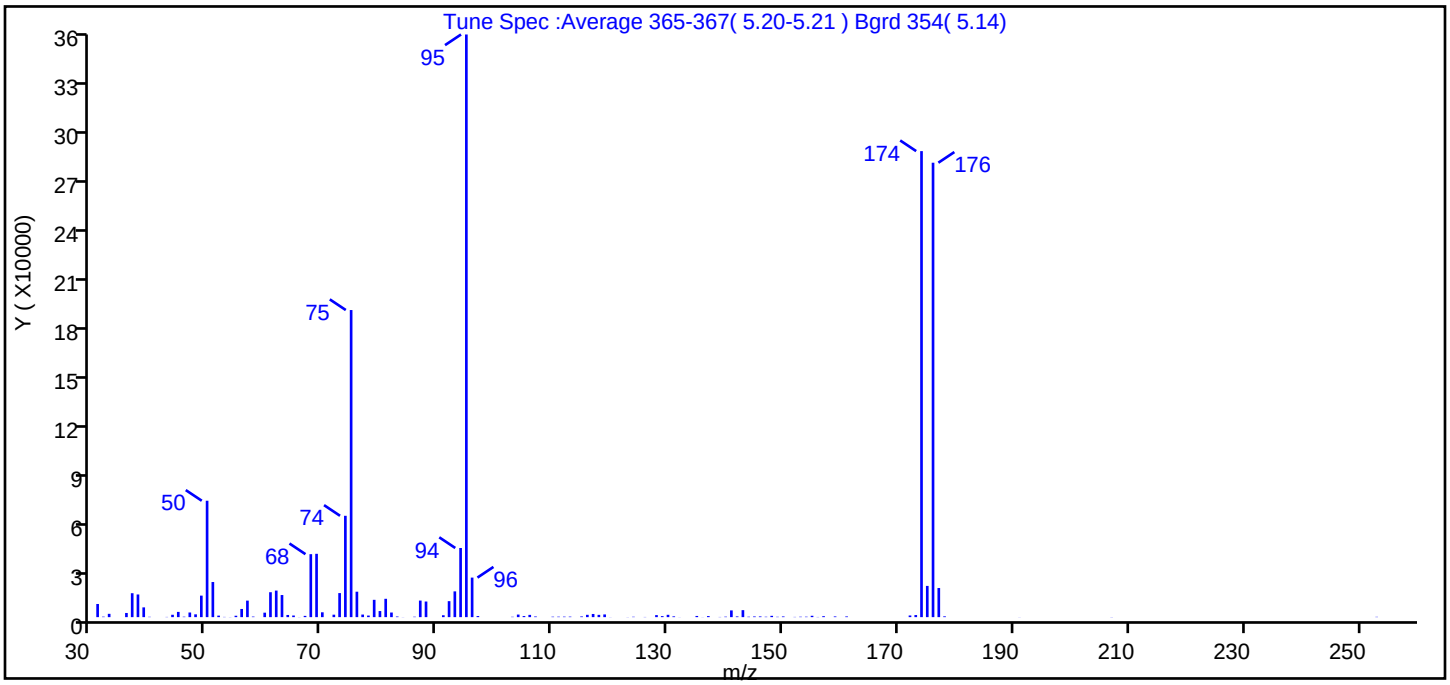
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GBFBJ09.D
Injection Date: 09-Oct-2019 10:42:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.0
75	30 to 60% of m/z 95	52.7
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	80.0
175	5 to 9% of m/z 174	5.4 (6.7)
176	Greater than 95% but less than 101% of m/z 174	78.0 (97.5)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GBFBJ09.D\MG_TO15.rslt\spectra.d
Injection Date: 09-Oct-2019 10:42:30
Spectrum: Tune Spec :Average 365-367(5.20-5.21) Bgrd 354(5.14)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	7986	65.00	987	103.00	221	142.00	431
32.00	288	66.00	63	104.00	1563	143.00	4244
33.00	2013	67.00	770	105.00	655	144.00	257
36.00	2530	68.00	38216	106.00	1378	145.00	413
37.00	14523	69.00	38432	107.00	398	146.00	430
38.00	13759	70.00	2941	110.00	270	147.00	248
39.00	5926	72.00	1498	111.00	284	148.00	800
40.00	200	73.00	14599	112.00	301	149.00	211
43.00	131	74.00	61504	113.00	316	150.00	417
44.00	1441	75.00	186368	115.00	426	152.00	140
45.00	3186	76.00	15441	116.00	1412	153.00	256
46.00	269	77.00	1569	117.00	1926	154.00	270
47.00	2814	78.00	964	118.00	1390	155.00	829
48.00	1702	79.00	10513	119.00	1643	156.00	110
49.00	13059	80.00	3694	120.00	58	157.00	572
50.00	70640	81.00	11135	123.00	66	159.00	430
51.00	21312	82.00	2806	124.00	230	161.00	433
52.00	924	83.00	382	126.00	114	172.00	1003
53.00	139	84.00	58	128.00	1229	173.00	1263
54.00	73	86.00	249	129.00	611	174.00	282816
55.00	850	87.00	10059	130.00	1419	175.00	18952
56.00	4966	88.00	9486	131.00	477	176.00	275776
57.00	10028	91.00	1146	132.00	50	177.00	17672
58.00	336	92.00	9702	135.00	720	178.00	479
60.00	2715	93.00	15637	136.00	53	191.00	56
61.00	15127	94.00	41968	137.00	639	207.00	86
62.00	16116	95.00	353600	139.00	117	253.00	187
63.00	13417	96.00	24000	140.00	287		
64.00	1321	97.00	652	141.00	4093		

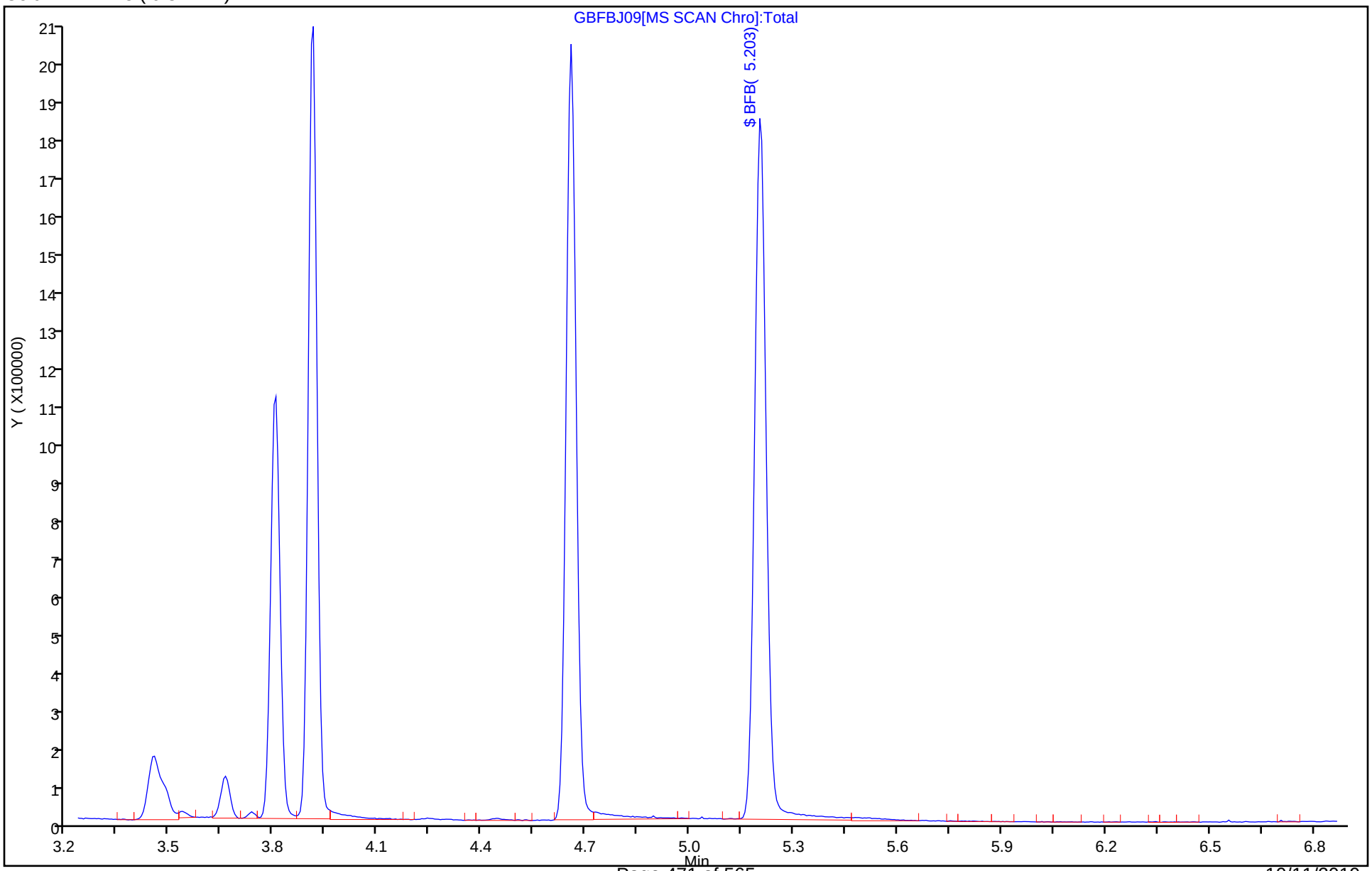
Report Date: 10-Oct-2019 10:05:04 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GBFBJ09.D

Injection Date:	09-Oct-2019 10:42:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HBFBI24.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	24-Sep-2019 20:48:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013112-001				
Misc. Info.:	BFB				
Operator ID:	AFB	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	25-Sep-2019 16:12:58	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	4.508	4.508	0.000	0	1083905	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

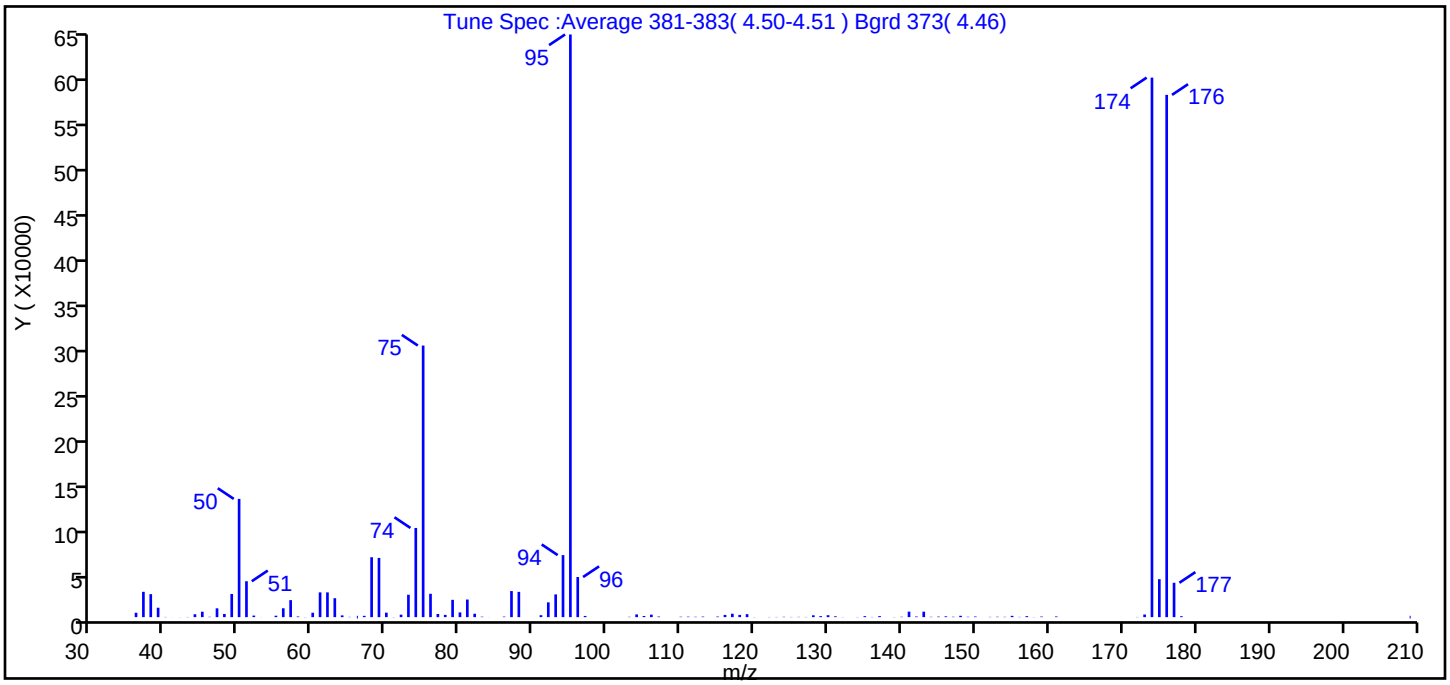
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HBFBI24.D
Injection Date: 24-Sep-2019 20:48:30 Instrument ID: MH
Lims ID: BFB
Client ID:
Operator ID: AFB ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.3
75	30 to 60% of m/z 95	46.6
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	92.6
175	5 to 9% of m/z 174	6.5 (7.0)
176	Greater than 95% but less than 101% of m/z 174	89.6 (96.8)
177	5 to 9% of m/z 176	5.9 (6.6)

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HBFBI24.D\MH_TO15.rslt\spectra.d
Injection Date: 24-Sep-2019 20:48:30
Spectrum: Tune Spec :Average 381-383(4.50-4.51) Bgrd 373(4.46)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4837	67.00	1437	105.00	1249	141.00	6042
37.00	27840	68.00	65840	106.00	2732	142.00	683
38.00	25288	69.00	65056	107.00	637	143.00	6021
39.00	10327	70.00	4928	110.00	458	144.00	355
40.00	224	71.00	159	111.00	532	145.00	583
41.00	50	72.00	2722	112.00	400	146.00	873
42.00	91	73.00	24624	113.00	598	147.00	426
43.00	194	74.00	98024	115.00	641	148.00	1499
44.00	3174	75.00	298496	116.00	2448	149.00	387
45.00	5972	76.00	25672	117.00	3764	150.00	676
46.00	367	77.00	3461	118.00	2452	152.00	290
47.00	9699	78.00	2493	119.00	3298	153.00	439
48.00	3481	79.00	19032	120.00	162	154.00	322
49.00	25504	80.00	5198	122.00	193	155.00	1434
50.00	129960	81.00	19360	123.00	214	156.00	249
51.00	39464	82.00	3746	124.00	382	157.00	1091
52.00	1725	83.00	482	125.00	211	158.00	137
53.00	66	84.00	48	126.00	282	159.00	627
55.00	1579	86.00	575	127.00	211	161.00	748
56.00	9759	87.00	28672	128.00	2016	172.00	208
57.00	18696	88.00	27792	129.00	1101	173.00	2905
58.00	726	91.00	2136	130.00	2131	174.00	592960
59.00	157	92.00	16258	131.00	905	175.00	41704
60.00	4864	93.00	24992	132.00	130	176.00	574016
61.00	27216	94.00	68184	134.00	192	177.00	37776
62.00	27224	95.00	640384	135.00	1085	178.00	1006
63.00	20832	96.00	44104	136.00	195	208.00	35
64.00	1912	97.00	1323	137.00	1130	209.00	1
65.00	280	103.00	354	139.00	166		
66.00	1	104.00	3010	140.00	398		

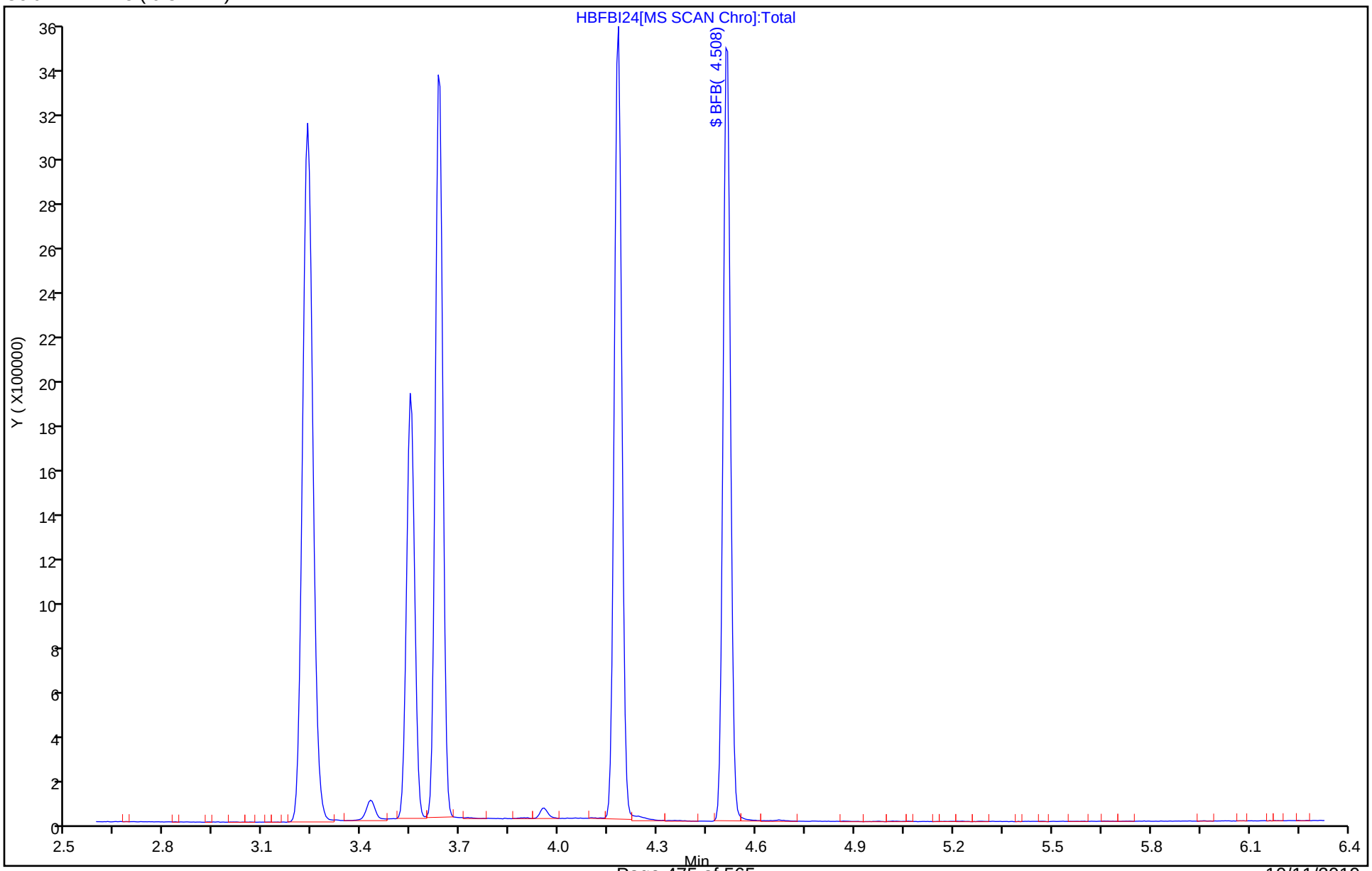
Report Date: 25-Sep-2019 16:12:59 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HBFBI24.D

Injection Date:	24-Sep-2019 20:48:30	Instrument ID:	MH	Operator ID:	AFB
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08BFBA.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Oct-2019 10:57:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-001				
Misc. Info.:	TUNE				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Oct-2019 16:44:01	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: barlozhetskayaa		Date:	08-Oct-2019 16:44:01		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	4.503	4.503	0.000	0	561327	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

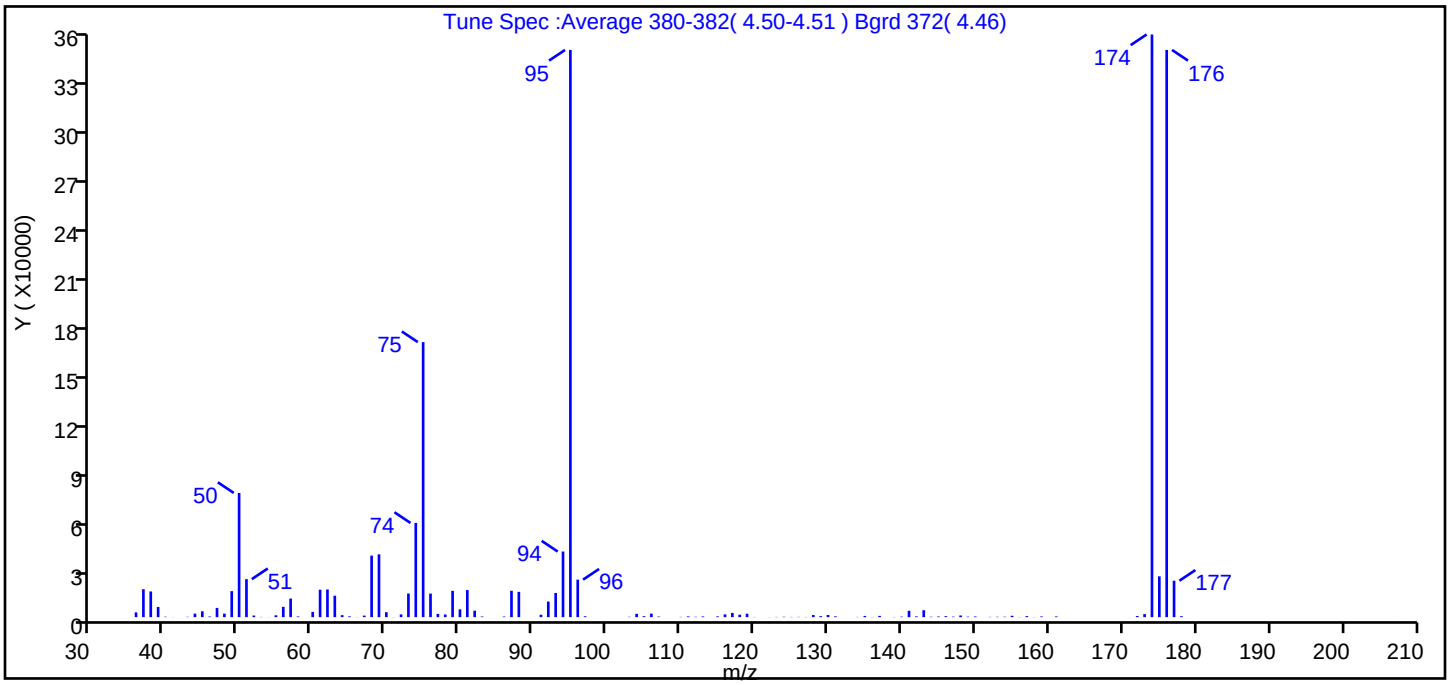
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08BFBA.D
Injection Date: 08-Oct-2019 10:57:30 Instrument ID: MH
Lims ID: BFB
Client ID:
Operator ID: afb ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.9
75	30 to 60% of m/z 95	48.5
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	102.7
175	5 to 9% of m/z 174	7.2 (7.0)
176	Greater than 95% but less than 101% of m/z 174	100.0 (97.3)
177	5 to 9% of m/z 176	6.4 (6.4)

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08BFBA.D\MH_TO15.rslt\spectra.d
Injection Date: 08-Oct-2019 10:57:30
Spectrum: Tune Spec :Average 380-382(4.50-4.51) Bgrd 372(4.46)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 115

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2944	67.00	948	105.00	600	141.00	3931
37.00	17216	68.00	37936	106.00	2155	142.00	480
38.00	15837	69.00	38728	107.00	344	143.00	4268
39.00	6266	70.00	3029	110.00	164	144.00	257
40.00	263	71.00	75	111.00	467	145.00	405
41.00	51	72.00	1707	112.00	217	146.00	593
43.00	204	73.00	14578	113.00	437	147.00	308
44.00	2154	74.00	58096	115.00	470	148.00	1033
45.00	3618	75.00	169600	116.00	1718	149.00	286
46.00	384	76.00	14545	117.00	2587	150.00	408
47.00	5691	77.00	2020	118.00	1496	152.00	170
48.00	2155	78.00	1626	119.00	2112	153.00	227
49.00	16034	79.00	16218	120.00	103	154.00	261
50.00	76584	80.00	4831	122.00	78	155.00	852
51.00	23432	81.00	16704	123.00	147	156.00	96
52.00	993	82.00	3963	124.00	247	157.00	642
53.00	130	83.00	401	125.00	139	158.00	86
54.00	60	86.00	373	126.00	164	159.00	432
55.00	1160	87.00	16268	127.00	121	161.00	453
56.00	6351	88.00	15588	128.00	1293	171.00	30
57.00	11444	91.00	1476	129.00	602	172.00	682
58.00	428	92.00	9616	130.00	1317	173.00	1872
60.00	3221	93.00	14907	131.00	503	174.00	359296
61.00	16896	94.00	40456	134.00	128	175.00	25160
62.00	17064	95.00	349760	135.00	747	176.00	349760
63.00	13228	96.00	23128	136.00	101	177.00	22456
64.00	1222	97.00	534	137.00	782	178.00	588
65.00	481	103.00	214	139.00	103	207.00	23
66.00	77	104.00	2050	140.00	287		

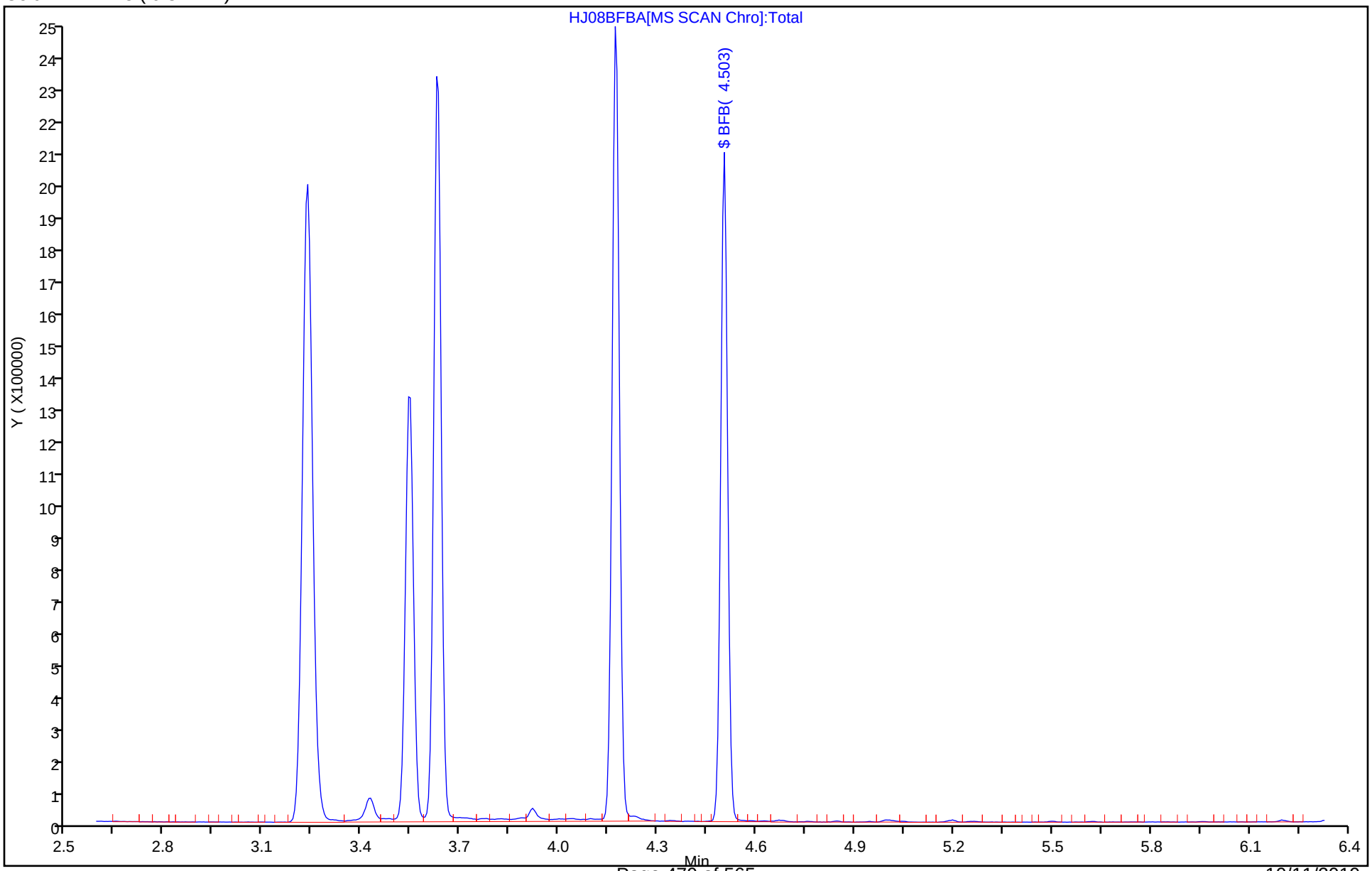
Report Date: 08-Oct-2019 16:44:02 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08BFBA.D

Injection Date:	08-Oct-2019 10:57:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Sep-2019 09:57:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012931-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Sep-2019 17:33:36	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.118	6.118	0.000	0	1258439	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

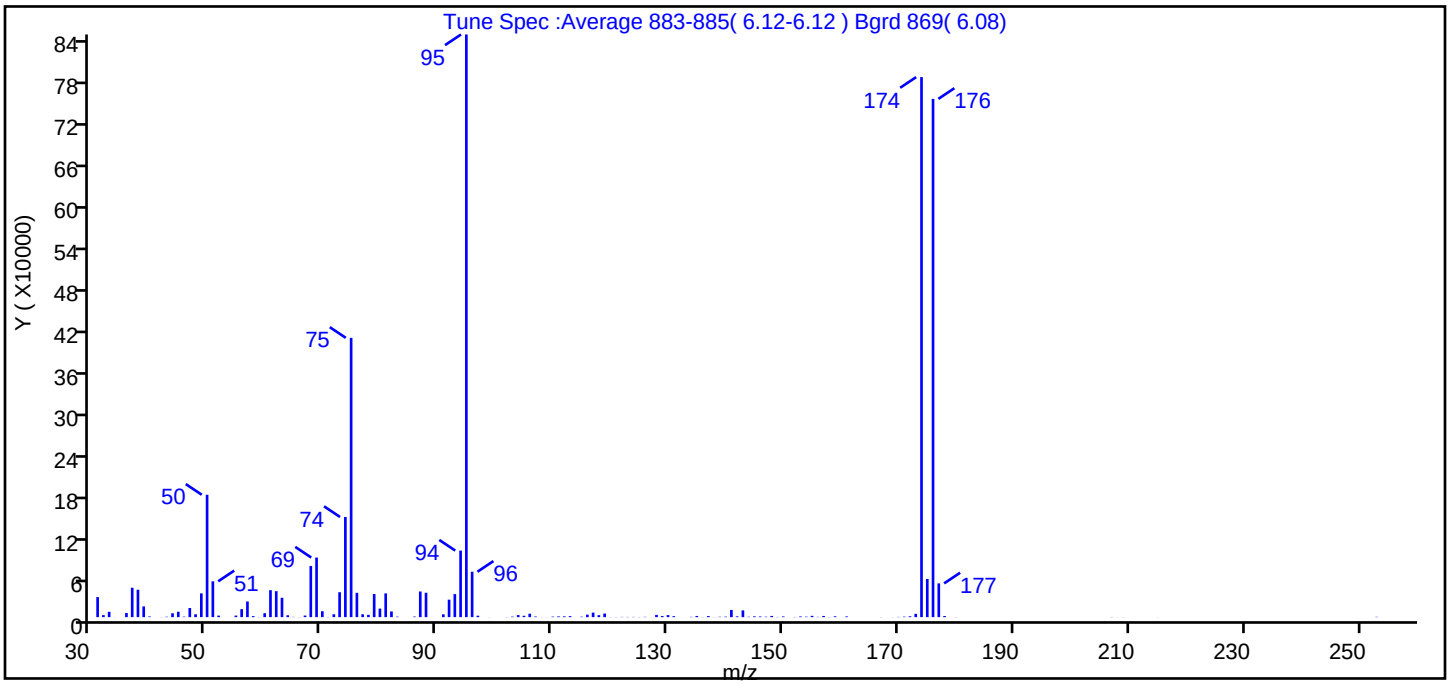
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D
Injection Date: 03-Sep-2019 09:57:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	47.9
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.6 (0.6)
174	50 to 120% of m/z 95	92.7
175	5 to 9% of m/z 174	6.5 (7.1)
176	Greater than 95% but less than 101% of m/z 174	88.9 (96.0)
177	5 to 9% of m/z 176	5.8 (6.5)

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D\MR_TO15.rslt\spectra.d
Injection Date: 03-Sep-2019 09:57:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 869(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	12	69.00	86720	111.00	1055	147.00	627
31.00	29176	70.00	8634	112.00	1128	148.00	1759
32.00	2911	71.00	261	113.00	1439	149.00	272
33.00	7757	72.00	4132	115.00	654	150.00	1009
34.00	98	73.00	36256	116.00	3621	151.00	60
36.00	6050	74.00	145728	117.00	6599	152.00	281
37.00	42800	75.00	406400	118.00	2850	153.00	990
38.00	39880	76.00	35384	119.00	5234	154.00	697
39.00	15650	77.00	4139	120.00	198	155.00	1872
40.00	951	78.00	3378	121.00	235	156.00	379
42.00	145	79.00	33600	122.00	351	157.00	1712
43.00	608	80.00	12462	123.00	323	158.00	211
44.00	5623	81.00	34584	124.00	336	159.00	1215
45.00	7855	82.00	8300	125.00	258	161.00	1029
46.00	684	83.00	703	126.00	447	167.00	169
47.00	13270	86.00	825	127.00	34	168.00	45
48.00	4173	87.00	37312	128.00	3278	169.00	113
49.00	34592	88.00	35496	129.00	1588	170.00	345
50.00	178112	91.00	4102	130.00	2953	171.00	690
51.00	52136	92.00	25424	131.00	1379	172.00	1203
52.00	2230	93.00	33552	132.00	42	173.00	4795
55.00	2263	94.00	96832	133.00	30	174.00	785792
56.00	11626	95.00	847808	134.00	451	175.00	55528
57.00	22760	96.00	66064	135.00	1715	176.00	754112
58.00	1519	97.00	2092	136.00	177	177.00	49112
59.00	247	99.00	113	137.00	1562	178.00	1653
60.00	5743	102.00	224	138.00	149	180.00	165
61.00	39264	103.00	729	139.00	562	207.00	247
62.00	37784	104.00	3019	140.00	728	208.00	126
63.00	28200	105.00	1957	141.00	10450	209.00	128
64.00	2715	106.00	4977	142.00	1123	215.00	97
65.00	374	107.00	912	143.00	9826	253.00	446
66.00	189	108.00	64	144.00	529		

Report Date: 04-Sep-2019 17:33:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36
Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D\MR_TO15.rslt\spectra.d
Injection Date: 03-Sep-2019 09:57:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 869(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
67.00	2315	109.00	64	145.00	1144		
68.00	74432	110.00	747	146.00	946		

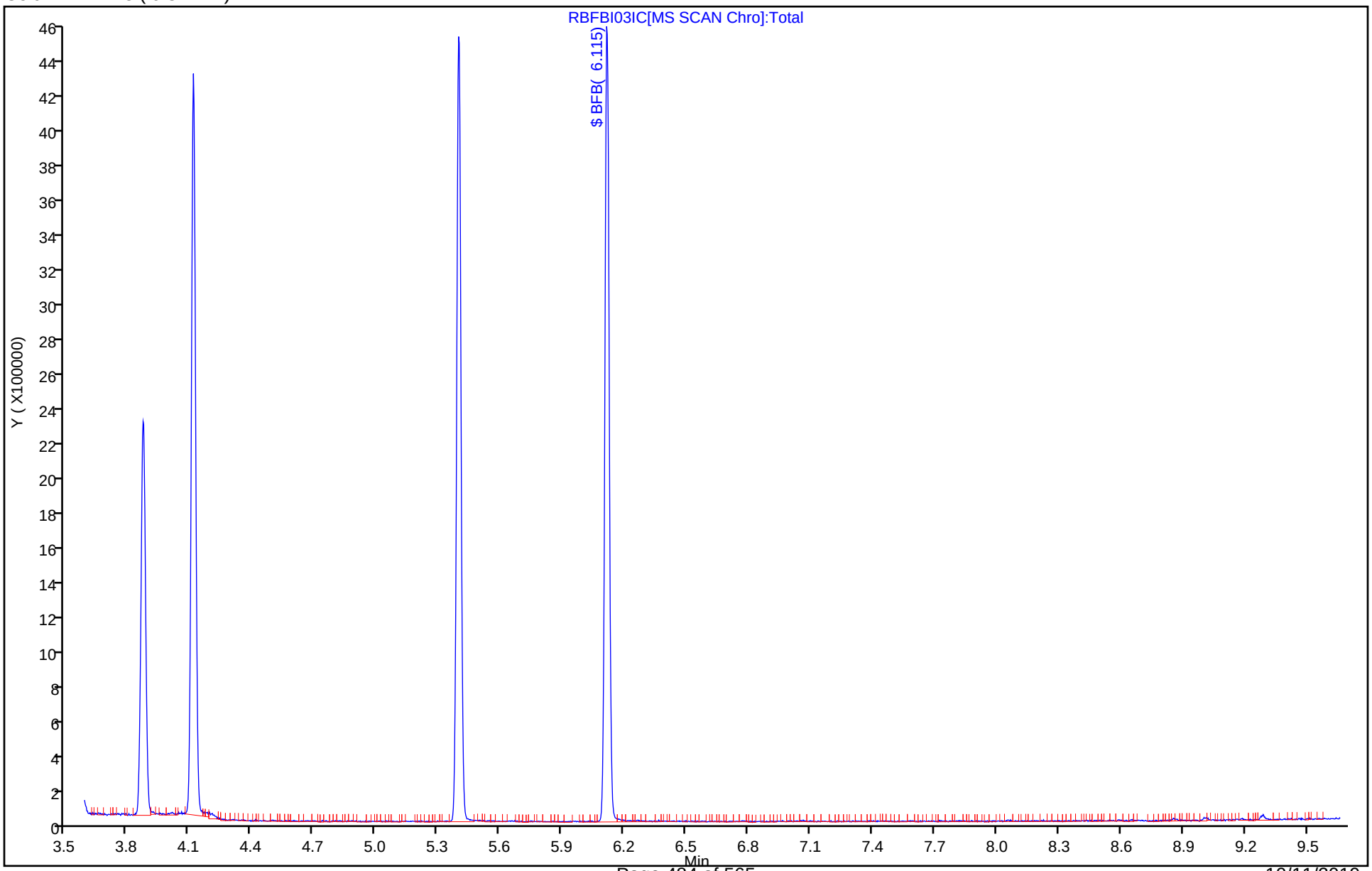
Report Date: 04-Sep-2019 17:33:38 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D

Injection Date:	03-Sep-2019 09:57:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\RBFBJ03.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Oct-2019 09:26:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013261-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Oct-2019 11:18:05	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0331				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.107	6.107	0.000	0	773037	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

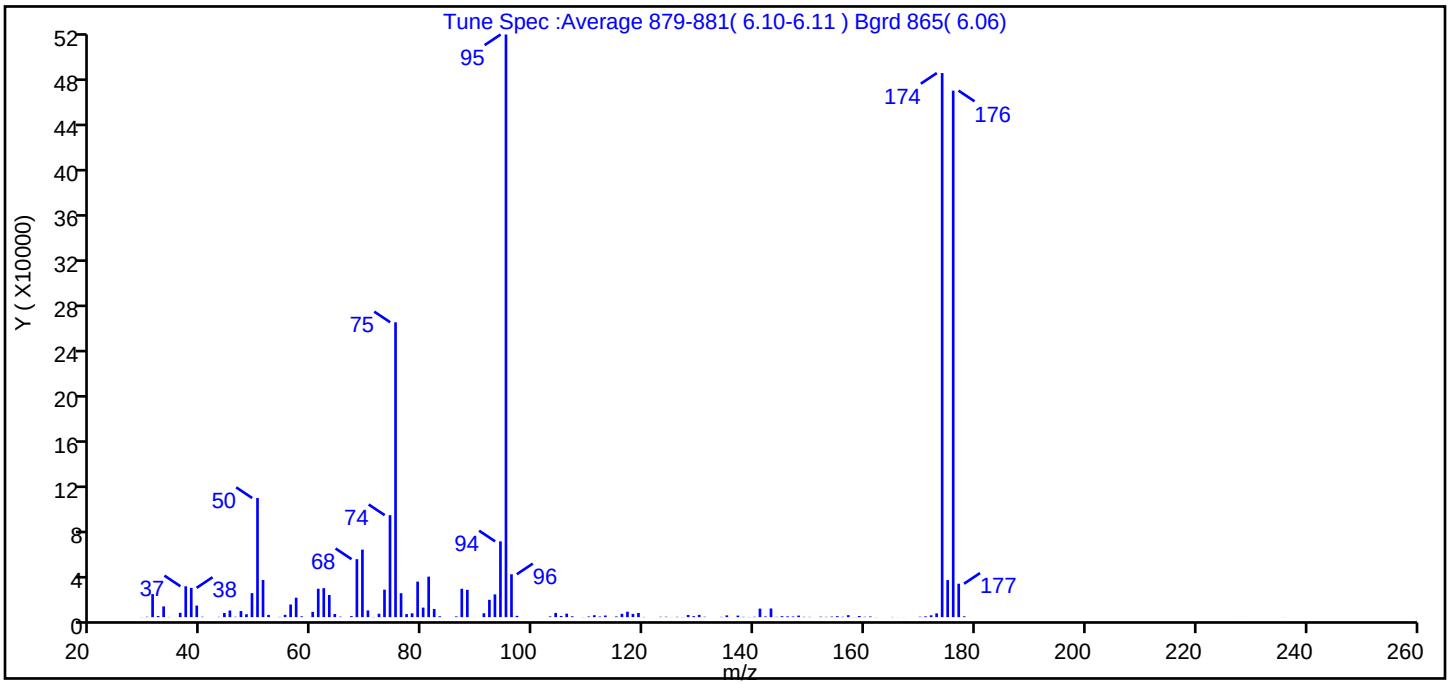
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RBFBJ03.D
Injection Date: 03-Oct-2019 09:26:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.4
75	30 to 60% of m/z 95	50.6
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	93.4
175	5 to 9% of m/z 174	6.4 (6.8)
176	Greater than 95% but less than 101% of m/z 174	90.4 (96.8)
177	5 to 9% of m/z 176	5.7 (6.3)

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RBFBJ03.D\MR_TO15.rslt\spectra.d
Injection Date: 03-Oct-2019 09:26:30
Spectrum: Tune Spec :Average 879-881(6.10-6.11) Bgrd 865(6.06)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 127

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	111	67.00	888	107.00	758	146.00	686
30.00	346	68.00	51480	109.00	112	147.00	570
31.00	20488	69.00	59936	110.00	588	148.00	1378
32.00	983	70.00	5968	111.00	1715	149.00	285
33.00	9547	71.00	179	112.00	524	150.00	234
34.00	186	72.00	3044	113.00	1440	152.00	395
36.00	3845	73.00	24408	115.00	617	153.00	275
37.00	27416	74.00	90552	116.00	2989	154.00	483
38.00	25984	75.00	261824	117.00	4825	155.00	866
39.00	10297	76.00	21240	118.00	2887	156.00	330
40.00	334	77.00	2701	119.00	3698	157.00	1745
43.00	248	78.00	3403	120.00	197	158.00	100
44.00	3706	79.00	31560	123.00	321	159.00	1007
45.00	5928	80.00	8468	124.00	367	160.00	305
46.00	323	81.00	35976	125.00	95	161.00	576
47.00	5410	82.00	7250	126.00	283	162.00	111
48.00	2573	83.00	754	127.00	147	165.00	169
49.00	21296	86.00	664	128.00	1925	166.00	45
50.00	105776	87.00	25192	129.00	889	167.00	73
51.00	32968	88.00	24232	130.00	2024	170.00	380
52.00	1980	89.00	43	131.00	331	171.00	700
54.00	201	91.00	3440	134.00	252	172.00	1633
55.00	2095	92.00	15399	135.00	1592	173.00	3354
56.00	11243	93.00	20216	137.00	1380	174.00	483136
57.00	17272	94.00	67296	138.00	263	175.00	32936
58.00	695	95.00	517376	139.00	148	176.00	467520
60.00	4710	96.00	38080	140.00	321	177.00	29680
61.00	25240	97.00	1158	141.00	7568	178.00	751
62.00	25768	103.00	654	142.00	627	228.00	38
63.00	19688	104.00	3784	143.00	7696	236.00	74
64.00	2802	105.00	1043	144.00	261	260.00	41
65.00	416	106.00	3104	145.00	855		

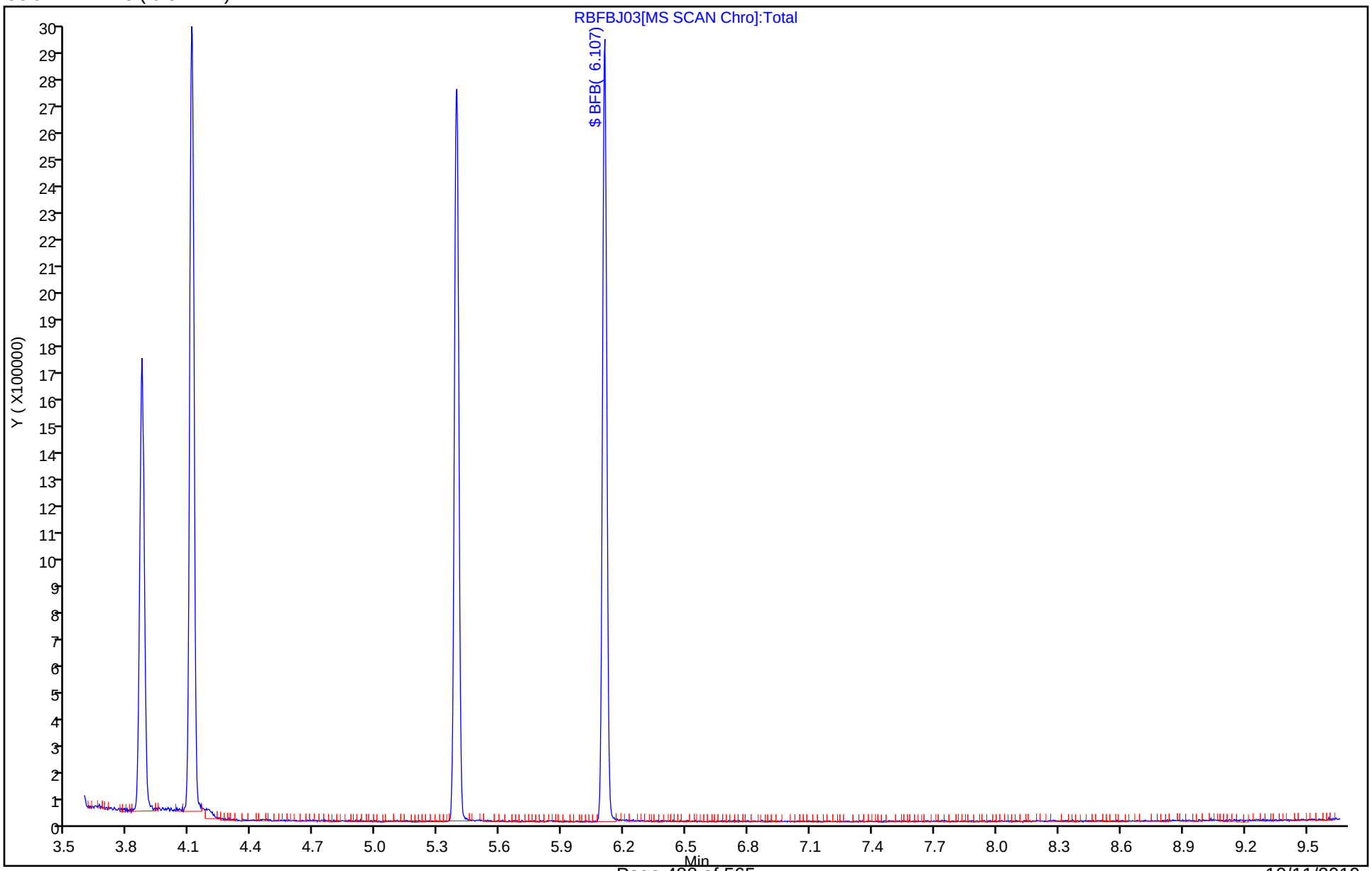
Report Date: 04-Oct-2019 11:18:05 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RBFBJ03.D

Injection Date:	03-Oct-2019 09:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.208	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.724	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\R500BJ03.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-Oct-2019 13:07:30 ALS Bottle#: 16 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013261-005
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Oct-2019 11:18:08 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0331

First Level Reviewer: tajh Date: 04-Oct-2019 09:48:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.517	8.522	-0.005	89	355321	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.749	0.000	93	1932990	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.554	0.000	85	1453188	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.215	0.000	96	839842	4.00	3.91	
7 Propene	41	3.432	3.432	0.000	97	46980		0.3524	7
31 Methylene Chloride	84	5.955	5.950	0.005	90	28583		0.2085	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

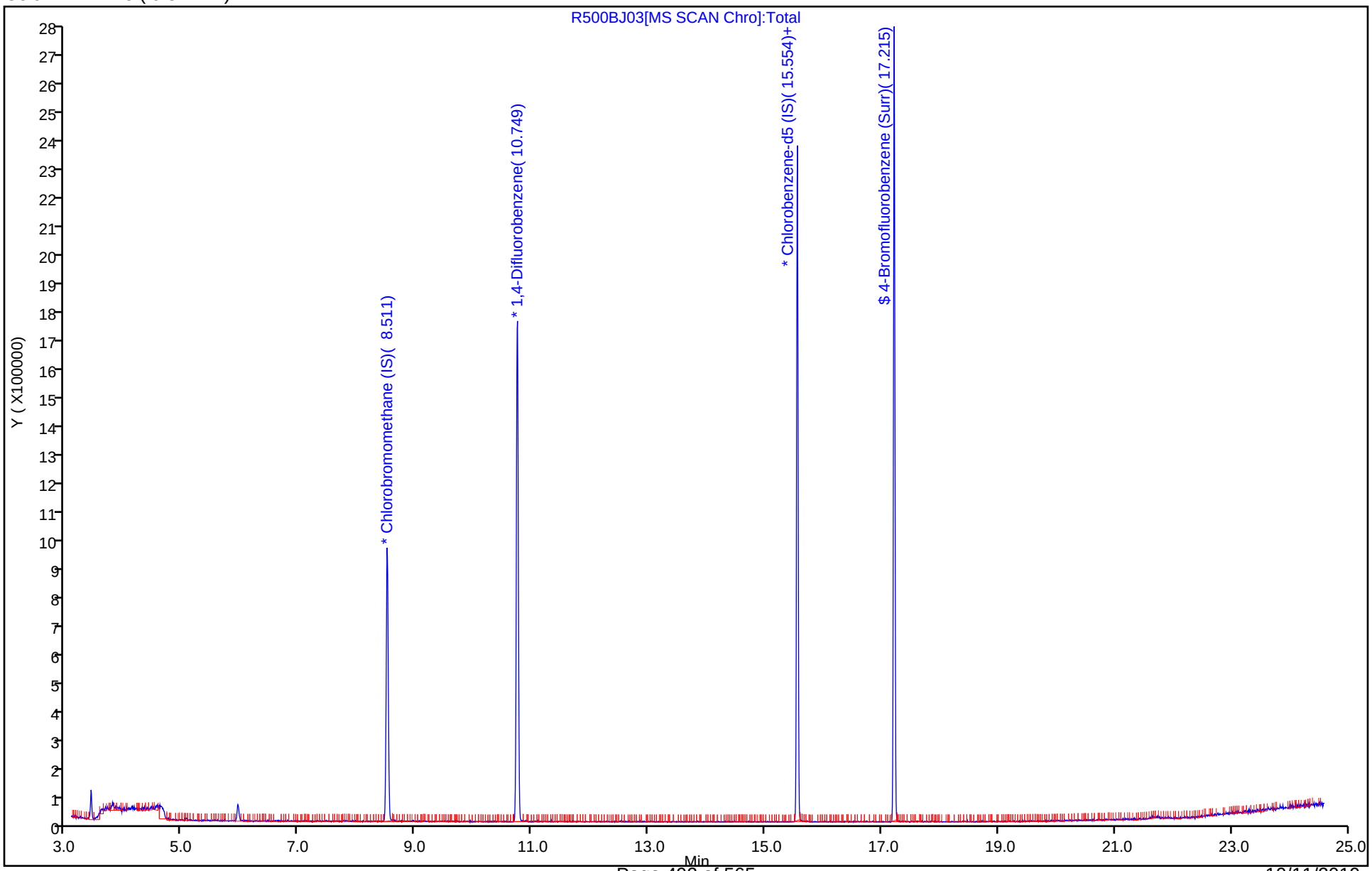
Report Date: 04-Oct-2019 11:18:34 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\R500BJ03.D

Injection Date:	03-Oct-2019 13:07:30	Instrument ID:	MR	Operator ID:	
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\R500BJ03.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	03-Oct-2019 13:07:30	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013261-005				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Oct-2019 11:18:08	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0331				

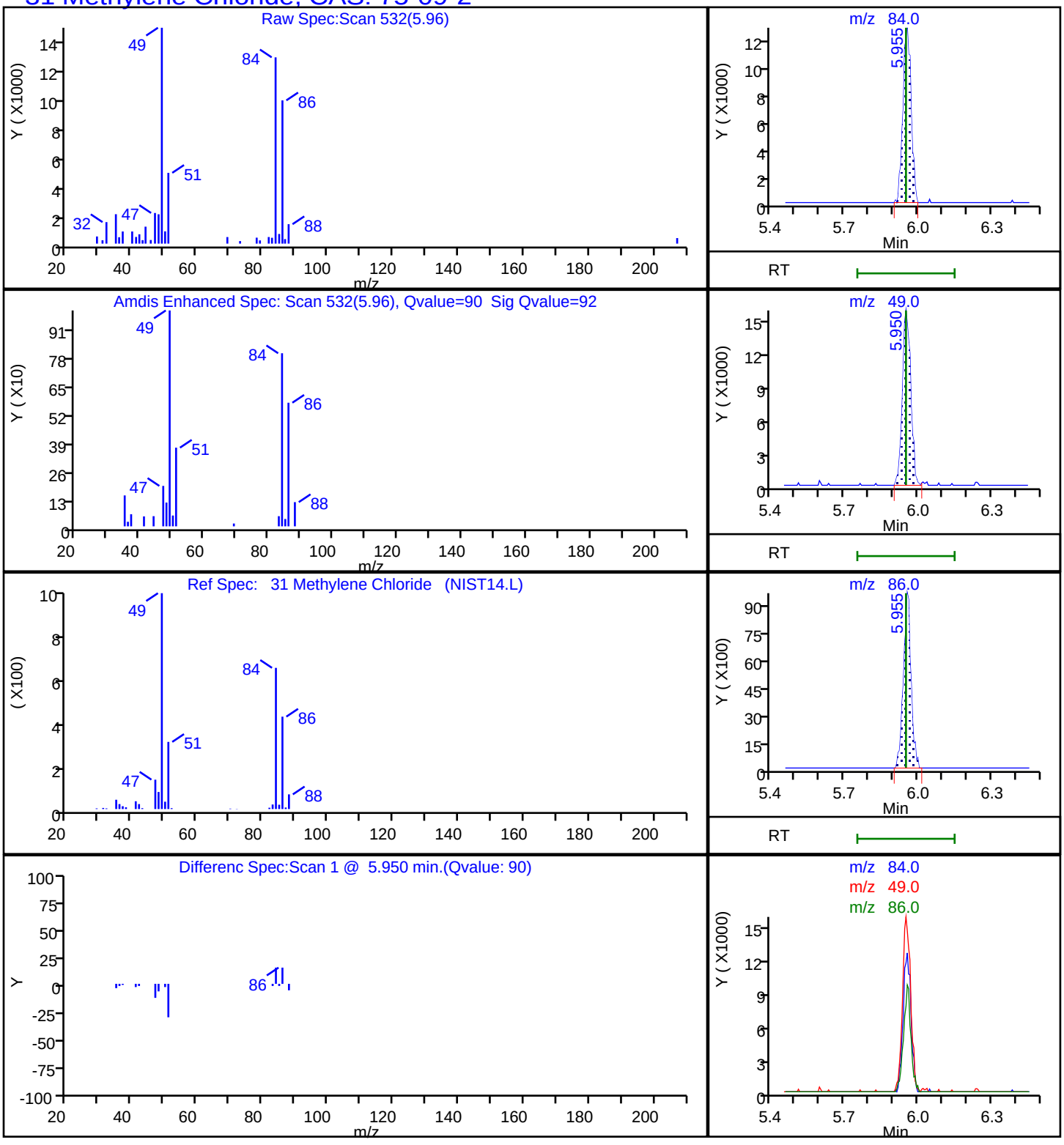
First Level Reviewer: tajh Date: 04-Oct-2019 09:48:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.91	97.78

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\R500BJ03.D
Injection Date: 03-Oct-2019 13:07:30 Instrument ID: MR
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.192	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.666	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08mb500.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2019 13:54:30 ALS Bottle#: 15 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-004
Misc. Info.: 10257
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Oct-2019 19:48:30 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: barlozhetskayaa Date: 08-Oct-2019 16:41:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.598	8.604	-0.006	98	211459	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.805	10.811	-0.005	95	1098093	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	829172	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.240	17.260	-0.021	96	474669	4.00	3.63	
7 Propene	41	3.544	3.542	0.000	97	29894		0.3672	7
31 Methylene Chloride	84	6.061	6.057	0.000	96	20169		0.1917	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

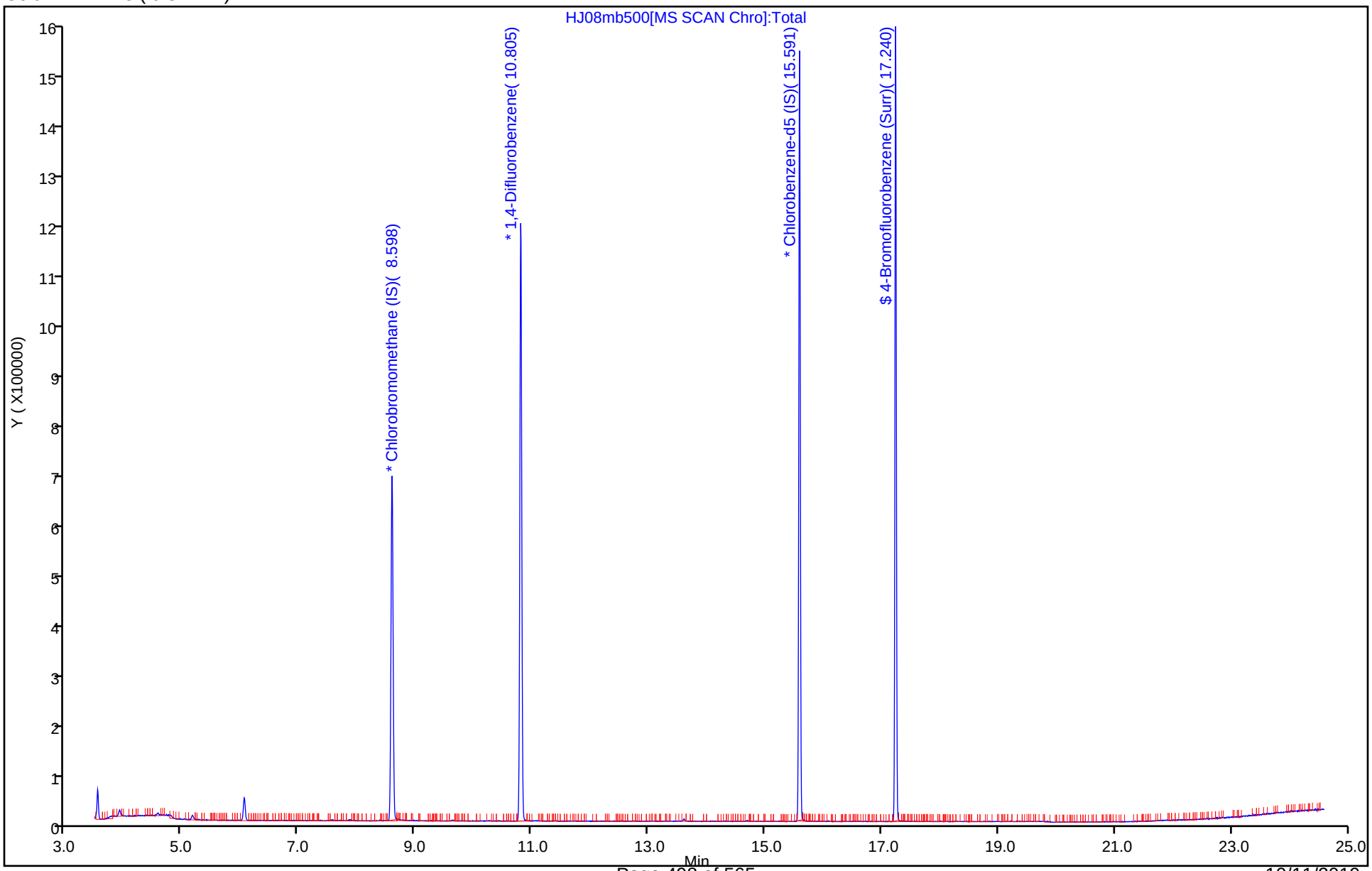
Report Date: 09-Oct-2019 09:45:09 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08mb500.D

Injection Date:	08-Oct-2019 13:54:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08mb500.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	08-Oct-2019 13:54:30	ALS Bottle#:	15	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-004				
Misc. Info.:	10257				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Oct-2019 19:48:30	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0328				

First Level Reviewer: barlozhetskayaa Date: 08-Oct-2019 16:41:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.63	90.73

Report Date: 09-Oct-2019 09:45:10 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08mb500.D

Injection Date: 08-Oct-2019 13:54:30 Instrument ID: MH

Lims ID: MB

Client ID:

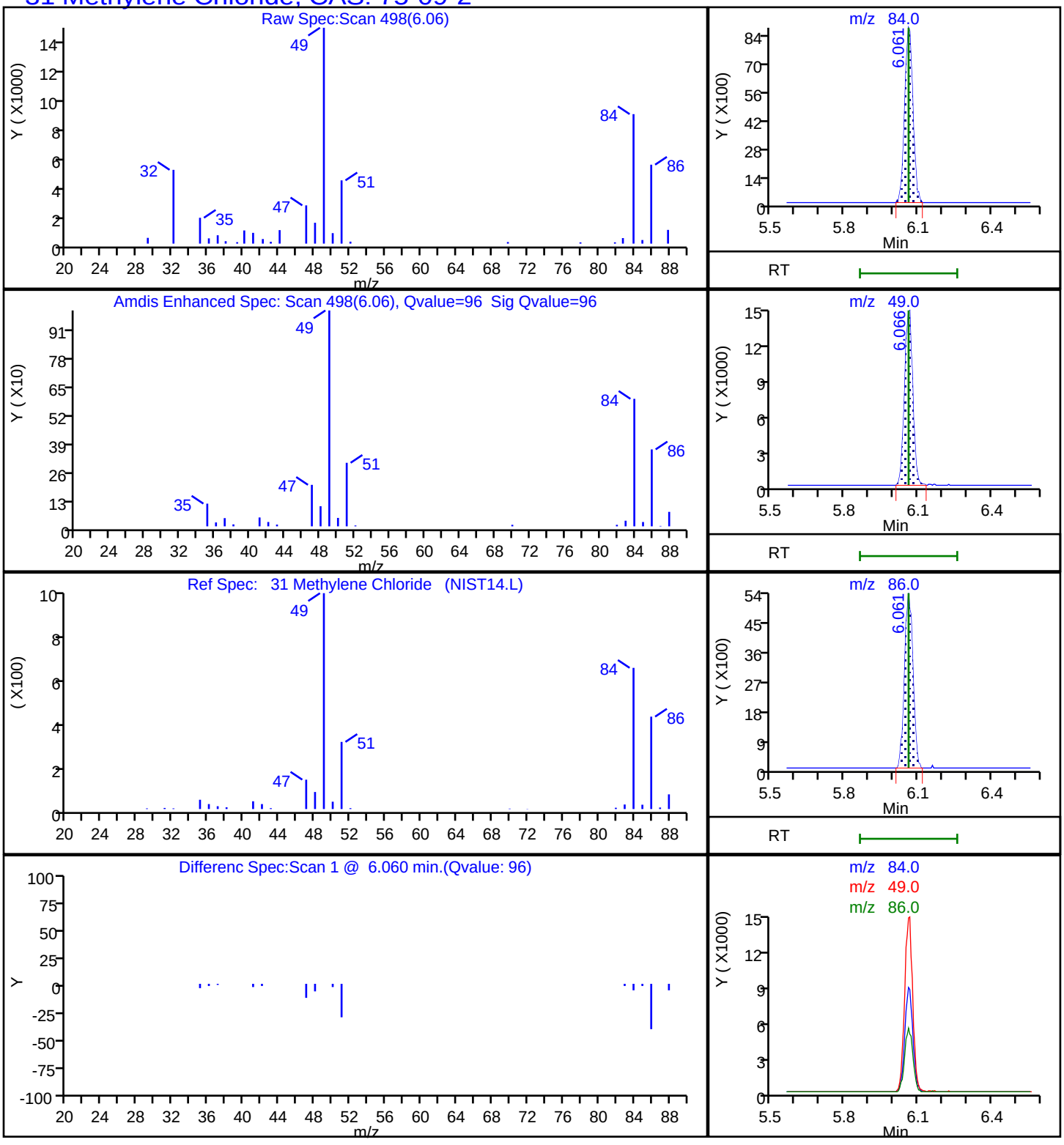
Operator ID: afb ALS Bottle#: 15 Worklist Smp#: 7

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MH_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09MB500.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 09-Oct-2019 13:47:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-004
Misc. Info.: mb500
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:08:54 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:08:54

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.049	9.059	-0.010	97	200350	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.227	11.233	-0.006	96	1179056	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1039594	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	86	738403	4.00	4.07	
	7 Propene	41	3.802	3.807	-0.005	99	28611		0.4359	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

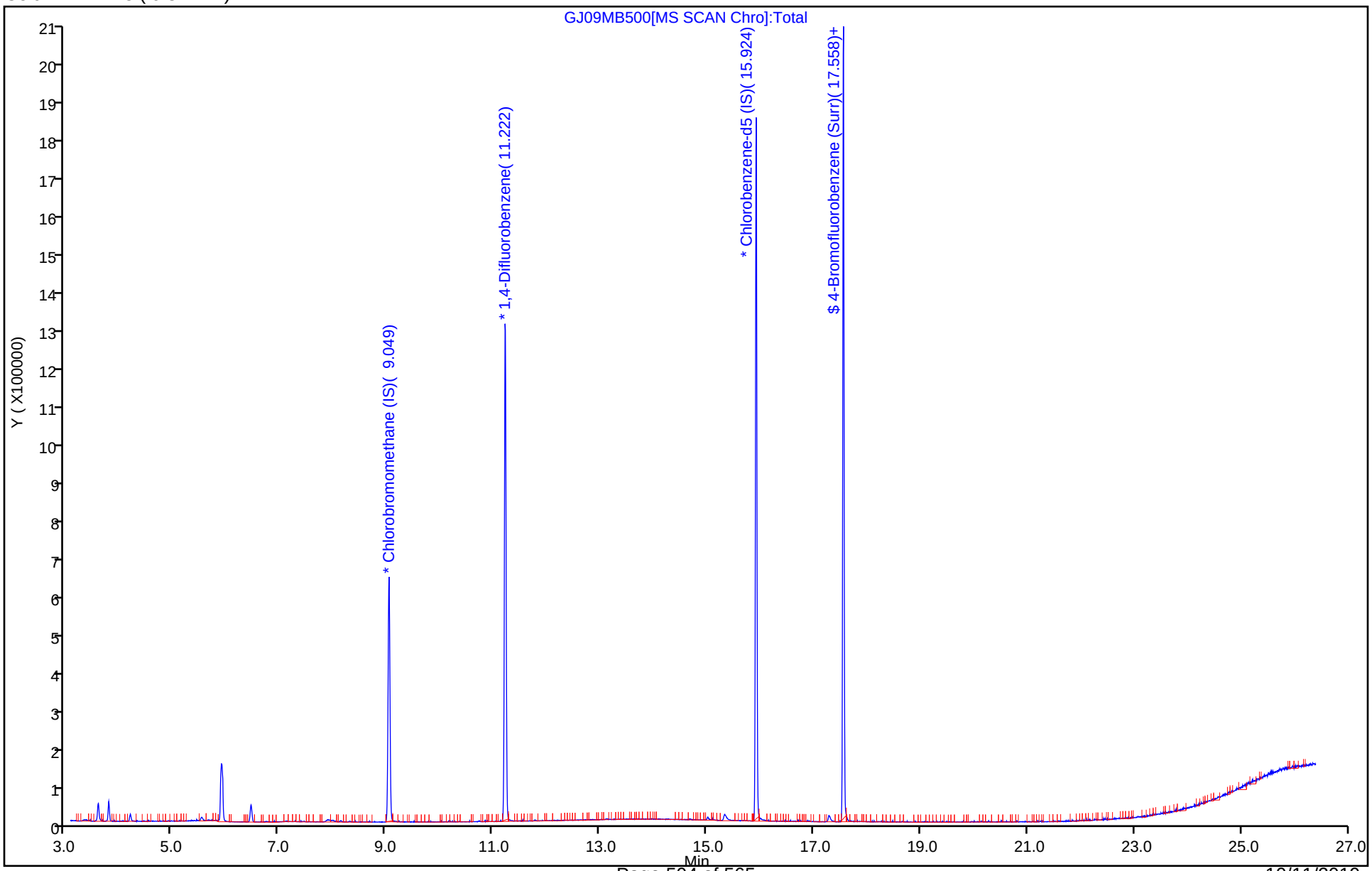
Report Date: 10-Oct-2019 10:08:54 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09MB500.D

Injection Date:	09-Oct-2019 13:47:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GJ09MB500.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	09-Oct-2019 13:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-004				
Misc. Info.:	mb500				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:08:54	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:08:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.07	101.69

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34104/1002

Matrix: Air Lab File ID: RCCVJ03-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 09:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.70		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.88		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.79		0.080	0.022
67-66-3	Chloroform	119.38	1.71		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.01		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.33		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.78		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.62		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.11		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.94		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.72		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.75		0.40	0.052
91-20-3	Naphthalene	128.17	2.60		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.84		0.080	0.0070
108-88-3	Toluene	92.14	1.96		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.98		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.57		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.72		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.00		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.81		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.48		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	2.33		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.23		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.06		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.95		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RCCVJ03-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Oct-2019 09:54:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013261-002
Misc. Info.: P96
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Oct-2019 11:18:08 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0331

First Level Reviewer: tajh Date: 04-Oct-2019 11:17:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.522	0.000	91	317552	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.749	0.000	93	1834746	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.554	0.000	85	1448340	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.215	0.000	96	908349	4.00	4.24	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	97	377262	2.00	1.79	
7 Propene	41	3.432	3.432	0.000	97	220699	2.00	1.85	
8 Dichlorodifluoromethane	85	3.480	3.480	0.000	100	418016	2.00	2.33	
9 Chloromethane	52	3.658	3.658	0.000	98	67086	2.00	1.96	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.664	0.000	88	377717	2.00	2.56	
11 Acetaldehyde	44	3.804	3.804	0.000	99	469880	10.0	11.3	
12 Vinyl chloride	62	3.820	3.820	0.000	99	222386	2.00	2.06	
13 Butadiene	54	3.901	3.901	0.000	69	164533	2.00	2.03	
14 Butane	43	3.901	3.901	0.000	85	314570	2.00	2.00	
15 Bromomethane	94	4.214	4.214	0.000	94	204410	2.00	1.92	
16 Chloroethane	64	4.349	4.349	0.000	94	77955	2.00	1.73	
17 Ethanol	31	4.440	4.440	0.000	98	468223	10.0	9.64	
18 Vinyl bromide	106	4.640	4.640	0.000	97	185457	2.00	2.06	
19 2-Methylbutane	43	4.683	4.683	0.000	89	198397	2.00	1.61	
21 Trichlorofluoromethane	101	4.899	4.899	0.000	97	492470	2.00	1.91	
20 Acrolein	56	4.909	4.909	0.000	27	65946	2.00	2.16	
24 Acetonitrile	40	4.985	4.985	0.000	100	73954	2.00	1.62	
22 Acetone	58	5.023	5.023	0.000	96	273823	6.00	5.41	
23 Isopropyl alcohol	45	5.103	5.103	0.000	92	753231	6.00	5.08	
25 Pentane	72	5.120	5.120	0.000	96	34635	2.00	1.91	
26 Ethyl ether	31	5.287	5.287	0.000	89	163162	2.00	1.32	
27 1,1-Dichloroethene	96	5.600	5.600	0.000	96	217937	2.00	2.11	
29 2-Methyl-2-propanol	59	5.697	5.697	0.000	94	329242	2.00	1.79	
28 Acrylonitrile	53	5.707	5.707	0.000	95	147282	2.00	1.93	
30 1,1,2-Trichloro-1,2,2-trif	101	5.772	5.772	0.000	97	450092	2.00	2.06	
31 Methylene Chloride	84	5.950	5.950	0.000	95	210265	2.00	1.72	
32 3-Chloro-1-propene	39	5.961	5.961	0.000	96	170312	2.00	1.68	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.106	6.106	0.000	100	586263	2.00	2.16	
34 trans-1,2-Dichloroethene	96	6.759	6.759	0.000	94	220300	2.00	1.98	
35 2-Methylpentane	43	6.780	6.780	0.000	94	398488	2.00	1.52	
36 Methyl tert-butyl ether	73	6.888	6.888	0.000	96	468789	2.00	1.75	
37 1,1-Dichloroethane	63	7.185	7.185	0.000	100	340348	2.00	1.78	
38 Vinyl acetate	43	7.293	7.293	0.000	99	463638	2.00	1.54	
39 2-Butanone (MEK)	72	7.746	7.746	0.000	97	91095	2.00	1.70	
40 Hexane	56	7.762	7.762	0.000	93	142086	2.00	1.63	
41 Isopropyl ether	45	7.929	7.929	0.000	95	594081	2.00	1.49	
42 cis-1,2-Dichloroethene	96	8.183	8.183	0.000	85	232434	2.00	2.01	
43 Ethyl acetate	43	8.371	8.371	0.000	99	409763	2.00	1.48	
44 Chloroform	83	8.528	8.528	0.000	96	394021	2.00	1.71	
45 Tert-butyl ethyl ether	59	8.614	8.614	0.000	95	526949	2.00	1.63	
46 Tetrahydrofuran	42	8.937	8.937	0.000	95	201877	2.00	1.47	
47 1,1,1-Trichloroethane	97	9.563	9.563	0.000	94	405110	2.00	1.72	
48 1,2-Dichloroethane	62	9.682	9.682	0.000	95	234305	2.00	1.62	
50 n-Butanol	31	10.140	10.140	0.000	79	63422	2.00	1.25	
51 Cyclohexane	69	10.178	10.178	0.000	63	80998	2.00	1.55	
49 Benzene	78	10.178	10.178	0.000	94	601145	2.00	1.70	
52 Carbon tetrachloride	117	10.205	10.205	0.000	96	440187	2.00	1.88	
53 2,3-Dimethylpentane	71	10.302	10.302	0.000	90	135692	2.00	1.88	
54 Thiophene	84	10.458	10.458	0.000	93	341339	2.00	1.86	
55 Isooctane	57	10.965	10.965	0.000	98	893203	2.00	1.62	
57 n-Heptane	71	11.359	11.359	0.000	90	195028	2.00	1.67	
56 1,2-Dichloropropane	63	11.445	11.445	0.000	91	222031	2.00	1.74	
58 Trichloroethene	130	11.477	11.477	0.000	95	276088	2.00	1.81	
59 Dibromomethane	93	11.569	11.569	0.000	93	260932	2.00	1.92	
60 Dichlorobromomethane	83	11.715	11.715	0.000	98	386695	2.00	1.72	
61 1,4-Dioxane	88	11.725	11.725	0.000	39	108689	2.00	2.12	
62 Methyl methacrylate	41	11.817	11.817	0.000	96	219824	2.00	1.41	
63 Methylcyclohexane	83	12.259	12.259	0.000	95	349517	2.00	1.80	
64 4-Methyl-2-pentanone (MIBK	43	12.680	12.680	0.000	96	428892	2.00	1.48	
65 cis-1,3-Dichloropropene	75	12.739	12.739	0.000	94	328746	2.00	1.86	
66 trans-1,3-Dichloropropene	75	13.451	13.451	0.000	97	280555	2.00	1.84	
67 Toluene	91	13.569	13.569	0.000	93	694333	2.00	1.96	
68 1,1,2-Trichloroethane	83	13.650	13.650	0.000	95	221042	2.00	2.00	
69 2-Hexanone	58	14.033	14.033	0.000	93	215239	2.00	1.77	
71 n-Octane	85	14.270	14.270	0.000	91	207259	2.00	1.89	
70 Chlorodibromomethane	129	14.357	14.357	0.000	97	408020	2.00	1.84	
72 Ethylene Dibromide	107	14.648	14.648	0.000	97	413252	2.00	2.00	
73 Tetrachloroethene	129	14.723	14.723	0.000	95	262562	2.00	1.84	
74 Chlorobenzene	112	15.602	15.602	0.000	98	610947	2.00	2.04	
75 2,3-Dimethylheptane	43	15.624	15.624	0.000	95	650794	2.00	1.60	
76 Ethylbenzene	91	15.894	15.894	0.000	97	929017	2.00	1.94	
77 m-Xylene & p-Xylene	91	16.050	16.050	0.000	96	1446405	4.00	3.92	
81 n-Nonane	57	16.476	16.476	0.000	91	430396	2.00	1.82	
78 Bromoform	173	16.508	16.508	0.000	95	328167	2.00	1.62	
79 Styrene	104	16.519	16.519	0.000	97	569942	2.00	2.20	
80 o-Xylene	91	16.578	16.578	0.000	99	761027	2.00	2.03	
82 1,1,2,2-Tetrachloroethane	83	16.913	16.913	0.000	99	670990	2.00	2.44	
83 1,2,3-Trichloropropane	110	17.080	17.080	0.000	96	190508	2.00	2.20	
84 Isopropylbenzene	105	17.182	17.182	0.000	94	1207090	2.00	2.18	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.743	17.743	0.000	100	355409	2.00	2.40	
86 2-Chlorotoluene	126	17.792	17.792	0.000	96	335923	2.00	2.40	
88 4-Ethyltoluene	105	17.900	17.900	0.000	100	1276216	2.00	2.26	
87 1,3,5-Trimethylbenzene	120	17.980	17.980	0.000	93	499795	2.00	2.23	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	93	518812	2.00	2.39	
90 n-Decane	57	18.282	18.282	0.000	91	650497	2.00	2.03	
91 tert-Butylbenzene	119	18.423	18.423	0.000	95	1124857	2.00	2.22	
92 1,2,4-Trimethylbenzene	105	18.433	18.433	0.000	96	1103679	2.00	2.33	
94 sec-Butylbenzene	105	18.698	18.698	0.000	99	1661873	2.00	2.26	
93 1,3-Dichlorobenzene	146	18.714	18.714	0.000	95	850022	2.00	2.37	
96 Benzyl chloride	91	18.795	18.795	0.000	99	865366	2.00	2.61	
95 1,4-Dichlorobenzene	146	18.805	18.805	0.000	98	861182	2.00	2.48	
97 4-Isopropyltoluene	119	18.870	18.870	0.000	97	1344349	2.00	2.46	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	97	1154500	2.00	2.48	
99 Butylcyclohexane	83	18.978	18.978	0.000	98	893700	2.00	2.42	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	85	854901	2.00	2.51	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	94	1101160	2.00	2.40	
102 Indene	116	19.307	19.307	0.000	92	990355	2.00	2.49	
103 n-Butylbenzene	91	19.312	19.312	0.000	98	1412928	2.00	2.45	
104 Undecane	57	19.636	19.636	0.000	95	801233	2.00	2.07	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	94	317992	2.00	2.33	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	98	1319277	2.00	2.49	
107 Dodecane	57	20.709	20.709	0.000	96	747813	2.00	1.89	
108 1,2,4-Trichlorobenzene	180	20.909	20.909	0.000	93	826066	2.00	2.57	
109 Naphthalene	128	21.054	21.054	0.000	100	1683778	2.00	2.60	
110 Hexachlorobutadiene	225	21.275	21.275	0.000	94	648079	2.00	2.31	
111 1,2,3-Trichlorobenzene	180	21.345	21.345	0.000	96	740438	2.00	2.27	
112 2-Methylnaphthalene	142	22.009	22.009	0.000	98	202460	2.00	0.7608	
113 1-Methylnaphthalene	142	22.138	22.138	0.000	96	187481	2.00	0.7672	
A 115 C8 Range	1	14.265	(14.222-14.308)		0	1853216	2.00	1.51	
S 116 Xylenes, Total	100				0		6.00	5.95	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.00	

Reagents:

40CV101P_00096	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

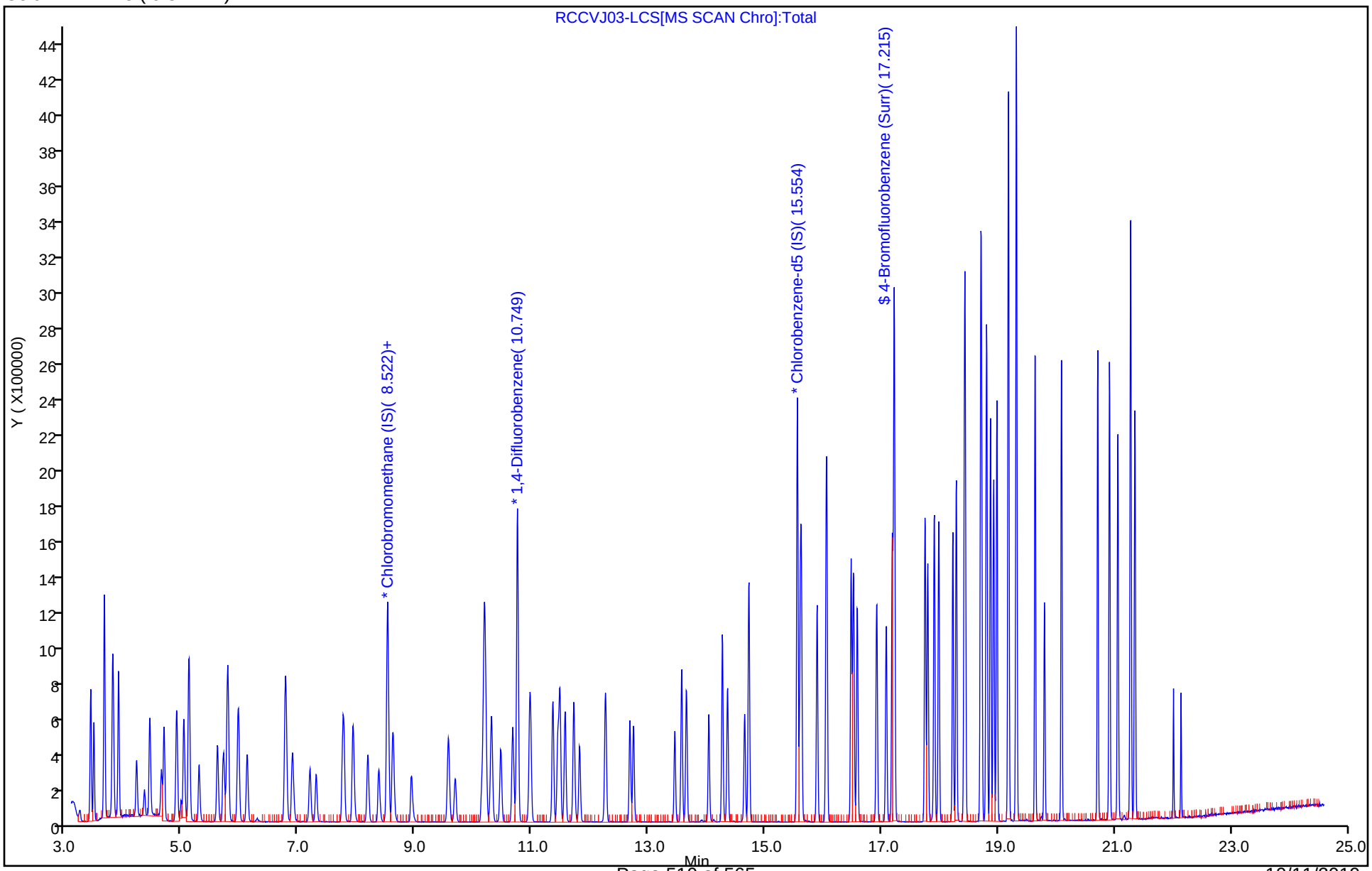
Report Date: 04-Oct-2019 11:18:14 Chrom Revision: 2.3 17-Sep-2019 16:19:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RCCVJ03-LCS.d

Injection Date:	03-Oct-2019 09:54:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\RCCVJ03-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	03-Oct-2019 09:54:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013261-002				
Misc. Info.:	P96				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Oct-2019 11:18:08	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0331				

First Level Reviewer: tajh Date: 04-Oct-2019 11:17:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.24	106.11

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34203/1002

Matrix: Air Lab File ID: HJ08CCVISA-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 11:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.78		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.73		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.03		0.080	0.022
67-66-3	Chloroform	119.38	1.82		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.71		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.95		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.80		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.78		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.73		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.85		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.49		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	2.09		0.40	0.052
91-20-3	Naphthalene	128.17	2.07		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.86		0.080	0.0070
108-88-3	Toluene	92.14	1.84		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.79		0.080	0.0070
71-55-6	1,1,1-Trichloroethane	133.41	1.81		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.92		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.82		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.00		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	2.03		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.94		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.16		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.73		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08CCVISA-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2019 11:25:30 ALS Bottle#: 2 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013307-002
Misc. Info.: P99
Operator ID: afb Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Oct-2019 16:39:42 Calib Date: 25-Sep-2019 08:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: barlozhetskayaa Date: 08-Oct-2019 16:39:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.604	0.000	97	212050	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.811	10.811	0.000	95	1098033	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.591	15.591	0.000	89	875648	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.261	17.261	0.000	96	564181	4.00	4.08	
6 Chlorodifluoromethane	51	3.533	3.533	0.000	96	331373	2.00	2.03	
7 Propene	41	3.544	3.544	0.000	99	175004	2.00	2.14	
8 Dichlorodifluoromethane	85	3.590	3.590	0.000	100	478127	2.00	1.95	
9 Chloromethane	52	3.771	3.771	0.000	97	60544	2.00	2.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.771	3.771	0.000	92	362739	2.00	2.18	
11 Acetaldehyde	44	3.916	3.916	0.000	97	386068	10.0	12.0	
12 Vinyl chloride	62	3.931	3.931	0.000	99	193460	2.00	2.16	
13 Butadiene	54	4.014	4.014	0.000	68	141956	2.00	2.17	
14 Butane	43	4.014	4.014	0.000	84	269556	2.00	2.29	
15 Bromomethane	94	4.329	4.329	0.000	98	183215	2.00	2.23	
16 Chloroethane	64	4.464	4.464	0.000	97	82587	2.00	2.05	
17 Ethanol	31	4.557	4.557	0.000	95	358883	10.0	10.8	
18 Vinyl bromide	106	4.758	4.758	0.000	97	174711	2.00	2.10	
19 2-Methylbutane	43	4.800	4.800	0.000	92	201251	2.00	2.13	
21 Trichlorofluoromethane	101	5.017	5.017	0.000	100	428978	2.00	1.85	
20 Acrolein	56	5.032	5.032	0.000	94	51891	2.00	1.67	
22 Acetonitrile	40	5.099	5.099	0.000	99	78120	2.00	1.96	
23 Acetone	58	5.141	5.141	0.000	98	253483	6.00	6.02	
25 Isopropyl alcohol	45	5.229	5.229	0.000	92	619569	6.00	4.92	
24 Pentane	72	5.229	5.229	0.000	94	20232	2.00	1.77	
26 Ethyl ether	31	5.399	5.399	0.000	93	174518	2.00	1.85	
27 1,1-Dichloroethene	96	5.714	5.714	0.000	95	141596	2.00	1.73	
29 2-Methyl-2-propanol	59	5.813	5.813	0.000	97	240311	2.00	2.38	
28 Acrylonitrile	53	5.823	5.823	0.000	94	122346	2.00	1.82	
30 1,1,2-Trichloro-1,2,2-trif	101	5.885	5.885	0.000	97	343905	2.00	1.89	
31 Methylene Chloride	84	6.061	6.061	0.000	96	157274	2.00	1.49	
32 3-Chloro-1-propene	39	6.076	6.076	0.000	95	147702	2.00	1.99	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.221	6.221	0.000	100	436397	2.00	1.80	
34 trans-1,2-Dichloroethene	96	6.867	6.867	0.000	95	146083	2.00	1.79	
35 2-Methylpentane	43	6.877	6.877	0.000	96	352973	2.00	1.85	
36 Methyl tert-butyl ether	73	6.986	6.986	0.000	96	347275	2.00	2.09	
37 1,1-Dichloroethane	63	7.286	7.286	0.000	99	285936	2.00	1.80	
38 Vinyl acetate	43	7.394	7.394	0.000	100	435853	2.00	1.88	
39 2-Butanone (MEK)	72	7.839	7.839	0.000	95	65716	2.00	1.72	
40 Hexane	56	7.854	7.854	0.000	79	120628	2.00	1.77	
171 Isopropyl ether	45	8.014	8.014	0.000	97	554734	2.00	1.86	
41 cis-1,2-Dichloroethene	96	8.273	8.273	0.000	97	148206	2.00	1.71	
42 Ethyl acetate	43	8.459	8.459	0.000	98	369240	2.00	1.93	
43 Chloroform	83	8.619	8.619	0.000	97	334344	2.00	1.82	
173 Tert-butyl ethyl ether	59	8.691	8.691	0.000	97	445725	2.00	2.18	
44 Tetrahydrofuran	42	9.012	9.012	0.000	94	173255	2.00	1.84	
45 1,1,1-Trichloroethane	97	9.637	9.637	0.000	97	310492	2.00	1.81	
46 1,2-Dichloroethane	62	9.756	9.756	0.000	96	223514	2.00	1.78	
49 n-Butanol	31	10.216	10.216	0.000	84	51748	2.00	1.66	
48 Cyclohexane	69	10.247	10.247	0.000	90	61922	2.00	1.70	
47 Benzene	78	10.252	10.252	0.000	98	426862	2.00	1.78	
50 Carbon tetrachloride	117	10.273	10.273	0.000	96	307538	2.00	1.73	
51 2,3-Dimethylpentane	71	10.366	10.366	0.000	91	88272	2.00	1.74	
52 Thiophene	84	10.531	10.531	0.000	97	248105	2.00	1.78	
53 Isooctane	57	11.022	11.022	0.000	98	726977	2.00	1.79	
55 n-Heptane	71	11.410	11.410	0.000	94	130655	2.00	1.68	
54 1,2-Dichloropropane	63	11.498	11.498	0.000	91	184961	2.00	1.84	
56 Trichloroethene	130	11.534	11.534	0.000	95	194524	2.00	1.82	
57 Dibromomethane	93	11.622	11.622	0.000	95	219175	2.00	1.95	
58 Dichlorobromomethane	83	11.767	11.767	0.000	98	328485	2.00	1.82	
59 1,4-Dioxane	88	11.782	11.782	0.000	95	56022	2.00	1.63	
60 Methyl methacrylate	41	11.865	11.865	0.000	90	204228	2.00	1.88	
61 Methylcyclohexane	83	12.309	12.309	0.000	91	235154	2.00	1.68	
62 4-Methyl-2-pentanone (MIBK	43	12.723	12.723	0.000	97	390787	2.00	1.89	
63 cis-1,3-Dichloropropene	75	12.785	12.785	0.000	97	253333	2.00	1.92	
64 trans-1,3-Dichloropropene	75	13.488	13.488	0.000	98	219884	2.00	2.00	
65 Toluene	91	13.607	13.607	0.000	93	494947	2.00	1.84	
66 1,1,2-Trichloroethane	83	13.689	13.689	0.000	97	172987	2.00	1.92	
69 2-Hexanone	58	14.072	14.072	0.000	91	164449	2.00	1.89	
71 n-Octane	85	14.304	14.304	0.000	96	138074	2.00	1.77	
70 Chlorodibromomethane	129	14.392	14.392	0.000	98	327328	2.00	1.92	
72 Ethylene Dibromide	107	14.687	14.687	0.000	98	309378	2.00	1.92	
73 Tetrachloroethene	129	14.759	14.759	0.000	94	194567	2.00	1.86	
74 Chlorobenzene	112	15.643	15.643	0.000	93	402317	2.00	1.89	
75 2,3-Dimethylheptane	43	15.658	15.658	0.000	94	555766	2.00	2.06	
76 Ethylbenzene	91	15.932	15.932	0.000	99	631884	2.00	1.85	
78 m-Xylene & p-Xylene	91	16.093	16.093	0.000	98	1000946	4.00	3.83	
81 n-Nonane	57	16.511	16.511	0.000	94	344450	2.00	1.93	
79 Bromoform	173	16.542	16.542	0.000	93	303116	2.00	1.74	
80 Styrene	104	16.558	16.558	0.000	99	364261	2.00	2.00	
82 o-Xylene	91	16.620	16.620	0.000	99	517172	2.00	1.90	
83 1,1,2,2-Tetrachloroethane	83	16.961	16.961	0.000	99	452567	2.00	2.04	
84 1,2,3-Trichloropropane	110	17.126	17.126	0.000	97	104014	2.00	1.93	
85 Isopropylbenzene	105	17.230	17.230	0.000	96	715284	2.00	1.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 N-Propylbenzene	120	17.803	17.803	0.000	98	189673	2.00	1.94	
87 2-Chlorotoluene	126	17.845	17.845	0.000	98	182987	2.00	1.97	
88 4-Ethyltoluene	105	17.958	17.958	0.000	99	723994	2.00	2.00	
89 1,3,5-Trimethylbenzene	120	18.036	18.036	0.000	92	289616	2.00	1.94	
90 Alpha Methyl Styrene	118	18.279	18.279	0.000	87	281514	2.00	1.86	
91 n-Decane	57	18.341	18.341	0.000	89	477684	2.00	2.08	
92 tert-Butylbenzene	119	18.480	18.480	0.000	91	650874	2.00	1.99	
93 1,2,4-Trimethylbenzene	105	18.496	18.496	0.000	96	637279	2.00	2.03	
95 sec-Butylbenzene	105	18.759	18.759	0.000	99	947039	2.00	2.05	
94 1,3-Dichlorobenzene	146	18.775	18.775	0.000	98	427055	2.00	2.14	
96 Benzyl chloride	91	18.858	18.858	0.000	97	409012	2.00	1.93	
97 1,4-Dichlorobenzene	146	18.868	18.868	0.000	94	396321	2.00	2.16	
98 4-Isopropyltoluene	119	18.930	18.930	0.000	97	747132	2.00	2.07	
99 1,2,3-Trimethylbenzene	105	18.987	18.987	0.000	98	642535	2.00	2.00	
100 Butylcyclohexane	83	19.044	19.044	0.000	91	521583	2.00	1.99	
102 2,3-Dihydroindene	117	19.240	19.240	0.000	93	599440	2.00	2.10	
101 1,2-Dichlorobenzene	146	19.240	19.240	0.000	83	441698	2.00	2.16	
103 Indene	116	19.375	19.375	0.000	89	492190	2.00	2.06	
104 n-Butylbenzene	91	19.380	19.380	0.000	97	786975	2.00	2.21	
105 Undecane	57	19.700	19.700	0.000	95	545721	2.00	2.07	
106 1,2-Dibromo-3-Chloropropan	157	19.860	19.860	0.000	96	203931	2.00	2.06	
107 1,2,4,5-Tetramethylbenzene	119	20.155	20.155	0.000	97	711994	2.00	2.10	
110 Dodecane	57	20.785	20.785	0.000	93	509813	2.00	2.01	
111 1,2,4-Trichlorobenzene	180	20.992	20.992	0.000	94	250794	2.00	1.96	
113 Naphthalene	128	21.137	21.137	0.000	99	610011	2.00	2.07	
115 Hexachlorobutadiene	225	21.359	21.359	0.000	92	431684	2.00	2.12	
116 1,2,3-Trichlorobenzene	180	21.432	21.432	0.000	95	299503	2.00	2.23	
117 2-Methylnaphthalene	142	22.072	22.072	0.000	99	123043	2.00	2.28	E
118 1-Methylnaphthalene	142	22.202	22.202	0.000	99	171984	2.00	2.32	E
A 120 C8 Range	1	14.299	(14.253-14.356)		0	1532603	2.00	1.85	
S 121 Xylenes, Total	100				0		6.00	5.73	
S 122 1,2-Dichloroethene, Total	1				0		4.00	3.51	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent
40CV101P_00099	Amount Added: 50.00	Units: ml	

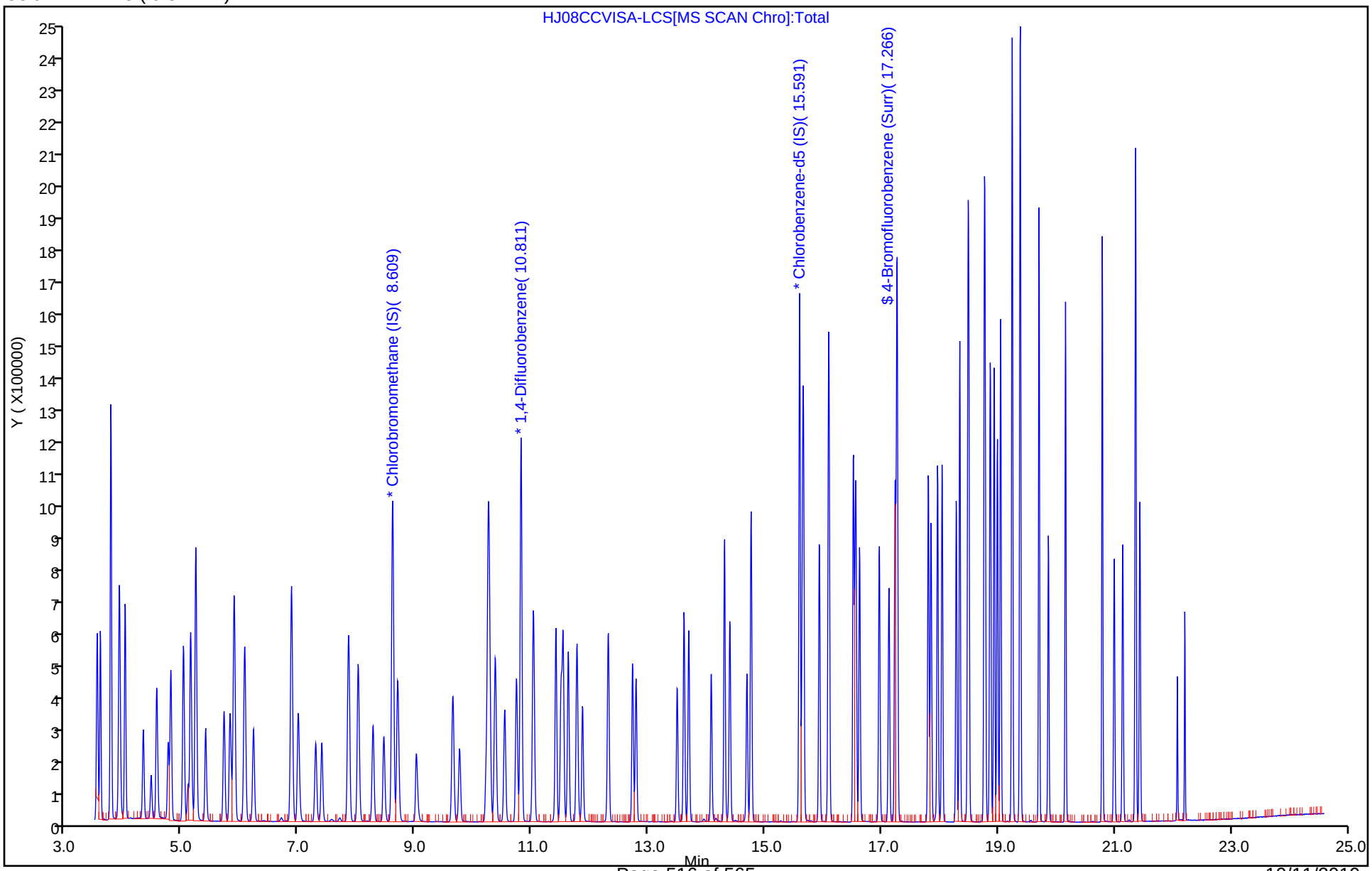
Report Date: 08-Oct-2019 16:39:45 Chrom Revision: 2.3 17-Sep-2019 16:19:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08CCVISA-LCS.d

Injection Date:	08-Oct-2019 11:25:30	Instrument ID:	MH	Operator ID:	afb
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\HJ08CCVISA-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	08-Oct-2019 11:25:30	ALS Bottle#:	2	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013307-002				
Misc. Info.:	P99				
Operator ID:	afb	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20191007-13307.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Oct-2019 16:39:42	Calib Date:	25-Sep-2019 08:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190919-13112.b\HI24ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				

First Level Reviewer: barlozhetskayaa Date: 08-Oct-2019 16:39:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.08	102.11

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-34215/1002

Matrix: Air Lab File ID: GCCVJ09-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	3.99		0.080	0.064

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GCCVJ09-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 09-Oct-2019 11:20:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013314-002
Misc. Info.: P98
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Oct-2019 10:07:03 Calib Date: 06-Sep-2019 21:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0301

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:07:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.059	9.059	0.000	97	200883	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.233	11.233	0.000	96	1190950	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.924	15.924	0.000	90	1031378	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.558	17.558	0.000	86	760316	4.00	4.22	
6 Chlorodifluoromethane	51	3.791	3.791	0.000	96	499022	4.00	5.01	
7 Propene	41	3.807	3.807	0.000	98	292017	4.00	4.44	
8 Dichlorodifluoromethane	85	3.856	3.856	0.000	100	841643	4.00	5.26	
9 Chloromethane	52	4.045	4.045	0.000	97	86203	4.00	4.34	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.050	4.050	0.000	93	504692	4.00	4.66	
11 Acetaldehyde	44	4.206	4.206	0.000	100	550025	20.0	19.8	
12 Vinyl chloride	62	4.222	4.222	0.000	99	313774	4.00	4.73	
14 Butadiene	54	4.314	4.314	0.000	69	243723	4.00	4.62	
13 Butane	43	4.314	4.314	0.000	84	462288	4.00	4.35	
15 Bromomethane	94	4.648	4.648	0.000	98	284744	4.00	4.95	
16 Chloroethane	64	4.794	4.794	0.000	97	156151	4.00	4.77	
17 Ethanol	31	4.897	4.897	0.000	97	640675	20.0	23.1	
18 Vinyl bromide	106	5.112	5.112	0.000	98	263096	4.00	4.80	
19 2-Methylbutane	43	5.161	5.161	0.000	89	322952	4.00	4.48	
20 Trichlorofluoromethane	101	5.387	5.387	0.000	100	902611	4.00	5.99	
21 Acrolein	56	5.398	5.398	0.000	93	54993	4.00	4.91	
22 Acetonitrile	40	5.463	5.463	0.000	98	106670	4.00	4.69	
23 Acetone	58	5.511	5.511	0.000	98	399733	12.0	14.1	
25 Isopropyl alcohol	45	5.608	5.608	0.000	98	1100970	12.0	15.0	
24 Pentane	72	5.614	5.614	0.000	99	54383	4.00	5.20	
26 Ethyl ether	31	5.781	5.781	0.000	93	242842	4.00	4.72	
27 1,1-Dichloroethene	96	6.115	6.115	0.000	95	256492	4.00	3.83	
30 2-Methyl-2-propanol	59	6.218	6.218	0.000	94	457400	4.00	4.17	
28 Acrylonitrile	53	6.223	6.223	0.000	56	169038	4.00	3.72	
29 1,1,2-Trichloro-1,2,2-trif	101	6.293	6.293	0.000	95	557221	4.00	4.17	
31 Methylene Chloride	84	6.471	6.471	0.000	98	251576	4.00	4.13	
32 3-Chloro-1-propene	39	6.487	6.487	0.000	98	291320	4.00	4.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.638	6.638	0.000	100	745898	4.00	4.04	
34 trans-1,2-Dichloroethene	96	7.296	7.296	0.000	96	263655	4.00	3.96	
35 2-Methylpentane	43	7.312	7.312	0.000	93	615480	4.00	3.77	
36 Methyl tert-butyl ether	73	7.420	7.420	0.000	96	745996	4.00	4.18	
37 1,1-Dichloroethane	63	7.728	7.728	0.000	100	493964	4.00	4.15	
38 Vinyl acetate	43	7.825	7.825	0.000	100	613837	4.00	3.81	
39 2-Butanone (MEK)	72	8.278	8.278	0.000	98	118163	4.00	3.87	
40 Hexane	56	8.310	8.310	0.000	91	218824	4.00	3.84	
41 Isopropyl ether	45	8.461	8.461	0.000	96	876999	4.00	3.81	
42 cis-1,2-Dichloroethene	96	8.725	8.725	0.000	97	264753	4.00	3.91	
43 Ethyl acetate	43	8.903	8.903	0.000	98	534817	4.00	3.98	
44 Chloroform	83	9.070	9.070	0.000	97	577002	4.00	4.43	
45 Tert-butyl ethyl ether	59	9.151	9.151	0.000	96	869025	4.00	4.11	
46 Tetrahydrofuran	42	9.469	9.469	0.000	94	284864	4.00	3.72	
47 1,1,1-Trichloroethane	97	10.106	10.106	0.000	96	682067	4.00	4.72	
48 1,2-Dichloroethane	62	10.213	10.213	0.000	98	397952	4.00	4.06	
51 n-Butanol	31	10.656	10.656	0.000	86	85767	4.00	3.63	
49 Cyclohexane	69	10.699	10.699	0.000	75	139366	4.00	3.59	
50 Benzene	78	10.699	10.699	0.000	98	714877	4.00	3.39	
52 Carbon tetrachloride	117	10.720	10.720	0.000	97	661360	4.00	4.62	
53 2,3-Dimethylpentane	71	10.812	10.812	0.000	90	196999	4.00	3.59	
54 Thiophene	84	10.974	10.974	0.000	97	390154	4.00	3.61	
55 Isooctane	57	11.448	11.448	0.000	98	1415608	4.00	3.42	
56 n-Heptane	71	11.815	11.815	0.000	91	292534	4.00	3.71	
57 1,2-Dichloropropane	63	11.907	11.907	0.000	86	284141	4.00	3.86	
58 Trichloroethene	130	11.939	11.939	0.000	95	319160	4.00	3.27	
59 Dibromomethane	93	12.025	12.025	0.000	93	314235	4.00	4.08	
60 Dichlorobromomethane	83	12.165	12.165	0.000	99	535024	4.00	4.33	
61 1,4-Dioxane	88	12.176	12.176	0.000	93	111911	4.00	3.69	
62 Methyl methacrylate	41	12.252	12.252	0.000	91	333198	4.00	3.89	
63 Methylcyclohexane	83	12.699	12.699	0.000	94	519505	4.00	3.39	
64 4-Methyl-2-pentanone (MIBK	43	13.098	13.098	0.000	98	589309	4.00	3.53	
65 cis-1,3-Dichloropropene	75	13.152	13.152	0.000	97	357953	4.00	3.81	
66 trans-1,3-Dichloropropene	75	13.842	13.842	0.000	98	324008	4.00	4.17	
67 Toluene	91	13.966	13.966	0.000	94	775924	4.00	3.76	
68 1,1,2-Trichloroethane	83	14.042	14.042	0.000	98	220653	4.00	3.78	
69 2-Hexanone	58	14.419	14.419	0.000	93	257939	4.00	3.41	
70 n-Octane	85	14.641	14.641	0.000	92	314344	4.00	3.94	
71 Chlorodibromomethane	129	14.743	14.743	0.000	98	443842	4.00	4.29	
72 Ethylene Dibromide	107	15.034	15.034	0.000	98	346039	4.00	3.60	
73 Tetrachloroethene	129	15.104	15.104	0.000	93	296898	4.00	3.67	
75 Chlorobenzene	112	15.972	15.972	0.000	92	567615	4.00	3.71	
74 2,3-Dimethylheptane	43	15.983	15.983	0.000	94	964274	4.00	3.84	
78 Ethylbenzene	91	16.258	16.258	0.000	99	1070045	4.00	3.81	
79 m-Xylene & p-Xylene	91	16.420	16.420	0.000	99	1744551	8.00	8.01	
80 n-Nonane	57	16.830	16.830	0.000	90	623394	4.00	3.88	
81 Bromoform	173	16.873	16.873	0.000	94	357226	4.00	4.13	
82 Styrene	104	16.884	16.884	0.000	98	544559	4.00	4.07	
83 o-Xylene	91	16.943	16.943	0.000	98	961295	4.00	3.96	
84 1,1,2,2-Tetrachloroethane	83	17.261	17.261	0.000	98	642235	4.00	4.01	
85 1,2,3-Trichloropropane	110	17.423	17.423	0.000	97	190811	4.00	4.21	
86 Isopropylbenzene	105	17.525	17.525	0.000	97	1300229	4.00	3.99	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.054	18.054	0.000	99	336276	4.00	3.89	
88 2-Chlorotoluene	126	18.102	18.102	0.000	98	301826	4.00	3.79	
89 4-Ethyltoluene	105	18.205	18.205	0.000	98	1144438	4.00	3.79	
90 1,3,5-Trimethylbenzene	120	18.275	18.275	0.000	92	533785	4.00	3.76	
92 Alpha Methyl Styrene	118	18.501	18.501	0.000	88	489295	4.00	4.09	
93 n-Decane	57	18.550	18.550	0.000	92	748209	4.00	3.84	
94 tert-Butylbenzene	119	18.690	18.690	0.000	91	1231426	4.00	4.07	
95 1,2,4-Trimethylbenzene	105	18.706	18.706	0.000	96	1115448	4.00	4.19	
96 sec-Butylbenzene	105	18.960	18.960	0.000	97	1609006	4.00	4.06	
97 1,3-Dichlorobenzene	146	18.976	18.976	0.000	98	618196	4.00	3.77	
98 Benzyl chloride	91	19.046	19.046	0.000	97	936684	4.00	4.76	
99 1,4-Dichlorobenzene	146	19.062	19.062	0.000	95	588569	4.00	3.66	
100 4-Isopropyltoluene	119	19.116	19.116	0.000	96	1329672	4.00	3.92	
101 1,2,3-Trimethylbenzene	105	19.170	19.170	0.000	99	1127138	4.00	4.04	
102 Butylcyclohexane	83	19.224	19.224	0.000	92	957829	4.00	4.07	
103 2,3-Dihydroindene	117	19.413	19.413	0.000	93	987281	4.00	4.01	
104 1,2-Dichlorobenzene	146	19.413	19.413	0.000	79	653745	4.00	3.85	
106 Indene	116	19.542	19.542	0.000	77	850264	4.00	4.06	
105 n-Butylbenzene	91	19.542	19.542	0.000	96	1328251	4.00	4.34	
107 Undecane	57	19.844	19.844	0.000	95	756210	4.00	3.51	
108 1,2-Dibromo-3-Chloropropan	157	20.006	20.006	0.000	92	339524	4.00	3.82	
109 1,2,4,5-Tetramethylbenzene	119	20.292	20.292	0.000	97	1224760	4.00	3.90	
110 Dodecane	57	20.896	20.896	0.000	96	444638	4.00	2.90	
111 1,2,4-Trichlorobenzene	180	21.106	21.106	0.000	94	555823	4.00	3.99	
112 Naphthalene	128	21.241	21.241	0.000	99	1173858	4.00	3.73	
113 Hexachlorobutadiene	225	21.446	21.446	0.000	95	640545	4.00	4.36	
114 1,2,3-Trichlorobenzene	180	21.521	21.521	0.000	94	460603	4.00	3.54	
115 2-Methylnaphthalene	142	22.276	22.276	0.000	100	231578	4.00	3.01	
116 1-Methylnaphthalene	142	22.449	22.449	0.000	100	210178	4.00	2.68	
A 122 C8 Range	1	14.681	(14.582-14.765)		0	2902942	4.00	3.97	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.87	
S 124 Xylenes, Total	100				0		12.0	12.0	

Reagents:

40CV101P_00098	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

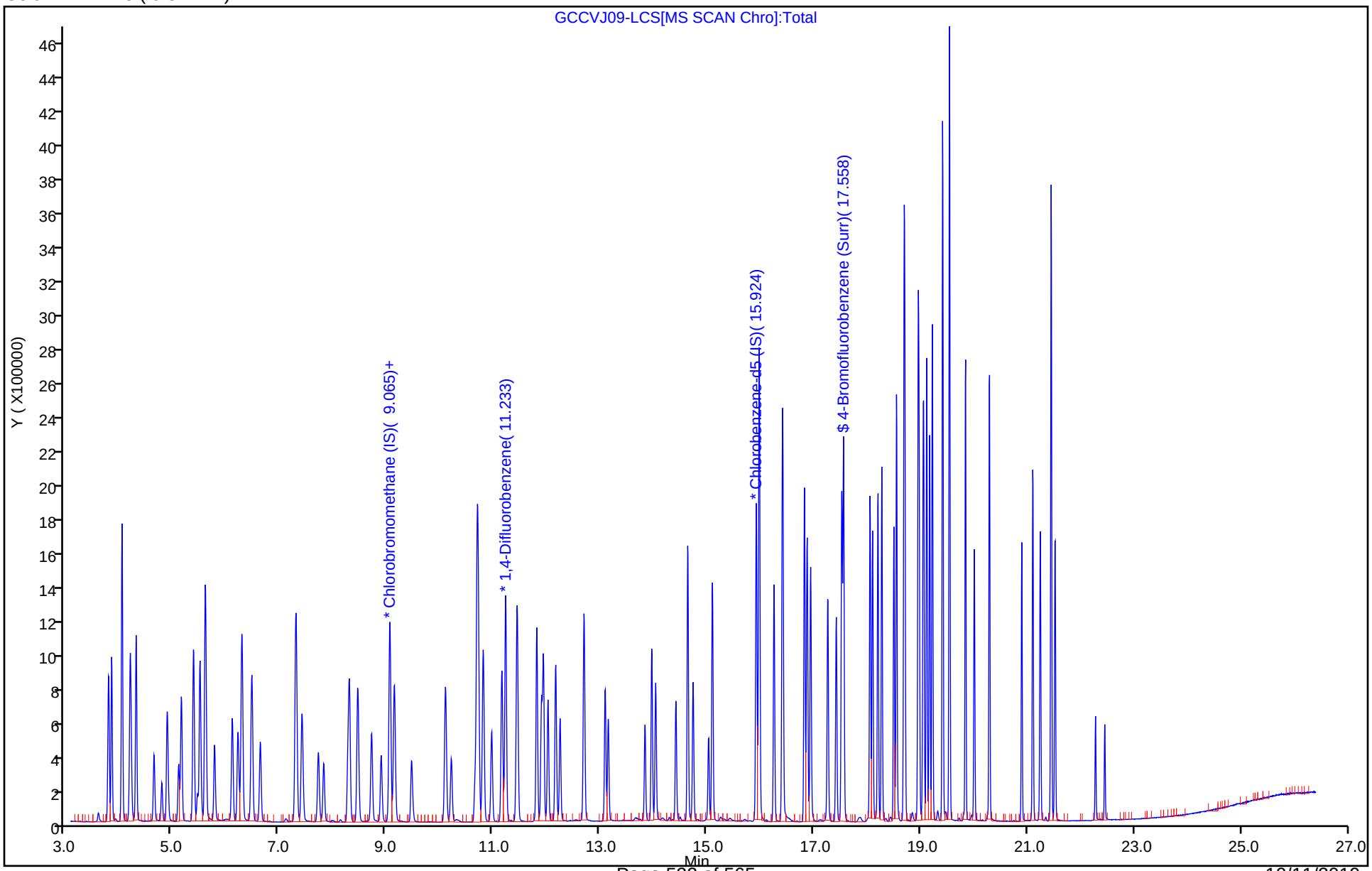
Report Date: 10-Oct-2019 10:07:13 Chrom Revision: 2.3 17-Sep-2019 16:19:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20191007-13314.b\GCCVJ09-LCS.d

Injection Date:	09-Oct-2019 11:20:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\GCCVJ09-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	09-Oct-2019 11:20:30	ALS Bottle#:	1	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013314-002				
Misc. Info.:	P98				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20191007-13314.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Oct-2019 10:07:03	Calib Date:	06-Sep-2019 21:05:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190906-12979.b\GI06LVL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0301				

First Level Reviewer: khachitpongpanits Date: 10-Oct-2019 10:07:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.22	105.54

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MR Start Date: 09/03/2019 09:57

Analysis Batch Number: 33257 End Date: 09/04/2019 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33257/1		09/03/2019 09:57	1	RBFBI03IC.D	RTX-5 0.32(mm)
IC 140-33257/2		09/03/2019 10:26	1	RI03IC09.D	RTX-5 0.32(mm)
IC 140-33257/4		09/03/2019 12:02	1	RI03IC10.D	RTX-5 0.32(mm)
IC 140-33257/7		09/03/2019 14:26	1	RI03IC01.D	RTX-5 0.32(mm)
IC 140-33257/8		09/03/2019 15:13	1	RI03IC02.D	RTX-5 0.32(mm)
140-15873-A-5 MDLV		09/03/2019 15:13	1		RTX-5 0.32(mm)
IC 140-33257/9		09/03/2019 16:02	1	RI03IC03.D	RTX-5 0.32(mm)
140-15873-A-6 MDLV		09/03/2019 16:02	1		RTX-5 0.32(mm)
IC 140-33257/10		09/03/2019 16:51	1	RI03IC04.D	RTX-5 0.32(mm)
140-15873-A-7 MDLV		09/03/2019 16:51	1		RTX-5 0.32(mm)
IC 140-33257/11		09/03/2019 17:39	1	RI03IC05.D	RTX-5 0.32(mm)
140-15873-A-8 MDLV		09/03/2019 17:39	1		RTX-5 0.32(mm)
IC 140-33257/12		09/03/2019 18:27	1	RI03IC06.D	RTX-5 0.32(mm)
IC 140-33257/14		09/03/2019 20:02	1	RI03IC08.D	RTX-5 0.32(mm)
ICV 140-33257/18		09/03/2019 23:14	1	RI03ICV.D	RTX-5 0.32(mm)
ZZZZZ		09/04/2019 01:44	1		RTX-5 0.32(mm)
ICIS 140-33257/23		09/04/2019 09:04	1	RI03IC07R.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	9/3/19	Instrument:	MH	Chrom WL #:	12950	TALS Batch & Event #	TO14/15: 2118 33257	DOD5: 2119 / 33258
							DOD: 2121 / 33260	OHIO: 2120 / 33259

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	Reverse removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• tric' orofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	IMCV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% Acetaldehyd + MeCl2 (routine) [F6 Σ]	✓	L	—	MeCl2 (routine)	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	✓	—		ns	ns	ns
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	L	✓		ns	ns	ns
19. Is the intercept less than the RL for each curve? [F6]	✓	L	—		ns	ns	ns
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	✓	na		ns	ns	na
21. Is low point RSE ≤ 50 %? MeCl [F6]	✓	✓	✓		✓		
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	

Analyst/Date: [signature] 9/4/19

2nd Level Reviewer/Date: [signature] 09/05/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ns	—			ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: [signature] 9/4/19

2nd Level Reviewer/date: [signature] 09/05/19

Comments: UR 8. MeCl (routine) Bromofm UR 6 Bz Chloride UR 4 — 9/4/19 MeCl2 OK DOD + Ohio

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MG Start Date: 09/06/2019 11:35

Analysis Batch Number: 33324 End Date: 09/06/2019 22:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33324/1		09/06/2019 11:35	1	GBFBI06IC.D	RTX-5 0.32(mm)
IC 140-33324/2		09/06/2019 12:11	1	GI06LVL09.D	RTX-5 0.32(mm)
IC 140-33324/4		09/06/2019 13:43	1	GI06LVL10.D	RTX-5 0.32(mm)
IC 140-33324/7		09/06/2019 15:53	1	GI06LVL01.D	RTX-5 0.32(mm)
IC 140-33324/8		09/06/2019 16:37	1	GI06LVL02.D	RTX-5 0.32(mm)
IC 140-33324/9		09/06/2019 17:20	1	GI06LVL03.D	RTX-5 0.32(mm)
IC 140-33324/10		09/06/2019 18:05	1	GI06LVL04.D	RTX-5 0.32(mm)
IC 140-33324/11		09/06/2019 18:52	1	GI06LVL05.D	RTX-5 0.32(mm)
IC 140-33324/12		09/06/2019 19:37	1	GI06LVL06.D	RTX-5 0.32(mm)
ICIS 140-33324/13		09/06/2019 20:20	1	GI06LVL07.D	RTX-5 0.32(mm)
IC 140-33324/14		09/06/2019 21:05	1	GI06LVL08.D	RTX-5 0.32(mm)
ICV 140-33324/16		09/06/2019 22:30	1	GI06ICV.D	RTX-5 0.32(mm)

190906.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	20.8	9/6/2019	11:35:18 AM
IC09	14 - 200 mL	20.2	9/6/2019	12:11:26 PM
BLK	16 - 101 mL	20.8	9/6/2019	12:58:55 PM
IC10	15 - 200 mL	19.7	9/6/2019	1:43:45 PM
BLK	16 - 101 mL	20.5	9/6/2019	2:27:36 PM
BLK	16 - 101 mL	20.5	9/6/2019	3:10:43 PM
IC01	1 - 52 mL	26.5	9/6/2019	3:53:29 PM
IC02	1 - 102 mL	26.7	9/6/2019	4:37:09 PM
IC03	1 - 200 mL	24.2	9/6/2019	5:20:47 PM
IC04	2 - 80 mL	21.6	9/6/2019	6:05:37 PM
IC05	2 - 201 mL	18.6	9/6/2019	6:52:03 PM
IC06	3 - 201 mL	23.7	9/6/2019	7:37:56 PM
IC07	4 - 201 mL	22.5	9/6/2019	8:20:43 PM
IC08	5 - 201 mL	19.2	9/6/2019	9:05:12 PM
BLK	16 - 101 mL	20.8	9/6/2019	9:47:39 PM
ICV	6 - 102 mL	17.1	9/6/2019	10:30:16 PM
LCS	7 - 100 mL	23.5	9/6/2019	11:13:05 PM
BLK	16 - 501 mL	17.5	9/7/2019	12:03:00 AM
BLK	16 - 502 mL	18.1	9/7/2019	12:51:35 AM
STDCAN01	8 - 501 mL	20.4	9/7/2019	1:39:51 AM
STDCAN02	9 - 501 mL	19	9/7/2019	2:28:56 AM
STDCAN03	10 - 501 mL	14.3	9/7/2019	3:17:18 AM
STDCAN04	11 - 501 mL	18.2	9/7/2019	4:03:40 AM
STDCAN05	12 - 501 mL	14.8	9/7/2019	4:51:47 AM
STDCAN06	13 - 500 mL	16.1	9/7/2019	5:40:27 AM
STDCAN07	STD- 499 mL	18.5	9/7/2019	6:29:59 AM
STDCAN06	14 - 501 mL	15.9	9/7/2019	7:20:21 AM
STDCAN06	14 - 500 mL	11.4	9/7/2019	8:09:01 AM
STDCAN06	15 - 500 mL	15.3	9/7/2019	9:01:06 AM
STDCAN06	15 - 501 mL	14.7	9/7/2019	9:53:57 AM

MG ICAL WL 12979

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	9/6/19	Instrument:	MG	Chrom WL #:	12979	TALS Batch & Event #	TO14/15: 2131 / 33324	DOD5: 2132 33325
							DOD: 2134 / 33327	OHIO: 2133 / 33326

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		✓
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	In ICV	✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓	DNU. 1+2 M.Naph.	✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓	DNU 1+2 M.Naph acetaldehyde	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? MeCl2 0.4. [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	OK →			MeCl2	✓	✓	✓
18. If curves were used, is correlation coefficient ≥0.990? [F6]	OK	✓	✓		✓	✓	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	✓	✓		✓	✓	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	na →	na			na	na	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 9/9/19 **2nd Level Reviewer/Date:**

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	✓	✓			✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 9/9/19 **2nd Level Reviewer/date:** 9/10/19

Comments: Naph RL 0.08 DNU 1+2 methylnaph + acetaldehyde **Comments:**

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MH Start Date: 09/24/2019 20:48

Analysis Batch Number: 33708 End Date: 09/25/2019 10:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33708/1		09/24/2019 20:48	1	HBFBI24.D	RTX-5 0.32(mm)
IC 140-33708/3		09/24/2019 22:09	1	HI24ICL9.D	RTX-5 0.32(mm)
IC 140-33708/5		09/24/2019 23:55	1	HI24ICL10.D	RTX-5 0.32(mm)
IC 140-33708/8		09/25/2019 02:33	1	HI24ICL1.D	RTX-5 0.32(mm)
IC 140-33708/9		09/25/2019 03:25	1	HI24ICL2.D	RTX-5 0.32(mm)
IC 140-33708/10		09/25/2019 04:18	1	HI24ICL3.D	RTX-5 0.32(mm)
IC 140-33708/11		09/25/2019 05:11	1	HI24ICL4.D	RTX-5 0.32(mm)
IC 140-33708/12		09/25/2019 06:04	1	HI24ICL5.D	RTX-5 0.32(mm)
IC 140-33708/13		09/25/2019 06:59	1	HI24ICL6.D	RTX-5 0.32(mm)
ICIS 140-33708/14		09/25/2019 07:53	1	HI24ICL7.D	RTX-5 0.32(mm)
IC 140-33708/15		09/25/2019 08:47	1	HI24ICL8.D	RTX-5 0.32(mm)
ICV 140-33708/17		09/25/2019 10:36	1	HI24ICV.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	9/24/19	Instrument:	MH	Chrom WL #:	13112	TALS Batch & Event #	TO14/15: 2163 / 33708	DODS: 2164 33882
							DOD: 2166 / 33884	OHIO: 2165 / 33883

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	NA		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA	In ICV	NA
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓	MeCl2 DNU Bch. DNU DODS	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	✓	✓		✓	✓	✓
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	✓	✓		✓	✓	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	✓	✓		✓	✓	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	✓	na		✓	✓	na
21. Is low point RSE ≤ 50 %? MeCl2 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? 1,2 M. naph ↑ - only use for blks [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: 9/25/19 **2nd Level Reviewer/Date:** 9/26/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?		✓	✓		✓	✓	✓
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 9/27/19

2nd Level Reviewer/date: 9/26/19

Comments: DNU DODS for benzyl chloride + MeCl2 only use 1,2 methylnaph theirs for blks.

Comments: ZPB Naph. quad curve.

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MR Start Date: 10/03/2019 09:26

Analysis Batch Number: 34104 End Date: 10/04/2019 01:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34104/1		10/03/2019 09:26	1	RBFBJ03.D	RTX-5 0.32(mm)
CCVIS 140-34104/2		10/03/2019 09:54	1	RCCVJ03.D	RTX-5 0.32(mm)
LCS 140-34104/1002		10/03/2019 09:54	1	RCCVJ03-LCS.d	RTX-5 0.32(mm)
ZZZZZ		10/03/2019 12:15	1		RTX-5 0.32(mm)
MB 140-34104/5		10/03/2019 13:07	1	R500BJ03.D	RTX-5 0.32(mm)
ZZZZZ		10/03/2019 14:02	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 14:54	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 17:18	12.57		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 19:47	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 20:41	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 21:28	147.17		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 22:21	1		RTX-5 0.32(mm)
ZZZZZ		10/03/2019 23:15	1		RTX-5 0.32(mm)
ZZZZZ		10/04/2019 00:09	1		RTX-5 0.32(mm)
ZZZZZ		10/04/2019 01:02	1		RTX-5 0.32(mm)
140-16893-1		10/04/2019 01:56	1	RJ03P110.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	10/3/19 MR		Routine	DOD	OHIO VAP
CCAL Chrom WL #	13261	CCAL Batch #	34104		
ICAL Chrom WL #	12950	ICAL Batch # / Event #	33257 / 2118	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Benzyl chloride	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓		MS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	N		MS
6. Has the RT been updated to the method?			✓
Analyst/date 10/4/19		**2nd Level Reviewer/date** 100719	
7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ on scale	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:* MeCl2 lab Cont	✓	□ Method Blank – Report, ND (NCM#_____) NCM 19979 □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g.,* 1 thru 5*):* [Batch Results IS & SUR Tab] Sample ____ Reason ____ Sample ____ Reason ____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	MS
Chrom Review	**1st**	**If No, why is data reportable?**	**2nd**
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample ____ Reason ____ Sample ____ Reason ____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	N		MS
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?	✓		✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	✓	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] BLC [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19975) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	✓	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) 19976 □ LCS/LCSD - %R High (NCM#_____) Benzyl chloride	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓	Not SDG RE	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	500 mL blank ID: 5 200 mL blank ID:	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 10/4/19	2nd Level Reviewer :	Date: 10/7/19
Comments:		**Comments:**	
Methylene Chloride - 19979 NCM.			

Example Calculation: 16882-1 TU

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

3.4084 x 200 x 12.57 = 973.72

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MH Start Date: 10/08/2019 10:57

Analysis Batch Number: 34203 End Date: 10/09/2019 06:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34203/1		10/08/2019 10:57	1	HJ08BFBA.D	RTX-5 0.32(mm)
CCVIS 140-34203/2		10/08/2019 11:25	1	HJ08CCVISA.D	RTX-5 0.32(mm)
LCS 140-34203/1002		10/08/2019 11:25	1	HJ08CCVISA-LCS.d	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 13:54	1		RTX-5 0.32(mm)
MB 140-34203/7		10/08/2019 13:54	1	HJ08mb500.D	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 14:49	1		RTX-5 0.32(mm)
140-16893-2		10/08/2019 15:43	1	HJ08p101.D	RTX-5 0.32(mm)
140-16893-3		10/08/2019 16:35	1	HJ08p102.D	RTX-5 0.32(mm)
140-16893-4		10/08/2019 17:28	1	HJ08p103.D	RTX-5 0.32(mm)
140-16893-5		10/08/2019 18:21	1	HJ08p104.D	RTX-5 0.32(mm)
140-16893-6		10/08/2019 19:15	1	HJ08p105.D	RTX-5 0.32(mm)
140-16893-7		10/08/2019 20:09	1	HJ08p106.D	RTX-5 0.32(mm)
ZZZZZ		10/08/2019 21:05	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 22:00	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 22:54	1		RTX-5 0.32(mm)
ZZZZZ		10/08/2019 23:48	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 00:43	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 01:35	3.82		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 02:27	3.67		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 03:21	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 04:16	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 05:12	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 06:08	1		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MH 10/8/19		Routine	DOD	OHIO VAP
CCAL Chrom WL #	13307	CCAL Batch #	34203		
ICAL Chrom WL #	13112	ICAL Batch # / Event #	33708 / 2163	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓ ✓		n/a
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	MH ✓		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date MH 10/8/19		**2nd Level Reviewer/date** Suphavorra Kh. 10/9/2019	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	Volume checked on screen MH 10/9/19	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	☐ ICAL – Range Exceeded; Minimum Dilution	MH
Chrom Review	**1st**	**If No, why is data reportable?**	**2nd**
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason _____ _____ _____ _____	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MH
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4
Page 2 of 2

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	/		/
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	□ CCV - %D - LCS criteria met (NCM#) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	/
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	/		na
23. Project & sample special instructions verified?	/		/
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	NA
25. Sample analyses done within analytical holding time?	/	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	/
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	/	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) □ LCS/LCSD - %R High (NCM#)	/
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		NA
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	/		/
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		NA
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	/		/
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	/		/
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	/	**500 mL blank ID:** 140-34203/7 **200 mL blank ID:** 140-34203/5	/
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	/		/
34. Correct ICV linked to each MB? [QC Links]	/		/
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		NA
37. Run Checklist and acknowledge findings [F8]	/		/
38. Runs set to 1st level review?	/	Runs set to 2nd level review?	/
39. QC checker run and items addressed?	-na-		/
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		/

Analyst: Suphanana Kh.	Date: 10/9/2019	2nd Level Reviewer :	Date: 10/9/19
Comments:		**Comments:**	
CI lines 21-24			
processed lines 19&20 tb 10/9/19			
Example Calculation: 140-16914-1 Acetone			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
5.513584 x 500/200 x 1.0 = 13.78			
J16893 rejected 124tclbz RE on MG tb 10/9/19			

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Instrument ID: MG Start Date: 10/09/2019 10:42

Analysis Batch Number: 34215 End Date: 10/10/2019 07:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-34215/1		10/09/2019 10:42	1	GBFBJ09.D	RTX-5 0.32(mm)
CCVIS 140-34215/2		10/09/2019 11:20	1	GCCVJ09.D	RTX-5 0.32(mm)
LCS 140-34215/1002		10/09/2019 11:20	1	GCCVJ09-LCS.d	RTX-5 0.32(mm)
MB 140-34215/4		10/09/2019 13:47	1	GJ09MB500.D	RTX-5 0.32(mm)
ZZZZZ		10/09/2019 14:32	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 15:17	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 16:03	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 16:48	1		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 17:30	1		RTX-5 0.32(mm)
140-16893-2		10/09/2019 18:17	1	GJ09p105.D	RTX-5 0.32(mm)
140-16893-3		10/09/2019 19:03	1	GJ09p106.D	RTX-5 0.32(mm)
140-16893-4		10/09/2019 19:47	1	GJ09p107.D	RTX-5 0.32(mm)
140-16893-5		10/09/2019 20:31	1	GJ09p108.D	RTX-5 0.32(mm)
140-16893-6		10/09/2019 21:14	1	GJ09p109.D	RTX-5 0.32(mm)
140-16893-7		10/09/2019 21:59	1	GJ09p110.D	RTX-5 0.32(mm)
ZZZZZ		10/09/2019 22:41	3.48		RTX-5 0.32(mm)
ZZZZZ		10/09/2019 23:24	3.48		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 00:06	3.54		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 00:53	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 01:40	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 03:08	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 03:51	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 04:37	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 05:22	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 06:07	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 06:50	1		RTX-5 0.32(mm)
ZZZZZ		10/10/2019 07:32	1		RTX-5 0.32(mm)

191009.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 102 mL	33.1	10/9/2019	10:42:37 AM
CCV	9 - 101 mL	21.8	10/9/2019	11:20:03 AM
flush	16 - 100 mL	32.1	10/9/2019	1:09:28 PM
mb500	16 - 501 mL	31.8	10/9/2019	1:47:39 PM
mb200	16 - 201 mL	32.3	10/9/2019	2:32:49 PM
bag16938-01	1 - 11 mL	9.7	10/9/2019	3:17:38 PM
bag16938-04	2 - 11 mL	8.7	10/9/2019	4:03:46 PM
bag16938-06	3 - 11 mL	10.4	10/9/2019	4:48:35 PM
bag16938-09	4 - 11 mL	9.7	10/9/2019	5:30:50 PM
16893-02	5 - 101 mL	1.1	10/9/2019	6:17:25 PM
16893-03	6 - 101 mL	1.2	10/9/2019	7:03:13 PM
16893-04	7 - 101 mL	1.3	10/9/2019	7:47:36 PM
16893-05	8 - 100 mL	3.2	10/9/2019	8:30:58 PM
16893-06	9 - 100 mL	.9	10/9/2019	9:14:39 PM
16893-07	10 - 100 mL	1	10/9/2019	9:59:29 PM
16933-01du	11 - 16 mL	9.1	10/9/2019	10:41:33 PM
16933-01	11 - 16 mL	7.9	10/9/2019	11:24:25 PM
16933-02	12 - 16 mL	8.9	10/10/2019	12:06:36 AM
16933-03	13 - 201 mL	1.2	10/10/2019	12:53:47 AM
16933-04	14 - 201 mL	1.1	10/10/2019	1:40:46 AM
16934-01	15 - 250 mL	1.1	10/10/2019	2:25:43 AM
bk16917-10	16 - 201 mL	15.1	10/10/2019	3:08:42 AM
bk16917-11	STD- 200 mL	20.3	10/10/2019	3:51:46 AM
bk16917-12	1 - 200 mL	18.2	10/10/2019	4:37:20 AM
bk16917-13	2 - 202 mL	18.6	10/10/2019	5:22:45 AM
bk16917-14	3 - 200 mL	25.1	10/10/2019	6:07:21 AM
bk16917-15	4 - 201 mL	21.6	10/10/2019	6:50:34 AM
bk16917-16	5 - 200 mL	10.4	10/10/2019	7:32:42 AM

MG WL 13314

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MS 10/9/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	13314	CCAL Batch #	34215		34296
ICAL Chrom WL #	12979	ICAL Batch # / Event #	33324 / 2131	/	33326 / 2133

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Dichlorodifluoromethane, Trichlorofluoromethane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawan Kh. 10/10/2019		**2nd Level Reviewer/date** 10/10/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	Volume ✓ RB 10/10/19	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	NA

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason _____ _____ _____ _____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	✓		✓
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?	✓		✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	/		/
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	☐ [Failed TO-14A, but passes TO-15] (NCM#_____)	MJ
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	☑ CCV - %D - LCS criteria met (NCM# 20066) ☑ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM# 20067)	/
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	/		na
23. Project & sample special instructions verified?	/		/
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	/	☐ Air Analysis - Air Sample Transfer to Canister (NCM#____)	/
25. Sample analyses done within analytical holding time?	/	☐ Holding Time – Received w/Insufficient Time (NCM#____) ☐ Holding Time – Receipt (NCM#____)	/
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	/	☐ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) ☑ LCS/LCSD - %R High (NCM# 20068)	/
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		MJ
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	/		/
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		MJ
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	/		/
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	/		/
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	/	**500 mL blank ID:** 140-34215/4, 140-34296/4 **200 mL blank ID:** 140-34215/5	/
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	/		/
34. Correct ICV linked to each MB? [QC Links]	/		/
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	/		/
37. Run Checklist and acknowledge findings [F8]	/		/
38. Runs set to 1st level review?	/	Runs set to 2nd level review?	/
39. QC checker run and items addressed?	-na-		/
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		/

Analyst: Suphanam Kh.	Date: 10/10/2019	2nd Level Reviewer : [signature]	Date: 10/10/19
Comments:		**Comments:**	
CI line 21			
J16893 - Report only 124tclbz to 10/10/19			
processed lines 8 & 9 in TALS to 10/10/19			
Example Calculation: 140-16933-1 PCE			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
4.077389 x 500/15 x 3.48 = 473			

MS017r46, 2/22/2019

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34104 Batch Start Date: 10/03/19 09:26 Batch Analyst: Taj, Holly M

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00096	40MXISSURP 00004
BFB 140-34104/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34104/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-34104/5		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-1	IA-018-A-27-RS	TO 15 LL	T	500 mL	500 mL	1	1		40 mL
LCS 140-34104/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-34104/1		TO 15 LL		40 mL					
CCVIS 140-34104/2		TO 15 LL							
MB 140-34104/5		TO 15 LL							
140-16893-A-1	IA-018-A-27-RS	TO 15 LL	T						
LCS 140-34104/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34203 Batch Start Date: 10/08/19 10:57 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00099	40MXISSURP 00004
BFB 140-34203/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34203/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-34203/7		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-34203/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-34203/1		TO 15 LL		40 mL					
CCVIS 140-34203/2		TO 15 LL							
MB 140-34203/7		TO 15 LL							
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T						
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T						
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T						
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T						
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T						
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T						
LCS 140-34203/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34203 Batch Start Date: 10/08/19 10:57 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34215 Batch Start Date: 10/09/19 10:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00098	40MXISSURP 00004
BFB 140-34215/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-34215/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-34215/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-34215/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003
BFB 140-34215/1		TO 15 LL		40 mL
CCVIS 140-34215/2		TO 15 LL		
MB 140-34215/4		TO 15 LL		
140-16893-A-2	IA-015-A-27-RS	TO 15 LL	T	
140-16893-A-3	IA-168-A-27-RS	TO 15 LL	T	
140-16893-A-4	IA-021-A-27-RS	TO 15 LL	T	
140-16893-A-5	IA-136-A-27-RS	TO 15 LL	T	
140-16893-A-6	IA-117-A-27-RS	TO 15 LL	T	
140-16893-A-7	IA-079-A-27-RS	TO 15 LL	T	
LCS 140-34215/1002		TO 15 LL		

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16893-1

SDG No.:

Batch Number: 34215 Batch Start Date: 10/09/19 10:42 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND	*	1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND	*	1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	0.24	B	0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16528-1

SDG No.:

Client Sample ID: 10536 Lab Sample ID: 140-16528-6

Matrix: Air Lab File ID: I05L16528.D

Analysis Method: TO 15 LL Date Collected: 09/04/2019 14:40

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2019 06:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33199 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D				
Lims ID:	140-16528-A-6				
Client ID:	10536				
Sample Type:	Client				
Inject. Date:	06-Sep-2019 06:01:30	ALS Bottle#:	15	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012929-024				
Misc. Info.:	10536				
Operator ID:	HMT	Instrument ID:	MH		
Method:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\MH_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	06-Sep-2019 04:46:48	Calib Date:	27-Aug-2019 22:47:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MH\20190826-12863.b\HH27ICL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				
First Level Reviewer: tajh		Date:	06-Sep-2019 08:39:41		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.604	8.603	0.001	89	314678	4.00	
* 2 1,4-Difluorobenzene	114	10.816	10.810	0.006	95	1557534	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.596	15.596	0.000	88	1186477	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.266	17.245	0.021	96	805141	3.91	
9 Chloromethane	52	3.771	3.766	0.005	99	2431	0.1149	
31 Methylene Chloride	84	6.066	6.061	0.005	96	24639	0.2352	
45 1,1,1-Trichloroethane	97	9.648	9.642	0.006	95	18114	0.0689	
113 Naphthalene	128	21.142	21.137	0.005	1	184	0.0727	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

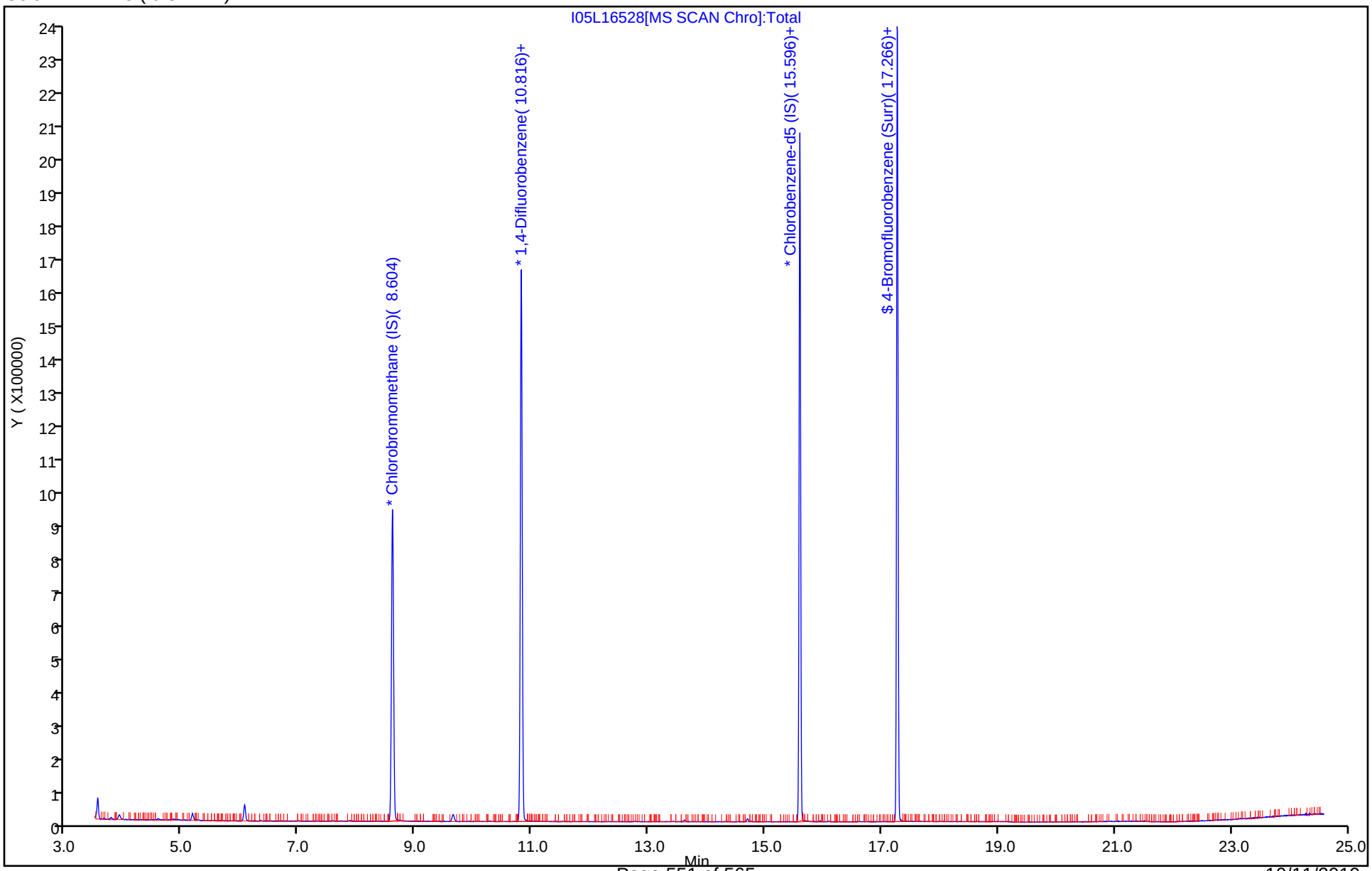
Report Date: 06-Sep-2019 08:39:41 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D

Injection Date:	06-Sep-2019 06:01:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-16528-A-6	Lab Sample ID:	140-16528-6	Worklist Smp#:	24
Client ID:	10536				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

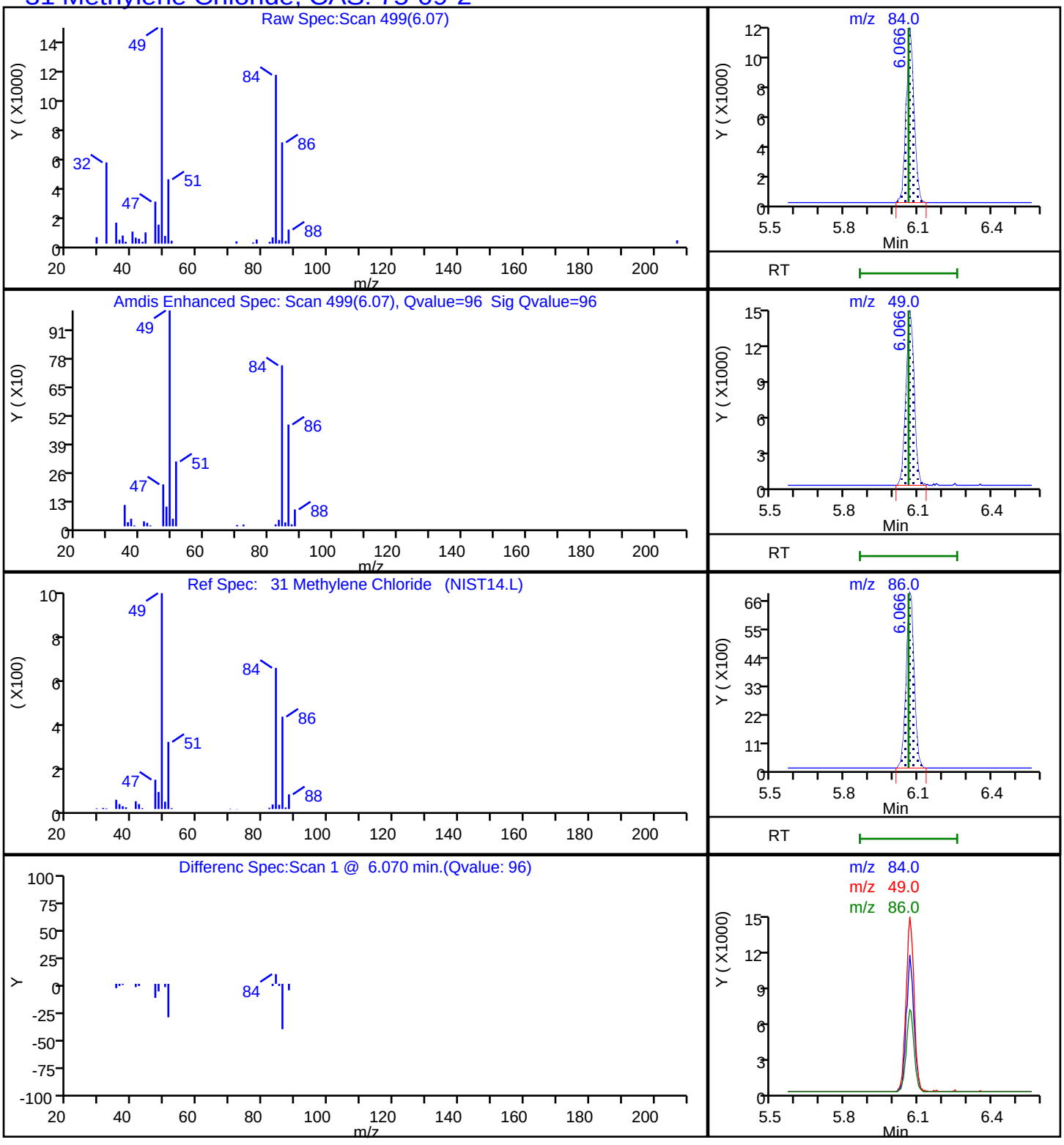


Report Date: 06-Sep-2019 08:39:42 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MH\20190903-12929.b\I05L16528.D				
Injection Date:	06-Sep-2019 06:01:30	Instrument ID:	MH		
Lims ID:	140-16528-A-6	Lab Sample ID:	140-16528-6		
Client ID:	10536				
Operator ID:	HMT	ALS Bottle#:	15	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	0.20		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16580-1

SDG No.:

Client Sample ID: 11299 Lab Sample ID: 140-16580-16

Matrix: Air Lab File ID: I10L16580.D

Analysis Method: TO 15 LL Date Collected: 09/09/2019 14:20

Sample wt/vol: 500(mL) Date Analyzed: 09/11/2019 06:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33353 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D
Lims ID: 140-16580-A-16
Client ID: 11299
Sample Type: Client
Inject. Date: 11-Sep-2019 06:59:30 ALS Bottle#: 15 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012992-025
Misc. Info.: 11299
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 11-Sep-2019 10:13:57 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0339

First Level Reviewer: tajh Date: 11-Sep-2019 10:13:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.544	-0.022	96	165428	4.00	
* 2 1,4-Difluorobenzene	114	10.760	10.771	-0.011	94	926968	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.565	-0.006	87	752422	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.022	94	398172	3.58	
7 Propene	41	3.437	3.439	-0.011	95	22321	0.3597	7
22 Acetone	58	5.055	5.048	-0.005	100	18266	0.6923	
31 Methylene Chloride	84	5.961	5.967	-0.021	96	12891	0.2020	
39 2-Butanone (MEK)	72	7.800	7.759	0.022	98	4434	0.1589	
50 n-Butanol	31	10.189	10.168	0.006	92	2893	0.1128	
69 2-Hexanone	58	14.055	14.045	0.006	92	6654	0.1054	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

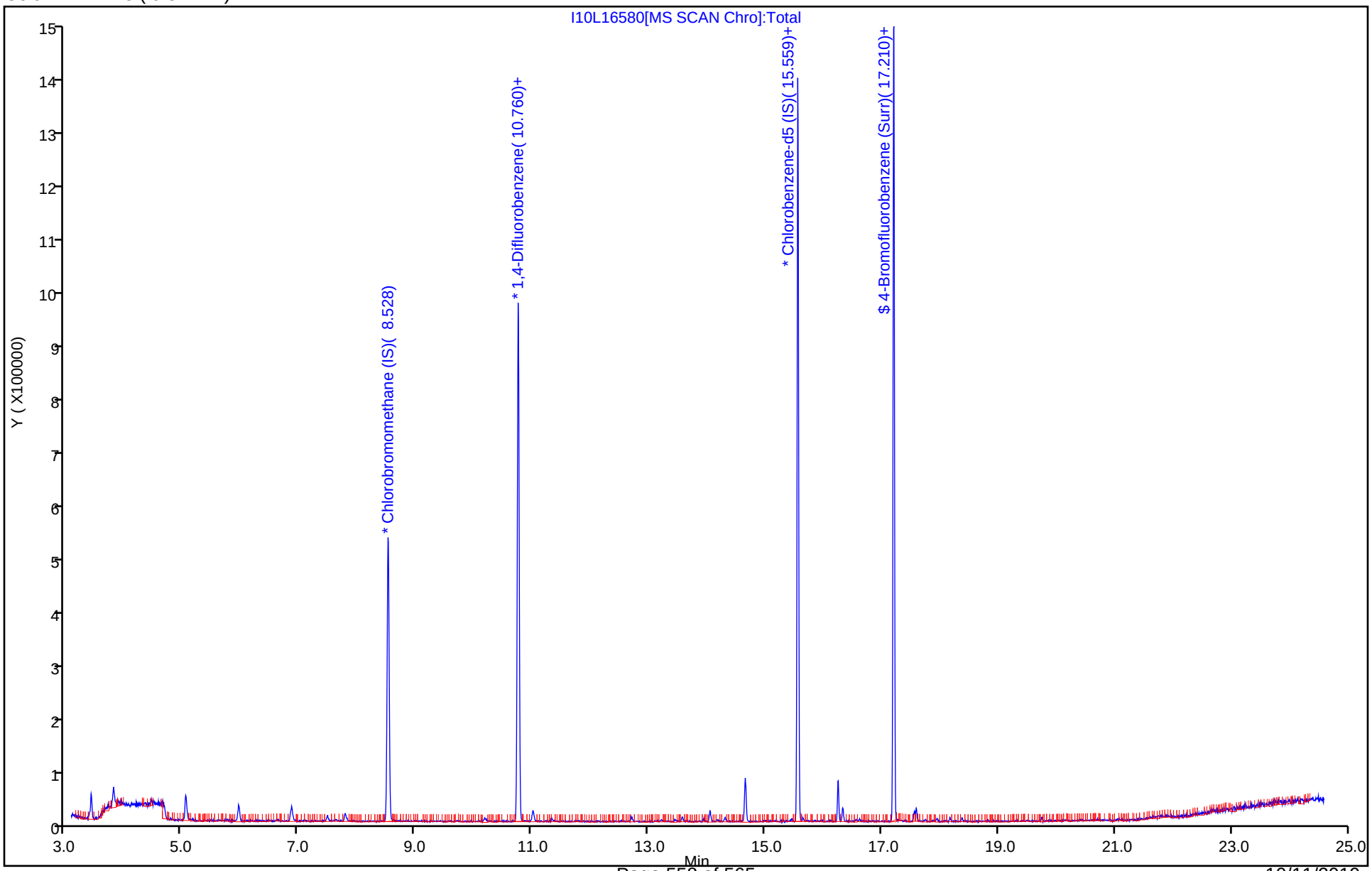
Report Date: 11-Sep-2019 10:13:58 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D

Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16	Worklist Smp#:	25
Client ID:	11299				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

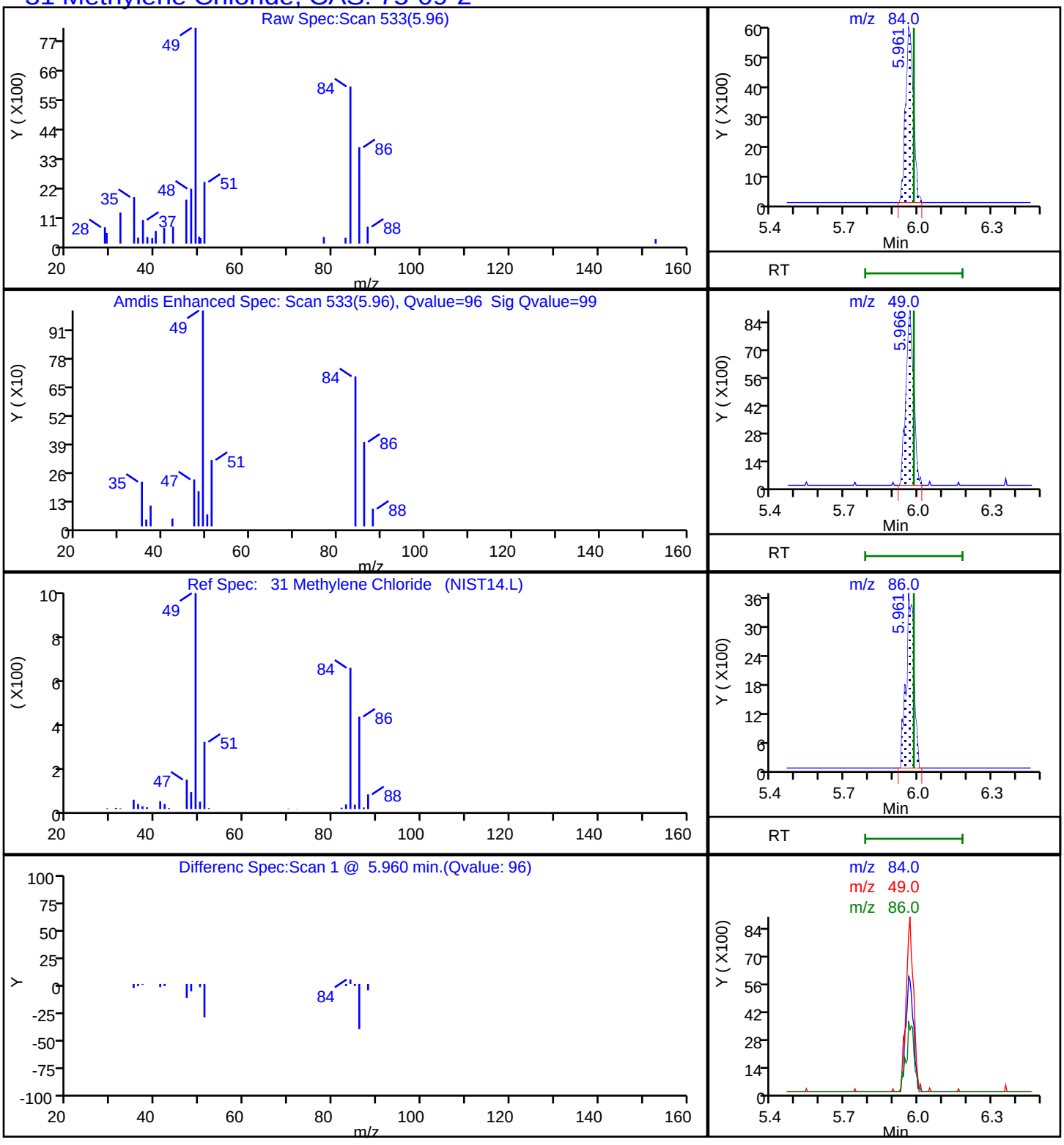


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D

Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16
Client ID:	11299		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



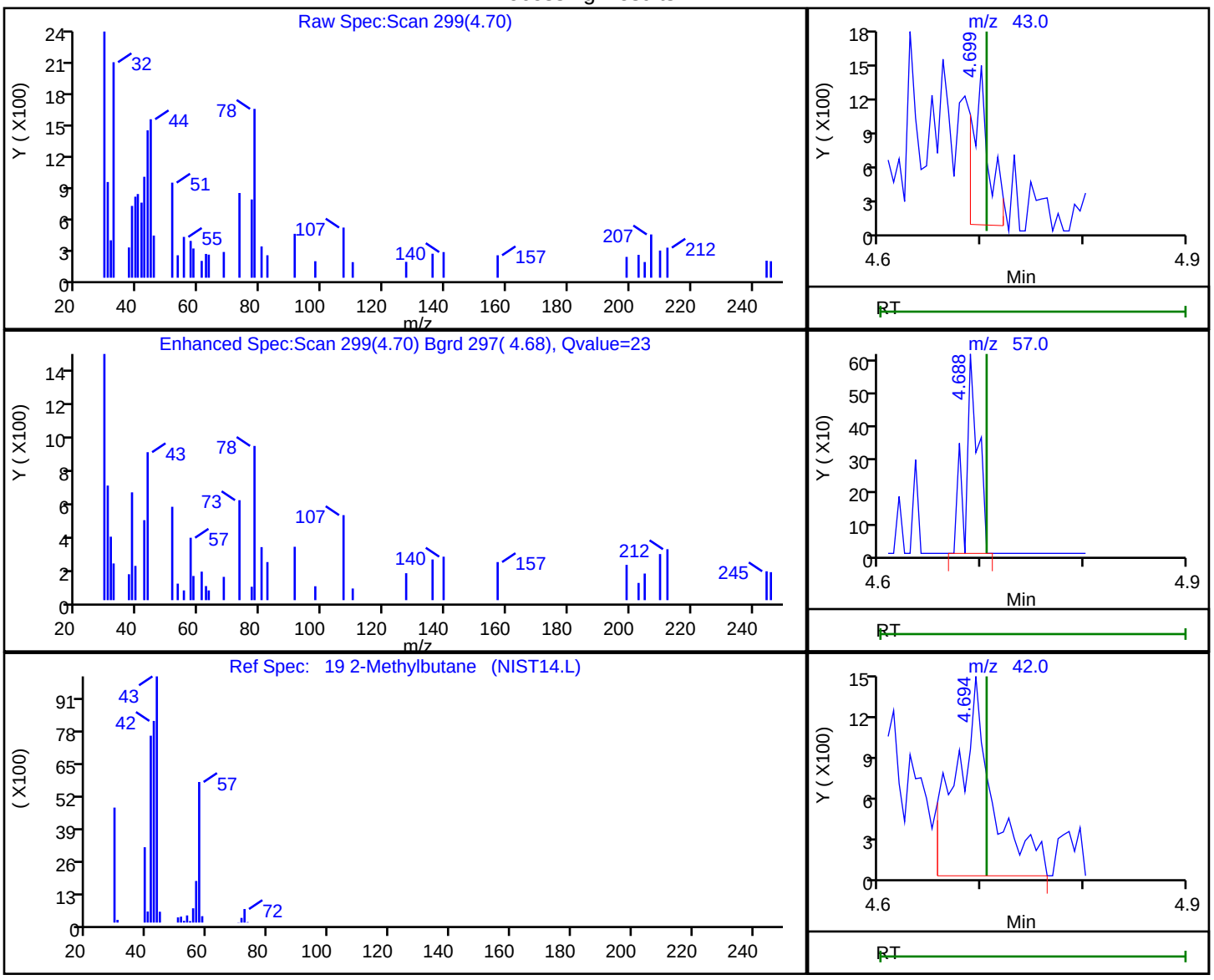
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D		
Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16
Client ID:	11299		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

19 2-Methylbutane, CAS: 78-78-4

Processing Results



RT	Mass	Response	Amount
4.70	43.00	1507	0.023541
4.69	57.00	527	
4.69	42.00	3639	

Reviewer: tajh, 11-Sep-2019 10:13:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

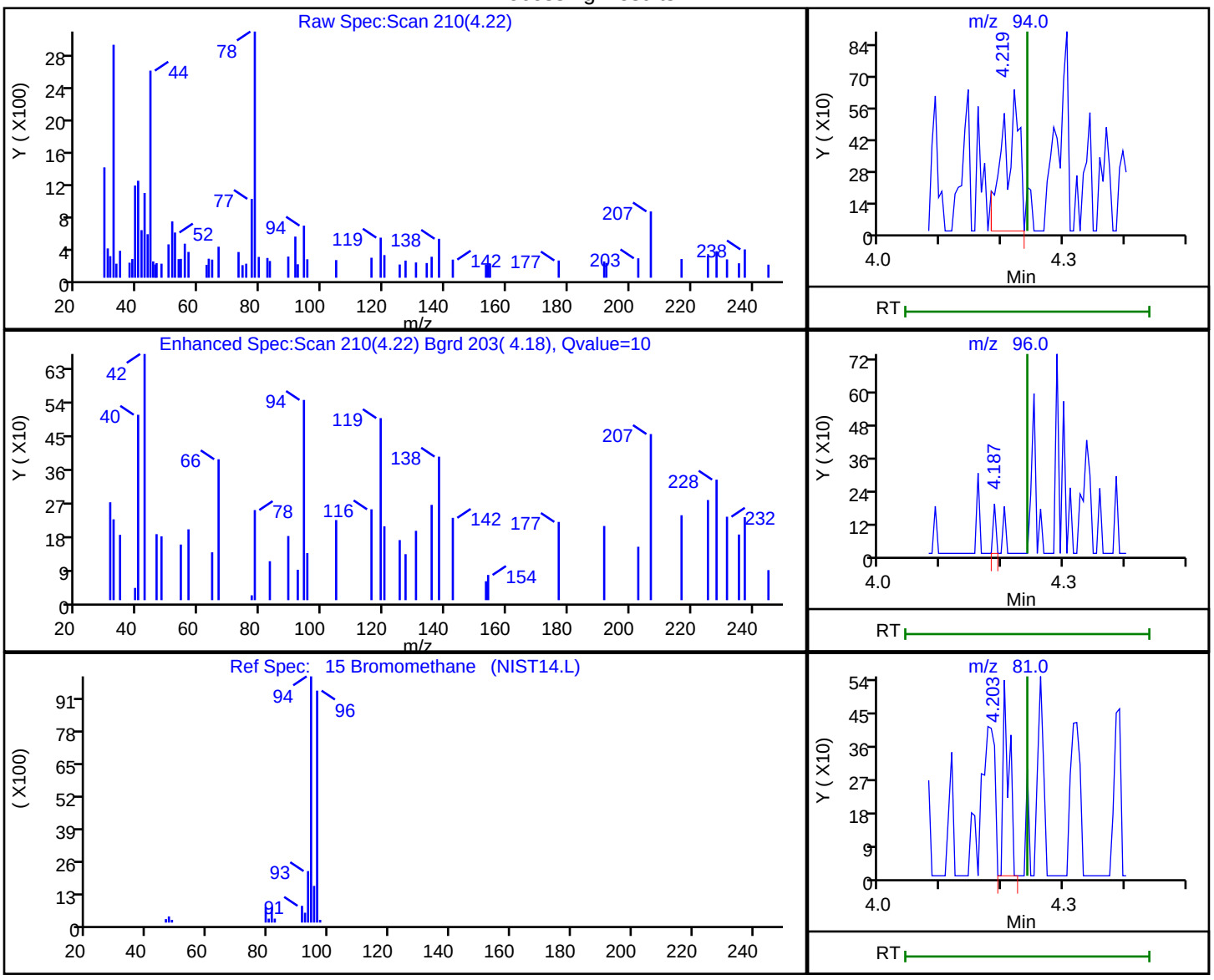
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190908-12992.b\I10L16580.D		
Injection Date:	11-Sep-2019 06:59:30	Instrument ID:	MR
Lims ID:	140-16580-A-16	Lab Sample ID:	140-16580-16
Client ID:	11299		
Operator ID:		ALS Bottle#:	15 Worklist Smp#: 25
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

15 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
4.22	94.00	1136	0.020444
4.19	96.00	59	
4.20	81.00	364	

Reviewer: tajh, 11-Sep-2019 10:13:43

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Canister Samples Chain of Custody Record

140-16893 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Martin	Samples Collected By: Mullis/Brown	COC No: 1 of 1 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste. 200	Email: mike.martin@tetratech.com		
City/State/Zip: Germantown, MD, 20874			For Lab Use Only:
Phone: 410-279-2700	Site Contact: Josh Mullis		Walk-in Client:
FAX: —	Tel/Fax 410-279-2700		Lab Sampling:
Project Name: MRC Indoor Air - Rush	Analysis Turnaround Time		
Site/Location: MRC Building A	Standard (Specific):		Job / SDG No.:
P O #	Rush (Specify): 5DAY TAT		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27-RS	10/2/19	0722	10/2/19	1531	-32	-4	10145	10190		X							X						
IA-015-A-27-RS		0728		1535	-26	2	11648	10210		X							X						
IA-168-A-27-RS		0743		1543	-30	-5	11272	11997		X							X						
IA-021-A-27-RS		0746		1546	-29	-3	11512	10069		X							X						
IA-176-A-27-RS		0750		1550	-30	-3	11238	11561		X							X						
IA-117-A-27-RS		0753		1553	-28	1	11260	11696		X							X						
IA-079-A-27-RS		0756		1556	-30	4	11815	10369		X							X						
					10/2/19																		

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes, Fedex Po trk# 7764 4701 0313, Custody seal intact 4700 9401 RT: 20.0° CT: 20.0°
KW 10/3/19

Special Instructions/QC Requirements & Comments: MRC Building A Emergency Resample 10/2/19

Samples Shipped by:	Date / Time: 10/2/19 1645	Samples Received by:	10/2/19 1645
Samples Relinquished by:	Date / Time: 10/2/19 1700	Received by: ETA 10/3/19 0930	
Relinquished by:	Date / Time:	Received by:	10 cans, 10 flows

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16893

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 14002945 PM Instructions: _____

Sample Receiving Associate: Ken Wal Date: 10/3/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 10/3/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT/AJR	140-16893-a-1	10190	16580	B	6	-4.2	1300	
HMT/AJR	140-16893-a-2	10210	16580	B	6	0.0	1301	
HMT/AJR	140-16893-a-3	11997	16580	B	6	-4.5	1302	
HMT/AJR	140-16893-a-4	10069	16528	B	6	-4.7	1303	
HMT/AJR	140-16893-a-5	11561	16528	B	6	-1.1	1304	
HMT/AJR	140-16893-a-6	11696	16528	B	6	-1.6	1305	
HMT/AJR	140-16893-a-7	10369	16580	B	6	-2.9	1306	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

APPENDIX D—DATA VALIDATION REPORTS

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **OCTOBER 3, 2019**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 140-16367-1

SAMPLES: 19 / Air / VOC

IA-015-A-27	IA-018-A-27	IA-021-A-27
IA-075-A-27	IA-076-A-27	IA-078-A-27
IA-079-A-27	IA-081-A-27	IA-093-A-27
IA-100-B-27	IA-101-B-27	IA-117-A-27
IA-118-A-27	IA-136-A-27	IA-138-A-27
IA-168-A-27	IA-174-A-27	IA-DUP3-A-27
IA-DUP4-A-27		

OVERVIEW

The sample set for LMC – MRC, SDG 140-16367-1, consists of nineteen (19) indoor air (IA) environmental samples. All samples were analyzed for select volatile organic compounds (VOCs). Two (2) field duplicate pairs are included in this SDG: IA-018-A-27 / IA-DUP3-A-27 and IA-079-A-27 / IA-DUP4-A-27.

The samples were collected by Tetra Tech on August 15, 2019 and analyzed by Eurofins TestAmerica. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, internal standard areas, field duplicate precision, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The continuing calibration performed on 08/19/19 at 11:10 on instrument MG had a percent difference (%D) for vinyl chloride that was greater than the 30% quality control limit. Samples IA-018-A-27, IA-DUP3-A-27, IA-138-A-27, IA-081-A-27, IA-079-A-27, IA-118-A-27, IA-015-A-27, IA-117-A-27, IA-078-A-27, IA-136-A-27, IA-076-A-27, and IA-168-A-27 were associated with this calibration. Non-detected results for vinyl chloride were qualified as estimated (UJ) in the affected samples.

- The following contaminants were detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Methylene chloride	0.745 ug/m^3(1)	< RL
Methylene chloride	0.604 ug/m^3(2)	< RL

Methylene chloride	0.570 ug/m$^{3(3)}$	< RL

1 – Maximum concentration detected in method blank associated with batch 140-32704 affecting samples IA-018-A-27, IA-DUP3-A-27, IA-138-A-27, IA-081-A-27, IA-079-A-27, IA-118-A-27, IA-015-A-27, IA-117-A-27, IA-078-A-27, IA-136-A-27, IA-076-A-27, and IA-168-A-27.
2 – Maximum concentration detected in method blank associated with batch 140-32829 affecting samples IA-174-A-27, IA-DUP4-A-27, and IA-093-A-27.
3 – Maximum concentration detected in method blank associated with batch 140-32744 affecting samples IA-075-A-27, IA-021-A-27, IA-100-B-27, and IA-101-B-27.

Detected results less than the RL in the associated samples were qualified as non-detected (U). Detections greater than the RL for methylene chloride were qualified as estimated, (J) as potential laboratory but not definitive contamination.

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Twenty-five VOC target compounds were reported for the TO-15 analysis of the samples.

Non-detected results were reported to the MDL.

The data reviewer observed that the method detection limit for naphthalene was higher than the reporting limit on the sample form Is. No action was noted but this item is noted for completeness.

Sample IA-138-A-27 was analyzed at a dilution factor of 2.04.

The laboratory control sample (LCS) associated with batch 140-32704 had a percent recovery (%R) that was greater than the laboratory quality control limits for vinyl chloride. Samples IA-018-A-27, IA-DUP3-A-27, IA-138-A-27, IA-081-A-27, IA-079-A-27, IA-118-A-27, IA-015-A-27, IA-117-A-27, IA-078-A-27, IA-136-A-27, IA-076-A-27, and IA-168-A-27 were associated with this LCS. No qualification was necessary because vinyl chloride results were non-detected in the associated samples.

EXECUTIVE SUMMARY

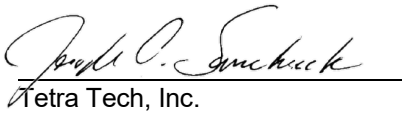
Laboratory Performance: Some VOC results were qualified due to calibration noncompliance. Several results were qualified as non-detected due to laboratory method blank contamination.

Other Factors Affecting Data Quality: Several results were qualified due to field duplicate imprecision. Results above the MDL but below the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and USEPA Method TO-15 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Leigh A. Ciofani

Tetra Tech, Inc.
Leigh A. Ciofani
Environmental Scientist/Data Validator



Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08388	NSAMPLE	IA-015-A-27			IA-018-A-27			IA-021-A-27			IA-075-A-27		
SDG: 140-16367-1	LAB_ID	140-16367-10			140-16367-1			140-16367-17			140-16367-16		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		10	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		1.9	U	
1,1-DICHLOROETHANE		0.14	U		0.2	J	P	0.14	U		1.4	U	
1,1-DICHLOROETHENE		0.16	U		1.6			0.16	U		1.6	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		8.8	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		24	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U		4.9	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		5.4	U	
BENZENE		0.45	J	P	0.58	J	P	0.31	J	P	1.3	U	
CARBON TETRACHLORIDE		0.35	J	P	0.43	J	P	0.47	J	P	2.2	U	
CHLORODIFLUOROMETHANE		1.6			1.6			1.4			3.9	U	
CHLOROFORM		0.24	J	P	0.49	J	P	0.24	J	P	1.7	U	
CIS-1,2-DICHLOROETHENE		0.2	U		0.89	J	P	0.2	U		2	U	
DICHLORODIFLUOROMETHANE		2.7			2.3			1.6	J	P	3.5	U	
ETHYLBENZENE		0.49	J	P	0.37	J	P	1.1	J	P	2.8	U	
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		9.4	U	
METHYLENE CHLORIDE		7.1	J	A	7.1	J	A	6.3	U	A	29	U	A
NAPHTHALENE		2	U		2	U		2	U		20	U	
TETRACHLOROETHENE		0.24	U		0.24	U		0.24	U		2.4	U	
TOLUENE		18			5.3			46			24		
TOTAL XYLENES		2.5	J	P	1.7	J	P	5.7			5.2	U	
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		1.4	U	
TRICHLOROETHENE		0.16	U		3.9			0.16	U		1.6	U	
VINYL CHLORIDE		0.33	UJ	C	0.33	UJ	C	0.33	U		3.3	U	

PROJ_NO: 08388	NSAMPLE	IA-076-A-27			IA-078-A-27			IA-079-A-27			IA-081-A-27		
SDG: 140-16367-1	LAB_ID	140-16367-14			140-16367-12			140-16367-7			140-16367-6		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U		0.56	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.44	J	P	0.36	J	P	0.52	J	P	0.44	J	P
CARBON TETRACHLORIDE		0.39	J	P	0.29	J	P	0.29	J	P	0.4	J	P
CHLORODIFLUOROMETHANE		1.3	J	P	0.86	J	P	0.93	J	P	1.7		
CHLOROFORM		0.21	J	P	0.24	J	P	0.22	J	P	0.26	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.3			1.5	J	P	1.8	J	P	2.4		
ETHYLBENZENE		0.7	J	P	1.1	J	P	1.2	J	P	3.7		
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		5.7	U	A	15	J	A	7.6	J	A	6.8	J	A
NAPHTHALENE		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE		0.24	U		0.24	U		0.24	U		0.24	U	
TOLUENE		27			62			64			150		
TOTAL XYLENES		3.3	J	P	5			6.1			15		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	UJ	C	0.33	UJ	C	0.33	UJ	C	0.33	UJ	C

PROJ_NO: 08388	NSAMPLE	IA-093-A-27			IA-100-B-27			IA-101-B-27			IA-117-A-27		
SDG: 140-16367-1	LAB_ID	140-16367-5			140-16367-18			140-16367-19			140-16367-11		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		1.6			0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.63	J	P	0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.53	J	P	0.52	J	P	0.52	J	P	0.41	J	P
CARBON TETRACHLORIDE		0.59	J	P	0.33	J	P	0.35	J	P	0.37	J	P
CHLORODIFLUOROMETHANE		0.39	U		2.4			2.7			0.92	J	P
CHLOROFORM		0.25	J	P	0.27	J	P	0.35	J	P	0.22	J	P
CIS-1,2-DICHLOROETHENE		0.48	J	P	0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.6			2			1.8	J	P	1.8	J	P
ETHYLBENZENE		0.38	J	P	2.4			1.7			1.3	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		140	J	A	5.9	U	A	5.6	U	A	21	J	A
NAPHTHALENE		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE		0.71	J	P	0.24	J	P	0.39	J	P	0.24	U	
TOLUENE		6.1			130			95			60		
TOTAL XYLENES		1.5	J	P	10			8.7			5.5		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		9.3			0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	UJ	C

PROJ_NO: 08388	NSAMPLE	IA-118-A-27			IA-136-A-27			IA-138-A-27			IA-168-A-27		
SDG: 140-16367-1	LAB_ID	140-16367-9			140-16367-13			140-16367-3			140-16367-15		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.18	J	P	0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		1.6			0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.43	J	P	0.45	J	P	0.55	J	P	0.38	J	P
CARBON TETRACHLORIDE		0.35	J	P	0.44	J	P	0.35	J	P	0.34	J	P
CHLORODIFLUOROMETHANE		1.1	J	P	1.6			1.5			0.88	J	P
CHLOROFORM		0.22	J	P	0.29	J	P	0.28	J	P	0.17	U	
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.97	J	P	0.2	U	
DICHLORODIFLUOROMETHANE		1.7	J	P	2.2			2.6			2		
ETHYLBENZENE		0.76	J	P	1.5	J	P	0.45	J	P	0.36	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		6.3	U	A	6.1	U	A	6.6	U	A	8.3	J	A
NAPHTHALENE		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE		0.24	U		0.26	J	P	0.24	U		0.41	J	P
TOLUENE		16			70			5.1			9.9		
TOTAL XYLENES		3.9			7.1			2	J	P	1.6	J	P
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.21	J	P	0.16	U		5.1			0.16	U	
VINYL CHLORIDE		0.33	UJ	C	0.33	UJ	C	0.33	UJ	C	0.33	UJ	C

PROJ_NO: 08388	NSAMPLE	IA-174-A-27			IA-DUP3-A-27			IA-DUP4-A-27		
SDG: 140-16367-1	LAB_ID	140-16367-4			140-16367-2			140-16367-8		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			FD			FD		
	UNITS	UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS									
	DUP_OF				IA-018-A-27			IA-079-A-27		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		1.7			1.5	J	P	0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U	
BENZENE		0.49	J	P	0.48	J	P	0.56	J	P
CARBON TETRACHLORIDE		0.54	J	P	0.36	J	P	0.51	J	P
CHLORODIFLUOROMETHANE		1.5			1.6			1.3	J	P
CHLOROFORM		0.24	J	P	0.46	J	P	0.23	J	P
CIS-1,2-DICHLOROETHENE		0.66	J	P	0.95	J	P	0.2	U	
DICHLORODIFLUOROMETHANE		2.1			2.2			2.6		
ETHYLBENZENE		0.28	U		0.43	J	P	1.2	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		44	J	A	9.5	J	A	18	J	A
NAPHTHALENE		2	U		4.3			2	U	
TETRACHLOROETHENE		0.24	U		0.24	U		1	J	P
TOLUENE		5.3			5.8			64		
TOTAL XYLENES		1.2	J	P	2	J	P	6.1		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		8.2			3.6			0.16	U	
VINYL CHLORIDE		0.33	U		0.33	UJ	C	0.33	U	

Appendix B

Results as Reported by the Laboratory

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.58	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-015-A-27 Lab Sample ID: 140-16367-10

Matrix: Air Lab File ID: GH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:11

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	18		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.22	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.050	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.42		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.72		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-018-A-27 Lab Sample ID: 140-16367-1

Matrix: Air Lab File ID: GH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.49	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.89	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.20	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.098	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.048	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	12		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-021-A-27 Lab Sample ID: 140-16367-17

Matrix: Air Lab File ID: RH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:27

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.31	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	46		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	ND		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	ND		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	1,1-Dichloroethane	98.96	ND		4.0	0.35
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	ND		4.0	0.40
100-41-4	Ethylbenzene	106.17	ND		4.0	0.65
75-09-2	Methylene Chloride	84.93	8.5	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	ND		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	6.3		6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	ND		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	ND		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		4.0	1.1
75-01-4	Vinyl chloride	62.50	ND		2.0	1.3
1330-20-7	Xylenes, Total	106.17	ND		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-075-A-27 Lab Sample ID: 140-16367-16

Matrix: Air Lab File ID: RH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:25

Sample wt/vol: 10(mL) Date Analyzed: 08/19/2019 20:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	ND		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	ND		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	1,1-Dichloroethane	98.96	ND		16	1.4
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	ND		16	1.6
100-41-4	Ethylbenzene	106.17	ND		17	2.8
75-09-2	Methylene Chloride	84.93	29	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	ND		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	24		23	15
156-60-5	trans-1,2-Dichloroethene	96.94	ND		16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	ND		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	ND		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		20	5.4
75-01-4	Vinyl chloride	62.50	ND		5.1	3.3
1330-20-7	Xylenes, Total	106.17	ND		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.061	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	7.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-076-A-27 Lab Sample ID: 140-16367-14

Matrix: Air Lab File ID: GH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:22

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	27		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.11	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.30	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.25	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-078-A-27 Lab Sample ID: 140-16367-12

Matrix: Air Lab File ID: GH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:14

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.36	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	62		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-079-A-27 Lab Sample ID: 140-16367-7

Matrix: Air Lab File ID: GH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:01

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.93	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.6	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.48		0.40	0.11
67-66-3	Chloroform	119.38	0.054	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.85		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	40		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.11	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-081-A-27 Lab Sample ID: 140-16367-6

Matrix: Air Lab File ID: GH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 17:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	3.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.8	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	150		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.56	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.094	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.051	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.12	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.41		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.087	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	41	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.10	J	0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.7		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.35	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.59	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.25	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.48	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.38	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	140	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.71	J	2.7	0.24
108-88-3	Toluene	92.14	6.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	9.3		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.67		0.40	0.11
67-66-3	Chloroform	119.38	0.055	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.54		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.036	J	0.40	0.035
108-88-3	Toluene	92.14	36		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-100-B-27 Lab Sample ID: 140-16367-18

Matrix: Air Lab File ID: RH19P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:30

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.4		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.9	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	130		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.63	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	10		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.76		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.40		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	25		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-101-B-27 Lab Sample ID: 140-16367-19

Matrix: Air Lab File ID: RH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:33

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	95		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	8.7		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.26	J	0.40	0.11
67-66-3	Chloroform	119.38	0.046	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	16		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-117-A-27 Lab Sample ID: 140-16367-11

Matrix: Air Lab File ID: GH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:17

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.92	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	60		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.044	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	4.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.040	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.90		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-118-A-27 Lab Sample ID: 140-16367-9

Matrix: Air Lab File ID: GH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:10

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	0.22	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.76	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	16		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.21	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.35	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.038	J	0.40	0.035
108-88-3	Toluene	92.14	18		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-136-A-27 Lab Sample ID: 140-16367-13

Matrix: Air Lab File ID: GH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:20

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.5	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.26	J	2.7	0.24
108-88-3	Toluene	92.14	70		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.056	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.058	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.044	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.40		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.96		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.47	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-138-A-27 Lab Sample ID: 140-16367-3

Matrix: Air Lab File ID: GH19P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:54

Sample wt/vol: 204(mL) Date Analyzed: 08/19/2019 15:41

Soil Aliquot Vol: Dilution Factor: 2.04

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.28	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.97	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.18	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.1		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.12	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.25	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.082	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.060	J	0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.38	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-168-A-27 Lab Sample ID: 140-16367-15

Matrix: Air Lab File ID: GH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.38	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.88	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.36	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.41	J	2.7	0.24
108-88-3	Toluene	92.14	9.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.086	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.43		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.17	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.44		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	13	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.5		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.28	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-174-A-27 Lab Sample ID: 140-16367-4

Matrix: Air Lab File ID: JH21P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:55

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.49	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.54	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.66	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	44	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.057	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.45		0.40	0.11
67-66-3	Chloroform	119.38	0.094	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.24	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.38	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.098	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.83		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.67		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND	*	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.45	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP3-A-27 Lab Sample ID: 140-16367-2

Matrix: Air Lab File ID: GH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.95	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.5	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.43	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.5	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	4.3		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND	*	0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.047	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.28	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	5.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	17		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-DUP4-A-27 Lab Sample ID: 140-16367-8

Matrix: Air Lab File ID: JH21P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.23	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	18	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.0	J	2.7	0.24
108-88-3	Toluene	92.14	64		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Appendix C

Support Documentation

Job Narrative
140-16367-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32704 exhibited % difference of > 30% for Vinyl chloride; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Vinyl chloride recovered outside control limits for the LCS associated with analytical batch 140-32704. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

Sample IA-075-A-27 (140-16367-16) was diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Can Certification Comments:
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16367-1
Project/Site: MMRC SV/IAQ Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16367-1	IA-018-A-27	Air	08/15/19 15:53	08/17/19 10:30	Air Canister (1-Liter) #10748
140-16367-2	IA-DUP3-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11839
140-16367-3	IA-138-A-27	Air	08/15/19 15:54	08/17/19 10:30	Air Canister (1-Liter) #10519
140-16367-4	IA-174-A-27	Air	08/15/19 15:55	08/17/19 10:30	Air Canister (1-Liter) #11860
140-16367-5	IA-093-A-27	Air	08/15/19 15:56	08/17/19 10:30	Air Canister (1-Liter) #09797
140-16367-6	IA-081-A-27	Air	08/15/19 16:00	08/17/19 10:30	Air Canister (1-Liter) #10345
140-16367-7	IA-079-A-27	Air	08/15/19 16:01	08/17/19 10:30	Air Canister (1-Liter) #11624
140-16367-8	IA-DUP4-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11875
140-16367-9	IA-118-A-27	Air	08/15/19 16:10	08/17/19 10:30	Air Canister (1-Liter) #10335
140-16367-10	IA-015-A-27	Air	08/15/19 16:11	08/17/19 10:30	Air Canister (1-Liter) #09663
140-16367-11	IA-117-A-27	Air	08/15/19 16:17	08/17/19 10:30	Air Canister (1-Liter) #11639
140-16367-12	IA-078-A-27	Air	08/15/19 16:14	08/17/19 10:30	Air Canister (1-Liter) #11882
140-16367-13	IA-136-A-27	Air	08/15/19 16:20	08/17/19 10:30	Air Canister (1-Liter) #11807
140-16367-14	IA-076-A-27	Air	08/15/19 16:22	08/17/19 10:30	Air Canister (1-Liter) #11753
140-16367-15	IA-168-A-27	Air	08/15/19 16:23	08/17/19 10:30	Air Canister (1-Liter) #11135
140-16367-16	IA-075-A-27	Air	08/15/19 16:25	08/17/19 10:30	Air Canister (1-Liter) #11035
140-16367-17	IA-021-A-27	Air	08/15/19 16:27	08/17/19 10:30	Air Canister (1-Liter) #11851
140-16367-18	IA-100-B-27	Air	08/15/19 16:30	08/17/19 10:30	Air Canister (1-Liter) #11884
140-16367-19	IA-101-B-27	Air	08/15/19 16:33	08/17/19 10:30	Air Canister (1-Liter) #11883

Baltimore #201

Canister Samples Chain of Custody Record

140-16367 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR
Company Name: TETRA TECH INC	**Phone:** 301-528-3021	COC No: 8 of 9 COCs
Address: 20251 CENTURY BLVD, STE 200	**Email:** JENT.APANAVAGE@TETRATECH.COM	
City/State/Zip GERMANTOWN, MD, 20874	**Site Contact:** MULLIS/PRYOR	For Lab Use Only:
Phone: 301-528-3021	**Tel/Fax** 410-279-3700	Walk-in Client:
FAX:	**Analysis Turnaround Time**	Lab Sampling:
Project Name: MRC SV/IAQ Round 27	**Standard (Specific):** 10 DAYS	Job / SDG No.:
Site/Location: MRC, BALT, MD	**Rush (Specifiy):**	(See below for Add'l Items)
P O # 112ICO8388		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27	8/15/19	0742	8/15/19	1553	-30	-3	8740	10748	K								K						Can = 10748
IA-DUP3-A-27	"	0000	"	0000	-30	-9	8645	11839	K								K						
IA-138-A-27	"	0746	"	1554	-30	-3	6710	10519	K								K						
IA-174-A-27	"	0747	"	1555	-30	-4	8713	11860	K								K						
IA-093-A-27	"	0749	"	1556	-27	-2	10160	09797	K								K						
IA-081-A-27	"	0756	"	1600	-30	-2	10304	10345	K								K						
IA-079-A-27	"	0800	"	1601	-30	-5	10352	11624	K								K						
IA-DUP4-A-27	"	0000	"	0000	-30	-3	09855	11875	K								K						
IA-118-A-27	"	0804	"	1610	-29	0	10468	10335	K								K						
IA-015-A-27	"	0805	"	1611	-30	3	8654	09663	K								K						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes trk# 7760 0655 8549, 8273, Custody seal intact
KJ 8/17/19

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/30/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PRYOR	COC No: 4 of 4 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRATECH.COM		
City/State/Zip: GERMANTOWN, MD, 20874			For Lab Use Only:
Phone: 301-528-3021	**Site Contact:** MULLIS/PRYOR		Walk-in Client:
FAX:	**Tel/Fax** 410-279-3700		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		Job / SDG No.:
Site/Location: MRC, BALTIMORE, MD	**Standard (Specific):** 10 DAYS		(See below for Add'l Items)
P O # 112ICO8588	**Rush (Specifiy):**		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-117-A-27	8/15/19	0810	8/16/19	1617	-30	0	11937	11639	X								X						
IA-078-A-27	"	0812	"	1619	-30	-4	8790	11882	X								X						
IA-176-A-27	"	0814	"	1620	-30	-1	09864	11807	X								X						
IA-076-A-27	"	0817	"	1622	-30	-3	A500	11753	X								X						
IA-168-A-27	"	0820	"	1623	-30	-6	8701	11135	X								X						
IA-075-A-27	"	0823	"	1625	-30	0	7615	11035	X								X						
IA-021-A-27	"	0825	"	1627	-30	-3	8774	11851	X								X						
IA-100-B-27	"	0829	"	1630	-30	-4	7617	11884	X								X						
IA-101-B-27	"	0832	"	1633	-30	-1	7414	11883	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**	
Samples Relinquished by:	**Date / Time:** 8/16/19	**Received by:**	
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030	21 cans, 1 T, 20 flow
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** **16367**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400 2945 PM Instructions: _____

Sample Receiving Associate: _____ Date: 8/17/19

QA026R32.doc, 062719

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
IA-018-A-27	IA-DUP3-A-27	OV-M3	1,1-DICHLOROETHANE	0.2 J	0.14 U	1.6	35.29	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	1,1-DICHLOROETHENE	1.6	1.5 J	1.6	6.45	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	BENZENE	0.58 J	0.48 J	1.3	18.87	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	CARBON TETRACHLORIDE	0.43 J	0.36 J	2.5	17.72	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	CHLORODIFLUOROMETHANE	1.6	1.6	1.4	0.00	FALSE	TRUE	TRUE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	CHLOROFORM	0.49 J	0.46 J	2	6.32	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	CIS-1,2-DICHLOROETHENE	0.89 J	0.95 J	1.6	6.52	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	DICHLORODIFLUOROMETHANE	2.3	2.2	2	4.44	FALSE	TRUE	TRUE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	ETHYLBENZENE	0.37 J	0.43 J	1.7	15.00	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	METHYLENE CHLORIDE	7.1	9.5	6.9	28.92	FALSE	TRUE	TRUE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	NAPHTHALENE	2 U	4.3	1	73.02	TRUE	TRUE	TRUE	TRUE
IA-018-A-27	IA-DUP3-A-27	OV-M3	TOLUENE	5.3	5.8	2.3	9.01	FALSE	TRUE	TRUE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	TOTAL XYLENES	1.7 J	2 J	3.5	16.22	FALSE	FALSE	FALSE	FALSE
IA-018-A-27	IA-DUP3-A-27	OV-M3	TRICHLOROETHENE	3.9	3.6	1.1	8.00	FALSE	TRUE	TRUE	FALSE

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
IA-079-A-27	IA-DUP4-A-27	OV-M3	BENZENE	0.52 J	0.56 J	1.3	7.41	FALSE	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	CARBON TETRACHLORIDE	0.29 J	0.51 J	2.5	~~55.00~~	~~TRUE~~	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	CHLORODIFLUOROMETHANE	0.93 J	1.3 J	1.4	33.18	FALSE	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	CHLOROFORM	0.22 J	0.23 J	2	4.44	FALSE	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	DICHLORODIFLUOROMETHANE	1.8 J	2.6	2	36.36	FALSE	FALSE	TRUE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	ETHYLBENZENE	1.2 J	1.2 J	1.7	0.00	FALSE	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	METHYLENE CHLORIDE	7.6	18	6.9	81.25	TRUE	TRUE	TRUE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	TETRACHLOROETHENE	0.24 U	1 J	2.7	~~122.58~~	~~TRUE~~	FALSE	FALSE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	TOLUENE	64	64	2.3	0.00	FALSE	TRUE	TRUE	FALSE
IA-079-A-27	IA-DUP4-A-27	OV-M3	TOTAL XYLENES	6.1	6.1	3.5	0.00	FALSE	TRUE	TRUE	FALSE

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27	140-16367-1	103
IA-DUP3-A-27	140-16367-2	104
IA-138-A-27	140-16367-3	100
IA-174-A-27	140-16367-4	91
IA-093-A-27	140-16367-5	94
IA-081-A-27	140-16367-6	100
IA-079-A-27	140-16367-7	98
IA-DUP4-A-27	140-16367-8	99
IA-118-A-27	140-16367-9	92
IA-015-A-27	140-16367-10	100
IA-117-A-27	140-16367-11	100
IA-078-A-27	140-16367-12	92
IA-136-A-27	140-16367-13	101
IA-076-A-27	140-16367-14	100
IA-168-A-27	140-16367-15	99
IA-075-A-27	140-16367-16	92
IA-021-A-27	140-16367-17	96
IA-100-B-27	140-16367-18	95
IA-101-B-27	140-16367-19	94
	MB 140-32704/4	99
	MB 140-32744/4	90
	MB 140-32829/4	82
	LCS 140-32704/1002	101
	LCS 140-32744/1002	107
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: G500BH19.D Lab Sample ID: MB 140-32704/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/19/2019 13:28

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32704/1002	GCCVH19A-LCS.d	08/19/2019 11:10
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019 14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019 14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019 15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019 17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019 18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019 19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019 20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019 21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019 22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019 22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019 23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019 00:15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.215	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32704/4

Matrix: Air Lab File ID: G500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 13:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32704 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.745	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH19A-LCS.d

Lab ID: LCS 140-32704/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.04	102	70-130	
Carbon tetrachloride	2.00	1.80	90	70-130	
Chlorodifluoromethane	2.00	2.42	121	60-140	
Chloroform	2.00	1.94	97	70-130	
cis-1,2-Dichloroethene	2.00	2.07	104	70-130	
Dichlorodifluoromethane	2.00	2.37	119	60-140	
1,1-Dichloroethane	2.00	2.02	101	70-130	
1,2-Dichloroethane	2.00	1.76	88	70-130	
1,1-Dichloroethene	2.00	2.01	101	70-130	
Ethylbenzene	2.00	1.89	94	70-130	
Methylene Chloride	2.00	2.05	103	70-130	
Methyl tert-butyl ether	2.00	1.75	87	60-140	
Naphthalene	2.00	1.56	78	60-140	
Tetrachloroethene	2.00	1.79	89	70-130	
Toluene	2.00	1.94	97	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.62	81	60-140	
1,1,1-Trichloroethane	2.00	1.84	92	70-130	
1,1,2-Trichloroethane	2.00	1.90	95	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.44	72	70-130	
1,2,4-Trimethylbenzene	2.00	1.73	86	70-130	
1,3,5-Trimethylbenzene	2.00	2.04	102	70-130	
Vinyl chloride	2.00	2.64	132	70-130	*
Xylenes, Total	6.00	5.58	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019 17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019 17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019 00:34

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019 20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019 21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019 22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019 23:07

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: GBFBH19A.D BFB Injection Date: 08/19/2019

Instrument ID: MG BFB Injection Time: 10:37

Analysis Batch No.: 32704

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	95.0	
175	5.0 - 9.0 % of mass 174	6.9	(7.3) 1
176	95.0 - 101.0 % of mass 174	92.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32704/2	GCCVH19A.D	08/19/2019	11:10
	LCS 140-32704/1002	GCCVH19A-LCS .d	08/19/2019	11:10
	MB 140-32704/4	G500BH19.D	08/19/2019	13:28
IA-018-A-27	140-16367-1	GH19P101.D	08/19/2019	14:11
IA-DUP3-A-27	140-16367-2	GH19P102.D	08/19/2019	14:56
IA-138-A-27	140-16367-3	GH19P103.D	08/19/2019	15:41
IA-081-A-27	140-16367-6	GH19P106.D	08/19/2019	17:49
IA-079-A-27	140-16367-7	GH19P107.D	08/19/2019	18:32
IA-118-A-27	140-16367-9	GH19P109.D	08/19/2019	19:58
IA-015-A-27	140-16367-10	GH19P110.D	08/19/2019	20:41
IA-117-A-27	140-16367-11	GH19P111.D	08/19/2019	21:24
IA-078-A-27	140-16367-12	GH19P112.D	08/19/2019	22:07
IA-136-A-27	140-16367-13	GH19P113.D	08/19/2019	22:50
IA-076-A-27	140-16367-14	GH19P114.D	08/19/2019	23:32
IA-168-A-27	140-16367-15	GH19P115.D	08/20/2019	00:15

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	2.459		2.42	2.00	21.0	30.0
Propene	Ave	0.996	1.356		2.72	2.00	36.2*	30.0
Dichlorodifluoromethane	Ave	3.947	4.682		2.37	2.00	18.6	30.0
Chloromethane	Ave	0.2864	0.3737		2.61	2.00	30.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	3.136		2.79	2.00	39.7*	30.0
Acetaldehyde	Ave	0.3158	0.3422		10.8	10.0	8.3	30.0
Vinyl chloride	Ave	1.044	1.376		2.64	2.00	31.8*	30.0
1,3-Butadiene	Ave	0.7597	0.9737		2.56	2.00	28.2	30.0
Butane	Ave	1.492	1.852		2.48	2.00	24.2	30.0
Bromomethane	Ave	0.9503	1.217		2.56	2.00	28.0	30.0
Chloroethane	Ave	0.4643	0.5912		2.55	2.00	27.3	30.0
Ethanol	Ave	0.3217	0.2588		8.04	10.0	-19.6	30.0
Vinyl bromide	Ave	0.8333	1.068		2.56	2.00	28.2	30.0
2-Methylbutane	Ave	0.9463	1.014		2.14	2.00	7.2	30.0
Trichlorofluoromethane	Ave	3.185	2.934		1.84	2.00	-7.9	30.0
Acrolein	Ave	0.1381	0.1464		2.12	2.00	6.0	30.0
Acetonitrile	Ave	0.2308	0.1836		1.59	2.00	-20.4	30.0
Acetone	Ave	0.2705	0.2260		1.67	2.00	-16.5	30.0
Pentane	Ave	0.1347	0.1343		1.99	2.00	-0.3	30.0
Isopropyl alcohol	Ave	0.7723	0.7651		1.98	2.00	-0.9	30.0
Ethyl ether	Ave	0.5689	0.4818		1.69	2.00	-15.3	30.0
1,1-Dichloroethene	Ave	1.140	1.147		2.01	2.00	0.6	30.0
Acrylonitrile	Ave	0.5581	0.5517		1.98	2.00	-1.2	30.0
tert-Butyl alcohol	Ave	1.715	1.415		1.65	2.00	-17.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.481		1.99	2.00	-0.6	30.0
Methylene Chloride	Ave	1.108	1.138		2.05	2.00	2.7	30.0
3-Chloropropene	Ave	1.095	1.057		1.93	2.00	-3.4	30.0
Carbon disulfide	Ave	3.065	3.220		2.10	2.00	5.1	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.175		2.06	2.00	3.0	30.0
2-Methylpentane	Ave	2.358	2.227		1.89	2.00	-5.5	30.0
Methyl tert-butyl ether	Ave	3.072	2.687		1.75	2.00	-12.5	30.0
1,1-Dichloroethane	Ave	2.187	2.208		2.02	2.00	1.0	30.0
Vinyl acetate	Ave	2.107	2.076		1.97	2.00	-1.4	30.0
2-Butanone (MEK)	Ave	0.4337	0.3920		1.81	2.00	-9.6	30.0
Hexane	Ave	0.9137	0.9490		2.08	2.00	3.9	30.0
Isopropyl ether	Ave	2.914	2.767		1.90	2.00	-5.1	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.212		2.07	2.00	3.6	30.0
Ethyl acetate	Ave	1.876	1.642		1.75	2.00	-12.5	30.0
Chloroform	Ave	2.715	2.632		1.94	2.00	-3.0	30.0
Tert-butyl ethyl ether	Ave	3.293	2.813		1.71	2.00	-14.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.8653		1.79	2.00	-10.7	30.0
1,1,1-Trichloroethane	Ave	3.254	2.995		1.84	2.00	-7.9	30.0
1,2-Dichloroethane	Ave	0.3682	0.3233		1.76	2.00	-12.2	30.0
1-Butanol	Ave	0.0501	0.0421		1.68	2.00	-16.0	30.0
Benzene	Ave	0.5978	0.6092		2.04	2.00	1.9	30.0
Cyclohexane	Ave	0.1107	0.1080		1.95	2.00	-2.4	30.0
Carbon tetrachloride	Ave	0.6079	0.5481		1.80	2.00	-9.8	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1439		1.89	2.00	-5.5	30.0
Thiophene	Ave	0.3534	0.3484		1.97	2.00	-1.4	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.997		1.90	2.00	-5.0	30.0
Heptane	Ave	0.2329	0.2226		1.91	2.00	-4.4	30.0
1,2-Dichloropropane	Ave	0.2110	0.2037		1.93	2.00	-3.5	30.0
Trichloroethene	Ave	0.3335	0.3071		1.84	2.00	-7.9	30.0
Dibromomethane	Ave	0.2511	0.2423		1.93	2.00	-3.5	30.0
Bromodichloromethane	Ave	0.5049	0.4836		1.92	2.00	-4.2	30.0
1,4-Dioxane	Ave	0.0869	0.0653		1.50	2.00	-24.9	30.0
Methyl methacrylate	Ave	0.2246	0.1925		1.71	2.00	-14.3	30.0
Methylcyclohexane	Ave	0.4217	0.4824		2.29	2.00	14.4	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2514		1.55	2.00	-22.4	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3560		2.02	2.00	0.8	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3673		1.99	2.00	-0.5	30.0
Toluene	Ave	0.7865	0.7632		1.94	2.00	-3.0	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2193		1.90	2.00	-4.8	30.0
2-Hexanone	Ave	0.1912	0.1407		1.47	2.00	-26.5	30.0
Octane	Ave	0.2861	0.2936		2.05	2.00	2.6	30.0
Dibromochloromethane	Ave	0.5582	0.5481		1.96	2.00	-1.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4258		1.99	2.00	-0.4	30.0
Tetrachloroethene	Ave	0.3641	0.3257		1.79	2.00	-10.6	30.0
Chlorobenzene	Ave	0.6563	0.6531		1.99	2.00	-0.5	30.0
2,3-Dimethylheptane	Ave	0.7538	0.6494		1.72	2.00	-13.9	30.0
Ethylbenzene	Ave	1.041	0.9833		1.89	2.00	-5.6	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7707		3.78	4.00	-5.4	30.0
Nonane	Ave	0.5001	0.5065		2.03	2.00	1.3	30.0
Bromoform	Ave	0.5067	0.5018		1.98	2.00	-1.0	30.0
Styrene	Ave	0.5330	0.5481		2.06	2.00	2.8	30.0
o-Xylene	Ave	0.8833	0.7965		1.80	2.00	-9.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4820		1.87	2.00	-6.7	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1709		1.71	2.00	-14.7	30.0
Isopropylbenzene	Ave	1.202	1.086		1.81	2.00	-9.6	30.0
Propylbenzene	Ave	0.3368	0.3019		1.79	2.00	-10.4	30.0
2-Chlorotoluene	Ave	0.3248	0.3049		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32704/2 Calibration Date: 08/19/2019 11:10

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH19A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.012		1.72	2.00	-14.2	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.5031		2.04	2.00	1.8	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4352		1.90	2.00	-4.8	30.0
Decane	Ave	0.6385	0.5940		1.86	2.00	-7.0	30.0
tert-Butylbenzene	Ave	1.121	0.9786		1.75	2.00	-12.7	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9076		1.73	2.00	-13.6	30.0
sec-Butylbenzene	Ave	1.470	1.307		1.78	2.00	-11.1	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.6802		1.84	2.00	-8.0	30.0
Benzyl chloride	Ave	0.8145	0.7938		1.95	2.00	-2.5	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.6823		1.83	2.00	-8.5	30.0
4-Isopropyltoluene	Ave	1.304	1.109		1.70	2.00	-14.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.6986		1.44	2.00	-27.9	30.0
Butylcyclohexane	Ave	0.8263	0.7549		1.83	2.00	-8.6	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.6379		1.83	2.00	-8.3	30.0
Indane	Ave	0.9576	0.8333		1.74	2.00	-13.0	30.0
Butylbenzene	Ave	1.167	1.024		1.75	2.00	-12.3	30.0
Indene	Ave	0.7987	0.6374		1.60	2.00	-20.2	30.0
Undecane	Ave	0.5181	0.5922		2.29	2.00	14.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2589		1.46	2.00	-26.9	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9438		1.53	2.00	-23.4	30.0
Dodecane	Ave	0.4081	0.3977		1.95	2.00	-2.5	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5010		1.62	2.00	-19.0	30.0
Naphthalene	Ave	1.275	0.9928		1.56	2.00	-22.1	30.0
Hexachlorobutadiene	Ave	0.6005	0.4695		1.56	2.00	-21.8	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4124		1.44	2.00	-27.8	30.0
2-Methylnaphthalene	Ave	0.4473	0.4660		2.08	2.00	4.2	50.0
1-Methylnaphthalene	Ave	0.4268	0.4434		2.08	2.00	3.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.7047		4.06	4.00	1.4	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-174-A-27	140-16367-4	JH21P103.D	08/21/2019	17:09
IA-DUP4-A-27	140-16367-8	JH21P104.D	08/21/2019	17:59
IA-093-A-27	140-16367-5	JH21P110.D	08/22/2019	00:34

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-075-A-27	140-16367-16	RH19P104.D	08/19/2019	20:44
IA-021-A-27	140-16367-17	RH19P105.D	08/19/2019	21:31
IA-100-B-27	140-16367-18	RH19P106.D	08/19/2019	22:19
IA-101-B-27	140-16367-19	RH19P107.D	08/19/2019	23:07

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32704/2 Date Analyzed: 08/19/2019 11:10

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH19A.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		639553	9.14	3637374	11.31	3201568	15.99
UPPER LIMIT		895374	9.47	5092324	11.64	4482195	16.32
LOWER LIMIT		383732	8.81	2182424	10.98	1920941	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32704/1002		639553	9.14	3637374	11.31	3201568	15.99
MB 140-32704/4		631196	9.14	3572704	11.31	3152905	15.99
140-16367-1	IA-018-A-27	555604	9.14	3126966	11.31	2783832	15.98
140-16367-2	IA-DUP3-A-27	609580	9.14	3489024	11.31	3082954	15.99
140-16367-3	IA-138-A-27	610525	9.14	3528279	11.31	3149068	15.99
140-16367-6	IA-081-A-27	634236	9.14	3176329	11.31	2958095	15.99
140-16367-7	IA-079-A-27	850205	9.14	4274753	11.31	3299959	15.98
140-16367-9	IA-118-A-27	862766	9.15	4013893	11.31	2976020	15.98
140-16367-10	IA-015-A-27	630191	9.15	3510555	11.31	3203955	15.98
140-16367-11	IA-117-A-27	815671	9.15	4235194	11.31	2962285	15.99
140-16367-12	IA-078-A-27	875616	9.14	4725665	11.31	4282764	15.98
140-16367-13	IA-136-A-27	627547	9.15	3378893	11.31	2937203	15.98
140-16367-14	IA-076-A-27	644653	9.15	3313641	11.31	2944757	15.98
140-16367-15	IA-168-A-27	745756	9.14	3977658	11.30	2859104	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16367-4	IA-174-A-27	259215	9.73	1273380	11.84	1061453	16.45
140-16367-8	IA-DUP4-A-27	207218	9.73	1011694	11.84	869388	16.45
140-16367-5	IA-093-A-27	213359	9.73	1014519	11.84	824581	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16367-16	IA-075-A-27	195644	8.56	1097664	10.78	876815	15.58
140-16367-17	IA-021-A-27	179614	8.56	1016605	10.78	896462	15.57
140-16367-18	IA-100-B-27	171496	8.54	994552	10.78	917494	15.57
140-16367-19	IA-101-B-27	192051	8.54	1094552	10.78	1034164	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16367-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16367-3	1	-12.2	0.59	0.59	3.1	1.21	1.21		2.04	2.04	08/17/19 15:08	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

LOCKHEED MARTIN CORPORATION (LMC) - MIDDLE RIVER COMPLEX (MRC)
SDG 140-16367-1

SAMPLE IDENTIFICATION	IA-093-A-27		
COMPOUND	TRICHLOROETHENE	MW =	131.39
		GAS CONSTANT =	24.45
COMPOUND AREA	28885		
INTERNAL STANDARD AMOUNT (ppbv)	4		
CALIBRATION VOLUME (mL)	500		
DILUTION FACTOR	1		
INTERNAL STANDARD AREA	1014519		
AVERAGE RRF	0.3308		
SAMPLE VOLUME (mL)	100		

1.72 ppbv
9.25 µg/m³

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1

SDG No.:

Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5

Matrix: Air Lab File ID: JH21P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.094	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.051	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.12	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.41		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.087	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	41	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.10	J	0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.7		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.35	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1
SDG No.:
Client Sample ID: IA-093-A-27 Lab Sample ID: 140-16367-5
Matrix: Air Lab File ID: JH21P110.D
Analysis Method: TO 15 LL Date Collected: 08/15/2019 15:56
Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 00:34
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.59	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.25	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.48	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	1.6		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.38	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	140	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.71	J	2.7	0.24
108-88-3	Toluene	92.14	6.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	9.3		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\JH21P110.D
Lims ID: 140-16367-A-5
Client ID: IA-093-A-27
Sample Type: Client
Inject. Date: 22-Aug-2019 00:34:30 ALS Bottle#: 10 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012793-017
Misc. Info.: 140-16367-a-5
Operator ID: 007126 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190820-12793.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Aug-2019 09:37:40 Calib Date: 20-Jul-2019 06:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 12:30:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.726	9.731	-0.005	91	213359	4.00	
* 2 1,4-Difluorobenzene	114	11.835	11.840	-0.005	95	1014519	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.445	16.450	-0.005	87	824581	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.048	18.047	0.000	96	569636	3.76	
21 Dichlorodifluoromethane	85	4.234	4.225	0.006	97	6980	0.1045	
40 1,1-Dichloroethene	96	6.687	6.682	0.000	96	5310	0.0811	
44 Methylene Chloride	84	7.069	7.064	-0.001	96	660320	8.23	E
55 cis-1,2-Dichloroethene	96	9.371	9.375	-0.011	23	1633	0.0242	
57 Chloroform	83	9.731	9.730	-0.006	27	1769	0.0102	
64 Benzene	78	11.334	11.328	0.000	81	6154	0.0331	
65 Carbon tetrachloride	117	11.361	11.350	0.005	48	2925	0.0188	
71 Trichloroethene	130	12.529	12.527	-0.005	96	28885	0.3443	
80 Toluene	91	14.514	14.513	0.000	92	64514	0.3238	
86 Tetrachloroethene	129	15.633	15.632	0.000	86	1668	0.0208	
89 Ethylbenzene	91	16.762	16.767	-0.006	93	4452	0.0173	
90 m-Xylene & p-Xylene	91	16.918	16.923	-0.006	98	10104	0.0513	
94 o-Xylene	91	17.451	17.450	0.000	93	3897	0.0186	
S 129 Xylenes, Total	100				0		0.0700	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16367-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: S. BRENNER **DATE:** OCTOBER 3, 2019

FROM: LEIGH A. CIOFANI **COPIES:** DV FILE

SUBJECT: ORGANIC DATA VALIDATION – VOC
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 140-16369-1

SAMPLES: 24 / Air / VOC

IA-001-C-27	IA-004-C-27	IA-060-C-27
IA-088-C-27	IA-102-C-27	IA-113-C-27
IA-126-C-27	IA-133-C-27	IA-141-C-27
IA-142-C-27	IA-144-C-27	IA-145-C-27
IA-146-C-27	IA-149-C-27	IA-150-C-27
IA-152-C-27	IA-153-C-27	IA-155-C-27
IA-BCK-1-27	IA-BCK-2-27	IA-BCK-3-27
IA-BCK-4-27	IA-DUP1-C-27	IA-DUP2-C-27

OVERVIEW

The sample set for LMC – MRC, SDG 140-16369-1, consists of twenty-four (24) indoor air (IA) environmental samples. All samples were analyzed for select volatile organic compounds (VOCs). Two (2) field duplicate pairs are included in this SDG: IA-102-C-27 / IA-DUP1-C-27 and IA-088-C-27 / IA-DUP2-C-27.

The samples were collected by Tetra Tech on August 14, 2019 and analyzed by Eurofins TestAmerica. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, internal standard areas, field duplicate precision, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The continuing calibration performed on 08/19/19 at 10:15 on instrument MJ had percent differences (%Ds) for 1,2-dichloroethane and naphthalene that were greater than the 30% quality control limit. Samples IA-155-C-27, IA-133-C-27, IA-153-C-27, IA-060-C-27, IA-152-C-27, IA-144-C-27, and IA-145-C-27 were associated with this calibration. Non-detected results for 1,2-dichloroethane and naphthalene were qualified as estimated (UJ) in the associated samples.

- The continuing calibration performed on 08/23/19 at 10:44 on instrument MR had a %D for dichlorodifluoromethane that was greater than the 30% quality control limit. Samples IA-126-C-27, IA-113-C-27, IA-088-C-27, IA-142-C-27, and IA-149-C-27 were associated with this calibration. Detected results for dichlorodifluoromethane were qualified as estimated (J) in the associated samples.

- The following contaminants were detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Methylene chloride	0.604 ug/m$^{3(1)}$	< RL
Methylene chloride	0.570 ug/m$^{3(2)}$	< RL
Methylene chloride	0.555 ug/m$^{3(3)}$	< RL

1 – Maximum concentration detected in method blank associated with batch 140-32829 affecting sample IA-DUP2-C-27.
2 – Maximum concentration detected in method blank associated with batch 140-32744 affecting samples IA-BCK-4-27, IA-BCK-2-27, IA-BCK-1-27, IA-BCK-3-27, IA-001-C-27, IA-004-C-27, IA-102-C-27, and IA-DUP1-C-27.
3 – Maximum concentration detected in method blank associated with batch 140-32868 affecting samples IA-126-C-27, IA-113-C-27, IA-088-C-27, IA-142-C-27, and IA-149-C-27.

Detected results less than the RL in the associated samples were qualified as non-detected (U). Detections greater than the RL for methylene chloride were qualified as estimated, (J) as potential laboratory but not definitive contamination.

- The laboratory control sample (LCS) associated with batch 140-32312 had a percent recovery (%R) that was less than the laboratory quality control limits for 1,2-dichloroethane. Samples IA-155-C-27, IA-133-C-27, IA-153-C-27, IA-060-C-27, IA-152-C-27, IA-144-C-27, and IA-145-C-27 were associated with this LCS. Non-detected results for 1,2-dichloroethane were qualified as estimated (UJ) in the associated samples.

- The laboratory qualified results for chlorodifluoromethane in samples IA-133-C-27, IA-144-C-27, IA-146-C-27, IA-150-C-27, IA-152-C-27, and IA-153-C-27 with a "CI" qualifier. According to the laboratory report, this qualifier indicates that the peak identified by the data system exhibited chromatographic interference that could not be resolved, and there is reason to suspect there may be a high bias. These results were qualified as estimated (J) on this basis.

- The field duplicate pair samples IA-088-C-27 / IA-DUP2-C-27 had a relative percent differences (RPDs) that were greater than the 50% quality control limit for chlorodifluoromethane and methylene chloride. The detected results for these analytes in samples IA-088-C-27 and IA-DUP2-C-27 were qualified as estimated (J).

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Twenty-five VOC target compounds were reported for the TO-15 analysis of the samples.

The data reviewer observed that the method detection limit for naphthalene was higher than the reporting limit on the sample form Is. No action was noted but this item is noted for completeness. All naphthalene results were nondetected.

Non-detected results were reported to the MDL.

The following samples were analyzed at a dilution factors greater than 1:

Sample	Dilution Factor
IA-060-C-27	1.55
IA-088-C-27	1.53
IA-113-C-27	1.45
IA-126-C-27	2.87
IA-142-C-27	1.89
IA-149-C-27	1.67
IA-BCK-2-27	1.64

EXECUTIVE SUMMARY

Laboratory Performance: Some VOC results were qualified due to calibration noncompliance. Several results were qualified as non-detected due to laboratory method blank contamination. Several results were qualified due to LCS noncompliance. Some results for one analyte were qualified due to chromatographic interference noted by the laboratory.

Other Factors Affecting Data Quality: Several results in one pair of field duplicate samples were qualified due to field duplicate imprecision. Results above the MDL but below the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and USEPA Method TO-15 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Leigh A. Ciofani

Tetra Tech, Inc.
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08388	NSAMPLE	IA-001-C-27			IA-004-C-27			IA-060-C-27			IA-088-C-27		
SDG: 140-16369-1	LAB_ID	140-16369-5			140-16369-6			140-16369-12			140-16369-22		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U		0.6	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	UJ	CE	0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.63	J	P	0.13	U		0.44	J	P	0.51	J	P
CARBON TETRACHLORIDE		0.27	J	P	0.22	U		0.32	J	P	0.47	J	P
CHLORODIFLUOROMETHANE		1.5			1.9			4.2			3.1	J	G
CHLOROFORM		0.24	J	P	0.19	J	P	0.26	J	P	0.42	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.75	J	P	0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		1.7	J	P	1.6	J	P	2.1			1.7	J	CP
ETHYLBENZENE		0.35	J	P	0.28	U		0.39	J	P	0.78	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		11	J	A	6.1	U	A	8.8	J	A	190	J	AG
NAPHTHALENE		2	U		2	U		2	UJ	C	2	U	
TETRACHLOROETHENE		0.24	U		0.24	U		0.24	U		0.24	U	
TOLUENE		1.7	J	P	1.5	U		1.7	J	P	4		
TOTAL XYLENES		1.9	J	P	0.52	U		2	J	P	4.4		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.54	J	P	0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	IA-102-C-27			IA-113-C-27			IA-126-C-27			IA-133-C-27		
SDG: 140-16369-1	LAB_ID	140-16369-7			140-16369-21			140-16369-20			140-16369-10		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.66	J	P	0.58	J	P	0.49	U		0.77	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	UJ	CE
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.5	J	P	0.58	J	P	0.74	J	P	0.61	J	P
CARBON TETRACHLORIDE		0.51	J	P	0.46	J	P	0.29	J	P	0.46	J	P
CHLORODIFLUOROMETHANE		4.6			3.7			1.5			3.9	J	Q
CHLOROFORM		0.31	J	P	0.35	J	P	0.31	J	P	0.33	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		1.6	J	P	1.9	J	CP	2.2	J	C	2.1		
ETHYLBENZENE		0.7	J	P	0.67	J	P	1.6	J	P	0.66	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		7.1	J	A	130	J	A	280	J	A	12	J	A
NAPHTHALENE		2	U		2	U		2	U		2	UJ	C
TETRACHLOROETHENE		0.24	U		0.33	J	P	0.39	J	P	0.24	U	
TOLUENE		2.5			3.9			12			2.7		
TOTAL XYLENES		3.6			3.8			7.8			3.6		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		1	J	P	0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	IA-141-C-27			IA-142-C-27			IA-144-C-27			IA-145-C-27		
SDG: 140-16369-1	LAB_ID	140-16369-18			140-16369-24			140-16369-14			140-16369-15		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.64	J	P	1.4	J	P	0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	UJ	CE	0.2	UJ	CE
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.46	J	P	0.53	J	P	0.43	J	P	0.52	J	P
CARBON TETRACHLORIDE		0.37	J	P	0.5	J	P	0.32	J	P	0.44	J	P
CHLORODIFLUOROMETHANE		3			3.1			14	J	Q	12		
CHLOROFORM		0.26	J	P	0.27	J	P	0.57	J	P	0.19	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.1			1.6	J	CP	2			2.3		
ETHYLBENZENE		0.28	U		0.63	J	P	1.1	J	P	0.49	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		7.8	J	A	14	J	A	9.8	J	A	11	J	A
NAPHTHALENE		2	U		2	U		2	UJ	C	2	UJ	C
TETRACHLOROETHENE		0.24	U		0.24	J	P	0.24	U		0.24	U	
TOLUENE		1.5	U		2.4			2.6			3.3		
TOTAL XYLENES		1.3	J	P	3.3	J	P	5.6			2.3	J	P
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	IA-146-C-27			IA-149-C-27			IA-150-C-27			IA-152-C-27		
SDG: 140-16369-1	LAB_ID	140-16369-16			140-16369-19			140-16369-17			140-16369-13		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		3.4	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.64	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.47	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.53	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		3	U		0.88	U		0.86	J	P
1,2,4-TRICHLOROBENZENE		2.4	U		7.9	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		1.6	U		0.49	U		2.6		
1,2-DICHLOROETHANE		0.2	U		0.68	U		0.2	U		0.2	UJ	CE
1,3,5-TRIMETHYLBENZENE		0.54	U		1.8	U		0.54	U		0.81	J	P
BENZENE		0.42	J	P	0.43	U		0.51	J	P	0.57	J	P
CARBON TETRACHLORIDE		0.34	J	P	0.74	U		0.37	J	P	0.46	J	P
CHLORODIFLUOROMETHANE		38	J	Q	3.7	J	P	32	J	Q	16	J	Q
CHLOROFORM		0.24	J	P	0.57	U		0.2	J	P	0.89	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.66	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.1			2.6	J	CP	2.4			2.5		
ETHYLBENZENE		0.46	J	P	1.9	J	P	0.5	J	P	1.3	J	P
METHYL TERT-BUTYL ETHER		0.94	U		3.1	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		9.8	J	A	340	J	A	13	J	A	23	J	A
NAPHTHALENE		2	U		6.7	U		2	U		2	UJ	C
TETRACHLOROETHENE		0.24	U		0.79	U		0.24	U		0.24	U	
TOLUENE		1.6	J	P	13			1.7	J	P	3.7		
TOTAL XYLENES		2.4	J	P	8.3	J	P	2.4	J	P	7.2		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.46	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		1.1	J	P	0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		1.1	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	IA-153-C-27			IA-155-C-27			IA-BCK-1-27			IA-BCK-2-27		
SDG: 140-16369-1	LAB_ID	140-16369-11			140-16369-9			140-16369-3			140-16369-2		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.82	J	P	0.86	J	P	0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	UJ	CE	0.2	UJ	CE	0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.47	J	P	0.63	J	P	0.58	J	P	0.56	J	P
CARBON TETRACHLORIDE		0.38	J	P	0.46	J	P	0.5	J	P	0.26	J	P
CHLORODIFLUOROMETHANE		4	J	Q	8.1			1.6			1.7		
CHLOROFORM		0.27	J	P	0.29	J	P	0.21	J	P	0.17	U	
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		1.9	J	P	2.9			1.8	J	P	1.5	J	P
ETHYLBENZENE		0.57	J	P	0.85	J	P	0.28	U		0.3	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		6.4	J	AP	13	J	A	7.9	J	A	10	J	A
NAPHTHALENE		2	UJ	C	2	UJ	C	2	U		2	U	
TETRACHLOROETHENE		0.24	U		0.24	U		0.24	U		0.24	U	
TOLUENE		2.2	J	P	3.8			1.9	J	P	3.6		
TOTAL XYLENES		3.1	J	P	4.4			0.99	J	P	1.4	J	P
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	IA-BCK-3-27			IA-BCK-4-27			IA-DUP1-C-27			IA-DUP2-C-27		
SDG: 140-16369-1	LAB_ID	140-16369-4			140-16369-1			140-16369-8			140-16369-23		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			FD			FD		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF							IA-102-C-27			IA-088-C-27		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.61	J	P	0.67	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
BENZENE		0.48	J	P	0.47	J	P	0.42	J	P	0.55	J	P
CARBON TETRACHLORIDE		0.47	J	P	0.35	J	P	0.41	J	P	0.43	J	P
CHLORODIFLUOROMETHANE		1.3	J	P	1.8			5.2			6	J	G
CHLOROFORM		0.18	J	P	0.19	J	P	0.17	U		0.24	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		1.6	J	P	1.9	J	P	1.9	J	P	2.8		
ETHYLBENZENE		0.28	U		0.28	U		0.6	J	P	0.71	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		4.8	U	A	5	U	A	4.7	U	A	54	J	AG
NAPHTHALENE		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE		0.24	U		0.24	U		0.32	J	P	0.24	U	
TOLUENE		1.5	U		1.8	J	P	2.3			3		
TOTAL XYLENES		1	J	P	0.52	U		3.3	J	P	4		
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

Appendix B

Results as Reported by the Laboratory

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.043	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.42		0.40	0.11
67-66-3	Chloroform	119.38	0.050	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.081	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.2	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.43	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-001-C-27 Lab Sample ID: 140-16369-5

Matrix: Air Lab File ID: RH19P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:31

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.27	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.35	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.9	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.54		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.7	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.10	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-004-C-27 Lab Sample ID: 140-16369-6

Matrix: Air Lab File ID: RH19P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 04:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.9		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.75	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.1	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.54	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.090	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.46	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-060-C-27 Lab Sample ID: 140-16369-12

Matrix: Air Lab File ID: JH19P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:40

Sample wt/vol: 155(mL) Date Analyzed: 08/19/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.39	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.086	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	56	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-088-C-27 Lab Sample ID: 140-16369-22

Matrix: Air Lab File ID: RH23P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:55

Sample wt/vol: 153(mL) Date Analyzed: 08/23/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.78	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	190	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.60	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.3		0.40	0.11
67-66-3	Chloroform	119.38	0.064	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.66		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.82		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-102-C-27 Lab Sample ID: 140-16369-7

Matrix: Air Lab File ID: RH19P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:35

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 05:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.6		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.70	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.66	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.072	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	38	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.87		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-113-C-27 Lab Sample ID: 140-16369-21

Matrix: Air Lab File ID: RH23P103.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:54

Sample wt/vol: 145(mL) Date Analyzed: 08/23/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1.45

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.7		1.4	0.39
67-66-3	Chloroform	119.38	0.35	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.67	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	130	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.33	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.58	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.23	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.062	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.36	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	80	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.058	J	0.40	0.035
108-88-3	Toluene	92.14	3.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.18
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-126-C-27 Lab Sample ID: 140-16369-20

Matrix: Air Lab File ID: RH23P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:51

Sample wt/vol: 287(mL) Date Analyzed: 08/23/2019 15:21

Soil Aliquot Vol: Dilution Factor: 2.87

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.74	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.31	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.6	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	280	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.39	J	2.7	0.24
108-88-3	Toluene	92.14	12		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.068	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.4		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.71		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.84		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-133-C-27 Lab Sample ID: 140-16369-10

Matrix: Air Lab File ID: JH19P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:38

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 14:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.9	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.33	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.66	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	12		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.77	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.84		0.40	0.11
67-66-3	Chloroform	119.38	0.053	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.43		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.30	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-141-C-27 Lab Sample ID: 140-16369-18

Matrix: Air Lab File ID: JH20P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:47

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.46	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.0		1.4	0.39
67-66-3	Chloroform	119.38	0.26	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.87		0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.035	J	0.40	0.035
108-88-3	Toluene	92.14	0.65		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.77	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-142-C-27 Lab Sample ID: 140-16369-24

Matrix: Air Lab File ID: RH23P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:56

Sample wt/vol: 189(mL) Date Analyzed: 08/23/2019 17:48

Soil Aliquot Vol: Dilution Factor: 1.89

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.53	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.1		1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	14	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.24	J	2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.64	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.8	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.68		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.28	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-144-C-27 Lab Sample ID: 140-16369-14

Matrix: Air Lab File ID: JH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:41

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.43	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.5		0.40	0.11
67-66-3	Chloroform	119.38	0.040	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.88		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.53	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-145-C-27 Lab Sample ID: 140-16369-15

Matrix: Air Lab File ID: JH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:43

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 21:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.52	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	12		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.054	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.43	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.56	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-146-C-27 Lab Sample ID: 140-16369-16

Matrix: Air Lab File ID: JH20P211.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:45

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	38	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.46	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.8		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.6	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.3	0.37
67-66-3	Chloroform	119.38	ND		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.52	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	0.44	J	1.3	0.22
75-09-2	Methylene Chloride	84.93	98	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	ND		1.3	0.12
108-88-3	Toluene	92.14	3.6		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	0.21	J	0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	ND		0.67	0.43
1330-20-7	Xylenes, Total	106.17	1.9	J	2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.74
75-45-6	Chlorodifluoromethane	86.47	3.7	J	4.7	1.3
67-66-3	Chloroform	119.38	ND		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	2.6	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.68
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	1.9	J	5.8	0.94
75-09-2	Methylene Chloride	84.93	340	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.7
127-18-4	Tetrachloroethene	165.83	ND		9.1	0.79
108-88-3	Toluene	92.14	13		7.6	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	1.1	J	3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	3.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	ND		1.7	1.1
1330-20-7	Xylenes, Total	106.17	8.3	J	12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	9.2	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.46	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.55	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-150-C-27 Lab Sample ID: 140-16369-17

Matrix: Air Lab File ID: JH20P213.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:44

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	32	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.7	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.074	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.5	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.18	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.29	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.7		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.99		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.52		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.7		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-152-C-27 Lab Sample ID: 140-16369-13

Matrix: Air Lab File ID: JH19P107.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:42

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.57	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	16	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.89	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	23		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	0.86	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.6		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.2		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.056	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.57	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.71	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-153-C-27 Lab Sample ID: 140-16369-11

Matrix: Air Lab File ID: JH19P104.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:39

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 16:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.27	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.4	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.2	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.82	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.20	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.59		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND	*	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-155-C-27 Lab Sample ID: 140-16369-9

Matrix: Air Lab File ID: JH19P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:37

Sample wt/vol: 100(mL) Date Analyzed: 08/19/2019 13:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.63	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.1		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.9		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND	*	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.85	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.86	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.080	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	2.3	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.50	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.23	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-1-27 Lab Sample ID: 140-16369-3

Matrix: Air Lab File ID: RH19P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:49

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	7.9	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	0.99	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.18	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.041	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.070	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.31	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-2-27 Lab Sample ID: 140-16369-2

Matrix: Air Lab File ID: RH19P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:44

Sample wt/vol: 164(mL) Date Analyzed: 08/20/2019 01:33

Soil Aliquot Vol: Dilution Factor: 1.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.56	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.26	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.30	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	10	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.036	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.24	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-3-27 Lab Sample ID: 140-16369-4

Matrix: Air Lab File ID: RH19P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:37

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 03:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.47	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.18	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	4.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.52		0.40	0.11
67-66-3	Chloroform	119.38	0.038	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.48	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-BCK-4-27 Lab Sample ID: 140-16369-1

Matrix: Air Lab File ID: RH19P108.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 15:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 00:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.19	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.0	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.8	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.066	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.5		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.4	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.048	J	0.40	0.035
108-88-3	Toluene	92.14	0.61		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP1-C-27 Lab Sample ID: 140-16369-8

Matrix: Air Lab File ID: RH19P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 06:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.2		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.60	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.7	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.32	J	2.7	0.24
108-88-3	Toluene	92.14	2.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.61	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.068	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	16	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.79		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.93		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-DUP2-C-27 Lab Sample ID: 140-16369-23

Matrix: Air Lab File ID: JH21P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.55	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.43	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.0		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.8		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.71	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	54	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.67	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Appendix C

Support Documentation

Job Narrative
140-16369-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32312 exhibited % difference of > 30% for 1,2-Dichloroethane and Naphthalene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Analyte 1,2-Dichloroethane recovered outside control limits for the LCS associated with analytical batch 140-32312. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16369-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16369-1	IA-BCK-4-27	Air	08/14/19 15:34	08/17/19 10:30	Air Canister (1-Liter) #11868
140-16369-2	IA-BCK-2-27	Air	08/14/19 15:44	08/17/19 10:30	Air Canister (1-Liter) #11821
140-16369-3	IA-BCK-1-27	Air	08/14/19 15:49	08/17/19 10:30	Air Canister (1-Liter) #11626
140-16369-4	IA-BCK-3-27	Air	08/14/19 15:37	08/17/19 10:30	Air Canister (1-Liter) #10603
140-16369-5	IA-001-C-27	Air	08/14/19 16:31	08/17/19 10:30	Air Canister (1-Liter) #11669
140-16369-6	IA-004-C-27	Air	08/14/19 16:32	08/17/19 10:30	Air Canister (1-Liter) #09806
140-16369-7	IA-102-C-27	Air	08/14/19 16:35	08/17/19 10:30	Air Canister (1-Liter) #11609
140-16369-8	IA-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11889
140-16369-9	IA-155-C-27	Air	08/14/19 16:37	08/17/19 10:30	Air Canister (1-Liter) #11716
140-16369-10	IA-133-C-27	Air	08/14/19 16:38	08/17/19 10:30	Air Canister (1-Liter) #11269
140-16369-11	IA-153-C-27	Air	08/14/19 16:39	08/17/19 10:30	Air Canister (1-Liter) #11828
140-16369-12	IA-060-C-27	Air	08/14/19 16:40	08/17/19 10:30	Air Canister (1-Liter) #11726
140-16369-13	IA-152-C-27	Air	08/14/19 16:42	08/17/19 10:30	Air Canister (1-Liter) #11831
140-16369-14	IA-144-C-27	Air	08/14/19 16:41	08/17/19 10:30	Air Canister (1-Liter) #11107
140-16369-15	IA-145-C-27	Air	08/14/19 16:43	08/17/19 10:30	Air Canister (1-Liter) #11495
140-16369-16	IA-146-C-27	Air	08/14/19 16:45	08/17/19 10:30	Air Canister (1-Liter) #10841
140-16369-17	IA-150-C-27	Air	08/14/19 16:44	08/17/19 10:30	Air Canister (1-Liter) #11877
140-16369-18	IA-141-C-27	Air	08/14/19 16:47	08/17/19 10:30	Air Canister (1-Liter) #10520
140-16369-19	IA-149-C-27	Air	08/14/19 16:50	08/17/19 10:30	Air Canister (1-Liter) #11842
140-16369-20	IA-126-C-27	Air	08/14/19 16:51	08/17/19 10:30	Air Canister (1-Liter) #11521
140-16369-21	IA-113-C-27	Air	08/14/19 16:54	08/17/19 10:30	Air Canister (1-Liter) #09583
140-16369-22	IA-088-C-27	Air	08/14/19 16:55	08/17/19 10:30	Air Canister (1-Liter) #11288
140-16369-23	IA-DUP2-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #11890
140-16369-24	IA-142-C-27	Air	08/14/19 16:56	08/17/19 10:30	Air Canister (1-Liter) #11774

Baltimore #201

Canister Samples Chain of Custody Record

140-16369 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 3 of 9 COCs
Company Name: TETRA TECH INC		Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20		Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874				Walk-in Client:
Phone: 301-528-3021		Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:		Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27		Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, BCH, MD		Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC08388		Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-BCK-4-27	8/14/19	0716	8/14/19	1534	-28	0	7581	11868	X								X						
IA-BCK-2-27		0722		1544	-20	0	8634	11821	X								X						
IA-BCK-1-27		0727		1549	-30	-1	10584	11626	X								X						
IA-BCK-3-27		0736		1537	-30	-1	7061	10603	X								X						
IA-001-C-27		0751		1631	-30	-4	09552	11669	X								X						
IA-004-C-27		0753		1632	-25	1	10174	09806	X								X						
IA-102-C-27		0800		1635	-30	-4	8607	11609	X								X						
IA-OUP1-C-27		0000		0000	-30	-1	8680	11889	X								X						
IA-155-C-27		0803		1637	-26	-3	8464	11716	X								X						
IA-133-C-27		0805		1638	-30	-4	7588	11269	X								X						

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

Received @ ambient, 3 boxes, Fedex PO
trK#7760 0655 8170, Custody seal intact
" " 8376 KW 8/17/19
" " 8343

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by: [signature]	Date / Time: 8/16/19 1300	Received by: [signature]	
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] ETA 8/17/19 1630	2T, 24 flows, 24 cans
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/30/2019

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSEN/OBRIEN/PRYOR	COC No: 4 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-3700		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	Analysis Turnaround Time		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Standard (Specific): 10 DAYS		
P O # 112ICOS388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-153-C-27	8/14/19	0807	8/14/19	1639	-28	0	11528	11828	X								X						
IA-060-C-27		0809		1640	-30	-6	7107	11726	X								X						
IA-152-C-27		0812		1642	-30	0	8752	11831	X								X						
IA-144-C-27		0815		1641	-29	-3	09955	11107	X								X						
IA-145-C-27		0821		1643	-12	1	11423	11495	X								X						
IA-146-C-27		0825		1645	-30	-1	8689	10841	X								X						
IA-150-C-27		0823		1644	-29	-0	7421	11877	X								X						
IA-141-C-27		0826		1647	-27	-2	7365	10520	X								X						
IA-149-C-27		0828		1650	-30	-4	11489	11842	X								X						
IA-126-C-27		0830		1651	-29	-2	10875	11521	X								X						

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments: MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore
#201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/PAYOR	COC No: 5 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: JIM.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PAYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	**Analysis Turnaround Time**		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Standard (Specific): 10 DAYS		
P O # 112IC08588	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-113-C-27	8/14/19	0837	8/14/19	1654	-27	0	10593	09583	X								X						
IA-088-C-27	↓	0840	↓	1655	-30	-4	11757	11258	X								X						
IA-DUP2-C-27	↓	0000	↓	0000	-24	0	8837	11890	X								X						
IA-142-C-27	↓	0845	↓	1656	-25	+1	10439	11774	X								X						

8/14/19

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

* NOT USED - Flow # 7420, Can # 11743 (8hr Can)

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** LA ETA 8/17/19 1030
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16369

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400295 PM Instructions: _____

Sample Receiving Associate: [signature] Date: 8/1/19

QA026R32.doc, 062719

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
IA-102-C-27	IA-DUP1-C-27	OV-M3	1,2,4-TRIMETHYLBENZENE	0.66 J	0.61 J	2	7.87	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	BENZENE	0.5 J	0.42 J	1.3	17.39	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	CARBON TETRACHLORIDE	0.51 J	0.41 J	2.5	21.74	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	CHLORODIFLUOROMETHANE	4.6	5.2	1.4	12.24	FALSE	TRUE	TRUE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	CHLOROFORM	0.31 J	0.17 U	2	58.33	TRUE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	DICHLORODIFLUOROMETHANE	1.6 J	1.9 J	2	17.14	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	ETHYLBENZENE	0.7 J	0.6 J	1.7	15.38	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	METHYLENE CHLORIDE	7.1	4.7 U	6.9	40.68	FALSE	TRUE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	TETRACHLOROETHENE	0.24 U	0.32 J	2.7	28.57	FALSE	FALSE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	TOLUENE	2.5	2.3	2.3	8.33	FALSE	TRUE	FALSE	FALSE
IA-102-C-27	IA-DUP1-C-27	OV-M3	TOTAL XYLENES	3.6	3.3 J	3.5	8.70	FALSE	TRUE	FALSE	FALSE

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RL1	RL2	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
IA-088-C-27	IA-DUP2-C-27	OV-M3	1,2,4-TRIMETHYLBENZENE	0.6 J	0.67 J	2	2	2	11.02	FALSE	FALSE	FALSE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	BENZENE	0.51 J	0.55 J	1.3	1.3	1.3	7.55	FALSE	FALSE	FALSE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	CARBON TETRACHLORIDE	0.47 J	0.43 J	2.5	2.5	2.5	8.89	FALSE	FALSE	FALSE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	CHLORODIFLUOROMETHANE	3.1	6	1.4	1.4	1.4	63.74	TRUE	TRUE	TRUE	~~TRUE~~
IA-088-C-27	IA-DUP2-C-27	OV-M3	CHLOROFORM	0.42 J	0.24 J	2	2	2	~~54.55~~	~~TRUE~~	FALSE	FALSE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	DICHLORODIFLUOROMETHANE	1.7 J	2.8	2	2	2	48.89	FALSE	FALSE	TRUE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	ETHYLBENZENE	0.78 J	0.71 J	1.7	1.7	1.7	9.40	FALSE	FALSE	FALSE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	METHYLENE CHLORIDE	190	54	6.9	6.9	6.9	111.48	TRUE	TRUE	TRUE	~~TRUE~~
IA-088-C-27	IA-DUP2-C-27	OV-M3	TOLUENE	4	3	2.3	2.3	2.3	28.57	FALSE	TRUE	TRUE	FALSE
IA-088-C-27	IA-DUP2-C-27	OV-M3	TOTAL XYLENES	4.4	4	3.5	3.5	3.5	9.52	FALSE	TRUE	TRUE	FALSE

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-BCK-4-27	140-16369-1	91
IA-BCK-2-27	140-16369-2	91
IA-BCK-1-27	140-16369-3	93
IA-BCK-3-27	140-16369-4	95
IA-001-C-27	140-16369-5	95
IA-004-C-27	140-16369-6	91
IA-102-C-27	140-16369-7	93
IA-DUP1-C-27	140-16369-8	93
IA-155-C-27	140-16369-9	91
IA-133-C-27	140-16369-10	94
IA-153-C-27	140-16369-11	90
IA-060-C-27	140-16369-12	87
IA-152-C-27	140-16369-13	89
IA-144-C-27	140-16369-14	89
IA-145-C-27	140-16369-15	89
IA-146-C-27	140-16369-16	88
IA-150-C-27	140-16369-17	92
IA-141-C-27	140-16369-18	89
IA-149-C-27	140-16369-19	88
IA-126-C-27	140-16369-20	88
IA-113-C-27	140-16369-21	90
IA-088-C-27	140-16369-22	92
IA-DUP2-C-27	140-16369-23	88
IA-142-C-27	140-16369-24	88
	MB 140-32312/4	87
	MB 140-32744/4	90
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	LCS 140-32312/1002	90
	LCS 140-32744/1002	107
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
	LCS 140-32868/1002	94

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH19.D Lab Sample ID: MB 140-32312/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/19/2019 11:44

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019 10:15
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019 13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019 14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019 16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019 16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019 18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019 19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019 21:04

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32312/4

Matrix: Air Lab File ID: J500BH19.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 11:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32312 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH19-LCS.d

Lab ID: LCS 140-32312/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	1.74	87	60-140	
Chloroform	2.00	1.61	81	70-130	
cis-1,2-Dichloroethene	2.00	1.91	95	70-130	
Dichlorodifluoromethane	2.00	2.08	104	60-140	
1,1-Dichloroethane	2.00	1.65	82	70-130	
1,2-Dichloroethane	2.00	1.37	68	70-130	*
1,1-Dichloroethene	2.00	2.15	108	70-130	
Ethylbenzene	2.00	1.60	80	70-130	
Methylene Chloride	2.00	1.71	85	70-130	
Methyl tert-butyl ether	2.00	1.60	80	60-140	
Naphthalene	2.00	1.30	65	60-140	
Tetrachloroethene	2.00	1.71	86	70-130	
Toluene	2.00	1.77	89	70-130	
trans-1,2-Dichloroethene	2.00	2.06	103	70-130	
1,2,4-Trichlorobenzene	2.00	1.44	72	60-140	
1,1,1-Trichloroethane	2.00	1.48	74	70-130	
1,1,2-Trichloroethane	2.00	1.78	89	70-130	
Trichloroethene	2.00	1.84	92	70-130	
1,2,3-Trimethylbenzene	2.00	1.53	76	70-130	
1,2,4-Trimethylbenzene	2.00	1.51	76	70-130	
1,3,5-Trimethylbenzene	2.00	1.63	82	70-130	
Vinyl chloride	2.00	2.35	118	70-130	
Xylenes, Total	6.00	4.80	80	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019 11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019 12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019 13:08

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019 15:29

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH19X.D Lab Sample ID: MB 140-32744/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/19/2019 18:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32744/1002	RCCVH19X-LCS.d	08/19/2019 16:53
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019 00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019 01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019 02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019 03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019 03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019 04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019 05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019 06:23

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.164	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32744/4

Matrix: Air Lab File ID: R500BH19X.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/19/2019 18:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32744 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.570	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH19X-LCS.d

Lab ID: LCS 140-32744/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.893	89	70-130	
Carbon tetrachloride	1.00	0.969	97	70-130	
Chlorodifluoromethane	1.00	0.930	93	60-140	
Chloroform	1.00	0.986	99	70-130	
cis-1,2-Dichloroethene	1.00	0.918	92	70-130	
Dichlorodifluoromethane	1.00	1.16	116	60-140	
1,1-Dichloroethane	1.00	0.985	98	70-130	
1,2-Dichloroethane	1.00	1.04	104	70-130	
1,1-Dichloroethene	1.00	0.804	80	70-130	
Ethylbenzene	1.00	0.939	94	70-130	
Methylene Chloride	1.00	0.886	89	70-130	
Methyl tert-butyl ether	1.00	0.998	100	60-140	
Naphthalene	1.00	0.929	93	60-140	
Tetrachloroethene	1.00	0.842	84	70-130	
Toluene	1.00	0.896	90	70-130	
trans-1,2-Dichloroethene	1.00	0.976	98	70-130	
1,2,4-Trichlorobenzene	1.00	0.891	89	60-140	
1,1,1-Trichloroethane	1.00	0.927	93	70-130	
1,1,2-Trichloroethane	1.00	0.916	92	70-130	
Trichloroethene	1.00	0.867	87	70-130	
1,2,3-Trimethylbenzene	1.00	0.974	97	70-130	
1,2,4-Trimethylbenzene	1.00	0.947	95	70-130	
1,3,5-Trimethylbenzene	1.00	0.953	95	70-130	
Vinyl chloride	1.00	0.986	99	70-130	
Xylenes, Total	3.00	2.79	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019 15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019 16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019 16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019 17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019 04:23

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH19.D BFB Injection Date: 08/19/2019

Instrument ID: MJ BFB Injection Time: 09:45

Analysis Batch No.: 32312

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	113.7	
175	5.0 - 9.0 % of mass 174	8.2	(7.2) 1
176	95.0 - 101.0 % of mass 174	110.9	(97.5) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32312/2	JCCVH19.D	08/19/2019	10:15
	LCS 140-32312/1002	JCCVH19-LCS.d	08/19/2019	10:15
	MB 140-32312/4	J500BH19.D	08/19/2019	11:44
IA-155-C-27	140-16369-9	JH19P101.D	08/19/2019	13:38
IA-133-C-27	140-16369-10	JH19P102.D	08/19/2019	14:28
IA-153-C-27	140-16369-11	JH19P104.D	08/19/2019	16:08
IA-060-C-27	140-16369-12	JH19P105.D	08/19/2019	16:57
IA-152-C-27	140-16369-13	JH19P107.D	08/19/2019	18:36
IA-144-C-27	140-16369-14	JH19P108.D	08/19/2019	19:25
IA-145-C-27	140-16369-15	JH19P110.D	08/19/2019	21:04

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9502		1.74	2.00	-13.1	30.0
Propene	Ave	0.7918	0.6822		1.72	2.00	-13.8	30.0
Dichlorodifluoromethane	Ave	1.253	1.300		2.08	2.00	3.8	30.0
Chloromethane	Ave	0.4041	0.4344		2.15	2.00	7.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2330		2.68	2.00	33.9*	30.0
Acetaldehyde	Ave	0.5207	0.5174		9.94	10.0	-0.6	30.0
Vinyl chloride	Ave	1.359	1.600		2.35	2.00	17.7	30.0
1,3-Butadiene	Ave	1.028	1.187		2.31	2.00	15.4	30.0
Butane	Ave	2.098	2.224		2.12	2.00	6.0	30.0
Bromomethane	Ave	1.197	1.529		2.55	2.00	27.7	30.0
Chloroethane	Ave	0.5981	0.7300		2.44	2.00	22.0	30.0
Ethanol	Ave	0.5397	0.4652		8.62	10.0	-13.8	30.0
Vinyl bromide	Ave	1.109	1.405		2.53	2.00	26.7	30.0
2-Methylbutane	Ave	1.445	1.593		2.20	2.00	10.2	30.0
Trichlorofluoromethane	Ave	4.326	4.166		1.93	2.00	-3.7	30.0
Acrolein	Ave	0.2624	0.2944		2.24	2.00	12.2	30.0
Acetonitrile	Ave	0.4156	0.4201		2.02	2.00	1.1	30.0
Acetone	Ave	0.4604	0.4690		6.11	6.00	1.8	30.0
Isopropyl alcohol	Ave	1.338	1.100		4.93	6.00	-17.8	30.0
Pentane	Ave	0.1653	0.2072		2.51	2.00	25.4	30.0
Ethyl ether	Ave	1.486	1.172		1.58	2.00	-21.1	30.0
1,1-Dichloroethene	Ave	1.228	1.320		2.15	2.00	7.6	30.0
Acrylonitrile	Ave	0.8209	0.7341		1.79	2.00	-10.6	30.0
tert-Butyl alcohol	Ave	2.068	1.348		1.30	2.00	-34.8*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.857		2.00	2.00	0.1	30.0
Methylene Chloride	Ave	1.505	1.285		1.71	2.00	-14.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.3	30.0
Carbon disulfide	Ave	3.743	3.799		2.03	2.00	1.5	30.0
2-Methylpentane	Ave	3.379	2.825		1.67	2.00	-16.4	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.265		2.06	2.00	3.1	30.0
Methyl tert-butyl ether	Ave	3.276	2.617		1.60	2.00	-20.1	30.0
1,1-Dichloroethane	Ave	2.733	2.248		1.65	2.00	-17.7	30.0
Vinyl acetate	Ave	3.471	2.656		1.53	2.00	-23.5	30.0
2-Butanone (MEK)	Ave	0.5394	0.4392		1.63	2.00	-18.6	30.0
Hexane	Ave	1.100	0.9156		1.66	2.00	-16.8	30.0
Isopropyl ether	Ave	4.183	3.079		1.47	2.00	-26.4	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.205		1.91	2.00	-4.7	30.0
Ethyl acetate	Ave	2.875	2.074		1.44	2.00	-27.9	30.0
Chloroform	Ave	3.246	2.617		1.61	2.00	-19.4	30.0
Tert-butyl ethyl ether	Ave	3.896	2.850		1.46	2.00	-26.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.026		1.43	2.00	-28.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.587		1.48	2.00	-25.9	30.0
1,2-Dichloroethane	Ave	0.4592	0.3138		1.37	2.00	-31.7*	30.0
1-Butanol	Ave	0.1093	0.0522		0.955	2.00	-52.3*	30.0
Cyclohexane	Ave	0.1230	0.1078		1.75	2.00	-12.4	30.0
Benzene	Ave	0.7326	0.6517		1.78	2.00	-11.1	30.0
Carbon tetrachloride	Ave	0.6143	0.5331		1.74	2.00	-13.2	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1500		1.82	2.00	-9.2	30.0
Thiophene	Ave	0.4167	0.3744		1.80	2.00	-10.2	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.039		1.59	2.00	-20.5	30.0
Heptane	Ave	0.2522	0.2160		1.71	2.00	-14.4	30.0
1,2-Dichloropropane	Ave	0.3077	0.2579		1.68	2.00	-16.2	30.0
Trichloroethene	Ave	0.3308	0.3051		1.84	2.00	-7.8	30.0
Dibromomethane	Ave	0.3412	0.2853		1.67	2.00	-16.4	30.0
Bromodichloromethane	Ave	0.6516	0.5003		1.54	2.00	-23.2	30.0
1,4-Dioxane	Ave	0.0858	0.0640		1.49	2.00	-25.4	30.0
Methyl methacrylate	Ave	0.3591	0.2331		1.30	2.00	-35.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3895		1.74	2.00	-13.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3064		1.09	2.00	-45.3*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3733		1.63	2.00	-18.3	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3889		1.58	2.00	-21.1	30.0
Toluene	Ave	0.9664	0.8569		1.77	2.00	-11.3	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2755		1.78	2.00	-11.0	30.0
2-Hexanone	Ave	0.2830	0.1689		1.19	2.00	-40.3*	30.0
Octane	Ave	0.2966	0.2571		1.73	2.00	-13.3	30.0
Dibromochloromethane	Ave	0.6693	0.5830		1.74	2.00	-12.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4906		1.74	2.00	-12.9	30.0
Tetrachloroethene	Ave	0.3882	0.3320		1.71	2.00	-14.5	30.0
2,3-Dimethylheptane	Ave	1.135	0.8448		1.49	2.00	-25.6	30.0
Chlorobenzene	Ave	0.7731	0.6854		1.77	2.00	-11.4	30.0
Ethylbenzene	Ave	1.245	0.999		1.60	2.00	-19.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7729		3.24	4.00	-19.1	30.0
Nonane	Ave	0.6911	0.5341		1.55	2.00	-22.7	30.0
Styrene	Ave	0.6822	0.5827		1.71	2.00	-14.6	30.0
Bromoform	Ave	0.7168	0.6859		1.91	2.00	-4.3	30.0
o-Xylene	Ave	1.015	0.7943		1.56	2.00	-21.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6059		1.71	2.00	-14.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1521		1.51	2.00	-24.4	30.0
Isopropylbenzene	Ave	1.326	1.052		1.59	2.00	-20.6	30.0
Propylbenzene	Ave	0.3540	0.2943		1.66	2.00	-16.9	30.0
2-Chlorotoluene	Ave	0.3422	0.2896		1.69	2.00	-15.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32312/2 Calibration Date: 08/19/2019 10:15

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH19.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.059		1.60	2.00	-19.8	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4295		1.63	2.00	-18.5	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4491		1.65	2.00	-17.4	30.0
Decane	Ave	0.8742	0.6385		1.46	2.00	-27.0	30.0
tert-Butylbenzene	Ave	1.215	0.9255		1.52	2.00	-23.8	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.8866		1.51	2.00	-24.3	30.0
sec-Butylbenzene	Ave	1.644	1.288		1.57	2.00	-21.7	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.6734		1.65	2.00	-17.4	30.0
Benzyl chloride	Ave	1.003	0.7356		1.47	2.00	-26.7	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.6687		1.62	2.00	-18.8	30.0
4-Isopropyltoluene	Ave	1.383	1.054		1.52	2.00	-23.8	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.8772		1.53	2.00	-23.6	30.0
Butylcyclohexane	Ave	0.9932	0.7927		1.60	2.00	-20.2	30.0
Indane	Ave	1.065	0.8594		1.61	2.00	-19.3	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.6478		1.62	2.00	-19.2	30.0
Butylbenzene	Ave	1.432	1.079		1.51	2.00	-24.6	30.0
Indene	Ave	0.9137	0.7205		1.58	2.00	-21.1	30.0
Undecane	Ave	0.9884	0.6819		1.38	2.00	-31.0*	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3198		1.60	2.00	-19.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.8734		1.40	2.00	-29.9	30.0
Dodecane	Ave	0.8410	0.4419		1.05	2.00	-47.5*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.4727		1.44	2.00	-27.8	30.0
Naphthalene	Ave	1.025	0.6687		1.30	2.00	-34.8*	30.0
Hexachlorobutadiene	Ave	0.7893	0.6461		1.64	2.00	-18.1	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.3386		1.31	2.00	-34.5*	30.0
2-Methylnaphthalene	Ave	0.2801	0.1344		0.960	2.00	-52.0*	50.0
1-Methylnaphthalene	Ave	0.3357	0.1184		0.706	2.00	-64.7*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6617		3.60	4.00	-10.0	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
IA-146-C-27	140-16369-16	JH20P211.D	08/20/2019	11:30
IA-150-C-27	140-16369-17	JH20P213.D	08/20/2019	12:19
IA-141-C-27	140-16369-18	JH20P214.D	08/20/2019	13:08

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
IA-DUP2-C-27	140-16369-23	JH21P101.D	08/21/2019	15:29

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH19X.D BFB Injection Date: 08/19/2019

Instrument ID: MR BFB Injection Time: 16:27

Analysis Batch No.: 32744

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	28.3	
75	30.0 - 60.0 % of mass 95	58.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.7) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32744/2	RCCVH19X.D	08/19/2019	16:53
	LCS 140-32744/1002	RCCVH19X-LCS .d	08/19/2019	16:53
	MB 140-32744/4	R500BH19X.D	08/19/2019	18:12
IA-BCK-4-27	140-16369-1	RH19P108.D	08/20/2019	00:45
IA-BCK-2-27	140-16369-2	RH19P109.D	08/20/2019	01:33
IA-BCK-1-27	140-16369-3	RH19P110.D	08/20/2019	02:20
IA-BCK-3-27	140-16369-4	RH19P111.D	08/20/2019	03:09
IA-001-C-27	140-16369-5	RH19P112.D	08/20/2019	03:56
IA-004-C-27	140-16369-6	RH19P113.D	08/20/2019	04:45
IA-102-C-27	140-16369-7	RH19P114.D	08/20/2019	05:34
IA-DUP1-C-27	140-16369-8	RH19P115.D	08/20/2019	06:23

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.178		0.930	1.00	-7.0	30.0
Propene	Ave	1.896	2.117		1.12	1.00	11.6	30.0
Dichlorodifluoromethane	Ave	3.092	3.599		1.16	1.00	16.4	30.0
Chloromethane	Ave	0.4647	0.6124		1.32	1.00	31.8*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.868		1.83	1.00	82.9*	30.0
Acetaldehyde	Ave	0.5427	0.6915		6.37	5.00	27.4	30.0
Vinyl chloride	Ave	1.472	1.452		0.986	1.00	-1.4	30.0
1,3-Butadiene	Ave	1.068	1.380		1.29	1.00	29.2	30.0
Butane	Ave	2.262	2.602		1.15	1.00	15.0	30.0
Bromomethane	Ave	1.248	1.232		0.988	1.00	-1.2	30.0
Chloroethane	Ave	0.6025	0.5854		0.972	1.00	-2.8	30.0
Ethanol	Ave	0.5430	0.7473		6.88	5.00	37.6*	30.0
Vinyl bromide	Ave	1.042	1.053		1.01	1.00	1.1	30.0
2-Methylbutane	Ave	1.688	1.955		1.16	1.00	15.8	30.0
Trichlorofluoromethane	Ave	3.843	3.350		0.872	1.00	-12.8	30.0
Acrolein	Ave	0.4757	0.3674		0.772	1.00	-22.8	30.0
Acetonitrile	Ave	0.7083	0.5839		0.824	1.00	-17.6	30.0
Acetone	Ave	0.6636	0.5307		2.40	3.00	-20.0	30.0
Isopropyl alcohol	Ave	2.248	2.003		2.67	3.00	-10.9	30.0
Pentane	Ave	0.2541	0.1939		0.763	1.00	-23.7	30.0
Ethyl ether	Ave	2.078	1.755		0.844	1.00	-15.6	30.0
1,1-Dichloroethene	Ave	1.376	1.107		0.804	1.00	-19.6	30.0
Acrylonitrile	Ave	1.038	0.9671		0.932	1.00	-6.8	30.0
tert-Butyl alcohol	Ave	2.773	2.520		0.909	1.00	-9.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.539		0.888	1.00	-11.2	30.0
Methylene Chloride	Ave	1.414	1.253		0.886	1.00	-11.4	30.0
3-Chloropropene	Ave	1.574	1.669		1.06	1.00	6.0	30.0
Carbon disulfide	Ave	3.618	3.228		0.892	1.00	-10.8	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.411		0.976	1.00	-2.4	30.0
2-Methylpentane	Ave	3.837	3.777		0.984	1.00	-1.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.889		0.998	1.00	-0.2	30.0
1,1-Dichloroethane	Ave	2.742	2.701		0.985	1.00	-1.5	30.0
Vinyl acetate	Ave	4.786	4.660		0.974	1.00	-2.6	30.0
2-Butanone (MEK)	Ave	0.7340	0.6721		0.916	1.00	-8.4	30.0
Hexane	Ave	1.256	1.179		0.939	1.00	-6.1	30.0
Isopropyl ether	Ave	5.958	5.857		0.983	1.00	-1.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.504		0.918	1.00	-8.2	30.0
Ethyl acetate	Ave	4.240	4.186		0.987	1.00	-1.3	30.0
Chloroform	Ave	3.365	3.318		0.986	1.00	-1.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.812		0.970	1.00	-3.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.017		0.953	1.00	-4.7	30.0
1,1,1-Trichloroethane	Ave	3.700	3.428		0.927	1.00	-7.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.3984		1.04	1.00	3.5	30.0
1-Butanol	Ave	0.1530	0.1377		0.900	1.00	-10.0	30.0
Cyclohexane	Ave	0.1272	0.1067		0.838	1.00	-16.2	30.0
Benzene	Ave	0.8101	0.7232		0.893	1.00	-10.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6276		0.969	1.00	-3.1	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1661		0.910	1.00	-9.0	30.0
Thiophene	Ave	0.4106	0.3909		0.952	1.00	-4.8	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.213		0.896	1.00	-10.4	30.0
Heptane	Ave	0.2826	0.2424		0.858	1.00	-14.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2838		0.909	1.00	-9.1	30.0
Trichloroethene	Ave	0.3563	0.3090		0.867	1.00	-13.3	30.0
Dibromomethane	Ave	0.3305	0.3004		0.909	1.00	-9.1	30.0
Bromodichloromethane	Ave	0.5996	0.5379		0.897	1.00	-10.3	30.0
1,4-Dioxane	Ave	0.1245	0.1135		0.912	1.00	-8.8	30.0
Methyl methacrylate	Ave	0.4444	0.4071		0.916	1.00	-8.4	30.0
Methylcyclohexane	Ave	0.4659	0.4031		0.865	1.00	-13.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7282		0.918	1.00	-8.2	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4249		0.908	1.00	-9.2	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4591		0.923	1.00	-7.7	30.0
Toluene	Ave	1.029	0.9216		0.896	1.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2921		0.916	1.00	-8.4	30.0
2-Hexanone	Ave	0.3809	0.3388		0.890	1.00	-11.0	30.0
Octane	Ave	0.3372	0.2868		0.850	1.00	-15.0	30.0
Dibromochloromethane	Ave	0.7076	0.5998		0.848	1.00	-15.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5640		0.922	1.00	-7.8	30.0
Tetrachloroethene	Ave	0.4203	0.3538		0.842	1.00	-15.8	30.0
Chlorobenzene	Ave	0.8559	0.7668		0.896	1.00	-10.4	30.0
2,3-Dimethylheptane	Ave	1.280	1.243		0.971	1.00	-2.9	30.0
Ethylbenzene	Ave	1.444	1.355		0.939	1.00	-6.1	30.0
m-Xylene & p-Xylene	Ave	1.134	1.044		1.84	2.00	-7.9	30.0
Nonane	Ave	0.7430	0.6843		0.921	1.00	-7.9	30.0
Bromoform	Ave	0.6340	0.5941		0.937	1.00	-6.3	30.0
Styrene	Ave	0.7807	0.7218		0.925	1.00	-7.5	30.0
o-Xylene	Ave	1.190	1.130		0.949	1.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8049		0.960	1.00	-4.0	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2466		0.928	1.00	-7.2	30.0
Isopropylbenzene	Ave	1.766	1.633		0.924	1.00	-7.6	30.0
Propylbenzene	Ave	0.4491	0.4406		0.981	1.00	-1.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4067		0.951	1.00	-4.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32744/2 Calibration Date: 08/19/2019 16:53

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH19X.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.673		0.950	1.00	-5.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6396		0.953	1.00	-4.7	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6165		0.958	1.00	-4.2	30.0
Decane	Ave	1.022	0.9581		0.937	1.00	-6.3	30.0
tert-Butylbenzene	Ave	1.569	1.460		0.930	1.00	-7.0	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.473		0.947	1.00	-5.3	30.0
sec-Butylbenzene	Ave	2.233	2.169		0.972	1.00	-2.8	30.0
1,3-Dichlorobenzene	Ave	1.059	0.9800		0.926	1.00	-7.4	30.0
Benzyl chloride	Ave	1.214	1.144		0.942	1.00	-5.8	30.0
1,4-Dichlorobenzene	Ave	1.045	0.9895		0.947	1.00	-5.3	30.0
4-Isopropyltoluene	Ave	1.804	1.729		0.958	1.00	-4.2	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.490		0.974	1.00	-2.6	30.0
Butylcyclohexane	Ave	1.144	1.121		0.980	1.00	-2.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.9878		0.957	1.00	-4.3	30.0
Indane	Ave	1.389	1.371		0.987	1.00	-1.3	30.0
Indene	Ave	1.254	1.187		0.947	1.00	-5.3	30.0
Butylbenzene	Ave	1.857	1.883		1.01	1.00	1.4	30.0
Undecane	Ave	1.206	1.225		1.02	1.00	1.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4380		0.865	1.00	-13.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.700		0.982	1.00	-1.8	30.0
Dodecane	Ave	1.172	1.209		1.03	1.00	3.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.8793		0.891	1.00	-10.9	30.0
Naphthalene	Ave	2.038	1.894		0.929	1.00	-7.1	30.0
Hexachlorobutadiene	Ave	0.9802	0.9372		0.956	1.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.8978		0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.5850	0.5982		1.02	1.00	2.2	50.0
1-Methylnaphthalene	Ave	0.5618	0.6087		1.08	1.00	8.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.7348		4.26	4.00	6.6	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
IA-126-C-27	140-16369-20	RH23P102.D	08/23/2019	15:21
IA-113-C-27	140-16369-21	RH23P103.D	08/23/2019	16:08
IA-088-C-27	140-16369-22	RH23P104.D	08/23/2019	16:57
IA-142-C-27	140-16369-24	RH23P105.D	08/23/2019	17:48
IA-149-C-27	140-16369-19	RH23P101R.D	08/24/2019	04:23

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32312/2 Date Analyzed: 08/19/2019 10:15

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH19.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		449719	9.73	2264250	11.84	1915029	16.45
UPPER LIMIT		629607	10.06	3169950	12.17	2681041	16.78
LOWER LIMIT		269831	9.40	1358550	11.51	1149017	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32312/1002		449719	9.73	2264250	11.84	1915029	16.45
MB 140-32312/4		376501	9.73	1931768	11.83	1640713	16.45
140-16369-9	IA-155-C-27	314845	9.73	1598492	11.84	1307685	16.45
140-16369-10	IA-133-C-27	328260	9.73	1636673	11.84	1369046	16.45
140-16369-11	IA-153-C-27	356922	9.73	1810163	11.84	1509196	16.45
140-16369-12	IA-060-C-27	296115	9.73	1476200	11.84	1220147	16.45
140-16369-13	IA-152-C-27	304754	9.73	1531005	11.83	1289056	16.45
140-16369-14	IA-144-C-27	312863	9.73	1595180	11.84	1315583	16.45
140-16369-15	IA-145-C-27	308741	9.72	1565329	11.84	1329051	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16369-16	IA-146-C-27	260773	9.72	1345334	11.83	1134392	16.44
140-16369-17	IA-150-C-27	218122	9.72	1086231	11.83	942060	16.44
140-16369-18	IA-141-C-27	215768	9.72	1085393	11.84	944601	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16369-23	IA-DUP2-C-27	247260	9.73	1244334	11.84	1061794	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32744/2 Date Analyzed: 08/19/2019 16:53

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH19X.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191498	8.54	1094127	10.77	966925	15.58
UPPER LIMIT		268097	8.87	1531778	11.10	1353695	15.91
LOWER LIMIT		114899	8.21	656476	10.44	580155	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32744/1002		191498	8.54	1094127	10.77	966925	15.58
MB 140-32744/4		191497	8.53	1120833	10.77	1035798	15.57
140-16369-1	IA-BCK-4-27	212519	8.54	1298236	10.77	1158908	15.57
140-16369-2	IA-BCK-2-27	214324	8.54	1234247	10.77	1120245	15.57
140-16369-3	IA-BCK-1-27	185274	8.53	1054763	10.77	927536	15.57
140-16369-4	IA-BCK-3-27	188454	8.54	1107214	10.78	960224	15.58
140-16369-5	IA-001-C-27	185708	8.54	1064055	10.78	957202	15.57
140-16369-6	IA-004-C-27	206990	8.54	1208387	10.78	1035374	15.57
140-16369-7	IA-102-C-27	201680	8.54	1166843	10.77	1040423	15.57
140-16369-8	IA-DUP1-C-27	214615	8.54	1268610	10.77	1158840	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16369-20	IA-126-C-27	217435	8.53	1225846	10.77	1052503	15.57
140-16369-21	IA-113-C-27	197634	8.54	1179705	10.77	949761	15.57
140-16369-22	IA-088-C-27	198157	8.54	1171916	10.77	930567	15.57
140-16369-24	IA-142-C-27	225566	8.54	1255085	10.77	1086776	15.57
140-16369-19	IA-149-C-27	177587	8.54	995979	10.78	834416	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16369-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16369-2	1	-8.3	0.72	0.72	2.7	1.18	1.18		1.64	1.64	08/19/19 11:55	Taj, Holly M
140-16369-12	1	-6.9	0.77	0.77	2.8	1.19	1.19		1.55	1.55	08/19/19 11:57	Taj, Holly M
140-16369-19	1	-7.7	0.74	0.74	3.5	1.24	1.24		1.67	1.67	08/23/19 11:44	Taj, Holly M
140-16369-20	1	-8.2	0.73	0.73	15.9	2.08	2.08		2.87	2.87	08/23/19 11:41	Taj, Holly M
140-16369-21	1	-4.7	0.84	0.84	3.3	1.22	1.22		1.45	1.45	08/23/19 11:44	Taj, Holly M
140-16369-22	1	-5.9	0.80	0.80	3.4	1.23	1.23		1.53	1.53	08/23/19 11:43	Taj, Holly M
140-16369-24	1	-9.1	0.70	0.70	4.6	1.31	1.31		1.89	1.89	08/23/19 11:42	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

LOCKHEED MARTIN CORPORATION (LMC) - MIDDLE RIVER COMPLEX (MRC)
SDG 140-16369-1

SAMPLE IDENTIFICATION	IA-149-C-27		
COMPOUND	TRICHLOROETHENE	MW =	131.39
		GAS CONSTANT =	24.45
COMPOUND AREA	1115		
INTERNAL STANDARD AMOUNT (ppbv)	4		
CALIBRATION VOLUME (mL)	500		
DILUTION FACTOR	1.67		
INTERNAL STANDARD AREA	995979		
AVERAGE RRF	0.3563		
SAMPLE VOLUME (mL)	50		

0.21 ppbv
1.13 µg/m³

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.3	0.37
67-66-3	Chloroform	119.38	ND		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.52	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	0.44	J	1.3	0.22
75-09-2	Methylene Chloride	84.93	98	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	ND		1.3	0.12
108-88-3	Toluene	92.14	3.6		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	0.21	J	0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	ND		0.67	0.43
1330-20-7	Xylenes, Total	106.17	1.9	J	2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1

SDG No.:

Client Sample ID: IA-149-C-27 Lab Sample ID: 140-16369-19

Matrix: Air Lab File ID: RH23P101R.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 16:50

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 04:23

Soil Aliquot Vol: Dilution Factor: 1.67

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.74
75-45-6	Chlorodifluoromethane	86.47	3.7	J	4.7	1.3
67-66-3	Chloroform	119.38	ND		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	2.6	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.68
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	1.9	J	5.8	0.94
75-09-2	Methylene Chloride	84.93	340	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.7
127-18-4	Tetrachloroethene	165.83	ND		9.1	0.79
108-88-3	Toluene	92.14	13		7.6	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	1.1	J	3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	3.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	ND		1.7	1.1
1330-20-7	Xylenes, Total	106.17	8.3	J	12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P101R.D
Lims ID: 140-16369-A-19
Client ID: IA-149-C-27
Sample Type: Client
Inject. Date: 24-Aug-2019 04:23:30 ALS Bottle#: 1 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.6700
Sample Info: 140-0012811-025
Misc. Info.: 140-16369-a-19@1.67
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Aug-2019 13:59:05 Calib Date: 12-Aug-2019 23:20:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0306

First Level Reviewer: khachitpongpanits Date: 26-Aug-2019 13:59:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.539	0.005	97	177587	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.771	0.005	95	995979	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	834416	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.209	17.231	-0.022	94	505258	3.51	
6 Chlorodifluoromethane	51	3.421	3.421	-0.006	35	9597	0.0632	M
8 Dichlorodifluoromethane	85	3.486	3.488	0.000	96	4259	0.0310	
31 Methylene Chloride	84	5.972	5.966	0.006	95	368727	5.87	
58 Trichloroethene	130	11.499	11.499	0.000	45	1115	0.0126	
67 Toluene	91	13.586	13.586	0.000	93	45773	0.2132	
76 Ethylbenzene	91	15.905	15.905	-0.001	96	7855	0.0261	
77 m-Xylene & p-Xylene	91	16.072	16.072	0.000	95	19874	0.0840	
80 o-Xylene	91	16.595	16.595	0.000	64	7504	0.0302	
S 116 Xylenes, Total	100				0		0.1143	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16369-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **OCTOBER 1, 2019**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 140-16376-1

SAMPLES: 17 / Air / VOC

SV-001-C-27	SV-004-C-27	SV-060-C-27
SV-088-C-27	SV-102-C-27	SV-113-C-27
SV-126-C-27	SV-133-C-27	SV-141-C-27
SV-142-C-27	SV-149-C-27	SV-150-C-27
SV-152-C-27	SV-153-C-27	SV-155-C-27
SV-DUP02-C-27	SV-DUP1-C-27	

OVERVIEW

The sample set for LMC – MRC, SDG 140-16376-1, consists of seventeen (17) soil vapor (SV) environmental samples. All samples were analyzed for select volatile organic compounds (VOCs). Two (2) field duplicate pairs are included in this SDG: SV-102-C-27 / SV-DUP1-C-27 and SV-088-C-27 / SV-DUP02-C-27.

The samples were collected by Tetra Tech on August 14, 2019 and analyzed by Eurofins TestAmerica. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, internal standard areas, field duplicate precision, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The continuing calibration performed on 08/23/19 at 10:44 on instrument MR had a percent difference (%D) for dichlorodifluoromethane that was greater than the 30% quality control limit. Samples SV-153-C-27, SV-149-C-27, and SV-126-C-27 were associated with this calibration. The detected and non-detected results for dichlorodifluoromethane in the associated samples were qualified as estimated (J and UJ, respectively).

- The following contaminant was detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Methylene chloride	0.718 ug/m$^{3(1)}$	< RL
Methylene chloride	1.06 ug/m$^{3(2)}$	< RL

Methylene chloride	0.557 ug/m$^{3(3)}$	< RL
Methylene chloride	0.555 ug/m$^{3(4)}$	< RL
Methylene chloride	0.785 ug/m$^{3(5)}$	< RL

1 – Maximum concentration detected in method blank associated with batch 140-32777 affecting sample SV-102-C-27.
2 – Maximum concentration detected in method blank associated with batch 140-32985 affecting samples SV-133-C-27 and SV-126-C-27.
3 – Maximum concentration detected in method blank associated with batch 140-32745 affecting samples SV-001-C-27, SV-004-C-27, SV-DUP1-C-27, SV-155-C-27, SV-060-C-27, SV-150-C-27, SV-152-C-27, SV-141-C-27, SV-113-C-27, SV-088-C-27, SV-DUP02-C-27, and SV-142-C-27.
4 – Maximum concentration detected in method blank associated with batch 140-32868 affecting samples SV-153-C-27 and SV-149-C-27.
5 – Maximum concentration detected in method blank associated with batch 140-32956. No methylene chloride results selected for validation were associated with this batch.

Detected results for methylene chloride less than the RL in the associated samples were qualified as non-detected (U). Detections greater than the RL for methylene chloride were qualified as estimated, (J) as potential laboratory but not definitive contamination.

- The laboratory qualified the result for chlorodifluoromethane in sample SV-150-C-27 with a "CI" qualifier. According to the laboratory report, this qualifier indicates that the peak identified by the data system exhibited chromatographic interference that could not be resolved, and there is reason to suspect there may be a high bias. This result was qualified as estimated (J) on this basis.

- The field duplicate pair samples SV-102-C-27 / SV-DUP1-C-27 had relative percent differences (RPDs) that were greater than the quality control limit of 50% for 1,1-dichloroethene, ethylbenzene, and total xylenes. The detected results for this analyte were qualified as estimated (J) in samples SV-102-C-27 and SV-DUP1-C-27.

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Twenty-five VOC target compounds were reported for the TO-15 analysis of the samples.

The data reviewer observed that the method detection limit for naphthalene was higher than the reporting limit on the sample form Is. No action was noted but this item is noted for completeness. All naphthalene results were nondetected.

Non-detected results were reported to the MDL.

The following results exceeded the instrument calibration range: trichloroethene in samples SV-060-C-27 and SV-141-C-27, methylene chloride in sample SV-126-C-27, vinyl chloride in sample SV-149-C-27, and 1,1-dichloroethane in sample SV-DUP1-C-27. The laboratory reanalyzed these samples, and the aforementioned results from the reanalyses were selected for validation.

The following samples/analytes were analyzed at a dilution factors greater than 1:

Sample	Analyte(s)	Dilution Factor
SV-060-C-27	Trichloroethene	5.03
SV-102-C-27	All	3.73
SV-126-C-27	All	1.52
SV-141-C-27	Trichloroethene	1.47
SV-149-C-27	All	4.15
SV-153-C-27	All	1.76
SV-DUP1-C-27	1,1-Dichloroethane	3.53

The GC/MS tuning form associated with analysis batch 140-32956 had a relative abundance that was outside of the control limits shown. According to the laboratory case narrative report, although the BFB is flagged as outside control limits for TO-14, the results are within limits for TO-15, which is required for this project. No results were qualified on this basis.

EXECUTIVE SUMMARY

Laboratory Performance: Several results were qualified due to calibration noncompliance. Some results were qualified as non-detected due to laboratory method blank contamination. One result was qualified due to chromatographic interference noted by the laboratory.

Other Factors Affecting Data Quality: Results for several analytes in one pair of field duplicate samples were qualified due to field duplicate imprecision. Results above the MDL but below the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and USEPA Method TO-15 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Leigh A. Ciofani

Tetra Tech, Inc.
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08388	NSAMPLE	SV-001-C-27			SV-004-C-27			SV-060-C-27			SV-060-C-27-DL		
SDG: 140-16376-1	LAB_ID	140-16376-1			140-16376-2			140-16376-8			140-16376-8		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		19					
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U				
1,1-DICHLOROETHANE		0.14	U		0.14	U		16					
1,1-DICHLOROETHENE		0.16	U		0.5	J	P	3.7					
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U				
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U				
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		1.8	J	P			
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U				
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		1.3	J	P			
BENZENE		0.21	J	P	0.28	J	P	0.95	J	P			
CARBON TETRACHLORIDE		0.34	J	P	0.33	J	P	0.4	J	P			
CHLORODIFLUOROMETHANE		1.8			0.86	J	P	14					
CHLOROFORM		0.66	J	P	38			14					
CIS-1,2-DICHLOROETHENE		8.3			29			27					
DICHLORODIFLUOROMETHANE		1.6	J	P	2			1.9	J	P			
ETHYLBENZENE		0.5	J	P	0.56	J	P	47					
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U				
METHYLENE CHLORIDE		7.3	J	A	13	J	A	21	J	A			
NAPHTHALENE		2.2			2	U		2	U				
TETRACHLOROETHENE		0.44	J	P	1.5	J	P	0.76	J	P			
TOLUENE		1.5	U		5.8			2.9					
TOTAL XYLENES		1.1	J	P	3.5			400					
TRANS-1,2-DICHLOROETHENE		2.1			1.8			1.7					
TRICHLOROETHENE		41			160						570		
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U				

PROJ_NO: 08388	NSAMPLE	SV-088-C-27			SV-102-C-27			SV-113-C-27			SV-126-C-27		
SDG: 140-16376-1	LAB_ID	140-16376-15			140-16376-3			140-16376-14			140-16376-13		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1800			1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		6.5	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		2900			0.26	J	P	0.14	U	
1,1-DICHLOROETHENE		0.16	U		3100	J	G	0.16	U		0.29	J	P
1,2,3-TRIMETHYLBENZENE		0.88	U		30	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		81	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.89	J	P	17	U		1.1	J	P	0.84	J	P
1,2-DICHLOROETHANE		0.2	U		6.9	U		12			0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		18	U		0.54	U		0.54	U	
BENZENE		0.45	J	P	4.9	J	P	0.16	J	P	1.1	J	P
CARBON TETRACHLORIDE		0.41	J	P	7.5	U		0.36	J	P	0.45	J	P
CHLORODIFLUOROMETHANE		4			13	U		5.1			4.2		
CHLOROFORM		0.42	J	P	34	J	P	1.3	J	P	0.46	J	P
CIS-1,2-DICHLOROETHENE		6.5			45	J	P	18			0.7	J	P
DICHLORODIFLUOROMETHANE		1.7	J	P	12	U		1.6	J	P	2	J	C
ETHYLBENZENE		1.3	J	P	130	J	G	0.84	J	P	1.7	J	P
METHYL TERT-BUTYL ETHER		0.94	U		32	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		11	J	A	190	U	A	42	J	A			
NAPHTHALENE		2	U		77			2	U		2	U	
TETRACHLOROETHENE		0.24	U		8	U		0.25	J	P	0.29	J	P
TOLUENE		1.5	J	P	50	U		3			15		
TOTAL XYLENES		15			1200	J	G	4.3			7.9		
TRANS-1,2-DICHLOROETHENE		0.45	J	P	10	J	P	0.26	J	P	0.16	J	P
TRICHLOROETHENE		36			1200			180			3.7		
VINYL CHLORIDE		0.33	U		11	U		0.33	U		6.8		

PROJ_NO: 08388	NSAMPLE	SV-126-C-27-DL			SV-133-C-27			SV-141-C-27			SV-141-C-27-DL		
SDG: 140-16376-1	LAB_ID	140-16376-13			140-16376-6			140-16376-11			140-16376-11		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					3.4	U		1	U				
1,1,2-TRICHLOROETHANE					0.64	U		0.19	U				
1,1-DICHLOROETHANE					0.47	U		0.14	U				
1,1-DICHLOROETHENE					0.53	U		2					
1,2,3-TRIMETHYLBENZENE					2.9	U		0.88	U				
1,2,4-TRICHLOROBENZENE					7.9	U		2.4	U				
1,2,4-TRIMETHYLBENZENE					1.6	U		0.49	U				
1,2-DICHLOROETHANE					0.67	U		0.2	U				
1,3,5-TRIMETHYLBENZENE					1.8	U		0.54	U				
BENZENE					0.43	U		1.4					
CARBON TETRACHLORIDE					0.73	U		0.29	J	P			
CHLORODIFLUOROMETHANE					3.5	J	P	31					
CHLOROFORM					10			1	J	P			
CIS-1,2-DICHLOROETHENE					0.66	U		14					
DICHLORODIFLUOROMETHANE					1.7	J	P	1.8	J	P			
ETHYLBENZENE					0.94	U		1.9					
METHYL TERT-BUTYL ETHER					3.1	U		0.94	U				
METHYLENE CHLORIDE		630	J	A	420	J	A	19	J	A			
NAPHTHALENE					6.6	U		2	U				
TETRACHLOROETHENE					10			7.3					
TOLUENE					4.9	U		2.1	J	P			
TOTAL XYLENES					1.7	U		12					
TRANS-1,2-DICHLOROETHENE					0.46	U		2.6					
TRICHLOROETHENE					620						330		
VINYL CHLORIDE					4.1			0.62					

PROJ_NO: 08388	NSAMPLE	SV-142-C-27			SV-149-C-27			SV-149-C-27-DL			SV-150-C-27		
SDG: 140-16376-1	LAB_ID	140-16376-17			140-16376-12			140-16376-12			140-16376-9		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		21	U					1	U	
1,1,2-TRICHLOROETHANE		0.19	U		4	U					0.19	U	
1,1-DICHLOROETHANE		0.14	U		2.9	U					0.14	U	
1,1-DICHLOROETHENE		0.16	U		240						0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		18	U					0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		49	U					2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		10	U					1.2	J	P
1,2-DICHLOROETHANE		0.2	U		4.2	U					0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		11	U					0.81	J	P
BENZENE		0.28	J	P	200						0.94	J	P
CARBON TETRACHLORIDE		0.46	J	P	4.6	U					0.37	J	P
CHLORODIFLUOROMETHANE		2.2			8.1	U					40	J	Q
CHLOROFORM		5.4			3.5	U					0.17	U	
CIS-1,2-DICHLOROETHENE		0.2	U		230						0.2	U	
DICHLORODIFLUOROMETHANE		1.7	J	P	7.2	UJ	C				1.8	J	P
ETHYLBENZENE		0.63	J	P	18	J	P				6.3		
METHYL TERT-BUTYL ETHER		0.94	U		19	U					0.94	U	
METHYLENE CHLORIDE		36	J	A	96	U	A				13	J	A
NAPHTHALENE		2	U		41	U					2	U	
TETRACHLOROETHENE		0.99	J	P	4.9	U					0.24	U	
TOLUENE		1.9	J	P	45						10		
TOTAL XYLENES		4.6			49	J	P				38		
TRANS-1,2-DICHLOROETHENE		0.14	U		40						0.14	U	
TRICHLOROETHENE		10			200						1	J	P
VINYL CHLORIDE		0.33	U					2700			0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-152-C-27			SV-153-C-27			SV-155-C-27			SV-DUP02-C-27		
SDG: 140-16376-1	LAB_ID	140-16376-10			140-16376-7			140-16376-5			140-16376-16		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019			8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			FD		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF										SV-088-C-27		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.8			1	U		7.9			1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.43	J	P	0.14	U		19			0.16	J	P
1,1-DICHLOROETHENE		0.16	U		0.16	U		8.4			0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		1.4	J	P	1.5	J	P	1.7	J	P	0.88	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.8	J	P	0.54	U		0.54	U		0.54	U	
BENZENE		0.66	J	P	0.51	J	P	0.67	J	P	0.47	J	P
CARBON TETRACHLORIDE		0.53	J	P	0.51	J	P	1.1	J	P	0.29	J	P
CHLORODIFLUOROMETHANE		22			7.9			8.3			3.5		
CHLOROFORM		1.6	J	P	0.17	U		0.81	J	P	0.51	J	P
CIS-1,2-DICHLOROETHENE		6.9			0.2	U		0.2	U		5.9		
DICHLORODIFLUOROMETHANE		2			1.7	J	CP	1.9	J	P	1.7	J	P
ETHYLBENZENE		1.2	J	P	0.8	J	P	2.1			1.7	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		16	J	A	24	J	A	15	J	A	13	J	A
NAPHTHALENE		2	U		2	U		2	U		2.1		
TETRACHLOROETHENE		0.24	U		0.61	J	P	2.9			0.28	J	P
TOLUENE		4.8			3.9			2.7			4.9		
TOTAL XYLENES		6.1			4.8			17			18		
TRANS-1,2-DICHLOROETHENE		0.21	J	P	0.14	U		0.14	U		0.31	J	P
TRICHLOROETHENE		150			4.4			5.9			34		
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-DUP1-C-27			SV-DUP1-C-27-DL		
SDG: 140-16376-1	LAB_ID	140-16376-4			140-16376-4		
FRACTION: OV-M3	SAMP_DATE	8/14/2019			8/14/2019		
MEDIA: AIR	QC_TYPE	FD			FD		
	UNITS	UG/M3			UG/M3		
	PCT_SOLIDS						
	DUP_OF	SV-102-C-27			SV-102-C-27		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1500					
1,1,2-TRICHLOROETHANE		1.9	U				
1,1-DICHLOROETHANE					3800		
1,1-DICHLOROETHENE		1600	J	G			
1,2,3-TRIMETHYLBENZENE		14	J	P			
1,2,4-TRICHLOROBENZENE		24	U				
1,2,4-TRIMETHYLBENZENE		17	J	P			
1,2-DICHLOROETHANE		2	U				
1,3,5-TRIMETHYLBENZENE		9.5	J	P			
BENZENE		4.6	J	P			
CARBON TETRACHLORIDE		2.2	U				
CHLORODIFLUOROMETHANE		3.9	U				
CHLOROFORM		30					
CIS-1,2-DICHLOROETHENE		37					
DICHLORODIFLUOROMETHANE		3.5	U				
ETHYLBENZENE		220	J	G			
METHYL TERT-BUTYL ETHER		9.4	U				
METHYLENE CHLORIDE		63	U	A			
NAPHTHALENE		120					
TETRACHLOROETHENE		2.4	U				
TOLUENE		18	J	P			
TOTAL XYLENES		2100	J	G			
TRANS-1,2-DICHLOROETHENE		2.6	J	P			
TRICHLOROETHENE		890					
VINYL CHLORIDE		6.6					

Appendix B

Results as Reported by the Laboratory

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.065	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.50		0.40	0.11
67-66-3	Chloroform	119.38	0.14	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.1		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.33	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.43		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.066	J	0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.52		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	7.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.26	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-001-C-27 Lab Sample ID: 140-16376-1

Matrix: Air Lab File ID: RH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:24

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 12:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.34	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	0.66	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	8.3		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.50	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	7.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.2		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.44	J	2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.1		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	41		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.24	J	0.40	0.11
67-66-3	Chloroform	119.38	7.8		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	7.4		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	1.5		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.44		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	29		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.81		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-004-C-27 Lab Sample ID: 140-16376-2

Matrix: Air Lab File ID: RH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:25

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 13:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	0.86	J	1.4	0.39
67-66-3	Chloroform	119.38	38		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	29		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.50	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.56	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	5.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.8		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	160		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	4.0		0.40	0.11
67-66-3	Chloroform	119.38	2.9		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.39	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.1		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.92		0.40	0.040
100-41-4	Ethylbenzene	106.17	11		0.40	0.065
75-09-2	Methylene Chloride	84.93	6.0	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.11	J	0.40	0.035
108-88-3	Toluene	92.14	0.78		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.43		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	3.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*120*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.36	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.27	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	91		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 Lab Sample ID: 140-16376-8

Matrix: Air Lab File ID: RH20P109.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.95	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	14		1.4	0.39
67-66-3	Chloroform	119.38	14		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	27		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	16		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	3.7		1.6	0.16
100-41-4	Ethylbenzene	106.17	47		1.7	0.28
75-09-2	Methylene Chloride	84.93	21	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.76	J	2.7	0.24
108-88-3	Toluene	92.14	2.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	19		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*670*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.8	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	400		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	110		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-060-C-27 DL Lab Sample ID: 140-16376-8 DL

Matrix: Air Lab File ID: RH23P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:40

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 22:35

Soil Aliquot Vol: Dilution Factor: 5.03

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	570		5.4	0.81

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.30	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.1	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.11	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.8		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-088-C-27 Lab Sample ID: 140-16376-15

Matrix: Air Lab File ID: RH20P115D.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:11

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.45	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0		1.4	0.39
67-66-3	Chloroform	119.38	0.42	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.5		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.3	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	11	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.45	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	36		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.89	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	14	1.4
56-23-5	Carbon tetrachloride	153.81	ND		14	1.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.7
67-66-3	Chloroform	119.38	7.0	J	14	1.2
156-59-2	cis-1,2-Dichloroethene	96.94	11	J	14	1.7
75-71-8	Dichlorodifluoromethane	120.91	ND		14	2.4
75-34-3	1,1-Dichloroethane	98.96	720		14	1.2
107-06-2	1,2-Dichloroethane	98.96	ND		14	1.7
75-35-4	1,1-Dichloroethene	96.94	790		14	1.4
100-41-4	Ethylbenzene	106.17	30		14	2.2
75-09-2	Methylene Chloride	84.93	56	J B	68	27
1634-04-4	Methyl tert-butyl ether	88.15	ND		68	8.8
91-20-3	Naphthalene	128.17	15		6.8	13
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		20	13
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	14	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		14	11
71-55-6	1,1,1-Trichloroethane	133.41	340		14	6.3
79-00-5	1,1,2-Trichloroethane	133.41	ND		14	1.2
79-01-6	Trichloroethene	131.39	220		6.8	1.0
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		14	6.1
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		14	3.4
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		14	3.7
75-01-4	Vinyl chloride	62.50	ND		6.8	4.4
1330-20-7	Xylenes, Total	106.17	280		27	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.9	J	43	4.3
56-23-5	Carbon tetrachloride	153.81	ND		85	7.5
75-45-6	Chlorodifluoromethane	86.47	ND		48	13
67-66-3	Chloroform	119.38	34	J	66	5.8
156-59-2	cis-1,2-Dichloroethene	96.94	45	J	54	6.7
75-71-8	Dichlorodifluoromethane	120.91	ND		67	12
75-34-3	1,1-Dichloroethane	98.96	2900		55	4.8
107-06-2	1,2-Dichloroethane	98.96	ND		55	6.9
75-35-4	1,1-Dichloroethene	96.94	3100		54	5.4
100-41-4	Ethylbenzene	106.17	130		59	9.6
75-09-2	Methylene Chloride	84.93	190	J B	240	94
1634-04-4	Methyl tert-butyl ether	88.15	ND		240	32
91-20-3	Naphthalene	128.17	77		36	68
127-18-4	Tetrachloroethene	165.83	ND		92	8.0
108-88-3	Toluene	92.14	ND		77	50
156-60-5	trans-1,2-Dichloroethene	96.94	10	J	54	4.7
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		100	81
71-55-6	1,1,1-Trichloroethane	133.41	1800		74	34
79-00-5	1,1,2-Trichloroethane	133.41	ND		74	6.5
79-01-6	Trichloroethene	131.39	1200		36	5.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		67	30
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		67	17
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		67	18
75-01-4	Vinyl chloride	62.50	ND		17	11
1330-20-7	Xylenes, Total	106.17	1200		120	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.050	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.058	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.4		0.40	0.11
67-66-3	Chloroform	119.38	0.27	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	4.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.32	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.065	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	3.0		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	12	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.037	J	0.40	0.035
108-88-3	Toluene	92.14	0.81		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.065	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	33		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.23	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-113-C-27 Lab Sample ID: 140-16376-14

Matrix: Air Lab File ID: RH20P115.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:09

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.36	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.1		1.4	0.39
67-66-3	Chloroform	119.38	1.3	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	18		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.26	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	12		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.84	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	42	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.25	J	2.7	0.24
108-88-3	Toluene	92.14	3.0		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.26	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	180		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.35	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.2		0.40	0.11
67-66-3	Chloroform	119.38	0.095	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.18	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.074	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.38	J	0.40	0.065
75-09-2	*Methylene Chloride*	*84.93*	*230*	*E B*	*2.0*	*0.80*
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	4.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.041	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.68		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.17	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	2.7		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 Lab Sample ID: 140-16376-13

Matrix: Air Lab File ID: RH23P114.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 152(mL) Date Analyzed: 08/24/2019 01:50

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.1	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.2		1.4	0.39
67-66-3	Chloroform	119.38	0.46	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.70	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.29	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	*Methylene Chloride*	*84.93*	*810*	*E B*	*6.9*	*2.8*
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	15		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.16	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.7		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.84	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	6.8		0.51	0.33
1330-20-7	Xylenes, Total	106.17	7.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	180	B	22	8.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-126-C-27 DL Lab Sample ID: 140-16376-13 DL

Matrix: Air Lab File ID: JH27P101.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:04

Sample wt/vol: 14(mL) Date Analyzed: 08/27/2019 14:52

Soil Aliquot Vol: Dilution Factor: 1.52

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	84.93	630	B	75	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.12
75-45-6	Chlorodifluoromethane	86.47	0.99	J	1.3	0.37
67-66-3	Chloroform	119.38	2.1		1.3	0.12
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	1.3	0.23
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	0.12
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	0.17
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	0.13
100-41-4	Ethylbenzene	106.17	ND		1.3	0.22
75-09-2	Methylene Chloride	84.93	120	B	6.7	2.7
1634-04-4	Methyl tert-butyl ether	88.15	ND		6.7	0.87
91-20-3	Naphthalene	128.17	ND		0.67	1.3
127-18-4	Tetrachloroethene	165.83	1.5		1.3	0.12
108-88-3	Toluene	92.14	ND		2.0	1.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	0.12
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.3	1.1
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.3	0.62
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.3	0.12
79-01-6	Trichloroethene	131.39	120		0.67	0.10
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.3	0.60
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.3	0.33
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.3	0.37
75-01-4	Vinyl chloride	62.50	1.6		0.67	0.43
1330-20-7	Xylenes, Total	106.17	ND		2.7	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-133-C-27 Lab Sample ID: 140-16376-6

Matrix: Air Lab File ID: JH27P214.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:34

Sample wt/vol: 30(mL) Date Analyzed: 08/27/2019 12:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		4.3	0.43
56-23-5	Carbon tetrachloride	153.81	ND		8.4	0.73
75-45-6	Chlorodifluoromethane	86.47	3.5	J	4.7	1.3
67-66-3	Chloroform	119.38	10		6.5	0.57
156-59-2	cis-1,2-Dichloroethene	96.94	ND		5.3	0.66
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	6.6	1.2
75-34-3	1,1-Dichloroethane	98.96	ND		5.4	0.47
107-06-2	1,2-Dichloroethane	98.96	ND		5.4	0.67
75-35-4	1,1-Dichloroethene	96.94	ND		5.3	0.53
100-41-4	Ethylbenzene	106.17	ND		5.8	0.94
75-09-2	Methylene Chloride	84.93	420	B	23	9.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		24	3.1
91-20-3	Naphthalene	128.17	ND		3.5	6.6
127-18-4	Tetrachloroethene	165.83	10		9.0	0.79
108-88-3	Toluene	92.14	ND		7.5	4.9
156-60-5	trans-1,2-Dichloroethene	96.94	ND		5.3	0.46
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		9.9	7.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		7.3	3.4
79-00-5	1,1,2-Trichloroethane	133.41	ND		7.3	0.64
79-01-6	Trichloroethene	131.39	620		3.6	0.54
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		6.6	2.9
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		6.6	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		6.6	1.8
75-01-4	Vinyl chloride	62.50	4.1		1.7	1.1
1330-20-7	Xylenes, Total	106.17	ND		12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.047	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	8.7		0.40	0.11
67-66-3	Chloroform	119.38	0.21	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.51		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.45		0.40	0.065
75-09-2	Methylene Chloride	84.93	5.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	1.1		0.40	0.035
108-88-3	Toluene	92.14	0.55	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.66		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*90*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.24		0.20	0.13
1330-20-7	Xylenes, Total	106.17	2.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 Lab Sample ID: 140-16376-11

Matrix: Air Lab File ID: RH20P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	31		1.4	0.39
67-66-3	Chloroform	119.38	1.0	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	2.0		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.9		1.7	0.28
75-09-2	Methylene Chloride	84.93	19	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	7.3		2.7	0.24
108-88-3	Toluene	92.14	2.1	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.6		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*480*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.62		0.51	0.33
1330-20-7	Xylenes, Total	106.17	12		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	61		0.59	0.088

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-141-C-27 DL Lab Sample ID: 140-16376-11 DL

Matrix: Air Lab File ID: RH23P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:58

Sample wt/vol: 50(mL) Date Analyzed: 08/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1.47

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	330		3.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.087	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.63		0.40	0.11
67-66-3	Chloroform	119.38	1.1		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.14	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	10	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	0.49	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-142-C-27 Lab Sample ID: 140-16376-17

Matrix: Air Lab File ID: H20L16368.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:13

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 06:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.2		1.4	0.39
67-66-3	Chloroform	119.38	5.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.63	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	36	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.99	J	2.7	0.24
108-88-3	Toluene	92.14	1.9	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	62		8.3	0.83
56-23-5	Carbon tetrachloride	153.81	ND		8.3	0.73
75-45-6	Chlorodifluoromethane	86.47	ND		8.3	2.3
67-66-3	Chloroform	119.38	ND		8.3	0.73
156-59-2	cis-1,2-Dichloroethene	96.94	57		8.3	1.0
75-71-8	Dichlorodifluoromethane	120.91	ND		8.3	1.5
75-34-3	1,1-Dichloroethane	98.96	ND		8.3	0.73
107-06-2	1,2-Dichloroethane	98.96	ND		8.3	1.0
75-35-4	1,1-Dichloroethene	96.94	60		8.3	0.83
100-41-4	Ethylbenzene	106.17	4.1	J	8.3	1.3
75-09-2	Methylene Chloride	84.93	28	J B	42	17
1634-04-4	Methyl tert-butyl ether	88.15	ND		42	5.4
91-20-3	Naphthalene	128.17	ND		4.2	7.9
127-18-4	Tetrachloroethene	165.83	ND		8.3	0.73
108-88-3	Toluene	92.14	12		12	8.1
156-60-5	trans-1,2-Dichloroethene	96.94	10		8.3	0.73
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		8.3	6.6
71-55-6	1,1,1-Trichloroethane	133.41	ND		8.3	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.3	0.73
79-01-6	Trichloroethene	131.39	37		4.2	0.62
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		8.3	3.7
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		8.3	2.1
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		8.3	2.3
75-01-4	*Vinyl chloride*	*62.50*	*2000*	*E*	*4.2*	*2.7*
1330-20-7	Xylenes, Total	106.17	11	J	17	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 Lab Sample ID: 140-16376-12

Matrix: Air Lab File ID: RH23P113.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 20(mL) Date Analyzed: 08/24/2019 01:00

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	200		27	2.7
56-23-5	Carbon tetrachloride	153.81	ND		52	4.6
75-45-6	Chlorodifluoromethane	86.47	ND		29	8.1
67-66-3	Chloroform	119.38	ND		41	3.5
156-59-2	cis-1,2-Dichloroethene	96.94	230		33	4.1
75-71-8	Dichlorodifluoromethane	120.91	ND		41	7.2
75-34-3	1,1-Dichloroethane	98.96	ND		34	2.9
107-06-2	1,2-Dichloroethane	98.96	ND		34	4.2
75-35-4	1,1-Dichloroethene	96.94	240		33	3.3
100-41-4	Ethylbenzene	106.17	18	J	36	5.9
75-09-2	Methylene Chloride	84.93	96	J B	140	58
1634-04-4	Methyl tert-butyl ether	88.15	ND		150	19
91-20-3	Naphthalene	128.17	ND		22	41
127-18-4	Tetrachloroethene	165.83	ND		56	4.9
108-88-3	Toluene	92.14	45		47	30
156-60-5	trans-1,2-Dichloroethene	96.94	40		33	2.9
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		62	49
71-55-6	1,1,1-Trichloroethane	133.41	ND		45	21
79-00-5	1,1,2-Trichloroethane	133.41	ND		45	4.0
79-01-6	Trichloroethene	131.39	200		22	3.3
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		41	18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		41	10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		41	11
75-01-4	*Vinyl chloride*	*62.50*	*5100*	*E*	*11*	*6.9*
1330-20-7	Xylenes, Total	106.17	49	J	72	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	1000		7.5	4.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-149-C-27 DL Lab Sample ID: 140-16376-12 DL

Matrix: Air Lab File ID: RH26P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 11:02

Sample wt/vol: 11(mL) Date Analyzed: 08/26/2019 23:46

Soil Aliquot Vol: Dilution Factor: 4.15

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	2700		19	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.059	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	11	CI	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	2.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.19	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.25	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.17	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-150-C-27 Lab Sample ID: 140-16376-9

Matrix: Air Lab File ID: RH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:55

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.94	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.37	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	40	CI	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.3		1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	10		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.0	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.81	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	38		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.084	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	6.3		0.40	0.11
67-66-3	Chloroform	119.38	0.33	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.7		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.40		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.11	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.27	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	4.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.053	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.51		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	28		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.16	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.4		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-152-C-27 Lab Sample ID: 140-16376-10

Matrix: Air Lab File ID: RH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:53

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.66	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	22		1.4	0.39
67-66-3	Chloroform	119.38	1.6	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	6.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.43	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.2	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.21	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.80	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	6.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.081	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.2		0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.34	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	6.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.090	J	0.40	0.035
108-88-3	Toluene	92.14	1.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.82		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.31	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-153-C-27 Lab Sample ID: 140-16376-7

Matrix: Air Lab File ID: RH23P110.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:37

Sample wt/vol: 176(mL) Date Analyzed: 08/23/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1.76

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.51	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	7.9		1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.80	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.61	J	2.7	0.24
108-88-3	Toluene	92.14	3.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	4.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.5	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.8		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.21	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.17	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.3		0.40	0.11
67-66-3	Chloroform	119.38	0.17	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.38	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	2.1		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.49		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.43		0.40	0.035
108-88-3	Toluene	92.14	0.72		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.5		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.1		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.34	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.8		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-155-C-27 Lab Sample ID: 140-16376-5

Matrix: Air Lab File ID: RH20P106.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:32

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.67	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	1.1	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	8.3		1.4	0.39
67-66-3	Chloroform	119.38	0.81	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.9	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	19		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	8.4		1.6	0.16
100-41-4	Ethylbenzene	106.17	2.1		1.7	0.28
75-09-2	Methylene Chloride	84.93	15	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.9		2.7	0.24
108-88-3	Toluene	92.14	2.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	7.9		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	5.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.7	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	17		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.046	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.0		0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.040	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.39	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.9	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.41		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	1.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.078	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	4.1		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP02-C-27 Lab Sample ID: 140-16376-16

Matrix: Air Lab File ID: RH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 05:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.5		1.4	0.39
67-66-3	Chloroform	119.38	0.51	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	5.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	0.16	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.7	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	2.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	4.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.31	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.88	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	18		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	4.0	0.40
56-23-5	Carbon tetrachloride	153.81	ND		4.0	0.35
75-45-6	Chlorodifluoromethane	86.47	ND		4.0	1.1
67-66-3	Chloroform	119.38	6.1		4.0	0.35
156-59-2	cis-1,2-Dichloroethene	96.94	9.2		4.0	0.50
75-71-8	Dichlorodifluoromethane	120.91	ND		4.0	0.70
75-34-3	*1,1-Dichloroethane*	*98.96*	*990*	*E*	*4.0*	*0.35*
107-06-2	1,2-Dichloroethane	98.96	ND		4.0	0.50
75-35-4	1,1-Dichloroethene	96.94	400		4.0	0.40
100-41-4	Ethylbenzene	106.17	51		4.0	0.65
75-09-2	Methylene Chloride	84.93	18	J B	20	8.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		20	2.6
91-20-3	Naphthalene	128.17	23		2.0	3.8
127-18-4	Tetrachloroethene	165.83	ND		4.0	0.35
108-88-3	Toluene	92.14	4.7	J	6.0	3.9
156-60-5	trans-1,2-Dichloroethene	96.94	0.66	J	4.0	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.0	3.2
71-55-6	1,1,1-Trichloroethane	133.41	280		4.0	1.9
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.0	0.35
79-01-6	Trichloroethene	131.39	170		2.0	0.30
526-73-8	1,2,3-Trimethylbenzene	120.19	2.8	J	4.0	1.8
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5	J	4.0	1.0
108-67-8	1,3,5-Trimethylbenzene	120.20	1.9	J	4.0	1.1
75-01-4	Vinyl chloride	62.50	2.6		2.0	1.3
1330-20-7	Xylenes, Total	106.17	480		8.0	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 Lab Sample ID: 140-16376-4

Matrix: Air Lab File ID: RH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 08/20/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.6	J	13	1.3
56-23-5	Carbon tetrachloride	153.81	ND		25	2.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.9
67-66-3	Chloroform	119.38	30		20	1.7
156-59-2	cis-1,2-Dichloroethene	96.94	37		16	2.0
75-71-8	Dichlorodifluoromethane	120.91	ND		20	3.5
75-34-3	*1,1-Dichloroethane*	*98.96*	*4000*	*E*	*16*	*1.4*
107-06-2	1,2-Dichloroethane	98.96	ND		16	2.0
75-35-4	1,1-Dichloroethene	96.94	1600		16	1.6
100-41-4	Ethylbenzene	106.17	220		17	2.8
75-09-2	Methylene Chloride	84.93	63	J B	69	28
1634-04-4	Methyl tert-butyl ether	88.15	ND		72	9.4
91-20-3	Naphthalene	128.17	120		10	20
127-18-4	Tetrachloroethene	165.83	ND		27	2.4
108-88-3	Toluene	92.14	18	J	23	15
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	16	1.4
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		30	24
71-55-6	1,1,1-Trichloroethane	133.41	1500		22	10
79-00-5	1,1,2-Trichloroethane	133.41	ND		22	1.9
79-01-6	Trichloroethene	131.39	890		11	1.6
526-73-8	1,2,3-Trimethylbenzene	120.19	14	J	20	8.8
95-63-6	1,2,4-Trimethylbenzene	120.20	17	J	20	4.9
108-67-8	1,3,5-Trimethylbenzene	120.20	9.5	J	20	5.4
75-01-4	Vinyl chloride	62.50	6.6		5.1	3.3
1330-20-7	Xylenes, Total	106.17	2100		35	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	940		13	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-DUP1-C-27 DL Lab Sample ID: 140-16376-4 DL

Matrix: Air Lab File ID: GH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 00:00

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 01:29

Soil Aliquot Vol: Dilution Factor: 3.53

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	98.96	3800		52	4.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

Appendix C

Support Documentation

Job Narrative
140-16376-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16376-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16376-1	SV-001-C-27	Air	08/14/19 10:24	08/17/19 10:30	Air Canister (1-Liter) #11720
140-16376-2	SV-004-C-27	Air	08/14/19 10:25	08/17/19 10:30	Air Canister (1-Liter) #10746
140-16376-3	SV-102-C-27	Air	08/14/19 10:30	08/17/19 10:30	Air Canister (1-Liter) #09660
140-16376-4	SV-DUP1-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09665
140-16376-5	SV-155-C-27	Air	08/14/19 10:32	08/17/19 10:30	Air Canister (1-Liter) #11830
140-16376-6	SV-133-C-27	Air	08/14/19 10:34	08/17/19 10:30	Air Canister (1-Liter) #11616
140-16376-7	SV-153-C-27	Air	08/14/19 10:37	08/17/19 10:30	Air Canister (1-Liter) #11256
140-16376-8	SV-060-C-27	Air	08/14/19 10:40	08/17/19 10:30	Air Canister (1-Liter) #11741
140-16376-9	SV-150-C-27	Air	08/14/19 10:55	08/17/19 10:30	Air Canister (1-Liter) #11723
140-16376-10	SV-152-C-27	Air	08/14/19 10:53	08/17/19 10:30	Air Canister (1-Liter) #11554
140-16376-11	SV-141-C-27	Air	08/14/19 10:58	08/17/19 10:30	Air Canister (1-Liter) #09739
140-16376-12	SV-149-C-27	Air	08/14/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #11811
140-16376-13	SV-126-C-27	Air	08/14/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #09580
140-16376-14	SV-113-C-27	Air	08/14/19 11:09	08/17/19 10:30	Air Canister (1-Liter) #11139
140-16376-15	SV-088-C-27	Air	08/14/19 11:11	08/17/19 10:30	Air Canister (1-Liter) #11142
140-16376-16	SV-DUP02-C-27	Air	08/14/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #10336
140-16376-17	SV-142-C-27	Air	08/14/19 11:13	08/17/19 10:30	Air Canister (1-Liter) #10493

Baltimore #201

Canister Samples Chain of Custody Record

140-16376 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: APANAVAGE	Samples Collected By: MULLIS/LARSON/OBRIEN/PRYOR	COC No: 1 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 202	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip GERMANTOWN, MD, 20874			Walk-in Client:
Phone: 301-528-3021	Site Contact: MULLIS/PRYOR		Lab Sampling:
FAX:	Tel/Fax 410-279-2700		
Project Name: MRC SV/IAQ Round 27	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MRC, B.H, MD	Standard (Specific): 10 DAYS		(See below for Add'l Items)
P O # 112IC05388	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-001-C-27	8/14/19	0905	8/14/19	1024	-30	0	7255	11720	X									X		X			
SV-004-C-27		0912		1025	-26	0	7168	10746	X									X					
SV-102-C-27		0921		1030	-30	-2	8134	09660	X									X					
SV-DUP1-C-27		0000		0000	-30	0	7652	09665	X									X					
SV-155-C-27		0926		1032	-30	-4	8924	11830	X									X					
SV-133-C-27		0930		1034	-29	-2	11921	11616	X									X					
SV-153-C-27		0932		1037	-27	-3	7200	11256	X									X					
SV-060-C-27		0940		1040	-30	-7	7648	11741	X									X					
SV-150-C-27		0952		1055	-30	-4	11497	11723	X									X					SV-150
SV-152-C-27		0950		1053	-29	-3	11976	11554	X									X					SV-152

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

CUSTODY SEALS INTACT
RECEIVED AMBIENT
BXD 8-16-19
FEDX# 776006558067 M SAT
17 CANS / 17 FLOWS IN

Special Instructions/QC Requirements & Comments: * MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by: Walt P	Date / Time: 8/16/19 1300	Received by: [signature]
Relinquished by: [signature]	Date / Time: 8/16/19 1700	Received by: [signature] EPA KNX 8-17-19 10:31
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Baltimore #201

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** ARANAVAGE	**Samples Collected By:** MULLIS/LARSON/OBRIEN/TAYLOR	COC No: 2 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 20	Email: TONY.ARANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/TAYLOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-279-3700		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MPC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MPC, Balt, MD	Rush (Specifiy):		
P O # 112ICO5388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-141-C-27	8/14/19	0956	8/14/19	1058	-28	-4	7657	09739	X									X					
SV-149-C-27		1002		1102	-30	-4	7650	11811	X									X					
SV-126-C-27		1004		1104	-30	-4	7367	09580	X									X					
SV-113-C-27		1009		1109	-28	-3	11938	11139	X									X					
SV-088-C-27		1011		1111	-30	-5	11990	11142	X									X					
SV-DUP02-C-27		0000		0000	-30	-3	11511	10336	X									X					
SV-142-C-27	↓	1015	↓	1113	-30	-4	11306	10493	X									X					
				8/14/19																			

Temperature (Fahrenheit)		
Start	Interior	Ambient
Stop		

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

* VOID → Control # 10436, Can # 11628 NOT USED, Pressure gauge incorrect

* VOID → Control # 7196, Can # 11279 NOT USED, pressure incorrect

Special Instructions/QC Requirements & Comments: * MPC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019 *

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1720	**Received by:** EVANSVX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16376

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓		✓	☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 8-19-19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/19/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
DLW	140-16376-a-1	11720	15955	B	1	0.0	15:59	
DLW	140-16376-a-2	10746	15841	B	1	0.0	15:59	
DLW	140-16376-a-3	09660	15841	B	1	-2.4	16:00	
DLW	140-16376-a-4	09665	15818	B	1	-1.6	16:00	
DLW	140-16376-a-5	11830	15841	B	1	-2.3	16:00	
DLW	140-16376-a-6	11616	15818	B	1	-3.2	16:01	
DLW	140-16376-a-7	11256	15841	B	1	-2.0	16:01	
DLW	140-16376-a-8	11741	15955	B	1	-5.5	16:01	
DLW	140-16376-a-9	11723	15799	B	1	-3.1	16:02	
DLW	140-16376-a-10	11554	15818	B	1	-3.2	16:02	
DLW	140-16376-a-11	09739	15955	B	1	-3.8	16:11	
DLW	140-16376-a-12	11811	15818	B	1	-4.3	16:11	
DLW	140-16376-a-13	09580	15818	B	1	-3.4	16:11	
DLW	140-16376-a-14	11139	15818	B	1	-4.1	16:12	
DLW	140-16376-a-15	11142	15955	B	1	-4.7	16:12	
DLW	140-16376-a-16	10336	15799	B	1	-3.8	16:12	
DLW	140-16376-a-17	10493	15841	B	1	-4.0	16:12	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
SV-102-C-27	SV-DUP1-C-27	OV-M3	1,1,1-TRICHLOROETHANE	1800	1500	74	18.18	FALSE	TRUE	TRUE	~~TRUE~~
SV-102-C-27	SV-DUP1-C-27-DL	OV-M3	1,1-DICHLOROETHANE	2900	3800	55	26.87	FALSE	TRUE	TRUE	~~TRUE~~
SV-102-C-27	SV-DUP1-C-27	OV-M3	1,1-DICHLOROETHENE	3100	1600	54	63.83	TRUE	TRUE	TRUE	~~TRUE~~
SV-102-C-27	SV-DUP1-C-27	OV-M3	1,2,3-TRIMETHYLBENZENE	30 U	14 J	67	~~72.73~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	1,2,4-TRIMETHYLBENZENE	17 U	17 J	67	0.00	FALSE	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	1,3,5-TRIMETHYLBENZENE	18 U	9.5 J	67	~~64.82~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	BENZENE	4.9 J	4.6 J	43	6.32	FALSE	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	CHLOROFORM	34 J	30	66	12.50	FALSE	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	CIS-1,2-DICHLOROETHENE	45 J	37	54	19.51	FALSE	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	ETHYLBENZENE	130	220	59	51.43	TRUE	TRUE	TRUE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	NAPHTHALENE	77	120	36	43.65	FALSE	TRUE	TRUE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	TOLUENE	50 U	18 J	77	~~94.12~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	TOTAL XYLENES	1200	2100	120	54.55	TRUE	TRUE	TRUE	~~TRUE~~
SV-102-C-27	SV-DUP1-C-27	OV-M3	TRANS-1,2-DICHLOROETHENE	10 J	2.6 J	54	~~117.46~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-102-C-27	SV-DUP1-C-27	OV-M3	TRICHLOROETHENE	1200	890	36	29.67	FALSE	TRUE	TRUE	~~TRUE~~
SV-102-C-27	SV-DUP1-C-27	OV-M3	VINYL CHLORIDE	11 U	6.6	17	50.00	FALSE	FALSE	FALSE	FALSE

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
SV-088-C-27	SV-DUP02-C-27	OV-M3	1,1-DICHLOROETHANE	0.14 U	0.16 J	1.6	13.33	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	1,2,4-TRIMETHYLBENZENE	0.89 J	0.88 J	2	1.13	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	BENZENE	0.45 J	0.47 J	1.3	4.35	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	CARBON TETRACHLORIDE	0.41 J	0.29 J	2.5	34.29	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	CHLORODIFLUOROMETHANE	4	3.5	1.4	13.33	FALSE	TRUE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	CHLOROFORM	0.42 J	0.51 J	2	19.35	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	CIS-1,2-DICHLOROETHENE	6.5	5.9	1.6	9.68	FALSE	TRUE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	DICHLORODIFLUOROMETHANE	1.7 J	1.7 J	2	0.00	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	ETHYLBENZENE	1.3 J	1.7 J	1.7	26.67	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	METHYLENE CHLORIDE	11	13	6.9	16.67	FALSE	TRUE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	NAPHTHALENE	2 U	2.1	1	4.88	FALSE	TRUE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	TETRACHLOROETHENE	0.24 U	0.28 J	2.7	15.38	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	TOLUENE	1.5 J	4.9	2.3	~~106.25~~	~~TRUE~~	FALSE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	TOTAL XYLENES	15	18	3.5	18.18	FALSE	TRUE	TRUE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	TRANS-1,2-DICHLOROETHENE	0.45 J	0.31 J	1.6	36.84	FALSE	FALSE	FALSE	FALSE
SV-088-C-27	SV-DUP02-C-27	OV-M3	TRICHLOROETHENE	36	34	1.1	5.71	FALSE	TRUE	TRUE	FALSE

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-001-C-27	140-16376-1	92
SV-004-C-27	140-16376-2	96
SV-102-C-27	140-16376-3	85
SV-DUP1-C-27	140-16376-4	96
SV-DUP1-C-27 DL	140-16376-4 DL	88
SV-155-C-27	140-16376-5	96
SV-133-C-27	140-16376-6	87
SV-153-C-27	140-16376-7	89
SV-060-C-27	140-16376-8	106
SV-060-C-27 DL	140-16376-8 DL	92
SV-150-C-27	140-16376-9	94
SV-152-C-27	140-16376-10	94
SV-141-C-27	140-16376-11	91
SV-141-C-27 DL	140-16376-11 DL	87
SV-149-C-27	140-16376-12	86
SV-149-C-27 DL	140-16376-12 DL	85
SV-126-C-27	140-16376-13	92
SV-126-C-27 DL	140-16376-13 DL	93
SV-113-C-27	140-16376-14	94
SV-088-C-27	140-16376-15	94
SV-DUP02-C-27	140-16376-16	96
SV-142-C-27	140-16376-17	91
	MB 140-32745/4	91
	MB 140-32777/4	97
	MB 140-32868/4	87
	MB 140-32956/4	85
	MB 140-32985/4	85
	LCS 140-32745/1002	97
	LCS 140-32777/1002	95
	LCS 140-32868/1002	94
	LCS 140-32956/1002	90
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: G500BH21.D Lab Sample ID: MB 140-32777/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/21/2019 16:09

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32777/1002	GCCVH21B-LCS.d	08/21/2019 12:55
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019 00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019 01:29

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.207	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32777/4

Matrix: Air Lab File ID: G500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.718	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH21B-LCS.d

Lab ID: LCS 140-32777/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.89	95	70-130	
Carbon tetrachloride	2.00	1.89	94	70-130	
Chlorodifluoromethane	2.00	1.48	74	60-140	
Chloroform	2.00	1.85	92	70-130	
cis-1,2-Dichloroethene	2.00	2.05	102	70-130	
Dichlorodifluoromethane	2.00	1.74	87	60-140	
1,1-Dichloroethane	2.00	1.72	86	70-130	
1,2-Dichloroethane	2.00	1.63	82	70-130	
1,1-Dichloroethene	2.00	2.03	101	70-130	
Ethylbenzene	2.00	1.88	94	70-130	
Methylene Chloride	2.00	1.96	98	70-130	
Methyl tert-butyl ether	2.00	1.59	80	60-140	
Naphthalene	2.00	1.64	82	60-140	
Tetrachloroethene	2.00	1.92	96	70-130	
Toluene	2.00	1.91	95	70-130	
trans-1,2-Dichloroethene	2.00	2.11	105	70-130	
1,2,4-Trichlorobenzene	2.00	1.83	91	60-140	
1,1,1-Trichloroethane	2.00	1.87	94	70-130	
1,1,2-Trichloroethane	2.00	1.83	92	70-130	
Trichloroethene	2.00	2.06	103	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	1.77	88	70-130	
1,3,5-Trimethylbenzene	2.00	1.92	96	70-130	
Vinyl chloride	2.00	1.49	75	70-130	
Xylenes, Total	6.00	5.49	92	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019 12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019 14:52

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH20.D Lab Sample ID: MB 140-32745/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/20/2019 12:04

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019 09:15
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019 12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019 13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019 19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019 19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019 22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019 23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019 00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019 00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019 03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019 04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019 05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019 06:31

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32745/4

Matrix: Air Lab File ID: R500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32745 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.557	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH20-LCS.d

Lab ID: LCS 140-32745/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.924	92	70-130	
Carbon tetrachloride	1.00	0.944	94	70-130	
Chlorodifluoromethane	1.00	1.10	110	60-140	
Chloroform	1.00	1.02	102	70-130	
cis-1,2-Dichloroethene	1.00	0.944	94	70-130	
Dichlorodifluoromethane	1.00	1.23	123	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.01	101	70-130	
1,1-Dichloroethene	1.00	1.02	102	70-130	
Ethylbenzene	1.00	1.01	101	70-130	
Methylene Chloride	1.00	1.09	109	70-130	
Methyl tert-butyl ether	1.00	1.05	105	60-140	
Naphthalene	1.00	0.992	99	60-140	
Tetrachloroethene	1.00	0.893	89	70-130	
Toluene	1.00	0.962	96	70-130	
trans-1,2-Dichloroethene	1.00	1.03	103	70-130	
1,2,4-Trichlorobenzene	1.00	0.948	95	60-140	
1,1,1-Trichloroethane	1.00	0.986	99	70-130	
1,1,2-Trichloroethane	1.00	0.962	96	70-130	
Trichloroethene	1.00	0.914	91	70-130	
1,2,3-Trimethylbenzene	1.00	1.05	105	70-130	
1,2,4-Trimethylbenzene	1.00	1.02	102	70-130	
1,3,5-Trimethylbenzene	1.00	0.969	97	70-130	
Vinyl chloride	1.00	1.25	125	70-130	
Xylenes, Total	3.00	3.18	106	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019 21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019 22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019 00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019 01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019 01:50

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: R500BH26.D Lab Sample ID: MB 140-32956/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/26/2019 08:49

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019 06:51
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019 23:46

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.226	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32956/4

Matrix: Air Lab File ID: R500BH26.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/26/2019 08:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32956 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.785	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH26-LCS.d

Lab ID: LCS 140-32956/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.781	78	70-130	
Carbon tetrachloride	1.00	0.740	74	70-130	
Chlorodifluoromethane	1.00	0.888	89	60-140	
Chloroform	1.00	0.821	82	70-130	
cis-1,2-Dichloroethene	1.00	0.770	77	70-130	
Dichlorodifluoromethane	1.00	1.08	108	60-140	
1,1-Dichloroethane	1.00	0.873	87	70-130	
1,2-Dichloroethane	1.00	0.793	79	70-130	
1,1-Dichloroethene	1.00	0.792	79	70-130	
Ethylbenzene	1.00	0.856	86	70-130	
Methylene Chloride	1.00	0.910	91	70-130	
Methyl tert-butyl ether	1.00	0.845	85	60-140	
Naphthalene	1.00	0.780	78	60-140	
Tetrachloroethene	1.00	0.833	83	70-130	
Toluene	1.00	0.879	88	70-130	
trans-1,2-Dichloroethene	1.00	0.848	85	70-130	
1,2,4-Trichlorobenzene	1.00	0.791	79	60-140	
1,1,1-Trichloroethane	1.00	0.756	76	70-130	
1,1,2-Trichloroethane	1.00	0.897	90	70-130	
Trichloroethene	1.00	0.784	78	70-130	
1,2,3-Trimethylbenzene	1.00	0.848	85	70-130	
1,2,4-Trimethylbenzene	1.00	0.796	80	70-130	
1,3,5-Trimethylbenzene	1.00	0.835	84	70-130	
Vinyl chloride	1.00	1.22	122	70-130	
Xylenes, Total	3.00	2.57	86	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: GBFBH21B.D BFB Injection Date: 08/21/2019

Instrument ID: MG BFB Injection Time: 12:22

Analysis Batch No.: 32777

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	50.0 - 120.00 % of mass 95	98.7	
175	5.0 - 9.0 % of mass 174	7.1	(7.2) 1
176	95.0 - 101.0 % of mass 174	96.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32777/2	GCCVH21B.D	08/21/2019	12:55
	LCS 140-32777/1002	GCCVH21B-LCS .d	08/21/2019	12:55
	MB 140-32777/4	G500BH21.D	08/21/2019	16:09
SV-102-C-27	140-16376-3	GH21P111.D	08/22/2019	00:47
SV-DUP1-C-27 DL	140-16376-4 DL	GH21P112.D	08/22/2019	01:29

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.501		1.48	2.00	-26.1	30.0
Propene	Ave	0.996	0.6933		1.39	2.00	-30.4*	30.0
Dichlorodifluoromethane	Ave	3.947	3.431		1.74	2.00	-13.1	30.0
Chloromethane	Ave	0.2864	0.1932		1.35	2.00	-32.5*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.175		1.94	2.00	-3.1	30.0
Acetaldehyde	Ave	0.3158	0.1909		6.05	10.0	-39.5*	30.0
Vinyl chloride	Ave	1.044	0.7807		1.49	2.00	-25.3	30.0
1,3-Butadiene	Ave	0.7597	0.5632		1.48	2.00	-25.9	30.0
Butane	Ave	1.492	0.9683		1.30	2.00	-35.1*	30.0
Bromomethane	Ave	0.9503	0.8520		1.79	2.00	-10.3	30.0
Chloroethane	Ave	0.4643	0.3467		1.49	2.00	-25.3	30.0
Ethanol	Ave	0.3217	0.1826		5.68	10.0	-43.2*	30.0
Vinyl bromide	Ave	0.8333	0.8155		1.96	2.00	-2.1	30.0
2-Methylbutane	Ave	0.9463	0.6074		1.28	2.00	-35.8*	30.0
Trichlorofluoromethane	Ave	3.185	2.959		1.86	2.00	-7.1	30.0
Acrolein	Ave	0.1381	0.0846		1.23	2.00	-38.7*	30.0
Acetonitrile	Ave	0.2308	0.1313		1.14	2.00	-43.1*	30.0
Acetone	Ave	0.2705	0.1706		3.78	6.00	-37.0*	30.0
Pentane	Ave	0.1347	0.1160		1.72	2.00	-13.9	30.0
Isopropyl alcohol	Ave	0.7723	0.4608		3.58	6.00	-40.3*	30.0
Ethyl ether	Ave	0.5689	0.3367		1.18	2.00	-40.8*	30.0
1,1-Dichloroethene	Ave	1.140	1.156		2.03	2.00	1.4	30.0
Acrylonitrile	Ave	0.5581	0.4247		1.52	2.00	-23.9	30.0
tert-Butyl alcohol	Ave	1.715	1.182		1.38	2.00	-31.1*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.508		2.01	2.00	0.5	30.0
Methylene Chloride	Ave	1.108	1.086		1.96	2.00	-2.0	30.0
3-Chloropropene	Ave	1.095	0.8096		1.48	2.00	-26.1	30.0
Carbon disulfide	Ave	3.065	2.981		1.95	2.00	-2.7	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.202		2.11	2.00	5.4	30.0
2-Methylpentane	Ave	2.358	1.738		1.47	2.00	-26.3	30.0
Methyl tert-butyl ether	Ave	3.072	2.442		1.59	2.00	-20.5	30.0
1,1-Dichloroethane	Ave	2.187	1.877		1.72	2.00	-14.2	30.0
Vinyl acetate	Ave	2.107	1.496		1.42	2.00	-29.0	30.0
2-Butanone (MEK)	Ave	0.4337	0.3355		1.55	2.00	-22.6	30.0
Hexane	Ave	0.9137	0.7777		1.70	2.00	-14.9	30.0
Isopropyl ether	Ave	2.914	1.957		1.34	2.00	-32.9*	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.199		2.05	2.00	2.4	30.0
Ethyl acetate	Ave	1.876	1.233		1.31	2.00	-34.3*	30.0
Chloroform	Ave	2.715	2.511		1.85	2.00	-7.5	30.0
Tert-butyl ethyl ether	Ave	3.293	2.446		1.49	2.00	-25.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6045		1.25	2.00	-37.6*	30.0
1,1,1-Trichloroethane	Ave	3.254	3.045		1.87	2.00	-6.4	30.0
1,2-Dichloroethane	Ave	0.3682	0.3008		1.63	2.00	-18.3	30.0
Benzene	Ave	0.5978	0.5651		1.89	2.00	-5.5	30.0
Cyclohexane	Ave	0.1107	0.0970		1.75	2.00	-12.3	30.0
1-Butanol	Ave	0.0501	0.0299		1.19	2.00	-40.3*	30.0
Carbon tetrachloride	Ave	0.6079	0.5736		1.89	2.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1363		1.79	2.00	-10.4	30.0
Thiophene	Ave	0.3534	0.3477		1.97	2.00	-1.6	30.0
2,2,4-Trimethylpentane	Ave	1.049	0.8187		1.56	2.00	-22.0	30.0
Heptane	Ave	0.2329	0.2056		1.77	2.00	-11.7	30.0
1,2-Dichloropropane	Ave	0.2110	0.1786		1.69	2.00	-15.4	30.0
Trichloroethene	Ave	0.3335	0.3427		2.06	2.00	2.8	30.0
Dibromomethane	Ave	0.2511	0.2400		1.91	2.00	-4.4	30.0
Bromodichloromethane	Ave	0.5049	0.4818		1.91	2.00	-4.6	30.0
1,4-Dioxane	Ave	0.0869	0.0618		1.42	2.00	-29.0	30.0
Methyl methacrylate	Ave	0.2246	0.1434		1.28	2.00	-36.2*	30.0
Methylcyclohexane	Ave	0.4217	0.3913		1.86	2.00	-7.2	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.1995		1.22	2.00	-38.9*	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3262		1.85	2.00	-7.6	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3322		1.80	2.00	-10.0	30.0
Toluene	Ave	0.7865	0.7510		1.91	2.00	-4.5	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2112		1.83	2.00	-8.3	30.0
2-Hexanone	Ave	0.1912	0.1268		1.33	2.00	-33.7*	30.0
Octane	Ave	0.2861	0.2774		1.94	2.00	-3.0	30.0
Dibromochloromethane	Ave	0.5582	0.5826		2.09	2.00	4.4	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4425		2.07	2.00	3.5	30.0
Tetrachloroethene	Ave	0.3641	0.3497		1.92	2.00	-4.0	30.0
Chlorobenzene	Ave	0.6563	0.6694		2.04	2.00	2.0	30.0
2,3-Dimethylheptane	Ave	0.7538	0.5283		1.40	2.00	-29.9	30.0
Ethylbenzene	Ave	1.041	0.9814		1.88	2.00	-5.8	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7506		3.68	4.00	-7.9	30.0
Nonane	Ave	0.5001	0.4062		1.62	2.00	-18.8	30.0
Bromoform	Ave	0.5067	0.5559		2.19	2.00	9.7	30.0
Styrene	Ave	0.5330	0.5534		2.08	2.00	3.8	30.0
o-Xylene	Ave	0.8833	0.8008		1.81	2.00	-9.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4653		1.80	2.00	-9.9	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1766		1.76	2.00	-11.8	30.0
Isopropylbenzene	Ave	1.202	1.099		1.83	2.00	-8.6	30.0
Propylbenzene	Ave	0.3368	0.3213		1.91	2.00	-4.6	30.0
2-Chlorotoluene	Ave	0.3248	0.3250		2.00	2.00	0.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32777/2 Calibration Date: 08/21/2019 12:55

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH21B.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.105		1.87	2.00	-6.3	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4739		1.92	2.00	-4.1	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4741		2.07	2.00	3.7	30.0
Decane	Ave	0.6385	0.4816		1.51	2.00	-24.6	30.0
tert-Butylbenzene	Ave	1.121	1.044		1.86	2.00	-6.8	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.9275		1.77	2.00	-11.7	30.0
sec-Butylbenzene	Ave	1.470	1.354		1.84	2.00	-7.9	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.7471		2.02	2.00	1.1	30.0
Benzyl chloride	Ave	0.8145	0.7519		1.85	2.00	-7.7	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.7528		2.02	2.00	0.9	30.0
4-Isopropyltoluene	Ave	1.304	1.188		1.82	2.00	-8.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.9624		2.00	2.00	0.0	30.0
Butylcyclohexane	Ave	0.8263	0.7467		1.81	2.00	-9.6	30.0
Indane	Ave	0.9576	0.8974		1.87	2.00	-6.3	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.7140		2.05	2.00	2.7	30.0
Butylbenzene	Ave	1.167	0.9822		1.68	2.00	-15.8	30.0
Indene	Ave	0.7987	0.7784		1.95	2.00	-2.6	30.0
Undecane	Ave	0.5181	0.4843		1.87	2.00	-6.5	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.3470		1.96	2.00	-2.1	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	1.053		1.71	2.00	-14.5	30.0
Dodecane	Ave	0.4081	0.3355		1.64	2.00	-17.8	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5648		1.83	2.00	-8.7	30.0
Naphthalene	Ave	1.275	1.047		1.64	2.00	-17.9	30.0
Hexachlorobutadiene	Ave	0.6005	0.5673		1.89	2.00	-5.5	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4528		1.59	2.00	-20.7	30.0
2-Methylnaphthalene	Ave	0.4473	0.4022		1.80	2.00	-10.1	50.0
1-Methylnaphthalene	Ave	0.4268	0.3881		1.82	2.00	-9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6596		3.80	4.00	-5.1	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-133-C-27	140-16376-6	JH27P214.D	08/27/2019	12:41
SV-126-C-27 DL	140-16376-13 DL	JH27P101.D	08/27/2019	14:52

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MR BFB Injection Time: 08:48

Analysis Batch No.: 32745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.3	
75	30.0 - 60.0 % of mass 95	56.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	76.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.1) 1
176	95.0 - 101.0 % of mass 174	73.9	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32745/2	RCCVH20.D	08/20/2019	09:15
	LCS 140-32745/1002	RCCVH20-LCS.d	08/20/2019	09:15
	MB 140-32745/4	R500BH20.D	08/20/2019	12:04
SV-001-C-27	140-16376-1	RH20P101.D	08/20/2019	12:52
SV-004-C-27	140-16376-2	RH20P102.D	08/20/2019	13:40
SV-DUP1-C-27	140-16376-4	RH20P105.D	08/20/2019	19:07
SV-155-C-27	140-16376-5	RH20P106.D	08/20/2019	19:57
SV-060-C-27	140-16376-8	RH20P109.D	08/20/2019	22:24
SV-150-C-27	140-16376-9	RH20P110.D	08/20/2019	23:13
SV-152-C-27	140-16376-10	RH20P111.D	08/21/2019	00:02
SV-141-C-27	140-16376-11	RH20P112.D	08/21/2019	00:51
SV-113-C-27	140-16376-14	RH20P115.D	08/21/2019	03:16
SV-088-C-27	140-16376-15	RH20P115D.D	08/21/2019	04:05
SV-DUP02-C-27	140-16376-16	RH20P201.D	08/21/2019	05:43
SV-142-C-27	140-16376-17	H20L16368.D	08/21/2019	06:31

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.771		1.10	1.00	10.3	30.0
Propene	Ave	1.896	2.541		1.34	1.00	34.0*	30.0
Dichlorodifluoromethane	Ave	3.092	3.800		1.23	1.00	22.9	30.0
Chloromethane	Ave	0.4647	0.7107		1.53	1.00	53.0*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.915		1.86	1.00	85.8*	30.0
Acetaldehyde	Ave	0.5427	0.8295		7.64	5.00	52.9*	30.0
Vinyl chloride	Ave	1.472	1.833		1.25	1.00	24.5	30.0
1,3-Butadiene	Ave	1.068	1.520		1.42	1.00	42.3*	30.0
Butane	Ave	2.262	3.213		1.42	1.00	42.1*	30.0
Bromomethane	Ave	1.248	1.522		1.22	1.00	22.0	30.0
Chloroethane	Ave	0.6025	0.7812		1.30	1.00	29.7	30.0
Ethanol	Ave	0.5430	0.9274		8.54	5.00	70.8*	30.0
Vinyl bromide	Ave	1.042	1.384		1.33	1.00	32.9*	30.0
2-Methylbutane	Ave	1.688	2.245		1.33	1.00	33.0*	30.0
Trichlorofluoromethane	Ave	3.843	4.048		1.05	1.00	5.4	30.0
Acrolein	Ave	0.4757	0.5329		1.12	1.00	12.0	30.0
Acetonitrile	Ave	0.7083	0.7644		1.08	1.00	7.9	30.0
Acetone	Ave	0.6636	0.6815		3.08	3.00	2.7	30.0
Isopropyl alcohol	Ave	2.248	2.429		3.24	3.00	8.1	30.0
Pentane	Ave	0.2541	0.2565		1.01	1.00	0.9	30.0
Ethyl ether	Ave	2.078	2.122		1.02	1.00	2.1	30.0
1,1-Dichloroethene	Ave	1.376	1.400		1.02	1.00	1.8	30.0
Acrylonitrile	Ave	1.038	1.159		1.12	1.00	11.7	30.0
tert-Butyl alcohol	Ave	2.773	3.042		1.10	1.00	9.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.225		1.13	1.00	12.8	30.0
Methylene Chloride	Ave	1.414	1.537		1.09	1.00	8.7	30.0
3-Chloropropene	Ave	1.574	1.813		1.15	1.00	15.2	30.0
Carbon disulfide	Ave	3.618	3.984		1.10	1.00	10.1	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.487		1.03	1.00	2.8	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.094		1.05	1.00	5.0	30.0
1,1-Dichloroethane	Ave	2.742	2.915		1.06	1.00	6.3	30.0
Vinyl acetate	Ave	4.786	4.941		1.03	1.00	3.2	30.0
2-Butanone (MEK)	Ave	0.7340	0.6703		0.913	1.00	-8.7	30.0
Hexane	Ave	1.256	1.262		1.01	1.00	0.5	30.0
Isopropyl ether	Ave	5.958	6.354		1.07	1.00	6.7	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.545		0.944	1.00	-5.6	30.0
Ethyl acetate	Ave	4.240	4.488		1.06	1.00	5.8	30.0
Chloroform	Ave	3.365	3.445		1.02	1.00	2.4	30.0
Tert-butyl ethyl ether	Ave	4.958	4.974		1.00	1.00	0.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.188		1.03	1.00	3.3	30.0
1,1,1-Trichloroethane	Ave	3.700	3.649		0.986	1.00	-1.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3900		1.01	1.00	1.3	30.0
1-Butanol	Ave	0.1530	0.1363		0.891	1.00	-10.9	30.0
Benzene	Ave	0.8101	0.7482		0.924	1.00	-7.6	30.0
Cyclohexane	Ave	0.1272	0.1212		0.953	1.00	-4.7	30.0
Carbon tetrachloride	Ave	0.6477	0.6113		0.944	1.00	-5.6	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1634		0.895	1.00	-10.5	30.0
Thiophene	Ave	0.4106	0.3987		0.971	1.00	-2.9	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.248		0.922	1.00	-7.8	30.0
Heptane	Ave	0.2826	0.2579		0.913	1.00	-8.7	30.0
1,2-Dichloropropane	Ave	0.3122	0.2847		0.912	1.00	-8.8	30.0
Trichloroethene	Ave	0.3563	0.3258		0.914	1.00	-8.6	30.0
Dibromomethane	Ave	0.3305	0.3073		0.930	1.00	-7.0	30.0
Bromodichloromethane	Ave	0.5996	0.5387		0.898	1.00	-10.2	30.0
1,4-Dioxane	Ave	0.1245	0.1187		0.953	1.00	-4.7	30.0
Methyl methacrylate	Ave	0.4444	0.4181		0.941	1.00	-5.9	30.0
Methylcyclohexane	Ave	0.4659	0.4312		0.925	1.00	-7.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.7409		0.934	1.00	-6.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4311		0.921	1.00	-7.9	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4508		0.906	1.00	-9.4	30.0
Toluene	Ave	1.029	0.9897		0.962	1.00	-3.8	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3069		0.962	1.00	-3.8	30.0
2-Hexanone	Ave	0.3809	0.3585		0.941	1.00	-5.9	30.0
Octane	Ave	0.3372	0.3139		0.931	1.00	-6.9	30.0
Dibromochloromethane	Ave	0.7076	0.6283		0.888	1.00	-11.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5948		0.972	1.00	-2.8	30.0
Tetrachloroethene	Ave	0.4203	0.3754		0.893	1.00	-10.7	30.0
Chlorobenzene	Ave	0.8559	0.8670		1.01	1.00	1.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.379		1.08	1.00	7.7	30.0
Ethylbenzene	Ave	1.444	1.452		1.01	1.00	0.6	30.0
m-Xylene & p-Xylene	Ave	1.134	1.231		2.17	2.00	8.6	30.0
Nonane	Ave	0.7430	0.7796		1.05	1.00	4.9	30.0
Bromoform	Ave	0.6340	0.6246		0.985	1.00	-1.5	30.0
Styrene	Ave	0.7807	0.8185		1.05	1.00	4.8	30.0
o-Xylene	Ave	1.190	1.206		1.01	1.00	1.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.8108		0.967	1.00	-3.3	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2599		0.978	1.00	-2.2	30.0
Isopropylbenzene	Ave	1.766	1.675		0.948	1.00	-5.2	30.0
Propylbenzene	Ave	0.4491	0.4314		0.961	1.00	-3.9	30.0
2-Chlorotoluene	Ave	0.4278	0.4043		0.945	1.00	-5.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32745/2 Calibration Date: 08/20/2019 09:15

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.685		0.957	1.00	-4.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.6503		0.969	1.00	-3.1	30.0
Alpha Methyl Styrene	Ave	0.6434	0.6057		0.941	1.00	-5.9	30.0
Decane	Ave	1.022	1.002		0.980	1.00	-2.0	30.0
tert-Butylbenzene	Ave	1.569	1.605		1.02	1.00	2.3	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.585		1.02	1.00	1.9	30.0
sec-Butylbenzene	Ave	2.233	2.360		1.06	1.00	5.7	30.0
1,3-Dichlorobenzene	Ave	1.059	1.037		0.979	1.00	-2.1	30.0
Benzyl chloride	Ave	1.214	1.221		1.01	1.00	0.6	30.0
1,4-Dichlorobenzene	Ave	1.045	1.020		0.977	1.00	-2.3	30.0
4-Isopropyltoluene	Ave	1.804	1.821		1.01	1.00	0.9	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.601		1.05	1.00	4.6	30.0
Butylcyclohexane	Ave	1.144	1.231		1.08	1.00	7.5	30.0
1,2-Dichlorobenzene	Ave	1.032	1.046		1.01	1.00	1.3	30.0
Indane	Ave	1.389	1.533		1.10	1.00	10.4	30.0
Indene	Ave	1.254	1.284		1.02	1.00	2.4	30.0
Butylbenzene	Ave	1.857	2.044		1.10	1.00	10.1	30.0
Undecane	Ave	1.206	1.346		1.12	1.00	11.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4453		0.880	1.00	-12.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.787		1.03	1.00	3.2	30.0
Dodecane	Ave	1.172	1.236		1.05	1.00	5.5	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.9356		0.948	1.00	-5.2	30.0
Naphthalene	Ave	2.038	2.021		0.992	1.00	-0.8	30.0
Hexachlorobutadiene	Ave	0.9802	0.9641		0.984	1.00	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.9084		1.00	1.00	0.0	30.0
2-Methylnaphthalene	Ave	0.5850	0.6255		1.07	1.00	6.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6307		1.12	1.00	12.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6662		3.86	4.00	-3.4	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-153-C-27	140-16376-7	RH23P110.D	08/23/2019	21:47
SV-060-C-27 DL	140-16376-8 DL	RH23P111.D	08/23/2019	22:35
SV-141-C-27 DL	140-16376-11 DL	RH23P112.D	08/24/2019	00:10
SV-149-C-27	140-16376-12	RH23P113.D	08/24/2019	01:00
SV-126-C-27	140-16376-13	RH23P114.D	08/24/2019	01:50

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab File ID: RBFBH26.D BFB Injection Date: 08/26/2019

Instrument ID: MR BFB Injection Time: 06:24

Analysis Batch No.: 32956

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
50	15.0 - 40.0 % of mass 95	26.6		
75	30.0 - 60.0 % of mass 95	54.7		
95	Base Peak, 100% relative abundance	100.0		
96	5.0 - 9.0 % of mass 95	7.6		
173	Less than 2.0 % of mass 174	0.6	(0.7) 1	
174	50.0 - 120.00 % of mass 95	87.8		
175	5.0 - 9.0 % of mass 174	5.7	(6.5) 1	
176	95.0 - 101.0 % of mass 174	83.1	(94.6) 1	*
177	5.0 - 9.0 % of mass 176	4.9	(5.9) 2	

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32956/2	RCCVH26.D	08/26/2019	06:51
	LCS 140-32956/1002	RCCVH26-LCS.d	08/26/2019	06:51
	MB 140-32956/4	R500BH26.D	08/26/2019	08:49
SV-149-C-27 DL	140-16376-12 DL	RH26P111.D	08/26/2019	23:46

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.036		0.888	1.00	-11.2	30.0
Propene	Ave	1.896	2.197		1.16	1.00	15.9	30.0
Dichlorodifluoromethane	Ave	3.092	3.350		1.08	1.00	8.3	30.0
Chloromethane	Ave	0.4647	0.5906		1.27	1.00	27.1	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.171		2.02	1.00	102.2*	30.0
Acetaldehyde	Ave	0.5427	0.7247		6.68	5.00	33.5*	30.0
Vinyl chloride	Ave	1.472	1.791		1.22	1.00	21.6	30.0
1,3-Butadiene	Ave	1.068	1.409		1.32	1.00	31.9*	30.0
Butane	Ave	2.262	2.741		1.21	1.00	21.2	30.0
Bromomethane	Ave	1.248	1.673		1.34	1.00	34.1*	30.0
Chloroethane	Ave	0.6025	0.8080		1.34	1.00	34.1*	30.0
Ethanol	Ave	0.5430	0.7034		6.48	5.00	29.5	30.0
Vinyl bromide	Ave	1.042	1.625		1.56	1.00	56.0*	30.0
2-Methylbutane	Ave	1.688	1.696		1.00	1.00	0.5	30.0
Trichlorofluoromethane	Ave	3.843	3.140		0.817	1.00	-18.3	30.0
Acrolein	Ave	0.4757	0.4118		0.866	1.00	-13.4	30.0
Acetonitrile	Ave	0.7083	0.5789		0.817	1.00	-18.3	30.0
Acetone	Ave	0.6636	0.5380		2.43	3.00	-18.9	30.0
Isopropyl alcohol	Ave	2.248	1.838		2.45	3.00	-18.2	30.0
Pentane	Ave	0.2541	0.1839		0.724	1.00	-27.6	30.0
Ethyl ether	Ave	2.078	1.566		0.753	1.00	-24.7	30.0
1,1-Dichloroethene	Ave	1.376	1.090		0.792	1.00	-20.8	30.0
tert-Butyl alcohol	Ave	2.773	2.244		0.809	1.00	-19.1	30.0
Acrylonitrile	Ave	1.038	0.8599		0.828	1.00	-17.2	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	2.481		0.868	1.00	-13.2	30.0
Methylene Chloride	Ave	1.414	1.286		0.910	1.00	-9.0	30.0
3-Chloropropene	Ave	1.574	1.373		0.872	1.00	-12.8	30.0
Carbon disulfide	Ave	3.618	3.104		0.858	1.00	-14.2	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.226		0.848	1.00	-15.2	30.0
2-Methylpentane	Ave	3.837	3.239		0.844	1.00	-15.6	30.0
Methyl tert-butyl ether	Ave	3.898	3.295		0.845	1.00	-15.5	30.0
1,1-Dichloroethane	Ave	2.742	2.394		0.873	1.00	-12.7	30.0
Vinyl acetate	Ave	4.786	3.829		0.800	1.00	-20.0	30.0
2-Butanone (MEK)	Ave	0.7340	0.5508		0.750	1.00	-25.0	30.0
Hexane	Ave	1.256	1.024		0.815	1.00	-18.5	30.0
Isopropyl ether	Ave	5.958	5.064		0.850	1.00	-15.0	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.260		0.770	1.00	-23.0	30.0
Ethyl acetate	Ave	4.240	3.554		0.838	1.00	-16.2	30.0
Chloroform	Ave	3.365	2.761		0.821	1.00	-17.9	30.0
Tert-butyl ethyl ether	Ave	4.958	4.065		0.820	1.00	-18.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	1.700		0.803	1.00	-19.7	30.0
1,1,1-Trichloroethane	Ave	3.700	2.796		0.756	1.00	-24.4	30.0
1,2-Dichloroethane	Ave	0.3848	0.3052		0.793	1.00	-20.7	30.0
1-Butanol	Ave	0.1530	0.1053		0.688	1.00	-31.2*	30.0
Benzene	Ave	0.8101	0.6330		0.781	1.00	-21.9	30.0
Cyclohexane	Ave	0.1272	0.0951		0.747	1.00	-25.3	30.0
Carbon tetrachloride	Ave	0.6477	0.4796		0.740	1.00	-26.0	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1380		0.756	1.00	-24.4	30.0
Thiophene	Ave	0.4106	0.3437		0.837	1.00	-16.3	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.045		0.772	1.00	-22.8	30.0
Heptane	Ave	0.2826	0.2198		0.778	1.00	-22.2	30.0
1,2-Dichloropropane	Ave	0.3122	0.2443		0.782	1.00	-21.8	30.0
Trichloroethene	Ave	0.3563	0.2794		0.784	1.00	-21.6	30.0
Dibromomethane	Ave	0.3305	0.2628		0.795	1.00	-20.5	30.0
Bromodichloromethane	Ave	0.5996	0.4340		0.724	1.00	-27.6	30.0
1,4-Dioxane	Ave	0.1245	0.1040		0.835	1.00	-16.5	30.0
Methyl methacrylate	Ave	0.4444	0.3131		0.705	1.00	-29.5	30.0
Methylcyclohexane	Ave	0.4659	0.3515		0.754	1.00	-24.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.5845		0.737	1.00	-26.3	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.3614		0.772	1.00	-22.8	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.4028		0.810	1.00	-19.0	30.0
Toluene	Ave	1.029	0.9047		0.879	1.00	-12.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.2863		0.897	1.00	-10.3	30.0
2-Hexanone	Ave	0.3809	0.2993		0.786	1.00	-21.4	30.0
Octane	Ave	0.3372	0.2817		0.835	1.00	-16.5	30.0
Dibromochloromethane	Ave	0.7076	0.5396		0.762	1.00	-23.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.5139		0.840	1.00	-16.0	30.0
Tetrachloroethene	Ave	0.4203	0.3499		0.833	1.00	-16.7	30.0
Chlorobenzene	Ave	0.8559	0.7588		0.887	1.00	-11.3	30.0
2,3-Dimethylheptane	Ave	1.280	1.163		0.908	1.00	-9.2	30.0
Ethylbenzene	Ave	1.444	1.235		0.856	1.00	-14.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.004		1.77	2.00	-11.4	30.0
Nonane	Ave	0.7430	0.6368		0.857	1.00	-14.3	30.0
Bromoform	Ave	0.6340	0.5278		0.832	1.00	-16.8	30.0
Styrene	Ave	0.7807	0.6515		0.834	1.00	-16.6	30.0
o-Xylene	Ave	1.190	0.9553		0.803	1.00	-19.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.7343		0.876	1.00	-12.4	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.2003		0.754	1.00	-24.6	30.0
Isopropylbenzene	Ave	1.766	1.388		0.786	1.00	-21.4	30.0
Propylbenzene	Ave	0.4491	0.3624		0.807	1.00	-19.3	30.0
2-Chlorotoluene	Ave	0.4278	0.3470		0.811	1.00	-18.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Lab Sample ID: CCVIS 140-32956/2 Calibration Date: 08/26/2019 06:51

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH26.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.421		0.807	1.00	-19.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.5605		0.835	1.00	-16.5	30.0
Alpha Methyl Styrene	Ave	0.6434	0.4965		0.772	1.00	-22.8	30.0
Decane	Ave	1.022	0.8627		0.844	1.00	-15.6	30.0
tert-Butylbenzene	Ave	1.569	1.262		0.804	1.00	-19.6	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.238		0.796	1.00	-20.4	30.0
sec-Butylbenzene	Ave	2.233	1.885		0.844	1.00	-15.6	30.0
1,3-Dichlorobenzene	Ave	1.059	0.8639		0.816	1.00	-18.4	30.0
Benzyl chloride	Ave	1.214	0.9814		0.808	1.00	-19.2	30.0
1,4-Dichlorobenzene	Ave	1.045	0.8474		0.811	1.00	-18.9	30.0
4-Isopropyltoluene	Ave	1.804	1.516		0.840	1.00	-16.0	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.298		0.848	1.00	-15.2	30.0
Butylcyclohexane	Ave	1.144	1.019		0.890	1.00	-11.0	30.0
1,2-Dichlorobenzene	Ave	1.032	0.8586		0.832	1.00	-16.8	30.0
Indane	Ave	1.389	1.170		0.842	1.00	-15.8	30.0
Butylbenzene	Ave	1.857	1.625		0.875	1.00	-12.5	30.0
Indene	Ave	1.254	0.998		0.796	1.00	-20.4	30.0
Undecane	Ave	1.206	1.038		0.861	1.00	-13.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.3447		0.681	1.00	-31.9*	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.443		0.834	1.00	-16.6	30.0
Dodecane	Ave	1.172	1.006		0.858	1.00	-14.2	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	0.7810		0.791	1.00	-20.9	30.0
Naphthalene	Ave	2.038	1.590		0.780	1.00	-22.0	30.0
Hexachlorobutadiene	Ave	0.9802	0.7784		0.794	1.00	-20.6	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	0.7848		0.864	1.00	-13.6	30.0
2-Methylnaphthalene	Ave	0.5850	0.6194		1.06	1.00	5.9	50.0
1-Methylnaphthalene	Ave	0.5618	0.6385		1.14	1.00	13.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6217		3.61	4.00	-9.9	30.0

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32777/2 Date Analyzed: 08/21/2019 12:55

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH21B.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		464447	9.15	2534948	11.31	2289629	15.99
UPPER LIMIT		650226	9.48	3548927	11.64	3205481	16.32
LOWER LIMIT		278668	8.82	1520969	10.98	1373777	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32777/1002		464447	9.15	2534948	11.31	2289629	15.99
MB 140-32777/4		475297	9.14	2398937	11.31	2344388	15.99
140-16376-3	SV-102-C-27	543383	9.15	2741508	11.31	2402343	15.99
140-16376-4 DL	SV-DUP1-C-27 DL	639127	9.14	3004501	11.30	3093212	15.98

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16376-6	SV-133-C-27	186283	9.72	1015978	11.83	859603	16.44
140-16376-13 DL	SV-126-C-27 DL	224559	9.72	971477	11.83	811314	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32745/2 Date Analyzed: 08/20/2019 09:15

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217762	8.54	1358602	10.77	1173944	15.57
UPPER LIMIT		304867	8.87	1902043	11.10	1643522	15.90
LOWER LIMIT		130657	8.21	815161	10.44	704366	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32745/1002		217762	8.54	1358602	10.77	1173944	15.57
MB 140-32745/4		233186	8.55	1381702	10.78	1229968	15.57
140-16376-1	SV-001-C-27	210257	8.53	1194896	10.77	1043672	15.57
140-16376-2	SV-004-C-27	191411	8.54	1130249	10.77	974960	15.58
140-16376-4	SV-DUP1-C-27	210919	8.55	1226735	10.78	1081918	15.58
140-16376-5	SV-155-C-27	251548	8.54	1520419	10.78	1277387	15.57
140-16376-8	SV-060-C-27	203227	8.54	1272475	10.77	1041985	15.57
140-16376-9	SV-150-C-27	220600	8.54	1351111	10.77	1202516	15.57
140-16376-10	SV-152-C-27	228916	8.54	1362730	10.78	1220774	15.57
140-16376-11	SV-141-C-27	228686	8.54	1380073	10.78	1244471	15.57
140-16376-14	SV-113-C-27	254178	8.53	1545932	10.77	1266721	15.57
140-16376-15	SV-088-C-27	220485	8.54	1308716	10.77	1118039	15.57
140-16376-16	SV-DUP02-C-27	226700	8.54	1369338	10.77	1118062	15.57
140-16376-17	SV-142-C-27	227228	8.54	1337929	10.77	1105963	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16376-7	SV-153-C-27	170891	8.54	1003124	10.77	880664	15.57
140-16376-8 DL	SV-060-C-27 DL	192521	8.54	1107901	10.78	958178	15.57
140-16376-11 DL	SV-141-C-27 DL	170125	8.54	1018189	10.77	869046	15.57
140-16376-12	SV-149-C-27	177520	8.53	1049539	10.77	846156	15.57
140-16376-13	SV-126-C-27	169919	8.54	1006028	10.77	827032	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Sample No.: CCVIS 140-32956/2 Date Analyzed: 08/26/2019 06:51

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH26.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		261101	8.53	1564138	10.77	1263318	15.57
UPPER LIMIT		365541	8.86	2189793	11.10	1768645	15.90
LOWER LIMIT		156661	8.20	938483	10.44	757991	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32956/1002		261101	8.53	1564138	10.77	1263318	15.57
MB 140-32956/4		262440	8.53	1591487	10.77	1298062	15.57
140-16376-12 DL	SV-149-C-27 DL	199464	8.54	1126856	10.77	914132	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16376-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16376-3	1	-4.4	0.85	0.85	32.1	3.18	3.18		3.73	3.73	08/21/19 13:47	Knight, Benjamin K
140-16376-4	1	-4.4	0.85	0.85	29.6	3.01	3.01		3.53	3.53	08/21/19 13:49	Knight, Benjamin K
140-16376-7	1	-8.0	0.73	0.73	4.2	1.29	1.29		1.75	1.76	08/23/19 11:49	Taj, Holly M
140-16376-8	1	-11.0	0.63	0.63	32.1	3.18	3.18		5.03	5.03	08/23/19 11:36	Taj, Holly M
140-16376-11	1	-4.5	0.85	0.85	3.7	1.25	1.25		1.47	1.47	08/23/19 11:50	Taj, Holly M
140-16376-12	1	-6.5	0.78	0.78	33.0	3.24	3.24		4.15	4.15	08/21/19 13:46	Knight, Benjamin K
140-16376-13	1	-4.9	0.84	0.84	4.0	1.27	1.27		1.52	1.52	08/23/19 11:51	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

LOCKHEED MARTIN CORPORATION (LMC) - MIDDLE RIVER COMPLEX (MRC)
SDG 140-16376-1

SAMPLE IDENTIFICATION	SV-102-C-27		
COMPOUND	TRICHLOROETHENE	MW =	131.39
		GAS CONSTANT =	24.45
COMPOUND AREA	291624		
INTERNAL STANDARD AMOUNT (ppbv)	4		
CALIBRATION VOLUME (mL)	500		
DILUTION FACTOR	3.73		
INTERNAL STANDARD AREA	2741508		
AVERAGE RRF	0.3335		
SAMPLE VOLUME (mL)	11		

216.31	ppbv
1162.43	µg/m³

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5	J	14	1.4
56-23-5	Carbon tetrachloride	153.81	ND		14	1.2
75-45-6	Chlorodifluoromethane	86.47	ND		14	3.7
67-66-3	Chloroform	119.38	7.0	J	14	1.2
156-59-2	cis-1,2-Dichloroethene	96.94	11	J	14	1.7
75-71-8	Dichlorodifluoromethane	120.91	ND		14	2.4
75-34-3	1,1-Dichloroethane	98.96	720		14	1.2
107-06-2	1,2-Dichloroethane	98.96	ND		14	1.7
75-35-4	1,1-Dichloroethene	96.94	790		14	1.4
100-41-4	Ethylbenzene	106.17	30		14	2.2
75-09-2	Methylene Chloride	84.93	56	J B	68	27
1634-04-4	Methyl tert-butyl ether	88.15	ND		68	8.8
91-20-3	Naphthalene	128.17	15		6.8	13
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		20	13
156-60-5	trans-1,2-Dichloroethene	96.94	2.6	J	14	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		14	11
71-55-6	1,1,1-Trichloroethane	133.41	340		14	6.3
79-00-5	1,1,2-Trichloroethane	133.41	ND		14	1.2
79-01-6	Trichloroethene	131.39	220		6.8	1.0
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		14	6.1
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		14	3.4
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		14	3.7
75-01-4	Vinyl chloride	62.50	ND		6.8	4.4
1330-20-7	Xylenes, Total	106.17	280		27	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1

SDG No.:

Client Sample ID: SV-102-C-27 Lab Sample ID: 140-16376-3

Matrix: Air Lab File ID: GH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/14/2019 10:30

Sample wt/vol: 11(mL) Date Analyzed: 08/22/2019 00:47

Soil Aliquot Vol: Dilution Factor: 3.73

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32777 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.9	J	43	4.3
56-23-5	Carbon tetrachloride	153.81	ND		85	7.5
75-45-6	Chlorodifluoromethane	86.47	ND		48	13
67-66-3	Chloroform	119.38	34	J	66	5.8
156-59-2	cis-1,2-Dichloroethene	96.94	45	J	54	6.7
75-71-8	Dichlorodifluoromethane	120.91	ND		67	12
75-34-3	1,1-Dichloroethane	98.96	2900		55	4.8
107-06-2	1,2-Dichloroethane	98.96	ND		55	6.9
75-35-4	1,1-Dichloroethene	96.94	3100		54	5.4
100-41-4	Ethylbenzene	106.17	130		59	9.6
75-09-2	Methylene Chloride	84.93	190	J B	240	94
1634-04-4	Methyl tert-butyl ether	88.15	ND		240	32
91-20-3	Naphthalene	128.17	77		36	68
127-18-4	Tetrachloroethene	165.83	ND		92	8.0
108-88-3	Toluene	92.14	ND		77	50
156-60-5	trans-1,2-Dichloroethene	96.94	10	J	54	4.7
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		100	81
71-55-6	1,1,1-Trichloroethane	133.41	1800		74	34
79-00-5	1,1,2-Trichloroethane	133.41	ND		74	6.5
79-01-6	Trichloroethene	131.39	1200		36	5.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		67	30
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		67	17
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		67	18
75-01-4	Vinyl chloride	62.50	ND		17	11
1330-20-7	Xylenes, Total	106.17	1200		120	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\GH21P111.D
Lims ID: 140-16376-A-3
Client ID: SV-102-C-27
Sample Type: Client
Inject. Date: 22-Aug-2019 00:47:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 3.7300
Sample Info: 140-0012774-016
Misc. Info.: 140-16376-a-3@3.73
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190819-12774.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 22-Aug-2019 02:14:08 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 22-Aug-2019 15:34:56

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.146	9.146	0.000	72	543383	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	93	2741508	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	85	2402343	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.606	0.000	97	1413647	3.39	
	27 1,1-Dichloroethene	96	6.191	6.178	0.006	95	719957	4.65	
	31 Methylene Chloride	84	6.546	6.539	-0.001	82	49469	0.3285	
	34 trans-1,2-Dichloroethene	96	7.388	7.368	0.011	40	2377	0.0153	
	37 1,1-Dichloroethane	63	7.798	7.799	-0.010	100	1266606	4.26	
	42 cis-1,2-Dichloroethene	96	8.801	8.801	-0.011	83	10622	0.0668	
	44 Chloroform	83	9.151	9.146	-0.005	33	15127	0.0410	
	47 1,1,1-Trichloroethane	97	10.192	10.180	0.000	94	882152	2.00	
	50 Benzene	78	10.796	10.775	0.011	50	3716	0.009069	
	58 Trichloroethene	130	12.014	12.008	-0.006	97	291624	1.28	
	78 Ethylbenzene	91	16.317	16.312	-0.001	97	111159	0.1777	
	79 m-Xylene & p-Xylene	91	16.474	16.474	-0.005	97	579753	1.18	
	83 o-Xylene	91	16.997	16.997	-0.005	98	233863	0.4409	
	112 Naphthalene	128	21.284	21.277	0.000	99	66748	0.0872	
S	124 Xylenes, Total	100				0		1.63	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16376-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **SEPTEMBER 26, 2019**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 140-16377-1

SAMPLES: 20 / Air / VOC

SV-015-A-27	SV-075-A-27	SV-076-A-27
SV-078-A-27	SV-079-A-27	SV-093-A-27
SV-100-B-27	SV-101-B-27	SV-116-A-27
SV-118-A-27	SV-136-A-27	SV-138-A-27
SV-139-A-27	SV-168-A-27	SV-170-A-27
SV-171-A-27	SV-173-A-27	SV-174-A-27
SV-DUP03-A-27	SV-DUP04-A-27	

OVERVIEW

The sample set for LMC – MRC, SDG 140-16377-1, consists of twenty (20) soil vapor (SV) environmental samples. All samples were analyzed for select volatile organic compounds (VOCs). Two (2) field duplicate pairs are included in this SDG: SV-116-A-27 / SV-DUP03-A-27 and SV-079-A-27 / SV-DUP04-A-27.

The samples were collected by Tetra Tech on August 15, 2019 and analyzed by Eurofins TestAmerica. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, internal standard areas, field duplicate precision, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The continuing calibration performed on 08/23/19 at 10:44 on instrument MR had a percent difference (%D) for dichlorodifluoromethane that was greater than the 30% quality control limit. Sample SV-DUP03-A-27 was associated with this calibration. The detected result for dichlorodifluoromethane in sample SV-DUP03-A-27 was qualified as estimated (J).

- The following contaminants were detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Methylene chloride	0.604 ug/m$^{3(1)}$	< RL
Methylene chloride	1.06 ug/m$^{3(2)}$	< RL
Methylene chloride	0.555 ug/m$^{3(3)}$	< RL

1 – Maximum concentration detected in method blank associated with batch 140-32829 affecting samples SV-173-A-27, SV-171-A-27, SV-138-A-27, SV-174-A-27, SV-093-A-27, and SV-170-A-27.
2 – Maximum concentration detected in method blank associated with batch 140-32985; however, no methylene chloride results selected for validation were associated with this batch.
3 – Maximum concentration detected in method blank associated with batch 140-32868 affecting sample SV-DUP03-A-27.

Detected results for methylene chloride less than the RL in the associated samples were qualified as non-detected (U). Detections greater than the RL for methylene chloride were qualified as estimated, (J) as potential laboratory but not definitive contamination.

- The laboratory qualified the result for chlorodifluoromethane in sample SV-015-A-27 with a "CI" qualifier. According to the laboratory report, this qualifier indicates that the peak identified by the data system exhibited chromatographic interference that could not be resolved, and there is reason to suspect there may be a high bias. This result was qualified as estimated (J) on this basis.

- The field duplicate pair samples SV-116-A-27 / SV-DUP03-A-27 had a difference that was greater than the quality control limit of 2x the RL for methylene chloride. The detected results for this analyte were qualified as estimated (J) in samples SV-116-A-27 and SV-DUP03-A-27.

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Twenty-five VOC target compounds were reported for the TO-15 analysis of the samples.

The data reviewer observed that the method detection limit for naphthalene was higher than the reporting limit on the sample form Is. No action was noted but this item is noted for completeness. All naphthalene results were nondetected.

Non-detected results were reported to the MDL.

Trichloroethene results in samples SV-118-A-27, SV-136-A-27, SV-173-A-27, and SV-174-A-27 exceeded the instrument calibration range. The laboratory reanalyzed these samples, and the trichloroethene results from the reanalyses were selected for validation.

The following samples/analytes were analyzed at a dilution factors greater than 1:

Sample	Analyte(s)	Dilution Factor
SV-173-A-27	Trichloroethene	3.64
SV-174-A-27	All	3.72

EXECUTIVE SUMMARY

Laboratory Performance: One VOC result was qualified due to calibration noncompliance. Several results were qualified as non-detected due to laboratory method blank contamination. One result was qualified due to chromatographic interference noted by the laboratory.

Other Factors Affecting Data Quality: Results for one analyte in one pair of field duplicate samples were qualified due to field duplicate imprecision. Results above the MDL but below the RL were qualified as

estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and USEPA Method TO-15 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08388	NSAMPLE	SV-015-A-27			SV-075-A-27			SV-076-A-27			SV-078-A-27		
SDG: 140-16377-1	LAB_ID	140-16377-13			140-16377-18			140-16377-16			140-16377-14		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1.2	J	P	1	U		1	U		2.8		
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		2.6			0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		14			0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		7.3			0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		17			0.78	J	P	1.4	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		8.9			0.54	U		0.58	J	P
BENZENE		2.9			0.13	U		0.54	J	P	0.42	J	P
CARBON TETRACHLORIDE		0.38	J	P	0.24	J	P	0.33	J	P	0.32	J	P
CHLORODIFLUOROMETHANE		1.4			11			1.3	J	P	1.4		
CHLOROFORM		0.34	J	P	0.2	J	P	0.17	U		0.57	J	P
CIS-1,2-DICHLOROETHENE		2.4			0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.4			2.3			2			6.1		
ETHYLBENZENE		30			0.79	J	P	1.1	J	P	0.77	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		140	J	A	24	J	A	100	J	A	39	J	A
NAPHTHALENE		2	U		53			2	U		2	U	
TETRACHLOROETHENE		0.24	U		0.49	J	P	0.91	J	P	2.1	J	P
TOLUENE		13			7.9			87			26		
TOTAL XYLENES		64			5.5			5.6			5.4		
TRANS-1,2-DICHLOROETHENE		0.28	J	P	0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		10			3			0.82	J	P	32		
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-079-A-27			SV-093-A-27			SV-100-B-27			SV-101-B-27		
SDG: 140-16377-1	LAB_ID	140-16377-9			140-16377-7			140-16377-19			140-16377-20		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1.3	J	P	1	U		2.4			250		
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		9.2			0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		5.3			0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		1	J	P	6.4		
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		1.2	J	P	0.49	U		1	J	P	13		
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U		7.2		
BENZENE		0.44	J	P	0.42	J	P	0.3	J	P	0.47	J	P
CARBON TETRACHLORIDE		0.31	J	P	0.41	J	P	31			4.3		
CHLORODIFLUOROMETHANE		1.3	J	P	0.39	U		3.3			6.1	J	Q
CHLOROFORM		0.5	J	P	0.45	J	P	6.4			0.78	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.79	J	P	0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.2			2.1			4.2			3.3		
ETHYLBENZENE		0.92	J	P	0.28	U		0.28	U		0.57	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		45	J	A	16	J	A	31	J	A	13	J	A
NAPHTHALENE		2	U		2	U		2	U		9.1		
TETRACHLOROETHENE		18			0.24	U		4.9			85		
TOLUENE		5.9			2.6			2.4			6.2		
TOTAL XYLENES		5.6			0.52	U		1.4	J	P	3.9		
TRANS-1,2-DICHLOROETHENE		0.51	J	P	0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		150			7.2			34			190		
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-116-A-27			SV-118-A-27			SV-118-A-27-DL			SV-136-A-27		
SDG: 140-16377-1	LAB_ID	140-16377-1			140-16377-12			140-16377-12			140-16377-15		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		3.6						1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U					0.19	U	
1,1-DICHLOROETHANE		0.14	U		11						0.14	U	
1,1-DICHLOROETHENE		0.56	J	P	86						0.52	J	P
1,2,3-TRIMETHYLBENZENE		0.88	U		2.5						0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U					2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		5.7						0.69	J	P
1,2-DICHLOROETHANE		0.2	U		0.2	U					0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		3.9						0.54	U	
BENZENE		0.41	J	P	0.32	J	P				4		
CARBON TETRACHLORIDE		0.4	J	P	0.45	J	P				0.4	J	P
CHLORODIFLUOROMETHANE		1.1	J	P	1.5						1.8		
CHLOROFORM		1.1	J	P	2.3						13		
CIS-1,2-DICHLOROETHENE		0.2	U		45						2.8		
DICHLORODIFLUOROMETHANE		2.2			2.4						2.2		
ETHYLBENZENE		0.28	U		6.4						0.95	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U					0.94	U	
METHYLENE CHLORIDE		6.3	J	AGP	36	J	A				31	J	A
NAPHTHALENE		2	U		2	U					2	U	
TETRACHLOROETHENE		0.24	U		0.24	U					0.24	U	
TOLUENE		2	J	P	3.3						25		
TOTAL XYLENES		0.52	U		58						4.4		
TRANS-1,2-DICHLOROETHENE		0.14	U		4						0.41	J	P
TRICHLOROETHENE		6.6						420					
VINYL CHLORIDE		0.33	U		0.57						0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-136-A-27-DL			SV-138-A-27			SV-139-A-27			SV-168-A-27		
SDG: 140-16377-1	LAB_ID	140-16377-15			140-16377-4			140-16377-11			140-16377-17		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					1	U		1	U		13		
1,1,2-TRICHLOROETHANE					0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE					3.3			0.14	U		1.2	J	P
1,1-DICHLOROETHENE					22			0.16	U		79		
1,2,3-TRIMETHYLBENZENE					0.88	U		5.6			0.88	U	
1,2,4-TRICHLOROBENZENE					2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE					0.49	U		2.4			1.1	J	P
1,2-DICHLOROETHANE					0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE					0.54	U		6.6			0.54	U	
BENZENE					0.61	J	P	0.13	J	P	0.81	J	P
CARBON TETRACHLORIDE					0.5	J	P	0.35	J	P	0.53	J	P
CHLORODIFLUOROMETHANE					1.2	J	P	1.2	J	P	1.1	J	P
CHLOROFORM					0.62	J	P	0.17	U		2.3		
CIS-1,2-DICHLOROETHENE					14			0.2	U		0.76	J	P
DICHLORODIFLUOROMETHANE					2.6			2.2			2.3		
ETHYLBENZENE					0.28	U		4.4			0.55	J	P
METHYL TERT-BUTYL ETHER					0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE					29	J	A	32	J	A	26	J	A
NAPHTHALENE					2	U		3			2	U	
TETRACHLOROETHENE					1.5	J	P	5.7			0.88	J	P
TOLUENE					1.5	J	P	1.5	U		4.5		
TOTAL XYLENES					0.52	U		37			3.1	J	P
TRANS-1,2-DICHLOROETHENE					0.49	J	P	0.14	U		0.2	J	P
TRICHLOROETHENE		500			200			1.6			270		
VINYL CHLORIDE					0.33	U		0.33	U		0.33	U	

PROJ_NO: 08388	NSAMPLE	SV-170-A-27			SV-171-A-27			SV-173-A-27			SV-173-A-27-DL		
SDG: 140-16377-1	LAB_ID	140-16377-8			140-16377-5			140-16377-3			140-16377-3		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		6.2			9.2	U		9.2	U				
1,1,2-TRICHLOROETHANE		0.19	U		1.7	U		1.7	U				
1,1-DICHLOROETHANE		1.8			8.5	J	P	27					
1,1-DICHLOROETHENE		49			250			580					
1,2,3-TRIMETHYLBENZENE		0.88	U		8	U		8	U				
1,2,4-TRICHLOROBENZENE		2.4	U		22	U		22	U				
1,2,4-TRIMETHYLBENZENE		0.93	J	P	4.5	U		4.5	U				
1,2-DICHLOROETHANE		0.2	U		1.8	U		1.8	U				
1,3,5-TRIMETHYLBENZENE		0.54	U		4.9	U		4.9	U				
BENZENE		0.51	J	P	1.2	U		1.2	U				
CARBON TETRACHLORIDE		0.4	J	P	2	U		2	U				
CHLORODIFLUOROMETHANE		1.3	J	P	3.5	U		3.5	U				
CHLOROFORM		0.63	J	P	4.8	J	P	10	J	P			
CIS-1,2-DICHLOROETHENE		10			52			180					
DICHLORODIFLUOROMETHANE		2.1			3.1	U		3.1	U				
ETHYLBENZENE		1.4	J	P	2.6	U		2.6	U				
METHYL TERT-BUTYL ETHER		0.94	U		8.5	U		8.5	U				
METHYLENE CHLORIDE		27	J	A	53	U	A	69	J	A			
NAPHTHALENE		2	U		18	U		18	U				
TETRACHLOROETHENE		0.78	J	P	2.2	U		2.2	U				
TOLUENE		1.5	J	P	13	U		13	U				
TOTAL XYLENES		15			4.7	U		4.7	U				
TRANS-1,2-DICHLOROETHENE		0.38	J	P	1.3	U		6.6	J	P			
TRICHLOROETHENE		340			2200						10000		
VINYL CHLORIDE		0.33	U		3	U		3	U				

PROJ_NO: 08388	NSAMPLE	SV-174-A-27			SV-174-A-27-DL			SV-DUP03-A-27			SV-DUP04-A-27		
SDG: 140-16377-1	LAB_ID	140-16377-6			140-16377-6			140-16377-2			140-16377-10		
FRACTION: OV-M3	SAMP_DATE	8/15/2019			8/15/2019			8/15/2019			8/15/2019		
MEDIA: AIR	QC_TYPE	NM			NM			FD			FD		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF							SV-116-A-27			SV-079-A-27		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		160						1	U		1.4	J	P
1,1,2-TRICHLOROETHANE		0.71	U					0.19	U		0.19	U	
1,1-DICHLOROETHANE		84						0.14	U		0.14	U	
1,1-DICHLOROETHENE		900						0.84	J	P	0.16	U	
1,2,3-TRIMETHYLBENZENE		3.3	U					0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		8.8	U					2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		1.8	U					0.49	U		1.1	J	P
1,2-DICHLOROETHANE		0.75	U					0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		2	U					0.54	U		0.54	U	
BENZENE		1.4	J	P				0.48	J	P	0.54	J	P
CARBON TETRACHLORIDE		0.82	U					0.49	J	P	0.3	J	P
CHLORODIFLUOROMETHANE		1.4	U					1.7			1.6		
CHLOROFORM		28						0.91	J	P	0.45	J	P
CIS-1,2-DICHLOROETHENE		240						0.44	J	P	0.2	U	
DICHLORODIFLUOROMETHANE		2.1	J	P				1.7	J	CP	2.3		
ETHYLBENZENE		1	U					0.53	J	P	0.77	J	P
METHYL TERT-BUTYL ETHER		3.5	U					0.94	U		0.94	U	
METHYLENE CHLORIDE		25	U	A				170	J	AG	29	J	A
NAPHTHALENE		7.4	U					2	U		2	U	
TETRACHLOROETHENE		2.5	J	P				0.24	U		19		
TOLUENE		5.5	U					5.3			5.3		
TOTAL XYLENES		4.4	J	P				2.6	J	P	5		
TRANS-1,2-DICHLOROETHENE		13						0.14	U		0.56	J	P
TRICHLOROETHENE					4400			8.4			150		
VINYL CHLORIDE		1.2	U					0.33	U		0.33	U	

Appendix B

Results as Reported by the Laboratory

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.92		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.060	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.070	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.60		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.65		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	3.5		0.40	0.040
100-41-4	Ethylbenzene	106.17	7.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	39		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.070	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.21	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	15		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-015-A-27 Lab Sample ID: 140-16377-13

Matrix: Air Lab File ID: JH20P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 16:12

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.9		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.38	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.34	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.4		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	2.6		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	14		1.6	0.16
100-41-4	Ethylbenzene	106.17	30		1.7	0.28
75-09-2	Methylene Chloride	84.93	140		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.28	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.2	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	64		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.038	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	3.1		0.40	0.11
67-66-3	Chloroform	119.38	0.041	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.0		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	10		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.073	J	0.40	0.035
108-88-3	Toluene	92.14	2.1		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.56		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.5		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	3.5		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.8		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-075-A-27 Lab Sample ID: 140-16377-18

Matrix: Air Lab File ID: JH20P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:43

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 03:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.24	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	11		1.4	0.39
67-66-3	Chloroform	119.38	0.20	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.79	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	24		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	53		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.49	J	2.7	0.24
108-88-3	Toluene	92.14	7.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.0		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	7.3		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	17		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	8.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.5		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.052	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.36	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.41		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.26	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	29		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	23		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.15	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.16	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-076-A-27 Lab Sample ID: 140-16377-16

Matrix: Air Lab File ID: JH20P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:37

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 00:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.1	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	100		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.91	J	2.7	0.24
108-88-3	Toluene	92.14	87		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.82	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.78	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.051	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.40		0.40	0.11
67-66-3	Chloroform	119.38	0.12	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	1.2		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	11		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.31	J	0.40	0.035
108-88-3	Toluene	92.14	6.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.52		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	5.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.29	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.12	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-078-A-27 Lab Sample ID: 140-16377-14

Matrix: Air Lab File ID: JH20P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 22:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.32	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.39
67-66-3	Chloroform	119.38	0.57	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	6.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	39		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.1	J	2.7	0.24
108-88-3	Toluene	92.14	26		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.8		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	32		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	0.58	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.14	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.049	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.10	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.21	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	13		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.13	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.23	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.24	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.3		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-079-A-27 Lab Sample ID: 140-16377-9

Matrix: Air Lab File ID: JH20P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:17

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 17:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.44	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.31	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.50	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.92	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	45		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	18		2.7	0.24
108-88-3	Toluene	92.14	5.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.51	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.3	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.6		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.065	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	ND		0.40	0.11
67-66-3	Chloroform	119.38	0.092	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.3		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	1.3		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	4.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.70		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.3		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-093-A-27 Lab Sample ID: 140-16377-7

Matrix: Air Lab File ID: JH21P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:08

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 03:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.41	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	ND		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	9.2		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	5.3		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	16	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	7.2		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.093	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	4.9		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.93		0.40	0.11
67-66-3	Chloroform	119.38	1.3		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.85		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.9		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.72		0.40	0.035
108-88-3	Toluene	92.14	0.62		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.45		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.4		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.21	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.32	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-100-B-27 Lab Sample ID: 140-16377-19

Matrix: Air Lab File ID: JH20P116D.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:47

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 04:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.30	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	31		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	3.3		1.4	0.39
67-66-3	Chloroform	119.38	6.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	4.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	4.9		2.7	0.24
108-88-3	Toluene	92.14	2.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	2.4		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	34		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	1.0	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.0	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.68		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.7	CI	0.40	0.11
67-66-3	Chloroform	119.38	0.16	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.67		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	1.7		0.20	0.38
127-18-4	Tetrachloroethene	165.83	12		0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	47		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	35		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.3		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	2.7		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.5		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.89		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-101-B-27 Lab Sample ID: 140-16377-20

Matrix: Air Lab File ID: JH20P101.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:53

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 16:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	4.3		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.1	CI	1.4	0.39
67-66-3	Chloroform	119.38	0.78	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	13		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	9.1		1.0	2.0
127-18-4	Tetrachloroethene	165.83	85		2.7	0.24
108-88-3	Toluene	92.14	6.2		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	250		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	190		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	6.4		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	13		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	7.2		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.9		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.31	J	0.40	0.11
67-66-3	Chloroform	119.38	0.22	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.14	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.52	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.2		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-116-A-27 Lab Sample ID: 140-16377-1

Matrix: Air Lab File ID: JH20P201.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 10:54

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 14:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.41	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	1.1	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.56	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.0	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	6.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.10	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.41		0.40	0.11
67-66-3	Chloroform	119.38	0.47		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	11		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.7		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	22		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.5		0.40	0.065
75-09-2	Methylene Chloride	84.93	10		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.89		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	1.0		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.66		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*130*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	0.51		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	1.2		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.79		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.22		0.20	0.13
1330-20-7	Xylenes, Total	106.17	13		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 Lab Sample ID: 140-16377-12

Matrix: Air Lab File ID: JH20P105.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.32	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	45		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	11		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	86		1.6	0.16
100-41-4	Ethylbenzene	106.17	6.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	36		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	4.0		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.6		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*720*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	2.5		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	5.7		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	3.9		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.57		0.51	0.33
1330-20-7	Xylenes, Total	106.17	58		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	78		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-118-A-27 DL Lab Sample ID: 140-16377-12 DL

Matrix: Air Lab File ID: JH21P108.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:23

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	420		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.2		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.064	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.51		0.40	0.11
67-66-3	Chloroform	119.38	2.7		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.71		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.44		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.13	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.22	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	6.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.10	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	*Trichloroethene*	*131.39*	*110*	*E*	*0.20*	*0.030*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.0		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 Lab Sample ID: 140-16377-15

Matrix: Air Lab File ID: JH20P110.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 23:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.0		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	13		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	2.8		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.52	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.95	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	31		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	25		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.41	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	*Trichloroethene*	*131.39*	*610*	*E*	*1.1*	*0.16*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.69	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.4		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	92		0.67	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-136-A-27 DL Lab Sample ID: 140-16377-15 DL

Matrix: Air Lab File ID: JH21P109.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:34

Sample wt/vol: 30(mL) Date Analyzed: 08/21/2019 22:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	500		3.6	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.19	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.079	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	3.5		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.53		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.82		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	5.7		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	8.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.23	J	0.40	0.035
108-88-3	Toluene	92.14	0.39	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.12	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	37		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-138-A-27 Lab Sample ID: 140-16377-4

Matrix: Air Lab File ID: JH21P111.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:02

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 01:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.61	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.50	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	0.62	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	14		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	3.3		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	22		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	29	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.5	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.49	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	200		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.042	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.055	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.35	J	0.40	0.11
67-66-3	Chloroform	119.38	ND		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	1.0		0.40	0.065
75-09-2	Methylene Chloride	84.93	9.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	0.58		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.84		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.30		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	1.1		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.48		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	8.6		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-139-A-27 Lab Sample ID: 140-16377-11

Matrix: Air Lab File ID: JH20P104.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:20

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.35	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.2	J	1.4	0.39
67-66-3	Chloroform	119.38	ND		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	4.4		1.7	0.28
75-09-2	Methylene Chloride	84.93	32		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	3.0		1.0	2.0
127-18-4	Tetrachloroethene	165.83	5.7		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.6		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	5.6		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	2.4		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	6.6		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	37		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.085	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.32	J	0.40	0.11
67-66-3	Chloroform	119.38	0.48		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.19	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.30	J	0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	20		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.5		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.13	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.052	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	2.4		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	51		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.72	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-168-A-27 Lab Sample ID: 140-16377-17

Matrix: Air Lab File ID: JH20P113.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:40

Sample wt/vol: 100(mL) Date Analyzed: 08/21/2019 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.81	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.53	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.39
67-66-3	Chloroform	119.38	2.3		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.76	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.2	J	1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	79		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.55	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	26		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.88	J	2.7	0.24
108-88-3	Toluene	92.14	4.5		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	13		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	270		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.1	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.063	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.38	J	0.40	0.11
67-66-3	Chloroform	119.38	0.13	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	2.6		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.42		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	0.44		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	12		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.33	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	7.7	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.12	J	0.40	0.035
108-88-3	Toluene	92.14	0.40	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.095	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	1.1		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	63		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.19	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	3.5		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-170-A-27 Lab Sample ID: 140-16377-8

Matrix: Air Lab File ID: JH21P114.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 05:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.51	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.40	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	0.63	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	10		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.1		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	1.8		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	49		1.6	0.16
100-41-4	Ethylbenzene	106.17	1.4	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	27	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.78	J	2.7	0.24
108-88-3	Toluene	92.14	1.5	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.38	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	6.2		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	340		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.93	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	15		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	0.99	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	13		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	2.1	J	3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	63		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	15	J B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	Trichloroethene	131.39	400		1.8	0.27
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-171-A-27 Lab Sample ID: 140-16377-5

Matrix: Air Lab File ID: JH21P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:04

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	4.8	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	52		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	8.5	J	15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	250		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	53	J B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	ND		14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	Trichloroethene	131.39	2200		9.8	1.5
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		3.6	0.36
56-23-5	Carbon tetrachloride	153.81	ND		3.6	0.32
75-45-6	Chlorodifluoromethane	86.47	ND		3.6	1.0
67-66-3	Chloroform	119.38	2.1	J	3.6	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	45		3.6	0.45
75-71-8	Dichlorodifluoromethane	120.91	ND		3.6	0.64
75-34-3	1,1-Dichloroethane	98.96	6.7		3.6	0.32
107-06-2	1,2-Dichloroethane	98.96	ND		3.6	0.45
75-35-4	1,1-Dichloroethene	96.94	150		3.6	0.36
100-41-4	Ethylbenzene	106.17	ND		3.6	0.59
75-09-2	Methylene Chloride	84.93	20	B	18	7.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		18	2.4
91-20-3	Naphthalene	128.17	ND		1.8	3.5
127-18-4	Tetrachloroethene	165.83	ND		3.6	0.32
108-88-3	Toluene	92.14	ND		5.5	3.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7	J	3.6	0.32
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.6	2.9
71-55-6	1,1,1-Trichloroethane	133.41	ND		3.6	1.7
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	0.32
79-01-6	*Trichloroethene*	*131.39*	*1100*	*E*	*1.8*	*0.27*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		3.6	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.6	0.91
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.6	1.0
75-01-4	Vinyl chloride	62.50	ND		1.8	1.2
1330-20-7	Xylenes, Total	106.17	ND		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 Lab Sample ID: 140-16377-3

Matrix: Air Lab File ID: JH21P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 11(mL) Date Analyzed: 08/21/2019 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		12	1.2
56-23-5	Carbon tetrachloride	153.81	ND		23	2.0
75-45-6	Chlorodifluoromethane	86.47	ND		13	3.5
67-66-3	Chloroform	119.38	10	J	18	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	180		14	1.8
75-71-8	Dichlorodifluoromethane	120.91	ND		18	3.1
75-34-3	1,1-Dichloroethane	98.96	27		15	1.3
107-06-2	1,2-Dichloroethane	98.96	ND		15	1.8
75-35-4	1,1-Dichloroethene	96.94	580		14	1.4
100-41-4	Ethylbenzene	106.17	ND		16	2.6
75-09-2	Methylene Chloride	84.93	69	B	63	25
1634-04-4	Methyl tert-butyl ether	88.15	ND		66	8.5
91-20-3	Naphthalene	128.17	ND		9.5	18
127-18-4	Tetrachloroethene	165.83	ND		25	2.2
108-88-3	Toluene	92.14	ND		21	13
156-60-5	trans-1,2-Dichloroethene	96.94	6.6	J	14	1.3
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		27	22
71-55-6	1,1,1-Trichloroethane	133.41	ND		20	9.2
79-00-5	1,1,2-Trichloroethane	133.41	ND		20	1.7
79-01-6	*Trichloroethene*	*131.39*	*5900*	*E*	*9.8*	*1.5*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		18	8.0
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		18	4.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		18	4.9
75-01-4	Vinyl chloride	62.50	ND		4.6	3.0
1330-20-7	Xylenes, Total	106.17	ND		32	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	1900		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	10000		39	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.5	0.15
56-23-5	Carbon tetrachloride	153.81	ND		1.5	0.13
75-45-6	Chlorodifluoromethane	86.47	ND		1.5	0.41
67-66-3	Chloroform	119.38	5.7		1.5	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	62		1.5	0.19
75-71-8	Dichlorodifluoromethane	120.91	0.43	J	1.5	0.26
75-34-3	1,1-Dichloroethane	98.96	21		1.5	0.13
107-06-2	1,2-Dichloroethane	98.96	ND		1.5	0.19
75-35-4	1,1-Dichloroethene	96.94	230		1.5	0.15
100-41-4	Ethylbenzene	106.17	ND		1.5	0.24
75-09-2	Methylene Chloride	84.93	7.1	J B	7.4	3.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.4	0.97
91-20-3	Naphthalene	128.17	ND		0.74	1.4
127-18-4	Tetrachloroethene	165.83	0.37	J	1.5	0.13
108-88-3	Toluene	92.14	ND		2.2	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	3.2		1.5	0.13
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.5	1.2
71-55-6	1,1,1-Trichloroethane	133.41	30		1.5	0.69
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.5	0.13
79-01-6	*Trichloroethene*	*131.39*	*1400*	*E*	*0.74*	*0.11*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.5	0.67
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.5	0.37
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.5	0.41
75-01-4	Vinyl chloride	62.50	ND		0.74	0.48
1330-20-7	Xylenes, Total	106.17	1.0	J	3.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 Lab Sample ID: 140-16377-6

Matrix: Air Lab File ID: JH21P112.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 100(mL) Date Analyzed: 08/22/2019 02:13

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.4	J	4.8	0.48
56-23-5	Carbon tetrachloride	153.81	ND		9.4	0.82
75-45-6	Chlorodifluoromethane	86.47	ND		5.3	1.4
67-66-3	Chloroform	119.38	28		7.3	0.64
156-59-2	cis-1,2-Dichloroethene	96.94	240		5.9	0.74
75-71-8	Dichlorodifluoromethane	120.91	2.1	J	7.4	1.3
75-34-3	1,1-Dichloroethane	98.96	84		6.0	0.53
107-06-2	1,2-Dichloroethane	98.96	ND		6.0	0.75
75-35-4	1,1-Dichloroethene	96.94	900		5.9	0.59
100-41-4	Ethylbenzene	106.17	ND		6.5	1.0
75-09-2	Methylene Chloride	84.93	25	J B	26	10
1634-04-4	Methyl tert-butyl ether	88.15	ND		27	3.5
91-20-3	Naphthalene	128.17	ND		3.9	7.4
127-18-4	Tetrachloroethene	165.83	2.5	J	10	0.88
108-88-3	Toluene	92.14	ND		8.4	5.5
156-60-5	trans-1,2-Dichloroethene	96.94	13		5.9	0.52
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		11	8.8
71-55-6	1,1,1-Trichloroethane	133.41	160		8.1	3.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.1	0.71
79-01-6	*Trichloroethene*	*131.39*	*7600*	*E*	*4.0*	*0.60*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		7.3	3.3
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		7.3	1.8
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		7.3	2.0
75-01-4	Vinyl chloride	62.50	ND		1.9	1.2
1330-20-7	Xylenes, Total	106.17	4.4	J	13	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	820		6.8	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-174-A-27 DL Lab Sample ID: 140-16377-6 DL

Matrix: Air Lab File ID: JH27P102.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:06

Sample wt/vol: 11(mL) Date Analyzed: 08/27/2019 15:43

Soil Aliquot Vol: Dilution Factor: 3.72

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	4400		36	5.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.077	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.49		0.40	0.11
67-66-3	Chloroform	119.38	0.19	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.11	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.35	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.21	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	48	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.60	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP03-A-27 Lab Sample ID: 140-16377-2

Matrix: Air Lab File ID: RH23P106.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.48	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.49	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.91	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.44	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.7	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.84	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.53	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	170	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	8.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.048	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.091	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.18	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	8.2		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	2.7		0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.14	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.26	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	27		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.2		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-DUP04-A-27 Lab Sample ID: 140-16377-10

Matrix: Air Lab File ID: JH20P103.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 00:00

Sample wt/vol: 100(mL) Date Analyzed: 08/20/2019 18:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.30	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.45	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.77	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	29		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	19		2.7	0.24
108-88-3	Toluene	92.14	5.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.56	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.4	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	150		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Appendix C

Support Documentation

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16377-1

Receipt
The samples were received on 8/17/2019 at 10:30 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32868 exhibited % difference of > 30% for Dichlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Although the BFB is flagged as outside control limits for TO-14 on batch 140-32956, the results are within limits for TO-15, which is required for this project.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Method Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc. Job ID: 140-16377-1
Project/Site: MRC SV/IAQ, Round 27, MRC, Baltimore, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16377-1	SV-116-A-27	Air	08/15/19 10:54	08/17/19 10:30	Air Canister (1-Liter) #10796
140-16377-2	SV-DUP03-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09586
140-16377-3	SV-173-A-27	Air	08/15/19 11:00	08/17/19 10:30	Air Canister (1-Liter) #11885
140-16377-4	SV-138-A-27	Air	08/15/19 11:02	08/17/19 10:30	Air Canister (1-Liter) #09641
140-16377-5	SV-171-A-27	Air	08/15/19 11:04	08/17/19 10:30	Air Canister (1-Liter) #11706
140-16377-6	SV-174-A-27	Air	08/15/19 11:06	08/17/19 10:30	Air Canister (1-Liter) #11136
140-16377-7	SV-093-A-27	Air	08/15/19 11:08	08/17/19 10:30	Air Canister (1-Liter) #11861
140-16377-8	SV-170-A-27	Air	08/15/19 11:10	08/17/19 10:30	Air Canister (1-Liter) #11277
140-16377-9	SV-079-A-27	Air	08/15/19 11:17	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-10	SV-DUP04-A-27	Air	08/15/19 00:00	08/17/19 10:30	Air Canister (1-Liter) #09636
140-16377-11	SV-139-A-27	Air	08/15/19 11:20	08/17/19 10:30	Air Canister (1-Liter) #11138
140-16377-12	SV-118-A-27	Air	08/15/19 11:23	08/17/19 10:30	Air Canister (1-Liter) #11517
140-16377-13	SV-015-A-27	Air	08/15/19 16:12	08/17/19 10:30	Air Canister (1-Liter) #10523
140-16377-14	SV-078-A-27	Air	08/15/19 11:30	08/17/19 10:30	Air Canister (1-Liter) #11770
140-16377-15	SV-136-A-27	Air	08/15/19 11:34	08/17/19 10:30	Air Canister (1-Liter) #11773
140-16377-16	SV-076-A-27	Air	08/15/19 11:37	08/17/19 10:30	Air Canister (1-Liter) #10333
140-16377-17	SV-168-A-27	Air	08/15/19 11:40	08/17/19 10:30	Air Canister (1-Liter) #09741
140-16377-18	SV-075-A-27	Air	08/15/19 11:43	08/17/19 10:30	Air Canister (1-Liter) #11543
140-16377-19	SV-100-B-27	Air	08/15/19 11:47	08/17/19 10:30	Air Canister (1-Liter) #11891
140-16377-20	SV-101-B-27	Air	08/15/19 11:53	08/17/19 10:30	Air Canister (1-Liter) #09735

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** APANAVAGE	**Samples Collected By:** MULLIS/ LARSON/ OBRIEN/ PRYOR	COC No: 6 of 9 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 CENTURY BLVD, STE 22	Email: TONY.APANAVAGE@TETRA TECH.COM		For Lab Use Only:
City/State/Zip: GERMANTOWN, MD, 20874	Site Contact: MULLIS/ PRYOR		Walk-in Client:
Phone: 301-528-3021	Tel/Fax 410-379-3900		Lab Sampling:
FAX:	**Analysis Turnaround Time**		Job / SDG No.:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 DAYS		(See below for Add'l Items)
Site/Location: MRC, Balt, MD	Rush (Specify):		
P O # 112ICO9388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-116-A-27	8/15/19	0856	8/15/19	1054	-30	0	8136	10796	X									X					CUSTODY SEALS INTACT
SV-DUP03-A-27	"	0000	"	0000	-30	0	8529	09586	X									X					RECEIVED AMBIENT
SV-173-A-27	"	0902	"	1100	-30	0	7074	11885	X									X					SFD 8-19-19
SV-138-A-27	"	0904	"	1102	-29	2	10653	09641	X									X					FEDEX #
SV-171-A-27	"	0906	"	1104	-30	0	8548	11706	X									X					7760 0655 8067 M SAT
SV-174-A-27	"	0910	"	1106	-30	0	12006	11136	X									X					22 CANS / 23 FLOWS (R)
SV-093-A-27	"	0913	"	1108	-30	0	7281	11861	X									X					5 T's
SV-170-A-27	"	0915	"	1110	-30	0	7374	11277	X									X					
SV-079-A-27	"	0938	"	1117	-30	0	7492	11645	X									X					
SV-DUP04-A-27	"	0000	"	0000	-30	-1	8137	09636	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

140-16377 Chain of Custody

Special Instructions/QC Requirements & Comments: MRC INDOOR AIR/SOIL VAPOR SAMPLING ROUND 27 AUGUST 2019

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 8/16/19 1300	**Received by:**
Relinquished by:	**Date / Time:** 8/16/19 1700	**Received by:** ETAKWX 8-17-19 10:30
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**

Baltimore #201

Canister Samples Chain of Custody Record

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Apanavage	Samples Collected By: Mullis/Lawson/OBrien/Pryor	COC No: 7 of 9 COCs
Company Name: Tetra Tech Inc	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste 200	Email: Tony.Apanavage@tetratech.com		
City/State/Zip: Germantown, MD, 20874	Site Contact: Mullis/Pryor		For Lab Use Only:
Phone: 301-528-3021	Tel/Fax: 410-279-2700		Walk-in Client:
FAX:	Analysis Turnaround Time		Lab Sampling:
Project Name: MRC SV/IAQ Round 27	Standard (Specific): 10 Days		Job / SDG No.:
Site/Location: MRC, Balt., MD	Rush (Specifiy):		(See below for Add'l Items)
P O # 412IC08388			

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SV-139-A-27	8/15/19	0950	8/15/19	1120	-30	0	7679	11138	X									X					
SV-118-A-27		0953		1123	-28	1	09553	11517	X									X					
SV-015-A-27		1507		1612	-26	1	11273	10523	X									X					
SV-078-A-27		1002		1130	-30	0	10860	11770	X									X					
SV-136-A-27		1005		1134	-28	0	10292	11773	X									X					
SV-076-A-27		1010		1137	-30	0	8551	10333	X									X					
SV-168-A-27		1013		1140	-25	3	7426	09741	X									X					
SV-075-A-27		1019		1143	-29	0	7441	11543	X									X					
SV-100-B-27		1024		1147	-29	1	11490	11891	X									X					
SV-101-B-27		1028		1153	-29	0	11922	09735	X									X					

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

11743
09814

Special Instructions/QC Requirements & Comments: ☆MRC Indoor Air/Soil Vapor Sampling Round 27 August 2019

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by:	Date / Time: 8/16/19 1300	Received by:
Relinquished by:	Date / Time: 8/16/19 1700	Received by: STA KWX 8-17-19 10:30
Lab Use Only: Shipper Name:	Opened by:	Condition:

Void: Flow Controller ID: 7075 & Canister ID: 09814

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16377

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** _____

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?				☐ Project missing info

Comments/Actions Taken

_____

Labeling Verified by: **Date:** _____

pH test strip lot number: _____

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 8-19-19

QA026R32.doc, 062719

08/30/2019

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
SV-116-A-27	SV-DUP03-A-27	OV-M3	1,1-DICHLOROETHENE	0.56 J	0.84 J	1.6	40.00	FALSE	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	BENZENE	0.41 J	0.48 J	1.3	15.73	FALSE	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	CARBON TETRACHLORIDE	0.4 J	0.49 J	2.5	20.22	FALSE	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	CHLORODIFLUOROMETHANE	1.1 J	1.7	1.4	42.86	FALSE	FALSE	TRUE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	CHLOROFORM	1.1 J	0.91 J	2	18.91	FALSE	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	CIS-1,2-DICHLOROETHENE	0.2 U	0.44 J	1.6	~~75.00~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	DICHLORODIFLUOROMETHANE	2.2	1.7 J	2	25.64	FALSE	TRUE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	ETHYLBENZENE	0.28 U	0.53 J	1.7	~~61.73~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	METHYLENE CHLORIDE	6.3 J	170	6.9	~~185.71~~	~~TRUE~~	FALSE	TRUE	TRUE
SV-116-A-27	SV-DUP03-A-27	OV-M3	TOLUENE	2 J	5.3	2.3	~~90.41~~	~~TRUE~~	FALSE	TRUE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	TOTAL XYLENES	0.52 U	2.6 J	3.5	~~133.33~~	~~TRUE~~	FALSE	FALSE	FALSE
SV-116-A-27	SV-DUP03-A-27	OV-M3	TRICHLOROETHENE	6.6	8.4	1.1	24.00	FALSE	TRUE	TRUE	FALSE

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
SV-079-A-27	SV-DUP04-A-27	OV-M3	1,1,1-TRICHLOROETHANE	1.3 J	1.4 J	2.2	7.41	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	1,2,4-TRIMETHYLBENZENE	1.2 J	1.1 J	2	8.70	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	BENZENE	0.44 J	0.54 J	1.3	20.41	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	CARBON TETRACHLORIDE	0.31 J	0.3 J	2.5	3.28	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	CHLORODIFLUOROMETHANE	1.3 J	1.6	1.4	20.69	FALSE	FALSE	TRUE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	CHLOROFORM	0.5 J	0.45 J	2	10.53	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	DICHLORODIFLUOROMETHANE	2.2	2.3	2	4.44	FALSE	TRUE	TRUE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	ETHYLBENZENE	0.92 J	0.77 J	1.7	17.75	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	METHYLENE CHLORIDE	45	29	6.9	43.24	FALSE	TRUE	TRUE	~~TRUE~~
SV-079-A-27	SV-DUP04-A-27	OV-M3	TETRACHLOROETHENE	18	19	2.7	5.41	FALSE	TRUE	TRUE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	TOLUENE	5.9	5.3	2.3	10.71	FALSE	TRUE	TRUE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	TOTAL XYLENES	5.6	5	3.5	11.32	FALSE	TRUE	TRUE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	TRANS-1,2-DICHLOROETHENE	0.51 J	0.56 J	1.6	9.35	FALSE	FALSE	FALSE	FALSE
SV-079-A-27	SV-DUP04-A-27	OV-M3	TRICHLOROETHENE	150	150	1.1	0.00	FALSE	TRUE	TRUE	FALSE

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
SV-116-A-27	140-16377-1	89
SV-DUP03-A-27	140-16377-2	89
SV-173-A-27	140-16377-3	88
SV-173-A-27 DL	140-16377-3 DL	87
SV-138-A-27	140-16377-4	90
SV-171-A-27	140-16377-5	89
SV-174-A-27	140-16377-6	89
SV-174-A-27 DL	140-16377-6 DL	93
SV-093-A-27	140-16377-7	90
SV-170-A-27	140-16377-8	86
SV-079-A-27	140-16377-9	88
SV-DUP04-A-27	140-16377-10	87
SV-139-A-27	140-16377-11	89
SV-118-A-27	140-16377-12	93
SV-118-A-27 DL	140-16377-12 DL	89
SV-015-A-27	140-16377-13	87
SV-078-A-27	140-16377-14	85
SV-136-A-27	140-16377-15	91
SV-136-A-27 DL	140-16377-15 DL	89
SV-076-A-27	140-16377-16	86
SV-168-A-27	140-16377-17	90
SV-075-A-27	140-16377-18	91
SV-100-B-27	140-16377-19	89
SV-101-B-27	140-16377-20	87
	MB 140-32828/4	88
	MB 140-32829/4	82
	MB 140-32868/4	87
	MB 140-32985/4	85
	LCS 140-32828/1002	93
	LCS 140-32829/1002	91
	LCS 140-32868/1002	94
	LCS 140-32985/1002	91

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH20.D Lab Sample ID: MB 140-32828/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/20/2019 10:41

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019 09:08
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019 14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019 16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019 17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019 18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019 18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019 19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019 21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019 22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019 23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019 00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019 02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019 03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019 04:00

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32828/4

Matrix: Air Lab File ID: J500BH20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/20/2019 10:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32828 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH20-LCS.d

Lab ID: LCS 140-32828/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.79	90	70-130	
Carbon tetrachloride	2.00	1.74	87	70-130	
Chlorodifluoromethane	2.00	2.02	101	60-140	
Chloroform	2.00	1.62	81	70-130	
cis-1,2-Dichloroethene	2.00	1.88	94	70-130	
Dichlorodifluoromethane	2.00	2.05	102	60-140	
1,1-Dichloroethane	2.00	1.64	82	70-130	
1,2-Dichloroethane	2.00	1.41	70	70-130	
1,1-Dichloroethene	2.00	2.02	101	70-130	
Ethylbenzene	2.00	1.66	83	70-130	
Methylene Chloride	2.00	1.59	79	70-130	
Methyl tert-butyl ether	2.00	1.52	76	60-140	
Naphthalene	2.00	1.66	83	60-140	
Tetrachloroethene	2.00	1.69	84	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.77	89	60-140	
1,1,1-Trichloroethane	2.00	1.47	74	70-130	
1,1,2-Trichloroethane	2.00	1.80	90	70-130	
Trichloroethene	2.00	1.88	94	70-130	
1,2,3-Trimethylbenzene	2.00	1.62	81	70-130	
1,2,4-Trimethylbenzene	2.00	1.62	81	70-130	
1,3,5-Trimethylbenzene	2.00	1.74	87	70-130	
Vinyl chloride	2.00	2.36	118	70-130	
Xylenes, Total	6.00	4.93	82	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH21.D Lab Sample ID: MB 140-32829/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/21/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019 09:44
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019 20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019 21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019 22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019 22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019 01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019 02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019 03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019 05:31

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.174	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32829/4

Matrix: Air Lab File ID: J500BH21.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/21/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32829 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.604	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH21-LCS.d

Lab ID: LCS 140-32829/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.91	96	70-130	
Carbon tetrachloride	2.00	1.83	92	70-130	
Chlorodifluoromethane	2.00	1.97	99	60-140	
Chloroform	2.00	1.79	89	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.00	100	60-140	
1,1-Dichloroethane	2.00	1.84	92	70-130	
1,2-Dichloroethane	2.00	1.45	73	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.69	85	70-130	
Methylene Chloride	2.00	1.77	89	70-130	
Methyl tert-butyl ether	2.00	1.65	83	60-140	
Naphthalene	2.00	1.69	85	60-140	
Tetrachloroethene	2.00	1.68	84	70-130	
Toluene	2.00	1.81	91	70-130	
trans-1,2-Dichloroethene	2.00	2.15	107	70-130	
1,2,4-Trichlorobenzene	2.00	1.68	84	60-140	
1,1,1-Trichloroethane	2.00	1.63	81	70-130	
1,1,2-Trichloroethane	2.00	1.89	94	70-130	
Trichloroethene	2.00	1.86	93	70-130	
1,2,3-Trimethylbenzene	2.00	1.73	86	70-130	
1,2,4-Trimethylbenzene	2.00	1.69	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.82	91	70-130	
Vinyl chloride	2.00	2.45	122	70-130	
Xylenes, Total	6.00	5.09	85	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: J500BH27.D Lab Sample ID: MB 140-32985/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 08/27/2019 10:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019 08:11
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019 15:43

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.305	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32985/4

Matrix: Air Lab File ID: J500BH27.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/27/2019 10:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32985 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	1.06	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVH27-LCS.d

Lab ID: LCS 140-32985/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.07	103	70-130	
Carbon tetrachloride	2.00	1.83	91	70-130	
Chlorodifluoromethane	2.00	2.11	106	60-140	
Chloroform	2.00	1.87	94	70-130	
cis-1,2-Dichloroethene	2.00	2.17	109	70-130	
Dichlorodifluoromethane	2.00	2.11	105	60-140	
1,1-Dichloroethane	2.00	1.93	97	70-130	
1,2-Dichloroethane	2.00	1.52	76	70-130	
1,1-Dichloroethene	2.00	2.17	108	70-130	
Ethylbenzene	2.00	1.96	98	70-130	
Methylene Chloride	2.00	1.81	91	70-130	
Methyl tert-butyl ether	2.00	1.91	95	60-140	
Naphthalene	2.00	2.27	113	60-140	
Tetrachloroethene	2.00	1.89	95	70-130	
Toluene	2.00	2.06	103	70-130	
trans-1,2-Dichloroethene	2.00	2.19	110	70-130	
1,2,4-Trichlorobenzene	2.00	2.20	110	60-140	
1,1,1-Trichloroethane	2.00	1.68	84	70-130	
1,1,2-Trichloroethane	2.00	2.13	107	70-130	
Trichloroethene	2.00	2.01	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.94	97	70-130	
1,2,4-Trimethylbenzene	2.00	1.94	97	70-130	
1,3,5-Trimethylbenzene	2.00	2.09	105	70-130	
Vinyl chloride	2.00	2.56	128	70-130	
Xylenes, Total	6.00	5.81	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: R500BH23.D Lab Sample ID: MB 140-32868/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 08/23/2019 12:46

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32868/1002	RCCVH23A-LCS.d	08/23/2019 10:44
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019 18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019 19:23

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.160	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32868/4

Matrix: Air Lab File ID: R500BH23.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/23/2019 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.555	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVH23A-LCS.d

Lab ID: LCS 140-32868/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	1.08	108	70-130	
Carbon tetrachloride	1.00	1.07	107	70-130	
Chlorodifluoromethane	1.00	1.17	117	60-140	
Chloroform	1.00	1.09	109	70-130	
cis-1,2-Dichloroethene	1.00	1.06	106	70-130	
Dichlorodifluoromethane	1.00	1.40	140	60-140	
1,1-Dichloroethane	1.00	1.06	106	70-130	
1,2-Dichloroethane	1.00	1.12	112	70-130	
1,1-Dichloroethene	1.00	1.05	105	70-130	
Ethylbenzene	1.00	1.03	103	70-130	
Methylene Chloride	1.00	1.04	104	70-130	
Methyl tert-butyl ether	1.00	1.10	110	60-140	
Naphthalene	1.00	1.12	112	60-140	
Tetrachloroethene	1.00	0.973	97	70-130	
Toluene	1.00	1.11	111	70-130	
trans-1,2-Dichloroethene	1.00	1.14	114	70-130	
1,2,4-Trichlorobenzene	1.00	1.10	110	60-140	
1,1,1-Trichloroethane	1.00	1.04	104	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.02	102	70-130	
1,2,3-Trimethylbenzene	1.00	1.14	114	70-130	
1,2,4-Trimethylbenzene	1.00	1.11	111	70-130	
1,3,5-Trimethylbenzene	1.00	1.11	111	70-130	
Vinyl chloride	1.00	1.28	128	70-130	
Xylenes, Total	3.00	3.32	111	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBG19.D BFB Injection Date: 07/19/2019

Instrument ID: MJ BFB Injection Time: 19:07

Analysis Batch No.: 31858

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	111.2	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(96.8) 1
177	5.0 - 9.0 % of mass 176	7.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31858/4	JG19IC09.D	07/19/2019	20:27
	IC 140-31858/6	JG19IC10.D	07/19/2019	22:08
	IC 140-31858/9	JG19IC01.D	07/20/2019	00:39
	IC 140-31858/10	JG19IC02.D	07/20/2019	01:29
	IC 140-31858/11	JG19IC03.D	07/20/2019	02:19
	IC 140-31858/12	JG19IC04.D	07/20/2019	03:08
	IC 140-31858/13	JG19IC05.D	07/20/2019	03:58
	IC 140-31858/14	JG19IC06.D	07/20/2019	04:48
	ICIS 140-31858/15	JG19IC07.D	07/20/2019	05:37
	IC 140-31858/16	JG19IC08.D	07/20/2019	06:27
	ICV 140-31858/30	JG19ICVR.D	07/20/2019	12:28

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.0115	+++++ 0.8264	1.5885 1.1546	0.9918 1.1876	0.8915 +++++	Ave		1.0931				23.2		30.0			
Propene	+++++ 0.8590	+++++ 0.5875	+++++ 0.7556	+++++ 0.7195	1.0375 +++++	Ave		0.7918				21.2		30.0			
Dichlorodifluoromethane	+++++ 1.2055	1.1323 1.2726	1.6600 1.2630	1.2616 1.2498	1.1460 1.0844	Ave		1.2528				13.3		30.0			
Chloromethane	+++++ 0.4030	+++++ 0.4079	+++++ 0.4045	0.4522 0.4157	0.4106 0.3345	Ave		0.4041				8.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.1656	+++++ 0.1754	0.2172 0.1802	0.1865 0.1669	0.1731 0.1269	Ave		0.1740				14.4		30.0			
Vinyl chloride	1.4854 1.3542	1.2806 1.4641	1.3588 1.3796	1.2962 1.4267	1.3243 1.2218	Ave		1.3592				6.1		30.0			
Butane	+++++ 2.1292	+++++ 2.2462	+++++ 2.0663	2.1048 2.1679	2.0864 1.8828	Ave		2.0977				5.3		30.0			
1,3-Butadiene	+++++ 0.9906	+++++ 1.0754	1.1310 1.0092	1.0324 1.0636	1.0039 0.9189	Ave		1.0281				6.2		30.0			
Bromomethane	+++++ 1.1461	+++++ 1.2569	1.2451 1.1894	1.2235 1.2548	1.1661 1.0954	Ave		1.1972				4.9		30.0			
Chloroethane	+++++ 0.5746	+++++ 0.6290	0.6344 0.5880	0.5633 0.6324	0.6064 0.5570	Ave		0.5981				5.3		30.0			
Ethanol	+++++ 0.5585	+++++ 0.5764	+++++ 0.4833	0.6060 0.5737	0.5394 0.4404	Ave		0.5397				10.8		30.0			
Vinyl bromide	+++++ 1.0794	1.1209 1.1616	1.1545 1.0998	1.0336 1.1796	1.0990 1.0560	Ave		1.1094				4.5		30.0			
2-Methylbutane	+++++ 1.3975	+++++ 1.4875	1.6789 1.3203	1.5047 1.4551	1.4315 1.2860	Ave		1.4452				8.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	4.5985 4.3685	4.2878 4.5473	4.2850 4.2764	4.2202 4.3764	4.3435 3.9541	Ave		4.3258				4.1		30.0			
Acrolein	+++++ 0.2901	+++++ 0.2424	+++++ 0.2441	+++++ 0.2777	0.2928 0.2276	Ave		0.2624				10.6		30.0			
Acetonitrile	+++++ 0.4360	+++++ 0.3823	+++++ 0.3623	+++++ 0.4474	0.4752 0.3902	Ave		0.4156				10.5		30.0			
Acetone	+++++ 0.5139	+++++ 0.4105	+++++ 0.3792	+++++ 0.4667	0.6171 0.3753	Ave		0.4604				20.3		30.0			
Isopropyl alcohol	+++++ 1.3814	+++++ 1.5079	+++++ 1.2011	1.4908 1.4731	1.2302 1.0788	Ave		1.3376				12.6		30.0			
Pentane	+++++ 0.1588	+++++ 0.1789	+++++ 0.1579	+++++ 0.1733	0.1645 0.1584	Ave		0.1653				5.4		30.0			
Ethyl ether	+++++ 1.5563	+++++ 1.3734	+++++ 1.3567	1.6235 1.5594	1.6024 1.3328	Ave		1.4864				8.5		30.0			
1,1-Dichloroethene	1.3031 1.1950	1.2248 1.3024	1.2071 1.1843	1.1950 1.2716	1.2482 1.1436	Ave		1.2275				4.3		30.0			
Acrylonitrile	+++++ 0.8545	+++++ 0.7692	0.8137 0.7707	0.8625 0.8896	0.8359 0.7712	Ave		0.8209				5.7		30.0			
tert-Butyl alcohol	+++++ 2.1667	+++++ 2.4469	1.9696 1.9363	2.1491 2.4114	1.7636 1.7014	Ave		2.0681				13.3		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9530 2.7960	3.0484 2.9950	2.9580 2.7216	2.7293 2.9107	2.8195 2.6107	Ave		2.8542				4.9		30.0			
Methylene Chloride	+++++ 1.2912	+++++ 1.2759	+++++ 1.1060	2.3281 1.4175	1.6111 +++++	Ave		1.5050				29.0		30.0			
3-Chloropropene	+++++ 1.4895	+++++ 1.6025	0.8111 1.3813	1.6039 1.4330	1.4842 1.3495	Ave		1.3944				18.1		30.0			
Carbon disulfide	+++++ 3.6951	+++++ 3.9082	3.8349 3.5897	3.8648 3.8386	3.7558 3.4562	Ave		3.7429				4.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.2251	1.2267 1.3131	1.1963 1.1951	1.2521 1.2766	1.2264 1.1281	Ave		1.2266				4.3		30.0			
2-Methylpentane	+++++ 3.4142	+++++ 3.5788	3.6515 3.1837	3.4038 3.3419	3.5338 2.9226	Ave		3.3788				7.0		30.0			
Methyl tert-butyl ether	+++++ 3.4180	+++++ 3.2586	3.2574 3.0843	3.2119 3.6096	3.2585 3.1062	Ave		3.2756				5.2		30.0			
1,1-Dichloroethane	2.8204 2.6933	2.7293 2.9695	2.7472 2.5187	2.7986 2.8184	2.7530 2.4821	Ave		2.7331				5.3		30.0			
Vinyl acetate	+++++ 3.6298	+++++ 3.2250	3.6574 3.2700	3.5253 3.7426	3.5715 3.1447	Ave		3.4708				6.5		30.0			
2-Butanone (MEK)	+++++ 0.5616	+++++ 0.5186	+++++ 0.4655	0.6493 0.5538	0.5640 0.4630	Ave		0.5394				12.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0982	+++++ 1.1589	1.1706 1.0250	1.1114 1.1113	1.1428 0.9807	Ave		1.0999				6.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.2403	1.2183 1.3800	1.2656 1.2036	1.2548 1.3487	1.2789 1.1896	Ave		1.2644				5.1		30.0			
Ethyl acetate	+++++ 2.9541	2.7397 2.8940	3.2870 2.6425	2.7112 3.0806	2.9061 2.6582	Ave		2.8748				7.4		30.0			
Chloroform	+++++ 3.1707	3.4242 3.4909	3.2840 2.9815	3.2683 3.3501	3.2683 2.9780	Ave		3.2462				5.5		30.0			
Tetrahydrofuran	+++++ 1.4878	+++++ 1.4073	1.5996 1.3125	1.4177 1.5200	1.4583 1.3034	Ave		1.4383				7.0		30.0			
1,1,1-Trichloroethane	3.6677 3.3994	3.3966 3.7278	3.5861 3.2491	3.5224 3.6269	3.4996 3.2534	Ave		3.4929				4.8		30.0			
1,2-Dichloroethane	0.4549 0.4583	0.4458 0.5061	0.4586 0.4305	0.4681 0.4928	0.4524 0.4250	Ave		0.4592				5.5		30.0			
1-Butanol	+++++ 0.1120	+++++ 0.1207	+++++ 0.0970	0.1427 0.1188	0.0947 0.0792	Ave		0.1093				19.1		30.0			
Cyclohexane	+++++ 0.1214	+++++ 0.1302	0.1245 0.1190	0.1261 0.1297	0.1226 0.1107	Ave		0.1230				5.1		30.0			
Benzene	+++++ 0.7173	0.7872 0.7842	0.7520 0.6631	0.7673 0.7612	0.7231 0.6384	Ave		0.7326				7.2		30.0			
Carbon tetrachloride	0.5183 0.6940	0.5118 0.7631	0.5042 0.6932	0.6860 0.5104	0.6141 0.6482	Ave		0.6143				15.7		30.0			
2,3-Dimethylpentane	+++++ 0.1650	+++++ 0.1810	0.1670 0.1558	0.1646 0.1774	0.1630 0.1481	Ave		0.1652				6.4		30.0			
Thiophene	+++++ 0.4114	0.4239 0.4546	0.4105 0.3906	0.4211 0.4515	0.4078 0.3788	Ave		0.4167				6.0		30.0			
2,2,4-Trimethylpentane	+++++ 1.3062	1.3791 1.3980	1.3426 1.2040	1.3569 1.3510	1.2928 1.1298	Ave		1.3067				6.7		30.0			
Heptane	+++++ 0.2497	+++++ 0.2739	0.2571 0.2370	0.2495 0.2723	0.2487 0.2294	Ave		0.2522				6.1		30.0			
1,2-Dichloropropane	+++++ 0.3079	0.2907 0.3356	0.3101 0.2891	0.3138 0.3342	0.3069 0.2806	Ave		0.3077				6.2		30.0			
Trichloroethene	0.3424 0.3184	0.3141 0.3538	0.3143 0.3051	0.3343 0.4059	0.3182 0.3015	Ave		0.3308				9.4		30.0			
Dibromomethane	+++++ 0.3409	0.3424 0.3714	0.3315 0.3237	0.3320 0.3737	0.3349 0.3204	Ave		0.3412				5.6		30.0			
Bromodichloromethane	0.6842 0.6399	0.6230 0.7176	0.6273 0.6214	0.6435 0.7138	0.6305 0.6151	Ave		0.6516				6.0		30.0			
1,4-Dioxane	+++++ 0.0874	+++++ 0.0955	+++++ 0.0833	0.0802 0.1018	0.0787 0.0734	Ave		0.0858				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3719	+++++ 0.3669	+++++ 0.3382	0.3357 0.4020	0.3611 0.3377	Ave		0.3591				6.7		30.0			
Methylcyclohexane	+++++ 0.4430	0.4713 0.4805	0.4553 0.4162	0.4559 0.4764	0.4354 0.4055	Ave		0.4488				5.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5774	+++++ 0.6495	+++++ 0.5144	0.5616 0.6611	0.4911 0.4692	Ave		0.5606				13.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.4603	0.4448 0.5001	0.4161 0.4466	0.4433 0.5196	0.4372 0.4421	Ave		0.4567				7.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.5093	+++++ 0.5352	0.4469 0.4783	0.4688 0.5556	0.4745 0.4728	Ave		0.4927				7.5		30.0			
Toluene	+++++ 0.9853	0.9729 0.9834	0.9827 0.8980	0.9971 1.0474	0.9624 0.8682	Ave		0.9664				5.5		30.0			
1,1,2-Trichloroethane	+++++ 0.3175	0.3063 0.3308	0.3181 0.2906	0.3125 0.3308	0.2993 0.2786	Ave		0.3094				5.7		30.0			
2-Hexanone	+++++ 0.3072	+++++ 0.3508	0.2503 0.2626	0.2730 0.3434	0.2431 0.2333	Ave		0.2830				16.1		30.0			
Octane	+++++ 0.2944	+++++ 0.3266	0.3034 0.2760	0.2951 0.3196	0.2920 0.2656	Ave		0.2966				6.8		30.0			
C8 Range	+++++ 3.2572	+++++ 3.5248	+++++ 2.9591	3.1879 3.3444	3.1642 2.7873	Ave		3.1750				7.7		30.0			
Dibromochloromethane	+++++ 0.6892	0.6148 0.7627	0.6162 0.6656	0.6398 0.7455	0.6444 0.6454	Ave		0.6693				8.0		30.0			
1,2-Dibromoethane (EDB)	0.5754 0.5683	0.5431 0.6217	0.5166 0.5385	0.5636 0.6254	0.5513 0.5315	Ave		0.5635				6.4		30.0			
Tetrachloroethene	0.4206 0.3840	0.3952 0.4239	0.3878 0.3555	0.3766 0.4118	0.3742 0.3528	Ave		0.3882				6.4		30.0			
Chlorobenzene	0.7816 0.7769	0.7743 0.8233	0.7875 0.7163	0.7844 0.8222	0.7634 0.7017	Ave		0.7731				5.1		30.0			
Ethylbenzene	+++++ 1.2994	1.1608 1.2875	1.2626 1.1640	1.2589 1.3983	1.2277 1.1486	Ave		1.2453				6.5		30.0			
m-Xylene & p-Xylene	0.8800 0.9998	0.8713 1.0137	0.9690 0.9214	0.9642 1.0961	0.9365 0.8962	Ave		0.9548				7.3		30.0			
Nonane	+++++ 0.7043	0.7087 0.7435	0.6963 0.6507	0.6835 0.7390	0.6770 0.6170	Ave		0.6911				5.8		30.0			
Styrene	+++++ 0.7031	0.6105 0.7271	0.6501 0.6651	0.6518 0.7989	0.6462 0.6873	Ave		0.6822				8.2		30.0			
Bromoform	+++++ 0.6994	+++++ 0.8184	0.5979 0.7586	0.6221 0.8331	0.6522 0.7527	Ave		0.7168				12.3		30.0			
o-Xylene	+++++ 1.0696	0.9430 1.0794	0.9656 0.9757	1.0015 1.1549	1.0058 0.9437	Ave		1.0155				7.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.7564	0.6450 0.7892	0.7267 0.6971	0.7201 0.6784	0.7098 0.6455	Ave		0.7076				6.8		30.0			
1,2,3-Trichloropropane	+++++ 0.2101	+++++ 0.2134	0.1946 0.1915	0.1947 0.2257	0.1917 0.1885	Ave		0.2013				6.7		30.0			
Isopropylbenzene	+++++ 1.3723	1.2685 1.3895	1.3618 1.2533	1.3107 1.4763	1.2844 1.2136	Ave		1.3256				6.2		30.0			
Propylbenzene	+++++ 0.3654	+++++ 0.3731	0.3328 0.3395	0.3487 0.3998	0.3365 0.3361	Ave		0.3540				6.7		30.0			
2-Chlorotoluene	+++++ 0.3532	0.3216 0.3630	0.3347 0.3336	0.3258 0.3863	0.3355 0.3261	Ave		0.3422				6.2		30.0			
4-Ethyltoluene	1.2088 1.3824	1.2686 1.4290	1.3247 1.2836	1.3077 1.4962	1.2655 1.2419	Ave		1.3208				6.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5415	+++++ 0.5641	0.5130 0.5061	0.4991 0.5928	0.5010 0.4980	Ave		0.5270				6.7		30.0			
Alpha Methyl Styrene	+++++ 0.5674	+++++ 0.6024	0.4962 0.5436	0.4770 0.6218	0.5016 0.5404	Ave		0.5438				9.5		30.0			
Decane	+++++ 0.9266	0.8223 0.9444	0.9096 0.8305	0.8751 0.9364	0.8686 0.7546	Ave		0.8742				7.2		30.0			
tert-Butylbenzene	+++++ 1.2429	+++++ 1.3010	1.1819 1.1474	1.1392 1.3416	1.1493 +++++	Ave		1.2148				6.7		30.0			
1,2,4-Trimethylbenzene	+++++ 1.2190	+++++ 1.2653	1.1090 1.1298	1.1108 1.2981	1.1221 1.1145	Ave		1.1711				6.6		30.0			
sec-Butylbenzene	+++++ 1.7247	+++++ 1.8007	1.5904 1.5825	1.5693 1.7975	1.5977 1.4879	Ave		1.6439				7.0		30.0			
1,3-Dichlorobenzene	+++++ 0.8344	0.8118 0.8738	0.8055 0.7907	0.7834 0.8998	0.7534 0.7848	Ave		0.8153				5.7		30.0			
Benzyl chloride	1.1045 1.0310	0.9292 1.1731	0.8824 1.0458	0.7354 1.1940	0.8729 1.0614	Ave		1.0030				14.5		30.0			
1,4-Dichlorobenzene	+++++ 0.8315	0.8846 0.8768	0.8194 0.7922	0.7675 0.9023	0.7429 0.7982	Ave		0.8239				6.7		30.0			
4-Isopropyltoluene	+++++ 1.4515	+++++ 1.5330	1.3338 1.3243	1.2728 1.5199	1.3459 1.2840	Ave		1.3832				7.5		30.0			
1,2,3-Trimethylbenzene	1.0264 1.2393	1.0329 1.2947	1.1810 1.1267	1.1032 1.2643	1.1330 1.0805	Ave		1.1482				8.2		30.0			
Indane	+++++ 1.1525	0.9588 1.1837	1.0186 1.0412	1.0164 1.1752	1.0177 1.0208	Ave		1.0650				7.7		30.0			
1,2-Dichlorobenzene	+++++ 0.8210	0.8087 0.8618	0.7971 0.7698	0.7795 0.8720	0.7364 0.7687	Ave		0.8017				5.6		30.0			
Butylbenzene	1.3504 1.5524	1.3164 1.6227	1.4466 1.3992	1.3312 1.5649	1.4119 1.3210	Ave		1.4317				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.9556 0.9794	0.8436 1.0254	0.8426 0.9175	0.8219 0.9958	0.8548 0.9002	Ave		0.9137				7.9		30.0			
Undecane	+++++ 1.0855	+++++ 1.1109	0.9738 0.9423	0.9358 1.0468	0.9722 0.8402	Ave		0.9884				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4255	0.3788 0.4853	0.3551 0.4222	0.3358 0.4530	0.3524 0.3821	Ave		0.3989				12.7		30.0			
1,2,4,5-Tetramethylbenzene	1.1957 1.3540	1.1890 1.4749	1.1394 1.2341	1.0857 1.4070	1.1942 1.1905	Ave		1.2465				10.0		30.0			
Dodecane	+++++ 1.0478	+++++ 1.0898	0.8427 0.7158	0.8022 0.9520	0.7194 0.5586	Ave		0.8410				21.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.6832	0.8506 0.7219	0.6226 0.6205	0.5784 0.6933	0.5083 0.6134	Ave		0.6547				14.9		30.0			
Naphthalene	+++++ 1.0959	1.4188 1.1536	1.0070 0.9692	0.9169 0.9865	0.8189 0.8589	Ave		1.0251				17.7		30.0			
Hexachlorobutadiene	0.8372 0.8674	0.7583 0.8551	0.7841 0.7680	0.7608 0.8446	0.7208 0.6964	Ave		0.7893				7.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.5896	+++++ 0.6081	0.5455 0.4808	0.4989 0.5397	0.4320 0.4393	Ave		0.5167				12.6		30.0			
2-Methylnaphthalene	+++++ 0.3375	+++++ 0.4036	0.2912 0.2007	0.2650 0.3001	0.1624 +++++	Ave		0.2801				29.0		50.0			
1-Methylnaphthalene	+++++ 0.4170	+++++ 0.4794	0.3571 0.2276	0.3230 0.3591	0.1868 +++++	Ave		0.3357				30.4		50.0			
4-Bromofluorobenzene (Surr)	0.7051 0.7445	0.7086 0.7289	0.7237 0.7664	0.7233 0.7773	0.7363 0.7374	Ave		0.7352				3.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 69702	+++++ 118045	9400 352408	11766 746436	25664 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propene	CBM	Ave	+++++ 59192	+++++ 83916	+++++ 230605	+++++ 452211	29865 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 +++++
Dichlorodifluoromethane	CBM	Ave	+++++ 83071	3489 181786	9823 385477	14967 785524	32988 1499187	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 27769	+++++ 58261	+++++ 123458	5364 261290	11820 462523	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 11411	+++++ 25059	1285 54998	2212 104932	4984 175417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2330 93320	3946 209135	8041 421064	15377 896725	38122 1689141	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 146719	+++++ 320866	+++++ 630660	24969 1362610	60060 2603044	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 68261	+++++ 153622	6693 308014	12247 668537	28897 1270467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78978	+++++ 179541	7368 363015	14514 788699	33566 1514422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 39592	+++++ 89853	3754 179467	6682 397472	17457 770102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 192417	+++++ 411685	+++++ 737472	35944 1803133	77636 3044070	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 74384	3454 165932	6832 335660	12262 741427	31635 1459967	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 96302	+++++ 212490	9935 402954	17850 914602	41208 1778006	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	7213 301033	13212 649561	25357 1305209	50064 2750738	125032 5466655	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 19989	+++++ 34623	+++++ 74502	+++++ 174522	8429 314601	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30044	+++++ 54608	+++++ 110573	+++++ 281228	13678 539412	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 106237	+++++ 175926	+++++ 347231	+++++ 880002	53289 1556512	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 285574	+++++ 646180	+++++ 1099732	53056 2777741	106236 4474624	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 10942	+++++ 25557	+++++ 48180	+++++ 108908	4736 218971	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 107243	+++++ 196183	+++++ 414082	19260 980136	46127 1842593	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2044 82349	3774 186040	7143 361448	14176 799265	35931 1581117	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 58884	+++++ 109873	4815 235232	10232 559160	24063 1066284	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 149308	+++++ 349531	11655 590968	25495 1515640	50767 2352259	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4632 192673	9393 427819	17504 830656	32378 1829502	81162 3609413	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 88979	+++++ 182263	+++++ 337568	27618 890951	46376 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 102639	+++++ 228907	4800 421573	19027 900716	42725 1865781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 254625	+++++ 558271	22693 1095624	45848 2412730	108114 4778388	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 84422	3780 187576	7079 364761	14854 802422	35303 1559714	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 235268	+++++ 511215	21608 971683	40379 2100541	101723 4040646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 235531	+++++ 465475	19276 941368	38103 2268816	93799 4294511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4424 185591	8410 424178	16257 768735	33200 1771492	79247 3431571	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 250126	+++++ 460683	21643 998045	41821 2352362	102808 4347628	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38700	+++++ 74085	+++++ 142067	7703 348079	16234 640120	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 75679	+++++ 165538	6927 312844	13185 698498	32898 1355833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 85468	3754 197127	7489 367352	14886 847712	36813 1644734	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 203568	8442 413396	19451 806524	32163 1936281	83654 3675059	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 218488	10551 498664	19433 909968	38772 2105679	94081 4117234	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 102525	+++++ 201024	9466 400597	16818 955418	41979 1801950	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5753 234252	10466 532500	21221 991646	41786 2279639	100739 4497945	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3702 164559	7029 375540	14289 677290	28555 1568177	68517 3115023	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 40227	+++++ 89549	+++++ 152659	8706 378008	14337 580553	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 43594	+++++ 96593	3879 187159	7692 412685	18560 811291	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 257566	12412 581894	23431 1043178	46811 2422180	109508 4679288	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4218 249189	8069 566222	15712 1090465	41847 1624278	93006 4751427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 59251	+++++ 134278	5203 245152	10044 564569	24680 1085296	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 147708	6684 337291	12792 614522	25688 1436912	61762 2776968	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 468977	21744 1037335	41834 1894159	82779 4299338	195788 8281518	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 89663	+++++ 203240	8011 372781	15220 866442	37671 1681680	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 110558	4584 249044	9663 454813	19141 1063615	46483 2056985	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2786 114328	4953 262510	9792 479951	20397 1291545	48185 2209989	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 122397	5398 275575	10330 509254	20254 1189178	50718 2348328	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5568 229761	9823 532485	19545 977581	39256 2271588	95484 4508733	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 31384	+++++ 70857	+++++ 131050	4891 324076	11915 537847	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 133533	+++++ 272224	+++++ 531980	20482 1279199	54685 2475502	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 159061	7431 356575	14186 654802	27810 1516089	65931 2972213	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 207313	+++++ 481925	+++++ 809261	34261 2103846	74371 3439475	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 165289	7013 371122	12965 702648	27046 1653644	66204 3240398	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 158402	+++++ 335403	11970 672142	24792 1595731	61866 3180285	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 306473	13283 616281	26319 1261809	52729 3008163	125493 5839733	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 98749	4182 207313	8519 408402	16524 950196	39029 1873801	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 95548	+++++ 219816	6704 369071	14439 986384	31698 1569231	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 91561	+++++ 204704	8125 387857	15603 917763	38072 1786512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1013087	+++++ 2208887	+++++ 4158008	168585 9605151	412584 18748187	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 214363	8394 477997	16503 935330	33832 2141207	84022 4340906	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	4044 176750	7415 389612	13835 756741	29806 1796171	71880 3574771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2956 119436	5396 265632	10387 499480	19915 1182555	48787 2373157	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5493 241644	10571 515968	21091 1006543	41482 2361273	99536 4719682	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 404167	15849 806819	33817 1635567	66571 4015925	160080 7725788	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12370 621917	23792 1270566	51906 2589354	101976 6295808	244225 12055501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 219047	9676 465939	18648 914349	36144 2122316	88275 4150063	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 218682	8335 455653	17412 934523	34466 2294329	84261 4622861	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 217537	+++++ 512843	16013 1065944	32899 2392675	85044 5062797	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 332666	12875 676455	25861 1371043	52962 3316892	131150 6347222	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 235263	8806 494603	19464 979510	38078 1948236	92559 4342084	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 65354	+++++ 133722	5213 269148	10297 648112	25000 1267571	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 426827	17319 870746	36474 1761169	69310 4239905	167478 8162742	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 113652	+++++ 233784	8913 476994	18439 1148202	43871 2260539	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 109844	4391 227474	8964 468749	17231 1109333	43746 2193658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	8496 429956	17321 895533	35480 1803676	69152 4296952	165010 8353268	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 168435	+++++ 353526	13741 711101	26393 1702428	65324 3349699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 176468	+++++ 377525	13291 763807	25226 1785812	65400 3635031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 288216	11227 591844	24361 1167002	46275 2689224	113266 5075517	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 386592	+++++ 815324	31655 1612357	60245 3853173	149859 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 379144	+++++ 792960	29703 1587508	58741 3728010	146313 7496594	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 536445	+++++ 1128469	42596 2223634	82990 5162536	208334 10008232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 259520	11083 547572	21575 1111022	41427 2584149	98243 5278679	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7763 320685	12687 735170	23634 1469564	38889 3429055	113819 7139166	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 258631	12077 549492	21946 1113121	40588 2591316	96865 5369180	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 451475	+++++ 960667	35725 1860896	67309 4365177	175502 8636742	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	7214 385477	14103 811374	31632 1583203	58340 3630969	147741 7267371	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 358478	13091 741820	27282 1463048	53750 3375076	132695 6866158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 255350	11041 540039	21348 1081773	41224 2504407	96019 5170636	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9491 482850	17973 1016889	38745 1966095	70396 4494512	184104 8885564	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	6716 304611	11518 642582	22568 1289190	43463 2859932	111455 6055240	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337616	+++++ 696186	26082 1324167	49489 3006478	126770 5651121	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 132338	5172 304127	9511 593312	17756 1301047	45955 2569818	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	8404 421150	16233 924317	30517 1734202	57413 4041015	155714 8007424	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 325888	+++++ 682968	22571 1005845	42424 2734198	93805 3757386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 212510	11614 452405	16676 871856	30585 1991130	66283 4126184	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 340855	19371 722961	26972 1361853	48485 2833111	106779 5776864	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	5884 269796	10353 535851	21001 1079215	40231 2425829	93985 4683877	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 183380	+++++ 381083	14610 675575	26384 1549901	56334 2955030	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 104984	+++++ 252943	7799 282062	14014 861791	21173 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 129712	+++++ 300466	9565 319864	17082 1031248	24357 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	991098 926278	967517 913593	969175 1076887	956228 1116210	960029 1240000	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31858/9	JG19IC01.D
Level 2	IC 140-31858/10	JG19IC02.D
Level 3	IC 140-31858/11	JG19IC03.D
Level 4	IC 140-31858/12	JG19IC04.D
Level 5	IC 140-31858/13	JG19IC05.D
Level 6	IC 140-31858/14	JG19IC06.D
Level 7	ICIS 140-31858/15	JG19IC07.D
Level 8	IC 140-31858/16	JG19IC08.D
Level 9	IC 140-31858/4	JG19IC09.D
Level 10	IC 140-31858/6	JG19IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	45.3	+++++					50			
Propene	+++++	+++++	+++++	+++++ +++++	31.0						50	
Dichlorodifluoromethane	+++++	-9.6						50				
Chloromethane	+++++	+++++	+++++	11.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	24.8						50			
Vinyl chloride	9.3						50					
Butane	+++++	+++++	+++++	0.3						50		
1,3-Butadiene	+++++	+++++	10.0						50			
Bromomethane	+++++	+++++	4.0						50			
Chloroethane	+++++	+++++	6.1						50			
Ethanol	+++++	+++++	+++++	12.3						50		
Vinyl bromide	+++++	1.0						50				
2-Methylbutane	+++++	+++++	16.2						50			
Trichlorofluoromethane	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	11.6						50	
Acetonitrile	+++++	+++++	+++++	+++++	14.3						50	
Acetone	+++++	+++++	+++++	+++++	34.0						80	
Isopropyl alcohol	+++++	+++++	+++++	11.5						50		
Pentane	+++++	+++++	+++++	+++++	-0.5						50	
Ethyl ether	+++++	+++++	+++++	9.2						50		
1,1-Dichloroethene	6.2						50					
Acrylonitrile	+++++	+++++	-0.9						50			
tert-Butyl alcohol	+++++	+++++	-4.8						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5						50					
Methylene Chloride	+++++	+++++	+++++	54.7 +++++						80		
3-Chloropropene	+++++	+++++	-41.8						50			
Carbon disulfide	+++++	+++++	2.5						50			
trans-1,2-Dichloroethene	+++++	0.0						50				
2-Methylpentane	+++++	+++++	8.1						50			
Methyl tert-butyl ether	+++++	+++++	-0.6						50			
1,1-Dichloroethane	3.2						50					
Vinyl acetate	+++++	+++++	5.4						50			
2-Butanone (MEK)	+++++	+++++	+++++	20.4						50		
Hexane	+++++	+++++	6.4						50			
cis-1,2-Dichloroethene	+++++	-3.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	-4.7						50				
Chloroform	+++++	5.5						50				
Tetrahydrofuran	+++++	+++++	11.2						50			
1,1,1-Trichloroethane	5.0						50					
1,2-Dichloroethane	-0.9						50					
1-Butanol	+++++	+++++	+++++	30.6						50		
Cyclohexane	+++++	+++++	1.2						50			
Benzene	+++++	7.5						50				
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	1.1						50			
Thiophene	+++++	1.7						50				
2,2,4-Trimethylpentane	+++++	5.5						50				
Heptane	+++++	+++++	1.9						50			
1,2-Dichloropropane	+++++	-5.5						50				
Trichloroethene	3.5						50					
Dibromomethane	+++++	0.3						50				
Bromodichloromethane	5.0						50					
1,4-Dioxane	+++++	+++++	+++++	-6.5						50		
Methyl methacrylate	+++++	+++++	+++++	-6.5						50		
Methylcyclohexane	+++++	5.0						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	0.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-2.6						50				
trans-1,3-Dichloropropene	+++++	+++++	-9.3						50			
Toluene	+++++	0.7						50				
1,1,2-Trichloroethane	+++++	-1.0						50				
2-Hexanone	+++++	+++++	-11.5						50			
Octane	+++++	+++++	2.3						50			
Dibromochloromethane	+++++	-8.1						50				
1,2-Dibromoethane (EDB)	2.1						50					
Tetrachloroethene	8.3						50					
Chlorobenzene	1.1						50					
Ethylbenzene	+++++	-6.8						50				
m-Xylene & p-Xylene	-7.8						50					
Nonane	+++++	2.5						50				
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-16.6						50			
o-Xylene	+++++	-7.1						50				
1,1,2,2-Tetrachloroethane	+++++	-8.8						50				
1,2,3-Trichloropropane	+++++	+++++	-3.3						50			
Isopropylbenzene	+++++	-4.3						50				
Propylbenzene	+++++	+++++	-6.0						50			
2-Chlorotoluene	+++++	-6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-8.5						50					
1,3,5-Trimethylbenzene	+++++	+++++	-2.6						50			
Alpha Methyl Styrene	+++++	+++++	-8.7						50			
Decane	+++++	-5.9						50				
tert-Butylbenzene	+++++	+++++	-2.7	+++++					50			
1,2,4-Trimethylbenzene	+++++	+++++	-5.3						50			
sec-Butylbenzene	+++++	+++++	-3.3						50			
1,3-Dichlorobenzene	+++++	-0.4						50				
Benzyl chloride	10.1						50					
1,4-Dichlorobenzene	+++++	7.4						50				
4-Isopropyltoluene	+++++	+++++	-3.6						50			
1,2,3-Trimethylbenzene	-10.6						50					
Indane	+++++	-10.0						50				
1,2-Dichlorobenzene	+++++	0.9						50				
Butylbenzene	-5.7						50					
Indene	4.6						50					
Undecane	+++++	+++++	-1.5						50			
1,2-Dibromo-3-Chloropropane	+++++	-5.0						50				
1,2,4,5-Tetramethylbenzene	-4.1						50					
Dodecane	+++++	+++++	0.2						50			
1,2,4-Trichlorobenzene	+++++	29.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 31858

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2019 20:27 Calibration End Date: 07/20/2019 06:27 Calibration ID: 2054

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.4						80				
Hexachlorobutadiene	6.1						50					
1,2,3-Trichlorobenzene	+++++	+++++	5.6						50			
2-Methylnaphthalene	+++++	+++++	4.0	+++++					80			
1-Methylnaphthalene	+++++	+++++	6.4	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	0.9512		1.74	2.00	-13.0	35.0
Propene	Ave	0.7918	0.6631		1.67	2.00	-16.3	35.0
Dichlorodifluoromethane	Ave	1.253	1.179		1.88	2.00	-5.9	35.0
Chloromethane	Ave	0.4041	0.3790		1.88	2.00	-6.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.1665		1.91	2.00	-4.3	35.0
Acetaldehyde	Ave	0.5207	0.3733		7.17	10.0	-28.3	35.0
Vinyl chloride	Ave	1.359	1.378		2.03	2.00	1.4	35.0
Butane	Ave	2.098	2.148		2.05	2.00	2.4	35.0
1,3-Butadiene	Ave	1.028	0.9871		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.197	1.150		1.92	2.00	-3.9	35.0
Chloroethane	Ave	0.5981	0.5852		1.96	2.00	-2.2	35.0
Ethanol	Ave	0.5397	0.3993		7.40	10.0	-26.0	35.0
Vinyl bromide	Ave	1.109	1.153		2.08	2.00	3.9	35.0
2-Methylbutane	Ave	1.445	1.478		2.05	2.00	2.3	35.0
Trichlorofluoromethane	Ave	4.326	4.231		1.96	2.00	-2.2	35.0
Acrolein	Ave	0.2624	0.2810		2.14	2.00	7.1	35.0
Acetonitrile	Ave	0.4156	0.3296		1.59	2.00	-20.7	35.0
Acetone	Ave	0.4604	0.3629		1.58	2.00	-21.2	35.0
Isopropyl alcohol	Ave	1.338	1.631		2.44	2.00	21.9	35.0
Pentane	Ave	0.1653	0.1684		2.04	2.00	1.9	35.0
Ethyl ether	Ave	1.486	1.266		1.70	2.00	-14.9	35.0
1,1-Dichloroethene	Ave	1.228	1.215		1.98	2.00	-1.0	35.0
Acrylonitrile	Ave	0.8209	0.6768		1.65	2.00	-17.6	35.0
tert-Butyl alcohol	Ave	2.068	2.029		1.96	2.00	-1.9	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.650		1.86	2.00	-7.2	35.0
Methylene Chloride	Ave	1.505	1.155		1.54	2.00	-23.2	35.0
3-Chloropropene	Ave	1.394	1.252		1.80	2.00	-10.2	35.0
Carbon disulfide	Ave	3.743	3.668		1.96	2.00	-2.0	35.0
trans-1,2-Dichloroethene	Ave	1.227	1.133		1.85	2.00	-7.6	35.0
2-Methylpentane	Ave	3.379	2.829		1.67	2.00	-16.3	35.0
Methyl tert-butyl ether	Ave	3.276	2.681		1.64	2.00	-18.2	35.0
1,1-Dichloroethane	Ave	2.733	2.297		1.68	2.00	-16.0	35.0
Vinyl acetate	Ave	3.471	2.716		1.57	2.00	-21.7	35.0
2-Butanone (MEK)	Ave	0.5394	0.4321		1.60	2.00	-19.9	35.0
Hexane	Ave	1.100	0.9639		1.75	2.00	-12.4	35.0
Isopropyl ether	Ave	4.183	3.538		1.69	2.00	-15.4	35.0
cis-1,2-Dichloroethene	Ave	1.264	1.125		1.78	2.00	-11.0	35.0
Ethyl acetate	Ave	2.875	2.264		1.57	2.00	-21.3	35.0
Chloroform	Ave	3.246	2.716		1.67	2.00	-16.3	35.0
Tert-butyl ethyl ether	Ave	3.896	3.049		1.57	2.00	-21.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.159		1.61	2.00	-19.4	35.0
1,1,1-Trichloroethane	Ave	3.493	2.919		1.67	2.00	-16.4	35.0
1,2-Dichloroethane	Ave	0.4592	0.3914		1.70	2.00	-14.8	35.0
1-Butanol	Ave	0.1093	0.1043		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7326	0.6167		1.68	2.00	-15.8	35.0
Cyclohexane	Ave	0.1230	0.1109		1.80	2.00	-9.8	35.0
Carbon tetrachloride	Ave	0.6143	0.6385		2.08	2.00	3.9	35.0
2,3-Dimethylpentane	Ave	0.1652	0.1411		1.71	2.00	-14.6	35.0
Thiophene	Ave	0.4167	0.3450		1.66	2.00	-17.2	35.0
2,2,4-Trimethylpentane	Ave	1.307	1.137		1.74	2.00	-13.0	35.0
Heptane	Ave	0.2522	0.2163		1.72	2.00	-14.2	35.0
1,2-Dichloropropane	Ave	0.3077	0.2607		1.69	2.00	-15.3	35.0
Trichloroethene	Ave	0.3308	0.2813		1.70	2.00	-15.0	35.0
Dibromomethane	Ave	0.3412	0.3036		1.78	2.00	-11.0	35.0
Bromodichloromethane	Ave	0.6516	0.5607		1.72	2.00	-13.9	35.0
1,4-Dioxane	Ave	0.0858	0.0761		1.78	2.00	-11.2	35.0
Methyl methacrylate	Ave	0.3591	0.2941		1.64	2.00	-18.1	35.0
Methylcyclohexane	Ave	0.4488	0.4702		2.10	2.00	4.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.5059		1.80	2.00	-9.8	35.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4017		1.76	2.00	-12.0	35.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4381		1.78	2.00	-11.1	35.0
Toluene	Ave	0.9664	0.8457		1.75	2.00	-12.5	35.0
1,1,2-Trichloroethane	Ave	0.3094	0.2730		1.77	2.00	-11.7	35.0
2-Hexanone	Ave	0.2830	0.2680		1.89	2.00	-5.3	35.0
Octane	Ave	0.2966	0.2610		1.76	2.00	-12.0	35.0
Dibromochloromethane	Ave	0.6693	0.5879		1.76	2.00	-12.2	35.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5006		1.78	2.00	-11.2	35.0
Tetrachloroethene	Ave	0.3882	0.3350		1.73	2.00	-13.7	35.0
2,3-Dimethylheptane	Ave	1.135	0.8922		1.57	2.00	-21.4	35.0
Chlorobenzene	Ave	0.7731	0.6804		1.76	2.00	-12.0	35.0
Ethylbenzene	Ave	1.245	1.056		1.70	2.00	-15.2	35.0
m-Xylene & p-Xylene	Ave	0.9548	0.8341		3.49	4.00	-12.6	35.0
Nonane	Ave	0.6911	0.6217		1.80	2.00	-10.0	35.0
Styrene	Ave	0.6822	0.5892		1.73	2.00	-13.6	35.0
Bromoform	Ave	0.7168	0.5793		1.62	2.00	-19.2	35.0
o-Xylene	Ave	1.015	0.8598		1.69	2.00	-15.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6354		1.80	2.00	-10.2	35.0
1,2,3-Trichloropropane	Ave	0.2013	0.1713		1.70	2.00	-14.9	35.0
Isopropylbenzene	Ave	1.326	1.130		1.70	2.00	-14.8	35.0
Propylbenzene	Ave	0.3540	0.3069		1.73	2.00	-13.3	35.0
2-Chlorotoluene	Ave	0.3422	0.3161		1.85	2.00	-7.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-31858/30 Calibration Date: 07/20/2019 12:28

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JG19ICVR.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.095		1.66	2.00	-17.1	35.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5121		1.94	2.00	-2.8	35.0
Alpha Methyl Styrene	Ave	0.5438	0.4767		1.75	2.00	-12.3	35.0
Decane	Ave	0.8742	0.7922		1.81	2.00	-9.4	35.0
tert-Butylbenzene	Ave	1.215	1.034		1.70	2.00	-14.9	35.0
1,2,4-Trimethylbenzene	Ave	1.171	1.010		1.73	2.00	-13.7	35.0
sec-Butylbenzene	Ave	1.644	1.450		1.76	2.00	-11.8	35.0
1,3-Dichlorobenzene	Ave	0.8153	0.7338		1.80	2.00	-10.0	35.0
Benzyl chloride	Ave	1.003	0.9168		1.83	2.00	-8.6	35.0
1,4-Dichlorobenzene	Ave	0.8239	0.7344		1.78	2.00	-10.9	35.0
4-Isopropyltoluene	Ave	1.383	1.207		1.75	2.00	-12.7	35.0
1,2,3-Trimethylbenzene	Ave	1.148	0.7514		1.31	2.00	-34.6	35.0
Butylcyclohexane	Ave	0.9932	0.8656		1.74	2.00	-12.8	35.0
Indane	Ave	1.065	0.9049		1.70	2.00	-15.0	35.0
1,2-Dichlorobenzene	Ave	0.8017	0.7018		1.75	2.00	-12.5	35.0
Butylbenzene	Ave	1.432	1.326		1.85	2.00	-7.4	35.0
Indene	Ave	0.9137	0.7034		1.54	2.00	-23.0	35.0
Undecane	Ave	0.9884	0.9043		1.83	2.00	-8.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.2678		1.34	2.00	-32.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.100		1.76	2.00	-11.8	35.0
Dodecane	Ave	0.8410	0.9173		2.18	2.00	9.1	35.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5986		1.83	2.00	-8.6	35.0
Naphthalene	Ave	1.025	0.9580		1.87	2.00	-6.5	35.0
Hexachlorobutadiene	Ave	0.7893	0.7195		1.82	2.00	-8.8	35.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.5328		2.06	2.00	3.1	35.0
2-Methylnaphthalene	Ave	0.2801	0.3837		2.74	2.00	37.0	50.0
1-Methylnaphthalene	Ave	0.3357	0.3580		2.13	2.00	6.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.7608		4.14	4.00	3.5	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH20.D BFB Injection Date: 08/20/2019

Instrument ID: MJ BFB Injection Time: 08:38

Analysis Batch No.: 32828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	101.9	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.2	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32828/2	JCCVH20.D	08/20/2019	09:08
	LCS 140-32828/1002	JCCVH20-LCS.d	08/20/2019	09:08
	MB 140-32828/4	J500BH20.D	08/20/2019	10:41
SV-116-A-27	140-16377-1	JH20P201.D	08/20/2019	14:06
SV-101-B-27	140-16377-20	JH20P101.D	08/20/2019	16:29
SV-079-A-27	140-16377-9	JH20P102.D	08/20/2019	17:19
SV-DUP04-A-27	140-16377-10	JH20P103.D	08/20/2019	18:08
SV-139-A-27	140-16377-11	JH20P104.D	08/20/2019	18:57
SV-118-A-27	140-16377-12	JH20P105.D	08/20/2019	19:46
SV-015-A-27	140-16377-13	JH20P107.D	08/20/2019	21:24
SV-078-A-27	140-16377-14	JH20P108.D	08/20/2019	22:14
SV-136-A-27	140-16377-15	JH20P110.D	08/20/2019	23:52
SV-076-A-27	140-16377-16	JH20P111.D	08/21/2019	00:41
SV-168-A-27	140-16377-17	JH20P113.D	08/21/2019	02:20
SV-075-A-27	140-16377-18	JH20P114.D	08/21/2019	03:10
SV-100-B-27	140-16377-19	JH20P116D.D	08/21/2019	04:00

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.106		2.02	2.00	1.1	30.0
Propene	Ave	0.7918	0.8097		2.05	2.00	2.3	30.0
Dichlorodifluoromethane	Ave	1.253	1.283		2.05	2.00	2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2455		2.82	2.00	41.1*	30.0
Chloromethane	Ave	0.4041	0.4681		2.32	2.00	15.9	30.0
Acetaldehyde	Ave	0.5207	0.5286		10.2	10.0	1.5	30.0
Vinyl chloride	Ave	1.359	1.606		2.36	2.00	18.2	30.0
1,3-Butadiene	Ave	1.028	1.177		2.29	2.00	14.4	30.0
Butane	Ave	2.098	2.281		2.17	2.00	8.7	30.0
Bromomethane	Ave	1.197	1.502		2.51	2.00	25.5	30.0
Chloroethane	Ave	0.5981	0.7169		2.40	2.00	19.9	30.0
Ethanol	Ave	0.5397	0.4619		8.56	10.0	-14.4	30.0
Vinyl bromide	Ave	1.109	1.395		2.51	2.00	25.7	30.0
2-Methylbutane	Ave	1.445	1.596		2.21	2.00	10.4	30.0
Trichlorofluoromethane	Ave	4.326	4.634		2.14	2.00	7.1	30.0
Acrolein	Ave	0.2624	0.2955		2.25	2.00	12.6	30.0
Acetonitrile	Ave	0.4156	0.4128		1.99	2.00	-0.7	30.0
Acetone	Ave	0.4604	0.4574		5.96	6.00	-0.7	30.0
Isopropyl alcohol	Ave	1.338	1.225		5.49	6.00	-8.4	30.0
Pentane	Ave	0.1653	0.2067		2.50	2.00	25.0	30.0
Ethyl ether	Ave	1.486	1.164		1.57	2.00	-21.7	30.0
1,1-Dichloroethene	Ave	1.228	1.241		2.02	2.00	1.1	30.0
tert-Butyl alcohol	Ave	2.068	1.515		1.47	2.00	-26.7	30.0
Acrylonitrile	Ave	0.8209	0.7225		1.76	2.00	-12.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.707		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.505	1.194		1.59	2.00	-20.6	30.0
3-Chloropropene	Ave	1.394	1.055		1.51	2.00	-24.4	30.0
Carbon disulfide	Ave	3.743	3.684		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.226		2.00	2.00	-0.0	30.0
2-Methylpentane	Ave	3.379	2.843		1.68	2.00	-15.9	30.0
Methyl tert-butyl ether	Ave	3.276	2.494		1.52	2.00	-23.9	30.0
1,1-Dichloroethane	Ave	2.733	2.244		1.64	2.00	-17.9	30.0
Vinyl acetate	Ave	3.471	2.672		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.5394	0.4026		1.49	2.00	-25.4	30.0
Hexane	Ave	1.100	0.9097		1.65	2.00	-17.3	30.0
Isopropyl ether	Ave	4.183	3.140		1.50	2.00	-24.9	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.189		1.88	2.00	-6.0	30.0
Ethyl acetate	Ave	2.875	1.926		1.34	2.00	-33.0*	30.0
Chloroform	Ave	3.246	2.625		1.62	2.00	-19.1	30.0
Tert-butyl ethyl ether	Ave	3.896	2.790		1.43	2.00	-28.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.069		1.49	2.00	-25.7	30.0
1,1,1-Trichloroethane	Ave	3.493	2.573		1.47	2.00	-26.3	30.0
1,2-Dichloroethane	Ave	0.4592	0.3231		1.41	2.00	-29.7	30.0
1-Butanol	Ave	0.1093	0.0688		1.26	2.00	-37.0*	30.0
Benzene	Ave	0.7326	0.6569		1.79	2.00	-10.3	30.0
Cyclohexane	Ave	0.1230	0.1061		1.72	2.00	-13.8	30.0
Carbon tetrachloride	Ave	0.6143	0.5356		1.74	2.00	-12.8	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1469		1.78	2.00	-11.1	30.0
Thiophene	Ave	0.4167	0.3794		1.82	2.00	-9.0	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.075		1.65	2.00	-17.7	30.0
Heptane	Ave	0.2522	0.2193		1.74	2.00	-13.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2670		1.74	2.00	-13.2	30.0
Trichloroethene	Ave	0.3308	0.3102		1.88	2.00	-6.2	30.0
Dibromomethane	Ave	0.3412	0.3004		1.76	2.00	-12.0	30.0
Bromodichloromethane	Ave	0.6516	0.5216		1.60	2.00	-20.0	30.0
1,4-Dioxane	Ave	0.0858	0.0647		1.51	2.00	-24.6	30.0
Methyl methacrylate	Ave	0.3591	0.2295		1.28	2.00	-36.1*	30.0
Methylcyclohexane	Ave	0.4488	0.3932		1.75	2.00	-12.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3695		1.32	2.00	-34.1*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.3920		1.72	2.00	-14.2	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.3935		1.60	2.00	-20.1	30.0
Toluene	Ave	0.9664	0.8657		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2792		1.80	2.00	-9.8	30.0
2-Hexanone	Ave	0.2830	0.2036		1.44	2.00	-28.0	30.0
Octane	Ave	0.2966	0.2526		1.70	2.00	-14.8	30.0
Dibromochloromethane	Ave	0.6693	0.5888		1.76	2.00	-12.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.4988		1.77	2.00	-11.5	30.0
Tetrachloroethene	Ave	0.3882	0.3274		1.69	2.00	-15.7	30.0
2,3-Dimethylheptane	Ave	1.135	0.8929		1.57	2.00	-21.3	30.0
Chlorobenzene	Ave	0.7731	0.7015		1.81	2.00	-9.3	30.0
Ethylbenzene	Ave	1.245	1.036		1.66	2.00	-16.8	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.7842		3.29	4.00	-17.9	30.0
Nonane	Ave	0.6911	0.5555		1.61	2.00	-19.6	30.0
Styrene	Ave	0.6822	0.6110		1.79	2.00	-10.4	30.0
Bromoform	Ave	0.7168	0.6956		1.94	2.00	-3.0	30.0
o-Xylene	Ave	1.015	0.8331		1.64	2.00	-18.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6486		1.83	2.00	-8.3	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1558		1.55	2.00	-22.6	30.0
Isopropylbenzene	Ave	1.326	1.091		1.65	2.00	-17.7	30.0
Propylbenzene	Ave	0.3540	0.3094		1.75	2.00	-12.6	30.0
2-Chlorotoluene	Ave	0.3422	0.3210		1.88	2.00	-6.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32828/2 Calibration Date: 08/20/2019 09:08

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.103		1.67	2.00	-16.5	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4597		1.74	2.00	-12.8	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4833		1.78	2.00	-11.1	30.0
Decane	Ave	0.8742	0.7057		1.61	2.00	-19.3	30.0
tert-Butylbenzene	Ave	1.215	0.9875		1.63	2.00	-18.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9493		1.62	2.00	-18.9	30.0
sec-Butylbenzene	Ave	1.644	1.382		1.68	2.00	-15.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7613		1.87	2.00	-6.6	30.0
Benzyl chloride	Ave	1.003	0.7973		1.59	2.00	-20.5	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7577		1.84	2.00	-8.0	30.0
4-Isopropyltoluene	Ave	1.383	1.098		1.59	2.00	-20.6	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9306		1.62	2.00	-19.0	30.0
Butylcyclohexane	Ave	0.9932	0.9099		1.83	2.00	-8.4	30.0
Indane	Ave	1.065	0.9628		1.81	2.00	-9.6	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7387		1.84	2.00	-7.9	30.0
Butylbenzene	Ave	1.432	1.160		1.62	2.00	-18.9	30.0
Indene	Ave	0.9137	0.8167		1.79	2.00	-10.6	30.0
Undecane	Ave	0.9884	0.7417		1.50	2.00	-25.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3457		1.73	2.00	-13.3	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	0.9132		1.47	2.00	-26.7	30.0
Dodecane	Ave	0.8410	0.6260		1.49	2.00	-25.6	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5801		1.77	2.00	-11.4	30.0
Naphthalene	Ave	1.025	0.8509		1.66	2.00	-17.0	30.0
Hexachlorobutadiene	Ave	0.7893	0.7503		1.90	2.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4585		1.77	2.00	-11.3	30.0
2-Methylnaphthalene	Ave	0.2801	0.2648		1.89	2.00	-5.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.2404		1.43	2.00	-28.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6861		3.73	4.00	-6.7	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH21.D BFB Injection Date: 08/21/2019

Instrument ID: MJ BFB Injection Time: 09:15

Analysis Batch No.: 32829

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	56.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	99.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	96.4	(96.9) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32829/2	JCCVH21.D	08/21/2019	09:44
	LCS 140-32829/1002	JCCVH21-LCS.d	08/21/2019	09:44
	MB 140-32829/4	J500BH21.D	08/21/2019	12:47
SV-173-A-27	140-16377-3	JH21P106.D	08/21/2019	20:28
SV-171-A-27	140-16377-5	JH21P107.D	08/21/2019	21:18
SV-118-A-27 DL	140-16377-12 DL	JH21P108.D	08/21/2019	22:07
SV-136-A-27 DL	140-16377-15 DL	JH21P109.D	08/21/2019	22:56
SV-138-A-27	140-16377-4	JH21P111.D	08/22/2019	01:23
SV-174-A-27	140-16377-6	JH21P112.D	08/22/2019	02:13
SV-093-A-27	140-16377-7	JH21P113.D	08/22/2019	03:02
SV-170-A-27	140-16377-8	JH21P114.D	08/22/2019	05:31

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.078		1.97	2.00	-1.4	30.0
Propene	Ave	0.7918	0.8146		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	1.253	1.255		2.00	2.00	0.1	30.0
Chloromethane	Ave	0.4041	0.4778		2.36	2.00	18.2	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2219		2.55	2.00	27.5	30.0
Acetaldehyde	Ave	0.5207	0.5531		10.6	10.0	6.2	30.0
Vinyl chloride	Ave	1.359	1.663		2.45	2.00	22.4	30.0
1,3-Butadiene	Ave	1.028	1.226		2.39	2.00	19.3	30.0
Butane	Ave	2.098	2.493		2.38	2.00	18.9	30.0
Bromomethane	Ave	1.197	1.519		2.54	2.00	26.9	30.0
Chloroethane	Ave	0.5981	0.7582		2.54	2.00	26.8	30.0
Ethanol	Ave	0.5397	0.5418		10.0	10.0	0.4	30.0
Vinyl bromide	Ave	1.109	1.370		2.47	2.00	23.5	30.0
2-Methylbutane	Ave	1.445	1.785		2.47	2.00	23.5	30.0
Trichlorofluoromethane	Ave	4.326	4.215		1.95	2.00	-2.6	30.0
Acrolein	Ave	0.2624	0.3224		2.46	2.00	22.9	30.0
Acetonitrile	Ave	0.4156	0.5035		2.42	2.00	21.2	30.0
Acetone	Ave	0.4604	0.5144		6.70	6.00	11.7	30.0
Isopropyl alcohol	Ave	1.338	1.198		5.37	6.00	-10.5	30.0
Pentane	Ave	0.1653	0.2099		2.54	2.00	27.0	30.0
Ethyl ether	Ave	1.486	1.347		1.81	2.00	-9.4	30.0
1,1-Dichloroethene	Ave	1.228	1.297		2.11	2.00	5.7	30.0
Acrylonitrile	Ave	0.8209	0.8010		1.95	2.00	-2.4	30.0
tert-Butyl alcohol	Ave	2.068	1.337		1.29	2.00	-35.3*	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.927		2.05	2.00	2.6	30.0
Methylene Chloride	Ave	1.505	1.332		1.77	2.00	-11.5	30.0
3-Chloropropene	Ave	1.394	1.177		1.69	2.00	-15.6	30.0
Carbon disulfide	Ave	3.743	3.972		2.12	2.00	6.1	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.316		2.15	2.00	7.3	30.0
2-Methylpentane	Ave	3.379	3.190		1.89	2.00	-5.6	30.0
Methyl tert-butyl ether	Ave	3.276	2.710		1.65	2.00	-17.3	30.0
1,1-Dichloroethane	Ave	2.733	2.514		1.84	2.00	-8.0	30.0
Vinyl acetate	Ave	3.471	2.982		1.72	2.00	-14.1	30.0
2-Butanone (MEK)	Ave	0.5394	0.4711		1.75	2.00	-12.7	30.0
Hexane	Ave	1.100	1.033		1.88	2.00	-6.1	30.0
Isopropyl ether	Ave	4.183	3.541		1.69	2.00	-15.3	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.291		2.04	2.00	2.1	30.0
Ethyl acetate	Ave	2.875	2.386		1.66	2.00	-17.0	30.0
Chloroform	Ave	3.246	2.897		1.79	2.00	-10.7	30.0
Tert-butyl ethyl ether	Ave	3.896	3.097		1.59	2.00	-20.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.214		1.69	2.00	-15.6	30.0
1,1,1-Trichloroethane	Ave	3.493	2.843		1.63	2.00	-18.6	30.0
1,2-Dichloroethane	Ave	0.4592	0.3338		1.45	2.00	-27.3	30.0
1-Butanol	Ave	0.1093	0.0596		1.09	2.00	-45.4*	30.0
Cyclohexane	Ave	0.1230	0.1123		1.83	2.00	-8.7	30.0
Benzene	Ave	0.7326	0.7008		1.91	2.00	-4.3	30.0
Carbon tetrachloride	Ave	0.6143	0.5636		1.83	2.00	-8.3	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1586		1.92	2.00	-4.0	30.0
Thiophene	Ave	0.4167	0.3953		1.90	2.00	-5.1	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.145		1.75	2.00	-12.4	30.0
Heptane	Ave	0.2522	0.2268		1.80	2.00	-10.1	30.0
1,2-Dichloropropane	Ave	0.3077	0.2871		1.87	2.00	-6.7	30.0
Trichloroethene	Ave	0.3308	0.3080		1.86	2.00	-6.9	30.0
Dibromomethane	Ave	0.3412	0.3131		1.84	2.00	-8.2	30.0
Bromodichloromethane	Ave	0.6516	0.5377		1.65	2.00	-17.5	30.0
1,4-Dioxane	Ave	0.0858	0.0655		1.53	2.00	-23.6	30.0
Methyl methacrylate	Ave	0.3591	0.2680		1.49	2.00	-25.4	30.0
Methylcyclohexane	Ave	0.4488	0.4136		1.84	2.00	-7.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.3354		1.20	2.00	-40.2*	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4041		1.77	2.00	-11.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4022		1.63	2.00	-18.4	30.0
Toluene	Ave	0.9664	0.8750		1.81	2.00	-9.5	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.2920		1.89	2.00	-5.6	30.0
2-Hexanone	Ave	0.2830	0.1725		1.22	2.00	-39.0*	30.0
Octane	Ave	0.2966	0.2565		1.73	2.00	-13.5	30.0
Dibromochloromethane	Ave	0.6693	0.5956		1.78	2.00	-11.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5004		1.78	2.00	-11.2	30.0
Tetrachloroethene	Ave	0.3882	0.3264		1.68	2.00	-15.9	30.0
2,3-Dimethylheptane	Ave	1.135	0.9652		1.70	2.00	-15.0	30.0
Chlorobenzene	Ave	0.7731	0.7138		1.85	2.00	-7.7	30.0
Ethylbenzene	Ave	1.245	1.055		1.69	2.00	-15.3	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.8144		3.41	4.00	-14.7	30.0
Nonane	Ave	0.6911	0.5792		1.68	2.00	-16.2	30.0
Styrene	Ave	0.6822	0.6195		1.82	2.00	-9.2	30.0
Bromoform	Ave	0.7168	0.6670		1.86	2.00	-6.9	30.0
o-Xylene	Ave	1.015	0.8509		1.68	2.00	-16.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.6909		1.95	2.00	-2.4	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1632		1.62	2.00	-18.9	30.0
Isopropylbenzene	Ave	1.326	1.128		1.70	2.00	-14.9	30.0
Propylbenzene	Ave	0.3540	0.3179		1.80	2.00	-10.2	30.0
2-Chlorotoluene	Ave	0.3422	0.3178		1.86	2.00	-7.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32829/2 Calibration Date: 08/21/2019 09:44

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH21.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.154		1.75	2.00	-12.6	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.4787		1.82	2.00	-9.2	30.0
Alpha Methyl Styrene	Ave	0.5438	0.4932		1.81	2.00	-9.3	30.0
Decane	Ave	0.8742	0.7436		1.70	2.00	-14.9	30.0
tert-Butylbenzene	Ave	1.215	1.036		1.71	2.00	-14.7	30.0
1,2,4-Trimethylbenzene	Ave	1.171	0.9898		1.69	2.00	-15.5	30.0
sec-Butylbenzene	Ave	1.644	1.472		1.79	2.00	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.7492		1.84	2.00	-8.1	30.0
Benzyl chloride	Ave	1.003	0.8550		1.70	2.00	-14.8	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.7333		1.78	2.00	-11.0	30.0
4-Isopropyltoluene	Ave	1.383	1.204		1.74	2.00	-13.0	30.0
1,2,3-Trimethylbenzene	Ave	1.148	0.9916		1.73	2.00	-13.6	30.0
Butylcyclohexane	Ave	0.9932	0.9323		1.88	2.00	-6.1	30.0
Indane	Ave	1.065	0.9916		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.7330		1.83	2.00	-8.6	30.0
Butylbenzene	Ave	1.432	1.296		1.81	2.00	-9.5	30.0
Indene	Ave	0.9137	0.8447		1.85	2.00	-7.6	30.0
Undecane	Ave	0.9884	0.8477		1.72	2.00	-14.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.3637		1.82	2.00	-8.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.037		1.66	2.00	-16.8	30.0
Dodecane	Ave	0.8410	0.5569		1.32	2.00	-33.8*	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.5498		1.68	2.00	-16.0	30.0
Naphthalene	Ave	1.025	0.8680		1.69	2.00	-15.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.8071		2.05	2.00	2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.4494		1.74	2.00	-13.0	30.0
2-Methylnaphthalene	Ave	0.2801	0.1922		1.37	2.00	-31.4	50.0
1-Methylnaphthalene	Ave	0.3357	0.1801		1.07	2.00	-46.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6724		3.66	4.00	-8.5	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: JBFBH27.D BFB Injection Date: 08/27/2019

Instrument ID: MJ BFB Injection Time: 07:42

Analysis Batch No.: 32985

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	110.7	
175	5.0 - 9.0 % of mass 174	8.0	(7.2) 1
176	95.0 - 101.0 % of mass 174	107.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	7.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32985/2	JCCVH27.D	08/27/2019	08:11
	LCS 140-32985/1002	JCCVH27-LCS.d	08/27/2019	08:11
	MB 140-32985/4	J500BH27.D	08/27/2019	10:12
SV-174-A-27 DL	140-16377-6 DL	JH27P102.D	08/27/2019	15:43

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.093	1.156		2.11	2.00	5.7	30.0
Propene	Ave	0.7918	0.8609		2.17	2.00	8.7	30.0
Dichlorodifluoromethane	Ave	1.253	1.321		2.11	2.00	5.5	30.0
Chloromethane	Ave	0.4041	0.5189		2.57	2.00	28.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.1740	0.2535		2.91	2.00	45.7*	30.0
Acetaldehyde	Ave	0.5207	0.5986		11.5	10.0	15.0	30.0
Vinyl chloride	Ave	1.359	1.743		2.56	2.00	28.2	30.0
1,3-Butadiene	Ave	1.028	1.276		2.48	2.00	24.1	30.0
Butane	Ave	2.098	2.504		2.39	2.00	19.4	30.0
Bromomethane	Ave	1.197	1.601		2.67	2.00	33.7*	30.0
Chloroethane	Ave	0.5981	0.7737		2.59	2.00	29.4	30.0
Ethanol	Ave	0.5397	0.5857		10.9	10.0	8.5	30.0
Vinyl bromide	Ave	1.109	1.484		2.67	2.00	33.7*	30.0
2-Methylbutane	Ave	1.445	1.807		2.50	2.00	25.0	30.0
Trichlorofluoromethane	Ave	4.326	4.313		1.99	2.00	-0.3	30.0
Acrolein	Ave	0.2624	0.3724		2.84	2.00	41.9*	30.0
Acetonitrile	Ave	0.4156	0.5526		2.66	2.00	33.0*	30.0
Acetone	Ave	0.4604	0.5847		7.62	6.00	27.0	30.0
Isopropyl alcohol	Ave	1.338	1.420		6.37	6.00	6.1	30.0
Pentane	Ave	0.1653	0.2242		2.71	2.00	35.6*	30.0
Ethyl ether	Ave	1.486	1.429		1.92	2.00	-3.8	30.0
1,1-Dichloroethene	Ave	1.228	1.331		2.17	2.00	8.4	30.0
Acrylonitrile	Ave	0.8209	0.8948		2.18	2.00	9.0	30.0
tert-Butyl alcohol	Ave	2.068	1.615		1.56	2.00	-21.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.854	2.970		2.08	2.00	4.1	30.0
Methylene Chloride	Ave	1.505	1.365		1.81	2.00	-9.3	30.0
3-Chloropropene	Ave	1.394	1.180		1.69	2.00	-15.4	30.0
Carbon disulfide	Ave	3.743	4.081		2.18	2.00	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.227	1.345		2.19	2.00	9.6	30.0
2-Methylpentane	Ave	3.379	3.186		1.89	2.00	-5.7	30.0
Methyl tert-butyl ether	Ave	3.276	3.122		1.91	2.00	-4.7	30.0
1,1-Dichloroethane	Ave	2.733	2.644		1.93	2.00	-3.3	30.0
Vinyl acetate	Ave	3.471	3.335		1.92	2.00	-3.9	30.0
2-Butanone (MEK)	Ave	0.5394	0.5457		2.02	2.00	1.2	30.0
Hexane	Ave	1.100	1.068		1.94	2.00	-2.9	30.0
Isopropyl ether	Ave	4.183	3.985		1.91	2.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.264	1.374		2.17	2.00	8.7	30.0
Ethyl acetate	Ave	2.875	2.681		1.87	2.00	-6.7	30.0
Chloroform	Ave	3.246	3.041		1.87	2.00	-6.3	30.0
Tert-butyl ethyl ether	Ave	3.896	3.582		1.84	2.00	-8.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.438	1.361		1.89	2.00	-5.4	30.0
1,1,1-Trichloroethane	Ave	3.493	2.926		1.68	2.00	-16.2	30.0
1,2-Dichloroethane	Ave	0.4592	0.3483		1.52	2.00	-24.2	30.0
1-Butanol	Ave	0.1093	0.0695		1.27	2.00	-36.5*	30.0
Cyclohexane	Ave	0.1230	0.1159		1.88	2.00	-5.8	30.0
Benzene	Ave	0.7326	0.7573		2.07	2.00	3.4	30.0
Carbon tetrachloride	Ave	0.6143	0.5610		1.83	2.00	-8.7	30.0
2,3-Dimethylpentane	Ave	0.1652	0.1697		2.05	2.00	2.7	30.0
Thiophene	Ave	0.4167	0.4357		2.09	2.00	4.6	30.0
2,2,4-Trimethylpentane	Ave	1.307	1.231		1.88	2.00	-5.8	30.0
Heptane	Ave	0.2522	0.2481		1.97	2.00	-1.6	30.0
1,2-Dichloropropane	Ave	0.3077	0.3084		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3308	0.3330		2.01	2.00	0.7	30.0
Dibromomethane	Ave	0.3412	0.3355		1.97	2.00	-1.7	30.0
Bromodichloromethane	Ave	0.6516	0.5657		1.74	2.00	-13.2	30.0
1,4-Dioxane	Ave	0.0858	0.0810		1.89	2.00	-5.5	30.0
Methyl methacrylate	Ave	0.3591	0.3032		1.69	2.00	-15.6	30.0
Methylcyclohexane	Ave	0.4488	0.4430		1.97	2.00	-1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5606	0.4229		1.51	2.00	-24.6	30.0
cis-1,3-Dichloropropene	Ave	0.4567	0.4408		1.93	2.00	-3.5	30.0
trans-1,3-Dichloropropene	Ave	0.4927	0.4524		1.84	2.00	-8.2	30.0
Toluene	Ave	0.9664	0.996		2.06	2.00	3.0	30.0
1,1,2-Trichloroethane	Ave	0.3094	0.3297		2.13	2.00	6.6	30.0
2-Hexanone	Ave	0.2830	0.2323		1.64	2.00	-17.9	30.0
Octane	Ave	0.2966	0.2893		1.95	2.00	-2.5	30.0
Dibromochloromethane	Ave	0.6693	0.6521		1.95	2.00	-2.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.5635	0.5671		2.01	2.00	0.6	30.0
Tetrachloroethene	Ave	0.3882	0.3669		1.89	2.00	-5.5	30.0
2,3-Dimethylheptane	Ave	1.135	1.023		1.80	2.00	-9.9	30.0
Chlorobenzene	Ave	0.7731	0.7827		2.02	2.00	1.2	30.0
Ethylbenzene	Ave	1.245	1.220		1.96	2.00	-2.0	30.0
m-Xylene & p-Xylene	Ave	0.9548	0.9271		3.88	4.00	-2.9	30.0
Nonane	Ave	0.6911	0.6394		1.85	2.00	-7.5	30.0
Styrene	Ave	0.6822	0.7045		2.07	2.00	3.3	30.0
Bromoform	Ave	0.7168	0.7281		2.03	2.00	1.6	30.0
o-Xylene	Ave	1.015	0.9796		1.93	2.00	-3.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7076	0.7765		2.19	2.00	9.7	30.0
1,2,3-Trichloropropane	Ave	0.2013	0.1883		1.87	2.00	-6.4	30.0
Isopropylbenzene	Ave	1.326	1.296		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3540	0.3638		2.06	2.00	2.8	30.0
2-Chlorotoluene	Ave	0.3422	0.3607		2.11	2.00	5.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32985/2 Calibration Date: 08/27/2019 08:11

Instrument ID: MJ Calib Start Date: 07/19/2019 20:27

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/20/2019 06:27

Lab File ID: JCCVH27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.321	1.310		1.98	2.00	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.5270	0.5515		2.09	2.00	4.7	30.0
Alpha Methyl Styrene	Ave	0.5438	0.5705		2.10	2.00	4.9	30.0
Decane	Ave	0.8742	0.8405		1.92	2.00	-3.9	30.0
tert-Butylbenzene	Ave	1.215	1.188		1.96	2.00	-2.2	30.0
1,2,4-Trimethylbenzene	Ave	1.171	1.136		1.94	2.00	-3.0	30.0
sec-Butylbenzene	Ave	1.644	1.692		2.06	2.00	2.9	30.0
1,3-Dichlorobenzene	Ave	0.8153	0.8497		2.08	2.00	4.2	30.0
Benzyl chloride	Ave	1.003	0.9729		1.94	2.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	0.8239	0.8435		2.05	2.00	2.4	30.0
4-Isopropyltoluene	Ave	1.383	1.377		1.99	2.00	-0.5	30.0
1,2,3-Trimethylbenzene	Ave	1.148	1.117		1.94	2.00	-2.8	30.0
Butylcyclohexane	Ave	0.9932	1.046		2.11	2.00	5.3	30.0
Indane	Ave	1.065	1.133		2.13	2.00	6.4	30.0
1,2-Dichlorobenzene	Ave	0.8017	0.8413		2.10	2.00	4.9	30.0
Butylbenzene	Ave	1.432	1.463		2.04	2.00	2.2	30.0
Indene	Ave	0.9137	0.9527		2.09	2.00	4.3	30.0
Undecane	Ave	0.9884	0.9676		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3989	0.4326		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.246	1.232		1.98	2.00	-1.2	30.0
Dodecane	Ave	0.8410	0.8411		2.00	2.00	0.0	30.0
1,2,4-Trichlorobenzene	Ave	0.6547	0.7210		2.20	2.00	10.1	30.0
Naphthalene	Ave	1.025	1.162		2.27	2.00	13.3	30.0
Hexachlorobutadiene	Ave	0.7893	0.9814		2.49	2.00	24.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5167	0.6262		2.42	2.00	21.2	30.0
2-Methylnaphthalene	Ave	0.2801	0.3560		2.54	2.00	27.1	50.0
1-Methylnaphthalene	Ave	0.3357	0.3311		1.97	2.00	-1.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7352	0.6663		3.63	4.00	-9.4	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH12IC.D BFB Injection Date: 08/12/2019

Instrument ID: MR BFB Injection Time: 13:04

Analysis Batch No.: 32571

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.7	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	81.4	
175	5.0 - 9.0 % of mass 174	5.6	(6.8) 1
176	95.0 - 101.0 % of mass 174	77.7	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32571/2	RH12IC09.D	08/12/2019	13:33
	IC 140-32571/4	RH12IC10.D	08/12/2019	15:13
	IC 140-32571/7	RH12IC01.D	08/12/2019	17:38
	IC 140-32571/8	RH12IC02.D	08/12/2019	18:26
	IC 140-32571/9	RH12IC03.D	08/12/2019	19:15
	IC 140-32571/10	RH12IC04.D	08/12/2019	20:04
	IC 140-32571/11	RH12IC05.D	08/12/2019	20:53
	IC 140-32571/12	RH12IC06.D	08/12/2019	21:41
	ICIS 140-32571/13	RH12IC07.D	08/12/2019	22:32
	IC 140-32571/14	RH12IC08.D	08/12/2019	23:20
	ICV 140-32571/16	RH12ICV.D	08/13/2019	00:56

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.4055	3.9572 3.0970	3.5894 3.2318	3.9610 2.9485	3.6487 2.9211	Ave		3.4178				11.7		30.0			
Propene	+++++ 2.3789	+++++ 1.9716	+++++ 1.9058	+++++ 1.6242	+++++ 1.6004	Ave		1.8962				16.7		30.0			
Dichlorodifluoromethane	+++++ 3.0905	3.7526 2.7616	2.8597 2.9299	3.3221 2.7339	3.2869 +++++	Ave		3.0922				11.2		30.0			
Chloromethane	+++++ 0.4727	+++++ 0.4289	+++++ 0.4370	0.6192 0.3366	0.5998 0.3585	Ave		0.4647				23.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 1.5147	+++++ 1.5708	1.7422 1.5412	1.9643 1.3163	1.6451 1.2530	Ave		1.5685				14.4		30.0			
Vinyl chloride	1.8885 1.2719	1.8975 1.3363	1.7508 1.2152	1.7355 1.0942	1.4445 1.0884	Ave		1.4723				21.7		30.0			
Butane	+++++ 1.9570	2.8284 1.9893	3.0928 1.8715	2.9232 1.6370	2.3590 1.7000	Ave		2.2620				24.6		30.0			
1,3-Butadiene	+++++ 1.0199	+++++ 1.0546	+++++ 0.9834	1.4724 0.8662	1.2002 0.8811	Ave		1.0683				19.7		30.0			
Bromomethane	+++++ 1.1384	1.4057 1.1247	1.6984 1.0125	1.3366 +++++	1.0165 +++++	Ave		1.2475				20.0		30.0			
Chloroethane	+++++ 0.5266	+++++ 0.5364	0.8978 0.4638	0.6726 +++++	0.5180 +++++	Ave		0.6025				26.6		30.0			
Ethanol	+++++ 0.5730	+++++ 0.5819	+++++ 0.5052	+++++ 0.4941	0.6313 0.4724	Ave		0.5430				11.4		30.0			
Vinyl bromide	+++++ 1.0430	+++++ 1.0540	1.2690 0.9088	1.2002 0.9740	0.9678 0.9163	Ave		1.0416				12.6		30.0			
2-Methylbutane	+++++ 1.6293	+++++ 1.5533	2.1678 1.3849	2.2982 1.3959	1.8876 1.1859	Ave		1.6879				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.7225	3.7107 3.8520	3.9402 3.9494	3.9720 3.9774	3.7025 3.7558	Ave		3.8425				3.1		30.0			
Acrolein	+++++ 0.4549	+++++ 0.4549	+++++ 0.4610	0.5718 0.4582	0.4875 0.4419	Ave		0.4757				9.4		30.0			
Acetonitrile	+++++ 0.6468	+++++ 0.7208	+++++ 0.7749	+++++ 0.7162	0.7095 0.6815	Ave		0.7083				6.0		30.0			
Acetone	+++++ 0.6781	+++++ 0.6667	+++++ 0.6628	+++++ 0.6426	0.7205 0.6106	Ave		0.6636				5.5		30.0			
Pentane	+++++ 0.2377	+++++ 0.2593	+++++ 0.2590	+++++ 0.2530	0.2674 0.2484	Ave		0.2541				4.1		30.0			
Isopropyl alcohol	2.7052 2.1020	2.4872 2.3314	2.1106 2.3292	1.9931 2.2324	2.0429 2.1432	Ave		2.2477				9.8		30.0			
Ethyl ether	+++++ 2.0268	+++++ 2.1249	2.1703 2.1531	2.1821 2.0519	1.9457 1.9711	Ave		2.0782				4.4		30.0			
1,1-Dichloroethene	+++++ 1.3298	1.6829 1.3916	1.3565 1.3584	1.3846 1.3718	1.2092 1.2955	Ave		1.3756				9.3		30.0			
Acrylonitrile	+++++ 1.1115	+++++ 1.1082	+++++ 1.1304	+++++ 1.1451	0.6390 1.0936	Ave		1.0380				18.9		30.0			
tert-Butyl alcohol	+++++ 2.7190	+++++ 2.8306	2.9841 2.9090	2.6228 2.8435	2.5542 2.7206	Ave		2.7730				5.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8408	+++++ 3.0397	2.7067 2.9849	2.7964 3.0354	2.5396 2.9265	Ave		2.8587				6.1		30.0			
Methylene Chloride	+++++ 1.4086	+++++ 1.3135	+++++ 1.2432	2.0760 1.2134	1.4889 1.1534	Ave		1.4139				22.2		30.0			
3-Chloropropene	+++++ 1.5486	+++++ 1.5677	1.8879 1.5309	1.4938 1.5911	1.4697 1.5029	Ave		1.5741				8.4		30.0			
Carbon disulfide	+++++ 3.7728	+++++ 3.8415	3.4273 3.7616	3.4179 3.8766	3.2349 3.6148	Ave		3.6184				6.5		30.0			
trans-1,2-Dichloroethene	+++++ 1.4196	1.5808 1.5559	1.2165 1.5248	1.3252 1.5120	1.4364 1.4420	Ave		1.4459				8.1		30.0			
2-Methylpentane	+++++ 3.8519	+++++ 3.9616	3.6338 3.9936	4.0694 3.9696	3.4880 3.7247	Ave		3.8366				5.3		30.0			
Methyl tert-butyl ether	+++++ 3.8972	+++++ 4.1914	3.2429 4.1407	3.7694 4.1626	3.8608 3.9206	Ave		3.8982				7.9		30.0			
1,1-Dichloroethane	2.9375 2.6655	2.9159 2.8060	2.5487 2.7841	2.8456 2.8209	2.4930 2.6066	Ave		2.7424				5.6		30.0			
Vinyl acetate	+++++ 4.8384	+++++ 4.9483	4.3927 4.9770	4.6691 5.1081	4.5518 4.8018	Ave		4.7859				4.9		30.0			
2-Butanone (MEK)	+++++ 0.6750	+++++ 0.7338	+++++ 0.7207	0.8598 0.7264	0.7184 0.7043	Ave		0.7340				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4271	+++++ 0.4474	0.4186 0.4689	0.4279 0.4851	0.3918 0.4886	Ave		0.4444				7.7		30.0			
Methylcyclohexane	+++++ 0.4669	+++++ 0.4646	0.4293 0.4859	0.4237 0.5069	0.4301 0.5197	Ave		0.4659				7.9		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7643	+++++ 0.7971	0.7600 0.8282	0.7163 0.8624	0.7377 0.8800	Ave		0.7933				7.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.4717	0.4728 0.4713	0.4350 0.4969	0.3716 0.5289	0.4200 0.5444	Ave		0.4681				11.5		30.0			
trans-1,3-Dichloropropene	+++++ 0.4777	0.5130 0.5212	0.4394 0.5419	0.4131 0.5601	0.4421 0.5693	Ave		0.4975				11.4		30.0			
Toluene	+++++ 1.0428	0.9206 1.0856	0.9714 1.0869	1.0075 1.0923	0.9830 1.0718	Ave		1.0291				6.0		30.0			
1,1,2-Trichloroethane	+++++ 0.3127	0.3183 0.3274	0.2979 0.3350	0.3073 0.3435	0.2990 0.3305	Ave		0.3190				5.1		30.0			
2-Hexanone	+++++ 0.3724	+++++ 0.3957	0.3189 0.4092	0.3667 0.4234	0.3383 0.4226	Ave		0.3809				10.2		30.0			
C8 Range	+++++ 3.0979	+++++ 3.1403	+++++ 3.2110	2.9765 3.3735	2.9284 3.2396	Ave		3.1382				4.9		30.0			
Octane	+++++ 0.3402	0.3597 0.3442	0.3244 0.3479	0.3051 0.3577	0.3090 0.3466	Ave		0.3372				5.9		30.0			
Dibromochloromethane	+++++ 0.6834	+++++ 0.7473	0.5646 0.8010	0.5568 0.8565	0.6030 0.8485	Ave		0.7076				17.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.6222	0.5740 0.6387	0.5070 0.6685	0.5623 0.6970	0.5582 0.6797	Ave		0.6120				10.6		30.0			
Tetrachloroethene	0.5160 0.4059	0.4310 0.4065	0.3837 0.4243	0.3618 0.4434	0.3813 0.4493	Ave		0.4203				10.4		30.0			
Chlorobenzene	+++++ 0.8652	0.8514 0.8571	0.7623 0.8938	0.7996 0.9072	0.8255 0.9405	Ave		0.8559				6.4		30.0			
Ethylbenzene	+++++ 1.4304	1.3850 1.4995	1.2799 1.5529	1.3101 1.5954	1.4054 1.5340	Ave		1.4436				7.6		30.0			
m-Xylene & p-Xylene	1.2362 1.1265	0.9980 1.1613	1.0399 1.2239	1.0004 1.2279	1.0947 1.2274	Ave		1.1336				8.5		30.0			
Nonane	+++++ 0.7381	+++++ 0.7591	0.6442 0.8122	0.6624 0.8029	0.7240 0.8008	Ave		0.7430				8.6		30.0			
Bromoform	0.6102 0.7094	0.4831 0.7657	0.4853 0.8704	0.5338 +++++	0.6138 +++++	Ave		0.6340				21.9		30.0			
Styrene	+++++ 0.8068	0.6483 0.8238	0.6257 0.8865	0.6379 0.9075	0.7700 0.9202	Ave		0.7807				15.1		30.0			
o-Xylene	1.4066 1.1865	1.0908 1.2004	1.0028 1.2355	1.0745 1.2876	1.1728 1.2446	Ave		1.1902				9.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.8523	0.7478 0.8625	0.7210 0.9124	0.7345 0.9577	0.8292 0.9283	Ave		0.8384				10.5		30.0			
1,2,3-Trichloropropane	+++++ 0.2693	0.2250 0.2714	0.2265 0.2873	0.2478 0.3060	0.2660 0.2923	Ave		0.2657				10.6		30.0			
Isopropylbenzene	+++++ 1.7673	1.7512 1.7705	1.5361 1.8552	1.6889 1.9339	1.7128 1.8815	Ave		1.7664				6.7		30.0			
Propylbenzene	+++++ 0.4608	+++++ 0.4833	0.3746 0.4833	0.4147 0.5185	0.4082 +++++	Ave		0.4491				11.4		30.0			
2-Chlorotoluene	+++++ 0.4418	0.3869 0.4383	0.4027 0.4379	0.4282 0.4711	0.4154 +++++	Ave		0.4278				6.1		30.0			
4-Ethyltoluene	+++++ 1.7921	1.6456 1.8541	1.6196 1.8908	1.7045 2.0166	1.5598 +++++	Ave		1.7604				8.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.6790	+++++ 0.6965	0.6061 0.7067	0.6459 0.7567	0.6068 +++++	Ave		0.6711				8.2		30.0			
Alpha Methyl Styrene	0.5810 0.6612	0.4759 0.7074	0.5110 0.7475	0.5309 0.8287	0.5584 0.8322	Ave		0.6434				20.4		30.0			
Decane	+++++ 1.0158	+++++ 1.0690	0.9613 1.0874	0.9651 1.0994	0.9371 1.0448	Ave		1.0225				6.1		30.0			
tert-Butylbenzene	+++++ 1.5739	1.5312 1.6086	1.3615 1.6775	1.4563 1.7432	1.4279 1.7413	Ave		1.5690				8.7		30.0			
1,2,4-Trimethylbenzene	1.4814 1.5544	1.4650 1.6068	1.4467 1.6862	1.4583 1.7370	1.4098 1.7041	Ave		1.5550				7.8		30.0			
sec-Butylbenzene	2.2075 2.2578	2.1432 2.3098	2.0347 2.4280	2.1064 2.5294	2.0764 +++++	Ave		2.2326				7.4		30.0			
1,3-Dichlorobenzene	1.1321 1.0267	1.0937 1.0463	0.9574 1.0905	0.9976 1.1631	0.9123 1.1679	Ave		1.0588				8.2		30.0			
Benzyl chloride	1.1119 1.1952	1.0289 1.3165	0.9721 1.3729	0.9890 1.5568	1.0129 1.5879	Ave		1.2144				19.2		30.0			
1,4-Dichlorobenzene	1.0271 1.0181	0.9889 1.0489	1.0432 1.0900	0.9329 1.1747	0.9368 1.1881	Ave		1.0449				8.3		30.0			
4-Isopropyltoluene	1.7866 1.8476	1.7613 1.8427	1.6246 1.9349	1.7700 2.0525	1.6142 +++++	Ave		1.8038				7.7		30.0			
1,2,3-Trimethylbenzene	1.5164 1.5930	1.2962 1.5840	1.3872 1.5942	1.5180 1.7117	1.3883 1.7100	Ave		1.5299				9.0		30.0			
Indane	1.3436 1.3983	1.2052 1.4380	1.2750 1.4835	1.2809 1.6497	1.2593 1.5576	Ave		1.3891				10.3		30.0			
1,2-Dichlorobenzene	1.0432 1.0059	0.9406 1.0246	0.9418 1.0748	1.0077 1.2014	0.9363 1.1449	Ave		1.0321				8.6		30.0			
Indene	+++++ 1.2308	+++++ 1.3018	1.0598 1.3468	1.0629 1.5328	1.0303 1.4642	Ave		1.2537				15.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.7571 1.8901	1.9456 1.9136	1.6634 1.9738	1.7806 2.1571	1.6342 +++++	Ave		1.8573				8.9		30.0			
Undecane	+++++ 1.2304	+++++ 1.2672	1.0407 1.2849	1.2117 1.3262	1.0626 1.2244	Ave		1.2060				8.5		30.0			
1,2-Dibromo-3-Chloropropane	0.4981 0.5197	0.3677 0.5400	0.3885 0.5851	0.3923 0.6794	0.4058 0.6853	Ave		0.5062				23.4		30.0			
1,2,4,5-Tetramethylbenzene	1.7500 1.7729	1.6939 1.7942	1.5096 1.8735	1.6625 2.0057	1.5140 +++++	Ave		1.7307				9.2		30.0			
Dodecane	+++++ 1.2162	+++++ 1.3073	1.0015 1.3194	1.1441 1.3005	1.0069 1.0802	Ave		1.1720				11.4		30.0			
1,2,4-Trichlorobenzene	1.1048 0.9654	0.9149 0.9652	0.9435 1.0023	0.9422 1.1239	0.8670 1.0433	Ave		0.9872				8.3		30.0			
Naphthalene	2.2067 2.1441	2.0972 2.0481	2.0419 1.9231	1.8501 2.2940	1.7359 +++++	Ave		2.0379				8.7		30.0			
Hexachlorobutadiene	1.0592 0.9367	0.9482 0.9856	0.8845 1.0694	0.9613 1.1371	0.8688 0.9516	Ave		0.9802				8.6		30.0			
1,2,3-Trichlorobenzene	+++++ 0.8840	0.8381 0.9236	0.8184 0.9450	0.9018 1.0501	0.8960 0.9185	Ave		0.9084				7.3		30.0			
2-Methylnaphthalene	+++++ 0.5489	+++++ 0.7018	+++++ 0.4143	+++++ 0.7021	+++++ 0.5580	Ave		0.5850				20.7		50.0			
1-Methylnaphthalene	+++++ 0.5412	+++++ 0.6662	0.6784 0.4390	0.5218 0.6100	0.4757 +++++	Ave		0.5618				16.5		50.0			
4-Bromofluorobenzene (Surr)	0.6650 0.6954	0.6802 0.6907	0.6661 0.7055	0.6789 0.7272	0.6868 0.7004	Ave		0.6896				2.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 234758	9535 489629	17104 1038164	37149 1686652	92941 3868393	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 163993	+++++ 311708	+++++ 612203	+++++ 929137	+++++ 2119366	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 213046	9042 436605	13627 941193	31157 1563912	83727 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Chloromethane	CBM	Ave	+++++ 32588	+++++ 67802	+++++ 140377	5807 192525	15278 474731	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 104417	+++++ 248334	8302 495086	18423 752994	41905 1659392	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2580 87680	4572 211260	8343 390377	16277 625941	36795 1441332	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 134910	6815 314498	14738 601193	27416 936426	60089 2251310	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 70305	+++++ 166727	+++++ 315900	13809 495518	30573 1166818	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 78476	3387 177814	8093 325261	12536 +++++	25893 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Chloroethane	CBM	Ave	+++++ 36301	+++++ 84809	4278 149002	6308 +++++	13196 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Ethanol	CBM	Ave	+++++ 197485	+++++ 459971	+++++ 811380	+++++ 1413331	80407 3128166	+++++ 5.00	+++++ 10.0	+++++ 20.0	+++++ 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 71900	+++++ 166629	6047 291926	11256 557199	24652 1213472	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 112317	+++++ 245568	10330 444864	21554 798505	48082 1570512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 256609	8941 608995	18776 1268687	37252 2275267	94313 4973718	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 31359	+++++ 71916	+++++ 148082	5363 262118	12417 585189	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 44589	+++++ 113950	+++++ 248929	+++++ 409722	18073 902567	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 140239	+++++ 316226	+++++ 638695	+++++ 1102801	55059 2425956	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16387	+++++ 40997	+++++ 83201	+++++ 144745	6812 328949	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11087 434704	17979 1105765	30173 2244654	56079 3831142	156113 8514512	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 139716	+++++ 335934	10342 691635	20465 1173779	49563 2610293	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 91670	4055 220013	6464 436351	12986 784721	30801 1715585	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 76620	+++++ 175197	+++++ 363112	+++++ 655074	16277 1448282	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 187436	+++++ 447503	14220 934472	24598 1626595	65062 3602839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 195830	+++++ 480563	12898 958858	26227 1736390	64689 3875490	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 97104	+++++ 207664	+++++ 399350	19470 694114	37926 1527458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106755	+++++ 247852	8996 491788	14010 910177	37437 1990321	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 260082	+++++ 607331	16332 1208336	32055 2217616	82401 4787033	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 97862	3809 245990	5797 489823	12429 864916	36589 1909632	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 265535	+++++ 626319	17316 1282861	38166 2270807	88849 4932630	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 268658	+++++ 662650	15453 1330133	35352 2381188	98345 5191938	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	4013 183745	7026 443627	12145 894337	26688 1613695	63504 3451875	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 333540	+++++ 782313	20932 1598765	43790 2922060	115947 6358946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 46530	+++++ 116007	+++++ 231513	8064 415513	18300 932661	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85998	+++++ 199557	6114 400434	13205 705905	29832 1582904	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 110184	4771 251302	8632 506769	14471 903782	39820 1979693	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 297217	+++++ 678344	19988 1395118	39652 2470352	105906 5400752	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 228386	+++++ 527634	16201 1090897	32871 1952914	83858 4317049	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 147538	+++++ 336823	11583 684785	18911 1194324	51707 2611278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	5135 253956	10000 579894	17062 1190165	33477 2171599	86648 4880217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 160490	5704 352032	11547 740042	20976 1336641	53780 2896923	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 56795	+++++ 140726	+++++ 295549	+++++ 529427	22459 1165521	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 50611	+++++ 113375	+++++ 239599	7444 431615	19248 965096	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 317673	12714 729307	21586 1512569	49431 2831483	119776 6064258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5735 265046	8340 601170	15774 1301234	35862 2471477	88467 5417313	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 74081	+++++ 168847	5547 340329	10204 623415	25882 1400003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 177597	+++++ 401568	8334 819107	22379 1481750	61784 3335042	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 546926	+++++ 1251451	36777 2580622	76319 4723123	201320 10552510	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 114914	3898 257286	8204 546078	15423 1003783	41187 2260833	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 123265	4493 284844	9787 593910	16693 1098818	43914 2458224	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3253 148333	4791 316261	10022 679471	18870 1272523	51621 2831772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 132070	+++++ 296383	9109 632141	19319 1192726	45649 2629232	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 241765	+++++ 540886	15440 1178556	32327 2266175	82518 4971763	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 49723	+++++ 115604	3473 248953	7162 439902	17072 948586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 176236	+++++ 409718	12240 861534	25315 1602463	61427 3510561	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 192630	+++++ 425455	12553 892859	25069 1674440	67432 3734439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 315351	+++++ 729869	22225 1521901	42380 2849090	115648 6323240	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 194636	6968 431545	12719 913127	21987 1747199	65841 3911560	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 174816	6602 410349	11493 885988	21440 1701957	60682 3868417	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 381611	11848 854782	25408 1776875	52282 3319430	134911 7282658	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 114417	4096 257761	7791 547625	15946 1043886	41040 2245491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 136287	+++++ 311563	8340 668912	19028 1286641	46424 2871804	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1278165	+++++ 2875636	+++++ 5900294	176098 11144655	459073 23278410	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124478	4629 270992	8484 568804	15835 1087004	42413 2355321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 250080	+++++ 588398	14768 1309608	28895 2602812	82751 5765814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 227684	7387 502874	13260 1092982	29180 2118211	76615 4618343	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3610 148518	5547 320049	10036 693690	18774 1347530	52332 3052980	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 316604	10958 674887	19939 1461212	41497 2756890	113301 6391037	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 523426	17826 1180642	33477 2538724	67987 4848427	192887 10423433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	17297 824444	25689 1828793	54397 4001961	103834 7462791	300469 16680293	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 270114	+++++ 597670	16849 1327887	34376 2439907	99362 5441512	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	4269 259604	6218 602865	12693 1422909	27703 +++++	84238 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 295221	8344 648614	16365 1449351	33105 2757815	105671 6253157	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9841 434181	14039 945150	26230 2019938	55761 3912982	160961 8457498	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 311891	9624 679085	18858 1491704	38115 2910298	113804 6308078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 98558	2896 213681	5924 469621	12861 930012	36511 1986065	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 646729	22539 1394055	40179 3033081	87644 5876884	235069 12785204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 168614	+++++ 380530	9798 790107	21522 1575530	56029 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 161679	4980 345097	10534 715846	22221 1431553	57011 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 655801	21180 1459843	42363 3091126	88453 6128184	214068 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 248480	+++++ 548438	15853 1155375	33519 2299646	83282 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Alpha Methyl Styrene	CBZd 5	Ave	4065 241958	6125 556967	13366 1222128	27551 2518203	76630 5654785	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 371710	+++++ 841732	25144 1777720	50084 3340916	128610 7099206	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 575935	19707 1266574	35611 2742434	75576 5297311	195971 11832444	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10364 568798	18855 1265159	37839 2756637	75679 5278660	193483 11579192	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	15444 826217	27584 1818636	53220 3969502	109309 7686620	284972 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	7920 375723	14076 823821	25042 1782763	51771 3534620	125204 7935738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	7779 437373	13242 1036549	25427 2244471	51323 4731103	139012 10790181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7186 372557	12727 825864	27287 1782054	48412 3569735	128566 8073237	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	12499 676095	22669 1450854	42494 3163292	91852 6237349	221539 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10609 582945	16683 1247184	36284 2606254	78777 5201556	190536 11619317	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9400 511702	15512 1132215	33349 2425370	66472 5013200	172831 10583764	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7298 368079	12106 806766	24634 1757169	52296 3650807	128507 7779620	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 450393	+++++ 1024994	27720 2201908	55161 4657904	141407 9949397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12293 691666	25040 1506674	43509 3226973	92403 6555104	224277 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 450245	+++++ 997760	27220 2100599	62883 4030320	145831 8319839	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	3485 190182	4732 425196	10162 956590	20360 2064543	55688 4656553	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12243 648777	21801 1412707	39484 3062915	86274 6095231	207789 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 445044	+++++ 1029333	26195 2157082	59374 3951977	138196 7339718	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7729 353265	11775 759967	24678 1638588	48894 3415518	118995 7089441	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	15438 784592	26992 1612650	53409 3144071	96013 6971398	238247 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	7410 342754	12204 776012	23134 1748268	49887 3455578	119241 6466368	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 323470	10787 727177	21407 1545006	46799 3191028	122976 6241103	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 200876	+++++ 552616	+++++ 677421	+++++ 2133624	+++++ 3791560	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 198072	+++++ 524544	17746 717771	27080 1853907	65295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	930526 1017939	875394 1087615	871146 1153368	880719 1104916	942631 1189880	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32571/7	RH12IC01.D
Level 2	IC 140-32571/8	RH12IC02.D
Level 3	IC 140-32571/9	RH12IC03.D
Level 4	IC 140-32571/10	RH12IC04.D
Level 5	IC 140-32571/11	RH12IC05.D
Level 6	IC 140-32571/12	RH12IC06.D
Level 7	ICIS 140-32571/13	RH12IC07.D
Level 8	IC 140-32571/14	RH12IC08.D
Level 9	IC 140-32571/2	RH12IC09.D
Level 10	IC 140-32571/4	RH12IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	15.8						50				
Propene	+++++	+++++	+++++	+++++	+++++	25.5						50
Dichlorodifluoromethane	+++++	21.4		+++++				50				
Chloromethane	+++++	+++++	+++++	33.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	11.1						50			
Vinyl chloride	28.3						50					
Butane	+++++	25.0						50				
1,3-Butadiene	+++++	+++++	+++++	37.8						50		
Bromomethane	+++++	12.7	+++++	+++++				50				
Chloroethane	+++++	+++++	49.0 +++++	+++++					50			
Ethanol	+++++	+++++	+++++	+++++	16.3						50	
Vinyl bromide	+++++	+++++	21.8						50			
2-Methylbutane	+++++	+++++	28.4						50			
Trichlorofluoromethane	+++++	-3.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	20.2						50		
Acetonitrile	+++++	+++++	+++++	+++++	0.2						50	
Acetone	+++++	+++++	+++++	+++++	8.6						80	
Pentane	+++++	+++++	+++++	+++++	5.2						50	
Isopropyl alcohol	20.4						50					
Ethyl ether	+++++	+++++	4.4						50			
1,1-Dichloroethene	+++++	22.3						50				
Acrylonitrile	+++++	+++++	+++++	+++++	-38.4						50	
tert-Butyl alcohol	+++++	+++++	7.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-5.3						50			
Methylene Chloride	+++++	+++++	+++++	46.8						80		
3-Chloropropene	+++++	+++++	19.9						50			
Carbon disulfide	+++++	+++++	-5.3						50			
trans-1,2-Dichloroethene	+++++	9.3						50				
2-Methylpentane	+++++	+++++	-5.3						50			
Methyl tert-butyl ether	+++++	+++++	-16.8						50			
1,1-Dichloroethane	7.1						50					
Vinyl acetate	+++++	+++++	-8.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	17.1						50		
Hexane	+++++	+++++	2.2						50			
cis-1,2-Dichloroethene	+++++	20.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-1.1						50			
Chloroform	+++++	+++++	1.0						50			
Tetrahydrofuran	+++++	+++++	14.8						50			
1,1,1-Trichloroethane	1.6						50					
1,2-Dichloroethane	+++++	0.6						50				
1-Butanol	+++++	+++++	+++++	+++++	-6.4						50	
Cyclohexane	+++++	+++++	+++++	-1.1						50		
Benzene	+++++	6.5						50				
Carbon tetrachloride	6.9						50					
2,3-Dimethylpentane	+++++	+++++	3.9						50			
Thiophene	+++++	+++++	-30.6						50			
2,2,4-Trimethylpentane	+++++	+++++	-7.1						50			
Heptane	+++++	-6.4						50				
1,2-Dichloropropane	+++++	-2.3						50				
Trichloroethene	10.2						50					
Dibromomethane	+++++	+++++	-5.7						50			
Bromodichloromethane	+++++	+++++	-11.9						50			
1,4-Dioxane	+++++	+++++	-4.6						50			
Methyl methacrylate	+++++	+++++	-5.8						50			
Methylcyclohexane	+++++	+++++	-7.9						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-4.2						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	1.0						50				
trans-1,3-Dichloropropene	+++++	3.1						50				
Toluene	+++++	-10.5						50				
1,1,2-Trichloroethane	+++++	-0.2						50				
2-Hexanone	+++++	+++++	-16.3						50			
Octane	+++++	6.7						50				
Dibromochloromethane	+++++	+++++	-20.2						50			
1,2-Dibromoethane (EDB)	+++++	-6.2						50				
Tetrachloroethene	22.8						50					
Chlorobenzene	+++++	-0.5						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	9.0						50					
Nonane	+++++	+++++	-13.3						50			
Bromoform	-3.7		+++++	+++++			50					
Styrene	+++++	-17.0						50				
o-Xylene	18.2						50					
1,1,2,2-Tetrachloroethane	+++++	-10.8						50				
1,2,3-Trichloropropane	+++++	-15.3						50				
Isopropylbenzene	+++++	-0.9						50				
Propylbenzene	+++++	+++++	-16.6	+++++					50			
2-Chlorotoluene	+++++	-9.6		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-6.5		+++++				50				
1,3,5-Trimethylbenzene	+++++	+++++	-9.7	+++++					50			
Alpha Methyl Styrene	-9.7						50					
Decane	+++++	+++++	-6.0						50			
tert-Butylbenzene	+++++	-2.4						50				
1,2,4-Trimethylbenzene	-4.7						50					
sec-Butylbenzene	-1.1			+++++			50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	-8.4						50					
1,4-Dichlorobenzene	-1.7						50					
4-Isopropyltoluene	-1.0			+++++			50					
1,2,3-Trimethylbenzene	-0.9						50					
Indane	-3.3						50					
1,2-Dichlorobenzene	1.1						50					
Indene	+++++	+++++	-15.5						50			
Butylbenzene	-5.4			+++++			50					
Undecane	+++++	+++++	-13.7						50			
1,2-Dibromo-3-Chloropropane	-1.6						50					
1,2,4,5-Tetramethylbenzene	1.1			+++++			50					
Dodecane	+++++	+++++	-14.5						50			
1,2,4-Trichlorobenzene	11.9						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	8.3			+++++			80					
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-7.7						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-6.2						80
1-Methylnaphthalene	+++++	+++++	20.8	+++++					80			

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	3.542		5.18	5.00	3.6	35.0
Propene	Ave	1.896	2.071		5.46	5.00	9.2	35.0
Dichlorodifluoromethane	Ave	3.092	3.735		6.04	5.00	20.8	35.0
Chloromethane	Ave	0.4647	0.3777		4.06	5.00	-18.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	2.321		7.40	5.00	48.0*	35.0
Acetaldehyde	Ave	0.5427	0.5037		23.2	25.0	-7.2	35.0
Vinyl chloride	Ave	1.472	1.341		4.55	5.00	-8.9	35.0
1,3-Butadiene	Ave	1.068	1.015		4.75	5.00	-5.0	35.0
Butane	Ave	2.262	1.962		4.34	5.00	-13.3	35.0
Bromomethane	Ave	1.248	1.179		4.73	5.00	-5.5	35.0
Chloroethane	Ave	0.6025	0.5490		4.56	5.00	-8.9	35.0
Ethanol	Ave	0.5430	0.4856		22.4	25.0	-10.6	35.0
Vinyl bromide	Ave	1.042	1.116		5.36	5.00	7.1	35.0
2-Methylbutane	Ave	1.688	1.513		4.48	5.00	-10.4	35.0
Trichlorofluoromethane	Ave	3.843	4.124		5.37	5.00	7.3	35.0
Acrolein	Ave	0.4757	0.5333		5.61	5.00	12.1	35.0
Acetonitrile	Ave	0.7083	0.7606		5.37	5.00	7.4	35.0
Acetone	Ave	0.6636	0.7723		5.82	5.00	16.4	35.0
Pentane	Ave	0.2541	0.2523		4.96	5.00	-0.7	35.0
Isopropyl alcohol	Ave	2.248	2.935		6.53	5.00	30.6	35.0
Ethyl ether	Ave	2.078	2.328		5.60	5.00	12.0	35.0
1,1-Dichloroethene	Ave	1.376	1.404		5.10	5.00	2.1	35.0
tert-Butyl alcohol	Ave	2.773	3.006		5.42	5.00	8.4	35.0
Acrylonitrile	Ave	1.038	1.193		5.75	5.00	15.0	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.119		5.46	5.00	9.1	35.0
Methylene Chloride	Ave	1.414	1.343		4.75	5.00	-5.0	35.0
3-Chloropropene	Ave	1.574	1.788		5.68	5.00	13.6	35.0
Carbon disulfide	Ave	3.618	3.937		5.44	5.00	8.8	35.0
trans-1,2-Dichloroethene	Ave	1.446	1.596		5.52	5.00	10.3	35.0
2-Methylpentane	Ave	3.837	3.868		5.04	5.00	0.8	35.0
Methyl tert-butyl ether	Ave	3.898	4.304		5.52	5.00	10.4	35.0
1,1-Dichloroethane	Ave	2.742	3.014		5.50	5.00	9.9	35.0
Vinyl acetate	Ave	4.786	5.515		5.76	5.00	15.2	35.0
2-Butanone (MEK)	Ave	0.7340	0.7754		5.28	5.00	5.6	35.0
Hexane	Ave	1.256	1.343		5.35	5.00	7.0	35.0
Isopropyl ether	Ave	5.958	6.713		5.63	5.00	12.7	35.0
cis-1,2-Dichloroethene	Ave	1.638	1.704		5.20	5.00	4.0	35.0
Ethyl acetate	Ave	4.240	4.441		5.24	5.00	4.7	35.0
Chloroform	Ave	3.365	3.675		5.46	5.00	9.2	35.0
Tert-butyl ethyl ether	Ave	4.958	5.140		5.18	5.00	3.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.333		5.51	5.00	10.2	35.0
1,1,1-Trichloroethane	Ave	3.700	3.972		5.37	5.00	7.4	35.0
1,2-Dichloroethane	Ave	0.3848	0.4238		5.51	5.00	10.1	35.0
1-Butanol	Ave	0.1530	0.1709		5.58	5.00	11.7	35.0
Cyclohexane	Ave	0.1272	0.1361		5.35	5.00	7.0	35.0
Benzene	Ave	0.8101	0.8918		5.50	5.00	10.1	35.0
Carbon tetrachloride	Ave	0.6477	0.7173		5.54	5.00	10.7	35.0
2,3-Dimethylpentane	Ave	0.1825	0.1856		5.08	5.00	1.7	35.0
Thiophene	Ave	0.4106	0.4520		5.50	5.00	10.1	35.0
2,2,4-Trimethylpentane	Ave	1.353	1.470		5.43	5.00	8.6	35.0
Heptane	Ave	0.2826	0.3028		5.36	5.00	7.2	35.0
1,2-Dichloropropane	Ave	0.3122	0.3351		5.37	5.00	7.3	35.0
Trichloroethene	Ave	0.3563	0.3770		5.29	5.00	5.8	35.0
Dibromomethane	Ave	0.3305	0.3639		5.51	5.00	10.1	35.0
Bromodichloromethane	Ave	0.5996	0.6536		5.45	5.00	9.0	35.0
1,4-Dioxane	Ave	0.1245	0.1380		5.54	5.00	10.9	35.0
Methyl methacrylate	Ave	0.4444	0.4690		5.28	5.00	5.5	35.0
Methylcyclohexane	Ave	0.4659	0.6130		6.58	5.00	31.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8483		5.35	5.00	6.9	35.0
cis-1,3-Dichloropropene	Ave	0.4681	0.5291		5.65	5.00	13.0	35.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5818		5.85	5.00	16.9	35.0
Toluene	Ave	1.029	1.196		5.81	5.00	16.2	35.0
1,1,2-Trichloroethane	Ave	0.3190	0.3635		5.70	5.00	13.9	35.0
2-Hexanone	Ave	0.3809	0.4521		5.93	5.00	18.7	35.0
Octane	Ave	0.3372	0.3771		5.59	5.00	11.8	35.0
Dibromochloromethane	Ave	0.7076	0.8183		5.78	5.00	15.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6984		5.71	5.00	14.1	35.0
Tetrachloroethene	Ave	0.4203	0.4528		5.39	5.00	7.7	35.0
Chlorobenzene	Ave	0.8559	0.9696		5.66	5.00	13.3	35.0
2,3-Dimethylheptane	Ave	1.280	1.312		5.12	5.00	2.5	35.0
Ethylbenzene	Ave	1.444	1.637		5.67	5.00	13.4	35.0
m-Xylene & p-Xylene	Ave	1.134	1.312		11.6	10.0	15.8	35.0
Nonane	Ave	0.7430	0.8579		5.77	5.00	15.5	35.0
Bromoform	Ave	0.6340	0.8165		6.44	5.00	28.8	35.0
Styrene	Ave	0.7807	0.9149		5.86	5.00	17.2	35.0
o-Xylene	Ave	1.190	1.325		5.57	5.00	11.3	35.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9790		5.84	5.00	16.8	35.0
1,2,3-Trichloropropane	Ave	0.2657	0.3092		5.82	5.00	16.4	35.0
Isopropylbenzene	Ave	1.766	1.978		5.60	5.00	12.0	35.0
Propylbenzene	Ave	0.4491	0.5162		5.75	5.00	15.0	35.0
2-Chlorotoluene	Ave	0.4278	0.4951		5.79	5.00	15.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: ICV 140-32571/16 Calibration Date: 08/13/2019 00:56

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RH12ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.901		5.40	5.00	8.0	35.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.8538		6.36	5.00	27.2	35.0
Alpha Methyl Styrene	Ave	0.6434	0.7499		5.83	5.00	16.5	35.0
Decane	Ave	1.022	1.156		5.65	5.00	13.0	35.0
tert-Butylbenzene	Ave	1.569	1.746		5.56	5.00	11.3	35.0
1,2,4-Trimethylbenzene	Ave	1.555	1.768		5.69	5.00	13.7	35.0
sec-Butylbenzene	Ave	2.233	2.576		5.77	5.00	15.4	35.0
1,3-Dichlorobenzene	Ave	1.059	1.121		5.30	5.00	5.9	35.0
Benzyl chloride	Ave	1.214	1.486		6.12	5.00	22.3	35.0
1,4-Dichlorobenzene	Ave	1.045	1.144		5.47	5.00	9.5	35.0
4-Isopropyltoluene	Ave	1.804	2.001		5.55	5.00	11.0	35.0
1,2,3-Trimethylbenzene	Ave	1.530	1.259		4.11	5.00	-17.7	35.0
Butylcyclohexane	Ave	1.144	1.237		5.40	5.00	8.1	35.0
1,2-Dichlorobenzene	Ave	1.032	1.122		5.44	5.00	8.8	35.0
Indane	Ave	1.389	1.554		5.59	5.00	11.9	35.0
Indene	Ave	1.254	1.203		4.80	5.00	-4.1	35.0
Butylbenzene	Ave	1.857	2.101		5.66	5.00	13.1	35.0
Undecane	Ave	1.206	1.368		5.67	5.00	13.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.4833		4.77	5.00	-4.5	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.855		5.36	5.00	7.2	35.0
Dodecane	Ave	1.172	1.343		5.73	5.00	14.6	35.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.049		5.31	5.00	6.3	35.0
Naphthalene	Ave	2.038	2.209		5.42	5.00	8.4	35.0
Hexachlorobutadiene	Ave	0.9802	1.040		5.30	5.00	6.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.019		5.61	5.00	12.1	35.0
2-Methylnaphthalene	Ave	0.5850	0.8676		7.42	5.00	48.3	50.0
1-Methylnaphthalene	Ave	0.5618	0.8201		7.30	5.00	46.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6901		10.0	10.0	0.0	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab File ID: RBFBH23A.D BFB Injection Date: 08/23/2019

Instrument ID: MR BFB Injection Time: 10:17

Analysis Batch No.: 32868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	59.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	84.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32868/2	RCCVH23A.D	08/23/2019	10:44
	LCS 140-32868/1002	RCCVH23A-LCS .d	08/23/2019	10:44
	MB 140-32868/4	R500BH23.D	08/23/2019	12:46
SV-DUP03-A-27	140-16377-2	RH23P106.D	08/23/2019	18:36
SV-173-A-27 DL	140-16377-3 DL	RH23P107.D	08/23/2019	19:23

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.418	4.013		1.17	1.00	17.4	30.0
Propene	Ave	1.896	2.651		1.40	1.00	39.8*	30.0
Dichlorodifluoromethane	Ave	3.092	4.317		1.40	1.00	39.6*	30.0
Chloromethane	Ave	0.4647	0.7205		1.55	1.00	55.1*	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.568	3.962		2.53	1.00	152.6*	30.0
Acetaldehyde	Ave	0.5427	0.8161		7.52	5.00	50.4*	30.0
Vinyl chloride	Ave	1.472	1.882		1.28	1.00	27.8	30.0
1,3-Butadiene	Ave	1.068	1.367		1.28	1.00	27.9	30.0
Butane	Ave	2.262	2.644		1.17	1.00	16.9	30.0
Bromomethane	Ave	1.248	1.596		1.28	1.00	28.0	30.0
Chloroethane	Ave	0.6025	0.7500		1.24	1.00	24.5	30.0
Ethanol	Ave	0.5430	0.8508		7.83	5.00	56.7*	30.0
Vinyl bromide	Ave	1.042	1.546		1.48	1.00	48.4*	30.0
2-Methylbutane	Ave	1.688	2.162		1.28	1.00	28.1	30.0
Trichlorofluoromethane	Ave	3.843	4.113		1.07	1.00	7.1	30.0
Acrolein	Ave	0.4757	0.5164		1.09	1.00	8.5	30.0
Acetonitrile	Ave	0.7083	0.7059		0.997	1.00	-0.3	30.0
Acetone	Ave	0.6636	0.6776		3.06	3.00	2.1	30.0
Isopropyl alcohol	Ave	2.248	2.377		3.17	3.00	5.8	30.0
Pentane	Ave	0.2541	0.2671		1.05	1.00	5.1	30.0
Ethyl ether	Ave	2.078	2.009		0.967	1.00	-3.3	30.0
1,1-Dichloroethene	Ave	1.376	1.438		1.05	1.00	4.5	30.0
Acrylonitrile	Ave	1.038	1.161		1.12	1.00	11.9	30.0
tert-Butyl alcohol	Ave	2.773	2.911		1.05	1.00	5.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.859	3.274		1.15	1.00	14.5	30.0
Methylene Chloride	Ave	1.414	1.470		1.04	1.00	4.0	30.0
3-Chloropropene	Ave	1.574	1.752		1.11	1.00	11.3	30.0
Carbon disulfide	Ave	3.618	3.990		1.10	1.00	10.3	30.0
trans-1,2-Dichloroethene	Ave	1.446	1.655		1.14	1.00	14.4	30.0
2-Methylpentane	Ave	3.837	4.275		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	3.898	4.292		1.10	1.00	10.1	30.0
1,1-Dichloroethane	Ave	2.742	2.920		1.06	1.00	6.5	30.0
Vinyl acetate	Ave	4.786	5.031		1.05	1.00	5.1	30.0
2-Butanone (MEK)	Ave	0.7340	0.7329		0.998	1.00	-0.2	30.0
Hexane	Ave	1.256	1.323		1.05	1.00	5.4	30.0
Isopropyl ether	Ave	5.958	6.572		1.10	1.00	10.3	30.0
cis-1,2-Dichloroethene	Ave	1.638	1.730		1.06	1.00	5.7	30.0
Ethyl acetate	Ave	4.240	4.657		1.10	1.00	9.8	30.0
Chloroform	Ave	3.365	3.682		1.09	1.00	9.4	30.0
Tert-butyl ethyl ether	Ave	4.958	5.548		1.12	1.00	11.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	2.117	2.269		1.07	1.00	7.2	30.0
1,1,1-Trichloroethane	Ave	3.700	3.860		1.04	1.00	4.3	30.0
1,2-Dichloroethane	Ave	0.3848	0.4292		1.12	1.00	11.5	30.0
1-Butanol	Ave	0.1530	0.1439		0.941	1.00	-5.9	30.0
Benzene	Ave	0.8101	0.8735		1.08	1.00	7.8	30.0
Cyclohexane	Ave	0.1272	0.1296		1.02	1.00	1.9	30.0
Carbon tetrachloride	Ave	0.6477	0.6915		1.07	1.00	6.8	30.0
2,3-Dimethylpentane	Ave	0.1825	0.1897		1.04	1.00	3.9	30.0
Thiophene	Ave	0.4106	0.4703		1.15	1.00	14.5	30.0
2,2,4-Trimethylpentane	Ave	1.353	1.427		1.05	1.00	5.5	30.0
Heptane	Ave	0.2826	0.2937		1.04	1.00	3.9	30.0
1,2-Dichloropropane	Ave	0.3122	0.3224		1.03	1.00	3.3	30.0
Trichloroethene	Ave	0.3563	0.3651		1.02	1.00	2.5	30.0
Dibromomethane	Ave	0.3305	0.3596		1.09	1.00	8.8	30.0
Bromodichloromethane	Ave	0.5996	0.6121		1.02	1.00	2.1	30.0
1,4-Dioxane	Ave	0.1245	0.1308		1.05	1.00	5.0	30.0
Methyl methacrylate	Ave	0.4444	0.4422		0.995	1.00	-0.5	30.0
Methylcyclohexane	Ave	0.4659	0.4814		1.03	1.00	3.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7933	0.8063		1.02	1.00	1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4681	0.4727		1.01	1.00	1.0	30.0
trans-1,3-Dichloropropene	Ave	0.4975	0.5236		1.05	1.00	5.2	30.0
Toluene	Ave	1.029	1.143		1.11	1.00	11.1	30.0
1,1,2-Trichloroethane	Ave	0.3190	0.3465		1.09	1.00	8.6	30.0
2-Hexanone	Ave	0.3809	0.4023		1.06	1.00	5.6	30.0
Octane	Ave	0.3372	0.3401		1.01	1.00	0.9	30.0
Dibromochloromethane	Ave	0.7076	0.6900		0.975	1.00	-2.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.6120	0.6633		1.08	1.00	8.4	30.0
Tetrachloroethene	Ave	0.4203	0.4089		0.973	1.00	-2.7	30.0
Chlorobenzene	Ave	0.8559	0.9126		1.07	1.00	6.6	30.0
2,3-Dimethylheptane	Ave	1.280	1.433		1.12	1.00	12.0	30.0
Ethylbenzene	Ave	1.444	1.493		1.03	1.00	3.4	30.0
m-Xylene & p-Xylene	Ave	1.134	1.282		2.26	2.00	13.1	30.0
Nonane	Ave	0.7430	0.7806		1.05	1.00	5.1	30.0
Bromoform	Ave	0.6340	0.6701		1.06	1.00	5.7	30.0
Styrene	Ave	0.7807	0.8205		1.05	1.00	5.1	30.0
o-Xylene	Ave	1.190	1.262		1.06	1.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8384	0.9700		1.16	1.00	15.7	30.0
1,2,3-Trichloropropane	Ave	0.2657	0.3011		1.13	1.00	13.3	30.0
Isopropylbenzene	Ave	1.766	1.944		1.10	1.00	10.1	30.0
Propylbenzene	Ave	0.4491	0.4954		1.10	1.00	10.3	30.0
2-Chlorotoluene	Ave	0.4278	0.4844		1.13	1.00	13.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Lab Sample ID: CCVIS 140-32868/2 Calibration Date: 08/23/2019 10:44

Instrument ID: MR Calib Start Date: 08/12/2019 13:33

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/12/2019 23:20

Lab File ID: RCCVH23A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.760	1.977		1.12	1.00	12.3	30.0
1,3,5-Trimethylbenzene	Ave	0.6711	0.7472		1.11	1.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.6434	0.7031		1.09	1.00	9.3	30.0
Decane	Ave	1.022	1.187		1.16	1.00	16.1	30.0
tert-Butylbenzene	Ave	1.569	1.717		1.09	1.00	9.4	30.0
1,2,4-Trimethylbenzene	Ave	1.555	1.724		1.11	1.00	10.9	30.0
sec-Butylbenzene	Ave	2.233	2.520		1.13	1.00	12.9	30.0
1,3-Dichlorobenzene	Ave	1.059	1.156		1.09	1.00	9.1	30.0
Benzyl chloride	Ave	1.214	1.335		1.10	1.00	9.9	30.0
1,4-Dichlorobenzene	Ave	1.045	1.168		1.12	1.00	11.7	30.0
4-Isopropyltoluene	Ave	1.804	2.052		1.14	1.00	13.8	30.0
1,2,3-Trimethylbenzene	Ave	1.530	1.740		1.14	1.00	13.7	30.0
Butylcyclohexane	Ave	1.144	1.381		1.21	1.00	20.7	30.0
1,2-Dichlorobenzene	Ave	1.032	1.100		1.07	1.00	6.6	30.0
Indane	Ave	1.389	1.548		1.11	1.00	11.4	30.0
Indene	Ave	1.254	1.353		1.08	1.00	7.9	30.0
Butylbenzene	Ave	1.857	2.118		1.14	1.00	14.1	30.0
Undecane	Ave	1.206	1.399		1.16	1.00	16.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5062	0.5063		1.00	1.00	0.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.731	1.945		1.12	1.00	12.4	30.0
Dodecane	Ave	1.172	1.376		1.17	1.00	17.4	30.0
1,2,4-Trichlorobenzene	Ave	0.9872	1.086		1.10	1.00	10.0	30.0
Naphthalene	Ave	2.038	2.273		1.12	1.00	11.5	30.0
Hexachlorobutadiene	Ave	0.9802	1.020		1.04	1.00	4.0	30.0
1,2,3-Trichlorobenzene	Ave	0.9084	1.013		1.11	1.00	11.5	30.0
2-Methylnaphthalene	Ave	0.5850	0.7829		1.34	1.00	33.8	50.0
1-Methylnaphthalene	Ave	0.5618	0.7595		1.35	1.00	35.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6896	0.6510		3.78	4.00	-5.6	30.0

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-31858/15 Date Analyzed: 07/20/2019 05:37

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JG19IC07.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285692	9.73	1484056	11.84	1253354	16.45
UPPER LIMIT		399969	10.06	2077678	12.17	1754696	16.78
LOWER LIMIT		171415	9.40	890434	11.51	752012	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31858/30		274664	9.73	1422205	11.84	1231744	16.46

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32828/2 Date Analyzed: 08/20/2019 09:08

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH20.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		253683	9.73	1303711	11.84	1153268	16.45
UPPER LIMIT		355156	10.06	1825195	12.17	1614575	16.78
LOWER LIMIT		152210	9.40	782227	11.51	691961	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32828/1002		253683	9.73	1303711	11.84	1153268	16.45
MB 140-32828/4		274886	9.73	1397265	11.83	1208366	16.44
140-16377-1	SV-116-A-27	215665	9.73	1104443	11.83	955661	16.45
140-16377-20	SV-101-B-27	294498	9.72	1486019	11.84	1206295	16.45
140-16377-9	SV-079-A-27	240640	9.72	1202153	11.84	1002767	16.45
140-16377-10	SV-DUP04-A-27	217248	9.73	1094915	11.83	926637	16.44
140-16377-11	SV-139-A-27	203135	9.73	1066461	11.83	911430	16.44
140-16377-12	SV-118-A-27	189851	9.73	979666	11.84	839932	16.45
140-16377-13	SV-015-A-27	253233	9.74	1238002	11.84	1007401	16.45
140-16377-14	SV-078-A-27	175215	9.72	899727	11.83	762309	16.44
140-16377-15	SV-136-A-27	257272	9.73	1257055	11.84	1072869	16.44
140-16377-16	SV-076-A-27	260393	9.75	1273864	11.85	1060863	16.45
140-16377-17	SV-168-A-27	191677	9.72	977491	11.84	848051	16.45
140-16377-18	SV-075-A-27	182024	9.72	932399	11.84	794687	16.45
140-16377-19	SV-100-B-27	183940	9.72	948992	11.83	807505	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32829/2 Date Analyzed: 08/21/2019 09:44

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH21.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199329	9.73	1060369	11.84	927535	16.45
UPPER LIMIT		279061	10.06	1484517	12.17	1298549	16.78
LOWER LIMIT		119597	9.40	636221	11.51	556521	16.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32829/1002		199329	9.73	1060369	11.84	927535	16.45
MB 140-32829/4		253739	9.72	1276524	11.83	1050767	16.45
140-16377-3	SV-173-A-27	248279	9.73	1271047	11.84	1086251	16.45
140-16377-5	SV-171-A-27	179281	9.72	915860	11.83	787797	16.45
140-16377-12 DL	SV-118-A-27 DL	188742	9.72	1009542	11.84	850532	16.45
140-16377-15 DL	SV-136-A-27 DL	161066	9.73	793410	11.83	656566	16.44
140-16377-4	SV-138-A-27	186557	9.72	957545	11.83	785208	16.45
140-16377-6	SV-174-A-27	187226	9.73	960719	11.84	828103	16.45
140-16377-7	SV-093-A-27	178833	9.73	947448	11.83	809865	16.44
140-16377-8	SV-170-A-27	243075	9.73	1247288	11.84	1034214	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32985/2 Date Analyzed: 08/27/2019 08:11

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVH27.D Heated Purge: (Y/N) N

Calibration ID: 2054

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		238218	9.73	1260984	11.83	1074888	16.44
UPPER LIMIT		333505	10.06	1765378	12.16	1504843	16.77
LOWER LIMIT		142931	9.40	756590	11.50	644933	16.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32985/1002		238218	9.73	1260984	11.83	1074888	16.44
MB 140-32985/4		259379	9.72	1342867	11.83	1080755	16.45
140-16377-6 DL	SV-174-A-27 DL	222191	9.72	1103557	11.84	888773	16.45

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: ICIS 140-32571/13 Date Analyzed: 08/12/2019 22:32

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RH12IC07.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		316194	8.55	1831413	10.78	1574740	15.58
UPPER LIMIT		442672	8.88	2563978	11.11	2204636	15.91
LOWER LIMIT		189716	8.22	1098848	10.45	944844	15.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32571/16		280567	8.54	1667707	10.78	1428519	15.58

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Sample No.: CCVIS 140-32868/2 Date Analyzed: 08/23/2019 10:44

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVH23A.D Heated Purge: (Y/N) N

Calibration ID: 2089

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214839	8.54	1262239	10.77	1055014	15.57
UPPER LIMIT		300775	8.87	1767135	11.10	1477020	15.90
LOWER LIMIT		128903	8.21	757343	10.44	633008	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32868/1002		214839	8.54	1262239	10.77	1055014	15.57
MB 140-32868/4		229492	8.54	1275766	10.77	1067734	15.57
140-16377-2	SV-DUP03-A-27	224616	8.53	1245944	10.77	1042831	15.57
140-16377-3 DL	SV-173-A-27 DL	203774	8.54	1199615	10.77	964694	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

Summa Canister Dilution Worksheet

Client: Tetra Tech, Inc.

Job No.: 140-16377-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-16377-3	1	-4.4	0.85	0.85	31.0	3.11	3.11		3.64	3.64	08/23/19 11:36	Taj, Holly M
140-16377-6	1	-3.9	0.87	0.87	32.9	3.24	3.24		3.72	3.72	08/21/19 13:50	Knight, Benjamin K

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

LOCKHEED MARTIN CORPORATION (LMC) - MIDDLE RIVER COMPLEX (MRC)
SDG 140-16377-1

SAMPLE IDENTIFICATION	SV-173-A-27		
COMPOUND	TRICHLOROETHENE	MW =	131.39
		GAS CONSTANT =	24.45
COMPOUND AREA	1104497		
INTERNAL STANDARD AMOUNT (ppbv)	4		
CALIBRATION VOLUME (mL)	500		
DILUTION FACTOR	3.64		
INTERNAL STANDARD AREA	1199615		
AVERAGE RRF	0.3563		
SAMPLE VOLUME (mL)	10		

1881.21 ppbv
10109.31 µg/m³

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	1900		7.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1

SDG No.:

Client Sample ID: SV-173-A-27 DL Lab Sample ID: 140-16377-3 DL

Matrix: Air Lab File ID: RH23P107.D

Analysis Method: TO 15 LL Date Collected: 08/15/2019 11:00

Sample wt/vol: 10(mL) Date Analyzed: 08/23/2019 19:23

Soil Aliquot Vol: Dilution Factor: 3.64

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32868 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	10000	✓	39	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\RH23P107.D				
Lims ID:	140-16377-A-3				
Client ID:	SV-173-A-27				
Sample Type:	Client				
Inject. Date:	23-Aug-2019 19:23:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	3.6400		
Sample Info:	140-0012811-012				
Misc. Info.:	140-16377-a-3@3.64				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190821-12811.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Aug-2019 14:08:33	Calib Date:	12-Aug-2019 23:20:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190812-12700.b\RH12IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0306				
First Level Reviewer: khachitpongpanits		Date:	26-Aug-2019 14:10:06		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.539	0.000	97	203774	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.771	0.000	95	1199615	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.570	0.000	89	964694	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.231	-0.016	95	581504	3.50	
27 1,1-Dichloroethene	96	5.621	5.618	0.000	97	82226	1.17	
31 Methylene Chloride	84	5.966	5.966	0.000	97	18020	0.2502	
34 trans-1,2-Dichloroethene	96	6.775	6.776	-0.006	6	788	0.0107	
37 1,1-Dichloroethane	63	7.212	7.208	0.000	98	11178	0.0800	
42 cis-1,2-Dichloroethene	96	8.199	8.199	-0.005	94	30247	0.3626	
44 Chloroform	83	8.549	8.555	0.000	28	4725	0.0276	
58 Trichloroethene	130	11.499	11.499	0.000	96	1104497	10.3	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16377-1 Analy Batch No.: 32571

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/12/2019 13:33 Calibration End Date: 08/12/2019 23:20 Calibration ID: 2089

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2475	+++++ 1.2622	1.2831 1.2466	1.4080 1.2340	1.1711 1.1953	Ave		1.2560				5.7		30.0			
cis-1,2-Dichloroethene	+++++ 1.5984	1.9801 1.5895	1.8115 1.5776	1.5430 1.5799	1.5632 1.4949	Ave		1.6376				9.5		30.0			
Ethyl acetate	+++++ 4.3115	+++++ 4.2907	4.1946 4.3430	4.2279 4.3184	4.1576 4.0782	Ave		4.2403				2.2		30.0			
Chloroform	+++++ 3.3130	+++++ 3.3374	3.3999 3.3960	3.5049 3.4139	3.2921 3.2599	Ave		3.3646				2.4		30.0			
Tetrahydrofuran	+++++ 2.1402	+++++ 2.1305	2.4307 2.1317	2.0164 2.0878	2.0299 1.9718	Ave		2.1174				6.7		30.0			
1,1,1-Trichloroethane	3.7588 3.6840	4.1502 3.6680	3.5805 3.7050	3.5695 3.7962	3.4016 3.6852	Ave		3.6999				5.2		30.0			
1,2-Dichloroethane	+++++ 0.3890	0.3870 0.3844	0.3949 0.4027	0.3545 0.4046	0.3431 0.4032	Ave		0.3848				5.7		30.0			
1-Butanol	+++++ 0.1377	+++++ 0.1537	+++++ 0.1608	+++++ 0.1603	0.1433 0.1622	Ave		0.1530				6.7		30.0			
Cyclohexane	+++++ 0.1227	+++++ 0.1238	+++++ 0.1304	0.1258 0.1307	0.1228 0.1343	Ave		0.1272				3.6		30.0			
Benzene	+++++ 0.7699	0.8627 0.7964	0.7382 0.8231	0.8355 0.8571	0.7640 0.8439	Ave		0.8101				5.5		30.0			
Carbon tetrachloride	0.6921 0.6424	0.5659 0.6565	0.5394 0.7081	0.6062 0.7481	0.5643 0.7539	Ave		0.6477				12.0		30.0			
2,3-Dimethylpentane	+++++ 0.1796	+++++ 0.1844	0.1897 0.1852	0.1725 0.1887	0.1651 0.1948	Ave		0.1825				5.3		30.0			
Thiophene	+++++ 0.4304	+++++ 0.4385	0.2850 0.4458	0.3783 0.4485	0.3941 0.4641	Ave		0.4106				14.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.3256	+++++ 1.3667	1.2577 1.4044	1.2900 1.4297	1.2842 1.4686	Ave		1.3533				5.6		30.0			
Heptane	+++++ 0.2785	0.2645 0.2810	0.2806 0.2972	0.2607 0.3039	0.2627 0.3146	Ave		0.2826				6.8		30.0			
1,2-Dichloropropane	+++++ 0.2988	0.3049 0.3111	0.3347 0.3232	0.2822 0.3326	0.2801 0.3421	Ave		0.3122				7.3		30.0			
Trichloroethene	0.3926 0.3595	0.3251 0.3454	0.3427 0.3698	0.3189 0.3852	0.3293 0.3941	Ave		0.3563				7.9		30.0			
Dibromomethane	+++++ 0.3201	+++++ 0.3237	0.3115 0.3440	0.3265 0.3610	0.2912 0.3659	Ave		0.3305				7.6		30.0			
Bromodichloromethane	+++++ 0.5860	+++++ 0.5907	0.5280 0.6414	0.5464 0.6860	0.5264 0.6919	Ave		0.5996				11.2		30.0			
1,4-Dioxane	+++++ 0.1205	+++++ 0.1262	0.1188 0.1355	0.1211 0.1332	0.1089 0.1320	Ave		0.1245				7.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **OCTOBER 28, 2019**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 140-16893-1

SAMPLES: 7 / Air / VOC

IA-015-A-27-RS	IA-018-A-27-RS	IA-021-A-27-RS
IA-079-A-27-RS	IA-117-A-27-RS	IA-136-A-27-RS
IA-168-A-27-RS		

OVERVIEW

The sample set for LMC – MRC, SDG 140-16893-1, consists of seven (7) indoor air (IA) environmental samples. All samples were analyzed for select volatile organic compounds (VOCs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on October 2, 2019 and analyzed by Eurofins TestAmerica. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, internal standard areas, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The initial calibration performed on 09/24/19 through 09/25/19 on instrument MH had a percent relative standard deviation (%RSD) that was greater than the 30% quality control limit for methylene chloride. Samples IA-015-A-27-RS, IA-168-A-27-RS, IA-021-A-27-RS, IA-136-A-27-RS, IA-117-A-27-RS, and IA-079-A-27-RS were associated with this calibration. Detected methylene chloride results in the associated samples that were not qualified as non-detected due to blank contamination were qualified as estimated (J) on this basis.

- The initial calibration performed on 09/03/19 through 09/04/19 on instrument MR had a %RSD that was greater than the 30% quality control limit for methylene chloride. Sample IA-018-A-27-R was associated with this calibration. The detected methylene chloride result in the associated sample was qualified as estimated (J) on this basis.

- The following contaminant was detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Methylene chloride	0.666 ug/m$^{3(1)}$	< RL
Methylene chloride	0.724 ug/m$^{3(2)}$	< RL

1 – Maximum concentration detected in method blank associated with batch 140-34203 affecting samples IA-015-A-27-RS, IA-168-A-27-RS, IA-021-A-27-RS, IA-136-A-27-RS, IA-117-A-27-RS, and IA-079-A-27-RS.
2 – Maximum concentration detected in method blank associated with batch 140-34104 affecting sample IA-018-A-27-RS.

Detected results for methylene chloride less than the RL in the associated samples were qualified as non-detected (U). Detections greater than the RL for methylene chloride were qualified as estimated, (J) as potential laboratory but not definitive contamination.

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Twenty-five VOC target compounds were reported for the TO-15 analysis of the samples.

Non-detected results were reported to the MDL.

The data reviewer observed that the method detection limit for naphthalene was higher than the reporting limit on the sample form Is. No action was noted but this item is noted for completeness.

The continuing calibration performed on 10/09/19 at 11:20 on instrument MG had a percent difference (%D) for dichlorodifluoromethane that was greater than the 30% quality control limit. Although samples IA-015-A-27-RS, IA-168-A-27-RS, IA-021-A-27-RS, IA-136-A-27-RS, IA-117-A-27-RS, and IA-079-A-27-RS were associated with this calibration, only the results for 1,2,4-trichlorobenzene were reported from this analysis. Therefore, no qualification was necessary.

EXECUTIVE SUMMARY

Laboratory Performance: Some VOC results were qualified due to calibration noncompliance. Several results were qualified as non-detected due to laboratory method blank contamination.

Other Factors Affecting Data Quality: Results above the MDL but below the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Organic Superfund Methods Data Review” (January 2017) and USEPA Method TO-15 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Leigh A. Ciofani

Tetra Tech, Inc.
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08388	NSAMPLE	IA-015-A-27-RS			IA-018-A-27-RS			IA-021-A-27-RS			IA-079-A-27-RS		
SDG: 140-16893-1	LAB_ID	140-16893-2			140-16893-1			140-16893-4			140-16893-7		
FRACTION: OV-M3	SAMP_DATE	10/2/2019			10/2/2019			10/2/2019			10/2/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		0.2	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.038	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.12	J	P	0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		1.2			0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.18	J	P	0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		0.47	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.59			0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.065	J	P	0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.2	J	P	0.54	U		0.54	U	
BENZENE		0.88	J	P	0.78			0.47	J	P	0.54	J	P
CARBON TETRACHLORIDE		0.39	J	P	0.47	J	P	0.45	J	P	0.48	J	P
CHLORODIFLUOROMETHANE		2.1			1.2			1.7			1.7		
CHLOROFORM		0.43	J	P	0.43			0.21	J	P	0.29	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.95			0.2	U		0.25	J	P
DICHLORODIFLUOROMETHANE		2.3			1.1			2.4			2.5		
ETHYLBENZENE		0.82	J	P	0.51			0.48	J	P	0.47	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.19	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		5.4	U	A	2.1	J	AC	4.6	U	A	9.1	J	AC
NAPHTHALENE		2	U		9.2			2	U		2	U	
TETRACHLOROETHENE		0.4	J	P	0.35	J	P	0.28	J	P	0.29	J	P
TOLUENE		24			3.3			3.6			6.9		
TOTAL XYLENES		4.3			2.3			2.3	J	P	2.7	J	P
TRANS-1,2-DICHLOROETHENE		0.14	U		0.028	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		2.5			0.16	U		0.45	J	P
VINYL CHLORIDE		0.33	U		0.066	U		0.33	U		0.78		

PROJ_NO: 08388	NSAMPLE	IA-117-A-27-RS			IA-136-A-27-RS			IA-168-A-27-RS		
SDG: 140-16893-1	LAB_ID	140-16893-6			140-16893-5			140-16893-3		
FRACTION: OV-M3	SAMP_DATE	10/2/2019			10/2/2019			10/2/2019		
MEDIA: AIR	QC_TYPE	NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS									
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROETHANE		0.14	U		0.14	U		0.14	U	
1,1-DICHLOROETHENE		0.16	U		0.16	U		0.16	U	
1,2,3-TRIMETHYLBENZENE		0.88	U		0.88	U		0.88	U	
1,2,4-TRICHLOROBENZENE		2.4	U		2.4	U		2.4	U	
1,2,4-TRIMETHYLBENZENE		0.49	U		0.49	U		0.49	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U	
1,3,5-TRIMETHYLBENZENE		0.54	U		0.54	U		0.54	U	
BENZENE		0.5	J	P	0.47	J	P	0.54	J	P
CARBON TETRACHLORIDE		0.44	J	P	0.46	J	P	0.45	J	P
CHLORODIFLUOROMETHANE		1.6			1.7			1.5		
CHLOROFORM		0.29	J	P	0.24	J	P	0.21	J	P
CIS-1,2-DICHLOROETHENE		0.2	U		0.2	U		0.2	U	
DICHLORODIFLUOROMETHANE		2.4			2.5			2.5		
ETHYLBENZENE		0.45	J	P	0.37	J	P	0.57	J	P
METHYL TERT-BUTYL ETHER		0.94	U		0.94	U		0.94	U	
METHYLENE CHLORIDE		4.2	U	A	5.2	U	A	3.8	U	A
NAPHTHALENE		2	U		2	U		2	U	
TETRACHLOROETHENE		0.28	J	P	0.29	J	P	0.29	J	P
TOLUENE		8.9			4.4			13		
TOTAL XYLENES		2.7	J	P	1.8	J	P	3.2	J	P
TRANS-1,2-DICHLOROETHENE		0.14	U		0.14	U		0.14	U	
TRICHLOROETHENE		0.16	U		0.16	U		0.16	U	
VINYL CHLORIDE		0.33	U		0.33	U		0.33	U	

Appendix B

Results as Reported by the Laboratory

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.28	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.062	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.58		0.40	0.11
67-66-3	Chloroform	119.38	0.087	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.19	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.059	J	0.40	0.035
108-88-3	Toluene	92.14	6.3		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.99		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: HJ08p101.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.88	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.39	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.1		1.4	0.39
67-66-3	Chloroform	119.38	0.43	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.82	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.4	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.40	J	2.7	0.24
108-88-3	Toluene	92.14	24		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.3		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-015-A-27-RS Lab Sample ID: 140-16893-2

Matrix: Air Lab File ID: GJ09p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:35

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.34		0.080	0.022
67-66-3	Chloroform	119.38	0.087		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.24		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	0.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.030	J	0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.016	J	0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.31		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.12		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.61	B	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	1.8		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.052	J	0.080	0.0070
108-88-3	Toluene	92.14	0.89		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.46		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.037	J	0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.041	J	0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	0.52		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.78		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	0.47	J	0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	1.2		0.28	0.078
67-66-3	Chloroform	119.38	0.43		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	0.95		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	1.1		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	0.12	J	0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	0.065	J	0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	1.2		0.32	0.032
100-41-4	Ethylbenzene	106.17	0.51		0.35	0.056
75-09-2	Methylene Chloride	84.93	2.1	B	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	9.2		0.21	0.40
127-18-4	Tetrachloroethene	165.83	0.35	J	0.54	0.047
108-88-3	Toluene	92.14	3.3		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	2.5		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.59		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	J	0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	2.3		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.071	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.042	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.3	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.041	J	0.40	0.035
108-88-3	Toluene	92.14	0.96		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.54	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: HJ08p103.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.48	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	3.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-021-A-27-RS Lab Sample ID: 140-16893-4

Matrix: Air Lab File ID: GJ09p107.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:46

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.076	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.060	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.063	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.6	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	1.8		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.085	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.31		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.62	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: HJ08p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.48	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.25	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.47	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.1	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	6.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.45	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.78		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-079-A-27-RS Lab Sample ID: 140-16893-7

Matrix: Air Lab File ID: GJ09p110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:56

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.16	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.46		0.40	0.11
67-66-3	Chloroform	119.38	0.059	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.48		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.10	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.2	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	2.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.63	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: HJ08p105.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 19:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.50	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.39
67-66-3	Chloroform	119.38	0.29	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.45	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.28	J	2.7	0.24
108-88-3	Toluene	92.14	8.9		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.7	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-117-A-27-RS Lab Sample ID: 140-16893-6

Matrix: Air Lab File ID: GJ09p109.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:53

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 21:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.15	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.073	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.47		0.40	0.11
67-66-3	Chloroform	119.38	0.049	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.086	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.5	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.042	J	0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.42	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: HJ08p104.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.47	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.46	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	0.24	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.37	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	4.4		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-136-A-27-RS Lab Sample ID: 140-16893-5

Matrix: Air Lab File ID: GJ09p108.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:50

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.17	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.072	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.11
67-66-3	Chloroform	119.38	0.043	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.50		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.1	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.043	J	0.40	0.035
108-88-3	Toluene	92.14	3.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.74	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: HJ08p102.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/08/2019 16:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.54	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.45	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.5		1.4	0.39
67-66-3	Chloroform	119.38	0.21	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.57	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	3.8	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.29	J	2.7	0.24
108-88-3	Toluene	92.14	13		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-168-A-27-RS Lab Sample ID: 140-16893-3

Matrix: Air Lab File ID: GJ09p106.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:43

Sample wt/vol: 100(mL) Date Analyzed: 10/09/2019 19:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

Appendix C

Support Documentation

Job Narrative
140-16893-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 140-16893-1
Project/Site: Middle River - MRC

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Middle River - MRC

Job ID: 140-16893-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech, Inc.
Job ID: 140-16893-1
Project/Site: Middle River - MRC

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16893-1	IA-018-A-27-RS	Air	10/02/19 15:31	10/03/19 09:30	Air Canister (6-Liter) #10190
140-16893-2	IA-015-A-27-RS	Air	10/02/19 15:35	10/03/19 09:30	Air Canister (6-Liter) #10210
140-16893-3	IA-168-A-27-RS	Air	10/02/19 15:43	10/03/19 09:30	Air Canister (6-Liter) #11997
140-16893-4	IA-021-A-27-RS	Air	10/02/19 15:46	10/03/19 09:30	Air Canister (6-Liter) #10069
140-16893-5	IA-136-A-27-RS	Air	10/02/19 15:50	10/03/19 09:30	Air Canister (6-Liter) #11561
140-16893-6	IA-117-A-27-RS	Air	10/02/19 15:53	10/03/19 09:30	Air Canister (6-Liter) #11696
140-16893-7	IA-079-A-27-RS	Air	10/02/19 15:56	10/03/19 09:30	Air Canister (6-Liter) #10369

Baltimore #201

Canister Samples Chain of Custody Record

140-16893 Chain of Custody

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Martin	Samples Collected By: Mullis/O'Brien	COC No: 1 of 1 COCs
Company Name: TETRA TECH INC	Phone: 301-528-3021		
Address: 20251 Century Blvd. Ste. 200	Email: mike.martin@tetratech.com		
City/State/Zip: Germantown, MD, 20874			For Lab Use Only:
Phone: 410-279-2700	Site Contact: Josh Mullis		Walk-in Client:
FAX: —	Tel/Fax 410-279-2700		Lab Sampling:
Project Name: MRC Indoor Air - Rush	Analysis Turnaround Time		
Site/Location: MRC Building A	Standard (Specific):		Job / SDG No.:
P O #	Rush (Specifiy): 5DAY TAT		(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IA-018-A-27-RS	10/2/19	0722	10/2/19	1531	-32	-4	10145	10190		X							X						
IA-015-A-27-RS		0728		1535	-26	2	11648	10210		X							X						
IA-168-A-27-RS		0743		1543	-30	-5	11272	11997		X							X						
IA-021-A-27-RS		0746		1546	-29	-3	11512	10069		X							X						
IA-176-A-27-RS		0750		1550	-30	-3	11238	11561		X							X						
IA-117-A-27-RS		0753		1553	-28	1	11260	11696		X							X						
IA-079-A-27-RS		0756		1556	-30	4	11815	10369		X							X						
					10/2/19																		

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ ambient, 2 boxes, Fedex Po trk# 7764 4701 0313, Custody seal intact 4700 9401 RT: 20.0° CT: 20.0°
KW 10/3/19

Special Instructions/QC Requirements & Comments: MRC Building A Emergency Resample 10/2/19

Samples Shipped by:	Date / Time: 10/2/19 1645	Samples Received by:	10/2/19 1645
Samples Relinquished by:	Date / Time: 10/2/19 1700	Received by: ETA 10/3/19 0930	
Relinquished by:	Date / Time:	Received by:	10 cans, 10 flows

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16893

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sample Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400245 PM Instructions: _____

Sample Receiving Associate: Ken Wilson Date: 10/3/19

QA026R32.doc, 062719

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
IA-018-A-27-RS	140-16893-1	98
IA-015-A-27-RS	140-16893-2	105
IA-015-A-27-RS	140-16893-2	94
IA-168-A-27-RS	140-16893-3	102
IA-168-A-27-RS	140-16893-3	94
IA-021-A-27-RS	140-16893-4	103
IA-021-A-27-RS	140-16893-4	93
IA-136-A-27-RS	140-16893-5	102
IA-136-A-27-RS	140-16893-5	94
IA-117-A-27-RS	140-16893-6	105
IA-117-A-27-RS	140-16893-6	96
IA-079-A-27-RS	140-16893-7	105
IA-079-A-27-RS	140-16893-7	94
	MB 140-34104/5	98
	MB 140-34203/7	91
	MB 140-34215/4	102
	LCS 140-34104/1002	106
	LCS 140-34203/1002	102
	LCS 140-34215/1002	106

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GJ09MB500.D Lab Sample ID: MB 140-34215/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 10/09/2019 13:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019 11:20
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019 18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019 19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019 19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019 20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019 21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019 21:59

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34215/4

Matrix: Air Lab File ID: GJ09MB500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/09/2019 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34215 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVJ09-LCS.d

Lab ID: LCS 140-34215/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,2,4-Trichlorobenzene	4.00	3.99	100	60-140	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08mb500.D Lab Sample ID: MB 140-34203/7

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MH Date Analyzed: 10/08/2019 13:54

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019 15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019 16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019 17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019 18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019 19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019 20:09

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.192	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34203/7

Matrix: Air Lab File ID: HJ08mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/08/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34203 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.666	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: HJ08CCVISA-LCS.d

Lab ID: LCS 140-34203/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.78	89	70-130	
Carbon tetrachloride	2.00	1.73	87	70-130	
Chlorodifluoromethane	2.00	2.03	102	60-140	
Chloroform	2.00	1.82	91	70-130	
cis-1,2-Dichloroethene	2.00	1.71	86	70-130	
Dichlorodifluoromethane	2.00	1.95	98	60-140	
1,1-Dichloroethane	2.00	1.80	90	70-130	
1,2-Dichloroethane	2.00	1.78	89	70-130	
1,1-Dichloroethene	2.00	1.73	86	70-130	
Ethylbenzene	2.00	1.85	92	70-130	
Methylene Chloride	2.00	1.49	75	70-130	
Methyl tert-butyl ether	2.00	2.09	105	60-140	
Naphthalene	2.00	2.07	104	60-140	
Tetrachloroethene	2.00	1.86	93	70-130	
Toluene	2.00	1.84	92	70-130	
trans-1,2-Dichloroethene	2.00	1.79	90	70-130	
1,1,1-Trichloroethane	2.00	1.81	91	70-130	
1,1,2-Trichloroethane	2.00	1.92	96	70-130	
Trichloroethene	2.00	1.82	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.00	100	70-130	
1,2,4-Trimethylbenzene	2.00	2.03	102	70-130	
1,3,5-Trimethylbenzene	2.00	1.94	97	70-130	
Vinyl chloride	2.00	2.16	108	70-130	
Xylenes, Total	6.00	5.73	96	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: R500BJ03.D Lab Sample ID: MB 140-34104/5

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 10/03/2019 13:07

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019 09:54
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019 01:56

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.208	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-34104/5

Matrix: Air Lab File ID: R500BJ03.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 10/03/2019 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.724	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVJ03-LCS.d

Lab ID: LCS 140-34104/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.70	85	70-130	
Carbon tetrachloride	2.00	1.88	94	70-130	
Chlorodifluoromethane	2.00	1.79	90	60-140	
Chloroform	2.00	1.71	86	70-130	
cis-1,2-Dichloroethene	2.00	2.01	101	70-130	
Dichlorodifluoromethane	2.00	2.33	117	60-140	
1,1-Dichloroethane	2.00	1.78	89	70-130	
1,2-Dichloroethane	2.00	1.62	81	70-130	
1,1-Dichloroethene	2.00	2.11	106	70-130	
Ethylbenzene	2.00	1.94	97	70-130	
Methylene Chloride	2.00	1.72	86	70-130	
Methyl tert-butyl ether	2.00	1.75	88	60-140	
Naphthalene	2.00	2.60	130	60-140	
Tetrachloroethene	2.00	1.84	92	70-130	
Toluene	2.00	1.96	98	70-130	
trans-1,2-Dichloroethene	2.00	1.98	99	70-130	
1,2,4-Trichlorobenzene	2.00	2.57	128	60-140	
1,1,1-Trichloroethane	2.00	1.72	86	70-130	
1,1,2-Trichloroethane	2.00	2.00	100	70-130	
Trichloroethene	2.00	1.81	91	70-130	
1,2,3-Trimethylbenzene	2.00	2.48	124	70-130	
1,2,4-Trimethylbenzene	2.00	2.33	116	70-130	
1,3,5-Trimethylbenzene	2.00	2.23	112	70-130	
Vinyl chloride	2.00	2.06	103	70-130	
Xylenes, Total	6.00	5.95	99	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBI06IC.D BFB Injection Date: 09/06/2019

Instrument ID: MG BFB Injection Time: 11:35

Analysis Batch No.: 33324

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	85.2	
175	5.0 - 9.0 % of mass 174	6.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	81.7	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33324/2	GI06LVL09.D	09/06/2019	12:11
	IC 140-33324/4	GI06LVL10.D	09/06/2019	13:43
	IC 140-33324/7	GI06LVL01.D	09/06/2019	15:53
	IC 140-33324/8	GI06LVL02.D	09/06/2019	16:37
	IC 140-33324/9	GI06LVL03.D	09/06/2019	17:20
	IC 140-33324/10	GI06LVL04.D	09/06/2019	18:05
	IC 140-33324/11	GI06LVL05.D	09/06/2019	18:52
	IC 140-33324/12	GI06LVL06.D	09/06/2019	19:37
	ICIS 140-33324/13	GI06LVL07.D	09/06/2019	20:20
	IC 140-33324/14	GI06LVL08.D	09/06/2019	21:05
	ICV 140-33324/16	GI06ICV.D	09/06/2019	22:30

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.9036	+++++ 1.9457	1.9689 1.8518	2.0192 1.8477	2.1224 2.2230	Ave		1.9853				6.6		30.0			
Propene	+++++ 1.6384	+++++ 1.3618	+++++ 1.1789	+++++ 1.1007	+++++ 1.2720	Ave		1.3103				15.9		30.0			
Dichlorodifluoromethane	3.4649 2.9861	3.3626 3.0980	2.9887 2.9409	3.1895 2.9147	3.3957 3.4911	Ave		3.1832				7.2		30.0			
Chloromethane	+++++ 0.3784	+++++ 0.3671	+++++ 0.3522	0.4773 0.3433	0.4530 0.3981	Ave		0.3956				12.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.1590 2.0879	2.2841 2.1259	2.0128 2.0134	2.1984 1.9583	2.3155 2.4036	Ave		2.1559				6.7		30.0			
Vinyl chloride	1.3990 1.2668	1.4794 1.2600	1.2332 1.2236	1.3121 1.2004	1.4095 1.4275	Ave		1.3212				7.5		30.0			
Butane	+++++ 2.0377	+++++ 1.9832	2.2909 1.9144	2.2681 1.9240	2.2747 2.2489	Ave		2.1177				7.9		30.0			
1,3-Butadiene	+++++ 1.0226	+++++ 1.0231	1.0018 0.9957	1.0614 0.9764	1.1424 1.1720	Ave		1.0494				6.8		30.0			
Bromomethane	+++++ 1.0969	+++++ 1.1018	1.0942 1.0786	1.1919 1.0684	1.2274 1.2974	Ave		1.1446				7.3		30.0			
Chloroethane	+++++ 0.6378	+++++ 0.6205	0.6302 0.6148	0.6448 0.6144	0.7097 0.7476	Ave		0.6525				7.6		30.0			
Ethanol	+++++ 0.5340	+++++ 0.5329	+++++ 0.5230	0.5427 0.5461	0.6061 0.5888	Ave		0.5534				5.7		30.0			
Vinyl bromide	1.1045 1.0478	1.1842 1.0266	1.0141 1.0226	1.1017 1.0117	1.1608 1.2383	Ave		1.0912				7.4		30.0			
2-Methylbutane	+++++ 1.3756	+++++ 1.3388	1.4029 1.3298	1.5184 1.3626	1.5407 1.6120	Ave		1.4351				7.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	3.2134 2.8687	3.1413 2.8371	2.7865 2.7958	2.9680 2.8596	3.1137 3.4403	Ave		3.0025				7.2		30.0			
Acrolein	+++++ 0.1771	+++++ 0.1875	+++++ 0.1956	0.2485 0.2203	0.2630 0.2703	Ave		0.2232				17.0		30.0			
Acetonitrile	+++++ 0.4352	+++++ 0.4072	+++++ 0.4117	0.4258 0.4680	0.5251 0.4966	Ave		0.4528				9.9		30.0			
Acetone	+++++ 0.5631	+++++ 0.4946	+++++ 0.4755	+++++ 0.4989	0.8257 0.5307	Ave		0.5647				23.3		30.0			
Pentane	+++++ 0.1959	+++++ 0.1915	0.2023 0.1929	0.2096 0.1989	0.2337 0.2423	Ave		0.2084				9.3		30.0			
Isopropyl alcohol	1.5453 1.3728	1.5737 1.3834	1.4911 1.3839	1.2772 1.4381	1.5363 1.5779	Ave		1.4580				7.0		30.0			
Ethyl ether	+++++ 1.0105	+++++ 0.9120	1.0603 0.9704	0.9454 1.0731	1.1075 1.1221	Ave		1.0252				7.6		30.0			
1,1-Dichloroethene	1.5548 1.2208	1.4734 1.2557	1.2356 1.2140	1.3306 1.2030	1.3594 1.5004	Ave		1.3348				9.9		30.0			
Acrylonitrile	+++++ 0.8676	+++++ 0.8749	0.8898 0.8539	0.8183 0.9165	0.9857 1.0262	Ave		0.9041				7.7		30.0			
tert-Butyl alcohol	+++++ 2.0530	+++++ 2.1910	+++++ 2.0976	1.8405 2.2612	2.2786 2.5616	Ave		2.1834				10.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.8657 2.5421	2.9363 2.5469	2.5394 2.4698	2.6442 2.4375	2.8013 2.8547	Ave		2.6638				6.9		30.0			
Methylene Chloride	+++++ 1.4544	+++++ 1.2747	+++++ 1.1677	+++++ 1.1073	2.0996 1.3047	Lin2	0.3800	1.1203							0.9920		0.9900
3-Chloropropene	+++++ 1.1632	+++++ 1.2007	1.2072 1.1248	1.2701 1.1891	1.2630 1.3518	Ave		1.2212				5.8		30.0			
Carbon disulfide	+++++ 3.5549	+++++ 3.5664	3.4062 3.4595	3.7101 3.4544	3.9304 4.2975	Ave		3.6724				8.3		30.0			
trans-1,2-Dichloroethene	1.4769 1.2382	1.3959 1.2751	1.2539 1.2356	1.3082 1.2222	1.3845 1.4631	Ave		1.3254				7.3		30.0			
2-Methylpentane	+++++ 3.1451	+++++ 3.1737	3.2815 3.0421	3.3064 3.0445	3.6164 3.4189	Ave		3.2536				6.0		30.0			
Methyl tert-butyl ether	+++++ 3.4227	+++++ 3.4827	3.4386 3.3912	3.2502 3.5618	3.8228 4.0775	Ave		3.5559				7.5		30.0			
1,1-Dichloroethane	2.4516 2.1933	2.4716 2.2639	2.2679 2.1995	2.4379 2.3058	2.4833 2.6425	Ave		2.3717				6.2		30.0			
Vinyl acetate	+++++ 3.0080	+++++ 3.1575	2.9767 3.1634	2.5332 3.5911	3.2268 4.0086	Ave		3.2082				13.6		30.0			
2-Butanone (MEK)	+++++ 0.5688	+++++ 0.5894	+++++ 0.5730	0.5415 0.6106	0.6785 0.6957	Ave		0.6082				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0650	+++++ 1.0826	1.1709 1.0464	1.1997 1.0580	1.2204 1.2415	Ave		1.1356				7.1		30.0			
cis-1,2-Dichloroethene	1.4604 1.2517	1.4639 1.3100	1.2273 1.2625	1.3206 1.2757	1.3890 1.5371	Ave		1.3498				7.9		30.0			
Ethyl acetate	+++++ 2.5026	+++++ 2.6416	2.4666 2.6391	2.0976 2.9368	2.7311 3.3882	Ave		2.6754				14.1		30.0			
Chloroform	+++++ 2.3890	2.8256 2.4665	2.4757 2.3621	2.6065 2.5051	2.7285 2.9605	Ave		2.5911				8.0		30.0			
Tetrahydrofuran	+++++ 1.4132	+++++ 1.4577	1.5393 1.4522	1.3596 1.5738	1.5953 1.8010	Ave		1.5240				9.1		30.0			
1,1,1-Trichloroethane	3.0880 2.6914	2.9595 2.7798	2.7207 2.6896	2.8035 2.7815	2.9944 3.2466	Ave		2.8755				6.6		30.0			
1,2-Dichloroethane	+++++ 0.2829	0.4076 0.2825	0.2755 0.2773	0.2868 0.3377	0.3661 0.4441	Ave		0.3289				19.4		30.0			
Cyclohexane	+++++ 0.1202	+++++ 0.1195	0.1176 0.1136	0.1297 0.1229	0.1582 0.1624	Ave		0.1305				14.5		30.0			
Benzene	+++++ 0.5992	0.9161 0.6085	0.6606 0.5920	0.6461 0.6817	0.7911 0.8753	Ave		0.7079				17.3		30.0			
1-Butanol	+++++ 0.0726	+++++ 0.0748	+++++ 0.0714	0.0668 0.0902	0.0998 +++++	Ave		0.0793				16.2		30.0			
Carbon tetrachloride	0.4686 0.4696	0.5434 0.4745	0.4061 0.4632	0.4293 0.5259	0.5459 +++++	Ave		0.4807				10.1		30.0			
2,3-Dimethylpentane	+++++ 0.1770	+++++ 0.1779	0.1721 0.1687	0.1788 0.1879	0.2275 +++++	Ave		0.1843				10.8		30.0			
Thiophene	+++++ 0.3403	+++++ 0.3443	0.3335 0.3344	0.3506 0.3923	0.4435 +++++	Ave		0.3627				11.3		30.0			
2,2,4-Trimethylpentane	+++++ 1.2865	+++++ 1.2594	1.2802 1.1922	1.3149 1.3236	1.6911 1.7663	Ave		1.3893				15.4		30.0			
Heptane	+++++ 0.2469	+++++ 0.2519	0.2549 0.2461	0.2502 0.2836	0.3221 +++++	Ave		0.2651				10.6		30.0			
1,2-Dichloropropane	+++++ 0.2300	+++++ 0.2333	0.2276 0.2336	0.2273 0.2784	0.2999 +++++	Ave		0.2472				11.9		30.0			
Trichloroethene	0.3355 0.2758	0.4322 0.2831	0.2772 0.2668	0.3038 0.3049	0.3610 0.4429	Ave		0.3283				19.6		30.0			
Dibromomethane	+++++ 0.2393	+++++ 0.2444	0.2486 0.2321	0.2489 0.2746	0.3212 +++++	Ave		0.2584				11.9		30.0			
Bromodichloromethane	+++++ 0.3861	+++++ 0.3985	0.3655 0.3945	0.3747 0.4834	0.5045 +++++	Ave		0.4153				13.3		30.0			
1,4-Dioxane	+++++ 0.0974	+++++ 0.1032	0.0941 0.1017	0.0845 0.1152	0.1177 +++++	Ave		0.1020				11.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2722	+++++ 0.2849	0.2517 0.2901	0.2145 0.3666	0.3320 +++++	Ave		0.2874				17.4		30.0			
Methylcyclohexane	0.5197 0.4647	0.6327 0.4605	0.4423 0.4340	0.4697 0.4820	0.5908 0.6546	Ave		0.5151				15.8		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.5491	+++++ 0.5601	0.5203 0.5427	0.4363 0.6541	0.6630 +++++	Ave		0.5608				14.0		30.0			
cis-1,3-Dichloropropene	+++++ 0.2900	+++++ 0.2933	0.2959 0.2867	0.2814 0.3686	0.3929 +++++	Ave		0.3155				14.4		30.0			
trans-1,3-Dichloropropene	+++++ 0.2791	+++++ 0.2875	0.2866 0.2822	0.2629 0.3855	0.3277 +++++	Ave		0.3016				13.9		30.0			
Toluene	+++++ 0.7197	+++++ 0.7519	0.7104 0.7788	0.6714 0.9695	0.7996 1.0043	Ave		0.8007				15.2		30.0			
1,1,2-Trichloroethane	+++++ 0.2014	+++++ 0.2065	0.2075 0.2111	0.1945 0.2680	0.2318 0.2889	Ave		0.2262				15.2		30.0			
2-Hexanone	+++++ 0.2728	+++++ 0.2892	+++++ 0.2896	0.1927 0.3704	0.2714 0.3704	Ave		0.2938				21.1		30.0			
C8 Range	+++++ 2.6458	+++++ 2.7368	+++++ 2.7129	2.5970 3.1347	2.9255 3.1074	Ave		2.8372				7.7		30.0			
Octane	+++++ 0.2947	+++++ 0.3053	0.2745 0.3076	0.2736 0.3510	0.3125 0.3575	Ave		0.3096				10.1		30.0			
Dibromochloromethane	+++++ 0.3715	0.4683 0.3886	0.3160 0.4040	0.3291 0.5261	0.4035 +++++	Ave		0.4009				17.3		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.3351	+++++ 0.3310	0.3378 0.3271	0.3332 0.4284	0.3988 0.4942	Ave		0.3732				16.5		30.0			
Tetrachloroethene	0.3199 0.2720	0.4122 0.2750	0.2843 0.2746	0.2923 0.3322	0.3108 0.3628	Ave		0.3136				14.5		30.0			
Chlorobenzene	+++++ 0.5302	+++++ 0.5368	0.5327 0.5435	0.5268 0.6915	0.6283 0.7565	Ave		0.5933				15.0		30.0			
Ethylbenzene	+++++ 0.9424	1.3793 0.9940	0.8755 1.0494	0.8255 1.3224	1.0406 1.3726	Ave		1.0891				19.7		30.0			
m-Xylene & p-Xylene	+++++ 0.7496	1.0773 0.7868	0.7015 0.8166	0.6151 1.0149	0.8104 1.0314	Ave		0.8448				19.0		30.0			
Nonane	+++++ 0.5860	+++++ 0.6119	+++++ 0.6199	0.5116 0.7204	0.6168 0.7008	Ave		0.6239				11.2		30.0			
Bromoform	+++++ 0.3185	0.3597 0.3390	0.2305 0.3680	0.2459 0.4950	0.3266 +++++	Ave		0.3354				24.3		30.0			
Styrene	+++++ 0.4787	+++++ 0.5099	0.4490 0.5319	0.4022 0.7159	0.5420 +++++	Ave		0.5185				19.2		30.0			
o-Xylene	0.7941 0.8770	1.1596 0.9089	0.8117 0.9230	0.7255 1.1314	0.9223 1.1626	Ave		0.9416				16.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5900	+++++ 0.6059	0.5466 0.5974	0.4987 0.7378	0.6368 0.7540	Ave		0.6209				14.1		30.0			
1,2,3-Trichloropropane	+++++ 0.1647	+++++ 0.1723	0.1634 0.1765	0.1413 0.2264	0.1844 +++++	Ave		0.1756				14.9		30.0			
Isopropylbenzene	+++++ 1.2090	+++++ 1.2470	1.0885 1.2621	0.9884 1.5173	1.2566 1.5403	Ave		1.2637				15.0		30.0			
Propylbenzene	+++++ 0.3073	+++++ 0.3248	0.2787 0.3350	0.2525 0.4194	0.3256 0.4379	Ave		0.3352				19.1		30.0			
2-Chlorotoluene	+++++ 0.2764	+++++ 0.2926	+++++ 0.2978	0.2407 0.3653	0.3035 0.3849	Ave		0.3087				16.2		30.0			
4-Ethyltoluene	+++++ 1.0644	+++++ 1.1127	1.0587 1.1470	0.8732 1.4542	1.1547 1.5081	Ave		1.1716				18.0		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5205	0.6315 0.5343	0.4660 0.5306	0.4258 0.6413	0.5319 0.6674	Ave		0.5499				14.8		30.0			
Alpha Methyl Styrene	+++++ 0.4271	+++++ 0.4675	+++++ 0.4859	0.3240 0.6334	0.4482 +++++	Ave		0.4643				21.6		30.0			
Decane	+++++ 0.7272	+++++ 0.7423	0.7079 0.7248	0.6409 0.8596	0.8113 0.8305	Ave		0.7556				9.6		30.0			
tert-Butylbenzene	+++++ 1.1502	+++++ 1.1637	1.0345 1.1546	0.9100 1.3839	1.2038 1.3970	Ave		1.1747				13.8		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9827	+++++ 1.0060	0.9105 1.0083	0.7976 1.2444	1.0467 1.2593	Ave		1.0319				15.1		30.0			
sec-Butylbenzene	+++++ 1.4981	+++++ 1.5238	1.3923 1.5116	1.2156 1.8069	1.5712 1.7893	Ave		1.5386				12.6		30.0			
1,3-Dichlorobenzene	+++++ 0.5609	+++++ 0.5693	0.5963 0.5716	0.5172 0.7578	0.6463 0.8663	Ave		0.6357				18.6		30.0			
Benzyl chloride	+++++ 0.6826	0.9581 0.7463	0.6736 0.7214	0.5356 1.0371	0.7509 +++++	Ave		0.7632				21.1		30.0			
1,4-Dichlorobenzene	+++++ 0.5422	+++++ 0.5501	0.5825 0.5475	0.5170 0.7442	0.6450 0.8582	Ave		0.6233				19.3		30.0			
4-Isopropyltoluene	+++++ 1.2545	+++++ 1.2782	1.1885 1.2769	1.0055 1.5760	1.3254 1.6205	Ave		1.3157				15.2		30.0			
1,2,3-Trimethylbenzene	+++++ 1.0331	+++++ 1.0628	0.9715 1.0573	0.8414 1.2858	1.0915 1.3213	Ave		1.0831				14.5		30.0			
Indane	+++++ 0.8906	+++++ 0.9110	0.8538 0.9229	0.7545 1.1521	0.9664 1.1911	Ave		0.9553				15.4		30.0			
1,2-Dichlorobenzene	+++++ 0.5980	+++++ 0.6000	0.6106 0.6032	0.5235 0.7856	0.6674 0.8774	Ave		0.6582				17.7		30.0			
Butylbenzene	+++++ 1.1303	+++++ 1.1427	1.1372 1.1203	0.9352 1.3947	1.2496 1.3787	Ave		1.1861				12.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7506	+++++ 0.7697	0.7206 0.7730	0.5987 1.0079	0.8045 1.0691	Ave		0.8118				18.9		30.0			
Undecane	+++++ 0.8014	+++++ 0.8070	0.8934 0.7625	0.7127 0.9129	0.9036 0.8957	Ave		0.8362				9.0		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3361	+++++ 0.3477	0.3197 0.3510	0.2526 0.4608	0.3481 +++++	Ave		0.3452				17.8		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.1589	+++++ 1.1945	1.2030 1.1268	0.9406 1.3957	1.2531 1.4781	Ave		1.2188				13.5		30.0			
Dodecane	+++++ 0.4532	+++++ 0.6040	+++++ 0.4964	0.5615 0.6107	0.6881 0.7534	Ave		0.5953				17.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4846	+++++ 0.5424	0.6100 0.4929	0.4373 0.6466	0.5723 +++++	Ave		0.5409				13.7		30.0			
Naphthalene	+++++ 1.0932	+++++ 1.1869	1.4691 1.0113	0.9337 1.2998	1.2529 1.5280	Ave		1.2219				17.1		30.0			
Hexachlorobutadiene	+++++ 0.5204	+++++ 0.5693	0.5882 0.5592	0.4760 0.6738	0.6008 +++++	Ave		0.5697				11.0		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4299	+++++ 0.5149	0.6310 0.4371	0.4174 0.5680	0.5328 +++++	Ave		0.5044				15.9		30.0			
2-Methylnaphthalene	+++++ 0.2493	+++++ 0.3915	+++++ 0.1903	0.3026 0.3098	0.3494 +++++	Ave		0.2988				23.9		50.0			
1-Methylnaphthalene	+++++ 0.2223	+++++ 0.3528	+++++ 0.1824	0.2985 0.2303	0.3417 0.5044	Ave		0.3046				35.7		50.0			
4-Bromofluorobenzene (Surr)	0.6819 0.6781	0.7160 0.6827	0.6730 0.6779	0.6785 0.7172	0.6900 0.7894	Ave		0.6985				5.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 143650	+++++ 295192	12144 577644	24527 1099754	57005 2225632	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 123636	+++++ 206614	+++++ 367734	+++++ 655117	+++++ 1273461	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	5471 225338	9544 470027	18434 917378	38742 1734828	91206 3495201	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 28552	+++++ 55691	+++++ 109860	5798 204342	12166 398574	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	3409 157561	6483 322529	12415 628031	26703 1165575	62193 2406359	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2209 95598	4199 191166	7606 381669	15938 714460	37859 1429180	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 153775	+++++ 300883	14130 597160	27550 1145157	61096 2251543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 77166	+++++ 155217	6179 310591	12892 581136	30685 1173397	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 82775	+++++ 167167	6749 336438	14478 635897	32967 1298868	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 48130	+++++ 94145	3887 191783	7832 365684	19062 748494	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 201476	+++++ 404221	+++++ 815655	32963 1625166	81394 2947666	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	1744 79074	3361 155754	6255 318973	13382 602160	31177 1239747	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 103811	+++++ 203120	8653 414806	18444 810977	41382 1613845	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	5074 216484	8916 430437	17187 872098	36052 1702009	83632 3444338	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 13361	+++++ 28446	+++++ 61026	3019 131091	7063 270664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 32844	+++++ 61782	+++++ 128415	5172 278577	14103 497142	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127481	+++++ 225108	+++++ 444971	+++++ 890812	66529 1593844	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 14781	+++++ 29047	1248 60170	2546 118364	6278 242543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	7320 310786	13400 629646	27591 1295072	46541 2567814	123788 4739239	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 76255	+++++ 138361	6540 302703	11484 638674	29746 1123439	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2455 92122	4182 190519	7621 378693	16162 716022	36512 1502103	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 65475	+++++ 132732	5488 266374	9940 545503	26474 1027416	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 154929	+++++ 332416	+++++ 654315	22356 1345850	61202 2564549	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	4525 191837	8334 386409	15663 770406	32118 1450769	75241 2858047	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Lin2	+++++ 109752	+++++ 193389	+++++ 364239	+++++ 659033	56393 1306171	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 87779	+++++ 182164	7446 350862	15428 707734	33922 1353410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 268261	+++++ 541088	21009 1079129	45066 2056031	105567 4302478	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2332 93436	3962 193449	7734 385433	15890 727437	37186 1464809	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 237341	+++++ 481512	20240 948942	40162 1812032	97133 3422914	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 258286	+++++ 528388	21209 1057831	39480 2119925	102677 4082227	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	3871 165511	7015 343479	13988 686099	29612 1372380	66700 2645566	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 226997	+++++ 479044	18360 986781	30770 2137380	86669 4013252	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 42923	+++++ 89416	+++++ 178747	6578 363441	18223 696485	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 80372	+++++ 164254	7222 326404	14572 629718	32780 1242958	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2306 94456	4155 198745	7570 393830	16041 759264	37306 1538934	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 188856	+++++ 400774	15214 823215	25479 1747973	73354 3392110	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 180278	8020 374204	15270 736824	31661 1491015	73286 2963984	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 106648	+++++ 221164	9494 452981	16515 936713	42847 1803135	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	4876 203100	8400 421743	16781 838974	34054 1655540	80426 3250383	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 114508	5137 237423	9341 483663	19284 1021579	46114 1931491	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 48661	+++++ 100380	3988 198095	8720 371726	19927 706213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 242551	11544 511309	22395 1032624	43446 2062596	99661 3807337	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 29403	+++++ 62850	+++++ 124456	4491 272833	12572 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Carbon tetrachloride	DFBZ	Ave	4072 190078	6848 398753	13766 807930	28869 1591111	68766 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,3-Dimethylpentane	DFBZ	Ave	+++++ 71652	+++++ 149491	5835 294230	12022 568397	28657 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Thiophene	DFBZ	Ave	+++++ 137749	+++++ 289287	11305 583213	23575 1186778	55874 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 520750	+++++ 1058286	43400 2079393	88421 4004540	213033 7682801	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 99941	+++++ 211680	8641 429332	16827 858075	40573 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichloropropane	DFBZ	Ave	+++++ 93077	+++++ 196058	7715 407387	15287 842399	37778 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Trichloroethene	DFBZ	Ave	2915 111619	5447 237865	9397 465340	20427 922603	45477 1926421	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 96871	+++++ 205342	8427 404792	16736 830888	40456 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Bromodichloromethane	DFBZ	Ave	+++++ 156287	+++++ 334830	12392 688080	25197 1462641	63549 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dioxane	DFBZ	Ave	+++++ 39416	+++++ 86721	3189 177462	5681 348540	14826 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 110169	+++++ 239389	8532 505926	14427 1109239	41817 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Methylcyclohexane	DFBZ	Ave	4516 188099	7973 386954	14995 756950	31583 1458305	74422 2847422	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 222266	+++++ 470662	17639 946677	29341 1979038	83515 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 117398	+++++ 246436	10030 500043	18924 1115238	49491 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 98838	+++++ 212978	8642 428692	15455 1002239	42775 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Toluene	CBZd 5	Ave	+++++ 254863	+++++ 557053	21422 1183227	39464 2520816	104385 4966980	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 71302	+++++ 152985	6257 320748	11430 696913	30261 1428785	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 96613	+++++ 214279	+++++ 439916	11325 963125	35424 1831800	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 936876	+++++ 2027688	+++++ 4121729	152650 8150575	381906 15368293	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 104351	+++++ 226222	8277 467389	16083 912580	40797 1768115	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 131535	5626 287903	9528 613834	19347 1367950	52675 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 118644	+++++ 245214	10187 496917	19585 1113826	52062 2444046	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2428 96316	4952 203783	8573 417134	17183 863844	40577 1794246	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 187744	+++++ 397736	16063 825756	30968 1797896	82023 3741443	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 333712	16571 736442	26400 1594284	48523 3438466	135845 6788262	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 530861	25887 1165828	42306 2481444	72310 5277635	211594 10202140	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 207514	+++++ 453353	+++++ 941883	30071 1873058	80514 3465909	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 112783	4322 251164	6952 559050	14453 1286991	42632 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 169510	+++++ 377786	13540 808080	23641 1861497	70755 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
o-Xylene	CBZd 5	Ave	6027 310566	13932 673428	24476 1402277	42643 2941831	120400 5749717	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 208917	+++++ 448925	16482 907606	29315 1918461	83135 3729146	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 58337	+++++ 127670	4926 268190	8308 588718	24078 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Isopropylbenzene	CBZd 5	Ave	+++++ 428100	+++++ 923891	32825 1917551	58099 3945046	164042 7617941	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 108816	+++++ 240647	8404 508903	14843 1090521	42505 2165788	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 97873	+++++ 216815	+++++ 452416	14146 949760	39623 1903546	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 376905	+++++ 824369	31925 1742670	51328 3780961	150740 7458705	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 184313	7587 395833	14053 806131	25029 1667531	69431 3300851	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 151255	+++++ 346367	+++++ 738180	19043 1646834	58506 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Decane	CBZd 5	Ave	+++++ 257513	+++++ 549946	21346 1101191	37672 2235162	105909 4107502	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 407290	+++++ 862214	31197 1754173	53492 3598324	157141 6908946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 347982	+++++ 745361	27456 1531875	46884 3235493	136640 6228342	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 530477	+++++ 1128972	41986 2296570	71451 4698192	205108 8849404	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 198615	+++++ 421757	17981 868408	30403 1970431	84363 4284620	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 241718	11511 552952	20313 1096000	31481 2696669	98023 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 192006	+++++ 407546	17565 831745	30391 1934892	84201 4244224	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 444210	+++++ 946994	35840 1939991	59105 4097767	173018 8014661	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 365811	+++++ 787432	29297 1606346	49455 3343083	142485 6534743	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	+++++ 315362	+++++ 674925	25747 1402159	44351 2995540	126162 5890993	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 211768	+++++ 444503	18412 916514	30770 2042593	87121 4339427	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 400248	+++++ 846629	34293 1702027	54970 3626453	163131 6818592	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 265797	+++++ 570253	21730 1174363	35194 2620707	105026 5287488	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 283797	+++++ 597931	26942 1158450	41891 2373745	117964 4429686	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 119029	+++++ 257587	9642 533283	14850 1198041	45441 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 410365	+++++ 884994	36278 1712012	55288 3628958	163586 7310052	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 160463	+++++ 447519	+++++ 754162	33004 1587989	89823 3726029	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 171616	+++++ 401853	18396 748852	25702 1681341	74708 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Naphthalene	CBZd5	Ave	+++++ 387097	+++++ 879398	44301 1536423	54883 3379542	163561 7557003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 184267	+++++ 421818	17736 849561	27979 1752055	78428 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 152214	+++++ 381460	19028 664129	24534 1476859	69556 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
2-Methylnaphthalene	CBZd5	Ave	+++++ 88291	+++++ 290055	+++++ 289145	17789 805463	45613 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	+++++ 78719	+++++ 261428	+++++ 277130	17548 598866	44612 2494568	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1035061 960516	860195 1011605	1014670 1029964	997113 932426	900768 976018	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33324/7	GI06LVL01.D
Level 2	IC 140-33324/8	GI06LVL02.D
Level 3	IC 140-33324/9	GI06LVL03.D
Level 4	IC 140-33324/10	GI06LVL04.D
Level 5	IC 140-33324/11	GI06LVL05.D
Level 6	IC 140-33324/12	GI06LVL06.D
Level 7	ICIS 140-33324/13	GI06LVL07.D
Level 8	IC 140-33324/14	GI06LVL08.D
Level 9	IC 140-33324/2	GI06LVL09.D
Level 10	IC 140-33324/4	GI06LVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-0.8						50			
Propene	+++++	+++++	+++++	+++++	+++++	25.0						50
Dichlorodifluoromethane	8.8						50					
Chloromethane	+++++	+++++	+++++	20.7						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.1						50					
Vinyl chloride	5.9						50					
Butane	+++++	+++++	8.2						50			
1,3-Butadiene	+++++	+++++	-4.5						50			
Bromomethane	+++++	+++++	-4.4						50			
Chloroethane	+++++	+++++	-3.4						50			
Ethanol	+++++	+++++	+++++	-1.9						50		
Vinyl bromide	1.2						50					
2-Methylbutane	+++++	+++++	-2.2						50			
Trichlorofluoromethane	7.0						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	11.4						50		
Acetonitrile	+++++	+++++	+++++	-6.0						50		
Acetone	+++++	+++++	+++++	+++++	46.2						80	
Pentane	+++++	+++++	-2.9						50			
Isopropyl alcohol	6.0						50					
Ethyl ether	+++++	+++++	3.4						50			
1,1-Dichloroethene	16.5						50					
Acrylonitrile	+++++	+++++	-1.6						50			
tert-Butyl alcohol	+++++	+++++	+++++	-15.7						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	7.6						50					
Methylene Chloride	+++++	+++++	+++++	+++++	2.6						80	
3-Chloropropene	+++++	+++++	-1.1						50			
Carbon disulfide	+++++	+++++	-7.2						50			
trans-1,2-Dichloroethene	11.4						50					
2-Methylpentane	+++++	+++++	0.9						50			
Methyl tert-butyl ether	+++++	+++++	-3.3						50			
1,1-Dichloroethane	3.4						50					
Vinyl acetate	+++++	+++++	-7.2						50			
2-Butanone (MEK)	+++++	+++++	+++++	-11.0						50		
Hexane	+++++	+++++	3.1						50			
cis-1,2-Dichloroethene	8.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-7.8						50			
Chloroform	+++++	9.1						50				
Tetrahydrofuran	+++++	+++++	1.0						50			
1,1,1-Trichloroethane	7.4						50					
1,2-Dichloroethane	+++++	23.9						50				
Cyclohexane	+++++	+++++	-9.9						50			
Benzene	+++++	29.4						50				
1-Butanol	+++++	+++++	+++++	-15.7 +++++						50		
Carbon tetrachloride	-2.5			+++++			50					
2,3-Dimethylpentane	+++++	+++++	-6.6	+++++					50			
Thiophene	+++++	+++++	-8.1	+++++					50			
2,2,4-Trimethylpentane	+++++	+++++	-7.8						50			
Heptane	+++++	+++++	-3.9	+++++					50			
1,2-Dichloropropane	+++++	+++++	-7.9	+++++					50			
Trichloroethene	2.2						50					
Dibromomethane	+++++	+++++	-3.8	+++++					50			
Bromodichloromethane	+++++	+++++	-12.0	+++++					50			
1,4-Dioxane	+++++	+++++	-7.7	+++++					50			
Methyl methacrylate	+++++	+++++	-12.4	+++++					50			
Methylcyclohexane	0.9						50					
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-7.2	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	+++++	-6.2	+++++					50			
trans-1,3-Dichloropropene	+++++	+++++	-5.0	+++++					50			
Toluene	+++++	+++++	-11.3						50			
1,1,2-Trichloroethane	+++++	+++++	-8.3						50			
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	+++++	-11.3						50			
Dibromochloromethane	+++++	16.8		+++++				50				
1,2-Dibromoethane (EDB)	+++++	+++++	-9.5						50			
Tetrachloroethene	2.0						50					
Chlorobenzene	+++++	+++++	-10.2						50			
Ethylbenzene	+++++	26.6						50				
m-Xylene & p-Xylene	+++++	27.5						50				
Nonane	+++++	+++++	+++++	-18.0						50		
Bromoform	+++++	7.3		+++++				50				
Styrene	+++++	+++++	-13.4	+++++					50			
o-Xylene	-15.7						50					
1,1,2,2-Tetrachloroethane	+++++	+++++	-12.0						50			
1,2,3-Trichloropropane	+++++	+++++	-7.0	+++++					50			
Isopropylbenzene	+++++	+++++	-13.9						50			
Propylbenzene	+++++	+++++	-16.8						50			
2-Chlorotoluene	+++++	+++++	+++++	-22.1						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-9.6						50			
1,3,5-Trimethylbenzene	+++++	14.8						50				
Alpha Methyl Styrene	+++++	+++++	+++++	-30.2 +++++						50		
Decane	+++++	+++++	-6.3						50			
tert-Butylbenzene	+++++	+++++	-11.9						50			
1,2,4-Trimethylbenzene	+++++	+++++	-11.8						50			
sec-Butylbenzene	+++++	+++++	-9.5						50			
1,3-Dichlorobenzene	+++++	+++++	-6.2						50			
Benzyl chloride	+++++	25.5		+++++				50				
1,4-Dichlorobenzene	+++++	+++++	-6.6						50			
4-Isopropyltoluene	+++++	+++++	-9.7						50			
1,2,3-Trimethylbenzene	+++++	+++++	-10.3						50			
Indane	+++++	+++++	-10.6						50			
1,2-Dichlorobenzene	+++++	+++++	-7.2						50			
Butylbenzene	+++++	+++++	-4.1						50			
Indene	+++++	+++++	-11.2						50			
Undecane	+++++	+++++	6.8						50			
1,2-Dibromo-3-Chloropropane	+++++	+++++	-7.4	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-1.3						50			
Dodecane	+++++	+++++	+++++	-5.7						50		
1,2,4-Trichlorobenzene	+++++	+++++	12.8	+++++					50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33324

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/06/2019 12:11 Calibration End Date: 09/06/2019 21:05 Calibration ID: 2131

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	+++++	20.2						80			
Hexachlorobutadiene	+++++	+++++	3.2	+++++					50			
1,2,3-Trichlorobenzene	+++++	+++++	25.1	+++++					50			
2-Methylnaphthalene	+++++	+++++	+++++	1.3 +++++						80		
1-Methylnaphthalene	+++++	+++++	+++++	-2.0						80		

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	1.940		1.95	2.00	-2.3	35.0
Propene	Ave	1.310	1.352		2.06	2.00	3.2	35.0
Dichlorodifluoromethane	Ave	3.183	3.054		1.92	2.00	-4.1	35.0
Chloromethane	Ave	0.3956	0.3716		1.88	2.00	-6.1	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.118		1.96	2.00	-1.8	35.0
Acetaldehyde	Ave	0.5522	0.5102		9.24	10.0	-7.6	35.0
Vinyl chloride	Ave	1.321	1.311		1.98	2.00	-0.8	35.0
1,3-Butadiene	Ave	1.049	1.031		1.96	2.00	-1.8	35.0
Butane	Ave	2.118	2.060		1.95	2.00	-2.7	35.0
Bromomethane	Ave	1.145	1.096		1.91	2.00	-4.3	35.0
Chloroethane	Ave	0.6525	0.6485		1.99	2.00	-0.6	35.0
Ethanol	Ave	0.5534	0.4260		7.70	10.0	-23.0	35.0
Vinyl bromide	Ave	1.091	1.130		2.07	2.00	3.5	35.0
2-Methylbutane	Ave	1.435	1.456		2.03	2.00	1.5	35.0
Trichlorofluoromethane	Ave	3.002	2.919		1.94	2.00	-2.8	35.0
Acrolein	Ave	0.2232	0.2462		2.21	2.00	10.3	35.0
Acetonitrile	Ave	0.4528	0.4087		1.81	2.00	-9.7	35.0
Acetone	Ave	0.5647	0.6253		2.21	2.00	10.7	35.0
Pentane	Ave	0.2084	0.2177		2.09	2.00	4.5	35.0
Isopropyl alcohol	Ave	1.458	1.782		2.44	2.00	22.2	35.0
Ethyl ether	Ave	1.025	1.034		2.02	2.00	0.9	35.0
1,1-Dichloroethene	Ave	1.335	1.269		1.90	2.00	-4.9	35.0
Acrylonitrile	Ave	0.9041	0.8833		1.95	2.00	-2.3	35.0
tert-Butyl alcohol	Ave	2.183	2.179		2.00	2.00	-0.2	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.613		1.96	2.00	-1.9	35.0
Methylene Chloride	Lin2		1.291		1.97	2.00	-1.7	35.0
3-Chloropropene	Ave	1.221	1.234		2.02	2.00	1.0	35.0
Carbon disulfide	Ave	3.672	3.554		1.94	2.00	-3.2	35.0
trans-1,2-Dichloroethene	Ave	1.325	1.260		1.90	2.00	-4.9	35.0
2-Methylpentane	Ave	3.254	2.935		1.80	2.00	-9.8	35.0
Methyl tert-butyl ether	Ave	3.556	3.421		1.92	2.00	-3.8	35.0
1,1-Dichloroethane	Ave	2.372	2.268		1.91	2.00	-4.4	35.0
Vinyl acetate	Ave	3.208	3.181		1.98	2.00	-0.8	35.0
2-Butanone (MEK)	Ave	0.6082	0.5714		1.88	2.00	-6.1	35.0
Hexane	Ave	1.136	1.075		1.89	2.00	-5.3	35.0
Isopropyl ether	Ave	4.583	4.576		2.00	2.00	-0.2	35.0
cis-1,2-Dichloroethene	Ave	1.350	1.317		1.95	2.00	-2.4	35.0
Ethyl acetate	Ave	2.675	2.453		1.83	2.00	-8.3	35.0
Chloroform	Ave	2.591	2.466		1.90	2.00	-4.8	35.0
Tert-butyl ethyl ether	Ave	4.209	3.873		1.84	2.00	-8.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.434		1.88	2.00	-5.9	35.0
1,1,1-Trichloroethane	Ave	2.876	2.744		1.91	2.00	-4.6	35.0
1,2-Dichloroethane	Ave	0.3289	0.2815		1.71	2.00	-14.4	35.0
1-Butanol	Ave	0.0793	0.0722		1.82	2.00	-8.9	35.0
Benzene	Ave	0.7079	0.6214		1.76	2.00	-12.2	35.0
Cyclohexane	Ave	0.1305	0.1210		1.85	2.00	-7.3	35.0
Carbon tetrachloride	Ave	0.4807	0.4793		1.99	2.00	-0.3	35.0
2,3-Dimethylpentane	Ave	0.1843	0.1706		1.85	2.00	-7.4	35.0
Thiophene	Ave	0.3627	0.3377		1.86	2.00	-6.9	35.0
2,2,4-Trimethylpentane	Ave	1.389	1.260		1.81	2.00	-9.3	35.0
Heptane	Ave	0.2651	0.2529		1.91	2.00	-4.6	35.0
1,2-Dichloropropane	Ave	0.2472	0.2327		1.88	2.00	-5.9	35.0
Trichloroethene	Ave	0.3283	0.2876		1.75	2.00	-12.4	35.0
Dibromomethane	Ave	0.2584	0.2414		1.87	2.00	-6.6	35.0
Bromodichloromethane	Ave	0.4153	0.3953		1.90	2.00	-4.8	35.0
1,4-Dioxane	Ave	0.1020	0.0955		1.87	2.00	-6.4	35.0
Methyl methacrylate	Ave	0.2874	0.2700		1.88	2.00	-6.1	35.0
Methylcyclohexane	Ave	0.5151	0.5483		2.13	2.00	6.4	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.5349		1.91	2.00	-4.6	35.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3000		1.90	2.00	-4.9	35.0
trans-1,3-Dichloropropene	Ave	0.3016	0.2944		1.95	2.00	-2.4	35.0
Toluene	Ave	0.8007	0.7679		1.92	2.00	-4.1	35.0
1,1,2-Trichloroethane	Ave	0.2262	0.2040		1.80	2.00	-9.8	35.0
2-Hexanone	Ave	0.2938	0.2683		1.83	2.00	-8.7	35.0
Octane	Ave	0.3096	0.3166		2.05	2.00	2.3	35.0
Dibromochloromethane	Ave	0.4009	0.3875		1.93	2.00	-3.3	35.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3287		1.76	2.00	-11.9	35.0
Tetrachloroethene	Ave	0.3136	0.2828		1.80	2.00	-9.8	35.0
Chlorobenzene	Ave	0.5933	0.5516		1.86	2.00	-7.0	35.0
2,3-Dimethylheptane	Ave	0.9740	0.8902		1.83	2.00	-8.6	35.0
Ethylbenzene	Ave	1.089	1.014		1.86	2.00	-6.9	35.0
m-Xylene & p-Xylene	Ave	0.8448	0.8052		3.81	4.00	-4.7	35.0
Nonane	Ave	0.6239	0.6248		2.00	2.00	0.1	35.0
Bromoform	Ave	0.3354	0.3190		1.90	2.00	-4.9	35.0
Styrene	Ave	0.5185	0.5094		1.96	2.00	-1.8	35.0
o-Xylene	Ave	0.9416	0.9055		1.92	2.00	-3.8	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.5935		1.91	2.00	-4.4	35.0
1,2,3-Trichloropropane	Ave	0.1756	0.1721		1.96	2.00	-2.0	35.0
Isopropylbenzene	Ave	1.264	1.292		2.05	2.00	2.3	35.0
Propylbenzene	Ave	0.3352	0.3351		2.00	2.00	-0.0	35.0
2-Chlorotoluene	Ave	0.3087	0.2995		1.94	2.00	-3.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33324/16 Calibration Date: 09/06/2019 22:30

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GI06ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.082		1.85	2.00	-7.6	35.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.6127		2.23	2.00	11.4	35.0
Alpha Methyl Styrene	Ave	0.4643	0.4486		1.93	2.00	-3.4	35.0
Decane	Ave	0.7556	0.7543		2.00	2.00	-0.2	35.0
tert-Butylbenzene	Ave	1.175	1.178		2.01	2.00	0.3	35.0
1,2,4-Trimethylbenzene	Ave	1.032	1.022		1.98	2.00	-1.0	35.0
sec-Butylbenzene	Ave	1.539	1.539		2.00	2.00	0.0	35.0
1,3-Dichlorobenzene	Ave	0.6357	0.5730		1.80	2.00	-9.9	35.0
Benzyl chloride	Ave	0.7632	0.7718		2.02	2.00	1.1	35.0
1,4-Dichlorobenzene	Ave	0.6233	0.5480		1.76	2.00	-12.1	35.0
4-Isopropyltoluene	Ave	1.316	1.269		1.93	2.00	-3.6	35.0
1,2,3-Trimethylbenzene	Ave	1.083	0.7977		1.47	2.00	-26.4	35.0
Butylcyclohexane	Ave	0.9117	0.8768		1.92	2.00	-3.8	35.0
1,2-Dichlorobenzene	Ave	0.6582	0.6075		1.85	2.00	-7.7	35.0
Indane	Ave	0.9553	0.9042		1.89	2.00	-5.4	35.0
Butylbenzene	Ave	1.186	1.163		1.96	2.00	-2.0	35.0
Indene	Ave	0.8118	0.6672		1.64	2.00	-17.8	35.0
Undecane	Ave	0.8362	0.8042		1.92	2.00	-3.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.2889		1.67	2.00	-16.3	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.136		1.86	2.00	-6.8	35.0
Dodecane	Ave	0.5953	0.5751		1.93	2.00	-3.4	35.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5385		1.99	2.00	-0.4	35.0
Naphthalene	Ave	1.222	1.177		1.93	2.00	-3.7	35.0
Hexachlorobutadiene	Ave	0.5697	0.5288		1.86	2.00	-7.2	35.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.5315		2.11	2.00	5.4	35.0
2-Methylnaphthalene	Ave	0.2988	0.5515		3.69	2.00	84.6*	50.0
1-Methylnaphthalene	Ave	0.3046	0.4919		3.23	2.00	61.5*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.6835		3.91	4.00	-2.1	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: GBFBJ09.D BFB Injection Date: 10/09/2019

Instrument ID: MG BFB Injection Time: 10:42

Analysis Batch No.: 34215

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	52.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	80.0	
175	5.0 - 9.0 % of mass 174	5.4	(6.7) 1
176	95.0 - 101.0 % of mass 174	78.0	(97.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34215/2	GCCVJ09.D	10/09/2019	11:20
	LCS 140-34215/1002	GCCVJ09-LCS.d	10/09/2019	11:20
	MB 140-34215/4	GJ09MB500.D	10/09/2019	13:47
IA-015-A-27-RS	140-16893-2	GJ09p105.D	10/09/2019	18:17
IA-168-A-27-RS	140-16893-3	GJ09p106.D	10/09/2019	19:03
IA-021-A-27-RS	140-16893-4	GJ09p107.D	10/09/2019	19:47
IA-136-A-27-RS	140-16893-5	GJ09p108.D	10/09/2019	20:31
IA-117-A-27-RS	140-16893-6	GJ09p109.D	10/09/2019	21:14
IA-079-A-27-RS	140-16893-7	GJ09p110.D	10/09/2019	21:59

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.985	2.484		5.01	4.00	25.1	30.0
Propene	Ave	1.310	1.454		4.44	4.00	10.9	30.0
Dichlorodifluoromethane	Ave	3.183	4.190		5.26	4.00	31.6*	30.0
Chloromethane	Ave	0.3956	0.4291		4.34	4.00	8.5	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.156	2.512		4.66	4.00	16.5	30.0
Acetaldehyde	Ave	0.5522	0.5476		19.8	20.0	-0.8	30.0
Vinyl chloride	Ave	1.321	1.562		4.73	4.00	18.2	30.0
1,3-Butadiene	Ave	1.049	1.213		4.62	4.00	15.6	30.0
Butane	Ave	2.118	2.301		4.35	4.00	8.7	30.0
Bromomethane	Ave	1.145	1.417		4.95	4.00	23.8	30.0
Chloroethane	Ave	0.6525	0.7773		4.77	4.00	19.1	30.0
Ethanol	Ave	0.5534	0.6379		23.1	20.0	15.3	30.0
Vinyl bromide	Ave	1.091	1.310		4.80	4.00	20.0	30.0
2-Methylbutane	Ave	1.435	1.608		4.48	4.00	12.0	30.0
Trichlorofluoromethane	Ave	3.002	4.493		5.99	4.00	49.7*	30.0
Acrolein	Ave	0.2232	0.2738		4.91	4.00	22.7	30.0
Acetonitrile	Ave	0.4528	0.5310		4.69	4.00	17.3	30.0
Acetone	Ave	0.5647	0.6633		14.1	12.0	17.5	30.0
Isopropyl alcohol	Ave	1.458	1.827		15.0	12.0	25.3	30.0
Pentane	Ave	0.2084	0.2707		5.20	4.00	29.9	30.0
Ethyl ether	Ave	1.025	1.209		4.72	4.00	17.9	30.0
1,1-Dichloroethene	Ave	1.335	1.277		3.83	4.00	-4.3	30.0
tert-Butyl alcohol	Ave	2.183	2.277		4.17	4.00	4.3	30.0
Acrylonitrile	Ave	0.9041	0.8415		3.72	4.00	-6.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.664	2.774		4.17	4.00	4.1	30.0
Methylene Chloride	Lin2		1.252		4.13	4.00	3.3	30.0
3-Chloropropene	Ave	1.221	1.450		4.75	4.00	18.7	30.0
Carbon disulfide	Ave	3.672	3.713		4.04	4.00	1.1	30.0
trans-1,2-Dichloroethene	Ave	1.325	1.312		3.96	4.00	-1.0	30.0
2-Methylpentane	Ave	3.254	3.064		3.77	4.00	-5.8	30.0
Methyl tert-butyl ether	Ave	3.556	3.714		4.18	4.00	4.4	30.0
1,1-Dichloroethane	Ave	2.372	2.459		4.15	4.00	3.7	30.0
Vinyl acetate	Ave	3.208	3.056		3.81	4.00	-4.8	30.0
2-Butanone (MEK)	Ave	0.6082	0.5882		3.87	4.00	-3.3	30.0
Hexane	Ave	1.136	1.089		3.84	4.00	-4.1	30.0
Isopropyl ether	Ave	4.583	4.366		3.81	4.00	-4.7	30.0
cis-1,2-Dichloroethene	Ave	1.350	1.318		3.91	4.00	-2.4	30.0
Ethyl acetate	Ave	2.675	2.662		3.98	4.00	-0.5	30.0
Chloroform	Ave	2.591	2.872		4.43	4.00	10.9	30.0
Tert-butyl ethyl ether	Ave	4.209	4.326		4.11	4.00	2.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.524	1.418		3.72	4.00	-7.0	30.0
1,1,1-Trichloroethane	Ave	2.876	3.395		4.72	4.00	18.1	30.0
1,2-Dichloroethane	Ave	0.3289	0.3342		4.06	4.00	1.6	30.0
1-Butanol	Ave	0.0793	0.0720		3.63	4.00	-9.1	30.0
Benzene	Ave	0.7079	0.6003		3.39	4.00	-15.2	30.0
Cyclohexane	Ave	0.1305	0.1170		3.59	4.00	-10.3	30.0
Carbon tetrachloride	Ave	0.4807	0.5553		4.62	4.00	15.5	30.0
2,3-Dimethylpentane	Ave	0.1843	0.1654		3.59	4.00	-10.2	30.0
Thiophene	Ave	0.3627	0.3276		3.61	4.00	-9.7	30.0
2,2,4-Trimethylpentane	Ave	1.389	1.189		3.42	4.00	-14.4	30.0
Heptane	Ave	0.2651	0.2456		3.71	4.00	-7.3	30.0
1,2-Dichloropropane	Ave	0.2472	0.2386		3.86	4.00	-3.5	30.0
Trichloroethene	Ave	0.3283	0.2680		3.27	4.00	-18.4	30.0
Dibromomethane	Ave	0.2584	0.2639		4.08	4.00	2.1	30.0
Bromodichloromethane	Ave	0.4153	0.4492		4.33	4.00	8.2	30.0
1,4-Dioxane	Ave	0.1020	0.0940		3.69	4.00	-7.8	30.0
Methyl methacrylate	Ave	0.2874	0.2798		3.89	4.00	-2.7	30.0
Methylcyclohexane	Ave	0.5151	0.4362		3.39	4.00	-15.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5608	0.4948		3.53	4.00	-11.8	30.0
cis-1,3-Dichloropropene	Ave	0.3155	0.3006		3.81	4.00	-4.7	30.0
trans-1,3-Dichloropropene	Ave	0.3016	0.3142		4.17	4.00	4.2	30.0
Toluene	Ave	0.8007	0.7523		3.76	4.00	-6.0	30.0
1,1,2-Trichloroethane	Ave	0.2262	0.2139		3.78	4.00	-5.4	30.0
2-Hexanone	Ave	0.2938	0.2501		3.41	4.00	-14.9	30.0
Octane	Ave	0.3096	0.3048		3.94	4.00	-1.6	30.0
Dibromochloromethane	Ave	0.4009	0.4303		4.29	4.00	7.3	30.0
1,2-Dibromoethane (EDB)	Ave	0.3732	0.3355		3.60	4.00	-10.1	30.0
Tetrachloroethene	Ave	0.3136	0.2879		3.67	4.00	-8.2	30.0
Chlorobenzene	Ave	0.5933	0.5504		3.71	4.00	-7.2	30.0
2,3-Dimethylheptane	Ave	0.9740	0.9349		3.84	4.00	-4.0	30.0
Ethylbenzene	Ave	1.089	1.037		3.81	4.00	-4.7	30.0
m-Xylene & p-Xylene	Ave	0.8448	0.8457		8.01	8.00	0.1	30.0
Nonane	Ave	0.6239	0.6044		3.88	4.00	-3.1	30.0
Bromoform	Ave	0.3354	0.3464		4.13	4.00	3.3	30.0
Styrene	Ave	0.5185	0.5280		4.07	4.00	1.8	30.0
o-Xylene	Ave	0.9416	0.9321		3.96	4.00	-1.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6209	0.6227		4.01	4.00	0.3	30.0
1,2,3-Trichloropropane	Ave	0.1756	0.1850		4.21	4.00	5.4	30.0
Isopropylbenzene	Ave	1.264	1.261		3.99	4.00	-0.2	30.0
Propylbenzene	Ave	0.3352	0.3261		3.89	4.00	-2.7	30.0
2-Chlorotoluene	Ave	0.3087	0.2926		3.79	4.00	-5.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34215/2 Calibration Date: 10/09/2019 11:20

Instrument ID: MG Calib Start Date: 09/06/2019 12:11

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/06/2019 21:05

Lab File ID: GCCVJ09.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.172	1.110		3.79	4.00	-5.3	30.0
1,3,5-Trimethylbenzene	Ave	0.5499	0.5176		3.76	4.00	-5.9	30.0
Alpha Methyl Styrene	Ave	0.4643	0.4744		4.09	4.00	2.2	30.0
Decane	Ave	0.7556	0.7255		3.84	4.00	-4.0	30.0
tert-Butylbenzene	Ave	1.175	1.194		4.07	4.00	1.6	30.0
1,2,4-Trimethylbenzene	Ave	1.032	1.082		4.19	4.00	4.8	30.0
sec-Butylbenzene	Ave	1.539	1.560		4.06	4.00	1.4	30.0
1,3-Dichlorobenzene	Ave	0.6357	0.5994		3.77	4.00	-5.7	30.0
Benzyl chloride	Ave	0.7632	0.9082		4.76	4.00	19.0	30.0
1,4-Dichlorobenzene	Ave	0.6233	0.5707		3.66	4.00	-8.4	30.0
4-Isopropyltoluene	Ave	1.316	1.289		3.92	4.00	-2.0	30.0
1,2,3-Trimethylbenzene	Ave	1.083	1.093		4.04	4.00	0.9	30.0
Butylcyclohexane	Ave	0.9117	0.9287		4.07	4.00	1.9	30.0
1,2-Dichlorobenzene	Ave	0.6582	0.6339		3.85	4.00	-3.7	30.0
Indane	Ave	0.9553	0.9572		4.01	4.00	0.2	30.0
Butylbenzene	Ave	1.186	1.288		4.34	4.00	8.6	30.0
Indene	Ave	0.8118	0.8244		4.06	4.00	1.6	30.0
Undecane	Ave	0.8362	0.7332		3.51	4.00	-12.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3452	0.3292		3.82	4.00	-4.6	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.219	1.188		3.90	4.00	-2.6	30.0
Dodecane	Ave	0.5953	0.4311		2.90	4.00	-27.6	30.0
1,2,4-Trichlorobenzene	Ave	0.5409	0.5389		3.99	4.00	-0.4	30.0
Naphthalene	Ave	1.222	1.138		3.73	4.00	-6.9	30.0
Hexachlorobutadiene	Ave	0.5697	0.6211		4.36	4.00	9.0	30.0
1,2,3-Trichlorobenzene	Ave	0.5044	0.4466		3.54	4.00	-11.5	30.0
2-Methylnaphthalene	Ave	0.2988	0.2245		3.01	4.00	-24.9	50.0
1-Methylnaphthalene	Ave	0.3046	0.2038		2.68	4.00	-33.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6985	0.7372		4.22	4.00	5.5	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HBFBI24.D BFB Injection Date: 09/24/2019

Instrument ID: MH BFB Injection Time: 20:48

Analysis Batch No.: 33708

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.3	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	92.6	
175	5.0 - 9.0 % of mass 174	6.5	(7.0) 1
176	95.0 - 101.0 % of mass 174	89.6	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33708/3	HI24ICL9.D	09/24/2019	22:09
	IC 140-33708/5	HI24ICL10.D	09/24/2019	23:55
	IC 140-33708/8	HI24ICL1.D	09/25/2019	02:33
	IC 140-33708/9	HI24ICL2.D	09/25/2019	03:25
	IC 140-33708/10	HI24ICL3.D	09/25/2019	04:18
	IC 140-33708/11	HI24ICL4.D	09/25/2019	05:11
	IC 140-33708/12	HI24ICL5.D	09/25/2019	06:04
	IC 140-33708/13	HI24ICL6.D	09/25/2019	06:59
	ICIS 140-33708/14	HI24ICL7.D	09/25/2019	07:53
	IC 140-33708/15	HI24ICL8.D	09/25/2019	08:47
	ICV 140-33708/17	HI24ICV.D	09/25/2019	10:36

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 3.0172	3.3329 3.0710	2.9803 3.1411	2.9793 3.0449	3.0027 3.1333	Ave		3.0781				3.7		30.0			
Propene	+++++ 1.7598	+++++ 1.8435	+++++ 1.4469	+++++ 1.3412	+++++ 1.3091	Ave		1.5401				16.0		30.0			
Dichlorodifluoromethane	+++++ 4.6117	4.9070 4.6511	4.5525 4.7256	4.5387 4.4481	4.7083 4.4396	Ave		4.6203				3.2		30.0			
Chloromethane	+++++ 0.5095	+++++ 0.5171	0.5372 0.5017	0.5814 0.4369	0.5201 0.4147	Ave		0.5023				10.6		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.4182 3.1361	3.3762 3.1857	3.1070 3.1962	3.1504 2.8905	3.1681 2.7818	Ave		3.1410				6.1		30.0			
Vinyl chloride	2.0790 1.6733	1.9148 1.6945	1.6286 1.6655	1.6403 1.4961	1.6997 1.4117	Ave		1.6903				11.2		30.0			
1,3-Butadiene	+++++ 1.2870	+++++ 1.2886	1.2429 1.2732	1.2547 1.1407	1.3025 1.0818	Ave		1.2339				6.5		30.0			
Butane	+++++ 2.2973	+++++ 2.4515	2.2886 2.2285	2.3651 1.9694	2.3219 1.8140	Ave		2.2170				9.7		30.0			
Bromomethane	+++++ 1.5878	+++++ 1.5952	1.5170 1.6025	1.5574 1.4863	1.5913 1.4876	Ave		1.5531				3.2		30.0			
Chloroethane	+++++ 0.7352	0.8125 0.7465	0.8745 0.7409	0.7719 0.6943	0.7736 0.6892	Ave		0.7598				7.6		30.0			
Ethanol	0.6750 0.6123	0.6741 0.6855	0.6072 0.6933	0.5902 0.5665	0.6296 0.5133	Ave		0.6247				9.4		30.0			
Vinyl bromide	+++++ 1.5653	+++++ 1.5914	1.6609 1.5836	1.5758 1.4916	1.6044 1.4711	Ave		1.5680				3.9		30.0			
2-Methylbutane	+++++ 1.7846	+++++ 1.7977	1.9931 1.7877	1.8458 1.6661	1.8566 1.5439	Ave		1.7844				7.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 4.3997	4.7091 4.3688	4.3519 4.3813	4.4087 4.1898	4.4317 4.1180	Ave		4.3732				3.8		30.0			
Acrolein	+++++ 0.5931	+++++ 0.5729	+++++ 0.6033	0.6118 0.5511	0.5975 0.5764	Ave		0.5866				3.6		30.0			
Acetonitrile	+++++ 0.7412	+++++ 0.7970	+++++ 0.7635	0.7986 0.7045	0.7851 0.6794	Ave		0.7528				6.2		30.0			
Acetone	+++++ 0.7601	+++++ 0.9456	+++++ 0.7650	0.8896 0.7152	0.7976 0.6841	Ave		0.7939				11.8		30.0			
Pentane	+++++ 0.2227	+++++ 0.2244	0.2146 0.2125	0.2300 0.2007	0.2279 0.1906	Ave		0.2154				6.4		30.0			
Isopropyl alcohol	+++++ 2.0203	+++++ 2.2573	+++++ 2.3187	1.9212 1.9759	2.0275 +++++	QuaF		2.4754	-0.020447						0.9980		0.9900
Ethyl ether	+++++ 1.8408	+++++ 1.8255	1.7772 1.7867	1.8421 1.6795	1.8613 1.6206	Ave		1.7792				4.8		30.0			
1,1-Dichloroethene	+++++ 1.5300	1.7399 1.5384	1.5642 1.5445	1.5038 1.5038	1.5168 1.4941	Ave		1.5484				4.9		30.0			
tert-Butyl alcohol	+++++ 1.8258	+++++ 2.0966	+++++ 2.2228	1.6909 1.8250	1.7801 1.8950	Ave		1.9052				9.9		30.0			
Acrylonitrile	+++++ 1.2606	+++++ 1.2760	1.2979 1.2950	1.2358 1.2474	1.2908 1.2160	Ave		1.2649				2.4		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 3.4979	+++++ 3.4734	3.5427 3.4156	3.5908 3.2147	3.5467 3.1115	Ave		3.4242				5.0		30.0			
Methylene Chloride	+++++ 1.7549	+++++ 1.6036	+++++ 1.4906	3.4692 1.3838	2.2362 +++++	Ave		1.9897				39.4	*	30.0			
3-Chloropropene	+++++ 1.4184	+++++ 1.5844	1.4035 1.4248	1.4387 1.3193	1.4190 1.1834	Ave		1.3989				8.1		30.0			
Carbon disulfide	+++++ 4.6084	+++++ 4.6033	4.5407 4.6416	4.6121 4.4757	4.6739 4.3880	Ave		4.5680				2.1		30.0			
trans-1,2-Dichloroethene	+++++ 1.5372	+++++ 1.5575	1.5303 1.5596	1.5501 1.5176	1.5691 1.4910	Ave		1.5390				1.7		30.0			
2-Methylpentane	+++++ 3.6882	+++++ 3.7115	3.6573 3.6564	3.6642 3.4510	3.7231 3.2529	Ave		3.6006				4.6		30.0			
Methyl tert-butyl ether	3.3498 3.1065	3.2139 3.2444	2.8656 3.3624	2.9805 3.0170	3.0449 3.1311	Ave		3.1316				5.2		30.0			
1,1-Dichloroethane	+++++ 2.9967	+++++ 3.0159	3.0135 3.0294	2.9509 2.9327	3.0800 2.9213	Ave		2.9925				1.8		30.0			
Vinyl acetate	+++++ 4.2011	+++++ 4.4554	+++++ 4.6461	+++++ 4.5047	3.9512 4.4857	Ave		4.3740				5.8		30.0			
2-Butanone (MEK)	+++++ 0.7027	+++++ 0.7541	0.7185 0.7431	0.7132 0.7135	0.7029 0.7086	Ave		0.7196				2.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2879	+++++ 1.2988	1.3275 1.2761	1.3234 1.2459	1.3049 1.2133	Ave		1.2847				3.0		30.0			
cis-1,2-Dichloroethene	+++++ 1.6110	1.7331 1.6277	1.6371 1.6351	1.5904 1.6048	1.6371 1.5982	Ave		1.6305				2.6		30.0			
Ethyl acetate	3.7301 3.7241	3.2683 3.8306	3.2975 3.8895	3.2962 3.7773	3.5754 3.7733	Ave		3.6162				6.7		30.0			
Chloroform	+++++ 3.5050	+++++ 3.4982	3.5057 3.4922	3.5158 3.3582	3.5713 3.3356	Ave		3.4728				2.4		30.0			
Tetrahydrofuran	1.8618 1.7632	1.7085 1.8385	1.7943 1.8743	1.6158 1.8215	1.7130 1.8110	Ave		1.7802				4.5		30.0			
1,1,1-Trichloroethane	+++++ 3.1880	3.4405 3.3082	2.9826 3.3688	3.0889 3.2674	3.1540 3.3075	Ave		3.2340				4.4		30.0			
1,2-Dichloroethane	+++++ 0.4562	0.4881 0.4677	0.4356 0.4651	0.4447 0.4484	0.4648 0.4466	Ave		0.4575				3.5		30.0			
1-Butanol	+++++ 0.0980	+++++ 0.1260	+++++ 0.1331	+++++ 0.1168	0.0864 0.1189	Ave		0.1132				15.6		30.0			
Cyclohexane	+++++ 0.1340	+++++ 0.1390	0.1290 0.1343	0.1317 0.1289	0.1377 0.1245	Ave		0.1324				3.6		30.0			
Benzene	+++++ 0.8866	0.9482 0.8963	0.8848 0.8779	0.8773 0.8313	0.8874 0.7938	Ave		0.8760				4.9		30.0			
Carbon tetrachloride	0.7254 0.6592	0.6502 0.6487	0.6129 0.6835	0.6174 0.6404	0.6501 0.5761	Ave		0.6464				6.3		30.0			
2,3-Dimethylpentane	+++++ 0.1859	+++++ 0.1933	0.1829 0.1865	0.1824 0.1784	0.1926 0.1743	Ave		0.1845				3.5		30.0			
Thiophene	+++++ 0.5122	+++++ 0.5312	0.5021 0.5188	0.4927 0.5026	0.5144 0.4977	Ave		0.5090				2.5		30.0			
2,2,4-Trimethylpentane	+++++ 1.4914	+++++ 1.5186	1.4649 1.5070	1.4512 1.4587	1.4938 1.4335	Ave		1.4774				2.0		30.0			
Heptane	+++++ 0.2845	0.2841 0.2911	0.2768 0.2880	0.2724 0.2844	0.2797 0.2829	Ave		0.2827				2.0		30.0			
1,2-Dichloropropane	+++++ 0.3648	0.4080 0.3755	0.3575 0.3731	0.3458 0.3576	0.3700 0.3516	Ave		0.3671				5.0		30.0			
Trichloroethene	0.4330 0.3843	0.4298 0.3885	0.3828 0.3814	0.3789 0.3680	0.3905 0.3642	Ave		0.3901				6.0		30.0			
Dibromomethane	+++++ 0.4090	0.4434 0.4461	0.4024 0.4086	0.3952 0.3858	0.4060 0.3796	Ave		0.4085				5.6		30.0			
Bromodichloromethane	0.6965 0.6706	0.6434 0.6715	0.6048 0.6955	0.6105 0.6696	0.6613 0.6608	Ave		0.6585				4.7		30.0			
1,4-Dioxane	+++++ 0.1204	+++++ 0.1382	+++++ 0.1436	0.1087 0.1258	0.1236 0.1187	Ave		0.1256				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.4084	+++++ 0.4252	+++++ 0.4278	0.3201 0.4112	0.3765 0.4020	Ave		0.3959				9.5		30.0			
Methylcyclohexane	+++++ 0.5059	0.5295 0.5272	0.5045 0.5174	0.4863 0.5093	0.5040 0.5092	Ave		0.5104				2.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.7584	+++++ 0.8024	+++++ 0.8096	0.6229 0.7894	0.7047 0.7803	Ave		0.7525				8.9		30.0			
cis-1,3-Dichloropropene	0.4938 0.4900	0.4244 0.5253	0.4134 0.5302	0.4268 0.5144	0.4607 0.5167	Ave		0.4796				9.4		30.0			
trans-1,3-Dichloropropene	0.4826 0.5169	0.4296 0.5665	0.4145 0.5837	0.4208 0.5681	0.4741 0.5704	Ave		0.5027				13.4		30.0			
Toluene	+++++ 1.2466	+++++ 1.2829	1.2361 1.2497	1.2443 1.1769	1.2548 1.1303	Ave		1.2277				4.0		30.0			
1,1,2-Trichloroethane	+++++ 0.4192	0.4473 0.4282	0.4072 0.4130	0.4094 0.3830	0.4239 0.3665	Ave		0.4109				5.9		30.0			
2-Hexanone	+++++ 0.3892	+++++ 0.4381	+++++ 0.4545	0.2604 0.4483	0.3369 0.4507	Ave		0.3969				18.6		30.0			
C8 Range	+++++ 3.0631	+++++ 3.1739	+++++ 3.0954	2.9514 2.9465	3.0471 2.8165	Ave		3.0134				3.9		30.0			
Octane	+++++ 0.3654	0.3736 0.3727	0.3377 0.3644	0.3480 0.3465	0.3646 0.3298	Ave		0.3559				4.4		30.0			
Dibromochloromethane	0.7894 0.8229	0.7430 0.7681	0.6761 0.8772	0.7081 0.8215	0.7807 0.7877	Ave		0.7775				7.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.7500	0.7269 0.7792	0.6893 0.7749	0.7002 0.7366	0.7469 0.7223	Ave		0.7363				4.1		30.0			
Tetrachloroethene	0.5729 0.4740	0.5256 0.4766	0.4809 0.4613	0.4773 0.4229	0.4827 0.4025	Ave		0.4777				10.0		30.0			
Chlorobenzene	+++++ 0.9810	1.0564 0.9984	0.9636 0.9835	0.9603 0.9249	0.9920 0.8857	Ave		0.9718				4.9		30.0			
Ethylbenzene	+++++ 1.5990	1.6358 1.6376	1.5004 1.6051	1.5339 1.5147	1.5973 1.4395	Ave		1.5626				4.4		30.0			
m-Xylene & p-Xylene	+++++ 1.2598	1.2874 1.2666	1.1693 1.2285	1.1817 1.1113	1.2482 1.0009	Ave		1.1948				7.7		30.0			
Nonane	+++++ 0.8648	0.8083 0.8877	0.7553 0.8669	0.8082 0.8004	0.8349 0.7227	Ave		0.8166				6.6		30.0			
Bromoform	+++++ 0.8489	+++++ 0.6423	0.6164 1.0093	0.6458 0.9575	0.7604 0.8852	Ave		0.7957				19.1		30.0			
Styrene	0.8596 0.8933	0.7755 0.9308	0.7416 0.9020	0.7917 0.8330	0.8506 0.7606	Ave		0.8339				7.7		30.0			
o-Xylene	+++++ 1.2896	1.3529 1.2981	1.2586 1.2221	1.2752 1.1179	1.3026 1.0495	Ave		1.2407				7.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 1.0587	0.9899 1.0934	0.9556 1.0657	0.9836 0.9954	1.0400 0.9462	Ave		1.0143				5.1		30.0			
1,2,3-Trichloropropane	+++++ 0.2491	0.2462 0.2584	0.2346 0.2540	0.2456 0.2408	0.2508 0.2378	Ave		0.2464				3.1		30.0			
Isopropylbenzene	+++++ 1.7162	+++++ 1.7678	1.6821 1.7185	1.6927 1.6002	1.7340 1.5086	Ave		1.6775				5.0		30.0			
Propylbenzene	0.4347 0.4619	0.4102 0.4772	0.4030 0.4752	0.4233 0.4643	0.4530 0.4554	Ave		0.4458				5.9		30.0			
2-Chlorotoluene	+++++ 0.4363	0.4437 0.4432	0.4185 0.4295	0.4210 0.4046	0.4401 0.3903	Ave		0.4252				4.3		30.0			
4-Ethyltoluene	1.6880 1.7410	1.5113 1.7948	1.5224 1.7592	1.5702 1.6671	1.6964 1.5749	Ave		1.6525				6.1		30.0			
1,3,5-Trimethylbenzene	0.7463 0.6997	0.7001 0.7088	0.6435 0.6882	0.6651 0.6528	0.6963 0.6212	Ave		0.6822				5.4		30.0			
Alpha Methyl Styrene	+++++ 0.6927	+++++ 0.7400	+++++ 0.7406	0.5529 0.7395	0.6410 0.7321	Ave		0.6913				10.3		30.0			
Decane	1.0263 1.1328	0.9925 1.1438	0.9720 1.1070	1.0486 1.0122	1.1246 0.9069	Ave		1.0467				7.6		30.0			
tert-Butylbenzene	+++++ 1.5567	1.5733 1.5615	1.4947 1.5280	1.4966 1.4039	1.5632 1.2584	Ave		1.4929				6.9		30.0			
1,2,4-Trimethylbenzene	1.5485 1.5154	1.4013 1.5290	1.3576 1.4667	1.4373 1.3401	1.5154 1.1954	Ave		1.4307				7.7		30.0			
sec-Butylbenzene	+++++ 2.2203	2.1285 2.2636	2.0519 2.2124	2.1292 2.0220	2.2147 1.7583	Ave		2.1112				7.4		30.0			
1,3-Dichlorobenzene	0.9870 0.9417	0.8209 0.9942	0.8151 0.9853	0.8378 0.9482	0.8993 0.8765	Ave		0.9106				7.7		30.0			
Benzyl chloride	+++++ 0.6750	+++++ 0.9083	+++++ 1.0157	0.3413 1.0431	0.4678 1.0687	Lin1	-0.179	1.0611							0.9970		0.9900
1,4-Dichlorobenzene	0.8528 0.8672	0.7355 0.9357	0.7143 0.9317	0.7371 0.9279	0.8017 0.8858	Ave		0.8390				10.3		30.0			
4-Isopropyltoluene	1.6732 1.7634	1.5788 1.7827	1.5237 1.7168	1.6666 1.5732	1.7407 1.4370	Ave		1.6456				6.9		30.0			
1,2,3-Trimethylbenzene	1.5682 1.5249	1.4477 1.6370	1.4314 1.4514	1.4734 1.3433	1.5359 1.2699	Ave		1.4683				7.3		30.0			
Indane	1.3984 1.3718	1.2388 1.5071	1.1958 1.3693	1.2762 1.2569	1.3409 1.0901	Ave		1.3045				9.0		30.0			
1,2-Dichlorobenzene	1.0229 0.9674	0.9032 1.0083	0.8390 0.9934	0.8953 0.9436	0.9329 0.8531	Ave		0.9359				6.8		30.0			
Indene	+++++ 1.1131	+++++ 1.2922	+++++ 1.1661	0.9242 1.1190	1.0289 0.9954	Ave		1.0913				11.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	+++++ 1.7750	+++++ 1.8214	+++++ 1.7404	1.5190 1.5414	1.6954 1.3078	Ave		1.6286				11.2		30.0			
Undecane	+++++ 1.2523	+++++ 1.3019	+++++ 1.2681	+++++ 1.1808	1.1821 1.0361	Ave		1.2036				7.9		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4548	+++++ 0.5219	0.2470 0.5574	0.2920 0.5742	0.3689 0.5999	Ave		0.4520				29.8		30.0			
1,2,4,5-Tetramethylbenzene	1.4947 1.6528	1.3551 1.8976	1.3171 1.6339	1.4553 1.5970	1.5771 1.5053	Ave		1.5486				10.7		30.0			
Dodecane	+++++ 1.1426	+++++ 1.2800	+++++ 1.2179	+++++ 1.1895	1.0035 1.1089	Ave		1.1571				8.3		30.0			
1,2,4-Trichlorobenzene	+++++ 0.4936	+++++ 0.6412	+++++ 0.5925	0.3245 +++++	0.3747 +++++	Lin1	-0.062	0.6164							0.9930		0.9900
Naphthalene	+++++ 1.2657	0.8539 1.5485	0.7864 1.1243	0.8403 1.5972	0.9947 1.7325	QuaF		1.2867	0.0282762						0.9970		0.9900
Hexachlorobutadiene	1.0036 0.9352	0.9400 0.9880	0.8759 1.0125	0.9025 0.9211	0.9104 0.7987	Ave		0.9288				6.9		30.0			
1,2,3-Trichlorobenzene	+++++ 0.6182	0.5119 0.7308	0.4646 0.6216	0.4723 0.7651	0.5214 0.8265	Ave		0.6147				21.8		30.0			
2-Methylnaphthalene	0.3064 0.2492	0.2263 0.3232	0.2107 +++++	0.2007 +++++	0.2105 +++++	Ave		0.2467				20.0		50.0			
1-Methylnaphthalene	0.3565 0.3623	0.3124 0.4233	0.3090 +++++	0.2928 +++++	0.3112 +++++	Ave		0.3382				13.5		50.0			
4-Bromofluorobenzene (Surr)	0.6171 0.6569	0.6222 0.6579	0.6294 0.6443	0.6357 0.6140	0.6466 0.5855	Ave		0.6310				3.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 258080	12327 526371	22114 1051947	43196 2300206	103822 4338806	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 150527	+++++ 315975	+++++ 484559	+++++ 1013193	+++++ 1812795	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 394462	18149 797184	33779 1582580	65805 3360254	162795 6147725	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 43576	+++++ 88624	3986 168019	8429 330079	17983 574215	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	6751 268246	12487 546017	23054 1070401	45676 2183541	109541 3851999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	4106 143127	7082 290432	12084 557770	23782 1130201	58771 1954790	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 110081	+++++ 220869	9222 426377	18191 861724	45035 1498007	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 196500	+++++ 420180	16981 746307	34290 1487756	80282 2511969	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 135817	+++++ 273421	11256 536658	22580 1122793	55023 2059946	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 62882	3005 127950	6489 248124	11191 524474	26750 954347	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	6666 261855	12467 587431	22527 1160909	42784 2139925	108838 3554027	0.100 5.00	0.200 10.0	0.400 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 133892	+++++ 272770	12324 530342	22847 1126793	55473 2037031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 152650	+++++ 308121	14789 598691	26761 1258620	64196 2137876	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 376331	17417 748808	32291 1467266	63919 3165059	153233 5702329	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 50728	+++++ 98189	+++++ 202039	8870 416349	20661 798221	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 63400	+++++ 136603	+++++ 255701	11579 532165	27147 940740	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 195039	+++++ 486234	+++++ 768541	38693 1620868	82734 2841852	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 19047	+++++ 38454	1592 71176	3334 151611	7881 263861	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	QuaF	+++++ 518417	+++++ 1160710	+++++ 2329523	83562 4478030	210316 +++++	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 +++++
Ethyl ether	CBM	Ave	+++++ 157454	+++++ 312892	13187 598345	26707 1268732	64358 2244138	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 130868	6435 263675	11606 517241	21803 1135983	52447 2068932	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 156169	+++++ 359357	+++++ 744416	24516 1378689	61549 2624089	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 107825	+++++ 218710	9630 433673	17917 942315	44632 1683899	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 299195	+++++ 595343	26287 1143879	52062 2428459	122633 4308645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 150109	+++++ 274860	+++++ 499185	50298 1045351	77321 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 121319	+++++ 271563	10414 477175	20859 996619	49063 1638711	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 394178	+++++ 788999	33692 1554444	66869 3381044	161607 6076214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 131483	+++++ 266946	11355 522287	22474 1146408	54254 2064580	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 315473	+++++ 636153	27137 1224511	53125 2606951	128733 4504406	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	6616 265718	11887 556080	21263 1126040	43213 2279152	105281 4335737	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 256323	+++++ 516914	22360 1014519	42784 2215457	106496 4045169	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 359344	+++++ 763645	+++++ 1555969	+++++ 3402957	136617 6211522	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 60107	+++++ 129259	5331 248875	10341 538970	24304 981260	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 110164	+++++ 222617	9850 427376	19188 941205	45120 1680027	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 137797	6410 278981	12147 547573	23059 1212279	56606 2213145	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	7367 318538	12088 656558	24467 1302569	47790 2853515	123623 5225034	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 299799	+++++ 599583	26012 1169537	50974 2536881	123484 4618898	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	3677 150812	6319 315123	13314 627682	23427 1376011	59229 2507772	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 272684	12725 567012	22131 1128184	44785 2468268	109055 4580060	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 204250	9652 412948	17098 809776	34172 1764440	84489 3192664	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 43891	+++++ 111292	+++++ 231779	+++++ 459733	15699 850224	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 59975	+++++ 122723	5064 233772	10125 507432	25031 890031	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 396929	18751 791442	34726 1528423	67419 3271364	161306 5674454	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	7608 295125	12857 572784	24054 1189938	47444 2520053	118158 4117865	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 83232	+++++ 170678	7180 324669	14015 702072	35003 1245859	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 229319	+++++ 469033	19708 903327	37862 1977770	93498 3557854	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 667738	+++++ 1340921	57497 2623805	111529 5740323	271516 10246881	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 127392	5618 257052	10865 501419	20936 1119365	50832 2021836	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 163324	8069 331588	14031 649565	26576 1407448	67250 2512982	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4541 172044	8499 343047	15023 664068	29121 1448188	70988 2603661	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 183116	8769 393896	15792 711391	30368 1518384	73801 2713344	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	7305 300223	12723 592955	23738 1210924	46919 2635124	120207 4723400	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 53916	+++++ 122001	+++++ 249976	8350 495003	22473 848749	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 182847	+++++ 375501	+++++ 744857	24601 1618228	68426 2873694	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 226504	10471 465542	19799 900896	37370 2004192	91601 3640003	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 339545	+++++ 708531	+++++ 1409528	47870 3106672	128098 5577877	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	5179 219375	8393 463810	16224 923104	32800 2024214	83737 3693129	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	4016 188190	6769 413927	13027 859037	25754 1960990	69361 3680539	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453859	+++++ 937343	38844 1839181	76160 4062800	183594 7293412	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 152636	7048 312845	12797 607746	25056 1322300	62020 2364559	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 141717	+++++ 320107	+++++ 668835	15937 1547506	49289 2908225	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1371382	+++++ 2802607	+++++ 5389224	226816 11595308	553854 20132590	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 133039	5887 272318	10613 536311	21302 1196166	53349 2127711	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	6570 299597	11706 561197	21246 1290979	43336 2835933	114222 5082414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 273072	11452 569336	21661 1140314	42855 2542909	109287 4660782	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4768 172587	8281 348207	15113 678939	29210 1459978	70628 2596812	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 357164	16645 729491	30282 1447415	58773 3192681	145143 5715223	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 582181	25773 1196436	47150 2362105	93879 5228794	233703 9288196	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 917354	40569 1850763	73493 3615792	144646 7672406	365259 12916434	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 314861	12735 648556	23735 1275706	49467 2762958	122153 4662972	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 309075	+++++ 469293	19371 1485352	39523 3305524	111253 5711552	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	7154 325232	12219 680077	23305 1327357	48453 2875566	124454 4907648	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 469536	21316 948407	39551 1798567	78046 3859106	190593 6772116	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 385450	15597 798854	30032 1568376	60200 3436226	152170 6105282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 90692	3879 188785	7373 373834	15033 831137	36695 1534416	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 624842	+++++ 1291576	52862 2528962	103604 5524128	253709 9733848	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	3618 168177	6463 348652	12666 699326	25908 1602900	66273 2938574	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 158859	6991 323777	13152 632133	25767 1396566	64387 2518282	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	14048 633870	23811 1311330	47844 2589001	96101 5754889	248207 10161779	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	6211 254742	11031 517860	20221 1012751	40705 2253557	101880 4008116	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 252208	+++++ 540626	+++++ 1089948	33843 2552865	93782 4723728	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	8541 412455	15638 835714	30546 1629098	64178 3494119	164541 5851784	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 566776	24788 1140875	46971 2248680	91598 4846271	228719 8120000	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	12887 551741	22079 1117140	42663 2158520	87972 4626128	221725 7713396	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 808374	33536 1653844	64482 3255913	130315 6980187	324044 11345386	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	8214 342858	12934 726374	25616 1449949	51280 3273154	131580 5655538	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Lin1	+++++ 245776	+++++ 663636	+++++ 1494791	20890 3600699	68451 6895733	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	7097 315726	11588 683630	22449 1371140	45113 3203334	117301 5715506	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	13925 642036	24875 1302455	47883 2526501	102001 5430794	254695 9272439	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	13051 555204	22809 1196043	44983 2135883	90182 4637042	224726 8194003	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	11638 499443	19518 1101095	37579 2015184	78111 4338946	196198 7033477	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8513 352213	14230 736659	26365 1461945	54798 3257369	136502 5504414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 405284	+++++ 944116	+++++ 1716157	56568 3862763	150544 6422664	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 646251	+++++ 1330772	+++++ 2561258	92968 5320956	248059 8438576	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 455960	+++++ 951215	+++++ 1866246	+++++ 4076087	172958 6685309	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 165576	+++++ 381341	7761 820334	17870 1982271	53981 3870648	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	12439 601768	21351 1386418	41391 2404482	89073 5512969	230745 9712688	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 416010	+++++ 935208	+++++ 1792287	+++++ 4106299	146819 7155088	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Lin1	+++++ 179722	+++++ 468499	+++++ 872017	19861 +++++	54822 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 +++++	0.400 +++++
Naphthalene	CBZd5	QuaF	+++++ 460821	13454 1131343	24712 1654527	51432 5513643	145539 11178875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	8352 340491	14811 721866	27526 1489988	55239 3179700	133209 5153691	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 225092	8066 533916	14601 914779	28906 2641091	76295 5332766	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	2550 90748	3565 236143	6623 +++++	12284 +++++	30794 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
1-Methylnaphthalene	CBZd5	Ave	2967 131930	4923 309255	9711 +++++	17919 +++++	45529 +++++	0.0200 1.00	0.0400 2.00	0.0800 +++++	0.160 +++++	0.400 +++++
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1027190 956665	980386 961381	989017 948130	972701 1059784	946075 944497	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
QuaF = Quadratic ISTD forced zero

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33708/8	HI24ICL1.D
Level 2	IC 140-33708/9	HI24ICL2.D
Level 3	IC 140-33708/10	HI24ICL3.D
Level 4	IC 140-33708/11	HI24ICL4.D
Level 5	IC 140-33708/12	HI24ICL5.D
Level 6	IC 140-33708/13	HI24ICL6.D
Level 7	ICIS 140-33708/14	HI24ICL7.D
Level 8	IC 140-33708/15	HI24ICL8.D
Level 9	IC 140-33708/3	HI24ICL9.D
Level 10	IC 140-33708/5	HI24ICL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	8.3						50				
Propene	+++++	+++++	+++++	+++++	+++++	14.3						50
Dichlorodifluoromethane	+++++	6.2						50				
Chloromethane	+++++	+++++	6.9						50			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	8.8						50					
Vinyl chloride	23.0						50					
1,3-Butadiene	+++++	+++++	0.7						50			
Butane	+++++	+++++	3.2						50			
Bromomethane	+++++	+++++	-2.3						50			
Chloroethane	+++++	6.9						50				
Ethanol	8.1						50					
Vinyl bromide	+++++	+++++	5.9						50			
2-Methylbutane	+++++	+++++	11.7						50			
Trichlorofluoromethane	+++++	7.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	4.3						50		
Acetonitrile	+++++	+++++	+++++	6.1						50		
Acetone	+++++	+++++	+++++	12.1						80		
Pentane	+++++	+++++	-0.4						50			
Isopropyl alcohol	+++++	+++++	+++++	-22.2 +++++						50		
Ethyl ether	+++++	+++++	-0.1						50			
1,1-Dichloroethene	+++++	12.4						50				
tert-Butyl alcohol	+++++	+++++	+++++	-11.2						50		
Acrylonitrile	+++++	+++++	2.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	3.5						50			
Methylene Chloride	+++++	+++++	+++++	74.4 +++++						80		
3-Chloropropene	+++++	+++++	0.3						50			
Carbon disulfide	+++++	+++++	-0.6						50			
trans-1,2-Dichloroethene	+++++	+++++	-0.6						50			
2-Methylpentane	+++++	+++++	1.6						50			
Methyl tert-butyl ether	7.0						50					
1,1-Dichloroethane	+++++	+++++	0.7						50			
Vinyl acetate	+++++	+++++	+++++	+++++	-9.7						50	
2-Butanone (MEK)	+++++	+++++	-0.2						50			
Hexane	+++++	+++++	3.3						50			
cis-1,2-Dichloroethene	+++++	6.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	3.1						50					
Chloroform	+++++	+++++	0.9						50			
Tetrahydrofuran	4.6						50					
1,1,1-Trichloroethane	+++++	6.4						50				
1,2-Dichloroethane	+++++	6.7						50				
1-Butanol	+++++	+++++	+++++	+++++	-23.7						50	
Cyclohexane	+++++	+++++	-2.5						50			
Benzene	+++++	8.3						50				
Carbon tetrachloride	12.2						50					
2,3-Dimethylpentane	+++++	+++++	-0.9						50			
Thiophene	+++++	+++++	-1.3						50			
2,2,4-Trimethylpentane	+++++	+++++	-0.8						50			
Heptane	+++++	0.5						50				
1,2-Dichloropropane	+++++	11.2						50				
Trichloroethene	11.0						50					
Dibromomethane	+++++	8.6						50				
Bromodichloromethane	5.8						50					
1,4-Dioxane	+++++	+++++	+++++	-13.5						50		
Methyl methacrylate	+++++	+++++	+++++	-19.1						50		
Methylcyclohexane	+++++	3.8						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	-17.2						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	3.0						50					
trans-1,3-Dichloropropene	-4.0						50					
Toluene	+++++	+++++	0.7						50			
1,1,2-Trichloroethane	+++++	8.9						50				
2-Hexanone	+++++	+++++	+++++	-34.4						50		
Octane	+++++	5.0						50				
Dibromochloromethane	1.5						50					
1,2-Dibromoethane (EDB)	+++++	-1.3						50				
Tetrachloroethene	19.9						50					
Chlorobenzene	+++++	8.7						50				
Ethylbenzene	+++++	4.7						50				
m-Xylene & p-Xylene	+++++	7.7						50				
Nonane	+++++	-1.0						50				
Bromoform	+++++	+++++	-22.5						50			
Styrene	3.1						50					
o-Xylene	+++++	9.0						50				
1,1,2,2-Tetrachloroethane	+++++	-2.4						50				
1,2,3-Trichloropropane	+++++	-0.1						50				
Isopropylbenzene	+++++	+++++	0.3						50			
Propylbenzene	-2.5						50					
2-Chlorotoluene	+++++	4.3						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	2.1						50					
1,3,5-Trimethylbenzene	9.4						50					
Alpha Methyl Styrene	+++++	+++++	+++++	-20.0						50		
Decane	-1.9						50					
tert-Butylbenzene	+++++	5.4						50				
1,2,4-Trimethylbenzene	8.2						50					
sec-Butylbenzene	+++++	0.8						50				
1,3-Dichlorobenzene	8.4						50					
Benzyl chloride	+++++	+++++	+++++	37.3						50		
1,4-Dichlorobenzene	1.6						50					
4-Isopropyltoluene	1.7						50					
1,2,3-Trimethylbenzene	6.8						50					
Indane	7.2						50					
1,2-Dichlorobenzene	9.3						50					
Indene	+++++	+++++	+++++	-15.3						50		
Butylbenzene	+++++	+++++	+++++	-6.7						50		
Undecane	+++++	+++++	+++++	+++++	-1.8						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	-45.4						50			
1,2,4,5-Tetramethylbenzene	-3.5						50					
Dodecane	+++++	+++++	+++++	+++++	-13.3						50	
1,2,4-Trichlorobenzene	+++++	+++++	+++++ +++++	15.9 +++++						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33708

SDG No.:

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2019 22:09 Calibration End Date: 09/25/2019 08:47 Calibration ID: 2163

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	-33.7						80				
Hexachlorobutadiene	8.1						50					
1,2,3-Trichlorobenzene	+++++	-16.7						50				
2-Methylnaphthalene	24.2	+++++	+++++	+++++			80					
1-Methylnaphthalene	5.4	+++++	+++++	+++++			80					

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.279		2.13	2.00	6.5	35.0
Propene	Ave	1.540	1.598		2.07	2.00	3.7	35.0
Dichlorodifluoromethane	Ave	4.620	5.026		2.18	2.00	8.8	35.0
Chloromethane	Ave	0.5023	0.5185		2.06	2.00	3.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.399		2.16	2.00	8.2	35.0
Acetaldehyde	Ave	0.6093	0.5874		9.64	10.0	-3.6	35.0
Vinyl chloride	Ave	1.690	1.792		2.12	2.00	6.0	35.0
1,3-Butadiene	Ave	1.234	1.311		2.12	2.00	6.2	35.0
Butane	Ave	2.217	2.378		2.15	2.00	7.3	35.0
Bromomethane	Ave	1.553	1.626		2.09	2.00	4.7	35.0
Chloroethane	Ave	0.7598	0.7795		2.05	2.00	2.6	35.0
Ethanol	Ave	0.6247	0.5577		8.93	10.0	-10.7	35.0
Vinyl bromide	Ave	1.568	1.739		2.22	2.00	10.9	35.0
2-Methylbutane	Ave	1.784	1.873		2.10	2.00	5.0	35.0
Trichlorofluoromethane	Ave	4.373	4.702		2.15	2.00	7.5	35.0
Acrolein	Ave	0.5866	0.7206		2.46	2.00	22.9	35.0
Acetonitrile	Ave	0.7528	0.7977		2.12	2.00	6.0	35.0
Acetone	Ave	0.7939	0.8323		2.10	2.00	4.8	35.0
Isopropyl alcohol	QuaF		3.049		2.52	2.00	25.8	35.0
Pentane	Ave	0.2154	0.2386		2.22	2.00	10.8	35.0
Ethyl ether	Ave	1.779	2.022		2.27	2.00	13.7	35.0
1,1-Dichloroethene	Ave	1.548	1.641		2.12	2.00	6.0	35.0
tert-Butyl alcohol	Ave	1.905	2.402		2.52	2.00	26.1	35.0
Acrylonitrile	Ave	1.265	1.447		2.29	2.00	14.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.746		2.19	2.00	9.4	35.0
Methylene Chloride	Ave	1.990	1.700		1.71	2.00	-14.6	35.0
3-Chloropropene	Ave	1.399	1.524		2.18	2.00	8.9	35.0
Carbon disulfide	Ave	4.568	4.914		2.15	2.00	7.6	35.0
trans-1,2-Dichloroethene	Ave	1.539	1.655		2.15	2.00	7.5	35.0
2-Methylpentane	Ave	3.601	3.616		2.01	2.00	0.4	35.0
Methyl tert-butyl ether	Ave	3.132	3.593		2.29	2.00	14.7	35.0
1,1-Dichloroethane	Ave	2.993	3.280		2.19	2.00	9.6	35.0
Vinyl acetate	Ave	4.374	4.984		2.28	2.00	13.9	35.0
2-Butanone (MEK)	Ave	0.7196	0.7929		2.20	2.00	10.2	35.0
Hexane	Ave	1.285	1.366		2.13	2.00	6.3	35.0
Isopropyl ether	Ave	5.622	6.364		2.26	2.00	13.2	35.0
cis-1,2-Dichloroethene	Ave	1.630	1.769		2.17	2.00	8.5	35.0
Ethyl acetate	Ave	3.616	3.988		2.21	2.00	10.3	35.0
Chloroform	Ave	3.473	3.769		2.17	2.00	8.5	35.0
Tert-butyl ethyl ether	Ave	3.861	4.239		2.20	2.00	9.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	2.022		2.27	2.00	13.6	35.0
1,1,1-Trichloroethane	Ave	3.234	3.536		2.19	2.00	9.3	35.0
1,2-Dichloroethane	Ave	0.4575	0.4953		2.17	2.00	8.3	35.0
1-Butanol	Ave	0.1132	0.1361		2.40	2.00	20.2	35.0
Cyclohexane	Ave	0.1324	0.1449		2.19	2.00	9.5	35.0
Benzene	Ave	0.8760	0.9599		2.19	2.00	9.6	35.0
Carbon tetrachloride	Ave	0.6464	0.7261		2.25	2.00	12.3	35.0
2,3-Dimethylpentane	Ave	0.1845	0.1939		2.10	2.00	5.1	35.0
Thiophene	Ave	0.5090	0.5398		2.12	2.00	6.1	35.0
2,2,4-Trimethylpentane	Ave	1.477	1.619		2.19	2.00	9.6	35.0
Heptane	Ave	0.2827	0.3058		2.16	2.00	8.2	35.0
1,2-Dichloropropane	Ave	0.3671	0.3985		2.17	2.00	8.6	35.0
Trichloroethene	Ave	0.3901	0.4179		2.14	2.00	7.1	35.0
Dibromomethane	Ave	0.4085	0.4464		2.19	2.00	9.3	35.0
Bromodichloromethane	Ave	0.6585	0.7419		2.25	2.00	12.7	35.0
1,4-Dioxane	Ave	0.1256	0.1495		2.38	2.00	19.1	35.0
Methyl methacrylate	Ave	0.3959	0.4487		2.27	2.00	13.3	35.0
Methylcyclohexane	Ave	0.5104	0.6618		2.59	2.00	29.7	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.8397		2.23	2.00	11.6	35.0
cis-1,3-Dichloropropene	Ave	0.4796	0.5660		2.36	2.00	18.0	35.0
trans-1,3-Dichloropropene	Ave	0.5027	0.6212		2.47	2.00	23.6	35.0
Toluene	Ave	1.228	1.366		2.23	2.00	11.3	35.0
1,1,2-Trichloroethane	Ave	0.4109	0.4508		2.19	2.00	9.7	35.0
2-Hexanone	Ave	0.3969	0.4569		2.30	2.00	15.1	35.0
Octane	Ave	0.3559	0.3969		2.23	2.00	11.5	35.0
Dibromochloromethane	Ave	0.7775	0.9366		2.41	2.00	20.5	35.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.8401		2.28	2.00	14.1	35.0
Tetrachloroethene	Ave	0.4777	0.5084		2.13	2.00	6.4	35.0
Chlorobenzene	Ave	0.9718	1.083		2.23	2.00	11.4	35.0
2,3-Dimethylheptane	Ave	1.229	1.255		2.04	2.00	2.0	35.0
Ethylbenzene	Ave	1.563	1.755		2.25	2.00	12.3	35.0
m-Xylene & p-Xylene	Ave	1.195	1.360		4.55	4.00	13.8	35.0
Nonane	Ave	0.8166	0.9457		2.32	2.00	15.8	35.0
Bromoform	Ave	0.7957	1.025		2.58	2.00	28.8	35.0
Styrene	Ave	0.8339	1.001		2.40	2.00	20.1	35.0
o-Xylene	Ave	1.241	1.362		2.20	2.00	9.8	35.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.153		2.27	2.00	13.7	35.0
1,2,3-Trichloropropane	Ave	0.2464	0.2764		2.24	2.00	12.2	35.0
Isopropylbenzene	Ave	1.678	1.929		2.30	2.00	15.0	35.0
Propylbenzene	Ave	0.4458	0.5200		2.33	2.00	16.6	35.0
2-Chlorotoluene	Ave	0.4252	0.4813		2.26	2.00	13.2	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33708/17 Calibration Date: 09/25/2019 10:36

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HI24ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.822		2.21	2.00	10.3	35.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.8546		2.51	2.00	25.3	35.0
Alpha Methyl Styrene	Ave	0.6913	0.7852		2.27	2.00	13.6	35.0
Decane	Ave	1.047	1.236		2.36	2.00	18.1	35.0
tert-Butylbenzene	Ave	1.493	1.675		2.24	2.00	12.2	35.0
1,2,4-Trimethylbenzene	Ave	1.431	1.627		2.28	2.00	13.8	35.0
sec-Butylbenzene	Ave	2.111	2.430		2.30	2.00	15.1	35.0
1,3-Dichlorobenzene	Ave	0.9106	1.064		2.34	2.00	16.8	35.0
Benzyl chloride	Lin1		0.9874		2.03	2.00	1.5	35.0
1,4-Dichlorobenzene	Ave	0.8390	1.001		2.39	2.00	19.3	35.0
4-Isopropyltoluene	Ave	1.646	1.868		2.27	2.00	13.5	35.0
1,2,3-Trimethylbenzene	Ave	1.468	1.206		1.64	2.00	-17.9	35.0
Butylcyclohexane	Ave	1.200	1.242		2.07	2.00	3.6	35.0
1,2-Dichlorobenzene	Ave	0.9359	1.077		2.30	2.00	15.0	35.0
Indane	Ave	1.305	1.476		2.26	2.00	13.2	35.0
Indene	Ave	1.091	1.103		2.02	2.00	1.1	35.0
Butylbenzene	Ave	1.629	1.953		2.40	2.00	19.9	35.0
Undecane	Ave	1.204	1.403		2.33	2.00	16.5	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4618		2.04	2.00	2.2	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.712		2.21	2.00	10.6	35.0
Dodecane	Ave	1.157	1.412		2.44	2.00	22.0	35.0
1,2,4-Trichlorobenzene	Lin1		0.6892		2.34	2.00	16.9	35.0
Naphthalene	QuaF		1.655		2.44	2.00	22.1	35.0
Hexachlorobutadiene	Ave	0.9288	1.063		2.29	2.00	14.4	35.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.8048		2.62	2.00	30.9	35.0
2-Methylnaphthalene	Ave	0.2467	0.4052		3.28	2.00	64.2*	50.0
1-Methylnaphthalene	Ave	0.3382	0.5864		3.47	2.00	73.4*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6558		4.16	4.00	3.9	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: HJ08BFBA.D BFB Injection Date: 10/08/2019

Instrument ID: MH BFB Injection Time: 10:57

Analysis Batch No.: 34203

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.9	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	102.7	
175	5.0 - 9.0 % of mass 174	7.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	100.0	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.4	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34203/2	HJ08CCVISA.D	10/08/2019	11:25
	LCS 140-34203/1002	HJ08CCVISA-LCS.d	10/08/2019	11:25
	MB 140-34203/7	HJ08mb500.D	10/08/2019	13:54
IA-015-A-27-RS	140-16893-2	HJ08p101.D	10/08/2019	15:43
IA-168-A-27-RS	140-16893-3	HJ08p102.D	10/08/2019	16:35
IA-021-A-27-RS	140-16893-4	HJ08p103.D	10/08/2019	17:28
IA-136-A-27-RS	140-16893-5	HJ08p104.D	10/08/2019	18:21
IA-117-A-27-RS	140-16893-6	HJ08p105.D	10/08/2019	19:15
IA-079-A-27-RS	140-16893-7	HJ08p106.D	10/08/2019	20:09

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	3.078	3.125		2.03	2.00	1.5	30.0
Propene	Ave	1.540	1.651		2.14	2.00	7.2	30.0
Dichlorodifluoromethane	Ave	4.620	4.510		1.95	2.00	-2.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.141	3.421		2.18	2.00	8.9	30.0
Chloromethane	Ave	0.5023	0.5710		2.27	2.00	13.7	30.0
Acetaldehyde	Ave	0.6093	0.7283		12.0	10.0	19.5	30.0
Vinyl chloride	Ave	1.690	1.825		2.16	2.00	7.9	30.0
1,3-Butadiene	Ave	1.234	1.339		2.17	2.00	8.5	30.0
Butane	Ave	2.217	2.542		2.29	2.00	14.7	30.0
Bromomethane	Ave	1.553	1.728		2.23	2.00	11.3	30.0
Chloroethane	Ave	0.7598	0.7789		2.05	2.00	2.5	30.0
Ethanol	Ave	0.6247	0.6770		10.8	10.0	8.4	30.0
Vinyl bromide	Ave	1.568	1.648		2.10	2.00	5.1	30.0
2-Methylbutane	Ave	1.784	1.898		2.13	2.00	6.4	30.0
Trichlorofluoromethane	Ave	4.373	4.046		1.85	2.00	-7.5	30.0
Acrolein	Ave	0.5866	0.4894		1.67	2.00	-16.6	30.0
Acetonitrile	Ave	0.7528	0.7368		1.96	2.00	-2.1	30.0
Acetone	Ave	0.7939	0.7969		6.02	6.00	0.4	30.0
Isopropyl alcohol	QuaF		1.948		4.92	6.00	-18.0	30.0
Pentane	Ave	0.2154	0.1908		1.77	2.00	-11.4	30.0
Ethyl ether	Ave	1.779	1.646		1.85	2.00	-7.5	30.0
1,1-Dichloroethene	Ave	1.548	1.336		1.73	2.00	-13.7	30.0
tert-Butyl alcohol	Ave	1.905	2.267		2.38	2.00	19.0	30.0
Acrylonitrile	Ave	1.265	1.154		1.82	2.00	-8.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.424	3.244		1.89	2.00	-5.3	30.0
Methylene Chloride	Ave	1.990	1.483		1.49	2.00	-25.4	30.0
3-Chloropropene	Ave	1.399	1.393		1.99	2.00	-0.4	30.0
Carbon disulfide	Ave	4.568	4.116		1.80	2.00	-9.9	30.0
trans-1,2-Dichloroethene	Ave	1.539	1.378		1.79	2.00	-10.5	30.0
2-Methylpentane	Ave	3.601	3.329		1.85	2.00	-7.5	30.0
Methyl tert-butyl ether	Ave	3.132	3.275		2.09	2.00	4.6	30.0
1,1-Dichloroethane	Ave	2.993	2.697		1.80	2.00	-9.9	30.0
Vinyl acetate	Ave	4.374	4.111		1.88	2.00	-6.0	30.0
2-Butanone (MEK)	Ave	0.7196	0.6198		1.72	2.00	-13.9	30.0
Hexane	Ave	1.285	1.138		1.77	2.00	-11.4	30.0
Isopropyl ether	Ave	5.622	5.232		1.86	2.00	-6.9	30.0
cis-1,2-Dichloroethene	Ave	1.630	1.398		1.71	2.00	-14.3	30.0
Ethyl acetate	Ave	3.616	3.483		1.93	2.00	-3.7	30.0
Chloroform	Ave	3.473	3.153		1.82	2.00	-9.2	30.0
Tert-butyl ethyl ether	Ave	3.861	4.204		2.18	2.00	8.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.780	1.634		1.84	2.00	-8.2	30.0
1,1,1-Trichloroethane	Ave	3.234	2.928		1.81	2.00	-9.4	30.0
1,2-Dichloroethane	Ave	0.4575	0.4071		1.78	2.00	-11.0	30.0
1-Butanol	Ave	0.1132	0.0943		1.66	2.00	-16.8	30.0
Cyclohexane	Ave	0.1324	0.1128		1.70	2.00	-14.8	30.0
Benzene	Ave	0.8760	0.7775		1.78	2.00	-11.2	30.0
Carbon tetrachloride	Ave	0.6464	0.5602		1.73	2.00	-13.3	30.0
2,3-Dimethylpentane	Ave	0.1845	0.1608		1.74	2.00	-12.9	30.0
Thiophene	Ave	0.5090	0.4519		1.78	2.00	-11.2	30.0
2,2,4-Trimethylpentane	Ave	1.477	1.324		1.79	2.00	-10.4	30.0
Heptane	Ave	0.2827	0.2380		1.68	2.00	-15.8	30.0
1,2-Dichloropropane	Ave	0.3671	0.3369		1.84	2.00	-8.2	30.0
Trichloroethene	Ave	0.3901	0.3543		1.82	2.00	-9.2	30.0
Dibromomethane	Ave	0.4085	0.3992		1.95	2.00	-2.3	30.0
Bromodichloromethane	Ave	0.6585	0.5983		1.82	2.00	-9.1	30.0
1,4-Dioxane	Ave	0.1256	0.1020		1.63	2.00	-18.7	30.0
Methyl methacrylate	Ave	0.3959	0.3720		1.88	2.00	-6.0	30.0
Methylcyclohexane	Ave	0.5104	0.4283		1.68	2.00	-16.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.7525	0.7118		1.89	2.00	-5.4	30.0
cis-1,3-Dichloropropene	Ave	0.4796	0.4614		1.92	2.00	-3.8	30.0
trans-1,3-Dichloropropene	Ave	0.5027	0.5022		2.00	2.00	-0.1	30.0
Toluene	Ave	1.228	1.130		1.84	2.00	-7.9	30.0
1,1,2-Trichloroethane	Ave	0.4109	0.3951		1.92	2.00	-3.8	30.0
2-Hexanone	Ave	0.3969	0.3756		1.89	2.00	-5.4	30.0
Octane	Ave	0.3559	0.3154		1.77	2.00	-11.4	30.0
Dibromochloromethane	Ave	0.7775	0.7476		1.92	2.00	-3.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.7363	0.7066		1.92	2.00	-4.0	30.0
Tetrachloroethene	Ave	0.4777	0.4444		1.86	2.00	-7.0	30.0
Chlorobenzene	Ave	0.9718	0.9189		1.89	2.00	-5.4	30.0
2,3-Dimethylheptane	Ave	1.229	1.269		2.06	2.00	3.2	30.0
Ethylbenzene	Ave	1.563	1.443		1.85	2.00	-7.6	30.0
m-Xylene & p-Xylene	Ave	1.195	1.143		3.83	4.00	-4.3	30.0
Nonane	Ave	0.8166	0.7867		1.93	2.00	-3.7	30.0
Bromoform	Ave	0.7957	0.6923		1.74	2.00	-13.0	30.0
Styrene	Ave	0.8339	0.8320		2.00	2.00	-0.2	30.0
o-Xylene	Ave	1.241	1.181		1.90	2.00	-4.8	30.0
1,1,2,2-Tetrachloroethane	Ave	1.014	1.034		2.04	2.00	1.9	30.0
1,2,3-Trichloropropane	Ave	0.2464	0.2376		1.93	2.00	-3.6	30.0
Isopropylbenzene	Ave	1.678	1.634		1.95	2.00	-2.6	30.0
Propylbenzene	Ave	0.4458	0.4332		1.94	2.00	-2.8	30.0
2-Chlorotoluene	Ave	0.4252	0.4180		1.97	2.00	-1.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34203/2 Calibration Date: 10/08/2019 11:25

Instrument ID: MH Calib Start Date: 09/24/2019 22:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/25/2019 08:47

Lab File ID: HJ08CCVISA.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.653	1.654		2.00	2.00	0.0	30.0
1,3,5-Trimethylbenzene	Ave	0.6822	0.6615		1.94	2.00	-3.0	30.0
Alpha Methyl Styrene	Ave	0.6913	0.6430		1.86	2.00	-7.0	30.0
Decane	Ave	1.047	1.091		2.08	2.00	4.2	30.0
tert-Butylbenzene	Ave	1.493	1.487		1.99	2.00	-0.4	30.0
1,2,4-Trimethylbenzene	Ave	1.431	1.456		2.03	2.00	1.7	30.0
sec-Butylbenzene	Ave	2.111	2.163		2.05	2.00	2.5	30.0
1,3-Dichlorobenzene	Ave	0.9106	0.9754		2.14	2.00	7.1	30.0
Benzyl chloride	Lin1		0.9342		1.93	2.00	-3.6	30.0
1,4-Dichlorobenzene	Ave	0.8390	0.9052		2.16	2.00	7.9	30.0
4-Isopropyltoluene	Ave	1.646	1.706		2.07	2.00	3.7	30.0
1,2,3-Trimethylbenzene	Ave	1.468	1.468		2.00	2.00	-0.0	30.0
Butylcyclohexane	Ave	1.200	1.191		1.99	2.00	-0.7	30.0
1,2-Dichlorobenzene	Ave	0.9359	1.009		2.16	2.00	7.8	30.0
Indane	Ave	1.305	1.369		2.10	2.00	5.0	30.0
Indene	Ave	1.091	1.124		2.06	2.00	3.0	30.0
Butylbenzene	Ave	1.629	1.797		2.21	2.00	10.4	30.0
Undecane	Ave	1.204	1.246		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.4520	0.4658		2.06	2.00	3.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.549	1.626		2.10	2.00	5.0	30.0
Dodecane	Ave	1.157	1.164		2.01	2.00	0.6	30.0
Naphthalene	QuaF		1.393		2.07	2.00	3.6	30.0
Hexachlorobutadiene	Ave	0.9288	0.9860		2.12	2.00	6.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6147	0.6841		2.23	2.00	11.3	30.0
2-Methylnaphthalene	Ave	0.2467	0.2810		2.28	2.00	13.9	50.0
1-Methylnaphthalene	Ave	0.3382	0.3928		2.32	2.00	16.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6310	0.6443		4.08	4.00	2.1	30.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBI03IC.D BFB Injection Date: 09/03/2019

Instrument ID: MR BFB Injection Time: 09:57

Analysis Batch No.: 33257

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	92.7	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	88.9	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33257/2	RI03IC09.D	09/03/2019	10:26
	IC 140-33257/4	RI03IC10.D	09/03/2019	12:02
	IC 140-33257/7	RI03IC01.D	09/03/2019	14:26
	IC 140-33257/8	RI03IC02.D	09/03/2019	15:13
	IC 140-33257/9	RI03IC03.D	09/03/2019	16:02
	IC 140-33257/10	RI03IC04.D	09/03/2019	16:51
	IC 140-33257/11	RI03IC05.D	09/03/2019	17:39
	IC 140-33257/12	RI03IC06.D	09/03/2019	18:27
	IC 140-33257/14	RI03IC08.D	09/03/2019	20:02
	ICV 140-33257/18	RI03ICV.D	09/03/2019	23:14
	ICIS 140-33257/23	RI03IC07R.D	09/04/2019	09:04

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.7260	+++++ 2.6680	2.5843 2.5009	3.1164 2.3259	3.0059 2.3069	Ave		2.6543				11.0		30.0			
Propene	+++++ 1.9442	+++++ 1.6367	+++++ 1.4437	+++++ 1.2575	+++++ 1.2209	Ave		1.5006				19.9		30.0			
Dichlorodifluoromethane	+++++ 2.2785	+++++ 2.1933	2.4600 2.0613	2.5803 2.0814	2.5119 1.8830	Ave		2.2562				10.9		30.0			
Chloromethane	+++++ 0.5554	+++++ 0.4767	+++++ 0.4326	0.3883 0.3434	0.4816 0.3386	Ave		0.4310				18.5		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.0704	+++++ 1.6453	2.1437 1.5512	2.1811 1.3073	2.1242 +++++	Ave		1.8605				18.9		30.0			
Vinyl chloride	1.7291 1.2883	1.6251 1.5737	1.6212 1.1646	1.3532 1.0197	1.3998 0.8114	Ave		1.3586				21.7		30.0			
1,3-Butadiene	+++++ 1.0156	+++++ 1.1823	+++++ 1.0162	1.2794 0.7642	1.2388 0.6544	Ave		1.0216				23.3		30.0			
Butane	+++++ 1.8934	+++++ 2.2335	2.4101 1.8806	2.5004 1.4508	2.2121 1.2365	Ave		1.9772				22.8		30.0			
Bromomethane	+++++ 1.2859	+++++ 1.4808	1.9045 1.1757	1.5746 1.0547	1.4408 0.8315	Ave		1.3436				24.7		30.0			
Chloroethane	+++++ 0.5130	+++++ 0.6525	0.7561 0.4710	0.5613 0.4310	0.5850 +++++	Ave		0.5671				19.6		30.0			
Ethanol	+++++ 0.6058	+++++ 0.6726	+++++ 0.5847	0.6715 0.5590	0.6550 0.5356	Ave		0.6120				9.1		30.0			
Vinyl bromide	+++++ 1.1611	1.2192 1.1781	1.0641 1.1689	1.1263 1.1369	1.1332 1.0430	Ave		1.1368				4.9		30.0			
2-Methylbutane	+++++ 1.5253	+++++ 1.6120	1.7274 1.5439	1.5192 1.4120	1.6922 1.3512	Ave		1.5479				8.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.3282	3.3774 3.3203	3.0491 3.2570	3.3050 3.1386	3.4667 3.0258	Ave		3.2520				4.6		30.0			
Acrolein	+++++ 0.3645	+++++ 0.3873	+++++ 0.4333	+++++ 0.3449	0.4416 0.3410	Ave		0.3855				11.3		30.0			
Acetonitrile	+++++ 0.6425	+++++ 0.6542	+++++ 0.6025	0.4649 0.5769	0.5491 0.5355	Ave		0.5751				11.4		30.0			
Acetone	+++++ 0.6576	+++++ 0.6345	+++++ 0.5939	+++++ 0.5462	0.8838 0.5119	Ave		0.6380				20.7		30.0			
Pentane	+++++ 0.2223	+++++ 0.2394	+++++ 0.2318	0.2204 0.2239	0.2420 0.2223	Ave		0.2289				3.9		30.0			
Isopropyl alcohol	2.0445 1.8052	1.9846 1.9795	1.9329 1.7719	1.8817 1.7209	1.8939 1.6692	Ave		1.8684				6.6		30.0			
Ethyl ether	+++++ 1.5177	+++++ 1.6254	1.6032 1.5133	1.7440 1.4199	1.6884 1.3733	Ave		1.5607				8.2		30.0			
1,1-Dichloroethene	+++++ 1.2768	1.3859 1.2885	1.2342 1.3283	1.3969 1.2458	1.3854 1.1635	Ave		1.3006				6.2		30.0			
Acrylonitrile	+++++ 0.9656	+++++ 1.0127	+++++ 0.9799	0.9002 0.9252	1.0388 0.8895	Ave		0.9589				5.9		30.0			
tert-Butyl alcohol	+++++ 2.2589	+++++ 2.4248	2.6173 2.2857	2.3278 2.1550	2.3602 2.1201	Ave		2.3187				6.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.6175	+++++ 2.7892	2.7427 2.6846	3.0147 2.6294	2.9235 2.5912	Ave		2.7491				5.6		30.0			
Methylene Chloride	+++++ 1.3354	+++++ 1.2126	+++++ 1.1602	2.6564 1.1104	1.7848 +++++	Ave		1.5433				38.7	*	30.0			
3-Chloropropene	+++++ 1.2873	+++++ 1.3056	1.3978 1.1673	1.3442 1.1350	1.4259 1.1393	Ave		1.2753				9.1		30.0			
Carbon disulfide	+++++ 3.4529	+++++ 3.5063	3.4533 3.4547	3.3067 3.3496	3.6966 3.1287	Ave		3.4186				4.8		30.0			
trans-1,2-Dichloroethene	+++++ 1.3377	1.4290 1.4552	1.3966 1.4046	1.4119 1.3783	1.4326 1.3593	Ave		1.4006				2.7		30.0			
2-Methylpentane	+++++ 3.2013	3.5636 3.4610	3.3036 3.3080	3.3865 2.9713	3.5514 3.0086	Ave		3.3061				6.5		30.0			
Methyl tert-butyl ether	+++++ 3.3757	+++++ 3.4980	3.2509 3.4526	3.3858 3.2852	3.6039 3.1045	Ave		3.3696				4.6		30.0			
1,1-Dichloroethane	+++++ 2.3751	2.5086 2.4366	2.3878 2.3574	2.6268 2.2552	2.5766 2.1291	Ave		2.4059				6.4		30.0			
Vinyl acetate	+++++ 3.8272	+++++ 4.0947	3.6725 3.8070	3.4480 3.7636	3.9587 3.7530	Ave		3.7906				5.0		30.0			
2-Butanone (MEK)	+++++ 0.6406	+++++ 0.6920	+++++ 0.6145	0.8285 0.6299	0.6904 0.6279	Ave		0.6748				11.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0578	+++++ 1.1373	1.1561 1.0624	1.0809 1.0023	1.2326 1.0306	Ave		1.0950				6.9		30.0			
cis-1,2-Dichloroethene	+++++ 1.3435	1.2993 1.5183	1.4238 1.4577	1.6617 1.4469	1.5505 1.3823	Ave		1.4538				7.6		30.0			
Ethyl acetate	+++++ 3.4335	3.6328 3.6172	3.4839 3.4462	3.6366 3.2360	3.6466 3.1830	Ave		3.4795				5.0		30.0			
Chloroform	+++++ 2.8766	3.3067 2.9575	2.8469 2.8373	2.8829 2.6787	3.0078 2.6848	Ave		2.8977				6.5		30.0			
Tetrahydrofuran	+++++ 1.6509	+++++ 1.7784	1.8287 1.7135	1.8905 1.5948	1.7994 1.5531	Ave		1.7262				6.9		30.0			
1,1,1-Trichloroethane	3.1493 2.9120	2.7773 3.0058	3.1579 2.8040	2.9223 2.9352	3.0377 2.9169	Ave		2.9618				4.3		30.0			
1,2-Dichloroethane	0.2772 0.3249	0.3255 0.3104	0.3283 0.3135	0.3510 0.2972	0.3094 0.3136	Ave		0.3151				6.2		30.0			
1-Butanol	+++++ 0.1107	+++++ 0.1129	+++++ 0.1075	+++++ 0.1038	0.1111 0.1181	Ave		0.1107				4.4		30.0			
Cyclohexane	+++++ 0.1108	+++++ 0.1126	+++++ 0.1137	0.1250 0.1081	0.1068 0.1228	Ave		0.1143				6.2		30.0			
Benzene	0.8148 0.7633	0.7768 0.7472	0.8289 0.7582	0.7659 0.7154	0.7351 0.8087	Ave		0.7714				4.7		30.0			
Carbon tetrachloride	0.4284 0.5464	0.4512 0.5598	0.4562 0.5438	0.4715 0.5486	0.4674 0.6278	Ave		0.5101				12.5		30.0			
2,3-Dimethylpentane	+++++ 0.1674	+++++ 0.1604	0.1567 0.1638	0.1353 0.1587	0.1485 0.1690	Ave		0.1575				7.0		30.0			
Thiophene	+++++ 0.4125	+++++ 0.4015	0.3879 0.3931	0.3945 0.4035	0.3859 0.4239	Ave		0.4003				3.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2152	+++++ 1.2029	1.2047 1.2281	1.2110 1.1081	1.1994 1.2202	Ave		1.1987				3.2		30.0			
Heptane	+++++ 0.2567	+++++ 0.2633	0.2564 0.2627	0.2576 0.2467	0.2297 0.2668	Ave		0.2550				4.7		30.0			
1,2-Dichloropropane	+++++ 0.2875	+++++ 0.2853	0.2886 0.2742	0.2668 0.2610	0.2744 0.2861	Ave		0.2780				3.8		30.0			
Trichloroethene	0.3443 0.3307	0.3294 0.3414	0.3054 0.3496	0.2980 0.3375	0.3176 0.3660	Ave		0.3320				6.2		30.0			
Dibromomethane	+++++ 0.2929	0.3072 0.3004	0.2903 0.3027	0.2794 0.2903	0.2834 0.3143	Ave		0.2957				3.8		30.0			
Bromodichloromethane	+++++ 0.5006	+++++ 0.5142	0.4580 0.5123	0.4424 0.5019	0.4411 0.5546	Ave		0.4906				8.1		30.0			
1,4-Dioxane	+++++ 0.1152	+++++ 0.1173	+++++ 0.1199	0.0955 0.1120	0.1043 0.1186	Ave		0.1118				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3384	+++++ 0.3460	+++++ 0.3548	0.3136 0.3373	0.3141 0.3787	Ave		0.3404				6.7		30.0			
Methylcyclohexane	+++++ 0.4108	+++++ 0.4335	0.4149 0.4351	0.4105 0.4196	0.4068 0.4495	Ave		0.4226				3.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.6415	+++++ 0.6570	0.5895 0.6473	0.5935 0.6201	0.6100 0.6877	Ave		0.6308				5.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.3946	0.3260 0.4246	0.3207 0.3972	0.3823 0.4089	0.3656 0.4479	Ave		0.3853				11.0		30.0			
trans-1,3-Dichloropropene	+++++ 0.4033	0.3798 0.4680	0.3772 0.4433	0.3949 0.4700	0.3892 0.4703	Ave		0.4218				9.6		30.0			
Toluene	0.9562 0.9189	0.9026 1.0574	0.9539 1.0300	0.9146 1.0514	0.9898 1.0020	Ave		0.9777				5.8		30.0			
1,1,2-Trichloroethane	0.3388 0.2793	0.3166 0.3263	0.2823 0.3184	0.2886 0.3143	0.2927 0.3012	Ave		0.3059				6.5		30.0			
2-Hexanone	+++++ 0.3140	+++++ 0.3662	0.2945 0.3604	0.3113 0.3634	0.3152 0.3599	Ave		0.3356				8.8		30.0			
C8 Range	+++++ 2.6253	+++++ 2.7699	+++++ 2.6896	2.7491 2.5049	2.6475 2.7844	Ave		2.6815				3.7		30.0			
Octane	+++++ 0.2855	+++++ 0.3380	0.2430 0.3146	0.2799 0.3324	0.2893 0.3385	Ave		0.3027				11.3		30.0			
Dibromochloromethane	+++++ 0.5738	+++++ 0.6863	0.4237 0.6666	0.4750 0.7579	0.5177 0.7947	Ave		0.6120				22.1		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.5404	0.4995 0.6364	0.4875 0.6071	0.5154 0.6400	0.5458 0.6582	Ave		0.5700				11.6		30.0			
Tetrachloroethene	0.4005 0.3534	0.3815 0.4068	0.3673 0.3984	0.3877 0.4361	0.3741 0.4304	Ave		0.3936				6.7		30.0			
Chlorobenzene	0.8304 0.7683	0.7277 0.8883	0.7903 0.8599	0.7645 0.9287	0.8042 0.9197	Ave		0.8282				8.3		30.0			
Ethylbenzene	1.2805 1.2363	1.2724 1.4718	1.1953 1.3918	1.2874 1.4464	1.2489 1.4273	Ave		1.3258				7.5		30.0			
m-Xylene & p-Xylene	0.9455 0.9833	0.9495 1.1219	0.9686 1.1134	0.9707 1.1476	0.9742 +++++	Ave		1.0194				8.1		30.0			
Nonane	0.5919 0.6341	0.6105 0.7288	0.5577 0.7162	0.6265 0.7258	0.6303 0.6954	Ave		0.6517				9.3		30.0			
Bromoform	+++++ 0.5845	+++++ 0.7183	0.4066 0.7053	0.4255 +++++	0.5158 +++++	Ave		0.5593				24.0		30.0			
Styrene	+++++ 0.6801	+++++ 0.7967	0.5210 0.8121	0.5315 0.8848	0.6132 0.8801	Ave		0.7149				20.8		30.0			
o-Xylene	1.0478 0.9975	0.9320 1.0711	0.9431 1.0951	1.0039 1.1021	1.0321 1.1197	Ave		1.0345				6.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.6895 0.7678	0.6522 0.7971	0.6792 0.8315	0.7130 0.8513	0.7531 0.8668	Ave		0.7601				10.0		30.0			
1,2,3-Trichloropropane	+++++ 0.2154	0.2596 0.2394	0.2135 0.2552	0.2351 0.2558	0.2255 0.2547	Ave		0.2394				7.6		30.0			
Isopropylbenzene	1.5102 1.5033	1.4056 1.6590	1.4118 1.6352	1.4167 1.6748	1.5710 +++++	Ave		1.5319				7.1		30.0			
Propylbenzene	+++++ 0.3955	0.3562 0.4385	0.3841 0.4413	0.3703 0.4723	0.4092 +++++	Ave		0.4084				9.7		30.0			
2-Chlorotoluene	+++++ 0.3661	0.3747 0.4076	0.3340 0.4108	0.3773 0.4367	0.3875 +++++	Ave		0.3869				8.1		30.0			
4-Ethyltoluene	+++++ 1.4994	+++++ 1.6944	1.3559 1.7289	1.3397 1.7395	1.5426 +++++	Ave		1.5572				10.9		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5864	+++++ 0.6547	0.5372 0.6390	0.5500 0.6738	0.5916 0.7107	Ave		0.6179				9.9		30.0			
Alpha Methyl Styrene	+++++ 0.5224	+++++ 0.6349	+++++ 0.6612	0.4050 0.7336	0.4511 0.7891	Ave		0.5996				24.1		30.0			
Decane	+++++ 0.8374	+++++ 0.9465	+++++ 0.9426	0.8014 0.9125	0.8459 0.9096	Ave		0.8851				6.4		30.0			
tert-Butylbenzene	+++++ 1.2746	+++++ 1.4997	1.2146 1.4649	1.2480 1.6001	1.3155 1.5569	Ave		1.3968				10.8		30.0			
1,2,4-Trimethylbenzene	1.2028 1.2553	1.1447 1.4812	1.1638 1.4659	1.2236 1.5654	1.2861 +++++	Ave		1.3099				11.8		30.0			
sec-Butylbenzene	+++++ 1.8690	+++++ 2.2054	1.7755 2.2283	1.8000 2.3529	1.9751 +++++	Ave		2.0295				11.4		30.0			
1,3-Dichlorobenzene	+++++ 0.8984	+++++ 1.0244	0.9172 1.0444	0.9105 1.1397	0.9240 1.0821	Ave		0.9926				9.3		30.0			
Benzyl chloride	+++++ 0.8980	+++++ 1.1805	0.7853 1.0109	0.7742 +++++	0.8369 +++++	Ave		0.9143				17.1		30.0			
1,4-Dichlorobenzene	0.9320 0.9020	0.8097 1.0419	0.9008 0.9990	0.8499 1.1436	0.9042 1.1157	Ave		0.9599				11.6		30.0			
4-Isopropyltoluene	1.2738 1.5148	1.2821 1.7152	1.3632 1.6510	1.4649 1.7846	1.5176 +++++	Ave		1.5075				12.2		30.0			
1,2,3-Trimethylbenzene	1.1397 1.2760	1.1040 1.4204	1.2047 1.4129	1.2732 1.4633	1.2567 +++++	Ave		1.2834				9.8		30.0			
Indane	+++++ 1.1644	+++++ 1.3331	1.1191 1.3630	1.1504 1.5135	1.1552 1.3466	Ave		1.2682				11.1		30.0			
1,2-Dichlorobenzene	0.9716 0.8829	0.8386 0.9926	0.8219 0.9879	0.8992 1.1198	0.8924 0.9970	Ave		0.9404				9.6		30.0			
Indene	+++++ 0.9756	+++++ 1.1838	+++++ 1.1752	0.8020 1.3866	0.9174 1.2488	Ave		1.0985				18.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.5405 1.5136	1.4542 1.7535	1.5116 1.7283	1.5236 1.8209	1.5176 +++++	Ave		1.5960				8.3		30.0			
Undecane	+++++ 0.9944	+++++ 1.1367	+++++ 1.1008	0.9856 1.1400	0.9832 1.1336	Ave		1.0677				7.1		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4053	+++++ 0.4840	0.2499 0.4850	0.3113 +++++	0.3288 +++++	Ave		0.3774				25.6		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.4176	+++++ 1.6182	1.2965 1.4778	1.3345 1.7614	1.3349 +++++	Ave		1.4630				11.7		30.0			
Dodecane	+++++ 0.9887	+++++ 1.1112	+++++ 1.1554	+++++ 1.1970	0.9210 1.1713	Ave		1.0908				10.2		30.0			
1,2,4-Trichlorobenzene	0.8334 0.8256	0.7767 0.9382	0.7824 0.8703	0.8445 1.1053	0.7977 1.1092	Ave		0.8883				14.0		30.0			
Naphthalene	2.0153 1.7387	1.6688 1.9345	1.6648 1.7128	1.6791 2.1275	1.5832 +++++	Ave		1.7916				10.4		30.0			
Hexachlorobutadiene	0.6778 0.7081	0.7782 0.8206	0.7176 0.8078	0.7780 0.9153	0.7040 0.8414	Ave		0.7749				9.6		30.0			
1,2,3-Trichlorobenzene	1.0622 0.7905	0.7736 0.9168	0.8319 0.8354	0.8725 1.0918	0.7797 1.0720	Ave		0.9026				14.1		30.0			
2-Methylnaphthalene	+++++ 0.7436	+++++ 0.8342	+++++ 0.4785	+++++ 0.8163	+++++ 0.8021	Ave		0.7349				20.0		50.0			
1-Methylnaphthalene	+++++ 0.7392	+++++ 0.7597	+++++ 0.4609	+++++ 0.7235	+++++ 0.6914	Ave		0.6749				18.1		50.0			
4-Bromofluorobenzene (Surr)	0.5765 0.5768	0.5739 0.6155	0.5703 0.6054	0.5863 0.6287	0.5784 0.5987	Ave		0.5911				3.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 219441	+++++ 494961	16054 1018776	37407 2348774	88870 4724731	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 156506	+++++ 303639	+++++ 588113	+++++ 1269857	+++++ 2500503	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 183416	+++++ 406890	15282 839671	30972 2101908	74265 3856645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 44708	+++++ 88443	+++++ 176223	4661 346832	14239 693560	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 166670	+++++ 305222	13317 631884	26181 1320196	62802 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Vinyl chloride	CBM	Ave	3313 103708	5237 291942	10071 474399	16243 1029765	41385 1661803	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 81755	+++++ 219332	+++++ 413950	15357 771748	36625 1340227	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 152419	+++++ 414338	14972 766058	30013 1465050	65401 2532410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 103516	+++++ 274719	11831 478925	18901 1065063	42598 1702886	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 41293	+++++ 121039	4697 191853	6737 435262	17294 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Ethanol	CBM	Ave	+++++ 243829	+++++ 623885	+++++ 1190978	40300 2822321	96824 5484760	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 93465	3929 218556	6610 476165	13519 1148135	33504 2136147	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 122786	+++++ 299043	10731 628901	18236 1425882	50031 2767410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 267920	10884 615965	18941 1326757	39671 3169467	102492 6197158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 29346	+++++ 71857	+++++ 176527	+++++ 348337	13055 698308	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 51720	+++++ 121363	+++++ 245426	5580 582616	16233 1096753	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 158806	+++++ 353148	+++++ 725820	+++++ 1654698	78390 3145268	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 17893	+++++ 44407	+++++ 94410	2645 226085	7156 455388	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11752 435961	19186 1101651	36022 2165369	67760 5213569	167975 10255859	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 122175	+++++ 301541	9959 616460	20934 1433907	49916 2812660	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 102785	4466 239031	7667 541093	16768 1258021	40958 2383041	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 77731	+++++ 187864	+++++ 399181	10806 934361	30713 1821857	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 181842	+++++ 449829	16259 931101	27942 2176270	69778 4342222	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 210707	+++++ 517442	17038 1093608	36187 2655319	86433 5307039	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 107501	+++++ 224958	+++++ 472620	31886 1121306	52768 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 103629	+++++ 242216	8683 475507	16135 1146190	42156 2333432	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 277961	+++++ 650466	21452 1407313	39691 3382615	109289 6407900	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 107685	4605 269961	8676 572169	16947 1391908	42354 2783877	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 257703	11484 642069	20522 1347528	40649 3000565	104996 6161875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 271742	+++++ 648935	20195 1406422	40641 3317514	106549 6358374	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 191196	8084 452018	14833 960313	31531 2277375	76177 4360528	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 308087	+++++ 759618	22814 1550812	41387 3800716	117037 7686543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 51572	+++++ 128379	+++++ 250304	9945 636144	20411 1285975	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85156	+++++ 210994	7182 432765	12975 1012153	36443 2110781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 108153	4187 281658	8845 593822	19946 1461188	45839 2831075	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 276396	11707 671035	21642 1403825	43652 3267852	107812 6519087	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 231564	10656 548666	17685 1155781	34605 2705091	88925 5498611	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 132901	+++++ 329928	11360 698015	22692 1610482	53198 3180934	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	6034 234415	8950 557623	19617 1142217	35077 2964078	89808 5973969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3073 146276	5862 341855	11614 716206	24357 1682455	54501 3298299	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 49826	+++++ 124400	+++++ 245687	+++++ 587477	19570 1242418	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 49894	+++++ 124018	+++++ 259810	8676 611764	18817 1291544	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	9034 343664	13990 822928	29324 1732232	53145 4049317	129476 8504918	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4750 246027	8126 616542	16140 1242435	32718 3105309	82320 6601975	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 75390	+++++ 176630	5543 374263	9391 898330	26163 1777213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 185736	+++++ 442182	13723 898134	27373 2283966	67963 4458082	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 547133	+++++ 1324872	42620 2805646	84031 6272565	211257 12833072	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 115588	+++++ 290028	9072 600275	17873 1396634	40457 2805393	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 129462	+++++ 314183	10210 626326	18516 1477336	48324 3008646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3817 148885	5933 376006	10806 798633	20676 1910661	55942 3849636	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 131893	5532 330920	10271 691506	19384 1643327	49916 3305615	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 225379	+++++ 566326	16203 1170432	30697 2840812	77686 5832457	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 51868	+++++ 129226	+++++ 273917	6626 633790	18371 1247808	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 152368	+++++ 381120	+++++ 810493	21764 1909381	55330 3983049	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 184946	+++++ 477484	14678 993926	28483 2375366	71644 4727152	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 288813	+++++ 723671	20857 1478879	41180 3510335	107444 7232492	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 177650	5872 467682	11346 907449	26525 2314593	64389 4710253	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 159588	5834 426975	11139 838028	22630 2144122	56564 4441543	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	8499 363606	13865 964843	28166 1947337	52417 4796384	143846 9463414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	3011 110540	4864 297744	8335 602007	16538 1433844	42543 2844825	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 124236	+++++ 334091	8696 681395	17840 1657957	45806 3399102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1182032	+++++ 3050806	+++++ 6144751	190756 14179004	466318 29283193	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 112993	+++++ 308402	7174 594761	16040 1516549	42048 3196625	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 227075	+++++ 626193	12512 1260220	27226 3457683	75235 7505025	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 213842	7673 580652	14394 1147731	29539 2919521	79328 6216264	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3560 139836	5861 371188	10846 753130	22221 1989330	54373 4065061	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7381 304012	11179 810531	23336 1625792	43813 4236877	116875 8686236	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	11381 489233	19545 1342943	35296 2631374	73785 6598286	181497 13479819	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16808 778233	29171 2047299	57204 4209823	111265 10470526	283166 +++++	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 +++++
Nonane	CBZd 5	Ave	5261 250934	9378 664979	16468 1353990	35904 3311198	91602 6567091	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 231275	+++++ 655431	12006 1333496	24384 +++++	74964 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 269110	+++++ 726918	15385 1535403	30460 4036484	89120 8312171	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9313 394718	14317 977284	27849 2070387	57536 5027892	149999 10574999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	6128 303835	10018 727258	20054 1572025	40863 3883559	109448 8186594	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 85244	3987 218447	6305 482487	13476 1166777	32774 2405567	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	13423 594874	21592 1513692	41687 3091481	81194 7640100	228313 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propylbenzene	CBZd 5	Ave	+++++ 156505	5471 400140	11343 834225	21220 2154443	59470 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 144883	5756 371923	9862 776733	21624 1992363	56318 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 593308	+++++ 1546060	40037 3268553	76782 7935354	224183 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 232045	+++++ 597390	15863 1208158	31521 3073985	85979 6711519	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 206714	+++++ 579320	+++++ 1249980	23210 3346770	65556 7451929	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 331365	+++++ 863597	+++++ 1782051	45930 4162906	122940 8590182	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 504364	+++++ 1368395	35865 2769458	71523 7299538	191186 14703312	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10691 496740	17584 1351477	34364 2771424	70127 7141354	186908 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 739600	+++++ 2012250	52428 4212854	103163 10733538	287037 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 355492	+++++ 934677	27082 1974523	52180 5199306	134286 10219340	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 355341	+++++ 1077107	23187 1911127	44372 +++++	121625 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	8284 356925	12438 950700	26600 1888678	48709 5217028	131413 10536468	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	11322 599428	19695 1565012	40253 3121329	83958 8141205	220551 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10130 504915	16958 1296053	35572 2671168	72971 6675523	182641 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 460776	+++++ 1216324	33045 2576919	65933 6904704	167879 12717942	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8636 349367	12882 905677	24269 1867790	51537 5108636	129699 9415816	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 386043	+++++ 1080114	+++++ 2221880	45967 6325607	133321 11794325	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	13692 598930	22338 1599950	44636 3267502	87320 8307001	220549 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 393485	+++++ 1037149	+++++ 2081162	56488 5200472	142886 10705948	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 160389	+++++ 441614	7380 916988	17844 +++++	47784 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 560939	+++++ 1476473	38284 2793851	76485 8035274	194002 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 391221	+++++ 1013886	+++++ 2184461	+++++ 5460527	133853 11061506	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7407 326688	11931 856029	23104 1645400	48402 5042191	115933 10475148	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	17912 688030	25635 1765089	49158 3238137	96234 9705570	230088 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	6024 280210	11954 748771	21188 1527206	44590 4175503	102309 7946181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	9441 312804	11884 836533	24564 1579413	50004 4980903	113317 10123830	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 294266	+++++ 761167	+++++ 904624	+++++ 3724073	+++++ 7575277	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 292533	+++++ 693175	+++++ 871340	+++++ 3300680	+++++ 6530127	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1024776 912943	881623 1123246	841925 1144637	840097 1433981	840618 1413499	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-2.6						50			
Propene	+++++	+++++	+++++	+++++	+++++	29.6						50
Dichlorodifluoromethane	+++++	+++++	9.0						50			
Chloromethane	+++++	+++++	+++++	-9.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	15.2	+++++					50			
Vinyl chloride	27.3						50					
1,3-Butadiene	+++++	+++++	+++++	25.2						50		
Butane	+++++	+++++	21.9						50			
Bromomethane	+++++	+++++	41.8						50			
Chloroethane	+++++	+++++	33.3	+++++					50			
Ethanol	+++++	+++++	+++++	9.7						50		
Vinyl bromide	+++++	7.3						50				
2-Methylbutane	+++++	+++++	11.6						50			
Trichlorofluoromethane	+++++	3.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	14.6						50	
Acetonitrile	+++++	+++++	+++++	-19.2						50		
Acetone	+++++	+++++	+++++	+++++	38.5						80	
Pentane	+++++	+++++	+++++	-3.7						50		
Isopropyl alcohol	9.4						50					
Ethyl ether	+++++	+++++	2.7						50			
1,1-Dichloroethene	+++++	6.6						50				
Acrylonitrile	+++++	+++++	+++++	-6.1						50		
tert-Butyl alcohol	+++++	+++++	12.9						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-0.2						50			
Methylene Chloride	+++++	+++++	+++++	72.1 +++++						80		
3-Chloropropene	+++++	+++++	9.6						50			
Carbon disulfide	+++++	+++++	1.0						50			
trans-1,2-Dichloroethene	+++++	2.0						50				
2-Methylpentane	+++++	7.8						50				
Methyl tert-butyl ether	+++++	+++++	-3.5						50			
1,1-Dichloroethane	+++++	4.3						50				
Vinyl acetate	+++++	+++++	-3.1						50			
2-Butanone (MEK)	+++++	+++++	+++++	22.8						50		
Hexane	+++++	+++++	5.6						50			
cis-1,2-Dichloroethene	+++++	-10.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	4.4						50				
Chloroform	+++++	14.1						50				
Tetrahydrofuran	+++++	+++++	5.9						50			
1,1,1-Trichloroethane	6.3						50					
1,2-Dichloroethane	-12.0						50					
1-Butanol	+++++	+++++	+++++	+++++	0.4						50	
Cyclohexane	+++++	+++++	+++++	9.4						50		
Benzene	5.6						50					
Carbon tetrachloride	-16.0						50					
2,3-Dimethylpentane	+++++	+++++	-0.5						50			
Thiophene	+++++	+++++	-3.1						50			
2,2,4-Trimethylpentane	+++++	+++++	0.5						50			
Heptane	+++++	+++++	0.6						50			
1,2-Dichloropropane	+++++	+++++	3.8						50			
Trichloroethene	3.7						50					
Dibromomethane	+++++	3.9						50				
Bromodichloromethane	+++++	+++++	-6.6						50			
1,4-Dioxane	+++++	+++++	+++++	-14.6						50		
Methyl methacrylate	+++++	+++++	+++++	-7.9						50		
Methylcyclohexane	+++++	+++++	-1.8						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-6.5						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-15.4						50				
trans-1,3-Dichloropropene	+++++	-10.0						50				
Toluene	-2.2						50					
1,1,2-Trichloroethane	10.8						50					
2-Hexanone	+++++	+++++	-12.2						50			
Octane	+++++	+++++	-19.7						50			
Dibromochloromethane	+++++	+++++	-30.8						50			
1,2-Dibromoethane (EDB)	+++++	-12.4						50				
Tetrachloroethene	1.8						50					
Chlorobenzene	0.3						50					
Ethylbenzene	-3.4						50					
m-Xylene & p-Xylene	-7.2			+++++			50					
Nonane	-9.2						50					
Bromoform	+++++	+++++	-27.3 +++++	+++++					50			
Styrene	+++++	+++++	-27.1						50			
o-Xylene	1.3						50					
1,1,2,2-Tetrachloroethane	-9.3						50					
1,2,3-Trichloropropane	+++++	8.4						50				
Isopropylbenzene	-1.4			+++++			50					
Propylbenzene	+++++	-12.8		+++++				50				
2-Chlorotoluene	+++++	-3.1		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-12.9	+++++					50			
1,3,5-Trimethylbenzene	+++++	+++++	-13.1						50			
Alpha Methyl Styrene	+++++	+++++	+++++	-32.5						50		
Decane	+++++	+++++	+++++	-9.5						50		
tert-Butylbenzene	+++++	+++++	-13.0						50			
1,2,4-Trimethylbenzene	-8.2			+++++			50					
sec-Butylbenzene	+++++	+++++	-12.5	+++++					50			
1,3-Dichlorobenzene	+++++	+++++	-7.6						50			
Benzyl chloride	+++++	+++++	-14.1 +++++	+++++					50			
1,4-Dichlorobenzene	-2.9						50					
4-Isopropyltoluene	-15.5			+++++			50					
1,2,3-Trimethylbenzene	-11.2			+++++			50					
Indane	+++++	+++++	-11.8						50			
1,2-Dichlorobenzene	3.3						50					
Indene	+++++	+++++	+++++	-27.0						50		
Butylbenzene	-3.5			+++++			50					
Undecane	+++++	+++++	+++++	-7.7						50		
1,2-Dibromo-3-Chloropropane	+++++	+++++	-33.8 +++++	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-11.4	+++++					50			
Dodecane	+++++	+++++	+++++	+++++	-15.6						50	
1,2,4-Trichlorobenzene	-6.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	12.5			+++++			80					
Hexachlorobutadiene	-12.5						50					
1,2,3-Trichlorobenzene	17.7						50					
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	1.2						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	9.5						80

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.732		2.06	2.00	2.9	35.0
Propene	Ave	1.501	1.699		2.26	2.00	13.2	35.0
Dichlorodifluoromethane	Ave	2.256	2.760		2.45	2.00	22.3	35.0
Chloromethane	Ave	0.4310	0.3773		1.75	2.00	-12.4	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.270		2.44	2.00	22.0	35.0
Acetaldehyde	Ave	0.5247	0.3531		6.73	10.0	-32.7	35.0
Vinyl chloride	Ave	1.359	0.9812		1.44	2.00	-27.8	35.0
1,3-Butadiene	Ave	1.022	0.7543		1.48	2.00	-26.2	35.0
Butane	Ave	1.977	1.415		1.43	2.00	-28.4	35.0
Bromomethane	Ave	1.344	0.9665		1.44	2.00	-28.1	35.0
Chloroethane	Ave	0.5671	0.4065		1.43	2.00	-28.3	35.0
Ethanol	Ave	0.6120	0.4984		8.14	10.0	-18.6	35.0
Vinyl bromide	Ave	1.137	1.219		2.15	2.00	7.3	35.0
2-Methylbutane	Ave	1.548	1.534		1.98	2.00	-0.9	35.0
Trichlorofluoromethane	Ave	3.252	3.201		1.97	2.00	-1.6	35.0
Acrolein	Ave	0.3855	0.4188		2.17	2.00	8.6	35.0
Acetonitrile	Ave	0.5751	0.5773		2.01	2.00	0.4	35.0
Acetone	Ave	0.6380	0.7053		2.21	2.00	10.6	35.0
Isopropyl alcohol	Ave	1.868	2.287		2.45	2.00	22.4	35.0
Pentane	Ave	0.2289	0.2400		2.10	2.00	4.9	35.0
Ethyl ether	Ave	1.561	1.593		2.04	2.00	2.1	35.0
1,1-Dichloroethene	Ave	1.301	1.293		1.99	2.00	-0.6	35.0
tert-Butyl alcohol	Ave	2.319	2.427		2.09	2.00	4.6	35.0
Acrylonitrile	Ave	0.9589	1.005		2.10	2.00	4.8	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.703		1.97	2.00	-1.7	35.0
Methylene Chloride	Ave	1.543	1.252		1.62	2.00	-18.9	35.0
3-Chloropropene	Ave	1.275	1.271		1.99	2.00	-0.4	35.0
Carbon disulfide	Ave	3.419	3.454		2.02	2.00	1.0	35.0
trans-1,2-Dichloroethene	Ave	1.401	1.393		1.99	2.00	-0.5	35.0
2-Methylpentane	Ave	3.306	3.047		1.84	2.00	-7.9	35.0
Methyl tert-butyl ether	Ave	3.370	3.639		2.16	2.00	8.0	35.0
1,1-Dichloroethane	Ave	2.406	2.463		2.05	2.00	2.4	35.0
Vinyl acetate	Ave	3.791	4.194		2.21	2.00	10.6	35.0
2-Butanone (MEK)	Ave	0.6748	0.6866		2.03	2.00	1.7	35.0
Hexane	Ave	1.095	1.086		1.98	2.00	-0.8	35.0
Isopropyl ether	Ave	5.017	5.309		2.12	2.00	5.8	35.0
cis-1,2-Dichloroethene	Ave	1.454	1.556		2.14	2.00	7.1	35.0
Ethyl acetate	Ave	3.480	3.357		1.93	2.00	-3.5	35.0
Chloroform	Ave	2.898	2.853		1.97	2.00	-1.6	35.0
Tert-butyl ethyl ether	Ave	4.084	4.068		1.99	2.00	-0.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.770		2.05	2.00	2.6	35.0
1,1,1-Trichloroethane	Ave	2.962	2.890		1.95	2.00	-2.4	35.0
1,2-Dichloroethane	Ave	0.3151	0.2985		1.89	2.00	-5.3	35.0
1-Butanol	Ave	0.1107	0.1186		2.14	2.00	7.1	35.0
Benzene	Ave	0.7714	0.7541		1.96	2.00	-2.2	35.0
Cyclohexane	Ave	0.1143	0.1058		1.85	2.00	-7.5	35.0
Carbon tetrachloride	Ave	0.5101	0.5533		2.17	2.00	8.5	35.0
2,3-Dimethylpentane	Ave	0.1575	0.1596		2.03	2.00	1.3	35.0
Thiophene	Ave	0.4003	0.3973		1.98	2.00	-0.8	35.0
2,2,4-Trimethylpentane	Ave	1.199	1.190		1.99	2.00	-0.7	35.0
Heptane	Ave	0.2550	0.2538		1.99	2.00	-0.5	35.0
1,2-Dichloropropane	Ave	0.2780	0.2746		1.98	2.00	-1.2	35.0
Trichloroethene	Ave	0.3320	0.3339		2.01	2.00	0.6	35.0
Dibromomethane	Ave	0.2957	0.2899		1.96	2.00	-1.9	35.0
Bromodichloromethane	Ave	0.4906	0.4819		1.96	2.00	-1.8	35.0
1,4-Dioxane	Ave	0.1118	0.1164		2.08	2.00	4.1	35.0
Methyl methacrylate	Ave	0.3404	0.3414		2.01	2.00	0.3	35.0
Methylcyclohexane	Ave	0.4226	0.5207		2.46	2.00	23.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.6336		2.01	2.00	0.4	35.0
cis-1,3-Dichloropropene	Ave	0.3853	0.4115		2.14	2.00	6.8	35.0
trans-1,3-Dichloropropene	Ave	0.4218	0.4365		2.07	2.00	3.5	35.0
Toluene	Ave	0.9777	0.9801		2.01	2.00	0.3	35.0
1,1,2-Trichloroethane	Ave	0.3059	0.2919		1.91	2.00	-4.6	35.0
2-Hexanone	Ave	0.3356	0.3387		2.02	2.00	0.9	35.0
Octane	Ave	0.3027	0.3198		2.11	2.00	5.7	35.0
Dibromochloromethane	Ave	0.6120	0.6302		2.06	2.00	3.0	35.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5866		2.06	2.00	2.9	35.0
Tetrachloroethene	Ave	0.3936	0.3980		2.02	2.00	1.1	35.0
Chlorobenzene	Ave	0.8282	0.8745		2.11	2.00	5.6	35.0
2,3-Dimethylheptane	Ave	1.121	0.9897		1.77	2.00	-11.7	35.0
Ethylbenzene	Ave	1.326	1.366		2.06	2.00	3.0	35.0
m-Xylene & p-Xylene	Ave	1.019	1.100		4.31	4.00	7.9	35.0
Nonane	Ave	0.6517	0.7107		2.18	2.00	9.0	35.0
Bromoform	Ave	0.5593	0.6738		2.41	2.00	20.5	35.0
Styrene	Ave	0.7149	0.7951		2.22	2.00	11.2	35.0
o-Xylene	Ave	1.034	1.046		2.02	2.00	1.1	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.7895		2.08	2.00	3.9	35.0
1,2,3-Trichloropropane	Ave	0.2394	0.2468		2.06	2.00	3.1	35.0
Isopropylbenzene	Ave	1.532	1.677		2.19	2.00	9.5	35.0
Propylbenzene	Ave	0.4084	0.4371		2.14	2.00	7.0	35.0
2-Chlorotoluene	Ave	0.3869	0.4052		2.10	2.00	4.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.535		1.97	2.00	-1.4	35.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.7185		2.33	2.00	16.3	35.0
Alpha Methyl Styrene	Ave	0.5996	0.5702		1.90	2.00	-4.9	35.0
Decane	Ave	0.8851	0.8755		1.98	2.00	-1.1	35.0
tert-Butylbenzene	Ave	1.397	1.438		2.06	2.00	3.0	35.0
1,2,4-Trimethylbenzene	Ave	1.310	1.413		2.16	2.00	7.9	35.0
sec-Butylbenzene	Ave	2.029	2.108		2.08	2.00	3.9	35.0
1,3-Dichlorobenzene	Ave	0.9926	0.9918		2.00	2.00	-0.0	35.0
Benzyl chloride	Ave	0.9143	1.133		2.48	2.00	23.9	35.0
1,4-Dichlorobenzene	Ave	0.9599	0.9877		2.06	2.00	2.9	35.0
4-Isopropyltoluene	Ave	1.507	1.570		2.08	2.00	4.1	35.0
1,2,3-Trimethylbenzene	Ave	1.283	0.9702		1.51	2.00	-24.4	35.0
Butylcyclohexane	Ave	1.022	0.9653		1.89	2.00	-5.5	35.0
1,2-Dichlorobenzene	Ave	0.9404	0.9869		2.10	2.00	4.9	35.0
Indane	Ave	1.268	1.314		2.07	2.00	3.6	35.0
Indene	Ave	1.098	0.9838		1.79	2.00	-10.4	35.0
Butylbenzene	Ave	1.596	1.641		2.06	2.00	2.8	35.0
Undecane	Ave	1.068	0.9949		1.86	2.00	-6.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.3741		1.98	2.00	-0.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.380		1.89	2.00	-5.7	35.0
Dodecane	Ave	1.091	0.9112		1.67	2.00	-16.5	35.0
1,2,4-Trichlorobenzene	Ave	0.8883	0.8582		1.93	2.00	-3.4	35.0
Naphthalene	Ave	1.792	1.752		1.96	2.00	-2.2	35.0
Hexachlorobutadiene	Ave	0.7749	0.7587		1.96	2.00	-2.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9026	0.8675		1.92	2.00	-3.9	35.0
2-Methylnaphthalene	Ave	0.7349	0.6386		1.74	2.00	-13.1	50.0
1-Methylnaphthalene	Ave	0.6749	0.5762		1.71	2.00	-14.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.5775		3.91	4.00	-2.3	35.0

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab File ID: RBFBJ03.D BFB Injection Date: 10/03/2019

Instrument ID: MR BFB Injection Time: 09:26

Analysis Batch No.: 34104

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	93.4	
175	5.0 - 9.0 % of mass 174	6.4	(6.8) 1
176	95.0 - 101.0 % of mass 174	90.4	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-34104/2	RCCVJ03.D	10/03/2019	09:54
	LCS 140-34104/1002	RCCVJ03-LCS.d	10/03/2019	09:54
	MB 140-34104/5	R500BJ03.D	10/03/2019	13:07
IA-018-A-27-RS	140-16893-1	RJ03P110.D	10/04/2019	01:56

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.376		1.79	2.00	-10.5	30.0
Propene	Ave	1.501	1.390		1.85	2.00	-7.4	30.0
Dichlorodifluoromethane	Ave	2.256	2.633		2.33	2.00	16.7	30.0
Chloromethane	Ave	0.4310	0.4225		1.96	2.00	-2.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.379		2.56	2.00	27.9	30.0
Acetaldehyde	Ave	0.5247	0.5919		11.3	10.0	12.8	30.0
Vinyl chloride	Ave	1.359	1.401		2.06	2.00	3.1	30.0
1,3-Butadiene	Ave	1.022	1.036		2.03	2.00	1.4	30.0
Butane	Ave	1.977	1.981		2.00	2.00	0.2	30.0
Bromomethane	Ave	1.344	1.287		1.92	2.00	-4.2	30.0
Chloroethane	Ave	0.5671	0.4910		1.73	2.00	-13.4	30.0
Ethanol	Ave	0.6120	0.5898		9.64	10.0	-3.6	30.0
Vinyl bromide	Ave	1.137	1.168		2.06	2.00	2.8	30.0
2-Methylbutane	Ave	1.548	1.250		1.61	2.00	-19.3	30.0
Trichlorofluoromethane	Ave	3.252	3.102		1.91	2.00	-4.6	30.0
Acrolein	Ave	0.3855	0.4153		2.16	2.00	7.8	30.0
Acetonitrile	Ave	0.5751	0.4658		1.62	2.00	-19.0	30.0
Acetone	Ave	0.6380	0.5749		5.41	6.00	-9.9	30.0
Isopropyl alcohol	Ave	1.868	1.581		5.08	6.00	-15.4	30.0
Pentane	Ave	0.2289	0.2181		1.91	2.00	-4.7	30.0
Ethyl ether	Ave	1.561	1.028		1.32	2.00	-34.2*	30.0
1,1-Dichloroethene	Ave	1.301	1.373		2.11	2.00	5.5	30.0
tert-Butyl alcohol	Ave	2.319	2.074		1.79	2.00	-10.6	30.0
Acrylonitrile	Ave	0.9589	0.9276		1.93	2.00	-3.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.835		2.06	2.00	3.1	30.0
Methylene Chloride	Ave	1.543	1.324		1.72	2.00	-14.2	30.0
3-Chloropropene	Ave	1.275	1.073		1.68	2.00	-15.9	30.0
Carbon disulfide	Ave	3.419	3.692		2.16	2.00	8.0	30.0
trans-1,2-Dichloroethene	Ave	1.401	1.387		1.98	2.00	-0.9	30.0
2-Methylpentane	Ave	3.306	2.510		1.52	2.00	-24.1	30.0
Methyl tert-butyl ether	Ave	3.370	2.953		1.75	2.00	-12.4	30.0
1,1-Dichloroethane	Ave	2.406	2.144		1.78	2.00	-10.9	30.0
Vinyl acetate	Ave	3.791	2.920		1.54	2.00	-23.0	30.0
2-Butanone (MEK)	Ave	0.6748	0.5737		1.70	2.00	-15.0	30.0
Hexane	Ave	1.095	0.8949		1.63	2.00	-18.3	30.0
Isopropyl ether	Ave	5.017	3.742		1.49	2.00	-25.4	30.0
cis-1,2-Dichloroethene	Ave	1.454	1.464		2.01	2.00	0.7	30.0
Ethyl acetate	Ave	3.480	2.581		1.48	2.00	-25.8	30.0
Chloroform	Ave	2.898	2.482		1.71	2.00	-14.4	30.0
Tert-butyl ethyl ether	Ave	4.084	3.319		1.63	2.00	-18.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.271		1.47	2.00	-26.3	30.0
1,1,1-Trichloroethane	Ave	2.962	2.551		1.72	2.00	-13.9	30.0
1,2-Dichloroethane	Ave	0.3151	0.2554		1.62	2.00	-18.9	30.0
1-Butanol	Ave	0.1107	0.0691		1.25	2.00	-37.5*	30.0
Benzene	Ave	0.7714	0.6553		1.70	2.00	-15.1	30.0
Cyclohexane	Ave	0.1143	0.0883		1.55	2.00	-22.7	30.0
Carbon tetrachloride	Ave	0.5101	0.4798		1.88	2.00	-5.9	30.0
2,3-Dimethylpentane	Ave	0.1575	0.1479		1.88	2.00	-6.1	30.0
Thiophene	Ave	0.4003	0.3721		1.86	2.00	-7.1	30.0
2,2,4-Trimethylpentane	Ave	1.199	0.9737		1.62	2.00	-18.8	30.0
Heptane	Ave	0.2550	0.2126		1.67	2.00	-16.6	30.0
1,2-Dichloropropane	Ave	0.2780	0.2420		1.74	2.00	-12.9	30.0
Trichloroethene	Ave	0.3320	0.3010		1.81	2.00	-9.3	30.0
Dibromomethane	Ave	0.2957	0.2844		1.92	2.00	-3.8	30.0
Bromodichloromethane	Ave	0.4906	0.4215		1.72	2.00	-14.1	30.0
1,4-Dioxane	Ave	0.1118	0.1185		2.12	2.00	5.9	30.0
Methyl methacrylate	Ave	0.3404	0.2396		1.41	2.00	-29.6	30.0
Methylcyclohexane	Ave	0.4226	0.3810		1.80	2.00	-9.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.4675		1.48	2.00	-25.9	30.0
cis-1,3-Dichloropropene	Ave	0.3853	0.3584		1.86	2.00	-7.0	30.0
trans-1,3-Dichloropropene	Ave	0.4218	0.3874		1.84	2.00	-8.1	30.0
Toluene	Ave	0.9777	0.9588		1.96	2.00	-1.9	30.0
1,1,2-Trichloroethane	Ave	0.3059	0.3052		2.00	2.00	-0.2	30.0
2-Hexanone	Ave	0.3356	0.2972		1.77	2.00	-11.4	30.0
Octane	Ave	0.3027	0.2862		1.89	2.00	-5.4	30.0
Dibromochloromethane	Ave	0.6120	0.5634		1.84	2.00	-7.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5707		2.00	2.00	0.1	30.0
Tetrachloroethene	Ave	0.3936	0.3626		1.84	2.00	-7.9	30.0
Chlorobenzene	Ave	0.8282	0.8437		2.04	2.00	1.9	30.0
2,3-Dimethylheptane	Ave	1.121	0.8987		1.60	2.00	-19.8	30.0
Ethylbenzene	Ave	1.326	1.283		1.94	2.00	-3.2	30.0
m-Xylene & p-Xylene	Ave	1.019	0.999		3.92	4.00	-2.0	30.0
Nonane	Ave	0.6517	0.5943		1.82	2.00	-8.8	30.0
Bromoform	Ave	0.5593	0.4532		1.62	2.00	-19.0	30.0
Styrene	Ave	0.7149	0.7870		2.20	2.00	10.1	30.0
o-Xylene	Ave	1.034	1.051		2.03	2.00	1.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.9266		2.44	2.00	21.9	30.0
1,2,3-Trichloropropane	Ave	0.2394	0.2631		2.20	2.00	9.9	30.0
Isopropylbenzene	Ave	1.532	1.667		2.18	2.00	8.8	30.0
Propylbenzene	Ave	0.4084	0.4908		2.40	2.00	20.2	30.0
2-Chlorotoluene	Ave	0.3869	0.4639		2.40	2.00	19.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Lab Sample ID: CCVIS 140-34104/2 Calibration Date: 10/03/2019 09:54

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVJ03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.762		2.26	2.00	13.2	30.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.6902		2.23	2.00	11.7	30.0
Alpha Methyl Styrene	Ave	0.5996	0.7164		2.39	2.00	19.5	30.0
Decane	Ave	0.8851	0.8983		2.03	2.00	1.5	30.0
tert-Butylbenzene	Ave	1.397	1.553		2.22	2.00	11.2	30.0
1,2,4-Trimethylbenzene	Ave	1.310	1.524		2.33	2.00	16.4	30.0
sec-Butylbenzene	Ave	2.029	2.295		2.26	2.00	13.1	30.0
1,3-Dichlorobenzene	Ave	0.9926	1.174		2.37	2.00	18.3	30.0
Benzyl chloride	Ave	0.9143	1.195		2.61	2.00	30.7*	30.0
1,4-Dichlorobenzene	Ave	0.9599	1.189		2.48	2.00	23.9	30.0
4-Isopropyltoluene	Ave	1.507	1.856		2.46	2.00	23.1	30.0
1,2,3-Trimethylbenzene	Ave	1.283	1.594		2.48	2.00	24.2	30.0
Butylcyclohexane	Ave	1.022	1.234		2.42	2.00	20.8	30.0
1,2-Dichlorobenzene	Ave	0.9404	1.181		2.51	2.00	25.5	30.0
Indane	Ave	1.268	1.521		2.40	2.00	19.9	30.0
Indene	Ave	1.098	1.368		2.49	2.00	24.5	30.0
Butylbenzene	Ave	1.596	1.951		2.45	2.00	22.3	30.0
Undecane	Ave	1.068	1.106		2.07	2.00	3.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.4391		2.33	2.00	16.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.822		2.49	2.00	24.5	30.0
Dodecane	Ave	1.091	1.033		1.89	2.00	-5.3	30.0
1,2,4-Trichlorobenzene	Ave	0.8883	1.141		2.57	2.00	28.4	30.0
Naphthalene	Ave	1.792	2.325		2.60	2.00	29.8	30.0
Hexachlorobutadiene	Ave	0.7749	0.8949		2.31	2.00	15.5	30.0
1,2,3-Trichlorobenzene	Ave	0.9026	1.022		2.27	2.00	13.3	30.0
2-Methylnaphthalene	Ave	0.7349	0.2796		0.761	2.00	-62.0*	50.0
1-Methylnaphthalene	Ave	0.6749	0.2589		0.767	2.00	-61.6*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.6272		4.24	4.00	6.1	30.0

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33324/13 Date Analyzed: 09/06/2019 20:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GI06LVL07.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		303435	9.07	1680639	11.24	1481798	15.94
UPPER LIMIT		424809	9.40	2352895	11.57	2074517	16.27
LOWER LIMIT		182061	8.74	1008383	10.91	889079	15.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33324/16		306320	9.08	1708663	11.25	1486245	15.94

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34215/2 Date Analyzed: 10/09/2019 11:20

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVJ09.D Heated Purge: (Y/N) N

Calibration ID: 2131

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		200883	9.06	1190950	11.23	1031378	15.92
UPPER LIMIT		281236	9.39	1667330	11.56	1443929	16.25
LOWER LIMIT		120530	8.73	714570	10.90	618827	15.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34215/1002		200883	9.06	1190950	11.23	1031378	15.92
MB 140-34215/4		200350	9.05	1179056	11.23	1039594	15.92
140-16893-2	IA-015-A-27-RS	191848	9.07	1101836	11.23	1025167	15.92
140-16893-3	IA-168-A-27-RS	211679	9.07	1284918	11.23	1113463	15.92
140-16893-4	IA-021-A-27-RS	198924	9.05	1201549	11.23	1030165	15.92
140-16893-5	IA-136-A-27-RS	201195	9.06	1220779	11.23	1078859	15.92
140-16893-6	IA-117-A-27-RS	200487	9.06	1180298	11.23	1093432	15.92
140-16893-7	IA-079-A-27-RS	184954	9.05	1098906	11.23	1033768	15.92

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33708/14 Date Analyzed: 09/25/2019 07:53

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HI24ICL7.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		342797	8.61	1766041	10.82	1461250	15.60
UPPER LIMIT		479916	8.94	2472457	11.15	2045750	15.93
LOWER LIMIT		205678	8.28	1059625	10.49	876750	15.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33708/17		331168	8.60	1738771	10.82	1436957	15.60

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34203/2 Date Analyzed: 10/08/2019 11:25

Instrument ID: MH GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): HJ08CCVISA.D Heated Purge: (Y/N) N

Calibration ID: 2163

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212050	8.60	1098033	10.81	875648	15.59
UPPER LIMIT		296870	8.93	1537246	11.14	1225907	15.92
LOWER LIMIT		127230	8.27	658820	10.48	525389	15.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34203/1002		212050	8.60	1098033	10.81	875648	15.59
MB 140-34203/7		211459	8.60	1098093	10.81	829172	15.59
140-16893-2	IA-015-A-27-RS	172804	8.61	897103	10.82	707375	15.59
140-16893-3	IA-168-A-27-RS	172867	8.62	872183	10.82	682169	15.59
140-16893-4	IA-021-A-27-RS	175850	8.61	885161	10.81	665564	15.59
140-16893-5	IA-136-A-27-RS	171262	8.61	867656	10.82	693298	15.59
140-16893-6	IA-117-A-27-RS	175455	8.61	883566	10.82	722851	15.59
140-16893-7	IA-079-A-27-RS	174264	8.61	881823	10.82	690713	15.59

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: ICIS 140-33257/23 Date Analyzed: 09/04/2019 09:04

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RI03IC07R.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		371029	8.53	2202831	10.77	1824871	15.57
UPPER LIMIT		519441	8.86	3083963	11.10	2554819	15.90
LOWER LIMIT		222617	8.20	1321699	10.44	1094923	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33257/18		487104	8.53	2786219	10.77	2417964	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Sample No.: CCVIS 140-34104/2 Date Analyzed: 10/03/2019 09:54

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVJ03.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		317552	8.52	1834746	10.75	1448340	15.55
UPPER LIMIT		444573	8.85	2568644	11.08	2027676	15.88
LOWER LIMIT		190531	8.19	1100848	10.42	869004	15.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-34104/1002		317552	8.52	1834746	10.75	1448340	15.55
MB 140-34104/5		355321	8.52	1932990	10.75	1453188	15.55
140-16893-1	IA-018-A-27-RS	426440	8.52	2443133	10.75	1926577	15.55

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

LOCKHEED MARTIN CORPORATION (LMC) - MIDDLE RIVER COMPLEX (MRC)
SDG 140-16893-1

SAMPLE IDENTIFICATION	IA-018-A-27-RS		
COMPOUND	TRICHLOROETHENE	MW =	131.39
		GAS CONSTANT =	24.45
COMPOUND AREA	92992		
INTERNAL STANDARD AMOUNT (ppbv)	4		
CALIBRATION VOLUME (mL)	500		
DILUTION FACTOR	1		
INTERNAL STANDARD AREA	2443133		
AVERAGE RRF	0.332		
SAMPLE VOLUME (mL)	500		

0.46 ppbv
2.46 µg/m³

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.25		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	0.075	J	0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	0.34		0.080	0.022
67-66-3	Chloroform	119.38	0.087		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	0.24		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	0.23		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	0.030	J	0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	0.016	J	0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	0.31		0.080	0.0080
100-41-4	Ethylbenzene	106.17	0.12		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.61	B	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	1.8		0.040	0.076
127-18-4	Tetrachloroethene	165.83	0.052	J	0.080	0.0070
108-88-3	Toluene	92.14	0.89		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	0.46		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	0.037	J	0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	0.12		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	0.041	J	0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	0.52		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1

SDG No.:

Client Sample ID: IA-018-A-27-RS Lab Sample ID: 140-16893-1

Matrix: Air Lab File ID: RJ03P110.D

Analysis Method: TO 15 LL Date Collected: 10/02/2019 15:31

Sample wt/vol: 500(mL) Date Analyzed: 10/04/2019 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34104 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.78		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	0.47	J	0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	1.2		0.28	0.078
67-66-3	Chloroform	119.38	0.43		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	0.95		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	1.1		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	0.12	J	0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	0.065	J	0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	1.2		0.32	0.032
100-41-4	Ethylbenzene	106.17	0.51		0.35	0.056
75-09-2	Methylene Chloride	84.93	2.1	B	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	9.2		0.21	0.40
127-18-4	Tetrachloroethene	165.83	0.35	J	0.54	0.047
108-88-3	Toluene	92.14	3.3		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	2.5		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	0.18	J	0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.59		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	J	0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	2.3		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\RJ03P110.D
Lims ID: 140-16893-A-1
Client ID: IA-018-A-27-RS
Sample Type: Client
Inject. Date: 04-Oct-2019 01:56:30 ALS Bottle#: 10 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013261-019
Misc. Info.: 140-16893-a-1
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20191002-13261.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Oct-2019 11:18:08 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0331

First Level Reviewer: tajh Date: 04-Oct-2019 11:07:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.517	8.522	-0.005	91	426440	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.749	0.000	93	2443133	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.554	0.000	85	1926577	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.199	17.215	-0.016	96	1117064	3.92	
6 Chlorodifluoromethane	51	3.421	3.421	0.000	96	96233	0.3401	
8 Dichlorodifluoromethane	85	3.481	3.480	0.001	97	54968	0.2285	
27 1,1-Dichloroethene	96	5.600	5.600	0.000	94	42760	0.3084	
31 Methylene Chloride	84	5.956	5.950	0.006	96	100445	0.6105	
37 1,1-Dichloroethane	63	7.201	7.185	0.016	43	7683	0.0300	
42 cis-1,2-Dichloroethene	96	8.188	8.183	0.006	85	37254	0.2404	
44 Chloroform	83	8.533	8.528	0.005	29	27006	0.0874	
47 1,1,1-Trichloroethane	97	9.574	9.563	0.011	55	7518	0.0238	
48 1,2-Dichloroethane	62	9.671	9.682	-0.011	21	3068	0.0159	
49 Benzene	78	10.183	10.178	0.005	94	115528	0.2452	
52 Carbon tetrachloride	117	10.194	10.205	-0.011	76	23354	0.0750	
58 Trichloroethene	130	11.477	11.477	0.000	95	92992	0.4586	
67 Toluene	91	13.564	13.569	-0.005	93	417350	0.8863	
73 Tetrachloroethene	129	14.718	14.723	-0.005	89	9801	0.0517	
76 Ethylbenzene	91	15.888	15.894	-0.006	97	74314	0.1164	
77 m-Xylene & p-Xylene	91	16.050	16.050	0.000	96	185853	0.3785	
80 o-Xylene	91	16.579	16.578	0.001	99	71068	0.1426	
87 1,3,5-Trimethylbenzene	120	17.959	17.980	-0.021	90	12067	0.0405	
92 1,2,4-Trimethylbenzene	105	18.417	18.433	-0.016	96	75109	0.1191	
98 1,2,3-Trimethylbenzene	105	18.908	18.924	-0.016	95	22834	0.0369	
109 Naphthalene	128	21.049	21.054	-0.005	100	1511341	1.75	
S 116 Xylenes, Total	100				0		0.5212	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16893-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0578	+++++ 1.1373	1.1561 1.0624	1.0809 1.0023	1.2326 1.0306	Ave		1.0950				6.9		30.0			
cis-1,2-Dichloroethene	+++++ 1.3435	1.2993 1.5183	1.4238 1.4577	1.6617 1.4469	1.5505 1.3823	Ave		1.4538				7.6		30.0			
Ethyl acetate	+++++ 3.4335	3.6328 3.6172	3.4839 3.4462	3.6366 3.2360	3.6466 3.1830	Ave		3.4795				5.0		30.0			
Chloroform	+++++ 2.8766	3.3067 2.9575	2.8469 2.8373	2.8829 2.6787	3.0078 2.6848	Ave		2.8977				6.5		30.0			
Tetrahydrofuran	+++++ 1.6509	+++++ 1.7784	1.8287 1.7135	1.8905 1.5948	1.7994 1.5531	Ave		1.7262				6.9		30.0			
1,1,1-Trichloroethane	3.1493 2.9120	2.7773 3.0058	3.1579 2.8040	2.9223 2.9352	3.0377 2.9169	Ave		2.9618				4.3		30.0			
1,2-Dichloroethane	0.2772 0.3249	0.3255 0.3104	0.3283 0.3135	0.3510 0.2972	0.3094 0.3136	Ave		0.3151				6.2		30.0			
1-Butanol	+++++ 0.1107	+++++ 0.1129	+++++ 0.1075	+++++ 0.1038	0.1111 0.1181	Ave		0.1107				4.4		30.0			
Cyclohexane	+++++ 0.1108	+++++ 0.1126	+++++ 0.1137	0.1250 0.1081	0.1068 0.1228	Ave		0.1143				6.2		30.0			
Benzene	0.8148 0.7633	0.7768 0.7472	0.8289 0.7582	0.7659 0.7154	0.7351 0.8087	Ave		0.7714				4.7		30.0			
Carbon tetrachloride	0.4284 0.5464	0.4512 0.5598	0.4562 0.5438	0.4715 0.5486	0.4674 0.6278	Ave		0.5101				12.5		30.0			
2,3-Dimethylpentane	+++++ 0.1674	+++++ 0.1604	0.1567 0.1638	0.1353 0.1587	0.1485 0.1690	Ave		0.1575				7.0		30.0			
Thiophene	+++++ 0.4125	+++++ 0.4015	0.3879 0.3931	0.3945 0.4035	0.3859 0.4239	Ave		0.4003				3.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2152	+++++ 1.2029	1.2047 1.2281	1.2110 1.1081	1.1994 1.2202	Ave		1.1987				3.2		30.0			
Heptane	+++++ 0.2567	+++++ 0.2633	0.2564 0.2627	0.2576 0.2467	0.2297 0.2668	Ave		0.2550				4.7		30.0			
1,2-Dichloropropane	+++++ 0.2875	+++++ 0.2853	0.2886 0.2742	0.2668 0.2610	0.2744 0.2861	Ave		0.2780				3.8		30.0			
Trichloroethene	0.3443 0.3307	0.3294 0.3414	0.3054 0.3496	0.2980 0.3375	0.3176 0.3660	Ave		0.3320				6.2		30.0			
Dibromomethane	+++++ 0.2929	0.3072 0.3004	0.2903 0.3027	0.2794 0.2903	0.2834 0.3143	Ave		0.2957				3.8		30.0			
Bromodichloromethane	+++++ 0.5006	+++++ 0.5142	0.4580 0.5123	0.4424 0.5019	0.4411 0.5546	Ave		0.4906				8.1		30.0			
1,4-Dioxane	+++++ 0.1152	+++++ 0.1173	+++++ 0.1199	0.0955 0.1120	0.1043 0.1186	Ave		0.1118				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 03-Sep-2019 10:26:30 ALS Bottle#: 8 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:33:43 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:51:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.537	0.002	92	504925	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	93	2830280	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	85	2280964	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	98	1433981	4.00	4.25	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	97	2348774	8.00	7.01	
7 Propene	41	3.437	3.433	0.004	99	1269857	8.00	6.70	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	2101908	8.00	7.38	
9 Chloromethane	52	3.664	3.661	0.003	100	346832	8.00	6.38	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	85	1320196	8.00	5.62	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	1942954	40.0	29.3	
12 Vinyl chloride	62	3.826	3.823	0.003	99	1029765	8.00	6.00	
13 Butadiene	54	3.912	3.909	0.003	70	771748	8.00	5.98	
14 Butane	43	3.912	3.909	0.003	84	1465050	8.00	5.87	
15 Bromomethane	94	4.225	4.221	0.004	96	1065063	8.00	6.28	
16 Chloroethane	64	4.359	4.357	0.002	95	435262	8.00	6.08	
17 Ethanol	31	4.462	4.461	0.001	96	2822321	40.0	36.5	
18 Vinyl bromide	106	4.651	4.649	0.002	98	1148135	8.00	8.00	
19 2-Methylbutane	43	4.694	4.695	-0.001	94	1425882	8.00	7.30	
21 Trichlorofluoromethane	101	4.910	4.911	-0.001	99	3169467	8.00	7.72	
20 Acrolein	56	4.926	4.929	-0.003	95	348337	8.00	7.16	
24 Acetonitrile	40	4.996	5.002	-0.006	99	582616	8.00	8.03	
22 Acetone	58	5.039	5.050	-0.011	98	1654698	24.0	20.5	
25 Pentane	72	5.131	5.133	-0.002	71	226085	8.00	7.83	
23 Isopropyl alcohol	45	5.131	5.142	-0.011	83	5213569	24.0	22.1	
26 Ethyl ether	31	5.298	5.312	-0.014	94	1433907	8.00	7.28	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	99	1258021	8.00	7.66	
28 Acrylonitrile	53	5.729	5.728	0.001	95	934361	8.00	7.72	
29 2-Methyl-2-propanol	59	5.718	5.745	-0.027	96	2176270	8.00	7.44	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	95	2655319	8.00	7.65	
32 3-Chloro-1-propene	39	5.983	5.964	0.019	96	1146190	8.00	7.12	

APPENDIX E—REMEDIAL ACTION PROGRESS REPORT #34: APRIL 1 THROUGH SEPTEMBER 30, 2019, SUB-SLAB-DEPRESSURIZATION SYSTEMS, BUILDINGS A AND C, LOCKHEED MARTIN MIDDLE RIVER COMPLEX

REMEDIAL ACTION PROGRESS REPORT #34
APRIL 1—SEPTEMBER 30, 2019
SUB-SLAB DEPRESSURIZATION SYSTEMS
BUILDINGS A AND C
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
2323 EASTERN BOULEVARD
MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

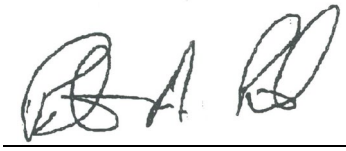
Prepared by:
Tetra Tech, Inc.

October 16, 2019

Revision:



Michael Martin, P.G.
Regional Manager



Peter Rich, P.E.
Project Manager

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ACRONYMS

%	percent
°F	degrees Fahrenheit
$\mu g/m^3$	micrograms per cubic meter
GAC	granular activated-carbon
HEPA	high-efficiency particulate air
lbs/day	pounds per day
MDE	Maryland Department of the Environment
OM&M	operation, maintenance, and monitoring
PVC	polyvinyl chloride
PPZ	potassium permanganate-impregnated zeolite
SCFM	standard cubic feet per minute
S&S	S&S Technologies, Inc.
SSD	sub-slab depressurization
TestAmerica	TestAmerica Laboratories, Inc.
TO-15	Toxic Organic Method 15
TCE	trichloroethene
VMP	vapor monitoring point
VOC	volatile organic compound
WC	water column

SECTION 1
INTRODUCTION

1.1 SITE LOCATION AND BACKGROUND INFORMATION

This report documents the monitoring activities completed from April 1 to September 30, 2019 [the 45th and 46th quarters of operation] for the sub-slab depressurization systems operating in the Building A lay-up room (former plating shop), eastern area, and basement, and the Building C basement of the Lockheed Martin Corporation Middle River Complex in Middle River, Maryland. The locations of the systems' influence are shown on Figure 1. These remedial systems control (by creating a vacuum) and remove volatile organic compounds from sub-slab vapor, thus preventing their migration into indoor air. The systems are operated in accordance with the operation, maintenance, and monitoring manuals for the Building A and Building C systems (Tetra Tech, Inc., 2019a and 2019b, respectively).

1.2 DESCRIPTION OF SUB-SLAB DEPRESSURIZATION SYSTEMS

1.2.1 Building A System

The sub-slab depressurization system in Building A includes the following soil vapor extraction points (see Figure 2):

- Two (2) horizontal soil vapor extraction laterals in the lay-up room (North and South)
- Two (2) laterals in the basement (Basement North and Basement South)
- Six (6) vertical soil vapor extraction points (SSD-34-A, SSD-35-A, SSD-36-A, SSD-37-A, SSD-38-A, and SSD-39-A)
- Extraction piping connected to basement sump HRS-5

The soil vapor extraction points serve as conduits for drawing vapor from beneath the building slab and from a covered sump in the basement (HRS-5), thus mitigating vapor intrusion into indoor air. Sub-slab vapors are pulled through the extraction points, vapor-extraction manifold, and "pre-blower" moisture separator using a single 10-horsepower regenerative blower. The

blower is mounted on a skid along with the pre-blower moisture separator, a heat exchanger, filters, and vacuum, pressure, temperature, and flow gauges (collectively referred to as the "blower skid"). The extracted vapors are cooled as they are pushed through the heat exchanger. Following the heat exchanger, the vapors enter the post-blower moisture separator where entrained condensate droplets are removed to reduce saturation and pressure buildup in the vapor-phase carbon drums. The extracted vapors are then treated to remove volatile organic compounds (VOCs) using four 400-pound granular activated-carbon (GAC) drums, in two-by-two configuration (two parallel trains of two drums in series)[1]. Vapors are discharged to the atmosphere via an exhaust stack that extends above the roof of the building. Figure 3 shows the process and instrumentation diagram for the Building A sub-slab depressurization system.

The Building A system is also equipped with one drain for each of the granular activated-carbon drums, three pipe sumps (PS-1-A [near SSD-37-A], PS-2-A [near SSD-34-A], and PS-3-A [in the basement]), and one exhaust stack sump. The pipe sumps are installed at low points to allow accumulation and manual drainage of condensation in the pipe. In addition, two freestanding drains adjacent to the south side of the system's equipment skid are available for use in winter months to drain condensate in the vapor entering the two trains of granular activated-carbon drums.

Six IQAir® GC™ Series-GC VOC indoor-air filters also operate in the basement of Building A near vapor monitoring points (VMPs) 093-A, 093-A-X, and 138-A, in response to elevated trichloroethene (TCE) concentrations in the indoor air. The filters were installed south of the sub-slab depressurization system extraction laterals in January 2015 (designated AF-N, AF-M, and AF-S) and May 2017 (designated AF-NX, AF-MX, and AF-SX), and are continuously operated to filter 300 standard cubic feet per minute (SCFM) of air. Each filter consists of a high-efficiency particulate air pre-filter, a granular activated-carbon filter, and a post-filter sleeve (collectively referred to as "filter elements"). The pre-filter (GC™ HyperHEPA® Pre-Filter H11 [S]) weighs three pounds; it removes coarse, fine, and ultra-fine dust particles and protects

[1] Originally, vapor treatment consisted of one train of two 400-pound carbon drums; the two-by-two configuration was completed in February 2017 to decrease pressure, increase flow of the system, and better capture VOCs; details are in Section 2.4.

subsequent filters. The granular activated-carbon filter (GC VOC filter cartridge set) removes volatile organic compounds from indoor air; it is comprised of four granular activated-carbon cartridges, collectively weighing nine pounds. The post-filter sleeve (GC™ post-filter sleeve set) is placed over the granular activated-carbon cartridges and removes any remaining fine and ultra-fine particulate matter.

1.2.2 Building C System

The sub-slab depressurization system in the Building C basement consists of 11 vertical soil vapor extraction points: two in the southern-basement area (SSD-21-C and SSD-23-C) and nine in the mid-basement area (SSD-26-C, SSD-27-C, SSD-28-C, SSD-29-C, SSD-30-C, SSD-31-C, SSD-32-C, SSD-33-C, and SSD-34-C); see Figure 4. These extraction points serve as conduits for drawing vapor from beneath the building slab, thus creating a vacuum under the floor slab preventing vapor intrusion into indoor air. The vapors are pulled through the extraction points using a single 7.5-horsepower regenerative blower that is mounted on a skid along with a moisture separator, heat exchanger, filters, and vacuum, pressure, temperature, and flow gauges (collectively referred to as the "blower skid"). Following extraction, the vapors enter the first moisture separator (MS-1) where entrained condensate droplets are removed to reduce fouling of the vapor lines and saturation of the granular activated-carbon. The extracted vapors are cooled as they are pushed through the heat exchanger; any remaining extracted condensate droplets are removed via a second moisture separator (MS-2) [separate from the blower skid] before being treated. The vapors are treated by passing through two 400-pound granular activated-carbon drums and one 600-pound potassium permanganate-impregnated zeolite drum (to remove residual vinyl chloride), in-series, before being discharged to the atmosphere via an exhaust stack that extends above the roof of the building (Figure 5).

The Building C system is also equipped with one drain for each granular activated-carbon and potassium permanganate-impregnated zeolite drum, five pipe sumps (PS-1 [near SSD-25-C and column N35, PS-2 [near SSD-30-C and column N26], PS-3 [near SSD-27-C and column O20], PS-4 [near SSD-32-C and column R19], and PS-5 [near SSD-29-C and column V12]), and one exhaust stack sump. The sumps are installed at low points to allow drainage of condensation in the pipe.

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SECTION 2
SITE ACTIVITIES

2.1 BIWEEKLY SYSTEM CHECKS

Biweekly system checks were conducted to monitor the performance of the sub-slab depressurization (SSD) systems and to make necessary adjustments to optimize effectiveness. System checks were conducted between April 1 through September 30, 2019 on the dates listed below.

- April 11, 2019
- May 3, 2019
- May 14, 2019
- May 30, 2019
- June 10, 2019
- June 27, 2019
- July 11, 2019
- July 26, 2019
- August 8, 2019
- August 20, 2019
- September 4, 2019
- September 23, 2019

Biweekly system checks were conducted in accordance with the latest operation, maintenance, and monitoring (OM&M) manuals (Tetra Tech, Inc. [Tetra Tech], 2019a and 2019b), and included general system monitoring, vacuum influence monitoring, twice-weekly remote dial in-system checks, and any necessary adjustments to extraction laterals and wells. Biweekly system checks forms are in Appendix A.

Two additional site visits were made from September 24 and 27, 2017 to replace the batteries of the Building A SSD system autodialer and ensure the system was running properly (see Section 2.4.1).

2.1.1 General System Monitoring

Gauge readings on the blower skid were checked, and the vacuum and velocity at each extraction lateral/well were measured. The condition of system components was also checked, and moisture separators/sumps were emptied as necessary. The following specific tasks were performed:

1. Recorded:
    a. vacuum at pre-air filter
    b. vacuum at post-air filter
    c. pressure at post-blower
    d. temperature at post-blower
    e. temperature at post-heat exchanger
    f. system flow
    g. time counter display
    h. vacuum from each extraction lateral/well
    i. velocity from each extraction lateral/well
    j. vacuum from each vapor monitoring point (VMP)
2. Checked the following for damage, leaks, and/or signs of heat stress:
    a. system components
    b. granular activated-carbon (GAC) drums
    c. potassium permanganate-impregnated zeolite (PPZ) drum (Building C only)
    d. GAC and PPZ fittings and flexible hoses
3. Checked the following for condensate, and drained, as necessary:
    a. moisture separators
    b. pipe sumps
    c. exhaust stack sumps
    d. GAC and PPZ drains
4. Confirmed that zip-ties on the GAC- and PPZ-drum cam locks were present and secure
5. Confirmed that the ambient air valve was closed
6. Confirmed that the vacuum relief valve was closed
7. Noted any adjustments to extraction laterals/wells
8. Checked that flow, pressure, and vacuum gauges fell to zero, and that temperature gauges fell, when systems were turned off

9. Checked each of the Building A basement IQAir® GC™ Series-GC indoor air filters to:
    a. verify filter was on
    b. verify fan was running
    c. check control panel for filter-life status
    d. document any signs of tampering

2.1.2 Vacuum Influence Monitoring

The objective for the SSD systems is to maintain a vacuum of at least 0.01 inches water column (WC) in the targeted areas. The vacuum influence (differential sub-slab vapor vacuum versus indoor air) at sub-slab VMPs was monitored using a dual[2]-port manometer (Fieldpiece Instruments, Inc. model SDMN5). This instrument was used to identify sub-slab-air short-circuiting or other problems (indicated by a significant drop in vacuum at one or more VMPs), and to determine each system's area of influence. Short-circuiting was not identified at the Building A or Building C SSD systems during this reporting period. Figures 6 through 9 show induced vacuum over time; Figures 10 through 13 show induced vacuum influence contours on plan views using induced vacuum readings from September 23, 2019.

Vacuum influence in the Building A target areas consistently[3] exceeded the vacuum influence objective (0.01 inches WC) during the reporting period at the following monitoring points:

- At all eight VMPs in the layup room (SSD-1-A, SSD-12-A-X, SSD-11-A-X, SSD-13-A-X, SSD-2-A-X, 15-A-X, SSD-16-A-X, and SSD-3-A-X) with vacuums ranging from 0.04 to 4.05 inches WC (see Figure 10)

- At three of four of the VMPs in the Building A basement (SSD-20-A, SSD-21-A, and SSD-22-A) with vacuums ranging from 0.01 to 0.69 inches WC (see Figure 10)

- At one of two VMPs in the western area of Building A (168-A) with vacuums ranging from 0.87 to 1.29 inches WC (see Figure 10)

- At nine of 15 VMPs in the eastern area of Building A (165-A, 166-A, 167-A, 117-A, 164-A, 136-A-S, 136-A, 161-A, and 160-A) with vacuums ranging from 0.01 to

[2] Only one port is used for monitoring vacuum influence; the second port is used to measure static pressure.

[3] Exceeded vacuum monitoring objective of 0.01 inches water column at more than half of the biweekly system checks completed.

4.78 inches WC (see Figure 11)

Induced vacuum has not been observed at 79-A, 119-A, 121-B, 162-A, 136-A-N, or 188-A. The lack of induced vacuum at 119-A and 121-B might possibly be due to the greater distance to the nearest extraction point. The reason for the lack of vacuum influence at the remaining locations (79-A, 162-A, 136-A-N, and 188-A) is not clear, but could be related to subsurface preferential pathways and heterogeneity. VMP 163-A could not be accessed for monitoring during the reporting period as it was covered by equipment moved to that area.

Vacuum influence in the Building C target areas consistently exceeded the vacuum influence objective (0.01 inches WC) during the reporting period in the following monitoring points:

- At all seven VMPs in the southern-basement area (001-C, SSD-2-C, SSD-3-C, SSD-4-C, SSD-22-C, SSD-24-C, and SSD-25-C) with vacuums ranging from 0.01 to 3.17 inches WC (see Figure 12)
- At 14 of 20 VMPs in the mid-basement area (135-C, 157-C, 113-C, 156-C, 151-C, 149-C, 141-C, 127-C, 150-C, 152-C, 155-C, 133-C, 154-C, and 153-C) with vacuums ranging from 0.01 to 2.41 inches WC (see Figure 13)

VMP SSD-60-C could not be accessed for monitoring during the reporting period as it was covered by equipment moved to that area. The reason for the lack of vacuum influence at 126-C, 050-C, 111-C, 158-C, and 159-C is not clear but could be related to subsurface preferential pathways and heterogeneity.

Vacuum Summary

Induced vacuum measurements indicate that the systems are performing as designed, except near extraction point SSD-36-A (as indicated by 162-A and 136-A-N) in the eastern area of Building A. The sub-slab vapor extraction laterals in the Building A lay-up room induce a vacuum influence over an approximately 5,900-square foot area, and consistently encompass all eight VMPs that had elevated volatile organic compound (VOC) concentrations before system start-up. The extraction laterals in the Building A basement induce a vacuum influence over an approximately 2,000-square foot area, and consistently encompass three of four VMPs that measure the system's induced vacuum in the basement (Figure 10). The vertical extraction points in the eastern area of Building A induce a vacuum influence over an approximately 6,100-square

foot area, and consistently encompass nine of 15 VMPs (Figure 11). Extraction point SSD-39A in the western area of Building A is inducing vacuum at one of two nearby VMPs; the area of induced vacuum is approximately 880-square feet (Figure 11).

In Building C, the sub-slab vapor extraction points in the southern-basement area induce a vacuum influence over an approximately 3,800-square foot area, with all six accessible VMPs showing consistent influence (Figure 12). Extraction points in the mid-basement area induce a vacuum influence over an approximately 32,900-square foot area, with 14 of 19 accessible VMPs showing consistent influence (Figure 13).

2.1.3 Adjustments to Extraction Points

There were no adjustments made to the extraction points during the reporting period.

2.2 VAPOR SAMPLING

Grab vapor samples were collected monthly at Building A and every other month at Building C during the reporting period. Samples were collected from each SSD system at the influent, mid-GAC (between lead and lag vessels), and effluent positions of the treatment drums. Samples were collected from the Building A SSD system on April 11, May 14, June 10, July 11, August 8, and September 23, 2019. Samples were collected from the Building C SSD system on May 14, July 11, and September 23, 2019. Samples were collected directly from each sampling port using the following steps:

- A piece of Teflon® tubing was connected to the sampling port.
- A clean, one-liter Summa® canister under vacuum was connected to the tubing, and the canister valve was opened until the canister gauge reached zero or stopped falling (approximately one minute).
- For the Building A mid-GAC samples, the two sample ports were connected using Teflon® tubing with a "T" fitting to connect to the canister.

Samples were labeled A-INFLUENT, A-MID-GAC, A-EFFLUENT, C-INFLUENT, C-MID-GAC, and C-EFFLUENT and shipped to TestAmerica Laboratories, Inc. (TestAmerica) in Knoxville, Tennessee. TestAmerica is accredited through the National Environmental Laboratory Accreditation Program and United States Department of Defense Environmental

Laboratory Accreditation Program for VOC analysis by United States Environmental Protection Agency Toxic Organic Method 15 (TO-15).

Laboratory results are summarized in Tables 1 through 6; analytical reports are in Appendix B. During this reporting period, total influent VOC concentrations in Building A ranged from 844 micrograms per cubic meter ($\mu g/m^3$) (September 2019) to 1,535 $\mu g/m^3$ (April 2019), while VOC influent concentrations in Building C ranged from 64 $\mu g/m^3$ (September 2019) to 86 $\mu g/m^3$ (July 2019). Average influent VOC concentrations in Building A were approximately 4% lower than those observed during the previous reporting period (October 1, 2018 to March 31, 2019); average influent concentrations for the Building C system were approximately 33% higher.

2.3 QUARTERLY SYSTEM CHECKS

Quarterly system checks were completed on June 27 and September 23, 2019. Quarterly system checks included the following tasks:

1. Inspected the condition of the:
    a. system components
    b. system piping
    c. pre-blower air filter and intake (ambient) air filter; replacing filter(s) as necessary
    d. GAC and PPZ drums
    e. GAC and PPZ drum sample ports
    f. VMP well lids, bolts, and sample tubing
2. Checked that the Building A system shuts down, the control panel alarm lights illuminate, and the auto-dialer activates upon alarms for:
    a. high temperature – post-blower
    b. high temperature – post-heat exchanger
    c. high-water level – moisture separator
    d. high pressure
    e. low vacuum
3. Checked that the Building C system shuts down, the control panel alarm lights illuminate, and the auto-dialer activates upon alarms for:
    a. high temperature – post-blower
    b. high temperature – post-heat exchanger
    c. high-water level – MS-1

d. high-water level – MS-2
e. high pressure
f. low vacuum

4. Checked vacuum relief valves for proper operation
5. Recorded amperage draw on blowers
6. Checked that auto-dialers activate when power is turned off
7. Checked auto-dialer batteries and replaced, as necessary
8. Confirmed that a fire extinguisher with an up-to-date inspection record is next to each system
9. Vacuumed the underside of the heat exchanger
10. Cleaned the systems and areas around the systems

During the quarterly system check on September 23, 2019, a Building A system blower motor starter overload issue was diagnosed; this issue caused the system to be down from September 11 to 23, 2019 (see Section 2.6). No other issues were identified for Building A or Building C SSD systems during the quarterly system checks. Both systems are running within the normal operating parameters. Quarterly system checks forms are in Appendix A.

2.4 NON-ROUTINE SYSTEM MAINTENANCE

2.4.1 Non-Routine Maintenance

Non-routine system maintenance was not needed during the reporting period (April-September 2019). However, due to the system shutdown indicated above, an additional site visit was made on September 24, 2019 to replace the batteries of the Building A SSD system autodialer and on September 27, 2019 to ensure the system was running properly.

There was no condensate accumulation that required draining at the Building A or Building C SSD system during the reporting period.

2.5 GAC AND PPZ CHANGE-OUTS

GAC drums and the Building C PPZ drum were not changed out during the reporting period.

2.6 SYSTEM SHUTDOWNS

2.6.1 Operator-Controlled Shutdowns

Both systems were briefly turned off during each biweekly system check to: (1) confirm that flow, pressure, temperature, and vacuum gauges fall to zero (thereby indicating proper operation), and (2) check and drain (as necessary) condensate accumulation in the moisture separators and sumps. Both systems were also briefly turned off during the quarterly system checks to test proper operation of the fail-safe alarms. In addition, the Building A and Building C SSD systems were shut down on the following days for semi-annual sub-slab vapor and indoor air sampling events:

- August 14-16, 2019: The Building A system was shut down for an estimated 50 hours for the semi-annual sub-slab vapor and indoor air sampling event.
- August 13-14, 2019: The Building C system was shut down for an estimated 36 hours for a sub-slab and indoor air sampling event.

2.6.2 Alarms and Other Shutdowns

The following alarms and other shutdowns occurred during the reporting period:

- The Building A SSD system was down for approximately 2 hours on June 25, 2019 and 15 hours on June 26, 2019 due to building power interruptions.
- The Building A SSD system was down for approximately 295 hours from September 11 to September 23, 2019 due to a tripped motor starter overload. The autodialer did not call out an alarm when the motor starter overload tripped because the system power was shut-off and the autodialer batteries had died. The telephone check made while the system was down was a false positive for the blower sound. We have diagnosed the motor starter overload issue as the blower motor operating at elevated amperage likely indicating a failing motor. We installed cameras in early October 2019 at both systems to confirm that the system running indicator light is on and the hour counter has advanced consistent with the expected operating time since the previous system check. We will be replacing the system blower and installing an improved autodialer battery back-up system during the next reporting period.
- The Building C SSD system was down for approximately 1.5 hours on June 11, 2019 and 15 hours on July 11, 2019 due to building power interruptions.

2.6.3 System Uptime

During this reporting period, the Building A and Building C SSD systems were operational for approximately 4,006 hours (92%) and 4,316 hours (99%), respectively. Downtime does not include the brief shutdown periods for biweekly and quarterly system checks.

2.7 REMEDIATION SUMMARY

2.7.1 Building A System

Continuous operation of the SSD system in the Building A lay-up room (former plating shop) began on March 31, 2008; the SSD system was expanded on October 22, 2010 to include the basement, and on April 13, 2016 to include select areas on the eastern side of the building. A third-phase expansion was completed on July 6, 2017 to address areas along the western side of Building A (near VMP 168-A) and basement sump HRS-5 near column D26. On February 7, 2017 the GAC drums were modified to add a second parallel treatment train (with two 400-pound GAC drums in series) to increase flow and decrease pressure on the new blower. Continuous vapor monitoring of basement indoor air identified basement sump HRS-5 as a significant VOC source for indoor air contamination, therefore the sump was covered and vapor extraction piping was installed under the cover in June 2017. Building A extraction points are open to allow a combined airflow rate of approximately 360 SCFM. Each extraction point operates at an airflow rate of 7–85 SCFM; the system vacuum and flows are adjusted to maintain a vacuum of 0.01 inches water column (WC) or greater at each vapor monitoring point within areas where elevated concentrations of VOCs are in sub-slab soil.

Since system startup on March 31, 2008 to September 23, 2019, total influent VOC concentrations have decreased more than 99%, from 94,310 µg/m^3 to 844 µg/m^3. The addition of the basement extraction laterals in October 2010 did not appear to change influent concentrations. The system expansion in April 2016 including a higher-flow blower and five new vertical extraction points resulted in an increase in Building A influent system concentration for approximately one month. The system expansion in July 2017 resulted in a slight increase in the result for the sample collected on July 6, 2017 immediately following the expansion. The two main chemicals of concern in Building A are 1,1,1-trichloroethane and trichloroethene (see Table 1). VOC trends for the Building A system are shown in Tables 1 through 3 and on

Figure 14.

VOC mass removal rates (based on influent concentrations) in Building A ranged from 0.02 to 0.05 pounds per day (lbs/day) during this reporting period. The total VOC mass removed was approximately 7.7 pounds; total VOC removal since system startup in March 2008 is approximately 198 pounds. VOC mass removal rates are lower than the levels (20 lbs/day VOCs) that require Maryland Department of Environment (MDE) permitting.

2.7.2 Building C System

Continuous operation of the SSD system in the southern-basement area of Building C began on March 31, 2008; the system was expanded to the mid-basement area in May 2013. Extraction points were installed at locations that maximized vacuum influence (based on startup tests). The total flow rate of the Building C system is approximately 180 SCFM. Extraction well SSD-23-C in the southern-basement area was shut off after the expansion to promote higher flow rates from the new wells installed in the mid-basement area. Vacuum influence in the southern-basement area was maintained by the operation of well SSD-21-C only until February 21, 2017, when SSD-23-C was re-opened and SSD-21-C was closed. Vacuum influence and flow rates in the mid-basement area have increased and stabilized since system expansion. On November 7, 2013, mid-basement wells SSD-27-C and SSD-32-C flow rates were reduced to promote higher flow rates from other extraction wells in the mid-basement area. In April 2016, flows at mid-basement extraction points SSD-26-C and SSD-30-C were also reduced to promote high flows from other extraction points. These efforts have been performed to attempt to improve vacuum influence and VOC mass removal in the northern extraction points.

From system startup on March 31, 2008 to April 8, 2013, and before the system expansion, total influent VOCs had decreased by 99%, from 31,170 $\mu g/m^3$ to 117 $\mu g/m^3$. VOC concentrations increased to 3,100 $\mu g/m^3$ after the system was expanded but have since decreased to 64 $\mu g/m^3$ (a 98% decrease). Trichloroethene is the primary chemical of concern in Building C (see Table 4). VOC trends for the Building C system are shown in Tables 4 through 6 and on Figure 15.

Mass removal rates for VOCs in Building C during this reporting period were around 0.0009 pounds per day, for a total mass of approximately 0.18 pounds. Total VOC removal since

system startup in March 2008 is approximately 12.4 pounds. Building C VOC removal rates are lower than levels requiring MDE permitting (20 lbs/day VOCs, 20 pounds per year vinyl chloride).

2.7.3 Indoor Air Filters in Building A

Six IQAir® GC™ Series-GC indoor air filters operate in the basement of Building A near VMPs 093-A, 093-A-X, and 138-A (south of the SSD system extraction trenches). These filters were inspected every two weeks. The high-efficiency particulate air (HEPA) pre-filters, GAC cartridges, and post-filter sleeves were replaced on July 11, 2019; the next filter change out will be in October 2019. The spent filter elements were placed in a dedicated 55–gallon drum in the designated drum storage area at the Building C SSD system pending proper off-site disposal. This waste drum was inspected during the biweekly system checks to ensure it was properly labeled and in good condition.

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SECTION 3
CONCLUSIONS AND RECOMMENDATIONS

3.1 SYSTEM PERFORMANCE

Induced vacuum measurements indicate that the sub-slab depressurization systems are performing as designed, except near extraction point SSD-36-A in the eastern area of Building A. Soil vapor extraction points in the Building A lay-up room induce a vacuum influence over an approximately 5,900-square foot area, and consistently encompass all eight VMPs vapor monitoring points that had elevated volatile organic compound concentrations before system startup. In the Building A basement, the soil vapor extraction points induce a vacuum influence over an approximately 2,000-square foot area that encompasses three of four vapor monitoring points installed to measure the system-induced vacuum in the basement (Figure 10). The soil vapor extraction points in the eastern area of Building A induce a vacuum influence over an approximately 6,100-square foot area, and consistently encompass nine of 15 VMPs used to measure the system-induced vacuum in that area (Figure 11). Extraction point SSD-39A in the western area of Building A is inducing vacuum at one of two nearby VMPs; the area of induced vacuum is approximately 880-square feet (Figure 10). In the southern-basement area of Building C, the soil vapor extraction points induce a vacuum influence over an approximately 3,800-square foot area, with all six accessible vapor monitoring points showing influence (Figure 12). The soil vapor extraction points in the mid-basement area of Building C induce a vacuum influence over an estimated 32,900-square foot area, with 14 of the 19 accessible vapor monitoring points showing influence (Figure 13).

The sub-slab depressurization systems have removed volatile organic compound mass and have treated emissions with granular activated-carbon (both buildings) and potassium permanganate-impregnated zeolite (Building C only). A summary of the granular activated-carbon drums used during the lifespan of each system follows:

	Number of granular-activated-carbon drums used	
	200-pound drums	400-pound drums
Building A	23	18
Building C	17	5

The 600-pound potassium permanganate-impregnated zeolite drum in Building C has not been changed out since its installation in April 2013. The drum counts listed above do not include the granular activated-carbon drums currently attached to each system, or the potassium permanganate-impregnated zeolite drum currently attached to the Building C system.

The Building A system has used approximately 59 pounds of granular activated-carbon per pound of volatiles removed, while the Building C system has used approximately 436 pounds of granular activated-carbon per pound of volatiles removed. Note that the removal efficiency of granular activated-carbon is reduced as vapor concentrations decrease. Although influent concentrations of volatile organic compounds for both systems have decreased significantly since startup (March 31, 2008), concentration fluctuations have occurred over time (see Figures 14 and 15).

3.2 CONTINUED MONITORING

The Building A and Building C systems will continue to operate during the next semi-annual reporting period (October 1, 2019 through March 31, 2020) so that the vapor migration barrier in both buildings is maintained. Operation, maintenance, and monitoring activities conducted during the next reporting period will include biweekly system checks (increased to weekly during high condensate production), quarterly system checks, system maintenance, monthly vapor sampling in Building A, and bimonthly (every other month) vapor sampling in Building C. A potential decrease in vapor sampling frequency is being discussed and any changes will be reported in the next semi-annual report. Granular activated-carbon change-outs for both systems are scheduled for October 2019; subsequent change-outs will occur when the concentration of the sample collected following the lead granular activated-carbon vessel(s) reaches 50% of the influent concentration, or as determined based on change-out history and laboratory result trends (especially trichloroethene adsorption effectiveness trends). Change-out of the potassium permanganate-impregnated zeolite drum is not expected during the next reporting period. The next remedial action progress report will be issued in April 2020.

3.3 FUTURE PLANS

We will continue to analyze vacuum influence and concentrations to optimize operation of the Building A and Building C sub-slab depressurization systems as we have done since system start-up. The Building A SSD extraction piping connected to basement sump HRS-5 is anticipated to be removed during the planned abandonment of the sump during the October to December 2019 period or shortly thereafter. We are not planning on additional changes to the systems for the remainder of 2019. We may potentially add extraction of vapor from another sump (e.g. SP-1) or extraction point in the Building A basement, depending upon the results of additional indoor air monitoring and studies.

A potential decrease in vapor sampling frequency to every two months for the Building A SSDS and every four months for the Building C SSDS is being discussed and any changes will be reported in the next semi-annual report. We will continue to look for ways to reduce SSDS operating, maintenance and monitoring costs. The O&M manuals will be updated in early 2020.

A new blower will be installed in the Building A SSD while the existing blower is checked and repaired (as needed) and will be kept on-site for use as a spare. In addition, an uninterruptible power supply (UPS) will be added for the auto-dialer of the Building A SSD. Cameras focused on the hour meters will be added at both systems to allow for direct remote monitoring of running status. The cameras will be checked three times per week.

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SECTION 4
REFERENCES

Tetra Tech, Inc. (Tetra Tech), 2017. *Construction Report Sub-Slab Depressurization-System Third-Phase Expansion—Building A, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. August.

Tetra Tech, Inc. (Tetra Tech), 2019a. *Operation, Maintenance, and Monitoring Manual, Sub-Slab-Depressurization System Building A, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. April.

Tetra Tech, Inc. (Tetra Tech), 2019b. *Operation and Maintenance Manual: Sub-Slab Depressurization System—Building C, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. April.

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FIGURES

Figure 1 SSD System Locations

Figure 2 Building A SSD System Layout

Figure 3 Building A SSD System Process and Instrumentation Diagram

Figure 4 Building C SSD System Layout

Figure 5 Building C SSD System Process and Instrumentation Diagram

Figure 6 Induced Vacuum–September 2017 to September 2019–Building A SSD System–Lay-up Room and Basement

Figure 7 Induced Vacuum– September 2017 to September 2019–Building A SSD System–Eastern Area

Figure 8 Induced Vacuum– September 2017 to September 2019–Building C SSD System–Southern-Basement Area

Figure 9 Induced Vacuum– September 2017 to September 2019–Building C SSD System–Mid-Basement Area

Figure 10 Influence of Soil Vapor Extraction Points–Building A Lay-up Room and Basement

Figure 11 Influence of Soil Vapor Extraction Points–Building A Eastern Area

Figure 12 Influence of Soil Vapor Extraction Points–Building C Southern-Basement Area

Figure 13 Influence of Soil Vapor Extraction Points–Building C Mid-Basement Area

Figure 14 Building A Influent VOC Concentrations

Figure 15 Building C Influent VOC Concentrations

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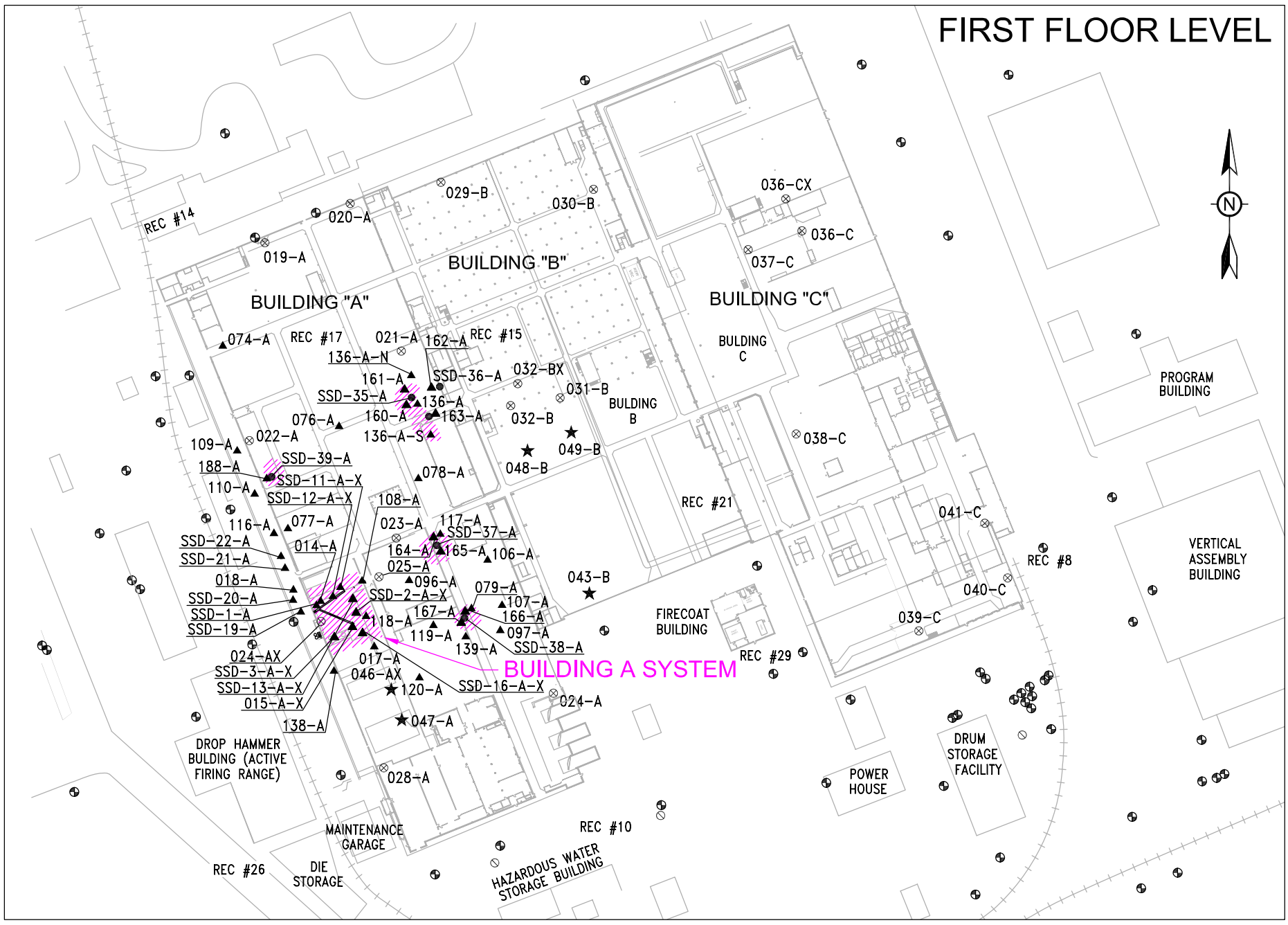
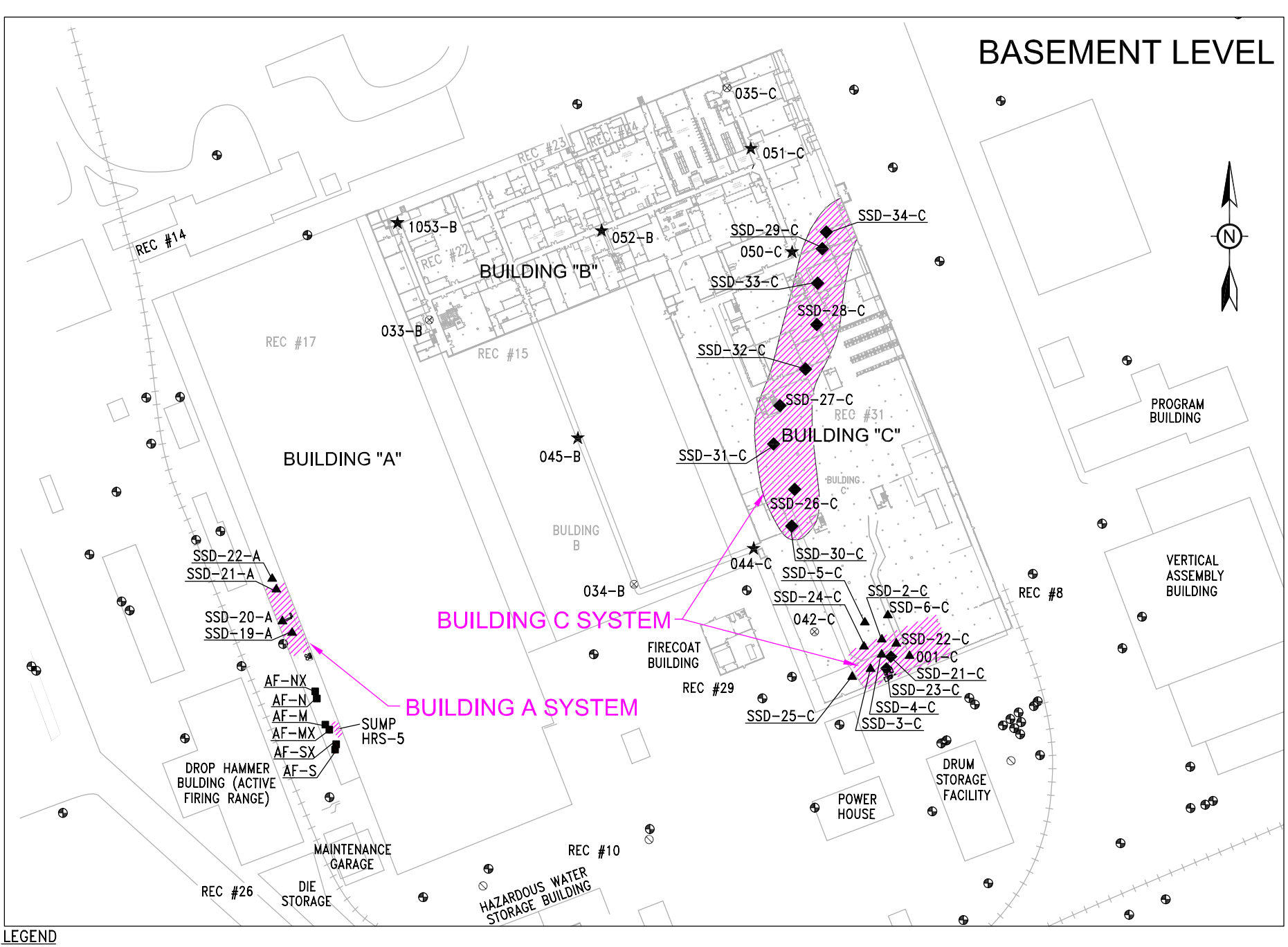
FIRST FLOOR LEVEL



BASEMENT LEVEL



LEGEND

- GROUNDWATER MONITORING WELL
- SUB-SLAB VAPOR MONITORING POINT
- TARGET OF OPPORTUNITY
- INDOOR AIR SAMPLE
- ABANDONED WELL BORING
- SUB-SLAB VAPOR EXTRACTION POINT
- PROPOSED SUB-SLAB VAPOR EXTRACTION POINT
- INDOOR AIR FILTER
- SSD SUB-SLAB DEPRESSURIZATION
- APPROXIMATE AREA OF SSD SYSTEM INFLUENCE

0 200 400

SCALE IN FEET

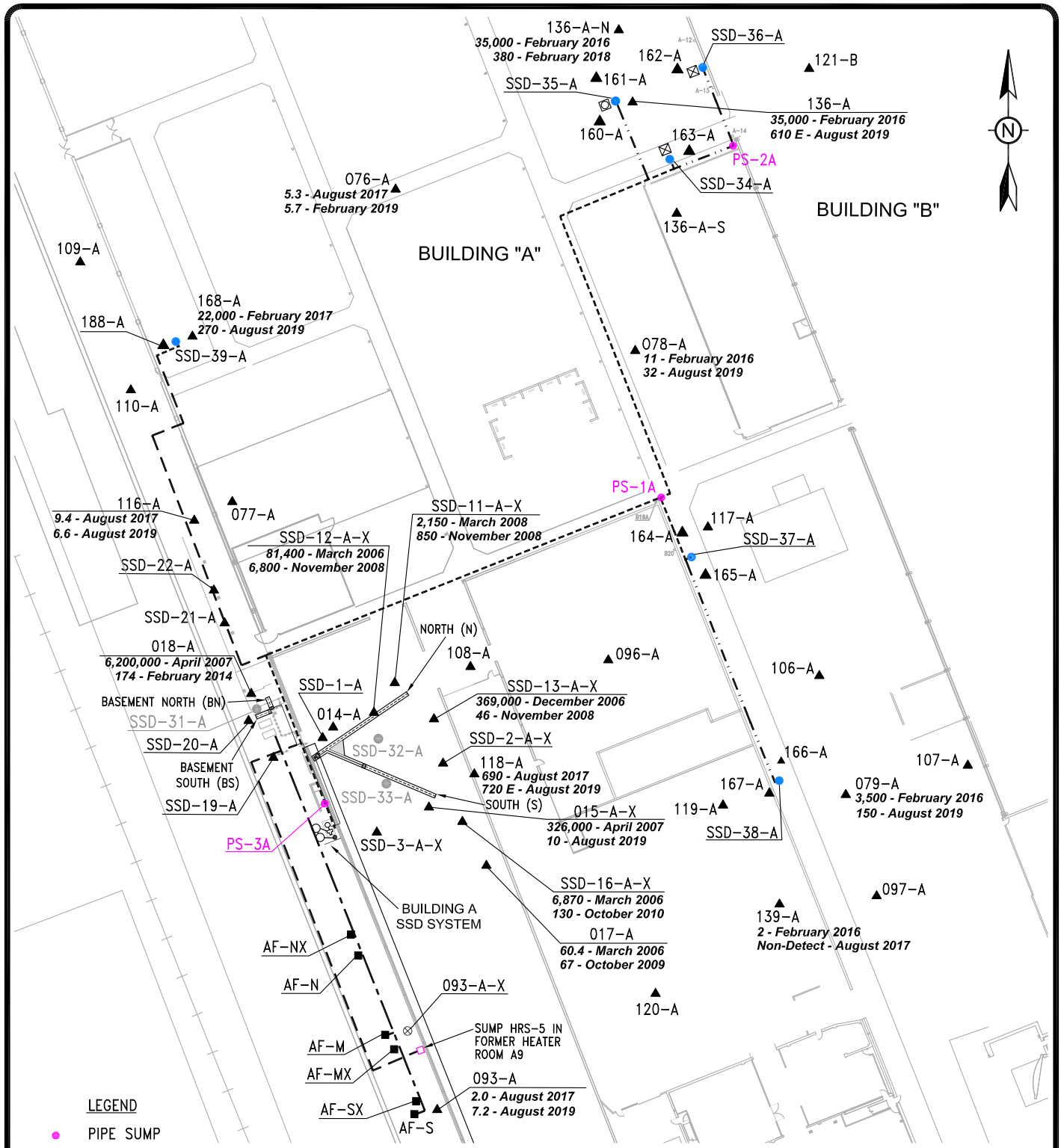
TITLE: **SSD SYSTEM LOCATIONS**

LOCATION: **LMC Middle River Complex**
Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512124
DATE	10-31-17

FIGURE 1



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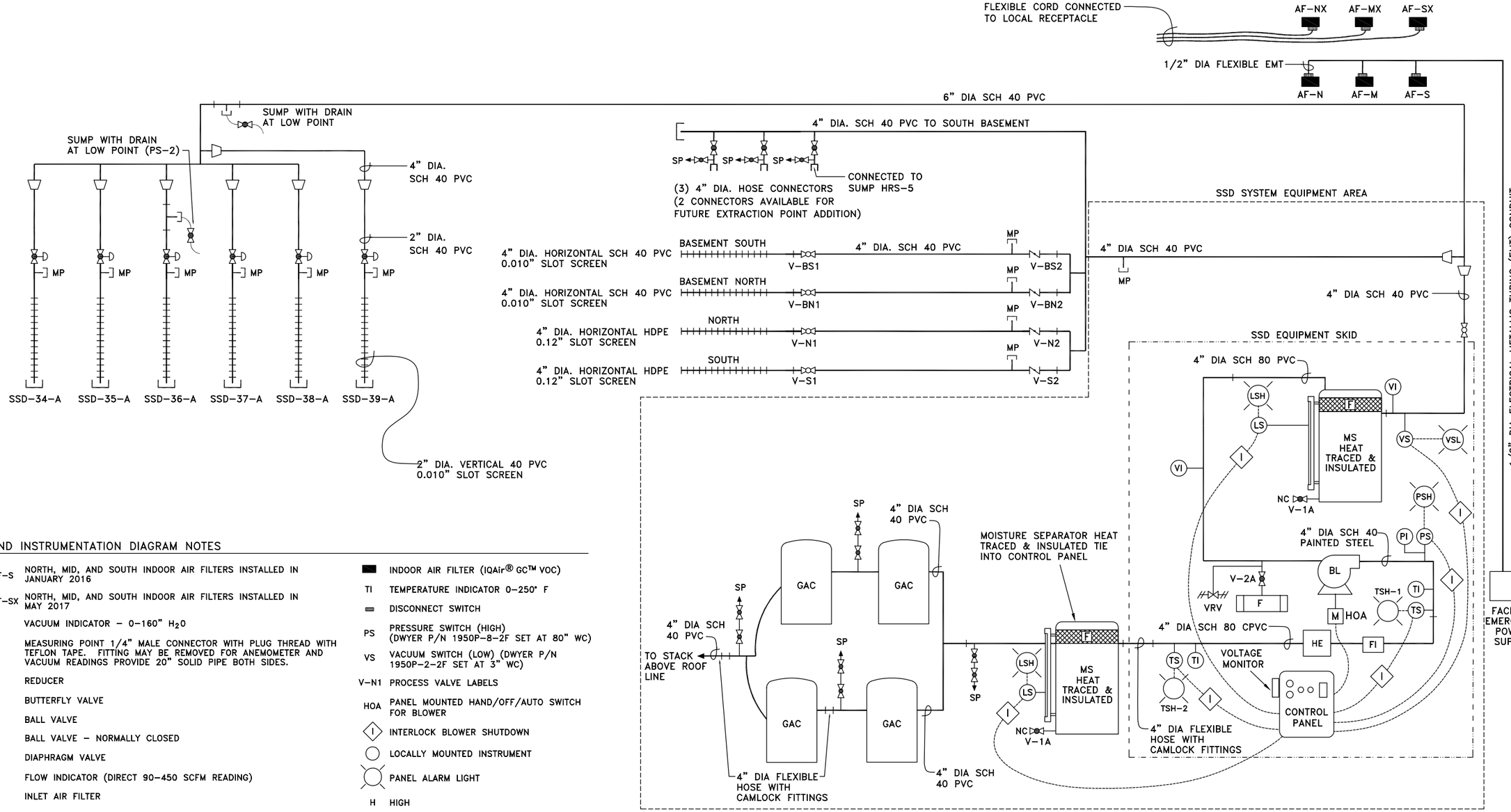
TITLE: BUILDING A SSD SYSTEM LAYOUT

LOCATION: Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-16-19

FIGURE 2



PROCESS AND INSTRUMENTATION DIAGRAM NOTES

AF-N, AF-M, AF-S	NORTH, MID, AND SOUTH INDOOR AIR FILTERS INSTALLED IN JANUARY 2016
AF-NX, AF-MX, AF-SX	NORTH, MID, AND SOUTH INDOOR AIR FILTERS INSTALLED IN MAY 2017
VI	VACUUM INDICATOR – 0–160" H_2O
MP	MEASURING POINT 1/4" MALE CONNECTOR WITH PLUG THREAD WITH TEFLON TAPE. FITTING MAY BE REMOVED FOR ANEMOMETER AND VACUUM READINGS PROVIDE 20" SOLID PIPE BOTH SIDES.
	REDUCER
	BUTTERFLY VALVE
	BALL VALVE
	BALL VALVE – NORMALLY CLOSED
	DIAPHRAGM VALVE
FI	FLOW INDICATOR (DIRECT 90–450 SCFM READING)
F	INLET AIR FILTER
HE	HEAT EXCHANGER (XCHANGER AA-400)
MS	MOISTURE SEPARATOR (GASHO GX-100DL) WITH 40 GALLON CAPACITY, SLIGHT TUBE, REMOVABLE TOP, DRAIN VALVE
LS	LEVEL SWITCH
LSH	LEVEL SWITCH HIGH
VRV	VACUUM RELIEF VALVE – 2" (SET AT 81.6" WC)
SP	SAMPLE PORT 1/4" DIAMETER
BL	AMETEK®, ROTRON® 909BB72W 10 HP MOTOR, 300 SCFM @ 75" H_2O
PI	PRESSURE INDICATOR 0–160" H_2O
TS	TEMPERATURE SWITCH (ASHCROFT P/N T424-T05-030-XFS-150-260; TSH-1 SET AT 220° F AND TSH-2 SET AT 115° F)
GAC	GRANULAR ACTIVATED CARBON VAPOR TREATMENT (SIEMENS VENT SCRUB®, VSC400, VOCARB® 48C)
	INDOOR AIR FILTER (IQAir® GC™ VOC)
TI	TEMPERATURE INDICATOR 0–250° F
	DISCONNECT SWITCH
PS	PRESSURE SWITCH (HIGH) (DWYER P/N 1950P-8-2F SET AT 80" WC)
VS	VACUUM SWITCH (LOW) (DWYER P/N 1950P-2-2F SET AT 3" WC)
V-N1	PROCESS VALVE LABELS
HOA	PANEL MOUNTED HAND/OFF/AUTO SWITCH FOR BLOWER
I	INTERLOCK BLOWER SHUTDOWN
	LOCALLY MOUNTED INSTRUMENT
	PANEL ALARM LIGHT
H	HIGH
L	LOW
SSD	SUB-SLAB DEPRESSUIZATION
M	MOTOR
EMT	ELECTRICAL METALLIC TUBING

TITLE:
BUILDING A SSD SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM

LOCATION:
LMC Middle River Complex
Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512124
DATE	10-24-17

FIGURE 3

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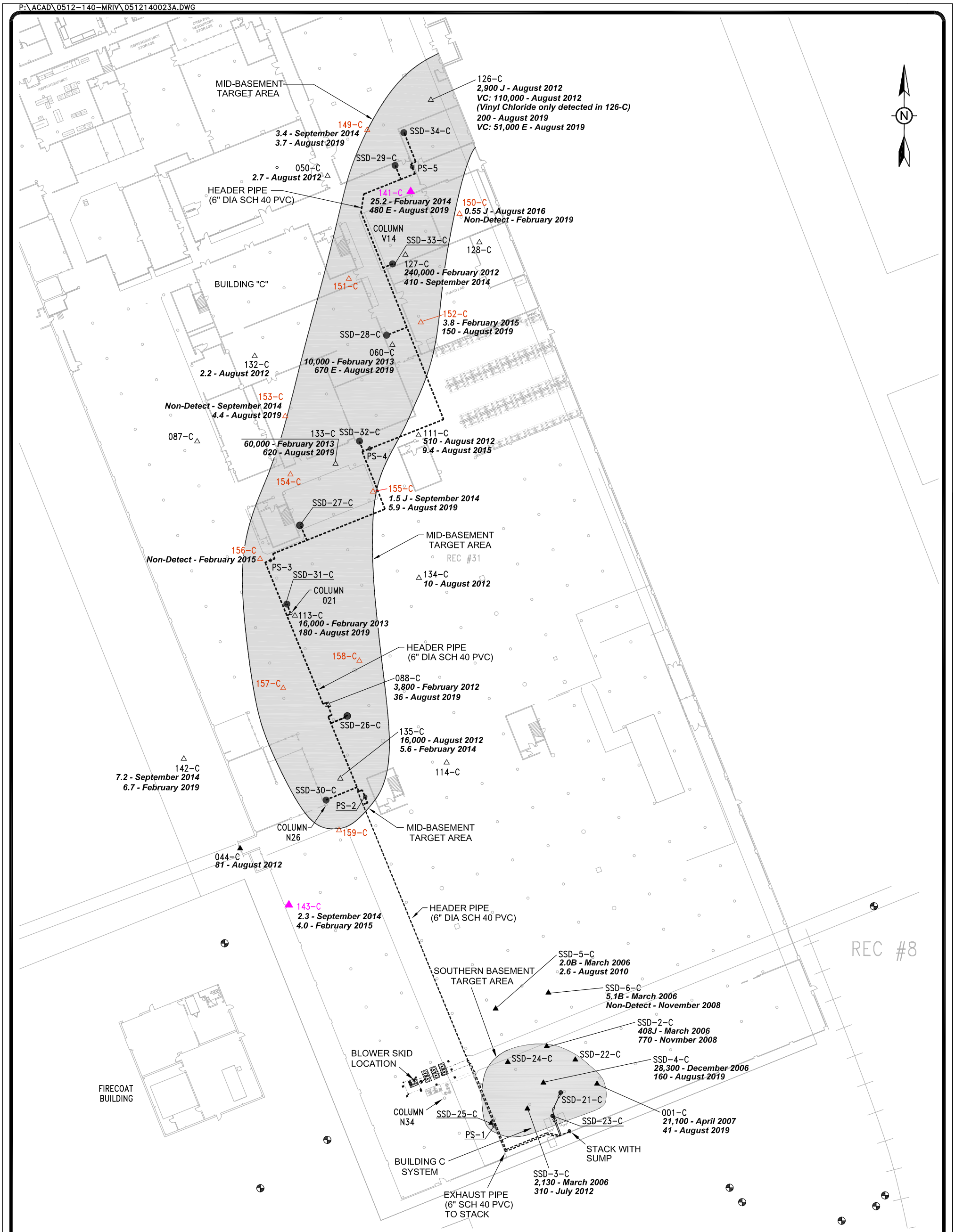

LEGEND

- GROUNDWATER MONITORING WELL
- SUB-SLAB VAPOR MONITORING POINT
- SUB-SLAB VAPOR MONITORING POINT INSTALLED JANUARY 2010
- SUB-SLAB VAPOR MONITORING POINT INSTALLED FEBRUARY 2013
- SUB-SLAB VAPOR MONITORING POINT INSTALLED AUGUST 2014
- SOIL VAPOR EXTRACTION POINT
- SUMP

21,100	HIGHEST SUB-SLAB TCE CONCENTRATION ($\mu g/m^3$) PRE-SSD SYSTEM AND MOST RECENT TCE CONCENTRATION POST-SSD SYSTEM OPERATION
----	HEADER PIPE (2", 3" OR 6" DIA. SCH 40)
SSD	SUB-SLAB DEPRESSURIZATION
J	ESTIMATED CONCENTRATION
B	DETECTED IN LAB BLANK
TCE	TRICHLOROETHENE
VC	VINYL CHLORIDE
DL	DILUTION ANALYSIS

TITLE: BUILDING C SSD SYSTEM LAYOUT

LOCATION: Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-7-19

FIGURE 4

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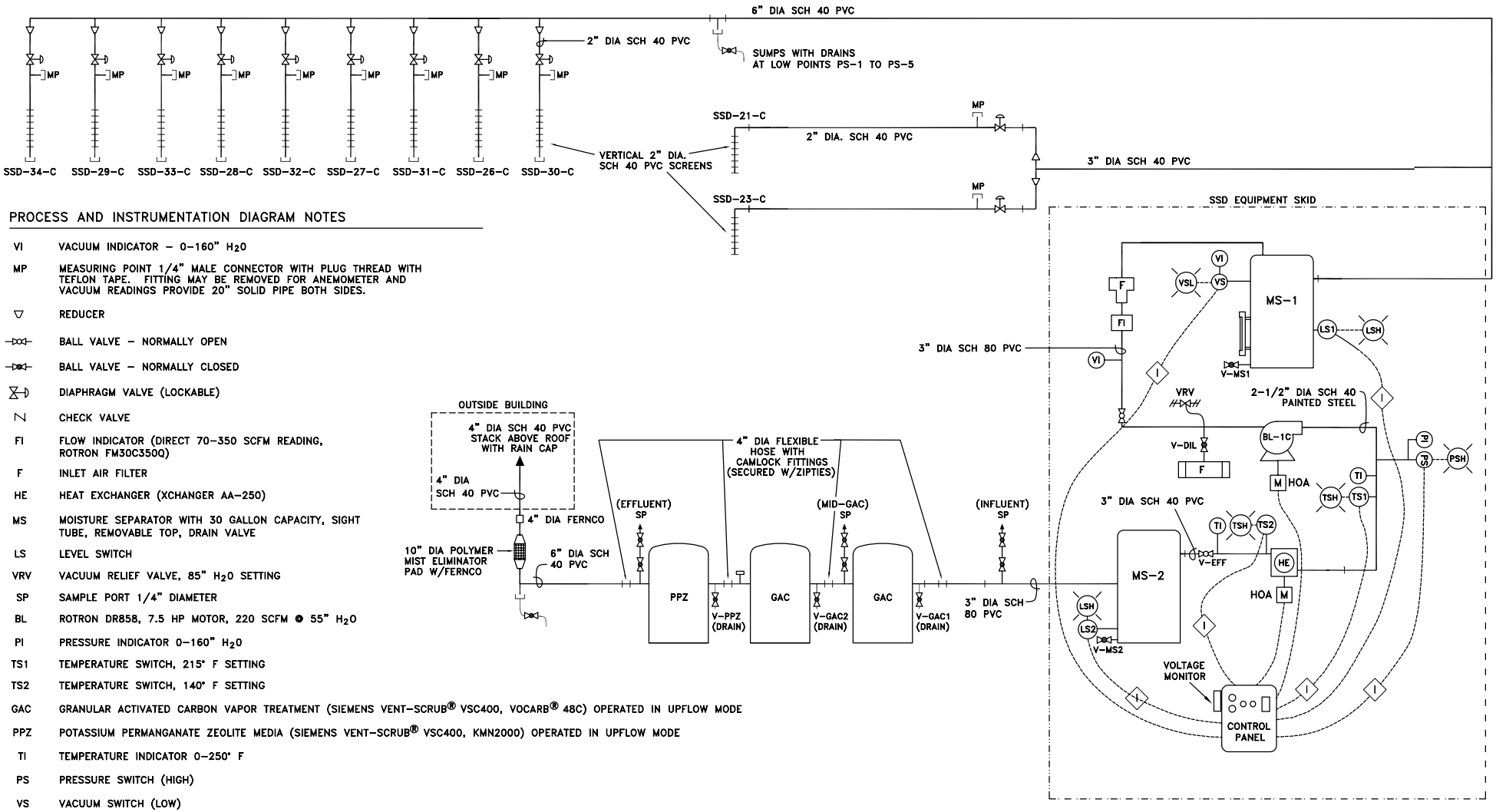


PROCESS AND INSTRUMENTATION DIAGRAM NOTES

VI	VACUUM INDICATOR – 0–160" H_2O
MP	MEASURING POINT 1/4" MALE CONNECTOR WITH PLUG THREAD WITH TEFLON TAPE. FITTING MAY BE REMOVED FOR ANEMOMETER AND VACUUM READINGS PROVIDE 20" SOLID PIPE BOTH SIDES.
▽	REDUCER
—⋈—	BALL VALVE – NORMALLY OPEN
—⋈—	BALL VALVE – NORMALLY CLOSED
⧖	DIAPHRAGM VALVE (LOCKABLE)
⩘	CHECK VALVE
FI	FLOW INDICATOR (DIRECT 70–350 SCFM READING, ROTRON FM30C350Q)
F	INLET AIR FILTER
HE	HEAT EXCHANGER (XCHANGER AA-250)
MS	MOISTURE SEPARATOR WITH 30 GALLON CAPACITY, SIGHT TUBE, REMOVABLE TOP, DRAIN VALVE
LS	LEVEL SWITCH
VRV	VACUUM RELIEF VALVE, 85" H_2O SETTING
SP	SAMPLE PORT 1/4" DIAMETER
BL	ROTRON DR858, 7.5 HP MOTOR, 220 SCFM @ 55" H_2O
PI	PRESSURE INDICATOR 0–160" H_2O
TS1	TEMPERATURE SWITCH, 215° F SETTING
TS2	TEMPERATURE SWITCH, 140° F SETTING
GAC	GRANULAR ACTIVATED CARBON VAPOR TREATMENT (SIEMENS VENT-SCRUB® VSC400, VOCARB® 48C) OPERATED IN UPFLOW MODE
PPZ	POTASSIUM PERMANGANATE ZEOLITE MEDIA (SIEMENS VENT-SCRUB® VSC400, KMN2000) OPERATED IN UPFLOW MODE
TI	TEMPERATURE INDICATOR 0–250° F
PS	PRESSURE SWITCH (HIGH)
VS	VACUUM SWITCH (LOW)
V-MS1	PROCESS VALVE LABELS
HOA	PANEL MOUNTED HAND/OFF/AUTO SWITCH
◇ I	INTERLOCK BLOWER SHUTDOWN
○	LOCALLY MOUNTED INSTRUMENT
⊙	PANEL ALARM LIGHT
H	HIGH
L	LOW
M	MOTOR
⊤	TAP PLUG
SSD	SUB-SLAB DEPRESSURIZATION

TITLE:

BUILDING C SSD SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM

LOCATION:

Middle River, Maryland

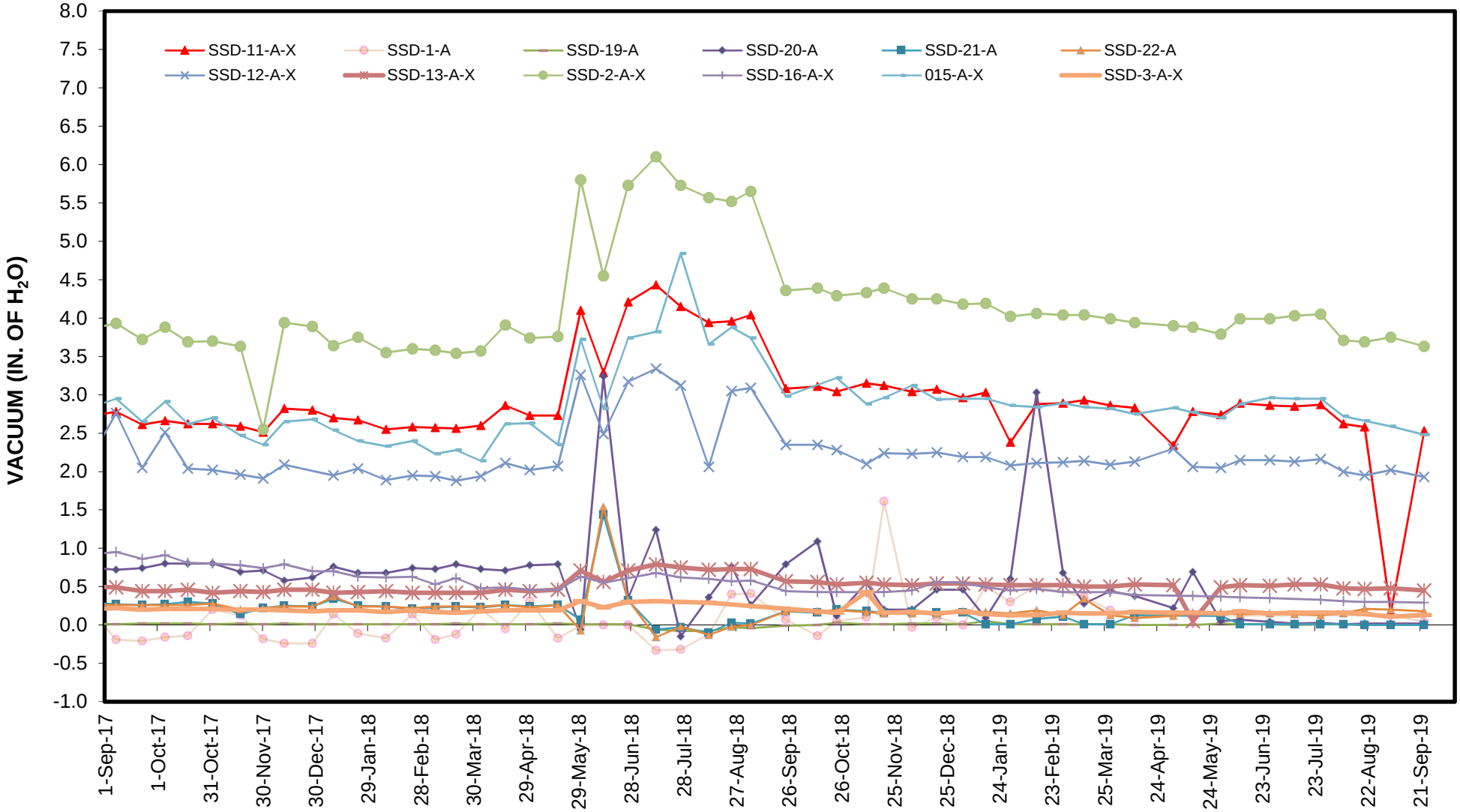
TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0507533
DATE	8-9-18

FIGURE

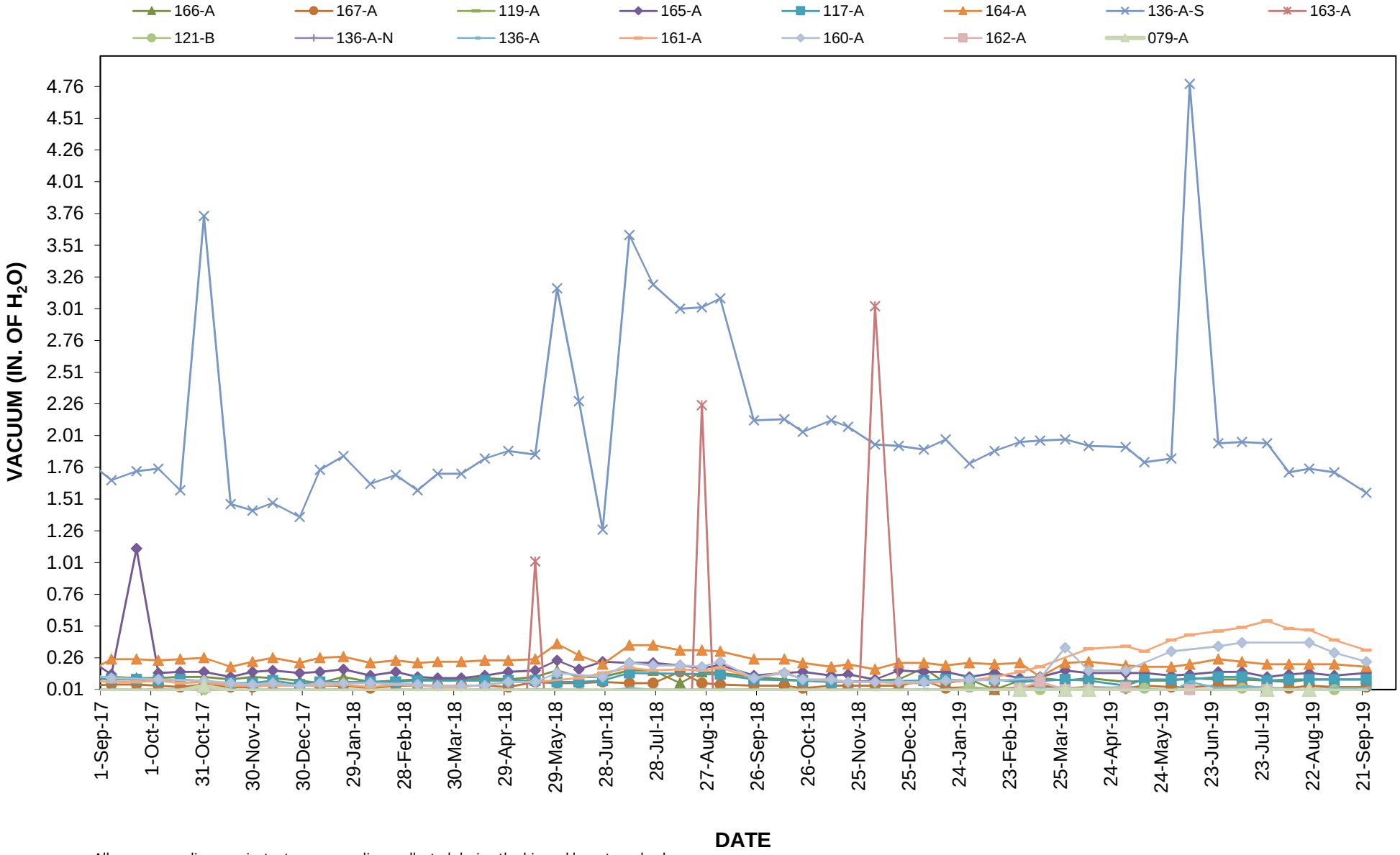
5

FIGURE 6
INDUCED VACUUM
SEPTEMBER 2017 TO SEPTEMBER 2019
BUILDING A SSD SYSTEM - LAY-UP ROOM AND BASEMENT



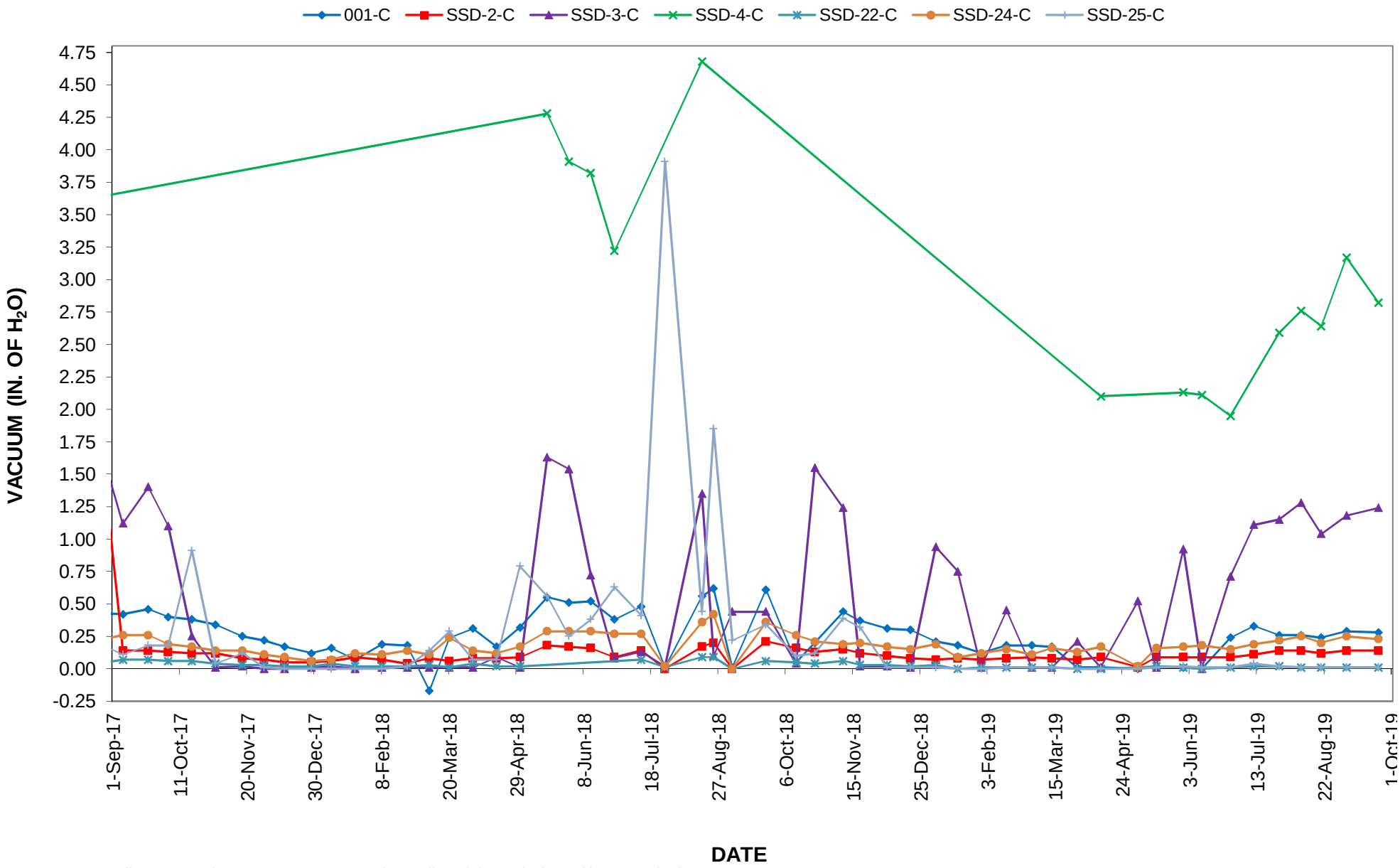
All vacuum readings are instantaneous readings collected during the bi-weekly system checks.
Only the past two years of vacuum data are depicted above.
Increase in vacuum influence beginning April 4, 2016 a result of the installation and operation of the larger blower skid associated with the second-phase expansion.
** NOTE: As of May 18, 2015, all vacuum readings for SSD-11-A, SSD-12-A, SSD-13-A, 015-A, SSD-16-A, SSD-2-A, and SSD-3-A were taken from the SSD-11-A-X, SSD-12-A-X, SSD-13-A-X, 015-A-X, SSD-16-A-X, SSD-2-A-X, and SSD-3-A-X VMPs respectively. **

FIGURE 7
INDUCED VACUUM
SEPTEMBER 2017 TO SEPTEMBER 2019
BUILDING A SSD SYSTEM - EASTERN AREA



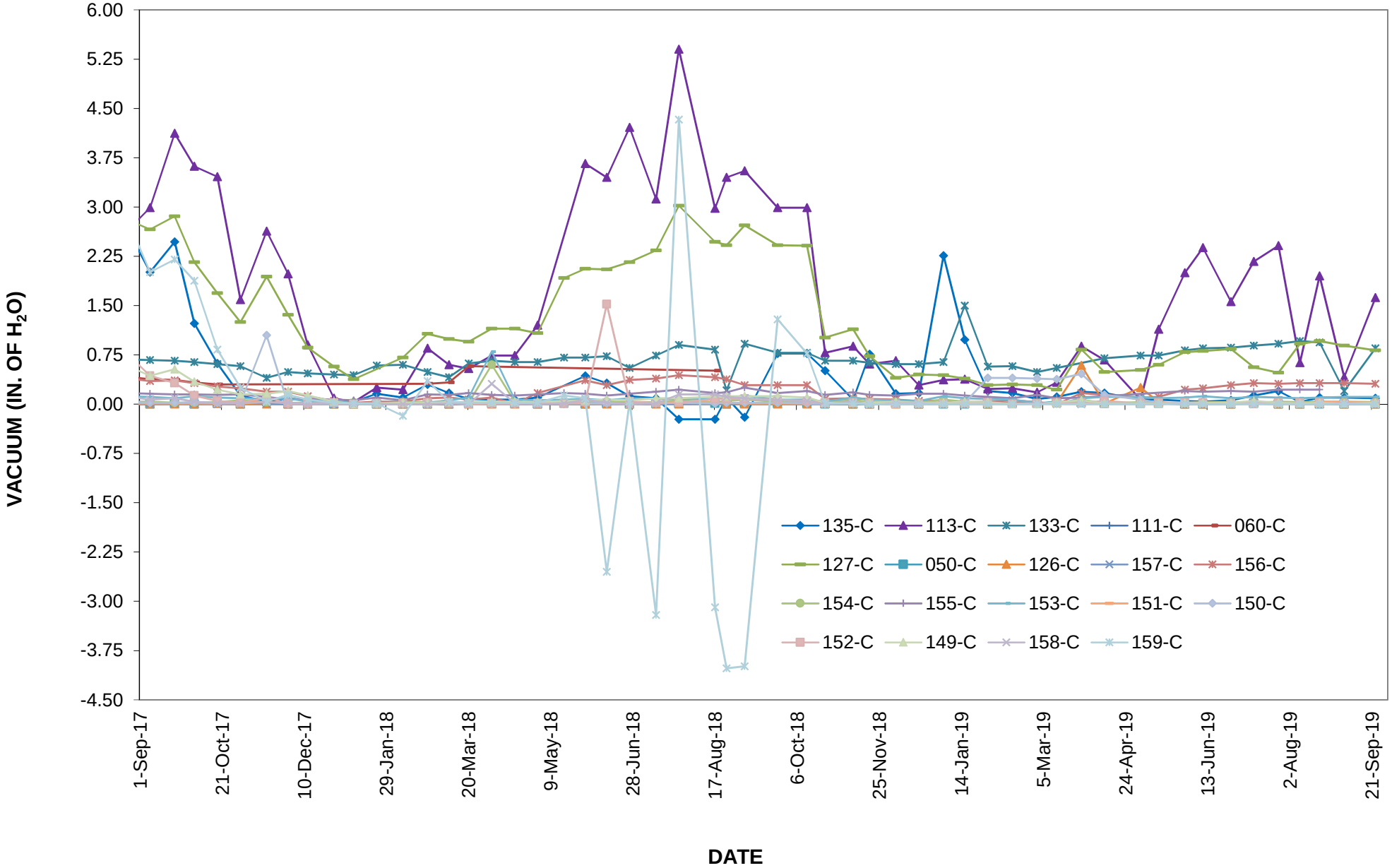
All vacuum readings are instantaneous readings collected during the bi-weekly system checks.
VMPs we included in bi-weekly system checks upon start-up of the second-phase expansion on April 13, 2016.

FIGURE 8
INDUCED VACUUM
SEPTEMBER 2017 TO SEPTEMBER 2019
BUILDING C SSD SYSTEM - SOUTHERN BASEMENT AREA

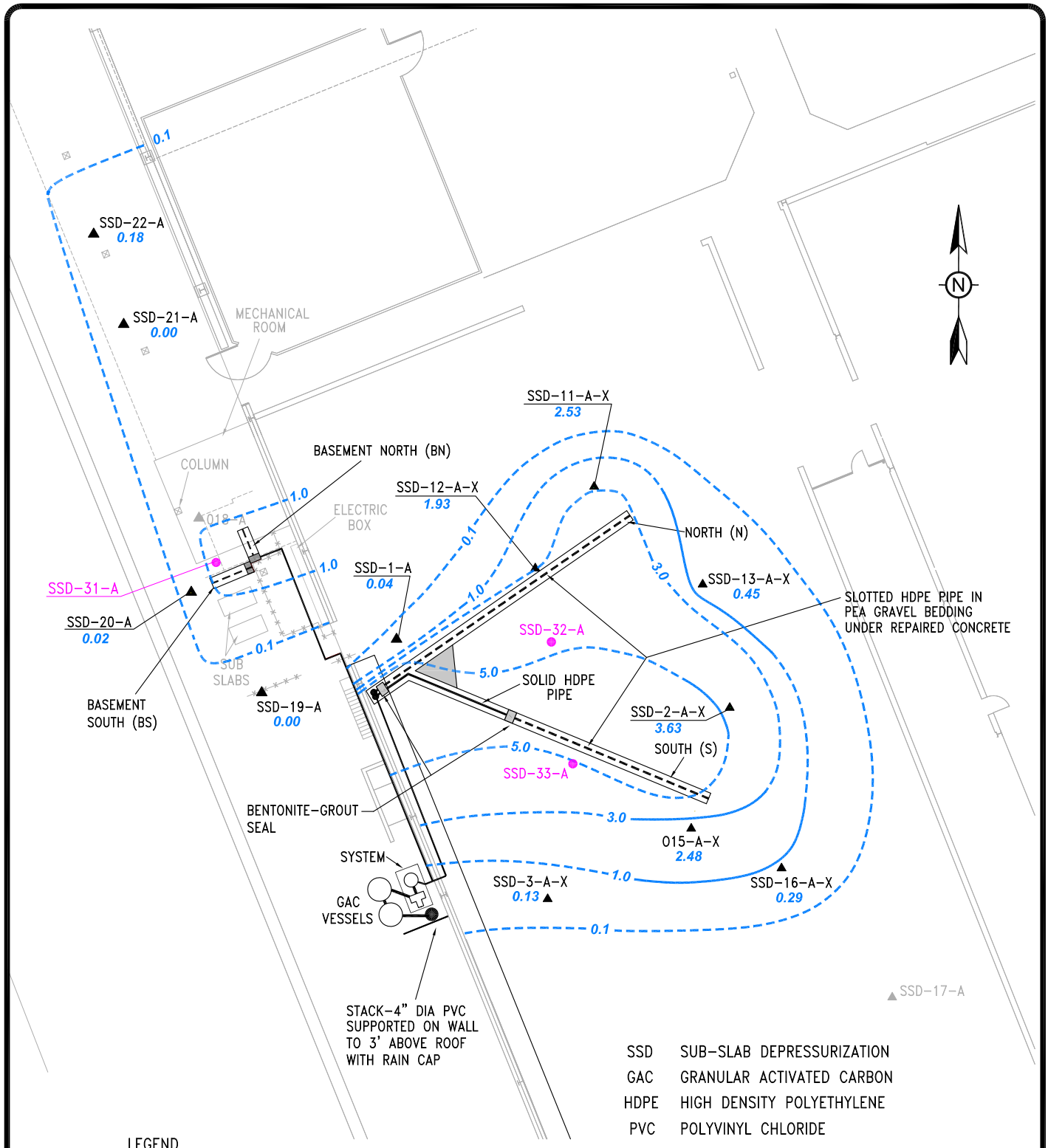


All vacuum readings are instantaneous readings collected during the bi-weekly system checks.
Only the past two years of vacuum data are depicted above.

FIGURE 9
INDUCED VACUUM
SEPTEMBER 2017 TO SEPTEMBER 2019
BUILDING C SSD SYSTEM - MID-BASEMENT AREA



All vacuum readings are instantaneous readings collected during the bi-weekly system checks.
Sub-slab vapor monitoring points routinely monitored beginning May 1, 2013 following second-phase system expansion in the middle basement area of Building C.



SSD	SUB-SLAB DEPRESSURIZATION
GAC	GRANULAR ACTIVATED CARBON
HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE

0 25 50

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- SUB-SLAB VAPOR MONITORING POINT
- SOIL VAPOR EXTRACTION POINT (USED IN PILOT TEST ONLY)
- 0.04 INCHES OF H_2O INDUCED VACUUM MEASURED ON 9/23/2019
- INFERRED EQUAL VACUUM INFLUENCE
- HORIZONTAL SOIL VAPOR EXTRACTION POINT

TITLE: INFLUENCE OF SOIL VAPOR EXTRACTION POINTS BUILDING A LAY-UP ROOM AND BASEMENT

LOCATION: Middle River, Maryland

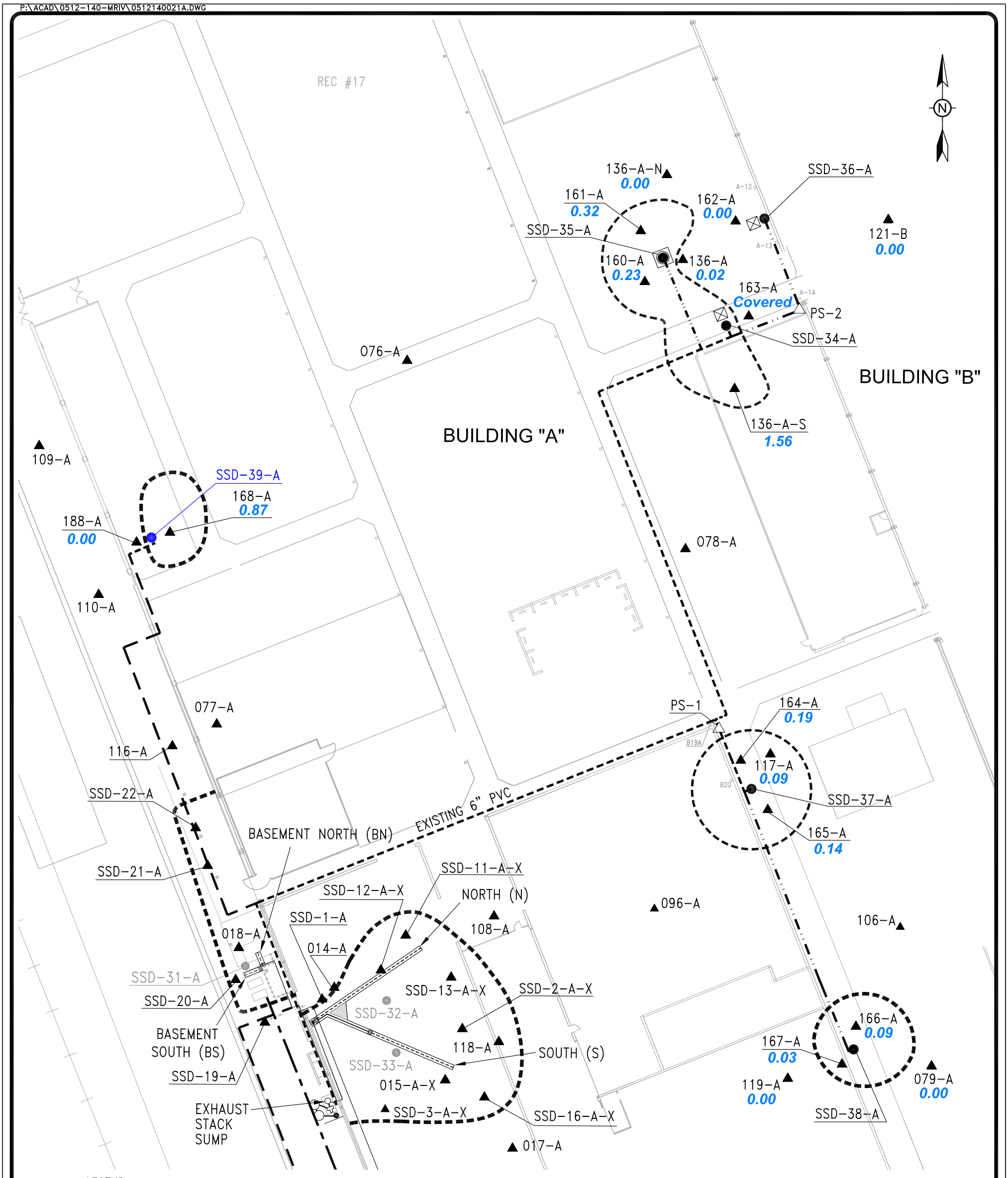
TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-8-19

FIGURE 10

P:\ACAD\0512-140-MRIV\0512140025A.DWG

P:\ACAD\0512-140-MRIV\0512140021A.DWG



LEGEND

- ▲ SUB-SLAB VAPOR MONITORING POINT
- ● VERTICAL SOIL VAPOR EXTRACTION POINT
- ● NEW SUB-SLAB VAPOR EXTRACTION POINT
- ● SUB-SLAB VAPOR EXTRACTION POINT (USED IN PREVIOUS PILOT TEST)
- ⊗ INDOOR AIR SAMPLING POINT
- APPROXIMATE EXISTING INFLUENCE AREA
- ■ INDOOR AIR FILTER
- SSD SYSTEM BLOWER SKID
- SOIL VAPOR EXTRACTION POINT PIPING (2" DIA. SCH 40)
- SOIL VAPOR EXTRACTION POINT PIPING (4" DIA. SCH 40)
- HEADER PIPE (6" DIA. SCH 40)
- INDOOR AIR FILTER CONNECTION TO EMERGENCY POWER SUPPLY (FIELD RUN)
- △ PIPE SUMP
- ⊡ STEEL PIPE SLEEVE (4" DIA.)
- ⊠ PIPE BOLLARD (2" DIA.)
- SSD SUB-SLAB DEPRESSURIZATION
- EXISTING HORIZONTAL SOIL VAPOR EXTRACTION POINT
- *0.69* INCHES OF H_2O INDUCED VACUUM MEASURED ON 9/23/2019
- *N/A* NOT ACCESSIBLE

NOTE:

PIPE HANGERS PLACED NEXT TO EXISTING SUPPORT BRACKETS FOR STEEL PIPING IN CEILING APPROX. 6-12 FT APART.

0 40 80

SCALE IN FEET

TITLE: INFLUENCE OF SOIL VAPOR EXTRACTION POINTS BUILDING A EASTERN AREA

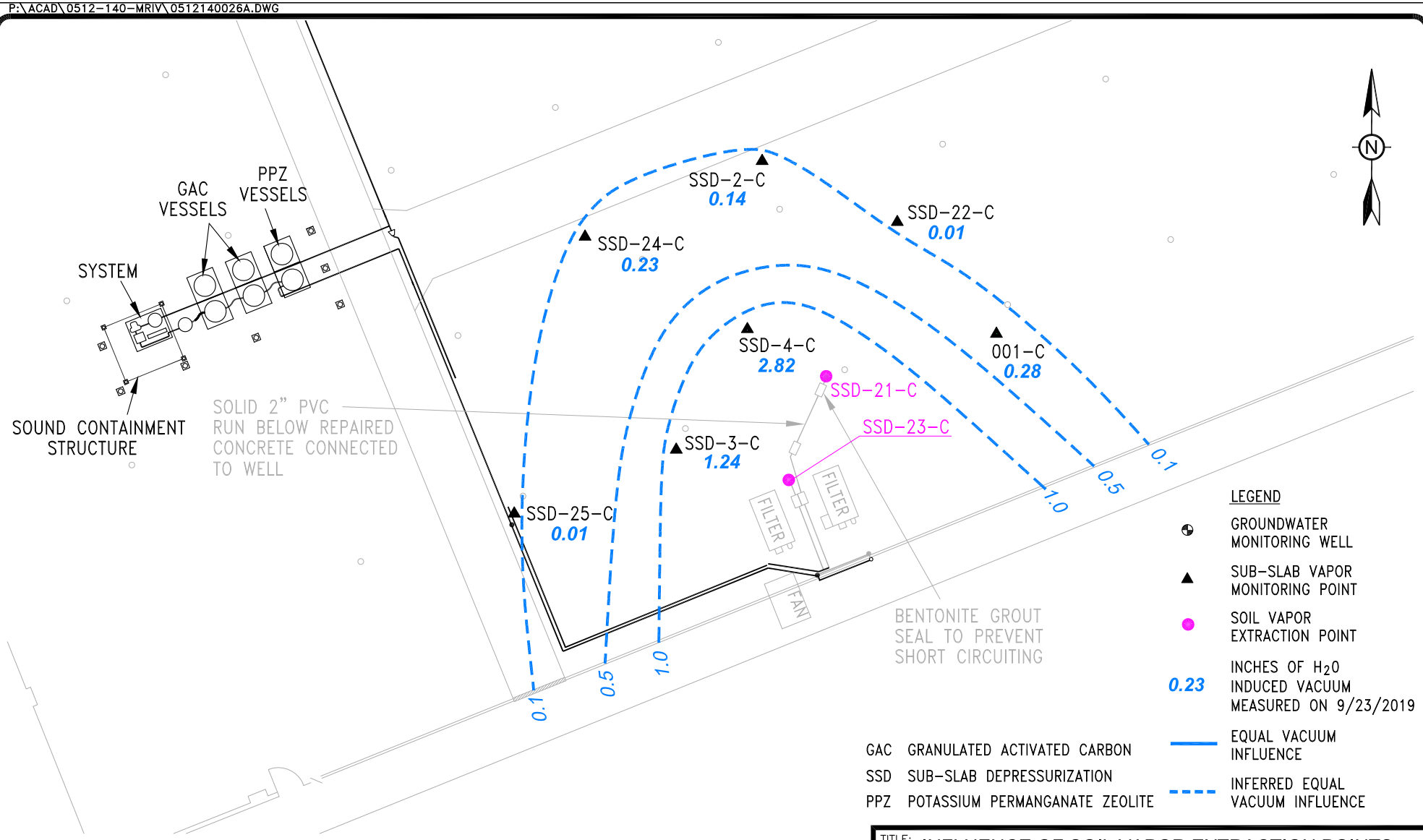
LOCATION: Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-16-19

FIGURE 11

P:\ACAD\0512-140-MRIV\0512140026A.DWG



TITLE: INFLUENCE OF SOIL VAPOR EXTRACTION POINTS
BUILDING C - SOUTHERN BASEMENT AREA

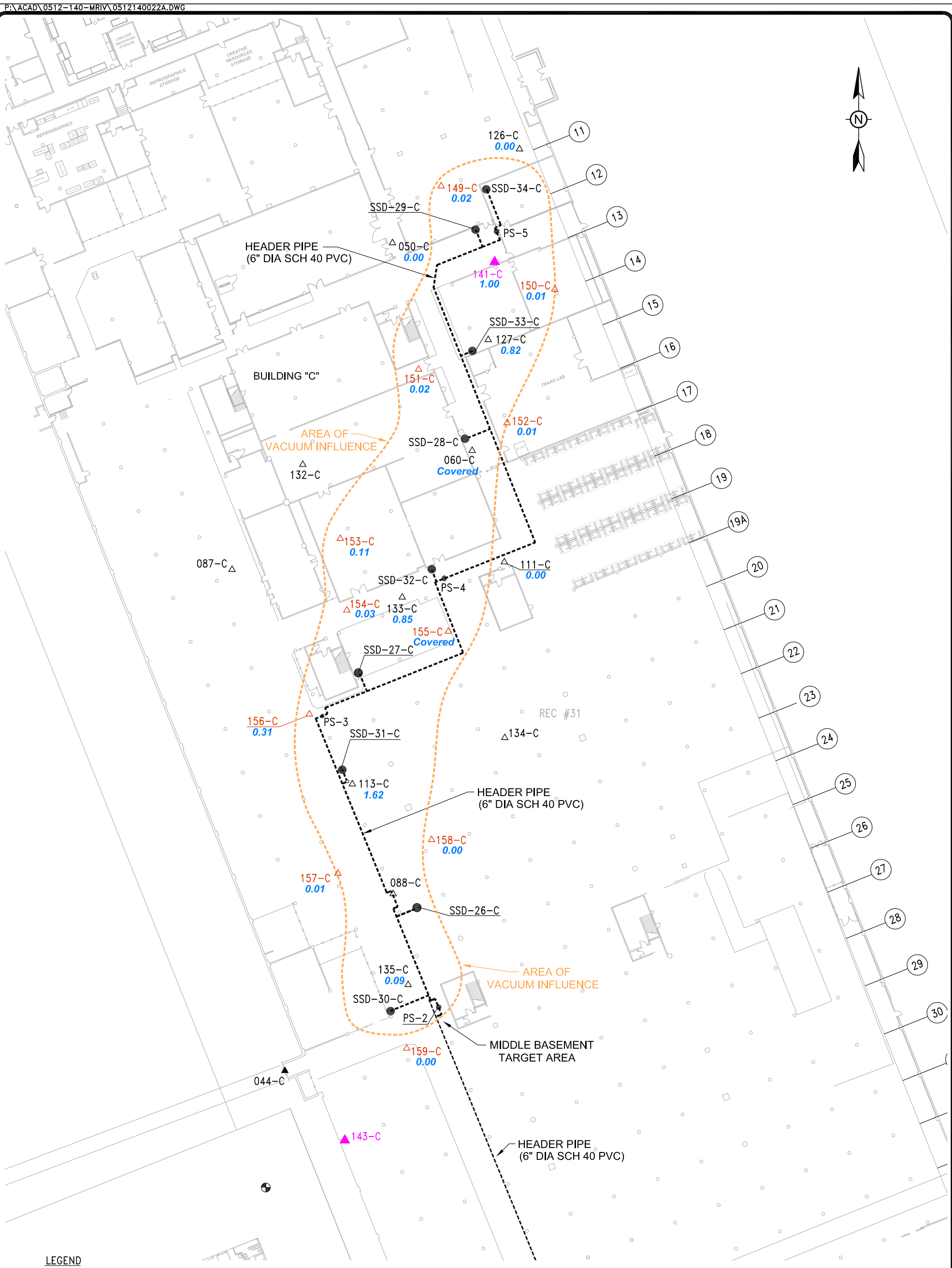
LOCATION: Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-8-19

FIGURE 12

P:\ACAD\0512-140-MRIV\0512140022A.DWG



LEGEND

- GROUNDWATER MONITORING WELL
- SUB-SLAB VAPOR MONITORING POINT
- SUB-SLAB VAPOR MONITORING POINT INSTALLED JANUARY 2010
- SUB-SLAB VAPOR MONITORING POINT INSTALLED FEBRUARY 2013
- SUB-SLAB VAPOR MONITORING POINT INSTALLED AUGUST 2014
- SOIL VAPOR EXTRACTION POINT
- SUMP

NOTE:
088-C HAS BEEN REMOVED FROM MONITORING.

- AREA OF VACUUM INFLUENCE (> 0.01 INCHES OF H_2O)
- HEADER PIPE (2", 3" OR 6" DIA. SCH 40)
- SSD SUB-SLAB DEPRESSURIZATION
- 0.11 INCHES OF H_2O INDUCED VACUUM MEASURED ON 9/23/2019

0 50 100
SCALE IN FEET

TITLE: INFLUENCE OF SOIL VAPOR EXTRACTION POINTS BUILDING C MID-BASEMENT AREA

LOCATION: Middle River, Maryland

TETRA TECH

APPROVED	PR
DRAFTED	CP
PROJECT#	117-0512140
DATE	10-16-19

FIGURE 13

FIGURE 14

BUILDING A INFLUENT VOC CONCENTRATIONS

SSD System, Middle River Complex, Middle River, Maryland

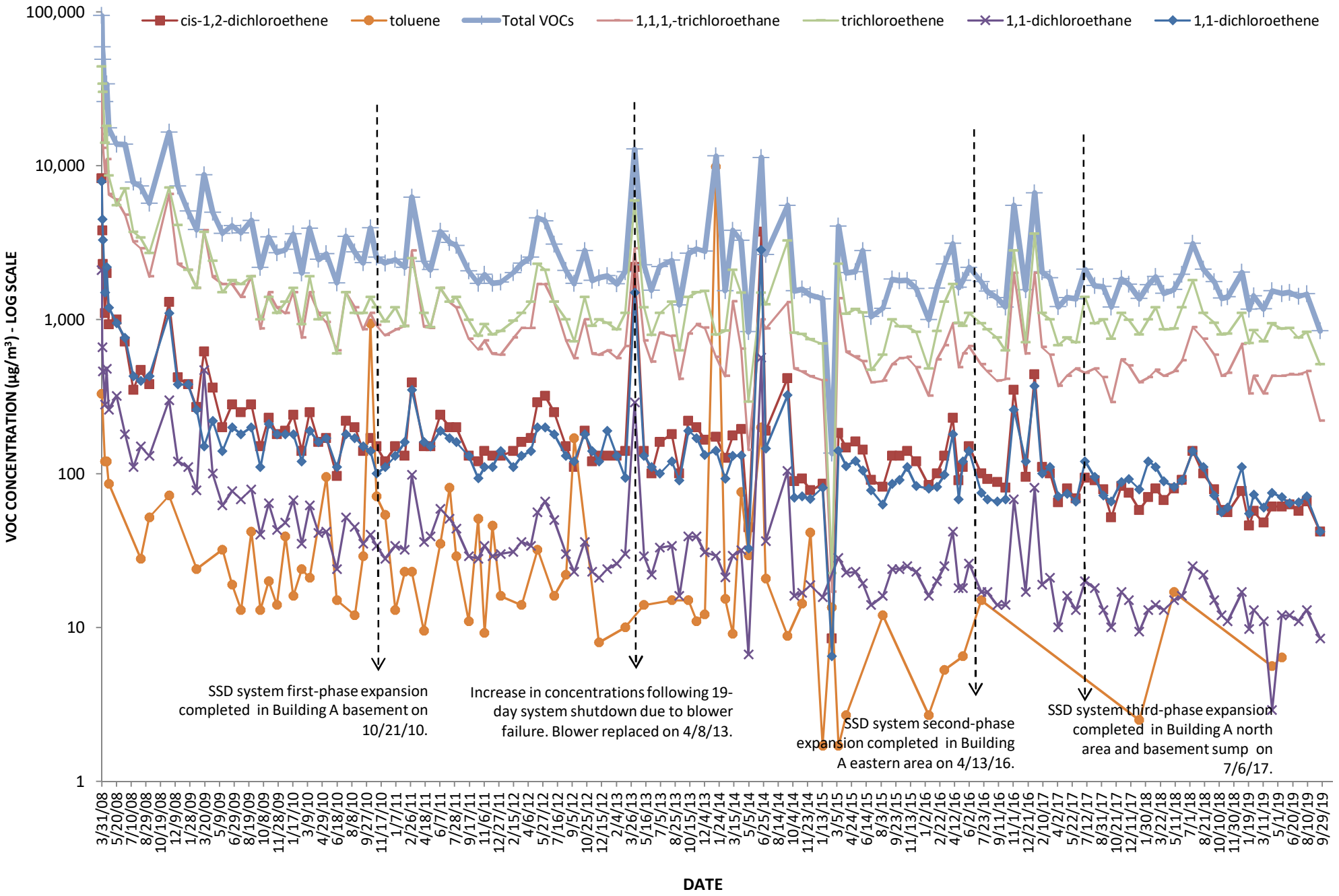
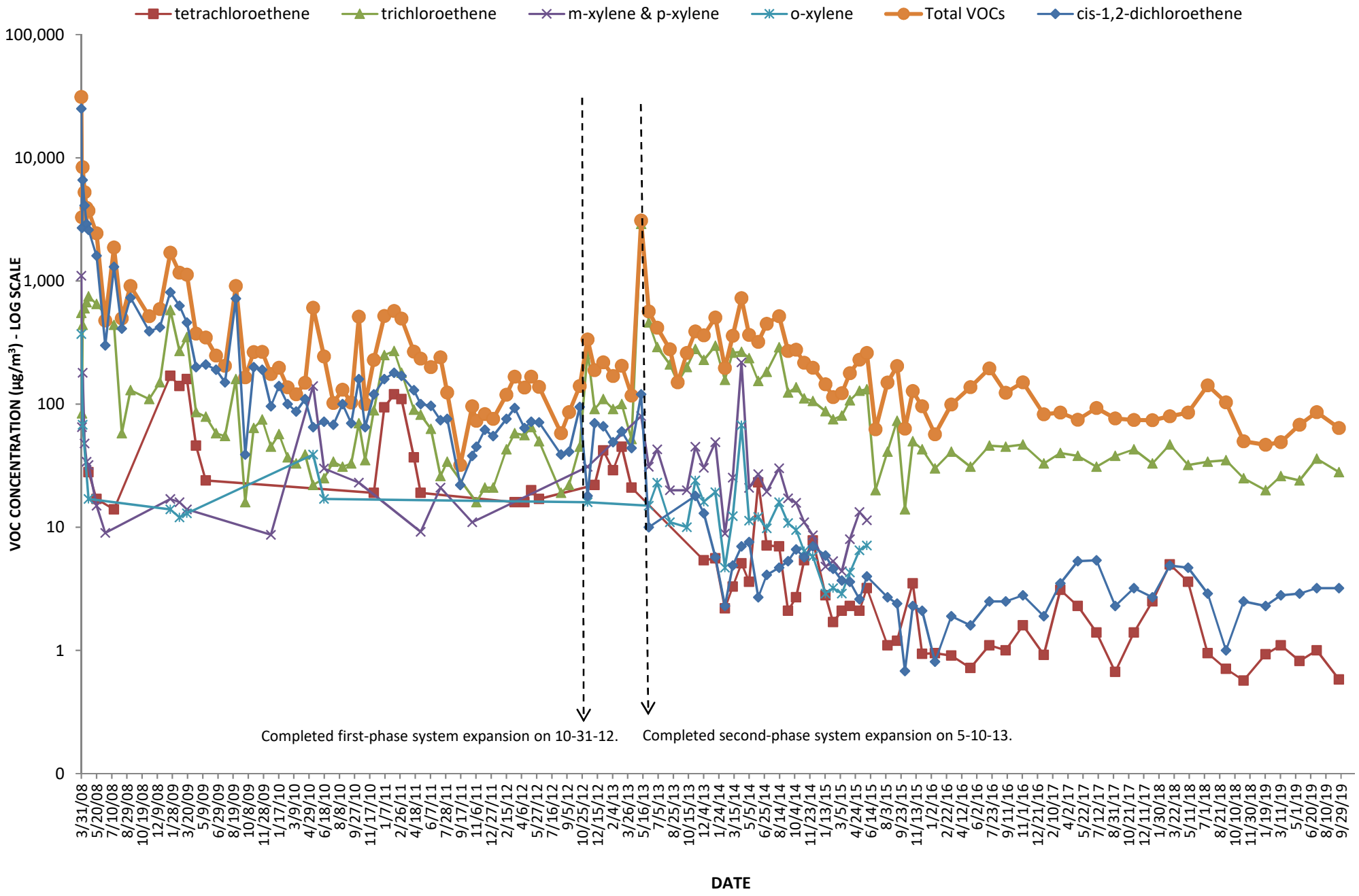


FIGURE 15

BUILDING C INFLUENT VOC CONCENTRATIONS

SSD System, Middle River Complex, Middle River, Maryland



TABLES

Table 1 Building A Influent Concentrations (µg/m^3)

Table 2 Building A Mid-GAC Concentrations (µg/m^3)

Table 3 Building A Effluent Concentrations (µg/m^3)

Table 4 Building C Influent Concentrations (µg/m^3)

Table 5 Building C Mid-GAC Concentrations (µg/m^3)

Table 6 Building C Effluent Concentrations (µg/m^3)

TABLE 1

Building A Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
3/31/08	NA	ND	ND	N/A	ND	8,300	ND	2,100	ND	7,900	300	ND	ND	ND	330	ND	30,000	44,000	ND	ND	ND	ND	ND	N/A	1,100	280	94,310	1.190	3.570
4/2/08	140	ND	ND	N/A	ND	3,800	ND	660	ND	4,500	ND	ND	ND	ND	ND	ND	16,000	34,000	ND	ND	ND	ND	ND	N/A	ND	ND	58,960	0.740	1.480
4/4/08	140	ND	ND	N/A	ND	2,300	ND	460	ND	3,300	ND	ND	ND	ND	ND	ND	13,000	30,000	ND	ND	ND	ND	ND	N/A	ND	ND	49,060	0.620	4.340
4/11/08	140	ND	ND	N/A	ND	1,100	ND	280	ND	1,500	ND	ND	ND	ND	120	ND	9,100	14,000	ND	ND	ND	ND	ND	N/A	ND	ND	26,100	0.330	1.980
4/17/08	112	ND	ND	N/A	ND	2,000	ND	480	ND	2,200	ND	ND	ND	ND	120	ND	11,000	18,000	ND	ND	ND	ND	ND	N/A	110	ND	33,910	0.340	2.380
4/24/08	84	ND	ND	N/A	ND	930	ND	260	ND	1,200	ND	ND	ND	ND	86	ND	6,500	8,600	ND	ND	ND	ND	ND	N/A	ND	ND	17,576	0.130	3.510
5/21/08	84	ND	ND	N/A	ND	1,000	ND	320	ND	950	ND	ND	ND	ND	ND	ND	6,000	5,500	ND	ND	ND	ND	ND	N/A	ND	ND	13,770	0.100	3.100
6/19/08	70	180	ND	N/A	ND	720	ND	180	ND	760	ND	ND	ND	ND	ND	ND	4,800	7,100	ND	ND	ND	ND	ND	N/A	ND	ND	13,740	0.090	2.700
7/18/08	84	ND	ND	N/A	ND	350	ND	110	ND	430	ND	ND	ND	ND	ND	ND	3,200	3,700	ND	ND	ND	ND	ND	N/A	ND	ND	7,790	0.060	1.860
8/12/08	56	ND	ND	N/A	ND	470	ND	150	ND	400	ND	ND	ND	ND	28	ND	2,900	3,400	ND	ND	ND	ND	ND	N/A	ND	ND	7,348	0.040	1.240
9/11/08	80	ND	ND	N/A	ND	380	ND	130	ND	430	ND	17	ND	70	52	ND	1,900	2,700	32	ND	ND	ND	ND	N/A	ND	ND	5,711	0.040	2.440
11/18/08	84	ND	ND	N/A	ND	1,300	ND	300	ND	1,100	ND	ND	ND	ND	72	ND	6,500	7,200	ND	ND	ND	ND	ND	N/A	ND	ND	16,472	0.105	3.142
12/18/08	84	ND	ND	N/A	ND	420	ND	120	ND	380	ND	ND	ND	ND	ND	ND	2,300	4,100	ND	ND	ND	ND	ND	N/A	53	ND	7,373	0.056	1.724
1/22/09	84	ND	ND	N/A	ND	380	ND	110	ND	380	ND	ND	ND	ND	ND	ND	2,100	2,100	ND	ND	ND	ND	ND	N/A	ND	ND	5,070	0.038	1.185
2/20/09	84	ND	ND	N/A	ND	270	ND	78	ND	260	ND	ND	ND	ND	24	ND	1,600	1,600	ND	ND	ND	ND	ND	N/A	ND	ND	3,832	0.029	0.809
3/18/09	28	ND	ND	N/A	ND	620	ND	470	ND	150	ND	ND	ND	ND	ND	ND	3,800	3,700	ND	ND	ND	ND	ND	N/A	ND	ND	8,740	0.063	1.946
4/17/09	56	ND	ND	N/A	ND	360	ND	100	ND	220	ND	ND	ND	ND	ND	ND	1,900	2,400	ND	ND	ND	ND	ND	N/A	ND	ND	4,980	0.056	1.677
5/20/09	NA	ND	ND	N/A	ND	200	ND	62	ND	140	ND	ND	ND	ND	32	ND	1,700	1,500	ND	ND	ND	ND	ND	N/A	ND	ND	3,634	0.041	1.264
6/23/09	134	ND	ND	N/A	ND	280	ND	77	ND	200	ND	ND	ND	ND	19	ND	1,700	1,800	ND	ND	ND	ND	ND	N/A	ND	ND	4,076	0.049	1.471
7/23/09	129	ND	ND	N/A	ND	250	ND	68	ND	180	ND	27	ND	ND	13	ND	1,400	1,700	14	ND	ND	ND	ND	N/A	ND	ND	3,652	0.044	1.352
8/28/09	NA	ND	ND	N/A	ND	280	ND	79	ND	200	ND	ND	ND	ND	42	ND	1,900	1,900	ND	ND	ND	ND	ND	N/A	ND	ND	4,401	0.051	1.568
9/28/09	125	ND	ND	N/A	ND	150	ND	40	ND	110	ND	ND	ND	ND	13	ND	870	1,000	ND	ND	ND	ND	ND	N/A	ND	ND	2,183	0.025	0.735
10/27/09	NA	ND	ND	N/A	ND	230	ND	64	ND	210	ND	ND	ND	ND	20	ND	1,500	1,400	ND	ND	ND	ND	ND	N/A	9.7	ND	3,434	0.026	0.803
11/24/09	130	ND	ND	N/A	ND	180	ND	43	ND	180	ND	ND	ND	ND	14	ND	1,200	1,100	ND	ND	ND	ND	ND	N/A	ND	ND	2,717	0.032	0.960
12/23/09	132	ND	ND	N/A	ND	190	ND	48	ND	180	ND	ND	ND	ND	39	ND	1,100	1,300	ND	ND	ND	ND	ND	N/A	ND	ND	2,857	0.035	1.074
1/19/10	130	ND	ND	N/A	ND	240	ND	67	ND	180	ND	ND	ND	ND	16	ND	1,500	1,600	ND	ND	ND	ND	ND	N/A	ND	ND	3,603	0.042	1.304
2/17/10	130	ND	ND	N/A	ND	140	ND	35	ND	120	ND	ND	ND	ND	24	ND	760	930	ND	ND	ND	ND	ND	N/A	ND	ND	2,009	0.023	0.657
3/17/10	120	ND	ND	N/A	ND	250	ND	62	ND	190	ND	ND	ND	ND	21	ND	1,500	1,900	ND	ND	ND	ND	ND	N/A	ND	ND	3,923	0.042	1.302
4/16/10	120	ND	ND	N/A	ND	160	ND	41	ND	160	ND	ND	ND	ND	ND	ND	1,100	1,000	ND	ND	ND	ND	ND	N/A	ND	ND	2,461	0.027	0.796
5/13/10	119	ND	ND	N/A	ND	170	ND	42	ND	170	19	ND	ND	ND	95	ND	960	1,100	ND	ND	18	ND	ND	N/A	75	23	2,672	0.029	0.886
6/18/10	110	ND	ND	N/A	ND	96	ND	24	ND	110	12	ND	ND	ND	15	ND	630	600	12	ND	130	28	ND	N/A	50	26	1,733	0.017	0.514
7/19/10	110	ND	ND	N/A	ND	220	ND	52	ND	180	ND	ND	ND	ND	ND	ND	1,500	1,500	ND	ND	24	ND	ND	N/A	ND	ND	3,476	0.034	1.066
8/19/10	110	ND	ND	N/A	ND	200	ND	45	ND	170	ND	ND	ND	ND	12	ND	1,200	1,100	16	ND	ND	ND	ND	N/A	ND	ND	2,743	0.027	0.841
9/17/10	108	ND	ND	N/A	ND	140	ND	35	ND	150	ND	ND	ND	ND	29	ND	860	1,100	20	ND	ND	ND	ND	N/A	ND	ND	2,334	0.023	0.680
10/12/10	100	ND	ND	N/A	ND	170	ND	40	ND	140	ND	ND	ND	ND	940	ND	1,100	1,400	20	ND	ND	ND	ND	N/A	89	33	3,932	0.035	1.060
11/2/10	138	ND	ND	N/A	ND	150	ND	34	ND	100	ND	ND	ND	ND	71	ND	920	1,200	53	ND	ND	ND	ND	N/A	14	ND	2,542	0.032	0.946
12/1/10	138	ND	ND	N/A	ND	120	ND	28	ND	110	42	ND	ND	ND	54	ND	790	970	13	ND	ND	ND	ND	N/A	170	31	2,328	0.029	0.866
1/5/11	133	ND	ND	N/A	ND	150	ND	34	ND	130	14	ND	ND	ND	13	ND	860	1,200	ND	ND	ND	ND	ND	N/A	47	10	2,458	0.029	0.882
2/7/11	130	ND	ND	N/A	ND	130	ND	32	ND	160	ND	ND	ND	ND	23	ND	910	900	ND	ND	ND	ND	ND	N/A	29	ND	2,184	0.026	0.766
3/3/11	130	ND	ND	N/A	ND	390	ND	98	ND	350	19	ND	ND	ND	23	ND	2,800	2,500	ND	ND	ND	ND	ND	N/A	61	ND	6,241	0.073	2.188
4/14/11	125	ND	ND	N/A	ND	150	ND	36	ND	160	ND	30	ND	ND	10	ND	900	1,100	ND	ND	ND	ND	ND	N/A	ND	ND	2,386	0.027	0.804
5/6/11	130	ND	ND	N/A	ND	150	ND	39	ND	150	ND	ND	ND	ND	ND	ND	880	890	ND	ND	ND	ND	ND	N/A	ND	ND	2,109	0.025	0.764
6/9/11	150	ND	ND	N/A	ND	240	ND	59	ND	190	ND	ND	ND	ND	35	ND	1,600	1,600	20	ND	ND	ND	ND	N/A	ND	ND	3,744	0.050	1.515
7/11/11	128	ND	ND	N/A	ND	200	ND	51	ND	170	ND	40	ND	ND	81	ND	1,300	1,300	ND	ND	ND	ND	ND	N/A	26	ND	3,168	0.036	1.094
8/3/11	160	ND	ND	N/A	ND	200	ND	44	ND	160	ND	ND	ND	ND	29	ND	1,200	1,400	ND	ND	ND	ND	ND	N/A	ND	ND	3,033	0.044	1.309
9/15/11	160	12	ND	N/A	ND	130	ND	29	ND	130	ND	ND	ND	ND	11	ND	750	990	12	ND	ND	ND	ND	N/A	ND	ND	2,064	0.030	0.891
10/18/11	160	8.3	ND	N/A	ND	120	ND	28	ND	93	ND	ND	ND	ND	51	ND	640	780	ND	ND	ND	ND	ND	N/A	ND	ND	1,720	0.025	0.767
11/8/11	165	10	ND	N/A	ND	140	ND	34	ND	110	ND	ND	ND	ND	9.2	ND	730	930	ND	ND	ND	ND	ND	N/A	ND	ND	1,963	0.029	0.874
12/6/11	160	7.3	ND	N/A	ND	130	ND	29	ND	110	ND	ND	ND	ND	46	ND	600	800	ND	ND	ND	ND	ND	N/A	ND	ND	1,722	0.025	0.768
1/3/12	165	ND	ND	N/A	ND	130	ND	30	ND	140	ND	ND	ND	ND	16	ND	590	840	ND	ND	ND	ND	ND	N/A	ND	ND	1,746	0.026	0.803
2/16/12	160	ND	ND	N/A	ND	140	ND	31	ND	110	ND	ND	ND	ND	ND	ND	760	980	ND	ND	ND	ND	ND	N/A	ND	ND	2,021	0.029	0.843
3/15/12	160	ND	ND	N/A	ND	160	ND	36	ND	130	ND	ND	ND	ND	14	ND	880	1,100	ND	ND	ND	ND	ND	N/A	ND	ND	2,320	0.033	1.034
4/16/12	158	ND	ND	N/A	ND	170	ND	34	ND	140	ND	ND	ND	ND	ND	ND	880	1,300	ND	ND	ND	ND	ND	N/A	20	ND	2,544	0.036	1.084
5/9/12	159	ND	ND	N/A	ND	290	ND	56	ND	200	ND	ND	ND	ND	32	ND	1,700	2,300	ND	ND	ND	ND	ND	N/A	ND	ND	4,578	0.065	2.029
6/4/12	159	ND	ND	N/A	ND	320	ND	66	ND	200	ND	ND	ND	ND	ND	ND	1,700	2,100	ND	ND	ND	ND	ND	N/A	ND	ND	4,386	0.063	1.881
7/5/12	162	ND	ND	N/A	ND	250	ND	50	ND	180	ND	ND	ND	ND	16	ND	1,300	1,300	ND	ND	ND	ND	ND	N/A	ND	ND	3,096	0.045	1.398

TABLE 1

Building A Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
8/15/12	164	ND	ND	N/A	ND	150	ND	30	ND	130	ND	ND	ND	ND	22	ND	730	1,000	17	ND	ND	ND	ND	N/A	ND	ND	2,079	0.031	0.950
9/12/12	165	ND	ND	N/A	ND	110	ND	23	ND	120	ND	ND	ND	ND	170	ND	560	720	ND	ND	ND	ND	ND	N/A	11	ND	1,714	0.025	0.763
10/18/12	160	ND	ND	N/A	ND	190	ND	36	ND	180	ND	ND	ND	ND	ND	ND	1,000	1,400	ND	ND	ND	ND	ND	N/A	ND	ND	2,806	0.040	1.251
11/13/12	161	ND	ND	N/A	ND	120	ND	23	ND	140	ND	ND	ND	ND	ND	ND	600	910	ND	ND	ND	ND	ND	N/A	ND	ND	1,793	0.026	0.779
12/6/12	160	ND	ND	N/A	ND	130	ND	21	ND	120	ND	ND	ND	ND	8	ND	590	1,000	ND	ND	ND	ND	ND	N/A	ND	ND	1,869	0.027	0.833
1/4/13	160	ND	ND	N/A	ND	130	ND	24	ND	190	ND	ND	ND	ND	ND	ND	630	950	ND	ND	ND	ND	ND	N/A	ND	ND	1,924	0.028	0.858
2/6/13	160	ND	ND	N/A	ND	130	ND	26	ND	130	ND	ND	ND	ND	ND	ND	560	860	ND	ND	ND	ND	ND	N/A	ND	ND	1,706	0.025	0.687
3/7/13	160	ND	ND	N/A	ND	140	ND	30	ND	94	ND	ND	ND	ND	10	ND	670	1,100	ND	ND	ND	ND	ND	N/A	ND	ND	2,044	0.029	0.911
4/8/13	150	ND	ND	N/A	ND	2,200	ND	290	ND	1,500	ND	ND	ND	ND	ND	ND	2,900	5,900	ND	ND	ND	ND	ND	N/A	ND	ND	12,790	0.172	5.174
5/10/13	150	ND	ND	N/A	ND	140	11	29	ND	130	ND	ND	ND	ND	14	ND	730	1,200	17	ND	ND	ND	ND	N/A	ND	ND	2,271	0.031	0.949
6/5/13	155	ND	ND	N/A	ND	100	ND	22	ND	110	ND	ND	ND	ND	ND	ND	530	790	ND	ND	ND	ND	ND	N/A	ND	ND	1,552	0.022	0.649
7/3/13	159	ND	ND	N/A	ND	160	ND	33	ND	100	ND	ND	ND	ND	ND	ND	820	1,100	ND	ND	ND	ND	ND	N/A	ND	ND	2,213	0.032	0.981
8/14/13	160	ND	ND	N/A	ND	180	ND	34	ND	120	ND	ND	ND	ND	15	ND	780	1,300	ND	ND	ND	ND	ND	N/A	ND	ND	2,429	0.035	1.083
9/9/13	160	ND	ND	N/A	ND	100	ND	16	ND	90	ND	ND	ND	ND	ND	ND	410	630	ND	ND	ND	ND	ND	N/A	ND	ND	1,246	0.018	0.538
10/10/13	160	ND	ND	N/A	ND	220	ND	39	ND	190	ND	ND	ND	ND	15	ND	810	1,400	16	ND	ND	ND	ND	N/A	ND	ND	2,690	0.039	1.199
11/7/13	160	ND	ND	N/A	ND	200	ND	39	ND	170	ND	ND	ND	ND	11	ND	930	1,500	41	ND	ND	ND	ND	N/A	ND	ND	2,891	0.042	1.247
12/5/13	160	0.94	ND	ND	21.2	165	ND	30.7	ND	132	ND	4.4	ND	ND	12.2	2.5	883	1,530	N/A	ND	ND	ND	ND	N/A	ND	ND	2,782	0.040	1.240
1/13/14	160	ND	ND	6.5	11.6	173	2.2	29.3	ND	141	1.8	3.3	4.9	ND	9,820	ND	570	795	N/A	ND	1.9	ND	ND	N/A	4.3	1.7	11,567	0.166	5.157
2/14/14	153	ND	ND	2.4	7.4	126	ND	21.2	ND	92.7	ND	2.1	ND	ND	15.3	ND	429	843	N/A	ND	ND	ND	ND	N/A	ND	ND	1,539	0.021	0.593
3/12/14	160	ND	ND	2.4	ND	176	2.0	29.3	36.4	130	ND	ND	ND	3.6	9.1	ND	1,310	2,100	N/A	ND	ND	ND	ND	N/A	3.0	ND	3,802	0.055	1.695
4/10/14	160	81.7	ND	ND	ND	194	ND	31.8	ND	131	120	ND	ND	ND	75.7	ND	646	1,490	N/A	ND	ND	ND	ND	N/A	387	109	3,266	0.047	1.361
5/5/14	150	4.8	ND	8.8	3.9	44.7	4.1	6.7	ND	32.6	6.5	202	2.3 J	1.2	29.5	ND	142	292	N/A	2.8	11.5	3.0	ND	N/A	24.3	9.3	832	0.011	0.280
6/18/14	155	1,040	ND	30.3	136	3,710	ND	565	ND	2,840	ND	138	34.9 J	ND	199	51.7	1,000 J	1,490	N/A	ND	17.6 J	ND	ND	N/A	25.6 J	ND	11,278	0.157	6.907
7/3/14	158	45.1	ND	ND	8.4 J	189	ND	36.5	81.2	145	ND	ND	ND	ND	20.8 J	ND	871	1,250	N/A	ND	ND	ND	ND	N/A	ND	ND	2,647	0.038	0.563
9/16/14	150	51.1	1.1	1.0 J	54.0	416	4.7	104	ND	323	ND	0.67 J	ND	2.3	8.8	8.1	1,290	3,250	N/A	ND	2.3	0.83 J	1.5	N/A	1.5 J	1.1 J	5,522	0.074	5.578
10/9/14	152	46.6	ND	ND	ND	89.0	ND	16.1	ND	69.8	ND	17.3 J	ND	ND	ND	ND	480	819	N/A	ND	ND	ND	ND	N/A	ND	ND	1,538	0.021	0.483
11/6/14	135	38.2	ND	ND	ND	92.4	ND	16.8 J	ND	71.0	ND	23.9 J	ND	59.4	14.3 J	ND	459	803	N/A	ND	ND	ND	ND	N/A	ND	ND	1,578	0.019	0.536
12/4/14	120	34.3	ND	ND	11.8	77.6	ND	18.8	ND	68.6	ND	19.4 J	ND	ND	41.5 J	ND	428	741	N/A	ND	ND	ND	ND	N/A	ND	ND	1,441	0.016	0.435
1/15/15	50	64.8	ND	ND	6.8	85.6	4.4	15.7	ND	81.0	ND	2.0 J	ND	2.0	1.7	1.3	404	695	N/A	ND	ND	ND	ND	N/A	0.90 J	ND	1,365	0.006	0.257
2/16/15	50	1.5	ND	3.7	ND	8.5	ND	ND	ND	6.5	1.9 J	46.9	4.1 J	ND	13.5	ND	17.0	22.4	N/A	ND	ND	ND	ND	N/A	6.5	2.7 J	135	0.001	0.019
3/10/15	110	0.54	2.9	1.4	2.4	183	1.6	28.3	ND	141	1.1 J	1.4 J	1.2 J	ND	1.7	ND	1,370	2,300	N/A	ND	ND	ND	ND	N/A	4.1	1.3 J	4,042	0.040	0.878
4/6/15	115	0.73	0.78 J	2.1	7.1	147	2.2	22.7	ND	112	ND	3.5 J	2.7 J	0.87 J	2.7	ND	617	1,090	N/A	ND	1.3 J	ND	ND	N/A	2.7 J	0.99 J	2,016	0.021	0.562
5/8/15	110	ND	ND	ND	ND	161	ND	23.0 J	ND	121	ND	ND	ND	ND	ND	ND	573	1,170	N/A	ND	ND	ND	ND	N/A	ND	ND	2,048	0.020	0.647
6/2/15	125	ND	ND	ND	ND	143	ND	19.4 J	33.4	105	133	ND	ND	ND	ND	ND	536	1,110	N/A	ND	ND	ND	ND	N/A	582	142	2,804	0.031	0.787
7/1/15	80	ND	ND	ND	ND	91	ND	14.0	ND	78	ND	ND	ND	ND	ND	ND	390	470	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,043	0.007	0.217
8/10/15	140	12.0	ND	1.3 J	2.4 J	82	2.9 J	16.0	ND	63	ND	ND	ND	ND	12.0	1.4 J	400	590	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,183	0.015	0.595
9/11/15	140	72	ND	2.7 J	1.8 J	130	ND	24	ND	86	ND	ND	ND	ND	ND	1.9 J	510	1,000	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,828	0.023	0.736
10/7/15	145	78	ND	1.5 J	ND	130	ND	24	ND	91	ND	ND	ND	ND	ND	2.0 J	560	900	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,787	0.023	0.605
11/2/15	145	43	ND	3.2 J	1.9 J	140	3.6 J	25	ND	110	ND	ND	ND	ND	ND	2.5 J	570	900	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,799	0.023	0.609
12/3/15	145	34	ND	3.2 J	1.4 J	120	3.2 J	23	ND	83	ND	ND	ND	ND	ND	1.8 J	490	830	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,590	0.021	0.642
1/15/16	140	9.2	ND	1.1 J	2.0	84	2.1	16	ND	80	ND	3.0 J	ND	ND	2.7	1.5 J	320	480 DL	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,002	0.013	0.541
2/12/16	140	2.6	ND	1.0 J	1.0 J	100	2.4	20	0.60 J	82	ND	ND	ND	ND	ND	1.6	550 EB	840 E	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,601	0.020	0.564
3/9/16	130	36	0.49 J	7.9	1.5 J	130	2.4	25	0.70 J	98	ND	2.8 J	ND	0.64 J	5.3	2.0	680 E	1,300 E	N/A	ND	ND	ND	0.42 J	ND	N/A	N/A	2,293	0.027	0.696
4/7/16	288	28	ND	ND	ND	230	ND	42	ND	180	ND	ND	ND	ND	ND	ND	940	1,700	N/A	ND	ND	ND	ND	ND	N/A	N/A	3,120	0.081	2.340
4/27/16	250	ND	ND	ND	ND	90	ND	18	ND	68	ND	ND	ND	ND	ND	ND	490	950	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,616	0.036	0.726
5/12/16	248	ND	ND	19	2.0 J	110	3.5 J	18	ND	120	ND	9.0	ND	ND	6.5	ND	600 B	910	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,798	0.040	0.601
6/2/16	259	31	ND	63	ND	150	ND	26	ND	140	ND	ND	ND	ND	ND	3.6 J	670	1,100	N/A	ND	ND	ND	ND	ND	N/A	N/A	2,184	0.051	1.066
7/14/16	252	65	ND	ND	ND	100	ND	17	ND	75	ND	36	ND	ND	15	ND	510	940	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,758	0.040	1.671
8/4/16	260	20	ND	ND	ND	92	ND	17	ND	68	ND	ND	ND	ND	ND	ND	460	860	N/A	ND	8.2 J	ND	ND	ND	N/A	N/A	1,525	0.036	0.748
9/7/16	260	38	ND	1.5 J	1.2 J	88	2.3 J	14	ND	66	ND	15	ND	ND	ND	1.8 J	400	760	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,388	0.032	1.102
10/5/16	270	ND	ND	1.7	ND	81	ND	14	ND	68	ND	ND	ND	ND	ND	ND	410	630	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,205	0.029	0.818
11/3/16	216	ND	ND	ND	ND	350	ND	68	ND	260	ND	49 J	ND	ND	ND	ND	2,000	2,800	N/A	ND	ND	ND	ND	ND	N/A	N/A	5,527	0.107	3.109
12/14/16	225	11	ND	2 J	ND	95	3.1 J	17	ND	120	ND	ND	ND	ND	ND	2.5 J	600	710	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,561	0.032	1.293

TABLE 1

Building A Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
1/13/17	195	17	ND	ND	8.4 J	440	ND	81	ND	370	ND	130	ND	ND	ND	9.3 J	2,000	3,600	N/A	ND	ND	ND	ND	ND	N/A	N/A	6,656	0.117	3.496
2/8/17	200	33	ND	ND	6	110	3.7 J	19	ND	100	ND	ND	ND	ND	ND	2.1 J	660	1,100 E	N/A	ND	ND	ND	ND	5.9 J	N/A	N/A	2,040	0.037	0.952
3/8/17	360	21	ND	ND	2 J	100	3.3 J	21	ND	110	ND	ND	ND	8.5 J	ND	2.2 J	590	1,000	N/A	ND	ND	ND	ND	6.9 J	N/A	N/A	1,865	0.060	1.688
4/5/17	355	15	ND	ND	1.3 J	65	ND	10	ND	71	ND	ND	ND	ND	ND	ND	370	680	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,212	0.039	1.082
5/5/17	360	31	ND	1.6 J	ND	80	ND	16	ND	74	ND	ND	ND	ND	ND	ND	430	760	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,393	0.045	1.351
6/5/17	355	10	ND	ND	3.4 J	69	ND	13	ND	66	ND	13 JB	ND	ND	ND	ND	480	710	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,364	0.043	1.348
7/6/17	345	25	ND	7.2 J	ND	94	ND	20	ND	120	ND	ND	ND	ND	ND	4.6 J	450	1,400	N/A	ND	ND	ND	ND	ND	N/A	N/A	2,121	0.066	2.037
8/8/17	350	5 J	ND	4.9 J	ND	90	ND	18	ND	95	ND	28 JB	ND	ND	ND	ND	480	940	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,661	0.052	1.723
9/7/17	345	35	ND	ND	2	79	ND	13	ND	72	ND	16 J	ND	ND	ND	ND	420	1,000	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,637	0.051	1.521
10/4/17	350	22	ND	2.5 J	ND	52	ND	10	ND	66	ND	14 J	ND	ND	ND	ND	290	750	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,207	0.038	1.024
11/8/17	355	4 J	ND	ND	ND	83	ND	17	ND	88	ND	ND	ND	ND	ND	ND	550	1,100	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,842	0.059	2.055
12/4/17	360	16	ND	1.5 J	ND	75	3.4 J	15	ND	92	ND	ND	ND	ND	ND	ND	500 B	990	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,693	0.055	1.423
1/9/18	360	16	0.50 J	1.7	1.2 J	58	2.0	9	ND	79	0.59 J	ND	ND	0.55 J	2.5	1.1 J	390	800 E	N/A	ND	ND	ND	ND	4.1	N/A	N/A	1,367	0.044	1.590
2/9/18	360	16	ND	32	ND	70	3.6 J	13	ND	120	ND	14 J	ND	ND	ND	ND	420	1,000	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,689	0.055	1.692
3/6/18	360	22	ND	2.1 J	ND	80	3.6 J	14	ND	110	ND	ND	ND	ND	ND	ND	470	1,200	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,902	0.061	1.537
4/3/18	360	10	ND	ND	ND	67	ND	13	ND	89	ND	12 J	ND	ND	ND	ND	430	860	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,481	0.048	1.340
5/8/18	350	12	ND	15	1.8 J	80	3.1 J	15	ND	82	ND	7.6 JB	ND	2.90 J	17.00	1.5 J	460	870	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,568	0.049	1.725
6/5/18	320	12	ND	1.8 J	9.4	91	3.5 J	16	ND	90	ND	ND	ND	ND	ND	1.8 J	540	1,200	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,966	0.056	1.581
7/12/18	290	66	ND	4 J	19 J	140	ND	25	ND	140	ND	40	ND	ND	ND	ND	890 B	1,800	N/A	ND	ND	ND	ND	ND	N/A	N/A	3,124	0.081	3.010
8/17/18	300	35	ND	3.6 J	8.2 J	100	ND	22	ND	110	ND	ND	ND	ND	ND	ND	750	1,100	N/A	ND	ND	ND	ND	ND	N/A	N/A	2,129	0.057	2.064
9/24/18	345	14	ND	3.5 J	18	79	ND	15	ND	72	ND	13 JB	ND	ND	ND	ND	590 B	950	N/A	ND	5.80 J	ND	ND	ND	N/A	N/A	1,760	0.055	2.072
10/19/18	340	6 J	ND	ND	3.9 J	58	ND	12	ND	56	ND	12 J	ND	ND	ND	ND	430 B	800	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,378	0.042	1.052
11/9/18	355	11	ND	ND	3.7 J	56	4.10	11	ND	60	ND	ND	ND	ND	ND	ND	450	810	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,406	0.045	0.941
12/28/18	360	6.3	ND	2.7 J	3.7 J	77	ND	17	ND	110	ND	18 JB	ND	ND	ND	ND	690	1,100	N/A	ND	ND	ND	ND	ND	N/A	N/A	2,025	0.065	3.207
1/22/19	330	11	ND	ND	2.1 J	46	ND	10	ND	55	ND	12 J	ND	ND	ND	ND	330	700	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,166	0.035	0.864
2/7/19	325	3.0 J	ND	ND	2.3 J	57	ND	13	ND	73	ND	ND	ND	ND	ND	ND	430	850	ND	ND	ND	ND	ND	ND	N/A	N/A	1,428	0.042	0.667
3/13/19	360	4.4 J	ND	ND	ND	48	ND	11	ND	60	ND	ND	ND	ND	ND	ND	330	720	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,173	0.038	1.290
4/11/19	340	6.6	ND	1.1 J	3.6	61	1.4 J	2.9	ND	75	ND	2.8 J	ND	0.74 J	5.60	1.3 J	430	940 E	N/A	ND	ND	ND	0.47 J	2.8 J	N/A	N/A	1,535	0.047	1.359
5/14/19	350	9.1	ND	1.1 J	3.1	61	2.3	12	0.54 J	70	ND	5.7 J	ND	0.56 J	6.40	1.2 J	430	870 E	N/A	ND	ND	ND	ND	2.2 J	N/A	N/A	1,475	0.046	1.530
6/10/19	325	19	ND	7.1	13	63	2.2 J	12	ND	64	ND	ND	ND	ND	ND	1.3 J	440	880	N/A	ND	ND	ND	ND	N/A	N/A	N/A	1,502	0.044	1.183
7/11/19	350	58	ND	ND	1.6 J	57	2.9 J	11	ND	65	ND	14 J	ND	ND	ND	1.4 J	440	760	N/A	ND	ND	ND	ND	N/A	N/A	N/A	1,411	0.044	1.375
8/8/19	315	2.9 J	ND	ND	1.5 J	66	2.8 J	13	ND	71	ND	21 JB	ND	ND	ND	1.6 J	460	830	N/A	ND	ND	ND	ND	N/A	N/A	N/A	1,470	0.042	1.164
9/23/19	315	1.2 J	ND	ND	0.87 J	42	2.4 J	8.5	ND	42	ND	16 JB	ND	ND	ND	1.2 J	220	510	N/A	ND	ND	ND	ND	N/A	N/A	N/A	844	0.024	1.098

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

DL - dilution analysis

E - results exceeded calibration range

EPA - United States Environmental Protection Agency

GAC - granular activated-carbon

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

lbs./day - pounds per day

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

scfm - standard cubic feet per minute

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

Completed first-phase system expansion (to Building A basement) on October 22, 2010.

Completed second-phase system expansion (to eastern area) on April 13, 2016.

Increase in concentrations following 19-day system shutdown due to blower failure. Blower was replaced on 4/8/13.

Samples not collected in May 2014 and August 2014 as system was shut down due to firewater line break.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

TABLE 2

Building A Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
4/2/08	6.9	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	6.9	0.0000
4/24/08	ND	ND	N/A	ND	810	ND	240	ND	2,200	ND	ND	ND	ND	ND	ND	2,100	ND	ND	ND	ND	ND	ND	N/A	ND	ND	5,350	0.0400
5/21/08	ND	ND	N/A	ND	280	ND	100	ND	740	ND	ND	ND	ND	ND	ND	410	11	ND	ND	ND	ND	ND	N/A	ND	ND	1,541	0.0100
6/19/08	110	ND	N/A	ND	2,300	ND	830	ND	2,200	ND	53	ND	ND	ND	ND	1,200	ND	ND	ND	ND	ND	ND	N/A	ND	ND	6,693	0.0400
7/18/08	ND	ND	N/A	ND	60	ND	27	ND	270	ND	ND	ND	ND	ND	ND	100	ND	ND	ND	ND	ND	ND	N/A	ND	ND	457	0.0030
8/12/08	ND	ND	N/A	15	60	ND	130	ND	400	ND	ND	ND	ND	ND	ND	1,500	30	16	ND	ND	ND	ND	N/A	ND	ND	2,151	0.0100
9/11/08	ND	ND	N/A	15	ND	ND	170	ND	520	ND	ND	ND	ND	ND	ND	890	53	30	ND	ND	ND	ND	N/A	ND	ND	1,678	0.0100
11/18/08	ND	ND	N/A	ND	ND	ND	60	ND	97	ND	ND	ND	ND	ND	ND	150	180	ND	ND	ND	ND	ND	N/A	ND	ND	487	0.0031
12/18/08	ND	ND	N/A	ND	98	ND	38	ND	330	ND	ND	ND	ND	ND	ND	51	18	ND	ND	ND	ND	ND	N/A	ND	ND	535	0.0040
1/22/09	ND	ND	N/A	ND	42	ND	19	ND	490	ND	ND	ND	ND	ND	ND	25	12	11	ND	ND	ND	ND	N/A	ND	ND	599	0.0045
2/20/09	ND	ND	N/A	ND	220	ND	91	ND	310	ND	ND	ND	ND	ND	ND	380	68	ND	ND	ND	ND	ND	N/A	ND	ND	1,069	0.0081
3/18/09	ND	ND	N/A	ND	210	ND	69	ND	280	ND	ND	ND	ND	ND	ND	1,900	190	ND	ND	ND	ND	ND	N/A	ND	ND	2,649	0.0067
4/17/09	ND	ND	N/A	ND	ND	ND	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	140	0.0016
5/20/09	ND	ND	N/A	ND	110	ND	42	ND	140	ND	ND	ND	ND	ND	ND	200	ND	ND	ND	ND	ND	ND	N/A	ND	ND	492	0.0055
6/23/09	ND	ND	N/A	ND	66	ND	130	ND	320	ND	ND	ND	ND	ND	ND	82	ND	18	ND	ND	ND	ND	N/A	ND	ND	616	0.0074
7/23/09	ND	ND	N/A	ND	250	ND	88	ND	210	ND	ND	ND	ND	ND	ND	890	ND	12	ND	ND	ND	ND	N/A	ND	ND	1,450	0.0173
8/28/09	ND	ND	N/A	ND	330	ND	130	ND	290	ND	ND	ND	ND	ND	ND	1,100	ND	14	ND	ND	ND	ND	N/A	ND	ND	1,864	0.0214
9/28/09	ND	ND	N/A	ND	130	ND	38	ND	110	ND	ND	ND	ND	ND	ND	580	ND	ND	ND	ND	ND	ND	N/A	ND	ND	858	0.0096
10/27/09	ND	ND	N/A	ND	170	ND	94	ND	260	ND	ND	ND	ND	ND	ND	180	35	ND	ND	ND	ND	ND	N/A	ND	ND	739	0.0086
11/24/09	ND	ND	N/A	ND	250	ND	84	ND	210	ND	ND	ND	ND	ND	ND	710	ND	ND	ND	ND	ND	ND	N/A	ND	ND	1,254	0.0150
12/23/09	ND	ND	N/A	ND	28	ND	30	ND	180	ND	ND	ND	ND	ND	ND	19	29	ND	ND	ND	ND	ND	N/A	ND	ND	286	0.0035
1/19/10	ND	ND	N/A	ND	190	ND	100	ND	260	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	N/A	ND	ND	566	0.0066
2/17/10	ND	ND	N/A	ND	ND	ND	100	ND	110	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	N/A	ND	ND	226	0.0026
3/17/10	ND	ND	N/A	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	19	0.0000
4/16/10	ND	ND	N/A	ND	260	ND	89	ND	200	ND	ND	ND	ND	ND	ND	600	14	ND	ND	ND	ND	ND	N/A	ND	ND	1,163	0.0125
5/13/10	13	ND	N/A	ND	260	ND	61	ND	180	15	ND	ND	ND	67	ND	1,300	ND	13	ND	12	ND	ND	N/A	55	16	1,992	0.0213
6/18/10	ND	ND	N/A	ND	20	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	18	ND	ND	ND	76	16	ND	N/A	25	14	188	0.0019
7/19/10	ND	ND	N/A	ND	74	ND	24	ND	89	ND	ND	ND	ND	ND	ND	87	ND	ND	ND	11	ND	ND	N/A	ND	ND	285	0.0028
8/19/10	ND	ND	N/A	ND	210	ND	55	ND	210	ND	ND	ND	ND	ND	ND	720	ND	13	ND	ND	ND	ND	N/A	ND	ND	1,208	0.0120
9/17/10	ND	ND	N/A	ND	330	ND	110	ND	310	ND	ND	ND	ND	ND	ND	430	ND	24	ND	ND	ND	ND	N/A	ND	ND	1,204	0.0117
10/12/10	ND	ND	N/A	ND	400	ND	81	ND	170	ND	ND	ND	ND	32	ND	1,000	49	17	ND	ND	ND	ND	N/A	ND	ND	1,749	0.0157
11/2/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.0000
12/1/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	N/A	ND	ND	14	0.0002
1/5/11	ND	ND	N/A	ND	ND	ND	ND	ND	24	ND	ND	ND	ND	ND	ND	20	11	ND	ND	ND	ND	ND	N/A	ND	ND	55	0.0007
2/7/11	ND	ND	N/A	ND	13	ND	9	ND	95	ND	ND	ND	ND	ND	ND	53	12	20	ND	ND	ND	ND	N/A	ND	ND	202	0.0024
3/3/11	ND	ND	N/A	ND	15	ND	8	ND	120	ND	ND	ND	ND	66	ND	44	16	13	ND	ND	ND	ND	N/A	18	ND	300	0.0035
4/14/11	ND	ND	N/A	ND	110	ND	40	ND	310	ND	25	ND	ND	ND	ND	48	ND	13	ND	ND	ND	ND	N/A	ND	ND	546	0.0061
5/6/11	ND	ND	N/A	ND	150	ND	51	ND	240	ND	ND	ND	ND	ND	ND	70	34	ND	ND	ND	ND	ND	N/A	ND	ND	545	0.0064
6/9/11	14	ND	N/A	23	760	ND	190	ND	340	ND	ND	ND	ND	26	ND	440	51	20	ND	ND	ND	ND	N/A	ND	ND	1,864	0.0251
7/11/11	11	ND	N/A	ND	320	ND	92	ND	220	ND	21	ND	ND	67	ND	320	16	ND	ND	ND	ND	ND	N/A	29	10	1,106	0.0127
8/3/11	ND	ND	N/A	ND	320	ND	60	ND	170	ND	ND	ND	ND	ND	ND	110	ND	ND	ND	ND	ND	ND	N/A	ND	ND	660	0.0095
9/15/11	ND	ND	N/A	ND	170	ND	35	ND	140	ND	ND	ND	ND	ND	ND	200	ND	ND	ND	ND	ND	ND	N/A	ND	ND	545	0.0078
10/18/11	ND	ND	N/A	ND	110	ND	27	ND	80	ND	ND	ND	ND	22	ND	200	ND	ND	ND	ND	ND	ND	N/A	ND	ND	439	0.0063
11/8/11	ND	ND	N/A	ND	130	ND	33	ND	110	ND	ND	ND	ND	ND	ND	330	ND	ND	ND	ND	ND	ND	N/A	ND	ND	603	0.0089
12/6/11	ND	ND	N/A	ND	140	ND	36	ND	140	ND	ND	ND	ND	ND	ND	310	ND	ND	ND	ND	ND	ND	N/A	ND	ND	626	0.0090
1/3/12	ND	ND	N/A	ND	71	ND	19	ND	82	ND	ND	ND	ND	ND	ND	200	ND	ND	ND	ND	ND	ND	N/A	ND	ND	372	0.0055
2/16/12	ND	ND	N/A	ND	120	ND	26	ND	130	ND	ND	ND	ND	ND	ND	430	11	ND	ND	ND	ND	ND	N/A	ND	ND	717	0.0103
3/15/12	ND	ND	N/A	ND	190	ND	37	ND	210	ND	ND	ND	ND	ND	ND	480	38	ND	ND	ND	ND	ND	N/A	ND	ND	955	0.0137
4/16/12	ND	ND	N/A	ND	260	ND	48	ND	200	ND	ND	ND	ND	ND	ND	640	34	ND	ND	ND	ND	ND	N/A	ND	ND	1,182	0.0168
5/9/12	ND	ND	N/A	ND	140	ND	26	ND	140	ND	ND	ND	ND	ND	ND	76	14	ND	ND	ND	ND	ND	N/A	ND	ND	396	0.0057
6/4/12	ND	ND	N/A	ND	170	ND	35	ND	170	ND	ND	ND	ND	ND	ND	120	63	ND	ND	ND	ND	ND	N/A	ND	ND	558	0.0080

TABLE 2

Building A Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
7/5/12	ND	ND	N/A	ND	320	ND	74	ND	260	ND	19	ND	ND	ND	ND	210	26	12	ND	ND	ND	ND	N/A	ND	ND	921	0.0134
8/15/12	ND	ND	N/A	ND	240	ND	40	ND	130	ND	ND	ND	ND	10	ND	420	20	13	ND	ND	ND	ND	N/A	ND	ND	873	0.0129
9/12/12	ND	ND	N/A	ND	180	ND	43	ND	140	ND	ND	ND	ND	14	ND	34	13	13	ND	ND	ND	ND	N/A	ND	ND	437	0.0065
10/18/12	ND	ND	N/A	ND	160	ND	29	ND	95	ND	ND	ND	ND	ND	ND	25	28	ND	ND	ND	ND	ND	N/A	ND	ND	337	0.0048
11/13/12	ND	ND	N/A	ND	89	ND	16	ND	94	ND	ND	ND	ND	ND	ND	20	21	ND	ND	ND	ND	ND	N/A	ND	ND	240	0.0035
12/6/12	ND	ND	N/A	ND	86	ND	14	ND	92	ND	ND	ND	ND	ND	ND	26	20	ND	ND	ND	ND	ND	N/A	ND	ND	238	0.0034
1/4/13	ND	ND	N/A	ND	97	ND	21	ND	130	ND	ND	ND	ND	ND	ND	88	15	ND	ND	ND	ND	ND	N/A	ND	ND	351	0.0050
2/6/13	ND	ND	N/A	ND	120	ND	32	ND	120	ND	ND	ND	ND	ND	ND	180	19	ND	ND	ND	ND	ND	N/A	ND	ND	471	0.0068
3/7/13	ND	ND	N/A	ND	180	ND	46	ND	150	ND	ND	ND	ND	ND	ND	150	37	ND	ND	ND	ND	ND	N/A	ND	ND	563	0.0081
4/8/13	ND	ND	N/A	ND	66	ND	15	ND	46	ND	ND	ND	ND	ND	ND	43	92	ND	ND	ND	ND	ND	N/A	ND	ND	262	0.0035
5/10/13	ND	ND	N/A	ND	380	ND	73	ND	210	ND	ND	ND	ND	ND	ND	170	31	16	ND	ND	ND	ND	N/A	ND	ND	880	0.0119
6/5/13	ND	ND	N/A	ND	210	ND	33	ND	160	ND	ND	ND	23	ND	ND	460	15	ND	ND	ND	ND	ND	N/A	ND	ND	901	0.0126
7/3/13	21	ND	N/A	ND	330	ND	78	ND	200	ND	ND	ND	ND	ND	ND	38	42	ND	ND	ND	ND	ND	N/A	ND	ND	709	0.0101
8/14/13	50	ND	N/A	ND	390	ND	59	ND	120	ND	20	ND	ND	7.3	ND	63	66	11	ND	ND	ND	ND	N/A	ND	ND	786	0.0113
9/9/13	17	ND	N/A	ND	180	ND	23	ND	110	ND	ND	ND	ND	ND	ND	50	21	ND	ND	ND	ND	ND	N/A	ND	ND	401	0.0058
10/10/13	29	ND	N/A	ND	190	ND	33	ND	120	ND	ND	ND	ND	9.9	ND	170	32	ND	ND	ND	ND	ND	N/A	ND	ND	584	0.0084
11/7/13	38	ND	N/A	ND	260	ND	48	ND	95	ND	ND	ND	ND	ND	ND	38	39	ND	ND	ND	ND	ND	N/A	ND	ND	518	0.0075
12/5/13	31.8	ND	ND	ND	107	2.9	18.8	ND	51.6	ND	6.0	5.9	ND	4.7	ND	34.1	43.5	N/A	ND	3.2	ND	ND	N/A	ND	ND	310	0.0045
1/13/14	ND	ND	3.9	1.6	162	2.2	22.4	ND	113.0	1.9	2.3	4.7	42.1	64.0	ND	19.3	4.9	N/A	ND	3.7	1.7	ND	N/A	7.4	2.5	460	0.0066
2/14/14	55.1	ND	3.1	3.1	189	2.8	31.0	ND	166	ND	ND	ND	ND	ND	2.5	64.8	54.9	N/A	ND	ND	ND	ND	N/A	ND	ND	572	0.0079
3/12/14	24.5	ND	4.5	ND	154	2.2	24.5	ND	134	ND	28.1	ND	ND	3.4	ND	38.5	47.5	N/A	ND	ND	ND	ND	N/A	ND	ND	461	0.0066
4/10/14	40.8	ND	ND	ND	270	ND	51.4	ND	267	66.2	ND	ND	ND	45.2	ND	65.6	74.8	N/A	ND	ND	ND	ND	N/A	215	59.5	1,156	0.0166
5/5/14	53.4	ND	1.4	10.5	406	3.1	63.8	ND	253	ND	0.96 J	3.6 J	ND	3.0	5.7	47.8	48.9	N/A	ND	ND	ND	ND	N/A	0.94 J	ND	902	0.0122
6/5/14	2.3	ND	9.6	ND	113	3.0	14.3	ND	165	ND	167	1.8 J	23.1	60.4	ND	63.5	24.5	N/A	ND	1.9	ND	ND	N/A	1.8 J	1.9	653	0.0091
7/3/14	7.6 J	ND	ND	ND	286	ND	47.4	16.8	344	ND	ND	ND	11.7 J	ND	178	25.4	N/A	ND	ND	ND	ND	N/A	ND	ND	917	0.0130
9/16/14	ND	ND	1.9	3.6	294	3.0	53.9	ND	179	0.40 J	ND	ND	0.88 J	4.6	ND	76	43.6	N/A	ND	2.4	0.71 J	ND	N/A	1.2 J	ND	665	0.0090
10/9/14	ND	ND	ND	10.4	361	ND	57.5	ND	157	ND	ND	ND	ND	4.4 J	4.7 J	130	17.9	N/A	ND	ND	ND	ND	N/A	ND	ND	743	0.0102
11/6/14	ND	ND	ND	ND	172	ND	25.7	ND	62.2	ND	9.7 J	ND	16.7	6.1 J	3.7 J	98.6	26.2	N/A	ND	ND	ND	ND	N/A	ND	ND	421	0.0051
12/4/14	1.0	ND	ND	7.0	111	3.0	17.3	ND	45.7	ND	3.5 J	4.0 J	5.8	3.1	2.2 J	109.0	25.2	N/A	ND	ND	ND	ND	N/A	ND	ND	338	0.0036
1/15/15	5.9	ND	ND	ND	7.7 J	30.6	ND	ND	5.2 J	ND	ND	ND	10.4	10.9	ND	54.3	49.0	N/A	ND	8.2 J	ND	ND	N/A	6.8 J	7.5 J	197	0.0009
2/9/15	6.5	ND	ND	1.5	18.7	ND	3.1	ND	15.9	ND	ND	ND	ND	0.70 J	ND	17.1	2.6	N/A	ND	ND	ND	ND	N/A	ND	ND	66	0.0003
3/10/15	21.5	ND	2.8	6.9	73.5	2.3	13.1	ND	70.1	ND	ND	3.1 J	ND	2.0	0.79 J	97.3	87.9	N/A	ND	ND	ND	ND	N/A	1.8 J	ND	383	0.0038
4/6/15	29.7	ND	3.1	14.1	173	3.0	27.5	ND	194	ND	ND	3.3 J	ND	4.6	ND	133	102	N/A	ND	1.3 J	ND	0.41 J	N/A	ND	ND	689	0.0071
5/8/15	13.4	ND	ND	17.0	216	ND	37.5	ND	193	ND	ND	ND	ND	ND	ND	96.2	63.3	N/A	ND	ND	ND	ND	N/A	ND	ND	636	0.0063
6/2/15	44.7	ND	3.0	15.9	238	ND	36.1	10.4	128	7.4	3.9 J	4.6	ND	2.7	3.9	179	74.1	N/A	ND	0.99 J	ND	ND	N/A	32.9	8.5	794	0.0089
7/1/15	3.9	ND	1.5	7.7	140	ND	21.0	ND	74	ND	ND	ND	ND	3.0	2.1	260	43.0	N/A	ND	ND	ND	ND	ND	N/A	N/A	556	0.0040
8/10/15	3.7	ND	ND	7.3	150	2.4	28.0	ND	90	ND	ND	ND	ND	8.4	2.8	180	54.0	N/A	ND	ND	ND	ND	ND	N/A	N/A	527	0.0066
9/11/15	2.2	ND	1.9	10	300	2.8	41	0.66 J	140	ND	5.2	ND	ND	3.3	5.1	390	120	N/A	ND	1.3 J	ND	0.48 J	1.3 J	N/A	N/A	1,025	0.0129
10/7/15	1.5	ND	1.8	8.6	220	2.0	33	ND	98	ND	2.8 J	ND	ND	3.6	3.5	310	71	N/A	ND	ND	3.3	ND	ND	N/A	N/A	759	0.0099
11/2/15	0.58 J	ND	3.0	8.4	210	3.3	33	ND	98	ND	2.9 J	ND	ND	ND	3.0	330	30	N/A	ND	ND	ND	0.45 J	ND	N/A	N/A	723	0.0094
12/3/15	ND	ND	1.5	4.8	110	2.2	20	ND	65	ND	2.3 J	ND	ND	ND	1.4 J	97	4.5	N/A	ND	ND	ND	ND	ND	N/A	N/A	309	0.0040
1/15/16	0.58 J	ND	1.9	4.1	110	2.1	25	ND	95	ND	4.0	ND	ND	3.8	1.6	180	31	N/A	ND	ND	ND	ND	ND	N/A	N/A	459	0.0058
2/12/16	ND	ND	2.5	2.2	62	2.6	15	ND	58	ND	3.6	ND	ND	ND	1.0 J	160 B	28	N/A	ND	ND	ND	ND	ND	N/A	N/A	335	0.0042
3/9/16	0.61 J	ND	6.5	3.0	130	2.0	25	ND	100	ND	2.5 J	ND	ND	4.0	1.9	120	3.8	N/A	ND	ND	ND	ND	ND	N/A	N/A	399	0.0047
4/7/16	ND	ND	ND	ND	650	ND	90	ND	290	ND	ND	ND	ND	ND	ND	2,700	530	N/A	ND	ND	ND	ND	ND	N/A	N/A	4,260	0.1103
4/27/16	14	ND	1.8	4.2	210	2.8	17	0.64 J	71	ND	ND	ND	ND	4.9	2.8	250	17	N/A	ND	ND	ND	0.50 J	ND	N/A	N/A	597	0.0134
5/12/16	13	ND	13	4.4 J	190	ND	17	ND	130	ND	17 J	ND	ND	ND	3.8 J	690 B	20	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,098	0.0245
6/2/16	2.6	ND	85	1.1 J	64	2.4	5.6	ND	29	ND	2.2 J	ND	ND	3.1	1.0 J	34	1.6	N/A	ND	ND	ND	0.39 J	1.8 J	N/A	N/A	234	0.0054

TABLE 2

Building A Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
7/14/16	3.5	ND	2.5	2.6	170	2.7	18	0.41 J	88	ND	47	ND	ND	5.1	2.8	170	1.7	N/A	ND	1.4 J	ND	ND	2.5 J	N/A	N/A	518	0.0117
8/4/16	2.1	ND	1.5	2.6	160	2.3	25	0.65 J	96	ND	2.3 J	ND	ND	ND	2.6	240	14	N/A	1.7 J	7.5	1.7 J	ND	1.8 J	N/A	N/A	562	0.0131
9/7/16	5.8	0.58 J	1.6	2.8	160	2.8	22	1.1 J	77	ND	3.6	ND	1.7 J	ND	2.9	480 DL	1.1	N/A	ND	1.2 J	ND	0.40 J	1.8 J	N/A	N/A	766	0.0179
10/5/16	11	0.69 J	1.6	4.1	220	2.2	30	1.5 J	100	ND	2.8 J	ND	ND	3	3.5	890 DL	67	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,337	0.0325
11/3/16	42	3.1	3.5	12.0	510 DL	2.9	390	6.3 J	350 E	1 J	13 J	ND	ND	5.6	7.8	4,300 DL	84	N/A	ND	0.8 J	ND	1.2	3.6	N/A	N/A	5,737	0.1114
12/14/16	ND	0.65 J	ND	1.6 J	170	2.6	26	1.0 J	140	ND	6.7	ND	ND	ND	2.8	850 E	110	N/A	ND	ND	ND	0.5 J	ND	N/A	N/A	1,312	0.0265
1/13/17	ND	ND	1.2 J	1.5 J	120	2.5	30	ND	160	ND	8.5	ND	ND	6.3	1.8	610 E	6	N/A	ND	ND	ND	1.2	1.2 J	N/A	N/A	950	0.0166
2/8/17	140	ND	1.1 J	0.7 J	36	1.0 J	9	ND	41	5.6	ND	ND	ND	13.0	0.7 J	190	3	N/A	2.9	6.8	2.4	ND	28	N/A	N/A	481	0.0086
3/8/17	ND	ND	1.3 J	0.7 J	37	2.7	11	ND	61	1.2 J	2.4 J	ND	ND	2.5	0.8 J	160	1 J	N/A	ND	2.3	ND	ND	7.5	N/A	N/A	291	0.0094
4/5/17	1.9	ND	1.0 J	0.5 J	27	2.1	5	ND	47	1.1 J	2.5 J	ND	ND	3.5	0.6 J	43	1 J	N/A	ND	1.7 J	0.8 J	ND	7.5	N/A	N/A	146	0.0046
5/5/17	2.2	ND	1.4 J	0.4 J	38	2.7	6	ND	47	0.7 J	2.6 J	ND	ND	3.2	0.9 J	22	0 J	N/A	ND	0.8 J	ND	ND	3.6	N/A	N/A	132	0.0043
6/5/17	1.2 J	ND	2.4	1.4 J	74	2.6	14	ND	63	ND	4.0 B	ND	ND	ND	1.4 J	100	2	N/A	ND	ND	ND	ND	1.8	N/A	N/A	267	0.0085
7/6/17	ND	ND	3.8	1.1 J	67	2.4	10	ND	76	1.1 B	3.3 J	ND	ND	4.8	1.3 J	57 B	1 J	N/A	ND	ND	ND	ND	3.4 J	N/A	N/A	232	0.0072
8/8/17	ND	ND	2.1	2.8	100	2.1	22	0.42 J	130	ND	9.2 B	ND	ND	ND	1.9	120	1	N/A	ND	ND	ND	0.39 J	ND	N/A	N/A	392	0.0123
9/7/17	1.9	ND	1.3 J	2.6	89	2.1	16	0.40 J	72	ND	13.0	ND	ND	2.9	1.8	180	1 J	N/A	ND	ND	ND	ND	ND	N/A	N/A	384	0.0119
10/4/17	0.89 J	ND	2.4 J	2.3 J	75	2.5 J	14	ND	77	ND	8.3	ND	ND	ND	1.7 J	280	1 J	N/A	ND	ND	ND	ND	ND	N/A	N/A	465	0.0146
11/8/17	1.2 J	ND	1.6	2.6	70	3.2	18	ND	59	ND	3.3 J	ND	ND	ND	1.3 J	310	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	470	0.0150
12/4/17	46	ND	1.4	3.9	95	1.8 J	28	0.57 J	100	0.89 J	2.7 J	ND	ND	4	1.6	740 EB	ND	N/A	ND	ND	ND	ND	2.2 J	N/A	N/A	1,028	0.0333
1/9/18	51	ND	1.6	1.9 J	61	2.0 J	13	ND	84	0.64 J	2.3 J	ND	ND	ND	1.2 J	320	ND	N/A	ND	ND	ND	ND	3.4 J	N/A	N/A	542	0.0175
2/9/18	ND	ND	45	3.0 J	110	3.5 J	26	ND	190	ND	14 J	ND	ND	ND	2.4 J	750	ND	N/A	ND	ND	ND	ND	11 J	N/A	N/A	1,155	0.0374
3/8/18	0.48 J	ND	1.2 J	1.3 J	77	2.5	12	ND	98	ND	3.1 J	ND	32	ND	1.5 J	230	ND	N/A	ND	ND	ND	ND	12 J	N/A	N/A	471	0.0152
4/3/18	0.40 J	0.7 J	1.2 J	2.4	130	2.5	21	1.1 J	120	ND	2.8 J	ND	ND	ND	2.4 J	700	0.6 J	N/A	ND	ND	ND	ND	13 J	N/A	N/A	998	0.0323
5/8/18	0.93 J	ND	2.1	0.9 J	77	2.9	6	0.44 J	59	ND	3.0 J	ND	1 J	9	1.6 J	90	1.5 J	N/A	ND	ND	ND	ND	0.6 J	N/A	N/A	256	0.0081
6/5/18	0.53 J	ND	1.9	2.6	130	2.4	23	ND	150	ND	2.8 J	ND	ND	ND	2.5	320	9.7	N/A	ND	ND	ND	0.48 J	1.6 J	N/A	N/A	647	0.0186
7/12/18	0.43 J	ND	3.4	2.6	74	1.9 J	10	ND	80	ND	39.0	ND	ND	3	1.8	85 B	4.7	N/A	ND	ND	ND	0.39 J	0.6 J	N/A	N/A	307	0.0080
8/17/18	0.45 J	ND	2.9	10.0	120	3.2	26	0.94 J	120	ND	2.7 J	ND	ND	ND	2.6	180	8.6	N/A	ND	ND	ND	ND	2.0 J	N/A	N/A	479	0.0129
9/11/18	0.45 J	ND	3.3	24.0	160	2.8	45	1.3 J	150	ND	3.9 B	ND	ND	3	3.1	500 EB	28	N/A	ND	ND	ND	ND	1.2 J	N/A	N/A	926	0.0287
10/19/18	0.56 J	ND	1.5	5.8	100	2.7	26	ND	86	ND	5.3	ND	ND	ND	2.1	160 B	1.0	N/A	ND	ND	ND	ND	ND	N/A	N/A	391	0.0119
11/14/18	ND	ND	1.2 J	5.5	65	2.2	14	ND	49	ND	2.5 J	ND	ND	ND	1.3 J	130	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	271	0.0086
12/28/18	0.7 J	ND	1.4 J	7.4	73	2.6	16	0.48 J	84	ND	5.8 JB	ND	ND	ND	1.4 J	170	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	363	0.0117
1/22/19	ND	ND	1.8 CI	5.7	60	1.6 J	14	ND	77	ND	2.6 J	ND	ND	ND	1.2 J	200	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	364	0.0108
2/7/19	ND	ND	1.5	3.2	40	1.2 J	8.2	ND	54	ND	4.1 J	ND	ND	ND	0.9 J	91	1.6	N/A	ND	ND	ND	ND	ND	N/A	N/A	206	0.0060
3/13/19	0.54 J	ND	2.2 CI	2.6	43	1.5 J	8.1	ND	63	ND	2.4 J	ND	ND	ND	1.1 J	80	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	204	0.0066
4/11/19	0.42 J	ND	1.1 J	3.6	74	1.5 J	14	ND	110	ND	3.2 J	ND	ND	ND	2.0	130	ND	N/A	ND	ND	ND	0.51	0.56 J	N/A	N/A	341	0.0104
5/14/19	1.8	ND	1.4	3.8	100	2.4	17	0.65 J	78	ND	3.4 J	ND	ND	2.2	2.0	280	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	493	0.0155
6/10/19	0.84 J	0.24 J	10	3.4	77	2.7	13	0.92 J	59	ND	4.6 J	ND	ND	ND	1.4 J	470 E	1.3	N/A	ND	ND	ND	ND	ND	N/A	N/A	644	0.0188
7/11/19	55	0.44 J	1.8	2.6	67	3.0	13	0.77 J	65	0.54 J	6.5 J	ND	2.3 J	7.3	1.5 J	420	3.9	N/A	ND	ND	ND	ND	2.3 J	N/A	N/A	653	0.0205
8/8/19	27	0.33 J	1.9	2.6	80	2.7	15	0.71 J	70	0.54 J	4.4 JB	ND	ND	2.6	1.7	480 E	0.4 J	N/A	ND	ND	ND	ND	2.4 J	N/A	N/A	692	0.0196
9/23/19	1.9	0.31 J	1.7	2.0	130	1.8 J	15	0.56 J	86	ND	5.5 JB	ND	ND	ND	1.6	460 E	10	N/A	ND	ND	ND	ND	N/A	N/A	N/A	716	0.0203

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

DL - dilution analysis

E - results exceeded calibration range

EPA - United States Environmental Protection Agency

GAC - granular activated-carbon

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

lbs./day - pounds per day

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

CL - result suspected to be biased high due to chromatographic interference

scfm - standard cubic feet per minute

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

Samples not collected in May 2014 and August 2014 as system was shut down due to firewater line break.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

TABLE 3

Building A Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
3/31/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/2/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/4/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	110	N/A	ND	ND	110	0.001
4/11/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/17/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/24/08	ND	ND	N/A	ND	30	ND	13	ND	470	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	513	0.004
5/21/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.00	0.000
6/19/08	76	ND	N/A	ND	67	ND	65	ND	2,200	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	2,408	0.015
8/1/08	ND	ND	N/A	ND	14	ND	15	ND	300	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	329	0.005
8/12/08	ND	ND	N/A	ND	55	ND	42	ND	310	ND	19	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	426	0.005
9/11/08	ND	ND	N/A	ND	ND	ND	ND	ND	46	ND	18	ND	ND	ND	ND	11	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	75	0.001
11/18/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	61	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	61	0.000
12/18/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
1/22/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
2/20/09	ND	ND	N/A	ND	10	ND	ND	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	120	0.000
3/18/09	ND	ND	N/A	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	14	0.000
4/17/09	ND	ND	N/A	ND	64	ND	20	ND	53	ND	ND	ND	ND	ND	ND	26	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	163	0.001
5/20/09	ND	ND	N/A	ND	9.9	ND	ND	ND	46	ND	ND	ND	ND	ND	ND	38	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	94	0.000
6/23/09	ND	ND	N/A	ND	11.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	44	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	55	0.000
7/23/09	ND	ND	N/A	ND	ND	ND	21	ND	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	211	0.002
8/28/09	ND	ND	N/A	ND	52	ND	29	ND	46	ND	ND	ND	ND	7.7	ND	250	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	385	0.003
9/28/09	ND	ND	N/A	ND	27	ND	19	ND	100	ND	ND	ND	ND	ND	ND	93	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	239	0.002
10/27/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40	ND	24	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	64	0.001
11/24/09	ND	ND	N/A	ND	ND	ND	ND	ND	53	ND	ND	ND	ND	ND	ND	21	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	74	0.001
12/23/09	ND	ND	N/A	ND	21	ND	10	ND	11	ND	ND	ND	ND	8.8	ND	190	16	ND	N/A	ND	ND	ND	N/A	ND	ND	257	0.003
1/19/10	ND	ND	N/A	ND	27	ND	10	ND	18	ND	ND	ND	ND	ND	ND	200	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	255	0.003
2/17/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
3/17/10	ND	ND	N/A	ND	11	ND	ND	ND	20	ND	ND	ND	ND	ND	ND	17	11	ND	N/A	ND	ND	ND	N/A	ND	ND	59	0.001
4/16/10	ND	ND	N/A	ND	12	ND	9.4	ND	330	ND	ND	ND	ND	ND	ND	27	31	ND	N/A	ND	ND	ND	N/A	ND	ND	409	0.004
5/13/10	7.2	ND	N/A	ND	250	ND	57.0	ND	160	19	ND	ND	ND	58	ND	1,100	24	12	N/A	33	ND	ND	N/A	77	24	1,821	0.019
6/18/10	ND	ND	N/A	ND	ND	ND	ND	ND	90	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	62	13	ND	N/A	16	9.3	190	0.002
7/19/10	ND	ND	N/A	ND	8.7	ND	ND	ND	100	ND	ND	ND	ND	ND	ND	40	16	ND	N/A	ND	ND	ND	N/A	ND	ND	165	0.002
8/19/10	ND	ND	N/A	ND	90	ND	47	ND	270	ND	ND	ND	ND	ND	ND	41	ND	15	N/A	ND	ND	ND	N/A	ND	ND	463	0.005
9/17/10	ND	ND	N/A	ND	88	ND	39	ND	260	ND	ND	ND	ND	ND	ND	120	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	507	0.000
10/12/10	ND	ND	N/A	ND	81	ND	10	ND	58	ND	ND	ND	ND	16	ND	360	30	17	N/A	ND	ND	ND	N/A	ND	ND	572	0.010
11/2/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/1/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.0	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	14	0.000
1/5/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
2/7/11	ND	ND	N/A	ND	ND	ND	ND	ND	24	ND	ND	ND	ND	ND	ND	14	21	ND	N/A	ND	ND	ND	N/A	ND	ND	59	0.000
3/3/11	120	ND	N/A	ND	ND	ND	ND	ND	25	ND	ND	ND	ND	58	ND	ND	ND	19	N/A	ND	ND	ND	N/A	23	ND	245	0.000
4/14/11	ND	ND	N/A	ND	ND	ND	ND	ND	110	ND	23	ND	ND	55	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	11	ND	199	0.000
5/6/11	ND	ND	N/A	ND	8.8	ND	ND	ND	170	ND	ND	ND	ND	ND	ND	21	19	ND	N/A	ND	ND	ND	N/A	ND	ND	219	0.000
6/9/11	ND	ND	N/A	ND	59.0	ND	91	ND	580	ND	ND	ND	ND	30	ND	34	ND	19	N/A	ND	ND	ND	N/A	ND	ND	813	0.010
7/11/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	13	21	ND	ND	100	ND	26	ND	ND	N/A	ND	ND	ND	N/A	43	17	220	0.000
8/3/11	ND	ND	N/A	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	11	ND	20	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	50	0.000
9/15/11	ND	ND	N/A	ND	100	ND	41	ND	150	ND	ND	ND	ND	ND	ND	12	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	303	0.000
10/18/11	ND	ND	N/A	ND	130	ND	35	ND	77	ND	ND	ND	ND	25	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	267	0.000
11/8/11	ND	ND	N/A	ND	150	ND	39	ND	95	ND	ND	ND	ND	ND	ND	15	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	299	0.004
12/6/11	ND	ND	N/A	ND	150	ND	37	ND	110	ND	ND	ND	ND	ND	ND	16	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	313	0.005
1/3/12	ND	ND	N/A	ND	56	ND	15	ND	67	ND	ND	ND	ND	ND	ND	20	11	ND	N/A	ND	ND	ND	N/A	ND	ND	169	0.003
2/16/12	ND	ND	N/A	ND	85	ND	24	ND	100	ND	ND	ND	ND	ND	ND	52	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	261	0.004
3/15/12	ND	ND	N/A	ND	82	ND	19	ND	100	ND	ND	ND	ND	ND	ND	45	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	246	0.004

TABLE 3

Building A Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
4/16/12	ND	ND	N/A	ND	180	ND	44	ND	240	ND	ND	ND	ND	ND	ND	140	12	ND	N/A	ND	ND	ND	N/A	ND	ND	616	0.009
5/9/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
6/4/12	ND	ND	N/A	ND	ND	ND	ND	ND	12	9.6	ND	ND	ND	9.1	ND	ND	18	ND	N/A	ND	ND	ND	N/A	42	12	103	0.001
7/5/12	ND	ND	N/A	ND	ND	ND	ND	ND	87	ND	ND	ND	ND	26	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	113	0.002
8/15/12	ND	ND	N/A	ND	130	ND	38	ND	210	ND	ND	ND	ND	8.7	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	387	0.006
9/12/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	13	0.000
10/18/12	ND	ND	N/A	ND	ND	ND	ND	ND	9.8	ND	ND	ND	ND	ND	ND	ND	13	ND	N/A	ND	ND	ND	N/A	ND	ND	23	0.000
11/13/12	ND	ND	N/A	ND	ND	ND	ND	ND	48	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	48	0.001
12/6/12	ND	ND	N/A	ND	8.8	ND	ND	ND	63	ND	ND	ND	ND	ND	ND	ND	13	ND	N/A	ND	ND	ND	N/A	ND	ND	85	0.001
1/4/13	ND	ND	N/A	ND	33	ND	12	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	145	0.002
2/6/13	ND	ND	N/A	ND	77	ND	28	ND	150	ND	ND	ND	ND	ND	ND	ND	11	ND	N/A	ND	ND	ND	N/A	ND	ND	266	0.004
3/7/13	ND	ND	N/A	ND	130	ND	40	ND	140	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	310	0.004
4/8/13	ND	ND	N/A	ND	56	ND	16	ND	55	ND	ND	ND	ND	ND	ND	ND	42	ND	N/A	ND	ND	ND	N/A	ND	ND	169	0.002
5/10/13	ND	ND	N/A	ND	180	ND	38	ND	190	ND	ND	ND	ND	ND	ND	12	16	ND	N/A	ND	ND	ND	N/A	ND	ND	436	0.006
6/5/13	ND	ND	N/A	ND	86	ND	21	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	217	0.003
7/3/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
8/14/13	ND	ND	N/A	ND	8.2	ND	ND	ND	52	ND	17	ND	ND	ND	ND	ND	16	ND	N/A	ND	ND	ND	N/A	ND	ND	93	0.001
9/9/13	ND	ND	N/A	ND	15	ND	ND	ND	180	ND	ND	ND	ND	ND	ND	ND	ND	12	N/A	ND	ND	ND	N/A	ND	ND	207	0.003
10/10/13	ND	ND	N/A	ND	270	ND	66	ND	190	ND	ND	ND	ND	11	ND	ND	13	15	N/A	ND	ND	ND	N/A	ND	ND	565	0.008
11/7/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/5/13	0.97	ND	856	ND	1.9	ND	3.0	ND	14.8	ND	105	ND	1.6	3.0	ND	ND	1.8	N/A	12	ND	ND	ND	N/A	ND	ND	1,000	0.014
1/13/14	1.7	ND	12.5	ND	6.4	2.3	5.9	ND	31.3	1.9	1.8	5.7	ND	22.2	ND	ND	ND	N/A	1.4	4.0	ND	ND	N/A	5.8	2.2	105	0.002
2/14/14	0.65	ND	1.7	ND	42.6	2.1	26	ND	111	ND	ND	ND	ND	4.0	ND	2.4	10	N/A	ND	ND	ND	ND	N/A	ND	ND	200	0.003
3/12/14	2.0	ND	13.3	ND	ND	2.3	ND	ND	ND	3.5	35.2	ND	2.6	36.5	ND	ND	1.2	N/A	ND	3.0	ND	ND	N/A	7.7	2.9	110	0.002
4/10/14	2.8	ND	ND	ND	82.9	ND	15.1	ND	97	49.4	48.3	ND	ND	64.9	ND	ND	62.1	N/A	ND	7.2	ND	ND	N/A	154	45.1	629	0.009
5/5/14	0.9	ND	1.4	ND	98.7	2.8	16.8	ND	139	ND	0.88 J	3.1 J	ND	2.5	1.8	1.4 J	ND	N/A	ND	ND	ND	ND	N/A	1.4 J	ND	271	0.004
6/5/14	2.3	ND	3.2	ND	2.9	3.4	ND	ND	ND	ND	19.6	2.6 J	21.9	3.1	ND	6.1	7.1	N/A	ND	2.0	ND	ND	N/A	1.7 J	1.9	78	0.001
7/3/14	5.0 J	ND J	3.5 J	ND	4.1 J	ND	ND	ND	8.6	6.8 J	ND	6.8 J	ND	7.2	ND	ND	ND	N/A	ND	7.3 J	6.5 J	ND	N/A	8.8 J	7.4 J	72	0.001
9/16/14	0.42 J	ND	ND	ND	6.5	3.3	3.5	ND	209	ND	1.4 J	4.5	0.89 J	58.2	ND	8.7	19.4	N/A	0.79 J	2.0	0.75 J	ND	N/A	1.2 J	0.86 J	321	0.004
10/9/14	1.7	ND	4.2	ND	75.9	ND	37.2	ND	409	ND	2.5 J	7.1 J	ND	4.4	2.6 J	8.5	7.2	N/A	ND	ND	ND	ND	N/A	ND	ND	560	0.008
11/6/14	1.3	ND	ND	ND	177	2.0	44.2	ND	151	ND	6.0	5.7	4.1	3.4	3.7	6.3	7.8	N/A	ND	ND	ND	0.5	N/A	5.3 J	3.2 J	422	0.005
12/4/14	1.2	ND	ND	ND	147	3.4	33.9	ND	71.1	ND	2.4 J	4.0 J	5.3 J	3.0	3.3	6.0	8.2	N/A	ND	ND	ND	ND	N/A	ND	3.5	292	0.003
1/15/15	1.9	ND	ND	3.9	161	7.4	30.1	ND	55.3	ND	1.9 J	1.2 J	1.7	2.2	2.1	10.0	10.0	N/A	ND	0.91 J	ND	ND	N/A	1.5 J	ND	291	0.001
2/9/15	1.0 J	ND	ND	3.8	123	ND	19.1	ND	47.8	ND	ND	ND	ND	0.93 J	1.8	5.9	ND	N/A	ND	ND	ND	ND	N/A	ND	ND	203	0.001
3/10/15	0.59	ND	2.1	8.0	195	1.6 J	27.9	ND	79.2	ND	0.59 J	ND	ND	0.74 J	ND	31.6	11.4	N/A	ND	ND	ND	ND	N/A	ND	ND	359	0.004
4/6/15	2.0	0.75 J	6.9	1.6	44.3	3.1	4.4	0.43 J	18.5	ND	161	ND	ND	19.5	ND	3.9	3.1	N/A	ND	1.2 J	ND	ND	N/A	2.1 J	0.96 J	274	0.003
5/8/15	1.4	ND	2.5	4.3	139	2.7 J	12.6	ND	87.6	4.6 J	4.6 J	4.2 J	13.3	12.3	ND	9.9	10.3	N/A	11.3	16.3	5.9 J	ND	N/A	9.2 J	4.00 J	356	0.004
6/2/15	4.5	ND	3.9	4.3	120	ND	12.6	0.77	130	3.7	5.1 J	4.4	ND	2.6	1.7	12.6	12.3	N/A	ND	1.0 J	ND	ND	N/A	16.1	4.40	340	0.004
7/1/15	ND	ND	1.6	5.4	94	2.0	17.0	ND	120	ND	ND	ND	ND	ND	1.7	14.0	7.7	N/A	ND	ND	ND	ND	ND	N/A	N/A	263	0.002
8/24/15	4.6	ND	2.0	ND	1.3 J	2.3	ND	ND	0.61 J	0.61 J	7.5	ND	0.66 J	3.7	ND	3.7	0.60 J	N/A	ND	0.80 J	ND	ND	2.8 J	N/A	N/A	31	0.000
9/11/15	3.8	ND	2.0	0.40 J	11	2.3	1.1 J	ND	4.7	ND	4.3	ND	ND	ND	ND	21	19	N/A	ND	0.95 J	ND	ND	ND	N/A	N/A	71	0.001
10/7/15	4.6	ND	2.1	ND	9.1	2.1	1.2 J	ND	30	ND	3.0 J	ND	ND	4.3	ND	18	16	N/A	ND	ND	3.7	ND	1.7 J	N/A	N/A	96	0.001
11/2/15	2.2	ND	3.2	ND	2.3	3.2	3.0	ND	80	0.60 J	3.9	ND	ND	ND	ND	1.9 J	1.1	N/A	ND	ND	ND	0.38 J	2.3 J	N/A	N/A	104	0.001
12/3/15	1.7	ND	4.9	0.43 J	12	2.3	6.2	ND	76	ND	5.0	ND	ND	2.6	ND	0.75 J	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	112	0.001
1/15/16	2.2	ND	2.0	1.5 J	37	2.3	14	ND	73	ND	2.4 J	ND	ND	2.9	0.96 J	6.3	8.4	N/A	ND	ND	ND	ND	ND	N/A	N/A	153	0.002
2/12/16	0.4 J	ND	1.6	3.5 J	74	3.9	24	ND	81	ND	ND	ND	ND	ND	1.8	10 B	15	N/A	ND	ND	1.0 J	ND	ND	N/A	N/A	216	0.003
3/9/16	1.8	ND	5.1	8.9	200	2.0	45	ND	130	ND	2.6 J	ND	ND	4.4	3.3	2.5	0.50 J	N/A	ND	ND	ND	ND	ND	N/A	N/A	406	0.005
4/7/16	ND	ND	ND	41 J	670	ND	230	ND	530	ND	ND	ND	ND	ND	ND	4,000	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	5,471	0.142
4/27/16	1.5	ND	1.9	ND	ND	2.5	0.40 J	ND	3.4	ND	ND	ND	0.64 J	ND	ND	3.7	0.45 J	N/A	ND	ND	ND	ND	ND	N/A	N/A	14	0.000
5/12/16	1.5 J	ND	18	7.5	140	3.7 J	44	ND	210	ND	17	ND	ND	6.3	ND	780 B	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,228	0.027

TABLE 3

Building A Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	trichlorofluoromethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
6/2/16	0.47 J	ND	13	0.61 J	46	ND	4.0	ND	8.1	0.66 J	ND	ND	ND	3.8	0.63 J	110	18	N/A	ND	ND	ND	ND	1.9 J	N/A	N/A	207	0.005
7/14/16	1.1 J	ND	2.3	1.1 J	73	3.1	12	ND	120	0.59 J	37	ND	ND	6.4	1.4 J	110	18	N/A	ND	1.5 J	ND	0.44 J	2.3 J	N/A	N/A	390	0.009
8/4/16	0.77 J	ND	1.8	2.3	150	3.4	23	ND	120	0.85 J	3.3 J	ND	3.2	2.9	2.7	95	22	N/A	4.1	18	3.8	ND	3 J	N/A	N/A	460	0.011
9/7/16	0.68 J	ND	1.6	3.5	200	2.6	35	ND	110	ND	4.8	ND	ND	ND	3.5	100	9.1	N/A	ND	1.1 J	ND	ND	ND	N/A	N/A	472	0.011
10/5/16	4.0	ND	1.7	3.4	77	2.1	40	ND	110	ND	3.5	ND	ND	ND	1.5 J	850	9.8	N/A	ND	ND	ND	ND	ND	N/A	N/A	1,103	0.027
11/3/16	ND	1.2 J	3.3	4.5	51	3.1	68	ND	120	ND	11	ND	ND	ND	ND	1600 DL	ND	N/A	ND	ND	ND	1.3	ND	N/A	N/A	1,863	0.036
12/14/16	ND	ND	1.4 J	1.4 J	89	2.7	25	ND	120	ND	4.1	ND	ND	ND	1.5 J	660 E	1.8	N/A	ND	ND	ND	0.46 J	ND	N/A	N/A	907	0.018
1/13/17	ND	ND	N/A	N/A	N/A	N/A	N/A	ND	N/A	ND	5.2	ND	1 J	7.4	N/A	0.97 J	N/A	N/A	ND	ND	ND	N/A	2.3 J	N/A	N/A	17	0.000
2/8/17	0.39 J	ND	1.4	0.42	37	N/A	7	ND	N/A	0.67 J	2.3 J	ND	ND	2.5	N/A	75	18	N/A	ND	1.0 J	ND	N/A	3.2 J	N/A	N/A	149	0.003
3/8/17	ND	ND	1.3 J	0.84 J	33	N/A	15	ND	71	0.80 J	2.4 J	ND	ND	3.7	0.58 J	260	4.6	N/A	ND	ND	ND	0.42 J	4.8	N/A	N/A	398	0.013
4/5/17	ND	ND	1.3 J	0.96 J	63	N/A	5.5	ND	33	0.79 J	ND	ND	ND	3.0	0.88 J	150	27	N/A	ND	ND	ND	ND	4.8	N/A	N/A	290	0.009
5/5/17	0.37 J	ND	1.5	1.0 J	83	2.5	8.7	ND	49	1.00 J	2.4 J	ND	ND	2.9	1.2 J	180	36	N/A	ND	0.64 J	ND	ND	5.5	N/A	N/A	376	0.012
6/5/17	ND	ND	3.5	1.2 J	67	2.8	13	ND	90	0.66 J	2.9 JB	ND	ND	ND	1.3 J	150	26	N/A	ND	ND	ND	ND	2.1 J	N/A	N/A	360	0.012
7/6/17	0.44 J	ND	3.5	1.2 J	96	2.3	14	ND	78	1.3 J	3.7 JB	ND	0.79 J	5.3	1.9	180 B	150	N/A	ND	ND	ND	0.89	4.1	N/A	N/A	543	0.017
8/8/17	ND	ND	1.9	1.1 J	84	2.1	14	ND	95	ND	4.5 B	ND	ND	ND	1.7	110	16	N/A	ND	ND	ND	0.48 J	ND	N/A	N/A	331	0.010
9/7/17	0.93 J	ND	1.4	1.8 J	130	2.1	19	ND	110	0.81 J	15	ND	1.0 J	6.8	2.5	200	34	N/A	ND	1.0 J	ND	0.45 J	2.6	N/A	N/A	529	0.016
10/4/17	ND	ND	1.8	2.2	120	2.6	22	ND	100	ND	3.3 J	ND	ND	4.0	2.2	190	25	N/A	ND	0.71 J	ND	ND	2.9	N/A	N/A	477	0.015
11/8/17	22	ND	0.78 J	ND	23	ND	2.4	ND	8.1	ND	3.2 J	ND	ND	ND	ND	75	10	N/A	ND	ND	ND	ND	ND	N/A	N/A	144	0.005
12/4/17	11	ND	1.9	1.1 J	42	2.5	6.6	ND	25	0.85 J	2.5 J	ND	ND	ND	0.65 J	140 B	29	N/A	ND	ND	ND	0.38 J	1.2 J	N/A	N/A	265	0.009
1/9/18	2.1	1.0 J	1.8	1.9	25	2.4	15	ND	79	ND	3.0 J	ND	ND	ND	0.54 J	300	7.6	N/A	ND	ND	ND	ND	2.4 J	N/A	N/A	442	0.014
2/9/18	9.4	0.83 J	46	1.8 J	27	4.2	18	ND	110	1.4 J	5.2	ND	ND	8.1	0.65 J	220	1.4	N/A	ND	ND	ND	0.40 J	7.2	N/A	N/A	462	0.015
3/8/18	5.0	0.49 J	1.2	1.3 J	33	2.2	10	ND	81	ND	2.5 J	ND	3.3	ND	0.78 J	120	8.5	N/A	ND	ND	ND	ND	ND	N/A	N/A	269	0.009
4/3/18	5.2	1.2 J	1.3 J	2.6	73	2.9	25	ND	140	ND	3.0 J	ND	ND	3	1.50 J	470 E	1.6	N/A	ND	ND	ND	ND	ND	N/A	N/A	730	0.024
5/8/18	11	ND	1.6 J	1.2	63	2.9	8	ND	59	1.0 J	2.5 J	ND	1 J	25	1.40 J	89	12.0	N/A	ND	1.0 J	ND	ND	6.0	N/A	N/A	285	0.009
6/5/18	0.7 J	ND	ND	1.5 J	81	2.6	11	ND	85	ND	4.7	ND	3	ND	1.60	140	13.0	N/A	ND	ND	ND	0.44 J	ND	N/A	N/A	344	0.010
7/12/18	11	ND	5.1	1.6 J	120	1.6 J	10	ND	82	ND	8.7	ND	ND	5.3	2.40	150 B	71.0	N/A	ND	2.2	ND	0.43 J	3.0	N/A	N/A	474	0.012
8/17/18	11	ND	3.0	2.1	150	3.5	17	0.5 J	130	1.4 J	3.2 J	ND	ND	12	2.80	200	62.0	N/A	ND	ND	ND	ND	6.6	N/A	N/A	605	0.016
9/11/18	5.3	ND	3.9	2.9	150	3.2	25	0.7 J	150	1.3 J	3.5 B	ND	ND	6.8	2.90	190 B	40.0	N/A	0.93 J	8.8	2.3	ND	3.2	N/A	N/A	601	0.019
10/19/18	1.1 J	ND	0.56 J	ND	11	ND	1.0 J	ND	3.6	ND	6.5	ND	ND	ND	ND	25 B	12.0	N/A	ND	0.77 J	ND	ND	ND	N/A	N/A	62	0.002
11/9/18	1.1 J	ND	1.3 J	ND	8.1	2.7	0.8 J	ND	4.4	ND	11.0	ND	ND	3.2	ND	16	9.5	N/A	ND	1.5 J	ND	ND	ND	N/A	N/A	60	0.002
12/28/18	1.5	ND	1.3 J	2.5	18	2.3	11	ND	58	ND	4.9 JB	ND	1.9 J	ND	0.47 J	54	15.0	N/A	ND	ND	ND	ND	ND	N/A	N/A	171	0.006
1/21/19	1.1 J	ND	1.8 CI	3.8	23	1.6 J	14	ND	64	ND	3.2 J	ND	ND	ND	0.72 J	110	5.5	N/A	ND	ND	ND	ND	ND	N/A	N/A	229	0.007
2/7/19	1.0 J	ND	1.9	3.7	31	1.2 J	13	ND	64	ND	5.2 J	ND	ND	ND	0.83 J	110	5.2	N/A	ND	ND	ND	ND	ND	N/A	N/A	237	0.007
3/13/19	0.78 J	ND	1.8	2.0	23	1.3 J	6.0	ND	39	ND	2.3 J	ND	ND	ND	0.63 J	39	1.3	N/A	ND	ND	ND	ND	ND	N/A	N/A	117	0.004
4/11/19	0.83 J	ND	1.6	2.2	34	2.2	6.5	ND	50	ND	5.9 J	ND	ND	4.6	ND	25	12.0	N/A	ND	ND	ND	ND	2.9 J	N/A	N/A	148	0.005
5/14/19	2.8	ND	1.3 J	0.5 J	7	2.5	1.2 J	ND	11	ND	12.0	ND	ND	3.1	ND	7	5.3	N/A	ND	ND	ND	N/A	N/A	N/A	N/A	53	0.002
6/10/19	3.6	ND	2.1	2.6	50	2.3	8.7	ND	77	0.42 J	3.5 J	ND	ND	4.7	1.2 J	30	6.4	N/A	ND	0.54 J	ND	ND	2.3 J	N/A	N/A	195	0.006
7/11/19	4.3	ND	1.9	4.7	120	3.0	20	0.33 J	99	0.71 J	10	ND	0.27 J	5.2	2.5	110	51	N/A	ND	1.1 J	ND	ND	5	N/A	N/A	439	0.014
8/8/19	6.5	ND	2.5	4.8	140	3.0	22	0.40 J	100	0.40 J	6.6 JB	ND	ND	ND	2.9	120	44	N/A	ND	ND	ND	ND	1.8 J	N/A	N/A	455	0.013
9/23/19	4.7	ND	1.3 J	4.2	160	1.3 J	21	0.40 J	120	0.53 J	8.3 B	ND	0.41 J	2.1 J	3.0	140	65	N/A	ND	1.1 J	ND	0.37 J	4.1	N/A	N/A	538	0.015

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

E - results exceeded calibration range

EPA - United States Environmental Protection Agency

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

lbs./day - pounds per day

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

CL - result suspected to be biased high due to chromatographic interference

The chlorodifluoromethane and 1,2,3-trimethylbenzene concentrations reported in the 12/5/2013 sample were reported as tentatively identified compounds and were converted from 238 ppbv and 2.3. ppbv, respectively.

Samples not collected in May 2014 and August 2014 as system was shut down due to firewater line break.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

TABLE 4

Building C Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-Dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
3/31/08	55	ND	ND	N/A	ND	ND	25,000	ND	ND	ND	ND	320	ND	ND	ND	ND	ND	ND	550	ND	N/A	990	740	2,100	N/A	1,100	370	31,170	0.1500	0.450
4/2/08	57	ND	ND	N/A	ND	ND	2,700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	84	ND	N/A	63	56	320	N/A	65	ND	3,288	0.0200	0.040
4/4/08	60	ND	ND	N/A	ND	ND	6,600	ND	ND	ND	32	44	ND	ND	ND	ND	ND	ND	440	ND	N/A	180	170	690	N/A	180	68	8,404	0.0500	0.350
4/11/08	65	ND	ND	N/A	ND	ND	4,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600	ND	N/A	73	61	370	N/A	48	ND	5,252	0.0300	0.180
4/17/08	60	ND	ND	N/A	ND	ND	2,900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	670	ND	N/A	69	55	190	N/A	34	ND	3,918	0.0200	0.140
4/24/08	63	ND	ND	N/A	ND	ND	2,600	ND	ND	ND	ND	ND	ND	ND	28	ND	ND	ND	750	ND	N/A	85	70	130	N/A	32	17	3,712	0.0200	0.540
5/21/08	60	ND	ND	N/A	ND	ND	1,600	ND	ND	ND	ND	ND	ND	ND	17	ND	ND	ND	650	ND	N/A	65	51	41	N/A	15	ND	2,439	0.0100	0.310
6/19/08	60	7.4	ND	N/A	ND	ND	300	ND	ND	ND	ND	ND	ND	ND	ND	110	ND	ND	ND	ND	N/A	23	19	8	N/A	9	ND	476	0.0030	0.090
7/18/08	54	ND	ND	N/A	ND	ND	1,300	ND	ND	ND	ND	ND	ND	ND	14	ND	ND	ND	440	ND	N/A	45	36	35	N/A	ND	ND	1,870	0.0090	0.279
8/13/08	60	ND	ND	N/A	16	ND	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	58	ND	N/A	ND	ND	13	N/A	ND	ND	497	0.0030	0.093
9/11/08	60	ND	ND	N/A	ND	ND	730	ND	ND	ND	ND	ND	18	ND	ND	ND	ND	13	130	ND	N/A	ND	ND	20	N/A	ND	ND	911	0.0050	0.305
11/12/08	62	ND	ND	N/A	ND	ND	390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	ND	N/A	ND	ND	17	N/A	ND	ND	517	0.0029	0.086
12/18/08	66	ND	ND	N/A	ND	ND	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	ND	N/A	ND	ND	22	N/A	ND	ND	592	0.0035	0.105
1/22/09	67	ND	ND	N/A	ND	ND	810	ND	ND	ND	ND	ND	ND	ND	170	ND	ND	ND	580	ND	N/A	37	29	38	N/A	17	14	1,695	0.0102	0.306
2/21/09	65	ND	ND	N/A	ND	ND	630	ND	ND	ND	ND	ND	ND	ND	140	ND	ND	ND	270	ND	N/A	39	34	25	N/A	16	12	1,166	0.0068	0.204
3/18/09	66	ND	ND	N/A	ND	ND	460	ND	ND	ND	ND	ND	ND	ND	160	ND	ND	ND	350	ND	N/A	62	51	16	N/A	14	13	1,126	0.0067	0.200
4/17/09	66	ND	ND	N/A	ND	ND	200	ND	ND	ND	ND	ND	ND	ND	46	ND	ND	ND	86	ND	N/A	19	16	6.1	N/A	ND	ND	373	0.0022	0.066
5/20/09	64	ND	ND	N/A	ND	ND	210	ND	ND	ND	ND	ND	ND	ND	24	ND	ND	ND	79	ND	N/A	14	14	5.7	N/A	ND	ND	347	0.0020	0.060
6/23/09	56	ND	ND	N/A	ND	ND	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	58	ND	N/A	ND	ND	ND	N/A	ND	ND	248	0.0012	0.037
7/23/09	60	ND	ND	N/A	ND	ND	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55	ND	N/A	ND	ND	ND	N/A	ND	ND	205	0.0011	0.033
8/28/09	NA	ND	ND	N/A	ND	ND	720	ND	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	160	ND	N/A	ND	ND	13	N/A	ND	ND	910	0.0049	0.147
9/28/09	NA	ND	ND	N/A	ND	ND	39	ND	ND	ND	ND	ND	110	ND	ND	ND	ND	ND	16	ND	N/A	ND	ND	ND	N/A	ND	ND	165	0.0009	0.027
10/27/09	60	ND	ND	N/A	ND	ND	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	64	ND	N/A	ND	ND	ND	N/A	ND	ND	264	0.0014	0.043
11/24/09	60	ND	ND	N/A	ND	ND	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75	ND	N/A	ND	ND	ND	N/A	ND	ND	265	0.0000	0.000
12/23/09	65	ND	ND	N/A	ND	ND	96	ND	ND	ND	ND	ND	ND	ND	26	ND	ND	ND	45	ND	N/A	ND	ND	ND	N/A	8.7	ND	176	0.0010	0.031
1/19/10	65	ND	ND	N/A	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	57	ND	N/A	ND	ND	ND	N/A	ND	ND	197	0.0012	0.035
2/17/10	68	ND	ND	N/A	ND	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37	ND	N/A	ND	ND	ND	N/A	ND	ND	137	0.0008	0.025
3/17/10	65	ND	ND	N/A	ND	ND	87	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33	ND	N/A	ND	ND	ND	N/A	ND	ND	120	0.0007	0.021
4/16/10	65	ND	ND	N/A	ND	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39	ND	N/A	ND	ND	ND	N/A	ND	ND	149	0.0009	0.026
5/13/10	68	58	ND	N/A	ND	ND	65	ND	ND	ND	ND	38	ND	ND	ND	220	ND	ND	22	ND	N/A	25	ND	ND	N/A	140	39	607	0.0037	0.111
6/18/10	66	ND	ND	N/A	ND	ND	72	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	ND	N/A	83	17	ND	N/A	30	17	244	0.0014	0.043
7/19/10	60	ND	ND	N/A	ND	ND	68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34	ND	N/A	ND	ND	ND	N/A	ND	ND	102	0.0006	0.017
8/19/10	61	ND	ND	N/A	ND	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31	ND	N/A	ND	ND	ND	N/A	ND	ND	131	0.0007	0.022
9/17/10	63	ND	ND	N/A	ND	ND	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33	ND	N/A	ND	ND	ND	N/A	ND	ND	103	0.0006	0.018
10/12/10	60	10	ND	N/A	ND	ND	160	ND	ND	ND	ND	11	ND	ND	ND	130	ND	110.0	70	ND	N/A	ND	ND	ND	N/A	23	ND	514	0.0028	0.083
11/2/10	65	ND	ND	N/A	ND	ND	65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	N/A	ND	ND	ND	N/A	ND	ND	100	0.0006	0.018
12/1/10	65	ND	ND	N/A	ND	ND	120	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	ND	89	ND	N/A	ND	ND	ND	N/A	ND	ND	228	0.0013	0.040
1/5/11	68	ND	ND	N/A	ND	ND	160	ND	ND	ND	ND	ND	ND	ND	94	7.7	ND	ND	250	ND	N/A	ND	ND	9	N/A	ND	ND	520	0.0032	0.095
2/7/11	70	ND	ND	N/A	ND	ND	180	ND	ND	ND	ND	ND	ND	ND	120	ND	ND	ND	270	ND	N/A	ND	ND	ND	N/A	ND	ND	570	0.0036	0.108
3/3/11	69	ND	ND	N/A	ND	ND	170	ND	ND	ND	ND	ND	ND	ND	110	34	ND	ND	180	ND	N/A	ND	ND	ND	N/A	ND	ND	494	0.0031	0.092
4/14/11	65	ND	ND	N/A	ND	ND	130	ND	ND	ND	ND	ND	ND	ND	37	10	ND	ND	90	ND	N/A	ND	ND	ND	N/A	ND	ND	267	0.0016	0.047
5/6/11	70	8	ND	N/A	ND	ND	100	ND	ND	ND	ND	16	ND	ND	19	ND	ND	ND	82	ND	N/A	ND	ND	ND	N/A	9	ND	234	0.0015	0.046
6/9/11	55	26	ND	N/A	ND	ND	97	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	ND	63	ND	N/A	ND	ND	ND	N/A	ND	ND	200	0.0010	0.030
7/11/11	51	20	ND	N/A	ND	ND	74	ND	ND	ND	ND	ND	37	ND	ND	62	ND	ND	26	ND	N/A	ND	ND	ND	N/A	21	ND	240	0.0011	0.033
8/3/11	50	14	ND	N/A	ND	ND	76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34	ND	N/A	ND	ND	ND	N/A	ND	ND	124	0.0006	0.017
9/15/11	48	10	ND	N/A	ND	ND	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	32	0.0001	0.004
10/25/11	55	ND	ND	N/A	ND	ND	38	ND	ND	ND	ND	ND	27	ND	ND	20	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	11	ND	96	0.0005	0.015
11/8/11	55	12	ND	N/A	ND	ND	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	ND	N/A	ND	ND	ND	N/A	ND	ND	73	0.0004	0.011
12/6/11	55	ND	ND	N/A	ND	ND	62	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	ND	N/A	ND	ND	ND	N/A	ND	ND	83	0.0004	0.013

TABLE 4

Building C Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-Dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
1/3/12	50	ND	ND	N/A	ND	ND	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	ND	N/A	ND	ND	ND	N/A	ND	ND	76	0.0003	0.011
2/16/12	54	ND	ND	N/A	ND	ND	76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	43	ND	N/A	ND	ND	ND	N/A	ND	ND	119	0.0006	0.017
3/15/12	55	ND	ND	N/A	ND	ND	93	ND	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	58	ND	N/A	ND	ND	ND	N/A	ND	ND	167	0.0008	0.026
4/16/12	54	ND	ND	N/A	ND	ND	64	ND	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	56	ND	N/A	ND	ND	ND	N/A	ND	ND	136	0.0007	0.020
5/9/12	51	ND	ND	N/A	ND	ND	72	ND	ND	ND	ND	ND	ND	ND	20	9.8	ND	ND	65	ND	N/A	ND	ND	ND	N/A	ND	ND	167	0.0008	0.024
6/4/12	52	ND	ND	N/A	ND	ND	71	ND	ND	ND	ND	ND	ND	ND	17	ND	ND	ND	50	ND	N/A	ND	ND	ND	N/A	ND	ND	138	0.0006	0.003
8/16/12	49	ND	ND	N/A	ND	ND	39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	N/A	ND	ND	ND	N/A	ND	ND	58	0.0003	0.008
9/12/12	30	ND	ND	N/A	ND	ND	41	ND	ND	ND	ND	ND	ND	ND	ND	23	ND	ND	22	ND	N/A	ND	ND	ND	N/A	ND	ND	86	0.0002	0.007
10/18/12	65	ND	ND	N/A	ND	ND	95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	45	ND	N/A	ND	ND	ND	N/A	ND	ND	140	0.0008	0.025
11/13/12	61	ND	ND	N/A	ND	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	ND	N/A	ND	ND	ND	N/A	31	16	335	0.0018	0.055
12/6/12	62	ND	ND	N/A	ND	ND	70	ND	ND	ND	ND	ND	ND	ND	22	ND	ND	ND	91	ND	N/A	ND	ND	5.3	N/A	ND	ND	188	0.0010	0.033
1/4/13	56	ND	ND	N/A	ND	ND	66	ND	ND	ND	ND	ND	ND	ND	42	ND	ND	ND	110	ND	N/A	ND	ND	ND	N/A	ND	ND	218	0.0011	0.034
2/6/13	60	ND	ND	N/A	ND	ND	49	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	91	ND	N/A	ND	ND	ND	N/A	ND	ND	169	0.0009	0.026
3/7/13	57	ND	ND	N/A	ND	ND	60	ND	ND	ND	ND	ND	ND	ND	45	ND	ND	ND	100	ND	N/A	ND	ND	ND	N/A	ND	ND	205	0.0011	0.033
4/8/13	57	ND	ND	N/A	ND	ND	44	ND	ND	ND	ND	ND	ND	ND	21	ND	ND	ND	52	ND	N/A	ND	ND	ND	N/A	ND	ND	117	0.0006	0.018
5/10/13	112	ND	ND	N/A	ND	ND	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,900	ND	N/A	ND	ND	ND	N/A	80	ND	3,100	0.0312	0.968
6/5/13	161	ND	ND	N/A	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	460	50	N/A	ND	ND	ND	N/A	31	15	566	0.0082	0.246
7/3/13	182	12	ND	N/A	ND	12	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND	ND	ND	290	16	N/A	11	ND	ND	N/A	43	23	416	0.0068	0.211
8/14/13	180	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	210	18	N/A	ND	ND	ND	N/A	20	11	279	0.0045	0.140
9/9/13	182	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	ND	N/A	ND	ND	ND	N/A	ND	ND	150	0.0025	0.074
10/10/13	190	14	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	16	N/A	ND	ND	ND	N/A	20	10	260	0.0044	0.138
11/7/13	160	13	ND	N/A	ND	ND	18	ND	ND	ND	ND	9.8	ND	ND	ND	ND	ND	ND	280	ND	N/A	ND	ND	ND	N/A	45	24	390	0.0056	0.168
12/5/13	154	6.3	ND	ND	ND	N/A	13	6.6	ND	ND	ND	7.3	4.1	33.9	5.4	4.0	ND	ND	228	N/A	ND	4.8	2.4	ND	N/A	30.4	16.1	362	0.0050	0.155
1/13/14	175	13.7	ND	4.7	ND	N/A	5.7	ND	ND	ND	ND	10.3	3.4	22.6	5.6	49.6	ND	ND	298	N/A	5.5	17.8	ND	ND	N/A	49.1	19.3	505	0.0079	0.246
2/14/14	168	1.8	ND	4.5	ND	N/A	2.3	2.2	ND	ND	ND	2.1	ND	5.3	2.2	2.7	ND	ND	157	N/A	ND	2.8	ND	ND	N/A	8.9	4.7	197	0.0030	0.083
3/12/14	175	9.1	ND	3.0	3.2	N/A	4.9	2.2	ND	ND	ND	5.9	ND	11.5	3.3	6.0	ND	ND	261.0	N/A	1.6	6.0	3.0	ND	N/A	25.3	12.3	358	0.0056	0.175
4/10/14	168	10	ND	7.1	ND	N/A	7.0	ND	ND	ND	ND	67	ND	12.1	5.1	50.7	ND	6.6	266	N/A	ND	6.9	ND	ND	N/A	218	67.4	724	0.0109	0.317
5/5/14	182	11.8	1.2	5.8	1.5 J	N/A	7.6	2.9	ND	ND	ND	4.7	1.2 J	12.7	3.6	30.6	ND	ND	236	N/A	2.1	6.8	3.5	ND	N/A	20.9	11.3	364	0.0060	0.149
6/5/14	180	12.8	ND	ND	2.7	N/A	2.7	2.1	ND	ND	ND	4.1	24.5	13.1	23.1	11.6	ND	ND	154	N/A	6.1	18	6.1	ND	N/A	27	12.1	320	0.0052	0.160
7/3/14	182	14.4	0.77 J	11.2	5.6	N/A	4.1	1.4 J	ND	ND	0.88 J	6.3	147	16.9	7.1	5.7	0.81 J	ND	183	N/A	2.8	7.3	4.7	ND	N/A	19.4	9.8	449	0.0073	0.206
8/13/14	166	10.8	1.7	N/A	66.2	1.5	4.7	ND	7.6	ND	4.8	7.5	ND	20.6	7.0	5.0	ND	33.6	289	N/A	N/A	7.8	3.9	ND	N/A	30.2	16.0	518	0.0077	0.317
9/12/14	175	8.0	1.1	5.6	ND	N/A	5.3	2.9	7.0	ND	ND	2.9	0.76 J	31.2	2.1	3.4	ND	37.9	124	N/A	2.1	5.4	2.1	ND	N/A	17.2	10.8	270	0.0042	0.127
10/9/14	174	6.6	1.2	10.1	0.98	N/A	6.6	2.0	6.1	2.7	3.0	3.2	2.1 J	13.3	2.7	5.1	0.71 J	38.6	137	N/A	2.6	4.7	2.0	ND	N/A	15.8	9.5	277	0.0043	0.117
11/5/14	175	5.2	ND	7.5	ND	N/A	5.7	2.3	3.5	ND	ND	3.2 J	6.0	10.5	5.4	4.3	ND	22.6	111	N/A	3.5 J	5.4	3.2 J	ND	N/A	11.0 J	6.4	217	0.0034	0.092
12/4/14	168	5.3	ND	8.1	1.3	N/A	7.0	2.8	1.9	ND	ND	3.2 J	3.3 J	8.7	7.8	5.0	1.6 J	9.1	106	N/A	3.6 J	4.7	3.7 J	ND	N/A	8.6	5.8	198	0.0030	0.086
1/15/15	175	6.2	ND	8.3	1.7	N/A	5.9	3.1	ND	ND	ND	1.2 J	2.5 J	3.1 J	2.8	3.1	ND	3.0	87.5	N/A	1.2 J	5.5	2.0	ND	N/A	4.8	2.9	145	0.0023	0.096
2/9/15	170	5.6	ND	3.8	0.94	N/A	4.6	ND	ND	ND	ND	1.3 J	0.61 J	2.3 J	1.7	3.7	ND	ND	75.3	N/A	ND	3.8	1.7	ND	N/A	5.3	3.2	114	0.0017	0.043
3/10/15	182	5.0	2.8	4.0	0.82	N/A	3.7	1.5 J	ND	ND	ND	1.3 J	0.62 J	3.0 J	2.1	2.5	ND	0.94 J	80.5	N/A	0.97 J	4.0	1.7	ND	N/A	4.4	2.9	123	0.0020	0.058
4/6/15	175	6.5	1.1	4.6	1.2	N/A	3.6	1.8	2.0	ND	1.1 J	2.0	ND	6.1	2.3	2.3	ND	14.6	107	N/A	1.5 J	5.8	2.4	ND	N/A	8.0	4.3	178	0.0028	0.076
5/8/15	175	6.1	ND	10.4	ND	N/A	2.6	2.3 J	1.7 J	ND	ND	5.3 J	4.0 J	7.8 J	2.1 J	5.2	ND	14	128	N/A	5.1 J	10	5.3 J	ND	N/A	13.3 J	6.5 J	230	0.0036	0.116
6/2/15	170	7.4	1.2	8.3	1.0	N/A	4.0	ND	4.9	ND	ND	2.5	6.3	14.4	3.2	4.3	ND	32.1	132	N/A	3.7	11.1	4.9	ND	N/A	11.4	7.1	260	0.0040	0.099
7/1/15	175	3.2	ND	6.6	4.9	N/A	ND	ND	3.2	ND	ND	ND	ND	ND	ND	2.5	ND	22	20	N/A	ND	ND	ND	ND	ND	N/A	N/A	62	0.0010	0.028
8/10/15	175	5.1	2.1 J	15	0.74 J	N/A	2.7	2.4	5.9	ND	2.0	1.3 J	ND	ND	1.1 J	15.0	ND	45	41	N/A	ND	2.0	0.84 J	ND	7.5	N/A	N/A	150	0.0024	0.094
9/11/15	175	8.0	1.3 J	12	1.1 J	N/A	2.4	2.3	7.7	ND	2.8	2.0	8.7	ND	1.2 J	6.2	ND	58	73	N/A	1.1 J	3.5	1.3 J	ND	11	N/A	N/A	204	0.0032	0.102
10/7/15	175	5.5	ND	3.3	ND	N/A	0.68 J	2.1	2.0	ND	1.0 J	0.60 J	3.4 J	ND	ND	8.7	ND	18	14	N/A	ND	1.2 J	ND	ND	2.6 J	N/A	N/A	63	0.0010	0.026
11/2/15	182	5.1	0.73 J	8.6	0.93 J	N/A	2.3	3.2	3.7	ND	1.4 J	1.2 J	3.4 J	ND	3.5	3.0	ND	32	50	N/A	ND	2.1	0.94 J	ND	5.6	N/A	N/A	128	0.0021	0.054
12/3/15	182	4.5	0.59 J	14	0.51 J	N/A	2.1	2.4	1.5 J	ND	0.54 J	0.61 J	2.4 J	ND	0.94 J	3.9	ND	14	43	N/A	ND	1.9 J	ND	ND	3.2 J	N/A	N/A	96	0.0016	0.049

TABLE 4

Building C Influent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	FLOW (scfm)	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	chloromethane	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-Dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)	Mass (lbs. removed in period)
1/15/16	188	4.4	ND	4.8	0.43 J	N/A	0.81 J	2.0	0.27 J	ND	ND	ND	2.4 J	ND	0.95 J	5.0	ND	2.4	30	N/A	ND	1.3 J	ND	ND	2.1 J	N/A	N/A	57	0.0010	0.041
3/9/16	182	6.4	0.64 J	12	0.88 J	N/A	1.9	2.3	0.69 J	ND	0.31 J	0.80 J	3.3 J	ND	0.91 J	10	ND	11	41	N/A	ND	2.6	0.86 J	ND	3.8	N/A	N/A	99	0.0016	0.088
5/12/16	182	2.9	0.50 J	6.6	1.0 J	N/A	1.6	2.9	0.44 J	ND	0.48 J	1.1 J	2.8 J	ND	0.72 J	73	ND	5.4 B	31	N/A	ND	1.6 J	ND	ND	5.2	N/A	N/A	137	0.0022	0.144
7/14/16	180	8.0	1.2 J	13	2.4	N/A	2.5	2.7	11	ND	5.5	1.3 J	4.2	ND	1.1 J	6.2	ND	76 B	46	N/A	1.2 J	4.4	1.5 J	ND	6.5	N/A	N/A	195	0.0031	0.198
9/7/16	182	8.6	0.52 J	4.0	2.5	N/A	2.5	2.4	4.2	ND	1.9	1.4 J	5.3	ND	1.0 J	3.2	ND	29	45	N/A	0.93 J	3.5	1.5 J	ND	6.2	N/A	N/A	124	0.0020	0.111
11/3/16	185	9.8	0.80 J	22.0	2.7	N/A	2.8	3.0	1.7	ND	0.76 J	1.9	13.0	ND	1.6 J	14	ND	13	47	N/A	1.2 J	4.3 J	1.4 J	ND	9.1	N/A	N/A	150	0.0025	0.142
1/12/17	185	2.0	ND	6.3	0.78 J	N/A	1.9	1.9 J	ND	ND	ND	0.90 J	6.2	ND	0.92 J	20	ND	1.4 J	33	N/A	ND	2.0	0.91 J	ND	4.5	N/A	N/A	83	0.0014	0.096
3/8/17	185	3.1	0.58 J	4.8	0.59 J	N/A	3.5	2.7	0.31 J	ND	ND	2.2	3.3 J	ND	3.1	6.2	ND	1.3 J	40	N/A	ND	1.8 J	ND	ND	12	N/A	N/A	85	0.0014	0.078
5/5/17	185	4.9	0.59 J	1.6	1.1 J	N/A	5.3	2.1	0.36 J	ND	ND	0.90 J	2.6 J	ND	2.3 J	4.1	0.41 J	1.4 J	38	N/A	ND	2.7	1.0 J	ND	5.3	N/A	N/A	75	0.0012	0.072
7/6/17	180	6.1	0.76 J	15	2.9	N/A	5.4	1.9 J	0.42 J	ND	ND	1.9	5.4	2.0	1.4 J	7.1	ND	1.1 JB	31	N/A	ND	2.5	0.91 J	ND	7.0	N/A	N/A	93	0.0015	0.093
9/7/17	175	6.5	0.90 J	2.7	1.5 J	N/A	2.3	1.8 J	ND	ND	ND	0.91 J	5.9	ND	0.7 J	5.6	ND	1.1 J	38	N/A	ND	3.5	1.5 J	ND	3.7	N/A	N/A	77	0.0012	0.076
11/8/17	185	4.8	0.55 J	4.1	1.0 J	N/A	3.2	2.2	ND	ND	ND	ND	5.0	ND	1.4 J	2.8	ND	0.66 J	43	N/A	ND	2.2	0.9 J	ND	2.5 J	N/A	N/A	74	0.0012	0.076
1/9/18	180	6.4	0.60 J	11	ND	N/A	2.7	2.2	ND	ND	ND	0.74 J	ND	ND	2.5 J	4.2	ND	1.7 J	33	N/A	ND	2.6	1.0 J	0.54	4.8 J	N/A	N/A	74	0.0012	0.074
3/8/18	180	1.1 J	0.57 J	4.5	0.63 J	N/A	4.9	2.0	ND	ND	ND	0.70 J	2.5 J	ND	5.0 J	2.8	ND	0.44 J	47	N/A	ND	2.6	1.0 J	0.54	3.3 J	N/A	N/A	80	0.0013	0.075
5/8/18	170	3.5 J	0.56 J	3.4	2.4	N/A	4.7	2.5	ND	ND	ND	1.0 J	2.8 J	ND	3.6	17.0	ND	0.49 J	32	N/A	ND	4.0	1.6 J	ND	5.9 J	N/A	N/A	85	0.0013	0.080
7/12/18	150	4.9	0.68 J	6.4	5.5	N/A	2.9	1.7 J	ND	ND	ND	0.79 J	65	ND	1.0 J	8.3	ND	1.5 JB	34	N/A	ND	3.8	1.4 J	ND	4.1	N/A	N/A	142	0.0019	0.124
9/11/18	155	3.2	0.55 J	7.8	1.1 J	N/A	1.0 J	2.9	ND	ND	ND	23	3.2 JB	ND	0.7 J	6.2	ND	0.47 JB	35	N/A	1.2 J	9.3	2.4 J	ND	5.2	N/A	N/A	103	0.0014	0.088
11/9/18	155	2.0	ND	3.8	ND	N/A	2.5	2.5	ND	ND	ND	0.86 J	2.8 J	ND	0.6 J	2.7	ND	ND	25	N/A	ND	3.9	1.3 J	ND	1.9 J	N/A	N/A	50	0.0007	0.041
1/21/19	155	1.6	ND	3.0 Cl	ND	N/A	2.3	1.5 J	ND	ND	ND	0.88 J	3.2 J	ND	0.9 J	5.0	ND	ND	20	N/A	ND	2.7	0.9 J	ND	4.7	N/A	N/A	47	0.0006	0.047
3/13/19	140	4.9	0.48 J	2.3 Cl	ND	N/A	2.8	1.5 J	ND	ND	ND	ND	2.7 J	ND	1.1 J	2.7	ND	0.68 J	26	N/A	ND	1.9 J	0.75 J	ND	1.2 J	N/A	N/A	49	0.0006	0.031
5/14/19	140	8.7	ND	3.4	0.43 J	N/A	2.9	2.6	ND	ND	ND	0.75 J	3.8 J	ND	0.82 J	9.4	ND	ND	24	N/A	0.94 J	4.8	2.1	ND	3.3 J	N/A	N/A	68	0.0009	0.053
7/11/19	140	10	0.61 J	5.3	1.0 J	N/A	3.2	2.7	ND	ND	ND	0.66 J	9.9	ND	1.0 J	6.1	0.36 J	ND	36	N/A	ND	4.4	1.9 J	ND	3.0 J	N/A	N/A	86	0.0011	0.063
9/23/19	140	7.2	0.44 J	4.0	0.95 J	N/A	3.2	1.4 J	ND	ND	0.28 J	0.49 J	6.3 JB	ND	0.58 J	2.8	0.38 J	ND	28	N/A	ND	3.7	1.60 J	ND	2.6 J	N/A	N/A	64	0.0008	0.059

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

EPA - United States Environmental Protection Agency

lbs. - pounds

lbs./day - pounds per day

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

scfm - standard cubic feet per minute

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

CL - result suspected to be biased high due to chromatographic interference

Sampling not conducted in July 2012 due to system shutdown test.

Completed first-phase system expansion on October 31, 2012.

Completed second-phase system expansion on May 10, 2013.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

TABLE 5

Building C Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-Trichlorobenzene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
4/2/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	720	N/A	ND	ND	720	0.004
4/24/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230	N/A	ND	ND	230	0.001
5/21/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	N/A	ND	ND	50	0.000
6/19/08	28	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	51	N/A	ND	ND	79	0.000
7/18/08	ND	ND	N/A	ND	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40	N/A	ND	ND	190	0.001
8/13/08	ND	ND	N/A	ND	750	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	N/A	ND	ND	765	0.004
9/11/08	ND	ND	N/A	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	N/A	ND	ND	23	0.000
11/12/08	ND	ND	N/A	ND	160	ND	ND	ND	ND	ND	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	N/A	ND	ND	227	0.001
12/18/08	ND	ND	N/A	ND	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	N/A	ND	ND	205	0.001
1/22/09	ND	ND	N/A	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	N/A	ND	ND	48	0.000
2/20/09	ND	ND	N/A	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	N/A	ND	ND	29	0.000
3/18/09	ND	ND	N/A	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	N/A	ND	ND	119	0.001
4/17/09	ND	ND	N/A	ND	340	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.1	N/A	ND	ND	347	0.002
5/20/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
6/23/09	ND	ND	N/A	ND	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2	N/A	ND	ND	75	0.000
7/23/09	ND	ND	N/A	ND	360	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	381	0.002
8/28/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	20	0.000
9/28/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
10/27/09	ND	ND	N/A	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	13	0.000
11/24/09	ND	ND	N/A	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	23	0.000
12/23/09	ND	ND	N/A	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	36	0.000
1/19/10	ND	ND	N/A	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	21	0.000
2/17/10	ND	ND	N/A	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	23	0.000
3/17/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/16/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
5/13/10	15	ND	N/A	ND	9.6	ND	ND	ND	ND	9.8	ND	ND	ND	51	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	36	10	131	0.001
6/18/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	79	16	ND	N/A	26	15	136	0.001
7/19/10	11	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	11	0.000
8/19/10	ND	ND	N/A	ND	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	15	0.000
9/17/10	35	ND	N/A	ND	26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	61	0.000
10/12/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	24	ND	ND	ND	ND	ND	ND	N/A	ND	ND	36	0.000
11/2/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	N/A	ND	ND	12	0.000
12/1/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
1/5/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	N/A	ND	ND	9.0	0.000
2/7/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
3/3/11	ND	ND	N/A	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	20	0.000
4/14/11	ND	ND	N/A	ND	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	180	0.000
5/6/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	11	0.000
6/9/11	32	ND	N/A	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	62	0.000
7/11/11	29	ND	N/A	ND	160	ND	ND	ND	ND	ND	28	ND	ND	74	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	24	8.9	324	0.000
8/3/11	25	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	25	0.000
9/15/11	22	ND	N/A	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	34	0.000
10/25/11	16	ND	N/A	ND	19	ND	ND	ND	ND	ND	24	ND	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	13	ND	92	0.000
11/8/11	16	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	16	0.000
12/6/11	8.4	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	8.4	0.000
1/3/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.000
2/16/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.000
3/15/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.000
4/16/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.000
5/9/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.00	0.000
6/4/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	8.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	8.7	0.000

TABLE 5

Building C Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-Trichlorobenzene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
8/15/12	ND	ND	N/A	ND	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	28	0.000
9/12/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	19	0.000
10/18/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
11/13/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/6/12	ND	ND	N/A	ND	9.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	57	ND	ND	ND	ND	ND	N/A	ND	ND	66	0.000
1/4/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	N/A	ND	ND	21	0.000
2/6/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24	ND	ND	ND	ND	ND	N/A	ND	ND	24	0.000
3/7/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	N/A	ND	ND	19	0.000
4/8/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	N/A	ND	ND	19	0.000
5/10/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	ND	ND	ND	N/A	ND	ND	87	0.001
6/5/13	ND	ND	N/A	ND	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	N/A	ND	ND	47	0.001
7/3/13	ND	ND	N/A	ND	34	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	N/A	ND	ND	69	0.001
8/14/13	9.9	ND	N/A	ND	17	ND	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	N/A	ND	ND	56	0.001
9/9/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	0.0	0.000
10/10/13	11	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	11	0.000
11/7/13	11	ND	N/A	ND	9.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	N/A	ND	ND	31	0.000
12/5/13	10.9	ND	N/A	ND	7.4	8.6	ND	ND	ND	ND	6.4	ND	ND	2.5	ND	ND	ND	10.7	N/A	ND	ND	ND	ND	N/A	ND	ND	47	0.001
1/13/14	8.3	ND	4.2	ND	11.0	2.2	ND	ND	ND	1.7	2.4	4.8	ND	21.3	ND	ND	3.0	124	N/A	ND	2.7	ND	ND	N/A	5.8	2.4	194	0.003
2/14/14	5.8	ND	6.1	ND	5.7	2.0	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	ND	256	N/A	ND	ND	ND	ND	N/A	ND	ND	278	0.004
3/12/14	13.5	ND	3.7	ND	10.5	2.4	ND	ND	ND	3.7	ND	ND	18.2	12.5	ND	ND	ND	5.6	N/A	5.9	15.3	4.4	ND	N/A	17.1	7.6	120	0.002
4/10/14	7.8	ND	8.2	ND	14.6	ND	ND	ND	ND	84.3	ND	ND	ND	64.8	ND	ND	9.6	18.6	N/A	ND	ND	ND	ND	N/A	263	73.6	545	0.008
5/5/14	9.6	ND	6.1	1.3 J	11.7	2.9	ND	ND	ND	ND	1.4 J	3.4 J	ND	1.6	0.90 J	ND	ND	0.86 J	N/A	ND	0.88 J	ND	ND	N/A	0.85 J	ND	41	0.001
6/5/14	8.5	ND	2.6	ND	5.9	2.6	ND	ND	ND	ND	20.6	2.3 J	9.6	1.3 J	ND	ND	ND	ND	N/A	2.0	2.6	ND	ND	N/A	1.9 J	2.2	62	0.001
7/3/14	10.2	0.64 J	12.3	5.1	5.8	1.8	ND	ND	ND	1.4 J	9.7	4.1 J	ND	1.4	0.79 J	ND	ND	3.4	N/A	ND	1.6 J	1.5 J	ND	N/A	1.9 J	1.6	63	0.001
8/13/14	11.4	1.8	N/A	60.1	5.8	1.6 J	5.1	0.69 J	ND	6.0	1.3 J	5.0 J	2.6	10.8	ND	5.4	4.4	20.1	N/A	N/A	14.4	6.3	ND	N/A	18.7	6.4	188	0.003
9/12/14	7.4	2.1	5.9	31.4	5.4	2.4	9.4	ND	ND	0.41 J	1.1 J	ND	0.62 J	1.3	ND	ND	25.3	50.2	N/A	ND	ND	ND	ND	N/A	0.96 J	ND	144	0.002
10/9/14	10.8	ND	11.9	0.90	ND	2.2	1.2 J	ND	ND	ND	1.4 J	4.0 J	ND	1.5	ND	ND	ND	2.2	N/A	ND	ND	ND	ND	N/A	0.87 J	ND	37	0.001
11/5/14	4.9	1.1	8.5	7.3	6.0	2.3	4.7	ND	ND	ND	5.9	5.4	4.2	1.3	ND	ND	15.7	2.8	N/A	ND	ND	ND	ND	N/A	ND	ND	70	0.001
12/4/14	4.9	1.2	7.4	4.9	6.2	3.0	2.9	ND	ND	ND	4.4J	4.0 J	6.0	2.9 J	ND	ND	19.3	ND	N/A	ND	3.1 J	ND	ND	N/A	ND	ND	66	0.001
1/15/15	8.1	ND	8.4	1.8	5.9	3.8	ND	ND	ND	0.74 J	1.7 J	1.0 J	1.7	2.2	ND	ND	9.4	2.9	N/A	ND	0.95 J	ND	ND	N/A	2.4 J	0.80 J	52	0.001
2/9/15	5.9	ND	3.8	1.1	5.7	ND	ND	ND	ND	ND	ND	ND	ND	1.0 J	ND	ND	5.5	6.5	N/A	ND	0.87 J	ND	ND	N/A	1.1 J	ND	31	0.000
3/10/15	1.9	2.7	4.2	ND	3.9	1.9	ND	ND	ND	ND	ND	1.1 J	ND	0.84 J	ND	ND	3.1	4.6	N/A	ND	0.80 J	ND	ND	N/A	0.71 J	ND	26	0.000
4/6/15	2.0	1.1	4.6	1.5	6.0	2.3	1.8	0.71	0.95 J	0.70 J	4.7 J	2.1 J	ND	3.8	ND	ND	9.8	10.6	N/A	ND	1.4 J	0.60 J	ND	N/A	2.6 J	1.2 J	58	0.001
5/8/15	4.2	ND	11.3	ND	3.8	1.7 J	1.5 J	ND	ND	ND	2.1 J	1.8 J	ND	0.79 J	ND	ND	9.2	12.5	N/A	ND	1.4 J	ND	ND	N/A	ND	ND	50	0.001
6/2/15	5.8	ND	6.8	0.82	2.8	2.8	1.6	ND	ND	0.76 J	4.2 J	5.6	ND	1.9	ND	ND	6.0	10.6	N/A	1.1 J	2.5	1.1 J	ND	N/A	2.1 J	1.1 J	58	0.001
7/1/15	ND	ND	7.9	7.9	2.1	ND	9.2	ND	3.5	ND	5.5	ND	ND	ND	ND	ND	13.0	7.4	N/A	ND	ND	ND	ND	ND	N/A	N/A	57	0.001
8/10/15	5.2	ND	17	2.4	1.7	2.8	3.9	ND	1.6	ND	8.2	ND	ND	9.1	ND	ND	5.2	2.9	N/A	ND	ND	ND	ND	1.2 J	N/A	N/A	61	0.001
9/11/15	10	0.74 J	11	3.6	3.9	2.5	8.6	ND	3.2	0.62 J	11	ND	ND	2.8	ND	ND	16	5.9	N/A	ND	1.5 J	ND	ND	3.0 J	N/A	N/A	84	0.001
10/7/15	9.5	1.2 J	5.0	1.9 J	2.3	2.2	7.1	ND	2.7	ND	5.1	ND	ND	3.5	ND	ND	33	0.79 J	N/A	ND	ND	1.8 J	ND	ND	N/A	N/A	76	0.001
11/2/15	5.2	2.2 J	8.5	1.9	3.1	3.1	7.5	ND	2.6	0.83 J	3.8	ND	ND	ND	ND	ND	69	ND	N/A	ND	ND	ND	ND	2.7 J	N/A	N/A	110	0.002
12/3/15	5.8	0.50 J	18	0.71 J	1.6	2.6	2.0	ND	0.76 J	ND	3.0 J	ND	ND	ND	ND	ND	18	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	53	0.001
1/15/16	2.0	ND	5.4	ND	1.0 J	2.1	0.60 J	ND	0.32 J	ND	2.4 J	ND	ND	ND	ND	ND	7.7	1.0 J	N/A	ND	ND	0.83 J	ND	ND	N/A	N/A	23	0.000
3/9/16	4.8	ND	11	0.38 J	1.2 J	2.4	0.46 J	ND	ND	ND	3.5 J	ND	ND	3.8	ND	ND	7.0	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	35	0.001

TABLE 5

Building C Mid-GAC Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-Trichlorobenzene	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloro-1,2,2-trifluoroethane	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
5/12/16	3.6	ND	6.8	0.44 J	1.2 J	3.5	0.46 J	ND	0.51 J	ND	ND	ND	0.54 J	3.9	ND	ND	6.0 B	ND	N/A	ND	0.81 J	ND	ND	ND	N/A	N/A	28	0.000
7/14/16	9.3	0.55 J	9.9	1.4 J	3.4	2.7	3.3	ND	2.7	ND	6.3	ND	1.4 J	ND	ND	ND	11 B	ND	N/A	ND	1.6 J	ND	ND	0.52 J	N/A	N/A	54	0.001
9/7/16	12	0.65 J	3.5	1.5 J	2.7	2.0	7.0	ND	2.7	ND	4.7	ND	1.1 J	ND	ND	ND	16	3.2	N/A	ND	1.1 J	ND	ND	ND	N/A	N/A	58	0.001
11/3/16	11	0.58 J	20.0	1.9	3.1	3.3	6.2	ND	1.9	0.8 J	13.0	ND	ND	9.1	ND	ND	17	0.7 J	N/A	ND	1.1 J	ND	ND	4.0	N/A	N/A	94	0.002
1/12/17	5.8	ND	5.8	0.56 J	1.2 J	2.0	0.8 J	ND	ND	ND	5.5	ND	ND	11	ND	ND	4.4	ND	N/A	ND	ND	ND	ND	2.7 J	N/A	N/A	40	0.001
3/8/17	5.3	ND	4.4	0.66 J	1.7	2.6	0.69 J	ND	ND	0.66 J	2.4 J	ND	70	4.4	ND	ND	5.3	0.55 J	N/A	ND	ND	ND	ND	3.8	N/A	N/A	102	0.002
5/5/17	6.3	ND	1.7	0.68 J	2.3	1.7 J	0.46 J	ND	ND	0.71 J	3.2 J	ND	ND	ND	ND	ND	4.6	ND	N/A	ND	0.69 J	ND	ND	3.9	N/A	N/A	26	0.000
7/6/17	8.4	ND	18	1.0 J	5.7	2.3	0.49 J	ND	ND	1.60 J	5.9	ND	2.2 J	6.2	0.47 B	ND	5.6	0.68	N/A	ND	0.79 J	ND	ND	4.3	N/A	N/A	64	0.001
9/7/17	11	ND	3.1	1.5 J	6.9	2.0	0.38 J	ND	0.31 J	0.64 J	9.2	ND	ND	5.0	0.43 J	ND	5.8	4.2	N/A	ND	1.0 J	ND	ND	ND	N/A	N/A	51	0.001
11/8/17	17	ND	3.5	0.84 J	1.7	2.0	ND	ND	ND	ND	3.3 J	ND	ND	ND	ND	ND	3.4	3.9	N/A	ND	2.0 J	ND	ND	ND	N/A	N/A	38	0.001
1/9/18	4.2	ND	9.6	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.71 J	3.9	N/A	ND	ND	ND	ND	3.0 J	N/A	N/A	24	0.000
3/8/18	8.9	ND	4.7	ND	ND	2.2	ND	ND	ND	ND	3.0 J	ND	ND	2.7	ND	ND	1.5 J	1.9	N/A	ND	1.1 J	ND	ND	2.0 J	N/A	N/A	28	0.000
5/8/18	0.6	ND	4.2	1.1 J	5.1	2.8	ND	ND	ND	0.73 J	3.7 J	ND	1.0 J	17.0	ND	ND	3.1	ND	N/A	ND	0.9 J	ND	ND	4.3	N/A	N/A	45	0.001
7/12/18	13	ND	7.0	1.1 J	7.0	1.6 J	ND	ND	ND	ND	8.0	ND	1.2 J	4.0	0.50 J	ND	4.0 B	ND	N/A	ND	1.7 J	ND	ND	2.6 J	N/A	N/A	52	0.001
9/11/18	13	ND	6.2	ND	6.5	2.9	ND	ND	0.30 J	0.62 J	3.6 B	ND	ND	4.9	0.44 J	ND	7.2 B	ND	N/A	0.87 J	7.3	1.8 J	ND	2.2 J	N/A	N/A	58	0.001
11/9/18	10	ND	2.9	3.5	1.7	2.6	ND	ND	ND	ND	3.5 J	ND	ND	ND	ND	ND	2.6	ND	N/A	ND	2.4	ND	ND	ND	N/A	N/A	29	0.000
1/21/19	7.8	ND	3.3 Cl	1.6 J	0.92 J	1.4 J	ND	ND	ND	ND	3.8 J	ND	ND	ND	ND	ND	1.5 J	ND	N/A	ND	1.2 J	ND	ND	ND	N/A	N/A	22	0.000
3/13/19	7.3	ND	3.1 Cl	1.0 J	0.83 J	1.3 J	ND	ND	ND	ND	3.0 J	ND	ND	ND	ND	ND	1.0 J	ND	N/A	ND	ND	ND	ND	ND	N/A	N/A	18	0.000
5/14/19	10	ND	3.2	1.1 J	2.8	2.8	ND	ND	ND	ND	3.1 J	ND	ND	5.1	ND	ND	2.3	ND	N/A	ND	0.74 J	ND	ND	2.0 J	N/A	N/A	33	0.000
7/11/19	19	0.29 J	6.6	0.92 J	5.6	2.8	ND	ND	ND	0.4 J	6.9	ND	ND	3.1	0.4 J	ND	3.6	0.20 J	N/A	ND	1.3 J	ND	ND	2.5 J	N/A	N/A	54	0.001
9/23/19	14	0.27 J	4.8	0.56 J	4.6	1.6 J	ND	ND	0.21 J	0.33 J	6.2 JB	ND	2.4 J	ND	0.46 J	ND	3.3	15	N/A	ND	1.1 J	ND	ND	2.5 J	N/A	N/A	57	0.001

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

EPA - United States Environmental Protection Agency

GAC - granular activated carbon

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

lbs./day - pounds per day

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

CL - result suspected to be biased high due to chromatographic interference

Sampling not conducted in July 2012 due to shutdown test.

November 2012 sample collected while four new extraction wells installed in October 2012 were operating (November 5-26, 2012). Wells temporarily closed until May 16, 2013.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

TABLE 6

Building C Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	methyl-tert-butyl ether	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-trichlorobenzene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
3/31/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0	0.000
4/2/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	170	N/A	ND	ND	170	0.001
4/4/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	360	N/A	ND	ND	360	0.002
4/11/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	N/A	ND	ND	550	N/A	ND	ND	575	0.003
4/17/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	100	N/A	ND	ND	100	0.001
4/24/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	260	N/A	ND	ND	260	0.001
5/23/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	52	N/A	ND	ND	52	0.000
6/19/08	51	ND	N/A	ND	ND	ND	ND	ND	ND	ND	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	54	N/A	ND	ND	155	0.001
7/18/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	29	N/A	ND	ND	29	0.000
8/13/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	10	ND	16	N/A	ND	ND	26	0.000
9/11/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	63	ND	ND	ND	28	ND	ND	ND	ND	ND	N/A	ND	ND	6.1	N/A	ND	ND	97	0.001
11/12/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	47	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	16	N/A	ND	ND	63	0.000
12/18/08	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	31	N/A	ND	ND	31	0.000
2/4/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	29	N/A	ND	ND	29	0.000
2/20/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	6.8	N/A	ND	ND	6.8	0.000
3/18/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	26	N/A	ND	ND	26	0.000
4/17/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	8.9	N/A	ND	ND	8.9	0.000
5/20/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
6/23/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	5.5	N/A	9.4	ND	15	0.000
7/23/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	29	0.000
8/28/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
9/28/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
10/27/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
11/24/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/23/09	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	10	0.000
1/19/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
2/17/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
3/17/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/16/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
5/13/10	36	ND	N/A	ND	ND	ND	ND	ND	ND	24	31	ND	ND	ND	140	ND	ND	ND	ND	ND	N/A	17	ND	ND	N/A	89	25	362	0.002
6/18/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	68	16	ND	N/A	28	16	128	0.001
7/19/10	10	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	10	0.000
8/19/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
9/17/10	13	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	13	0.000
10/12/10	ND	ND	N/A	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	42	ND	ND	110	ND	25	N/A	ND	ND	ND	N/A	ND	ND	198	0.001
11/2/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/1/10	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	24	0.000
1/5/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	12	N/A	ND	ND	12	0.000
2/7/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	5	N/A	ND	ND	5.3	0.000
3/3/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/14/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	13	0.000
5/6/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	N/A	ND	ND	ND	N/A	ND	ND	26	0.000
6/9/11	8.4	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.9	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	17	0.000
7/11/11	9.5	ND	N/A	ND	ND	ND	ND	ND	ND	ND	75	ND	ND	ND	61	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	21	ND	167	0.001
8/3/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	21	0.000
9/15/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
10/25/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	21	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	11	ND	55	0.000

TABLE 6

Building C Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	methyl-tert-butyl ether	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-trichlorobenzene	1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethene	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
11/8/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/6/11	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
1/3/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
2/16/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
3/15/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/16/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
5/9/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
6/4/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	8.4	ND	23	0.000
8/15/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
9/12/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	22	0.000
10/18/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
11/13/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
12/6/12	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
1/4/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
2/6/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	5.3	N/A	ND	ND	5.3	0.000
3/7/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
4/8/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
5/10/13	9.9	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34	N/A	ND	ND	ND	N/A	ND	ND	44	0.000
6/5/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
7/3/13	6.4	ND	N/A	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	35	0.001
8/14/13	5.8	ND	N/A	ND	ND	ND	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	23	0.000
9/9/13	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	0.0	0.000
10/10/13	11	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	11	0.000
11/7/13	10	ND	N/A	ND	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	ND	ND	30	0.000
12/5/13	9.3	ND	ND	ND	2.1	9.2	ND	ND	ND	ND	13.9	ND	ND	ND	3.5	ND	ND	ND	ND	3.7	ND	4.9	2.3	ND	N/A	ND	ND	49	0.001
1/13/14	4.8	ND	4.3	1.6	8.2	ND	ND	ND	ND	ND	2.3	ND	4.8	ND	26.3	ND	ND	ND	ND	3.8	1.7	7.3	ND	ND	N/A	3.6	ND	69	0.001
2/14/14	6.6	3.3	10.6	3.8	7.0	4.5	2.5	2.4	2.4	2.9	1.3	2.1	3.0	4.5	4.0	2.3	3.3	3.6	3.1	5.7	8.7	6.1	4.3	ND	N/A	3.4	2.8	104	0.002
3/12/14	6.9	ND	2.5	ND	ND	2.2	ND	ND	ND	ND	13.7	ND	ND	ND	3.2	ND	ND	ND	ND	1.9	0.94	5.1	2.3	ND	N/A	ND	ND	39	0.001
4/10/14	6.2	ND	ND	ND	ND	ND	ND	ND	ND	110	ND	ND	ND	ND	95.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	330	91.7	633	0.010
5/5/14	6.0	ND	6.8	ND	2.3	3.2	ND	ND	ND	ND	1.4 J	ND	4.0 J	ND	3.4	ND	ND	ND	ND	ND	1.4 J	7.2	3.5	ND	N/A	1.2 J	ND	40	0.001
6/5/14	5.7	ND	2.9	ND	2.5	2.9	ND	ND	ND	ND	20	ND	2.3 J	21.1	2.3	ND	ND	ND	ND	ND	3.1	7.5	3.5	ND	N/A	1.5 J	1.8	77	0.001
7/3/14	10.6	ND	10.6	1.6	4.2	1.1 J	ND	ND	ND	4.3	5.8 J	ND	2.4 J	20.5	4.2	ND	ND	ND	ND	1.6	1.9	9.7	5.4	ND	N/A	7.4	1.8	93	0.002
8/13/14	6.1	ND	N/A	31.1	4.5	ND	2.1 J	ND	ND	ND	ND	ND	1.8 J	ND	3.0	ND	ND	ND	ND	ND	N/A	8.3	4.4	ND	N/A	3.4 J	2.0 J	67	0.001
9/12/14	4.0	0.89 J	5.9	59.4	3.8	3.6	7.3	ND	3.9	ND	0.80 J	ND	1.6 J	0.62 J	2.2	ND	ND	3.9	ND	6.7	1.4 J	8.0	ND	ND	N/A	0.95 J	ND	115	0.002
10/9/14	6.2	ND	10.9	2.1	ND	ND	2.0	ND	ND	ND	2.3 J	ND	4.0 J	ND	2.3	ND	ND	ND	ND	ND	2.1	6.3	2.9	ND	N/A	ND	ND	41	0.001
11/5/14	4.2	ND	9.0	9.0	2.2	2.6	4.7	ND	ND	ND	6.4	ND	5.9	4.5	2.2	ND	ND	2.1	ND	1.9	3.6 J	6.1	3.9 J	ND	N/A	ND	3.2 J	72	0.001
12/4/14	3.8	ND	7.8	8.0	3.0 J	3.1	3.7	ND	ND	ND	5.9	ND	4.3	5.7	3.3	ND	ND	7.3	ND	ND	3.7 J	5.8	4.2	ND	N/A	ND	ND	70	0.001
1/15/15	11.5	ND	8.4	4.3	4.2	2.9	1.2 J	ND	ND	ND	4.2 J	ND	1.0 J	1.9	4.0	ND	ND	13.0	ND	0.93	1.5 J	8.4	4.0	ND	N/A	1.5 J	ND	73	0.001
2/9/15	7.4	ND	3.2	1.8	2.0 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND	6.3	ND	ND	1.1 J	6.7	3.0	ND	N/A	ND	ND	34	0.001
3/10/15	2.9	2.8	3.7	0.86	1.1 J	1.7 J	ND	ND	ND	ND	ND	ND	0.99 J	ND	2.1	ND	ND	2.8	ND	ND	1.0 J	4.5	2.1	ND	N/A	0.94 J	ND	27	0.000
4/6/15	10.7	0.79 J	5.1	2.10	3.6	2.7	1.0 J	ND	ND	0.79 J	8.1	ND	ND	ND	2.8	ND	ND	7.8	ND	0.87 J	1.8	8.2	3.9	ND	N/A	1.6 J	ND	62	0.001
5/8/15	5.4	ND	17.9	ND	1.4 J	ND	0.68 J	ND	ND	ND	ND	ND	ND	ND	1.4 J	ND	ND	3.4	ND	ND J	ND	5.2	2.4 J	ND	N/A	ND	ND	38	0.001
6/2/15	13.6	ND	6.1	0.99	1.7	ND	1.1 J	ND	ND	ND	6.4	ND	5.4	ND	3.5	ND	ND	4.4	ND	1.10	2.2	10.2	5.9	ND	N/A	ND	ND	63	0.001
7/1/15	ND	ND	9.7	ND	ND	ND	2.0	ND	2.0	ND	ND	ND	ND	ND	2.5	ND	ND	5.2	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	21	0.000
8/10/15	7.2	ND	15.0	ND	ND	2.4	ND	ND	ND	ND	8.1	ND	ND	ND	15.0	ND	ND	1.4 J	ND	2.4	ND	3.0	1.3 J	ND	ND	N/A	N/A	56	0.001
9/11/15	11	ND	9.0	ND	ND	2.6	0.98 J	ND	1.4 J	ND	6.4	ND	ND	ND	4.1	ND	ND	1.5 J	ND	2.6	1.6 J	5.9	2.5	ND	2.0 J	N/A	N/A	52	0.001
10/7/15	11	ND	3.8	0.90 J	ND	2.1	3.9	ND	1.1 J	ND	4.2	ND	ND	ND	6.2	ND	ND	1.2 J	ND	1.4	ND	2.4	1.1 J	ND	1.2 J	N/A	N/A	41	0.001
11/2/15	9.7	0.48 J	10	4.0	1.5 J	3.6	12	ND	3.2	0.63 J	3.8	ND	ND	2.2 J	2.9	ND	ND	15	ND	ND	ND	2.7	1.3 J	ND	ND	N/A	N/A	73	0.001
12/3/15	5.9	ND	19	1.4 J	0.68 J	2.5	3.3	ND	0.88 J	ND	2.5 J	ND	ND	ND	3.2	ND	ND	9.4	ND	ND	ND	3.0	1.0 J	ND	ND	N/A	N/A	53	0.001

TABLE 6

Building C Effluent Concentrations (µg/m^3)

LABORATORY DATA SUMMARY

SSD System OM&M, Middle River Complex, Middle River, Maryland

Samples analyzed by EPA Method TO-15

Date	benzene	carbon tetrachloride	chlorodifluoromethane	chloroform	cis-1,2-dichloroethene	dichlorodifluoromethane	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	ethylbenzene	methylene chloride	methyl-tert-butyl ether	naphthalene	tetrachloroethene	toluene	trans-1,2-dichloroethene	1,2,4-trichlorobenzene	1,1,1-trichloroethane	1,1,2,-trichloroethane	trichloroethene	1,2,3-trimethylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	vinyl chloride	total xylenes	m-xylene & p-xylene	o-xylene	Total VOCs	Mass (lbs./day)
1/15/16	9.4	ND	5.5	0.54 J	ND	2.3	1.2 J	ND	0.48 J	ND	2.7 J	ND	ND	ND	5.0	ND	ND	6.7	ND	ND	1.1 J	4.3	1.7 J	ND	ND	N/A	N/A	41	0.001
3/9/16	5.6	ND	11	0.57 J	0.59 J	2.1	0.97 J	ND	ND	ND	5.4	ND	ND	ND	6.1	ND	ND	7.3	ND	ND	ND	3.3	1.2 J	ND	ND	N/A	N/A	44	0.001
5/12/16	3.9	ND	6.8	0.46 J	0.49 J	3.5	0.51 J	ND	ND	ND	4.0	ND	ND	ND	8.3	ND	ND	7.2 B	ND	ND	ND	2.9	1.1 J	ND	ND	N/A	N/A	39	0.001
7/14/16	10	ND	11	1.1 J	1.2 J	3.3	1.4 J	ND	1.0 J	0.90 J	7.4	ND	ND	ND	5.8	ND	ND	13 B	ND	ND	1.7 J	6.7	2.4	ND	2.4 J	N/A	N/A	69	0.001
9/7/16	7.5	ND	3.5	1.2 J	2.3	2.1	6.1	ND	2.5	ND	4.3	ND	ND	ND	2.7	ND	ND	13	ND	6.9	1.2 J	4.7	1.8 J	ND	ND	N/A	N/A	60	0.001
11/3/16	8.1	ND	17	ND	ND	3.3	1.4	ND	1.3	1.2	23	ND	ND	ND	15	ND	ND	ND	ND	ND	1.3 J	5.2	1.8 J	ND	5.5	N/A	N/A	84	0.001
1/12/17	5.2	ND	5.9	0.50 J	ND	2.0	2.0	ND	0.5 J	1.0 J	12	ND	ND	ND	21	ND	ND	ND	ND	ND	0.9 J	3.2	1.4 J	ND	4.8	N/A	N/A	60	0.001
3/8/17	5.0	ND	4.4	0.61 J	0.5 J	2.8	1.7	ND	0.36 J	1.1 J	2.9 J	ND	ND	ND	7.9	ND	ND	0.72 J	ND	ND	ND	2.7	1.0 J	ND	1.4	N/A	N/A	33	0.001
5/5/17	5.5	ND	1.7	0.67 J	0.6 J	2.0	1.0 J	ND	0.30 J	0.72 J	2.5 J	ND	ND	ND	3.4	ND	ND	1.1 J	ND	ND	0.94 J	3.8	1.5 J	ND	3.6	N/A	N/A	29	0.000
7/6/17	6.3	ND	14	0.92 J	0.9 J	2.1	0.75 J	ND	ND	1.2 J	4.6	ND	ND	0.64 J	6.4	ND	ND	2.0 JB	ND	0.4 J	0.84 J	3.7	1.4 J	ND	3.5	N/A	N/A	50	0.001
9/7/17	6.8	ND	3.2	0.83 J	2.3	2.1	0.49 J	ND	0.40 J	0.76 J	6.3	ND	ND	ND	7.2	ND	ND	3.8	ND	8.1	1.8 J	4.3	1.9 J	ND	1.3 J	N/A	N/A	52	0.001
11/8/17	6.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1 J	ND	ND	ND	2.6	ND	ND	0.89 J	ND	6.4	ND	3.0	1.3 J	ND	ND	N/A	N/A	24	0.000
1/9/18	5.4	ND	9.8	ND	ND	2.7	ND	ND	ND	0.76 J	4.1 J	ND	ND	ND	3.6	ND	ND	1.9 J	ND	7.4	ND	3.0	1.3 J	ND	ND	N/A	N/A	40	0.001
3/8/18	5.1	ND	4.6	ND	ND	2.0	ND	ND	ND	0.70 J	3.3 J	ND	ND	ND	4.5	ND	ND	0.39 J	ND	3.3	ND	4.8	2.1	ND	2.6 J	N/A	N/A	33	0.001
5/8/18	6.2	ND	3.7	2.2	0.8 J	2.7	0.3 J	ND	ND	1.10 J	ND	ND	ND	ND	23.0	ND	ND	ND	ND	ND	1.0 J	5.4	2.4	ND	5.9	N/A	N/A	55	0.001
7/12/18	9.4	ND	6.7	1.2 J	2.0	1.5 J	0.3 J	ND	ND	0.72 J	8.5	ND	ND	1.3 J	7.8	ND	ND	ND	ND	ND	1.1 J	7.1	2.8	ND	3.1 J	N/A	N/A	53	0.001
9/11/18	8.5	ND	5.6	2.0	3.1	3.1	0.3 J	ND	ND	0.93 J	3.4 JB	ND	ND	ND	8.2	ND	ND	0.6 JB	ND	ND	1.7 J	14.0	4.7	ND	2.6 J	N/A	N/A	59	0.001
11/9/18	6.5	ND	3.0	2.7	1.8	2.7	ND	ND	ND	ND	3.1 J	ND	ND	ND	3.3	ND	ND	1.0 J	ND	ND	0.9 J	5.7	2.1	ND	ND	N/A	N/A	33	0.000
1/21/19	5.7	ND	2.7	1.7 J	0.8 J	1.4 J	ND	ND	ND	ND	3.5 J	ND	ND	ND	ND	ND	ND	0.64 J	ND	ND	ND	3.8	1.4 J	ND	ND	N/A	N/A	22	0.000
3/13/19	5.3	ND	3.6 CL	1.5 J	0.7 J	1.4 J	ND	ND	ND	ND	2.8 J	ND	ND	ND	2.4	ND	ND	0.65 J	ND	0.83 J	ND	3.2	1.3 J	ND	ND	N/A	N/A	24	0.000
5/14/19	5.9	ND	3.0	2.4	0.7 J	2.7	ND	ND	ND	ND	3.0 J	ND	ND	ND	5.9	ND	ND	1.3 J	ND	ND	ND	3.4	1.5 J	ND	1.8 J	N/A	N/A	32	0.000
7/11/19	17	ND	5.6	2.4	0.8 J	2.5	ND	ND	ND	0.51 J	4.0 J	ND	ND	ND	7.6	ND	ND	1.8 J	ND	ND	1.4 J	7.9	3.7	ND	2.2 J	N/A	N/A	57	0.001
9/23/19	9.7	ND	5.0	1.2 J	1.9 J	1.5 J	ND	ND	0.21 J	0.52 J	5.4 JB	ND	ND	ND	3.3	ND	ND	3.1	ND	13	ND	4.5	2.7	ND	3.0 J	N/A	N/A	55	0.001

Notes:

µg/m^3 - micrograms per cubic meter

B - compound was found in the blank and sample

EPA - United States Environmental Protection Agency

lbs./day - pounds per day

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

N/A - not applicable (samples not analyzed for compound)

ND - non-detect (below detection limit)

OM&M - operation, maintenance, and monitoring

SSD - sub-slab depressurization

TO-15 - Toxic Organic Method 15

VOCs - volatile organic compounds

CL - result suspected to be biased high due to chromatographic interference

Sampling not conducted in July 2012 due to system shutdown test.

November 2012 sample collected after the potassium permanganate zeolite (PPZ) unit. PPZ unit was taken offline prior to the December 2012 sample.

Samples analyzed from 4/2/08 to 11/7/13 and from 7/1/15 to present analyzed by TestAmerica, Inc. of Knoxville, TN.

Samples analyzed from 12/5/13 to 6/2/15 analyzed by Pace Analytical Services, Inc. of Minneapolis, MN.

APPENDICES

Appendix A—Biweekly and Quarterly System Check Forms

Appendix B—Analytical Reports for System Samples

APPENDIX A—BIWEEKLY AND QUARTERLY SYSTEM CHECK FORMS

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	4/11/19

Time	Description of Activities
7:00am	Arrive in Baltimore. Pick up truck, Drum, Fieldclothing and PPE.
8:00am	Arrive at Lockheed. Retrieved key set from security office
8:15am	Arrive at Building C. New Drum placed and labeled. Begin system check.
9:50am	Completed Building C. system checks
10:00am	Arrive at Building A. Begin system checks.
11:30am	Completed Building A checks. start GAC sampling
12:15pm	GAC sampling complete
12:30pm	Dropped off water at Bldg C. Began filling new Drum.
12:45pm	Wrapped up at site, everything locked. leaving site.
2:30pm	GAC samples dropped off at Test America.

Meters ↓
Field Piece SDMN5
VelociCalc TSI

Personnel On Site:	Description of Activities:
Andrew Smith	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 4/11/19 **Time:** 10:00am **Personnel:** Andrew Smith

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)
   Comment: _____
3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC change out?** YES (NO)
9. **How many GAC units are at this location?** NEW 3 SPENT 0
10. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
11. **Do the temp. gauges fall when system is turned off?** (YES) NO
12. **Does the heat-exchanger have dust on the underside?** YES (NO)
13. **Was the underside of the heat-exchanger vacuumed?** YES (NO)
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
20	35	15	130	110	40	340	25112.4

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	3.88	953	83.2 *	X		
South	5.25	657	57.4 *	X		
Basement North	20.10	405	35.4 *	X		
Basement South	1.54	1678	146.5 *	X		
Basement HRS5	0.57	258	22.5 *	X		
SSD-34-A	22.40	244	5.3 **	X		
SSD-35-A	21.90	594	12.9 **	X		
SSD-36-A	0.64	712	15.5 **	X		
SSD-37-A	3.15	758	16.5 **	X		
SSD-38-A	15.77	2176	47.4 **	X		
SSD-39-A	22.60	684	14.9 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	0.10	—	160-A	0.16	—
079-A	0.01	—	SSD-1-A	0.12	—
167-A	0.03	—	SSD-12-A-X	2.13	—
119-A	0.00	—	SSD-11-A-X	2.83	—
165-A	0.14	—	SSD-13-A-X	0.53	—
117-A	0.08	—	SSD-2-A-X	3.94	—
164-A	0.23	—	015-A-X	2.75	—
136-A-S	1.93	—	SSD-16-A-X	0.39	—
163-A	Covered	—	SSD-3-A-X	0.17	—
121-B	0.00	—	SSD-22-A	0.09	—
162-A	0.01	—	SSD-21-A	0.13	—
136-A-N	0.00	—	SSD-20-A	0.38	—
136-A	0.02	—	SSD-19-A	0.00	—
161-A	0.33	—	168-A	1.07	—
			188-A	0.01	—

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	11:57-11:59	12:08-12:10	12:03-12:04	
Summa Canister ID	11140	11136	09748	
Flow Contr. ID	10911	10961	09958	
Start Vacuum (in. Hg)	29	29	30	
Stop Vacuum (in. Hg)	4	4	4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	(Yes) / No	(Yes) / No	10 gal	(Yes) / No	
Moisture Separator 2	Yes / (No)	Yes / (No)		(Yes) / No	
Exhaust Stack Sump	Yes / (No)	Yes / (No)		(Yes) / No	
PS-1-A	Yes / (No)	Yes / (No)		(Yes) / No	
PS-2-A	Yes / (No)	Yes / (No)		(Yes) / No	
PS-3-A	Yes / (No)	Yes / (No)		(Yes) / No	
PS-4-A	Yes / (No)	Yes / (No)		(Yes) / No	
PS-5-A	(Yes) / No	(Yes) / No	½ gal	(Yes) / No	
Drain stacks	Yes / (No)	Yes / (No)		(Yes) / No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) / No	(Yes) / No	(Yes) / No	
Was the fan running upon arrival?	(Yes) / No	(Yes) / No	(Yes) / No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes / (No)	Yes / (No)	Yes / (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) / No	(Yes) / No	(Yes) / No	
Life status color of the Pre-Filter (F-1)?	(GN) / OR / RD	(GN) / OR / RD	(GN) / OR / RD	
Life status color of the GAC Filter (F-2)?	(GN) / OR / RD	(GN) / OR / RD	(GN) / OR / RD	
Life status color of the Post-Filter (F-3)?	(GN) / OR / RD	(GN) / OR / RD	(GN) / OR / RD	
Was the Pre-Filter (F-1) replaced?	Yes / (No)	Yes / (No)	Yes / (No)	
Was the GAC Filter (F-2) replaced?	Yes / (No)	Yes / (No)	Yes / (No)	
Was the Post-Filter (F-3) replaced?	Yes / (No)	Yes / (No)	Yes / (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

/

PERSONNEL SIGNATURE: Chris S. Smith **DATE:** 4/11/19

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Peter Rich	Sampled By: Andrew Smith	1 of 1 COCs
Company: Tetra Tech	Phone: 443-782-7077		
Address: 980 Auald Rd. Suite 301	Site Contact:		
City/State/Zip Annapolis MD 21403	TAL Contact:		
Phone: 443-782-7077			
FAX:			
Project Name: LMC-MRC	Analysis Turnaround Time		
Site/location: MRAS/ Building A	Standard (Specify)		
PO # 117-0512148	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Bldg-A-Influent	4/11/19	11:57	11:59	~29	~4	10911	11140	X											
Bldg-A-Mid GAC	4/11/19	12:08	12:10	~29	~4	10901	11136	X											
Bldg-A-Effluent	4/11/19	12:03	12:04	~30	-4	09958	09748	X											

Sampled by :
Andrew Smith

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time: 4/11/19 14:38	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only **Shipper Name:** **Opened by:** **Condition:**

DAILY ACTIVITY LOG

PROJECT:	CLIENT:
SSDS Systems	Lockheed Martin Corporation
LOCATION:	**PROJECT NO.**
Middle River Complex Building A and Building C	117-0512140
TASK: HRSS/SP1 Sumps and O&M of Bldg A and C	**DATE:** 5/3/19 — **PAGE:** 1 of 1

TIME START	TIME STOP	DESCRIPTION OF ACTIVITIES
0800	1700	Perform work with Clean Harbors Personnel to remove water from HRSS & SP1 sumps, Clean sumps, try to identify leaks, and then perform O&M
0800	1000	Pumpout water from sumps
1020	1425	Clean harbors removes sediment, power washes, cleans HRSS. *Shop vac broke so they left to buy new one
1240	1400	Start and complete Bldg C O&M
1530	1700	Start and complete Bldg A O&M, site locked up, systems left running
		* There was no water in the Building A SSDS
		* No water in Bldg C
		* 4 full drums picked up from Bldg C by Clean Harbors

CONTRACTORS ON-SITE:	
	Clean Harbors
Lee Lucas	Tetra Tech

FIELD REP. SIGNATURE [signature] **DATE:** 5/3/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 5/3/19 **Time:** 15:15 **Personnel:** D. LeeLucas

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)

Comment: _____

3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO

31

8. **Was there a GAC change out?** YES (NO)
9. **How many GAC units are at this location?** NEW 3 SPENT 0
10. **Do these fall to zero when system is turned off?**
    - Flow Gauge (YES) NO
    - Pressure Gauge (YES) NO
    - Vacuum Gauges (YES) NO
11. **Do the temp. gauges fall when system is turned off?** (YES) NO
12. **Does the heat-exchanger have dust on the underside?** YES (NO)
13. **Was the underside of the heat-exchanger vacuumed?** YES NO
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
31	20	11	140	122	38	355	251.454

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	0.81	967	75.7 *	X		
South	5.09	774	67.6 *	X		
Basement North	1.64	1504	41.7 *	X		
Basement South	18.74	478	131.3 *	X		
Basement HRS5	0.04	267	23.3 *	X		Work
SSD-34-A	21.6	890	19.4 **	X		
SSD-35-A	20.9	853	18.6 **	X		
SSD-36-A	0.62	676	14.7 **	X		
SSD-37-A	3.09	849	18.5 **	X		
SSD-38-A	15.64	1801	39.3 **	X		
SSD-39-A	21.7	632	13.8 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	0.07	Messed up	160-A	0.16	
079-A	0.00		SSD-1-A	2.30	
167-A	0.02		SSD-12-A-X	Covered by blue tape	
119-A	0.00		SSD-11-A-X	~~2.34~~	
165-A	0.14		SSD-13-A-X	0.52	
117-A	0.07		SSD-2-A-X	3.90	
164-A	0.20		015-A-X	2.83	
136-A-S	1.92		SSD-16-A-X	Covered	
163-A	Cover		SSD-3-A-X	0.16	
121-B	0.07		SSD-22-A	0.12	
162-A	0.03		SSD-21-A	TUBE BROKE	
136-A-N	0.01		SSD-20-A	0.22	
136-A	0.03		SSD-19-A	0.00	
161-A	0.33		168-A	1.29	
			188-A	0.01	

0.07

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	N/A	N/A	N/A	
Summa Canister ID	↓	↓	↓	
Flow Contr. ID	↓	↓	↓	
Start Vacuum (in. Hg)	↓	↓	↓	
Stop Vacuum (in. Hg)	↓	↓	↓	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | No	Yes | No		Yes | No	
Moisture Separator 2	Yes | No	Yes | No		Yes | No	
Exhaust Stack Sump	Yes | No	Yes | No		Yes | No	
PS-1-A	Yes | No	Yes | No		Yes | No	
PS-2-A	Yes | No	Yes | No		Yes | No	
PS-3-A	Yes | No	Yes | No		Yes | No	
PS-4-A	Yes | No	Yes | No		Yes | No	
PS-5-A	Yes | No	Yes | No		Yes | No	
Drain stacks	Yes | No	Yes | No		Yes | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	Yes | No	Yes | No	Yes | No	
Was the fan running upon arrival?	Yes | No	Yes | No	Yes | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | No	Yes | No	Yes | No	
Is the "do not turn off filter" warning sign in place?	Yes | No	Yes | No	Yes | No	
Life status color of the Pre-Filter (F-1)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Life status color of the GAC Filter (F-2)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Life status color of the Post-Filter (F-3)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | No	Yes | No	Yes | No	
Was the GAC Filter (F-2) replaced?	Yes | No	Yes | No	Yes | No	
Was the Post-Filter (F-3) replaced?	Yes | No	Yes | No	Yes | No	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

Work being done on MR55

PERSONNEL SIGNATURE: _____ **DATE:** 5/3/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Co
Location:	**Date:**
Middle River Complex, Middle River, Maryland	5/14/19

Time	Description of Activities
10:00	Arrive on-site, collect Keyset #7 from office
10:30	Begin Bldg C System checks & O&M
	* Water heard gurgling in pipes below SSD-29-C
12:00	Finish Bldg C O&M
12:10	Start Bldg-C air sampling
12:30	Finish Bldg-C air sampling, move to Bldg-A
12:45	Start Bldg-A air sampling
13:00	Finish Bldg-A air sampling, start Bldg-A O&M
14:15	Finish Bldg-A O&M
14:20	Return Keyset #7 to badging office
14:40	Drop off equipment, lock up site, leave site
	* Only trace amount of water collected from Bldg-A
	Bldg-C water not collected

Personnel On Site:	Description of Activities:
D. Lee Lucas	Routine O&M, sampling

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 5/14/19 Time: 1259 Personnel: L. Lucas

1. Was the system running upon arrival? (YES) NO
2. Were there any alarm conditions upon arrival? YES (NO)
   Comment: _____
3. Is the blower vacuum relief valve open? YES (NO)
4. Is the dilution valve open? YES (NO) % Open: _____
5. Are there any leaks or damage to system hoses? YES (NO)
6. Is there any damage to system components? YES (NO)
7. Are all locks and zip-ties secure? (YES) NO
8. Was there a GAC change out? YES (NO)
9. How many GAC units are at this location? NEW 3 SPENT 0
10. Do these fall to zero when system is turned off?
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
11. Do the temp. gauges fall when system is turned off? YES NO
12. Does the heat-exchanger have dust on the underside? YES (NO)
13. Was the underside of the heat-exchanger vacuumed? (YES) NO (brushed off)
13. Was the system running upon departure? (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
38 → 20		18	131	120	40	350	25907.2

* Clean or change filter if differential pressure increases by 10 in. H_2O 38 120

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.74	921	80.4 *	X		
South	-4.97	718	62.7 *	✓		
Basement North	-1795	461	40.2 *	X		
Basement South	-1.57	1461	1275 *	X		
Basement HRS5	-0.03	264	23.0 *	X		10"
SSD-34-A	-21.3	138	3.0 **	X		
SSD-35-A	-20.8	707	15.4 **	X		
SSD-36-A	-0.65	681	14.8 **	X		
SSD-37-A	-3.03	831	18.1 **	X		
SSD-38-A	-15.54	1853	40.4 **	X		
SSD-39-A	-21.3	519	11.3 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.08	top broke	160-A	covered	
079-A	0.00		SSD-1-A	blue tape	
167-A	-0.04		SSD-12-A-X	-2.06	
119-A	-0.01		SSD-11-A-X	-2.78	
165-A	-0.14		SSD-13-A-X	-0.16	switch
117-A	-0.09		SSD-2-A-X	-3.88	
164-A	-0.19		015-A-X	-2.77	
136-A-S	-1.80		SSD-16-A-X	-0.38	
163-A	covered		SSD-3-A-X	-0.52	
121-B	-0.02		SSD-22-A	-0.16	
162-A	0.00		SSD-21-A	tube broken	
136-A-N	0.00		SSD-20-A	-0.69	
136-A	-0.01		SSD-19-A	-0.08	
161-A	-0.31		168-A	covered	
			188-A	0.01	water

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	1245	1252	1259	
Summa Canister ID	10795	11521	11860	
Flow Contr. ID	10911	10930	10614	
Start Vacuum (in. Hg)	-27	-30	-26	
Stop Vacuum (in. Hg)	-4	-4	-2	

shut down very fast

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	(Yes) | No	(Yes) | No	trace	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)		(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

BLDG-A-EFFLUENT took in air extremely quickly, unsure of cause.

PERSONNEL SIGNATURE: _____ **DATE:** 5/14/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:** 5/30/19
Middle River Complex, Middle River, Maryland	

Time	Description of Activities
7:50am	Arrived on Site
8:00am	Retrieved key set 4a from security office.
805am	Arrive at system C. Begin System Checks.
9:40am	System C checks complete.
9:45am	~~Syst~~ Arrive at System A Begin System Checks.
11:00am	Building A Above ground complete Starting basement checks
11:30am	Building A system checks complete
11:35am	key set 4A returned to security.
11:45am	Everything is locked up. Leaving Site

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly checks

Field Rep. Signature: [signature] **Date:** 5/30/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 5/30/19 **Time:** 9:50 am **Personnel:** Andrew Smith

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)

Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC change out?
YES (NO)

9. How many GAC units are at this location?
NEW 3 SPENT 0

10. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

11. Do the temp. gauges fall when system is turned off?
(YES) NO

12. Does the heat-exchanger have dust on the underside?
(YES) NO Brushed off

13. Was the underside of the heat-exchanger vacuumed?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
~~-20~~ -20	-30	10	146	138	40	345	26287.8

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.65	944	82.4 *	X		
South	-4.95	869	75.9 *	X		
Basement North	-16.61	1145	100.0 *	X		
Basement South	-1.59	1542	134.6 *	X		
Basement HRS5	-0.02	263	23.0 *	X		
SSD-34-A	-20.0	1410	30.7 **	X		
SSD-35-A	-20.2	1104	24.1 **	X		
SSD-36-A	-0.66	690	15 **	X		
SSD-37-A	-3.51	765	16.7 **	X		
SSD-38-A	-15.64	2533	55.2 **	X		
SSD-39-A	-20.8	982	21.4 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.08		160-A	-0.31	
079-A	0.00		SSD-1-A	Taped down	
167-A	-0.03		SSD-12-A-X	-2.05	
119-A	0.00		SSD-11-A-X	-2.74	
165-A	-0.12		SSD-13-A-X	-0.49	
117-A	-0.09		SSD-2-A-X	-3.79	
164-A	-0.18		015-A-X	~~-0.02~~ -2.70	
136-A-S	-1.83		SSD-16-A-X	-0.37	
163-A	Covered		SSD-3-A-X	-0.15	
121-B	0.00		SSD-22-A	-0.16	
162-A	0.00		SSD-21-A	-0.12	
136-A-N	0.00		SSD-20-A	-0.05	
136-A	-0.01		SSD-19-A	-0.02	
161-A	-0.40		168-A	-1.07	
			188-A	0.00	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | No	Yes | No	N/A	Yes | No	
Moisture Separator 2	Yes | No	Yes | No		Yes | No	
Exhaust Stack Sump	Yes | No	Yes | No		Yes | No	
PS-1-A	Yes | No	Yes | No		Yes | No	
PS-2-A	Yes | No	Yes | No		Yes | No	
PS-3-A	Yes | No	Yes | No		Yes | No	
PS-4-A	Yes | No	Yes | No		Yes | No	
PS-5-A	Yes | No	Yes | No		Yes | No	
Drain stacks	Yes | No	Yes | No		Yes | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	Yes | No	Yes | No	Yes | No	
Was the fan running upon arrival?	Yes | No	Yes | No	Yes | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | No	Yes | No	Yes | No	
Is the "do not turn off filter" warning sign in place?	Yes | No	Yes | No	Yes | No	
Life status color of the Pre-Filter (F-1)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Life status color of the GAC Filter (F-2)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Life status color of the Post-Filter (F-3)?	GN | OR | RD	GN | OR | RD	GN | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | No	Yes | No	Yes | No	
Was the GAC Filter (F-2) replaced?	Yes | No	Yes | No	Yes | No	
Was the Post-Filter (F-3) replaced?	Yes | No	Yes | No	Yes | No	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: Caden S. Smith **DATE:** 5/30/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Co
Location:	**Date:**
Middle River Complex, Middle River, Maryland	6/10/19

Time	Description of Activities
8:25am	Arrived on site. Went to security office to get keys.
8:38am	Arrive at Building C. Start System Checks
10:00am	Finished Building C checks.
10:05am	Arrive at Building A start system checks
11:20am	Complete building A checks Sump HRS 5 water level = 1' 10"
11:30am	Begin Bldg A GAC samples
11:45am	Samples complete
11:52am	Keys returned to security
12:00pm	All work complete leaving site.
	6/11/19
9:00am	Alarm in Building C
10:30am	Respond to Alarm system restarted Power interruption?

Personnel On Site:	Description of Activities:
Andrew Smith	System Checks

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 6/10/19 **Time:** 10:05am **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)

Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC change out?
YES (NO)

9. How many GAC units are at this location?
NEW 3 SPENT 0

10. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

11. Do the temp. gauges fall when system is turned off?
(YES) NO

12. Does the heat-exchanger have dust on the underside?
YES (NO)

13. Was the underside of the heat-exchanger vacuumed?
(YES) NO Cleaned

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
20	34	14	140	114	36	325	26551.5

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.83	1026	89.6 *	X		
South	-5.23	856	74.7 *	X		
Basement North	-19.23	1092	95.3 *	✓		Later on cap
Basement South	-1.53	1575	137.5 *	X		
Basement HRS5	-0.04	268	23.4 *	X		
SSD-34-A	-565	1029	22.4 **	X		
SSD-35-A	-21.5	1100	24.0 **	X		
SSD-36-A	-18.4	726	15.8 **	X		
SSD-37-A	-3.24	756	16.5 **	X		
SSD-38-A	-16.79	2161	47.1 **	X		
SSD-39-A	-22.10	1595	34.8 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.10		160-A	Covered	
079-A	0.00		SSD-1-A	Taped Down	
167-A	-0.03		SSD-12-A-X	-2.15	
119-A	0.00		SSD-11-A-X	-2.89	
165-A	-0.13		SSD-13-A-X	Warm	-0.52
117-A	-0.09		SSD-2-A-X	-3.99	
164-A	-0.21		015-A-X	-2.88	
136-A-S	-47.8		SSD-16-A-X	-0.36	
163-A	Covered		SSD-3-A-X	-0.18	
121-B	-0.01		SSD-22-A	-0.14	
162-A	0.01		SSD-21-A	-0.01	
136-A-N	0.00		SSD-20-A	-0.07	
136-A	-0.07		SSD-19-A	-0.01	
161-A	-0.44		168-A	-1.11	
			188-A	0.00	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**3A-INFLUENT**	**2A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	11:41- 11:42	11:35-11:36	11:29 - 11:30	
Summa Canister ID	11572	09634	09886	
Flow Contr. ID	10104	11594	10797	
Start Vacuum (in. Hg)	-30	~30	-30	
Stop Vacuum (in. Hg)	-4	-4	-5	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)	↓	(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)	↓	(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: [signature] **DATE:** 6/10/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	6/27/19

Time	Description of Activities
8:00	Arrived on site picked up key set 4/a from security
8:10	Begin Building C Bi-weekly checks
8:55am	Stopped Bi-weekly check after III-C went to meet Chuck of S+S.
9:00am	Meet Chuck of S+S at gate 4
9:10am	Start system quarterly check buildin C.
10:15am	Finish Building C quarterly
10:20am	Stat Building A quarterly
11:00am	Finish Building A quarterly check
11:05am	Restart Building C checks.
11:45am	Complete Building C checks.
11:50am	Start Building A checks.
12:55pm	Complete Building A checks
1:00pm	Return key set 4/A to Security
1:15pm	off site

Chuck on site

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly checks + Quarterly checks
Chuck Drevo	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 6/27/19 **Time:** 11:50am **Personnel:** AS

1. **Was the system running upon arrival?**
   YES (NO)
2. **Were there any alarm conditions upon arrival?**
   (YES) NO
   Comment: Restarted Quarterly checks
3. **Is the blower vacuum relief valve open?**
   YES (NO)
4. **Is the dilution valve open?**
   YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?**
   YES (NO)
6. **Is there any damage to system components?**
   YES (NO)
7. **Are all locks and zip-ties secure?**
   (YES) NO
8. **Was there a GAC change out?**
   YES (NO)
9. **How many GAC units are at this location?**
   NEW 3 SPENT 0
10. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
11. **Do the temp. gauges fall when system is turned off?**
    (YES) NO
12. **Does the heat-exchanger have dust on the underside?**
    YES (NO)
13. **Was the underside of the heat-exchanger vacuumed?**
    (YES) NO Cleaned everything
13. **Was the system running upon departure?**
    (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
22	36	14	155	126	39	350	26943.3

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.81	987	86.2 *	X		
South	-5.24	830	72.5 *	X		
Basement North	-20.2	946	82.1 *	X		
Basement South	-1.39	1645	143.6 *	X		
Basement HRS5	-0.04	195	17.0 *	X		
SSD-34-A	-22.0	1095	23.9 **	X		
SSD-35-A	-21.5	782	17.0 **	X		
SSD-36-A	-0.72	727	15.8 **	X		
SSD-37-A	-3.32	780	17.0 **	X		
SSD-38-A	-15.15	2206	48.1 **	X		
SSD-39-A	-22.10	418	9.1 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.09		160-A	-0.35	
079-A	0.00		SSD-1-A	Covered	
167-A	-0.04		SSD-12-A-X	-2.15	
119-A	0.00		SSD-11-A-X	-2.86	
165-A	-0.15		SSD-13-A-X	-0.51	
117-A	-0.11		SSD-2-A-X	-3.99	
164-A	-0.25		015-A-X	-2.96	
136-A-S	-1.95		SSD-16-A-X	-0.35	
163-A	Covered		SSD-3-A-X	-0.15	
121-B	0.00		SSD-22-A	-0.15	
162-A	0.00		SSD-21-A	-0.01	
136-A-N	0.00		SSD-20-A	-0.04	
136-A	-0.02		SSD-19-A	-0.01	
161-A	-0.47		168-A	-1.11	
			188-A	0.00	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)		(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)		(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	GN | (OR) | RD	GN | (OR) | RD	GN | (OR) | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

HRS 5 = 2' 2.5"

Indoor air filters will be replaced soon

PERSONNEL SIGNATURE: Adam S. Scott **DATE:** 6/27/19

DAILY ACTIVITY LOG

PROJECT: SSDS Systems	**CLIENT:** Lockheed Martin Corporation
LOCATION: Middle River Complex Building A and Building C	**PROJECT NO.** 117-0512140
TASK: 117-0512140	**DATE:** 7/11/19 — **PAGE:** 1 of 1

TIME START	TIME STOP	DESCRIPTION OF ACTIVITIES
1000	1100	Replace GAC filters/sleeves in Bldg-A basement. Trash hauled to Baltimore office.
1100	1300	Bldg-A Bi-weekly monitoring, monthly air monitoring, water checks. (no water pulled from SSDS)
1300	1530	Bldg-C Bi-weekly monitoring, monthly air monitoring.
1540	1545	Return key-ring to Security guard office, leave site
1630	1645	Drop off air samples at EuroFins/Test America.

CONTRACTORS ON-SITE:	
Lee Lucas	
Andrew Smith	(10:00-11:00)

FIELD REP. SIGNATURE	**DATE:** 7/11/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 7/16/19 **Time:** 1055 **Personnel:** LL

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)

Comment: _____

3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC change out?** YES (NO)
9. **How many GAC units are at this location?** NEW 3 SPENT 0
10. **Do these fall to zero when system is turned off?**
    - Flow Gauge (YES) NO
    - Pressure Gauge (YES) NO
    - Vacuum Gauges (YES) NO
11. **Do the temp. gauges fall when system is turned off?** (YES) NO
12. **Does the heat-exchanger have dust on the underside?** YES (NO)
13. **Was the underside of the heat-exchanger vacuumed?** (YES) NO Sweeped
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
22	35	13	151	128	39	350	27278.4

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	3.56	991	86.5 *	X		
South	5.25	742	64.8 *	X		
Basement North	20.3	756	66.0 *	X		
Basement South	1.54	1634	142.6 *	X		
Basement HRS5	-0.03	295	25.8 *	X		29.5 in.
SSD-34-A	-22.0	770	No B **	X		
SSD-35-A	-21.5	598	13.0 **	X		
SSD-36-A	-0.73	714	15.6 **	X		
SSD-37-A	-3.32	840	18.3 **	X		
SSD-38-A	-16.37	1876	40.9 **	X		
SSD-39-A	-22.3	491	10.7 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.09		160-A	-0.38	
079-A	0.00		SSD-1-A	Covered	
167-A	-0.04		SSD-12-A-X	-2.85	
119-A	-0.01		SSD-11-A-X	-2.13	
165-A	-0.15		SSD-13-A-X	-0.53	
117-A	-0.11		SSD-2-A-X	-4.03	
164-A	-0.23		015-A-X	-2.95	
136-A-S	-1.96		SSD-16-A-X	covered	
163-A	Covered		SSD-3-A-X	-0.16	
121-B	-0.02		SSD-22-A	-0.14	
162-A	0.00		SSD-21-A	-0.01	Hose broke
136-A-N	Covered		SSD-20-A	-0.02	
136-A	-0.03		SSD-19-A	0.00	
161-A	-0.50		168-A	covered	
			188-A	covered	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	11:16-11:17	11:13-11:14	11:09-11:10	
Summa Canister ID	10736	11573	11846	
Flow Contr. ID	10104	10797	10614	
Start Vacuum (in. Hg)	-30	-30	-29	
Stop Vacuum (in. Hg)	-4	-4	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)		(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)		(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

HRS = 29.5"

Indoor Air filter cartridges replaced

PERSONNEL SIGNATURE: _____ **DATE:** 7/11/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	7/26/19

Time	Description of Activities
7:50	Arrived on site
7:55	Restart Building System? Both systems running no alarms
8:00	Picked up keys from security office
8:05	Start Building C checks
9:15	Finished Building C system checks
9:20	Arrive @ Building A Start Building A Checks
10:30	Complete Building A checks
10:35	Return keys to security
10:40	Return Equipment to building C
10:45	Off site Both systems running fine

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly Checks

Field Rep. Signature: **Date:** 7/26/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 7/26/19 Time: 9:20 Personnel: AS

1. Was the system running upon arrival?
   (YES) NO
2. Were there any alarm conditions upon arrival?
   YES (NO)

Comment: _____

3. Is the blower vacuum relief valve open?
   YES (NO)
4. Is the dilution valve open?
   YES (NO) % Open: _____
5. Are there any leaks or damage to system hoses?
   YES (NO)
6. Is there any damage to system components?
   YES (NO)
7. Are all locks and zip-ties secure?
   (YES) NO
8. Was there a GAC change out?
   YES (NO)
9. How many GAC units are at this location?
   NEW 3 SPENT 0
10. Do these fall to zero when system is turned off?
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
11. Do the temp. gauges fall when system is turned off?
    (YES) NO
12. Does the heat-exchanger have dust on the underside?
    (YES) NO
13. Was the underside of the heat-exchanger vacuumed?
    (YES) NO Cleaned
13. Was the system running upon departure?
    (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
70	36	16	150	125	37	340	27636.7

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.57	1037	90.5 *	X		
South	-5.28	901	78.8 *	X		
Basement North	-9.91	1688	147.4 *	X		
Basement South	-9.50	1570	137.1 *	X		
Basement HRS5	-0.08	280	24.4 *	X		
SSD-34-A	-22.0	1888	41.2 **	X		
SSD-35-A	-21.5	1744	38 **	X		
SSD-36-A	-0.71	741	16.2 **	X		
SSD-37-A	-3.30	964	21.0 **	X		
SSD-38-A	-16.43	1837	40.0 **	X		
SSD-39-A	-22.01	1878	19.1 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.08		160-A	Covered up	
079-A	-0.01		SSD-1-A	Taped up	
167-A	-0.02		SSD-12-A-X	-2.16	
119-A	0.00		SSD-11-A-X	-2.87	
165-A	-0.11		SSD-13-A-X	-0.53	
117-A	-.08		SSD-2-A-X	-4.85	
164-A	-0.21		015-A-X	-2.95	
136-A-S	-1.95		SSD-16-A-X	-0.33	
163-A	Covered	up	SSD-3-A-X	-0.16	
121-B	0.00		SSD-22-A	-0.13	
162-A	-0.01		SSD-21-A	-0.01	
136-A-N	-0.01		SSD-20-A	-0.03	
136-A	-0.03		SSD-19-A	-0.01	
161-A	-0.55		168-A	-1.07	
			188-A	0.01	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	A-INFLUENT	A-MID GAC	A-EFFLUENT	Comments
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	Contains Water?	Water Drained?	Volume Drained	Drain Valve Closed?	Comments
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)		(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	AF-M/MX	AF-S/SX	Comments
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)				
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD			
Issue Requiring Maintenance	Maintenance Conducted	Issue Status	
		OPEN	CLOSED
	N/A	OPEN	CLOSED
		OPEN	CLOSED

ADDITIONAL COMMENTS:

HRS 5 water level
2' 5" @ 10:30

PERSONNEL SIGNATURE: [signature] **DATE:** 7/26/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:** 8/8/19
Middle River Complex, Middle River, Maryland	

Time	Description of Activities
9:37	Arrive on site
9:40	Get keys from security office
9:50	Arrive At Building C system start checks
11:05	Finished with Building C system checks
11:10	Arrive at Building A. start system checks
12:30	~~Stop~~ Building A system checks complete Start Building A GAC samples
11:50	Building A GAC samples complete
1:15	Leave site.

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly Checks

Field Rep. Signature: John J. Smith **Date:** 8/8/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 8/8/19 **Time:** 11:10am **Personnel:** AS

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)

Comment: _____

3. **Is the blower vacuum relief valve open?** (YES) AS NO
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC change out?** YES (NO)
9. **How many GAC units are at this location?** NEW 3 SPENT 0
10. **Do these fall to zero when system is turned off?**
    - Flow Gauge (YES) NO
    - Pressure Gauge (YES) NO
    - Vacuum Gauges (YES) NO
11. **Do the temp. gauges fall when system is turned off?** (YES) NO
12. **Does the heat-exchanger have dust on the underside?** (YES) NO Cleaned
13. **Was the underside of the heat-exchanger vacuumed?** (YES) NO Brushed
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
20	30	10	160	130	34	315	27949.2

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.47	1947	100.1 *	X		
South	-4.84	794	69.3 *	X		
Basement North	-17.03	1730	148.7 *	X		
Basement South	-1.36	1620	141.4 *	X		
Basement HRS5	-0.03	257	22.4 *	X		
SSD-34-A	-19.33	2301	50.2 **	X		
SSD-35-A	-19.01	2021	44.1 **	X		
SSD-36-A	-0.64	736	16.0 **	X		
SSD-37-A	-3.00	848	18.5 **	X		
SSD-38-A	-14.62	1813	39.5 **	X		
SSD-39-A	-19.37	1721	19.1 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.07		160-A	Covered	
079-A	0.00		SSD-1-A	Taped over	
167-A	-0.02		SSD-12-A-X	-2.00	
119-A	-0.01		SSD-11-A-X	-2.62	
165-A	-0.13		SSD-13-A-X	-0.48	
117-A	-0.09		SSD-2-A-X	-3.71	
164-A	-0.21		015-A-X	-2.72	
136-A-S	-1.72		SSD-16-A-X	-0.31	
163-A	Covered		SSD-3-A-X	-0.16	
121-B	0.00		SSD-22-A	-0.15	
162-A	0.00		SSD-21-A	-0.01	
136-A-N	0.00		SSD-20-A	-0.01	
136-A	-0.01		SSD-19-A	-0.01	
161-A	-0.49		168-A	-0.96	
			188-A	-0.01	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	12:40 - 12:41	12:35 - 12:36	12:30 - 12:31	
Summa Canister ID	10924	09886	11727	
Flow Contr. ID	10614	10797	09899	
Start Vacuum (in. Hg)	-30	-30	-30	
Stop Vacuum (in. Hg)	-4	-5	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	(Yes) | No	(Yes) | No	2.5 gal	(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
	N/A	OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

HRS5 = 2'7" @ 12:35

PERSONNEL SIGNATURE: _____ **DATE:** 8/8/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	8/20/19

Time	Description of Activities
8:40	Arrive on site
8:45	Retrieved keys for Building C at the security office
8:50	Arrive at Building C
8:55	Begin Building C system Checks
10:05	Finished Building C checks
10:10	Arrive at Building A Begin checks
11:30	Finished with Building A checks
11:40	Returned keys to security office
11:45	Took tools and Building A water to Building C.
11:50	off site
	HRSD = 2 inches

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly Checks

Field Rep. Signature: A. J. Smith **Date:** 8/20/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 8/20/19 **Time:** 10:10 am **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)

Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC change out?
YES (NO)

9. How many GAC units are at this location?
NEW 3 SPENT (0)

10. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

11. Do the temp. gauges fall when system is turned off?
(YES) NO

12. Does the heat-exchanger have dust on the underside?
(YES) NO

13. Was the underside of the heat-exchanger vacuumed?
(YES) NO Brushed

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
20	30	10	162	133	33	315	28186.5

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.40	976	85.2 *	X		
South	-4.74	1478	129.0 *	X		
Basement North	-17.19	1809	157.0 *	X		
Basement South	-1.29	1892	165.2 *	X		
Basement HRS5	-0.02	176	176 *	X		
SSD-34-A	-19.12	2115	46.1 **	X		
SSD-35-A	-18.83	2451	53.4 **	X		
SSD-36-A	-0.64	687	15.0 **	X		
SSD-37-A	-3.00	787	17.2 **	X		
SSD-38-A	-13.82	2681	58.4 **	X		
SSD-39-A	-19.19	1857	40.5 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.09		160-A	~~Covered~~	-0.38
079-A	-0.01		SSD-1-A	Taped up	
167-A	-0.04		SSD-12-A-X	-1.95	
119-A	0.00		SSD-11-A-X	-2.58	
165-A	-0.14		SSD-13-A-X	-0.47	
117-A	-0.09		SSD-2-A-X	-3.69	
164-A	-0.21		015-A-X	-2.66	
136-A-S	-1.75		SSD-16-A-X	-0.30	
163-A	Covered		SSD-3-A-X	-0.14	
121-B	0.00		SSD-22-A	-0.21	
162-A	0.00		SSD-21-A	0.00	
136-A-N	0.00		SSD-20-A	-0.07	
136-A	Covered		SSD-19-A	0.00	
161-A	-0.48		168-A	-0.90	
			188-A	0.00	

163-A + 136-A Covered by heavy equipment

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)	↓	(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
Drain stacks	(Yes) | No	(Yes) | No	1gallon	(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AE-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
	N/A	OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

No issues

PERSONNEL SIGNATURE: [signature] **DATE:** 8/20/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	9/4/19

Time	Description of Activities
8:20	Arrive on site
8:25	Recieve keys from security office
8:30	Start system checks at Building C.
9:50	Building C checks complete.
10:00	Arrive at Building A start system checks
11:10	Building A checks complete
11:20	Dropped off keys at security office
11:25	Dropped off tools and water at Building C
11:30	Off site

Personnel On Site:	Description of Activities:
Andrew Smith	Bi-weekly checks

Field Rep. Signature: Andrew J. Smith **Date:** 9/4/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 9/4/19 **Time:** 10:00 **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)

Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC change out?
YES (NO)

9. How many GAC units are at this location?
NEW 3 SPENT 0

10. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

11. Do the temp. gauges fall when system is turned off?
(YES) NO

12. Does the heat-exchanger have dust on the underside?
(YES) NO Brushed

13. Was the underside of the heat-exchanger vacuumed?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
30	20	10	160	128	34	315	28273.0

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.49	734	64.1 *	X		
South	-4.86	992	86.6 *	X		
Basement North	-17.28	1770	154.5 *	X		
Basement South	-1.30	1080	94.3 *	X		
Basement HRS5	-0.83	140	12.2 *	X		
SSD-34-A	-19.33	1814	39.5 **	X		
SSD-35-A	-18.95	1914	41.7 **	X		
SSD-36-A	-0.63	492	10.7 **	X		
SSD-37-A	-3.13	464	10.1 **	X		
SSD-38-A	-12.96	1942	42.3 **	X		
SSD-39-A	-19.50	1860	40.5 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.09		160-A	-0.30	
079-A	0.00		SSD-1-A	-0.13	
167-A	-0.03		SSD-12-A-X	-2.02	
119-A	0.00		SSD-11-A-X	-0.16	
165-A	-0.12		SSD-13-A-X	-0.48	
117-A	-0.09		SSD-2-A-X	-3.75	
164-A	-0.21		015-A-X	-2.59	
136-A-S	-1.72		SSD-16-A-X	-0.30	
163-A	Covered		SSD-3-A-X	-0.11	
121-B	0.00		SSD-22-A	-0.70	
162-A	0.00		SSD-21-A	0.00	
136-A-N	0.03		SSD-20-A	-0.02	
136-A	0.02		SSD-19-A	0.00	
161-A	-0.40		168-A	-0.95	
			188-A	0.00	

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)		(Yes) | No	
Exhaust Stack Sump	Yes | (No)	Yes | (No)		(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)		(Yes) | No	
Drain stacks	(Yes) | No	(Yes) | No	½ gallon	(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
	N/A	OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

HRSD = 1'3"

PERSONNEL SIGNATURE: Chris J. Smith **DATE:** 9/4/19

DAILY ACTIVITY LOG

Project:	Client:
SSD System O&M	Lockheed Martin Corporation
Location:	**Date:**
Middle River Complex, Middle River, Maryland	9/23/19

Time	Description of Activities
9:20	Arrive on site
9:25	Retrieved key set from security office.
9:30	Arrive at Building C. Begin Bi-weekly checks
11:00	Finished with Building C Bi-weekly checks
11:05	Arrive at Building A and start Bi-weekly Checks.
11:30	Pause Building A checks and meet Dave for quarterly checks
11:45	Building C quarterly
12:20	Building A quarterly
13:05	Resume Building A Bi-weekly
13:50	Finish Building A checks Start Building A vapor sampling
14:10	Finish Building A vapor sampling Return keys to security office
14:15	Start Building C sampling
14:45	OFF SITE

Personnel On Site:	Description of Activities:
Andrew Smith	Quarterly + Bi-weekly checks
Dave Seamen	Quarterly checks

Field Rep. Signature: A. J. Smith **Date:** 9/23/19

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date: 9/23/19 **Time:** 11:05 **Personnel:** AS

1. Was the system running upon arrival?
YES (NO)

2. Were there any alarm conditions upon arrival?
YES NO
Comment: off? not sure why?

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC change out?
YES (NO)

9. How many GAC units are at this location?
NEW 3 SPENT 0

10. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

11. Do the temp. gauges fall when system is turned off?
(YES) NO

12. Does the heat-exchanger have dust on the underside?
(YES) NO Brushed

13. Was the underside of the heat-exchanger vacuumed?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
20	30	10	160	128	34	315	28434.4

* Clean or change filter if differential pressure increases by 10 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
North	-3.35	401	35.0 *	X		
South	-4.66	574	50.1 *	X		
Basement North	-15.55	729	63.6 *	X		
Basement South	-1.30	1356	118.4 *	X		
Basement HRS5	-0.04	110	9.6 *	X		
SSD-34-A	-11.89	600	13.1 **	X		
SSD-35-A	-17.87	615	13.4 **	X		
SSD-36-A	-0.61	645	14.0 **	X		
SSD-37-A	-3.00	419	9.1 **	X		
SSD-38-A	-11.92	2053	44.8 **	X		
SSD-39-A	-18.22	466	10.2 **	X		

* Flow = Velocity x 0.0873; ** Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
166-A	-0.09		160-A	-0.25	
079-A	0.00		SSD-1-A	-0.04	
167-A	-0.03		SSD-12-A-X	-1.93	
119-A	0.00		SSD-11-A-X	-2.53	
165-A	-0.14		SSD-13-A-X	-0.45	
117-A	-0.09		SSD-2-A-X	-3.63	
164-A	-0.19		015-A-X	-2.48	
136-A-S	-1.56		SSD-16-A-X	-0.29	
163-A	Covered		SSD-3-A-X	-0.13	
121-B	0.00		SSD-22-A	-0.18	
162-A	0.00		SSD-21-A	0.00	
136-A-N	0.00		SSD-20-A	-0.02	
136-A	-0.02		SSD-19-A	0.00	
161-A	-0.32		168-A	-0.87	
			188-A	0.00	

Mike 410-395-4865

SSD SYSTEM CHECK - BUILDING A

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**A-INFLUENT**	**A-MID GAC**	**A-EFFLUENT**	**Comments**
Time	14:03-1404	13:57-13:58	13:57-13:52	
Summa Canister ID 11703	[redacted]	[redacted] 11852	[redacted]	10966
Flow Contr. ID	09899	10930	10797	
Start Vacuum (in. Hg)	-25	-30	-27	
Stop Vacuum (in. Hg)	-4	-4	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separator 1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
Moisture Separator 2	Yes | (No)	Yes | (No)	↓	(Yes) | No	AS
Exhaust Stack Sump	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-1-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-2-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-3-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-4-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PS-5-A	Yes | (No)	Yes | (No)	↓	(Yes) | No	
Drain stacks	Yes | (No)	Yes | (No)	↓	(Yes) | No	

INDOOR AIR FILTER MONITORING				
	AF-N/NX	**AF-M/MX**	**AF-S/SX**	**Comments**
Was the power on upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Was the fan running upon arrival?	(Yes) | No	(Yes) | No	(Yes) | No	
Fan speed/airflow setting (#/cfm)	6/300	6/300	6/300	
Is there damage to unit or signs of tampering?	Yes | (No)	Yes | (No)	Yes | (No)	
Is the "do not turn off filter" warning sign in place?	(Yes) | No	(Yes) | No	(Yes) | No	
Life status color of the Pre-Filter (F-1)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the GAC Filter (F-2)?	(GN) | OR | RD	(GN) | OR | RD	(GN) | OR | RD	
Life status color of the Post-Filter (F-3)?	GN | (OR) | RD	GN | (OR) | RD	GN | (OR) | RD	
Was the Pre-Filter (F-1) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the GAC Filter (F-2) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	
Was the Post-Filter (F-3) replaced?	Yes | (No)	Yes | (No)	Yes | (No)	

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
	N/A	OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

HRSS water level = 1' 11"

PERSONNEL SIGNATURE: A. S. Scott **DATE:** 9/23/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 4/11/19 **Time:** 8:16 am **Personnel:** Andrew Smith

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
~~52~~ 52	56	4	150	100	10	150	49408.2

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	38.6	1954	42.6	X		
SSD-23-C	—	—	—	—	—	
SSD-30-C	6.67	198	4.3	X		
SSD-26-C	5.17	390	8.5	X		
SSD-31-C	4.56	785	17.1	X		
SSD-27-C	1.62	1451	31.6	X		
SSD-32-C	3.16	1478	32.2	X		
SSD-28-C	2.12	2065	45.0	X		
SSD-33-C	3.79	755	16.5	X		
SSD-29-C	11.01	796	17.2	X		
SSD-34-C	47.6	875	19.1	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00	—	111-C	0.01	—
135-C	0.17	—	155-C	Covered	—
157-C	0.01	—	133-C	0.70	—
113-C	0.67	—	154-C	0.01	—
156-C	Covered	—	153-C	0.11	—
151-C	0.02	—	158-C	0.00	—
126-C	0.01	—	001-C	0.01	—
149-C	0.01	—	SSD-22-C	0.00	—
050-C	0.01	—	SSD-2-C	0.09	—
141-C	0.54	—	SSD-4-C	~~Covered~~	2.10 —
127-C	0.49	—	SSD-24-C	0.17	—
150-C	0.14	—	SSD-3-C	0.01	—
152-C	0.05	—	SSD-25-C	0.00	—
060-C	Covered	—			

.05 work shop metal

.14 office

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time		N/A		
Summa Canister ID				
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	–	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)	–	(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)	–	(Yes) | No	
PS-2	Yes | (No)	Yes | (No)	–	(Yes) | No	
PS-3	Yes | (No)	Yes | (No)	–	(Yes) | No	
PS-4	Yes | (No)	Yes | (No)	–	(Yes) | No	
PS-5	Yes | (No)	Yes | (No)	–	(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)	–	(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)	–	(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)	–	(Yes) | No	
PPZ	Yes | (No)	Yes | (No)	–	(Yes) | No	

13. How many empty drums are on-site? 21

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 4

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL _____ FULL _____

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: Adam S. Smith **DATE:** 4/11/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 5/3/19 **Time:** 12:40 **Personnel:** D. Lee Lucas

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)
   Comment: _____
3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC or PPZ change out?** YES (NO) Comment: _____
9. **How many GAC and PPZ units are at this location?**
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
12. **Do the temp. gauges fall when system is turned off?** (YES) NO
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
~~62~~ 58	57	1	180	111	6	150	49940.5

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	38.7	~~1257~~ 1717	38.1	X		
SSD-23-C	~~~			~~~		
SSD-30-C	8.64	598	8.7	X		
SSD-26-C	7.37	196	4.3	X		
SSD-31-C	~~5.34~~ 1.54	776	16.9	X		
SSD-27-C		1380	30.1	X		
SSD-32-C	3.25	1391	30.3	X		
SSD-28-C	2.10	2063	45.0	✓		
SSD-33-C	4.12	739	16.1	X		
SSD-29-C	21.1	519	11.3	✓		
SSD-34-C	46.6	1209	26.4	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.07	
135-C	0.07		155-C	covered	
157-C	covered		133-C	0.74	
113-C	0.87		154-C	0.03	
156-C	0.10		153-C	0.11	
151-C	0.00		158-C	0.00	
126-C	0.25		001-C	0.00	
149-C	0.01		SSD-22-C	0.01	
050-C	0.01		SSD-2-C	0.01	
141-C	0.53		SSD-4-C	covered	
127-C	0.52		SSD-24-C	0.02	
150-C	0.07		SSD-3-C	0.52	
152-C	0.01		SSD-25-C	0.00	
060-C	covered				

0.53

0.07

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	C-INFLUENT	C-MID GAC	C-EFFLUENT	Comments
Time	NA	NA	NA	~
Summa Canister ID	↓	↓	↓	~
Flow Contr. ID	↓	↓	↓	~
Start Vacuum (in. Hg)	↓	↓	↓	~
Stop Vacuum (in. Hg)	↓	↓	↓	~

SYSTEM CONDENSATE MONITORING					
Location	Contains Water?	Water Drained?	Volume Drained	Drain Valve Closed?	Comments
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	Yes | No	
MS-2	Yes | (No)	Yes | (No)	↓	Yes | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	Maintenance Conducted	Issue Status
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 5/8/15

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 5/14/19 **Time:** 1030 **Personnel:** D.Lee Lucas

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)
   Comment: _____
3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC or PPZ change out?** YES (NO) Comment: _____
9. **How many GAC and PPZ units are at this location?**
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
12. **Do the temp. gauges fall when system is turned off?** (YES) NO
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
58	56	2	182	111	4	140	50202.6

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-39.0	1688	32.8	X		
SSD-23-C						
SSD-30-C	8.54	1282 276	6.0	X		
SSD-26-C	6.93	277	6.0	X		
SSD-31-C	5.35	787	17.2	X		
SSD-27-C	-1.51	1287	28.1	X		
SSD-32-C	-3.30	1413	30.8	X		
SSD-28-C	-2.03	2035	44.4	X		
SSD-33-C	4.22	703	15.3	X		
SSD-29-C	23.9	695	15.2	✓		water heard in pipe
SSD-34-C	48.1	341	7.4			

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	-0.01	
135-C	0.07		155-C	covered	
157-C	covered		133-C	-0.74	
113-C	1.14		154-C	-0.01	
156-C	0.11		153-C	-0.09	
151-C	0.00		158-C	0.00	
126-C	0.03		001-C	0.02	
149-C	-0.01		SSD-22-C	-0.02	
050-C	0.01		SSD-2-C	-0.09	
141-C	0.61		SSD-4-C	cover	
127-C	-0.60		SSD-24-C	-0.16	
150-C	-0.02		SSD-3-C	0.01	
152-C	-0.02		SSD-25-C	-0.01	
060-C	covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time	1212	1220	1225	
Summa Canister ID	11718	~~15093~~ 10520	11800	
Flow Contr. ID	09899	09958	10901	
Start Vacuum (in. Hg)	-29	-30	-30	
Stop Vacuum (in. Hg)	-4	-4	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | No		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | No		(Yes) | No	
Lag GAC	Yes | (No)	Yes | No		(Yes) | No	
PPZ	Yes | (No)	Yes | No		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: Some tears starting to form in plastic

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

Water heard gurgling in pipe of SSD-2A-C.

PERSONNEL SIGNATURE: _____ **DATE:** 5/14/19

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Peter Rich	Sampled By: D. Lee Lucas
Company: Tetra Tech	Phone: 410-990-4607	
Address: 980 Awald Road Suite 302	Site Contact:	
City/State/Zip Annapolis / MD / 21403	TAL Contact:	
Phone: 410-990-4607		
FAX:		
Project Name: Lockheed Martin MRC	**Analysis Turnaround Time**	
Site/location: Middle River	Standard (Specify) ✓	
PO # 117-0512410	Rush (Specify)	

1 of 1 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BLDG-A-INFLUENT	5/14/19	1245	1245	-27	-4	10911	10795	X							X				
BLDG-A-MIDGAC	5/14/19	1252	1252	-30	-4	10930	11521	X							X				
BLDG-A-EFFLUENT	5/14/19	1259	1259	-26	-2	10614	11860	X							X				
BLDG-C-Influent	5/14/19	1212	1212	-29	-4	09899	11718	X							X				
BLDG-C-MIDGAC	5/14/19	1220	1220	-30	-4	09958	10520	X							X				
BLDG-C-EFFLUENT	5/14/19	1225	1225	-30	-4	10901	11800	X							X				

Sampled by :
D. Lee Lucas

Temperature (Fahrenheit)	Interior	Ambient
Start	~70	55
Stop	~70	59

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: D. Lee Lucas	Date/Time: 5/14/19 - 16:14	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name: Opened by: Condition:

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 5/30/19 **Time:** 8:05am **Personnel:** Andrew Smith

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
58	~~56~~	2	194	110	3	140	50584.0

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-43.8	1546	33.7	X		
SSD-23-C						
SSD-30-C	-11.97	196	4.3	X		
SSD-26-C	-11.35	366	8	X		
SSD-31-C	-8.65	820	17.9	X		
SSD-27-C	-1.55	1361	29.7	X		
SSD-32-C	-3.56	1406	30.7	X		
SSD-28-C	-2.13	2066	45.0	X		
SSD-33-C	-4.38	720	15.7	X		
SSD-29-C	-33.8	1058	23.1	✓		some H_2O in Pipe
SSD-34-C	-50.2	156	3.4	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	-0.05		155-C	-0.20	
157-C	-0.01		133-C	-.82	
113-C	-2.00		154-C	-0.02	
156-C	-.22		153-C	-.10	
151-C	-0.02		158-C	-.01	
126-C	0.00		001-C	-.01	
149-C	-.02		SSD-22-C	-.01	
050-C	0.00		SSD-2-C	-.09	
141-C	-.64		SSD-4-C	-2.13	
127-C	-.79		SSD-24-C	-.17	
150-C	-0.02		SSD-3-C	-.92	
152-C	-0.02		SSD-25-C	-.02	
060-C	Covered				

Office -0.02

Shop -0.02

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time		N/A		
Summa Canister ID				
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | No		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | No		(Yes) | No	
Lag GAC	Yes | (No)	Yes | No		(Yes) | No	
PPZ	Yes | (No)	Yes | No		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: Brand New containment

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 5/30/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 6/10/19 **Time:** 8:35 am **Personnel:** AS

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)
   Comment: _____
3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC or PPZ change out?** YES (NO) Comment: _____
9. **How many GAC and PPZ units are at this location?**
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
12. **Do the temp. gauges fall when system is turned off?** (YES) NO
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
60	58	2	190	130	5	140	50848.4

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-45.3	1923	41.9	X		
SSD-23-C	~	~	~	~	~	~
SSD-30-C	-13.65	251	5.5	X		
SSD-26-C	-12.14	211	4.6	X		
SSD-31-C	-9.17	858	18.7	X		
SSD-27-C	-1.60	1388	30.3	X		
SSD-32-C	-3.62	1429	31.1	X		
SSD-28-C	-2.08	2096	45.7	X		
SSD-33-C	-4.67	714	15.6	X	/	
SSD-29-C	-32.4	889	19.4	✓		Heavy H_2O in Pipe
SSD-34-C	-51.6	1908	41.6	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.04		155-C	-0.19	
157-C	-0.03		133-C	-0.85	
113-C	-2.58		154-C	-0.03	
156-C	-0.24		153-C	-0.12	
151-C	-0.02		158-C	0.00	
126-C	0.00		001-C	0.00	
149-C	-0.02		SSD-22-C	0.00	
050-C	0.00		SSD-2-C	-0.09	
141-C	-0.64		SSD-4-C	-2.11	
127-C	-0.81		SSD-24-C	-0.18	
150-C (office)	-0.02		SSD-3-C	0.00	
152-C (shop)	-0.02		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 6

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 6

16. How many filter drums are on-site? PART FULL 0 FULL 6

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 6/10/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 6/27/19 **Time:** 8:10am **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) AJS NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING							
Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
62	60	2	200	110	1	140	51255.1

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING						
Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-47.8	1357	29.6	X		
SSD-23-C						
SSD-30-C	-11.71	236	5.1	X		
SSD-26-C	-13.69	427	9.3	X		
SSD-31-C	-16.45	630	13.7	X		
SSD-27-C	-1.59	1434	31.3	X		
SSD-32-C	-3.89	1463	31.9	X		
SSD-28-C	-2.12	2256	49.2	X		
SSD-33-C	-5.15	766	16.7	X		
SSD-29-C	-39.6	1475	32.2	√		Hor water in pipe
SSD-34-C	-53.5	924	20.1	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING					
VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	-0.06		155-C	-0.20	
157-C	-0.01		133-C	-0.96	
113-C	-1.56		154-C	-0.03	
156-C	-0.29		153-C	-0.09	
151-C	-0.02		158-C	-0.00	
126-C	0.00		001-C	-0.24	
149-C	-0.02		SSD-22-C	-0.01	
050-C	0.00		SSD-2-C	-0.09	
141-C	-0.84		SSD-4-C	-1.95	
127-C	-0.84		SSD-24-C	[illegible]	-.15 AJS
150-C	-0.01		SSD-3-C	-.71	
152-C	-0.01		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time		N/A		
Summa Canister ID				
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)		(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 6/27/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 7/11/19 Time: 13:00 Personnel: LL.

1. Was the system running upon arrival?
   YES (NO)
2. Were there any alarm conditions upon arrival?
   (YES) NO
   Comment: High pressure, low vacuum
3. Is the blower vacuum relief valve open?
   YES (NO)
4. Is the dilution valve open?
   YES (NO) % Open: _____
5. Are there any leaks or damage to system hoses?
   YES (NO)
6. Is there any damage to system components?
   YES (NO)
7. Are all locks and zip-ties secure?
   (YES) NO
8. Was there a GAC or PPZ change out?
   YES (NO) Comment: _____
9. How many GAC and PPZ units are at this location?
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. Do these fall to zero when system is turned off?
   Flow Gauge (YES) NO
   Pressure Gauge (YES) NO
   Vacuum Gauges (YES) NO
12. Do the temp. gauges fall when system is turned off?
   (YES) NO
13. Was the system running upon departure?
   (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
61	58	3	198	110	0	140	51578.7

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	49.2	1502	32.7	X		
SSD-23-C	~	~		~		
SSD-30-C	11.13	906	19.8	X		
SSD-26-C	-11.61	1224	26.7	X		
SSD-31-C	-11.16	789	47.2	X		
SSD-27-C	-1.57	1460	31.8	X		
SSD-32-C	-3.92	1447	31.5	X		
SSD-28-C	-2.08	2142	46.7	X		
SSD-33-C	-5.30	771	16.8	X		
SSD-29-C	40.9	2822	61.5	✓		
SSD-34-C	53.3	2841	61.9	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	-0.01	
135-C	0.13		155-C	-0.19	
157-C	-0.02		133-C	-0.89	
113-C	-2.17		154-C	-0.02	
156-C	-0.32		153-C	-0.11	
151-C	-0.02		158-C	0.00	
126-C	-0.03		001-C	-0.33	
149-C -0.05	-0.05		SSD-22-C	-0.02	
050-C	-0.01		SSD-2-C	-0.11	
141-C	-0.77		SSD-4-C	covered	
127-C	-0.56		SSD-24-C	~~-0.02~~ -0.19	
150-C	-0.01		SSD-3-C	-1.41	
152-C	0.00		SSD-25-C	-0.04	
060-C	covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time	~~8/13:33-13:34~~ 13:27-13:28		13:21-13:22	
Summa Canister ID	10751	11745	09066	
Flow Contr. ID	11594	10930	09899	
Start Vacuum (in. Hg)	-29	-30	-30	
Stop Vacuum (in. Hg)	-4	-4	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 7/10/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 7/26/19 Time: 8:05 Personnel: AS

1. Was the system running upon arrival?
   (YES) NO
2. Were there any alarm conditions upon arrival?
   YES (NO)
   Comment: _____
3. Is the blower vacuum relief valve open?
   YES (NO)
4. Is the dilution valve open?
   YES (NO) % Open: _____
5. Are there any leaks or damage to system hoses?
   YES (NO)
6. Is there any damage to system components?
   YES (NO)
7. Are all locks and zip-ties secure?
   (YES) NO
8. Was there a GAC or PPZ change out?
   YES (NO) Comment: _____
9. How many GAC and PPZ units are at this location?
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. Do these fall to zero when system is turned off?
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
12. Do the temp. gauges fall when system is turned off?
    (YES) NO
13. Was the system running upon departure?
    (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
59	64	5	195	112	0	146	51932.4

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-49.9	2604	56.8	X		
~~SSD-23-C~~						
SSD-30-C	-12.13	790	17.2	X		
SSD-26-C	-12.70	555	12.1	X		
SSD-31-C	-11.63	689	150	X		
SSD-27-C	-1.61	1405	30.6	X		
SSD-32-C	-4.02	1522	33.2	X		
SSD-28-C	-2.07	2256	49.2	X		
SSD-33-C	-5.46	772	16.8	X		
SSD-29-C	-37.2	2754	60.0	✓		Water heard
SSD-34-C	-55.9	3167	69.0	X		

*Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.20		155-C	-0.22	
157-C	-0.02		133-C	-0.92	
113-C	-2.41		154-C	-0.04	
156-C	-0.31		153-C	-0.10	
151-C	0.00		158-C	0.00	
126-C	0.00		001-C	-.26	
149-C	-0.02		SSD-22-C	-0.02	
050-C	0.00		SSD-2-C	-0.14	
141-C	-.076		SSD-4-C	-2.59	
127-C	-0.48		SSD-24-C	-0.22	
150-C	-0.02		SSD-3-C	-1.15	
152-C	-0.02		SSD-25-C	-0.02	
060-C	Covered	40			

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	C-INFLUENT	C-MID GAC	C-EFFLUENT	Comments
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	Contains Water?	Water Drained?	Volume Drained	Drain Valve Closed?	Comments
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)	V	(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. **How many empty drums are on-site?** 1

14. **How many Bldg. A water drums are on-site?** PART FULL 1 FULL 0

15. **How many Bldg. C water drums are on-site?** PART FULL 1 FULL 0

16. **How many filter drums are on-site?** PART FULL 0 FULL 6

17. **Are waste drums labeled and in good condition?**

(YES) NO Comment: _____

18. **Is the secondary containment pad in good condition?**

(YES) NO Comment: _____

MAINTENANCE RECORD			
Issue Requiring Maintenance	Maintenance Conducted	Issue Status	
	N/A	OPEN	CLOSED
		OPEN	CLOSED
		OPEN	CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: _____ **DATE:** 7/26/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 8/8/19 **Time:** 9:50 **Personnel:** AS

1. **Was the system running upon arrival?** (YES) NO
2. **Were there any alarm conditions upon arrival?** YES (NO)
   Comment: _____
3. **Is the blower vacuum relief valve open?** YES (NO)
4. **Is the dilution valve open?** YES (NO) % Open: _____
5. **Are there any leaks or damage to system hoses?** YES (NO)
6. **Is there any damage to system components?** YES (NO)
7. **Are all locks and zip-ties secure?** (YES) NO
8. **Was there a GAC or PPZ change out?** YES (NO) Comment: _____
9. **How many GAC and PPZ units are at this location?**
   GAC: NEW 3 SPENT 0
   PPZ: NEW 1 SPENT 0
11. **Do these fall to zero when system is turned off?**
    Flow Gauge (YES) NO
    Pressure Gauge (YES) NO
    Vacuum Gauges (YES) NO
12. **Do the temp. gauges fall when system is turned off?** (YES) NO
13. **Was the system running upon departure?** (YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
60	65	5	262	114	0	140	52246.1

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-42.5	3143	68.5	✓		water heard in pipe
SSD-23-C						
SSD-30-C	-12.98	760	16.6	X		
SSD-26-C	-15.32	1333	29.1	X		
SSD-31-C	-15.88	1335	16.8	X		
SSD-27-C	-1.66	1626	35.4	X		
SSD-32-C	-4.28	1560	34.0	X		
SSD-28-C	-2.07	2288	49.9	X		
SSD-33-C	-5.12	664	14.5	X		
SSD-29-C	-39.4	2554	55.7	✓		water heard in pipe
SSD-34-C	-58.3	3186	69.5	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.03		155-C	-0.22	
157-C	0.00		133-C	-0.96	
113-C	-0.63		154-C	-0.03	
156-C	-0.32		153-C	[illegible]	-0.09
151-C	0.00		158-C	0.00	
126-C	0.00		001-C	-0.26	
149-C	-0.01		SSD-22-C	-0.01	
050-C	0.00		SSD-2-C	-0.14	
141-C	Covered		SSD-4-C	-2.76	
127-C	-0.92		SSD-24-C	-0.25	
150-C	-0.02		SSD-3-C	-1.28	
152-C	-0.02		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | No	Yes | No	N/A	Yes | No	
MS-2	Yes | No	Yes | No		Yes | No	
Pipe Sumps					
PS-1	Yes | No	Yes | No		Yes | No	
PS-2	Yes | No	Yes | No		Yes | No	
PS-3	Yes | No	Yes | No		Yes | No	
PS-4	Yes | No	Yes | No		Yes | No	
PS-5	Yes | No	Yes | No		Yes | No	
System Sumps					
Exhaust Stack	Yes | No	Yes | No		Yes | No	
GAC and PPZ Drains					
Lead GAC	Yes | No	Yes | No		Yes | No	
Lag GAC	Yes | No	Yes | No		Yes | No	
PPZ	Yes | No	Yes | No		Yes | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

YES NO Comment: _____

18. Is the secondary containment pad in good condition?

YES NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
		OPEN CLOSED
	N/A	OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

PERSONNEL SIGNATURE: Adam J. Smith **DATE:** 8/8/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 8/20/19 **Time:** 8:55 am **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
80	64	4	200	112	0	140	~~5247.4~~ 5247.5

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-51.8	3349	73.0	X		
SSD-23-C	~					
SSD-30-C	-13.17	435	9.5	X		
SSD-26-C	-12.68	1165	25.4	X		
SSD-31-C	-11.76	1633	35.6	X		
SSD-27-C	-1.64	1632	35.6	X		
SSD-32-C	-4.22	1722	37.5	X		
SSD-28-C	-2.02	2349	51.2	X		
SSD-33-C	-5.00	702	15.3	X		
SSD-29-C	-37.40	2790	60.8	✓		water heard
SSD-34-C	-52.3	3042	66.3	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.16		155-C	-0.22	
157-C	-0.01		133-C	~~-0.96~~	-0.94
113-C	-1.95		154-C	-0.04	
156-C	-0.32		153-C	-0.10	
151-C	-0.03		158-C	~~-0.00~~ -0.11	
126-C	-0.00		001-C	-0.24	
149-C	-0.02		SSD-22-C	-0.01	
050-C	0.00		SSD-2-C	-0.12	
141-C	-1.02		SSD-4-C	-2.64	
127-C	-0.96		SSD-24-C	-0.20	
150-C	-0.02		SSD-3-C	-1.04	
152-C	-0.02		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time				
Summa Canister ID				
Flow Contr. ID		N/A		
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)	V	(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 6

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 6

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
	N/A	OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

No issues

PERSONNEL SIGNATURE: Calvin J. Scott **DATE:** 8/20/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 9/4/19 **Time:** 8:30 **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
62	58	4	196	114	0	140	52857.2

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm)	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-49.9	2358	51.4	X		
SSD-23-C						
SSD-30-C	-13.54	670	14.6	X		
SSD-26-C	-12.40	1143	24.9	X		
SSD-31-C	-12.91	1365	29.8	X		
SSD-27-C	-1.62	1334	29.1	X		
SSD-32-C	-4.18	1100	24.0	X		
SSD-28-C	-1.98	2071	45.1	X		
SSD-33-C	-4.92	453	9.9	X		
SSD-29-C	-37.2	2223	48.5	√		water heard
SSD-34-C	-56.5	3212	70.0	X		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.10		155-C	covered	
157-C	0.00		133-C	-0.20	
113-C	-0.41		154-C	-0.04	
156-C	-0.32		153-C	-0.11	
151-C	-0.03		158-C	-0.10	
126-C	0.00		001-C	-0.29	
149-C	-0.01		SSD-22-C	-0.01	
050-C	0.00		SSD-2-C	-0.14	
141-C	-0.69		SSD-4-C	-3.17	
127-C	-0.84		SSD-24-C	-0.25	
150-C	-0.01		SSD-3-C	-1.18	
152-C	-0.01		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time				
Summa Canister ID		N/A		
Flow Contr. ID				
Start Vacuum (in. Hg)				
Stop Vacuum (in. Hg)				

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)		(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 0

16. How many filter drums are on-site? PART FULL 0 FULL 0

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD			
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**	
	N/A	OPEN	CLOSED
		OPEN	CLOSED
		OPEN	CLOSED

ADDITIONAL COMMENTS:

No issues

PERSONNEL SIGNATURE: Adam J. Smith **DATE:** 9/4/19

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date: 9/23/19 **Time:** 9:30 **Personnel:** AS

1. Was the system running upon arrival?
(YES) NO

2. Were there any alarm conditions upon arrival?
YES (NO)
Comment: _____

3. Is the blower vacuum relief valve open?
YES (NO)

4. Is the dilution valve open?
YES (NO) % Open: _____

5. Are there any leaks or damage to system hoses?
YES (NO)

6. Is there any damage to system components?
YES (NO)

7. Are all locks and zip-ties secure?
(YES) NO

8. Was there a GAC or PPZ change out?
YES (NO) Comment: _____

9. How many GAC and PPZ units are at this location?
GAC: NEW 3 SPENT 0
PPZ: NEW 1 SPENT 0

11. Do these fall to zero when system is turned off?
Flow Gauge (YES) NO
Pressure Gauge (YES) NO
Vacuum Gauges (YES) NO

12. Do the temp. gauges fall when system is turned off?
(YES) NO

13. Was the system running upon departure?
(YES) NO

GENERAL SYSTEM MONITORING

Vacuum pre-Filter (in. H_2O)	Vacuum post-Filter (in. H_2O)	Diff Pressure of Filter* (in. H_2O)	Temp post-Blower (°F)	Temp post-HE (°F)	Pressure (in. H_2O)	Flow (scfm)	Time Counter Display (hours)
62	64	02	196	114	0	140	5331.2

* Replace filter if >25 in. H_2O

EXTRACTION POINT VACUUM AND VELOCITY MONITORING

Location	Vacuum (in. H_2O)	Velocity (ft/min)	Flow* (scfm) <->	Contains H_2O?	Vacuum/Flow Adjustment	Comments
SSD-21-C	-48.6	2895	X	63.1		
SSD-23-C						
SSD-30-C	-13.20	519	X	11.3		
SSD-26-C	-11.88	765	X	16.7		
SSD-31-C	-11.87	1162	X	25.3		
SSD-27-C	-1.58	1006	X	21.9		
SSD-32-C	-4.23	890	X	19.4		
SSD-28-C	-1.99	2125	X	46.3		
SSD-33-C	-5.49	623	X	13.6		
SSD-29-C	-36.8	2281	√	49.7		
SSD-34-C	-55.2	2661	X	58.0		

**Flow = Velocity x 0.0218

VMP VACUUM MONITORING

VMP	Vacuum	Comments	VMP	Vacuum	Comments
159-C	0.00		111-C	0.00	
135-C	0.09		155-C	Covered	
157-C	-0.02		133-C	-0.85	
113-C	-1.62		154-C	-0.03	
156-C	-0.31		153-C	-0.11	
151-C	-0.02		158-C	0.00	
126-C	0.00		001-C	-0.28	
149-C	-0.02		SSD-22-C	-0.01	
050-C	0.00		SSD-2-C	-0.14	
141-C	-1.00		SSD-4-C	-2.82	
127-C	-0.82		SSD-24-C	-0.23	
150-C	-0.01		SSD-3-C	-1.24	
152-C	-0.01		SSD-25-C	-0.01	
060-C	Covered				

SSD SYSTEM CHECK - BUILDING C

LMC Middle River Complex, Middle River, Maryland

MONTHLY VAPOR SAMPLING				
Location	**C-INFLUENT**	**C-MID GAC**	**C-EFFLUENT**	**Comments**
Time	14:29-14:30	14:24-14:25	14:18-14:19	
Summa Canister ID	11615	09745	09589	
Flow Contr. ID	11594	10614	10104	
Start Vacuum (in. Hg)	-30	-29	-30	
Stop Vacuum (in. Hg)	-4	-4	-4	

SYSTEM CONDENSATE MONITORING					
Location	**Contains Water?**	**Water Drained?**	**Volume Drained**	**Drain Valve Closed?**	**Comments**
Moisture Separators					
MS-1	Yes | (No)	Yes | (No)	N/A	(Yes) | No	
MS-2	Yes | (No)	Yes | (No)		(Yes) | No	
Pipe Sumps					
PS-1	Yes | (No)	Yes | (No)		(Yes) | No	
PS-2	Yes | (No)	Yes | (No)		(Yes) | No	
PS-3	Yes | (No)	Yes | (No)		(Yes) | No	
PS-4	Yes | (No)	Yes | (No)		(Yes) | No	
PS-5	Yes | (No)	Yes | (No)		(Yes) | No	
System Sumps					
Exhaust Stack	Yes | (No)	Yes | (No)		(Yes) | No	
GAC and PPZ Drains					
Lead GAC	Yes | (No)	Yes | (No)		(Yes) | No	
Lag GAC	Yes | (No)	Yes | (No)	↓	(Yes) | No	
PPZ	Yes | (No)	Yes | (No)		(Yes) | No	

13. How many empty drums are on-site? 1

14. How many Bldg. A water drums are on-site? PART FULL 1 FULL 0

15. How many Bldg. C water drums are on-site? PART FULL 1 FULL 3

16. How many filter drums are on-site? PART FULL 0 FULL 8

17. Are waste drums labeled and in good condition?

(YES) NO Comment: _____

18. Is the secondary containment pad in good condition?

(YES) NO Comment: _____

MAINTENANCE RECORD		
Issue Requiring Maintenance	**Maintenance Conducted**	**Issue Status**
	N/A	OPEN CLOSED
		OPEN CLOSED
		OPEN CLOSED

ADDITIONAL COMMENTS:

No issues

PERSONNEL SIGNATURE: _____ **DATE:** 9/23/19

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 6/27/19 **Time:** 10:20am **Quarter:** 2 **Personnel:** Andrew Smith + Chuck Drew

GENERAL SYSTEM MONITORING

1. Are all system components in good condition?
   (YES) NO Comments: _____

2. Are there any leaks in the system pipes?
   YES (NO) Comments: _____

3. Does the demister media need cleaned or replaced?
   YES (NO) Comments: _____

4. Does the dilution valve air filter need replaced?
   (YES) NO Comments: Dirty order replace

5. Does the vacuum relief valve activate upon high vacuum?
   (YES) NO Comments: _____

6. What is the amperage draw on the blower?

Wire Color	Amperage
Red	18.59
white	19.28
Black	17.77

Comments: Ratings?

7. Is the fire extinguisher located near the system?
   YES (NO) Comments: Need Fire Extinguishers

8. Was the area around the system cleaned?
   (YES) NO Comments: _____

AUTO-DIALER AND ALARM SWITCH MONITORING

Zone	Alarm	Limit	Switch Functioning Properly		Auto-Dialer Call-Out Triggered		Comments
Zone 1	High Liquid Level	Full	(YES)	NO	(YES)	NO	
Zone 2	High Pressure	55" WC	(YES)	NO	(YES)	NO	
Zone 3	High Temperature 1	220 °F	(YES)	NO	(YES)	NO	
Zone 4	High Temperature 2	140 °F	(YES)	NO	(YES)	NO	
Zone 7	Low Vacuum	3" WC	(YES)	NO	(YES)	NO	

Do the Auto-Dialer Batteries Need Replaced? YES (NO)

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

GAC UNIT MONITORING

1. Are there any signs of corrosion and/or leaks in any of the GAC units?
   YES (NO) Comments: _____

2. Are the sample ports in good condition?
   (YES) NO Comments: _____

3. Are there any warn spots or holes in the flexible hoses?
   YES (NO) Comments: _____

VMP MONITORING

Vapor Pins

1. Are all secure covers in good condition?
   (YES) NO Comments: _____

2. Are all secure covers flush with the ground?
   (YES) NO Comments: _____

3. Are all vapor pins firmly installed in the concrete slab with little wiggle room?
   (YES) NO Comments: _____

4. Are all VMPs properly labeled?
   (YES) NO Comments: _____

Classic Vapor Monitoring Points

5. Are all well lids in good condition?
   (YES) NO Comments: _____

6. Do all well lids have the proper number of bolts?
   (YES) NO Comments: _____

7. Is the tubing inside the point in good condition?
   (YES) NO Comments: _____

8. Is the tubing capped?
   (YES) NO Comments: _____

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

INDOOR AIR FILTER MONITORING

AF-N

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

AF-NX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

AF-M

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

AF-MX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

AF-S

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

AF-SX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: 7/11/19

Date of quarterly filter sleeve change: 7/11/19

Was the filter housing cleaned? (YES) NO

Personnel's Signature: _____ Date: 7/12/19

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 9/23/19 **Time:** 12:20pm **Quarter:** 3 **Personnel:** Andrew Smith, Dave Seamen

GENERAL SYSTEM MONITORING

1. Are all system components in good condition?
   (YES) NO Comments: _____

2. Are there any leaks in the system pipes?
   YES (NO) Comments: _____

3. Does the demister media need cleaned or replaced?
   YES (NO) Comments: _____

4. Does the dilution valve air filter need replaced?
   YES (NO) Comments: _____

5. Does the vacuum relief valve activate upon high vacuum?
   (YES) NO Comments: _____

6. What is the amperage draw on the blower?

Wire Color	Amperage
Black	17.66
White	17.12
Red	16.84

Comments: _____

7. Is the fire extinguisher located near the system?
   (YES) (NO) Comments: ~~Fire extinguishers needed~~ AS

8. Was the area around the system cleaned?
   (YES) NO Comments: _____

AUTO-DIALER AND ALARM SWITCH MONITORING

Zone	Alarm	Limit	Switch Functioning Properly		Auto-Dialer Call-Out Triggered		Comments
Zone 1	High Liquid Level	Full	(YES)	NO	(YES)	NO	
Zone 2	High Pressure	55" WC	YES	(NO)	YES	(NO)	Switch is bad
Zone 3	High Temperature 1	220 °F	(YES)	NO	(YES)	NO	
Zone 4	High Temperature 2	140 °F	(YES)	NO	(YES)	NO	
Zone 7	Low Vacuum	3" WC	(YES)	NO	(YES)	NO	

Do the Auto-Dialer Batteries Need Replaced? (YES) NO

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

GAC UNIT MONITORING

1. Are there any signs of corrosion and/or leaks in any of the GAC units?
   YES (NO) Comments: _____

2. Are the sample ports in good condition?
   (YES) NO Comments: _____

3. Are there any warn spots or holes in the flexible hoses?
   YES (NO) Comments: _____

VMP MONITORING

Vapor Pins

1. Are all secure covers in good condition?
   (YES) NO Comments: _____

2. Are all secure covers flush with the ground?
   (YES) NO Comments: _____

3. Are all vapor pins firmly installed in the concrete slab with little wiggle room?
   (YES) NO Comments: _____

4. Are all VMPs properly labeled?
   (YES) NO Comments: _____

Classic Vapor Monitoring Points

5. Are all well lids in good condition?
   (YES) NO Comments: _____

6. Do all well lids have the proper number of bolts?
   (YES) NO Comments: _____

7. Is the tubing inside the point in good condition?
   (YES) NO Comments: _____

8. Is the tubing capped?
   (YES) NO Comments: _____

QUARTERLY SSD SYSTEM CHECK - BUILDING A

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

INDOOR AIR FILTER MONITORING

Air Filter replacements need to be ordered.

AF-N

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

AF-NX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

Ordered and will install in October 2019. fal

AF-M

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

AF-MX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

AF-S

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

AF-SX

Date of quarterly HEPA filter change: _____

Date of quarterly GAC filter change: _____

Date of quarterly filter sleeve change: _____

Was the filter housing cleaned? YES NO

Personnel's Signature: Arlene S. Santos Date: 9/23/19

QUARTERLY SSD SYSTEM CHECK - BUILDING C

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 6/27/19 **Time:** 9:10am **Quarter:** 2 **Personnel:** Andrew Smith, Chuck Drev

GENERAL SYSTEM

Checked System Components? (YES) NO Comments: _____

Checked System Pipes for Leaks? (YES) NO Comments: _____

Visually Inspected Air Filter? (YES) NO Need Replaced? YES (NO)
(replace filter when AP = 2-3 in. Hg)

Visually Inspected Intake Air Filter? (YES) NO Need Replaced? YES (NO)

Checked Vacuum Relief Valve? (YES) NO Comments: _____

Measured and Recorded Amperage Draw on Blower? Yellow = 14.46 Orange = 14.14 Brown = 15.54

Are all components returned to system operating position? (YES) NO

Vacuumed dirt/dust from Heat Exchanger vent? (YES) NO

Cleaned System and Area Around System? (YES) NO Comments: _____

Checked that Fire Extinguisher Near System? YES (NO)

SYSTEM ALARM SWITCHES AND AUTO-DIALER

Checked Post-Blower Temp Switch? (YES) NO Did Auto-Dialer Indicate Zone 1 Alarm? (YES) NO
Limit: 215 °F

Checked Post-HEX Temp Switch? (YES) NO Did Auto-Dialer Indicate Zone 2 Alarm? (YES) NO
Limit: 140 °F

Checked MS-1 Water Level Switch? (YES) NO Did Auto-Dialer Indicate Zone 3 Alarm? (YES) NO

Checked MS-2 Water Level Switch? (YES) NO Did Auto-Dialer Indicate Zone 4 Alarm? (YES) NO

Checked High-Pressure Switch? (YES) NO Did Auto-Dialer Indicate Zone 5 Alarm? (YES) NO
Limit: 60" WC

Checked Low-Vacuum Switch? (YES) NO Did Auto-Dialer Indicate Zone 6 Alarm? (YES) NO
Limit: 10" WC

Do the Auto-Dialer Batteries Need Replaced? YES (NO)

GRANULAR ACTIVATED-CARBON (GAC) & POTASSIUM PERMANGANATE ZEOLITE (PPZ) UNITS

Checked GAC Units for Corrosion and Leaks? (YES) NO Comments: _____

Checked Condition of Sample Ports? (YES) NO Comments: _____

Number of used GAC/PPZ Units On-site: 0 / 0 Contain Non-Haz Waste Labels? YES NO (N/A)

Number of Unused GAC/PPZ Units On-site: 3 / 1

VAPOR MONITORING POINTS (VMPs)

Checked Condition of Well Lids and Bolts? (YES) NO Comments: _____

Checked Condition of Tubing and Seal? (YES) NO Comments: _____

ADDITIONAL COMMENTS

Personnel's Signature: Adam J. Scott Date: 6/27/19

QUARTERLY SSD SYSTEM CHECK - BUILDING C

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 9/23/19 **Time:** 11:45am **Quarter:** 3 **Personnel:** Andrew Smith / Dave Seaman

GENERAL SYSTEM

Checked System Components? (YES) NO Comments: Tubing for GAC's half changed

Checked System Pipes for Leaks? (YES) NO Comments: _____

Visually Inspected Air Filter? (YES) NO Need Replaced? YES (NO) missing gasket ← Replace
(replace filter when AP = 2-3 in. Hg)

Visually Inspected Intake Air Filter? (YES) NO Need Replaced? YES (NO)

Checked Vacuum Relief Valve? (YES) NO Comments: _____

Measured and Recorded Amperage Draw on Blower? Yellow = 11.67 Orange = 13.06 Brown = 11.07

Are all components returned to system operating position? YES NO

Vacuumed dirt/dust from Heat Exchanger vent? (YES) NO

Cleaned System and Area Around System? (YES) NO Comments: _____

Checked that Fire Extinguisher Near System? (YES) NO Not ours *

SYSTEM ALARM SWITCHES AND AUTO-DIALER

Checked Post-Blower Temp Switch? (YES) NO Did Auto-Dialer Indicate Zone 1 Alarm? (YES) NO
Limit: 215 °F

Checked Post-HEX Temp Switch? (YES) NO Did Auto-Dialer Indicate Zone 2 Alarm? (YES) NO
Limit: 140 °F

Checked MS-1 Water Level Switch? (YES) NO Did Auto-Dialer Indicate Zone 3 Alarm? (YES) NO

Checked MS-2 Water Level Switch? (YES) NO Did Auto-Dialer Indicate Zone 4 Alarm? (YES) NO

Checked High-Pressure Switch? (YES) NO Did Auto-Dialer Indicate Zone 5 Alarm? (YES) NO
Limit: 60" WC

Checked Low-Vacuum Switch? (YES) NO Did Auto-Dialer Indicate Zone 6 Alarm? (YES) NO
Limit: 10" WC

Do the Auto-Dialer Batteries Need Replaced? YES (NO)

GRANULAR ACTIVATED-CARBON (GAC) & POTASSIUM PERMANGANATE ZEOLITE (PPZ) UNITS

Checked GAC Units for Corrosion and Leaks? (YES) NO Comments: _____

Checked Condition of Sample Ports? (YES) NO Comments: _____

Number of used GAC/PPZ Units On-site: (3) / (1) Contain Non-Haz Waste Labels? (YES) NO

Number of Unused GAC/PPZ Units On-site: 3 / 1

VAPOR MONITORING POINTS (VMPs)

Checked Condition of Well Lids and Bolts? (YES) NO Comments: _____

Checked Condition of Tubing and Seal? (YES) NO Comments: _____

ADDITIONAL COMMENTS

Gasket
GAC tubing

Personnel's Signature: Adam J. Scott Date: 9/23/19

APPENDIX B—ANALYTICAL REPORTS FOR SYSTEM SAMPLES

eurofins | Environment Testing TestAmerica

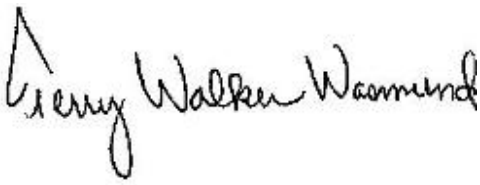
ANALYTICAL REPORT

Job Number: 140-14958-1

Job Description: LMC-MRC, MRAS/Building A

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Terry Walker Wasmund
Project Manager II
4/23/2019 12:15 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
04/23/2019

cc: Belssi Chang
Amy Thomson

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Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-14958-1

Receipt
The samples were received on 4/12/2019 at 10:00 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-29232 exhibited % difference of > 30% for Chlorodifluoromethane; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech GEO
Project/Site: LMC-MRC, MRAS/Building A

Job ID: 140-14958-1

Client Sample ID: BLDG-A-INFLUENT — Lab Sample ID: 140-14958-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.1		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.30	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.73		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	15		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.29	J	0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.9		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	19		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.81	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.11	J	0.40	0.080	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.5		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.34	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	79		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	170	E	0.20	0.070	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.18	J	0.20	0.15	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.65	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	100		1.0	0.35	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.6		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	3.6		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	61		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.4	J	2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	12		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	75		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	2.8	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.74	J	2.7	0.54	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.6		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.3	J	1.6	0.40	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	430		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	940	E	1.1	0.38	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.47	J	0.51	0.37	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.8	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	550		5.4	1.9	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-A-MID GAC — Lab Sample ID: 140-14958-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13	J	0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.32	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.74		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	19		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.30	J	0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	27		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.91	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.51		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	25		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.20		0.20	0.15	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.13	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.3	0.37	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-A-MID GAC (Continued) — Lab Sample ID: 140-14958-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.1	J	1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	3.6		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	74		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	14		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	110		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.2	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.0		1.6	0.40	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	130		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.51		0.51	0.37	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	0.56	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-A-EFFLUENT — Lab Sample ID: 140-14958-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.26	J	0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.44		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.46		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	8.5		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.6		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	13		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.7	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	4.7		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	2.2		0.20	0.070	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.67	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.83	J	1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.2		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	34		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	6.5		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	50		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.9	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.6		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	25		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	12		1.1	0.38	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.9	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-14958-1

Date Collected: 04/11/19 11:59
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.1**		0.40	0.12	ppb v/v			04/13/19 00:54	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			04/13/19 00:54	1
Chlorodifluoromethane	**0.30**	**J**	0.40	0.075	ppb v/v			04/13/19 00:54	1
Chloroform	**0.73**		0.40	0.075	ppb v/v			04/13/19 00:54	1
cis-1,2-Dichloroethene	**15**		0.40	0.12	ppb v/v			04/13/19 00:54	1
Dichlorodifluoromethane	**0.29**	**J**	0.40	0.14	ppb v/v			04/13/19 00:54	1
1,1-Dichloroethane	**2.9**		0.40	0.050	ppb v/v			04/13/19 00:54	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			04/13/19 00:54	1
1,1-Dichloroethene	**19**		0.40	0.070	ppb v/v			04/13/19 00:54	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			04/13/19 00:54	1
Methylene Chloride	**0.81**	**J**	2.0	0.65	ppb v/v			04/13/19 00:54	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			04/13/19 00:54	1
Naphthalene	ND		0.20	0.20	ppb v/v			04/13/19 00:54	1
Tetrachloroethene	**0.11**	**J**	0.40	0.080	ppb v/v			04/13/19 00:54	1
Toluene	**1.5**		0.60	0.60	ppb v/v			04/13/19 00:54	1
trans-1,2-Dichloroethene	**0.34**	**J**	0.40	0.10	ppb v/v			04/13/19 00:54	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			04/13/19 00:54	1
1,1,1-Trichloroethane	**79**		0.40	0.060	ppb v/v			04/13/19 00:54	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			04/13/19 00:54	1
Trichloroethene	**170**	**E**	0.20	0.070	ppb v/v			04/13/19 00:54	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			04/13/19 00:54	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/13/19 00:54	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/13/19 00:54	1
Vinyl chloride	**0.18**	**J**	0.20	0.15	ppb v/v			04/13/19 00:54	1
Xylenes, Total	**0.65**	**J**	0.80	0.12	ppb v/v			04/13/19 00:54	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6.6**		1.3	0.37	ug/m3			04/13/19 00:54	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			04/13/19 00:54	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.27	ug/m3			04/13/19 00:54	1
Chloroform	**3.6**		2.0	0.37	ug/m3			04/13/19 00:54	1
cis-1,2-Dichloroethene	**61**		1.6	0.48	ug/m3			04/13/19 00:54	1
Dichlorodifluoromethane	**1.4**	**J**	2.0	0.67	ug/m3			04/13/19 00:54	1
1,1-Dichloroethane	**12**		1.6	0.20	ug/m3			04/13/19 00:54	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			04/13/19 00:54	1
1,1-Dichloroethene	**75**		1.6	0.28	ug/m3			04/13/19 00:54	1
Ethylbenzene	ND		1.7	0.59	ug/m3			04/13/19 00:54	1
Methylene Chloride	**2.8**	**J**	6.9	2.3	ug/m3			04/13/19 00:54	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			04/13/19 00:54	1
Naphthalene	ND		1.0	1.0	ug/m3			04/13/19 00:54	1
Tetrachloroethene	**0.74**	**J**	2.7	0.54	ug/m3			04/13/19 00:54	1
Toluene	**5.6**		2.3	2.3	ug/m3			04/13/19 00:54	1
trans-1,2-Dichloroethene	**1.3**	**J**	1.6	0.40	ug/m3			04/13/19 00:54	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			04/13/19 00:54	1
1,1,1-Trichloroethane	**430**		2.2	0.33	ug/m3			04/13/19 00:54	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			04/13/19 00:54	1
Trichloroethene	**940**	**E**	1.1	0.38	ug/m3			04/13/19 00:54	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			04/13/19 00:54	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			04/13/19 00:54	1

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-14958-1

Date Collected: 04/11/19 11:59
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			04/13/19 00:54	1
Vinyl chloride	**0.47**	**J**	0.51	0.37	ug/m3			04/13/19 00:54	1
Xylenes, Total	**2.8**	**J**	3.5	0.52	ug/m3			04/13/19 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*04/13/19 00:54*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**100**		1.0	0.35	ppb v/v			04/16/19 00:37	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**550**		5.4	1.9	ug/m3			04/16/19 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*04/16/19 00:37*	*1*

Client Sample ID: BLDG-A-MID GAC
Lab Sample ID: 140-14958-2

Date Collected: 04/11/19 12:10
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.13**	**J**	0.40	0.12	ppb v/v			04/13/19 00:04	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			04/13/19 00:04	1
Chlorodifluoromethane	**0.32**	**J**	0.40	0.075	ppb v/v			04/13/19 00:04	1
Chloroform	**0.74**		0.40	0.075	ppb v/v			04/13/19 00:04	1
cis-1,2-Dichloroethene	**19**		0.40	0.12	ppb v/v			04/13/19 00:04	1
Dichlorodifluoromethane	**0.30**	**J**	0.40	0.14	ppb v/v			04/13/19 00:04	1
1,1-Dichloroethane	**3.6**		0.40	0.050	ppb v/v			04/13/19 00:04	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			04/13/19 00:04	1
1,1-Dichloroethene	**27**		0.40	0.070	ppb v/v			04/13/19 00:04	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			04/13/19 00:04	1
Methylene Chloride	**0.91**	**J**	2.0	0.65	ppb v/v			04/13/19 00:04	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			04/13/19 00:04	1
Naphthalene	ND		0.20	0.20	ppb v/v			04/13/19 00:04	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			04/13/19 00:04	1
Toluene	ND		0.60	0.60	ppb v/v			04/13/19 00:04	1
trans-1,2-Dichloroethene	**0.51**		0.40	0.10	ppb v/v			04/13/19 00:04	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			04/13/19 00:04	1
1,1,1-Trichloroethane	**25**		0.40	0.060	ppb v/v			04/13/19 00:04	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			04/13/19 00:04	1
Trichloroethene	ND		0.20	0.070	ppb v/v			04/13/19 00:04	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			04/13/19 00:04	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/13/19 00:04	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/13/19 00:04	1
Vinyl chloride	**0.20**		0.20	0.15	ppb v/v			04/13/19 00:04	1
Xylenes, Total	**0.13**	**J**	0.80	0.12	ppb v/v			04/13/19 00:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.42**	**J**	1.3	0.37	ug/m3			04/13/19 00:04	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			04/13/19 00:04	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.27	ug/m3			04/13/19 00:04	1
Chloroform	**3.6**		2.0	0.37	ug/m3			04/13/19 00:04	1
cis-1,2-Dichloroethene	**74**		1.6	0.48	ug/m3			04/13/19 00:04	1
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.67	ug/m3			04/13/19 00:04	1
1,1-Dichloroethane	**14**		1.6	0.20	ug/m3			04/13/19 00:04	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			04/13/19 00:04	1
1,1-Dichloroethene	**110**		1.6	0.28	ug/m3			04/13/19 00:04	1
Ethylbenzene	ND		1.7	0.59	ug/m3			04/13/19 00:04	1
Methylene Chloride	**3.2**	**J**	6.9	2.3	ug/m3			04/13/19 00:04	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			04/13/19 00:04	1
Naphthalene	ND		1.0	1.0	ug/m3			04/13/19 00:04	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			04/13/19 00:04	1
Toluene	ND		2.3	2.3	ug/m3			04/13/19 00:04	1
trans-1,2-Dichloroethene	**2.0**		1.6	0.40	ug/m3			04/13/19 00:04	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			04/13/19 00:04	1
1,1,1-Trichloroethane	**130**		2.2	0.33	ug/m3			04/13/19 00:04	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			04/13/19 00:04	1
Trichloroethene	ND		1.1	0.38	ug/m3			04/13/19 00:04	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			04/13/19 00:04	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			04/13/19 00:04	1

Client Sample ID: BLDG-A-MID GAC
Lab Sample ID: 140-14958-2

Date Collected: 04/11/19 12:10
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			04/13/19 00:04	1
Vinyl chloride	**0.51**		0.51	0.37	ug/m3			04/13/19 00:04	1
Xylenes, Total	**0.56**	**J**	3.5	0.52	ug/m3			04/13/19 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*04/13/19 00:04*	*1*

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-14958-3

Date Collected: 04/11/19 12:04
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.26**	**J**	0.40	0.12	ppb v/v			04/15/19 23:51	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			04/15/19 23:51	1
Chlorodifluoromethane	**0.44**		0.40	0.075	ppb v/v			04/15/19 23:51	1
Chloroform	**0.46**		0.40	0.075	ppb v/v			04/15/19 23:51	1
cis-1,2-Dichloroethene	**8.5**		0.40	0.12	ppb v/v			04/15/19 23:51	1
Dichlorodifluoromethane	**0.45**		0.40	0.14	ppb v/v			04/15/19 23:51	1
1,1-Dichloroethane	**1.6**		0.40	0.050	ppb v/v			04/15/19 23:51	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			04/15/19 23:51	1
1,1-Dichloroethene	**13**		0.40	0.070	ppb v/v			04/15/19 23:51	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			04/15/19 23:51	1
Methylene Chloride	**1.7**	**J**	2.0	0.65	ppb v/v			04/15/19 23:51	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			04/15/19 23:51	1
Naphthalene	ND		0.20	0.20	ppb v/v			04/15/19 23:51	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			04/15/19 23:51	1
Toluene	**1.2**		0.60	0.60	ppb v/v			04/15/19 23:51	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			04/15/19 23:51	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			04/15/19 23:51	1
1,1,1-Trichloroethane	**4.7**		0.40	0.060	ppb v/v			04/15/19 23:51	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			04/15/19 23:51	1
Trichloroethene	**2.2**		0.20	0.070	ppb v/v			04/15/19 23:51	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			04/15/19 23:51	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/15/19 23:51	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			04/15/19 23:51	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			04/15/19 23:51	1
Xylenes, Total	**0.67**	**J**	0.80	0.12	ppb v/v			04/15/19 23:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.83**	**J**	1.3	0.37	ug/m3			04/15/19 23:51	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			04/15/19 23:51	1
Chlorodifluoromethane	**1.6**		1.4	0.27	ug/m3			04/15/19 23:51	1
Chloroform	**2.2**		2.0	0.37	ug/m3			04/15/19 23:51	1
cis-1,2-Dichloroethene	**34**		1.6	0.48	ug/m3			04/15/19 23:51	1
Dichlorodifluoromethane	**2.2**		2.0	0.67	ug/m3			04/15/19 23:51	1
1,1-Dichloroethane	**6.5**		1.6	0.20	ug/m3			04/15/19 23:51	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			04/15/19 23:51	1
1,1-Dichloroethene	**50**		1.6	0.28	ug/m3			04/15/19 23:51	1
Ethylbenzene	ND		1.7	0.59	ug/m3			04/15/19 23:51	1
Methylene Chloride	**5.9**	**J**	6.9	2.3	ug/m3			04/15/19 23:51	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			04/15/19 23:51	1
Naphthalene	ND		1.0	1.0	ug/m3			04/15/19 23:51	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			04/15/19 23:51	1
Toluene	**4.6**		2.3	2.3	ug/m3			04/15/19 23:51	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			04/15/19 23:51	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			04/15/19 23:51	1
1,1,1-Trichloroethane	**25**		2.2	0.33	ug/m3			04/15/19 23:51	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			04/15/19 23:51	1
Trichloroethene	**12**		1.1	0.38	ug/m3			04/15/19 23:51	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			04/15/19 23:51	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			04/15/19 23:51	1

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-14958-3

Date Collected: 04/11/19 12:04
Matrix: Air
Date Received: 04/12/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			04/15/19 23:51	1
Vinyl chloride	ND		0.51	0.37	ug/m3			04/15/19 23:51	1
Xylenes, Total	**2.9**	**J**	3.5	0.52	ug/m3			04/15/19 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*04/15/19 23:51*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.012	ppb v/v
1,1,1-Trichloroethane	0.44	0.065	ug/m3
1,1,2-Trichloroethane	0.080	0.021	ppb v/v
1,1,2-Trichloroethane	0.44	0.11	ug/m3
1,1-Dichloroethane	0.080	0.010	ppb v/v
1,1-Dichloroethane	0.32	0.040	ug/m3
1,1-Dichloroethene	0.080	0.014	ppb v/v
1,1-Dichloroethene	0.32	0.056	ug/m3
1,2,3-Trimethylbenzene	0.080	0.034	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.17	ug/m3
1,2,4-Trichlorobenzene	0.080	0.039	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.29	ug/m3
1,2,4-Trimethylbenzene	0.080	0.025	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.12	ug/m3
1,2-Dichloroethane	0.080	0.019	ppb v/v
1,2-Dichloroethane	0.32	0.077	ug/m3
1,3,5-Trimethylbenzene	0.080	0.026	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.13	ug/m3
Benzene	0.080	0.023	ppb v/v
Benzene	0.26	0.073	ug/m3
Carbon tetrachloride	0.080	0.015	ppb v/v
Carbon tetrachloride	0.50	0.094	ug/m3
Chlorodifluoromethane	0.080	0.015	ppb v/v
Chlorodifluoromethane	0.28	0.053	ug/m3
Chloroform	0.080	0.015	ppb v/v
Chloroform	0.39	0.073	ug/m3
cis-1,2-Dichloroethene	0.080	0.024	ppb v/v
cis-1,2-Dichloroethene	0.32	0.095	ug/m3
Dichlorodifluoromethane	0.080	0.027	ppb v/v
Dichlorodifluoromethane	0.40	0.13	ug/m3
Ethylbenzene	0.080	0.027	ppb v/v
Ethylbenzene	0.35	0.12	ug/m3
Methyl tert-butyl ether	0.40	0.068	ppb v/v
Methyl tert-butyl ether	1.4	0.25	ug/m3
Methylene Chloride	0.40	0.13	ppb v/v
Methylene Chloride	1.4	0.45	ug/m3
Naphthalene	0.040	0.040	ppb v/v
Naphthalene	0.21	0.21	ug/m3
Tetrachloroethene	0.080	0.016	ppb v/v
Tetrachloroethene	0.54	0.11	ug/m3
Toluene	0.12	0.12	ppb v/v
Toluene	0.45	0.45	ug/m3
trans-1,2-Dichloroethene	0.080	0.020	ppb v/v
trans-1,2-Dichloroethene	0.32	0.079	ug/m3
Trichloroethene	0.040	0.014	ppb v/v
Trichloroethene	0.21	0.075	ug/m3
Vinyl chloride	0.040	0.029	ppb v/v
Vinyl chloride	0.10	0.074	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-14958-1	BLDG-A-INFLUENT	107								
140-14958-1 - DL	BLDG-A-INFLUENT	95								
140-14958-2	BLDG-A-MID GAC	105								
140-14958-3	BLDG-A-EFFLUENT	99								
LCS 140-29199/1002	Lab Control Sample	107								
LCS 140-29232/1002	Lab Control Sample	101								
MB 140-29199/4	Method Blank	104								
MB 140-29232/7	Method Blank	94								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-29199/4
Matrix: Air
Analysis Batch: 29199

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.023	ppb v/v			04/12/19 18:09	1
Carbon tetrachloride	ND		0.080	0.015	ppb v/v			04/12/19 18:09	1
Chlorodifluoromethane	ND		0.080	0.015	ppb v/v			04/12/19 18:09	1
Chloroform	ND		0.080	0.015	ppb v/v			04/12/19 18:09	1
cis-1,2-Dichloroethene	ND		0.080	0.024	ppb v/v			04/12/19 18:09	1
Dichlorodifluoromethane	ND		0.080	0.027	ppb v/v			04/12/19 18:09	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			04/12/19 18:09	1
1,2-Dichloroethane	ND		0.080	0.019	ppb v/v			04/12/19 18:09	1
1,1-Dichloroethene	ND		0.080	0.014	ppb v/v			04/12/19 18:09	1
Ethylbenzene	ND		0.080	0.027	ppb v/v			04/12/19 18:09	1
Methylene Chloride	ND		0.40	0.13	ppb v/v			04/12/19 18:09	1
Methyl tert-butyl ether	ND		0.40	0.068	ppb v/v			04/12/19 18:09	1
Naphthalene	ND		0.040	0.040	ppb v/v			04/12/19 18:09	1
Tetrachloroethene	ND		0.080	0.016	ppb v/v			04/12/19 18:09	1
Toluene	ND		0.12	0.12	ppb v/v			04/12/19 18:09	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			04/12/19 18:09	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			04/12/19 18:09	1
1,1,1-Trichloroethane	ND		0.080	0.012	ppb v/v			04/12/19 18:09	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			04/12/19 18:09	1
Trichloroethene	ND		0.040	0.014	ppb v/v			04/12/19 18:09	1
1,2,3-Trimethylbenzene	ND		0.080	0.034	ppb v/v			04/12/19 18:09	1
1,2,4-Trimethylbenzene	ND		0.080	0.025	ppb v/v			04/12/19 18:09	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			04/12/19 18:09	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			04/12/19 18:09	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			04/12/19 18:09	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.073	ug/m3			04/12/19 18:09	1
Carbon tetrachloride	ND		0.50	0.094	ug/m3			04/12/19 18:09	1
Chlorodifluoromethane	ND		0.28	0.053	ug/m3			04/12/19 18:09	1
Chloroform	ND		0.39	0.073	ug/m3			04/12/19 18:09	1
cis-1,2-Dichloroethene	ND		0.32	0.095	ug/m3			04/12/19 18:09	1
Dichlorodifluoromethane	ND		0.40	0.13	ug/m3			04/12/19 18:09	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			04/12/19 18:09	1
1,2-Dichloroethane	ND		0.32	0.077	ug/m3			04/12/19 18:09	1
1,1-Dichloroethene	ND		0.32	0.056	ug/m3			04/12/19 18:09	1
Ethylbenzene	ND		0.35	0.12	ug/m3			04/12/19 18:09	1
Methylene Chloride	ND		1.4	0.45	ug/m3			04/12/19 18:09	1
Methyl tert-butyl ether	ND		1.4	0.25	ug/m3			04/12/19 18:09	1
Naphthalene	ND		0.21	0.21	ug/m3			04/12/19 18:09	1
Tetrachloroethene	ND		0.54	0.11	ug/m3			04/12/19 18:09	1
Toluene	ND		0.45	0.45	ug/m3			04/12/19 18:09	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			04/12/19 18:09	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			04/12/19 18:09	1
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			04/12/19 18:09	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			04/12/19 18:09	1
Trichloroethene	ND		0.21	0.075	ug/m3			04/12/19 18:09	1
1,2,3-Trimethylbenzene	ND		0.39	0.17	ug/m3			04/12/19 18:09	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-29199/4
Matrix: Air
Analysis Batch: 29199

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.12	ug/m3			04/12/19 18:09	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			04/12/19 18:09	1
Vinyl chloride	ND		0.10	0.074	ug/m3			04/12/19 18:09	1
Xylenes, Total	ND		0.69	0.10	ug/m3			04/12/19 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*04/12/19 18:09*	*1*

Lab Sample ID: LCS 140-29199/1002
Matrix: Air
Analysis Batch: 29199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.998		ppb v/v		100	70 - 130
Carbon tetrachloride	1.00	1.09		ppb v/v		109	70 - 130
Chlorodifluoromethane	1.00	0.968		ppb v/v		97	60 - 140
Chloroform	1.00	1.02		ppb v/v		102	70 - 130
cis-1,2-Dichloroethene	1.00	1.03		ppb v/v		103	70 - 130
Dichlorodifluoromethane	1.00	1.12		ppb v/v		112	60 - 140
1,1-Dichloroethane	1.00	1.04		ppb v/v		104	70 - 130
1,2-Dichloroethane	1.00	1.00		ppb v/v		100	70 - 130
1,1-Dichloroethene	1.00	1.09		ppb v/v		109	70 - 130
Ethylbenzene	1.00	1.05		ppb v/v		105	70 - 130
Methylene Chloride	1.00	1.08		ppb v/v		108	70 - 130
Methyl tert-butyl ether	1.00	1.02		ppb v/v		102	60 - 140
Naphthalene	1.00	0.863		ppb v/v		86	60 - 140
Tetrachloroethene	1.00	1.11		ppb v/v		111	70 - 130
Toluene	1.00	1.04		ppb v/v		104	70 - 130
trans-1,2-Dichloroethene	1.00	1.03		ppb v/v		103	70 - 130
1,2,4-Trichlorobenzene	1.00	0.946		ppb v/v		95	60 - 140
1,1,1-Trichloroethane	1.00	1.01		ppb v/v		101	70 - 130
1,1,2-Trichloroethane	1.00	1.09		ppb v/v		109	70 - 130
Trichloroethene	1.00	1.06		ppb v/v		106	70 - 130
1,2,3-Trimethylbenzene	1.00	1.05		ppb v/v		105	70 - 130
1,2,4-Trimethylbenzene	1.00	1.07		ppb v/v		107	70 - 130
1,3,5-Trimethylbenzene	1.00	0.996		ppb v/v		100	70 - 130
Vinyl chloride	1.00	1.13		ppb v/v		113	70 - 130
Xylenes, Total	3.00	3.27		ppb v/v		109	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.2	3.19		ug/m3		100	70 - 130
Carbon tetrachloride	6.3	6.84		ug/m3		109	70 - 130
Chlorodifluoromethane	3.5	3.42		ug/m3		97	60 - 140
Chloroform	4.9	4.97		ug/m3		102	70 - 130
cis-1,2-Dichloroethene	4.0	4.08		ug/m3		103	70 - 130
Dichlorodifluoromethane	4.9	5.54		ug/m3		112	60 - 140
1,1-Dichloroethane	4.0	4.20		ug/m3		104	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-29199/1002
Matrix: Air
Analysis Batch: 29199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.0	4.05		ug/m3		100	70 - 130
1,1-Dichloroethene	4.0	4.34		ug/m3		109	70 - 130
Ethylbenzene	4.3	4.58		ug/m3		105	70 - 130
Methylene Chloride	3.5	3.73		ug/m3		108	70 - 130
Methyl tert-butyl ether	3.6	3.66		ug/m3		102	60 - 140
Naphthalene	5.2	4.52		ug/m3		86	60 - 140
Tetrachloroethene	6.8	7.52		ug/m3		111	70 - 130
Toluene	3.8	3.93		ug/m3		104	70 - 130
trans-1,2-Dichloroethene	4.0	4.08		ug/m3		103	70 - 130
1,2,4-Trichlorobenzene	7.4	7.02		ug/m3		95	60 - 140
1,1,1-Trichloroethane	5.5	5.53		ug/m3		101	70 - 130
1,1,2-Trichloroethane	5.5	5.96		ug/m3		109	70 - 130
Trichloroethene	5.4	5.72		ug/m3		106	70 - 130
1,2,3-Trimethylbenzene	4.9	5.14		ug/m3		105	70 - 130
1,2,4-Trimethylbenzene	4.9	5.27		ug/m3		107	70 - 130
1,3,5-Trimethylbenzene	4.9	4.89		ug/m3		100	70 - 130
Vinyl chloride	2.6	2.90		ug/m3		113	70 - 130
Xylenes, Total	13	14.2		ug/m3		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 140-29232/7
Matrix: Air
Analysis Batch: 29232

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.023	ppb v/v			04/15/19 17:45	1
Carbon tetrachloride	ND		0.080	0.015	ppb v/v			04/15/19 17:45	1
Chlorodifluoromethane	ND		0.080	0.015	ppb v/v			04/15/19 17:45	1
Chloroform	ND		0.080	0.015	ppb v/v			04/15/19 17:45	1
cis-1,2-Dichloroethene	ND		0.080	0.024	ppb v/v			04/15/19 17:45	1
Dichlorodifluoromethane	ND		0.080	0.027	ppb v/v			04/15/19 17:45	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			04/15/19 17:45	1
1,2-Dichloroethane	ND		0.080	0.019	ppb v/v			04/15/19 17:45	1
1,1-Dichloroethene	ND		0.080	0.014	ppb v/v			04/15/19 17:45	1
Ethylbenzene	ND		0.080	0.027	ppb v/v			04/15/19 17:45	1
Methylene Chloride	ND		0.40	0.13	ppb v/v			04/15/19 17:45	1
Methyl tert-butyl ether	ND		0.40	0.068	ppb v/v			04/15/19 17:45	1
Naphthalene	ND		0.040	0.040	ppb v/v			04/15/19 17:45	1
Tetrachloroethene	ND		0.080	0.016	ppb v/v			04/15/19 17:45	1
Toluene	ND		0.12	0.12	ppb v/v			04/15/19 17:45	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			04/15/19 17:45	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			04/15/19 17:45	1
1,1,1-Trichloroethane	ND		0.080	0.012	ppb v/v			04/15/19 17:45	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			04/15/19 17:45	1
Trichloroethene	ND		0.040	0.014	ppb v/v			04/15/19 17:45	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-29232/7
Matrix: Air
Analysis Batch: 29232

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.034	ppb v/v			04/15/19 17:45	1
1,2,4-Trimethylbenzene	ND		0.080	0.025	ppb v/v			04/15/19 17:45	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			04/15/19 17:45	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			04/15/19 17:45	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			04/15/19 17:45	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.073	ug/m3			04/15/19 17:45	1
Carbon tetrachloride	ND		0.50	0.094	ug/m3			04/15/19 17:45	1
Chlorodifluoromethane	ND		0.28	0.053	ug/m3			04/15/19 17:45	1
Chloroform	ND		0.39	0.073	ug/m3			04/15/19 17:45	1
cis-1,2-Dichloroethene	ND		0.32	0.095	ug/m3			04/15/19 17:45	1
Dichlorodifluoromethane	ND		0.40	0.13	ug/m3			04/15/19 17:45	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			04/15/19 17:45	1
1,2-Dichloroethane	ND		0.32	0.077	ug/m3			04/15/19 17:45	1
1,1-Dichloroethene	ND		0.32	0.056	ug/m3			04/15/19 17:45	1
Ethylbenzene	ND		0.35	0.12	ug/m3			04/15/19 17:45	1
Methylene Chloride	ND		1.4	0.45	ug/m3			04/15/19 17:45	1
Methyl tert-butyl ether	ND		1.4	0.25	ug/m3			04/15/19 17:45	1
Naphthalene	ND		0.21	0.21	ug/m3			04/15/19 17:45	1
Tetrachloroethene	ND		0.54	0.11	ug/m3			04/15/19 17:45	1
Toluene	ND		0.45	0.45	ug/m3			04/15/19 17:45	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			04/15/19 17:45	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			04/15/19 17:45	1
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			04/15/19 17:45	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			04/15/19 17:45	1
Trichloroethene	ND		0.21	0.075	ug/m3			04/15/19 17:45	1
1,2,3-Trimethylbenzene	ND		0.39	0.17	ug/m3			04/15/19 17:45	1
1,2,4-Trimethylbenzene	ND		0.39	0.12	ug/m3			04/15/19 17:45	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			04/15/19 17:45	1
Vinyl chloride	ND		0.10	0.074	ug/m3			04/15/19 17:45	1
Xylenes, Total	ND		0.69	0.10	ug/m3			04/15/19 17:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*04/15/19 17:45*	*1*

Lab Sample ID: LCS 140-29232/1002
Matrix: Air
Analysis Batch: 29232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.98		ppb v/v		99	70 - 130
Carbon tetrachloride	2.00	2.11		ppb v/v		106	70 - 130
Chlorodifluoromethane	2.00	2.73		ppb v/v		136	60 - 140
Chloroform	2.00	1.98		ppb v/v		99	70 - 130
cis-1,2-Dichloroethene	2.00	1.99		ppb v/v		99	70 - 130
Dichlorodifluoromethane	2.00	2.55		ppb v/v		128	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-29232/1002
Matrix: Air
Analysis Batch: 29232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.98		ppb v/v		99	70 - 130
1,2-Dichloroethane	2.00	1.99		ppb v/v		100	70 - 130
1,1-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Ethylbenzene	2.00	2.03		ppb v/v		102	70 - 130
Methylene Chloride	2.00	2.02		ppb v/v		101	70 - 130
Methyl tert-butyl ether	2.00	2.03		ppb v/v		102	60 - 140
Naphthalene	2.00	2.02		ppb v/v		101	60 - 140
Tetrachloroethene	2.00	1.97		ppb v/v		99	70 - 130
Toluene	2.00	1.93		ppb v/v		97	70 - 130
trans-1,2-Dichloroethene	2.00	2.02		ppb v/v		101	70 - 130
1,2,4-Trichlorobenzene	2.00	2.04		ppb v/v		102	60 - 140
1,1,1-Trichloroethane	2.00	1.98		ppb v/v		99	70 - 130
1,1,2-Trichloroethane	2.00	1.88		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.93		ppb v/v		97	70 - 130
1,2,3-Trimethylbenzene	2.00	2.20		ppb v/v		110	70 - 130
1,2,4-Trimethylbenzene	2.00	2.08		ppb v/v		104	70 - 130
1,3,5-Trimethylbenzene	2.00	2.08		ppb v/v		104	70 - 130
Vinyl chloride	2.00	2.06		ppb v/v		103	70 - 130
Xylenes, Total	6.00	6.23		ppb v/v		104	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.34		ug/m3		99	70 - 130
Carbon tetrachloride	13	13.3		ug/m3		106	70 - 130
Chlorodifluoromethane	7.1	9.65		ug/m3		136	60 - 140
Chloroform	9.8	9.69		ug/m3		99	70 - 130
cis-1,2-Dichloroethene	7.9	7.88		ug/m3		99	70 - 130
Dichlorodifluoromethane	9.9	12.6		ug/m3		128	60 - 140
1,1-Dichloroethane	8.1	8.03		ug/m3		99	70 - 130
1,2-Dichloroethane	8.1	8.07		ug/m3		100	70 - 130
1,1-Dichloroethene	7.9	8.07		ug/m3		102	70 - 130
Ethylbenzene	8.7	8.83		ug/m3		102	70 - 130
Methylene Chloride	6.9	7.01		ug/m3		101	70 - 130
Methyl tert-butyl ether	7.2	7.32		ug/m3		102	60 - 140
Naphthalene	10	10.6		ug/m3		101	60 - 140
Tetrachloroethene	14	13.4		ug/m3		99	70 - 130
Toluene	7.5	7.28		ug/m3		97	70 - 130
trans-1,2-Dichloroethene	7.9	8.01		ug/m3		101	70 - 130
1,2,4-Trichlorobenzene	15	15.1		ug/m3		102	60 - 140
1,1,1-Trichloroethane	11	10.8		ug/m3		99	70 - 130
1,1,2-Trichloroethane	11	10.2		ug/m3		94	70 - 130
Trichloroethene	11	10.4		ug/m3		97	70 - 130
1,2,3-Trimethylbenzene	9.8	10.8		ug/m3		110	70 - 130
1,2,4-Trimethylbenzene	9.8	10.2		ug/m3		104	70 - 130
1,3,5-Trimethylbenzene	9.8	10.2		ug/m3		104	70 - 130
Vinyl chloride	5.1	5.27		ug/m3		103	70 - 130
Xylenes, Total	26	27.1		ug/m3		104	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-29232/1002
Matrix: Air
Analysis Batch: 29232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		60 - 140

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Air - GC/MS VOA

Analysis Batch: 29199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-14958-1	BLDG-A-INFLUENT	Total/NA	Air	TO 15 LL	
140-14958-2	BLDG-A-MID GAC	Total/NA	Air	TO 15 LL	
MB 140-29199/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-29199/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 29232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-14958-1 - DL	BLDG-A-INFLUENT	Total/NA	Air	TO 15 LL	
140-14958-3	BLDG-A-EFFLUENT	Total/NA	Air	TO 15 LL	
MB 140-29232/7	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-29232/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-14958-1
Date Collected: 04/11/19 11:59
Matrix: Air
Date Received: 04/12/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	1	20 mL	500 mL	29232	04/16/19 00:37	S1K	TAL KNX
	Instrument ID: MJ									
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	29199	04/13/19 00:54	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG-A-MID GAC
Lab Sample ID: 140-14958-2
Date Collected: 04/11/19 12:10
Matrix: Air
Date Received: 04/12/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	29199	04/13/19 00:04	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-14958-3
Date Collected: 04/11/19 12:04
Matrix: Air
Date Received: 04/12/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	29232	04/15/19 23:51	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-29199/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	29199	04/12/19 18:09	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-29232/7
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	29232	04/15/19 17:45	S1K	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-29199/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	29199	04/12/19 15:01	AFB	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-29232/1002

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	29232	04/15/19 13:31	S1K	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-14958-1
Project/Site: LMC-MRC, MRAS/Building A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-14958-1	BLDG-A-INFLUENT	Air	04/11/19 11:59	04/12/19 10:00
140-14958-2	BLDG-A-MID GAC	Air	04/11/19 12:10	04/12/19 10:00
140-14958-3	BLDG-A-EFFLUENT	Air	04/11/19 12:04	04/12/19 10:00

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
BLDG-A-INFLUENT	140-14958-1	107
BLDG-A-INFLUENT DL	140-14958-1 DL	95
BLDG-A-MID GAC	140-14958-2	105
BLDG-A-EFFLUENT	140-14958-3	99
	MB 140-29199/4	104
	MB 140-29232/7	94
	LCS 140-29199/1002	107
	LCS 140-29232/1002	101

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVD12-LCS.d

Lab ID: LCS 140-29199/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.00	0.998	100	70-130	
Carbon tetrachloride	1.00	1.09	109	70-130	
Chlorodifluoromethane	1.00	0.968	97	60-140	
Chloroform	1.00	1.02	102	70-130	
cis-1,2-Dichloroethene	1.00	1.03	103	70-130	
Dichlorodifluoromethane	1.00	1.12	112	60-140	
1,1-Dichloroethane	1.00	1.04	104	70-130	
1,2-Dichloroethane	1.00	1.00	100	70-130	
1,1-Dichloroethene	1.00	1.09	109	70-130	
Ethylbenzene	1.00	1.05	105	70-130	
Methylene Chloride	1.00	1.08	108	70-130	
Methyl tert-butyl ether	1.00	1.02	102	60-140	
Naphthalene	1.00	0.863	86	60-140	
Tetrachloroethene	1.00	1.11	111	70-130	
Toluene	1.00	1.04	104	70-130	
trans-1,2-Dichloroethene	1.00	1.03	103	70-130	
1,2,4-Trichlorobenzene	1.00	0.946	95	60-140	
1,1,1-Trichloroethane	1.00	1.01	101	70-130	
1,1,2-Trichloroethane	1.00	1.09	109	70-130	
Trichloroethene	1.00	1.06	106	70-130	
1,2,3-Trimethylbenzene	1.00	1.05	105	70-130	
1,2,4-Trimethylbenzene	1.00	1.07	107	70-130	
1,3,5-Trimethylbenzene	1.00	0.996	100	70-130	
Vinyl chloride	1.00	1.13	113	70-130	
Xylenes, Total	3.00	3.27	109	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Matrix: Air Level: Low Lab File ID: JCCVD15a-LCS.d

Lab ID: LCS 140-29232/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.98	99	70-130	
Carbon tetrachloride	2.00	2.11	106	70-130	
Chlorodifluoromethane	2.00	2.73	136	60-140	
Chloroform	2.00	1.98	99	70-130	
cis-1,2-Dichloroethene	2.00	1.99	99	70-130	
Dichlorodifluoromethane	2.00	2.55	128	60-140	
1,1-Dichloroethane	2.00	1.98	99	70-130	
1,2-Dichloroethane	2.00	1.99	100	70-130	
1,1-Dichloroethene	2.00	2.04	102	70-130	
Ethylbenzene	2.00	2.03	102	70-130	
Methylene Chloride	2.00	2.02	101	70-130	
Methyl tert-butyl ether	2.00	2.03	102	60-140	
Naphthalene	2.00	2.02	101	60-140	
Tetrachloroethene	2.00	1.97	99	70-130	
Toluene	2.00	1.93	97	70-130	
trans-1,2-Dichloroethene	2.00	2.02	101	70-130	
1,2,4-Trichlorobenzene	2.00	2.04	102	60-140	
1,1,1-Trichloroethane	2.00	1.98	99	70-130	
1,1,2-Trichloroethane	2.00	1.88	94	70-130	
Trichloroethene	2.00	1.93	97	70-130	
1,2,3-Trimethylbenzene	2.00	2.20	110	70-130	
1,2,4-Trimethylbenzene	2.00	2.08	104	70-130	
1,3,5-Trimethylbenzene	2.00	2.08	104	70-130	
Vinyl chloride	2.00	2.06	103	70-130	
Xylenes, Total	6.00	6.23	104	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: JD15mb500.D Lab Sample ID: MB 140-29232/7

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MJ Date Analyzed: 04/15/2019 17:45

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BLDG-A-EFFLUENT	140-14958-3	JD15p109.D	04/15/2019 23:51
BLDG-A-INFLUENT DL	140-14958-1 DL	JD15p110.D	04/16/2019 00:37

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: RD12mb500.D Lab Sample ID: MB 140-29199/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 04/12/2019 18:09

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-29199/1002	RCCVD12-LCS.d	04/12/2019 15:01
BLDG-A-MID GAC	140-14958-2	RD12p105.D	04/13/2019 00:04
BLDG-A-INFLUENT	140-14958-1	RD12p106.D	04/13/2019 00:54

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: JBFBD11.D BFB Injection Date: 04/11/2019

Instrument ID: MJ BFB Injection Time: 17:44

Analysis Batch No.: 29202

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.4	
75	30.0 - 60.0 % of mass 95	51.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	96.1	
175	5.0 - 9.0 % of mass 174	7.2	(7.5) 1
176	95.0 - 101.0 % of mass 174	94.5	(98.4) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-29202/3	JD11ICL09.D	04/11/2019	18:43
	IC 140-29202/5	JD11ICL10.D	04/11/2019	20:16
	IC 140-29202/8	JD11ICL01.D	04/11/2019	22:31
	IC 140-29202/9	JD11ICL02.D	04/11/2019	23:16
	IC 140-29202/10	JD11ICL03.D	04/12/2019	00:01
	IC 140-29202/12	JD11ICL05.D	04/12/2019	01:31
	IC 140-29202/13	JD11ICL06.D	04/12/2019	02:16
	ICIS 140-29202/14	JD11ICL07.D	04/12/2019	03:01
	IC 140-29202/15	JD11ICL08.D	04/12/2019	03:46
	ICV 140-29202/17	JD11ICV.D	04/12/2019	05:16
	IC 140-29202/22	JD11ICL04R.D	04/12/2019	10:25

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: JBFBD15a.D BFB Injection Date: 04/15/2019

Instrument ID: MJ BFB Injection Time: 13:04

Analysis Batch No.: 29232

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.8	
75	30.0 - 60.0 % of mass 95	55.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	90.1	
175	5.0 - 9.0 % of mass 174	6.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	87.3	(96.9) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-29232/2	JCCVD15a.D	04/15/2019	13:31
	LCS 140-29232/1002	JCCVD15a-LCS .d	04/15/2019	13:31
	MB 140-29232/7	JD15mb500.D	04/15/2019	17:45
BLDG-A-EFFLUENT	140-14958-3	JD15p109.D	04/15/2019	23:51
BLDG-A-INFLUENT DL	140-14958-1 DL	JD15p110.D	04/16/2019	00:37

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: RBFBK16I.D BFB Injection Date: 11/16/2018

Instrument ID: MR BFB Injection Time: 16:00

Analysis Batch No.: 25490

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	58.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	91.0	
175	5.0 - 9.0 % of mass 174	6.6	(7.3) 1
176	95.0 - 101.0 % of mass 174	88.8	(97.6) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-25490/3	RK16IC09.D	11/16/2018	17:23
	IC 140-25490/5	RK16IC10.D	11/16/2018	19:07
	IC 140-25490/8	RK16IC01.D	11/16/2018	21:42
	IC 140-25490/9	RK16IC02.D	11/16/2018	22:34
	IC 140-25490/10	RK16IC03.D	11/16/2018	23:27
	IC 140-25490/11	RK16IC04.D	11/17/2018	00:20
	IC 140-25490/12	RK16IC05.D	11/17/2018	01:12
	IC 140-25490/13	RK16IC06.D	11/17/2018	02:05
	ICIS 140-25490/14	RK16IC07.D	11/17/2018	02:58
	IC 140-25490/15	RK16IC08.D	11/17/2018	03:51
	ICV 140-25490/18	RK16ICV.D	11/17/2018	06:27

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab File ID: RBFBD12.D BFB Injection Date: 04/12/2019

Instrument ID: MR BFB Injection Time: 14:32

Analysis Batch No.: 29199

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	59.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	84.2	
175	5.0 - 9.0 % of mass 174	6.4	(7.6) 1
176	95.0 - 101.0 % of mass 174	82.5	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-29199/2	RCCVD12.D	04/12/2019	15:01
	LCS 140-29199/1002	RCCVD12-LCS.d	04/12/2019	15:01
	MB 140-29199/4	RD12mb500.D	04/12/2019	18:09
BLDG-A-MID GAC	140-14958-2	RD12p105.D	04/13/2019	00:04
BLDG-A-INFLUENT	140-14958-1	RD12p106.D	04/13/2019	00:54

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Sample No.: ICIS 140-29202/14 Date Analyzed: 04/12/2019 03:01

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JD11ICL07.D Heated Purge: (Y/N) N

Calibration ID: 1908

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		336629	9.76	2076153	11.86	1951419	16.47
UPPER LIMIT		471281	10.09	2906614	12.19	2731987	16.80
LOWER LIMIT		201977	9.43	1245692	11.53	1170851	16.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-29202/17		327411	9.76	1969299	11.87	1772379	16.47

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Sample No.: CCVIS 140-29232/2 Date Analyzed: 04/15/2019 13:31

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): JCCVD15a.D Heated Purge: (Y/N) N

Calibration ID: 1908

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		364717	9.76	2134514	11.87	1904735	16.47
UPPER LIMIT		510604	10.09	2988320	12.20	2666629	16.80
LOWER LIMIT		218830	9.43	1280708	11.54	1142841	16.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-29232/1002		364717	9.76	2134514	11.87	1904735	16.47
MB 140-29232/7		354445	9.75	2114417	11.86	1869999	16.47
140-14958-3	BLDG-A-EFFLUENT	273155	9.75	1624525	11.86	1420220	16.47
140-14958-1 DL	BLDG-A-INFLUENT DL	289334	9.75	1720188	11.86	1510825	16.47

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Sample No.: ICIS 140-25490/14 Date Analyzed: 11/17/2018 02:58

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RK16IC07.D Heated Purge: (Y/N) N

Calibration ID: 1746

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		298864	7.40	1677758	9.49	1487799	14.56
UPPER LIMIT		418410	7.73	2348861	9.82	2082919	14.89
LOWER LIMIT		179318	7.07	1006655	9.16	892679	14.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-25490/18		299493	7.38	1671036	9.48	1499042	14.55

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Sample No.: CCVIS 140-29199/2 Date Analyzed: 04/12/2019 15:01

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVD12.D Heated Purge: (Y/N) N

Calibration ID: 1746

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		222513	7.35	1295233	9.41	1120596	14.47
UPPER LIMIT		311518	7.68	1813326	9.74	1568834	14.80
LOWER LIMIT		133508	7.02	777140	9.08	672358	14.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-29199/1002		222513	7.35	1295233	9.41	1120596	14.47
MB 140-29199/4		226888	7.35	1288614	9.41	1042595	14.47
140-14958-2	BLDG-A-MID GAC	179215	7.36	1031447	9.42	907299	14.47
140-14958-1	BLDG-A-INFLUENT	180654	7.35	1036726	9.42	933637	14.47

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT Lab Sample ID: 140-14958-1

Matrix: Air Lab File ID: RD12p106.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 11:59

Sample wt/vol: 100(mL) Date Analyzed: 04/13/2019 00:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.1		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.30	J	0.40	0.075
67-66-3	Chloroform	119.38	0.73		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	15		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.29	J	0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	2.9		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	19		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	0.81	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	0.11	J	0.40	0.080
108-88-3	Toluene	92.14	1.5		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	0.34	J	0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	79		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	*Trichloroethene*	*131.39*	*170*	*E*	*0.20*	*0.070*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	0.18	J	0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.65	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT Lab Sample ID: 140-14958-1

Matrix: Air Lab File ID: RD12p106.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 11:59

Sample wt/vol: 100(mL) Date Analyzed: 04/13/2019 00:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	6.6		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.27
67-66-3	Chloroform	119.38	3.6		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	61		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	1.4	J	2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	12		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	75		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	2.8	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	0.74	J	2.7	0.54
108-88-3	Toluene	92.14	5.6		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	1.3	J	1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	430		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	*Trichloroethene*	*131.39*	*940*	*E*	*1.1*	*0.38*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	0.47	J	0.51	0.37
1330-20-7	Xylenes, Total	106.17	2.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D
Lims ID: 140-14958-A-1
Client ID: BLDG-A-INFLUENT
Sample Type: Client
Inject. Date: 13-Apr-2019 00:54:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011413-013
Misc. Info.: 140-14958-A-1
Operator ID: afb Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Apr-2019 13:37:44 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:37:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.352	7.352	0.000	71	180654	4.00	
* 2 1,4-Difluorobenzene	114	9.418	9.412	0.006	95	1036726	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.470	14.470	0.000	91	933637	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.196	16.196	0.000	87	850396	4.28	
6 Chlorodifluoromethane	51	3.513	3.513	0.000	94	6510	0.0607	
8 Dichlorodifluoromethane	85	3.556	3.556	0.000	99	11262	0.0573	
12 Vinyl chloride	62	3.788	3.788	-0.005	31	1766	0.0364	M
27 1,1-Dichloroethene	96	5.066	5.066	0.000	96	239209	3.76	
31 Methylene Chloride	84	5.303	5.308	-0.005	92	9787	0.1620	
34 trans-1,2-Dichloroethene	96	5.945	5.955	-0.011	96	4371	0.0674	
37 1,1-Dichloroethane	63	6.268	6.268	0.000	98	63829	0.5883	
41 cis-1,2-Dichloroethene	96	7.088	7.093	-0.005	95	202621	3.10	
43 Chloroform	83	7.385	7.390	-0.005	94	25256	0.1464	
45 1,1,1-Trichloroethane	97	8.301	8.307	-0.006	95	3473642	15.9	
47 Benzene	78	8.857	8.857	0.000	99	70236	0.4158	
56 Trichloroethene	130	10.162	10.167	0.000	94	3552296	34.9	E
65 Toluene	91	12.383	12.383	0.000	92	66540	0.2974	
73 Tetrachloroethene	129	13.607	13.613	-0.006	84	2430	0.0219	
78 m-Xylene & p-Xylene	91	15.036	15.036	0.000	98	24269	0.0917	
82 o-Xylene	91	15.576	15.570	0.006	97	10649	0.0383	
S 121 Xylenes, Total	100				0		0.1301	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

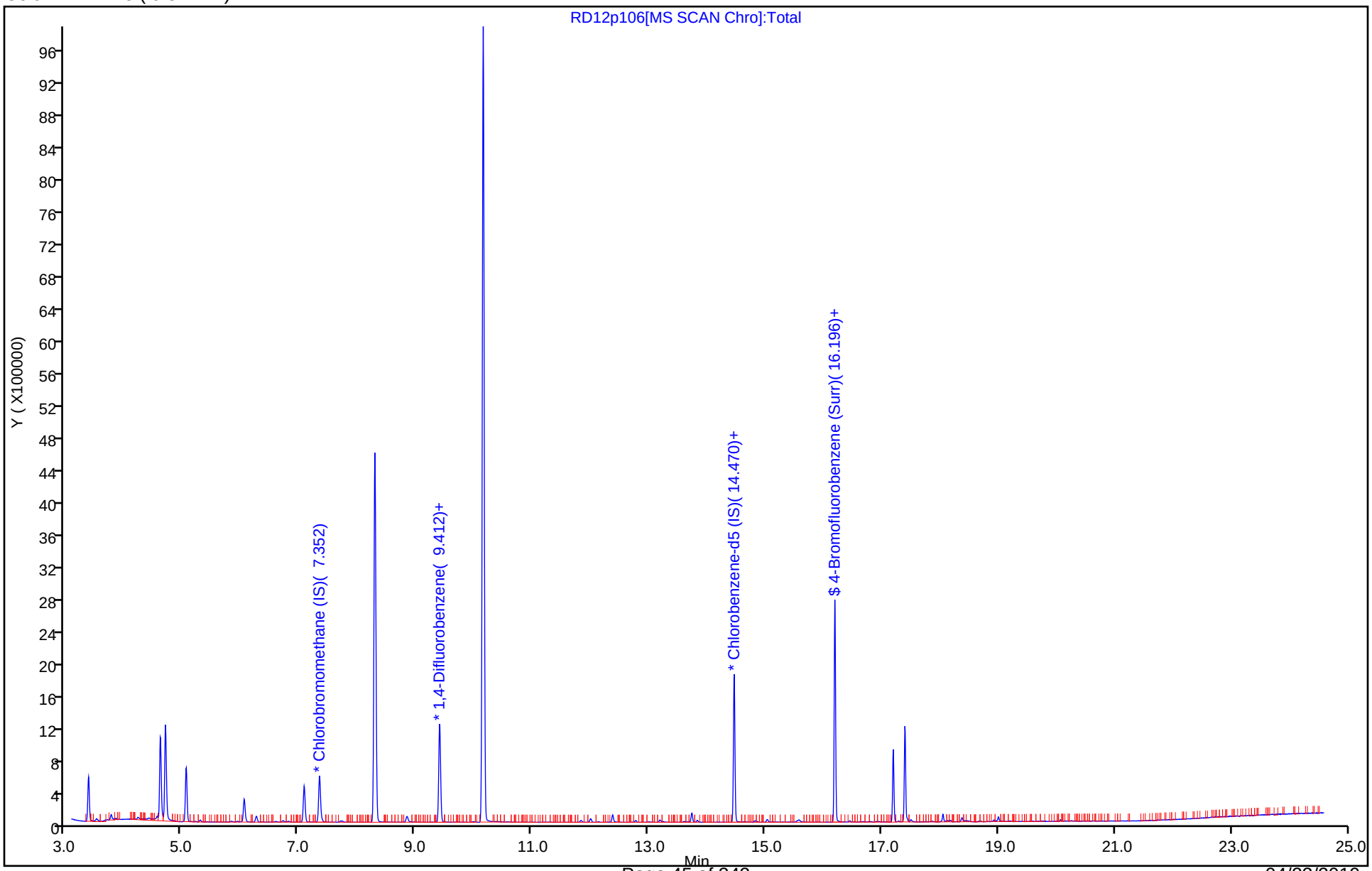
Report Date: 15-Apr-2019 13:37:44 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D

Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1	Worklist Smp#:	13
Client ID:	BLDG-A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Lims ID:	140-14958-A-1				
Client ID:	BLDG-A-INFLUENT				
Sample Type:	Client				
Inject. Date:	13-Apr-2019 00:54:30	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-013				
Misc. Info.:	140-14958-A-1				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:37:44	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:37:43

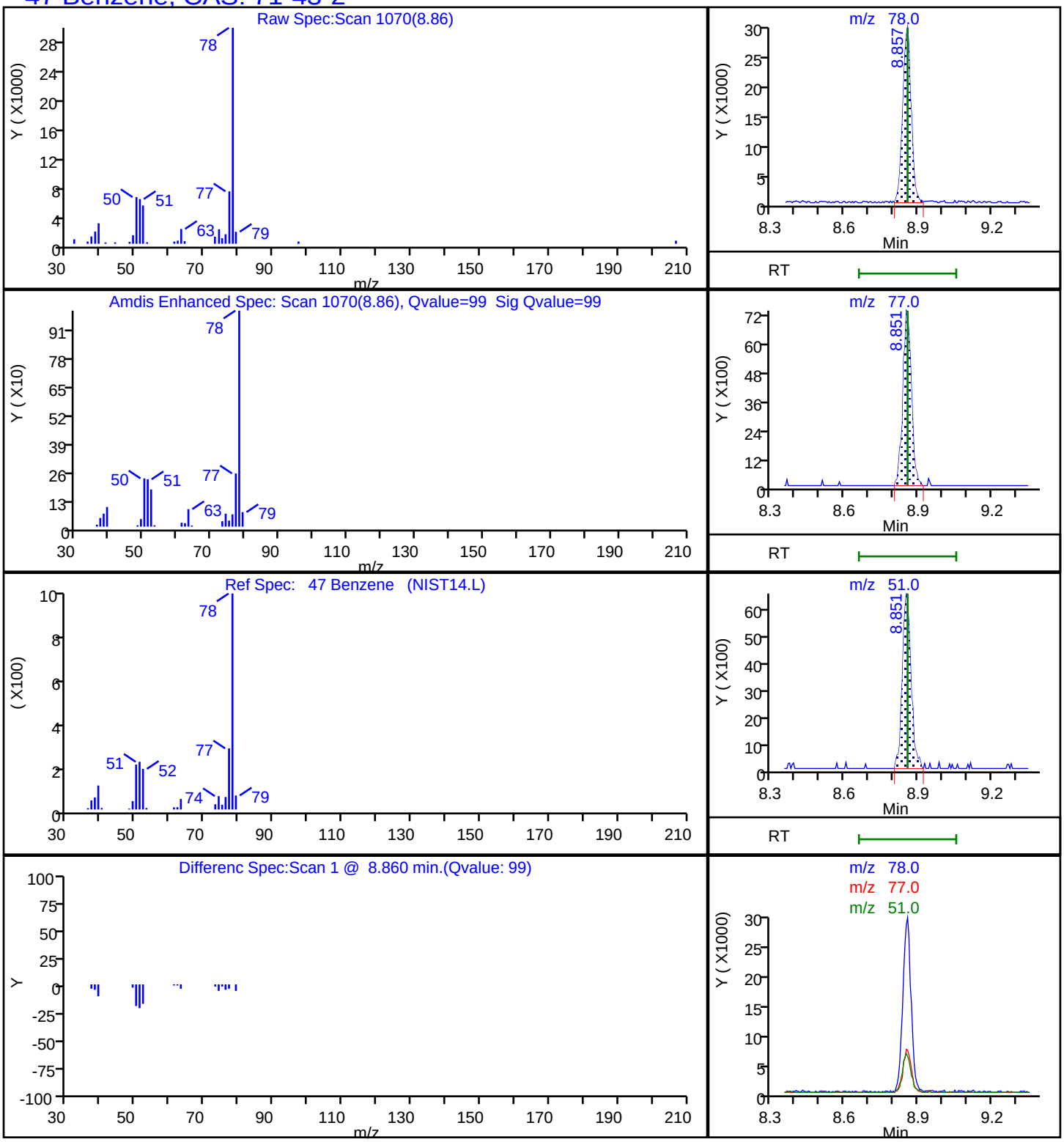
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.28	107.08

Report Date: 15-Apr-2019 13:37:45 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR		
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

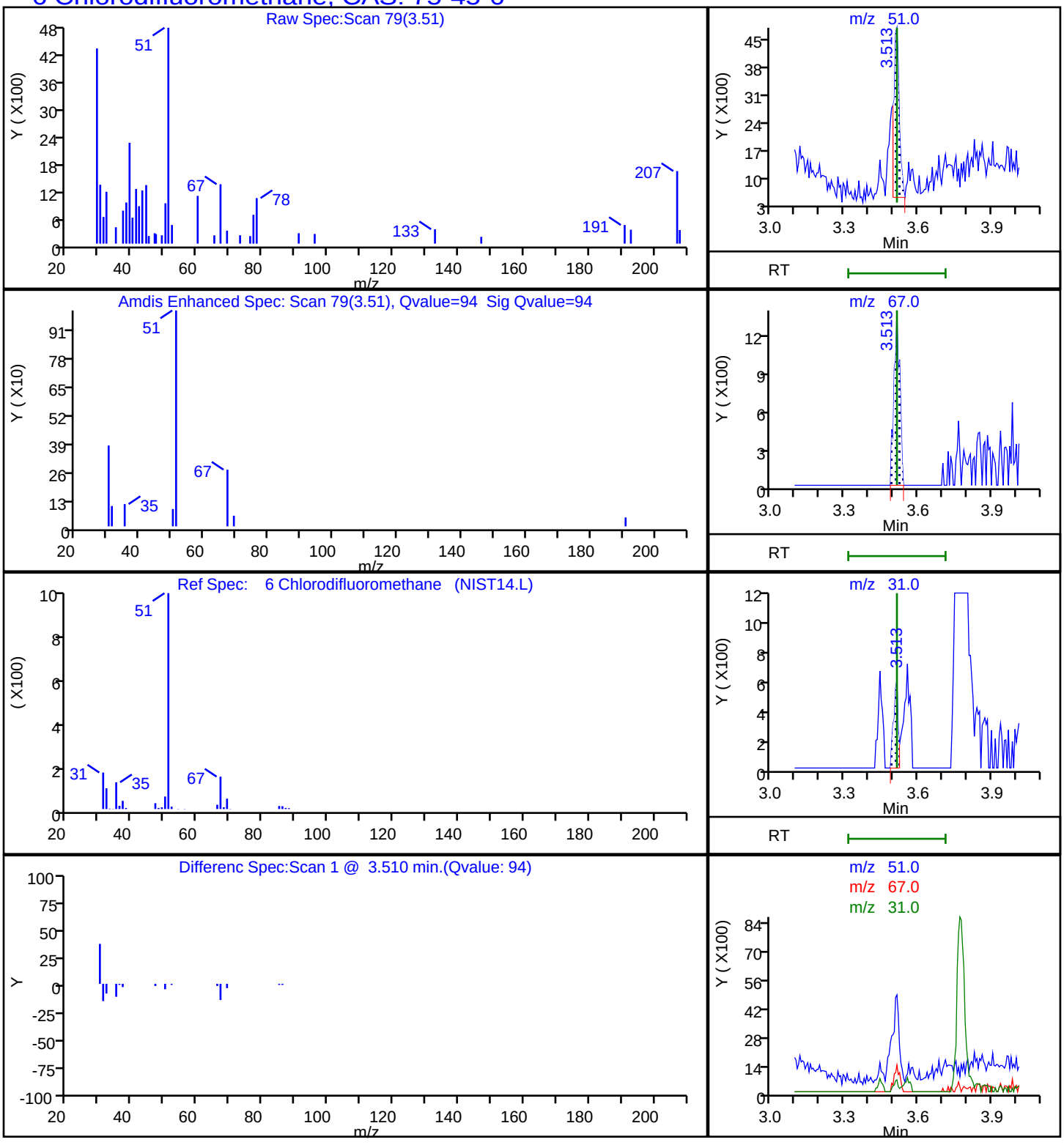
47 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR		
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
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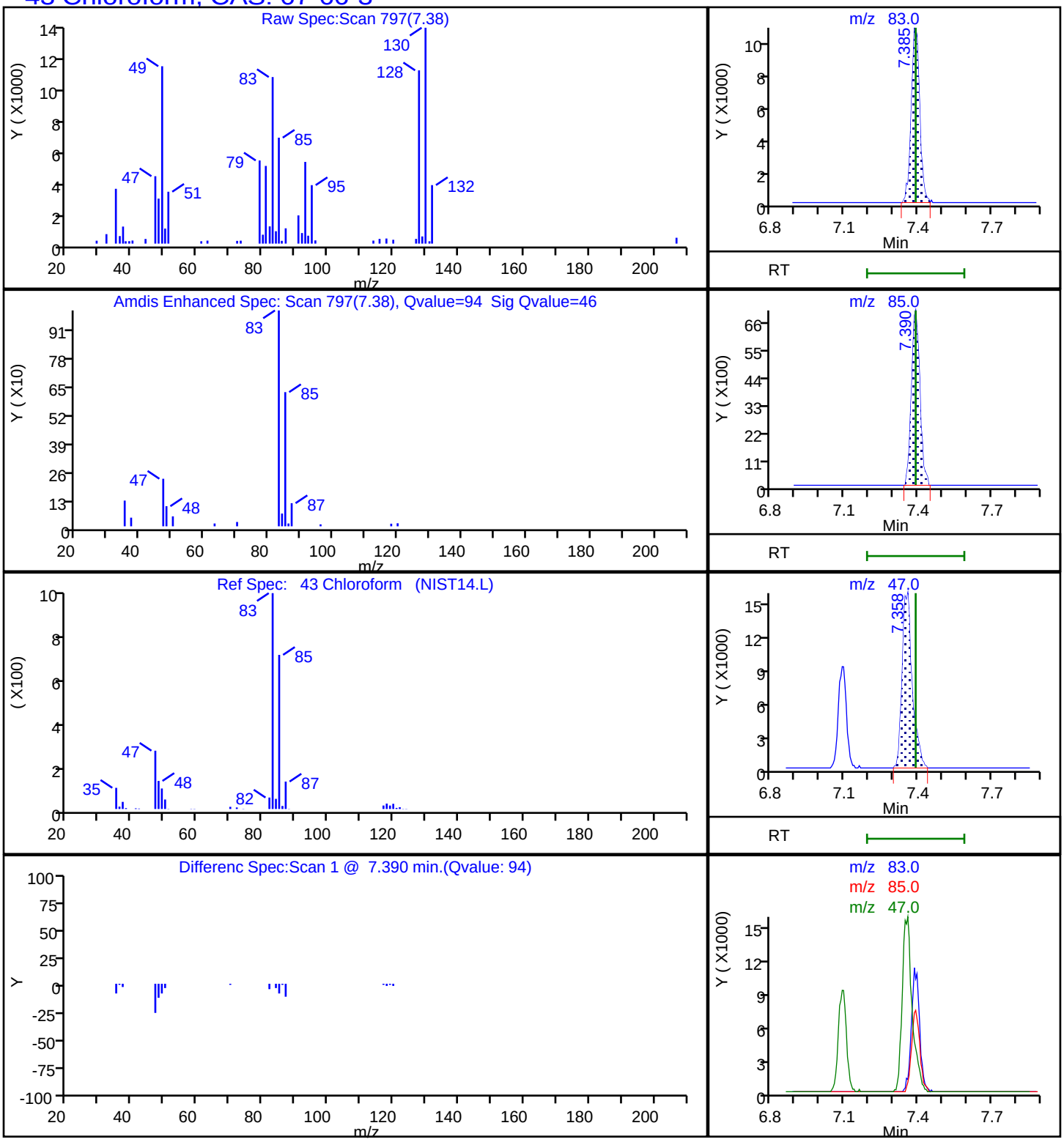
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

43 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
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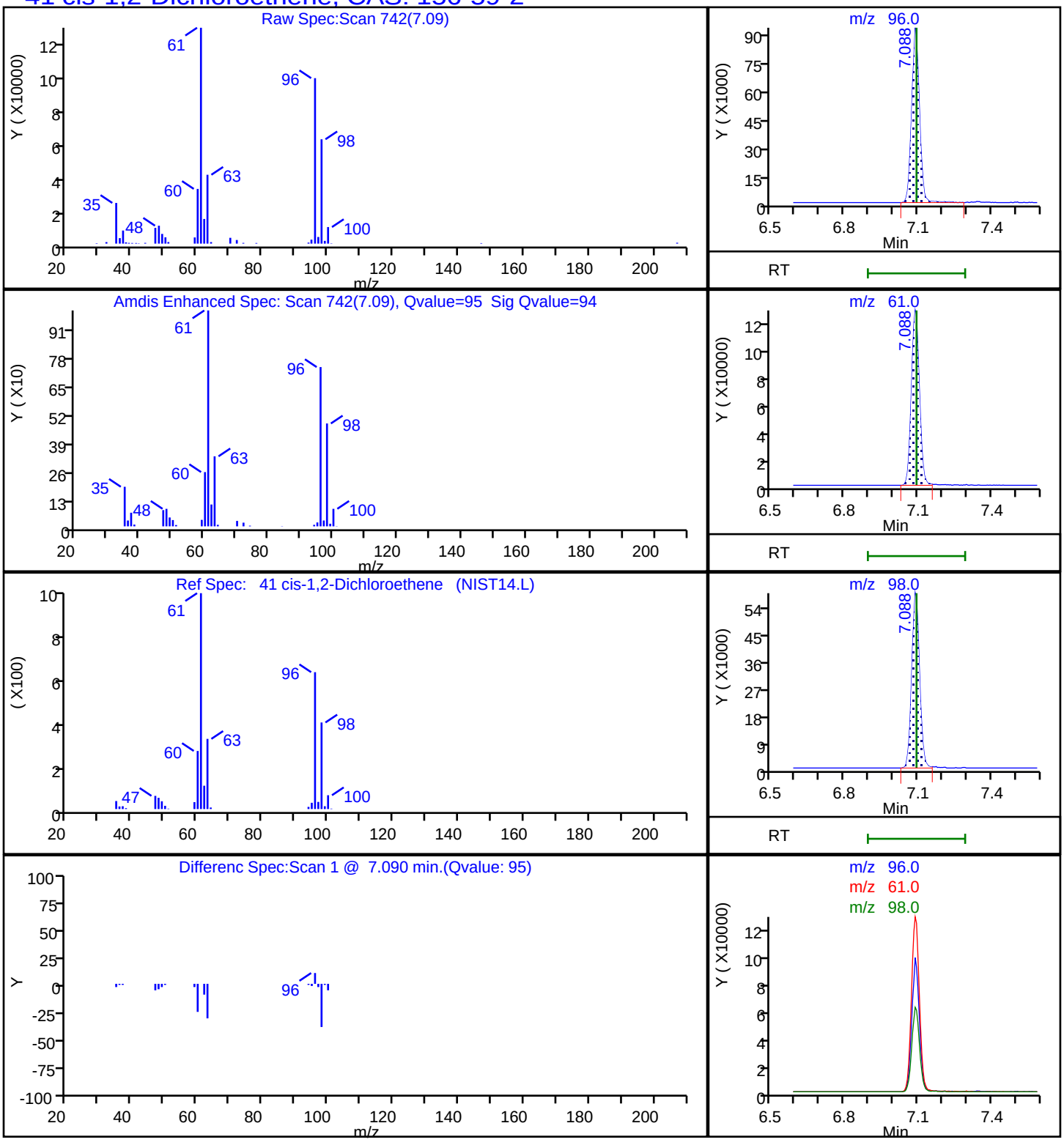
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

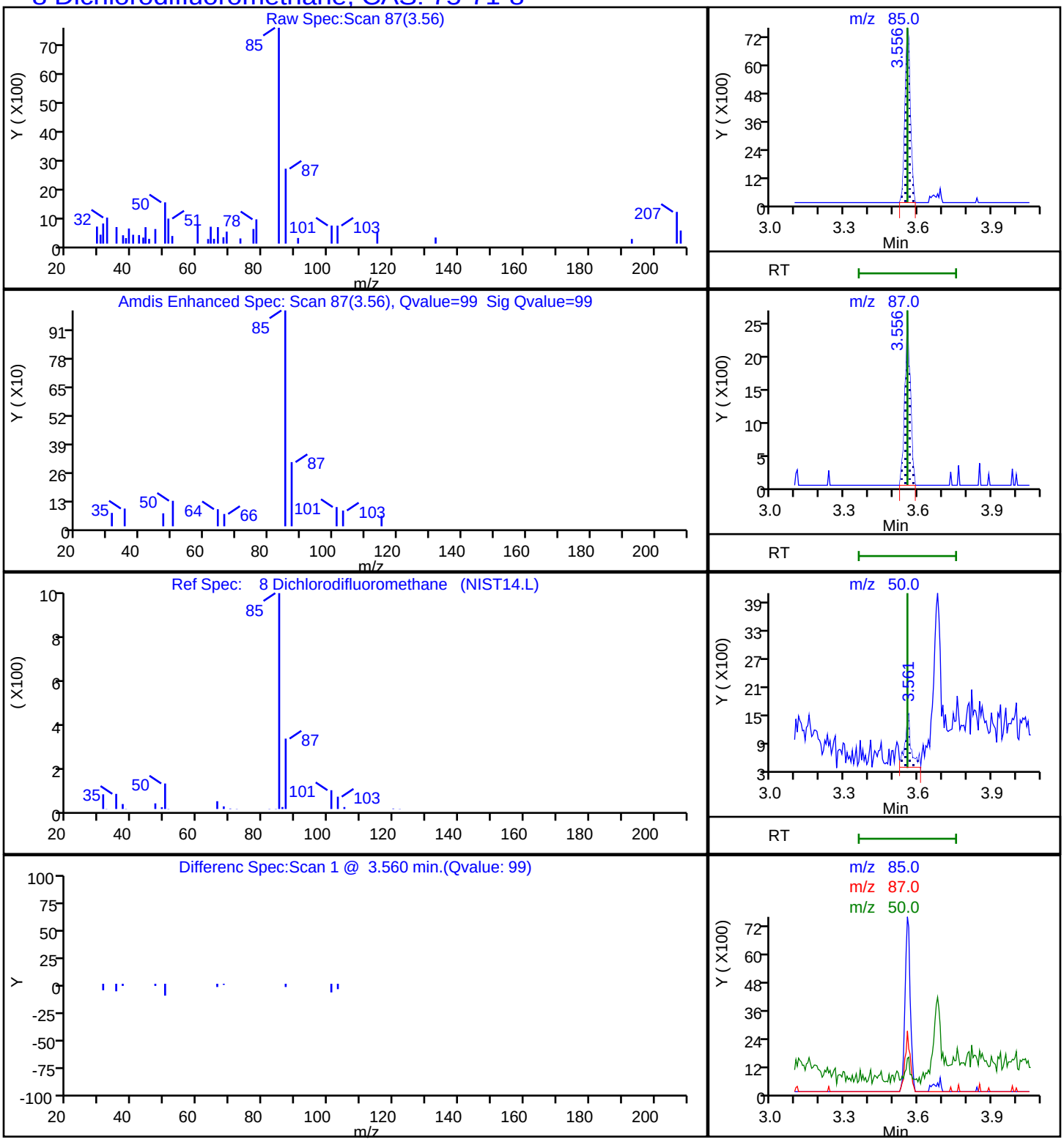
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D		
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

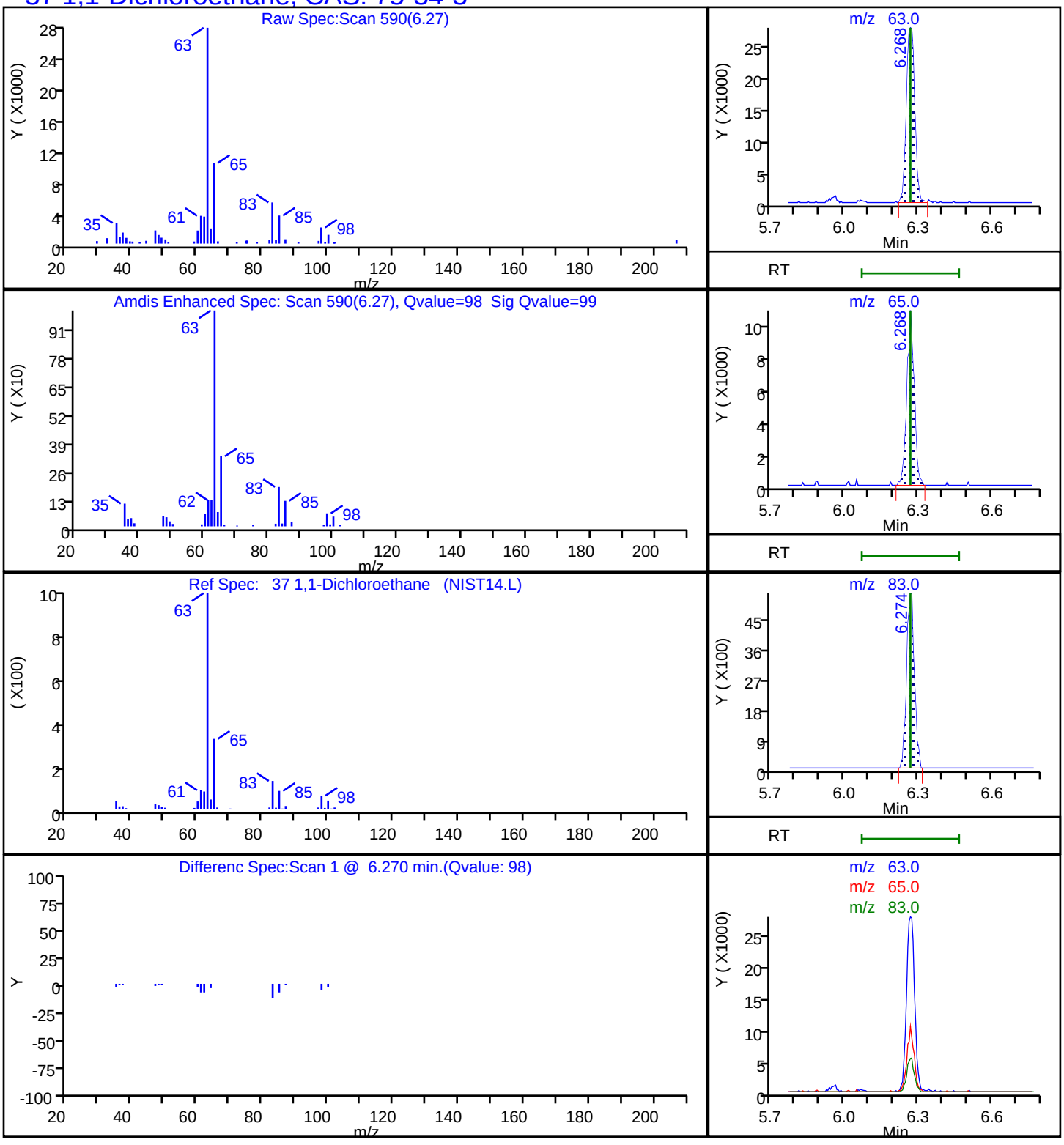
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D		
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

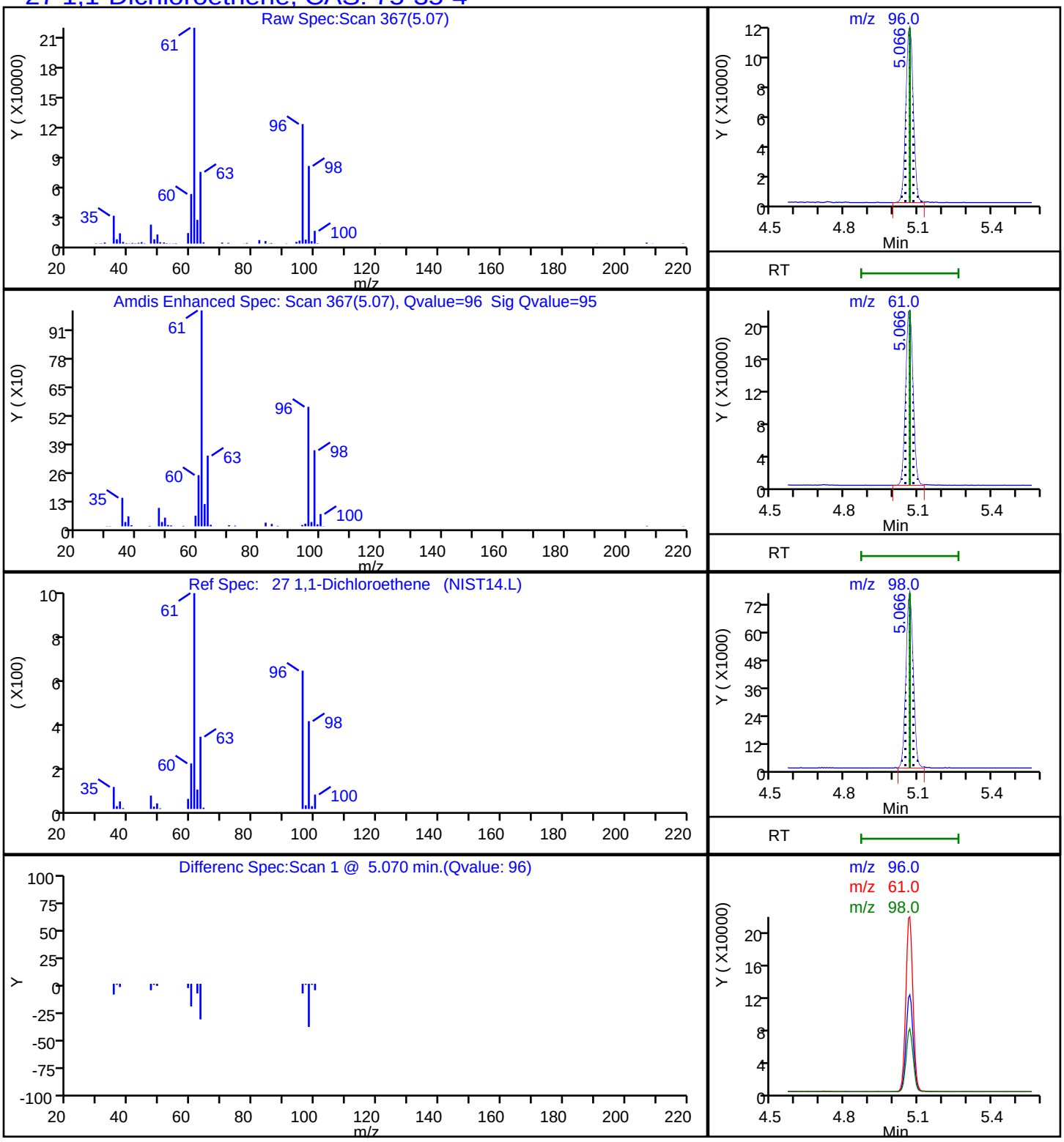
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D		
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
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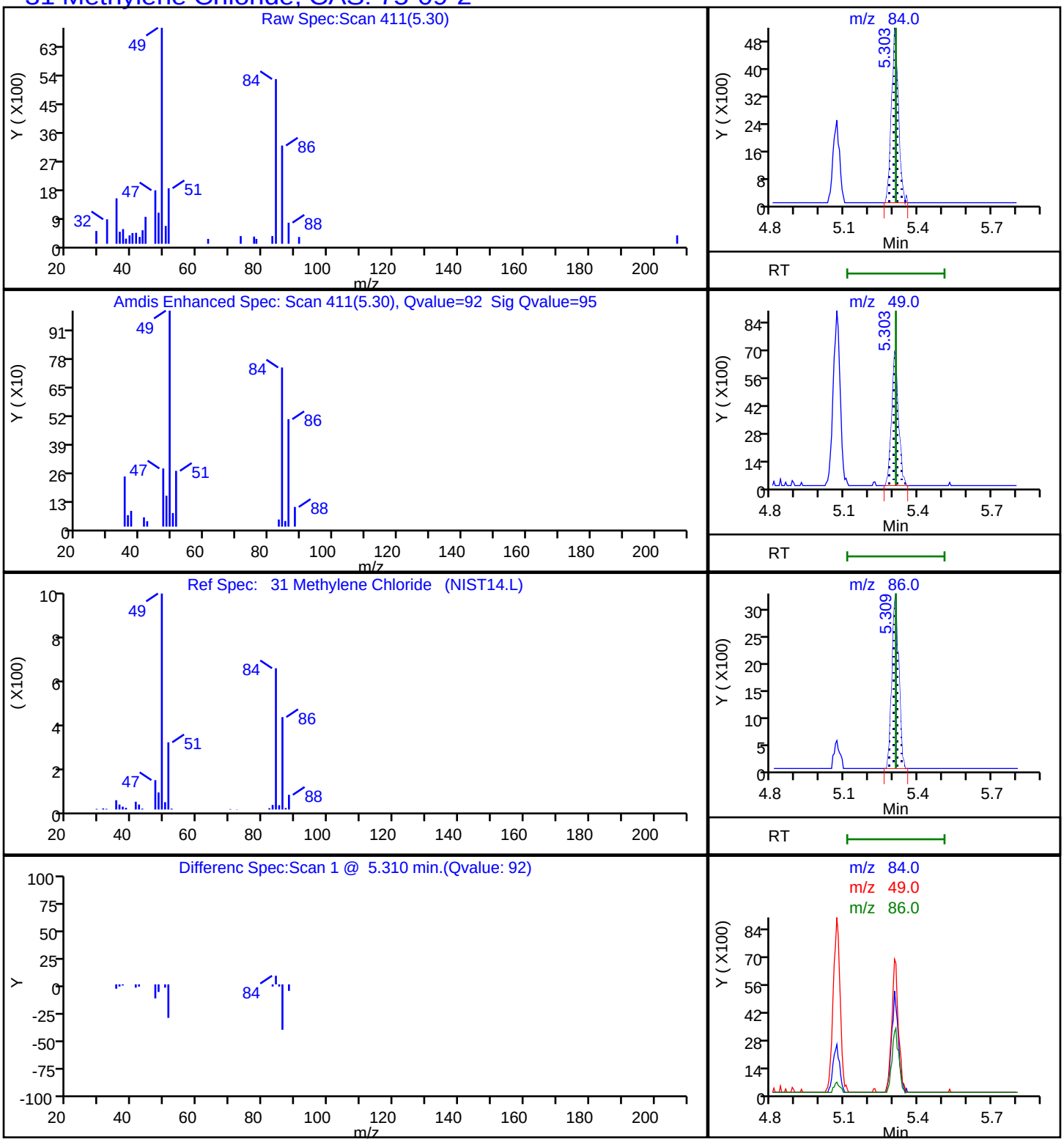
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

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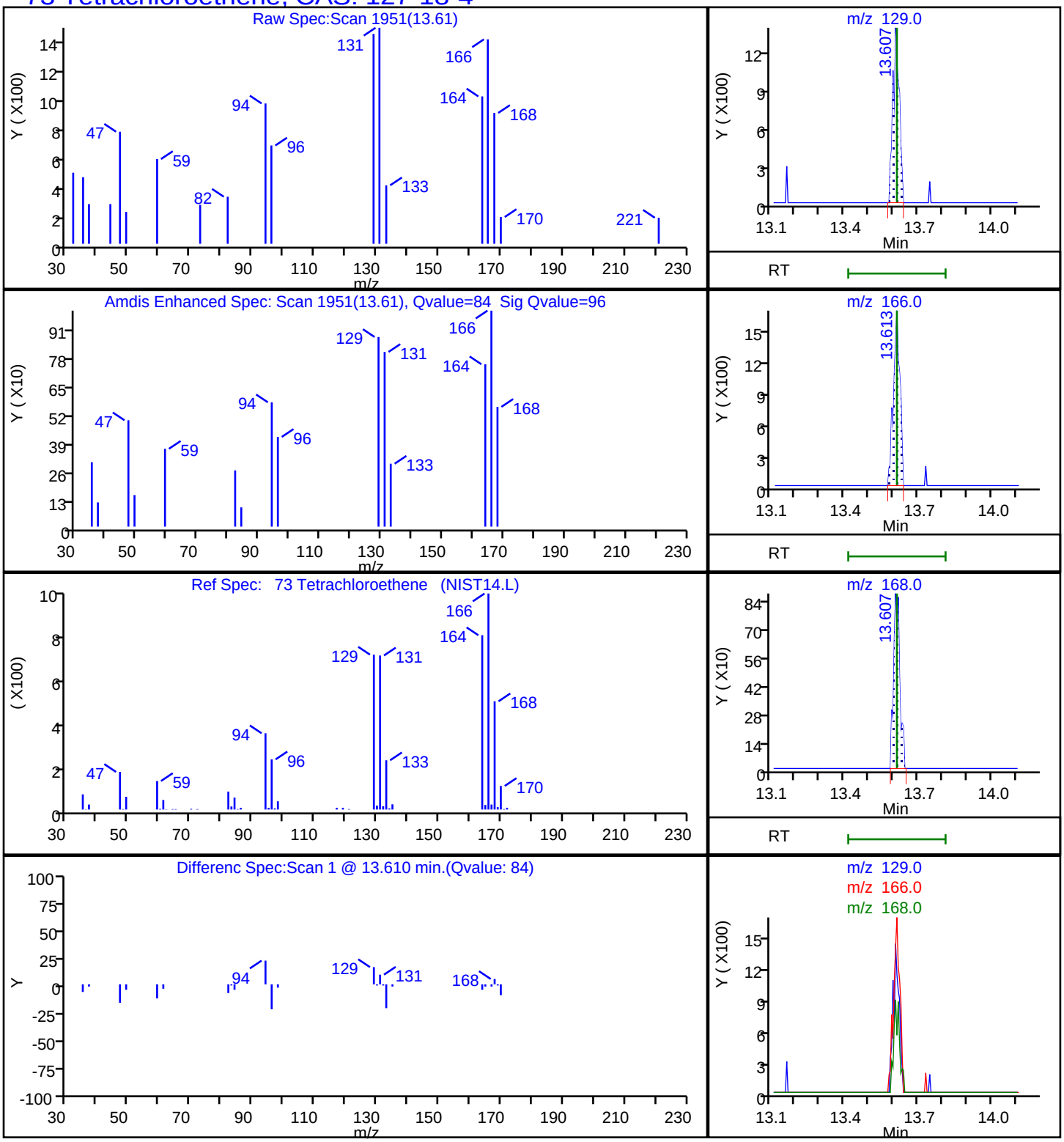
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

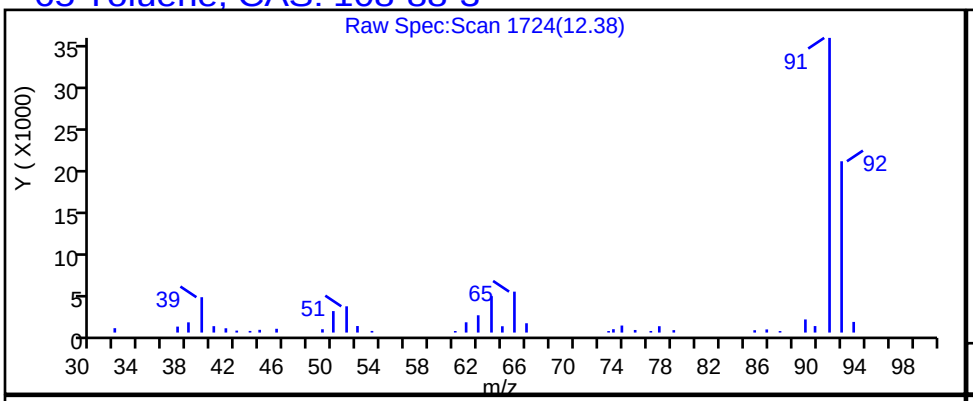
73 Tetrachloroethene, CAS: 127-18-4

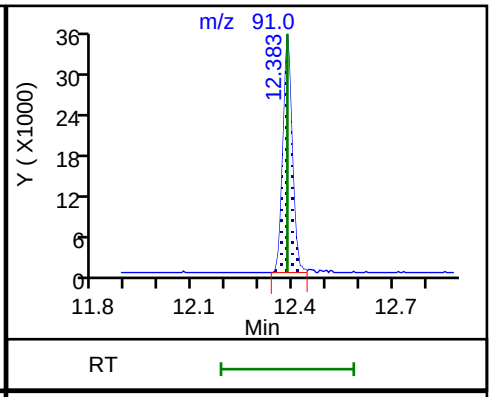


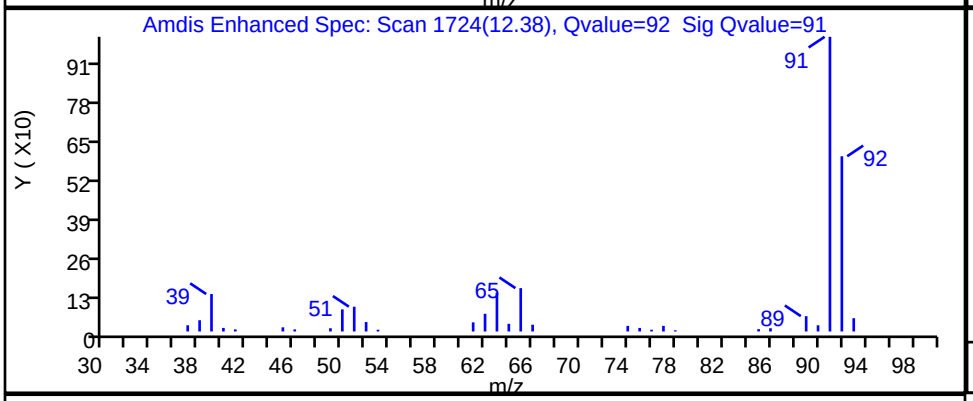
Eurofins TestAmerica, Knoxville

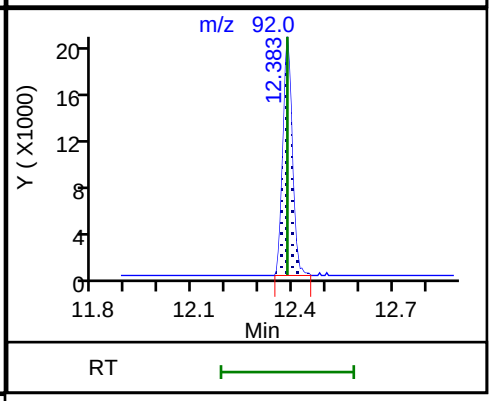
Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D		
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

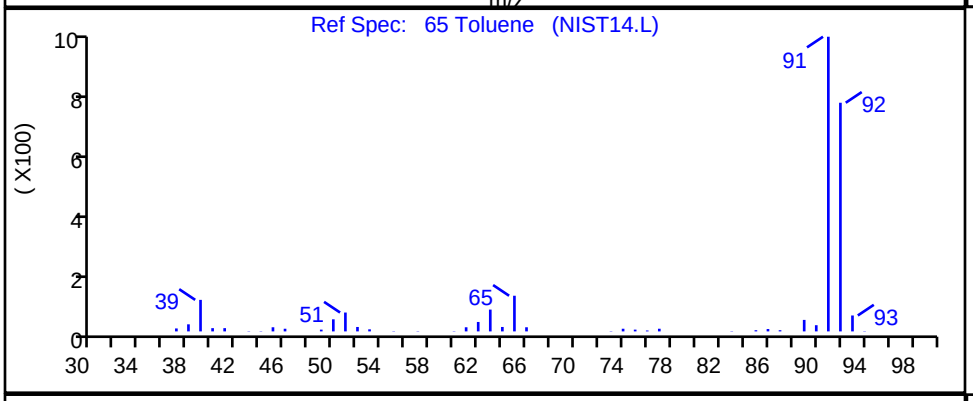
65 Toluene, CAS: 108-88-3

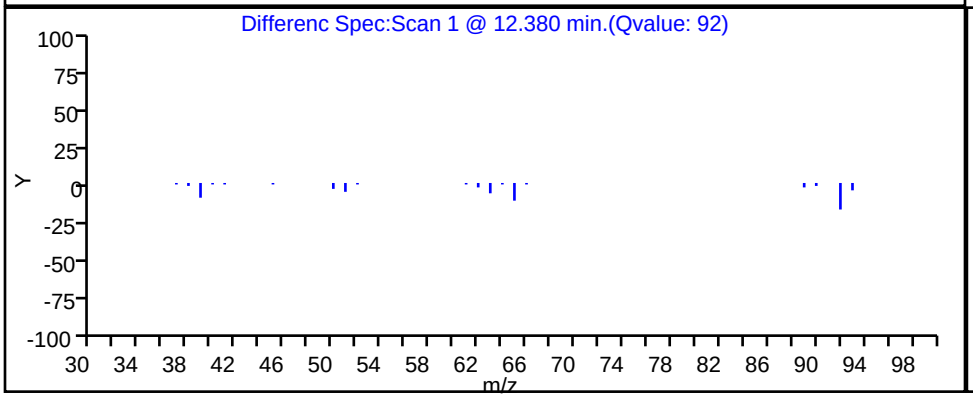


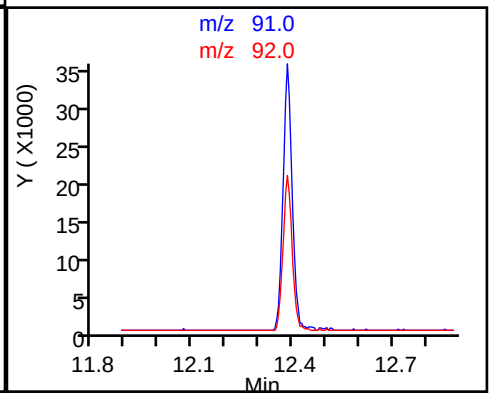












Report Date: 15-Apr-2019 13:37:45 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D

Injection Date: 13-Apr-2019 00:54:30 Instrument ID: MR

Lims ID: 140-14958-A-1 Lab Sample ID: 140-14958-1

Client ID: BLDG-A-INFLUENT

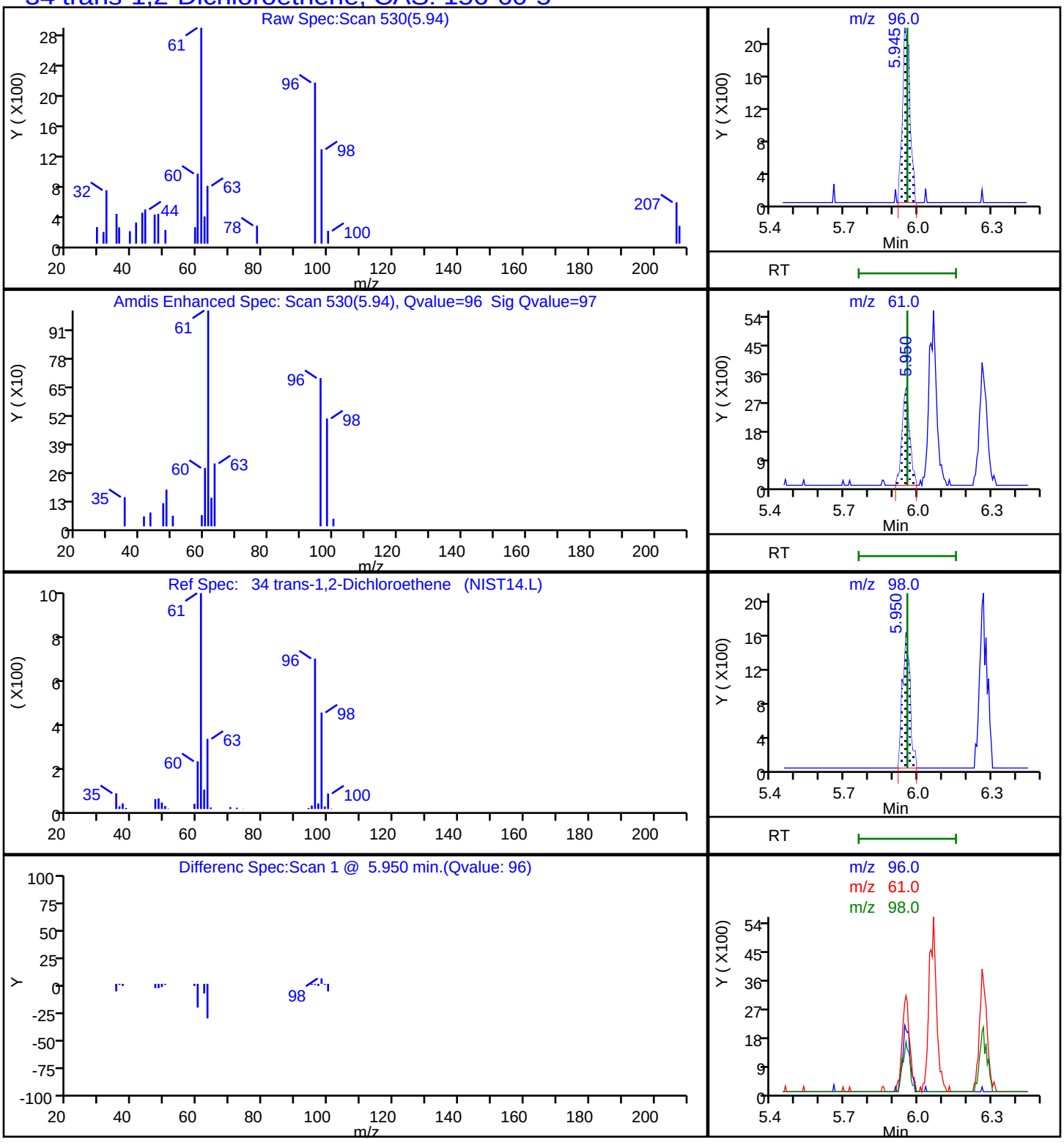
Operator ID: afb ALS Bottle#: 6 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

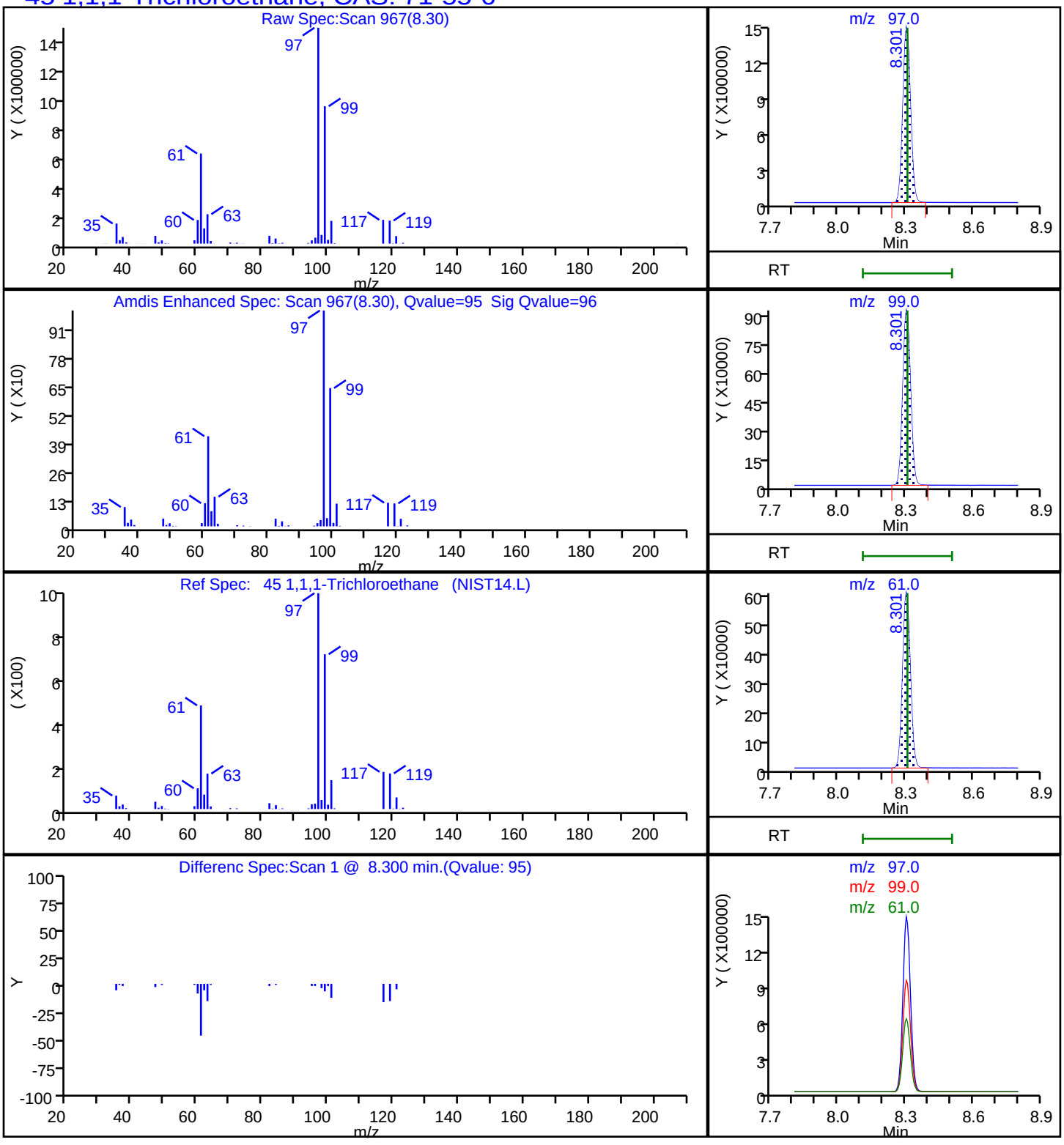
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR		
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

45 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 15-Apr-2019 13:37:45 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D

Injection Date: 13-Apr-2019 00:54:30 Instrument ID: MR

Lims ID: 140-14958-A-1 Lab Sample ID: 140-14958-1

Client ID: BLDG-A-INFLUENT

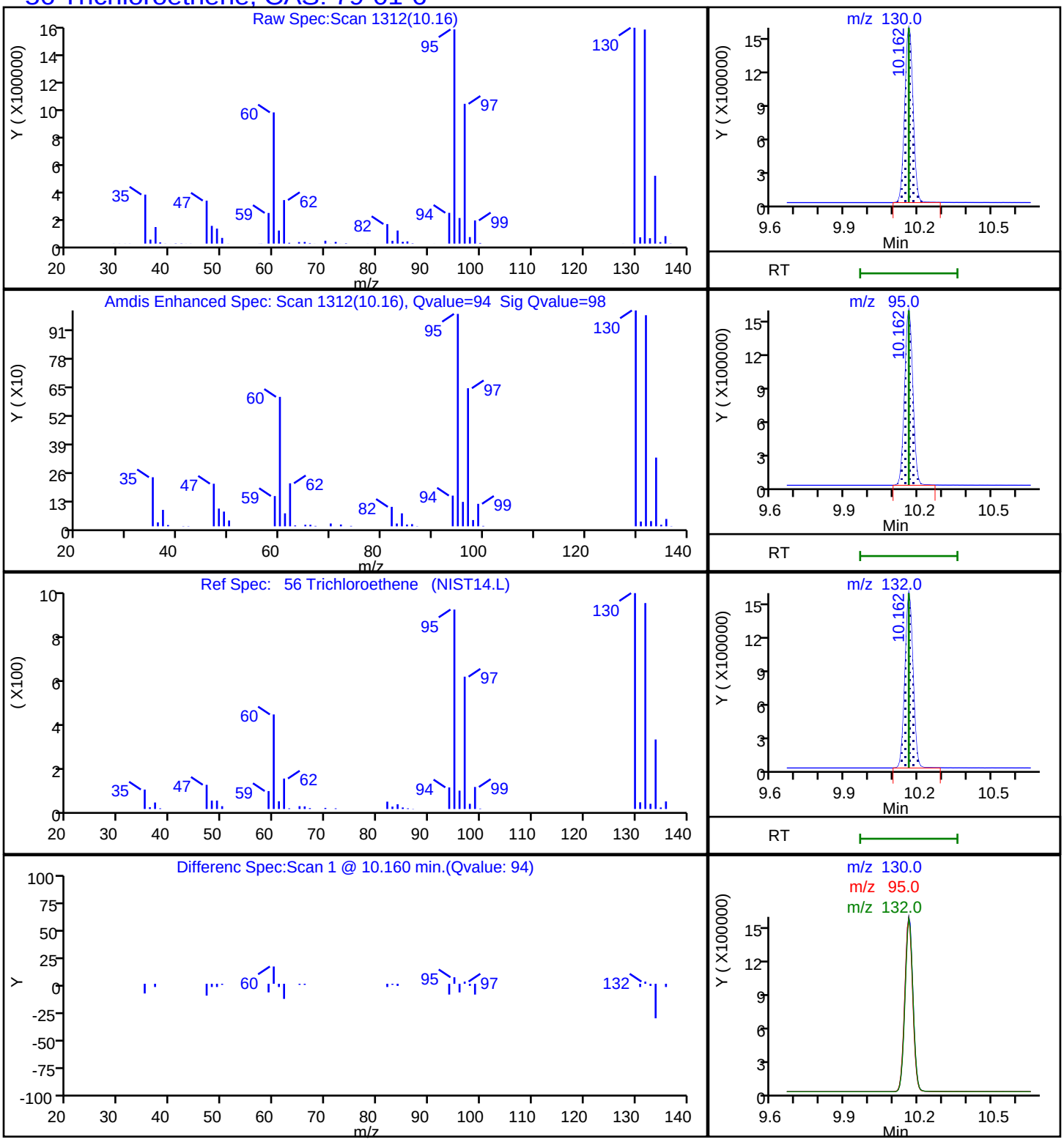
Operator ID: afb ALS Bottle#: 6 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

56 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D

Injection Date: 13-Apr-2019 00:54:30 Instrument ID: MR

Lims ID: 140-14958-A-1 Lab Sample ID: 140-14958-1

Client ID: BLDG-A-INFLUENT

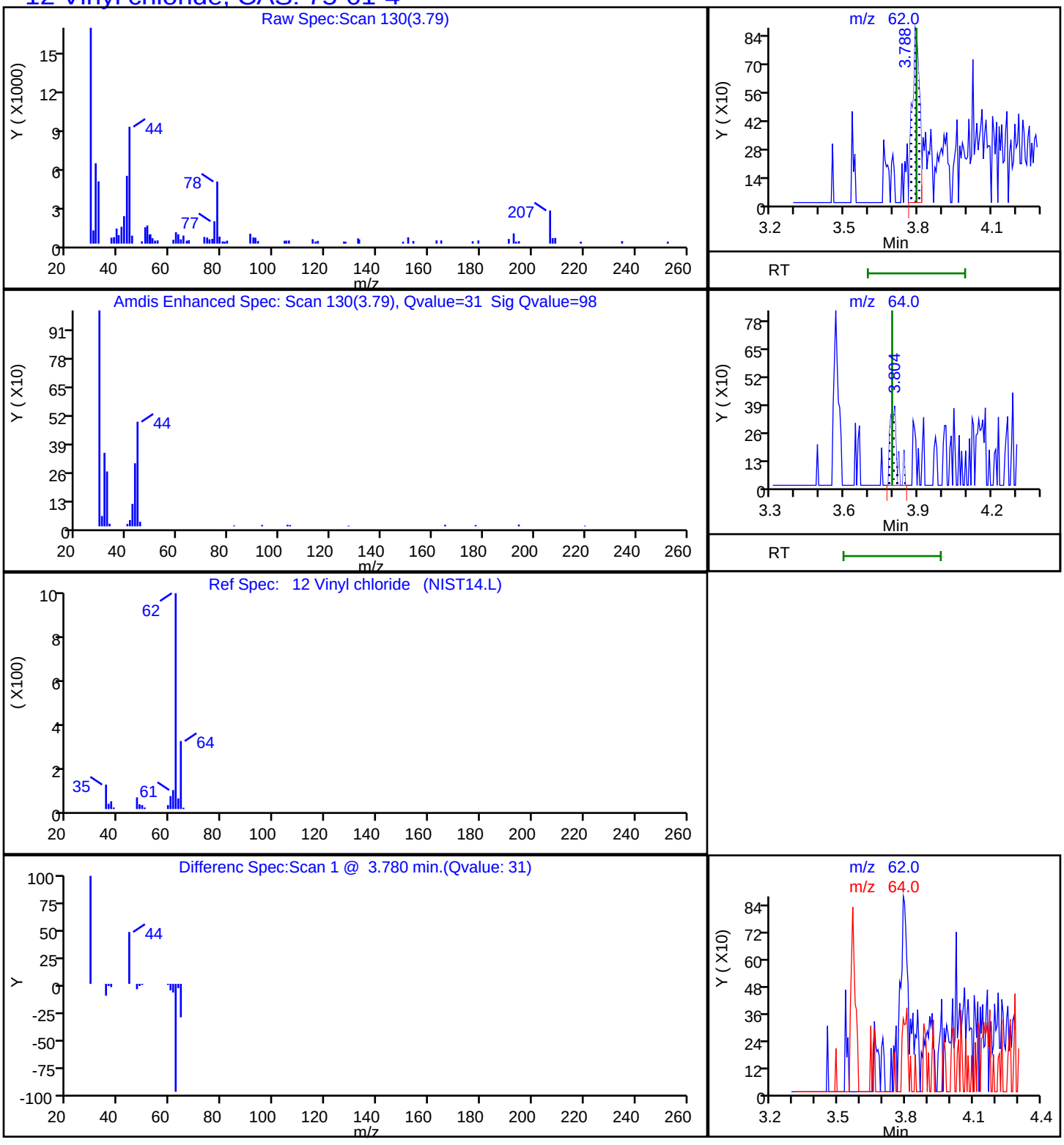
Operator ID: afb ALS Bottle#: 6 Worklist Smp#: 13

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

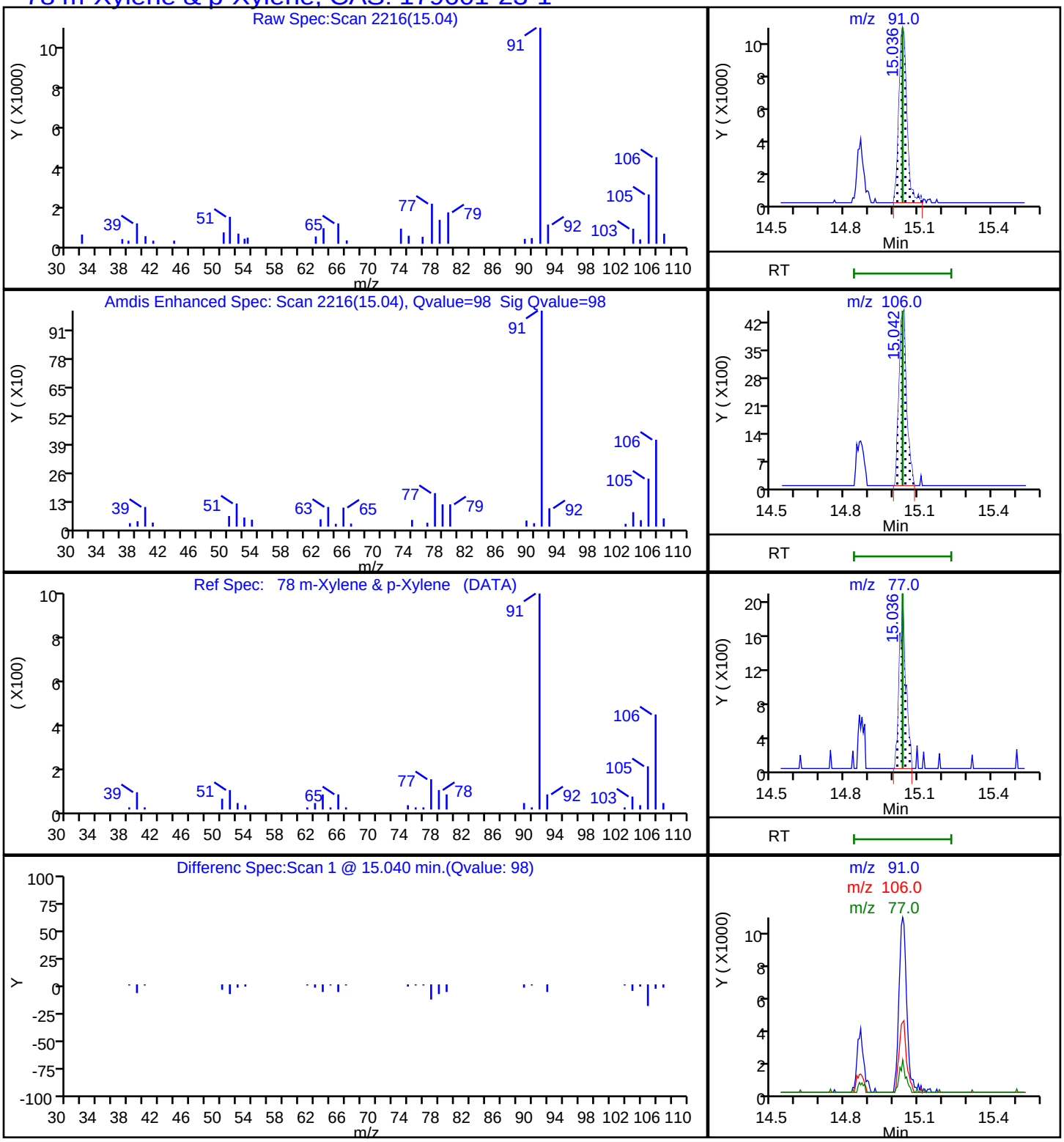
12 Vinyl chloride, CAS: 75-01-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR		
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

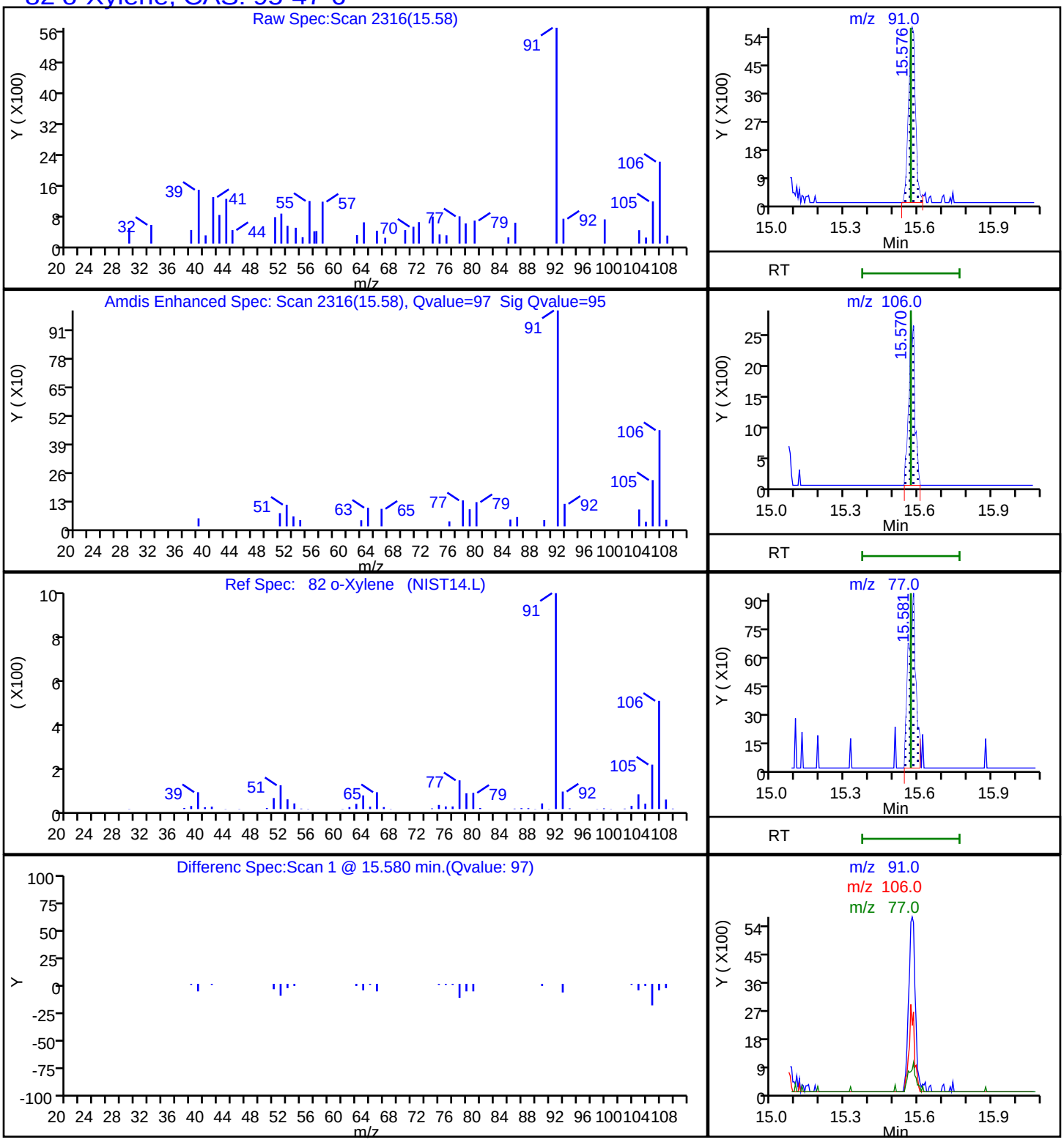


Report Date: 15-Apr-2019 13:37:45 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D		
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	afb	ALS Bottle#:	6 Worklist Smp#: 13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

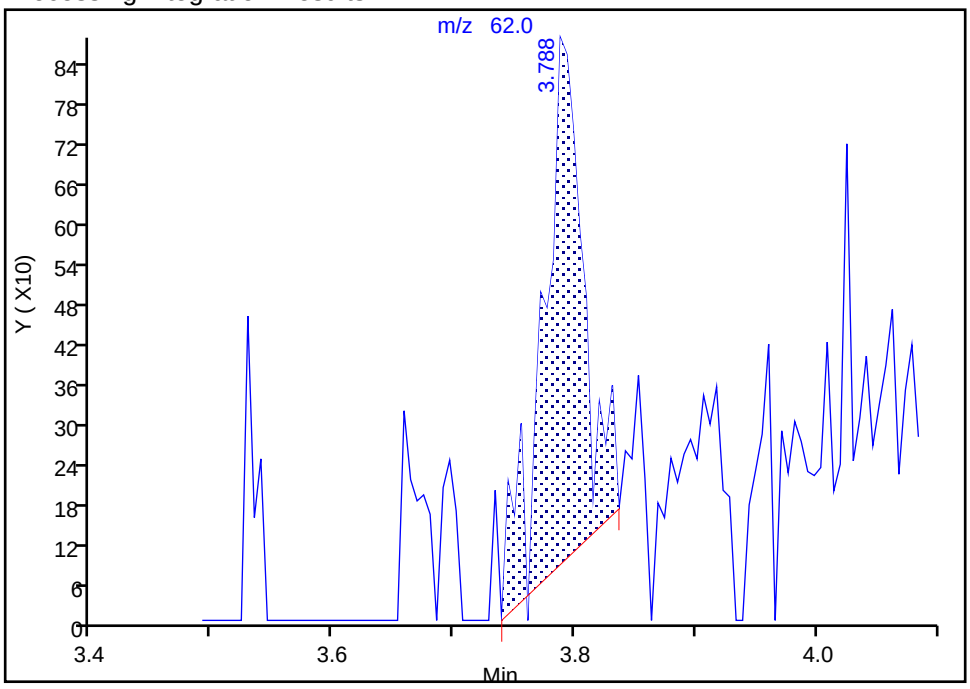
Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p106.D				
Injection Date:	13-Apr-2019 00:54:30	Instrument ID:	MR		
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	afb	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

Signal: 1

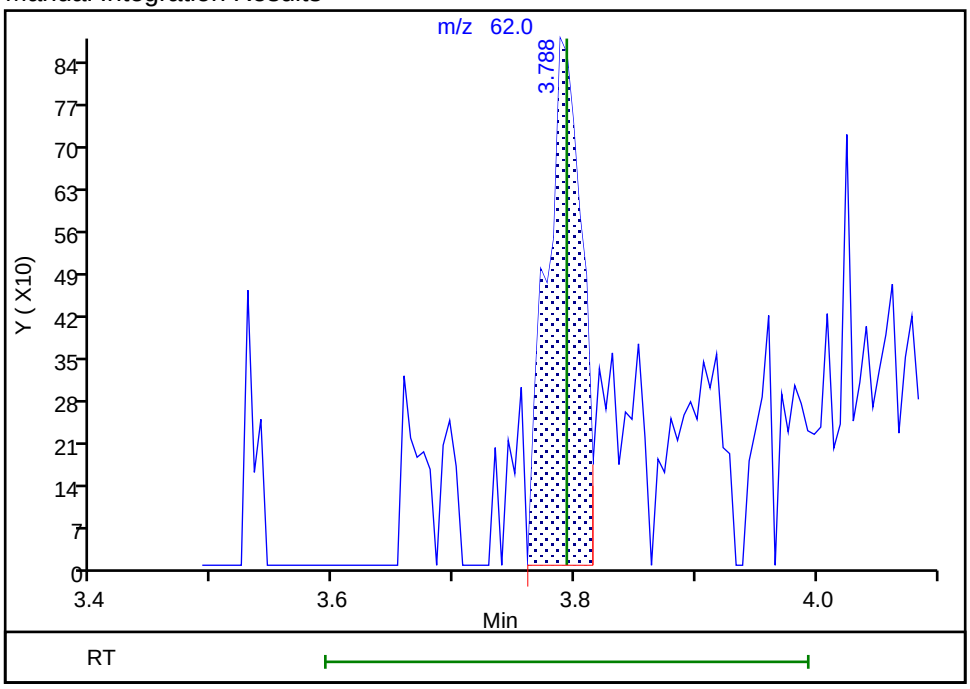
Processing Integration Results

RT: 3.79
Area: 1821
Amount: 0.037574
Amount Units: ppb v/v



Manual Integration Results

RT: 3.79
Area: 1766
Amount: 0.036439
Amount Units: ppb v/v



Reviewer: barlozhetskayaa, 15-Apr-2019 13:37:02

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT DL Lab Sample ID: 140-14958-1 DL

Matrix: Air Lab File ID: JD15p110.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 11:59

Sample wt/vol: 20(mL) Date Analyzed: 04/16/2019 00:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	100		1.0	0.35

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT DL Lab Sample ID: 140-14958-1 DL

Matrix: Air Lab File ID: JD15p110.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 11:59

Sample wt/vol: 20(mL) Date Analyzed: 04/16/2019 00:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	550		5.4	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p110.D				
Lims ID:	140-14958-A-1				
Client ID:	BLDG-A-INFLUENT				
Sample Type:	Client				
Inject. Date:	16-Apr-2019 00:37:30	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-016				
Misc. Info.:	140-14958-A-1				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:21:56	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				
First Level Reviewer: khachitpongpanits		Date:	19-Apr-2019 10:21:55		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.753	9.756	-0.003	97	289334	4.00	
* 2 1,4-Difluorobenzene	114	11.856	11.865	-0.009	95	1720188	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.467	16.470	-0.003	89	1510825	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.064	18.067	-0.003	88	1057803	3.80	
21 Dichlorodifluoromethane	85	4.234	4.235	-0.003	94	1665	0.0159	
40 1,1-Dichloroethene	96	6.708	6.708	-0.003	95	56961	0.5791	
44 Methylene Chloride	84	7.079	7.088	-0.009	97	20241	0.1475	
47 trans-1,2-Dichloroethene	96	7.940	7.940	-0.003	55	773	0.008103	
50 1,1-Dichloroethane	63	8.387	8.381	0.003	97	10564	0.0562	
55 cis-1,2-Dichloroethene	96	9.403	9.408	-0.009	98	36717	0.3725	
57 Chloroform	83	9.758	9.757	-0.004	30	4455	0.0203	
60 1,1,1-Trichloroethane	97	10.786	10.784	-0.003	97	406045	1.94	
64 Benzene	78	11.356	11.365	-0.009	97	11521	0.0385	
71 Trichloroethene	130	12.556	12.554	-0.003	95	566277	4.12	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

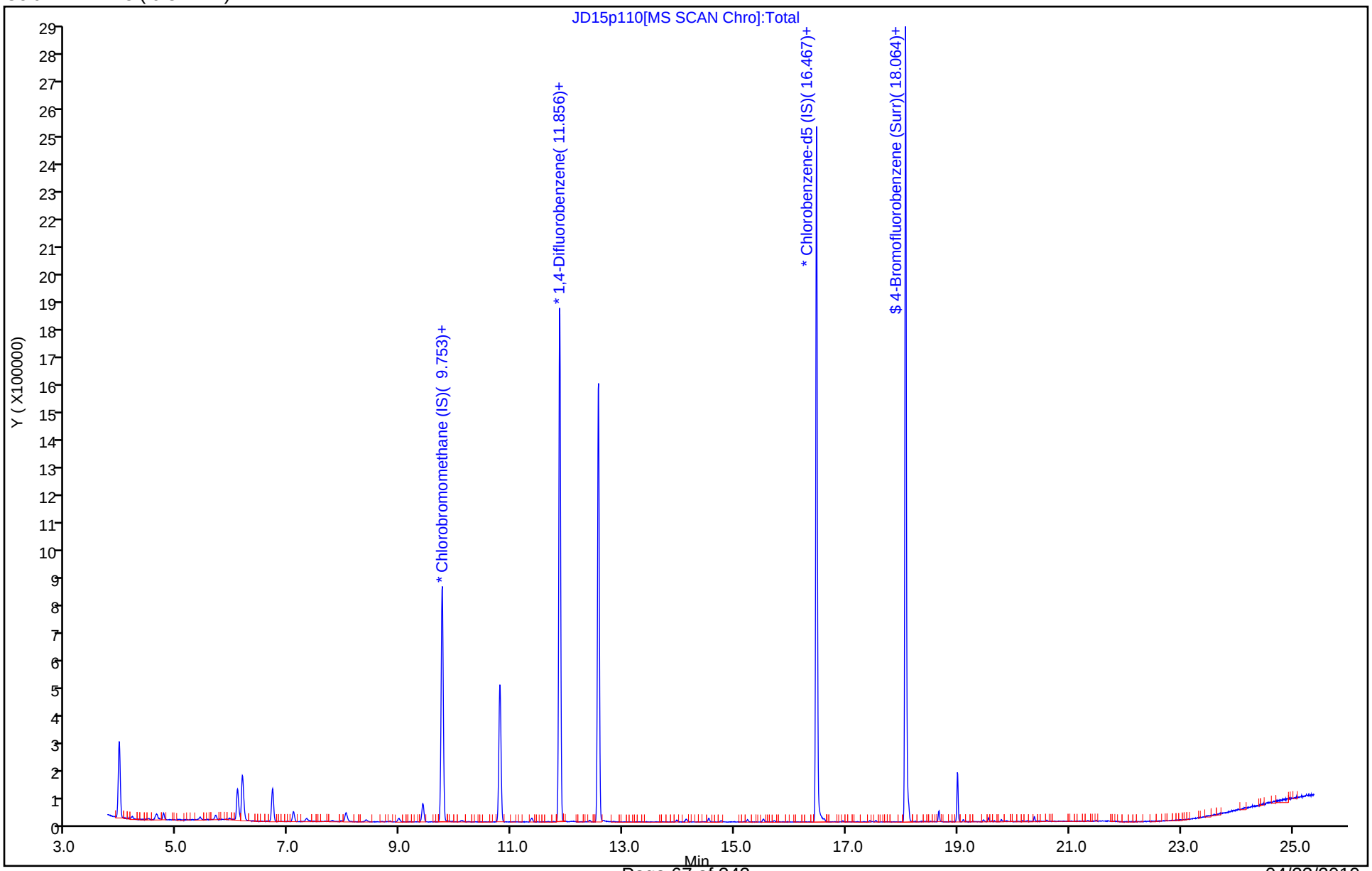
Report Date: 19-Apr-2019 10:21:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p110.D

Injection Date:	16-Apr-2019 00:37:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	140-14958-A-1	Lab Sample ID:	140-14958-1	Worklist Smp#:	16
Client ID:	BLDG-A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p110.D				
Lims ID:	140-14958-A-1				
Client ID:	BLDG-A-INFLUENT				
Sample Type:	Client				
Inject. Date:	16-Apr-2019 00:37:30	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-016				
Misc. Info.:	140-14958-A-1				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:21:56	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:21:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.80	95.09

Report Date: 19-Apr-2019 10:21:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p110.D

Injection Date: 16-Apr-2019 00:37:30 Instrument ID: MJ

Lims ID: 140-14958-A-1 Lab Sample ID: 140-14958-1

Client ID: BLDG-A-INFLUENT

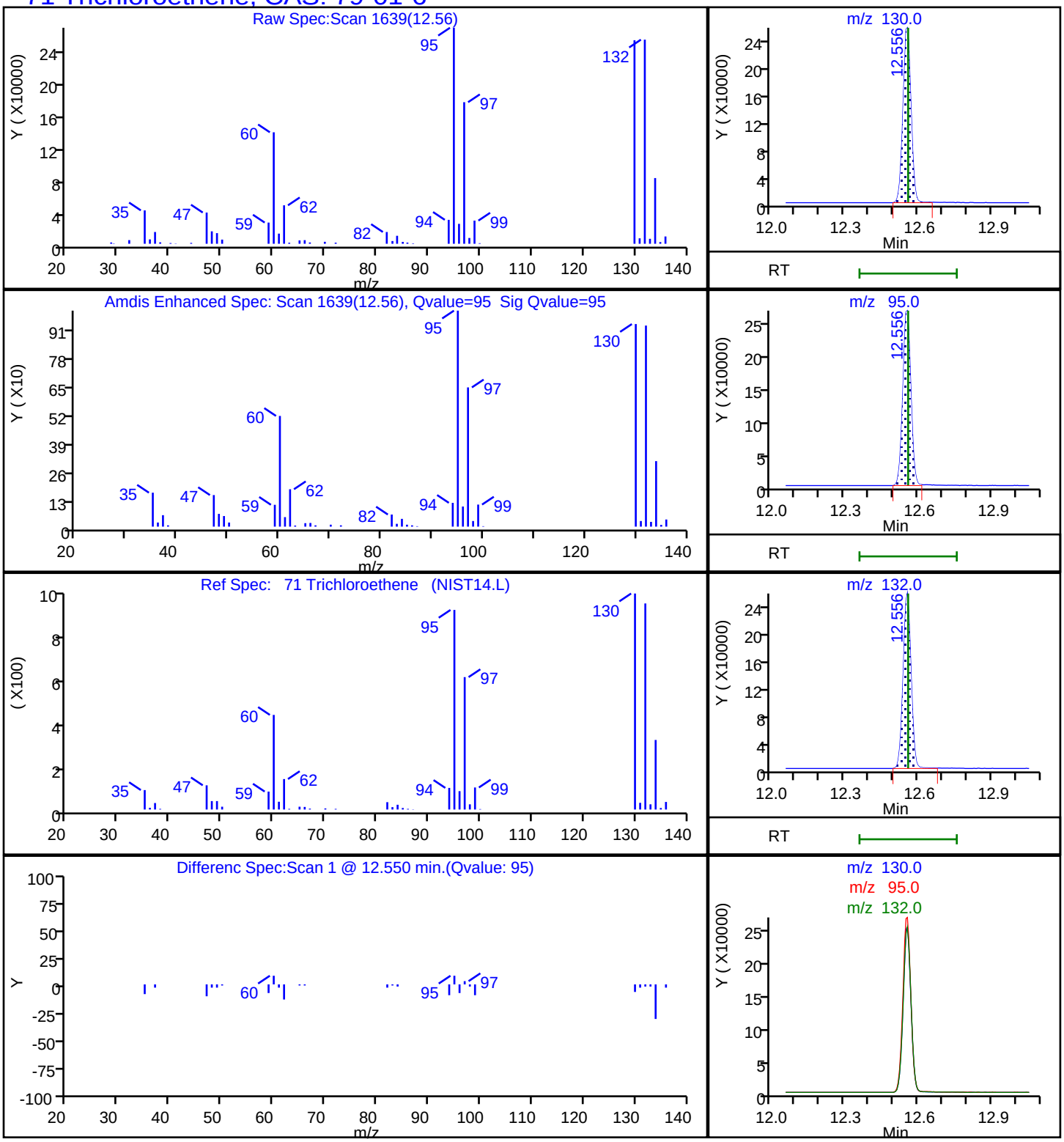
Operator ID: 403648 ALS Bottle#: 10 Worklist Smp#: 16

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

71 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-MID GAC Lab Sample ID: 140-14958-2

Matrix: Air Lab File ID: RD12p105.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 12:10

Sample wt/vol: 100(mL) Date Analyzed: 04/13/2019 00:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.13	J	0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.32	J	0.40	0.075
67-66-3	Chloroform	119.38	0.74		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	19		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.30	J	0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	3.6		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	27		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	0.91	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	ND		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	0.51		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	25		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	ND		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	0.20		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.13	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-MID GAC Lab Sample ID: 140-14958-2

Matrix: Air Lab File ID: RD12p105.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 12:10

Sample wt/vol: 100(mL) Date Analyzed: 04/13/2019 00:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.42	J	1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.27
67-66-3	Chloroform	119.38	3.6		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	74		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	14		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	110		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	3.2	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	ND		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	2.0		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	130		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	ND		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	0.51		0.51	0.37
1330-20-7	Xylenes, Total	106.17	0.56	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D
Lims ID: 140-14958-A-2
Client ID: BLDG-A-MID GAC
Sample Type: Client
Inject. Date: 13-Apr-2019 00:04:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011413-012
Misc. Info.: 140-14958-A-2
Operator ID: afb Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Apr-2019 13:36:13 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:36:13

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	7.358	7.352	0.006	71	179215	4.00	
*	2 1,4-Difluorobenzene	114	9.417	9.412	0.005	95	1031447	4.00	
*	3 Chlorobenzene-d5 (IS)	117	14.470	14.470	0.000	91	907299	4.00	
$	4 4-Bromofluorobenzene (Surr	95	16.196	16.196	0.000	87	808973	4.19	
	6 Chlorodifluoromethane	51	3.518	3.513	0.005	95	6774	0.0637	
	8 Dichlorodifluoromethane	85	3.561	3.556	0.005	98	11808	0.0606	
	12 Vinyl chloride	62	3.788	3.788	-0.005	31	1901	0.0395	M
	27 1,1-Dichloroethene	96	5.071	5.066	0.005	96	335215	5.32	
	31 Methylene Chloride	84	5.314	5.308	0.006	90	10897	0.1818	
	34 trans-1,2-Dichloroethene	96	5.955	5.955	-0.001	90	6579	0.1023	
	37 1,1-Dichloroethane	63	6.274	6.268	0.006	98	76618	0.7118	
	41 cis-1,2-Dichloroethene	96	7.093	7.093	0.000	95	243297	3.75	
	43 Chloroform	83	7.390	7.390	0.000	90	25489	0.1489	
	45 1,1,1-Trichloroethane	97	8.307	8.307	0.000	95	1072033	4.94	
	47 Benzene	78	8.851	8.857	-0.006	95	4398	0.0262	
	65 Toluene	91	12.389	12.383	0.006	91	12843	0.0591	
	82 o-Xylene	91	15.575	15.570	0.005	94	6872	0.0254	
S	121 Xylenes, Total	100				0		0.0254	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

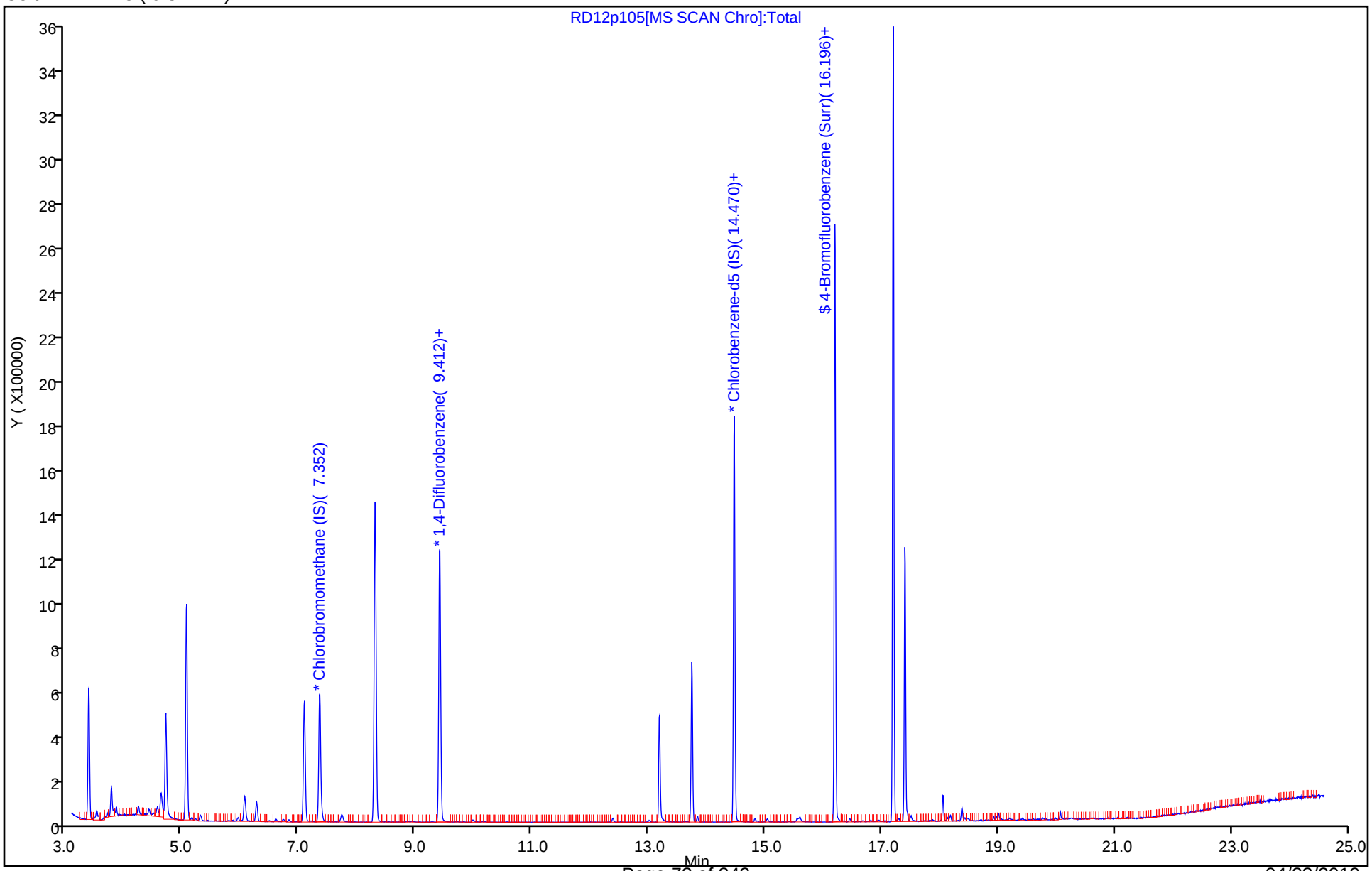
Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D

Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2	Worklist Smp#:	12
Client ID:	BLDG-A-MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Lims ID:	140-14958-A-2				
Client ID:	BLDG-A-MID GAC				
Sample Type:	Client				
Inject. Date:	13-Apr-2019 00:04:30	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-012				
Misc. Info.:	140-14958-A-2				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:36:13	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

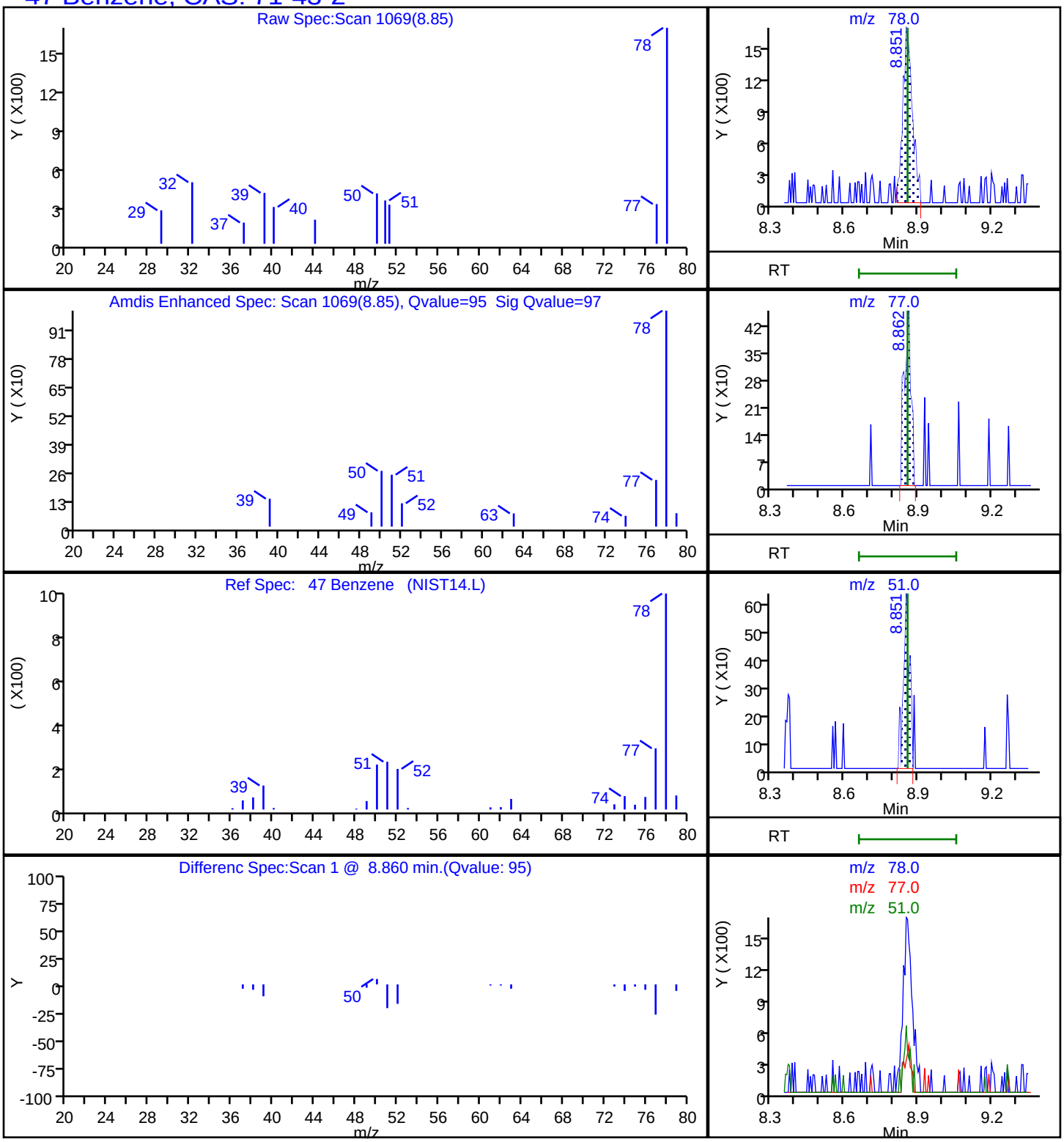
First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:36:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.82

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 Benzene, CAS: 71-43-2

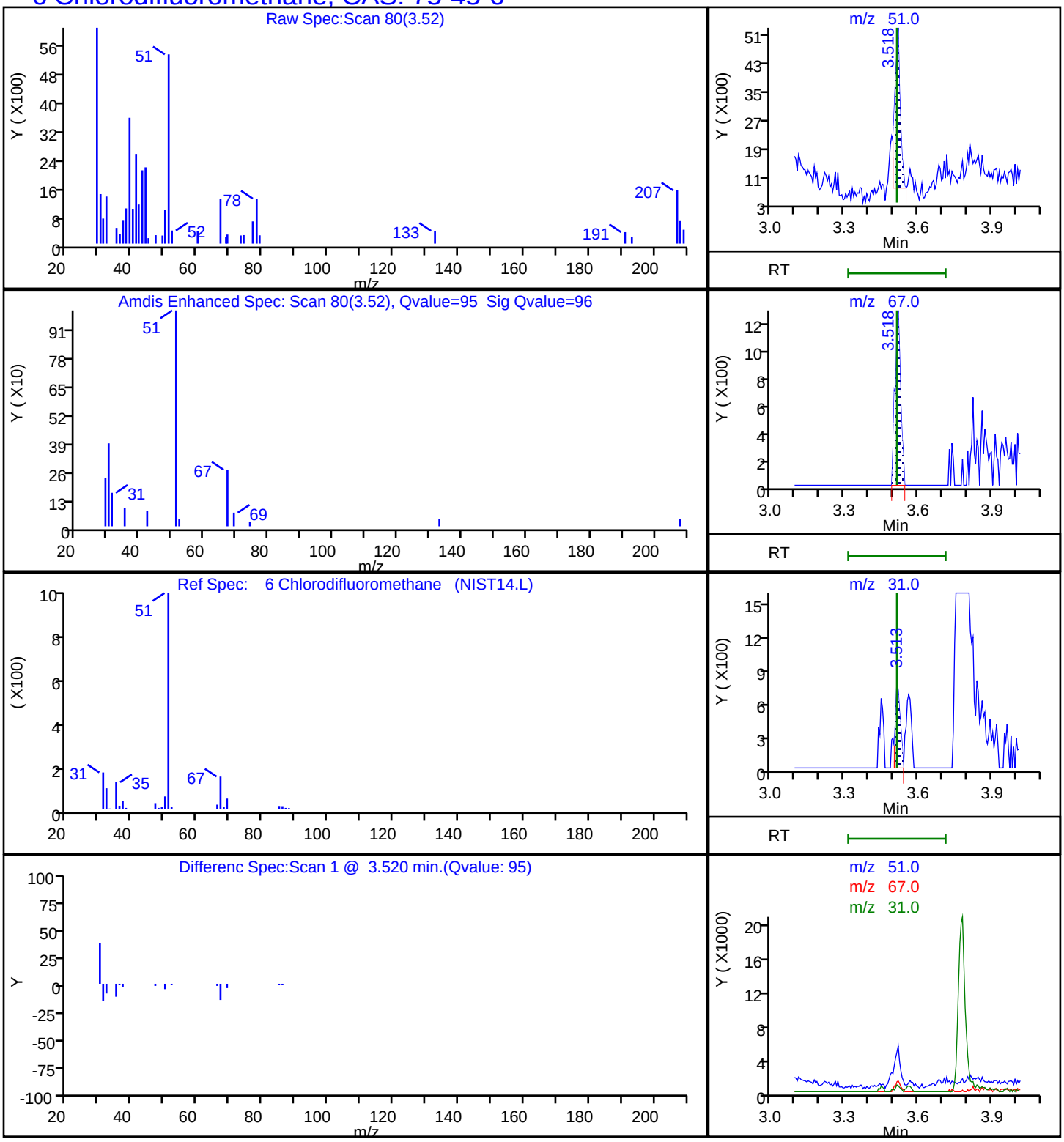


Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR		
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2		
Client ID:	BLDG-A-MID GAC				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

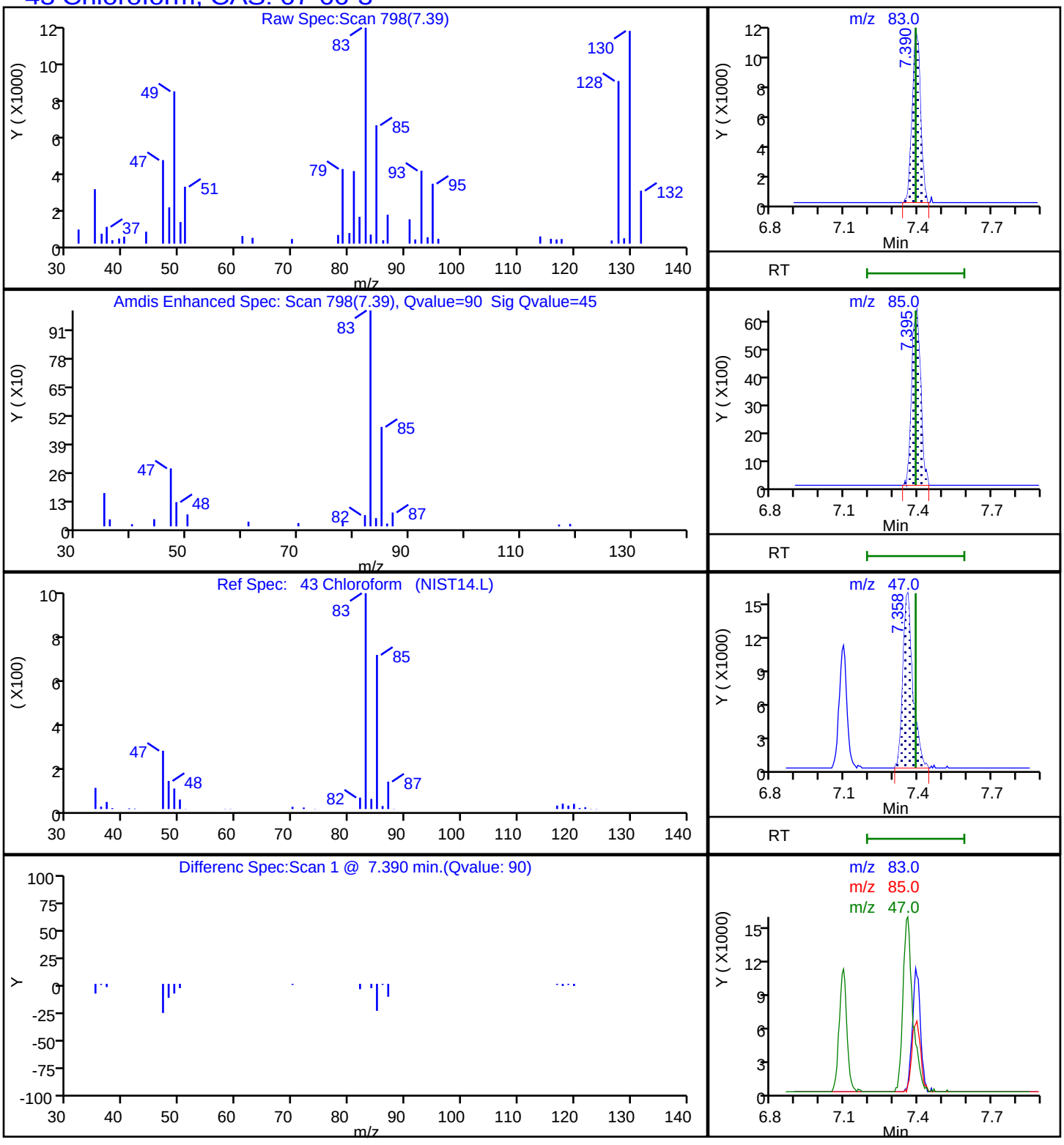
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

43 Chloroform, CAS: 67-66-3



Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D

Injection Date: 13-Apr-2019 00:04:30 Instrument ID: MR

Lims ID: 140-14958-A-2 Lab Sample ID: 140-14958-2

Client ID: BLDG-A-MID GAC

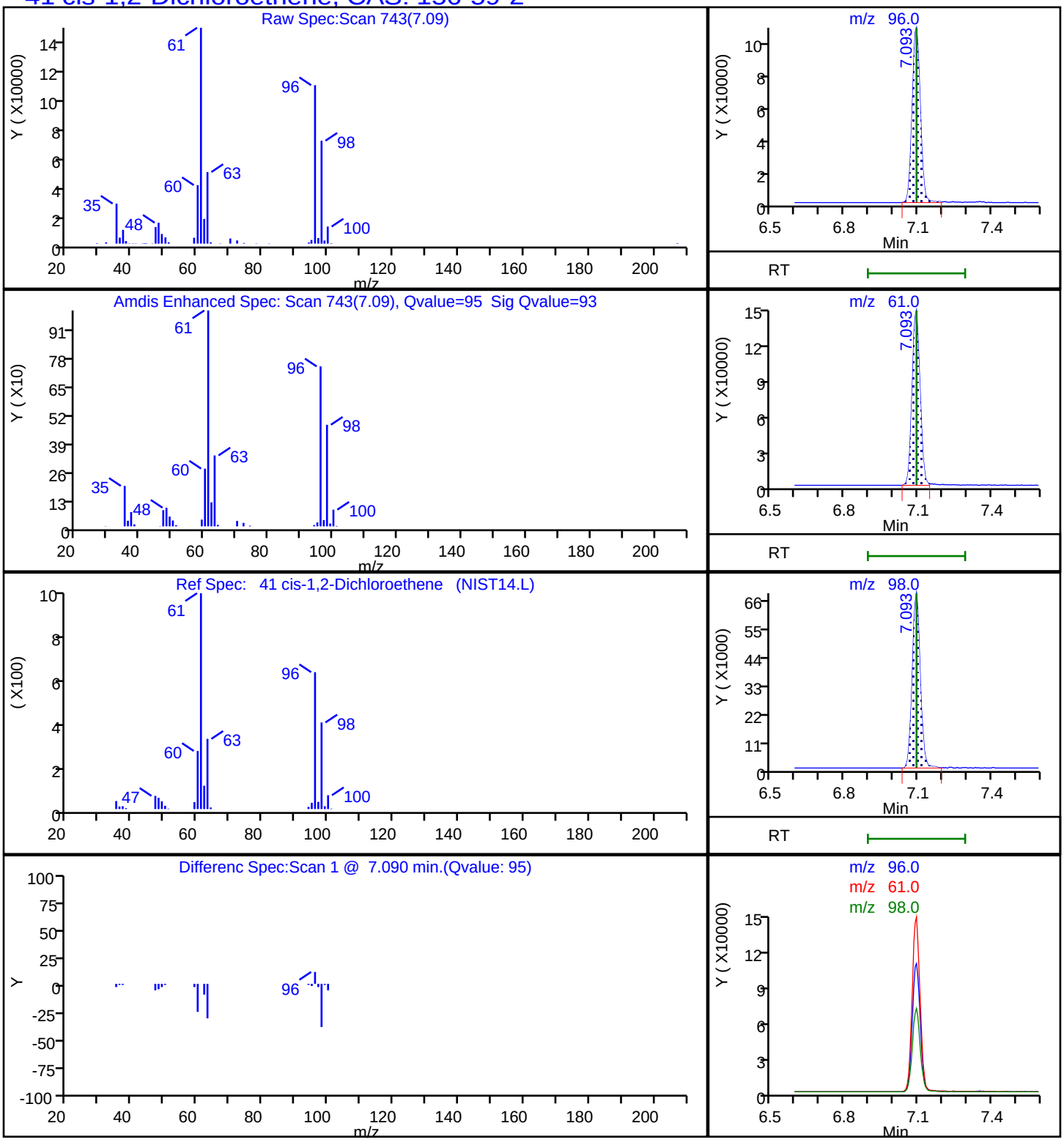
Operator ID: afb ALS Bottle#: 5 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

41 cis-1,2-Dichloroethene, CAS: 156-59-2

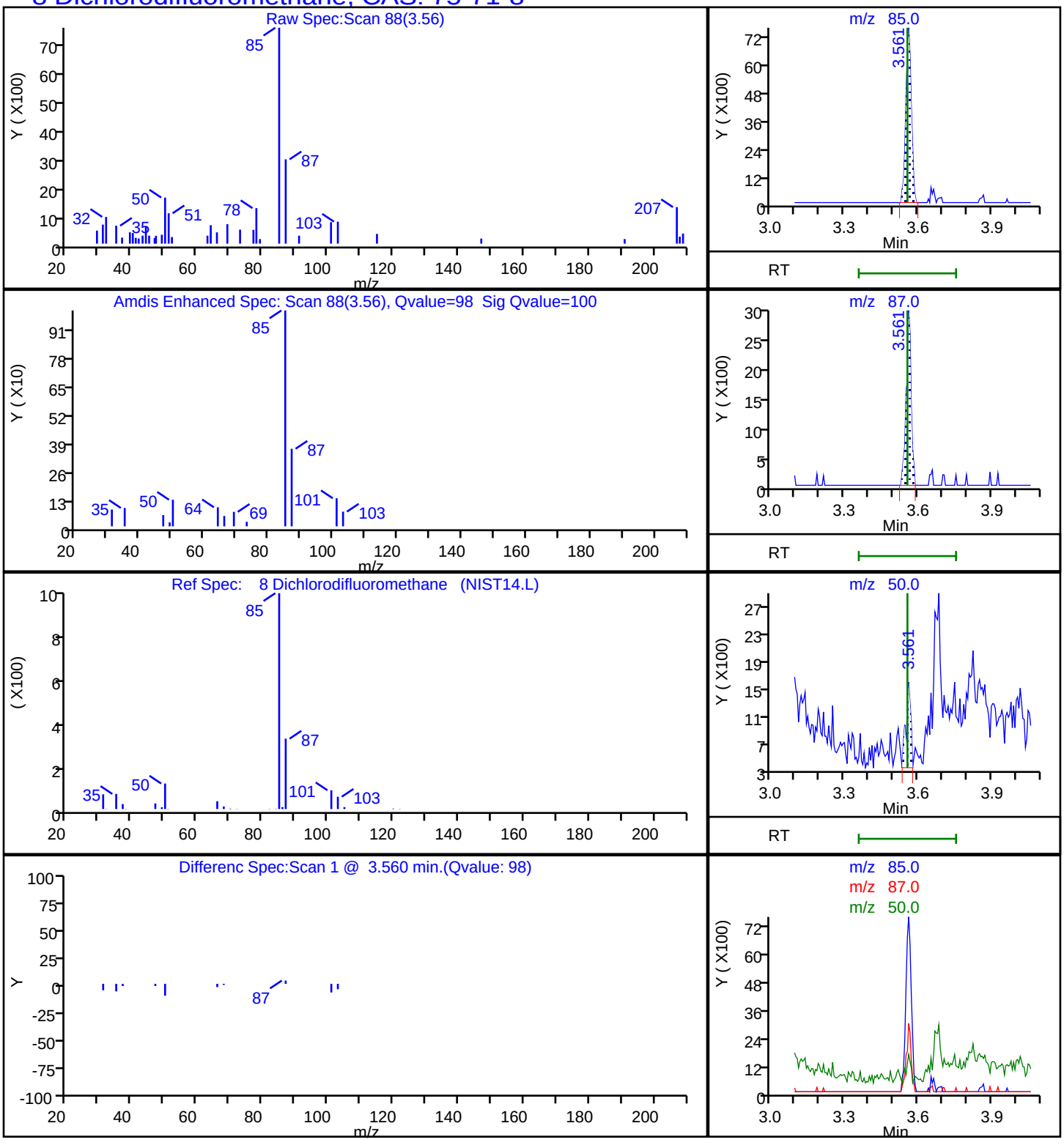


Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR		
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2		
Client ID:	BLDG-A-MID GAC				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

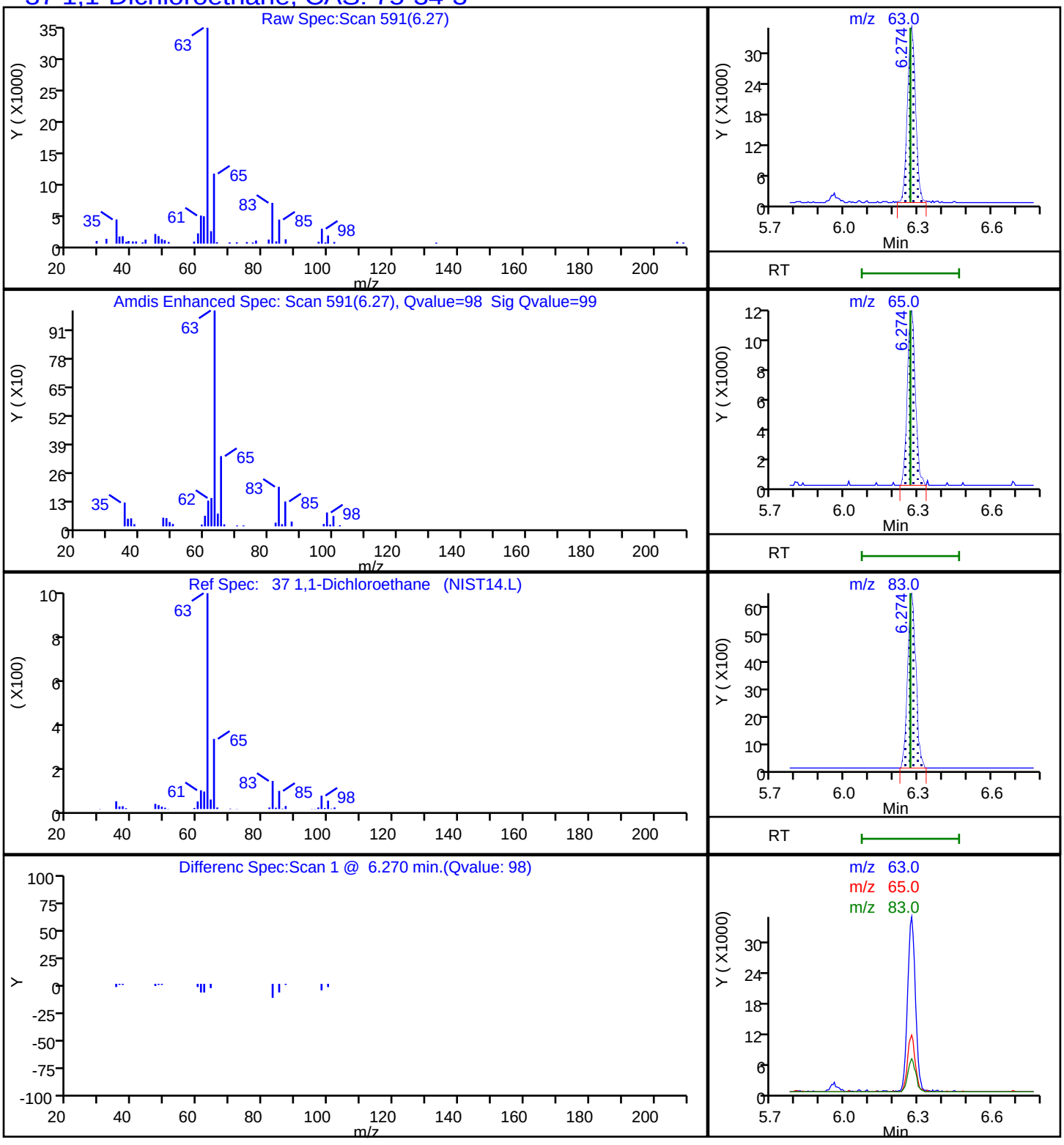


Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

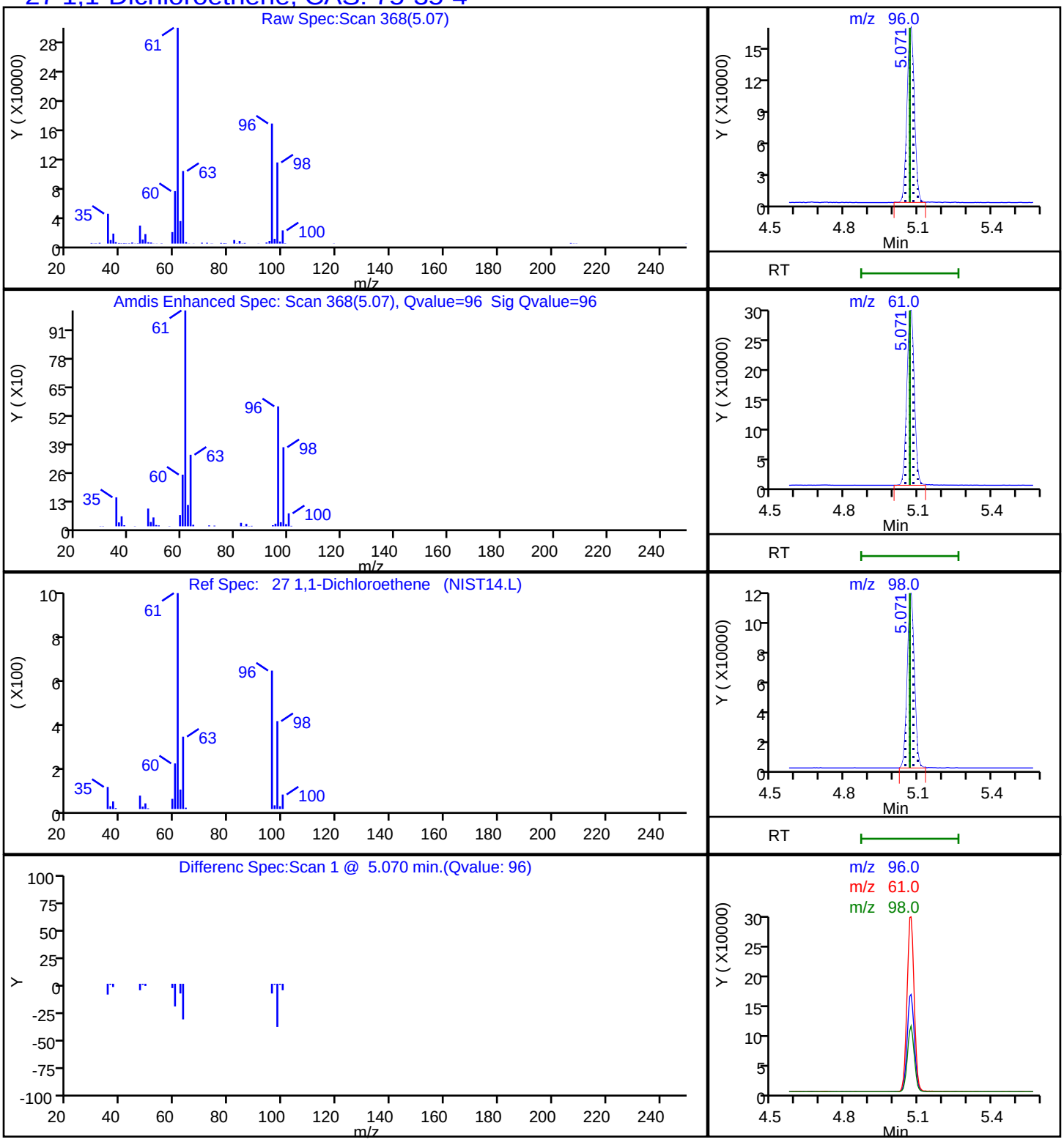
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

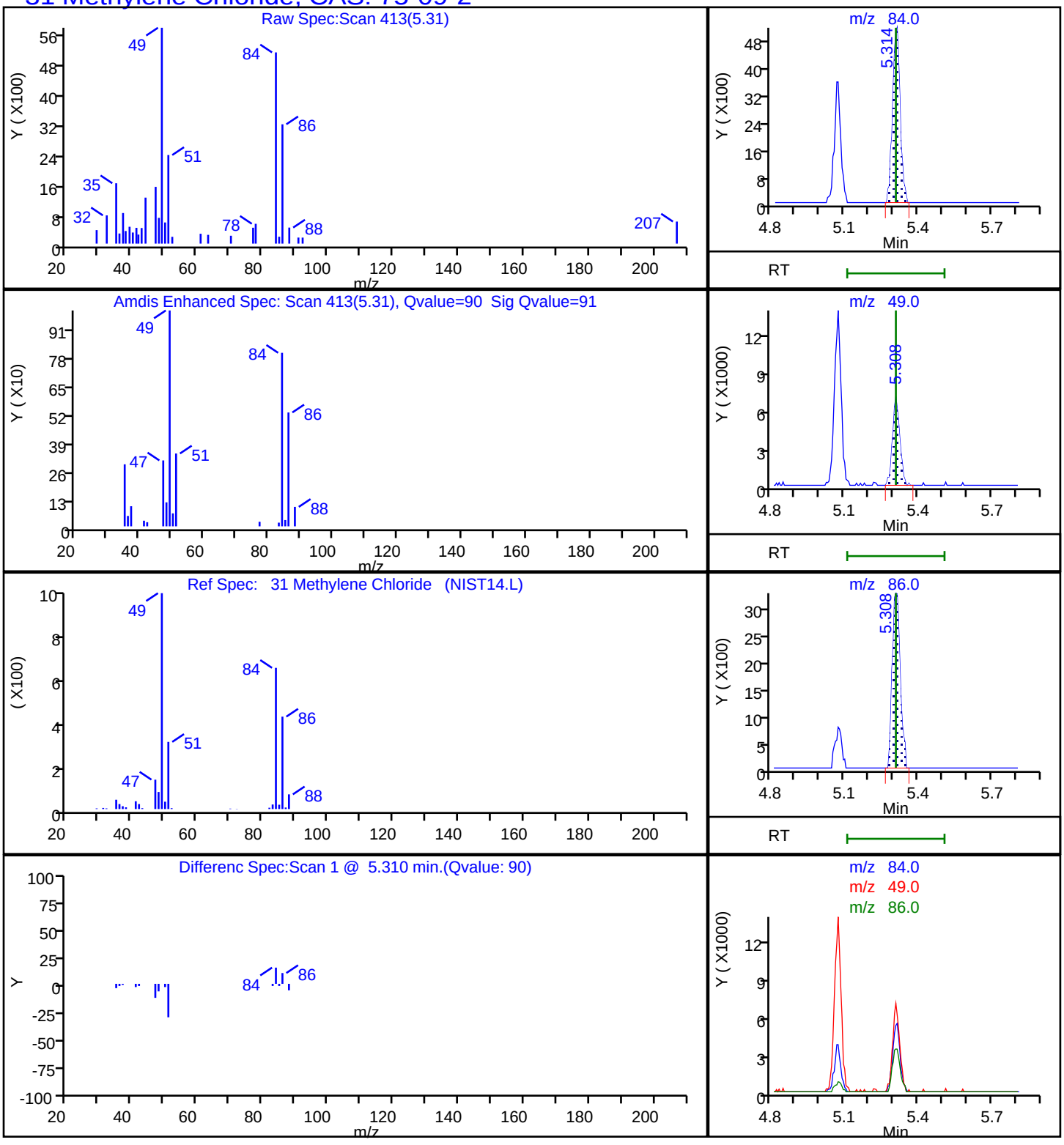
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D

Injection Date: 13-Apr-2019 00:04:30 Instrument ID: MR

Lims ID: 140-14958-A-2 Lab Sample ID: 140-14958-2

Client ID: BLDG-A-MID GAC

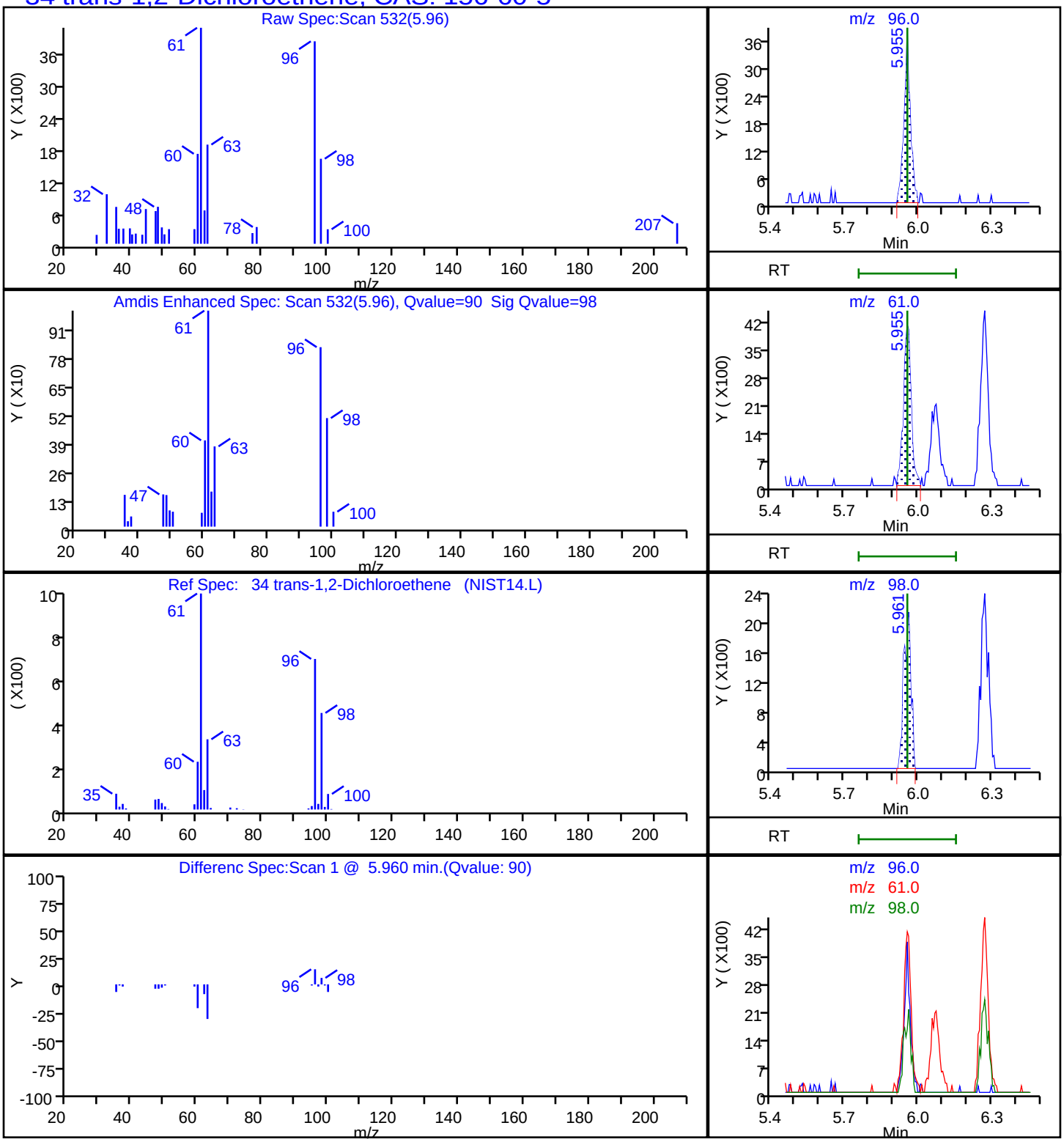
Operator ID: afb ALS Bottle#: 5 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

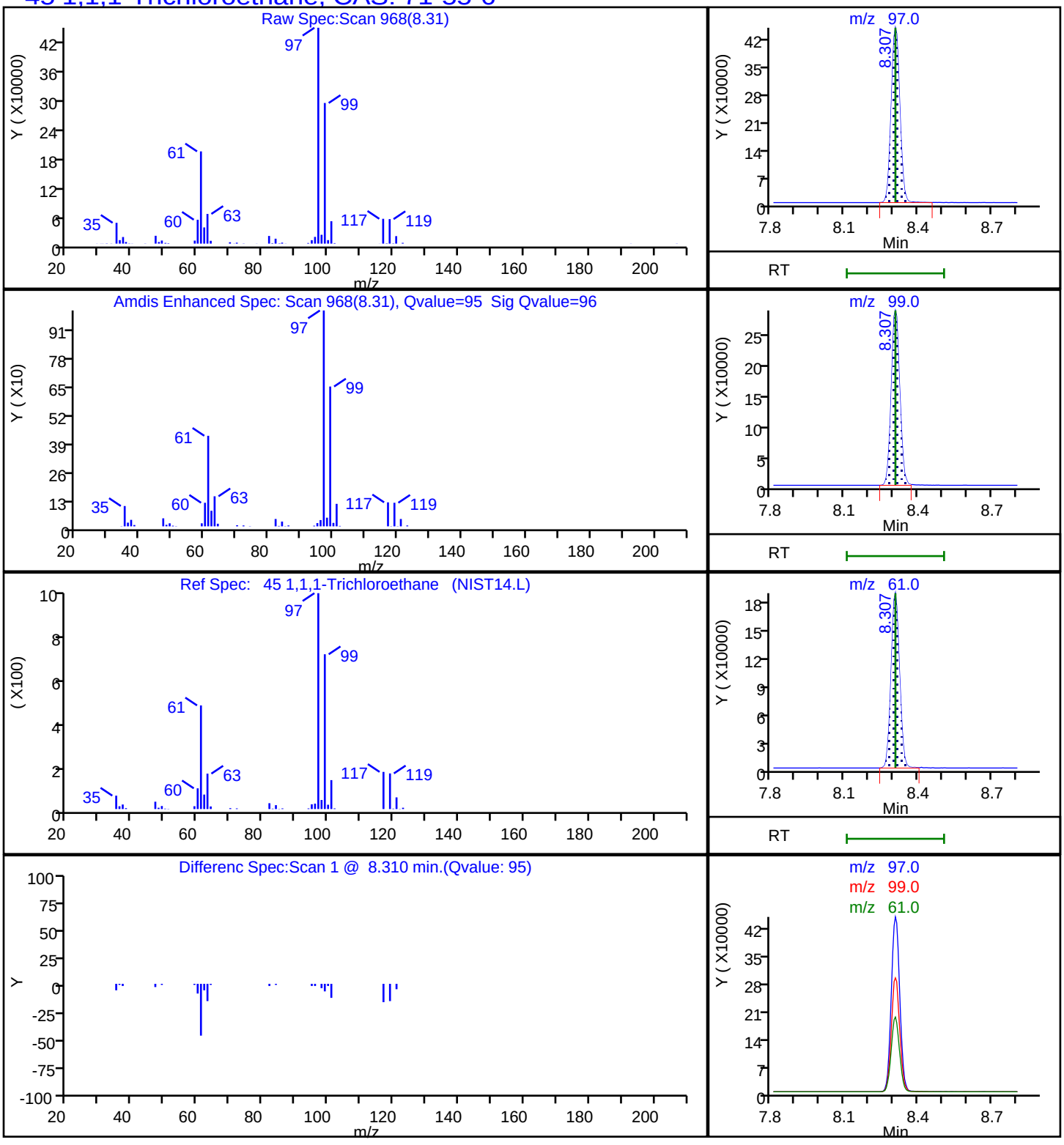


Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR		
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2		
Client ID:	BLDG-A-MID GAC				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

45 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D

Injection Date: 13-Apr-2019 00:04:30 Instrument ID: MR

Lims ID: 140-14958-A-2 Lab Sample ID: 140-14958-2

Client ID: BLDG-A-MID GAC

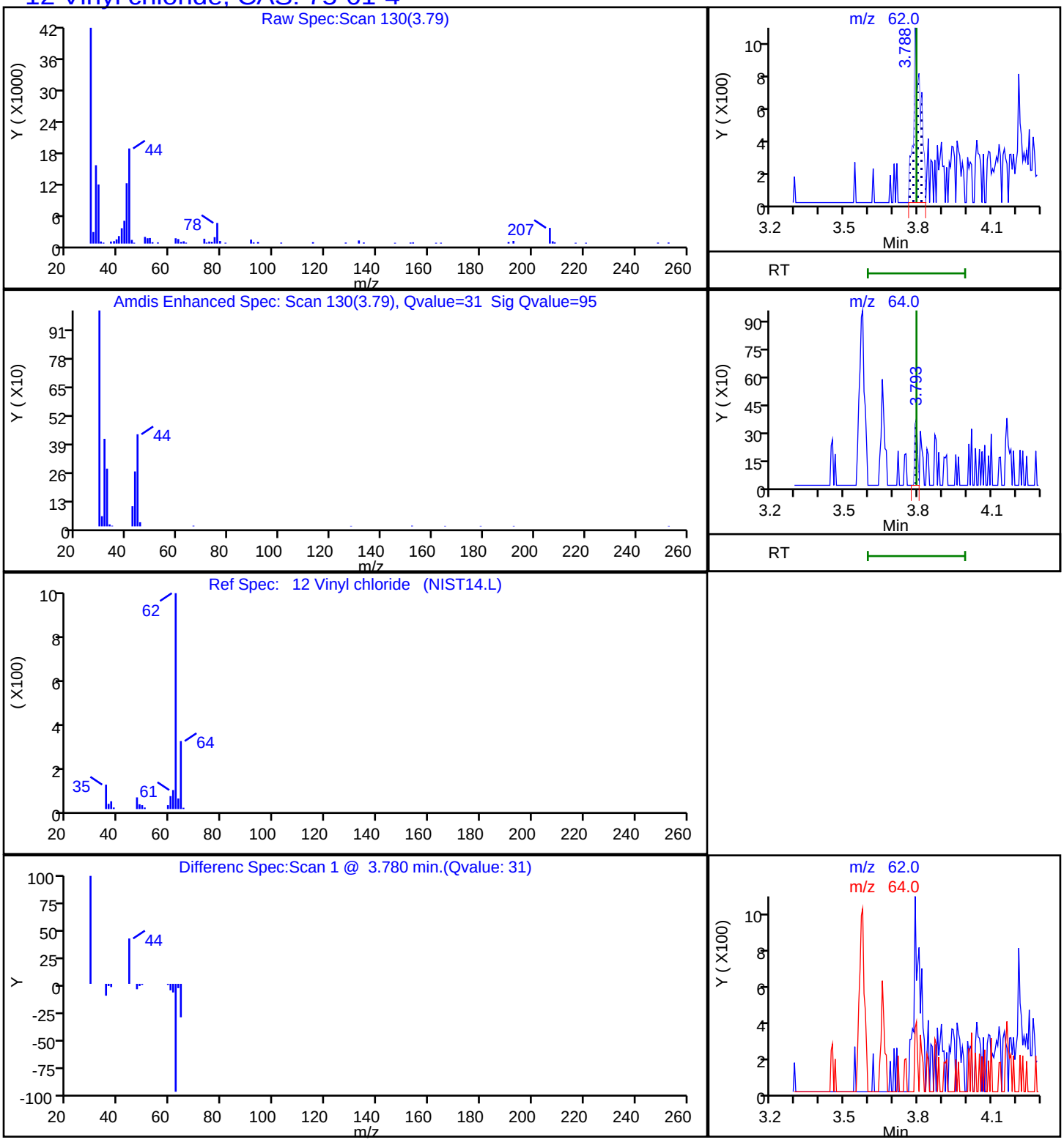
Operator ID: afb ALS Bottle#: 5 Worklist Smp#: 12

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

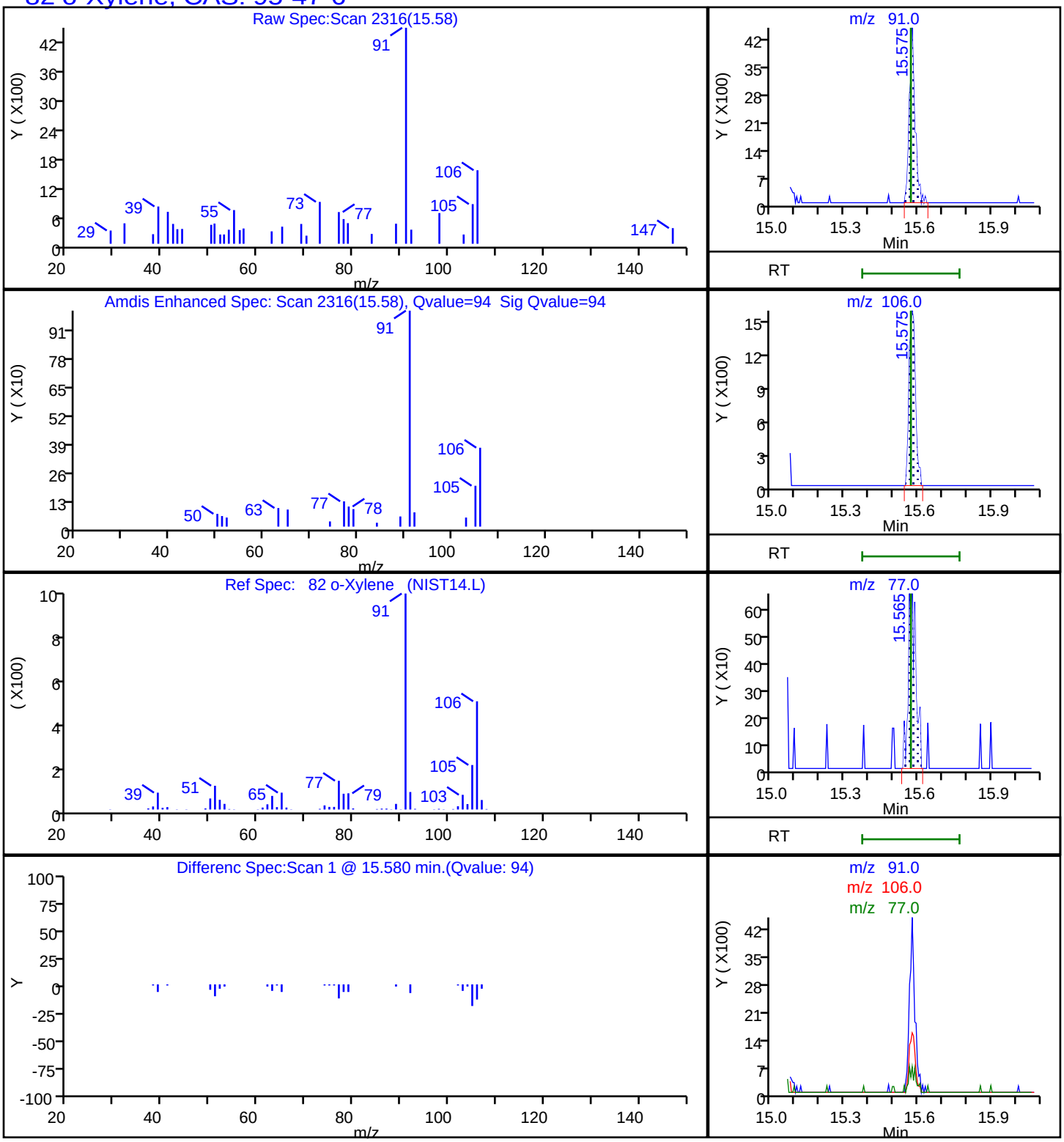


Report Date: 15-Apr-2019 13:36:14 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D		
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2
Client ID:	BLDG-A-MID GAC		
Operator ID:	afb	ALS Bottle#:	5 Worklist Smp#: 12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

82 o-Xylene, CAS: 95-47-6



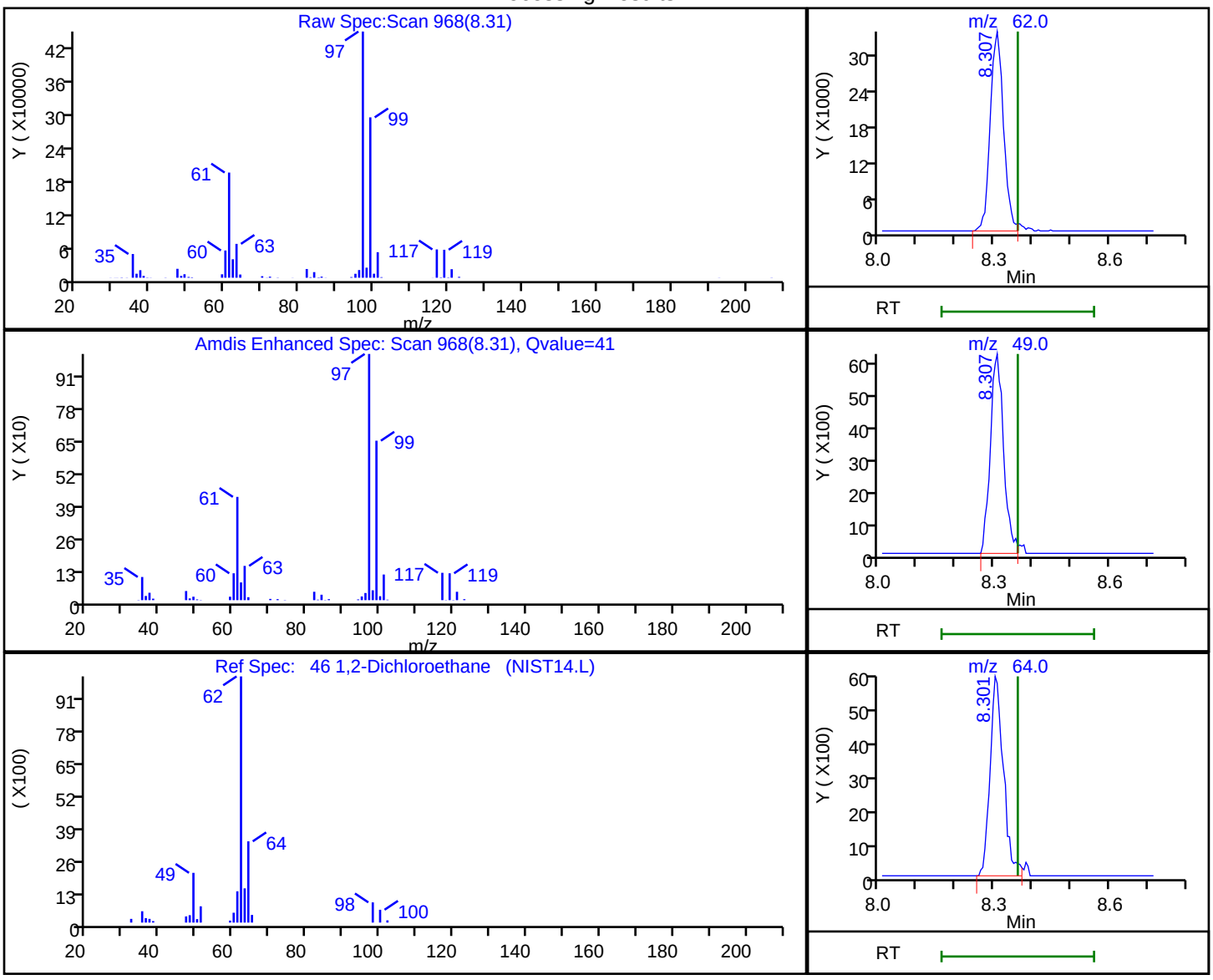
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR		
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2		
Client ID:	BLDG-A-MID GAC				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

46 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
8.31	62.00	79896	0.611956
8.31	49.00	15098	
8.30	64.00	14485	

Reviewer: barlozhetskayaa, 15-Apr-2019 13:35:55

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

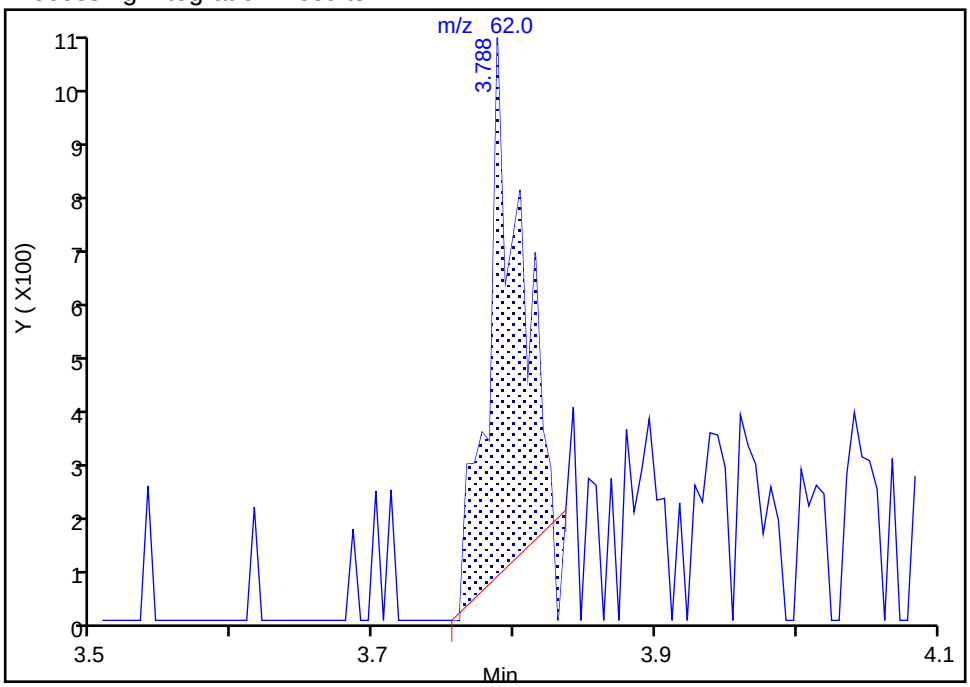
Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12p105.D				
Injection Date:	13-Apr-2019 00:04:30	Instrument ID:	MR		
Lims ID:	140-14958-A-2	Lab Sample ID:	140-14958-2		
Client ID:	BLDG-A-MID GAC				
Operator ID:	afb	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

Signal: 1

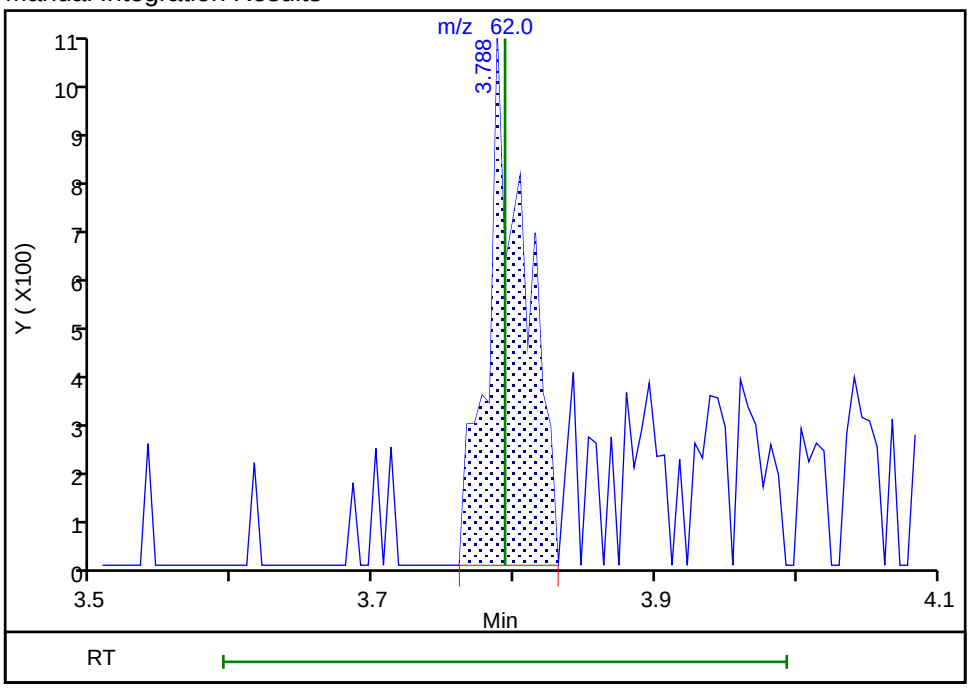
Processing Integration Results

RT: 3.79
Area: 1464
Amount: 0.030450
Amount Units: ppb v/v



Manual Integration Results

RT: 3.79
Area: 1901
Amount: 0.039539
Amount Units: ppb v/v



Reviewer: barlozhetskayaa, 15-Apr-2019 13:35:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-EFFLUENT Lab Sample ID: 140-14958-3

Matrix: Air Lab File ID: JD15p109.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 12:04

Sample wt/vol: 100(mL) Date Analyzed: 04/15/2019 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.26	J	0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.44		0.40	0.075
67-66-3	Chloroform	119.38	0.46		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	8.5		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.45		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	1.6		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	13		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	1.7	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	1.2		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	4.7		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	2.2		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.67	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: BLDG-A-EFFLUENT Lab Sample ID: 140-14958-3

Matrix: Air Lab File ID: JD15p109.D

Analysis Method: TO 15 LL Date Collected: 04/11/2019 12:04

Sample wt/vol: 100(mL) Date Analyzed: 04/15/2019 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.83	J	1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.6		1.4	0.27
67-66-3	Chloroform	119.38	2.2		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	34		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.2		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	6.5		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	50		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	5.9	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	4.6		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	25		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	12		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	2.9	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D
Lims ID: 140-14958-A-3
Client ID: BLDG-A-EFFLUENT
Sample Type: Client
Inject. Date: 15-Apr-2019 23:51:30 ALS Bottle#: 9 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011427-015
Misc. Info.: 140-14958-A-3
Operator ID: 403648 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Apr-2019 10:18:19 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:18:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.749	9.756	-0.007	96	273155	4.00	
* 2 1,4-Difluorobenzene	114	11.858	11.865	-0.007	95	1624525	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.468	16.470	-0.002	89	1420220	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.066	18.067	-0.001	88	1034890	3.96	
19 Chlorodifluoromethane	51	4.154	4.154	-0.008	95	10236	0.0887	M
21 Dichlorodifluoromethane	85	4.224	4.235	-0.013	99	8970	0.0906	
40 1,1-Dichloroethene	96	6.704	6.708	-0.007	96	235820	2.54	
44 Methylene Chloride	84	7.075	7.088	-0.013	97	35549	0.3389	
50 1,1-Dichloroethane	63	8.388	8.381	0.004	99	56765	0.3196	
55 cis-1,2-Dichloroethene	96	9.399	9.408	-0.013	98	157949	1.70	
57 Chloroform	83	9.760	9.757	-0.002	29	18960	0.0916	
60 1,1,1-Trichloroethane	97	10.782	10.784	-0.007	97	184723	0.9326	
64 Benzene	78	11.352	11.365	-0.013	96	14714	0.0520	
71 Trichloroethene	130	12.552	12.554	-0.007	94	56285	0.4336	
80 Toluene	91	14.531	14.540	-0.008	92	71135	0.2421	
89 Ethylbenzene	91	16.785	16.793	-0.008	97	7927	0.0223	
90 m-Xylene & p-Xylene	91	16.941	16.949	-0.008	98	26016	0.0946	
94 o-Xylene	91	17.469	17.471	-0.001	98	11826	0.0408	
S 129 Xylenes, Total	100				0		0.1353	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

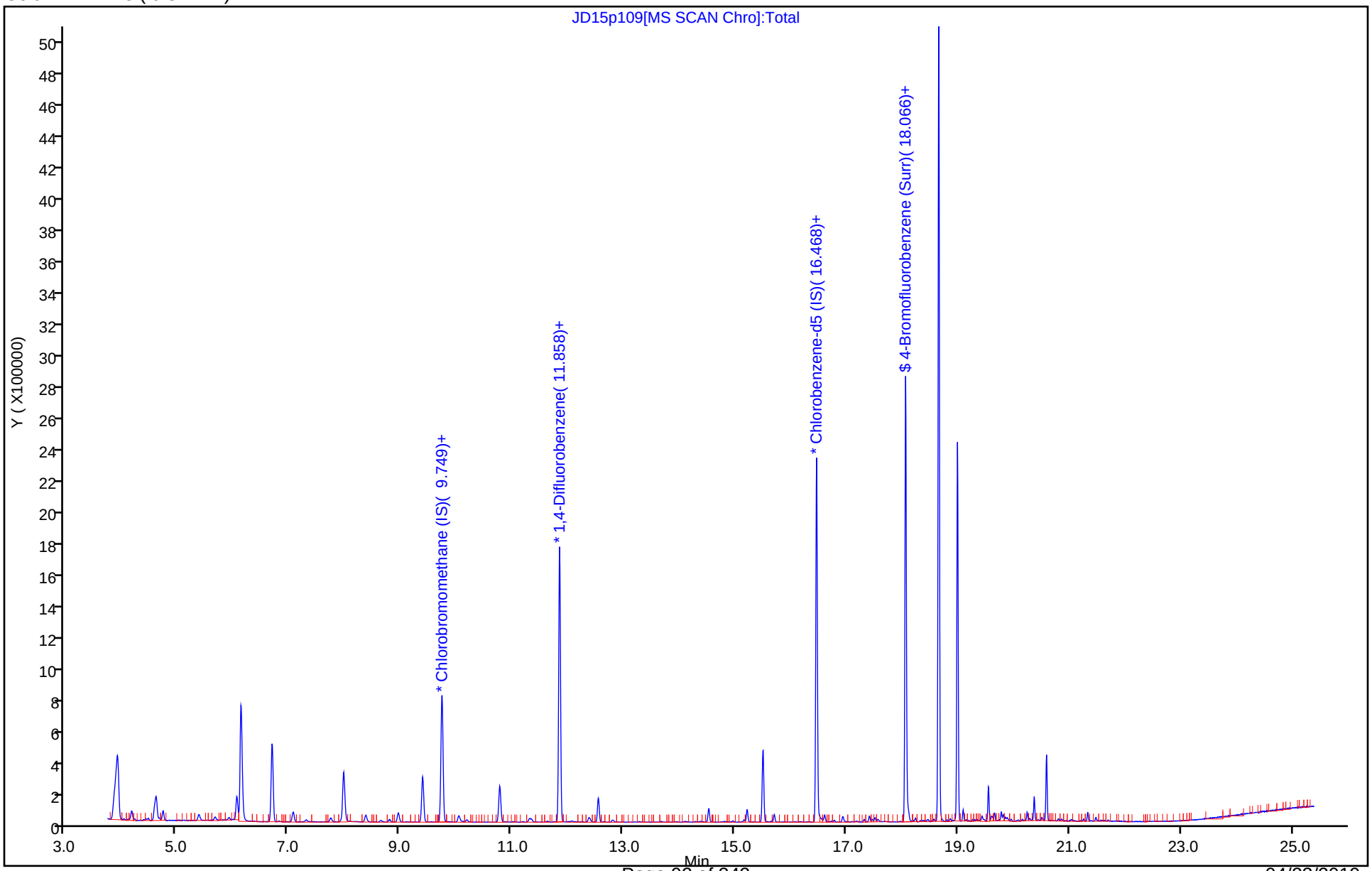
40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3	Worklist Smp#:	15
Client ID:	BLDG-A-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Lims ID:	140-14958-A-3				
Client ID:	BLDG-A-EFFLUENT				
Sample Type:	Client				
Inject. Date:	15-Apr-2019 23:51:30	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-015				
Misc. Info.:	140-14958-A-3				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:18:19	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:18:19

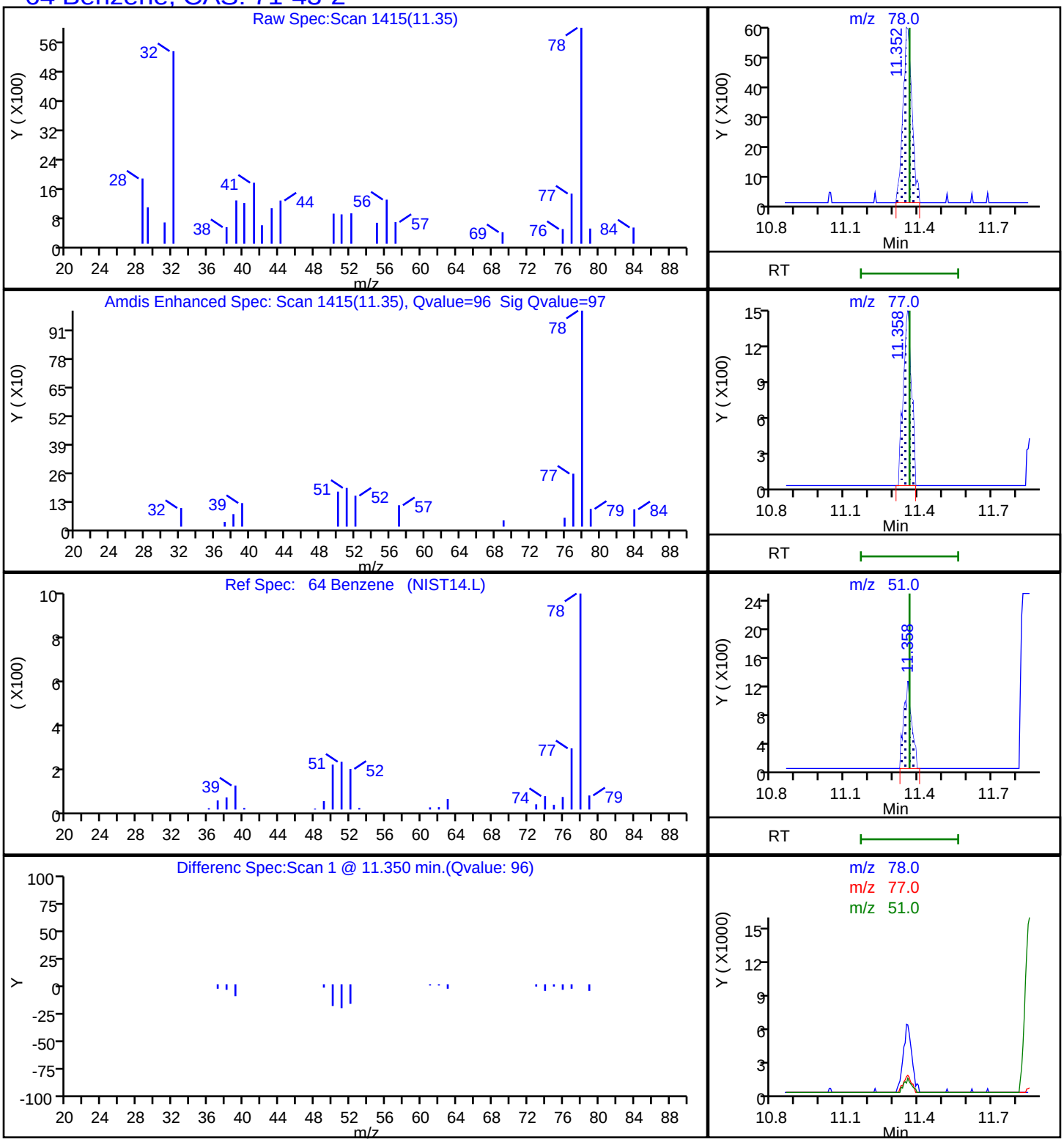
Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.96	98.97

Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

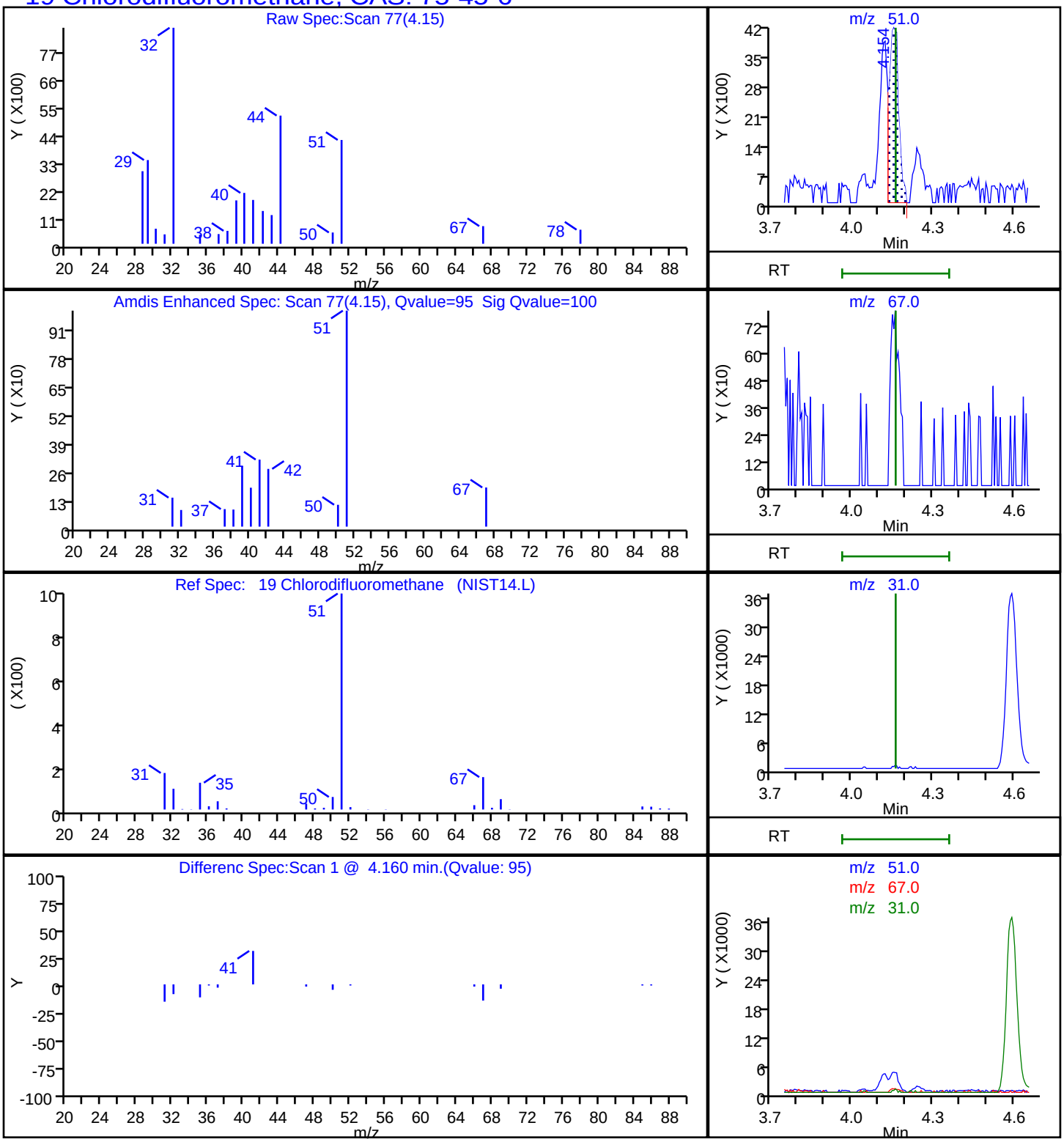
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

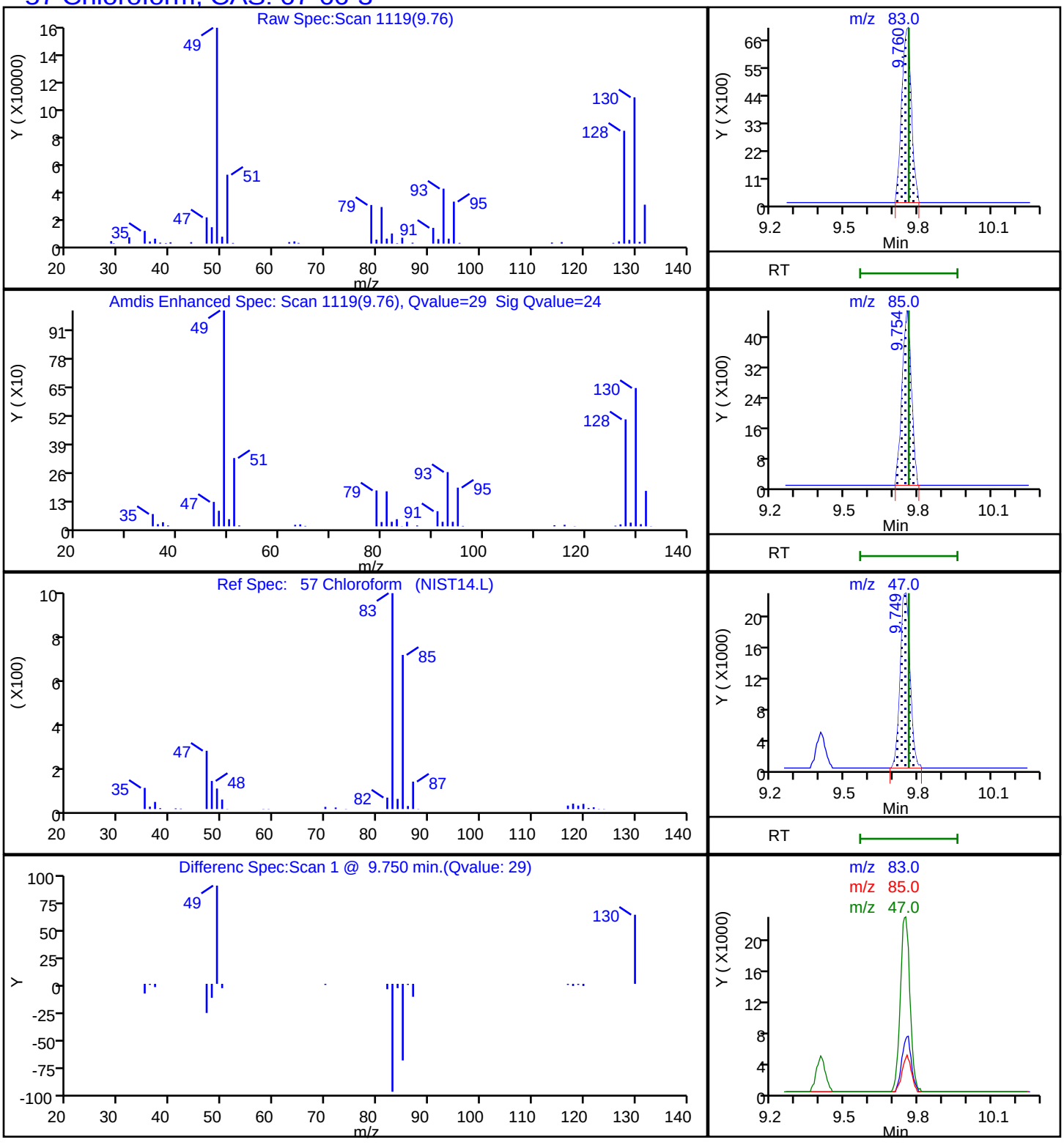


Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

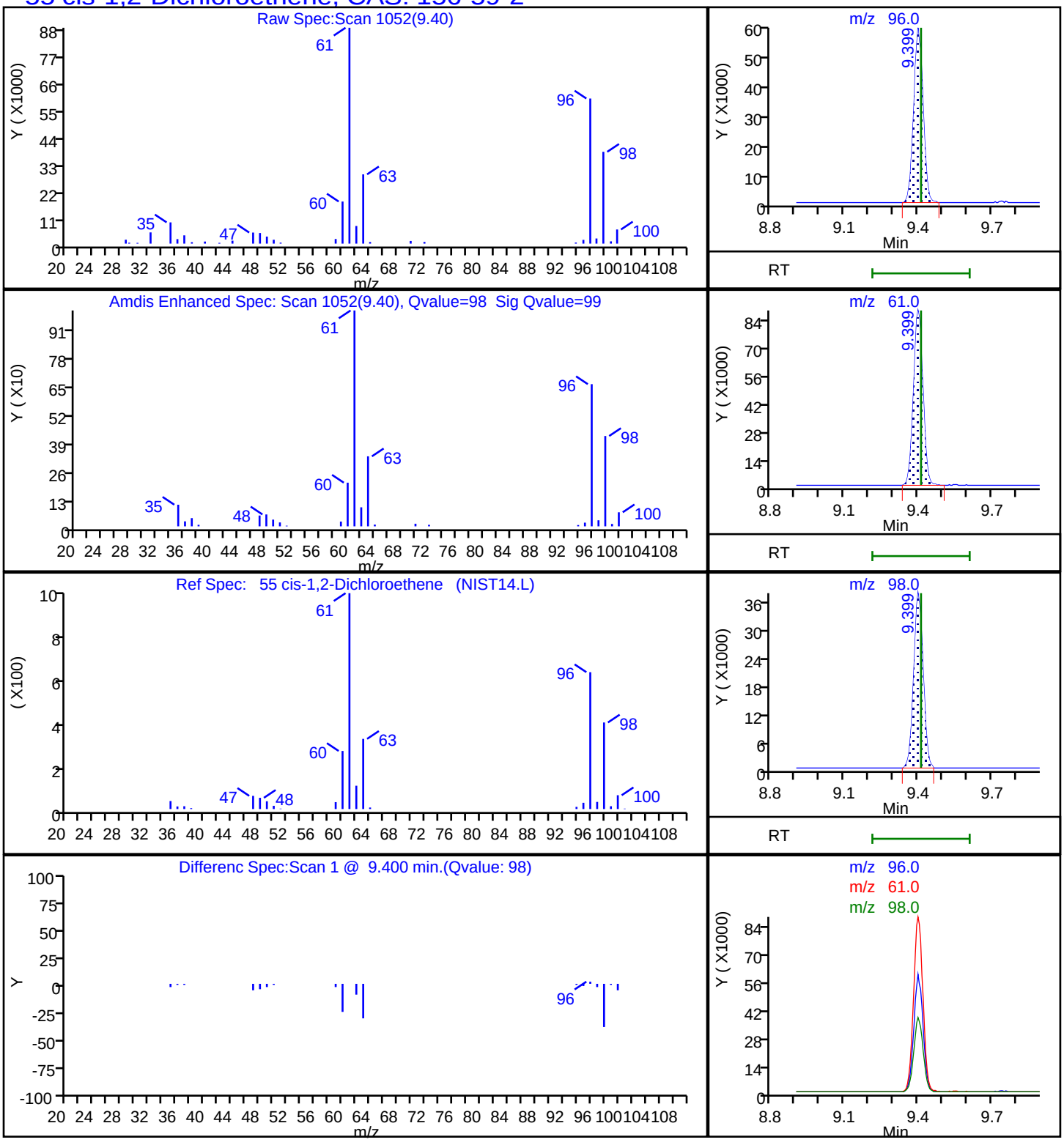
57 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

55 cis-1,2-Dichloroethene, CAS: 156-59-2

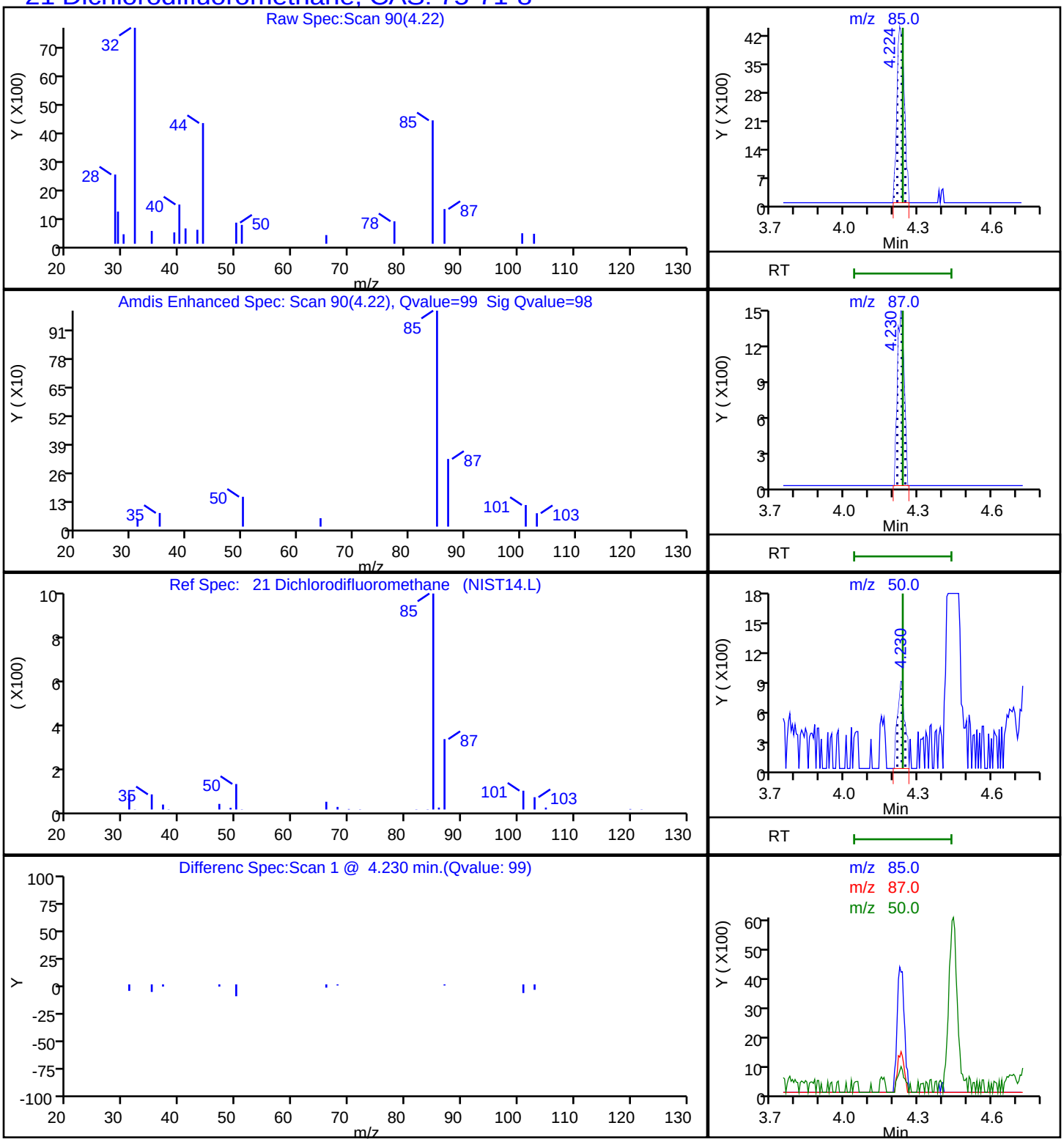


Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

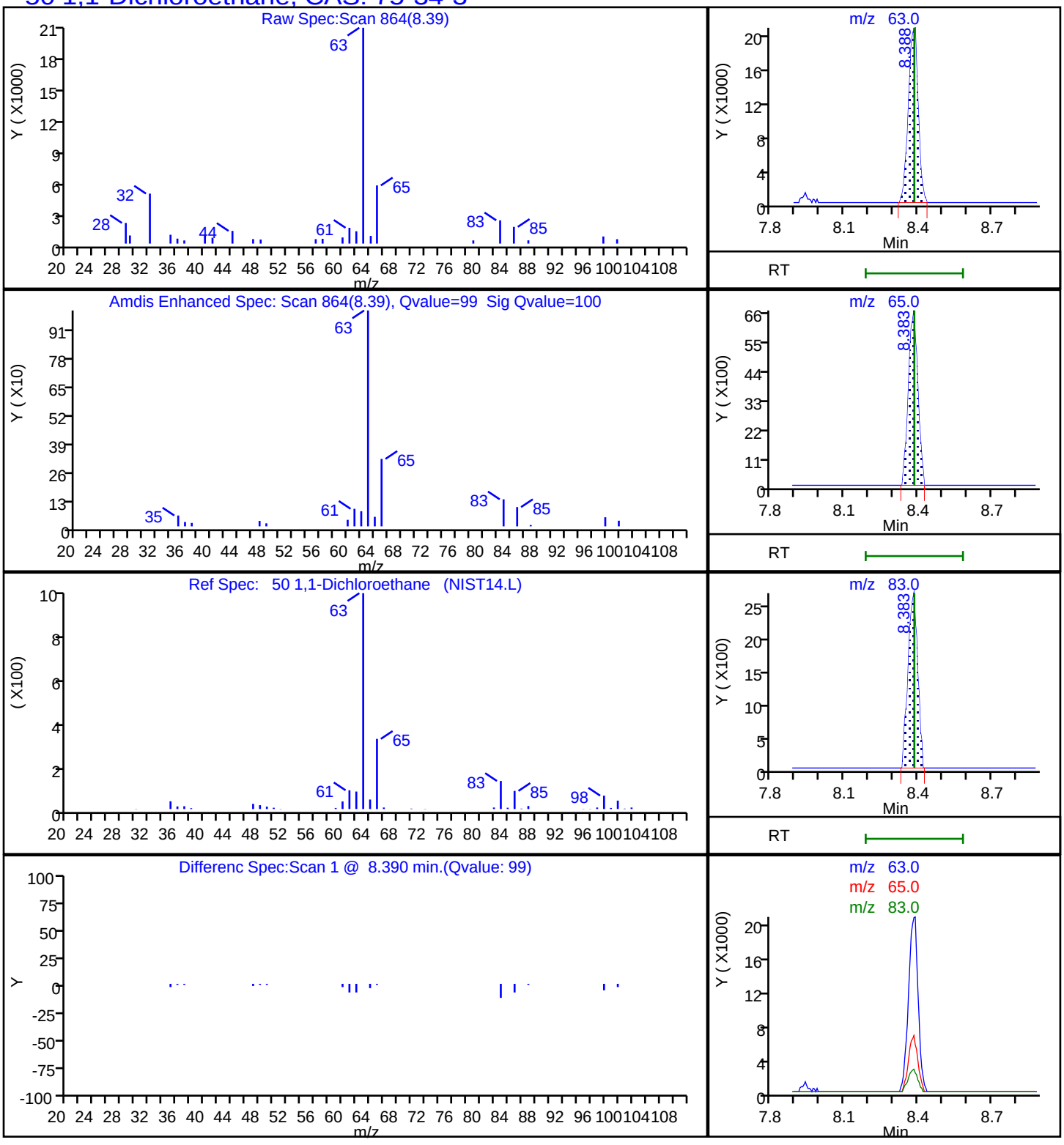
21 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

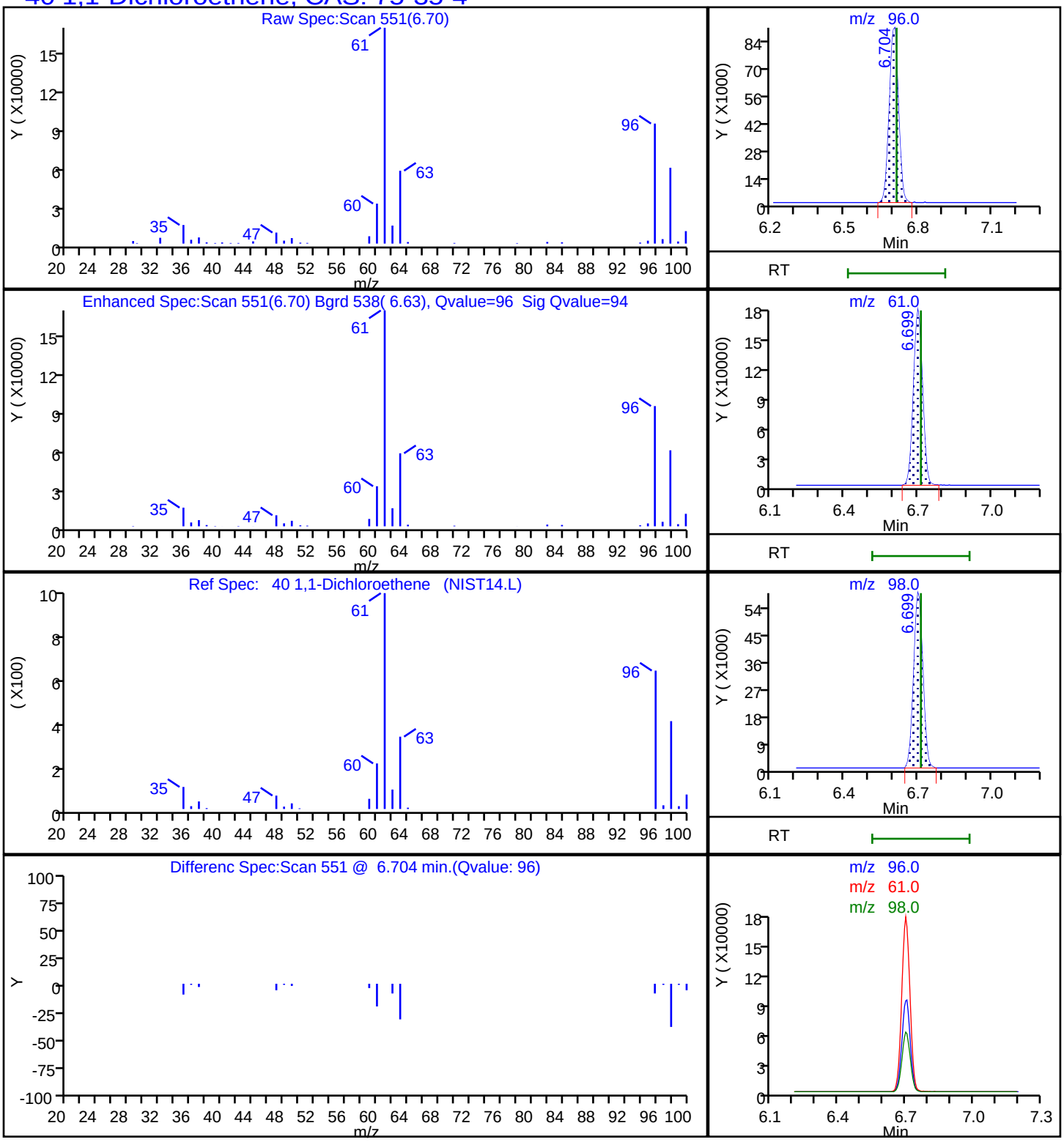
50 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

40 1,1-Dichloroethene, CAS: 75-35-4

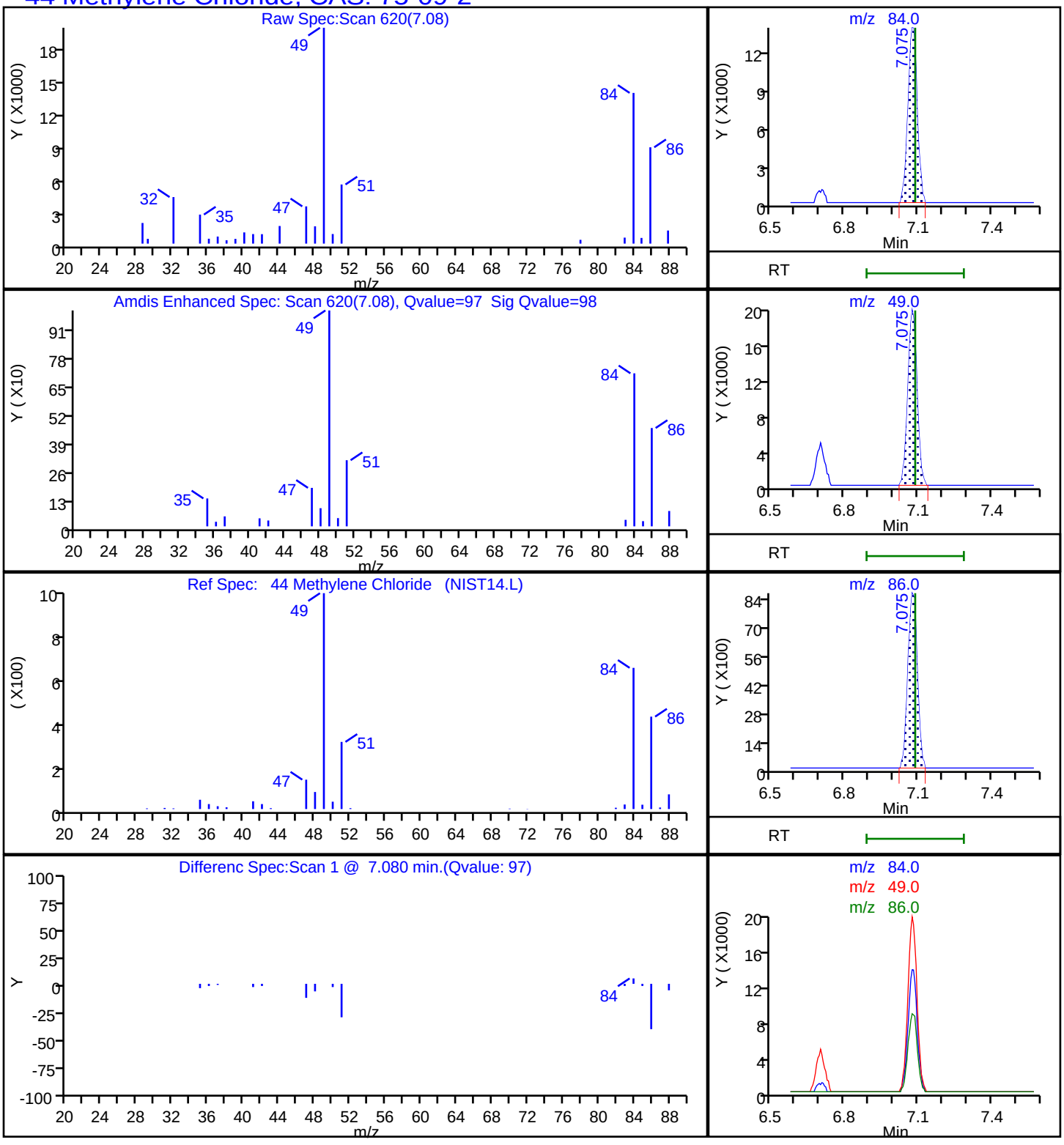


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D

Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Methylene Chloride, CAS: 75-09-2

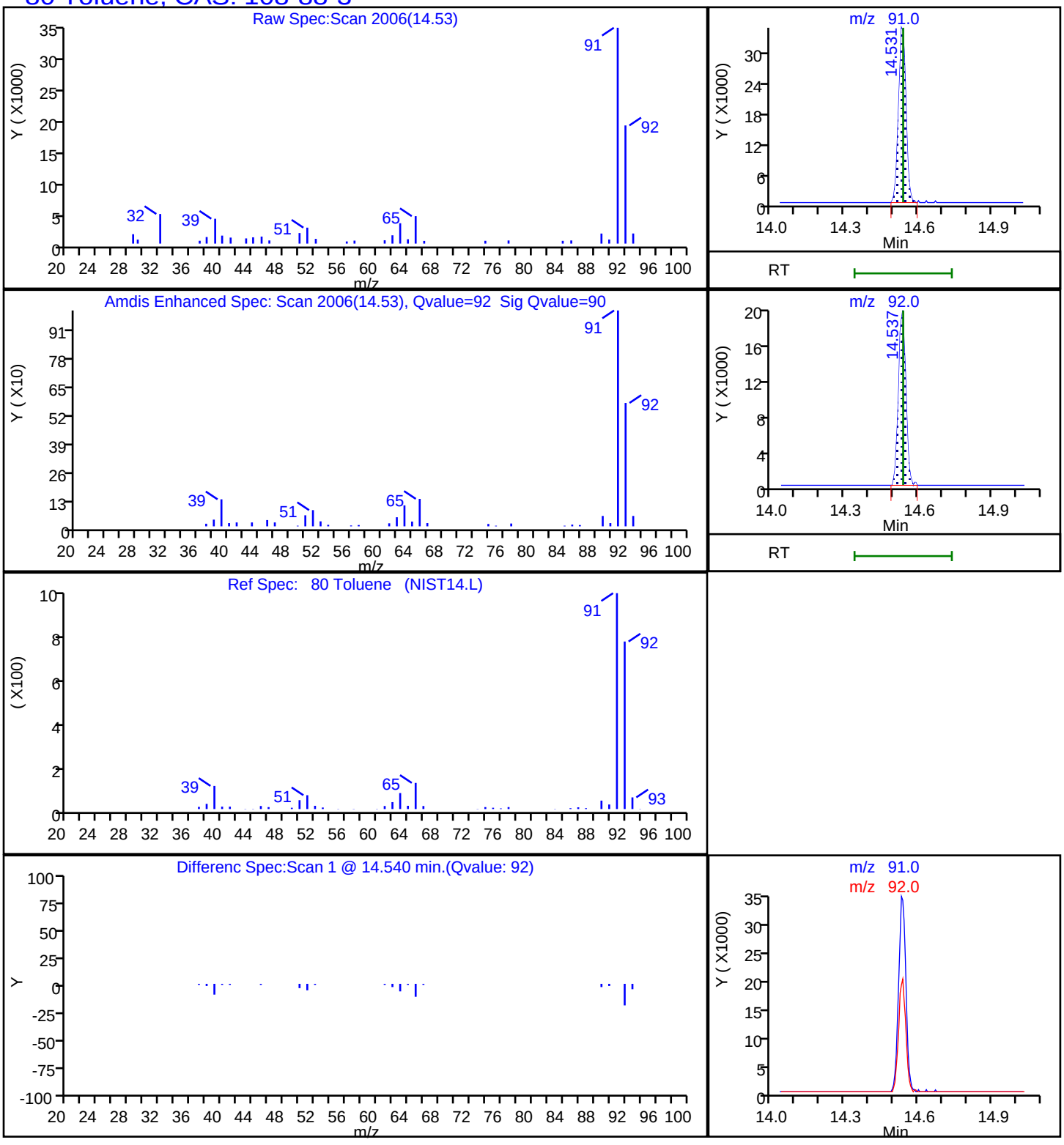


Report Date: 19-Apr-2019 10:18:21 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

80 Toluene, CAS: 108-88-3

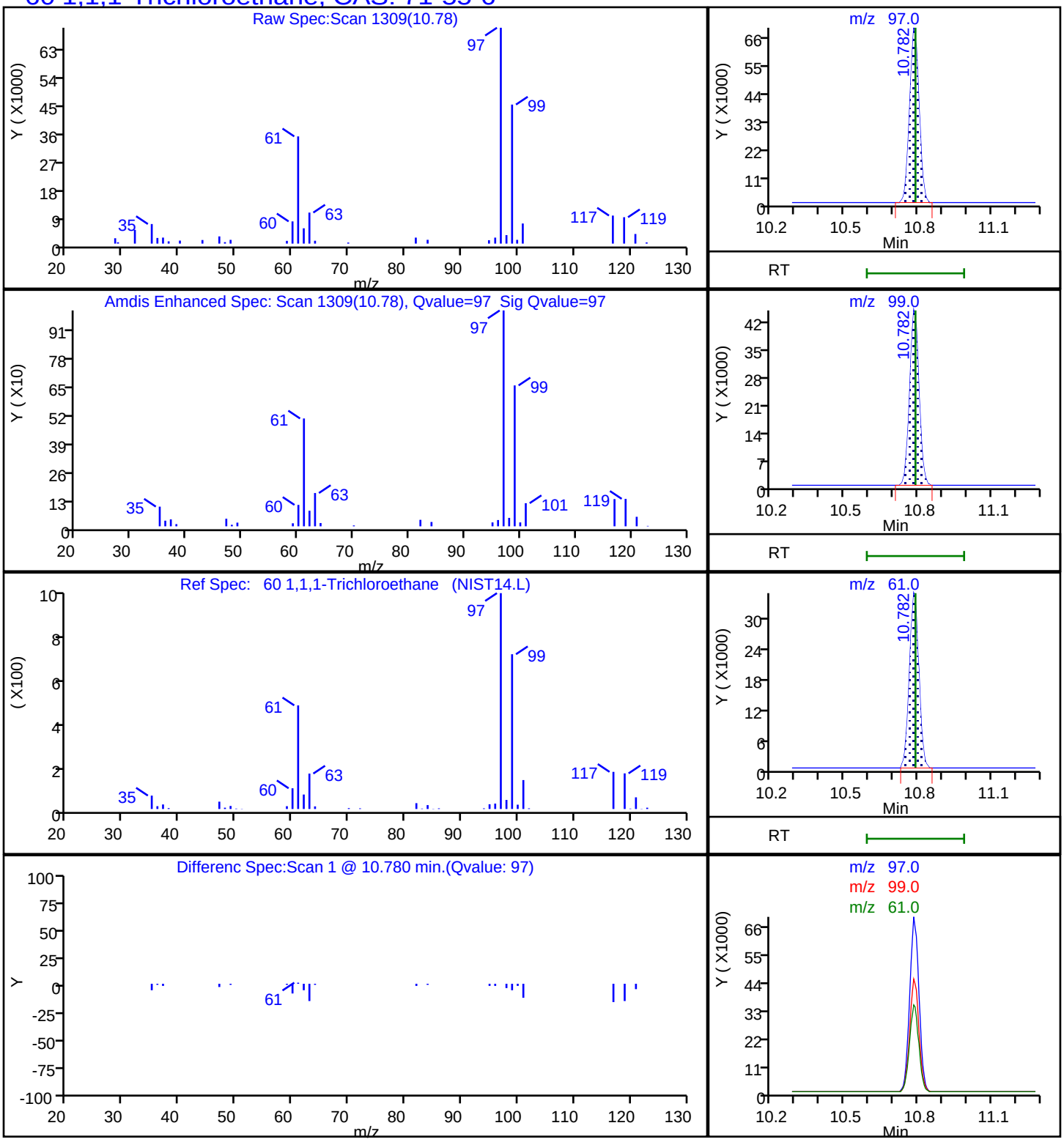


Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

60 1,1,1-Trichloroethane, CAS: 71-55-6

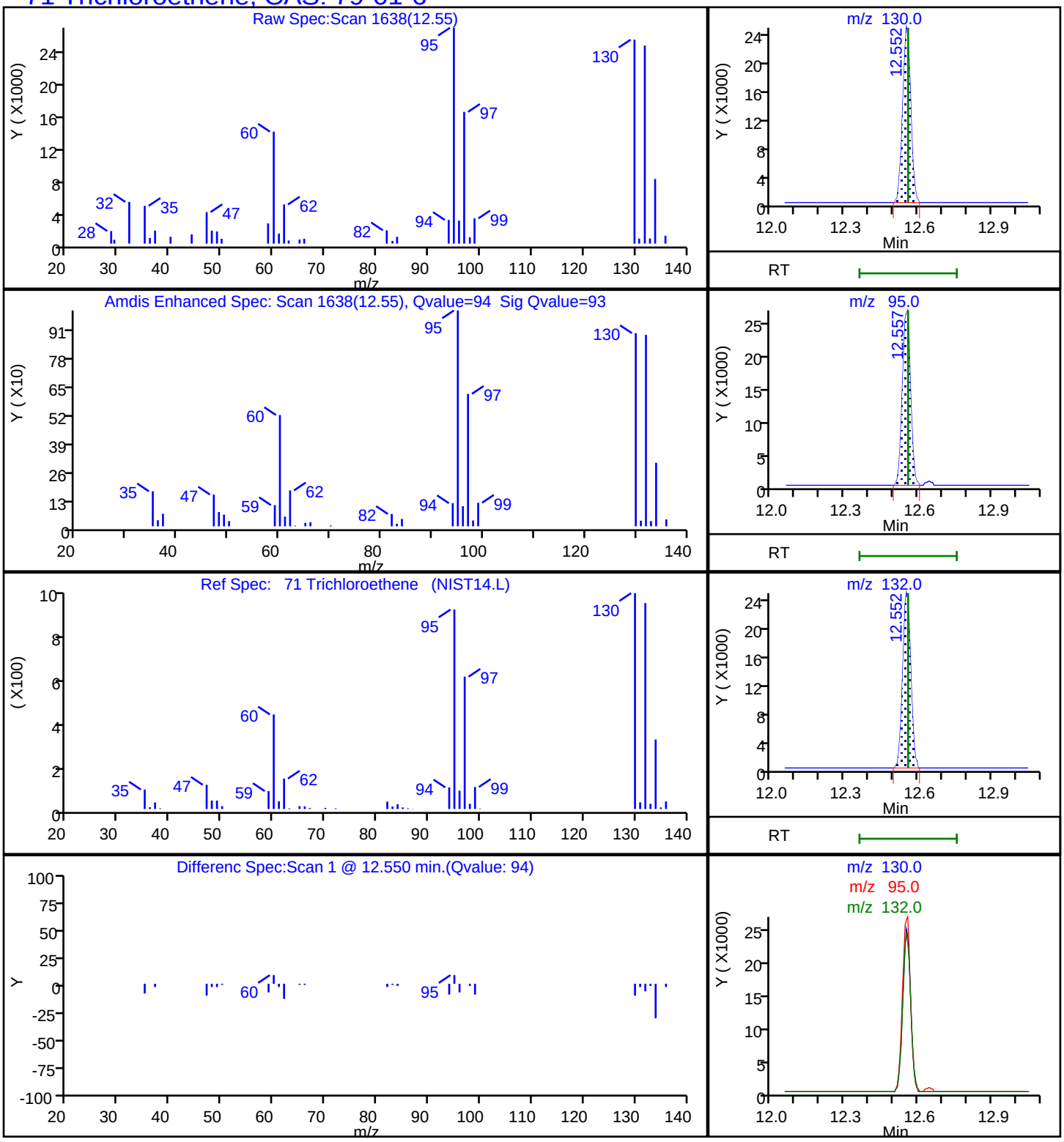


Report Date: 19-Apr-2019 10:18:20 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

71 Trichloroethene, CAS: 79-01-6

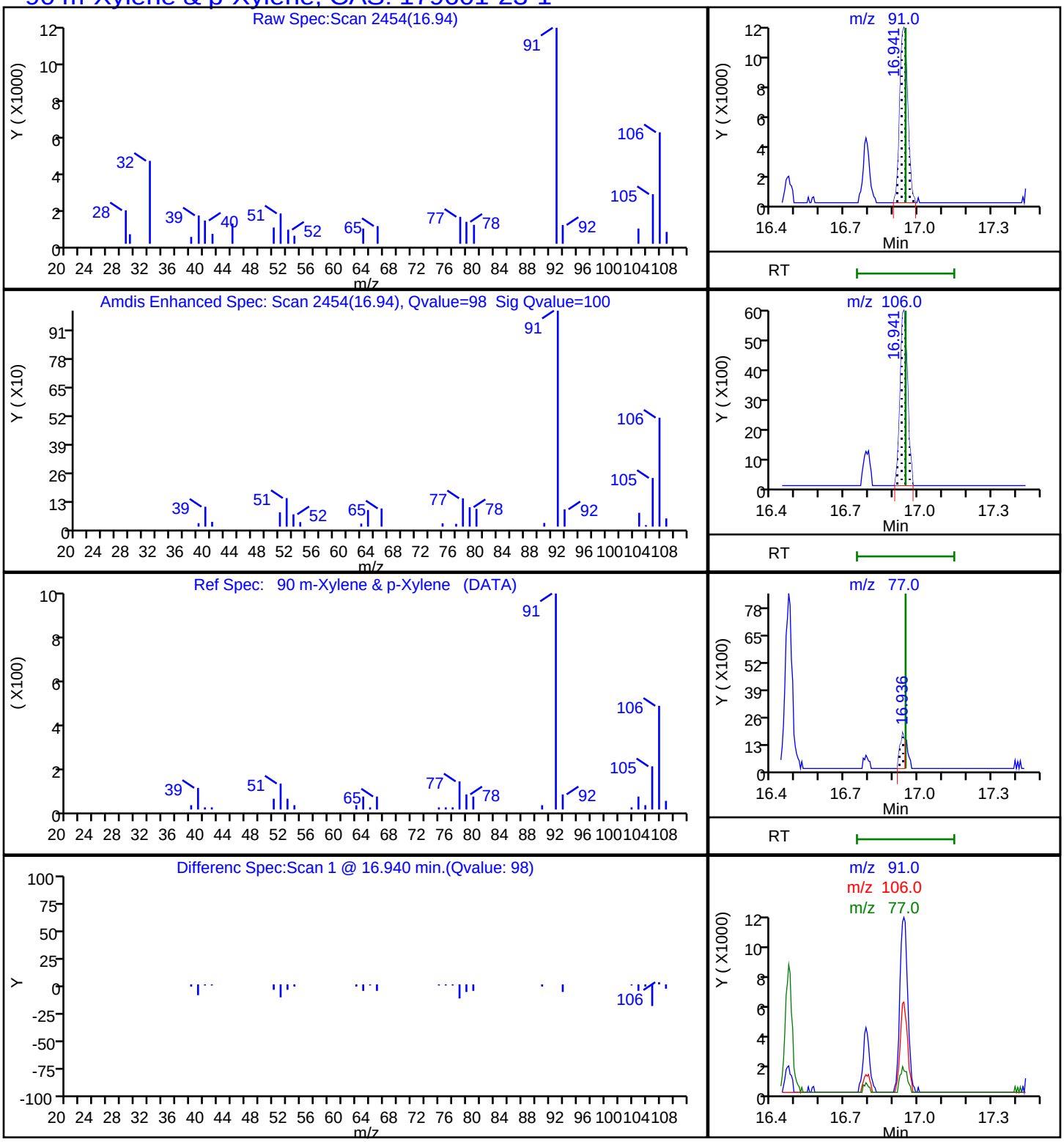


Report Date: 19-Apr-2019 10:18:21 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

90 m-Xylene & p-Xylene, CAS: 179601-23-1

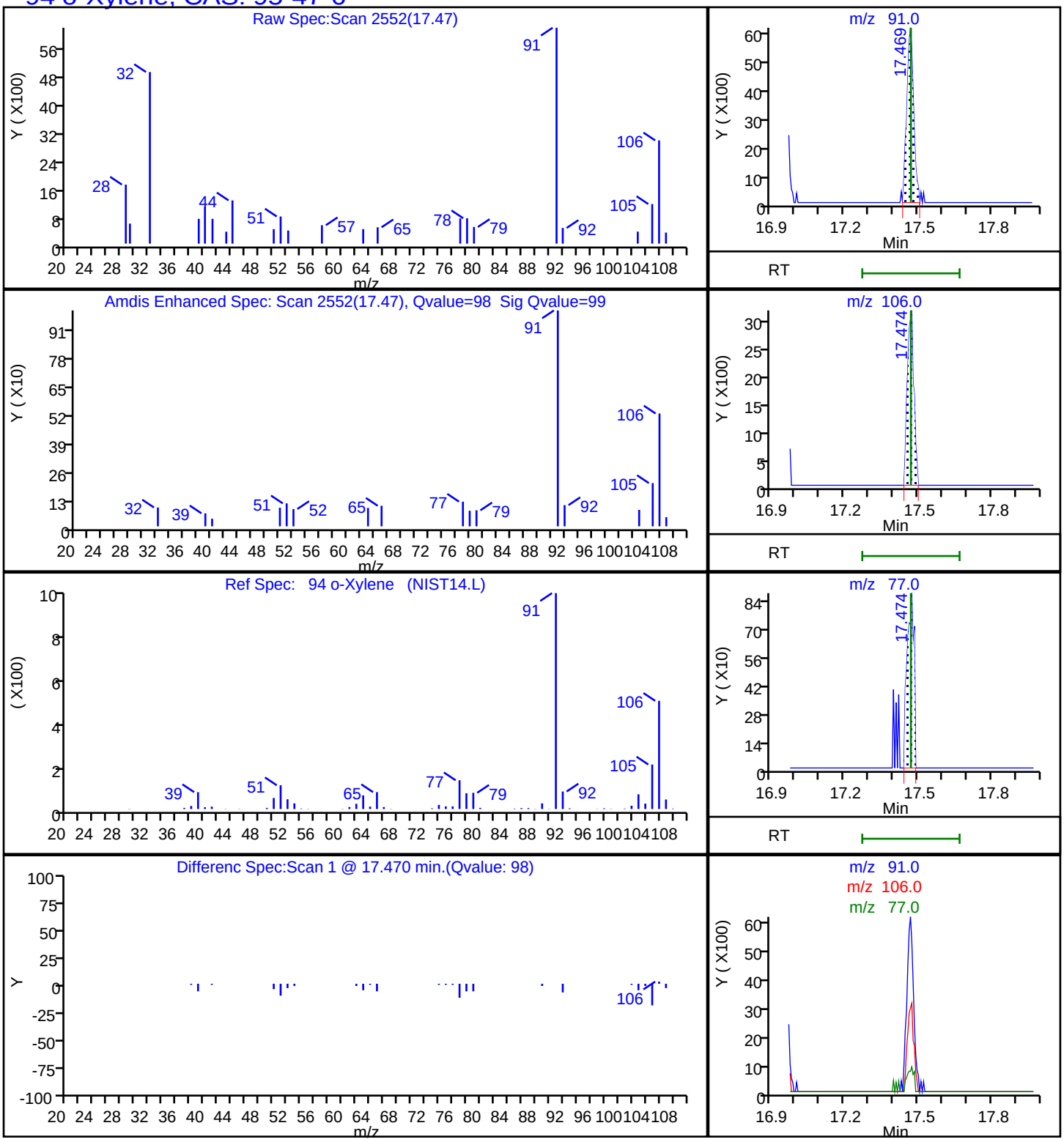


Report Date: 19-Apr-2019 10:18:21 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D		
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	403648	ALS Bottle#:	9 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

94 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

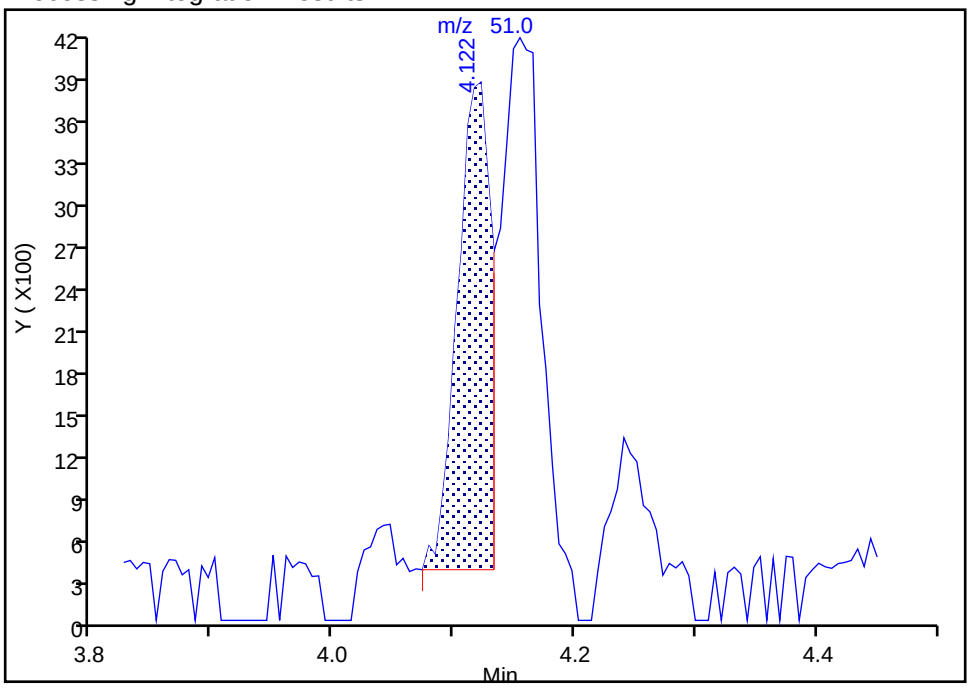
Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

19 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

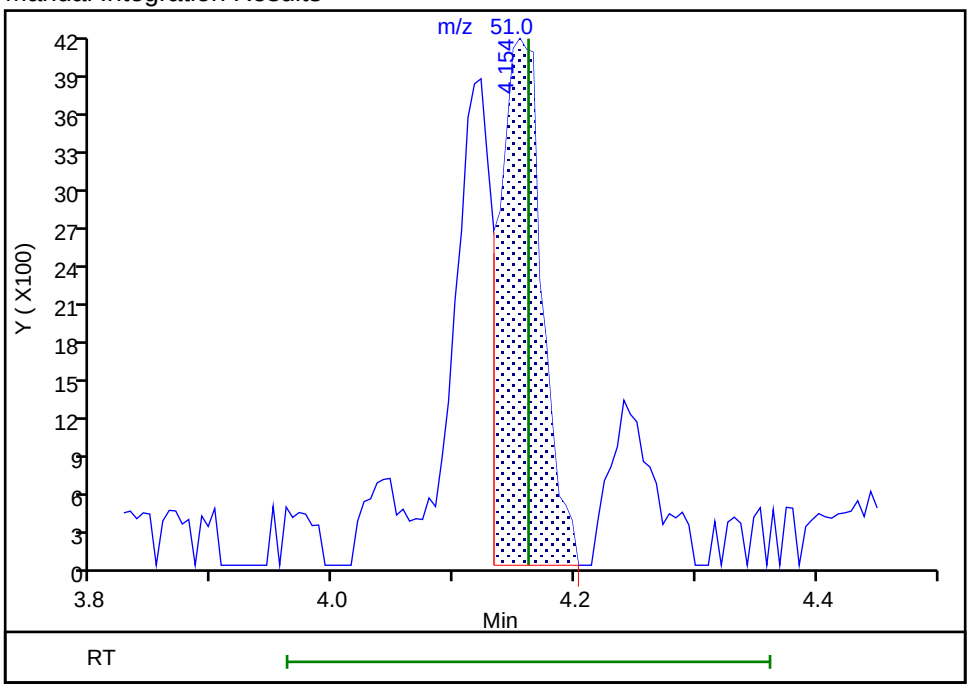
Processing Integration Results

RT: 4.12
Area: 6740
Amount: 0.058399
Amount Units: ppb v/v



Manual Integration Results

RT: 4.15
Area: 10236
Amount: 0.088690
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 19-Apr-2019 10:17:23

Audit Action: Split an Integrated Peak Audit Reason: Wrong peak

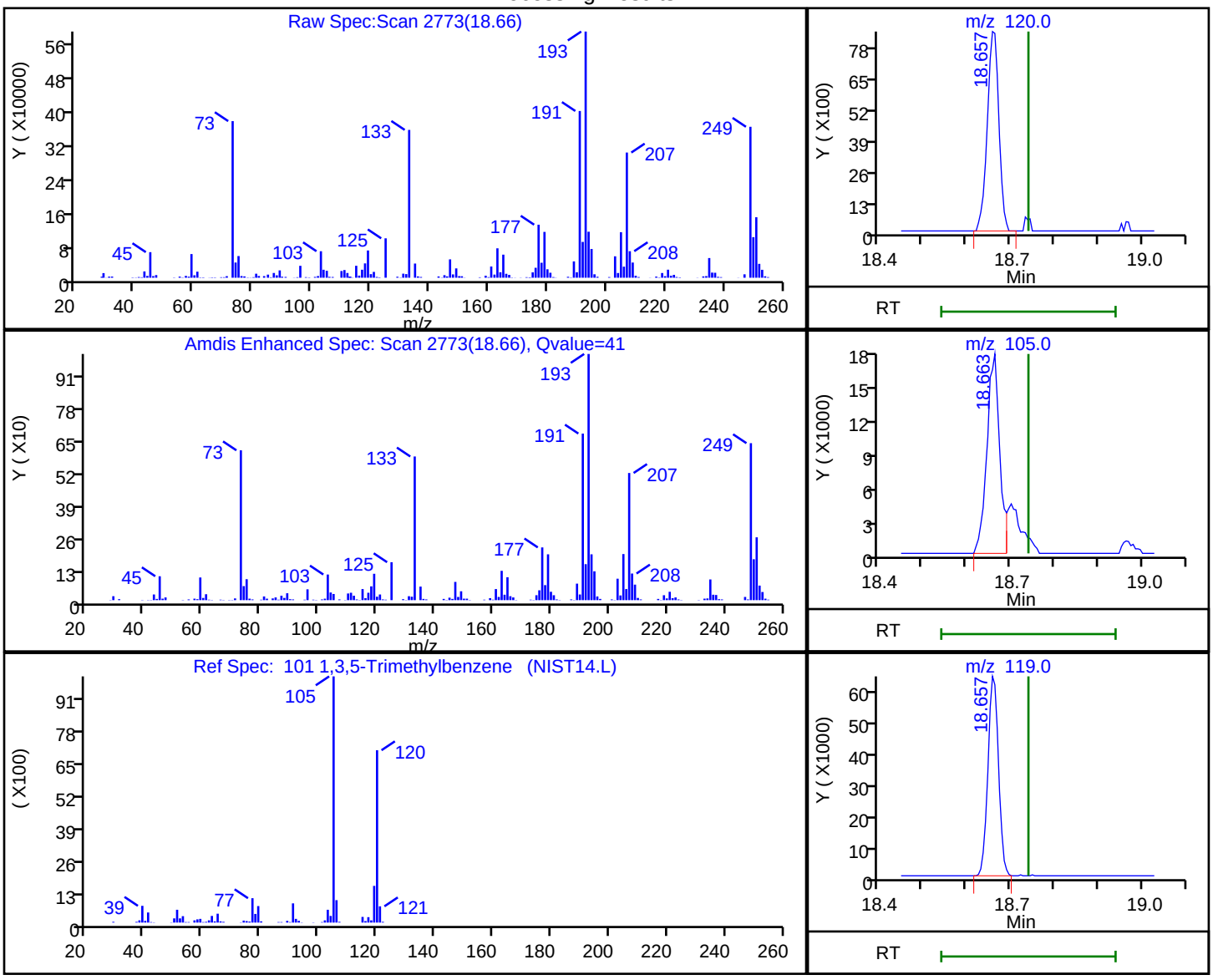
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15p109.D				
Injection Date:	15-Apr-2019 23:51:30	Instrument ID:	MJ		
Lims ID:	140-14958-A-3	Lab Sample ID:	140-14958-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.66	120.00	15683	0.100133
18.66	105.00	36279	
18.66	119.00	109066	

Reviewer: khachitpongpanits, 19-Apr-2019 10:18:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-29202/8	JD11ICL01.D
Level 2	IC 140-29202/9	JD11ICL02.D
Level 3	IC 140-29202/10	JD11ICL03.D
Level 4	IC 140-29202/22	JD11ICL04R.D
Level 5	IC 140-29202/12	JD11ICL05.D
Level 6	IC 140-29202/13	JD11ICL06.D
Level 7	ICIS 140-29202/14	JD11ICL07.D
Level 8	IC 140-29202/15	JD11ICL08.D
Level 9	IC 140-29202/3	JD11ICL09.D
Level 10	IC 140-29202/5	JD11ICL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 1.4871	1.7718 1.7494	1.7321 1.7561	1.5641 1.8502	1.6429 1.6569	Ave		1.6901				6.7		30.0			
Propene	+++++ 0.9014	+++++ 1.0466	+++++ 1.0361	1.0936 1.0692	1.0009 0.9796	Ave		1.0182				6.3		30.0			
Dichlorodifluoromethane	+++++ 1.3494	1.5115 1.5994	1.4503 1.4379	1.3083 1.5143	1.3931 1.4797	Ave		1.4493				6.2		30.0			
Chloromethane	+++++ 0.4596	+++++ 0.5065	+++++ 0.4418	0.6024 0.4285	0.5328 0.4449	Ave		0.4881				12.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 0.2732	+++++ 0.3226	0.3352 0.2945	0.2695 0.3324	0.3008 0.2515	Ave		0.2975				10.5		30.0			
Vinyl chloride	2.0979 1.5286	1.6329 1.7105	1.5426 1.5190	1.6054 1.4568	1.5946 1.4866	Ave		1.6175				11.4		30.0			
Butane	+++++ 2.1934	+++++ 2.4111	2.5584 2.1331	2.3745 2.0600	2.3428 2.0773	Ave		2.2688				7.9		30.0			
1,3-Butadiene	+++++ 1.0662	+++++ 1.2051	1.1478 1.0797	1.2057 1.0315	1.1125 1.0573	Ave		1.1132				6.0		30.0			
Bromomethane	+++++ 1.3778	1.5991 1.5424	1.5568 1.3880	1.5564 1.3333	1.4899 1.3910	Ave		1.4705				6.7		30.0			
Chloroethane	+++++ 0.6464	+++++ 0.7286	0.6290 0.6397	0.7367 0.6088	0.7032 0.6576	Ave		0.6687				7.2		30.0			
Ethanol	+++++ 0.5354	+++++ 0.5908	1.0725 0.4992	0.6304 0.5613	0.6398 0.5415	Lin1	0.1740	0.5384							0.9980		0.9900
Vinyl bromide	+++++ 1.2897	1.3767 1.4564	1.3403 1.3103	1.3887 1.2737	1.3860 1.3299	Ave		1.3502				4.3		30.0			
2-Methylbutane	+++++ 1.5060	+++++ 1.5741	+++++ 1.3705	1.5194 1.3748	1.5975 1.4056	Ave		1.4783				6.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.9464	3.9003 4.4397	3.9919 4.1226	4.1472 3.7151	4.1867 3.9225	Ave		4.0414				5.2		30.0			
Acrolein	+++++ 0.2532	+++++ 0.2815	+++++ 0.2090	+++++ 0.2671	0.3775 0.2775	Ave		0.2776				20.0		30.0			
Acetonitrile	+++++ 0.3827	+++++ 0.4305	+++++ 0.3442	+++++ 0.3833	0.4948 0.4142	Ave		0.4083				12.7		30.0			
Acetone	+++++ 0.4621	+++++ 0.4686	+++++ 0.3541	+++++ 0.3972	0.7931 0.3942	Ave		0.4782				33.5	*	30.0			
Isopropyl alcohol	+++++ 1.3545	+++++ 1.3539	+++++ 1.2405	1.6698 1.4179	1.6015 1.3616	Ave		1.4285				10.7		30.0			
Pentane	+++++ 0.2023	+++++ 0.2154	0.2162 0.1900	0.2116 0.1866	0.2145 0.1962	Ave		0.2041				5.9		30.0			
Ethyl ether	+++++ 1.3444	1.4118 1.5868	1.4089 1.3233	1.3641 1.3854	1.5126 1.4751	Ave		1.4236				6.0		30.0			
1,1-Dichloroethene	1.6295 1.2870	1.2727 1.4511	1.2656 1.3357	1.3080 1.2688	1.3869 1.3940	Ave		1.3599				8.4		30.0			
tert-Butyl alcohol	+++++ 1.9389	+++++ 1.9361	+++++ 2.0241	2.1141 2.1807	2.1400 2.1243	Ave		2.0655				4.8		30.0			
Acrylonitrile	+++++ 0.7300	+++++ 0.9056	0.8074 0.7297	0.7423 0.7975	0.9062 0.8775	Ave		0.8120				9.4		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8691	3.0742 3.3347	2.9672 2.9537	2.9388 2.7725	3.1260 3.1293	Ave		3.0184				5.5		30.0			
Methylene Chloride	+++++ 1.3758	+++++ 1.4568	+++++ 1.2514	2.4981 1.1534	1.7910 1.2920	Lin	0.0942	1.2579							0.9960		0.9900
3-Chloropropene	+++++ 1.1657	+++++ 1.3609	1.0681 1.2269	1.2068 1.1705	1.2377 1.2550	Ave		1.2115				6.9		30.0			
Carbon disulfide	+++++ 3.9829	3.9949 4.4834	3.9609 4.1241	3.9856 3.9824	4.1863 4.2150	Ave		4.1017				4.2		30.0			
trans-1,2-Dichloroethene	+++++ 1.2823	1.2555 1.4519	1.2678 1.3048	1.3082 1.2474	1.3565 1.3956	Ave		1.3189				5.3		30.0			
2-Methylpentane	+++++ 3.2316	3.6558 3.6968	3.4002 3.2528	3.2406 3.0365	3.5209 3.2566	Ave		3.3658				6.5		30.0			
Methyl tert-butyl ether	+++++ 2.8385	+++++ 3.3985	3.1502 2.8485	2.7248 3.2719	3.3362 3.3928	Ave		3.1202				8.8		30.0			
1,1-Dichloroethane	+++++ 2.4777	2.6526 2.8194	2.4843 2.4666	2.5853 2.4445	2.7143 2.7599	Ave		2.6005				5.4		30.0			
Vinyl acetate	+++++ 2.7779	2.8163 3.4682	2.9413 2.8028	2.6902 3.1560	3.2769 3.4627	Ave		3.0436				10.0		30.0			
2-Butanone (MEK)	+++++ 0.5149	+++++ 0.6112	+++++ 0.5074	0.5831 0.5871	0.7059 0.5949	Ave		0.5864				11.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0521	+++++ 1.1951	1.1775 1.0637	1.1294 1.0100	1.1628 1.1240	Ave		1.1143				5.9		30.0			
cis-1,2-Dichloroethene	1.6111 1.2740	1.3150 1.4372	1.2839 1.2907	1.2645 1.3008	1.3833 1.4663	Ave		1.3627				8.2		30.0			
Ethyl acetate	+++++ 2.3000	+++++ 2.7813	+++++ 2.3320	2.3038 2.7241	2.8305 2.7713	Ave		2.5776				9.7		30.0			
Chloroform	+++++ 2.8861	3.0763 3.2423	3.0384 2.8545	2.9726 2.8560	3.1483 3.2129	Ave		3.0319				4.9		30.0			
Tetrahydrofuran	+++++ 1.2168	+++++ 1.4934	+++++ 1.2052	1.1806 1.3944	1.4739 1.4535	Ave		1.3454				10.3		30.0			
1,1,1-Trichloroethane	+++++ 2.7464	2.8429 3.1646	2.7852 2.8027	2.8281 2.8084	2.9649 3.1609	Ave		2.9004				5.5		30.0			
1,2-Dichloroethane	+++++ 0.3089	0.2958 0.3357	0.3245 0.3038	0.3153 0.3275	0.3402 0.3509	Ave		0.3225				5.6		30.0			
1-Butanol	+++++ 0.0845	+++++ 0.0847	+++++ 0.0925	0.0892 0.1136	0.0953 0.0934	Ave		0.0933				10.6		30.0			
Cyclohexane	+++++ 0.1127	+++++ 0.1247	0.1172 0.1128	0.1049 0.1207	0.1210 0.1192	Ave		0.1166				5.4		30.0			
Benzene	+++++ 0.6485	0.7634 0.7094	0.7204 0.6361	0.6766 0.6879	0.7205 0.7040	Ave		0.6963				5.6		30.0			
Carbon tetrachloride	0.6523 0.4771	0.4281 0.5577	0.4567 0.5122	0.3897 0.5764	0.4381 0.5892	Ave		0.5077				16.5		30.0			
2,3-Dimethylpentane	+++++ 0.1586	+++++ 0.1678	0.1630 0.1562	0.1588 0.1718	0.1707 0.1728	Ave		0.1650				4.0		30.0			
Thiophene	+++++ 0.3729	0.3905 0.4159	0.3947 0.3754	0.3830 0.4249	0.4138 0.4305	Ave		0.4002				5.4		30.0			
2,2,4-Trimethylpentane	+++++ 1.0865	1.0993 1.1602	1.1880 1.0573	1.1183 1.1728	1.1732 1.1312	Ave		1.1318				4.0		30.0			
Heptane	+++++ 0.2339	0.2367 0.2545	0.2441 0.2328	0.2349 0.2637	0.2494 0.2627	Ave		0.2458				5.0		30.0			
1,2-Dichloropropane	+++++ 0.2636	0.2549 0.2893	0.2678 0.2608	0.2678 0.2719	0.2853 0.2865	Ave		0.2720				4.5		30.0			
Trichloroethene	0.4635 0.2866	0.2845 0.3118	0.3094 0.2813	0.2907 0.3288	0.3095 0.3304	Ave		0.3196				16.7		30.0			
Dibromomethane	+++++ 0.2829	0.3139 0.3036	0.3341 0.2772	0.2937 0.3132	0.3056 0.3187	Ave		0.3048				5.9		30.0			
Bromodichloromethane	+++++ 0.4944	0.4710 0.5401	0.4929 0.4999	0.4722 0.5744	0.5193 0.5732	Ave		0.5153				7.7		30.0			
1,4-Dioxane	+++++ 0.0778	+++++ 0.0899	0.0937 0.0814	0.0769 0.1083	0.0854 0.0929	Ave		0.0883				11.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2399	0.2790 0.2805	0.3243 0.2426	0.2360 0.3269	0.2864 0.2945	Ave		0.2789				12.3		30.0			
Methylcyclohexane	+++++ 0.4130	0.3972 0.4472	0.4293 0.4054	0.4099 0.4550	0.4381 0.4591	Ave		0.4282				5.3		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.4220	+++++ 0.4683	+++++ 0.4374	0.4266 0.5743	0.4969 0.5016	Ave		0.4753				11.4		30.0			
cis-1,3-Dichloropropene	+++++ 0.3782	+++++ 0.4248	0.3731 0.3911	0.3577 0.4222	0.4011 0.4610	Ave		0.4011				8.4		30.0			
trans-1,3-Dichloropropene	+++++ 0.3643	+++++ 0.3818	0.3319 0.3773	0.3314 0.4039	0.3807 0.4356	Ave		0.3759				9.2		30.0			
Toluene	+++++ 0.7900	0.8423 0.8350	0.8235 0.7966	0.7681 0.8341	0.8691 0.8893	Ave		0.8276				4.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2625	0.2610 0.2746	0.2804 0.2620	0.2579 0.2742	0.2836 0.2900	Ave		0.2718				4.2		30.0			
2-Hexanone	+++++ 0.2282	+++++ 0.2282	+++++ 0.2441	0.2233 0.3027	0.2535 0.2734	Ave		0.2505				11.6		30.0			
Octane	+++++ 0.2686	0.2665 0.2712	0.2678 0.2640	0.2652 0.2926	0.2789 0.2986	Ave		0.2748				4.6		30.0			
C8 Range	+++++ 2.6350	+++++ 2.6702	+++++ 2.5487	2.6524 2.7353	3.1112 2.7010	Ave		2.7220				6.7		30.0			
Dibromochloromethane	+++++ 0.5279	+++++ 0.5505	0.4975 0.5386	0.4865 0.5998	0.5297 0.6486	Ave		0.5474				9.8		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4629	0.4302 0.4680	0.4365 0.4700	0.4514 0.4969	0.4877 0.5473	Ave		0.4723				7.5		30.0			
Tetrachloroethene	+++++ 0.3115	0.3226 0.3192	0.3283 0.3050	0.3296 0.3457	0.3416 0.3632	Ave		0.3296				5.5		30.0			
Chlorobenzene	+++++ 0.6760	0.6869 0.6893	0.6764 0.6612	0.6741 0.6982	0.7263 0.7556	Ave		0.6938				4.3		30.0			
Ethylbenzene	+++++ 0.9599	0.9168 1.0168	1.0157 0.9401	0.8908 1.1027	1.0656 1.1142	Ave		1.0025				8.1		30.0			
m-Xylene & p-Xylene	+++++ 0.7472	0.6951 0.7911	0.7946 0.7237	0.6813 0.8648	0.8308 0.8444	Ave		0.7748				8.6		30.0			
Nonane	+++++ 0.5463	0.5336 0.5657	0.5266 0.5431	0.5336 0.5641	0.5850 0.5635	Ave		0.5513				3.5		30.0			
Styrene	+++++ 0.5328	+++++ 0.5829	0.5396 0.5540	0.4688 0.6845	0.5760 0.6980	Ave		0.5796				13.3		30.0			
Bromoform	+++++ 0.4949	+++++ 0.5311	0.4250 0.5397	0.4171 0.6248	0.4910 0.6720	Ave		0.5245				17.0		30.0			
o-Xylene	+++++ 0.7925	0.7310 0.8433	0.7943 0.7622	0.7233 0.9176	0.8739 0.9144	Ave		0.8169				9.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5950	+++++ 0.6383	0.6416 0.5788	0.5725 0.7002	0.6668 0.6861	Ave		0.6349				7.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1454	+++++ 0.1562	0.1621 0.1422	0.1344 0.1797	0.1634 0.1806	Ave		0.1580				10.7		30.0			
Isopropylbenzene	+++++ 1.0271	+++++ 1.1204	1.0987 0.9941	0.9323 1.2363	1.1391 1.2254	Ave		1.0967				9.8		30.0			
Propylbenzene	+++++ 0.2790	+++++ 0.3011	0.2994 0.2771	0.2383 0.3531	0.3103 0.3537	Ave		0.3015				12.9		30.0			
2-Chlorotoluene	+++++ 0.2807	0.2759 0.2932	0.2799 0.2747	0.2540 0.3282	0.3058 0.3365	Ave		0.2921				9.2		30.0			
4-Ethyltoluene	+++++ 1.0010	+++++ 1.1079	1.1478 1.0043	0.9239 1.2722	1.1328 1.2469	Ave		1.1046				11.1		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4108	0.3609 0.4526	0.4490 0.4099	0.3556 0.5272	0.4738 0.5304	Ave		0.4411				14.4		30.0			
Alpha Methyl Styrene	+++++ 0.4058	+++++ 0.4594	0.3913 0.4329	0.3208 0.5587	0.4302 0.5595	Ave		0.4448				18.3		30.0			
Decane	+++++ 0.6647	+++++ 0.6993	0.7196 0.6384	0.6441 0.7096	0.7342 0.6537	Ave		0.6829				5.4		30.0			
tert-Butylbenzene	+++++ 0.8828	+++++ 0.9790	0.9741 0.8888	0.8003 1.1458	1.0175 1.0992	Ave		0.9734				11.8		30.0			
1,2,4-Trimethylbenzene	+++++ 0.8515	+++++ 0.9571	0.9621 0.8714	0.7802 1.1194	0.9719 1.0665	Ave		0.9475				11.8		30.0			
sec-Butylbenzene	+++++ 1.2590	+++++ 1.3793	1.3714 1.2554	1.1376 1.5740	1.4178 1.4742	Ave		1.3586				10.2		30.0			
1,3-Dichlorobenzene	+++++ 0.6097	0.6476 0.6326	0.7017 0.5982	0.5892 0.7236	0.6566 0.7575	Ave		0.6574				8.9		30.0			
Benzyl chloride	+++++ 0.6474	+++++ 0.7715	0.7914 0.7449	0.6033 0.9403	0.7717 0.9153	Ave		0.7732				15.0		30.0			
1,4-Dichlorobenzene	+++++ 0.6015	0.6813 0.6280	0.6730 0.5915	0.5942 0.7178	0.6529 0.7520	Ave		0.6547				8.7		30.0			
4-Isopropyltoluene	+++++ 0.9965	+++++ 1.1151	1.1064 1.0290	0.9091 1.3182	1.1596 1.2495	Ave		1.1104				12.0		30.0			
1,2,3-Trimethylbenzene	+++++ 0.8562	0.7839 0.9488	0.9403 0.8681	0.7737 +++++	0.9809 +++++	Ave		0.8789				9.3		30.0			
Indane	+++++ 0.8230	+++++ 0.8953	0.8589 0.8162	0.7350 1.0335	0.8984 0.9903	Ave		0.8813				10.9		30.0			
1,2-Dichlorobenzene	+++++ 0.5861	0.6234 0.6119	0.6584 0.5746	0.5649 0.7063	0.6353 0.7070	Ave		0.6298				8.4		30.0			
Butylbenzene	+++++ 1.0271	+++++ 1.1264	1.2161 1.0474	0.9799 1.2910	1.2020 1.1931	Ave		1.1354				9.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.6641	+++++ 0.7439	0.7055 0.6956	0.5930 0.8858	0.7465 0.8741	Ave		0.7386				13.5		30.0			
Undecane	+++++ 0.7015	+++++ 0.7176	+++++ 0.6749	0.6694 0.7831	0.8084 0.7087	Ave		0.7234				7.3		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2675	0.2520 0.2940	0.3089 0.2871	0.2339 +++++	0.2917 +++++	Ave		0.2765				9.6		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 0.8990	+++++ 0.9772	1.0196 0.9231	0.8032 1.1815	1.0049 1.1165	Ave		0.9906				12.2		30.0			
Dodecane	+++++ 0.6623	+++++ 0.6056	+++++ 0.6105	0.6311 0.5441	0.7717 0.4636	Ave		0.6127				15.6		30.0			
1,2,4-Trichlorobenzene	+++++ 0.3952	+++++ 0.3998	0.5313 0.3883	0.4394 0.4533	0.4429 0.4783	Ave		0.4411				10.9		30.0			
Naphthalene	+++++ 0.7992	1.0879 0.7768	1.1017 0.7334	0.8327 0.8382	0.9006 0.8286	Ave		0.8777				15.0		30.0			
Hexachlorobutadiene	+++++ 0.4581	+++++ 0.4515	0.5907 0.4177	0.4583 0.4540	0.5228 0.4392	Ave		0.4740				11.8		30.0			
1,2,3-Trichlorobenzene	+++++ 0.3177	+++++ 0.2987	0.4279 0.2826	0.3543 0.3024	0.3643 0.2846	Ave		0.3291				15.2		30.0			
2-Methylnaphthalene	+++++ 0.1956	+++++ 0.1544	+++++ 0.1843	+++++ 0.1395	+++++ 0.1306	Ave		0.1609				17.5		50.0			
1-Methylnaphthalene	+++++ 0.2310	+++++ 0.1717	+++++ 0.2007	+++++ 0.1420	+++++ 0.1308	Ave		0.1752				23.6		50.0			
4-Bromofluorobenzene (Surr)	0.7223 0.7344	0.7246 0.7409	0.7276 0.7421	0.7196 0.7549	0.7349 0.7614	Ave		0.7363				1.9		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-29202/8	JD11ICL01.D
Level 2	IC 140-29202/9	JD11ICL02.D
Level 3	IC 140-29202/10	JD11ICL03.D
Level 4	IC 140-29202/22	JD11ICL04R.D
Level 5	IC 140-29202/12	JD11ICL05.D
Level 6	IC 140-29202/13	JD11ICL06.D
Level 7	ICIS 140-29202/14	JD11ICL07.D
Level 8	IC 140-29202/15	JD11ICL08.D
Level 9	IC 140-29202/3	JD11ICL09.D
Level 10	IC 140-29202/5	JD11ICL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 136612	6610 294456	12676 647253	26253 1601191	57229 2630573	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 82805	+++++ 176158	+++++ 381863	18356 925325	34867 1555195	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 123962	5639 269198	10614 529973	21958 1310525	48528 2349230	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 42219	+++++ 85256	+++++ 162829	10110 370823	18559 706313	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 25099	+++++ 54296	2453 108541	4523 287697	10478 399234	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3650 140426	6092 287895	11289 559857	26945 1260709	55549 2360116	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 201492	+++++ 405816	18723 786180	39855 1782720	81613 3297906	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 97942	+++++ 202833	8400 397951	20237 892691	38754 1678547	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 126570	5966 259607	11393 511582	26123 1153874	51901 2208412	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 59381	+++++ 122631	4603 235771	12365 526821	24496 1044084	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Ethanol	CBM	Lin1	+++++ 245908	+++++ 497166	39246 919948	52906 2428659	111443 4298509	+++++ 5.00	+++++ 10.0	0.400 20.0	1.00 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 118480	5136 245133	9809 482923	23308 1102249	48281 2111351	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 138342	+++++ 264951	+++++ 505120	25502 1189729	55648 2231634	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 362526	14551 747260	29214 1519461	69607 3215091	145844 6227401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 23263	+++++ 47384	+++++ 77017	+++++ 231142	13149 440611	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 35160	+++++ 72451	+++++ 126856	+++++ 331736	17236 657564	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127344	+++++ 236611	+++++ 391528	+++++ 1031319	82888 1877510	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Isopropyl alcohol	CBM	Ave	+++++ 373279	+++++ 683628	+++++ 1371626	84080 3681130	167369 6484978	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.600 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18583	+++++ 36259	1582 70017	3552 161490	7471 311549	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Ethyl ether	CBM	Ave	+++++ 123500	5267 267081	10311 487718	22895 1198959	52692 2341898	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2835 118228	4748 244240	9262 492301	21954 1098002	48314 2213174	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178117	+++++ 325879	+++++ 746003	35483 1887217	74546 3372562	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 67062	+++++ 152427	5909 268947	12459 690197	31567 1393141	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 263564	11469 561274	21715 1088646	49325 2399345	108895 4968148	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Methylene Chloride	CBM	Lin	+++++ 126385	+++++ 245197	+++++ 461236	41928 998125	62388 2051225	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 107085	+++++ 229054	7817 452202	20255 1012992	43117 1992422	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 365883	14904 754621	28987 1520024	66896 3446421	145830 6691776	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 117794	4684 244371	9278 480900	21957 1079482	47254 2215763	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 296864	13639 622224	24884 1198896	54391 2627843	122651 5170271	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 260755	+++++ 572017	23054 1049870	45733 2831494	116216 5386417	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 227614	9896 474549	18181 909112	43392 2115465	94554 4381688	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 255186	10507 583752	21525 1033012	45153 2731243	114152 5497427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47301	+++++ 102873	+++++ 187019	9787 508037	24590 944515	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 96646	+++++ 201159	8617 392046	18956 874021	40507 1784500	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2803 117033	4906 241899	9396 475710	21223 1125762	48187 2327961	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 211284	+++++ 468125	+++++ 859517	38667 2357414	98599 4399819	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 265129	11477 545728	22236 1052077	49893 2471608	109672 5100813	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 111779	+++++ 251356	+++++ 444198	19815 1206692	51345 2307584	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 252290	10606 532655	20383 1032981	47467 2430398	103283 5018250	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 168198	6676 348434	13583 678471	31384 1519851	71074 3337051	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 46017	+++++ 87952	+++++ 206559	8880 527083	19914 888666	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 61379	+++++ 129446	4904 251846	10441 560226	25275 1133617	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 353113	17231 736362	30155 1420455	67343 3192621	150526 6696032	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	5972 259774	9662 578892	19116 1143801	38786 2675152	91518 5603572	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 86360	+++++ 174226	6824 348830	15801 797605	35662 1643257	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 203048	8815 431721	16519 838302	38120 1972064	86451 4094442	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 591543	24811 1204350	49725 2361124	111306 5443250	245078 10759073	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 127369	5342 264229	10217 519836	23377 1223861	52092 2498434	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 143498	5754 300361	11210 582446	26654 1261895	59592 2724457	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4243 156044	6421 323675	12952 628156	28935 1526033	64647 3142364	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 154019	7084 315181	13986 619135	29233 1453850	63837 3031429	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 269171	10630 560618	20632 1116351	46999 2666252	108476 5452026	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 42353	+++++ 93286	3923 181803	7658 502522	17848 884020	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 130628	6298 291152	13573 541752	23491 1517467	59838 2800954	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 224856	8964 464232	17971 905454	40795 2111928	91520 4366359	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 229783	+++++ 486146	+++++ 976861	42455 2665706	103805 4770674	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 205919	+++++ 440946	15615 873386	35607 1959571	83798 4384217	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd5	Ave	+++++ 175259	+++++ 372558	12185 757660	28474 1761879	70014 3799467	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Toluene	CBZd5	Ave	+++++ 380050	16512 814753	30231 1599761	65991 3638810	159831 7756468	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd5	Ave	+++++ 126269	5116 267946	10294 526182	22160 1196267	52148 2529564	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2-Hexanone	CBZd5	Ave	+++++ 109769	+++++ 222690	+++++ 490133	19184 1320657	46612 2384563	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Octane	CBZd5	Ave	+++++ 129197	5224 264630	9829 530211	22786 1276318	51292 2604323	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
C8 Range	CBZd5	Ave	+++++ 1267543	+++++ 2605327	+++++ 5118720	227869 11932858	572155 23557642	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
Dibromochloromethane	CBZd5	Ave	+++++ 253960	+++++ 537151	18263 1081695	41792 2616647	97407 5656661	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd5	Ave	+++++ 222669	8433 456638	16023 943864	38778 2167891	89694 4773247	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Tetrachloroethene	CBZd5	Ave	+++++ 149859	6324 311423	12052 612492	28316 1508023	62815 3168038	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Chlorobenzene	CBZd5	Ave	+++++ 325201	13465 672584	24830 1327855	57913 3045712	133559 6589909	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Ethylbenzene	CBZd5	Ave	+++++ 461769	17972 992065	37284 1888074	76531 4810651	195971 9717595	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd5	Ave	+++++ 718880	27252 1543707	58337 2907038	117064 7545331	305556 14729614	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	0.800 32.0
Nonane	CBZd5	Ave	+++++ 262805	10461 551969	19331 1090720	45842 2460850	107577 4914782	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Styrene	CBZd5	Ave	+++++ 256305	+++++ 568771	19808 1112709	40276 2986239	105917 6087889	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Bromoform	CBZd5	Ave	+++++ 238048	+++++ 518246	15603 1083806	35838 2725743	90296 5860589	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
o-Xylene	CBZd5	Ave	+++++ 381243	14329 822833	29157 1530830	62139 4003056	160716 7974882	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd5	Ave	+++++ 286209	+++++ 622809	23552 1162463	49186 3054613	122630 5984391	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd5	Ave	+++++ 69942	+++++ 152394	5951 285527	11547 784097	30058 1574729	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Isopropylbenzene	CBZd5	Ave	+++++ 494083	+++++ 1093152	40331 1996401	80093 5393508	209487 10687833	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Propylbenzene	CBZd5	Ave	+++++ 134204	+++++ 293833	10992 556550	20473 1540292	57058 3084657	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 135013	5408 286094	10274 551627	21819 1431715	56233 2935192	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 481530	+++++ 1081011	42135 2016935	79372 5550094	208321 10875116	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 197636	7074 441614	16481 823205	30550 2299703	87128 4625929	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 195232	+++++ 448196	14363 869399	27558 2437360	79116 4880003	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 319749	+++++ 682312	26414 1282133	55339 3095772	135016 5701097	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 424689	+++++ 955193	35757 1784967	68758 4998650	187116 9587315	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 409626	+++++ 933856	35317 1750104	67029 4883449	178740 9301313	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 605645	+++++ 1345778	50344 2521225	97737 6866520	260727 12857398	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 293300	12695 617204	25757 1201342	50618 3156670	120756 6606493	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 311446	+++++ 752793	29051 1495992	51832 4101949	141906 7983147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	+++++ 289355	13356 612782	24706 1187981	51048 3131239	120066 6559078	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 479386	+++++ 1087969	40614 2066638	78101 5750821	213251 10898116	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 411887	15366 925762	34518 1743522	66468 +++++	180392 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 +++++	0.400 +++++
Indane	CBZd 5	Ave	+++++ 395879	+++++ 873578	31528 1639188	63145 4508654	165210 8637071	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	+++++ 281926	12221 597048	24168 1153955	48535 3081136	116840 6166100	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 494081	+++++ 1099054	44642 2103473	84189 5631895	221040 10405929	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 319484	+++++ 725868	25900 1396969	50944 3864288	137272 7623859	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 337459	+++++ 700217	+++++ 1355423	57513 3416435	148665 6181236	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 128704	4940 286866	11340 576522	20094 +++++	53649 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 +++++	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 432468	+++++ 953442	37430 1853893	69007 5154254	184809 9737511	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 318614	+++++ 590854	+++++ 1226151	54217 2373832	141908 4043743	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.200 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 190131	+++++ 390074	19504 779749	37753 1977638	81443 4171973	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 384474	21327 757886	40443 1472875	71538 3656799	165619 7226551	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 220380	+++++ 440574	21684 838919	39373 1980440	96146 3830487	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 152851	+++++ 291464	15706 567469	30435 1319411	66998 2481991	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.200 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 94118	+++++ 150633	+++++ 370130	+++++ 608685	+++++ 1138714	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 111110	+++++ 167533	+++++ 403191	+++++ 619307	+++++ 1140872	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1192986 1413095	1420525 1445784	1335490 1490325	1236442 1646714	1351507 1660237	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-29202/8	JD11ICL01.D
Level 2	IC 140-29202/9	JD11ICL02.D
Level 3	IC 140-29202/10	JD11ICL03.D
Level 4	IC 140-29202/22	JD11ICL04R.D
Level 5	IC 140-29202/12	JD11ICL05.D
Level 6	IC 140-29202/13	JD11ICL06.D
Level 7	ICIS 140-29202/14	JD11ICL07.D
Level 8	IC 140-29202/15	JD11ICL08.D
Level 9	IC 140-29202/3	JD11ICL09.D
Level 10	IC 140-29202/5	JD11ICL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	4.8						50				
Propene	+++++	+++++	+++++	7.4						50		
Dichlorodifluoromethane	+++++	4.3						50				
Chloromethane	+++++	+++++	+++++	23.4						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	12.7						50			
Vinyl chloride	29.7						50					
Butane	+++++	+++++	12.8						50			
1,3-Butadiene	+++++	+++++	3.1						50			
Bromomethane	+++++	8.7						50				
Chloroethane	+++++	+++++	-5.9						50			
Ethanol	+++++	+++++	18.4						50			
Vinyl bromide	+++++	2.0						50				
2-Methylbutane	+++++	+++++	+++++	2.8						50		
Trichlorofluoromethane	+++++	-3.5						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	36.0						50	
Acetonitrile	+++++	+++++	+++++	+++++	21.2						50	
Acetone	+++++	+++++	+++++	+++++	65.9						80	
Isopropyl alcohol	+++++	+++++	+++++	16.9						50		
Pentane	+++++	+++++	5.9						50			
Ethyl ether	+++++	-0.8						50				
1,1-Dichloroethene	19.8						50					
tert-Butyl alcohol	+++++	+++++	+++++	2.4						50		
Acrylonitrile	+++++	+++++	-0.6						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	1.8						50				
Methylene Chloride	+++++	+++++	+++++	61.1						80		
3-Chloropropene	+++++	+++++	-11.8						50			
Carbon disulfide	+++++	-2.6						50				
trans-1,2-Dichloroethene	+++++	-4.8						50				
2-Methylpentane	+++++	8.6						50				
Methyl tert-butyl ether	+++++	+++++	1.0						50			
1,1-Dichloroethane	+++++	2.0						50				
Vinyl acetate	+++++	-7.5						50				
2-Butanone (MEK)	+++++	+++++	+++++	-0.6						50		
Hexane	+++++	+++++	5.7						50			
cis-1,2-Dichloroethene	18.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	+++++	-10.6						50		
Chloroform	+++++	1.5						50				
Tetrahydrofuran	+++++	+++++	+++++	-12.3						50		
1,1,1-Trichloroethane	+++++	-2.0						50				
1,2-Dichloroethane	+++++	-8.3						50				
1-Butanol	+++++	+++++	+++++	-4.4						50		
Cyclohexane	+++++	+++++	0.4						50			
Benzene	+++++	9.6						50				
Carbon tetrachloride	28.5						50					
2,3-Dimethylpentane	+++++	+++++	-1.2						50			
Thiophene	+++++	-2.4						50				
2,2,4-Trimethylpentane	+++++	-2.9						50				
Heptane	+++++	-3.7						50				
1,2-Dichloropropane	+++++	-6.3						50				
Trichloroethene	45.0						50					
Dibromomethane	+++++	3.0						50				
Bromodichloromethane	+++++	-8.6						50				
1,4-Dioxane	+++++	+++++	6.1						50			
Methyl methacrylate	+++++	0.0						50				
Methylcyclohexane	+++++	-7.3						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	-10.3						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	+++++	-7.0						50			
trans-1,3-Dichloropropene	+++++	+++++	-11.7						50			
Toluene	+++++	1.8						50				
1,1,2-Trichloroethane	+++++	-4.0						50				
2-Hexanone	+++++	+++++	+++++	-10.9						50		
Octane	+++++	-3.0						50				
Dibromochloromethane	+++++	+++++	-9.1						50			
1,2-Dibromoethane (EDB)	+++++	-8.9						50				
Tetrachloroethene	+++++	-2.1						50				
Chlorobenzene	+++++	-1.0						50				
Ethylbenzene	+++++	-8.6						50				
m-Xylene & p-Xylene	+++++	-10.3						50				
Nonane	+++++	-3.2						50				
Styrene	+++++	+++++	-6.9						50			
Bromoform	+++++	+++++	-19.0						50			
o-Xylene	+++++	-10.5						50				
1,1,2,2-Tetrachloroethane	+++++	+++++	1.0						50			
1,2,3-Trichloropropane	+++++	+++++	2.6						50			
Isopropylbenzene	+++++	+++++	0.2						50			
Propylbenzene	+++++	+++++	-0.7						50			
2-Chlorotoluene	+++++	-5.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	3.9						50			
1,3,5-Trimethylbenzene	+++++	-18.2						50				
Alpha Methyl Styrene	+++++	+++++	-12.0						50			
Decane	+++++	+++++	5.4						50			
tert-Butylbenzene	+++++	+++++	0.1						50			
1,2,4-Trimethylbenzene	+++++	+++++	1.5						50			
sec-Butylbenzene	+++++	+++++	0.9						50			
1,3-Dichlorobenzene	+++++	-1.5						50				
Benzyl chloride	+++++	+++++	2.3						50			
1,4-Dichlorobenzene	+++++	4.1						50				
4-Isopropyltoluene	+++++	+++++	-0.4						50			
1,2,3-Trimethylbenzene	+++++	-10.8	+++++	+++++				50				
Indane	+++++	+++++	-2.5						50			
1,2-Dichlorobenzene	+++++	-1.0						50				
Butylbenzene	+++++	+++++	7.1						50			
Indene	+++++	+++++	-4.5						50			
Undecane	+++++	+++++	+++++	-7.5						50		
1,2-Dibromo-3-Chloropropane	+++++	-8.8	+++++	+++++				50				
1,2,4,5-Tetramethylbenzene	+++++	+++++	2.9						50			
Dodecane	+++++	+++++	+++++	3.0						50		
1,2,4-Trichlorobenzene	+++++	+++++	20.5						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 29202

SDG No.:

Instrument ID: MJ GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/11/2019 18:43 Calibration End Date: 04/12/2019 10:25 Calibration ID: 1908

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	24.0						80				
Hexachlorobutadiene	+++++	+++++	24.6						50			
1,2,3-Trichlorobenzene	+++++	+++++	30.0						50			
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	21.6						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	31.8						80

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 11-Apr-2019 18:43:30 ALS Bottle#: 9 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-003
Misc. Info.: 210537
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:35:55 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 17-Apr-2019 13:48:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.763	9.755	0.008	97	432703	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.871	11.864	0.007	95	2320703	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.476	16.472	0.004	88	2181255	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.074	18.070	0.004	91	1646714	4.00	4.10	
19 Chlorodifluoromethane	51	4.163	4.161	0.002	97	1601191	8.00	8.76	
20 Propene	41	4.179	4.175	0.004	99	925325	8.00	8.40	
21 Dichlorodifluoromethane	85	4.238	4.235	0.003	100	1310525	8.00	8.36	
22 Chloromethane	52	4.453	4.450	0.003	100	370823	8.00	7.02	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.458	4.453	0.005	77	287697	8.00	8.94	
24 Acetaldehyde	44	4.625	4.626	-0.001	98	1774492	40.0	35.9	
25 Vinyl chloride	62	4.652	4.649	0.003	99	1260709	8.00	7.21	
26 Butane	43	4.749	4.749	0.000	86	1782720	8.00	7.26	
27 Butadiene	54	4.754	4.749	0.005	67	892691	8.00	7.41	
28 Bromomethane	94	5.131	5.127	0.004	99	1153874	8.00	7.25	
29 Chloroethane	64	5.292	5.290	0.002	96	526821	8.00	7.28	
30 Ethanol	31	5.395	5.394	0.000	98	2428659	40.0	41.4	
31 Vinyl bromide	106	5.637	5.633	0.004	98	1102249	8.00	7.55	
32 2-Methylbutane	43	5.685	5.681	0.004	92	1189729	8.00	7.44	
33 Trichlorofluoromethane	101	5.932	5.928	0.004	100	3215091	8.00	7.35	
34 Acrolein	56	5.943	5.945	-0.002	96	231142	8.00	7.70	
35 Acetonitrile	40	6.019	6.017	0.002	99	331736	8.00	7.51	
36 Acetone	58	6.067	6.073	-0.006	99	1031319	24.0	19.9	
37 Isopropyl alcohol	45	6.158	6.163	-0.005	95	3681130	24.0	23.8	
38 Pentane	72	6.175	6.169	0.006	94	161490	8.00	7.31	
39 Ethyl ether	31	6.352	6.358	-0.006	92	1198959	8.00	7.79	
40 1,1-Dichloroethene	96	6.712	6.707	0.005	96	1098002	8.00	7.46	
41 Acrylonitrile	53	6.825	6.819	0.006	93	690197	8.00	7.86	
42 2-Methyl-2-propanol	59	6.809	6.826	-0.017	96	1887217	8.00	8.45	
43 1,1,2-Trichloro-1,2,2-trif	101	6.895	6.888	0.007	96	2399345	8.00	7.35	
44 Methylene Chloride	84	7.089	7.084	0.005	97	998125	8.00	7.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.105	7.101	0.004	96	1012992	8.00	7.73	
46 Carbon disulfide	76	7.272	7.270	0.002	99	3446421	8.00	7.77	
47 trans-1,2-Dichloroethene	96	7.950	7.942	0.008	95	1079482	8.00	7.57	
48 2-Methylpentane	43	7.955	7.948	0.007	95	2627843	8.00	7.22	
49 Methyl tert-butyl ether	73	8.063	8.078	-0.015	97	2831494	8.00	8.39	
50 1,1-Dichloroethane	63	8.396	8.387	0.009	100	2115465	8.00	7.52	
51 Vinyl acetate	43	8.482	8.481	0.001	100	2731243	8.00	8.30	
52 2-Butanone (MEK)	72	8.956	8.960	-0.004	97	508037	8.00	8.01	
53 Hexane	56	8.972	8.972	0.000	90	874021	8.00	7.25	
54 Isopropyl ether	45	9.128	9.135	-0.007	97	3532743	8.00	8.16	
55 cis-1,2-Dichloroethene	96	9.418	9.410	0.008	96	1125762	8.00	7.64	
56 Ethyl acetate	43	9.580	9.582	-0.002	99	2357414	8.00	8.45	
57 Chloroform	83	9.768	9.759	0.009	96	2471608	8.00	7.54	
58 Tert-butyl ethyl ether	59	9.822	9.834	-0.012	96	3232961	8.00	8.54	
59 Tetrahydrofuran	42	10.171	10.190	-0.019	94	1206692	8.00	8.29	
60 1,1,1-Trichloroethane	97	10.795	10.790	0.005	96	2430398	8.00	7.75	
61 1,2-Dichloroethane	62	10.903	10.897	0.006	98	1519851	8.00	8.12	
62 n-Butanol	31	11.290	11.312	-0.022	91	527083	8.00	9.73	
63 Cyclohexane	69	11.366	11.362	0.004	81	560226	8.00	8.28	
64 Benzene	78	11.371	11.363	0.008	97	3192621	8.00	7.90	
65 Carbon tetrachloride	117	11.387	11.383	0.004	98	2675152	8.00	9.08	
66 2,3-Dimethylpentane	71	11.457	11.452	0.005	92	797605	8.00	8.33	
67 Thiophene	84	11.635	11.628	0.007	96	1972064	8.00	8.49	
68 Isooctane	57	12.070	12.063	0.007	98	5443250	8.00	8.29	
69 n-Heptane	71	12.420	12.413	0.007	93	1223861	8.00	8.58	
70 1,2-Dichloropropane	63	12.533	12.528	0.005	92	1261895	8.00	8.00	
71 Trichloroethene	130	12.565	12.557	0.008	96	1526033	8.00	8.23	
72 Dibromomethane	93	12.657	12.650	0.007	96	1453850	8.00	8.22	
73 Dichlorobromomethane	83	12.786	12.781	0.005	99	2666252	8.00	8.92	
74 1,4-Dioxane	88	12.791	12.806	-0.015	38	502522	8.00	9.81	
75 Methyl methacrylate	41	12.845	12.843	0.002	93	1517467	8.00	9.38	
76 Methylcyclohexane	83	13.302	13.298	0.004	97	2111928	8.00	8.50	
77 4-Methyl-2-pentanone (MIBK	43	13.668	13.676	-0.008	98	2665706	8.00	9.67	
78 cis-1,3-Dichloropropene	75	13.743	13.739	0.004	94	1959571	8.00	8.42	
79 trans-1,3-Dichloropropene	75	14.416	14.410	0.006	98	1761879	8.00	8.60	
80 Toluene	91	14.545	14.539	0.006	93	3638810	8.00	8.06	
81 1,1,2-Trichloroethane	83	14.615	14.610	0.005	97	1196267	8.00	8.07	
82 2-Hexanone	58	14.965	14.971	-0.006	92	1320657	8.00	9.67	
83 n-Octane	85	15.174	15.172	0.002	94	1276318	8.00	8.52	
84 Chlorodibromomethane	129	15.314	15.310	0.004	97	2616647	8.00	8.77	
85 Ethylene Dibromide	107	15.605	15.599	0.006	98	2167891	8.00	8.42	
86 Tetrachloroethene	129	15.664	15.659	0.005	97	1508023	8.00	8.39	
87 2,3-Dimethylheptane	43	16.498	16.497	0.001	96	3764298	8.00	7.39	
88 Chlorobenzene	112	16.525	16.521	0.004	93	3045712	8.00	8.05	
89 Ethylbenzene	91	16.794	16.790	0.004	98	4810651	8.00	8.80	
90 m-Xylene & p-Xylene	91	16.950	16.947	0.003	98	7545331	16.0	17.9	
91 n-Nonane	57	17.332	17.326	0.006	92	2460850	8.00	8.19	
92 Styrene	104	17.412	17.409	0.003	99	2986239	8.00	9.45	
93 Bromoform	173	17.423	17.418	0.005	95	2725743	8.00	9.53	
94 o-Xylene	91	17.477	17.472	0.005	99	4003056	8.00	8.99	
95 1,1,2,2-Tetrachloroethane	83	17.789	17.785	0.004	99	3054613	8.00	8.82	
96 1,2,3-Trichloropropane	110	17.945	17.940	0.005	99	784097	8.00	9.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.031	18.030	0.001	97	5393508	8.00	9.02	
98 N-Propylbenzene	120	18.537	18.534	0.003	99	1540292	8.00	9.37	
99 2-Chlorotoluene	126	18.590	18.590	0.000	97	1431715	8.00	8.99	
100 4-Ethyltoluene	105	18.676	18.674	0.002	98	5550094	8.00	9.21	
101 1,3,5-Trimethylbenzene	120	18.746	18.743	0.003	93	2299703	8.00	9.56	
102 Alpha Methyl Styrene	118	18.967	18.963	0.004	89	2437360	8.00	10.0	
103 n-Decane	57	18.994	18.989	0.005	92	3095772	8.00	8.31	
104 tert-Butylbenzene	119	19.155	19.149	0.006	92	4998650	8.00	9.42	
105 1,2,4-Trimethylbenzene	105	19.166	19.161	0.005	96	4883449	8.00	9.45	
106 sec-Butylbenzene	105	19.408	19.405	0.003	98	6866520	8.00	9.27	
107 1,3-Dichlorobenzene	146	19.440	19.435	0.005	99	3156670	8.00	8.81	
108 Benzyl chloride	91	19.505	19.502	0.003	98	4101949	8.00	9.73	
109 1,4-Dichlorobenzene	146	19.521	19.517	0.004	93	3131239	8.00	8.77	
110 4-Isopropyltoluene	119	19.559	19.556	0.003	96	5750821	8.00	9.50	
111 1,2,3-Trimethylbenzene	105	19.623	19.618	0.005	98	4816822	8.00	10.1	
112 Butylcyclohexane	83	19.661	19.657	0.004	95	3929941	8.00	8.41	
113 2,3-Dihydroindene	117	19.865	19.861	0.004	94	4508654	8.00	9.38	
114 1,2-Dichlorobenzene	146	19.871	19.867	0.004	95	3081136	8.00	8.97	
115 n-Butylbenzene	91	19.978	19.975	0.003	98	5631895	8.00	9.10	
116 Indene	116	19.989	19.989	0.000	91	3864288	8.00	9.59	
117 Undecane	57	20.253	20.249	0.004	94	3416435	8.00	8.66	
118 1,2-Dibromo-3-Chloropropan	157	20.457	20.453	0.004	100	1645811	8.00	10.9	
119 1,2,4,5-Tetramethylbenzene	119	20.731	20.728	0.003	97	5154254	8.00	9.54	
120 Dodecane	57	21.339	21.336	0.003	95	2373832	8.00	7.10	
121 1,2,4-Trichlorobenzene	180	21.581	21.579	0.002	94	1977638	8.00	8.22	
122 Naphthalene	128	21.705	21.705	0.000	99	3656799	8.00	7.64	
123 Hexachlorobutadiene	225	21.856	21.852	0.004	96	1980440	8.00	7.66	
124 1,2,3-Trichlorobenzene	180	21.915	21.911	0.004	95	1319411	8.00	7.35	
125 2-Methylnaphthalene	142	22.431	22.433	-0.002	99	608685	8.00	6.94	
126 1-Methylnaphthalene	142	22.560	22.557	0.003	99	619307	8.00	6.48	
A 128 C8 Range	1	15.184	(15.131-15.238)		0	11932858	8.00	8.04	
S 129 Xylenes, Total	100				0		24.0	26.8	
S 130 1,2-Dichloroethene, Total	1				0		16.0	15.2	

Reagents:

40L9DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

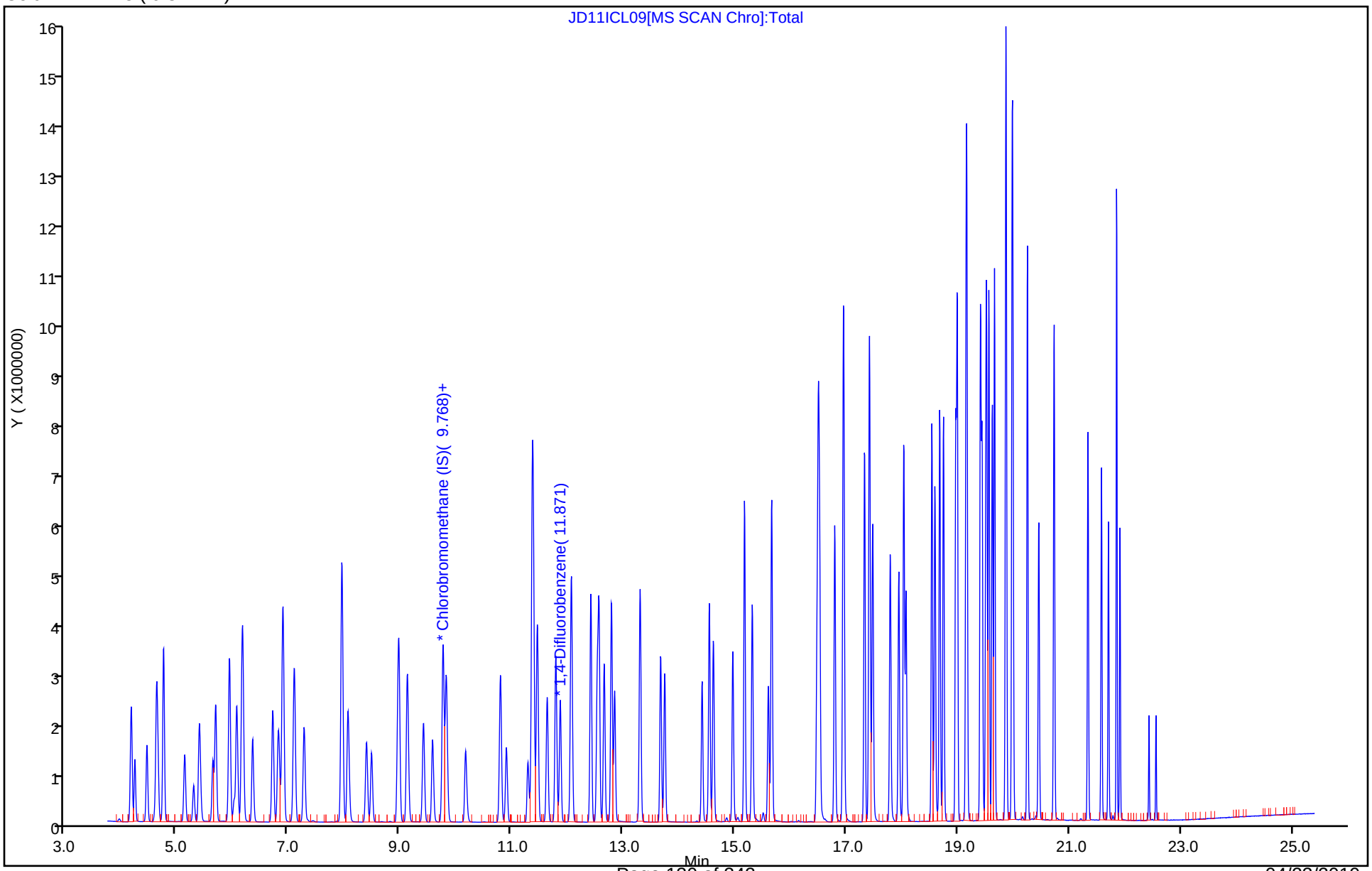
Report Date: 18-Apr-2019 15:35:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL09.D

Injection Date:	11-Apr-2019 18:43:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

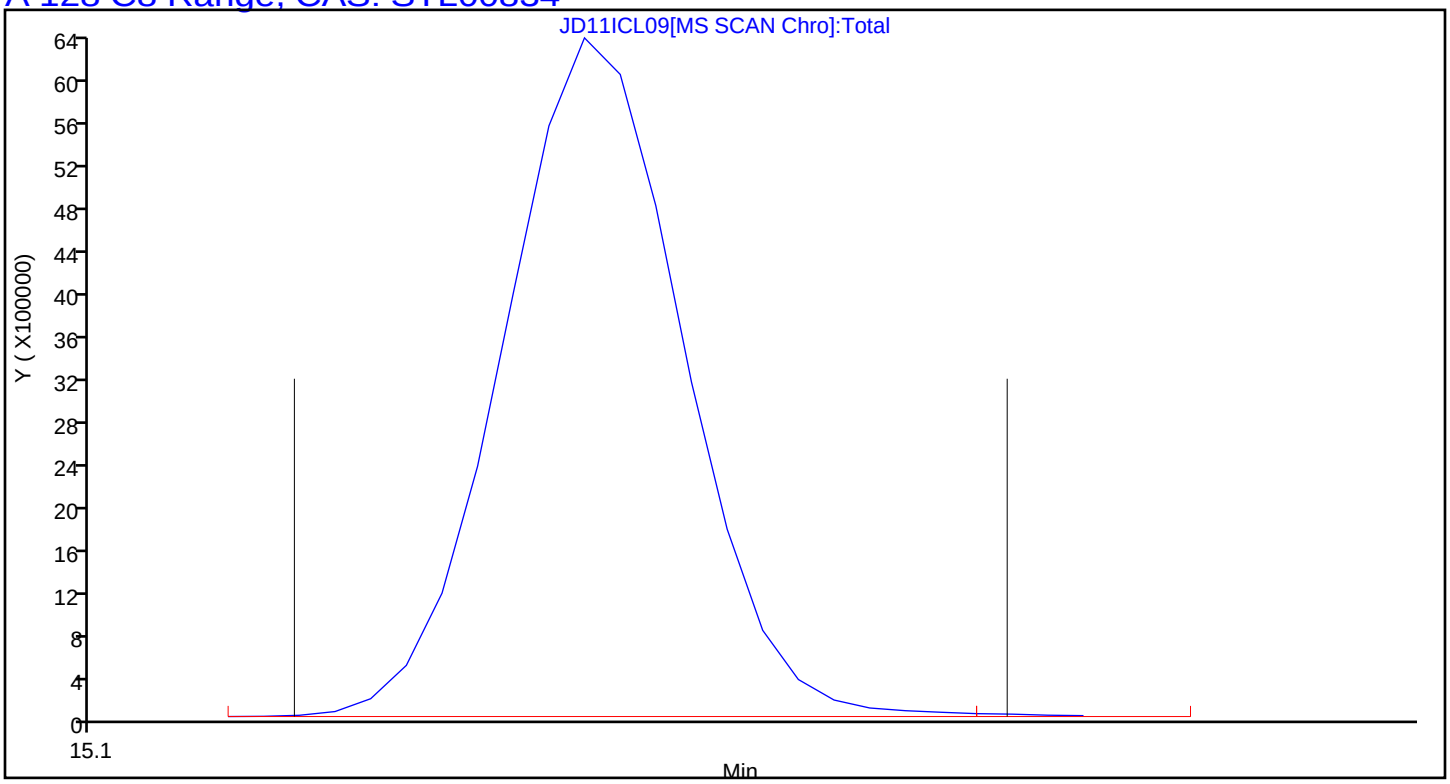


Report Date: 18-Apr-2019 15:35:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL09.D				
Injection Date:	11-Apr-2019 18:43:30	Instrument ID:	MJ		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	9	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 11-Apr-2019 20:16:30 ALS Bottle#: 10 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-005
Misc. Info.: 210536
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:06 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 17-Apr-2019 17:56:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.768	9.755	0.013	97	396906	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.872	11.864	0.008	95	2377709	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.476	16.472	0.004	88	2180430	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.074	18.070	0.004	91	1660237	4.00	4.14	
19 Chlorodifluoromethane	51	4.163	4.161	0.002	97	2630573	16.0	15.7	
20 Propene	41	4.179	4.175	0.004	99	1555195	16.0	15.4	
21 Dichlorodifluoromethane	85	4.238	4.235	0.003	100	2349230	16.0	16.3	
22 Chloromethane	52	4.453	4.450	0.003	100	706313	16.0	14.6	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.459	4.453	0.006	95	399234	16.0	13.5	
24 Acetaldehyde	44	4.625	4.626	-0.001	97	3688185	80.0	83.7	
25 Vinyl chloride	62	4.652	4.649	0.003	99	2360116	16.0	14.7	
26 Butane	43	4.755	4.749	0.005	85	3297906	16.0	14.6	
27 Butadiene	54	4.755	4.749	0.005	68	1678547	16.0	15.2	
28 Bromomethane	94	5.131	5.127	0.004	99	2208412	16.0	15.1	
29 Chloroethane	64	5.292	5.290	0.002	96	1044084	16.0	15.7	
30 Ethanol	31	5.400	5.394	0.006	97	4298509	80.0	80.1	
31 Vinyl bromide	106	5.637	5.633	0.004	98	2111351	16.0	15.8	
32 2-Methylbutane	43	5.685	5.681	0.004	91	2231634	16.0	15.2	
33 Trichlorofluoromethane	101	5.933	5.928	0.005	100	6227401	16.0	15.5	
34 Acrolein	56	5.949	5.945	0.004	95	440611	16.0	16.0	
35 Acetonitrile	40	6.024	6.017	0.007	98	657564	16.0	16.2	
36 Acetone	58	6.067	6.073	-0.006	99	1877510	48.0	39.6	
37 Isopropyl alcohol	45	6.169	6.163	0.006	95	6484978	48.0	45.8	
38 Pentane	72	6.175	6.169	0.006	98	311549	16.0	15.4	
39 Ethyl ether	31	6.352	6.358	-0.006	93	2341898	16.0	16.6	
40 1,1-Dichloroethene	96	6.713	6.707	0.006	96	2213174	16.0	16.4	
41 Acrylonitrile	53	6.826	6.819	0.007	94	1393141	16.0	17.3	
42 2-Methyl-2-propanol	59	6.815	6.826	-0.011	96	3372562	16.0	16.5	
43 1,1,2-Trichloro-1,2,2-trif	101	6.896	6.888	0.008	96	4968148	16.0	16.6	
44 Methylene Chloride	84	7.095	7.084	0.011	96	2051225	16.0	16.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.105	7.101	0.004	97	1992422	16.0	16.6	
46 Carbon disulfide	76	7.277	7.270	0.007	99	6691776	16.0	16.4	
47 trans-1,2-Dichloroethene	96	7.950	7.942	0.008	97	2215763	16.0	16.9	
48 2-Methylpentane	43	7.955	7.948	0.007	95	5170271	16.0	15.5	
49 Methyl tert-butyl ether	73	8.063	8.078	-0.015	97	5386417	16.0	17.4	
50 1,1-Dichloroethane	63	8.396	8.387	0.009	100	4381688	16.0	17.0	
51 Vinyl acetate	43	8.488	8.481	0.007	100	5497427	16.0	18.2	
52 2-Butanone (MEK)	72	8.956	8.960	-0.004	97	944515	16.0	16.2	
53 Hexane	56	8.977	8.972	0.005	90	1784500	16.0	16.1	
54 Isopropyl ether	45	9.128	9.135	-0.007	96	6699918	16.0	16.9	
55 cis-1,2-Dichloroethene	96	9.418	9.410	0.008	96	2327961	16.0	17.2	
56 Ethyl acetate	43	9.580	9.582	-0.002	99	4399819	16.0	17.2	
57 Chloroform	83	9.774	9.759	0.015	97	5100813	16.0	17.0	
58 Tert-butyl ethyl ether	59	9.822	9.834	-0.012	96	6114516	16.0	17.6	
59 Tetrahydrofuran	42	10.172	10.190	-0.018	93	2307584	16.0	17.3	
60 1,1,1-Trichloroethane	97	10.796	10.790	0.006	97	5018250	16.0	17.4	
61 1,2-Dichloroethane	62	10.909	10.897	0.012	98	3337051	16.0	17.4	
62 n-Butanol	31	11.291	11.312	-0.021	91	888666	16.0	16.0	
63 Cyclohexane	69	11.366	11.362	0.004	91	1133617	16.0	16.3	
64 Benzene	78	11.371	11.363	0.008	97	6696032	16.0	16.2	
65 Carbon tetrachloride	117	11.393	11.383	0.010	98	5603572	16.0	18.6	
66 2,3-Dimethylpentane	71	11.457	11.452	0.005	91	1643257	16.0	16.8	
67 Thiophene	84	11.635	11.628	0.007	96	4094442	16.0	17.2	
68 Isooctane	57	12.071	12.063	0.008	98	10759073	16.0	16.0	
69 n-Heptane	71	12.420	12.413	0.007	92	2498434	16.0	17.1	
70 1,2-Dichloropropane	63	12.533	12.528	0.005	91	2724457	16.0	16.9	
71 Trichloroethene	130	12.565	12.557	0.008	96	3142364	16.0	16.5	
72 Dibromomethane	93	12.657	12.650	0.007	96	3031429	16.0	16.7	
73 Dichlorobromomethane	83	12.791	12.781	0.010	99	5452026	16.0	17.8	
74 1,4-Dioxane	88	12.791	12.806	-0.015	36	884020	16.0	16.8	
75 Methyl methacrylate	41	12.845	12.843	0.002	93	2800954	16.0	16.9	
76 Methylcyclohexane	83	13.302	13.298	0.004	97	4366359	16.0	17.2	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.676	-0.002	98	4770674	16.0	16.9	
78 cis-1,3-Dichloropropene	75	13.744	13.739	0.005	94	4384217	16.0	18.4	
79 trans-1,3-Dichloropropene	75	14.416	14.410	0.006	98	3799467	16.0	18.5	
80 Toluene	91	14.545	14.539	0.006	94	7756468	16.0	17.2	
81 1,1,2-Trichloroethane	83	14.615	14.610	0.005	97	2529564	16.0	17.1	
82 2-Hexanone	58	14.970	14.971	-0.001	93	2384563	16.0	17.5	
83 n-Octane	85	15.180	15.172	0.008	92	2604323	16.0	17.4	
84 Chlorodibromomethane	129	15.314	15.310	0.004	96	5656661	16.0	19.0	
85 Ethylene Dibromide	107	15.605	15.599	0.006	98	4773247	16.0	18.5	
86 Tetrachloroethene	129	15.664	15.659	0.005	97	3168038	16.0	17.6	
87 2,3-Dimethylheptane	43	16.503	16.497	0.006	94	7263551	16.0	14.3	
88 Chlorobenzene	112	16.525	16.521	0.004	94	6589909	16.0	17.4	
89 Ethylbenzene	91	16.794	16.790	0.004	98	9717595	16.0	17.8	
90 m-Xylene & p-Xylene	91	16.955	16.947	0.008	96	14729614	32.0	34.9	
91 n-Nonane	57	17.332	17.326	0.006	90	4914782	16.0	16.4	
92 Styrene	104	17.418	17.409	0.009	99	6087889	16.0	19.3	
93 Bromoform	173	17.423	17.418	0.005	95	5860589	16.0	20.5	
94 o-Xylene	91	17.477	17.472	0.005	100	7974882	16.0	17.9	
95 1,1,2,2-Tetrachloroethane	83	17.789	17.785	0.004	99	5984391	16.0	17.3	
96 1,2,3-Trichloropropane	110	17.945	17.940	0.005	99	1574729	16.0	18.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.036	18.030	0.006	96	10687833	16.0	17.9	
98 N-Propylbenzene	120	18.537	18.534	0.003	99	3084657	16.0	18.8	
99 2-Chlorotoluene	126	18.596	18.590	0.006	97	2935192	16.0	18.4	
100 4-Ethyltoluene	105	18.677	18.674	0.003	98	10875116	16.0	18.1	
101 1,3,5-Trimethylbenzene	120	18.746	18.743	0.003	93	4625929	16.0	19.2	
102 Alpha Methyl Styrene	118	18.967	18.963	0.004	88	4880003	16.0	20.1	
103 n-Decane	57	18.994	18.989	0.005	92	5701097	16.0	15.3	
104 tert-Butylbenzene	119	19.155	19.149	0.006	91	9587315	16.0	18.1	
105 1,2,4-Trimethylbenzene	105	19.166	19.161	0.005	95	9301313	16.0	18.0	
106 sec-Butylbenzene	105	19.408	19.405	0.003	97	12857398	16.0	17.4	
107 1,3-Dichlorobenzene	146	19.440	19.435	0.005	98	6606493	16.0	18.4	
108 Benzyl chloride	91	19.510	19.502	0.008	98	7983147	16.0	18.9	
109 1,4-Dichlorobenzene	146	19.521	19.517	0.004	93	6559078	16.0	18.4	
110 4-Isopropyltoluene	119	19.564	19.556	0.008	96	10898116	16.0	18.0	
111 1,2,3-Trimethylbenzene	105	19.623	19.618	0.005	98	9289585	16.0	19.4	
112 Butylcyclohexane	83	19.661	19.657	0.004	96	7680278	16.0	16.5	
113 2,3-Dihydroindene	117	19.865	19.861	0.004	95	8637071	16.0	18.0	
114 1,2-Dichlorobenzene	146	19.871	19.867	0.004	96	6166100	16.0	18.0	
115 n-Butylbenzene	91	19.978	19.975	0.003	98	10405929	16.0	16.8	
116 Indene	116	19.995	19.989	0.006	90	7623859	16.0	18.9	
117 Undecane	57	20.253	20.249	0.004	93	6181236	16.0	15.7	
118 1,2-Dibromo-3-Chloropropan	157	20.457	20.453	0.004	100	3415851	16.0	22.7	
119 1,2,4,5-Tetramethylbenzene	119	20.732	20.728	0.004	98	9737511	16.0	18.0	
120 Dodecane	57	21.339	21.336	0.003	94	4043743	16.0	12.1	
121 1,2,4-Trichlorobenzene	180	21.581	21.579	0.002	94	4171973	16.0	17.4	
122 Naphthalene	128	21.705	21.705	0.000	98	7226551	16.0	15.1	
123 Hexachlorobutadiene	225	21.856	21.852	0.004	95	3830487	16.0	14.8	
124 1,2,3-Trichlorobenzene	180	21.915	21.911	0.004	95	2481991	16.0	13.8	
125 2-Methylnaphthalene	142	22.431	22.433	-0.002	99	1138714	16.0	13.0	
126 1-Methylnaphthalene	142	22.561	22.557	0.004	99	1140872	16.0	11.9	
A 128 C8 Range	1	15.190	(15.136-15.244)		0	23557642	16.0	15.9	
S 129 Xylenes, Total	100				0		48.0	52.8	
S 130 1,2-Dichloroethene, Total	1				0		32.0	34.1	

Reagents:

40L10DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

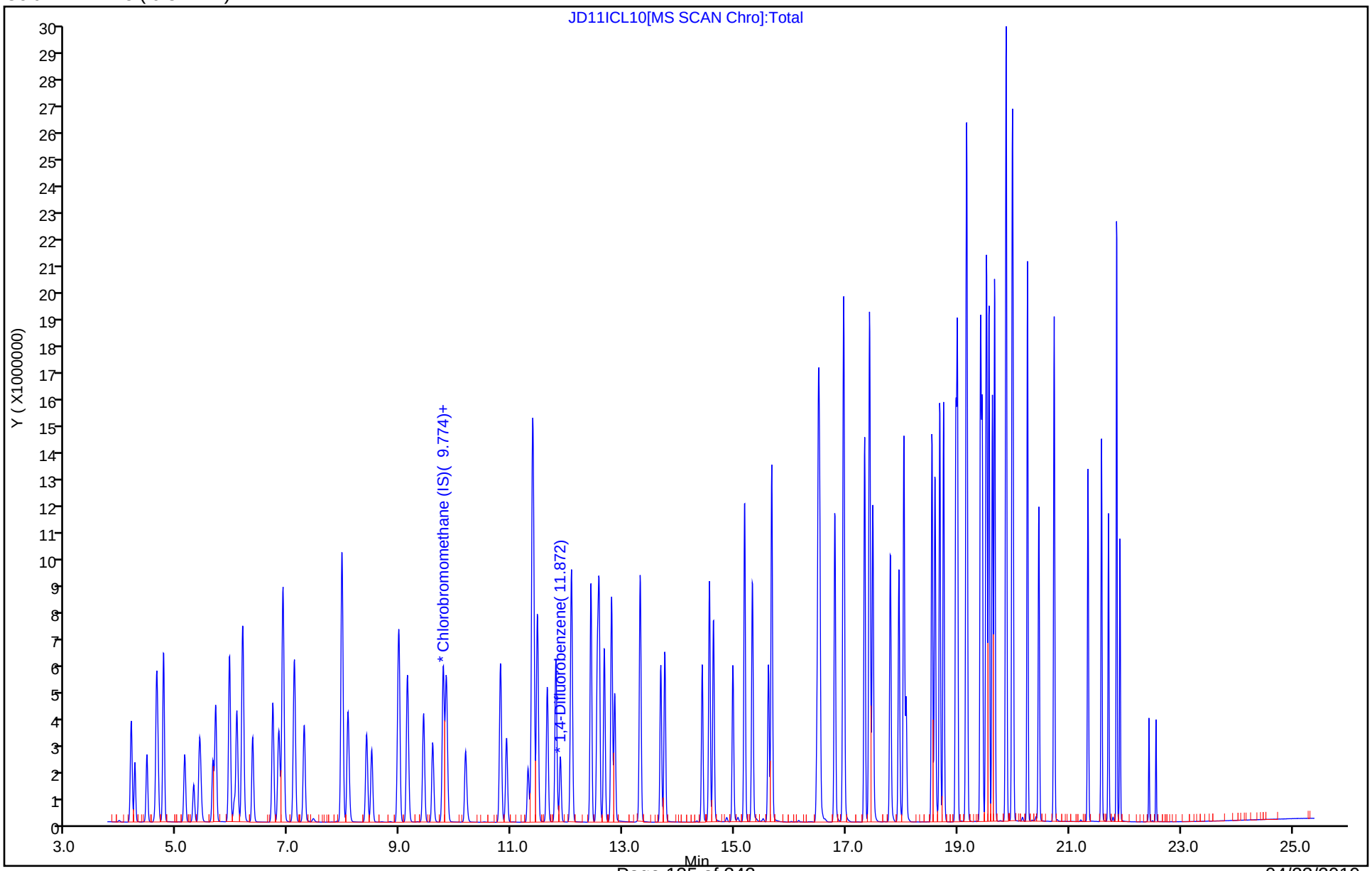
Report Date: 18-Apr-2019 15:36:07 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL10.D

Injection Date:	11-Apr-2019 20:16:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

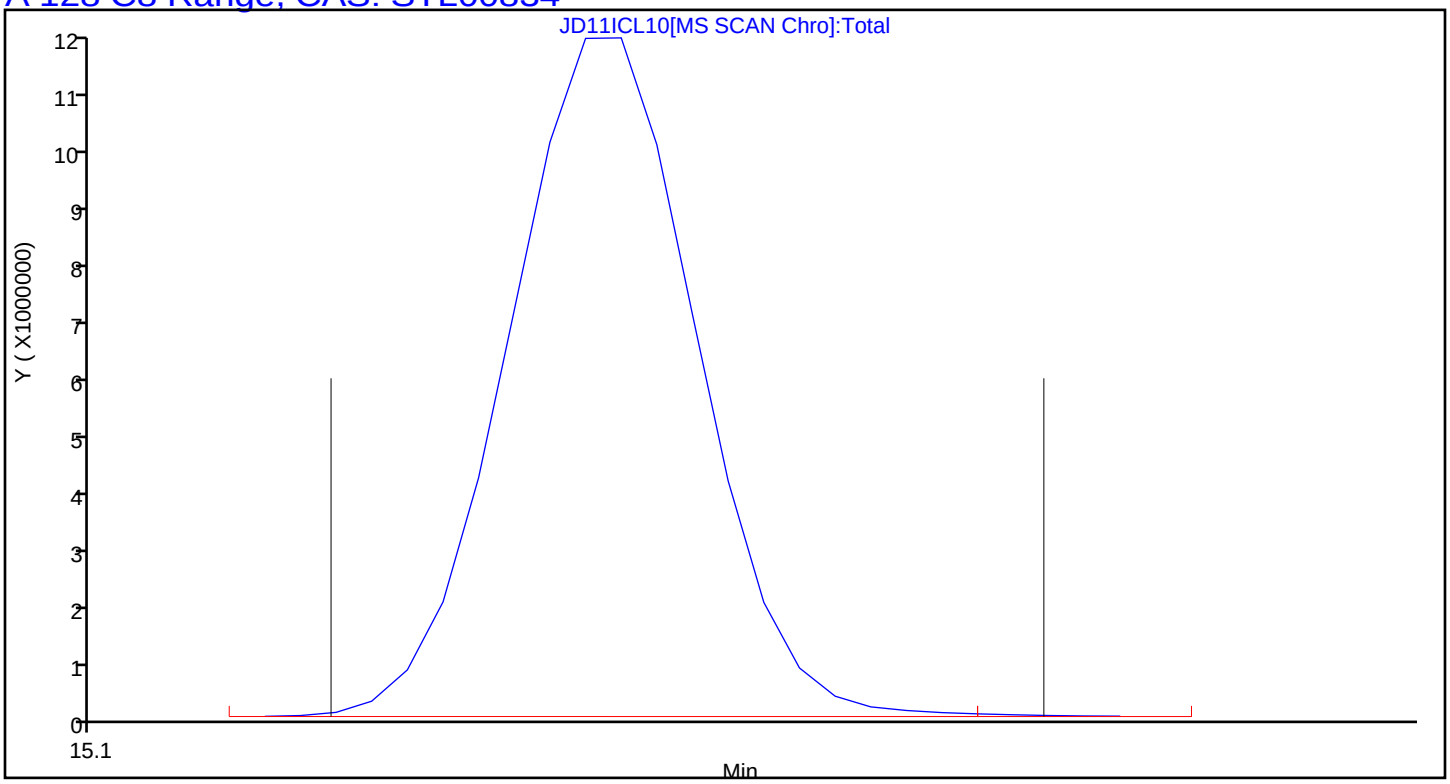


Report Date: 18-Apr-2019 15:36:07 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL10.D				
Injection Date:	11-Apr-2019 20:16:30	Instrument ID:	MJ		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	10	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Apr-2019 22:31:30 ALS Bottle#: 3 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-008
Misc. Info.: 210543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:15 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 17-Apr-2019 17:57:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.753	9.755	-0.002	95	347961	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.862	11.864	-0.002	95	1831004	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.472	16.472	0.000	88	1651698	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.070	18.070	0.000	89	1192986	4.00	3.92	
19 Chlorodifluoromethane	51	4.158	4.161	-0.003	91	3595	0.0200	0.0245	
20 Propene	41	4.174	4.175	-0.001	95	4638	0.0200	0.0524	
21 Dichlorodifluoromethane	85	4.239	4.235	0.004	94	3020	0.0200	0.0240	
22 Chloromethane	52	4.460	4.450	0.010	98	2084	0.0200	0.0491	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.454	4.453	0.001	42	674	0.0200	0.0260	
24 Acetaldehyde	44	4.626	4.626	0.000	97	33807	0.1000	-0.9492	
25 Vinyl chloride	62	4.653	4.649	0.004	95	3650	0.0200	0.0259	
26 Butane	43	4.745	4.749	-0.004	74	2856	0.0200	0.0145	
27 Butadiene	54	4.750	4.749	0.001	58	2950	0.0200	0.0305	
28 Bromomethane	94	5.127	5.127	0.000	75	3775	0.0200	0.0295	
29 Chloroethane	64	5.288	5.290	-0.002	19	1658	0.0200	0.0285	
30 Ethanol	31	5.406	5.394	0.012	97	12374	0.1000	-0.0590	
31 Vinyl bromide	106	5.632	5.633	-0.001	88	3041	0.0200	0.0259	
32 2-Methylbutane	43	5.681	5.681	0.000	87	4110	0.0200	0.0320	
33 Trichlorofluoromethane	101	5.928	5.928	0.000	98	8715	0.0200	0.0248	
34 Acrolein	56	5.944	5.945	-0.001	37	3367	0.0200	0.1394	
35 Acetonitrile	40	6.030	6.017	0.013	27	2058	0.0200	0.0579	
36 Acetone	58	6.089	6.073	0.016	98	13461	0.0600	0.3236	
37 Isopropyl alcohol	45	6.176	6.163	0.013	94	15651	0.0600	0.1259	
39 Ethyl ether	31	6.375	6.358	0.017	91	3192	0.0200	0.0258	
40 1,1-Dichloroethene	96	6.703	6.707	-0.004	95	2835	0.0200	0.0240	
41 Acrylonitrile	53	6.816	6.819	-0.003	50	2039	0.0200	0.0289	
42 2-Methyl-2-propanol	59	6.853	6.826	0.027	74	5851	0.0200	0.0326	
43 1,1,2-Trichloro-1,2,2-trif	101	6.880	6.888	-0.008	93	6731	0.0200	0.0256	
44 Methylene Chloride	84	7.085	7.084	0.001	95	19564	0.0200	0.1039	
45 3-Chloro-1-propene	39	7.106	7.101	0.005	30	3482	0.0200	0.0330	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.268	7.270	-0.002	93	9590	0.0200	0.0269	
47 trans-1,2-Dichloroethene	96	7.945	7.942	0.003	73	2697	0.0200	0.0235	
48 2-Methylpentane	43	7.945	7.948	-0.003	94	9088	0.0200	0.0310	
49 Methyl tert-butyl ether	73	8.101	8.078	0.023	95	7339	0.0200	0.0270	
50 1,1-Dichloroethane	63	8.387	8.387	0.000	92	5817	0.0200	0.0257	
51 Vinyl acetate	43	8.483	8.481	0.002	99	7503	0.0200	0.0283	
52 2-Butanone (MEK)	72	8.973	8.960	0.013	89	2159	0.0200	0.0423	
53 Hexane	56	8.968	8.972	-0.004	67	2719	0.0200	0.0280	
54 Isopropyl ether	45	9.156	9.135	0.021	95	9779	0.0200	0.0281	
55 cis-1,2-Dichloroethene	96	9.414	9.410	0.004	93	2803	0.0200	0.0236	
56 Ethyl acetate	43	9.592	9.582	0.010	96	7465	0.0200	0.0333	
57 Chloroform	83	9.753	9.759	-0.006	35	7161	0.0200	0.0272	
58 Tert-butyl ethyl ether	59	9.861	9.834	0.026	93	7917	0.0200	0.0260	
59 Tetrahydrofuran	42	10.210	10.190	0.020	92	4323	0.0200	0.0369	
60 1,1,1-Trichloroethane	97	10.786	10.790	-0.004	91	6363	0.0200	0.0252	
61 1,2-Dichloroethane	62	10.893	10.897	-0.004	92	3874	0.0200	0.0262	
62 n-Butanol	31	11.334	11.312	0.022	83	3029	0.0200	0.0709	
63 Cyclohexane	69	11.356	11.362	-0.006	76	1585	0.0200	0.0297	
64 Benzene	78	11.356	11.363	-0.007	94	9741	0.0200	0.0306	
65 Carbon tetrachloride	117	11.372	11.383	-0.011	96	5972	0.0200	0.0257	
66 2,3-Dimethylpentane	71	11.447	11.452	-0.005	88	1729	0.0200	0.0229	
67 Thiophene	84	11.625	11.628	-0.003	92	5110	0.0200	0.0279	
68 Isooctane	57	12.061	12.063	-0.002	95	15359	0.0200	0.0296	
69 n-Heptane	71	12.405	12.413	-0.008	84	3394	0.0200	0.0302	
70 1,2-Dichloropropane	63	12.529	12.528	0.001	64	3271	0.0200	0.0263	
71 Trichloroethene	130	12.550	12.557	-0.007	93	4243	0.0200	0.0290	
72 Dibromomethane	93	12.647	12.650	-0.003	90	5001	0.0200	0.0358	
73 Dichlorobromomethane	83	12.776	12.781	-0.005	94	6204	0.0200	0.0263	
74 1,4-Dioxane	88	12.835	12.806	0.029	40	1057	0.0200	0.0262	
75 Methyl methacrylate	41	12.841	12.843	-0.002	88	4887	0.0200	0.0383	
76 Methylcyclohexane	83	13.298	13.298	0.000	95	5673	0.0200	0.0289	
77 4-Methyl-2-pentanone (MIBK	43	13.691	13.676	0.015	96	12500	0.0200	0.0575	
78 cis-1,3-Dichloropropene	75	13.739	13.739	0.000	90	4241	0.0200	0.0231	
79 trans-1,3-Dichloropropene	75	14.412	14.410	0.002	93	3827	0.0200	0.0247	
80 Toluene	91	14.535	14.539	-0.004	93	9861	0.0200	0.0289	
81 1,1,2-Trichloroethane	83	14.605	14.610	-0.005	93	3196	0.0200	0.0285	
82 2-Hexanone	58	14.982	14.971	0.011	91	2969	0.0200	0.0287	
83 n-Octane	85	15.165	15.172	-0.007	93	3179	0.0200	0.0280	
84 Chlorodibromomethane	129	15.315	15.310	0.005	93	5520	0.0200	0.0244	
85 Ethylene Dibromide	107	15.595	15.599	-0.004	96	5049	0.0200	0.0259	
86 Tetrachloroethene	129	15.654	15.659	-0.005	90	3836	0.0200	0.0282	
87 2,3-Dimethylheptane	43	16.493	16.497	-0.004	96	13197	0.0200	0.0342	
88 Chlorobenzene	112	16.515	16.521	-0.006	82	7830	0.0200	0.0273	
89 Ethylbenzene	91	16.789	16.790	-0.001	98	12563	0.0200	0.0303	
90 m-Xylene & p-Xylene	91	16.945	16.947	-0.002	98	18475	0.0400	0.0577	
91 n-Nonane	57	17.327	17.326	0.001	92	5941	0.0200	0.0261	
92 Styrene	104	17.403	17.409	-0.006	95	6494	0.0200	0.0271	
93 Bromoform	173	17.419	17.418	0.001	88	4958	0.0200	0.0229	
94 o-Xylene	91	17.467	17.472	-0.005	96	9600	0.0200	0.0285	
95 1,1,2,2-Tetrachloroethane	83	17.784	17.785	-0.001	95	8180	0.0200	0.0312	
96 1,2,3-Trichloropropane	110	17.935	17.940	-0.005	95	1923	0.0200	0.0295	
97 Isopropylbenzene	105	18.027	18.030	-0.003	87	14706	0.0200	0.0325	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.532	18.534	-0.002	97	3228	0.0200	0.0259	
99 2-Chlorotoluene	126	18.586	18.590	-0.004	96	3318	0.0200	0.0275	
100 4-Ethyltoluene	105	18.677	18.674	0.003	97	13769	0.0200	0.0302	
101 1,3,5-Trimethylbenzene	120	18.742	18.743	-0.001	92	5541	0.0200	0.0304	
102 Alpha Methyl Styrene	118	18.963	18.963	0.000	89	5150	0.0200	0.0280	
103 n-Decane	57	18.984	18.989	-0.005	90	8084	0.0200	0.0287	
104 tert-Butylbenzene	119	19.145	19.149	-0.004	89	11596	0.0200	0.0288	
105 1,2,4-Trimethylbenzene	105	19.156	19.161	-0.005	93	11182	0.0200	0.0286	
106 sec-Butylbenzene	105	19.404	19.405	-0.001	98	16699	0.0200	0.0298	
107 1,3-Dichlorobenzene	146	19.431	19.435	-0.004	97	10082	0.0200	0.0371	
108 Benzyl chloride	91	19.501	19.502	-0.002	97	13541	0.0200	0.0424	
109 1,4-Dichlorobenzene	146	19.517	19.517	0.000	92	11007	0.0200	0.0407	
110 4-Isopropyltoluene	119	19.554	19.556	-0.002	95	13355	0.0200	0.0291	
111 1,2,3-Trimethylbenzene	105	19.613	19.618	-0.005	97	11588	0.0200	0.0319	
112 Butylcyclohexane	83	19.657	19.657	-0.001	89	9421	0.0200	0.0266	
113 2,3-Dihydroindene	117	19.861	19.861	0.000	94	11726	0.0200	0.0322	
114 1,2-Dichlorobenzene	146	19.866	19.867	-0.001	90	9015	0.0200	0.0347	
115 n-Butylbenzene	91	19.974	19.975	-0.001	97	15661	0.0200	0.0334	
116 Indene	116	19.990	19.989	0.001	86	10199	0.0200	0.0334	
117 Undecane	57	20.248	20.249	-0.001	94	9665	0.0200	0.0324	
118 1,2-Dibromo-3-Chloropropan	157	20.453	20.453	0.000	90	4781	0.0200	0.0419	
119 1,2,4,5-Tetramethylbenzene	119	20.727	20.728	-0.001	95	13532	0.0200	0.0331	
120 Dodecane	57	21.335	21.336	-0.001	90	9165	0.0200	0.0362	
121 1,2,4-Trichlorobenzene	180	21.577	21.579	-0.002	95	10756	0.0200	0.0591	
122 Naphthalene	128	21.706	21.705	0.001	99	21286	0.0200	0.0587	
123 Hexachlorobutadiene	225	21.851	21.852	-0.001	94	7773	0.0200	0.0397	
124 1,2,3-Trichlorobenzene	180	21.911	21.911	-0.001	92	8137	0.0200	0.0599	
125 2-Methylnaphthalene	142	22.432	22.433	-0.001	94	5119	0.0200	0.0771	
126 1-Methylnaphthalene	142	22.556	22.557	-0.001	96	5857	0.0200	0.0809	
A 128 C8 Range	1	15.173	(15.153-15.207)		0	33430	0.0200	0.0297	
S 129 Xylenes, Total	100				0		0.0600	0.0862	
S 130 1,2-Dichloroethene, Total	1				0		0.0400	0.0472	

Reagents:

40L1-3DQP_00012	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

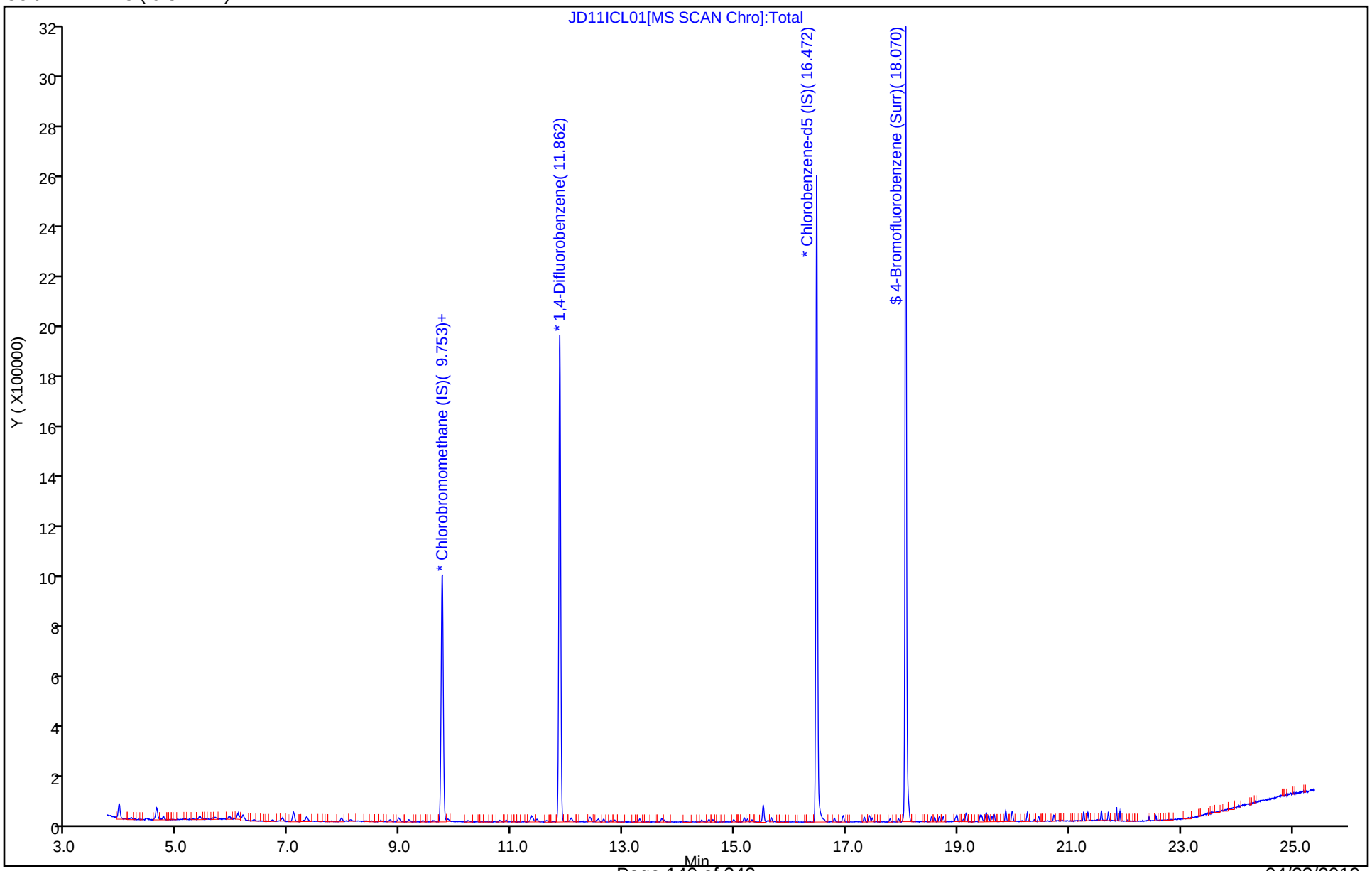
Report Date: 18-Apr-2019 15:36:17 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL01.D

Injection Date:	11-Apr-2019 22:31:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

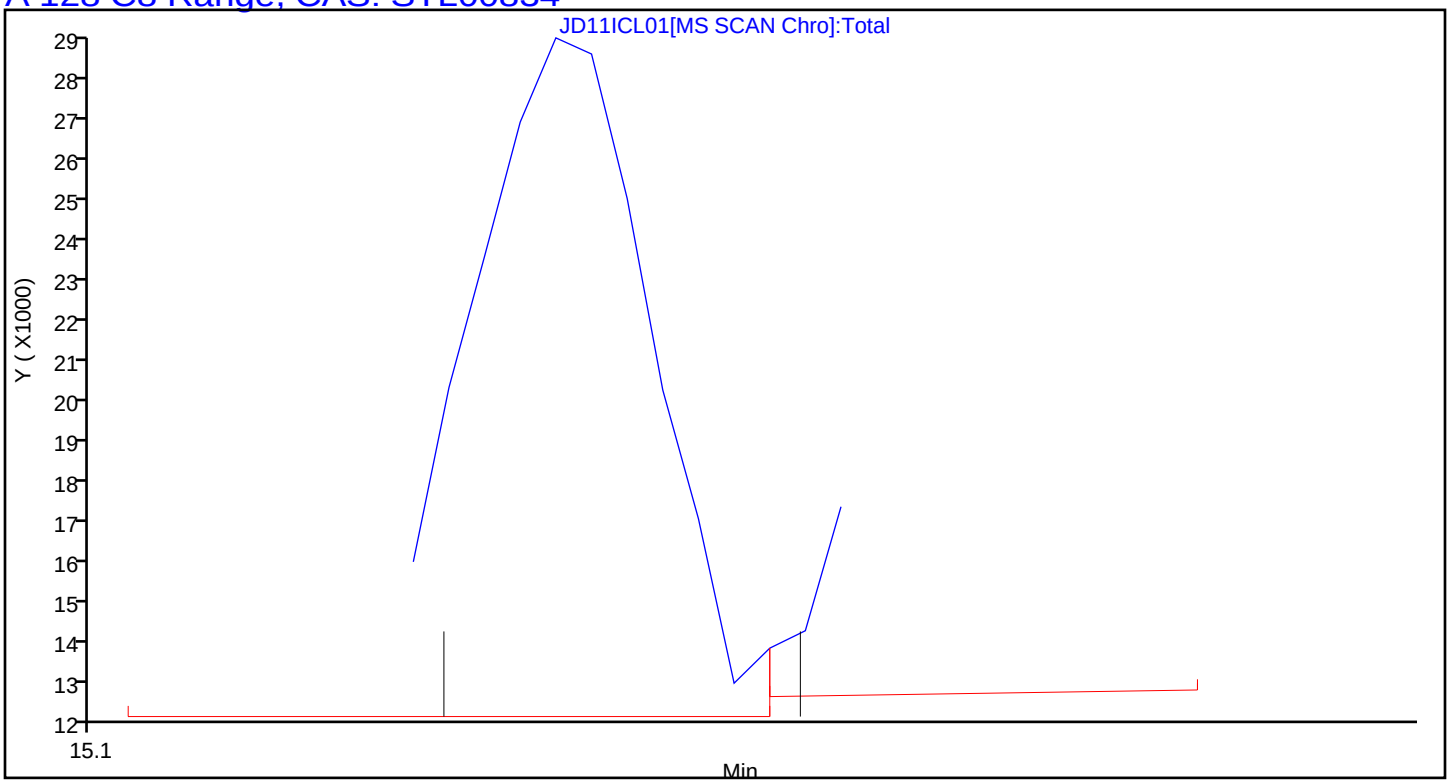


Report Date: 18-Apr-2019 15:36:17 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL01.D				
Injection Date:	11-Apr-2019 22:31:30	Instrument ID:	MJ		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Apr-2019 23:16:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-009
Misc. Info.: 210543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:25 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: tajh Date: 16-Apr-2019 16:04:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.755	9.755	0.000	95	373074	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.864	11.864	0.000	96	2257078	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.469	16.472	-0.003	89	1960324	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.067	18.070	-0.003	89	1420525	4.00	3.94	
19 Chlorodifluoromethane	51	4.166	4.161	0.005	91	6610	0.0400	0.0419	
20 Propene	41	4.182	4.175	0.007	97	6625	0.0400	0.0698	
21 Dichlorodifluoromethane	85	4.236	4.235	0.001	97	5639	0.0400	0.0417	
22 Chloromethane	52	4.451	4.450	0.001	99	2634	0.0400	0.0579	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.446	4.453	-0.007	45	1216	0.0400	0.0438	
24 Acetaldehyde	44	4.629	4.626	0.003	96	53968	0.2000	-0.5118	
25 Vinyl chloride	62	4.645	4.649	-0.004	95	6092	0.0400	0.0404	
26 Butane	43	4.752	4.749	0.003	88	9712	0.0400	0.0459	
27 Butadiene	54	4.747	4.749	-0.002	61	4347	0.0400	0.0419	
28 Bromomethane	94	5.129	5.127	0.002	97	5966	0.0400	0.0435	
29 Chloroethane	64	5.296	5.290	0.006	77	2583	0.0400	0.0414	
30 Ethanol	31	5.403	5.394	0.009	96	15930	0.2000	-0.005984	
31 Vinyl bromide	106	5.624	5.633	-0.009	68	5136	0.0400	0.0408	
32 2-Methylbutane	43	5.678	5.681	-0.003	91	7853	0.0400	0.0570	
33 Trichlorofluoromethane	101	5.925	5.928	-0.003	98	14551	0.0400	0.0386	
34 Acrolein	56	5.952	5.945	0.007	86	4390	0.0400	0.1695	
35 Acetonitrile	40	6.027	6.017	0.010	89	732	0.0400	0.0192	
36 Acetone	58	6.092	6.073	0.019	99	19593	0.1200	0.4393	
37 Isopropyl alcohol	45	6.189	6.163	0.026	93	18101	0.1200	0.1359	
38 Pentane	72	6.162	6.169	-0.007	63	234	0.0400	0.0123	
39 Ethyl ether	31	6.377	6.358	0.019	93	5267	0.0400	0.0397	
40 1,1-Dichloroethene	96	6.705	6.707	-0.002	96	4748	0.0400	0.0374	
41 Acrylonitrile	53	6.824	6.819	0.005	67	2663	0.0400	0.0352	
42 2-Methyl-2-propanol	59	6.861	6.826	0.035	87	6159	0.0400	0.0320	
43 1,1,2-Trichloro-1,2,2-trif	101	6.888	6.888	0.000	94	11469	0.0400	0.0407	
44 Methylene Chloride	84	7.082	7.084	-0.002	97	21743	0.0400	0.1104	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.103	7.101	0.002	89	5268	0.0400	0.0466	
46 Carbon disulfide	76	7.275	7.270	0.005	96	14904	0.0400	0.0390	
47 trans-1,2-Dichloroethene	96	7.937	7.942	-0.005	90	4684	0.0400	0.0381	
48 2-Methylpentane	43	7.953	7.948	0.005	93	13639	0.0400	0.0434	
49 Methyl tert-butyl ether	73	8.098	8.078	0.020	96	9781	0.0400	0.0336	
50 1,1-Dichloroethane	63	8.389	8.387	0.002	96	9896	0.0400	0.0408	
51 Vinyl acetate	43	8.480	8.481	-0.001	99	10507	0.0400	0.0370	
52 2-Butanone (MEK)	72	8.975	8.960	0.015	86	2870	0.0400	0.0525	
53 Hexane	56	8.975	8.972	0.003	70	4557	0.0400	0.0438	
54 Isopropyl ether	45	9.147	9.135	0.012	96	13323	0.0400	0.0357	
55 cis-1,2-Dichloroethene	96	9.411	9.410	0.001	91	4906	0.0400	0.0386	
56 Ethyl acetate	43	9.594	9.582	0.012	96	9068	0.0400	0.0377	
57 Chloroform	83	9.755	9.759	-0.004	35	11477	0.0400	0.0406	
58 Tert-butyl ethyl ether	59	9.858	9.834	0.024	96	10076	0.0400	0.0309	
59 Tetrahydrofuran	42	10.218	10.190	0.028	90	5057	0.0400	0.0403	
60 1,1,1-Trichloroethane	97	10.788	10.790	-0.002	95	10606	0.0400	0.0392	
61 1,2-Dichloroethane	62	10.896	10.897	-0.001	94	6676	0.0400	0.0367	
62 n-Butanol	31	11.342	11.312	0.030	57	2682	0.0400	0.0509	
63 Cyclohexane	69	11.358	11.362	-0.004	71	2657	0.0400	0.0404	
64 Benzene	78	11.364	11.363	0.001	96	17231	0.0400	0.0439	
65 Carbon tetrachloride	117	11.380	11.383	-0.003	86	9662	0.0400	0.0337	
66 2,3-Dimethylpentane	71	11.439	11.452	-0.013	89	3442	0.0400	0.0370	
67 Thiophene	84	11.627	11.628	-0.001	94	8815	0.0400	0.0390	
68 Isooctane	57	12.058	12.063	-0.005	96	24811	0.0400	0.0388	
69 n-Heptane	71	12.413	12.413	0.000	95	5342	0.0400	0.0385	
70 1,2-Dichloropropane	63	12.526	12.528	-0.002	84	5754	0.0400	0.0375	
71 Trichloroethene	130	12.553	12.557	-0.004	92	6421	0.0400	0.0356	
72 Dibromomethane	93	12.644	12.650	-0.006	94	7084	0.0400	0.0412	
73 Dichlorobromomethane	83	12.779	12.781	-0.002	98	10630	0.0400	0.0366	
74 1,4-Dioxane	88	12.838	12.806	0.032	41	1245	0.0400	0.0250	
75 Methyl methacrylate	41	12.849	12.843	0.006	86	6298	0.0400	0.0400	
76 Methylcyclohexane	83	13.300	13.298	0.002	92	8964	0.0400	0.0371	
77 4-Methyl-2-pentanone (MIBK	43	13.688	13.676	0.012	96	12225	0.0400	0.0456	
78 cis-1,3-Dichloropropene	75	13.736	13.739	-0.003	92	7783	0.0400	0.0344	
79 trans-1,3-Dichloropropene	75	14.409	14.410	-0.001	95	6296	0.0400	0.0342	
80 Toluene	91	14.538	14.539	-0.001	94	16512	0.0400	0.0407	
81 1,1,2-Trichloroethane	83	14.608	14.610	-0.002	95	5116	0.0400	0.0384	
82 2-Hexanone	58	14.979	14.971	0.008	89	3281	0.0400	0.0267	
83 n-Octane	85	15.178	15.172	0.006	93	5224	0.0400	0.0388	
84 Chlorodibromomethane	129	15.312	15.310	0.002	96	9352	0.0400	0.0349	
85 Ethylene Dibromide	107	15.597	15.599	-0.002	98	8433	0.0400	0.0364	
86 Tetrachloroethene	129	15.657	15.659	-0.002	93	6324	0.0400	0.0391	
87 2,3-Dimethylheptane	43	16.496	16.497	-0.001	93	21572	0.0400	0.0471	
88 Chlorobenzene	112	16.523	16.521	0.002	84	13465	0.0400	0.0396	
89 Ethylbenzene	91	16.792	16.790	0.002	98	17972	0.0400	0.0366	
90 m-Xylene & p-Xylene	91	16.942	16.947	-0.005	99	27252	0.0800	0.0718	
91 n-Nonane	57	17.324	17.326	-0.002	92	10461	0.0400	0.0387	
92 Styrene	104	17.405	17.409	-0.004	96	9147	0.0400	0.0322	
93 Bromoform	173	17.416	17.418	-0.002	87	7867	0.0400	0.0306	
94 o-Xylene	91	17.469	17.472	-0.003	99	14329	0.0400	0.0358	
95 1,1,2,2-Tetrachloroethane	83	17.787	17.785	0.002	96	10886	0.0400	0.0350	
96 1,2,3-Trichloropropane	110	17.938	17.940	-0.002	97	2325	0.0400	0.0300	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.029	18.030	-0.001	87	19536	0.0400	0.0363	
98 N-Propylbenzene	120	18.535	18.534	0.001	98	4787	0.0400	0.0324	
99 2-Chlorotoluene	126	18.588	18.590	-0.002	97	5408	0.0400	0.0378	
100 4-Ethyltoluene	105	18.674	18.674	0.000	98	18424	0.0400	0.0340	
101 1,3,5-Trimethylbenzene	120	18.744	18.743	0.001	92	7074	0.0400	0.0327	
102 Alpha Methyl Styrene	118	18.965	18.963	0.002	88	6389	0.0400	0.0293	
103 n-Decane	57	18.987	18.989	-0.003	90	11911	0.0400	0.0356	
104 tert-Butylbenzene	119	19.143	19.149	-0.007	91	15574	0.0400	0.0326	
105 1,2,4-Trimethylbenzene	105	19.159	19.161	-0.002	94	15289	0.0400	0.0329	
106 sec-Butylbenzene	105	19.406	19.405	0.001	98	21495	0.0400	0.0323	
107 1,3-Dichlorobenzene	146	19.433	19.435	-0.002	97	12695	0.0400	0.0394	
108 Benzyl chloride	91	19.503	19.502	0.001	97	13294	0.0400	0.0351	
109 1,4-Dichlorobenzene	146	19.514	19.517	-0.003	92	13356	0.0400	0.0416	
110 4-Isopropyltoluene	119	19.557	19.556	0.001	97	16574	0.0400	0.0305	
111 1,2,3-Trimethylbenzene	105	19.616	19.618	-0.002	97	15366	0.0400	0.0357	
112 Butylcyclohexane	83	19.654	19.657	-0.003	94	14534	0.0400	0.0346	
113 2,3-Dihydroindene	117	19.858	19.861	-0.003	93	14660	0.0400	0.0339	
114 1,2-Dichlorobenzene	146	19.863	19.867	-0.004	91	12221	0.0400	0.0396	
115 n-Butylbenzene	91	19.971	19.975	-0.004	97	19416	0.0400	0.0349	
116 Indene	116	19.987	19.989	-0.002	88	12092	0.0400	0.0334	
117 Undecane	57	20.245	20.249	-0.004	94	12085	0.0400	0.0341	
118 1,2-Dibromo-3-Chloropropan	157	20.450	20.453	-0.003	90	4940	0.0400	0.0365	
119 1,2,4,5-Tetramethylbenzene	119	20.729	20.728	0.001	96	16173	0.0400	0.0333	
120 Dodecane	57	21.332	21.336	-0.004	89	10033	0.0400	0.0334	
121 1,2,4-Trichlorobenzene	180	21.579	21.579	0.000	93	11181	0.0400	0.0517	
122 Naphthalene	128	21.703	21.705	-0.002	99	21327	0.0400	0.0496	
123 Hexachlorobutadiene	225	21.848	21.852	-0.004	94	9973	0.0400	0.0429	
124 1,2,3-Trichlorobenzene	180	21.913	21.911	0.002	94	8107	0.0400	0.0503	
125 2-Methylnaphthalene	142	22.435	22.433	0.002	98	4937	0.0400	0.0626	
126 1-Methylnaphthalene	142	22.558	22.557	0.001	96	5119	0.0400	0.0596	
A 128 C8 Range	1	15.172	(15.150-15.215)		0	55998	0.0400	0.0420	
S 129 Xylenes, Total	100				0		0.1200	0.1076	
S 130 1,2-Dichloroethene, Total	1				0		0.0800	0.0767	

Reagents:

40L1-3DQP_00012	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

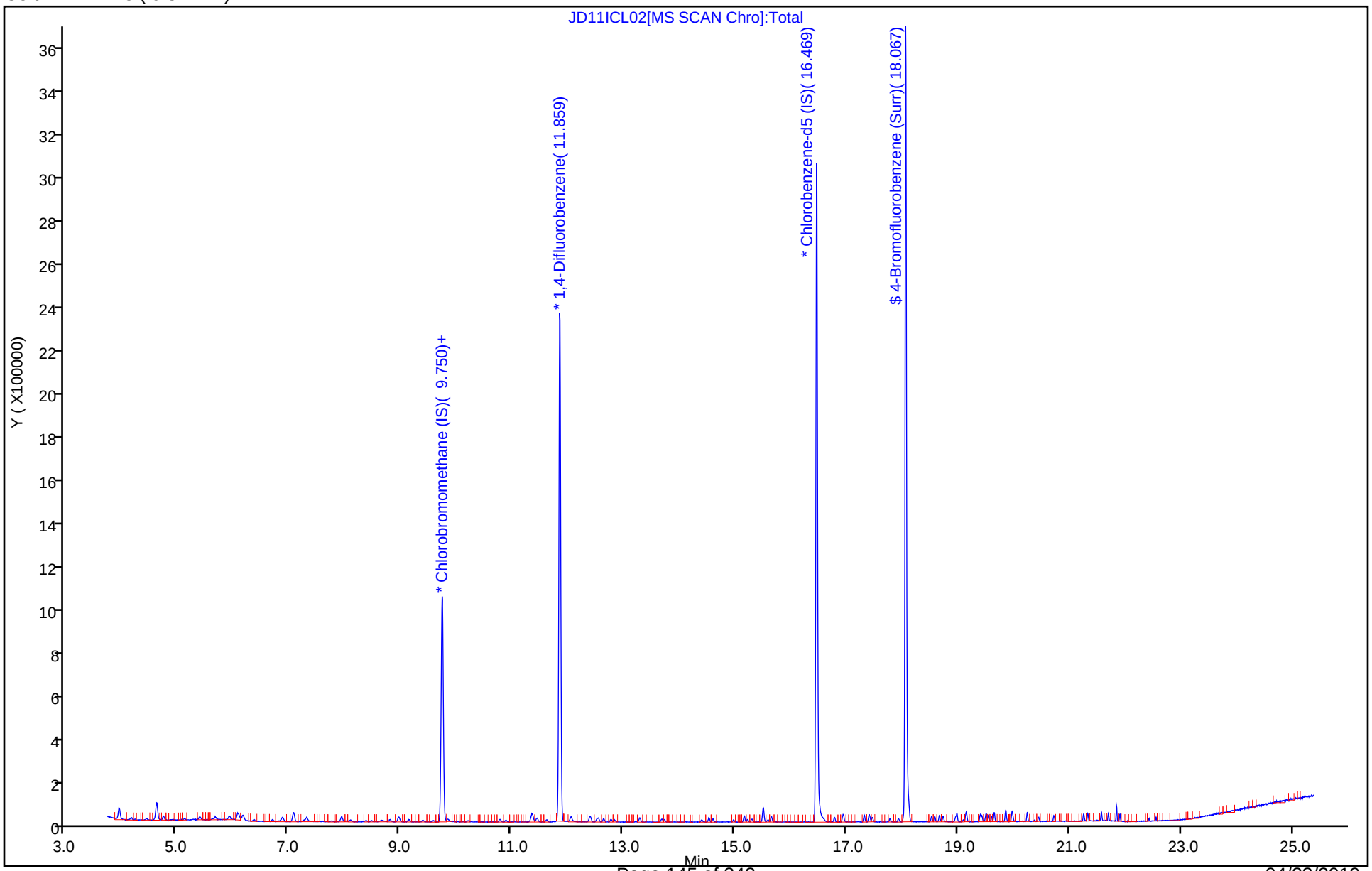
Report Date: 18-Apr-2019 15:36:27 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL02.D

Injection Date:	11-Apr-2019 23:16:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

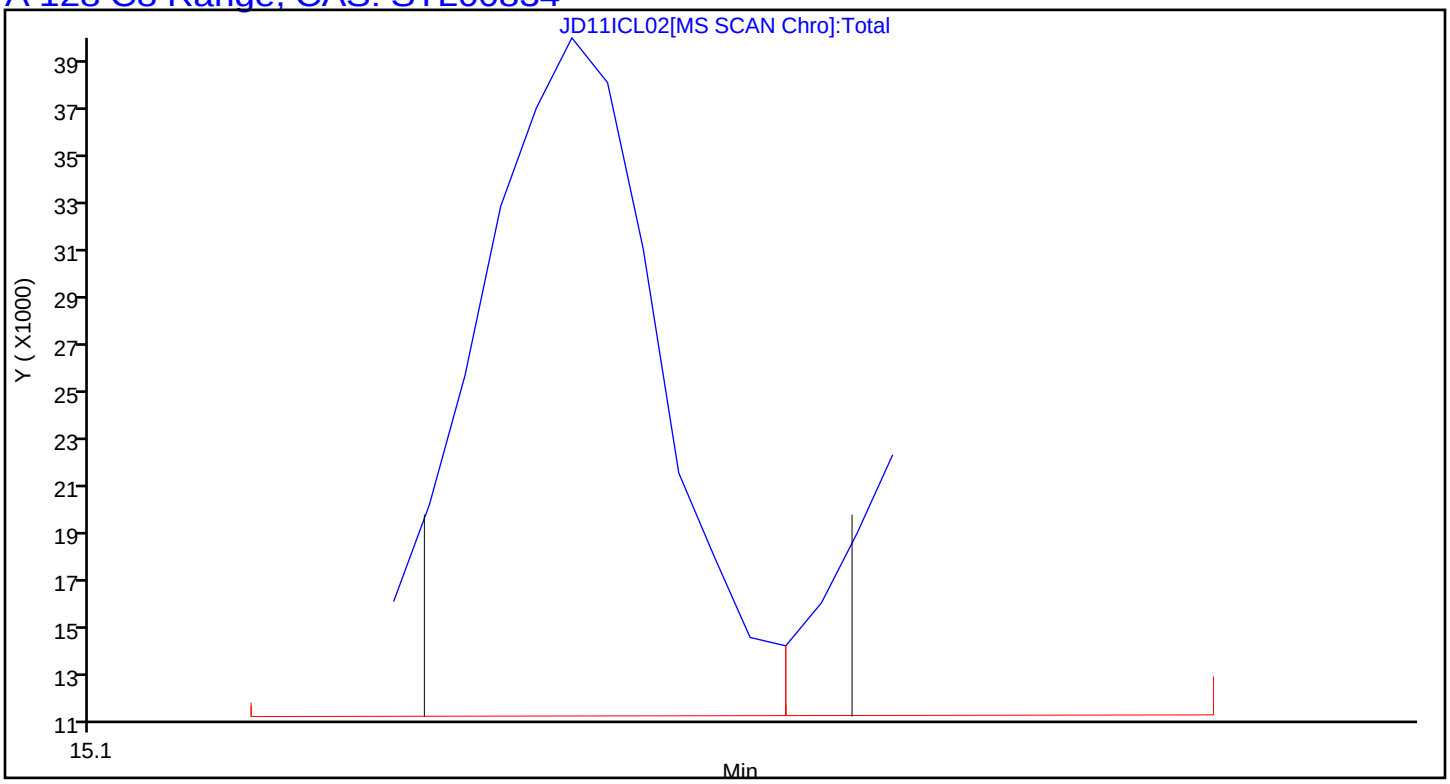


Report Date: 18-Apr-2019 15:36:27 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL02.D				
Injection Date:	11-Apr-2019 23:16:30	Instrument ID:	MJ		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2019 00:01:30 ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-010
Misc. Info.: 210543
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:34 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: tajh Date: 17-Apr-2019 09:04:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.750	9.755	-0.005	94	365915	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.859	11.864	-0.005	95	2092863	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.469	16.472	-0.003	89	1835449	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.067	18.070	-0.003	89	1335490	4.00	3.95	
19 Chlorodifluoromethane	51	4.166	4.161	0.005	95	12676	0.0800	0.0820	
20 Propene	41	4.177	4.175	0.002	96	11505	0.0800	0.1235	
21 Dichlorodifluoromethane	85	4.236	4.235	0.001	99	10614	0.0800	0.0801	
22 Chloromethane	52	4.451	4.450	0.001	99	5280	0.0800	0.1183	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.457	4.453	0.004	47	2453	0.0800	0.0901	
24 Acetaldehyde	44	4.629	4.626	0.003	97	92135	0.4000	0.4749	
25 Vinyl chloride	62	4.656	4.649	0.007	97	11289	0.0800	0.0763	
26 Butane	43	4.747	4.749	-0.002	86	18723	0.0800	0.0902	
27 Butadiene	54	4.747	4.749	-0.002	61	8400	0.0800	0.0825	
28 Bromomethane	94	5.129	5.127	0.002	95	11393	0.0800	0.0847	
29 Chloroethane	64	5.285	5.290	-0.005	89	4603	0.0800	0.0752	
30 Ethanol	31	5.393	5.394	-0.001	96	39246	0.4000	0.4736	
31 Vinyl bromide	106	5.635	5.633	0.002	97	9809	0.0800	0.0794	
32 2-Methylbutane	43	5.678	5.681	-0.003	92	13235	0.0800	0.0979	
33 Trichlorofluoromethane	101	5.931	5.928	0.003	99	29214	0.0800	0.0790	
34 Acrolein	56	5.947	5.945	0.002	94	7407	0.0800	0.2916	
35 Acetonitrile	40	6.017	6.017	0.000	57	2426	0.0800	0.0650	
36 Acetone	58	6.076	6.073	0.003	99	40174	0.2400	0.9183	
37 Isopropyl alcohol	45	6.173	6.163	0.010	83	45253	0.2400	0.3463	
38 Pentane	72	6.162	6.169	-0.007	78	1582	0.0800	0.0847	
39 Ethyl ether	31	6.361	6.358	0.003	91	10311	0.0800	0.0792	
40 1,1-Dichloroethene	96	6.705	6.707	-0.002	95	9262	0.0800	0.0745	
41 Acrylonitrile	53	6.813	6.819	-0.006	87	5909	0.0800	0.0795	
42 2-Methyl-2-propanol	59	6.845	6.826	0.019	95	17397	0.0800	0.0921	
43 1,1,2-Trichloro-1,2,2-trif	101	6.888	6.888	0.000	95	21715	0.0800	0.0786	
44 Methylene Chloride	84	7.082	7.084	-0.002	97	26250	0.0800	0.1532	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.104	7.101	0.003	61	7817	0.0800	0.0705	
46 Carbon disulfide	76	7.265	7.270	-0.005	97	28987	0.0800	0.0773	
47 trans-1,2-Dichloroethene	96	7.937	7.942	-0.005	82	9278	0.0800	0.0769	
48 2-Methylpentane	43	7.943	7.948	-0.005	95	24884	0.0800	0.0808	
49 Methyl tert-butyl ether	73	8.093	8.078	0.015	96	23054	0.0800	0.0808	
50 1,1-Dichloroethane	63	8.384	8.387	-0.003	98	18181	0.0800	0.0764	
51 Vinyl acetate	43	8.486	8.481	0.005	99	21525	0.0800	0.0773	
52 2-Butanone (MEK)	72	8.970	8.960	0.010	89	7465	0.0800	0.1392	
53 Hexane	56	8.970	8.972	-0.002	63	8617	0.0800	0.0845	
54 Isopropyl ether	45	9.148	9.135	0.013	97	30811	0.0800	0.0842	
55 cis-1,2-Dichloroethene	96	9.406	9.410	-0.004	91	9396	0.0800	0.0754	
56 Ethyl acetate	43	9.589	9.582	0.007	98	20848	0.0800	0.0884	
57 Chloroform	83	9.750	9.759	-0.009	29	22236	0.0800	0.0802	
58 Tert-butyl ethyl ether	59	9.852	9.834	0.018	96	24978	0.0800	0.0780	
59 Tetrahydrofuran	42	10.213	10.190	0.023	92	10690	0.0800	0.0869	
60 1,1,1-Trichloroethane	97	10.788	10.790	-0.002	97	20383	0.0800	0.0768	
61 1,2-Dichloroethane	62	10.891	10.897	-0.006	96	13583	0.0800	0.0805	
62 n-Butanol	31	11.326	11.312	0.014	94	8433	0.0800	0.1727	
63 Cyclohexane	69	11.359	11.362	-0.003	68	4904	0.0800	0.0804	
64 Benzene	78	11.364	11.363	0.001	96	30155	0.0800	0.0828	
65 Carbon tetrachloride	117	11.386	11.383	0.003	95	19116	0.0800	0.0720	
66 2,3-Dimethylpentane	71	11.456	11.452	0.004	93	6824	0.0800	0.0791	
67 Thiophene	84	11.628	11.628	0.000	95	16519	0.0800	0.0789	
68 Isooctane	57	12.058	12.063	-0.005	97	49725	0.0800	0.0840	
69 n-Heptane	71	12.413	12.413	0.000	95	10217	0.0800	0.0794	
70 1,2-Dichloropropane	63	12.526	12.528	-0.002	91	11210	0.0800	0.0788	
71 Trichloroethene	130	12.558	12.557	0.001	94	12952	0.0800	0.0774	
72 Dibromomethane	93	12.650	12.650	0.000	95	13986	0.0800	0.0877	
73 Dichlorobromomethane	83	12.779	12.781	-0.002	98	20632	0.0800	0.0765	
74 1,4-Dioxane	88	12.817	12.806	0.011	77	3923	0.0800	0.0849	
75 Methyl methacrylate	41	12.849	12.843	0.006	90	13573	0.0800	0.0930	
76 Methylcyclohexane	83	13.295	13.298	-0.003	95	17971	0.0800	0.0802	
77 4-Methyl-2-pentanone (MIBK	43	13.683	13.676	0.007	98	37588	0.0800	0.1511	
78 cis-1,3-Dichloropropene	75	13.736	13.739	-0.003	94	15615	0.0800	0.0744	
79 trans-1,3-Dichloropropene	75	14.409	14.410	-0.001	98	12185	0.0800	0.0706	
80 Toluene	91	14.538	14.539	-0.001	93	30231	0.0800	0.0796	
81 1,1,2-Trichloroethane	83	14.613	14.610	0.003	95	10294	0.0800	0.0825	
82 2-Hexanone	58	14.974	14.971	0.003	92	11008	0.0800	0.0958	
83 n-Octane	85	15.173	15.172	0.001	95	9829	0.0800	0.0779	
84 Chlorodibromomethane	129	15.307	15.310	-0.003	96	18263	0.0800	0.0727	
85 Ethylene Dibromide	107	15.592	15.599	-0.007	97	16023	0.0800	0.0739	
86 Tetrachloroethene	129	15.657	15.659	-0.002	92	12052	0.0800	0.0797	
87 2,3-Dimethylheptane	43	16.496	16.497	-0.001	95	38619	0.0800	0.0901	
88 Chlorobenzene	112	16.523	16.521	0.002	95	24830	0.0800	0.0780	
89 Ethylbenzene	91	16.787	16.790	-0.003	99	37284	0.0800	0.0810	
90 m-Xylene & p-Xylene	91	16.948	16.947	0.001	99	58337	0.1600	0.1641	
91 n-Nonane	57	17.325	17.326	-0.002	95	19331	0.0800	0.0764	
92 Styrene	104	17.405	17.409	-0.004	97	19808	0.0800	0.0745	
93 Bromoform	173	17.416	17.418	-0.002	90	15603	0.0800	0.0648	
94 o-Xylene	91	17.470	17.472	-0.002	99	29157	0.0800	0.0778	
95 1,1,2,2-Tetrachloroethane	83	17.782	17.785	-0.003	97	23552	0.0800	0.0808	
96 1,2,3-Trichloropropane	110	17.938	17.940	-0.002	98	5951	0.0800	0.0821	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.029	18.030	-0.001	89	40331	0.0800	0.0801	
98 N-Propylbenzene	120	18.530	18.534	-0.004	99	10992	0.0800	0.0795	
99 2-Chlorotoluene	126	18.589	18.590	-0.001	97	10274	0.0800	0.0767	
100 4-Ethyltoluene	105	18.675	18.674	0.001	98	42135	0.0800	0.0831	
101 1,3,5-Trimethylbenzene	120	18.739	18.743	-0.004	92	16481	0.0800	0.0814	
102 Alpha Methyl Styrene	118	18.960	18.963	-0.003	85	14363	0.0800	0.0704	
103 n-Decane	57	18.987	18.989	-0.002	90	26414	0.0800	0.0843	
104 tert-Butylbenzene	119	19.148	19.149	-0.001	91	35757	0.0800	0.0801	
105 1,2,4-Trimethylbenzene	105	19.159	19.161	-0.002	96	35317	0.0800	0.0812	
106 sec-Butylbenzene	105	19.406	19.405	0.001	98	50344	0.0800	0.0808	
107 1,3-Dichlorobenzene	146	19.433	19.435	-0.002	98	25757	0.0800	0.0854	
108 Benzyl chloride	91	19.503	19.502	0.001	98	29051	0.0800	0.0819	
109 1,4-Dichlorobenzene	146	19.514	19.517	-0.003	91	24706	0.0800	0.0822	
110 4-Isopropyltoluene	119	19.557	19.556	0.001	97	40614	0.0800	0.0797	
111 1,2,3-Trimethylbenzene	105	19.616	19.618	-0.002	98	34518	0.0800	0.0856	
112 Butylcyclohexane	83	19.659	19.657	0.002	94	31388	0.0800	0.0799	
113 2,3-Dihydroindene	117	19.858	19.861	-0.003	95	31528	0.0800	0.0780	
114 1,2-Dichlorobenzene	146	19.864	19.867	-0.003	94	24168	0.0800	0.0836	
115 n-Butylbenzene	91	19.977	19.975	0.002	97	44642	0.0800	0.0857	
116 Indene	116	19.987	19.989	-0.002	90	25900	0.0800	0.0764	
117 Undecane	57	20.251	20.249	0.002	94	30794	0.0800	0.0928	
118 1,2-Dibromo-3-Chloropropan	157	20.450	20.453	-0.003	90	11340	0.0800	0.0894	
119 1,2,4,5-Tetramethylbenzene	119	20.730	20.728	0.002	98	37430	0.0800	0.0823	
120 Dodecane	57	21.338	21.336	0.002	93	30995	0.0800	0.1102	
121 1,2,4-Trichlorobenzene	180	21.580	21.579	0.001	94	19504	0.0800	0.0964	
122 Naphthalene	128	21.703	21.705	-0.002	99	40443	0.0800	0.1004	
123 Hexachlorobutadiene	225	21.849	21.852	-0.003	94	21684	0.0800	0.0997	
124 1,2,3-Trichlorobenzene	180	21.908	21.911	-0.003	94	15706	0.0800	0.1040	
125 2-Methylnaphthalene	142	22.435	22.433	0.002	99	8831	0.0800	0.1196	
126 1-Methylnaphthalene	142	22.559	22.557	0.002	96	10646	0.0800	0.1324	
A 128 C8 Range	1	15.167	(15.140-15.215)		0	104522	0.0800	0.0837	
S 129 Xylenes, Total	100				0		0.2400	0.2419	
S 130 1,2-Dichloroethene, Total	1				0		0.1600	0.1523	

Reagents:

40L1-3DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

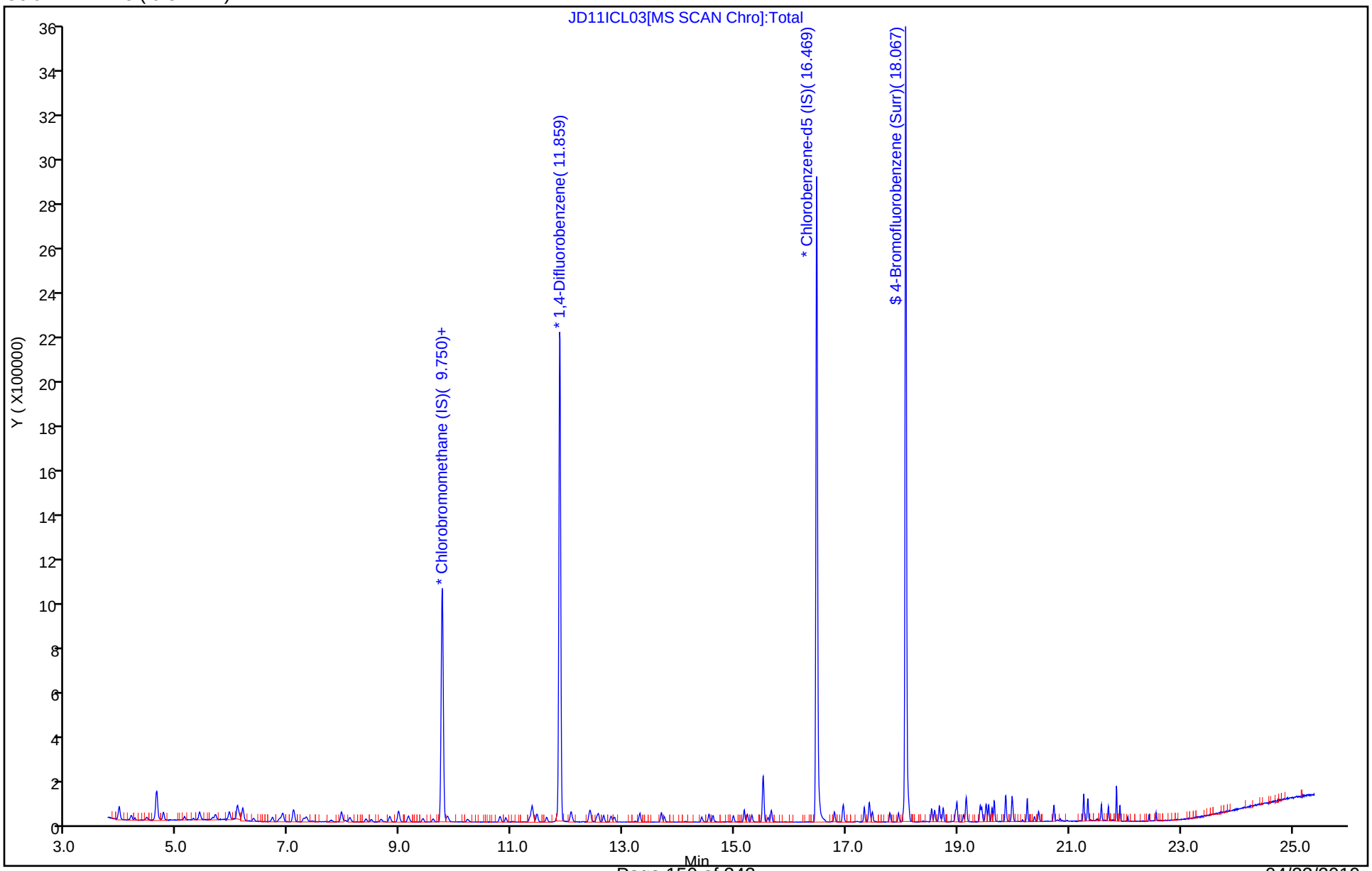
Report Date: 18-Apr-2019 15:36:36 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL03.D

Injection Date:	12-Apr-2019 00:01:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

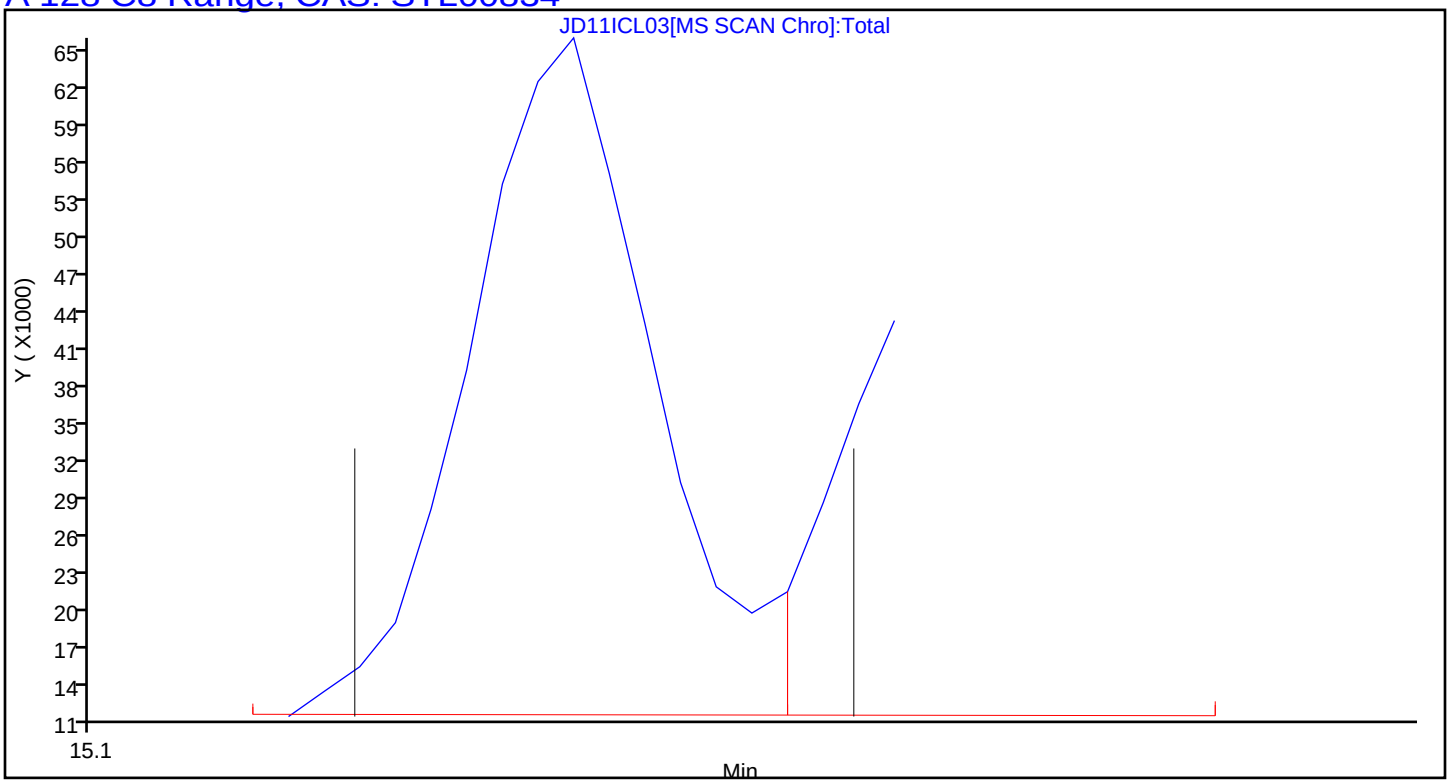


Report Date: 18-Apr-2019 15:36:36 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL03.D				
Injection Date:	12-Apr-2019 00:01:30	Instrument ID:	MJ		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Apr-2019 01:31:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-012
Misc. Info.: 210541
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:43 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 17-Apr-2019 17:59:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.752	9.755	-0.003	96	348350	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.861	11.864	-0.003	95	2089054	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.471	16.472	-0.001	88	1838988	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.069	18.070	-0.001	89	1351507	4.00	3.99	
19 Chlorodifluoromethane	51	4.163	4.161	0.002	97	57229	0.4000	0.3888	
20 Propene	41	4.179	4.175	0.004	98	34867	0.4000	0.3932	
21 Dichlorodifluoromethane	85	4.238	4.235	0.003	100	48528	0.4000	0.3845	
22 Chloromethane	52	4.448	4.450	-0.002	100	18559	0.4000	0.4366	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.453	0.000	55	10478	0.4000	0.4045	
24 Acetaldehyde	44	4.625	4.626	-0.001	97	151733	2.00	2.17	
25 Vinyl chloride	62	4.647	4.649	-0.002	99	55549	0.4000	0.3943	
26 Butane	43	4.749	4.749	0.000	86	81613	0.4000	0.4131	
27 Butadiene	54	4.749	4.749	0.000	67	38754	0.4000	0.3997	
28 Bromomethane	94	5.126	5.127	-0.001	97	51901	0.4000	0.4053	
29 Chloroethane	64	5.287	5.290	-0.003	95	24496	0.4000	0.4206	
30 Ethanol	31	5.395	5.394	0.000	97	111443	2.00	2.05	
31 Vinyl bromide	106	5.637	5.633	0.004	98	48281	0.4000	0.4106	
32 2-Methylbutane	43	5.685	5.681	0.004	92	55648	0.4000	0.4323	
33 Trichlorofluoromethane	101	5.927	5.928	-0.001	100	145844	0.4000	0.4144	
34 Acrolein	56	5.943	5.945	-0.002	93	13149	0.4000	0.5438	
35 Acetonitrile	40	6.008	6.017	-0.009	98	17236	0.4000	0.4848	
36 Acetone	58	6.067	6.073	-0.006	99	82888	1.20	1.99	
37 Isopropyl alcohol	45	6.158	6.163	-0.005	94	167369	1.20	1.35	
38 Pentane	72	6.175	6.169	0.006	96	7471	0.4000	0.4203	
39 Ethyl ether	31	6.357	6.358	-0.001	92	52692	0.4000	0.4250	
40 1,1-Dichloroethene	96	6.702	6.707	-0.005	96	48314	0.4000	0.4079	
41 Acrylonitrile	53	6.820	6.819	0.001	68	31567	0.4000	0.4464	
42 2-Methyl-2-propanol	59	6.820	6.826	-0.006	95	74546	0.4000	0.4144	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.888	-0.003	95	108895	0.4000	0.4143	
44 Methylene Chloride	84	7.084	7.084	0.000	97	62388	0.4000	0.4946	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.094	7.101	-0.007	96	43117	0.4000	0.4087	
46 Carbon disulfide	76	7.267	7.270	-0.003	99	145830	0.4000	0.4082	
47 trans-1,2-Dichloroethene	96	7.944	7.942	0.002	97	47254	0.4000	0.4114	
48 2-Methylpentane	43	7.944	7.948	-0.004	96	122651	0.4000	0.4184	
49 Methyl tert-butyl ether	73	8.073	8.078	-0.005	97	116216	0.4000	0.4277	
50 1,1-Dichloroethane	63	8.380	8.387	-0.007	100	94554	0.4000	0.4175	
51 Vinyl acetate	43	8.482	8.481	0.001	100	114152	0.4000	0.4307	
52 2-Butanone (MEK)	72	8.950	8.960	-0.010	96	24590	0.4000	0.4815	
53 Hexane	56	8.972	8.972	0.000	75	40507	0.4000	0.4174	
54 Isopropyl ether	45	9.133	9.135	-0.002	97	149417	0.4000	0.4287	
55 cis-1,2-Dichloroethene	96	9.408	9.410	-0.002	97	48187	0.4000	0.4061	
56 Ethyl acetate	43	9.580	9.582	-0.002	99	98599	0.4000	0.4392	
57 Chloroform	83	9.757	9.759	-0.002	92	109672	0.4000	0.4154	
58 Tert-butyl ethyl ether	59	9.827	9.834	-0.007	96	128391	0.4000	0.4212	
59 Tetrahydrofuran	42	10.188	10.190	-0.002	94	51345	0.4000	0.4382	
60 1,1,1-Trichloroethane	97	10.785	10.790	-0.005	97	103283	0.4000	0.4089	
61 1,2-Dichloroethane	62	10.892	10.897	-0.005	97	71074	0.4000	0.4220	
62 n-Butanol	31	11.317	11.312	0.005	84	19914	0.4000	0.4086	
63 Cyclohexane	69	11.366	11.362	0.004	73	25275	0.4000	0.4149	
64 Benzene	78	11.360	11.363	-0.003	97	150526	0.4000	0.4139	
65 Carbon tetrachloride	117	11.382	11.383	-0.001	96	91518	0.4000	0.3451	
66 2,3-Dimethylpentane	71	11.457	11.452	0.005	92	35662	0.4000	0.4139	
67 Thiophene	84	11.629	11.628	0.001	96	86451	0.4000	0.4136	
68 Isooctane	57	12.060	12.063	-0.003	98	245078	0.4000	0.4146	
69 n-Heptane	71	12.409	12.413	-0.004	93	52092	0.4000	0.4057	
70 1,2-Dichloropropane	63	12.522	12.528	-0.006	91	59592	0.4000	0.4195	
71 Trichloroethene	130	12.555	12.557	-0.002	95	64647	0.4000	0.3873	
72 Dibromomethane	93	12.651	12.650	0.001	93	63837	0.4000	0.4011	
73 Dichlorobromomethane	83	12.781	12.781	-0.001	98	108476	0.4000	0.4031	
74 1,4-Dioxane	88	12.802	12.806	-0.004	91	17848	0.4000	0.3870	
75 Methyl methacrylate	41	12.840	12.843	-0.003	91	59838	0.4000	0.4108	
76 Methylcyclohexane	83	13.297	13.298	-0.001	96	91520	0.4000	0.4092	
77 4-Methyl-2-pentanone (MIBK	43	13.673	13.676	-0.003	98	103805	0.4000	0.4182	
78 cis-1,3-Dichloropropene	75	13.738	13.739	-0.001	94	83798	0.4000	0.4000	
79 trans-1,3-Dichloropropene	75	14.405	14.410	-0.005	98	70014	0.4000	0.4052	
80 Toluene	91	14.540	14.539	0.001	93	159831	0.4000	0.4201	
81 1,1,2-Trichloroethane	83	14.610	14.610	0.000	97	52148	0.4000	0.4173	
82 2-Hexanone	58	14.970	14.971	-0.001	92	46612	0.4000	0.4048	
83 n-Octane	85	15.169	15.172	-0.003	95	51292	0.4000	0.4060	
84 Chlorodibromomethane	129	15.309	15.310	-0.001	97	97407	0.4000	0.3871	
85 Ethylene Dibromide	107	15.599	15.599	0.000	99	89694	0.4000	0.4131	
86 Tetrachloroethene	129	15.659	15.659	0.000	93	62815	0.4000	0.4145	
87 2,3-Dimethylheptane	43	16.498	16.497	0.001	96	184313	0.4000	0.4292	
88 Chlorobenzene	112	16.519	16.521	-0.002	94	133559	0.4000	0.4187	
89 Ethylbenzene	91	16.788	16.790	-0.002	98	195971	0.4000	0.4252	
90 m-Xylene & p-Xylene	91	16.950	16.947	0.003	99	305556	0.8000	0.8578	
91 n-Nonane	57	17.326	17.326	0.000	94	107577	0.4000	0.4245	
92 Styrene	104	17.407	17.409	-0.002	99	105917	0.4000	0.3975	
93 Bromoform	173	17.418	17.418	0.000	95	90296	0.4000	0.3745	
94 o-Xylene	91	17.471	17.472	-0.001	99	160716	0.4000	0.4279	
95 1,1,2,2-Tetrachloroethane	83	17.783	17.785	-0.002	99	122630	0.4000	0.4201	
96 1,2,3-Trichloropropane	110	17.934	17.940	-0.006	98	30058	0.4000	0.4138	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.031	18.030	0.001	93	209487	0.4000	0.4155	
98 N-Propylbenzene	120	18.537	18.534	0.003	98	57058	0.4000	0.4116	
99 2-Chlorotoluene	126	18.590	18.590	0.000	98	56233	0.4000	0.4188	
100 4-Ethyltoluene	105	18.671	18.674	-0.003	98	208321	0.4000	0.4102	
101 1,3,5-Trimethylbenzene	120	18.741	18.743	-0.002	92	87128	0.4000	0.4296	
102 Alpha Methyl Styrene	118	18.962	18.963	-0.001	88	79116	0.4000	0.3869	
103 n-Decane	57	18.988	18.989	-0.001	90	135016	0.4000	0.4300	
104 tert-Butylbenzene	119	19.150	19.149	0.001	91	187116	0.4000	0.4181	
105 1,2,4-Trimethylbenzene	105	19.161	19.161	0.000	96	178740	0.4000	0.4103	
106 sec-Butylbenzene	105	19.403	19.405	-0.002	98	260727	0.4000	0.4174	
107 1,3-Dichlorobenzene	146	19.435	19.435	0.000	98	120756	0.4000	0.3995	
108 Benzyl chloride	91	19.499	19.502	-0.003	98	141906	0.4000	0.3992	
109 1,4-Dichlorobenzene	146	19.516	19.517	-0.001	95	120066	0.4000	0.3989	
110 4-Isopropyltoluene	119	19.553	19.556	-0.003	97	213251	0.4000	0.4177	
111 1,2,3-Trimethylbenzene	105	19.618	19.618	0.000	98	180392	0.4000	0.4465	
112 Butylcyclohexane	83	19.655	19.657	-0.002	94	167096	0.4000	0.4244	
113 2,3-Dihydroindene	117	19.860	19.861	-0.001	94	165210	0.4000	0.4077	
114 1,2-Dichlorobenzene	146	19.865	19.867	-0.002	96	116840	0.4000	0.4035	
115 n-Butylbenzene	91	19.973	19.975	-0.002	97	221040	0.4000	0.4235	
116 Indene	116	19.989	19.989	0.000	88	137272	0.4000	0.4043	
117 Undecane	57	20.247	20.249	-0.002	95	148665	0.4000	0.4470	
118 1,2-Dibromo-3-Chloropropan	157	20.452	20.453	-0.001	93	53649	0.4000	0.4221	
119 1,2,4,5-Tetramethylbenzene	119	20.726	20.728	-0.002	96	184809	0.4000	0.4058	
120 Dodecane	57	21.334	21.336	-0.002	94	141908	0.4000	0.5038	
121 1,2,4-Trichlorobenzene	180	21.576	21.579	-0.003	94	81443	0.4000	0.4016	
122 Naphthalene	128	21.705	21.705	0.000	99	165619	0.4000	0.4104	
123 Hexachlorobutadiene	225	21.850	21.852	-0.002	95	96146	0.4000	0.4412	
124 1,2,3-Trichlorobenzene	180	21.909	21.911	-0.002	94	66998	0.4000	0.4429	
125 2-Methylnaphthalene	142	22.431	22.433	-0.002	98	36118	0.4000	0.4883	
126 1-Methylnaphthalene	142	22.555	22.557	-0.002	99	47300	0.4000	0.5871	
A 128 C8 Range	1	15.184	(15.141-15.227)		0	572155	0.4000	0.4572	
S 129 Xylenes, Total	100				0		1.20	1.29	
S 130 1,2-Dichloroethene, Total	1				0		0.8000	0.8175	

Reagents:

40L5DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

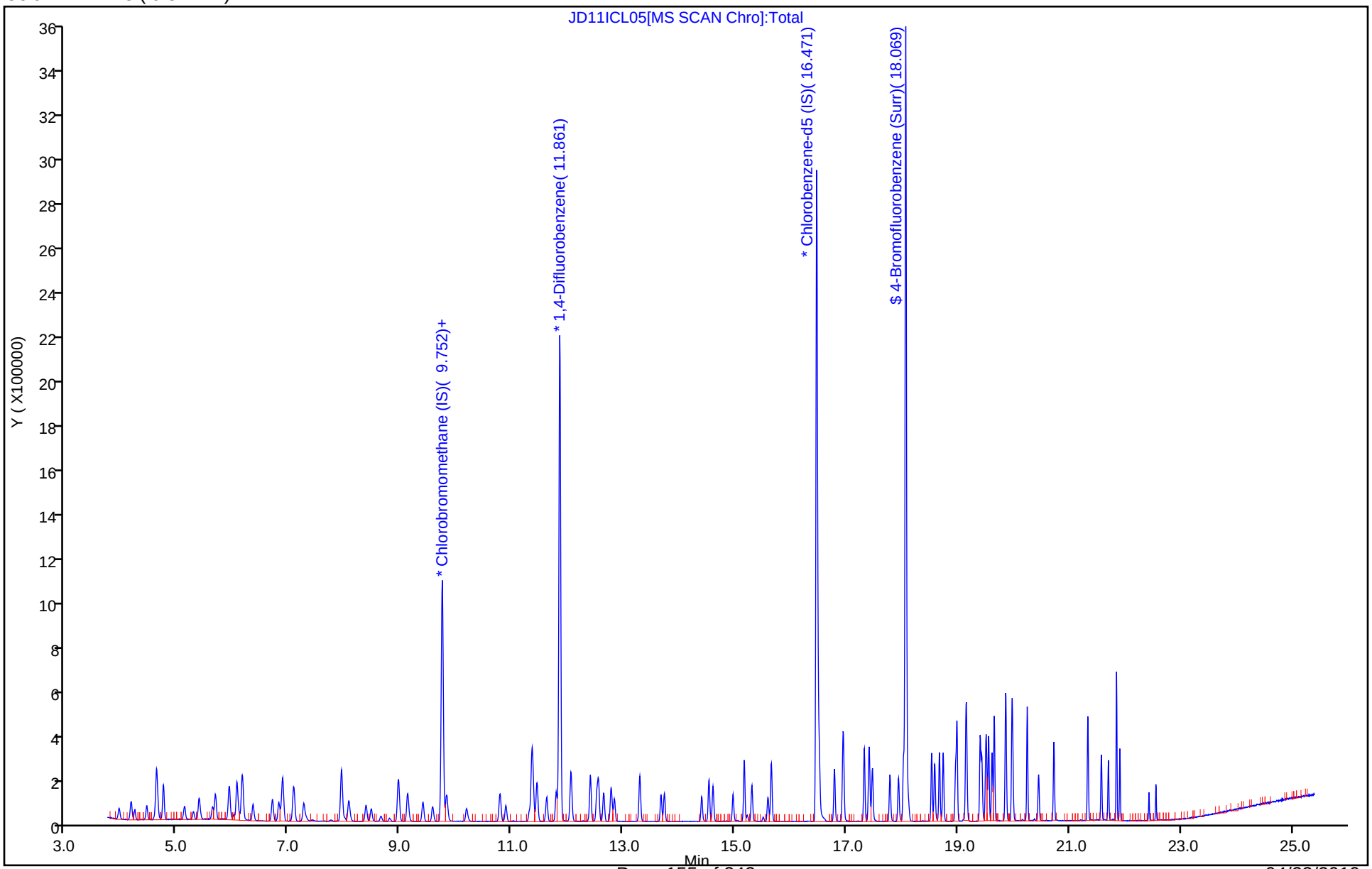
Report Date: 18-Apr-2019 15:36:45 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL05.D

Injection Date:	12-Apr-2019 01:31:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

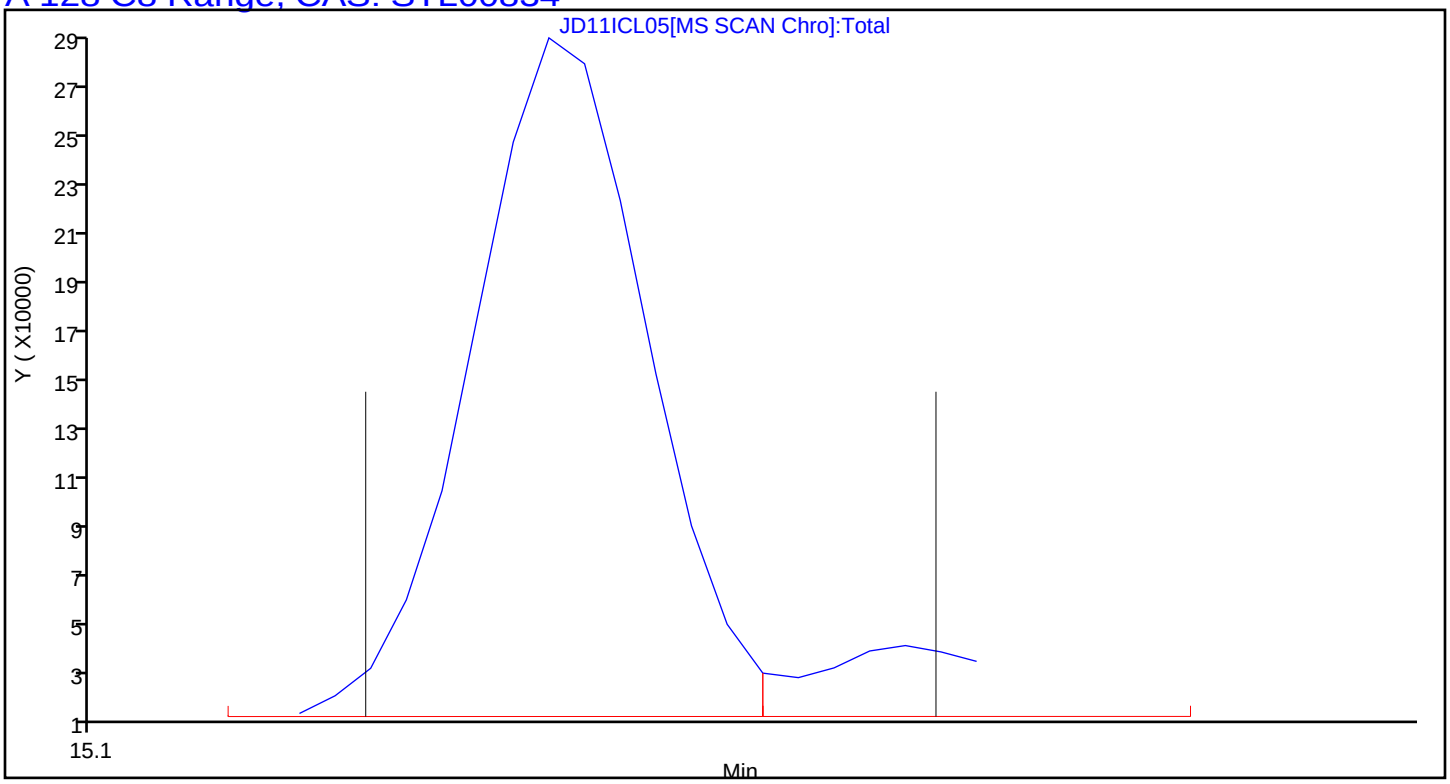


Report Date: 18-Apr-2019 15:36:45 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL05.D				
Injection Date:	12-Apr-2019 01:31:30	Instrument ID:	MJ		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2019 02:16:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-013
Misc. Info.: 210540
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:36:53 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 17-Apr-2019 17:54:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.754	9.755	-0.001	97	367454	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.863	11.864	-0.001	95	2177893	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.473	16.472	0.001	95	1924194	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.071	18.070	0.001	89	1413095	4.00	3.99	
19 Chlorodifluoromethane	51	4.159	4.161	-0.002	97	136612	1.00	0.8799	
20 Propene	41	4.175	4.175	0.000	98	82805	1.00	0.8853	
21 Dichlorodifluoromethane	85	4.235	4.235	0.000	100	123962	1.00	0.9311	
22 Chloromethane	52	4.450	4.450	0.000	100	42219	1.00	0.9417	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.450	4.453	-0.003	55	25099	1.00	0.9185	
24 Acetaldehyde	44	4.627	4.626	0.001	97	245570	5.00	4.31	
25 Vinyl chloride	62	4.649	4.649	0.000	99	140426	1.00	0.9451	
26 Butane	43	4.751	4.749	0.002	86	201492	1.00	0.9668	
27 Butadiene	54	4.751	4.749	0.002	65	97942	1.00	0.9577	
28 Bromomethane	94	5.128	5.127	0.001	98	126570	1.00	0.9369	
29 Chloroethane	64	5.289	5.290	-0.001	95	59381	1.00	0.9666	
30 Ethanol	31	5.386	5.394	-0.008	98	245908	5.00	4.65	
31 Vinyl bromide	106	5.633	5.633	0.000	98	118480	1.00	0.9552	
32 2-Methylbutane	43	5.682	5.681	0.001	93	138342	1.00	1.02	
33 Trichlorofluoromethane	101	5.929	5.928	0.001	100	362526	1.00	0.9765	
34 Acrolein	56	5.945	5.945	0.000	92	23263	1.00	0.9121	
35 Acetonitrile	40	6.015	6.017	-0.002	99	35160	1.00	0.9375	
36 Acetone	58	6.064	6.073	-0.009	99	127344	3.00	2.90	
37 Isopropyl alcohol	45	6.150	6.163	-0.013	97	373279	3.00	2.84	
38 Pentane	72	6.171	6.169	0.002	96	18583	1.00	0.99	
39 Ethyl ether	31	6.354	6.358	-0.004	93	123500	1.00	0.9444	
40 1,1-Dichloroethene	96	6.709	6.707	0.002	95	118228	1.00	0.9464	
41 Acrylonitrile	53	6.817	6.819	-0.002	58	67062	1.00	0.8990	
42 2-Methyl-2-propanol	59	6.806	6.826	-0.020	95	178117	1.00	0.9387	
43 1,1,2-Trichloro-1,2,2-trif	101	6.892	6.888	0.004	96	263564	1.00	0.9505	
44 Methylene Chloride	84	7.086	7.084	0.002	97	126385	1.00	1.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.102	7.101	0.001	96	107085	1.00	0.9622	
46 Carbon disulfide	76	7.269	7.270	-0.001	99	365883	1.00	0.9710	
47 trans-1,2-Dichloroethene	96	7.941	7.942	-0.001	96	117794	1.00	0.9722	
48 2-Methylpentane	43	7.952	7.948	0.004	95	296864	1.00	0.9601	
49 Methyl tert-butyl ether	73	8.070	8.078	-0.008	97	260755	1.00	0.9097	
50 1,1-Dichloroethane	63	8.382	8.387	-0.005	100	227614	1.00	0.9528	
51 Vinyl acetate	43	8.479	8.481	-0.002	100	255186	1.00	0.9127	
52 2-Butanone (MEK)	72	8.952	8.960	-0.008	97	47301	1.00	0.8781	
53 Hexane	56	8.968	8.972	-0.004	83	96646	1.00	0.9441	
54 Isopropyl ether	45	9.130	9.135	-0.005	97	331279	1.00	0.9011	
55 cis-1,2-Dichloroethene	96	9.410	9.410	0.000	97	117033	1.00	0.9349	
56 Ethyl acetate	43	9.576	9.582	-0.006	99	211284	1.00	0.8923	
57 Chloroform	83	9.759	9.759	0.000	94	265129	1.00	0.9519	
58 Tert-butyl ethyl ether	59	9.824	9.834	-0.010	97	291731	1.00	0.9072	
59 Tetrahydrofuran	42	10.184	10.190	-0.006	94	111779	1.00	0.9044	
60 1,1,1-Trichloroethane	97	10.792	10.790	0.002	97	252290	1.00	0.9469	
61 1,2-Dichloroethane	62	10.894	10.897	-0.003	97	168198	1.00	0.9579	
62 n-Butanol	31	11.309	11.312	-0.003	91	46017	1.00	0.9056	
63 Cyclohexane	69	11.362	11.362	0.000	67	61379	1.00	0.9665	
64 Benzene	78	11.362	11.363	-0.001	97	353113	1.00	0.9314	
65 Carbon tetrachloride	117	11.384	11.383	0.001	98	259774	1.00	0.9397	
66 2,3-Dimethylpentane	71	11.448	11.452	-0.004	93	86360	1.00	0.9615	
67 Thiophene	84	11.626	11.628	-0.002	96	203048	1.00	0.9319	
68 Isooctane	57	12.062	12.063	-0.001	98	591543	1.00	0.9599	
69 n-Heptane	71	12.411	12.413	-0.002	93	127369	1.00	0.9515	
70 1,2-Dichloropropane	63	12.524	12.528	-0.004	91	143498	1.00	0.9690	
71 Trichloroethene	130	12.557	12.557	0.000	95	156044	1.00	0.8966	
72 Dibromomethane	93	12.648	12.650	-0.002	93	154019	1.00	0.9281	
73 Dichlorobromomethane	83	12.783	12.781	0.001	99	269171	1.00	0.9595	
74 1,4-Dioxane	88	12.799	12.806	-0.007	89	42353	1.00	0.8810	
75 Methyl methacrylate	41	12.842	12.843	-0.001	91	130628	1.00	0.8602	
76 Methylcyclohexane	83	13.299	13.298	0.001	96	224856	1.00	0.9644	
77 4-Methyl-2-pentanone (MIBK	43	13.670	13.676	-0.006	98	229783	1.00	0.8879	
78 cis-1,3-Dichloropropene	75	13.740	13.739	0.001	94	205919	1.00	0.9428	
79 trans-1,3-Dichloropropene	75	14.407	14.410	-0.003	98	175259	1.00	0.9693	
80 Toluene	91	14.536	14.539	-0.003	93	380050	1.00	0.9547	
81 1,1,2-Trichloroethane	83	14.612	14.610	0.002	97	126269	1.00	0.9657	
82 2-Hexanone	58	14.967	14.971	-0.004	91	109769	1.00	0.9110	
83 n-Octane	85	15.171	15.172	-0.001	95	129197	1.00	0.9773	
84 Chlorodibromomethane	129	15.305	15.310	-0.005	97	253960	1.00	0.9645	
85 Ethylene Dibromide	107	15.596	15.599	-0.003	98	222669	1.00	0.9800	
86 Tetrachloroethene	129	15.655	15.659	-0.004	94	149859	1.00	0.9451	
87 2,3-Dimethylheptane	43	16.494	16.497	-0.003	96	446649	1.00	0.99	
88 Chlorobenzene	112	16.521	16.521	0.000	94	325201	1.00	0.9744	
89 Ethylbenzene	91	16.790	16.790	0.000	98	461769	1.00	0.9575	
90 m-Xylene & p-Xylene	91	16.946	16.947	-0.001	99	718880	2.00	1.93	
91 n-Nonane	57	17.323	17.326	-0.003	93	262805	1.00	0.99	
92 Styrene	104	17.409	17.409	0.000	99	256305	1.00	0.9193	
93 Bromoform	173	17.414	17.418	-0.004	96	238048	1.00	0.9436	
94 o-Xylene	91	17.468	17.472	-0.004	99	381243	1.00	0.9701	
95 1,1,2,2-Tetrachloroethane	83	17.785	17.785	0.000	99	286209	1.00	0.9371	
96 1,2,3-Trichloropropane	110	17.941	17.940	0.001	99	69942	1.00	0.9202	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.028	18.030	-0.002	97	494083	1.00	0.9366	
98 N-Propylbenzene	120	18.533	18.534	-0.001	99	134204	1.00	0.9253	
99 2-Chlorotoluene	126	18.587	18.590	-0.003	98	135013	1.00	0.9609	
100 4-Ethyltoluene	105	18.673	18.674	-0.001	98	481530	1.00	0.9062	
101 1,3,5-Trimethylbenzene	120	18.743	18.743	0.000	92	197636	1.00	0.9314	
102 Alpha Methyl Styrene	118	18.964	18.963	0.001	87	195232	1.00	0.9124	
103 n-Decane	57	18.985	18.989	-0.004	90	319749	1.00	0.9733	
104 tert-Butylbenzene	119	19.146	19.149	-0.003	90	424689	1.00	0.9069	
105 1,2,4-Trimethylbenzene	105	19.163	19.161	0.002	96	409626	1.00	0.8987	
106 sec-Butylbenzene	105	19.405	19.405	0.000	99	605645	1.00	0.9267	
107 1,3-Dichlorobenzene	146	19.432	19.435	-0.003	99	293300	1.00	0.9275	
108 Benzyl chloride	91	19.501	19.502	-0.001	98	311446	1.00	0.8373	
109 1,4-Dichlorobenzene	146	19.518	19.517	0.001	95	289355	1.00	0.9188	
110 4-Isopropyltoluene	119	19.555	19.556	-0.001	97	479386	1.00	0.8974	
111 1,2,3-Trimethylbenzene	105	19.614	19.618	-0.004	98	411887	1.00	0.9743	
112 Butylcyclohexane	83	19.657	19.657	0.000	94	397927	1.00	0.9658	
113 2,3-Dihydroindene	117	19.862	19.861	0.001	94	395879	1.00	0.9338	
114 1,2-Dichlorobenzene	146	19.867	19.867	0.000	95	281926	1.00	0.9306	
115 n-Butylbenzene	91	19.975	19.975	0.000	98	494081	1.00	0.9046	
116 Indene	116	19.986	19.989	-0.003	91	319484	1.00	0.8992	
117 Undecane	57	20.249	20.249	0.000	95	337459	1.00	0.9697	
118 1,2-Dibromo-3-Chloropropan	157	20.454	20.453	0.001	95	128704	1.00	0.9678	
119 1,2,4,5-Tetramethylbenzene	119	20.728	20.728	0.000	97	432468	1.00	0.9075	
120 Dodecane	57	21.336	21.336	0.000	95	318614	1.00	1.08	
121 1,2,4-Trichlorobenzene	180	21.578	21.579	-0.001	94	190131	1.00	0.8961	
122 Naphthalene	128	21.707	21.705	0.002	99	384474	1.00	0.9106	
123 Hexachlorobutadiene	225	21.852	21.852	0.000	95	220380	1.00	0.9664	
124 1,2,3-Trichlorobenzene	180	21.911	21.911	0.000	94	152851	1.00	0.9656	
125 2-Methylnaphthalene	142	22.433	22.433	0.000	98	94118	1.00	1.22	
126 1-Methylnaphthalene	142	22.557	22.557	0.000	98	111110	1.00	1.32	
A 128 C8 Range	1	15.181	(15.133-15.229)		0	1267543	1.00	0.9680	
S 129 Xylenes, Total	100				0		3.00	2.90	
S 130 1,2-Dichloroethene, Total	1				0		2.00	1.91	

Reagents:

40L6DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

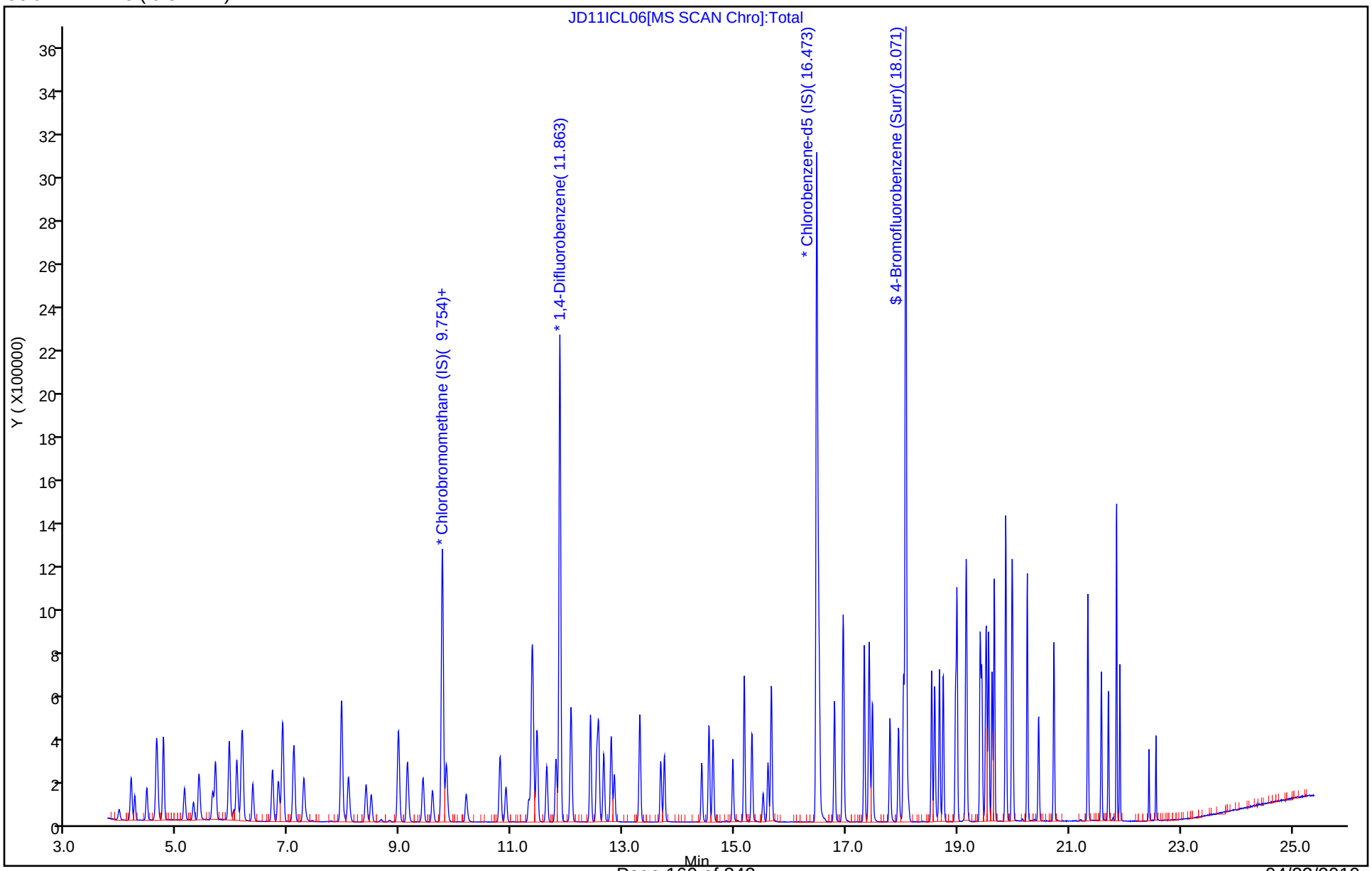
Report Date: 18-Apr-2019 15:36:55 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL06.D

Injection Date:	12-Apr-2019 02:16:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

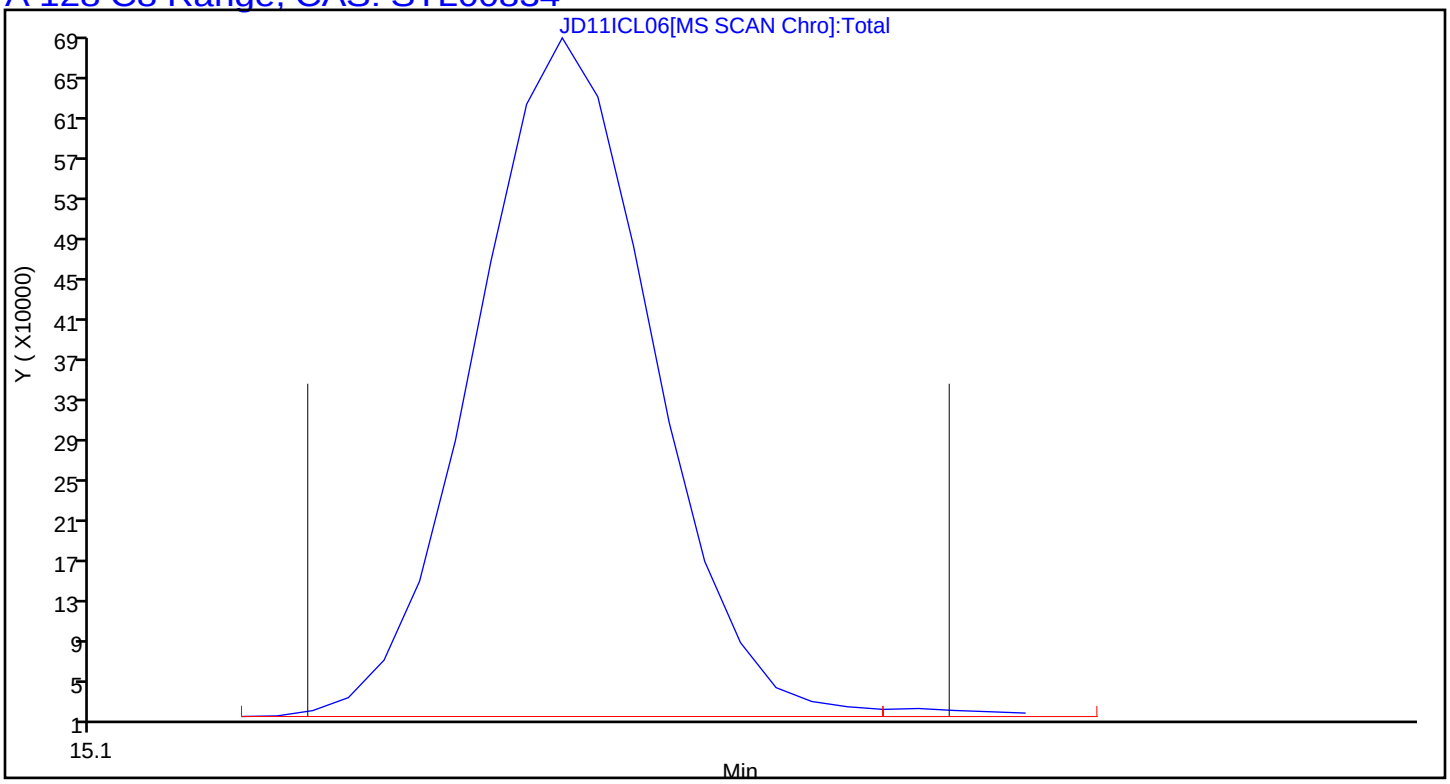


Report Date: 18-Apr-2019 15:36:55 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL06.D				
Injection Date:	12-Apr-2019 02:16:30	Instrument ID:	MJ		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 12-Apr-2019 03:01:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-014
Misc. Info.: 210539
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:37:03 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 12-Apr-2019 09:52:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.758	9.755	0.003	97	336629	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.861	11.864	-0.003	95	2076153	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.471	16.472	-0.001	89	1951419	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.069	18.070	-0.001	89	1445784	4.00	4.03	
19 Chlorodifluoromethane	51	4.163	4.161	0.002	97	294456	2.00	2.07	
20 Propene	41	4.174	4.175	-0.001	100	176158	2.00	2.06	
21 Dichlorodifluoromethane	85	4.233	4.235	-0.002	100	269198	2.00	2.21	
22 Chloromethane	52	4.448	4.450	-0.002	100	85256	2.00	2.08	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.453	4.453	0.000	75	54296	2.00	2.17	
24 Acetaldehyde	44	4.626	4.626	0.000	97	481269	10.0	11.3	
25 Vinyl chloride	62	4.647	4.649	-0.002	99	287895	2.00	2.11	
26 Butane	43	4.749	4.749	0.000	86	405816	2.00	2.13	
27 Butadiene	54	4.749	4.749	0.000	66	202833	2.00	2.17	
28 Bromomethane	94	5.126	5.127	-0.001	98	259607	2.00	2.10	
29 Chloroethane	64	5.287	5.290	-0.003	96	122631	2.00	2.18	
30 Ethanol	31	5.379	5.394	-0.015	98	497166	10.0	10.6	
31 Vinyl bromide	106	5.631	5.633	-0.002	98	245133	2.00	2.16	
32 2-Methylbutane	43	5.680	5.681	-0.001	91	264951	2.00	2.13	
33 Trichlorofluoromethane	101	5.927	5.928	-0.001	99	747260	2.00	2.20	
34 Acrolein	56	5.938	5.945	-0.007	29	47384	2.00	2.03	
35 Acetonitrile	40	6.008	6.017	-0.009	99	72451	2.00	2.11	
36 Acetone	58	6.062	6.073	-0.011	99	236611	6.00	5.88	
37 Isopropyl alcohol	45	6.143	6.163	-0.021	93	683628	6.00	5.69	
38 Pentane	72	6.169	6.169	0.000	96	36259	2.00	2.11	
39 Ethyl ether	31	6.347	6.358	-0.011	92	267081	2.00	2.23	
40 1,1-Dichloroethene	96	6.702	6.707	-0.005	96	244240	2.00	2.13	
41 Acrylonitrile	53	6.815	6.819	-0.004	94	152427	2.00	2.23	
42 2-Methyl-2-propanol	59	6.799	6.826	-0.027	96	325879	2.00	1.87	
43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.888	-0.003	95	561274	2.00	2.21	
44 Methylene Chloride	84	7.084	7.084	0.000	97	245197	2.00	2.24	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.095	7.101	-0.006	96	229054	2.00	2.25	
46 Carbon disulfide	76	7.267	7.270	-0.003	99	754621	2.00	2.19	
47 trans-1,2-Dichloroethene	96	7.939	7.942	-0.003	95	244371	2.00	2.20	
48 2-Methylpentane	43	7.945	7.948	-0.003	95	622224	2.00	2.20	
49 Methyl tert-butyl ether	73	8.063	8.078	-0.015	97	572017	2.00	2.18	
50 1,1-Dichloroethane	63	8.386	8.387	-0.001	100	474549	2.00	2.17	
51 Vinyl acetate	43	8.477	8.481	-0.004	100	583752	2.00	2.28	
52 2-Butanone (MEK)	72	8.951	8.960	-0.009	97	102873	2.00	2.08	
53 Hexane	56	8.972	8.972	0.000	89	201159	2.00	2.15	
54 Isopropyl ether	45	9.123	9.135	-0.012	97	723330	2.00	2.15	
55 cis-1,2-Dichloroethene	96	9.408	9.410	-0.002	97	241899	2.00	2.11	
56 Ethyl acetate	43	9.575	9.582	-0.007	98	468125	2.00	2.16	
57 Chloroform	83	9.758	9.759	-0.001	96	545728	2.00	2.14	
58 Tert-butyl ethyl ether	59	9.822	9.834	-0.012	97	639284	2.00	2.17	
59 Tetrahydrofuran	42	10.177	10.190	-0.013	95	251356	2.00	2.22	
60 1,1,1-Trichloroethane	97	10.790	10.790	0.000	97	532655	2.00	2.18	
61 1,2-Dichloroethane	62	10.898	10.897	0.001	98	348434	2.00	2.08	
62 n-Butanol	31	11.291	11.312	-0.021	95	87952	2.00	1.82	
63 Cyclohexane	69	11.366	11.362	0.004	70	129446	2.00	2.14	
64 Benzene	78	11.361	11.363	-0.002	96	736362	2.00	2.04	
65 Carbon tetrachloride	117	11.382	11.383	-0.001	96	578892	2.00	2.20	
66 2,3-Dimethylpentane	71	11.452	11.452	0.000	92	174226	2.00	2.03	
67 Thiophene	84	11.624	11.628	-0.004	96	431721	2.00	2.08	
68 Isooctane	57	12.060	12.063	-0.003	98	1204350	2.00	2.05	
69 n-Heptane	71	12.410	12.413	-0.003	93	264229	2.00	2.07	
70 1,2-Dichloropropane	63	12.528	12.528	0.000	91	300361	2.00	2.13	
71 Trichloroethene	130	12.555	12.557	-0.002	95	323675	2.00	1.95	
72 Dibromomethane	93	12.652	12.650	0.002	94	315181	2.00	1.99	
73 Dichlorobromomethane	83	12.781	12.781	0.000	98	560618	2.00	2.10	
74 1,4-Dioxane	88	12.792	12.806	-0.014	88	93286	2.00	2.04	
75 Methyl methacrylate	41	12.840	12.843	-0.003	93	291152	2.00	2.01	
76 Methylcyclohexane	83	13.297	13.298	-0.001	96	464232	2.00	2.09	
77 4-Methyl-2-pentanone (MIBK	43	13.668	13.676	-0.008	98	486146	2.00	1.97	
78 cis-1,3-Dichloropropene	75	13.738	13.739	-0.001	95	440946	2.00	2.12	
79 trans-1,3-Dichloropropene	75	14.411	14.410	0.001	97	372558	2.00	2.03	
80 Toluene	91	14.540	14.539	0.001	93	814753	2.00	2.02	
81 1,1,2-Trichloroethane	83	14.610	14.610	0.000	97	267946	2.00	2.02	
82 2-Hexanone	58	14.965	14.971	-0.006	92	222690	2.00	1.82	
83 n-Octane	85	15.169	15.172	-0.003	95	264630	2.00	1.97	
84 Chlorodibromomethane	129	15.309	15.310	-0.001	97	537151	2.00	2.01	
85 Ethylene Dibromide	107	15.600	15.599	0.001	98	456638	2.00	1.98	
86 Tetrachloroethene	129	15.659	15.659	0.000	94	311423	2.00	1.94	
87 2,3-Dimethylheptane	43	16.498	16.497	0.001	97	898490	2.00	1.97	
88 Chlorobenzene	112	16.520	16.521	-0.001	93	672584	2.00	1.99	
89 Ethylbenzene	91	16.788	16.790	-0.002	99	992065	2.00	2.03	
90 m-Xylene & p-Xylene	91	16.944	16.947	-0.003	99	1543707	4.00	4.08	
91 n-Nonane	57	17.326	17.326	0.000	94	551969	2.00	2.05	
92 Styrene	104	17.407	17.409	-0.002	99	568771	2.00	2.01	
93 Bromoform	173	17.418	17.418	0.000	95	518246	2.00	2.03	
94 o-Xylene	91	17.472	17.472	0.000	99	822833	2.00	2.06	
95 1,1,2,2-Tetrachloroethane	83	17.784	17.785	-0.001	99	622809	2.00	2.01	
96 1,2,3-Trichloropropane	110	17.940	17.940	0.000	99	152394	2.00	1.98	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.031	18.030	0.001	95	1093152	2.00	2.04	
98 N-Propylbenzene	120	18.531	18.534	-0.003	99	293833	2.00	2.00	
99 2-Chlorotoluene	126	18.591	18.590	0.001	98	286094	2.00	2.01	
100 4-Ethyltoluene	105	18.671	18.674	-0.003	98	1081011	2.00	2.01	
101 1,3,5-Trimethylbenzene	120	18.741	18.743	-0.002	92	441614	2.00	2.05	
102 Alpha Methyl Styrene	118	18.962	18.963	-0.001	87	448196	2.00	2.07	
103 n-Decane	57	18.989	18.989	0.000	91	682312	2.00	2.05	
104 tert-Butylbenzene	119	19.150	19.149	0.001	91	955193	2.00	2.01	
105 1,2,4-Trimethylbenzene	105	19.161	19.161	0.000	96	933856	2.00	2.02	
106 sec-Butylbenzene	105	19.403	19.405	-0.002	98	1345778	2.00	2.03	
107 1,3-Dichlorobenzene	146	19.435	19.435	0.000	98	617204	2.00	1.92	
108 Benzyl chloride	91	19.500	19.502	-0.002	98	752793	2.00	2.00	
109 1,4-Dichlorobenzene	146	19.516	19.517	-0.001	94	612782	2.00	1.92	
110 4-Isopropyltoluene	119	19.554	19.556	-0.002	97	1087969	2.00	2.01	
111 1,2,3-Trimethylbenzene	105	19.618	19.618	0.000	98	925762	2.00	2.16	
112 Butylcyclohexane	83	19.656	19.657	-0.001	94	841565	2.00	2.01	
113 2,3-Dihydroindene	117	19.860	19.861	-0.001	95	873578	2.00	2.03	
114 1,2-Dichlorobenzene	146	19.866	19.867	-0.001	96	597048	2.00	1.94	
115 n-Butylbenzene	91	19.973	19.975	-0.002	98	1099054	2.00	1.98	
116 Indene	116	19.989	19.989	0.000	98	725868	2.00	2.01	
117 Undecane	57	20.247	20.249	-0.002	95	700217	2.00	1.98	
118 1,2-Dibromo-3-Chloropropan	157	20.452	20.453	-0.001	96	286866	2.00	2.13	
119 1,2,4,5-Tetramethylbenzene	119	20.726	20.728	-0.002	97	953442	2.00	1.97	
120 Dodecane	57	21.334	21.336	-0.002	94	590854	2.00	1.98	
121 1,2,4-Trichlorobenzene	180	21.576	21.579	-0.003	94	390074	2.00	1.81	
122 Naphthalene	128	21.705	21.705	0.000	99	757886	2.00	1.77	
123 Hexachlorobutadiene	225	21.851	21.852	-0.001	95	440574	2.00	1.91	
124 1,2,3-Trichlorobenzene	180	21.910	21.911	-0.001	94	291464	2.00	1.82	
125 2-Methylnaphthalene	142	22.432	22.433	-0.001	99	150633	2.00	1.92	
126 1-Methylnaphthalene	142	22.555	22.557	-0.002	99	167533	2.00	1.96	
A 128 C8 Range	1	15.185	(15.131-15.238)		0	2605327	2.00	1.96	
S 129 Xylenes, Total	100				0		6.00	6.15	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.31	

Reagents:

40L7DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

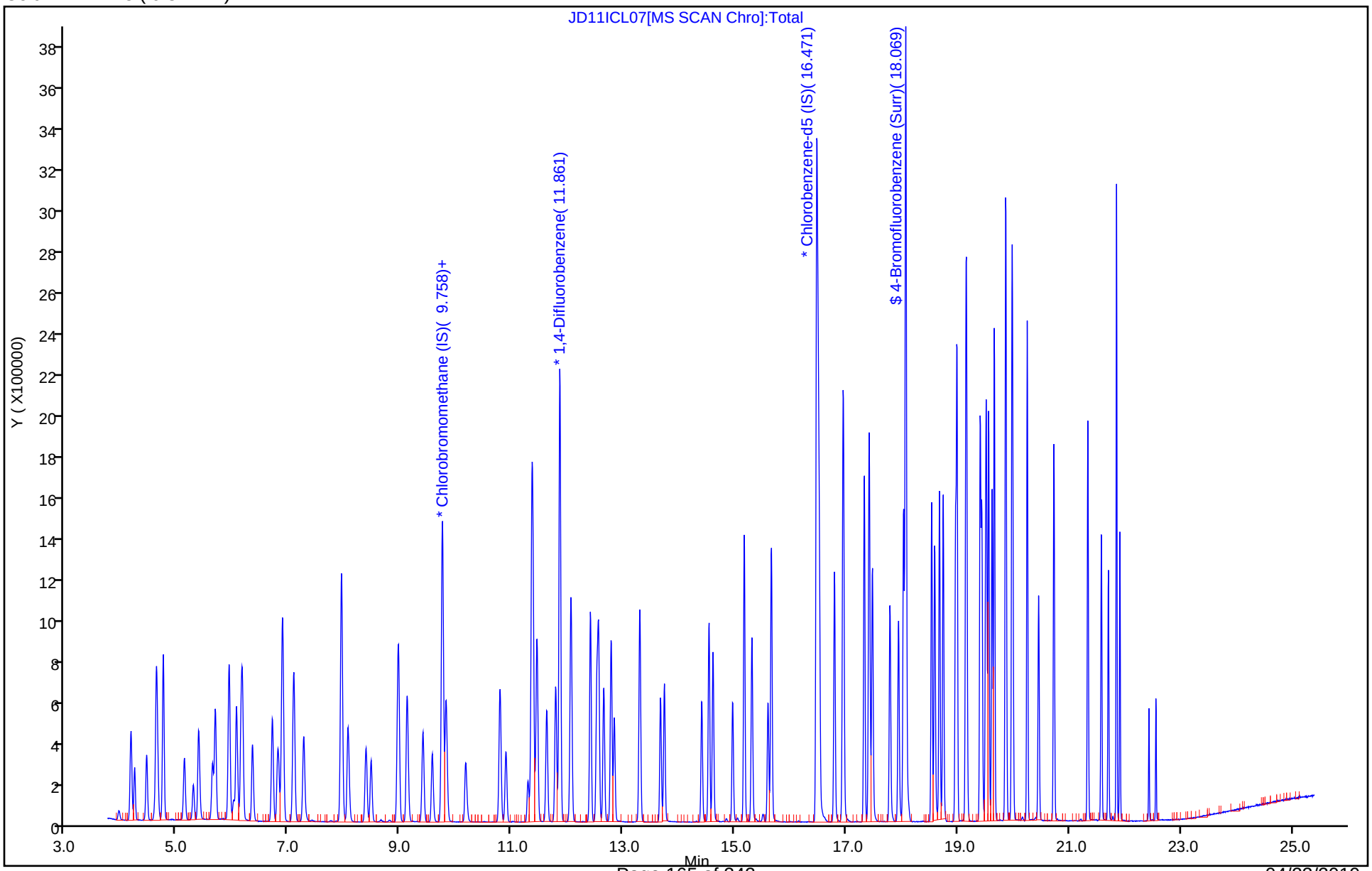
Report Date: 18-Apr-2019 15:37:05 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL07.D

Injection Date:	12-Apr-2019 03:01:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

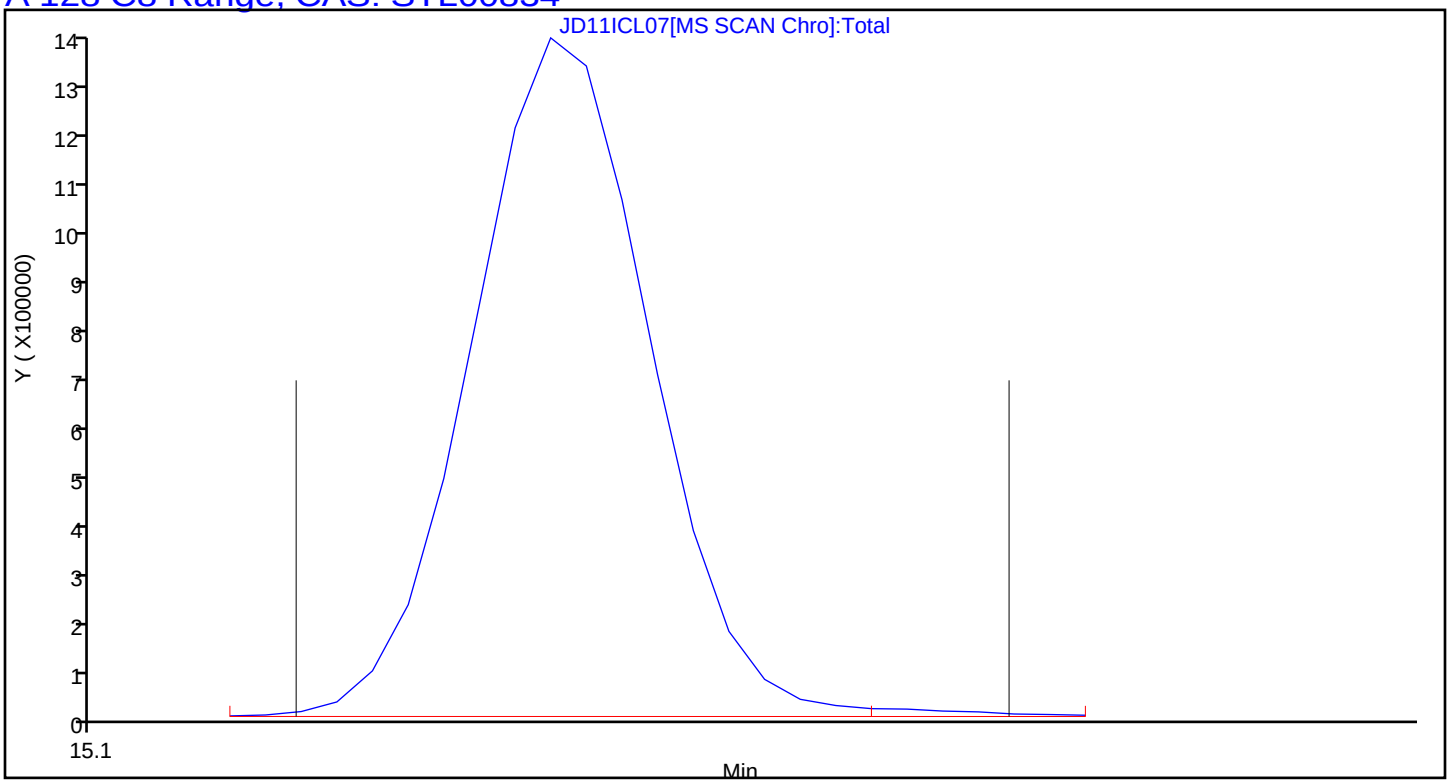


Report Date: 18-Apr-2019 15:37:05 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL07.D				
Injection Date:	12-Apr-2019 03:01:30	Instrument ID:	MJ		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 12-Apr-2019 03:46:30 ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-015
Misc. Info.: 210538
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:41:11 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: tajh Date: 16-Apr-2019 16:23:13

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.753	9.755	-0.002	97	368569	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.867	11.864	0.003	95	2233216	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	16.472	16.472	0.000	89	2008328	4.00	4.00	
$	8 4-Bromofluorobenzene (Surr	95	18.069	18.070	-0.001	90	1490325	4.00	4.03	
	19 Chlorodifluoromethane	51	4.153	4.161	-0.008	97	647253	4.00	4.16	
	20 Propene	41	4.158	4.175	-0.017	99	381863	4.00	4.07	
	21 Dichlorodifluoromethane	85	4.228	4.235	-0.007	100	529973	4.00	3.97	
	22 Chloromethane	52	4.443	4.450	-0.007	100	162829	4.00	3.62	
	23 1,2-Dichloro-1,1,2,2-tetra	135	4.448	4.453	-0.005	92	108541	4.00	3.96	
	24 Acetaldehyde	44	4.621	4.626	-0.005	97	855921	20.0	19.5	
	25 Vinyl chloride	62	4.642	4.649	-0.007	99	559857	4.00	3.76	
	26 Butane	43	4.744	4.749	-0.005	86	786180	4.00	3.76	
	27 Butadiene	54	4.744	4.749	-0.005	67	397951	4.00	3.88	
	28 Bromomethane	94	5.121	5.127	-0.006	99	511582	4.00	3.78	
	29 Chloroethane	64	5.288	5.290	-0.002	98	235771	4.00	3.83	
	30 Ethanol	31	5.384	5.394	-0.010	98	919948	20.0	18.2	
	31 Vinyl bromide	106	5.632	5.633	-0.001	98	482923	4.00	3.88	
	32 2-Methylbutane	43	5.680	5.681	-0.001	91	505120	4.00	3.71	
	33 Trichlorofluoromethane	101	5.928	5.928	0.000	100	1519461	4.00	4.08	
	34 Acrolein	56	5.933	5.945	-0.012	96	77017	4.00	3.01	
	35 Acetonitrile	40	6.014	6.017	-0.003	98	126856	4.00	3.37	
	36 Acetone	58	6.062	6.073	-0.011	99	391528	12.0	8.89	
	37 Isopropyl alcohol	45	6.148	6.163	-0.015	98	1371626	12.0	10.4	
	38 Pentane	72	6.170	6.169	0.001	96	70017	4.00	3.72	
	39 Ethyl ether	31	6.347	6.358	-0.011	92	487718	4.00	3.72	
	40 1,1-Dichloroethene	96	6.708	6.707	0.001	95	492301	4.00	3.93	
	41 Acrylonitrile	53	6.815	6.819	-0.004	93	268947	4.00	3.59	
	42 2-Methyl-2-propanol	59	6.799	6.826	-0.027	96	746003	4.00	3.92	
	43 1,1,2-Trichloro-1,2,2-trif	101	6.885	6.888	-0.003	95	1088646	4.00	3.91	
	44 Methylene Chloride	84	7.079	7.084	-0.005	97	461236	4.00	3.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.095	7.101	-0.006	96	452202	4.00	4.05	
46 Carbon disulfide	76	7.267	7.270	-0.003	99	1520024	4.00	4.02	
47 trans-1,2-Dichloroethene	96	7.940	7.942	-0.002	95	480900	4.00	3.96	
48 2-Methylpentane	43	7.945	7.948	-0.003	95	1198896	4.00	3.87	
49 Methyl tert-butyl ether	73	8.063	8.078	-0.015	97	1049870	4.00	3.65	
50 1,1-Dichloroethane	63	8.386	8.387	-0.001	100	909112	4.00	3.79	
51 Vinyl acetate	43	8.478	8.481	-0.003	100	1033012	4.00	3.68	
52 2-Butanone (MEK)	72	8.951	8.960	-0.009	97	187019	4.00	3.46	
53 Hexane	56	8.973	8.972	0.001	90	392046	4.00	3.82	
54 Isopropyl ether	45	9.123	9.135	-0.012	97	1344913	4.00	3.65	
55 cis-1,2-Dichloroethene	96	9.408	9.410	-0.002	97	475710	4.00	3.79	
56 Ethyl acetate	43	9.575	9.582	-0.007	99	859517	4.00	3.62	
57 Chloroform	83	9.763	9.759	0.004	95	1052077	4.00	3.77	
58 Tert-butyl ethyl ether	59	9.822	9.834	-0.012	97	1204650	4.00	3.73	
59 Tetrahydrofuran	42	10.172	10.190	-0.018	94	444198	4.00	3.58	
60 1,1,1-Trichloroethane	97	10.791	10.790	0.001	97	1032981	4.00	3.87	
61 1,2-Dichloroethane	62	10.898	10.897	0.001	98	678471	4.00	3.77	
62 n-Butanol	31	11.286	11.312	-0.026	90	206559	4.00	3.96	
63 Cyclohexane	69	11.361	11.362	-0.001	94	251846	4.00	3.87	
64 Benzene	78	11.366	11.363	0.003	96	1420455	4.00	3.65	
65 Carbon tetrachloride	117	11.383	11.383	0.000	97	1143801	4.00	4.03	
66 2,3-Dimethylpentane	71	11.458	11.452	0.006	92	348830	4.00	3.79	
67 Thiophene	84	11.630	11.628	0.002	96	838302	4.00	3.75	
68 Isooctane	57	12.066	12.063	0.003	98	2361124	4.00	3.74	
69 n-Heptane	71	12.415	12.413	0.002	93	519836	4.00	3.79	
70 1,2-Dichloropropane	63	12.528	12.528	0.000	91	582446	4.00	3.84	
71 Trichloroethene	130	12.561	12.557	0.004	95	628156	4.00	3.52	
72 Dibromomethane	93	12.652	12.650	0.002	94	619135	4.00	3.64	
73 Dichlorobromomethane	83	12.781	12.781	0.000	99	1116351	4.00	3.88	
74 1,4-Dioxane	88	12.787	12.806	-0.019	83	181803	4.00	3.69	
75 Methyl methacrylate	41	12.840	12.843	-0.003	92	541752	4.00	3.48	
76 Methylcyclohexane	83	13.298	13.298	0.000	96	905454	4.00	3.79	
77 4-Methyl-2-pentanone (MIBK	43	13.669	13.676	-0.007	98	976861	4.00	3.68	
78 cis-1,3-Dichloropropene	75	13.739	13.739	0.000	95	873386	4.00	3.90	
79 trans-1,3-Dichloropropene	75	14.411	14.410	0.001	98	757660	4.00	4.01	
80 Toluene	91	14.540	14.539	0.001	93	1599761	4.00	3.85	
81 1,1,2-Trichloroethane	83	14.610	14.610	0.000	97	526182	4.00	3.86	
82 2-Hexanone	58	14.960	14.971	-0.011	92	490133	4.00	3.90	
83 n-Octane	85	15.170	15.172	-0.002	95	530211	4.00	3.84	
84 Chlorodibromomethane	129	15.310	15.310	0.000	97	1081695	4.00	3.94	
85 Ethylene Dibromide	107	15.600	15.599	0.001	98	943864	4.00	3.98	
86 Tetrachloroethene	129	15.659	15.659	0.000	96	612492	4.00	3.70	
87 2,3-Dimethylheptane	43	16.498	16.497	0.001	96	1750145	4.00	3.73	
88 Chlorobenzene	112	16.520	16.521	-0.001	93	1327855	4.00	3.81	
89 Ethylbenzene	91	16.789	16.790	-0.001	99	1888074	4.00	3.75	
90 m-Xylene & p-Xylene	91	16.945	16.947	-0.002	99	2907038	8.00	7.47	
91 n-Nonane	57	17.327	17.326	0.001	93	1090720	4.00	3.94	
92 Styrene	104	17.413	17.409	0.004	99	1112709	4.00	3.82	
93 Bromoform	173	17.418	17.418	0.000	95	1083806	4.00	4.12	
94 o-Xylene	91	17.472	17.472	0.000	99	1530830	4.00	3.73	
95 1,1,2,2-Tetrachloroethane	83	17.784	17.785	-0.001	99	1162463	4.00	3.65	
96 1,2,3-Trichloropropane	110	17.940	17.940	0.000	99	285527	4.00	3.60	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.032	18.030	0.002	96	1996401	4.00	3.63	
98 N-Propylbenzene	120	18.537	18.534	0.003	99	556550	4.00	3.68	
99 2-Chlorotoluene	126	18.591	18.590	0.001	98	551627	4.00	3.76	
100 4-Ethyltoluene	105	18.672	18.674	-0.002	98	2016935	4.00	3.64	
101 1,3,5-Trimethylbenzene	120	18.742	18.743	-0.001	92	823205	4.00	3.72	
102 Alpha Methyl Styrene	118	18.962	18.963	-0.001	87	869399	4.00	3.89	
103 n-Decane	57	18.989	18.989	0.000	91	1282133	4.00	3.74	
104 tert-Butylbenzene	119	19.150	19.149	0.001	91	1784967	4.00	3.65	
105 1,2,4-Trimethylbenzene	105	19.161	19.161	0.000	96	1750104	4.00	3.68	
106 sec-Butylbenzene	105	19.403	19.405	-0.002	98	2521225	4.00	3.70	
107 1,3-Dichlorobenzene	146	19.436	19.435	0.001	98	1201342	4.00	3.64	
108 Benzyl chloride	91	19.500	19.502	-0.002	98	1495992	4.00	3.85	
109 1,4-Dichlorobenzene	146	19.516	19.517	-0.001	96	1187981	4.00	3.61	
110 4-Isopropyltoluene	119	19.554	19.556	-0.002	97	2066638	4.00	3.71	
111 1,2,3-Trimethylbenzene	105	19.619	19.618	0.000	98	1743522	4.00	3.95	
112 Butylcyclohexane	83	19.656	19.657	-0.001	95	1628680	4.00	3.79	
113 2,3-Dihydroindene	117	19.861	19.861	0.000	94	1639188	4.00	3.70	
114 1,2-Dichlorobenzene	146	19.866	19.867	-0.001	94	1153955	4.00	3.65	
115 n-Butylbenzene	91	19.974	19.975	-0.001	98	2103473	4.00	3.69	
116 Indene	116	19.990	19.989	0.001	90	1396969	4.00	3.77	
117 Undecane	57	20.248	20.249	-0.001	95	1355423	4.00	3.73	
118 1,2-Dibromo-3-Chloropropan	157	20.452	20.453	-0.001	96	576522	4.00	4.15	
119 1,2,4,5-Tetramethylbenzene	119	20.727	20.728	-0.001	97	1853893	4.00	3.73	
120 Dodecane	57	21.335	21.336	-0.001	94	1226151	4.00	3.99	
121 1,2,4-Trichlorobenzene	180	21.582	21.579	0.003	94	779749	4.00	3.52	
122 Naphthalene	128	21.706	21.705	0.001	99	1472875	4.00	3.34	
123 Hexachlorobutadiene	225	21.851	21.852	-0.001	95	838919	4.00	3.52	
124 1,2,3-Trichlorobenzene	180	21.910	21.911	-0.001	94	567469	4.00	3.43	
125 2-Methylnaphthalene	142	22.432	22.433	-0.001	99	370130	4.00	4.58	
126 1-Methylnaphthalene	142	22.556	22.557	-0.001	98	403191	4.00	4.58	
A 128 C8 Range	1	15.185	(15.131-15.239)		0	5118720	4.00	3.75	
S 129 Xylenes, Total	100				0		12.0	11.2	
S 130 1,2-Dichloroethene, Total	1				0		8.00	7.75	

Reagents:

40L8DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

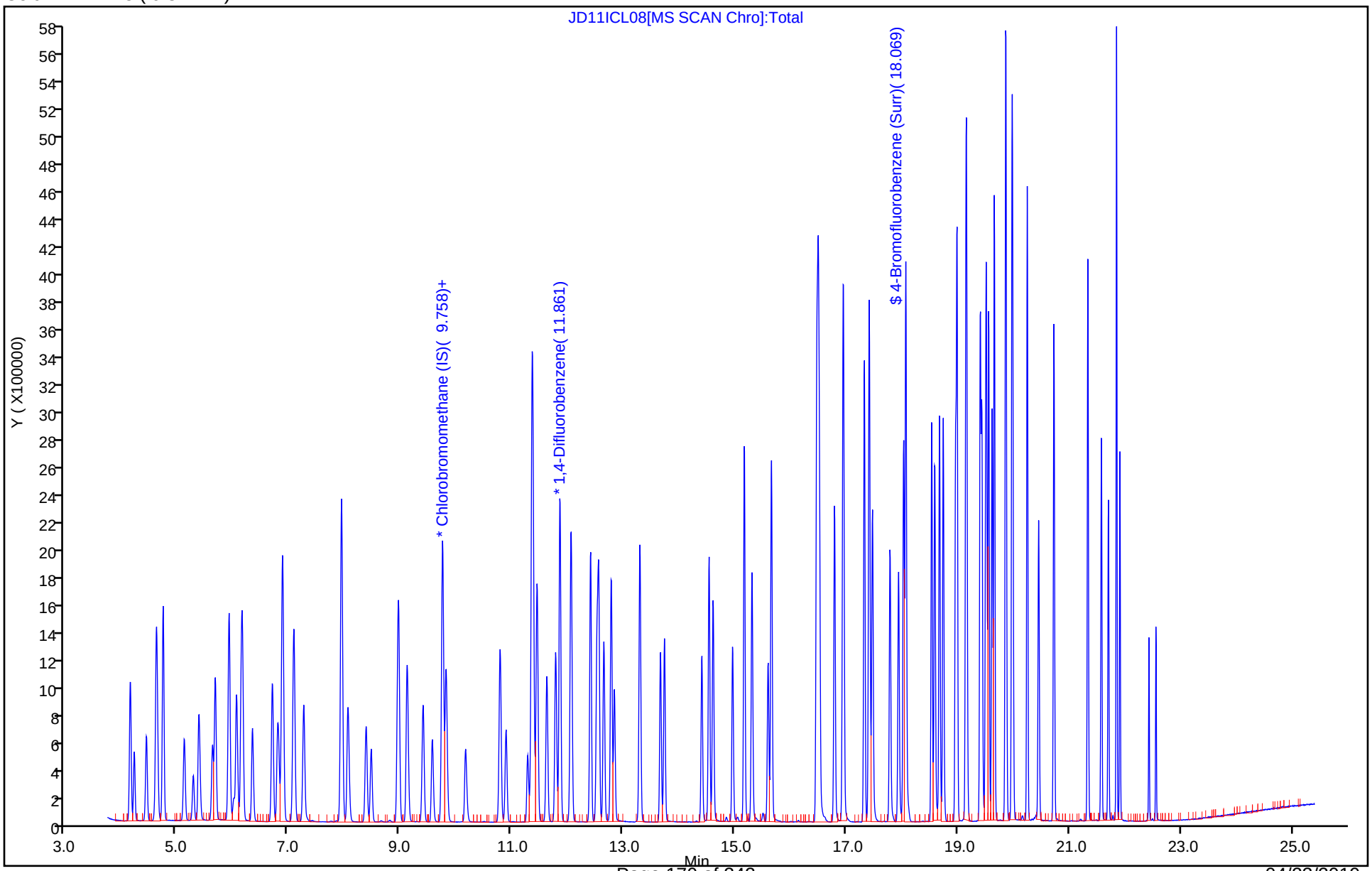
Report Date: 18-Apr-2019 15:41:12 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL08.D

Injection Date:	12-Apr-2019 03:46:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

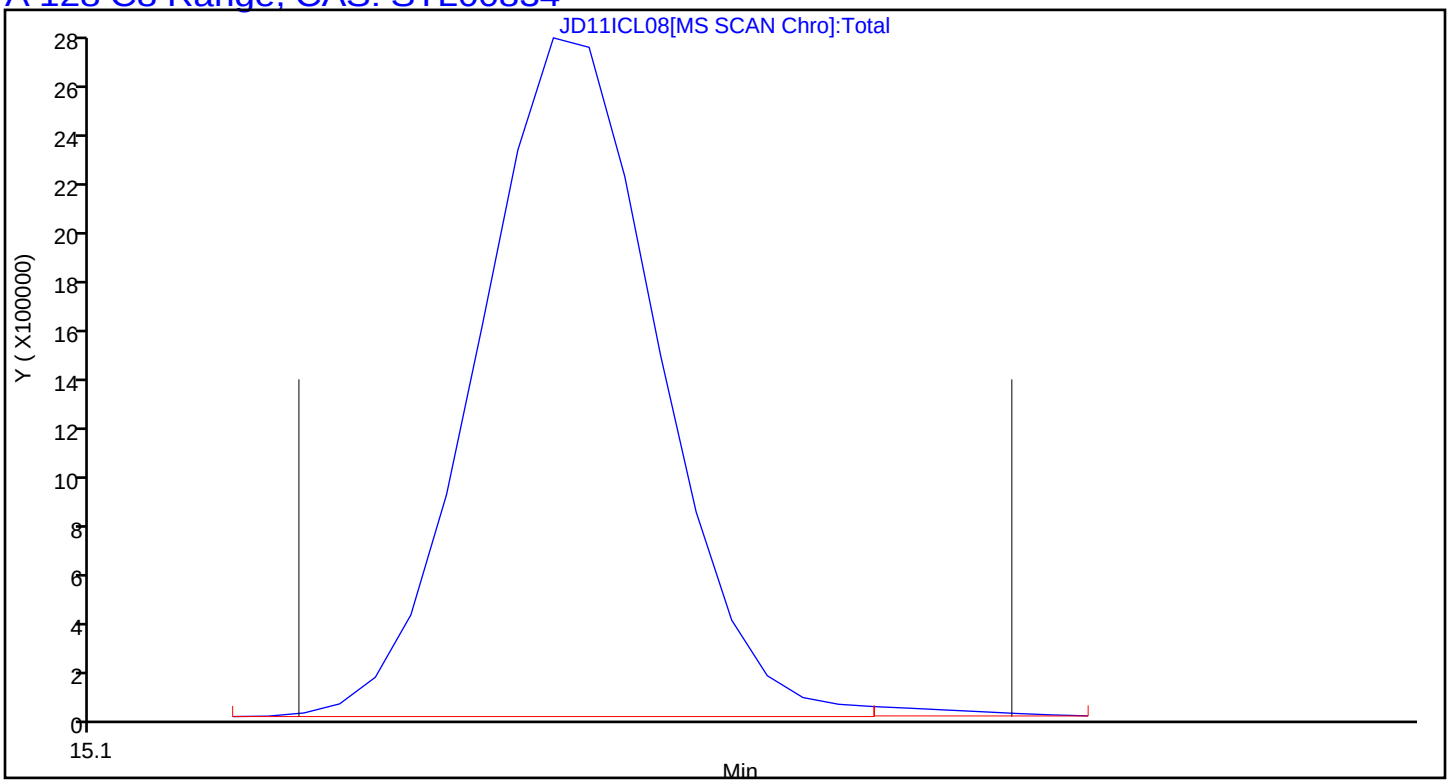


Report Date: 18-Apr-2019 15:41:12 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL08.D				
Injection Date:	12-Apr-2019 03:46:30	Instrument ID:	MJ		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	8	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D
Lims ID: IC l4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2019 10:25:30 ALS Bottle#: 5 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-012
Misc. Info.: 210541
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:37:14 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 12-Apr-2019 11:19:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.749	9.755	-0.006	95	335685	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.857	11.864	-0.007	95	1990610	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.473	16.472	0.001	89	1718232	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.071	18.070	0.001	88	1236442	4.00	3.91	
19 Chlorodifluoromethane	51	4.159	4.161	-0.002	96	26253	0.2000	0.1851	
20 Propene	41	4.170	4.175	-0.005	86	18356	0.2000	0.2148	
21 Dichlorodifluoromethane	85	4.235	4.235	0.000	100	21958	0.2000	0.1805	
22 Chloromethane	52	4.444	4.450	-0.006	100	10110	0.2000	0.2468	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.450	4.453	-0.003	50	4523	0.2000	0.1812	
24 Acetaldehyde	44	4.627	4.626	0.001	98	75898	1.00	0.2383	
25 Vinyl chloride	62	4.643	4.649	-0.006	98	26945	0.2000	0.1985	
26 Butane	43	4.746	4.749	-0.003	86	39855	0.2000	0.2093	
27 Butadiene	54	4.746	4.749	-0.003	64	20237	0.2000	0.2166	
28 Bromomethane	94	5.128	5.127	0.001	98	26123	0.2000	0.2117	
29 Chloroethane	64	5.294	5.290	0.004	92	12365	0.2000	0.2203	
30 Ethanol	31	5.397	5.394	0.003	98	52906	1.00	0.8477	
31 Vinyl bromide	106	5.633	5.633	0.000	98	23308	0.2000	0.2057	
32 2-Methylbutane	43	5.682	5.681	0.001	91	25502	0.2000	0.2056	
33 Trichlorofluoromethane	101	5.924	5.928	-0.004	100	69607	0.2000	0.2052	
34 Acrolein	56	5.951	5.945	0.006	93	6649	0.2000	0.2854	
35 Acetonitrile	40	6.010	6.017	-0.007	92	8304	0.2000	0.2424	
36 Acetone	58	6.080	6.073	0.007	99	37148	0.6000	0.9256	
37 Isopropyl alcohol	45	6.171	6.163	0.008	80	84080	0.6000	0.7013	
38 Pentane	72	6.166	6.169	-0.003	85	3552	0.2000	0.2074	
39 Ethyl ether	31	6.360	6.358	0.002	91	22895	0.2000	0.1916	
40 1,1-Dichloroethene	96	6.709	6.707	0.002	95	21954	0.2000	0.1924	
41 Acrylonitrile	53	6.817	6.819	-0.002	95	12459	0.2000	0.1828	
42 2-Methyl-2-propanol	59	6.849	6.826	0.023	96	35483	0.2000	0.2047	
43 1,1,2-Trichloro-1,2,2-trif	101	6.887	6.888	-0.001	94	49325	0.2000	0.1947	
44 Methylene Chloride	84	7.080	7.084	-0.004	98	41928	0.2000	0.3223	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.096	7.101	-0.005	95	20255	0.2000	0.1992	
46 Carbon disulfide	76	7.269	7.270	-0.001	100	66896	0.2000	0.1943	
47 trans-1,2-Dichloroethene	96	7.936	7.942	-0.006	83	21957	0.2000	0.1984	
48 2-Methylpentane	43	7.946	7.948	-0.002	93	54391	0.2000	0.1926	
49 Methyl tert-butyl ether	73	8.092	8.078	0.014	97	45733	0.2000	0.1747	
50 1,1-Dichloroethane	63	8.382	8.387	-0.005	99	43392	0.2000	0.1988	
51 Vinyl acetate	43	8.474	8.481	-0.007	100	45153	0.2000	0.1768	
52 2-Butanone (MEK)	72	8.963	8.960	0.003	85	9787	0.2000	0.1989	
53 Hexane	56	8.969	8.972	-0.003	71	18956	0.2000	0.2027	
54 Isopropyl ether	45	9.135	9.135	0.000	97	61466	0.2000	0.1830	
55 cis-1,2-Dichloroethene	96	9.399	9.410	-0.011	96	21223	0.2000	0.1856	
56 Ethyl acetate	43	9.582	9.582	0.000	99	38667	0.2000	0.1788	
57 Chloroform	83	9.749	9.759	-0.010	32	49893	0.2000	0.1961	
58 Tert-butyl ethyl ether	59	9.835	9.834	0.001	96	51621	0.2000	0.1757	
59 Tetrahydrofuran	42	10.195	10.190	0.005	93	19815	0.2000	0.1755	
60 1,1,1-Trichloroethane	97	10.787	10.790	-0.003	97	47467	0.2000	0.1950	
61 1,2-Dichloroethane	62	10.894	10.897	-0.003	97	31384	0.2000	0.1955	
62 n-Butanol	31	11.330	11.312	0.018	93	8880	0.2000	0.1912	
63 Cyclohexane	69	11.357	11.362	-0.005	70	10441	0.2000	0.1799	
64 Benzene	78	11.357	11.363	-0.006	97	67343	0.2000	0.1943	
65 Carbon tetrachloride	117	11.379	11.383	-0.004	98	38786	0.2000	0.1535	
66 2,3-Dimethylpentane	71	11.448	11.452	-0.004	93	15801	0.2000	0.1925	
67 Thiophene	84	11.626	11.628	-0.002	96	38120	0.2000	0.1914	
68 Isooctane	57	12.062	12.063	-0.001	98	111306	0.2000	0.1976	
69 n-Heptane	71	12.411	12.413	-0.002	94	23377	0.2000	0.1911	
70 1,2-Dichloropropane	63	12.530	12.528	0.002	91	26654	0.2000	0.1969	
71 Trichloroethene	130	12.551	12.557	-0.006	94	28935	0.2000	0.1819	
72 Dibromomethane	93	12.643	12.650	-0.007	94	29233	0.2000	0.1927	
73 Dichlorobromomethane	83	12.777	12.781	-0.004	98	46999	0.2000	0.1833	
74 1,4-Dioxane	88	12.809	12.806	0.003	95	7658	0.2000	0.1743	
75 Methyl methacrylate	41	12.842	12.843	-0.001	91	23491	0.2000	0.1692	
76 Methylcyclohexane	83	13.294	13.298	-0.004	96	40795	0.2000	0.1914	
77 4-Methyl-2-pentanone (MIBK	43	13.681	13.676	0.005	98	42455	0.2000	0.1795	
78 cis-1,3-Dichloropropene	75	13.740	13.739	0.001	94	35607	0.2000	0.1784	
79 trans-1,3-Dichloropropene	75	14.407	14.410	-0.003	98	28474	0.2000	0.1764	
80 Toluene	91	14.536	14.539	-0.003	92	65991	0.2000	0.1856	
81 1,1,2-Trichloroethane	83	14.606	14.610	-0.004	97	22160	0.2000	0.1898	
82 2-Hexanone	58	14.977	14.971	0.006	91	19184	0.2000	0.1783	
83 n-Octane	85	15.171	15.172	-0.001	96	22786	0.2000	0.1930	
84 Chlorodibromomethane	129	15.306	15.310	-0.004	97	41792	0.2000	0.1777	
85 Ethylene Dibromide	107	15.596	15.599	-0.003	96	38778	0.2000	0.1911	
86 Tetrachloroethene	129	15.661	15.659	0.002	92	28316	0.2000	0.2000	
87 2,3-Dimethylheptane	43	16.494	16.497	-0.003	96	86128	0.2000	0.2146	
88 Chlorobenzene	112	16.516	16.521	-0.005	94	57913	0.2000	0.1943	
89 Ethylbenzene	91	16.790	16.790	0.000	99	76531	0.2000	0.1777	
90 m-Xylene & p-Xylene	91	16.946	16.947	-0.001	99	117064	0.4000	0.3517	
91 n-Nonane	57	17.323	17.326	-0.003	94	45842	0.2000	0.1936	
92 Styrene	104	17.409	17.409	0.000	98	40276	0.2000	0.1618	
93 Bromoform	173	17.414	17.418	-0.004	82	35838	0.2000	0.1591	
94 o-Xylene	91	17.473	17.472	0.001	99	62139	0.2000	0.1771	
95 1,1,2,2-Tetrachloroethane	83	17.785	17.785	0.000	98	49186	0.2000	0.1803	
96 1,2,3-Trichloropropane	110	17.942	17.940	0.002	98	11547	0.2000	0.1701	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.028	18.030	-0.002	92	80093	0.2000	0.1700	
98 N-Propylbenzene	120	18.533	18.534	-0.001	98	20473	0.2000	0.1581	
99 2-Chlorotoluene	126	18.587	18.590	-0.003	98	21819	0.2000	0.1739	
100 4-Ethyltoluene	105	18.673	18.674	-0.001	98	79372	0.2000	0.1673	
101 1,3,5-Trimethylbenzene	120	18.743	18.743	0.000	90	30550	0.2000	0.1612	
102 Alpha Methyl Styrene	118	18.964	18.963	0.001	88	27558	0.2000	0.1442	
103 n-Decane	57	18.990	18.989	0.001	90	55339	0.2000	0.1886	
104 tert-Butylbenzene	119	19.147	19.149	-0.003	90	68758	0.2000	0.1644	
105 1,2,4-Trimethylbenzene	105	19.163	19.161	0.002	95	67029	0.2000	0.1647	
106 sec-Butylbenzene	105	19.405	19.405	0.000	99	97737	0.2000	0.1675	
107 1,3-Dichlorobenzene	146	19.432	19.435	-0.003	98	50618	0.2000	0.1792	
108 Benzyl chloride	91	19.502	19.502	0.000	97	51832	0.2000	0.1561	
109 1,4-Dichlorobenzene	146	19.518	19.517	0.001	92	51048	0.2000	0.1815	
110 4-Isopropyltoluene	119	19.555	19.556	-0.001	97	78101	0.2000	0.1637	
111 1,2,3-Trimethylbenzene	105	19.615	19.618	-0.004	98	66468	0.2000	0.1761	
112 Butylcyclohexane	83	19.658	19.657	0.001	94	69243	0.2000	0.1882	
113 2,3-Dihydroindene	117	19.862	19.861	0.001	94	63145	0.2000	0.1668	
114 1,2-Dichlorobenzene	146	19.867	19.867	0.000	94	48535	0.2000	0.1794	
115 n-Butylbenzene	91	19.975	19.975	0.000	98	84189	0.2000	0.1726	
116 Indene	116	19.986	19.989	-0.003	90	50944	0.2000	0.1606	
117 Undecane	57	20.249	20.249	0.000	95	57513	0.2000	0.1851	
118 1,2-Dibromo-3-Chloropropan	157	20.454	20.453	0.001	91	20094	0.2000	0.1692	
119 1,2,4,5-Tetramethylbenzene	119	20.728	20.728	0.000	97	69007	0.2000	0.1622	
120 Dodecane	57	21.336	21.336	0.000	94	54217	0.2000	0.2060	
121 1,2,4-Trichlorobenzene	180	21.578	21.579	-0.001	94	37753	0.2000	0.1993	
122 Naphthalene	128	21.707	21.705	0.002	98	71538	0.2000	0.1897	
123 Hexachlorobutadiene	225	21.852	21.852	0.000	94	39373	0.2000	0.1934	
124 1,2,3-Trichlorobenzene	180	21.912	21.911	0.001	95	30435	0.2000	0.2153	
125 2-Methylnaphthalene	142	22.433	22.433	0.000	98	17977	0.2000	0.2601	
126 1-Methylnaphthalene	142	22.557	22.557	0.000	99	22892	0.2000	0.3041	
A 128 C8 Range	1	15.168	(15.143-15.219)		0	227869	0.2000	0.1949	
S 129 Xylenes, Total	100				0		0.6000	0.5288	
S 130 1,2-Dichloroethene, Total	1				0		0.4000	0.3840	

Reagents:

40L5DQP_00009	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

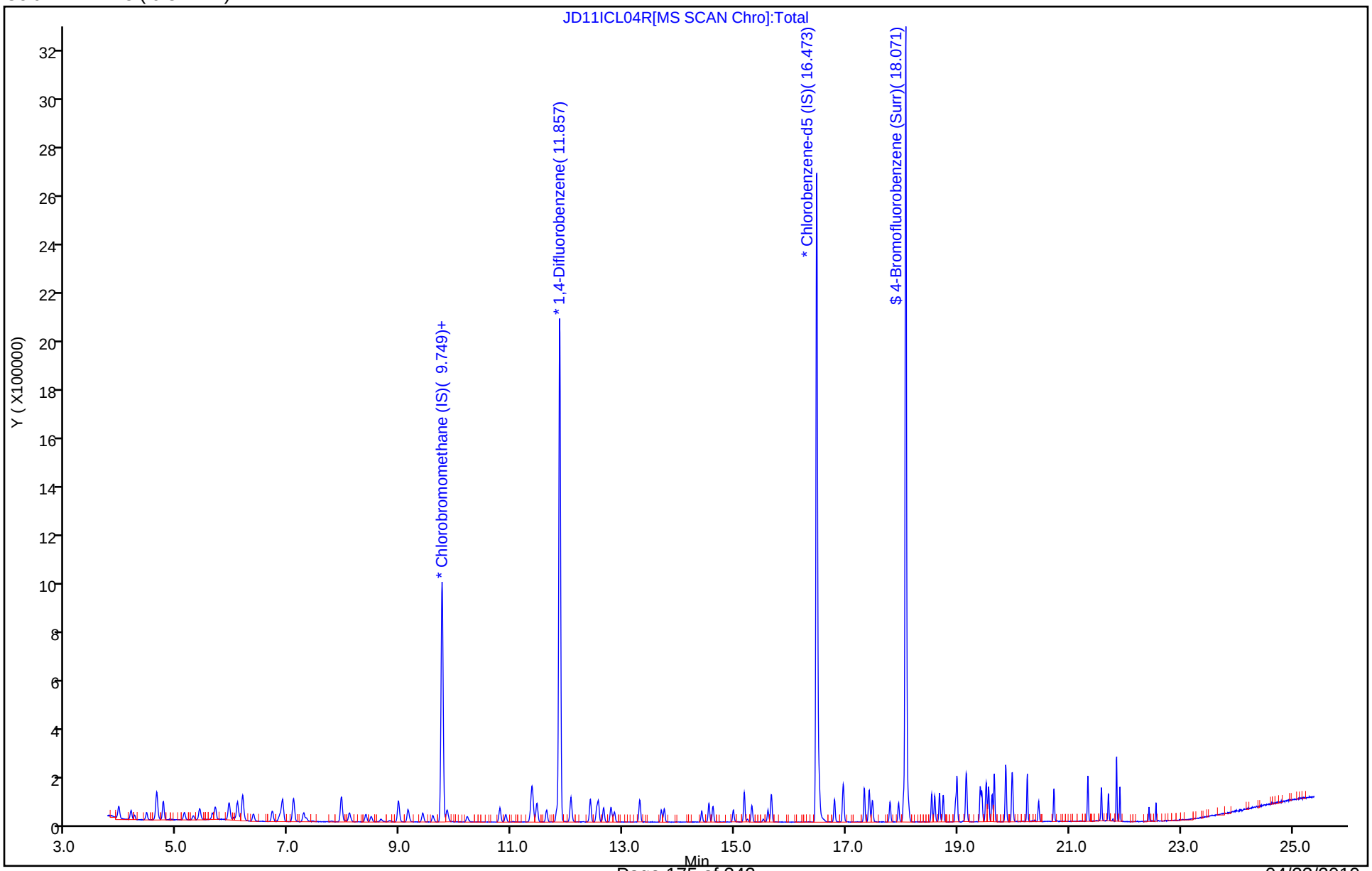
Report Date: 18-Apr-2019 15:37:16 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Injection Date:	12-Apr-2019 10:25:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	IC I4			Worklist Smp#:	22
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

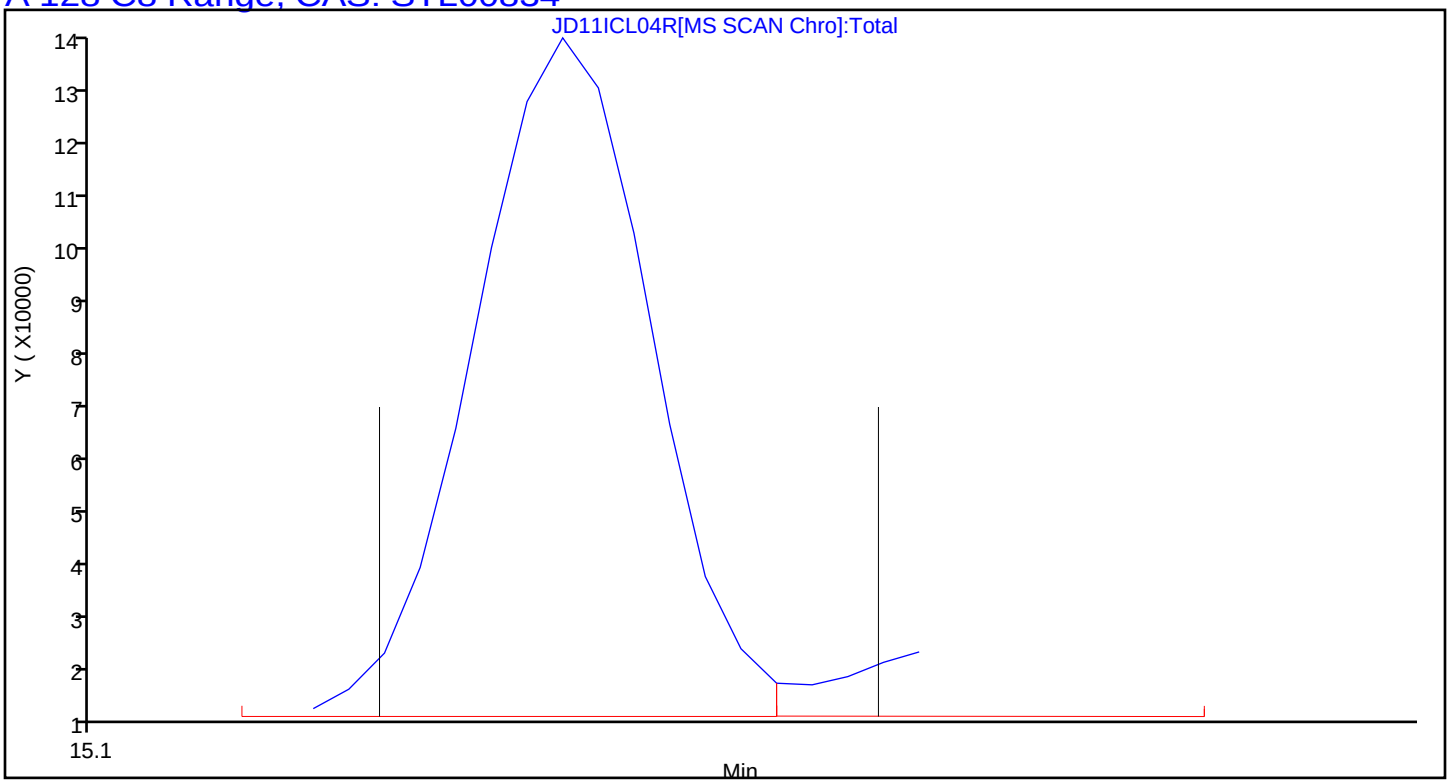


Report Date: 18-Apr-2019 15:37:16 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Injection Date:	12-Apr-2019 10:25:30	Instrument ID:	MJ		
Lims ID:	IC I4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 128 C8 Range, CAS: STL00834



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-25490/8	RK16IC01.D
Level 2	IC 140-25490/9	RK16IC02.D
Level 3	IC 140-25490/10	RK16IC03.D
Level 4	IC 140-25490/11	RK16IC04.D
Level 5	IC 140-25490/12	RK16IC05.D
Level 6	IC 140-25490/13	RK16IC06.D
Level 7	ICIS 140-25490/14	RK16IC07.D
Level 8	IC 140-25490/15	RK16IC08.D
Level 9	IC 140-25490/3	RK16IC09.D
Level 10	IC 140-25490/5	RK16IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.3273	+++++ 2.2136	2.6032 2.2367	2.5523 2.4103	2.4630 2.1808	Ave		2.3734				6.7		30.0			
Propene	+++++ 0.7221	+++++ 0.6895	+++++ 0.6844	0.8419 0.7524	0.7507 0.6660	Ave		0.7296				8.2		30.0			
Dichlorodifluoromethane	+++++ 4.1510	+++++ 3.9686	4.5412 4.0428	4.2461 4.8211	5.3003 3.7479	Ave		4.3524				11.7		30.0			
Chloromethane	+++++ 0.2871	+++++ 0.2733	0.4314 0.2689	0.2960 0.2912	0.3371 0.2638	Ave		0.3061				18.1		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 3.0989	3.8991 3.0537	3.2433 3.1101	3.1843 3.3433	3.5538 2.6767	Ave		3.2404				10.6		30.0			
Vinyl chloride	1.3396 0.9887	1.3354 0.9559	1.1215 0.9544	1.1058 0.9748	1.0442 0.9105	Ave		1.0731				14.4		30.0			
1,3-Butadiene	+++++ 0.6523	+++++ 0.6352	+++++ 0.6377	0.7017 0.6500	0.6571 0.6202	Ave		0.6506				4.0		30.0			
Butane	+++++ 1.1091	+++++ 1.0560	1.3166 1.0795	1.1752 1.0850	1.2095 1.0260	Ave		1.1321				8.5		30.0			
Bromomethane	+++++ 1.2054	+++++ 1.1811	1.4266 1.1809	1.2696 1.2035	1.2705 1.1456	Ave		1.2354				7.2		30.0			
Chloroethane	+++++ 0.4893	+++++ 0.4606	0.6023 0.4673	0.5518 0.4597	0.4948 0.4499	Ave		0.4970				10.7		30.0			
Ethanol	+++++ 0.2949	+++++ 0.2999	+++++ 0.2981	0.3286 0.2885	0.3153 0.2724	Ave		0.2997				6.1		30.0			
Vinyl bromide	+++++ 1.2738	+++++ 1.2507	1.4513 1.2699	1.3532 1.2460	1.3493 1.2216	Ave		1.3020				5.9		30.0			
2-Methylbutane	+++++ 0.7979	+++++ 0.7734	0.8639 0.7606	0.8536 0.7713	0.8359 0.7425	Ave		0.7999				5.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Acrolein	+++++ 0.2149	+++++ 0.2505	+++++ 0.2493	0.3397 0.2426	0.2316 0.2411	Ave		0.2528				15.9		30.0			
Trichlorofluoromethane	6.6790 5.8128	6.2714 5.6498	6.2323 5.6579	6.0249 5.5584	5.9679 5.2697	Ave		5.9124				6.9		30.0			
Acetonitrile	+++++ 0.2348	+++++ 0.2373	+++++ 0.2818	0.2630 0.2803	0.2428 0.2703	Ave		0.2586				7.8		30.0			
Acetone	+++++ 0.4175	+++++ 0.3860	+++++ 0.3784	0.5760 0.3627	0.4291 0.3557	Ave		0.4151				18.3		30.0			
Pentane	+++++ 0.1987	+++++ 0.1907	+++++ 0.1944	0.2412 0.1914	0.2034 0.1879	Ave		0.2011				9.2		30.0			
Isopropyl alcohol	+++++ 1.1215	+++++ 1.1376	+++++ 1.1294	1.2584 1.0760	1.1488 1.0492	Ave		1.1316				5.9		30.0			
Ethyl ether	+++++ 0.6540	+++++ 0.6244	+++++ 0.6327	0.7089 0.6995	0.6970 0.6464	Ave		0.6661				5.2		30.0			
1,1-Dichloroethene	1.6400 1.3612	1.4528 1.3523	1.4077 1.3829	1.3842 1.3970	1.3751 1.3233	Ave		1.4076				6.3		30.0			
Acrylonitrile	+++++ 0.6195	+++++ 0.6124	+++++ 0.6202	+++++ 0.6572	0.6255 0.6313	Ave		0.6277				2.5		30.0			
tert-Butyl alcohol	+++++ 2.6737	+++++ 2.7383	2.6805 2.6973	2.7132 2.6655	2.6905 2.5593	Ave		2.6773				2.0		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 3.5282	3.6010 3.4530	3.7397 3.4392	3.5306 3.4042	3.5510 3.1580	Ave		3.4894				4.6		30.0			
Methylene Chloride	+++++ 1.2853	+++++ 1.1917	+++++ 1.1531	2.0228 1.1482	1.5003 1.0647	Ave		1.3380				24.9		30.0			
3-Chloropropene	+++++ 1.3439	+++++ 1.2944	1.1777 1.2837	1.4302 1.3374	1.3141 1.2919	Ave		1.3092				5.4		30.0			
Carbon disulfide	+++++ 3.4096	+++++ 3.3395	3.3655 3.3248	3.2471 3.4285	3.3320 3.2774	Ave		3.3406				1.8		30.0			
trans-1,2-Dichloroethene	1.5926 1.4009	1.5829 1.3797	1.4276 1.4044	1.3885 1.4254	1.3834 1.3721	Ave		1.4358				5.7		30.0			
2-Methylpentane	+++++ 1.8951	+++++ 1.8425	1.9630 1.8466	1.9304 1.9346	1.9266 1.8132	Ave		1.8940				2.8		30.0			
Methyl tert-butyl ether	+++++ 4.5873	+++++ 4.5288	4.7495 4.5802	4.4631 4.6026	4.5963 4.4400	Ave		4.5685				2.1		30.0			
1,1-Dichloroethane	2.6815 2.3300	2.6739 2.2911	2.4729 2.3182	2.3130 2.3408	2.3587 2.2447	Ave		2.4025				6.5		30.0			
Vinyl acetate	+++++ 2.2364	+++++ 2.3368	+++++ 2.4359	2.0297 2.5381	2.1537 2.5129	Ave		2.3205				8.2		30.0			
2-Butanone (MEK)	+++++ 0.5380	+++++ 0.5309	+++++ 0.5519	0.5759 0.5616	0.5098 0.5445	Ave		0.5446				3.9		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.8187	+++++ 0.8108	0.9023 0.8291	0.8416 0.8382	0.8376 0.8031	Ave		0.8352				3.6		30.0			
cis-1,2-Dichloroethene	1.6200 1.4112	1.4958 1.4310	1.4342 1.4304	1.4272 1.4418	1.3943 1.3928	Ave		1.4479				4.6		30.0			
Ethyl acetate	+++++ 2.0207	+++++ 2.0336	1.8097 2.1099	1.9184 2.1701	1.9214 2.1110	Ave		2.0119				6.0		30.0			
Chloroform	4.2334 3.7394	4.0960 3.6835	3.8341 3.7449	3.7602 3.7523	3.7763 3.5872	Ave		3.8207				5.1		30.0			
Tetrahydrofuran	+++++ 0.8846	+++++ 0.8714	+++++ 0.8870	0.8784 0.9150	0.8832 0.8836	Ave		0.8862				1.5		30.0			
1,1,1-Trichloroethane	4.9709 4.7770	4.9939 4.7670	5.0122 4.8476	4.7467 4.8764	4.7402 4.7023	Ave		4.8434				2.4		30.0			
1,2-Dichloroethane	0.5380 0.5057	0.5327 0.4936	0.5166 0.4997	0.4858 0.5068	0.4926 0.4915	Ave		0.5063				3.5		30.0			
Benzene	0.7533 0.6321	0.7075 0.6240	0.7019 0.6266	0.6312 0.6238	0.6214 0.5956	Ave		0.6517				7.8		30.0			
Cyclohexane	+++++ 0.1013	+++++ 0.0986	+++++ 0.1001	0.0959 0.0971	0.0939 0.0911	Ave		0.0968				3.7		30.0			
1-Butanol	+++++ 0.0448	+++++ 0.0477	+++++ 0.0492	+++++ 0.0516	0.0330 0.0509	Ave		0.0462				14.9		30.0			
Carbon tetrachloride	0.9231 0.9489	0.9429 0.9372	0.7537 0.9263	0.9038 0.9692	0.9350 0.9273	Ave		0.9167				6.5		30.0			
2,3-Dimethylpentane	+++++ 0.1378	+++++ 0.1390	0.1212 0.1407	0.1277 0.1410	0.1355 0.1365	Ave		0.1349				5.2		30.0			
Thiophene	+++++ 0.3778	+++++ 0.3718	0.3563 0.3816	0.3607 0.3893	0.3698 0.3754	Ave		0.3728				2.9		30.0			
2,2,4-Trimethylpentane	+++++ 0.8423	+++++ 0.8248	0.8652 0.8393	0.8182 0.8535	0.8128 0.8176	Ave		0.8342				2.3		30.0			
1,2-Dichloropropane	+++++ 0.2041	+++++ 0.2015	0.2130 0.2054	0.1991 0.2089	0.2024 0.2020	Ave		0.2045				2.2		30.0			
Heptane	+++++ 0.2142	+++++ 0.2122	0.1976 0.2154	0.1979 0.2154	0.2071 0.2066	Ave		0.2083				3.5		30.0			
Trichloroethene	0.4192 0.3857	0.3851 0.3869	0.4007 0.4221	0.3771 0.3913	0.3880 0.3727	Ave		0.3929				4.2		30.0			
Dibromomethane	+++++ 0.3459	+++++ 0.3374	0.3725 0.3500	0.3565 0.3576	0.3464 0.3447	Ave		0.3514				3.1		30.0			
Bromodichloromethane	+++++ 0.6680	+++++ 0.6726	0.5971 0.7005	0.5918 0.7174	0.6239 0.6980	Ave		0.6587				7.4		30.0			
1,4-Dioxane	+++++ 0.0965	+++++ 0.1030	+++++ 0.1037	0.0992 0.1007	0.0973 0.0954	Ave		0.0994				3.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2243	+++++ 0.2331	0.2139 0.2468	0.1766 0.2628	0.2044 0.2582	Ave		0.2275				12.8		30.0			
Methylcyclohexane	+++++ 0.4067	+++++ 0.4050	0.3972 0.4110	0.3842 0.4158	0.3938 0.4053	Ave		0.4024				2.5		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3577	+++++ 0.3715	+++++ 0.3933	0.2895 0.4035	0.3277 0.3952	Ave		0.3626				11.5		30.0			
cis-1,3-Dichloropropene	+++++ 0.3940	0.3635 0.4127	0.3602 0.4288	0.3514 0.4368	0.3808 0.4249	Ave		0.3948				8.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.4780	0.4035 0.4968	0.3959 0.5178	0.4276 0.5209	0.4537 0.5119	Ave		0.4674				10.5		30.0			
Toluene	1.0184 0.9698	0.9133 0.9624	0.9750 0.9710	0.9478 0.9638	0.9541 0.9102	Ave		0.9586				3.2		30.0			
1,1,2-Trichloroethane	0.2339 0.2639	0.2426 0.2594	0.2564 0.2610	0.2580 0.2630	0.2596 0.2452	Ave		0.2543				4.0		30.0			
2-Hexanone	+++++ 0.1981	+++++ 0.2103	+++++ 0.2238	0.1399 0.2293	0.1787 0.2239	Ave		0.2006				16.0		30.0			
Dibromochloromethane	0.6655 0.7840	0.5795 0.8296	0.6334 0.8666	0.6501 0.8735	0.6985 0.8331	Ave		0.7414				14.6		30.0			
Octane	+++++ 0.3146	+++++ 0.3133	0.2922 0.3156	0.3033 0.3109	0.2998 0.2932	Ave		0.3054				3.1		30.0			
C8 Range	+++++ 2.1678	+++++ 2.1237	+++++ 2.1591	+++++ 2.2092	2.0961 2.0601	Ave		2.1360				2.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.5766	+++++ 0.5804	0.5000 0.5952	0.4942 0.5984	0.5448 0.5694	Ave		0.5574				7.3		30.0			
Tetrachloroethene	0.4858 0.4849	0.4864 0.4819	0.4732 0.4752	0.4838 0.4653	0.4706 0.4417	Ave		0.4749				2.9		30.0			
Chlorobenzene	0.8210 0.8508	0.8425 0.8373	0.8551 0.8444	0.8450 0.8430	0.8379 0.7968	Ave		0.8374				2.0		30.0			
Ethylbenzene	1.3703 1.4178	1.3589 1.4128	1.4055 1.4174	1.3343 1.4023	1.4017 1.2986	Ave		1.3820				2.9		30.0			
m-Xylene & p-Xylene	1.1137 1.1838	1.1023 1.1550	1.1618 1.1536	1.1488 1.1251	1.1673 1.0234	Ave		1.1335				4.1		30.0			
Bromoform	+++++ 0.7606	+++++ 0.8485	0.5893 0.9286	0.6166 0.9279	0.6638 0.8938	Ave		0.7786				18.1		30.0			
Styrene	+++++ 0.7750	+++++ 0.7975	0.6004 0.8292	0.6182 0.8487	0.6786 0.7961	Ave		0.7430				13.0		30.0			
o-Xylene	1.1430 1.2366	1.1230 1.2060	1.2624 1.1986	1.2290 1.1769	1.2492 1.0804	Ave		1.1905				5.0		30.0			
Nonane	+++++ 0.4737	+++++ 0.4580	0.4455 0.4538	0.4515 0.4433	0.4801 0.4032	Ave		0.4511				5.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.5797 0.6456	0.5118 0.6455	0.5697 0.6181	0.5802 0.6658	0.6188 0.6146	Ave		0.6050				7.5		30.0			
1,2,3-Trichloropropane	+++++ 0.3084	+++++ 0.3034	0.2911 0.3046	0.2918 0.3115	0.2978 0.2914	Ave		0.3000				2.7		30.0			
Isopropylbenzene	+++++ 1.7012	+++++ 1.6661	1.8308 1.6871	1.7528 1.6694	1.7150 1.5307	Ave		1.6941				5.0		30.0			
Propylbenzene	0.4435 0.4963	0.4328 0.4795	0.4534 0.4859	0.4640 0.4778	0.4755 0.4438	Ave		0.4652				4.5		30.0			
2-Chlorotoluene	+++++ 0.4524	0.3991 0.4310	0.4619 0.4318	0.4417 0.4245	0.4398 0.3929	Ave		0.4306				5.3		30.0			
4-Ethyltoluene	1.5529 1.8829	1.6047 1.8611	1.7828 1.8557	1.7531 1.8469	1.7972 1.6563	Ave		1.7594				6.6		30.0			
1,3,5-Trimethylbenzene	0.6792 0.7724	0.6523 0.7416	0.7326 0.7410	0.7228 0.7434	0.7292 0.6843	Ave		0.7199				5.1		30.0			
Alpha Methyl Styrene	+++++ 0.6781	+++++ 0.7295	+++++ 0.7535	0.5439 0.7838	0.5731 0.7289	Ave		0.6844				13.4		30.0			
Decane	+++++ 0.6849	+++++ 0.6585	0.6176 0.6522	0.6408 0.6491	0.6488 0.5849	Ave		0.6421				4.6		30.0			
tert-Butylbenzene	1.6566 1.8841	1.6665 1.7827	1.8313 1.7468	1.8740 1.6988	1.8639 1.5293	Ave		1.7534				6.6		30.0			
1,2,4-Trimethylbenzene	1.4293 1.7233	1.4880 1.6671	1.6887 1.6372	1.6986 1.5922	1.7123 1.4293	Ave		1.6066				7.2		30.0			
1,3-Dichlorobenzene	1.1997 1.1856	1.0963 1.1603	1.2442 1.1572	1.1823 1.1516	1.1621 1.0583	Ave		1.1598				4.5		30.0			
sec-Butylbenzene	2.0787 2.3069	2.1298 2.2195	2.2743 2.1908	2.2407 2.1561	2.2363 1.8732	Ave		2.1706				5.7		30.0			
Benzyl chloride	+++++ 1.2529	+++++ 1.3231	1.0998 1.4041	1.0436 1.3938	1.1034 1.2924	Ave		1.2392				11.3		30.0			
1,4-Dichlorobenzene	1.2196 1.2112	1.1487 1.1594	1.2267 1.1399	1.2179 1.1212	1.1651 1.0340	Ave		1.1644				5.1		30.0			
4-Isopropyltoluene	2.1095 2.3345	2.1432 2.2554	2.2305 2.2238	2.2370 2.1784	2.2728 1.9244	Ave		2.1910				5.2		30.0			
1,2,3-Trimethylbenzene	1.6103 1.8346	1.5786 1.7874	1.8623 1.7524	1.7831 1.7335	1.7558 1.5556	Ave		1.7253				6.2		30.0			
1,2-Dichlorobenzene	1.1708 1.1557	1.2083 1.1157	1.2580 1.1029	1.2065 1.0865	1.1355 1.0034	Ave		1.1443				6.3		30.0			
Indane	1.4503 1.4994	1.3817 1.4300	1.4785 1.4226	1.4862 1.3893	1.4419 1.2529	Ave		1.4233				5.0		30.0			
Indene	+++++ 1.2013	+++++ 1.2223	1.0339 1.2542	1.0803 1.2953	1.0663 1.1920	Ave		1.1682				8.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.8231 1.8829	1.6985 1.8028	1.8359 1.7871	1.8719 1.7597	1.8266 1.5551	Ave		1.7844				5.4		30.0			
Undecane	+++++ 0.8059	+++++ 0.7917	+++++ 0.7809	0.7701 0.7402	0.7580 0.6720	Ave		0.7598				5.8		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.5799	+++++ 0.6160	0.4391 0.6515	0.4709 0.6213	0.4861 0.5926	Ave		0.5572				14.3		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 2.1235	+++++ 2.1635	2.1451 2.1540	2.1430 1.9985	1.9593 1.8488	Ave		2.0670				5.7		30.0			
Dodecane	+++++ 0.7733	+++++ 0.8936	+++++ 0.8877	0.8688 0.7212	0.6803 0.7447	Ave		0.7957				10.9		30.0			
1,2,4-Trichlorobenzene	+++++ 1.1894	+++++ 1.2694	1.4472 1.2818	1.3888 1.0940	1.0856 1.1269	Ave		1.2354				10.9		30.0			
Naphthalene	+++++ 2.0750	3.4525 2.4487	2.8184 2.5087	2.7367 2.1182	1.8255 +++++	Ave		2.4980				20.6		30.0			
Hexachlorobutadiene	+++++ 1.4923	+++++ 1.4393	1.7181 1.4314	1.5746 1.2072	1.3912 1.2353	Ave		1.4362				11.7		30.0			
1,2,3-Trichlorobenzene	+++++ 1.1295	+++++ 1.2212	1.4432 1.2323	1.3860 0.9868	1.0237 1.0761	Ave		1.1873				13.9		30.0			
2-Methylnaphthalene	+++++ 0.3586	+++++ 0.9509	+++++ 1.0808	+++++ 0.6399	+++++ 0.9374	Ave		0.7935				36.8		50.0			
1-Methylnaphthalene	+++++ 0.3899	+++++ 0.8629	+++++ 0.9496	+++++ 0.5203	+++++ 0.7770	Ave		0.6999				33.7		50.0			
4-Bromofluorobenzene (Surr)	0.8488 0.8636	0.8528 0.8535	0.8654 0.8546	0.8648 0.8319	0.8641 0.8066	Ave		0.8506				2.2		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-25490/8	RK16IC01.D
Level 2	IC 140-25490/9	RK16IC02.D
Level 3	IC 140-25490/10	RK16IC03.D
Level 4	IC 140-25490/11	RK16IC04.D
Level 5	IC 140-25490/12	RK16IC05.D
Level 6	IC 140-25490/13	RK16IC06.D
Level 7	ICIS 140-25490/14	RK16IC07.D
Level 8	IC 140-25490/15	RK16IC08.D
Level 9	IC 140-25490/3	RK16IC09.D
Level 10	IC 140-25490/5	RK16IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 165552	+++++ 330784	13488 670931	27178 1511149	67965 2786793	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 51364	+++++ 103039	+++++ 205301	8965 471697	20715 851034	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 295289	+++++ 593041	23530 1212691	45214 3022572	146259 4789313	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 20420	+++++ 40844	2235 80675	3152 182542	9302 337068	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 220441	10161 456323	16805 932912	33908 2096072	98065 3420506	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	1811 70331	3480 142840	5811 286294	11775 611179	28814 1163551	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 46402	+++++ 94920	+++++ 191280	7472 407531	18132 792495	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 78896	+++++ 157806	6822 323819	12514 680235	33375 1311043	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 85746	+++++ 176496	7392 354225	13519 754560	35058 1463890	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 34804	+++++ 68833	3121 140181	5876 288211	13655 574974	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 104882	+++++ 224069	+++++ 447098	17498 904290	43508 1740692	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 90610	+++++ 186899	7520 380924	14410 781185	37233 1560991	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 56760	+++++ 115570	4476 228167	9090 483547	23067 948871	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrolein	CBM	Ave	+++++ 15289	+++++ 37440	+++++ 74788	3617 152096	6392 308108	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Trichlorofluoromethane	CBM	Ave	9029 413497	16343 844261	32292 1697186	64156 3484877	164680 6733950	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 16703	+++++ 35460	+++++ 84531	2801 175714	6701 345458	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 89101	+++++ 173059	+++++ 340521	18402 682117	35521 1363433	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 14137	+++++ 28499	+++++ 58302	2568 119973	5613 240067	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 239341	+++++ 509997	+++++ 1016357	40201 2023732	95103 4022317	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 46526	+++++ 93310	+++++ 189800	7549 438542	19232 826066	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2217 96830	3786 202076	7294 414812	14740 875865	37945 1690964	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 44072	+++++ 91512	+++++ 186041	+++++ 412056	17259 806690	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 190196	+++++ 409183	13889 809098	28891 1671112	74242 3270376	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 250984	9384 515989	19377 1031649	37596 2134286	97989 4035478	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 91431	+++++ 178076	+++++ 345898	21540 719893	41401 1360585	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 95603	+++++ 193431	6102 385054	15229 838478	36262 1650820	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 242543	+++++ 499031	17438 997332	34577 2149500	91945 4188128	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2153 99652	4125 206172	7397 421281	14785 893667	38175 1753401	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 134813	+++++ 275324	10171 553915	20556 1212878	53163 2316982	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 326320	+++++ 676752	24609 1373906	47525 2885627	126834 5673760	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	3625 165748	6968 342362	12813 695373	24630 1467554	65086 2868475	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 159088	+++++ 349189	+++++ 730693	21613 1591261	59429 3211124	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 38268	+++++ 79333	+++++ 165553	6132 352107	14067 695780	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 58239	+++++ 121155	4675 248691	8962 525494	23112 1026278	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2190 100389	3898 213838	7431 429081	15197 903953	38474 1779827	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 143745	+++++ 303889	9377 632910	20428 1360573	53019 2697533	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	5723 266010	10674 550434	19866 1123349	40040 2352521	104204 4583947	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 62926	+++++ 130211	+++++ 266070	9354 573668	24371 1129072	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	6720 339819	13014 712345	25970 1454125	50545 3057281	130803 6008857	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	4162 199683	7880 414101	15042 837957	29238 1778626	76773 3480930	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	5827 249589	10465 523482	20437 1050705	37991 2189441	96837 4217712	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 39991	+++++ 82675	+++++ 167839	5770 340746	14632 645373	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 17690	+++++ 40004	+++++ 82457	+++++ 181076	5146 360622	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	7141 374679	13947 786171	21947 1553305	54395 3401707	145724 6567265	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 54415	+++++ 116636	3528 235995	7686 494713	21116 966448	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 149183	+++++ 311873	10374 639928	21711 1366267	57630 2658371	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 332582	+++++ 691902	25192 1407509	49245 2995449	126672 5790015	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 80581	+++++ 169011	6201 344383	11982 733246	31548 1430590	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 84592	+++++ 178041	5754 361284	11910 756110	32279 1463381	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3243 152289	5696 324569	11668 707793	22698 1373208	60473 2639630	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 136587	+++++ 283066	10846 586890	21454 1255108	53985 2441282	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 263754	+++++ 564189	17387 1174659	35620 2518000	97237 4943175	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 38117	+++++ 86437	+++++ 173912	5968 353467	15165 675333	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 88559	+++++ 195505	6227 413937	10629 922467	31857 1828238	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 160604	+++++ 339768	11565 689164	23124 1459181	61375 2870166	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 141224	+++++ 311634	+++++ 659470	17423 1416282	51070 2798783	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 155584	5376 346235	10488 719012	21150 1532867	59340 3009068	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 165754	5189 369600	10066 783879	22215 1677181	61443 3381888	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	6779 336279	11744 715966	24790 1469948	49243 3103222	129198 6012505	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	1557 91510	3120 192987	6520 395113	13406 846792	35149 1619482	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 68694	+++++ 156406	+++++ 338784	7267 738442	24199 1478910	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	4430 271846	7451 617174	16103 1311808	33778 2812660	94584 5503585	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 109095	+++++ 233063	7429 477723	15759 1000926	40600 1936591	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 855982	+++++ 1781529	+++++ 3620641	+++++ 7753468	326670 14589114	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 199953	+++++ 431756	12712 900939	25676 1926667	73769 3761382	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3234 168145	6255 358488	12031 719415	25138 1498188	63725 2918044	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5465 295002	10833 622855	21742 1278293	43900 2714425	113462 5263414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9121 491615	17474 1050972	35735 2145561	69322 4515180	189812 8578718	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	14827 820994	28347 1718390	59080 3492522	119367 7245395	316153 13520878	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Bromoform	CBZd 5	Ave	+++++ 263744	+++++ 631165	14982 1405685	32037 2987666	89888 5904670	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 268745	+++++ 593262	15265 1255220	32117 2732738	91899 5258738	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	7608 428791	14440 897122	32097 1814388	63851 3789404	169158 7137002	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Nonane	CBZd 5	Ave	+++++ 164273	+++++ 340741	11326 686883	23460 1427330	65019 2663319	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	3859 223872	6581 480219	14484 935594	30142 2143813	83793 4060026	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 106933	+++++ 225670	7400 461156	15160 1003093	40330 1925261	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 589911	+++++ 1239416	46548 2553866	91067 5375264	232238 10111819	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	2952 172077	5565 356669	11527 735475	24106 1538516	64393 2931395	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 156859	5132 320641	11745 653681	22951 1366689	59552 2595696	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	10337 652888	20634 1384436	45329 2809081	91082 5946732	243377 10941125	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	4521 267835	8388 551670	18627 1121740	37553 2393487	98748 4520211	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 235120	+++++ 542707	+++++ 1140621	28257 2523695	77610 4814736	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 237483	+++++ 489862	15703 987208	33292 2090024	87862 3864099	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	11027 653325	21429 1326146	46562 2644216	97365 5469769	252400 10102100	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	9514 597546	19133 1240172	42935 2478370	88253 5126755	231880 9441765	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	7986 411115	14097 863153	31633 1751738	61425 3707873	157370 6991250	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	13837 799929	27386 1651103	57824 3316313	116417 6942238	302828 12374020	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 434461	+++++ 984275	27963 2125520	54221 4487660	149421 8537696	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	8118 419983	14770 862511	31188 1725619	63275 3610216	157774 6830228	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	14042 809499	27559 1677824	56711 3366403	116224 7014221	307780 12712650	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	10719 636168	20298 1329610	47349 2652674	92640 5581569	237762 10276226	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	7793 400754	15537 829934	31984 1669523	62682 3498467	153773 6628325	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	9654 519916	17767 1063787	37591 2153540	77218 4473280	195256 8276746	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 416558	+++++ 909289	26287 1898638	56129 4170791	144394 7874065	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	12135 652919	21840 1341073	46679 2705337	97253 5666096	247354 10272864	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	+++++ 279455	+++++ 588913	+++++ 1182131	40009 2383371	102646 4439100	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 201092	+++++ 458234	11163 986255	24464 2000539	65829 3914341	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 736323	+++++ 1609444	54539 3260653	111338 6434741	265327 12213199	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 268129	+++++ 664765	+++++ 1343815	45141 2322024	92125 4919414	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 412431	+++++ 944306	36794 1940306	72153 3522363	147015 7444026	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 719521	44394 1821564	71658 3797602	142183 6820345	247207 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	+++++ 517445	+++++ 1070672	43683 2166873	81808 3886960	188387 8160248	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 391665	+++++ 908417	36693 1865471	72007 3177370	138621 7108780	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 124366	+++++ 707384	+++++ 1636134	+++++ 2060557	+++++ 6192720	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 135206	+++++ 641933	+++++ 1437560	+++++ 1675488	+++++ 5133017	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1129964 1197793	1096528 1269845	1100173 1293730	1123241 1339226	1170099 1332053	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-25490/8	RK16IC01.D
Level 2	IC 140-25490/9	RK16IC02.D
Level 3	IC 140-25490/10	RK16IC03.D
Level 4	IC 140-25490/11	RK16IC04.D
Level 5	IC 140-25490/12	RK16IC05.D
Level 6	IC 140-25490/13	RK16IC06.D
Level 7	ICIS 140-25490/14	RK16IC07.D
Level 8	IC 140-25490/15	RK16IC08.D
Level 9	IC 140-25490/3	RK16IC09.D
Level 10	IC 140-25490/5	RK16IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	9.7						50			
Propene	+++++	+++++	+++++	15.4						50		
Dichlorodifluoromethane	+++++	+++++	4.3						50			
Chloromethane	+++++	+++++	40.9						50			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	20.3						50				
Vinyl chloride	24.8						50					
1,3-Butadiene	+++++	+++++	+++++	7.9						50		
Butane	+++++	+++++	16.3						50			
Bromomethane	+++++	+++++	15.5						50			
Chloroethane	+++++	+++++	21.2						50			
Ethanol	+++++	+++++	+++++	9.7						50		
Vinyl bromide	+++++	+++++	11.5						50			
2-Methylbutane	+++++	+++++	8.0						50			
Acrolein	+++++	+++++	+++++	34.3						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Trichlorofluoromethane	13.0						50					
Acetonitrile	+++++	+++++	+++++	1.7						50		
Acetone	+++++	+++++	+++++	38.8						80		
Pentane	+++++	+++++	+++++	19.9						50		
Isopropyl alcohol	+++++	+++++	+++++	11.2						50		
Ethyl ether	+++++	+++++	+++++	6.4						50		
1,1-Dichloroethene	16.5						50					
Acrylonitrile	+++++	+++++	+++++	+++++	-0.4						50	
tert-Butyl alcohol	+++++	+++++	0.1						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	3.2						50				
Methylene Chloride	+++++	+++++	+++++	51.2						80		
3-Chloropropene	+++++	+++++	-10.0						50			
Carbon disulfide	+++++	+++++	0.7						50			
trans-1,2-Dichloroethene	10.9						50					
2-Methylpentane	+++++	+++++	3.6						50			
Methyl tert-butyl ether	+++++	+++++	4.0						50			
1,1-Dichloroethane	11.6						50					
Vinyl acetate	+++++	+++++	+++++	-12.5						50		
2-Butanone (MEK)	+++++	+++++	+++++	5.7						50		
Hexane	+++++	+++++	8.0						50			
cis-1,2-Dichloroethene	11.9						50					

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Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	-10.0						50			
Chloroform	10.8						50					
Tetrahydrofuran	+++++	+++++	+++++	-0.9						50		
1,1,1-Trichloroethane	2.6						50					
1,2-Dichloroethane	6.3						50					
Benzene	15.6						50					
Cyclohexane	+++++	+++++	+++++	-1.0						50		
1-Butanol	+++++	+++++	+++++	+++++	-28.5						50	
Carbon tetrachloride	0.7						50					
2,3-Dimethylpentane	+++++	+++++	-10.2						50			
Thiophene	+++++	+++++	-4.4						50			
2,2,4-Trimethylpentane	+++++	+++++	3.7						50			
1,2-Dichloropropane	+++++	+++++	4.1						50			
Heptane	+++++	+++++	-5.1						50			
Trichloroethene	6.7						50					
Dibromomethane	+++++	+++++	6.0						50			
Bromodichloromethane	+++++	+++++	-9.3						50			
1,4-Dioxane	+++++	+++++	+++++	-0.2						50		
Methyl methacrylate	+++++	+++++	-6.0						50			
Methylcyclohexane	+++++	+++++	-1.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	-20.2						50		

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Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1 Analy Batch No.: 25490

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2018 17:23 Calibration End Date: 11/17/2018 03:51 Calibration ID: 1746

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-7.9						50				
trans-1,3-Dichloropropene	+++++	-13.7						50				
Toluene	6.2						50					
1,1,2-Trichloroethane	-8.0						50					
2-Hexanone	+++++	+++++	+++++	-30.3						50		
Dibromochloromethane	-10.2						50					
Octane	+++++	+++++	-4.3						50			
1,2-Dibromoethane (EDB)	+++++	+++++	-10.3						50			
Tetrachloroethene	2.3						50					
Chlorobenzene	-2.0						50					
Ethylbenzene	-0.8						50					
m-Xylene & p-Xylene	-1.7						50					
Bromoform	+++++	+++++	-24.3						50			
Styrene	+++++	+++++	-19.2						50			
o-Xylene	-4.0						50					
Nonane	+++++	+++++	-1.3						50			
1,1,2,2-Tetrachloroethane	-4.2						50					
1,2,3-Trichloropropane	+++++	+++++	-3.0						50			
Isopropylbenzene	+++++	+++++	8.1						50			
Propylbenzene	-4.7						50					
2-Chlorotoluene	+++++	-7.3						50				

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	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-11.7						50					
1,3,5-Trimethylbenzene	-5.7						50					
Alpha Methyl Styrene	+++++	+++++	+++++	-20.5						50		
Decane	+++++	+++++	-3.8						50			
tert-Butylbenzene	-5.5						50					
1,2,4-Trimethylbenzene	-11.0						50					
1,3-Dichlorobenzene	3.4						50					
sec-Butylbenzene	-4.2						50					
Benzyl chloride	+++++	+++++	-11.2						50			
1,4-Dichlorobenzene	4.7						50					
4-Isopropyltoluene	-3.7						50					
1,2,3-Trimethylbenzene	-6.7						50					
1,2-Dichlorobenzene	2.3						50					
Indane	1.9						50					
Indene	+++++	+++++	-11.5						50			
Butylbenzene	2.2						50					
Undecane	+++++	+++++	+++++	1.3						50		
1,2-Dibromo-3-Chloropropane	+++++	+++++	-21.2						50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	3.8						50			
Dodecane	+++++	+++++	+++++	9.2						50		
1,2,4-Trichlorobenzene	+++++	+++++	17.1						50			

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	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	38.2		+++++				80				
Hexachlorobutadiene	+++++	+++++	19.6						50			
1,2,3-Trichlorobenzene	+++++	+++++	21.5						50			
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-54.8						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	-44.3						80

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 16-Nov-2018 17:23:30 ALS Bottle#: 15 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-003
Misc. Info.: 190391
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:32 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 09:42:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.411	7.397	0.014	70	313476	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.504	9.494	0.010	90	1754853	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.562	14.555	0.007	62	1609921	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.282	16.279	0.003	48	1339226	4.00	3.91	
6 Chlorodifluoromethane	51	3.410	3.417	-0.007	95	1511149	8.00	8.12	
7 Propene	41	3.416	3.420	-0.004	49	471697	8.00	8.25	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	99	3022572	8.00	8.86	
9 Chloromethane	52	3.583	3.586	-0.003	98	182542	8.00	7.61	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.609	0.001	87	2096072	8.00	8.25	
11 Acetaldehyde	44	3.707	3.710	-0.003	92	850959	40.0	38.0	
12 Vinyl chloride	62	3.712	3.711	0.001	71	611179	8.00	7.27	
13 Butadiene	54	3.777	3.780	-0.003	85	407531	8.00	7.99	
14 Butane	43	3.782	3.782	0.000	76	680235	8.00	7.67	
15 Bromomethane	94	3.998	3.995	0.003	93	754560	8.00	7.79	
16 Chloroethane	64	4.106	4.100	0.006	97	288211	8.00	7.40	
17 Ethanol	31	4.230	4.222	0.008	93	904290	40.0	38.5	
18 Vinyl bromide	106	4.322	4.315	0.007	94	781185	8.00	7.66	
19 2-Methylbutane	43	4.370	4.369	0.001	79	483547	8.00	7.71	
20 Acrolein	56	4.516	4.516	0.000	13	152096	8.00	7.68	
21 Trichlorofluoromethane	101	4.521	4.517	0.004	99	3484877	8.00	7.52	
22 Acetonitrile	40	4.564	4.545	0.019	94	175714	8.00	8.67	
23 Acetone	58	4.602	4.605	-0.003	94	682117	24.0	21.0	
24 Pentane	72	4.694	4.693	0.001	89	119973	8.00	7.61	
25 Isopropyl alcohol	45	4.721	4.716	0.005	96	2023732	24.0	22.8	
26 Ethyl ether	31	4.807	4.817	-0.010	72	438542	8.00	8.40	
27 1,1-Dichloroethene	96	5.039	5.033	0.006	96	875865	8.00	7.94	
28 Acrylonitrile	53	5.109	5.097	0.012	85	412056	8.00	8.38	
29 2-Methyl-2-propanol	59	5.168	5.173	-0.005	86	1671112	8.00	7.96	
30 1,1,2-Trichloro-1,2,2-trif	101	5.201	5.199	0.002	91	2134286	8.00	7.80	
31 Methylene Chloride	84	5.298	5.290	0.008	85	719893	8.00	6.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.314	5.309	0.005	79	838478	8.00	8.17	
33 Carbon disulfide	76	5.416	5.410	0.006	99	2149500	8.00	8.21	
34 trans-1,2-Dichloroethene	96	5.961	5.951	0.010	97	893667	8.00	7.94	
35 2-Methylpentane	43	6.015	6.011	0.004	84	1212878	8.00	8.17	
36 Methyl tert-butyl ether	73	6.085	6.094	-0.009	86	2885627	8.00	8.06	
37 1,1-Dichloroethane	63	6.301	6.283	0.018	98	1467554	8.00	7.79	
38 Vinyl acetate	43	6.409	6.402	0.006	98	1591261	8.00	8.75	
39 2-Butanone (MEK)	72	6.759	6.761	-0.002	66	352107	8.00	8.25	
40 Hexane	56	6.851	6.845	0.006	78	525494	8.00	8.03	
171 Isopropyl ether	45	6.985	6.989	-0.004	86	1854270	8.00	8.23	
41 cis-1,2-Dichloroethene	96	7.142	7.127	0.015	94	903953	8.00	7.97	
42 Ethyl acetate	43	7.325	7.330	-0.005	98	1360573	8.00	8.63	
43 Chloroform	83	7.455	7.439	0.016	97	2352521	8.00	7.86	
173 Tert-butyl ethyl ether	59	7.579	7.580	-0.001	93	2652444	8.00	8.17	
44 Tetrahydrofuran	42	7.784	7.793	-0.009	75	573668	8.00	8.26	
45 1,1,1-Trichloroethane	97	8.377	8.364	0.013	94	3057281	8.00	8.05	
46 1,2-Dichloroethane	62	8.441	8.427	0.014	76	1778626	8.00	8.01	
47 Benzene	78	8.932	8.920	0.012	98	2189441	8.00	7.66	
48 Cyclohexane	69	8.959	8.951	0.008	71	340746	8.00	8.02	
50 Carbon tetrachloride	117	8.975	8.962	0.013	98	3401707	8.00	8.46	
49 n-Butanol	31	8.948	8.969	-0.021	42	181076	8.00	8.93	
51 2,3-Dimethylpentane	71	9.132	9.126	0.006	83	494713	8.00	8.36	
52 Thiophene	84	9.186	9.174	0.012	87	1366267	8.00	8.35	
53 Isooctane	57	9.806	9.798	0.008	95	2995449	8.00	8.18	
54 1,2-Dichloropropane	63	10.183	10.175	0.008	72	733246	8.00	8.17	
55 n-Heptane	71	10.232	10.224	0.008	76	756110	8.00	8.27	
56 Trichloroethene	130	10.259	10.250	0.009	88	1373208	8.00	7.97	
57 Dibromomethane	93	10.291	10.279	0.012	92	1255108	8.00	8.14	
58 Dichlorobromomethane	83	10.474	10.468	0.006	98	2518000	8.00	8.71	
59 1,4-Dioxane	88	10.491	10.497	-0.006	37	353467	8.00	8.11	
60 Methyl methacrylate	41	10.647	10.649	-0.002	90	922467	8.00	9.24	
61 Methylcyclohexane	83	11.116	11.109	0.007	93	1459181	8.00	8.27	
62 4-Methyl-2-pentanone (MIBK	43	11.542	11.552	-0.010	91	1416282	8.00	8.90	
63 cis-1,3-Dichloropropene	75	11.580	11.577	0.003	95	1532867	8.00	8.85	
64 trans-1,3-Dichloropropene	75	12.335	12.332	0.003	97	1677181	8.00	8.92	
65 Toluene	91	12.475	12.471	0.004	92	3103222	8.00	8.04	
66 1,1,2-Trichloroethane	83	12.529	12.527	0.002	90	846792	8.00	8.27	
69 2-Hexanone	58	12.993	13.003	-0.010	95	738442	8.00	9.15	
70 Chlorodibromomethane	129	13.262	13.258	0.004	95	2812660	8.00	9.43	
71 n-Octane	85	13.327	13.326	0.001	75	1000926	8.00	8.14	
72 Ethylene Dibromide	107	13.559	13.551	0.008	93	1926667	8.00	8.59	
73 Tetrachloroethene	129	13.699	13.695	0.004	93	1498188	8.00	7.84	
74 Chlorobenzene	112	14.610	14.606	0.004	91	2714425	8.00	8.05	
75 2,3-Dimethylheptane	43	14.751	14.750	0.000	77	1819678	8.00	8.04	
76 Ethylbenzene	91	14.945	14.943	0.002	99	4515180	8.00	8.12	
78 m-Xylene & p-Xylene	91	15.123	15.119	0.004	99	7245395	16.0	15.9	
79 Bromoform	173	15.505	15.507	-0.002	96	2987666	8.00	9.53	
80 Styrene	104	15.597	15.594	0.003	93	2732738	8.00	9.14	
82 o-Xylene	91	15.656	15.655	0.001	77	3789404	8.00	7.91	
81 n-Nonane	57	15.662	15.659	0.003	72	1427330	8.00	7.86	
83 1,1,2,2-Tetrachloroethane	83	15.980	15.976	0.004	93	2143813	8.00	8.80	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	1003093	8.00	8.31	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.287	16.283	0.004	98	5375264	8.00	7.88	
86 N-Propylbenzene	120	16.859	16.856	0.003	96	1538516	8.00	8.22	
87 2-Chlorotoluene	126	16.870	16.867	0.003	93	1366689	8.00	7.89	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	97	5946732	8.00	8.40	
89 1,3,5-Trimethylbenzene	120	17.118	17.115	0.003	90	2393487	8.00	8.26	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	84	2523695	8.00	9.16	
91 n-Decane	57	17.533	17.532	0.001	95	2090024	8.00	8.09	
92 tert-Butylbenzene	119	17.592	17.590	0.002	64	5469769	8.00	7.75	
93 1,2,4-Trimethylbenzene	105	17.608	17.605	0.003	94	5126755	8.00	7.93	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	3707873	8.00	7.94	
95 sec-Butylbenzene	105	17.905	17.902	0.003	74	6942238	8.00	7.95	
96 Benzyl chloride	91	17.964	17.962	0.002	97	4487660	8.00	9.00	
97 1,4-Dichlorobenzene	146	17.981	17.977	0.004	92	3610216	8.00	7.70	
98 4-Isopropyltoluene	119	18.099	18.095	0.004	94	7014221	8.00	7.95	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	5581569	8.00	8.04	
100 Butylcyclohexane	83	18.234	18.232	0.002	92	3064197	8.00	8.02	
101 1,2-Dichlorobenzene	146	18.374	18.370	0.004	93	3498467	8.00	7.60	
102 2,3-Dihydroindene	117	18.385	18.383	0.002	88	4473280	8.00	7.81	
103 Indene	116	18.520	18.520	0.000	87	4170791	8.00	8.87	
104 n-Butylbenzene	91	18.579	18.580	-0.001	95	5666096	8.00	7.89	
105 Undecane	57	19.005	19.001	0.004	85	2383371	8.00	7.79	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	97	2000539	8.00	8.92	
107 1,2,4,5-Tetramethylbenzene	119	19.410	19.405	0.005	95	6434741	8.00	7.73	
110 Dodecane	57	20.132	20.128	0.004	90	2322024	8.00	7.25	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	94	3522363	8.00	7.08	
113 Naphthalene	128	20.332	20.329	0.003	98	6820345	8.00	6.78	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	85	3886960	8.00	6.72	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	92	3177370	8.00	6.65	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	98	2060557	8.00	6.45	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	1675488	8.00	5.95	
A 120 C8 Range	1	13.343	(13.284-13.381)		0	7753468	8.00	8.27	
S 121 Xylenes, Total	100				0		24.0	23.8	
S 122 1,2-Dichloroethene, Total	1				0		16.0	15.9	

Reagents:

40L10DQP_00007	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

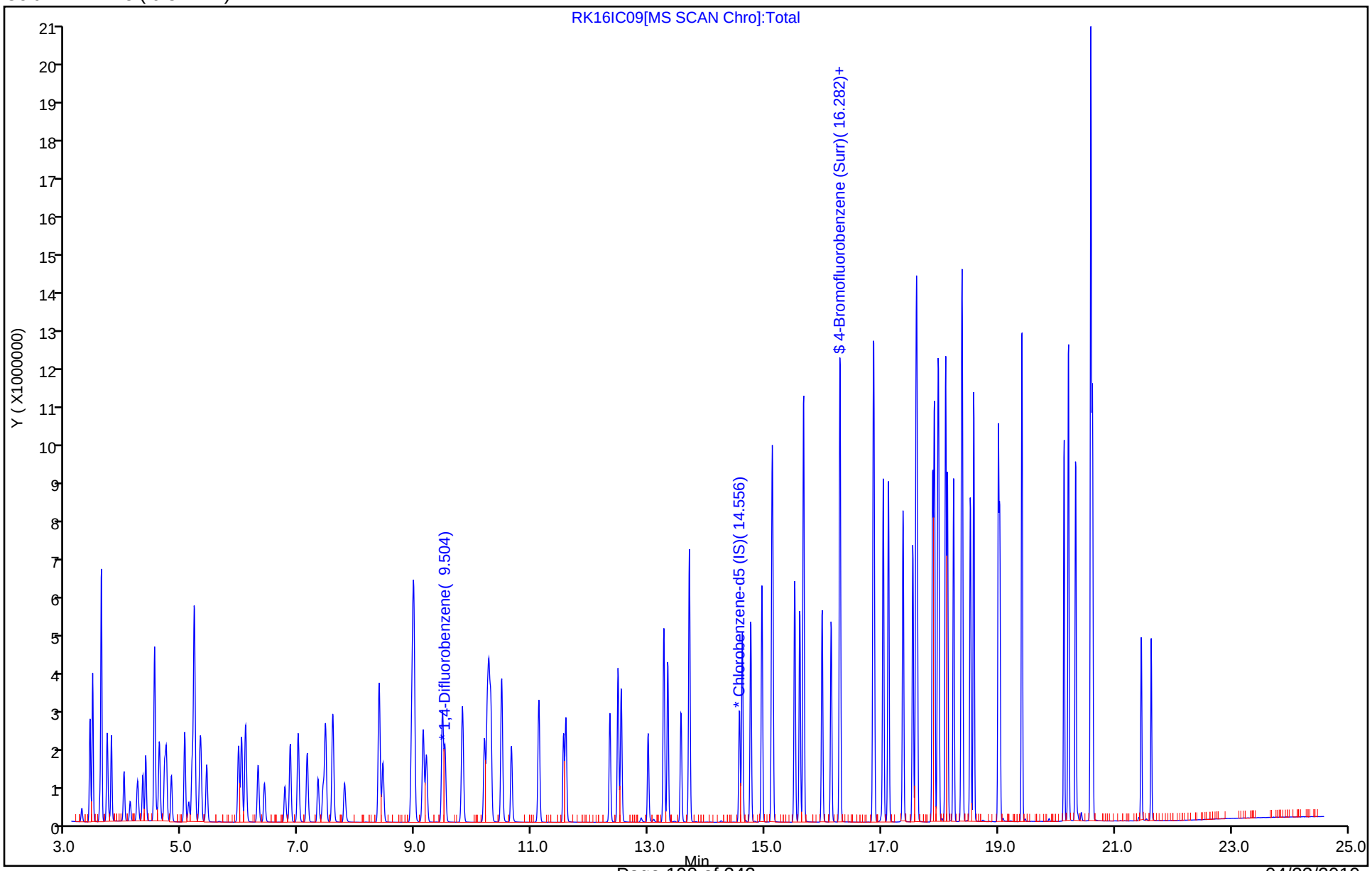
Report Date: 19-Nov-2018 15:42:33 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC09.D

Injection Date:	16-Nov-2018 17:23:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L9			Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

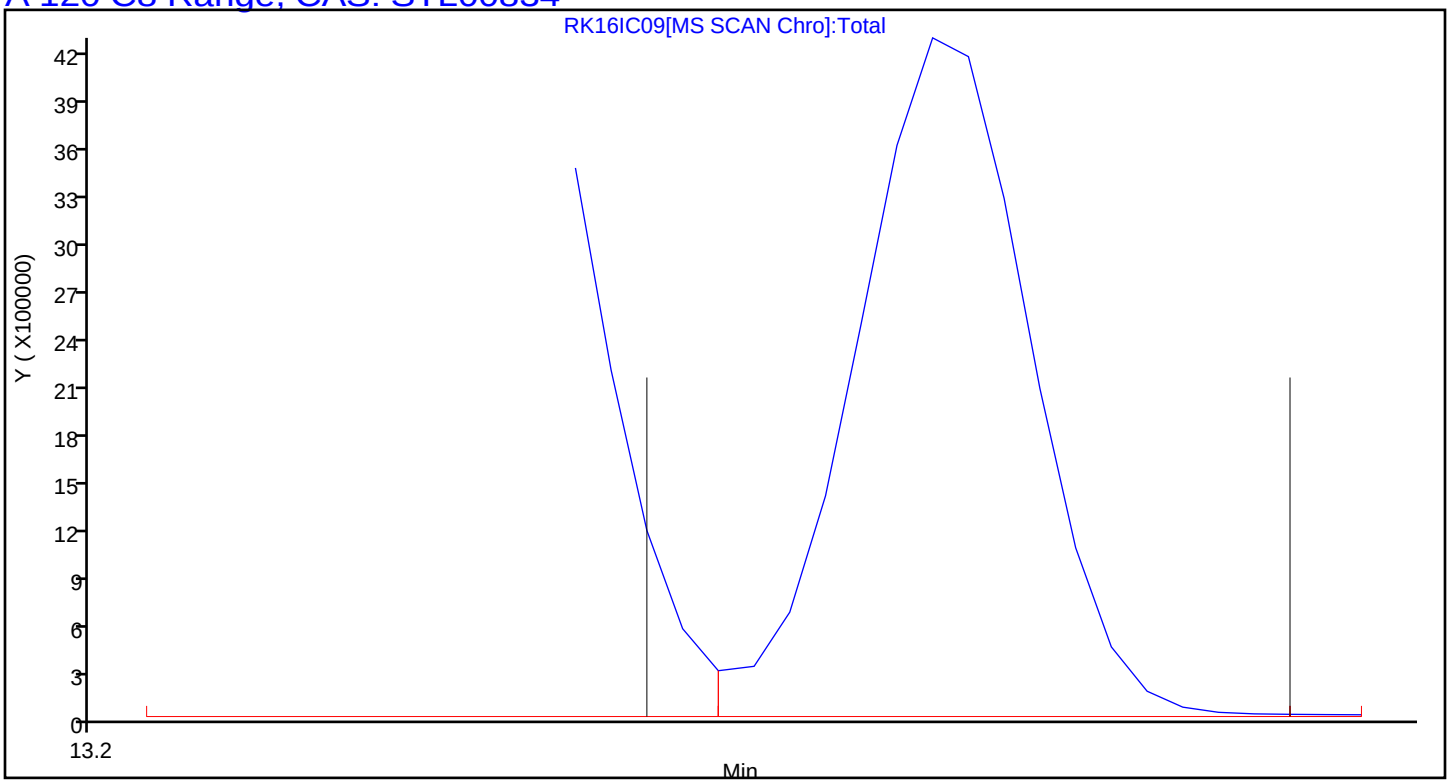


Report Date: 19-Nov-2018 15:42:33 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC09.D				
Injection Date:	16-Nov-2018 17:23:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:		ALS Bottle#:	15	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 16-Nov-2018 19:07:30 ALS Bottle#: 15 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-005
Misc. Info.: 190391
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:37 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 09:41:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.422	7.397	0.025	70	319466	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.515	9.494	0.020	95	1770477	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.562	14.555	0.007	89	1651474	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.282	16.279	0.003	84	1332053	4.00	3.79	
6 Chlorodifluoromethane	51	3.410	3.417	-0.007	96	2786793	16.0	14.7	
7 Propene	41	3.416	3.420	-0.004	92	851034	16.0	14.6	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	100	4789313	16.0	13.8	
9 Chloromethane	52	3.588	3.586	0.002	98	337068	16.0	13.8	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.609	0.001	89	3420506	16.0	13.2	
11 Acetaldehyde	44	3.718	3.710	0.008	94	1587481	80.0	69.5	
12 Vinyl chloride	62	3.712	3.711	0.001	99	1163551	16.0	13.6	
13 Butadiene	54	3.782	3.780	0.002	89	792495	16.0	15.3	
14 Butane	43	3.782	3.782	0.000	89	1311043	16.0	14.5	
15 Bromomethane	94	4.004	3.995	0.009	97	1463890	16.0	14.8	
16 Chloroethane	64	4.111	4.100	0.011	96	574974	16.0	14.5	
17 Ethanol	31	4.241	4.222	0.019	93	1740692	80.0	72.7	
18 Vinyl bromide	106	4.327	4.315	0.012	97	1560991	16.0	15.0	
19 2-Methylbutane	43	4.376	4.369	0.007	78	948871	16.0	14.9	
20 Acrolein	56	4.527	4.516	0.011	97	308108	16.0	15.3	
21 Trichlorofluoromethane	101	4.532	4.517	0.015	100	6733950	16.0	14.3	
22 Acetonitrile	40	4.575	4.545	0.030	95	345458	16.0	16.7	
23 Acetone	58	4.618	4.605	0.013	100	1363433	48.0	41.1	
24 Pentane	72	4.699	4.693	0.006	93	240067	16.0	14.9	
25 Isopropyl alcohol	45	4.737	4.716	0.021	98	4022317	48.0	44.5	
26 Ethyl ether	31	4.818	4.817	0.001	74	826066	16.0	15.5	
27 1,1-Dichloroethene	96	5.050	5.033	0.017	97	1690964	16.0	15.0	
28 Acrylonitrile	53	5.120	5.097	0.023	90	806690	16.0	16.1	
29 2-Methyl-2-propanol	59	5.179	5.173	0.006	92	3270376	16.0	15.3	
30 1,1,2-Trichloro-1,2,2-trif	101	5.211	5.199	0.012	92	4035478	16.0	14.5	
31 Methylene Chloride	84	5.308	5.290	0.018	89	1360585	16.0	12.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.330	5.309	0.021	85	1650820	16.0	15.8	
33 Carbon disulfide	76	5.427	5.410	0.017	99	4188128	16.0	15.7	
34 trans-1,2-Dichloroethene	96	5.972	5.951	0.021	97	1753401	16.0	15.3	
35 2-Methylpentane	43	6.026	6.011	0.015	84	2316982	16.0	15.3	
36 Methyl tert-butyl ether	73	6.090	6.094	-0.004	93	5673760	16.0	15.6	
37 1,1-Dichloroethane	63	6.311	6.283	0.028	98	2868475	16.0	14.9	
38 Vinyl acetate	43	6.419	6.402	0.017	98	3211124	16.0	17.3	
39 2-Butanone (MEK)	72	6.770	6.761	0.009	97	695780	16.0	16.0	
40 Hexane	56	6.861	6.845	0.016	81	1026278	16.0	15.4	
171 Isopropyl ether	45	6.996	6.989	0.007	86	3587859	16.0	15.6	
41 cis-1,2-Dichloroethene	96	7.153	7.127	0.026	94	1779827	16.0	15.4	
42 Ethyl acetate	43	7.336	7.330	0.006	98	2697533	16.0	16.8	
43 Chloroform	83	7.465	7.439	0.026	98	4583947	16.0	15.0	
173 Tert-butyl ethyl ether	59	7.589	7.580	0.009	92	5236388	16.0	15.8	
44 Tetrahydrofuran	42	7.789	7.793	-0.004	75	1129072	16.0	16.0	
45 1,1,1-Trichloroethane	97	8.382	8.364	0.018	95	6008857	16.0	15.5	
46 1,2-Dichloroethane	62	8.447	8.427	0.020	97	3480930	16.0	15.5	
47 Benzene	78	8.943	8.920	0.023	98	4217712	16.0	14.6	
48 Cyclohexane	69	8.964	8.951	0.013	91	645373	16.0	15.1	
50 Carbon tetrachloride	117	8.981	8.962	0.019	98	6567265	16.0	16.2	
49 n-Butanol	31	8.959	8.969	-0.010	72	360622	16.0	17.6	
51 2,3-Dimethylpentane	71	9.142	9.126	0.016	83	966448	16.0	16.2	
52 Thiophene	84	9.196	9.174	0.022	94	2658371	16.0	16.1	
53 Isooctane	57	9.811	9.798	0.013	95	5790015	16.0	15.7	
54 1,2-Dichloropropane	63	10.194	10.175	0.019	76	1430590	16.0	15.8	
55 n-Heptane	71	10.237	10.224	0.013	82	1463381	16.0	15.9	
56 Trichloroethene	130	10.269	10.250	0.019	95	2639630	16.0	15.2	
57 Dibromomethane	93	10.296	10.279	0.017	93	2441282	16.0	15.7	
58 Dichlorobromomethane	83	10.485	10.468	0.017	98	4943175	16.0	17.0	
59 1,4-Dioxane	88	10.496	10.497	-0.001	86	675333	16.0	15.3	
60 Methyl methacrylate	41	10.652	10.649	0.003	90	1828238	16.0	18.2	
61 Methylcyclohexane	83	11.121	11.109	0.012	92	2870166	16.0	16.1	
62 4-Methyl-2-pentanone (MIBK	43	11.547	11.552	-0.005	91	2798783	16.0	17.4	
63 cis-1,3-Dichloropropene	75	11.585	11.577	0.008	96	3009068	16.0	17.2	
64 trans-1,3-Dichloropropene	75	12.340	12.332	0.008	97	3381888	16.0	17.5	
65 Toluene	91	12.480	12.471	0.009	93	6012505	16.0	15.2	
66 1,1,2-Trichloroethane	83	12.534	12.527	0.007	93	1619482	16.0	15.4	
69 2-Hexanone	58	12.998	13.003	-0.005	95	1478910	16.0	17.9	
70 Chlorodibromomethane	129	13.268	13.258	0.010	97	5503585	16.0	18.0	
71 n-Octane	85	13.332	13.326	0.006	73	1936591	16.0	15.4	
72 Ethylene Dibromide	107	13.559	13.551	0.008	97	3761382	16.0	16.3	
73 Tetrachloroethene	129	13.704	13.695	0.009	96	2918044	16.0	14.9	
74 Chlorobenzene	112	14.610	14.606	0.004	92	5263414	16.0	15.2	
75 2,3-Dimethylheptane	43	14.756	14.750	0.006	76	3470701	16.0	14.9	
76 Ethylbenzene	91	14.950	14.943	0.007	99	8578718	16.0	15.0	
78 m-Xylene & p-Xylene	91	15.128	15.119	0.009	98	13520878	32.0	28.9	
79 Bromoform	173	15.511	15.507	0.004	96	5904670	16.0	18.4	
80 Styrene	104	15.597	15.594	0.003	97	5258738	16.0	17.1	
82 o-Xylene	91	15.662	15.655	0.007	97	7137002	16.0	14.5	
81 n-Nonane	57	15.662	15.659	0.003	72	2663319	16.0	14.3	
83 1,1,2,2-Tetrachloroethane	83	15.980	15.976	0.004	93	4060026	16.0	16.3	
84 1,2,3-Trichloropropane	110	16.136	16.132	0.004	92	1925261	16.0	15.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.287	16.283	0.004	98	10111819	16.0	14.5	
86 N-Propylbenzene	120	16.859	16.856	0.003	98	2931395	16.0	15.3	
87 2-Chlorotoluene	126	16.870	16.867	0.003	94	2595696	16.0	14.6	
88 4-Ethyltoluene	105	17.031	17.027	0.004	97	10941125	16.0	15.1	
89 1,3,5-Trimethylbenzene	120	17.118	17.115	0.003	91	4520211	16.0	15.2	
90 Alpha Methyl Styrene	118	17.371	17.366	0.005	85	4814736	16.0	17.0	
91 n-Decane	57	17.538	17.532	0.006	96	3864099	16.0	14.6	
92 tert-Butylbenzene	119	17.598	17.590	0.008	89	10102100	16.0	14.0	
93 1,2,4-Trimethylbenzene	105	17.614	17.605	0.009	96	9441765	16.0	14.2	
94 1,3-Dichlorobenzene	146	17.878	17.874	0.004	98	6991250	16.0	14.6	
95 sec-Butylbenzene	105	17.910	17.902	0.008	97	12374020	16.0	13.8	
96 Benzyl chloride	91	17.970	17.962	0.008	97	8537696	16.0	16.7	
97 1,4-Dichlorobenzene	146	17.981	17.977	0.004	92	6830228	16.0	14.2	
98 4-Isopropyltoluene	119	18.099	18.095	0.004	94	12712650	16.0	14.1	
99 1,2,3-Trimethylbenzene	105	18.132	18.127	0.005	98	10276226	16.0	14.4	
100 Butylcyclohexane	83	18.239	18.232	0.007	90	5583243	16.0	14.3	
101 1,2-Dichlorobenzene	146	18.374	18.370	0.004	95	6628325	16.0	14.0	
102 2,3-Dihydroindene	117	18.390	18.383	0.007	93	8276746	16.0	14.1	
103 Indene	116	18.525	18.520	0.005	90	7874065	16.0	16.3	
104 n-Butylbenzene	91	18.584	18.580	0.004	97	10272864	16.0	13.9	
105 Undecane	57	19.005	19.001	0.004	85	4439100	16.0	14.2	
106 1,2-Dibromo-3-Chloropropan	157	19.032	19.028	0.004	98	3914341	16.0	17.0	
107 1,2,4,5-Tetramethylbenzene	119	19.410	19.405	0.005	96	12213199	16.0	14.3	
110 Dodecane	57	20.132	20.128	0.004	87	4919414	16.0	15.0	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	94	7444026	16.0	14.6	
113 Naphthalene	128	20.332	20.329	0.003	97	13677643	16.0	13.3	e
115 Hexachlorobutadiene	225	20.596	20.590	0.006	96	8160248	16.0	13.8	
116 1,2,3-Trichlorobenzene	180	20.623	20.618	0.005	94	7108780	16.0	14.5	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	98	6192720	16.0	18.9	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	5133017	16.0	17.8	
A 120 C8 Range	1	13.348	(13.284-13.381)		0	14589114	16.0	15.4	
S 121 Xylenes, Total	100				0		48.0	43.4	
S 122 1,2-Dichloroethene, Total	1				0		32.0	30.7	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00007	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

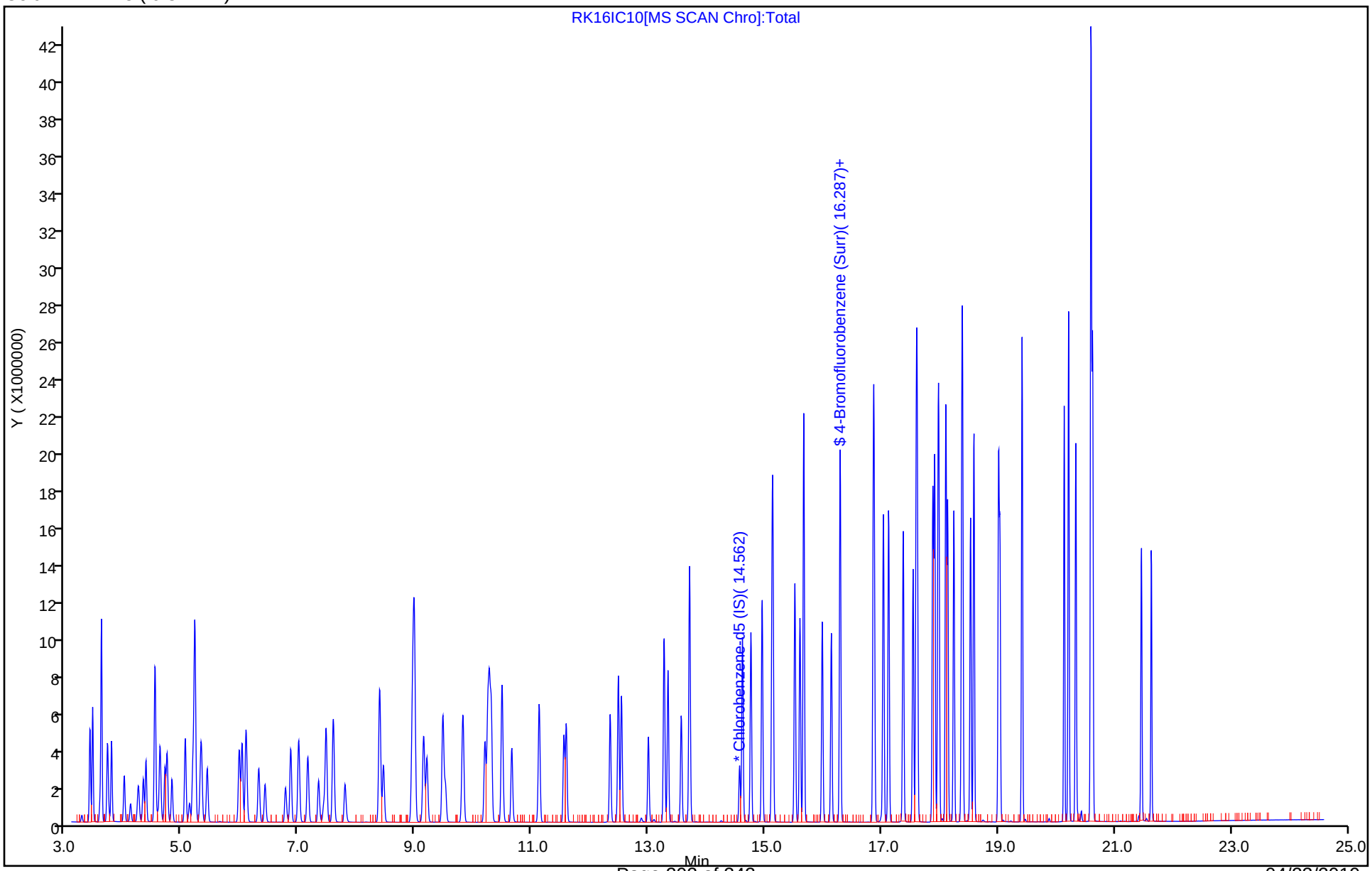
Report Date: 19-Nov-2018 15:42:38 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC10.D

Injection Date:	16-Nov-2018 19:07:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L10			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

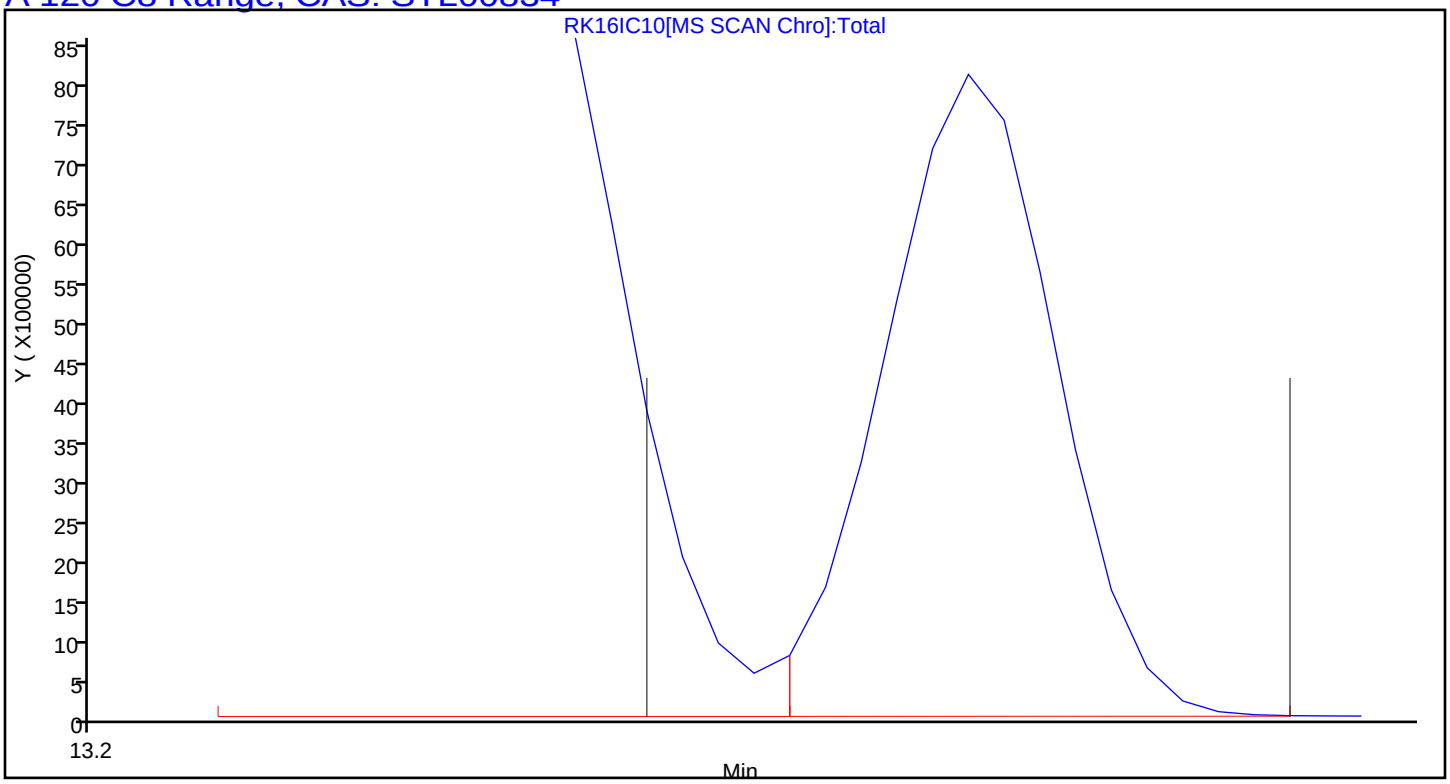


Report Date: 19-Nov-2018 15:42:38 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC10.D				
Injection Date:	16-Nov-2018 19:07:30	Instrument ID:	MR		
Lims ID:	IC L10				
Client ID:					
Operator ID:		ALS Bottle#:	15	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Nov-2018 21:42:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-008
Misc. Info.: 191045
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:45 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 10:13:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.385	7.397	-0.012	70	270371	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.488	9.494	-0.006	95	1547161	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	90	1331283	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.277	16.279	-0.002	89	1129964	4.00	3.99	
6 Chlorodifluoromethane	51	3.416	3.417	-0.001	92	4967	0.0200	0.0310	
7 Propene	41	3.416	3.420	-0.004	55	1914	0.0200	0.0388	
8 Dichlorodifluoromethane	85	3.454	3.461	-0.007	99	8536	0.0200	0.0290	
9 Chloromethane	52	3.594	3.586	0.008	56	1365	0.0200	0.0660	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.609	0.001	85	5703	0.0200	0.0260	
11 Acetaldehyde	44	3.712	3.710	0.002	96	5299	0.1000	0.2741	
12 Vinyl chloride	62	3.707	3.711	-0.004	48	1811	0.0200	0.0250	
13 Butadiene	54	3.777	3.780	-0.003	80	1171	0.0200	0.0266	
14 Butane	43	3.777	3.782	-0.005	67	2106	0.0200	0.0275	
15 Bromomethane	94	3.982	3.995	-0.013	91	3340	0.0200	0.0400	
16 Chloroethane	64	4.095	4.100	-0.005	54	1060	0.0200	0.0316	
17 Ethanol	31	4.230	4.222	0.008	85	2602	0.1000	0.1285	
18 Vinyl bromide	106	4.311	4.315	-0.004	93	2112	0.0200	0.0240	
19 2-Methylbutane	43	4.370	4.369	0.001	74	1411	0.0200	0.0261	
20 Acrolein	56	4.527	4.516	0.011	26	1199	0.0200	0.0702	
21 Trichlorofluoromethane	101	4.511	4.517	-0.006	99	9029	0.0200	0.0226	
22 Acetonitrile	40	4.462	4.545	-0.083	58	291	0.0200	0.0166	
23 Acetone	58	4.613	4.605	0.008	99	4528	0.0600	0.1614	
24 Pentane	72	4.694	4.693	0.001	68	224	0.0200	0.0165	
25 Isopropyl alcohol	45	4.732	4.716	0.016	91	7411	0.0600	0.0969	
26 Ethyl ether	31	4.839	4.817	0.022	57	905	0.0200	0.0201	
27 1,1-Dichloroethene	96	5.028	5.033	-0.005	96	2217	0.0200	0.0233	
28 Acrylonitrile	53	5.088	5.097	-0.009	49	399	0.0200	0.009404	
29 2-Methyl-2-propanol	59	5.201	5.173	0.028	73	3567	0.0200	0.0197	
30 1,1,2-Trichloro-1,2,2-trif	101	5.190	5.199	-0.009	88	5091	0.0200	0.0216	
31 Methylene Chloride	84	5.282	5.290	-0.008	89	10784	0.0200	0.1192	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.303	5.309	-0.006	61	1958	0.0200	0.0221	
33 Carbon disulfide	76	5.400	5.410	-0.010	98	5154	0.0200	0.0228	
34 trans-1,2-Dichloroethene	96	5.945	5.951	-0.006	89	2153	0.0200	0.0222	
35 2-Methylpentane	43	6.004	6.011	-0.007	85	3091	0.0200	0.0241	
36 Methyl tert-butyl ether	73	6.128	6.094	0.034	91	6785	0.0200	0.0220	
37 1,1-Dichloroethane	63	6.268	6.283	-0.015	96	3625	0.0200	0.0223	
38 Vinyl acetate	43	6.409	6.402	0.007	98	3011	0.0200	0.0192	
40 Hexane	56	6.845	6.845	0.000	79	1159	0.0200	0.0205	
171 Isopropyl ether	45	7.002	6.989	0.013	84	3919	0.0200	0.0202	
41 cis-1,2-Dichloroethene	96	7.120	7.127	-0.007	92	2190	0.0200	0.0224	
42 Ethyl acetate	43	7.358	7.330	0.028	33	2159	0.0200	0.0159	
43 Chloroform	83	7.428	7.439	-0.011	90	5723	0.0200	0.0222	
44 Tetrahydrofuran	42	7.821	7.793	0.028	63	1324	0.0200	0.0221	
45 1,1,1-Trichloroethane	97	8.350	8.364	-0.014	95	6720	0.0200	0.0205	
46 1,2-Dichloroethane	62	8.420	8.427	-0.007	97	4162	0.0200	0.0213	
47 Benzene	78	8.911	8.920	-0.009	97	5827	0.0200	0.0231	
48 Cyclohexane	69	8.948	8.951	-0.003	69	709	0.0200	0.0189	
50 Carbon tetrachloride	117	8.959	8.962	-0.003	90	7141	0.0200	0.0201	
51 2,3-Dimethylpentane	71	9.126	9.126	0.000	81	1016	0.0200	0.0195	
52 Thiophene	84	9.164	9.174	-0.010	90	3146	0.0200	0.0218	
53 Isooctane	57	9.790	9.798	-0.008	82	3563	0.0200	0.0110	
54 1,2-Dichloropropane	63	10.167	10.175	-0.008	81	1807	0.0200	0.0228	
55 n-Heptane	71	10.232	10.224	0.008	58	1584	0.0200	0.0197	
56 Trichloroethene	130	10.243	10.250	-0.007	88	3243	0.0200	0.0213	
57 Dibromomethane	93	10.275	10.279	-0.004	93	3779	0.0200	0.0278	
60 Methyl methacrylate	41	10.652	10.649	0.003	1	1037	0.0200	0.0118	
61 Methylcyclohexane	83	11.100	11.109	-0.009	90	2938	0.0200	0.0189	
62 4-Methyl-2-pentanone (MIBK	43	11.585	11.552	0.033	58	1793	0.0200	0.0128	
63 cis-1,3-Dichloropropene	75	11.575	11.577	-0.002	93	2757	0.0200	0.0181	
64 trans-1,3-Dichloropropene	75	12.335	12.332	0.003	93	3115	0.0200	0.0200	
65 Toluene	91	12.470	12.471	-0.001	91	6779	0.0200	0.0212	
66 1,1,2-Trichloroethane	83	12.529	12.527	0.002	89	1557	0.0200	0.0184	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	93	4430	0.0200	0.0180	
71 n-Octane	85	13.327	13.326	0.001	66	2061	0.0200	0.0203	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	91	3322	0.0200	0.0179	
73 Tetrachloroethene	129	13.699	13.695	0.004	88	3234	0.0200	0.0205	
74 Chlorobenzene	112	14.610	14.606	0.004	84	5465	0.0200	0.0196	
75 2,3-Dimethylheptane	43	14.751	14.750	0.001	74	3791	0.0200	0.0202	
76 Ethylbenzene	91	14.945	14.943	0.002	98	9121	0.0200	0.0198	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	99	14827	0.0400	0.0393	
79 Bromoform	173	15.506	15.507	-0.001	93	3956	0.0200	0.0153	
80 Styrene	104	15.603	15.594	0.009	93	3532	0.0200	0.0143	
82 o-Xylene	91	15.657	15.655	0.002	94	7608	0.0200	0.0192	
81 n-Nonane	57	15.657	15.659	-0.002	69	2778	0.0200	0.0185	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	88	3859	0.0200	0.0192	
84 1,2,3-Trichloropropane	110	16.136	16.132	0.004	93	1899	0.0200	0.0190	
85 Isopropylbenzene	105	16.282	16.283	-0.001	46	13150	0.0200	0.0233	
86 N-Propylbenzene	120	16.859	16.856	0.003	96	2952	0.0200	0.0191	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	92	2686	0.0200	0.0187	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	97	10337	0.0200	0.0177	
89 1,3,5-Trimethylbenzene	120	17.118	17.115	0.003	91	4521	0.0200	0.0189	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	88	2640	0.0200	0.0116	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
91 n-Decane	57	17.528	17.532	-0.004	92	3562	0.0200	0.0167	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	89	11027	0.0200	0.0189	
93 1,2,4-Trimethylbenzene	105	17.609	17.605	0.004	96	9514	0.0200	0.0178	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	96	7986	0.0200	0.0207	
95 sec-Butylbenzene	105	17.905	17.902	0.003	96	13837	0.0200	0.0192	
96 Benzyl chloride	91	17.959	17.962	-0.003	96	6895	0.0200	0.0167	
97 1,4-Dichlorobenzene	146	17.981	17.977	0.004	93	8118	0.0200	0.0209	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	14042	0.0200	0.0193	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	97	10719	0.0200	0.0187	
100 Butylcyclohexane	83	18.234	18.232	0.002	93	5805	0.0200	0.0184	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	90	7793	0.0200	0.0205	
102 2,3-Dihydroindene	117	18.385	18.383	0.002	93	9654	0.0200	0.0204	
103 Indene	116	18.520	18.520	0.000	89	5834	0.0200	0.0150	
104 n-Butylbenzene	91	18.585	18.580	0.005	95	12135	0.0200	0.0204	
105 Undecane	57	19.005	19.001	0.004	86	5832	0.0200	0.0231	
106 1,2-Dibromo-3-Chloropropan	157	19.032	19.028	0.004	93	3364	0.0200	0.0181	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	15662	0.0200	0.0228	
110 Dodecane	57	20.127	20.128	-0.001	89	9191	0.0200	0.0347	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	93	13993	0.0200	0.0340	
113 Naphthalene	128	20.332	20.329	0.003	98	24682	0.0200	0.0297	
115 Hexachlorobutadiene	225	20.585	20.590	-0.005	95	19167	0.0200	0.0401	
116 1,2,3-Trichlorobenzene	180	20.618	20.618	0.000	93	17493	0.0200	0.0443	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	96	6762	0.0200	0.0256	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	99	10187	0.0200	0.0437	
A 120 C8 Range	1	13.332	(13.295-13.359)		0	15685	0.0200	0.0190	
S 121 Xylenes, Total	100				0		0.0600	0.0585	
S 122 1,2-Dichloroethene, Total	1				0		0.0400	0.0446	

Reagents:

40L1-3DQP_00010	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

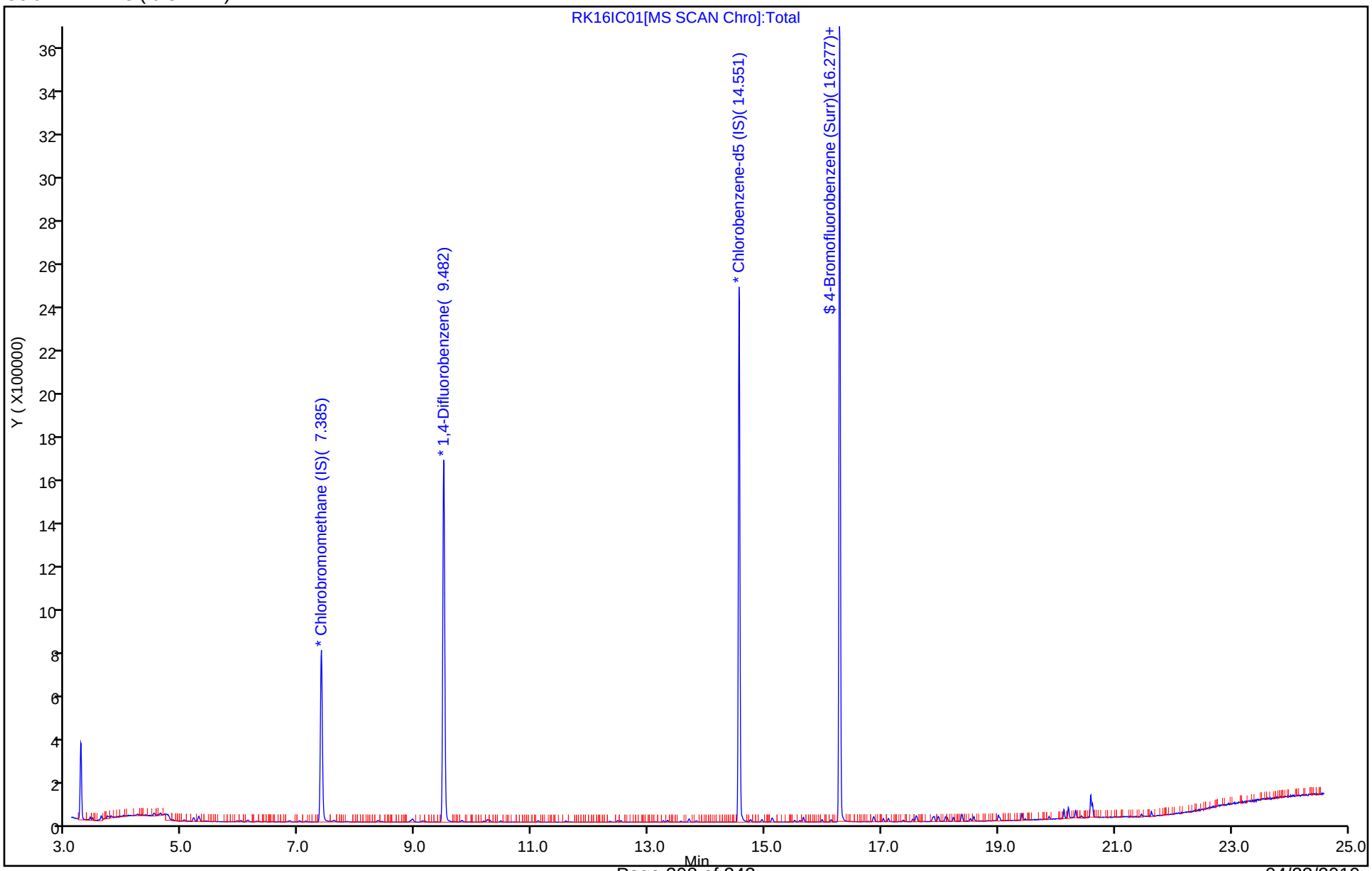
Report Date: 19-Nov-2018 15:42:46 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC01.D

Injection Date:	16-Nov-2018 21:42:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

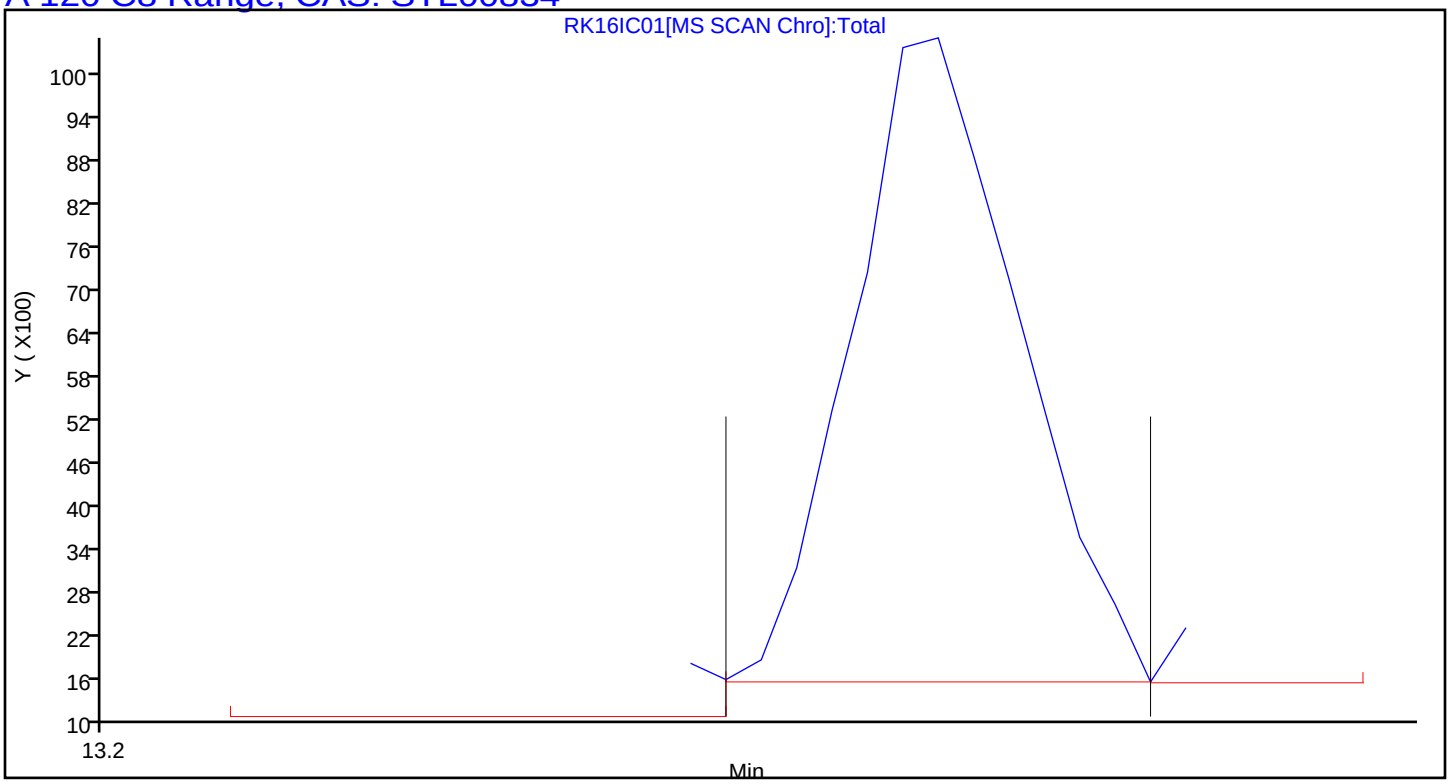


Report Date: 19-Nov-2018 15:42:46 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC01.D				
Injection Date:	16-Nov-2018 21:42:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Nov-2018 22:34:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-009
Misc. Info.: 191045
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:50 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 10:19:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.390	7.397	-0.007	70	260596	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.488	9.494	-0.006	95	1479125	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	90	1285854	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.277	16.279	-0.002	89	1096528	4.00	4.01	
6 Chlorodifluoromethane	51	3.432	3.417	0.015	95	7544	0.0400	0.0488	
7 Propene	41	3.427	3.420	0.007	52	2713	0.0400	0.0571	
8 Dichlorodifluoromethane	85	3.470	3.461	0.009	100	14537	0.0400	0.0513	
9 Chloromethane	52	3.594	3.586	0.008	93	1035	0.0400	0.0519	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.615	3.609	0.006	89	10161	0.0400	0.0481	
11 Acetaldehyde	44	3.723	3.710	0.013	97	9143	0.2000	0.4906	
12 Vinyl chloride	62	3.718	3.711	0.007	52	3480	0.0400	0.0498	
13 Butadiene	54	3.788	3.780	0.008	74	1929	0.0400	0.0455	
14 Butane	43	3.788	3.782	0.006	74	3557	0.0400	0.0482	
15 Bromomethane	94	4.004	3.995	0.009	94	4039	0.0400	0.0502	
16 Chloroethane	64	4.106	4.100	0.006	80	1538	0.0400	0.0475	
17 Ethanol	31	4.225	4.222	0.003	91	4623	0.2000	0.2368	
18 Vinyl bromide	106	4.316	4.315	0.001	94	4463	0.0400	0.0526	
19 2-Methylbutane	43	4.370	4.369	0.001	75	2381	0.0400	0.0457	
20 Acrolein	56	4.516	4.516	0.000	28	1003	0.0400	0.0609	
21 Trichlorofluoromethane	101	4.521	4.517	0.004	98	16343	0.0400	0.0424	
22 Acetonitrile	40	4.548	4.545	0.003	68	183	0.0400	0.0109	
23 Acetone	58	4.618	4.605	0.013	99	6843	0.1200	0.2531	
24 Pentane	72	4.694	4.693	0.001	57	764	0.0400	0.0583	
25 Isopropyl alcohol	45	4.721	4.716	0.005	95	10421	0.1200	0.1414	
26 Ethyl ether	31	4.834	4.817	0.017	76	1931	0.0400	0.0445	
27 1,1-Dichloroethene	96	5.039	5.033	0.006	96	3786	0.0400	0.0413	
28 Acrylonitrile	53	5.098	5.097	0.001	78	1777	0.0400	0.0435	
29 2-Methyl-2-propanol	59	5.190	5.173	0.017	73	6749	0.0400	0.0387	
30 1,1,2-Trichloro-1,2,2-trif	101	5.201	5.199	0.002	92	9384	0.0400	0.0413	
31 Methylene Chloride	84	5.292	5.290	0.002	88	11735	0.0400	0.1346	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.308	5.309	-0.001	61	3483	0.0400	0.0408	
33 Carbon disulfide	76	5.411	5.410	0.001	97	8992	0.0400	0.0413	
34 trans-1,2-Dichloroethene	96	5.945	5.951	-0.006	97	4125	0.0400	0.0441	
35 2-Methylpentane	43	6.004	6.011	-0.007	81	5672	0.0400	0.0460	
36 Methyl tert-butyl ether	73	6.112	6.094	0.018	93	12232	0.0400	0.0411	
37 1,1-Dichloroethane	63	6.274	6.283	-0.009	97	6968	0.0400	0.0445	
38 Vinyl acetate	43	6.409	6.402	0.007	97	5742	0.0400	0.0380	
39 2-Butanone (MEK)	72	6.791	6.761	0.030	97	1330	0.0400	0.0375	
40 Hexane	56	6.845	6.845	0.000	80	2274	0.0400	0.0418	
171 Isopropyl ether	45	7.002	6.989	0.013	86	7835	0.0400	0.0419	
41 cis-1,2-Dichloroethene	96	7.115	7.127	-0.012	96	3898	0.0400	0.0413	
42 Ethyl acetate	43	7.347	7.330	0.017	97	5081	0.0400	0.0388	
43 Chloroform	83	7.428	7.439	-0.011	87	10674	0.0400	0.0429	
173 Tert-butyl ethyl ether	59	7.589	7.580	0.009	92	10439	0.0400	0.0387	
44 Tetrahydrofuran	42	7.816	7.793	0.023	76	2575	0.0400	0.0446	
45 1,1,1-Trichloroethane	97	8.361	8.364	-0.003	94	13014	0.0400	0.0412	
46 1,2-Dichloroethane	62	8.414	8.427	-0.013	97	7880	0.0400	0.0421	
47 Benzene	78	8.911	8.920	-0.009	86	10465	0.0400	0.0434	
48 Cyclohexane	69	8.948	8.951	-0.003	60	1344	0.0400	0.0375	
50 Carbon tetrachloride	117	8.954	8.962	-0.008	94	13947	0.0400	0.0411	
51 2,3-Dimethylpentane	71	9.115	9.126	-0.011	81	2179	0.0400	0.0437	
52 Thiophene	84	9.169	9.174	-0.005	90	5500	0.0400	0.0399	
53 Isooctane	57	9.800	9.798	0.002	94	11906	0.0400	0.0386	
54 1,2-Dichloropropane	63	10.178	10.175	0.003	78	2944	0.0400	0.0389	
55 n-Heptane	71	10.216	10.224	-0.008	79	2941	0.0400	0.0382	
56 Trichloroethene	130	10.237	10.250	-0.013	92	5696	0.0400	0.0392	
57 Dibromomethane	93	10.269	10.279	-0.010	87	5842	0.0400	0.0450	
58 Dichlorobromomethane	83	10.464	10.468	-0.004	97	8635	0.0400	0.0355	
59 1,4-Dioxane	88	10.523	10.497	0.026	27	1245	0.0400	0.0339	
60 Methyl methacrylate	41	10.668	10.649	0.019	86	2528	0.0400	0.0300	
61 Methylcyclohexane	83	11.100	11.109	-0.009	93	5955	0.0400	0.0400	
62 4-Methyl-2-pentanone (MIBK	43	11.569	11.552	0.017	61	3006	0.0400	0.0224	
63 cis-1,3-Dichloropropene	75	11.580	11.577	0.003	91	5376	0.0400	0.0368	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	5189	0.0400	0.0345	
65 Toluene	91	12.464	12.471	-0.007	92	11744	0.0400	0.0381	
66 1,1,2-Trichloroethane	83	12.523	12.527	-0.004	90	3120	0.0400	0.0382	
69 2-Hexanone	58	13.036	13.003	0.033	1	1297	0.0400	0.0201	
70 Chlorodibromomethane	129	13.251	13.258	-0.007	93	7451	0.0400	0.0313	
71 n-Octane	85	13.327	13.326	0.001	79	3598	0.0400	0.0367	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	6066	0.0400	0.0339	
73 Tetrachloroethene	129	13.694	13.695	-0.001	89	6255	0.0400	0.0410	
74 Chlorobenzene	112	14.600	14.606	-0.006	96	10833	0.0400	0.0402	
75 2,3-Dimethylheptane	43	14.751	14.750	0.001	74	6840	0.0400	0.0378	
76 Ethylbenzene	91	14.945	14.943	0.002	99	17474	0.0400	0.0393	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	28347	0.0800	0.0778	
79 Bromoform	173	15.511	15.507	0.004	92	6657	0.0400	0.0266	
80 Styrene	104	15.592	15.594	-0.002	97	6834	0.0400	0.0286	
82 o-Xylene	91	15.656	15.655	0.001	96	14440	0.0400	0.0377	
81 n-Nonane	57	15.662	15.659	0.003	71	5104	0.0400	0.0352	
83 1,1,2,2-Tetrachloroethane	83	15.980	15.976	0.004	89	6581	0.0400	0.0338	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	91	3252	0.0400	0.0337	
85 Isopropylbenzene	105	16.282	16.283	-0.001	47	23558	0.0400	0.0433	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 N-Propylbenzene	120	16.859	16.856	0.003	96	5565	0.0400	0.0372	
87 2-Chlorotoluene	126	16.870	16.867	0.003	91	5132	0.0400	0.0371	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	20634	0.0400	0.0365	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	89	8388	0.0400	0.0362	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	83	5656	0.0400	0.0257	
91 n-Decane	57	17.533	17.532	0.001	94	7343	0.0400	0.0356	
92 tert-Butylbenzene	119	17.592	17.590	0.002	89	21429	0.0400	0.0380	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	19133	0.0400	0.0370	
94 1,3-Dichlorobenzene	146	17.878	17.874	0.004	97	14097	0.0400	0.0378	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	27386	0.0400	0.0392	
96 Benzyl chloride	91	17.964	17.962	0.002	87	13082	0.0400	0.0328	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	90	14770	0.0400	0.0395	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	27559	0.0400	0.0391	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	97	20298	0.0400	0.0366	
100 Butylcyclohexane	83	18.234	18.232	0.002	91	12105	0.0400	0.0397	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	93	15537	0.0400	0.0422	
102 2,3-Dihydroindene	117	18.385	18.383	0.002	91	17767	0.0400	0.0388	
103 Indene	116	18.520	18.520	0.000	89	11379	0.0400	0.0303	
104 n-Butylbenzene	91	18.579	18.580	-0.001	98	21840	0.0400	0.0381	
105 Undecane	57	19.000	19.001	-0.001	85	11356	0.0400	0.0465	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	92	6080	0.0400	0.0339	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	28122	0.0400	0.0423	
110 Dodecane	57	20.132	20.128	0.004	92	20145	0.0400	0.0788	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	93	24325	0.0400	0.0613	
113 Naphthalene	128	20.332	20.329	0.003	98	44394	0.0400	0.0553	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	95	36463	0.0400	0.0790	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	95	30595	0.0400	0.0802	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	96	7926	0.0400	0.0311	
118 1-Methylnaphthalene	142	21.631	21.626	0.005	97	11502	0.0400	0.0511	
A 120 C8 Range	1	13.332	(13.295-13.359)		0	31729	0.0400	0.0402	
S 121 Xylenes, Total	100				0		0.1200	0.1155	
S 122 1,2-Dichloroethene, Total	1				0		0.0800	0.0854	

Reagents:

40L1-3DQP_00010	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

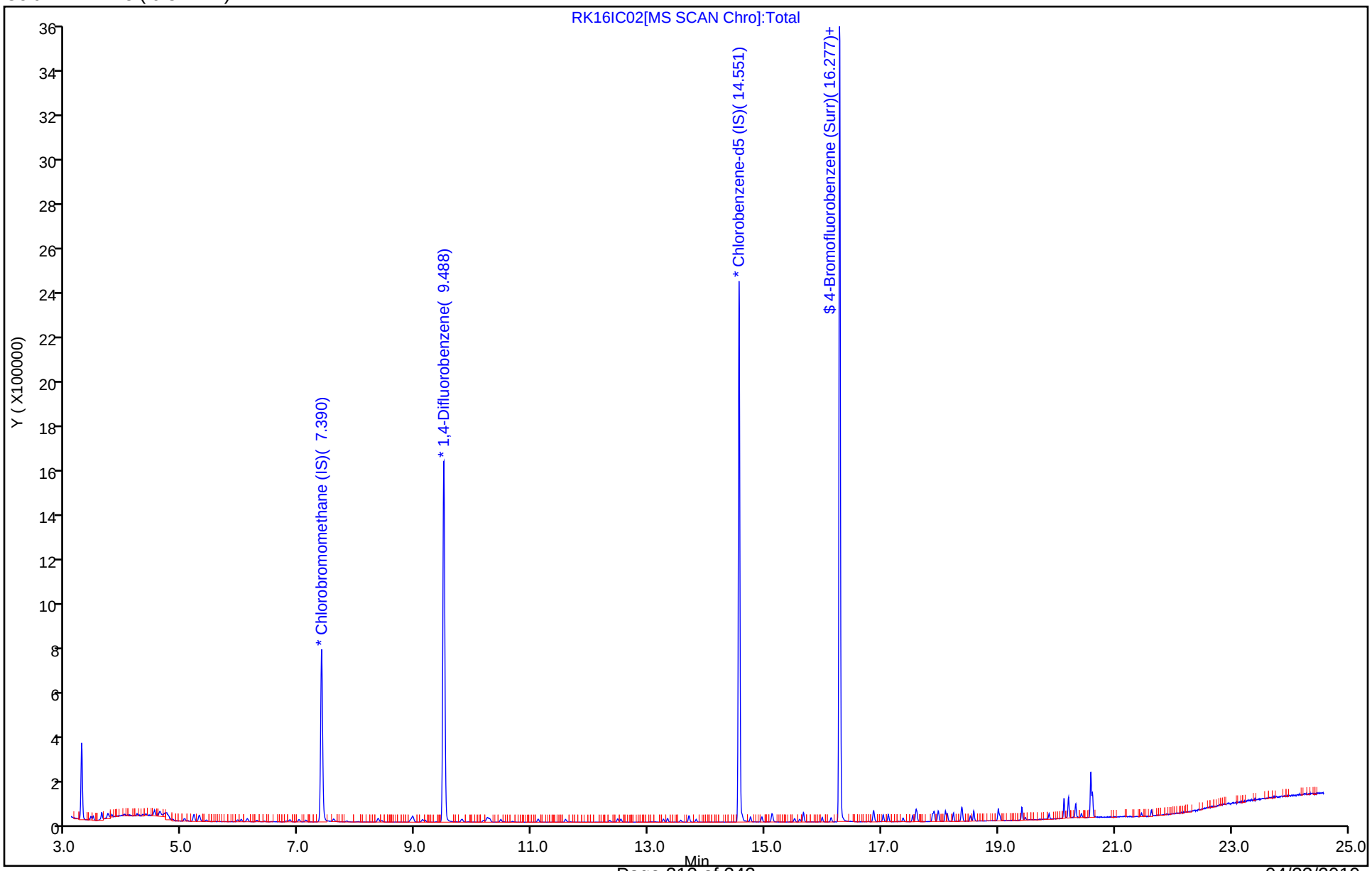
Report Date: 19-Nov-2018 15:42:51 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC02.D

Injection Date:	16-Nov-2018 22:34:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

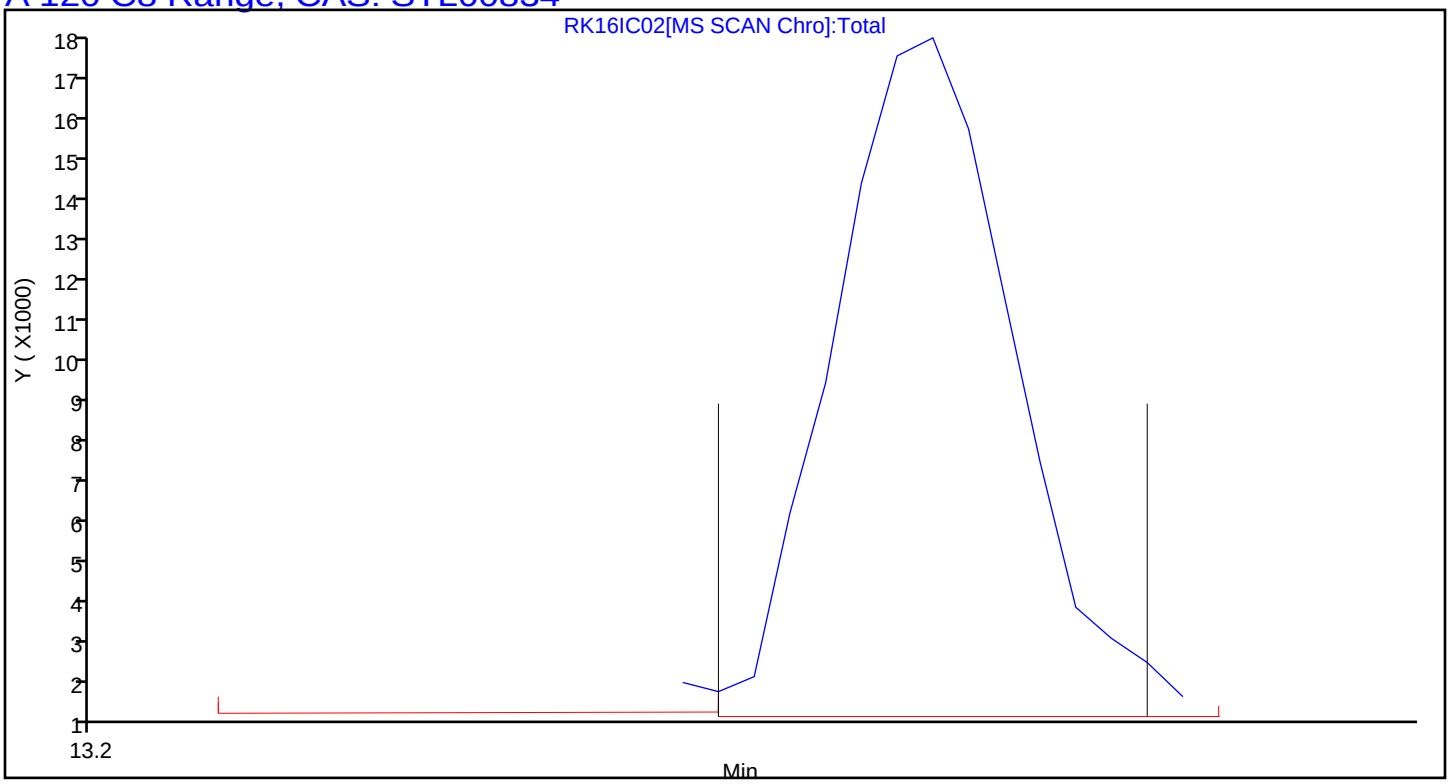


Report Date: 19-Nov-2018 15:42:51 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC02.D				
Injection Date:	16-Nov-2018 22:34:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Nov-2018 23:27:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-010
Misc. Info.: 190398
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:54 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 10:20:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.395	7.397	-0.002	80	259070	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.493	9.494	-0.001	95	1455868	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.556	14.555	0.001	90	1271256	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.282	16.279	0.003	90	1100173	4.00	4.07	
6 Chlorodifluoromethane	51	3.437	3.417	0.020	94	13488	0.0800	0.0877	
7 Propene	41	3.432	3.420	0.012	55	5125	0.0800	0.1085	
8 Dichlorodifluoromethane	85	3.475	3.461	0.014	99	23530	0.0800	0.0835	
9 Chloromethane	52	3.594	3.586	0.008	98	2235	0.0800	0.1127	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.621	3.609	0.012	88	16805	0.0800	0.0801	
11 Acetaldehyde	44	3.723	3.710	0.013	93	15383	0.4000	0.8304	
12 Vinyl chloride	62	3.723	3.711	0.012	49	5811	0.0800	0.0836	
13 Butadiene	54	3.793	3.780	0.013	81	3945	0.0800	0.0936	
14 Butane	43	3.799	3.782	0.017	77	6822	0.0800	0.0930	
15 Bromomethane	94	4.009	3.995	0.014	94	7392	0.0800	0.0924	
16 Chloroethane	64	4.106	4.100	0.006	95	3121	0.0800	0.0970	
17 Ethanol	31	4.225	4.222	0.003	94	11273	0.4000	0.5808	
18 Vinyl bromide	106	4.327	4.315	0.012	95	7520	0.0800	0.0892	
19 2-Methylbutane	43	4.381	4.369	0.012	80	4476	0.0800	0.0864	
20 Acrolein	56	4.527	4.516	0.011	30	2267	0.0800	0.1384	
21 Trichlorofluoromethane	101	4.527	4.517	0.010	98	32292	0.0800	0.0843	
22 Acetonitrile	40	4.559	4.545	0.014	52	776	0.0800	0.0463	
23 Acetone	58	4.618	4.605	0.013	100	12343	0.2400	0.4592	
24 Pentane	72	4.699	4.693	0.006	91	1155	0.0800	0.0887	
25 Isopropyl alcohol	45	4.721	4.716	0.005	97	22445	0.2400	0.3063	
26 Ethyl ether	31	4.834	4.817	0.017	69	3716	0.0800	0.0861	
27 1,1-Dichloroethene	96	5.039	5.033	0.006	96	7294	0.0800	0.0800	
28 Acrylonitrile	53	5.098	5.097	0.001	97	3780	0.0800	0.0930	
29 2-Methyl-2-propanol	59	5.190	5.173	0.017	96	13889	0.0800	0.0801	
30 1,1,2-Trichloro-1,2,2-trif	101	5.211	5.199	0.012	93	19377	0.0800	0.0857	
31 Methylene Chloride	84	5.298	5.290	0.008	89	14815	0.0800	0.1710	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.314	5.309	0.005	83	6102	0.0800	0.0720	
33 Carbon disulfide	76	5.422	5.410	0.012	99	17438	0.0800	0.0806	
34 trans-1,2-Dichloroethene	96	5.956	5.951	0.005	95	7397	0.0800	0.0795	
35 2-Methylpentane	43	6.020	6.011	0.009	84	10171	0.0800	0.0829	
36 Methyl tert-butyl ether	73	6.112	6.094	0.018	92	24609	0.0800	0.0832	
37 1,1-Dichloroethane	63	6.279	6.283	-0.004	96	12813	0.0800	0.0823	
38 Vinyl acetate	43	6.409	6.402	0.007	97	10473	0.0800	0.0697	
39 2-Butanone (MEK)	72	6.775	6.761	0.014	96	2930	0.0800	0.0831	
40 Hexane	56	6.845	6.845	0.000	80	4675	0.0800	0.0864	
171 Isopropyl ether	45	7.002	6.989	0.013	83	15025	0.0800	0.0807	
41 cis-1,2-Dichloroethene	96	7.120	7.127	-0.007	94	7431	0.0800	0.0792	
42 Ethyl acetate	43	7.336	7.330	0.006	96	9377	0.0800	0.0720	
43 Chloroform	83	7.439	7.439	0.000	91	19866	0.0800	0.0803	
173 Tert-butyl ethyl ether	59	7.595	7.580	0.015	93	21806	0.0800	0.0813	
44 Tetrahydrofuran	42	7.816	7.793	0.023	77	4556	0.0800	0.0794	
45 1,1,1-Trichloroethane	97	8.361	8.364	-0.003	93	25970	0.0800	0.0828	
46 1,2-Dichloroethane	62	8.431	8.427	0.004	97	15042	0.0800	0.0816	
47 Benzene	78	8.921	8.920	0.001	98	20437	0.0800	0.0862	
48 Cyclohexane	69	8.954	8.951	0.003	70	3013	0.0800	0.0855	
50 Carbon tetrachloride	117	8.965	8.962	0.003	95	21947	0.0800	0.0658	
49 n-Butanol	31	9.008	8.969	0.039	1	1240	0.0800	0.0737	
51 2,3-Dimethylpentane	71	9.121	9.126	-0.005	80	3528	0.0800	0.0718	
52 Thiophene	84	9.169	9.174	-0.005	94	10374	0.0800	0.0764	
53 Isooctane	57	9.800	9.798	0.002	94	25192	0.0800	0.0830	
54 1,2-Dichloropropane	63	10.172	10.175	-0.003	72	6201	0.0800	0.0833	
55 n-Heptane	71	10.226	10.224	0.002	81	5754	0.0800	0.0759	
56 Trichloroethene	130	10.253	10.250	0.003	92	11668	0.0800	0.0816	
57 Dibromomethane	93	10.275	10.279	-0.004	91	10846	0.0800	0.0848	
58 Dichlorobromomethane	83	10.469	10.468	0.001	98	17387	0.0800	0.0725	
59 1,4-Dioxane	88	10.507	10.497	0.010	90	2726	0.0800	0.0753	
60 Methyl methacrylate	41	10.658	10.649	0.009	88	6227	0.0800	0.0752	
61 Methylcyclohexane	83	11.111	11.109	0.002	93	11565	0.0800	0.0790	
62 4-Methyl-2-pentanone (MIBK	43	11.564	11.552	0.012	79	9056	0.0800	0.0686	
63 cis-1,3-Dichloropropene	75	11.574	11.577	-0.003	94	10488	0.0800	0.0730	
64 trans-1,3-Dichloropropene	75	12.335	12.332	0.003	96	10066	0.0800	0.0678	
65 Toluene	91	12.470	12.471	-0.001	93	24790	0.0800	0.0814	
66 1,1,2-Trichloroethane	83	12.529	12.527	0.002	91	6520	0.0800	0.0807	
69 2-Hexanone	58	13.020	13.003	0.017	93	3236	0.0800	0.0508	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	97	16103	0.0800	0.0683	
71 n-Octane	85	13.327	13.326	0.001	72	7429	0.0800	0.0766	
72 Ethylene Dibromide	107	13.553	13.551	0.002	97	12712	0.0800	0.0718	
73 Tetrachloroethene	129	13.694	13.695	-0.001	93	12031	0.0800	0.0797	
74 Chlorobenzene	112	14.605	14.606	-0.001	91	21742	0.0800	0.0817	
75 2,3-Dimethylheptane	43	14.751	14.750	0.001	76	14645	0.0800	0.0819	
76 Ethylbenzene	91	14.945	14.943	0.002	99	35735	0.0800	0.0814	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	59080	0.1600	0.1640	
79 Bromoform	173	15.506	15.507	-0.001	94	14982	0.0800	0.0605	
80 Styrene	104	15.592	15.594	-0.002	96	15265	0.0800	0.0646	
82 o-Xylene	91	15.656	15.655	0.001	95	32097	0.0800	0.0848	
81 n-Nonane	57	15.662	15.659	0.003	72	11326	0.0800	0.0790	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	88	14484	0.0800	0.0753	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	91	7400	0.0800	0.0776	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	48	46548	0.0800	0.0865	
86 N-Propylbenzene	120	16.854	16.856	-0.002	97	11527	0.0800	0.0780	
87 2-Chlorotoluene	126	16.870	16.867	0.003	93	11745	0.0800	0.0858	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	45329	0.0800	0.0811	
89 1,3,5-Trimethylbenzene	120	17.118	17.115	0.003	91	18627	0.0800	0.0814	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	87	12787	0.0800	0.0588	
91 n-Decane	57	17.528	17.532	-0.004	95	15703	0.0800	0.0769	
92 tert-Butylbenzene	119	17.592	17.590	0.002	89	46562	0.0800	0.0836	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	42935	0.0800	0.0841	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	31633	0.0800	0.0858	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	57824	0.0800	0.0838	
96 Benzyl chloride	91	17.964	17.962	0.002	97	27963	0.0800	0.0710	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	91	31188	0.0800	0.0843	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	96	56711	0.0800	0.0814	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	97	47349	0.0800	0.0863	
100 Butylcyclohexane	83	18.234	18.232	0.002	92	24822	0.0800	0.0823	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	94	31984	0.0800	0.0879	
102 2,3-Dihydroindene	117	18.380	18.383	-0.003	92	37591	0.0800	0.0831	
103 Indene	116	18.520	18.520	0.000	91	26287	0.0800	0.0708	
104 n-Butylbenzene	91	18.579	18.580	-0.001	98	46679	0.0800	0.0823	
105 Undecane	57	19.000	19.001	-0.001	90	20015	0.0800	0.0829	
106 1,2-Dibromo-3-Chloropropan	157	19.032	19.028	0.004	95	11163	0.0800	0.0630	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	96	54539	0.0800	0.0830	
110 Dodecane	57	20.127	20.128	-0.001	89	22733	0.0800	0.0899	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	94	36794	0.0800	0.0937	
113 Naphthalene	128	20.332	20.329	0.003	98	71658	0.0800	0.0903	
115 Hexachlorobutadiene	225	20.591	20.590	0.000	96	43683	0.0800	0.0957	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	94	36693	0.0800	0.0972	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	98	22514	0.0800	0.0893	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	96	25106	0.0800	0.1129	
A 120 C8 Range	1	13.335	(13.289-13.365)		0	65978	0.0800	0.0849	
S 121 Xylenes, Total	100				0		0.2400	0.2488	
S 122 1,2-Dichloroethene, Total	1				0		0.1600	0.1588	

Reagents:

40L1-3DQP_00009	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

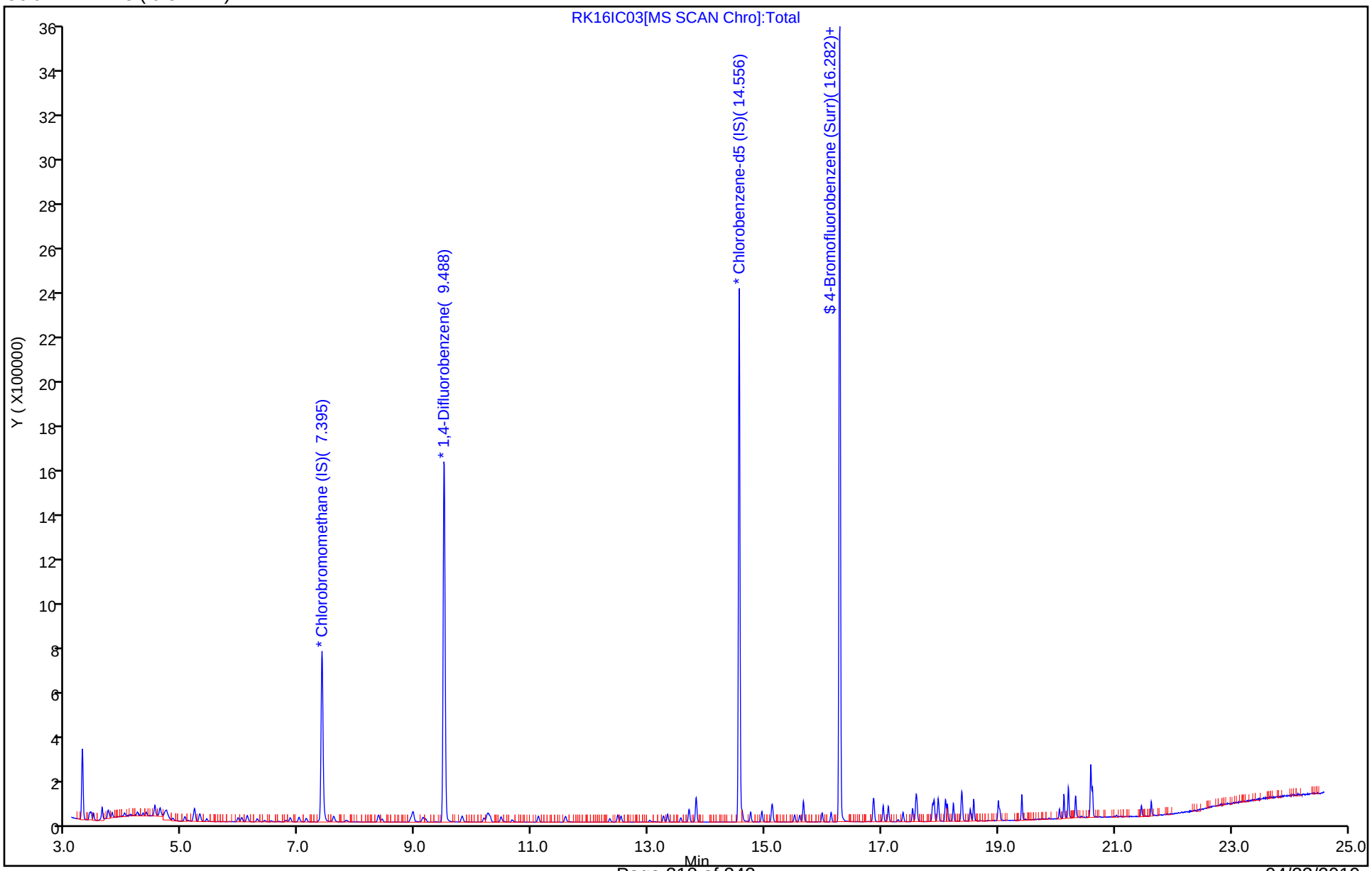
Report Date: 19-Nov-2018 15:42:55 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC03.D

Injection Date:	16-Nov-2018 23:27:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

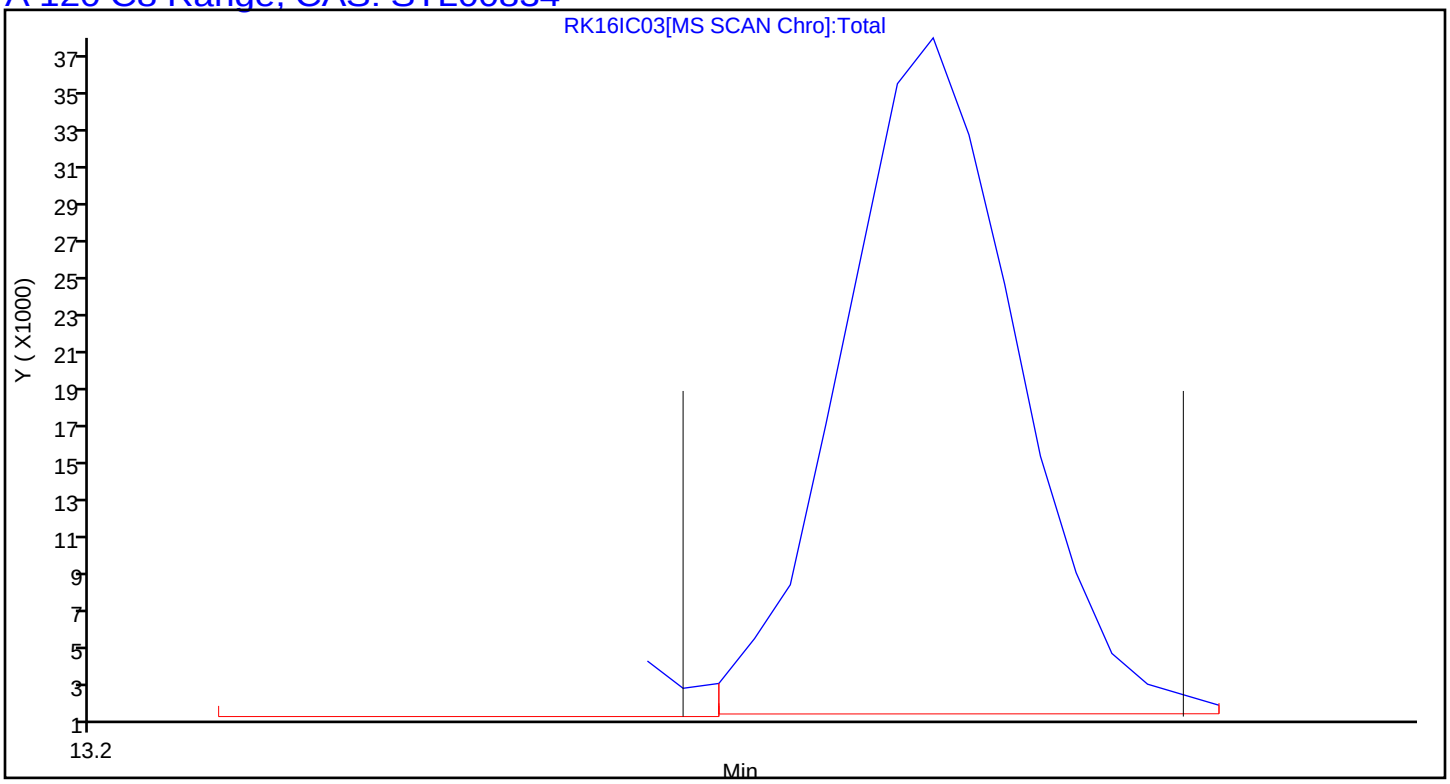


Report Date: 19-Nov-2018 15:42:55 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC03.D				
Injection Date:	16-Nov-2018 23:27:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Nov-2018 00:20:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-011
Misc. Info.: 190397
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:59 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 17-Nov-2018 07:30:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.385	7.397	-0.012	70	266212	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.482	9.494	-0.012	95	1504650	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	90	1298874	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.277	16.279	-0.002	89	1123241	4.00	4.07	
6 Chlorodifluoromethane	51	3.416	3.417	-0.001	96	27178	0.1600	0.1721	
7 Propene	41	3.421	3.420	0.001	49	8965	0.1600	0.1846	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	99	45214	0.1600	0.1561	
9 Chloromethane	52	3.583	3.586	-0.003	98	3152	0.1600	0.1547	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.605	3.609	-0.004	89	33908	0.1600	0.1572	
11 Acetaldehyde	44	3.707	3.710	-0.003	91	22123	0.8000	1.16	
12 Vinyl chloride	62	3.707	3.711	-0.004	60	11775	0.1600	0.1649	
13 Butadiene	54	3.777	3.780	-0.003	78	7472	0.1600	0.1726	
14 Butane	43	3.777	3.782	-0.005	77	12514	0.1600	0.1661	
15 Bromomethane	94	3.993	3.995	-0.002	95	13519	0.1600	0.1644	
16 Chloroethane	64	4.095	4.100	-0.005	97	5876	0.1600	0.1777	
17 Ethanol	31	4.209	4.222	-0.013	91	17498	0.8000	0.8773	
18 Vinyl bromide	106	4.306	4.315	-0.009	96	14410	0.1600	0.1663	
19 2-Methylbutane	43	4.365	4.369	-0.004	80	9090	0.1600	0.1708	
20 Acrolein	56	4.516	4.516	0.000	29	3617	0.1600	0.2150	
21 Trichlorofluoromethane	101	4.511	4.517	-0.006	100	64156	0.1600	0.1630	
22 Acetonitrile	40	4.548	4.545	0.003	95	2801	0.1600	0.1627	
23 Acetone	58	4.597	4.605	-0.008	100	18402	0.4800	0.6662	
24 Pentane	72	4.688	4.693	-0.005	90	2568	0.1600	0.1919	
25 Isopropyl alcohol	45	4.705	4.716	-0.011	97	40201	0.4800	0.5338	
26 Ethyl ether	31	4.818	4.817	0.001	78	7549	0.1600	0.1703	
27 1,1-Dichloroethene	96	5.023	5.033	-0.010	96	14740	0.1600	0.1573	
28 Acrylonitrile	53	5.088	5.097	-0.009	93	6563	0.1600	0.1571	
29 2-Methyl-2-propanol	59	5.163	5.173	-0.010	96	28891	0.1600	0.1621	
30 1,1,2-Trichloro-1,2,2-trif	101	5.195	5.199	-0.004	91	37596	0.1600	0.1619	
31 Methylene Chloride	84	5.276	5.290	-0.014	88	21540	0.1600	0.2419	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.298	5.309	-0.011	83	15229	0.1600	0.1748	
33 Carbon disulfide	76	5.400	5.410	-0.010	99	34577	0.1600	0.1555	
34 trans-1,2-Dichloroethene	96	5.939	5.951	-0.012	97	14785	0.1600	0.1547	
35 2-Methylpentane	43	6.004	6.011	-0.007	84	20556	0.1600	0.1631	
36 Methyl tert-butyl ether	73	6.085	6.094	-0.009	93	47525	0.1600	0.1563	
37 1,1-Dichloroethane	63	6.268	6.283	-0.015	96	24630	0.1600	0.1540	
38 Vinyl acetate	43	6.387	6.402	-0.015	98	21613	0.1600	0.1399	
39 2-Butanone (MEK)	72	6.748	6.761	-0.013	97	6132	0.1600	0.1692	
40 Hexane	56	6.840	6.845	-0.005	80	8962	0.1600	0.1612	
171 Isopropyl ether	45	6.986	6.989	-0.003	87	30112	0.1600	0.1575	
41 cis-1,2-Dichloroethene	96	7.120	7.127	-0.007	96	15197	0.1600	0.1577	
42 Ethyl acetate	43	7.325	7.330	-0.005	98	20428	0.1600	0.1526	
43 Chloroform	83	7.422	7.439	-0.017	90	40040	0.1600	0.1575	
173 Tert-butyl ethyl ether	59	7.579	7.580	-0.001	93	42934	0.1600	0.1558	
44 Tetrahydrofuran	42	7.794	7.793	0.001	70	9354	0.1600	0.1586	
45 1,1,1-Trichloroethane	97	8.355	8.364	-0.009	94	50545	0.1600	0.1568	
46 1,2-Dichloroethane	62	8.415	8.427	-0.012	98	29238	0.1600	0.1535	
47 Benzene	78	8.911	8.920	-0.009	98	37991	0.1600	0.1550	
48 Cyclohexane	69	8.948	8.951	-0.003	61	5770	0.1600	0.1584	
50 Carbon tetrachloride	117	8.954	8.962	-0.008	95	54395	0.1600	0.1577	
49 n-Butanol	31	8.997	8.969	0.028	35	1642	0.1600	0.0945	
51 2,3-Dimethylpentane	71	9.121	9.126	-0.005	83	7686	0.1600	0.1514	
52 Thiophene	84	9.164	9.174	-0.010	94	21711	0.1600	0.1548	
53 Isooctane	57	9.790	9.798	-0.008	95	49245	0.1600	0.1569	
54 1,2-Dichloropropane	63	10.173	10.175	-0.003	75	11982	0.1600	0.1557	
55 n-Heptane	71	10.210	10.224	-0.014	80	11910	0.1600	0.1520	
56 Trichloroethene	130	10.243	10.250	-0.007	91	22698	0.1600	0.1536	
57 Dibromomethane	93	10.270	10.279	-0.009	91	21454	0.1600	0.1623	
58 Dichlorobromomethane	83	10.458	10.468	-0.010	98	35620	0.1600	0.1438	
59 1,4-Dioxane	88	10.507	10.497	0.010	85	5968	0.1600	0.1596	
60 Methyl methacrylate	41	10.647	10.649	-0.002	88	10629	0.1600	0.1242	
61 Methylcyclohexane	83	11.105	11.109	-0.004	93	23124	0.1600	0.1528	
62 4-Methyl-2-pentanone (MIBK	43	11.553	11.552	0.001	90	17423	0.1600	0.1277	
63 cis-1,3-Dichloropropene	75	11.575	11.577	-0.002	96	21150	0.1600	0.1424	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	22215	0.1600	0.1464	
65 Toluene	91	12.470	12.471	-0.001	93	49243	0.1600	0.1582	
66 1,1,2-Trichloroethane	83	12.529	12.527	0.002	92	13406	0.1600	0.1623	
69 2-Hexanone	58	13.009	13.003	0.006	93	7267	0.1600	0.1116	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	96	33778	0.1600	0.1403	
71 n-Octane	85	13.322	13.326	-0.004	72	15759	0.1600	0.1589	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	98	25676	0.1600	0.1419	
73 Tetrachloroethene	129	13.688	13.695	-0.007	93	25138	0.1600	0.1630	
74 Chlorobenzene	112	14.605	14.606	-0.001	92	43900	0.1600	0.1614	
75 2,3-Dimethylheptane	43	14.751	14.750	0.001	77	29630	0.1600	0.1622	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	69322	0.1600	0.1545	
78 m-Xylene & p-Xylene	91	15.123	15.119	0.004	100	119367	0.3200	0.3243	
79 Bromoform	173	15.506	15.507	-0.001	95	32037	0.1600	0.1267	
80 Styrene	104	15.592	15.594	-0.002	97	32117	0.1600	0.1331	
82 o-Xylene	91	15.657	15.655	0.002	97	63851	0.1600	0.1652	
81 n-Nonane	57	15.657	15.659	-0.002	76	23460	0.1600	0.1601	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	92	30142	0.1600	0.1534	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	92	15160	0.1600	0.1556	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	50	91067	0.1600	0.1655	
86 N-Propylbenzene	120	16.854	16.856	-0.002	97	24106	0.1600	0.1596	
87 2-Chlorotoluene	126	16.870	16.867	0.003	94	22951	0.1600	0.1642	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	91082	0.1600	0.1594	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	90	37553	0.1600	0.1606	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	89	28257	0.1600	0.1271	
91 n-Decane	57	17.533	17.532	0.001	96	33292	0.1600	0.1597	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	90	97365	0.1600	0.1710	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	88253	0.1600	0.1692	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	61425	0.1600	0.1631	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	98	116417	0.1600	0.1652	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	54221	0.1600	0.1348	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	92	63275	0.1600	0.1674	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	116224	0.1600	0.1634	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	98	92640	0.1600	0.1654	
100 Butylcyclohexane	83	18.229	18.232	-0.003	93	50956	0.1600	0.1654	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	93	62682	0.1600	0.1687	
102 2,3-Dihydroindene	117	18.380	18.383	-0.003	92	77218	0.1600	0.1671	
103 Indene	116	18.520	18.520	0.000	90	56129	0.1600	0.1480	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	97253	0.1600	0.1678	
105 Undecane	57	19.000	19.001	-0.001	87	40009	0.1600	0.1622	
106 1,2-Dibromo-3-Chloropropan	157	19.021	19.028	-0.007	94	24464	0.1600	0.1352	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	111338	0.1600	0.1659	
110 Dodecane	57	20.127	20.128	-0.001	90	45141	0.1600	0.1747	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	94	72153	0.1600	0.1799	
113 Naphthalene	128	20.326	20.329	-0.003	98	142183	0.1600	0.1753	
115 Hexachlorobutadiene	225	20.591	20.590	0.001	96	81808	0.1600	0.1754	
116 1,2,3-Trichlorobenzene	180	20.618	20.618	0.000	94	72007	0.1600	0.1868	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	98	50645	0.1600	0.1965	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	98	54962	0.1600	0.2418	
A 120 C8 Range	1	13.337	(13.284-13.370)		0	123442	0.1600	0.1536	
S 121 Xylenes, Total	100				0		0.4800	0.4895	
S 122 1,2-Dichloroethene, Total	1				0		0.3200	0.3124	

Reagents:

40L4DQP_00007	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

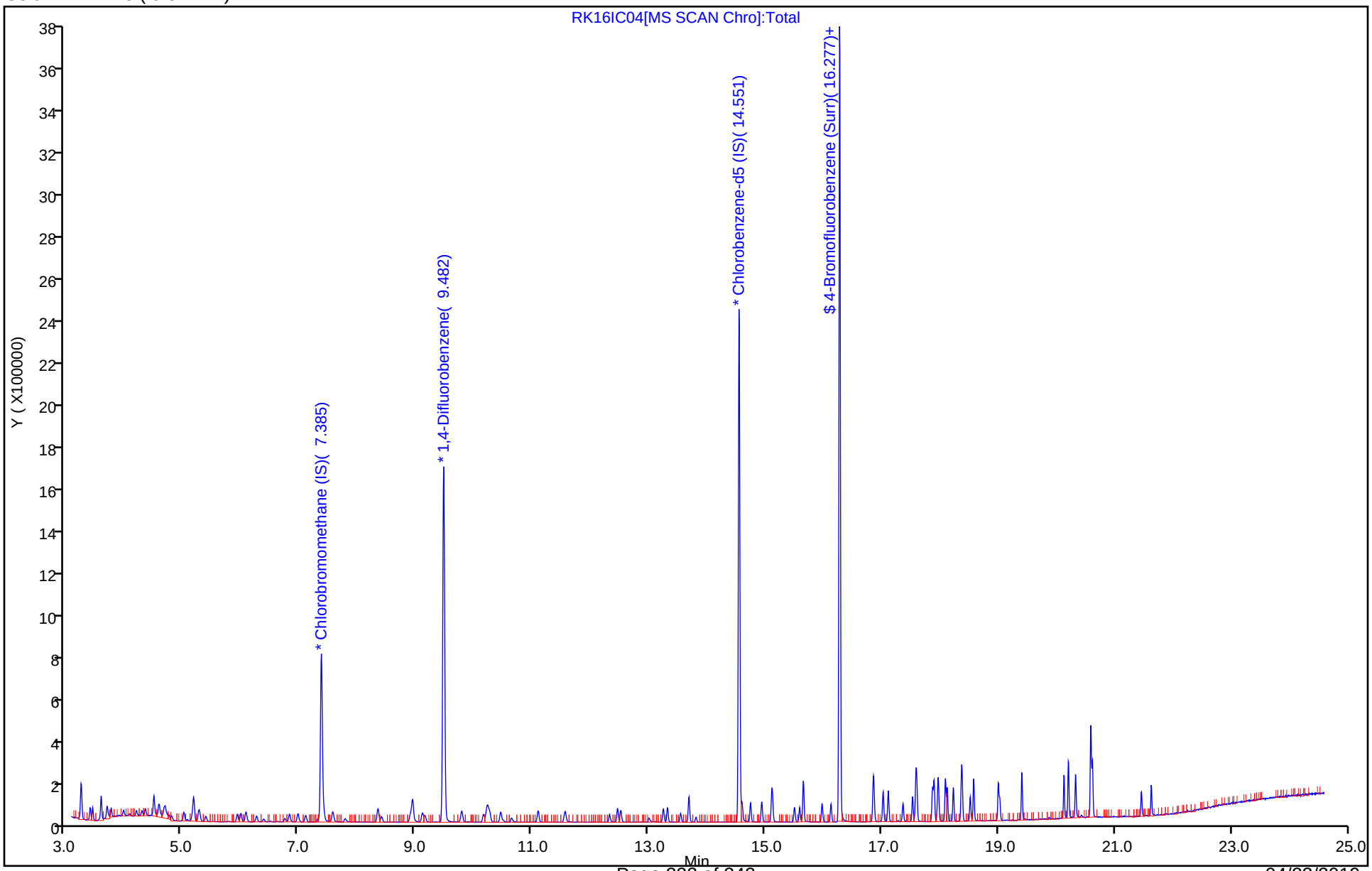
Report Date: 19-Nov-2018 15:43:00 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC04.D

Injection Date:	17-Nov-2018 00:20:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L4			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

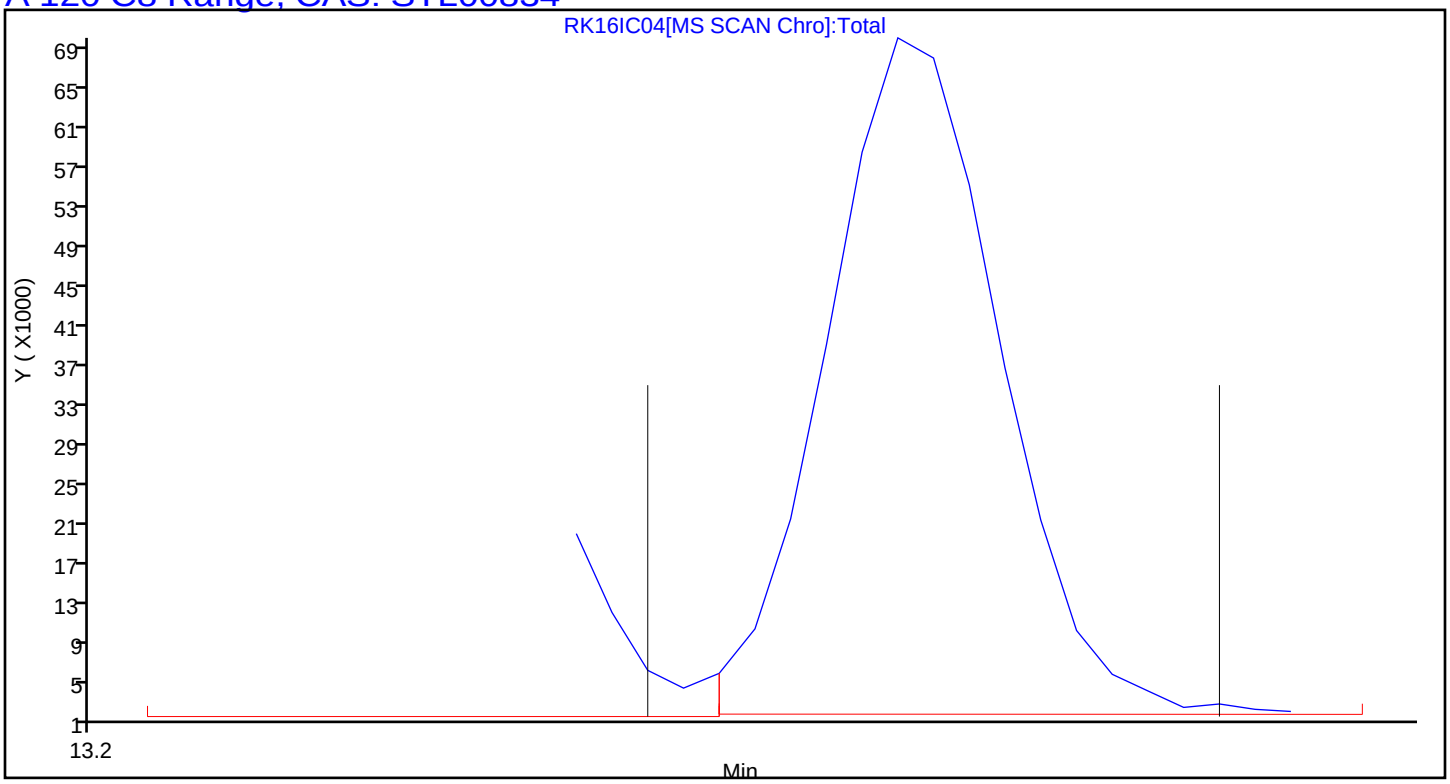


Report Date: 19-Nov-2018 15:43:00 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC04.D				
Injection Date:	17-Nov-2018 00:20:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:		ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Nov-2018 01:12:30 ALS Bottle#: 4 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-012
Misc. Info.: 190395
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:43:05 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 19-Nov-2018 10:25:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.385	7.397	-0.012	70	275927	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.488	9.494	-0.006	95	1558367	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	90	1354086	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.277	16.279	-0.002	90	1170099	4.00	4.06	
6 Chlorodifluoromethane	51	3.410	3.417	-0.007	95	67965	0.4000	0.4151	
7 Propene	41	3.410	3.420	-0.010	48	20715	0.4000	0.4116	
8 Dichlorodifluoromethane	85	3.448	3.461	-0.013	100	146259	0.4000	0.4871	
9 Chloromethane	52	3.572	3.586	-0.014	99	9302	0.4000	0.4405	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.599	3.609	-0.010	90	98065	0.4000	0.4387	
11 Acetaldehyde	44	3.696	3.710	-0.014	93	45673	2.00	2.31	
12 Vinyl chloride	62	3.702	3.711	-0.009	85	28814	0.4000	0.3893	
13 Butadiene	54	3.766	3.780	-0.014	83	18132	0.4000	0.4040	
14 Butane	43	3.772	3.782	-0.010	78	33375	0.4000	0.4274	
15 Bromomethane	94	3.982	3.995	-0.013	96	35058	0.4000	0.4114	
16 Chloroethane	64	4.084	4.100	-0.016	95	13655	0.4000	0.3983	
17 Ethanol	31	4.209	4.222	-0.014	92	43508	2.00	2.10	
18 Vinyl bromide	106	4.300	4.315	-0.015	96	37233	0.4000	0.4146	
19 2-Methylbutane	43	4.359	4.369	-0.010	78	23067	0.4000	0.4180	
20 Acrolein	56	4.510	4.516	-0.006	28	6392	0.4000	0.3665	
21 Trichlorofluoromethane	101	4.505	4.517	-0.012	99	164680	0.4000	0.4038	
22 Acetonitrile	40	4.548	4.545	0.003	98	6701	0.4000	0.3756	
23 Acetone	58	4.597	4.605	-0.008	100	35521	1.20	1.24	
24 Pentane	72	4.683	4.693	-0.010	91	5613	0.4000	0.4046	
25 Isopropyl alcohol	45	4.705	4.716	-0.011	97	95103	1.20	1.22	
26 Ethyl ether	31	4.807	4.817	-0.010	72	19232	0.4000	0.4185	
27 1,1-Dichloroethene	96	5.023	5.033	-0.010	98	37945	0.4000	0.3908	
28 Acrylonitrile	53	5.087	5.097	-0.010	95	17259	0.4000	0.3986	
29 2-Methyl-2-propanol	59	5.168	5.173	-0.005	95	74242	0.4000	0.4020	
30 1,1,2-Trichloro-1,2,2-trif	101	5.190	5.199	-0.009	94	97989	0.4000	0.4071	
31 Methylene Chloride	84	5.276	5.290	-0.014	90	41401	0.4000	0.4485	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.298	5.309	-0.011	83	36262	0.4000	0.4015	
33 Carbon disulfide	76	5.395	5.410	-0.015	99	91945	0.4000	0.3990	
34 trans-1,2-Dichloroethene	96	5.939	5.951	-0.012	97	38175	0.4000	0.3854	
35 2-Methylpentane	43	6.004	6.011	-0.007	84	53163	0.4000	0.4069	
36 Methyl tert-butyl ether	73	6.085	6.094	-0.009	93	126834	0.4000	0.4025	
37 1,1-Dichloroethane	63	6.274	6.283	-0.009	98	65086	0.4000	0.3927	
38 Vinyl acetate	43	6.392	6.402	-0.010	98	59429	0.4000	0.3713	
39 2-Butanone (MEK)	72	6.754	6.761	-0.007	97	14067	0.4000	0.3744	
40 Hexane	56	6.835	6.845	-0.010	81	23112	0.4000	0.4012	
171 Isopropyl ether	45	6.980	6.989	-0.009	85	80134	0.4000	0.4043	
41 cis-1,2-Dichloroethene	96	7.120	7.127	-0.007	95	38474	0.4000	0.3852	
42 Ethyl acetate	43	7.320	7.330	-0.010	98	53019	0.4000	0.3820	
43 Chloroform	83	7.433	7.439	-0.006	89	104204	0.4000	0.3954	
173 Tert-butyl ethyl ether	59	7.579	7.580	-0.001	92	113240	0.4000	0.3965	
44 Tetrahydrofuran	42	7.784	7.793	-0.009	77	24371	0.4000	0.3987	
45 1,1,1-Trichloroethane	97	8.355	8.364	-0.009	94	130803	0.4000	0.3915	
46 1,2-Dichloroethane	62	8.420	8.427	-0.007	97	76773	0.4000	0.3892	
47 Benzene	78	8.911	8.920	-0.009	98	96837	0.4000	0.3814	
48 Cyclohexane	69	8.943	8.951	-0.008	91	14632	0.4000	0.3878	
50 Carbon tetrachloride	117	8.954	8.962	-0.008	98	145724	0.4000	0.4080	
49 n-Butanol	31	8.981	8.969	0.012	66	5146	0.4000	0.2859	
51 2,3-Dimethylpentane	71	9.126	9.126	0.000	80	21116	0.4000	0.4017	
52 Thiophene	84	9.169	9.174	-0.005	92	57630	0.4000	0.3968	
53 Isooctane	57	9.795	9.798	-0.003	94	126672	0.4000	0.3898	
54 1,2-Dichloropropane	63	10.162	10.175	-0.013	75	31548	0.4000	0.3959	
55 n-Heptane	71	10.221	10.224	-0.003	82	32279	0.4000	0.3977	
56 Trichloroethene	130	10.243	10.250	-0.007	93	60473	0.4000	0.3951	
57 Dibromomethane	93	10.270	10.279	-0.009	94	53985	0.4000	0.3944	
58 Dichlorobromomethane	83	10.464	10.468	-0.004	98	97237	0.4000	0.3789	
59 1,4-Dioxane	88	10.496	10.497	-0.001	88	15165	0.4000	0.3916	
60 Methyl methacrylate	41	10.642	10.649	-0.007	91	31857	0.4000	0.3594	
61 Methylcyclohexane	83	11.105	11.109	-0.004	92	61375	0.4000	0.3915	
62 4-Methyl-2-pentanone (MIBK	43	11.548	11.552	-0.004	91	51070	0.4000	0.3615	
63 cis-1,3-Dichloropropene	75	11.574	11.577	-0.003	97	59340	0.4000	0.3858	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	61443	0.4000	0.3884	
65 Toluene	91	12.470	12.471	-0.001	93	129198	0.4000	0.3981	
66 1,1,2-Trichloroethane	83	12.524	12.527	-0.003	93	35149	0.4000	0.4083	
69 2-Hexanone	58	13.003	13.003	0.000	95	24199	0.4000	0.3564	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	96	94584	0.4000	0.3769	
71 n-Octane	85	13.327	13.326	0.001	75	40600	0.4000	0.3928	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	73769	0.4000	0.3910	
73 Tetrachloroethene	129	13.688	13.695	-0.007	93	63725	0.4000	0.3964	
74 Chlorobenzene	112	14.605	14.606	-0.001	93	113462	0.4000	0.4003	
75 2,3-Dimethylheptane	43	14.745	14.750	-0.005	80	76114	0.4000	0.3997	
76 Ethylbenzene	91	14.939	14.943	-0.004	100	189812	0.4000	0.4057	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	316153	0.8001	0.8239	
79 Bromoform	173	15.506	15.507	-0.001	96	89888	0.4000	0.3410	
80 Styrene	104	15.592	15.594	-0.002	97	91899	0.4000	0.3654	
82 o-Xylene	91	15.651	15.655	-0.004	96	169158	0.4000	0.4197	
81 n-Nonane	57	15.657	15.659	-0.003	73	65019	0.4000	0.4257	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	92	83793	0.4000	0.4091	
84 1,2,3-Trichloropropane	110	16.126	16.132	-0.006	94	40330	0.4000	0.3971	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	95	232238	0.4000	0.4049	
86 N-Propylbenzene	120	16.854	16.856	-0.002	97	64393	0.4000	0.4089	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	91	59552	0.4000	0.4086	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	243377	0.4000	0.4086	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	98748	0.4000	0.4052	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	88	77610	0.4000	0.3350	
91 n-Decane	57	17.533	17.532	0.001	97	87862	0.4000	0.4042	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	90	252400	0.4000	0.4252	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	231880	0.4000	0.4264	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	157370	0.4000	0.4008	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	302828	0.4000	0.4121	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	149421	0.4000	0.3562	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	93	157774	0.4000	0.4003	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	96	307780	0.4000	0.4150	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	98	237762	0.4000	0.4071	
100 Butylcyclohexane	83	18.229	18.232	-0.003	92	134022	0.4000	0.4173	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	93	153773	0.4000	0.3970	
102 2,3-Dihydroindene	117	18.380	18.383	-0.003	93	195256	0.4000	0.4053	
103 Indene	116	18.520	18.520	0.000	90	144394	0.4000	0.3651	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	247354	0.4000	0.4095	
105 Undecane	57	19.000	19.001	-0.001	88	102646	0.4000	0.3991	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	97	65829	0.4000	0.3490	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	96	265327	0.4000	0.3792	
110 Dodecane	57	20.127	20.128	-0.001	89	92125	0.4000	0.3420	
111 1,2,4-Trichlorobenzene	180	20.208	20.205	0.003	94	147015	0.4000	0.3515	
113 Naphthalene	128	20.326	20.329	-0.003	98	247207	0.4000	0.2923	
115 Hexachlorobutadiene	225	20.591	20.590	0.001	96	188387	0.4000	0.3875	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	94	138621	0.4000	0.3449	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	98	37139	0.4000	0.1383	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	96	44726	0.4000	0.1888	
A 120 C8 Range	1	13.343	(13.284-13.381)		0	326670	0.4000	0.3926	
S 121 Xylenes, Total	100				0		1.20	1.24	
S 122 1,2-Dichloroethene, Total	1				0		0.8001	0.7707	

Reagents:

40L6DQP_00007	Amount Added: 80.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

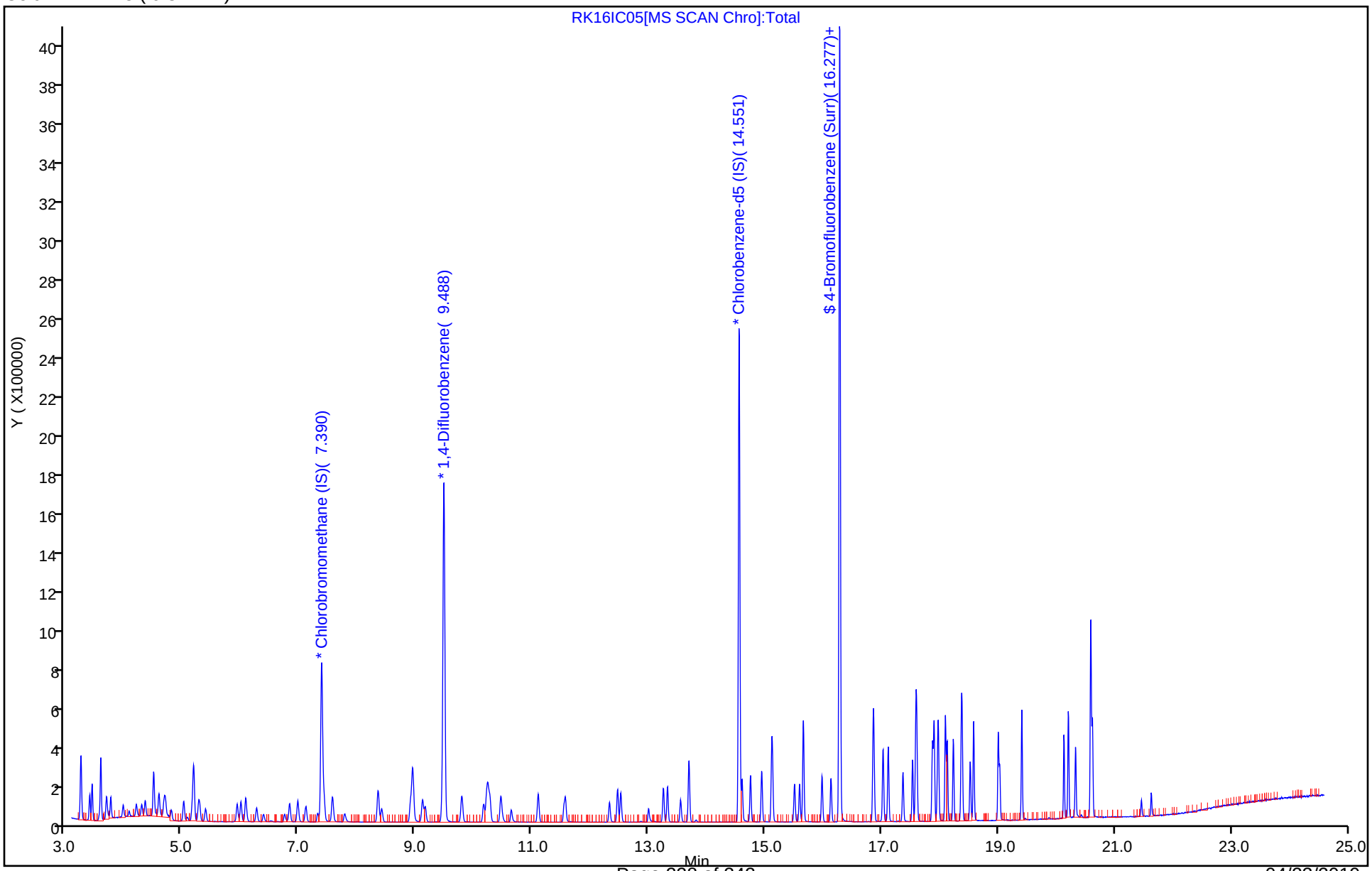
Report Date: 19-Nov-2018 15:43:06 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC05.D

Injection Date:	17-Nov-2018 01:12:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

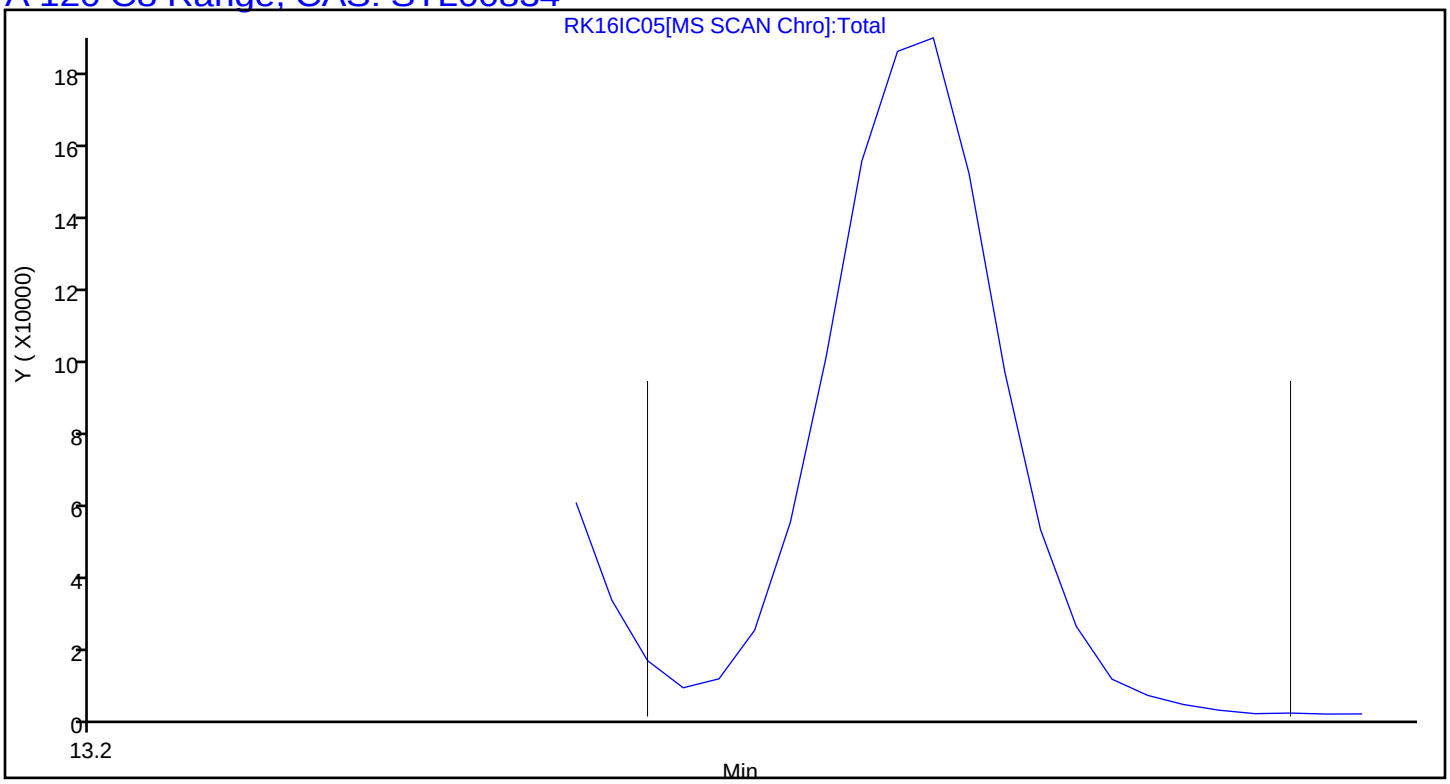


Report Date: 19-Nov-2018 15:43:06 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC05.D				
Injection Date:	17-Nov-2018 01:12:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:		ALS Bottle#:	4	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Nov-2018 02:05:30 ALS Bottle#: 4 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-013
Misc. Info.: 190395
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:43:12 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 17-Nov-2018 07:29:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.390	7.397	-0.007	70	284526	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.488	9.494	-0.006	95	1579313	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.556	14.555	0.001	90	1386926	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.277	16.279	-0.002	90	1197793	4.00	4.06	
6 Chlorodifluoromethane	51	3.416	3.417	-0.001	95	165552	1.00	0.9806	
7 Propene	41	3.421	3.420	0.001	94	51364	1.00	0.9898	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	99	295289	1.00	0.9538	
9 Chloromethane	52	3.583	3.586	-0.003	98	20420	1.00	0.9379	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.609	0.001	89	220441	1.00	0.9564	
11 Acetaldehyde	44	3.702	3.710	-0.008	93	111533	5.00	5.48	
12 Vinyl chloride	62	3.707	3.711	-0.004	100	70331	1.00	0.9214	
13 Butadiene	54	3.777	3.780	-0.003	88	46402	1.00	1.00	
14 Butane	43	3.782	3.782	0.000	90	78896	1.00	0.9797	
15 Bromomethane	94	3.993	3.995	-0.002	95	85746	1.00	0.9758	
16 Chloroethane	64	4.095	4.100	-0.005	94	34804	1.00	0.9845	
17 Ethanol	31	4.208	4.222	-0.014	93	104882	5.00	4.92	
18 Vinyl bromide	106	4.311	4.315	-0.004	97	90610	1.00	0.9784	
19 2-Methylbutane	43	4.365	4.369	-0.004	79	56760	1.00	1.00	
20 Acrolein	56	4.505	4.516	-0.011	27	15289	1.00	0.8501	
21 Trichlorofluoromethane	101	4.510	4.517	-0.007	99	413497	1.00	0.9832	
22 Acetonitrile	40	4.543	4.545	-0.002	93	16703	1.00	0.9079	
23 Acetone	58	4.591	4.605	-0.014	100	89101	3.00	3.02	
24 Pentane	72	4.688	4.693	-0.005	92	14137	1.00	0.9884	
25 Isopropyl alcohol	45	4.699	4.716	-0.017	93	239341	3.00	2.97	
26 Ethyl ether	31	4.802	4.817	-0.015	72	46526	1.00	0.9819	
27 1,1-Dichloroethene	96	5.028	5.033	-0.005	97	96830	1.00	0.9671	
28 Acrylonitrile	53	5.082	5.097	-0.015	91	44072	1.00	0.9871	
29 2-Methyl-2-propanol	59	5.152	5.173	-0.021	91	190196	1.00	1.00	
30 1,1,2-Trichloro-1,2,2-trif	101	5.195	5.199	-0.004	92	250984	1.00	1.01	
31 Methylene Chloride	84	5.281	5.290	-0.009	88	91431	1.00	0.9606	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.303	5.309	-0.006	86	95603	1.00	1.03	
33 Carbon disulfide	76	5.406	5.410	-0.004	99	242543	1.00	1.02	
34 trans-1,2-Dichloroethene	96	5.945	5.951	-0.006	97	99652	1.00	0.9758	
35 2-Methylpentane	43	6.009	6.011	-0.002	86	134813	1.00	1.00	
36 Methyl tert-butyl ether	73	6.080	6.094	-0.014	93	326320	1.00	1.00	
37 1,1-Dichloroethane	63	6.279	6.283	-0.004	98	165748	1.00	0.9699	
38 Vinyl acetate	43	6.392	6.402	-0.010	98	159088	1.00	0.9638	
39 2-Butanone (MEK)	72	6.748	6.761	-0.013	98	38268	1.00	0.9878	
40 Hexane	56	6.840	6.845	-0.005	82	58239	1.00	0.9804	
171 Isopropyl ether	45	6.975	6.989	-0.014	86	203305	1.00	0.99	
41 cis-1,2-Dichloroethene	96	7.120	7.127	-0.007	94	100389	1.00	0.9748	
42 Ethyl acetate	43	7.314	7.330	-0.016	98	143745	1.00	1.00	
43 Chloroform	83	7.433	7.439	-0.006	94	266010	1.00	0.9788	
173 Tert-butyl ethyl ether	59	7.568	7.580	-0.012	93	291639	1.00	0.99	
44 Tetrahydrofuran	42	7.778	7.793	-0.015	77	62926	1.00	1.00	
45 1,1,1-Trichloroethane	97	8.361	8.364	-0.003	94	339819	1.00	0.9864	
46 1,2-Dichloroethane	62	8.420	8.427	-0.007	97	199683	1.00	1.00	
47 Benzene	78	8.916	8.920	-0.004	98	249589	1.00	0.9699	
48 Cyclohexane	69	8.943	8.951	-0.008	84	39991	1.00	1.05	
50 Carbon tetrachloride	117	8.954	8.962	-0.008	97	374679	1.00	1.04	
49 n-Butanol	31	8.959	8.969	-0.010	73	17690	1.00	0.9698	
51 2,3-Dimethylpentane	71	9.121	9.126	-0.005	83	54415	1.00	1.02	
52 Thiophene	84	9.169	9.174	-0.005	94	149183	1.00	1.01	
53 Isooctane	57	9.795	9.798	-0.003	95	332582	1.00	1.01	
54 1,2-Dichloropropane	63	10.167	10.175	-0.008	73	80581	1.00	1.00	
55 n-Heptane	71	10.215	10.224	-0.009	82	84592	1.00	1.03	
56 Trichloroethene	130	10.248	10.250	-0.002	93	152289	1.00	0.9817	
57 Dibromomethane	93	10.275	10.279	-0.004	92	136587	1.00	0.9845	
58 Dichlorobromomethane	83	10.464	10.468	-0.004	98	263754	1.00	1.01	
59 1,4-Dioxane	88	10.485	10.497	-0.012	88	38117	1.00	0.9712	
60 Methyl methacrylate	41	10.641	10.649	-0.008	91	88559	1.00	0.9859	
61 Methylcyclohexane	83	11.105	11.109	-0.004	92	160604	1.00	1.01	
62 4-Methyl-2-pentanone (MIBK	43	11.537	11.552	-0.015	91	141224	1.00	0.9864	
63 cis-1,3-Dichloropropene	75	11.574	11.577	-0.003	97	155584	1.00	1.00	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	165754	1.00	1.02	
65 Toluene	91	12.470	12.471	-0.001	93	336279	1.00	1.01	
66 1,1,2-Trichloroethane	83	12.523	12.527	-0.004	94	91510	1.00	1.04	
69 2-Hexanone	58	12.993	13.003	-0.010	94	68694	1.00	0.9878	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	97	271846	1.00	1.06	
71 n-Octane	85	13.322	13.326	-0.004	75	109095	1.00	1.03	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	199953	1.00	1.03	
73 Tetrachloroethene	129	13.694	13.695	-0.001	93	168145	1.00	1.02	
74 Chlorobenzene	112	14.605	14.606	-0.001	92	295002	1.00	1.02	
75 2,3-Dimethylheptane	43	14.750	14.750	0.000	78	202047	1.00	1.04	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	491615	1.00	1.03	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	820994	2.00	2.09	
79 Bromoform	173	15.505	15.507	-0.002	96	263744	1.00	0.9769	
80 Styrene	104	15.592	15.594	-0.002	97	268745	1.00	1.04	
82 o-Xylene	91	15.651	15.655	-0.004	97	428791	1.00	1.04	
81 n-Nonane	57	15.656	15.659	-0.003	75	164273	1.00	1.05	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	93	223872	1.00	1.07	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	106933	1.00	1.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	96	589911	1.00	1.00	
86 N-Propylbenzene	120	16.854	16.856	-0.002	97	172077	1.00	1.07	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	93	156859	1.00	1.05	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	652888	1.00	1.07	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	267835	1.00	1.07	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	86	235120	1.00	0.99	
91 n-Decane	57	17.528	17.532	-0.004	97	237483	1.00	1.07	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	88	653325	1.00	1.07	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	597546	1.00	1.07	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	411115	1.00	1.02	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	799929	1.00	1.06	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	434461	1.00	1.01	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	95	419983	1.00	1.04	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	96	809499	1.00	1.07	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	636168	1.00	1.06	
100 Butylcyclohexane	83	18.229	18.232	-0.003	93	349539	1.00	1.06	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	93	400754	1.00	1.01	
102 2,3-Dihydroindene	117	18.380	18.383	-0.003	93	519916	1.00	1.05	
103 Indene	116	18.520	18.520	0.000	90	416558	1.00	1.03	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	652919	1.00	1.06	
105 Undecane	57	19.000	19.001	-0.001	87	279455	1.00	1.06	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	98	201092	1.00	1.04	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	736323	1.00	1.03	
110 Dodecane	57	20.127	20.128	-0.001	90	268129	1.00	0.9719	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	94	412431	1.00	0.9629	
113 Naphthalene	128	20.326	20.329	-0.003	98	719521	1.00	0.8307	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	96	517445	1.00	1.04	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	95	391665	1.00	0.9514	
117 2-Methylnaphthalene	142	21.459	21.458	0.001	99	124366	1.00	0.4520	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	135206	1.00	0.5571	
A 120 C8 Range	1	13.340	(13.278-13.375)		0	855982	1.00	1.01	
S 121 Xylenes, Total	100				0		3.00	3.13	
S 122 1,2-Dichloroethene, Total	1				0		2.00	1.95	

Reagents:

40L6DQP_00007	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

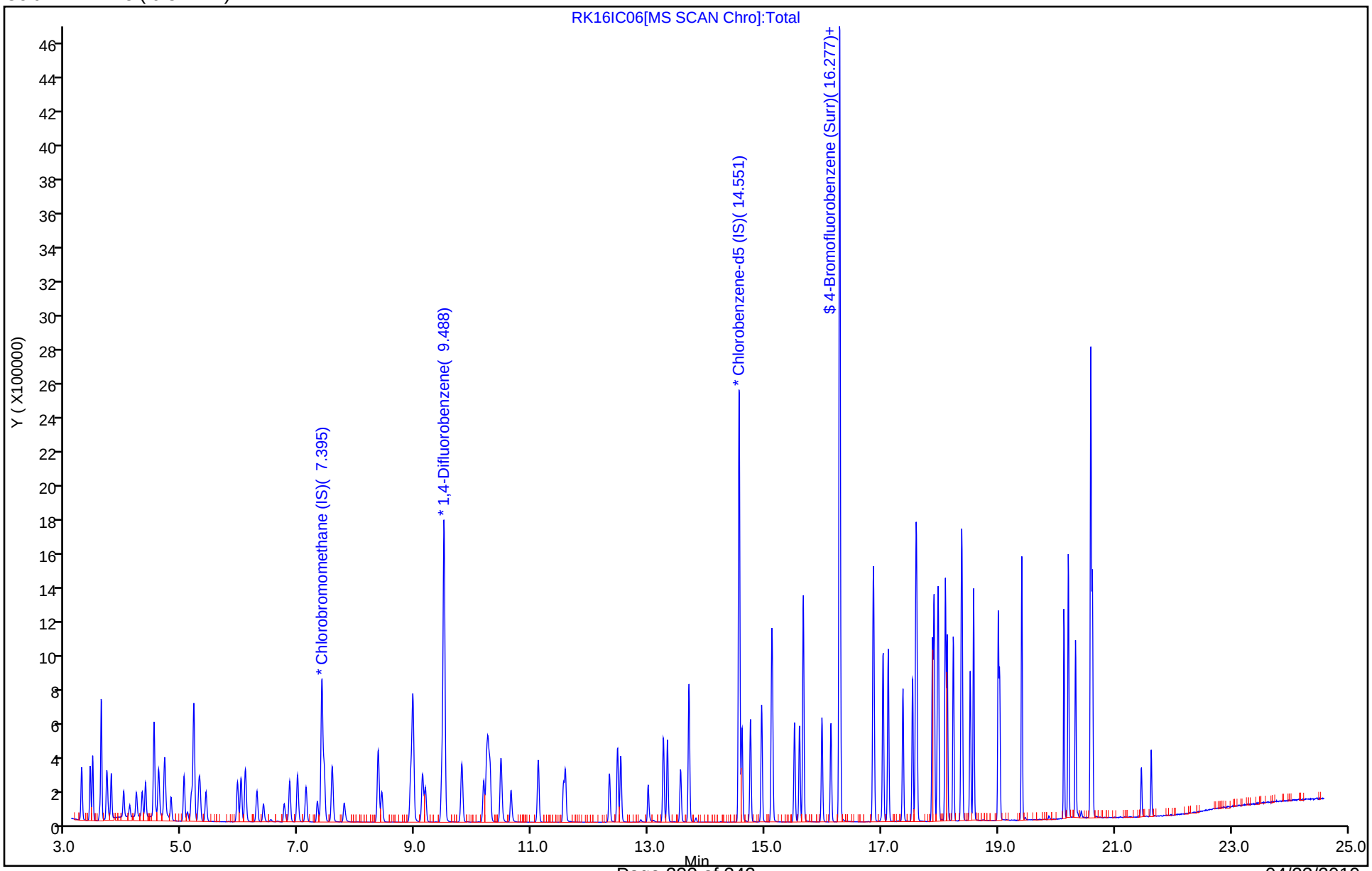
Report Date: 19-Nov-2018 15:43:13 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC06.D

Injection Date:	17-Nov-2018 02:05:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

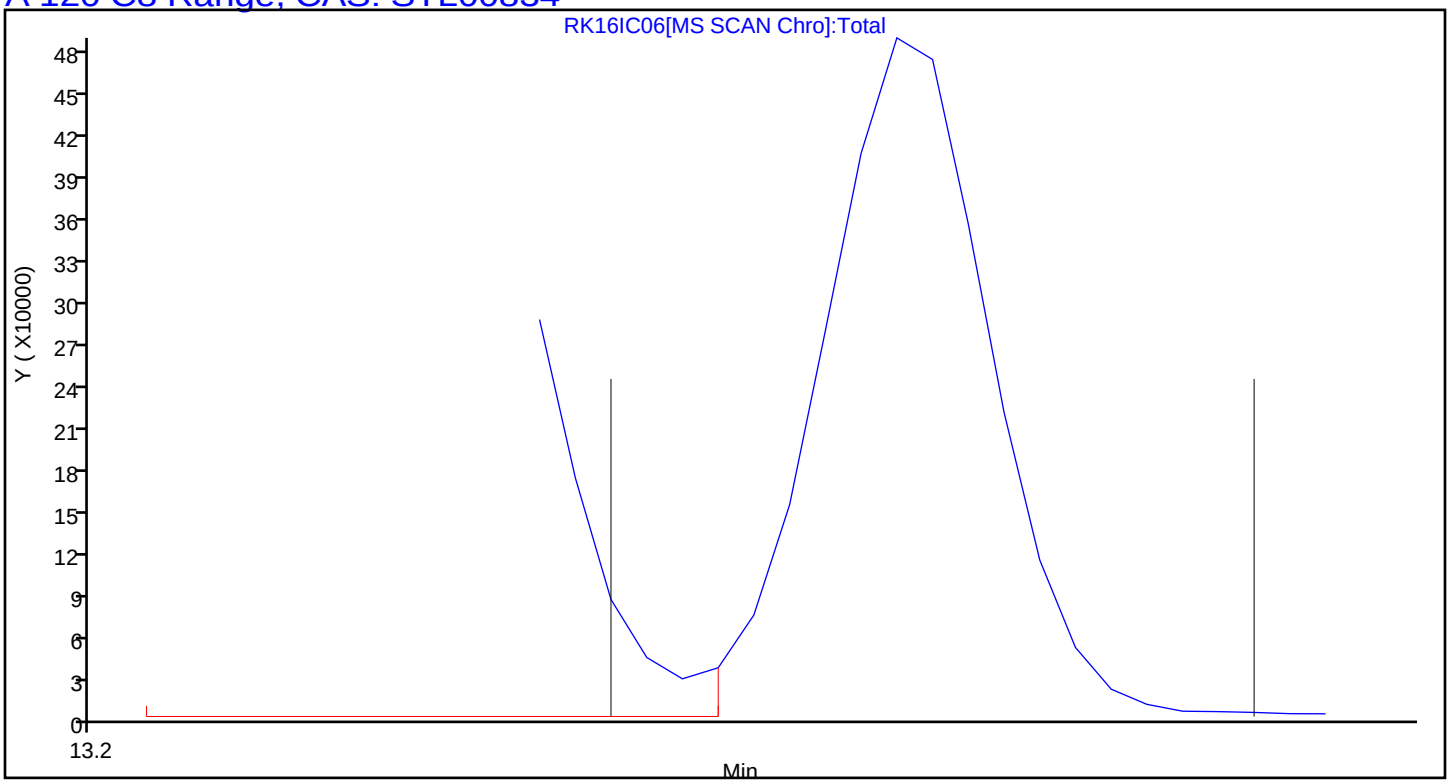


Report Date: 19-Nov-2018 15:43:13 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC06.D				
Injection Date:	17-Nov-2018 02:05:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:		ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 17-Nov-2018 02:58:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-014
Misc. Info.: 190394
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:43:18 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 17-Nov-2018 07:29:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.401	7.397	0.004	69	298864	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.493	9.494	-0.001	95	1677758	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.556	14.555	0.001	82	1487799	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.276	16.279	-0.003	87	1269845	4.00	4.01	
6 Chlorodifluoromethane	51	3.410	3.417	-0.007	77	330784	2.00	1.87	
7 Propene	41	3.416	3.420	-0.004	49	103039	2.00	1.89	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	95	593041	2.00	1.82	
9 Chloromethane	52	3.583	3.586	-0.003	98	40844	2.00	1.79	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.604	3.609	-0.005	89	456323	2.00	1.88	
11 Acetaldehyde	44	3.701	3.710	-0.009	91	205358	10.0	9.61	
12 Vinyl chloride	62	3.707	3.711	-0.004	71	142840	2.00	1.78	
13 Butadiene	54	3.777	3.780	-0.003	82	94920	2.00	1.95	
14 Butane	43	3.777	3.782	-0.005	74	157806	2.00	1.87	
15 Bromomethane	94	3.993	3.995	-0.002	95	176496	2.00	1.91	
16 Chloroethane	64	4.095	4.100	-0.005	94	68833	2.00	1.85	
17 Ethanol	31	4.214	4.222	-0.008	93	224069	10.0	10.0	
18 Vinyl bromide	106	4.311	4.315	-0.004	95	186899	2.00	1.92	
19 2-Methylbutane	43	4.365	4.369	-0.004	78	115570	2.00	1.93	
20 Acrolein	56	4.505	4.516	-0.011	26	37440	2.00	1.98	
21 Trichlorofluoromethane	101	4.516	4.517	-0.001	99	844261	2.00	1.91	
22 Acetonitrile	40	4.548	4.545	0.003	68	35460	2.00	1.84	
23 Acetone	58	4.591	4.605	-0.014	92	173059	6.00	5.58	
24 Pentane	72	4.688	4.693	-0.005	91	28499	2.00	1.90	
25 Isopropyl alcohol	45	4.704	4.716	-0.012	91	509997	6.00	6.03	
26 Ethyl ether	31	4.802	4.817	-0.015	70	93310	2.00	1.87	
27 1,1-Dichloroethene	96	5.028	5.033	-0.005	96	202076	2.00	1.92	
28 Acrylonitrile	53	5.093	5.097	-0.004	84	91512	2.00	1.95	
29 2-Methyl-2-propanol	59	5.152	5.173	-0.021	53	409183	2.00	2.05	
30 1,1,2-Trichloro-1,2,2-trif	101	5.195	5.199	-0.004	90	515989	2.00	1.98	
31 Methylene Chloride	84	5.287	5.290	-0.003	86	178076	2.00	1.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.303	5.309	-0.006	82	193431	2.00	1.98	
33 Carbon disulfide	76	5.405	5.410	-0.005	99	499031	2.00	2.00	
34 trans-1,2-Dichloroethene	96	5.950	5.951	-0.001	95	206172	2.00	1.92	
35 2-Methylpentane	43	6.004	6.011	-0.007	84	275324	2.00	1.95	
36 Methyl tert-butyl ether	73	6.080	6.094	-0.014	89	676752	2.00	1.98	
37 1,1-Dichloroethane	63	6.279	6.283	-0.004	98	342362	2.00	1.91	
38 Vinyl acetate	43	6.392	6.402	-0.010	98	349189	2.00	2.01	
39 2-Butanone (MEK)	72	6.748	6.761	-0.013	66	79333	2.00	1.95	
40 Hexane	56	6.840	6.845	-0.005	80	121155	2.00	1.94	
171 Isopropyl ether	45	6.975	6.989	-0.014	86	426151	2.00	1.99	
41 cis-1,2-Dichloroethene	96	7.126	7.127	-0.001	93	213838	2.00	1.98	
42 Ethyl acetate	43	7.314	7.330	-0.016	98	303889	2.00	2.02	
43 Chloroform	83	7.438	7.439	-0.001	85	550434	2.00	1.93	
173 Tert-butyl ethyl ether	59	7.568	7.580	-0.012	92	613018	2.00	1.98	
44 Tetrahydrofuran	42	7.773	7.793	-0.020	77	130211	2.00	1.97	
45 1,1,1-Trichloroethane	97	8.366	8.364	0.002	95	712345	2.00	1.97	
46 1,2-Dichloroethane	62	8.425	8.427	-0.002	78	414101	2.00	1.95	
47 Benzene	78	8.921	8.920	0.001	98	523482	2.00	1.91	
48 Cyclohexane	69	8.948	8.951	-0.003	71	82675	2.00	2.04	
50 Carbon tetrachloride	117	8.959	8.962	-0.003	96	786171	2.00	2.04	
49 n-Butanol	31	8.948	8.969	-0.021	25	40004	2.00	2.06	
51 2,3-Dimethylpentane	71	9.121	9.126	-0.005	83	116636	2.00	2.06	
52 Thiophene	84	9.175	9.174	0.001	89	311873	2.00	1.99	
53 Isooctane	57	9.795	9.798	-0.003	95	691902	2.00	1.98	
54 1,2-Dichloropropane	63	10.172	10.175	-0.003	68	169011	2.00	1.97	
55 n-Heptane	71	10.221	10.224	-0.003	77	178041	2.00	2.04	
56 Trichloroethene	130	10.248	10.250	-0.002	93	324569	2.00	1.97	
57 Dibromomethane	93	10.280	10.279	0.001	91	283066	2.00	1.92	
58 Dichlorobromomethane	83	10.469	10.468	0.001	98	564189	2.00	2.04	
59 1,4-Dioxane	88	10.485	10.497	-0.012	40	86437	2.00	2.07	
60 Methyl methacrylate	41	10.641	10.649	-0.008	91	195505	2.00	2.05	
61 Methylcyclohexane	83	11.111	11.109	0.002	92	339768	2.00	2.01	
62 4-Methyl-2-pentanone (MIBK	43	11.537	11.552	-0.015	91	311634	2.00	2.05	
63 cis-1,3-Dichloropropene	75	11.574	11.577	-0.003	96	346235	2.00	2.09	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	369600	2.00	2.13	
65 Toluene	91	12.469	12.471	-0.002	93	715966	2.00	2.01	
66 1,1,2-Trichloroethane	83	12.523	12.527	-0.004	91	192987	2.00	2.04	
69 2-Hexanone	58	12.987	13.003	-0.016	94	156406	2.00	2.10	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	96	617174	2.00	2.24	
71 n-Octane	85	13.321	13.326	-0.005	74	233063	2.00	2.05	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	431756	2.00	2.08	
73 Tetrachloroethene	129	13.694	13.695	-0.001	94	358488	2.00	2.03	
74 Chlorobenzene	112	14.605	14.606	-0.001	85	622855	2.00	2.00	
75 2,3-Dimethylheptane	43	14.745	14.750	-0.005	79	424515	2.00	2.03	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	1050972	2.00	2.04	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	1718390	4.00	4.08	
79 Bromoform	173	15.505	15.507	-0.002	96	631165	2.00	2.18	
80 Styrene	104	15.592	15.594	-0.002	93	593262	2.00	2.15	
82 o-Xylene	91	15.651	15.655	-0.004	77	897122	2.00	2.03	
81 n-Nonane	57	15.656	15.659	-0.003	72	340741	2.00	2.03	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.002	93	480219	2.00	2.13	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	225670	2.00	2.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	96	1239416	2.00	1.97	
86 N-Propylbenzene	120	16.853	16.856	-0.003	96	356669	2.00	2.06	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	92	320641	2.00	2.00	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	97	1384436	2.00	2.12	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	551670	2.00	2.06	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	84	542707	2.00	2.13	
91 n-Decane	57	17.533	17.532	0.001	94	489862	2.00	2.05	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	65	1326146	2.00	2.03	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	93	1240172	2.00	2.08	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	863153	2.00	2.00	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	94	1651103	2.00	2.05	
96 Benzyl chloride	91	17.959	17.962	-0.003	96	984275	2.00	2.14	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	92	862511	2.00	1.99	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	92	1677824	2.00	2.06	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	1329610	2.00	2.07	
100 Butylcyclohexane	83	18.229	18.232	-0.003	92	722497	2.00	2.05	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	93	829934	2.00	1.95	
102 2,3-Dihydroindene	117	18.380	18.383	-0.003	88	1063787	2.00	2.01	
103 Indene	116	18.520	18.520	0.000	83	909289	2.00	2.09	
104 n-Butylbenzene	91	18.579	18.580	-0.001	95	1341073	2.00	2.02	
105 Undecane	57	19.000	19.001	-0.001	86	588913	2.00	2.08	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	99	458234	2.00	2.21	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	94	1609444	2.00	2.09	
110 Dodecane	57	20.127	20.128	-0.001	90	664765	2.00	2.25	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	93	944306	2.00	2.06	
113 Naphthalene	128	20.326	20.329	-0.003	98	1821564	2.00	1.96	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	85	1070672	2.00	2.00	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	93	908417	2.00	2.06	
117 2-Methylnaphthalene	142	21.453	21.458	-0.005	98	707384	2.00	2.40	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	641933	2.00	2.47	
A 120 C8 Range	1	13.340	(13.278-13.375)		0	1781529	2.00	1.99	
S 121 Xylenes, Total	100				0		6.00	6.10	
S 122 1,2-Dichloroethene, Total	1				0		4.00	3.90	

Reagents:

40L7DQP_00007	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

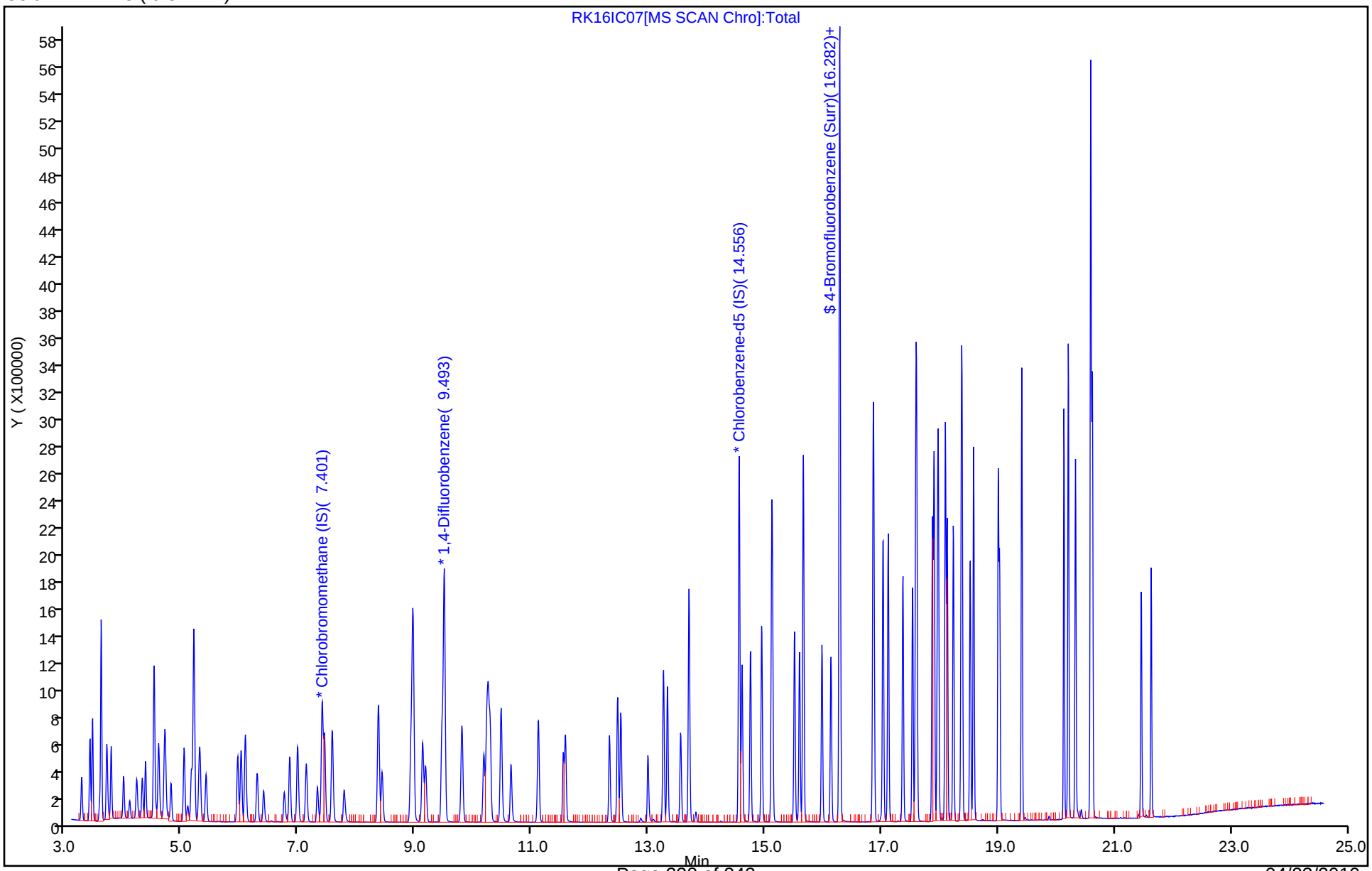
Report Date: 19-Nov-2018 15:43:19 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC07.D

Injection Date:	17-Nov-2018 02:58:30	Instrument ID:	MR	Operator ID:	
Lims ID:	ICIS L7			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

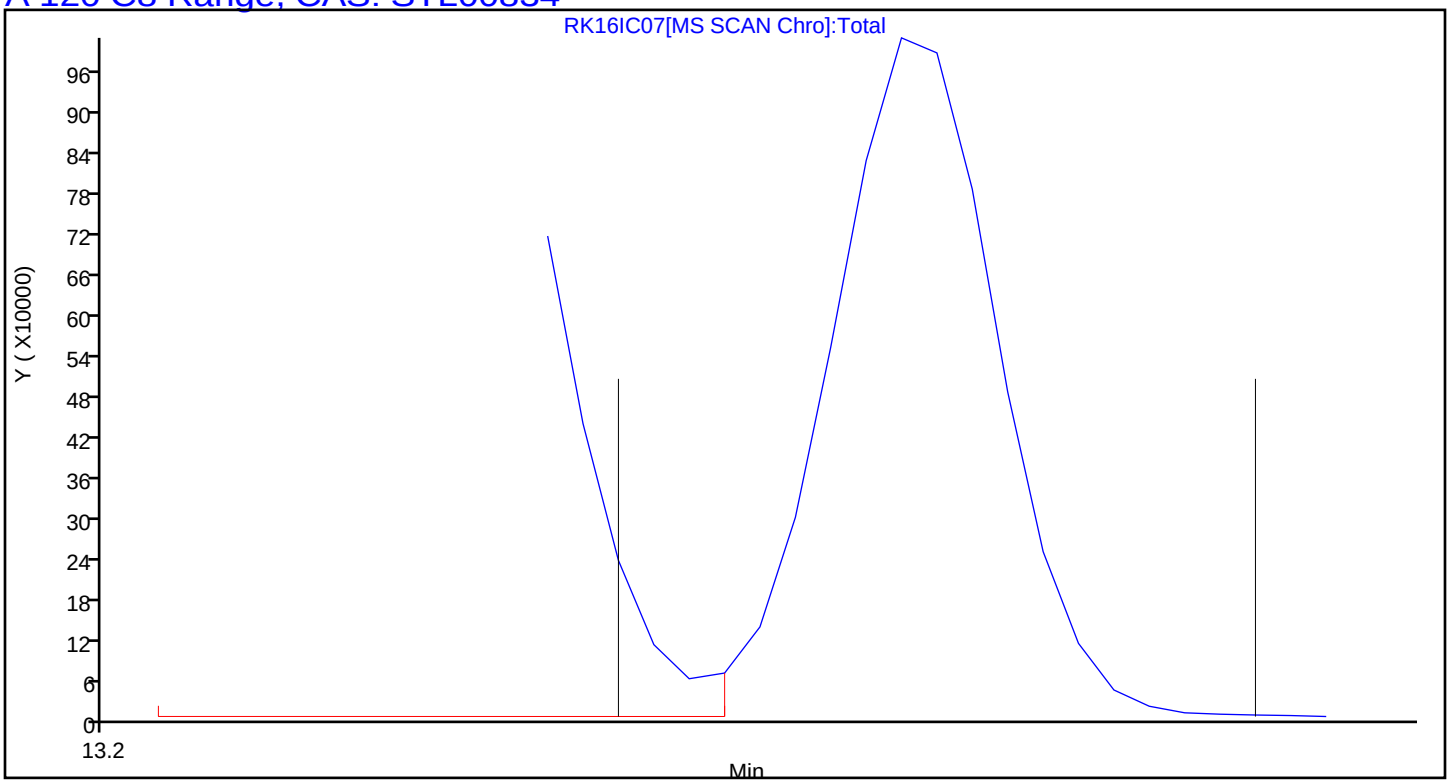


Report Date: 19-Nov-2018 15:43:19 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC07.D				
Injection Date:	17-Nov-2018 02:58:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-Nov-2018 03:51:30 ALS Bottle#: 6 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-015
Misc. Info.: 190393
Operator ID: Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:43:24 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 17-Nov-2018 07:34:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.406	7.397	0.009	81	299965	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.498	9.494	0.004	95	1676956	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.557	14.555	0.001	89	1513773	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.282	16.279	0.003	84	1293730	4.00	4.02	
6 Chlorodifluoromethane	51	3.416	3.417	-0.001	96	670931	4.00	3.77	
7 Propene	41	3.421	3.420	0.001	91	205301	4.00	3.75	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	100	1212691	4.00	3.72	
9 Chloromethane	52	3.588	3.586	0.002	98	80675	4.00	3.51	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.609	0.001	97	932912	4.00	3.84	
11 Acetaldehyde	44	3.707	3.710	-0.003	94	415146	20.0	19.4	
12 Vinyl chloride	62	3.712	3.711	0.001	99	286294	4.00	3.56	
13 Butadiene	54	3.783	3.780	0.003	88	191280	4.00	3.92	
14 Butane	43	3.783	3.782	0.001	89	323819	4.00	3.81	
15 Bromomethane	94	3.998	3.995	0.003	96	354225	4.00	3.82	
16 Chloroethane	64	4.106	4.100	0.006	96	140181	4.00	3.76	
17 Ethanol	31	4.230	4.222	0.008	93	447098	20.0	19.9	
18 Vinyl bromide	106	4.322	4.315	0.007	96	380924	4.00	3.90	
19 2-Methylbutane	43	4.370	4.369	0.001	79	228167	4.00	3.80	
20 Acrolein	56	4.516	4.516	0.000	97	74788	4.00	3.94	
21 Trichlorofluoromethane	101	4.521	4.517	0.004	99	1697186	4.00	3.83	
22 Acetonitrile	40	4.559	4.545	0.014	94	84531	4.00	4.36	
23 Acetone	58	4.602	4.605	-0.003	100	340521	12.0	10.9	
24 Pentane	72	4.699	4.693	0.006	92	58302	4.00	3.87	
25 Isopropyl alcohol	45	4.715	4.716	-0.001	93	1016357	12.0	12.0	
26 Ethyl ether	31	4.812	4.817	-0.005	71	189800	4.00	3.80	
27 1,1-Dichloroethene	96	5.039	5.033	0.006	97	414812	4.00	3.93	
28 Acrylonitrile	53	5.104	5.097	0.007	91	186041	4.00	3.95	
29 2-Methyl-2-propanol	59	5.163	5.173	-0.010	92	809098	4.00	4.03	
30 1,1,2-Trichloro-1,2,2-trif	101	5.201	5.199	0.002	93	1031649	4.00	3.94	
31 Methylene Chloride	84	5.298	5.290	0.008	88	345898	4.00	3.45	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.314	5.309	0.005	85	385054	4.00	3.92	
33 Carbon disulfide	76	5.416	5.410	0.006	99	997332	4.00	3.98	
34 trans-1,2-Dichloroethene	96	5.961	5.951	0.010	97	421281	4.00	3.91	
35 2-Methylpentane	43	6.015	6.011	0.004	84	553915	4.00	3.90	
36 Methyl tert-butyl ether	73	6.085	6.094	-0.009	93	1373906	4.00	4.01	
37 1,1-Dichloroethane	63	6.295	6.283	0.012	98	695373	4.00	3.86	
38 Vinyl acetate	43	6.403	6.402	0.001	98	730693	4.00	4.20	
39 2-Butanone (MEK)	72	6.759	6.761	-0.002	97	165553	4.00	4.05	
40 Hexane	56	6.845	6.845	0.000	81	248691	4.00	3.97	
171 Isopropyl ether	45	6.986	6.989	-0.003	86	863733	4.00	4.01	
41 cis-1,2-Dichloroethene	96	7.137	7.127	0.010	94	429081	4.00	3.95	
42 Ethyl acetate	43	7.325	7.330	-0.005	98	632910	4.00	4.20	
43 Chloroform	83	7.449	7.439	0.010	96	1123349	4.00	3.92	
173 Tert-butyl ethyl ether	59	7.579	7.580	-0.001	92	1274961	4.00	4.11	
44 Tetrahydrofuran	42	7.778	7.793	-0.015	76	266070	4.00	4.00	
45 1,1,1-Trichloroethane	97	8.371	8.364	0.007	95	1454125	4.00	4.00	
46 1,2-Dichloroethane	62	8.436	8.427	0.009	97	837957	4.00	3.95	
47 Benzene	78	8.927	8.920	0.007	98	1050705	4.00	3.85	
48 Cyclohexane	69	8.954	8.951	0.003	91	167839	4.00	4.13	
50 Carbon tetrachloride	117	8.965	8.962	0.003	98	1553305	4.00	4.04	
49 n-Butanol	31	8.948	8.969	-0.021	65	82457	4.00	4.26	
51 2,3-Dimethylpentane	71	9.132	9.126	0.006	83	235995	4.00	4.17	
52 Thiophene	84	9.180	9.174	0.006	94	639928	4.00	4.09	
53 Isooctane	57	9.800	9.798	0.002	94	1407509	4.00	4.02	
54 1,2-Dichloropropane	63	10.178	10.175	0.003	77	344383	4.00	4.02	
55 n-Heptane	71	10.226	10.224	0.002	83	361284	4.00	4.14	
56 Trichloroethene	130	10.253	10.250	0.003	96	707793	4.00	4.30	
57 Dibromomethane	93	10.286	10.279	0.007	91	586890	4.00	3.98	
58 Dichlorobromomethane	83	10.469	10.468	0.001	98	1174659	4.00	4.25	
59 1,4-Dioxane	88	10.485	10.497	-0.012	86	173912	4.00	4.17	
60 Methyl methacrylate	41	10.642	10.649	-0.007	91	413937	4.00	4.34	
61 Methylcyclohexane	83	11.111	11.109	0.002	92	689164	4.00	4.09	
62 4-Methyl-2-pentanone (MIBK	43	11.537	11.552	-0.015	91	659470	4.00	4.34	
63 cis-1,3-Dichloropropene	75	11.575	11.577	-0.002	95	719012	4.00	4.34	
64 trans-1,3-Dichloropropene	75	12.329	12.332	-0.003	97	783879	4.00	4.43	
65 Toluene	91	12.470	12.471	-0.001	93	1469948	4.00	4.05	
66 1,1,2-Trichloroethane	83	12.524	12.527	-0.003	94	395113	4.00	4.11	
69 2-Hexanone	58	12.987	13.003	-0.016	95	338784	4.00	4.46	
70 Chlorodibromomethane	129	13.257	13.258	-0.001	97	1311808	4.00	4.68	
71 n-Octane	85	13.327	13.326	0.001	74	477723	4.00	4.13	
72 Ethylene Dibromide	107	13.554	13.551	0.003	97	900939	4.00	4.27	
73 Tetrachloroethene	129	13.694	13.695	-0.001	94	719415	4.00	4.00	
74 Chlorobenzene	112	14.605	14.606	-0.001	92	1278293	4.00	4.03	
75 2,3-Dimethylheptane	43	14.751	14.750	0.001	77	866249	4.00	4.07	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	2145561	4.00	4.10	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	3492522	8.00	8.14	
79 Bromoform	173	15.506	15.507	-0.001	96	1405685	4.00	4.77	
80 Styrene	104	15.592	15.594	-0.002	98	1255220	4.00	4.46	
82 o-Xylene	91	15.657	15.655	0.002	97	1814388	4.00	4.03	
81 n-Nonane	57	15.657	15.659	-0.002	75	686883	4.00	4.02	
83 1,1,2,2-Tetrachloroethane	83	15.975	15.976	-0.001	93	935594	4.00	4.09	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	461156	4.00	4.06	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.282	16.283	-0.001	97	2553866	4.00	3.98	
86 N-Propylbenzene	120	16.854	16.856	-0.002	97	735475	4.00	4.18	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	92	653681	4.00	4.01	
88 4-Ethyltoluene	105	17.026	17.027	-0.001	98	2809081	4.00	4.22	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	1121740	4.00	4.12	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	86	1140621	4.00	4.40	
91 n-Decane	57	17.533	17.532	0.001	97	987208	4.00	4.06	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	89	2644216	4.00	3.98	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	2478370	4.00	4.08	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	1751738	4.00	3.99	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	3316313	4.00	4.04	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	2125520	4.00	4.53	
97 1,4-Dichlorobenzene	146	17.975	17.977	-0.002	95	1725619	4.00	3.92	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	3366403	4.00	4.06	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	2652674	4.00	4.06	
100 Butylcyclohexane	83	18.234	18.232	0.002	92	1440937	4.00	4.01	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	95	1669523	4.00	3.86	
102 2,3-Dihydroindene	117	18.385	18.383	0.002	93	2153540	4.00	4.00	
103 Indene	116	18.520	18.520	0.000	90	1898638	4.00	4.29	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	2705337	4.00	4.01	
105 Undecane	57	19.000	19.001	-0.001	87	1182131	4.00	4.11	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	98	986255	4.00	4.68	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	3260653	4.00	4.17	
110 Dodecane	57	20.127	20.128	-0.001	90	1343815	4.00	4.46	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	94	1940306	4.00	4.15	
113 Naphthalene	128	20.326	20.329	-0.003	98	3797602	4.00	4.02	
115 Hexachlorobutadiene	225	20.591	20.590	0.001	95	2166873	4.00	3.99	
116 1,2,3-Trichlorobenzene	180	20.618	20.618	0.000	94	1865471	4.00	4.15	
117 2-Methylnaphthalene	142	21.453	21.458	-0.005	98	1636134	4.00	5.45	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	1437560	4.00	5.43	
A 120 C8 Range	1	13.340	(13.279-13.376)		0	3620641	4.00	4.04	
S 121 Xylenes, Total	100				0		12.0	12.2	
S 122 1,2-Dichloroethene, Total	1				0		8.00	7.86	

Reagents:

40L8DQP_00007	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

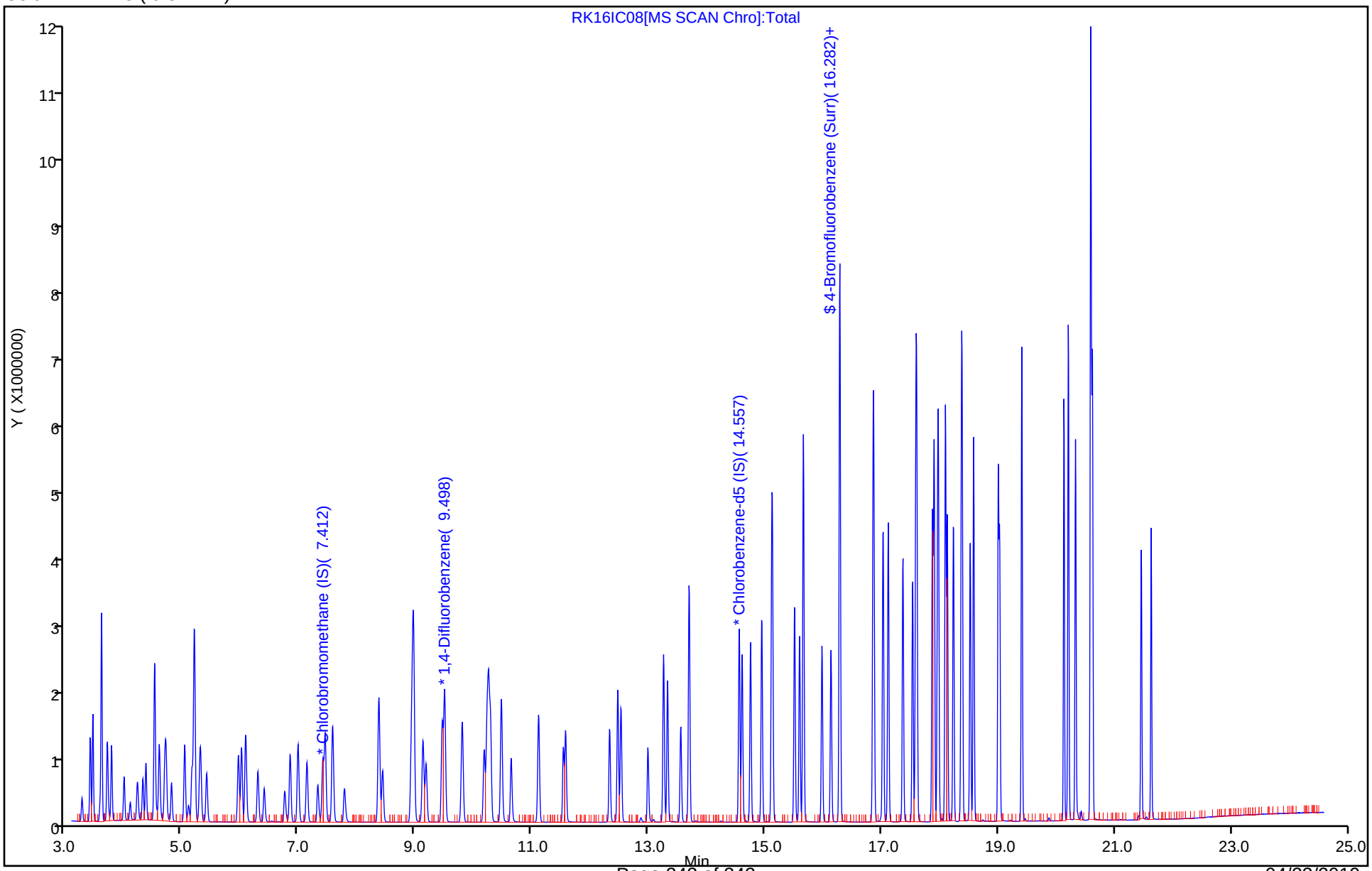
Report Date: 19-Nov-2018 15:43:25 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Injection Date:	17-Nov-2018 03:51:30	Instrument ID:	MR	Operator ID:	
Lims ID:	IC L8			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

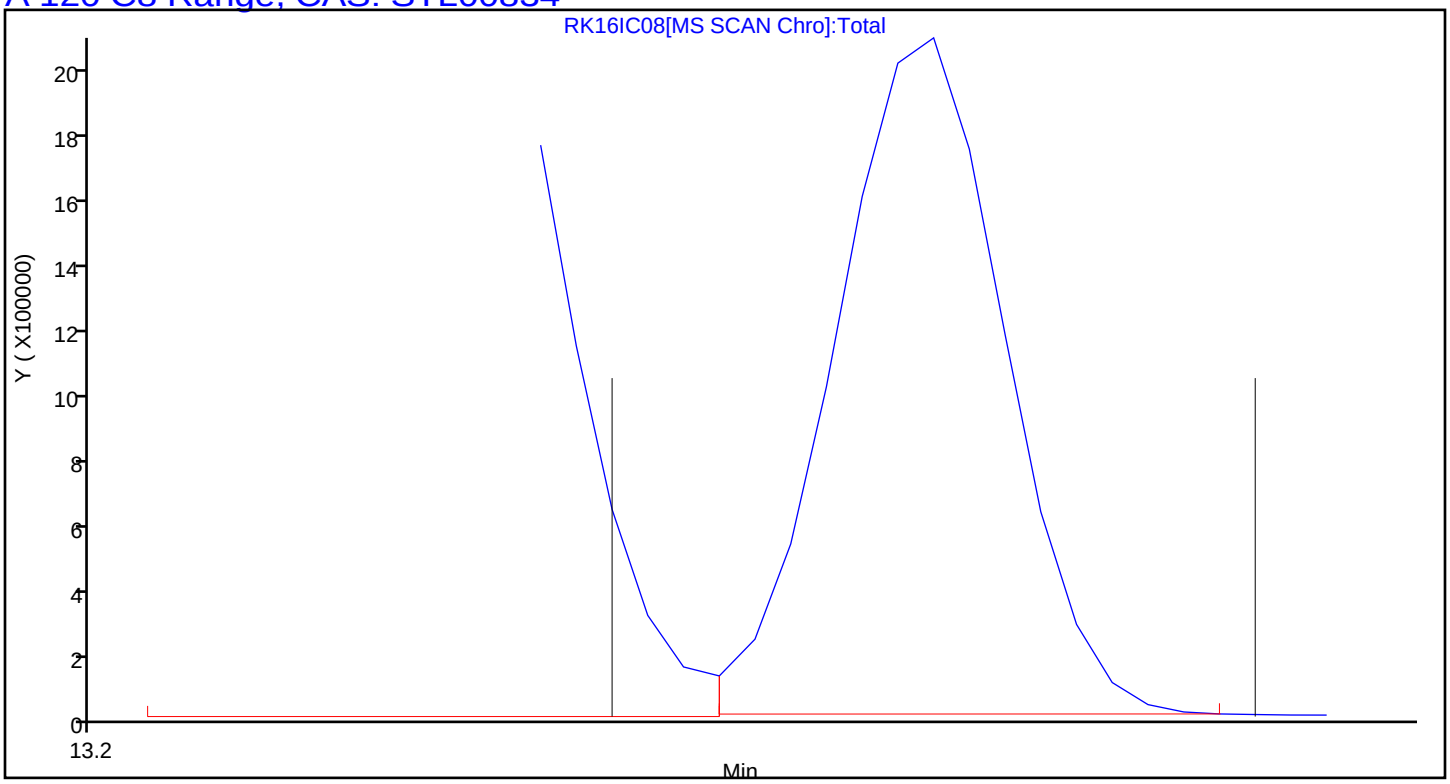


Report Date: 19-Nov-2018 15:43:25 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Injection Date:	17-Nov-2018 03:51:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-29202/17 Calibration Date: 04/12/2019 05:16

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JD11ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.690	1.849		2.19	2.00	9.4	35.0
Propene	Ave	1.018	1.063		2.09	2.00	4.4	35.0
Dichlorodifluoromethane	Ave	1.449	1.507		2.08	2.00	4.0	35.0
Chloromethane	Ave	0.4881	0.4903		2.01	2.00	0.5	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.2975	0.3208		2.16	2.00	7.9	35.0
Acetaldehyde	Lin1		0.4277		8.00	10.0	-20.0	35.0
Vinyl chloride	Ave	1.617	1.725		2.13	2.00	6.6	35.0
1,3-Butadiene	Ave	1.113	1.206		2.17	2.00	8.4	35.0
Butane	Ave	2.269	2.551		2.25	2.00	12.5	35.0
Bromomethane	Ave	1.471	1.528		2.08	2.00	3.9	35.0
Chloroethane	Ave	0.6687	0.7142		2.14	2.00	6.8	35.0
Ethanol	Lin1		0.4099		7.29	10.0	-27.1	35.0
Vinyl bromide	Ave	1.350	1.567		2.32	2.00	16.0	35.0
2-Methylbutane	Ave	1.478	1.797		2.43	2.00	21.6	35.0
Trichlorofluoromethane	Ave	4.041	4.419		2.19	2.00	9.3	35.0
Acrolein	Ave	0.2776	0.2591		1.87	2.00	-6.7	35.0
Acetonitrile	Ave	0.4083	0.3536		1.73	2.00	-13.4	35.0
Acetone	Ave	0.4782	0.4656		1.95	2.00	-2.6	35.0
Isopropyl alcohol	Ave	1.429	1.750		2.45	2.00	22.5	35.0
Pentane	Ave	0.2041	0.2407		2.36	2.00	17.9	35.0
Ethyl ether	Ave	1.424	1.302		1.83	2.00	-8.5	35.0
1,1-Dichloroethene	Ave	1.360	1.438		2.11	2.00	5.7	35.0
tert-Butyl alcohol	Ave	2.065	1.908		1.85	2.00	-7.6	35.0
Acrylonitrile	Ave	0.8120	0.7021		1.73	2.00	-13.5	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.018	3.057		2.03	2.00	1.3	35.0
Methylene Chloride	Lin		1.352		2.08	2.00	3.8	35.0
3-Chloropropene	Ave	1.211	1.315		2.17	2.00	8.6	35.0
Carbon disulfide	Ave	4.102	4.469		2.18	2.00	8.9	35.0
trans-1,2-Dichloroethene	Ave	1.319	1.330		2.02	2.00	0.8	35.0
2-Methylpentane	Ave	3.366	3.098		1.84	2.00	-8.0	35.0
Methyl tert-butyl ether	Ave	3.120	2.738		1.76	2.00	-12.2	35.0
1,1-Dichloroethane	Ave	2.601	2.583		1.99	2.00	-0.7	35.0
Vinyl acetate	Ave	3.044	2.604		1.71	2.00	-14.4	35.0
2-Butanone (MEK)	Ave	0.5864	0.4914		1.68	2.00	-16.2	35.0
Hexane	Ave	1.114	1.091		1.96	2.00	-2.1	35.0
Isopropyl ether	Ave	4.002	3.552		1.77	2.00	-11.3	35.0
cis-1,2-Dichloroethene	Ave	1.363	1.343		1.97	2.00	-1.5	35.0
Ethyl acetate	Ave	2.578	2.137		1.66	2.00	-17.1	35.0
Chloroform	Ave	3.032	2.987		1.97	2.00	-1.5	35.0
Tert-butyl ethyl ether	Ave	3.500	2.882		1.65	2.00	-17.7	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-29202/17 Calibration Date: 04/12/2019 05:16

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JD11ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.345	1.166		1.73	2.00	-13.4	35.0
1,1,1-Trichloroethane	Ave	2.900	2.868		1.98	2.00	-1.1	35.0
1,2-Dichloroethane	Ave	0.3225	0.3163		1.96	2.00	-1.9	35.0
1-Butanol	Ave	0.0933	0.0868		1.86	2.00	-7.0	35.0
Benzene	Ave	0.6963	0.6853		1.97	2.00	-1.6	35.0
Cyclohexane	Ave	0.1166	0.1186		2.03	2.00	1.7	35.0
Carbon tetrachloride	Ave	0.5077	0.5080		2.00	2.00	0.0	35.0
2,3-Dimethylpentane	Ave	0.1650	0.1556		1.89	2.00	-5.7	35.0
Thiophene	Ave	0.4002	0.3696		1.85	2.00	-7.6	35.0
2,2,4-Trimethylpentane	Ave	1.132	1.132		2.00	2.00	0.0	35.0
Heptane	Ave	0.2458	0.2399		1.95	2.00	-2.4	35.0
1,2-Dichloropropane	Ave	0.2720	0.2715		2.00	2.00	-0.2	35.0
Trichloroethene	Ave	0.3196	0.3158		1.98	2.00	-1.2	35.0
Dibromomethane	Ave	0.3048	0.2880		1.89	2.00	-5.5	35.0
Bromodichloromethane	Ave	0.5153	0.5085		1.97	2.00	-1.3	35.0
1,4-Dioxane	Ave	0.0883	0.0735		1.66	2.00	-16.8	35.0
Methyl methacrylate	Ave	0.2789	0.2213		1.59	2.00	-20.7	35.0
Methylcyclohexane	Ave	0.4282	0.5086		2.38	2.00	18.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4753	0.4155		1.75	2.00	-12.6	35.0
cis-1,3-Dichloropropene	Ave	0.4011	0.4042		2.02	2.00	0.8	35.0
trans-1,3-Dichloropropene	Ave	0.3759	0.3626		1.93	2.00	-3.5	35.0
Toluene	Ave	0.8276	0.7853		1.90	2.00	-5.1	35.0
1,1,2-Trichloroethane	Ave	0.2718	0.2516		1.85	2.00	-7.4	35.0
2-Hexanone	Ave	0.2505	0.2269		1.81	2.00	-9.4	35.0
Octane	Ave	0.2748	0.2777		2.02	2.00	1.0	35.0
Dibromochloromethane	Ave	0.5474	0.5424		1.98	2.00	-0.9	35.0
1,2-Dibromoethane (EDB)	Ave	0.4723	0.4638		1.96	2.00	-1.8	35.0
Tetrachloroethene	Ave	0.3296	0.3234		1.96	2.00	-1.9	35.0
2,3-Dimethylheptane	Ave	0.9342	0.8294		1.78	2.00	-11.2	35.0
Chlorobenzene	Ave	0.6938	0.6968		2.01	2.00	0.4	35.0
Ethylbenzene	Ave	1.003	0.8786		1.75	2.00	-12.4	35.0
m-Xylene & p-Xylene	Ave	0.7748	0.6897		3.56	4.00	-11.0	35.0
Nonane	Ave	0.5513	0.5558		2.02	2.00	0.8	35.0
Styrene	Ave	0.5796	0.5014		1.73	2.00	-13.5	35.0
Bromoform	Ave	0.5245	0.5011		1.91	2.00	-4.5	35.0
o-Xylene	Ave	0.8169	0.7037		1.72	2.00	-13.9	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6349	0.5074		1.60	2.00	-20.1	35.0
1,2,3-Trichloropropane	Ave	0.1580	0.1324		1.68	2.00	-16.2	35.0
Isopropylbenzene	Ave	1.097	0.9577		1.75	2.00	-12.7	35.0
Propylbenzene	Ave	0.3015	0.2607		1.73	2.00	-13.5	35.0
2-Chlorotoluene	Ave	0.2921	0.2673		1.83	2.00	-8.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-29202/17 Calibration Date: 04/12/2019 05:16

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JD11ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.105	0.8929		1.62	2.00	-19.2	35.0
1,3,5-Trimethylbenzene	Ave	0.4411	0.4299		1.95	2.00	-2.6	35.0
Alpha Methyl Styrene	Ave	0.4448	0.3862		1.74	2.00	-13.2	35.0
Decane	Ave	0.6829	0.6298		1.84	2.00	-7.8	35.0
tert-Butylbenzene	Ave	0.9734	0.8314		1.71	2.00	-14.6	35.0
1,2,4-Trimethylbenzene	Ave	0.9475	0.8088		1.71	2.00	-14.6	35.0
sec-Butylbenzene	Ave	1.359	1.170		1.72	2.00	-13.9	35.0
1,3-Dichlorobenzene	Ave	0.6574	0.5596		1.70	2.00	-14.9	35.0
Benzyl chloride	Ave	0.7732	0.6614		1.71	2.00	-14.5	35.0
1,4-Dichlorobenzene	Ave	0.6547	0.5453		1.67	2.00	-16.7	35.0
4-Isopropyltoluene	Ave	1.110	0.9392		1.69	2.00	-15.4	35.0
1,2,3-Trimethylbenzene	Ave	0.8789	0.5858		1.33	2.00	-33.3	35.0
Butylcyclohexane	Ave	0.8565	0.7233		1.69	2.00	-15.5	35.0
Indane	Ave	0.8813	0.7189		1.63	2.00	-18.4	35.0
1,2-Dichlorobenzene	Ave	0.6298	0.5301		1.68	2.00	-15.8	35.0
Butylbenzene	Ave	1.135	0.9919		1.75	2.00	-12.6	35.0
Indene	Ave	0.7386	0.5270		1.43	2.00	-28.7	35.0
Undecane	Ave	0.7234	0.6570		1.82	2.00	-9.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2765	0.1915		1.39	2.00	-30.7	35.0
1,2,4,5-Tetramethylbenzene	Ave	0.9906	0.7918		1.60	2.00	-20.1	35.0
Dodecane	Ave	0.6127	0.6575		2.15	2.00	7.3	35.0
1,2,4-Trichlorobenzene	Ave	0.4411	0.3714		1.68	2.00	-15.8	35.0
Naphthalene	Ave	0.8777	0.7213		1.64	2.00	-17.8	35.0
Hexachlorobutadiene	Ave	0.4740	0.4070		1.72	2.00	-14.2	35.0
1,2,3-Trichlorobenzene	Ave	0.3291	0.2919		1.77	2.00	-11.3	35.0
2-Methylnaphthalene	Ave	0.1609	0.1362		1.69	2.00	-15.4	50.0
1-Methylnaphthalene	Ave	0.1752	0.1302		1.49	2.00	-25.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7363	0.7442		4.04	4.00	1.1	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2019 05:16:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011416-017
Misc. Info.: S87 210534
Operator ID: 403648 Instrument ID: MJ
Sublist:

Method: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2019 15:41:34 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0332

First Level Reviewer: barlozhetskayaa Date: 18-Apr-2019 15:12:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.758	9.755	0.003	97	327411	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.866	11.864	0.002	95	1969299	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.471	16.472	-0.001	89	1772379	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.069	18.070	-0.001	89	1319056	4.00	4.04	
19 Chlorodifluoromethane	51	4.168	4.161	0.007	97	302711	2.00	2.19	
20 Propene	41	4.184	4.175	0.009	99	173963	2.00	2.09	
21 Dichlorodifluoromethane	85	4.244	4.235	0.009	100	246701	2.00	2.08	
22 Chloromethane	52	4.453	4.450	0.003	100	80259	2.00	2.01	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.459	4.453	0.006	93	52519	2.00	2.16	
24 Acetaldehyde	44	4.631	4.626	0.005	97	350061	10.0	8.00	
25 Vinyl chloride	62	4.653	4.649	0.003	99	282386	2.00	2.13	
26 Butane	43	4.755	4.749	0.006	87	417663	2.00	2.25	
27 Butadiene	54	4.755	4.749	0.006	64	197508	2.00	2.17	
28 Bromomethane	94	5.131	5.127	0.004	98	250094	2.00	2.08	
29 Chloroethane	64	5.298	5.290	0.008	94	116919	2.00	2.14	
30 Ethanol	31	5.400	5.394	0.006	97	335509	10.0	7.29	
31 Vinyl bromide	106	5.642	5.633	0.009	98	256463	2.00	2.32	
32 2-Methylbutane	43	5.691	5.681	0.010	92	294167	2.00	2.43	
33 Trichlorofluoromethane	101	5.938	5.928	0.010	99	723343	2.00	2.19	
34 Acrolein	56	5.949	5.945	0.004	28	42420	2.00	1.87	
35 Acetonitrile	40	6.019	6.017	0.002	100	57890	2.00	1.73	
36 Acetone	58	6.078	6.073	0.005	98	76224	2.00	1.95	
37 Isopropyl alcohol	45	6.170	6.163	0.007	93	286419	2.00	2.45	
38 Pentane	72	6.180	6.169	0.011	97	39409	2.00	2.36	
39 Ethyl ether	31	6.358	6.358	0.000	92	213188	2.00	1.83	
40 1,1-Dichloroethene	96	6.713	6.707	0.006	95	235412	2.00	2.11	
41 Acrylonitrile	53	6.826	6.819	0.007	94	114932	2.00	1.73	
42 2-Methyl-2-propanol	59	6.820	6.826	-0.006	97	312284	2.00	1.85	
43 1,1,2-Trichloro-1,2,2-trif	101	6.896	6.888	0.008	96	500400	2.00	2.03	
44 Methylene Chloride	84	7.089	7.084	0.005	97	221367	2.00	2.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.106	7.101	0.005	96	215301	2.00	2.17	
46 Carbon disulfide	76	7.272	7.270	0.002	99	731532	2.00	2.18	
47 trans-1,2-Dichloroethene	96	7.950	7.942	0.008	95	217738	2.00	2.02	
48 2-Methylpentane	43	7.956	7.948	0.008	95	507088	2.00	1.84	
49 Methyl tert-butyl ether	73	8.074	8.078	-0.004	97	448269	2.00	1.76	
50 1,1-Dichloroethane	63	8.391	8.387	0.004	100	422791	2.00	1.99	
51 Vinyl acetate	43	8.483	8.481	0.002	100	426317	2.00	1.71	
52 2-Butanone (MEK)	72	8.956	8.960	-0.004	97	80446	2.00	1.68	
53 Hexane	56	8.978	8.972	0.006	87	178537	2.00	1.96	
54 Isopropyl ether	45	9.134	9.135	-0.001	97	581415	2.00	1.77	
55 cis-1,2-Dichloroethene	96	9.413	9.410	0.003	97	219819	2.00	1.97	
56 Ethyl acetate	43	9.580	9.582	-0.002	99	349898	2.00	1.66	
57 Chloroform	83	9.763	9.759	0.004	96	489017	2.00	1.97	
58 Tert-butyl ethyl ether	59	9.833	9.834	-0.001	97	471773	2.00	1.65	
59 Tetrahydrofuran	42	10.183	10.190	-0.007	93	190828	2.00	1.73	
60 1,1,1-Trichloroethane	97	10.796	10.790	0.006	97	469444	2.00	1.98	
61 1,2-Dichloroethane	62	10.898	10.897	0.001	97	311449	2.00	1.96	
62 n-Butanol	31	11.312	11.312	0.000	67	85442	2.00	1.86	
63 Cyclohexane	69	11.366	11.362	0.004	78	116811	2.00	2.03	
64 Benzene	78	11.366	11.363	0.003	96	674769	2.00	1.97	
65 Carbon tetrachloride	117	11.388	11.383	0.005	97	500231	2.00	2.00	
66 2,3-Dimethylpentane	71	11.458	11.452	0.006	92	153202	2.00	1.89	
67 Thiophene	84	11.635	11.628	0.007	96	363902	2.00	1.85	
68 Isooctane	57	12.065	12.063	0.002	98	1114741	2.00	2.00	
69 n-Heptane	71	12.415	12.413	0.002	93	236167	2.00	1.95	
70 1,2-Dichloropropane	63	12.528	12.528	0.000	91	267320	2.00	2.00	
71 Trichloroethene	130	12.560	12.557	0.003	95	310970	2.00	1.98	
72 Dibromomethane	93	12.652	12.650	0.002	94	283575	2.00	1.89	
73 Dichlorobromomethane	83	12.786	12.781	0.005	99	500698	2.00	1.97	
74 1,4-Dioxane	88	12.802	12.806	-0.004	90	72359	2.00	1.66	
75 Methyl methacrylate	41	12.845	12.843	0.002	92	217875	2.00	1.59	
76 Methylcyclohexane	83	13.303	13.298	0.005	97	500743	2.00	2.38	
77 4-Methyl-2-pentanone (MIBK	43	13.674	13.676	-0.002	98	409151	2.00	1.75	
78 cis-1,3-Dichloropropene	75	13.738	13.739	-0.001	95	397956	2.00	2.02	
79 trans-1,3-Dichloropropene	75	14.411	14.410	0.001	98	321304	2.00	1.93	
80 Toluene	91	14.540	14.539	0.001	93	695887	2.00	1.90	
81 1,1,2-Trichloroethane	83	14.615	14.610	0.005	97	222959	2.00	1.85	
82 2-Hexanone	58	14.970	14.971	-0.001	92	201086	2.00	1.81	
83 n-Octane	85	15.175	15.172	0.003	95	246076	2.00	2.02	
84 Chlorodibromomethane	129	15.309	15.310	-0.001	98	480637	2.00	1.98	
85 Ethylene Dibromide	107	15.600	15.599	0.001	98	410976	2.00	1.96	
86 Tetrachloroethene	129	15.659	15.659	0.000	94	286621	2.00	1.96	
87 2,3-Dimethylheptane	43	16.498	16.497	0.001	97	735027	2.00	1.78	
88 Chlorobenzene	112	16.520	16.521	-0.001	94	617465	2.00	2.01	
89 Ethylbenzene	91	16.794	16.790	0.004	98	778579	2.00	1.75	
90 m-Xylene & p-Xylene	91	16.950	16.947	0.003	99	1222459	4.00	3.56	
91 n-Nonane	57	17.327	17.326	0.001	94	492582	2.00	2.02	
92 Styrene	104	17.413	17.409	0.004	99	444352	2.00	1.73	
93 Bromoform	173	17.418	17.418	0.000	95	444022	2.00	1.91	
94 o-Xylene	91	17.472	17.472	0.000	99	623621	2.00	1.72	
95 1,1,2,2-Tetrachloroethane	83	17.789	17.785	0.004	99	449643	2.00	1.60	
96 1,2,3-Trichloropropane	110	17.940	17.940	0.000	98	117296	2.00	1.68	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.031	18.030	0.001	96	848722	2.00	1.75	
98 N-Propylbenzene	120	18.537	18.534	0.003	99	231001	2.00	1.73	
99 2-Chlorotoluene	126	18.591	18.590	0.001	98	236899	2.00	1.83	
100 4-Ethyltoluene	105	18.671	18.674	-0.003	98	791254	2.00	1.62	
101 1,3,5-Trimethylbenzene	120	18.741	18.743	-0.002	92	380928	2.00	1.95	
102 Alpha Methyl Styrene	118	18.962	18.963	-0.001	87	342256	2.00	1.74	
103 n-Decane	57	18.989	18.989	0.000	91	558081	2.00	1.84	
104 tert-Butylbenzene	119	19.150	19.149	0.001	92	736738	2.00	1.71	
105 1,2,4-Trimethylbenzene	105	19.161	19.161	0.000	96	716713	2.00	1.71	
106 sec-Butylbenzene	105	19.403	19.405	-0.002	98	1036853	2.00	1.72	
107 1,3-Dichlorobenzene	146	19.435	19.435	0.000	99	495919	2.00	1.70	
108 Benzyl chloride	91	19.505	19.502	0.003	98	586130	2.00	1.71	
109 1,4-Dichlorobenzene	146	19.516	19.517	-0.001	93	483207	2.00	1.67	
110 4-Isopropyltoluene	119	19.559	19.556	0.003	97	832343	2.00	1.69	
111 1,2,3-Trimethylbenzene	105	19.618	19.618	0.000	98	519117	2.00	1.33	
112 Butylcyclohexane	83	19.656	19.657	-0.001	94	640989	2.00	1.69	
113 2,3-Dihydroindene	117	19.860	19.861	-0.001	94	637098	2.00	1.63	
114 1,2-Dichlorobenzene	146	19.866	19.867	-0.001	94	469725	2.00	1.68	
115 n-Butylbenzene	91	19.973	19.975	-0.002	98	879032	2.00	1.75	
116 Indene	116	19.989	19.989	0.000	92	466994	2.00	1.43	
117 Undecane	57	20.248	20.249	-0.001	95	582192	2.00	1.82	
118 1,2-Dibromo-3-Chloropropan	157	20.457	20.453	0.004	97	169711	2.00	1.39	
119 1,2,4,5-Tetramethylbenzene	119	20.726	20.728	-0.002	97	701713	2.00	1.60	
120 Dodecane	57	21.334	21.336	-0.002	94	582638	2.00	2.15	
121 1,2,4-Trichlorobenzene	180	21.582	21.579	0.003	94	329134	2.00	1.68	
122 Naphthalene	128	21.705	21.705	0.000	99	639222	2.00	1.64	
123 Hexachlorobutadiene	225	21.851	21.852	-0.001	95	360633	2.00	1.72	
124 1,2,3-Trichlorobenzene	180	21.910	21.911	-0.001	94	258681	2.00	1.77	
125 2-Methylnaphthalene	142	22.432	22.433	-0.001	99	120681	2.00	1.69	
126 1-Methylnaphthalene	142	22.561	22.557	0.004	99	115343	2.00	1.49	
A 128 C8 Range	1	15.185	(15.131-15.239)		0	2369311	2.00	1.96	
S 129 Xylenes, Total	100				0		6.00	5.28	
S 130 1,2-Dichloroethene, Total	1				0		4.00	3.99	

Reagents:

40CV101S_00086	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

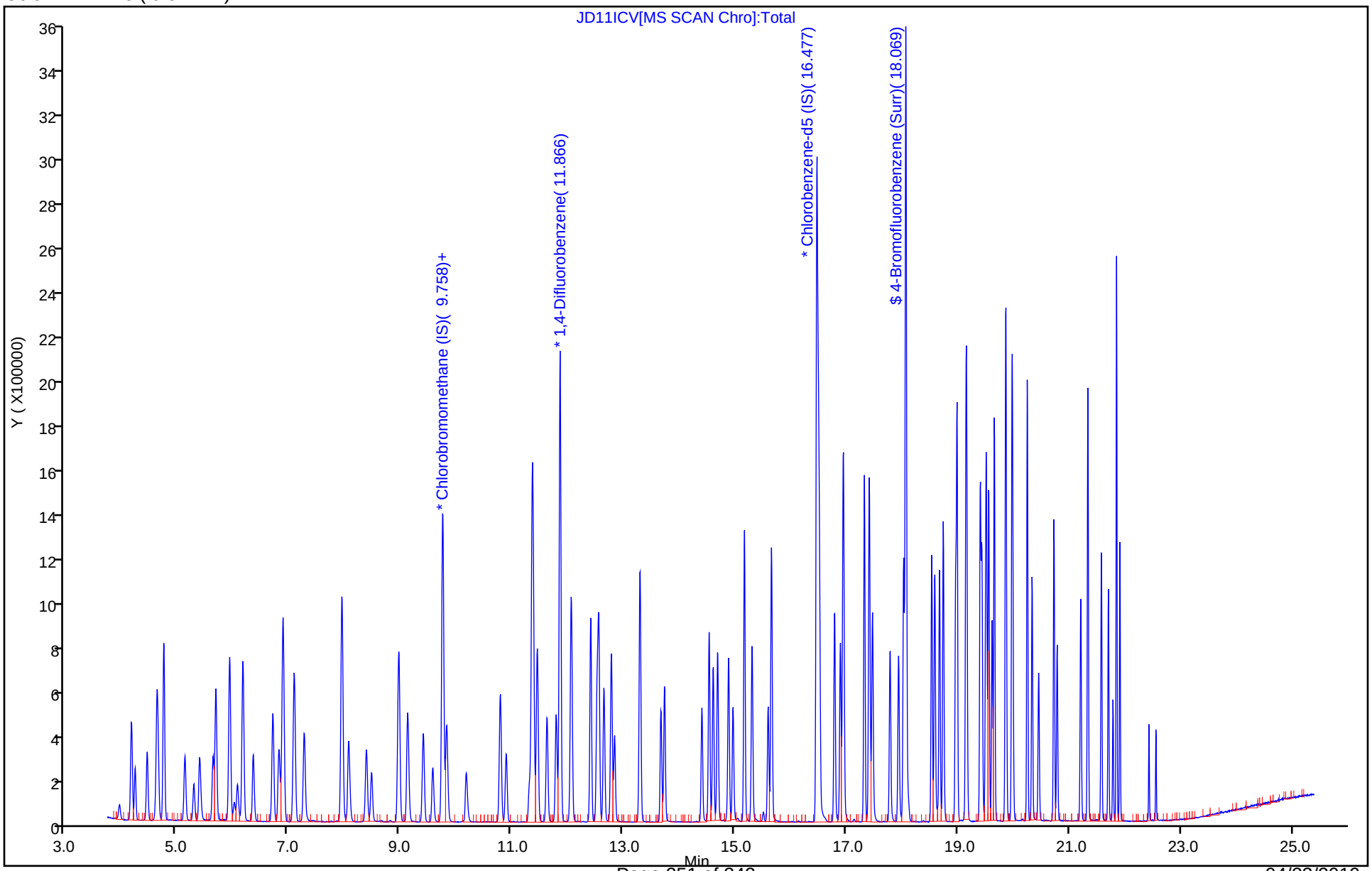
Report Date: 18-Apr-2019 15:41:44 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICV.D

Injection Date:	12-Apr-2019 05:16:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29232/2 Calibration Date: 04/15/2019 13:31

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JCCVD15a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	1.690	2.305		2.73	2.00	36.4*	30.0
Propene	Ave	1.018	1.267		2.49	2.00	24.5	30.0
Dichlorodifluoromethane	Ave	1.449	1.851		2.55	2.00	27.7	30.0
Chloromethane	Ave	0.4881	0.4850		1.99	2.00	-0.6	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	0.2975	0.5814		3.91	2.00	95.4*	30.0
Acetaldehyde	Lin1		0.4953		9.56	10.0	-4.4	30.0
Vinyl chloride	Ave	1.617	1.668		2.06	2.00	3.1	30.0
Butane	Ave	2.269	2.423		2.14	2.00	6.8	30.0
1,3-Butadiene	Ave	1.113	1.199		2.15	2.00	7.7	30.0
Bromomethane	Ave	1.471	1.515		2.06	2.00	3.0	30.0
Chloroethane	Ave	0.6687	0.7161		2.14	2.00	7.1	30.0
Ethanol	Lin1		0.6353		11.5	10.0	14.8	30.0
Vinyl bromide	Ave	1.350	1.444		2.14	2.00	7.0	30.0
2-Methylbutane	Ave	1.478	1.701		2.30	2.00	15.0	30.0
Trichlorofluoromethane	Ave	4.041	4.243		2.10	2.00	5.0	30.0
Acrolein	Ave	0.2776	0.3290		2.37	2.00	18.5	30.0
Acetonitrile	Ave	0.4083	0.4519		2.21	2.00	10.7	30.0
Acetone	Ave	0.4782	0.4579		5.74	6.00	-4.3	30.0
Isopropyl alcohol	Ave	1.429	1.602		6.73	6.00	12.1	30.0
Pentane	Ave	0.2041	0.2260		2.21	2.00	10.7	30.0
Ethyl ether	Ave	1.424	1.452		2.04	2.00	2.0	30.0
1,1-Dichloroethene	Ave	1.360	1.385		2.04	2.00	1.8	30.0
tert-Butyl alcohol	Ave	2.065	2.219		2.15	2.00	7.4	30.0
Acrylonitrile	Ave	0.8120	0.8203		2.02	2.00	1.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.018	3.020		2.00	2.00	0.0	30.0
Methylene Chloride	Lin		1.317		2.02	2.00	1.0	30.0
3-Chloropropene	Ave	1.211	1.196		1.97	2.00	-1.3	30.0
Carbon disulfide	Ave	4.102	4.254		2.07	2.00	3.7	30.0
trans-1,2-Dichloroethene	Ave	1.319	1.332		2.02	2.00	1.0	30.0
2-Methylpentane	Ave	3.366	3.316		1.97	2.00	-1.5	30.0
Methyl tert-butyl ether	Ave	3.120	3.169		2.03	2.00	1.6	30.0
1,1-Dichloroethane	Ave	2.601	2.580		1.98	2.00	-0.8	30.0
Vinyl acetate	Ave	3.044	3.087		2.03	2.00	1.4	30.0
2-Butanone (MEK)	Ave	0.5864	0.5446		1.86	2.00	-7.1	30.0
Hexane	Ave	1.114	1.090		1.96	2.00	-2.2	30.0
Isopropyl ether	Ave	4.002	4.005		2.00	2.00	0.0	30.0
cis-1,2-Dichloroethene	Ave	1.363	1.354		1.99	2.00	-0.6	30.0
Ethyl acetate	Ave	2.578	2.570		1.99	2.00	-0.3	30.0
Chloroform	Ave	3.032	3.008		1.98	2.00	-0.8	30.0
Tert-butyl ethyl ether	Ave	3.500	3.582		2.05	2.00	2.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29232/2 Calibration Date: 04/15/2019 13:31

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JCCVD15a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.345	1.365		2.03	2.00	1.4	30.0
1,1,1-Trichloroethane	Ave	2.900	2.871		1.98	2.00	-1.0	30.0
1,2-Dichloroethane	Ave	0.3225	0.3214		1.99	2.00	-0.3	30.0
1-Butanol	Ave	0.0933	0.1001		2.15	2.00	7.3	30.0
Cyclohexane	Ave	0.1166	0.1188		2.04	2.00	1.9	30.0
Benzene	Ave	0.6963	0.6911		1.98	2.00	-0.8	30.0
Carbon tetrachloride	Ave	0.5077	0.5365		2.11	2.00	5.7	30.0
2,3-Dimethylpentane	Ave	0.1650	0.1679		2.04	2.00	1.8	30.0
Thiophene	Ave	0.4002	0.4000		2.00	2.00	-0.0	30.0
2,2,4-Trimethylpentane	Ave	1.132	1.138		2.01	2.00	0.6	30.0
Heptane	Ave	0.2458	0.2489		2.03	2.00	1.3	30.0
1,2-Dichloropropane	Ave	0.2720	0.2561		1.88	2.00	-5.9	30.0
Trichloroethene	Ave	0.3196	0.3087		1.93	2.00	-3.4	30.0
Dibromomethane	Ave	0.3048	0.2909		1.91	2.00	-4.5	30.0
Bromodichloromethane	Ave	0.5153	0.5281		2.05	2.00	2.5	30.0
1,4-Dioxane	Ave	0.0883	0.0900		2.04	2.00	2.0	30.0
Methyl methacrylate	Ave	0.2789	0.2698		1.93	2.00	-3.3	30.0
Methylcyclohexane	Ave	0.4282	0.4312		2.01	2.00	0.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4753	0.4825		2.03	2.00	1.5	30.0
cis-1,3-Dichloropropene	Ave	0.4011	0.3873		1.93	2.00	-3.4	30.0
trans-1,3-Dichloropropene	Ave	0.3759	0.3714		1.98	2.00	-1.2	30.0
Toluene	Ave	0.8276	0.7990		1.93	2.00	-3.5	30.0
1,1,2-Trichloroethane	Ave	0.2718	0.2552		1.88	2.00	-6.1	30.0
2-Hexanone	Ave	0.2505	0.2555		2.04	2.00	2.0	30.0
Octane	Ave	0.2748	0.2827		2.06	2.00	2.9	30.0
Dibromochloromethane	Ave	0.5474	0.5725		2.09	2.00	4.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.4723	0.4580		1.94	2.00	-3.0	30.0
Tetrachloroethene	Ave	0.3296	0.3252		1.97	2.00	-1.3	30.0
2,3-Dimethylheptane	Ave	0.9342	0.9295		1.99	2.00	-0.5	30.0
Chlorobenzene	Ave	0.6938	0.6584		1.90	2.00	-5.1	30.0
Ethylbenzene	Ave	1.003	1.019		2.03	2.00	1.7	30.0
m-Xylene & p-Xylene	Ave	0.7748	0.8082		4.17	4.00	4.3	30.0
Nonane	Ave	0.5513	0.5650		2.05	2.00	2.5	30.0
Styrene	Ave	0.5796	0.5903		2.04	2.00	1.8	30.0
Bromoform	Ave	0.5245	0.5487		2.09	2.00	4.6	30.0
o-Xylene	Ave	0.8169	0.8419		2.06	2.00	3.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6349	0.6346		2.00	2.00	-0.0	30.0
1,2,3-Trichloropropane	Ave	0.1580	0.1577		2.00	2.00	-0.2	30.0
Isopropylbenzene	Ave	1.097	1.121		2.04	2.00	2.2	30.0
Propylbenzene	Ave	0.3015	0.3142		2.08	2.00	4.2	30.0
2-Chlorotoluene	Ave	0.2921	0.2945		2.02	2.00	0.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29232/2 Calibration Date: 04/15/2019 13:31

Instrument ID: MJ Calib Start Date: 04/11/2019 18:43

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 04/12/2019 10:25

Lab File ID: JCCVD15a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.105	1.132		2.05	2.00	2.5	30.0
1,3,5-Trimethylbenzene	Ave	0.4411	0.4593		2.08	2.00	4.1	30.0
Alpha Methyl Styrene	Ave	0.4448	0.4775		2.15	2.00	7.3	30.0
Decane	Ave	0.6829	0.7157		2.10	2.00	4.8	30.0
tert-Butylbenzene	Ave	0.9734	1.005		2.06	2.00	3.2	30.0
1,2,4-Trimethylbenzene	Ave	0.9475	0.9842		2.08	2.00	3.9	30.0
sec-Butylbenzene	Ave	1.359	1.420		2.09	2.00	4.5	30.0
1,3-Dichlorobenzene	Ave	0.6574	0.6417		1.95	2.00	-2.4	30.0
Benzyl chloride	Ave	0.7732	0.8121		2.10	2.00	5.0	30.0
1,4-Dichlorobenzene	Ave	0.6547	0.6339		1.94	2.00	-3.2	30.0
4-Isopropyltoluene	Ave	1.110	1.153		2.08	2.00	3.8	30.0
1,2,3-Trimethylbenzene	Ave	0.8789	0.9683		2.20	2.00	10.2	30.0
Butylcyclohexane	Ave	0.8565	0.8747		2.04	2.00	2.1	30.0
Indane	Ave	0.8813	0.9179		2.08	2.00	4.2	30.0
1,2-Dichlorobenzene	Ave	0.6298	0.6324		2.01	2.00	0.4	30.0
Butylbenzene	Ave	1.135	1.190		2.10	2.00	4.8	30.0
Indene	Ave	0.7386	0.7703		2.09	2.00	4.3	30.0
Undecane	Ave	0.7234	0.7639		2.11	2.00	5.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2765	0.3263		2.36	2.00	18.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	0.9906	1.061		2.14	2.00	7.1	30.0
Dodecane	Ave	0.6127	0.7612		2.48	2.00	24.2	30.0
1,2,4-Trichlorobenzene	Ave	0.4411	0.4494		2.04	2.00	1.9	30.0
Naphthalene	Ave	0.8777	0.8850		2.02	2.00	0.8	30.0
Hexachlorobutadiene	Ave	0.4740	0.4911		2.07	2.00	3.6	30.0
1,2,3-Trichlorobenzene	Ave	0.3291	0.3436		2.09	2.00	4.4	30.0
2-Methylnaphthalene	Ave	0.1609	0.1927		2.40	2.00	19.8	50.0
1-Methylnaphthalene	Ave	0.1752	0.2263		2.58	2.00	29.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7363	0.7418		4.03	4.00	0.8	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JCCVD15a.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 15-Apr-2019 13:31:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011427-002
Misc. Info.: p86
Operator ID: 403648 Instrument ID: MJ
Sublist: chrom-MJ_TO15*sub14

Method: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Apr-2019 10:09:24 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:09:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.756	9.756	0.000	97	364717	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.865	11.865	0.000	95	2134514	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.470	16.470	0.000	89	1904735	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.067	18.067	0.000	89	1413012	4.00	4.03	
19 Chlorodifluoromethane	51	4.162	4.162	0.000	97	420372	2.00	2.73	
20 Propene	41	4.178	4.178	0.000	99	231081	2.00	2.49	
21 Dichlorodifluoromethane	85	4.237	4.237	0.000	100	337583	2.00	2.55	
22 Chloromethane	52	4.447	4.447	0.000	100	88437	2.00	1.99	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.452	4.452	0.000	91	106017	2.00	3.91	
24 Acetaldehyde	44	4.624	4.624	0.000	97	451588	10.0	9.56	
25 Vinyl chloride	62	4.651	4.651	0.000	99	304140	2.00	2.06	
26 Butane	43	4.748	4.748	0.000	86	441914	2.00	2.14	
27 Butadiene	54	4.753	4.753	0.000	67	218639	2.00	2.15	
28 Bromomethane	94	5.130	5.130	0.000	99	276230	2.00	2.06	
29 Chloroethane	64	5.291	5.291	0.000	97	130587	2.00	2.14	
30 Ethanol	31	5.393	5.393	0.000	97	579216	10.0	11.5	
31 Vinyl bromide	106	5.630	5.630	0.000	98	263401	2.00	2.14	
32 2-Methylbutane	43	5.684	5.684	0.000	92	310111	2.00	2.30	
33 Trichlorofluoromethane	101	5.931	5.931	0.000	100	773743	2.00	2.10	
34 Acrolein	56	5.942	5.942	0.000	95	60000	2.00	2.37	
35 Acetonitrile	40	6.012	6.012	0.000	99	82414	2.00	2.21	
36 Acetone	58	6.066	6.066	0.000	98	250481	6.00	5.74	
37 Isopropyl alcohol	45	6.157	6.157	0.000	93	876384	6.00	6.73	
38 Pentane	72	6.168	6.168	0.000	96	41207	2.00	2.21	
39 Ethyl ether	31	6.351	6.351	0.000	92	264731	2.00	2.04	
40 1,1-Dichloroethene	96	6.711	6.711	0.000	95	252505	2.00	2.04	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	96	404576	2.00	2.15	
41 Acrylonitrile	53	6.819	6.819	0.000	93	149589	2.00	2.02	
43 1,1,2-Trichloro-1,2,2-trif	101	6.889	6.889	0.000	96	550765	2.00	2.00	
44 Methylene Chloride	84	7.088	7.088	0.000	98	240169	2.00	2.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
45 3-Chloro-1-propene	39	7.099	7.099	0.000	96	218032	2.00	1.97	
46 Carbon disulfide	76	7.271	7.271	0.000	99	775801	2.00	2.07	
47 trans-1,2-Dichloroethene	96	7.943	7.943	0.000	95	242946	2.00	2.02	
48 2-Methylpentane	43	7.949	7.949	0.000	95	604633	2.00	1.97	
49 Methyl tert-butyl ether	73	8.067	8.067	0.000	97	577904	2.00	2.03	
50 1,1-Dichloroethane	63	8.384	8.384	0.000	100	470560	2.00	1.98	
51 Vinyl acetate	43	8.476	8.476	0.000	100	562940	2.00	2.03	
52 2-Butanone (MEK)	72	8.955	8.955	0.000	97	99313	2.00	1.86	
53 Hexane	56	8.971	8.971	0.000	89	198716	2.00	1.96	
54 Isopropyl ether	45	9.127	9.127	0.000	97	730342	2.00	2.00	
55 cis-1,2-Dichloroethene	96	9.412	9.412	0.000	96	246947	2.00	1.99	
56 Ethyl acetate	43	9.579	9.579	0.000	99	468743	2.00	1.99	
57 Chloroform	83	9.762	9.762	0.000	94	548498	2.00	1.98	
58 Tert-butyl ethyl ether	59	9.826	9.826	0.000	96	653151	2.00	2.05	
59 Tetrahydrofuran	42	10.176	10.176	0.000	94	248878	2.00	2.03	
60 1,1,1-Trichloroethane	97	10.789	10.789	0.000	97	523574	2.00	1.98	
61 1,2-Dichloroethane	62	10.897	10.897	0.000	97	342993	2.00	1.99	
62 n-Butanol	31	11.305	11.305	0.000	94	106836	2.00	2.15	
63 Cyclohexane	69	11.359	11.359	0.000	77	126832	2.00	2.04	
64 Benzene	78	11.365	11.365	0.000	96	737548	2.00	1.98	
65 Carbon tetrachloride	117	11.386	11.386	0.000	98	572571	2.00	2.11	
66 2,3-Dimethylpentane	71	11.456	11.456	0.000	92	179177	2.00	2.04	
67 Thiophene	84	11.628	11.628	0.000	96	426857	2.00	2.00	
68 Isooctane	57	12.064	12.064	0.000	98	1214889	2.00	2.01	
69 n-Heptane	71	12.414	12.414	0.000	94	265685	2.00	2.03	
70 1,2-Dichloropropane	63	12.527	12.527	0.000	92	273287	2.00	1.88	
71 Trichloroethene	130	12.559	12.559	0.000	95	329472	2.00	1.93	
72 Dibromomethane	93	12.650	12.650	0.000	94	310485	2.00	1.91	
73 Dichlorobromomethane	83	12.785	12.785	0.000	98	563646	2.00	2.05	
74 1,4-Dioxane	88	12.796	12.796	0.000	89	96096	2.00	2.04	
75 Methyl methacrylate	41	12.839	12.839	0.000	92	287919	2.00	1.93	
76 Methylcyclohexane	83	13.296	13.296	0.000	96	460192	2.00	2.01	
77 4-Methyl-2-pentanone (MIBK	43	13.672	13.672	0.000	98	514899	2.00	2.03	
78 cis-1,3-Dichloropropene	75	13.737	13.737	0.000	95	413361	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.409	14.409	0.000	98	353687	2.00	1.98	
80 Toluene	91	14.539	14.539	0.000	93	760947	2.00	1.93	
81 1,1,2-Trichloroethane	83	14.614	14.614	0.000	97	243038	2.00	1.88	
82 2-Hexanone	58	14.969	14.969	0.000	92	243348	2.00	2.04	
83 n-Octane	85	15.173	15.173	0.000	95	269204	2.00	2.06	
84 Chlorodibromomethane	129	15.308	15.308	0.000	98	545272	2.00	2.09	
85 Ethylene Dibromide	107	15.598	15.598	0.000	98	436169	2.00	1.94	
86 Tetrachloroethene	129	15.657	15.657	0.000	94	309700	2.00	1.97	
87 2,3-Dimethylheptane	43	16.497	16.497	0.000	97	885265	2.00	1.99	
88 Chlorobenzene	112	16.518	16.518	0.000	93	626987	2.00	1.90	
89 Ethylbenzene	91	16.793	16.793	0.000	98	970652	2.00	2.03	
90 m-Xylene & p-Xylene	91	16.949	16.949	0.000	99	1539433	4.00	4.17	
91 n-Nonane	57	17.325	17.325	0.000	94	538048	2.00	2.05	
92 Styrene	104	17.411	17.411	0.000	99	562139	2.00	2.04	
93 Bromoform	173	17.417	17.417	0.000	95	522558	2.00	2.09	
94 o-Xylene	91	17.470	17.470	0.000	99	801753	2.00	2.06	
95 1,1,2,2-Tetrachloroethane	83	17.788	17.788	0.000	99	604322	2.00	2.00	
96 1,2,3-Trichloropropane	110	17.938	17.938	0.000	99	150136	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
97 Isopropylbenzene	105	18.030	18.030	0.000	97	1067586	2.00	2.04	
98 N-Propylbenzene	120	18.535	18.535	0.000	99	299193	2.00	2.08	
99 2-Chlorotoluene	126	18.589	18.589	0.000	98	280429	2.00	2.02	
100 4-Ethyltoluene	105	18.675	18.675	0.000	98	1077770	2.00	2.05	
101 1,3,5-Trimethylbenzene	120	18.740	18.740	0.000	92	437420	2.00	2.08	
102 Alpha Methyl Styrene	118	18.960	18.960	0.000	88	454750	2.00	2.15	
103 n-Decane	57	18.987	18.987	0.000	91	681572	2.00	2.10	
104 tert-Butylbenzene	119	19.149	19.149	0.000	92	956867	2.00	2.06	
105 1,2,4-Trimethylbenzene	105	19.159	19.159	0.000	96	937314	2.00	2.08	
106 sec-Butylbenzene	105	19.407	19.407	0.000	99	1352027	2.00	2.09	
107 1,3-Dichlorobenzene	146	19.434	19.434	0.000	99	611133	2.00	1.95	
108 Benzyl chloride	91	19.504	19.504	0.000	98	773410	2.00	2.10	
109 1,4-Dichlorobenzene	146	19.515	19.515	0.000	93	603740	2.00	1.94	
110 4-Isopropyltoluene	119	19.558	19.558	0.000	97	1098062	2.00	2.08	
111 1,2,3-Trimethylbenzene	105	19.617	19.617	0.000	98	922201	2.00	2.20	
112 Butylcyclohexane	83	19.654	19.654	0.000	94	833027	2.00	2.04	
113 2,3-Dihydroindene	117	19.859	19.859	0.000	94	874183	2.00	2.08	
114 1,2-Dichlorobenzene	146	19.864	19.864	0.000	96	602299	2.00	2.01	
115 n-Butylbenzene	91	19.972	19.972	0.000	98	1133554	2.00	2.10	
116 Indene	116	19.988	19.988	0.000	90	733560	2.00	2.09	
117 Undecane	57	20.246	20.246	0.000	95	727534	2.00	2.11	
118 1,2-Dibromo-3-Chloropropan	157	20.451	20.451	0.000	96	310739	2.00	2.36	
119 1,2,4,5-Tetramethylbenzene	119	20.725	20.725	0.000	97	1010300	2.00	2.14	
120 Dodecane	57	21.333	21.333	0.000	94	724981	2.00	2.48	
121 1,2,4-Trichlorobenzene	180	21.580	21.580	0.000	94	428024	2.00	2.04	
122 Naphthalene	128	21.704	21.704	0.000	99	842861	2.00	2.02	
123 Hexachlorobutadiene	225	21.849	21.849	0.000	95	467664	2.00	2.07	
124 1,2,3-Trichlorobenzene	180	21.908	21.908	0.000	94	327223	2.00	2.09	
125 2-Methylnaphthalene	142	22.430	22.430	0.000	100	183543	2.00	2.40	
126 1-Methylnaphthalene	142	22.554	22.554	0.000	98	215526	2.00	2.58	
A 128 C8 Range	1	15.183	(15.130-15.237)		0	2612088	2.00	2.02	
S 129 Xylenes, Total	100				0		6.00	6.23	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.01	

Reagents:

40CV101P_00086	Amount Added: 100.00	Units: ml	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

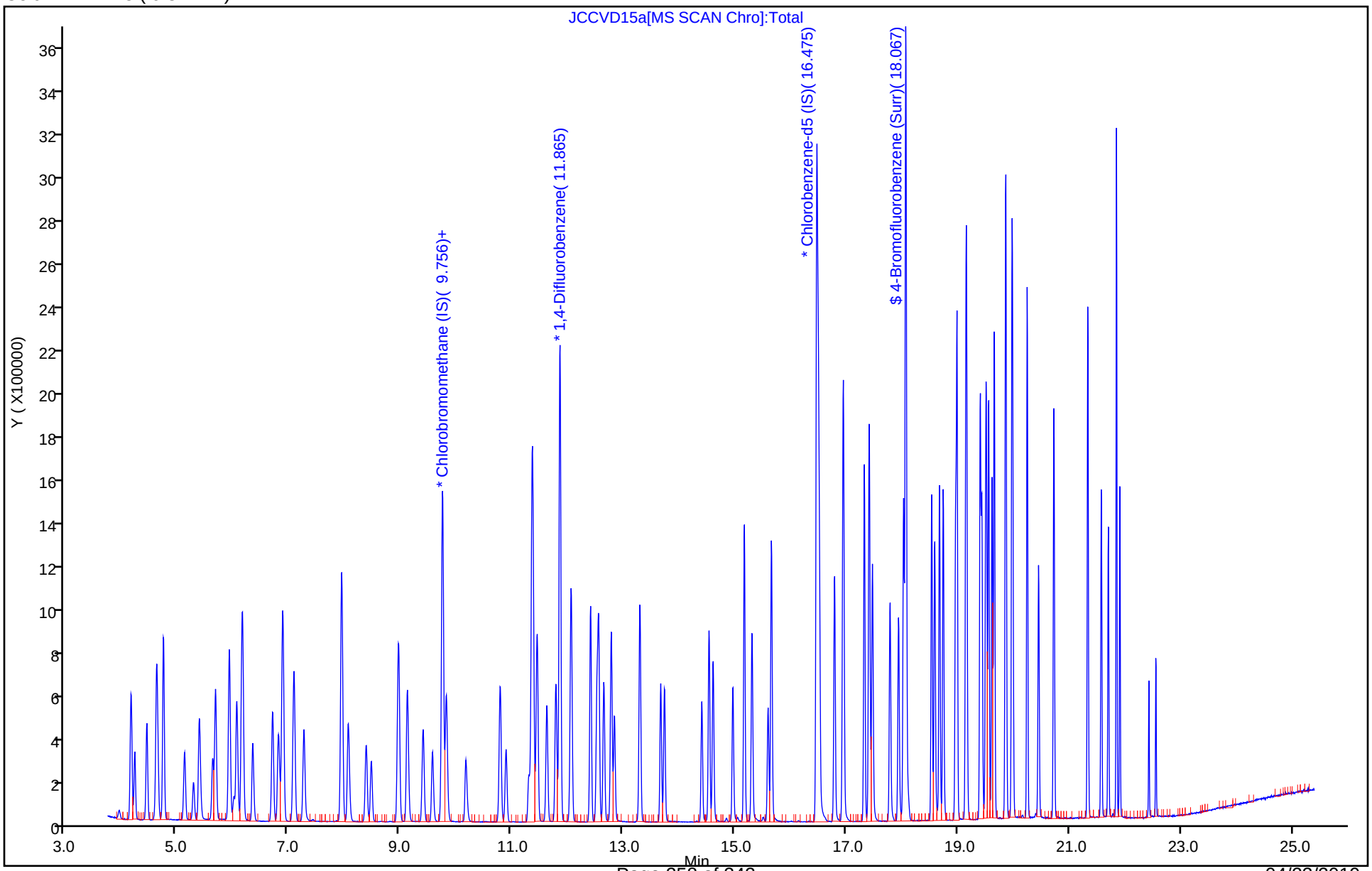
Report Date: 19-Apr-2019 10:09:25 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JCCVD15a.D

Injection Date:	15-Apr-2019 13:31:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-25490/18 Calibration Date: 11/17/2018 06:27

Instrument ID: MR Calib Start Date: 06/28/2017 15:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 06/28/2017 21:58

Lab File ID: RK16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methylthiophene	Ave	0.6999	0.3362			2.00	-52.0*	35.0
3-Methylthiophene	Ave	0.6908	0.7960			2.00	15.2	35.0
2-Ethylthiophene	Ave	0.9153	1.134			2.00	23.9	35.0
1,2-Dimethyl-4-Ethylbenzene	QuaF		1.640			2.00		35.0
1,2,3,5-Tetramethylbenzene	Ave	0.9142	1.275			2.00	39.5*	35.0
1,2,3,4-Tetramethylbenzene	Ave	1.236	1.768			2.00	43.0*	35.0
Benzo(b)thiophene	Ave	0.9147	1.487			2.00	62.6*	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16ICV.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 17-Nov-2018 06:27:30 ALS Bottle#: 8 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-018
Misc. Info.: S80
Operator ID: Instrument ID: MR
Sublist:

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 16:30:16 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: tajh Date: 19-Nov-2018 10:15:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.379	7.397	-0.018	68	299493	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.482	9.494	-0.012	94	1671036	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	89	1499042	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.276	16.279	-0.003	89	1270095	4.00	3.98	
6 Chlorodifluoromethane	51	3.383	3.417	-0.034	95	337816	2.00	1.90	
7 Propene	41	3.389	3.420	-0.031	91	101676	2.00	1.86	
8 Dichlorodifluoromethane	85	3.432	3.461	-0.029	100	757267	2.00	2.32	
9 Chloromethane	52	3.550	3.586	-0.036	98	40890	2.00	1.78	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.583	3.609	-0.026	89	519503	2.00	2.14	
11 Acetaldehyde	44	3.674	3.710	-0.036	93	179473	10.0	8.38	
12 Vinyl chloride	62	3.680	3.711	-0.031	99	144783	2.00	1.80	
13 Butadiene	54	3.750	3.780	-0.030	87	93331	2.00	1.92	
14 Butane	43	3.750	3.782	-0.032	89	162697	2.00	1.92	
15 Bromomethane	94	3.966	3.995	-0.029	96	171614	2.00	1.86	
16 Chloroethane	64	4.068	4.100	-0.032	95	69702	2.00	1.87	
17 Ethanol	31	4.198	4.222	-0.024	92	172190	10.0	7.67	
18 Vinyl bromide	106	4.284	4.315	-0.031	97	197656	2.00	2.03	
19 2-Methylbutane	43	4.343	4.369	-0.026	77	117076	2.00	1.95	
20 Acrolein	56	4.483	4.516	-0.033	97	41705	2.00	2.20	
21 Trichlorofluoromethane	101	4.489	4.517	-0.028	99	845437	2.00	1.91	
22 Acetonitrile	40	4.516	4.545	-0.029	96	35597	2.00	1.84	
23 Acetone	58	4.575	4.605	-0.030	100	57219	2.00	1.84	
24 Pentane	72	4.661	4.693	-0.032	91	30029	2.00	1.99	
25 Isopropyl alcohol	45	4.688	4.716	-0.028	95	209729	2.00	2.48	
26 Ethyl ether	31	4.780	4.817	-0.037	69	85111	2.00	1.71	
27 1,1-Dichloroethene	96	5.006	5.033	-0.027	97	198342	2.00	1.88	
28 Acrylonitrile	53	5.066	5.097	-0.031	91	93387	2.00	1.99	
29 2-Methyl-2-propanol	59	5.141	5.173	-0.032	94	405847	2.00	2.02	
30 1,1,2-Trichloro-1,2,2-trif	101	5.174	5.199	-0.025	92	514124	2.00	1.97	
31 Methylene Chloride	84	5.260	5.290	-0.030	88	175058	2.00	1.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.281	5.309	-0.028	85	194281	2.00	1.98	
33 Carbon disulfide	76	5.378	5.410	-0.032	99	488020	2.00	1.95	
34 trans-1,2-Dichloroethene	96	5.929	5.951	-0.023	97	204116	2.00	1.90	
35 2-Methylpentane	43	5.988	6.011	-0.023	84	255391	2.00	1.80	
36 Methyl tert-butyl ether	73	6.058	6.094	-0.036	92	690950	2.00	2.02	
37 1,1-Dichloroethane	63	6.257	6.283	-0.026	98	346185	2.00	1.92	
38 Vinyl acetate	43	6.376	6.402	-0.026	98	366118	2.00	2.11	
39 2-Butanone (MEK)	72	6.732	6.761	-0.029	98	78637	2.00	1.93	
40 Hexane	56	6.824	6.845	-0.021	81	122366	2.00	1.96	
171 Isopropyl ether	45	6.958	6.989	-0.031	86	443358	2.00	2.06	
41 cis-1,2-Dichloroethene	96	7.104	7.127	-0.023	94	212288	2.00	1.96	
42 Ethyl acetate	43	7.298	7.330	-0.032	98	293488	2.00	1.95	
43 Chloroform	83	7.422	7.439	-0.017	96	555199	2.00	1.94	
173 Tert-butyl ethyl ether	59	7.557	7.580	-0.023	92	591267	2.00	1.91	
44 Tetrahydrofuran	42	7.762	7.793	-0.031	76	130960	2.00	1.97	
45 1,1,1-Trichloroethane	97	8.344	8.364	-0.020	94	715022	2.00	1.97	
46 1,2-Dichloroethane	62	8.414	8.427	-0.013	97	419142	2.00	1.98	
47 Benzene	78	8.905	8.920	-0.015	98	541647	2.00	1.99	
48 Cyclohexane	69	8.932	8.951	-0.019	88	85082	2.00	2.10	
50 Carbon tetrachloride	117	8.943	8.962	-0.019	97	823420	2.00	2.15	
49 n-Butanol	31	8.943	8.969	-0.026	54	40428	2.00	2.09	
51 2,3-Dimethylpentane	71	9.110	9.126	-0.016	82	113510	2.00	2.01	
52 Thiophene	84	9.159	9.174	-0.015	95	308039	2.00	1.98	
53 Isooctane	57	9.784	9.798	-0.014	95	705085	2.00	2.02	
54 1,2-Dichloropropane	63	10.162	10.175	-0.013	76	170084	2.00	1.99	
55 n-Heptane	71	10.210	10.224	-0.014	83	179014	2.00	2.06	
56 Trichloroethene	130	10.237	10.250	-0.013	93	332896	2.00	2.03	
57 Dibromomethane	93	10.269	10.279	-0.010	92	292459	2.00	1.99	
58 Dichlorobromomethane	83	10.458	10.468	-0.010	98	572509	2.00	2.08	
59 1,4-Dioxane	88	10.474	10.497	-0.023	86	85996	2.00	2.07	
60 Methyl methacrylate	41	10.631	10.649	-0.018	90	196157	2.00	2.06	
61 Methylcyclohexane	83	11.100	11.109	-0.009	93	414520	2.00	2.47	
62 4-Methyl-2-pentanone (MIBK	43	11.531	11.552	-0.021	91	315480	2.00	2.08	
63 cis-1,3-Dichloropropene	75	11.569	11.577	-0.008	97	358004	2.00	2.17	
64 trans-1,3-Dichloropropene	75	12.324	12.332	-0.008	97	387987	2.00	2.22	
65 Toluene	91	12.464	12.471	-0.007	93	738479	2.00	2.06	
67 2-Methylthiophene	97	12.518	12.524	-0.006	80	252005	NC	NC	
66 1,1,2-Trichloroethane	83	12.518	12.527	-0.009	94	195833	2.00	2.05	
68 3-Methylthiophene	97	12.831	12.836	-0.005	99	596590	NC	NC	
69 2-Hexanone	58	12.987	13.003	-0.016	95	157281	2.00	2.09	
70 Chlorodibromomethane	129	13.251	13.258	-0.007	97	630906	2.00	2.27	
71 n-Octane	85	13.321	13.326	-0.005	74	241345	2.00	2.11	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	440376	2.00	2.11	
73 Tetrachloroethene	129	13.688	13.695	-0.007	94	362784	2.00	2.04	
74 Chlorobenzene	112	14.599	14.606	-0.007	92	644974	2.00	2.06	
75 2,3-Dimethylheptane	43	14.745	14.750	-0.005	78	387573	2.00	1.84	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	1081684	2.00	2.09	
77 2-Ethylthiophene	97	15.036	15.042	-0.006	98	850130	NC	NC	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	1797001	4.00	4.23	
79 Bromoform	173	15.505	15.507	-0.002	96	657515	2.00	2.25	
80 Styrene	104	15.592	15.594	-0.002	97	618923	2.00	2.22	
82 o-Xylene	91	15.651	15.655	-0.004	97	908326	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
81 n-Nonane	57	15.656	15.659	-0.003	81	352264	2.00	2.08	
83 1,1,2,2-Tetrachloroethane	83	15.974	15.976	-0.002	93	486519	2.00	2.15	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	231227	2.00	2.06	
85 Isopropylbenzene	105	16.282	16.283	-0.001	96	1305567	2.00	2.06	
86 N-Propylbenzene	120	16.853	16.856	-0.003	98	380100	2.00	2.18	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	92	338365	2.00	2.10	
88 4-Ethyltoluene	105	17.021	17.027	-0.006	98	1360898	2.00	2.06	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	643905	2.00	2.39	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	86	552848	2.00	2.16	
91 n-Decane	57	17.528	17.532	-0.004	97	510052	2.00	2.12	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	89	1376781	2.00	2.10	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	1269827	2.00	2.11	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	888433	2.00	2.04	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	1714335	2.00	2.11	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	1039012	2.00	2.24	
97 1,4-Dichlorobenzene	146	17.970	17.977	-0.007	94	887663	2.00	2.03	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	1699119	2.00	2.07	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	1037942	2.00	1.61	
100 Butylcyclohexane	83	18.229	18.232	-0.004	92	701115	2.00	1.97	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	96	857489	2.00	2.00	
102 2,3-Dihydroindene	117	18.379	18.383	-0.004	93	1087727	2.00	2.04	
103 Indene	116	18.520	18.520	0.000	90	809464	2.00	1.85	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	1414728	2.00	2.12	
108 1,2-Dimethyl-4-Ethylbenzen	119	18.989	18.989	0.000	96	1229369	NC	NC	
105 Undecane	57	19.000	19.001	-0.001	87	616308	2.00	2.16	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	94	386560	2.00	1.85	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	1560478	2.00	2.01	
109 1,2,3,5-Tetramethylbenzene	119	19.463	19.464	-0.001	94	955538	NC	NC	
112 1,2,3,4-Tetramethylbenzene	119	19.873	19.873	0.000	96	1325184	NC	NC	
110 Dodecane	57	20.127	20.128	-0.001	90	688062	2.00	2.31	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	94	999500	2.00	2.16	
113 Naphthalene	128	20.326	20.329	-0.003	98	1949612	2.00	2.08	
114 Benzo(b)thiophene	134	20.423	20.429	-0.006	99	1114636	NC	NC	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	95	1114590	2.00	2.07	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	94	970744	2.00	2.18	
117 2-Methylnaphthalene	142	21.453	21.458	-0.005	98	761819	2.00	2.56	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	709921	2.00	2.71	
A 120 C8 Range	1	13.335	(13.279-13.376)		0	1874356	2.00	2.10	
S 121 Xylenes, Total	100				0		6.00	6.27	
S 122 1,2-Dichloroethene, Total	1				0		4.00	3.86	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00080	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

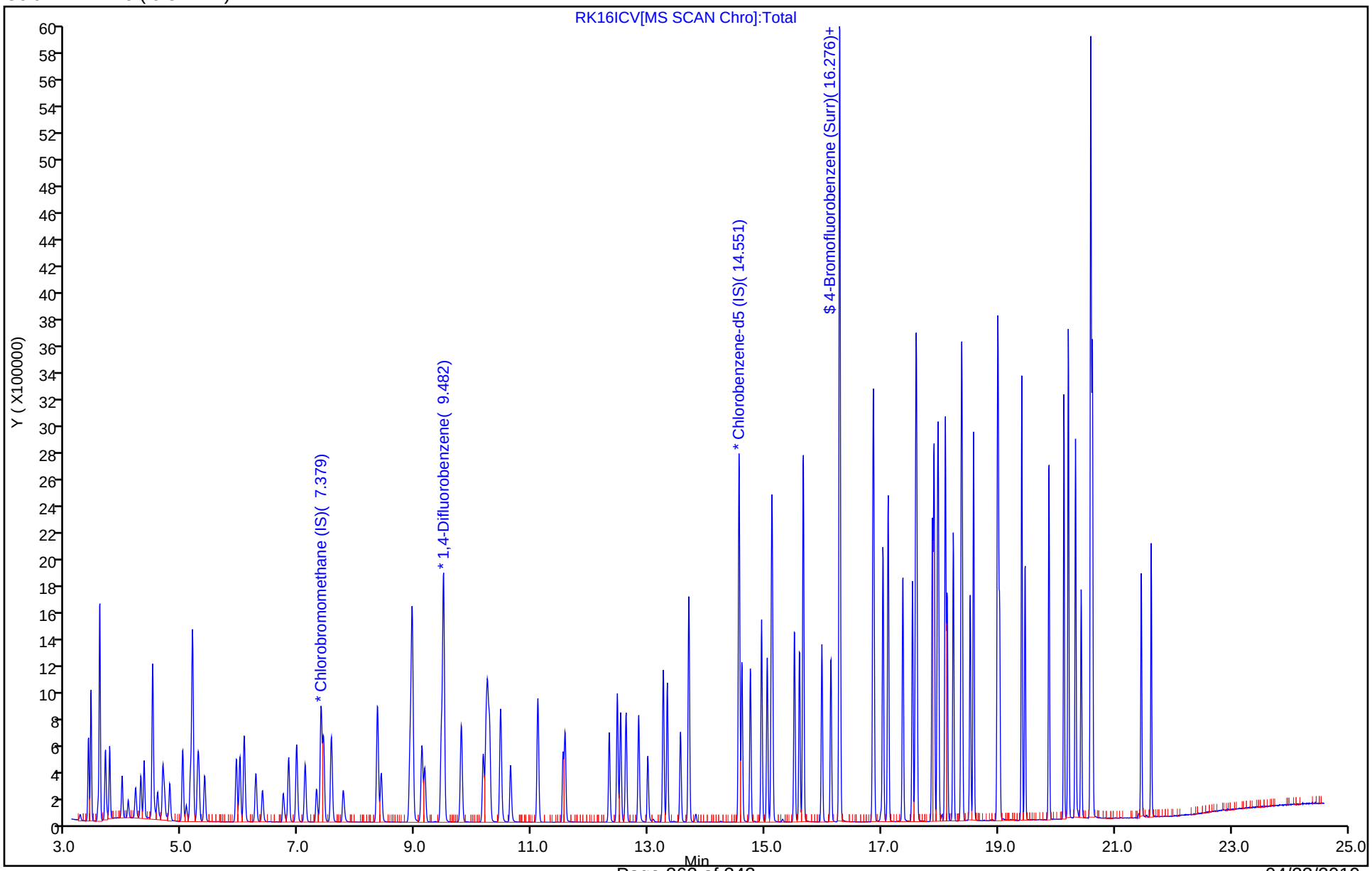
Report Date: 19-Nov-2018 16:30:17 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16ICV.D

Injection Date:	17-Nov-2018 06:27:30	Instrument ID:	MR	Operator ID:	
Lims ID:	icv			Worklist Smp#:	18
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-25490/18 Calibration Date: 11/17/2018 06:27

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RK16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.373	2.256		1.90	2.00	-4.9	35.0
Propene	Ave	0.7296	0.6790		1.86	2.00	-6.9	35.0
Dichlorodifluoromethane	Ave	4.352	5.057		2.32	2.00	16.2	35.0
Chloromethane	Ave	0.3061	0.2731		1.78	2.00	-10.8	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.240	3.469		2.14	2.00	7.1	35.0
Acetaldehyde	Ave	0.2860	0.2397		8.38	10.0	-16.2	35.0
Vinyl chloride	Ave	1.073	0.9669		1.80	2.00	-9.9	35.0
1,3-Butadiene	Ave	0.6506	0.6233		1.92	2.00	-4.2	35.0
Butane	Ave	1.132	1.086		1.92	2.00	-4.0	35.0
Bromomethane	Ave	1.235	1.146		1.86	2.00	-7.2	35.0
Chloroethane	Ave	0.4970	0.4655		1.87	2.00	-6.3	35.0
Ethanol	Ave	0.2997	0.2300		7.67	10.0	-23.3	35.0
Vinyl bromide	Ave	1.302	1.320		2.03	2.00	1.4	35.0
2-Methylbutane	Ave	0.7999	0.7818		1.95	2.00	-2.3	35.0
Acrolein	Ave	0.2528	0.2785		2.20	2.00	10.2	35.0
Trichlorofluoromethane	Ave	5.912	5.646		1.91	2.00	-4.5	35.0
Acetonitrile	Ave	0.2586	0.2377		1.84	2.00	-8.1	35.0
Acetone	Ave	0.4151	0.3821		1.84	2.00	-7.9	35.0
Pentane	Ave	0.2011	0.2005		1.99	2.00	-0.3	35.0
Isopropyl alcohol	Ave	1.132	1.401		2.48	2.00	23.8	35.0
Ethyl ether	Ave	0.6661	0.5684		1.71	2.00	-14.7	35.0
1,1-Dichloroethene	Ave	1.408	1.325		1.88	2.00	-5.9	35.0
Acrylonitrile	Ave	0.6277	0.6236		1.99	2.00	-0.6	35.0
tert-Butyl alcohol	Ave	2.677	2.710		2.02	2.00	1.2	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.489	3.433		1.97	2.00	-1.6	35.0
Methylene Chloride	Ave	1.338	1.169		1.75	2.00	-12.6	35.0
3-Chloropropene	Ave	1.309	1.297		1.98	2.00	-0.9	35.0
Carbon disulfide	Ave	3.341	3.259		1.95	2.00	-2.4	35.0
trans-1,2-Dichloroethene	Ave	1.436	1.363		1.90	2.00	-5.1	35.0
2-Methylpentane	Ave	1.894	1.705		1.80	2.00	-10.0	35.0
Methyl tert-butyl ether	Ave	4.568	4.614		2.02	2.00	1.0	35.0
1,1-Dichloroethane	Ave	2.402	2.312		1.92	2.00	-3.8	35.0
Vinyl acetate	Ave	2.320	2.445		2.11	2.00	5.4	35.0
2-Butanone (MEK)	Ave	0.5446	0.5251		1.93	2.00	-3.6	35.0
Hexane	Ave	0.8352	0.8172		1.96	2.00	-2.2	35.0
Isopropyl ether	Ave	2.873	2.961		2.06	2.00	3.0	35.0
cis-1,2-Dichloroethene	Ave	1.448	1.418		1.96	2.00	-2.1	35.0
Ethyl acetate	Ave	2.012	1.960		1.95	2.00	-2.6	35.0
Chloroform	Ave	3.821	3.708		1.94	2.00	-3.0	35.0
Tert-butyl ethyl ether	Ave	4.141	3.948		1.91	2.00	-4.6	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-25490/18 Calibration Date: 11/17/2018 06:27

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RK16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.8862	0.8745		1.97	2.00	-1.3	35.0
1,1,1-Trichloroethane	Ave	4.843	4.775		1.97	2.00	-1.4	35.0
1,2-Dichloroethane	Ave	0.5063	0.5017		1.98	2.00	-0.9	35.0
Benzene	Ave	0.6517	0.6483		1.99	2.00	-0.5	35.0
Cyclohexane	Ave	0.0968	0.1018		2.10	2.00	5.2	35.0
1-Butanol	Ave	0.0462	0.0484		2.09	2.00	4.7	35.0
Carbon tetrachloride	Ave	0.9167	0.9855		2.15	2.00	7.5	35.0
2,3-Dimethylpentane	Ave	0.1349	0.1359		2.01	2.00	0.7	35.0
Thiophene	Ave	0.3728	0.3687		1.98	2.00	-1.1	35.0
2,2,4-Trimethylpentane	Ave	0.8342	0.8439		2.02	2.00	1.2	35.0
1,2-Dichloropropane	Ave	0.2045	0.2036		1.99	2.00	-0.5	35.0
Heptane	Ave	0.2083	0.2143		2.06	2.00	2.8	35.0
Trichloroethene	Ave	0.3929	0.3984		2.03	2.00	1.4	35.0
Dibromomethane	Ave	0.3514	0.3500		1.99	2.00	-0.4	35.0
Bromodichloromethane	Ave	0.6587	0.6852		2.08	2.00	4.0	35.0
1,4-Dioxane	Ave	0.0994	0.1029		2.07	2.00	3.5	35.0
Methyl methacrylate	Ave	0.2275	0.2348		2.06	2.00	3.2	35.0
Methylcyclohexane	Ave	0.4024	0.4961		2.47	2.00	23.3	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3626	0.3776		2.08	2.00	4.1	35.0
cis-1,3-Dichloropropene	Ave	0.3948	0.4285		2.17	2.00	8.5	35.0
trans-1,3-Dichloropropene	Ave	0.4674	0.5177		2.22	2.00	10.8	35.0
Toluene	Ave	0.9586	0.9853		2.06	2.00	2.8	35.0
1,1,2-Trichloroethane	Ave	0.2543	0.2613		2.05	2.00	2.7	35.0
2-Hexanone	Ave	0.2006	0.2098		2.09	2.00	4.6	35.0
Dibromochloromethane	Ave	0.7414	0.8418		2.27	2.00	13.5	35.0
Octane	Ave	0.3054	0.3220		2.11	2.00	5.5	35.0
1,2-Dibromoethane (EDB)	Ave	0.5574	0.5875		2.11	2.00	5.4	35.0
Tetrachloroethene	Ave	0.4749	0.4840		2.04	2.00	1.9	35.0
Chlorobenzene	Ave	0.8374	0.8605		2.06	2.00	2.8	35.0
2,3-Dimethylheptane	Ave	0.5626	0.5171		1.84	2.00	-8.1	35.0
Ethylbenzene	Ave	1.382	1.443		2.09	2.00	4.4	35.0
m-Xylene & p-Xylene	Ave	1.133	1.199		4.23	4.00	5.8	35.0
Bromoform	Ave	0.7786	0.8773		2.25	2.00	12.7	35.0
Styrene	Ave	0.7430	0.8258		2.22	2.00	11.1	35.0
o-Xylene	Ave	1.190	1.212		2.04	2.00	1.8	35.0
Nonane	Ave	0.4511	0.4700		2.08	2.00	4.2	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6050	0.6491		2.15	2.00	7.3	35.0
1,2,3-Trichloropropane	Ave	0.3000	0.3085		2.06	2.00	2.8	35.0
Isopropylbenzene	Ave	1.694	1.742		2.06	2.00	2.8	35.0
Propylbenzene	Ave	0.4652	0.5071		2.18	2.00	9.0	35.0
2-Chlorotoluene	Ave	0.4306	0.4514		2.10	2.00	4.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: ICV 140-25490/18 Calibration Date: 11/17/2018 06:27

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RK16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.759	1.816		2.06	2.00	3.2	35.0
1,3,5-Trimethylbenzene	Ave	0.7199	0.8591		2.39	2.00	19.3	35.0
Alpha Methyl Styrene	Ave	0.6844	0.7376		2.16	2.00	7.8	35.0
Decane	Ave	0.6421	0.6805		2.12	2.00	6.0	35.0
tert-Butylbenzene	Ave	1.753	1.837		2.10	2.00	4.8	35.0
1,2,4-Trimethylbenzene	Ave	1.607	1.694		2.11	2.00	5.5	35.0
1,3-Dichlorobenzene	Ave	1.160	1.185		2.04	2.00	2.2	35.0
sec-Butylbenzene	Ave	2.171	2.287		2.11	2.00	5.4	35.0
Benzyl chloride	Ave	1.239	1.386		2.24	2.00	11.9	35.0
1,4-Dichlorobenzene	Ave	1.164	1.184		2.03	2.00	1.7	35.0
4-Isopropyltoluene	Ave	2.191	2.267		2.07	2.00	3.5	35.0
1,2,3-Trimethylbenzene	Ave	1.725	1.385		1.61	2.00	-19.7	35.0
Butylcyclohexane	Ave	0.9488	0.9354		1.97	2.00	-1.4	35.0
1,2-Dichlorobenzene	Ave	1.144	1.144		2.00	2.00	-0.0	35.0
Indane	Ave	1.423	1.451		2.04	2.00	2.0	35.0
Indene	Ave	1.168	1.080		1.85	2.00	-7.6	35.0
Butylbenzene	Ave	1.784	1.888		2.12	2.00	5.8	35.0
Undecane	Ave	0.7598	0.8223		2.16	2.00	8.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.5572	0.5157		1.85	2.00	-7.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	2.067	2.082		2.01	2.00	0.7	35.0
Dodecane	Ave	0.7957	0.9180		2.31	2.00	15.4	35.0
1,2,4-Trichlorobenzene	Ave	1.235	1.334		2.16	2.00	7.9	35.0
Naphthalene	Ave	2.498	2.601		2.08	2.00	4.1	35.0
Hexachlorobutadiene	Ave	1.436	1.487		2.07	2.00	3.5	35.0
1,2,3-Trichlorobenzene	Ave	1.187	1.295		2.18	2.00	9.1	35.0
2-Methylnaphthalene	Ave	0.7935	1.016		2.56	2.00	28.1	50.0
1-Methylnaphthalene	Ave	0.6999	0.9471		2.71	2.00	35.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.8506	0.8473		3.98	4.00	-0.4	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16ICV.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 17-Nov-2018 06:27:30 ALS Bottle#: 8 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-018
Misc. Info.: S80
Operator ID: Instrument ID: MR
Sublist:

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 16:30:16 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: tajh Date: 19-Nov-2018 10:15:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.379	7.397	-0.018	68	299493	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.482	9.494	-0.012	94	1671036	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.551	14.555	-0.004	89	1499042	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.276	16.279	-0.003	89	1270095	4.00	3.98	
6 Chlorodifluoromethane	51	3.383	3.417	-0.034	95	337816	2.00	1.90	
7 Propene	41	3.389	3.420	-0.031	91	101676	2.00	1.86	
8 Dichlorodifluoromethane	85	3.432	3.461	-0.029	100	757267	2.00	2.32	
9 Chloromethane	52	3.550	3.586	-0.036	98	40890	2.00	1.78	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.583	3.609	-0.026	89	519503	2.00	2.14	
11 Acetaldehyde	44	3.674	3.710	-0.036	93	179473	10.0	8.38	
12 Vinyl chloride	62	3.680	3.711	-0.031	99	144783	2.00	1.80	
13 Butadiene	54	3.750	3.780	-0.030	87	93331	2.00	1.92	
14 Butane	43	3.750	3.782	-0.032	89	162697	2.00	1.92	
15 Bromomethane	94	3.966	3.995	-0.029	96	171614	2.00	1.86	
16 Chloroethane	64	4.068	4.100	-0.032	95	69702	2.00	1.87	
17 Ethanol	31	4.198	4.222	-0.024	92	172190	10.0	7.67	
18 Vinyl bromide	106	4.284	4.315	-0.031	97	197656	2.00	2.03	
19 2-Methylbutane	43	4.343	4.369	-0.026	77	117076	2.00	1.95	
20 Acrolein	56	4.483	4.516	-0.033	97	41705	2.00	2.20	
21 Trichlorofluoromethane	101	4.489	4.517	-0.028	99	845437	2.00	1.91	
22 Acetonitrile	40	4.516	4.545	-0.029	96	35597	2.00	1.84	
23 Acetone	58	4.575	4.605	-0.030	100	57219	2.00	1.84	
24 Pentane	72	4.661	4.693	-0.032	91	30029	2.00	1.99	
25 Isopropyl alcohol	45	4.688	4.716	-0.028	95	209729	2.00	2.48	
26 Ethyl ether	31	4.780	4.817	-0.037	69	85111	2.00	1.71	
27 1,1-Dichloroethene	96	5.006	5.033	-0.027	97	198342	2.00	1.88	
28 Acrylonitrile	53	5.066	5.097	-0.031	91	93387	2.00	1.99	
29 2-Methyl-2-propanol	59	5.141	5.173	-0.032	94	405847	2.00	2.02	
30 1,1,2-Trichloro-1,2,2-trif	101	5.174	5.199	-0.025	92	514124	2.00	1.97	
31 Methylene Chloride	84	5.260	5.290	-0.030	88	175058	2.00	1.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.281	5.309	-0.028	85	194281	2.00	1.98	
33 Carbon disulfide	76	5.378	5.410	-0.032	99	488020	2.00	1.95	
34 trans-1,2-Dichloroethene	96	5.929	5.951	-0.023	97	204116	2.00	1.90	
35 2-Methylpentane	43	5.988	6.011	-0.023	84	255391	2.00	1.80	
36 Methyl tert-butyl ether	73	6.058	6.094	-0.036	92	690950	2.00	2.02	
37 1,1-Dichloroethane	63	6.257	6.283	-0.026	98	346185	2.00	1.92	
38 Vinyl acetate	43	6.376	6.402	-0.026	98	366118	2.00	2.11	
39 2-Butanone (MEK)	72	6.732	6.761	-0.029	98	78637	2.00	1.93	
40 Hexane	56	6.824	6.845	-0.021	81	122366	2.00	1.96	
171 Isopropyl ether	45	6.958	6.989	-0.031	86	443358	2.00	2.06	
41 cis-1,2-Dichloroethene	96	7.104	7.127	-0.023	94	212288	2.00	1.96	
42 Ethyl acetate	43	7.298	7.330	-0.032	98	293488	2.00	1.95	
43 Chloroform	83	7.422	7.439	-0.017	96	555199	2.00	1.94	
173 Tert-butyl ethyl ether	59	7.557	7.580	-0.023	92	591267	2.00	1.91	
44 Tetrahydrofuran	42	7.762	7.793	-0.031	76	130960	2.00	1.97	
45 1,1,1-Trichloroethane	97	8.344	8.364	-0.020	94	715022	2.00	1.97	
46 1,2-Dichloroethane	62	8.414	8.427	-0.013	97	419142	2.00	1.98	
47 Benzene	78	8.905	8.920	-0.015	98	541647	2.00	1.99	
48 Cyclohexane	69	8.932	8.951	-0.019	88	85082	2.00	2.10	
50 Carbon tetrachloride	117	8.943	8.962	-0.019	97	823420	2.00	2.15	
49 n-Butanol	31	8.943	8.969	-0.026	54	40428	2.00	2.09	
51 2,3-Dimethylpentane	71	9.110	9.126	-0.016	82	113510	2.00	2.01	
52 Thiophene	84	9.159	9.174	-0.015	95	308039	2.00	1.98	
53 Isooctane	57	9.784	9.798	-0.014	95	705085	2.00	2.02	
54 1,2-Dichloropropane	63	10.162	10.175	-0.013	76	170084	2.00	1.99	
55 n-Heptane	71	10.210	10.224	-0.014	83	179014	2.00	2.06	
56 Trichloroethene	130	10.237	10.250	-0.013	93	332896	2.00	2.03	
57 Dibromomethane	93	10.269	10.279	-0.010	92	292459	2.00	1.99	
58 Dichlorobromomethane	83	10.458	10.468	-0.010	98	572509	2.00	2.08	
59 1,4-Dioxane	88	10.474	10.497	-0.023	86	85996	2.00	2.07	
60 Methyl methacrylate	41	10.631	10.649	-0.018	90	196157	2.00	2.06	
61 Methylcyclohexane	83	11.100	11.109	-0.009	93	414520	2.00	2.47	
62 4-Methyl-2-pentanone (MIBK	43	11.531	11.552	-0.021	91	315480	2.00	2.08	
63 cis-1,3-Dichloropropene	75	11.569	11.577	-0.008	97	358004	2.00	2.17	
64 trans-1,3-Dichloropropene	75	12.324	12.332	-0.008	97	387987	2.00	2.22	
65 Toluene	91	12.464	12.471	-0.007	93	738479	2.00	2.06	
67 2-Methylthiophene	97	12.518	12.524	-0.006	80	252005	NC	NC	
66 1,1,2-Trichloroethane	83	12.518	12.527	-0.009	94	195833	2.00	2.05	
68 3-Methylthiophene	97	12.831	12.836	-0.005	99	596590	NC	NC	
69 2-Hexanone	58	12.987	13.003	-0.016	95	157281	2.00	2.09	
70 Chlorodibromomethane	129	13.251	13.258	-0.007	97	630906	2.00	2.27	
71 n-Octane	85	13.321	13.326	-0.005	74	241345	2.00	2.11	
72 Ethylene Dibromide	107	13.548	13.551	-0.003	97	440376	2.00	2.11	
73 Tetrachloroethene	129	13.688	13.695	-0.007	94	362784	2.00	2.04	
74 Chlorobenzene	112	14.599	14.606	-0.007	92	644974	2.00	2.06	
75 2,3-Dimethylheptane	43	14.745	14.750	-0.005	78	387573	2.00	1.84	
76 Ethylbenzene	91	14.939	14.943	-0.004	99	1081684	2.00	2.09	
77 2-Ethylthiophene	97	15.036	15.042	-0.006	98	850130	NC	NC	
78 m-Xylene & p-Xylene	91	15.117	15.119	-0.002	100	1797001	4.00	4.23	
79 Bromoform	173	15.505	15.507	-0.002	96	657515	2.00	2.25	
80 Styrene	104	15.592	15.594	-0.002	97	618923	2.00	2.22	
82 o-Xylene	91	15.651	15.655	-0.004	97	908326	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
81 n-Nonane	57	15.656	15.659	-0.003	81	352264	2.00	2.08	
83 1,1,2,2-Tetrachloroethane	83	15.974	15.976	-0.002	93	486519	2.00	2.15	
84 1,2,3-Trichloropropane	110	16.131	16.132	-0.001	93	231227	2.00	2.06	
85 Isopropylbenzene	105	16.282	16.283	-0.001	96	1305567	2.00	2.06	
86 N-Propylbenzene	120	16.853	16.856	-0.003	98	380100	2.00	2.18	
87 2-Chlorotoluene	126	16.864	16.867	-0.003	92	338365	2.00	2.10	
88 4-Ethyltoluene	105	17.021	17.027	-0.006	98	1360898	2.00	2.06	
89 1,3,5-Trimethylbenzene	120	17.112	17.115	-0.003	91	643905	2.00	2.39	
90 Alpha Methyl Styrene	118	17.366	17.366	0.000	86	552848	2.00	2.16	
91 n-Decane	57	17.528	17.532	-0.004	97	510052	2.00	2.12	
92 tert-Butylbenzene	119	17.587	17.590	-0.003	89	1376781	2.00	2.10	
93 1,2,4-Trimethylbenzene	105	17.603	17.605	-0.002	96	1269827	2.00	2.11	
94 1,3-Dichlorobenzene	146	17.873	17.874	-0.001	98	888433	2.00	2.04	
95 sec-Butylbenzene	105	17.900	17.902	-0.002	97	1714335	2.00	2.11	
96 Benzyl chloride	91	17.959	17.962	-0.003	97	1039012	2.00	2.24	
97 1,4-Dichlorobenzene	146	17.970	17.977	-0.007	94	887663	2.00	2.03	
98 4-Isopropyltoluene	119	18.094	18.095	-0.001	95	1699119	2.00	2.07	
99 1,2,3-Trimethylbenzene	105	18.126	18.127	-0.001	99	1037942	2.00	1.61	
100 Butylcyclohexane	83	18.229	18.232	-0.004	92	701115	2.00	1.97	
101 1,2-Dichlorobenzene	146	18.369	18.370	-0.001	96	857489	2.00	2.00	
102 2,3-Dihydroindene	117	18.379	18.383	-0.004	93	1087727	2.00	2.04	
103 Indene	116	18.520	18.520	0.000	90	809464	2.00	1.85	
104 n-Butylbenzene	91	18.579	18.580	-0.001	97	1414728	2.00	2.12	
108 1,2-Dimethyl-4-Ethylbenzen	119	18.989	18.989	0.000	96	1229369	NC	NC	
105 Undecane	57	19.000	19.001	-0.001	87	616308	2.00	2.16	
106 1,2-Dibromo-3-Chloropropan	157	19.027	19.028	-0.001	94	386560	2.00	1.85	
107 1,2,4,5-Tetramethylbenzene	119	19.404	19.405	-0.001	95	1560478	2.00	2.01	
109 1,2,3,5-Tetramethylbenzene	119	19.463	19.464	-0.001	94	955538	NC	NC	
112 1,2,3,4-Tetramethylbenzene	119	19.873	19.873	0.000	96	1325184	NC	NC	
110 Dodecane	57	20.127	20.128	-0.001	90	688062	2.00	2.31	
111 1,2,4-Trichlorobenzene	180	20.202	20.205	-0.003	94	999500	2.00	2.16	
113 Naphthalene	128	20.326	20.329	-0.003	98	1949612	2.00	2.08	
114 Benzo(b)thiophene	134	20.423	20.429	-0.006	99	1114636	NC	NC	
115 Hexachlorobutadiene	225	20.590	20.590	0.000	95	1114590	2.00	2.07	
116 1,2,3-Trichlorobenzene	180	20.617	20.618	-0.001	94	970744	2.00	2.18	
117 2-Methylnaphthalene	142	21.453	21.458	-0.005	98	761819	2.00	2.56	
118 1-Methylnaphthalene	142	21.626	21.626	0.000	97	709921	2.00	2.71	
A 120 C8 Range	1	13.335	(13.279-13.376)		0	1874356	2.00	2.10	
S 121 Xylenes, Total	100				0		6.00	6.27	
S 122 1,2-Dichloroethene, Total	1				0		4.00	3.86	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00080	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

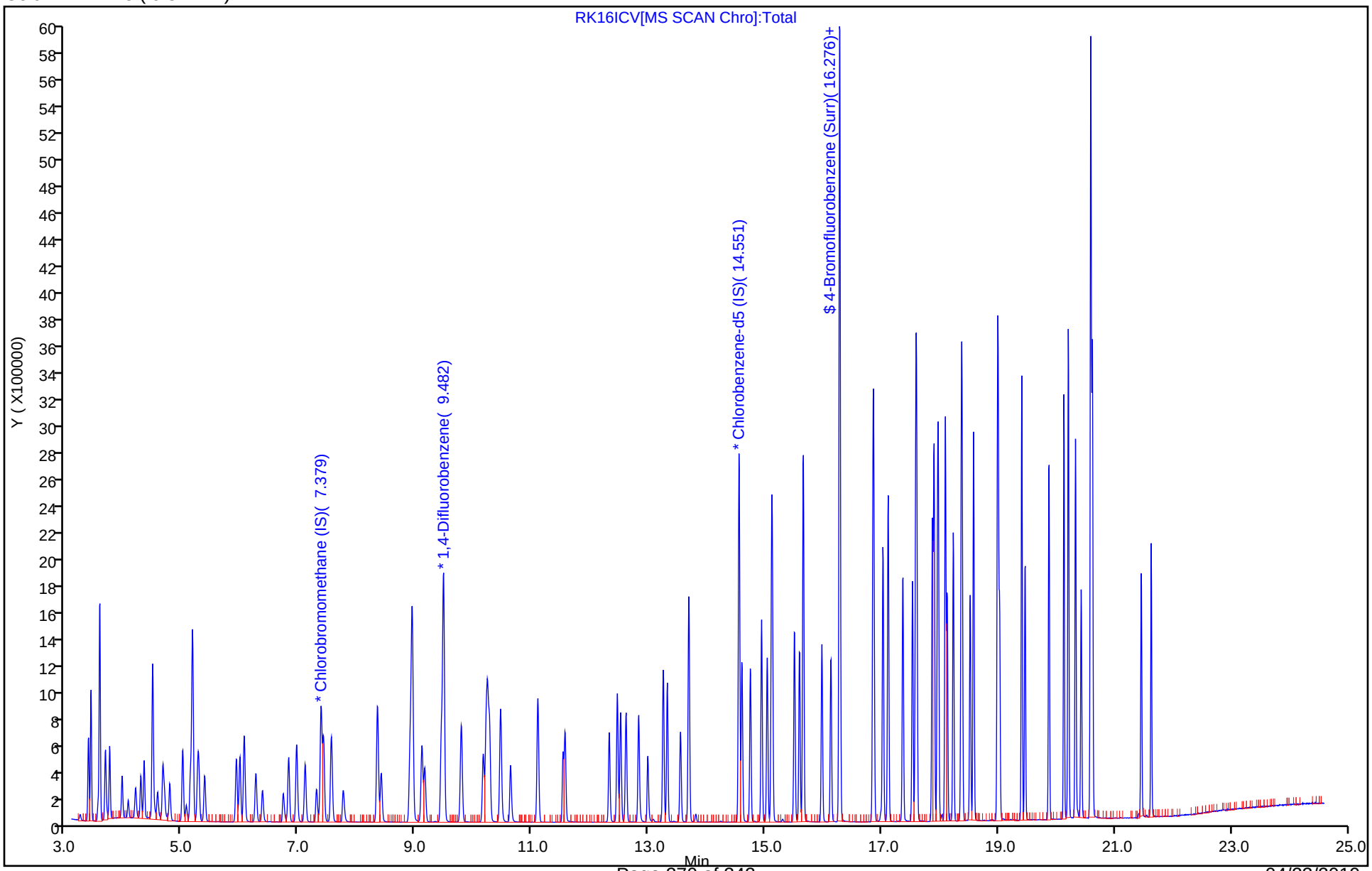
Report Date: 19-Nov-2018 16:30:17 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16ICV.D

Injection Date:	17-Nov-2018 06:27:30	Instrument ID:	MR	Operator ID:	
Lims ID:	icv			Worklist Smp#:	18
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29199/2 Calibration Date: 04/12/2019 15:01

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RCCVD12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.373	2.298		0.968	1.00	-3.2	30.0
Propene	Ave	0.7296	0.6838		0.937	1.00	-6.3	30.0
Dichlorodifluoromethane	Ave	4.352	4.876		1.12	1.00	12.0	30.0
Chloromethane	Ave	0.3061	0.2916		0.953	1.00	-4.7	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	3.240	3.711		1.15	1.00	14.5	30.0
Acetaldehyde	Ave	0.2860	0.3410		5.96	5.00	19.2	30.0
Vinyl chloride	Ave	1.073	1.216		1.13	1.00	13.3	30.0
1,3-Butadiene	Ave	0.6506	0.8706		1.34	1.00	33.8*	30.0
Butane	Ave	1.132	1.461		1.29	1.00	29.1	30.0
Bromomethane	Ave	1.235	1.480		1.20	1.00	19.8	30.0
Chloroethane	Ave	0.4970	0.6277		1.26	1.00	26.3	30.0
Ethanol	Ave	0.2997	0.3779		6.31	5.00	26.1	30.0
Vinyl bromide	Ave	1.302	1.634		1.25	1.00	25.5	30.0
2-Methylbutane	Ave	0.7999	1.103		1.38	1.00	38.0*	30.0
Acrolein	Ave	0.2528	0.3926		1.55	1.00	55.3*	30.0
Acetonitrile	Ave	0.2586	0.3315		1.28	1.00	28.2	30.0
Trichlorofluoromethane	Ave	5.912	7.770		1.31	1.00	31.4*	30.0
Acetone	Ave	0.4151	0.5022		3.63	3.00	21.0	30.0
Isopropyl alcohol	Ave	1.132	1.510		4.00	3.00	33.5*	30.0
Pentane	Ave	0.2011	0.2621		1.30	1.00	30.3*	30.0
Ethyl ether	Ave	0.6661	0.8509		1.28	1.00	27.7	30.0
1,1-Dichloroethene	Ave	1.408	1.541		1.09	1.00	9.5	30.0
Acrylonitrile	Ave	0.6277	0.7216		1.15	1.00	15.0	30.0
tert-Butyl alcohol	Ave	2.677	2.925		1.09	1.00	9.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.489	3.971		1.14	1.00	13.8	30.0
Methylene Chloride	Ave	1.338	1.439		1.08	1.00	7.5	30.0
3-Chloropropene	Ave	1.309	1.606		1.23	1.00	22.7	30.0
Carbon disulfide	Ave	3.341	3.737		1.12	1.00	11.9	30.0
trans-1,2-Dichloroethene	Ave	1.436	1.477		1.03	1.00	2.9	30.0
2-Methylpentane	Ave	1.894	2.110		1.11	1.00	11.4	30.0
Methyl tert-butyl ether	Ave	4.568	4.639		1.02	1.00	1.5	30.0
1,1-Dichloroethane	Ave	2.402	2.493		1.04	1.00	3.8	30.0
Vinyl acetate	Ave	2.320	2.610		1.12	1.00	12.5	30.0
2-Butanone (MEK)	Ave	0.5446	0.5367		0.985	1.00	-1.5	30.0
Hexane	Ave	0.8352	0.9122		1.09	1.00	9.2	30.0
Isopropyl ether	Ave	2.873	3.029		1.05	1.00	5.4	30.0
cis-1,2-Dichloroethene	Ave	1.448	1.491		1.03	1.00	3.0	30.0
Ethyl acetate	Ave	2.012	2.185		1.09	1.00	8.6	30.0
Chloroform	Ave	3.821	3.890		1.02	1.00	1.8	30.0
Tert-butyl ethyl ether	Ave	4.141	4.204		1.02	1.00	1.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29199/2 Calibration Date: 04/12/2019 15:01

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RCCVD12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.8862	0.9743		1.10	1.00	9.9	30.0
1,1,1-Trichloroethane	Ave	4.843	4.905		1.01	1.00	1.3	30.0
1,2-Dichloroethane	Ave	0.5063	0.5070		1.00	1.00	0.1	30.0
Benzene	Ave	0.6517	0.6506		0.998	1.00	-0.2	30.0
Cyclohexane	Ave	0.0968	0.1105		1.14	1.00	14.1	30.0
1-Butanol	Ave	0.0462	0.0441		0.955	1.00	-4.5	30.0
Carbon tetrachloride	Ave	0.9167	0.997		1.09	1.00	8.8	30.0
2,3-Dimethylpentane	Ave	0.1349	0.1369		1.01	1.00	1.4	30.0
Thiophene	Ave	0.3728	0.3880		1.04	1.00	4.1	30.0
2,2,4-Trimethylpentane	Ave	0.8342	0.8752		1.05	1.00	4.9	30.0
1,2-Dichloropropane	Ave	0.2045	0.2056		1.01	1.00	0.5	30.0
Heptane	Ave	0.2083	0.2172		1.04	1.00	4.3	30.0
Trichloroethene	Ave	0.3929	0.4181		1.06	1.00	6.4	30.0
Dibromomethane	Ave	0.3514	0.3603		1.03	1.00	2.5	30.0
Bromodichloromethane	Ave	0.6587	0.6603		1.00	1.00	0.3	30.0
1,4-Dioxane	Ave	0.0994	0.0934		0.940	1.00	-6.0	30.0
Methyl methacrylate	Ave	0.2275	0.2324		1.02	1.00	2.2	30.0
Methylcyclohexane	Ave	0.4024	0.4046		1.01	1.00	0.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3626	0.3761		1.04	1.00	3.7	30.0
cis-1,3-Dichloropropene	Ave	0.3948	0.4153		1.05	1.00	5.2	30.0
trans-1,3-Dichloropropene	Ave	0.4674	0.4812		1.03	1.00	3.0	30.0
Toluene	Ave	0.9586	0.999		1.04	1.00	4.2	30.0
1,1,2-Trichloroethane	Ave	0.2543	0.2780		1.09	1.00	9.3	30.0
2-Hexanone	Ave	0.2006	0.1976		0.985	1.00	-1.5	30.0
Dibromochloromethane	Ave	0.7414	0.8330		1.12	1.00	12.4	30.0
Octane	Ave	0.3054	0.3341		1.09	1.00	9.4	30.0
1,2-Dibromoethane (EDB)	Ave	0.5574	0.5903		1.06	1.00	5.9	30.0
Tetrachloroethene	Ave	0.4749	0.5264		1.11	1.00	10.8	30.0
Chlorobenzene	Ave	0.8374	0.8900		1.06	1.00	6.3	30.0
2,3-Dimethylheptane	Ave	0.5626	0.6658		1.18	1.00	18.3	30.0
Ethylbenzene	Ave	1.382	1.457		1.05	1.00	5.4	30.0
m-Xylene & p-Xylene	Ave	1.133	1.239		2.19	2.00	9.3	30.0
Bromoform	Ave	0.7786	0.8459		1.09	1.00	8.6	30.0
Styrene	Ave	0.7430	0.7592		1.02	1.00	2.2	30.0
o-Xylene	Ave	1.190	1.289		1.08	1.00	8.3	30.0
Nonane	Ave	0.4511	0.5541		1.23	1.00	22.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6050	0.6607		1.09	1.00	9.2	30.0
1,2,3-Trichloropropane	Ave	0.3000	0.2967		0.989	1.00	-1.1	30.0
Isopropylbenzene	Ave	1.694	1.784		1.05	1.00	5.3	30.0
Propylbenzene	Ave	0.4652	0.4774		1.03	1.00	2.6	30.0
2-Chlorotoluene	Ave	0.4306	0.4418		1.03	1.00	2.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Lab Sample ID: CCVIS 140-29199/2 Calibration Date: 04/12/2019 15:01

Instrument ID: MR Calib Start Date: 11/16/2018 17:23

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 11/17/2018 03:51

Lab File ID: RCCVD12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.759	1.733		0.985	1.00	-1.5	30.0
1,3,5-Trimethylbenzene	Ave	0.7199	0.7167		0.996	1.00	-0.4	30.0
Alpha Methyl Styrene	Ave	0.6844	0.6354		0.928	1.00	-7.2	30.0
Decane	Ave	0.6421	0.7212		1.12	1.00	12.3	30.0
tert-Butylbenzene	Ave	1.753	1.817		1.04	1.00	3.6	30.0
1,2,4-Trimethylbenzene	Ave	1.607	1.724		1.07	1.00	7.3	30.0
1,3-Dichlorobenzene	Ave	1.160	1.150		0.992	1.00	-0.8	30.0
sec-Butylbenzene	Ave	2.171	2.179		1.00	1.00	0.4	30.0
Benzyl chloride	Ave	1.239	1.238		0.999	1.00	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.164	1.178		1.01	1.00	1.1	30.0
4-Isopropyltoluene	Ave	2.191	2.233		1.02	1.00	1.9	30.0
1,2,3-Trimethylbenzene	Ave	1.725	1.805		1.05	1.00	4.6	30.0
Butylcyclohexane	Ave	0.9488	0.9705		1.02	1.00	2.3	30.0
1,2-Dichlorobenzene	Ave	1.144	1.117		0.976	1.00	-2.4	30.0
Indane	Ave	1.423	1.486		1.04	1.00	4.4	30.0
Indene	Ave	1.168	1.161		0.994	1.00	-0.6	30.0
Butylbenzene	Ave	1.784	1.823		1.02	1.00	2.2	30.0
Undecane	Ave	0.7598	0.8605		1.13	1.00	13.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.5572	0.5909		1.06	1.00	6.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	2.067	2.038		0.986	1.00	-1.4	30.0
Dodecane	Ave	0.7957	0.9102		1.14	1.00	14.4	30.0
1,2,4-Trichlorobenzene	Ave	1.235	1.169		0.946	1.00	-5.4	30.0
Naphthalene	Ave	2.498	2.156		0.863	1.00	-13.7	30.0
Hexachlorobutadiene	Ave	1.436	1.337		0.931	1.00	-6.9	30.0
1,2,3-Trichlorobenzene	Ave	1.187	1.110		0.935	1.00	-6.5	30.0
2-Methylnaphthalene	Ave	0.7935	0.7816		0.985	1.00	-1.5	50.0
1-Methylnaphthalene	Ave	0.6999	0.9818		1.40	1.00	40.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.8506	0.9115		4.29	4.00	7.2	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Apr-2019 15:01:30 ALS Bottle#: 12 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011413-002
Misc. Info.: p87
Operator ID: afb Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Apr-2019 13:28:48 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:28:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.352	7.352	0.000	71	222513	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.412	9.412	0.000	95	1295233	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.470	14.470	0.000	91	1120596	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.196	16.196	0.000	88	1021387	4.00	4.29	
6 Chlorodifluoromethane	51	3.513	3.513	0.000	97	127859	1.00	0.9684	
7 Propene	41	3.518	3.518	0.000	91	38040	1.00	0.9373	
8 Dichlorodifluoromethane	85	3.556	3.556	0.000	100	271252	1.00	1.12	
9 Chloromethane	52	3.675	3.675	0.000	95	16223	1.00	0.9528	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.691	3.691	0.000	88	206431	1.00	1.15	
11 Acetaldehyde	44	3.777	3.777	0.000	93	94856	5.00	5.96	
12 Vinyl chloride	62	3.793	3.793	0.000	99	67631	1.00	1.13	
13 Butadiene	54	3.853	3.853	0.000	96	48428	1.00	1.34	
14 Butane	43	3.858	3.858	0.000	85	81297	1.00	1.29	
15 Bromomethane	94	4.068	4.068	0.000	95	82342	1.00	1.20	
16 Chloroethane	64	4.165	4.165	0.000	92	34918	1.00	1.26	
17 Ethanol	31	4.230	4.230	0.000	93	105120	5.00	6.31	
18 Vinyl bromide	106	4.370	4.370	0.000	95	90877	1.00	1.25	
19 2-Methylbutane	43	4.424	4.424	0.000	78	61385	1.00	1.38	
20 Acrolein	56	4.548	4.548	0.000	96	21839	1.00	1.55	
22 Acetonitrile	40	4.570	4.570	0.000	23	18441	1.00	1.28	a
21 Trichlorofluoromethane	101	4.570	4.570	0.000	99	432231	1.00	1.31	
23 Acetone	58	4.624	4.624	0.000	100	83811	3.00	3.63	
25 Isopropyl alcohol	45	4.710	4.710	0.000	98	252022	3.00	4.00	
24 Pentane	72	4.732	4.732	0.000	91	14579	1.00	1.30	
26 Ethyl ether	31	4.839	4.839	0.000	73	47333	1.00	1.28	
27 1,1-Dichloroethene	96	5.066	5.066	0.000	96	85711	1.00	1.09	
28 Acrylonitrile	53	5.098	5.098	0.000	90	40142	1.00	1.15	
29 2-Methyl-2-propanol	59	5.147	5.147	0.000	95	162722	1.00	1.09	
30 1,1,2-Trichloro-1,2,2-trif	101	5.222	5.222	0.000	91	220907	1.00	1.14	
31 Methylene Chloride	84	5.308	5.308	0.000	91	80030	1.00	1.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.330	5.330	0.000	86	89349	1.00	1.23	
33 Carbon disulfide	76	5.433	5.433	0.000	97	207881	1.00	1.12	
34 trans-1,2-Dichloroethene	96	5.956	5.956	0.000	97	82184	1.00	1.03	
35 2-Methylpentane	43	6.009	6.009	0.000	85	117384	1.00	1.11	
36 Methyl tert-butyl ether	73	6.069	6.069	0.000	93	258046	1.00	1.02	
37 1,1-Dichloroethane	63	6.268	6.268	0.000	97	138704	1.00	1.04	
38 Vinyl acetate	43	6.371	6.371	0.000	99	145208	1.00	1.12	
39 2-Butanone (MEK)	72	6.716	6.716	0.000	97	29858	1.00	0.9855	
40 Hexane	56	6.824	6.824	0.000	81	50742	1.00	1.09	
171 Isopropyl ether	45	6.942	6.942	0.000	85	168523	1.00	1.05	
41 cis-1,2-Dichloroethene	96	7.093	7.093	0.000	93	82949	1.00	1.03	
42 Ethyl acetate	43	7.266	7.266	0.000	97	121534	1.00	1.09	
43 Chloroform	83	7.390	7.390	0.000	98	216419	1.00	1.02	
173 Tert-butyl ethyl ether	59	7.525	7.525	0.000	94	233834	1.00	1.02	
44 Tetrahydrofuran	42	7.724	7.724	0.000	77	54198	1.00	1.10	
45 1,1,1-Trichloroethane	97	8.307	8.307	0.000	95	272858	1.00	1.01	
46 1,2-Dichloroethane	62	8.361	8.361	0.000	98	164166	1.00	1.00	
47 Benzene	78	8.857	8.857	0.000	99	210666	1.00	1.00	
48 Cyclohexane	69	8.889	8.889	0.000	66	35774	1.00	1.14	
50 Carbon tetrachloride	117	8.894	8.894	0.000	95	322874	1.00	1.09	
49 n-Butanol	31	8.894	8.894	0.000	39	14280	1.00	0.9546	h
51 2,3-Dimethylpentane	71	9.062	9.062	0.000	83	44320	1.00	1.01	
52 Thiophene	84	9.099	9.099	0.000	96	125645	1.00	1.04	
53 Isooctane	57	9.725	9.725	0.000	94	283402	1.00	1.05	
54 1,2-Dichloropropane	63	10.092	10.092	0.000	70	66570	1.00	1.01	
55 n-Heptane	71	10.145	10.145	0.000	85	70333	1.00	1.04	
56 Trichloroethene	130	10.162	10.162	0.000	95	135395	1.00	1.06	
57 Dibromomethane	93	10.189	10.189	0.000	90	116658	1.00	1.03	
58 Dichlorobromomethane	83	10.377	10.377	0.000	98	213817	1.00	1.00	
59 1,4-Dioxane	88	10.399	10.399	0.000	90	30241	1.00	0.9395	
60 Methyl methacrylate	41	10.555	10.555	0.000	89	75267	1.00	1.02	
61 Methylcyclohexane	83	11.030	11.030	0.000	91	131020	1.00	1.01	
62 4-Methyl-2-pentanone (MIBK	43	11.450	11.450	0.000	92	121796	1.00	1.04	
63 cis-1,3-Dichloropropene	75	11.483	11.483	0.000	95	134470	1.00	1.05	
64 trans-1,3-Dichloropropene	75	12.243	12.243	0.000	95	134805	1.00	1.03	
65 Toluene	91	12.383	12.383	0.000	92	279939	1.00	1.04	
66 1,1,2-Trichloroethane	83	12.437	12.437	0.000	93	77874	1.00	1.09	
69 2-Hexanone	58	12.912	12.912	0.000	93	55362	1.00	0.9853	
70 Chlorodibromomethane	129	13.165	13.165	0.000	96	233351	1.00	1.12	
71 n-Octane	85	13.251	13.251	0.000	79	93600	1.00	1.09	
72 Ethylene Dibromide	107	13.462	13.462	0.000	97	165376	1.00	1.06	
73 Tetrachloroethene	129	13.613	13.613	0.000	93	147471	1.00	1.11	
74 Chlorobenzene	112	14.519	14.519	0.000	91	249336	1.00	1.06	
75 2,3-Dimethylheptane	43	14.675	14.675	0.000	82	186517	1.00	1.18	
76 Ethylbenzene	91	14.858	14.858	0.000	99	408063	1.00	1.05	
78 m-Xylene & p-Xylene	91	15.036	15.036	0.000	99	694329	2.00	2.19	
79 Bromoform	173	15.419	15.419	0.000	95	236980	1.00	1.09	
80 Styrene	104	15.511	15.511	0.000	97	212689	1.00	1.02	
82 o-Xylene	91	15.570	15.570	0.000	97	361085	1.00	1.08	
81 n-Nonane	57	15.586	15.586	0.000	80	155224	1.00	1.23	
83 1,1,2,2-Tetrachloroethane	83	15.894	15.894	0.000	92	185088	1.00	1.09	
84 1,2,3-Trichloropropane	110	16.050	16.050	0.000	93	83131	1.00	0.9891	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Isopropylbenzene	105	16.206	16.206	0.000	96	499768	1.00	1.05	
86 N-Propylbenzene	120	16.773	16.773	0.000	96	133747	1.00	1.03	
87 2-Chlorotoluene	126	16.783	16.783	0.000	95	123760	1.00	1.03	
88 4-Ethyltoluene	105	16.945	16.945	0.000	98	485399	1.00	0.9848	
89 1,3,5-Trimethylbenzene	120	17.037	17.037	0.000	93	200774	1.00	1.00	
90 Alpha Methyl Styrene	118	17.285	17.285	0.000	88	178019	1.00	0.9285	
91 n-Decane	57	17.457	17.457	0.000	97	202056	1.00	1.12	
92 tert-Butylbenzene	119	17.506	17.506	0.000	88	509100	1.00	1.04	
93 1,2,4-Trimethylbenzene	105	17.522	17.522	0.000	96	482902	1.00	1.07	
94 1,3-Dichlorobenzene	146	17.792	17.792	0.000	98	322163	1.00	0.99	
95 sec-Butylbenzene	105	17.824	17.824	0.000	96	610482	1.00	1.00	
96 Benzyl chloride	91	17.878	17.878	0.000	97	346740	1.00	1.00	
97 1,4-Dichlorobenzene	146	17.894	17.894	0.000	93	329924	1.00	1.01	
98 4-Isopropyltoluene	119	18.018	18.018	0.000	96	625474	1.00	1.02	
99 1,2,3-Trimethylbenzene	105	18.051	18.051	0.000	99	505621	1.00	1.05	
100 Butylcyclohexane	83	18.159	18.159	0.000	88	271888	1.00	1.02	
101 1,2-Dichlorobenzene	146	18.293	18.293	0.000	93	312975	1.00	0.9763	
102 2,3-Dihydroindene	117	18.304	18.304	0.000	92	416369	1.00	1.04	
103 Indene	116	18.444	18.444	0.000	90	325311	1.00	0.99	
104 n-Butylbenzene	91	18.509	18.509	0.000	96	510809	1.00	1.02	
105 Undecane	57	18.940	18.940	0.000	86	241068	1.00	1.13	
106 1,2-Dibromo-3-Chloropropan	157	18.951	18.951	0.000	92	165525	1.00	1.06	
107 1,2,4,5-Tetramethylbenzene	119	19.339	19.339	0.000	95	571013	1.00	0.9861	
110 Dodecane	57	20.073	20.073	0.000	91	255002	1.00	1.14	
111 1,2,4-Trichlorobenzene	180	20.143	20.143	0.000	93	327419	1.00	0.9461	
113 Naphthalene	128	20.262	20.262	0.000	98	603865	1.00	0.8629	
115 Hexachlorobutadiene	225	20.526	20.526	0.000	95	374550	1.00	0.9309	
116 1,2,3-Trichlorobenzene	180	20.553	20.553	0.000	94	310905	1.00	0.9347	
117 2-Methylnaphthalene	142	21.394	21.394	0.000	97	218972	1.00	0.9850	
118 1-Methylnaphthalene	142	21.566	21.566	0.000	97	275074	1.00	1.40	
A 120 C8 Range	1	13.259	(13.203-13.300)		0	754301	1.00	1.09	
S 121 Xylenes, Total	100				0		3.00	3.27	
S 122 1,2-Dichloroethene, Total	1				0		2.00	2.06	

QC Flag Legend

Review Flags

a - User Assigned ID

h - User Selected Hit

Reagents:

40CV101P_00087	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

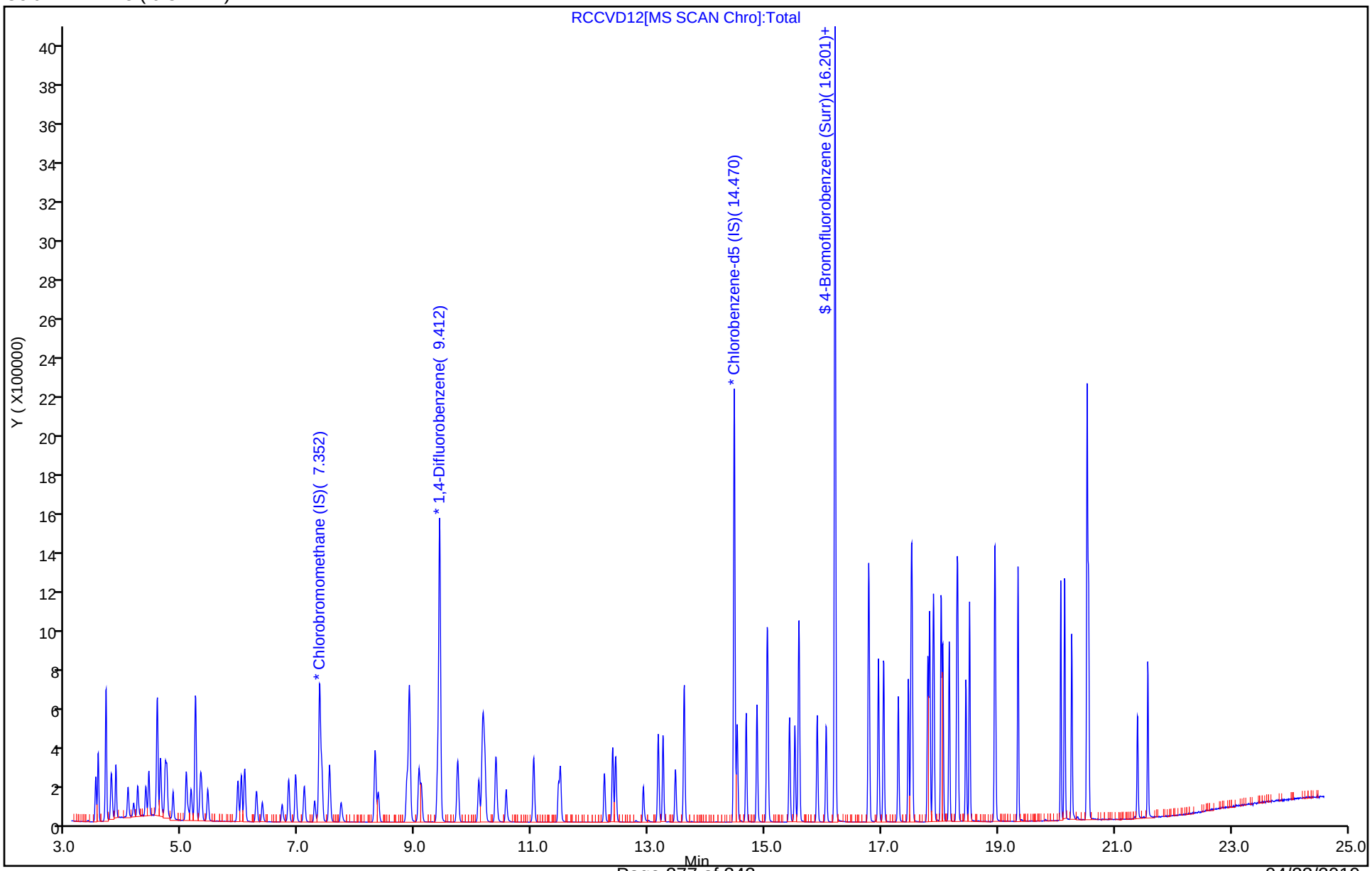
Report Date: 15-Apr-2019 13:28:49 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12.D

Injection Date:	12-Apr-2019 15:01:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

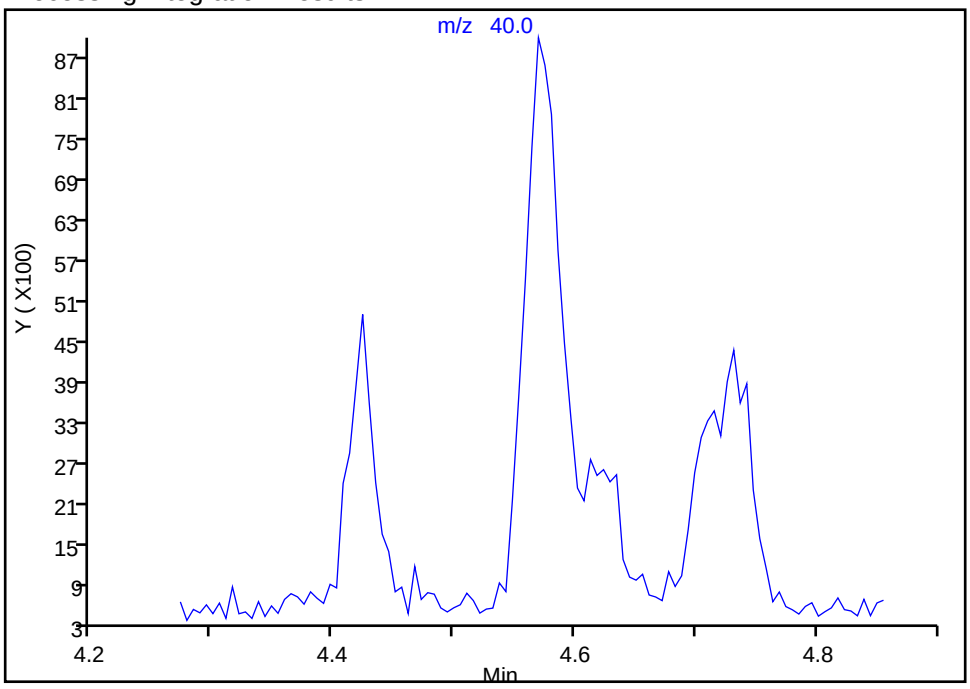
Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12.D
Injection Date: 12-Apr-2019 15:01:30 Instrument ID: MR
Lims ID: CCVIS
Client ID:
Operator ID: afb ALS Bottle#: 12 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

22 Acetonitrile, CAS: 75-05-8

Signal: 1

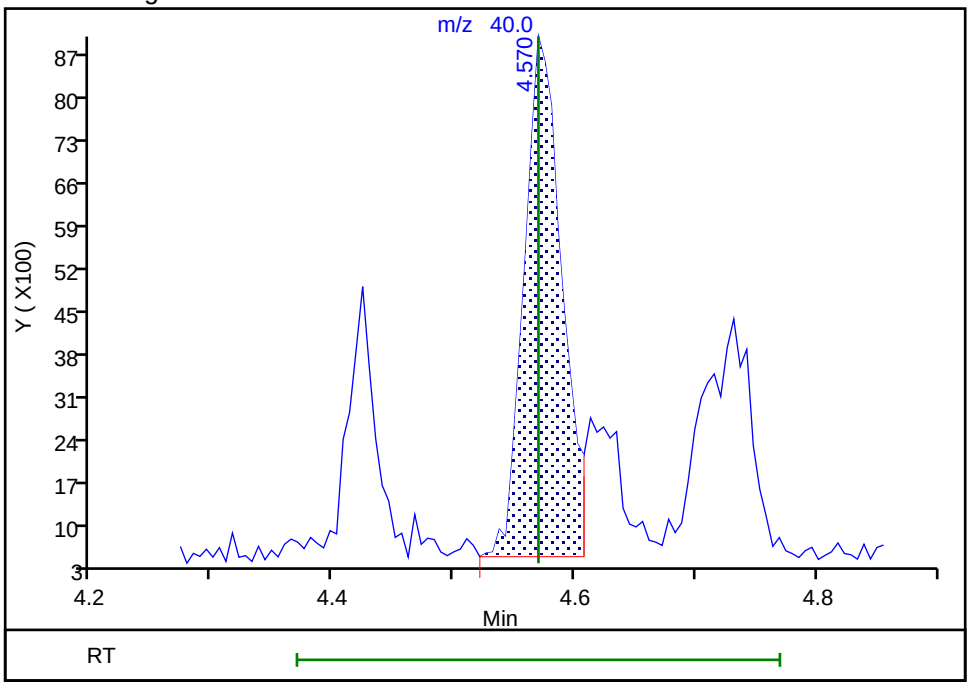
Not Detected
Expected RT: 4.57

Processing Integration Results



Manual Integration Results

RT: 4.57
Area: 18441
Amount: 1.281783
Amount Units: ppb v/v



Reviewer: barlozhetskayaa, 12-Apr-2019 16:12:30
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

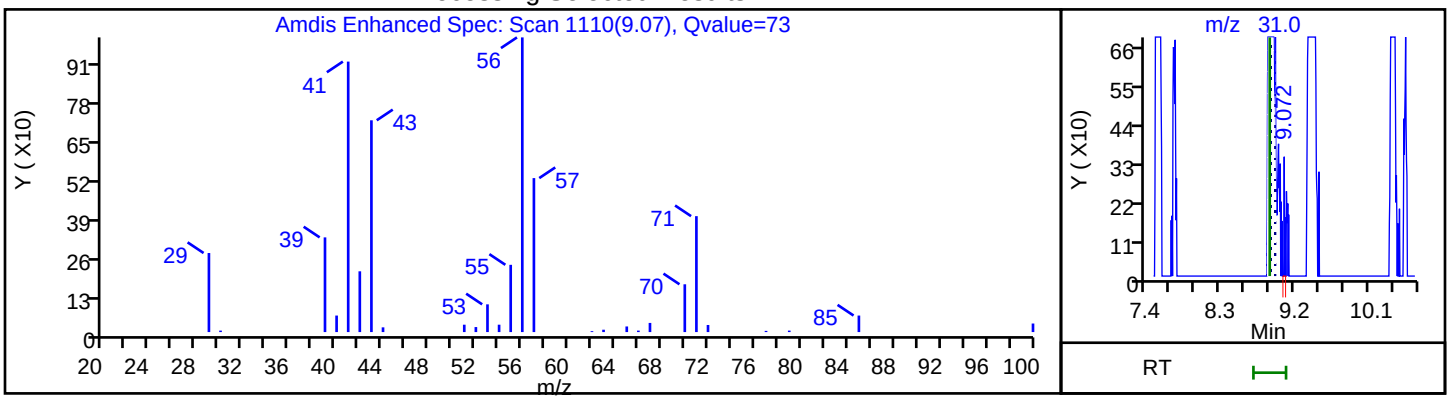
User Selected Alternate Hit Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12.D
Injection Date: 12-Apr-2019 15:01:30 Instrument ID: MR
Lims ID: CCVIS
Client ID:
Operator ID: afb ALS Bottle#: 12 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

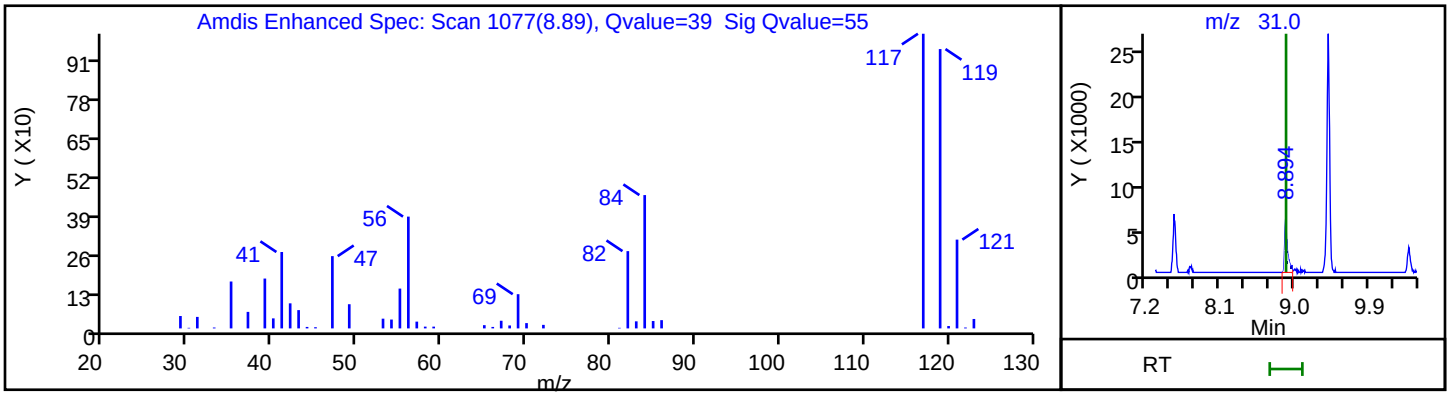
49 n-Butanol, CAS: 71-36-3

Processing Selected Results



RT: 9.07
Response: 165
Amount: 0.011030

Manual Selected Results



RT: 8.89
Response: 14280
Amount: 0.954571

Reviewer: barlozhetskayaa, 12-Apr-2019 16:12:24
Audit Action: Selected Alternate Hit Audit Reason: Wrong peak

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JBFBD11.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	11-Apr-2019 17:44:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011416-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	18-Apr-2019 15:41:26	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0332				
First Level Reviewer: barlozhetskayaa		Date:	17-Apr-2019 12:44:05		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.319	4.321	-0.002	0	842318	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

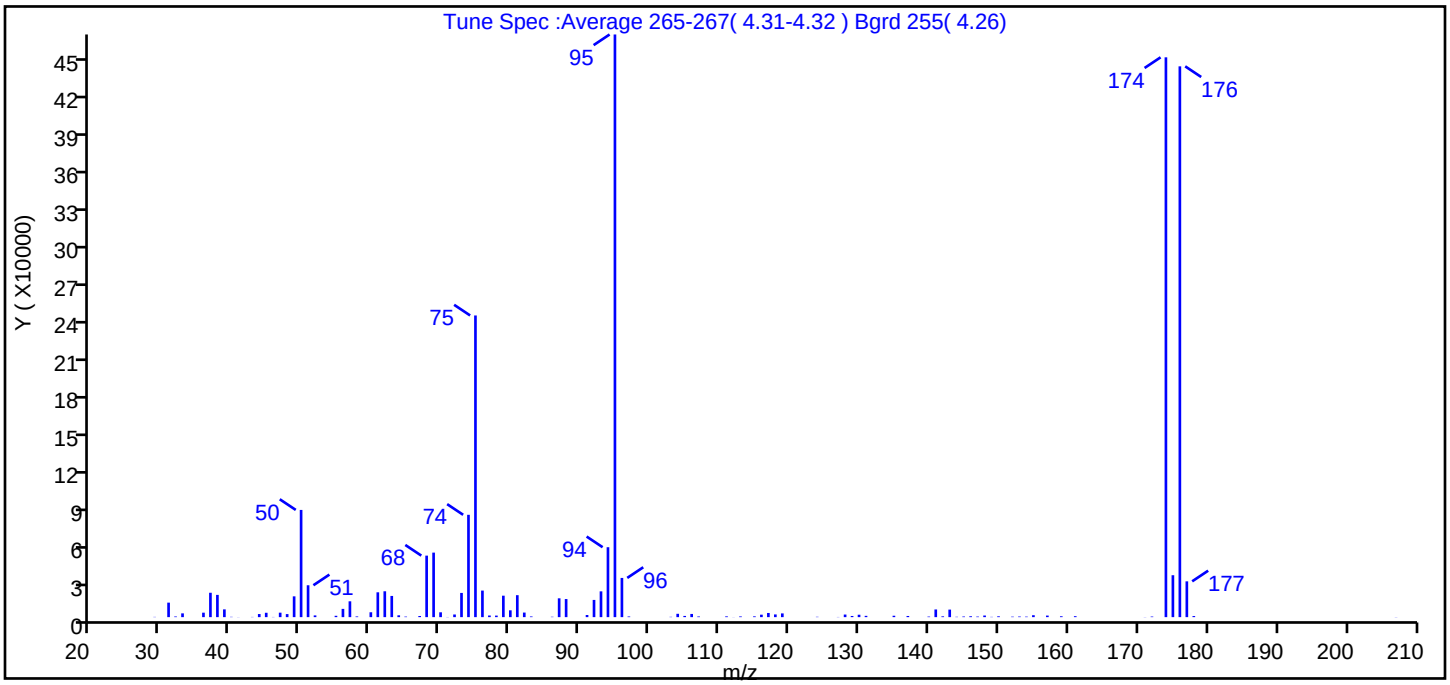
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JBFBD11.D
Injection Date: 11-Apr-2019 17:44:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.4
75	30 to 60% of m/z 95	51.8
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	96.1
175	5 to 9% of m/z 174	7.2 (7.5)
176	Greater than 95% but less than 101% of m/z 174	94.5 (98.4)
177	5 to 9% of m/z 176	6.1 (6.5)

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JBFBD11.D\MJ_TO15.rslt\spectra.d
Injection Date: 11-Apr-2019 17:44:30
Spectrum: Tune Spec :Average 265-267(4.31-4.32) Bgrd 255(4.26)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	195	62.00	20728	93.00	20664	140.00	451
31.00	11621	63.00	16992	94.00	56032	141.00	6152
32.00	531	64.00	1467	95.00	466880	142.00	642
33.00	3031	65.00	435	96.00	31424	143.00	6044
36.00	3584	67.00	911	97.00	535	144.00	281
37.00	19536	68.00	49296	103.00	244	145.00	507
38.00	17832	69.00	51704	104.00	2685	146.00	712
39.00	6233	70.00	3882	105.00	974	147.00	459
40.00	247	71.00	126	106.00	2562	148.00	1299
41.00	84	72.00	2130	107.00	525	149.00	219
43.00	167	73.00	19408	111.00	625	150.00	664
44.00	2487	74.00	82000	112.00	74	152.00	388
45.00	3500	75.00	241728	113.00	563	153.00	500
46.00	148	76.00	21288	115.00	636	154.00	415
47.00	3583	77.00	1318	116.00	1981	155.00	1548
48.00	2444	78.00	1246	117.00	3342	157.00	1252
49.00	16664	79.00	17192	118.00	2174	159.00	693
50.00	85912	80.00	5473	119.00	2997	161.00	764
51.00	25552	81.00	17600	124.00	278	171.00	104
52.00	1385	82.00	3671	127.00	144	172.00	470
55.00	1087	83.00	548	128.00	2082	174.00	448576
56.00	6616	86.00	305	129.00	934	175.00	33592
57.00	12691	87.00	15084	130.00	1938	176.00	441344
58.00	568	88.00	14500	131.00	1042	177.00	28688
60.00	3906	91.00	1717	135.00	1122	178.00	864
61.00	19904	92.00	13797	137.00	933	207.00	117

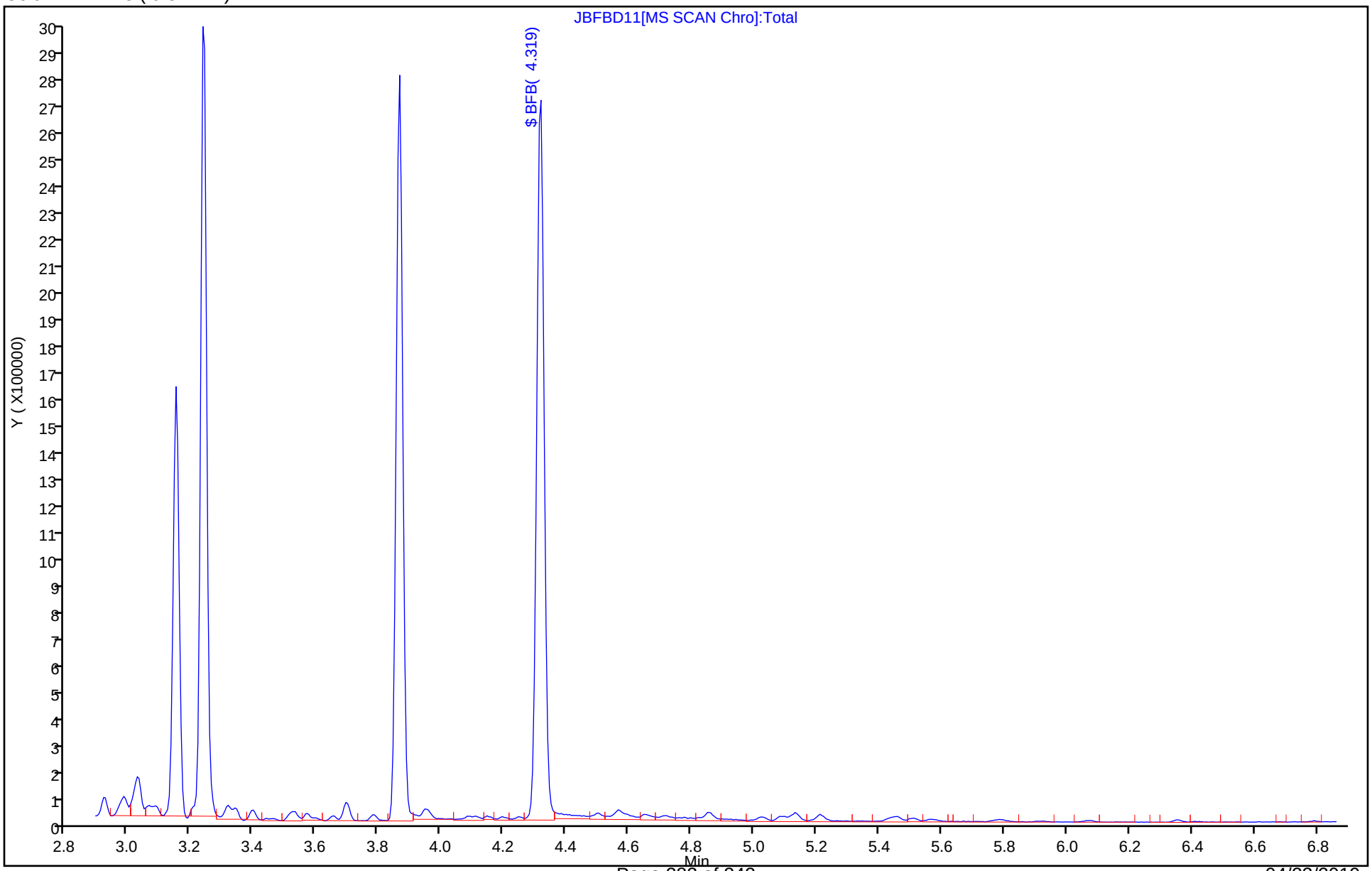
Report Date: 18-Apr-2019 15:41:27 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JBFBD11.D

Injection Date:	11-Apr-2019 17:44:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JBFBD15a.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	15-Apr-2019 13:04:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:08:28	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				
First Level Reviewer: khachitpongpanits		Date:	19-Apr-2019 10:08:27		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 18 BFB	95	4.332	4.332	0.000	0	826259	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

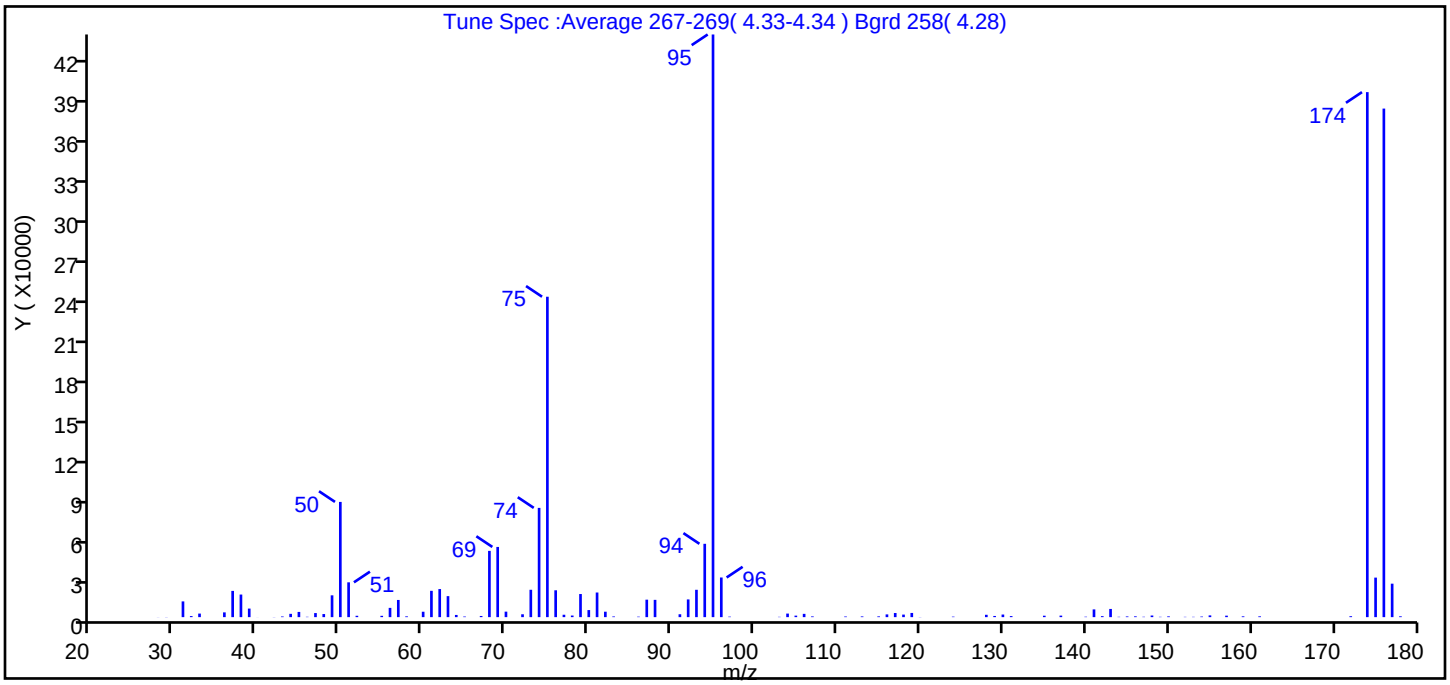
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JBFBD15a.D
Injection Date: 15-Apr-2019 13:04:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 18 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.8
75	30 to 60% of m/z 95	55.0
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	90.1
175	5 to 9% of m/z 174	6.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	87.3 (96.9)
177	5 to 9% of m/z 176	5.7 (6.6)

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JBFBD15a.D\MJ_TO15.rslt\spectra.d
Injection Date: 15-Apr-2019 13:04:30
Spectrum: Tune Spec :Average 267-269(4.33-4.34) Bgrd 258(4.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	65	61.00	19872	93.00	20648	141.00	5845
29.00	112	62.00	21200	94.00	55360	142.00	744
31.00	11884	63.00	15857	95.00	439808	143.00	6191
32.00	794	64.00	1657	96.00	29936	144.00	261
33.00	2690	65.00	455	97.00	378	145.00	533
36.00	3602	67.00	880	103.00	234	146.00	616
37.00	19808	68.00	50016	104.00	2689	147.00	285
38.00	17056	69.00	52992	105.00	1140	148.00	1232
39.00	6464	70.00	4149	106.00	2480	149.00	248
40.00	36	72.00	2168	107.00	552	150.00	581
42.00	104	73.00	20664	111.00	482	152.00	231
43.00	500	74.00	82472	113.00	545	153.00	238
44.00	2493	75.00	241856	115.00	577	154.00	445
45.00	3938	76.00	20272	116.00	2072	155.00	1320
46.00	264	77.00	1815	117.00	3114	157.00	1116
47.00	3079	78.00	1213	118.00	1928	159.00	605
48.00	2335	79.00	17448	119.00	3167	161.00	606
49.00	16464	80.00	5332	120.00	105	172.00	704
50.00	86984	81.00	18592	124.00	382	174.00	396288
51.00	26280	82.00	4104	128.00	1777	175.00	29840
52.00	1030	83.00	515	129.00	891	176.00	383872
55.00	997	86.00	364	130.00	1975	177.00	25264
56.00	6996	87.00	13188	131.00	787	178.00	617
57.00	12976	88.00	13047	135.00	1079		
58.00	601	91.00	2185	137.00	1151		
60.00	4086	92.00	13376	140.00	327		

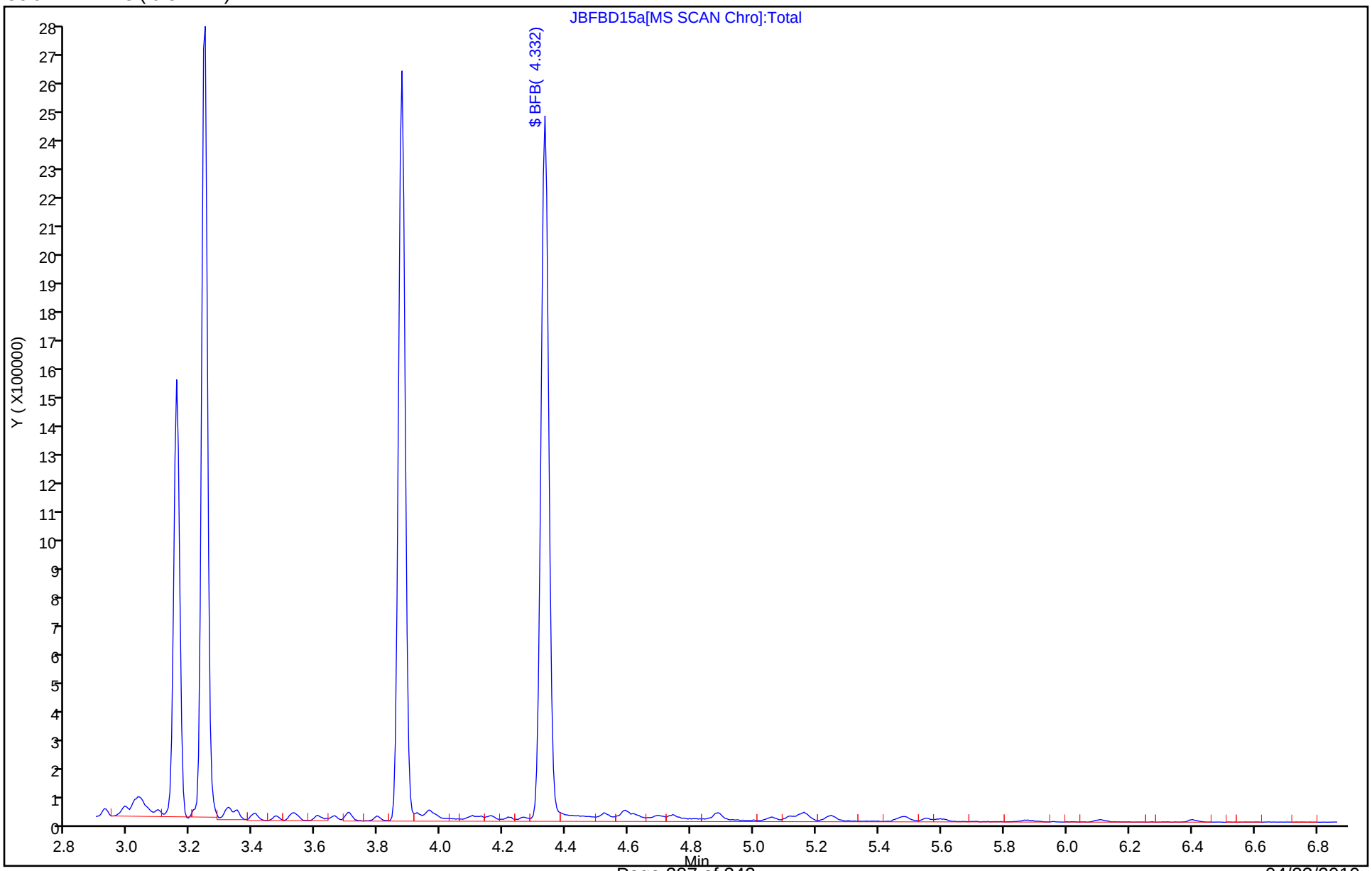
Report Date: 19-Apr-2019 10:08:28 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JBFBD15a.D

Injection Date:	15-Apr-2019 13:04:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RBFBK16I.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Nov-2018 16:00:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0010019-001
Misc. Info.: BFB
Operator ID: Instrument ID: MR

Method: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Nov-2018 15:42:29 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0313

First Level Reviewer: tajh Date: 16-Nov-2018 16:19:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.637	5.637	0.000	0	1507667	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

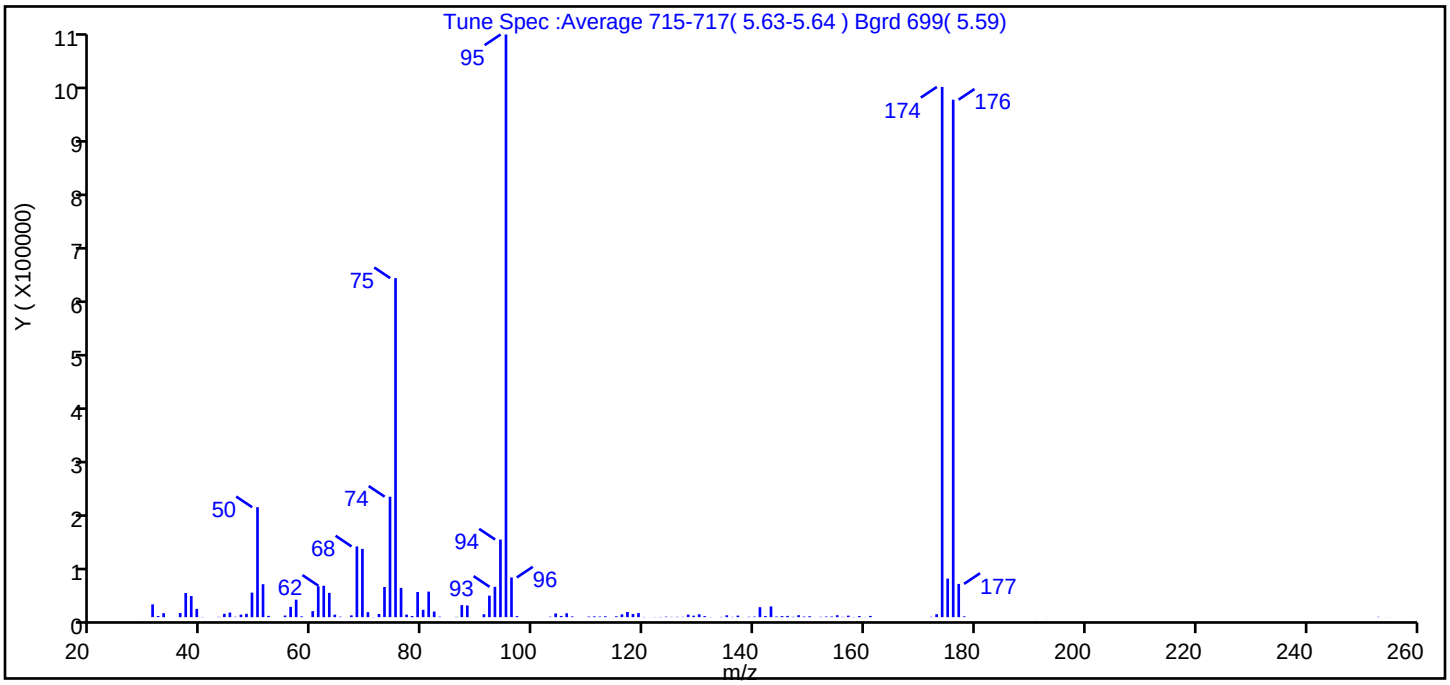
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RBFBK16I.D
Injection Date: 16-Nov-2018 16:00:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.9
75	30 to 60% of m/z 95	58.2
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	91.0
175	5 to 9% of m/z 174	6.6 (7.3)
176	Greater than 95% but less than 101% of m/z 174	88.8 (97.6)
177	5 to 9% of m/z 176	5.7 (6.4)

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RBFBK16I.D\MR_TO15.rslt\spectra.d
Injection Date: 16-Nov-2018 16:00:30
Spectrum: Tune Spec :Average 715-717(5.63-5.64) Bgrd 699(5.59)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	82	67.00	3051	111.00	1314	145.00	1799
30.00	42	68.00	121608	112.00	1000	146.00	2167
31.00	21976	69.00	117344	113.00	1472	147.00	587
32.00	1872	70.00	8559	115.00	1498	148.00	3341
33.00	6807	71.00	242	116.00	4788	149.00	1013
34.00	47	72.00	5436	117.00	8901	150.00	1582
36.00	7075	73.00	51896	118.00	5361	151.00	97
37.00	41472	74.00	207104	119.00	6961	152.00	589
38.00	36296	75.00	582976	120.00	382	153.00	1032
39.00	14146	76.00	50352	121.00	80	154.00	1046
40.00	352	77.00	4415	122.00	293	155.00	3329
41.00	12	78.00	1882	123.00	395	156.00	504
43.00	505	79.00	43192	124.00	805	157.00	2542
44.00	5765	80.00	12674	125.00	442	158.00	344
45.00	7821	81.00	43936	126.00	550	159.00	1896
46.00	624	82.00	9626	127.00	471	160.00	211
47.00	4314	83.00	791	128.00	4329	161.00	2127
48.00	5729	86.00	523	129.00	2485	170.00	42
49.00	42160	87.00	20704	130.00	4919	172.00	609
50.00	189056	88.00	20064	131.00	1754	173.00	5015
51.00	56648	91.00	5000	132.00	262	174.00	911744
52.00	2215	92.00	36920	133.00	57	175.00	66280
53.00	37	93.00	52152	134.00	435	176.00	889856
55.00	2753	94.00	133504	135.00	3202	177.00	57168
56.00	17664	95.00	1001984	136.00	443	178.00	1378
57.00	29976	96.00	68240	137.00	2704	191.00	97
58.00	1338	97.00	1768	138.00	52	193.00	111
60.00	10347	103.00	745	139.00	624	195.00	40
61.00	53120	104.00	6342	140.00	916	253.00	525
62.00	53968	105.00	2057	141.00	17160	255.00	125
63.00	41768	106.00	6637	142.00	2048		
64.00	4211	107.00	1249	143.00	18376		
65.00	772	110.00	963	144.00	1092		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	82	67.00	3051	111.00	1314	145.00	1799
30.00	42	68.00	121608	112.00	1000	146.00	2167
31.00	21976	69.00	117344	113.00	1472	147.00	587
32.00	1872	70.00	8559	115.00	1498	148.00	3341
33.00	6807	71.00	242	116.00	4788	149.00	1013
34.00	47	72.00	5436	117.00	8901	150.00	1582
36.00	7075	73.00	51896	118.00	5361	151.00	97
37.00	41472	74.00	207104	119.00	6961	152.00	589
38.00	36296	75.00	582976	120.00	382	153.00	1032
39.00	14146	76.00	50352	121.00	80	154.00	1046
40.00	352	77.00	4415	122.00	293	155.00	3329
41.00	12	78.00	1882	123.00	395	156.00	504
43.00	505	79.00	43192	124.00	805	157.00	2542
44.00	5765	80.00	12674	125.00	442	158.00	344
45.00	7821	81.00	43936	126.00	550	159.00	1896
46.00	624	82.00	9626	127.00	471	160.00	211
47.00	4314	83.00	791	128.00	4329	161.00	2127
48.00	5729	86.00	523	129.00	2485	170.00	42
49.00	42160	87.00	20704	130.00	4919	172.00	609
50.00	189056	88.00	20064	131.00	1754	173.00	5015
51.00	56648	91.00	5000	132.00	262	174.00	911744
52.00	2215	92.00	36920	133.00	57	175.00	66280
53.00	37	93.00	52152	134.00	435	176.00	889856
55.00	2753	94.00	133504	135.00	3202	177.00	57168
56.00	17664	95.00	1001984	136.00	443	178.00	1378
57.00	29976	96.00	68240	137.00	2704	191.00	97
58.00	1338	97.00	1768	138.00	52	193.00	111
60.00	10347	103.00	745	139.00	624	195.00	40
61.00	53120	104.00	6342	140.00	916	253.00	525
62.00	53968	105.00	2057	141.00	17160	255.00	125
63.00	41768	106.00	6637	142.00	2048		
64.00	4211	107.00	1249	143.00	18376		
65.00	772	110.00	963	144.00	1092		

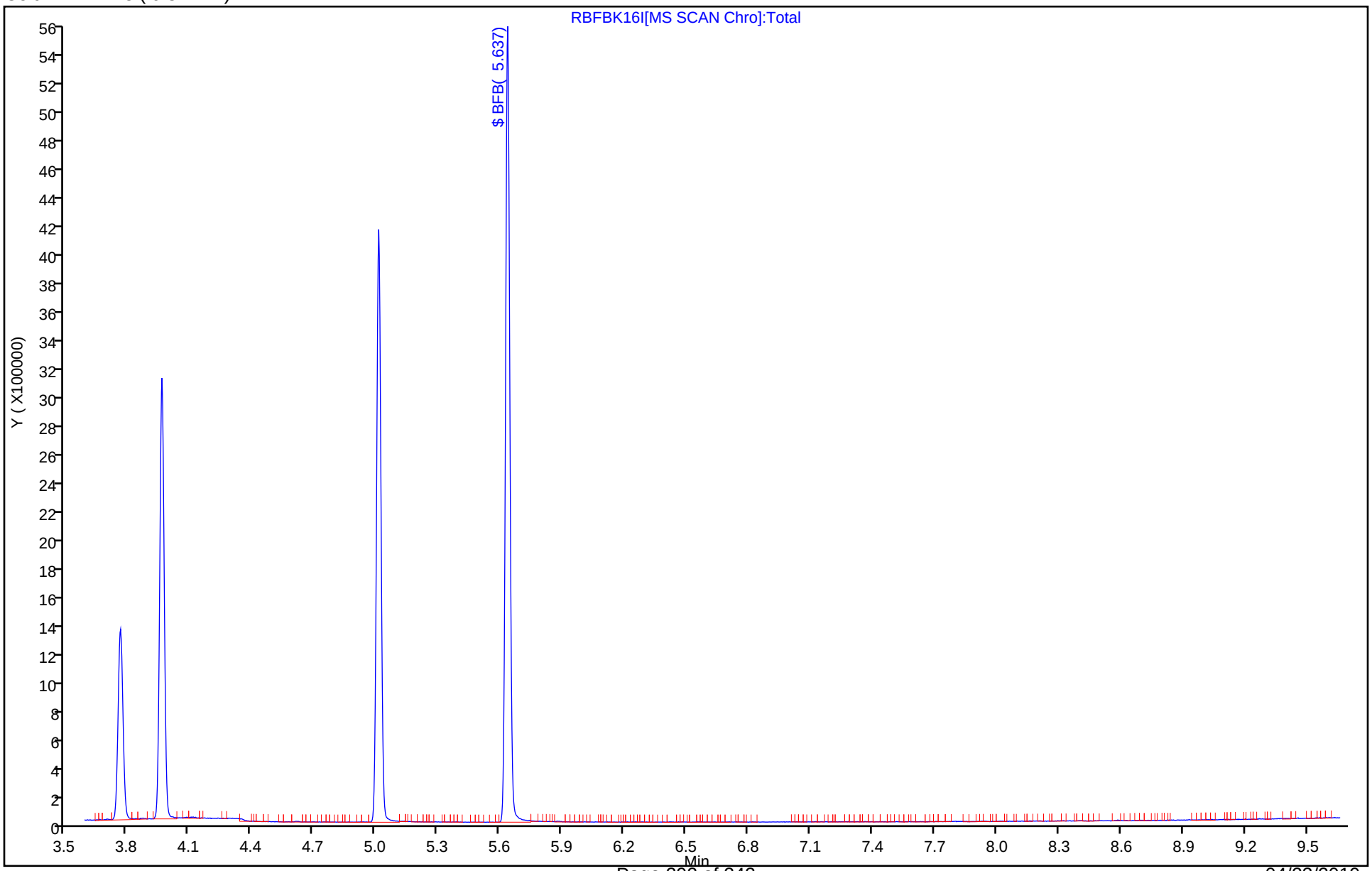
Report Date: 19-Nov-2018 15:42:30 Chrom Revision: 2.3 14-Nov-2018 16:22:30

TestAmerica Knoxville

Data File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RBFBK16I.D

Injection Date:	16-Nov-2018 16:00:30	Instrument ID:	MR	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RBFBD12.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	12-Apr-2019 14:32:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-001				
Misc. Info.:	BFB				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:26:10	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				
First Level Reviewer: barlozhetskayaa		Date:	15-Apr-2019 13:26:10		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.605	5.605	0.000	0	1152705	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

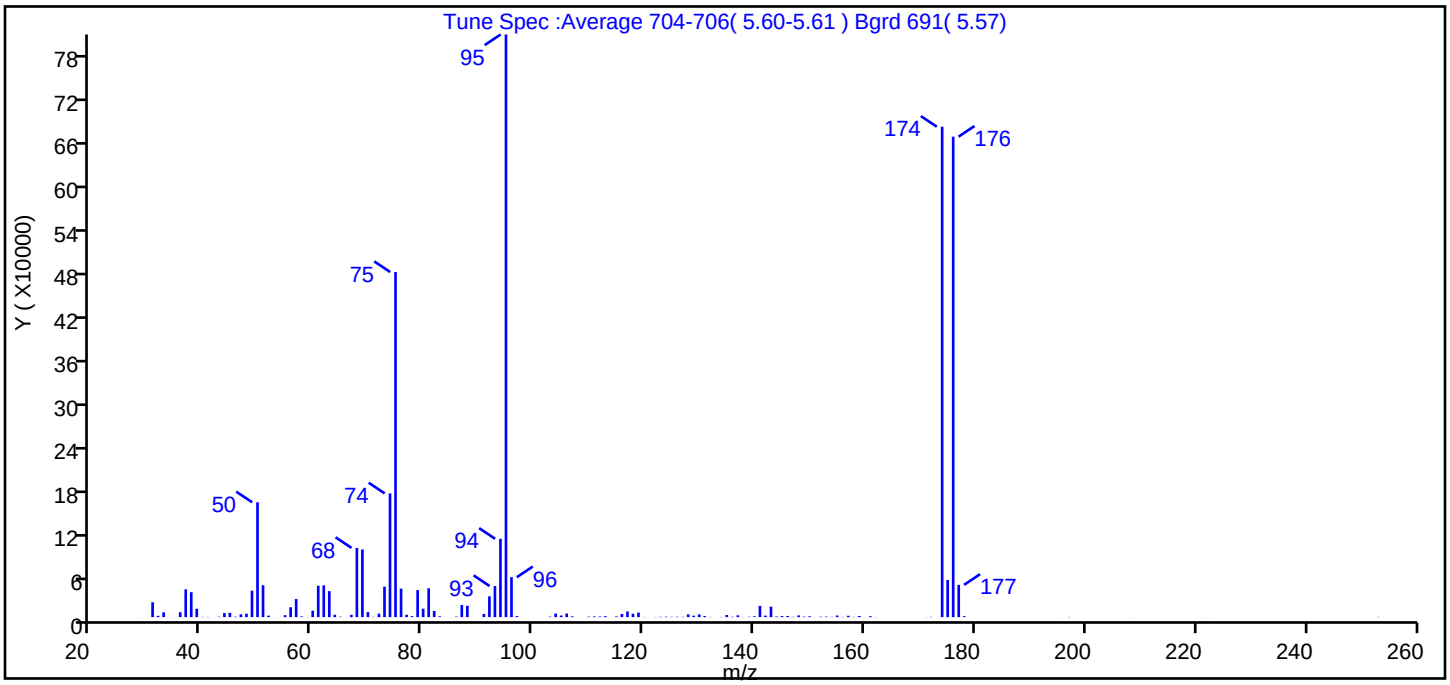
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RBFBD12.D
Injection Date: 12-Apr-2019 14:32:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: afb ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.7
75	30 to 60% of m/z 95	59.2
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	84.2
175	5 to 9% of m/z 174	6.4 (7.6)
176	Greater than 95% but less than 101% of m/z 174	82.5 (98.0)
177	5 to 9% of m/z 176	5.5 (6.7)

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RBFBD12.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Apr-2019 14:32:30
Spectrum: Tune Spec :Average 704-706(5.60-5.61) Bgrd 691(5.57)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	136	66.00	41	110.00	672	145.00	1453
31.00	20496	67.00	3115	111.00	1015	146.00	1586
32.00	1862	68.00	95208	112.00	830	147.00	441
33.00	6602	69.00	93032	113.00	1415	148.00	2392
34.00	42	70.00	6839	114.00	90	149.00	747
35.00	96	71.00	426	115.00	1027	150.00	1196
36.00	6720	72.00	4855	116.00	4375	152.00	593
37.00	38248	73.00	41960	117.00	7793	153.00	743
38.00	34352	74.00	170240	118.00	4647	154.00	422
39.00	11497	75.00	474752	119.00	6289	155.00	2262
40.00	364	76.00	39336	120.00	238	156.00	277
41.00	280	77.00	3249	121.00	73	157.00	1909
43.00	582	78.00	1356	122.00	205	158.00	332
44.00	5583	79.00	37264	123.00	476	159.00	1609
45.00	5977	80.00	11641	124.00	697	160.00	104
46.00	631	81.00	39704	125.00	437	161.00	1370
47.00	3841	82.00	8511	126.00	540	162.00	148
48.00	4693	83.00	1121	127.00	430	171.00	185
49.00	36456	85.00	94	128.00	3864	172.00	429
50.00	158016	86.00	764	129.00	2024	174.00	674688
51.00	43864	87.00	16632	130.00	3788	175.00	51176
52.00	2051	88.00	15662	131.00	1641	176.00	660992
53.00	96	91.00	4393	132.00	312	177.00	44424
54.00	94	92.00	28616	133.00	39	178.00	1407
55.00	2720	93.00	42800	134.00	288	195.00	64
56.00	13657	94.00	107784	135.00	2949	197.00	277
57.00	24912	95.00	801600	136.00	506	208.00	80
58.00	1024	96.00	54960	137.00	2514	209.00	92
59.00	181	97.00	1437	138.00	172	221.00	104
60.00	8861	98.00	45	139.00	516	222.00	37
61.00	43168	103.00	705	140.00	1126	223.00	43
62.00	43688	104.00	4930	141.00	15560	253.00	412
63.00	35752	105.00	2211	142.00	2070	254.00	49

Report Date: 15-Apr-2019 13:26:10 Chrom Revision: 2.3 24-Mar-2019 20:11:04
Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RBFBD12.D\MR_TO15.rslt\spectra.d
Injection Date: 12-Apr-2019 14:32:30
Spectrum: Tune Spec :Average 704-706(5.60-5.61) Bgrd 691(5.57)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
64.00	3292	106.00	5028	143.00	14408		
65.00	613	107.00	1187	144.00	907		

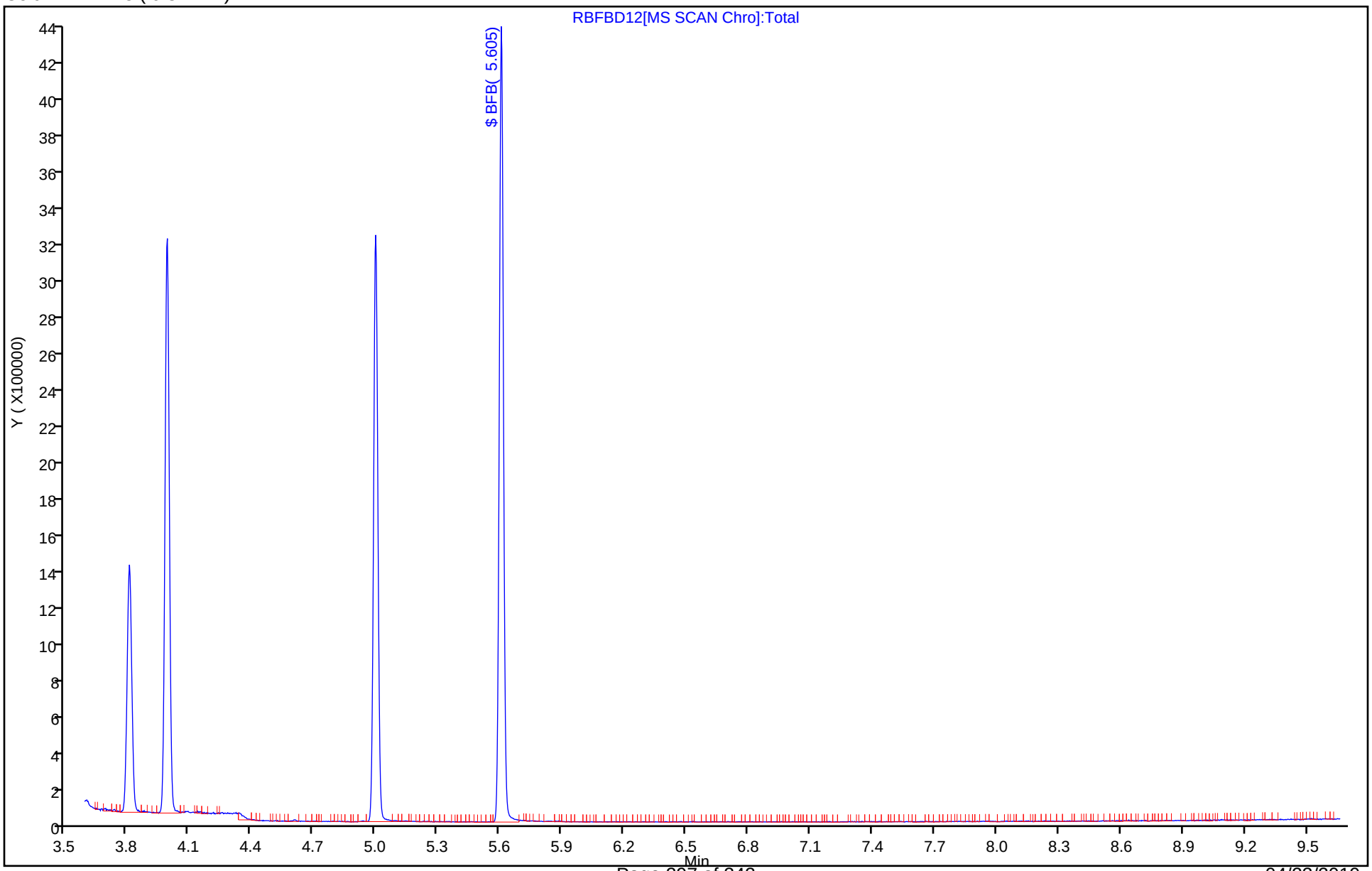
Report Date: 15-Apr-2019 13:26:10 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RBFBD12.D

Injection Date:	12-Apr-2019 14:32:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-29199/4

Matrix: Air Lab File ID: RD12mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/12/2019 18:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.015
67-66-3	Chloroform	119.38	ND		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.014
100-41-4	Ethylbenzene	106.17	ND		0.080	0.027
75-09-2	Methylene Chloride	84.93	ND		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.068
91-20-3	Naphthalene	128.17	ND		0.040	0.040
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.016
108-88-3	Toluene	92.14	ND		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
79-01-6	Trichloroethene	131.39	ND		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-29199/4

Matrix: Air Lab File ID: RD12mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/12/2019 18:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.073
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.094
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.053
67-66-3	Chloroform	119.38	ND		0.39	0.073
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.095
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.13
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.077
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.056
100-41-4	Ethylbenzene	106.17	ND		0.35	0.12
75-09-2	Methylene Chloride	84.93	ND		1.4	0.45
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.25
91-20-3	Naphthalene	128.17	ND		0.21	0.21
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.11
108-88-3	Toluene	92.14	ND		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
79-01-6	Trichloroethene	131.39	ND		0.21	0.075
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.12
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12mb500.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Apr-2019 18:09:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-004				
Misc. Info.:	mb500				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:30:06	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				
First Level Reviewer: barlozhetskayaa		Date:	15-Apr-2019 13:30:06		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.352	7.352	0.000	70	226888	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.412	9.412	0.000	95	1288614	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.470	14.470	0.000	91	1042595	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.196	16.196	0.000	88	924357	4.00	4.17	
109 1,2,3,5-Tetramethylbenzene	119	19.350	19.399	-0.049	1	217		NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

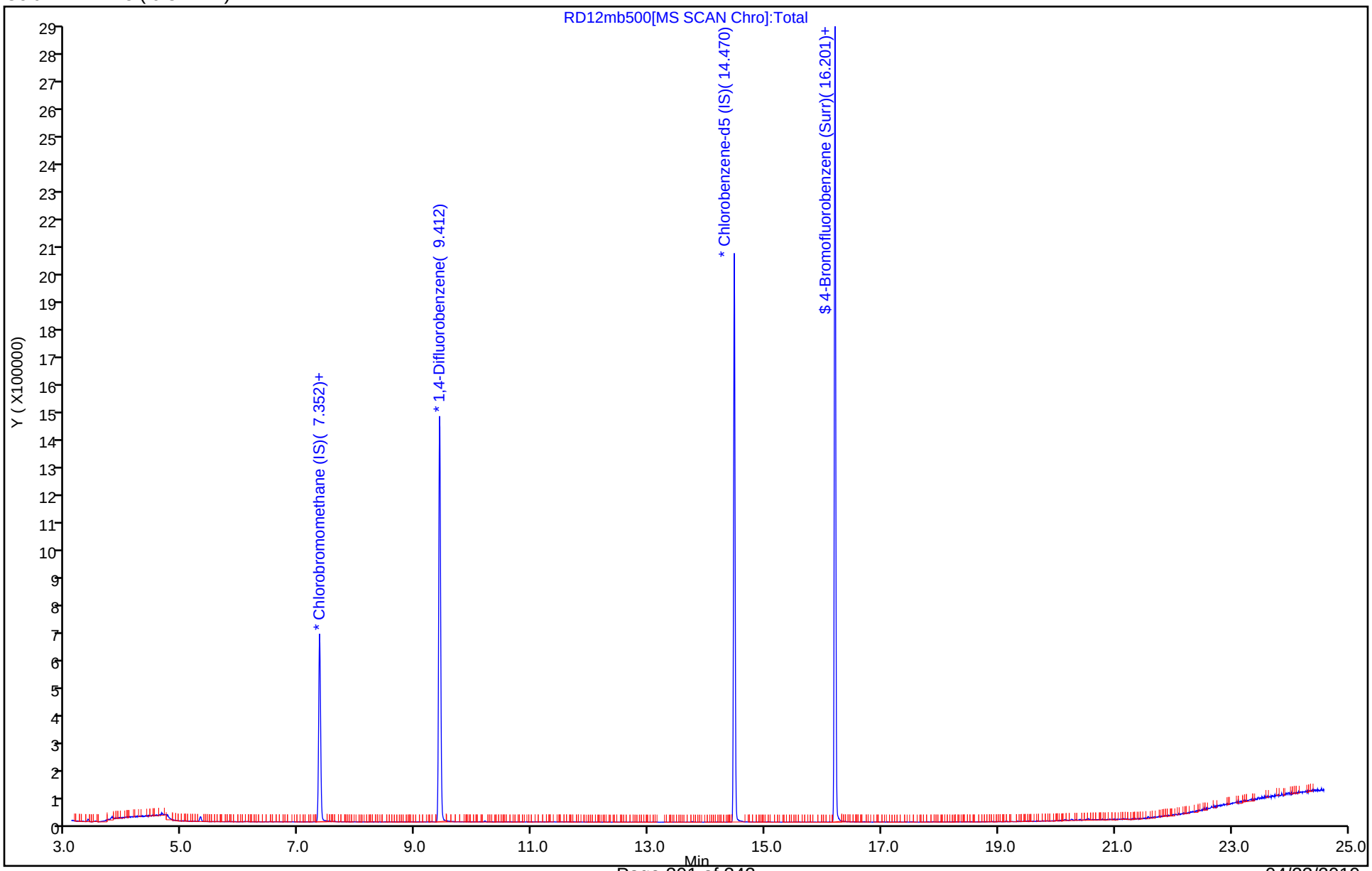
Report Date: 15-Apr-2019 13:30:07 Chrom Revision: 2.3 24-Mar-2019 20:11:04

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12mb500.D

Injection Date:	12-Apr-2019 18:09:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RD12mb500.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Apr-2019 18:09:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-004				
Misc. Info.:	mb500				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:30:06	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:30:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.17	104.23

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-29232/7

Matrix: Air Lab File ID: JD15mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/15/2019 17:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.015
67-66-3	Chloroform	119.38	ND		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.014
100-41-4	Ethylbenzene	106.17	ND		0.080	0.027
75-09-2	Methylene Chloride	84.93	ND		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.068
91-20-3	Naphthalene	128.17	ND		0.040	0.040
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.016
108-88-3	Toluene	92.14	ND		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
79-01-6	Trichloroethene	131.39	ND		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-29232/7

Matrix: Air Lab File ID: JD15mb500.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/15/2019 17:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.073
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.094
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.053
67-66-3	Chloroform	119.38	ND		0.39	0.073
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.095
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.13
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.077
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.056
100-41-4	Ethylbenzene	106.17	ND		0.35	0.12
75-09-2	Methylene Chloride	84.93	ND		1.4	0.45
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.25
91-20-3	Naphthalene	128.17	ND		0.21	0.21
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.11
108-88-3	Toluene	92.14	ND		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
79-01-6	Trichloroethene	131.39	ND		0.21	0.075
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.12
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15mb500.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 15-Apr-2019 17:45:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011427-007
Misc. Info.: mb500
Operator ID: 403648 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Apr-2019 10:11:13 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:11:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.748	9.756	-0.008	95	354445	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.856	11.865	-0.009	95	2114417	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.467	16.470	-0.003	89	1869999	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.064	18.067	-0.003	91	1298891	4.00	3.77	
60 1,1,1-Trichloroethane	97	10.780	10.784	-0.009	78	2414		0.009393	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

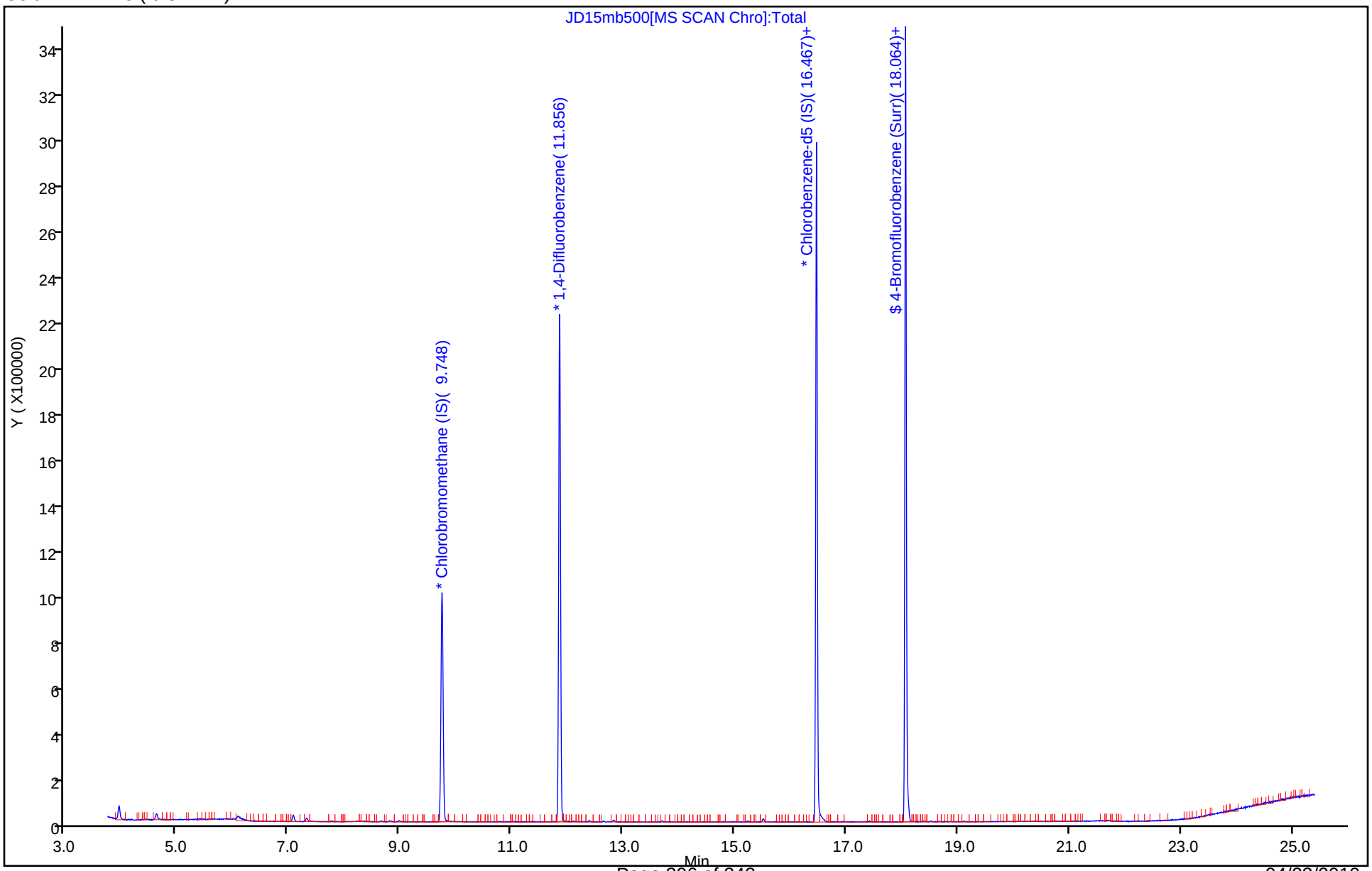
Report Date: 19-Apr-2019 10:11:14 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15mb500.D

Injection Date:	15-Apr-2019 17:45:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JD15mb500.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	15-Apr-2019 17:45:30	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-007				
Misc. Info.:	mb500				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:11:13	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:11:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	3.77	94.34

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-29199/1002

Matrix: Air Lab File ID: RCCVD12-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/12/2019 15:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29199 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.998		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	1.09		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	0.968		0.080	0.015
67-66-3	Chloroform	119.38	1.02		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	1.03		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	1.12		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	1.04		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	1.00		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	1.09		0.080	0.014
100-41-4	Ethylbenzene	106.17	1.05		0.080	0.027
75-09-2	Methylene Chloride	84.93	1.08		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	1.02		0.40	0.068
91-20-3	Naphthalene	128.17	0.863		0.040	0.040
127-18-4	Tetrachloroethene	165.83	1.11		0.080	0.016
108-88-3	Toluene	92.14	1.04		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	1.03		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	0.946		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	1.01		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	1.09		0.080	0.021
79-01-6	Trichloroethene	131.39	1.06		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	1.05		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	1.07		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	0.996		0.080	0.026
75-01-4	Vinyl chloride	62.50	1.13		0.040	0.029
1330-20-7	Xylenes, Total	106.17	3.27		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Apr-2019 15:01:30 ALS Bottle#: 12 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011413-002
Misc. Info.: p87
Operator ID: afb Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Apr-2019 13:28:48 Calib Date: 17-Nov-2018 03:51:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:28:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	7.352	7.352	0.000	71	222513	4.00	4.00	
* 2 1,4-Difluorobenzene	114	9.412	9.412	0.000	95	1295233	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	14.470	14.470	0.000	91	1120596	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	16.196	16.196	0.000	88	1021387	4.00	4.29	
6 Chlorodifluoromethane	51	3.513	3.513	0.000	97	127859	1.00	0.9684	
7 Propene	41	3.518	3.518	0.000	91	38040	1.00	0.9373	
8 Dichlorodifluoromethane	85	3.556	3.556	0.000	100	271252	1.00	1.12	
9 Chloromethane	52	3.675	3.675	0.000	95	16223	1.00	0.9528	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.691	3.691	0.000	88	206431	1.00	1.15	
11 Acetaldehyde	44	3.777	3.777	0.000	93	94856	5.00	5.96	
12 Vinyl chloride	62	3.793	3.793	0.000	99	67631	1.00	1.13	
13 Butadiene	54	3.853	3.853	0.000	96	48428	1.00	1.34	
14 Butane	43	3.858	3.858	0.000	85	81297	1.00	1.29	
15 Bromomethane	94	4.068	4.068	0.000	95	82342	1.00	1.20	
16 Chloroethane	64	4.165	4.165	0.000	92	34918	1.00	1.26	
17 Ethanol	31	4.230	4.230	0.000	93	105120	5.00	6.31	
18 Vinyl bromide	106	4.370	4.370	0.000	95	90877	1.00	1.25	
19 2-Methylbutane	43	4.424	4.424	0.000	78	61385	1.00	1.38	
20 Acrolein	56	4.548	4.548	0.000	96	21839	1.00	1.55	
22 Acetonitrile	40	4.570	4.570	0.000	23	18441	1.00	1.28	a
21 Trichlorofluoromethane	101	4.570	4.570	0.000	99	432231	1.00	1.31	
23 Acetone	58	4.624	4.624	0.000	100	83811	3.00	3.63	
25 Isopropyl alcohol	45	4.710	4.710	0.000	98	252022	3.00	4.00	
24 Pentane	72	4.732	4.732	0.000	91	14579	1.00	1.30	
26 Ethyl ether	31	4.839	4.839	0.000	73	47333	1.00	1.28	
27 1,1-Dichloroethene	96	5.066	5.066	0.000	96	85711	1.00	1.09	
28 Acrylonitrile	53	5.098	5.098	0.000	90	40142	1.00	1.15	
29 2-Methyl-2-propanol	59	5.147	5.147	0.000	95	162722	1.00	1.09	
30 1,1,2-Trichloro-1,2,2-trif	101	5.222	5.222	0.000	91	220907	1.00	1.14	
31 Methylene Chloride	84	5.308	5.308	0.000	91	80030	1.00	1.08	
32 3-Chloro-1-propene	39	5.330	5.330	0.000	86	89349	1.00	1.23	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	5.433	5.433	0.000	97	207881	1.00	1.12	
34 trans-1,2-Dichloroethene	96	5.956	5.956	0.000	97	82184	1.00	1.03	
35 2-Methylpentane	43	6.009	6.009	0.000	85	117384	1.00	1.11	
36 Methyl tert-butyl ether	73	6.069	6.069	0.000	93	258046	1.00	1.02	
37 1,1-Dichloroethane	63	6.268	6.268	0.000	97	138704	1.00	1.04	
38 Vinyl acetate	43	6.371	6.371	0.000	99	145208	1.00	1.12	
39 2-Butanone (MEK)	72	6.716	6.716	0.000	97	29858	1.00	0.9855	
40 Hexane	56	6.824	6.824	0.000	81	50742	1.00	1.09	
171 Isopropyl ether	45	6.942	6.942	0.000	85	168523	1.00	1.05	
41 cis-1,2-Dichloroethene	96	7.093	7.093	0.000	93	82949	1.00	1.03	
42 Ethyl acetate	43	7.266	7.266	0.000	97	121534	1.00	1.09	
43 Chloroform	83	7.390	7.390	0.000	98	216419	1.00	1.02	
173 Tert-butyl ethyl ether	59	7.525	7.525	0.000	94	233834	1.00	1.02	
44 Tetrahydrofuran	42	7.724	7.724	0.000	77	54198	1.00	1.10	
45 1,1,1-Trichloroethane	97	8.307	8.307	0.000	95	272858	1.00	1.01	
46 1,2-Dichloroethane	62	8.361	8.361	0.000	98	164166	1.00	1.00	
47 Benzene	78	8.857	8.857	0.000	99	210666	1.00	1.00	
48 Cyclohexane	69	8.889	8.889	0.000	66	35774	1.00	1.14	
50 Carbon tetrachloride	117	8.894	8.894	0.000	95	322874	1.00	1.09	
49 n-Butanol	31	8.894	8.894	0.000	39	14280	1.00	0.9546	h
51 2,3-Dimethylpentane	71	9.062	9.062	0.000	83	44320	1.00	1.01	
52 Thiophene	84	9.099	9.099	0.000	96	125645	1.00	1.04	
53 Isooctane	57	9.725	9.725	0.000	94	283402	1.00	1.05	
54 1,2-Dichloropropane	63	10.092	10.092	0.000	70	66570	1.00	1.01	
55 n-Heptane	71	10.145	10.145	0.000	85	70333	1.00	1.04	
56 Trichloroethene	130	10.162	10.162	0.000	95	135395	1.00	1.06	
57 Dibromomethane	93	10.189	10.189	0.000	90	116658	1.00	1.03	
58 Dichlorobromomethane	83	10.377	10.377	0.000	98	213817	1.00	1.00	
59 1,4-Dioxane	88	10.399	10.399	0.000	90	30241	1.00	0.9395	
60 Methyl methacrylate	41	10.555	10.555	0.000	89	75267	1.00	1.02	
61 Methylcyclohexane	83	11.030	11.030	0.000	91	131020	1.00	1.01	
62 4-Methyl-2-pentanone (MIBK	43	11.450	11.450	0.000	92	121796	1.00	1.04	
63 cis-1,3-Dichloropropene	75	11.483	11.483	0.000	95	134470	1.00	1.05	
64 trans-1,3-Dichloropropene	75	12.243	12.243	0.000	95	134805	1.00	1.03	
65 Toluene	91	12.383	12.383	0.000	92	279939	1.00	1.04	
66 1,1,2-Trichloroethane	83	12.437	12.437	0.000	93	77874	1.00	1.09	
69 2-Hexanone	58	12.912	12.912	0.000	93	55362	1.00	0.9853	
70 Chlorodibromomethane	129	13.165	13.165	0.000	96	233351	1.00	1.12	
71 n-Octane	85	13.251	13.251	0.000	79	93600	1.00	1.09	
72 Ethylene Dibromide	107	13.462	13.462	0.000	97	165376	1.00	1.06	
73 Tetrachloroethene	129	13.613	13.613	0.000	93	147471	1.00	1.11	
74 Chlorobenzene	112	14.519	14.519	0.000	91	249336	1.00	1.06	
75 2,3-Dimethylheptane	43	14.675	14.675	0.000	82	186517	1.00	1.18	
76 Ethylbenzene	91	14.858	14.858	0.000	99	408063	1.00	1.05	
78 m-Xylene & p-Xylene	91	15.036	15.036	0.000	99	694329	2.00	2.19	
79 Bromoform	173	15.419	15.419	0.000	95	236980	1.00	1.09	
80 Styrene	104	15.511	15.511	0.000	97	212689	1.00	1.02	
82 o-Xylene	91	15.570	15.570	0.000	97	361085	1.00	1.08	
81 n-Nonane	57	15.586	15.586	0.000	80	155224	1.00	1.23	
83 1,1,2,2-Tetrachloroethane	83	15.894	15.894	0.000	92	185088	1.00	1.09	
84 1,2,3-Trichloropropane	110	16.050	16.050	0.000	93	83131	1.00	0.9891	
85 Isopropylbenzene	105	16.206	16.206	0.000	96	499768	1.00	1.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 N-Propylbenzene	120	16.773	16.773	0.000	96	133747	1.00	1.03	
87 2-Chlorotoluene	126	16.783	16.783	0.000	95	123760	1.00	1.03	
88 4-Ethyltoluene	105	16.945	16.945	0.000	98	485399	1.00	0.9848	
89 1,3,5-Trimethylbenzene	120	17.037	17.037	0.000	93	200774	1.00	1.00	
90 Alpha Methyl Styrene	118	17.285	17.285	0.000	88	178019	1.00	0.9285	
91 n-Decane	57	17.457	17.457	0.000	97	202056	1.00	1.12	
92 tert-Butylbenzene	119	17.506	17.506	0.000	88	509100	1.00	1.04	
93 1,2,4-Trimethylbenzene	105	17.522	17.522	0.000	96	482902	1.00	1.07	
94 1,3-Dichlorobenzene	146	17.792	17.792	0.000	98	322163	1.00	0.99	
95 sec-Butylbenzene	105	17.824	17.824	0.000	96	610482	1.00	1.00	
96 Benzyl chloride	91	17.878	17.878	0.000	97	346740	1.00	1.00	
97 1,4-Dichlorobenzene	146	17.894	17.894	0.000	93	329924	1.00	1.01	
98 4-Isopropyltoluene	119	18.018	18.018	0.000	96	625474	1.00	1.02	
99 1,2,3-Trimethylbenzene	105	18.051	18.051	0.000	99	505621	1.00	1.05	
100 Butylcyclohexane	83	18.159	18.159	0.000	88	271888	1.00	1.02	
101 1,2-Dichlorobenzene	146	18.293	18.293	0.000	93	312975	1.00	0.9763	
102 2,3-Dihydroindene	117	18.304	18.304	0.000	92	416369	1.00	1.04	
103 Indene	116	18.444	18.444	0.000	90	325311	1.00	0.99	
104 n-Butylbenzene	91	18.509	18.509	0.000	96	510809	1.00	1.02	
105 Undecane	57	18.940	18.940	0.000	86	241068	1.00	1.13	
106 1,2-Dibromo-3-Chloropropan	157	18.951	18.951	0.000	92	165525	1.00	1.06	
107 1,2,4,5-Tetramethylbenzene	119	19.339	19.339	0.000	95	571013	1.00	0.9861	
110 Dodecane	57	20.073	20.073	0.000	91	255002	1.00	1.14	
111 1,2,4-Trichlorobenzene	180	20.143	20.143	0.000	93	327419	1.00	0.9461	
113 Naphthalene	128	20.262	20.262	0.000	98	603865	1.00	0.8629	
115 Hexachlorobutadiene	225	20.526	20.526	0.000	95	374550	1.00	0.9309	
116 1,2,3-Trichlorobenzene	180	20.553	20.553	0.000	94	310905	1.00	0.9347	
117 2-Methylnaphthalene	142	21.394	21.394	0.000	97	218972	1.00	0.9850	
118 1-Methylnaphthalene	142	21.566	21.566	0.000	97	275074	1.00	1.40	
A 120 C8 Range	1	13.259	(13.203-13.300)		0	754301	1.00	1.09	
S 121 Xylenes, Total	100				0		3.00	3.27	
S 122 1,2-Dichloroethene, Total	1				0		2.00	2.06	

QC Flag Legend

Review Flags

a - User Assigned ID

h - User Selected Hit

Reagents:

40CV101P_00087	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

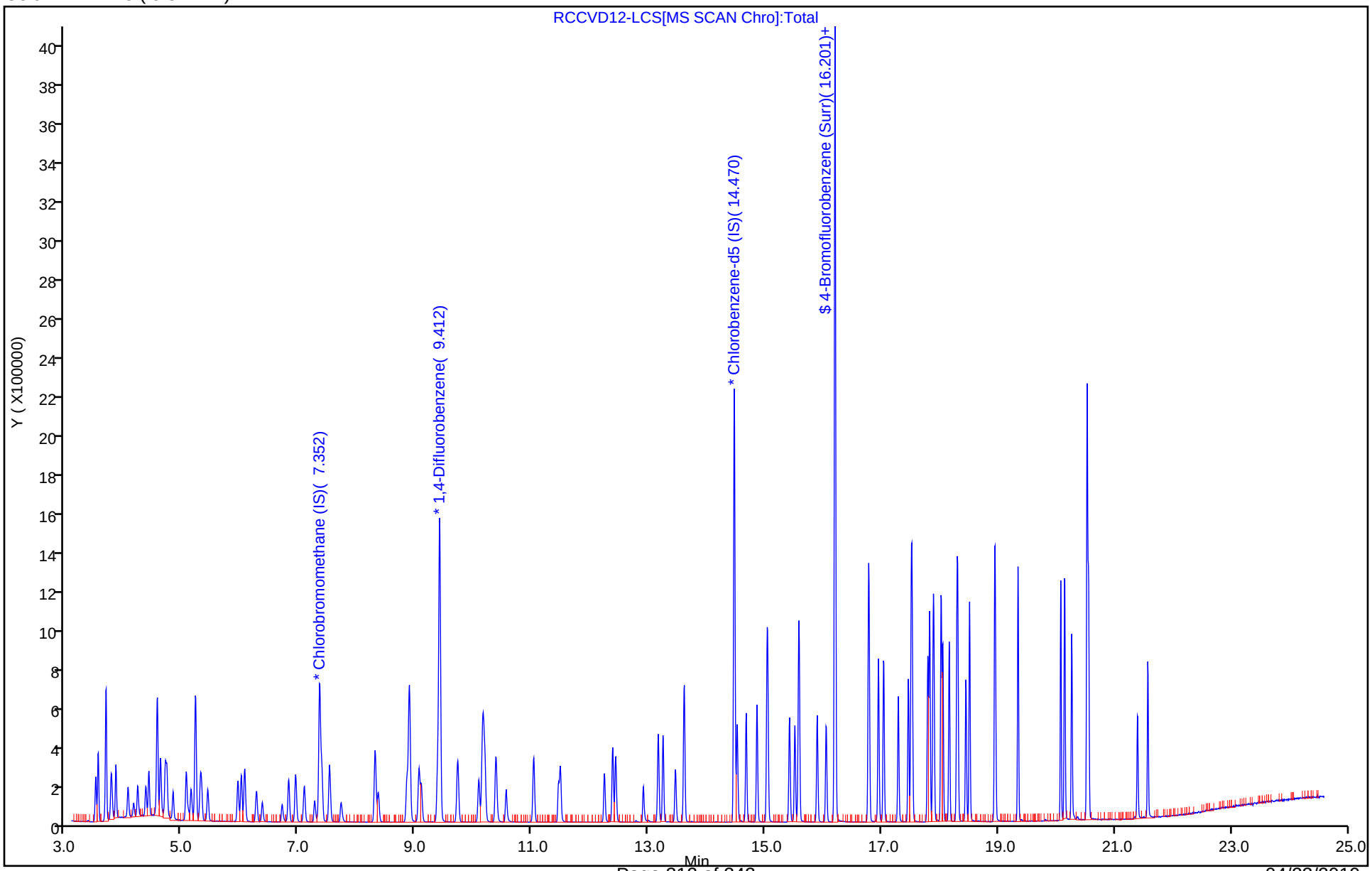
Report Date: 15-Apr-2019 13:28:52 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12-LCS.d

Injection Date:	12-Apr-2019 15:01:30	Instrument ID:	MR	Operator ID:	afb
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\RCCVD12-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	12-Apr-2019 15:01:30	ALS Bottle#:	12	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011413-002				
Misc. Info.:	p87				
Operator ID:	afb	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190411-11413.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Apr-2019 13:28:48	Calib Date:	17-Nov-2018 03:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromdocs2018\q3\Knoxville\ChromData\MR\20181116-10019.b\RK16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

First Level Reviewer: barlozhetskayaa Date: 15-Apr-2019 13:28:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.29	107.15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-29232/1002

Matrix: Air Lab File ID: JCCVD15a-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 04/15/2019 13:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29232 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.98		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	2.11		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	2.73		0.080	0.015
67-66-3	Chloroform	119.38	1.98		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	1.99		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	2.55		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	1.98		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	1.99		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	2.04		0.080	0.014
100-41-4	Ethylbenzene	106.17	2.03		0.080	0.027
75-09-2	Methylene Chloride	84.93	2.02		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	2.03		0.40	0.068
91-20-3	Naphthalene	128.17	2.02		0.040	0.040
127-18-4	Tetrachloroethene	165.83	1.97		0.080	0.016
108-88-3	Toluene	92.14	1.93		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	2.02		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	2.04		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	1.98		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	1.88		0.080	0.021
79-01-6	Trichloroethene	131.39	1.93		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	2.20		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	2.08		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	2.08		0.080	0.026
75-01-4	Vinyl chloride	62.50	2.06		0.040	0.029
1330-20-7	Xylenes, Total	106.17	6.23		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JCCVD15a-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 15-Apr-2019 13:31:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011427-002
Misc. Info.: p86
Operator ID: 403648 Instrument ID: MJ

Method: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Apr-2019 10:09:24 Calib Date: 12-Apr-2019 10:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:09:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.756	9.756	0.000	97	364717	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.865	11.865	0.000	95	2134514	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.470	16.470	0.000	89	1904735	4.00	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.067	18.067	0.000	89	1413012	4.00	4.03	
19 Chlorodifluoromethane	51	4.162	4.162	0.000	97	420372	2.00	2.73	
20 Propene	41	4.178	4.178	0.000	99	231081	2.00	2.49	
21 Dichlorodifluoromethane	85	4.237	4.237	0.000	100	337583	2.00	2.55	
22 Chloromethane	52	4.447	4.447	0.000	100	88437	2.00	1.99	
23 1,2-Dichloro-1,1,2,2-tetra	135	4.452	4.452	0.000	91	106017	2.00	3.91	
24 Acetaldehyde	44	4.624	4.624	0.000	97	451588	10.0	9.56	
25 Vinyl chloride	62	4.651	4.651	0.000	99	304140	2.00	2.06	
26 Butane	43	4.748	4.748	0.000	86	441914	2.00	2.14	
27 Butadiene	54	4.753	4.753	0.000	67	218639	2.00	2.15	
28 Bromomethane	94	5.130	5.130	0.000	99	276230	2.00	2.06	
29 Chloroethane	64	5.291	5.291	0.000	97	130587	2.00	2.14	
30 Ethanol	31	5.393	5.393	0.000	97	579216	10.0	11.5	
31 Vinyl bromide	106	5.630	5.630	0.000	98	263401	2.00	2.14	
32 2-Methylbutane	43	5.684	5.684	0.000	92	310111	2.00	2.30	
33 Trichlorofluoromethane	101	5.931	5.931	0.000	100	773743	2.00	2.10	
34 Acrolein	56	5.942	5.942	0.000	95	60000	2.00	2.37	
35 Acetonitrile	40	6.012	6.012	0.000	99	82414	2.00	2.21	
36 Acetone	58	6.066	6.066	0.000	98	250481	6.00	5.74	
37 Isopropyl alcohol	45	6.157	6.157	0.000	93	876384	6.00	6.73	
38 Pentane	72	6.168	6.168	0.000	96	41207	2.00	2.21	
39 Ethyl ether	31	6.351	6.351	0.000	92	264731	2.00	2.04	
40 1,1-Dichloroethene	96	6.711	6.711	0.000	95	252505	2.00	2.04	
42 2-Methyl-2-propanol	59	6.814	6.814	0.000	96	404576	2.00	2.15	
41 Acrylonitrile	53	6.819	6.819	0.000	93	149589	2.00	2.02	
43 1,1,2-Trichloro-1,2,2-trif	101	6.889	6.889	0.000	96	550765	2.00	2.00	
44 Methylene Chloride	84	7.088	7.088	0.000	98	240169	2.00	2.02	
45 3-Chloro-1-propene	39	7.099	7.099	0.000	96	218032	2.00	1.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
46 Carbon disulfide	76	7.271	7.271	0.000	99	775801	2.00	2.07	
47 trans-1,2-Dichloroethene	96	7.943	7.943	0.000	95	242946	2.00	2.02	
48 2-Methylpentane	43	7.949	7.949	0.000	95	604633	2.00	1.97	
49 Methyl tert-butyl ether	73	8.067	8.067	0.000	97	577904	2.00	2.03	
50 1,1-Dichloroethane	63	8.384	8.384	0.000	100	470560	2.00	1.98	
51 Vinyl acetate	43	8.476	8.476	0.000	100	562940	2.00	2.03	
52 2-Butanone (MEK)	72	8.955	8.955	0.000	97	99313	2.00	1.86	
53 Hexane	56	8.971	8.971	0.000	89	198716	2.00	1.96	
54 Isopropyl ether	45	9.127	9.127	0.000	97	730342	2.00	2.00	
55 cis-1,2-Dichloroethene	96	9.412	9.412	0.000	96	246947	2.00	1.99	
56 Ethyl acetate	43	9.579	9.579	0.000	99	468743	2.00	1.99	
57 Chloroform	83	9.762	9.762	0.000	94	548498	2.00	1.98	
58 Tert-butyl ethyl ether	59	9.826	9.826	0.000	96	653151	2.00	2.05	
59 Tetrahydrofuran	42	10.176	10.176	0.000	94	248878	2.00	2.03	
60 1,1,1-Trichloroethane	97	10.789	10.789	0.000	97	523574	2.00	1.98	
61 1,2-Dichloroethane	62	10.897	10.897	0.000	97	342993	2.00	1.99	
62 n-Butanol	31	11.305	11.305	0.000	94	106836	2.00	2.15	
63 Cyclohexane	69	11.359	11.359	0.000	77	126832	2.00	2.04	
64 Benzene	78	11.365	11.365	0.000	96	737548	2.00	1.98	
65 Carbon tetrachloride	117	11.386	11.386	0.000	98	572571	2.00	2.11	
66 2,3-Dimethylpentane	71	11.456	11.456	0.000	92	179177	2.00	2.04	
67 Thiophene	84	11.628	11.628	0.000	96	426857	2.00	2.00	
68 Isooctane	57	12.064	12.064	0.000	98	1214889	2.00	2.01	
69 n-Heptane	71	12.414	12.414	0.000	94	265685	2.00	2.03	
70 1,2-Dichloropropane	63	12.527	12.527	0.000	92	273287	2.00	1.88	
71 Trichloroethene	130	12.559	12.559	0.000	95	329472	2.00	1.93	
72 Dibromomethane	93	12.650	12.650	0.000	94	310485	2.00	1.91	
73 Dichlorobromomethane	83	12.785	12.785	0.000	98	563646	2.00	2.05	
74 1,4-Dioxane	88	12.796	12.796	0.000	89	96096	2.00	2.04	
75 Methyl methacrylate	41	12.839	12.839	0.000	92	287919	2.00	1.93	
76 Methylcyclohexane	83	13.296	13.296	0.000	96	460192	2.00	2.01	
77 4-Methyl-2-pentanone (MIBK	43	13.672	13.672	0.000	98	514899	2.00	2.03	
78 cis-1,3-Dichloropropene	75	13.737	13.737	0.000	95	413361	2.00	1.93	
79 trans-1,3-Dichloropropene	75	14.409	14.409	0.000	98	353687	2.00	1.98	
80 Toluene	91	14.539	14.539	0.000	93	760947	2.00	1.93	
81 1,1,2-Trichloroethane	83	14.614	14.614	0.000	97	243038	2.00	1.88	
82 2-Hexanone	58	14.969	14.969	0.000	92	243348	2.00	2.04	
83 n-Octane	85	15.173	15.173	0.000	95	269204	2.00	2.06	
84 Chlorodibromomethane	129	15.308	15.308	0.000	98	545272	2.00	2.09	
85 Ethylene Dibromide	107	15.598	15.598	0.000	98	436169	2.00	1.94	
86 Tetrachloroethene	129	15.657	15.657	0.000	94	309700	2.00	1.97	
87 2,3-Dimethylheptane	43	16.497	16.497	0.000	97	885265	2.00	1.99	
88 Chlorobenzene	112	16.518	16.518	0.000	93	626987	2.00	1.90	
89 Ethylbenzene	91	16.793	16.793	0.000	98	970652	2.00	2.03	
90 m-Xylene & p-Xylene	91	16.949	16.949	0.000	99	1539433	4.00	4.17	
91 n-Nonane	57	17.325	17.325	0.000	94	538048	2.00	2.05	
92 Styrene	104	17.411	17.411	0.000	99	562139	2.00	2.04	
93 Bromoform	173	17.417	17.417	0.000	95	522558	2.00	2.09	
94 o-Xylene	91	17.470	17.470	0.000	99	801753	2.00	2.06	
95 1,1,2,2-Tetrachloroethane	83	17.788	17.788	0.000	99	604322	2.00	2.00	
96 1,2,3-Trichloropropane	110	17.938	17.938	0.000	99	150136	2.00	2.00	
97 Isopropylbenzene	105	18.030	18.030	0.000	97	1067586	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
98 N-Propylbenzene	120	18.535	18.535	0.000	99	299193	2.00	2.08	
99 2-Chlorotoluene	126	18.589	18.589	0.000	98	280429	2.00	2.02	
100 4-Ethyltoluene	105	18.675	18.675	0.000	98	1077770	2.00	2.05	
101 1,3,5-Trimethylbenzene	120	18.740	18.740	0.000	92	437420	2.00	2.08	
102 Alpha Methyl Styrene	118	18.960	18.960	0.000	88	454750	2.00	2.15	
103 n-Decane	57	18.987	18.987	0.000	91	681572	2.00	2.10	
104 tert-Butylbenzene	119	19.149	19.149	0.000	92	956867	2.00	2.06	
105 1,2,4-Trimethylbenzene	105	19.159	19.159	0.000	96	937314	2.00	2.08	
106 sec-Butylbenzene	105	19.407	19.407	0.000	99	1352027	2.00	2.09	
107 1,3-Dichlorobenzene	146	19.434	19.434	0.000	99	611133	2.00	1.95	
108 Benzyl chloride	91	19.504	19.504	0.000	98	773410	2.00	2.10	
109 1,4-Dichlorobenzene	146	19.515	19.515	0.000	93	603740	2.00	1.94	
110 4-Isopropyltoluene	119	19.558	19.558	0.000	97	1098062	2.00	2.08	
111 1,2,3-Trimethylbenzene	105	19.617	19.617	0.000	98	922201	2.00	2.20	
112 Butylcyclohexane	83	19.654	19.654	0.000	94	833027	2.00	2.04	
113 2,3-Dihydroindene	117	19.859	19.859	0.000	94	874183	2.00	2.08	
114 1,2-Dichlorobenzene	146	19.864	19.864	0.000	96	602299	2.00	2.01	
115 n-Butylbenzene	91	19.972	19.972	0.000	98	1133554	2.00	2.10	
116 Indene	116	19.988	19.988	0.000	90	733560	2.00	2.09	
117 Undecane	57	20.246	20.246	0.000	95	727534	2.00	2.11	
118 1,2-Dibromo-3-Chloropropan	157	20.451	20.451	0.000	96	310739	2.00	2.36	
119 1,2,4,5-Tetramethylbenzene	119	20.725	20.725	0.000	97	1010300	2.00	2.14	
120 Dodecane	57	21.333	21.333	0.000	94	724981	2.00	2.48	
121 1,2,4-Trichlorobenzene	180	21.580	21.580	0.000	94	428024	2.00	2.04	
122 Naphthalene	128	21.704	21.704	0.000	99	842861	2.00	2.02	
123 Hexachlorobutadiene	225	21.849	21.849	0.000	95	467664	2.00	2.07	
124 1,2,3-Trichlorobenzene	180	21.908	21.908	0.000	94	327223	2.00	2.09	
125 2-Methylnaphthalene	142	22.430	22.430	0.000	100	183543	2.00	2.40	
126 1-Methylnaphthalene	142	22.554	22.554	0.000	98	215526	2.00	2.58	
A 128 C8 Range	1	15.183	(15.130-15.237)		0	2612088	2.00	2.02	
S 129 Xylenes, Total	100				0		6.00	6.23	
S 130 1,2-Dichloroethene, Total	1				0		4.00	4.01	

Reagents:

40CV101P_00086	Amount Added: 100.00	Units: ml	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

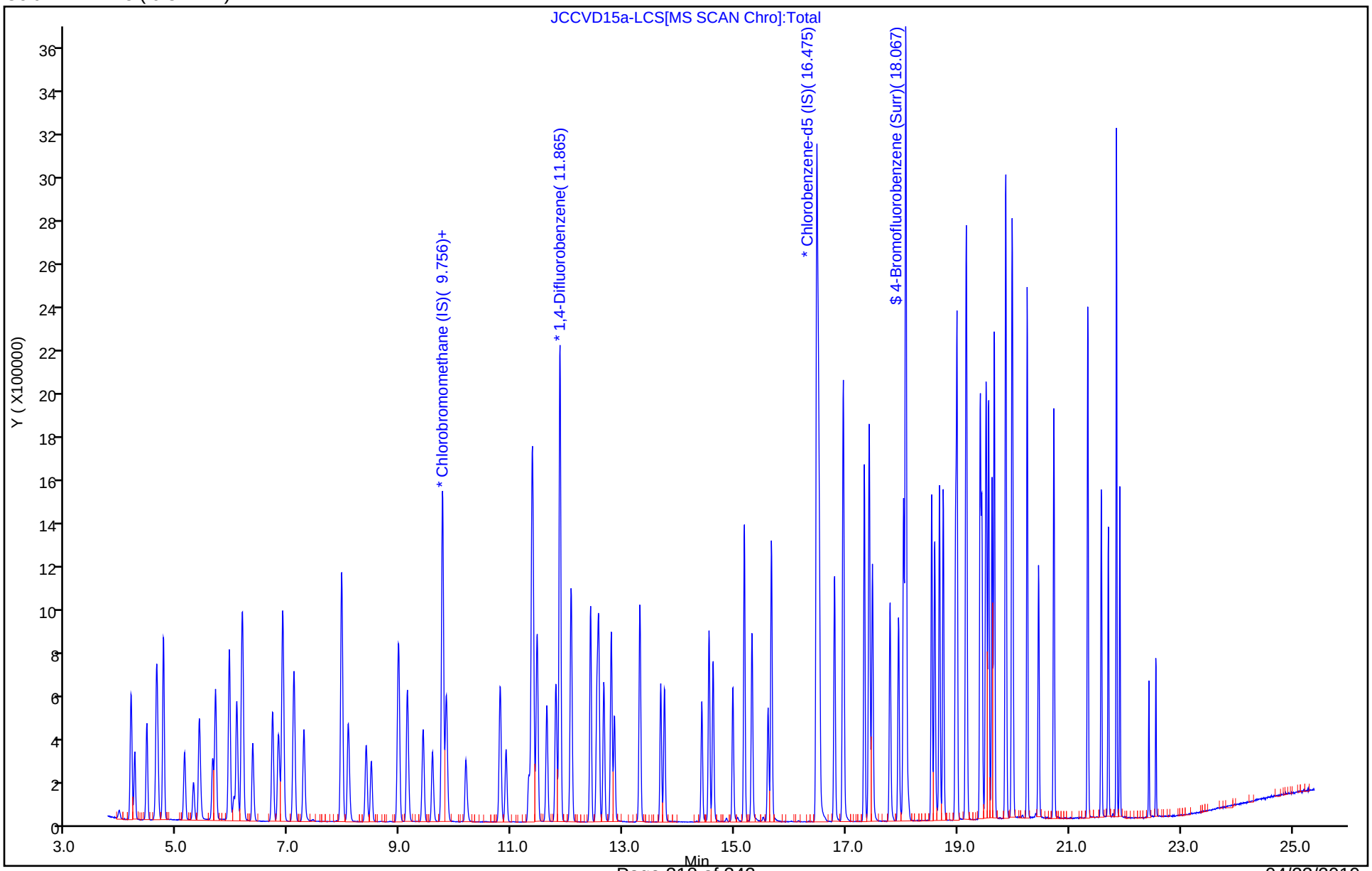
Report Date: 19-Apr-2019 10:09:29 Chrom Revision: 2.3 10-Apr-2019 17:48:54

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JCCVD15a-LCS.d

Injection Date:	15-Apr-2019 13:31:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\JCCVD15a-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	15-Apr-2019 13:31:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011427-002				
Misc. Info.:	p86				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190412-11427.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	19-Apr-2019 10:09:24	Calib Date:	12-Apr-2019 10:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190411-11416.b\JD11ICL04R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0303				

First Level Reviewer: khachitpongpanits Date: 19-Apr-2019 10:09:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 8 4-Bromofluorobenzene (Surr)	4.00	4.03	100.76

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Instrument ID: MR Start Date: 11/16/2018 16:00

Analysis Batch Number: 25490 End Date: 11/17/2018 06:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-25490/1		11/16/2018 16:00	1	RBFBK16I.D	RTX-5 0.32(mm)
IC 140-25490/3		11/16/2018 17:23	1	RK16IC09.D	RTX-5 0.32(mm)
IC 140-25490/5		11/16/2018 19:07	1	RK16IC10.D	RTX-5 0.32(mm)
IC 140-25490/8		11/16/2018 21:42	1	RK16IC01.D	RTX-5 0.32(mm)
IC 140-25490/9		11/16/2018 22:34	1	RK16IC02.D	RTX-5 0.32(mm)
IC 140-25490/10		11/16/2018 23:27	1	RK16IC03.D	RTX-5 0.32(mm)
IC 140-25490/11		11/17/2018 00:20	1	RK16IC04.D	RTX-5 0.32(mm)
IC 140-25490/12		11/17/2018 01:12	1	RK16IC05.D	RTX-5 0.32(mm)
IC 140-25490/13		11/17/2018 02:05	1	RK16IC06.D	RTX-5 0.32(mm)
ICIS 140-25490/14		11/17/2018 02:58	1	RK16IC07.D	RTX-5 0.32(mm)
IC 140-25490/15		11/17/2018 03:51	1	RK16IC08.D	RTX-5 0.32(mm)
ICV 140-25490/18		11/17/2018 06:27	1	RK16ICV.D	RTX-5 0.32(mm)

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Analysis Date:	11/16/18	Instrument:	MR	Chrom WL #:	10019	TALS Batch & Event #	TO14/15: 1744 25490
							DOD: 1744 / 25492 OHIO: 1745 / 25491

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓	Vol ✓ on screen	✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	Naph.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ms
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na		ms
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	na	→			ms	→	
18. If curves were used, is correlation coefficient ≥0.990? [F6]	na	→			ms	→	
19. Is the intercept less than the RL for each curve? [F6]	na	→			ms	→	
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	na		na		ms	→	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Mech, 2-chloroph

Analyst/Date: 11/19/18

2nd Level Reviewer/Date: 11/19/18

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	na	→			ms	→	
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 11/19/18

Comments: Naph OK

2nd Level Reviewer/date: 11/19/18

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Instrument ID: MR Start Date: 04/12/2019 14:32

Analysis Batch Number: 29199 End Date: 04/13/2019 00:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-29199/1		04/12/2019 14:32	1	RBFBD12.D	RTX-5 0.32(mm)
CCVIS 140-29199/2		04/12/2019 15:01	1	RCCVD12.D	RTX-5 0.32(mm)
LCS 140-29199/1002		04/12/2019 15:01	1	RCCVD12-LCS.d	RTX-5 0.32(mm)
MB 140-29199/4		04/12/2019 18:09	1	RD12mb500.D	RTX-5 0.32(mm)
ZZZZZ		04/12/2019 18:59	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 19:50	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 20:40	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 21:31	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 22:22	1		RTX-5 0.32(mm)
140-14958-2		04/13/2019 00:04	1	RD12p105.D	RTX-5 0.32(mm)
140-14958-1		04/13/2019 00:54	1	RD12p106.D	RTX-5 0.32(mm)

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 4/12/19		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11413	CCAL Batch #	29199		
ICAL Chrom WL #	10019	ICAL Batch # / Event #	25490 / 1746	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: IPA, 1,3 Butadiene, trichlorofluoro-methane	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MS
6. Has the RT been updated to the method?	✓		✓
Analyst/date	MR 4/15/19	**2nd Level Reviewer/date**	✓ 041519

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	checked on-screen	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓	Runs offshifted Cmes 10-13	✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#____) □ Method Blank – Report, 10X (NCM#____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	□ (1) Surrogate – Matrix (NCM#____) □ (2) Surrogate – High, ND (NCM#____) □ (3) ISTD – RA/RA Concurs (NCM#____) □ (4) Surrogate –RX concur, Report both (NCM#____) □ (5) ISTD – Matrix, DL required (NCM#____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution 14958 #1 RR 20mL	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	NA	□ (1) Reporting Limit – Dilution, Matrix (NCM#____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#____) □ (3) Issues with initial collection volume; see DRC.	MS
16. RIC inspected for proper integration for TPH?			MS
17. Obvious non-TPH peaks excluded?			✓
18. Individual TPH peak area < octane high point area?			✓

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM# 17140) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#___)	NA
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#___) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		NA
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	N	Runs offshifted - dup not Ren will Ren 2dup next tune	✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** (4) J 14958 **200 mL blank ID:** (5) J 14955	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Analyst:	Date: 4/15/19	2nd Level Reviewer :	Date: 04/25/19
Comments:		**Comments:**	

Example Calculation:

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Instrument ID: MJ Start Date: 04/11/2019 17:44

Analysis Batch Number: 29202 End Date: 04/12/2019 10:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-29202/1		04/11/2019 17:44	1	JBFBD11.D	RTX-5 0.32(mm)
IC 140-29202/3		04/11/2019 18:43	1	JD11ICL09.D	RTX-5 0.32(mm)
IC 140-29202/5		04/11/2019 20:16	1	JD11ICL10.D	RTX-5 0.32(mm)
IC 140-29202/8		04/11/2019 22:31	1	JD11ICL01.D	RTX-5 0.32(mm)
IC 140-29202/9		04/11/2019 23:16	1	JD11ICL02.D	RTX-5 0.32(mm)
140-14762-A-1 MDLV		04/11/2019 23:16	1		RTX-5 0.32(mm)
ZZZZZ		04/11/2019 23:16	1		RTX-5 0.32(mm)
IC 140-29202/10		04/12/2019 00:01	1	JD11ICL03.D	RTX-5 0.32(mm)
140-14762-A-2 MDLV		04/12/2019 00:01	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 00:01	1		RTX-5 0.32(mm)
IC 140-29202/12		04/12/2019 01:31	1	JD11ICL05.D	RTX-5 0.32(mm)
140-14762-A-4 MDLV		04/12/2019 01:31	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 01:31	1		RTX-5 0.32(mm)
IC 140-29202/13		04/12/2019 02:16	1	JD11ICL06.D	RTX-5 0.32(mm)
ICIS 140-29202/14		04/12/2019 03:01	1	JD11ICL07.D	RTX-5 0.32(mm)
IC 140-29202/15		04/12/2019 03:46	1	JD11ICL08.D	RTX-5 0.32(mm)
ICV 140-29202/17		04/12/2019 05:16	1	JD11ICV.D	RTX-5 0.32(mm)
ZZZZZ		04/12/2019 08:17	1		RTX-5 0.32(mm)
IC 140-29202/22		04/12/2019 10:25	1	JD11ICL04R.D	RTX-5 0.32(mm)
140-14762-A-3 MDLV		04/12/2019 10:25	1		RTX-5 0.32(mm)
ZZZZZ		04/12/2019 10:25	1		RTX-5 0.32(mm)

190411

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	31.9	4/11/2019	2:33:54 PM
BFB	16 - 100 mL	31.7	4/11/2019	4:22:48 PM
CCV	8 - 101 mL	29.5	4/11/2019	4:50:00 PM
BFB	16 - 101 mL	31.7	4/11/2019	5:44:53 PM
clean	16 - 500 mL	30.5	4/11/2019	6:16:12 PM
IC09	9 - 200 mL	24.8	4/11/2019	6:43:41 PM
BLK	16 - 501 mL	30.8	4/11/2019	7:31:21 PM
IC10	10 - 201 mL	31.6	4/11/2019	8:16:36 PM
BLK	16 - 201 mL	30.4	4/11/2019	9:01:50 PM
BLK	16 - 501 mL	29.8	4/11/2019	9:46:42 PM
IC01	3 - 52 mL	30.1	4/11/2019	10:31:30 PM
IC02	3 - 101 mL	29.7	4/11/2019	11:16:29 PM
IC03	3 - 201 mL	29.3	4/12/2019	12:01:16 AM
IC04-NO CCL4	4 - 201 mL	21.4	4/12/2019	12:46:00 AM
IC05	5 - 200 mL	31.5	4/12/2019	1:31:01 AM
IC06	6 - 201 mL	30.5	4/12/2019	2:16:24 AM
IC07	7 - 201 mL	28	4/12/2019	3:01:12 AM
IC08	8 - 201 mL	28.3	4/12/2019	3:46:10 AM
BLK	16 - 500 mL	29.3	4/12/2019	4:31:20 AM
ICV	12 - 101 mL	15.7	4/12/2019	5:16:25 AM
LCS	13 - 101 mL	30.1	4/12/2019	6:01:15 AM
NEW	14 - 101 mL	35.9	4/12/2019	6:46:09 AM
BLK	16 - 501 mL	28.4	4/12/2019	7:31:40 AM
BLK	16 - 501 mL	28	4/12/2019	8:17:00 AM
IC04R	5 - 101 mL	30.9	4/12/2019	10:25:46 AM

MJ ICAL WL 11416

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Analysis Date:	4/11/19	Instrument:	MJ	Chrom WL #:	11916	TALS Batch & Event #	TO14/15: 1908 / 29202	DoD5: 1911/29348
							DOD: 1909 / 29203	OHIO: 1910/29204

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	NC		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	IN LCV		
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% Acetone, ~~methanol~~ [F6 Σ] 04/16/19	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) $MeCl_2$, acetaldehyde, ethanol [F6]	✓	✓	✓		✓	✓	✓
18. If curves were used, is correlation coefficient ≥0.990? ~~DJ TMB2~~ [F6]	✓	✓	✓		✓	✓	✓
19. Is the intercept less than the RL for each curve? 4/16/19 DH [F6]	✓	✓			✓	✓	
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NC	→	na		NA	NA	na
21. Is low point RSE ≤ 50 %? $MeCl_2$ (lab cont.) acetone [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓
Analyst/Date: 4/16/19				**2nd Level Reviewer/Date:** 04/16/19			

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	DH →			4/19/19	✓	✓	✓
28. If criteria not met, was a NCM generated?	NC	→			NA →		
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 4/19/19

2nd Level Reviewer/date: DJ 4/17/19

Comments: UK 4 - DJ TMB2, #10

Comments: DNU Acetone for DOD 5.1

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-14958-1

SDG No.:

Instrument ID: MJ Start Date: 04/15/2019 13:04

Analysis Batch Number: 29232 End Date: 04/16/2019 02:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-29232/1		04/15/2019 13:04	1	JBFBD15a.D	RTX-5 0.32(mm)
CCVIS 140-29232/2		04/15/2019 13:31	1	JCCVD15a.D	RTX-5 0.32(mm)
LCS 140-29232/1002		04/15/2019 13:31	1	JCCVD15a-LCS.d	RTX-5 0.32(mm)
ZZZZZ		04/15/2019 16:58	1		RTX-5 0.32(mm)
MB 140-29232/7		04/15/2019 17:45	1	JD15mb500.D	RTX-5 0.32(mm)
ZZZZZ		04/15/2019 18:32	1		RTX-5 0.32(mm)
ZZZZZ		04/15/2019 20:04	1		RTX-5 0.32(mm)
ZZZZZ		04/15/2019 20:50	1		RTX-5 0.32(mm)
ZZZZZ		04/15/2019 21:36	1		RTX-5 0.32(mm)
ZZZZZ		04/15/2019 22:21	1		RTX-5 0.32(mm)
140-14958-3		04/15/2019 23:51	1	JD15p109.D	RTX-5 0.32(mm)
140-14958-1 DL		04/16/2019 00:37	1	JD15p110.D	RTX-5 0.32(mm)
ZZZZZ		04/16/2019 01:23	1		RTX-5 0.32(mm)
ZZZZZ		04/16/2019 02:08	1		RTX-5 0.32(mm)

190415

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 102 mL	26.9	4/15/2019	1:04:15 PM
CCV	15 - 101 mL	35.7	4/15/2019	1:31:35 PM
flush	11 - 100 mL	26.5	4/15/2019	3:43:25 PM
flush	16 - 100 mL	26.5	4/15/2019	4:29:23 PM
mb200	16 - 201 mL	26	4/15/2019	4:58:27 PM
mb500	16 - 501 mL	25.2	4/15/2019	5:45:09 PM
lot14945	2 - 501 mL	23.1	4/15/2019	6:32:19 PM
lot14946	3 - 501 mL	9.7	4/15/2019	7:19:05 PM
lot14962	4 - 500 mL	23.5	4/15/2019	8:04:53 PM
lot14963	5 - 501 mL	22.4	4/15/2019	8:50:34 PM
lot14965	6 - 501 mL	22.3	4/15/2019	9:36:24 PM
blk14906-9	7 - 500 mL	21.4	4/15/2019	10:21:51 PM
14954-01	8 - 500 mL	2.9	4/15/2019	11:07:09 PM
14958-3	9 - 101 mL	3.2	4/15/2019	11:51:43 PM
14958-1	10 - 21 mL	7.5	4/16/2019	12:37:49 AM
14972-1du	11 - 202 mL	7.5	4/16/2019	1:23:20 AM
14972-1	11 - 201 mL	8.4	4/16/2019	2:08:38 AM

MJ WL 11427

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Instrument/Date	MJ 4/15/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11427	CCAL Batch #	29232		29287
ICAL Chrom WL #	11416	ICAL Batch # / Event #	29202 / 1908	/	29204 / 1910

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: Chlorodifluoromethane.	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawarn Kh. 4/19/2019		**2nd Level Reviewer/date** ✓ 4/19/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	☐ ICAL – Range Exceeded; Minimum Dilution	MB

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?	↓		↓

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☒ CCV - %D - LCS criteria met (NCM# 17199) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	NA
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) □ LCS/LCSD - %R High (NCM#)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		NA
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-29232/7, 140-29287/7 **200 mL blank ID:** 140-29232/4	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?		Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawma Kh.	**Date:** 4/19/2019	**2nd Level Reviewer :**	**Date:** 04/19/19
Comments:		**Comments:**	

Example Calculation: 140-14958-1 TCE

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$$\frac{4.119556 \times 500 \times 1.0}{20} = 102.99$$

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-14958-1

SDG No.:

Batch Number: 29199 Batch Start Date: 04/12/19 14:32 Batch Analyst: Barlozhetskaya, Anna F

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00087	40MXISSURP 00003
BFB 140-29199/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-29199/2		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL
MB 140-29199/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-14958-A-2	BLDG-A-MID GAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-14958-A-1	BLDG-A-INFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-29199/1002		TO 15 LL		500 mL	500 mL	1	1	50 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00002					
BFB 140-29199/1		TO 15 LL		40 mL					
CCVIS 140-29199/2		TO 15 LL							
MB 140-29199/4		TO 15 LL							
140-14958-A-2	BLDG-A-MID GAC	TO 15 LL	T						
140-14958-A-1	BLDG-A-INFLUENT	TO 15 LL	T						
LCS 140-29199/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-14958-1

SDG No.:

Batch Number: 29232 Batch Start Date: 04/15/19 13:04 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00086	40MXISSURP 00003
BFB 140-29232/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-29232/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-29232/7		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-14958-A-3	BLDG-A-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-14958-A-1	BLDG-A-INFLUENT	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
LCS 140-29232/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00002					
BFB 140-29232/1		TO 15 LL		40 mL					
CCVIS 140-29232/2		TO 15 LL							
MB 140-29232/7		TO 15 LL							
140-14958-A-3	BLDG-A-EFFLUENT	TO 15 LL	T						
140-14958-A-1	BLDG-A-INFLUENT	TO 15 LL	T						
LCS 140-29232/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-14671-1

SDG No.:

Client Sample ID: 10960 | Lab Sample ID: 140-14671-7

Matrix: Air | Lab File ID: JC22lot14671.D

Analysis Method: TO-15 | Date Collected: 03/21/2019 16:45

Sample wt/vol: 200(mL) | Date Analyzed: 03/22/2019 14:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 28636 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-14671-1

SDG No.:

Client Sample ID: 10960 | Lab Sample ID: 140-14671-7

Matrix: Air | Lab File ID: JC22lot14671.D

Analysis Method: TO-15 | Date Collected: 03/21/2019 16:45

Sample wt/vol: 200(mL) | Date Analyzed: 03/22/2019 14:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 28636 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-14671-1

SDG No.:

Client Sample ID: 10960 | Lab Sample ID: 140-14671-7

Matrix: Air | Lab File ID: JC22lot14671.D

Analysis Method: TO-15 | Date Collected: 03/21/2019 16:45

Sample wt/vol: 200(mL) | Date Analyzed: 03/22/2019 14:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 28636 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190321-11214.b\JC22lot14671.D				
Lims ID:	140-14671-A-7				
Client ID:	10960				
Sample Type:	Client				
Inject. Date:	22-Mar-2019 14:36:30	ALS Bottle#:	3	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011214-005				
Misc. Info.:	10960				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190321-11214.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	25-Mar-2019 10:27:17	Calib Date:	19-Feb-2019 19:03:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190218-10868.b\JB19ICL08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: khachitpongpanits		Date:	25-Mar-2019 10:31:03		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.752	9.754	-0.002	94	286399	4.00	
* 2 1,4-Difluorobenzene	114	11.861	11.863	-0.002	95	1627549	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.471	16.473	-0.002	89	1375490	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	18.069	18.071	-0.002	94	989787	3.88	
9 Chloromethane	52	4.448	4.445	0.003	62	2438	0.0681	
31 Methylene Chloride	84	7.084	7.081	0.003	97	14165	0.1341	
40 Hexane	56	8.972	8.969	0.003	89	9413	0.1218	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

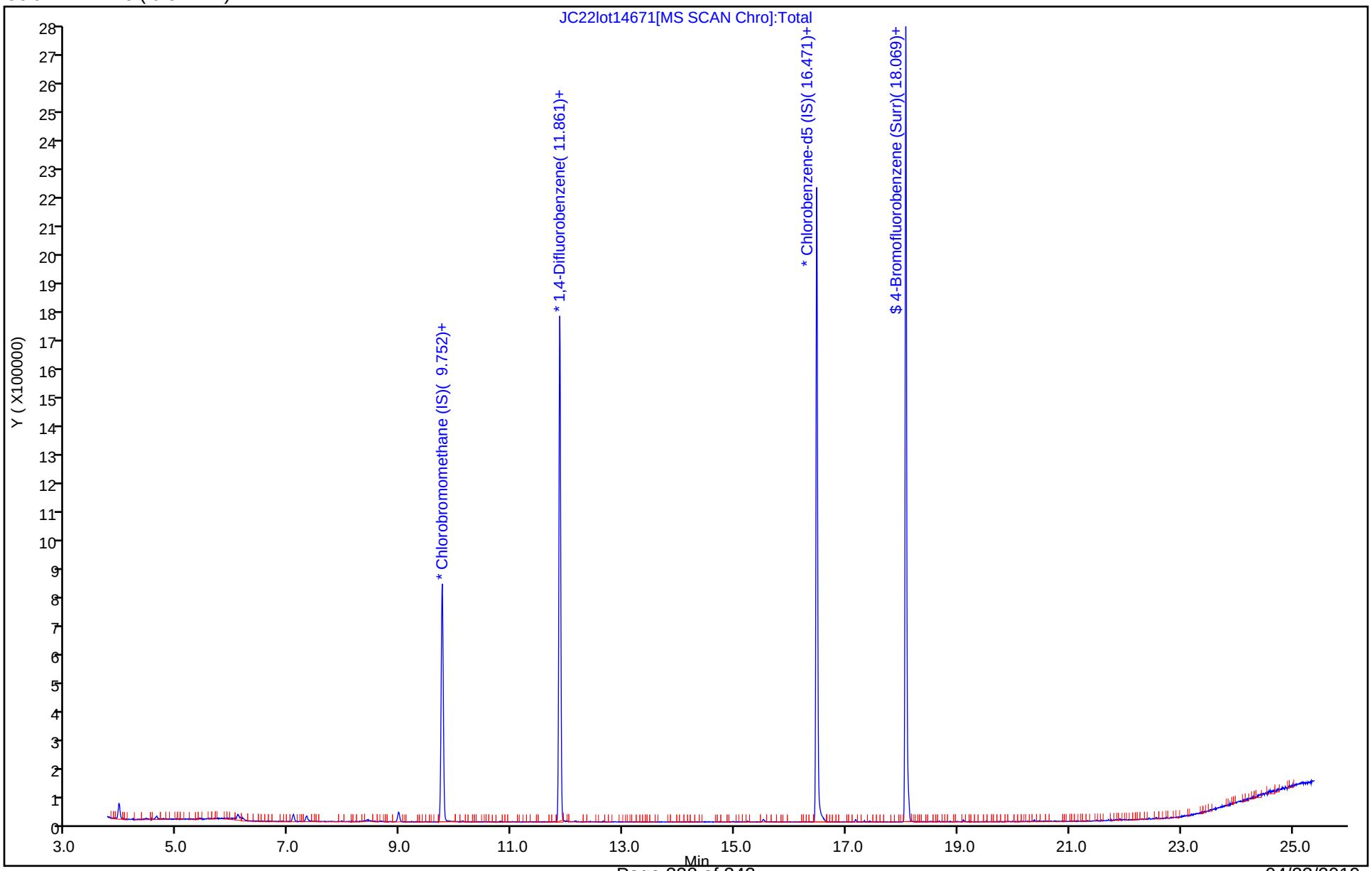
Report Date: 25-Mar-2019 10:31:04 Chrom Revision: 2.3 21-Mar-2019 13:38:44

TestAmerica Knoxville

Data File: \\chromna\Knoxville\ChromData\MJ\20190321-11214.b\JC22lot14671.D

Injection Date:	22-Mar-2019 14:36:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	140-14671-A-7	Lab Sample ID:	140-14671-7	Worklist Smp#:	5
Client ID:	10960				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

140-14958 Chain of Custody

Client Contact Information	Project Manager: Peter Rich	Sampled By: Andrew Smith	1 of 1 COCs
Company: Tetra Tech	Phone: 443-782-7077		
Address: 980 Ault Rd. Suite 301	Site Contact:		
City/State/Zip Annapolis MD 21403	TAL Contact:		
Phone: 443-782-7077			
FAX:			
Project Name: LMC-MRC	Analysis Turnaround Time		
Site/location: MRAS/ Building A	Standard (Specify)		
PO # 117-051214B	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Bldg-A-Influent	4/11/19	11:57	11:59	~29	~4	10911	11140	X											
Bldg-A-Mid GAC	4/11/19	12:08	12:10	~29	~4	10901	11136	X											
Bldg-A-Effluent	4/11/19	12:03	12:04	~30	~4	09958	09748	X											

Sampled by : Andrew Smith

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Baltimore #201

Received @ ambient
1 box, Fedex Pg
Trk# 7749 9814 6818
Custody seal intact
KW 4/12/19

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	
Samples Relinquished by:	Date/Time: 4/11/19 14:38	Received by:	3 cans 3 KR
Relinquished by:	Date/Time: 4/11/19 1700	Received by: 4/12/19 1000 TAKnox	

Lab Use Only Shipper Name: Opened by: Condition:

04/23/2019

Loc: 140

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** 14958

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: _____ **Date:** _____

pH test strip lot number: _____

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

Project #: 140029210 PM Instructions: _____

Sample Receiving Associate: _____ Date: 4/12/19

QA026R31.doc, 112618

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 4/12/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
afb	140-14958-A-1	11140	14671	b	1	-4.2	1600	
afb	140-14958-A-2	11136	14671	b	1	-2.2	1601	
afb	140-14958-A-3	09748	14671	b	1	-1.8	1602	

eurofins | Environment Testing TestAmerica

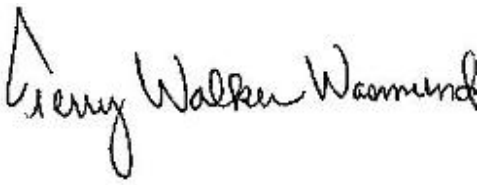
ANALYTICAL REPORT

Job Number: 140-15288-1

Job Description: Lockheed Martin MRC, Middle River

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Terry Walker Wasmund
Project Manager II
5/28/2019 4:45 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
05/28/2019

cc: Belssi Chang
Amy Thomson

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Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-15288-1

Receipt
The samples were received on 5/15/2019 at 10:20 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-15288-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.8		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.32	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.63		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	15		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.0		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.13	J	0.40	0.095	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	18		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.083	J	0.40	0.080	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.7		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.31	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	78		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	160	E	0.20	0.070	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.51	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene - DL	150		1.0	0.35	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.1		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1	J	1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	3.1		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	61		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	12		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.54	J	1.6	0.38	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	70		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.7	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.56	J	2.7	0.54	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.4		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.2	J	1.6	0.40	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	430		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	870	E	1.1	0.38	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene - DL	780		5.4	1.9	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-A-MIDGAC
Lab Sample ID: 140-15288-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.57		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.40		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.78		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	25		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.1		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.16	J	0.40	0.095	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	20		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.97	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.60		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.50		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	52		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-A-MIDGAC (Continued)
Lab Sample ID: 140-15288-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	1.4		1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	3.8		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	100		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	17		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.65	J	1.6	0.38	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	78		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.4	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.2		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.0		1.6	0.40	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	280		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-15288-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.87		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.098	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.7		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.51		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	0.29	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	2.8		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.3		2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.83		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.2		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.99		0.20	0.070	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.8		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.48	J	2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	6.6		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	1.2	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	11		1.6	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	12		6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.1		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	6.7		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	5.3		1.1	0.38	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-C-INFLUENT
Lab Sample ID: 140-15288-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.7		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.95		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.089	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.74		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.52		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.17	J	0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.1	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.12	J	0.40	0.080	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.5		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	4.5		0.20	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-C-INFLUENT (Continued)
Lab Sample ID: 140-15288-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trimethylbenzene	0.19	J	0.40	0.17	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.98		0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.43		0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.75	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8.7		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.4		1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.43	J	2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.9		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.6		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.75	J	1.7	0.59	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.8	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.82	J	2.7	0.54	ug/m3	1		TO 15 LL	Total/NA
Toluene	9.4		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	24		1.1	0.38	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.94	J	2.0	0.84	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	4.8		2.0	0.61	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	2.1		2.0	0.64	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-C-MIDGAC
Lab Sample ID: 140-15288-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.2		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.89		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.23	J	0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.70		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.56		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.90	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.42		0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.15	J	0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.47	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	10		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.2		1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.1	J	2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	2.8		1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.1	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.1		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	2.3		2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.74	J	2.0	0.61	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG-C-EFFLUENT
Lab Sample ID: 140-15288-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.83		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.49		0.40	0.075	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-C-EFFLUENT (Continued)
Lab Sample ID: 140-15288-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.18	J	0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.55		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.87	J	2.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.24	J	0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.69		0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.31	J	0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.41	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.9		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	3.0		1.4	0.27	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.4		2.0	0.37	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.71	J	1.6	0.48	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.0	J	6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.9		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.3	J	2.2	0.33	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.4		2.0	0.61	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.5	J	2.0	0.64	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.8	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-15288-1

Date Collected: 05/14/19 12:45
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.8**		0.40	0.12	ppb v/v			05/17/19 16:15	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/17/19 16:15	1
Chlorodifluoromethane	**0.32**	**J**	0.40	0.075	ppb v/v			05/17/19 16:15	1
Chloroform	**0.63**		0.40	0.075	ppb v/v			05/17/19 16:15	1
cis-1,2-Dichloroethene	**15**		0.40	0.12	ppb v/v			05/17/19 16:15	1
Dichlorodifluoromethane	**0.46**		0.40	0.14	ppb v/v			05/17/19 16:15	1
1,1-Dichloroethane	**3.0**		0.40	0.050	ppb v/v			05/17/19 16:15	1
1,2-Dichloroethane	**0.13**	**J**	0.40	0.095	ppb v/v			05/17/19 16:15	1
1,1-Dichloroethene	**18**		0.40	0.070	ppb v/v			05/17/19 16:15	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			05/17/19 16:15	1
Methylene Chloride	**1.6**	**J**	2.0	0.65	ppb v/v			05/17/19 16:15	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/17/19 16:15	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/17/19 16:15	1
Tetrachloroethene	**0.083**	**J**	0.40	0.080	ppb v/v			05/17/19 16:15	1
Toluene	**1.7**		0.60	0.60	ppb v/v			05/17/19 16:15	1
trans-1,2-Dichloroethene	**0.31**	**J**	0.40	0.10	ppb v/v			05/17/19 16:15	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/17/19 16:15	1
1,1,1-Trichloroethane	**78**		0.40	0.060	ppb v/v			05/17/19 16:15	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/17/19 16:15	1
Trichloroethene	**160**	**E**	0.20	0.070	ppb v/v			05/17/19 16:15	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			05/17/19 16:15	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/17/19 16:15	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/17/19 16:15	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/17/19 16:15	1
Xylenes, Total	**0.51**	**J**	0.80	0.12	ppb v/v			05/17/19 16:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.1**		1.3	0.37	ug/m3			05/17/19 16:15	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/17/19 16:15	1
Chlorodifluoromethane	**1.1**	**J**	1.4	0.27	ug/m3			05/17/19 16:15	1
Chloroform	**3.1**		2.0	0.37	ug/m3			05/17/19 16:15	1
cis-1,2-Dichloroethene	**61**		1.6	0.48	ug/m3			05/17/19 16:15	1
Dichlorodifluoromethane	**2.3**		2.0	0.67	ug/m3			05/17/19 16:15	1
1,1-Dichloroethane	**12**		1.6	0.20	ug/m3			05/17/19 16:15	1
1,2-Dichloroethane	**0.54**	**J**	1.6	0.38	ug/m3			05/17/19 16:15	1
1,1-Dichloroethene	**70**		1.6	0.28	ug/m3			05/17/19 16:15	1
Ethylbenzene	ND		1.7	0.59	ug/m3			05/17/19 16:15	1
Methylene Chloride	**5.7**	**J**	6.9	2.3	ug/m3			05/17/19 16:15	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/17/19 16:15	1
Naphthalene	ND		1.0	1.0	ug/m3			05/17/19 16:15	1
Tetrachloroethene	**0.56**	**J**	2.7	0.54	ug/m3			05/17/19 16:15	1
Toluene	**6.4**		2.3	2.3	ug/m3			05/17/19 16:15	1
trans-1,2-Dichloroethene	**1.2**	**J**	1.6	0.40	ug/m3			05/17/19 16:15	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/17/19 16:15	1
1,1,1-Trichloroethane	**430**		2.2	0.33	ug/m3			05/17/19 16:15	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/17/19 16:15	1
Trichloroethene	**870**	**E**	1.1	0.38	ug/m3			05/17/19 16:15	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			05/17/19 16:15	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			05/17/19 16:15	1

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-15288-1

Date Collected: 05/14/19 12:45
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			05/17/19 16:15	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/17/19 16:15	1
Xylenes, Total	**2.2**	**J**	3.5	0.52	ug/m3			05/17/19 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*05/17/19 16:15*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**150**		1.0	0.35	ppb v/v			05/20/19 11:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**780**		5.4	1.9	ug/m3			05/20/19 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*05/20/19 11:49*	*1*

Client Sample ID: BLDG-A-MIDGAC
Lab Sample ID: 140-15288-2

Date Collected: 05/14/19 12:52
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.57**		0.40	0.12	ppb v/v			05/17/19 16:57	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/17/19 16:57	1
Chlorodifluoromethane	**0.40**		0.40	0.075	ppb v/v			05/17/19 16:57	1
Chloroform	**0.78**		0.40	0.075	ppb v/v			05/17/19 16:57	1
cis-1,2-Dichloroethene	**25**		0.40	0.12	ppb v/v			05/17/19 16:57	1
Dichlorodifluoromethane	**0.49**		0.40	0.14	ppb v/v			05/17/19 16:57	1
1,1-Dichloroethane	**4.1**		0.40	0.050	ppb v/v			05/17/19 16:57	1
1,2-Dichloroethane	**0.16**	**J**	0.40	0.095	ppb v/v			05/17/19 16:57	1
1,1-Dichloroethene	**20**		0.40	0.070	ppb v/v			05/17/19 16:57	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			05/17/19 16:57	1
Methylene Chloride	**0.97**	**J**	2.0	0.65	ppb v/v			05/17/19 16:57	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/17/19 16:57	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/17/19 16:57	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			05/17/19 16:57	1
Toluene	**0.60**		0.60	0.60	ppb v/v			05/17/19 16:57	1
trans-1,2-Dichloroethene	**0.50**		0.40	0.10	ppb v/v			05/17/19 16:57	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/17/19 16:57	1
1,1,1-Trichloroethane	**52**		0.40	0.060	ppb v/v			05/17/19 16:57	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/17/19 16:57	1
Trichloroethene	ND		0.20	0.070	ppb v/v			05/17/19 16:57	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			05/17/19 16:57	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/17/19 16:57	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/17/19 16:57	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/17/19 16:57	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			05/17/19 16:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.8**		1.3	0.37	ug/m3			05/17/19 16:57	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/17/19 16:57	1
Chlorodifluoromethane	**1.4**		1.4	0.27	ug/m3			05/17/19 16:57	1
Chloroform	**3.8**		2.0	0.37	ug/m3			05/17/19 16:57	1
cis-1,2-Dichloroethene	**100**		1.6	0.48	ug/m3			05/17/19 16:57	1
Dichlorodifluoromethane	**2.4**		2.0	0.67	ug/m3			05/17/19 16:57	1
1,1-Dichloroethane	**17**		1.6	0.20	ug/m3			05/17/19 16:57	1
1,2-Dichloroethane	**0.65**	**J**	1.6	0.38	ug/m3			05/17/19 16:57	1
1,1-Dichloroethene	**78**		1.6	0.28	ug/m3			05/17/19 16:57	1
Ethylbenzene	ND		1.7	0.59	ug/m3			05/17/19 16:57	1
Methylene Chloride	**3.4**	**J**	6.9	2.3	ug/m3			05/17/19 16:57	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/17/19 16:57	1
Naphthalene	ND		1.0	1.0	ug/m3			05/17/19 16:57	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			05/17/19 16:57	1
Toluene	**2.2**		2.3	2.3	ug/m3			05/17/19 16:57	1
trans-1,2-Dichloroethene	**2.0**		1.6	0.40	ug/m3			05/17/19 16:57	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/17/19 16:57	1
1,1,1-Trichloroethane	**280**		2.2	0.33	ug/m3			05/17/19 16:57	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/17/19 16:57	1
Trichloroethene	ND		1.1	0.38	ug/m3			05/17/19 16:57	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			05/17/19 16:57	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			05/17/19 16:57	1

Client Sample ID: BLDG-A-MIDGAC
Lab Sample ID: 140-15288-2

Date Collected: 05/14/19 12:52
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			05/17/19 16:57	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/17/19 16:57	1
Xylenes, Total	ND		3.5	0.52	ug/m3			05/17/19 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*05/17/19 16:57*	*1*

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-15288-3

Date Collected: 05/14/19 12:59
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.87**		0.40	0.12	ppb v/v			05/20/19 12:34	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/20/19 12:34	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.075	ppb v/v			05/20/19 12:34	1
Chloroform	**0.098**	**J**	0.40	0.075	ppb v/v			05/20/19 12:34	1
cis-1,2-Dichloroethene	**1.7**		0.40	0.12	ppb v/v			05/20/19 12:34	1
Dichlorodifluoromethane	**0.51**		0.40	0.14	ppb v/v			05/20/19 12:34	1
1,1-Dichloroethane	**0.29**	**J**	0.40	0.050	ppb v/v			05/20/19 12:34	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			05/20/19 12:34	1
1,1-Dichloroethene	**2.8**		0.40	0.070	ppb v/v			05/20/19 12:34	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			05/20/19 12:34	1
Methylene Chloride	**3.3**		2.0	0.65	ppb v/v			05/20/19 12:34	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/20/19 12:34	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/20/19 12:34	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			05/20/19 12:34	1
Toluene	**0.83**		0.60	0.60	ppb v/v			05/20/19 12:34	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			05/20/19 12:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/20/19 12:34	1
1,1,1-Trichloroethane	**1.2**		0.40	0.060	ppb v/v			05/20/19 12:34	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/20/19 12:34	1
Trichloroethene	**0.99**		0.20	0.070	ppb v/v			05/20/19 12:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			05/20/19 12:34	1
1,2,4-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/20/19 12:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/20/19 12:34	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/20/19 12:34	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			05/20/19 12:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.8**		1.3	0.37	ug/m3			05/20/19 12:34	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/20/19 12:34	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.27	ug/m3			05/20/19 12:34	1
Chloroform	**0.48**	**J**	2.0	0.37	ug/m3			05/20/19 12:34	1
cis-1,2-Dichloroethene	**6.6**		1.6	0.48	ug/m3			05/20/19 12:34	1
Dichlorodifluoromethane	**2.5**		2.0	0.67	ug/m3			05/20/19 12:34	1
1,1-Dichloroethane	**1.2**	**J**	1.6	0.20	ug/m3			05/20/19 12:34	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			05/20/19 12:34	1
1,1-Dichloroethene	**11**		1.6	0.28	ug/m3			05/20/19 12:34	1
Ethylbenzene	ND		1.7	0.59	ug/m3			05/20/19 12:34	1
Methylene Chloride	**12**		6.9	2.3	ug/m3			05/20/19 12:34	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/20/19 12:34	1
Naphthalene	ND		1.0	1.0	ug/m3			05/20/19 12:34	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			05/20/19 12:34	1
Toluene	**3.1**		2.3	2.3	ug/m3			05/20/19 12:34	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			05/20/19 12:34	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/20/19 12:34	1
1,1,1-Trichloroethane	**6.7**		2.2	0.33	ug/m3			05/20/19 12:34	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/20/19 12:34	1
Trichloroethene	**5.3**		1.1	0.38	ug/m3			05/20/19 12:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			05/20/19 12:34	1
1,2,4-Trimethylbenzene	ND		2.0	0.61	ug/m3			05/20/19 12:34	1

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-15288-3

Date Collected: 05/14/19 12:59
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			05/20/19 12:34	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/20/19 12:34	1
Xylenes, Total	ND		3.5	0.52	ug/m3			05/20/19 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*05/20/19 12:34*	*1*

Client Sample ID: BLDG-C-INFLUENT
Lab Sample ID: 140-15288-4

Date Collected: 05/14/19 12:12
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.7**		0.40	0.12	ppb v/v			05/17/19 18:24	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/17/19 18:24	1
Chlorodifluoromethane	**0.95**		0.40	0.075	ppb v/v			05/17/19 18:24	1
Chloroform	**0.089**	**J**	0.40	0.075	ppb v/v			05/17/19 18:24	1
cis-1,2-Dichloroethene	**0.74**		0.40	0.12	ppb v/v			05/17/19 18:24	1
Dichlorodifluoromethane	**0.52**		0.40	0.14	ppb v/v			05/17/19 18:24	1
1,1-Dichloroethane	ND		0.40	0.050	ppb v/v			05/17/19 18:24	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			05/17/19 18:24	1
1,1-Dichloroethene	ND		0.40	0.070	ppb v/v			05/17/19 18:24	1
Ethylbenzene	**0.17**	**J**	0.40	0.14	ppb v/v			05/17/19 18:24	1
Methylene Chloride	**1.1**	**J**	2.0	0.65	ppb v/v			05/17/19 18:24	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/17/19 18:24	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/17/19 18:24	1
Tetrachloroethene	**0.12**	**J**	0.40	0.080	ppb v/v			05/17/19 18:24	1
Toluene	**2.5**		0.60	0.60	ppb v/v			05/17/19 18:24	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			05/17/19 18:24	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/17/19 18:24	1
1,1,1-Trichloroethane	ND		0.40	0.060	ppb v/v			05/17/19 18:24	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/17/19 18:24	1
Trichloroethene	**4.5**		0.20	0.070	ppb v/v			05/17/19 18:24	1
1,2,3-Trimethylbenzene	**0.19**	**J**	0.40	0.17	ppb v/v			05/17/19 18:24	1
1,2,4-Trimethylbenzene	**0.98**		0.40	0.13	ppb v/v			05/17/19 18:24	1
1,3,5-Trimethylbenzene	**0.43**		0.40	0.13	ppb v/v			05/17/19 18:24	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/17/19 18:24	1
Xylenes, Total	**0.75**	**J**	0.80	0.12	ppb v/v			05/17/19 18:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8.7**		1.3	0.37	ug/m3			05/17/19 18:24	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/17/19 18:24	1
Chlorodifluoromethane	**3.4**		1.4	0.27	ug/m3			05/17/19 18:24	1
Chloroform	**0.43**	**J**	2.0	0.37	ug/m3			05/17/19 18:24	1
cis-1,2-Dichloroethene	**2.9**		1.6	0.48	ug/m3			05/17/19 18:24	1
Dichlorodifluoromethane	**2.6**		2.0	0.67	ug/m3			05/17/19 18:24	1
1,1-Dichloroethane	ND		1.6	0.20	ug/m3			05/17/19 18:24	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			05/17/19 18:24	1
1,1-Dichloroethene	ND		1.6	0.28	ug/m3			05/17/19 18:24	1
Ethylbenzene	**0.75**	**J**	1.7	0.59	ug/m3			05/17/19 18:24	1
Methylene Chloride	**3.8**	**J**	6.9	2.3	ug/m3			05/17/19 18:24	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/17/19 18:24	1
Naphthalene	ND		1.0	1.0	ug/m3			05/17/19 18:24	1
Tetrachloroethene	**0.82**	**J**	2.7	0.54	ug/m3			05/17/19 18:24	1
Toluene	**9.4**		2.3	2.3	ug/m3			05/17/19 18:24	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			05/17/19 18:24	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/17/19 18:24	1
1,1,1-Trichloroethane	ND		2.2	0.33	ug/m3			05/17/19 18:24	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/17/19 18:24	1
Trichloroethene	**24**		1.1	0.38	ug/m3			05/17/19 18:24	1
1,2,3-Trimethylbenzene	**0.94**	**J**	2.0	0.84	ug/m3			05/17/19 18:24	1
1,2,4-Trimethylbenzene	**4.8**		2.0	0.61	ug/m3			05/17/19 18:24	1

Client Sample ID: BLDG-C-INFLUENT
Lab Sample ID: 140-15288-4

Date Collected: 05/14/19 12:12
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**2.1**		2.0	0.64	ug/m3			05/17/19 18:24	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/17/19 18:24	1
Xylenes, Total	**3.3**	**J**	3.5	0.52	ug/m3			05/17/19 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*05/17/19 18:24*	*1*

Client Sample ID: BLDG-C-MIDGAC
Lab Sample ID: 140-15288-5

Date Collected: 05/14/19 12:20
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.2**		0.40	0.12	ppb v/v			05/17/19 19:07	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/17/19 19:07	1
Chlorodifluoromethane	**0.89**		0.40	0.075	ppb v/v			05/17/19 19:07	1
Chloroform	**0.23**	**J**	0.40	0.075	ppb v/v			05/17/19 19:07	1
cis-1,2-Dichloroethene	**0.70**		0.40	0.12	ppb v/v			05/17/19 19:07	1
Dichlorodifluoromethane	**0.56**		0.40	0.14	ppb v/v			05/17/19 19:07	1
1,1-Dichloroethane	ND		0.40	0.050	ppb v/v			05/17/19 19:07	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			05/17/19 19:07	1
1,1-Dichloroethene	ND		0.40	0.070	ppb v/v			05/17/19 19:07	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			05/17/19 19:07	1
Methylene Chloride	**0.90**	**J**	2.0	0.65	ppb v/v			05/17/19 19:07	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/17/19 19:07	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/17/19 19:07	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			05/17/19 19:07	1
Toluene	**1.4**		0.60	0.60	ppb v/v			05/17/19 19:07	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			05/17/19 19:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/17/19 19:07	1
1,1,1-Trichloroethane	**0.42**		0.40	0.060	ppb v/v			05/17/19 19:07	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/17/19 19:07	1
Trichloroethene	ND		0.20	0.070	ppb v/v			05/17/19 19:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			05/17/19 19:07	1
1,2,4-Trimethylbenzene	**0.15**	**J**	0.40	0.13	ppb v/v			05/17/19 19:07	1
1,3,5-Trimethylbenzene	ND		0.40	0.13	ppb v/v			05/17/19 19:07	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/17/19 19:07	1
Xylenes, Total	**0.47**	**J**	0.80	0.12	ppb v/v			05/17/19 19:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**10**		1.3	0.37	ug/m3			05/17/19 19:07	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/17/19 19:07	1
Chlorodifluoromethane	**3.2**		1.4	0.27	ug/m3			05/17/19 19:07	1
Chloroform	**1.1**	**J**	2.0	0.37	ug/m3			05/17/19 19:07	1
cis-1,2-Dichloroethene	**2.8**		1.6	0.48	ug/m3			05/17/19 19:07	1
Dichlorodifluoromethane	**2.8**		2.0	0.67	ug/m3			05/17/19 19:07	1
1,1-Dichloroethane	ND		1.6	0.20	ug/m3			05/17/19 19:07	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			05/17/19 19:07	1
1,1-Dichloroethene	ND		1.6	0.28	ug/m3			05/17/19 19:07	1
Ethylbenzene	ND		1.7	0.59	ug/m3			05/17/19 19:07	1
Methylene Chloride	**3.1**	**J**	6.9	2.3	ug/m3			05/17/19 19:07	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/17/19 19:07	1
Naphthalene	ND		1.0	1.0	ug/m3			05/17/19 19:07	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			05/17/19 19:07	1
Toluene	**5.1**		2.3	2.3	ug/m3			05/17/19 19:07	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			05/17/19 19:07	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/17/19 19:07	1
1,1,1-Trichloroethane	**2.3**		2.2	0.33	ug/m3			05/17/19 19:07	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/17/19 19:07	1
Trichloroethene	ND		1.1	0.38	ug/m3			05/17/19 19:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			05/17/19 19:07	1
1,2,4-Trimethylbenzene	**0.74**	**J**	2.0	0.61	ug/m3			05/17/19 19:07	1

Client Sample ID: BLDG-C-MIDGAC
Lab Sample ID: 140-15288-5

Date Collected: 05/14/19 12:20
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.64	ug/m3			05/17/19 19:07	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/17/19 19:07	1
Xylenes, Total	**2.0**	**J**	3.5	0.52	ug/m3			05/17/19 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*05/17/19 19:07*	*1*

Client Sample ID: BLDG-C-EFFLUENT
Lab Sample ID: 140-15288-6

Date Collected: 05/14/19 12:25
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.8**		0.40	0.12	ppb v/v			05/17/19 19:51	1
Carbon tetrachloride	ND		0.40	0.075	ppb v/v			05/17/19 19:51	1
Chlorodifluoromethane	**0.83**		0.40	0.075	ppb v/v			05/17/19 19:51	1
Chloroform	**0.49**		0.40	0.075	ppb v/v			05/17/19 19:51	1
cis-1,2-Dichloroethene	**0.18**	**J**	0.40	0.12	ppb v/v			05/17/19 19:51	1
Dichlorodifluoromethane	**0.55**		0.40	0.14	ppb v/v			05/17/19 19:51	1
1,1-Dichloroethane	ND		0.40	0.050	ppb v/v			05/17/19 19:51	1
1,2-Dichloroethane	ND		0.40	0.095	ppb v/v			05/17/19 19:51	1
1,1-Dichloroethene	ND		0.40	0.070	ppb v/v			05/17/19 19:51	1
Ethylbenzene	ND		0.40	0.14	ppb v/v			05/17/19 19:51	1
Methylene Chloride	**0.87**	**J**	2.0	0.65	ppb v/v			05/17/19 19:51	1
Methyl tert-butyl ether	ND		2.0	0.34	ppb v/v			05/17/19 19:51	1
Naphthalene	ND		0.20	0.20	ppb v/v			05/17/19 19:51	1
Tetrachloroethene	ND		0.40	0.080	ppb v/v			05/17/19 19:51	1
Toluene	**1.6**		0.60	0.60	ppb v/v			05/17/19 19:51	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			05/17/19 19:51	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			05/17/19 19:51	1
1,1,1-Trichloroethane	**0.24**	**J**	0.40	0.060	ppb v/v			05/17/19 19:51	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			05/17/19 19:51	1
Trichloroethene	ND		0.20	0.070	ppb v/v			05/17/19 19:51	1
1,2,3-Trimethylbenzene	ND		0.40	0.17	ppb v/v			05/17/19 19:51	1
1,2,4-Trimethylbenzene	**0.69**		0.40	0.13	ppb v/v			05/17/19 19:51	1
1,3,5-Trimethylbenzene	**0.31**	**J**	0.40	0.13	ppb v/v			05/17/19 19:51	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			05/17/19 19:51	1
Xylenes, Total	**0.41**	**J**	0.80	0.12	ppb v/v			05/17/19 19:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5.9**		1.3	0.37	ug/m3			05/17/19 19:51	1
Carbon tetrachloride	ND		2.5	0.47	ug/m3			05/17/19 19:51	1
Chlorodifluoromethane	**3.0**		1.4	0.27	ug/m3			05/17/19 19:51	1
Chloroform	**2.4**		2.0	0.37	ug/m3			05/17/19 19:51	1
cis-1,2-Dichloroethene	**0.71**	**J**	1.6	0.48	ug/m3			05/17/19 19:51	1
Dichlorodifluoromethane	**2.7**		2.0	0.67	ug/m3			05/17/19 19:51	1
1,1-Dichloroethane	ND		1.6	0.20	ug/m3			05/17/19 19:51	1
1,2-Dichloroethane	ND		1.6	0.38	ug/m3			05/17/19 19:51	1
1,1-Dichloroethene	ND		1.6	0.28	ug/m3			05/17/19 19:51	1
Ethylbenzene	ND		1.7	0.59	ug/m3			05/17/19 19:51	1
Methylene Chloride	**3.0**	**J**	6.9	2.3	ug/m3			05/17/19 19:51	1
Methyl tert-butyl ether	ND		7.2	1.2	ug/m3			05/17/19 19:51	1
Naphthalene	ND		1.0	1.0	ug/m3			05/17/19 19:51	1
Tetrachloroethene	ND		2.7	0.54	ug/m3			05/17/19 19:51	1
Toluene	**5.9**		2.3	2.3	ug/m3			05/17/19 19:51	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			05/17/19 19:51	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			05/17/19 19:51	1
1,1,1-Trichloroethane	**1.3**	**J**	2.2	0.33	ug/m3			05/17/19 19:51	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			05/17/19 19:51	1
Trichloroethene	ND		1.1	0.38	ug/m3			05/17/19 19:51	1
1,2,3-Trimethylbenzene	ND		2.0	0.84	ug/m3			05/17/19 19:51	1
1,2,4-Trimethylbenzene	**3.4**		2.0	0.61	ug/m3			05/17/19 19:51	1

Client Sample ID: BLDG-C-EFFLUENT
Lab Sample ID: 140-15288-6

Date Collected: 05/14/19 12:25
Matrix: Air
Date Received: 05/15/19 10:20
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**1.5**	**J**	2.0	0.64	ug/m3			05/17/19 19:51	1
Vinyl chloride	ND		0.51	0.37	ug/m3			05/17/19 19:51	1
Xylenes, Total	**1.8**	**J**	3.5	0.52	ug/m3			05/17/19 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*05/17/19 19:51*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.012	ppb v/v
1,1,1-Trichloroethane	0.44	0.065	ug/m3
1,1,2-Trichloroethane	0.080	0.021	ppb v/v
1,1,2-Trichloroethane	0.44	0.11	ug/m3
1,1-Dichloroethane	0.080	0.010	ppb v/v
1,1-Dichloroethane	0.32	0.040	ug/m3
1,1-Dichloroethene	0.080	0.014	ppb v/v
1,1-Dichloroethene	0.32	0.056	ug/m3
1,2,3-Trimethylbenzene	0.080	0.034	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.17	ug/m3
1,2,4-Trichlorobenzene	0.080	0.039	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.29	ug/m3
1,2,4-Trimethylbenzene	0.080	0.025	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.12	ug/m3
1,2-Dichloroethane	0.080	0.019	ppb v/v
1,2-Dichloroethane	0.32	0.077	ug/m3
1,3,5-Trimethylbenzene	0.080	0.026	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.13	ug/m3
Benzene	0.080	0.023	ppb v/v
Benzene	0.26	0.073	ug/m3
Carbon tetrachloride	0.080	0.015	ppb v/v
Carbon tetrachloride	0.50	0.094	ug/m3
Chlorodifluoromethane	0.080	0.015	ppb v/v
Chlorodifluoromethane	0.28	0.053	ug/m3
Chloroform	0.080	0.015	ppb v/v
Chloroform	0.39	0.073	ug/m3
cis-1,2-Dichloroethene	0.080	0.024	ppb v/v
cis-1,2-Dichloroethene	0.32	0.095	ug/m3
Dichlorodifluoromethane	0.080	0.027	ppb v/v
Dichlorodifluoromethane	0.40	0.13	ug/m3
Ethylbenzene	0.080	0.027	ppb v/v
Ethylbenzene	0.35	0.12	ug/m3
Methyl tert-butyl ether	0.40	0.068	ppb v/v
Methyl tert-butyl ether	1.4	0.25	ug/m3
Methylene Chloride	0.40	0.13	ppb v/v
Methylene Chloride	1.4	0.45	ug/m3
Naphthalene	0.040	0.040	ppb v/v
Naphthalene	0.21	0.21	ug/m3
Tetrachloroethene	0.080	0.016	ppb v/v
Tetrachloroethene	0.54	0.11	ug/m3
Toluene	0.12	0.12	ppb v/v
Toluene	0.45	0.45	ug/m3
trans-1,2-Dichloroethene	0.080	0.020	ppb v/v
trans-1,2-Dichloroethene	0.32	0.079	ug/m3
Trichloroethene	0.040	0.014	ppb v/v
Trichloroethene	0.21	0.075	ug/m3
Vinyl chloride	0.040	0.029	ppb v/v
Vinyl chloride	0.10	0.074	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (60-140)							
140-15288-1	BLDG-A-INFLUENT	95							
140-15288-1 - DL	BLDG-A-INFLUENT	93							
140-15288-2	BLDG-A-MIDGAC	94							
140-15288-3	BLDG-A-EFFLUENT	93							
140-15288-4	BLDG-C-INFLUENT	99							
140-15288-5	BLDG-C-MIDGAC	95							
140-15288-6	BLDG-C-EFFLUENT	95							
LCS 140-30123/1002	Lab Control Sample	102							
LCS 140-30151/1002	Lab Control Sample	98							
MB 140-30123/4	Method Blank	94							
MB 140-30151/4	Method Blank	91							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-30123/4
Matrix: Air
Analysis Batch: 30123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.023	ppb v/v			05/17/19 15:30	1
Carbon tetrachloride	ND		0.080	0.015	ppb v/v			05/17/19 15:30	1
Chlorodifluoromethane	ND		0.080	0.015	ppb v/v			05/17/19 15:30	1
Chloroform	ND		0.080	0.015	ppb v/v			05/17/19 15:30	1
cis-1,2-Dichloroethene	ND		0.080	0.024	ppb v/v			05/17/19 15:30	1
Dichlorodifluoromethane	ND		0.080	0.027	ppb v/v			05/17/19 15:30	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			05/17/19 15:30	1
1,2-Dichloroethane	ND		0.080	0.019	ppb v/v			05/17/19 15:30	1
1,1-Dichloroethene	ND		0.080	0.014	ppb v/v			05/17/19 15:30	1
Ethylbenzene	ND		0.080	0.027	ppb v/v			05/17/19 15:30	1
Methylene Chloride	ND		0.40	0.13	ppb v/v			05/17/19 15:30	1
Methyl tert-butyl ether	ND		0.40	0.068	ppb v/v			05/17/19 15:30	1
Naphthalene	ND		0.040	0.040	ppb v/v			05/17/19 15:30	1
Tetrachloroethene	ND		0.080	0.016	ppb v/v			05/17/19 15:30	1
Toluene	ND		0.12	0.12	ppb v/v			05/17/19 15:30	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			05/17/19 15:30	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			05/17/19 15:30	1
1,1,1-Trichloroethane	ND		0.080	0.012	ppb v/v			05/17/19 15:30	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			05/17/19 15:30	1
Trichloroethene	ND		0.040	0.014	ppb v/v			05/17/19 15:30	1
1,2,3-Trimethylbenzene	ND		0.080	0.034	ppb v/v			05/17/19 15:30	1
1,2,4-Trimethylbenzene	ND		0.080	0.025	ppb v/v			05/17/19 15:30	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			05/17/19 15:30	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			05/17/19 15:30	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			05/17/19 15:30	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.073	ug/m3			05/17/19 15:30	1
Carbon tetrachloride	ND		0.50	0.094	ug/m3			05/17/19 15:30	1
Chlorodifluoromethane	ND		0.28	0.053	ug/m3			05/17/19 15:30	1
Chloroform	ND		0.39	0.073	ug/m3			05/17/19 15:30	1
cis-1,2-Dichloroethene	ND		0.32	0.095	ug/m3			05/17/19 15:30	1
Dichlorodifluoromethane	ND		0.40	0.13	ug/m3			05/17/19 15:30	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			05/17/19 15:30	1
1,2-Dichloroethane	ND		0.32	0.077	ug/m3			05/17/19 15:30	1
1,1-Dichloroethene	ND		0.32	0.056	ug/m3			05/17/19 15:30	1
Ethylbenzene	ND		0.35	0.12	ug/m3			05/17/19 15:30	1
Methylene Chloride	ND		1.4	0.45	ug/m3			05/17/19 15:30	1
Methyl tert-butyl ether	ND		1.4	0.25	ug/m3			05/17/19 15:30	1
Naphthalene	ND		0.21	0.21	ug/m3			05/17/19 15:30	1
Tetrachloroethene	ND		0.54	0.11	ug/m3			05/17/19 15:30	1
Toluene	ND		0.45	0.45	ug/m3			05/17/19 15:30	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			05/17/19 15:30	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			05/17/19 15:30	1
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			05/17/19 15:30	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			05/17/19 15:30	1
Trichloroethene	ND		0.21	0.075	ug/m3			05/17/19 15:30	1
1,2,3-Trimethylbenzene	ND		0.39	0.17	ug/m3			05/17/19 15:30	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-30123/4
Matrix: Air
Analysis Batch: 30123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.12	ug/m3			05/17/19 15:30	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			05/17/19 15:30	1
Vinyl chloride	ND		0.10	0.074	ug/m3			05/17/19 15:30	1
Xylenes, Total	ND		0.69	0.10	ug/m3			05/17/19 15:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*05/17/19 15:30*	*1*

Lab Sample ID: LCS 140-30123/1002
Matrix: Air
Analysis Batch: 30123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.05		ppb v/v		102	70 - 130
Carbon tetrachloride	2.00	2.17		ppb v/v		108	70 - 130
Chlorodifluoromethane	2.00	2.08		ppb v/v		104	60 - 140
Chloroform	2.00	2.08		ppb v/v		104	70 - 130
cis-1,2-Dichloroethene	2.00	2.06		ppb v/v		103	70 - 130
Dichlorodifluoromethane	2.00	2.10		ppb v/v		105	60 - 140
1,1-Dichloroethane	2.00	2.05		ppb v/v		102	70 - 130
1,2-Dichloroethane	2.00	2.06		ppb v/v		103	70 - 130
1,1-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Ethylbenzene	2.00	1.98		ppb v/v		99	70 - 130
Methylene Chloride	2.00	1.83		ppb v/v		92	70 - 130
Methyl tert-butyl ether	2.00	1.84		ppb v/v		92	60 - 140
Naphthalene	2.00	1.64		ppb v/v		82	60 - 140
Tetrachloroethene	2.00	2.07		ppb v/v		103	70 - 130
Toluene	2.00	2.02		ppb v/v		101	70 - 130
trans-1,2-Dichloroethene	2.00	2.09		ppb v/v		105	70 - 130
1,2,4-Trichlorobenzene	2.00	1.75		ppb v/v		88	60 - 140
1,1,1-Trichloroethane	2.00	2.04		ppb v/v		102	70 - 130
1,1,2-Trichloroethane	2.00	2.03		ppb v/v		102	70 - 130
Trichloroethene	2.00	2.05		ppb v/v		102	70 - 130
1,2,3-Trimethylbenzene	2.00	1.42		ppb v/v		71	70 - 130
1,2,4-Trimethylbenzene	2.00	1.91		ppb v/v		95	70 - 130
1,3,5-Trimethylbenzene	2.00	2.13		ppb v/v		106	70 - 130
Vinyl chloride	2.00	2.06		ppb v/v		103	70 - 130
Xylenes, Total	6.00	6.05		ppb v/v		101	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.54		ug/m3		102	70 - 130
Carbon tetrachloride	13	13.6		ug/m3		108	70 - 130
Chlorodifluoromethane	7.1	7.34		ug/m3		104	60 - 140
Chloroform	9.8	10.2		ug/m3		104	70 - 130
cis-1,2-Dichloroethene	7.9	8.18		ug/m3		103	70 - 130
Dichlorodifluoromethane	9.9	10.4		ug/m3		105	60 - 140
1,1-Dichloroethane	8.1	8.28		ug/m3		102	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30123/1002
Matrix: Air
Analysis Batch: 30123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	8.33		ug/m3		103	70 - 130
1,1-Dichloroethene	7.9	8.10		ug/m3		102	70 - 130
Ethylbenzene	8.7	8.60		ug/m3		99	70 - 130
Methylene Chloride	6.9	6.37		ug/m3		92	70 - 130
Methyl tert-butyl ether	7.2	6.64		ug/m3		92	60 - 140
Naphthalene	10	8.62		ug/m3		82	60 - 140
Tetrachloroethene	14	14.0		ug/m3		103	70 - 130
Toluene	7.5	7.62		ug/m3		101	70 - 130
trans-1,2-Dichloroethene	7.9	8.29		ug/m3		105	70 - 130
1,2,4-Trichlorobenzene	15	13.0		ug/m3		88	60 - 140
1,1,1-Trichloroethane	11	11.1		ug/m3		102	70 - 130
1,1,2-Trichloroethane	11	11.1		ug/m3		102	70 - 130
Trichloroethene	11	11.0		ug/m3		102	70 - 130
1,2,3-Trimethylbenzene	9.8	6.97		ug/m3		71	70 - 130
1,2,4-Trimethylbenzene	9.8	9.38		ug/m3		95	70 - 130
1,3,5-Trimethylbenzene	9.8	10.4		ug/m3		106	70 - 130
Vinyl chloride	5.1	5.27		ug/m3		103	70 - 130
Xylenes, Total	26	26.3		ug/m3		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*

Lab Sample ID: MB 140-30151/4
Matrix: Air
Analysis Batch: 30151

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.023	ppb v/v			05/20/19 11:06	1
Carbon tetrachloride	ND		0.080	0.015	ppb v/v			05/20/19 11:06	1
Chlorodifluoromethane	ND		0.080	0.015	ppb v/v			05/20/19 11:06	1
Chloroform	ND		0.080	0.015	ppb v/v			05/20/19 11:06	1
cis-1,2-Dichloroethene	ND		0.080	0.024	ppb v/v			05/20/19 11:06	1
Dichlorodifluoromethane	ND		0.080	0.027	ppb v/v			05/20/19 11:06	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			05/20/19 11:06	1
1,2-Dichloroethane	ND		0.080	0.019	ppb v/v			05/20/19 11:06	1
1,1-Dichloroethene	ND		0.080	0.014	ppb v/v			05/20/19 11:06	1
Ethylbenzene	ND		0.080	0.027	ppb v/v			05/20/19 11:06	1
Methylene Chloride	ND		0.40	0.13	ppb v/v			05/20/19 11:06	1
Methyl tert-butyl ether	ND		0.40	0.068	ppb v/v			05/20/19 11:06	1
Naphthalene	ND		0.040	0.040	ppb v/v			05/20/19 11:06	1
Tetrachloroethene	ND		0.080	0.016	ppb v/v			05/20/19 11:06	1
Toluene	ND		0.12	0.12	ppb v/v			05/20/19 11:06	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			05/20/19 11:06	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			05/20/19 11:06	1
1,1,1-Trichloroethane	ND		0.080	0.012	ppb v/v			05/20/19 11:06	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			05/20/19 11:06	1
Trichloroethene	ND		0.040	0.014	ppb v/v			05/20/19 11:06	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-30151/4
Matrix: Air
Analysis Batch: 30151

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.034	ppb v/v			05/20/19 11:06	1
1,2,4-Trimethylbenzene	ND		0.080	0.025	ppb v/v			05/20/19 11:06	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			05/20/19 11:06	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			05/20/19 11:06	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			05/20/19 11:06	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.073	ug/m3			05/20/19 11:06	1
Carbon tetrachloride	ND		0.50	0.094	ug/m3			05/20/19 11:06	1
Chlorodifluoromethane	ND		0.28	0.053	ug/m3			05/20/19 11:06	1
Chloroform	ND		0.39	0.073	ug/m3			05/20/19 11:06	1
cis-1,2-Dichloroethene	ND		0.32	0.095	ug/m3			05/20/19 11:06	1
Dichlorodifluoromethane	ND		0.40	0.13	ug/m3			05/20/19 11:06	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			05/20/19 11:06	1
1,2-Dichloroethane	ND		0.32	0.077	ug/m3			05/20/19 11:06	1
1,1-Dichloroethene	ND		0.32	0.056	ug/m3			05/20/19 11:06	1
Ethylbenzene	ND		0.35	0.12	ug/m3			05/20/19 11:06	1
Methylene Chloride	ND		1.4	0.45	ug/m3			05/20/19 11:06	1
Methyl tert-butyl ether	ND		1.4	0.25	ug/m3			05/20/19 11:06	1
Naphthalene	ND		0.21	0.21	ug/m3			05/20/19 11:06	1
Tetrachloroethene	ND		0.54	0.11	ug/m3			05/20/19 11:06	1
Toluene	ND		0.45	0.45	ug/m3			05/20/19 11:06	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			05/20/19 11:06	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			05/20/19 11:06	1
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			05/20/19 11:06	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			05/20/19 11:06	1
Trichloroethene	ND		0.21	0.075	ug/m3			05/20/19 11:06	1
1,2,3-Trimethylbenzene	ND		0.39	0.17	ug/m3			05/20/19 11:06	1
1,2,4-Trimethylbenzene	ND		0.39	0.12	ug/m3			05/20/19 11:06	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			05/20/19 11:06	1
Vinyl chloride	ND		0.10	0.074	ug/m3			05/20/19 11:06	1
Xylenes, Total	ND		0.69	0.10	ug/m3			05/20/19 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*05/20/19 11:06*	*1*

Lab Sample ID: LCS 140-30151/1002
Matrix: Air
Analysis Batch: 30151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.01		ppb v/v		100	70 - 130
Carbon tetrachloride	2.00	2.17		ppb v/v		108	70 - 130
Chlorodifluoromethane	2.00	2.14		ppb v/v		107	60 - 140
Chloroform	2.00	2.07		ppb v/v		103	70 - 130
cis-1,2-Dichloroethene	2.00	2.07		ppb v/v		103	70 - 130
Dichlorodifluoromethane	2.00	2.13		ppb v/v		106	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30151/1002
Matrix: Air
Analysis Batch: 30151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	2.04		ppb v/v		102	70 - 130
1,2-Dichloroethane	2.00	2.00		ppb v/v		100	70 - 130
1,1-Dichloroethene	2.00	1.97		ppb v/v		98	70 - 130
Ethylbenzene	2.00	1.97		ppb v/v		99	70 - 130
Methylene Chloride	2.00	1.78		ppb v/v		89	70 - 130
Methyl tert-butyl ether	2.00	1.86		ppb v/v		93	60 - 140
Naphthalene	2.00	1.77		ppb v/v		89	60 - 140
Tetrachloroethene	2.00	2.04		ppb v/v		102	70 - 130
Toluene	2.00	2.02		ppb v/v		101	70 - 130
trans-1,2-Dichloroethene	2.00	2.07		ppb v/v		104	70 - 130
1,2,4-Trichlorobenzene	2.00	1.90		ppb v/v		95	60 - 140
1,1,1-Trichloroethane	2.00	2.04		ppb v/v		102	70 - 130
1,1,2-Trichloroethane	2.00	2.02		ppb v/v		101	70 - 130
Trichloroethene	2.00	1.96		ppb v/v		98	70 - 130
1,2,3-Trimethylbenzene	2.00	1.48		ppb v/v		74	70 - 130
1,2,4-Trimethylbenzene	2.00	1.98		ppb v/v		99	70 - 130
1,3,5-Trimethylbenzene	2.00	2.24		ppb v/v		112	70 - 130
Vinyl chloride	2.00	2.09		ppb v/v		104	70 - 130
Xylenes, Total	6.00	6.09		ppb v/v		102	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.41		ug/m3		100	70 - 130
Carbon tetrachloride	13	13.6		ug/m3		108	70 - 130
Chlorodifluoromethane	7.1	7.58		ug/m3		107	60 - 140
Chloroform	9.8	10.1		ug/m3		103	70 - 130
cis-1,2-Dichloroethene	7.9	8.19		ug/m3		103	70 - 130
Dichlorodifluoromethane	9.9	10.5		ug/m3		106	60 - 140
1,1-Dichloroethane	8.1	8.26		ug/m3		102	70 - 130
1,2-Dichloroethane	8.1	8.10		ug/m3		100	70 - 130
1,1-Dichloroethene	7.9	7.81		ug/m3		98	70 - 130
Ethylbenzene	8.7	8.57		ug/m3		99	70 - 130
Methylene Chloride	6.9	6.17		ug/m3		89	70 - 130
Methyl tert-butyl ether	7.2	6.70		ug/m3		93	60 - 140
Naphthalene	10	9.29		ug/m3		89	60 - 140
Tetrachloroethene	14	13.8		ug/m3		102	70 - 130
Toluene	7.5	7.61		ug/m3		101	70 - 130
trans-1,2-Dichloroethene	7.9	8.22		ug/m3		104	70 - 130
1,2,4-Trichlorobenzene	15	14.1		ug/m3		95	60 - 140
1,1,1-Trichloroethane	11	11.1		ug/m3		102	70 - 130
1,1,2-Trichloroethane	11	11.0		ug/m3		101	70 - 130
Trichloroethene	11	10.6		ug/m3		98	70 - 130
1,2,3-Trimethylbenzene	9.8	7.27		ug/m3		74	70 - 130
1,2,4-Trimethylbenzene	9.8	9.75		ug/m3		99	70 - 130
1,3,5-Trimethylbenzene	9.8	11.0		ug/m3		112	70 - 130
Vinyl chloride	5.1	5.33		ug/m3		104	70 - 130
Xylenes, Total	26	26.4		ug/m3		102	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30151/1002
Matrix: Air
Analysis Batch: 30151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		60 - 140

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Air - GC/MS VOA

Analysis Batch: 30123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-15288-1	BLDG-A-INFLUENT	Total/NA	Air	TO 15 LL	
140-15288-2	BLDG-A-MIDGAC	Total/NA	Air	TO 15 LL	
140-15288-4	BLDG-C-INFLUENT	Total/NA	Air	TO 15 LL	
140-15288-5	BLDG-C-MIDGAC	Total/NA	Air	TO 15 LL	
140-15288-6	BLDG-C-EFFLUENT	Total/NA	Air	TO 15 LL	
MB 140-30123/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-30123/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 30151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-15288-1 - DL	BLDG-A-INFLUENT	Total/NA	Air	TO 15 LL	
140-15288-3	BLDG-A-EFFLUENT	Total/NA	Air	TO 15 LL	
MB 140-30151/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-30151/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: BLDG-A-INFLUENT
Lab Sample ID: 140-15288-1
Date Collected: 05/14/19 12:45
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30123	05/17/19 16:15	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL	DL	1	20 mL	500 mL	30151	05/20/19 11:49	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG-A-MIDGAC
Lab Sample ID: 140-15288-2
Date Collected: 05/14/19 12:52
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30123	05/17/19 16:57	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG-A-EFFLUENT
Lab Sample ID: 140-15288-3
Date Collected: 05/14/19 12:59
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30151	05/20/19 12:34	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG-C-INFLUENT
Lab Sample ID: 140-15288-4
Date Collected: 05/14/19 12:12
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30123	05/17/19 18:24	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG-C-MIDGAC
Lab Sample ID: 140-15288-5
Date Collected: 05/14/19 12:20
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30123	05/17/19 19:07	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG-C-EFFLUENT
Lab Sample ID: 140-15288-6
Date Collected: 05/14/19 12:25
Matrix: Air
Date Received: 05/15/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30123	05/17/19 19:51	S1K	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: Method Blank
Lab Sample ID: MB 140-30123/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30123	05/17/19 15:30	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-30151/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30151	05/20/19 11:06	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-30123/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30123	05/17/19 12:10	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-30151/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30151	05/20/19 09:41	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:
TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-15288-1
Project/Site: Lockheed Martin MRC, Middle River

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-15288-1	BLDG-A-INFLUENT	Air	05/14/19 12:45	05/15/19 10:20	Air Canister (1-Liter) #10795
140-15288-2	BLDG-A-MIDGAC	Air	05/14/19 12:52	05/15/19 10:20	Air Canister (1-Liter) #11521
140-15288-3	BLDG-A-EFFLUENT	Air	05/14/19 12:59	05/15/19 10:20	Air Canister (1-Liter) #11860
140-15288-4	BLDG-C-INFLUENT	Air	05/14/19 12:12	05/15/19 10:20	Air Canister (1-Liter) #11718
140-15288-5	BLDG-C-MIDGAC	Air	05/14/19 12:20	05/15/19 10:20	Air Canister (1-Liter) #10520
140-15288-6	BLDG-C-EFFLUENT	Air	05/14/19 12:25	05/15/19 10:20	Air Canister (1-Liter) #11800

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
BLDG-A-INFLUENT	140-15288-1	95
BLDG-A-INFLUENT DL	140-15288-1 DL	93
BLDG-A-MIDGAC	140-15288-2	94
BLDG-A-EFFLUENT	140-15288-3	93
BLDG-C-INFLUENT	140-15288-4	99
BLDG-C-MIDGAC	140-15288-5	95
BLDG-C-EFFLUENT	140-15288-6	95
	MB 140-30123/4	94
	MB 140-30151/4	91
	LCS 140-30123/1002	102
	LCS 140-30151/1002	98

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVE17-LCS.d

Lab ID: LCS 140-30123/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.05	102	70-130	
Carbon tetrachloride	2.00	2.17	108	70-130	
Chlorodifluoromethane	2.00	2.08	104	60-140	
Chloroform	2.00	2.08	104	70-130	
cis-1,2-Dichloroethene	2.00	2.06	103	70-130	
Dichlorodifluoromethane	2.00	2.10	105	60-140	
1,1-Dichloroethane	2.00	2.05	102	70-130	
1,2-Dichloroethane	2.00	2.06	103	70-130	
1,1-Dichloroethene	2.00	2.04	102	70-130	
Ethylbenzene	2.00	1.98	99	70-130	
Methylene Chloride	2.00	1.83	92	70-130	
Methyl tert-butyl ether	2.00	1.84	92	60-140	
Naphthalene	2.00	1.64	82	60-140	
Tetrachloroethene	2.00	2.07	103	70-130	
Toluene	2.00	2.02	101	70-130	
trans-1,2-Dichloroethene	2.00	2.09	105	70-130	
1,2,4-Trichlorobenzene	2.00	1.75	88	60-140	
1,1,1-Trichloroethane	2.00	2.04	102	70-130	
1,1,2-Trichloroethane	2.00	2.03	102	70-130	
Trichloroethene	2.00	2.05	102	70-130	
1,2,3-Trimethylbenzene	2.00	1.42	71	70-130	
1,2,4-Trimethylbenzene	2.00	1.91	95	70-130	
1,3,5-Trimethylbenzene	2.00	2.13	106	70-130	
Vinyl chloride	2.00	2.06	103	70-130	
Xylenes, Total	6.00	6.05	101	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVE20-LCS.d

Lab ID: LCS 140-30151/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.01	100	70-130	
Carbon tetrachloride	2.00	2.17	108	70-130	
Chlorodifluoromethane	2.00	2.14	107	60-140	
Chloroform	2.00	2.07	103	70-130	
cis-1,2-Dichloroethene	2.00	2.07	103	70-130	
Dichlorodifluoromethane	2.00	2.13	106	60-140	
1,1-Dichloroethane	2.00	2.04	102	70-130	
1,2-Dichloroethane	2.00	2.00	100	70-130	
1,1-Dichloroethene	2.00	1.97	98	70-130	
Ethylbenzene	2.00	1.97	99	70-130	
Methylene Chloride	2.00	1.78	89	70-130	
Methyl tert-butyl ether	2.00	1.86	93	60-140	
Naphthalene	2.00	1.77	89	60-140	
Tetrachloroethene	2.00	2.04	102	70-130	
Toluene	2.00	2.02	101	70-130	
trans-1,2-Dichloroethene	2.00	2.07	104	70-130	
1,2,4-Trichlorobenzene	2.00	1.90	95	60-140	
1,1,1-Trichloroethane	2.00	2.04	102	70-130	
1,1,2-Trichloroethane	2.00	2.02	101	70-130	
Trichloroethene	2.00	1.96	98	70-130	
1,2,3-Trimethylbenzene	2.00	1.48	74	70-130	
1,2,4-Trimethylbenzene	2.00	1.98	99	70-130	
1,3,5-Trimethylbenzene	2.00	2.24	112	70-130	
Vinyl chloride	2.00	2.09	104	70-130	
Xylenes, Total	6.00	6.09	102	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab File ID: G500BE17.D Lab Sample ID: MB 140-30123/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 05/17/2019 15:30

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-30123/1002	GCCVE17-LCS.d	05/17/2019 12:10
BLDG-A-INFLUENT	140-15288-1	GE17P101.D	05/17/2019 16:15
BLDG-A-MIDGAC	140-15288-2	GE17P102.D	05/17/2019 16:57
BLDG-C-INFLUENT	140-15288-4	GE17P104.D	05/17/2019 18:24
BLDG-C-MIDGAC	140-15288-5	GE17P105.D	05/17/2019 19:07
BLDG-C-EFFLUENT	140-15288-6	GE17P106D.D	05/17/2019 19:51

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab File ID: G500BE20.D Lab Sample ID: MB 140-30151/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 05/20/2019 11:06

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-30151/1002	GCCVE20-LCS.d	05/20/2019 09:41
BLDG-A-INFLUENT DL	140-15288-1 DL	GE20P201.D	05/20/2019 11:49
BLDG-A-EFFLUENT	140-15288-3	GE20P203.D	05/20/2019 12:34

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab File ID: GE16BFB.D BFB Injection Date: 05/16/2019

Instrument ID: MG BFB Injection Time: 18:49

Analysis Batch No.: 30104

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.4	
75	30.0 - 60.0 % of mass 95	50.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	73.2	
175	5.0 - 9.0 % of mass 174	5.1	(6.9) 1
176	95.0 - 101.0 % of mass 174	70.8	(96.8) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-30104/3	GE16IC09.D	05/16/2019	20:05
	IC 140-30104/5	GE16IC10.D	05/16/2019	21:32
	IC 140-30104/8	GE16IC01.D	05/16/2019	23:40
	IC 140-30104/9	GE16IC02.D	05/17/2019	00:23
	IC 140-30104/10	GE16IC03.D	05/17/2019	01:06
	IC 140-30104/11	GE16IC04.D	05/17/2019	01:49
	IC 140-30104/12	GE16IC05.D	05/17/2019	02:34
	IC 140-30104/13	GE16IC06.D	05/17/2019	03:19
	ICIS 140-30104/14	GE16IC07.D	05/17/2019	04:03
	IC 140-30104/15	GE16IC08.D	05/17/2019	04:45
	ICV 140-30104/17	GE16ICV.D	05/17/2019	06:12

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab File ID: GBFBE17.D BFB Injection Date: 05/17/2019

Instrument ID: MG BFB Injection Time: 11:35

Analysis Batch No.: 30123

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	50.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	70.6	
175	5.0 - 9.0 % of mass 174	4.8	(6.8) 1
176	95.0 - 101.0 % of mass 174	69.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-30123/2	GCCVE17.D	05/17/2019	12:10
	LCS 140-30123/1002	GCCVE17-LCS.d	05/17/2019	12:10
	MB 140-30123/4	G500BE17.D	05/17/2019	15:30
BLDG-A-INFLUENT	140-15288-1	GE17P101.D	05/17/2019	16:15
BLDG-A-MIDGAC	140-15288-2	GE17P102.D	05/17/2019	16:57
BLDG-C-INFLUENT	140-15288-4	GE17P104.D	05/17/2019	18:24
BLDG-C-MIDGAC	140-15288-5	GE17P105.D	05/17/2019	19:07
BLDG-C-EFFLUENT	140-15288-6	GE17P106D.D	05/17/2019	19:51

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab File ID: GBFBE20.D BFB Injection Date: 05/20/2019

Instrument ID: MG BFB Injection Time: 09:09

Analysis Batch No.: 30151

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.1	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	75.6	
175	5.0 - 9.0 % of mass 174	5.2	(6.9) 1
176	95.0 - 101.0 % of mass 174	72.8	(96.3) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-30151/2	GCCVE20.D	05/20/2019	09:41
	LCS 140-30151/1002	GCCVE20-LCS.d	05/20/2019	09:41
	MB 140-30151/4	G500BE20.D	05/20/2019	11:06
BLDG-A-INFLUENT DL	140-15288-1 DL	GE20P201.D	05/20/2019	11:49
BLDG-A-EFFLUENT	140-15288-3	GE20P203.D	05/20/2019	12:34

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Sample No.: ICIS 140-30104/14 Date Analyzed: 05/17/2019 04:03

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GE16IC07.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		328809	9.19	1973581	11.36	1744115	16.03
UPPER LIMIT		460333	9.52	2763013	11.69	2441761	16.36
LOWER LIMIT		197285	8.86	1184149	11.03	1046469	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-30104/17		352427	9.18	2232921	11.36	1850171	16.03

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Sample No.: CCVIS 140-30123/2 Date Analyzed: 05/17/2019 12:10

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVE17.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		330809	9.18	2098918	11.36	1721828	16.03
UPPER LIMIT		463133	9.51	2938485	11.69	2410559	16.36
LOWER LIMIT		198485	8.85	1259351	11.03	1033097	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-30123/1002		330809	9.18	2098918	11.36	1721828	16.03
MB 140-30123/4		327525	9.18	2006600	11.35	1753531	16.03
140-15288-1	BLDG-A-INFLUENT	326669	9.18	2077067	11.36	1802490	16.03
140-15288-2	BLDG-A-MIDGAC	330684	9.18	2075927	11.35	1816609	16.03
140-15288-4	BLDG-C-INFLUENT	316467	9.19	2013386	11.36	1636399	16.03
140-15288-5	BLDG-C-MIDGAC	338323	9.18	2215747	11.36	1852062	16.03
140-15288-6	BLDG-C-EFFLUENT	341263	9.19	2186861	11.36	1843246	16.03

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Sample No.: CCVIS 140-30151/2 Date Analyzed: 05/20/2019 09:41

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVE20.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		333407	9.19	2160587	11.36	1754642	16.03
UPPER LIMIT		466770	9.52	3024822	11.69	2456499	16.36
LOWER LIMIT		200044	8.86	1296352	11.03	1052785	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-30151/1002		333407	9.19	2160587	11.36	1754642	16.03
MB 140-30151/4		317151	9.18	2026093	11.36	1736678	16.03
140-15288-1 DL	BLDG-A-INFLUENT DL	314657	9.18	2019262	11.36	1677059	16.03
140-15288-3	BLDG-A-EFFLUENT	314987	9.18	1890962	11.36	1699322	16.03

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT Lab Sample ID: 140-15288-1

Matrix: Air Lab File ID: GE17P101.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:45

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 16:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.8		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.32	J	0.40	0.075
67-66-3	Chloroform	119.38	0.63		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	15		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	3.0		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	0.13	J	0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	18		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	1.6	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	0.083	J	0.40	0.080
108-88-3	Toluene	92.14	1.7		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	0.31	J	0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	78		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	*Trichloroethene*	*131.39*	*160*	*E*	*0.20*	*0.070*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.51	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT Lab Sample ID: 140-15288-1

Matrix: Air Lab File ID: GE17P101.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:45

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 16:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	9.1		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.1	J	1.4	0.27
67-66-3	Chloroform	119.38	3.1		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	61		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	12		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	0.54	J	1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	70		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	5.7	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	0.56	J	2.7	0.54
108-88-3	Toluene	92.14	6.4		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	1.2	J	1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	430		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	*Trichloroethene*	*131.39*	*870*	*E*	*1.1*	*0.38*
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	2.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D
Lims ID: 140-15288-A-1
Client ID: BLDG-A-INFLUENT
Sample Type: Client
Inject. Date: 17-May-2019 16:15:30 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-005
Misc. Info.: 140-15288-a-1
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:28:16 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:29:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.183	0.000	96	326669	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.356	0.001	95	2077067	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	89	1802490	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	1056493	3.81	
6 Chlorodifluoromethane	51	3.818	3.818	0.000	95	12342	0.0649	
8 Dichlorodifluoromethane	85	3.888	3.880	0.005	99	28081	0.0919	
27 1,1-Dichloroethene	96	6.196	6.198	-0.005	96	419199	3.54	
31 Methylene Chloride	84	6.568	6.563	0.005	97	42874	0.3272	
34 trans-1,2-Dichloroethene	96	7.404	7.394	0.006	47	7214	0.0617	
37 1,1-Dichloroethane	63	7.835	7.831	0.000	99	140413	0.6098	
42 cis-1,2-Dichloroethene	96	8.844	8.838	0.000	96	377334	3.10	
44 Chloroform	83	9.194	9.189	0.000	93	30695	0.1254	
47 1,1,1-Trichloroethane	97	10.235	10.235	0.000	96	4114509	15.7	
48 1,2-Dichloroethane	62	10.348	10.343	0.000	93	4444	0.0268	
50 Benzene	78	10.828	10.828	0.000	97	207559	0.5693	
52 Carbon tetrachloride	117	10.860	10.844	0.010	88	3454	0.0143	
58 Trichloroethene	130	12.063	12.057	0.000	99	5176903	32.2	E
67 Toluene	91	14.080	14.080	0.000	94	134136	0.3405	
68 1,1,2-Trichloroethane	83	14.144	14.144	-0.011	8	2389	0.0202	a
73 Tetrachloroethene	129	15.212	15.212	0.000	92	2473	0.0166	
78 Ethylbenzene	91	16.355	16.361	-0.006	97	9554	0.0195	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	27944	0.0740	
83 o-Xylene	91	17.035	17.040	-0.005	97	11047	0.0276	
S 124 Xylenes, Total	100				0		0.1016	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

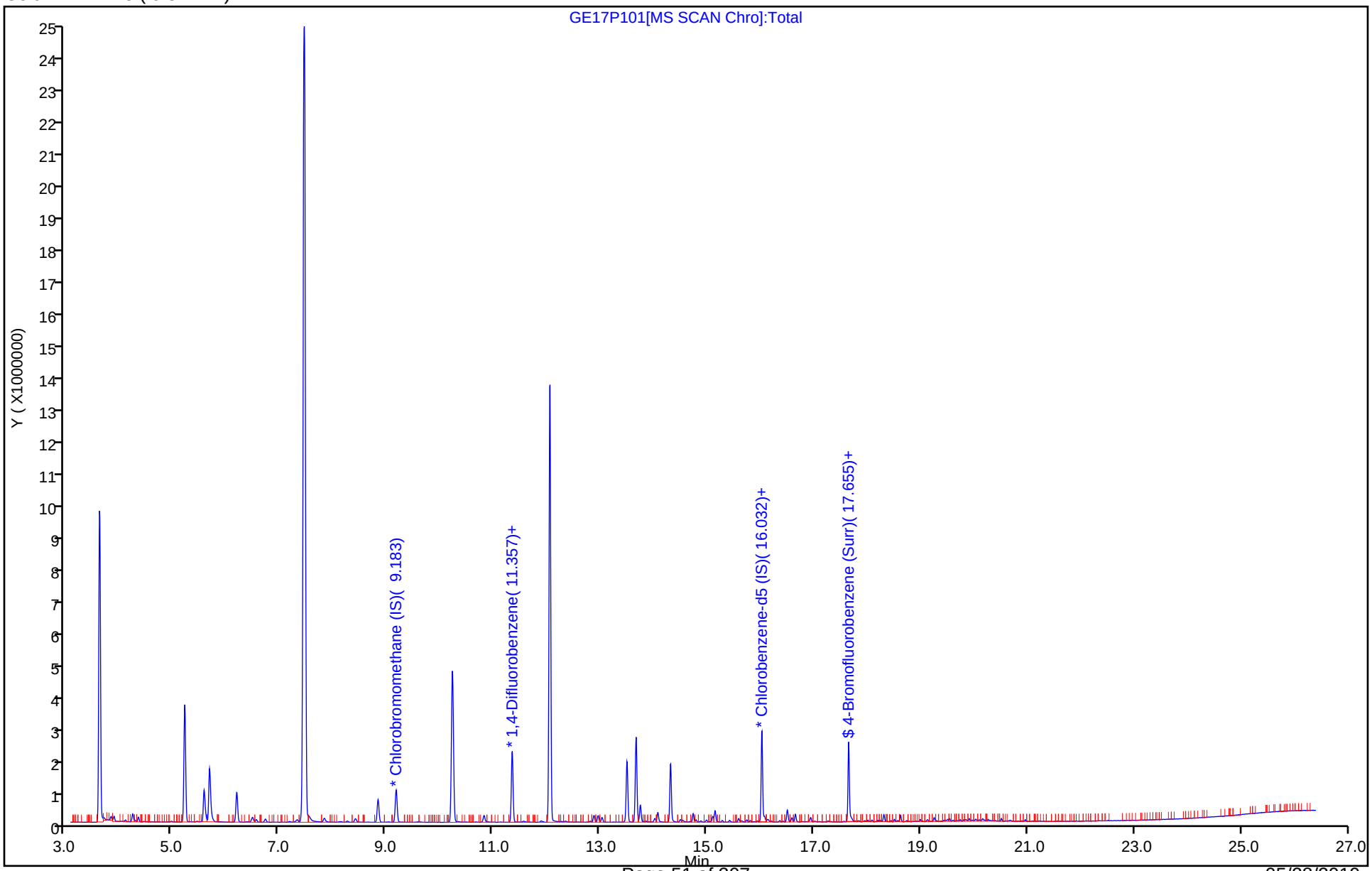
Report Date: 21-May-2019 12:29:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D

Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1	Worklist Smp#:	5
Client ID:	BLDG-A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

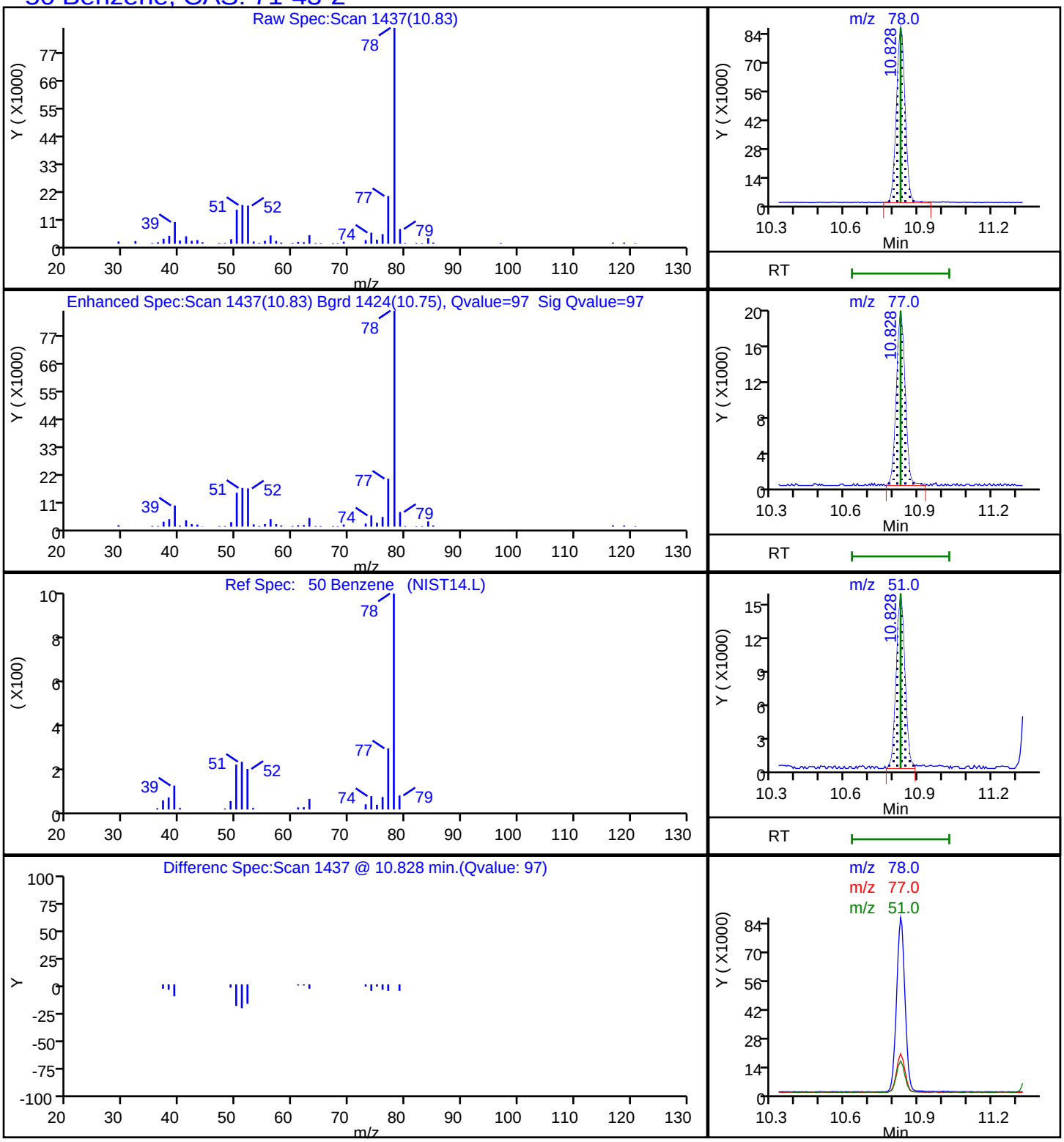
Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D				
Lims ID:	140-15288-A-1				
Client ID:	BLDG-A-INFLUENT				
Sample Type:	Client				
Inject. Date:	17-May-2019 16:15:30	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-005				
Misc. Info.:	140-15288-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:28:16	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				
First Level Reviewer: khachitpongpanits		Date:	21-May-2019 12:29:03		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.81	95.16

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

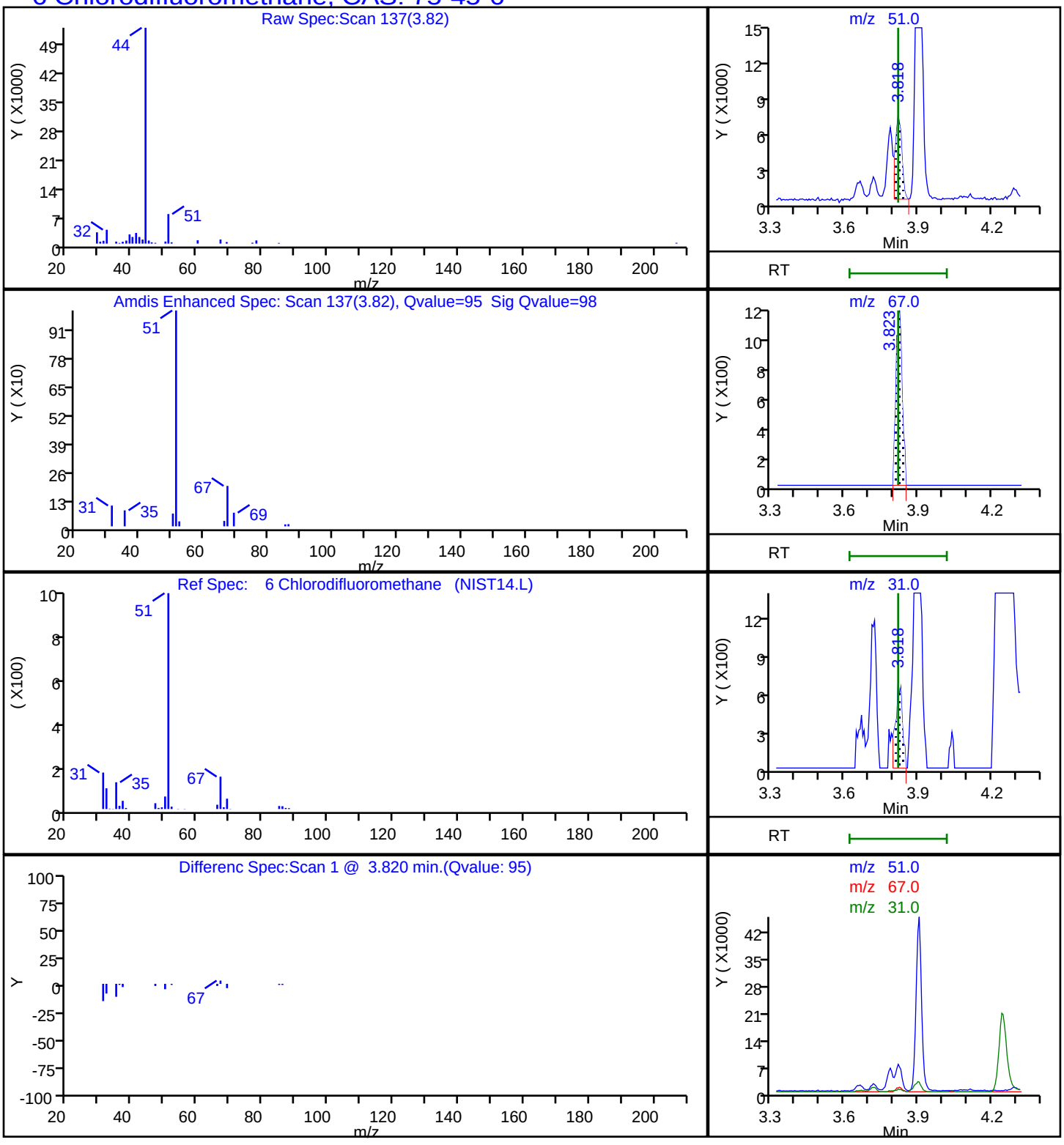


Report Date: 21-May-2019 12:29:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D				
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG		
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
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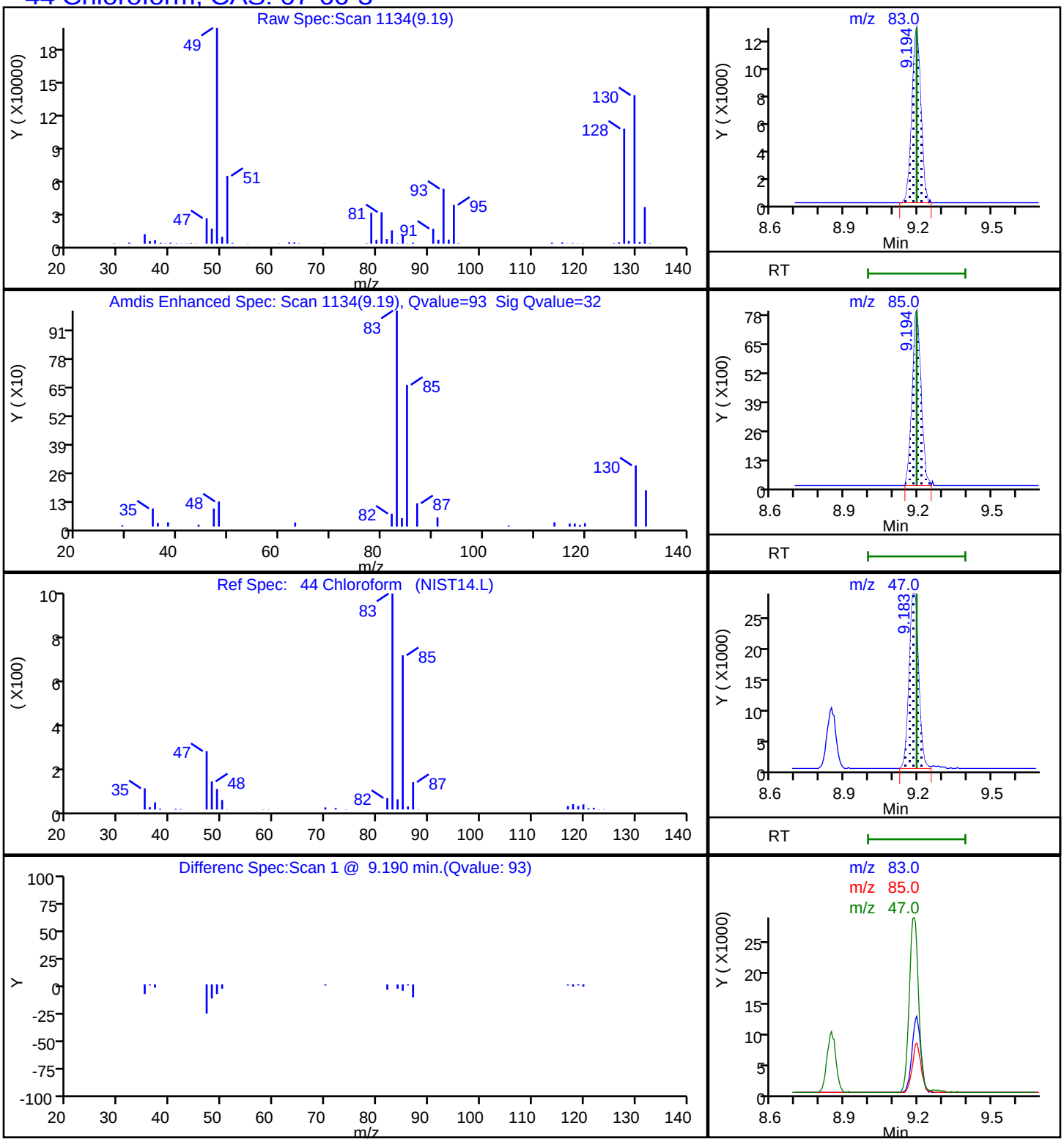
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

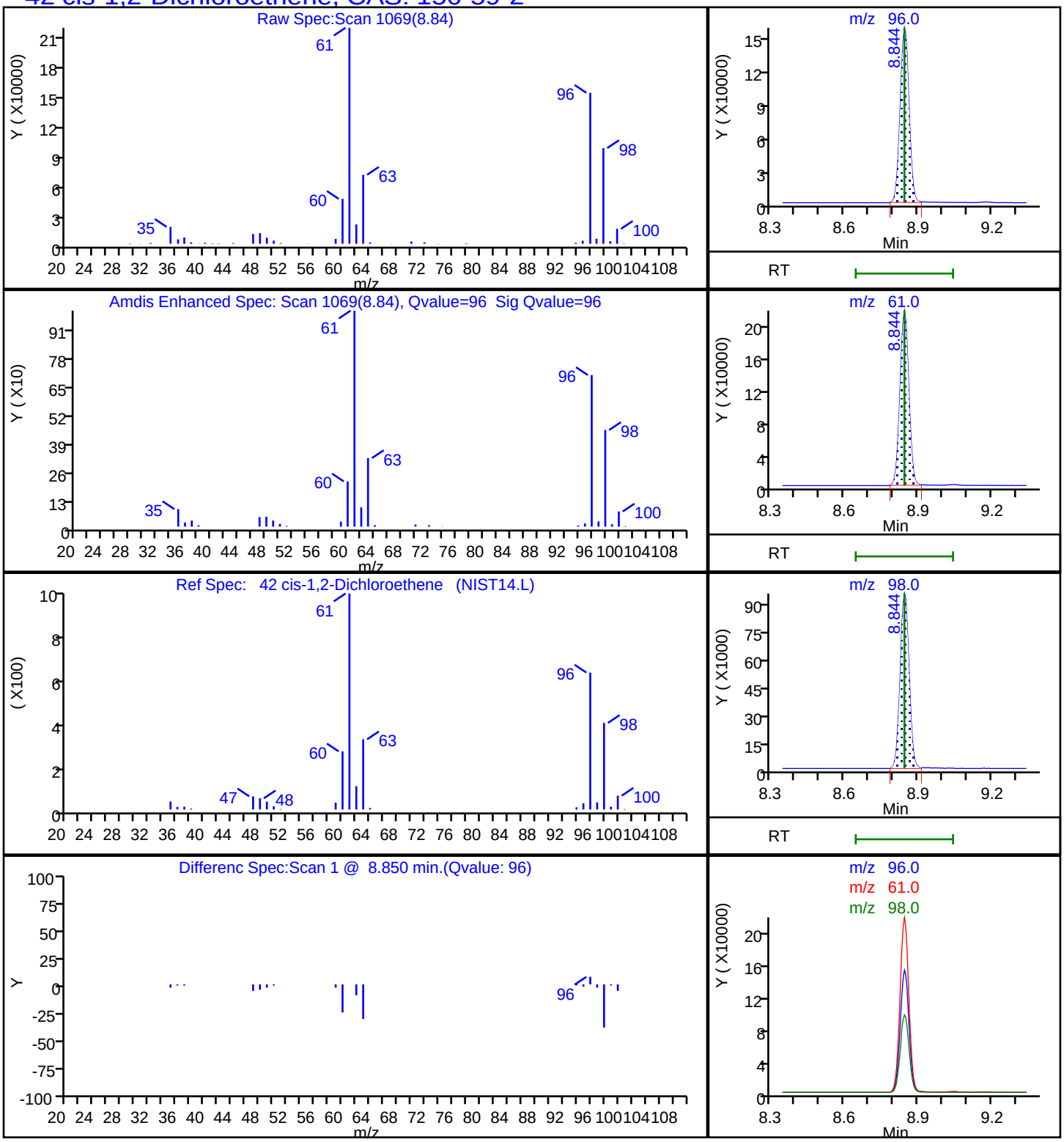
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

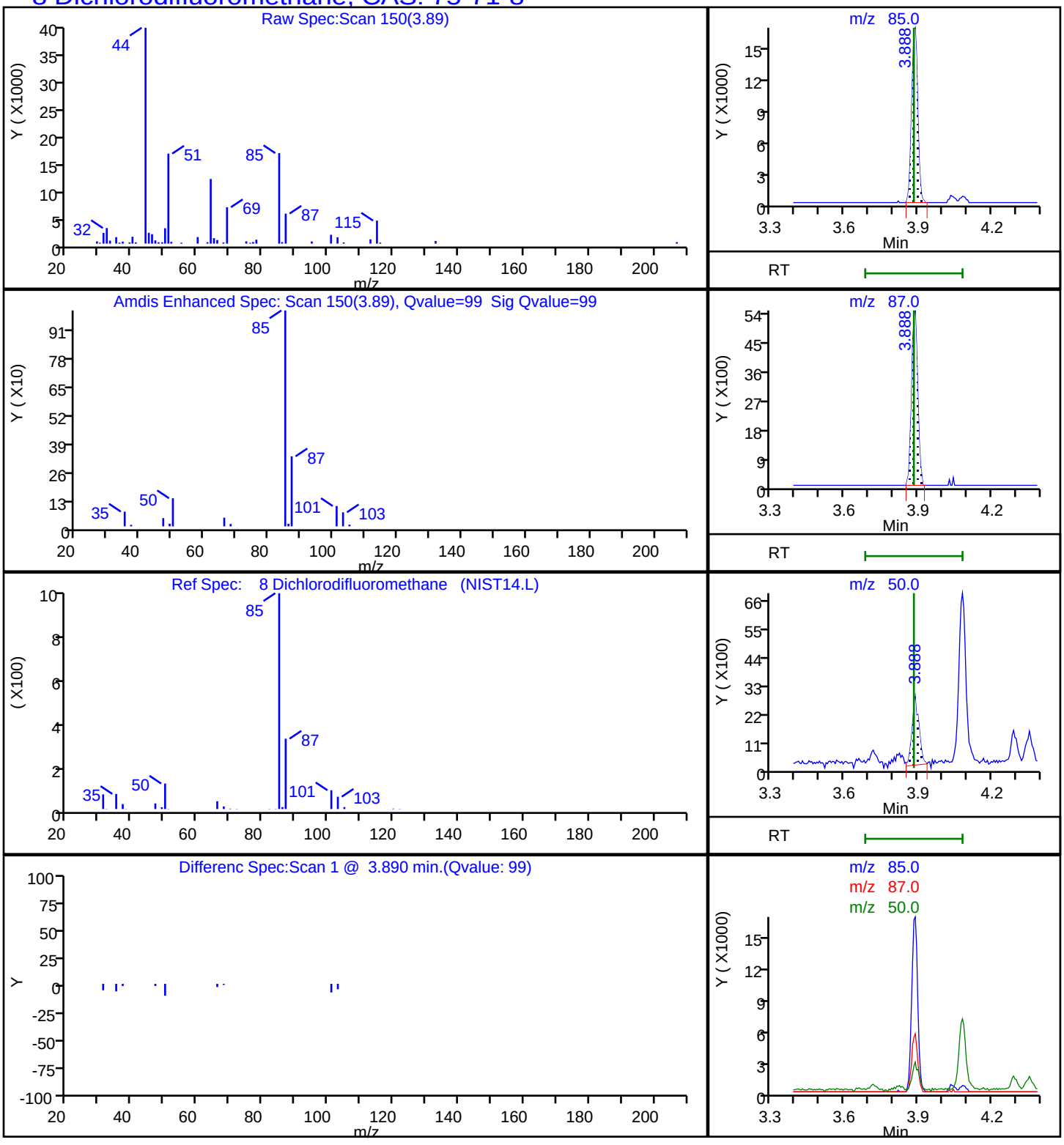
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

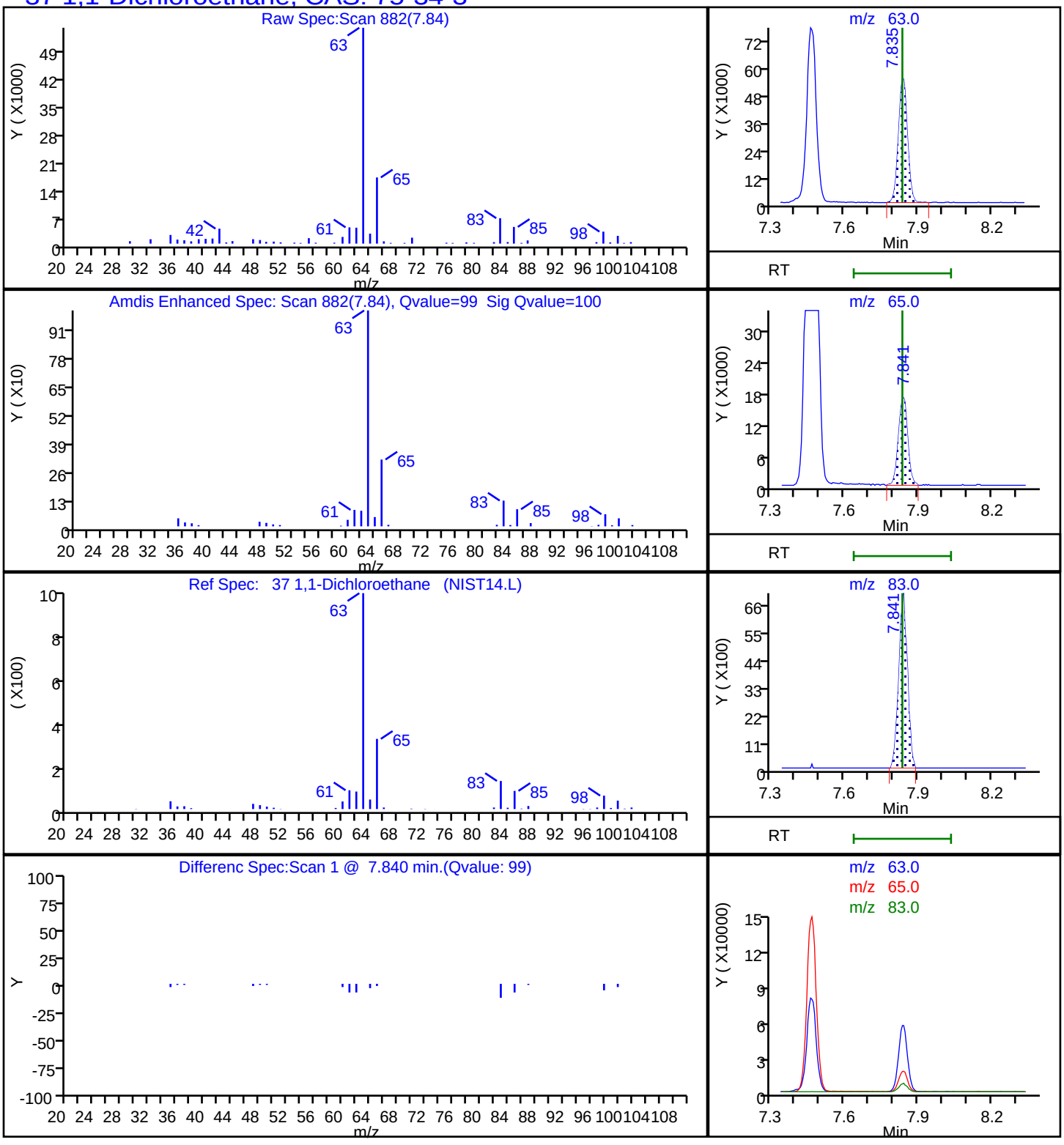


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D

Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG		
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

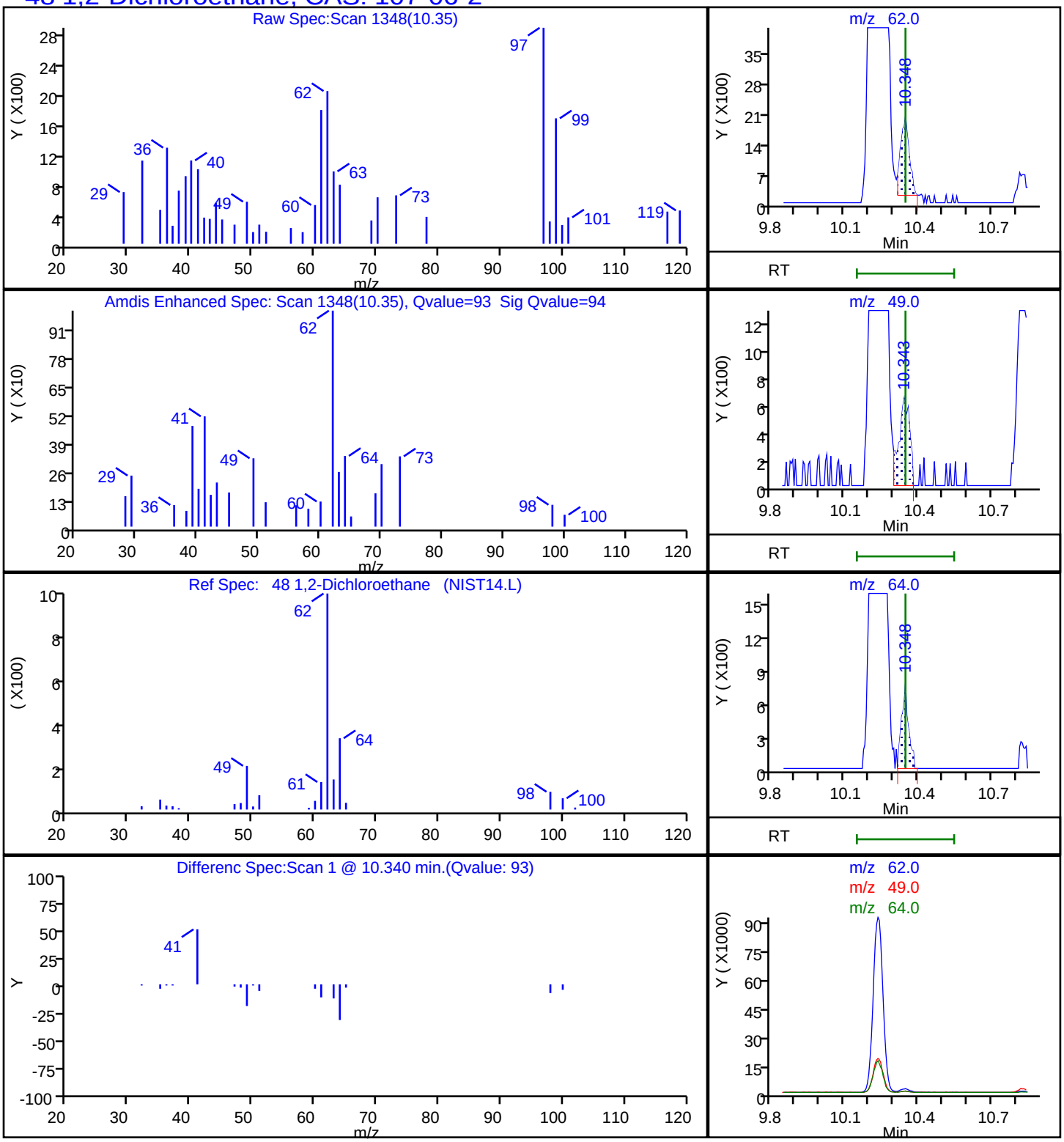
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2

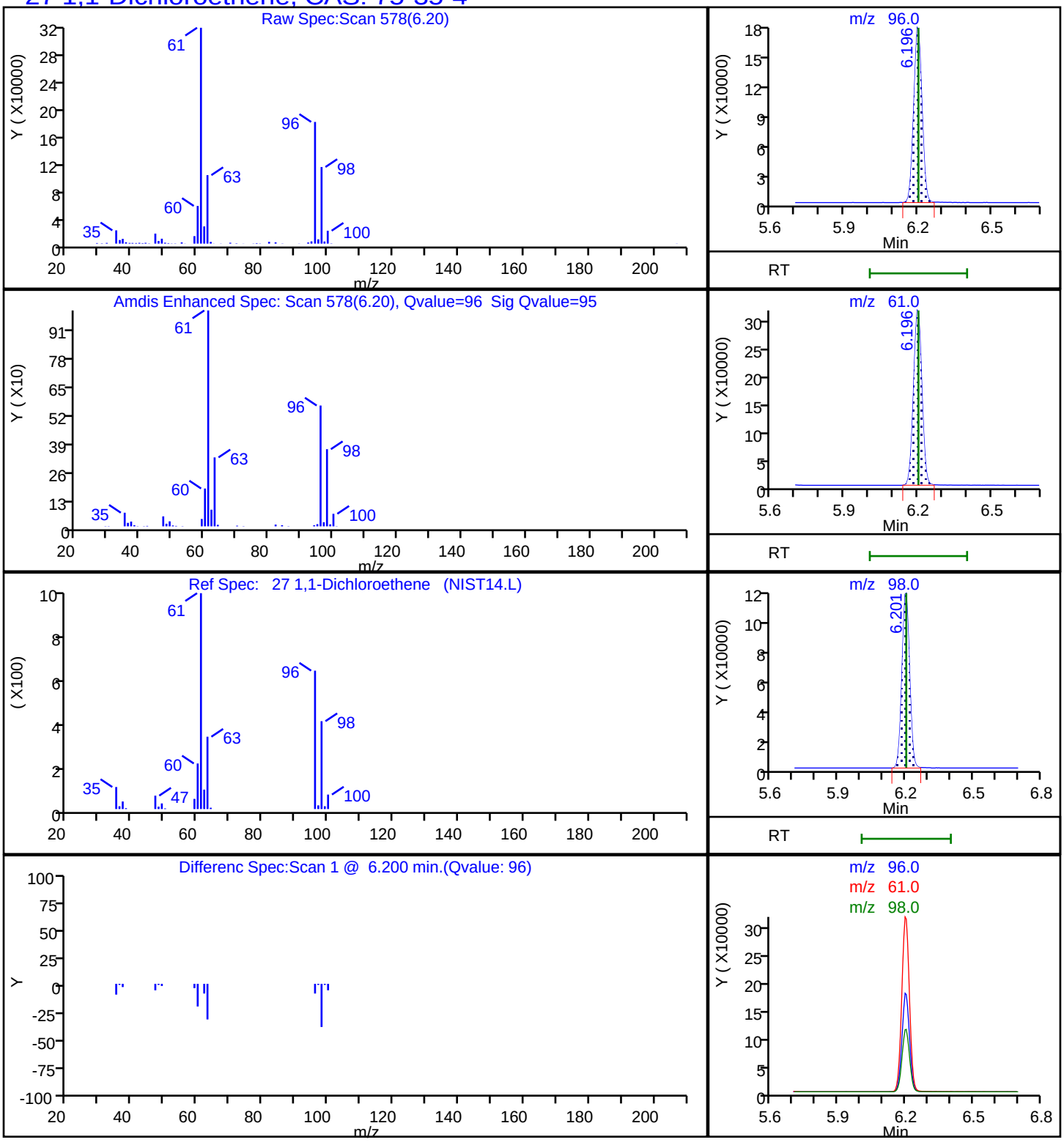


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D

Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
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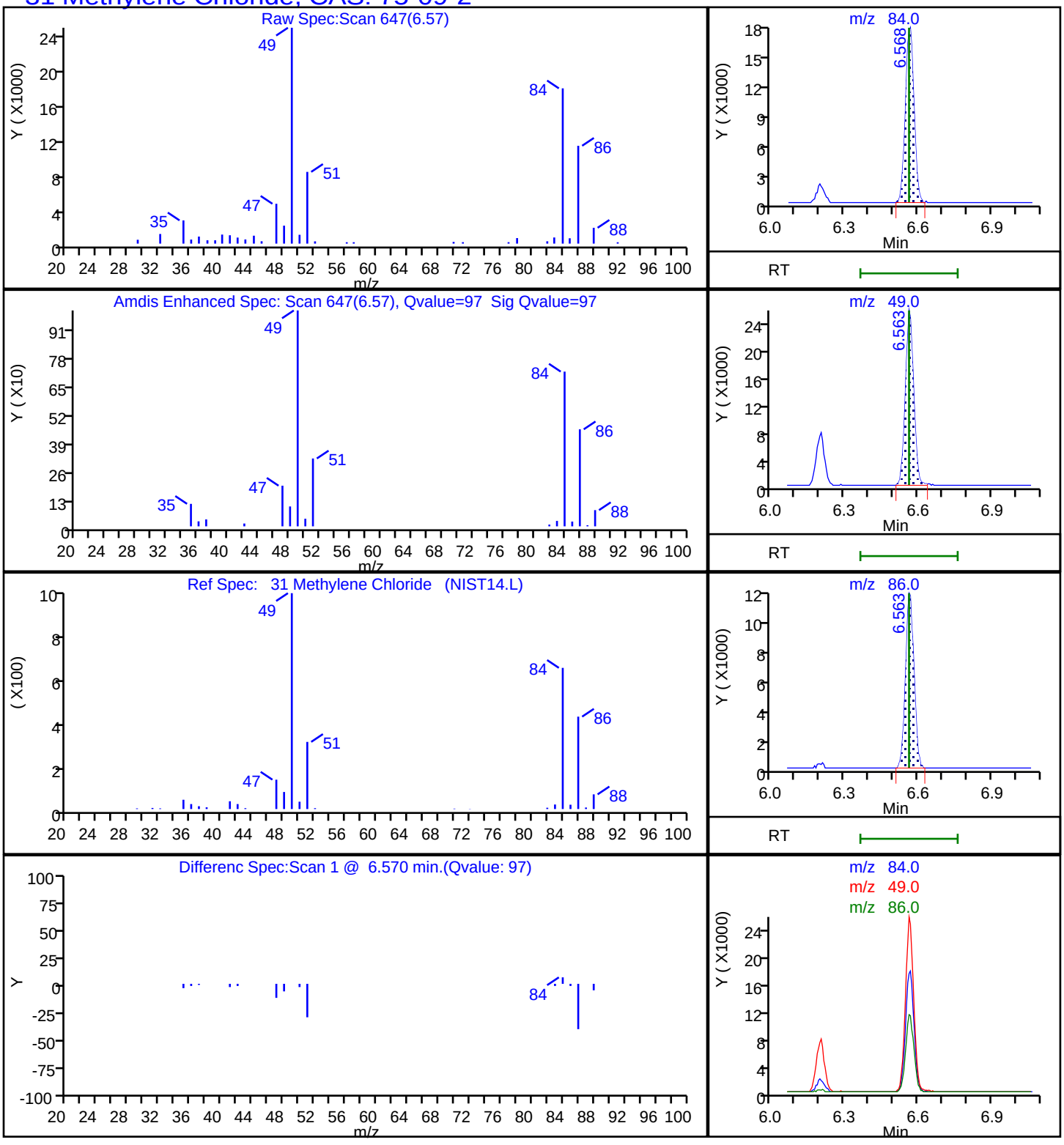
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

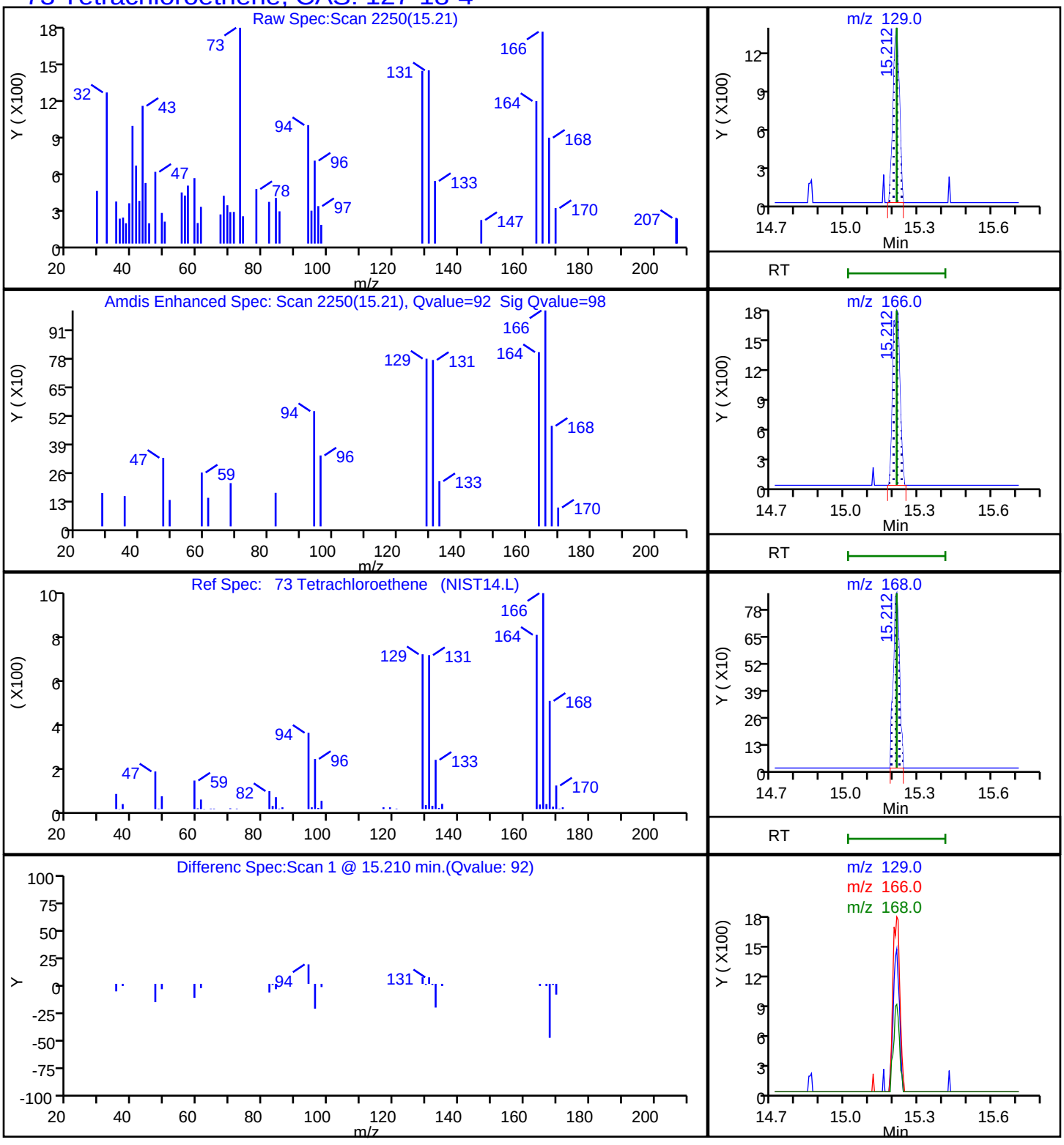
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

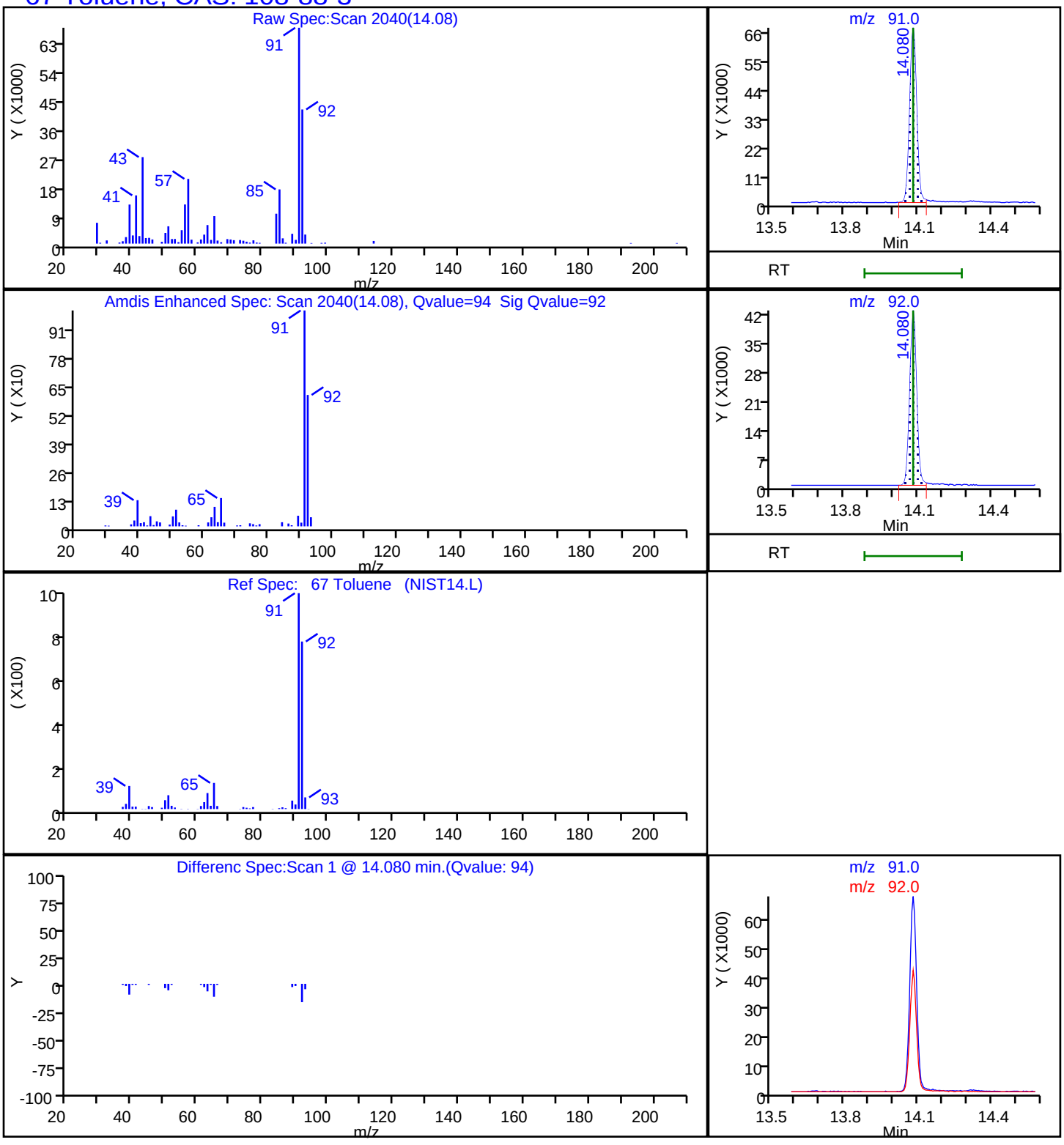
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

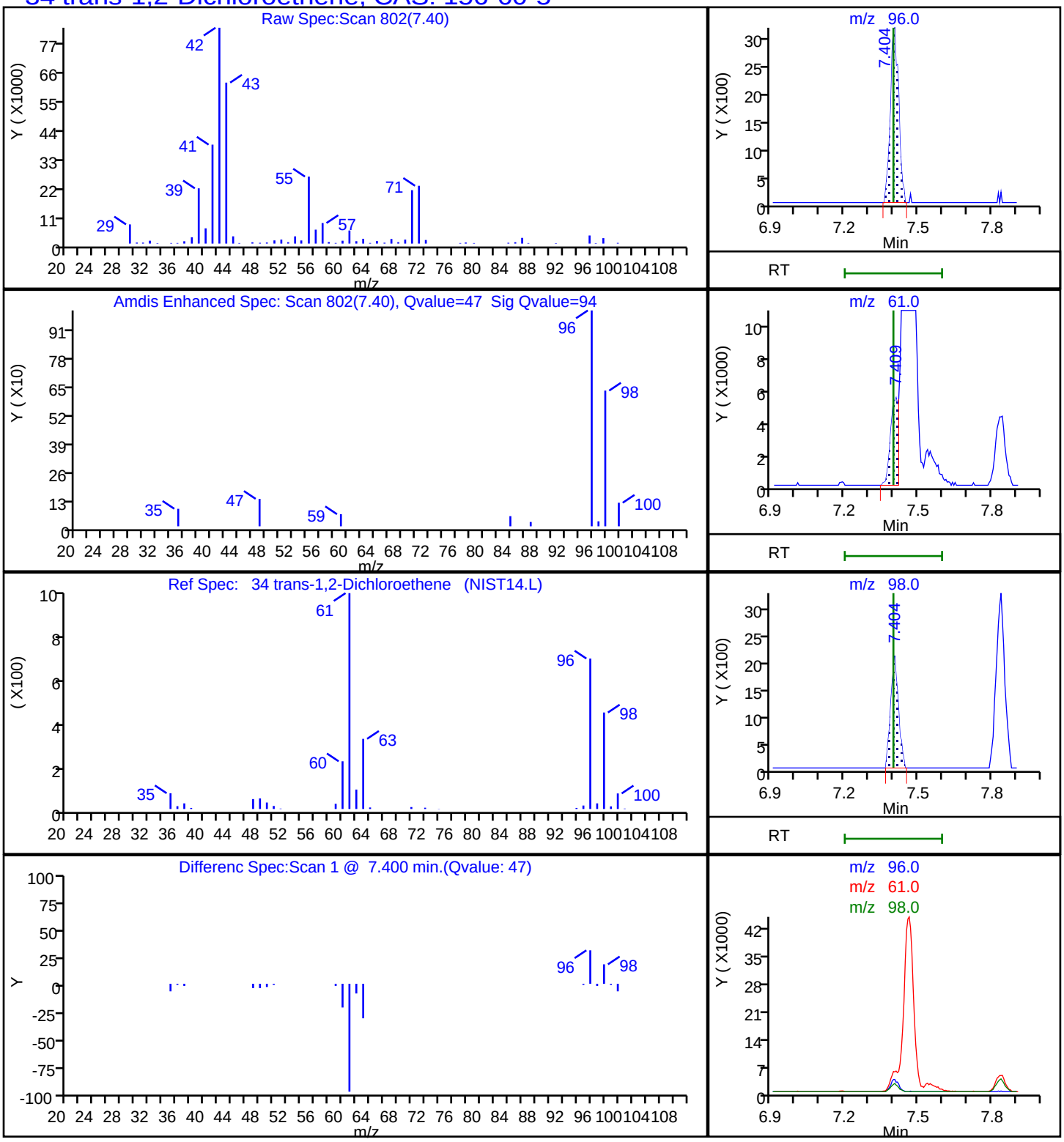
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

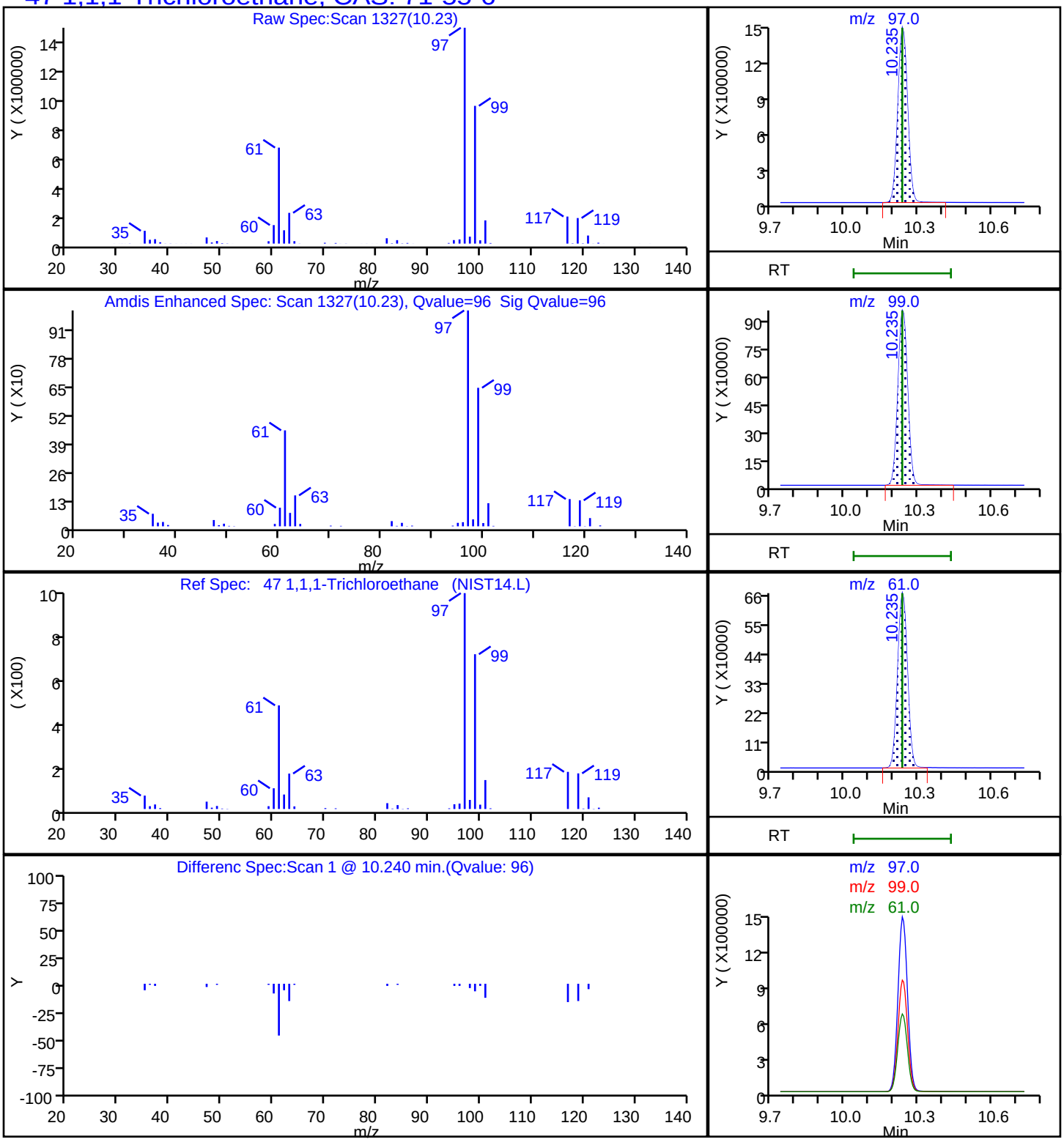
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D

Injection Date: 17-May-2019 16:15:30 Instrument ID: MG

Lims ID: 140-15288-A-1 Lab Sample ID: 140-15288-1

Client ID: BLDG-A-INFLUENT

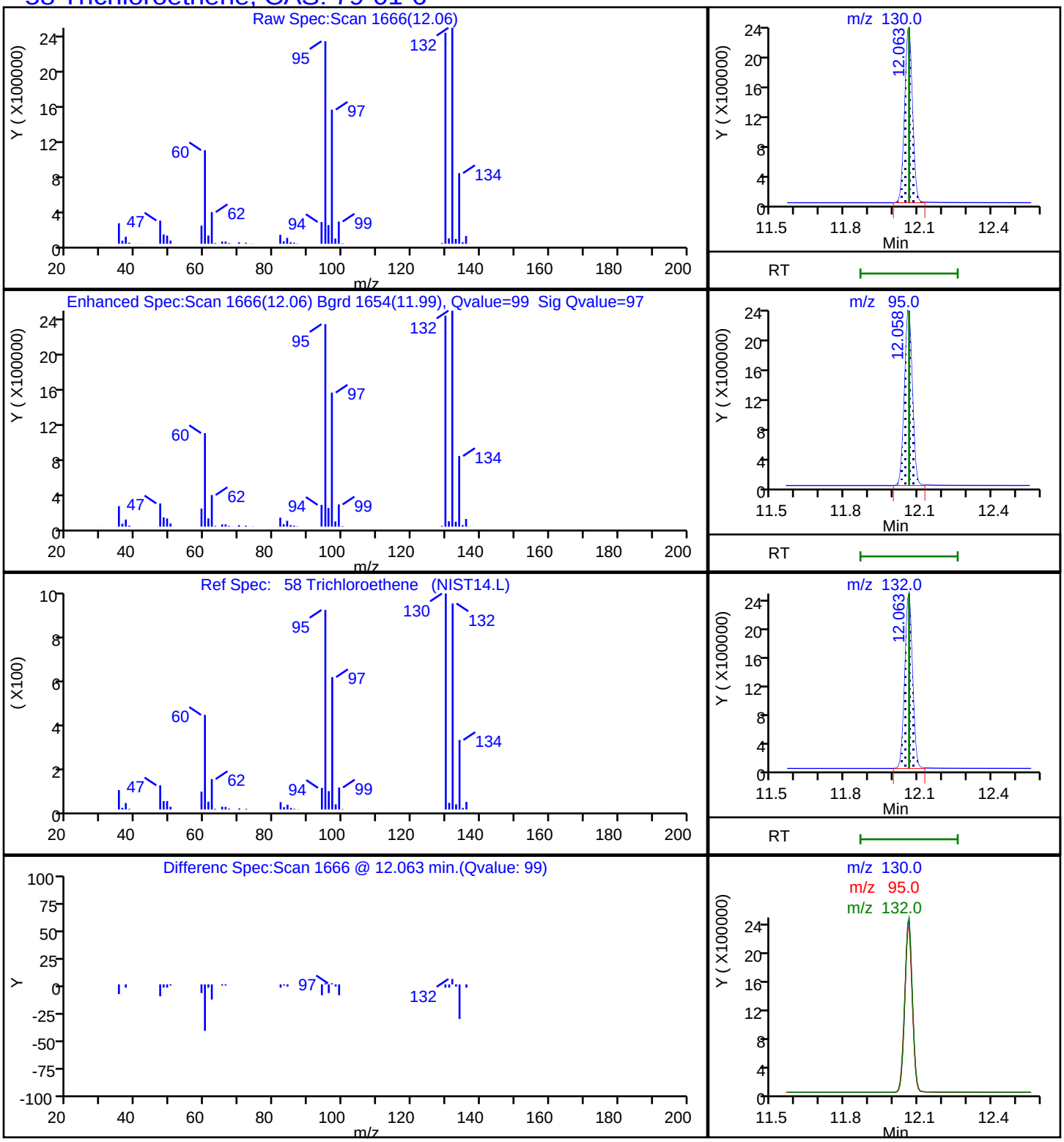
Operator ID: 7126 ALS Bottle#: 1 Worklist Smp#: 5

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6

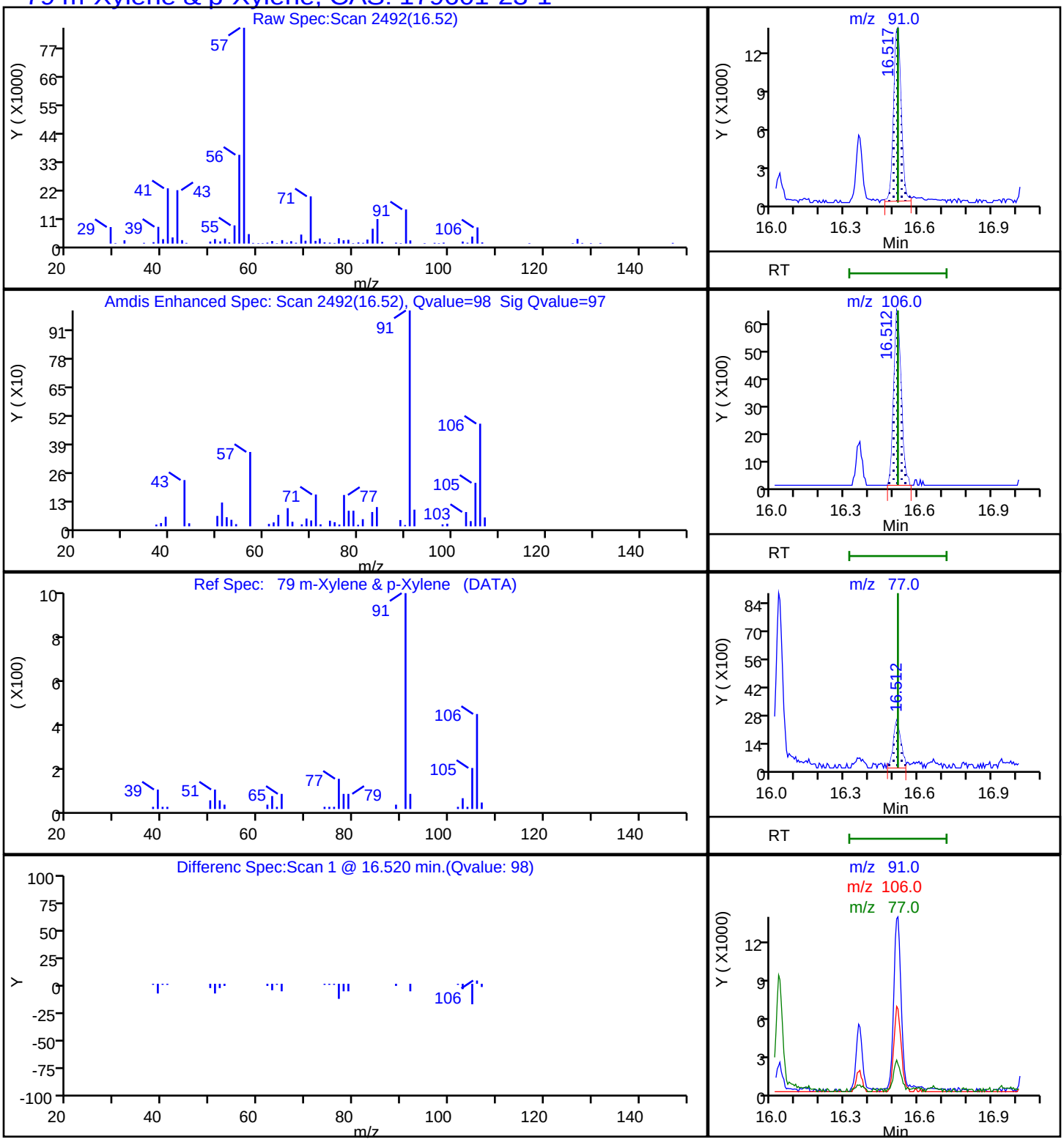


Report Date: 21-May-2019 12:29:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1

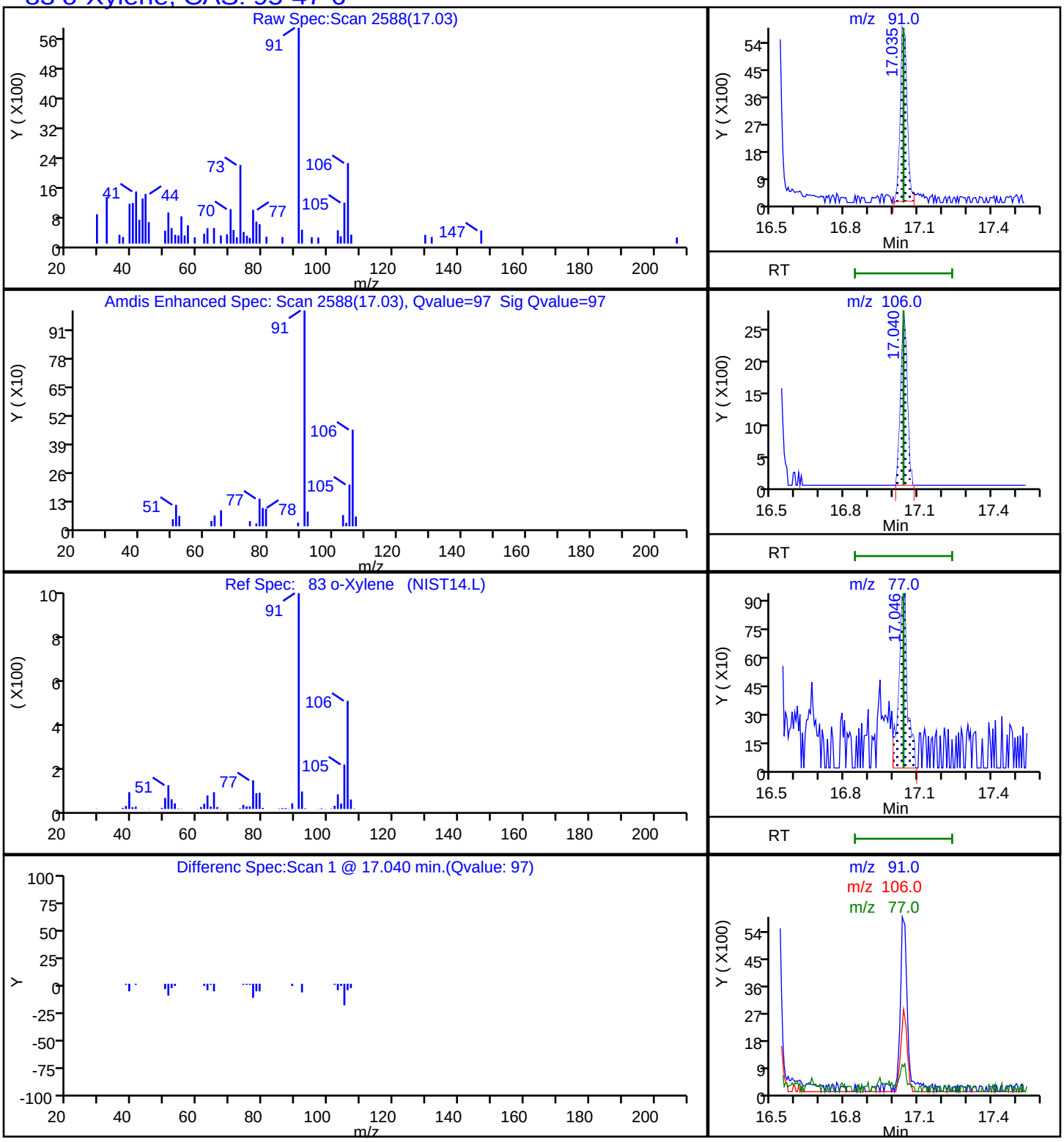


Report Date: 21-May-2019 12:29:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D		
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

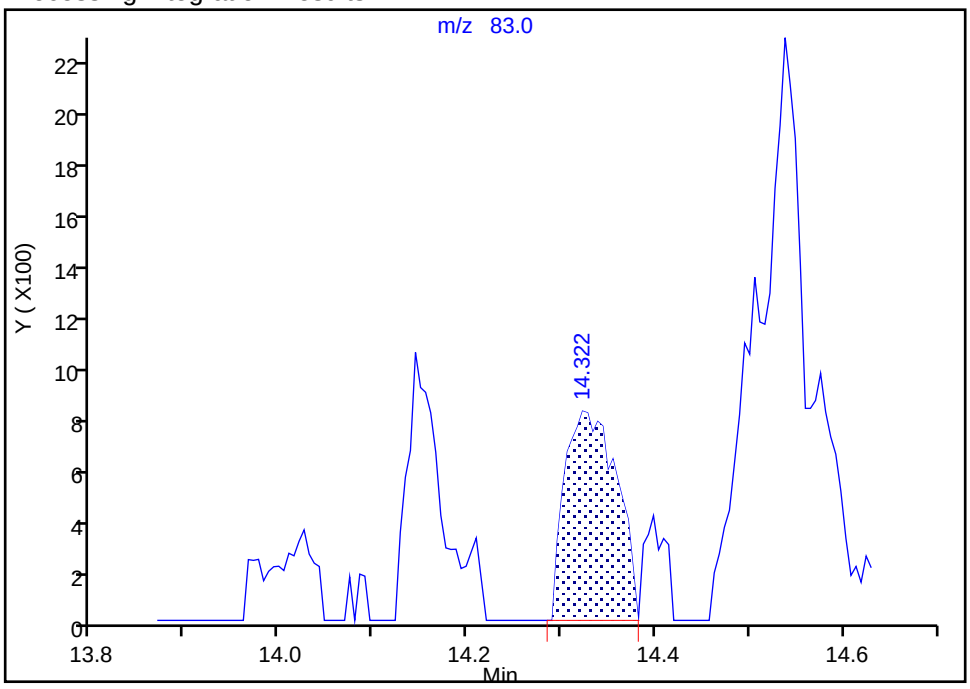
Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P101.D				
Injection Date:	17-May-2019 16:15:30	Instrument ID:	MG		
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1		
Client ID:	BLDG-A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 1

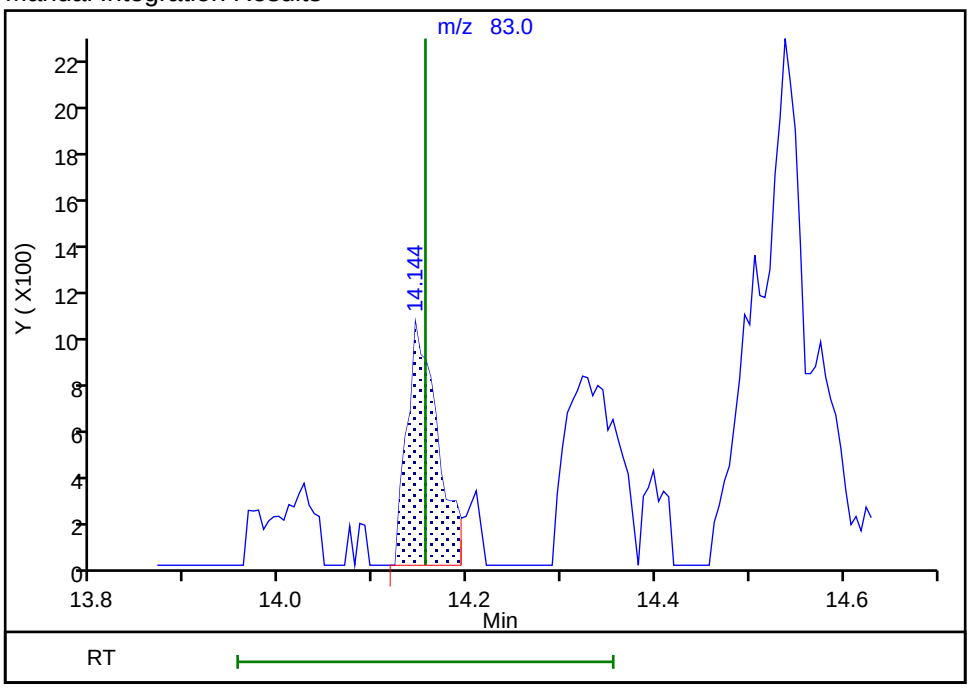
Processing Integration Results

RT: 14.32
Area: 3146
Amount: 0.026584
Amount Units: ppb v/v



Manual Integration Results

RT: 14.14
Area: 2389
Amount: 0.020187
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 21-May-2019 12:27:53

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT DL Lab Sample ID: 140-15288-1 DL

Matrix: Air Lab File ID: GE20P201.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:45

Sample wt/vol: 20(mL) Date Analyzed: 05/20/2019 11:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	150		1.0	0.35

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-INFLUENT DL Lab Sample ID: 140-15288-1 DL

Matrix: Air Lab File ID: GE20P201.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:45

Sample wt/vol: 20(mL) Date Analyzed: 05/20/2019 11:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	131.39	780		5.4	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P201.D
Lims ID: 140-15288-A-1
Client ID: BLDG-A-INFLUENT
Sample Type: Client
Inject. Date: 20-May-2019 11:49:30 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011779-005
Misc. Info.: 140-15288-a-1
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:55:25 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:55:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.189	-0.006	96	314657	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2019262	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	89	1677059	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	962328	3.73	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	93	3368	0.0184	
8 Dichlorodifluoromethane	85	3.893	3.886	0.005	98	6415	0.0218	
27 1,1-Dichloroethene	96	6.207	6.203	0.000	95	78724	0.6898	
31 Methylene Chloride	84	6.568	6.568	0.000	97	45926	0.3638	
34 trans-1,2-Dichloroethene	96	7.398	7.398	-0.011	31	1433	0.0127	a
37 1,1-Dichloroethane	63	7.841	7.836	0.000	100	24229	0.1092	
42 cis-1,2-Dichloroethene	96	8.844	8.844	-0.005	97	65021	0.5542	
44 Chloroform	83	9.194	9.189	0.000	46	5114	0.0217	
47 1,1,1-Trichloroethane	97	10.235	10.240	-0.005	96	756994	2.99	
50 Benzene	78	10.828	10.828	0.000	96	34119	0.0963	
58 Trichloroethene	130	12.057	12.063	-0.006	96	908078	5.82	
67 Toluene	91	14.080	14.080	0.000	94	20123	0.0549	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

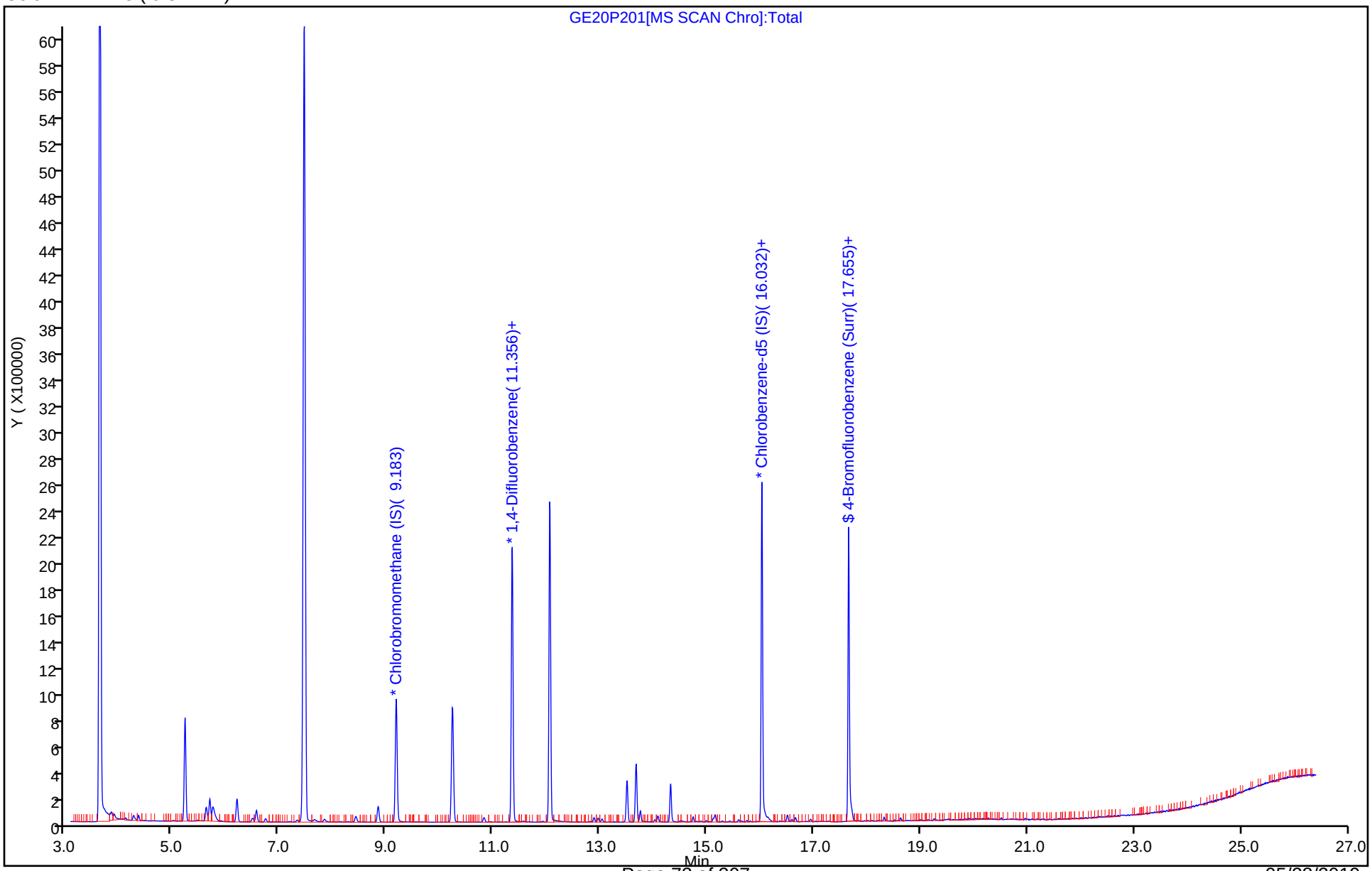
40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 21-May-2019 13:55:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P201.D				
Injection Date:	20-May-2019 11:49:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1	Worklist Smp#:	5
Client ID:	BLDG-A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P201.D				
Lims ID:	140-15288-A-1				
Client ID:	BLDG-A-INFLUENT				
Sample Type:	Client				
Inject. Date:	20-May-2019 11:49:30	ALS Bottle#:	1	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011779-005				
Misc. Info.:	140-15288-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 13:55:25	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

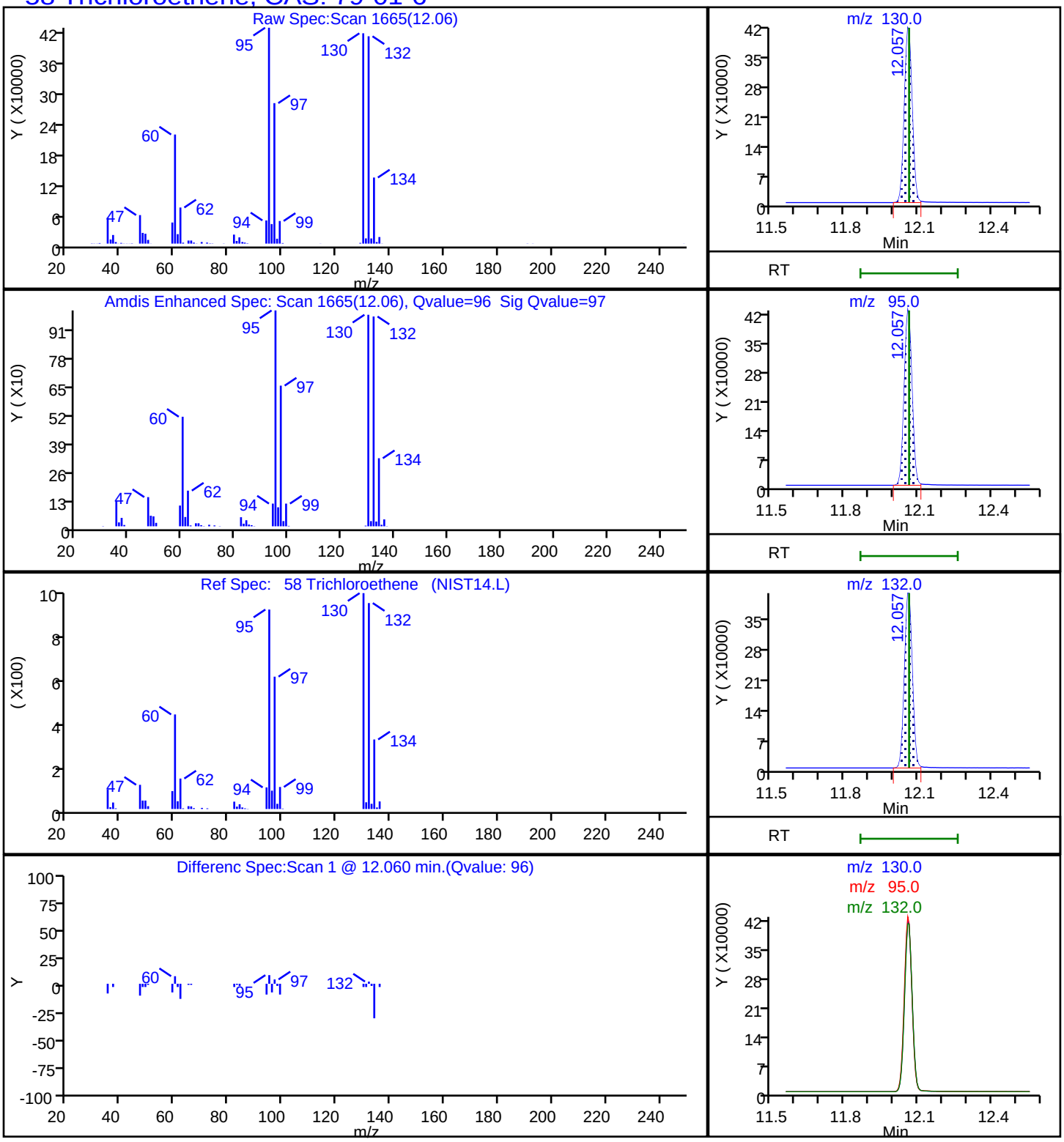
First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:55:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.73	93.16

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P201.D		
Injection Date:	20-May-2019 11:49:30	Instrument ID:	MG
Lims ID:	140-15288-A-1	Lab Sample ID:	140-15288-1
Client ID:	BLDG-A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	1 Worklist Smp#: 5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-MIDGAC Lab Sample ID: 140-15288-2

Matrix: Air Lab File ID: GE17P102.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:52

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.57		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.40		0.40	0.075
67-66-3	Chloroform	119.38	0.78		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	25		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	4.1		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	0.16	J	0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	20		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	0.97	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	0.60		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	0.50		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	52		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	ND		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-MIDGAC Lab Sample ID: 140-15288-2

Matrix: Air Lab File ID: GE17P102.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:52

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.8		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.4		1.4	0.27
67-66-3	Chloroform	119.38	3.8		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	100		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.4		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	17		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	0.65	J	1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	78		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	3.4	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	2.2		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	2.0		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	280		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	ND		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D
Lims ID: 140-15288-A-2
Client ID: BLDG-A-MIDGAC
Sample Type: Client
Inject. Date: 17-May-2019 16:57:30 ALS Bottle#: 2 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-006
Misc. Info.: 140-15288-a-2
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:28:16 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:29:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.183	0.000	98	330684	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.356	-0.005	95	2075927	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.032	-0.006	89	1816609	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	1057307	3.78	
6 Chlorodifluoromethane	51	3.823	3.818	0.005	95	15485	0.0805	
8 Dichlorodifluoromethane	85	3.888	3.880	0.005	100	30509	0.0987	
27 1,1-Dichloroethene	96	6.201	6.198	0.000	96	472608	3.94	
31 Methylene Chloride	84	6.557	6.563	-0.006	96	25637	0.1932	
34 trans-1,2-Dichloroethene	96	7.404	7.394	0.006	90	11750	0.0992	
37 1,1-Dichloroethane	63	7.835	7.831	0.000	100	191831	0.8230	
42 cis-1,2-Dichloroethene	96	8.844	8.838	0.000	96	626166	5.08	
44 Chloroform	83	9.194	9.189	0.000	92	38532	0.1555	
47 1,1,1-Trichloroethane	97	10.235	10.235	0.000	96	2740179	10.3	
48 1,2-Dichloroethane	62	10.343	10.343	-0.005	91	5311	0.0320	
50 Benzene	78	10.828	10.828	0.000	97	41770	0.1146	
67 Toluene	91	14.079	14.080	-0.001	94	47337	0.1192	
73 Tetrachloroethene	129	15.104	15.212	-0.108	31	1067	0.007091	
79 m-Xylene & p-Xylene	91	16.511	16.517	-0.006	96	13135	0.0345	
83 o-Xylene	91	17.040	17.040	0.000	97	6250	0.0155	
S 124 Xylenes, Total	100				0		0.0500	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

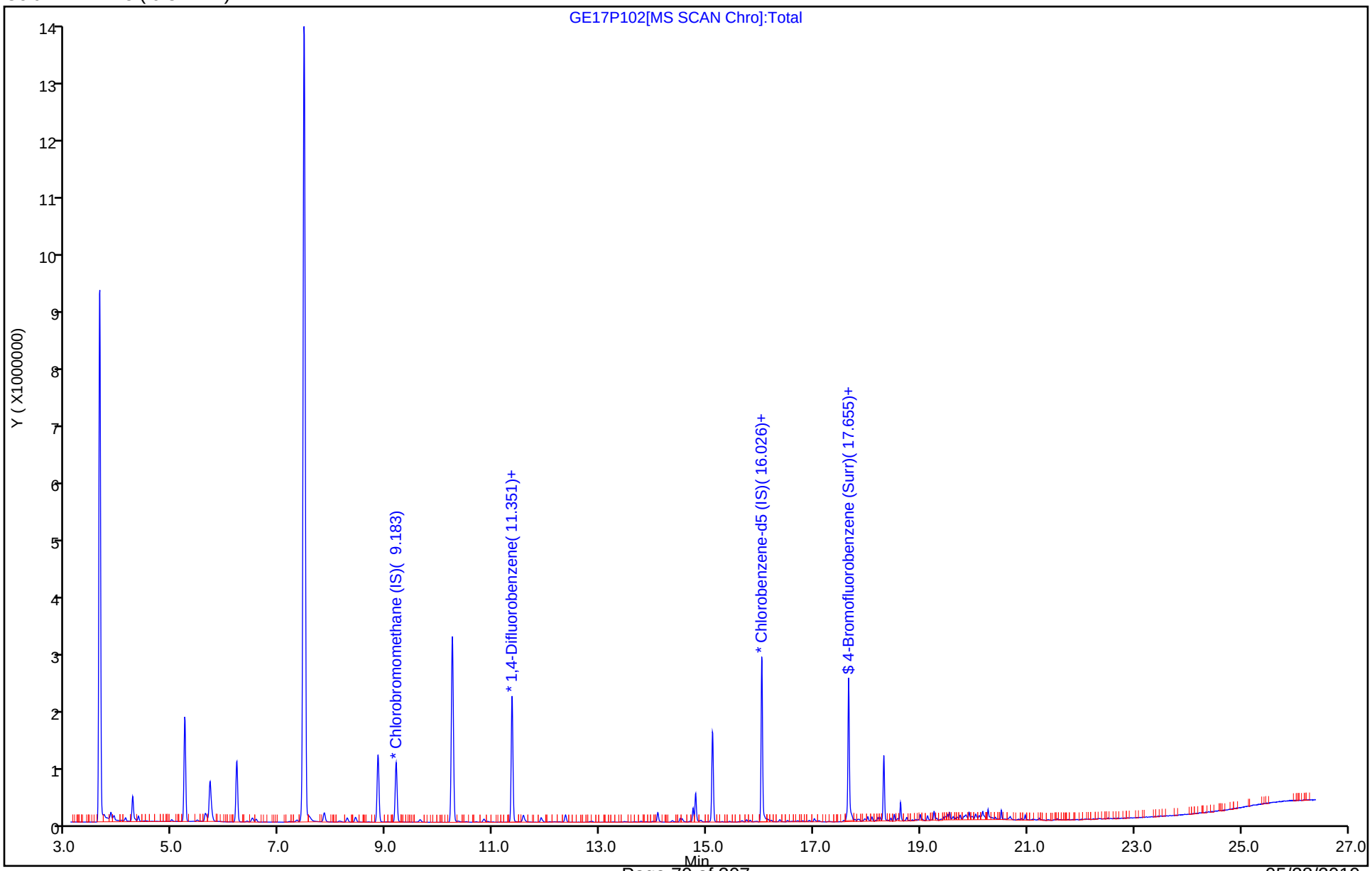
Report Date: 21-May-2019 12:29:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D

Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2	Worklist Smp#:	6
Client ID:	BLDG-A-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D				
Lims ID:	140-15288-A-2				
Client ID:	BLDG-A-MIDGAC				
Sample Type:	Client				
Inject. Date:	17-May-2019 16:57:30	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-006				
Misc. Info.:	140-15288-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:28:16	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

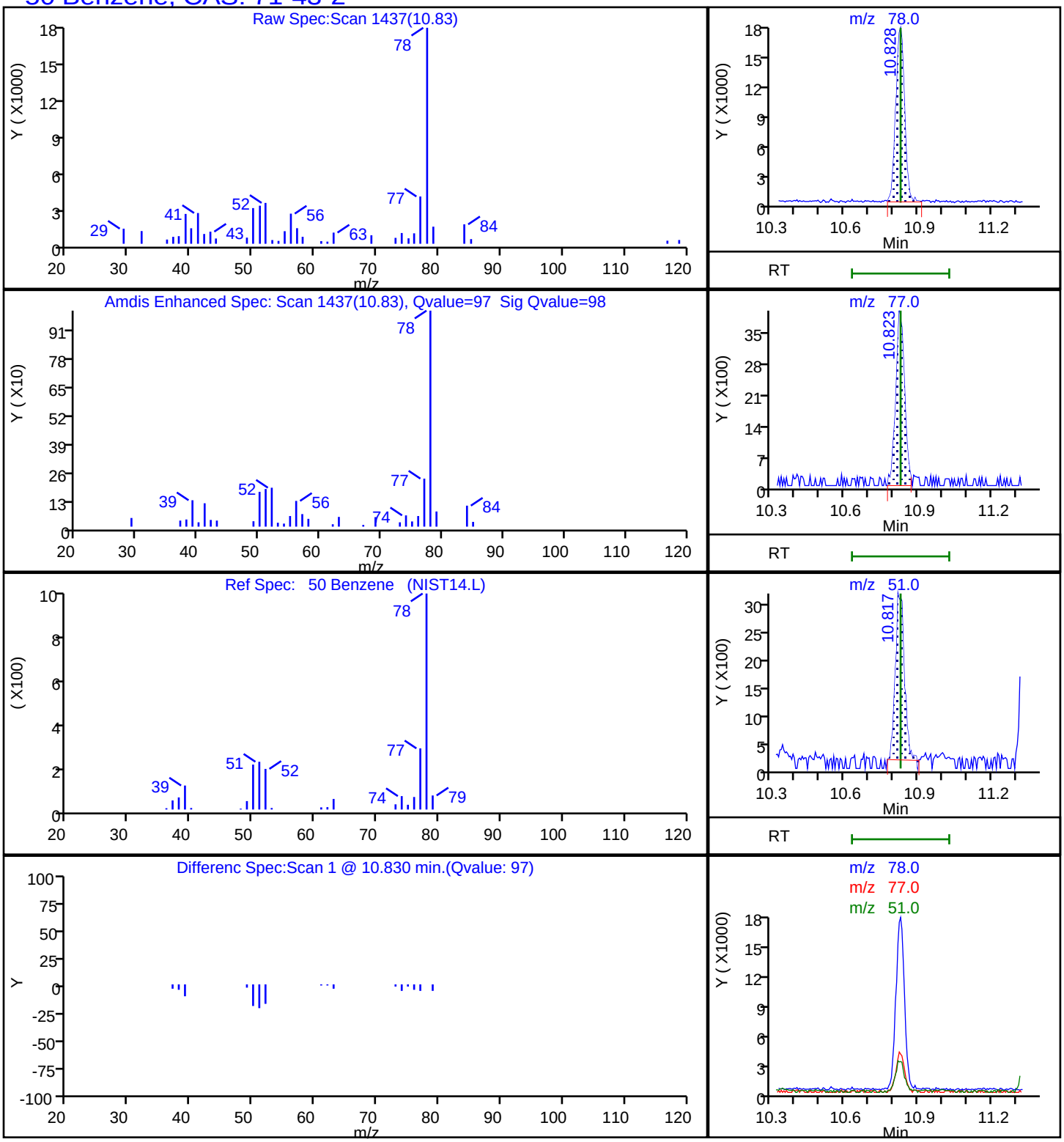
First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:29:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.49

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D				
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG		
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2		
Client ID:	BLDG-A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Benzene, CAS: 71-43-2



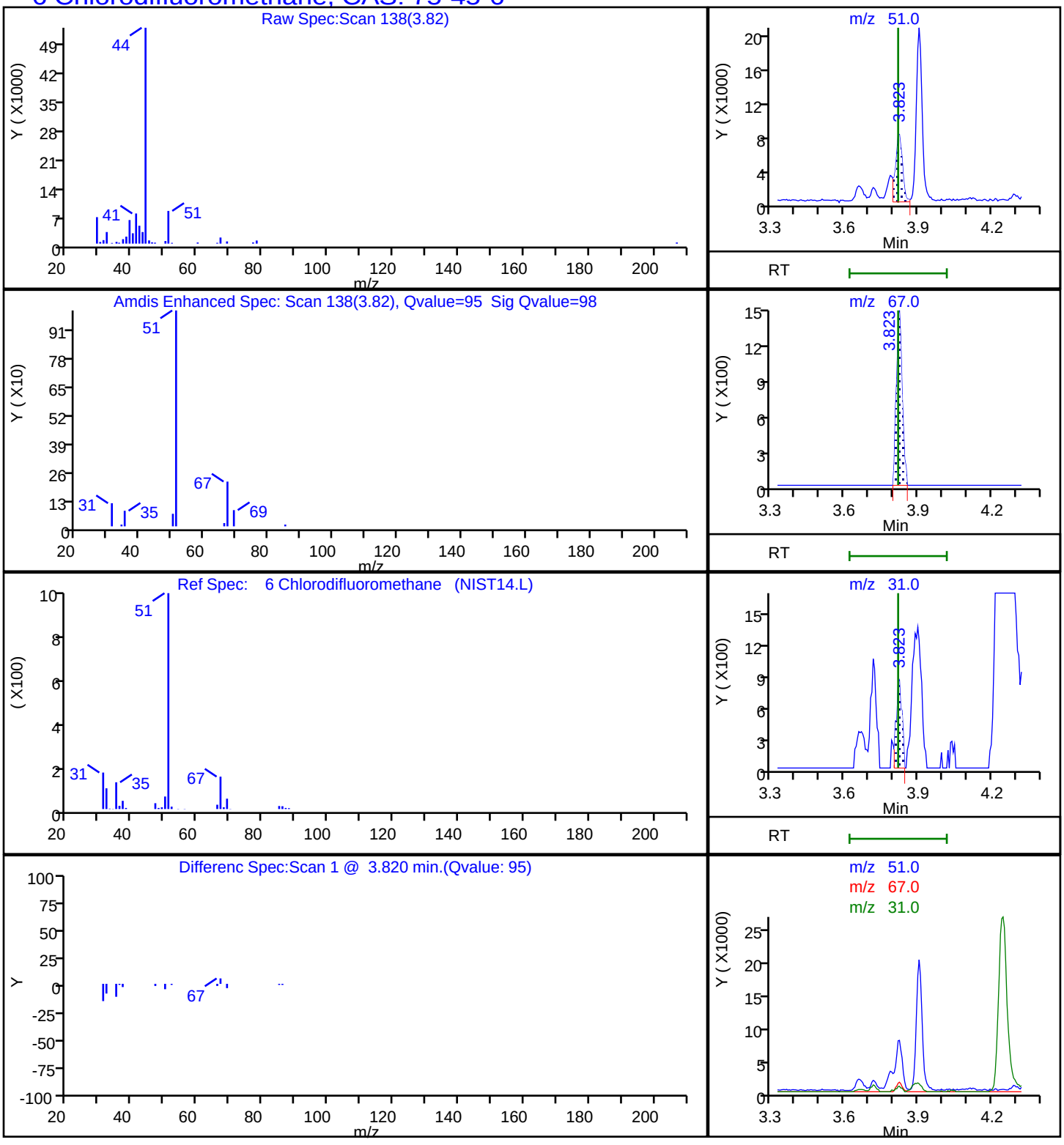
Report Date: 21-May-2019 12:29:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D

Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG		
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2		
Client ID:	BLDG-A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

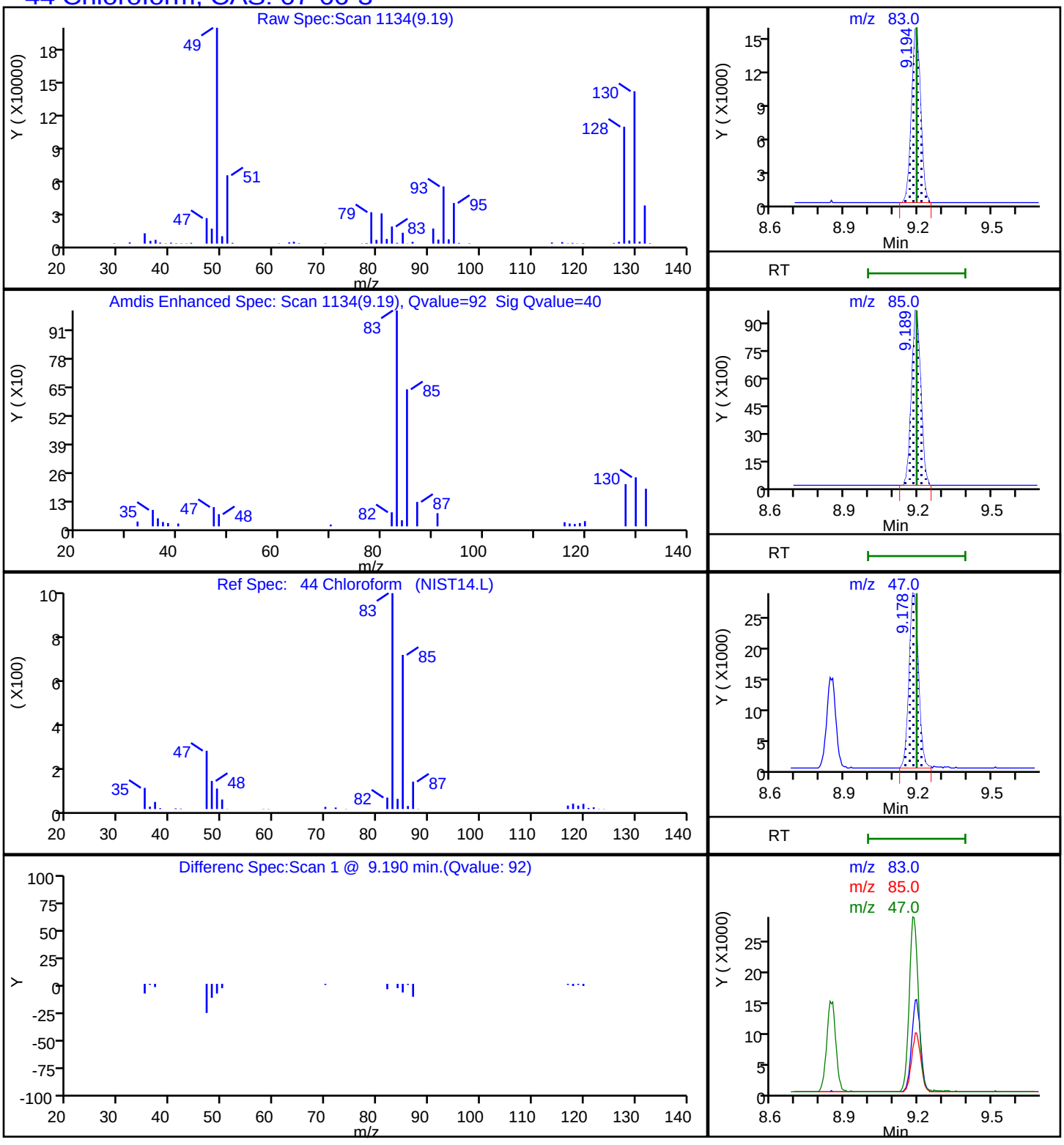


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D

Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

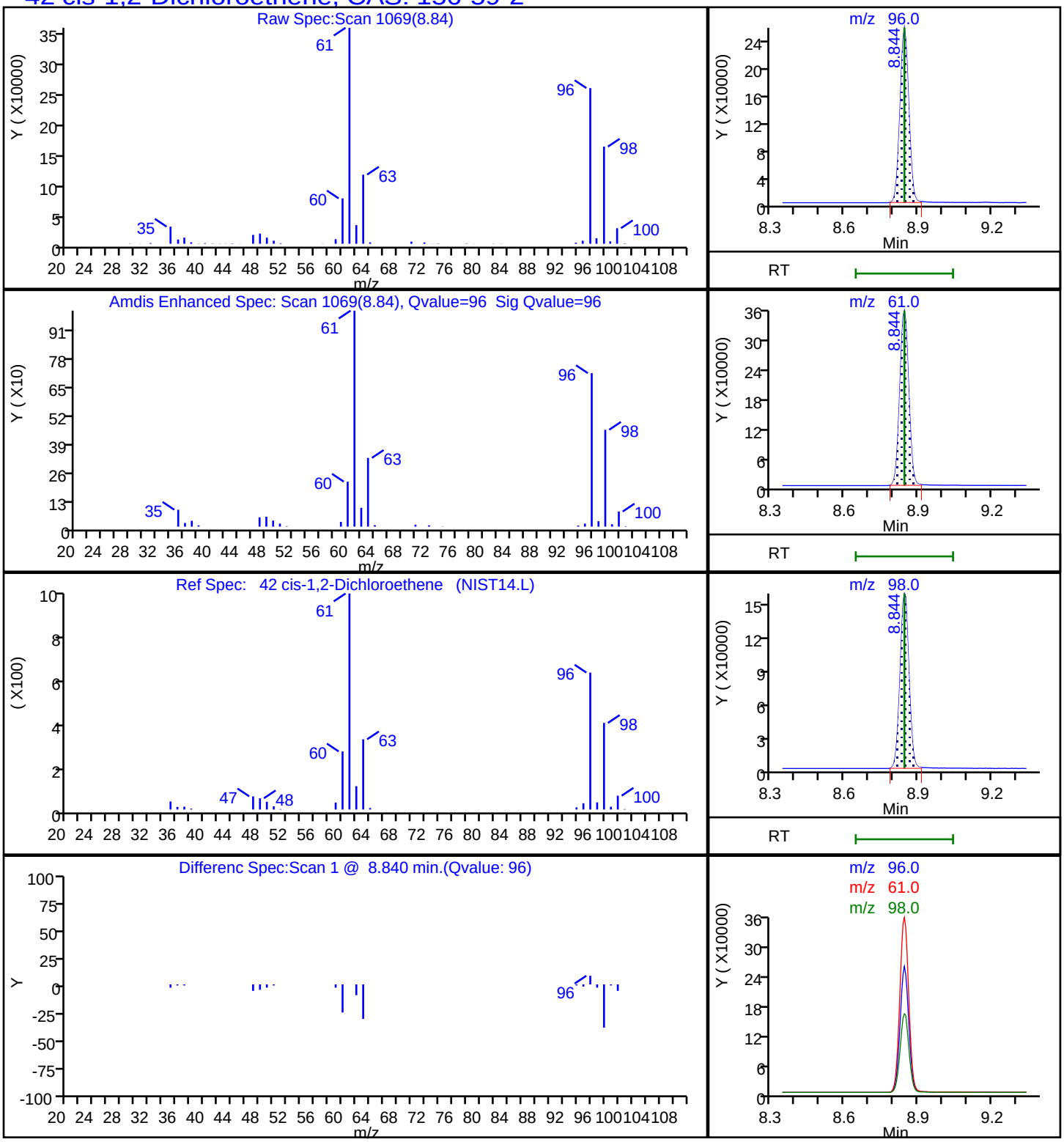
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D		
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

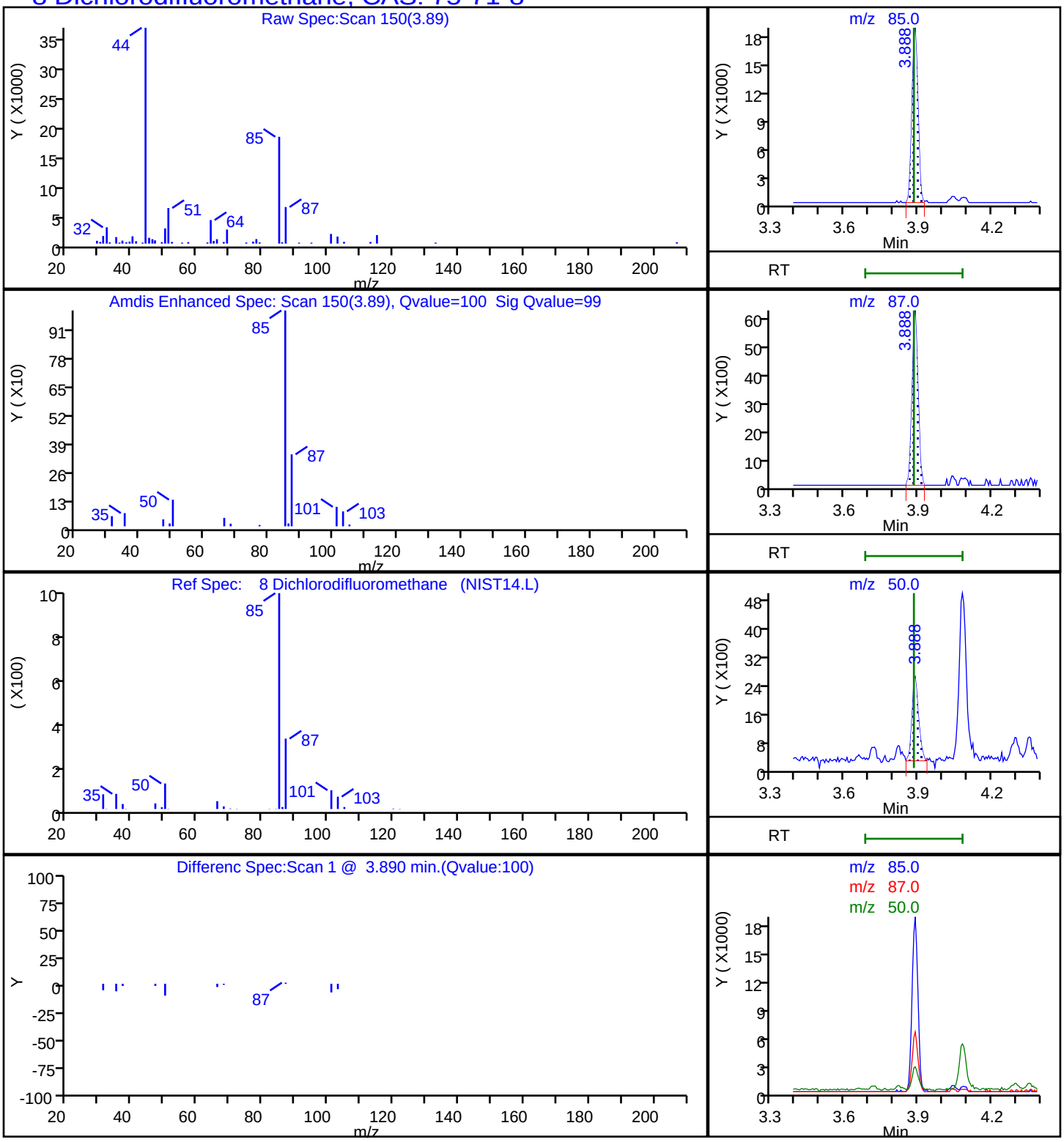
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D		
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

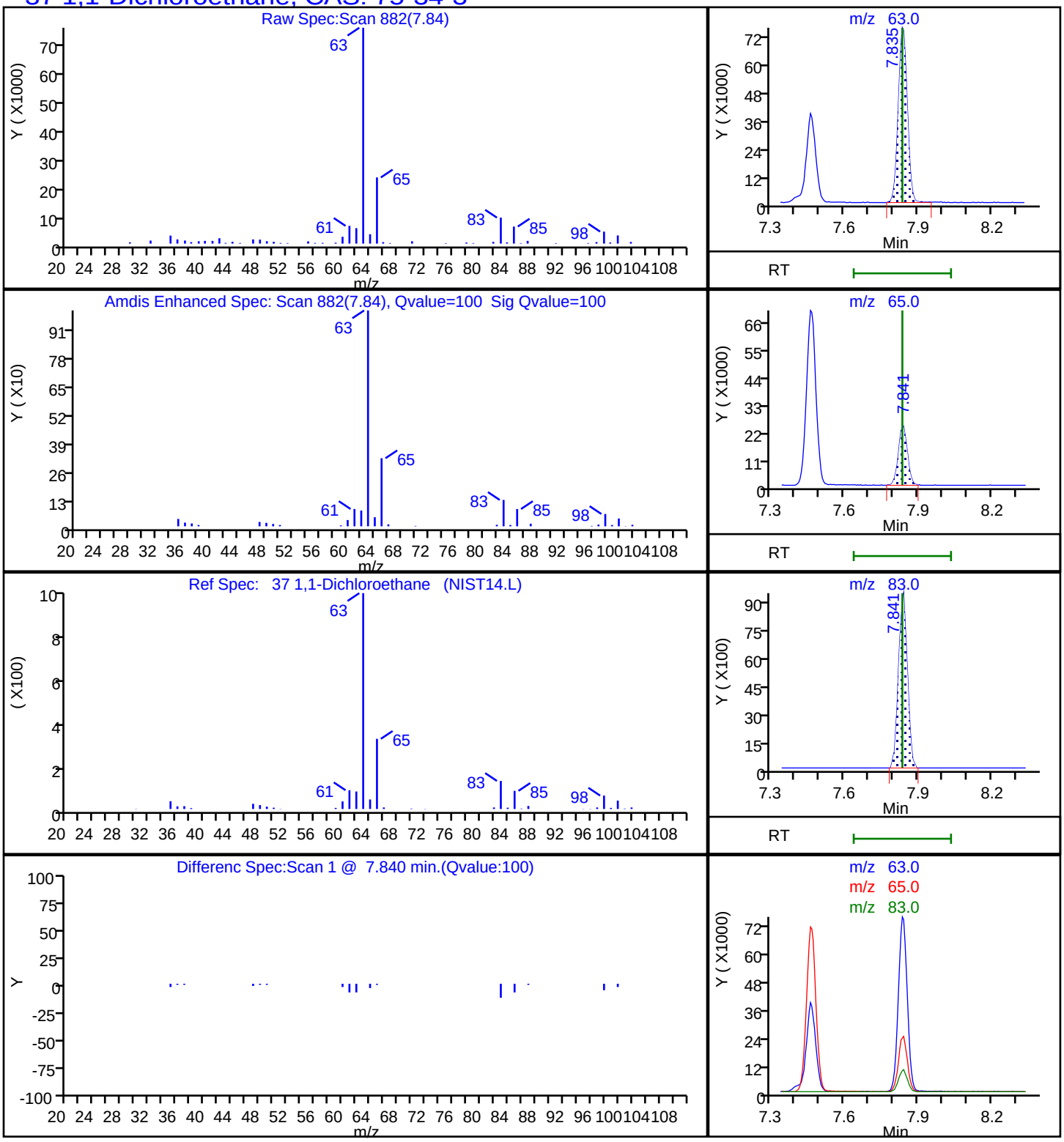
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D		
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

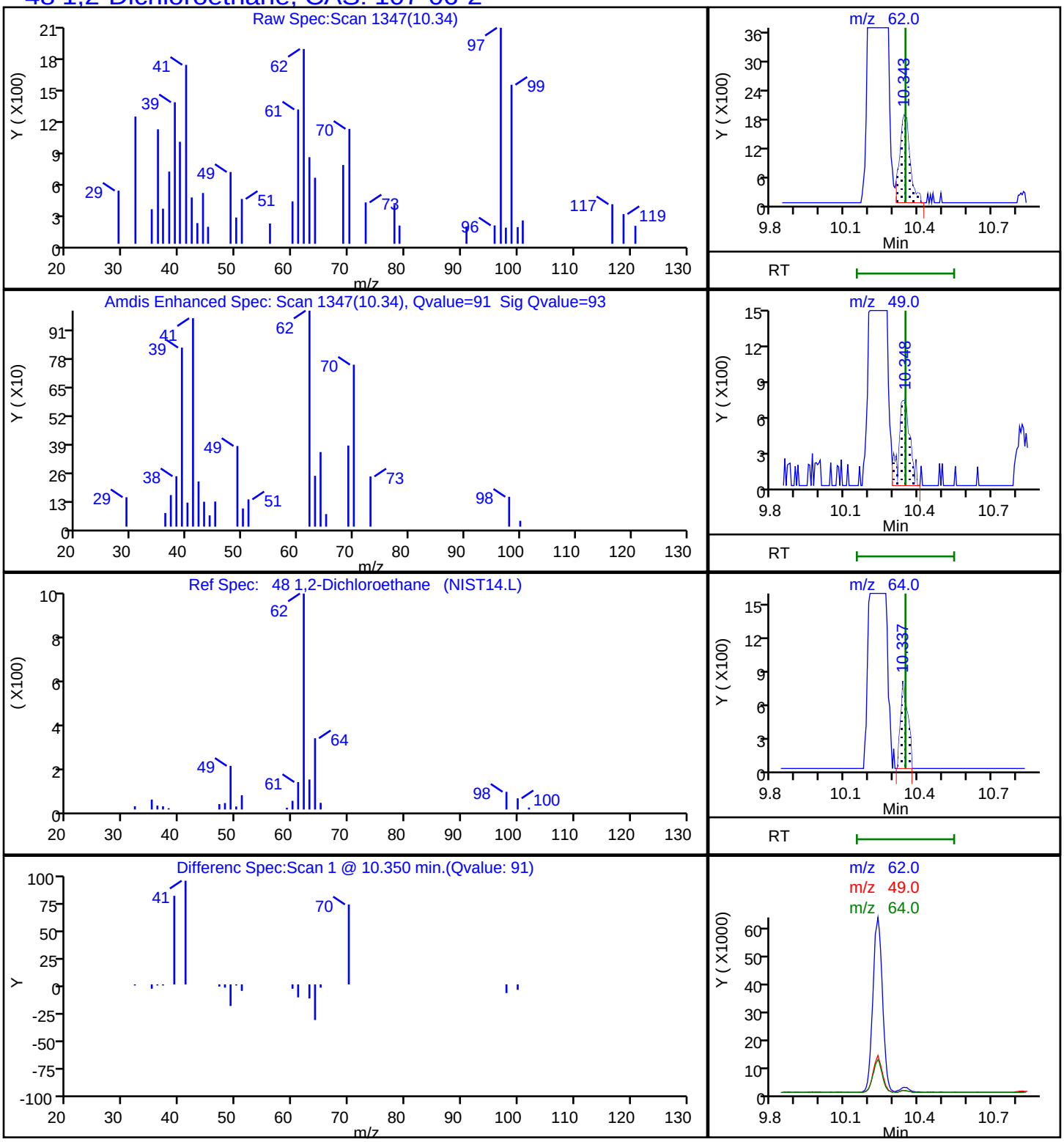
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D		
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D

Injection Date: 17-May-2019 16:57:30 Instrument ID: MG

Lims ID: 140-15288-A-2 Lab Sample ID: 140-15288-2

Client ID: BLDG-A-MIDGAC

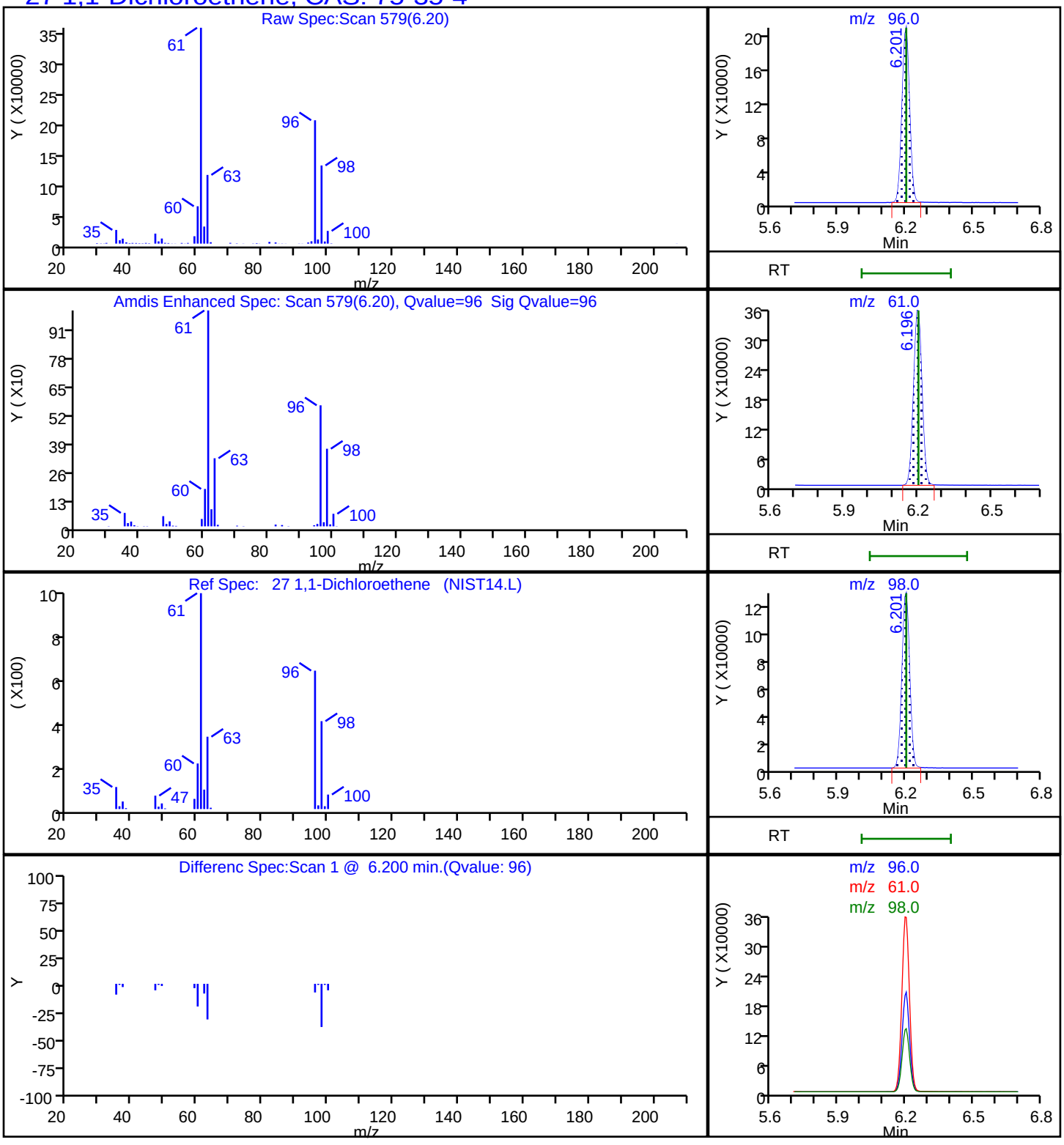
Operator ID: 7126 ALS Bottle#: 2 Worklist Smp#: 6

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4

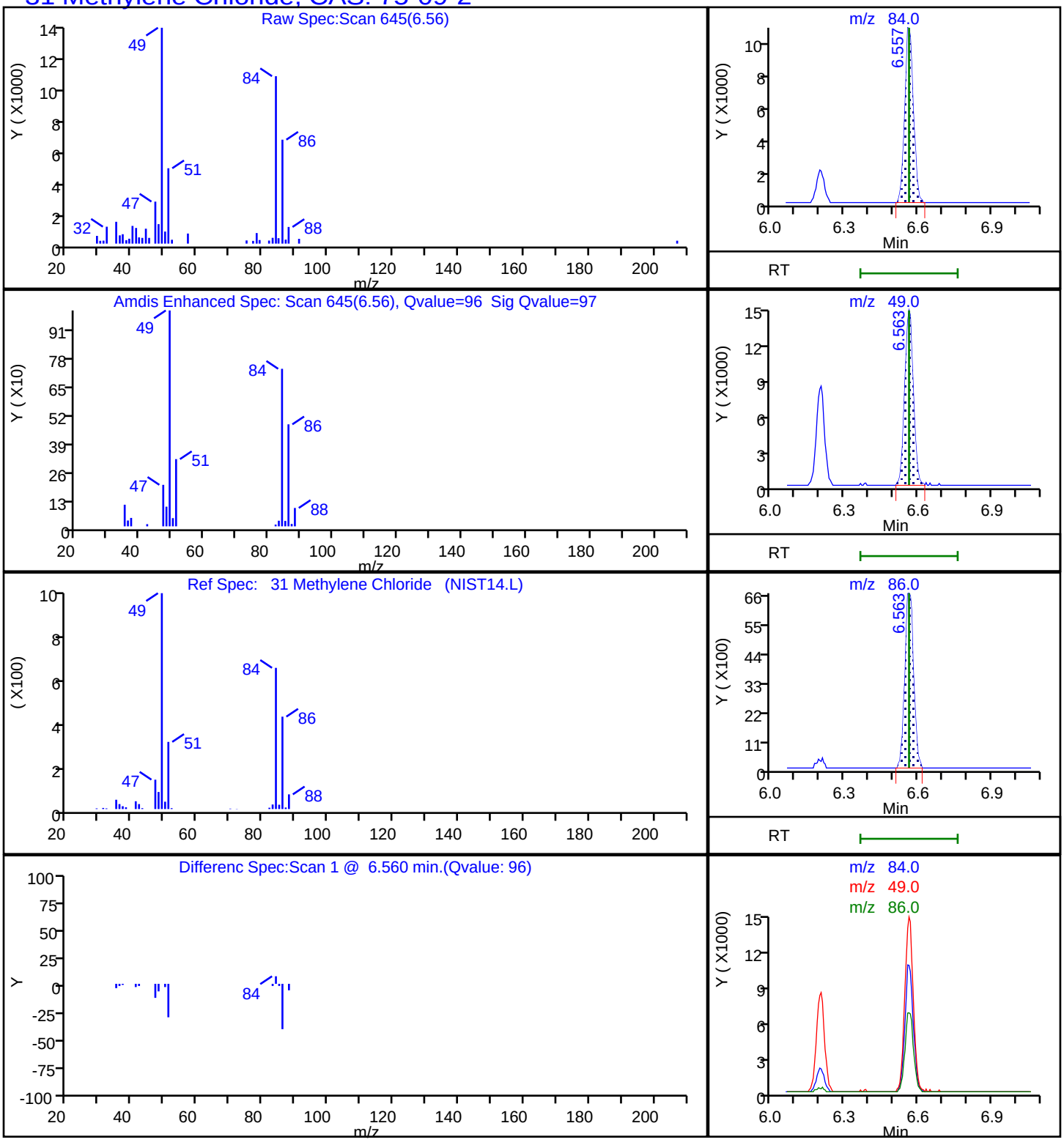


Report Date: 21-May-2019 12:29:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D				
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG		
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2		
Client ID:	BLDG-A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

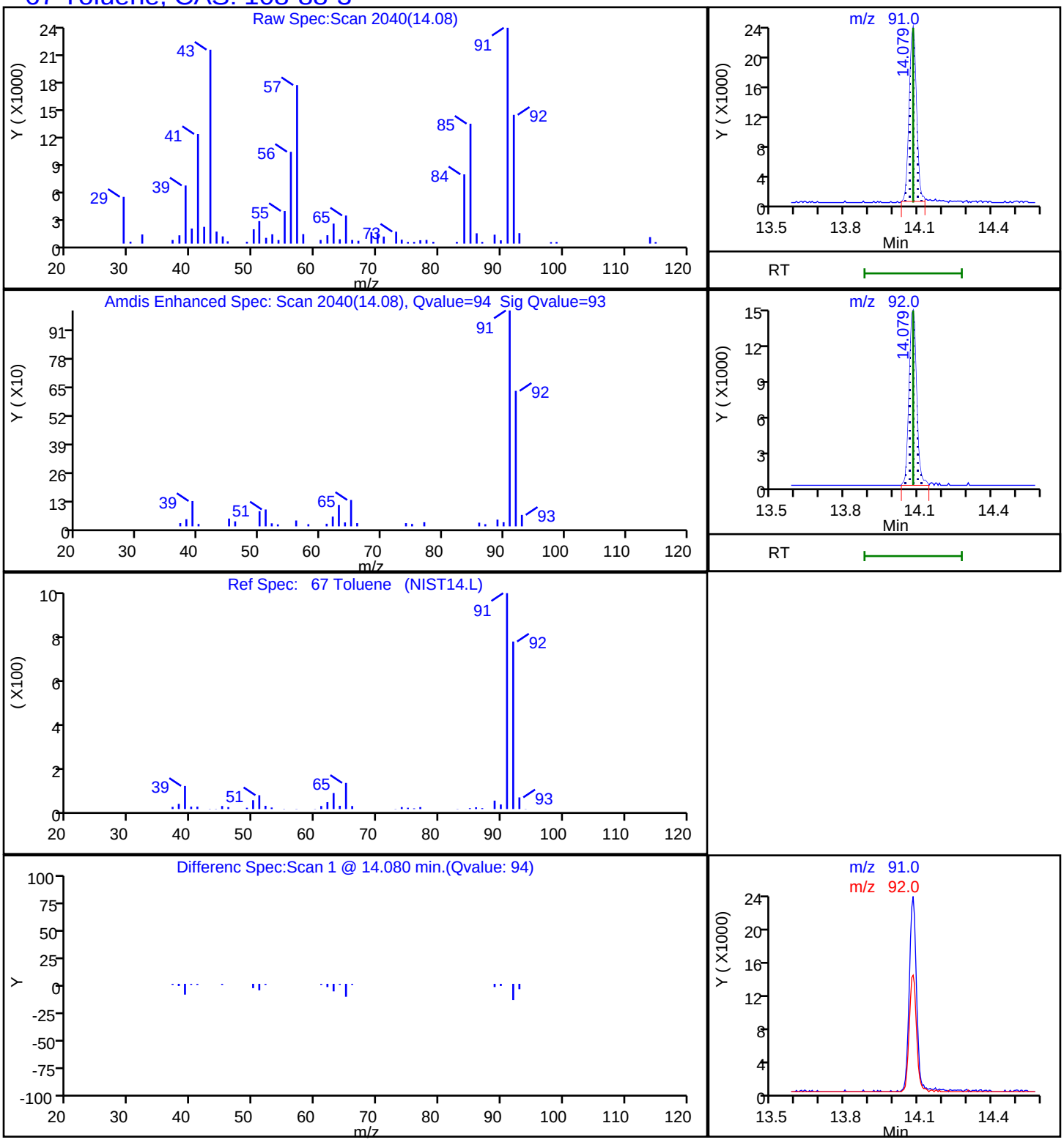
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D		
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2
Client ID:	BLDG-A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

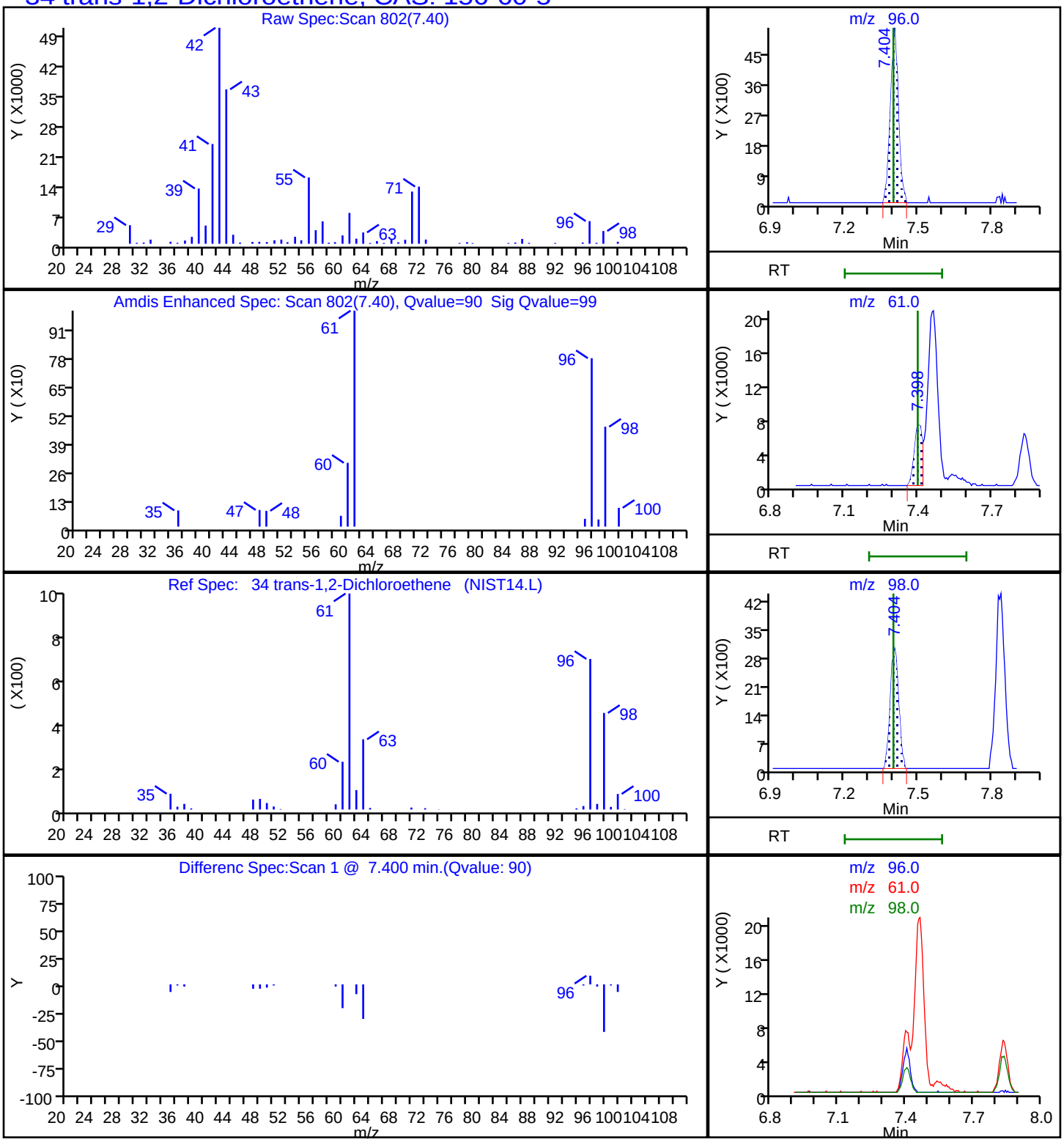
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D				
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG		
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2		
Client ID:	BLDG-A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

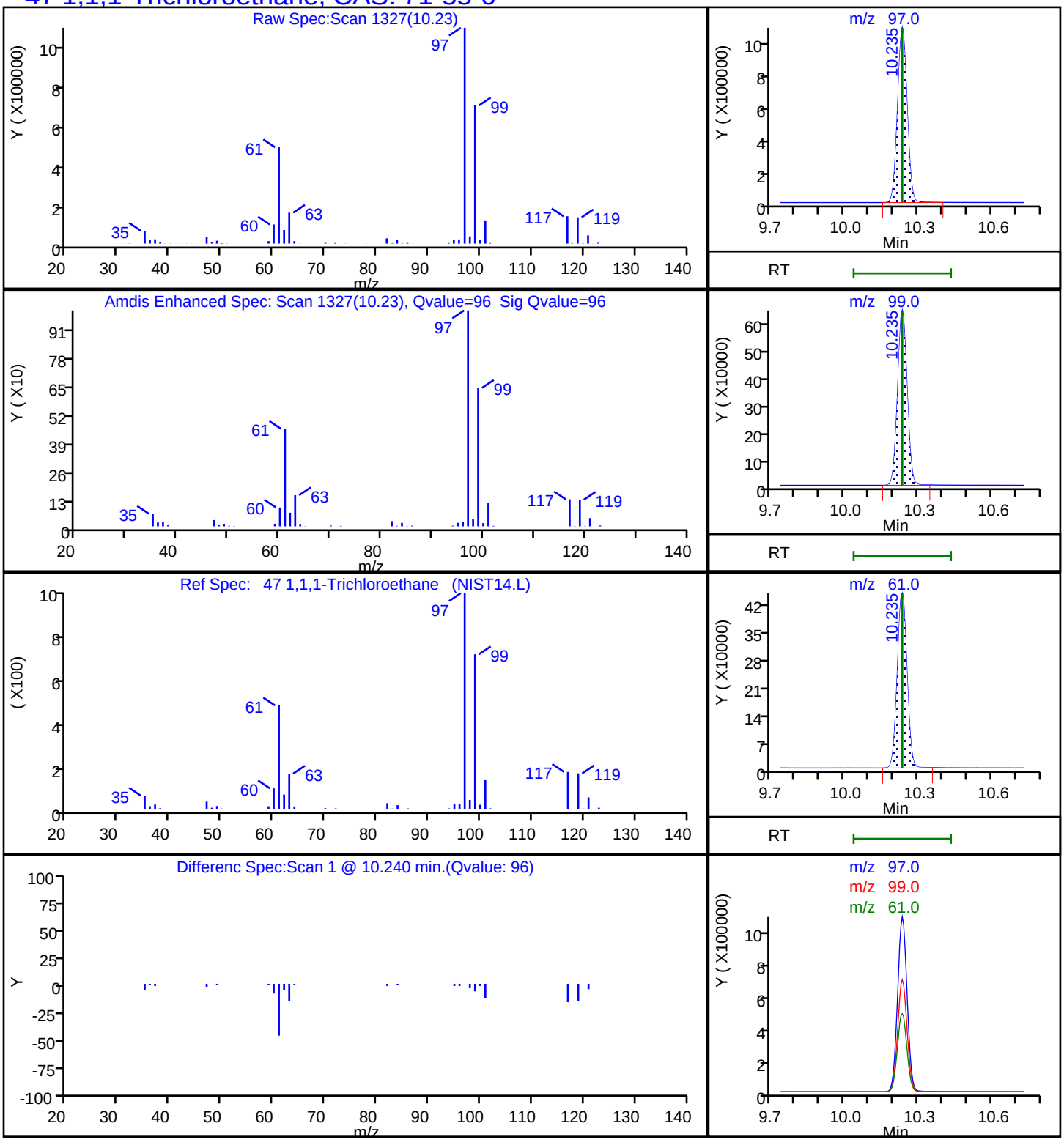


Report Date: 21-May-2019 12:29:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P102.D				
Injection Date:	17-May-2019 16:57:30	Instrument ID:	MG		
Lims ID:	140-15288-A-2	Lab Sample ID:	140-15288-2		
Client ID:	BLDG-A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-EFFLUENT Lab Sample ID: 140-15288-3

Matrix: Air Lab File ID: GE20P203.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:59

Sample wt/vol: 100(mL) Date Analyzed: 05/20/2019 12:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.87		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.075
67-66-3	Chloroform	119.38	0.098	J	0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	1.7		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	0.29	J	0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	2.8		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	3.3		2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	0.83		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	1.2		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	0.99		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-A-EFFLUENT Lab Sample ID: 140-15288-3

Matrix: Air Lab File ID: GE20P203.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:59

Sample wt/vol: 100(mL) Date Analyzed: 05/20/2019 12:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.8		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.27
67-66-3	Chloroform	119.38	0.48	J	2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	6.6		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	1.2	J	1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	11		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	12		6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	3.1		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	6.7		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	5.3		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D
Lims ID: 140-15288-A-3
Client ID: BLDG-A-EFFLUENT
Sample Type: Client
Inject. Date: 20-May-2019 12:34:30 ALS Bottle#: 3 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011779-006
Misc. Info.: 140-15288-a-3
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:55:25 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:56:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.189	-0.006	96	314987	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	1890962	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	89	1699322	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	968533	3.70	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	96	13475	0.0735	
8 Dichlorodifluoromethane	85	3.888	3.886	0.000	99	30304	0.1029	
27 1,1-Dichloroethene	96	6.201	6.203	-0.006	95	64892	0.5680	
31 Methylene Chloride	84	6.568	6.568	0.000	96	84649	0.6699	
34 trans-1,2-Dichloroethene	96	7.393	7.398	-0.016	1	851	0.007546	
37 1,1-Dichloroethane	63	7.835	7.836	-0.006	100	12800	0.0577	
42 cis-1,2-Dichloroethene	96	8.844	8.844	-0.005	96	38985	0.3319	
44 Chloroform	83	9.194	9.189	0.000	27	4644	0.0197	
47 1,1,1-Trichloroethane	97	10.235	10.240	-0.005	97	62322	0.2460	
50 Benzene	78	10.828	10.828	0.000	97	57708	0.1739	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	96	2704	0.0123	
58 Trichloroethene	130	12.057	12.063	-0.006	95	28998	0.1983	
67 Toluene	91	14.080	14.080	0.000	94	61663	0.1660	
78 Ethylbenzene	91	16.355	16.361	-0.006	96	6013	0.0130	
79 m-Xylene & p-Xylene	91	16.511	16.517	-0.006	98	14682	0.0413	
83 o-Xylene	91	17.040	17.040	0.000	97	6050	0.0160	
S 124 Xylenes, Total	100				0		0.0573	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

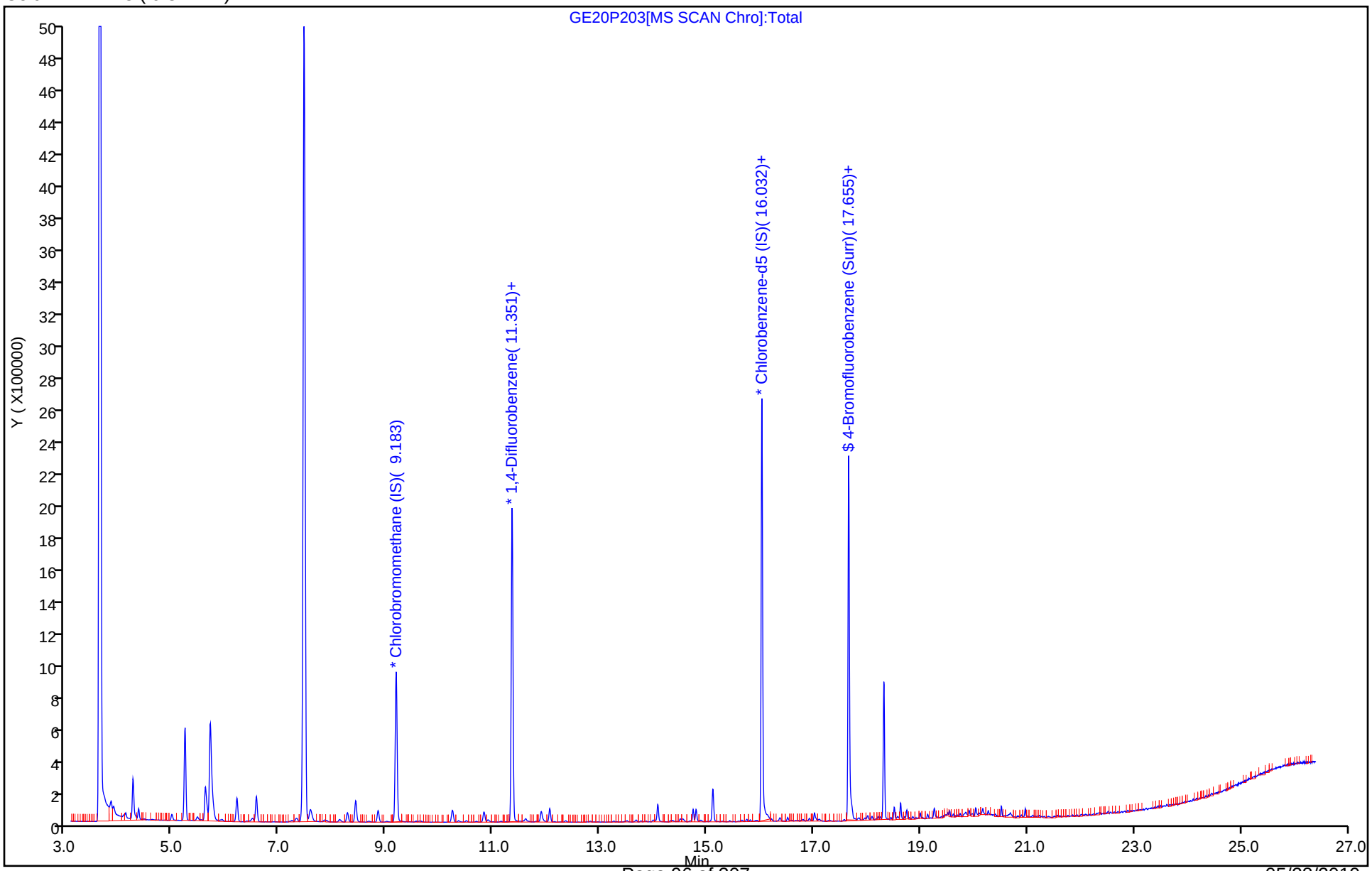
Report Date: 21-May-2019 13:56:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D

Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3	Worklist Smp#:	6
Client ID:	BLDG-A-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D				
Lims ID:	140-15288-A-3				
Client ID:	BLDG-A-EFFLUENT				
Sample Type:	Client				
Inject. Date:	20-May-2019 12:34:30	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011779-006				
Misc. Info.:	140-15288-a-3				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 13:55:25	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

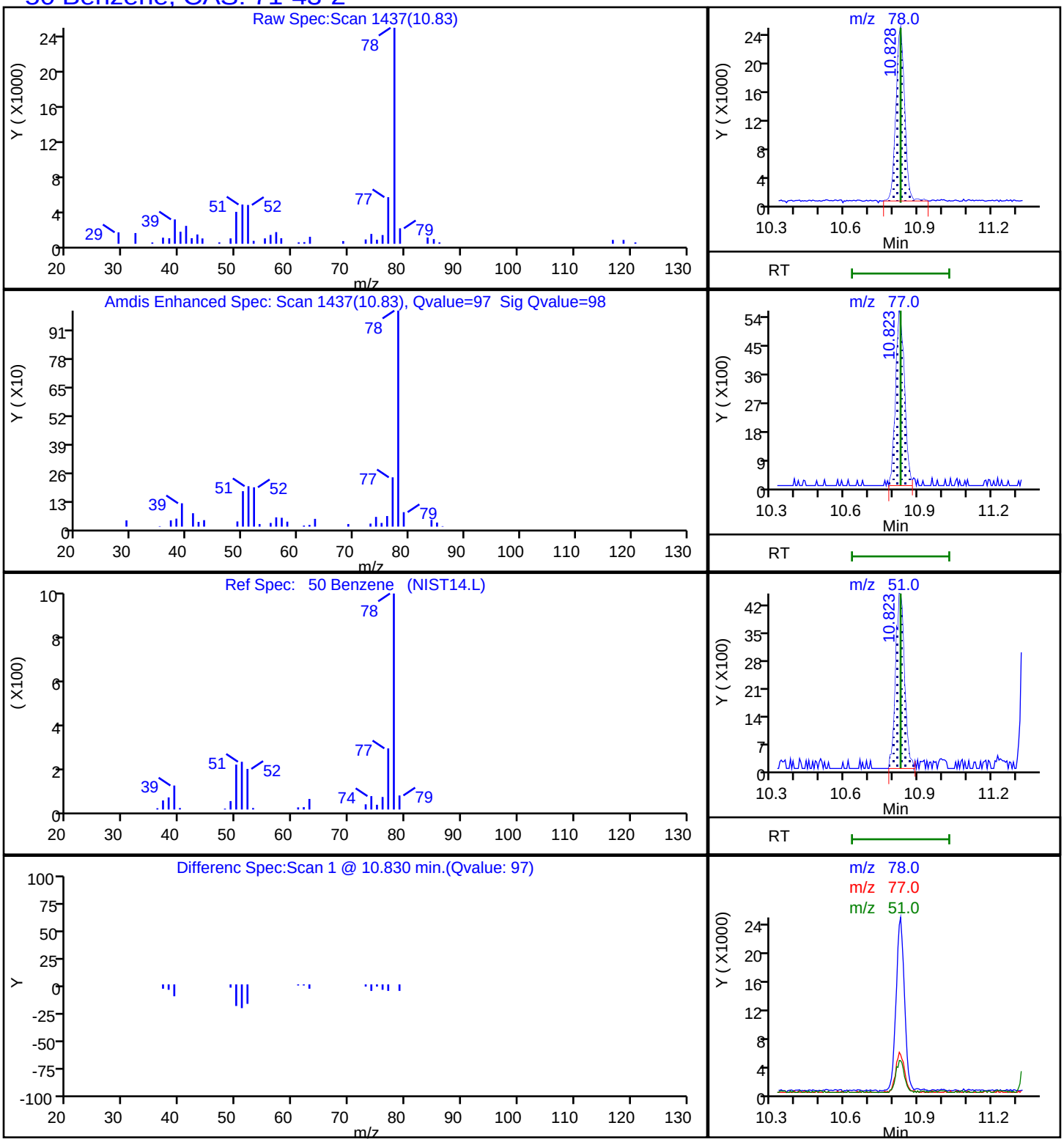
First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:56:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.70	92.53

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

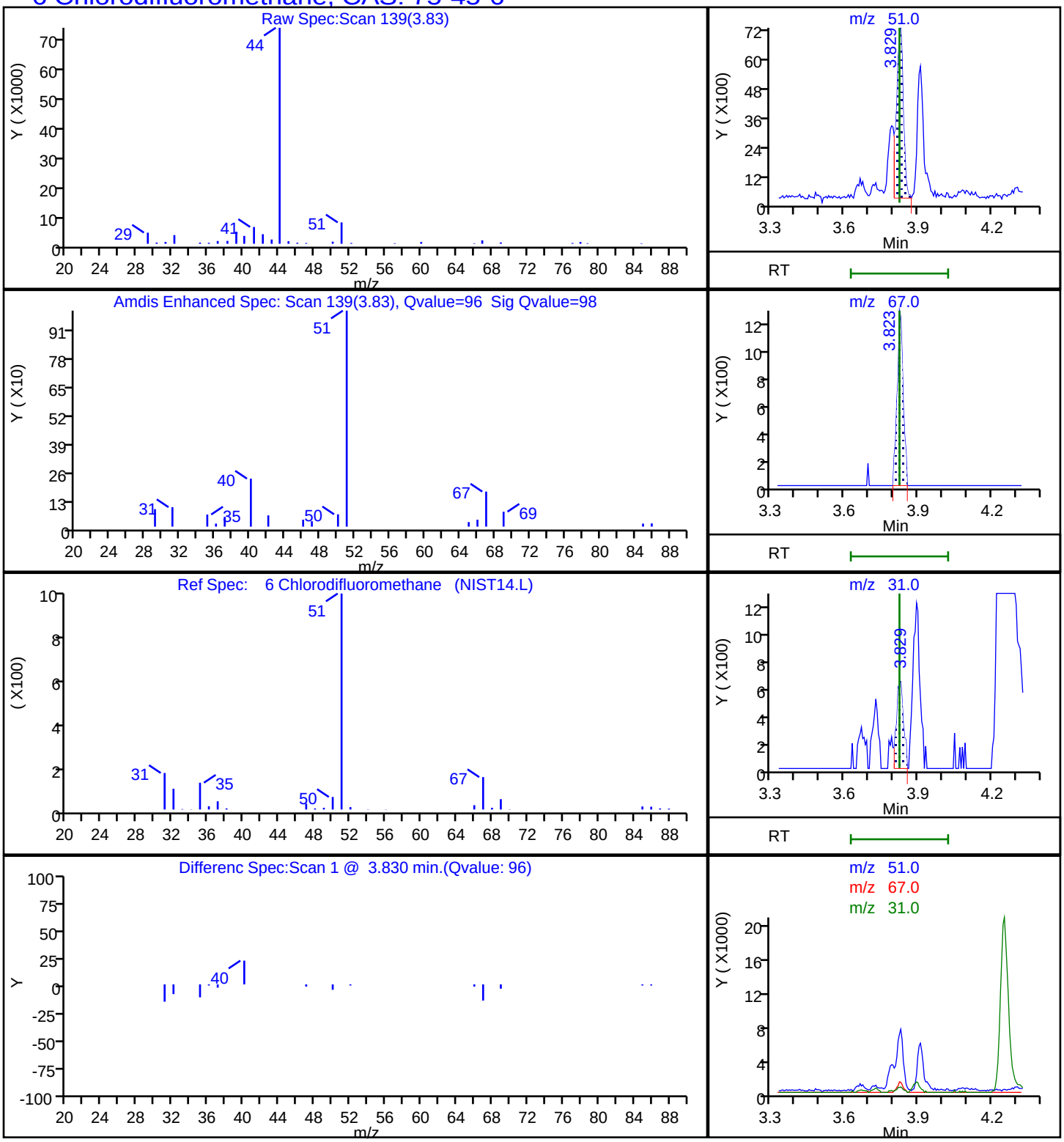


Report Date: 21-May-2019 13:56:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D				
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG		
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

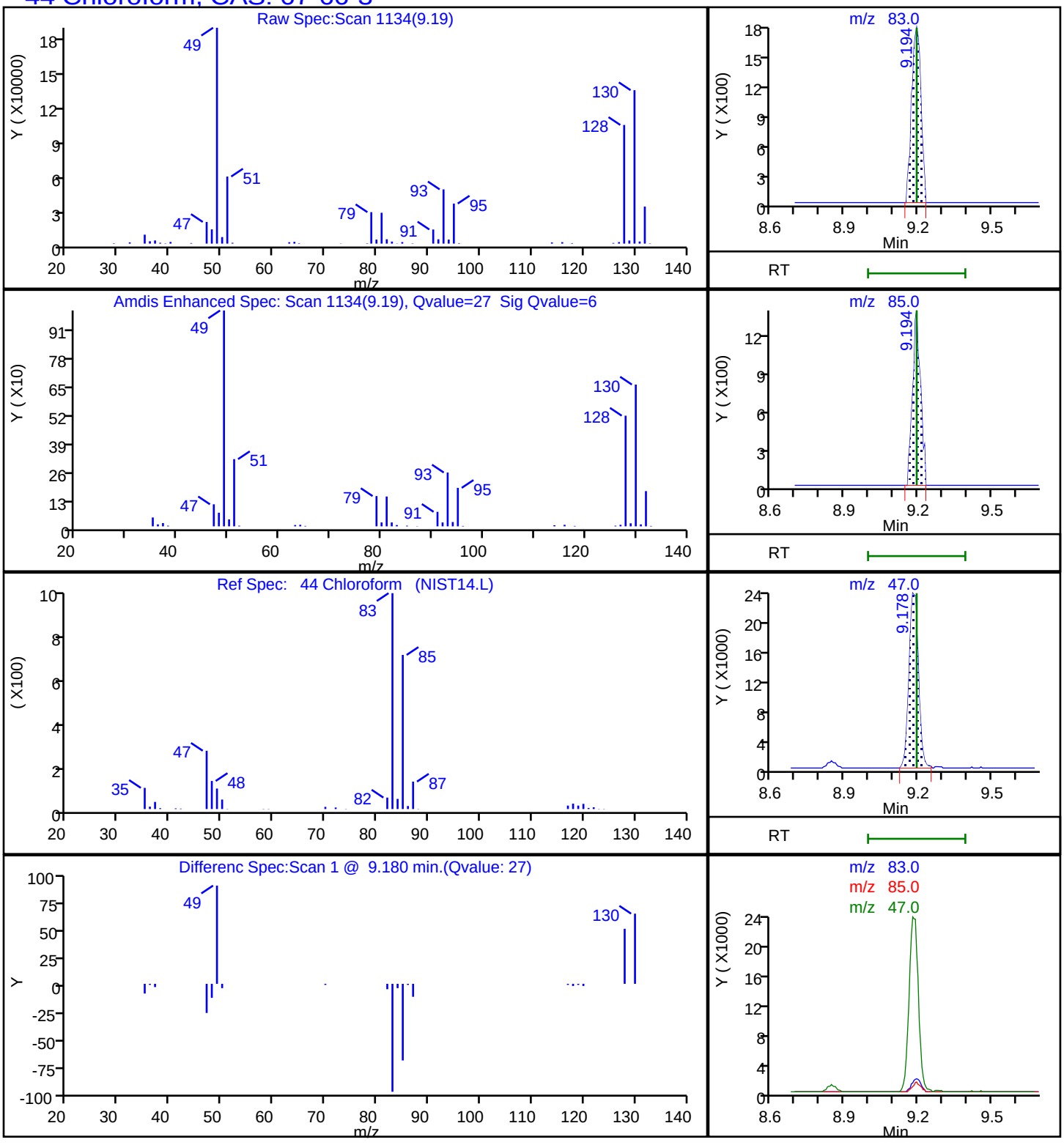
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

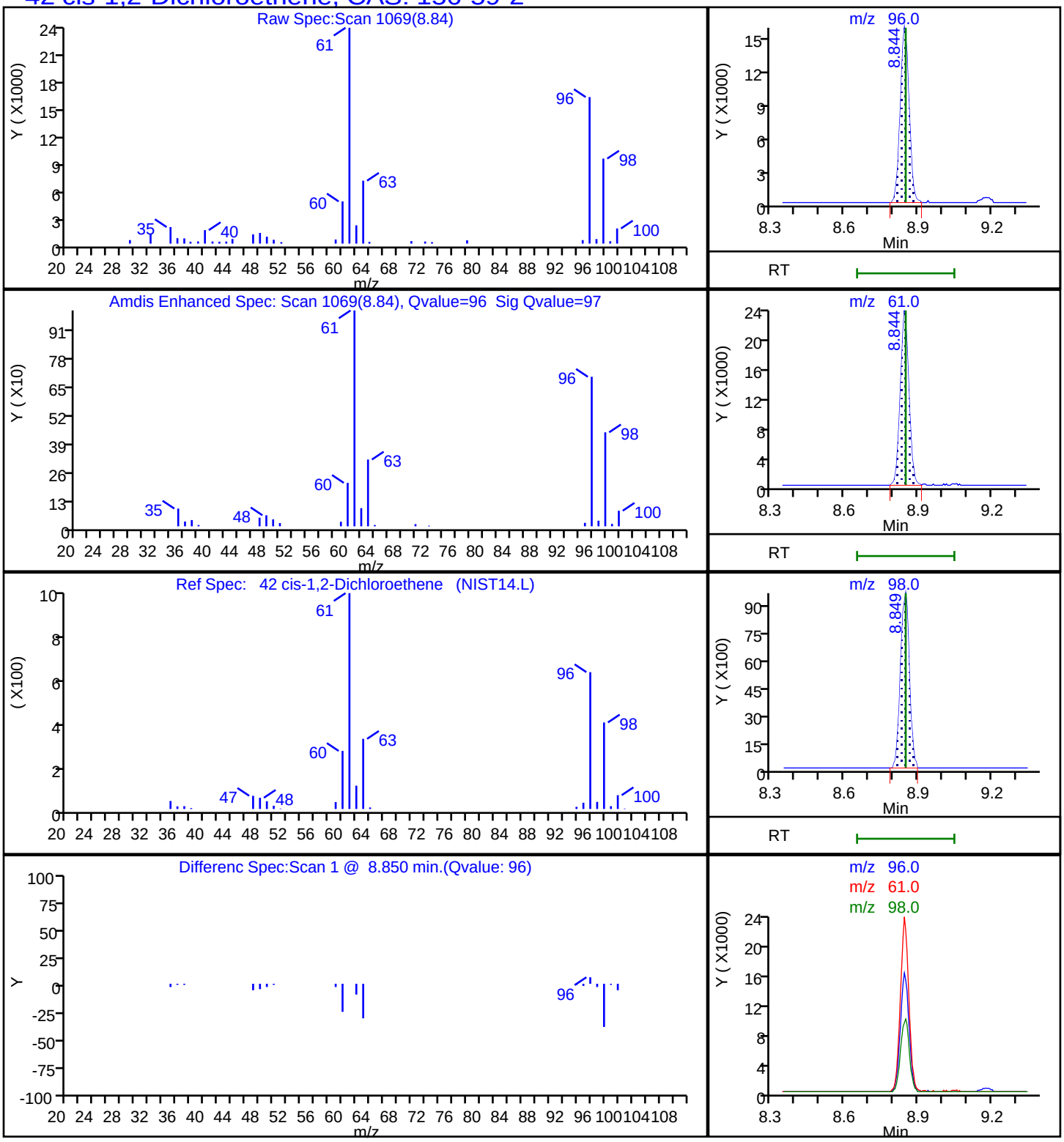
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

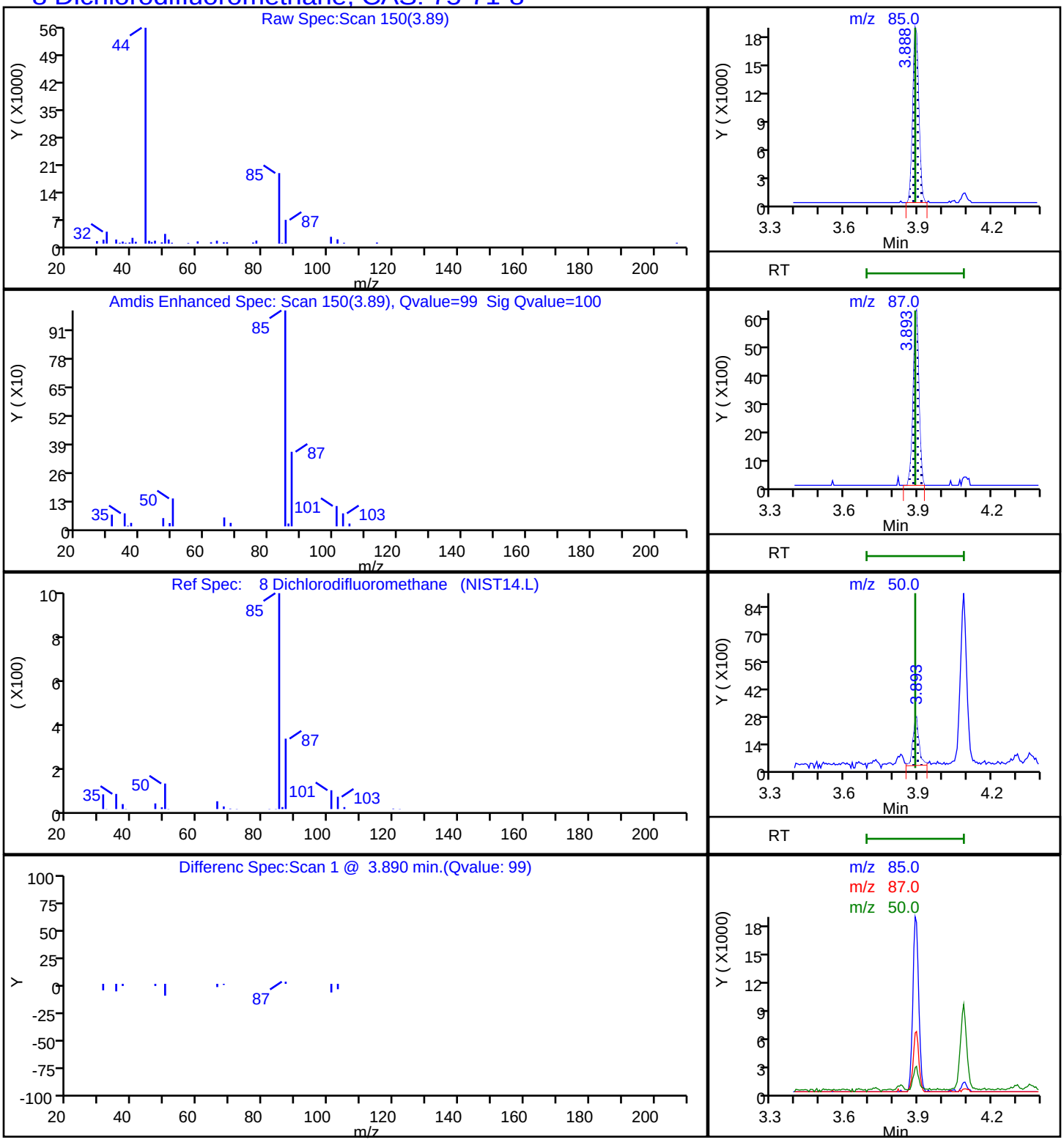
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D				
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG		
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3		
Client ID:	BLDG-A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

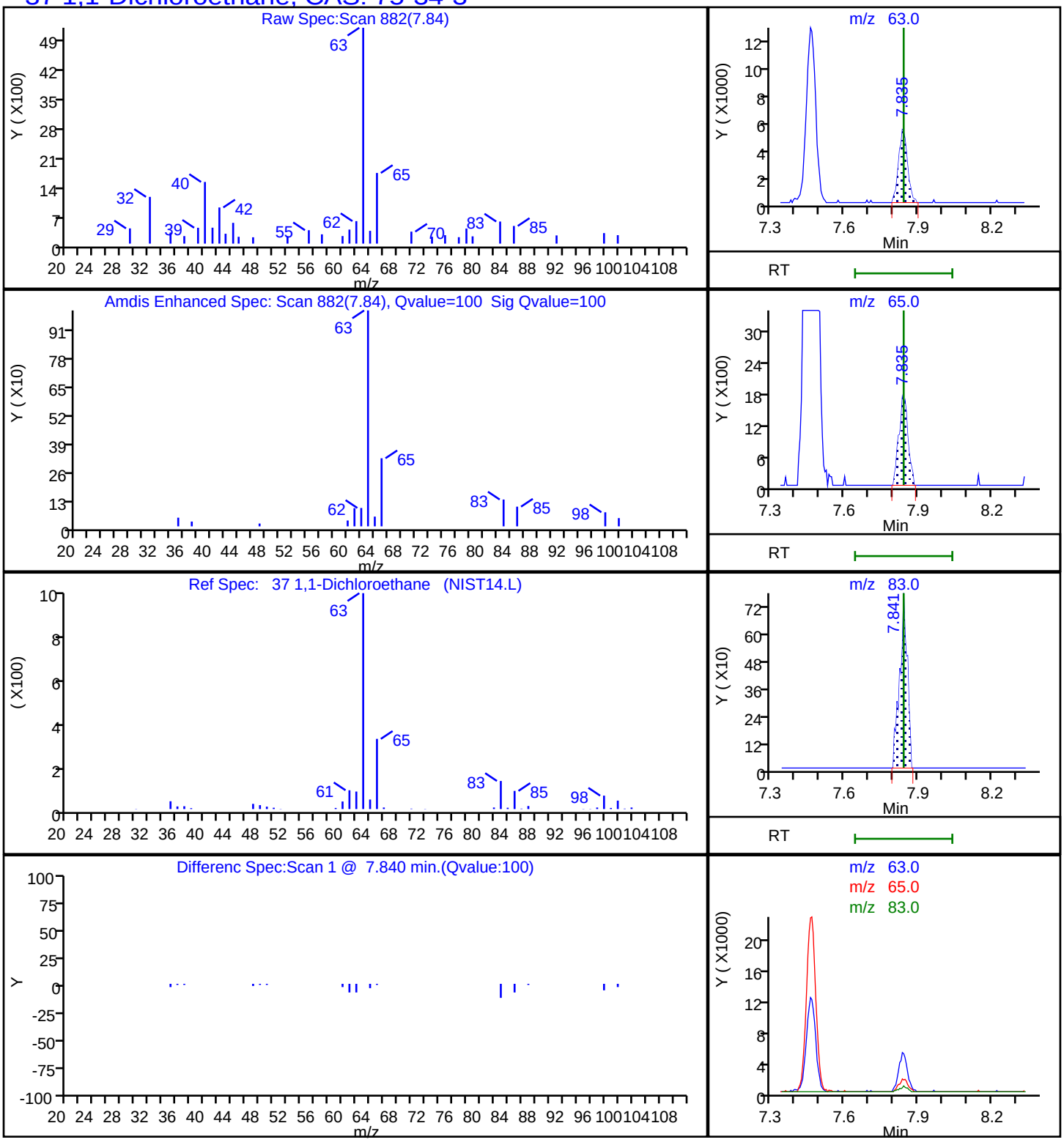
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

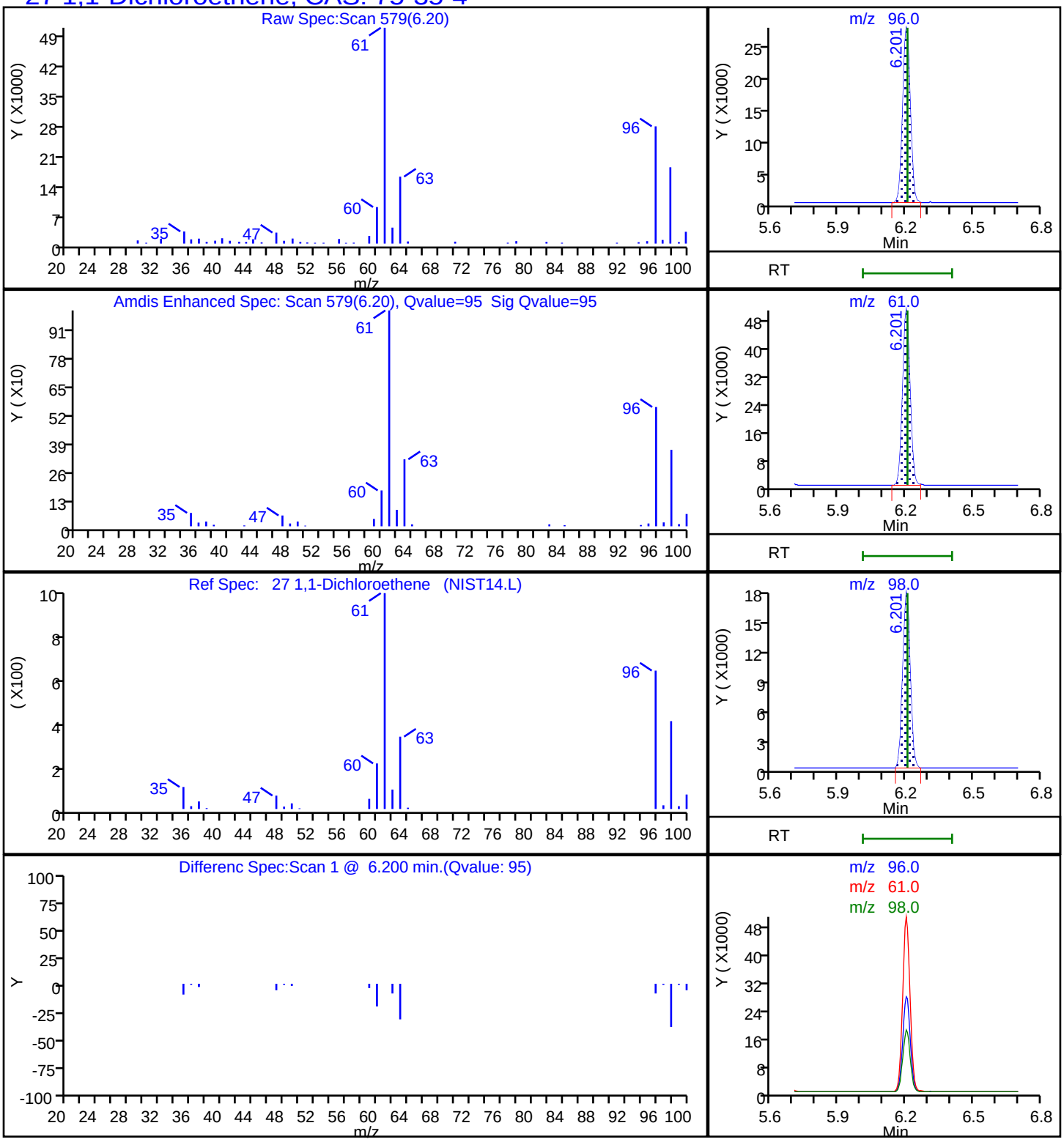
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

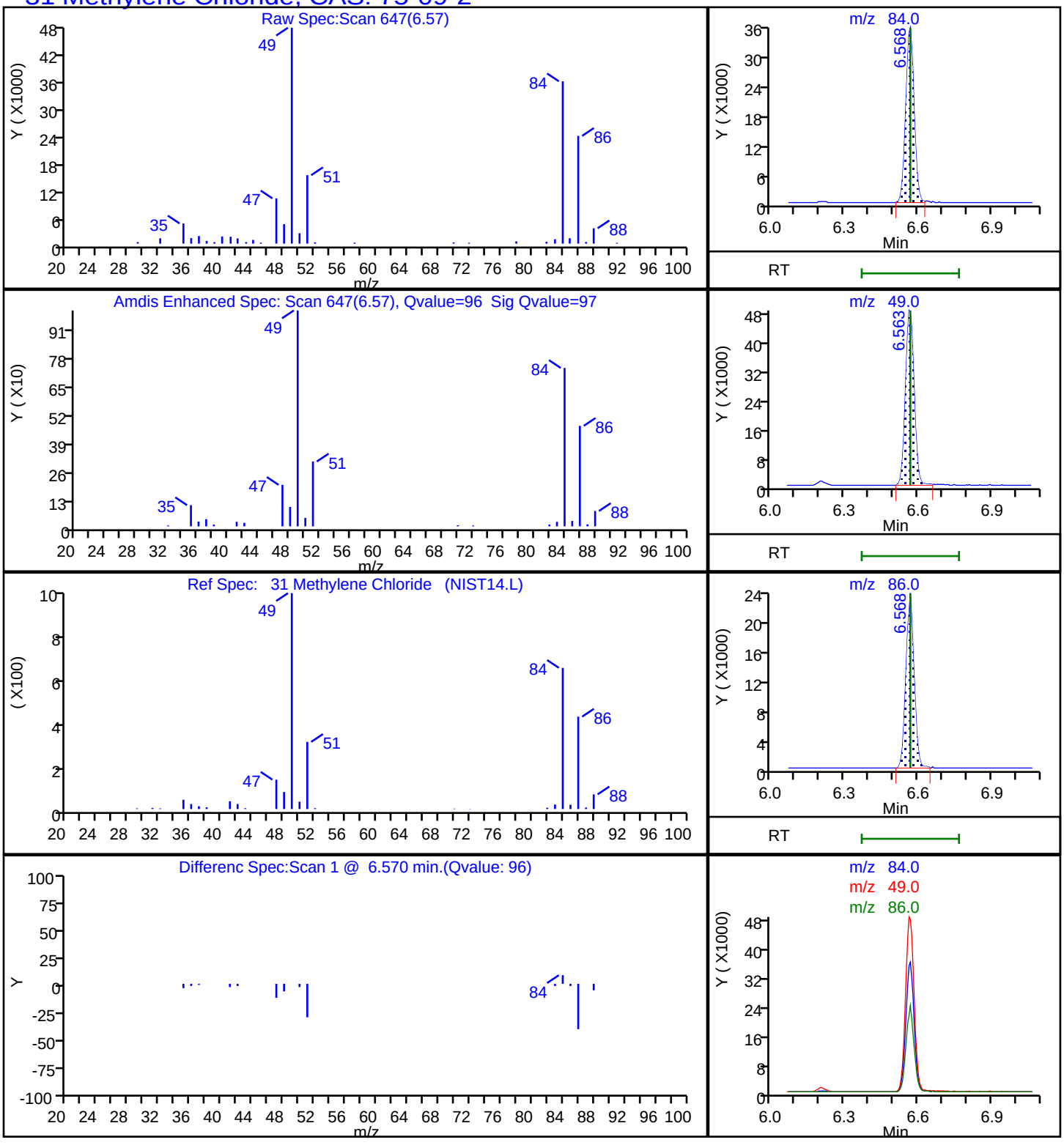
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

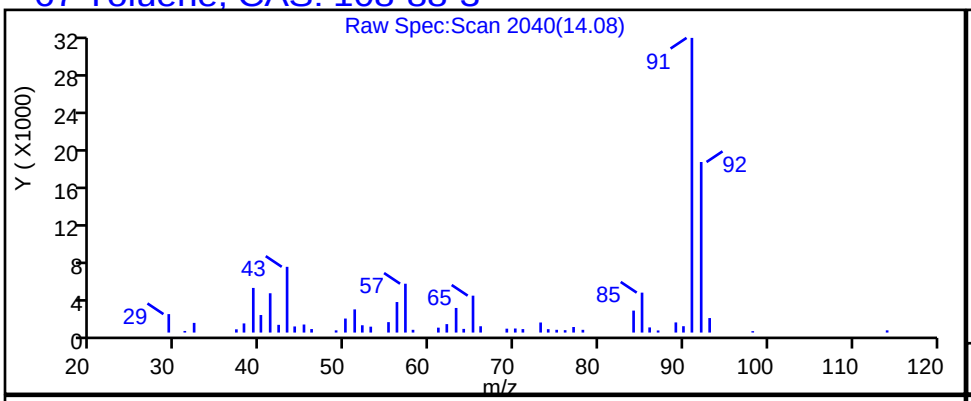
31 Methylene Chloride, CAS: 75-09-2

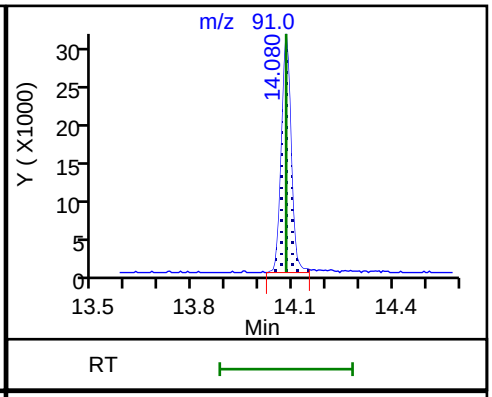


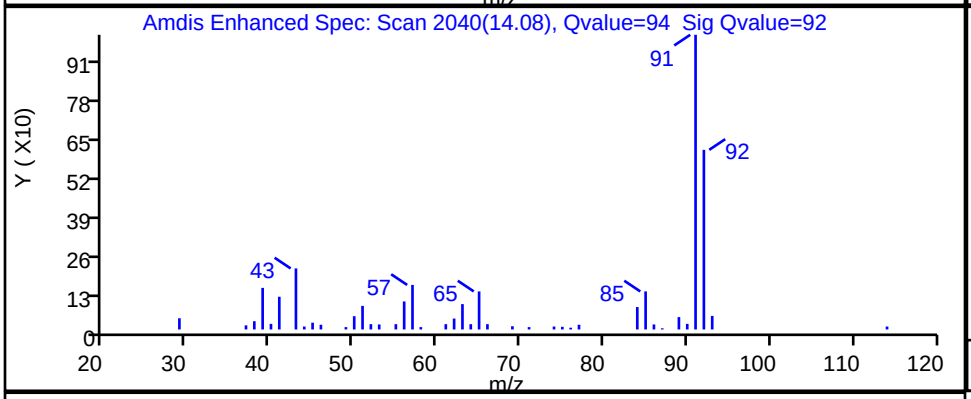
Eurofins TestAmerica, Knoxville

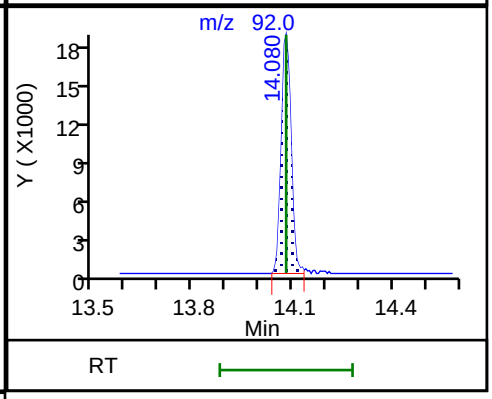
Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

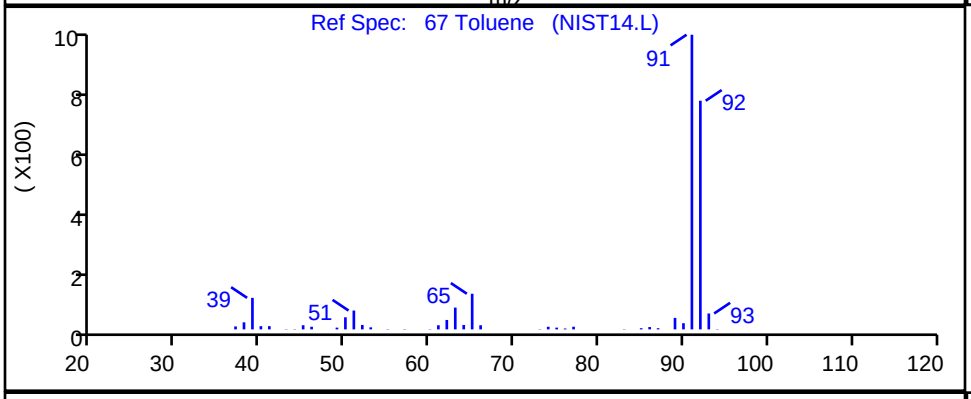
67 Toluene, CAS: 108-88-3

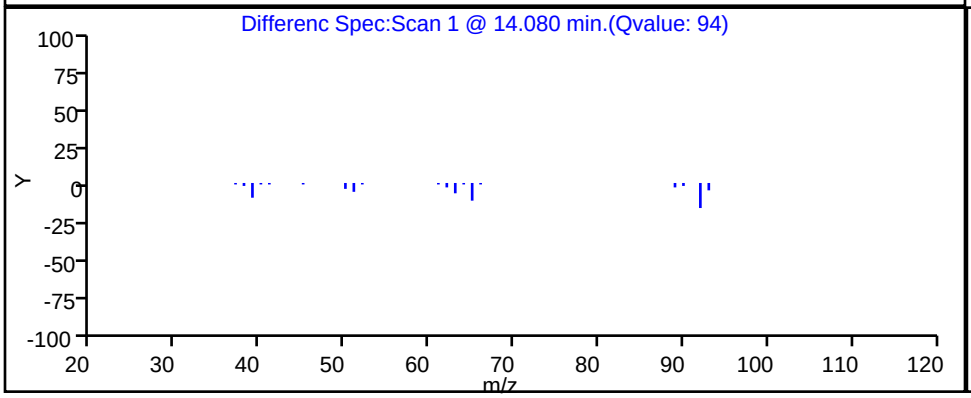


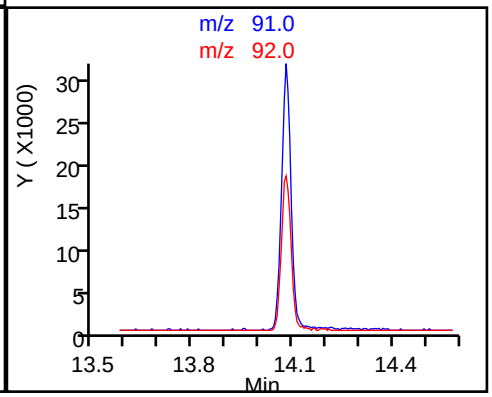








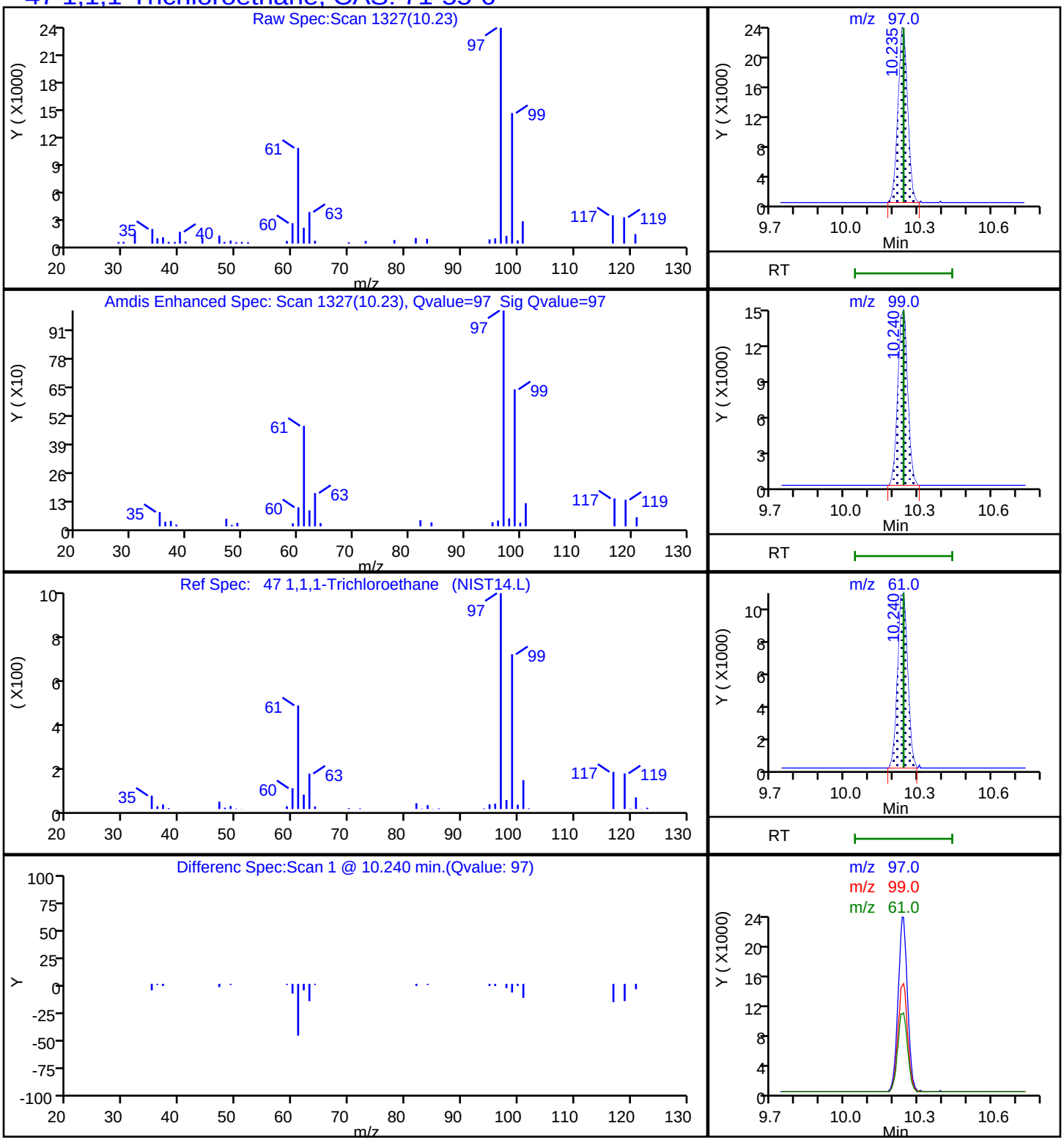




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D		
Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



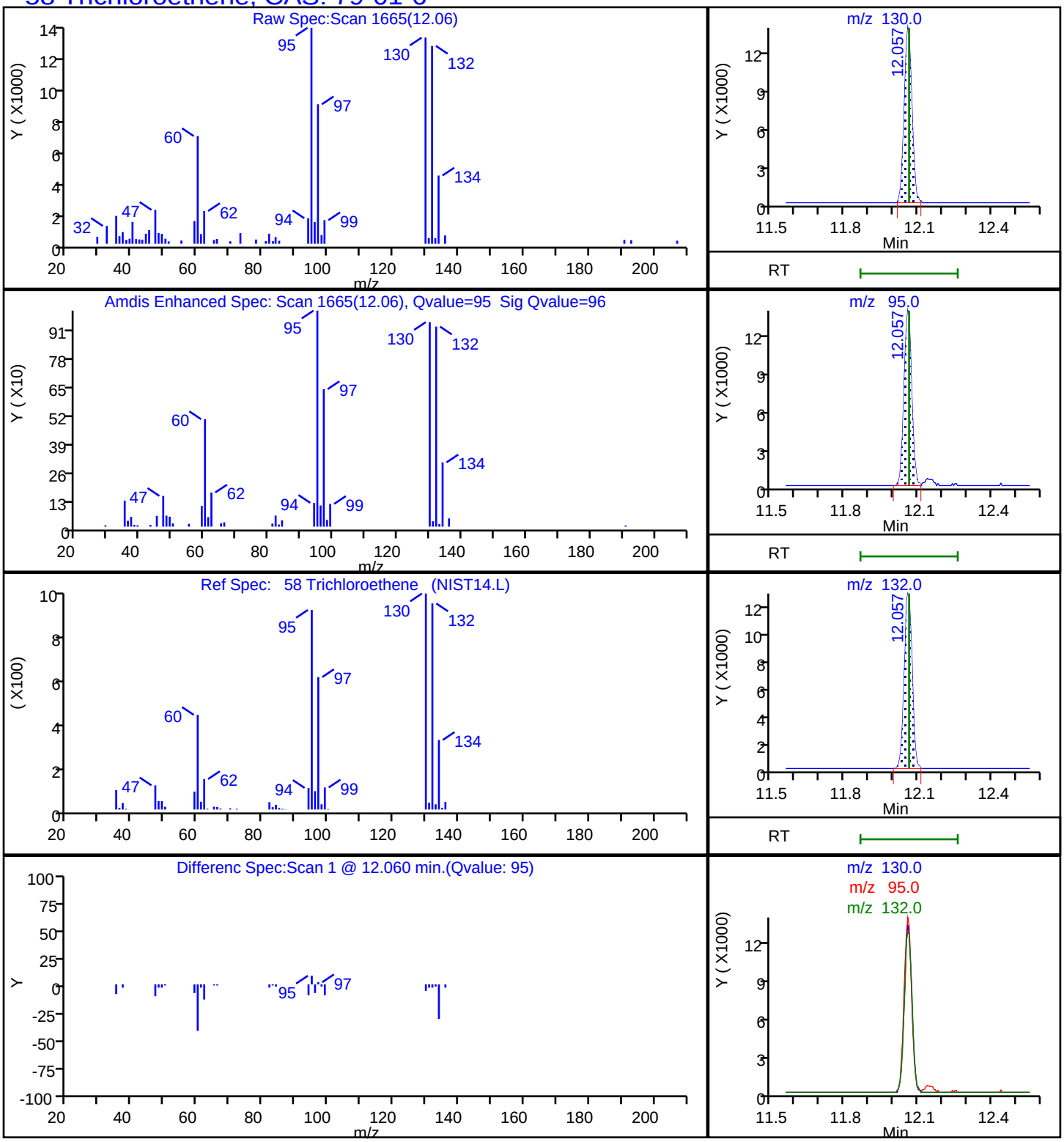
Report Date: 21-May-2019 13:56:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GE20P203.D

Injection Date:	20-May-2019 12:34:30	Instrument ID:	MG
Lims ID:	140-15288-A-3	Lab Sample ID:	140-15288-3
Client ID:	BLDG-A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-INFLUENT Lab Sample ID: 140-15288-4

Matrix: Air Lab File ID: GE17P104.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:12

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 18:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.7		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.95		0.40	0.075
67-66-3	Chloroform	119.38	0.089	J	0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	0.74		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.52		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.070
100-41-4	Ethylbenzene	106.17	0.17	J	0.40	0.14
75-09-2	Methylene Chloride	84.93	1.1	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	0.12	J	0.40	0.080
108-88-3	Toluene	92.14	2.5		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	4.5		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	0.19	J	0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	0.98		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	0.43		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.75	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-INFLUENT Lab Sample ID: 140-15288-4

Matrix: Air Lab File ID: GE17P104.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:12

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 18:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	8.7		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	3.4		1.4	0.27
67-66-3	Chloroform	119.38	0.43	J	2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	2.9		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.6		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.28
100-41-4	Ethylbenzene	106.17	0.75	J	1.7	0.59
75-09-2	Methylene Chloride	84.93	3.8	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	0.82	J	2.7	0.54
108-88-3	Toluene	92.14	9.4		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	24		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	0.94	J	2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	4.8		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	2.1		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	3.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D
Lims ID: 140-15288-A-4
Client ID: BLDG-C-INFLUENT
Sample Type: Client
Inject. Date: 17-May-2019 18:24:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-008
Misc. Info.: 140-15288-a-4
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:28:16 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:30:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.183	0.006	96	316467	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2013386	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1636399	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	995797	3.95	
6 Chlorodifluoromethane	51	3.823	3.818	0.005	97	35162	0.1910	
8 Dichlorodifluoromethane	85	3.893	3.880	0.010	99	30600	0.1034	
31 Methylene Chloride	84	6.579	6.563	0.016	97	28141	0.2217	
42 cis-1,2-Dichloroethene	96	8.854	8.838	0.010	95	17437	0.1478	
44 Chloroform	83	9.205	9.189	0.011	27	4209	0.0178	
50 Benzene	78	10.828	10.828	0.000	96	193145	0.5466	
52 Carbon tetrachloride	117	10.860	10.844	0.010	26	3068	0.0131	
58 Trichloroethene	130	12.063	12.057	0.000	97	139697	0.8973	
67 Toluene	91	14.080	14.080	0.000	94	177898	0.4974	
73 Tetrachloroethene	129	15.207	15.212	-0.005	92	3261	0.0241	
78 Ethylbenzene	91	16.355	16.361	-0.006	98	15394	0.0346	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	36488	0.1065	
83 o-Xylene	91	17.040	17.040	0.000	98	15977	0.0439	
90 1,3,5-Trimethylbenzene	120	18.356	18.361	-0.005	91	17389	0.0868	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	98	79953	0.1961	
101 1,2,3-Trimethylbenzene	105	19.246	19.251	-0.005	95	15859	0.0382	
S 124 Xylenes, Total	100				0		0.1504	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

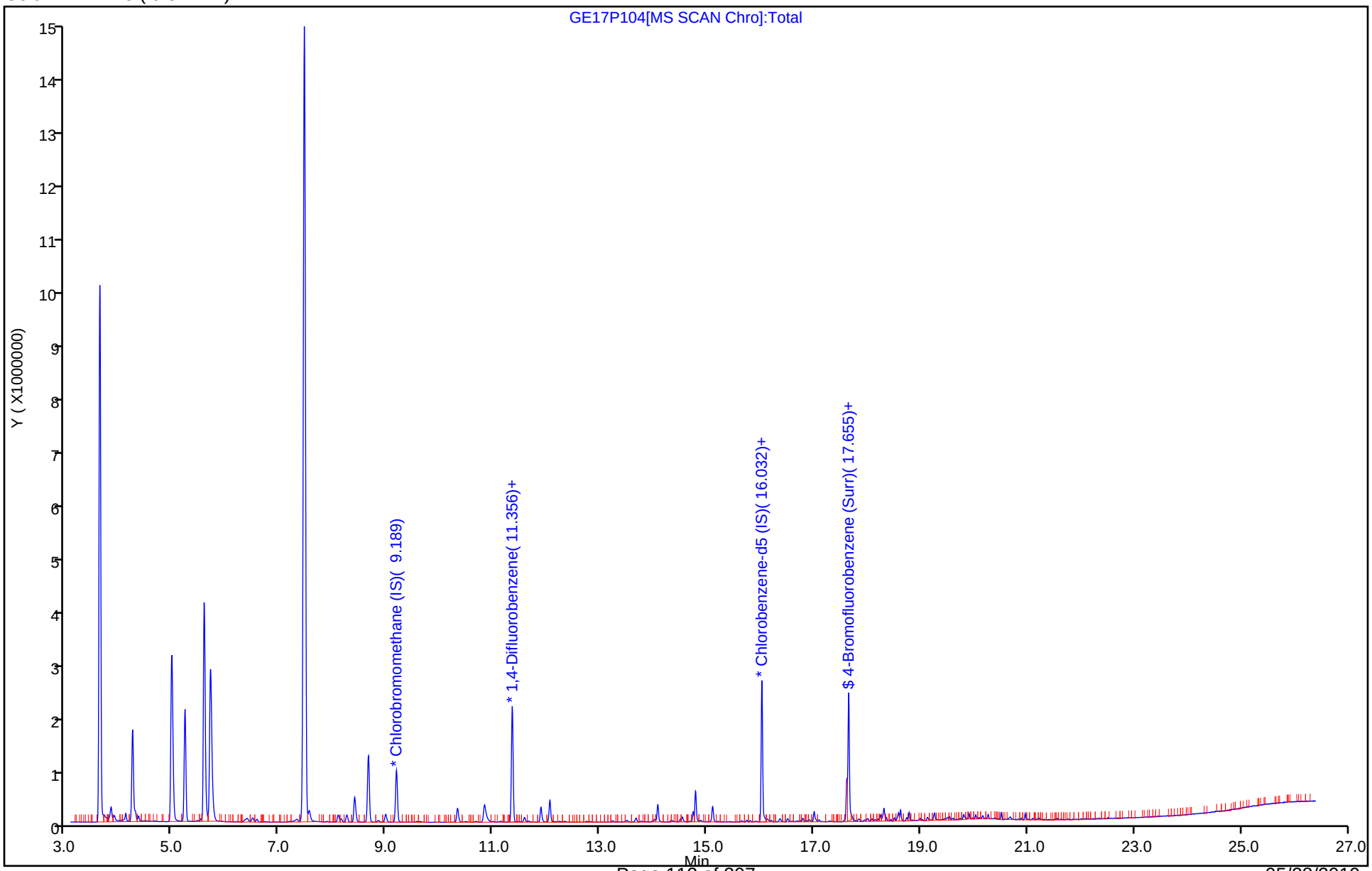
Report Date: 21-May-2019 12:30:41 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D

Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4	Worklist Smp#:	8
Client ID:	BLDG-C-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

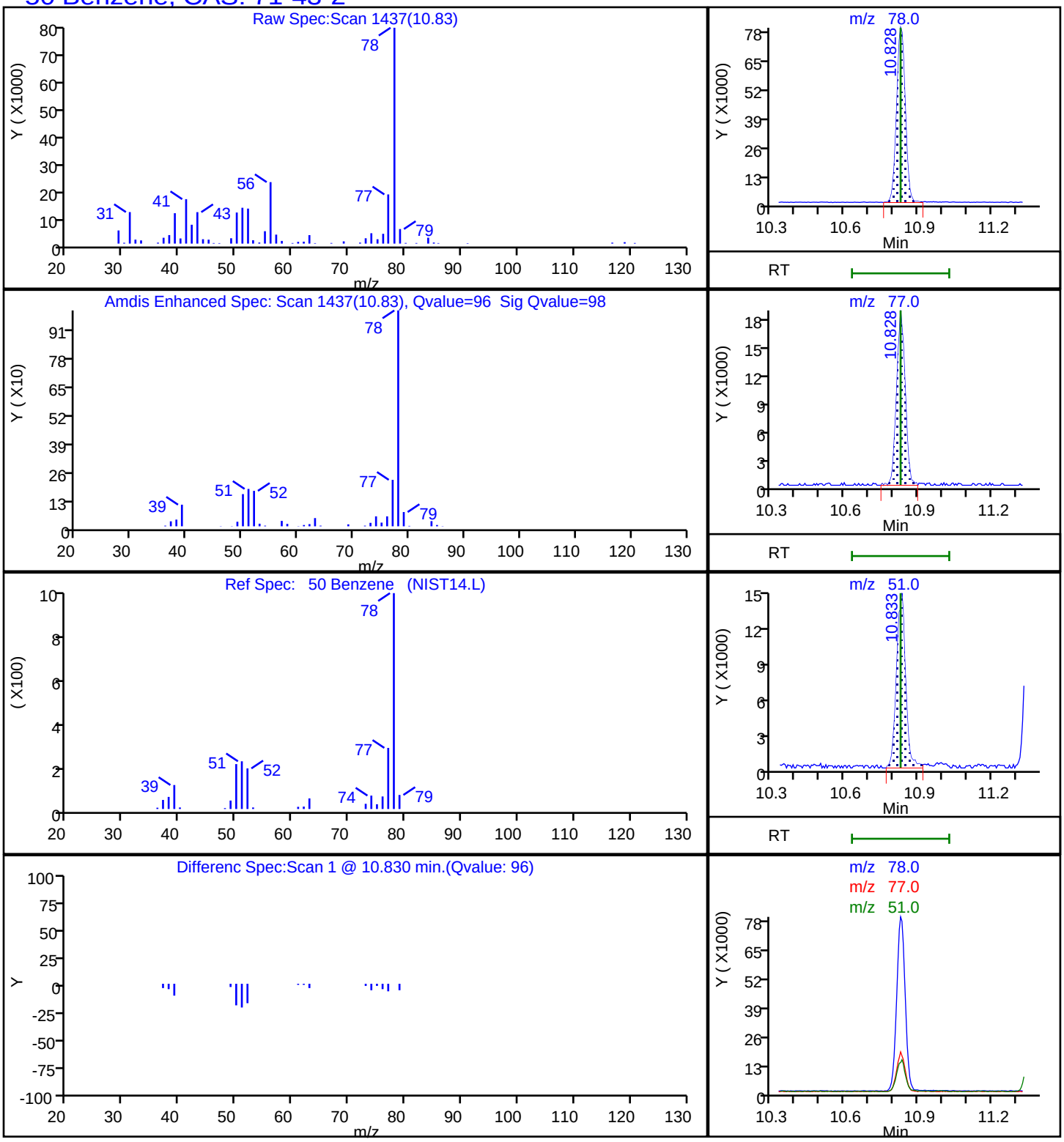
Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Lims ID:	140-15288-A-4				
Client ID:	BLDG-C-INFLUENT				
Sample Type:	Client				
Inject. Date:	17-May-2019 18:24:30	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-008				
Misc. Info.:	140-15288-a-4				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:28:16	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				
First Level Reviewer: khachitpongpanits		Date:	21-May-2019 12:30:40		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.95	98.79

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

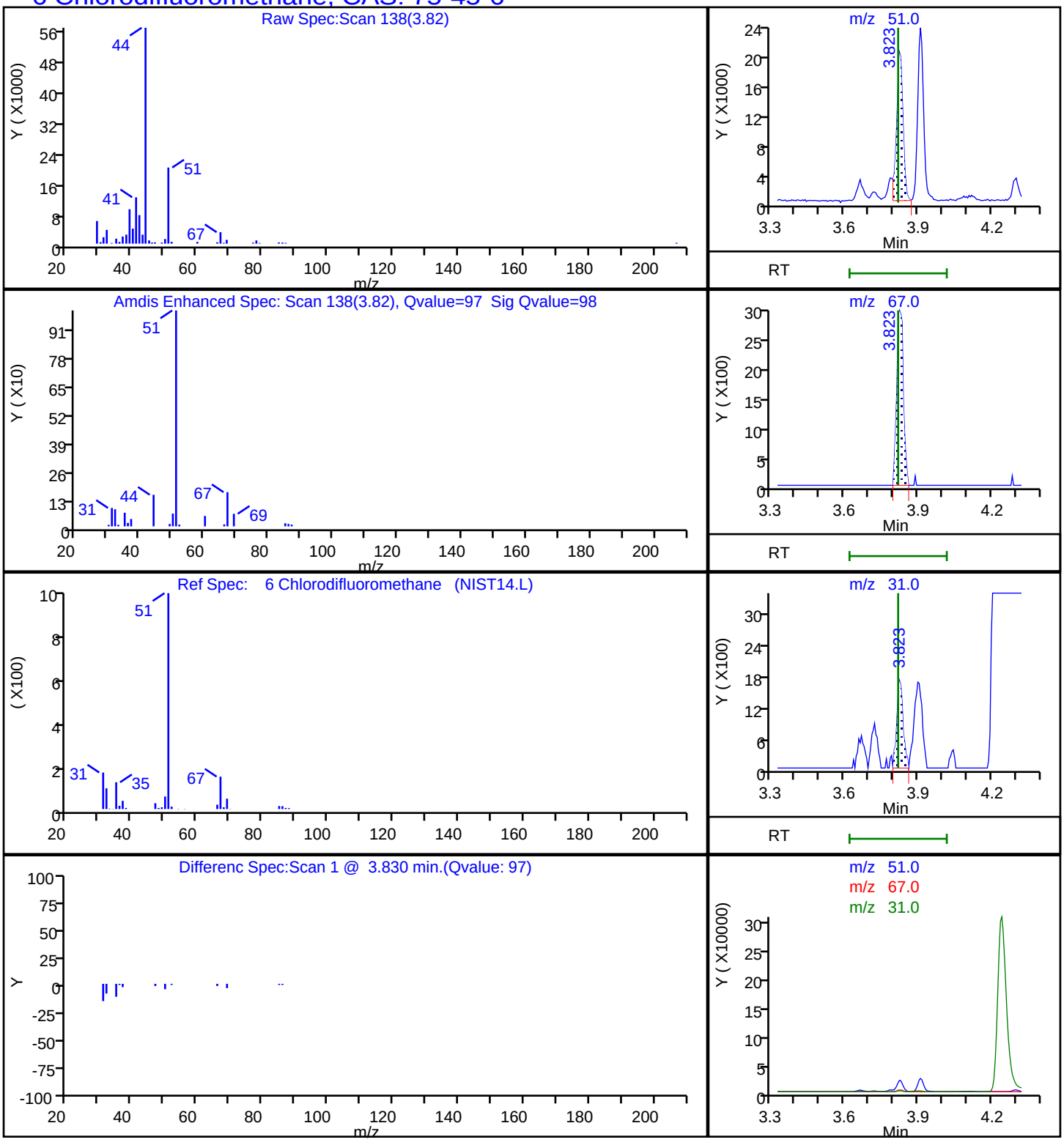
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

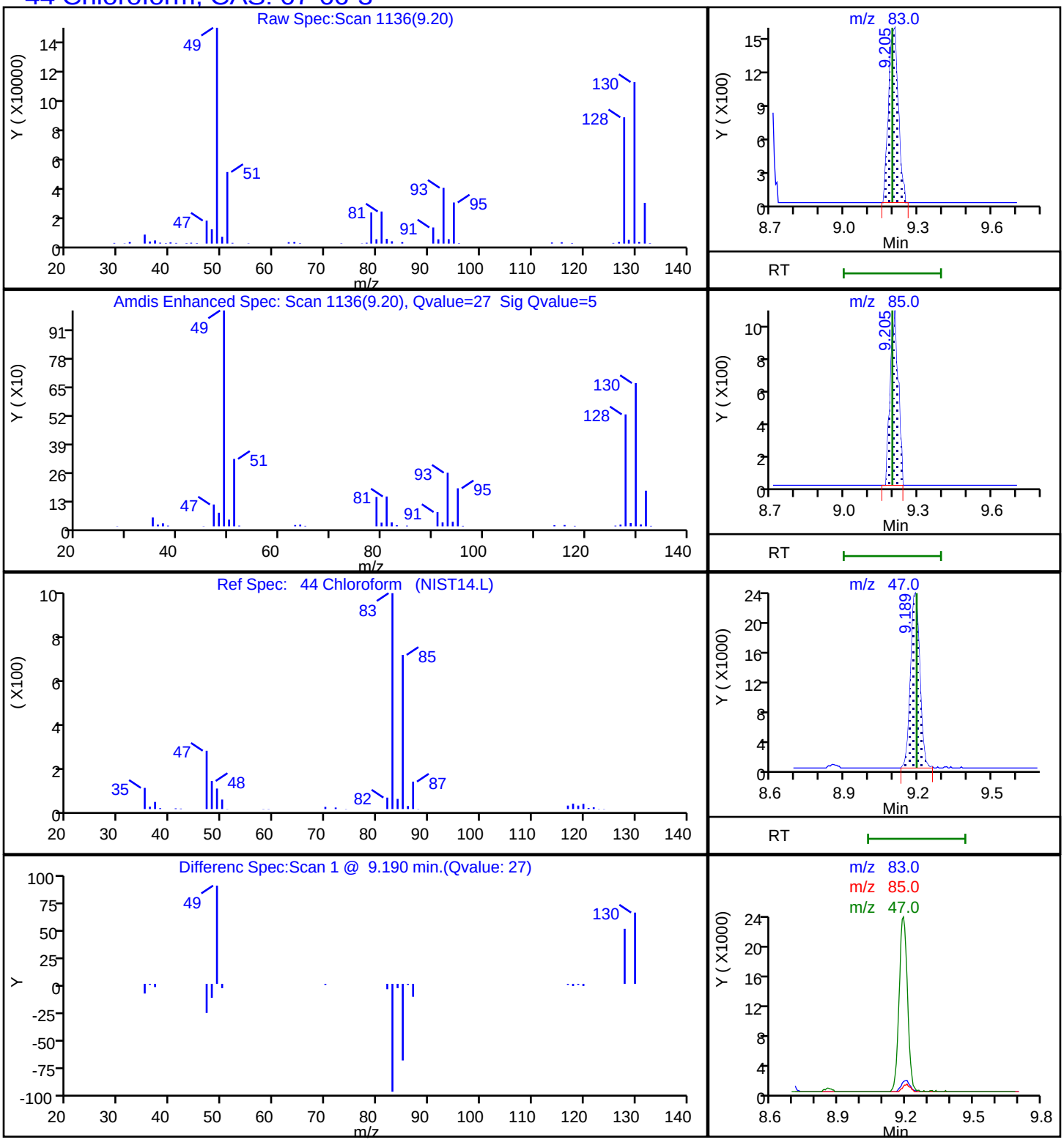


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D

Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

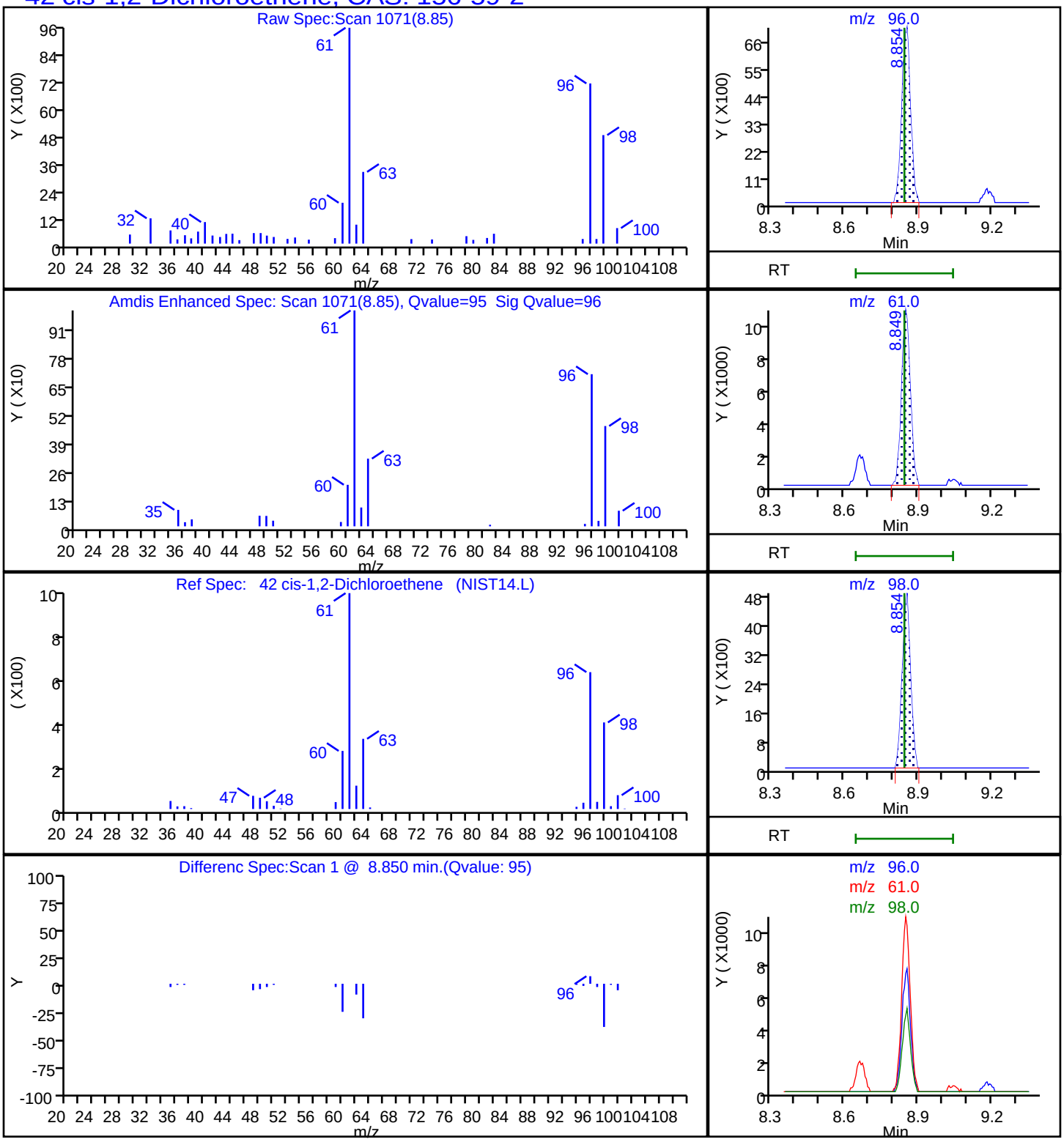
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

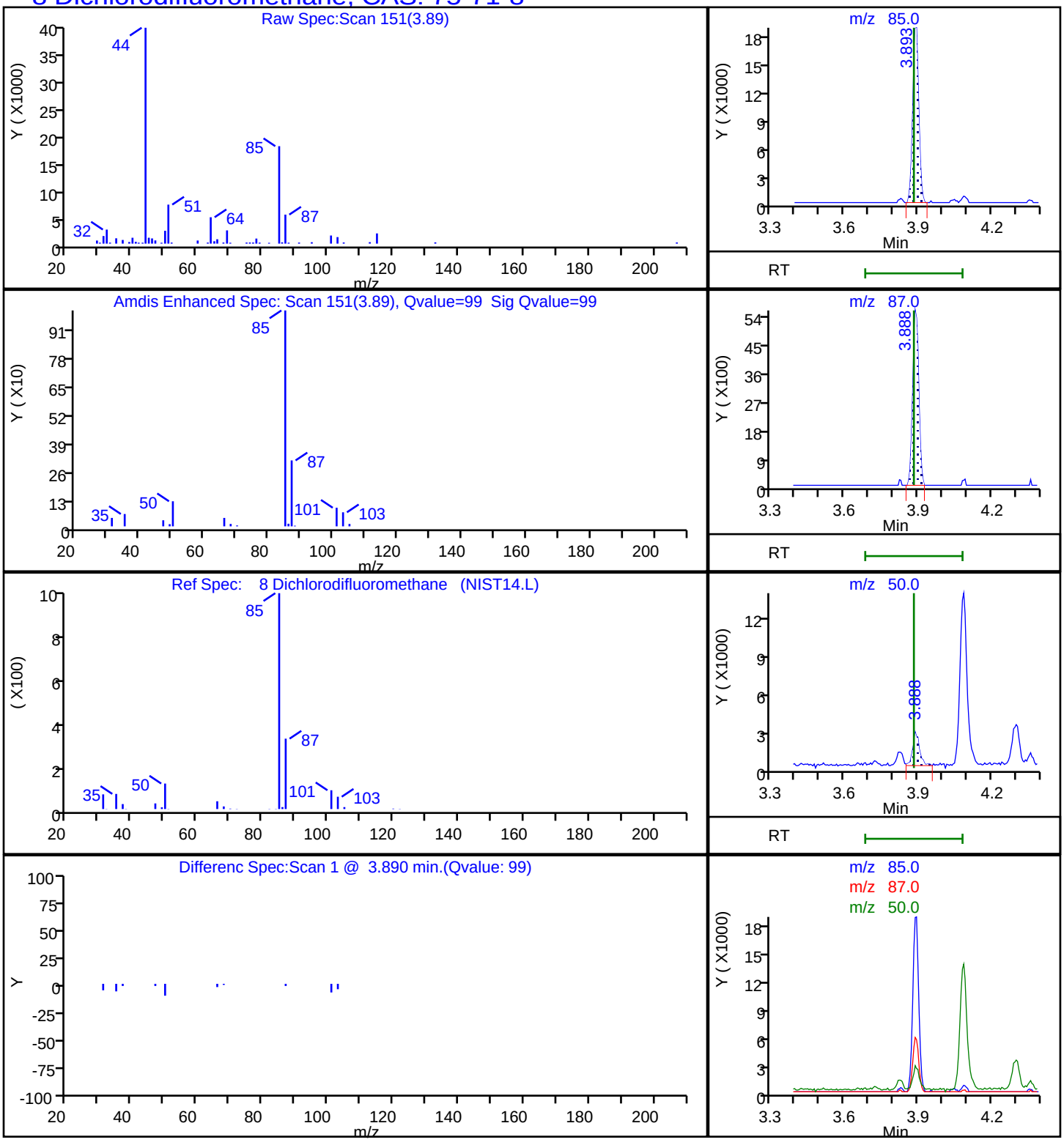
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

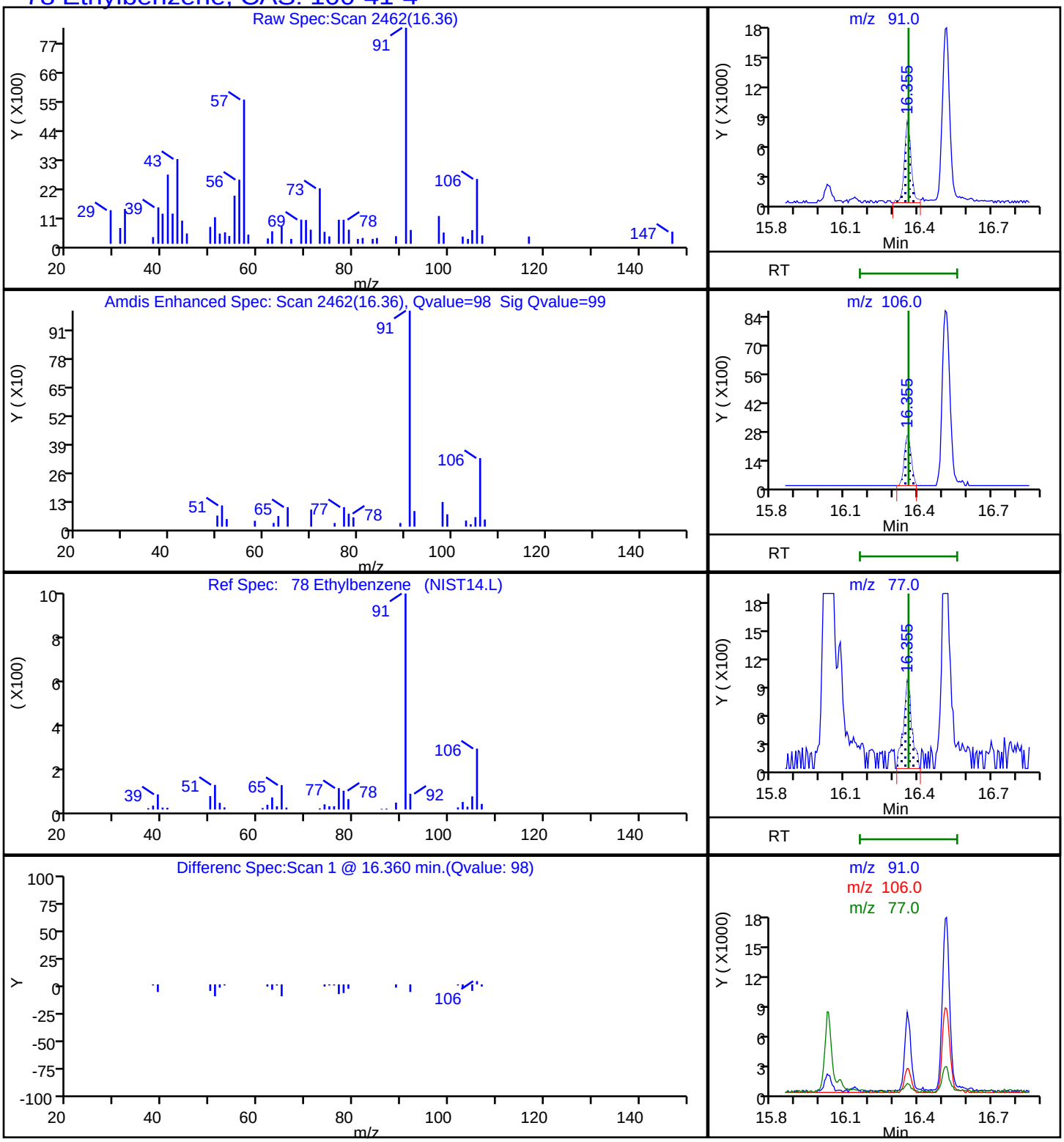
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

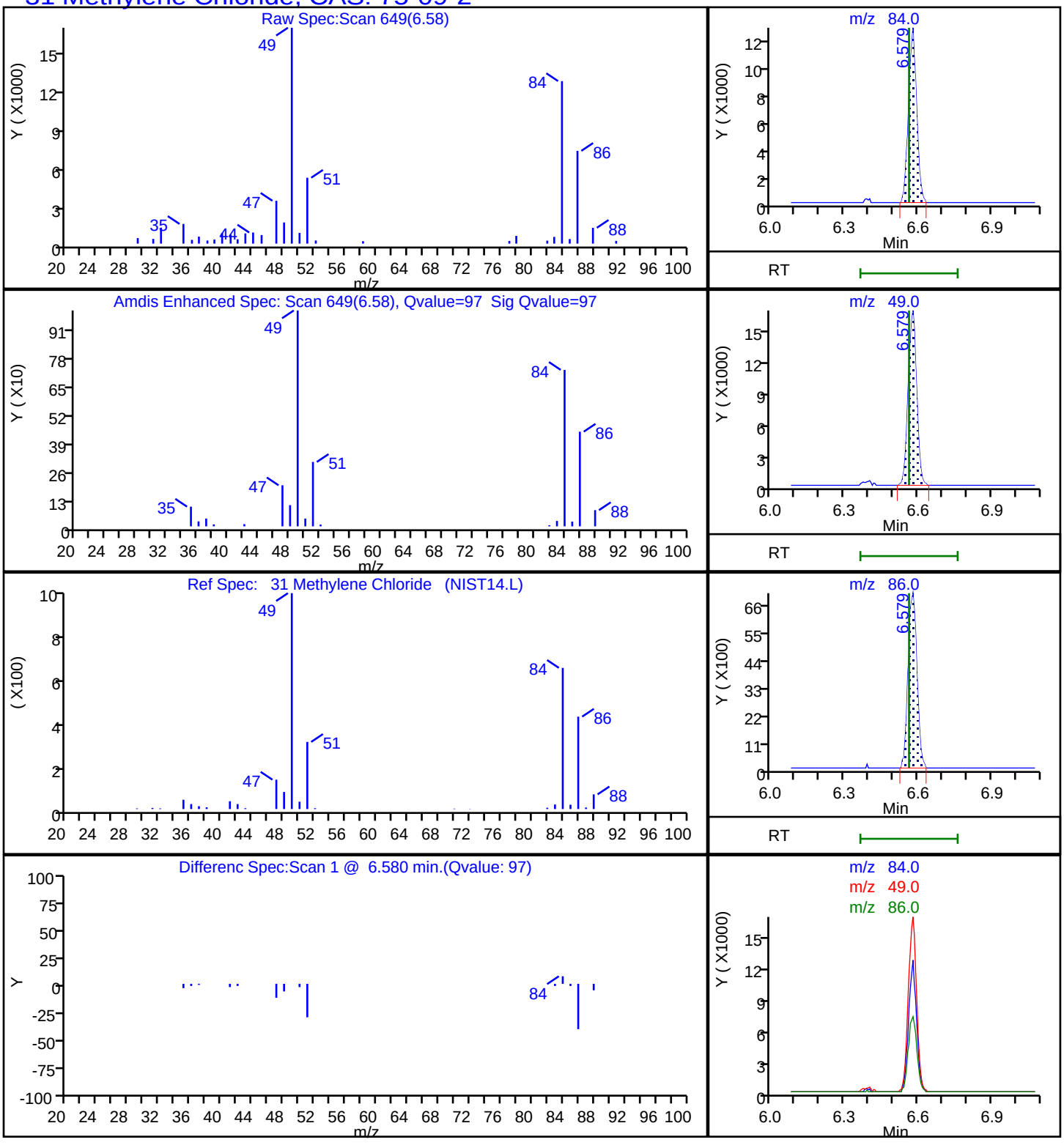
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

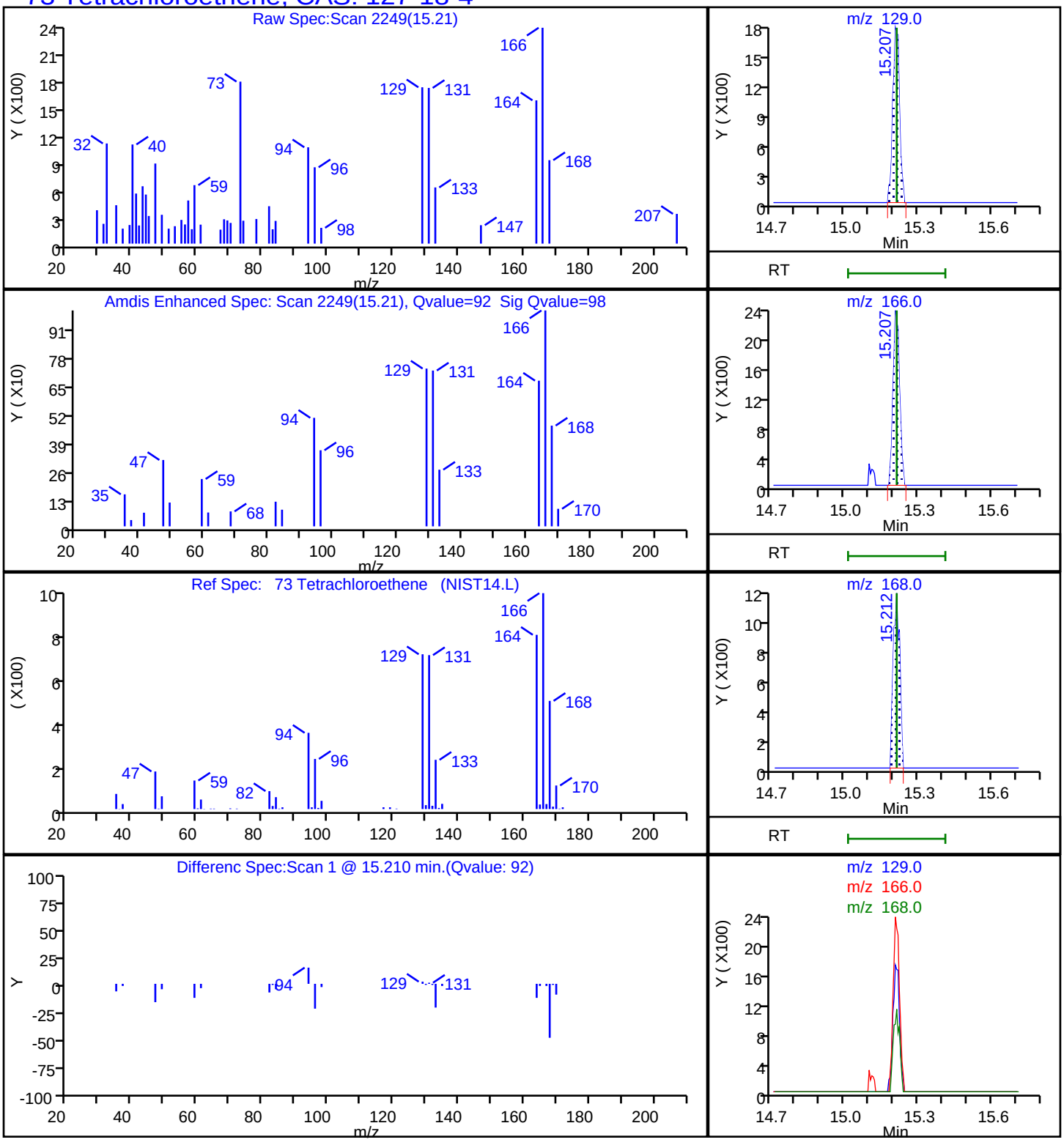
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

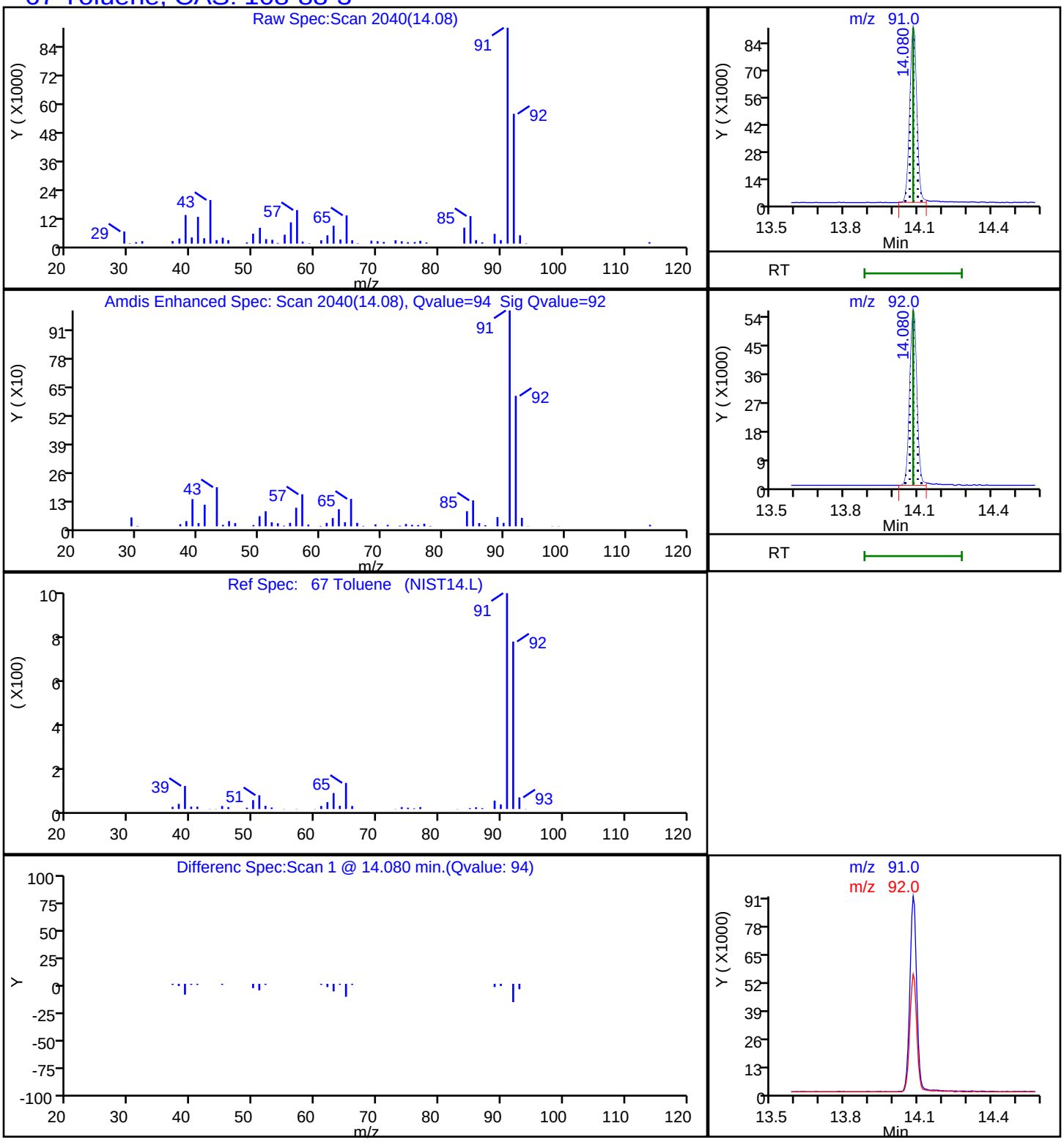
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

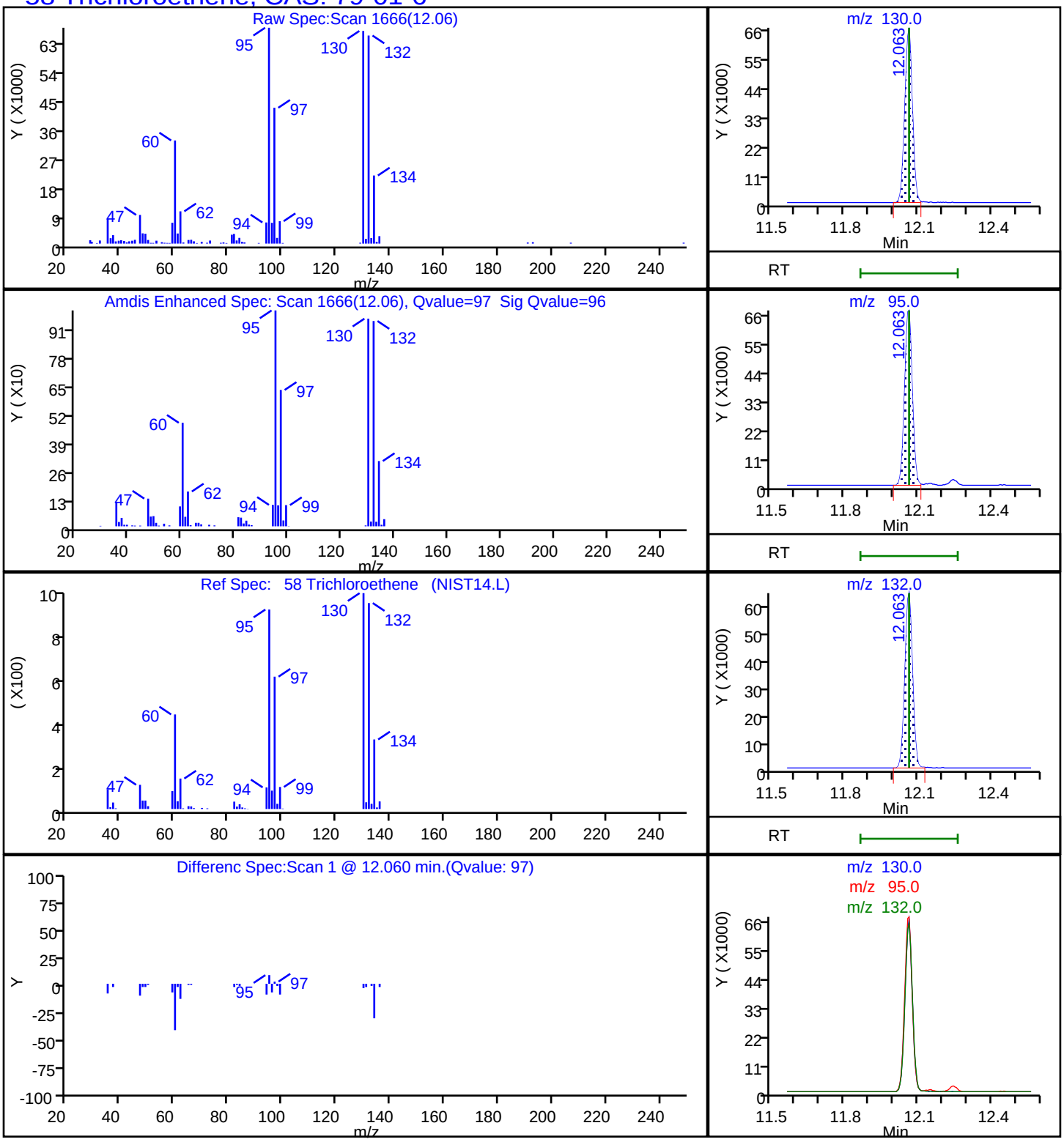
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

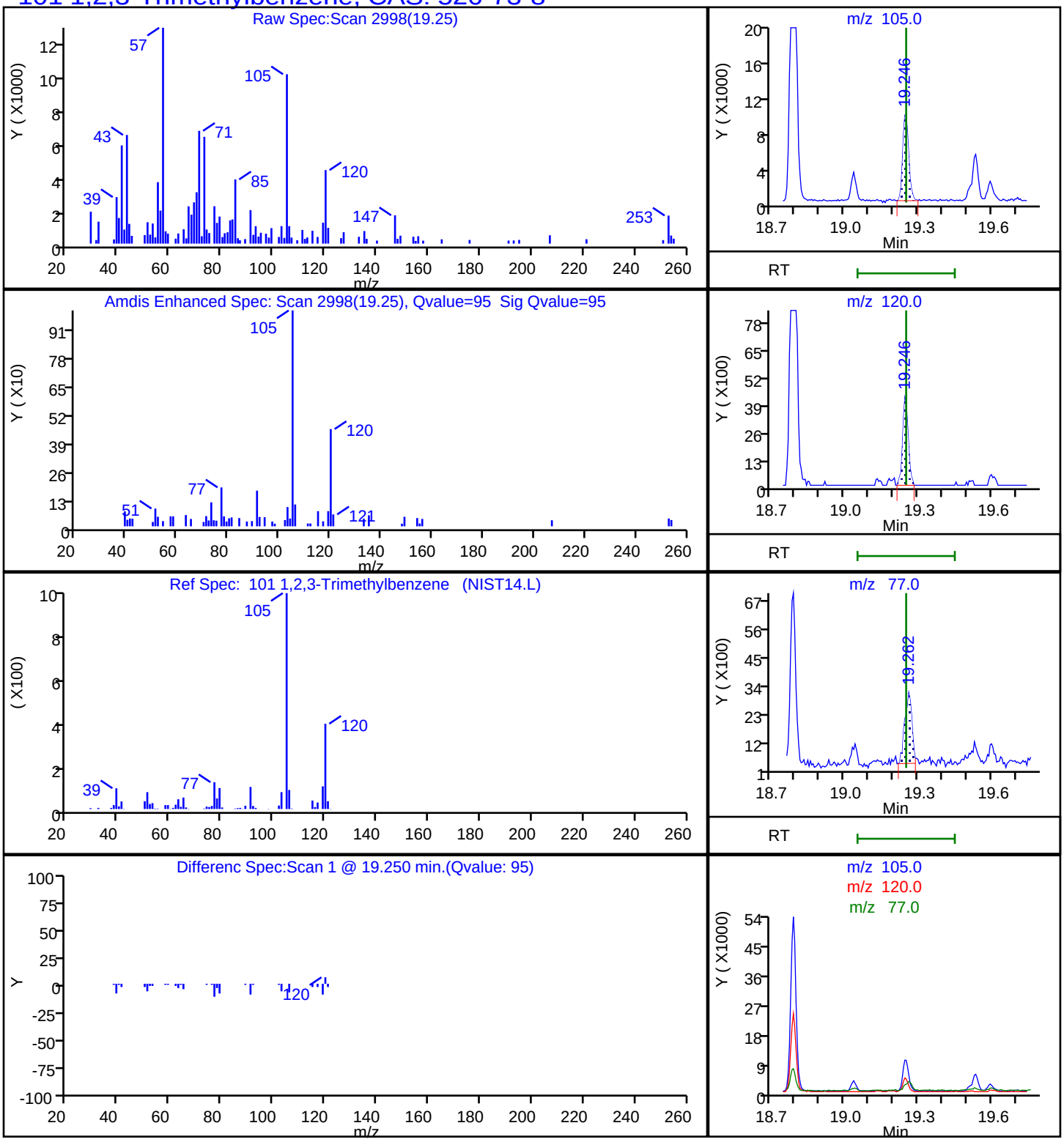
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

101 1,2,3-Trimethylbenzene, CAS: 526-73-8

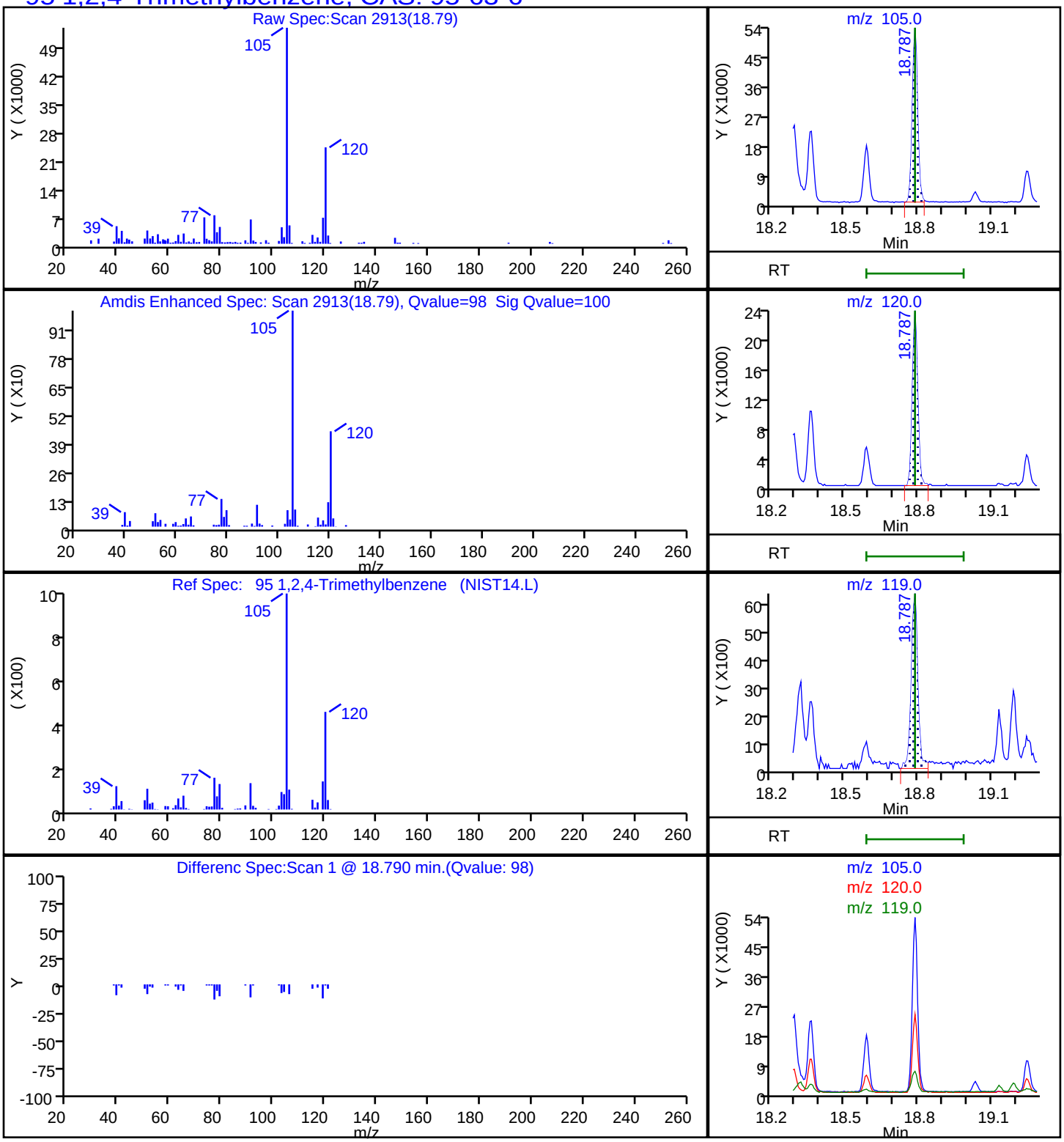


Report Date: 21-May-2019 12:30:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

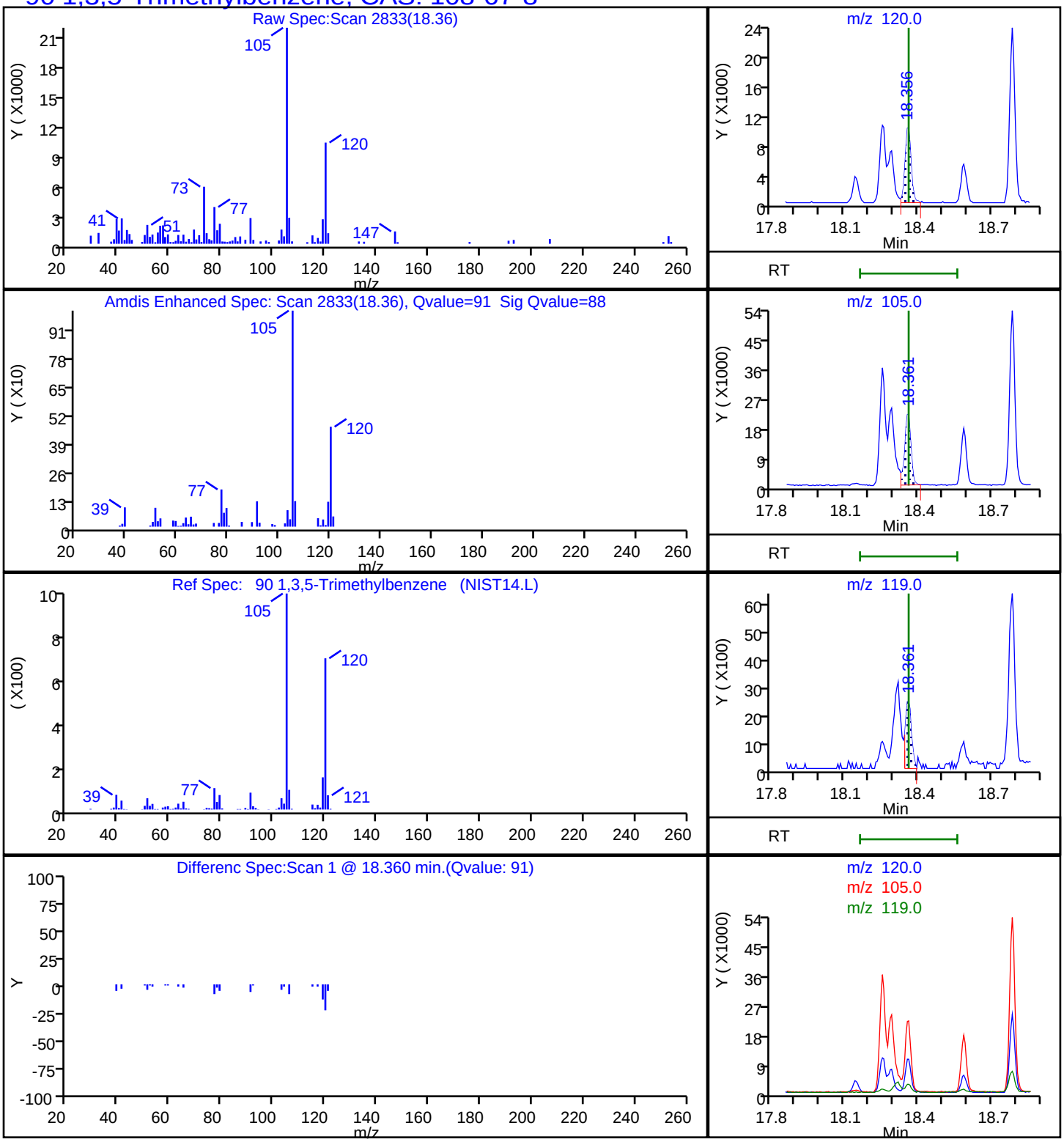
95 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

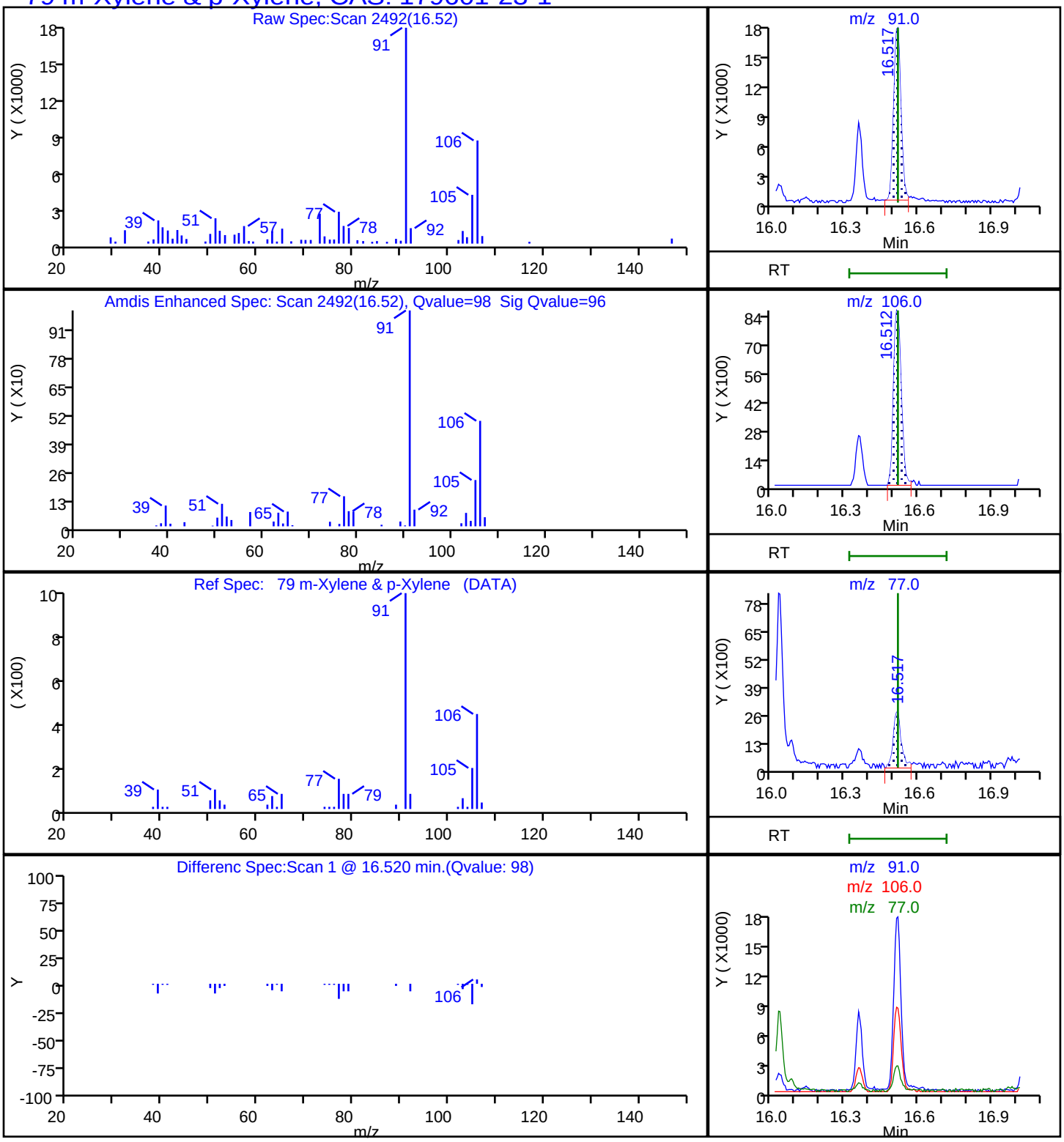


Report Date: 21-May-2019 12:30:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D				
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG		
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4		
Client ID:	BLDG-C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

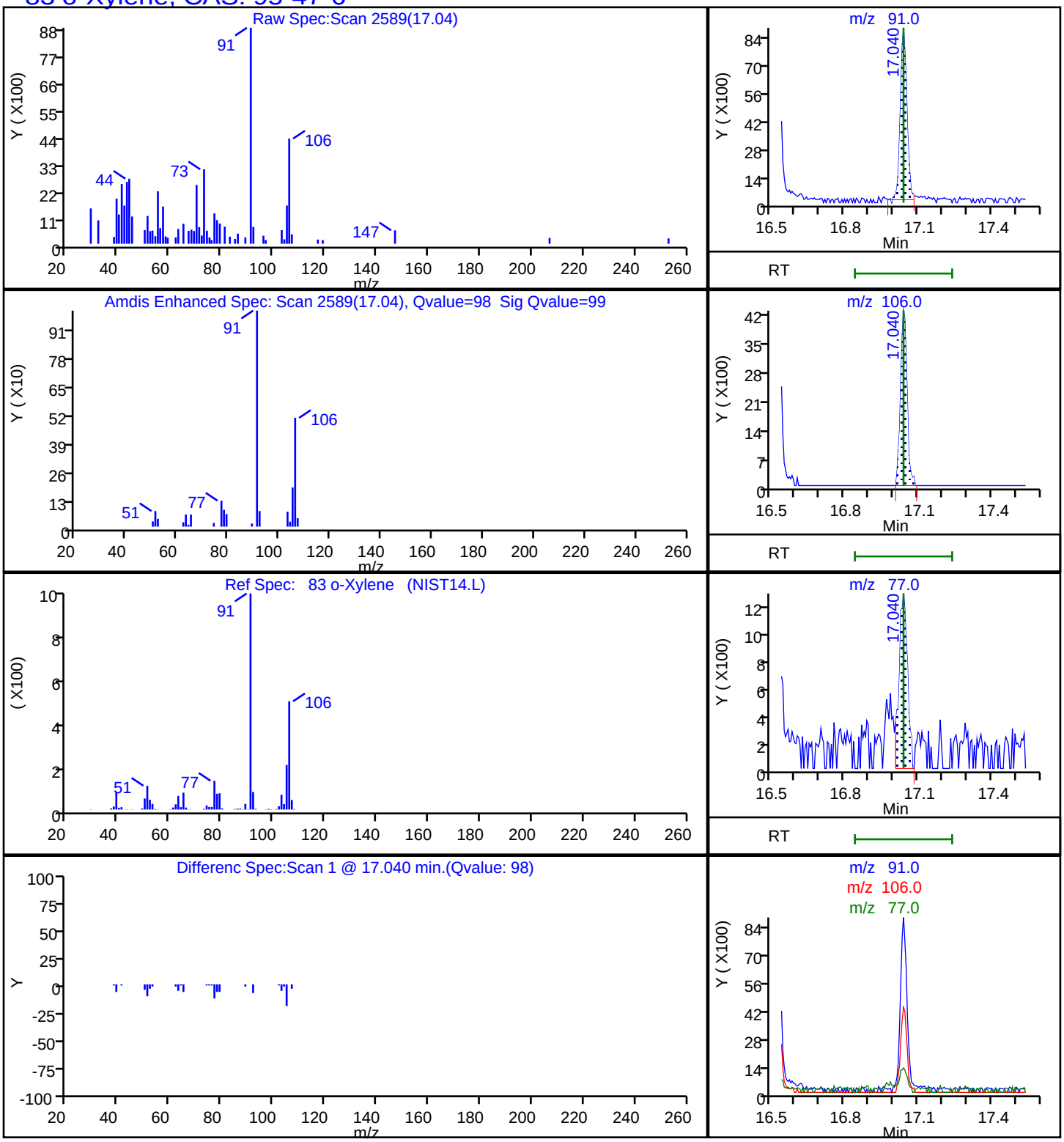
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P104.D		
Injection Date:	17-May-2019 18:24:30	Instrument ID:	MG
Lims ID:	140-15288-A-4	Lab Sample ID:	140-15288-4
Client ID:	BLDG-C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-MIDGAC Lab Sample ID: 140-15288-5

Matrix: Air Lab File ID: GE17P105.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:20

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	3.2		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.89		0.40	0.075
67-66-3	Chloroform	119.38	0.23	J	0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	0.70		0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	0.90	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	1.4		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	0.42		0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	ND		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	0.15	J	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.47	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-MIDGAC Lab Sample ID: 140-15288-5

Matrix: Air Lab File ID: GE17P105.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:20

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	10		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	3.2		1.4	0.27
67-66-3	Chloroform	119.38	1.1	J	2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	2.8		1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.8		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	3.1	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	5.1		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	2.3		2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	ND		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	0.74	J	2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	2.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D
Lims ID: 140-15288-A-5
Client ID: BLDG-C-MIDGAC
Sample Type: Client
Inject. Date: 17-May-2019 19:07:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-009
Misc. Info.: 140-15288-a-5
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:33:28 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:33:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.183	0.000	96	338323	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2215747	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1852062	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	1082921	3.80	
6 Chlorodifluoromethane	51	3.823	3.818	0.005	95	35165	0.1787	
8 Dichlorodifluoromethane	85	3.888	3.880	0.005	100	35295	0.1116	
31 Methylene Chloride	84	6.568	6.563	0.005	97	24401	0.1798	
42 cis-1,2-Dichloroethene	96	8.849	8.838	0.005	95	17738	0.1406	
44 Chloroform	83	9.194	9.189	0.000	28	11409	0.0450	
47 1,1,1-Trichloroethane	97	10.235	10.235	0.000	96	22809	0.0838	
50 Benzene	78	10.828	10.828	0.000	96	245199	0.6305	
58 Trichloroethene	130	12.052	12.057	-0.011	89	1636	0.009548	
67 Toluene	91	14.080	14.080	0.000	94	110005	0.2718	
78 Ethylbenzene	91	16.361	16.361	-0.001	96	7667	0.0152	
79 m-Xylene & p-Xylene	91	16.511	16.517	-0.006	98	25732	0.0664	
83 o-Xylene	91	17.040	17.040	0.000	98	11157	0.0271	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	97	13832	0.0300	
S 124 Xylenes, Total	100				0		0.0935	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

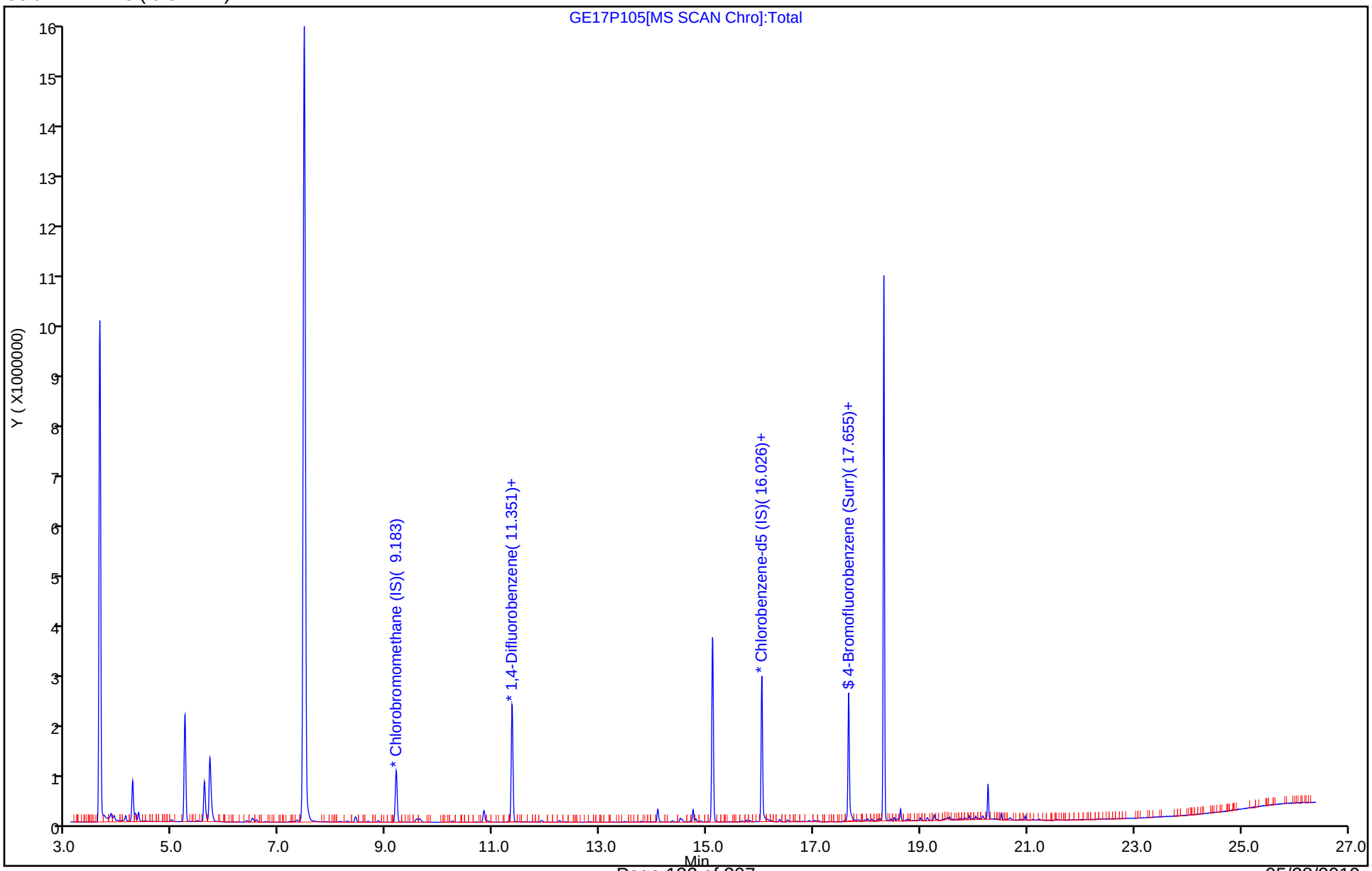
Report Date: 21-May-2019 12:33:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D

Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5	Worklist Smp#:	9
Client ID:	BLDG-C-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D				
Lims ID:	140-15288-A-5				
Client ID:	BLDG-C-MIDGAC				
Sample Type:	Client				
Inject. Date:	17-May-2019 19:07:30	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-009				
Misc. Info.:	140-15288-a-5				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:33:28	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:33:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.80	94.93

Report Date: 21-May-2019 12:33:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D

Injection Date: 17-May-2019 19:07:30 Instrument ID: MG

Lims ID: 140-15288-A-5 Lab Sample ID: 140-15288-5

Client ID: BLDG-C-MIDGAC

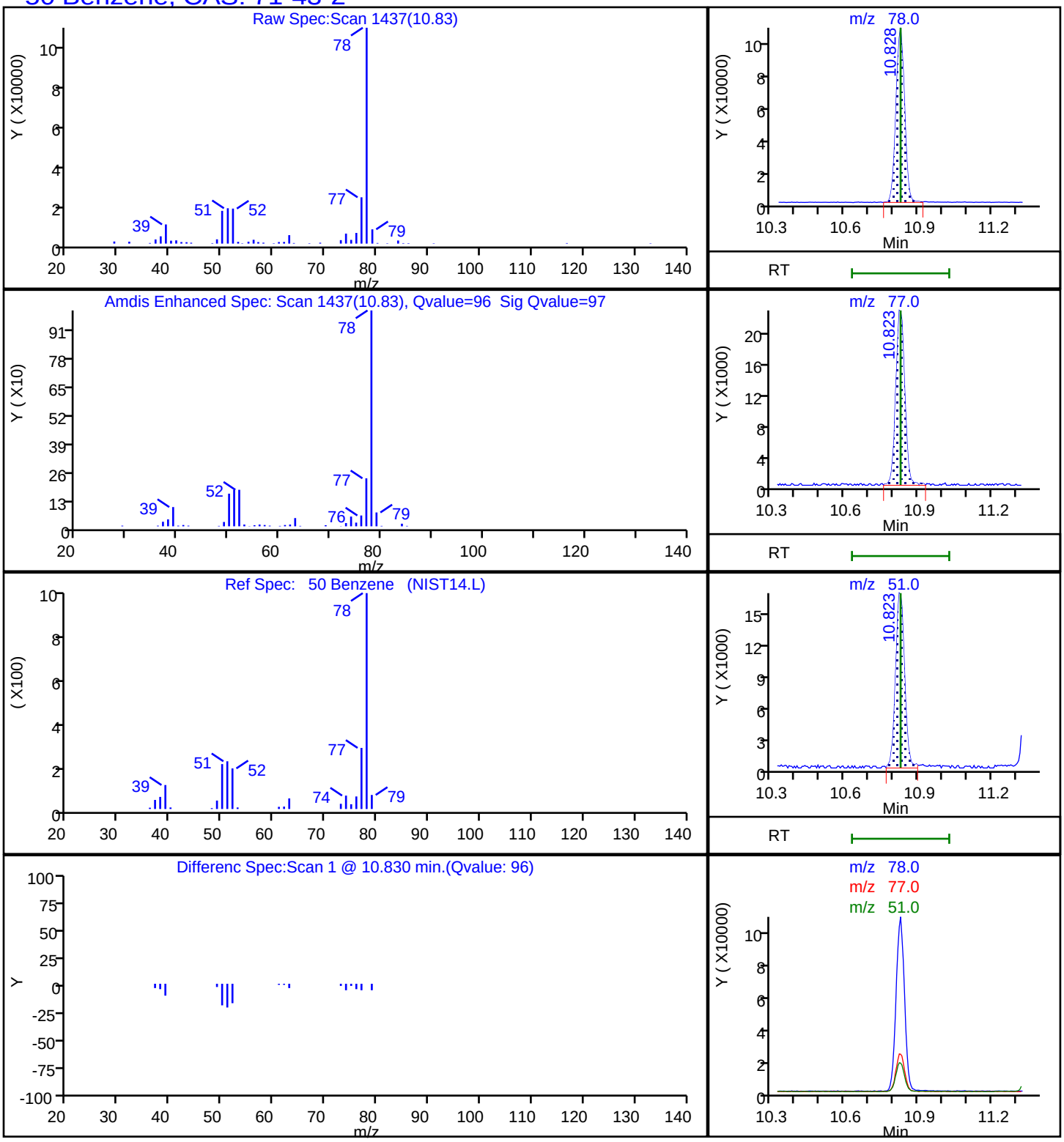
Operator ID: 7126 ALS Bottle#: 5 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

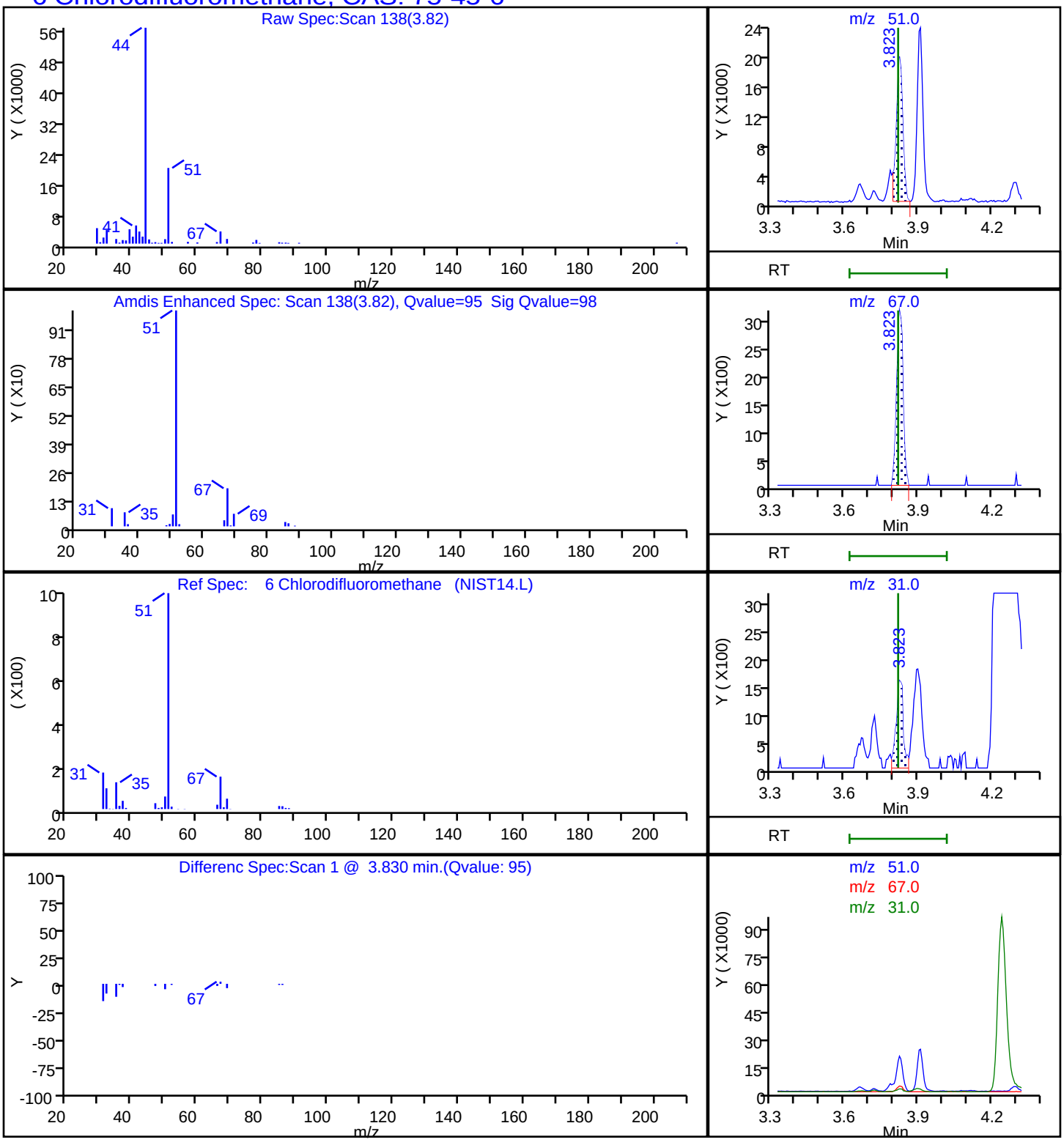
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D				
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG		
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5		
Client ID:	BLDG-C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

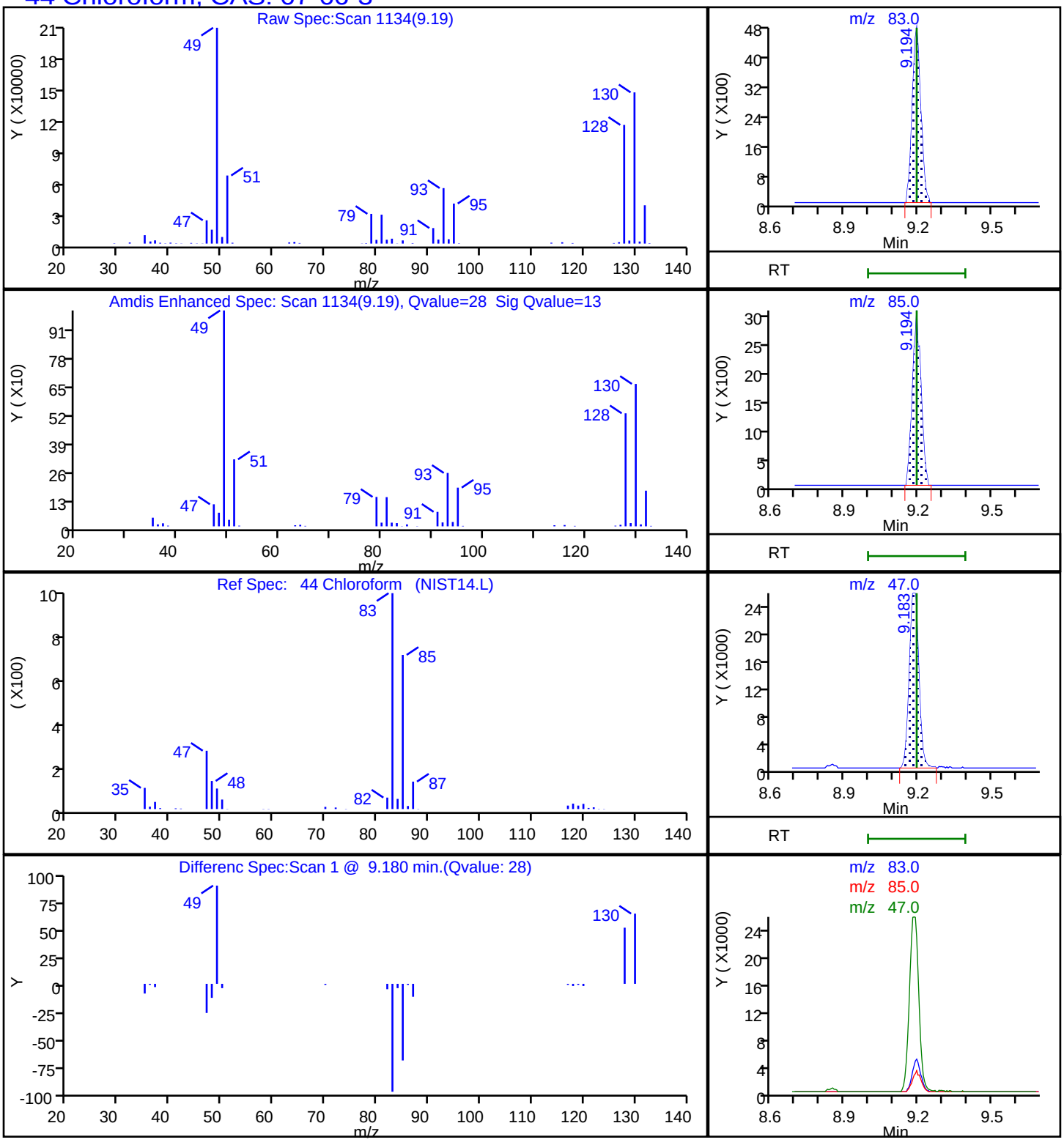
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

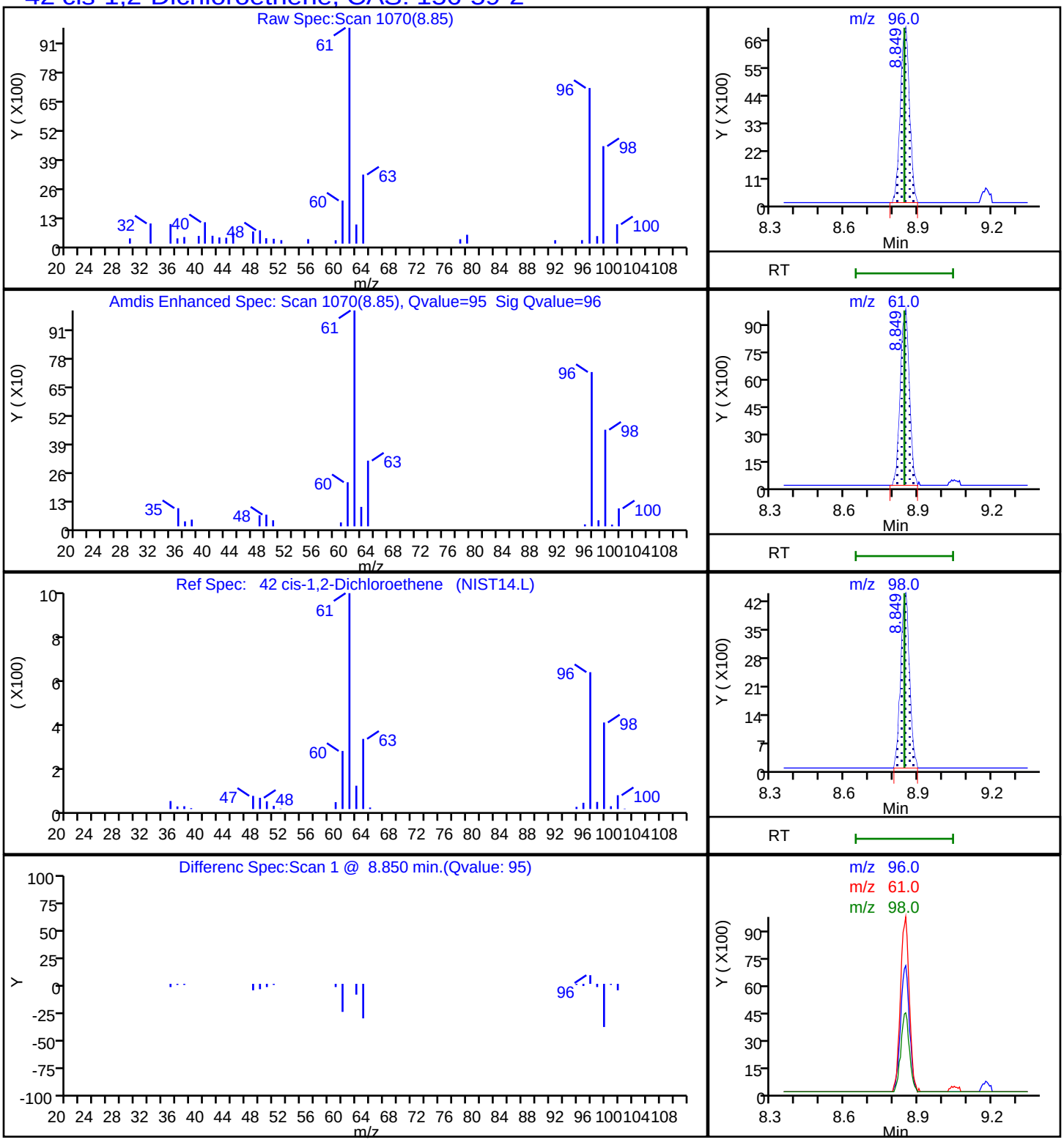
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D				
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG		
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5		
Client ID:	BLDG-C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

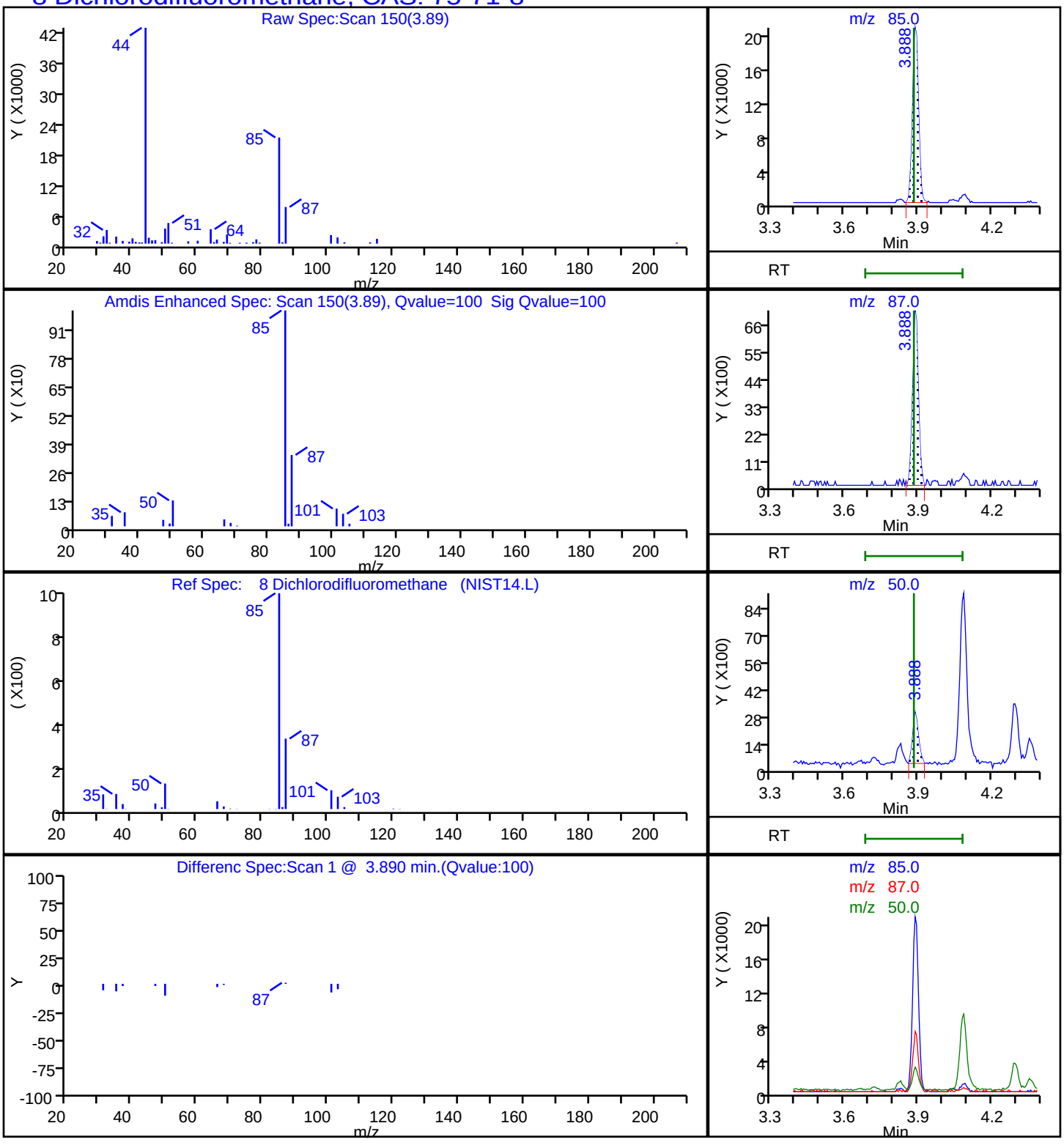
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

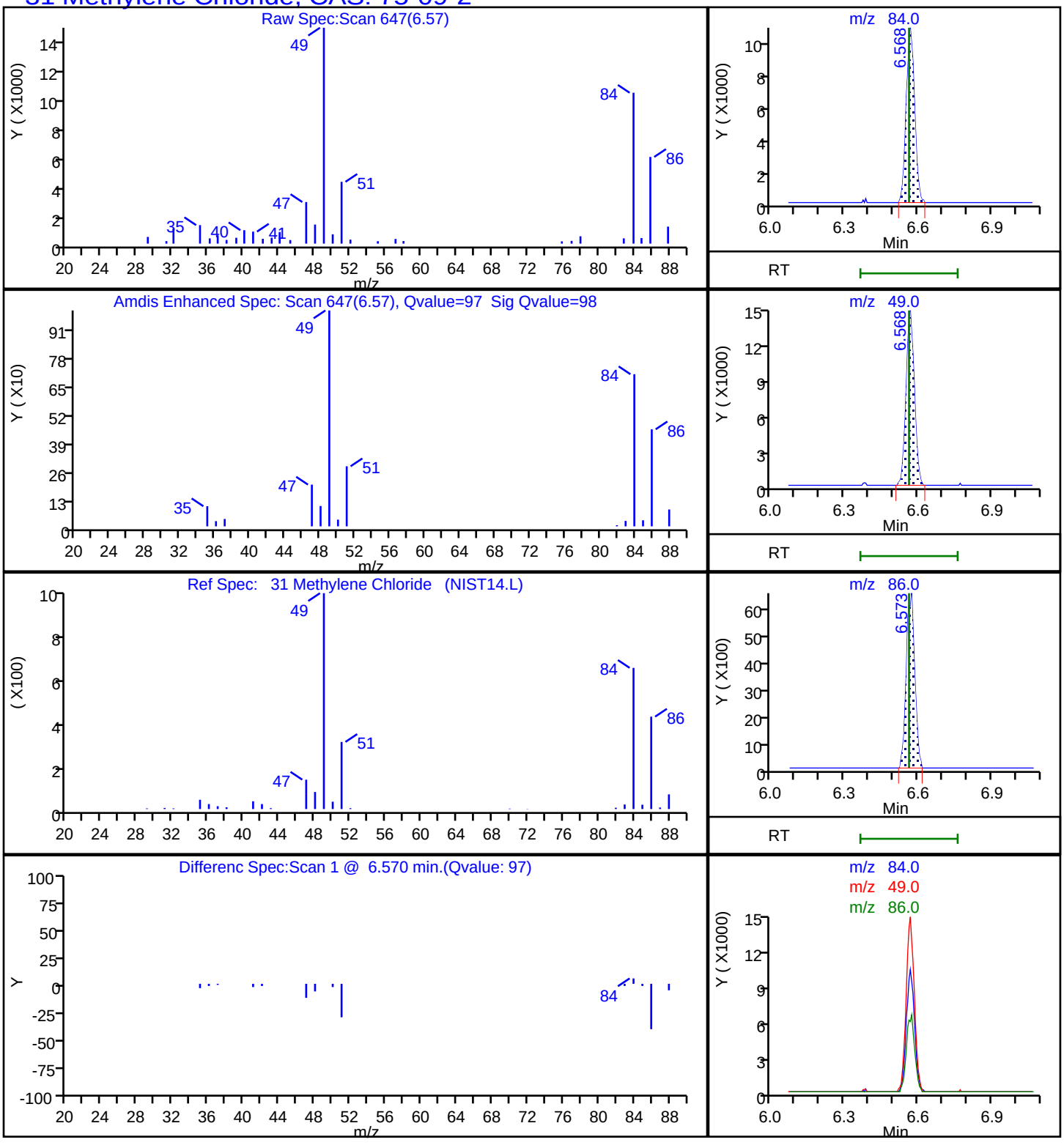
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

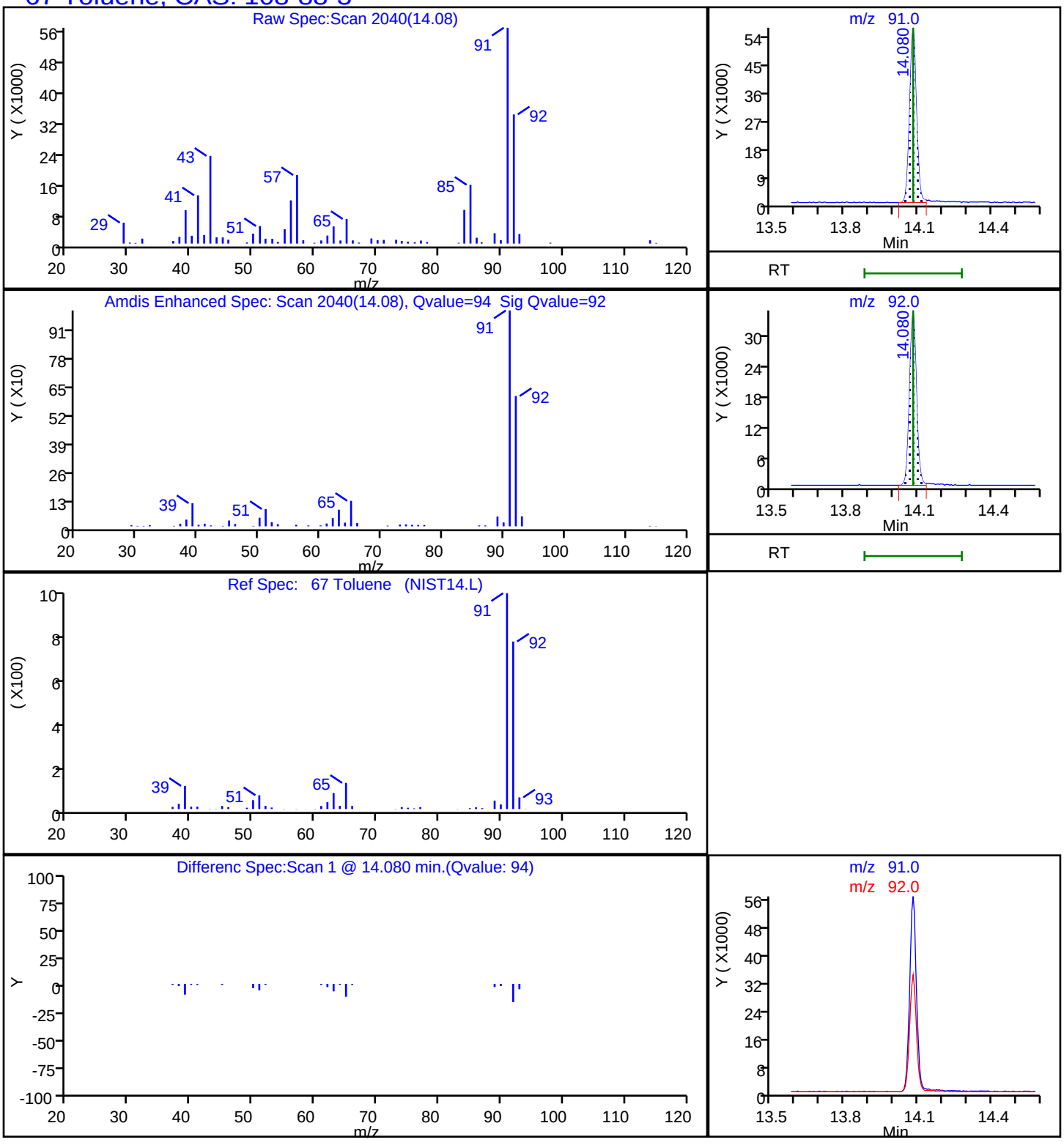
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

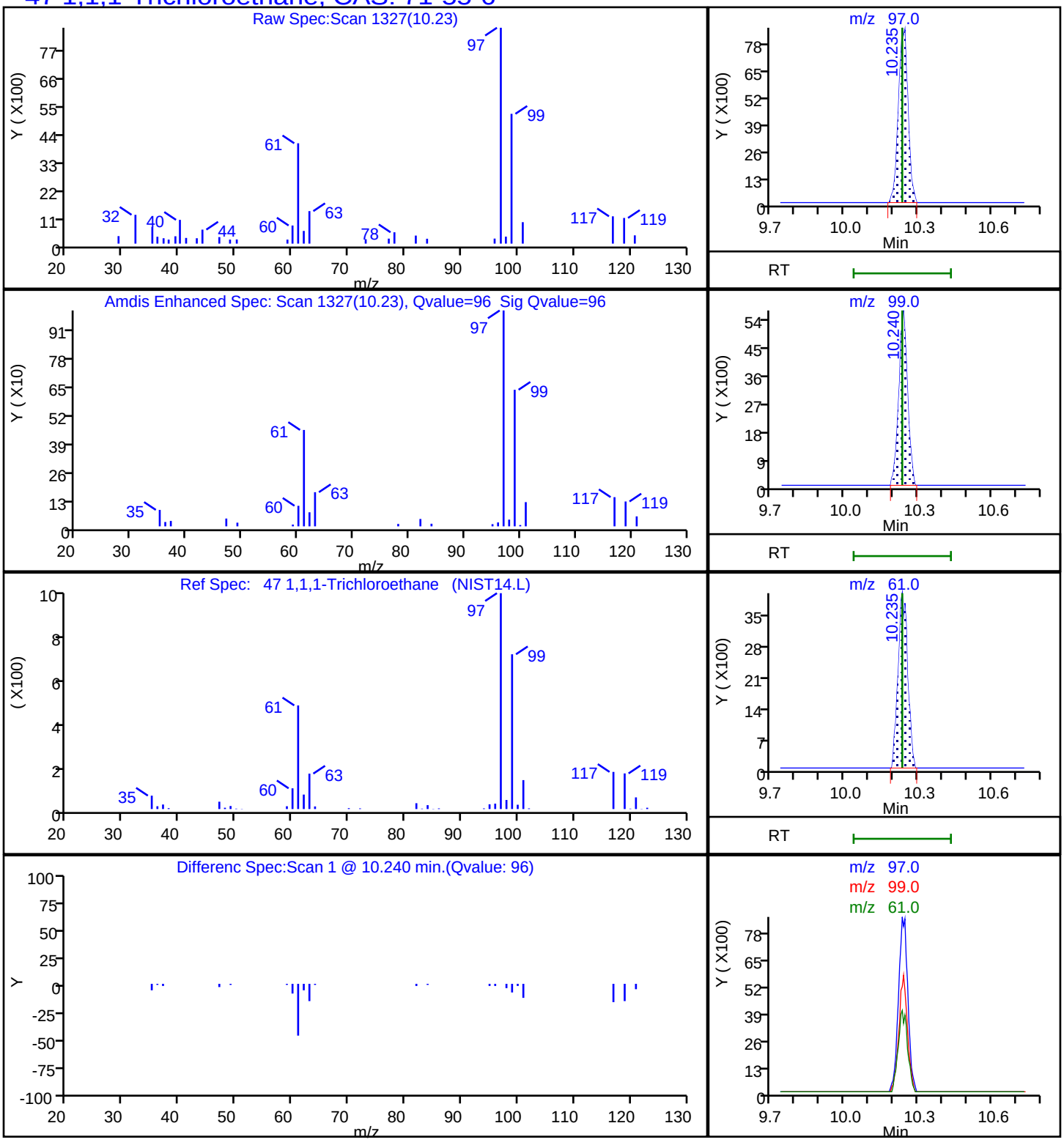
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

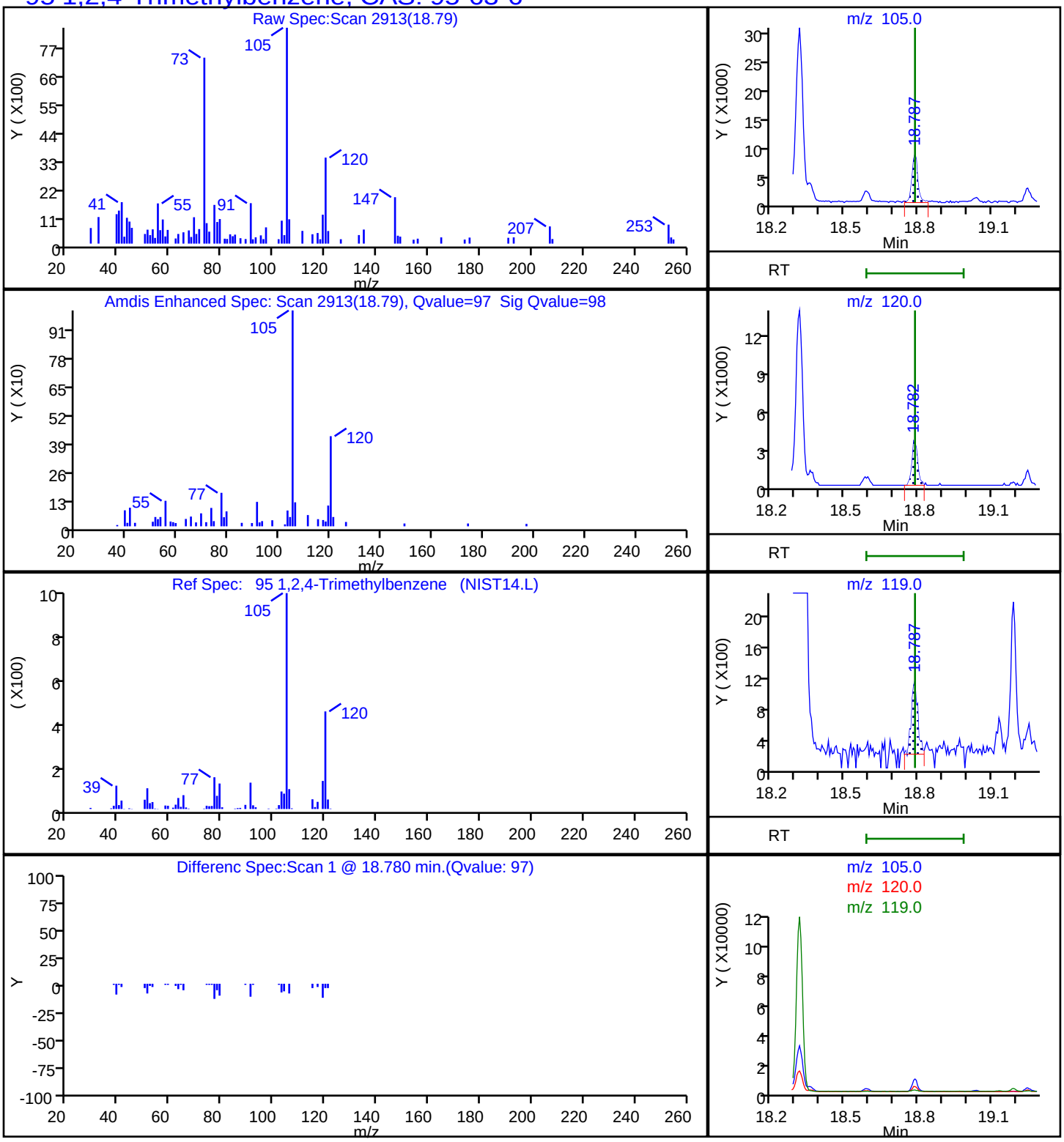
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

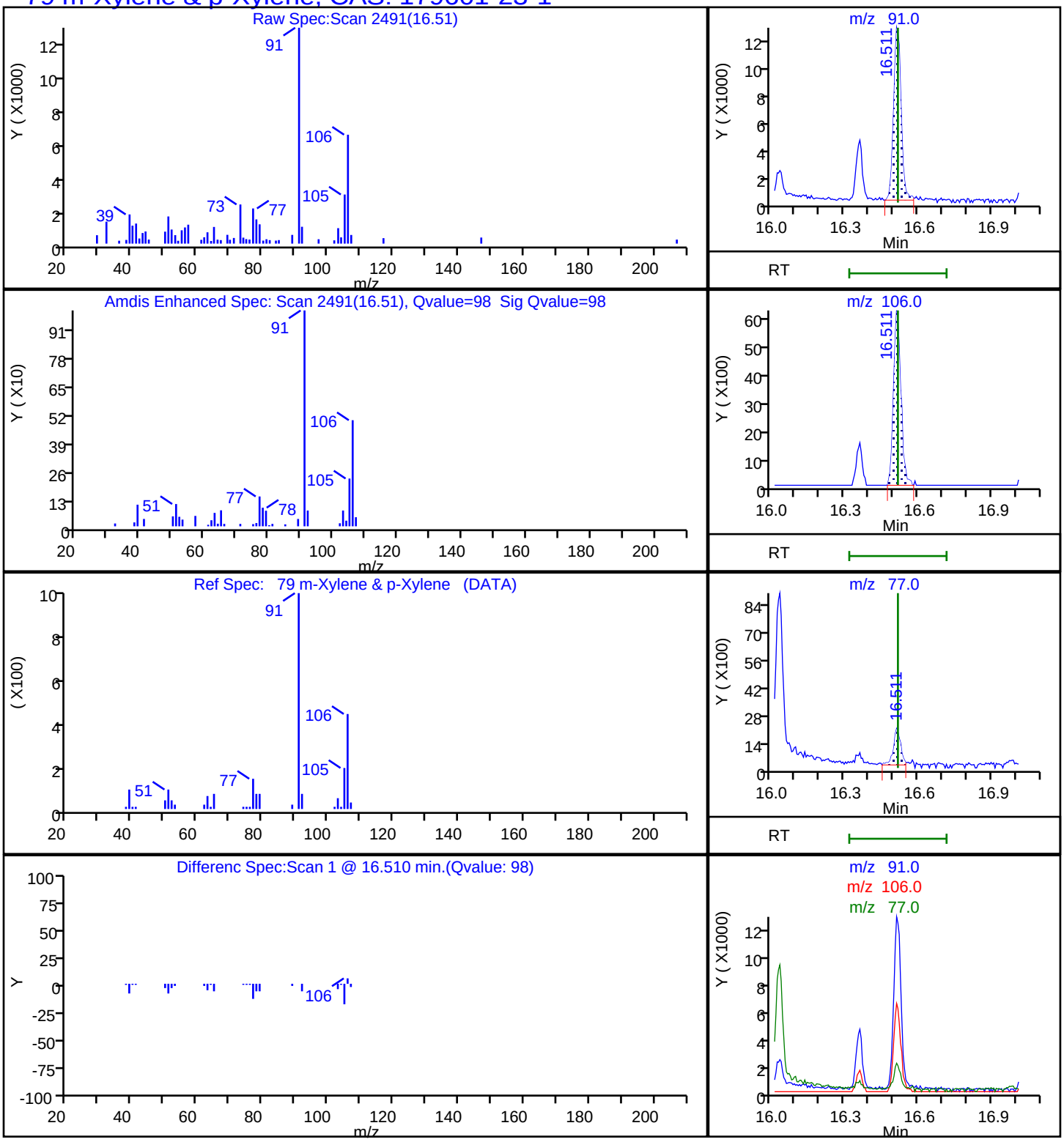
95 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

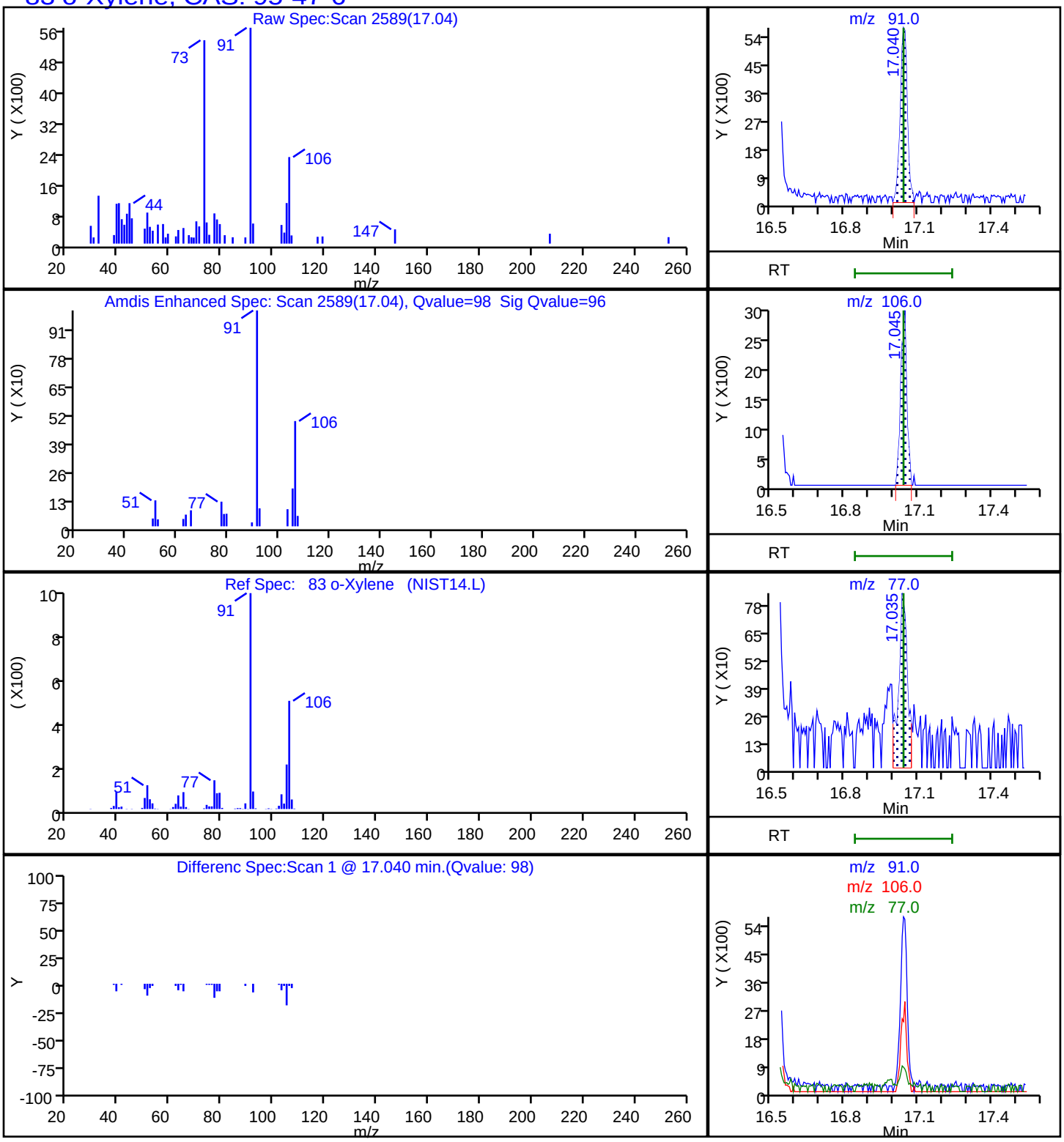
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D		
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5
Client ID:	BLDG-C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	5 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



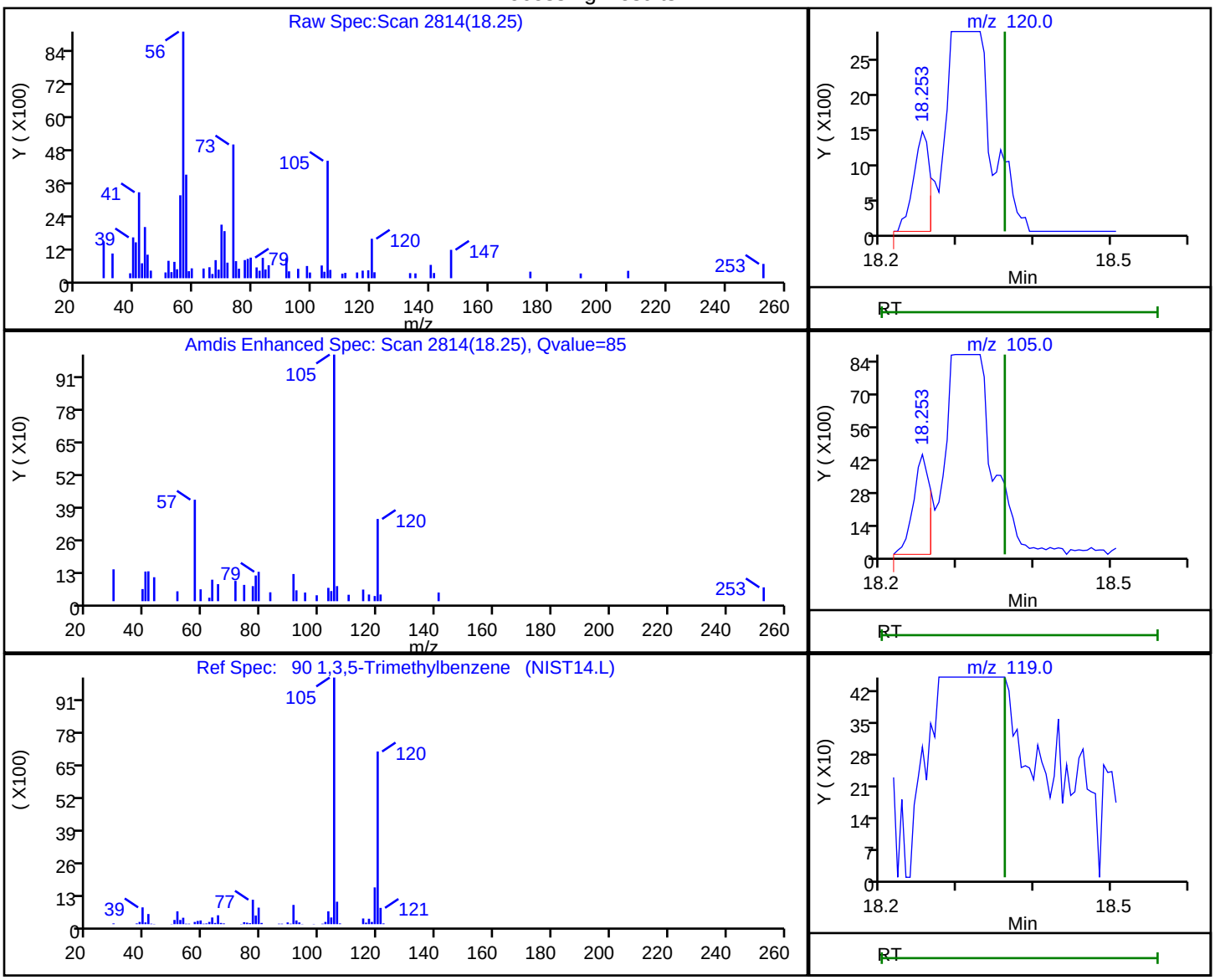
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P105.D				
Injection Date:	17-May-2019 19:07:30	Instrument ID:	MG		
Lims ID:	140-15288-A-5	Lab Sample ID:	140-15288-5		
Client ID:	BLDG-C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.25	120.00	2068	0.009121
18.25	105.00	6258	
18.22	119.00	177	

Reviewer: khachitpongpanits, 21-May-2019 12:33:10

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-EFFLUENT Lab Sample ID: 140-15288-6

Matrix: Air Lab File ID: GE17P106D.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:25

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 19:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.8		0.40	0.12
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.075
75-45-6	Chlorodifluoromethane	86.47	0.83		0.40	0.075
67-66-3	Chloroform	119.38	0.49		0.40	0.075
156-59-2	cis-1,2-Dichloroethene	96.94	0.18	J	0.40	0.12
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.40	0.14
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.050
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.095
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.070
100-41-4	Ethylbenzene	106.17	ND		0.40	0.14
75-09-2	Methylene Chloride	84.93	0.87	J	2.0	0.65
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.34
91-20-3	Naphthalene	128.17	ND		0.20	0.20
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.080
108-88-3	Toluene	92.14	1.6		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
71-55-6	1,1,1-Trichloroethane	133.41	0.24	J	0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
79-01-6	Trichloroethene	131.39	ND		0.20	0.070
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	0.69		0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	0.31	J	0.40	0.13
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15
1330-20-7	Xylenes, Total	106.17	0.41	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: BLDG-C-EFFLUENT Lab Sample ID: 140-15288-6

Matrix: Air Lab File ID: GE17P106D.D

Analysis Method: TO 15 LL Date Collected: 05/14/2019 12:25

Sample wt/vol: 100(mL) Date Analyzed: 05/17/2019 19:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	5.9		1.3	0.37
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.47
75-45-6	Chlorodifluoromethane	86.47	3.0		1.4	0.27
67-66-3	Chloroform	119.38	2.4		2.0	0.37
156-59-2	cis-1,2-Dichloroethene	96.94	0.71	J	1.6	0.48
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.67
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.38
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.28
100-41-4	Ethylbenzene	106.17	ND		1.7	0.59
75-09-2	Methylene Chloride	84.93	3.0	J	6.9	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	1.2
91-20-3	Naphthalene	128.17	ND		1.0	1.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.54
108-88-3	Toluene	92.14	5.9		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
71-55-6	1,1,1-Trichloroethane	133.41	1.3	J	2.2	0.33
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
79-01-6	Trichloroethene	131.39	ND		1.1	0.38
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.84
95-63-6	1,2,4-Trimethylbenzene	120.20	3.4		2.0	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	1.5	J	2.0	0.64
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37
1330-20-7	Xylenes, Total	106.17	1.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D				
Lims ID:	140-15288-A-6				
Client ID:	BLDG-C-EFFLUENT				
Sample Type:	Client				
Inject. Date:	17-May-2019 19:51:30	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-010				
Misc. Info.:	140-15288-a-6				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:33:28	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				
First Level Reviewer: khachitpongpanits		Date:	21-May-2019 12:34:23		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.194	9.183	0.011	96	341263	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2186861	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	89	1843246	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	1073430	3.78	
6 Chlorodifluoromethane	51	3.823	3.818	0.005	97	33155	0.1670	
8 Dichlorodifluoromethane	85	3.888	3.880	0.005	100	34803	0.1091	
31 Methylene Chloride	84	6.584	6.563	0.021	95	23829	0.1741	
42 cis-1,2-Dichloroethene	96	8.854	8.838	0.010	94	4531	0.0356	
44 Chloroform	83	9.205	9.189	0.011	95	24830	0.0971	
47 1,1,1-Trichloroethane	97	10.246	10.235	0.011	96	13277	0.0484	
50 Benzene	78	10.833	10.828	0.005	96	141663	0.3691	
58 Trichloroethene	130	12.057	12.057	-0.006	78	1731	0.0102	
67 Toluene	91	14.080	14.080	0.000	93	126767	0.3147	
78 Ethylbenzene	91	16.361	16.361	0.000	72	8248	0.0165	
79 m-Xylene & p-Xylene	91	16.512	16.517	-0.005	98	22481	0.0583	
83 o-Xylene	91	17.040	17.040	0.000	98	9568	0.0234	
90 1,3,5-Trimethylbenzene	120	18.361	18.356	0.000	91	14190	0.0629	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	98	63054	0.1373	
S 124 Xylenes, Total	100				0		0.0816	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

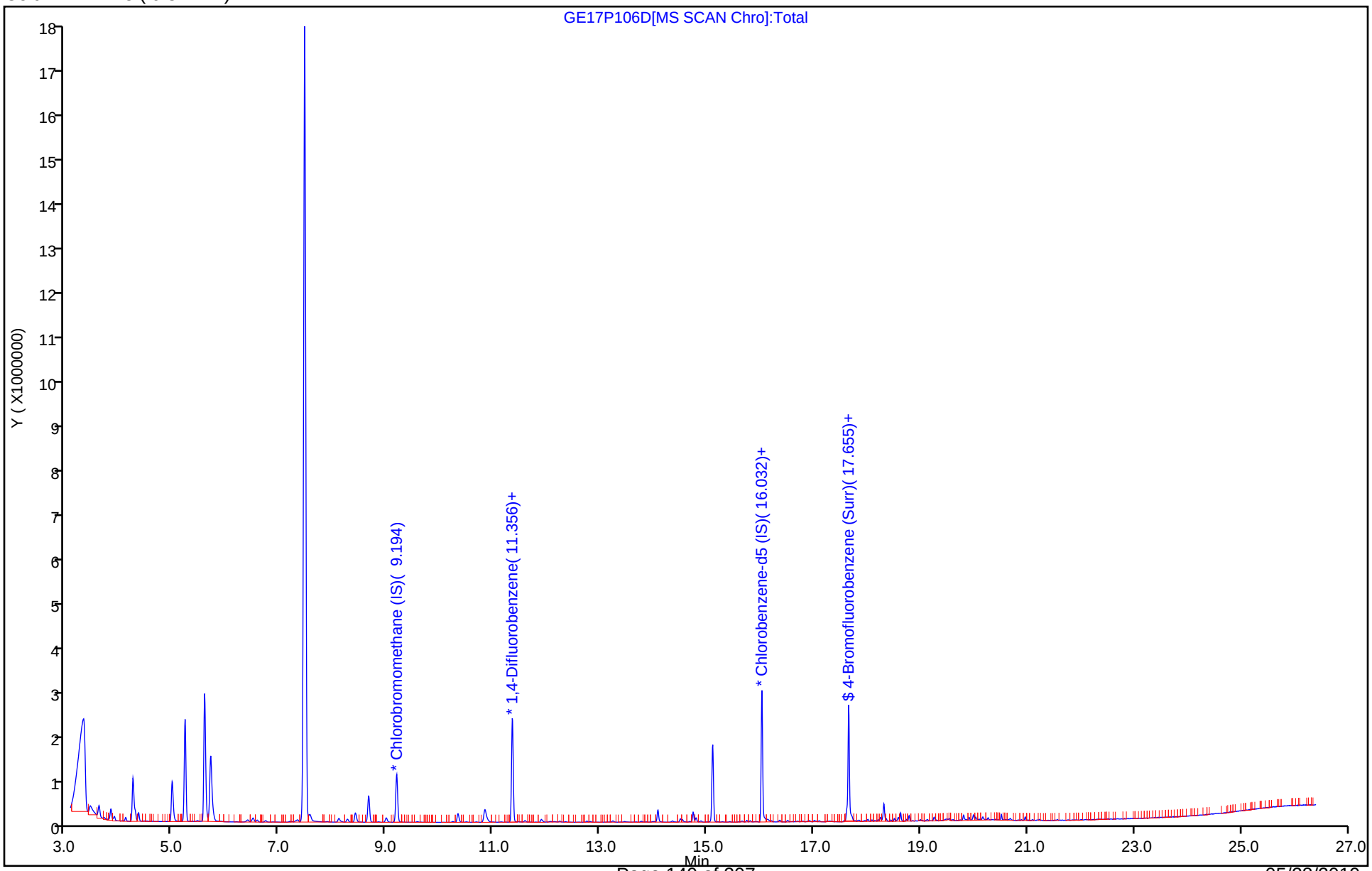
Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D

Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6	Worklist Smp#:	10
Client ID:	BLDG-C-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D				
Lims ID:	140-15288-A-6				
Client ID:	BLDG-C-EFFLUENT				
Sample Type:	Client				
Inject. Date:	17-May-2019 19:51:30	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-010				
Misc. Info.:	140-15288-a-6				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:33:28	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

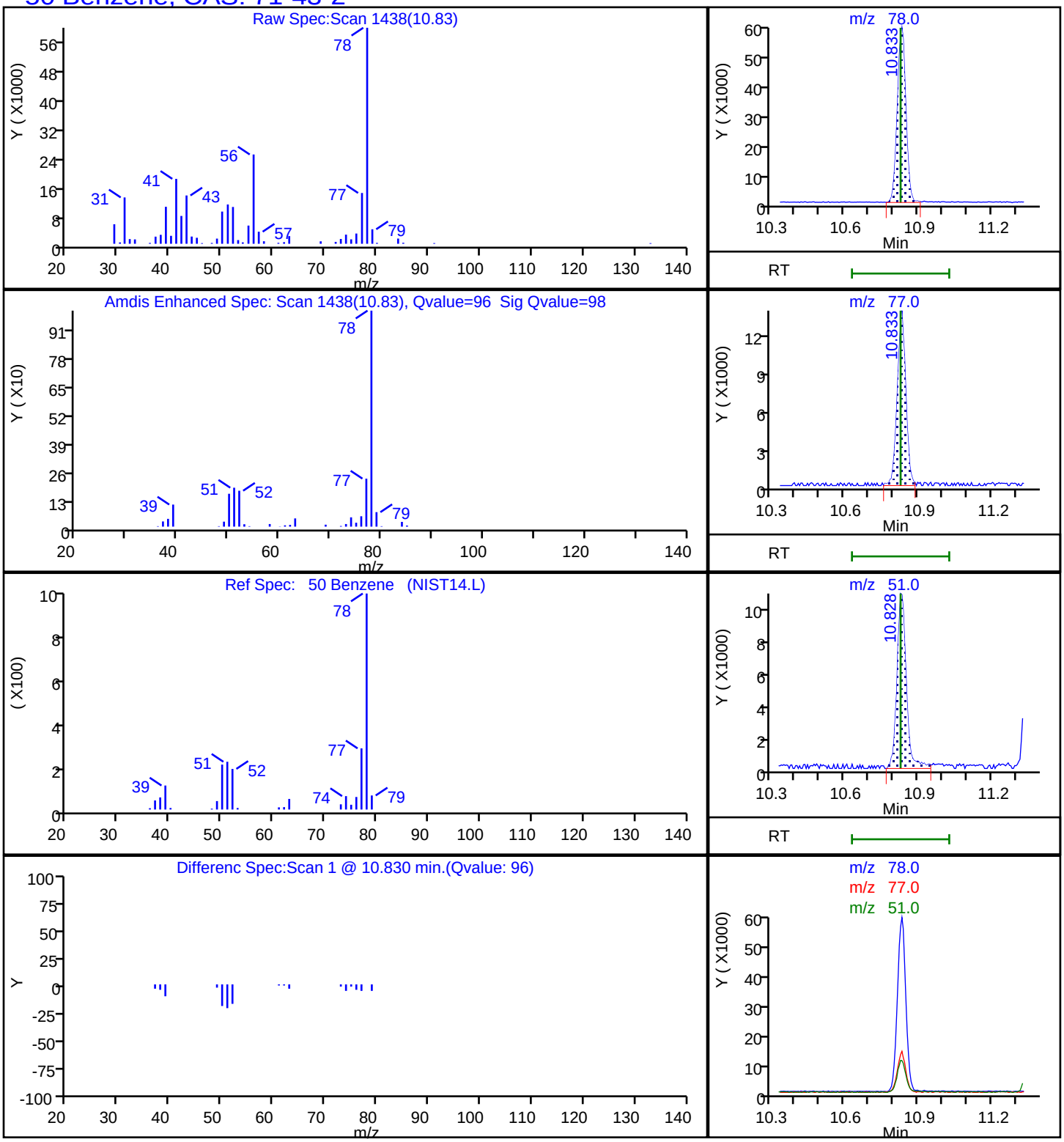
First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:34:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D		
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6
Client ID:	BLDG-C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2



Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D				
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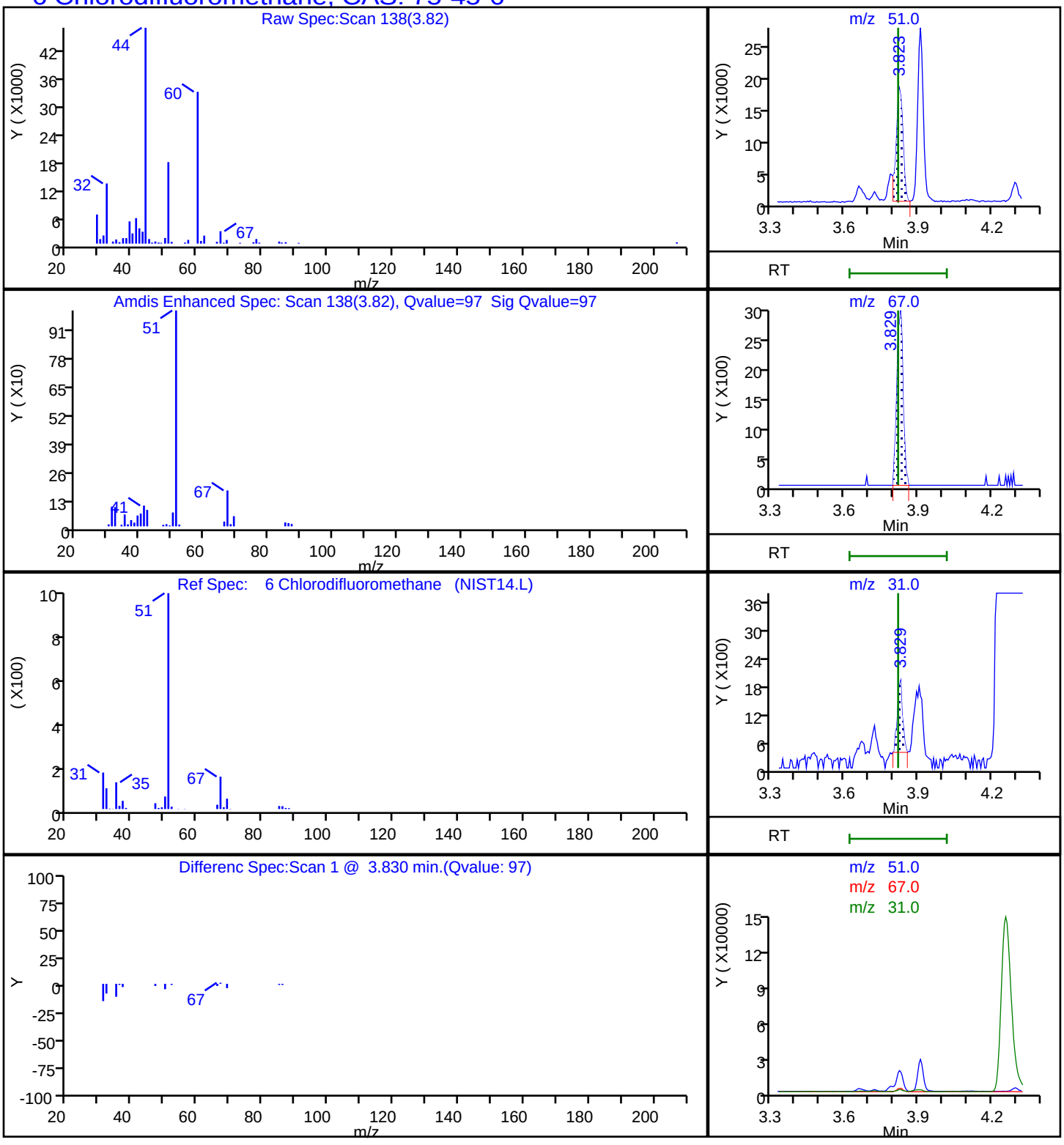
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

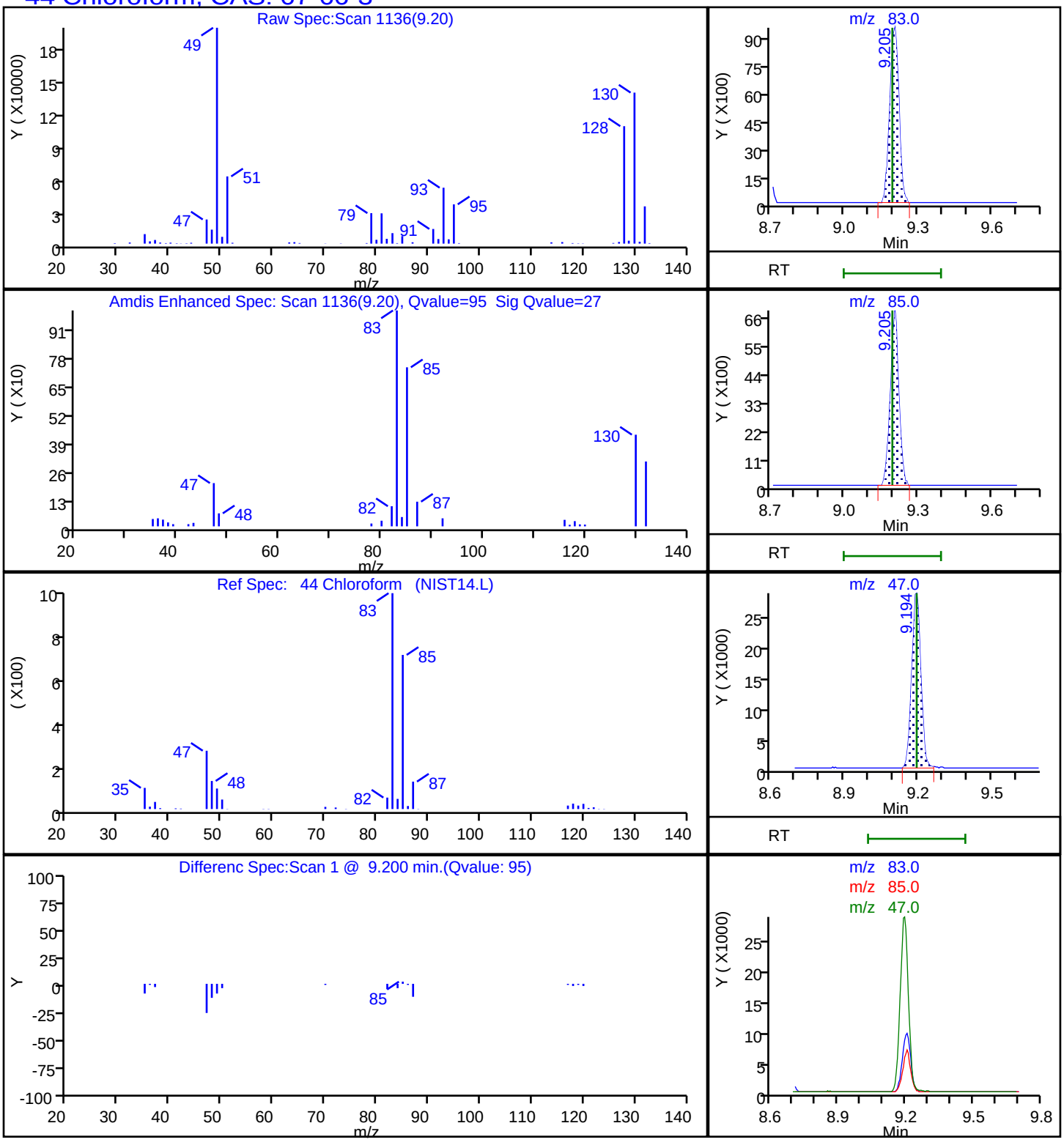


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D

Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6
Client ID:	BLDG-C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3



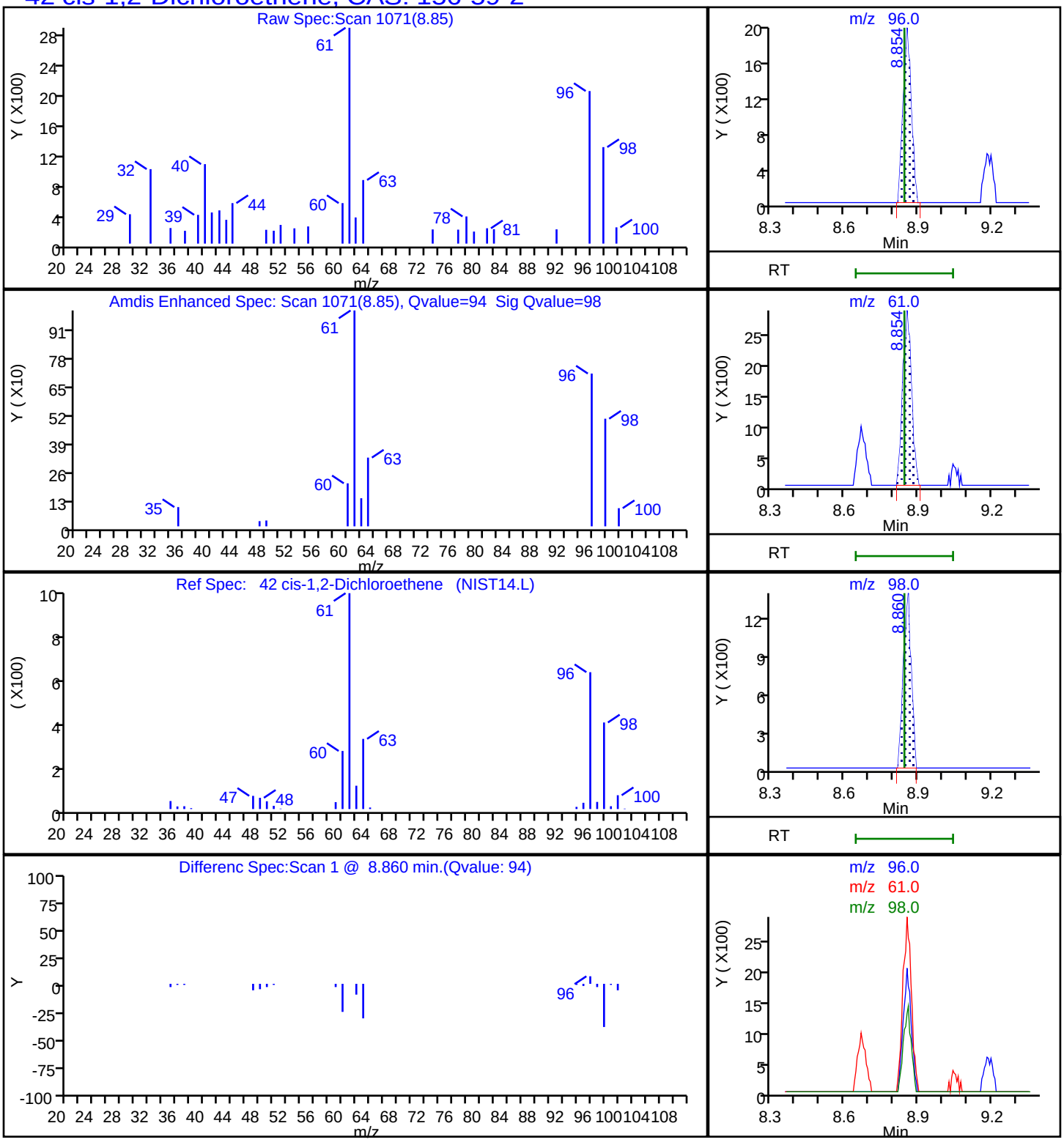
Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D

Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG		
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2

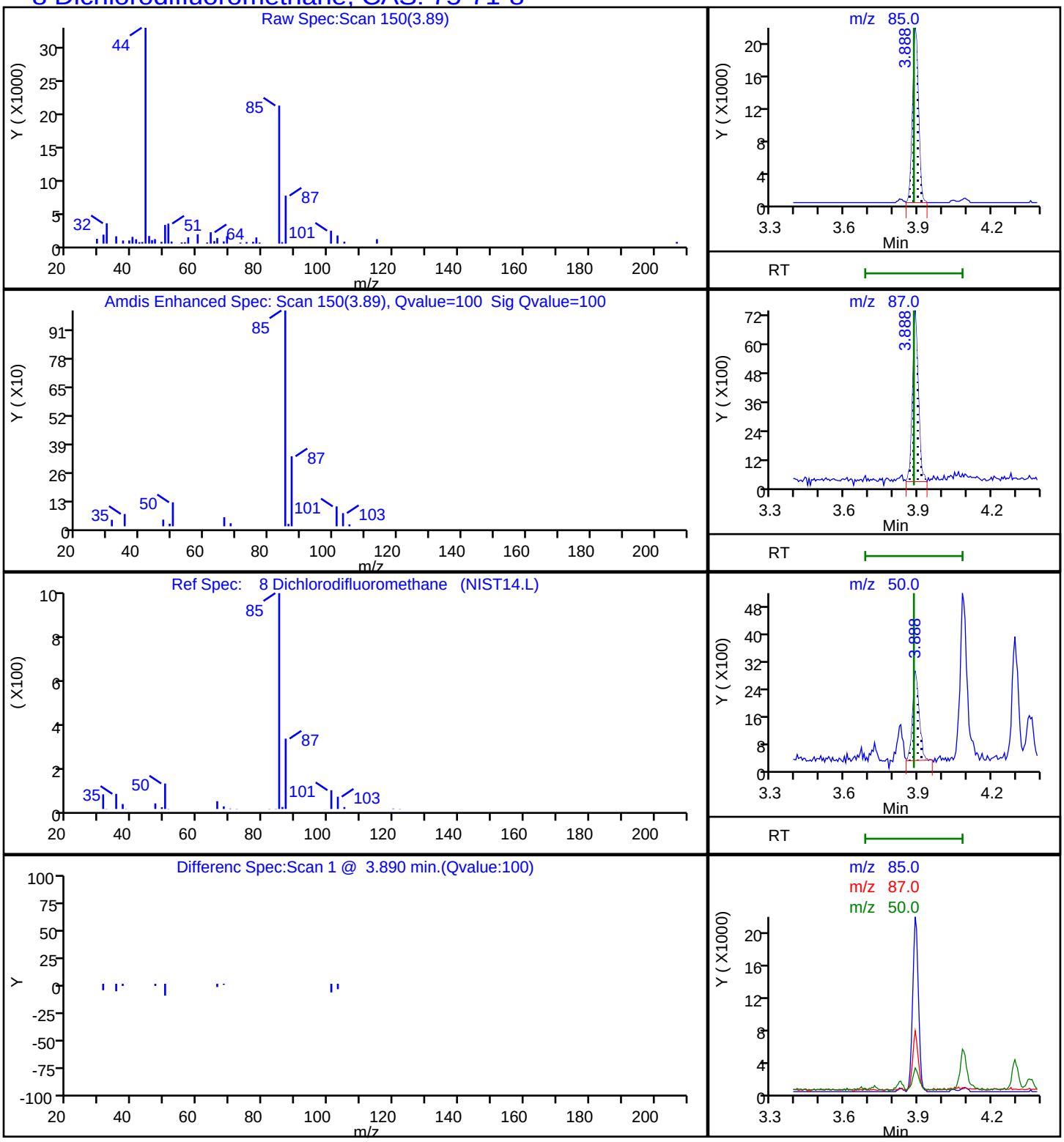


Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D				
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG		
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8



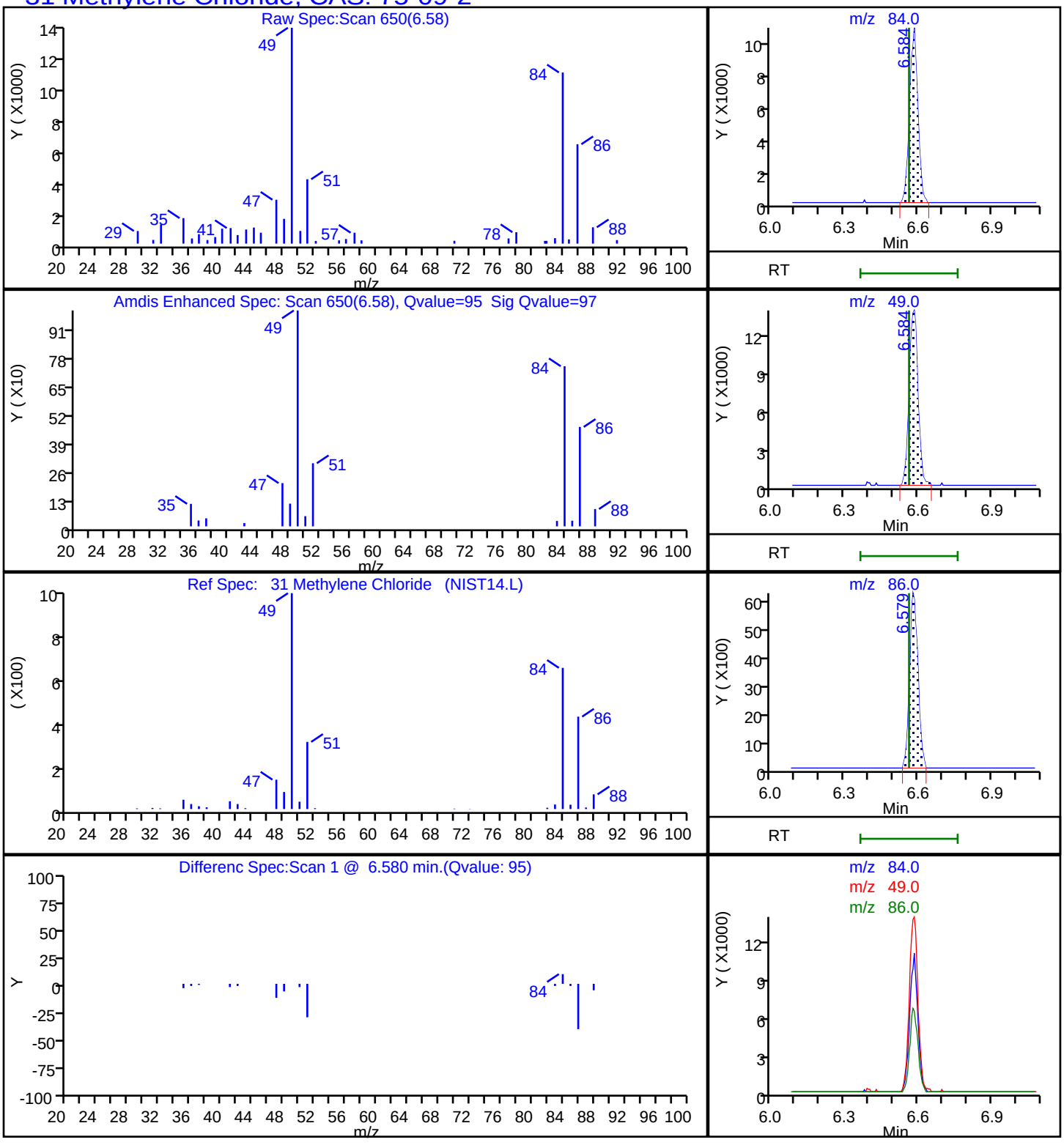
Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D

Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6
Client ID:	BLDG-C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

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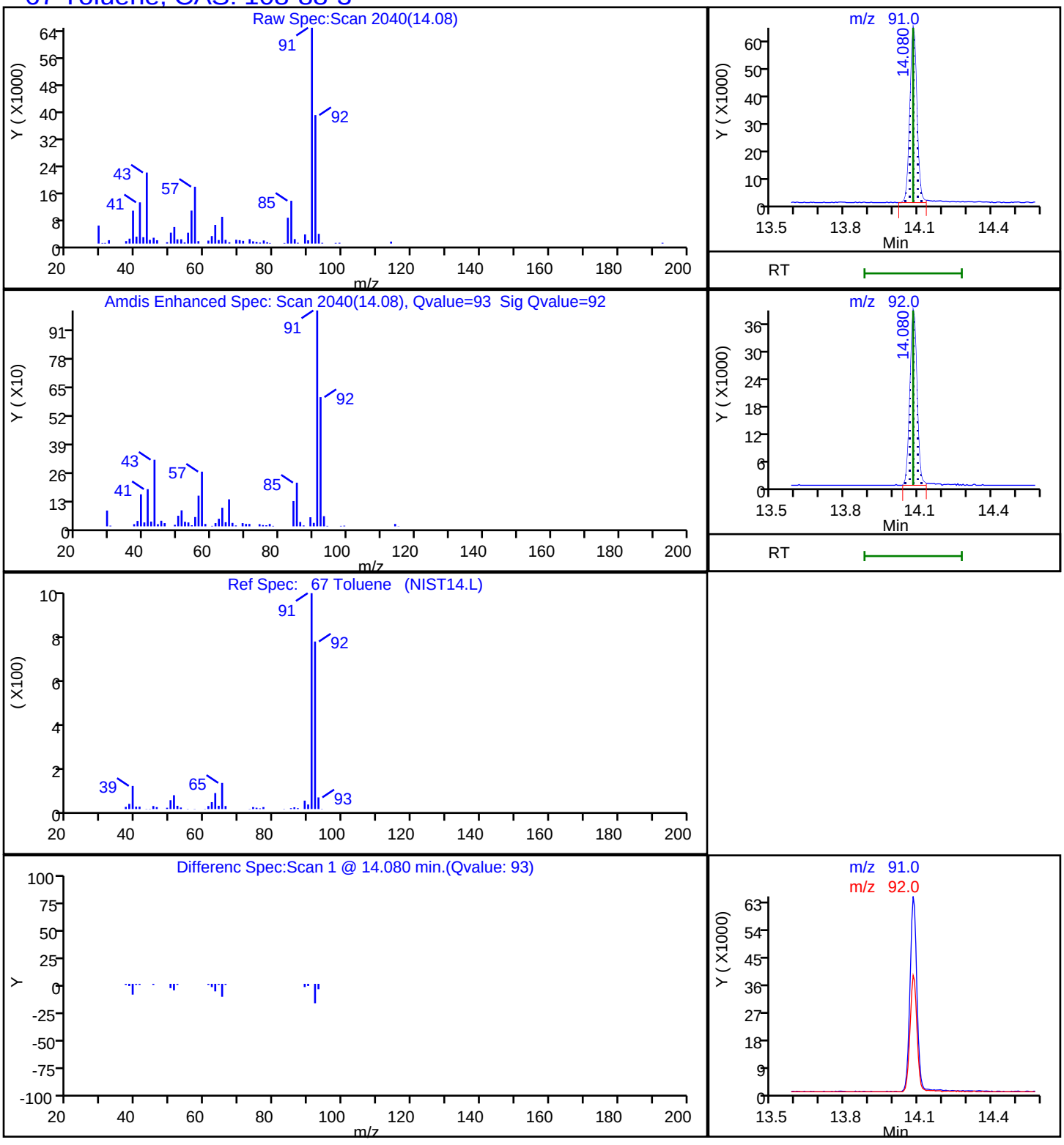
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

67 Toluene, CAS: 108-88-3

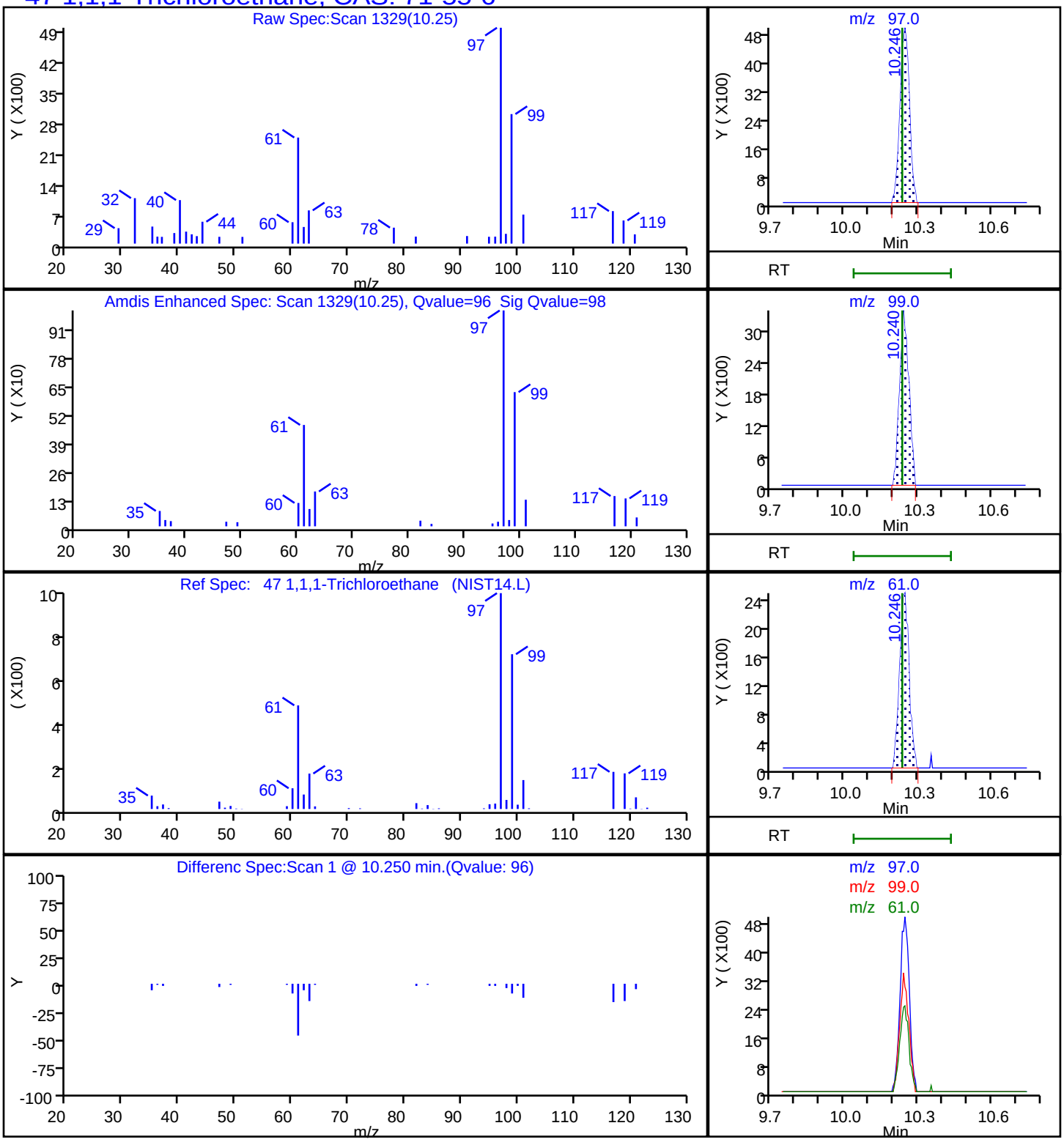


Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D				
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG		
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

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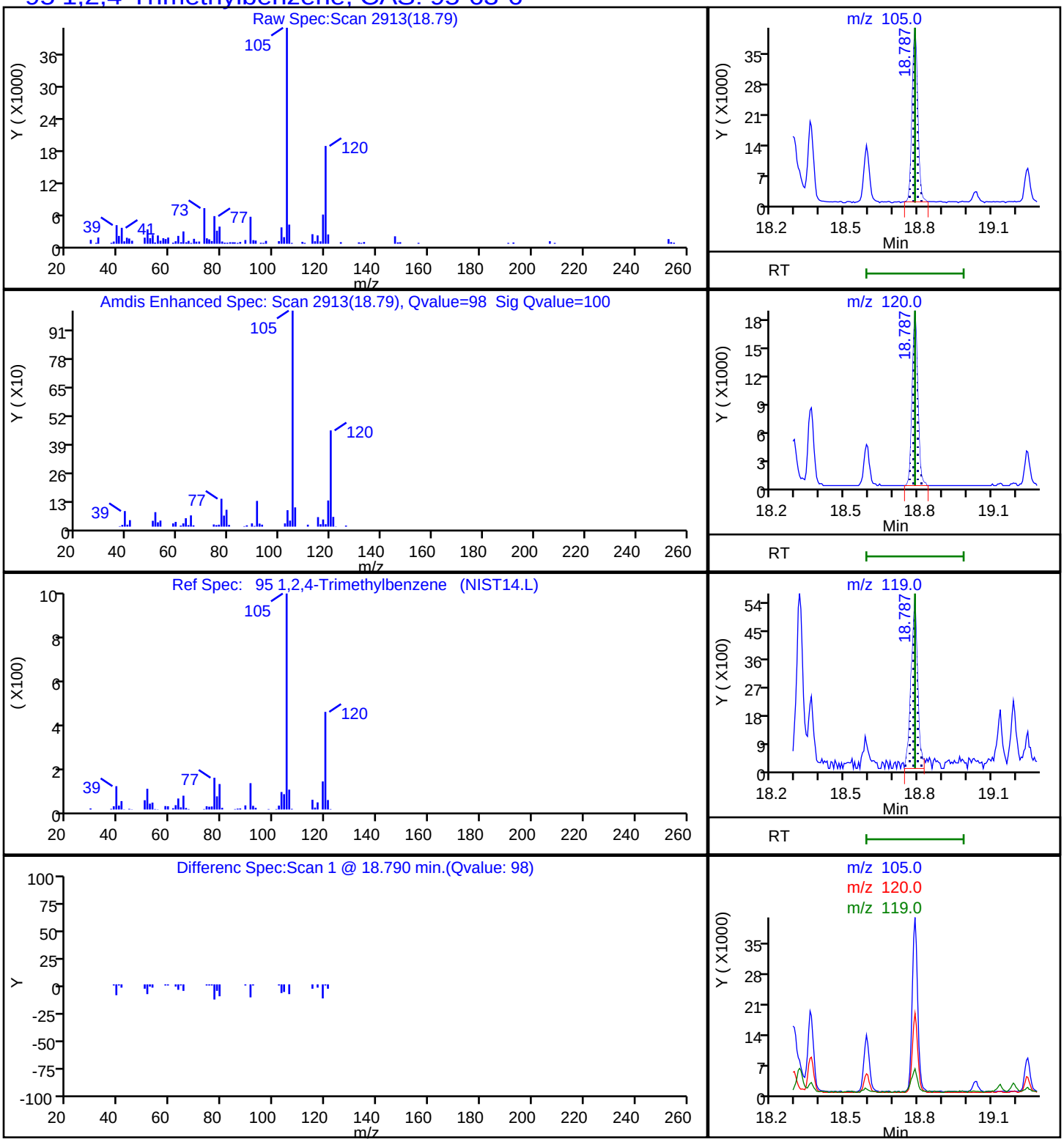
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG		
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

95 1,2,4-Trimethylbenzene, CAS: 95-63-6



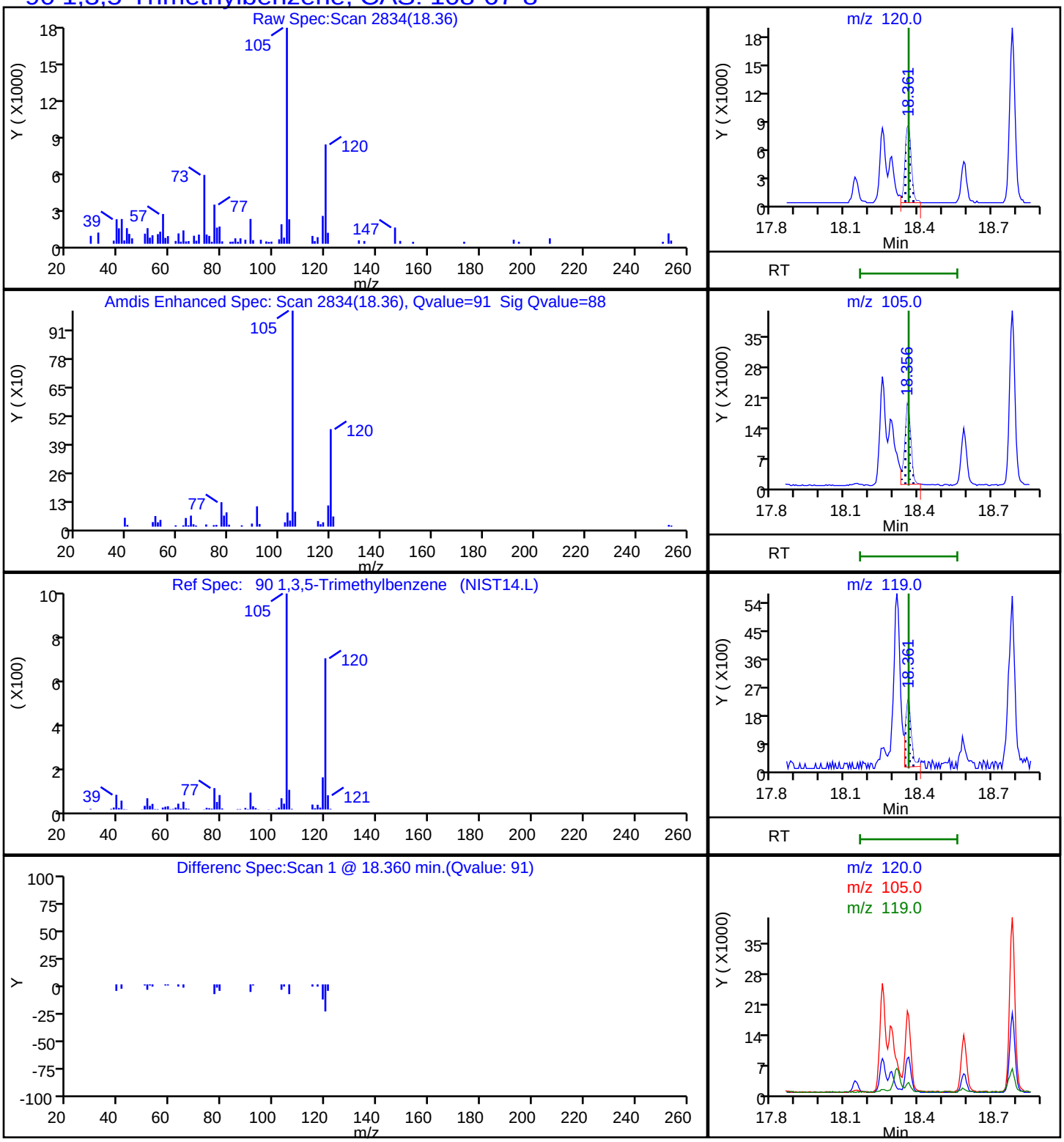
Report Date: 21-May-2019 12:34:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D

Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG		
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6		
Client ID:	BLDG-C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8



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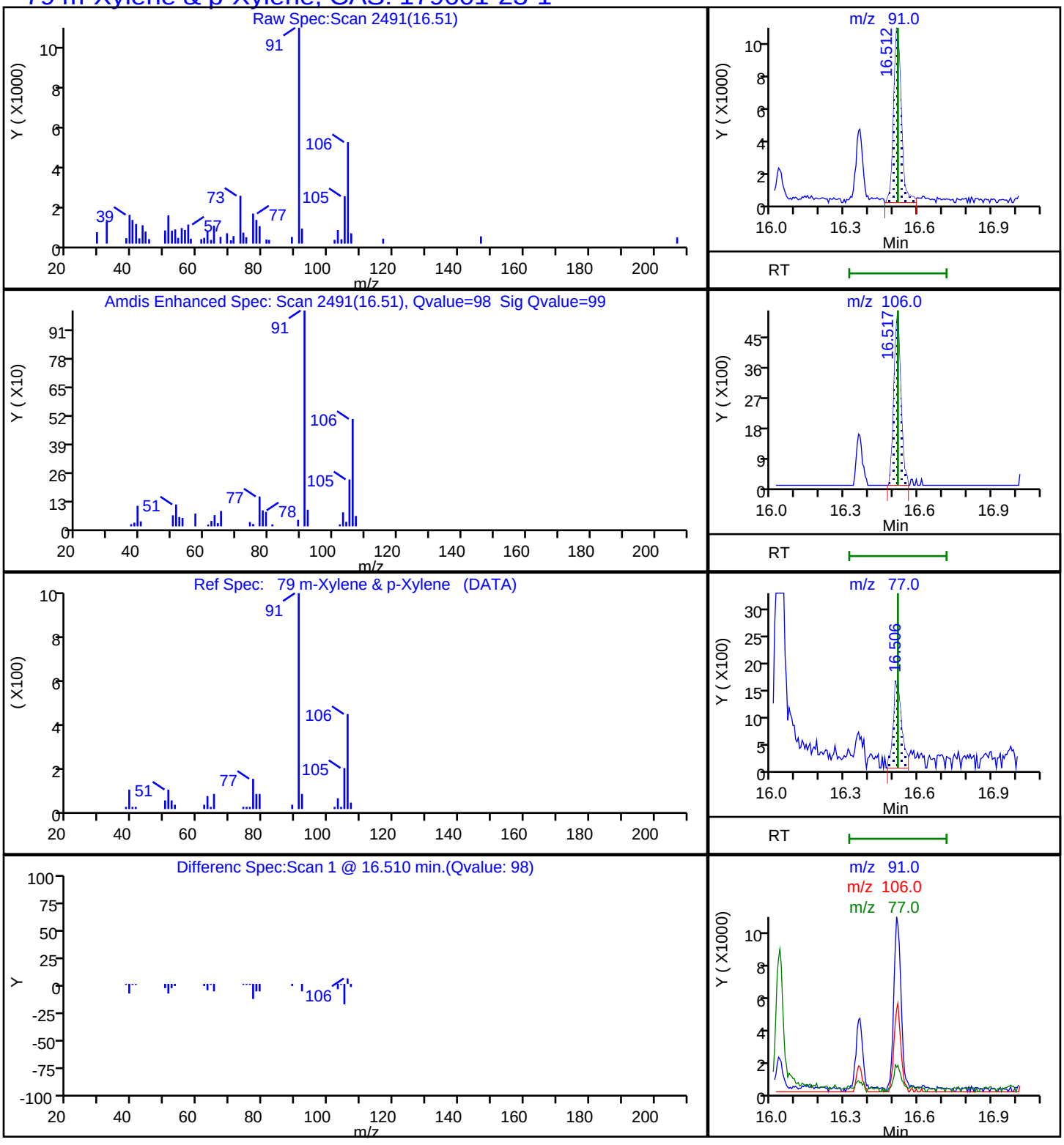
Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D		
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6
Client ID:	BLDG-C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

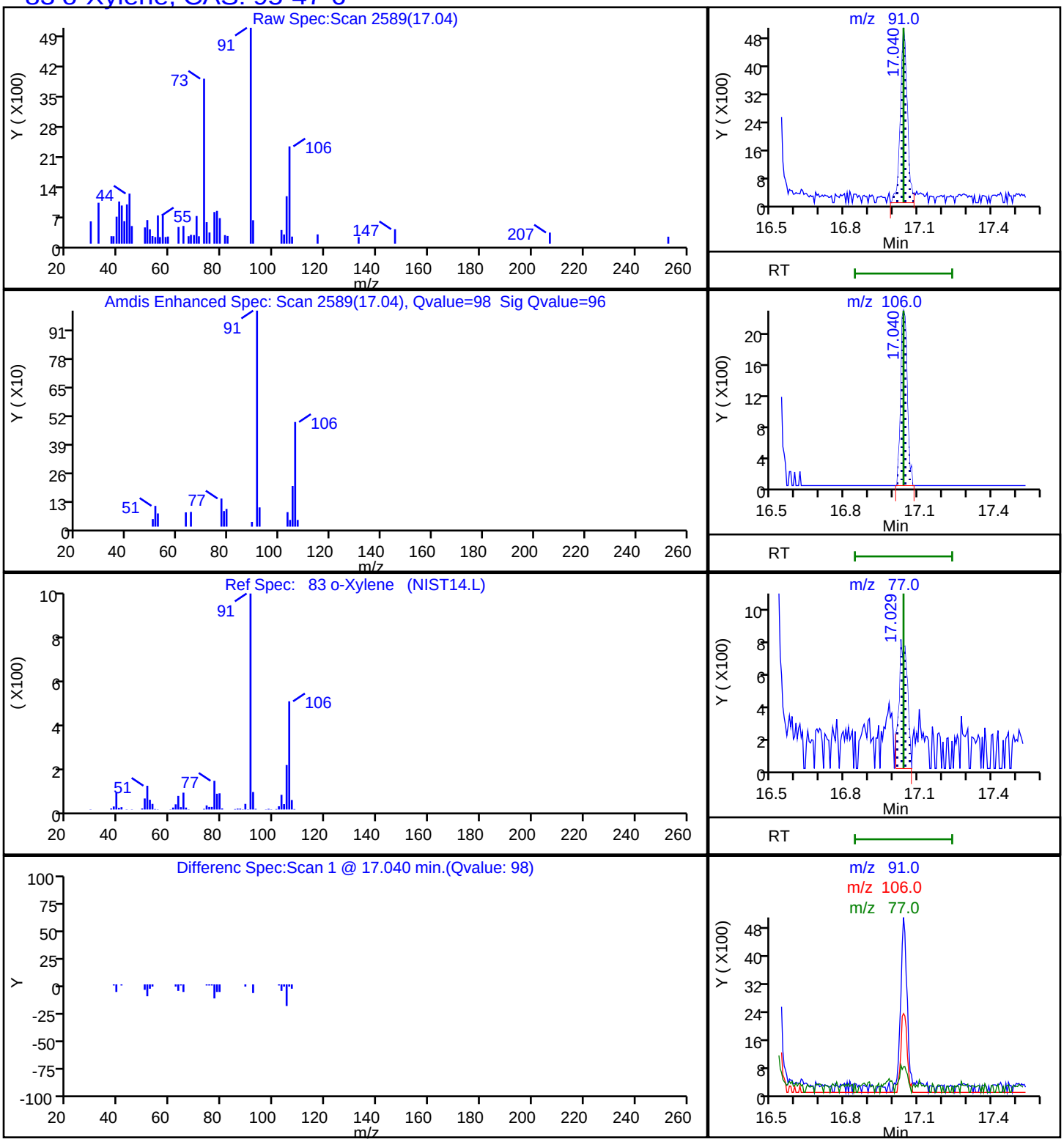
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GE17P106D.D		
Injection Date:	17-May-2019 19:51:30	Instrument ID:	MG
Lims ID:	140-15288-A-6	Lab Sample ID:	140-15288-6
Client ID:	BLDG-C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	6 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.3166	2.5987 2.3762	2.5357 2.0658	2.3711 2.2089	2.3225 2.1481	Ave		2.3271				7.4		30.0			
Propene	+++++ 1.2291	+++++ 1.2733	1.6699 1.1053	1.4711 1.1636	1.3004 1.1198	Ave		1.2916				14.9		30.0			
Dichlorodifluoromethane	+++++ 3.7187	4.0820 3.8578	3.8716 3.3811	3.8070 3.6559	3.7246 3.5620	Ave		3.7401				5.4		30.0			
Chloromethane	+++++ 0.4243	+++++ 0.4312	+++++ 0.3794	0.5342 0.3939	0.4719 0.3724	Ave		0.4296				13.4		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.5188 2.2978	2.5837 2.4168	2.4105 2.1313	2.3521 2.2740	2.3581 2.2461	Ave		2.3589				5.6		30.0			
Vinyl chloride	1.7670 1.4743	1.7071 1.5564	1.5743 1.3671	1.5141 1.4606	1.5131 1.4301	Ave		1.5364				8.0		30.0			
Butane	+++++ 2.2040	+++++ 2.3013	+++++ 2.0133	2.3827 2.1775	2.2794 2.0994	Ave		2.2082				5.7		30.0			
1,3-Butadiene	+++++ 1.1366	+++++ 1.2152	1.2229 1.0702	1.1485 1.1612	1.1513 1.1637	Ave		1.1587				4.1		30.0			
Bromomethane	+++++ 1.2539	+++++ 1.3616	1.4107 1.2055	1.3539 1.2852	1.3321 1.3061	Ave		1.3136				5.0		30.0			
Chloroethane	+++++ 0.7086	+++++ 0.7819	0.7715 0.6867	0.7645 0.7176	0.7546 0.7413	Ave		0.7408				4.5		30.0			
Ethanol	+++++ 0.4190	+++++ 0.5382	0.6214 0.4431	0.5321 0.3608	0.4842 0.4694	Ave		0.4835				16.7		30.0			
Vinyl bromide	+++++ 1.1941	+++++ 1.3406	1.3412 1.2032	1.2828 1.2714	1.2767 1.3057	Ave		1.2770				4.3		30.0			
2-Methylbutane	+++++ 1.4683	+++++ 1.6877	1.6841 1.4703	1.6504 1.5382	1.6443 1.5349	Ave		1.5848				5.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.4695	3.8460 3.8010	3.6857 3.3651	3.6061 3.6060	3.6508 3.6125	Ave		3.6270				4.1		30.0			
Acrolein	+++++ 0.2400	+++++ 0.2632	+++++ 0.1831	0.4117 0.2067	0.3572 0.2855	Ave		0.2782				29.3		30.0			
Acetonitrile	+++++ 0.3542	+++++ 0.4322	+++++ 0.3856	0.3481 0.3167	0.3490 0.4389	Ave		0.3750				12.3		30.0			
Acetone	+++++ 0.4916	+++++ 0.5445	+++++ 0.4793	+++++ 0.3424	0.7219 0.4887	Ave		0.5114				24.1		30.0			
Pentane	+++++ 0.2359	+++++ 0.2685	+++++ 0.2420	0.2464 0.2460	0.2646 0.2569	Ave		0.2515				4.8		30.0			
Isopropyl alcohol	+++++ 1.0390	+++++ 1.5565	+++++ 1.2864	1.4473 0.9716	1.3102 1.2980	Ave		1.2727				16.3		30.0			
Ethyl ether	+++++ 0.8321	+++++ 0.9789	1.1689 0.8933	1.0022 0.7765	1.0796 0.9575	Ave		0.9611				13.3		30.0			
1,1-Dichloroethene	1.6359 1.3414	1.6243 1.4783	1.4540 1.3321	1.3962 1.4011	1.3865 1.4580	Ave		1.4508				7.3		30.0			
Acrylonitrile	+++++ 0.8119	+++++ 0.8689	0.8741 0.7954	0.7932 0.6949	0.8674 0.9314	Ave		0.8296				8.7		30.0			
tert-Butyl alcohol	+++++ 1.5505	+++++ 2.3903	+++++ 2.0294	2.0385 1.6577	1.7810 1.9995	Ave		1.9210				14.7		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3488 2.9991	3.2681 3.1628	3.1220 2.8229	3.0557 2.9842	3.0573 2.9567	Ave		3.0778				5.0		30.0			
Methylene Chloride	+++++ 1.4638	+++++ 1.4730	+++++ 1.2952	2.5291 1.3226	1.8135 1.3357	Ave		1.6047				27.7		30.0			
3-Chloropropene	+++++ 1.2327	+++++ 1.3074	1.4055 1.2184	1.3607 1.2615	1.2649 1.2428	Ave		1.2867				5.1		30.0			
Carbon disulfide	+++++ 3.9778	+++++ 4.4219	4.4211 4.0022	4.2826 4.2041	4.2234 4.3319	Ave		4.2331				4.0		30.0			
trans-1,2-Dichloroethene	1.5459 1.3303	1.4965 1.4840	1.4336 1.3651	1.4273 1.4394	1.3792 1.4196	Ave		1.4321				4.5		30.0			
2-Methylpentane	+++++ 3.5506	+++++ 3.7921	3.8077 3.2371	3.7144 3.3836	3.6545 3.1616	Ave		3.5377				7.1		30.0			
Methyl tert-butyl ether	3.4247 3.3308	3.2606 3.7797	3.8972 3.4958	3.3772 2.5934	3.7583 3.7953	Ave		3.4713				11.0		30.0			
1,1-Dichloroethane	+++++ 2.7787	3.1647 2.8443	2.8808 2.5890	2.7977 2.7152	2.8209 2.7833	Ave		2.8194				5.5		30.0			
Vinyl acetate	+++++ 2.9747	+++++ 3.1692	2.9805 2.9673	2.7594 2.4554	3.1743 3.4392	Ave		2.9900				9.9		30.0			
2-Butanone (MEK)	+++++ 0.5740	+++++ 0.6648	+++++ 0.5898	0.7377 0.4249	0.6745 0.6595	Ave		0.6179				16.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2978	+++++ 1.3946	1.3760 1.2344	1.3693 1.3004	1.3243 1.2759	Ave		1.3216				4.2		30.0			
cis-1,2-Dichloroethene	1.5853 1.4249	1.5983 1.4794	1.5081 1.3731	1.4610 1.4814	1.4563 1.5463	Ave		1.4914				4.7		30.0			
Ethyl acetate	+++++ 2.5014	+++++ 2.8917	2.8942 2.6064	2.3507 1.8762	2.7802 3.0514	Ave		2.6190				14.4		30.0			
Chloroform	+++++ 3.0192	+++++ 3.0267	3.1331 2.7855	2.9882 2.9322	3.0068 3.0841	Ave		2.9970				3.5		30.0			
Tetrahydrofuran	+++++ 1.3639	+++++ 1.5437	+++++ 1.4056	1.4648 1.0705	1.5590 1.5860	Ave		1.4276				12.4		30.0			
1,1,1-Trichloroethane	+++++ 3.1772	3.4609 3.3035	3.2048 2.9909	3.1788 3.1908	3.1870 3.2597	Ave		3.2170				3.9		30.0			
1,2-Dichloroethane	0.3573 0.3116	0.3316 0.3234	0.3150 0.2859	0.3208 0.3041	0.2948 0.3546	Ave		0.3199				7.3		30.0			
Cyclohexane	+++++ 0.1192	+++++ 0.1355	0.1289 0.1105	0.1364 0.1114	0.1204 0.1229	Ave		0.1232				8.0		30.0			
Benzene	+++++ 0.6960	0.8250 0.7324	0.7145 0.6300	0.7279 0.6208	0.6622 0.7097	Ave		0.7021				8.8		30.0			
Carbon tetrachloride	0.4414 0.4665	0.4135 0.5458	0.3965 0.4581	0.4143 0.5014	0.4509 0.5693	Ave		0.4658				12.3		30.0			
1-Butanol	+++++ 0.0405	+++++ 0.0724	+++++ 0.0513	0.0713 0.0451	0.0489 0.0536	Ave		0.0547				22.7		30.0			
2,3-Dimethylpentane	+++++ 0.1770	+++++ 0.1990	0.1832 0.1677	0.1948 0.1709	0.1818 0.1967	Ave		0.1839				6.5		30.0			
Thiophene	0.4297 0.3973	0.4110 0.4176	0.4050 0.3681	0.4057 0.3822	0.3869 0.4569	Ave		0.4060				6.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2608	+++++ 1.3669	1.3435 1.1360	1.3576 1.1192	1.2830 1.2908	Ave		1.2697				7.5		30.0			
Heptane	+++++ 0.2672	+++++ 0.2954	0.2759 0.2530	0.2808 0.2473	0.2614 0.2917	Ave		0.2716				6.4		30.0			
1,2-Dichloropropane	+++++ 0.2562	+++++ 0.2599	0.2694 0.2318	0.2574 0.2378	0.2472 0.2651	Ave		0.2531				5.2		30.0			
Trichloroethene	0.3255 0.2943	0.3282 0.3172	0.3214 0.2763	0.3068 0.2927	0.2925 0.3382	Ave		0.3093				6.4		30.0			
Dibromomethane	+++++ 0.2531	+++++ 0.2697	0.2727 0.2306	0.2664 0.2420	0.2478 0.2750	Ave		0.2572				6.3		30.0			
Bromodichloromethane	0.4729 0.4642	0.4173 0.5101	0.4125 0.4455	0.4343 0.4597	0.4370 0.5530	Ave		0.4606				9.4		30.0			
1,4-Dioxane	+++++ 0.0750	+++++ 0.1026	0.0969 0.0840	0.0922 0.0579	0.0842 0.0994	Ave		0.0865				17.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2273	+++++ 0.2840	0.2109 0.2515	0.2111 0.1860	0.2475 0.3295	Ave		0.2435				18.9		30.0			
Methylcyclohexane	+++++ 0.4688	0.4913 0.5181	0.4782 0.4369	0.4951 0.4404	0.4593 0.5077	Ave		0.4773				6.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3551	+++++ 0.4963	0.4979 0.4604	0.4196 0.2844	0.4123 0.5347	Ave		0.4326				19.2		30.0			
cis-1,3-Dichloropropene	0.3686 0.3815	0.3528 0.3954	0.3619 0.3458	0.3632 0.3617	0.3546 0.4346	Ave		0.3720				7.1		30.0			
trans-1,3-Dichloropropene	0.4174 0.3786	0.3487 0.3909	0.3831 0.3530	0.3498 0.3882	0.3713 0.4325	Ave		0.3814				7.3		30.0			
Toluene	0.9380 0.8451	0.8845 0.8739	0.8987 0.8217	0.8403 0.8385	0.8855 0.9163	Ave		0.8742				4.3		30.0			
1,1,2-Trichloroethane	0.2777 0.2554	0.2600 0.2685	0.2673 0.2464	0.2503 0.2539	0.2651 0.2816	Ave		0.2626				4.4		30.0			
2-Hexanone	+++++ 0.1940	+++++ 0.2885	0.2732 0.2867	0.2390 0.1821	0.2303 0.3098	Ave		0.2504				18.6		30.0			
Octane	+++++ 0.3203	0.3257 0.3567	0.3333 0.3210	0.3235 0.3097	0.3344 0.3440	Ave		0.3299				4.3		30.0			
C8 Range	+++++ 2.8114	+++++ 3.0567	3.5653 2.7147	3.2279 2.6208	3.0332 2.8009	Ave		2.9789				10.4		30.0			
Dibromochloromethane	+++++ 0.4744	+++++ 0.5315	0.3783 0.4977	0.3864 0.5320	0.4298 0.6096	Ave		0.4800				16.5		30.0			
1,2-Dibromoethane (EDB)	0.4214 0.4620	0.4020 0.4726	0.4183 0.4264	0.4214 0.4613	0.4550 0.5051	Ave		0.4446				7.1		30.0			
Tetrachloroethene	0.3780 0.3190	0.3321 0.3344	0.3302 0.3073	0.3361 0.3073	0.3251 0.3437	Ave		0.3313				6.1		30.0			
Chlorobenzene	0.7753 0.7139	0.7157 0.7235	0.7325 0.6610	0.7078 0.6683	0.7306 0.7439	Ave		0.7172				4.7		30.0			
Ethylbenzene	1.0390 1.0427	1.0082 1.1604	1.1408 1.0816	1.0194 0.9799	1.1558 1.2391	Ave		1.0867				7.7		30.0			
m-Xylene & p-Xylene	0.7804 0.8142	0.7469 0.9112	0.8554 0.8377	0.8167 0.7315	0.9228 0.9580	Ave		0.8375				9.0		30.0			
Nonane	+++++ 0.6219	0.6374 0.6854	0.6439 0.6169	0.6016 0.5861	0.6555 0.6375	Ave		0.6318				4.7		30.0			
Bromoform	+++++ 0.3849	+++++ 0.4372	0.2422 0.4028	0.2562 +++++	0.3128 +++++	Ave		0.3394				23.8		30.0			
Styrene	+++++ 0.5741	0.4014 0.6601	0.4798 0.6133	0.4343 0.5771	0.5657 +++++	Ave		0.5382				16.8		30.0			
o-Xylene	0.8846 0.8579	0.7505 0.9698	0.9640 0.9028	0.7932 0.7744	0.9534 1.0376	Ave		0.8888				10.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5494	0.4916 0.6612	0.5884 0.5932	0.5148 0.4991	0.6065 0.7007	Ave		0.5783				12.5		30.0			
1,2,3-Trichloropropane	+++++ 0.1684	+++++ 0.2029	0.1861 0.1858	0.1671 0.1521	0.1886 0.2298	Ave		0.1851				12.9		30.0			
Isopropylbenzene	1.3356 1.1334	1.1277 1.3206	1.3150 1.2353	1.1494 1.0127	1.2948 1.4343	Ave		1.2359				10.3		30.0			
Propylbenzene	0.2929 0.3041	0.2835 0.3622	0.3360 0.3372	0.2900 0.2718	0.3475 0.4083	Ave		0.3233				13.2		30.0			
2-Chlorotoluene	0.3391 0.2913	0.2825 0.3289	0.3157 0.3043	0.2978 0.2829	0.3186 0.3596	Ave		0.3121				8.1		30.0			
4-Ethyltoluene	1.1240 1.0971	0.9982 1.3216	1.2950 1.2143	1.1001 0.9725	1.2638 1.4778	Ave		1.1864				13.2		30.0			
1,3,5-Trimethylbenzene	0.4726 0.4646	0.4131 0.5533	0.5284 0.4992	0.4358 0.3883	0.5265 0.6150	Ave		0.4897				14.1		30.0			
Alpha Methyl Styrene	+++++ 0.4061	+++++ 0.5132	0.3229 0.4825	0.2816 0.4183	0.3959 +++++	Ave		0.4029				20.2		30.0			
Decane	0.8403 0.7387	0.7345 0.8410	0.8080 0.7366	0.7362 0.6324	0.8571 0.7883	Ave		0.7713				8.9		30.0			
tert-Butylbenzene	1.0032 1.0013	0.9615 1.1888	1.1469 1.0804	0.9724 0.8247	1.1594 1.3162	Ave		1.0655				13.2		30.0			
1,2,4-Trimethylbenzene	0.9452 0.9495	0.8294 1.1426	1.0384 1.0284	0.8878 0.7943	1.0771 1.2716	Ave		0.9964				14.6		30.0			
sec-Butylbenzene	1.5753 1.4076	1.3509 1.6815	1.6716 1.5123	1.4136 1.1652	1.6353 1.7710	Ave		1.5184				12.2		30.0			
1,3-Dichlorobenzene	0.6938 0.6078	0.5759 0.7043	0.6198 0.6459	0.5769 0.5969	0.6481 0.8242	Ave		0.6493				11.7		30.0			
Benzyl chloride	+++++ 0.6620	+++++ 0.8606	0.5998 0.7732	0.5275 0.6526	0.6469 +++++	Ave		0.6747				16.3		30.0			
1,4-Dichlorobenzene	0.7409 0.5970	0.6022 0.7002	0.6371 0.6487	0.5764 0.6027	0.6441 0.8376	Ave		0.6587				12.2		30.0			
4-Isopropyltoluene	1.1436 1.1300	0.9829 1.3775	1.2818 1.2439	1.0714 0.9268	1.2999 1.5149	Ave		1.1973				15.1		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9591	+++++ 1.1668	1.0810 1.0576	0.9277 0.8055	1.0990 +++++	Ave		1.0138				12.1		30.0			
Indane	0.8766 0.8559	0.7700 1.0252	0.9489 0.9344	0.8105 0.7383	0.9599 1.1685	Ave		0.9088				14.1		30.0			
1,2-Dichlorobenzene	0.6712 0.5701	0.5531 0.6852	0.6092 0.6195	0.5488 0.5339	0.6304 0.8204	Ave		0.6242				13.8		30.0			
Butylbenzene	1.0549 1.0630	0.9012 1.3153	1.1847 1.1589	1.0175 0.8568	1.1909 1.3761	Ave		1.1119				15.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.6118 0.6905	0.5355 0.8641	0.6444 0.7846	0.5495 0.6397	0.7161 +++++	Ave		0.6707				15.9		30.0			
Undecane	0.8763 0.7414	0.7663 0.8765	0.9278 0.7640	0.7928 0.5683	0.8624 0.8293	Ave		0.8005				12.7		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2299	+++++ 0.3109	0.2232 0.2902	0.1860 0.2277	0.2205 +++++	Ave		0.2412				18.0		30.0			
1,2,4,5-Tetramethylbenzene	1.2459 0.9772	0.9752 1.2674	1.2321 1.1465	1.0576 0.7815	1.1104 1.3694	Ave		1.1163				15.6		30.0			
Dodecane	+++++ 0.5000	+++++ 0.6921	+++++ 0.6123	0.7173 0.3760	0.6294 0.6888	Ave		0.6023				20.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.3424	0.4455 0.4572	0.4449 0.4240	0.3713 0.3133	0.3611 +++++	Ave		0.3950				13.8		30.0			
Naphthalene	+++++ 0.8803	1.2954 1.2234	1.1876 1.1395	0.9925 0.7716	0.9083 1.4485	Ave		1.0941				20.1		30.0			
Hexachlorobutadiene	+++++ 0.3679	0.4116 0.4448	0.4694 0.4056	0.4106 0.3057	0.4045 0.5743	Ave		0.4216				17.4		30.0			
1,2,3-Trichlorobenzene	+++++ 0.3152	0.5535 0.4523	0.4934 0.4207	0.4046 0.2823	0.3476 0.5437	Ave		0.4237				22.8		30.0			
2-Methylnaphthalene	+++++ 0.2400	+++++ 0.4611	+++++ 0.4434	0.3806 0.2659	0.2600 0.5034	Ave		0.3649				29.9		50.0			
1-Methylnaphthalene	+++++ 0.3168	+++++ 0.5933	+++++ 0.5584	0.5594 0.3271	0.3474 0.5874	Ave		0.4700				28.0		50.0			
4-Bromofluorobenzene (Surr)	0.5952 0.6190	0.5983 0.6315	0.5732 0.6334	0.5852 0.6443	0.6087 0.6709	Ave		0.6160				4.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 200321	8292 390655	17930 766229	32267 1455765	79535 2851665	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 106282	+++++ 209337	11808 409978	20019 766848	44532 1486485	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 321558	13025 634233	27376 1254085	51807 2409374	127551 4728616	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 36688	+++++ 70896	+++++ 140725	7269 259572	16161 494390	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	4282 198691	8244 397325	17045 790543	32008 1498630	80754 2981771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3004 127486	5447 255886	11132 507072	20604 962604	51817 1898499	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 190577	+++++ 378339	+++++ 746753	32425 1435042	78060 2786966	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 98280	+++++ 199783	8647 396939	15629 765294	39427 1544862	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 108422	+++++ 223850	9975 447136	18425 846989	45620 1733800	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 61271	+++++ 128544	5455 254698	10404 472939	25843 984111	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 181163	+++++ 442447	21969 821812	36202 1188804	82906 3115790	+++++ 5.00	+++++ 10.0	0.400 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 103252	+++++ 220404	9484 446282	17457 837918	43720 1733333	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 126961	+++++ 277471	11908 545358	22459 1013703	56311 2037556	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 300007	12272 624901	26062 1248146	49073 2376490	125025 4795648	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 20752	+++++ 43275	+++++ 67924	5603 136196	12234 379053	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30631	+++++ 71061	+++++ 143030	4737 208690	11951 582652	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127534	+++++ 268566	+++++ 533318	+++++ 677038	74161 1946078	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 20402	+++++ 44141	+++++ 89763	3353 162112	9061 341043	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 269541	+++++ 767702	+++++ 1431482	59087 1921012	134609 5169450	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 71948	+++++ 160933	8265 331319	13639 511764	36970 1271090	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2781 115989	5183 243042	10281 494102	19000 923356	47482 1935536	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 70208	+++++ 142847	6181 295011	10794 457967	29705 1236431	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 134069	+++++ 392983	+++++ 752730	27741 1092500	60993 2654334	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	5693 259338	10428 519985	22076 1047041	41583 1966676	104699 3925120	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 126579	+++++ 242161	+++++ 480424	34417 871665	62103 1773178	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106589	+++++ 214948	9938 451902	18517 831389	43318 1649774	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 343964	+++++ 726982	31262 1484479	58280 2770686	144633 5750635	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2628 115030	4775 243980	10137 506331	19424 948597	47230 1884495	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 307019	+++++ 623436	26924 1200675	50548 2229939	125152 4197123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	5822 288019	10404 621395	27557 1296623	45959 1709164	128705 5038272	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 240272	10098 467616	20370 960285	38072 1789382	96602 3694840	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 257222	+++++ 521025	21075 1100615	37551 1618172	108707 4565541	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 49637	+++++ 109289	+++++ 218765	10039 280032	23099 875476	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 112220	+++++ 229286	9730 457862	18634 857015	45352 1693828	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2695 123209	5100 243225	10664 509290	19882 976319	49873 2052676	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 216293	+++++ 475402	20465 966730	31990 1236473	95209 4050814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 261076	+++++ 497597	22154 1033190	40665 1932413	102969 4094217	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 117937	+++++ 253787	+++++ 521363	19934 705483	53388 2105385	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 274731	11043 543110	22661 1109351	43258 2102862	109141 4327311	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3780 171788	6759 319109	13953 683131	26323 1305118	65295 2743021	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 65724	+++++ 133736	5712 264115	11190 478119	26660 951024	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 383669	16814 722712	31654 1505333	59722 2664221	146688 5490023	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4669 257165	8427 538624	17567 1094567	33988 2151836	99890 4403685	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 22341	+++++ 71452	+++++ 122634	5851 193681	10829 414454	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97594	+++++ 196328	8114 400662	15978 733217	40280 1521651	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	4546 219013	8377 412053	17942 879622	33288 1640194	85694 3534214	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 695020	+++++ 1348886	59520 2714447	111379 4802860	284195 9984627	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 147274	+++++ 291475	12222 604522	23041 1061371	57909 2256330	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 141240	+++++ 256494	11936 553896	21117 1020477	54756 2050640	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3443 162250	6690 312969	14237 660236	25174 1256285	64799 2615997	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 139529	+++++ 266139	12080 551004	21856 1038729	54894 2127268	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5003 255861	8506 503322	18275 1064499	35631 1972785	96804 4277442	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 41325	+++++ 101274	4291 200629	7562 248286	18644 768818	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 125280	+++++ 280248	9343 600850	17318 798290	54826 2549164	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 258432	10013 511298	21184 1043958	40616 1890035	101736 3927400	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 195739	+++++ 489699	22056 1100009	34427 1220404	91324 4135969	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	3899 210292	7191 390184	16034 826232	29796 1552030	78550 3362140	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3726 177964	6179 340913	13992 709449	24688 1361905	67856 3048699	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	8372 397221	15671 762108	32819 1651334	59304 2941770	161840 6458448	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	2479 120031	4606 234138	9763 495129	17667 890893	48445 1985221	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 91165	+++++ 251559	9978 576169	16871 638898	42091 2183727	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 150530	5771 311102	12174 645160	22835 1086444	61118 2425028	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1321428	+++++ 2665641	130207 5455808	227816 9194568	554350 19742463	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 222962	+++++ 463484	13816 1000345	27269 1866612	78543 4297014	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	3761 217156	7123 412095	15276 857025	29742 1618286	83160 3560552	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3374 149919	5885 291644	12058 617646	23722 1078286	59425 2422834	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	6920 335561	12680 630960	26752 1328456	49954 2344716	133521 5243363	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9274 490097	17864 1011900	41663 2173662	71944 3437784	211233 8733871	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	13931 765438	26468 1589277	62479 3367264	115288 5133019	337295 13504474	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 292332	11293 597737	23515 1239804	42459 2056395	119795 4493277	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 180915	+++++ 381269	8847 809502	18079 +++++	57176 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 269824	7112 575637	17523 1232615	30654 2024747	103391 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
o-Xylene	CBZd 5	Ave	7896 403226	13297 845688	35205 1814378	55982 2717033	174255 7313969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 258219	8710 576602	21488 1192085	36333 1751142	110852 4939070	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 79171	+++++ 176942	6796 373377	11793 533466	34461 1619671	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	11921 532713	19981 1151599	48024 2482560	81124 3552766	236641 10110086	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	2614 142922	5023 315843	12269 677778	20466 953633	63509 2877608	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	3027 136906	5005 286828	11528 611471	21015 992520	58227 2534846	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	10033 515668	17686 1152550	47293 2440515	77645 3411871	230971 10416265	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	4218 218352	7320 482496	19296 1003240	30756 1362442	96222 4334621	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 190856	+++++ 447527	11793 969642	19878 1467628	72362 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Decane	CBZd 5	Ave	7500 347209	13014 733395	29507 1480434	51962 2218740	156649 5556086	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	8954 470615	17036 1036702	41885 2171366	68627 2893179	211897 9277477	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	8437 446282	14696 996384	37922 2066856	62657 2786864	196858 8963348	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	14061 661616	23935 1466327	61046 3039289	99768 4087987	298872 12483123	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	6193 285664	10203 614182	22637 1298002	40713 2094229	118442 5809129	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 311166	+++++ 750522	21904 1553950	37228 2289607	118237 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	6613 280622	10670 610632	23267 1303721	40680 2114516	117709 5904068	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	10208 531140	17415 1201261	46813 2499878	75618 3251402	237573 10678190	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 450808	+++++ 1017505	39477 2125465	65472 2825913	200856 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	7824 402293	13642 894023	34655 1877846	57205 2590340	175435 8236384	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	5991 267961	9800 597552	22248 1244990	38733 1873115	115220 5782926	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9416 499621	15968 1146980	43265 2329083	71811 3005837	217649 9699535	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	5461 324555	9488 753565	23534 1576932	38779 2244227	130876 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	7822 348459	13577 764364	33883 1535512	55954 1993722	157612 5845663	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 108040	+++++ 271086	8153 583282	13129 798929	40295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	11121 459294	17278 1105229	44995 2304135	74640 2741782	202937 9652513	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 235025	+++++ 603518	+++++ 1230533	50625 1319037	115029 4855229	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 160937	7893 398730	16248 852171	26207 1099315	65988 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Naphthalene	CBZd5	Ave	+++++ 413768	22952 1066836	43370 2289996	70051 2706962	166001 10209707	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 172917	7293 387914	17141 815187	28981 1072639	73931 4047682	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 148142	9807 394456	18020 845498	28559 990277	63529 3832551	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 112826	+++++ 402089	+++++ 891206	26861 933008	47516 3548760	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 148906	+++++ 517447	+++++ 1122363	39482 1147762	63501 4140645	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1062445 1163771	1060073 1101322	1046688 1273047	1032580 1130160	1112507 1182280	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	11.7						50				
Propene	+++++	+++++	29.3						50			
Dichlorodifluoromethane	+++++	9.1						50				
Chloromethane	+++++	+++++	+++++	24.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	6.8						50					
Vinyl chloride	15.0						50					
Butane	+++++	+++++	+++++	7.9						50		
1,3-Butadiene	+++++	+++++	5.5						50			
Bromomethane	+++++	+++++	7.4						50			
Chloroethane	+++++	+++++	4.1						50			
Ethanol	+++++	+++++	28.5						50			
Vinyl bromide	+++++	+++++	5.0						50			
2-Methylbutane	+++++	+++++	6.3						50			
Trichlorofluoromethane	+++++	6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	48.0						50		
Acetonitrile	+++++	+++++	+++++	-7.2						50		
Acetone	+++++	+++++	+++++	+++++	41.2						80	
Pentane	+++++	+++++	+++++	-2.0						50		
Isopropyl alcohol	+++++	+++++	+++++	13.7						50		
Ethyl ether	+++++	+++++	21.6						50			
1,1-Dichloroethene	12.8						50					
Acrylonitrile	+++++	+++++	5.4						50			
tert-Butyl alcohol	+++++	+++++	+++++	6.1						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	8.8						50					
Methylene Chloride	+++++	+++++	+++++	57.6						80		
3-Chloropropene	+++++	+++++	9.2						50			
Carbon disulfide	+++++	+++++	4.4						50			
trans-1,2-Dichloroethene	7.9						50					
2-Methylpentane	+++++	+++++	7.6						50			
Methyl tert-butyl ether	-1.3						50					
1,1-Dichloroethane	+++++	12.2						50				
Vinyl acetate	+++++	+++++	-0.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	19.4						50		
Hexane	+++++	+++++	4.1						50			
cis-1,2-Dichloroethene	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	10.5						50			
Chloroform	+++++	+++++	4.5						50			
Tetrahydrofuran	+++++	+++++	+++++	2.6						50		
1,1,1-Trichloroethane	+++++	7.6						50				
1,2-Dichloroethane	11.7						50					
Cyclohexane	+++++	+++++	4.7						50			
Benzene	+++++	17.5						50				
Carbon tetrachloride	-5.2						50					
1-Butanol	+++++	+++++	+++++	30.3						50		
2,3-Dimethylpentane	+++++	+++++	-0.4						50			
Thiophene	5.8						50					
2,2,4-Trimethylpentane	+++++	+++++	5.8						50			
Heptane	+++++	+++++	1.6						50			
1,2-Dichloropropane	+++++	+++++	6.4						50			
Trichloroethene	5.2						50					
Dibromomethane	+++++	+++++	6.0						50			
Bromodichloromethane	2.7						50					
1,4-Dioxane	+++++	+++++	12.0						50			
Methyl methacrylate	+++++	+++++	-13.4						50			
Methylcyclohexane	+++++	2.9						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	15.1						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	-0.9						50					
trans-1,3-Dichloropropene	9.5						50					
Toluene	7.3						50					
1,1,2-Trichloroethane	5.8						50					
2-Hexanone	+++++	+++++	9.1						50			
Octane	+++++	-1.3						50				
Dibromochloromethane	+++++	+++++	-21.2						50			
1,2-Dibromoethane (EDB)	-5.2						50					
Tetrachloroethene	14.1						50					
Chlorobenzene	8.1						50					
Ethylbenzene	-4.4						50					
m-Xylene & p-Xylene	-6.8						50					
Nonane	+++++	0.9						50				
Bromoform	+++++	+++++	-28.6 +++++	+++++					50			
Styrene	+++++	-25.4		+++++				50				
o-Xylene	-0.5						50					
1,1,2,2-Tetrachloroethane	+++++	-15.0						50				
1,2,3-Trichloropropane	+++++	+++++	0.5						50			
Isopropylbenzene	8.1						50					
Propylbenzene	-9.4						50					
2-Chlorotoluene	8.7						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-5.3						50					
1,3,5-Trimethylbenzene	-3.5						50					
Alpha Methyl Styrene	+++++	+++++	-19.9	+++++					50			
Decane	8.9						50					
tert-Butylbenzene	-5.8						50					
1,2,4-Trimethylbenzene	-5.1						50					
sec-Butylbenzene	3.7						50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	+++++	+++++	-11.1	+++++					50			
1,4-Dichlorobenzene	12.5						50					
4-Isopropyltoluene	-4.5						50					
1,2,3-Trimethylbenzene	+++++	+++++	6.6	+++++					50			
Indane	-3.5						50					
1,2-Dichlorobenzene	7.5						50					
Butylbenzene	-5.1						50					
Indene	-8.8			+++++			50					
Undecane	9.5						50					
1,2-Dibromo-3-Chloropropane	+++++	+++++	-7.4	+++++					50			
1,2,4,5-Tetramethylbenzene	11.6						50					
Dodecane	+++++	+++++	+++++	19.1						50		
1,2,4-Trichlorobenzene	+++++	12.8		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	18.4						80				
Hexachlorobutadiene	+++++	-2.4						50				
1,2,3-Trichlorobenzene	+++++	30.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	4.3						80		
1-Methylnaphthalene	+++++	+++++	+++++	19.0						80		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 16-May-2019 20:05:30 ALS Bottle#: 15 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-003
Misc. Info.: 221636
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:50:59 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:58:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	97	329518	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.362	11.358	0.004	95	2145753	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1754182	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.660	17.656	0.004	84	1130160	4.00	4.18	
6 Chlorodifluoromethane	51	3.818	3.823	-0.005	96	1455765	8.00	7.59	
7 Propene	41	3.834	3.836	-0.002	99	766848	8.00	7.21	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	2409374	8.00	7.82	
9 Chloromethane	52	4.082	4.087	-0.005	99	259572	8.00	7.33	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.092	-0.005	93	1498630	8.00	7.71	
11 Acetaldehyde	44	4.249	4.258	-0.009	98	1392151	40.0	34.8	
12 Vinyl chloride	62	4.265	4.267	-0.002	99	962604	8.00	7.61	
13 Butane	43	4.357	4.360	-0.003	85	1435042	8.00	7.89	
14 Butadiene	54	4.357	4.361	-0.004	67	765294	8.00	8.02	
15 Bromomethane	94	4.702	4.706	-0.004	99	846989	8.00	7.83	
16 Chloroethane	64	4.853	4.857	-0.004	99	472939	8.00	7.75	
17 Ethanol	31	4.966	4.993	-0.027	93	1188804	40.0	29.8	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	837918	8.00	7.97	
19 2-Methylbutane	43	5.231	5.230	0.001	90	1013703	8.00	7.76	
20 Trichlorofluoromethane	101	5.463	5.462	0.000	99	2376490	8.00	7.95	
21 Acrolein	56	5.473	5.487	-0.014	92	136196	8.00	5.94	
22 Acetonitrile	40	5.549	5.554	-0.005	99	208690	8.00	6.76	
23 Acetone	58	5.592	5.617	-0.025	97	677038	24.0	16.1	
24 Pentane	72	5.694	5.694	0.000	97	162112	8.00	7.83	
25 Isopropyl alcohol	45	5.694	5.749	-0.055	92	1921012	24.0	18.3	
26 Ethyl ether	31	5.867	5.890	-0.023	90	511764	8.00	6.46	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	923356	8.00	7.73	
28 Acrylonitrile	53	6.320	6.326	-0.006	99	457967	8.00	6.70	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	1966676	8.00	7.76	
30 2-Methyl-2-propanol	59	6.331	6.416	-0.085	93	1092500	8.00	6.90	
31 Methylene Chloride	84	6.568	6.569	-0.001	96	871665	8.00	6.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	97	831389	8.00	7.84	
33 Carbon disulfide	76	6.741	6.740	0.000	98	2770686	8.00	7.95	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	98	948597	8.00	8.04	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	2229939	8.00	7.65	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	96	1709164	8.00	5.98	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	1789382	8.00	7.70	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	1618172	8.00	6.57	
40 Hexane	56	8.423	8.426	-0.003	91	857015	8.00	7.87	
39 2-Butanone (MEK)	72	8.401	8.428	-0.027	96	280032	8.00	5.50	
41 Isopropyl ether	45	8.585	8.611	-0.026	97	2083626	8.00	5.89	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	976319	8.00	7.95	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	1236473	8.00	5.73	
44 Chloroform	83	9.199	9.198	0.001	97	1932413	8.00	7.83	
45 Tert-butyl ethyl ether	59	9.275	9.306	-0.031	95	1985956	8.00	5.89	
46 Tetrahydrofuran	42	9.604	9.640	-0.036	94	705483	8.00	6.00	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	2102862	8.00	7.93	
48 1,2-Dichloroethane	62	10.353	10.350	0.003	98	1305118	8.00	7.60	
49 Cyclohexane	69	10.828	10.827	0.001	80	478119	8.00	7.24	
50 Benzene	78	10.833	10.829	0.004	96	2664221	8.00	7.07	
52 Carbon tetrachloride	117	10.855	10.850	0.005	97	2151836	8.00	8.61	
51 n-Butanol	31	10.806	10.879	-0.073	74	193681	8.00	6.60	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	90	733217	8.00	7.43	
54 Thiophene	84	11.103	11.100	0.003	96	1640194	8.00	7.53	
55 Isooctane	57	11.572	11.569	0.003	99	4802860	8.00	7.05	
56 n-Heptane	71	11.933	11.933	0.000	89	1061371	8.00	7.29	
57 1,2-Dichloropropane	63	12.030	12.028	0.002	90	1020477	8.00	7.52	
58 Trichloroethene	130	12.063	12.062	0.001	96	1256285	8.00	7.57	
59 Dibromomethane	93	12.149	12.150	-0.001	93	1038729	8.00	7.53	
60 Dichlorobromomethane	83	12.295	12.290	0.005	98	1972785	8.00	7.98	
61 1,4-Dioxane	88	12.311	12.348	-0.037	88	248286	8.00	5.35	
62 Methyl methacrylate	41	12.376	12.382	-0.006	95	798290	8.00	6.11	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	1890035	8.00	7.38	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.242	-0.025	97	1220404	8.00	5.26	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	1552030	8.00	7.78	
66 trans-1,3-Dichloropropene	75	13.955	13.956	-0.001	98	1361905	8.00	8.14	
67 Toluene	91	14.085	14.081	0.004	94	2941770	8.00	7.67	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	99	890893	8.00	7.74	
69 2-Hexanone	58	14.538	14.555	-0.017	94	638898	8.00	5.82	
70 n-Octane	85	14.748	14.747	0.001	92	1086444	8.00	7.51	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	1866612	8.00	8.87	
72 Ethylene Dibromide	107	15.147	15.143	0.004	99	1618286	8.00	8.30	
73 Tetrachloroethene	129	15.212	15.211	0.001	97	1078286	8.00	7.42	
75 Chlorobenzene	112	16.080	16.080	0.000	96	2344716	8.00	7.45	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	91	2780964	8.00	6.71	
78 Ethylbenzene	91	16.360	16.359	0.001	98	3437784	8.00	7.21	
79 m-Xylene & p-Xylene	91	16.522	16.519	0.003	97	5133019	16.0	14.0	
80 n-Nonane	57	16.921	16.919	0.002	89	2056395	8.00	7.42	
81 Bromoform	173	16.981	16.976	0.005	94	1642115	8.00	11.0	
82 Styrene	104	16.986	16.983	0.003	97	2024747	8.00	8.58	
83 o-Xylene	91	17.045	17.043	0.002	99	2717033	8.00	6.97	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	99	1751142	8.00	6.90	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	98	533466	8.00	6.57	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	3552766	8.00	6.56	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	953633	8.00	6.73	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	992520	8.00	7.25	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	3411871	8.00	6.56	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	1362442	8.00	6.34	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	1467628	8.00	8.31	
93 n-Decane	57	18.631	18.628	0.003	91	2218740	8.00	6.56	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	2893179	8.00	6.19	
95 1,2,4-Trimethylbenzene	105	18.792	18.790	0.002	96	2786864	8.00	6.38	
96 sec-Butylbenzene	105	19.040	19.037	0.003	98	4087987	8.00	6.14	
97 1,3-Dichlorobenzene	146	19.062	19.059	0.003	100	2094229	8.00	7.35	
98 Benzyl chloride	91	19.132	19.130	0.002	98	2289607	8.00	7.74	
99 1,4-Dichlorobenzene	146	19.148	19.145	0.003	95	2114516	8.00	7.32	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	97	3251402	8.00	6.19	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	2825913	8.00	6.36	
102 Butylcyclohexane	83	19.299	19.298	0.001	95	2881855	8.00	6.69	
103 2,3-Dihydroindene	117	19.499	19.495	0.004	94	2590340	8.00	6.50	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	96	1873115	8.00	6.84	
105 n-Butylbenzene	91	19.617	19.618	-0.001	99	3005837	8.00	6.16	
106 Indene	116	19.623	19.623	0.000	93	2244227	8.00	7.63	
107 Undecane	57	19.914	19.910	0.004	95	1993722	8.00	5.68	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	96	798929	8.00	7.55	
109 1,2,4,5-Tetramethylbenzene	119	20.367	20.363	0.004	97	2741782	8.00	5.60	
110 Dodecane	57	20.960	20.961	-0.001	98	1319037	8.00	4.99	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	94	1099315	8.00	6.35	
112 Naphthalene	128	21.321	21.321	0.000	99	2706962	8.00	5.64	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	93	1072639	8.00	5.80	
114 1,2,3-Trichlorobenzene	180	21.596	21.593	0.003	95	990277	8.00	5.33	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	933008	8.00	5.83	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	1147762	8.00	5.57	
A 122 C8 Range	1	14.792	(14.684-14.875)		0	9194568	8.00	7.04	
S 123 1,2-Dichloroethene, Total	1				0		16.0	16.0	
S 124 Xylenes, Total	100				0		24.0	20.9	

Reagents:

40L10DQP_00010	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

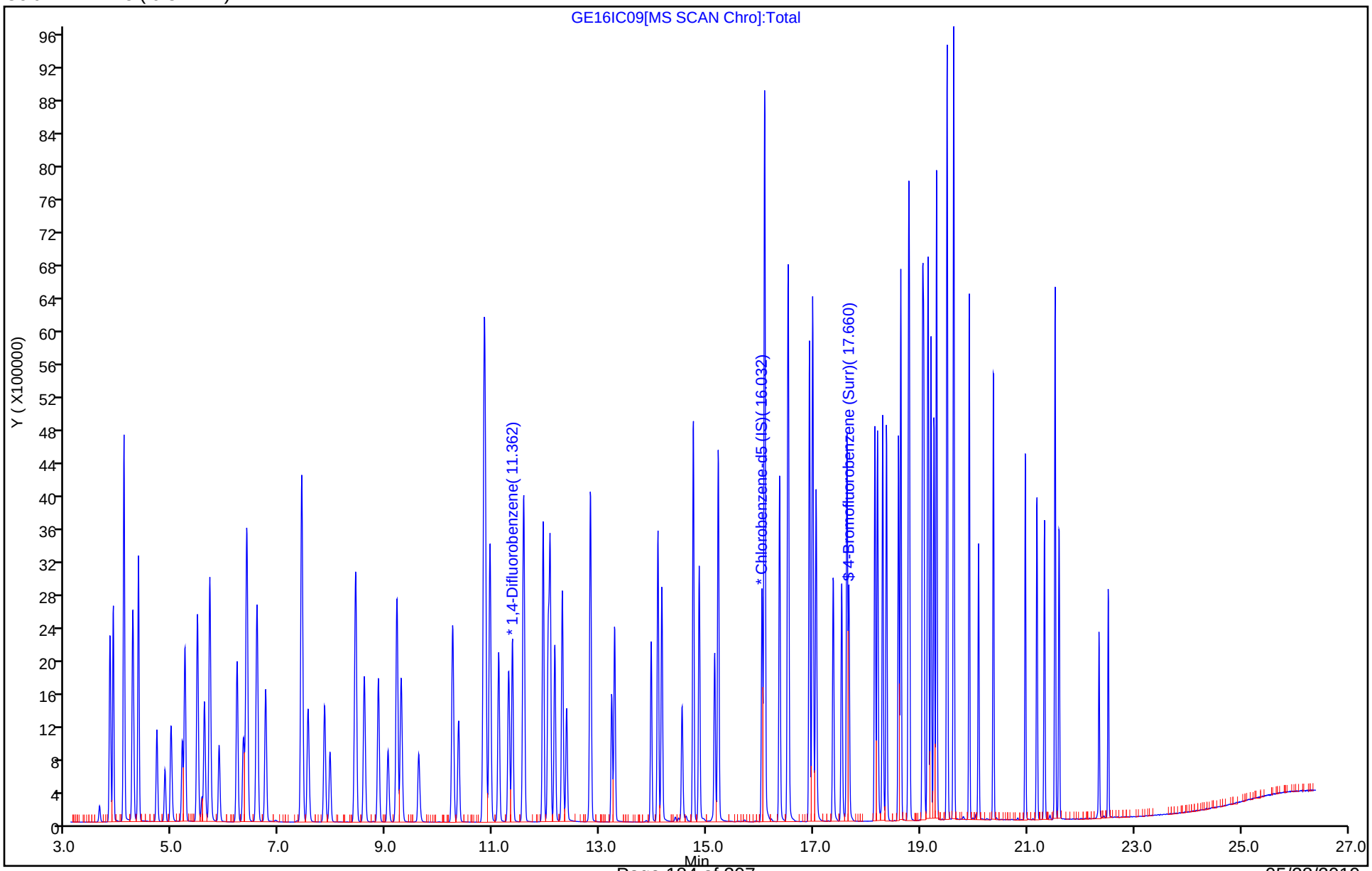
Report Date: 20-May-2019 14:51:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D

Injection Date:	16-May-2019 20:05:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

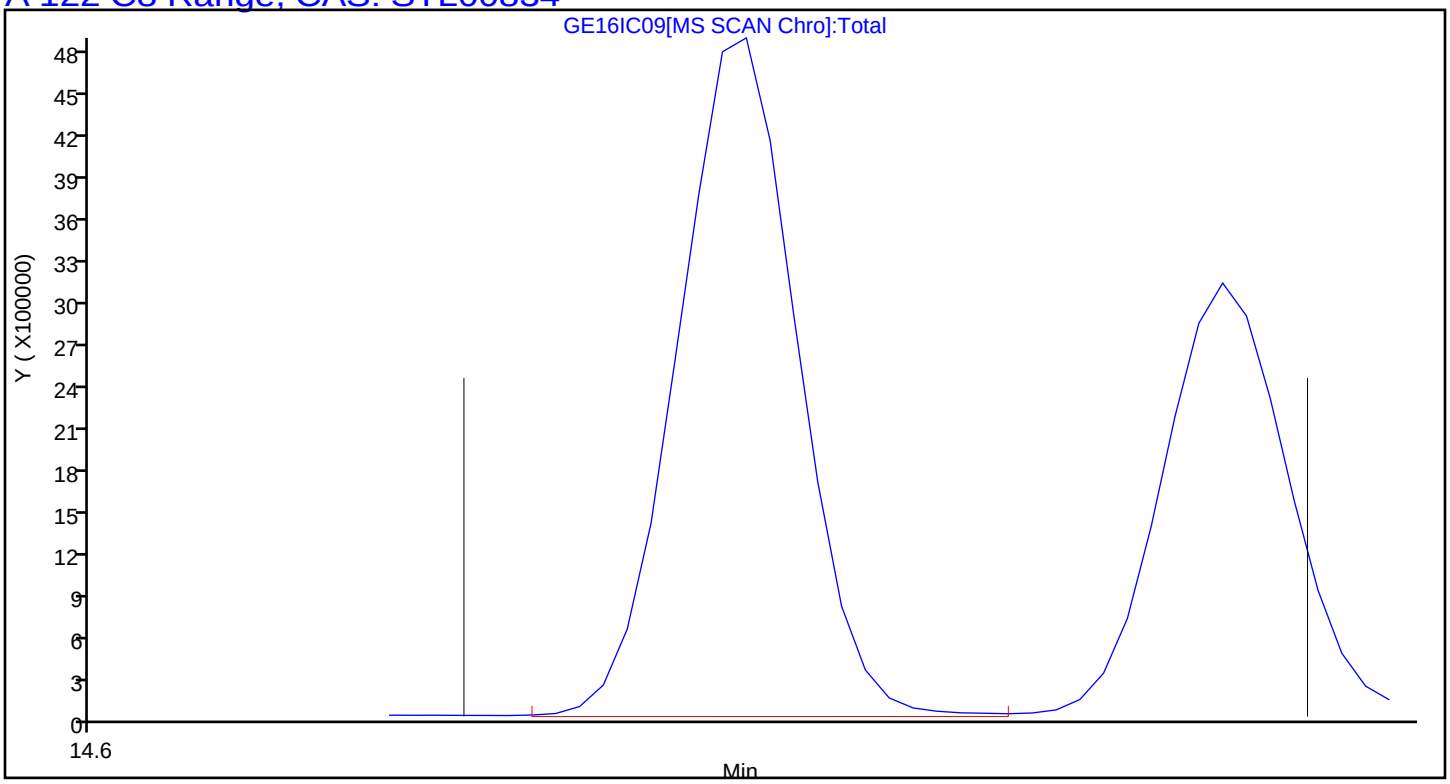


Report Date: 20-May-2019 14:51:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D				
Injection Date:	16-May-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 16-May-2019 21:32:30 ALS Bottle#: 15 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-005
Misc. Info.: 221636
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:09 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.199	9.187	0.012	95	331878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.367	11.358	0.009	94	1933828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.037	16.032	0.005	88	1762152	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.665	17.656	0.009	85	1182280	4.00	4.36	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	2851665	16.0	14.8	
7 Propene	41	3.839	3.836	0.003	99	1486485	16.0	13.9	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	100	4728616	16.0	15.2	
9 Chloromethane	52	4.087	4.087	0.000	100	494390	16.0	13.9	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	94	2981771	16.0	15.2	
11 Acetaldehyde	44	4.255	4.258	-0.003	97	2928587	80.0	72.6	
12 Vinyl chloride	62	4.271	4.267	0.004	99	1898499	16.0	14.9	
13 Butane	43	4.362	4.360	0.002	84	2786966	16.0	15.2	
14 Butadiene	54	4.362	4.361	0.001	69	1544862	16.0	16.1	
15 Bromomethane	94	4.708	4.706	0.002	99	1733800	16.0	15.9	
16 Chloroethane	64	4.864	4.857	0.007	98	984111	16.0	16.0	
17 Ethanol	31	4.988	4.993	-0.005	92	3115790	80.0	77.7	
18 Vinyl bromide	106	5.187	5.179	0.008	99	1733333	16.0	16.4	
19 2-Methylbutane	43	5.236	5.230	0.006	90	2037556	16.0	15.5	
20 Trichlorofluoromethane	101	5.468	5.462	0.006	100	4795648	16.0	15.9	
21 Acrolein	56	5.484	5.487	-0.003	92	379053	16.0	16.4	
22 Acetonitrile	40	5.560	5.554	0.006	99	582652	16.0	18.7	
23 Acetone	58	5.597	5.617	-0.020	97	1946078	48.0	45.9	
24 Pentane	72	5.700	5.694	0.006	97	341043	16.0	16.3	
25 Isopropyl alcohol	45	5.721	5.749	-0.028	97	5169450	48.0	49.0	
26 Ethyl ether	31	5.872	5.890	-0.018	89	1271090	16.0	15.9	
27 1,1-Dichloroethene	96	6.212	6.205	0.007	97	1935536	16.0	16.1	
28 Acrylonitrile	53	6.331	6.326	0.005	96	1236431	16.0	18.0	
29 1,1,2-Trichloro-1,2,2-trif	101	6.395	6.386	0.009	95	3925120	16.0	15.4	
30 2-Methyl-2-propanol	59	6.347	6.416	-0.069	93	2654334	16.0	16.7	
31 Methylene Chloride	84	6.579	6.569	0.010	95	1773178	16.0	13.3	
32 3-Chloro-1-propene	39	6.595	6.585	0.010	97	1649774	16.0	15.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.746	6.740	0.006	98	5750635	16.0	16.4	
34 trans-1,2-Dichloroethene	96	7.415	7.404	0.011	99	1884495	16.0	15.9	
35 2-Methylpentane	43	7.431	7.421	0.010	93	4197123	16.0	14.3	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	96	5038272	16.0	17.5	
37 1,1-Dichloroethane	63	7.851	7.842	0.009	100	3694840	16.0	15.8	
38 Vinyl acetate	43	7.954	7.952	0.002	100	4565541	16.0	18.4	
40 Hexane	56	8.434	8.426	0.008	90	1693828	16.0	15.4	
39 2-Butanone (MEK)	72	8.412	8.428	-0.016	98	875476	16.0	17.1	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	6073395	16.0	17.1	
42 cis-1,2-Dichloroethene	96	8.860	8.849	0.011	95	2052676	16.0	16.6	
43 Ethyl acetate	43	9.038	9.051	-0.013	100	4050814	16.0	18.6	
44 Chloroform	83	9.216	9.198	0.018	96	4094217	16.0	16.5	
45 Tert-butyl ethyl ether	59	9.286	9.306	-0.020	94	6017937	16.0	17.7	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	93	2105385	16.0	17.8	
47 1,1,1-Trichloroethane	97	10.251	10.239	0.012	96	4327311	16.0	16.2	
48 1,2-Dichloroethane	62	10.364	10.350	0.014	98	2743021	16.0	17.7	
49 Cyclohexane	69	10.833	10.827	0.006	96	951024	16.0	16.0	
50 Benzene	78	10.839	10.829	0.010	96	5490023	16.0	16.2	
52 Carbon tetrachloride	117	10.860	10.850	0.010	98	4403685	16.0	19.6	
51 n-Butanol	31	10.812	10.879	-0.067	73	414454	16.0	15.7	
53 2,3-Dimethylpentane	71	10.947	10.938	0.009	90	1521651	16.0	17.1	
54 Thiophene	84	11.114	11.100	0.014	95	3534214	16.0	18.0	
55 Isooctane	57	11.577	11.569	0.008	99	9984627	16.0	16.3	
56 n-Heptane	71	11.944	11.933	0.011	88	2256330	16.0	17.2	
57 1,2-Dichloropropane	63	12.041	12.028	0.013	90	2050640	16.0	16.8	
58 Trichloroethene	130	12.074	12.062	0.012	97	2615997	16.0	17.5	
59 Dibromomethane	93	12.160	12.150	0.010	96	2127268	16.0	17.1	
60 Dichlorobromomethane	83	12.300	12.290	0.010	99	4277442	16.0	19.2	
61 1,4-Dioxane	88	12.316	12.348	-0.032	85	768818	16.0	18.4	
62 Methyl methacrylate	41	12.381	12.382	-0.001	97	2549164	16.0	21.7	
63 Methylcyclohexane	83	12.828	12.818	0.010	95	3927400	16.0	17.0	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	96	4135969	16.0	19.8	
65 cis-1,3-Dichloropropene	75	13.281	13.271	0.010	93	3362140	16.0	18.7	
66 trans-1,3-Dichloropropene	75	13.966	13.956	0.010	98	3048699	16.0	18.1	
67 Toluene	91	14.090	14.081	0.009	95	6458448	16.0	16.8	
68 1,1,2-Trichloroethane	83	14.166	14.156	0.010	98	1985221	16.0	17.2	
69 2-Hexanone	58	14.543	14.555	-0.012	95	2183727	16.0	19.8	
70 n-Octane	85	14.754	14.747	0.007	90	2425028	16.0	16.7	
71 Chlorodibromomethane	129	14.867	14.854	0.013	97	4297014	16.0	20.3	
72 Ethylene Dibromide	107	15.153	15.143	0.010	99	3560552	16.0	18.2	
73 Tetrachloroethene	129	15.217	15.211	0.006	97	2422834	16.0	16.6	
75 Chlorobenzene	112	16.085	16.080	0.005	93	5243363	16.0	16.6	
74 2,3-Dimethylheptane	43	16.085	16.080	0.005	86	5521209	16.0	13.3	
78 Ethylbenzene	91	16.366	16.359	0.007	98	8733871	16.0	18.2	
79 m-Xylene & p-Xylene	91	16.528	16.519	0.009	96	13504474	32.0	36.6	
80 n-Nonane	57	16.927	16.919	0.008	86	4493277	16.0	16.1	
81 Bromoform	173	16.986	16.976	0.010	95	4138192	16.0	27.7	
82 Styrene	104	16.991	16.983	0.008	95	5577184	16.0	23.5	
83 o-Xylene	91	17.051	17.043	0.008	99	7313969	16.0	18.7	
84 1,1,2,2-Tetrachloroethane	83	17.374	17.365	0.009	99	4939070	16.0	19.4	
85 1,2,3-Trichloropropane	110	17.531	17.523	0.008	98	1619671	16.0	19.9	
86 Isopropylbenzene	105	17.628	17.622	0.006	95	10110086	16.0	18.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.151	18.145	0.006	99	2877608	16.0	20.2	
88 2-Chlorotoluene	126	18.199	18.194	0.005	97	2534846	16.0	18.4	
89 4-Ethyltoluene	105	18.296	18.290	0.006	98	10416265	16.0	19.9	
90 1,3,5-Trimethylbenzene	120	18.372	18.362	0.010	93	4334621	16.0	20.1	
92 Alpha Methyl Styrene	118	18.593	18.585	0.008	90	4603228	16.0	25.9	
93 n-Decane	57	18.636	18.628	0.008	92	5556086	16.0	16.4	
94 tert-Butylbenzene	119	18.782	18.776	0.006	94	9277477	16.0	19.8	
95 1,2,4-Trimethylbenzene	105	18.798	18.790	0.008	95	8963348	16.0	20.4	
96 sec-Butylbenzene	105	19.046	19.037	0.009	98	12483123	16.0	18.7	
97 1,3-Dichlorobenzene	146	19.067	19.059	0.008	98	5809129	16.0	20.3	
98 Benzyl chloride	91	19.138	19.130	0.008	99	7584806	16.0	25.5	
99 1,4-Dichlorobenzene	146	19.154	19.145	0.009	95	5904068	16.0	20.3	
100 4-Isopropyltoluene	119	19.202	19.194	0.008	97	10678190	16.0	20.2	
101 1,2,3-Trimethylbenzene	105	19.262	19.251	0.011	98	9013845	16.0	20.2	
102 Butylcyclohexane	83	19.305	19.298	0.007	96	7027869	16.0	16.3	
103 2,3-Dihydroindene	117	19.504	19.495	0.009	96	8236384	16.0	20.6	
104 1,2-Dichlorobenzene	146	19.504	19.497	0.007	98	5782926	16.0	21.0	
105 n-Butylbenzene	91	19.623	19.618	0.005	99	9699535	16.0	19.8	
106 Indene	116	19.628	19.623	0.005	93	7471791	16.0	25.3	
107 Undecane	57	19.914	19.910	0.004	92	5845663	16.0	16.6	
108 1,2-Dibromo-3-Chloropropan	157	20.092	20.087	0.005	99	2809051	16.0	26.4	
109 1,2,4,5-Tetramethylbenzene	119	20.367	20.363	0.004	98	9652513	16.0	19.6	
110 Dodecane	57	20.966	20.961	0.005	98	4855229	16.0	18.3	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	95	4144557	16.0	23.8	
112 Naphthalene	128	21.321	21.321	0.000	99	10209707	16.0	21.2	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	97	4047682	16.0	21.8	
114 1,2,3-Trichlorobenzene	180	21.596	21.593	0.003	95	3832551	16.0	20.5	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	3548760	16.0	22.1	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	4140645	16.0	20.0	
A 122 C8 Range	1	14.759	(14.695-14.832)		0	19742463	16.0	15.0	
S 123 1,2-Dichloroethene, Total	1				0		32.0	32.4	
S 124 Xylenes, Total	100				0		48.0	55.3	

Reagents:

40L10DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

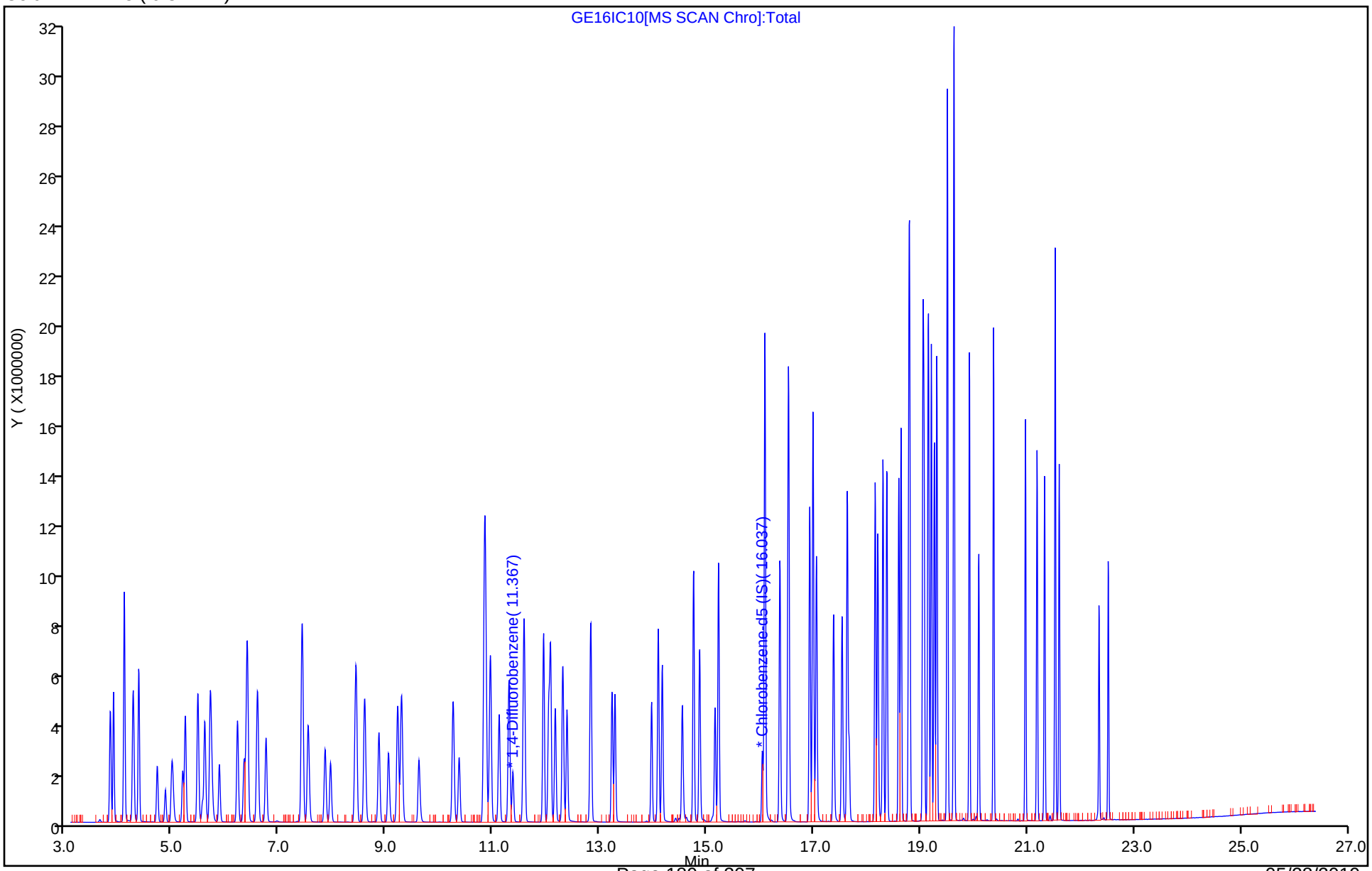
Report Date: 20-May-2019 14:51:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D

Injection Date:	16-May-2019 21:32:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

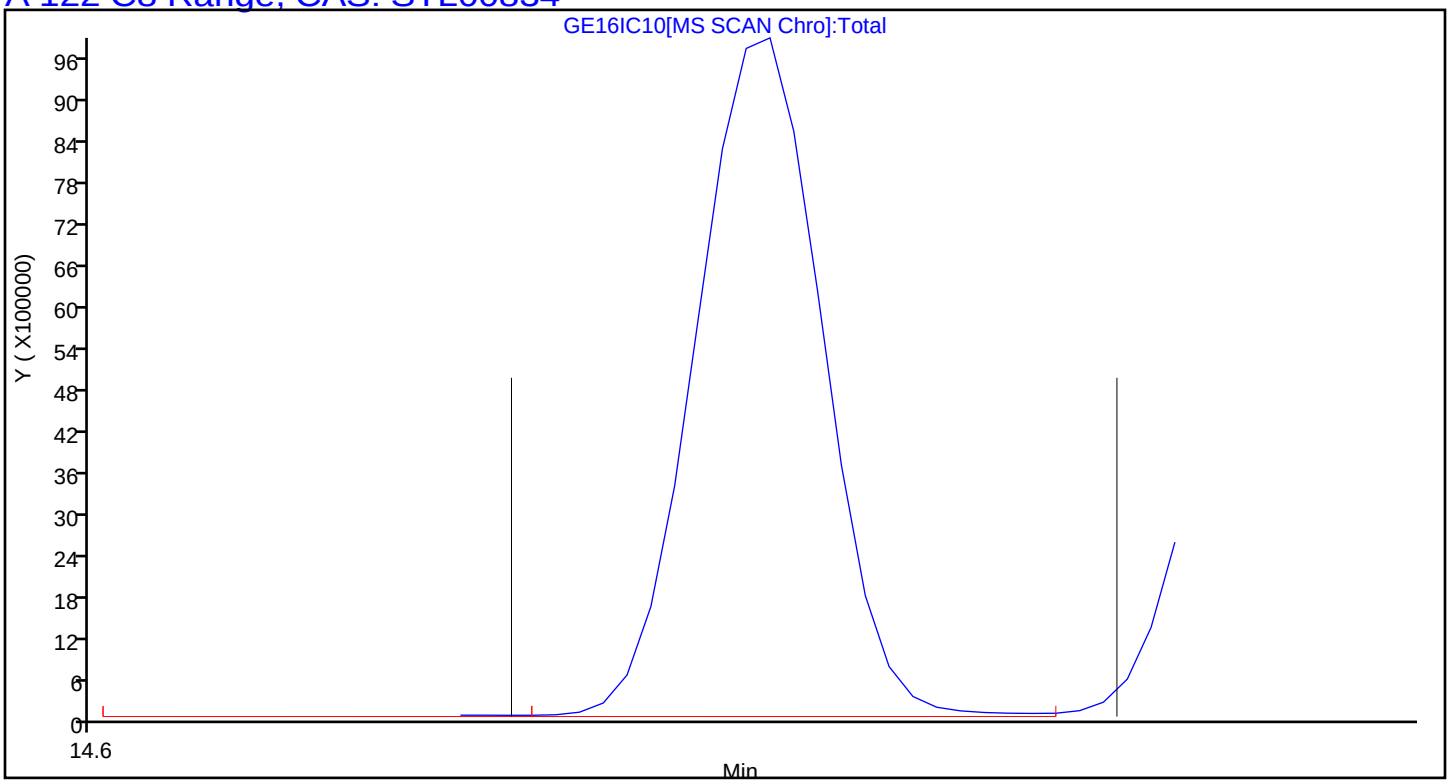


Report Date: 20-May-2019 14:51:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D				
Injection Date:	16-May-2019 21:32:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2019 23:40:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-008
Misc. Info.: 222336
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:15 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 10:13:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	96	340002	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2115734	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1785165	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1062445	4.00	3.86	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	95	4949	0.0200	0.0250	
7 Propene	41	3.840	3.836	0.004	95	5139	0.0200	0.0468	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	99	7684	0.0200	0.0242	
9 Chloromethane	52	4.098	4.087	0.011	75	1870	0.0200	0.0512	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.098	4.092	0.006	90	4282	0.0200	0.0214	
11 Acetaldehyde	44	4.271	4.258	0.013	99	17309	0.1000	0.4188	
12 Vinyl chloride	62	4.276	4.267	0.009	43	3004	0.0200	0.0230	
13 Butane	43	4.368	4.360	0.008	87	5539	0.0200	0.0295	
14 Butadiene	54	4.363	4.361	0.002	59	2343	0.0200	0.0238	
15 Bromomethane	94	4.718	4.706	0.012	96	2935	0.0200	0.0263	
16 Chloroethane	64	4.859	4.857	0.002	68	1771	0.0200	0.0281	
17 Ethanol	31	5.042	4.993	0.049	92	4772	0.1000	0.1161	
18 Vinyl bromide	106	5.188	5.179	0.009	93	2694	0.0200	0.0248	
19 2-Methylbutane	43	5.236	5.230	0.006	88	4186	0.0200	0.0311	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	98	7147	0.0200	0.0232	
21 Acrolein	56	5.506	5.487	0.019	64	1431	0.0200	0.0605	
23 Acetone	58	5.651	5.617	0.034	91	7141	0.0600	0.1643	
24 Pentane	72	5.700	5.694	0.006	44	541	0.0200	0.0253	
25 Isopropyl alcohol	45	5.840	5.749	0.091	98	8310	0.0600	0.0768	
26 Ethyl ether	31	5.926	5.890	0.036	92	2110	0.0200	0.0258	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	2781	0.0200	0.0226	
28 Acrylonitrile	53	6.347	6.326	0.021	74	1731	0.0200	0.0245	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	92	5693	0.0200	0.0218	
30 2-Methyl-2-propanol	59	6.557	6.416	0.141	87	3346	0.0200	0.0205	
31 Methylene Chloride	84	6.573	6.569	0.004	97	18998	0.0200	0.1393	
32 3-Chloro-1-propene	39	6.579	6.585	-0.006	95	3091	0.0200	0.0283	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.741	6.740	0.001	98	8985	0.0200	0.0250	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	93	2628	0.0200	0.0216	
35 2-Methylpentane	43	7.425	7.421	0.004	92	7467	0.0200	0.0248	
36 Methyl tert-butyl ether	73	7.636	7.568	0.068	94	5822	0.0200	0.0197	
37 1,1-Dichloroethane	63	7.846	7.842	0.004	98	5782	0.0200	0.0241	
38 Vinyl acetate	43	7.970	7.952	0.018	99	4867	0.0200	0.0192	
40 Hexane	56	8.434	8.426	0.008	79	2799	0.0200	0.0249	
39 2-Butanone (MEK)	72	8.472	8.428	0.044	95	1149	0.0200	0.0219	
41 Isopropyl ether	45	8.666	8.611	0.055	96	6332	0.0200	0.0174	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	94	2695	0.0200	0.0213	
43 Ethyl acetate	43	9.097	9.051	0.046	96	3896	0.0200	0.0175	
44 Chloroform	83	9.200	9.198	0.002	27	6079	0.0200	0.0239	
45 Tert-butyl ethyl ether	59	9.367	9.306	0.061	96	5943	0.0200	0.0171	
46 Tetrahydrofuran	42	9.701	9.640	0.061	91	2538	0.0200	0.0209	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	6537	0.0200	0.0239	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	92	3780	0.0200	0.0223	
49 Cyclohexane	69	10.833	10.827	0.006	68	1565	0.0200	0.0240	
50 Benzene	78	10.828	10.829	-0.001	96	10416	0.0200	0.0280	
52 Carbon tetrachloride	117	10.850	10.850	0.000	94	4669	0.0200	0.0190	
51 n-Butanol	31	10.963	10.879	0.084	64	1062	0.0200	0.0367	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	86	2593	0.0200	0.0267	
54 Thiophene	84	11.098	11.100	-0.002	95	4546	0.0200	0.0212	
55 Isooctane	57	11.572	11.569	0.003	99	18176	0.0200	0.0271	
56 n-Heptane	71	11.928	11.933	-0.005	90	3193	0.0200	0.0222	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	88	3240	0.0200	0.0242	
58 Trichloroethene	130	12.063	12.062	0.001	94	3443	0.0200	0.0210	
59 Dibromomethane	93	12.149	12.150	-0.001	89	4330	0.0200	0.0318	
60 Dichlorobromomethane	83	12.295	12.290	0.005	95	5003	0.0200	0.0205	
61 1,4-Dioxane	88	12.430	12.348	0.082	30	576	0.0200	0.0126	
62 Methyl methacrylate	41	12.403	12.382	0.021	85	1704	0.0200	0.0132	
63 Methylcyclohexane	83	12.812	12.818	-0.006	91	6134	0.0200	0.0243	
64 4-Methyl-2-pentanone (MIBK	43	13.287	13.242	0.045	92	4019	0.0200	0.0176	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	3899	0.0200	0.0198	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	95	3726	0.0200	0.0219	
67 Toluene	91	14.080	14.081	-0.001	93	8372	0.0200	0.0215	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	93	2479	0.0200	0.0212	
69 2-Hexanone	58	14.581	14.555	0.026	94	1643	0.0200	0.0147	
70 n-Octane	85	14.748	14.747	0.001	92	3275	0.0200	0.0222	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	92	3434	0.0200	0.0160	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	3761	0.0200	0.0190	
73 Tetrachloroethene	129	15.212	15.211	0.001	89	3374	0.0200	0.0228	
75 Chlorobenzene	112	16.080	16.080	0.000	70	6920	0.0200	0.0216	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	10670	0.0200	0.0253	
78 Ethylbenzene	91	16.361	16.359	0.002	98	9274	0.0200	0.0191	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	13931	0.0400	0.0373	
80 n-Nonane	57	16.921	16.919	0.002	90	6839	0.0200	0.0243	
81 Bromoform	173	16.975	16.976	-0.001	87	2182	0.0200	0.0144	
82 Styrene	104	16.981	16.983	-0.002	96	4048	0.0200	0.0169	
83 o-Xylene	91	17.045	17.043	0.002	98	7896	0.0200	0.0199	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	96	4476	0.0200	0.0173	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	95	1457	0.0200	0.0176	
86 Isopropylbenzene	105	17.622	17.622	0.000	87	11921	0.0200	0.0216	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	2614	0.0200	0.0181	
88 2-Chlorotoluene	126	18.189	18.194	-0.005	96	3027	0.0200	0.0217	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	10033	0.0200	0.0189	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	94	4218	0.0200	0.0193	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	83	2484	0.0200	0.0138	
93 n-Decane	57	18.625	18.628	-0.003	91	7500	0.0200	0.0218	
94 tert-Butylbenzene	119	18.776	18.776	0.000	92	8954	0.0200	0.0188	
95 1,2,4-Trimethylbenzene	105	18.793	18.790	0.003	95	8437	0.0200	0.0190	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	14061	0.0200	0.0207	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	6193	0.0200	0.0214	
98 Benzyl chloride	91	19.127	19.130	-0.003	78	4521	0.0200	0.0150	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	92	6613	0.0200	0.0225	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	96	10208	0.0200	0.0191	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	97	8986	0.0200	0.0199	
102 Butylcyclohexane	83	19.294	19.298	-0.004	93	10037	0.0200	0.0229	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	7824	0.0200	0.0193	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	83	5991	0.0200	0.0215	
105 n-Butylbenzene	91	19.618	19.618	0.000	97	9416	0.0200	0.0190	
106 Indene	116	19.623	19.623	0.000	70	5461	0.0200	0.0182	
107 Undecane	57	19.909	19.910	-0.001	94	7822	0.0200	0.0219	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	84	2433	0.0200	0.0226	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	11121	0.0200	0.0223	
110 Dodecane	57	20.960	20.961	-0.001	96	8441	0.0200	0.0314	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	92	6138	0.0200	0.0348	
112 Naphthalene	128	21.322	21.321	0.001	99	18542	0.0200	0.0380	
113 Hexachlorobutadiene	225	21.516	21.520	-0.004	89	4361	0.0200	0.0232	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	92	8290	0.0200	0.0438	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	97	20003	0.0200	0.1228	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	100	22108	0.0200	0.1054	
A 122 C8 Range	1	14.744	(14.701-14.805)		0	30526	0.0200	0.0230	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0428	
S 124 Xylenes, Total	100				0		0.0600	0.0572	

Reagents:

40L1-3DQP_00014	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

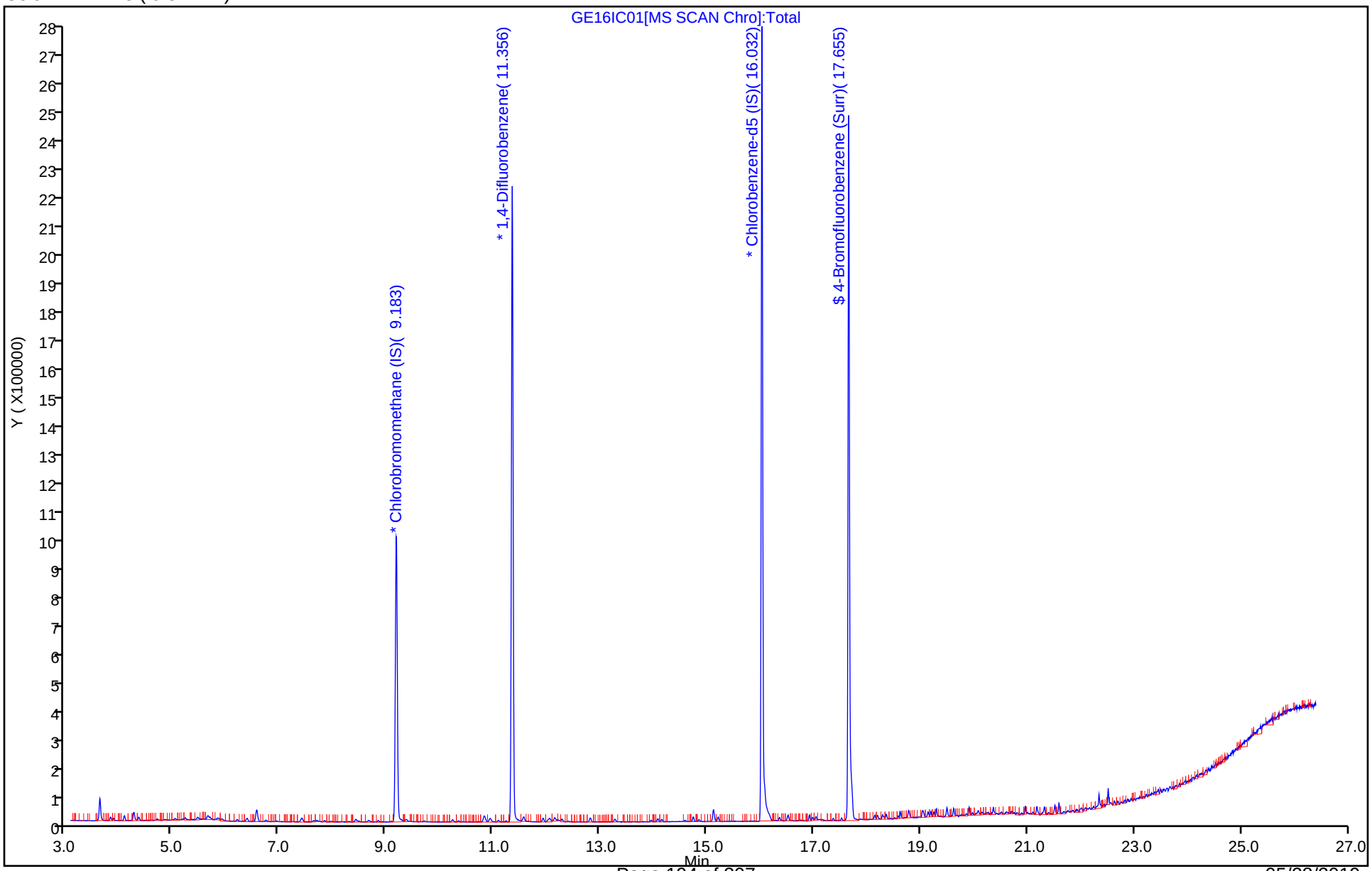
Report Date: 20-May-2019 14:51:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D

Injection Date:	16-May-2019 23:40:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

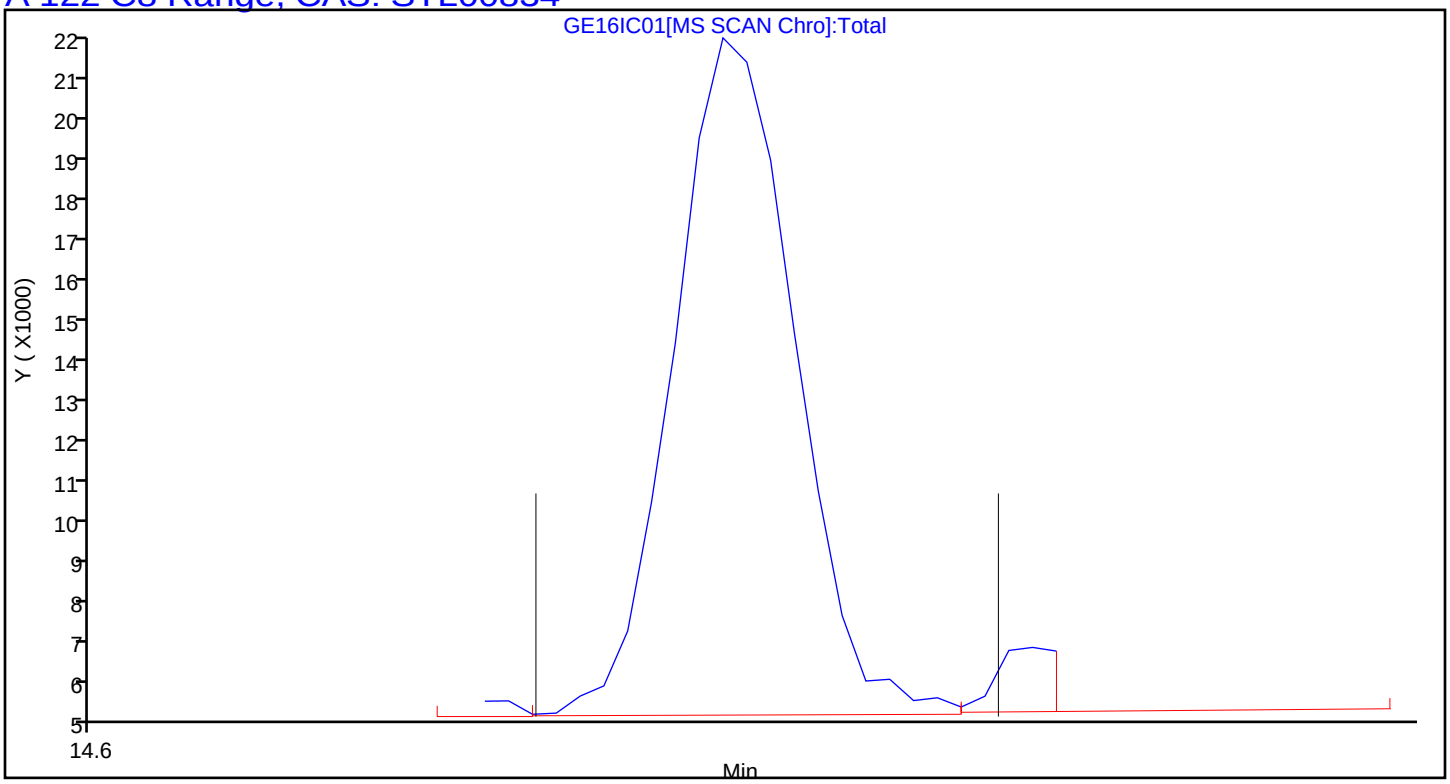


Report Date: 20-May-2019 14:51:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D				
Injection Date:	16-May-2019 23:40:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-May-2019 00:23:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-009
Misc. Info.: 222336
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:24 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:53:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	319083	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.358	-0.007	95	2038175	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1771803	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1060073	4.00	3.89	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	8292	0.0400	0.0447	
7 Propene	41	3.834	3.836	-0.002	95	7143	0.0400	0.0693	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	13025	0.0400	0.0437	
9 Chloromethane	52	4.087	4.087	0.000	66	2681	0.0400	0.0782	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	92	8244	0.0400	0.0438	
11 Acetaldehyde	44	4.265	4.258	0.007	97	30122	0.2000	0.7766	
12 Vinyl chloride	62	4.271	4.267	0.004	43	5447	0.0400	0.0444	
13 Butane	43	4.357	4.360	-0.003	87	9060	0.0400	0.0514	
14 Butadiene	54	4.357	4.361	-0.004	63	4092	0.0400	0.0443	
15 Bromomethane	94	4.708	4.706	0.002	98	5147	0.0400	0.0491	
16 Chloroethane	64	4.853	4.857	-0.004	95	2603	0.0400	0.0440	
17 Ethanol	31	5.020	4.993	0.027	93	8761	0.2000	0.2271	
18 Vinyl bromide	106	5.177	5.179	-0.002	95	4664	0.0400	0.0458	
19 2-Methylbutane	43	5.225	5.230	-0.005	88	6458	0.0400	0.0511	
20 Trichlorofluoromethane	101	5.462	5.462	0.000	100	12272	0.0400	0.0424	
21 Acrolein	56	5.506	5.487	0.019	59	2291	0.0400	0.1032	
23 Acetone	58	5.651	5.617	0.034	93	12563	0.1200	0.3080	
24 Pentane	72	5.694	5.694	0.000	95	911	0.0400	0.0454	
25 Isopropyl alcohol	45	5.813	5.749	0.064	98	14376	0.1200	0.1416	
26 Ethyl ether	31	5.915	5.890	0.025	94	3781	0.0400	0.0493	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	95	5183	0.0400	0.0448	
28 Acrylonitrile	53	6.336	6.326	0.010	78	2900	0.0400	0.0438	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	10428	0.0400	0.0425	
30 2-Methyl-2-propanol	59	6.519	6.416	0.103	92	6355	0.0400	0.0415	
31 Methylene Chloride	84	6.568	6.569	-0.001	95	20424	0.0400	0.1596	
32 3-Chloro-1-propene	39	6.589	6.585	0.004	97	4624	0.0400	0.0450	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.740	6.740	0.000	99	14970	0.0400	0.0443	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	98	4775	0.0400	0.0418	
35 2-Methylpentane	43	7.420	7.421	-0.001	95	13799	0.0400	0.0489	
36 Methyl tert-butyl ether	73	7.625	7.568	0.057	88	10404	0.0400	0.0376	
37 1,1-Dichloroethane	63	7.840	7.842	-0.002	99	10098	0.0400	0.0449	
38 Vinyl acetate	43	7.965	7.952	0.013	99	8937	0.0400	0.0375	
40 Hexane	56	8.428	8.426	0.002	89	4986	0.0400	0.0473	
39 2-Butanone (MEK)	72	8.466	8.428	0.038	96	2264	0.0400	0.0459	
41 Isopropyl ether	45	8.649	8.611	0.038	96	12314	0.0400	0.0360	
42 cis-1,2-Dichloroethene	96	8.843	8.849	-0.006	94	5100	0.0400	0.0429	
43 Ethyl acetate	43	9.075	9.051	0.024	96	7117	0.0400	0.0341	
44 Chloroform	83	9.194	9.198	-0.004	28	10784	0.0400	0.0451	
45 Tert-butyl ethyl ether	59	9.350	9.306	0.044	94	11384	0.0400	0.0349	
46 Tetrahydrofuran	42	9.690	9.640	0.050	85	4688	0.0400	0.0412	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	97	11043	0.0400	0.0430	
48 1,2-Dichloroethane	62	10.343	10.350	-0.007	96	6759	0.0400	0.0415	
49 Cyclohexane	69	10.828	10.827	0.001	70	2697	0.0400	0.0430	
50 Benzene	78	10.822	10.829	-0.007	97	16814	0.0400	0.0470	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	93	8427	0.0400	0.0355	
51 n-Butanol	31	10.930	10.879	0.051	70	1697	0.0400	0.0608	
53 2,3-Dimethylpentane	71	10.930	10.938	-0.008	86	4013	0.0400	0.0428	
54 Thiophene	84	11.097	11.100	-0.003	95	8377	0.0400	0.0405	
55 Isooctane	57	11.567	11.569	-0.002	99	30060	0.0400	0.0465	
56 n-Heptane	71	11.933	11.933	0.000	90	6078	0.0400	0.0439	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	89	5896	0.0400	0.0457	
58 Trichloroethene	130	12.063	12.062	0.001	96	6690	0.0400	0.0424	
59 Dibromomethane	93	12.144	12.150	-0.006	94	6285	0.0400	0.0480	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	98	8506	0.0400	0.0362	
61 1,4-Dioxane	88	12.402	12.348	0.054	46	1733	0.0400	0.0393	
62 Methyl methacrylate	41	12.386	12.382	0.004	91	2750	0.0400	0.0222	
63 Methylcyclohexane	83	12.818	12.818	0.000	94	10013	0.0400	0.0412	
64 4-Methyl-2-pentanone (MIBK	43	13.271	13.242	0.029	87	7844	0.0400	0.0356	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	96	7191	0.0400	0.0379	
66 trans-1,3-Dichloropropene	75	13.955	13.956	-0.001	97	6179	0.0400	0.0366	
67 Toluene	91	14.079	14.081	-0.002	93	15671	0.0400	0.0405	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	96	4606	0.0400	0.0396	
69 2-Hexanone	58	14.576	14.555	0.021	95	3050	0.0400	0.0275	
70 n-Octane	85	14.748	14.747	0.001	91	5771	0.0400	0.0395	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	97	6076	0.0400	0.0286	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	96	7123	0.0400	0.0362	
73 Tetrachloroethene	129	15.212	15.211	0.001	92	5885	0.0400	0.0401	
75 Chlorobenzene	112	16.080	16.080	0.000	77	12680	0.0400	0.0399	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	18811	0.0400	0.0450	
78 Ethylbenzene	91	16.360	16.359	0.001	98	17864	0.0400	0.0371	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	26468	0.0800	0.0713	
80 n-Nonane	57	16.916	16.919	-0.003	93	11293	0.0400	0.0404	
81 Bromoform	173	16.970	16.976	-0.006	77	4215	0.0400	0.0280	
82 Styrene	104	16.986	16.983	0.003	97	7112	0.0400	0.0298	
83 o-Xylene	91	17.045	17.043	0.002	99	13297	0.0400	0.0338	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	97	8710	0.0400	0.0340	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	96	2706	0.0400	0.0330	
86 Isopropylbenzene	105	17.622	17.622	0.000	87	19981	0.0400	0.0365	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.145	-0.005	99	5023	0.0400	0.0351	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	5005	0.0400	0.0362	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	17686	0.0400	0.0337	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	92	7320	0.0400	0.0337	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	91	4742	0.0400	0.0266	
93 n-Decane	57	18.625	18.628	-0.003	90	13014	0.0400	0.0381	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	17036	0.0400	0.0361	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	95	14696	0.0400	0.0333	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	98	23935	0.0400	0.0356	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	97	10203	0.0400	0.0355	
98 Benzyl chloride	91	19.132	19.130	0.002	97	9007	0.0400	0.0301	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	92	10670	0.0400	0.0366	
100 4-Isopropyltoluene	119	19.191	19.194	-0.003	97	17415	0.0400	0.0328	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	15481	0.0400	0.0345	
102 Butylcyclohexane	83	19.294	19.298	-0.004	94	17094	0.0400	0.0393	
103 2,3-Dihydroindene	117	19.493	19.495	-0.002	93	13642	0.0400	0.0339	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	89	9800	0.0400	0.0354	
105 n-Butylbenzene	91	19.617	19.618	-0.001	98	15968	0.0400	0.0324	
106 Indene	116	19.623	19.623	0.000	95	9488	0.0400	0.0319	
107 Undecane	57	19.914	19.910	0.004	95	13577	0.0400	0.0383	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	84	3332	0.0400	0.0312	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	17278	0.0400	0.0349	
110 Dodecane	57	20.960	20.961	-0.001	96	12390	0.0400	0.0464	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	93	7893	0.0400	0.0451	
112 Naphthalene	128	21.321	21.321	0.000	99	22952	0.0400	0.0474	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	89	7293	0.0400	0.0391	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	93	9807	0.0400	0.0523	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	19374	0.0400	0.1199	
116 1-Methylnaphthalene	142	22.519	22.514	0.005	99	24010	0.0400	0.1153	
A 122 C8 Range	1	14.758	(14.700-14.816)		0	60595	0.0400	0.0459	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0847	
S 124 Xylenes, Total	100				0		0.1200	0.1051	

Reagents:

40L1-3DQP_00014	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

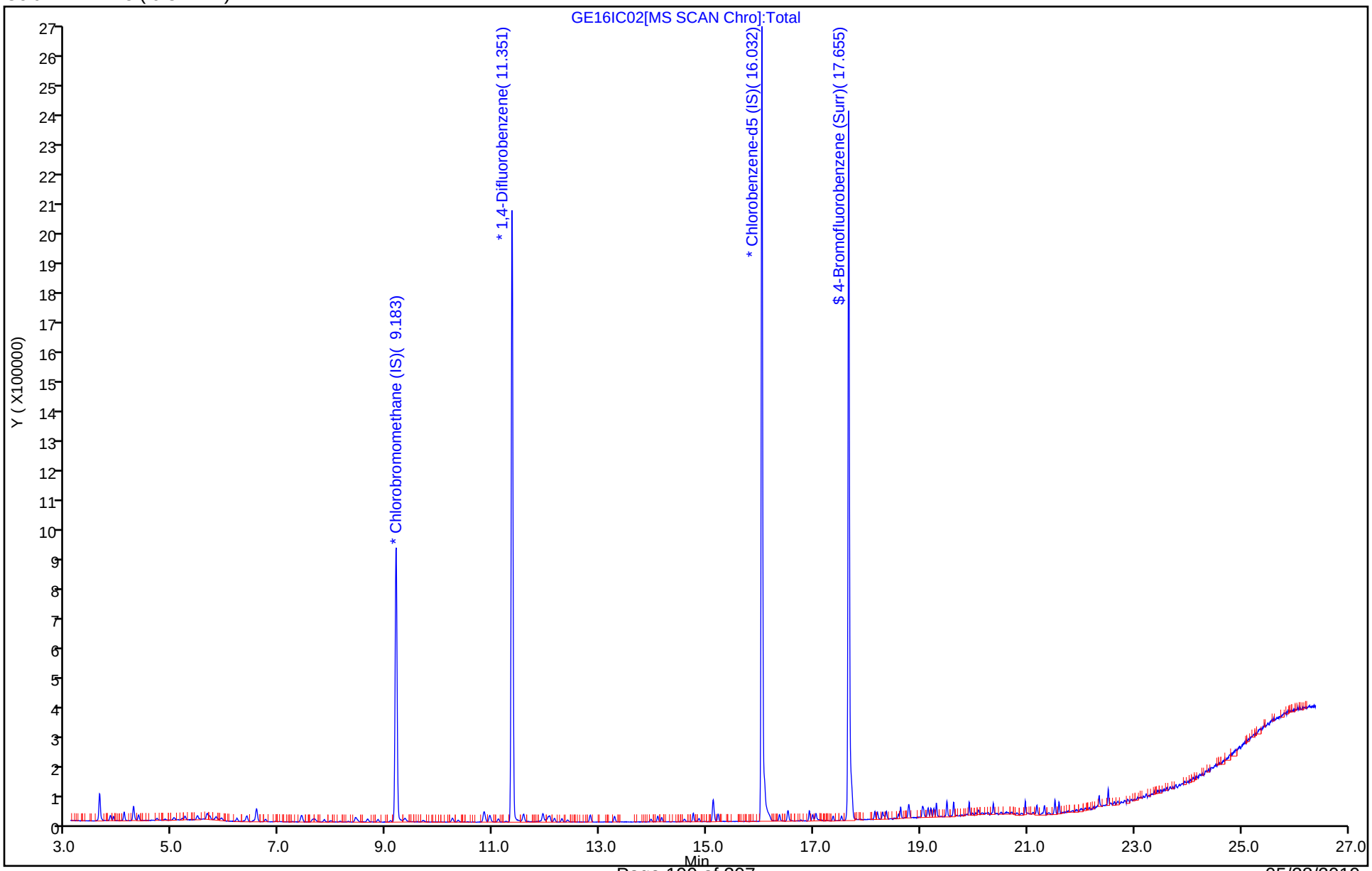
Report Date: 20-May-2019 14:51:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D

Injection Date:	17-May-2019 00:23:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

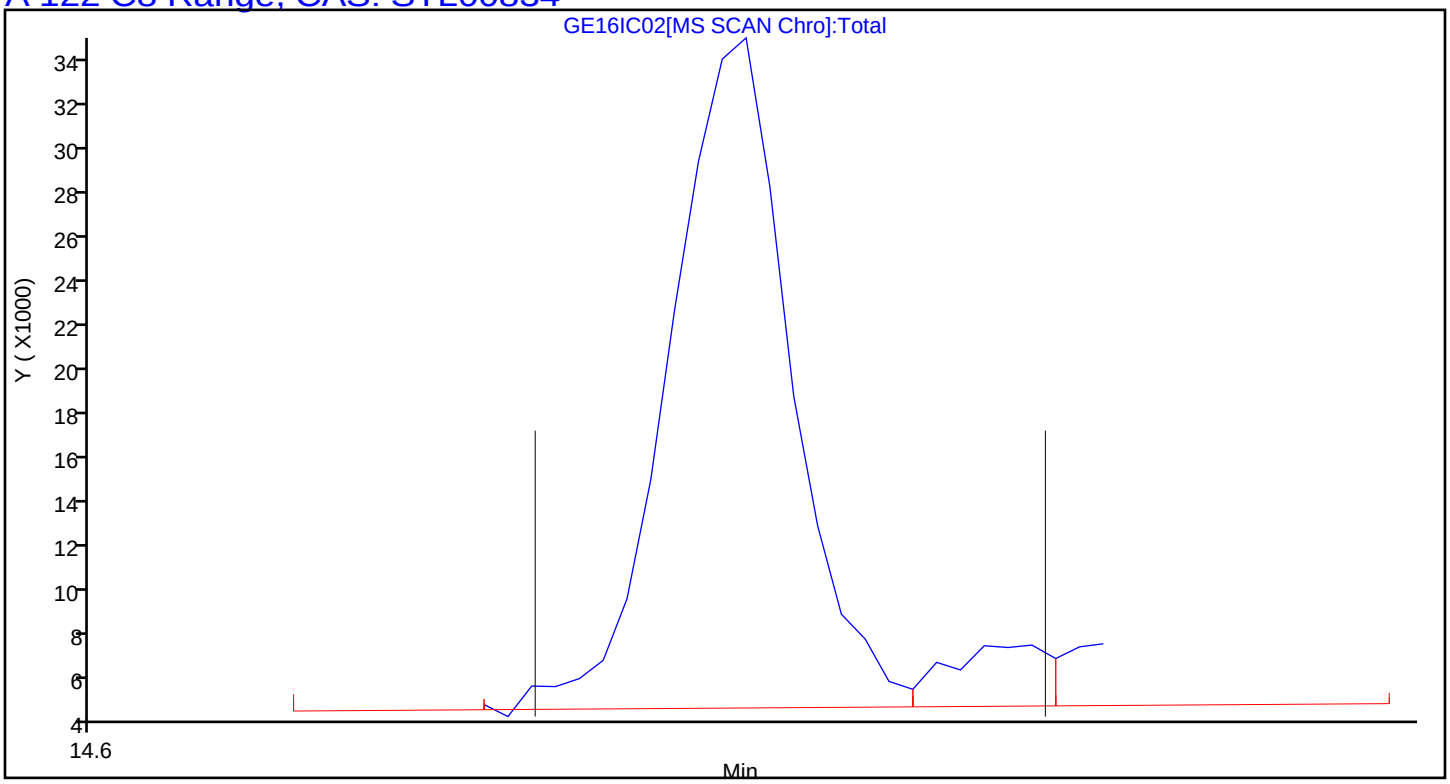


Report Date: 20-May-2019 14:51:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D				
Injection Date:	17-May-2019 00:23:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-May-2019 01:06:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-010
Misc. Info.: 222334
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:30 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:54:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	353551	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2215067	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1826012	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1046688	4.00	3.72	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	96	17930	0.0800	0.0872	
7 Propene	41	3.839	3.836	0.003	98	11808	0.0800	0.1034	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	99	27376	0.0800	0.0828	
9 Chloromethane	52	4.088	4.087	0.001	68	4455	0.0800	0.1173	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	91	17045	0.0800	0.0818	
11 Acetaldehyde	44	4.265	4.258	0.007	97	46990	0.4000	1.09	
12 Vinyl chloride	62	4.271	4.267	0.004	47	11132	0.0800	0.0820	
13 Butane	43	4.363	4.360	0.003	86	18447	0.0800	0.0945	
14 Butadiene	54	4.368	4.361	0.007	61	8647	0.0800	0.0844	
15 Bromomethane	94	4.708	4.706	0.002	99	9975	0.0800	0.0859	
16 Chloroethane	64	4.864	4.857	0.007	97	5455	0.0800	0.0833	
17 Ethanol	31	5.015	4.993	0.022	94	21969	0.4000	0.5140	
18 Vinyl bromide	106	5.177	5.179	-0.002	98	9484	0.0800	0.0840	
19 2-Methylbutane	43	5.231	5.230	0.001	89	11908	0.0800	0.0850	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	26062	0.0800	0.0813	
21 Acrolein	56	5.495	5.487	0.008	66	3519	0.0800	0.1431	
22 Acetonitrile	40	5.570	5.554	0.016	97	2037	0.0800	0.0615	
23 Acetone	58	5.635	5.617	0.018	97	25345	0.2400	0.5607	
24 Pentane	72	5.694	5.694	0.000	93	1797	0.0800	0.0808	
25 Isopropyl alcohol	45	5.786	5.749	0.037	99	35675	0.2400	0.3171	
26 Ethyl ether	31	5.910	5.890	0.020	91	8265	0.0800	0.0973	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	96	10281	0.0800	0.0802	
28 Acrylonitrile	53	6.325	6.326	-0.001	94	6181	0.0800	0.0843	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	93	22076	0.0800	0.0812	
30 2-Methyl-2-propanol	59	6.476	6.416	0.060	96	17636	0.0800	0.1039	
31 Methylene Chloride	84	6.568	6.569	-0.001	95	26899	0.0800	0.1896	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	94	9938	0.0800	0.0874	
33 Carbon disulfide	76	6.741	6.740	0.001	98	31262	0.0800	0.0836	
34 trans-1,2-Dichloroethene	96	7.398	7.404	-0.006	97	10137	0.0800	0.0801	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	26924	0.0800	0.0861	
36 Methyl tert-butyl ether	73	7.598	7.568	0.030	97	27557	0.0800	0.0898	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	20370	0.0800	0.0817	
38 Vinyl acetate	43	7.954	7.952	0.002	100	21075	0.0800	0.0797	
40 Hexane	56	8.423	8.426	-0.003	91	9730	0.0800	0.0833	
39 2-Butanone (MEK)	72	8.445	8.428	0.017	97	5945	0.0800	0.1089	
41 Isopropyl ether	45	8.628	8.611	0.017	97	33790	0.0800	0.0891	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	95	10664	0.0800	0.0809	
43 Ethyl acetate	43	9.065	9.051	0.014	99	20465	0.0800	0.0884	
44 Chloroform	83	9.194	9.198	-0.004	28	22154	0.0800	0.0836	
45 Tert-butyl ethyl ether	59	9.329	9.306	0.023	95	31153	0.0800	0.0861	
46 Tetrahydrofuran	42	9.669	9.640	0.029	95	11795	0.0800	0.0935	
47 1,1,1-Trichloroethane	97	10.229	10.239	-0.010	97	22661	0.0800	0.0797	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	96	13953	0.0800	0.0788	
49 Cyclohexane	69	10.828	10.827	0.001	72	5712	0.0800	0.0837	
50 Benzene	78	10.828	10.829	-0.001	96	31654	0.0800	0.0814	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	96	17567	0.0800	0.0681	
51 n-Butanol	31	10.930	10.879	0.051	68	3500	0.0800	0.1155	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	90	8114	0.0800	0.0797	
54 Thiophene	84	11.092	11.100	-0.008	96	17942	0.0800	0.0798	
55 Isooctane	57	11.567	11.569	-0.002	99	59520	0.0800	0.0846	
56 n-Heptane	71	11.928	11.933	-0.005	90	12222	0.0800	0.0813	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	92	11936	0.0800	0.0852	
58 Trichloroethene	130	12.057	12.062	-0.005	95	14237	0.0800	0.0831	
59 Dibromomethane	93	12.149	12.150	-0.001	92	12080	0.0800	0.0848	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	98	18275	0.0800	0.0716	
61 1,4-Dioxane	88	12.370	12.348	0.022	90	4291	0.0800	0.0896	
62 Methyl methacrylate	41	12.386	12.382	0.004	95	9343	0.0800	0.0693	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	21184	0.0800	0.0801	
64 4-Methyl-2-pentanone (MIBK	43	13.260	13.242	0.018	95	22056	0.0800	0.0921	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	97	16034	0.0800	0.0778	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	13992	0.0800	0.0804	
67 Toluene	91	14.080	14.081	-0.001	94	32819	0.0800	0.0822	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	9763	0.0800	0.0814	
69 2-Hexanone	58	14.570	14.555	0.015	94	9978	0.0800	0.0873	
70 n-Octane	85	14.743	14.747	-0.004	93	12174	0.0800	0.0808	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	96	13816	0.0800	0.0631	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	15276	0.0800	0.0753	
73 Tetrachloroethene	129	15.207	15.211	-0.004	94	12058	0.0800	0.0797	
75 Chlorobenzene	112	16.080	16.080	0.000	80	26752	0.0800	0.0817	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	38609	0.0800	0.0895	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	41663	0.0800	0.0840	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	62479	0.1600	0.1634	
80 n-Nonane	57	16.916	16.919	-0.003	91	23515	0.0800	0.0815	
81 Bromoform	173	16.975	16.976	-0.001	68	8847	0.0800	0.0571	
82 Styrene	104	16.981	16.983	-0.002	98	17523	0.0800	0.0713	
83 o-Xylene	91	17.040	17.043	-0.003	99	35205	0.0800	0.0868	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	21488	0.0800	0.0814	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	6796	0.0800	0.0804	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.617	17.622	-0.005	95	48024	0.0800	0.0851	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	12269	0.0800	0.0831	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	11528	0.0800	0.0809	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	47293	0.0800	0.0873	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	19296	0.0800	0.0863	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	89	11793	0.0800	0.0641	
93 n-Decane	57	18.625	18.628	-0.003	91	29507	0.0800	0.0838	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	92	41885	0.0800	0.0861	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	37922	0.0800	0.0834	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	98	61046	0.0800	0.0881	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	22637	0.0800	0.0764	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	21904	0.0800	0.0711	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	23267	0.0800	0.0774	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	46813	0.0800	0.0856	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	39477	0.0800	0.0853	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	37612	0.0800	0.0839	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	34655	0.0800	0.0835	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	79	22248	0.0800	0.0781	
105 n-Butylbenzene	91	19.618	19.618	0.000	97	43265	0.0800	0.0852	
106 Indene	116	19.618	19.623	-0.005	90	23534	0.0800	0.0769	
107 Undecane	57	19.909	19.910	-0.001	96	33883	0.0800	0.0927	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.087	-0.006	88	8153	0.0800	0.0740	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	44995	0.0800	0.0883	
110 Dodecane	57	20.960	20.961	-0.001	98	31549	0.0800	0.1148	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	92	16248	0.0800	0.0901	
112 Naphthalene	128	21.322	21.321	0.001	99	43370	0.0800	0.0868	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	90	17141	0.0800	0.0891	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	18020	0.0800	0.0932	
115 2-Methylnaphthalene	142	22.346	22.341	0.005	99	21157	0.0800	0.1270	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	29332	0.0800	0.1367	
A 122 C8 Range	1	14.758	(14.700-14.816)		0	130207	0.0800	0.0958	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1610	
S 124 Xylenes, Total	100				0		0.2400	0.2502	

Reagents:

40L4DQP_00010	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

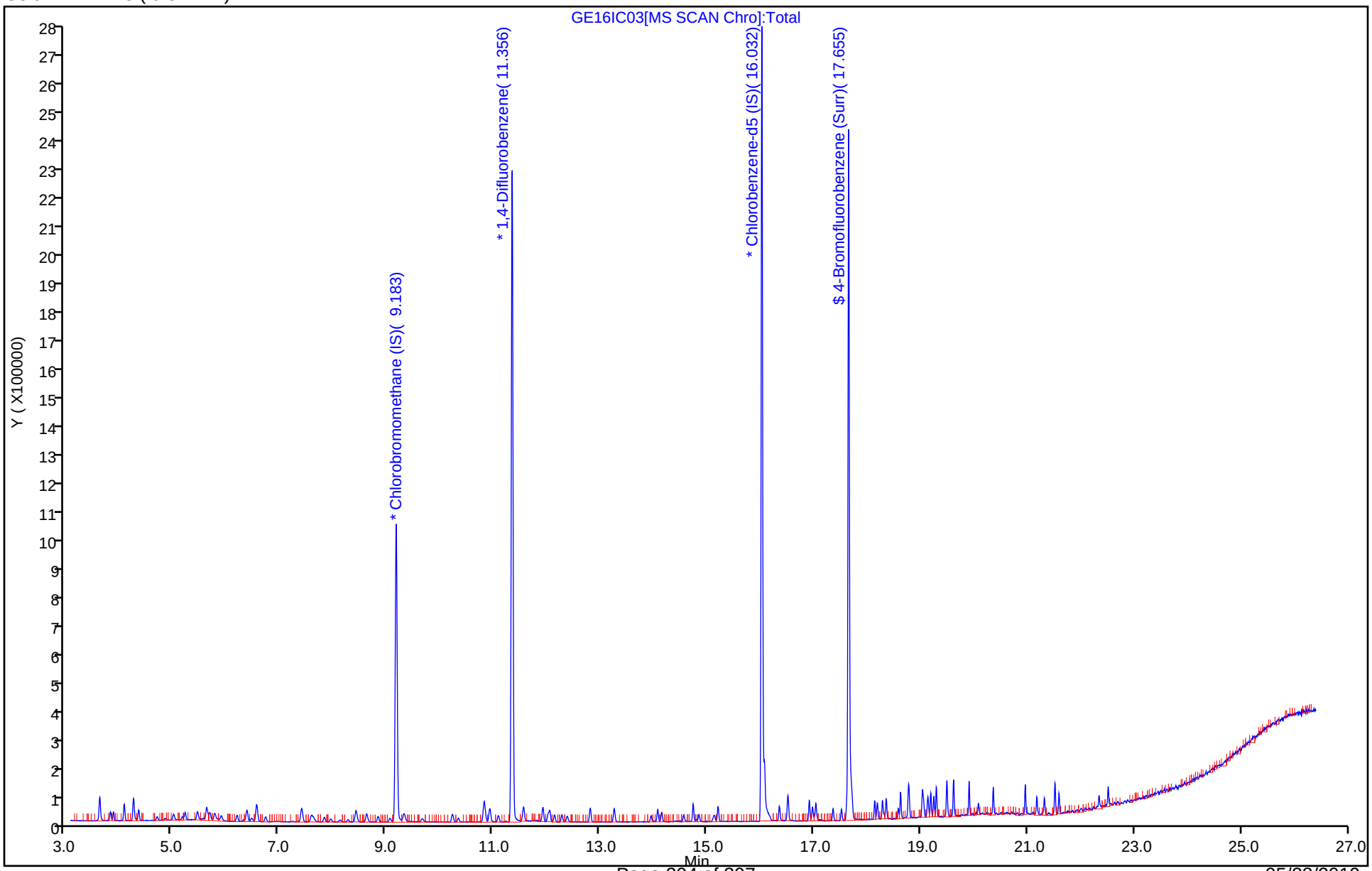
Report Date: 20-May-2019 14:51:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D

Injection Date:	17-May-2019 01:06:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

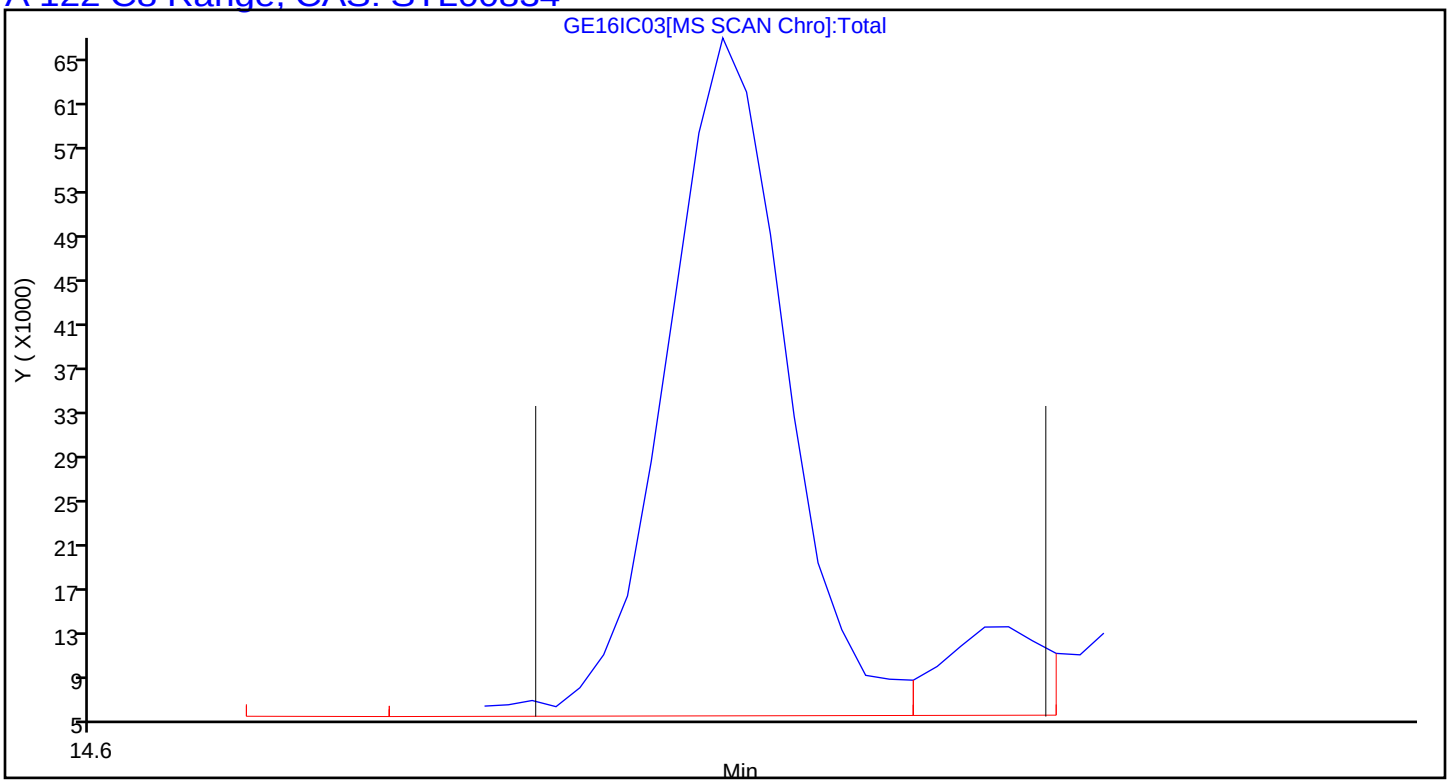


Report Date: 20-May-2019 14:51:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D				
Injection Date:	17-May-2019 01:06:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-May-2019 01:49:30 ALS Bottle#: 2 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-011
Misc. Info.: 222334
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:37 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	340212	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2051046	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1764433	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1032580	4.00	3.80	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	32267	0.1600	0.1630	
7 Propene	41	3.834	3.836	-0.002	99	20019	0.1600	0.1822	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	51807	0.1600	0.1629	
9 Chloromethane	52	4.087	4.087	0.000	63	7269	0.1600	0.1989	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	93	32008	0.1600	0.1595	
11 Acetaldehyde	44	4.260	4.258	0.002	97	83047	0.8000	2.01	
12 Vinyl chloride	62	4.265	4.267	-0.002	48	20604	0.1600	0.1577	
13 Butane	43	4.357	4.360	-0.003	85	32425	0.1600	0.1726	
14 Butadiene	54	4.362	4.361	0.001	65	15629	0.1600	0.1586	
15 Bromomethane	94	4.708	4.706	0.002	99	18425	0.1600	0.1649	
16 Chloroethane	64	4.859	4.857	0.002	98	10404	0.1600	0.1651	
17 Ethanol	31	5.004	4.993	0.011	93	36202	0.8000	0.8803	
18 Vinyl bromide	106	5.182	5.179	0.003	98	17457	0.1600	0.1607	
19 2-Methylbutane	43	5.231	5.230	0.001	89	22459	0.1600	0.1666	
20 Trichlorofluoromethane	101	5.462	5.462	0.000	100	49073	0.1600	0.1591	
21 Acrolein	56	5.489	5.487	0.002	85	5603	0.1600	0.2368	
22 Acetonitrile	40	5.560	5.554	0.006	97	4737	0.1600	0.1485	
23 Acetone	58	5.630	5.617	0.013	98	44451	0.4800	1.02	
24 Pentane	72	5.694	5.694	0.000	97	3353	0.1600	0.1568	
25 Isopropyl alcohol	45	5.770	5.749	0.021	99	59087	0.4800	0.5458	
26 Ethyl ether	31	5.905	5.890	0.015	92	13639	0.1600	0.1668	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	97	19000	0.1600	0.1540	
28 Acrylonitrile	53	6.331	6.326	0.005	95	10794	0.1600	0.1530	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	41583	0.1600	0.1589	
30 2-Methyl-2-propanol	59	6.455	6.416	0.039	97	27741	0.1600	0.1698	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	34417	0.1600	0.2522	
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	95	18517	0.1600	0.1692	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.740	6.740	0.000	98	58280	0.1600	0.1619	
34 trans-1,2-Dichloroethene	96	7.398	7.404	-0.006	97	19424	0.1600	0.1595	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	50548	0.1600	0.1680	
36 Methyl tert-butyl ether	73	7.582	7.568	0.014	96	45959	0.1600	0.1557	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	38072	0.1600	0.1588	
38 Vinyl acetate	43	7.954	7.952	0.002	100	37551	0.1600	0.1477	
40 Hexane	56	8.428	8.426	0.002	80	18634	0.1600	0.1658	
39 2-Butanone (MEK)	72	8.439	8.428	0.011	98	10039	0.1600	0.1910	
41 Isopropyl ether	45	8.622	8.611	0.011	97	56411	0.1600	0.1546	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	95	19882	0.1600	0.1567	
43 Ethyl acetate	43	9.059	9.051	0.008	99	31990	0.1600	0.1436	
44 Chloroform	83	9.194	9.198	-0.004	94	40665	0.1600	0.1595	
45 Tert-butyl ethyl ether	59	9.318	9.306	0.012	95	52868	0.1600	0.1519	
46 Tetrahydrofuran	42	9.658	9.640	0.018	95	19934	0.1600	0.1642	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	97	43258	0.1600	0.1581	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	97	26323	0.1600	0.1605	
49 Cyclohexane	69	10.822	10.827	-0.005	74	11190	0.1600	0.1772	
50 Benzene	78	10.828	10.829	-0.001	97	59722	0.1600	0.1659	
52 Carbon tetrachloride	117	10.849	10.850	-0.001	96	33988	0.1600	0.1423	
51 n-Butanol	31	10.920	10.879	0.041	69	5851	0.1600	0.2085	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	89	15978	0.1600	0.1695	
54 Thiophene	84	11.098	11.100	-0.002	96	33288	0.1600	0.1599	
55 Isooctane	57	11.567	11.569	-0.002	99	111379	0.1600	0.1711	
56 n-Heptane	71	11.933	11.933	0.000	91	23041	0.1600	0.1655	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	88	21117	0.1600	0.1627	
58 Trichloroethene	130	12.057	12.062	-0.005	95	25174	0.1600	0.1587	
59 Dibromomethane	93	12.149	12.150	-0.001	90	21856	0.1600	0.1657	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	98	35631	0.1600	0.1508	
61 1,4-Dioxane	88	12.359	12.348	0.011	90	7562	0.1600	0.1705	
62 Methyl methacrylate	41	12.386	12.382	0.004	95	17318	0.1600	0.1387	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	40616	0.1600	0.1660	
64 4-Methyl-2-pentanone (MIBK	43	13.254	13.242	0.012	98	34427	0.1600	0.1552	
65 cis-1,3-Dichloropropene	75	13.265	13.271	-0.006	97	29796	0.1600	0.1562	
66 trans-1,3-Dichloropropene	75	13.950	13.956	-0.006	99	24688	0.1600	0.1468	
67 Toluene	91	14.079	14.081	-0.002	94	59304	0.1600	0.1538	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	17667	0.1600	0.1525	
69 2-Hexanone	58	14.565	14.555	0.010	94	16871	0.1600	0.1527	
70 n-Octane	85	14.743	14.747	-0.004	93	22835	0.1600	0.1569	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	98	27269	0.1600	0.1288	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	29742	0.1600	0.1517	
73 Tetrachloroethene	129	15.206	15.211	-0.005	94	23722	0.1600	0.1623	
75 Chlorobenzene	112	16.080	16.080	0.000	92	49954	0.1600	0.1579	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	70385	0.1600	0.1689	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	71944	0.1600	0.1501	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	115288	0.3200	0.3121	
80 n-Nonane	57	16.916	16.919	-0.003	92	42459	0.1600	0.1524	
81 Bromoform	173	16.975	16.976	-0.001	89	18079	0.1600	0.1208	
82 Styrene	104	16.981	16.983	-0.002	99	30654	0.1600	0.1291	
83 o-Xylene	91	17.040	17.043	-0.003	99	55982	0.1600	0.1428	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	99	36333	0.1600	0.1424	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	97	11793	0.1600	0.1444	
86 Isopropylbenzene	105	17.622	17.622	0.000	93	81124	0.1600	0.1488	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	20466	0.1600	0.1435	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	21015	0.1600	0.1527	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	77645	0.1600	0.1484	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	30756	0.1600	0.1424	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	86	19878	0.1600	0.1118	
93 n-Decane	57	18.625	18.628	-0.003	90	51962	0.1600	0.1527	
94 tert-Butylbenzene	119	18.776	18.776	0.000	92	68627	0.1600	0.1460	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	95	62657	0.1600	0.1426	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	99768	0.1600	0.1490	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	40713	0.1600	0.1421	
98 Benzyl chloride	91	19.127	19.130	-0.003	97	37228	0.1600	0.1251	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	40680	0.1600	0.1400	
100 4-Isopropyltoluene	119	19.191	19.194	-0.003	97	75618	0.1600	0.1432	
101 1,2,3-Trimethylbenzene	105	19.245	19.251	-0.006	99	65472	0.1600	0.1464	
102 Butylcyclohexane	83	19.294	19.298	-0.004	94	67335	0.1600	0.1555	
103 2,3-Dihydroindene	117	19.493	19.495	-0.002	94	57205	0.1600	0.1427	
104 1,2-Dichlorobenzene	146	19.493	19.497	-0.004	94	38733	0.1600	0.1407	
105 n-Butylbenzene	91	19.617	19.618	-0.001	97	71811	0.1600	0.1464	
106 Indene	116	19.623	19.623	0.000	90	38779	0.1600	0.1311	
107 Undecane	57	19.909	19.910	-0.001	96	55954	0.1600	0.1585	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	88	13129	0.1600	0.1234	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	74640	0.1600	0.1516	
110 Dodecane	57	20.960	20.961	-0.001	97	50625	0.1600	0.1906	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	26207	0.1600	0.1504	
112 Naphthalene	128	21.316	21.321	-0.005	99	70051	0.1600	0.1451	
113 Hexachlorobutadiene	225	21.516	21.520	-0.004	89	28981	0.1600	0.1558	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	28559	0.1600	0.1528	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	26861	0.1600	0.1669	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	39482	0.1600	0.1904	
A 122 C8 Range	1	14.753	(14.690-14.816)		0	227816	0.1600	0.1734	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3162	
S 124 Xylenes, Total	100				0		0.4800	0.4549	

Reagents:

40L4DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

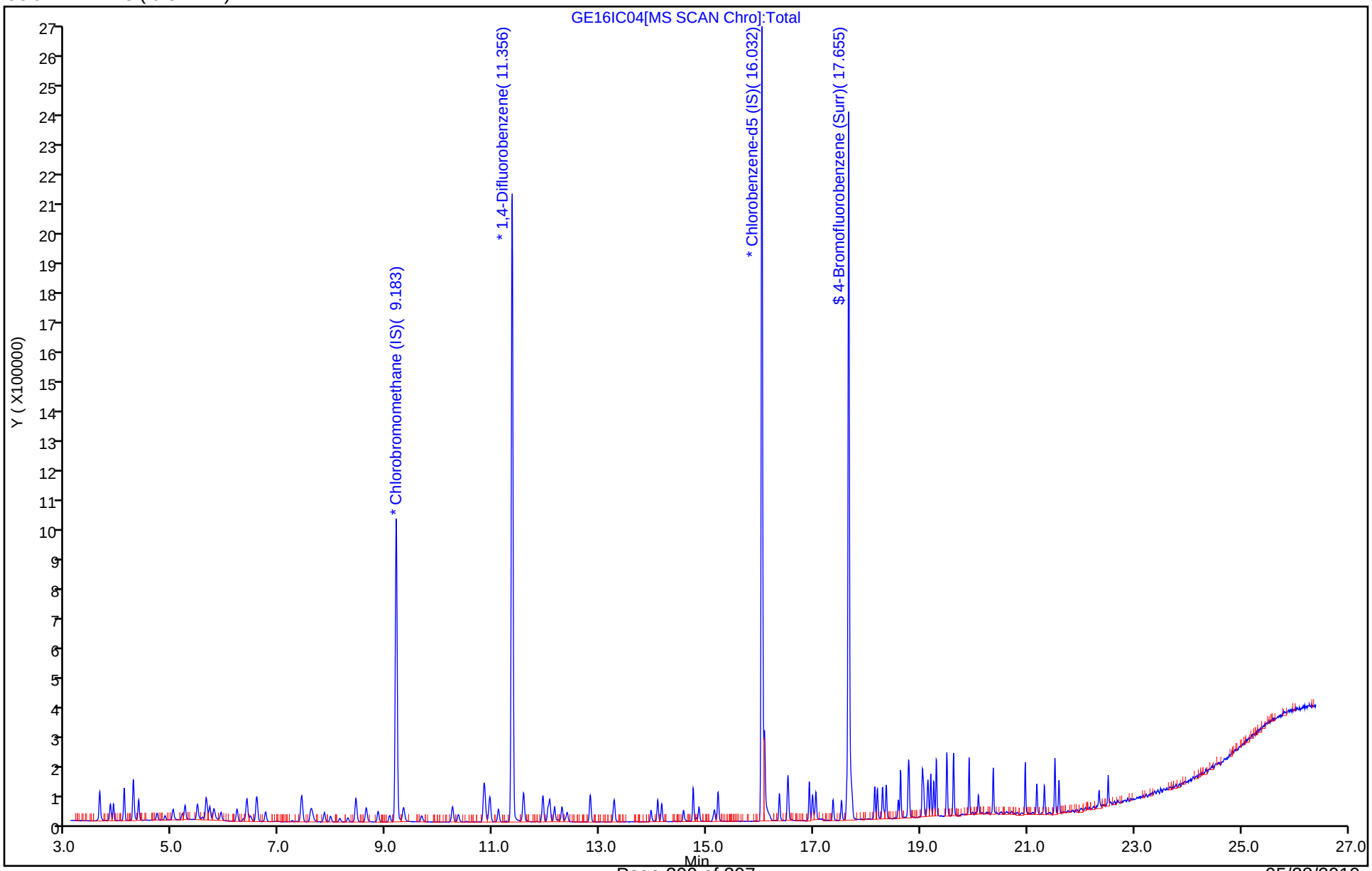
Report Date: 20-May-2019 14:51:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D

Injection Date:	17-May-2019 01:49:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

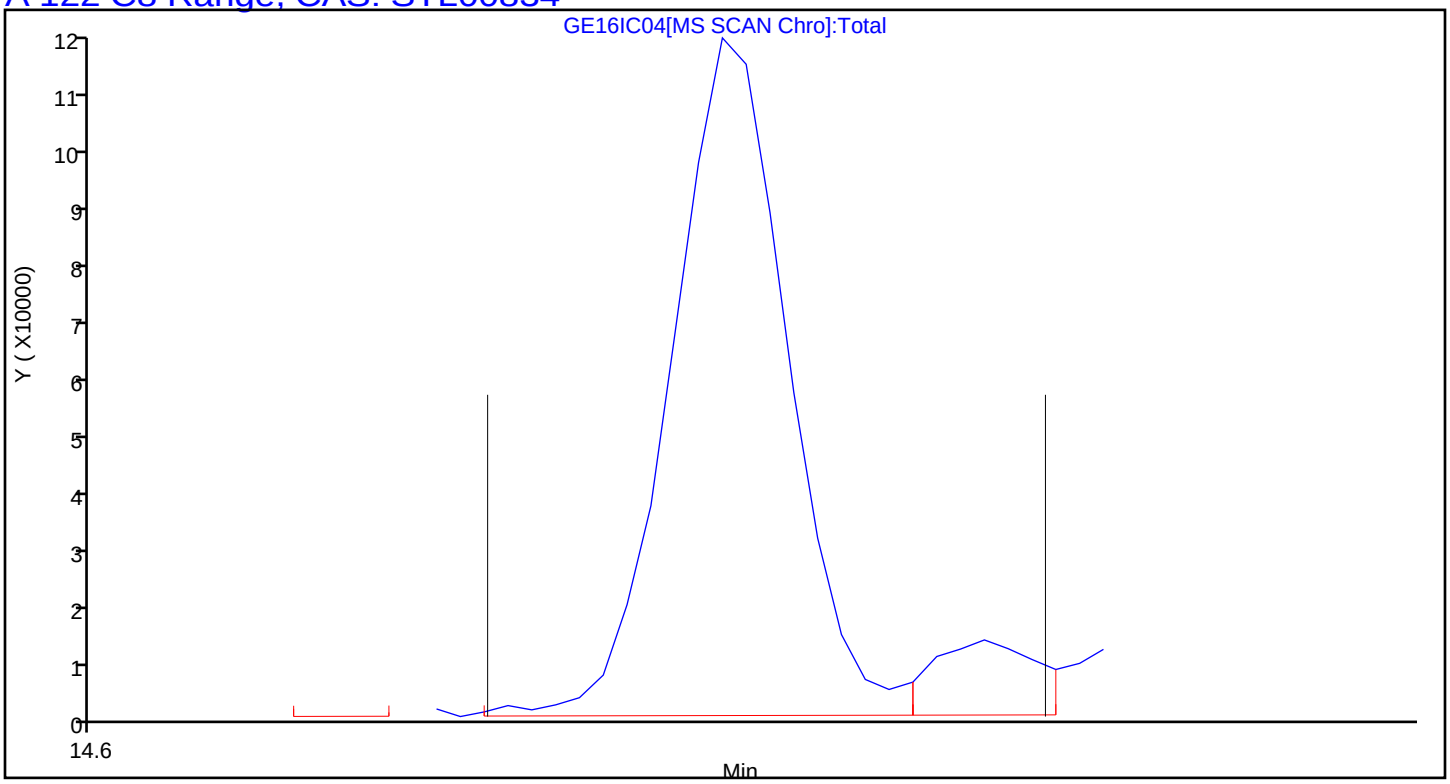


Report Date: 20-May-2019 14:51:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D				
Injection Date:	17-May-2019 01:49:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-May-2019 02:34:30 ALS Bottle#: 3 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-012
Misc. Info.: 221643
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:44 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	97	342457	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.002	95	2215114	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1827630	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1112507	4.00	3.95	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	79535	0.4000	0.3992	
7 Propene	41	3.840	3.836	0.004	99	44532	0.4000	0.4027	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	127551	0.4000	0.3983	
9 Chloromethane	52	4.088	4.087	0.001	99	16161	0.4000	0.4394	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	93	80754	0.4000	0.3999	
11 Acetaldehyde	44	4.260	4.258	0.002	98	110529	2.00	2.65	
12 Vinyl chloride	62	4.266	4.267	-0.001	99	51817	0.4000	0.3939	
13 Butane	43	4.363	4.360	0.003	86	78060	0.4000	0.4129	
14 Butadiene	54	4.363	4.361	0.002	64	39427	0.4000	0.3974	
15 Bromomethane	94	4.702	4.706	-0.004	98	45620	0.4000	0.4056	
16 Chloroethane	64	4.853	4.857	-0.004	99	25843	0.4000	0.4075	
17 Ethanol	31	4.994	4.993	0.001	93	82906	2.00	2.00	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	43720	0.4000	0.3999	
19 2-Methylbutane	43	5.231	5.230	0.001	91	56311	0.4000	0.4150	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	125025	0.4000	0.4026	
21 Acrolein	56	5.490	5.487	0.003	92	12234	0.4000	0.5136	
22 Acetonitrile	40	5.554	5.554	0.000	100	11951	0.4000	0.3723	
23 Acetone	58	5.619	5.617	0.002	97	74161	1.20	1.69	
24 Pentane	72	5.695	5.694	0.001	98	9061	0.4000	0.4209	
25 Isopropyl alcohol	45	5.748	5.749	-0.001	97	134609	1.20	1.24	
26 Ethyl ether	31	5.889	5.890	-0.001	91	36970	0.4000	0.4493	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	97	47482	0.4000	0.3823	
28 Acrylonitrile	53	6.325	6.326	-0.001	96	29705	0.4000	0.4182	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	104699	0.4000	0.3973	
30 2-Methyl-2-propanol	59	6.422	6.416	0.006	93	60993	0.4000	0.3709	
31 Methylene Chloride	84	6.568	6.569	-0.001	96	62103	0.4000	0.4520	
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	95	43318	0.4000	0.3932	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.741	6.740	0.001	98	144633	0.4000	0.3991	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	97	47230	0.4000	0.3852	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	125152	0.4000	0.4132	
36 Methyl tert-butyl ether	73	7.560	7.568	-0.008	97	128705	0.4000	0.4331	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	96602	0.4000	0.4002	
38 Vinyl acetate	43	7.949	7.952	-0.003	100	108707	0.4000	0.4247	
40 Hexane	56	8.423	8.426	-0.003	73	45352	0.4000	0.4008	
39 2-Butanone (MEK)	72	8.423	8.428	-0.005	96	23099	0.4000	0.4367	
41 Isopropyl ether	45	8.601	8.611	-0.010	99	158470	0.4000	0.4313	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	49873	0.4000	0.3906	
43 Ethyl acetate	43	9.049	9.051	-0.002	99	95209	0.4000	0.4246	
44 Chloroform	83	9.194	9.198	-0.004	96	102969	0.4000	0.4013	
45 Tert-butyl ethyl ether	59	9.302	9.306	-0.004	94	151311	0.4000	0.4319	
46 Tetrahydrofuran	42	9.636	9.640	-0.004	95	53388	0.4000	0.4368	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	109141	0.4000	0.3963	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	65295	0.4000	0.3686	
49 Cyclohexane	69	10.823	10.827	-0.004	79	26660	0.4000	0.3909	
50 Benzene	78	10.828	10.829	-0.001	96	146688	0.4000	0.3773	
52 Carbon tetrachloride	117	10.850	10.850	0.000	96	99890	0.4000	0.3873	
51 n-Butanol	31	10.898	10.879	0.019	72	10829	0.4000	0.3572	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	91	40280	0.4000	0.3956	
54 Thiophene	84	11.098	11.100	-0.002	95	85694	0.4000	0.3811	
55 Isooctane	57	11.567	11.569	-0.002	99	284195	0.4000	0.4042	
56 n-Heptane	71	11.933	11.933	0.000	90	57909	0.4000	0.3850	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	90	54756	0.4000	0.3907	
58 Trichloroethene	130	12.058	12.062	-0.004	96	64799	0.4000	0.3783	
59 Dibromomethane	93	12.149	12.150	-0.001	91	54894	0.4000	0.3855	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	98	96804	0.4000	0.3795	
61 1,4-Dioxane	88	12.343	12.348	-0.005	85	18644	0.4000	0.3892	
62 Methyl methacrylate	41	12.381	12.382	-0.001	94	54826	0.4000	0.4066	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	101736	0.4000	0.3849	
64 4-Methyl-2-pentanone (MIBK	43	13.244	13.242	0.002	96	91324	0.4000	0.3812	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	97	78550	0.4000	0.3813	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	67856	0.4000	0.3894	
67 Toluene	91	14.080	14.081	-0.001	94	161840	0.4000	0.4052	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	99	48445	0.4000	0.4037	
69 2-Hexanone	58	14.560	14.555	0.005	94	42091	0.4000	0.3678	
70 n-Octane	85	14.748	14.747	0.001	93	61118	0.4000	0.4055	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	78543	0.4000	0.3582	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	83160	0.4000	0.4094	
73 Tetrachloroethene	129	15.212	15.211	0.001	93	59425	0.4000	0.3925	
75 Chlorobenzene	112	16.075	16.080	-0.005	94	133521	0.4000	0.4074	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	96	180863	0.4000	0.4190	
78 Ethylbenzene	91	16.361	16.359	0.002	98	211233	0.4000	0.4254	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	337295	0.8000	0.8815	
80 n-Nonane	57	16.921	16.919	0.002	92	119795	0.4000	0.4150	
81 Bromoform	173	16.975	16.976	-0.001	91	57176	0.4000	0.3687	
82 Styrene	104	16.981	16.983	-0.002	98	103391	0.4000	0.4204	
83 o-Xylene	91	17.040	17.043	-0.003	99	174255	0.4000	0.4291	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	110852	0.4000	0.4195	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	34461	0.4000	0.4075	
86 Isopropylbenzene	105	17.622	17.622	0.000	96	236641	0.4000	0.4191	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.146	18.145	0.001	99	63509	0.4000	0.4299	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	58227	0.4000	0.4084	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	230971	0.4000	0.4261	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	96222	0.4000	0.4301	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	90	72362	0.4000	0.3931	
93 n-Decane	57	18.625	18.628	-0.003	89	156649	0.4000	0.4445	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	211897	0.4000	0.4353	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	196858	0.4000	0.4324	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	298872	0.4000	0.4308	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	118442	0.4000	0.3992	
98 Benzyl chloride	91	19.132	19.130	0.002	98	118237	0.4000	0.3836	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	117709	0.4000	0.3911	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	237573	0.4000	0.4343	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	200856	0.4000	0.4336	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	190280	0.4000	0.4242	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	175435	0.4000	0.4225	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	115220	0.4000	0.4040	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	217649	0.4000	0.4284	
106 Indene	116	19.623	19.623	0.000	90	130876	0.4000	0.4271	
107 Undecane	57	19.909	19.910	-0.001	96	157612	0.4000	0.4309	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	91	40295	0.4000	0.3656	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	202937	0.4000	0.3979	
110 Dodecane	57	20.960	20.961	-0.001	97	115029	0.4000	0.4180	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	65988	0.4000	0.3657	
112 Naphthalene	128	21.322	21.321	0.001	99	166001	0.4000	0.3321	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	90	73931	0.4000	0.3838	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	63529	0.4000	0.3282	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	47516	0.4000	0.2850	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	63501	0.4000	0.2957	
A 122 C8 Range	1	14.744	(14.690-14.827)		0	554350	0.4000	0.4073	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.7758	
S 124 Xylenes, Total	100				0		1.20	1.31	

Reagents:

40L5DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

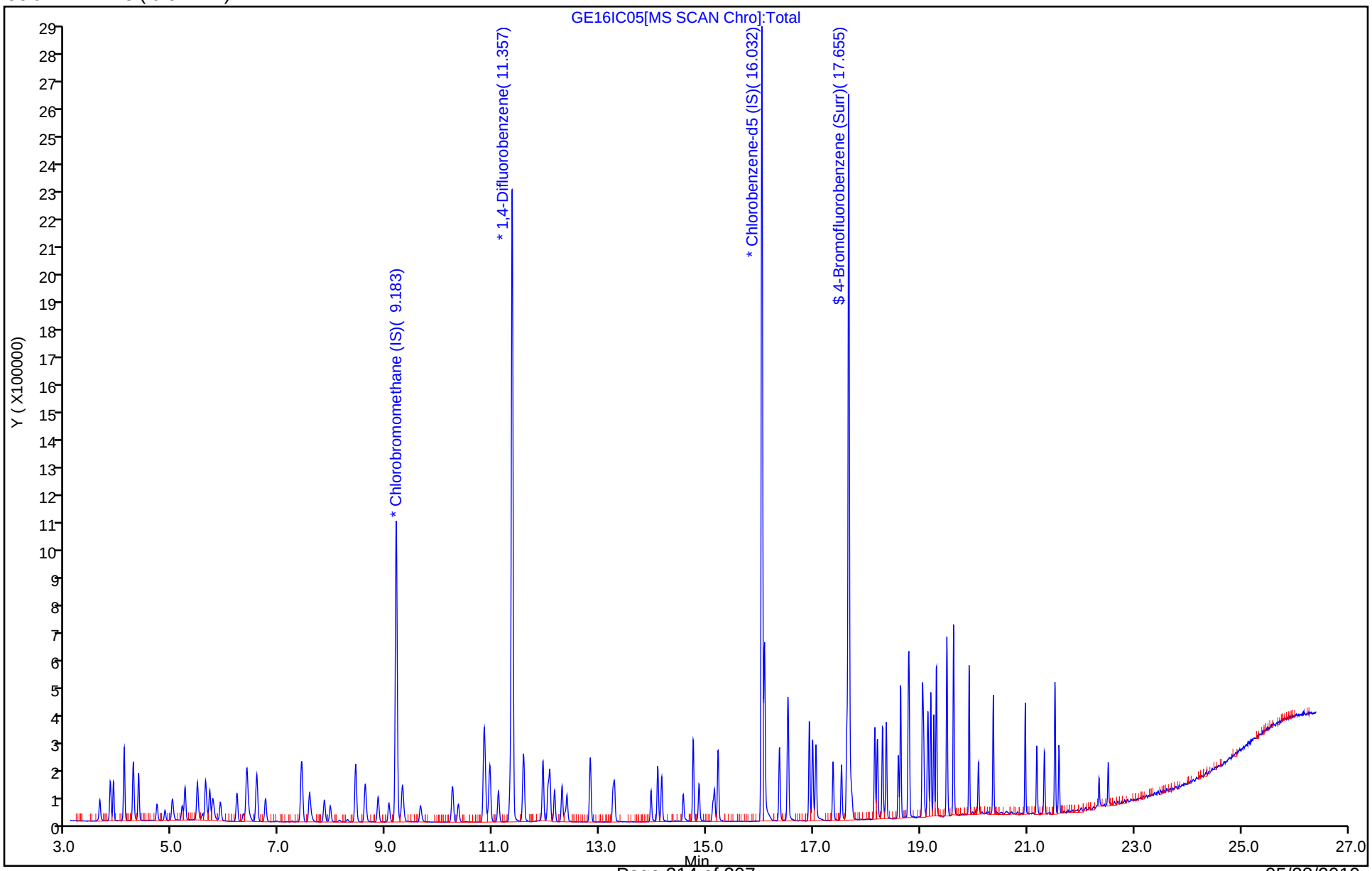
Report Date: 20-May-2019 14:51:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D

Injection Date:	17-May-2019 02:34:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

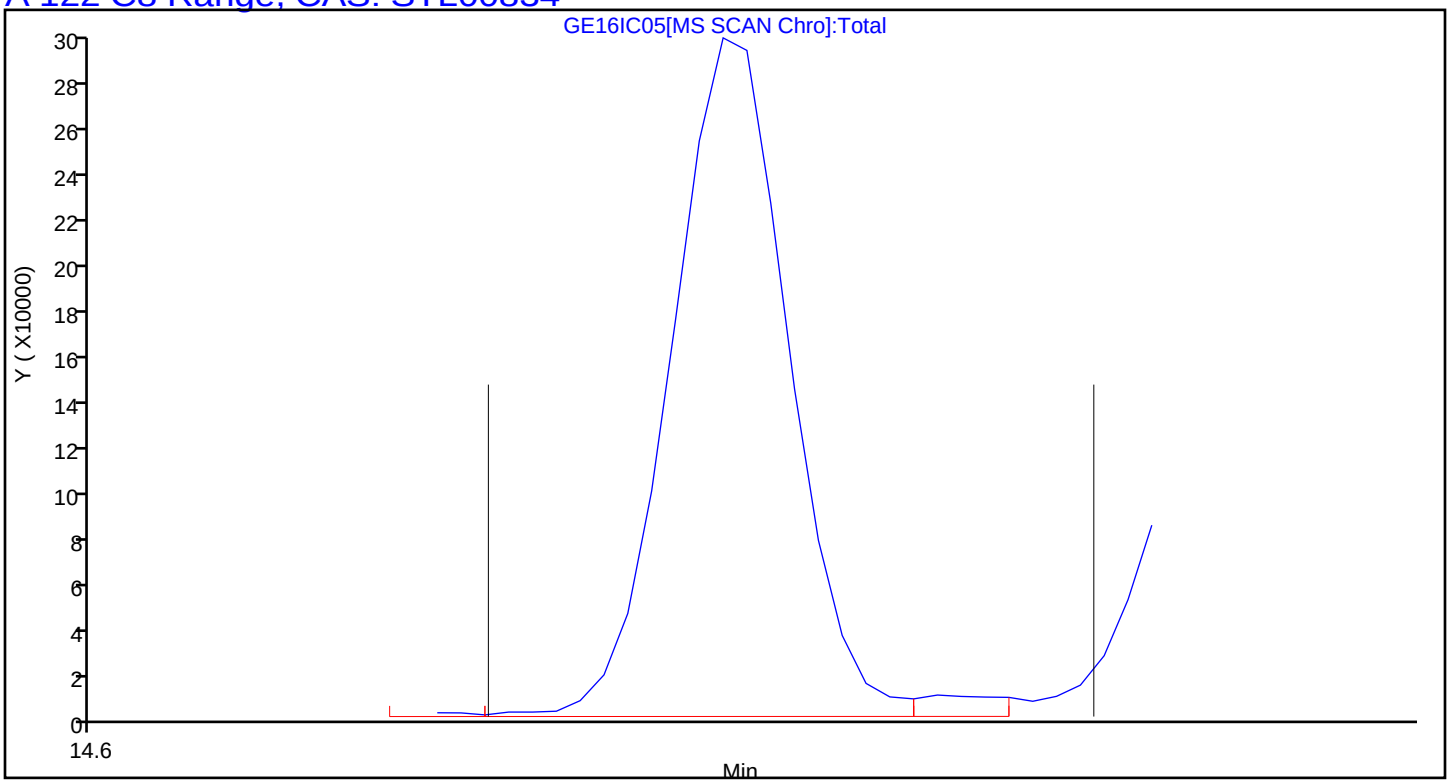


Report Date: 20-May-2019 14:51:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D				
Injection Date:	17-May-2019 02:34:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-May-2019 03:19:30 ALS Bottle#: 4 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-013
Misc. Info.: 221642
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:51 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.178	9.187	-0.009	98	345882	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.358	-0.007	95	2204978	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.032	-0.006	88	1880107	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1163771	4.00	4.02	
6 Chlorodifluoromethane	51	3.813	3.823	-0.010	96	200321	1.00	1.00	
7 Propene	41	3.829	3.836	-0.007	98	106282	1.00	0.9517	
8 Dichlorodifluoromethane	85	3.883	3.889	-0.006	100	321558	1.00	0.99	
9 Chloromethane	52	4.077	4.087	-0.010	98	36688	1.00	0.9876	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.082	4.092	-0.010	93	198691	1.00	0.9741	
11 Acetaldehyde	44	4.244	4.258	-0.014	96	230594	5.00	5.48	
12 Vinyl chloride	62	4.255	4.267	-0.012	99	127486	1.00	0.9596	
13 Butane	43	4.352	4.360	-0.008	85	190577	1.00	1.00	
14 Butadiene	54	4.352	4.361	-0.009	65	98280	1.00	0.9809	
15 Bromomethane	94	4.697	4.706	-0.009	99	108422	1.00	0.9545	
16 Chloroethane	64	4.848	4.857	-0.009	98	61271	1.00	0.9565	
17 Ethanol	31	4.961	4.993	-0.032	93	181163	5.00	4.33	
18 Vinyl bromide	106	5.166	5.179	-0.013	99	103252	1.00	0.9351	
19 2-Methylbutane	43	5.220	5.230	-0.010	90	126961	1.00	0.9265	
20 Trichlorofluoromethane	101	5.452	5.462	-0.010	99	300007	1.00	0.9566	
21 Acrolein	56	5.473	5.487	-0.014	92	20752	1.00	0.8626	
22 Acetonitrile	40	5.538	5.554	-0.016	100	30631	1.00	0.9447	
23 Acetone	58	5.598	5.617	-0.019	98	127534	3.00	2.88	
24 Pentane	72	5.684	5.694	-0.010	97	20402	1.00	0.9382	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	93	269541	3.00	2.45	
26 Ethyl ether	31	5.867	5.890	-0.023	89	71948	1.00	0.8657	
27 1,1-Dichloroethene	96	6.191	6.205	-0.014	95	115989	1.00	0.9246	
28 Acrylonitrile	53	6.304	6.326	-0.022	95	70208	1.00	0.9786	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.386	-0.012	94	259338	1.00	0.9745	
30 2-Methyl-2-propanol	59	6.358	6.416	-0.058	95	134069	1.00	0.8071	
31 Methylene Chloride	84	6.557	6.569	-0.012	97	126579	1.00	0.9122	
32 3-Chloro-1-propene	39	6.574	6.585	-0.011	96	106589	1.00	0.9580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.730	6.740	-0.010	98	343964	1.00	0.9397	
34 trans-1,2-Dichloroethene	96	7.393	7.404	-0.011	97	115030	1.00	0.9289	
35 2-Methylpentane	43	7.409	7.421	-0.012	94	307019	1.00	1.00	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	97	288019	1.00	0.9595	
37 1,1-Dichloroethane	63	7.830	7.842	-0.012	100	240272	1.00	0.9856	
38 Vinyl acetate	43	7.938	7.952	-0.014	100	257222	1.00	0.99	
40 Hexane	56	8.418	8.426	-0.008	85	112220	1.00	0.9820	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	96	49637	1.00	0.9290	
41 Isopropyl ether	45	8.585	8.611	-0.026	97	355403	1.00	0.9578	
42 cis-1,2-Dichloroethene	96	8.838	8.849	-0.011	96	123209	1.00	0.9554	
43 Ethyl acetate	43	9.027	9.051	-0.024	99	216293	1.00	0.9551	
44 Chloroform	83	9.189	9.198	-0.009	97	261076	1.00	1.01	
45 Tert-butyl ethyl ether	59	9.275	9.306	-0.031	95	334052	1.00	0.9441	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	94	117937	1.00	0.9554	
47 1,1,1-Trichloroethane	97	10.230	10.239	-0.009	96	274731	1.00	0.9876	
48 1,2-Dichloroethane	62	10.343	10.350	-0.007	97	171788	1.00	0.9741	
49 Cyclohexane	69	10.817	10.827	-0.010	87	65724	1.00	0.9680	
50 Benzene	78	10.823	10.829	-0.006	97	383669	1.00	0.99	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	97	257165	1.00	1.00	
51 n-Butanol	31	10.850	10.879	-0.029	65	22341	1.00	0.7404	
53 2,3-Dimethylpentane	71	10.931	10.938	-0.007	92	97594	1.00	0.9628	
54 Thiophene	84	11.092	11.100	-0.008	96	219013	1.00	0.9785	
55 Isooctane	57	11.561	11.569	-0.008	99	695020	1.00	0.99	
56 n-Heptane	71	11.928	11.933	-0.005	90	147274	1.00	0.9837	
57 1,2-Dichloropropane	63	12.020	12.028	-0.008	90	141240	1.00	1.01	
58 Trichloroethene	130	12.058	12.062	-0.004	96	162250	1.00	0.9516	
59 Dibromomethane	93	12.144	12.150	-0.006	91	139529	1.00	0.9842	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	99	255861	1.00	1.01	
61 1,4-Dioxane	88	12.322	12.348	-0.026	92	41325	1.00	0.8667	
62 Methyl methacrylate	41	12.370	12.382	-0.012	94	125280	1.00	0.9334	
63 Methylcyclohexane	83	12.813	12.818	-0.006	95	258432	1.00	0.9822	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	98	195739	1.00	0.8209	
65 cis-1,3-Dichloropropene	75	13.265	13.271	-0.006	93	210292	1.00	1.03	
66 trans-1,3-Dichloropropene	75	13.950	13.956	-0.006	98	177964	1.00	0.99	
67 Toluene	91	14.074	14.081	-0.007	94	397221	1.00	0.9667	
68 1,1,2-Trichloroethane	83	14.150	14.156	-0.006	98	120031	1.00	0.9724	
69 2-Hexanone	58	14.538	14.555	-0.017	94	91165	1.00	0.7744	
70 n-Octane	85	14.743	14.747	-0.004	93	150530	1.00	0.9709	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	98	222962	1.00	0.9883	
72 Ethylene Dibromide	107	15.137	15.143	-0.006	99	217156	1.00	1.04	
73 Tetrachloroethene	129	15.207	15.211	-0.004	94	149919	1.00	0.9626	
75 Chlorobenzene	112	16.075	16.080	-0.005	92	335561	1.00	1.00	
74 2,3-Dimethylheptane	43	16.075	16.080	-0.005	95	440224	1.00	0.99	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	490097	1.00	0.9595	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	765438	2.00	1.94	
80 n-Nonane	57	16.916	16.919	-0.003	91	292332	1.00	0.9844	
81 Bromoform	173	16.975	16.976	-0.001	93	180915	1.00	1.13	
82 Styrene	104	16.981	16.983	-0.002	98	269824	1.00	1.07	
83 o-Xylene	91	17.040	17.043	-0.003	99	403226	1.00	0.9652	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	258219	1.00	0.9499	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	79171	1.00	0.9100	
86 Isopropylbenzene	105	17.617	17.622	-0.005	94	532713	1.00	0.9171	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.145	-0.005	99	142922	1.00	0.9404	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	136906	1.00	0.9334	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	515668	1.00	0.9247	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	218352	1.00	0.9487	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	89	190856	1.00	1.01	
93 n-Decane	57	18.625	18.628	-0.003	90	347209	1.00	0.9577	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	93	470615	1.00	0.9397	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	446282	1.00	0.9529	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	661616	1.00	0.9270	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	285664	1.00	0.9360	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	311166	1.00	0.9813	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	96	280622	1.00	0.9064	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	531140	1.00	0.9438	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	450808	1.00	0.9461	
102 Butylcyclohexane	83	19.300	19.298	0.002	95	438623	1.00	0.9506	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	402293	1.00	0.9418	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	267961	1.00	0.9133	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	499621	1.00	0.9560	
106 Indene	116	19.623	19.623	0.000	91	324555	1.00	1.03	
107 Undecane	57	19.909	19.910	-0.001	96	348459	1.00	0.9261	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	95	108040	1.00	0.9530	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	459294	1.00	0.8754	
110 Dodecane	57	20.960	20.961	-0.001	97	235025	1.00	0.8302	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	160937	1.00	0.8669	
112 Naphthalene	128	21.322	21.321	0.001	99	413768	1.00	0.8046	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	172917	1.00	0.8726	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	148142	1.00	0.7439	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	112826	1.00	0.6578	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	148906	1.00	0.6741	
A 122 C8 Range	1	14.748	(14.684-14.843)		0	1321428	1.00	0.9438	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.88	
S 124 Xylenes, Total	100				0		3.00	2.91	

Reagents:

40L6DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

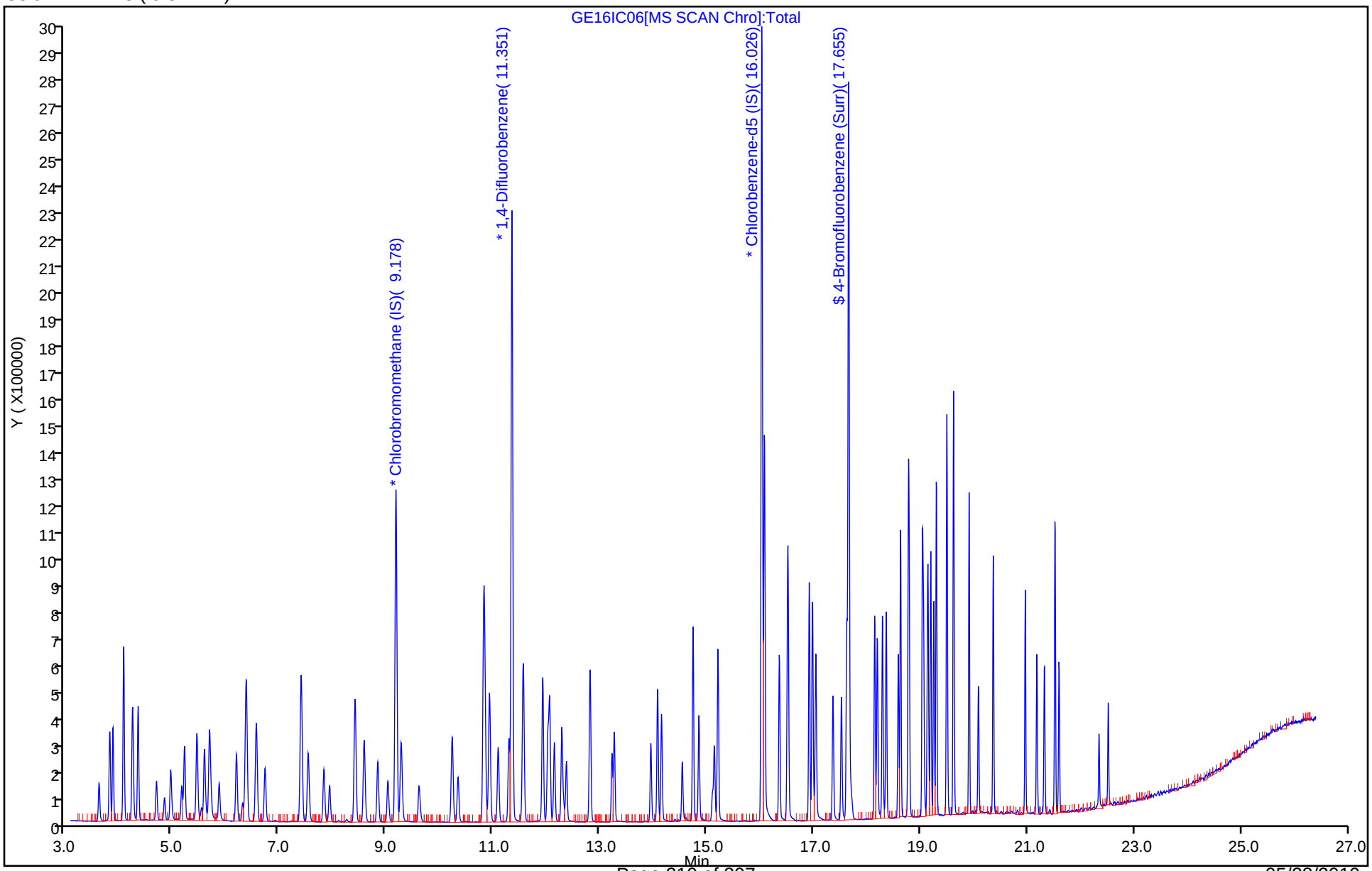
Report Date: 20-May-2019 14:51:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D

Injection Date:	17-May-2019 03:19:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

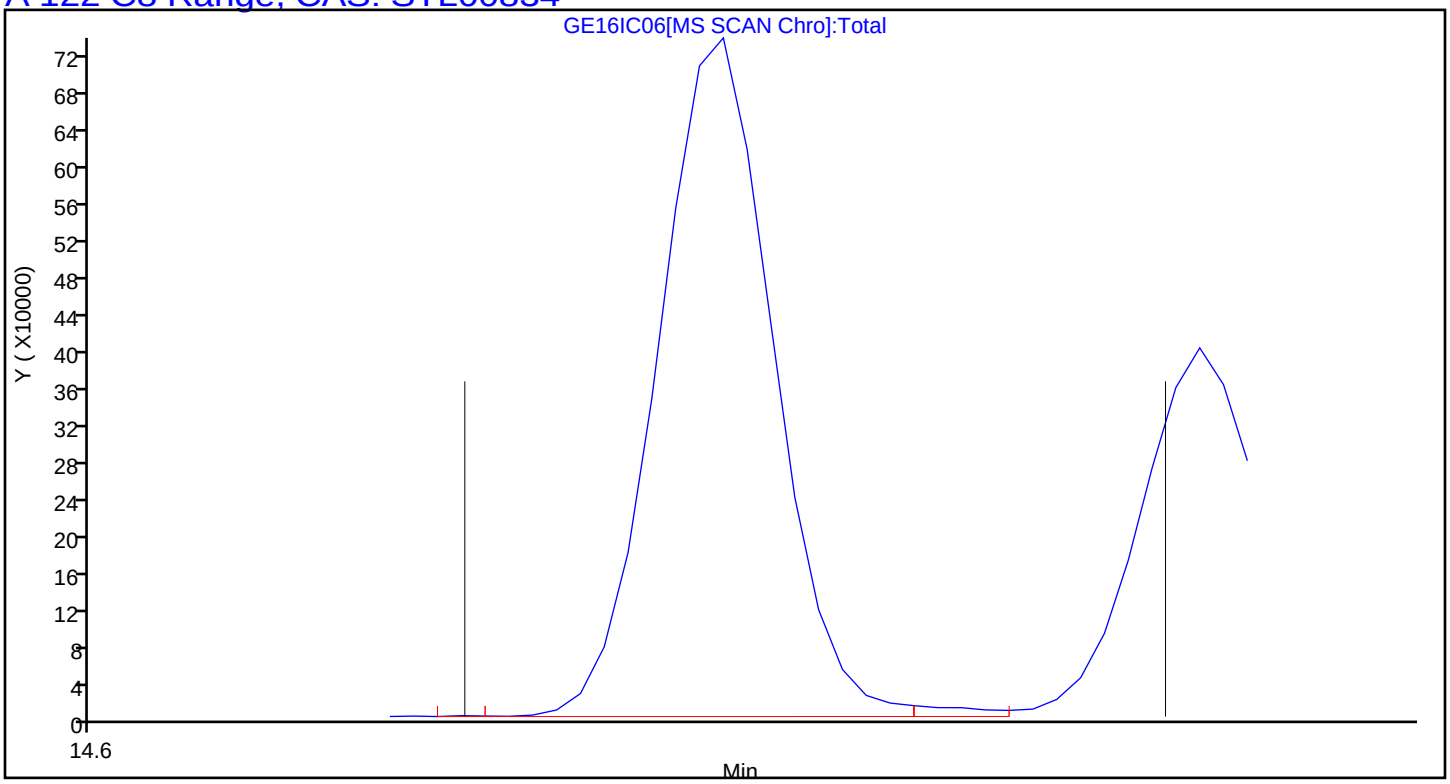


Report Date: 20-May-2019 14:51:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D				
Injection Date:	17-May-2019 03:19:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 17-May-2019 04:03:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-014
Misc. Info.: 221641
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:58 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 08:17:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	97	328809	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.002	95	1973581	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1744115	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1101322	4.00	4.10	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	390655	2.00	2.04	
7 Propene	41	3.834	3.836	-0.002	98	209337	2.00	1.97	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	634233	2.00	2.06	
9 Chloromethane	52	4.088	4.087	0.001	98	70896	2.00	2.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	94	397325	2.00	2.05	
11 Acetaldehyde	44	4.255	4.258	-0.003	98	377073	10.0	9.43	
12 Vinyl chloride	62	4.266	4.267	-0.001	98	255886	2.00	2.03	
13 Butane	43	4.363	4.360	0.003	85	378339	2.00	2.08	
14 Butadiene	54	4.363	4.361	0.002	67	199783	2.00	2.10	
15 Bromomethane	94	4.702	4.706	-0.004	99	223850	2.00	2.07	
16 Chloroethane	64	4.859	4.857	0.002	99	128544	2.00	2.11	
17 Ethanol	31	4.972	4.993	-0.021	93	442447	10.0	11.1	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	220404	2.00	2.10	
19 2-Methylbutane	43	5.231	5.230	0.001	90	277471	2.00	2.13	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	624901	2.00	2.10	
21 Acrolein	56	5.479	5.487	-0.008	91	43275	2.00	1.89	
22 Acetonitrile	40	5.549	5.554	-0.005	99	71061	2.00	2.31	
23 Acetone	58	5.603	5.617	-0.014	97	268566	6.00	6.39	
24 Pentane	72	5.695	5.694	0.001	98	44141	2.00	2.14	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	96	767702	6.00	7.34	
26 Ethyl ether	31	5.878	5.890	-0.012	91	160933	2.00	2.04	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	243042	2.00	2.04	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	142847	2.00	2.09	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	519985	2.00	2.06	
30 2-Methyl-2-propanol	59	6.352	6.416	-0.064	93	392983	2.00	2.49	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	242161	2.00	1.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	96	214948	2.00	2.03	
33 Carbon disulfide	76	6.741	6.740	0.001	98	726982	2.00	2.09	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	97	243980	2.00	2.07	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	623436	2.00	2.14	
36 Methyl tert-butyl ether	73	7.539	7.568	-0.029	96	621395	2.00	2.18	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	467616	2.00	2.02	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	521025	2.00	2.12	
40 Hexane	56	8.423	8.426	-0.003	91	229286	2.00	2.11	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	97	109289	2.00	2.15	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	764540	2.00	2.17	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	243225	2.00	1.98	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	475402	2.00	2.21	
44 Chloroform	83	9.200	9.198	0.002	96	497597	2.00	2.02	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	95	738131	2.00	2.19	
46 Tetrahydrofuran	42	9.615	9.640	-0.025	95	253787	2.00	2.16	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	543110	2.00	2.05	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	319109	2.00	2.02	
49 Cyclohexane	69	10.828	10.827	0.001	82	133736	2.00	2.20	
50 Benzene	78	10.828	10.829	-0.001	97	722712	2.00	2.09	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	538624	2.00	2.34	
51 n-Butanol	31	10.844	10.879	-0.035	65	71452	2.00	2.65	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	91	196328	2.00	2.16	
54 Thiophene	84	11.103	11.100	0.003	95	412053	2.00	2.06	
55 Isooctane	57	11.567	11.569	-0.002	99	1348886	2.00	2.15	
56 n-Heptane	71	11.933	11.933	0.000	90	291475	2.00	2.18	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	90	256494	2.00	2.05	
58 Trichloroethene	130	12.063	12.062	0.001	96	312969	2.00	2.05	
59 Dibromomethane	93	12.149	12.150	-0.001	92	266139	2.00	2.10	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	99	503322	2.00	2.21	
61 1,4-Dioxane	88	12.311	12.348	-0.037	89	101274	2.00	2.37	
62 Methyl methacrylate	41	12.370	12.382	-0.012	95	280248	2.00	2.33	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	511298	2.00	2.17	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	97	489699	2.00	2.29	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	390184	2.00	2.13	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	340913	2.00	2.05	
67 Toluene	91	14.080	14.081	-0.001	94	762108	2.00	2.00	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	234138	2.00	2.04	
69 2-Hexanone	58	14.538	14.555	-0.017	94	251559	2.00	2.30	
70 n-Octane	85	14.743	14.747	-0.004	93	311102	2.00	2.16	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	463484	2.00	2.21	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	412095	2.00	2.13	
73 Tetrachloroethene	129	15.212	15.211	0.001	94	291644	2.00	2.02	
75 Chlorobenzene	112	16.080	16.080	0.000	80	630960	2.00	2.02	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	892847	2.00	2.17	
78 Ethylbenzene	91	16.361	16.359	0.002	98	1011900	2.00	2.14	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	1589277	4.00	4.35	
80 n-Nonane	57	16.916	16.919	-0.003	91	597737	2.00	2.17	
81 Bromoform	173	16.975	16.976	-0.001	92	381269	2.00	2.58	
82 Styrene	104	16.981	16.983	-0.002	98	575637	2.00	2.45	
83 o-Xylene	91	17.040	17.043	-0.003	99	845688	2.00	2.18	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	576602	2.00	2.29	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	176942	2.00	2.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1151599	2.00	2.14	
87 N-Propylbenzene	120	18.146	18.145	0.001	99	315843	2.00	2.24	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	286828	2.00	2.11	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	1152550	2.00	2.23	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	482496	2.00	2.26	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	447527	2.00	2.55	
93 n-Decane	57	18.625	18.628	-0.003	90	733395	2.00	2.18	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	1036702	2.00	2.23	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	996384	2.00	2.29	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	1466327	2.00	2.21	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	614182	2.00	2.17	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	750522	2.00	2.55	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	610632	2.00	2.13	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	1201261	2.00	2.30	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	1017505	2.00	2.30	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	903681	2.00	2.11	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	894023	2.00	2.26	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	597552	2.00	2.20	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	1146980	2.00	2.37	
106 Indene	116	19.623	19.623	0.000	92	753565	2.00	2.58	
107 Undecane	57	19.909	19.910	-0.001	96	764364	2.00	2.19	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	95	271086	2.00	2.58	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	1105229	2.00	2.27	
110 Dodecane	57	20.960	20.961	-0.001	98	603518	2.00	2.30	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	398730	2.00	2.32	
112 Naphthalene	128	21.322	21.321	0.001	99	1066836	2.00	2.24	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	387914	2.00	2.11	
114 1,2,3-Trichlorobenzene	180	21.597	21.593	0.004	95	394456	2.00	2.14	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	402089	2.00	2.53	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	517447	2.00	2.53	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2665641	2.00	2.05	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.06	
S 124 Xylenes, Total	100				0		6.00	6.53	

Reagents:

40L7DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

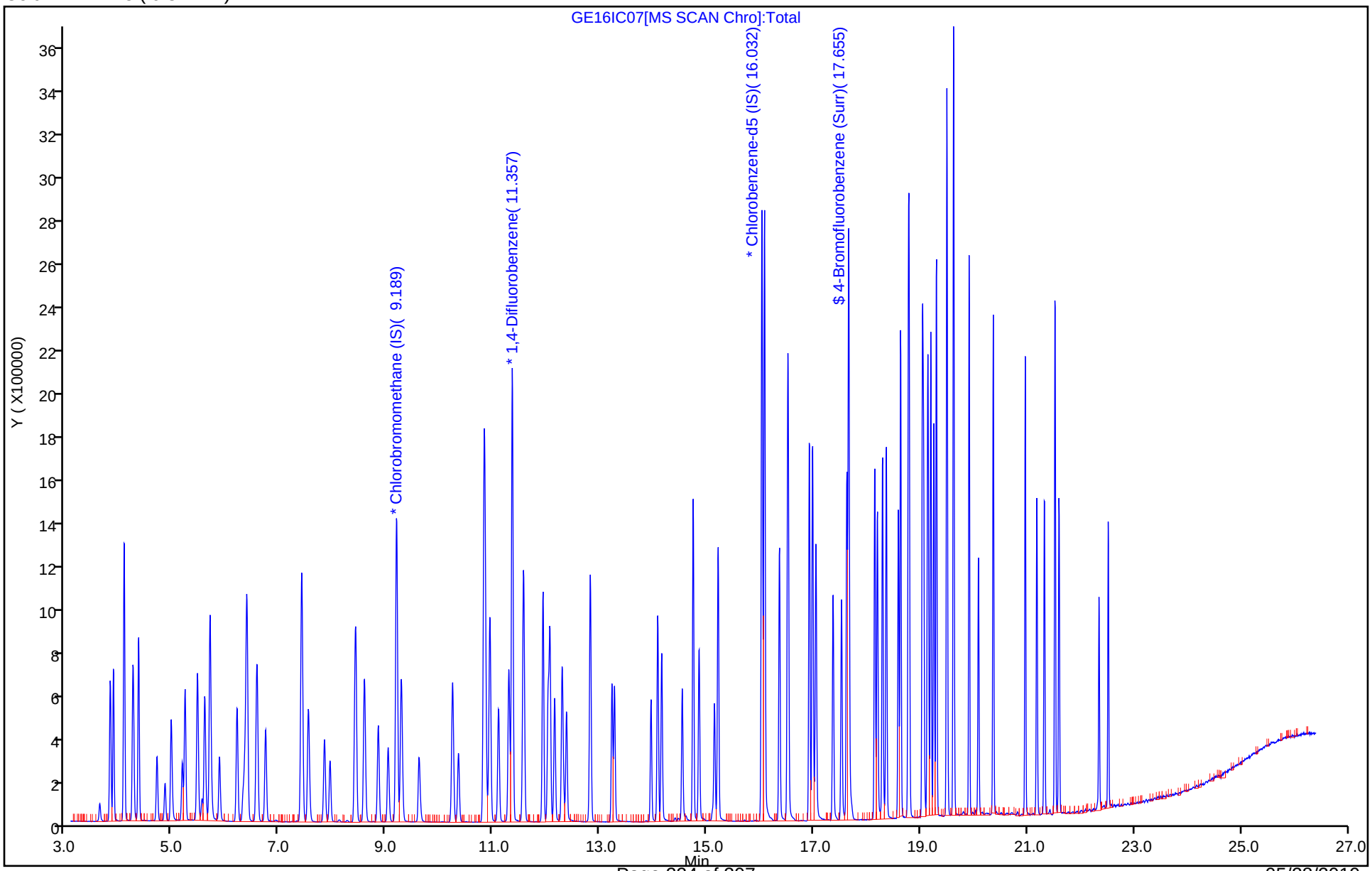
Report Date: 20-May-2019 14:51:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D

Injection Date:	17-May-2019 04:03:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

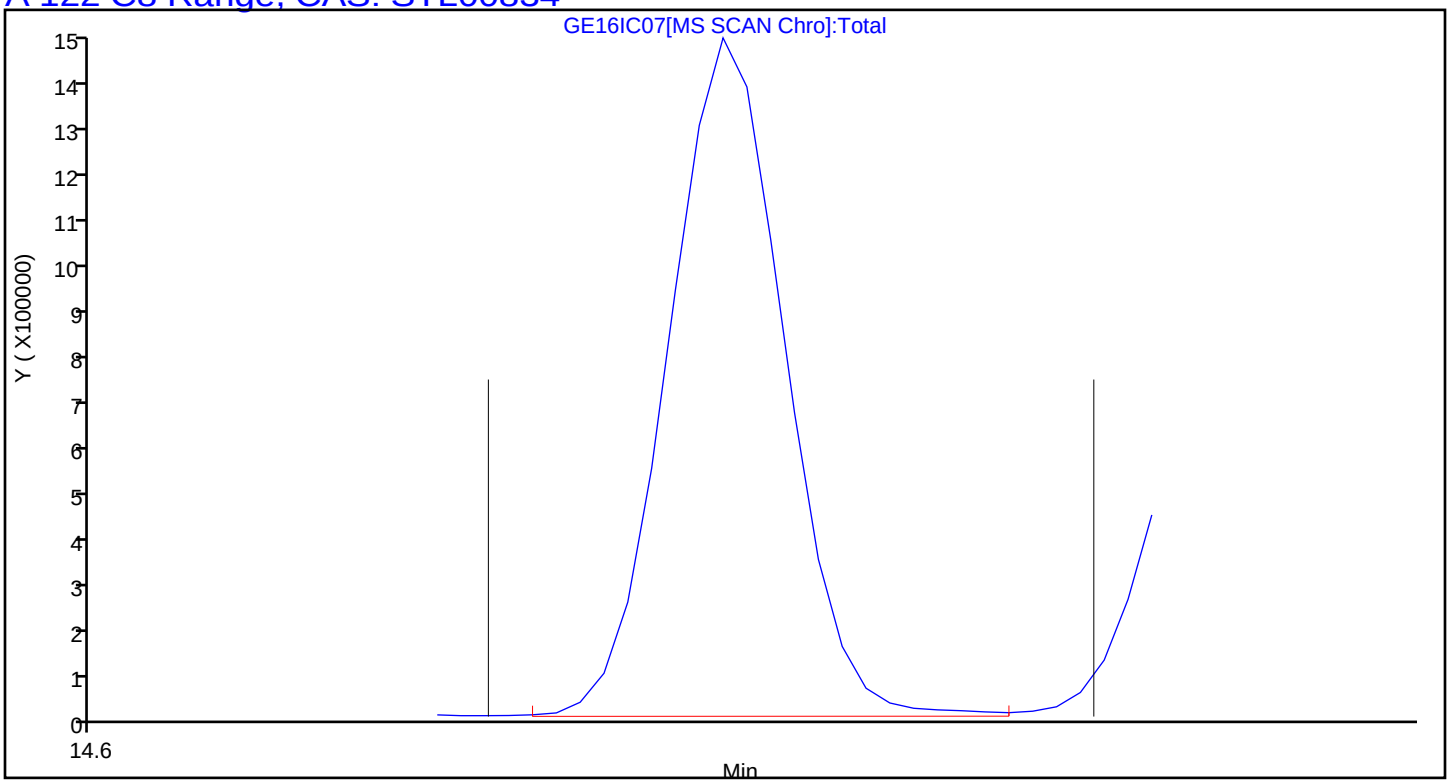


Report Date: 20-May-2019 14:51:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D				
Injection Date:	17-May-2019 04:03:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-May-2019 04:45:30 ALS Bottle#: 6 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-015
Misc. Info.: 221640
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:52:07 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:59:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	96	370913	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.362	11.358	0.004	94	2389479	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	2009735	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1273047	4.00	4.11	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	766229	4.00	3.55	
7 Propene	41	3.834	3.836	-0.002	98	409978	4.00	3.42	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	1254085	4.00	3.62	
9 Chloromethane	52	4.088	4.087	0.001	98	140725	4.00	3.53	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	95	790543	4.00	3.61	
11 Acetaldehyde	44	4.255	4.258	-0.003	98	772021	20.0	17.1	
12 Vinyl chloride	62	4.266	4.267	-0.001	98	507072	4.00	3.56	
13 Butane	43	4.363	4.360	0.003	85	746753	4.00	3.65	
14 Butadiene	54	4.363	4.361	0.002	67	396939	4.00	3.69	
15 Bromomethane	94	4.708	4.706	0.002	98	447136	4.00	3.67	
16 Chloroethane	64	4.859	4.857	0.002	98	254698	4.00	3.71	
17 Ethanol	31	4.972	4.993	-0.021	93	821812	20.0	18.3	
18 Vinyl bromide	106	5.182	5.179	0.003	99	446282	4.00	3.77	
19 2-Methylbutane	43	5.231	5.230	0.001	90	545358	4.00	3.71	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	1248146	4.00	3.71	
21 Acrolein	56	5.479	5.487	-0.008	91	67924	4.00	2.63	
22 Acetonitrile	40	5.549	5.554	-0.005	99	143030	4.00	4.11	
23 Acetone	58	5.597	5.617	-0.020	97	533318	12.0	11.2	
24 Pentane	72	5.695	5.694	0.000	97	89763	4.00	3.85	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	98	1431482	12.0	12.1	
26 Ethyl ether	31	5.872	5.890	-0.018	90	331319	4.00	3.72	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	494102	4.00	3.67	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	295011	4.00	3.83	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	94	1047041	4.00	3.67	
30 2-Methyl-2-propanol	59	6.342	6.416	-0.074	94	752730	4.00	4.23	
31 Methylene Chloride	84	6.573	6.569	0.004	96	480424	4.00	3.23	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.590	6.585	0.005	96	451902	4.00	3.79	
33 Carbon disulfide	76	6.741	6.740	0.001	98	1484479	4.00	3.78	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	98	506331	4.00	3.81	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	1200675	4.00	3.66	
36 Methyl tert-butyl ether	73	7.539	7.568	-0.029	96	1296623	4.00	4.03	
37 1,1-Dichloroethane	63	7.846	7.842	0.004	100	960285	4.00	3.67	
38 Vinyl acetate	43	7.949	7.952	-0.003	100	1100615	4.00	3.97	
40 Hexane	56	8.428	8.426	0.002	92	457862	4.00	3.74	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	98	218765	4.00	3.82	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	1587721	4.00	3.99	
42 cis-1,2-Dichloroethene	96	8.854	8.849	0.005	95	509290	4.00	3.68	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	966730	4.00	3.98	
44 Chloroform	83	9.205	9.198	0.007	96	1033190	4.00	3.72	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	94	1530134	4.00	4.03	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	94	521363	4.00	3.94	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	1109351	4.00	3.72	
48 1,2-Dichloroethane	62	10.354	10.350	0.004	98	683131	4.00	3.57	
49 Cyclohexane	69	10.828	10.827	0.001	91	264115	4.00	3.59	
50 Benzene	78	10.833	10.829	0.004	97	1505333	4.00	3.59	
52 Carbon tetrachloride	117	10.855	10.850	0.005	99	1094567	4.00	3.93	
51 n-Butanol	31	10.833	10.879	-0.046	65	122634	4.00	3.75	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	91	400662	4.00	3.65	
54 Thiophene	84	11.103	11.100	0.003	95	879622	4.00	3.63	
55 Isooctane	57	11.572	11.569	0.003	99	2714447	4.00	3.58	
56 n-Heptane	71	11.933	11.933	0.000	90	604522	4.00	3.73	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	91	553896	4.00	3.66	
58 Trichloroethene	130	12.068	12.062	0.006	98	660236	4.00	3.57	
59 Dibromomethane	93	12.155	12.150	0.005	93	551004	4.00	3.59	
60 Dichlorobromomethane	83	12.295	12.290	0.005	99	1064499	4.00	3.87	
61 1,4-Dioxane	88	12.311	12.348	-0.037	86	200629	4.00	3.88	
62 Methyl methacrylate	41	12.376	12.382	-0.006	96	600850	4.00	4.13	
63 Methylcyclohexane	83	12.823	12.818	0.005	96	1043958	4.00	3.66	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	96	1100009	4.00	4.26	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	826232	4.00	3.72	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	709449	4.00	3.70	
67 Toluene	91	14.085	14.081	0.004	94	1651334	4.00	3.76	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	495129	4.00	3.75	
69 2-Hexanone	58	14.538	14.555	-0.017	94	576169	4.00	4.58	
70 n-Octane	85	14.748	14.747	0.001	92	645160	4.00	3.89	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	1000345	4.00	4.15	
72 Ethylene Dibromide	107	15.147	15.143	0.004	99	857025	4.00	3.84	
73 Tetrachloroethene	129	15.212	15.211	0.001	95	617646	4.00	3.71	
75 Chlorobenzene	112	16.080	16.080	0.000	89	1328456	4.00	3.69	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	93	1729669	4.00	3.64	
78 Ethylbenzene	91	16.361	16.359	0.002	98	2173662	4.00	3.98	
79 m-Xylene & p-Xylene	91	16.522	16.519	0.003	97	3367264	8.00	8.00	
80 n-Nonane	57	16.921	16.919	0.002	90	1239804	4.00	3.91	
81 Bromoform	173	16.975	16.976	-0.001	92	809502	4.00	4.75	
82 Styrene	104	16.986	16.983	0.003	97	1232615	4.00	4.56	
83 o-Xylene	91	17.045	17.043	0.002	99	1814378	4.00	4.06	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	1192085	4.00	4.10	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	98	373377	4.00	4.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	2482560	4.00	4.00	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	677778	4.00	4.17	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	611471	4.00	3.90	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	2440515	4.00	4.09	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	1003240	4.00	4.08	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	90	969642	4.00	4.79	
93 n-Decane	57	18.631	18.628	0.003	90	1480434	4.00	3.82	
94 tert-Butylbenzene	119	18.776	18.776	0.000	94	2171366	4.00	4.06	
95 1,2,4-Trimethylbenzene	105	18.793	18.790	0.003	96	2066856	4.00	4.13	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	3039289	4.00	3.98	
97 1,3-Dichlorobenzene	146	19.062	19.059	0.003	99	1298002	4.00	3.98	
98 Benzyl chloride	91	19.132	19.130	0.002	98	1553950	4.00	4.58	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	94	1303721	4.00	3.94	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	97	2499878	4.00	4.16	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	2125465	4.00	4.17	
102 Butylcyclohexane	83	19.299	19.298	0.001	95	1837131	4.00	3.72	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	1877846	4.00	4.11	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	96	1244990	4.00	3.97	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	2329083	4.00	4.17	
106 Indene	116	19.623	19.623	0.000	92	1576932	4.00	4.68	
107 Undecane	57	19.909	19.910	-0.001	95	1535512	4.00	3.82	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	97	583282	4.00	4.81	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	2304135	4.00	4.11	
110 Dodecane	57	20.960	20.961	-0.001	98	1230533	4.00	4.07	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	852171	4.00	4.29	
112 Naphthalene	128	21.322	21.321	0.001	99	2289996	4.00	4.17	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	92	815187	4.00	3.85	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	845498	4.00	3.97	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	891206	4.00	4.86	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	1122363	4.00	4.75	
A 122 C8 Range	1	14.790	(14.690-14.870)		0	5455808	4.00	3.65	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.50	
S 124 Xylenes, Total	100				0		12.0	12.1	

Reagents:

40L8DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

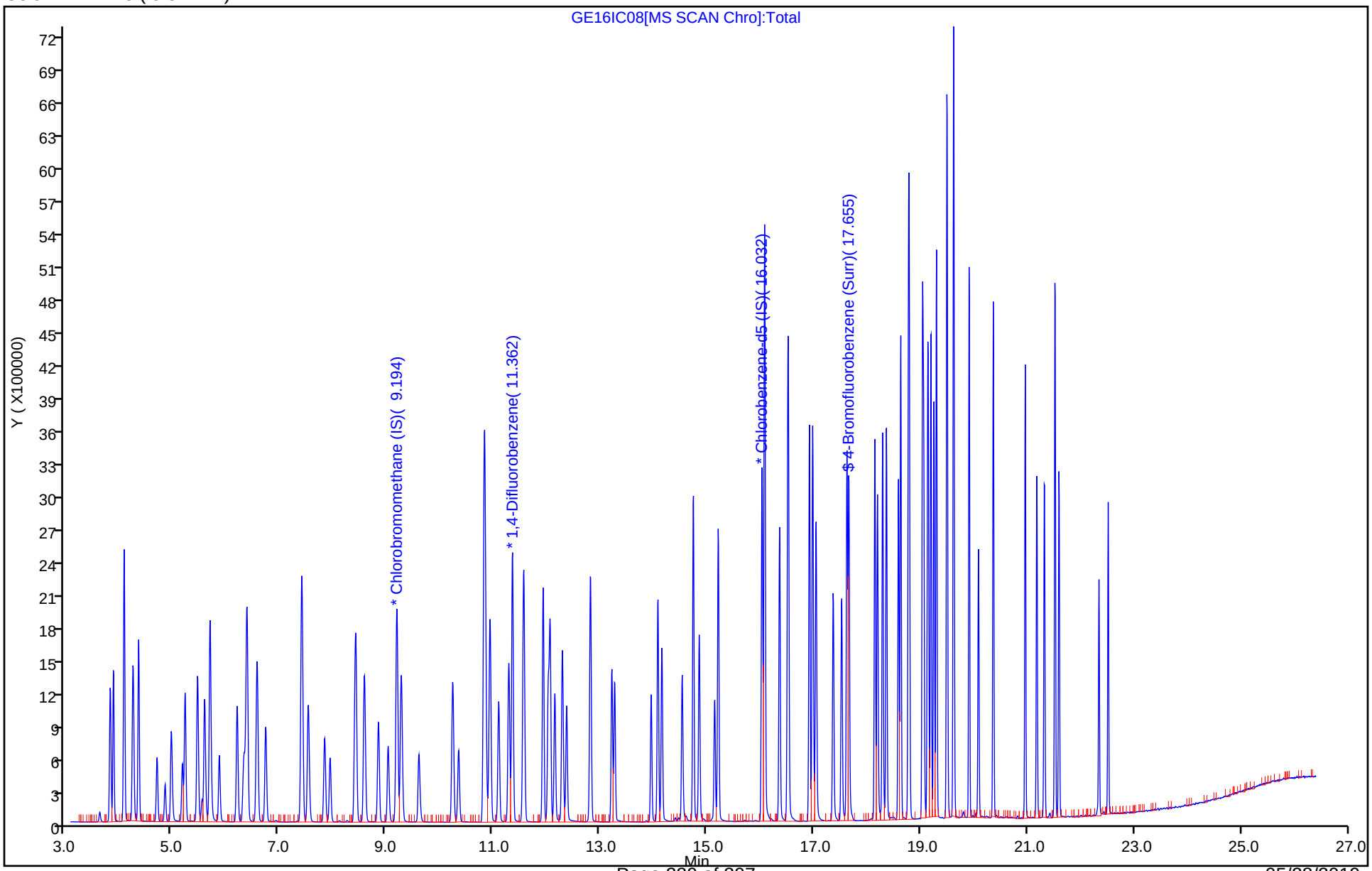
Report Date: 20-May-2019 14:52:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Injection Date:	17-May-2019 04:45:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

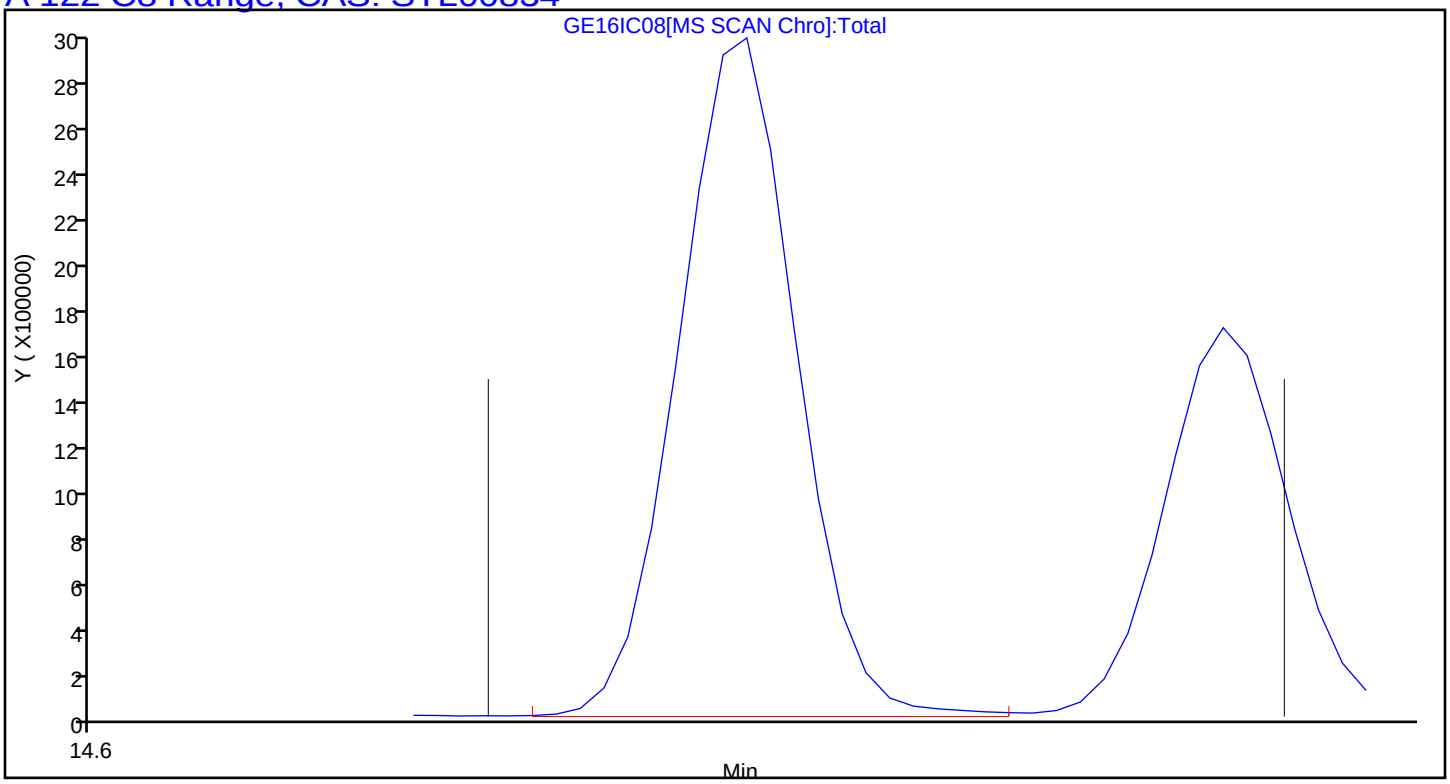


Report Date: 20-May-2019 14:52:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Injection Date:	17-May-2019 04:45:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.353		2.02	2.00	1.1	35.0
Propene	Ave	1.292	1.250		1.94	2.00	-3.2	35.0
Dichlorodifluoromethane	Ave	3.740	3.826		2.05	2.00	2.3	35.0
Chloromethane	Ave	0.4296	0.4224		1.97	2.00	-1.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.344		1.99	2.00	-0.6	35.0
Acetaldehyde	Ave	0.4863	0.4173		8.58	10.0	-14.2	35.0
Vinyl chloride	Ave	1.536	1.536		2.00	2.00	-0.0	35.0
Butane	Ave	2.208	2.269		2.06	2.00	2.8	35.0
1,3-Butadiene	Ave	1.159	1.164		2.01	2.00	0.5	35.0
Bromomethane	Ave	1.314	1.284		1.96	2.00	-2.2	35.0
Chloroethane	Ave	0.7408	0.7523		2.03	2.00	1.5	35.0
Ethanol	Ave	0.4835	0.3198		6.61	10.0	-33.9	35.0
Vinyl bromide	Ave	1.277	1.348		2.11	2.00	5.5	35.0
2-Methylbutane	Ave	1.585	1.634		2.06	2.00	3.1	35.0
Trichlorofluoromethane	Ave	3.627	3.673		2.03	2.00	1.3	35.0
Acrolein	Ave	0.2782	0.2689		1.93	2.00	-3.3	35.0
Acetonitrile	Ave	0.3750	0.3487		1.86	2.00	-7.0	35.0
Acetone	Ave	0.5114	0.4488		1.76	2.00	-12.2	35.0
Pentane	Ave	0.2515	0.2719		2.16	2.00	8.1	35.0
Isopropyl alcohol	Ave	1.273	1.438		2.26	2.00	13.0	35.0
Ethyl ether	Ave	0.9611	0.8922		1.86	2.00	-7.2	35.0
1,1-Dichloroethene	Ave	1.451	1.454		2.00	2.00	0.2	35.0
Acrylonitrile	Ave	0.8296	0.7780		1.88	2.00	-6.2	35.0
tert-Butyl alcohol	Ave	1.921	1.812		1.89	2.00	-5.7	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	3.149		2.05	2.00	2.3	35.0
Methylene Chloride	Ave	1.605	1.466		1.83	2.00	-8.6	35.0
3-Chloropropene	Ave	1.287	1.300		2.02	2.00	1.0	35.0
Carbon disulfide	Ave	4.233	4.355		2.06	2.00	2.9	35.0
trans-1,2-Dichloroethene	Ave	1.432	1.472		2.06	2.00	2.8	35.0
2-Methylpentane	Ave	3.538	3.443		1.95	2.00	-2.7	35.0
Methyl tert-butyl ether	Ave	3.471	2.970		1.71	2.00	-14.5	35.0
1,1-Dichloroethane	Ave	2.819	2.829		2.01	2.00	0.4	35.0
Vinyl acetate	Ave	2.990	2.712		1.81	2.00	-9.3	35.0
2-Butanone (MEK)	Ave	0.6179	0.4774		1.55	2.00	-22.7	35.0
Hexane	Ave	1.322	1.386		2.10	2.00	4.8	35.0
Isopropyl ether	Ave	4.291	3.763		1.75	2.00	-12.3	35.0
cis-1,2-Dichloroethene	Ave	1.491	1.527		2.05	2.00	2.4	35.0
Ethyl acetate	Ave	2.619	1.981		1.51	2.00	-24.4	35.0
Chloroform	Ave	2.997	3.001		2.00	2.00	0.1	35.0
Tert-butyl ethyl ether	Ave	4.092	3.294		1.61	2.00	-19.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.202		1.68	2.00	-15.8	35.0
1,1,1-Trichloroethane	Ave	3.217	3.244		2.02	2.00	0.9	35.0
1,2-Dichloroethane	Ave	0.3199	0.3179		1.99	2.00	-0.6	35.0
Benzene	Ave	0.7021	0.7120		2.03	2.00	1.4	35.0
Cyclohexane	Ave	0.1232	0.1277		2.07	2.00	3.7	35.0
Carbon tetrachloride	Ave	0.4658	0.5175		2.22	2.00	11.1	35.0
1-Butanol	Ave	0.0547	0.0509		1.86	2.00	-7.0	35.0
2,3-Dimethylpentane	Ave	0.1839	0.1823		1.98	2.00	-0.9	35.0
Thiophene	Ave	0.4060	0.3940		1.94	2.00	-3.0	35.0
2,2,4-Trimethylpentane	Ave	1.270	1.267		2.00	2.00	-0.2	35.0
Heptane	Ave	0.2716	0.2721		2.00	2.00	0.2	35.0
1,2-Dichloropropane	Ave	0.2531	0.2541		2.01	2.00	0.4	35.0
Trichloroethene	Ave	0.3093	0.3078		1.99	2.00	-0.5	35.0
Dibromomethane	Ave	0.2572	0.2563		1.99	2.00	-0.3	35.0
Bromodichloromethane	Ave	0.4606	0.4736		2.06	2.00	2.8	35.0
1,4-Dioxane	Ave	0.0865	0.0654		1.51	2.00	-24.4	35.0
Methyl methacrylate	Ave	0.2435	0.1935		1.59	2.00	-20.5	35.0
Methylcyclohexane	Ave	0.4773	0.5862		2.46	2.00	22.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3244		1.50	2.00	-25.0	35.0
cis-1,3-Dichloropropene	Ave	0.3720	0.3897		2.10	2.00	4.8	35.0
trans-1,3-Dichloropropene	Ave	0.3814	0.3891		2.04	2.00	2.0	35.0
Toluene	Ave	0.8742	0.8744		2.00	2.00	0.0	35.0
1,1,2-Trichloroethane	Ave	0.2626	0.2559		1.95	2.00	-2.6	35.0
2-Hexanone	Ave	0.2504	0.2059		1.64	2.00	-17.8	35.0
Octane	Ave	0.3299	0.3511		2.13	2.00	6.4	35.0
Dibromochloromethane	Ave	0.4800	0.5274		2.20	2.00	9.9	35.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4720		2.12	2.00	6.2	35.0
Tetrachloroethene	Ave	0.3313	0.3336		2.01	2.00	0.7	35.0
2,3-Dimethylheptane	Ave	0.9448	0.8994		1.90	2.00	-4.8	35.0
Chlorobenzene	Ave	0.7172	0.7354		2.05	2.00	2.5	35.0
Ethylbenzene	Ave	1.087	1.042		1.92	2.00	-4.1	35.0
m-Xylene & p-Xylene	Ave	0.8375	0.8041		3.84	4.00	-4.0	35.0
Nonane	Ave	0.6318	0.6745		2.14	2.00	6.8	35.0
Bromoform	Ave	0.3394	0.4272		2.52	2.00	25.9	35.0
Styrene	Ave	0.5382	0.5876		2.18	2.00	9.2	35.0
o-Xylene	Ave	0.8888	0.8210		1.85	2.00	-7.6	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5389		1.86	2.00	-6.8	35.0
1,2,3-Trichloropropane	Ave	0.1851	0.1627		1.76	2.00	-12.1	35.0
Isopropylbenzene	Ave	1.236	1.137		1.84	2.00	-8.0	35.0
Propylbenzene	Ave	0.3233	0.3045		1.88	2.00	-5.8	35.0
2-Chlorotoluene	Ave	0.3121	0.3054		1.96	2.00	-2.1	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.015		1.71	2.00	-14.4	35.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.4871		1.99	2.00	-0.5	35.0
Alpha Methyl Styrene	Ave	0.4029	0.4047		2.01	2.00	0.4	35.0
Decane	Ave	0.7713	0.7474		1.94	2.00	-3.1	35.0
tert-Butylbenzene	Ave	1.065	0.9451		1.77	2.00	-11.3	35.0
1,2,4-Trimethylbenzene	Ave	0.996	0.8850		1.78	2.00	-11.2	35.0
sec-Butylbenzene	Ave	1.518	1.352		1.78	2.00	-11.0	35.0
1,3-Dichlorobenzene	Ave	0.6493	0.6193		1.91	2.00	-4.6	35.0
Benzyl chloride	Ave	0.6747	0.6538		1.94	2.00	-3.1	35.0
1,4-Dichlorobenzene	Ave	0.6587	0.6126		1.86	2.00	-7.0	35.0
4-Isopropyltoluene	Ave	1.197	1.046		1.75	2.00	-12.6	35.0
1,2,3-Trimethylbenzene	Ave	1.014	0.6690		1.32	2.00	-34.0	35.0
Butylcyclohexane	Ave	0.9816	0.9071		1.85	2.00	-7.6	35.0
1,2-Dichlorobenzene	Ave	0.6242	0.5754		1.84	2.00	-7.8	35.0
Indane	Ave	0.9088	0.8067		1.78	2.00	-11.2	35.0
Butylbenzene	Ave	1.112	0.9886		1.78	2.00	-11.1	35.0
Indene	Ave	0.6707	0.5774		1.72	2.00	-13.9	35.0
Undecane	Ave	0.8005	0.6893		1.72	2.00	-13.9	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.1836		1.52	2.00	-23.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.8471		1.52	2.00	-24.1	35.0
Dodecane	Ave	0.6023	0.5266		1.75	2.00	-12.6	35.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.3357		1.70	2.00	-15.0	35.0
Naphthalene	Ave	1.094	0.8660		1.58	2.00	-20.8	35.0
Hexachlorobutadiene	Ave	0.4216	0.3544		1.68	2.00	-15.9	35.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3324		1.57	2.00	-21.6	35.0
2-Methylnaphthalene	Ave	0.3649	0.4118		2.26	2.00	12.9	50.0
1-Methylnaphthalene	Ave	0.4700	0.5126		2.18	2.00	9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.6208		4.03	4.00	0.8	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 17-May-2019 06:12:30 ALS Bottle#: 7 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-017
Misc. Info.: 221584(S92)
Operator ID: 403648 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 15:53:27 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0304

First Level Reviewer: liul Date: 20-May-2019 15:53:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	97	352427	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.001	95	2232921	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1850171	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	88	1148629	4.00	4.03	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	414694	2.00	2.02	
7 Propene	41	3.834	3.836	-0.002	99	220284	2.00	1.94	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	674230	2.00	2.05	
9 Chloromethane	52	4.082	4.087	-0.005	99	74424	2.00	1.97	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.092	-0.004	94	412980	2.00	1.99	
11 Acetaldehyde	44	4.255	4.258	-0.003	97	367697	10.0	8.58	
12 Vinyl chloride	62	4.266	4.267	-0.001	99	270599	2.00	2.00	
13 Butane	43	4.357	4.360	-0.003	85	399818	2.00	2.06	
14 Butadiene	54	4.363	4.361	0.002	65	205150	2.00	2.01	
15 Bromomethane	94	4.702	4.706	-0.004	99	226295	2.00	1.96	
16 Chloroethane	64	4.853	4.857	-0.004	98	132556	2.00	2.03	
17 Ethanol	31	4.977	4.993	-0.016	93	281733	10.0	6.61	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	237501	2.00	2.11	
19 2-Methylbutane	43	5.231	5.230	0.001	90	287953	2.00	2.06	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	647210	2.00	2.03	
21 Acrolein	56	5.479	5.487	-0.008	91	47388	2.00	1.93	
22 Acetonitrile	40	5.549	5.554	-0.005	99	61440	2.00	1.86	
23 Acetone	58	5.608	5.617	-0.009	97	79091	2.00	1.76	
24 Pentane	72	5.695	5.694	0.001	98	47912	2.00	2.16	
25 Isopropyl alcohol	45	5.722	5.749	-0.027	93	253461	2.00	2.26	
26 Ethyl ether	31	5.878	5.890	-0.012	91	157221	2.00	1.86	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	96	256257	2.00	2.00	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	137098	2.00	1.88	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	554980	2.00	2.05	
30 2-Methyl-2-propanol	59	6.363	6.416	-0.053	94	319348	2.00	1.89	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	258373	2.00	1.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	96	229059	2.00	2.02	
33 Carbon disulfide	76	6.735	6.740	-0.005	98	767431	2.00	2.06	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	98	259419	2.00	2.06	
35 2-Methylpentane	43	7.420	7.421	-0.001	95	606616	2.00	1.95	
36 Methyl tert-butyl ether	73	7.544	7.568	-0.024	97	523293	2.00	1.71	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	498573	2.00	2.01	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	477911	2.00	1.81	
40 Hexane	56	8.429	8.426	0.002	91	244154	2.00	2.10	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	95	84126	2.00	1.55	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	663072	2.00	1.75	
42 cis-1,2-Dichloroethene	96	8.844	8.849	-0.005	95	269157	2.00	2.05	
43 Ethyl acetate	43	9.038	9.051	-0.013	99	348990	2.00	1.51	
44 Chloroform	83	9.194	9.198	-0.004	97	528735	2.00	2.00	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	95	580374	2.00	1.61	
46 Tetrahydrofuran	42	9.615	9.640	-0.025	95	211769	2.00	1.68	
47 1,1,1-Trichloroethane	97	10.235	10.239	-0.004	96	571722	2.00	2.02	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	354922	2.00	1.99	
49 Cyclohexane	69	10.828	10.827	0.001	75	142604	2.00	2.07	
50 Benzene	78	10.828	10.829	-0.001	96	794932	2.00	2.03	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	577813	2.00	2.22	
51 n-Butanol	31	10.855	10.879	-0.024	65	56838	2.00	1.86	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	91	203473	2.00	1.98	
54 Thiophene	84	11.098	11.100	-0.002	95	439891	2.00	1.94	
55 Isooctane	57	11.567	11.569	-0.002	99	1414744	2.00	2.00	
56 n-Heptane	71	11.934	11.933	0.001	90	303749	2.00	2.00	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	90	283693	2.00	2.01	
58 Trichloroethene	130	12.063	12.062	0.001	96	343628	2.00	1.99	
59 Dibromomethane	93	12.149	12.150	-0.001	92	286118	2.00	1.99	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	99	528721	2.00	2.06	
61 1,4-Dioxane	88	12.322	12.348	-0.026	91	73023	2.00	1.51	
62 Methyl methacrylate	41	12.376	12.382	-0.006	94	216048	2.00	1.59	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	654467	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.242	-0.014	97	362198	2.00	1.50	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	435116	2.00	2.10	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	359947	2.00	2.04	
67 Toluene	91	14.080	14.081	-0.001	94	808894	2.00	2.00	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	236751	2.00	1.95	
69 2-Hexanone	58	14.543	14.555	-0.012	94	190503	2.00	1.64	
70 n-Octane	85	14.743	14.747	-0.004	92	324748	2.00	2.13	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	487858	2.00	2.20	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	99	436663	2.00	2.12	
73 Tetrachloroethene	129	15.212	15.211	0.001	95	308619	2.00	2.01	
75 Chlorobenzene	112	16.080	16.080	0.000	93	680316	2.00	2.05	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	832053	2.00	1.90	
78 Ethylbenzene	91	16.361	16.359	0.002	98	963979	2.00	1.92	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	1487663	4.00	3.84	
80 n-Nonane	57	16.916	16.919	-0.003	92	623962	2.00	2.14	
81 Bromoform	173	16.975	16.976	-0.001	92	395229	2.00	2.52	
82 Styrene	104	16.981	16.983	-0.002	97	543547	2.00	2.18	
83 o-Xylene	91	17.040	17.043	-0.003	99	759493	2.00	1.85	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	498551	2.00	1.86	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	150516	2.00	1.76	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1051357	2.00	1.84	
87 N-Propylbenzene	120	18.146	18.145	0.001	99	281692	2.00	1.88	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	282554	2.00	1.96	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	939296	2.00	1.71	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	450604	2.00	1.99	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	374404	2.00	2.01	
93 n-Decane	57	18.625	18.628	-0.003	90	691408	2.00	1.94	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	93	874283	2.00	1.77	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	818671	2.00	1.78	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	1250610	2.00	1.78	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	572886	2.00	1.91	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	604840	2.00	1.94	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	566661	2.00	1.86	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	967809	2.00	1.75	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	618864	2.00	1.32	
102 Butylcyclohexane	83	19.300	19.298	0.002	95	839184	2.00	1.85	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	746294	2.00	1.78	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	81	532262	2.00	1.84	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	914571	2.00	1.78	
106 Indene	116	19.623	19.623	0.000	95	534116	2.00	1.72	
107 Undecane	57	19.909	19.910	-0.001	96	637632	2.00	1.72	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	96	169887	2.00	1.52	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	783604	2.00	1.52	
110 Dodecane	57	20.960	20.961	-0.001	98	487170	2.00	1.75	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	310582	2.00	1.70	
112 Naphthalene	128	21.322	21.321	0.001	99	801158	2.00	1.58	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	327889	2.00	1.68	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	307465	2.00	1.57	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	380993	2.00	2.26	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	474174	2.00	2.18	
A 122 C8 Range	1	14.780	(14.690-14.870)		0	2784982	2.00	2.02	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.10	
S 124 Xylenes, Total	100				0		6.00	5.69	

Reagents:

40CV101S_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

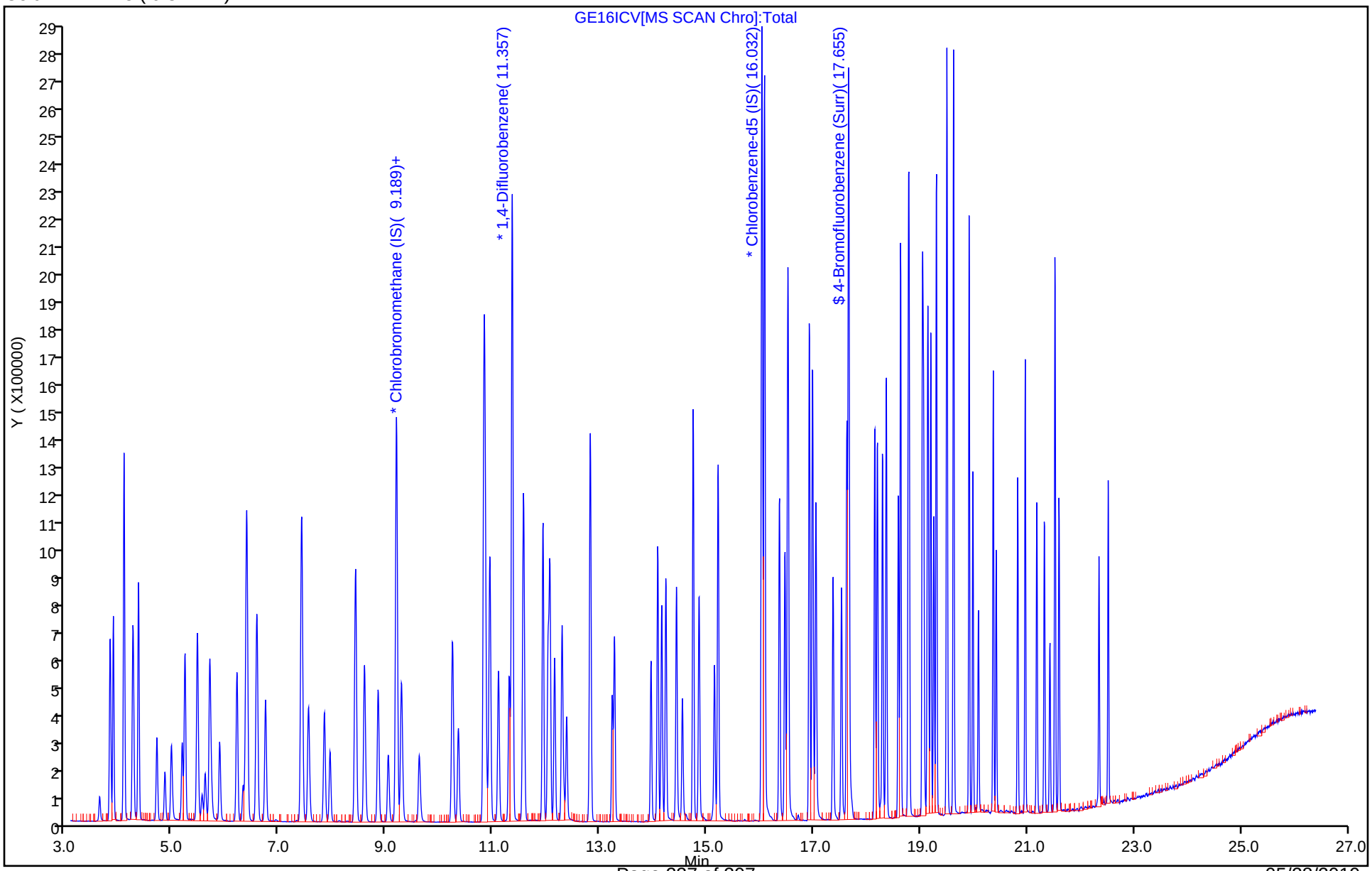
Report Date: 20-May-2019 15:53:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16ICV.D

Injection Date:	17-May-2019 06:12:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30123/2 Calibration Date: 05/17/2019 12:10

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE17.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.414		2.08	2.00	3.8	30.0
Propene	Ave	1.292	1.257		1.95	2.00	-2.7	30.0
Dichlorodifluoromethane	Ave	3.740	3.920		2.10	2.00	4.8	30.0
Chloromethane	Ave	0.4296	0.4312		2.01	2.00	0.4	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.425		2.06	2.00	2.8	30.0
Acetaldehyde	Ave	0.4863	0.4006		8.24	10.0	-17.6	30.0
Vinyl chloride	Ave	1.536	1.583		2.06	2.00	3.0	30.0
1,3-Butadiene	Ave	1.159	1.181		2.04	2.00	2.0	30.0
Butane	Ave	2.208	2.329		2.11	2.00	5.5	30.0
Bromomethane	Ave	1.314	1.335		2.03	2.00	1.6	30.0
Chloroethane	Ave	0.7408	0.7542		2.04	2.00	1.8	30.0
Ethanol	Ave	0.4835	0.3620		7.49	10.0	-25.1	30.0
Vinyl bromide	Ave	1.277	1.384		2.17	2.00	8.4	30.0
2-Methylbutane	Ave	1.585	1.704		2.15	2.00	7.5	30.0
Trichlorofluoromethane	Ave	3.627	3.827		2.11	2.00	5.5	30.0
Acrolein	Ave	0.2782	0.2392		1.72	2.00	-14.0	30.0
Acetonitrile	Ave	0.3750	0.3749		2.00	2.00	-0.0	30.0
Acetone	Ave	0.5114	0.4729		1.85	2.00	-7.5	30.0
Pentane	Ave	0.2515	0.2811		2.24	2.00	11.8	30.0
Isopropyl alcohol	Ave	1.273	1.530		2.40	2.00	20.2	30.0
Ethyl ether	Ave	0.9611	0.9416		1.96	2.00	-2.0	30.0
1,1-Dichloroethene	Ave	1.451	1.482		2.04	2.00	2.2	30.0
Acrylonitrile	Ave	0.8296	0.8154		1.97	2.00	-1.7	30.0
tert-Butyl alcohol	Ave	1.921	1.974		2.06	2.00	2.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	3.155		2.05	2.00	2.5	30.0
Methylene Chloride	Ave	1.605	1.471		1.83	2.00	-8.3	30.0
3-Chloropropene	Ave	1.287	1.288		2.00	2.00	0.0	30.0
Carbon disulfide	Ave	4.233	4.396		2.08	2.00	3.8	30.0
trans-1,2-Dichloroethene	Ave	1.432	1.498		2.09	2.00	4.6	30.0
2-Methylpentane	Ave	3.538	3.431		1.94	2.00	-3.0	30.0
Methyl tert-butyl ether	Ave	3.471	3.196		1.84	2.00	-7.9	30.0
1,1-Dichloroethane	Ave	2.819	2.884		2.05	2.00	2.3	30.0
Vinyl acetate	Ave	2.990	2.932		1.96	2.00	-1.9	30.0
2-Butanone (MEK)	Ave	0.6179	0.5074		1.64	2.00	-17.9	30.0
Hexane	Ave	1.322	1.376		2.08	2.00	4.1	30.0
Isopropyl ether	Ave	4.291	4.059		1.89	2.00	-5.4	30.0
cis-1,2-Dichloroethene	Ave	1.491	1.538		2.06	2.00	3.1	30.0
Ethyl acetate	Ave	2.619	2.162		1.65	2.00	-17.5	30.0
Chloroform	Ave	2.997	3.119		2.08	2.00	4.1	30.0
Tert-butyl ethyl ether	Ave	4.092	3.540		1.73	2.00	-13.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30123/2 Calibration Date: 05/17/2019 12:10

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE17.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.320		1.85	2.00	-7.6	30.0
1,1,1-Trichloroethane	Ave	3.217	3.279		2.04	2.00	1.9	30.0
1,2-Dichloroethane	Ave	0.3199	0.3291		2.06	2.00	2.9	30.0
Benzene	Ave	0.7021	0.7189		2.05	2.00	2.4	30.0
Cyclohexane	Ave	0.1232	0.1289		2.09	2.00	4.7	30.0
1-Butanol	Ave	0.0547	0.0577		2.11	2.00	5.3	30.0
Carbon tetrachloride	Ave	0.4658	0.5044		2.17	2.00	8.3	30.0
2,3-Dimethylpentane	Ave	0.1839	0.1816		1.98	2.00	-1.2	30.0
Thiophene	Ave	0.4060	0.4010		1.98	2.00	-1.2	30.0
2,2,4-Trimethylpentane	Ave	1.270	1.314		2.07	2.00	3.4	30.0
Heptane	Ave	0.2716	0.2792		2.06	2.00	2.8	30.0
1,2-Dichloropropane	Ave	0.2531	0.2560		2.02	2.00	1.1	30.0
Trichloroethene	Ave	0.3093	0.3166		2.05	2.00	2.3	30.0
Dibromomethane	Ave	0.2572	0.2688		2.09	2.00	4.5	30.0
Bromodichloromethane	Ave	0.4606	0.4913		2.13	2.00	6.6	30.0
1,4-Dioxane	Ave	0.0865	0.0704		1.63	2.00	-18.6	30.0
Methyl methacrylate	Ave	0.2435	0.2142		1.76	2.00	-12.0	30.0
Methylcyclohexane	Ave	0.4773	0.5907		2.48	2.00	23.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3718		1.72	2.00	-14.1	30.0
cis-1,3-Dichloropropene	Ave	0.3720	0.3975		2.14	2.00	6.9	30.0
trans-1,3-Dichloropropene	Ave	0.3814	0.4018		2.11	2.00	5.3	30.0
Toluene	Ave	0.8742	0.8844		2.02	2.00	1.2	30.0
1,1,2-Trichloroethane	Ave	0.2626	0.2670		2.03	2.00	1.7	30.0
2-Hexanone	Ave	0.2504	0.2352		1.88	2.00	-6.1	30.0
Octane	Ave	0.3299	0.3566		2.16	2.00	8.1	30.0
Dibromochloromethane	Ave	0.4800	0.5408		2.25	2.00	12.7	30.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4832		2.17	2.00	8.7	30.0
Tetrachloroethene	Ave	0.3313	0.3423		2.07	2.00	3.3	30.0
2,3-Dimethylheptane	Ave	0.9448	0.9475		2.01	2.00	0.3	30.0
Chlorobenzene	Ave	0.7172	0.7678		2.14	2.00	7.0	30.0
Ethylbenzene	Ave	1.087	1.076		1.98	2.00	-0.9	30.0
m-Xylene & p-Xylene	Ave	0.8375	0.8514		4.07	4.00	1.7	30.0
Nonane	Ave	0.6318	0.6941		2.20	2.00	9.9	30.0
Bromoform	Ave	0.3394	0.4241		2.50	2.00	25.0	30.0
Styrene	Ave	0.5382	0.6076		2.26	2.00	12.9	30.0
o-Xylene	Ave	0.8888	0.8793		1.98	2.00	-1.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5635		1.95	2.00	-2.6	30.0
1,2,3-Trichloropropane	Ave	0.1851	0.1728		1.87	2.00	-6.7	30.0
Isopropylbenzene	Ave	1.236	1.209		1.96	2.00	-2.2	30.0
Propylbenzene	Ave	0.3233	0.3152		1.95	2.00	-2.5	30.0
2-Chlorotoluene	Ave	0.3121	0.3130		2.01	2.00	0.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30123/2 Calibration Date: 05/17/2019 12:10

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE17.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.061		1.79	2.00	-10.5	30.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.5204		2.13	2.00	6.3	30.0
Alpha Methyl Styrene	Ave	0.4029	0.4269		2.12	2.00	6.0	30.0
Decane	Ave	0.7713	0.7854		2.04	2.00	1.8	30.0
tert-Butylbenzene	Ave	1.065	1.022		1.92	2.00	-4.0	30.0
1,2,4-Trimethylbenzene	Ave	0.996	0.9509		1.91	2.00	-4.6	30.0
sec-Butylbenzene	Ave	1.518	1.442		1.90	2.00	-5.0	30.0
1,3-Dichlorobenzene	Ave	0.6493	0.6171		1.90	2.00	-5.0	30.0
Benzyl chloride	Ave	0.6747	0.6802		2.02	2.00	0.8	30.0
1,4-Dichlorobenzene	Ave	0.6587	0.6008		1.82	2.00	-8.8	30.0
4-Isopropyltoluene	Ave	1.197	1.110		1.85	2.00	-7.3	30.0
1,2,3-Trimethylbenzene	Ave	1.014	0.7189		1.42	2.00	-29.1	30.0
Butylcyclohexane	Ave	0.9816	0.9340		1.90	2.00	-4.9	30.0
1,2-Dichlorobenzene	Ave	0.6242	0.5846		1.87	2.00	-6.3	30.0
Indane	Ave	0.9088	0.8473		1.86	2.00	-6.8	30.0
Butylbenzene	Ave	1.112	1.064		1.91	2.00	-4.3	30.0
Indene	Ave	0.6707	0.6063		1.81	2.00	-9.6	30.0
Undecane	Ave	0.8005	0.7522		1.88	2.00	-6.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.1890		1.57	2.00	-21.7	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.9067		1.62	2.00	-18.8	30.0
Dodecane	Ave	0.6023	0.5903		1.96	2.00	-2.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.3463		1.75	2.00	-12.3	30.0
Naphthalene	Ave	1.094	0.8993		1.64	2.00	-17.8	30.0
Hexachlorobutadiene	Ave	0.4216	0.3812		1.81	2.00	-9.6	30.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3457		1.63	2.00	-18.4	30.0
2-Methylnaphthalene	Ave	0.3649	0.4248		2.33	2.00	16.4	50.0
1-Methylnaphthalene	Ave	0.4700	0.5475		2.33	2.00	16.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.6310		4.10	4.00	2.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GCCVE17.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 17-May-2019 12:10:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-002
Misc. Info.: S90
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:25:24 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:25:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.183	0.000	98	330809	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2098918	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1721828	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	1086442	4.00	4.10	
6 Chlorodifluoromethane	51	3.818	3.818	0.000	96	399350	2.00	2.08	
7 Propene	41	3.834	3.834	0.000	98	207912	2.00	1.95	
8 Dichlorodifluoromethane	85	3.883	3.883	0.000	100	648338	2.00	2.10	
9 Chloromethane	52	4.077	4.077	0.000	98	71324	2.00	2.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	98	401127	2.00	2.06	
11 Acetaldehyde	44	4.249	4.249	0.000	97	331309	10.0	8.24	
12 Vinyl chloride	62	4.265	4.265	0.000	98	261817	2.00	2.06	
13 Butane	43	4.357	4.357	0.000	85	385205	2.00	2.11	
14 Butadiene	54	4.357	4.357	0.000	65	195392	2.00	2.04	
15 Bromomethane	94	4.702	4.702	0.000	99	220828	2.00	2.03	
16 Chloroethane	64	4.853	4.853	0.000	99	124741	2.00	2.04	
17 Ethanol	31	4.972	4.972	0.000	93	299381	10.0	7.49	
18 Vinyl bromide	106	5.171	5.171	0.000	98	228937	2.00	2.17	
19 2-Methylbutane	43	5.225	5.225	0.000	91	281800	2.00	2.15	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	100	633032	2.00	2.11	
21 Acrolein	56	5.473	5.473	0.000	92	39562	2.00	1.72	
22 Acetonitrile	40	5.549	5.549	0.000	99	62016	2.00	2.00	
23 Acetone	58	5.603	5.603	0.000	97	78217	2.00	1.85	
24 Pentane	72	5.689	5.689	0.000	98	46488	2.00	2.24	
25 Isopropyl alcohol	45	5.716	5.716	0.000	93	253015	2.00	2.40	
26 Ethyl ether	31	5.878	5.878	0.000	90	155752	2.00	1.96	
27 1,1-Dichloroethene	96	6.201	6.201	0.000	96	245203	2.00	2.04	
28 Acrylonitrile	53	6.315	6.315	0.000	96	134876	2.00	1.97	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.385	0.000	93	521881	2.00	2.05	
30 2-Methyl-2-propanol	59	6.363	6.363	0.000	94	326523	2.00	2.06	
31 Methylene Chloride	84	6.563	6.563	0.000	97	243266	2.00	1.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.579	6.579	0.000	97	213011	2.00	2.00	
33 Carbon disulfide	76	6.735	6.735	0.000	99	727100	2.00	2.08	
34 trans-1,2-Dichloroethene	96	7.398	7.398	0.000	97	247759	2.00	2.09	
35 2-Methylpentane	43	7.415	7.415	0.000	94	567496	2.00	1.94	
36 Methyl tert-butyl ether	73	7.539	7.539	0.000	96	528662	2.00	1.84	
37 1,1-Dichloroethane	63	7.835	7.835	0.000	100	477082	2.00	2.05	
38 Vinyl acetate	43	7.943	7.943	0.000	100	484948	2.00	1.96	
40 Hexane	56	8.423	8.423	0.000	90	227576	2.00	2.08	
39 2-Butanone (MEK)	72	8.407	8.407	0.000	96	83931	2.00	1.64	
41 Isopropyl ether	45	8.585	8.585	0.000	98	671359	2.00	1.89	
42 cis-1,2-Dichloroethene	96	8.844	8.844	0.000	96	254427	2.00	2.06	
43 Ethyl acetate	43	9.032	9.032	0.000	99	357565	2.00	1.65	
44 Chloroform	83	9.194	9.194	0.000	97	515836	2.00	2.08	
45 Tert-butyl ethyl ether	59	9.280	9.280	0.000	95	585549	2.00	1.73	
46 Tetrahydrofuran	42	9.609	9.609	0.000	95	218272	2.00	1.85	
47 1,1,1-Trichloroethane	97	10.235	10.235	0.000	96	542325	2.00	2.04	
48 1,2-Dichloroethane	62	10.348	10.348	0.000	98	345417	2.00	2.06	
49 Cyclohexane	69	10.828	10.828	0.000	75	135277	2.00	2.09	
50 Benzene	78	10.828	10.828	0.000	96	754404	2.00	2.05	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	529329	2.00	2.17	
51 n-Butanol	31	10.850	10.850	0.000	65	60511	2.00	2.11	
53 2,3-Dimethylpentane	71	10.936	10.936	0.000	91	190618	2.00	1.98	
54 Thiophene	84	11.098	11.098	0.000	95	420870	2.00	1.98	
55 Isooctane	57	11.567	11.567	0.000	99	1378493	2.00	2.07	
56 n-Heptane	71	11.933	11.933	0.000	90	292972	2.00	2.06	
57 1,2-Dichloropropane	63	12.025	12.025	0.000	90	268620	2.00	2.02	
58 Trichloroethene	130	12.063	12.063	0.000	96	332226	2.00	2.05	
59 Dibromomethane	93	12.149	12.149	0.000	91	282068	2.00	2.09	
60 Dichlorobromomethane	83	12.289	12.289	0.000	99	515566	2.00	2.13	
61 1,4-Dioxane	88	12.316	12.316	0.000	92	73866	2.00	1.63	
62 Methyl methacrylate	41	12.376	12.376	0.000	94	224740	2.00	1.76	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	619928	2.00	2.48	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.228	0.000	97	390147	2.00	1.72	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	417165	2.00	2.14	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	345879	2.00	2.11	
67 Toluene	91	14.080	14.080	0.000	94	761424	2.00	2.02	
68 1,1,2-Trichloroethane	83	14.155	14.155	0.000	98	229896	2.00	2.03	
69 2-Hexanone	58	14.543	14.543	0.000	94	202465	2.00	1.88	
70 n-Octane	85	14.743	14.743	0.000	93	306981	2.00	2.16	
71 Chlorodibromomethane	129	14.856	14.856	0.000	98	465614	2.00	2.25	
72 Ethylene Dibromide	107	15.142	15.142	0.000	99	416020	2.00	2.17	
73 Tetrachloroethene	129	15.212	15.212	0.000	93	294689	2.00	2.07	
75 Chlorobenzene	112	16.080	16.080	0.000	85	661008	2.00	2.14	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	815690	2.00	2.01	
78 Ethylbenzene	91	16.361	16.361	0.000	98	926708	2.00	1.98	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	1465990	4.00	4.07	
80 n-Nonane	57	16.916	16.916	0.000	92	597538	2.00	2.20	
81 Bromoform	173	16.975	16.975	0.000	92	365111	2.00	2.50	
82 Styrene	104	16.981	16.981	0.000	98	523120	2.00	2.26	
83 o-Xylene	91	17.040	17.040	0.000	99	756956	2.00	1.98	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.364	0.000	99	485120	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.520	17.520	0.000	98	148741	2.00	1.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1040510	2.00	1.96	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	271338	2.00	1.95	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	269502	2.00	2.01	
89 4-Ethyltoluene	105	18.291	18.291	0.000	99	913766	2.00	1.79	
90 1,3,5-Trimethylbenzene	120	18.361	18.361	0.000	93	447994	2.00	2.13	
92 Alpha Methyl Styrene	118	18.588	18.588	0.000	89	367538	2.00	2.12	
93 n-Decane	57	18.625	18.625	0.000	90	676155	2.00	2.04	
94 tert-Butylbenzene	119	18.776	18.776	0.000	94	880249	2.00	1.92	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	818608	2.00	1.91	
96 sec-Butylbenzene	105	19.035	19.035	0.000	99	1241375	2.00	1.90	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	99	531259	2.00	1.90	
98 Benzyl chloride	91	19.127	19.127	0.000	98	585631	2.00	2.02	
99 1,4-Dichlorobenzene	146	19.143	19.143	0.000	92	517266	2.00	1.82	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	955669	2.00	1.85	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	618884	2.00	1.42	
102 Butylcyclohexane	83	19.299	19.299	0.000	94	804113	2.00	1.90	
103 2,3-Dihydroindene	117	19.493	19.493	0.000	94	729490	2.00	1.86	
104 1,2-Dichlorobenzene	146	19.493	19.493	0.000	95	503281	2.00	1.87	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	916290	2.00	1.91	
106 Indene	116	19.623	19.623	0.000	96	521926	2.00	1.81	
107 Undecane	57	19.909	19.909	0.000	96	647568	2.00	1.88	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	94	162670	2.00	1.57	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	780559	2.00	1.62	
110 Dodecane	57	20.960	20.960	0.000	97	508191	2.00	1.96	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	94	298162	2.00	1.75	
112 Naphthalene	128	21.322	21.322	0.000	99	774210	2.00	1.64	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	91	328151	2.00	1.81	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	297652	2.00	1.63	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	365689	2.00	2.33	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	99	471336	2.00	2.33	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2693450	2.00	2.10	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.15	
S 124 Xylenes, Total	100				0		6.00	6.04	

Reagents:

40CV101S_00090	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

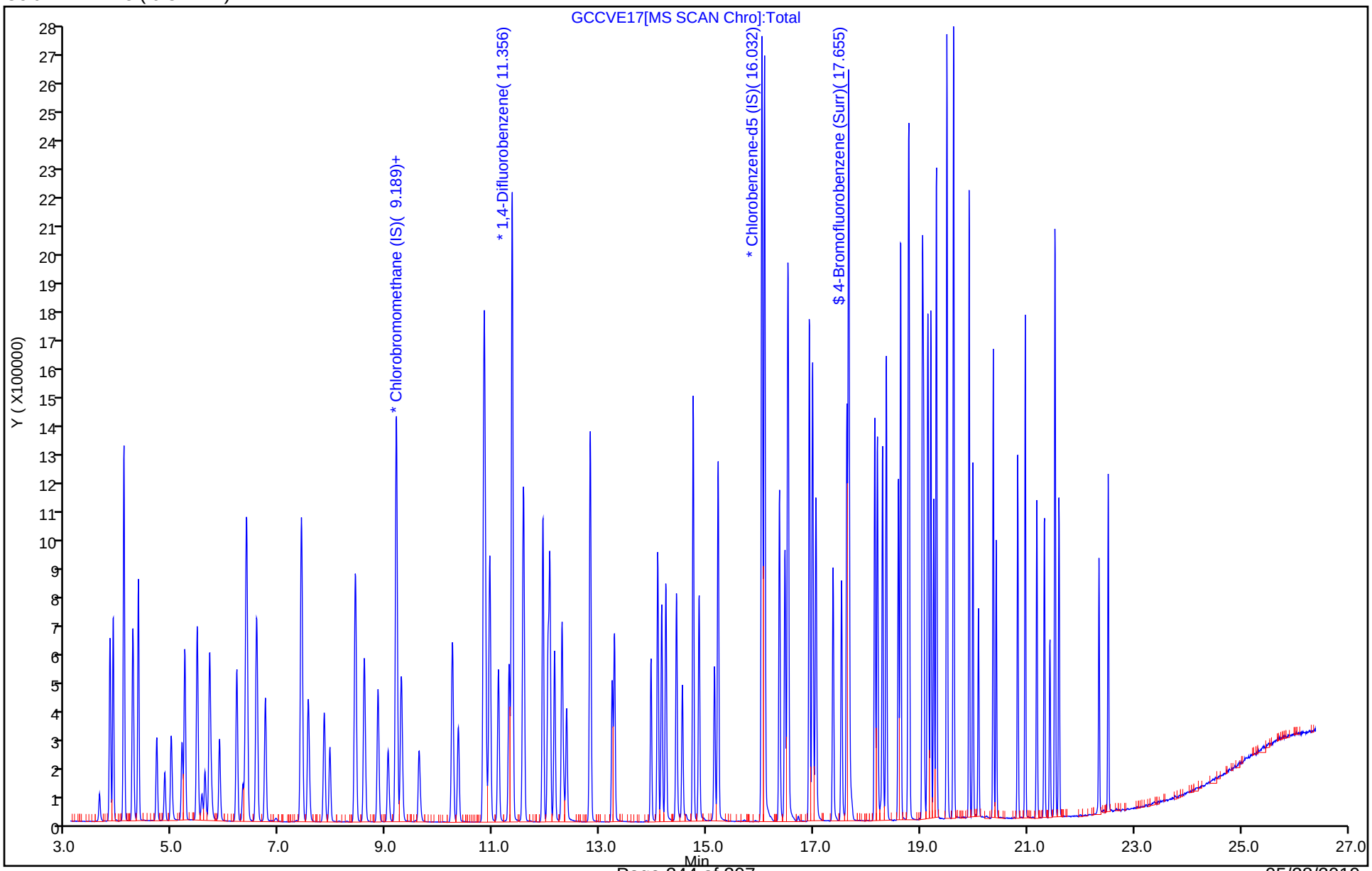
Report Date: 21-May-2019 12:25:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GCCVE17.D

Injection Date:	17-May-2019 12:10:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30151/2 Calibration Date: 05/20/2019 09:41

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.495		2.14	2.00	7.2	30.0
Propene	Ave	1.292	1.274		1.97	2.00	-1.3	30.0
Dichlorodifluoromethane	Ave	3.740	3.979		2.13	2.00	6.4	30.0
Chloromethane	Ave	0.4296	0.4428		2.06	2.00	3.1	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.566		2.18	2.00	8.8	30.0
Acetaldehyde	Ave	0.4863	0.4225		8.69	10.0	-13.1	30.0
Vinyl chloride	Ave	1.536	1.602		2.09	2.00	4.3	30.0
1,3-Butadiene	Ave	1.159	1.179		2.03	2.00	1.7	30.0
Butane	Ave	2.208	2.369		2.15	2.00	7.3	30.0
Bromomethane	Ave	1.314	1.339		2.04	2.00	1.9	30.0
Chloroethane	Ave	0.7408	0.7543		2.04	2.00	1.8	30.0
Ethanol	Ave	0.4835	0.3623		7.49	10.0	-25.1	30.0
Vinyl bromide	Ave	1.277	1.362		2.13	2.00	6.6	30.0
2-Methylbutane	Ave	1.585	1.675		2.11	2.00	5.7	30.0
Trichlorofluoromethane	Ave	3.627	3.792		2.09	2.00	4.5	30.0
Acrolein	Ave	0.2782	0.2412		1.73	2.00	-13.3	30.0
Acetonitrile	Ave	0.3750	0.3464		1.85	2.00	-7.6	30.0
Acetone	Ave	0.5114	0.4691		1.83	2.00	-8.3	30.0
Pentane	Ave	0.2515	0.2673		2.13	2.00	6.3	30.0
Isopropyl alcohol	Ave	1.273	1.530		2.40	2.00	20.2	30.0
Ethyl ether	Ave	0.9611	0.9705		2.02	2.00	1.0	30.0
1,1-Dichloroethene	Ave	1.451	1.428		1.97	2.00	-1.6	30.0
Acrylonitrile	Ave	0.8296	0.8192		1.97	2.00	-1.3	30.0
tert-Butyl alcohol	Ave	1.921	1.995		2.08	2.00	3.9	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	3.114		2.02	2.00	1.2	30.0
Methylene Chloride	Ave	1.605	1.426		1.78	2.00	-11.2	30.0
3-Chloropropene	Ave	1.287	1.306		2.03	2.00	1.5	30.0
Carbon disulfide	Ave	4.233	4.254		2.01	2.00	0.5	30.0
trans-1,2-Dichloroethene	Ave	1.432	1.485		2.07	2.00	3.7	30.0
2-Methylpentane	Ave	3.538	3.405		1.93	2.00	-3.7	30.0
Methyl tert-butyl ether	Ave	3.471	3.225		1.86	2.00	-7.1	30.0
1,1-Dichloroethane	Ave	2.819	2.877		2.04	2.00	2.0	30.0
Vinyl acetate	Ave	2.990	3.011		2.01	2.00	0.7	30.0
2-Butanone (MEK)	Ave	0.6179	0.5197		1.68	2.00	-15.9	30.0
Hexane	Ave	1.322	1.355		2.05	2.00	2.6	30.0
Isopropyl ether	Ave	4.291	4.135		1.93	2.00	-3.6	30.0
cis-1,2-Dichloroethene	Ave	1.491	1.540		2.07	2.00	3.3	30.0
Ethyl acetate	Ave	2.619	2.251		1.72	2.00	-14.1	30.0
Chloroform	Ave	2.997	3.099		2.07	2.00	3.4	30.0
Tert-butyl ethyl ether	Ave	4.092	3.621		1.77	2.00	-11.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30151/2 Calibration Date: 05/20/2019 09:41

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.329		1.86	2.00	-6.9	30.0
1,1,1-Trichloroethane	Ave	3.217	3.283		2.04	2.00	2.0	30.0
1,2-Dichloroethane	Ave	0.3199	0.3200		2.00	2.00	0.0	30.0
Benzene	Ave	0.7021	0.7040		2.01	2.00	0.3	30.0
Cyclohexane	Ave	0.1232	0.1224		1.99	2.00	-0.6	30.0
Carbon tetrachloride	Ave	0.4658	0.5046		2.17	2.00	8.3	30.0
1-Butanol	Ave	0.0547	0.0599		2.19	2.00	9.4	30.0
2,3-Dimethylpentane	Ave	0.1839	0.1807		1.97	2.00	-1.7	30.0
Thiophene	Ave	0.4060	0.3899		1.92	2.00	-4.0	30.0
2,2,4-Trimethylpentane	Ave	1.270	1.269		2.00	2.00	-0.0	30.0
Heptane	Ave	0.2716	0.2684		1.98	2.00	-1.2	30.0
1,2-Dichloropropane	Ave	0.2531	0.2537		2.00	2.00	0.2	30.0
Trichloroethene	Ave	0.3093	0.3038		1.96	2.00	-1.8	30.0
Dibromomethane	Ave	0.2572	0.2626		2.04	2.00	2.1	30.0
Bromodichloromethane	Ave	0.4606	0.4764		2.07	2.00	3.4	30.0
1,4-Dioxane	Ave	0.0865	0.0686		1.59	2.00	-20.7	30.0
Methyl methacrylate	Ave	0.2435	0.2171		1.78	2.00	-10.8	30.0
Methylcyclohexane	Ave	0.4773	0.5750		2.41	2.00	20.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3884		1.80	2.00	-10.2	30.0
cis-1,3-Dichloropropene	Ave	0.3720	0.3776		2.03	2.00	1.5	30.0
trans-1,3-Dichloropropene	Ave	0.3814	0.3977		2.09	2.00	4.3	30.0
Toluene	Ave	0.8742	0.8824		2.02	2.00	0.9	30.0
1,1,2-Trichloroethane	Ave	0.2626	0.2647		2.02	2.00	0.8	30.0
2-Hexanone	Ave	0.2504	0.2462		1.97	2.00	-1.7	30.0
Octane	Ave	0.3299	0.3483		2.11	2.00	5.6	30.0
Dibromochloromethane	Ave	0.4800	0.5323		2.22	2.00	10.9	30.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4765		2.14	2.00	7.2	30.0
Tetrachloroethene	Ave	0.3313	0.3382		2.04	2.00	2.1	30.0
2,3-Dimethylheptane	Ave	0.9448	0.9288		1.97	2.00	-1.7	30.0
Chlorobenzene	Ave	0.7172	0.7510		2.09	2.00	4.7	30.0
Ethylbenzene	Ave	1.087	1.073		1.97	2.00	-1.3	30.0
m-Xylene & p-Xylene	Ave	0.8375	0.8566		4.09	4.00	2.3	30.0
Nonane	Ave	0.6318	0.6782		2.15	2.00	7.3	30.0
Bromoform	Ave	0.3394	0.4303		2.54	2.00	26.8	30.0
Styrene	Ave	0.5382	0.6166		2.29	2.00	14.6	30.0
o-Xylene	Ave	0.8888	0.8903		2.00	2.00	0.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5870		2.03	2.00	1.5	30.0
1,2,3-Trichloropropane	Ave	0.1851	0.1769		1.91	2.00	-4.4	30.0
Isopropylbenzene	Ave	1.236	1.236		2.00	2.00	-0.0	30.0
Propylbenzene	Ave	0.3233	0.3304		2.04	2.00	2.2	30.0
2-Chlorotoluene	Ave	0.3121	0.3154		2.02	2.00	1.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Lab Sample ID: CCVIS 140-30151/2 Calibration Date: 05/20/2019 09:41

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVE20.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.116		1.88	2.00	-5.9	30.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.5494		2.24	2.00	12.2	30.0
Alpha Methyl Styrene	Ave	0.4029	0.4469		2.22	2.00	10.9	30.0
Decane	Ave	0.7713	0.8090		2.10	2.00	4.9	30.0
tert-Butylbenzene	Ave	1.065	1.061		1.99	2.00	-0.5	30.0
1,2,4-Trimethylbenzene	Ave	0.996	0.9876		1.98	2.00	-0.9	30.0
sec-Butylbenzene	Ave	1.518	1.502		1.98	2.00	-1.1	30.0
1,3-Dichlorobenzene	Ave	0.6493	0.6400		1.97	2.00	-1.4	30.0
Benzyl chloride	Ave	0.6747	0.7212		2.14	2.00	6.9	30.0
1,4-Dichlorobenzene	Ave	0.6587	0.6316		1.92	2.00	-4.1	30.0
4-Isopropyltoluene	Ave	1.197	1.167		1.95	2.00	-2.5	30.0
1,2,3-Trimethylbenzene	Ave	1.014	0.7500		1.48	2.00	-26.0	30.0
Butylcyclohexane	Ave	0.9816	0.9462		1.93	2.00	-3.6	30.0
1,2-Dichlorobenzene	Ave	0.6242	0.6093		1.95	2.00	-2.4	30.0
Indane	Ave	0.9088	0.8851		1.95	2.00	-2.6	30.0
Butylbenzene	Ave	1.112	1.128		2.03	2.00	1.4	30.0
Indene	Ave	0.6707	0.6331		1.89	2.00	-5.6	30.0
Undecane	Ave	0.8005	0.7834		1.96	2.00	-2.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.2006		1.66	2.00	-16.8	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.9698		1.74	2.00	-13.1	30.0
Dodecane	Ave	0.6023	0.6243		2.07	2.00	3.7	30.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.3756		1.90	2.00	-4.9	30.0
Naphthalene	Ave	1.094	0.9691		1.77	2.00	-11.4	30.0
Hexachlorobutadiene	Ave	0.4216	0.4104		1.95	2.00	-2.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3753		1.77	2.00	-11.4	30.0
2-Methylnaphthalene	Ave	0.3649	0.4557		2.50	2.00	24.9	50.0
1-Methylnaphthalene	Ave	0.4700	0.5783		2.46	2.00	23.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.6007		3.90	4.00	-2.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GCCVE20.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-May-2019 09:41:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011779-002
Misc. Info.: S90
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:43:40 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:43:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.189	0.000	98	333407	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2160587	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1754642	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	1054054	4.00	3.90	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	415904	2.00	2.14	
7 Propene	41	3.834	3.834	0.000	99	212415	2.00	1.97	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	663335	2.00	2.13	
9 Chloromethane	52	4.088	4.088	0.000	98	73808	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.093	0.000	92	427775	2.00	2.18	
11 Acetaldehyde	44	4.255	4.255	0.000	98	352184	10.0	8.69	
12 Vinyl chloride	62	4.265	4.265	0.000	98	267020	2.00	2.09	
13 Butane	43	4.363	4.363	0.000	86	394981	2.00	2.15	
14 Butadiene	54	4.363	4.363	0.000	65	196513	2.00	2.03	
15 Bromomethane	94	4.708	4.708	0.000	99	223180	2.00	2.04	
16 Chloroethane	64	4.859	4.859	0.000	99	125751	2.00	2.04	
17 Ethanol	31	4.977	4.977	0.000	94	301966	10.0	7.49	
18 Vinyl bromide	106	5.177	5.177	0.000	98	227014	2.00	2.13	
19 2-Methylbutane	43	5.231	5.231	0.000	91	279268	2.00	2.11	
20 Trichlorofluoromethane	101	5.463	5.463	0.000	99	632129	2.00	2.09	
21 Acrolein	56	5.479	5.479	0.000	92	40204	2.00	1.73	
22 Acetonitrile	40	5.554	5.554	0.000	100	57744	2.00	1.85	
23 Acetone	58	5.608	5.608	0.000	98	78207	2.00	1.83	
24 Pentane	72	5.694	5.694	0.000	98	44555	2.00	2.13	
25 Isopropyl alcohol	45	5.721	5.721	0.000	93	255079	2.00	2.40	
26 Ethyl ether	31	5.883	5.883	0.000	94	161789	2.00	2.02	
27 1,1-Dichloroethene	96	6.207	6.207	0.000	96	238069	2.00	1.97	
28 Acrylonitrile	53	6.320	6.320	0.000	96	136570	2.00	1.97	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.390	0.000	95	519133	2.00	2.02	
30 2-Methyl-2-propanol	59	6.368	6.368	0.000	95	332566	2.00	2.08	
31 Methylene Chloride	84	6.568	6.568	0.000	98	237663	2.00	1.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.584	0.000	96	217668	2.00	2.03	
33 Carbon disulfide	76	6.735	6.735	0.000	99	709223	2.00	2.01	
34 trans-1,2-Dichloroethene	96	7.409	7.409	0.000	97	247609	2.00	2.07	
35 2-Methylpentane	43	7.420	7.420	0.000	95	567698	2.00	1.93	
36 Methyl tert-butyl ether	73	7.544	7.544	0.000	97	537580	2.00	1.86	
37 1,1-Dichloroethane	63	7.841	7.841	0.000	100	479527	2.00	2.04	
38 Vinyl acetate	43	7.943	7.943	0.000	100	501911	2.00	2.01	
40 Hexane	56	8.428	8.428	0.000	90	225958	2.00	2.05	
39 2-Butanone (MEK)	72	8.407	8.407	0.000	96	86630	2.00	1.68	
41 Isopropyl ether	45	8.590	8.590	0.000	97	689242	2.00	1.93	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	256740	2.00	2.07	
43 Ethyl acetate	43	9.032	9.032	0.000	99	375177	2.00	1.72	
44 Chloroform	83	9.194	9.194	0.000	97	516680	2.00	2.07	
45 Tert-butyl ethyl ether	59	9.286	9.286	0.000	95	603605	2.00	1.77	
46 Tetrahydrofuran	42	9.615	9.615	0.000	95	221490	2.00	1.86	
47 1,1,1-Trichloroethane	97	10.240	10.240	0.000	96	547250	2.00	2.04	
48 1,2-Dichloroethane	62	10.348	10.348	0.000	98	345661	2.00	2.00	
49 Cyclohexane	69	10.828	10.828	0.000	77	132258	2.00	1.99	
50 Benzene	78	10.828	10.828	0.000	96	760570	2.00	2.01	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	545157	2.00	2.17	
51 n-Butanol	31	10.855	10.855	0.000	65	64686	2.00	2.19	
53 2,3-Dimethylpentane	71	10.936	10.936	0.000	92	195253	2.00	1.97	
54 Thiophene	84	11.098	11.098	0.000	96	421243	2.00	1.92	
55 Isooctane	57	11.567	11.567	0.000	99	1370861	2.00	2.00	
56 n-Heptane	71	11.933	11.933	0.000	91	289930	2.00	1.98	
57 1,2-Dichloropropane	63	12.025	12.025	0.000	89	274071	2.00	2.00	
58 Trichloroethene	130	12.063	12.063	0.000	96	328201	2.00	1.96	
59 Dibromomethane	93	12.149	12.149	0.000	91	283649	2.00	2.04	
60 Dichlorobromomethane	83	12.289	12.289	0.000	99	514687	2.00	2.07	
61 1,4-Dioxane	88	12.322	12.322	0.000	93	74140	2.00	1.59	
62 Methyl methacrylate	41	12.376	12.376	0.000	94	234511	2.00	1.78	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	621217	2.00	2.41	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.228	0.000	97	419532	2.00	1.80	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	407863	2.00	2.03	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	348892	2.00	2.09	
67 Toluene	91	14.080	14.080	0.000	94	774151	2.00	2.02	
68 1,1,2-Trichloroethane	83	14.155	14.155	0.000	98	232220	2.00	2.02	
69 2-Hexanone	58	14.543	14.543	0.000	94	215956	2.00	1.97	
70 n-Octane	85	14.743	14.743	0.000	93	305581	2.00	2.11	
71 Chlorodibromomethane	129	14.856	14.856	0.000	97	466999	2.00	2.22	
72 Ethylene Dibromide	107	15.142	15.142	0.000	99	418079	2.00	2.14	
73 Tetrachloroethene	129	15.212	15.212	0.000	94	296666	2.00	2.04	
75 Chlorobenzene	112	16.080	16.080	0.000	91	658840	2.00	2.09	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	814862	2.00	1.97	
78 Ethylbenzene	91	16.361	16.361	0.000	98	941026	2.00	1.97	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	1503052	4.00	4.09	
80 n-Nonane	57	16.916	16.916	0.000	92	595016	2.00	2.15	
81 Bromoform	173	16.975	16.975	0.000	92	377542	2.00	2.54	
82 Styrene	104	16.981	16.981	0.000	98	540975	2.00	2.29	
83 o-Xylene	91	17.040	17.040	0.000	99	781034	2.00	2.00	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.364	0.000	99	514995	2.00	2.03	
85 1,2,3-Trichloropropane	110	17.520	17.520	0.000	98	155175	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.617	17.617	0.000	96	1084166	2.00	2.00	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	289896	2.00	2.04	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	276661	2.00	2.02	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	979453	2.00	1.88	
90 1,3,5-Trimethylbenzene	120	18.361	18.361	0.000	93	481995	2.00	2.24	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	89	392093	2.00	2.22	
93 n-Decane	57	18.625	18.625	0.000	90	709780	2.00	2.10	
94 tert-Butylbenzene	119	18.771	18.771	0.000	93	930408	2.00	1.99	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	866450	2.00	1.98	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1318099	2.00	1.98	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	99	561486	2.00	1.97	
98 Benzyl chloride	91	19.127	19.127	0.000	98	632758	2.00	2.14	
99 1,4-Dichlorobenzene	146	19.143	19.143	0.000	93	554085	2.00	1.92	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	1023895	2.00	1.95	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	657956	2.00	1.48	
102 Butylcyclohexane	83	19.294	19.294	0.000	94	830085	2.00	1.93	
103 2,3-Dihydroindene	117	19.494	19.494	0.000	95	776492	2.00	1.95	
104 1,2-Dichlorobenzene	146	19.494	19.494	0.000	94	534513	2.00	1.95	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	989214	2.00	2.03	
106 Indene	116	19.623	19.623	0.000	95	555441	2.00	1.89	
107 Undecane	57	19.909	19.909	0.000	96	687262	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	93	176028	2.00	1.66	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	850850	2.00	1.74	
110 Dodecane	57	20.960	20.960	0.000	97	547748	2.00	2.07	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	94	329559	2.00	1.90	
112 Naphthalene	128	21.316	21.316	0.000	99	850217	2.00	1.77	
113 Hexachlorobutadiene	225	21.516	21.516	0.000	91	360044	2.00	1.95	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	95	329275	2.00	1.77	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	399828	2.00	2.50	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	99	507336	2.00	2.46	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2678933	2.00	2.05	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.14	
S 124 Xylenes, Total	100				0		6.00	6.09	

Reagents:

40CV101S_00090	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

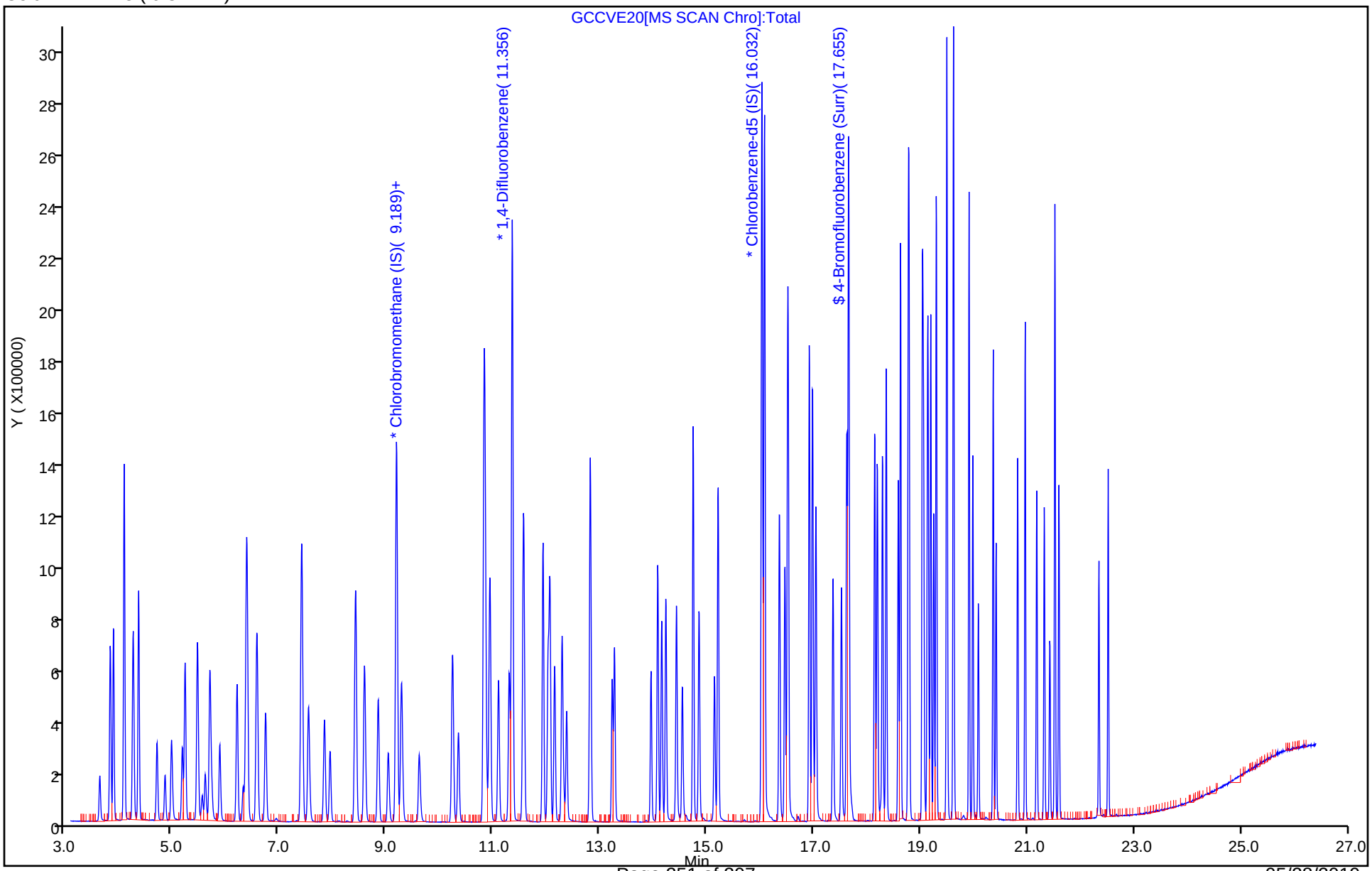
Report Date: 21-May-2019 13:43:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GCCVE20.D

Injection Date:	20-May-2019 09:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	16-May-2019 18:49:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011730-001				
Misc. Info.:	TUNE				
Operator ID:	403648	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	20-May-2019 14:50:55	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0340				
First Level Reviewer: barlozhetskayaa		Date:	16-May-2019 19:29:18		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.273	5.273	0.000	0	665184	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

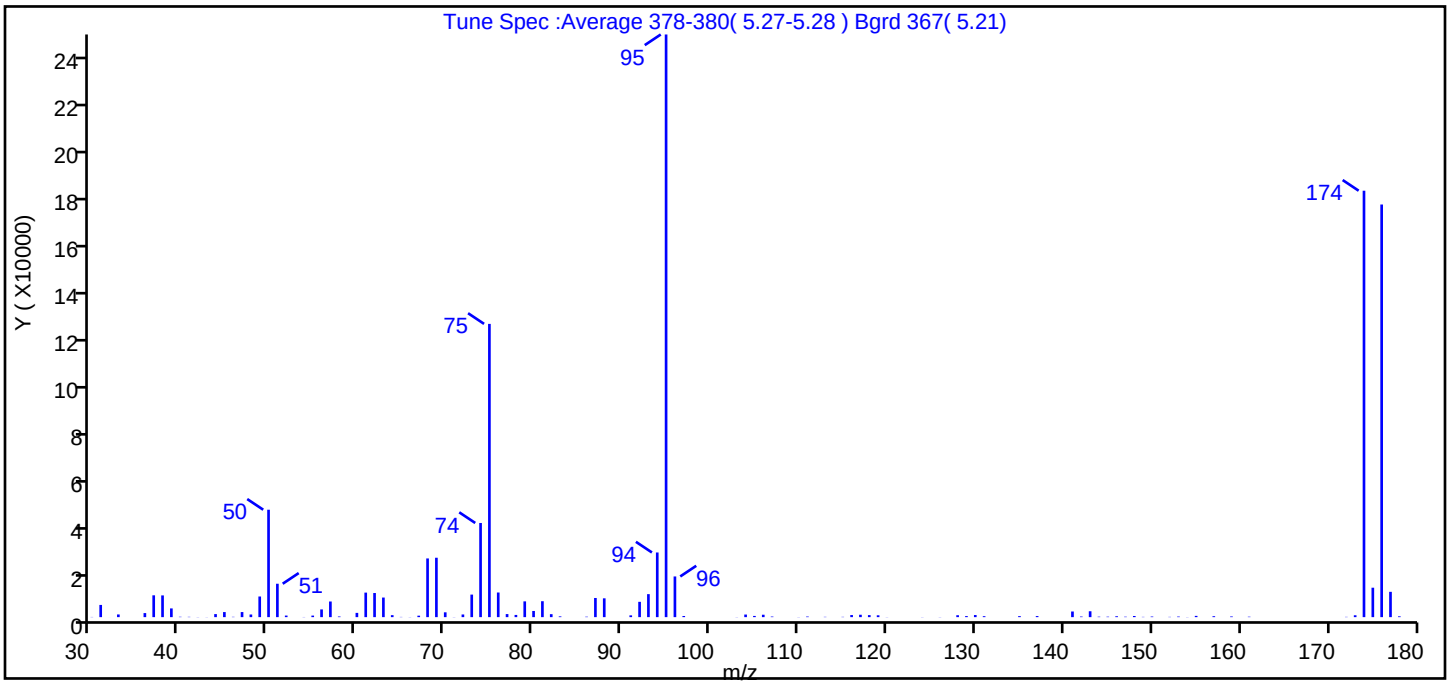
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D
Injection Date: 16-May-2019 18:49:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.4
75	30 to 60% of m/z 95	50.3
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	73.2
175	5 to 9% of m/z 174	5.1 (6.9)
176	Greater than 95% but less than 101% of m/z 174	70.8 (96.8)
177	5 to 9% of m/z 176	4.3 (6.1)

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D\MG_TO15.rslt\spectra.d
Injection Date: 16-May-2019 18:49:30
Spectrum: Tune Spec :Average 378-380(5.27-5.28) Bgrd 367(5.21)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	78	61.00	10361	92.00	6469	137.00	457
31.00	5158	62.00	10189	93.00	9714	141.00	2386
32.00	11	63.00	8276	94.00	27312	142.00	252
33.00	1135	64.00	838	95.00	246080	143.00	2486
36.00	1715	65.00	93	96.00	17184	144.00	198
37.00	9217	66.00	58	97.00	473	145.00	194
38.00	9180	67.00	617	103.00	56	146.00	378
39.00	3687	68.00	24792	104.00	1098	147.00	186
40.00	155	69.00	25088	105.00	508	148.00	481
41.00	130	70.00	2039	106.00	1022	149.00	113
42.00	55	71.00	57	107.00	248	150.00	253
43.00	45	72.00	1129	110.00	55	152.00	115
44.00	1289	73.00	9523	111.00	251	153.00	246
45.00	2142	74.00	39768	113.00	127	154.00	57
46.00	133	75.00	123856	115.00	123	155.00	534
47.00	2144	76.00	10406	116.00	886	157.00	389
48.00	1117	77.00	1294	117.00	1012	159.00	285
49.00	8719	78.00	932	118.00	855	161.00	186
50.00	45368	79.00	6661	119.00	781	172.00	116
51.00	14109	80.00	2604	120.00	51	173.00	790
52.00	668	81.00	6726	124.00	53	174.00	180096
54.00	67	82.00	1256	126.00	59	175.00	12431
55.00	653	83.00	315	128.00	812	176.00	174272
56.00	3263	86.00	187	129.00	447	177.00	10691
57.00	6608	87.00	8091	130.00	885	178.00	337
58.00	276	88.00	7948	131.00	394		
60.00	1798	91.00	749	135.00	424		

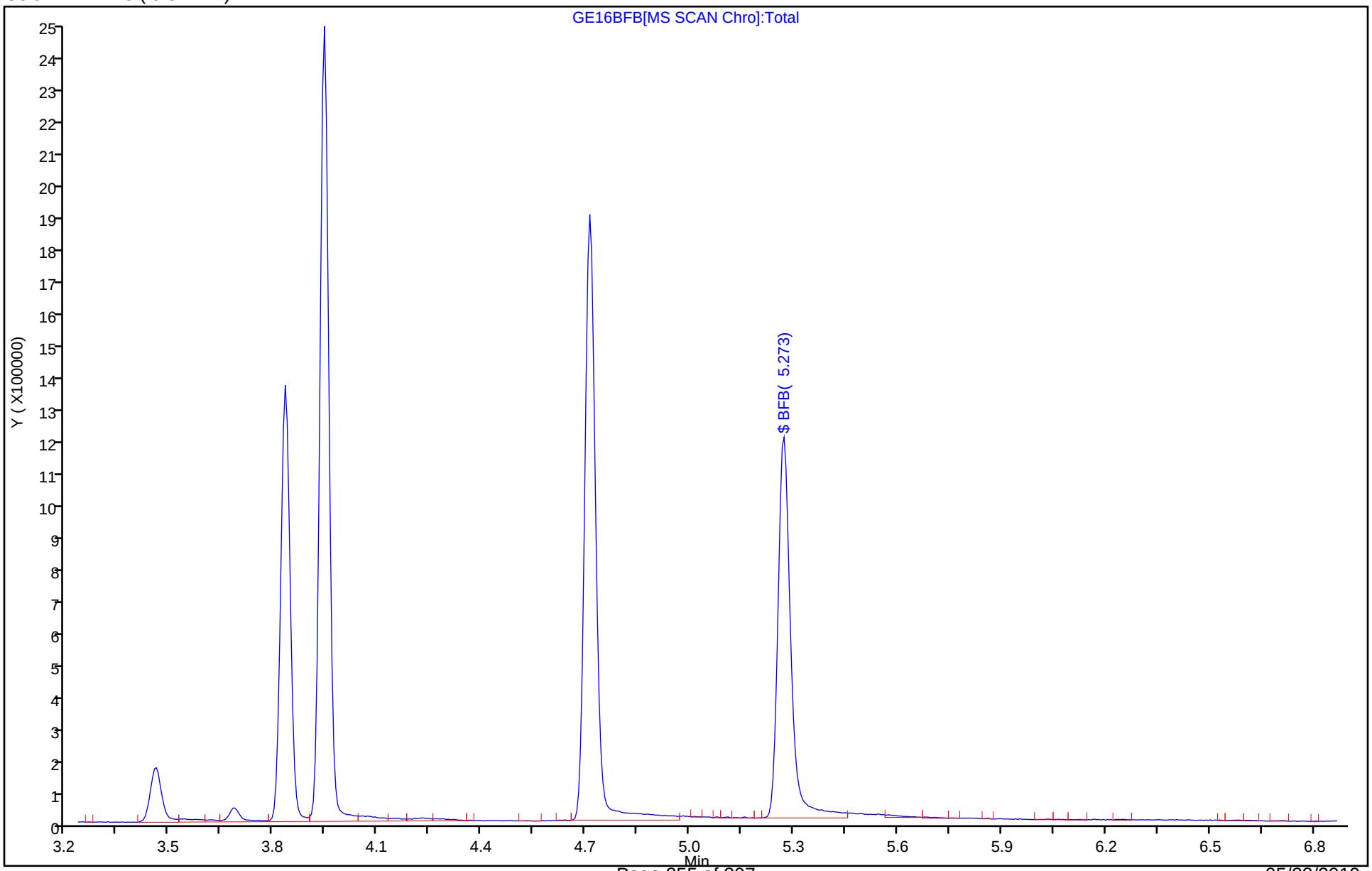
Report Date: 20-May-2019 14:50:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D

Injection Date:	16-May-2019 18:49:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GBFBE17.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	17-May-2019 11:35:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:23:35	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				
First Level Reviewer: khachitpongpanits		Date:	21-May-2019 12:23:35		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.273	5.273	0.000	0	779975	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

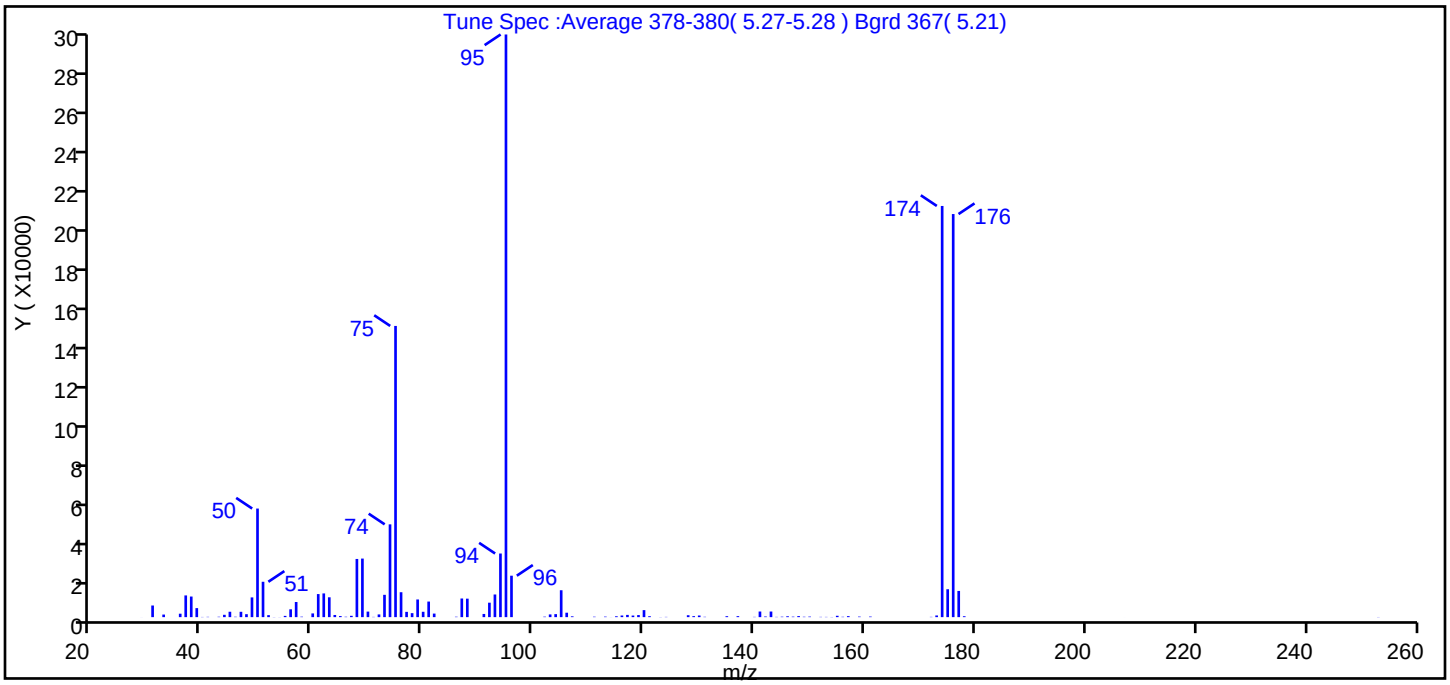
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GBFBE17.D
Injection Date: 17-May-2019 11:35:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.6
75	30 to 60% of m/z 95	50.0
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	70.6
175	5 to 9% of m/z 174	4.8 (6.8)
176	Greater than 95% but less than 101% of m/z 174	69.2 (98.0)
177	5 to 9% of m/z 176	4.5 (6.5)

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GBFBE17.D\MG_TO15.rslt\spectra.d
Injection Date: 17-May-2019 11:35:30
Spectrum: Tune Spec :Average 378-380(5.27-5.28) Bgrd 367(5.21)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	16	63.00	9892	96.00	20648	143.00	2797
31.00	5799	64.00	1078	102.00	236	144.00	124
33.00	1289	65.00	531	103.00	1353	145.00	225
36.00	1716	66.00	196	104.00	1498	146.00	433
37.00	10819	67.00	663	105.00	13404	147.00	242
38.00	10267	68.00	28992	106.00	2206	148.00	523
39.00	4496	69.00	29184	107.00	400	149.00	194
40.00	98	70.00	2763	111.00	216	150.00	271
41.00	148	71.00	120	113.00	255	152.00	130
43.00	194	72.00	1349	114.00	25	153.00	120
44.00	1166	73.00	11119	115.00	435	154.00	75
45.00	2690	74.00	46232	116.00	815	155.00	679
46.00	194	75.00	145088	117.00	1118	156.00	175
47.00	2665	76.00	12416	118.00	794	157.00	496
48.00	1477	77.00	2634	119.00	1031	159.00	273
49.00	9831	78.00	1986	120.00	3494	161.00	281
50.00	54104	79.00	8807	121.00	453	172.00	134
51.00	17624	80.00	2674	123.00	61	173.00	836
52.00	996	81.00	7766	124.00	124	174.00	204864
53.00	62	82.00	1772	128.00	953	175.00	13903
54.00	45	86.00	206	129.00	499	176.00	200832
55.00	628	87.00	9292	130.00	817	177.00	13061
56.00	3905	88.00	9208	131.00	166	178.00	443
57.00	7543	91.00	1589	135.00	475	207.00	6
58.00	226	92.00	7201	137.00	493	253.00	76
60.00	1857	93.00	11290	140.00	132		
61.00	11491	94.00	31704	141.00	2801		
62.00	11819	95.00	290304	142.00	313		

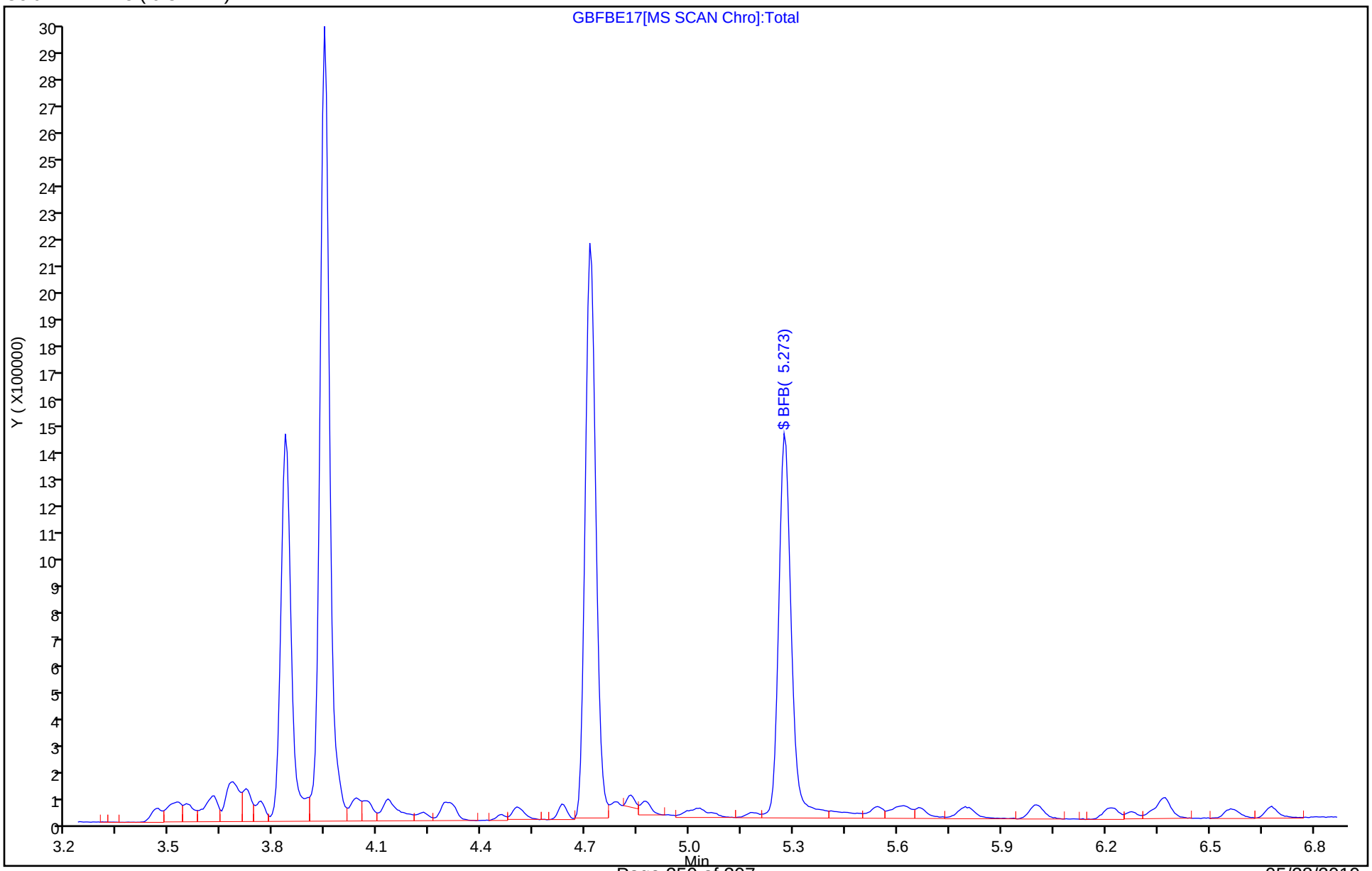
Report Date: 21-May-2019 12:23:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GBFBE17.D

Injection Date:	17-May-2019 11:35:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GBFBE20.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-May-2019 09:09:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:29:44 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:29:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.262	5.262	0.000	0	776579	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

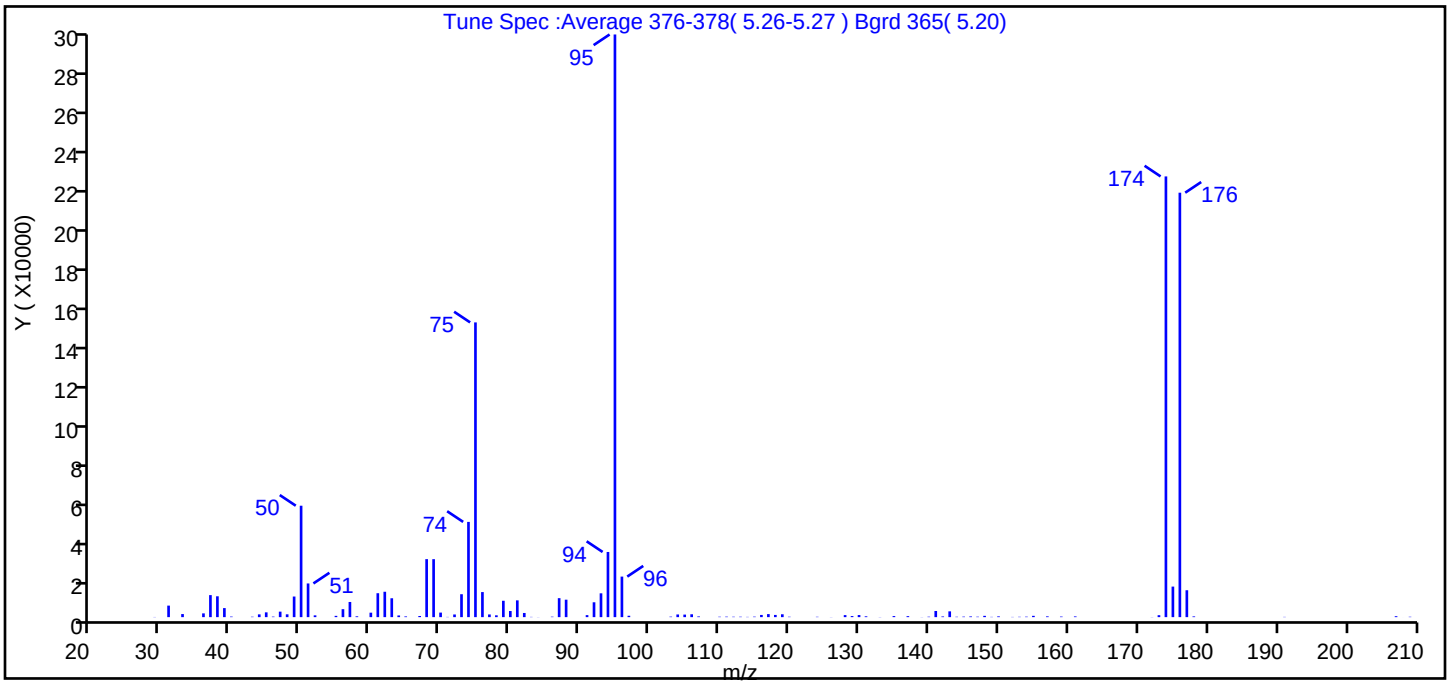
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GBFBE20.D
Injection Date: 20-May-2019 09:09:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.1
75	30 to 60% of m/z 95	50.6
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	75.6
175	5 to 9% of m/z 174	5.2 (6.9)
176	Greater than 95% but less than 101% of m/z 174	72.8 (96.3)
177	5 to 9% of m/z 176	4.6 (6.3)

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GBFBE20.D\MG_TO15.rslt\spectra.d
Injection Date: 20-May-2019 09:09:30
Spectrum: Tune Spec :Average 376-378(5.26-5.27) Bgrd 365(5.20)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	87	67.00	580	103.00	252	142.00	342
31.00	5848	68.00	29424	104.00	1357	143.00	2937
33.00	1567	69.00	29408	105.00	1294	144.00	195
36.00	1913	70.00	2306	106.00	1457	145.00	259
37.00	11174	71.00	114	107.00	350	146.00	364
38.00	10581	72.00	1356	110.00	214	147.00	225
39.00	4593	73.00	11630	111.00	252	148.00	660
40.00	281	74.00	48312	112.00	208	149.00	133
43.00	208	75.00	149504	113.00	215	150.00	384
44.00	1406	76.00	12713	114.00	127	152.00	110
45.00	2434	77.00	1371	115.00	251	153.00	178
46.00	264	78.00	930	116.00	1116	154.00	243
47.00	2788	79.00	8308	117.00	1542	155.00	662
48.00	1431	80.00	3100	118.00	1121	157.00	396
49.00	10458	81.00	8517	119.00	1456	159.00	288
50.00	56520	82.00	2113	120.00	204	161.00	365
51.00	17088	83.00	126	124.00	182	172.00	60
52.00	904	84.00	50	126.00	56	173.00	987
55.00	655	86.00	233	128.00	1028	174.00	223552
56.00	4041	87.00	9624	129.00	542	175.00	15498
57.00	7695	88.00	8854	130.00	1057	176.00	215296
58.00	420	91.00	1023	131.00	424	177.00	13650
60.00	2265	92.00	7538	133.00	75	178.00	373
61.00	12136	93.00	12087	135.00	539	191.00	128
62.00	12877	94.00	33056	137.00	498	207.00	471
63.00	9578	95.00	295552	139.00	54	208.00	7
64.00	853	96.00	20568	140.00	222	209.00	193
65.00	365	97.00	705	141.00	3121		

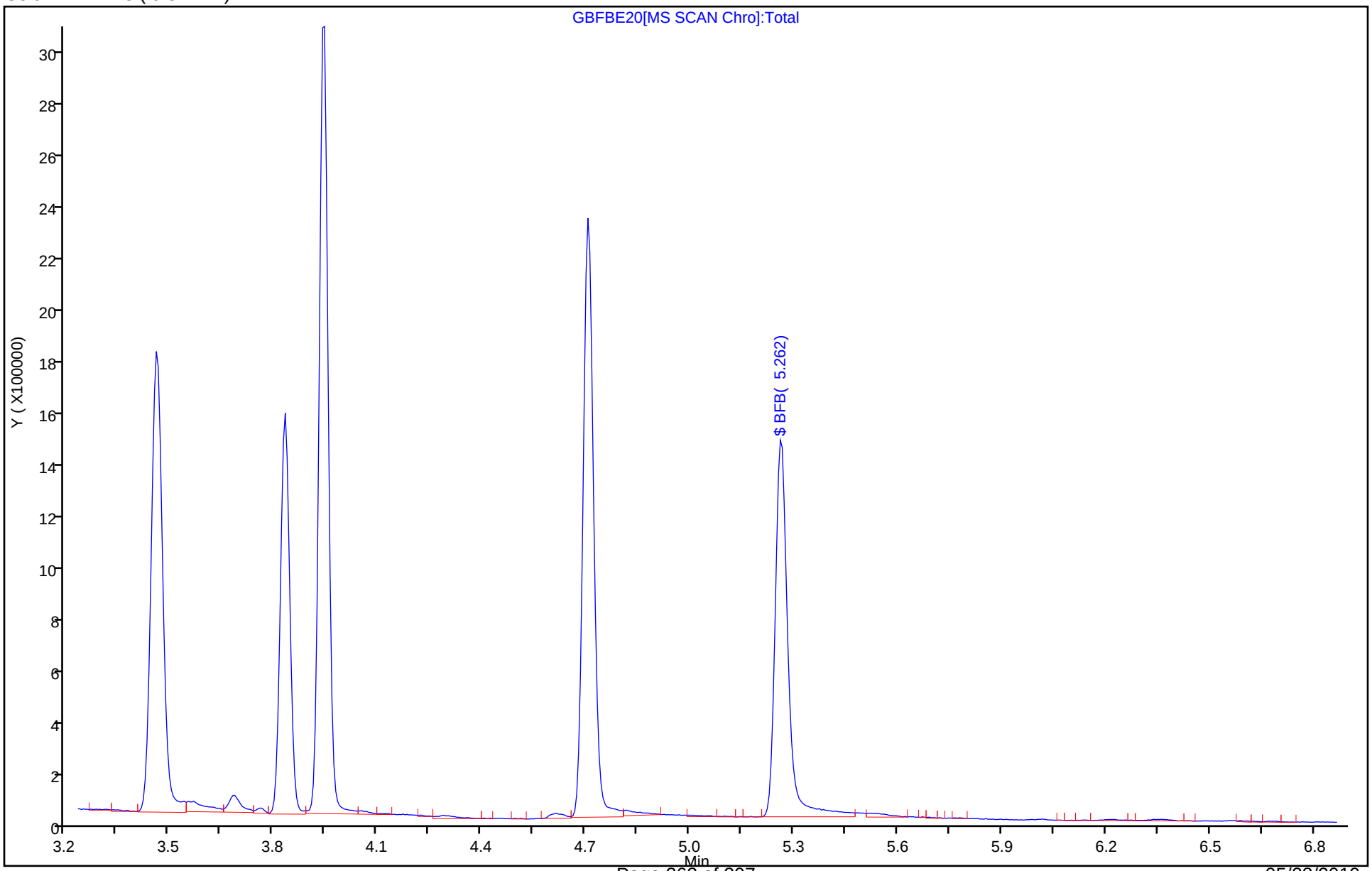
Report Date: 21-May-2019 13:29:44 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GBFBE20.D

Injection Date:	20-May-2019 09:09:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30123/4

Matrix: Air Lab File ID: G500BE17.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/17/2019 15:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.015
67-66-3	Chloroform	119.38	ND		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.014
100-41-4	Ethylbenzene	106.17	ND		0.080	0.027
75-09-2	Methylene Chloride	84.93	ND		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.068
91-20-3	Naphthalene	128.17	ND		0.040	0.040
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.016
108-88-3	Toluene	92.14	ND		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
79-01-6	Trichloroethene	131.39	ND		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30123/4

Matrix: Air Lab File ID: G500BE17.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/17/2019 15:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.073
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.094
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.053
67-66-3	Chloroform	119.38	ND		0.39	0.073
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.095
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.13
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.077
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.056
100-41-4	Ethylbenzene	106.17	ND		0.35	0.12
75-09-2	Methylene Chloride	84.93	ND		1.4	0.45
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.25
91-20-3	Naphthalene	128.17	ND		0.21	0.21
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.11
108-88-3	Toluene	92.14	ND		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
79-01-6	Trichloroethene	131.39	ND		0.21	0.075
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.12
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\G500BE17.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 15:30:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:26:27 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.178	9.183	-0.005	96	327525	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.356	-0.005	95	2006600	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1753531	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	1018706	4.00	3.77	
59 Dibromomethane	93	12.155	12.149	0.006	88	1329		0.0103	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

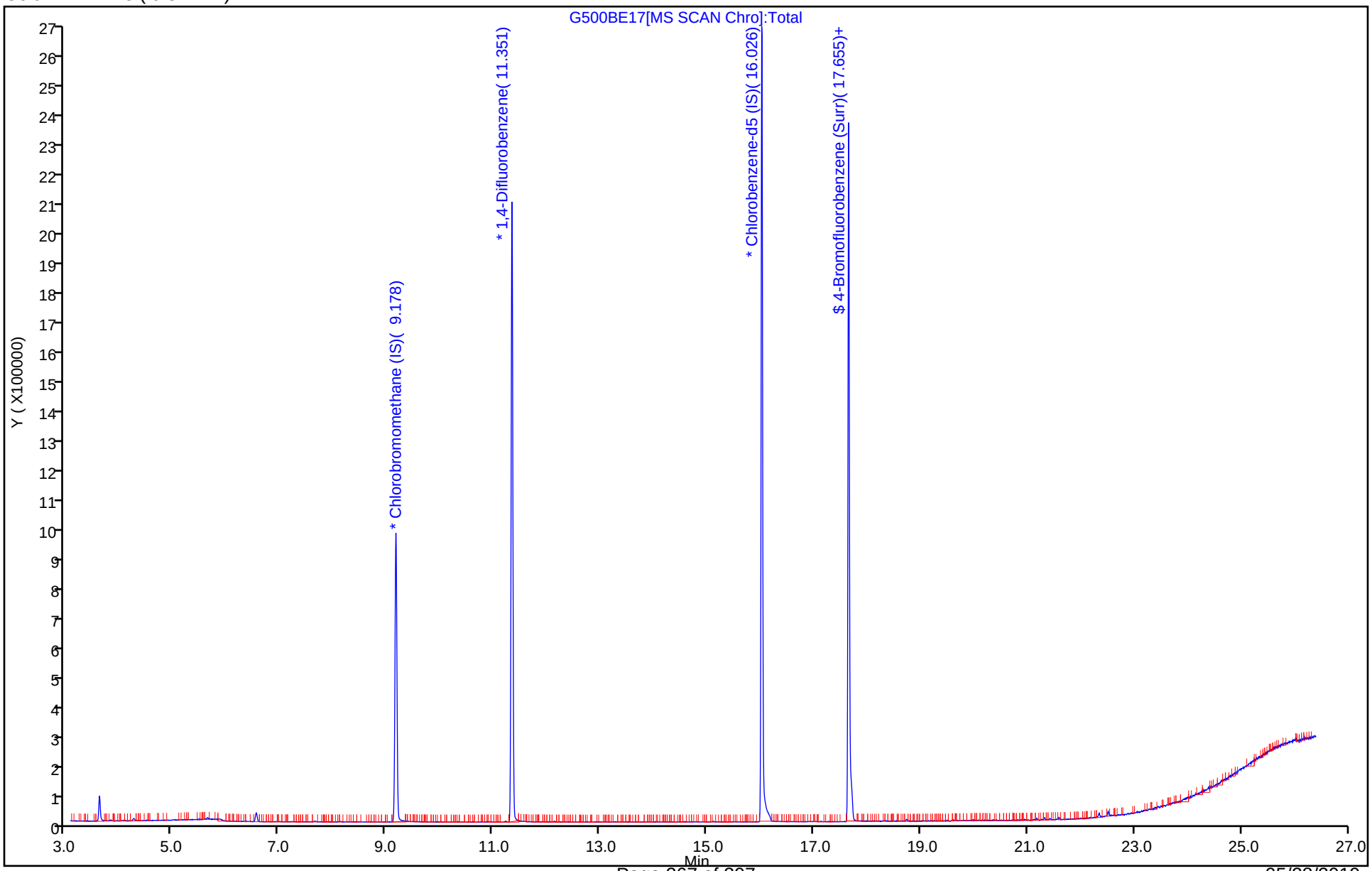
Report Date: 21-May-2019 12:26:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\G500BE17.D

Injection Date:	17-May-2019 15:30:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\G500BE17.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	17-May-2019 15:30:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:26:27	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:26:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.77	94.31

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30151/4

Matrix: Air Lab File ID: G500BE20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/20/2019 11:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.015
67-66-3	Chloroform	119.38	ND		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.014
100-41-4	Ethylbenzene	106.17	ND		0.080	0.027
75-09-2	Methylene Chloride	84.93	ND		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.068
91-20-3	Naphthalene	128.17	ND		0.040	0.040
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.016
108-88-3	Toluene	92.14	ND		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
79-01-6	Trichloroethene	131.39	ND		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30151/4

Matrix: Air Lab File ID: G500BE20.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/20/2019 11:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.073
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.094
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.053
67-66-3	Chloroform	119.38	ND		0.39	0.073
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.095
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.13
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.077
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.056
100-41-4	Ethylbenzene	106.17	ND		0.35	0.12
75-09-2	Methylene Chloride	84.93	ND		1.4	0.45
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.25
91-20-3	Naphthalene	128.17	ND		0.21	0.21
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.11
108-88-3	Toluene	92.14	ND		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
79-01-6	Trichloroethene	131.39	ND		0.21	0.075
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.17
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.12
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\G500BE20.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-May-2019 11:06:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011779-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:44:28 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:44:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.189	-0.006	96	317151	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.356	0.001	95	2026093	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	89	1736678	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	973008	4.00	3.64	
59 Dibromomethane	93	12.144	12.149	-0.005	87	1281		0.009834	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

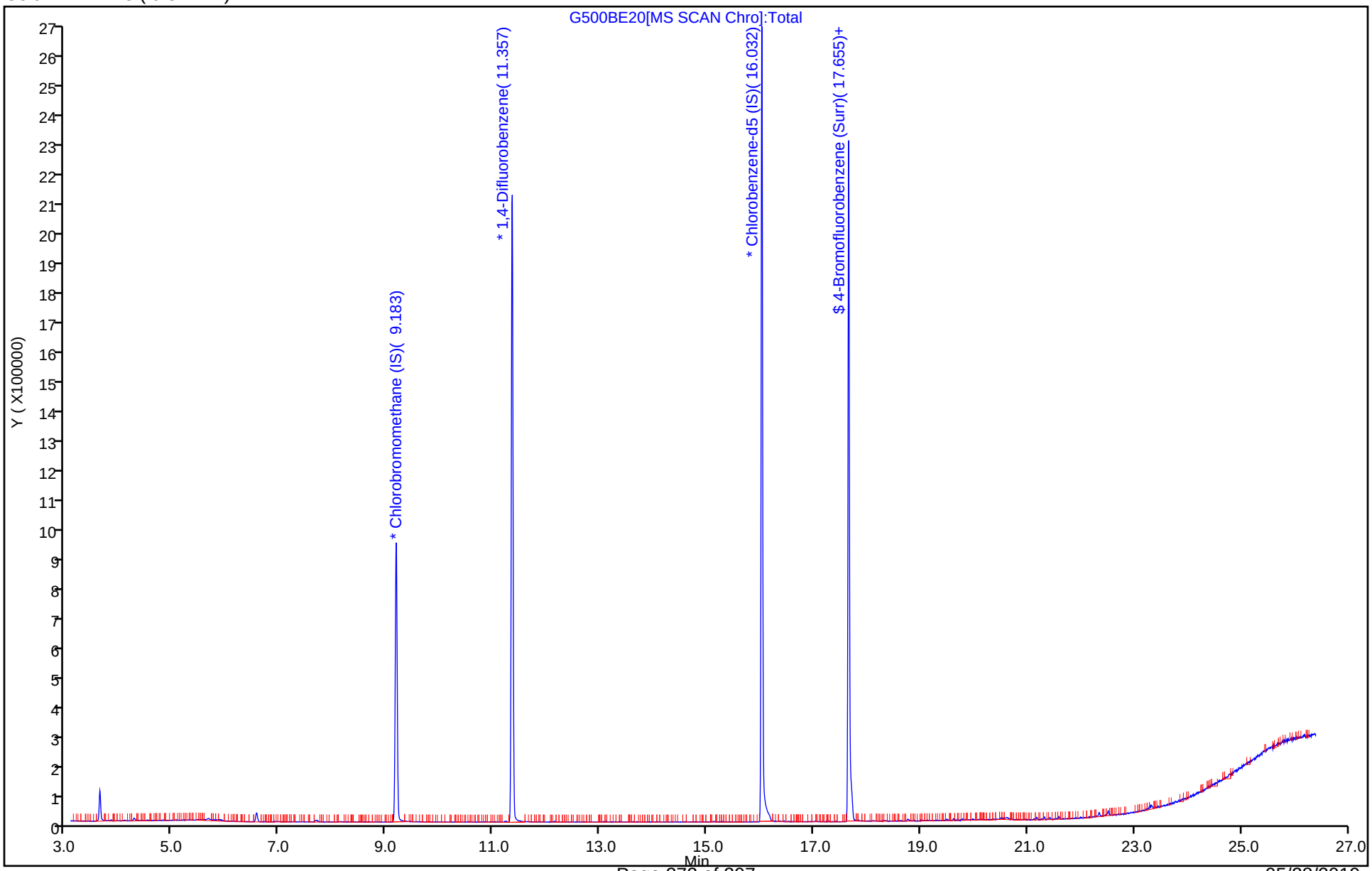
Report Date: 21-May-2019 13:44:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\G500BE20.D

Injection Date:	20-May-2019 11:06:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\G500BE20.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-May-2019 11:06:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011779-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 13:44:28	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:44:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.64	90.96

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-30123/1002

Matrix: Air Lab File ID: GCCVE17-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/17/2019 12:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30123 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.05		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	2.17		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	2.08		0.080	0.015
67-66-3	Chloroform	119.38	2.08		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	2.06		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	2.10		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	2.05		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	2.06		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	2.04		0.080	0.014
100-41-4	Ethylbenzene	106.17	1.98		0.080	0.027
75-09-2	Methylene Chloride	84.93	1.83		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	1.84		0.40	0.068
91-20-3	Naphthalene	128.17	1.64		0.040	0.040
127-18-4	Tetrachloroethene	165.83	2.07		0.080	0.016
108-88-3	Toluene	92.14	2.02		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	2.09		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	1.75		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	2.04		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	2.03		0.080	0.021
79-01-6	Trichloroethene	131.39	2.05		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	1.42		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	1.91		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	2.13		0.080	0.026
75-01-4	Vinyl chloride	62.50	2.06		0.040	0.029
1330-20-7	Xylenes, Total	106.17	6.05		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GCCVE17-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 12:10:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011769-002
Misc. Info.: S90
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 12:25:24 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:25:24

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.183	9.183	0.000	98	330809	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2098918	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1721828	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	83	1086442	4.00	4.10	
	6 Chlorodifluoromethane	51	3.818	3.818	0.000	96	399350	2.00	2.08	
	7 Propene	41	3.834	3.834	0.000	98	207912	2.00	1.95	
	8 Dichlorodifluoromethane	85	3.883	3.883	0.000	100	648338	2.00	2.10	
	9 Chloromethane	52	4.077	4.077	0.000	98	71324	2.00	2.01	
	10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	98	401127	2.00	2.06	
	11 Acetaldehyde	44	4.249	4.249	0.000	97	331309	10.0	8.24	
	12 Vinyl chloride	62	4.265	4.265	0.000	98	261817	2.00	2.06	
	13 Butane	43	4.357	4.357	0.000	85	385205	2.00	2.11	
	14 Butadiene	54	4.357	4.357	0.000	65	195392	2.00	2.04	
	15 Bromomethane	94	4.702	4.702	0.000	99	220828	2.00	2.03	
	16 Chloroethane	64	4.853	4.853	0.000	99	124741	2.00	2.04	
	17 Ethanol	31	4.972	4.972	0.000	93	299381	10.0	7.49	
	18 Vinyl bromide	106	5.171	5.171	0.000	98	228937	2.00	2.17	
	19 2-Methylbutane	43	5.225	5.225	0.000	91	281800	2.00	2.15	
	20 Trichlorofluoromethane	101	5.457	5.457	0.000	100	633032	2.00	2.11	
	21 Acrolein	56	5.473	5.473	0.000	92	39562	2.00	1.72	
	22 Acetonitrile	40	5.549	5.549	0.000	99	62016	2.00	2.00	
	23 Acetone	58	5.603	5.603	0.000	97	78217	2.00	1.85	
	24 Pentane	72	5.689	5.689	0.000	98	46488	2.00	2.24	
	25 Isopropyl alcohol	45	5.716	5.716	0.000	93	253015	2.00	2.40	
	26 Ethyl ether	31	5.878	5.878	0.000	90	155752	2.00	1.96	
	27 1,1-Dichloroethene	96	6.201	6.201	0.000	96	245203	2.00	2.04	
	28 Acrylonitrile	53	6.315	6.315	0.000	96	134876	2.00	1.97	
	30 2-Methyl-2-propanol	59	6.363	6.363	0.000	94	326523	2.00	2.06	
	29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.385	0.000	93	521881	2.00	2.05	
	31 Methylene Chloride	84	6.563	6.563	0.000	97	243266	2.00	1.83	
	32 3-Chloro-1-propene	39	6.579	6.579	0.000	97	213011	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.735	6.735	0.000	99	727100	2.00	2.08	
34 trans-1,2-Dichloroethene	96	7.398	7.398	0.000	97	247759	2.00	2.09	
35 2-Methylpentane	43	7.415	7.415	0.000	94	567496	2.00	1.94	
36 Methyl tert-butyl ether	73	7.539	7.539	0.000	96	528662	2.00	1.84	
37 1,1-Dichloroethane	63	7.835	7.835	0.000	100	477082	2.00	2.05	
38 Vinyl acetate	43	7.943	7.943	0.000	100	484948	2.00	1.96	
39 2-Butanone (MEK)	72	8.407	8.407	0.000	96	83931	2.00	1.64	
40 Hexane	56	8.423	8.423	0.000	90	227576	2.00	2.08	
41 Isopropyl ether	45	8.585	8.585	0.000	98	671359	2.00	1.89	
42 cis-1,2-Dichloroethene	96	8.844	8.844	0.000	96	254427	2.00	2.06	
43 Ethyl acetate	43	9.032	9.032	0.000	99	357565	2.00	1.65	
44 Chloroform	83	9.194	9.194	0.000	97	515836	2.00	2.08	
45 Tert-butyl ethyl ether	59	9.280	9.280	0.000	95	585549	2.00	1.73	
46 Tetrahydrofuran	42	9.609	9.609	0.000	95	218272	2.00	1.85	
47 1,1,1-Trichloroethane	97	10.235	10.235	0.000	96	542325	2.00	2.04	
48 1,2-Dichloroethane	62	10.348	10.348	0.000	98	345417	2.00	2.06	
49 Cyclohexane	69	10.828	10.828	0.000	75	135277	2.00	2.09	
50 Benzene	78	10.828	10.828	0.000	96	754404	2.00	2.05	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	529329	2.00	2.17	
51 n-Butanol	31	10.850	10.850	0.000	65	60511	2.00	2.11	
53 2,3-Dimethylpentane	71	10.936	10.936	0.000	91	190618	2.00	1.98	
54 Thiophene	84	11.098	11.098	0.000	95	420870	2.00	1.98	
55 Isooctane	57	11.567	11.567	0.000	99	1378493	2.00	2.07	
56 n-Heptane	71	11.933	11.933	0.000	90	292972	2.00	2.06	
57 1,2-Dichloropropane	63	12.025	12.025	0.000	90	268620	2.00	2.02	
58 Trichloroethene	130	12.063	12.063	0.000	96	332226	2.00	2.05	
59 Dibromomethane	93	12.149	12.149	0.000	91	282068	2.00	2.09	
60 Dichlorobromomethane	83	12.289	12.289	0.000	99	515566	2.00	2.13	
61 1,4-Dioxane	88	12.316	12.316	0.000	92	73866	2.00	1.63	
62 Methyl methacrylate	41	12.376	12.376	0.000	94	224740	2.00	1.76	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	619928	2.00	2.48	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.228	0.000	97	390147	2.00	1.72	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	417165	2.00	2.14	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	345879	2.00	2.11	
67 Toluene	91	14.080	14.080	0.000	94	761424	2.00	2.02	
68 1,1,2-Trichloroethane	83	14.155	14.155	0.000	98	229896	2.00	2.03	
69 2-Hexanone	58	14.543	14.543	0.000	94	202465	2.00	1.88	
70 n-Octane	85	14.743	14.743	0.000	93	306981	2.00	2.16	
71 Chlorodibromomethane	129	14.856	14.856	0.000	98	465614	2.00	2.25	
72 Ethylene Dibromide	107	15.142	15.142	0.000	99	416020	2.00	2.17	
73 Tetrachloroethene	129	15.212	15.212	0.000	93	294689	2.00	2.07	
75 Chlorobenzene	112	16.080	16.080	0.000	85	661008	2.00	2.14	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	815690	2.00	2.01	
78 Ethylbenzene	91	16.361	16.361	0.000	98	926708	2.00	1.98	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	1465990	4.00	4.07	
80 n-Nonane	57	16.916	16.916	0.000	92	597538	2.00	2.20	
81 Bromoform	173	16.975	16.975	0.000	92	365111	2.00	2.50	
82 Styrene	104	16.981	16.981	0.000	98	523120	2.00	2.26	
83 o-Xylene	91	17.040	17.040	0.000	99	756956	2.00	1.98	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.364	0.000	99	485120	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.520	17.520	0.000	98	148741	2.00	1.87	
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1040510	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	271338	2.00	1.95	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	269502	2.00	2.01	
89 4-Ethyltoluene	105	18.291	18.291	0.000	99	913766	2.00	1.79	
90 1,3,5-Trimethylbenzene	120	18.361	18.361	0.000	93	447994	2.00	2.13	
92 Alpha Methyl Styrene	118	18.588	18.588	0.000	89	367538	2.00	2.12	
93 n-Decane	57	18.625	18.625	0.000	90	676155	2.00	2.04	
94 tert-Butylbenzene	119	18.776	18.776	0.000	94	880249	2.00	1.92	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	818608	2.00	1.91	
96 sec-Butylbenzene	105	19.035	19.035	0.000	99	1241375	2.00	1.90	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	99	531259	2.00	1.90	
98 Benzyl chloride	91	19.127	19.127	0.000	98	585631	2.00	2.02	
99 1,4-Dichlorobenzene	146	19.143	19.143	0.000	92	517266	2.00	1.82	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	955669	2.00	1.85	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	618884	2.00	1.42	
102 Butylcyclohexane	83	19.299	19.299	0.000	94	804113	2.00	1.90	
103 2,3-Dihydroindene	117	19.493	19.493	0.000	94	729490	2.00	1.86	
104 1,2-Dichlorobenzene	146	19.493	19.493	0.000	95	503281	2.00	1.87	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	916290	2.00	1.91	
106 Indene	116	19.623	19.623	0.000	96	521926	2.00	1.81	
107 Undecane	57	19.909	19.909	0.000	96	647568	2.00	1.88	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	94	162670	2.00	1.57	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	780559	2.00	1.62	
110 Dodecane	57	20.960	20.960	0.000	97	508191	2.00	1.96	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	94	298162	2.00	1.75	
112 Naphthalene	128	21.322	21.322	0.000	99	774210	2.00	1.64	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	91	328151	2.00	1.81	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	297652	2.00	1.63	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	365689	2.00	2.33	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	99	471336	2.00	2.33	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2693450	2.00	2.10	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.15	
S 124 Xylenes, Total	100				0		6.00	6.04	

Reagents:

40CV101S_00090	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

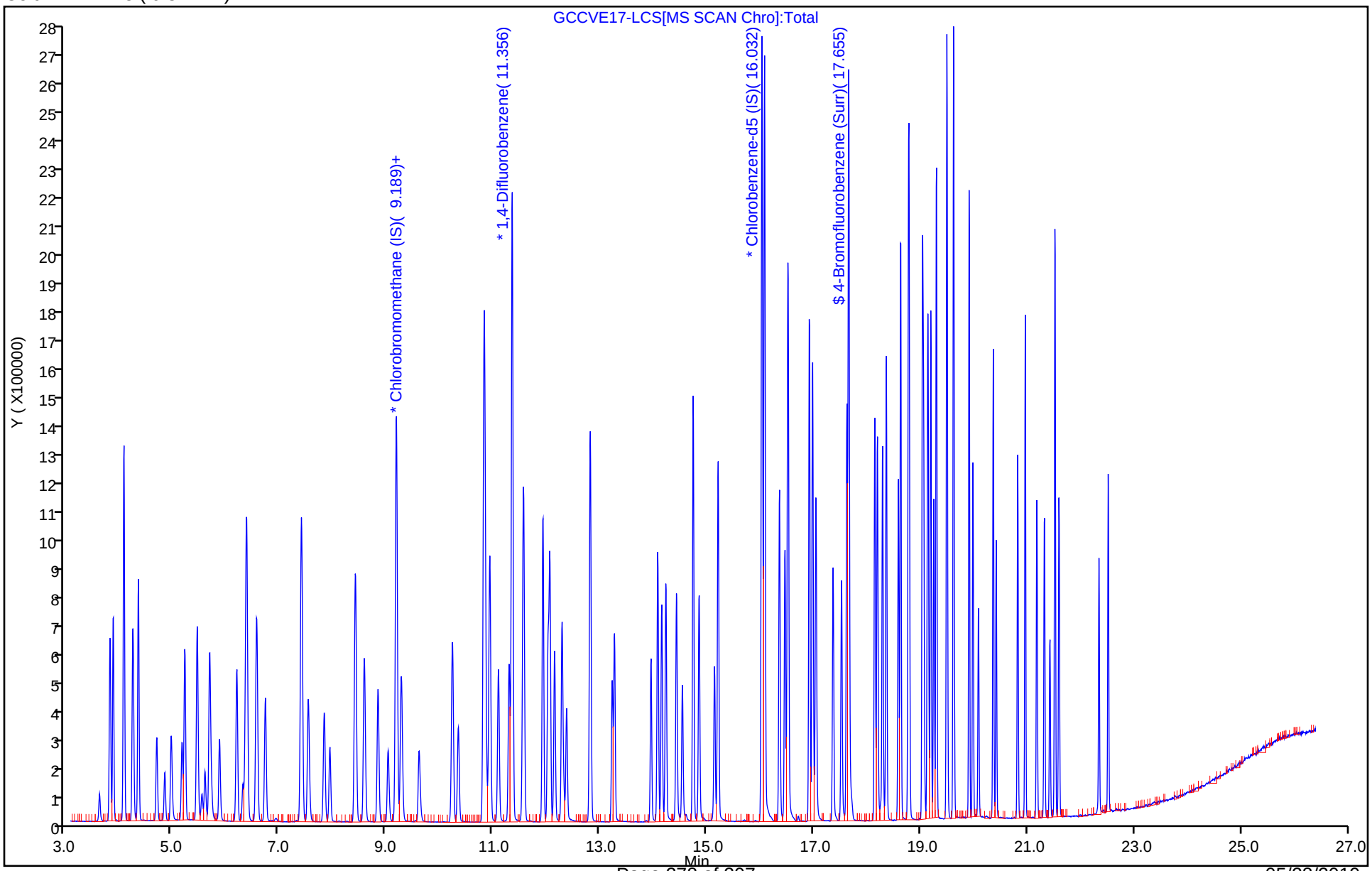
Report Date: 21-May-2019 12:25:28 Chrom Revision: 2.3 03-May-2019 15:52:00

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190517-11769.b\GCCVE17-LCS.d

Injection Date:	17-May-2019 12:10:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\GCCVE17-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	17-May-2019 12:10:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011769-002				
Misc. Info.:	S90				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190517-11769.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 12:25:24	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: khachitpongpanits Date: 21-May-2019 12:25:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.10	102.44

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-30151/1002

Matrix: Air Lab File ID: GCCVE20-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 05/20/2019 09:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30151 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.01		0.080	0.023
56-23-5	Carbon tetrachloride	153.81	2.17		0.080	0.015
75-45-6	Chlorodifluoromethane	86.47	2.14		0.080	0.015
67-66-3	Chloroform	119.38	2.07		0.080	0.015
156-59-2	cis-1,2-Dichloroethene	96.94	2.07		0.080	0.024
75-71-8	Dichlorodifluoromethane	120.91	2.13		0.080	0.027
75-34-3	1,1-Dichloroethane	98.96	2.04		0.080	0.010
107-06-2	1,2-Dichloroethane	98.96	2.00		0.080	0.019
75-35-4	1,1-Dichloroethene	96.94	1.97		0.080	0.014
100-41-4	Ethylbenzene	106.17	1.97		0.080	0.027
75-09-2	Methylene Chloride	84.93	1.78		0.40	0.13
1634-04-4	Methyl tert-butyl ether	88.15	1.86		0.40	0.068
91-20-3	Naphthalene	128.17	1.77		0.040	0.040
127-18-4	Tetrachloroethene	165.83	2.04		0.080	0.016
108-88-3	Toluene	92.14	2.02		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	2.07		0.080	0.020
120-82-1	1,2,4-Trichlorobenzene	181.45	1.90		0.080	0.039
71-55-6	1,1,1-Trichloroethane	133.41	2.04		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	2.02		0.080	0.021
79-01-6	Trichloroethene	131.39	1.96		0.040	0.014
526-73-8	1,2,3-Trimethylbenzene	120.19	1.48		0.080	0.034
95-63-6	1,2,4-Trimethylbenzene	120.20	1.98		0.080	0.025
108-67-8	1,3,5-Trimethylbenzene	120.20	2.24		0.080	0.026
75-01-4	Vinyl chloride	62.50	2.09		0.040	0.029
1330-20-7	Xylenes, Total	106.17	6.09		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GCCVE20-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2019 09:41:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011779-002
Misc. Info.: S90
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 21-May-2019 13:43:40 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:43:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.189	0.000	98	333407	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.356	0.000	95	2160587	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1754642	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.655	0.000	84	1054054	4.00	3.90	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	415904	2.00	2.14	
7 Propene	41	3.834	3.834	0.000	99	212415	2.00	1.97	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	663335	2.00	2.13	
9 Chloromethane	52	4.088	4.088	0.000	98	73808	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.093	0.000	92	427775	2.00	2.18	
11 Acetaldehyde	44	4.255	4.255	0.000	98	352184	10.0	8.69	
12 Vinyl chloride	62	4.265	4.265	0.000	98	267020	2.00	2.09	
13 Butane	43	4.363	4.363	0.000	86	394981	2.00	2.15	
14 Butadiene	54	4.363	4.363	0.000	65	196513	2.00	2.03	
15 Bromomethane	94	4.708	4.708	0.000	99	223180	2.00	2.04	
16 Chloroethane	64	4.859	4.859	0.000	99	125751	2.00	2.04	
17 Ethanol	31	4.977	4.977	0.000	94	301966	10.0	7.49	
18 Vinyl bromide	106	5.177	5.177	0.000	98	227014	2.00	2.13	
19 2-Methylbutane	43	5.231	5.231	0.000	91	279268	2.00	2.11	
20 Trichlorofluoromethane	101	5.463	5.463	0.000	99	632129	2.00	2.09	
21 Acrolein	56	5.479	5.479	0.000	92	40204	2.00	1.73	
22 Acetonitrile	40	5.554	5.554	0.000	100	57744	2.00	1.85	
23 Acetone	58	5.608	5.608	0.000	98	78207	2.00	1.83	
24 Pentane	72	5.694	5.694	0.000	98	44555	2.00	2.13	
25 Isopropyl alcohol	45	5.721	5.721	0.000	93	255079	2.00	2.40	
26 Ethyl ether	31	5.883	5.883	0.000	94	161789	2.00	2.02	
27 1,1-Dichloroethene	96	6.207	6.207	0.000	96	238069	2.00	1.97	
28 Acrylonitrile	53	6.320	6.320	0.000	96	136570	2.00	1.97	
30 2-Methyl-2-propanol	59	6.368	6.368	0.000	95	332566	2.00	2.08	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.390	0.000	95	519133	2.00	2.02	
31 Methylene Chloride	84	6.568	6.568	0.000	98	237663	2.00	1.78	
32 3-Chloro-1-propene	39	6.584	6.584	0.000	96	217668	2.00	2.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.735	6.735	0.000	99	709223	2.00	2.01	
34 trans-1,2-Dichloroethene	96	7.409	7.409	0.000	97	247609	2.00	2.07	
35 2-Methylpentane	43	7.420	7.420	0.000	95	567698	2.00	1.93	
36 Methyl tert-butyl ether	73	7.544	7.544	0.000	97	537580	2.00	1.86	
37 1,1-Dichloroethane	63	7.841	7.841	0.000	100	479527	2.00	2.04	
38 Vinyl acetate	43	7.943	7.943	0.000	100	501911	2.00	2.01	
39 2-Butanone (MEK)	72	8.407	8.407	0.000	96	86630	2.00	1.68	
40 Hexane	56	8.428	8.428	0.000	90	225958	2.00	2.05	
41 Isopropyl ether	45	8.590	8.590	0.000	97	689242	2.00	1.93	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	256740	2.00	2.07	
43 Ethyl acetate	43	9.032	9.032	0.000	99	375177	2.00	1.72	
44 Chloroform	83	9.194	9.194	0.000	97	516680	2.00	2.07	
45 Tert-butyl ethyl ether	59	9.286	9.286	0.000	95	603605	2.00	1.77	
46 Tetrahydrofuran	42	9.615	9.615	0.000	95	221490	2.00	1.86	
47 1,1,1-Trichloroethane	97	10.240	10.240	0.000	96	547250	2.00	2.04	
48 1,2-Dichloroethane	62	10.348	10.348	0.000	98	345661	2.00	2.00	
49 Cyclohexane	69	10.828	10.828	0.000	77	132258	2.00	1.99	
50 Benzene	78	10.828	10.828	0.000	96	760570	2.00	2.01	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	545157	2.00	2.17	
51 n-Butanol	31	10.855	10.855	0.000	65	64686	2.00	2.19	
53 2,3-Dimethylpentane	71	10.936	10.936	0.000	92	195253	2.00	1.97	
54 Thiophene	84	11.098	11.098	0.000	96	421243	2.00	1.92	
55 Isooctane	57	11.567	11.567	0.000	99	1370861	2.00	2.00	
56 n-Heptane	71	11.933	11.933	0.000	91	289930	2.00	1.98	
57 1,2-Dichloropropane	63	12.025	12.025	0.000	89	274071	2.00	2.00	
58 Trichloroethene	130	12.063	12.063	0.000	96	328201	2.00	1.96	
59 Dibromomethane	93	12.149	12.149	0.000	91	283649	2.00	2.04	
60 Dichlorobromomethane	83	12.289	12.289	0.000	99	514687	2.00	2.07	
61 1,4-Dioxane	88	12.322	12.322	0.000	93	74140	2.00	1.59	
62 Methyl methacrylate	41	12.376	12.376	0.000	94	234511	2.00	1.78	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	621217	2.00	2.41	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.228	0.000	97	419532	2.00	1.80	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	407863	2.00	2.03	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	348892	2.00	2.09	
67 Toluene	91	14.080	14.080	0.000	94	774151	2.00	2.02	
68 1,1,2-Trichloroethane	83	14.155	14.155	0.000	98	232220	2.00	2.02	
69 2-Hexanone	58	14.543	14.543	0.000	94	215956	2.00	1.97	
70 n-Octane	85	14.743	14.743	0.000	93	305581	2.00	2.11	
71 Chlorodibromomethane	129	14.856	14.856	0.000	97	466999	2.00	2.22	
72 Ethylene Dibromide	107	15.142	15.142	0.000	99	418079	2.00	2.14	
73 Tetrachloroethene	129	15.212	15.212	0.000	94	296666	2.00	2.04	
75 Chlorobenzene	112	16.080	16.080	0.000	91	658840	2.00	2.09	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	814862	2.00	1.97	
78 Ethylbenzene	91	16.361	16.361	0.000	98	941026	2.00	1.97	
79 m-Xylene & p-Xylene	91	16.517	16.517	0.000	98	1503052	4.00	4.09	
80 n-Nonane	57	16.916	16.916	0.000	92	595016	2.00	2.15	
81 Bromoform	173	16.975	16.975	0.000	92	377542	2.00	2.54	
82 Styrene	104	16.981	16.981	0.000	98	540975	2.00	2.29	
83 o-Xylene	91	17.040	17.040	0.000	99	781034	2.00	2.00	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.364	0.000	99	514995	2.00	2.03	
85 1,2,3-Trichloropropane	110	17.520	17.520	0.000	98	155175	2.00	1.91	
86 Isopropylbenzene	105	17.617	17.617	0.000	96	1084166	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	289896	2.00	2.04	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	276661	2.00	2.02	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	979453	2.00	1.88	
90 1,3,5-Trimethylbenzene	120	18.361	18.361	0.000	93	481995	2.00	2.24	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	89	392093	2.00	2.22	
93 n-Decane	57	18.625	18.625	0.000	90	709780	2.00	2.10	
94 tert-Butylbenzene	119	18.771	18.771	0.000	93	930408	2.00	1.99	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	866450	2.00	1.98	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1318099	2.00	1.98	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	99	561486	2.00	1.97	
98 Benzyl chloride	91	19.127	19.127	0.000	98	632758	2.00	2.14	
99 1,4-Dichlorobenzene	146	19.143	19.143	0.000	93	554085	2.00	1.92	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	1023895	2.00	1.95	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	657956	2.00	1.48	
102 Butylcyclohexane	83	19.294	19.294	0.000	94	830085	2.00	1.93	
103 2,3-Dihydroindene	117	19.494	19.494	0.000	95	776492	2.00	1.95	
104 1,2-Dichlorobenzene	146	19.494	19.494	0.000	94	534513	2.00	1.95	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	989214	2.00	2.03	
106 Indene	116	19.623	19.623	0.000	95	555441	2.00	1.89	
107 Undecane	57	19.909	19.909	0.000	96	687262	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	93	176028	2.00	1.66	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	850850	2.00	1.74	
110 Dodecane	57	20.960	20.960	0.000	97	547748	2.00	2.07	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	94	329559	2.00	1.90	
112 Naphthalene	128	21.316	21.316	0.000	99	850217	2.00	1.77	
113 Hexachlorobutadiene	225	21.516	21.516	0.000	91	360044	2.00	1.95	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	95	329275	2.00	1.77	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	399828	2.00	2.50	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	99	507336	2.00	2.46	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2678933	2.00	2.05	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.14	
S 124 Xylenes, Total	100				0		6.00	6.09	

Reagents:

40CV101S_00090	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

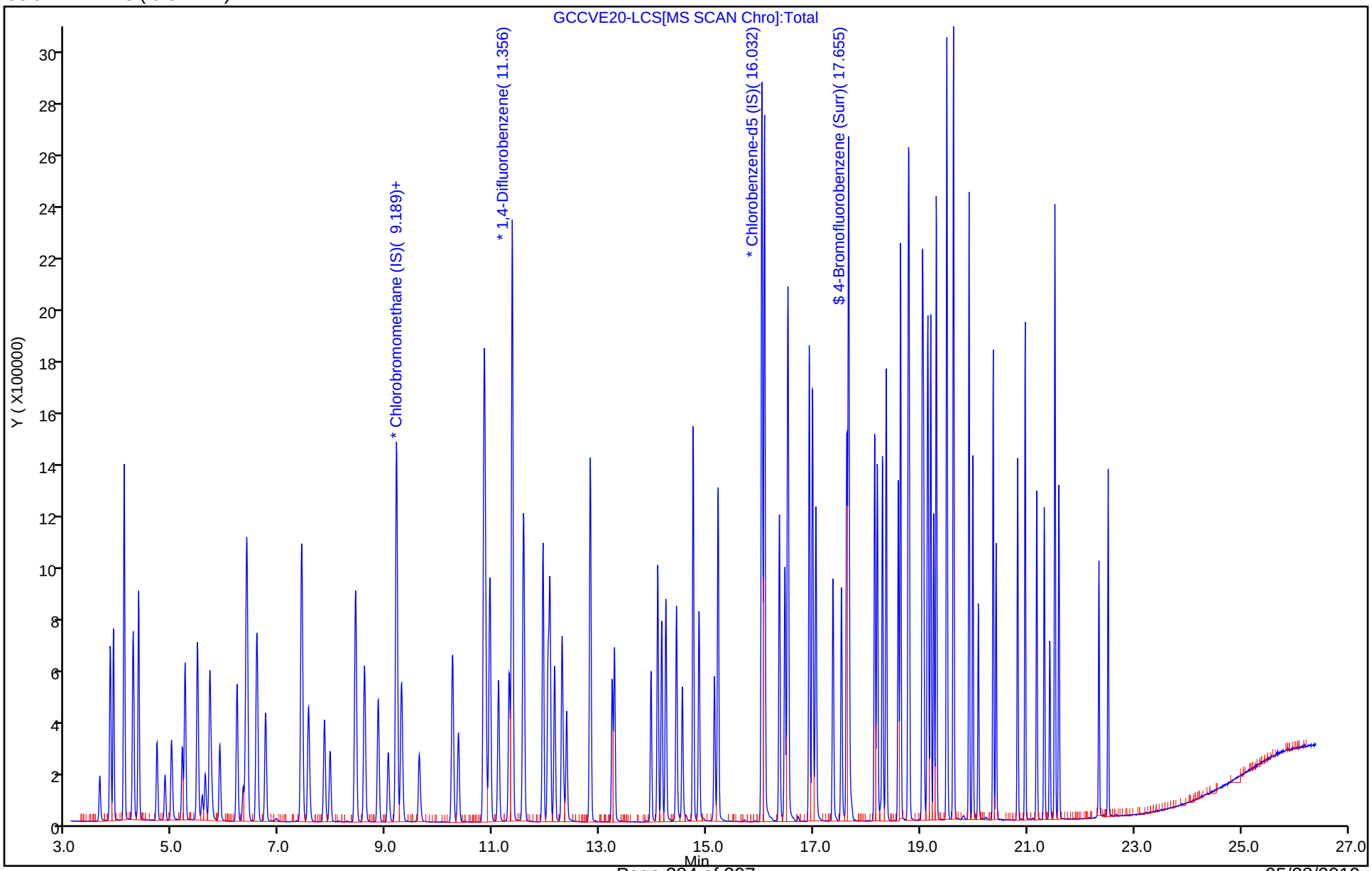
Report Date: 21-May-2019 13:43:44 Chrom Revision: 2.3 03-May-2019 15:52:00

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190520-11779.b\GCCVE20-LCS.d

Injection Date:	20-May-2019 09:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\GCCVE20-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	20-May-2019 09:41:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011779-002				
Misc. Info.:	S90				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190520-11779.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	21-May-2019 13:43:40	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: khachitpongpanits Date: 21-May-2019 13:43:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.90	97.53

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Instrument ID: MG Start Date: 05/16/2019 18:49

Analysis Batch Number: 30104 End Date: 05/17/2019 10:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30104/1		05/16/2019 18:49	1	GE16BFB.D	RTX-5 0.32(mm)
IC 140-30104/3		05/16/2019 20:05	1	GE16IC09.D	RTX-5 0.32(mm)
IC 140-30104/5		05/16/2019 21:32	1	GE16IC10.D	RTX-5 0.32(mm)
IC 140-30104/8		05/16/2019 23:40	1	GE16IC01.D	RTX-5 0.32(mm)
IC 140-30104/9		05/17/2019 00:23	1	GE16IC02.D	RTX-5 0.32(mm)
140-14761-A-1 MDLV		05/17/2019 00:23	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 00:23	1		RTX-5 0.32(mm)
IC 140-30104/10		05/17/2019 01:06	1	GE16IC03.D	RTX-5 0.32(mm)
140-14761-A-2 MDLV		05/17/2019 01:06	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 01:06	1		RTX-5 0.32(mm)
IC 140-30104/11		05/17/2019 01:49	1	GE16IC04.D	RTX-5 0.32(mm)
140-14761-A-3 MDLV		05/17/2019 01:49	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 01:49	1		RTX-5 0.32(mm)
IC 140-30104/12		05/17/2019 02:34	1	GE16IC05.D	RTX-5 0.32(mm)
140-14761-A-4 MDLV		05/17/2019 02:34	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 02:34	1		RTX-5 0.32(mm)
IC 140-30104/13		05/17/2019 03:19	1	GE16IC06.D	RTX-5 0.32(mm)
ICIS 140-30104/14		05/17/2019 04:03	1	GE16IC07.D	RTX-5 0.32(mm)
IC 140-30104/15		05/17/2019 04:45	1	GE16IC08.D	RTX-5 0.32(mm)
ICV 140-30104/17		05/17/2019 06:12	1	GE16ICV.D	RTX-5 0.32(mm)
ZZZZZ		05/17/2019 08:27	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 09:13	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 09:59	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 10:46	1		RTX-5 0.32(mm)

190516.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	27.8	5/16/2019	6:49:30 PM
CLEAN	16 - 101 mL	27.7	5/16/2019	7:22:28 PM
ICAL9	15 - 101 mL	19.4	5/16/2019	8:05:44 PM
BLK	16 - 202 mL	27.5	5/16/2019	8:48:54 PM
ICAL10	15 - 200 mL	18.7	5/16/2019	9:32:03 PM
BLK	16 - 201 mL	27.2	5/16/2019	10:14:20 PM
BLK	16 - 201 mL	27.1	5/16/2019	10:58:05 PM
ICAL01	1 - 52 mL	34.9	5/16/2019	11:40:36 PM
ICAL02	1 - 100 mL	34.1	5/17/2019	12:23:10 AM
ICAL03	2 - 101 mL	21.6	5/17/2019	1:06:44 AM
ICAL04	2 - 200 mL	21	5/17/2019	1:49:30 AM
ICAL05	3 - 201 mL	21.3	5/17/2019	2:34:47 AM
ICAL06	4 - 201 mL	21	5/17/2019	3:19:08 AM
ICAL07	5 - 201 mL	21.1	5/17/2019	4:03:17 AM
ICAL08	6 - 200 mL	18.1	5/17/2019	4:45:57 AM
BLK	16 - 201 mL	26.8	5/17/2019	5:28:25 AM
ICV	7 - 100 mL	29.7	5/17/2019	6:12:09 AM
LCS	8 - 101 mL	23.1	5/17/2019	6:54:48 AM
BLK	16 - 501 mL	26.5	5/17/2019	7:41:57 AM
BLK	16 - 502 mL	26.2	5/17/2019	8:27:22 AM
LOT15273	9 - 501 mL	19.3	5/17/2019	9:13:30 AM
LOT15289	10 - 500 mL	23.8	5/17/2019	9:59:38 AM
LOT15290	11 - 501 mL	21.1	5/17/2019	10:46:35 AM

MJ WL 11759 ical

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Analysis Date:	5/16/19	Instrument:	MB	Chrom WL #:	11759	TALS Batch & Event #	TO14/15: 1954 / 30104	0005 - 1957 30107
							DOD: 1955 / 30105	OHIO: 1956 / 30106

Chrom/Worklist Review		1st	Comments	2nd
1. Re-read each Limit Group	[method editor-limit groups]	✓		na
2. Verify LODV in Chrom	[method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level)	[WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels?	[Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria?	[F8]	✓		✓
6. Were all standards injected within 24 hr of BFB?	[F7]	✓		✓
7. High point checked for saturation and point removed if so?	[Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given?	[Chrom]	✓		✓
9. RT for each IS ±20 sec avg. RT?	[F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area?	[F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT?	[F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs?	[Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓		✓
• 2-methyl butane / acrolein		✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓		✓
• vinyl acetate / hexane		✓		✓
• cis- and trans- isomers		✓		✓
• ethyl benzene / m/p-xylene / o-xylene		✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene		✓		✓
• tert-butylbenzene/4-isopropyltoluene		✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes		✓	MICV	✓
• 1,2,4- and 1,2,3-trichlorobenzenes		✓		✓
• 2-, and 1-methylnaphthalene		✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?		✓		✓

MLG Review		TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50%	[F6 Σ]	✓	✓	-	DODS ✓	✓	-	✓
15. Were at least 5 levels of each compound analyzed?	[F6]	✓	✓	✓	-	✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.?	[F6]	✓	✓	✓	-	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad)	[F6]	✓	✓	✓	✓	✓	→	→
18. If curves were used, is correlation coefficient ≥0.990?	[F6]	✓	→	→		✓	→	→
19. Is the intercept less than the RL for each curve?	[F6]	✓	→	→		✓	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	[Cntrl-C, details]	✓	→	na	✓	✓	✓	na
21. Is low point RSE ≤ 50 %? MeCl	[F6]	✓	✓	✓	✓	✓	✓	✓
22. Is the second source analysis within limits?	[F8 - icv]	✓	✓	✓	✓	✓	✓	✓

Analyst/Date: 5/17/19

2nd Level Reviewer/Date: 05/2019

TALS Review		TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL		✓			5	na	na	na
24. Graphics uploaded?	[paperclip]	✓	✓	✓	✓	✓	✓	✓
25. All points are in the most recent active calibration event?	[Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓	✓	✓	✓	✓
26. Runs linked to BFB?	[QC Links]	✓	✓	✓	✓	✓	✓	✓
27. Run Checklist and acknowledge findings	[F8]	✓	✓	✓	✓	✓	✓	✓
28. If criteria not met, was a NCM generated?		✓	✓	✓	-	NA	NA	NA
29. After review in TALS, approve the method in TALS.		na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom	<resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?		na	na	na		✓	✓	✓

Analyst/date: 5/20/19

2nd Level Reviewer/date: 05/2019

Comments: Bromo for VR 4.2 Styrene, α methyl styrene VR 8, Benzyl chloride 123 TMB2, Indene, #108, 124 TMB2.

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Instrument ID: MG Start Date: 05/17/2019 11:35

Analysis Batch Number: 30123 End Date: 05/17/2019 20:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30123/1		05/17/2019 11:35	1	GBFBE17.D	RTX-5 0.32(mm)
CCVIS 140-30123/2		05/17/2019 12:10	1	GCCVE17.D	RTX-5 0.32(mm)
LCS 140-30123/1002		05/17/2019 12:10	1	GCCVE17-LCS.d	RTX-5 0.32(mm)
MB 140-30123/4		05/17/2019 15:30	1	G500BE17.D	RTX-5 0.32(mm)
140-15288-1		05/17/2019 16:15	1	GE17P101.D	RTX-5 0.32(mm)
140-15288-2		05/17/2019 16:57	1	GE17P102.D	RTX-5 0.32(mm)
140-15288-4		05/17/2019 18:24	1	GE17P104.D	RTX-5 0.32(mm)
140-15288-5		05/17/2019 19:07	1	GE17P105.D	RTX-5 0.32(mm)
140-15288-6		05/17/2019 19:51	1	GE17P106D.D	RTX-5 0.32(mm)
ZZZZZ		05/17/2019 20:35	1		RTX-5 0.32(mm)

190520.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	24.7	5/20/2019	9:09:53 AM
CCV	8 - 101 mL	22.7	5/20/2019	9:41:42 AM
DNU	16 - 21 mL	24.6	5/20/2019	10:29:50 AM
BLK	16 - 501 mL	24.1	5/20/2019	11:06:31 AM
15288-01	1 - 21 mL	8.2	5/20/2019	11:49:25 AM
15288-03	3 - 101 mL	7.5	5/20/2019	12:34:11 PM
15313-01	5 - 52 mL	7	5/20/2019	1:17:15 PM
DNU	16 - 21 mL	24.2	5/20/2019	3:00:00 PM
BLK	16 - 201 mL	23.7	5/20/2019	3:33:51 PM
15298-05	10 - 101 mL	10.3	5/20/2019	4:16:55 PM
15298-06	11 - 500 mL	5.6	5/20/2019	5:04:10 PM
15311-01	12 - 11 mL	6.7	5/20/2019	5:46:59 PM
15311-02	13 - 11 mL	14.2	5/20/2019	6:28:58 PM
15311-03	14 - 11 mL	7.8	5/20/2019	7:11:02 PM
15323-01	1 - 11 mL	11.9	5/20/2019	7:52:45 PM
15323-02	2 - 11 mL	11.5	5/20/2019	8:34:46 PM
15336-01	3 - 200 mL	6.7	5/20/2019	9:18:48 PM
15336-01	3 - 200 mL	5	5/20/2019	10:01:22 PM
15336-03	4 - 201 mL	7.1	5/20/2019	10:43:54 PM
15336-04	5 - 201 mL	7.4	5/20/2019	11:26:47 PM
LOT	6 - 201 mL	27.3	5/21/2019	12:13:41 AM
LO1	7 - 201 mL	27	5/21/2019	12:55:19 AM
LO2	8 - 501 mL	18.9	5/21/2019	1:40:39 AM
LO3	9 - 501 mL	18.6	5/21/2019	2:26:05 AM
15336-02	15 - 200 mL	6.3	5/21/2019	3:09:27 AM
15298-05	10 - 200 mL	9.2	5/21/2019	8:19:30 AM
15311-03	14 - 21 mL	7.2	5/21/2019	9:02:33 AM

MG WL 11779

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Instrument/Date	MG 5/17/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11769	CCAL Batch #	30123		
ICAL Chrom WL #	11759	ICAL Batch # / Event #	30104 / 1954	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: _____ _____	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		ns
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		ns
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawan Kh. 5/21/2019		**2nd Level Reviewer/date** 05/22/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason _____ _____ _____ _____	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		ns
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		MS
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-30123/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		MS
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS | # marginal exceedances of LCS control limits allowed

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawana Kh.	Date: 5/21/2019	2nd Level Reviewer :	Date: 05/28/19
Comments:		Comments:	

Example Calculation: 140-15288-1 Benzene

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$$0.569345 \times \frac{500}{100} \times 1.0 = 2.85$$

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15288-1

SDG No.:

Instrument ID: MG Start Date: 05/20/2019 09:09

Analysis Batch Number: 30151 End Date: 05/21/2019 09:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30151/1		05/20/2019 09:09	1	GBFBE20.D	RTX-5 0.32(mm)
CCVIS 140-30151/2		05/20/2019 09:41	1	GCCVE20.D	RTX-5 0.32(mm)
LCS 140-30151/1002		05/20/2019 09:41	1	GCCVE20-LCS.d	RTX-5 0.32(mm)
MB 140-30151/4		05/20/2019 11:06	1	G500BE20.D	RTX-5 0.32(mm)
140-15288-1 DL		05/20/2019 11:49	1	GE20P201.D	RTX-5 0.32(mm)
140-15288-3		05/20/2019 12:34	1	GE20P203.D	RTX-5 0.32(mm)
ZZZZZ		05/20/2019 13:17	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 15:33	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 16:16	1.44		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 17:04	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 17:47	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 18:29	50.05		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 21:18	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 22:01	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 22:43	1		RTX-5 0.32(mm)
ZZZZZ		05/20/2019 23:26	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 00:13	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 00:55	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 01:40	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 02:26	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 03:09	1		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 08:19	1.44		RTX-5 0.32(mm)
ZZZZZ		05/21/2019 09:02	1		RTX-5 0.32(mm)

190520.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	24.7	5/20/2019	9:09:53 AM
CCV	8 - 101 mL	22.7	5/20/2019	9:41:42 AM
DNU	16 - 21 mL	24.6	5/20/2019	10:29:50 AM
BLK	16 - 501 mL	24.1	5/20/2019	11:06:31 AM
15288-01	1 - 21 mL	8.2	5/20/2019	11:49:25 AM
15288-03	3 - 101 mL	7.5	5/20/2019	12:34:11 PM
15313-01	5 - 52 mL	7	5/20/2019	1:17:15 PM
DNU	16 - 21 mL	24.2	5/20/2019	3:00:00 PM
BLK	16 - 201 mL	23.7	5/20/2019	3:33:51 PM
15298-05	10 - 101 mL	10.3	5/20/2019	4:16:55 PM
15298-06	11 - 500 mL	5.6	5/20/2019	5:04:10 PM
15311-01	12 - 11 mL	6.7	5/20/2019	5:46:59 PM
15311-02	13 - 11 mL	14.2	5/20/2019	6:28:58 PM
15311-03	14 - 11 mL	7.8	5/20/2019	7:11:02 PM
15323-01	1 - 11 mL	11.9	5/20/2019	7:52:45 PM
15323-02	2 - 11 mL	11.5	5/20/2019	8:34:46 PM
15336-01	3 - 200 mL	6.7	5/20/2019	9:18:48 PM
15336-01	3 - 200 mL	5	5/20/2019	10:01:22 PM
15336-03	4 - 201 mL	7.1	5/20/2019	10:43:54 PM
15336-04	5 - 201 mL	7.4	5/20/2019	11:26:47 PM
LOT	6 - 201 mL	27.3	5/21/2019	12:13:41 AM
LO1	7 - 201 mL	27	5/21/2019	12:55:19 AM
LO2	8 - 501 mL	18.9	5/21/2019	1:40:39 AM
LO3	9 - 501 mL	18.6	5/21/2019	2:26:05 AM
15336-02	15 - 200 mL	6.3	5/21/2019	3:09:27 AM
15298-05	10 - 200 mL	9.2	5/21/2019	8:19:30 AM
15311-03	14 - 21 mL	7.2	5/21/2019	9:02:33 AM

MG WL 11779

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Instrument/Date	MS 5/20/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11779	CCAL Batch #	30151		
ICAL Chrom WL #	11759	ICAL Batch # / Event #	30104, 1954	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	MS		MS
6. Has the RT been updated to the method?	✓		
Analyst/date Suphawong Kh. 5/21/2019		**2nd Level Reviewer/date** 05/2019	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#____) □ Method Blank – Report, 10X (NCM#____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#____) □ (2) Surrogate – High, ND (NCM#____) □ (3) ISTD – RA/RA Concurs (NCM#____) □ (4) Surrogate –RX concur, Report both (NCM#____) □ (5) ISTD – Matrix, DL required (NCM#____)	✓
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	MS

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	MS		MS
17. Obvious non-TPH peaks excluded?	✓		✓
18. Individual TPH peak area < octane high point area?			

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	MS
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#_____) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		MS
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-30151/4 **200 mL blank ID:** 140-30151/19	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	NA		MS
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawana Kh. **Date:** 5/21/2019	**2nd Level Reviewer:** ✓ **Date:** 05/28/19
Comments:	**Comments:**
CI lines 23, 30	
1st level like 32 5/21/19 KH	
Example Calculation: 140-15311-2 Vinyl chloride	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
$3.877694 \times \frac{500}{1} \times 50.05 = 8821.75$	

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15288-1

SDG No.:

Batch Number: 30123 Batch Start Date: 05/17/19 11:35 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00090	40MXISSURP 00003
BFB 140-30123/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-30123/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-30123/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-15288-A-1	BLDG-A-INFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15288-A-2	BLDG-A-MIDGAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15288-A-4	BLDG-C-INFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15288-A-5	BLDG-C-MIDGAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15288-A-6	BLDG-C-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-30123/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00002
BFB 140-30123/1		TO 15 LL		40 mL
CCVIS 140-30123/2		TO 15 LL		
MB 140-30123/4		TO 15 LL		
140-15288-A-1	BLDG-A-INFLUENT	TO 15 LL	T	
140-15288-A-2	BLDG-A-MIDGAC	TO 15 LL	T	
140-15288-A-4	BLDG-C-INFLUENT	TO 15 LL	T	
140-15288-A-5	BLDG-C-MIDGAC	TO 15 LL	T	
140-15288-A-6	BLDG-C-EFFLUENT	TO 15 LL	T	
LCS 140-30123/1002		TO 15 LL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15288-1

SDG No.:

Batch Number: 30151 Batch Start Date: 05/20/19 09:09 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00090	40MXISSURP 00003
BFB 140-30151/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-30151/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-30151/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-15288-A-1	BLDG-A-INFLUENT	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
140-15288-A-3	BLDG-A-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-30151/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00002					
BFB 140-30151/1		TO 15 LL		40 mL					
CCVIS 140-30151/2		TO 15 LL							
MB 140-30151/4		TO 15 LL							
140-15288-A-1	BLDG-A-INFLUENT	TO 15 LL	T						
140-15288-A-3	BLDG-A-EFFLUENT	TO 15 LL	T						
LCS 140-30151/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15073-1

SDG No.:

Client Sample ID: 09797 Lab Sample ID: 140-15073-6

Matrix: Air Lab File ID: D29L15073.D

Analysis Method: TO-15 Date Collected: 04/24/2019 15:15

Sample wt/vol: 200(mL) Date Analyzed: 04/29/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29517 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15073-1

SDG No.:

Client Sample ID: 09797 Lab Sample ID: 140-15073-6

Matrix: Air Lab File ID: D29L15073.D

Analysis Method: TO-15 Date Collected: 04/24/2019 15:15

Sample wt/vol: 200(mL) Date Analyzed: 04/29/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29517 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15073-1

SDG No.:

Client Sample ID: 09797 Lab Sample ID: 140-15073-6

Matrix: Air Lab File ID: D29L15073.D

Analysis Method: TO-15 Date Collected: 04/24/2019 15:15

Sample wt/vol: 200(mL) Date Analyzed: 04/29/2019 13:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29517 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190424-11549.b\D29L15073.D				
Lims ID:	140-15073-A-6				
Client ID:	09797				
Sample Type:	Client				
Inject. Date:	29-Apr-2019 13:54:30	ALS Bottle#:	17	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011549-006				
Misc. Info.:	09797				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190424-11549.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	30-Apr-2019 11:29:02	Calib Date:	11-Jan-2019 21:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190109-10492.b\GA11IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0316				
First Level Reviewer: khachitpongpanits		Date:	30-Apr-2019 11:31:51		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.194	-0.005	97	186890	4.00	
* 2 1,4-Difluorobenzene	114	11.362	11.362	0.000	96	1223583	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.048	16.048	0.000	89	1122738	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.671	17.665	0.000	89	858561	3.73	
9 Chloromethane	52	4.088	4.083	0.000	99	2575	0.1185	
13 Butane	43	4.357	4.357	-0.006	94	5021	0.0396	
19 2-Methylbutane	43	5.231	5.225	0.000	95	2337	0.0257	
20 Trichlorofluoromethane	101	5.463	5.456	0.000	97	3586	0.0185	
25 Isopropyl alcohol	45	5.829	5.699	0.124	94	3616	0.0483	
30 2-Methyl-2-propanol	59	6.525	6.350	0.167	47	2865	0.0279	
31 Methylene Chloride	84	6.568	6.560	0.000	97	16451	0.2144	
33 Carbon disulfide	76	6.741	6.733	0.000	95	3896	0.0195	
40 Hexane	56	8.423	8.418	-0.005	84	2090	0.0343	
67 Toluene	91	14.090	14.086	0.000	96	13265	0.0537	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

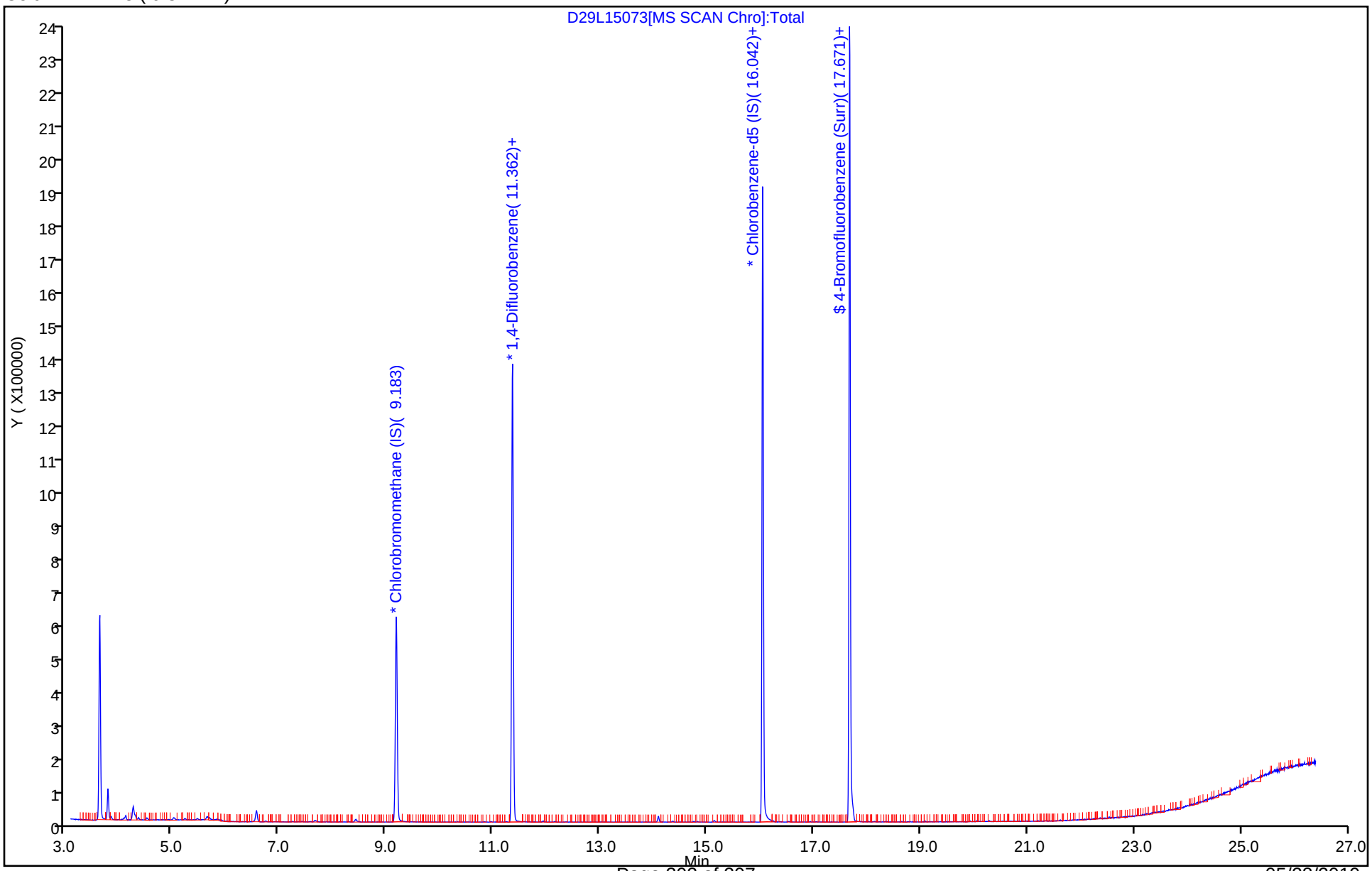
Report Date: 30-Apr-2019 11:31:52 Chrom Revision: 2.3 18-Apr-2019 13:31:50

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190424-11549.b\D29L15073.D

Injection Date:	29-Apr-2019 13:54:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15073-A-6	Lab Sample ID:	140-15073-6	Worklist Smp#:	6
Client ID:	09797				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Peter Rich	Sampled By: D. Lee Lucas	1 of 1 COCs
Company: Tetra Tech	Phone: 410-990-4607		
Address: 980 Arnold Road Suite 302	Site Contact:		
City/State/Zip Annapolis | MD | 21403	TAL Contact:		
Phone: 410-990-4607			
FAX:			
Project Name: Lockheed Martin MRC	Analysis Turnaround Time		
Site/location: Middle River	Standard (Specify) ✓		
PO # 117-0512140	Rush (Specify)		

140-15288 Chain of Custody

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BLDG-A-INFLUENT	5/14/19	1245	1245	-27	-4	10911	10795	X							X				
BLDG-A-MIDGAC	5/14/19	1252	1252	-30	-4	10930	11521	X							X				
BLDG-A-EFFLUENT	5/14/19	1259	1259	-26	-2	10614	11860	X							X				
BLDG-C-Influent	5/14/19	1212	1212	-29	-4	09899	11718	X							X				
BLDG-C-MIDGAC	5/14/19	1220	1220	-30	-4	09958	10520	X							X				
BLDG-C-EFFLUENT	5/14/19	1225	1225	-30	-4	10901	11800	X							X				

Sampled by : D. Lee Lucas

Temperature (Fahrenheit)	Interior	Ambient
Start	~70	55
Stop	~70	59

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Baltimore
#201

Received @ ambient, 1 box
FedEx lo, Custody seal intact
tr# 7752 1796 5147
KW 5/15/19

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: D. Lee Lucas	Date/Time: 5/14/19 - 16:14	Received by:
Relinquished by:	Date/Time: 5/14/19 17:50	Received by: 5/15/19 1020 TA-Knox

6 cans
6 KR

Lab Use Only Shipper Name: Opened by: Condition:

05/28/2019

Loc: 140

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number: 15288**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			/	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	/			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

Project #: 1400 2921 PM Instructions: _____

Sample Receiving Associate: [signature] Date: 5/15/19

QA026R31.doc, 112618

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 5/15/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
BKK	140-15288-A-1	10795	15073	B	1	-3.9	14:56	
BKK	140-15288-A-2	11521	15073	B	1	-2.1	14:57	
BKK	140-15288-A-3	11860	15073	B	1	-2.8	14:58	
BKK	140-15288-A-4	11718	15073	B	1	-3.1	14:59	
BKK	140-15288-A-5	10520	15073	B	1	-2.3	15:00	
BKK	140-15288-A-6	11800	15073	B	1	-3.3	15:01	

eurofins | Environment Testing TestAmerica

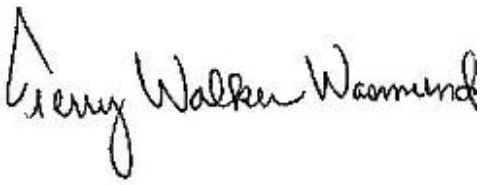
ANALYTICAL REPORT

Job Number: 140-15566-1

Job Description: Lockheed Martin MRC, Middle River

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Terry Walker Wasmund
Project Manager II
6/21/2019 10:46 AM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
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06/21/2019

cc: Belssi Chang
Amy Thomson

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Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-15566-1

Receipt
The samples were received on 6/11/2019 at 8:40 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-15566-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.0		2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.0		2.0	0.55	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	2.7		2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	16		2.0	0.25	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.45	J	2.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.0		2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	16		2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.33	J	2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	81		2.0	0.93	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	160		1.0	0.15	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	19		6.4	0.64	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	7.1		7.1	1.9	ug/m3	1		TO 15 LL	Total/NA
Chloroform	13		9.8	0.85	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	63		7.9	0.99	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2	J	9.9	1.7	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	12		8.1	0.71	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	64		7.9	0.79	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.3	J	7.9	0.69	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	440		11	5.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	880		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A-MIDGAC
Lab Sample ID: 140-15566-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.26	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.038	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.9		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.69		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	19		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.54		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.2		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.23	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	15		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.3	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.34	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	86	E	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.24		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	89		0.80	0.37	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.84	J	1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.24	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	10		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	3.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	77		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	13		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.92	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	59		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.4	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A-MIDGAC (Continued)
Lab Sample ID: 140-15566-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	470	E	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.3		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	490		4.4	2.0	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-15566-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.58		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.52		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	13		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.47		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.1		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	19		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.097	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.0	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.2		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.29	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	5.5		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.2		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.11	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.52	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.6		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.1		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.6		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	50		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	8.7		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	77		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.42	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.5	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.7		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.2	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	30		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	6.4		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.54	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-15566-1

Date Collected: 06/10/19 11:42
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6.0**		2.0	0.20	ppb v/v			06/13/19 00:58	1
Carbon tetrachloride	ND		2.0	0.18	ppb v/v			06/13/19 00:58	1
Chlorodifluoromethane	**2.0**		2.0	0.55	ppb v/v			06/13/19 00:58	1
Chloroform	**2.7**		2.0	0.18	ppb v/v			06/13/19 00:58	1
cis-1,2-Dichloroethene	**16**		2.0	0.25	ppb v/v			06/13/19 00:58	1
Dichlorodifluoromethane	**0.45**	**J**	2.0	0.35	ppb v/v			06/13/19 00:58	1
1,1-Dichloroethane	**3.0**		2.0	0.18	ppb v/v			06/13/19 00:58	1
1,2-Dichloroethane	ND		2.0	0.25	ppb v/v			06/13/19 00:58	1
1,1-Dichloroethene	**16**		2.0	0.20	ppb v/v			06/13/19 00:58	1
Ethylbenzene	ND		2.0	0.33	ppb v/v			06/13/19 00:58	1
Methylene Chloride	ND		10	4.0	ppb v/v			06/13/19 00:58	1
Methyl tert-butyl ether	ND		10	1.3	ppb v/v			06/13/19 00:58	1
Naphthalene	ND		1.0	1.9	ppb v/v			06/13/19 00:58	1
Tetrachloroethene	ND		2.0	0.18	ppb v/v			06/13/19 00:58	1
Toluene	ND		3.0	2.0	ppb v/v			06/13/19 00:58	1
trans-1,2-Dichloroethene	**0.33**	**J**	2.0	0.18	ppb v/v			06/13/19 00:58	1
1,2,4-Trichlorobenzene	ND		2.0	1.6	ppb v/v			06/13/19 00:58	1
1,1,1-Trichloroethane	**81**		2.0	0.93	ppb v/v			06/13/19 00:58	1
1,1,2-Trichloroethane	ND		2.0	0.18	ppb v/v			06/13/19 00:58	1
Trichloroethene	**160**		1.0	0.15	ppb v/v			06/13/19 00:58	1
1,2,3-Trimethylbenzene	ND		2.0	0.90	ppb v/v			06/13/19 00:58	1
1,2,4-Trimethylbenzene	ND		2.0	0.50	ppb v/v			06/13/19 00:58	1
1,3,5-Trimethylbenzene	ND		2.0	0.55	ppb v/v			06/13/19 00:58	1
Vinyl chloride	ND		1.0	0.65	ppb v/v			06/13/19 00:58	1
Xylenes, Total	ND		4.0	0.60	ppb v/v			06/13/19 00:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**19**		6.4	0.64	ug/m3			06/13/19 00:58	1
Carbon tetrachloride	ND		13	1.1	ug/m3			06/13/19 00:58	1
Chlorodifluoromethane	**7.1**		7.1	1.9	ug/m3			06/13/19 00:58	1
Chloroform	**13**		9.8	0.85	ug/m3			06/13/19 00:58	1
cis-1,2-Dichloroethene	**63**		7.9	0.99	ug/m3			06/13/19 00:58	1
Dichlorodifluoromethane	**2.2**	**J**	9.9	1.7	ug/m3			06/13/19 00:58	1
1,1-Dichloroethane	**12**		8.1	0.71	ug/m3			06/13/19 00:58	1
1,2-Dichloroethane	ND		8.1	1.0	ug/m3			06/13/19 00:58	1
1,1-Dichloroethene	**64**		7.9	0.79	ug/m3			06/13/19 00:58	1
Ethylbenzene	ND		8.7	1.4	ug/m3			06/13/19 00:58	1
Methylene Chloride	ND		35	14	ug/m3			06/13/19 00:58	1
Methyl tert-butyl ether	ND		36	4.7	ug/m3			06/13/19 00:58	1
Naphthalene	ND		5.2	10	ug/m3			06/13/19 00:58	1
Tetrachloroethene	ND		14	1.2	ug/m3			06/13/19 00:58	1
Toluene	ND		11	7.3	ug/m3			06/13/19 00:58	1
trans-1,2-Dichloroethene	**1.3**	**J**	7.9	0.69	ug/m3			06/13/19 00:58	1
1,2,4-Trichlorobenzene	ND		15	12	ug/m3			06/13/19 00:58	1
1,1,1-Trichloroethane	**440**		11	5.0	ug/m3			06/13/19 00:58	1
1,1,2-Trichloroethane	ND		11	0.95	ug/m3			06/13/19 00:58	1
Trichloroethene	**880**		5.4	0.81	ug/m3			06/13/19 00:58	1
1,2,3-Trimethylbenzene	ND		9.8	4.4	ug/m3			06/13/19 00:58	1
1,2,4-Trimethylbenzene	ND		9.8	2.5	ug/m3			06/13/19 00:58	1

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-15566-1
Date Collected: 06/10/19 11:42
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		9.8	2.7	ug/m3			06/13/19 00:58	1
Vinyl chloride	ND		2.6	1.7	ug/m3			06/13/19 00:58	1
Xylenes, Total	ND		17	2.6	ug/m3			06/13/19 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*		*06/13/19 00:58*	*1*

Client Sample ID: BLDG A-MIDGAC
Lab Sample ID: 140-15566-2

Date Collected: 06/10/19 11:36
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.26**	**J**	0.40	0.040	ppb v/v			06/13/19 01:44	1
Carbon tetrachloride	**0.038**	**J**	0.40	0.035	ppb v/v			06/13/19 01:44	1
Chlorodifluoromethane	**2.9**		0.40	0.11	ppb v/v			06/13/19 01:44	1
Chloroform	**0.69**		0.40	0.035	ppb v/v			06/13/19 01:44	1
cis-1,2-Dichloroethene	**19**		0.40	0.050	ppb v/v			06/13/19 01:44	1
Dichlorodifluoromethane	**0.54**		0.40	0.070	ppb v/v			06/13/19 01:44	1
1,1-Dichloroethane	**3.2**		0.40	0.035	ppb v/v			06/13/19 01:44	1
1,2-Dichloroethane	**0.23**	**J**	0.40	0.050	ppb v/v			06/13/19 01:44	1
1,1-Dichloroethene	**15**		0.40	0.040	ppb v/v			06/13/19 01:44	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			06/13/19 01:44	1
Methylene Chloride	**1.3**	**J**	2.0	0.80	ppb v/v			06/13/19 01:44	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			06/13/19 01:44	1
Naphthalene	ND		0.20	0.38	ppb v/v			06/13/19 01:44	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			06/13/19 01:44	1
Toluene	ND		0.60	0.39	ppb v/v			06/13/19 01:44	1
trans-1,2-Dichloroethene	**0.34**	**J**	0.40	0.035	ppb v/v			06/13/19 01:44	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			06/13/19 01:44	1
1,1,1-Trichloroethane	**86**	**E**	0.40	0.19	ppb v/v			06/13/19 01:44	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			06/13/19 01:44	1
Trichloroethene	**0.24**		0.20	0.030	ppb v/v			06/13/19 01:44	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			06/13/19 01:44	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			06/13/19 01:44	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			06/13/19 01:44	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			06/13/19 01:44	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			06/13/19 01:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.84**	**J**	1.3	0.13	ug/m3			06/13/19 01:44	1
Carbon tetrachloride	**0.24**	**J**	2.5	0.22	ug/m3			06/13/19 01:44	1
Chlorodifluoromethane	**10**		1.4	0.39	ug/m3			06/13/19 01:44	1
Chloroform	**3.4**		2.0	0.17	ug/m3			06/13/19 01:44	1
cis-1,2-Dichloroethene	**77**		1.6	0.20	ug/m3			06/13/19 01:44	1
Dichlorodifluoromethane	**2.7**		2.0	0.35	ug/m3			06/13/19 01:44	1
1,1-Dichloroethane	**13**		1.6	0.14	ug/m3			06/13/19 01:44	1
1,2-Dichloroethane	**0.92**	**J**	1.6	0.20	ug/m3			06/13/19 01:44	1
1,1-Dichloroethene	**59**		1.6	0.16	ug/m3			06/13/19 01:44	1
Ethylbenzene	ND		1.7	0.28	ug/m3			06/13/19 01:44	1
Methylene Chloride	**4.6**	**J**	6.9	2.8	ug/m3			06/13/19 01:44	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			06/13/19 01:44	1
Naphthalene	ND		1.0	2.0	ug/m3			06/13/19 01:44	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			06/13/19 01:44	1
Toluene	ND		2.3	1.5	ug/m3			06/13/19 01:44	1
trans-1,2-Dichloroethene	**1.4**	**J**	1.6	0.14	ug/m3			06/13/19 01:44	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			06/13/19 01:44	1
1,1,1-Trichloroethane	**470**	**E**	2.2	1.0	ug/m3			06/13/19 01:44	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			06/13/19 01:44	1
Trichloroethene	**1.3**		1.1	0.16	ug/m3			06/13/19 01:44	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			06/13/19 01:44	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			06/13/19 01:44	1

Client Sample ID: BLDG A-MIDGAC
Lab Sample ID: 140-15566-2

Date Collected: 06/10/19 11:36
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			06/13/19 01:44	1
Vinyl chloride	ND		0.51	0.33	ug/m3			06/13/19 01:44	1
Xylenes, Total	ND		3.5	0.52	ug/m3			06/13/19 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/13/19 01:44*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**89**		0.80	0.37	ppb v/v			06/13/19 23:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**490**		4.4	2.0	ug/m3			06/13/19 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*06/13/19 23:41*	*1*

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-15566-3

Date Collected: 06/10/19 11:30
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.1**		0.40	0.040	ppb v/v			06/13/19 02:29	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			06/13/19 02:29	1
Chlorodifluoromethane	**0.58**		0.40	0.11	ppb v/v			06/13/19 02:29	1
Chloroform	**0.52**		0.40	0.035	ppb v/v			06/13/19 02:29	1
cis-1,2-Dichloroethene	**13**		0.40	0.050	ppb v/v			06/13/19 02:29	1
Dichlorodifluoromethane	**0.47**		0.40	0.070	ppb v/v			06/13/19 02:29	1
1,1-Dichloroethane	**2.1**		0.40	0.035	ppb v/v			06/13/19 02:29	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			06/13/19 02:29	1
1,1-Dichloroethene	**19**		0.40	0.040	ppb v/v			06/13/19 02:29	1
Ethylbenzene	**0.097**	**J**	0.40	0.065	ppb v/v			06/13/19 02:29	1
Methylene Chloride	**1.0**	**J**	2.0	0.80	ppb v/v			06/13/19 02:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			06/13/19 02:29	1
Naphthalene	ND		0.20	0.38	ppb v/v			06/13/19 02:29	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			06/13/19 02:29	1
Toluene	**1.2**		0.60	0.39	ppb v/v			06/13/19 02:29	1
trans-1,2-Dichloroethene	**0.29**	**J**	0.40	0.035	ppb v/v			06/13/19 02:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			06/13/19 02:29	1
1,1,1-Trichloroethane	**5.5**		0.40	0.19	ppb v/v			06/13/19 02:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			06/13/19 02:29	1
Trichloroethene	**1.2**		0.20	0.030	ppb v/v			06/13/19 02:29	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			06/13/19 02:29	1
1,2,4-Trimethylbenzene	**0.11**	**J**	0.40	0.10	ppb v/v			06/13/19 02:29	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			06/13/19 02:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			06/13/19 02:29	1
Xylenes, Total	**0.52**	**J**	0.80	0.12	ppb v/v			06/13/19 02:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.6**		1.3	0.13	ug/m3			06/13/19 02:29	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			06/13/19 02:29	1
Chlorodifluoromethane	**2.1**		1.4	0.39	ug/m3			06/13/19 02:29	1
Chloroform	**2.6**		2.0	0.17	ug/m3			06/13/19 02:29	1
cis-1,2-Dichloroethene	**50**		1.6	0.20	ug/m3			06/13/19 02:29	1
Dichlorodifluoromethane	**2.3**		2.0	0.35	ug/m3			06/13/19 02:29	1
1,1-Dichloroethane	**8.7**		1.6	0.14	ug/m3			06/13/19 02:29	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			06/13/19 02:29	1
1,1-Dichloroethene	**77**		1.6	0.16	ug/m3			06/13/19 02:29	1
Ethylbenzene	**0.42**	**J**	1.7	0.28	ug/m3			06/13/19 02:29	1
Methylene Chloride	**3.5**	**J**	6.9	2.8	ug/m3			06/13/19 02:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			06/13/19 02:29	1
Naphthalene	ND		1.0	2.0	ug/m3			06/13/19 02:29	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			06/13/19 02:29	1
Toluene	**4.7**		2.3	1.5	ug/m3			06/13/19 02:29	1
trans-1,2-Dichloroethene	**1.2**	**J**	1.6	0.14	ug/m3			06/13/19 02:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			06/13/19 02:29	1
1,1,1-Trichloroethane	**30**		2.2	1.0	ug/m3			06/13/19 02:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			06/13/19 02:29	1
Trichloroethene	**6.4**		1.1	0.16	ug/m3			06/13/19 02:29	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			06/13/19 02:29	1
1,2,4-Trimethylbenzene	**0.54**	**J**	2.0	0.49	ug/m3			06/13/19 02:29	1

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-15566-3

Date Collected: 06/10/19 11:30
Matrix: Air
Date Received: 06/11/19 08:40
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			06/13/19 02:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			06/13/19 02:29	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			06/13/19 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*		*06/13/19 02:29*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (60-140)							
140-15566-1	BLDG A-INFLUENT	111							
140-15566-2	BLDG A-MIDGAC	113							
140-15566-2 - DL	BLDG A-MIDGAC	107							
140-15566-3	BLDG A-EFFLUENT	114							
LCS 140-30705/1002	Lab Control Sample	118							
LCS 140-30706/1002	Lab Control Sample	119							
MB 140-30705/4	Method Blank	113							
MB 140-30706/8	Method Blank	112							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-30705/4
Matrix: Air
Analysis Batch: 30705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			06/12/19 11:30	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			06/12/19 11:30	1
Chloroform	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			06/12/19 11:30	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			06/12/19 11:30	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			06/12/19 11:30	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			06/12/19 11:30	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			06/12/19 11:30	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			06/12/19 11:30	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			06/12/19 11:30	1
Naphthalene	ND		0.040	0.076	ppb v/v			06/12/19 11:30	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
Toluene	ND		0.12	0.078	ppb v/v			06/12/19 11:30	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			06/12/19 11:30	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			06/12/19 11:30	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			06/12/19 11:30	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			06/12/19 11:30	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			06/12/19 11:30	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			06/12/19 11:30	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			06/12/19 11:30	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			06/12/19 11:30	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			06/12/19 11:30	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			06/12/19 11:30	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			06/12/19 11:30	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			06/12/19 11:30	1
Chloroform	ND		0.39	0.034	ug/m3			06/12/19 11:30	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			06/12/19 11:30	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			06/12/19 11:30	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			06/12/19 11:30	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			06/12/19 11:30	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			06/12/19 11:30	1
Ethylbenzene	ND		0.35	0.056	ug/m3			06/12/19 11:30	1
Methylene Chloride	ND		1.4	0.56	ug/m3			06/12/19 11:30	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			06/12/19 11:30	1
Naphthalene	ND		0.21	0.40	ug/m3			06/12/19 11:30	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			06/12/19 11:30	1
Toluene	ND		0.45	0.29	ug/m3			06/12/19 11:30	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			06/12/19 11:30	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			06/12/19 11:30	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			06/12/19 11:30	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			06/12/19 11:30	1
Trichloroethene	ND		0.21	0.032	ug/m3			06/12/19 11:30	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			06/12/19 11:30	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-30705/4
Matrix: Air
Analysis Batch: 30705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			06/12/19 11:30	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			06/12/19 11:30	1
Vinyl chloride	ND		0.10	0.066	ug/m3			06/12/19 11:30	1
Xylenes, Total	ND		0.69	0.10	ug/m3			06/12/19 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/12/19 11:30*	*1*

Lab Sample ID: LCS 140-30705/1002
Matrix: Air
Analysis Batch: 30705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.14		ppb v/v		107	70 - 130
Carbon tetrachloride	2.00	2.39		ppb v/v		119	70 - 130
Chlorodifluoromethane	2.00	2.01		ppb v/v		101	60 - 140
Chloroform	2.00	2.05		ppb v/v		102	70 - 130
cis-1,2-Dichloroethene	2.00	1.90		ppb v/v		95	70 - 130
Dichlorodifluoromethane	2.00	1.99		ppb v/v		100	60 - 140
1,1-Dichloroethane	2.00	1.98		ppb v/v		99	70 - 130
1,2-Dichloroethane	2.00	2.26		ppb v/v		113	70 - 130
1,1-Dichloroethene	2.00	1.82		ppb v/v		91	70 - 130
Ethylbenzene	2.00	1.98		ppb v/v		99	70 - 130
Methylene Chloride	2.00	1.68		ppb v/v		84	70 - 130
Methyl tert-butyl ether	2.00	1.93		ppb v/v		97	60 - 140
Naphthalene	2.00	1.86		ppb v/v		93	60 - 140
Tetrachloroethene	2.00	1.88		ppb v/v		94	70 - 130
Toluene	2.00	1.86		ppb v/v		93	70 - 130
trans-1,2-Dichloroethene	2.00	1.86		ppb v/v		93	70 - 130
1,2,4-Trichlorobenzene	2.00	2.33		ppb v/v		116	60 - 140
1,1,1-Trichloroethane	2.00	2.06		ppb v/v		103	70 - 130
1,1,2-Trichloroethane	2.00	1.86		ppb v/v		93	70 - 130
Trichloroethene	2.00	2.02		ppb v/v		101	70 - 130
1,2,3-Trimethylbenzene	2.00	1.54		ppb v/v		77	70 - 130
1,2,4-Trimethylbenzene	2.00	2.11		ppb v/v		105	70 - 130
1,3,5-Trimethylbenzene	2.00	2.23		ppb v/v		111	70 - 130
Vinyl chloride	2.00	1.88		ppb v/v		94	70 - 130
Xylenes, Total	6.00	6.06		ppb v/v		101	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.83		ug/m3		107	70 - 130
Carbon tetrachloride	13	15.0		ug/m3		119	70 - 130
Chlorodifluoromethane	7.1	7.11		ug/m3		101	60 - 140
Chloroform	9.8	9.99		ug/m3		102	70 - 130
cis-1,2-Dichloroethene	7.9	7.55		ug/m3		95	70 - 130
Dichlorodifluoromethane	9.9	9.86		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	8.01		ug/m3		99	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30705/1002
Matrix: Air
Analysis Batch: 30705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	9.15		ug/m3		113	70 - 130
1,1-Dichloroethene	7.9	7.21		ug/m3		91	70 - 130
Ethylbenzene	8.7	8.60		ug/m3		99	70 - 130
Methylene Chloride	6.9	5.85		ug/m3		84	70 - 130
Methyl tert-butyl ether	7.2	6.96		ug/m3		97	60 - 140
Naphthalene	10	9.77		ug/m3		93	60 - 140
Tetrachloroethene	14	12.8		ug/m3		94	70 - 130
Toluene	7.5	7.00		ug/m3		93	70 - 130
trans-1,2-Dichloroethene	7.9	7.37		ug/m3		93	70 - 130
1,2,4-Trichlorobenzene	15	17.3		ug/m3		116	60 - 140
1,1,1-Trichloroethane	11	11.3		ug/m3		103	70 - 130
1,1,2-Trichloroethane	11	10.1		ug/m3		93	70 - 130
Trichloroethene	11	10.8		ug/m3		101	70 - 130
1,2,3-Trimethylbenzene	9.8	7.56		ug/m3		77	70 - 130
1,2,4-Trimethylbenzene	9.8	10.4		ug/m3		105	70 - 130
1,3,5-Trimethylbenzene	9.8	10.9		ug/m3		111	70 - 130
Vinyl chloride	5.1	4.81		ug/m3		94	70 - 130
Xylenes, Total	26	26.3		ug/m3		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*60 - 140*

Lab Sample ID: MB 140-30706/8
Matrix: Air
Analysis Batch: 30706

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			06/13/19 12:47	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			06/13/19 12:47	1
Chloroform	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			06/13/19 12:47	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			06/13/19 12:47	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			06/13/19 12:47	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			06/13/19 12:47	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			06/13/19 12:47	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			06/13/19 12:47	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			06/13/19 12:47	1
Naphthalene	ND		0.040	0.076	ppb v/v			06/13/19 12:47	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
Toluene	ND		0.12	0.078	ppb v/v			06/13/19 12:47	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			06/13/19 12:47	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			06/13/19 12:47	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			06/13/19 12:47	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			06/13/19 12:47	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-30706/8
Matrix: Air
Analysis Batch: 30706

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			06/13/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			06/13/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			06/13/19 12:47	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			06/13/19 12:47	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			06/13/19 12:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			06/13/19 12:47	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			06/13/19 12:47	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			06/13/19 12:47	1
Chloroform	ND		0.39	0.034	ug/m3			06/13/19 12:47	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			06/13/19 12:47	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			06/13/19 12:47	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			06/13/19 12:47	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			06/13/19 12:47	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			06/13/19 12:47	1
Ethylbenzene	ND		0.35	0.056	ug/m3			06/13/19 12:47	1
Methylene Chloride	ND		1.4	0.56	ug/m3			06/13/19 12:47	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			06/13/19 12:47	1
Naphthalene	ND		0.21	0.40	ug/m3			06/13/19 12:47	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			06/13/19 12:47	1
Toluene	ND		0.45	0.29	ug/m3			06/13/19 12:47	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			06/13/19 12:47	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			06/13/19 12:47	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			06/13/19 12:47	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			06/13/19 12:47	1
Trichloroethene	ND		0.21	0.032	ug/m3			06/13/19 12:47	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			06/13/19 12:47	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			06/13/19 12:47	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			06/13/19 12:47	1
Vinyl chloride	ND		0.10	0.066	ug/m3			06/13/19 12:47	1
Xylenes, Total	ND		0.69	0.10	ug/m3			06/13/19 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*60 - 140*		*06/13/19 12:47*	*1*

Lab Sample ID: LCS 140-30706/1002
Matrix: Air
Analysis Batch: 30706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.10		ppb v/v		105	70 - 130
Carbon tetrachloride	2.00	2.41		ppb v/v		121	70 - 130
Chlorodifluoromethane	2.00	2.05		ppb v/v		102	60 - 140
Chloroform	2.00	2.07		ppb v/v		103	70 - 130
cis-1,2-Dichloroethene	2.00	1.92		ppb v/v		96	70 - 130
Dichlorodifluoromethane	2.00	2.04		ppb v/v		102	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30706/1002
Matrix: Air
Analysis Batch: 30706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	1.98		ppb v/v		99	70 - 130
1,2-Dichloroethane	2.00	2.24		ppb v/v		112	70 - 130
1,1-Dichloroethene	2.00	1.83		ppb v/v		91	70 - 130
Ethylbenzene	2.00	1.88		ppb v/v		94	70 - 130
Methylene Chloride	2.00	1.67		ppb v/v		84	70 - 130
Methyl tert-butyl ether	2.00	1.87		ppb v/v		93	60 - 140
Naphthalene	2.00	1.72		ppb v/v		86	60 - 140
Tetrachloroethene	2.00	1.91		ppb v/v		95	70 - 130
Toluene	2.00	1.79		ppb v/v		90	70 - 130
trans-1,2-Dichloroethene	2.00	1.83		ppb v/v		91	70 - 130
1,2,4-Trichlorobenzene	2.00	1.97		ppb v/v		99	60 - 140
1,1,1-Trichloroethane	2.00	2.07		ppb v/v		103	70 - 130
1,1,2-Trichloroethane	2.00	1.83		ppb v/v		91	70 - 130
Trichloroethene	2.00	2.09		ppb v/v		104	70 - 130
1,2,3-Trimethylbenzene	2.00	1.44		ppb v/v		72	70 - 130
1,2,4-Trimethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
1,3,5-Trimethylbenzene	2.00	2.05		ppb v/v		103	70 - 130
Vinyl chloride	2.00	1.92		ppb v/v		96	70 - 130
Xylenes, Total	6.00	5.79		ppb v/v		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.70		ug/m3		105	70 - 130
Carbon tetrachloride	13	15.2		ug/m3		121	70 - 130
Chlorodifluoromethane	7.1	7.25		ug/m3		102	60 - 140
Chloroform	9.8	10.1		ug/m3		103	70 - 130
cis-1,2-Dichloroethene	7.9	7.60		ug/m3		96	70 - 130
Dichlorodifluoromethane	9.9	10.1		ug/m3		102	60 - 140
1,1-Dichloroethane	8.1	8.01		ug/m3		99	70 - 130
1,2-Dichloroethane	8.1	9.05		ug/m3		112	70 - 130
1,1-Dichloroethene	7.9	7.24		ug/m3		91	70 - 130
Ethylbenzene	8.7	8.18		ug/m3		94	70 - 130
Methylene Chloride	6.9	5.81		ug/m3		84	70 - 130
Methyl tert-butyl ether	7.2	6.73		ug/m3		93	60 - 140
Naphthalene	10	9.00		ug/m3		86	60 - 140
Tetrachloroethene	14	12.9		ug/m3		95	70 - 130
Toluene	7.5	6.75		ug/m3		90	70 - 130
trans-1,2-Dichloroethene	7.9	7.25		ug/m3		91	70 - 130
1,2,4-Trichlorobenzene	15	14.6		ug/m3		99	60 - 140
1,1,1-Trichloroethane	11	11.3		ug/m3		103	70 - 130
1,1,2-Trichloroethane	11	9.98		ug/m3		91	70 - 130
Trichloroethene	11	11.2		ug/m3		104	70 - 130
1,2,3-Trimethylbenzene	9.8	7.08		ug/m3		72	70 - 130
1,2,4-Trimethylbenzene	9.8	9.63		ug/m3		98	70 - 130
1,3,5-Trimethylbenzene	9.8	10.1		ug/m3		103	70 - 130
Vinyl chloride	5.1	4.90		ug/m3		96	70 - 130
Xylenes, Total	26	25.1		ug/m3		97	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-30706/1002
Matrix: Air
Analysis Batch: 30706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*119*		*60 - 140*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Air - GC/MS VOA

Analysis Batch: 30705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-15566-1	BLDG A-INFLUENT	Total/NA	Air	TO 15 LL	
140-15566-2	BLDG A-MIDGAC	Total/NA	Air	TO 15 LL	
140-15566-3	BLDG A-EFFLUENT	Total/NA	Air	TO 15 LL	
MB 140-30705/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-30705/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 30706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-15566-2 - DL	BLDG A-MIDGAC	Total/NA	Air	TO 15 LL	
MB 140-30706/8	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-30706/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-15566-1
Date Collected: 06/10/19 11:42
Matrix: Air
Date Received: 06/11/19 08:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	20 mL	500 mL	30705	06/13/19 00:58	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG A-MIDGAC
Lab Sample ID: 140-15566-2
Date Collected: 06/10/19 11:36
Matrix: Air
Date Received: 06/11/19 08:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30705	06/13/19 01:44	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL	DL	1	50 mL	500 mL	30706	06/13/19 23:41	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-15566-3
Date Collected: 06/10/19 11:30
Matrix: Air
Date Received: 06/11/19 08:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	30705	06/13/19 02:29	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-30705/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30705	06/12/19 11:30	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-30706/8
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30706	06/13/19 12:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-30705/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30705	06/12/19 09:59	S1K	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-30706/1002

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	30706	06/13/19 09:57	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-15566-1
Project/Site: Lockheed Martin MRC, Middle River

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-15566-1	BLDG A-INFLUENT	Air	06/10/19 11:42	06/11/19 08:40	Air Canister (1-Liter) #11572
140-15566-2	BLDG A-MIDGAC	Air	06/10/19 11:36	06/11/19 08:40	Air Canister (1-Liter) #09634
140-15566-3	BLDG A-EFFLUENT	Air	06/10/19 11:30	06/11/19 08:40	Air Canister (1-Liter) #09886

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
BLDG A-INFLUENT	140-15566-1	111
BLDG A-MIDGAC	140-15566-2	113
BLDG A-MIDGAC DL	140-15566-2 DL	107
BLDG A-EFFLUENT	140-15566-3	114
	MB 140-30705/4	113
	MB 140-30706/8	112
	LCS 140-30705/1002	118
	LCS 140-30706/1002	119

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVF12-LCS.d

Lab ID: LCS 140-30705/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.14	107	70-130	
Carbon tetrachloride	2.00	2.39	119	70-130	
Chlorodifluoromethane	2.00	2.01	101	60-140	
Chloroform	2.00	2.05	102	70-130	
cis-1,2-Dichloroethene	2.00	1.90	95	70-130	
Dichlorodifluoromethane	2.00	1.99	100	60-140	
1,1-Dichloroethane	2.00	1.98	99	70-130	
1,2-Dichloroethane	2.00	2.26	113	70-130	
1,1-Dichloroethene	2.00	1.82	91	70-130	
Ethylbenzene	2.00	1.98	99	70-130	
Methylene Chloride	2.00	1.68	84	70-130	
Methyl tert-butyl ether	2.00	1.93	97	60-140	
Naphthalene	2.00	1.86	93	60-140	
Tetrachloroethene	2.00	1.88	94	70-130	
Toluene	2.00	1.86	93	70-130	
trans-1,2-Dichloroethene	2.00	1.86	93	70-130	
1,2,4-Trichlorobenzene	2.00	2.33	116	60-140	
1,1,1-Trichloroethane	2.00	2.06	103	70-130	
1,1,2-Trichloroethane	2.00	1.86	93	70-130	
Trichloroethene	2.00	2.02	101	70-130	
1,2,3-Trimethylbenzene	2.00	1.54	77	70-130	
1,2,4-Trimethylbenzene	2.00	2.11	105	70-130	
1,3,5-Trimethylbenzene	2.00	2.23	111	70-130	
Vinyl chloride	2.00	1.88	94	70-130	
Xylenes, Total	6.00	6.06	101	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVF13-LCS.d

Lab ID: LCS 140-30706/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.10	105	70-130	
Carbon tetrachloride	2.00	2.41	121	70-130	
Chlorodifluoromethane	2.00	2.05	102	60-140	
Chloroform	2.00	2.07	103	70-130	
cis-1,2-Dichloroethene	2.00	1.92	96	70-130	
Dichlorodifluoromethane	2.00	2.04	102	60-140	
1,1-Dichloroethane	2.00	1.98	99	70-130	
1,2-Dichloroethane	2.00	2.24	112	70-130	
1,1-Dichloroethene	2.00	1.83	91	70-130	
Ethylbenzene	2.00	1.88	94	70-130	
Methylene Chloride	2.00	1.67	84	70-130	
Methyl tert-butyl ether	2.00	1.87	93	60-140	
Naphthalene	2.00	1.72	86	60-140	
Tetrachloroethene	2.00	1.91	95	70-130	
Toluene	2.00	1.79	90	70-130	
trans-1,2-Dichloroethene	2.00	1.83	91	70-130	
1,2,4-Trichlorobenzene	2.00	1.97	99	60-140	
1,1,1-Trichloroethane	2.00	2.07	103	70-130	
1,1,2-Trichloroethane	2.00	1.83	91	70-130	
Trichloroethene	2.00	2.09	104	70-130	
1,2,3-Trimethylbenzene	2.00	1.44	72	70-130	
1,2,4-Trimethylbenzene	2.00	1.96	98	70-130	
1,3,5-Trimethylbenzene	2.00	2.05	103	70-130	
Vinyl chloride	2.00	1.92	96	70-130	
Xylenes, Total	6.00	5.79	97	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab File ID: G500BF12.D Lab Sample ID: MB 140-30705/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 06/12/2019 11:30

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-30705/1002	GCCVF12-LCS.d	06/12/2019 09:59
BLDG A-INFLUENT	140-15566-1	GF12P110.D	06/13/2019 00:58
BLDG A-MIDGAC	140-15566-2	GF12P111.D	06/13/2019 01:44
BLDG A-EFFLUENT	140-15566-3	GF12P112.D	06/13/2019 02:29

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab File ID: G500BF13.D Lab Sample ID: MB 140-30706/8

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 06/13/2019 12:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-30706/1002	GCCVF13-LCS.d	06/13/2019 09:57
BLDG A-MIDGAC DL	140-15566-2 DL	GF13P113D.D	06/13/2019 23:41

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab File ID: GE16BFB.D BFB Injection Date: 05/16/2019

Instrument ID: MG BFB Injection Time: 18:49

Analysis Batch No.: 30104

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.4	
75	30.0 - 60.0 % of mass 95	50.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	73.2	
175	5.0 - 9.0 % of mass 174	5.1	(6.9) 1
176	95.0 - 101.0 % of mass 174	70.8	(96.8) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-30104/3	GE16IC09.D	05/16/2019	20:05
	IC 140-30104/5	GE16IC10.D	05/16/2019	21:32
	IC 140-30104/8	GE16IC01.D	05/16/2019	23:40
	IC 140-30104/9	GE16IC02.D	05/17/2019	00:23
	IC 140-30104/10	GE16IC03.D	05/17/2019	01:06
	IC 140-30104/11	GE16IC04.D	05/17/2019	01:49
	IC 140-30104/12	GE16IC05.D	05/17/2019	02:34
	IC 140-30104/13	GE16IC06.D	05/17/2019	03:19
	ICIS 140-30104/14	GE16IC07.D	05/17/2019	04:03
	IC 140-30104/15	GE16IC08.D	05/17/2019	04:45
	ICV 140-30104/17	GE16ICV.D	05/17/2019	06:12

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab File ID: GBFBF12.D BFB Injection Date: 06/12/2019

Instrument ID: MG BFB Injection Time: 09:27

Analysis Batch No.: 30705

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	53.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.5) 1
174	50.0 - 120.00 % of mass 95	70.5	
175	5.0 - 9.0 % of mass 174	4.8	(6.9) 1
176	95.0 - 101.0 % of mass 174	67.8	(96.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-30705/2	GCCVF12.D	06/12/2019	09:59
	LCS 140-30705/1002	GCCVF12-LCS.d	06/12/2019	09:59
	MB 140-30705/4	G500BF12.D	06/12/2019	11:30
BLDG A-INFLUENT	140-15566-1	GF12P110.D	06/13/2019	00:58
BLDG A-MIDGAC	140-15566-2	GF12P111.D	06/13/2019	01:44
BLDG A-EFFLUENT	140-15566-3	GF12P112.D	06/13/2019	02:29

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab File ID: GBFBF13.D BFB Injection Date: 06/13/2019

Instrument ID: MG BFB Injection Time: 09:20

Analysis Batch No.: 30706

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	53.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.5) 1
174	50.0 - 120.00 % of mass 95	68.6	
175	5.0 - 9.0 % of mass 174	4.7	(6.8) 1
176	95.0 - 101.0 % of mass 174	66.0	(96.1) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-30706/2	GCCVF13.D	06/13/2019	09:57
	LCS 140-30706/1002	GCCVF13-LCS.d	06/13/2019	09:57
	MB 140-30706/8	G500BF13.D	06/13/2019	12:47
BLDG A-MIDGAC DL	140-15566-2 DL	GF13P113D.D	06/13/2019	23:41

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Sample No.: ICIS 140-30104/14 Date Analyzed: 05/17/2019 04:03

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GE16IC07.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		328809	9.19	1973581	11.36	1744115	16.03
UPPER LIMIT		460333	9.52	2763013	11.69	2441761	16.36
LOWER LIMIT		197285	8.86	1184149	11.03	1046469	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-30104/17		352427	9.18	2232921	11.36	1850171	16.03

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Sample No.: CCVIS 140-30705/2 Date Analyzed: 06/12/2019 09:59

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVF12.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		326752	9.17	1941487	11.35	1794749	16.03
UPPER LIMIT		457453	9.50	2718082	11.68	2512649	16.36
LOWER LIMIT		196051	8.84	1164892	11.02	1076849	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-30705/1002		326752	9.17	1941487	11.35	1794749	16.03
MB 140-30705/4		310292	9.17	1821837	11.35	1599367	16.03
140-15566-1	BLDG A-INFLUENT	307030	9.17	1788579	11.34	1673867	16.02
140-15566-2	BLDG A-MIDGAC	300489	9.17	1786676	11.34	1668691	16.02
140-15566-3	BLDG A-EFFLUENT	311729	9.17	1845708	11.34	1689720	16.02

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Sample No.: CCVIS 140-30706/2 Date Analyzed: 06/13/2019 09:57

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVF13.D Heated Purge: (Y/N) N

Calibration ID: 1954

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		309361	9.17	1804549	11.35	1685979	16.03
UPPER LIMIT		433105	9.50	2526369	11.68	2360371	16.36
LOWER LIMIT		185617	8.84	1082729	11.02	1011587	15.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-30706/1002		309361	9.17	1804549	11.35	1685979	16.03
MB 140-30706/8		314594	9.16	1778278	11.34	1606016	16.02
140-15566-2 DL	BLDG A-MIDGAC DL	265406	9.17	1455647	11.34	1353234	16.02

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-INFLUENT Lab Sample ID: 140-15566-1

Matrix: Air Lab File ID: GF12P110.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:42

Sample wt/vol: 20(mL) Date Analyzed: 06/13/2019 00:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	6.0		2.0	0.20
56-23-5	Carbon tetrachloride	153.81	ND		2.0	0.18
75-45-6	Chlorodifluoromethane	86.47	2.0		2.0	0.55
67-66-3	Chloroform	119.38	2.7		2.0	0.18
156-59-2	cis-1,2-Dichloroethene	96.94	16		2.0	0.25
75-71-8	Dichlorodifluoromethane	120.91	0.45	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	3.0		2.0	0.18
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	0.25
75-35-4	1,1-Dichloroethene	96.94	16		2.0	0.20
100-41-4	Ethylbenzene	106.17	ND		2.0	0.33
75-09-2	Methylene Chloride	84.93	ND		10	4.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		10	1.3
91-20-3	Naphthalene	128.17	ND		1.0	1.9
127-18-4	Tetrachloroethene	165.83	ND		2.0	0.18
108-88-3	Toluene	92.14	ND		3.0	2.0
156-60-5	trans-1,2-Dichloroethene	96.94	0.33	J	2.0	0.18
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.0	1.6
71-55-6	1,1,1-Trichloroethane	133.41	81		2.0	0.93
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	0.18
79-01-6	Trichloroethene	131.39	160		1.0	0.15
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.90
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.50
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.55
75-01-4	Vinyl chloride	62.50	ND		1.0	0.65
1330-20-7	Xylenes, Total	106.17	ND		4.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-INFLUENT Lab Sample ID: 140-15566-1

Matrix: Air Lab File ID: GF12P110.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:42

Sample wt/vol: 20(mL) Date Analyzed: 06/13/2019 00:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	19		6.4	0.64
56-23-5	Carbon tetrachloride	153.81	ND		13	1.1
75-45-6	Chlorodifluoromethane	86.47	7.1		7.1	1.9
67-66-3	Chloroform	119.38	13		9.8	0.85
156-59-2	cis-1,2-Dichloroethene	96.94	63		7.9	0.99
75-71-8	Dichlorodifluoromethane	120.91	2.2	J	9.9	1.7
75-34-3	1,1-Dichloroethane	98.96	12		8.1	0.71
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	1.0
75-35-4	1,1-Dichloroethene	96.94	64		7.9	0.79
100-41-4	Ethylbenzene	106.17	ND		8.7	1.4
75-09-2	Methylene Chloride	84.93	ND		35	14
1634-04-4	Methyl tert-butyl ether	88.15	ND		36	4.7
91-20-3	Naphthalene	128.17	ND		5.2	10
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		11	7.3
156-60-5	trans-1,2-Dichloroethene	96.94	1.3	J	7.9	0.69
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		15	12
71-55-6	1,1,1-Trichloroethane	133.41	440		11	5.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	0.95
79-01-6	Trichloroethene	131.39	880		5.4	0.81
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		9.8	4.4
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	2.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	2.7
75-01-4	Vinyl chloride	62.50	ND		2.6	1.7
1330-20-7	Xylenes, Total	106.17	ND		17	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Lims ID:	140-15566-A-1				
Client ID:	BLDG A-INFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 00:58:30	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-018				
Misc. Info.:	140-15566-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 13:11:27	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				
First Level Reviewer: khachitpongpanits		Date:	13-Jun-2019 13:12:16		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.173	-0.005	98	307030	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	95	1788579	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	90	1673867	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.643	0.000	81	1145114	4.44	
6 Chlorodifluoromethane	51	3.818	3.821	-0.005	96	14329	0.0802	
8 Dichlorodifluoromethane	85	3.883	3.886	-0.006	99	5184	0.0181	
27 1,1-Dichloroethene	96	6.185	6.192	-0.011	95	72235	0.6487	
34 trans-1,2-Dichloroethene	96	7.382	7.389	-0.011	92	1446	0.0132	
37 1,1-Dichloroethane	63	7.824	7.825	-0.006	99	25720	0.1188	
42 cis-1,2-Dichloroethene	96	8.827	8.828	-0.006	97	72519	0.6335	
44 Chloroform	83	9.178	9.178	-0.005	30	24512	0.1066	
47 1,1,1-Trichloroethane	97	10.219	10.223	-0.010	97	800420	3.24	
50 Benzene	78	10.812	10.812	-0.005	97	74765	0.2382	
58 Trichloroethene	130	12.047	12.046	-0.005	96	901571	6.52	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

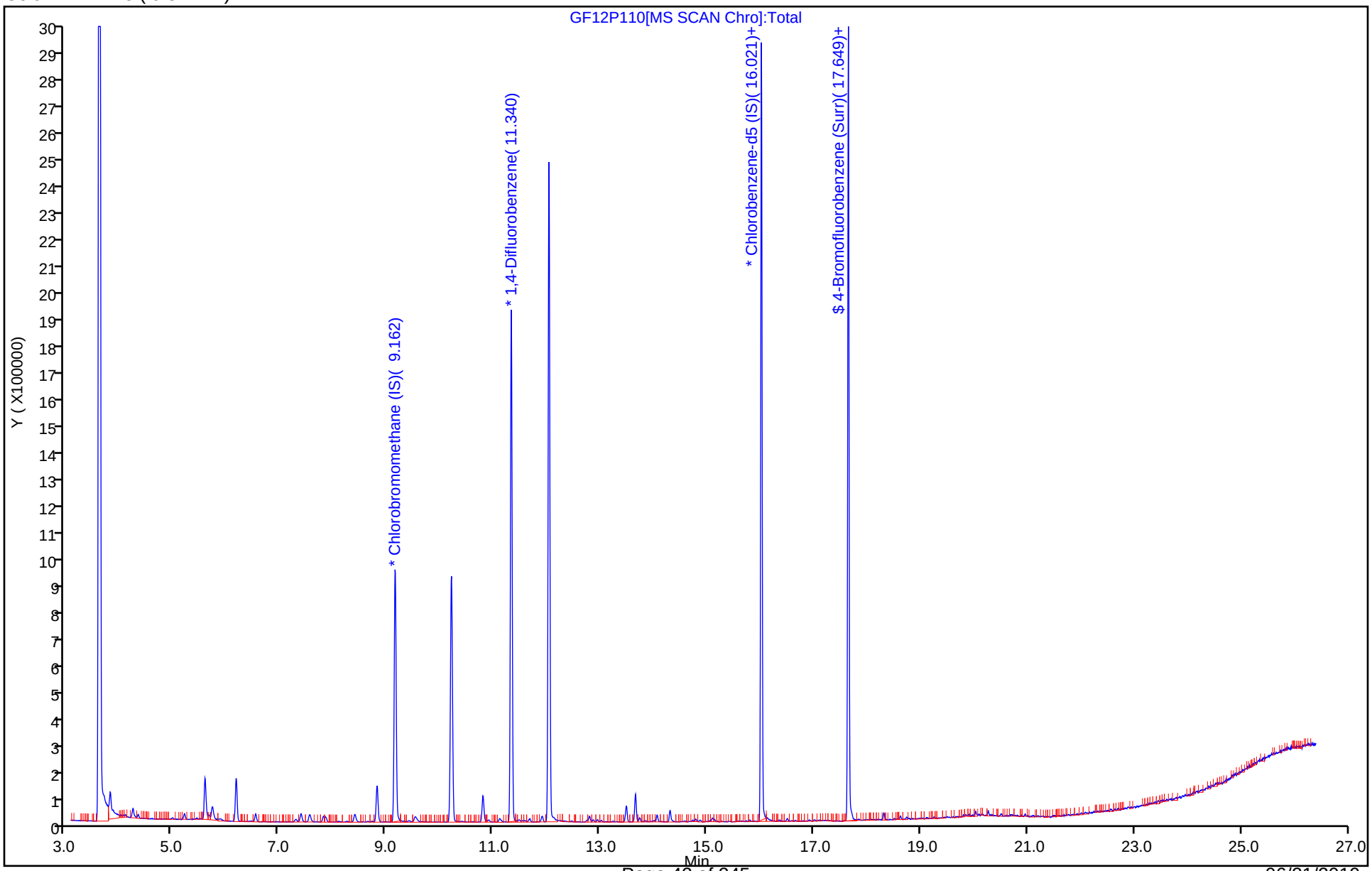
Report Date: 13-Jun-2019 13:12:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D

Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1	Worklist Smp#:	18
Client ID:	BLDG A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Lims ID:	140-15566-A-1				
Client ID:	BLDG A-INFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 00:58:30	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-018				
Misc. Info.:	140-15566-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 13:11:27	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

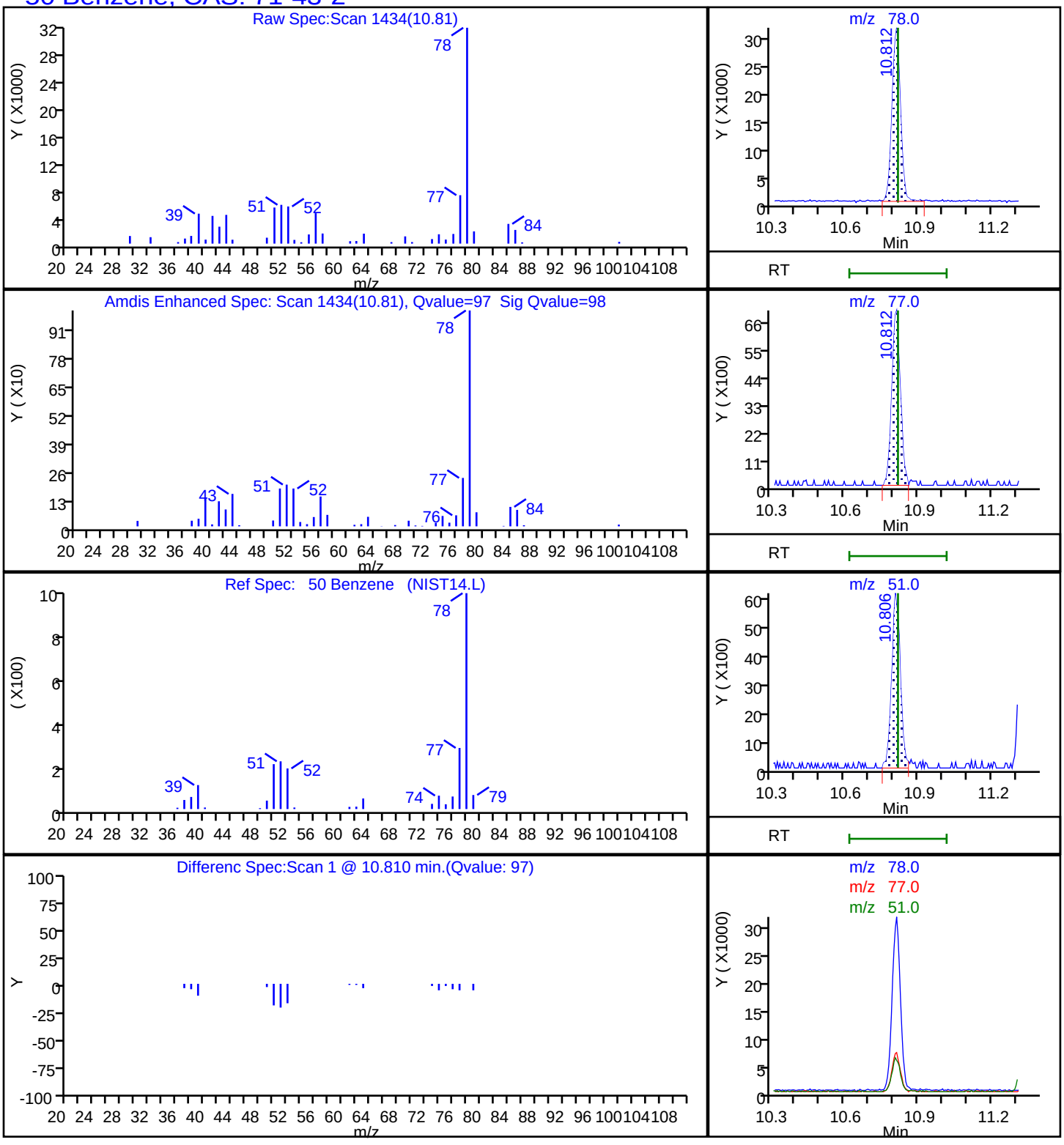
First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 13:12:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.44	111.06

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D		
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1
Client ID:	BLDG A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

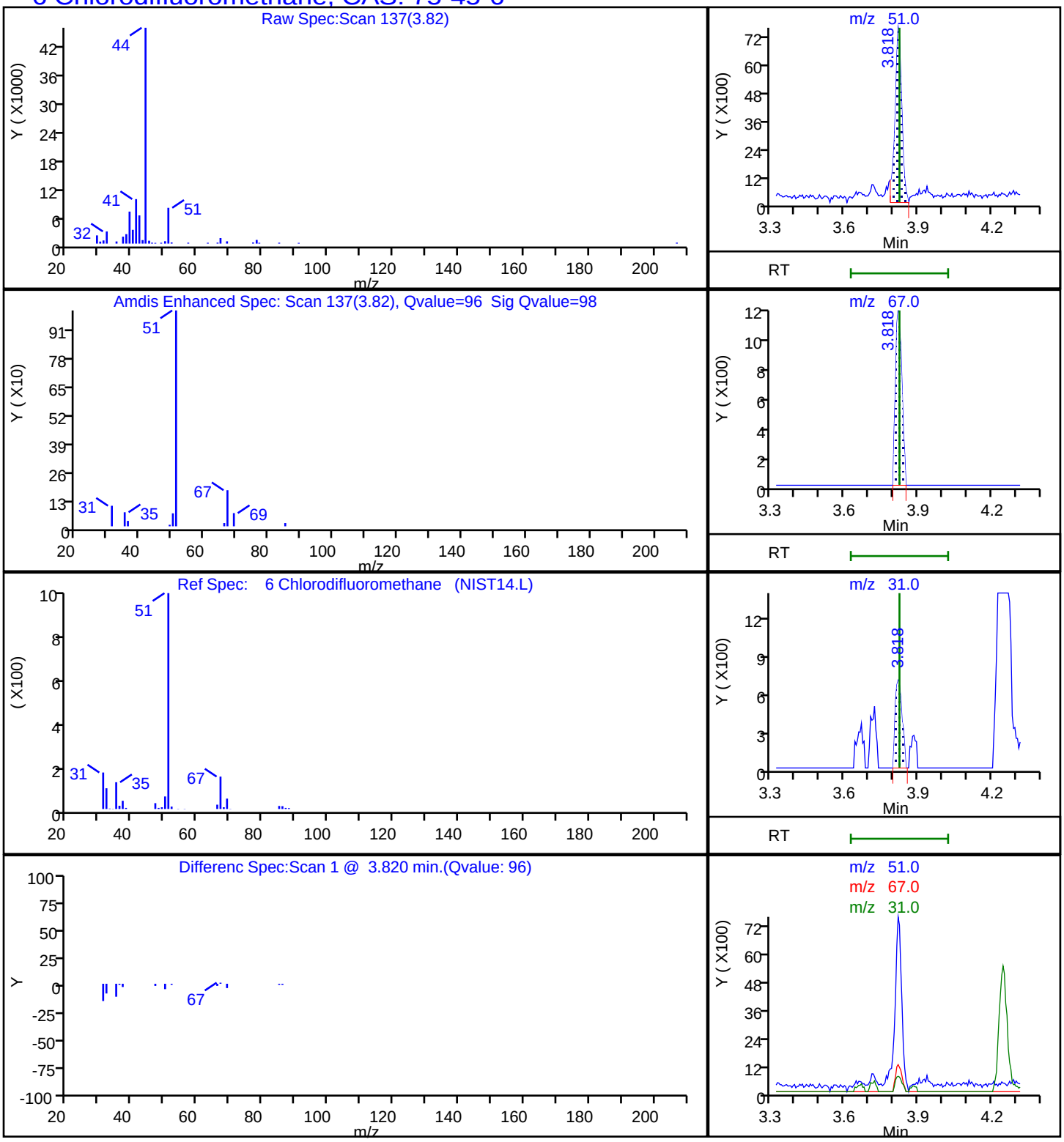
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

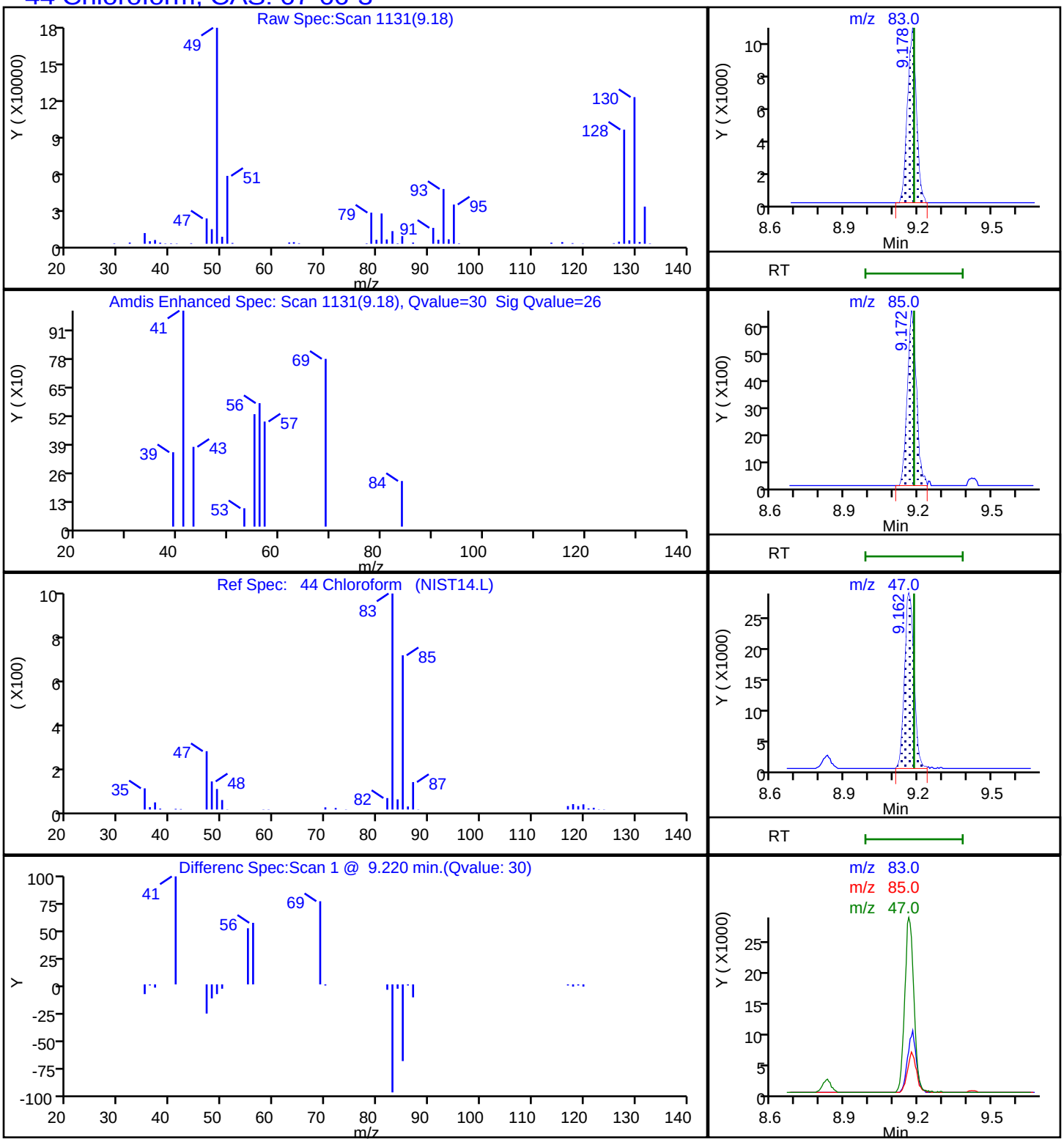
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

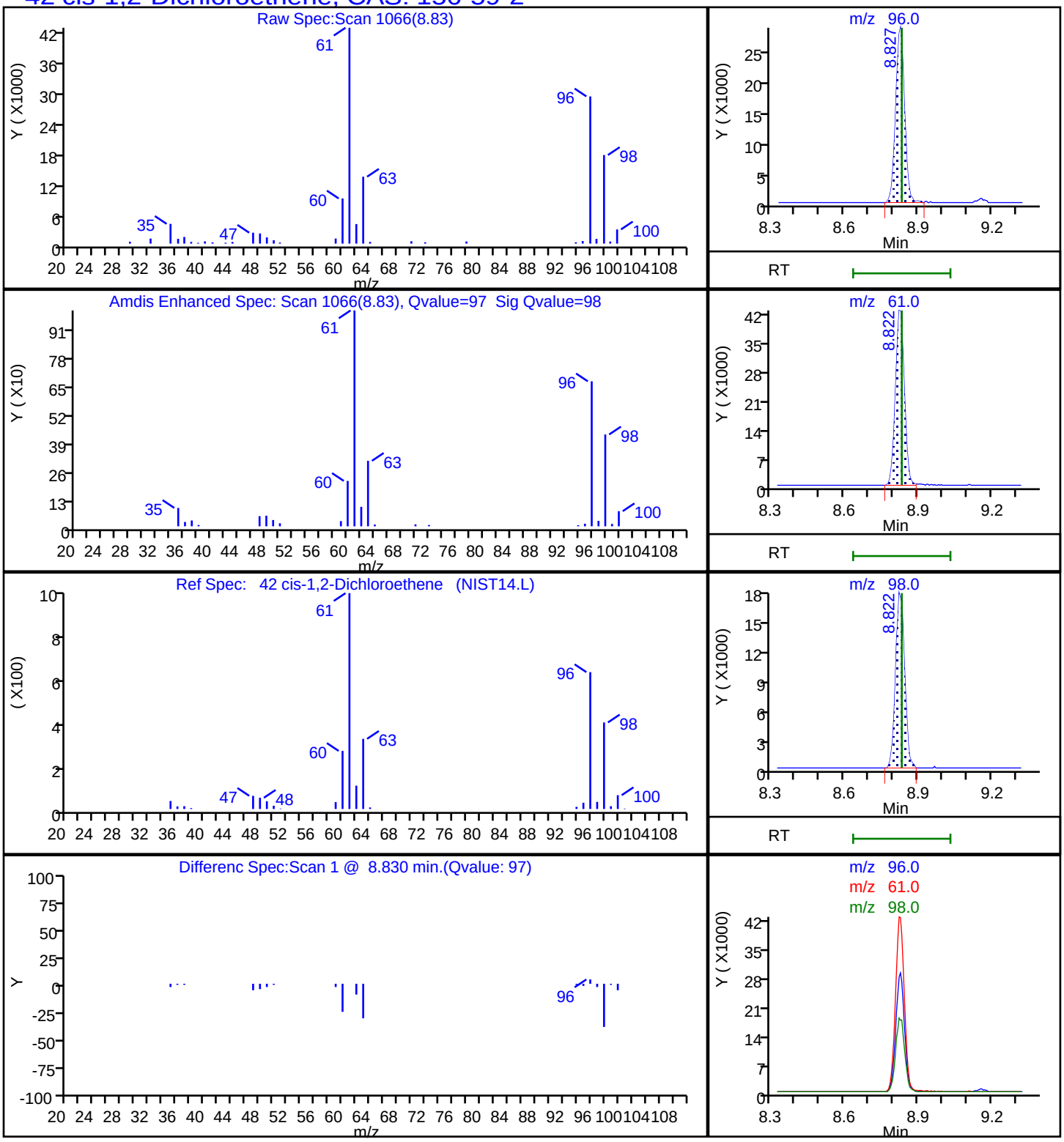
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D		
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1
Client ID:	BLDG A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

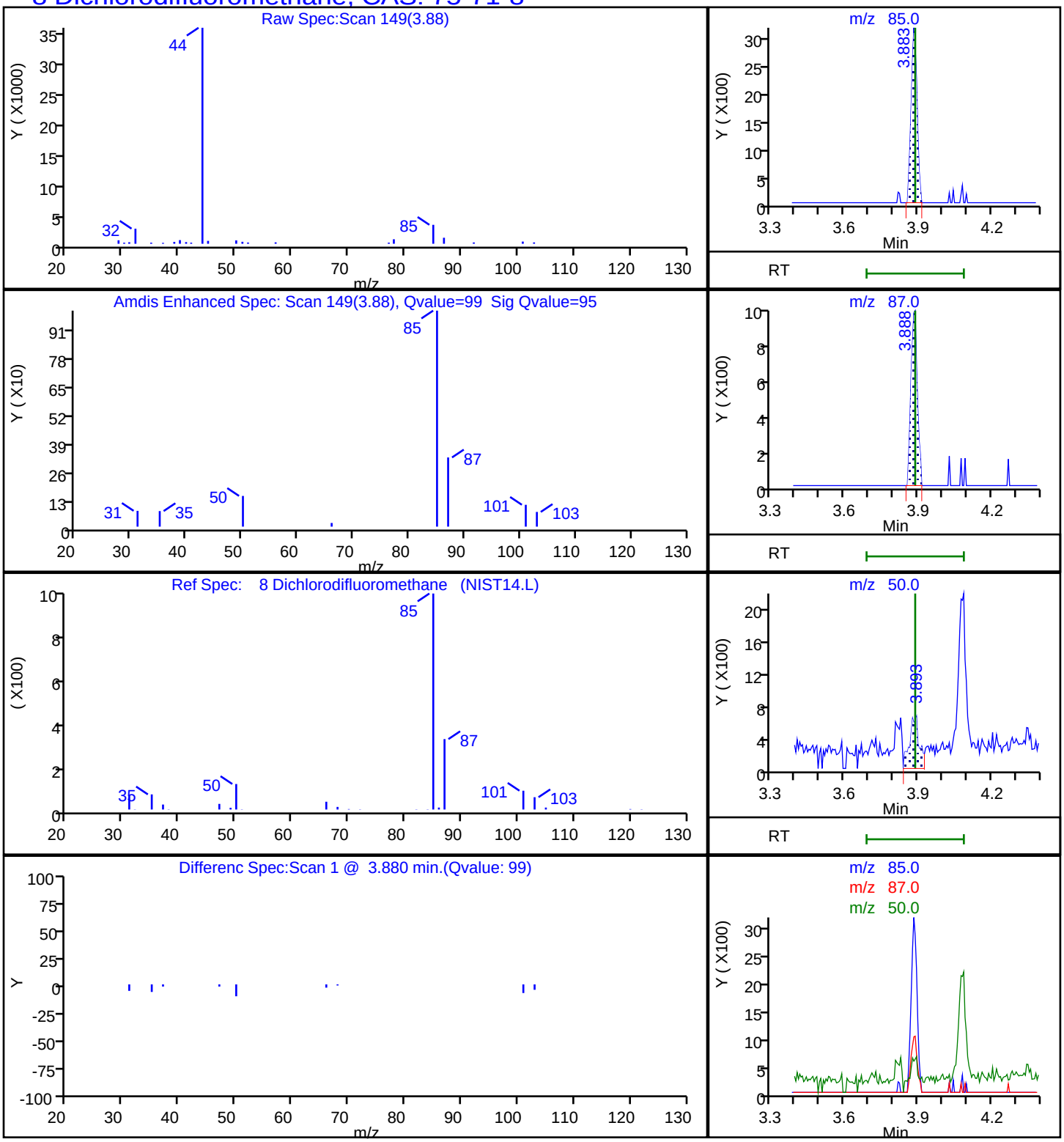
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

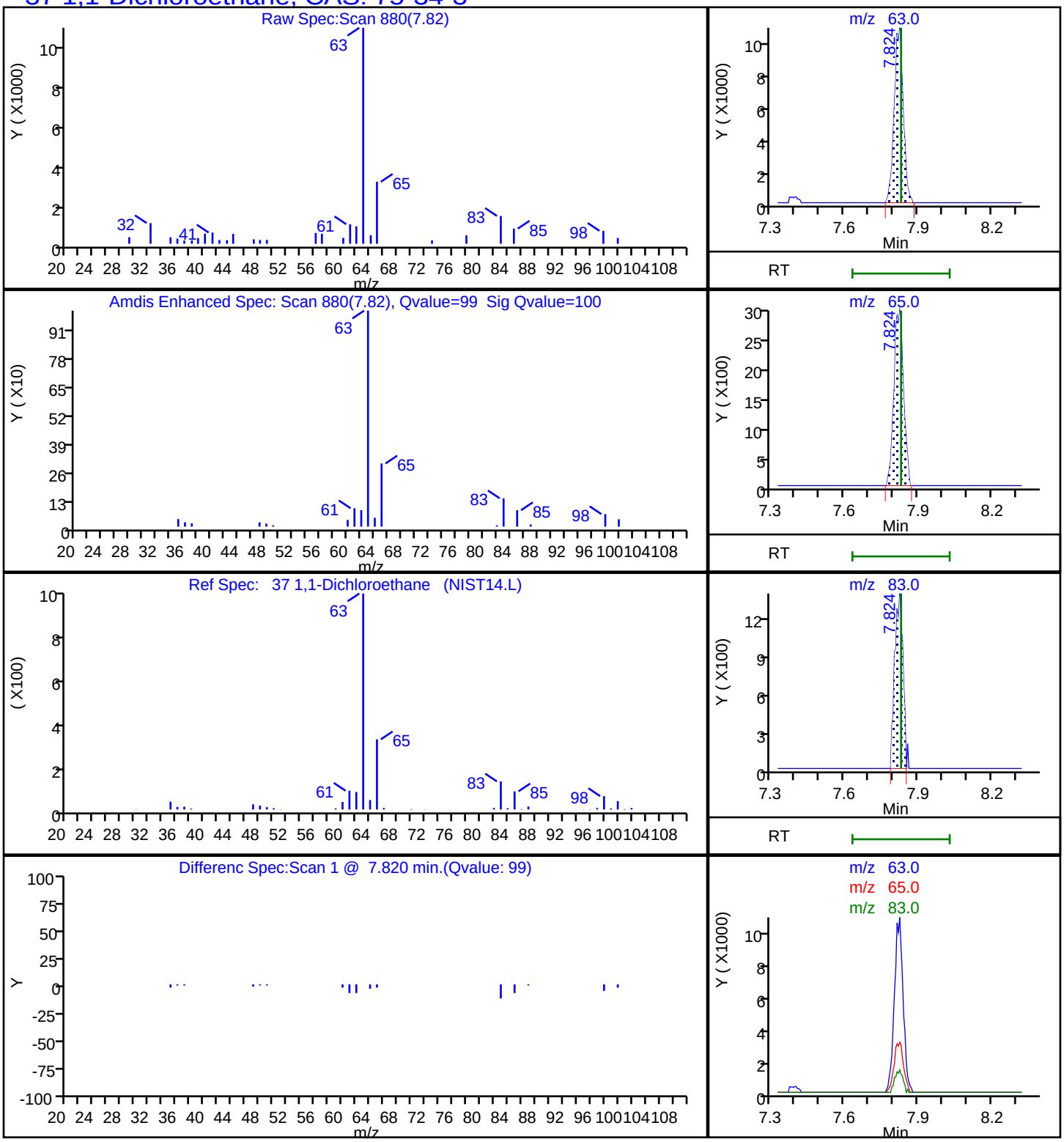


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D

Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 13-Jun-2019 13:12:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D

Injection Date: 13-Jun-2019 00:58:30 Instrument ID: MG

Lims ID: 140-15566-A-1 Lab Sample ID: 140-15566-1

Client ID: BLDG A-INFLUENT

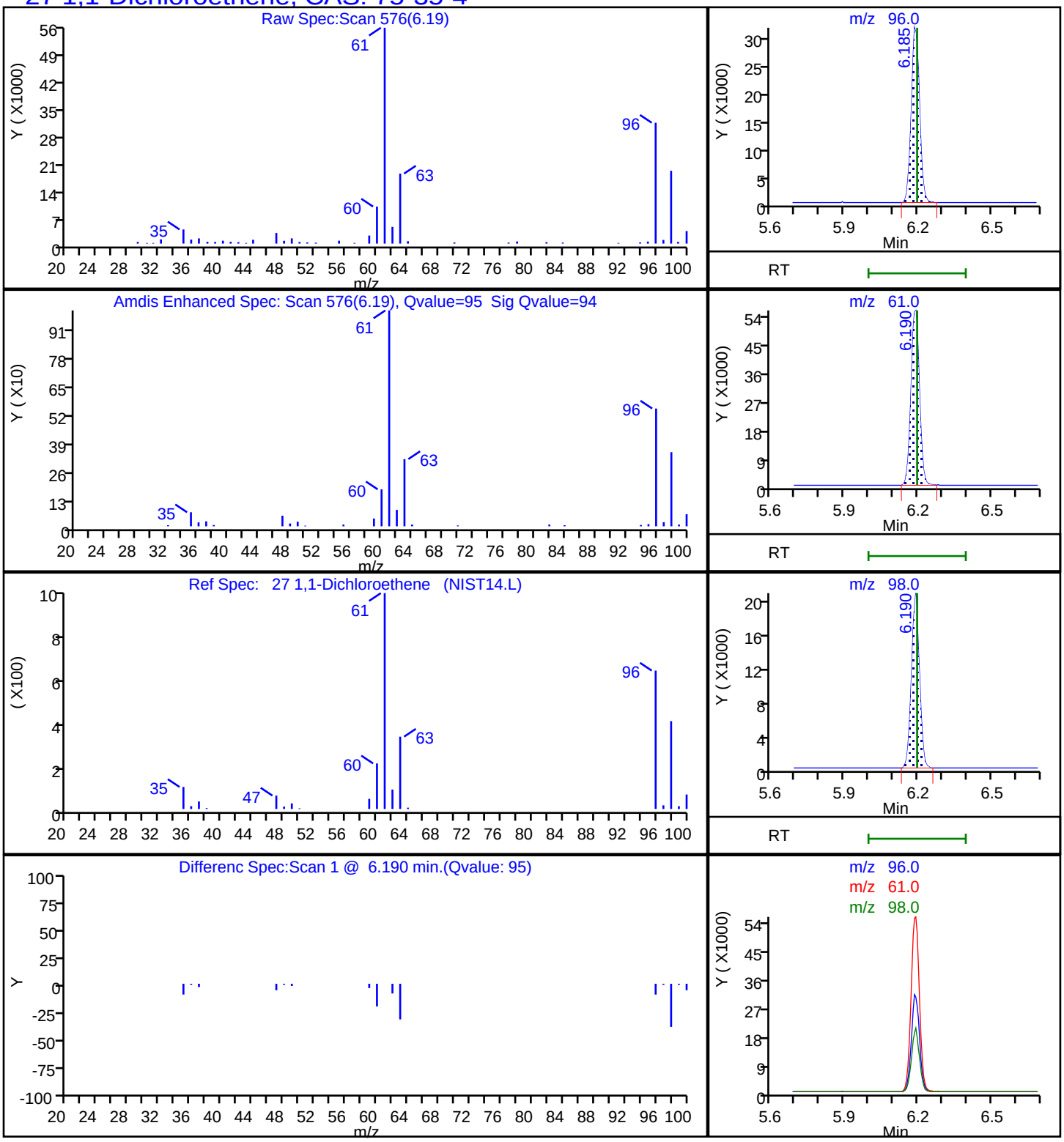
Operator ID: 7126 ALS Bottle#: 10 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

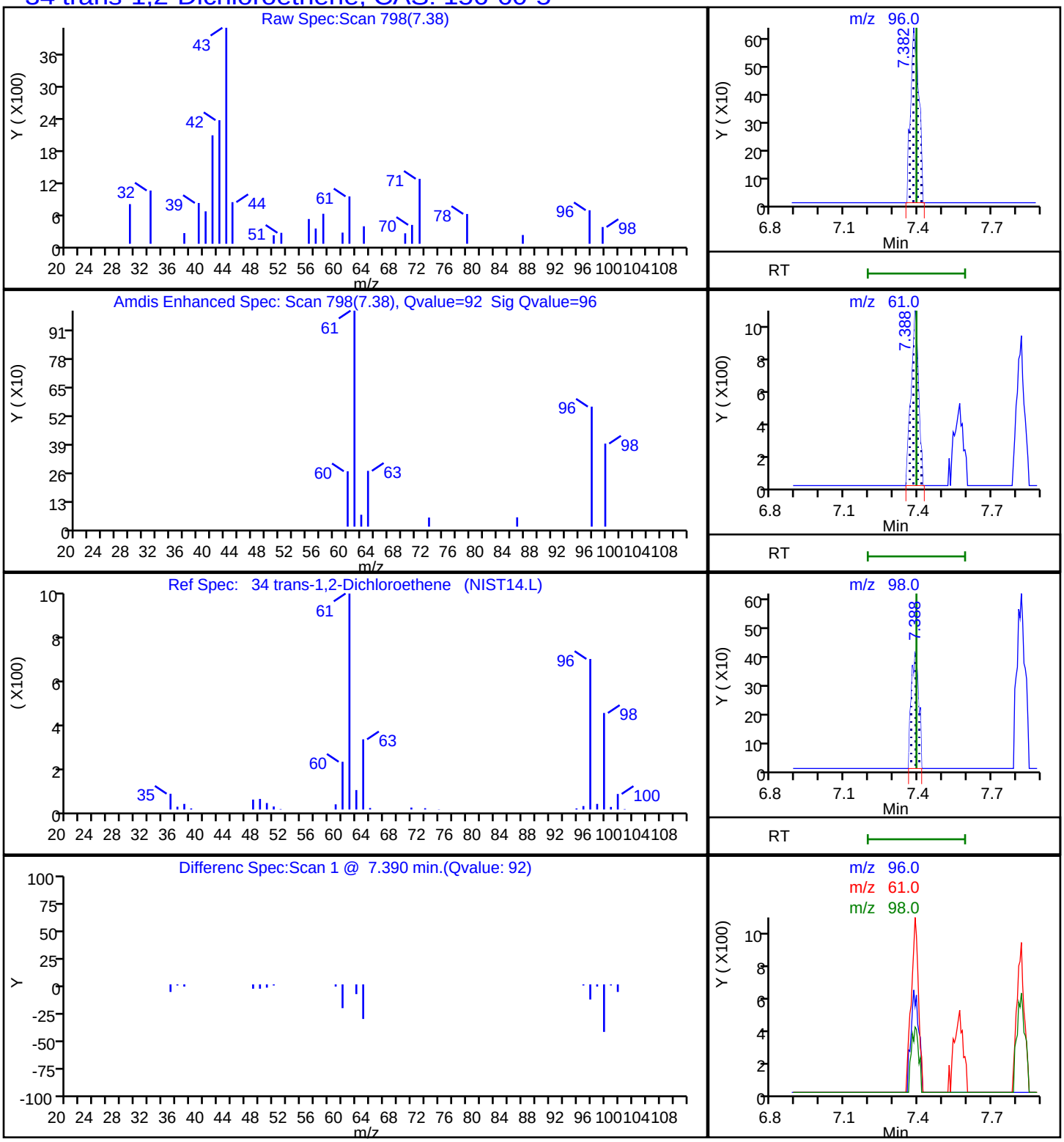
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

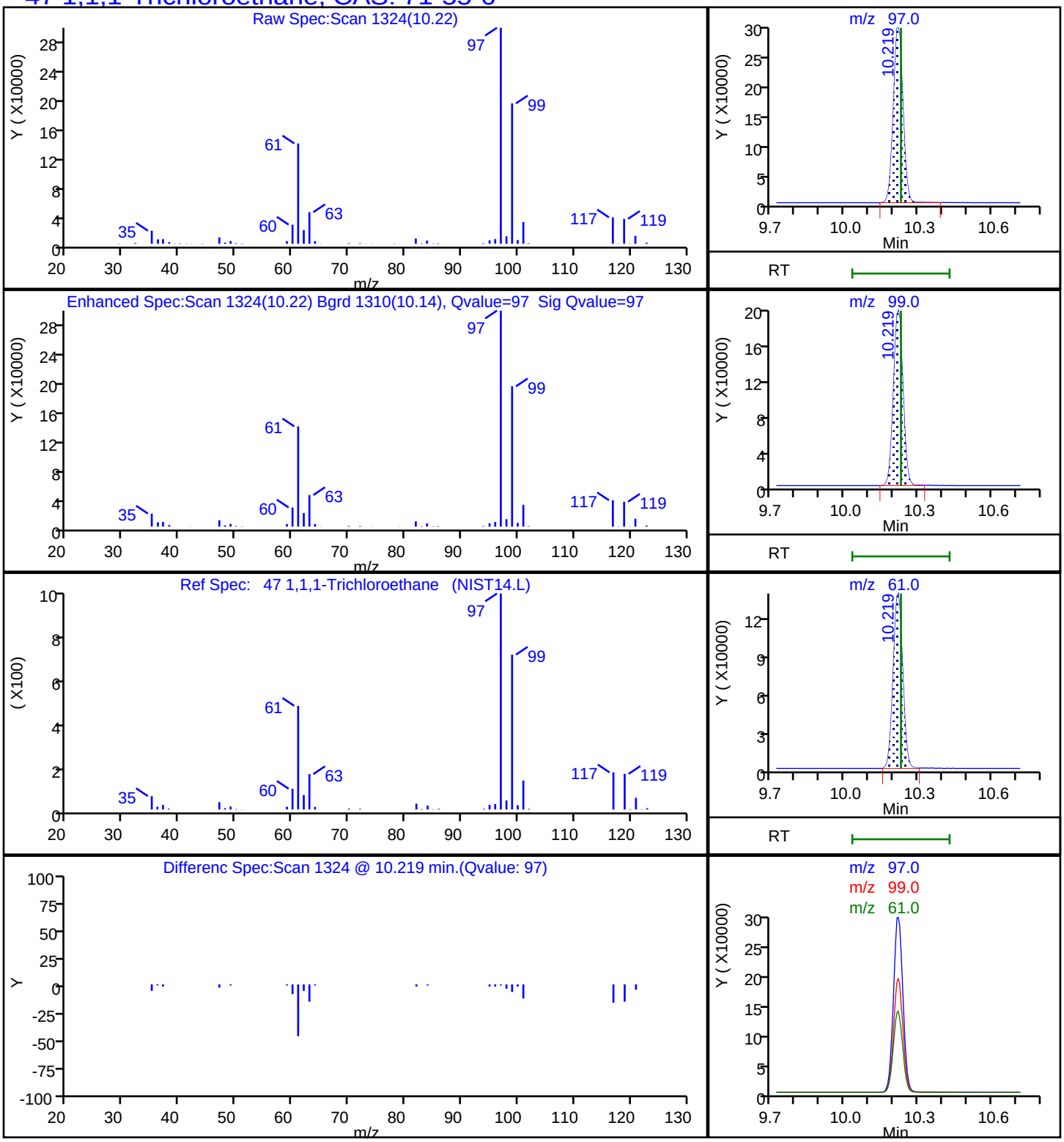
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D				
Injection Date:	13-Jun-2019 00:58:30	Instrument ID:	MG		
Lims ID:	140-15566-A-1	Lab Sample ID:	140-15566-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

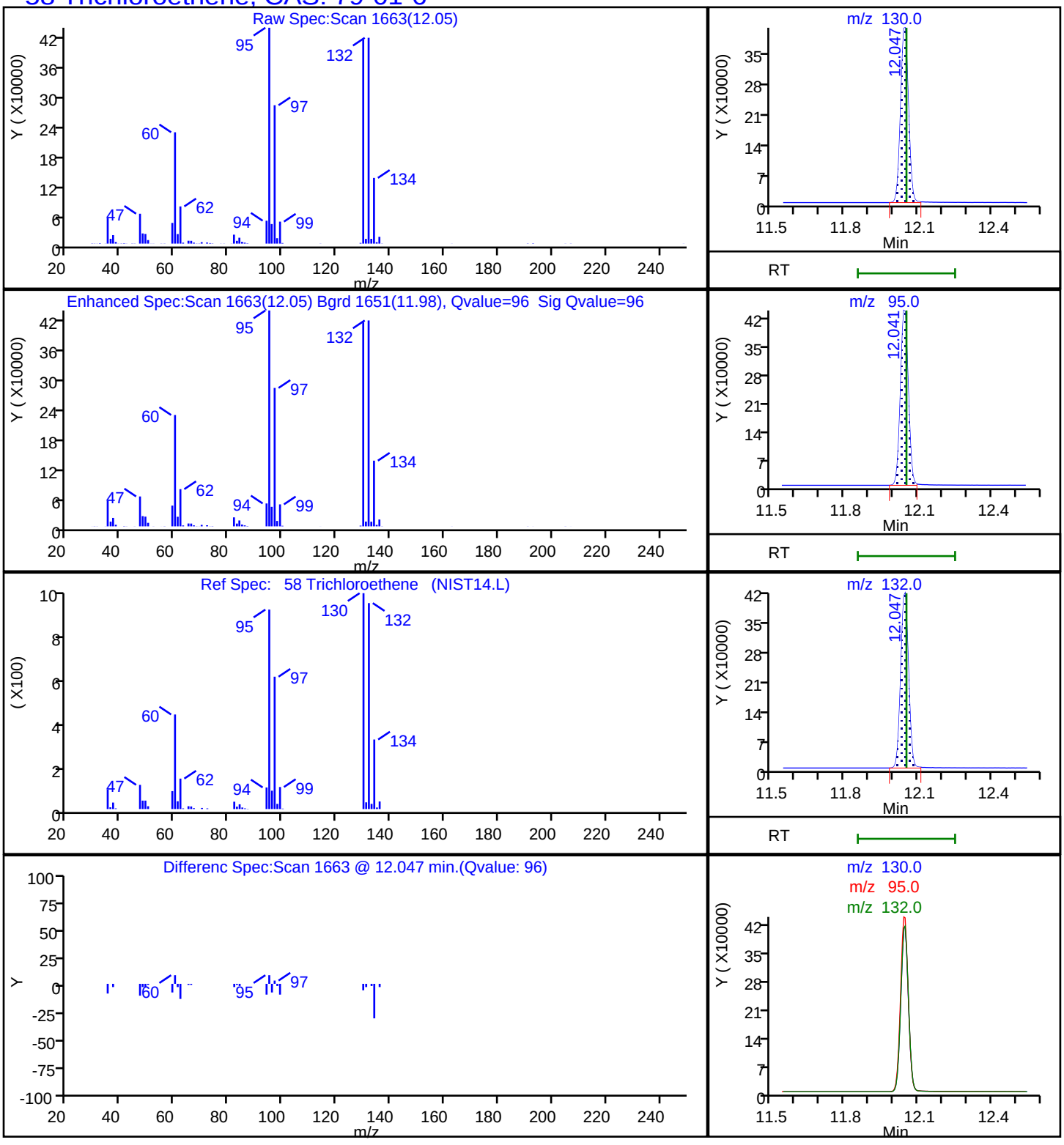
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P110.D
Injection Date: 13-Jun-2019 00:58:30 Instrument ID: MG
Lims ID: 140-15566-A-1 Lab Sample ID: 140-15566-1
Client ID: BLDG A-INFLUENT
Operator ID: 7126 ALS Bottle#: 10 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-MIDGAC Lab Sample ID: 140-15566-2

Matrix: Air Lab File ID: GF12P111.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:36

Sample wt/vol: 100(mL) Date Analyzed: 06/13/2019 01:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.26	J	0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.038	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	2.9		0.40	0.11
67-66-3	Chloroform	119.38	0.69		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	19		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.54		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	3.2		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.23	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	15		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.3	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.34	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*86*	*E*	*0.40*	*0.19*
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.24		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-MIDGAC Lab Sample ID: 140-15566-2

Matrix: Air Lab File ID: GF12P111.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:36

Sample wt/vol: 100(mL) Date Analyzed: 06/13/2019 01:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.84	J	1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.24	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	10		1.4	0.39
67-66-3	Chloroform	119.38	3.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	77		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	13		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.92	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	59		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	4.6	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.4	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*470*	*E*	*2.2*	*1.0*
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	1.3		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D
Lims ID: 140-15566-A-2
Client ID: BLDG A-MIDGAC
Sample Type: Client
Inject. Date: 13-Jun-2019 01:44:30 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-019
Misc. Info.: 140-15566-a-2
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 00:19:59 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 13:50:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.173	-0.005	98	300489	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	95	1786676	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	90	1668691	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.644	0.000	81	1166378	4.54	
6 Chlorodifluoromethane	51	3.823	3.821	0.000	96	100935	0.5774	
8 Dichlorodifluoromethane	85	3.888	3.886	0.000	100	30120	0.1072	
27 1,1-Dichloroethene	96	6.191	6.192	-0.005	95	326230	2.99	
31 Methylene Chloride	84	6.557	6.553	0.000	98	32122	0.2665	
34 trans-1,2-Dichloroethene	96	7.393	7.389	0.000	96	7404	0.0688	
37 1,1-Dichloroethane	63	7.825	7.825	-0.005	100	135853	0.6414	
42 cis-1,2-Dichloroethene	96	8.828	8.828	-0.005	97	434066	3.87	
44 Chloroform	83	9.178	9.178	-0.005	29	31063	0.1380	
47 1,1,1-Trichloroethane	97	10.219	10.224	-0.010	96	4147627	17.2	E
48 1,2-Dichloroethane	62	10.337	10.333	0.000	94	6463	0.0452	
50 Benzene	78	10.812	10.812	-0.005	98	16452	0.0525	
52 Carbon tetrachloride	117	10.828	10.834	-0.011	25	1590	0.007643	
58 Trichloroethene	130	12.047	12.046	-0.005	92	6582	0.0476	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

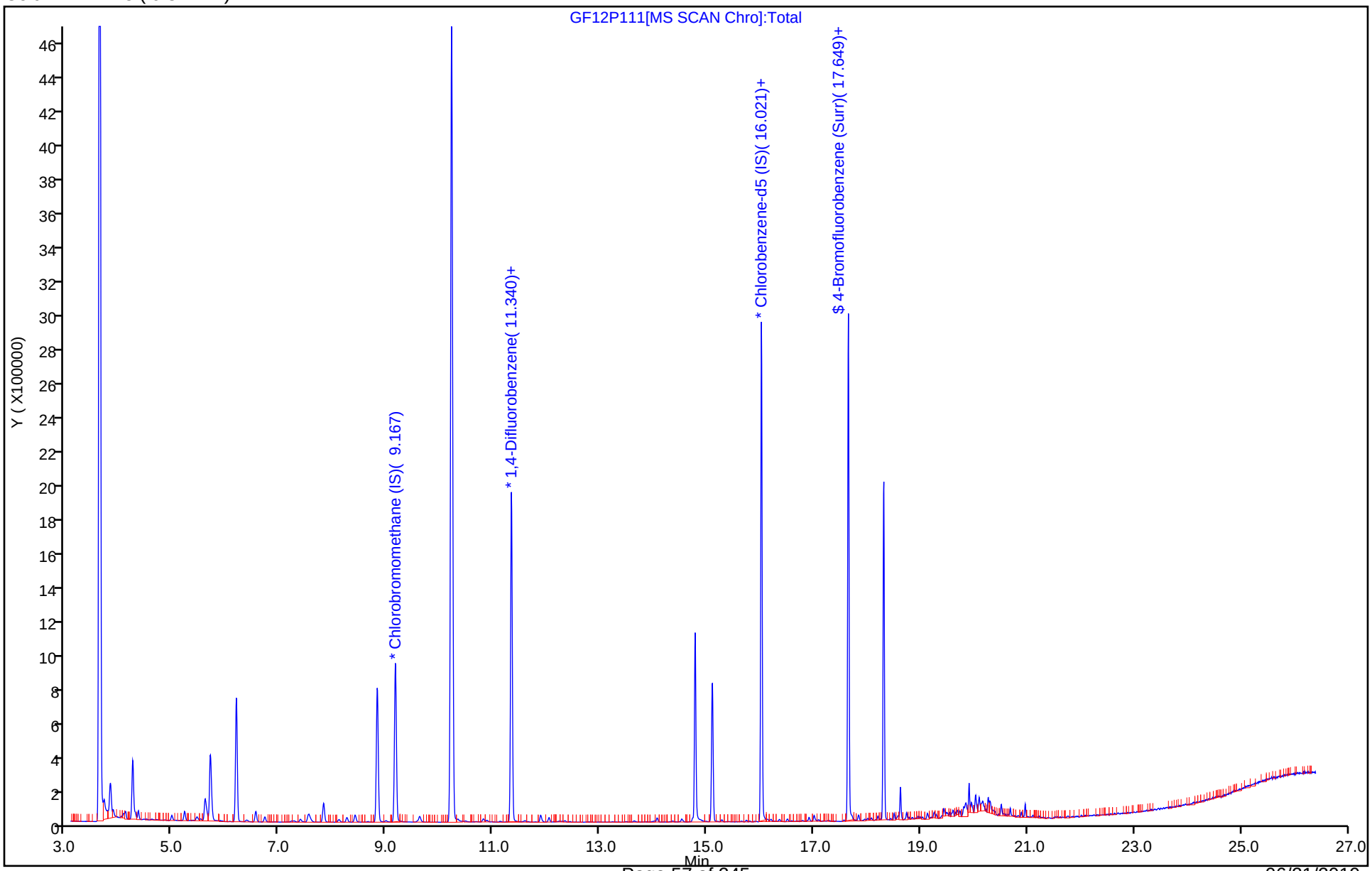
Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D

Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2	Worklist Smp#:	19
Client ID:	BLDG A-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Lims ID:	140-15566-A-2				
Client ID:	BLDG A-MIDGAC				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 01:44:30	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-019				
Misc. Info.:	140-15566-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 00:19:59	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 13:50:29

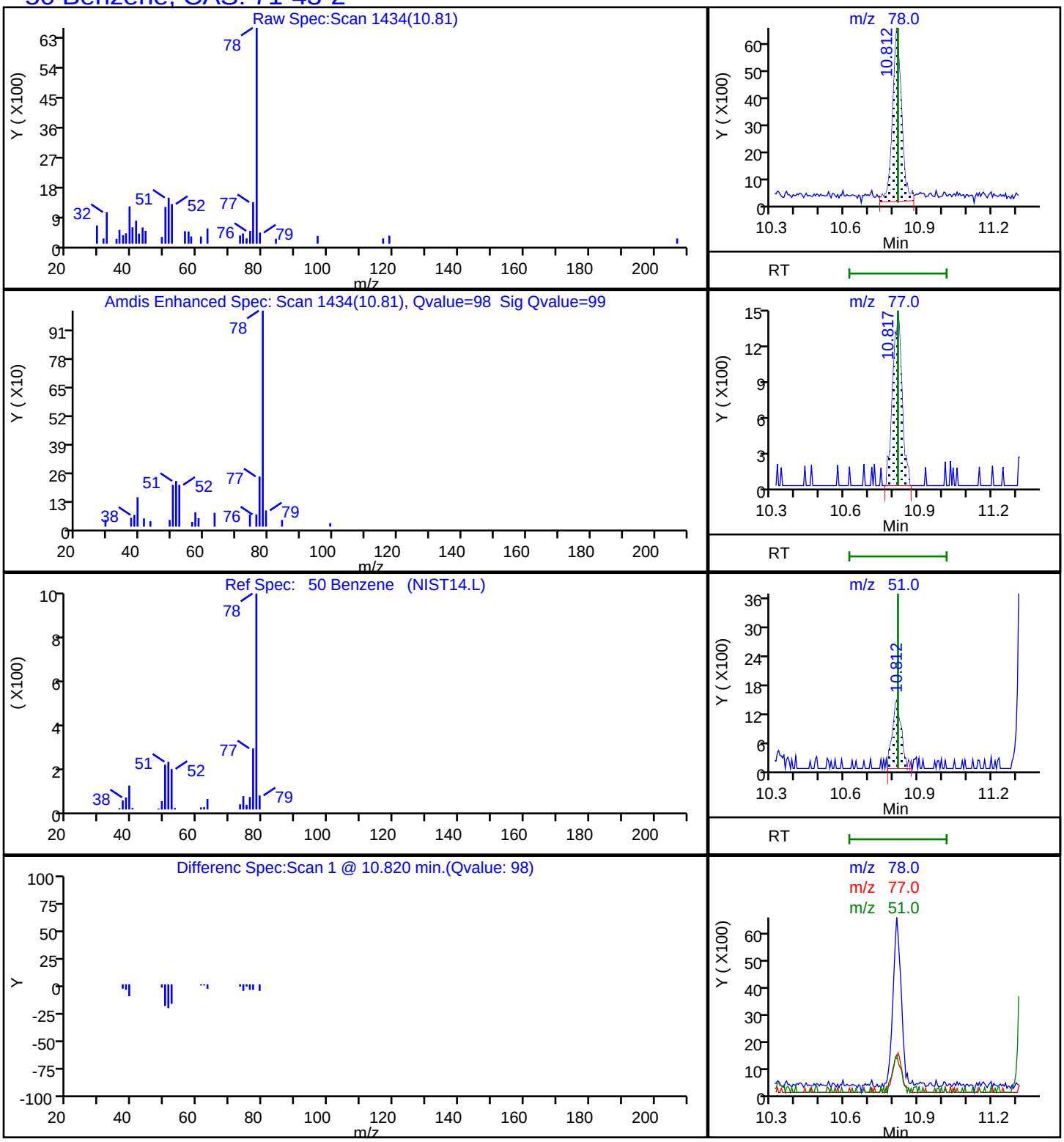
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.54	113.48

Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

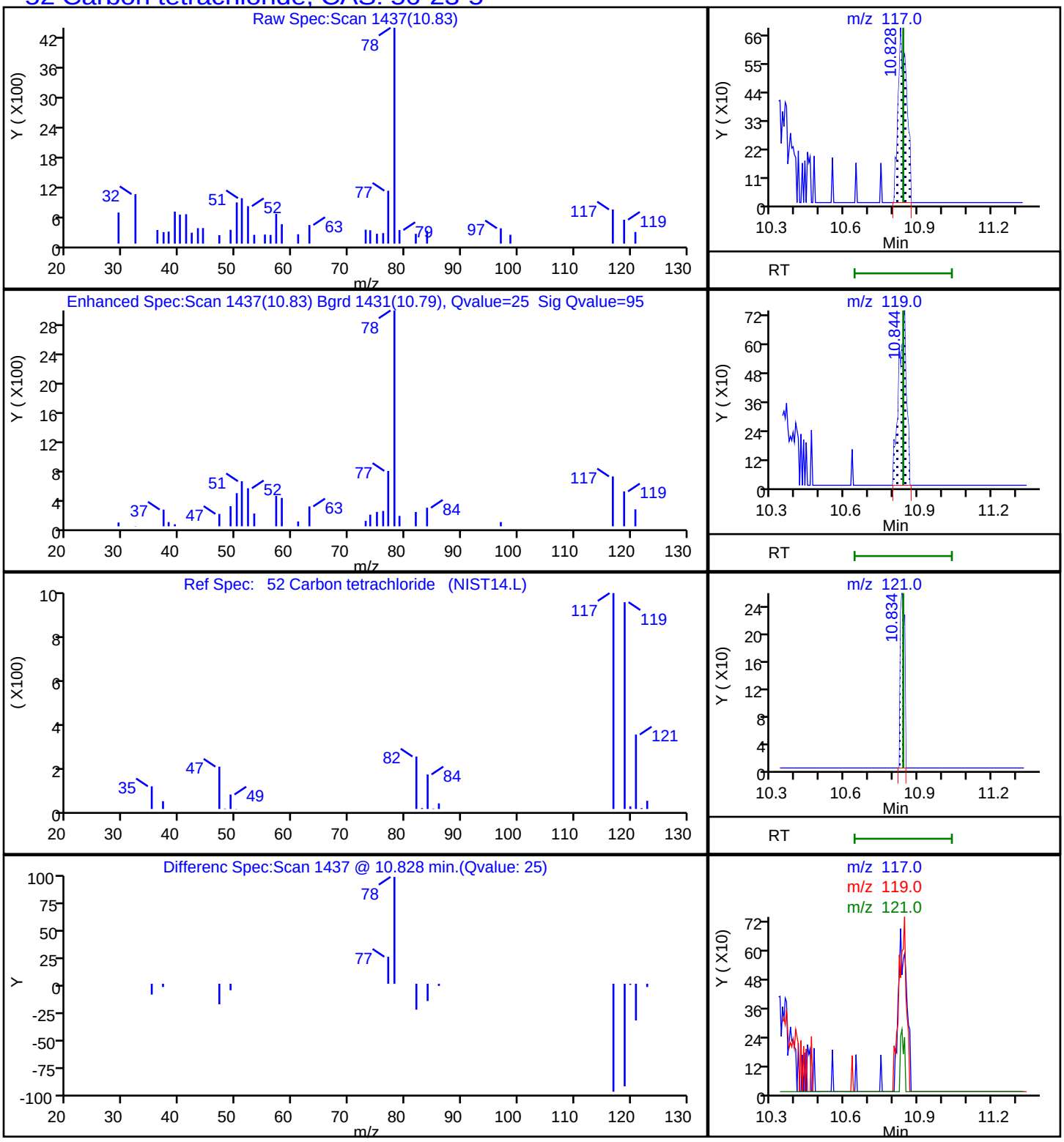
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D
Injection Date: 13-Jun-2019 01:44:30 Instrument ID: MG
Lims ID: 140-15566-A-2 Lab Sample ID: 140-15566-2
Client ID: BLDG A-MIDGAC
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

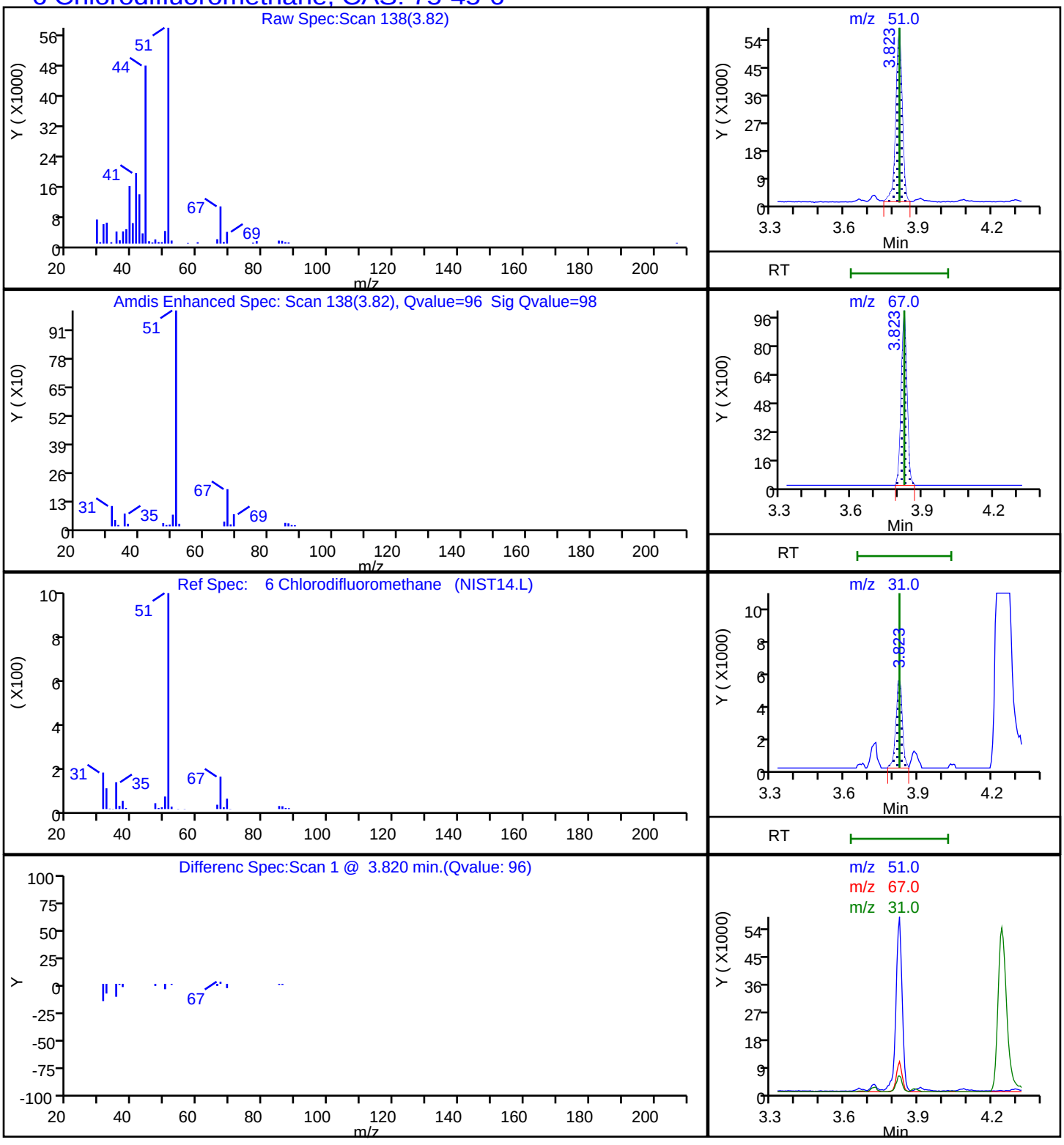
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D
Injection Date: 13-Jun-2019 01:44:30 Instrument ID: MG
Lims ID: 140-15566-A-2 Lab Sample ID: 140-15566-2
Client ID: BLDG A-MIDGAC
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

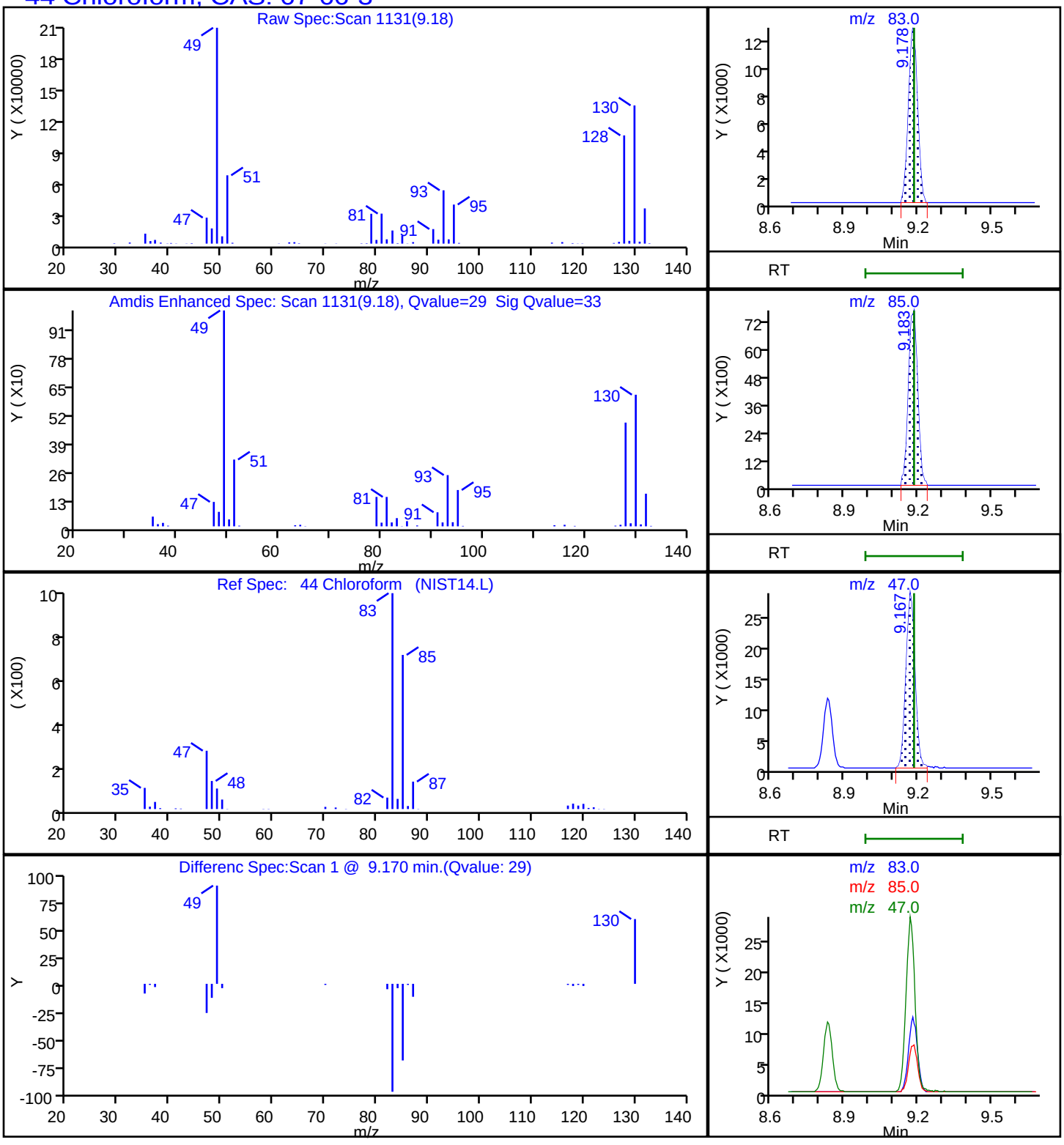
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D
Injection Date: 13-Jun-2019 01:44:30 Instrument ID: MG
Lims ID: 140-15566-A-2 Lab Sample ID: 140-15566-2
Client ID: BLDG A-MIDGAC
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3

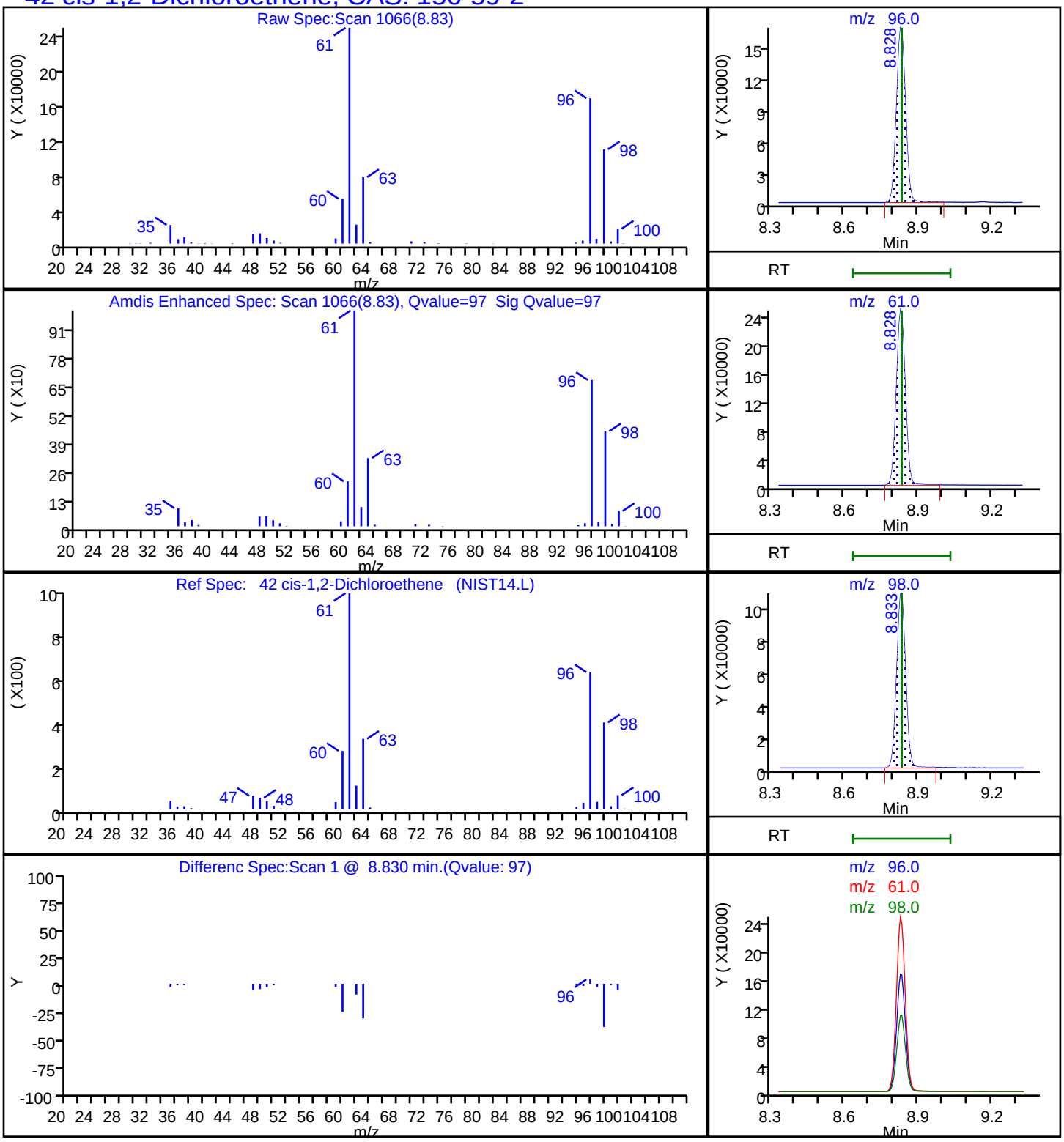


Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

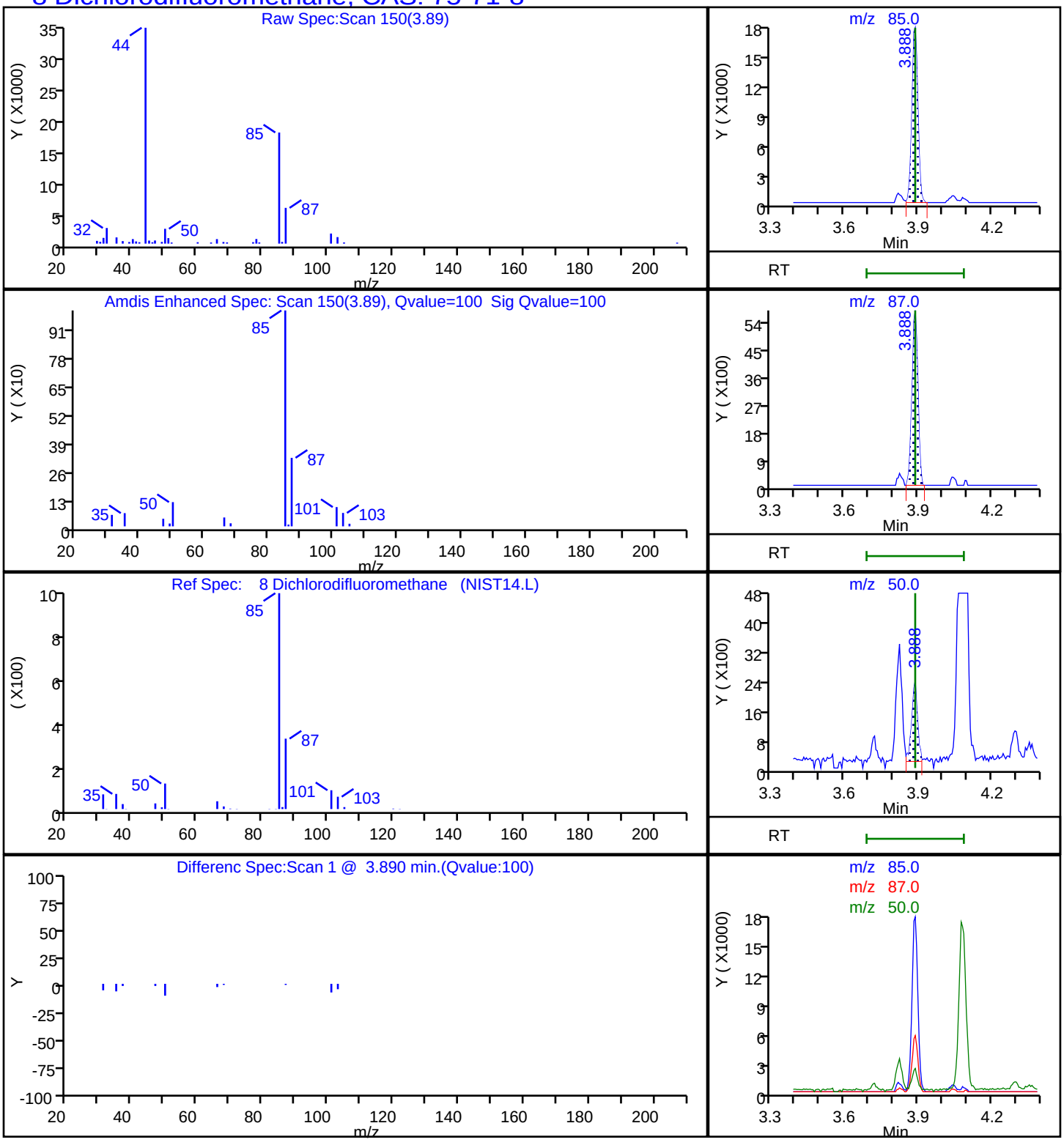
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D		
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2
Client ID:	BLDG A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

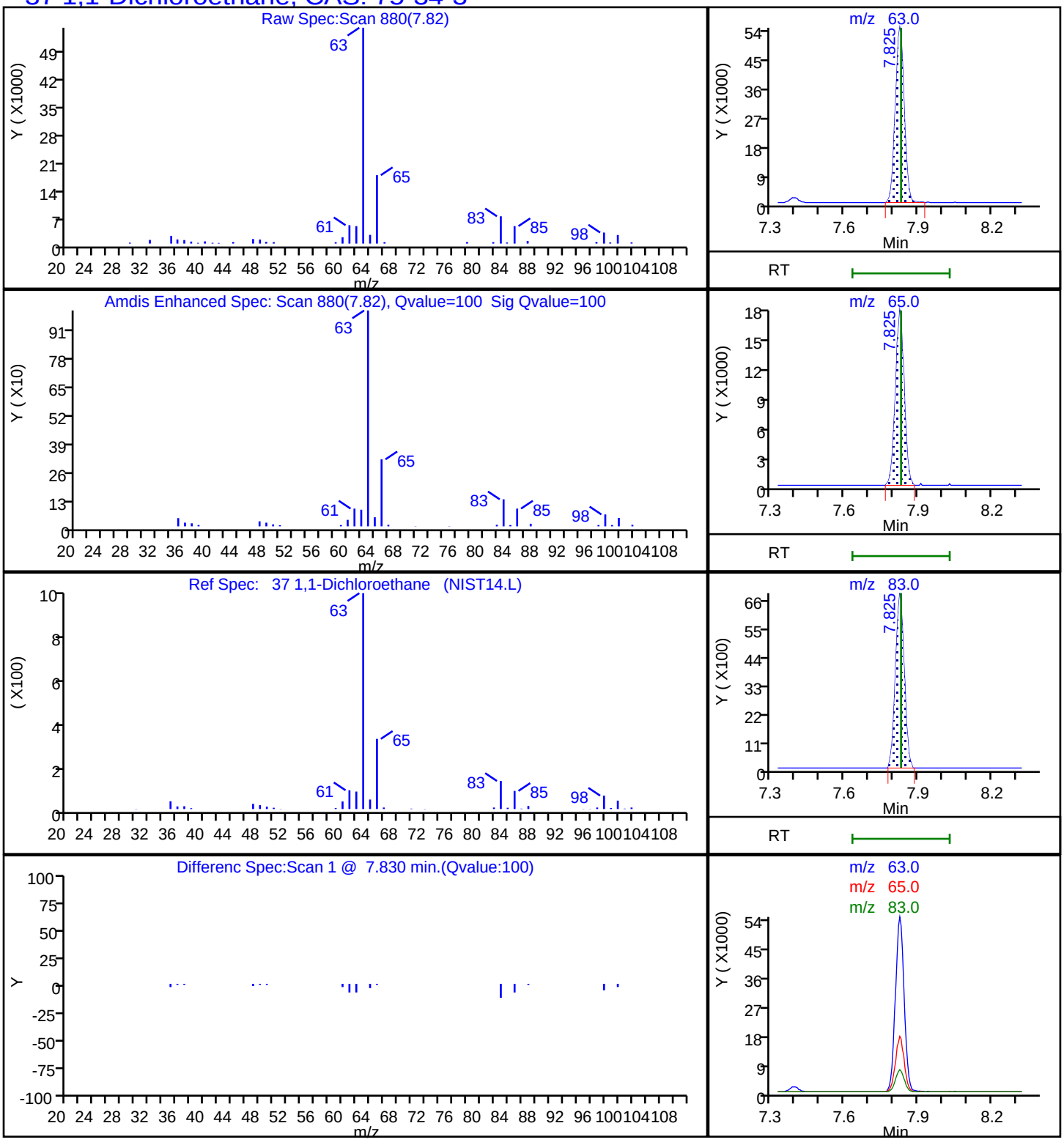
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D
Injection Date: 13-Jun-2019 01:44:30 Instrument ID: MG
Lims ID: 140-15566-A-2 Lab Sample ID: 140-15566-2
Client ID: BLDG A-MIDGAC
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

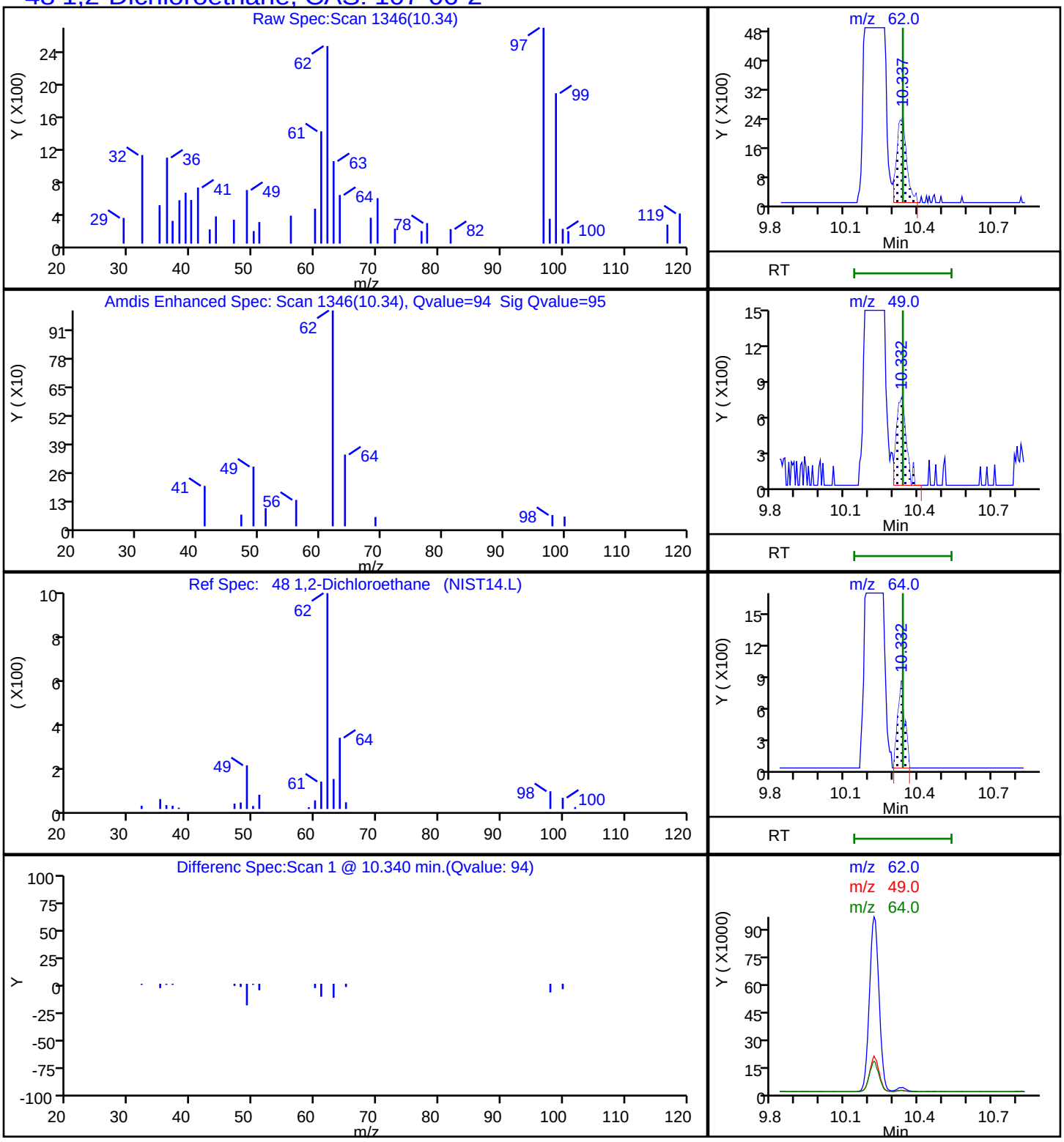


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D

Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

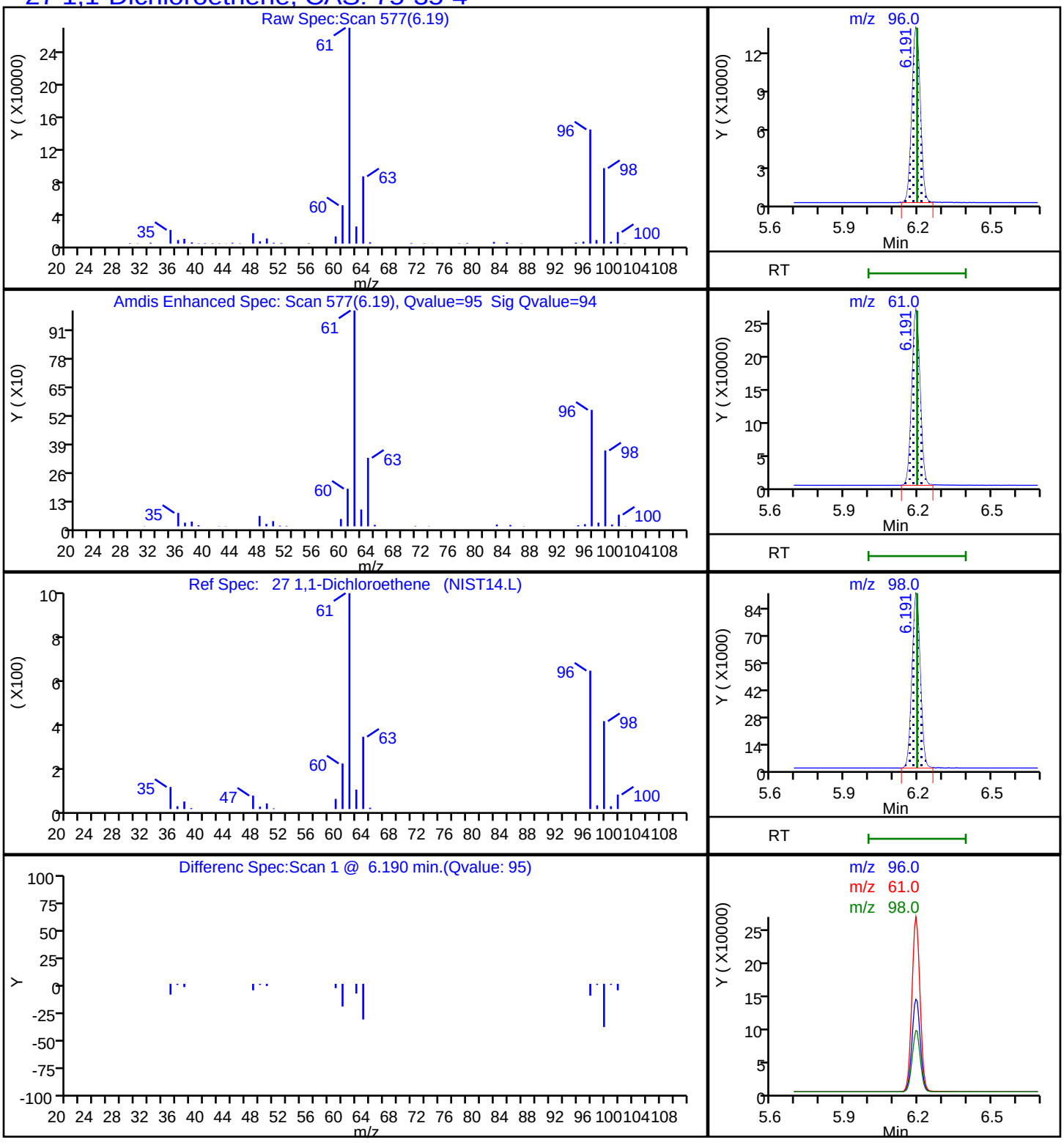


Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

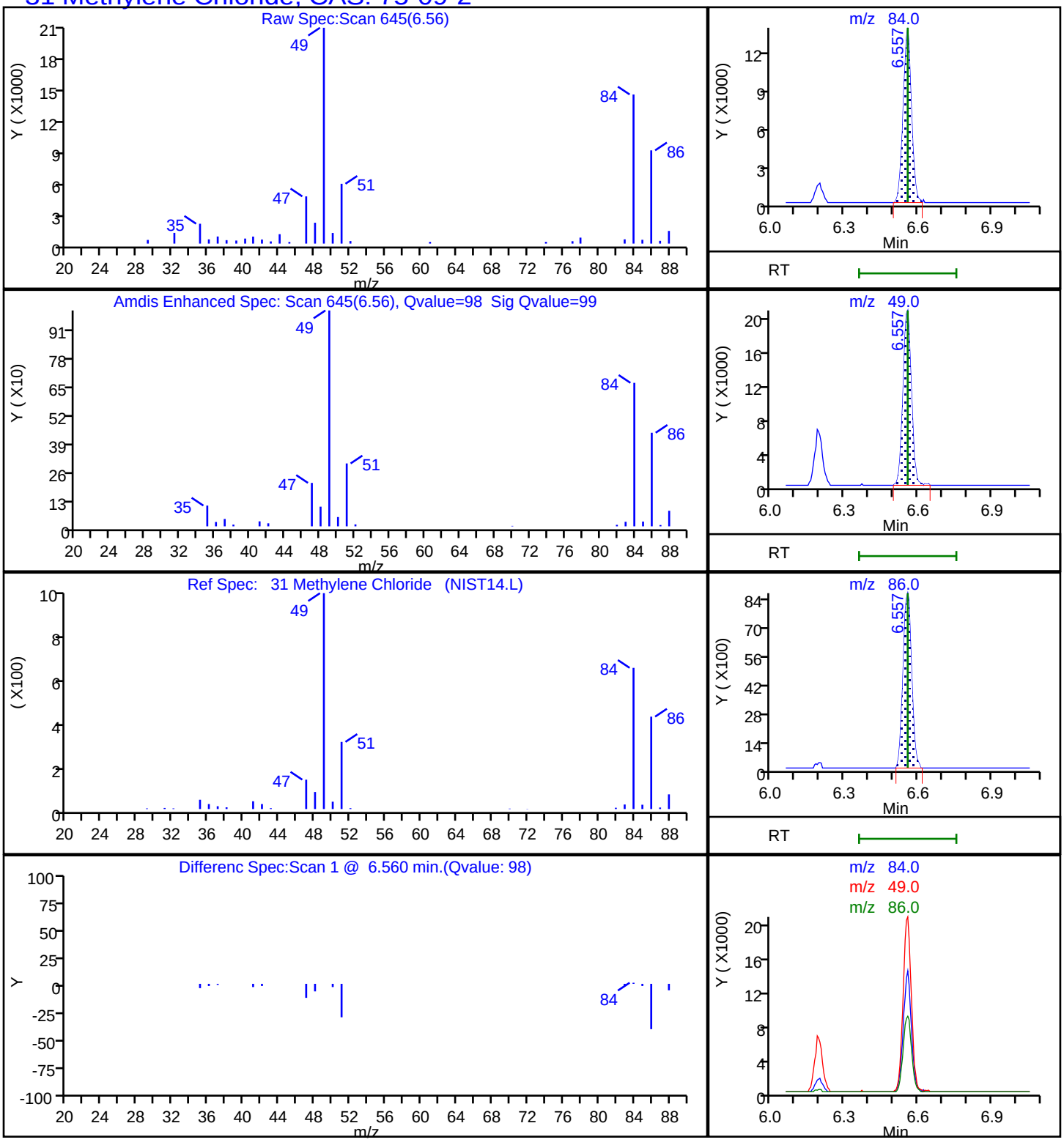
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

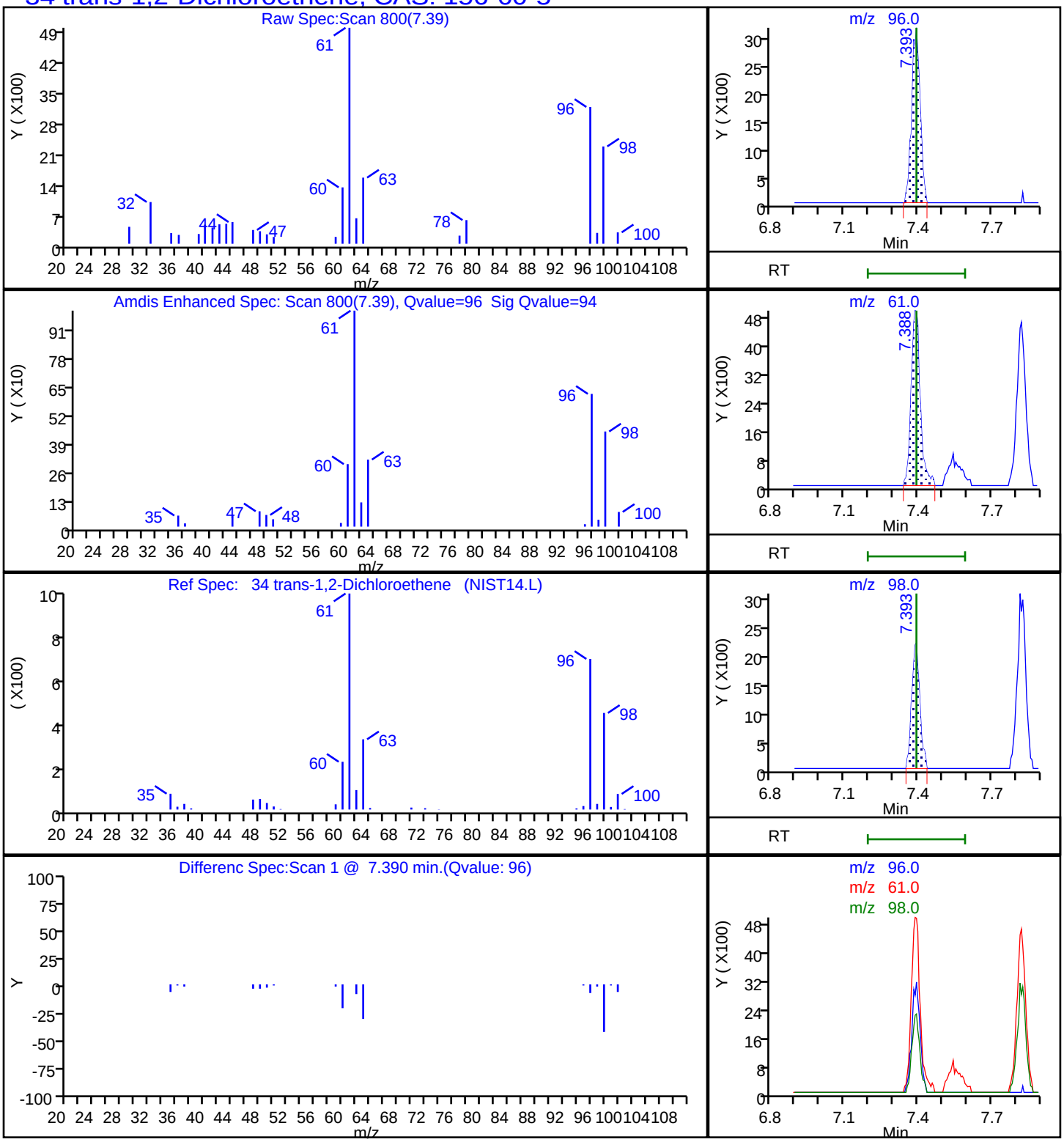
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

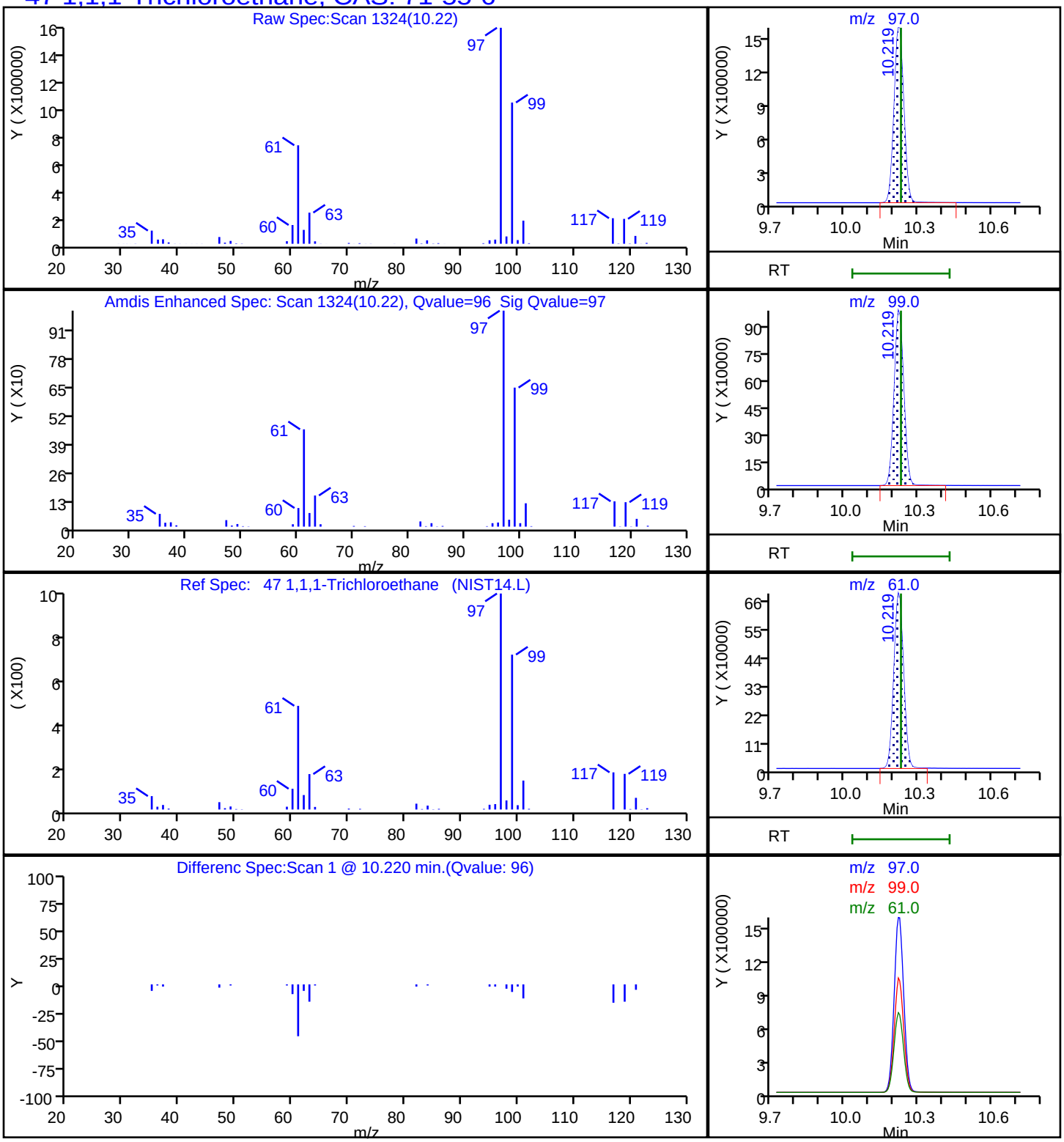


Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D				
Injection Date:	13-Jun-2019 01:44:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 13-Jun-2019 13:50:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P111.D

Injection Date: 13-Jun-2019 01:44:30 Instrument ID: MG

Lims ID: 140-15566-A-2 Lab Sample ID: 140-15566-2

Client ID: BLDG A-MIDGAC

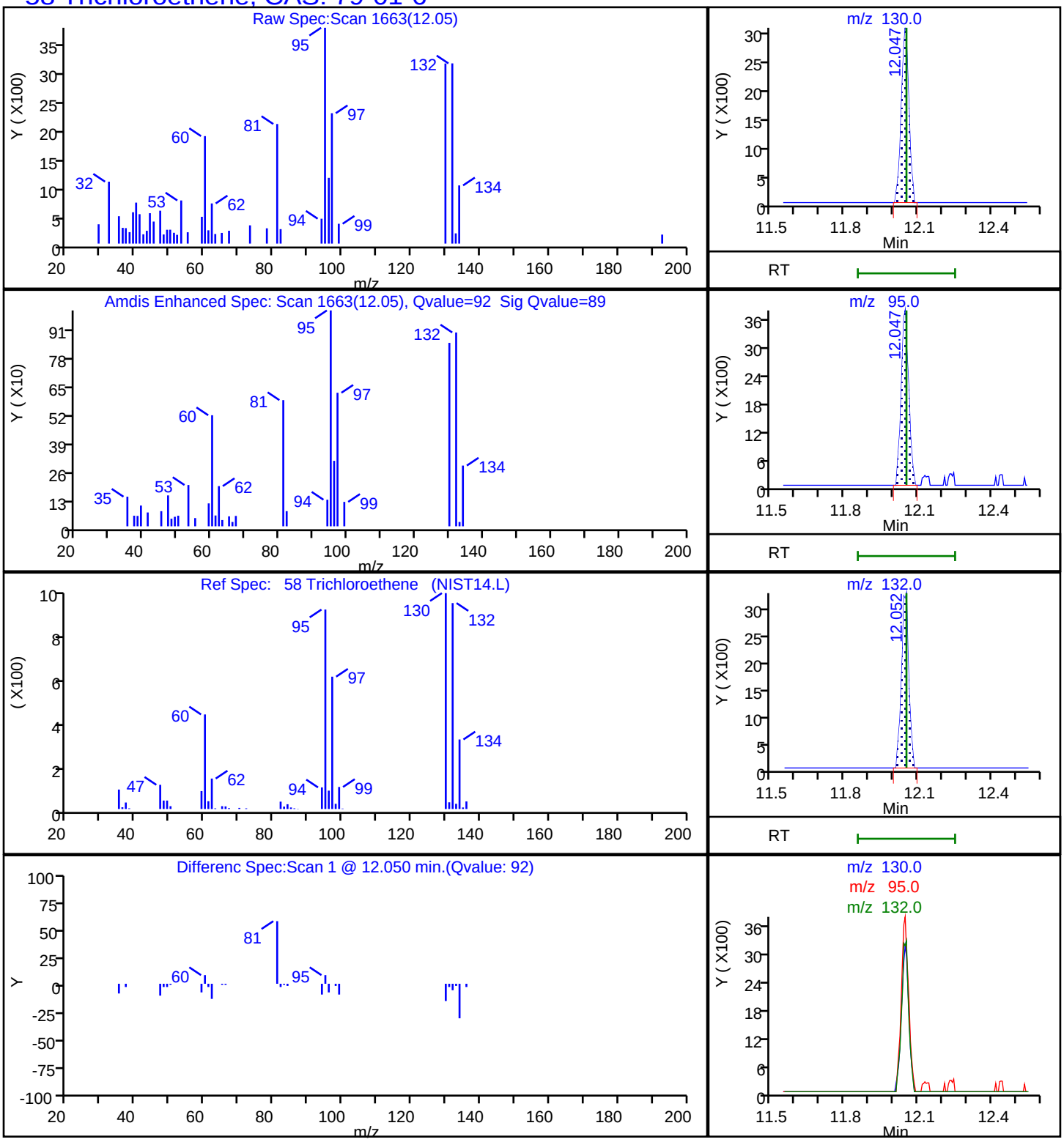
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-MIDGAC DL Lab Sample ID: 140-15566-2 DL

Matrix: Air Lab File ID: GF13P113D.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:36

Sample wt/vol: 50(mL) Date Analyzed: 06/13/2019 23:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30706 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	89		0.80	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-MIDGAC DL Lab Sample ID: 140-15566-2 DL

Matrix: Air Lab File ID: GF13P113D.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:36

Sample wt/vol: 50(mL) Date Analyzed: 06/13/2019 23:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30706 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	490		4.4	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\GF13P113D.D				
Lims ID:	140-15566-A-2				
Client ID:	BLDG A-MIDGAC				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 23:41:30	ALS Bottle#:	13	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011988-021				
Misc. Info.:	140-15566-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Jun-2019 14:28:46	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				
First Level Reviewer: khachitpongpanits		Date:	14-Jun-2019 14:28:46		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.173	-0.006	98	265406	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	96	1455647	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	90	1353234	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	81	888058	4.26	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	48381	0.3133	
8 Dichlorodifluoromethane	85	3.888	3.884	0.000	100	14181	0.0571	
27 1,1-Dichloroethene	96	6.191	6.196	-0.005	95	158094	1.64	
31 Methylene Chloride	84	6.557	6.557	0.000	97	25926	0.2435	
34 trans-1,2-Dichloroethene	96	7.388	7.393	-0.005	95	3803	0.0400	
37 1,1-Dichloroethane	63	7.825	7.830	-0.006	100	60653	0.3242	
42 cis-1,2-Dichloroethene	96	8.827	8.833	-0.006	97	199942	2.02	
44 Chloroform	83	9.178	9.173	-0.005	28	14510	0.0730	
47 1,1,1-Trichloroethane	97	10.219	10.218	-0.005	96	1906023	8.93	
48 1,2-Dichloroethane	62	10.321	10.332	-0.016	81	2826	0.0243	
50 Benzene	78	10.812	10.817	-0.005	97	7774	0.0304	
58 Trichloroethene	130	12.041	12.046	-0.011	92	3126	0.0278	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

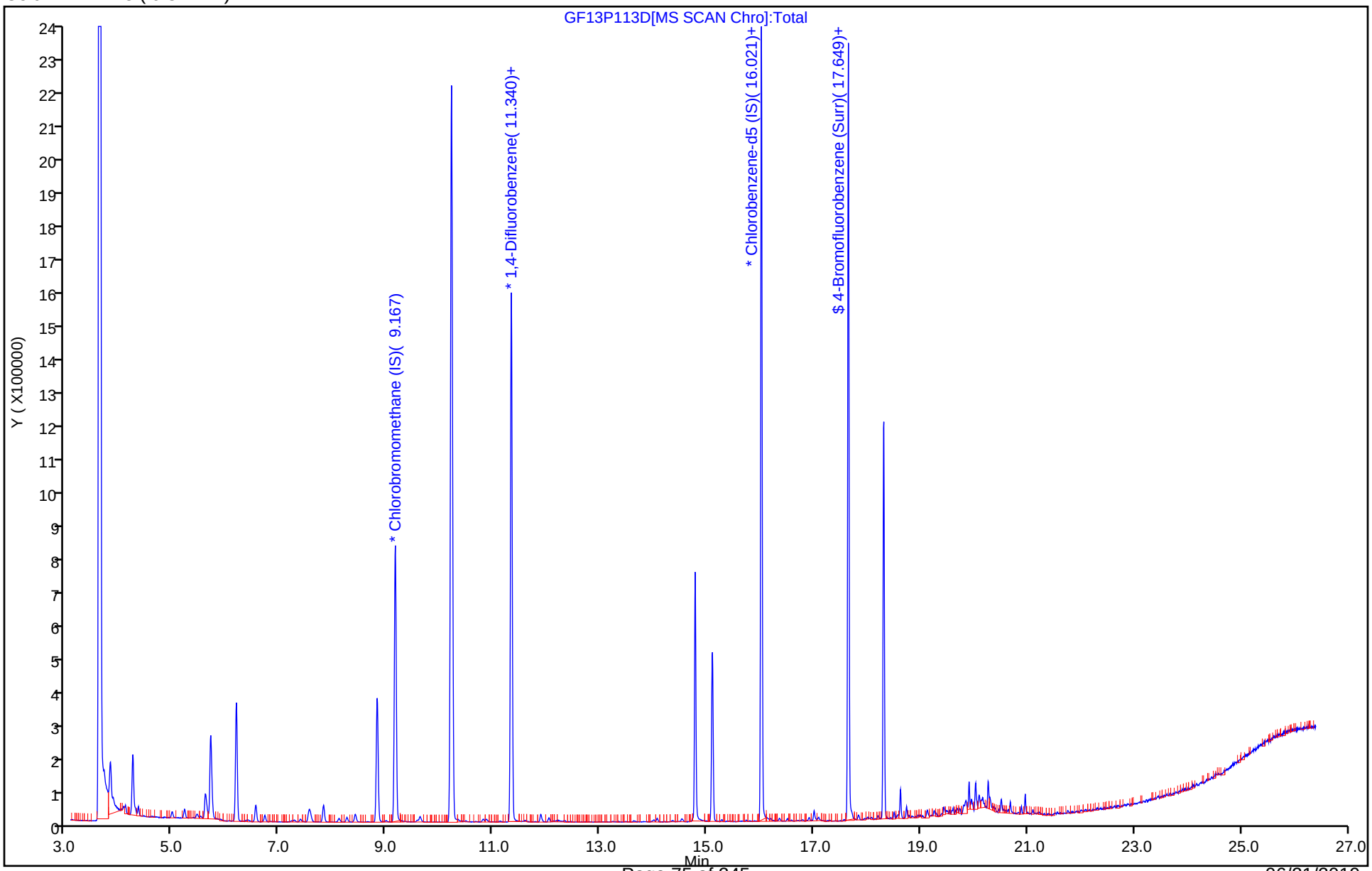
Report Date: 14-Jun-2019 14:28:47 Chrom Revision: 2.3 02-Jun-2019 10:27:32

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GF13P113D.D

Injection Date:	13-Jun-2019 23:41:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2	Worklist Smp#:	21
Client ID:	BLDG A-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\GF13P113D.D				
Lims ID:	140-15566-A-2				
Client ID:	BLDG A-MIDGAC				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 23:41:30	ALS Bottle#:	13	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011988-021				
Misc. Info.:	140-15566-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Jun-2019 14:28:46	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				

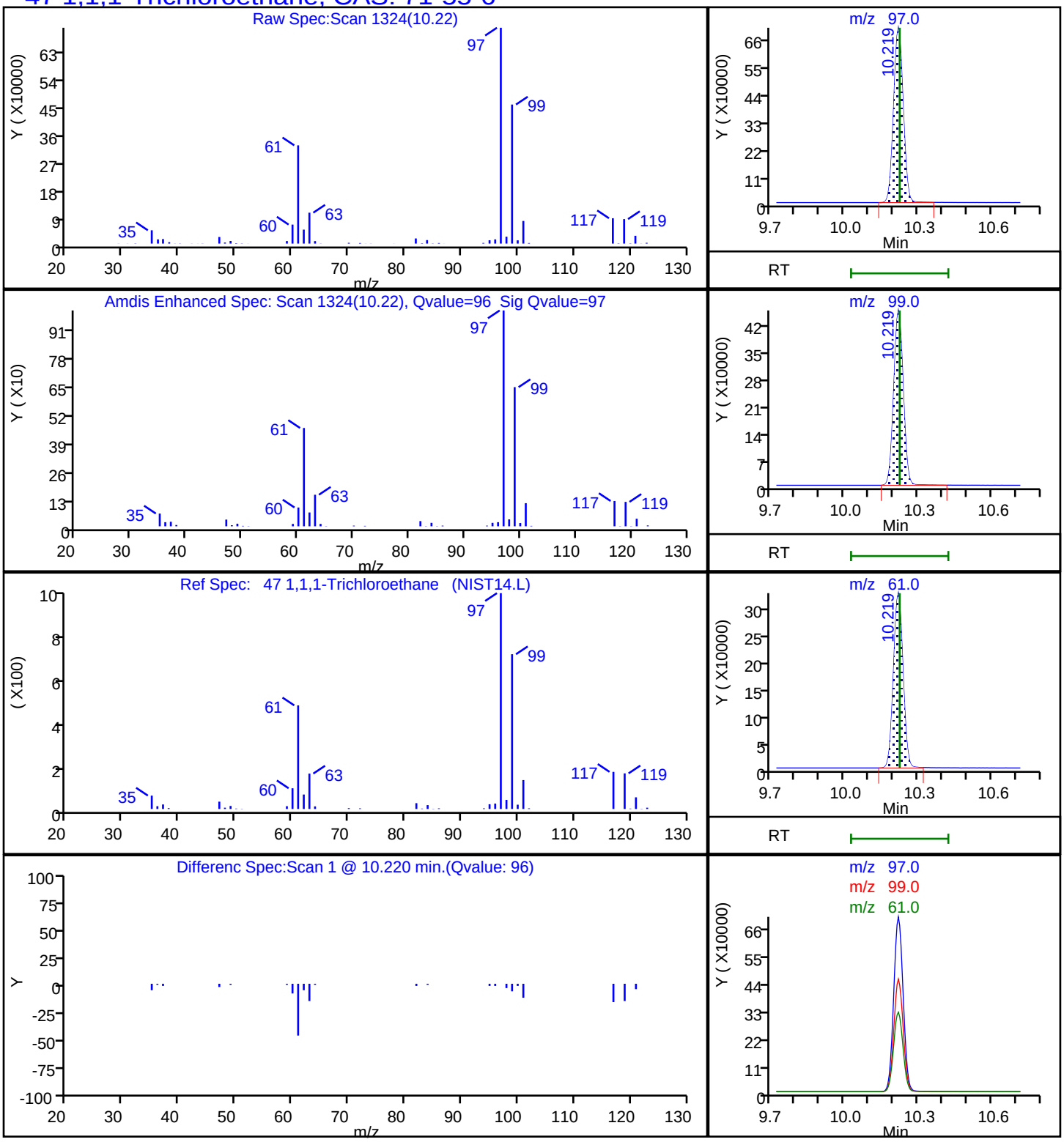
First Level Reviewer: khachitpongpanits Date: 14-Jun-2019 14:28:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.26	106.54

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\GF13P113D.D				
Injection Date:	13-Jun-2019 23:41:30	Instrument ID:	MG		
Lims ID:	140-15566-A-2	Lab Sample ID:	140-15566-2		
Client ID:	BLDG A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-EFFLUENT Lab Sample ID: 140-15566-3

Matrix: Air Lab File ID: GF12P112.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 06/13/2019 02:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.1		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.58		0.40	0.11
67-66-3	Chloroform	119.38	0.52		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	13		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.47		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	2.1		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	19		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.097	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.0	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	1.2		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.29	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	5.5		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.2		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.11	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.52	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	114		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: BLDG A-EFFLUENT Lab Sample ID: 140-15566-3

Matrix: Air Lab File ID: GF12P112.D

Analysis Method: TO 15 LL Date Collected: 06/10/2019 11:30

Sample wt/vol: 100(mL) Date Analyzed: 06/13/2019 02:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	3.6		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.1		1.4	0.39
67-66-3	Chloroform	119.38	2.6		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	50		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.3		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	8.7		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	77		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.42	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	3.5	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	4.7		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.2	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	30		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	6.4		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	0.54	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	114		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D
Lims ID: 140-15566-A-3
Client ID: BLDG A-EFFLUENT
Sample Type: Client
Inject. Date: 13-Jun-2019 02:29:30 ALS Bottle#: 12 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-020
Misc. Info.: 140-15566-a-3
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 01:49:32 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 14:57:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.001	98	311729	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	96	1845708	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	91	1689720	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.643	0.000	82	1186437	4.56	
6 Chlorodifluoromethane	51	3.823	3.821	0.000	96	21058	0.1161	
8 Dichlorodifluoromethane	85	3.888	3.886	0.000	99	27223	0.0934	
27 1,1-Dichloroethene	96	6.196	6.192	0.000	95	438894	3.88	
31 Methylene Chloride	84	6.563	6.553	0.006	97	25107	0.2008	
34 trans-1,2-Dichloroethene	96	7.393	7.389	0.000	96	6530	0.0585	
37 1,1-Dichloroethane	63	7.825	7.825	-0.005	100	94310	0.4292	
42 cis-1,2-Dichloroethene	96	8.833	8.828	0.000	97	293749	2.53	
44 Chloroform	83	9.183	9.178	0.000	96	24400	0.1045	
47 1,1,1-Trichloroethane	97	10.224	10.223	-0.005	96	273703	1.09	
50 Benzene	78	10.817	10.812	0.000	97	73713	0.2275	
58 Trichloroethene	130	12.047	12.046	-0.005	95	33825	0.2370	
67 Toluene	91	14.069	14.069	-0.005	94	91725	0.2484	
78 Ethylbenzene	91	16.350	16.350	-0.005	97	8884	0.0194	
79 m-Xylene & p-Xylene	91	16.506	16.506	-0.006	98	27429	0.0775	
83 o-Xylene	91	17.035	17.034	-0.005	98	9683	0.0258	
95 1,2,4-Trimethylbenzene	105	18.787	18.781	0.000	99	9197	0.0218	
S 124 Xylenes, Total	100				0		0.1033	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

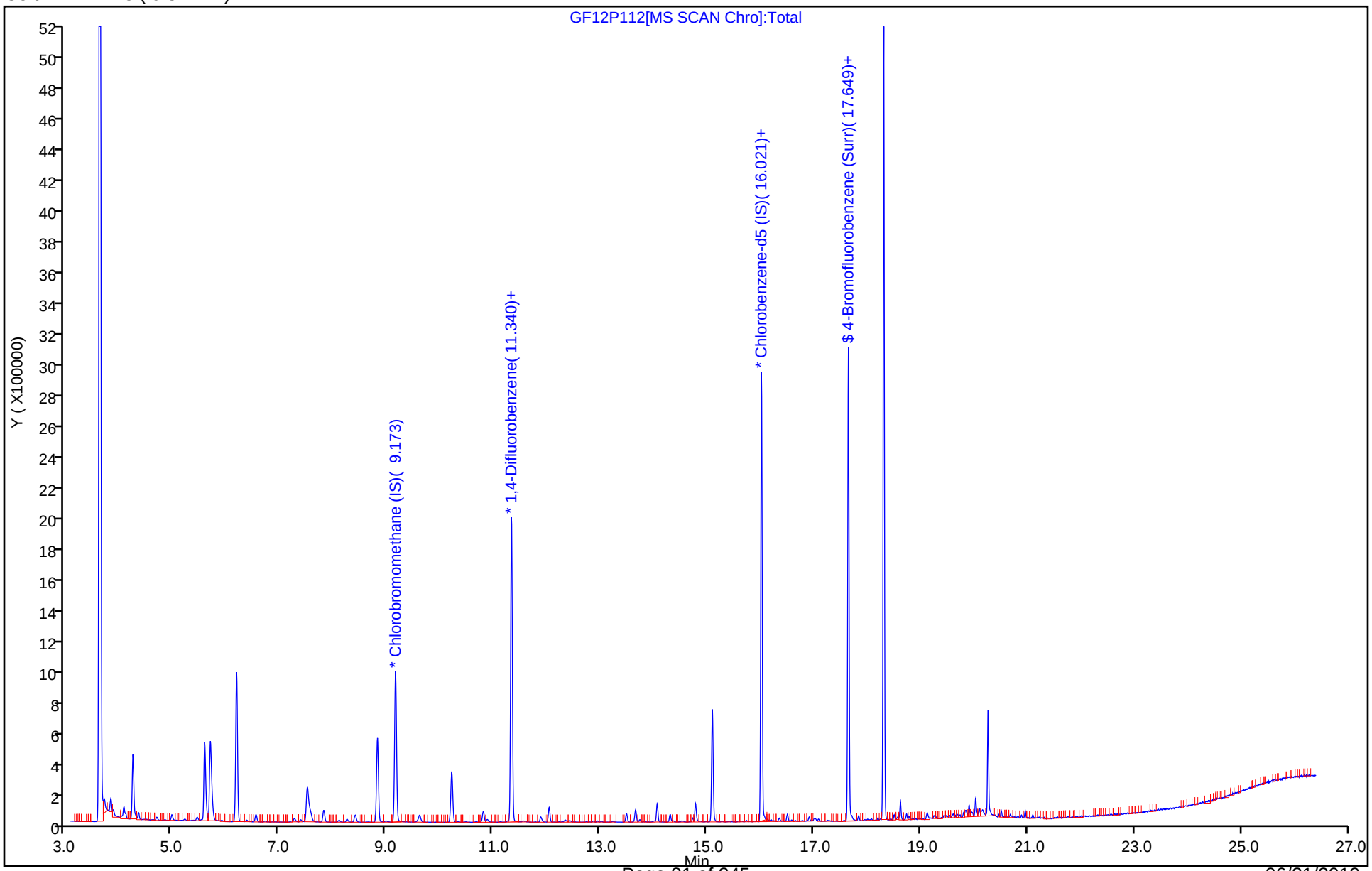
Report Date: 13-Jun-2019 14:57:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D

Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3	Worklist Smp#:	20
Client ID:	BLDG A-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Lims ID:	140-15566-A-3				
Client ID:	BLDG A-EFFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jun-2019 02:29:30	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-020				
Misc. Info.:	140-15566-a-3				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 01:49:32	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 14:57:35

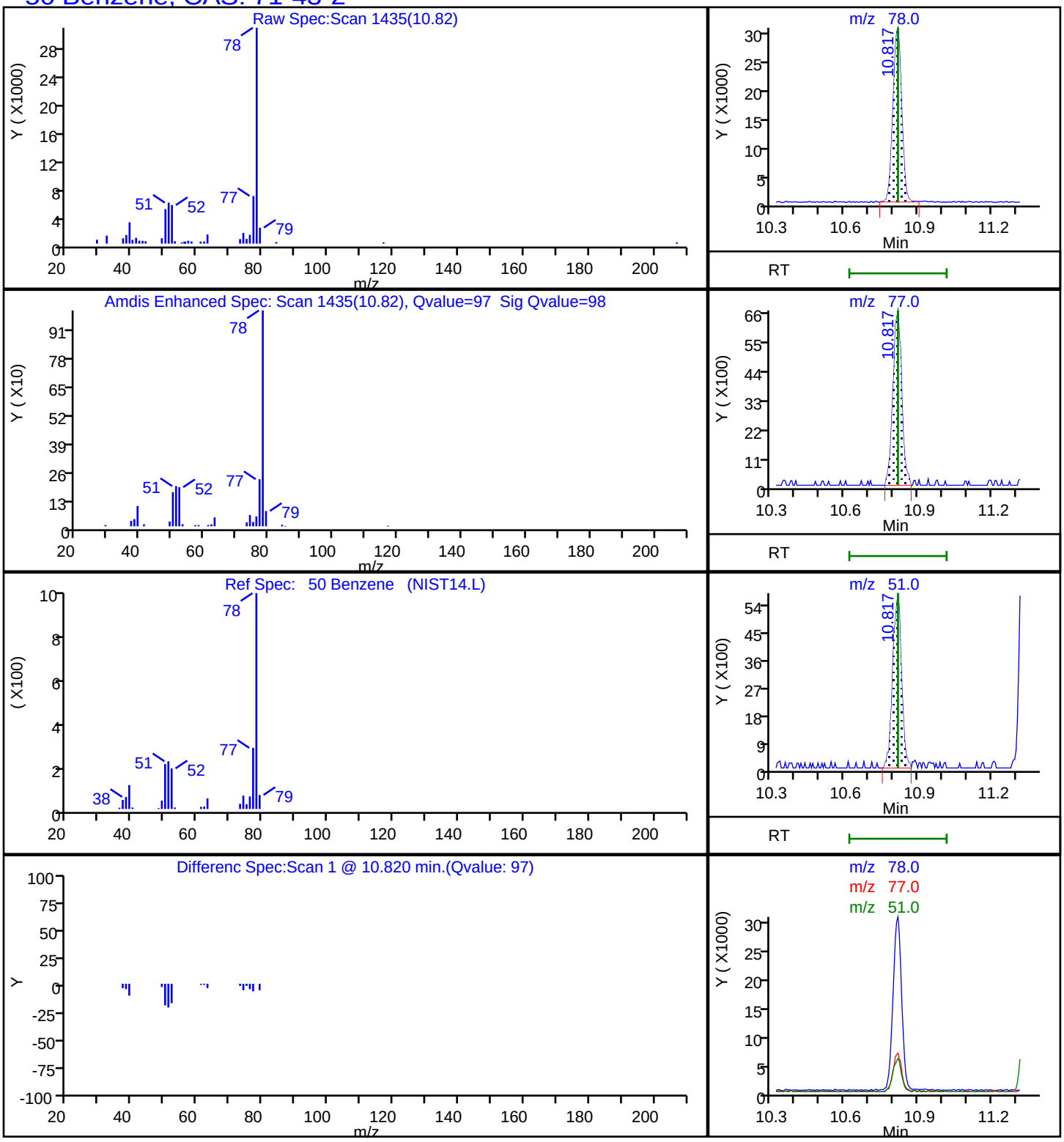
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.56	113.99

Report Date: 13-Jun-2019 14:57:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Benzene, CAS: 71-43-2

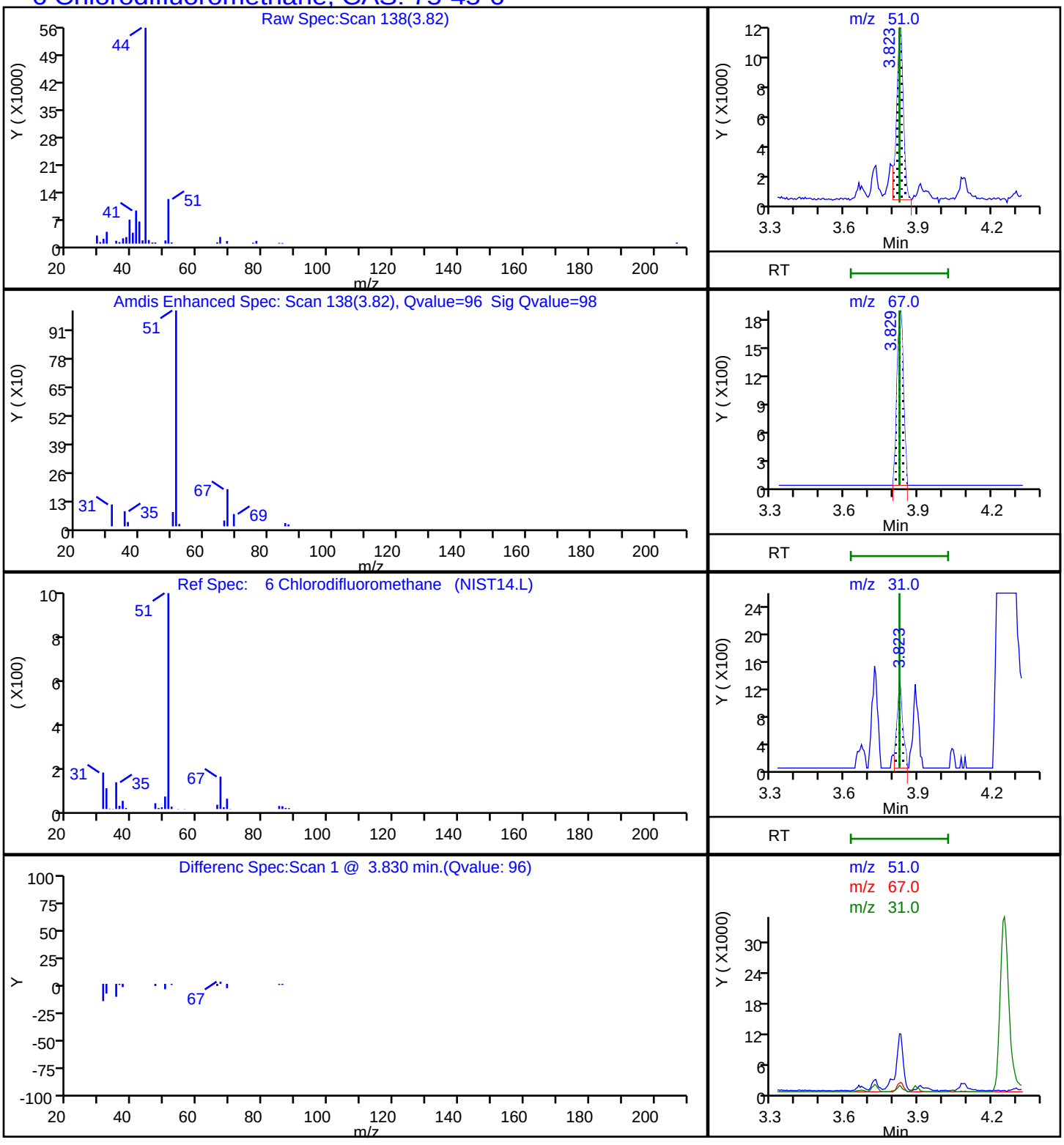


Report Date: 13-Jun-2019 14:57:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

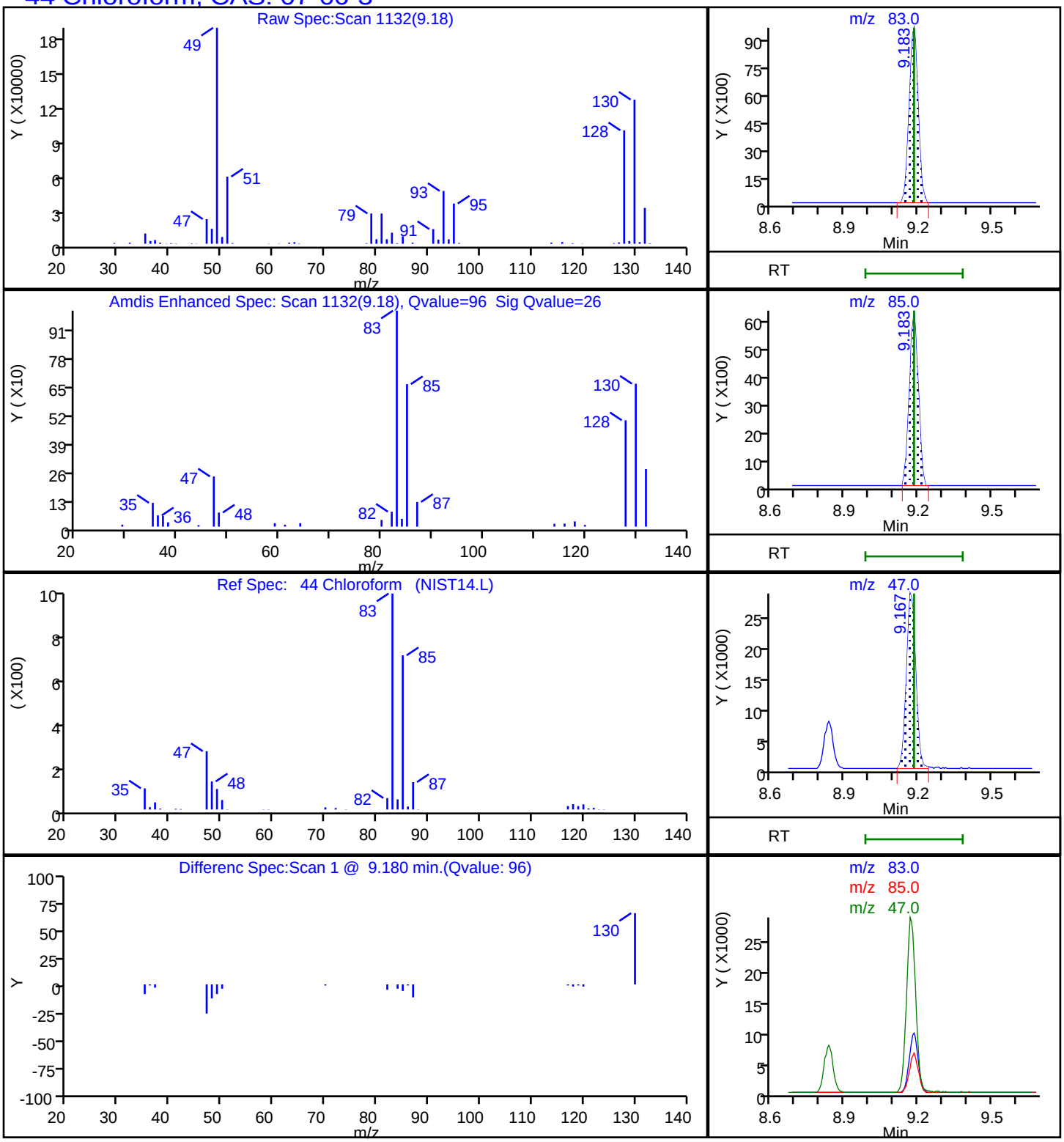
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D		
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

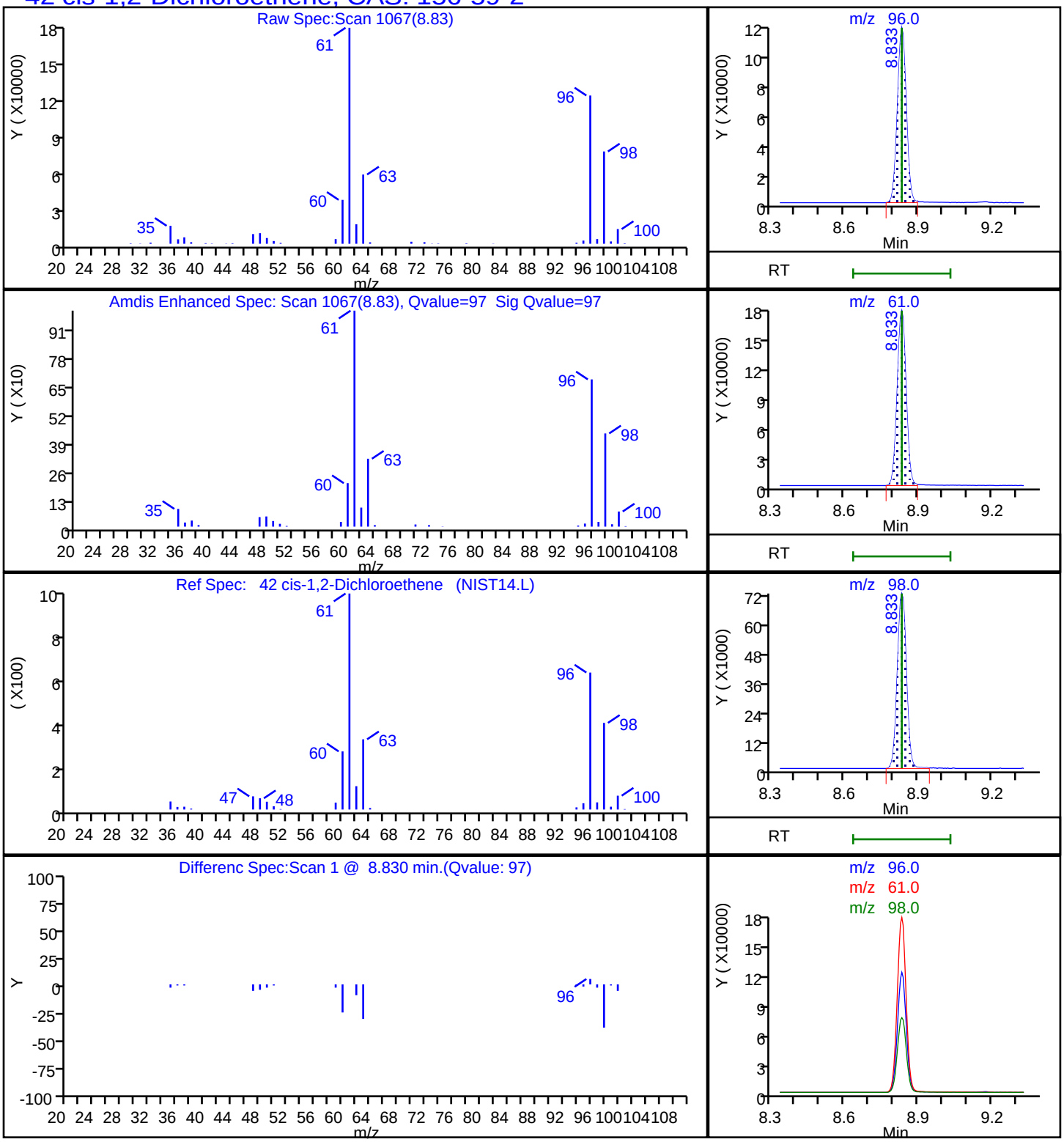
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

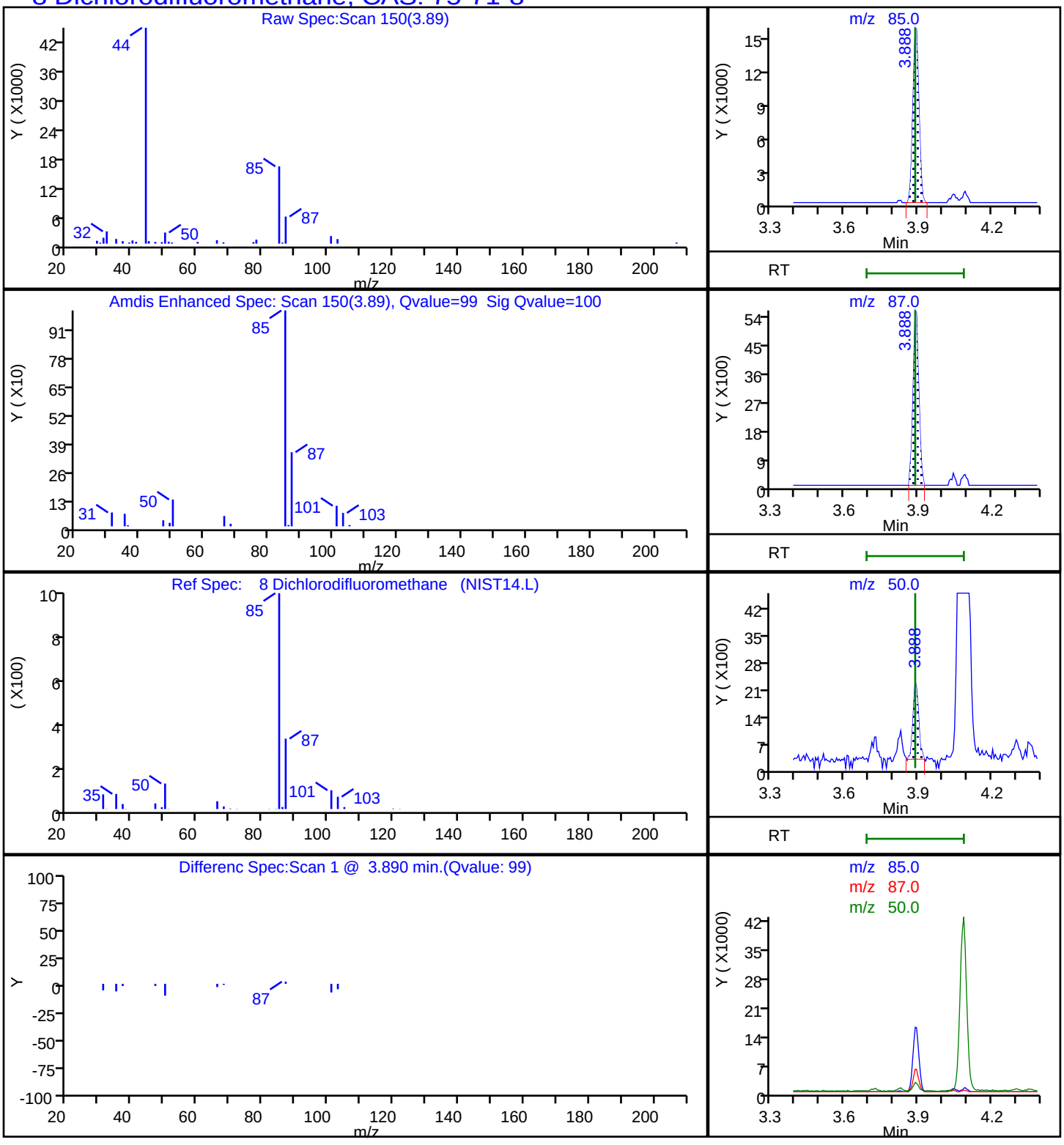
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

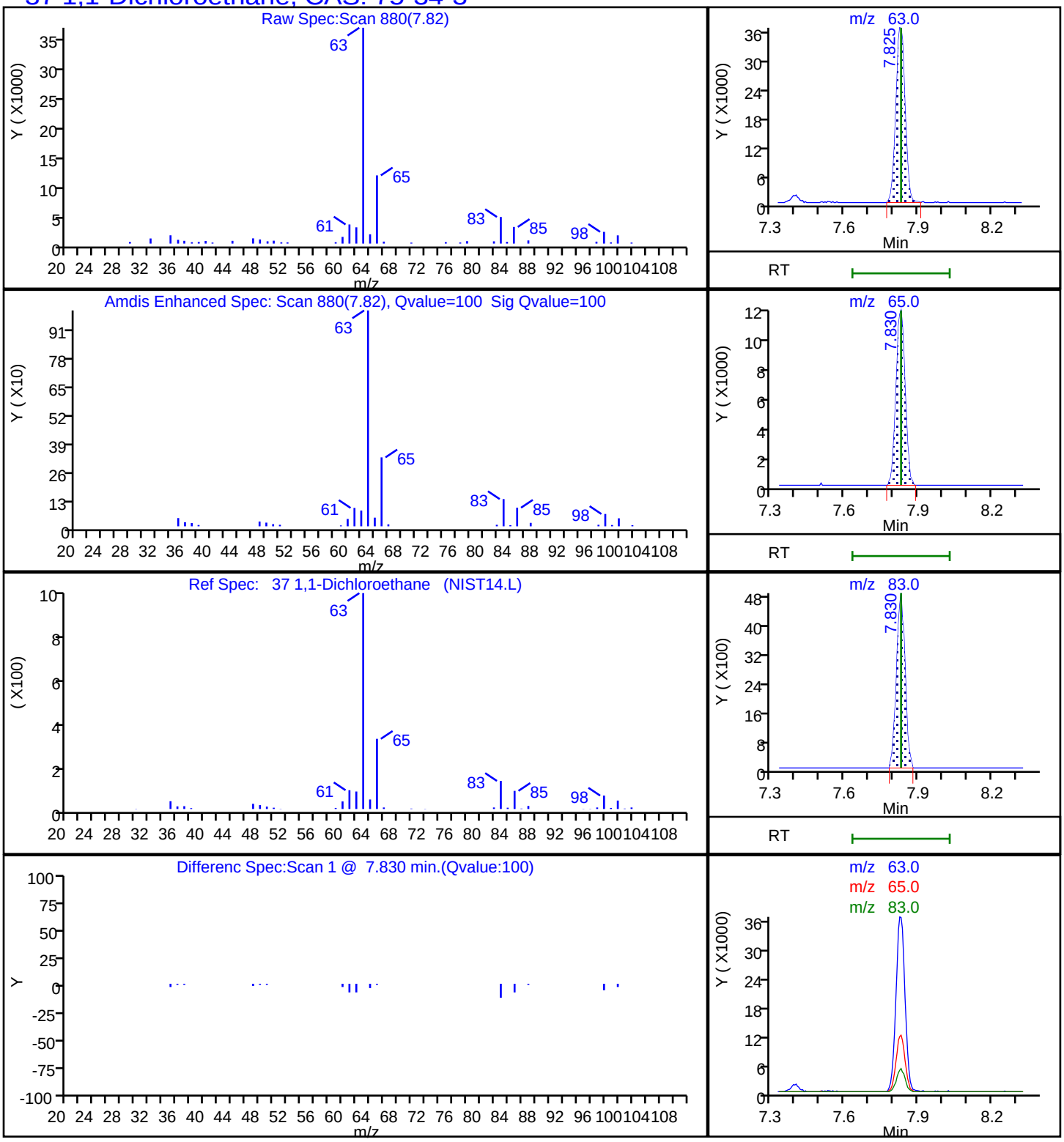
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D		
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

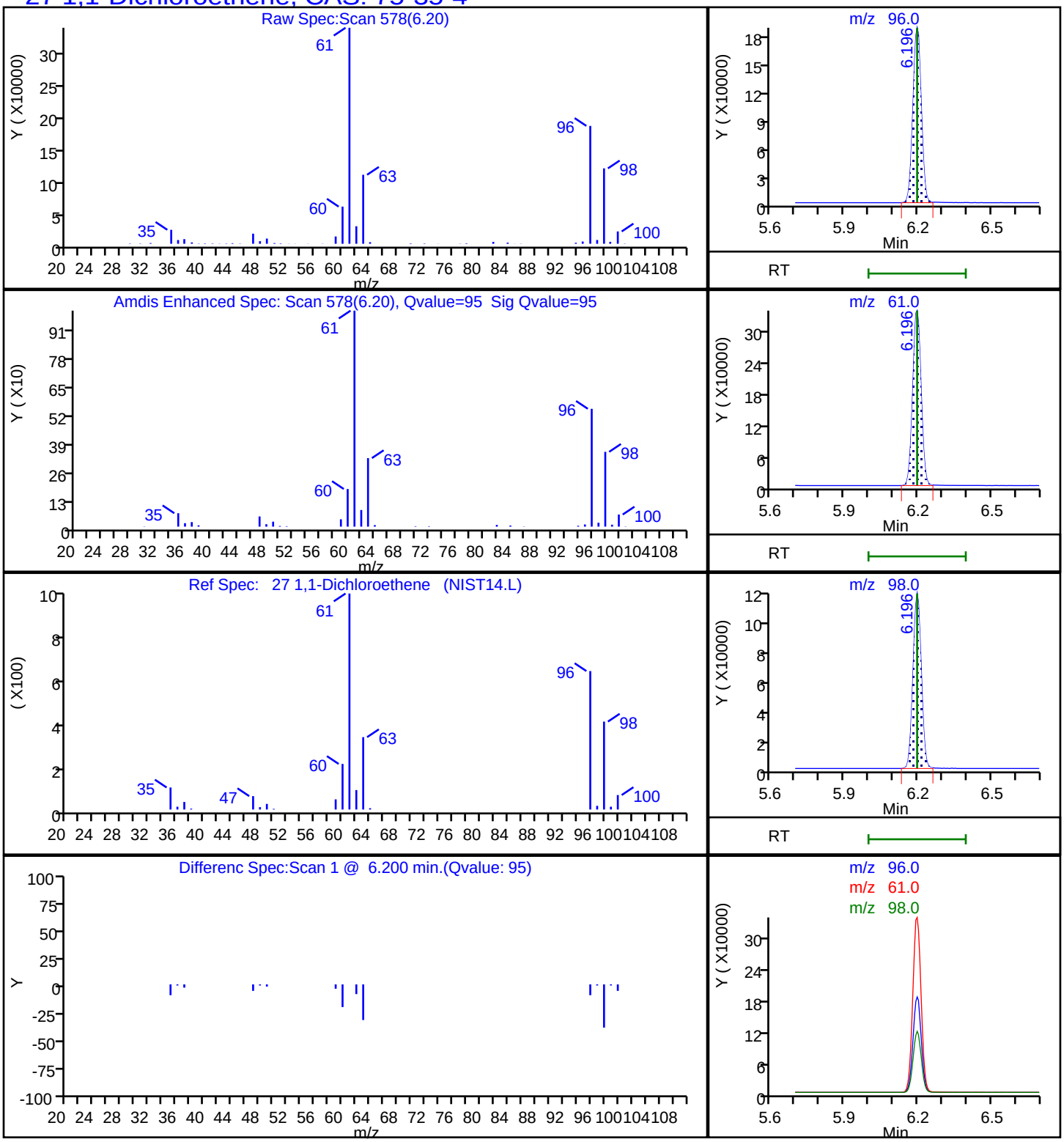
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

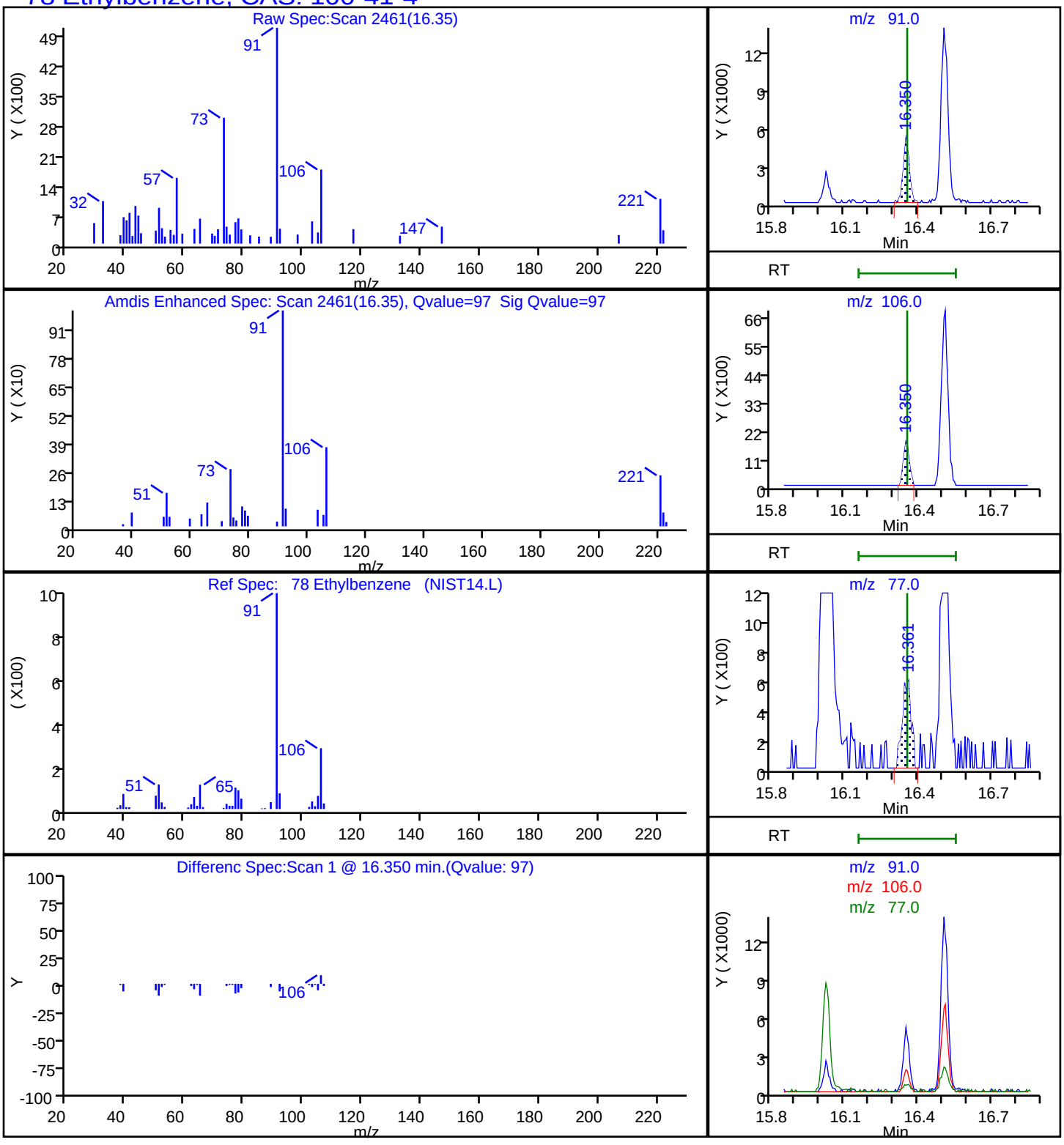
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D		
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



Report Date: 13-Jun-2019 14:57:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D

Injection Date: 13-Jun-2019 02:29:30 Instrument ID: MG

Lims ID: 140-15566-A-3 Lab Sample ID: 140-15566-3

Client ID: BLDG A-EFFLUENT

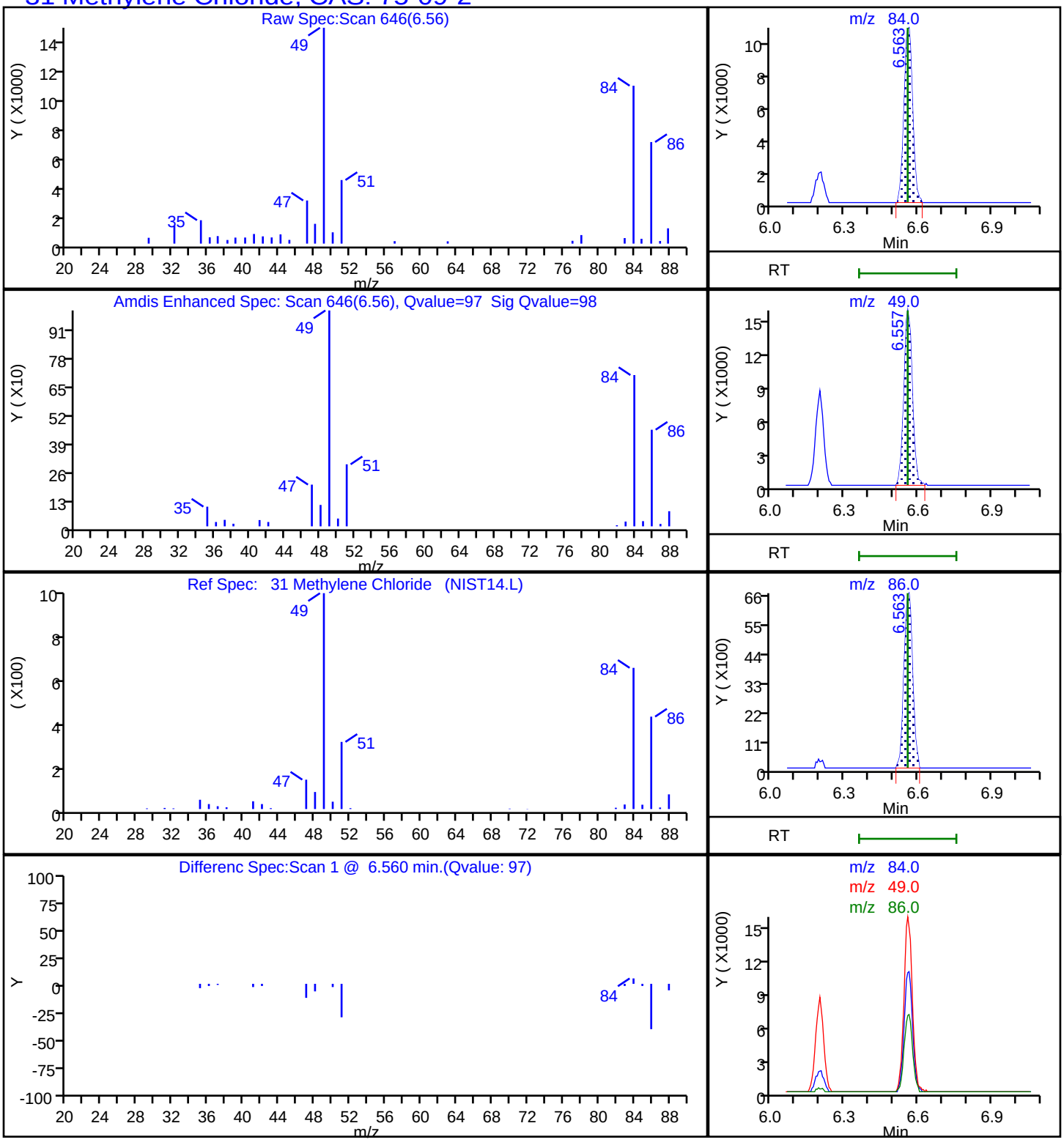
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2

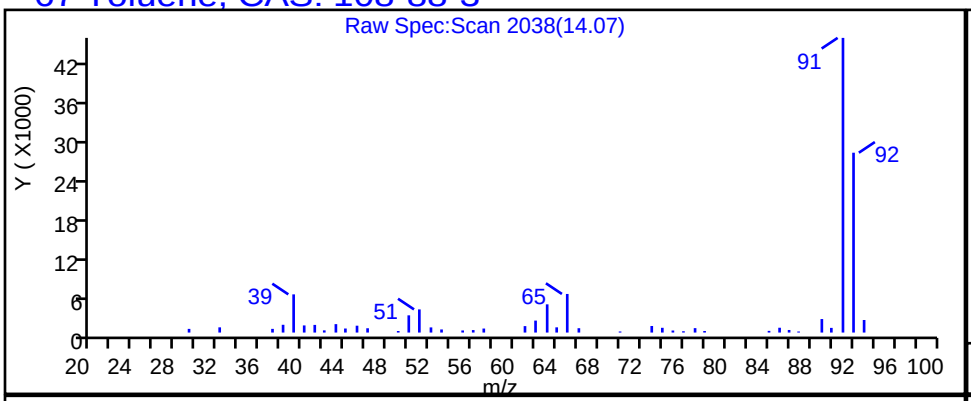


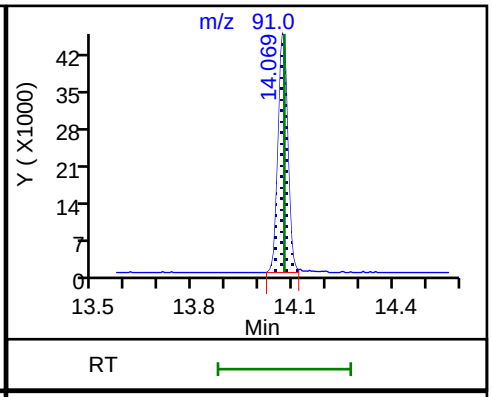
Report Date: 13-Jun-2019 14:57:36 Chrom Revision: 2.3 03-May-2019 15:52:00

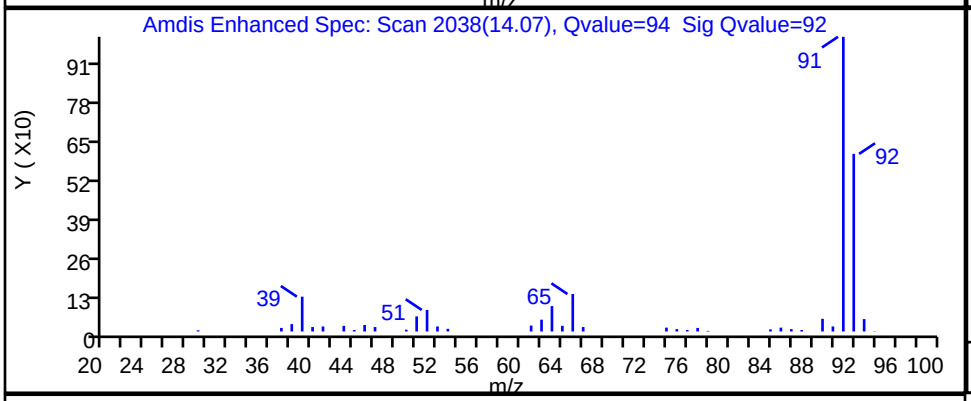
Eurofins TestAmerica, Knoxville

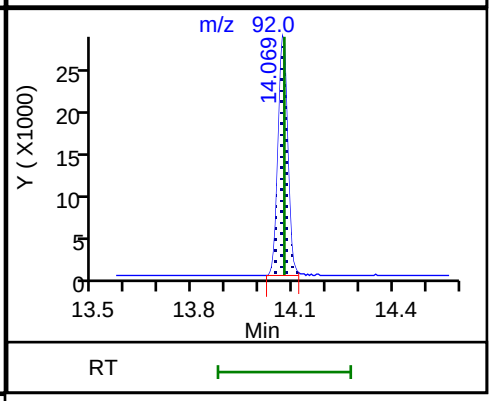
Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

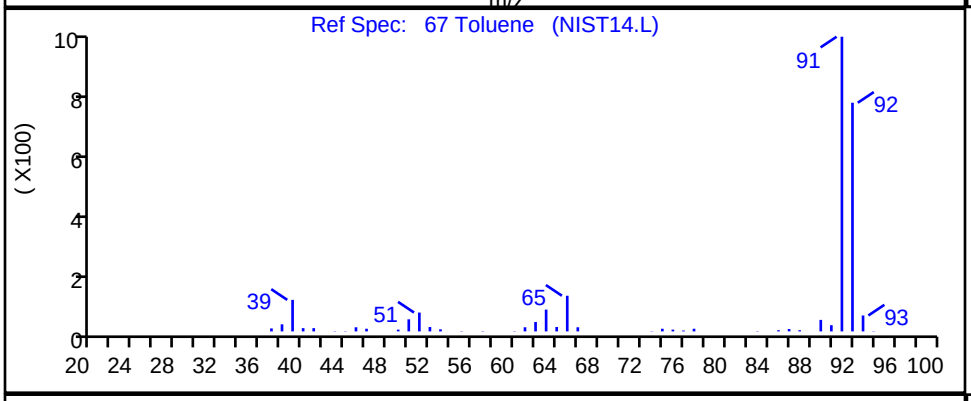
67 Toluene, CAS: 108-88-3

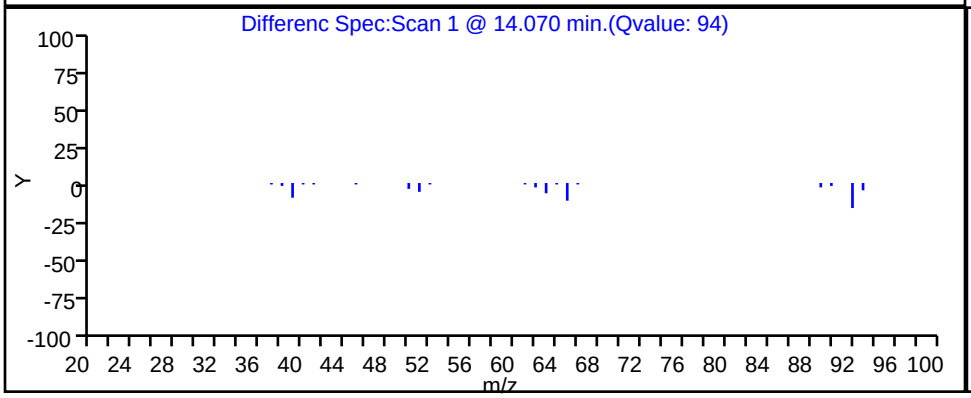


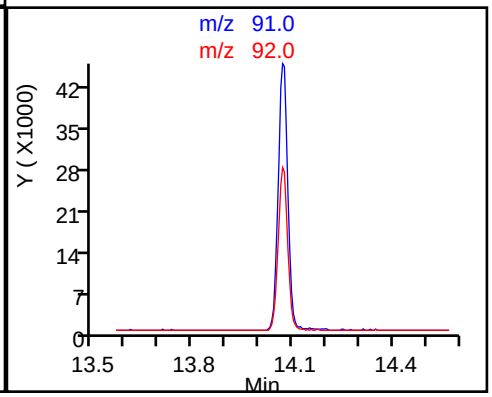










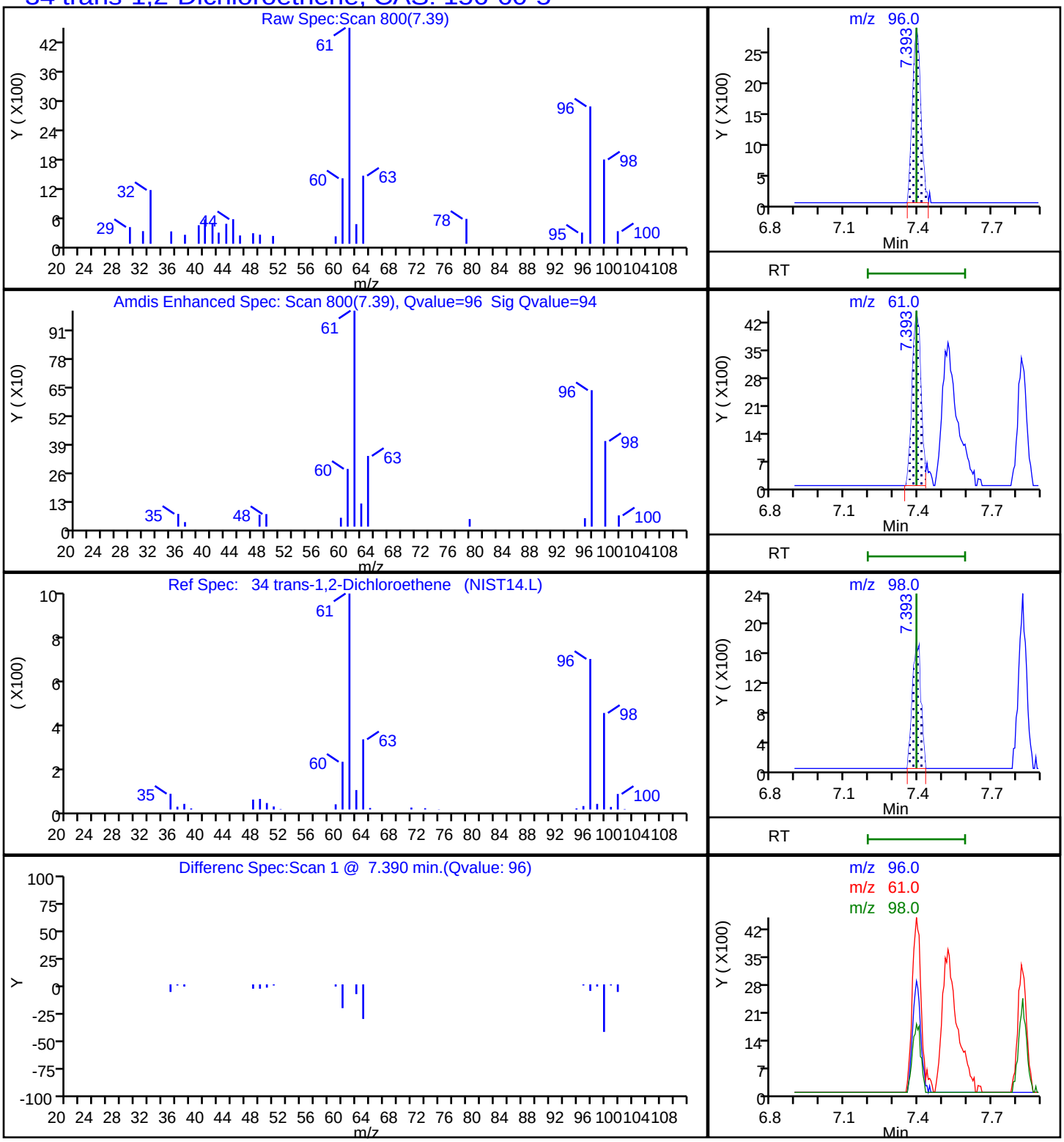


Report Date: 13-Jun-2019 14:57:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

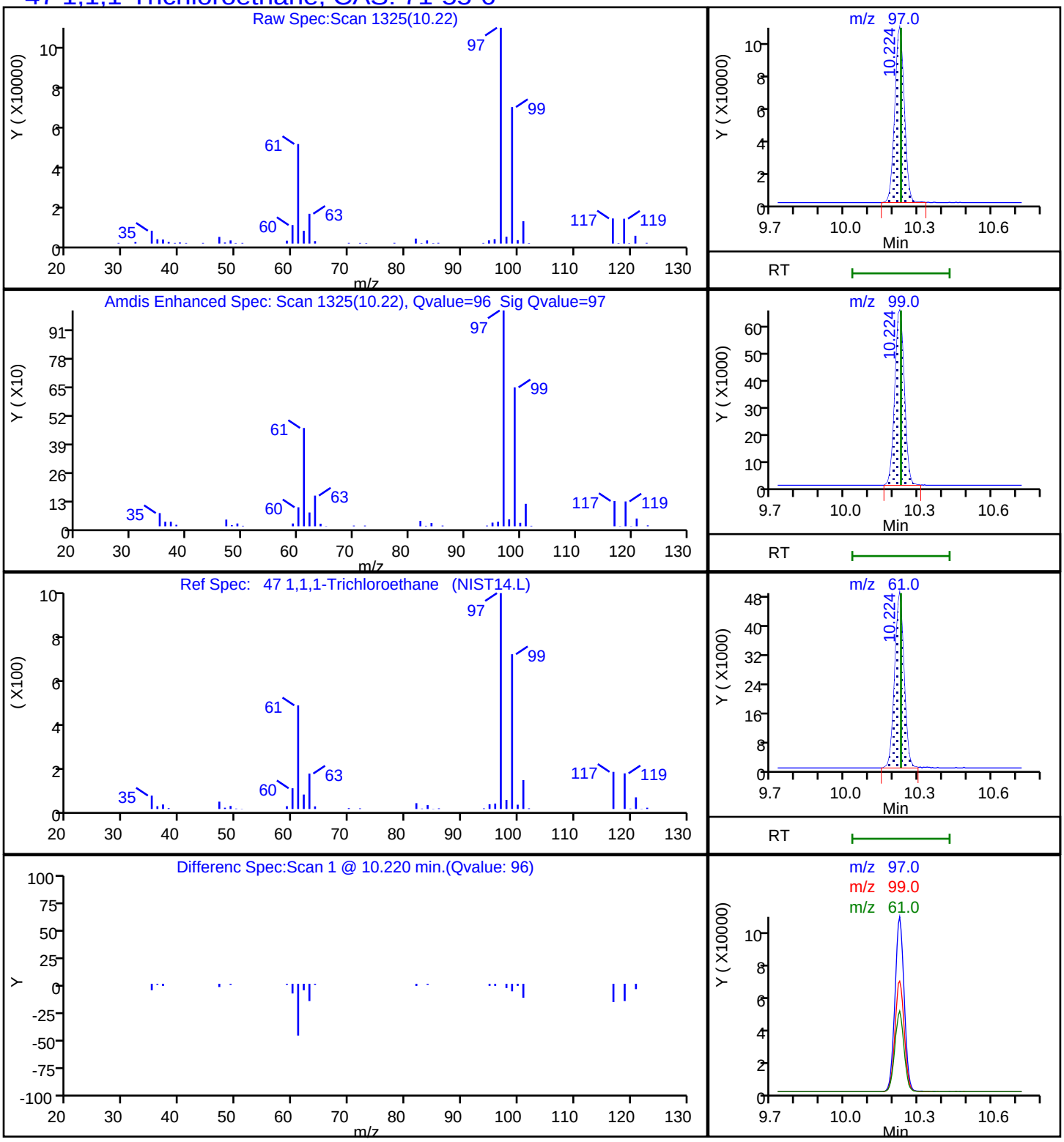
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



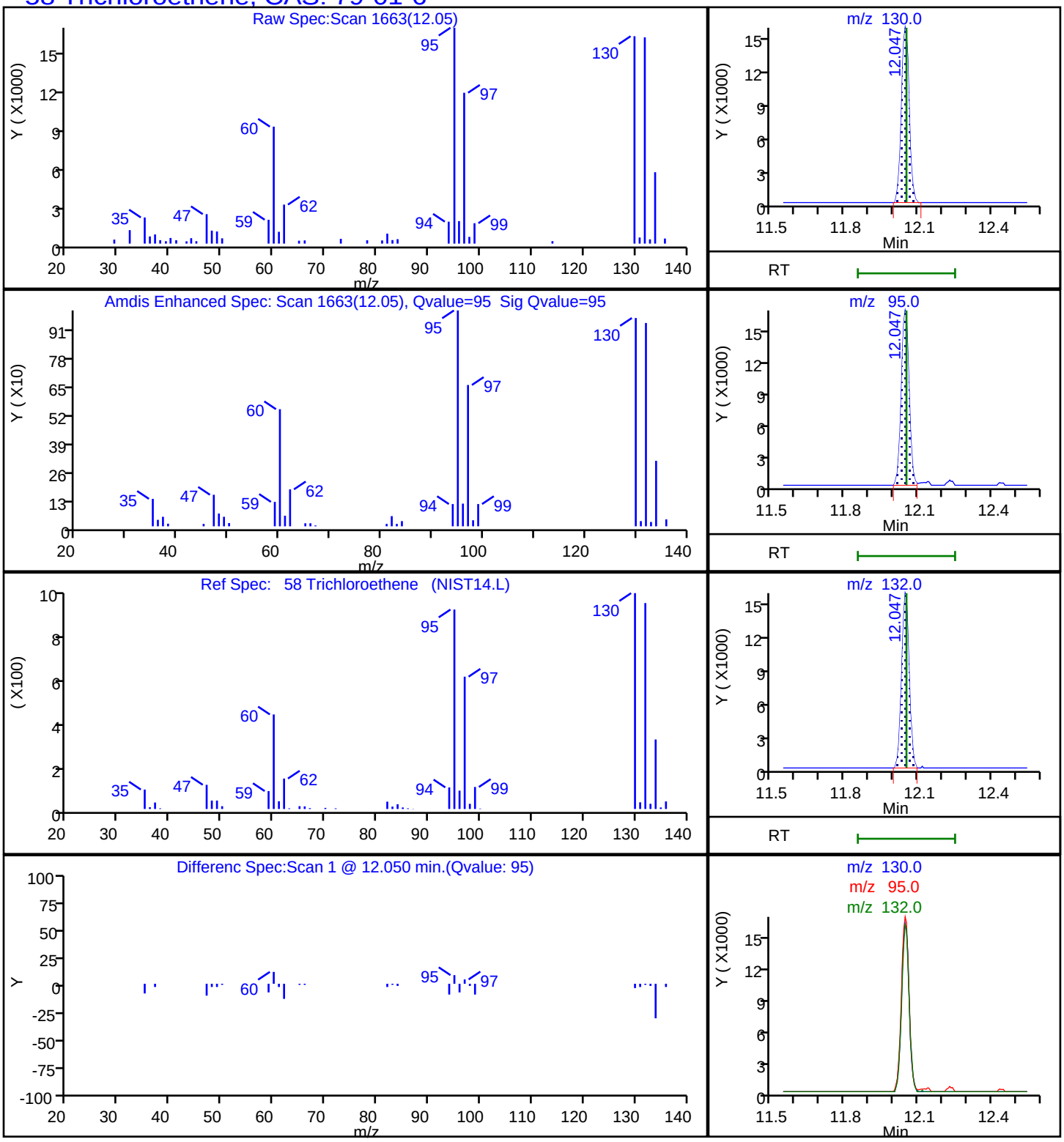
Report Date: 13-Jun-2019 14:57:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D

Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



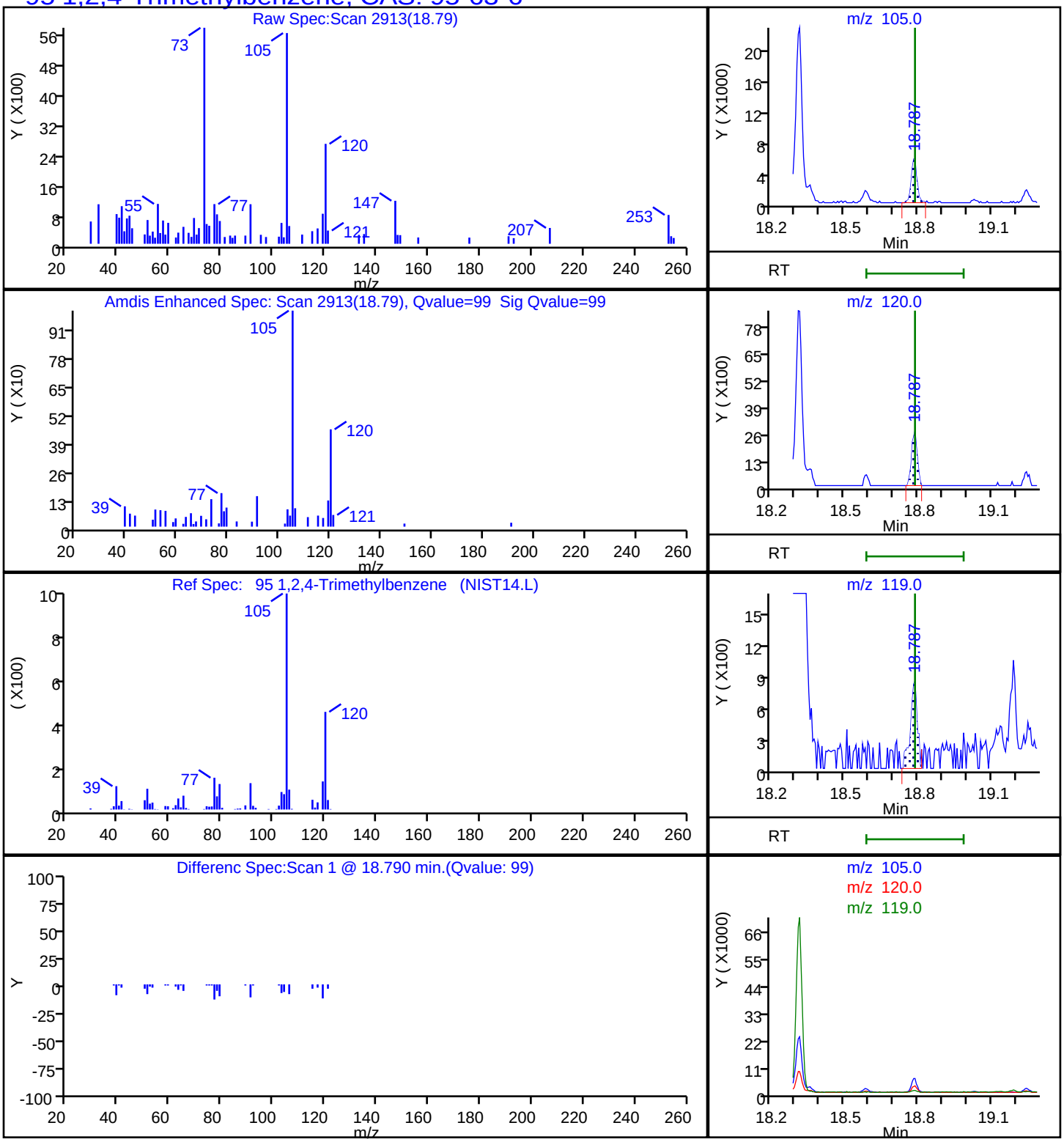
Report Date: 13-Jun-2019 14:57:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D

Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

95 1,2,4-Trimethylbenzene, CAS: 95-63-6

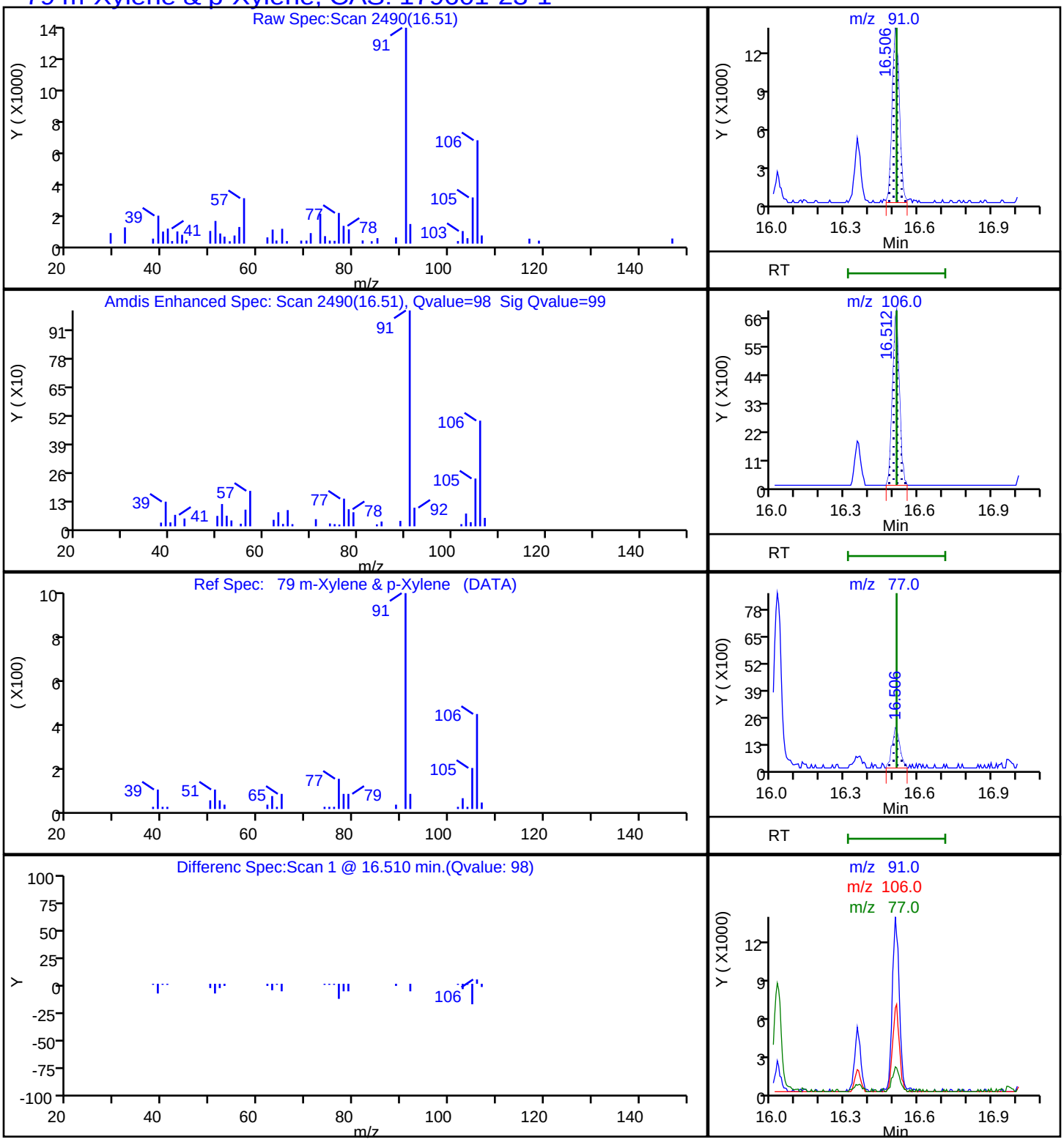


Report Date: 13-Jun-2019 14:57:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

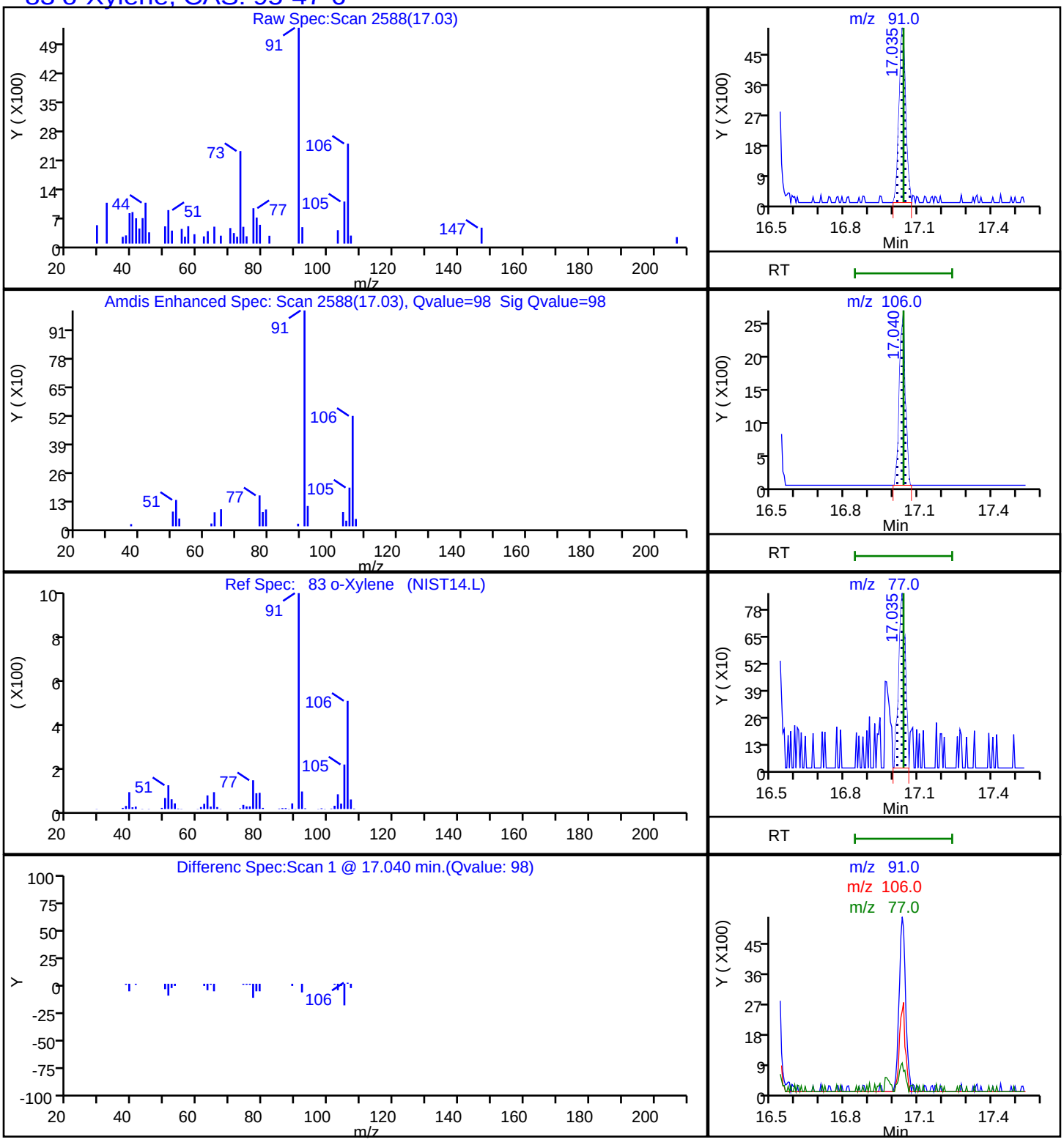
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

83 o-Xylene, CAS: 95-47-6



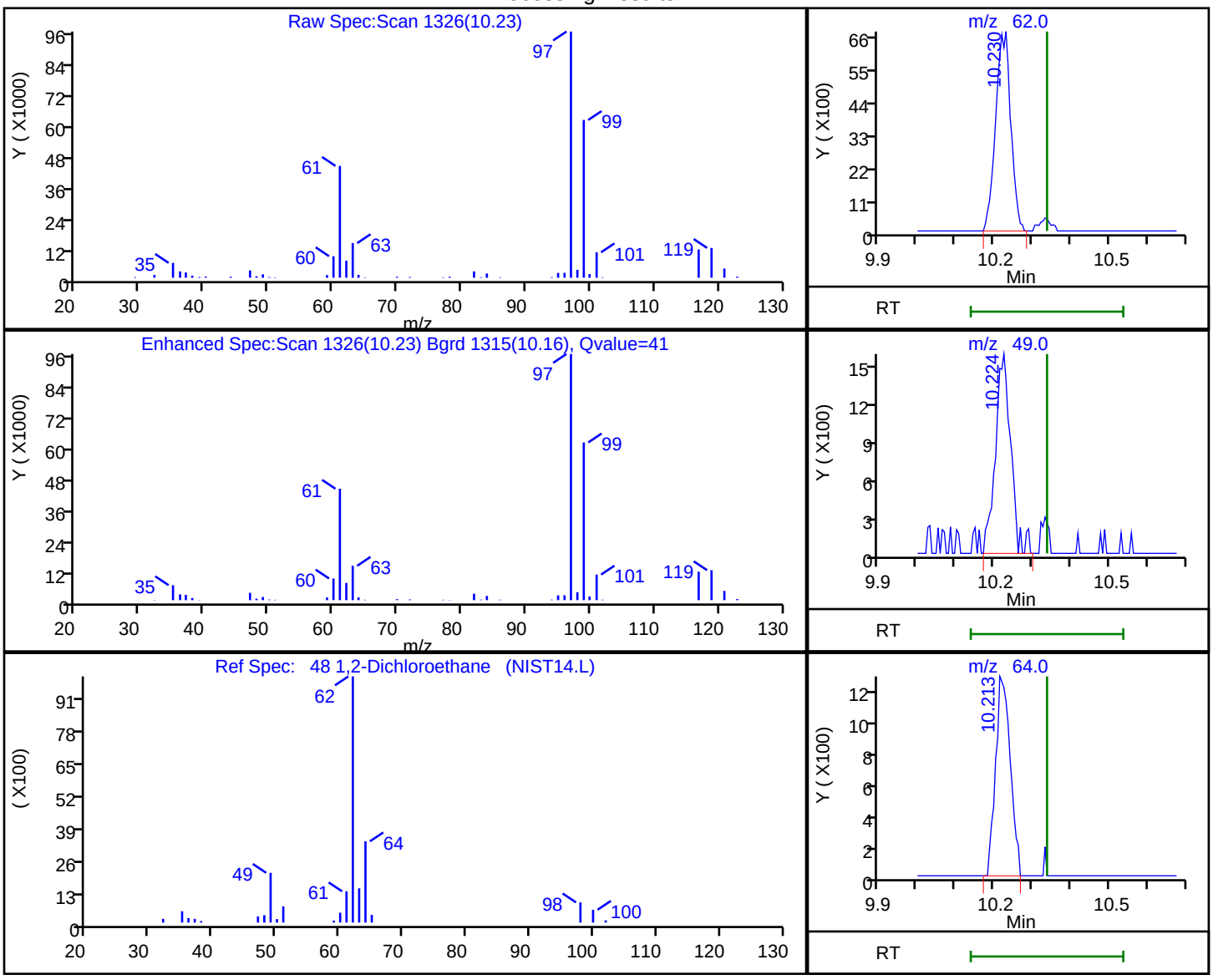
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GF12P112.D				
Injection Date:	13-Jun-2019 02:29:30	Instrument ID:	MG		
Lims ID:	140-15566-A-3	Lab Sample ID:	140-15566-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.23	62.00	18493	0.125276
10.22	49.00	4237	
10.21	64.00	3336	

Reviewer: khachitpongpanits, 13-Jun-2019 14:49:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.3166	2.5987 2.3762	2.5357 2.0658	2.3711 2.2089	2.3225 2.1481	Ave		2.3271				7.4		30.0			
Propene	+++++ 1.2291	+++++ 1.2733	1.6699 1.1053	1.4711 1.1636	1.3004 1.1198	Ave		1.2916				14.9		30.0			
Dichlorodifluoromethane	+++++ 3.7187	4.0820 3.8578	3.8716 3.3811	3.8070 3.6559	3.7246 3.5620	Ave		3.7401				5.4		30.0			
Chloromethane	+++++ 0.4243	+++++ 0.4312	+++++ 0.3794	0.5342 0.3939	0.4719 0.3724	Ave		0.4296				13.4		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.5188 2.2978	2.5837 2.4168	2.4105 2.1313	2.3521 2.2740	2.3581 2.2461	Ave		2.3589				5.6		30.0			
Vinyl chloride	1.7670 1.4743	1.7071 1.5564	1.5743 1.3671	1.5141 1.4606	1.5131 1.4301	Ave		1.5364				8.0		30.0			
Butane	+++++ 2.2040	+++++ 2.3013	+++++ 2.0133	2.3827 2.1775	2.2794 2.0994	Ave		2.2082				5.7		30.0			
1,3-Butadiene	+++++ 1.1366	+++++ 1.2152	1.2229 1.0702	1.1485 1.1612	1.1513 1.1637	Ave		1.1587				4.1		30.0			
Bromomethane	+++++ 1.2539	+++++ 1.3616	1.4107 1.2055	1.3539 1.2852	1.3321 1.3061	Ave		1.3136				5.0		30.0			
Chloroethane	+++++ 0.7086	+++++ 0.7819	0.7715 0.6867	0.7645 0.7176	0.7546 0.7413	Ave		0.7408				4.5		30.0			
Ethanol	+++++ 0.4190	+++++ 0.5382	0.6214 0.4431	0.5321 0.3608	0.4842 0.4694	Ave		0.4835				16.7		30.0			
Vinyl bromide	+++++ 1.1941	+++++ 1.3406	1.3412 1.2032	1.2828 1.2714	1.2767 1.3057	Ave		1.2770				4.3		30.0			
2-Methylbutane	+++++ 1.4683	+++++ 1.6877	1.6841 1.4703	1.6504 1.5382	1.6443 1.5349	Ave		1.5848				5.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.4695	3.8460 3.8010	3.6857 3.3651	3.6061 3.6060	3.6508 3.6125	Ave		3.6270				4.1		30.0			
Acrolein	+++++ 0.2400	+++++ 0.2632	+++++ 0.1831	0.4117 0.2067	0.3572 0.2855	Ave		0.2782				29.3		30.0			
Acetonitrile	+++++ 0.3542	+++++ 0.4322	+++++ 0.3856	0.3481 0.3167	0.3490 0.4389	Ave		0.3750				12.3		30.0			
Acetone	+++++ 0.4916	+++++ 0.5445	+++++ 0.4793	+++++ 0.3424	0.7219 0.4887	Ave		0.5114				24.1		30.0			
Pentane	+++++ 0.2359	+++++ 0.2685	+++++ 0.2420	0.2464 0.2460	0.2646 0.2569	Ave		0.2515				4.8		30.0			
Isopropyl alcohol	+++++ 1.0390	+++++ 1.5565	+++++ 1.2864	1.4473 0.9716	1.3102 1.2980	Ave		1.2727				16.3		30.0			
Ethyl ether	+++++ 0.8321	+++++ 0.9789	1.1689 0.8933	1.0022 0.7765	1.0796 0.9575	Ave		0.9611				13.3		30.0			
1,1-Dichloroethene	1.6359 1.3414	1.6243 1.4783	1.4540 1.3321	1.3962 1.4011	1.3865 1.4580	Ave		1.4508				7.3		30.0			
Acrylonitrile	+++++ 0.8119	+++++ 0.8689	0.8741 0.7954	0.7932 0.6949	0.8674 0.9314	Ave		0.8296				8.7		30.0			
tert-Butyl alcohol	+++++ 1.5505	+++++ 2.3903	+++++ 2.0294	2.0385 1.6577	1.7810 1.9995	Ave		1.9210				14.7		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3488 2.9991	3.2681 3.1628	3.1220 2.8229	3.0557 2.9842	3.0573 2.9567	Ave		3.0778				5.0		30.0			
Methylene Chloride	+++++ 1.4638	+++++ 1.4730	+++++ 1.2952	2.5291 1.3226	1.8135 1.3357	Ave		1.6047				27.7		30.0			
3-Chloropropene	+++++ 1.2327	+++++ 1.3074	1.4055 1.2184	1.3607 1.2615	1.2649 1.2428	Ave		1.2867				5.1		30.0			
Carbon disulfide	+++++ 3.9778	+++++ 4.4219	4.4211 4.0022	4.2826 4.2041	4.2234 4.3319	Ave		4.2331				4.0		30.0			
trans-1,2-Dichloroethene	1.5459 1.3303	1.4965 1.4840	1.4336 1.3651	1.4273 1.4394	1.3792 1.4196	Ave		1.4321				4.5		30.0			
2-Methylpentane	+++++ 3.5506	+++++ 3.7921	3.8077 3.2371	3.7144 3.3836	3.6545 3.1616	Ave		3.5377				7.1		30.0			
Methyl tert-butyl ether	3.4247 3.3308	3.2606 3.7797	3.8972 3.4958	3.3772 2.5934	3.7583 3.7953	Ave		3.4713				11.0		30.0			
1,1-Dichloroethane	+++++ 2.7787	3.1647 2.8443	2.8808 2.5890	2.7977 2.7152	2.8209 2.7833	Ave		2.8194				5.5		30.0			
Vinyl acetate	+++++ 2.9747	+++++ 3.1692	2.9805 2.9673	2.7594 2.4554	3.1743 3.4392	Ave		2.9900				9.9		30.0			
2-Butanone (MEK)	+++++ 0.5740	+++++ 0.6648	+++++ 0.5898	0.7377 0.4249	0.6745 0.6595	Ave		0.6179				16.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.2978	+++++ 1.3946	1.3760 1.2344	1.3693 1.3004	1.3243 1.2759	Ave		1.3216				4.2		30.0			
cis-1,2-Dichloroethene	1.5853 1.4249	1.5983 1.4794	1.5081 1.3731	1.4610 1.4814	1.4563 1.5463	Ave		1.4914				4.7		30.0			
Ethyl acetate	+++++ 2.5014	+++++ 2.8917	2.8942 2.6064	2.3507 1.8762	2.7802 3.0514	Ave		2.6190				14.4		30.0			
Chloroform	+++++ 3.0192	+++++ 3.0267	3.1331 2.7855	2.9882 2.9322	3.0068 3.0841	Ave		2.9970				3.5		30.0			
Tetrahydrofuran	+++++ 1.3639	+++++ 1.5437	+++++ 1.4056	1.4648 1.0705	1.5590 1.5860	Ave		1.4276				12.4		30.0			
1,1,1-Trichloroethane	+++++ 3.1772	3.4609 3.3035	3.2048 2.9909	3.1788 3.1908	3.1870 3.2597	Ave		3.2170				3.9		30.0			
1,2-Dichloroethane	0.3573 0.3116	0.3316 0.3234	0.3150 0.2859	0.3208 0.3041	0.2948 0.3546	Ave		0.3199				7.3		30.0			
Cyclohexane	+++++ 0.1192	+++++ 0.1355	0.1289 0.1105	0.1364 0.1114	0.1204 0.1229	Ave		0.1232				8.0		30.0			
Benzene	+++++ 0.6960	0.8250 0.7324	0.7145 0.6300	0.7279 0.6208	0.6622 0.7097	Ave		0.7021				8.8		30.0			
Carbon tetrachloride	0.4414 0.4665	0.4135 0.5458	0.3965 0.4581	0.4143 0.5014	0.4509 0.5693	Ave		0.4658				12.3		30.0			
1-Butanol	+++++ 0.0405	+++++ 0.0724	+++++ 0.0513	0.0713 0.0451	0.0489 0.0536	Ave		0.0547				22.7		30.0			
2,3-Dimethylpentane	+++++ 0.1770	+++++ 0.1990	0.1832 0.1677	0.1948 0.1709	0.1818 0.1967	Ave		0.1839				6.5		30.0			
Thiophene	0.4297 0.3973	0.4110 0.4176	0.4050 0.3681	0.4057 0.3822	0.3869 0.4569	Ave		0.4060				6.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2608	+++++ 1.3669	1.3435 1.1360	1.3576 1.1192	1.2830 1.2908	Ave		1.2697				7.5		30.0			
Heptane	+++++ 0.2672	+++++ 0.2954	0.2759 0.2530	0.2808 0.2473	0.2614 0.2917	Ave		0.2716				6.4		30.0			
1,2-Dichloropropane	+++++ 0.2562	+++++ 0.2599	0.2694 0.2318	0.2574 0.2378	0.2472 0.2651	Ave		0.2531				5.2		30.0			
Trichloroethene	0.3255 0.2943	0.3282 0.3172	0.3214 0.2763	0.3068 0.2927	0.2925 0.3382	Ave		0.3093				6.4		30.0			
Dibromomethane	+++++ 0.2531	+++++ 0.2697	0.2727 0.2306	0.2664 0.2420	0.2478 0.2750	Ave		0.2572				6.3		30.0			
Bromodichloromethane	0.4729 0.4642	0.4173 0.5101	0.4125 0.4455	0.4343 0.4597	0.4370 0.5530	Ave		0.4606				9.4		30.0			
1,4-Dioxane	+++++ 0.0750	+++++ 0.1026	0.0969 0.0840	0.0922 0.0579	0.0842 0.0994	Ave		0.0865				17.1		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2273	+++++ 0.2840	0.2109 0.2515	0.2111 0.1860	0.2475 0.3295	Ave		0.2435				18.9		30.0			
Methylcyclohexane	+++++ 0.4688	0.4913 0.5181	0.4782 0.4369	0.4951 0.4404	0.4593 0.5077	Ave		0.4773				6.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3551	+++++ 0.4963	0.4979 0.4604	0.4196 0.2844	0.4123 0.5347	Ave		0.4326				19.2		30.0			
cis-1,3-Dichloropropene	0.3686 0.3815	0.3528 0.3954	0.3619 0.3458	0.3632 0.3617	0.3546 0.4346	Ave		0.3720				7.1		30.0			
trans-1,3-Dichloropropene	0.4174 0.3786	0.3487 0.3909	0.3831 0.3530	0.3498 0.3882	0.3713 0.4325	Ave		0.3814				7.3		30.0			
Toluene	0.9380 0.8451	0.8845 0.8739	0.8987 0.8217	0.8403 0.8385	0.8855 0.9163	Ave		0.8742				4.3		30.0			
1,1,2-Trichloroethane	0.2777 0.2554	0.2600 0.2685	0.2673 0.2464	0.2503 0.2539	0.2651 0.2816	Ave		0.2626				4.4		30.0			
2-Hexanone	+++++ 0.1940	+++++ 0.2885	0.2732 0.2867	0.2390 0.1821	0.2303 0.3098	Ave		0.2504				18.6		30.0			
Octane	+++++ 0.3203	0.3257 0.3567	0.3333 0.3210	0.3235 0.3097	0.3344 0.3440	Ave		0.3299				4.3		30.0			
C8 Range	+++++ 2.8114	+++++ 3.0567	3.5653 2.7147	3.2279 2.6208	3.0332 2.8009	Ave		2.9789				10.4		30.0			
Dibromochloromethane	+++++ 0.4744	+++++ 0.5315	0.3783 0.4977	0.3864 0.5320	0.4298 0.6096	Ave		0.4800				16.5		30.0			
1,2-Dibromoethane (EDB)	0.4214 0.4620	0.4020 0.4726	0.4183 0.4264	0.4214 0.4613	0.4550 0.5051	Ave		0.4446				7.1		30.0			
Tetrachloroethene	0.3780 0.3190	0.3321 0.3344	0.3302 0.3073	0.3361 0.3073	0.3251 0.3437	Ave		0.3313				6.1		30.0			
Chlorobenzene	0.7753 0.7139	0.7157 0.7235	0.7325 0.6610	0.7078 0.6683	0.7306 0.7439	Ave		0.7172				4.7		30.0			
Ethylbenzene	1.0390 1.0427	1.0082 1.1604	1.1408 1.0816	1.0194 0.9799	1.1558 1.2391	Ave		1.0867				7.7		30.0			
m-Xylene & p-Xylene	0.7804 0.8142	0.7469 0.9112	0.8554 0.8377	0.8167 0.7315	0.9228 0.9580	Ave		0.8375				9.0		30.0			
Nonane	+++++ 0.6219	0.6374 0.6854	0.6439 0.6169	0.6016 0.5861	0.6555 0.6375	Ave		0.6318				4.7		30.0			
Bromoform	+++++ 0.3849	+++++ 0.4372	0.2422 0.4028	0.2562 +++++	0.3128 +++++	Ave		0.3394				23.8		30.0			
Styrene	+++++ 0.5741	0.4014 0.6601	0.4798 0.6133	0.4343 0.5771	0.5657 +++++	Ave		0.5382				16.8		30.0			
o-Xylene	0.8846 0.8579	0.7505 0.9698	0.9640 0.9028	0.7932 0.7744	0.9534 1.0376	Ave		0.8888				10.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5494	0.4916 0.6612	0.5884 0.5932	0.5148 0.4991	0.6065 0.7007	Ave		0.5783				12.5		30.0			
1,2,3-Trichloropropane	+++++ 0.1684	+++++ 0.2029	0.1861 0.1858	0.1671 0.1521	0.1886 0.2298	Ave		0.1851				12.9		30.0			
Isopropylbenzene	1.3356 1.1334	1.1277 1.3206	1.3150 1.2353	1.1494 1.0127	1.2948 1.4343	Ave		1.2359				10.3		30.0			
Propylbenzene	0.2929 0.3041	0.2835 0.3622	0.3360 0.3372	0.2900 0.2718	0.3475 0.4083	Ave		0.3233				13.2		30.0			
2-Chlorotoluene	0.3391 0.2913	0.2825 0.3289	0.3157 0.3043	0.2978 0.2829	0.3186 0.3596	Ave		0.3121				8.1		30.0			
4-Ethyltoluene	1.1240 1.0971	0.9982 1.3216	1.2950 1.2143	1.1001 0.9725	1.2638 1.4778	Ave		1.1864				13.2		30.0			
1,3,5-Trimethylbenzene	0.4726 0.4646	0.4131 0.5533	0.5284 0.4992	0.4358 0.3883	0.5265 0.6150	Ave		0.4897				14.1		30.0			
Alpha Methyl Styrene	+++++ 0.4061	+++++ 0.5132	0.3229 0.4825	0.2816 0.4183	0.3959 +++++	Ave		0.4029				20.2		30.0			
Decane	0.8403 0.7387	0.7345 0.8410	0.8080 0.7366	0.7362 0.6324	0.8571 0.7883	Ave		0.7713				8.9		30.0			
tert-Butylbenzene	1.0032 1.0013	0.9615 1.1888	1.1469 1.0804	0.9724 0.8247	1.1594 1.3162	Ave		1.0655				13.2		30.0			
1,2,4-Trimethylbenzene	0.9452 0.9495	0.8294 1.1426	1.0384 1.0284	0.8878 0.7943	1.0771 1.2716	Ave		0.9964				14.6		30.0			
sec-Butylbenzene	1.5753 1.4076	1.3509 1.6815	1.6716 1.5123	1.4136 1.1652	1.6353 1.7710	Ave		1.5184				12.2		30.0			
1,3-Dichlorobenzene	0.6938 0.6078	0.5759 0.7043	0.6198 0.6459	0.5769 0.5969	0.6481 0.8242	Ave		0.6493				11.7		30.0			
Benzyl chloride	+++++ 0.6620	+++++ 0.8606	0.5998 0.7732	0.5275 0.6526	0.6469 +++++	Ave		0.6747				16.3		30.0			
1,4-Dichlorobenzene	0.7409 0.5970	0.6022 0.7002	0.6371 0.6487	0.5764 0.6027	0.6441 0.8376	Ave		0.6587				12.2		30.0			
4-Isopropyltoluene	1.1436 1.1300	0.9829 1.3775	1.2818 1.2439	1.0714 0.9268	1.2999 1.5149	Ave		1.1973				15.1		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9591	+++++ 1.1668	1.0810 1.0576	0.9277 0.8055	1.0990 +++++	Ave		1.0138				12.1		30.0			
Indane	0.8766 0.8559	0.7700 1.0252	0.9489 0.9344	0.8105 0.7383	0.9599 1.1685	Ave		0.9088				14.1		30.0			
1,2-Dichlorobenzene	0.6712 0.5701	0.5531 0.6852	0.6092 0.6195	0.5488 0.5339	0.6304 0.8204	Ave		0.6242				13.8		30.0			
Butylbenzene	1.0549 1.0630	0.9012 1.3153	1.1847 1.1589	1.0175 0.8568	1.1909 1.3761	Ave		1.1119				15.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	0.6118 0.6905	0.5355 0.8641	0.6444 0.7846	0.5495 0.6397	0.7161 +++++	Ave		0.6707				15.9		30.0			
Undecane	0.8763 0.7414	0.7663 0.8765	0.9278 0.7640	0.7928 0.5683	0.8624 0.8293	Ave		0.8005				12.7		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2299	+++++ 0.3109	0.2232 0.2902	0.1860 0.2277	0.2205 +++++	Ave		0.2412				18.0		30.0			
1,2,4,5-Tetramethylbenzene	1.2459 0.9772	0.9752 1.2674	1.2321 1.1465	1.0576 0.7815	1.1104 1.3694	Ave		1.1163				15.6		30.0			
Dodecane	+++++ 0.5000	+++++ 0.6921	+++++ 0.6123	0.7173 0.3760	0.6294 0.6888	Ave		0.6023				20.5		30.0			
1,2,4-Trichlorobenzene	+++++ 0.3424	0.4455 0.4572	0.4449 0.4240	0.3713 0.3133	0.3611 +++++	Ave		0.3950				13.8		30.0			
Naphthalene	+++++ 0.8803	1.2954 1.2234	1.1876 1.1395	0.9925 0.7716	0.9083 1.4485	Ave		1.0941				20.1		30.0			
Hexachlorobutadiene	+++++ 0.3679	0.4116 0.4448	0.4694 0.4056	0.4106 0.3057	0.4045 0.5743	Ave		0.4216				17.4		30.0			
1,2,3-Trichlorobenzene	+++++ 0.3152	0.5535 0.4523	0.4934 0.4207	0.4046 0.2823	0.3476 0.5437	Ave		0.4237				22.8		30.0			
2-Methylnaphthalene	+++++ 0.2400	+++++ 0.4611	+++++ 0.4434	0.3806 0.2659	0.2600 0.5034	Ave		0.3649				29.9		50.0			
1-Methylnaphthalene	+++++ 0.3168	+++++ 0.5933	+++++ 0.5584	0.5594 0.3271	0.3474 0.5874	Ave		0.4700				28.0		50.0			
4-Bromofluorobenzene (Surr)	0.5952 0.6190	0.5983 0.6315	0.5732 0.6334	0.5852 0.6443	0.6087 0.6709	Ave		0.6160				4.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 200321	8292 390655	17930 766229	32267 1455765	79535 2851665	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 106282	+++++ 209337	11808 409978	20019 766848	44532 1486485	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 321558	13025 634233	27376 1254085	51807 2409374	127551 4728616	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 36688	+++++ 70896	+++++ 140725	7269 259572	16161 494390	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	4282 198691	8244 397325	17045 790543	32008 1498630	80754 2981771	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3004 127486	5447 255886	11132 507072	20604 962604	51817 1898499	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 190577	+++++ 378339	+++++ 746753	32425 1435042	78060 2786966	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 98280	+++++ 199783	8647 396939	15629 765294	39427 1544862	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 108422	+++++ 223850	9975 447136	18425 846989	45620 1733800	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 61271	+++++ 128544	5455 254698	10404 472939	25843 984111	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 181163	+++++ 442447	21969 821812	36202 1188804	82906 3115790	+++++ 5.00	+++++ 10.0	0.400 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 103252	+++++ 220404	9484 446282	17457 837918	43720 1733333	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 126961	+++++ 277471	11908 545358	22459 1013703	56311 2037556	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 300007	12272 624901	26062 1248146	49073 2376490	125025 4795648	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 20752	+++++ 43275	+++++ 67924	5603 136196	12234 379053	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30631	+++++ 71061	+++++ 143030	4737 208690	11951 582652	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 127534	+++++ 268566	+++++ 533318	+++++ 677038	74161 1946078	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 20402	+++++ 44141	+++++ 89763	3353 162112	9061 341043	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 269541	+++++ 767702	+++++ 1431482	59087 1921012	134609 5169450	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 71948	+++++ 160933	8265 331319	13639 511764	36970 1271090	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2781 115989	5183 243042	10281 494102	19000 923356	47482 1935536	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 70208	+++++ 142847	6181 295011	10794 457967	29705 1236431	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 134069	+++++ 392983	+++++ 752730	27741 1092500	60993 2654334	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	5693 259338	10428 519985	22076 1047041	41583 1966676	104699 3925120	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 126579	+++++ 242161	+++++ 480424	34417 871665	62103 1773178	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 106589	+++++ 214948	9938 451902	18517 831389	43318 1649774	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 343964	+++++ 726982	31262 1484479	58280 2770686	144633 5750635	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	2628 115030	4775 243980	10137 506331	19424 948597	47230 1884495	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 307019	+++++ 623436	26924 1200675	50548 2229939	125152 4197123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	5822 288019	10404 621395	27557 1296623	45959 1709164	128705 5038272	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 240272	10098 467616	20370 960285	38072 1789382	96602 3694840	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 257222	+++++ 521025	21075 1100615	37551 1618172	108707 4565541	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 49637	+++++ 109289	+++++ 218765	10039 280032	23099 875476	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 112220	+++++ 229286	9730 457862	18634 857015	45352 1693828	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2695 123209	5100 243225	10664 509290	19882 976319	49873 2052676	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 216293	+++++ 475402	20465 966730	31990 1236473	95209 4050814	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 261076	+++++ 497597	22154 1033190	40665 1932413	102969 4094217	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 117937	+++++ 253787	+++++ 521363	19934 705483	53388 2105385	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 274731	11043 543110	22661 1109351	43258 2102862	109141 4327311	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3780 171788	6759 319109	13953 683131	26323 1305118	65295 2743021	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 65724	+++++ 133736	5712 264115	11190 478119	26660 951024	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 383669	16814 722712	31654 1505333	59722 2664221	146688 5490023	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4669 257165	8427 538624	17567 1094567	33988 2151836	99890 4403685	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 22341	+++++ 71452	+++++ 122634	5851 193681	10829 414454	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97594	+++++ 196328	8114 400662	15978 733217	40280 1521651	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	4546 219013	8377 412053	17942 879622	33288 1640194	85694 3534214	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 695020	+++++ 1348886	59520 2714447	111379 4802860	284195 9984627	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 147274	+++++ 291475	12222 604522	23041 1061371	57909 2256330	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 141240	+++++ 256494	11936 553896	21117 1020477	54756 2050640	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3443 162250	6690 312969	14237 660236	25174 1256285	64799 2615997	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 139529	+++++ 266139	12080 551004	21856 1038729	54894 2127268	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	5003 255861	8506 503322	18275 1064499	35631 1972785	96804 4277442	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 41325	+++++ 101274	4291 200629	7562 248286	18644 768818	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 125280	+++++ 280248	9343 600850	17318 798290	54826 2549164	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 258432	10013 511298	21184 1043958	40616 1890035	101736 3927400	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 195739	+++++ 489699	22056 1100009	34427 1220404	91324 4135969	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	3899 210292	7191 390184	16034 826232	29796 1552030	78550 3362140	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3726 177964	6179 340913	13992 709449	24688 1361905	67856 3048699	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	8372 397221	15671 762108	32819 1651334	59304 2941770	161840 6458448	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	2479 120031	4606 234138	9763 495129	17667 890893	48445 1985221	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 91165	+++++ 251559	9978 576169	16871 638898	42091 2183727	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 150530	5771 311102	12174 645160	22835 1086444	61118 2425028	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1321428	+++++ 2665641	130207 5455808	227816 9194568	554350 19742463	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 222962	+++++ 463484	13816 1000345	27269 1866612	78543 4297014	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	3761 217156	7123 412095	15276 857025	29742 1618286	83160 3560552	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3374 149919	5885 291644	12058 617646	23722 1078286	59425 2422834	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	6920 335561	12680 630960	26752 1328456	49954 2344716	133521 5243363	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9274 490097	17864 1011900	41663 2173662	71944 3437784	211233 8733871	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	13931 765438	26468 1589277	62479 3367264	115288 5133019	337295 13504474	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 292332	11293 597737	23515 1239804	42459 2056395	119795 4493277	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 180915	+++++ 381269	8847 809502	18079 +++++	57176 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 269824	7112 575637	17523 1232615	30654 2024747	103391 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
o-Xylene	CBZd 5	Ave	7896 403226	13297 845688	35205 1814378	55982 2717033	174255 7313969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 258219	8710 576602	21488 1192085	36333 1751142	110852 4939070	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 79171	+++++ 176942	6796 373377	11793 533466	34461 1619671	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	11921 532713	19981 1151599	48024 2482560	81124 3552766	236641 10110086	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	2614 142922	5023 315843	12269 677778	20466 953633	63509 2877608	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	3027 136906	5005 286828	11528 611471	21015 992520	58227 2534846	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	10033 515668	17686 1152550	47293 2440515	77645 3411871	230971 10416265	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	4218 218352	7320 482496	19296 1003240	30756 1362442	96222 4334621	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 190856	+++++ 447527	11793 969642	19878 1467628	72362 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Decane	CBZd 5	Ave	7500 347209	13014 733395	29507 1480434	51962 2218740	156649 5556086	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	8954 470615	17036 1036702	41885 2171366	68627 2893179	211897 9277477	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	8437 446282	14696 996384	37922 2066856	62657 2786864	196858 8963348	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	14061 661616	23935 1466327	61046 3039289	99768 4087987	298872 12483123	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	6193 285664	10203 614182	22637 1298002	40713 2094229	118442 5809129	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 311166	+++++ 750522	21904 1553950	37228 2289607	118237 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	6613 280622	10670 610632	23267 1303721	40680 2114516	117709 5904068	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	10208 531140	17415 1201261	46813 2499878	75618 3251402	237573 10678190	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 450808	+++++ 1017505	39477 2125465	65472 2825913	200856 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	7824 402293	13642 894023	34655 1877846	57205 2590340	175435 8236384	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	5991 267961	9800 597552	22248 1244990	38733 1873115	115220 5782926	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	9416 499621	15968 1146980	43265 2329083	71811 3005837	217649 9699535	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	5461 324555	9488 753565	23534 1576932	38779 2244227	130876 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	7822 348459	13577 764364	33883 1535512	55954 1993722	157612 5845663	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 108040	+++++ 271086	8153 583282	13129 798929	40295 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	11121 459294	17278 1105229	44995 2304135	74640 2741782	202937 9652513	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 235025	+++++ 603518	+++++ 1230533	50625 1319037	115029 4855229	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 160937	7893 398730	16248 852171	26207 1099315	65988 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Naphthalene	CBZd5	Ave	+++++ 413768	22952 1066836	43370 2289996	70051 2706962	166001 10209707	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	+++++ 172917	7293 387914	17141 815187	28981 1072639	73931 4047682	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 148142	9807 394456	18020 845498	28559 990277	63529 3832551	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 112826	+++++ 402089	+++++ 891206	26861 933008	47516 3548760	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 148906	+++++ 517447	+++++ 1122363	39482 1147762	63501 4140645	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1062445 1163771	1060073 1101322	1046688 1273047	1032580 1130160	1112507 1182280	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-30104/8	GE16IC01.D
Level 2	IC 140-30104/9	GE16IC02.D
Level 3	IC 140-30104/10	GE16IC03.D
Level 4	IC 140-30104/11	GE16IC04.D
Level 5	IC 140-30104/12	GE16IC05.D
Level 6	IC 140-30104/13	GE16IC06.D
Level 7	ICIS 140-30104/14	GE16IC07.D
Level 8	IC 140-30104/15	GE16IC08.D
Level 9	IC 140-30104/3	GE16IC09.D
Level 10	IC 140-30104/5	GE16IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	11.7						50				
Propene	+++++	+++++	29.3						50			
Dichlorodifluoromethane	+++++	9.1						50				
Chloromethane	+++++	+++++	+++++	24.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	6.8						50					
Vinyl chloride	15.0						50					
Butane	+++++	+++++	+++++	7.9						50		
1,3-Butadiene	+++++	+++++	5.5						50			
Bromomethane	+++++	+++++	7.4						50			
Chloroethane	+++++	+++++	4.1						50			
Ethanol	+++++	+++++	28.5						50			
Vinyl bromide	+++++	+++++	5.0						50			
2-Methylbutane	+++++	+++++	6.3						50			
Trichlorofluoromethane	+++++	6.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	48.0						50		
Acetonitrile	+++++	+++++	+++++	-7.2						50		
Acetone	+++++	+++++	+++++	+++++	41.2						80	
Pentane	+++++	+++++	+++++	-2.0						50		
Isopropyl alcohol	+++++	+++++	+++++	13.7						50		
Ethyl ether	+++++	+++++	21.6						50			
1,1-Dichloroethene	12.8						50					
Acrylonitrile	+++++	+++++	5.4						50			
tert-Butyl alcohol	+++++	+++++	+++++	6.1						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	8.8						50					
Methylene Chloride	+++++	+++++	+++++	57.6						80		
3-Chloropropene	+++++	+++++	9.2						50			
Carbon disulfide	+++++	+++++	4.4						50			
trans-1,2-Dichloroethene	7.9						50					
2-Methylpentane	+++++	+++++	7.6						50			
Methyl tert-butyl ether	-1.3						50					
1,1-Dichloroethane	+++++	12.2						50				
Vinyl acetate	+++++	+++++	-0.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	19.4						50		
Hexane	+++++	+++++	4.1						50			
cis-1,2-Dichloroethene	6.3						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	10.5						50			
Chloroform	+++++	+++++	4.5						50			
Tetrahydrofuran	+++++	+++++	+++++	2.6						50		
1,1,1-Trichloroethane	+++++	7.6						50				
1,2-Dichloroethane	11.7						50					
Cyclohexane	+++++	+++++	4.7						50			
Benzene	+++++	17.5						50				
Carbon tetrachloride	-5.2						50					
1-Butanol	+++++	+++++	+++++	30.3						50		
2,3-Dimethylpentane	+++++	+++++	-0.4						50			
Thiophene	5.8						50					
2,2,4-Trimethylpentane	+++++	+++++	5.8						50			
Heptane	+++++	+++++	1.6						50			
1,2-Dichloropropane	+++++	+++++	6.4						50			
Trichloroethene	5.2						50					
Dibromomethane	+++++	+++++	6.0						50			
Bromodichloromethane	2.7						50					
1,4-Dioxane	+++++	+++++	12.0						50			
Methyl methacrylate	+++++	+++++	-13.4						50			
Methylcyclohexane	+++++	2.9						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	15.1						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	-0.9						50					
trans-1,3-Dichloropropene	9.5						50					
Toluene	7.3						50					
1,1,2-Trichloroethane	5.8						50					
2-Hexanone	+++++	+++++	9.1						50			
Octane	+++++	-1.3						50				
Dibromochloromethane	+++++	+++++	-21.2						50			
1,2-Dibromoethane (EDB)	-5.2						50					
Tetrachloroethene	14.1						50					
Chlorobenzene	8.1						50					
Ethylbenzene	-4.4						50					
m-Xylene & p-Xylene	-6.8						50					
Nonane	+++++	0.9						50				
Bromoform	+++++	+++++	-28.6 +++++	+++++					50			
Styrene	+++++	-25.4		+++++				50				
o-Xylene	-0.5						50					
1,1,2,2-Tetrachloroethane	+++++	-15.0						50				
1,2,3-Trichloropropane	+++++	+++++	0.5						50			
Isopropylbenzene	8.1						50					
Propylbenzene	-9.4						50					
2-Chlorotoluene	8.7						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	-5.3						50					
1,3,5-Trimethylbenzene	-3.5						50					
Alpha Methyl Styrene	+++++	+++++	-19.9	+++++					50			
Decane	8.9						50					
tert-Butylbenzene	-5.8						50					
1,2,4-Trimethylbenzene	-5.1						50					
sec-Butylbenzene	3.7						50					
1,3-Dichlorobenzene	6.9						50					
Benzyl chloride	+++++	+++++	-11.1	+++++					50			
1,4-Dichlorobenzene	12.5						50					
4-Isopropyltoluene	-4.5						50					
1,2,3-Trimethylbenzene	+++++	+++++	6.6	+++++					50			
Indane	-3.5						50					
1,2-Dichlorobenzene	7.5						50					
Butylbenzene	-5.1						50					
Indene	-8.8			+++++			50					
Undecane	9.5						50					
1,2-Dibromo-3-Chloropropane	+++++	+++++	-7.4	+++++					50			
1,2,4,5-Tetramethylbenzene	11.6						50					
Dodecane	+++++	+++++	+++++	19.1						50		
1,2,4-Trichlorobenzene	+++++	12.8		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1 Analy Batch No.: 30104

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2019 20:05 Calibration End Date: 05/17/2019 04:45 Calibration ID: 1954

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	18.4						80				
Hexachlorobutadiene	+++++	-2.4						50				
1,2,3-Trichlorobenzene	+++++	30.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	4.3						80		
1-Methylnaphthalene	+++++	+++++	+++++	19.0						80		

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 16-May-2019 20:05:30 ALS Bottle#: 15 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-003
Misc. Info.: 221636
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:50:59 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:58:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	97	329518	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.362	11.358	0.004	95	2145753	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1754182	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.660	17.656	0.004	84	1130160	4.00	4.18	
6 Chlorodifluoromethane	51	3.818	3.823	-0.005	96	1455765	8.00	7.59	
7 Propene	41	3.834	3.836	-0.002	99	766848	8.00	7.21	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	2409374	8.00	7.82	
9 Chloromethane	52	4.082	4.087	-0.005	99	259572	8.00	7.33	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.092	-0.005	93	1498630	8.00	7.71	
11 Acetaldehyde	44	4.249	4.258	-0.009	98	1392151	40.0	34.8	
12 Vinyl chloride	62	4.265	4.267	-0.002	99	962604	8.00	7.61	
13 Butane	43	4.357	4.360	-0.003	85	1435042	8.00	7.89	
14 Butadiene	54	4.357	4.361	-0.004	67	765294	8.00	8.02	
15 Bromomethane	94	4.702	4.706	-0.004	99	846989	8.00	7.83	
16 Chloroethane	64	4.853	4.857	-0.004	99	472939	8.00	7.75	
17 Ethanol	31	4.966	4.993	-0.027	93	1188804	40.0	29.8	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	837918	8.00	7.97	
19 2-Methylbutane	43	5.231	5.230	0.001	90	1013703	8.00	7.76	
20 Trichlorofluoromethane	101	5.463	5.462	0.000	99	2376490	8.00	7.95	
21 Acrolein	56	5.473	5.487	-0.014	92	136196	8.00	5.94	
22 Acetonitrile	40	5.549	5.554	-0.005	99	208690	8.00	6.76	
23 Acetone	58	5.592	5.617	-0.025	97	677038	24.0	16.1	
24 Pentane	72	5.694	5.694	0.000	97	162112	8.00	7.83	
25 Isopropyl alcohol	45	5.694	5.749	-0.055	92	1921012	24.0	18.3	
26 Ethyl ether	31	5.867	5.890	-0.023	90	511764	8.00	6.46	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	923356	8.00	7.73	
28 Acrylonitrile	53	6.320	6.326	-0.006	99	457967	8.00	6.70	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	1966676	8.00	7.76	
30 2-Methyl-2-propanol	59	6.331	6.416	-0.085	93	1092500	8.00	6.90	
31 Methylene Chloride	84	6.568	6.569	-0.001	96	871665	8.00	6.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	97	831389	8.00	7.84	
33 Carbon disulfide	76	6.741	6.740	0.000	98	2770686	8.00	7.95	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	98	948597	8.00	8.04	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	2229939	8.00	7.65	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	96	1709164	8.00	5.98	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	1789382	8.00	7.70	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	1618172	8.00	6.57	
40 Hexane	56	8.423	8.426	-0.003	91	857015	8.00	7.87	
39 2-Butanone (MEK)	72	8.401	8.428	-0.027	96	280032	8.00	5.50	
41 Isopropyl ether	45	8.585	8.611	-0.026	97	2083626	8.00	5.89	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	976319	8.00	7.95	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	1236473	8.00	5.73	
44 Chloroform	83	9.199	9.198	0.001	97	1932413	8.00	7.83	
45 Tert-butyl ethyl ether	59	9.275	9.306	-0.031	95	1985956	8.00	5.89	
46 Tetrahydrofuran	42	9.604	9.640	-0.036	94	705483	8.00	6.00	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	2102862	8.00	7.93	
48 1,2-Dichloroethane	62	10.353	10.350	0.003	98	1305118	8.00	7.60	
49 Cyclohexane	69	10.828	10.827	0.001	80	478119	8.00	7.24	
50 Benzene	78	10.833	10.829	0.004	96	2664221	8.00	7.07	
52 Carbon tetrachloride	117	10.855	10.850	0.005	97	2151836	8.00	8.61	
51 n-Butanol	31	10.806	10.879	-0.073	74	193681	8.00	6.60	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	90	733217	8.00	7.43	
54 Thiophene	84	11.103	11.100	0.003	96	1640194	8.00	7.53	
55 Isooctane	57	11.572	11.569	0.003	99	4802860	8.00	7.05	
56 n-Heptane	71	11.933	11.933	0.000	89	1061371	8.00	7.29	
57 1,2-Dichloropropane	63	12.030	12.028	0.002	90	1020477	8.00	7.52	
58 Trichloroethene	130	12.063	12.062	0.001	96	1256285	8.00	7.57	
59 Dibromomethane	93	12.149	12.150	-0.001	93	1038729	8.00	7.53	
60 Dichlorobromomethane	83	12.295	12.290	0.005	98	1972785	8.00	7.98	
61 1,4-Dioxane	88	12.311	12.348	-0.037	88	248286	8.00	5.35	
62 Methyl methacrylate	41	12.376	12.382	-0.006	95	798290	8.00	6.11	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	1890035	8.00	7.38	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.242	-0.025	97	1220404	8.00	5.26	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	1552030	8.00	7.78	
66 trans-1,3-Dichloropropene	75	13.955	13.956	-0.001	98	1361905	8.00	8.14	
67 Toluene	91	14.085	14.081	0.004	94	2941770	8.00	7.67	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	99	890893	8.00	7.74	
69 2-Hexanone	58	14.538	14.555	-0.017	94	638898	8.00	5.82	
70 n-Octane	85	14.748	14.747	0.001	92	1086444	8.00	7.51	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	1866612	8.00	8.87	
72 Ethylene Dibromide	107	15.147	15.143	0.004	99	1618286	8.00	8.30	
73 Tetrachloroethene	129	15.212	15.211	0.001	97	1078286	8.00	7.42	
75 Chlorobenzene	112	16.080	16.080	0.000	96	2344716	8.00	7.45	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	91	2780964	8.00	6.71	
78 Ethylbenzene	91	16.360	16.359	0.001	98	3437784	8.00	7.21	
79 m-Xylene & p-Xylene	91	16.522	16.519	0.003	97	5133019	16.0	14.0	
80 n-Nonane	57	16.921	16.919	0.002	89	2056395	8.00	7.42	
81 Bromoform	173	16.981	16.976	0.005	94	1642115	8.00	11.0	
82 Styrene	104	16.986	16.983	0.003	97	2024747	8.00	8.58	
83 o-Xylene	91	17.045	17.043	0.002	99	2717033	8.00	6.97	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	99	1751142	8.00	6.90	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	98	533466	8.00	6.57	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	3552766	8.00	6.56	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	953633	8.00	6.73	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	992520	8.00	7.25	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	3411871	8.00	6.56	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	1362442	8.00	6.34	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	1467628	8.00	8.31	
93 n-Decane	57	18.631	18.628	0.003	91	2218740	8.00	6.56	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	2893179	8.00	6.19	
95 1,2,4-Trimethylbenzene	105	18.792	18.790	0.002	96	2786864	8.00	6.38	
96 sec-Butylbenzene	105	19.040	19.037	0.003	98	4087987	8.00	6.14	
97 1,3-Dichlorobenzene	146	19.062	19.059	0.003	100	2094229	8.00	7.35	
98 Benzyl chloride	91	19.132	19.130	0.002	98	2289607	8.00	7.74	
99 1,4-Dichlorobenzene	146	19.148	19.145	0.003	95	2114516	8.00	7.32	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	97	3251402	8.00	6.19	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	2825913	8.00	6.36	
102 Butylcyclohexane	83	19.299	19.298	0.001	95	2881855	8.00	6.69	
103 2,3-Dihydroindene	117	19.499	19.495	0.004	94	2590340	8.00	6.50	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	96	1873115	8.00	6.84	
105 n-Butylbenzene	91	19.617	19.618	-0.001	99	3005837	8.00	6.16	
106 Indene	116	19.623	19.623	0.000	93	2244227	8.00	7.63	
107 Undecane	57	19.914	19.910	0.004	95	1993722	8.00	5.68	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	96	798929	8.00	7.55	
109 1,2,4,5-Tetramethylbenzene	119	20.367	20.363	0.004	97	2741782	8.00	5.60	
110 Dodecane	57	20.960	20.961	-0.001	98	1319037	8.00	4.99	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	94	1099315	8.00	6.35	
112 Naphthalene	128	21.321	21.321	0.000	99	2706962	8.00	5.64	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	93	1072639	8.00	5.80	
114 1,2,3-Trichlorobenzene	180	21.596	21.593	0.003	95	990277	8.00	5.33	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	933008	8.00	5.83	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	1147762	8.00	5.57	
A 122 C8 Range	1	14.792	(14.684-14.875)		0	9194568	8.00	7.04	
S 123 1,2-Dichloroethene, Total	1				0		16.0	16.0	
S 124 Xylenes, Total	100				0		24.0	20.9	

Reagents:

40L10DQP_00010	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

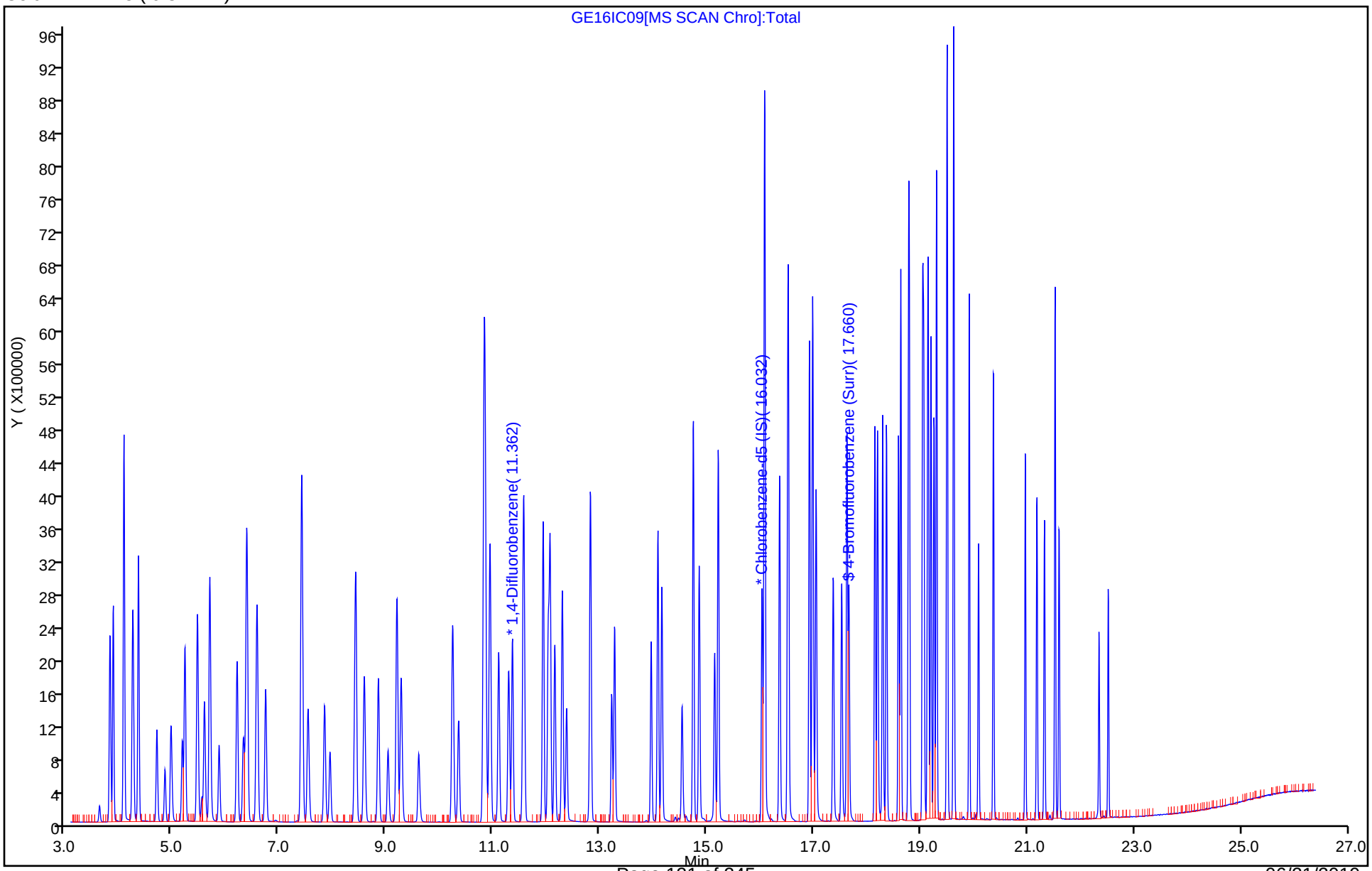
Report Date: 20-May-2019 14:51:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D

Injection Date:	16-May-2019 20:05:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L9			Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

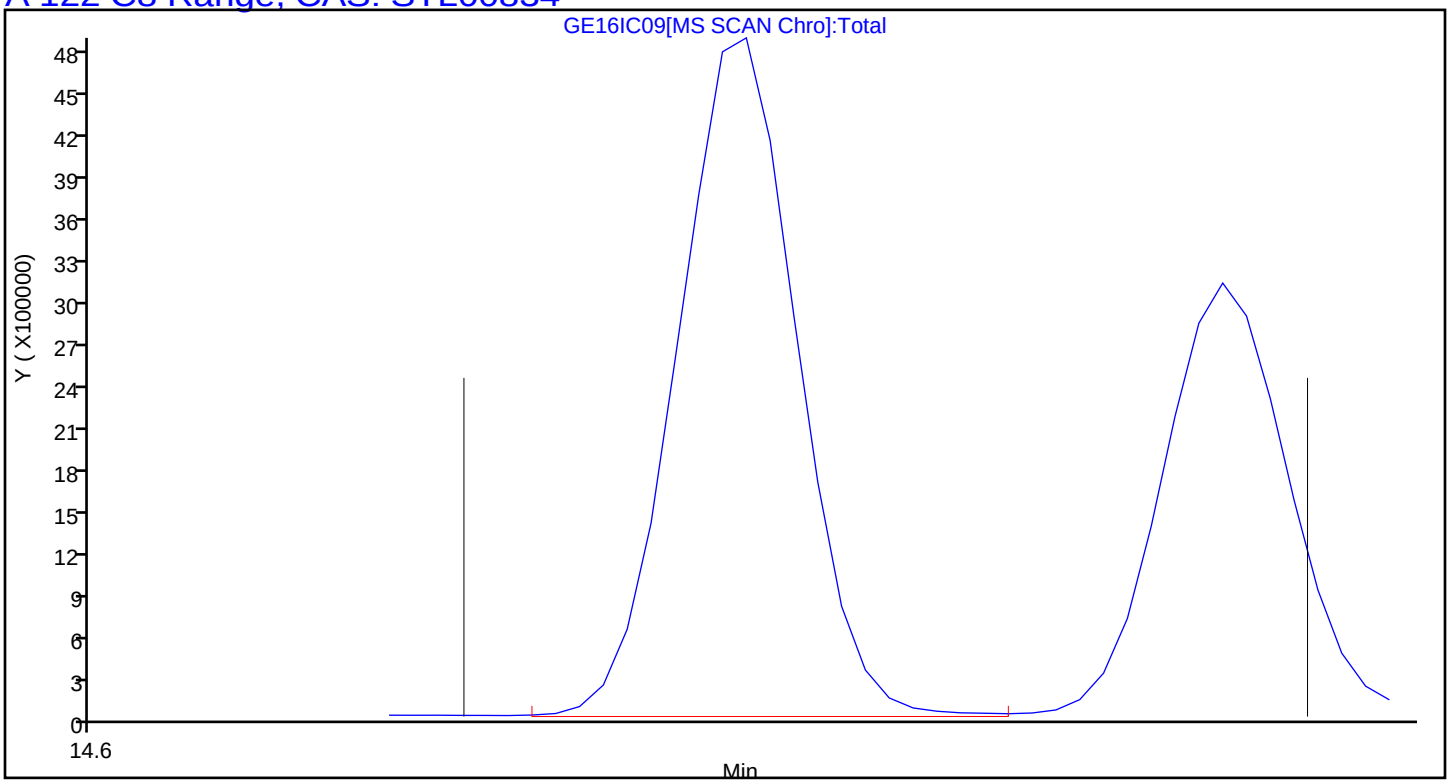


Report Date: 20-May-2019 14:51:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC09.D				
Injection Date:	16-May-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 16-May-2019 21:32:30 ALS Bottle#: 15 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-005
Misc. Info.: 221636
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:09 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.199	9.187	0.012	95	331878	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.367	11.358	0.009	94	1933828	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.037	16.032	0.005	88	1762152	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.665	17.656	0.009	85	1182280	4.00	4.36	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	2851665	16.0	14.8	
7 Propene	41	3.839	3.836	0.003	99	1486485	16.0	13.9	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	100	4728616	16.0	15.2	
9 Chloromethane	52	4.087	4.087	0.000	100	494390	16.0	13.9	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	94	2981771	16.0	15.2	
11 Acetaldehyde	44	4.255	4.258	-0.003	97	2928587	80.0	72.6	
12 Vinyl chloride	62	4.271	4.267	0.004	99	1898499	16.0	14.9	
13 Butane	43	4.362	4.360	0.002	84	2786966	16.0	15.2	
14 Butadiene	54	4.362	4.361	0.001	69	1544862	16.0	16.1	
15 Bromomethane	94	4.708	4.706	0.002	99	1733800	16.0	15.9	
16 Chloroethane	64	4.864	4.857	0.007	98	984111	16.0	16.0	
17 Ethanol	31	4.988	4.993	-0.005	92	3115790	80.0	77.7	
18 Vinyl bromide	106	5.187	5.179	0.008	99	1733333	16.0	16.4	
19 2-Methylbutane	43	5.236	5.230	0.006	90	2037556	16.0	15.5	
20 Trichlorofluoromethane	101	5.468	5.462	0.006	100	4795648	16.0	15.9	
21 Acrolein	56	5.484	5.487	-0.003	92	379053	16.0	16.4	
22 Acetonitrile	40	5.560	5.554	0.006	99	582652	16.0	18.7	
23 Acetone	58	5.597	5.617	-0.020	97	1946078	48.0	45.9	
24 Pentane	72	5.700	5.694	0.006	97	341043	16.0	16.3	
25 Isopropyl alcohol	45	5.721	5.749	-0.028	97	5169450	48.0	49.0	
26 Ethyl ether	31	5.872	5.890	-0.018	89	1271090	16.0	15.9	
27 1,1-Dichloroethene	96	6.212	6.205	0.007	97	1935536	16.0	16.1	
28 Acrylonitrile	53	6.331	6.326	0.005	96	1236431	16.0	18.0	
29 1,1,2-Trichloro-1,2,2-trif	101	6.395	6.386	0.009	95	3925120	16.0	15.4	
30 2-Methyl-2-propanol	59	6.347	6.416	-0.069	93	2654334	16.0	16.7	
31 Methylene Chloride	84	6.579	6.569	0.010	95	1773178	16.0	13.3	
32 3-Chloro-1-propene	39	6.595	6.585	0.010	97	1649774	16.0	15.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.746	6.740	0.006	98	5750635	16.0	16.4	
34 trans-1,2-Dichloroethene	96	7.415	7.404	0.011	99	1884495	16.0	15.9	
35 2-Methylpentane	43	7.431	7.421	0.010	93	4197123	16.0	14.3	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	96	5038272	16.0	17.5	
37 1,1-Dichloroethane	63	7.851	7.842	0.009	100	3694840	16.0	15.8	
38 Vinyl acetate	43	7.954	7.952	0.002	100	4565541	16.0	18.4	
40 Hexane	56	8.434	8.426	0.008	90	1693828	16.0	15.4	
39 2-Butanone (MEK)	72	8.412	8.428	-0.016	98	875476	16.0	17.1	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	6073395	16.0	17.1	
42 cis-1,2-Dichloroethene	96	8.860	8.849	0.011	95	2052676	16.0	16.6	
43 Ethyl acetate	43	9.038	9.051	-0.013	100	4050814	16.0	18.6	
44 Chloroform	83	9.216	9.198	0.018	96	4094217	16.0	16.5	
45 Tert-butyl ethyl ether	59	9.286	9.306	-0.020	94	6017937	16.0	17.7	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	93	2105385	16.0	17.8	
47 1,1,1-Trichloroethane	97	10.251	10.239	0.012	96	4327311	16.0	16.2	
48 1,2-Dichloroethane	62	10.364	10.350	0.014	98	2743021	16.0	17.7	
49 Cyclohexane	69	10.833	10.827	0.006	96	951024	16.0	16.0	
50 Benzene	78	10.839	10.829	0.010	96	5490023	16.0	16.2	
52 Carbon tetrachloride	117	10.860	10.850	0.010	98	4403685	16.0	19.6	
51 n-Butanol	31	10.812	10.879	-0.067	73	414454	16.0	15.7	
53 2,3-Dimethylpentane	71	10.947	10.938	0.009	90	1521651	16.0	17.1	
54 Thiophene	84	11.114	11.100	0.014	95	3534214	16.0	18.0	
55 Isooctane	57	11.577	11.569	0.008	99	9984627	16.0	16.3	
56 n-Heptane	71	11.944	11.933	0.011	88	2256330	16.0	17.2	
57 1,2-Dichloropropane	63	12.041	12.028	0.013	90	2050640	16.0	16.8	
58 Trichloroethene	130	12.074	12.062	0.012	97	2615997	16.0	17.5	
59 Dibromomethane	93	12.160	12.150	0.010	96	2127268	16.0	17.1	
60 Dichlorobromomethane	83	12.300	12.290	0.010	99	4277442	16.0	19.2	
61 1,4-Dioxane	88	12.316	12.348	-0.032	85	768818	16.0	18.4	
62 Methyl methacrylate	41	12.381	12.382	-0.001	97	2549164	16.0	21.7	
63 Methylcyclohexane	83	12.828	12.818	0.010	95	3927400	16.0	17.0	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	96	4135969	16.0	19.8	
65 cis-1,3-Dichloropropene	75	13.281	13.271	0.010	93	3362140	16.0	18.7	
66 trans-1,3-Dichloropropene	75	13.966	13.956	0.010	98	3048699	16.0	18.1	
67 Toluene	91	14.090	14.081	0.009	95	6458448	16.0	16.8	
68 1,1,2-Trichloroethane	83	14.166	14.156	0.010	98	1985221	16.0	17.2	
69 2-Hexanone	58	14.543	14.555	-0.012	95	2183727	16.0	19.8	
70 n-Octane	85	14.754	14.747	0.007	90	2425028	16.0	16.7	
71 Chlorodibromomethane	129	14.867	14.854	0.013	97	4297014	16.0	20.3	
72 Ethylene Dibromide	107	15.153	15.143	0.010	99	3560552	16.0	18.2	
73 Tetrachloroethene	129	15.217	15.211	0.006	97	2422834	16.0	16.6	
75 Chlorobenzene	112	16.085	16.080	0.005	93	5243363	16.0	16.6	
74 2,3-Dimethylheptane	43	16.085	16.080	0.005	86	5521209	16.0	13.3	
78 Ethylbenzene	91	16.366	16.359	0.007	98	8733871	16.0	18.2	
79 m-Xylene & p-Xylene	91	16.528	16.519	0.009	96	13504474	32.0	36.6	
80 n-Nonane	57	16.927	16.919	0.008	86	4493277	16.0	16.1	
81 Bromoform	173	16.986	16.976	0.010	95	4138192	16.0	27.7	
82 Styrene	104	16.991	16.983	0.008	95	5577184	16.0	23.5	
83 o-Xylene	91	17.051	17.043	0.008	99	7313969	16.0	18.7	
84 1,1,2,2-Tetrachloroethane	83	17.374	17.365	0.009	99	4939070	16.0	19.4	
85 1,2,3-Trichloropropane	110	17.531	17.523	0.008	98	1619671	16.0	19.9	
86 Isopropylbenzene	105	17.628	17.622	0.006	95	10110086	16.0	18.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.151	18.145	0.006	99	2877608	16.0	20.2	
88 2-Chlorotoluene	126	18.199	18.194	0.005	97	2534846	16.0	18.4	
89 4-Ethyltoluene	105	18.296	18.290	0.006	98	10416265	16.0	19.9	
90 1,3,5-Trimethylbenzene	120	18.372	18.362	0.010	93	4334621	16.0	20.1	
92 Alpha Methyl Styrene	118	18.593	18.585	0.008	90	4603228	16.0	25.9	
93 n-Decane	57	18.636	18.628	0.008	92	5556086	16.0	16.4	
94 tert-Butylbenzene	119	18.782	18.776	0.006	94	9277477	16.0	19.8	
95 1,2,4-Trimethylbenzene	105	18.798	18.790	0.008	95	8963348	16.0	20.4	
96 sec-Butylbenzene	105	19.046	19.037	0.009	98	12483123	16.0	18.7	
97 1,3-Dichlorobenzene	146	19.067	19.059	0.008	98	5809129	16.0	20.3	
98 Benzyl chloride	91	19.138	19.130	0.008	99	7584806	16.0	25.5	
99 1,4-Dichlorobenzene	146	19.154	19.145	0.009	95	5904068	16.0	20.3	
100 4-Isopropyltoluene	119	19.202	19.194	0.008	97	10678190	16.0	20.2	
101 1,2,3-Trimethylbenzene	105	19.262	19.251	0.011	98	9013845	16.0	20.2	
102 Butylcyclohexane	83	19.305	19.298	0.007	96	7027869	16.0	16.3	
103 2,3-Dihydroindene	117	19.504	19.495	0.009	96	8236384	16.0	20.6	
104 1,2-Dichlorobenzene	146	19.504	19.497	0.007	98	5782926	16.0	21.0	
105 n-Butylbenzene	91	19.623	19.618	0.005	99	9699535	16.0	19.8	
106 Indene	116	19.628	19.623	0.005	93	7471791	16.0	25.3	
107 Undecane	57	19.914	19.910	0.004	92	5845663	16.0	16.6	
108 1,2-Dibromo-3-Chloropropan	157	20.092	20.087	0.005	99	2809051	16.0	26.4	
109 1,2,4,5-Tetramethylbenzene	119	20.367	20.363	0.004	98	9652513	16.0	19.6	
110 Dodecane	57	20.966	20.961	0.005	98	4855229	16.0	18.3	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	95	4144557	16.0	23.8	
112 Naphthalene	128	21.321	21.321	0.000	99	10209707	16.0	21.2	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	97	4047682	16.0	21.8	
114 1,2,3-Trichlorobenzene	180	21.596	21.593	0.003	95	3832551	16.0	20.5	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	3548760	16.0	22.1	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	4140645	16.0	20.0	
A 122 C8 Range	1	14.759	(14.695-14.832)		0	19742463	16.0	15.0	
S 123 1,2-Dichloroethene, Total	1				0		32.0	32.4	
S 124 Xylenes, Total	100				0		48.0	55.3	

Reagents:

40L10DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

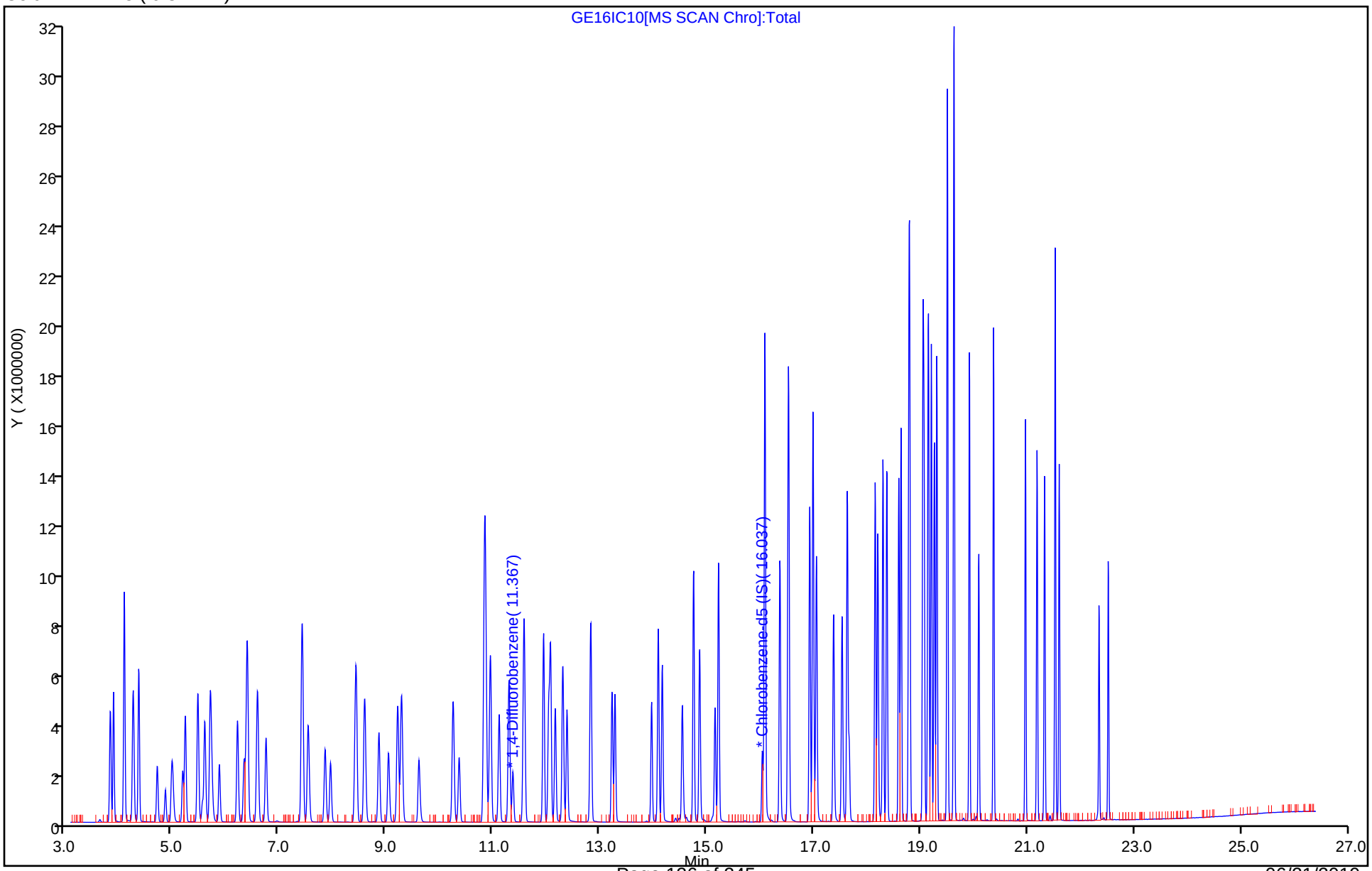
Report Date: 20-May-2019 14:51:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D

Injection Date:	16-May-2019 21:32:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L10			Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

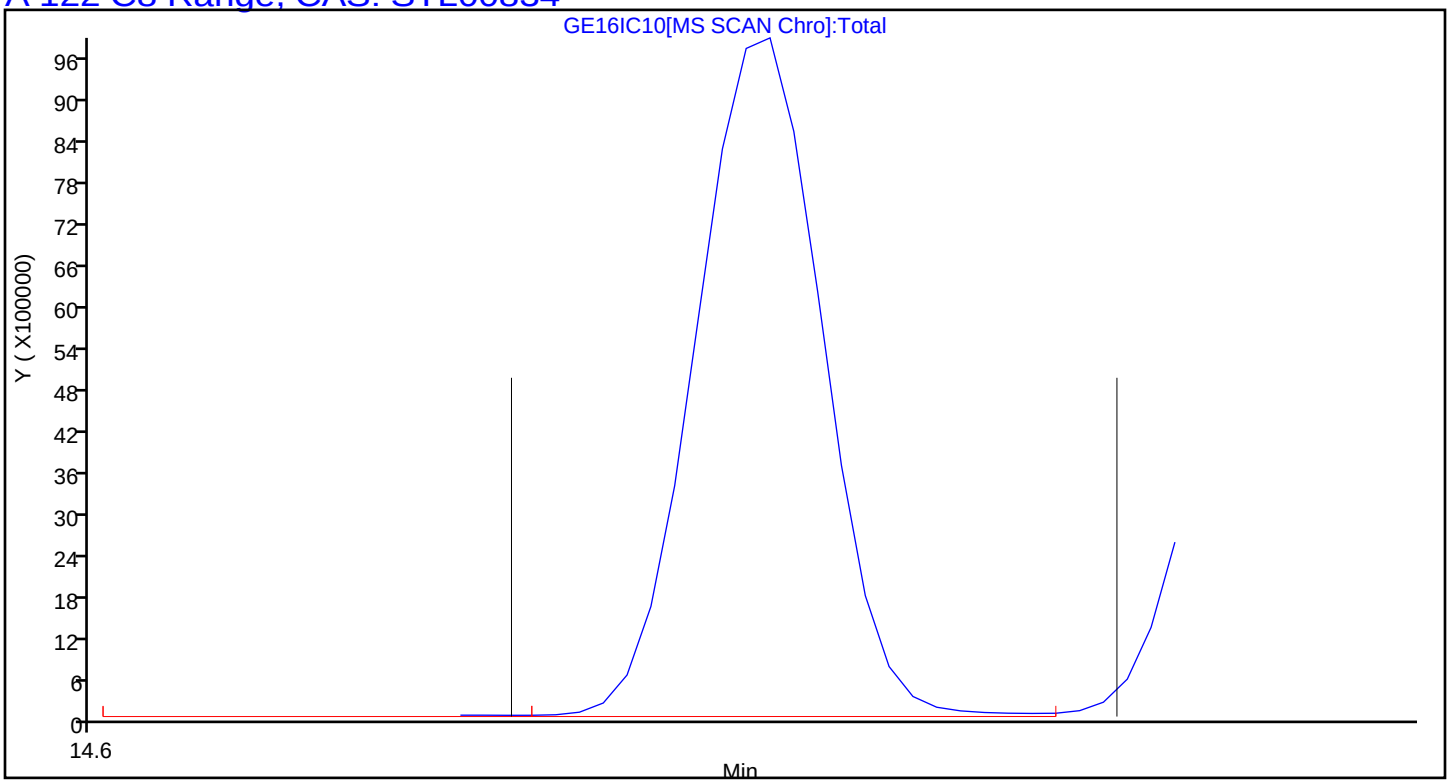


Report Date: 20-May-2019 14:51:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC10.D				
Injection Date:	16-May-2019 21:32:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	403648	ALS Bottle#:	15	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2019 23:40:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-008
Misc. Info.: 222336
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:15 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 10:13:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	96	340002	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2115734	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1785165	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1062445	4.00	3.86	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	95	4949	0.0200	0.0250	
7 Propene	41	3.840	3.836	0.004	95	5139	0.0200	0.0468	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	99	7684	0.0200	0.0242	
9 Chloromethane	52	4.098	4.087	0.011	75	1870	0.0200	0.0512	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.098	4.092	0.006	90	4282	0.0200	0.0214	
11 Acetaldehyde	44	4.271	4.258	0.013	99	17309	0.1000	0.4188	
12 Vinyl chloride	62	4.276	4.267	0.009	43	3004	0.0200	0.0230	
13 Butane	43	4.368	4.360	0.008	87	5539	0.0200	0.0295	
14 Butadiene	54	4.363	4.361	0.002	59	2343	0.0200	0.0238	
15 Bromomethane	94	4.718	4.706	0.012	96	2935	0.0200	0.0263	
16 Chloroethane	64	4.859	4.857	0.002	68	1771	0.0200	0.0281	
17 Ethanol	31	5.042	4.993	0.049	92	4772	0.1000	0.1161	
18 Vinyl bromide	106	5.188	5.179	0.009	93	2694	0.0200	0.0248	
19 2-Methylbutane	43	5.236	5.230	0.006	88	4186	0.0200	0.0311	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	98	7147	0.0200	0.0232	
21 Acrolein	56	5.506	5.487	0.019	64	1431	0.0200	0.0605	
23 Acetone	58	5.651	5.617	0.034	91	7141	0.0600	0.1643	
24 Pentane	72	5.700	5.694	0.006	44	541	0.0200	0.0253	
25 Isopropyl alcohol	45	5.840	5.749	0.091	98	8310	0.0600	0.0768	
26 Ethyl ether	31	5.926	5.890	0.036	92	2110	0.0200	0.0258	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	2781	0.0200	0.0226	
28 Acrylonitrile	53	6.347	6.326	0.021	74	1731	0.0200	0.0245	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	92	5693	0.0200	0.0218	
30 2-Methyl-2-propanol	59	6.557	6.416	0.141	87	3346	0.0200	0.0205	
31 Methylene Chloride	84	6.573	6.569	0.004	97	18998	0.0200	0.1393	
32 3-Chloro-1-propene	39	6.579	6.585	-0.006	95	3091	0.0200	0.0283	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.741	6.740	0.001	98	8985	0.0200	0.0250	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	93	2628	0.0200	0.0216	
35 2-Methylpentane	43	7.425	7.421	0.004	92	7467	0.0200	0.0248	
36 Methyl tert-butyl ether	73	7.636	7.568	0.068	94	5822	0.0200	0.0197	
37 1,1-Dichloroethane	63	7.846	7.842	0.004	98	5782	0.0200	0.0241	
38 Vinyl acetate	43	7.970	7.952	0.018	99	4867	0.0200	0.0192	
40 Hexane	56	8.434	8.426	0.008	79	2799	0.0200	0.0249	
39 2-Butanone (MEK)	72	8.472	8.428	0.044	95	1149	0.0200	0.0219	
41 Isopropyl ether	45	8.666	8.611	0.055	96	6332	0.0200	0.0174	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	94	2695	0.0200	0.0213	
43 Ethyl acetate	43	9.097	9.051	0.046	96	3896	0.0200	0.0175	
44 Chloroform	83	9.200	9.198	0.002	27	6079	0.0200	0.0239	
45 Tert-butyl ethyl ether	59	9.367	9.306	0.061	96	5943	0.0200	0.0171	
46 Tetrahydrofuran	42	9.701	9.640	0.061	91	2538	0.0200	0.0209	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	6537	0.0200	0.0239	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	92	3780	0.0200	0.0223	
49 Cyclohexane	69	10.833	10.827	0.006	68	1565	0.0200	0.0240	
50 Benzene	78	10.828	10.829	-0.001	96	10416	0.0200	0.0280	
52 Carbon tetrachloride	117	10.850	10.850	0.000	94	4669	0.0200	0.0190	
51 n-Butanol	31	10.963	10.879	0.084	64	1062	0.0200	0.0367	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	86	2593	0.0200	0.0267	
54 Thiophene	84	11.098	11.100	-0.002	95	4546	0.0200	0.0212	
55 Isooctane	57	11.572	11.569	0.003	99	18176	0.0200	0.0271	
56 n-Heptane	71	11.928	11.933	-0.005	90	3193	0.0200	0.0222	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	88	3240	0.0200	0.0242	
58 Trichloroethene	130	12.063	12.062	0.001	94	3443	0.0200	0.0210	
59 Dibromomethane	93	12.149	12.150	-0.001	89	4330	0.0200	0.0318	
60 Dichlorobromomethane	83	12.295	12.290	0.005	95	5003	0.0200	0.0205	
61 1,4-Dioxane	88	12.430	12.348	0.082	30	576	0.0200	0.0126	
62 Methyl methacrylate	41	12.403	12.382	0.021	85	1704	0.0200	0.0132	
63 Methylcyclohexane	83	12.812	12.818	-0.006	91	6134	0.0200	0.0243	
64 4-Methyl-2-pentanone (MIBK	43	13.287	13.242	0.045	92	4019	0.0200	0.0176	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	3899	0.0200	0.0198	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	95	3726	0.0200	0.0219	
67 Toluene	91	14.080	14.081	-0.001	93	8372	0.0200	0.0215	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	93	2479	0.0200	0.0212	
69 2-Hexanone	58	14.581	14.555	0.026	94	1643	0.0200	0.0147	
70 n-Octane	85	14.748	14.747	0.001	92	3275	0.0200	0.0222	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	92	3434	0.0200	0.0160	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	3761	0.0200	0.0190	
73 Tetrachloroethene	129	15.212	15.211	0.001	89	3374	0.0200	0.0228	
75 Chlorobenzene	112	16.080	16.080	0.000	70	6920	0.0200	0.0216	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	10670	0.0200	0.0253	
78 Ethylbenzene	91	16.361	16.359	0.002	98	9274	0.0200	0.0191	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	13931	0.0400	0.0373	
80 n-Nonane	57	16.921	16.919	0.002	90	6839	0.0200	0.0243	
81 Bromoform	173	16.975	16.976	-0.001	87	2182	0.0200	0.0144	
82 Styrene	104	16.981	16.983	-0.002	96	4048	0.0200	0.0169	
83 o-Xylene	91	17.045	17.043	0.002	98	7896	0.0200	0.0199	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	96	4476	0.0200	0.0173	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	95	1457	0.0200	0.0176	
86 Isopropylbenzene	105	17.622	17.622	0.000	87	11921	0.0200	0.0216	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	2614	0.0200	0.0181	
88 2-Chlorotoluene	126	18.189	18.194	-0.005	96	3027	0.0200	0.0217	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	10033	0.0200	0.0189	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	94	4218	0.0200	0.0193	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	83	2484	0.0200	0.0138	
93 n-Decane	57	18.625	18.628	-0.003	91	7500	0.0200	0.0218	
94 tert-Butylbenzene	119	18.776	18.776	0.000	92	8954	0.0200	0.0188	
95 1,2,4-Trimethylbenzene	105	18.793	18.790	0.003	95	8437	0.0200	0.0190	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	14061	0.0200	0.0207	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	6193	0.0200	0.0214	
98 Benzyl chloride	91	19.127	19.130	-0.003	78	4521	0.0200	0.0150	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	92	6613	0.0200	0.0225	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	96	10208	0.0200	0.0191	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	97	8986	0.0200	0.0199	
102 Butylcyclohexane	83	19.294	19.298	-0.004	93	10037	0.0200	0.0229	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	7824	0.0200	0.0193	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	83	5991	0.0200	0.0215	
105 n-Butylbenzene	91	19.618	19.618	0.000	97	9416	0.0200	0.0190	
106 Indene	116	19.623	19.623	0.000	70	5461	0.0200	0.0182	
107 Undecane	57	19.909	19.910	-0.001	94	7822	0.0200	0.0219	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	84	2433	0.0200	0.0226	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	11121	0.0200	0.0223	
110 Dodecane	57	20.960	20.961	-0.001	96	8441	0.0200	0.0314	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	92	6138	0.0200	0.0348	
112 Naphthalene	128	21.322	21.321	0.001	99	18542	0.0200	0.0380	
113 Hexachlorobutadiene	225	21.516	21.520	-0.004	89	4361	0.0200	0.0232	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	92	8290	0.0200	0.0438	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	97	20003	0.0200	0.1228	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	100	22108	0.0200	0.1054	
A 122 C8 Range	1	14.744	(14.701-14.805)		0	30526	0.0200	0.0230	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0428	
S 124 Xylenes, Total	100				0		0.0600	0.0572	

Reagents:

40L1-3DQP_00014	Amount Added: 50.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

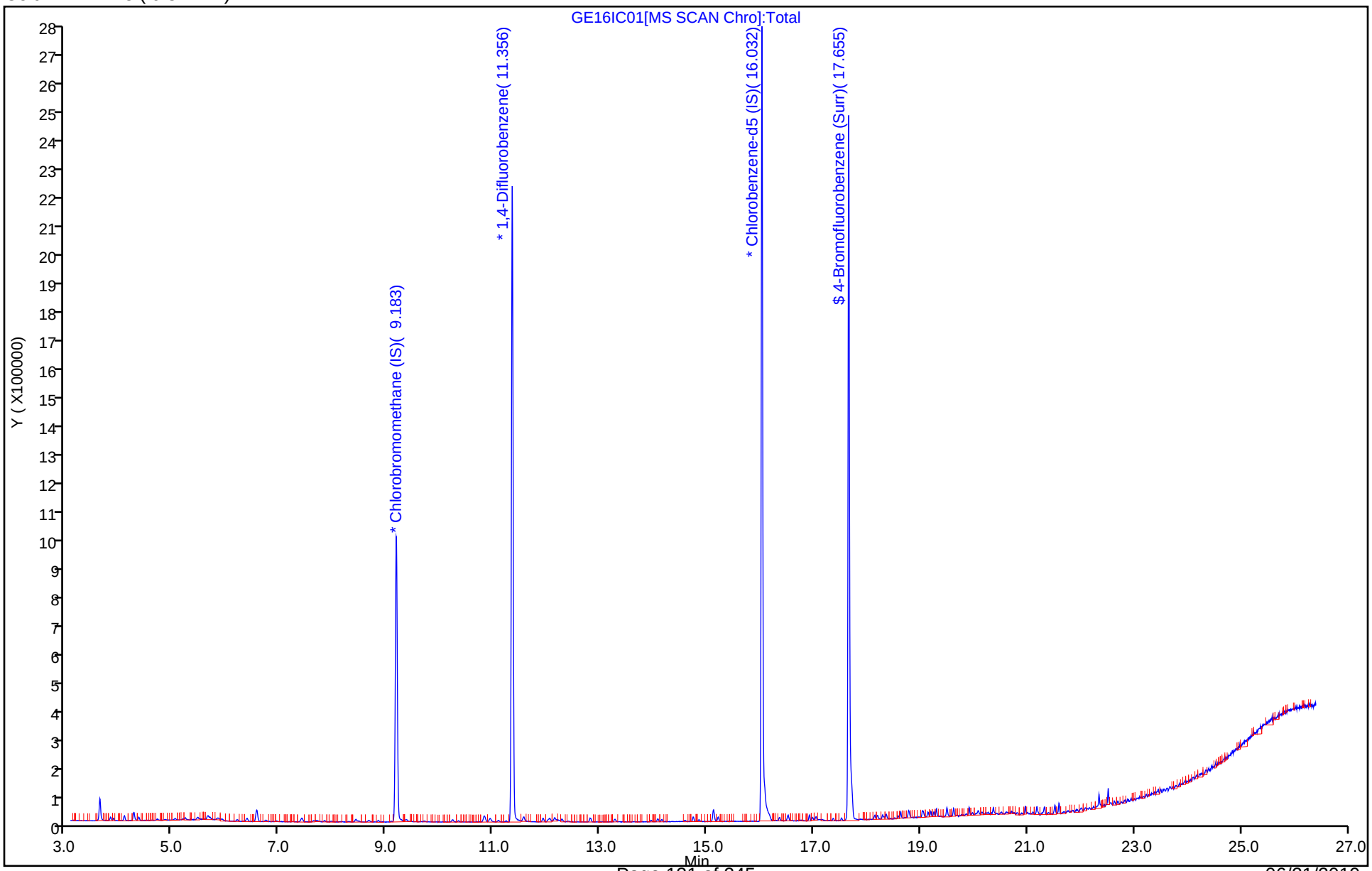
Report Date: 20-May-2019 14:51:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D

Injection Date:	16-May-2019 23:40:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

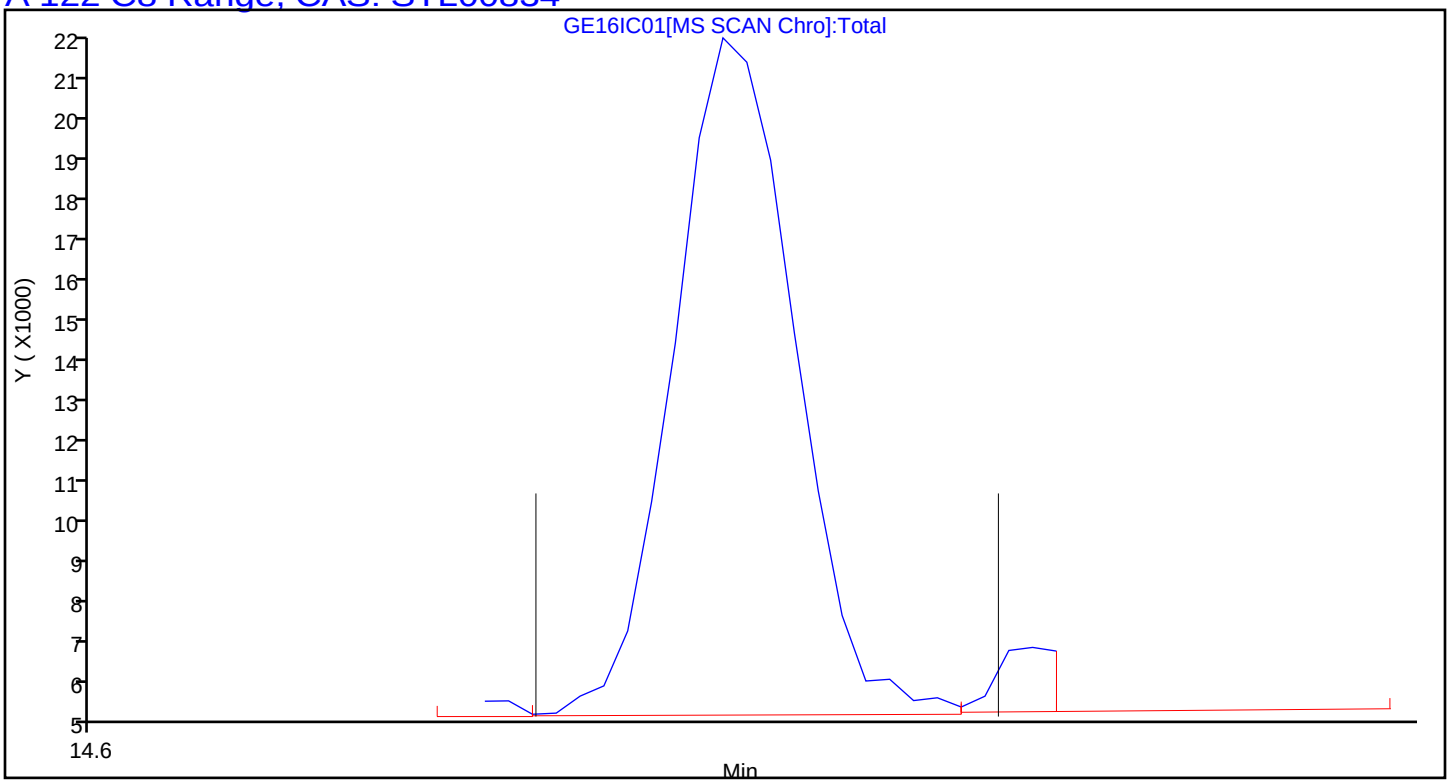


Report Date: 20-May-2019 14:51:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC01.D				
Injection Date:	16-May-2019 23:40:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-May-2019 00:23:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-009
Misc. Info.: 222336
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:24 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:53:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	319083	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.358	-0.007	95	2038175	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1771803	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1060073	4.00	3.89	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	8292	0.0400	0.0447	
7 Propene	41	3.834	3.836	-0.002	95	7143	0.0400	0.0693	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	13025	0.0400	0.0437	
9 Chloromethane	52	4.087	4.087	0.000	66	2681	0.0400	0.0782	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	92	8244	0.0400	0.0438	
11 Acetaldehyde	44	4.265	4.258	0.007	97	30122	0.2000	0.7766	
12 Vinyl chloride	62	4.271	4.267	0.004	43	5447	0.0400	0.0444	
13 Butane	43	4.357	4.360	-0.003	87	9060	0.0400	0.0514	
14 Butadiene	54	4.357	4.361	-0.004	63	4092	0.0400	0.0443	
15 Bromomethane	94	4.708	4.706	0.002	98	5147	0.0400	0.0491	
16 Chloroethane	64	4.853	4.857	-0.004	95	2603	0.0400	0.0440	
17 Ethanol	31	5.020	4.993	0.027	93	8761	0.2000	0.2271	
18 Vinyl bromide	106	5.177	5.179	-0.002	95	4664	0.0400	0.0458	
19 2-Methylbutane	43	5.225	5.230	-0.005	88	6458	0.0400	0.0511	
20 Trichlorofluoromethane	101	5.462	5.462	0.000	100	12272	0.0400	0.0424	
21 Acrolein	56	5.506	5.487	0.019	59	2291	0.0400	0.1032	
23 Acetone	58	5.651	5.617	0.034	93	12563	0.1200	0.3080	
24 Pentane	72	5.694	5.694	0.000	95	911	0.0400	0.0454	
25 Isopropyl alcohol	45	5.813	5.749	0.064	98	14376	0.1200	0.1416	
26 Ethyl ether	31	5.915	5.890	0.025	94	3781	0.0400	0.0493	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	95	5183	0.0400	0.0448	
28 Acrylonitrile	53	6.336	6.326	0.010	78	2900	0.0400	0.0438	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	10428	0.0400	0.0425	
30 2-Methyl-2-propanol	59	6.519	6.416	0.103	92	6355	0.0400	0.0415	
31 Methylene Chloride	84	6.568	6.569	-0.001	95	20424	0.0400	0.1596	
32 3-Chloro-1-propene	39	6.589	6.585	0.004	97	4624	0.0400	0.0450	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.740	6.740	0.000	99	14970	0.0400	0.0443	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	98	4775	0.0400	0.0418	
35 2-Methylpentane	43	7.420	7.421	-0.001	95	13799	0.0400	0.0489	
36 Methyl tert-butyl ether	73	7.625	7.568	0.057	88	10404	0.0400	0.0376	
37 1,1-Dichloroethane	63	7.840	7.842	-0.002	99	10098	0.0400	0.0449	
38 Vinyl acetate	43	7.965	7.952	0.013	99	8937	0.0400	0.0375	
40 Hexane	56	8.428	8.426	0.002	89	4986	0.0400	0.0473	
39 2-Butanone (MEK)	72	8.466	8.428	0.038	96	2264	0.0400	0.0459	
41 Isopropyl ether	45	8.649	8.611	0.038	96	12314	0.0400	0.0360	
42 cis-1,2-Dichloroethene	96	8.843	8.849	-0.006	94	5100	0.0400	0.0429	
43 Ethyl acetate	43	9.075	9.051	0.024	96	7117	0.0400	0.0341	
44 Chloroform	83	9.194	9.198	-0.004	28	10784	0.0400	0.0451	
45 Tert-butyl ethyl ether	59	9.350	9.306	0.044	94	11384	0.0400	0.0349	
46 Tetrahydrofuran	42	9.690	9.640	0.050	85	4688	0.0400	0.0412	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	97	11043	0.0400	0.0430	
48 1,2-Dichloroethane	62	10.343	10.350	-0.007	96	6759	0.0400	0.0415	
49 Cyclohexane	69	10.828	10.827	0.001	70	2697	0.0400	0.0430	
50 Benzene	78	10.822	10.829	-0.007	97	16814	0.0400	0.0470	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	93	8427	0.0400	0.0355	
51 n-Butanol	31	10.930	10.879	0.051	70	1697	0.0400	0.0608	
53 2,3-Dimethylpentane	71	10.930	10.938	-0.008	86	4013	0.0400	0.0428	
54 Thiophene	84	11.097	11.100	-0.003	95	8377	0.0400	0.0405	
55 Isooctane	57	11.567	11.569	-0.002	99	30060	0.0400	0.0465	
56 n-Heptane	71	11.933	11.933	0.000	90	6078	0.0400	0.0439	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	89	5896	0.0400	0.0457	
58 Trichloroethene	130	12.063	12.062	0.001	96	6690	0.0400	0.0424	
59 Dibromomethane	93	12.144	12.150	-0.006	94	6285	0.0400	0.0480	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	98	8506	0.0400	0.0362	
61 1,4-Dioxane	88	12.402	12.348	0.054	46	1733	0.0400	0.0393	
62 Methyl methacrylate	41	12.386	12.382	0.004	91	2750	0.0400	0.0222	
63 Methylcyclohexane	83	12.818	12.818	0.000	94	10013	0.0400	0.0412	
64 4-Methyl-2-pentanone (MIBK	43	13.271	13.242	0.029	87	7844	0.0400	0.0356	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	96	7191	0.0400	0.0379	
66 trans-1,3-Dichloropropene	75	13.955	13.956	-0.001	97	6179	0.0400	0.0366	
67 Toluene	91	14.079	14.081	-0.002	93	15671	0.0400	0.0405	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	96	4606	0.0400	0.0396	
69 2-Hexanone	58	14.576	14.555	0.021	95	3050	0.0400	0.0275	
70 n-Octane	85	14.748	14.747	0.001	91	5771	0.0400	0.0395	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	97	6076	0.0400	0.0286	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	96	7123	0.0400	0.0362	
73 Tetrachloroethene	129	15.212	15.211	0.001	92	5885	0.0400	0.0401	
75 Chlorobenzene	112	16.080	16.080	0.000	77	12680	0.0400	0.0399	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	18811	0.0400	0.0450	
78 Ethylbenzene	91	16.360	16.359	0.001	98	17864	0.0400	0.0371	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	26468	0.0800	0.0713	
80 n-Nonane	57	16.916	16.919	-0.003	93	11293	0.0400	0.0404	
81 Bromoform	173	16.970	16.976	-0.006	77	4215	0.0400	0.0280	
82 Styrene	104	16.986	16.983	0.003	97	7112	0.0400	0.0298	
83 o-Xylene	91	17.045	17.043	0.002	99	13297	0.0400	0.0338	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	97	8710	0.0400	0.0340	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	96	2706	0.0400	0.0330	
86 Isopropylbenzene	105	17.622	17.622	0.000	87	19981	0.0400	0.0365	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.145	-0.005	99	5023	0.0400	0.0351	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	5005	0.0400	0.0362	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	17686	0.0400	0.0337	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	92	7320	0.0400	0.0337	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	91	4742	0.0400	0.0266	
93 n-Decane	57	18.625	18.628	-0.003	90	13014	0.0400	0.0381	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	17036	0.0400	0.0361	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	95	14696	0.0400	0.0333	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	98	23935	0.0400	0.0356	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	97	10203	0.0400	0.0355	
98 Benzyl chloride	91	19.132	19.130	0.002	97	9007	0.0400	0.0301	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	92	10670	0.0400	0.0366	
100 4-Isopropyltoluene	119	19.191	19.194	-0.003	97	17415	0.0400	0.0328	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	15481	0.0400	0.0345	
102 Butylcyclohexane	83	19.294	19.298	-0.004	94	17094	0.0400	0.0393	
103 2,3-Dihydroindene	117	19.493	19.495	-0.002	93	13642	0.0400	0.0339	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	89	9800	0.0400	0.0354	
105 n-Butylbenzene	91	19.617	19.618	-0.001	98	15968	0.0400	0.0324	
106 Indene	116	19.623	19.623	0.000	95	9488	0.0400	0.0319	
107 Undecane	57	19.914	19.910	0.004	95	13577	0.0400	0.0383	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	84	3332	0.0400	0.0312	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	17278	0.0400	0.0349	
110 Dodecane	57	20.960	20.961	-0.001	96	12390	0.0400	0.0464	
111 1,2,4-Trichlorobenzene	180	21.181	21.178	0.003	93	7893	0.0400	0.0451	
112 Naphthalene	128	21.321	21.321	0.000	99	22952	0.0400	0.0474	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	89	7293	0.0400	0.0391	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	93	9807	0.0400	0.0523	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	19374	0.0400	0.1199	
116 1-Methylnaphthalene	142	22.519	22.514	0.005	99	24010	0.0400	0.1153	
A 122 C8 Range	1	14.758	(14.700-14.816)		0	60595	0.0400	0.0459	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0847	
S 124 Xylenes, Total	100				0		0.1200	0.1051	

Reagents:

40L1-3DQP_00014	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

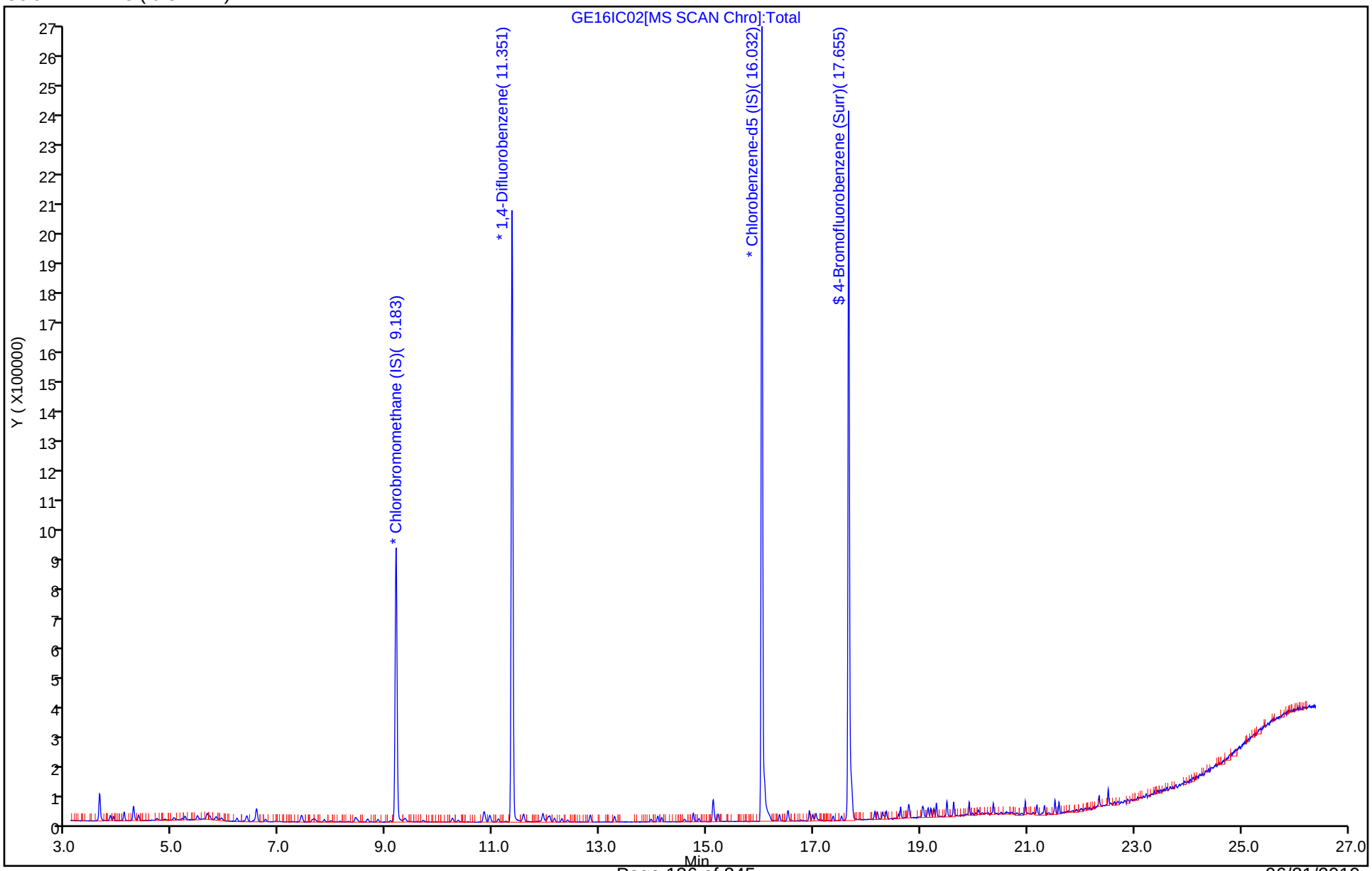
Report Date: 20-May-2019 14:51:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D

Injection Date:	17-May-2019 00:23:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L2			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

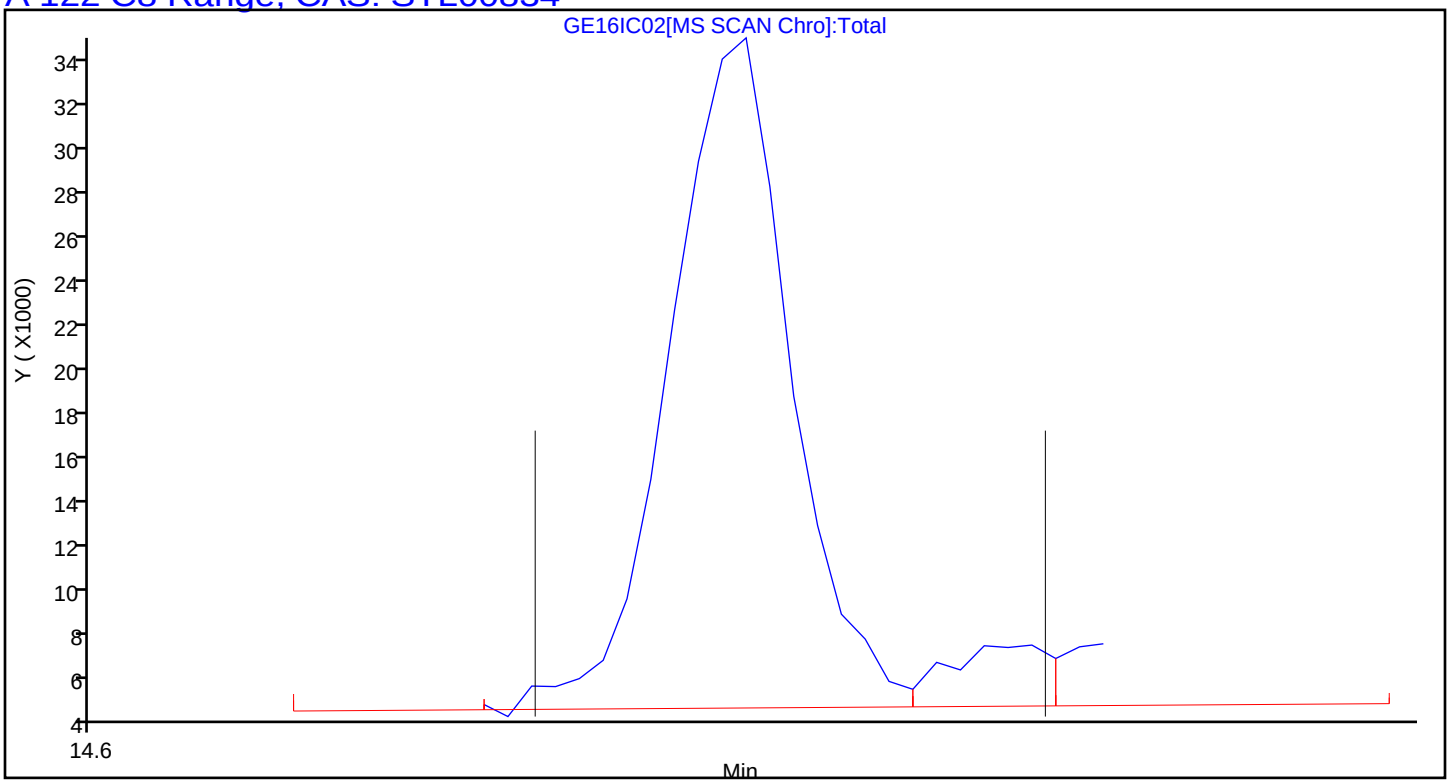


Report Date: 20-May-2019 14:51:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC02.D				
Injection Date:	17-May-2019 00:23:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-May-2019 01:06:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-010
Misc. Info.: 222334
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:30 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:54:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	353551	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2215067	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1826012	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1046688	4.00	3.72	
6 Chlorodifluoromethane	51	3.829	3.823	0.006	96	17930	0.0800	0.0872	
7 Propene	41	3.839	3.836	0.003	98	11808	0.0800	0.1034	
8 Dichlorodifluoromethane	85	3.893	3.889	0.004	99	27376	0.0800	0.0828	
9 Chloromethane	52	4.088	4.087	0.001	68	4455	0.0800	0.1173	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	91	17045	0.0800	0.0818	
11 Acetaldehyde	44	4.265	4.258	0.007	97	46990	0.4000	1.09	
12 Vinyl chloride	62	4.271	4.267	0.004	47	11132	0.0800	0.0820	
13 Butane	43	4.363	4.360	0.003	86	18447	0.0800	0.0945	
14 Butadiene	54	4.368	4.361	0.007	61	8647	0.0800	0.0844	
15 Bromomethane	94	4.708	4.706	0.002	99	9975	0.0800	0.0859	
16 Chloroethane	64	4.864	4.857	0.007	97	5455	0.0800	0.0833	
17 Ethanol	31	5.015	4.993	0.022	94	21969	0.4000	0.5140	
18 Vinyl bromide	106	5.177	5.179	-0.002	98	9484	0.0800	0.0840	
19 2-Methylbutane	43	5.231	5.230	0.001	89	11908	0.0800	0.0850	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	26062	0.0800	0.0813	
21 Acrolein	56	5.495	5.487	0.008	66	3519	0.0800	0.1431	
22 Acetonitrile	40	5.570	5.554	0.016	97	2037	0.0800	0.0615	
23 Acetone	58	5.635	5.617	0.018	97	25345	0.2400	0.5607	
24 Pentane	72	5.694	5.694	0.000	93	1797	0.0800	0.0808	
25 Isopropyl alcohol	45	5.786	5.749	0.037	99	35675	0.2400	0.3171	
26 Ethyl ether	31	5.910	5.890	0.020	91	8265	0.0800	0.0973	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	96	10281	0.0800	0.0802	
28 Acrylonitrile	53	6.325	6.326	-0.001	94	6181	0.0800	0.0843	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	93	22076	0.0800	0.0812	
30 2-Methyl-2-propanol	59	6.476	6.416	0.060	96	17636	0.0800	0.1039	
31 Methylene Chloride	84	6.568	6.569	-0.001	95	26899	0.0800	0.1896	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	94	9938	0.0800	0.0874	
33 Carbon disulfide	76	6.741	6.740	0.001	98	31262	0.0800	0.0836	
34 trans-1,2-Dichloroethene	96	7.398	7.404	-0.006	97	10137	0.0800	0.0801	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	26924	0.0800	0.0861	
36 Methyl tert-butyl ether	73	7.598	7.568	0.030	97	27557	0.0800	0.0898	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	20370	0.0800	0.0817	
38 Vinyl acetate	43	7.954	7.952	0.002	100	21075	0.0800	0.0797	
40 Hexane	56	8.423	8.426	-0.003	91	9730	0.0800	0.0833	
39 2-Butanone (MEK)	72	8.445	8.428	0.017	97	5945	0.0800	0.1089	
41 Isopropyl ether	45	8.628	8.611	0.017	97	33790	0.0800	0.0891	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	95	10664	0.0800	0.0809	
43 Ethyl acetate	43	9.065	9.051	0.014	99	20465	0.0800	0.0884	
44 Chloroform	83	9.194	9.198	-0.004	28	22154	0.0800	0.0836	
45 Tert-butyl ethyl ether	59	9.329	9.306	0.023	95	31153	0.0800	0.0861	
46 Tetrahydrofuran	42	9.669	9.640	0.029	95	11795	0.0800	0.0935	
47 1,1,1-Trichloroethane	97	10.229	10.239	-0.010	97	22661	0.0800	0.0797	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	96	13953	0.0800	0.0788	
49 Cyclohexane	69	10.828	10.827	0.001	72	5712	0.0800	0.0837	
50 Benzene	78	10.828	10.829	-0.001	96	31654	0.0800	0.0814	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	96	17567	0.0800	0.0681	
51 n-Butanol	31	10.930	10.879	0.051	68	3500	0.0800	0.1155	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	90	8114	0.0800	0.0797	
54 Thiophene	84	11.092	11.100	-0.008	96	17942	0.0800	0.0798	
55 Isooctane	57	11.567	11.569	-0.002	99	59520	0.0800	0.0846	
56 n-Heptane	71	11.928	11.933	-0.005	90	12222	0.0800	0.0813	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	92	11936	0.0800	0.0852	
58 Trichloroethene	130	12.057	12.062	-0.005	95	14237	0.0800	0.0831	
59 Dibromomethane	93	12.149	12.150	-0.001	92	12080	0.0800	0.0848	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	98	18275	0.0800	0.0716	
61 1,4-Dioxane	88	12.370	12.348	0.022	90	4291	0.0800	0.0896	
62 Methyl methacrylate	41	12.386	12.382	0.004	95	9343	0.0800	0.0693	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	21184	0.0800	0.0801	
64 4-Methyl-2-pentanone (MIBK	43	13.260	13.242	0.018	95	22056	0.0800	0.0921	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	97	16034	0.0800	0.0778	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	13992	0.0800	0.0804	
67 Toluene	91	14.080	14.081	-0.001	94	32819	0.0800	0.0822	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	9763	0.0800	0.0814	
69 2-Hexanone	58	14.570	14.555	0.015	94	9978	0.0800	0.0873	
70 n-Octane	85	14.743	14.747	-0.004	93	12174	0.0800	0.0808	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	96	13816	0.0800	0.0631	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	15276	0.0800	0.0753	
73 Tetrachloroethene	129	15.207	15.211	-0.004	94	12058	0.0800	0.0797	
75 Chlorobenzene	112	16.080	16.080	0.000	80	26752	0.0800	0.0817	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	38609	0.0800	0.0895	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	41663	0.0800	0.0840	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	62479	0.1600	0.1634	
80 n-Nonane	57	16.916	16.919	-0.003	91	23515	0.0800	0.0815	
81 Bromoform	173	16.975	16.976	-0.001	68	8847	0.0800	0.0571	
82 Styrene	104	16.981	16.983	-0.002	98	17523	0.0800	0.0713	
83 o-Xylene	91	17.040	17.043	-0.003	99	35205	0.0800	0.0868	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	21488	0.0800	0.0814	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	6796	0.0800	0.0804	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.617	17.622	-0.005	95	48024	0.0800	0.0851	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	12269	0.0800	0.0831	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	11528	0.0800	0.0809	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	47293	0.0800	0.0873	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	19296	0.0800	0.0863	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	89	11793	0.0800	0.0641	
93 n-Decane	57	18.625	18.628	-0.003	91	29507	0.0800	0.0838	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	92	41885	0.0800	0.0861	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	37922	0.0800	0.0834	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	98	61046	0.0800	0.0881	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	22637	0.0800	0.0764	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	21904	0.0800	0.0711	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	23267	0.0800	0.0774	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	46813	0.0800	0.0856	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	39477	0.0800	0.0853	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	37612	0.0800	0.0839	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	34655	0.0800	0.0835	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	79	22248	0.0800	0.0781	
105 n-Butylbenzene	91	19.618	19.618	0.000	97	43265	0.0800	0.0852	
106 Indene	116	19.618	19.623	-0.005	90	23534	0.0800	0.0769	
107 Undecane	57	19.909	19.910	-0.001	96	33883	0.0800	0.0927	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.087	-0.006	88	8153	0.0800	0.0740	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	44995	0.0800	0.0883	
110 Dodecane	57	20.960	20.961	-0.001	98	31549	0.0800	0.1148	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	92	16248	0.0800	0.0901	
112 Naphthalene	128	21.322	21.321	0.001	99	43370	0.0800	0.0868	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	90	17141	0.0800	0.0891	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	18020	0.0800	0.0932	
115 2-Methylnaphthalene	142	22.346	22.341	0.005	99	21157	0.0800	0.1270	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	29332	0.0800	0.1367	
A 122 C8 Range	1	14.758	(14.700-14.816)		0	130207	0.0800	0.0958	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1610	
S 124 Xylenes, Total	100				0		0.2400	0.2502	

Reagents:

40L4DQP_00010	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

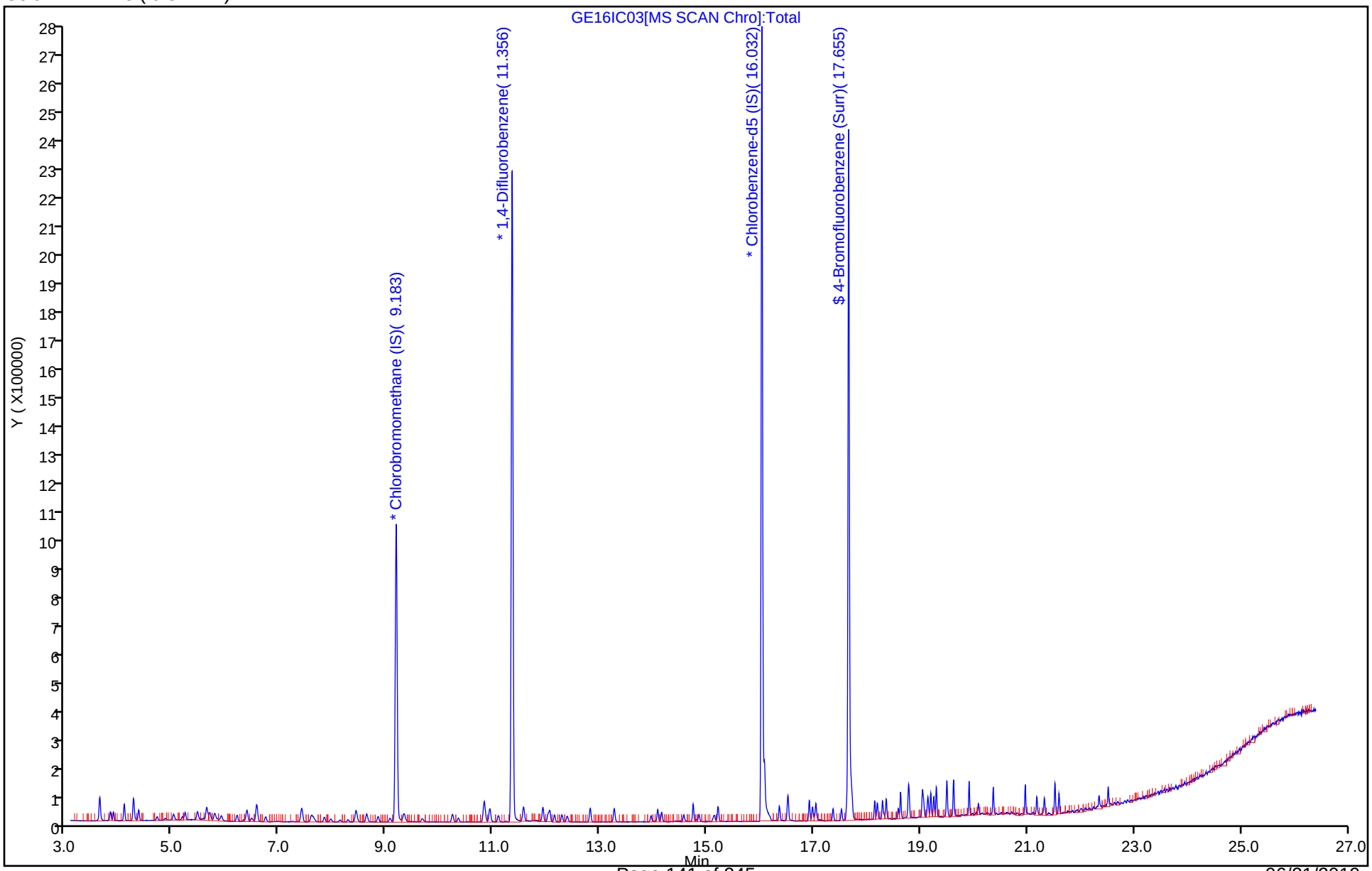
Report Date: 20-May-2019 14:51:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D

Injection Date:	17-May-2019 01:06:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L3			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

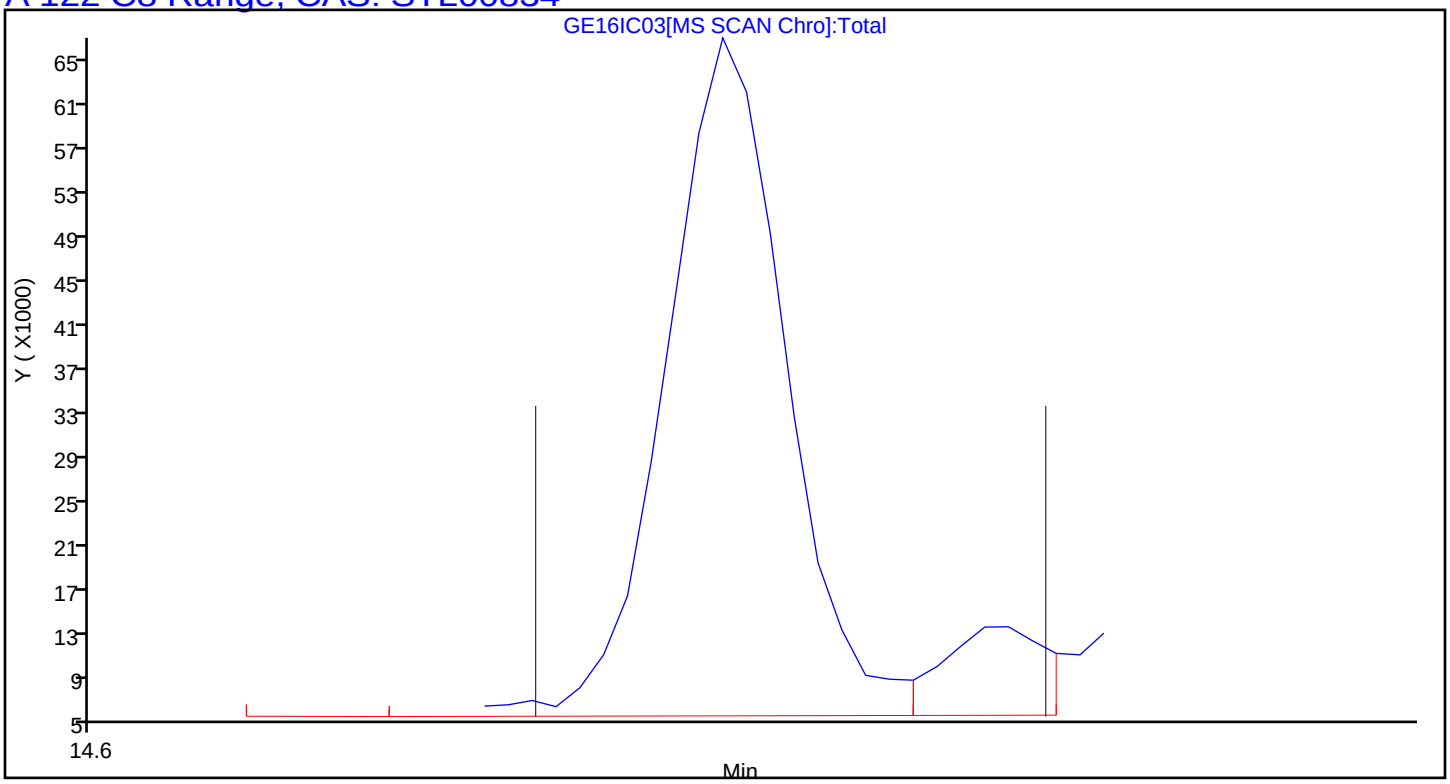


Report Date: 20-May-2019 14:51:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC03.D				
Injection Date:	17-May-2019 01:06:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-May-2019 01:49:30 ALS Bottle#: 2 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-011
Misc. Info.: 222334
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:37 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	96	340212	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.356	11.358	-0.002	95	2051046	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1764433	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1032580	4.00	3.80	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	32267	0.1600	0.1630	
7 Propene	41	3.834	3.836	-0.002	99	20019	0.1600	0.1822	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	51807	0.1600	0.1629	
9 Chloromethane	52	4.087	4.087	0.000	63	7269	0.1600	0.1989	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	93	32008	0.1600	0.1595	
11 Acetaldehyde	44	4.260	4.258	0.002	97	83047	0.8000	2.01	
12 Vinyl chloride	62	4.265	4.267	-0.002	48	20604	0.1600	0.1577	
13 Butane	43	4.357	4.360	-0.003	85	32425	0.1600	0.1726	
14 Butadiene	54	4.362	4.361	0.001	65	15629	0.1600	0.1586	
15 Bromomethane	94	4.708	4.706	0.002	99	18425	0.1600	0.1649	
16 Chloroethane	64	4.859	4.857	0.002	98	10404	0.1600	0.1651	
17 Ethanol	31	5.004	4.993	0.011	93	36202	0.8000	0.8803	
18 Vinyl bromide	106	5.182	5.179	0.003	98	17457	0.1600	0.1607	
19 2-Methylbutane	43	5.231	5.230	0.001	89	22459	0.1600	0.1666	
20 Trichlorofluoromethane	101	5.462	5.462	0.000	100	49073	0.1600	0.1591	
21 Acrolein	56	5.489	5.487	0.002	85	5603	0.1600	0.2368	
22 Acetonitrile	40	5.560	5.554	0.006	97	4737	0.1600	0.1485	
23 Acetone	58	5.630	5.617	0.013	98	44451	0.4800	1.02	
24 Pentane	72	5.694	5.694	0.000	97	3353	0.1600	0.1568	
25 Isopropyl alcohol	45	5.770	5.749	0.021	99	59087	0.4800	0.5458	
26 Ethyl ether	31	5.905	5.890	0.015	92	13639	0.1600	0.1668	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	97	19000	0.1600	0.1540	
28 Acrylonitrile	53	6.331	6.326	0.005	95	10794	0.1600	0.1530	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	41583	0.1600	0.1589	
30 2-Methyl-2-propanol	59	6.455	6.416	0.039	97	27741	0.1600	0.1698	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	34417	0.1600	0.2522	
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	95	18517	0.1600	0.1692	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.740	6.740	0.000	98	58280	0.1600	0.1619	
34 trans-1,2-Dichloroethene	96	7.398	7.404	-0.006	97	19424	0.1600	0.1595	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	50548	0.1600	0.1680	
36 Methyl tert-butyl ether	73	7.582	7.568	0.014	96	45959	0.1600	0.1557	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	38072	0.1600	0.1588	
38 Vinyl acetate	43	7.954	7.952	0.002	100	37551	0.1600	0.1477	
40 Hexane	56	8.428	8.426	0.002	80	18634	0.1600	0.1658	
39 2-Butanone (MEK)	72	8.439	8.428	0.011	98	10039	0.1600	0.1910	
41 Isopropyl ether	45	8.622	8.611	0.011	97	56411	0.1600	0.1546	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	95	19882	0.1600	0.1567	
43 Ethyl acetate	43	9.059	9.051	0.008	99	31990	0.1600	0.1436	
44 Chloroform	83	9.194	9.198	-0.004	94	40665	0.1600	0.1595	
45 Tert-butyl ethyl ether	59	9.318	9.306	0.012	95	52868	0.1600	0.1519	
46 Tetrahydrofuran	42	9.658	9.640	0.018	95	19934	0.1600	0.1642	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	97	43258	0.1600	0.1581	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	97	26323	0.1600	0.1605	
49 Cyclohexane	69	10.822	10.827	-0.005	74	11190	0.1600	0.1772	
50 Benzene	78	10.828	10.829	-0.001	97	59722	0.1600	0.1659	
52 Carbon tetrachloride	117	10.849	10.850	-0.001	96	33988	0.1600	0.1423	
51 n-Butanol	31	10.920	10.879	0.041	69	5851	0.1600	0.2085	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	89	15978	0.1600	0.1695	
54 Thiophene	84	11.098	11.100	-0.002	96	33288	0.1600	0.1599	
55 Isooctane	57	11.567	11.569	-0.002	99	111379	0.1600	0.1711	
56 n-Heptane	71	11.933	11.933	0.000	91	23041	0.1600	0.1655	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	88	21117	0.1600	0.1627	
58 Trichloroethene	130	12.057	12.062	-0.005	95	25174	0.1600	0.1587	
59 Dibromomethane	93	12.149	12.150	-0.001	90	21856	0.1600	0.1657	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	98	35631	0.1600	0.1508	
61 1,4-Dioxane	88	12.359	12.348	0.011	90	7562	0.1600	0.1705	
62 Methyl methacrylate	41	12.386	12.382	0.004	95	17318	0.1600	0.1387	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	40616	0.1600	0.1660	
64 4-Methyl-2-pentanone (MIBK	43	13.254	13.242	0.012	98	34427	0.1600	0.1552	
65 cis-1,3-Dichloropropene	75	13.265	13.271	-0.006	97	29796	0.1600	0.1562	
66 trans-1,3-Dichloropropene	75	13.950	13.956	-0.006	99	24688	0.1600	0.1468	
67 Toluene	91	14.079	14.081	-0.002	94	59304	0.1600	0.1538	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	17667	0.1600	0.1525	
69 2-Hexanone	58	14.565	14.555	0.010	94	16871	0.1600	0.1527	
70 n-Octane	85	14.743	14.747	-0.004	93	22835	0.1600	0.1569	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	98	27269	0.1600	0.1288	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	29742	0.1600	0.1517	
73 Tetrachloroethene	129	15.206	15.211	-0.005	94	23722	0.1600	0.1623	
75 Chlorobenzene	112	16.080	16.080	0.000	92	49954	0.1600	0.1579	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	95	70385	0.1600	0.1689	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	71944	0.1600	0.1501	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	115288	0.3200	0.3121	
80 n-Nonane	57	16.916	16.919	-0.003	92	42459	0.1600	0.1524	
81 Bromoform	173	16.975	16.976	-0.001	89	18079	0.1600	0.1208	
82 Styrene	104	16.981	16.983	-0.002	99	30654	0.1600	0.1291	
83 o-Xylene	91	17.040	17.043	-0.003	99	55982	0.1600	0.1428	
84 1,1,2,2-Tetrachloroethane	83	17.363	17.365	-0.002	99	36333	0.1600	0.1424	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	97	11793	0.1600	0.1444	
86 Isopropylbenzene	105	17.622	17.622	0.000	93	81124	0.1600	0.1488	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.145	18.145	0.000	99	20466	0.1600	0.1435	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	21015	0.1600	0.1527	
89 4-Ethyltoluene	105	18.291	18.290	0.001	98	77645	0.1600	0.1484	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	30756	0.1600	0.1424	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	86	19878	0.1600	0.1118	
93 n-Decane	57	18.625	18.628	-0.003	90	51962	0.1600	0.1527	
94 tert-Butylbenzene	119	18.776	18.776	0.000	92	68627	0.1600	0.1460	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	95	62657	0.1600	0.1426	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	99768	0.1600	0.1490	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	98	40713	0.1600	0.1421	
98 Benzyl chloride	91	19.127	19.130	-0.003	97	37228	0.1600	0.1251	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	40680	0.1600	0.1400	
100 4-Isopropyltoluene	119	19.191	19.194	-0.003	97	75618	0.1600	0.1432	
101 1,2,3-Trimethylbenzene	105	19.245	19.251	-0.006	99	65472	0.1600	0.1464	
102 Butylcyclohexane	83	19.294	19.298	-0.004	94	67335	0.1600	0.1555	
103 2,3-Dihydroindene	117	19.493	19.495	-0.002	94	57205	0.1600	0.1427	
104 1,2-Dichlorobenzene	146	19.493	19.497	-0.004	94	38733	0.1600	0.1407	
105 n-Butylbenzene	91	19.617	19.618	-0.001	97	71811	0.1600	0.1464	
106 Indene	116	19.623	19.623	0.000	90	38779	0.1600	0.1311	
107 Undecane	57	19.909	19.910	-0.001	96	55954	0.1600	0.1585	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	88	13129	0.1600	0.1234	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	74640	0.1600	0.1516	
110 Dodecane	57	20.960	20.961	-0.001	97	50625	0.1600	0.1906	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	26207	0.1600	0.1504	
112 Naphthalene	128	21.316	21.321	-0.005	99	70051	0.1600	0.1451	
113 Hexachlorobutadiene	225	21.516	21.520	-0.004	89	28981	0.1600	0.1558	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	28559	0.1600	0.1528	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	26861	0.1600	0.1669	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	39482	0.1600	0.1904	
A 122 C8 Range	1	14.753	(14.690-14.816)		0	227816	0.1600	0.1734	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3162	
S 124 Xylenes, Total	100				0		0.4800	0.4549	

Reagents:

40L4DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

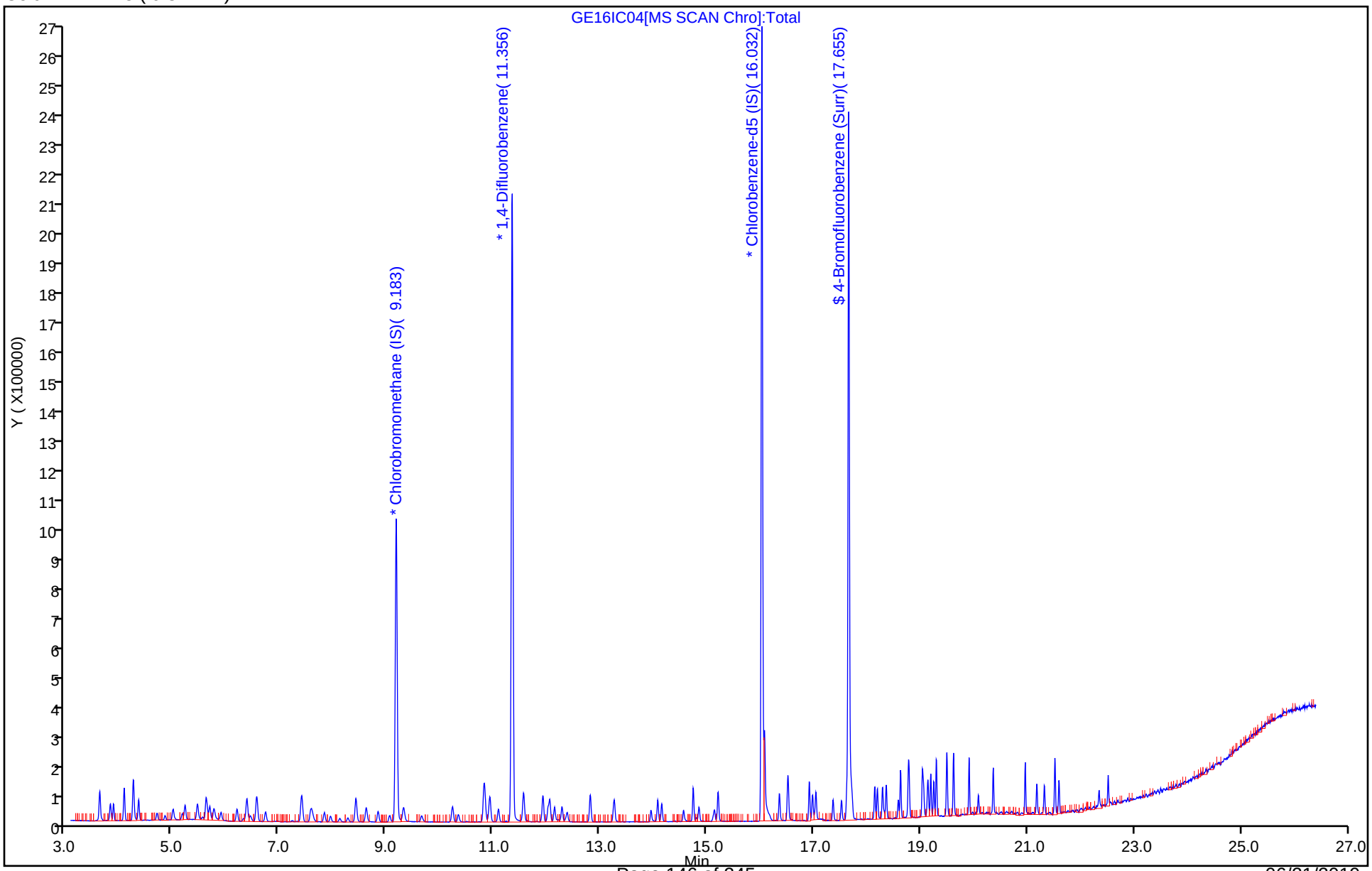
Report Date: 20-May-2019 14:51:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D

Injection Date:	17-May-2019 01:49:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L4			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

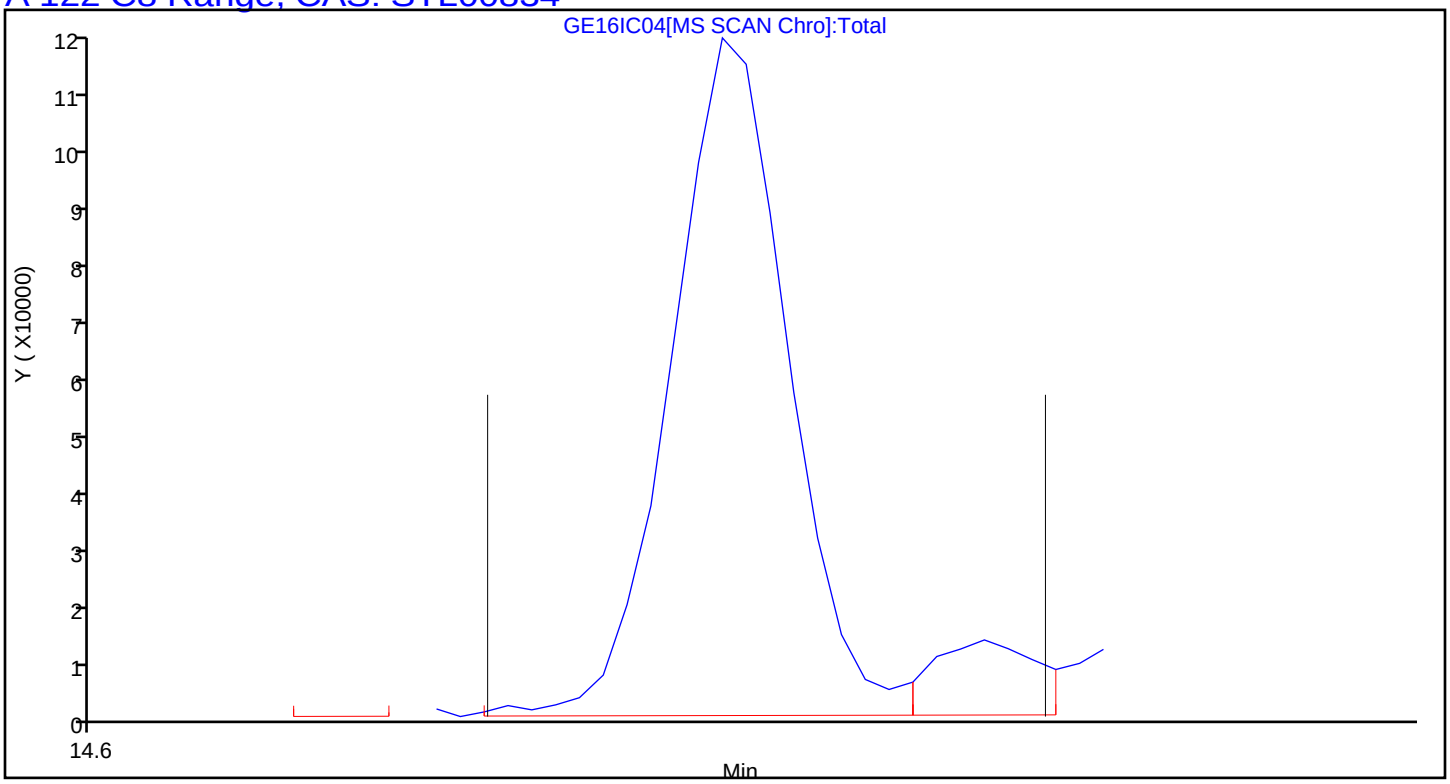


Report Date: 20-May-2019 14:51:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC04.D				
Injection Date:	17-May-2019 01:49:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-May-2019 02:34:30 ALS Bottle#: 3 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-012
Misc. Info.: 221643
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:44 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	97	342457	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.002	95	2215114	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1827630	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1112507	4.00	3.95	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	97	79535	0.4000	0.3992	
7 Propene	41	3.840	3.836	0.004	99	44532	0.4000	0.4027	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	127551	0.4000	0.3983	
9 Chloromethane	52	4.088	4.087	0.001	99	16161	0.4000	0.4394	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	93	80754	0.4000	0.3999	
11 Acetaldehyde	44	4.260	4.258	0.002	98	110529	2.00	2.65	
12 Vinyl chloride	62	4.266	4.267	-0.001	99	51817	0.4000	0.3939	
13 Butane	43	4.363	4.360	0.003	86	78060	0.4000	0.4129	
14 Butadiene	54	4.363	4.361	0.002	64	39427	0.4000	0.3974	
15 Bromomethane	94	4.702	4.706	-0.004	98	45620	0.4000	0.4056	
16 Chloroethane	64	4.853	4.857	-0.004	99	25843	0.4000	0.4075	
17 Ethanol	31	4.994	4.993	0.001	93	82906	2.00	2.00	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	43720	0.4000	0.3999	
19 2-Methylbutane	43	5.231	5.230	0.001	91	56311	0.4000	0.4150	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	125025	0.4000	0.4026	
21 Acrolein	56	5.490	5.487	0.003	92	12234	0.4000	0.5136	
22 Acetonitrile	40	5.554	5.554	0.000	100	11951	0.4000	0.3723	
23 Acetone	58	5.619	5.617	0.002	97	74161	1.20	1.69	
24 Pentane	72	5.695	5.694	0.001	98	9061	0.4000	0.4209	
25 Isopropyl alcohol	45	5.748	5.749	-0.001	97	134609	1.20	1.24	
26 Ethyl ether	31	5.889	5.890	-0.001	91	36970	0.4000	0.4493	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	97	47482	0.4000	0.3823	
28 Acrylonitrile	53	6.325	6.326	-0.001	96	29705	0.4000	0.4182	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	104699	0.4000	0.3973	
30 2-Methyl-2-propanol	59	6.422	6.416	0.006	93	60993	0.4000	0.3709	
31 Methylene Chloride	84	6.568	6.569	-0.001	96	62103	0.4000	0.4520	
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	95	43318	0.4000	0.3932	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.741	6.740	0.001	98	144633	0.4000	0.3991	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	97	47230	0.4000	0.3852	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	125152	0.4000	0.4132	
36 Methyl tert-butyl ether	73	7.560	7.568	-0.008	97	128705	0.4000	0.4331	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	96602	0.4000	0.4002	
38 Vinyl acetate	43	7.949	7.952	-0.003	100	108707	0.4000	0.4247	
40 Hexane	56	8.423	8.426	-0.003	73	45352	0.4000	0.4008	
39 2-Butanone (MEK)	72	8.423	8.428	-0.005	96	23099	0.4000	0.4367	
41 Isopropyl ether	45	8.601	8.611	-0.010	99	158470	0.4000	0.4313	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	49873	0.4000	0.3906	
43 Ethyl acetate	43	9.049	9.051	-0.002	99	95209	0.4000	0.4246	
44 Chloroform	83	9.194	9.198	-0.004	96	102969	0.4000	0.4013	
45 Tert-butyl ethyl ether	59	9.302	9.306	-0.004	94	151311	0.4000	0.4319	
46 Tetrahydrofuran	42	9.636	9.640	-0.004	95	53388	0.4000	0.4368	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	109141	0.4000	0.3963	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	65295	0.4000	0.3686	
49 Cyclohexane	69	10.823	10.827	-0.004	79	26660	0.4000	0.3909	
50 Benzene	78	10.828	10.829	-0.001	96	146688	0.4000	0.3773	
52 Carbon tetrachloride	117	10.850	10.850	0.000	96	99890	0.4000	0.3873	
51 n-Butanol	31	10.898	10.879	0.019	72	10829	0.4000	0.3572	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	91	40280	0.4000	0.3956	
54 Thiophene	84	11.098	11.100	-0.002	95	85694	0.4000	0.3811	
55 Isooctane	57	11.567	11.569	-0.002	99	284195	0.4000	0.4042	
56 n-Heptane	71	11.933	11.933	0.000	90	57909	0.4000	0.3850	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	90	54756	0.4000	0.3907	
58 Trichloroethene	130	12.058	12.062	-0.004	96	64799	0.4000	0.3783	
59 Dibromomethane	93	12.149	12.150	-0.001	91	54894	0.4000	0.3855	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	98	96804	0.4000	0.3795	
61 1,4-Dioxane	88	12.343	12.348	-0.005	85	18644	0.4000	0.3892	
62 Methyl methacrylate	41	12.381	12.382	-0.001	94	54826	0.4000	0.4066	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	101736	0.4000	0.3849	
64 4-Methyl-2-pentanone (MIBK	43	13.244	13.242	0.002	96	91324	0.4000	0.3812	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	97	78550	0.4000	0.3813	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	67856	0.4000	0.3894	
67 Toluene	91	14.080	14.081	-0.001	94	161840	0.4000	0.4052	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	99	48445	0.4000	0.4037	
69 2-Hexanone	58	14.560	14.555	0.005	94	42091	0.4000	0.3678	
70 n-Octane	85	14.748	14.747	0.001	93	61118	0.4000	0.4055	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	78543	0.4000	0.3582	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	83160	0.4000	0.4094	
73 Tetrachloroethene	129	15.212	15.211	0.001	93	59425	0.4000	0.3925	
75 Chlorobenzene	112	16.075	16.080	-0.005	94	133521	0.4000	0.4074	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	96	180863	0.4000	0.4190	
78 Ethylbenzene	91	16.361	16.359	0.002	98	211233	0.4000	0.4254	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	337295	0.8000	0.8815	
80 n-Nonane	57	16.921	16.919	0.002	92	119795	0.4000	0.4150	
81 Bromoform	173	16.975	16.976	-0.001	91	57176	0.4000	0.3687	
82 Styrene	104	16.981	16.983	-0.002	98	103391	0.4000	0.4204	
83 o-Xylene	91	17.040	17.043	-0.003	99	174255	0.4000	0.4291	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	110852	0.4000	0.4195	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	34461	0.4000	0.4075	
86 Isopropylbenzene	105	17.622	17.622	0.000	96	236641	0.4000	0.4191	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.146	18.145	0.001	99	63509	0.4000	0.4299	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	58227	0.4000	0.4084	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	230971	0.4000	0.4261	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	96222	0.4000	0.4301	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	90	72362	0.4000	0.3931	
93 n-Decane	57	18.625	18.628	-0.003	89	156649	0.4000	0.4445	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	211897	0.4000	0.4353	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	196858	0.4000	0.4324	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	298872	0.4000	0.4308	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	118442	0.4000	0.3992	
98 Benzyl chloride	91	19.132	19.130	0.002	98	118237	0.4000	0.3836	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	117709	0.4000	0.3911	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	237573	0.4000	0.4343	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	200856	0.4000	0.4336	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	190280	0.4000	0.4242	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	175435	0.4000	0.4225	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	115220	0.4000	0.4040	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	217649	0.4000	0.4284	
106 Indene	116	19.623	19.623	0.000	90	130876	0.4000	0.4271	
107 Undecane	57	19.909	19.910	-0.001	96	157612	0.4000	0.4309	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	91	40295	0.4000	0.3656	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	202937	0.4000	0.3979	
110 Dodecane	57	20.960	20.961	-0.001	97	115029	0.4000	0.4180	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	65988	0.4000	0.3657	
112 Naphthalene	128	21.322	21.321	0.001	99	166001	0.4000	0.3321	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	90	73931	0.4000	0.3838	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	63529	0.4000	0.3282	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	47516	0.4000	0.2850	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	63501	0.4000	0.2957	
A 122 C8 Range	1	14.744	(14.690-14.827)		0	554350	0.4000	0.4073	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.7758	
S 124 Xylenes, Total	100				0		1.20	1.31	

Reagents:

40L5DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

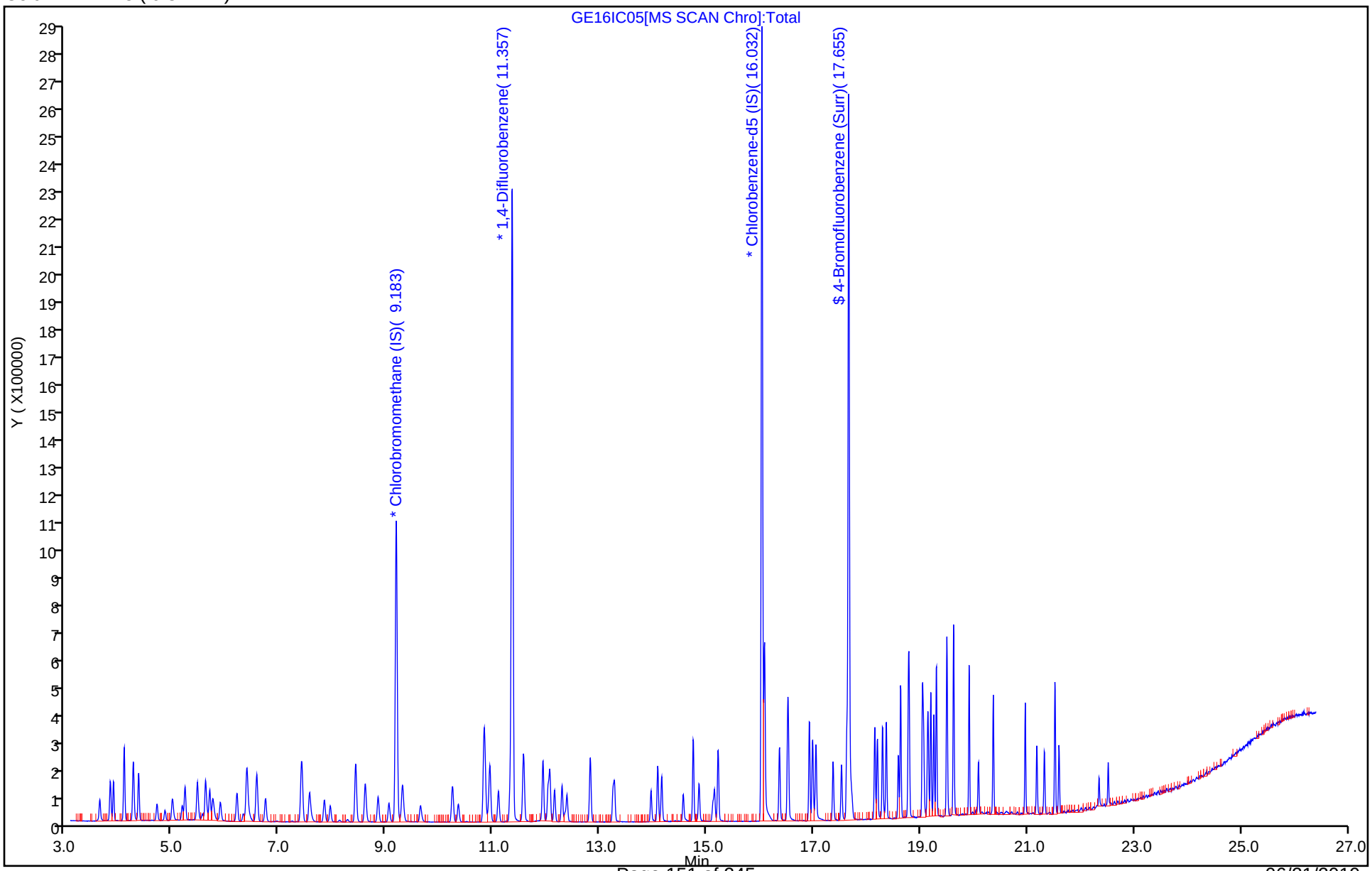
Report Date: 20-May-2019 14:51:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D

Injection Date:	17-May-2019 02:34:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L5			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

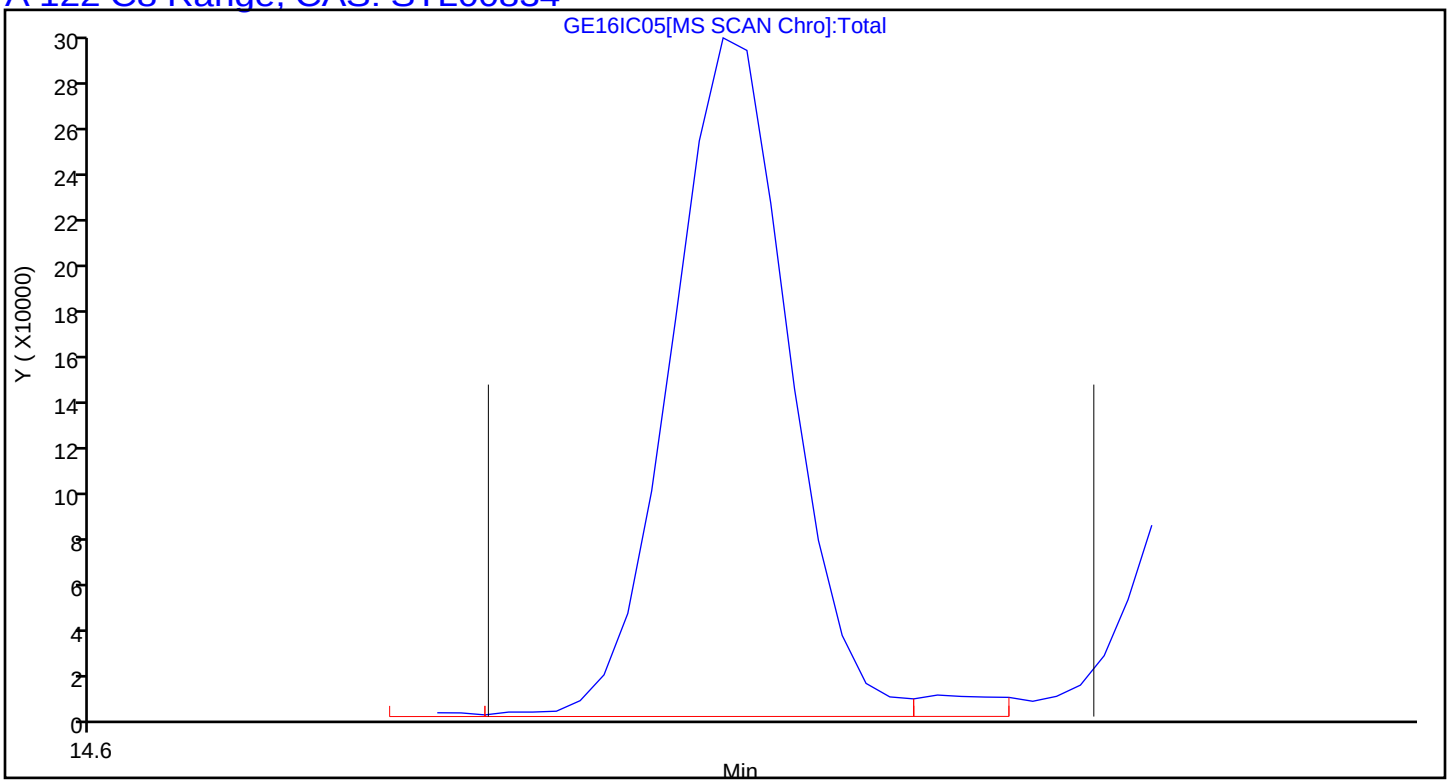


Report Date: 20-May-2019 14:51:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC05.D				
Injection Date:	17-May-2019 02:34:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-May-2019 03:19:30 ALS Bottle#: 4 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-013
Misc. Info.: 221642
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:51 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.178	9.187	-0.009	98	345882	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.358	-0.007	95	2204978	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.032	-0.006	88	1880107	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1163771	4.00	4.02	
6 Chlorodifluoromethane	51	3.813	3.823	-0.010	96	200321	1.00	1.00	
7 Propene	41	3.829	3.836	-0.007	98	106282	1.00	0.9517	
8 Dichlorodifluoromethane	85	3.883	3.889	-0.006	100	321558	1.00	0.99	
9 Chloromethane	52	4.077	4.087	-0.010	98	36688	1.00	0.9876	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.082	4.092	-0.010	93	198691	1.00	0.9741	
11 Acetaldehyde	44	4.244	4.258	-0.014	96	230594	5.00	5.48	
12 Vinyl chloride	62	4.255	4.267	-0.012	99	127486	1.00	0.9596	
13 Butane	43	4.352	4.360	-0.008	85	190577	1.00	1.00	
14 Butadiene	54	4.352	4.361	-0.009	65	98280	1.00	0.9809	
15 Bromomethane	94	4.697	4.706	-0.009	99	108422	1.00	0.9545	
16 Chloroethane	64	4.848	4.857	-0.009	98	61271	1.00	0.9565	
17 Ethanol	31	4.961	4.993	-0.032	93	181163	5.00	4.33	
18 Vinyl bromide	106	5.166	5.179	-0.013	99	103252	1.00	0.9351	
19 2-Methylbutane	43	5.220	5.230	-0.010	90	126961	1.00	0.9265	
20 Trichlorofluoromethane	101	5.452	5.462	-0.010	99	300007	1.00	0.9566	
21 Acrolein	56	5.473	5.487	-0.014	92	20752	1.00	0.8626	
22 Acetonitrile	40	5.538	5.554	-0.016	100	30631	1.00	0.9447	
23 Acetone	58	5.598	5.617	-0.019	98	127534	3.00	2.88	
24 Pentane	72	5.684	5.694	-0.010	97	20402	1.00	0.9382	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	93	269541	3.00	2.45	
26 Ethyl ether	31	5.867	5.890	-0.023	89	71948	1.00	0.8657	
27 1,1-Dichloroethene	96	6.191	6.205	-0.014	95	115989	1.00	0.9246	
28 Acrylonitrile	53	6.304	6.326	-0.022	95	70208	1.00	0.9786	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.386	-0.012	94	259338	1.00	0.9745	
30 2-Methyl-2-propanol	59	6.358	6.416	-0.058	95	134069	1.00	0.8071	
31 Methylene Chloride	84	6.557	6.569	-0.012	97	126579	1.00	0.9122	
32 3-Chloro-1-propene	39	6.574	6.585	-0.011	96	106589	1.00	0.9580	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.730	6.740	-0.010	98	343964	1.00	0.9397	
34 trans-1,2-Dichloroethene	96	7.393	7.404	-0.011	97	115030	1.00	0.9289	
35 2-Methylpentane	43	7.409	7.421	-0.012	94	307019	1.00	1.00	
36 Methyl tert-butyl ether	73	7.533	7.568	-0.035	97	288019	1.00	0.9595	
37 1,1-Dichloroethane	63	7.830	7.842	-0.012	100	240272	1.00	0.9856	
38 Vinyl acetate	43	7.938	7.952	-0.014	100	257222	1.00	0.99	
40 Hexane	56	8.418	8.426	-0.008	85	112220	1.00	0.9820	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	96	49637	1.00	0.9290	
41 Isopropyl ether	45	8.585	8.611	-0.026	97	355403	1.00	0.9578	
42 cis-1,2-Dichloroethene	96	8.838	8.849	-0.011	96	123209	1.00	0.9554	
43 Ethyl acetate	43	9.027	9.051	-0.024	99	216293	1.00	0.9551	
44 Chloroform	83	9.189	9.198	-0.009	97	261076	1.00	1.01	
45 Tert-butyl ethyl ether	59	9.275	9.306	-0.031	95	334052	1.00	0.9441	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	94	117937	1.00	0.9554	
47 1,1,1-Trichloroethane	97	10.230	10.239	-0.009	96	274731	1.00	0.9876	
48 1,2-Dichloroethane	62	10.343	10.350	-0.007	97	171788	1.00	0.9741	
49 Cyclohexane	69	10.817	10.827	-0.010	87	65724	1.00	0.9680	
50 Benzene	78	10.823	10.829	-0.006	97	383669	1.00	0.99	
52 Carbon tetrachloride	117	10.844	10.850	-0.006	97	257165	1.00	1.00	
51 n-Butanol	31	10.850	10.879	-0.029	65	22341	1.00	0.7404	
53 2,3-Dimethylpentane	71	10.931	10.938	-0.007	92	97594	1.00	0.9628	
54 Thiophene	84	11.092	11.100	-0.008	96	219013	1.00	0.9785	
55 Isooctane	57	11.561	11.569	-0.008	99	695020	1.00	0.99	
56 n-Heptane	71	11.928	11.933	-0.005	90	147274	1.00	0.9837	
57 1,2-Dichloropropane	63	12.020	12.028	-0.008	90	141240	1.00	1.01	
58 Trichloroethene	130	12.058	12.062	-0.004	96	162250	1.00	0.9516	
59 Dibromomethane	93	12.144	12.150	-0.006	91	139529	1.00	0.9842	
60 Dichlorobromomethane	83	12.284	12.290	-0.006	99	255861	1.00	1.01	
61 1,4-Dioxane	88	12.322	12.348	-0.026	92	41325	1.00	0.8667	
62 Methyl methacrylate	41	12.370	12.382	-0.012	94	125280	1.00	0.9334	
63 Methylcyclohexane	83	12.813	12.818	-0.006	95	258432	1.00	0.9822	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	98	195739	1.00	0.8209	
65 cis-1,3-Dichloropropene	75	13.265	13.271	-0.006	93	210292	1.00	1.03	
66 trans-1,3-Dichloropropene	75	13.950	13.956	-0.006	98	177964	1.00	0.99	
67 Toluene	91	14.074	14.081	-0.007	94	397221	1.00	0.9667	
68 1,1,2-Trichloroethane	83	14.150	14.156	-0.006	98	120031	1.00	0.9724	
69 2-Hexanone	58	14.538	14.555	-0.017	94	91165	1.00	0.7744	
70 n-Octane	85	14.743	14.747	-0.004	93	150530	1.00	0.9709	
71 Chlorodibromomethane	129	14.851	14.854	-0.003	98	222962	1.00	0.9883	
72 Ethylene Dibromide	107	15.137	15.143	-0.006	99	217156	1.00	1.04	
73 Tetrachloroethene	129	15.207	15.211	-0.004	94	149919	1.00	0.9626	
75 Chlorobenzene	112	16.075	16.080	-0.005	92	335561	1.00	1.00	
74 2,3-Dimethylheptane	43	16.075	16.080	-0.005	95	440224	1.00	0.99	
78 Ethylbenzene	91	16.355	16.359	-0.004	98	490097	1.00	0.9595	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	765438	2.00	1.94	
80 n-Nonane	57	16.916	16.919	-0.003	91	292332	1.00	0.9844	
81 Bromoform	173	16.975	16.976	-0.001	93	180915	1.00	1.13	
82 Styrene	104	16.981	16.983	-0.002	98	269824	1.00	1.07	
83 o-Xylene	91	17.040	17.043	-0.003	99	403226	1.00	0.9652	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	258219	1.00	0.9499	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	79171	1.00	0.9100	
86 Isopropylbenzene	105	17.617	17.622	-0.005	94	532713	1.00	0.9171	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.145	-0.005	99	142922	1.00	0.9404	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	136906	1.00	0.9334	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	515668	1.00	0.9247	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	218352	1.00	0.9487	
92 Alpha Methyl Styrene	118	18.582	18.585	-0.003	89	190856	1.00	1.01	
93 n-Decane	57	18.625	18.628	-0.003	90	347209	1.00	0.9577	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	93	470615	1.00	0.9397	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	446282	1.00	0.9529	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	661616	1.00	0.9270	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	285664	1.00	0.9360	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	311166	1.00	0.9813	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	96	280622	1.00	0.9064	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	531140	1.00	0.9438	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	450808	1.00	0.9461	
102 Butylcyclohexane	83	19.300	19.298	0.002	95	438623	1.00	0.9506	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	402293	1.00	0.9418	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	267961	1.00	0.9133	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	499621	1.00	0.9560	
106 Indene	116	19.623	19.623	0.000	91	324555	1.00	1.03	
107 Undecane	57	19.909	19.910	-0.001	96	348459	1.00	0.9261	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	95	108040	1.00	0.9530	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	459294	1.00	0.8754	
110 Dodecane	57	20.960	20.961	-0.001	97	235025	1.00	0.8302	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	160937	1.00	0.8669	
112 Naphthalene	128	21.322	21.321	0.001	99	413768	1.00	0.8046	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	172917	1.00	0.8726	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	148142	1.00	0.7439	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	112826	1.00	0.6578	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	148906	1.00	0.6741	
A 122 C8 Range	1	14.748	(14.684-14.843)		0	1321428	1.00	0.9438	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.88	
S 124 Xylenes, Total	100				0		3.00	2.91	

Reagents:

40L6DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

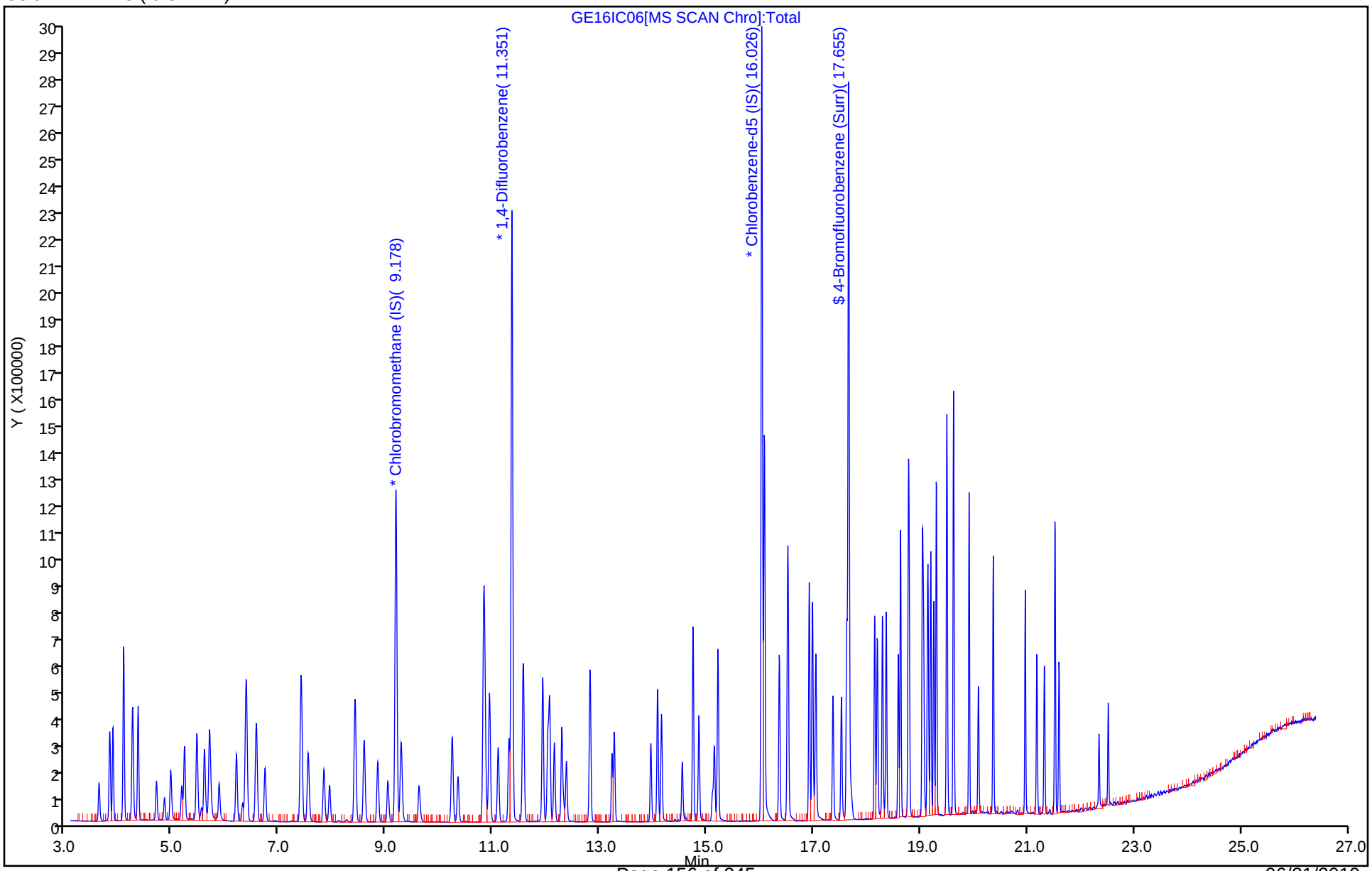
Report Date: 20-May-2019 14:51:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D

Injection Date:	17-May-2019 03:19:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L6			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

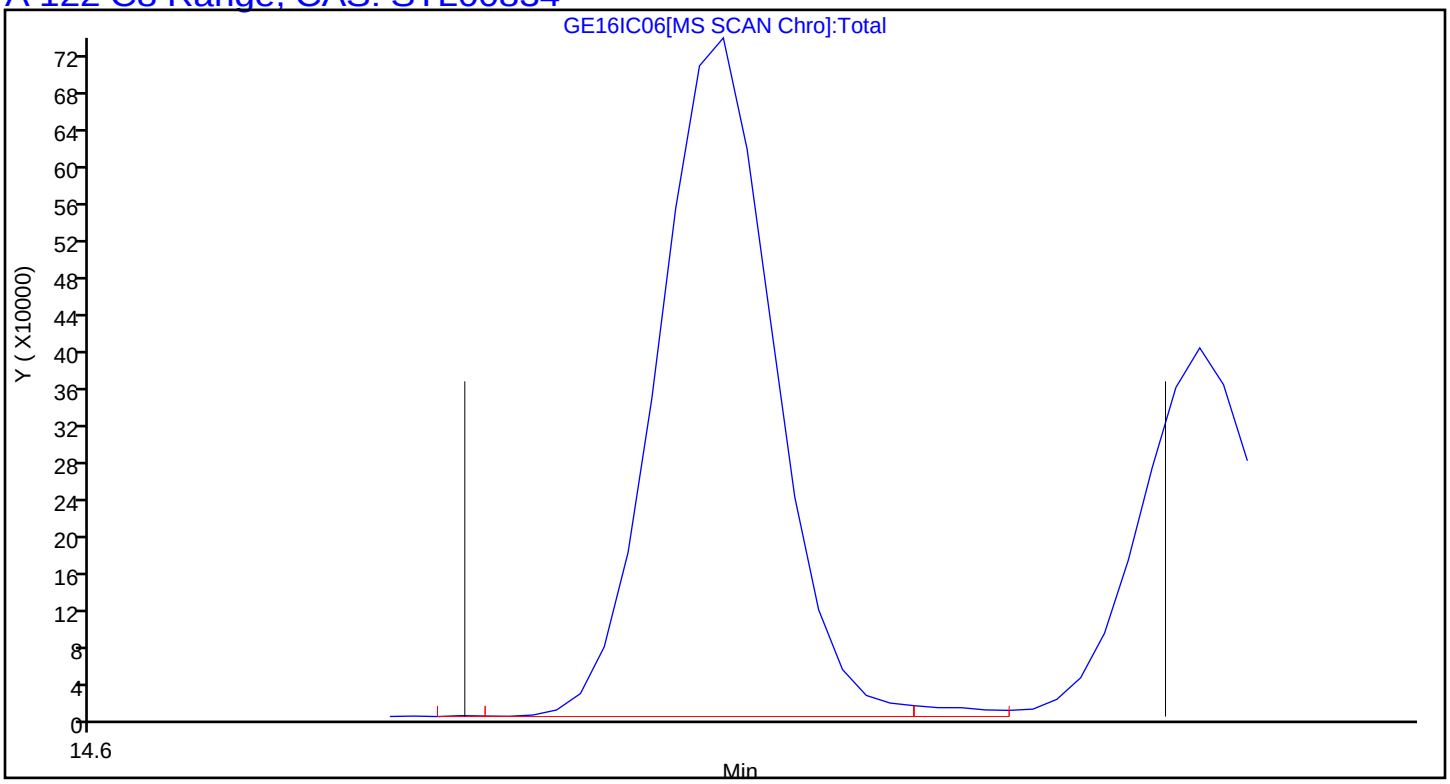


Report Date: 20-May-2019 14:51:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC06.D				
Injection Date:	17-May-2019 03:19:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 17-May-2019 04:03:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-014
Misc. Info.: 221641
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:51:58 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 08:17:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	97	328809	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.002	95	1973581	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1744115	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1101322	4.00	4.10	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	390655	2.00	2.04	
7 Propene	41	3.834	3.836	-0.002	98	209337	2.00	1.97	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	634233	2.00	2.06	
9 Chloromethane	52	4.088	4.087	0.001	98	70896	2.00	2.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	94	397325	2.00	2.05	
11 Acetaldehyde	44	4.255	4.258	-0.003	98	377073	10.0	9.43	
12 Vinyl chloride	62	4.266	4.267	-0.001	98	255886	2.00	2.03	
13 Butane	43	4.363	4.360	0.003	85	378339	2.00	2.08	
14 Butadiene	54	4.363	4.361	0.002	67	199783	2.00	2.10	
15 Bromomethane	94	4.702	4.706	-0.004	99	223850	2.00	2.07	
16 Chloroethane	64	4.859	4.857	0.002	99	128544	2.00	2.11	
17 Ethanol	31	4.972	4.993	-0.021	93	442447	10.0	11.1	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	220404	2.00	2.10	
19 2-Methylbutane	43	5.231	5.230	0.001	90	277471	2.00	2.13	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	624901	2.00	2.10	
21 Acrolein	56	5.479	5.487	-0.008	91	43275	2.00	1.89	
22 Acetonitrile	40	5.549	5.554	-0.005	99	71061	2.00	2.31	
23 Acetone	58	5.603	5.617	-0.014	97	268566	6.00	6.39	
24 Pentane	72	5.695	5.694	0.001	98	44141	2.00	2.14	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	96	767702	6.00	7.34	
26 Ethyl ether	31	5.878	5.890	-0.012	91	160933	2.00	2.04	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	243042	2.00	2.04	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	142847	2.00	2.09	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	519985	2.00	2.06	
30 2-Methyl-2-propanol	59	6.352	6.416	-0.064	93	392983	2.00	2.49	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	242161	2.00	1.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	96	214948	2.00	2.03	
33 Carbon disulfide	76	6.741	6.740	0.001	98	726982	2.00	2.09	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	97	243980	2.00	2.07	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	623436	2.00	2.14	
36 Methyl tert-butyl ether	73	7.539	7.568	-0.029	96	621395	2.00	2.18	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	467616	2.00	2.02	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	521025	2.00	2.12	
40 Hexane	56	8.423	8.426	-0.003	91	229286	2.00	2.11	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	97	109289	2.00	2.15	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	764540	2.00	2.17	
42 cis-1,2-Dichloroethene	96	8.849	8.849	0.000	96	243225	2.00	1.98	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	475402	2.00	2.21	
44 Chloroform	83	9.200	9.198	0.002	96	497597	2.00	2.02	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	95	738131	2.00	2.19	
46 Tetrahydrofuran	42	9.615	9.640	-0.025	95	253787	2.00	2.16	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	543110	2.00	2.05	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	319109	2.00	2.02	
49 Cyclohexane	69	10.828	10.827	0.001	82	133736	2.00	2.20	
50 Benzene	78	10.828	10.829	-0.001	97	722712	2.00	2.09	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	538624	2.00	2.34	
51 n-Butanol	31	10.844	10.879	-0.035	65	71452	2.00	2.65	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	91	196328	2.00	2.16	
54 Thiophene	84	11.103	11.100	0.003	95	412053	2.00	2.06	
55 Isooctane	57	11.567	11.569	-0.002	99	1348886	2.00	2.15	
56 n-Heptane	71	11.933	11.933	0.000	90	291475	2.00	2.18	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	90	256494	2.00	2.05	
58 Trichloroethene	130	12.063	12.062	0.001	96	312969	2.00	2.05	
59 Dibromomethane	93	12.149	12.150	-0.001	92	266139	2.00	2.10	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	99	503322	2.00	2.21	
61 1,4-Dioxane	88	12.311	12.348	-0.037	89	101274	2.00	2.37	
62 Methyl methacrylate	41	12.370	12.382	-0.012	95	280248	2.00	2.33	
63 Methylcyclohexane	83	12.818	12.818	0.000	95	511298	2.00	2.17	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	97	489699	2.00	2.29	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	390184	2.00	2.13	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	340913	2.00	2.05	
67 Toluene	91	14.080	14.081	-0.001	94	762108	2.00	2.00	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	234138	2.00	2.04	
69 2-Hexanone	58	14.538	14.555	-0.017	94	251559	2.00	2.30	
70 n-Octane	85	14.743	14.747	-0.004	93	311102	2.00	2.16	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	463484	2.00	2.21	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	98	412095	2.00	2.13	
73 Tetrachloroethene	129	15.212	15.211	0.001	94	291644	2.00	2.02	
75 Chlorobenzene	112	16.080	16.080	0.000	80	630960	2.00	2.02	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	892847	2.00	2.17	
78 Ethylbenzene	91	16.361	16.359	0.002	98	1011900	2.00	2.14	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	98	1589277	4.00	4.35	
80 n-Nonane	57	16.916	16.919	-0.003	91	597737	2.00	2.17	
81 Bromoform	173	16.975	16.976	-0.001	92	381269	2.00	2.58	
82 Styrene	104	16.981	16.983	-0.002	98	575637	2.00	2.45	
83 o-Xylene	91	17.040	17.043	-0.003	99	845688	2.00	2.18	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	576602	2.00	2.29	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	176942	2.00	2.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1151599	2.00	2.14	
87 N-Propylbenzene	120	18.146	18.145	0.001	99	315843	2.00	2.24	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	286828	2.00	2.11	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	1152550	2.00	2.23	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	482496	2.00	2.26	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	447527	2.00	2.55	
93 n-Decane	57	18.625	18.628	-0.003	90	733395	2.00	2.18	
94 tert-Butylbenzene	119	18.776	18.776	0.000	93	1036702	2.00	2.23	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	996384	2.00	2.29	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	1466327	2.00	2.21	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	614182	2.00	2.17	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	750522	2.00	2.55	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	610632	2.00	2.13	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	1201261	2.00	2.30	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	1017505	2.00	2.30	
102 Butylcyclohexane	83	19.299	19.298	0.001	94	903681	2.00	2.11	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	894023	2.00	2.26	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	95	597552	2.00	2.20	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	1146980	2.00	2.37	
106 Indene	116	19.623	19.623	0.000	92	753565	2.00	2.58	
107 Undecane	57	19.909	19.910	-0.001	96	764364	2.00	2.19	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	95	271086	2.00	2.58	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	1105229	2.00	2.27	
110 Dodecane	57	20.960	20.961	-0.001	98	603518	2.00	2.30	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	93	398730	2.00	2.32	
112 Naphthalene	128	21.322	21.321	0.001	99	1066836	2.00	2.24	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	387914	2.00	2.11	
114 1,2,3-Trichlorobenzene	180	21.597	21.593	0.004	95	394456	2.00	2.14	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	402089	2.00	2.53	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	517447	2.00	2.53	
A 122 C8 Range	1	14.754	(14.690-14.827)		0	2665641	2.00	2.05	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.06	
S 124 Xylenes, Total	100				0		6.00	6.53	

Reagents:

40L7DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

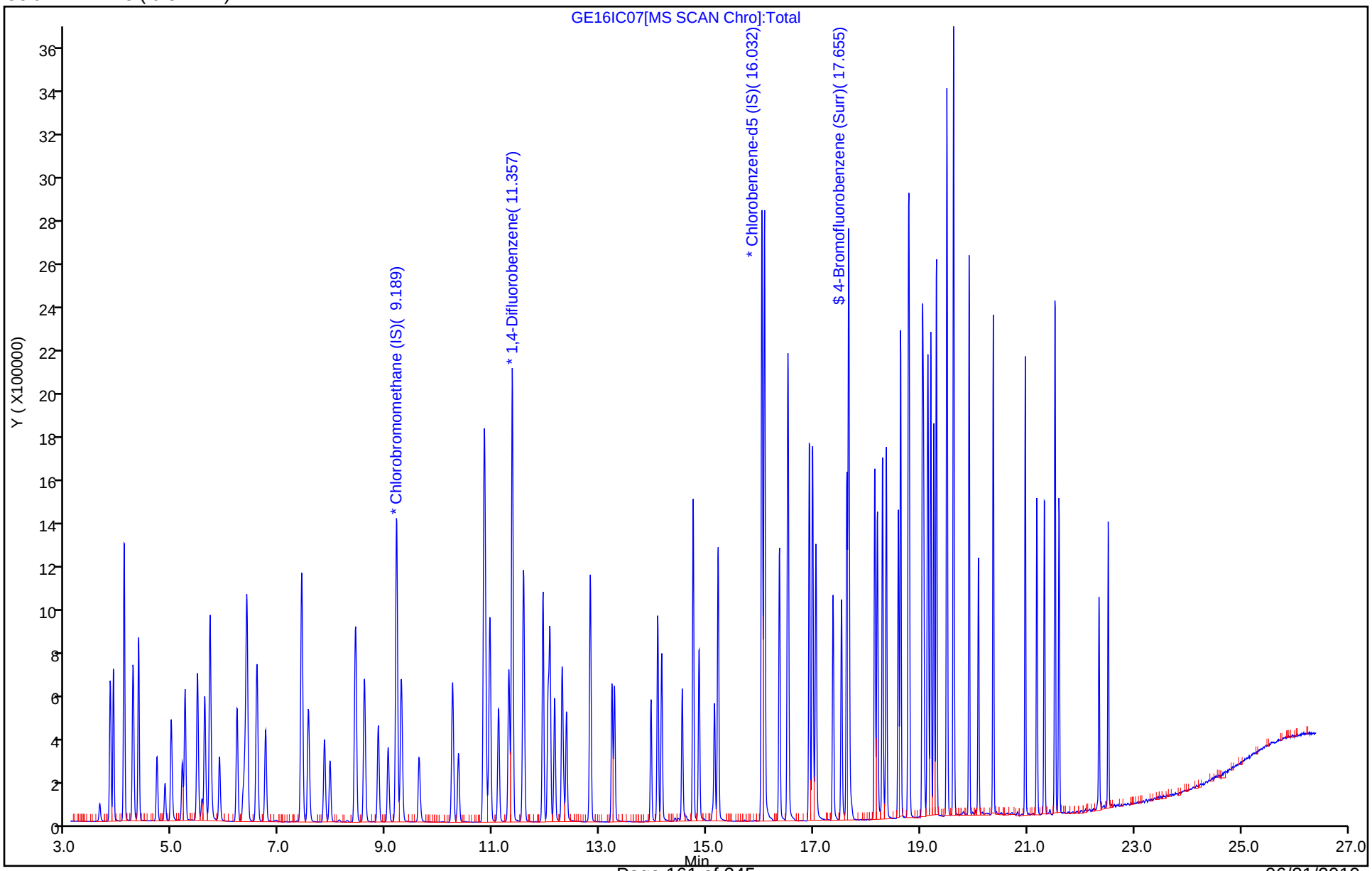
Report Date: 20-May-2019 14:51:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D

Injection Date:	17-May-2019 04:03:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	ICIS L7			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

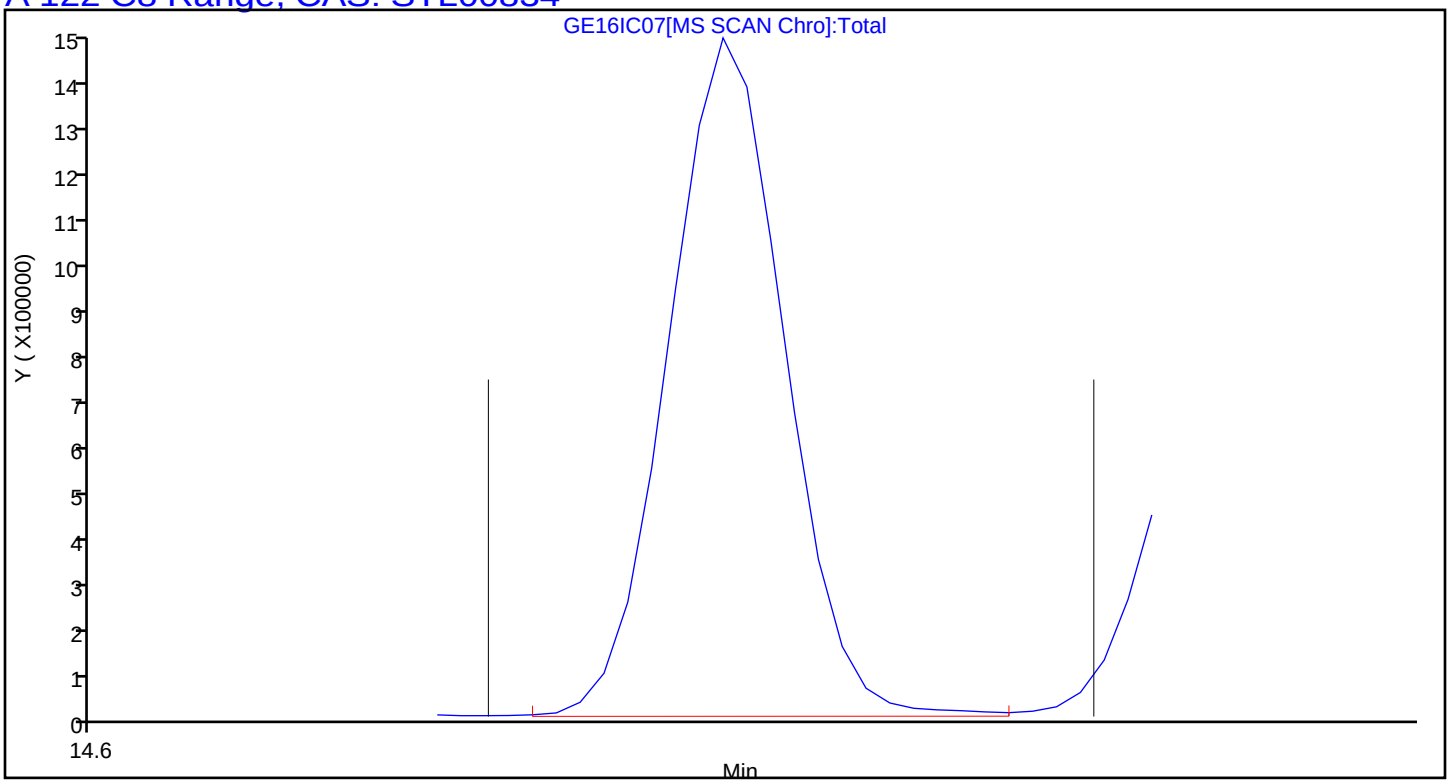


Report Date: 20-May-2019 14:51:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC07.D				
Injection Date:	17-May-2019 04:03:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-May-2019 04:45:30 ALS Bottle#: 6 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-015
Misc. Info.: 221640
Operator ID: 403648 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:52:07 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: tajh Date: 17-May-2019 14:59:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.187	0.002	96	370913	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.362	11.358	0.004	94	2389479	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	2009735	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	84	1273047	4.00	4.11	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	766229	4.00	3.55	
7 Propene	41	3.834	3.836	-0.002	98	409978	4.00	3.42	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	1254085	4.00	3.62	
9 Chloromethane	52	4.088	4.087	0.001	98	140725	4.00	3.53	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.092	0.001	95	790543	4.00	3.61	
11 Acetaldehyde	44	4.255	4.258	-0.003	98	772021	20.0	17.1	
12 Vinyl chloride	62	4.266	4.267	-0.001	98	507072	4.00	3.56	
13 Butane	43	4.363	4.360	0.003	85	746753	4.00	3.65	
14 Butadiene	54	4.363	4.361	0.002	67	396939	4.00	3.69	
15 Bromomethane	94	4.708	4.706	0.002	98	447136	4.00	3.67	
16 Chloroethane	64	4.859	4.857	0.002	98	254698	4.00	3.71	
17 Ethanol	31	4.972	4.993	-0.021	93	821812	20.0	18.3	
18 Vinyl bromide	106	5.182	5.179	0.003	99	446282	4.00	3.77	
19 2-Methylbutane	43	5.231	5.230	0.001	90	545358	4.00	3.71	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	1248146	4.00	3.71	
21 Acrolein	56	5.479	5.487	-0.008	91	67924	4.00	2.63	
22 Acetonitrile	40	5.549	5.554	-0.005	99	143030	4.00	4.11	
23 Acetone	58	5.597	5.617	-0.020	97	533318	12.0	11.2	
24 Pentane	72	5.695	5.694	0.000	97	89763	4.00	3.85	
25 Isopropyl alcohol	45	5.705	5.749	-0.044	98	1431482	12.0	12.1	
26 Ethyl ether	31	5.872	5.890	-0.018	90	331319	4.00	3.72	
27 1,1-Dichloroethene	96	6.207	6.205	0.002	96	494102	4.00	3.67	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	295011	4.00	3.83	
29 1,1,2-Trichloro-1,2,2-trif	101	6.390	6.386	0.004	94	1047041	4.00	3.67	
30 2-Methyl-2-propanol	59	6.342	6.416	-0.074	94	752730	4.00	4.23	
31 Methylene Chloride	84	6.573	6.569	0.004	96	480424	4.00	3.23	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.590	6.585	0.005	96	451902	4.00	3.79	
33 Carbon disulfide	76	6.741	6.740	0.001	98	1484479	4.00	3.78	
34 trans-1,2-Dichloroethene	96	7.409	7.404	0.005	98	506331	4.00	3.81	
35 2-Methylpentane	43	7.420	7.421	-0.001	94	1200675	4.00	3.66	
36 Methyl tert-butyl ether	73	7.539	7.568	-0.029	96	1296623	4.00	4.03	
37 1,1-Dichloroethane	63	7.846	7.842	0.004	100	960285	4.00	3.67	
38 Vinyl acetate	43	7.949	7.952	-0.003	100	1100615	4.00	3.97	
40 Hexane	56	8.428	8.426	0.002	92	457862	4.00	3.74	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	98	218765	4.00	3.82	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	1587721	4.00	3.99	
42 cis-1,2-Dichloroethene	96	8.854	8.849	0.005	95	509290	4.00	3.68	
43 Ethyl acetate	43	9.032	9.051	-0.019	99	966730	4.00	3.98	
44 Chloroform	83	9.205	9.198	0.007	96	1033190	4.00	3.72	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	94	1530134	4.00	4.03	
46 Tetrahydrofuran	42	9.609	9.640	-0.031	94	521363	4.00	3.94	
47 1,1,1-Trichloroethane	97	10.240	10.239	0.001	96	1109351	4.00	3.72	
48 1,2-Dichloroethane	62	10.354	10.350	0.004	98	683131	4.00	3.57	
49 Cyclohexane	69	10.828	10.827	0.001	91	264115	4.00	3.59	
50 Benzene	78	10.833	10.829	0.004	97	1505333	4.00	3.59	
52 Carbon tetrachloride	117	10.855	10.850	0.005	99	1094567	4.00	3.93	
51 n-Butanol	31	10.833	10.879	-0.046	65	122634	4.00	3.75	
53 2,3-Dimethylpentane	71	10.941	10.938	0.003	91	400662	4.00	3.65	
54 Thiophene	84	11.103	11.100	0.003	95	879622	4.00	3.63	
55 Isooctane	57	11.572	11.569	0.003	99	2714447	4.00	3.58	
56 n-Heptane	71	11.933	11.933	0.000	90	604522	4.00	3.73	
57 1,2-Dichloropropane	63	12.031	12.028	0.003	91	553896	4.00	3.66	
58 Trichloroethene	130	12.068	12.062	0.006	98	660236	4.00	3.57	
59 Dibromomethane	93	12.155	12.150	0.005	93	551004	4.00	3.59	
60 Dichlorobromomethane	83	12.295	12.290	0.005	99	1064499	4.00	3.87	
61 1,4-Dioxane	88	12.311	12.348	-0.037	86	200629	4.00	3.88	
62 Methyl methacrylate	41	12.376	12.382	-0.006	96	600850	4.00	4.13	
63 Methylcyclohexane	83	12.823	12.818	0.005	96	1043958	4.00	3.66	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.242	-0.020	96	1100009	4.00	4.26	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	93	826232	4.00	3.72	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	709449	4.00	3.70	
67 Toluene	91	14.085	14.081	0.004	94	1651334	4.00	3.76	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	495129	4.00	3.75	
69 2-Hexanone	58	14.538	14.555	-0.017	94	576169	4.00	4.58	
70 n-Octane	85	14.748	14.747	0.001	92	645160	4.00	3.89	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	1000345	4.00	4.15	
72 Ethylene Dibromide	107	15.147	15.143	0.004	99	857025	4.00	3.84	
73 Tetrachloroethene	129	15.212	15.211	0.001	95	617646	4.00	3.71	
75 Chlorobenzene	112	16.080	16.080	0.000	89	1328456	4.00	3.69	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	93	1729669	4.00	3.64	
78 Ethylbenzene	91	16.361	16.359	0.002	98	2173662	4.00	3.98	
79 m-Xylene & p-Xylene	91	16.522	16.519	0.003	97	3367264	8.00	8.00	
80 n-Nonane	57	16.921	16.919	0.002	90	1239804	4.00	3.91	
81 Bromoform	173	16.975	16.976	-0.001	92	809502	4.00	4.75	
82 Styrene	104	16.986	16.983	0.003	97	1232615	4.00	4.56	
83 o-Xylene	91	17.045	17.043	0.002	99	1814378	4.00	4.06	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	1192085	4.00	4.10	
85 1,2,3-Trichloropropane	110	17.525	17.523	0.002	98	373377	4.00	4.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	2482560	4.00	4.00	
87 N-Propylbenzene	120	18.145	18.145	0.000	99	677778	4.00	4.17	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	611471	4.00	3.90	
89 4-Ethyltoluene	105	18.291	18.290	0.001	99	2440515	4.00	4.09	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	1003240	4.00	4.08	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	90	969642	4.00	4.79	
93 n-Decane	57	18.631	18.628	0.003	90	1480434	4.00	3.82	
94 tert-Butylbenzene	119	18.776	18.776	0.000	94	2171366	4.00	4.06	
95 1,2,4-Trimethylbenzene	105	18.793	18.790	0.003	96	2066856	4.00	4.13	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	3039289	4.00	3.98	
97 1,3-Dichlorobenzene	146	19.062	19.059	0.003	99	1298002	4.00	3.98	
98 Benzyl chloride	91	19.132	19.130	0.002	98	1553950	4.00	4.58	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	94	1303721	4.00	3.94	
100 4-Isopropyltoluene	119	19.197	19.194	0.003	97	2499878	4.00	4.16	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	2125465	4.00	4.17	
102 Butylcyclohexane	83	19.299	19.298	0.001	95	1837131	4.00	3.72	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	95	1877846	4.00	4.11	
104 1,2-Dichlorobenzene	146	19.499	19.497	0.002	96	1244990	4.00	3.97	
105 n-Butylbenzene	91	19.618	19.618	0.000	99	2329083	4.00	4.17	
106 Indene	116	19.623	19.623	0.000	92	1576932	4.00	4.68	
107 Undecane	57	19.909	19.910	-0.001	95	1535512	4.00	3.82	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	97	583282	4.00	4.81	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	2304135	4.00	4.11	
110 Dodecane	57	20.960	20.961	-0.001	98	1230533	4.00	4.07	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	852171	4.00	4.29	
112 Naphthalene	128	21.322	21.321	0.001	99	2289996	4.00	4.17	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	92	815187	4.00	3.85	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	95	845498	4.00	3.97	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	891206	4.00	4.86	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	1122363	4.00	4.75	
A 122 C8 Range	1	14.790	(14.690-14.870)		0	5455808	4.00	3.65	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.50	
S 124 Xylenes, Total	100				0		12.0	12.1	

Reagents:

40L8DQP_00010	Amount Added: 200.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

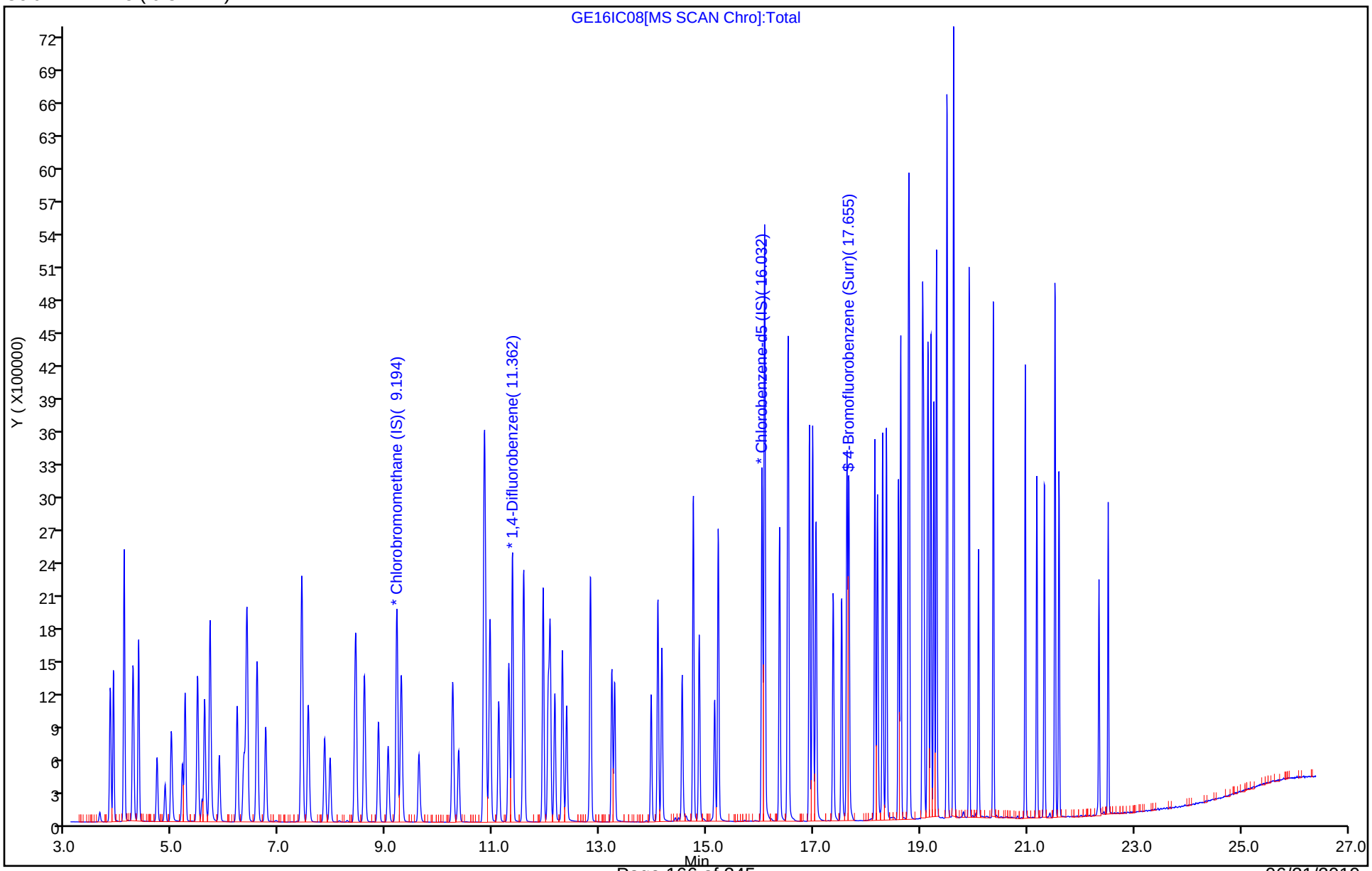
Report Date: 20-May-2019 14:52:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Injection Date:	17-May-2019 04:45:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	IC L8			Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

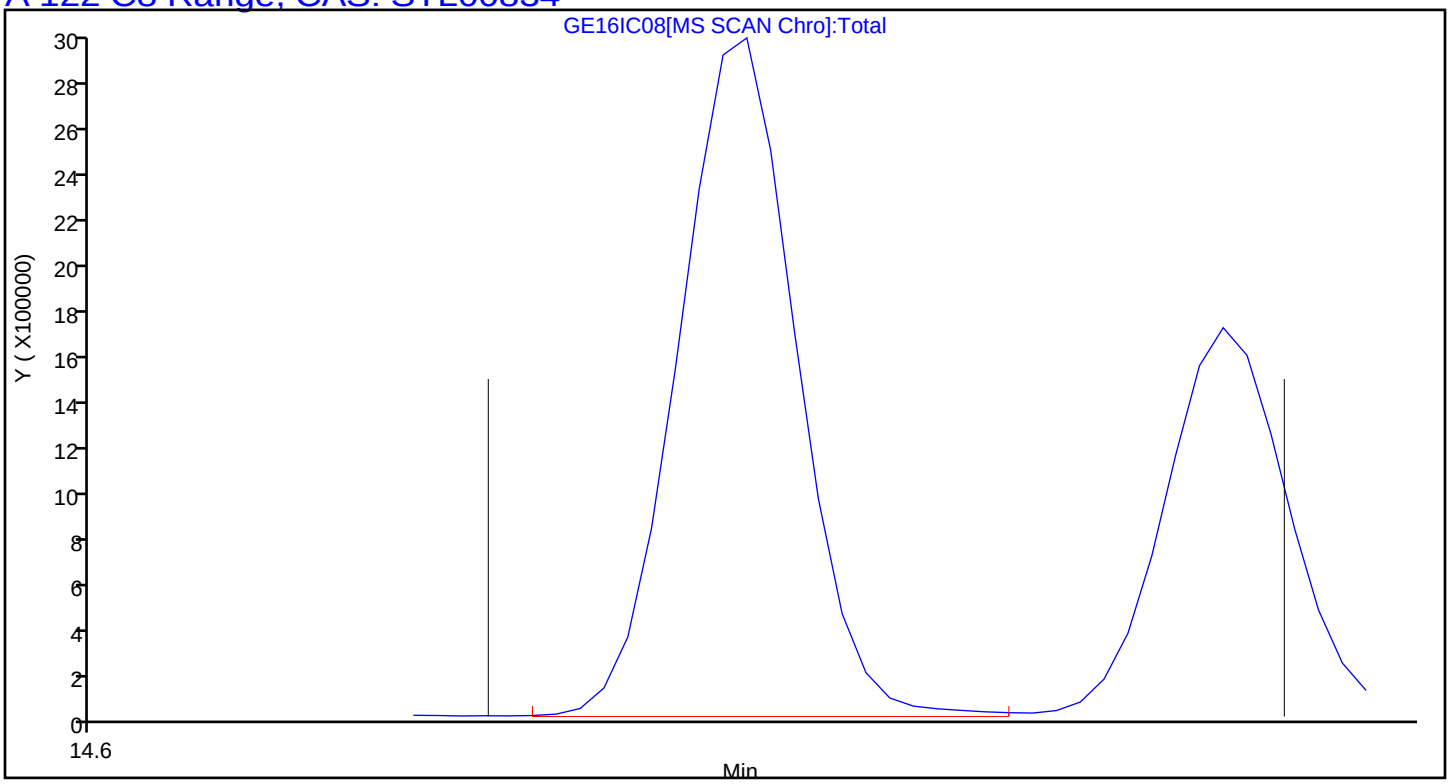


Report Date: 20-May-2019 14:52:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Injection Date:	17-May-2019 04:45:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.353		2.02	2.00	1.1	35.0
Propene	Ave	1.292	1.250		1.94	2.00	-3.2	35.0
Dichlorodifluoromethane	Ave	3.740	3.826		2.05	2.00	2.3	35.0
Chloromethane	Ave	0.4296	0.4224		1.97	2.00	-1.7	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.344		1.99	2.00	-0.6	35.0
Acetaldehyde	Ave	0.4863	0.4173		8.58	10.0	-14.2	35.0
Vinyl chloride	Ave	1.536	1.536		2.00	2.00	-0.0	35.0
Butane	Ave	2.208	2.269		2.06	2.00	2.8	35.0
1,3-Butadiene	Ave	1.159	1.164		2.01	2.00	0.5	35.0
Bromomethane	Ave	1.314	1.284		1.96	2.00	-2.2	35.0
Chloroethane	Ave	0.7408	0.7523		2.03	2.00	1.5	35.0
Ethanol	Ave	0.4835	0.3198		6.61	10.0	-33.9	35.0
Vinyl bromide	Ave	1.277	1.348		2.11	2.00	5.5	35.0
2-Methylbutane	Ave	1.585	1.634		2.06	2.00	3.1	35.0
Trichlorofluoromethane	Ave	3.627	3.673		2.03	2.00	1.3	35.0
Acrolein	Ave	0.2782	0.2689		1.93	2.00	-3.3	35.0
Acetonitrile	Ave	0.3750	0.3487		1.86	2.00	-7.0	35.0
Acetone	Ave	0.5114	0.4488		1.76	2.00	-12.2	35.0
Pentane	Ave	0.2515	0.2719		2.16	2.00	8.1	35.0
Isopropyl alcohol	Ave	1.273	1.438		2.26	2.00	13.0	35.0
Ethyl ether	Ave	0.9611	0.8922		1.86	2.00	-7.2	35.0
1,1-Dichloroethene	Ave	1.451	1.454		2.00	2.00	0.2	35.0
Acrylonitrile	Ave	0.8296	0.7780		1.88	2.00	-6.2	35.0
tert-Butyl alcohol	Ave	1.921	1.812		1.89	2.00	-5.7	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	3.149		2.05	2.00	2.3	35.0
Methylene Chloride	Ave	1.605	1.466		1.83	2.00	-8.6	35.0
3-Chloropropene	Ave	1.287	1.300		2.02	2.00	1.0	35.0
Carbon disulfide	Ave	4.233	4.355		2.06	2.00	2.9	35.0
trans-1,2-Dichloroethene	Ave	1.432	1.472		2.06	2.00	2.8	35.0
2-Methylpentane	Ave	3.538	3.443		1.95	2.00	-2.7	35.0
Methyl tert-butyl ether	Ave	3.471	2.970		1.71	2.00	-14.5	35.0
1,1-Dichloroethane	Ave	2.819	2.829		2.01	2.00	0.4	35.0
Vinyl acetate	Ave	2.990	2.712		1.81	2.00	-9.3	35.0
2-Butanone (MEK)	Ave	0.6179	0.4774		1.55	2.00	-22.7	35.0
Hexane	Ave	1.322	1.386		2.10	2.00	4.8	35.0
Isopropyl ether	Ave	4.291	3.763		1.75	2.00	-12.3	35.0
cis-1,2-Dichloroethene	Ave	1.491	1.527		2.05	2.00	2.4	35.0
Ethyl acetate	Ave	2.619	1.981		1.51	2.00	-24.4	35.0
Chloroform	Ave	2.997	3.001		2.00	2.00	0.1	35.0
Tert-butyl ethyl ether	Ave	4.092	3.294		1.61	2.00	-19.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.202		1.68	2.00	-15.8	35.0
1,1,1-Trichloroethane	Ave	3.217	3.244		2.02	2.00	0.9	35.0
1,2-Dichloroethane	Ave	0.3199	0.3179		1.99	2.00	-0.6	35.0
Benzene	Ave	0.7021	0.7120		2.03	2.00	1.4	35.0
Cyclohexane	Ave	0.1232	0.1277		2.07	2.00	3.7	35.0
Carbon tetrachloride	Ave	0.4658	0.5175		2.22	2.00	11.1	35.0
1-Butanol	Ave	0.0547	0.0509		1.86	2.00	-7.0	35.0
2,3-Dimethylpentane	Ave	0.1839	0.1823		1.98	2.00	-0.9	35.0
Thiophene	Ave	0.4060	0.3940		1.94	2.00	-3.0	35.0
2,2,4-Trimethylpentane	Ave	1.270	1.267		2.00	2.00	-0.2	35.0
Heptane	Ave	0.2716	0.2721		2.00	2.00	0.2	35.0
1,2-Dichloropropane	Ave	0.2531	0.2541		2.01	2.00	0.4	35.0
Trichloroethene	Ave	0.3093	0.3078		1.99	2.00	-0.5	35.0
Dibromomethane	Ave	0.2572	0.2563		1.99	2.00	-0.3	35.0
Bromodichloromethane	Ave	0.4606	0.4736		2.06	2.00	2.8	35.0
1,4-Dioxane	Ave	0.0865	0.0654		1.51	2.00	-24.4	35.0
Methyl methacrylate	Ave	0.2435	0.1935		1.59	2.00	-20.5	35.0
Methylcyclohexane	Ave	0.4773	0.5862		2.46	2.00	22.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3244		1.50	2.00	-25.0	35.0
cis-1,3-Dichloropropene	Ave	0.3720	0.3897		2.10	2.00	4.8	35.0
trans-1,3-Dichloropropene	Ave	0.3814	0.3891		2.04	2.00	2.0	35.0
Toluene	Ave	0.8742	0.8744		2.00	2.00	0.0	35.0
1,1,2-Trichloroethane	Ave	0.2626	0.2559		1.95	2.00	-2.6	35.0
2-Hexanone	Ave	0.2504	0.2059		1.64	2.00	-17.8	35.0
Octane	Ave	0.3299	0.3511		2.13	2.00	6.4	35.0
Dibromochloromethane	Ave	0.4800	0.5274		2.20	2.00	9.9	35.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4720		2.12	2.00	6.2	35.0
Tetrachloroethene	Ave	0.3313	0.3336		2.01	2.00	0.7	35.0
2,3-Dimethylheptane	Ave	0.9448	0.8994		1.90	2.00	-4.8	35.0
Chlorobenzene	Ave	0.7172	0.7354		2.05	2.00	2.5	35.0
Ethylbenzene	Ave	1.087	1.042		1.92	2.00	-4.1	35.0
m-Xylene & p-Xylene	Ave	0.8375	0.8041		3.84	4.00	-4.0	35.0
Nonane	Ave	0.6318	0.6745		2.14	2.00	6.8	35.0
Bromoform	Ave	0.3394	0.4272		2.52	2.00	25.9	35.0
Styrene	Ave	0.5382	0.5876		2.18	2.00	9.2	35.0
o-Xylene	Ave	0.8888	0.8210		1.85	2.00	-7.6	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5389		1.86	2.00	-6.8	35.0
1,2,3-Trichloropropane	Ave	0.1851	0.1627		1.76	2.00	-12.1	35.0
Isopropylbenzene	Ave	1.236	1.137		1.84	2.00	-8.0	35.0
Propylbenzene	Ave	0.3233	0.3045		1.88	2.00	-5.8	35.0
2-Chlorotoluene	Ave	0.3121	0.3054		1.96	2.00	-2.1	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: ICV 140-30104/17 Calibration Date: 05/17/2019 06:12

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GE16ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.015		1.71	2.00	-14.4	35.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.4871		1.99	2.00	-0.5	35.0
Alpha Methyl Styrene	Ave	0.4029	0.4047		2.01	2.00	0.4	35.0
Decane	Ave	0.7713	0.7474		1.94	2.00	-3.1	35.0
tert-Butylbenzene	Ave	1.065	0.9451		1.77	2.00	-11.3	35.0
1,2,4-Trimethylbenzene	Ave	0.996	0.8850		1.78	2.00	-11.2	35.0
sec-Butylbenzene	Ave	1.518	1.352		1.78	2.00	-11.0	35.0
1,3-Dichlorobenzene	Ave	0.6493	0.6193		1.91	2.00	-4.6	35.0
Benzyl chloride	Ave	0.6747	0.6538		1.94	2.00	-3.1	35.0
1,4-Dichlorobenzene	Ave	0.6587	0.6126		1.86	2.00	-7.0	35.0
4-Isopropyltoluene	Ave	1.197	1.046		1.75	2.00	-12.6	35.0
1,2,3-Trimethylbenzene	Ave	1.014	0.6690		1.32	2.00	-34.0	35.0
Butylcyclohexane	Ave	0.9816	0.9071		1.85	2.00	-7.6	35.0
1,2-Dichlorobenzene	Ave	0.6242	0.5754		1.84	2.00	-7.8	35.0
Indane	Ave	0.9088	0.8067		1.78	2.00	-11.2	35.0
Butylbenzene	Ave	1.112	0.9886		1.78	2.00	-11.1	35.0
Indene	Ave	0.6707	0.5774		1.72	2.00	-13.9	35.0
Undecane	Ave	0.8005	0.6893		1.72	2.00	-13.9	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.1836		1.52	2.00	-23.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.8471		1.52	2.00	-24.1	35.0
Dodecane	Ave	0.6023	0.5266		1.75	2.00	-12.6	35.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.3357		1.70	2.00	-15.0	35.0
Naphthalene	Ave	1.094	0.8660		1.58	2.00	-20.8	35.0
Hexachlorobutadiene	Ave	0.4216	0.3544		1.68	2.00	-15.9	35.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3324		1.57	2.00	-21.6	35.0
2-Methylnaphthalene	Ave	0.3649	0.4118		2.26	2.00	12.9	50.0
1-Methylnaphthalene	Ave	0.4700	0.5126		2.18	2.00	9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.6208		4.03	4.00	0.8	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 17-May-2019 06:12:30 ALS Bottle#: 7 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011759-017
Misc. Info.: 221584(S92)
Operator ID: 403648 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 15:53:27 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0304

First Level Reviewer: liul Date: 20-May-2019 15:53:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.183	9.187	-0.004	97	352427	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.357	11.358	-0.001	95	2232921	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.032	16.032	0.000	88	1850171	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.655	17.656	-0.001	88	1148629	4.00	4.03	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	414694	2.00	2.02	
7 Propene	41	3.834	3.836	-0.002	99	220284	2.00	1.94	
8 Dichlorodifluoromethane	85	3.888	3.889	-0.001	100	674230	2.00	2.05	
9 Chloromethane	52	4.082	4.087	-0.005	99	74424	2.00	1.97	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.092	-0.004	94	412980	2.00	1.99	
11 Acetaldehyde	44	4.255	4.258	-0.003	97	367697	10.0	8.58	
12 Vinyl chloride	62	4.266	4.267	-0.001	99	270599	2.00	2.00	
13 Butane	43	4.357	4.360	-0.003	85	399818	2.00	2.06	
14 Butadiene	54	4.363	4.361	0.002	65	205150	2.00	2.01	
15 Bromomethane	94	4.702	4.706	-0.004	99	226295	2.00	1.96	
16 Chloroethane	64	4.853	4.857	-0.004	98	132556	2.00	2.03	
17 Ethanol	31	4.977	4.993	-0.016	93	281733	10.0	6.61	
18 Vinyl bromide	106	5.177	5.179	-0.002	99	237501	2.00	2.11	
19 2-Methylbutane	43	5.231	5.230	0.001	90	287953	2.00	2.06	
20 Trichlorofluoromethane	101	5.463	5.462	0.001	99	647210	2.00	2.03	
21 Acrolein	56	5.479	5.487	-0.008	91	47388	2.00	1.93	
22 Acetonitrile	40	5.549	5.554	-0.005	99	61440	2.00	1.86	
23 Acetone	58	5.608	5.617	-0.009	97	79091	2.00	1.76	
24 Pentane	72	5.695	5.694	0.001	98	47912	2.00	2.16	
25 Isopropyl alcohol	45	5.722	5.749	-0.027	93	253461	2.00	2.26	
26 Ethyl ether	31	5.878	5.890	-0.012	91	157221	2.00	1.86	
27 1,1-Dichloroethene	96	6.201	6.205	-0.004	96	256257	2.00	2.00	
28 Acrylonitrile	53	6.320	6.326	-0.006	96	137098	2.00	1.88	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.386	-0.001	94	554980	2.00	2.05	
30 2-Methyl-2-propanol	59	6.363	6.416	-0.053	94	319348	2.00	1.89	
31 Methylene Chloride	84	6.568	6.569	-0.001	97	258373	2.00	1.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.584	6.585	-0.001	96	229059	2.00	2.02	
33 Carbon disulfide	76	6.735	6.740	-0.005	98	767431	2.00	2.06	
34 trans-1,2-Dichloroethene	96	7.404	7.404	0.000	98	259419	2.00	2.06	
35 2-Methylpentane	43	7.420	7.421	-0.001	95	606616	2.00	1.95	
36 Methyl tert-butyl ether	73	7.544	7.568	-0.024	97	523293	2.00	1.71	
37 1,1-Dichloroethane	63	7.841	7.842	-0.001	100	498573	2.00	2.01	
38 Vinyl acetate	43	7.943	7.952	-0.009	100	477911	2.00	1.81	
40 Hexane	56	8.429	8.426	0.002	91	244154	2.00	2.10	
39 2-Butanone (MEK)	72	8.407	8.428	-0.021	95	84126	2.00	1.55	
41 Isopropyl ether	45	8.590	8.611	-0.021	97	663072	2.00	1.75	
42 cis-1,2-Dichloroethene	96	8.844	8.849	-0.005	95	269157	2.00	2.05	
43 Ethyl acetate	43	9.038	9.051	-0.013	99	348990	2.00	1.51	
44 Chloroform	83	9.194	9.198	-0.004	97	528735	2.00	2.00	
45 Tert-butyl ethyl ether	59	9.280	9.306	-0.026	95	580374	2.00	1.61	
46 Tetrahydrofuran	42	9.615	9.640	-0.025	95	211769	2.00	1.68	
47 1,1,1-Trichloroethane	97	10.235	10.239	-0.004	96	571722	2.00	2.02	
48 1,2-Dichloroethane	62	10.348	10.350	-0.002	98	354922	2.00	1.99	
49 Cyclohexane	69	10.828	10.827	0.001	75	142604	2.00	2.07	
50 Benzene	78	10.828	10.829	-0.001	96	794932	2.00	2.03	
52 Carbon tetrachloride	117	10.850	10.850	0.000	97	577813	2.00	2.22	
51 n-Butanol	31	10.855	10.879	-0.024	65	56838	2.00	1.86	
53 2,3-Dimethylpentane	71	10.936	10.938	-0.002	91	203473	2.00	1.98	
54 Thiophene	84	11.098	11.100	-0.002	95	439891	2.00	1.94	
55 Isooctane	57	11.567	11.569	-0.002	99	1414744	2.00	2.00	
56 n-Heptane	71	11.934	11.933	0.001	90	303749	2.00	2.00	
57 1,2-Dichloropropane	63	12.025	12.028	-0.003	90	283693	2.00	2.01	
58 Trichloroethene	130	12.063	12.062	0.001	96	343628	2.00	1.99	
59 Dibromomethane	93	12.149	12.150	-0.001	92	286118	2.00	1.99	
60 Dichlorobromomethane	83	12.289	12.290	-0.001	99	528721	2.00	2.06	
61 1,4-Dioxane	88	12.322	12.348	-0.026	91	73023	2.00	1.51	
62 Methyl methacrylate	41	12.376	12.382	-0.006	94	216048	2.00	1.59	
63 Methylcyclohexane	83	12.818	12.818	0.000	96	654467	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.242	-0.014	97	362198	2.00	1.50	
65 cis-1,3-Dichloropropene	75	13.271	13.271	0.000	94	435116	2.00	2.10	
66 trans-1,3-Dichloropropene	75	13.956	13.956	0.000	98	359947	2.00	2.04	
67 Toluene	91	14.080	14.081	-0.001	94	808894	2.00	2.00	
68 1,1,2-Trichloroethane	83	14.155	14.156	-0.001	98	236751	2.00	1.95	
69 2-Hexanone	58	14.543	14.555	-0.012	94	190503	2.00	1.64	
70 n-Octane	85	14.743	14.747	-0.004	92	324748	2.00	2.13	
71 Chlorodibromomethane	129	14.856	14.854	0.002	98	487858	2.00	2.20	
72 Ethylene Dibromide	107	15.142	15.143	-0.001	99	436663	2.00	2.12	
73 Tetrachloroethene	129	15.212	15.211	0.001	95	308619	2.00	2.01	
75 Chlorobenzene	112	16.080	16.080	0.000	93	680316	2.00	2.05	
74 2,3-Dimethylheptane	43	16.080	16.080	0.000	94	832053	2.00	1.90	
78 Ethylbenzene	91	16.361	16.359	0.002	98	963979	2.00	1.92	
79 m-Xylene & p-Xylene	91	16.517	16.519	-0.002	97	1487663	4.00	3.84	
80 n-Nonane	57	16.916	16.919	-0.003	92	623962	2.00	2.14	
81 Bromoform	173	16.975	16.976	-0.001	92	395229	2.00	2.52	
82 Styrene	104	16.981	16.983	-0.002	97	543547	2.00	2.18	
83 o-Xylene	91	17.040	17.043	-0.003	99	759493	2.00	1.85	
84 1,1,2,2-Tetrachloroethane	83	17.364	17.365	-0.001	99	498551	2.00	1.86	
85 1,2,3-Trichloropropane	110	17.520	17.523	-0.003	98	150516	2.00	1.76	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.622	17.622	0.000	96	1051357	2.00	1.84	
87 N-Propylbenzene	120	18.146	18.145	0.001	99	281692	2.00	1.88	
88 2-Chlorotoluene	126	18.194	18.194	0.000	97	282554	2.00	1.96	
89 4-Ethyltoluene	105	18.286	18.290	-0.004	99	939296	2.00	1.71	
90 1,3,5-Trimethylbenzene	120	18.361	18.362	-0.001	93	450604	2.00	1.99	
92 Alpha Methyl Styrene	118	18.588	18.585	0.003	89	374404	2.00	2.01	
93 n-Decane	57	18.625	18.628	-0.003	90	691408	2.00	1.94	
94 tert-Butylbenzene	119	18.771	18.776	-0.005	93	874283	2.00	1.77	
95 1,2,4-Trimethylbenzene	105	18.787	18.790	-0.003	96	818671	2.00	1.78	
96 sec-Butylbenzene	105	19.035	19.037	-0.002	99	1250610	2.00	1.78	
97 1,3-Dichlorobenzene	146	19.057	19.059	-0.002	99	572886	2.00	1.91	
98 Benzyl chloride	91	19.127	19.130	-0.003	98	604840	2.00	1.94	
99 1,4-Dichlorobenzene	146	19.143	19.145	-0.002	93	566661	2.00	1.86	
100 4-Isopropyltoluene	119	19.192	19.194	-0.002	97	967809	2.00	1.75	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	98	618864	2.00	1.32	
102 Butylcyclohexane	83	19.300	19.298	0.002	95	839184	2.00	1.85	
103 2,3-Dihydroindene	117	19.494	19.495	-0.001	94	746294	2.00	1.78	
104 1,2-Dichlorobenzene	146	19.494	19.497	-0.003	81	532262	2.00	1.84	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	914571	2.00	1.78	
106 Indene	116	19.623	19.623	0.000	95	534116	2.00	1.72	
107 Undecane	57	19.909	19.910	-0.001	96	637632	2.00	1.72	
108 1,2-Dibromo-3-Chloropropan	157	20.087	20.087	0.000	96	169887	2.00	1.52	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.363	-0.001	97	783604	2.00	1.52	
110 Dodecane	57	20.960	20.961	-0.001	98	487170	2.00	1.75	
111 1,2,4-Trichlorobenzene	180	21.176	21.178	-0.002	94	310582	2.00	1.70	
112 Naphthalene	128	21.322	21.321	0.001	99	801158	2.00	1.58	
113 Hexachlorobutadiene	225	21.521	21.520	0.001	91	327889	2.00	1.68	
114 1,2,3-Trichlorobenzene	180	21.591	21.593	-0.002	94	307465	2.00	1.57	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	99	380993	2.00	2.26	
116 1-Methylnaphthalene	142	22.513	22.514	-0.001	99	474174	2.00	2.18	
A 122 C8 Range	1	14.780	(14.690-14.870)		0	2784982	2.00	2.02	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.10	
S 124 Xylenes, Total	100				0		6.00	5.69	

Reagents:

40CV101S_00092	Amount Added: 100.00	Units: mL	
40MXISSURP_00003	Amount Added: 40.00	Units: mL	Run Reagent

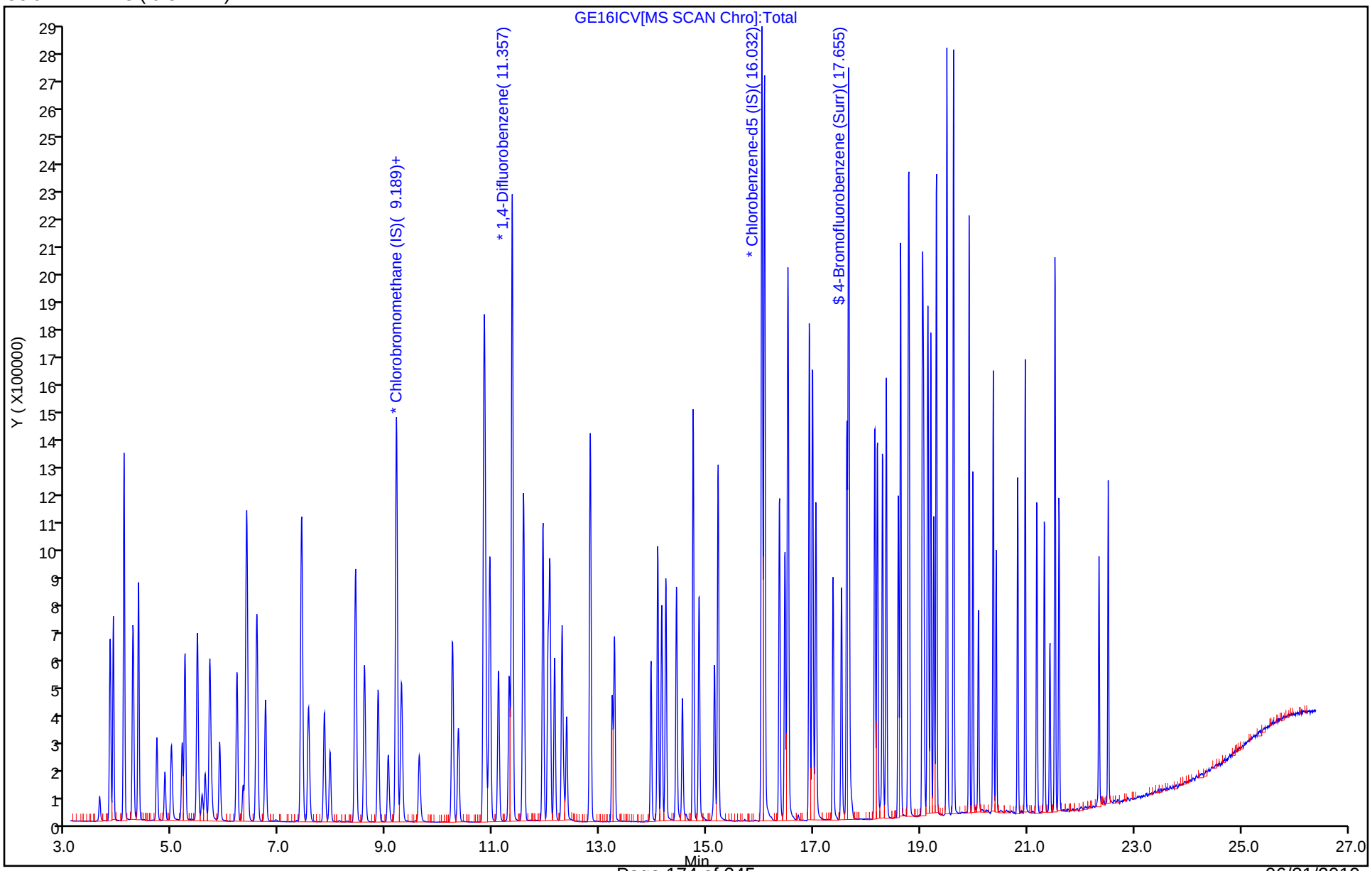
Report Date: 20-May-2019 15:53:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16ICV.D

Injection Date:	17-May-2019 06:12:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30705/2 Calibration Date: 06/12/2019 09:59

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.340		2.01	2.00	0.6	30.0
Propene	Ave	1.292	1.363		2.11	2.00	5.5	30.0
Dichlorodifluoromethane	Ave	3.740	3.730		1.99	2.00	-0.3	30.0
Chloromethane	Ave	0.4296	0.4130		1.92	2.00	-3.9	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.151		1.82	2.00	-8.8	30.0
Acetaldehyde	Ave	0.4863	0.4189		8.61	10.0	-13.9	30.0
Vinyl chloride	Ave	1.536	1.445		1.88	2.00	-6.0	30.0
1,3-Butadiene	Ave	1.159	1.122		1.94	2.00	-3.1	30.0
Butane	Ave	2.208	2.271		2.06	2.00	2.8	30.0
Bromomethane	Ave	1.314	1.161		1.77	2.00	-11.6	30.0
Chloroethane	Ave	0.7408	0.6733		1.82	2.00	-9.1	30.0
Ethanol	Ave	0.4835	0.3166		6.55	10.0	-34.5*	30.0
Vinyl bromide	Ave	1.277	1.192		1.87	2.00	-6.6	30.0
2-Methylbutane	Ave	1.585	1.596		2.01	2.00	0.7	30.0
Trichlorofluoromethane	Ave	3.627	3.576		1.97	2.00	-1.4	30.0
Acrolein	Ave	0.2782	0.3108		2.23	2.00	11.7	30.0
Acetonitrile	Ave	0.3750	0.3818		2.04	2.00	1.8	30.0
Acetone	Ave	0.5114	0.4451		1.74	2.00	-13.0	30.0
Pentane	Ave	0.2515	0.2512		2.00	2.00	-0.1	30.0
Isopropyl alcohol	Ave	1.273	1.324		2.08	2.00	4.1	30.0
Ethyl ether	Ave	0.9611	0.9818		2.04	2.00	2.1	30.0
1,1-Dichloroethene	Ave	1.451	1.320		1.82	2.00	-9.0	30.0
Acrylonitrile	Ave	0.8296	0.8686		2.09	2.00	4.7	30.0
tert-Butyl alcohol	Ave	1.921	1.607		1.67	2.00	-16.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	2.887		1.88	2.00	-6.2	30.0
Methylene Chloride	Ave	1.605	1.351		1.68	2.00	-15.8	30.0
3-Chloropropene	Ave	1.287	1.287		2.00	2.00	0.0	30.0
Carbon disulfide	Ave	4.233	4.032		1.91	2.00	-4.7	30.0
trans-1,2-Dichloroethene	Ave	1.432	1.331		1.86	2.00	-7.1	30.0
2-Methylpentane	Ave	3.538	3.342		1.89	2.00	-5.5	30.0
Methyl tert-butyl ether	Ave	3.471	3.352		1.93	2.00	-3.4	30.0
1,1-Dichloroethane	Ave	2.819	2.791		1.98	2.00	-1.0	30.0
Vinyl acetate	Ave	2.990	3.230		2.16	2.00	8.0	30.0
2-Butanone (MEK)	Ave	0.6179	0.5280		1.71	2.00	-14.5	30.0
Hexane	Ave	1.322	1.309		1.98	2.00	-0.9	30.0
Isopropyl ether	Ave	4.291	4.338		2.02	2.00	1.1	30.0
cis-1,2-Dichloroethene	Ave	1.491	1.420		1.90	2.00	-4.8	30.0
Ethyl acetate	Ave	2.619	2.530		1.93	2.00	-3.4	30.0
Chloroform	Ave	2.997	3.067		2.05	2.00	2.3	30.0
Tert-butyl ethyl ether	Ave	4.092	3.749		1.83	2.00	-8.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30705/2 Calibration Date: 06/12/2019 09:59

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.448		2.03	2.00	1.4	30.0
1,1,1-Trichloroethane	Ave	3.217	3.318		2.06	2.00	3.1	30.0
1,2-Dichloroethane	Ave	0.3199	0.3617		2.26	2.00	13.1	30.0
Benzene	Ave	0.7021	0.7508		2.14	2.00	6.9	30.0
Cyclohexane	Ave	0.1232	0.1282		2.08	2.00	4.0	30.0
1-Butanol	Ave	0.0547	0.0538		1.97	2.00	-1.7	30.0
Carbon tetrachloride	Ave	0.4658	0.5563		2.39	2.00	19.4	30.0
2,3-Dimethylpentane	Ave	0.1839	0.1848		2.01	2.00	0.5	30.0
Thiophene	Ave	0.4060	0.4037		1.99	2.00	-0.6	30.0
2,2,4-Trimethylpentane	Ave	1.270	1.337		2.11	2.00	5.3	30.0
Heptane	Ave	0.2716	0.2738		2.02	2.00	0.8	30.0
1,2-Dichloropropane	Ave	0.2531	0.2614		2.07	2.00	3.3	30.0
Trichloroethene	Ave	0.3093	0.3119		2.02	2.00	0.8	30.0
Dibromomethane	Ave	0.2572	0.2744		2.13	2.00	6.7	30.0
Bromodichloromethane	Ave	0.4606	0.5227		2.27	2.00	13.5	30.0
1,4-Dioxane	Ave	0.0865	0.0657		1.52	2.00	-24.0	30.0
Methyl methacrylate	Ave	0.2435	0.2750		2.26	2.00	12.9	30.0
Methylcyclohexane	Ave	0.4773	0.5881		2.46	2.00	23.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3365		1.56	2.00	-22.2	30.0
cis-1,3-Dichloropropene	Ave	0.3720	0.4167		2.24	2.00	12.0	30.0
trans-1,3-Dichloropropene	Ave	0.3814	0.3953		2.07	2.00	3.6	30.0
Toluene	Ave	0.8742	0.8121		1.86	2.00	-7.1	30.0
1,1,2-Trichloroethane	Ave	0.2626	0.2441		1.86	2.00	-7.0	30.0
2-Hexanone	Ave	0.2504	0.1696		1.35	2.00	-32.3*	30.0
Octane	Ave	0.3299	0.3212		1.95	2.00	-2.6	30.0
Dibromochloromethane	Ave	0.4800	0.5091		2.12	2.00	6.1	30.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4497		2.02	2.00	1.1	30.0
Tetrachloroethene	Ave	0.3313	0.3122		1.88	2.00	-5.8	30.0
2,3-Dimethylheptane	Ave	0.9448	0.8891		1.88	2.00	-5.9	30.0
Chlorobenzene	Ave	0.7172	0.6794		1.89	2.00	-5.3	30.0
Ethylbenzene	Ave	1.087	1.076		1.98	2.00	-1.0	30.0
m-Xylene & p-Xylene	Ave	0.8375	0.8537		4.08	4.00	1.9	30.0
Nonane	Ave	0.6318	0.6486		2.05	2.00	2.7	30.0
Bromoform	Ave	0.3394	0.3963		2.34	2.00	16.8	30.0
Styrene	Ave	0.5382	0.6315		2.35	2.00	17.3	30.0
o-Xylene	Ave	0.8888	0.8797		1.98	2.00	-1.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5911		2.04	2.00	2.2	30.0
1,2,3-Trichloropropane	Ave	0.1851	0.1862		2.01	2.00	0.6	30.0
Isopropylbenzene	Ave	1.236	1.210		1.96	2.00	-2.1	30.0
Propylbenzene	Ave	0.3233	0.3319		2.05	2.00	2.6	30.0
2-Chlorotoluene	Ave	0.3121	0.3065		1.96	2.00	-1.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30705/2 Calibration Date: 06/12/2019 09:59

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.163		1.96	2.00	-2.0	30.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.5452		2.23	2.00	11.3	30.0
Alpha Methyl Styrene	Ave	0.4029	0.4777		2.37	2.00	18.6	30.0
Decane	Ave	0.7713	0.7918		2.05	2.00	2.7	30.0
tert-Butylbenzene	Ave	1.065	1.061		1.99	2.00	-0.4	30.0
1,2,4-Trimethylbenzene	Ave	0.996	1.049		2.11	2.00	5.3	30.0
sec-Butylbenzene	Ave	1.518	1.511		1.99	2.00	-0.5	30.0
1,3-Dichlorobenzene	Ave	0.6493	0.6525		2.01	2.00	0.5	30.0
Benzyl chloride	Ave	0.6747	0.9096		2.70	2.00	34.8*	30.0
1,4-Dichlorobenzene	Ave	0.6587	0.6582		2.00	2.00	-0.0	30.0
4-Isopropyltoluene	Ave	1.197	1.201		2.01	2.00	0.3	30.0
1,2,3-Trimethylbenzene	Ave	1.014	0.7797		1.54	2.00	-23.1	30.0
Butylcyclohexane	Ave	0.9816	0.8844		1.80	2.00	-9.9	30.0
Indane	Ave	0.9088	0.9072		2.00	2.00	-0.2	30.0
1,2-Dichlorobenzene	Ave	0.6242	0.6260		2.01	2.00	0.3	30.0
Butylbenzene	Ave	1.112	1.233		2.22	2.00	10.9	30.0
Indene	Ave	0.6707	0.7005		2.09	2.00	4.4	30.0
Undecane	Ave	0.8005	0.7932		1.98	2.00	-0.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.2098		1.74	2.00	-13.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.8823		1.58	2.00	-21.0	30.0
Dodecane	Ave	0.6023	0.4852		1.61	2.00	-19.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.4593		2.33	2.00	16.3	30.0
Naphthalene	Ave	1.094	1.020		1.86	2.00	-6.8	30.0
Hexachlorobutadiene	Ave	0.4216	0.3763		1.79	2.00	-10.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3720		1.76	2.00	-12.2	30.0
2-Methylnaphthalene	Ave	0.3649	0.3962		2.17	2.00	8.6	50.0
1-Methylnaphthalene	Ave	0.4700	0.3851		1.64	2.00	-18.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.7274		4.72	4.00	18.1	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GCCVF12.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Jun-2019 09:59:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-002
Misc. Info.: S94
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 12:21:47 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:21:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.000	97	326752	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.346	11.346	0.000	95	1941487	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.026	0.000	90	1794749	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	82	1305446	4.00	4.72	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	382330	2.00	2.01	
7 Propene	41	3.834	3.834	0.000	99	222628	2.00	2.11	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	609375	2.00	1.99	
9 Chloromethane	52	4.082	4.082	0.000	98	67471	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	94	351388	2.00	1.82	
11 Acetaldehyde	44	4.249	4.249	0.000	99	342179	10.0	8.61	
12 Vinyl chloride	62	4.265	4.265	0.000	99	235996	2.00	1.88	
14 Butadiene	54	4.357	4.357	0.000	65	183383	2.00	1.94	
13 Butane	43	4.357	4.357	0.000	85	370987	2.00	2.06	
15 Bromomethane	94	4.702	4.702	0.000	99	189622	2.00	1.77	
16 Chloroethane	64	4.848	4.848	0.000	98	110004	2.00	1.82	
17 Ethanol	31	4.966	4.966	0.000	95	258636	10.0	6.55	
18 Vinyl bromide	106	5.171	5.171	0.000	99	194803	2.00	1.87	
19 2-Methylbutane	43	5.225	5.225	0.000	91	260810	2.00	2.01	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	99	584215	2.00	1.97	
21 Acrolein	56	5.473	5.473	0.000	94	50781	2.00	2.23	
22 Acetonitrile	40	5.538	5.538	0.000	99	62379	2.00	2.04	
23 Acetone	58	5.597	5.597	0.000	98	72724	2.00	1.74	
24 Pentane	72	5.689	5.689	0.000	98	41040	2.00	2.00	
25 Isopropyl alcohol	45	5.705	5.705	0.000	93	216369	2.00	2.08	
26 Ethyl ether	31	5.872	5.872	0.000	94	160397	2.00	2.04	
27 1,1-Dichloroethene	96	6.196	6.196	0.000	95	215576	2.00	1.82	
28 Acrylonitrile	53	6.309	6.309	0.000	96	141912	2.00	2.09	
30 2-Methyl-2-propanol	59	6.347	6.347	0.000	95	262597	2.00	1.67	
29 1,1,2-Trichloro-1,2,2-trif	101	6.379	6.379	0.000	93	471585	2.00	1.88	
31 Methylene Chloride	84	6.557	6.557	0.000	98	220702	2.00	1.68	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.573	6.573	0.000	95	210221	2.00	2.00	
33 Carbon disulfide	76	6.730	6.730	0.000	99	658778	2.00	1.91	
34 trans-1,2-Dichloroethene	96	7.393	7.393	0.000	96	217437	2.00	1.86	
35 2-Methylpentane	43	7.409	7.409	0.000	95	545992	2.00	1.89	
36 Methyl tert-butyl ether	73	7.528	7.528	0.000	97	547578	2.00	1.93	
37 1,1-Dichloroethane	63	7.830	7.830	0.000	100	456047	2.00	1.98	
38 Vinyl acetate	43	7.932	7.932	0.000	100	527656	2.00	2.16	
39 2-Butanone (MEK)	72	8.391	8.391	0.000	96	86266	2.00	1.71	
40 Hexane	56	8.418	8.418	0.000	90	213889	2.00	1.98	
41 Isopropyl ether	45	8.579	8.579	0.000	97	708755	2.00	2.02	
42 cis-1,2-Dichloroethene	96	8.833	8.833	0.000	97	231983	2.00	1.90	
43 Ethyl acetate	43	9.022	9.022	0.000	99	413405	2.00	1.93	
44 Chloroform	83	9.183	9.183	0.000	97	501062	2.00	2.05	
45 Tert-butyl ethyl ether	59	9.270	9.270	0.000	95	612426	2.00	1.83	
46 Tetrahydrofuran	42	9.604	9.604	0.000	96	236613	2.00	2.03	
47 1,1,1-Trichloroethane	97	10.229	10.229	0.000	96	542027	2.00	2.06	
48 1,2-Dichloroethane	62	10.337	10.337	0.000	98	351157	2.00	2.26	
49 Cyclohexane	69	10.817	10.817	0.000	75	124401	2.00	2.08	
50 Benzene	78	10.817	10.817	0.000	97	728825	2.00	2.14	
51 n-Butanol	31	10.828	10.828	0.000	66	52246	2.00	1.97	
52 Carbon tetrachloride	117	10.839	10.839	0.000	97	540042	2.00	2.39	
53 2,3-Dimethylpentane	71	10.925	10.925	0.000	91	179393	2.00	2.01	
54 Thiophene	84	11.087	11.087	0.000	97	391859	2.00	1.99	
55 Isooctane	57	11.556	11.556	0.000	99	1297982	2.00	2.11	
56 n-Heptane	71	11.923	11.923	0.000	92	265822	2.00	2.02	
57 1,2-Dichloropropane	63	12.020	12.020	0.000	89	253747	2.00	2.07	
58 Trichloroethene	130	12.052	12.052	0.000	95	302759	2.00	2.02	
59 Dibromomethane	93	12.138	12.138	0.000	90	266408	2.00	2.13	
60 Dichlorobromomethane	83	12.279	12.279	0.000	98	507373	2.00	2.27	
61 1,4-Dioxane	88	12.305	12.305	0.000	93	63812	2.00	1.52	
62 Methyl methacrylate	41	12.365	12.365	0.000	93	266920	2.00	2.26	
63 Methylcyclohexane	83	12.807	12.807	0.000	94	570896	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.217	0.000	98	326607	2.00	1.56	
65 cis-1,3-Dichloropropene	75	13.260	13.260	0.000	95	404511	2.00	2.24	
66 trans-1,3-Dichloropropene	75	13.945	13.945	0.000	98	354711	2.00	2.07	
67 Toluene	91	14.074	14.074	0.000	94	728784	2.00	1.86	
68 1,1,2-Trichloroethane	83	14.144	14.144	0.000	99	219089	2.00	1.86	
69 2-Hexanone	58	14.533	14.533	0.000	93	152219	2.00	1.35	
70 n-Octane	85	14.737	14.737	0.000	94	288217	2.00	1.95	
71 Chlorodibromomethane	129	14.845	14.845	0.000	97	456868	2.00	2.12	
72 Ethylene Dibromide	107	15.136	15.136	0.000	98	403506	2.00	2.02	
73 Tetrachloroethene	129	15.201	15.201	0.000	92	280149	2.00	1.88	
74 2,3-Dimethylheptane	43	16.075	16.075	0.000	96	797871	2.00	1.88	
75 Chlorobenzene	112	16.075	16.075	0.000	91	609716	2.00	1.89	
78 Ethylbenzene	91	16.355	16.355	0.000	98	965611	2.00	1.98	
79 m-Xylene & p-Xylene	91	16.512	16.512	0.000	98	1532191	4.00	4.08	
80 n-Nonane	57	16.916	16.916	0.000	93	582029	2.00	2.05	
81 Bromoform	173	16.970	16.970	0.000	91	355656	2.00	2.34	
82 Styrene	104	16.975	16.975	0.000	99	566683	2.00	2.35	
83 o-Xylene	91	17.040	17.040	0.000	99	789400	2.00	1.98	
84 1,1,2,2-Tetrachloroethane	83	17.358	17.358	0.000	99	530389	2.00	2.04	
85 1,2,3-Trichloropropane	110	17.514	17.514	0.000	98	167129	2.00	2.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.617	17.617	0.000	97	1086095	2.00	1.96	
87 N-Propylbenzene	120	18.140	18.140	0.000	99	297831	2.00	2.05	
88 2-Chlorotoluene	126	18.189	18.189	0.000	97	275084	2.00	1.96	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	1043244	2.00	1.96	
90 1,3,5-Trimethylbenzene	120	18.356	18.356	0.000	92	489276	2.00	2.23	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	88	428671	2.00	2.37	
93 n-Decane	57	18.625	18.625	0.000	90	710557	2.00	2.05	
94 tert-Butylbenzene	119	18.771	18.771	0.000	92	952407	2.00	1.99	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	941361	2.00	2.11	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1355763	2.00	1.99	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	98	585574	2.00	2.01	
98 Benzyl chloride	91	19.127	19.127	0.000	97	816255	2.00	2.70	
99 1,4-Dichlorobenzene	146	19.138	19.138	0.000	91	590625	2.00	2.00	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	1078129	2.00	2.01	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	699676	2.00	1.54	
102 Butylcyclohexane	83	19.294	19.294	0.000	92	793669	2.00	1.80	
103 2,3-Dihydroindene	117	19.488	19.488	0.000	93	814111	2.00	2.00	
104 1,2-Dichlorobenzene	146	19.493	19.493	0.000	95	561775	2.00	2.01	
106 Indene	116	19.618	19.618	0.000	91	628600	2.00	2.09	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	1106594	2.00	2.22	
107 Undecane	57	19.909	19.909	0.000	97	711751	2.00	1.98	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	94	188241	2.00	1.74	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	791752	2.00	1.58	
110 Dodecane	57	20.960	20.960	0.000	96	435429	2.00	1.61	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	93	412189	2.00	2.33	
112 Naphthalene	128	21.316	21.316	0.000	99	915233	2.00	1.86	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	90	337679	2.00	1.79	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	333811	2.00	1.76	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	355516	2.00	2.17	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	100	345591	2.00	1.64	
A 122 C8 Range	1	14.733	(14.679-14.816)		0	2632417	2.00	1.97	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.76	
S 124 Xylenes, Total	100				0		6.00	6.06	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

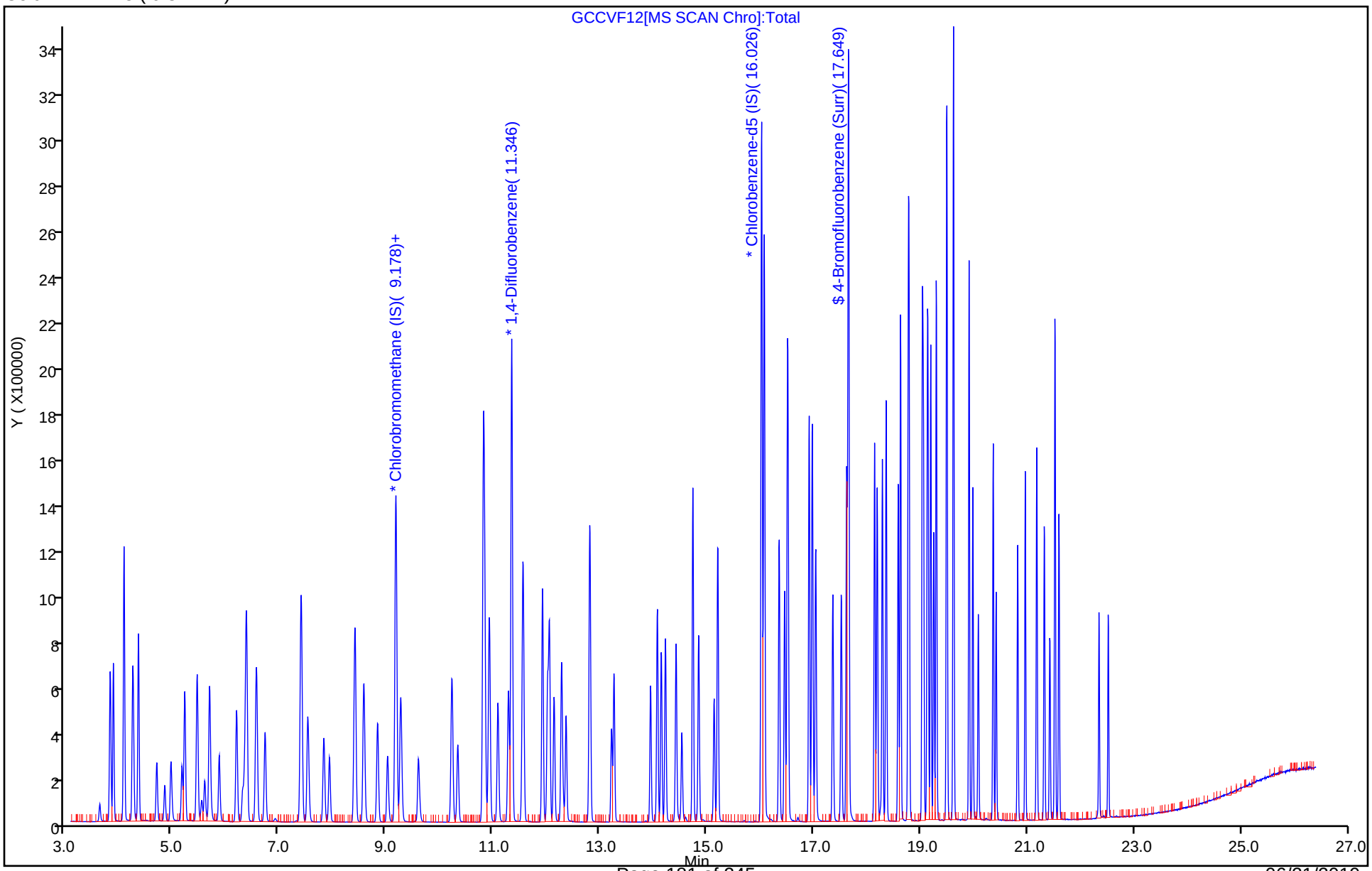
Report Date: 13-Jun-2019 12:21:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GCCVF12.D

Injection Date:	12-Jun-2019 09:59:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30706/2 Calibration Date: 06/13/2019 09:57

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF13.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.327	2.384		2.05	2.00	2.4	30.0
Propene	Ave	1.292	1.390		2.15	2.00	7.6	30.0
Dichlorodifluoromethane	Ave	3.740	3.812		2.04	2.00	1.9	30.0
Chloromethane	Ave	0.4296	0.4124		1.92	2.00	-4.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.359	2.203		1.87	2.00	-6.6	30.0
Acetaldehyde	Ave	0.4863	0.4095		8.42	10.0	-15.8	30.0
Vinyl chloride	Ave	1.536	1.473		1.92	2.00	-4.1	30.0
1,3-Butadiene	Ave	1.159	1.125		1.94	2.00	-2.9	30.0
Butane	Ave	2.208	2.294		2.08	2.00	3.9	30.0
Bromomethane	Ave	1.314	1.179		1.79	2.00	-10.3	30.0
Chloroethane	Ave	0.7408	0.6738		1.82	2.00	-9.0	30.0
Ethanol	Ave	0.4835	0.3366		6.96	10.0	-30.4*	30.0
Vinyl bromide	Ave	1.277	1.193		1.87	2.00	-6.6	30.0
2-Methylbutane	Ave	1.585	1.596		2.01	2.00	0.7	30.0
Trichlorofluoromethane	Ave	3.627	3.619		2.00	2.00	-0.2	30.0
Acrolein	Ave	0.2782	0.3006		2.16	2.00	8.0	30.0
Acetonitrile	Ave	0.3750	0.3618		1.93	2.00	-3.5	30.0
Acetone	Ave	0.5114	0.4188		1.64	2.00	-18.1	30.0
Pentane	Ave	0.2515	0.2509		2.00	2.00	-0.2	30.0
Isopropyl alcohol	Ave	1.273	1.409		2.21	2.00	10.7	30.0
Ethyl ether	Ave	0.9611	0.9532		1.98	2.00	-0.8	30.0
1,1-Dichloroethene	Ave	1.451	1.324		1.83	2.00	-8.7	30.0
Acrylonitrile	Ave	0.8296	0.8138		1.96	2.00	-1.9	30.0
tert-Butyl alcohol	Ave	1.921	1.624		1.69	2.00	-15.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	3.078	2.917		1.90	2.00	-5.2	30.0
Methylene Chloride	Ave	1.605	1.342		1.67	2.00	-16.4	30.0
3-Chloropropene	Ave	1.287	1.293		2.01	2.00	0.5	30.0
Carbon disulfide	Ave	4.233	3.970		1.88	2.00	-6.2	30.0
trans-1,2-Dichloroethene	Ave	1.432	1.309		1.83	2.00	-8.6	30.0
2-Methylpentane	Ave	3.538	3.364		1.90	2.00	-4.9	30.0
Methyl tert-butyl ether	Ave	3.471	3.242		1.87	2.00	-6.6	30.0
1,1-Dichloroethane	Ave	2.819	2.789		1.98	2.00	-1.1	30.0
Vinyl acetate	Ave	2.990	3.071		2.05	2.00	2.7	30.0
2-Butanone (MEK)	Ave	0.6179	0.5085		1.65	2.00	-17.7	30.0
Hexane	Ave	1.322	1.307		1.98	2.00	-1.1	30.0
Isopropyl ether	Ave	4.291	4.118		1.92	2.00	-4.0	30.0
cis-1,2-Dichloroethene	Ave	1.491	1.430		1.92	2.00	-4.1	30.0
Ethyl acetate	Ave	2.619	2.368		1.81	2.00	-9.6	30.0
Chloroform	Ave	2.997	3.101		2.07	2.00	3.5	30.0
Tert-butyl ethyl ether	Ave	4.092	3.602		1.76	2.00	-12.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30706/2 Calibration Date: 06/13/2019 09:57

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF13.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.428	1.359		1.90	2.00	-4.8	30.0
1,1,1-Trichloroethane	Ave	3.217	3.323		2.07	2.00	3.3	30.0
1,2-Dichloroethane	Ave	0.3199	0.3578		2.24	2.00	11.9	30.0
Benzene	Ave	0.7021	0.7360		2.10	2.00	4.8	30.0
Cyclohexane	Ave	0.1232	0.1293		2.10	2.00	5.0	30.0
1-Butanol	Ave	0.0547	0.0542		1.98	2.00	-1.1	30.0
Carbon tetrachloride	Ave	0.4658	0.5616		2.41	2.00	20.6	30.0
2,3-Dimethylpentane	Ave	0.1839	0.1829		1.99	2.00	-0.5	30.0
Thiophene	Ave	0.4060	0.4084		2.01	2.00	0.6	30.0
2,2,4-Trimethylpentane	Ave	1.270	1.337		2.11	2.00	5.3	30.0
Heptane	Ave	0.2716	0.2821		2.08	2.00	3.9	30.0
1,2-Dichloropropane	Ave	0.2531	0.2569		2.03	2.00	1.5	30.0
Trichloroethene	Ave	0.3093	0.3229		2.09	2.00	4.4	30.0
Dibromomethane	Ave	0.2572	0.2811		2.19	2.00	9.3	30.0
Bromodichloromethane	Ave	0.4606	0.5407		2.35	2.00	17.4	30.0
1,4-Dioxane	Ave	0.0865	0.0732		1.69	2.00	-15.4	30.0
Methyl methacrylate	Ave	0.2435	0.2609		2.14	2.00	7.2	30.0
Methylcyclohexane	Ave	0.4773	0.5960		2.50	2.00	24.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4326	0.3397		1.57	2.00	-21.5	30.0
cis-1,3-Dichloropropene	Ave	0.3720	0.4065		2.19	2.00	9.3	30.0
trans-1,3-Dichloropropene	Ave	0.3814	0.3795		1.99	2.00	-0.5	30.0
Toluene	Ave	0.8742	0.7833		1.79	2.00	-10.4	30.0
1,1,2-Trichloroethane	Ave	0.2626	0.2401		1.83	2.00	-8.6	30.0
2-Hexanone	Ave	0.2504	0.1684		1.34	2.00	-32.8*	30.0
Octane	Ave	0.3299	0.3185		1.93	2.00	-3.4	30.0
Dibromochloromethane	Ave	0.4800	0.4992		2.08	2.00	4.0	30.0
1,2-Dibromoethane (EDB)	Ave	0.4446	0.4370		1.97	2.00	-1.7	30.0
Tetrachloroethene	Ave	0.3313	0.3159		1.91	2.00	-4.7	30.0
2,3-Dimethylheptane	Ave	0.9448	0.8660		1.83	2.00	-8.3	30.0
Chlorobenzene	Ave	0.7172	0.6663		1.86	2.00	-7.1	30.0
Ethylbenzene	Ave	1.087	1.023		1.88	2.00	-5.9	30.0
m-Xylene & p-Xylene	Ave	0.8375	0.8151		3.89	4.00	-2.7	30.0
Nonane	Ave	0.6318	0.6256		1.98	2.00	-1.0	30.0
Bromoform	Ave	0.3394	0.3751		2.21	2.00	10.5	30.0
Styrene	Ave	0.5382	0.5908		2.20	2.00	9.8	30.0
o-Xylene	Ave	0.8888	0.8433		1.90	2.00	-5.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5783	0.5615		1.94	2.00	-2.9	30.0
1,2,3-Trichloropropane	Ave	0.1851	0.1762		1.90	2.00	-4.8	30.0
Isopropylbenzene	Ave	1.236	1.155		1.87	2.00	-6.5	30.0
Propylbenzene	Ave	0.3233	0.3090		1.91	2.00	-4.4	30.0
2-Chlorotoluene	Ave	0.3121	0.2855		1.83	2.00	-8.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Lab Sample ID: CCVIS 140-30706/2 Calibration Date: 06/13/2019 09:57

Instrument ID: MG Calib Start Date: 05/16/2019 20:05

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 05/17/2019 04:45

Lab File ID: GCCVF13.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.186	1.084		1.83	2.00	-8.6	30.0
1,3,5-Trimethylbenzene	Ave	0.4897	0.5028		2.05	2.00	2.7	30.0
Alpha Methyl Styrene	Ave	0.4029	0.4409		2.19	2.00	9.4	30.0
Decane	Ave	0.7713	0.7549		1.96	2.00	-2.1	30.0
tert-Butylbenzene	Ave	1.065	0.9889		1.86	2.00	-7.2	30.0
1,2,4-Trimethylbenzene	Ave	0.996	0.9757		1.96	2.00	-2.1	30.0
sec-Butylbenzene	Ave	1.518	1.411		1.86	2.00	-7.1	30.0
1,3-Dichlorobenzene	Ave	0.6493	0.6136		1.89	2.00	-5.5	30.0
Benzyl chloride	Ave	0.6747	0.8254		2.45	2.00	22.3	30.0
1,4-Dichlorobenzene	Ave	0.6587	0.6136		1.86	2.00	-6.8	30.0
4-Isopropyltoluene	Ave	1.197	1.110		1.85	2.00	-7.3	30.0
1,2,3-Trimethylbenzene	Ave	1.014	0.7306		1.44	2.00	-27.9	30.0
Butylcyclohexane	Ave	0.9816	0.8395		1.71	2.00	-14.5	30.0
Indane	Ave	0.9088	0.8670		1.91	2.00	-4.6	30.0
1,2-Dichlorobenzene	Ave	0.6242	0.5995		1.92	2.00	-4.0	30.0
Butylbenzene	Ave	1.112	1.141		2.05	2.00	2.7	30.0
Indene	Ave	0.6707	0.6482		1.93	2.00	-3.4	30.0
Undecane	Ave	0.8005	0.7388		1.85	2.00	-7.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2412	0.1937		1.61	2.00	-19.7	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.116	0.8718		1.56	2.00	-21.9	30.0
Dodecane	Ave	0.6023	0.4427		1.47	2.00	-26.5	30.0
1,2,4-Trichlorobenzene	Ave	0.3950	0.3893		1.97	2.00	-1.4	30.0
Naphthalene	Ave	1.094	0.9390		1.72	2.00	-14.2	30.0
Hexachlorobutadiene	Ave	0.4216	0.3388		1.61	2.00	-19.7	30.0
1,2,3-Trichlorobenzene	Ave	0.4237	0.3198		1.51	2.00	-24.5	30.0
2-Methylnaphthalene	Ave	0.3649	0.3017		1.65	2.00	-17.3	50.0
1-Methylnaphthalene	Ave	0.4700	0.2834		1.21	2.00	-39.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6160	0.7325		4.76	4.00	18.9	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GCCVF13.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-Jun-2019 09:57:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011988-002
Misc. Info.: S94
Operator ID: 7126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Jun-2019 13:43:08 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: tajh Date: 13-Jun-2019 11:11:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.000	98	309361	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.346	11.346	0.000	96	1804549	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.026	0.000	90	1685979	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	81	1234924	4.00	4.76	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	368770	2.00	2.05	
7 Propene	41	3.834	3.834	0.000	99	214989	2.00	2.15	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	589620	2.00	2.04	
9 Chloromethane	52	4.082	4.082	0.000	98	63789	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	94	340699	2.00	1.87	
11 Acetaldehyde	44	4.255	4.255	0.000	100	316711	10.0	8.42	
12 Vinyl chloride	62	4.266	4.266	0.000	99	227919	2.00	1.92	
14 Butadiene	54	4.357	4.357	0.000	65	173966	2.00	1.94	
13 Butane	43	4.357	4.357	0.000	85	354859	2.00	2.08	
15 Bromomethane	94	4.697	4.697	0.000	99	182333	2.00	1.79	
16 Chloroethane	64	4.853	4.853	0.000	99	104225	2.00	1.82	
17 Ethanol	31	4.977	4.977	0.000	95	260317	10.0	6.96	
18 Vinyl bromide	106	5.172	5.172	0.000	98	184480	2.00	1.87	
19 2-Methylbutane	43	5.225	5.225	0.000	90	246833	2.00	2.01	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	99	559771	2.00	2.00	
21 Acrolein	56	5.479	5.479	0.000	92	46491	2.00	2.16	
22 Acetonitrile	40	5.549	5.549	0.000	99	55966	2.00	1.93	
23 Acetone	58	5.608	5.608	0.000	98	64778	2.00	1.64	
24 Pentane	72	5.689	5.689	0.000	99	38803	2.00	2.00	
25 Isopropyl alcohol	45	5.722	5.722	0.000	92	217889	2.00	2.21	
26 Ethyl ether	31	5.873	5.873	0.000	93	147446	2.00	1.98	
27 1,1-Dichloroethene	96	6.196	6.196	0.000	96	204823	2.00	1.83	
28 Acrylonitrile	53	6.315	6.315	0.000	97	125883	2.00	1.96	
30 2-Methyl-2-propanol	59	6.369	6.369	0.000	95	251161	2.00	1.69	
29 1,1,2-Trichloro-1,2,2-trif	101	6.379	6.379	0.000	93	451144	2.00	1.90	
31 Methylene Chloride	84	6.557	6.557	0.000	98	207544	2.00	1.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.574	6.574	0.000	96	200023	2.00	2.01	
33 Carbon disulfide	76	6.725	6.725	0.000	99	614073	2.00	1.88	
34 trans-1,2-Dichloroethene	96	7.393	7.393	0.000	97	202530	2.00	1.83	
35 2-Methylpentane	43	7.409	7.409	0.000	94	520299	2.00	1.90	
36 Methyl tert-butyl ether	73	7.533	7.533	0.000	96	501488	2.00	1.87	
37 1,1-Dichloroethane	63	7.830	7.830	0.000	100	431451	2.00	1.98	
38 Vinyl acetate	43	7.938	7.938	0.000	100	475093	2.00	2.05	
39 2-Butanone (MEK)	72	8.402	8.402	0.000	95	78654	2.00	1.65	
40 Hexane	56	8.412	8.412	0.000	89	202104	2.00	1.98	
41 Isopropyl ether	45	8.580	8.580	0.000	97	637041	2.00	1.92	
42 cis-1,2-Dichloroethene	96	8.833	8.833	0.000	97	221122	2.00	1.92	
43 Ethyl acetate	43	9.027	9.027	0.000	99	366314	2.00	1.81	
44 Chloroform	83	9.183	9.183	0.000	96	479710	2.00	2.07	
45 Tert-butyl ethyl ether	59	9.270	9.270	0.000	95	557233	2.00	1.76	
46 Tetrahydrofuran	42	9.604	9.604	0.000	95	210211	2.00	1.90	
47 1,1,1-Trichloroethane	97	10.224	10.224	0.000	96	513944	2.00	2.07	
48 1,2-Dichloroethane	62	10.337	10.337	0.000	98	322865	2.00	2.24	
49 Cyclohexane	69	10.817	10.817	0.000	75	116634	2.00	2.10	
50 Benzene	78	10.817	10.817	0.000	97	664082	2.00	2.10	
51 n-Butanol	31	10.839	10.839	0.000	66	48859	2.00	1.98	
52 Carbon tetrachloride	117	10.839	10.839	0.000	96	506749	2.00	2.41	
53 2,3-Dimethylpentane	71	10.925	10.925	0.000	91	165019	2.00	1.99	
54 Thiophene	84	11.087	11.087	0.000	97	368460	2.00	2.01	
55 Isooctane	57	11.556	11.556	0.000	99	1206353	2.00	2.11	
56 n-Heptane	71	11.923	11.923	0.000	92	254571	2.00	2.08	
57 1,2-Dichloropropane	63	12.014	12.014	0.000	88	231807	2.00	2.03	
58 Trichloroethene	130	12.052	12.052	0.000	95	291385	2.00	2.09	
59 Dibromomethane	93	12.138	12.138	0.000	90	253582	2.00	2.19	
60 Dichlorobromomethane	83	12.279	12.279	0.000	98	487813	2.00	2.35	
61 1,4-Dioxane	88	12.306	12.306	0.000	93	66064	2.00	1.69	
62 Methyl methacrylate	41	12.365	12.365	0.000	92	235444	2.00	2.14	
63 Methylcyclohexane	83	12.807	12.807	0.000	94	537745	2.00	2.50	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.217	0.000	98	306464	2.00	1.57	
65 cis-1,3-Dichloropropene	75	13.260	13.260	0.000	95	366737	2.00	2.19	
66 trans-1,3-Dichloropropene	75	13.945	13.945	0.000	98	319913	2.00	1.99	
67 Toluene	91	14.074	14.074	0.000	94	660268	2.00	1.79	
68 1,1,2-Trichloroethane	83	14.144	14.144	0.000	99	202422	2.00	1.83	
69 2-Hexanone	58	14.533	14.533	0.000	93	141923	2.00	1.34	
70 n-Octane	85	14.738	14.738	0.000	94	268527	2.00	1.93	
71 Chlorodibromomethane	129	14.845	14.845	0.000	98	420821	2.00	2.08	
72 Ethylene Dibromide	107	15.137	15.137	0.000	98	368352	2.00	1.97	
73 Tetrachloroethene	129	15.207	15.207	0.000	92	266290	2.00	1.91	
75 Chlorobenzene	112	16.075	16.075	0.000	91	561721	2.00	1.86	
74 2,3-Dimethylheptane	43	16.075	16.075	0.000	96	730029	2.00	1.83	
78 Ethylbenzene	91	16.355	16.355	0.000	98	862331	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.512	16.512	0.000	98	1374174	4.00	3.89	
80 n-Nonane	57	16.916	16.916	0.000	93	527384	2.00	1.98	
81 Bromoform	173	16.970	16.970	0.000	91	316166	2.00	2.21	
82 Styrene	104	16.975	16.975	0.000	99	498017	2.00	2.20	
83 o-Xylene	91	17.035	17.035	0.000	99	710861	2.00	1.90	
84 1,1,2,2-Tetrachloroethane	83	17.358	17.358	0.000	99	473301	2.00	1.94	
85 1,2,3-Trichloropropane	110	17.515	17.515	0.000	98	148549	2.00	1.90	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.617	17.617	0.000	97	973764	2.00	1.87	
87 N-Propylbenzene	120	18.140	18.140	0.000	98	260517	2.00	1.91	
88 2-Chlorotoluene	126	18.189	18.189	0.000	97	240683	2.00	1.83	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	913796	2.00	1.83	
90 1,3,5-Trimethylbenzene	120	18.356	18.356	0.000	92	423885	2.00	2.05	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	88	371691	2.00	2.19	
93 n-Decane	57	18.625	18.625	0.000	90	636334	2.00	1.96	
94 tert-Butylbenzene	119	18.771	18.771	0.000	92	833614	2.00	1.86	
95 1,2,4-Trimethylbenzene	105	18.782	18.782	0.000	96	822469	2.00	1.96	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1189142	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	98	517229	2.00	1.89	
98 Benzyl chloride	91	19.127	19.127	0.000	97	695817	2.00	2.45	
99 1,4-Dichlorobenzene	146	19.138	19.138	0.000	91	517259	2.00	1.86	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	935522	2.00	1.85	
101 1,2,3-Trimethylbenzene	105	19.246	19.246	0.000	99	615862	2.00	1.44	
102 Butylcyclohexane	83	19.294	19.294	0.000	92	707676	2.00	1.71	
103 2,3-Dihydroindene	117	19.488	19.488	0.000	94	730882	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.494	19.494	0.000	95	505395	2.00	1.92	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	962196	2.00	2.05	
106 Indene	116	19.618	19.618	0.000	90	546428	2.00	1.93	
107 Undecane	57	19.909	19.909	0.000	97	622785	2.00	1.85	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	89	163253	2.00	1.61	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	734911	2.00	1.56	
110 Dodecane	57	20.960	20.960	0.000	96	373164	2.00	1.47	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	93	328147	2.00	1.97	
112 Naphthalene	128	21.316	21.316	0.000	99	791577	2.00	1.72	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	88	285569	2.00	1.61	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	269564	2.00	1.51	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	254358	2.00	1.65	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	100	238924	2.00	1.21	
A 122 C8 Range	1	14.743	(14.679-14.816)		0	2472109	2.00	1.97	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.75	
S 124 Xylenes, Total	100				0		6.00	5.79	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

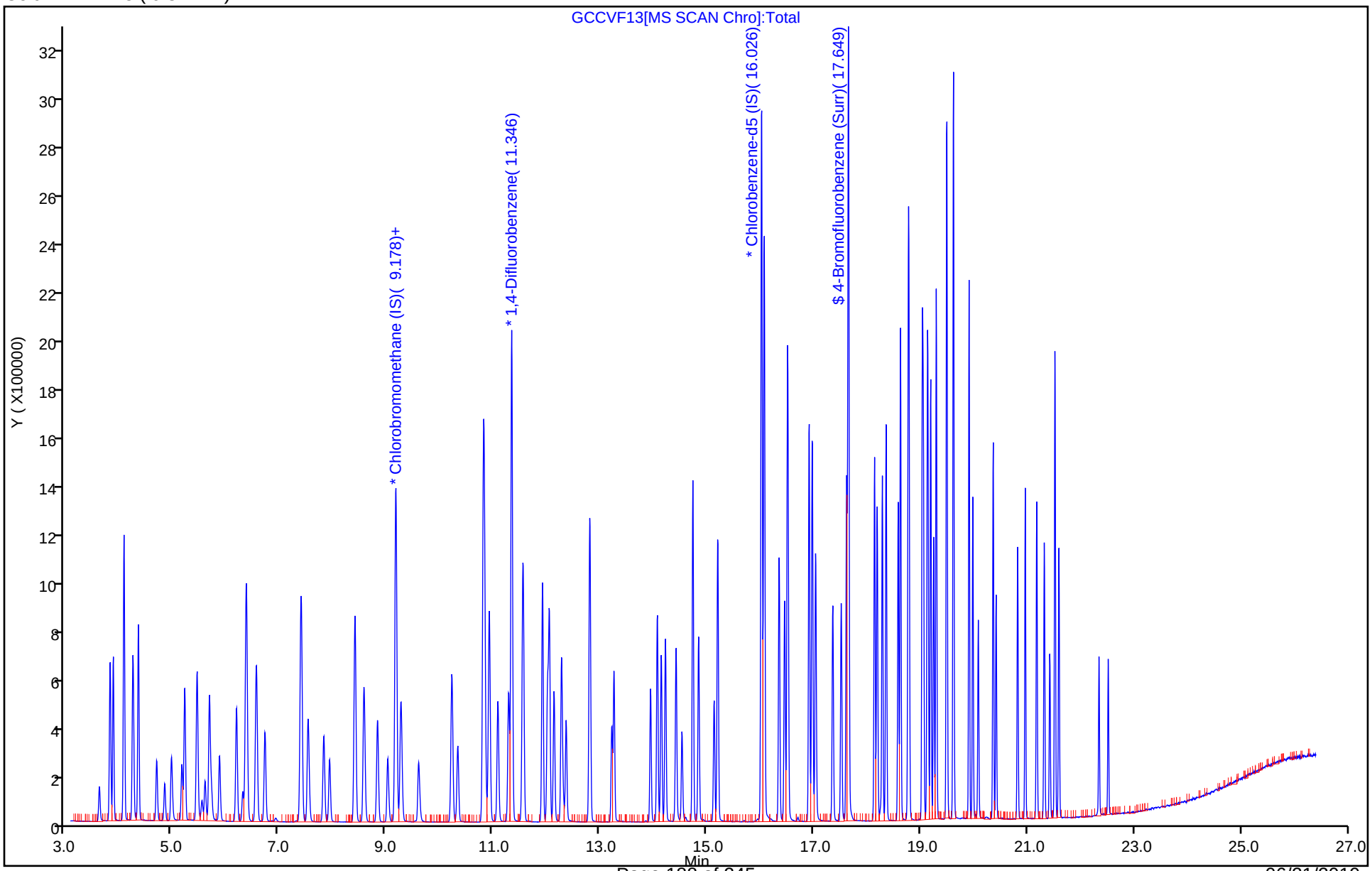
Report Date: 14-Jun-2019 13:43:09 Chrom Revision: 2.3 02-Jun-2019 10:27:32

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GCCVF13.D

Injection Date:	13-Jun-2019 09:57:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-May-2019 18:49:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0011730-001
Misc. Info.: TUNE
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 20-May-2019 14:50:55 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0340

First Level Reviewer: barlozhetskayaa Date: 16-May-2019 19:29:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.273	5.273	0.000	0	665184	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

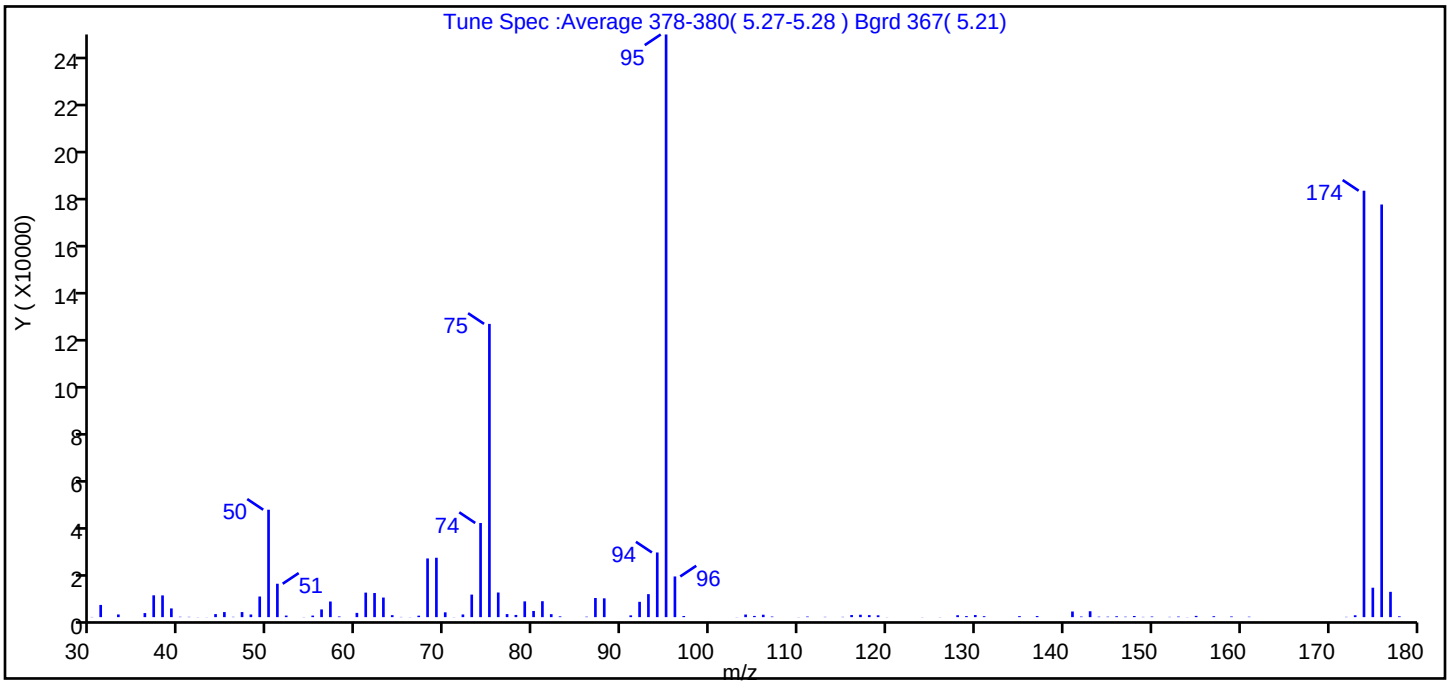
40MXSUR_00002 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D
Injection Date: 16-May-2019 18:49:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.4
75	30 to 60% of m/z 95	50.3
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	73.2
175	5 to 9% of m/z 174	5.1 (6.9)
176	Greater than 95% but less than 101% of m/z 174	70.8 (96.8)
177	5 to 9% of m/z 176	4.3 (6.1)

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D\MG_TO15.rslt\spectra.d
Injection Date: 16-May-2019 18:49:30
Spectrum: Tune Spec :Average 378-380(5.27-5.28) Bgrd 367(5.21)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	78	61.00	10361	92.00	6469	137.00	457
31.00	5158	62.00	10189	93.00	9714	141.00	2386
32.00	11	63.00	8276	94.00	27312	142.00	252
33.00	1135	64.00	838	95.00	246080	143.00	2486
36.00	1715	65.00	93	96.00	17184	144.00	198
37.00	9217	66.00	58	97.00	473	145.00	194
38.00	9180	67.00	617	103.00	56	146.00	378
39.00	3687	68.00	24792	104.00	1098	147.00	186
40.00	155	69.00	25088	105.00	508	148.00	481
41.00	130	70.00	2039	106.00	1022	149.00	113
42.00	55	71.00	57	107.00	248	150.00	253
43.00	45	72.00	1129	110.00	55	152.00	115
44.00	1289	73.00	9523	111.00	251	153.00	246
45.00	2142	74.00	39768	113.00	127	154.00	57
46.00	133	75.00	123856	115.00	123	155.00	534
47.00	2144	76.00	10406	116.00	886	157.00	389
48.00	1117	77.00	1294	117.00	1012	159.00	285
49.00	8719	78.00	932	118.00	855	161.00	186
50.00	45368	79.00	6661	119.00	781	172.00	116
51.00	14109	80.00	2604	120.00	51	173.00	790
52.00	668	81.00	6726	124.00	53	174.00	180096
54.00	67	82.00	1256	126.00	59	175.00	12431
55.00	653	83.00	315	128.00	812	176.00	174272
56.00	3263	86.00	187	129.00	447	177.00	10691
57.00	6608	87.00	8091	130.00	885	178.00	337
58.00	276	88.00	7948	131.00	394		
60.00	1798	91.00	749	135.00	424		

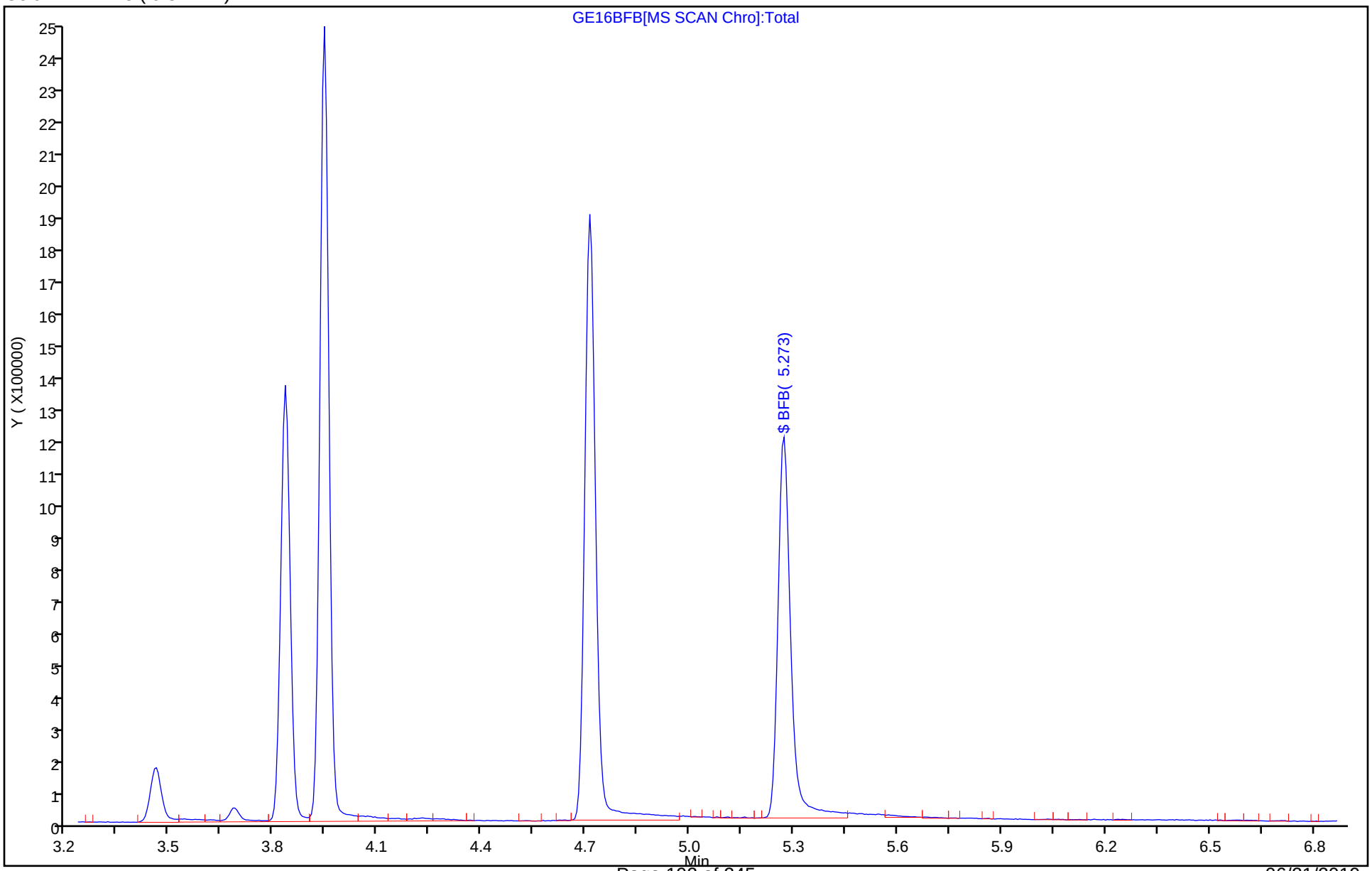
Report Date: 20-May-2019 14:50:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16BFB.D

Injection Date:	16-May-2019 18:49:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GBFBF12.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Jun-2019 09:27:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-001
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 12:20:00 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:20:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.241	5.241	0.000	0	1084637	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

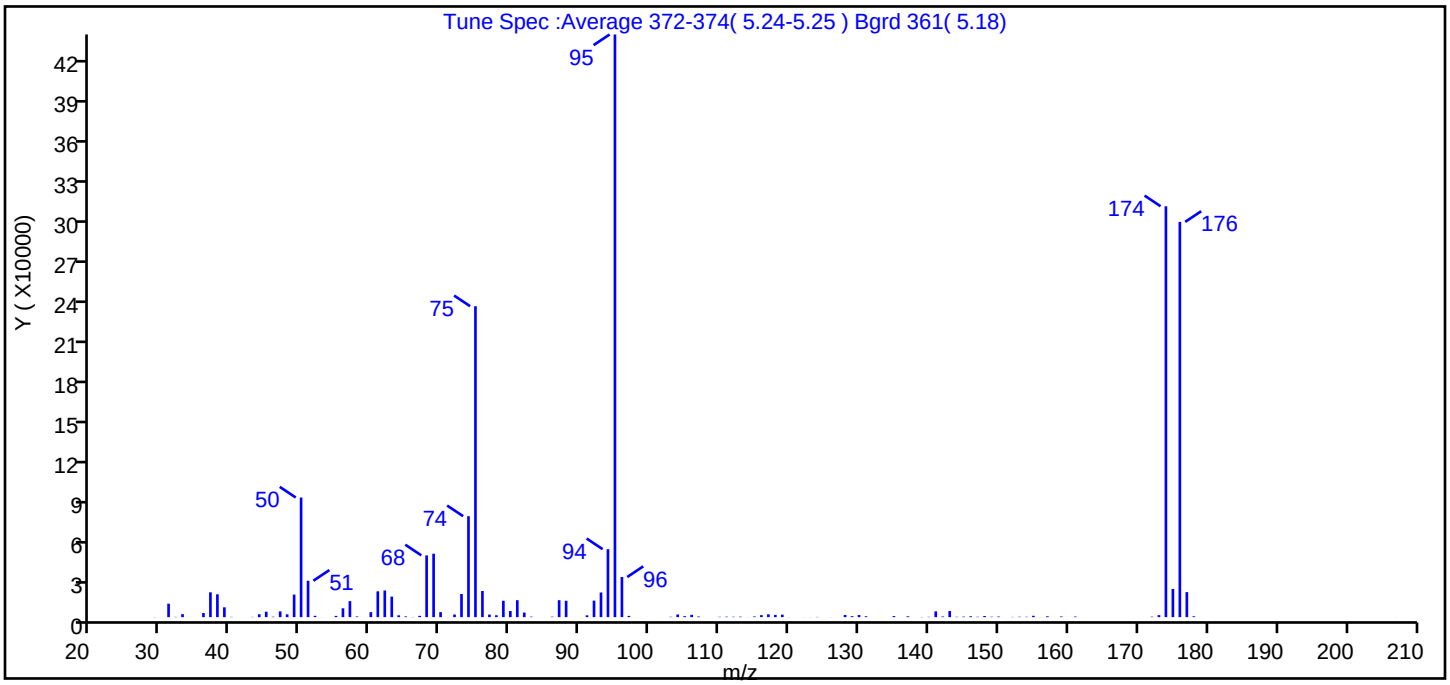
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GBFBF12.D
Injection Date: 12-Jun-2019 09:27:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.5
75	30 to 60% of m/z 95	53.4
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.3 (0.5)
174	50 to 120% of m/z 95	70.5
175	5 to 9% of m/z 174	4.8 (6.9)
176	Greater than 95% but less than 101% of m/z 174	67.8 (96.2)
177	5 to 9% of m/z 176	4.3 (6.3)

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GBFBF12.D\MG_TO15.rslt\spectra.d
Injection Date: 12-Jun-2019 09:27:30
Spectrum: Tune Spec :Average 372-374(5.24-5.25) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	101	64.00	1364	96.00	30088	139.00	132
31.00	10095	65.00	544	97.00	943	140.00	234
32.00	204	66.00	126	103.00	263	141.00	4340
33.00	2268	67.00	976	104.00	2003	142.00	468
36.00	3109	68.00	46312	105.00	746	143.00	4580
37.00	18616	69.00	47544	106.00	1758	144.00	280
38.00	17136	70.00	3778	107.00	475	145.00	394
39.00	7377	71.00	51	110.00	260	146.00	641
40.00	210	72.00	1979	111.00	353	147.00	285
43.00	174	73.00	17368	112.00	294	148.00	870
44.00	2157	74.00	75664	113.00	360	149.00	293
45.00	4073	75.00	233088	114.00	63	150.00	436
46.00	331	76.00	19600	115.00	509	152.00	172
47.00	4297	77.00	1934	116.00	1506	153.00	305
48.00	2113	78.00	1422	117.00	2121	154.00	283
49.00	16920	79.00	12288	118.00	1662	155.00	1020
50.00	89672	80.00	4595	119.00	1874	156.00	68
51.00	27304	81.00	12714	120.00	70	157.00	634
52.00	998	82.00	3437	122.00	50	159.00	484
53.00	40	83.00	369	123.00	59	161.00	448
55.00	934	86.00	348	124.00	165	172.00	358
56.00	6639	87.00	12699	126.00	66	173.00	1505
57.00	12005	88.00	12280	128.00	1617	174.00	308032
58.00	513	91.00	1355	129.00	739	175.00	21144
60.00	3740	92.00	12390	130.00	1562	176.00	296320
61.00	19360	93.00	18472	131.00	665	177.00	18776
62.00	19976	94.00	50944	135.00	794	178.00	638
63.00	15385	95.00	436800	137.00	629	207.00	39

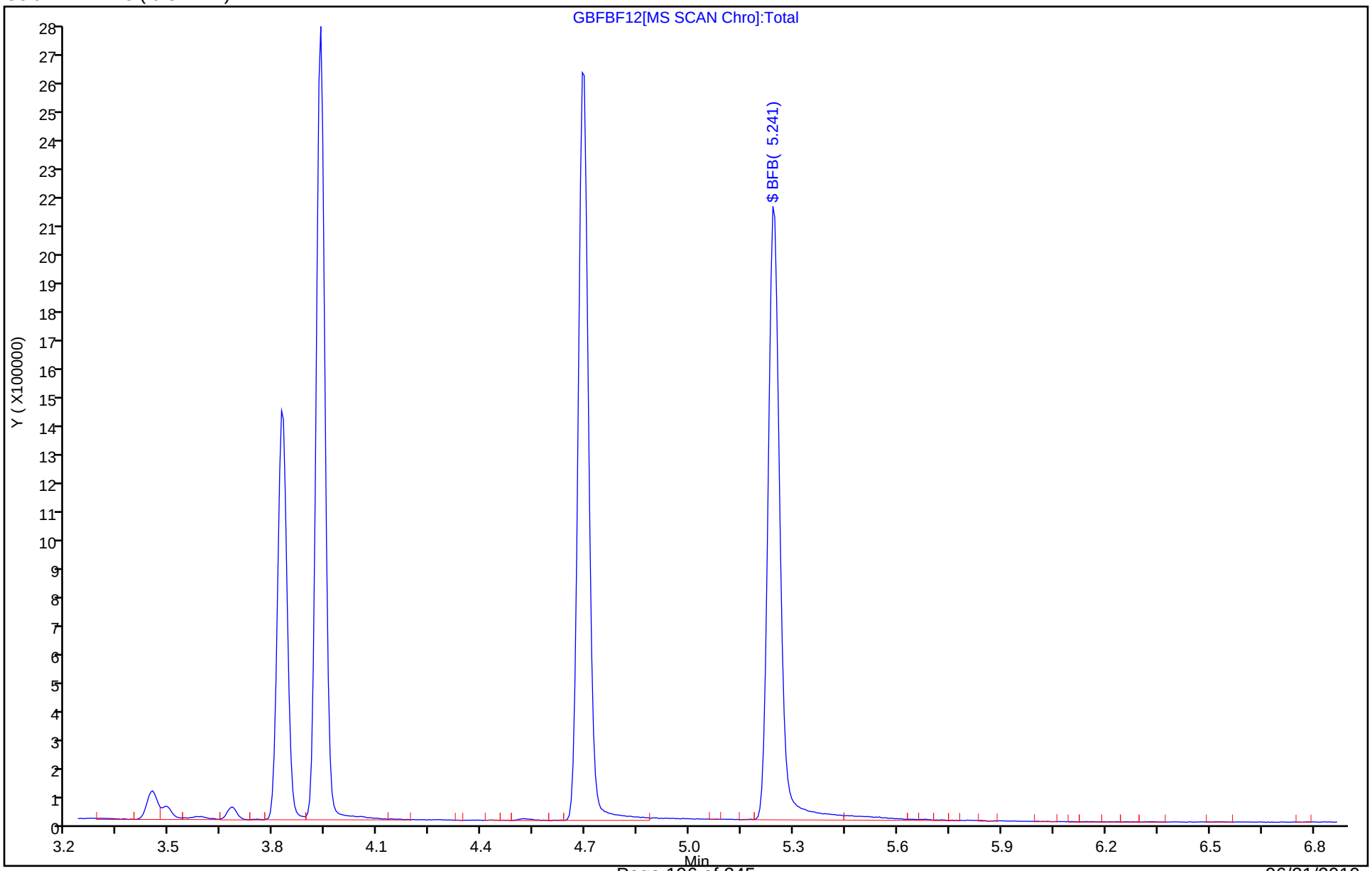
Report Date: 13-Jun-2019 12:20:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GBFBF12.D

Injection Date:	12-Jun-2019 09:27:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GBFBF13.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 13-Jun-2019 09:20:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0011988-001
Misc. Info.: TUNE
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Jun-2019 13:41:18 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 14-Jun-2019 13:41:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.262	5.262	0.000	0	1041492	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

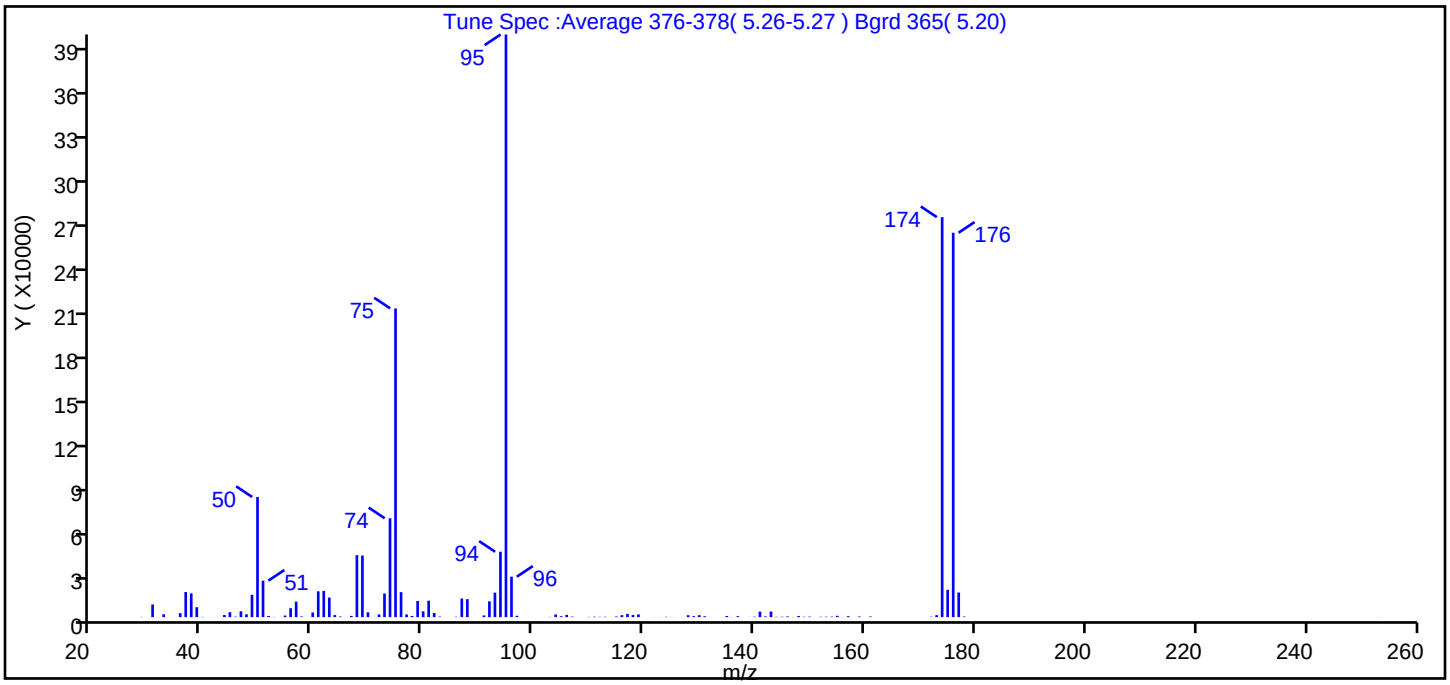
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GBFBF13.D
Injection Date: 13-Jun-2019 09:20:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	53.0
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.3 (0.5)
174	50 to 120% of m/z 95	68.6
175	5 to 9% of m/z 174	4.7 (6.8)
176	Greater than 95% but less than 101% of m/z 174	66.0 (96.1)
177	5 to 9% of m/z 176	4.2 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GBFBF13.D\MG_TO15.rslt\spectra.d
Injection Date: 13-Jun-2019 09:20:30
Spectrum: Tune Spec :Average 376-378(5.26-5.27) Bgrd 365(5.20)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	147	63.00	13397	97.00	938	141.00	3787
31.00	8677	64.00	1429	103.00	154	142.00	514
32.00	70	65.00	418	104.00	1814	143.00	3844
33.00	1963	67.00	855	105.00	633	144.00	228
36.00	2696	68.00	42440	106.00	1577	145.00	276
37.00	17232	69.00	42176	107.00	372	146.00	483
38.00	16300	70.00	3326	110.00	203	147.00	92
39.00	6817	71.00	58	111.00	316	148.00	808
40.00	185	72.00	1904	112.00	216	149.00	265
41.00	9	73.00	16199	113.00	269	150.00	350
42.00	66	74.00	67728	115.00	443	152.00	245
43.00	51	75.00	211456	116.00	1366	153.00	305
44.00	1448	76.00	17112	117.00	2234	154.00	311
45.00	3391	77.00	1818	118.00	1443	155.00	929
46.00	291	78.00	821	119.00	1859	156.00	57
47.00	4022	79.00	11073	122.00	54	157.00	651
48.00	1930	80.00	3982	123.00	75	159.00	427
49.00	15287	81.00	11256	124.00	237	161.00	449
50.00	82288	82.00	2843	125.00	107	172.00	262
51.00	24984	83.00	367	127.00	53	173.00	1347
52.00	841	86.00	242	128.00	1323	174.00	273984
53.00	129	87.00	12757	129.00	671	175.00	18728
55.00	1081	88.00	12299	130.00	1349	176.00	263296
56.00	6112	91.00	1183	131.00	594	177.00	16848
57.00	10575	92.00	10833	135.00	784	178.00	407
58.00	446	93.00	16784	136.00	71	253.00	85
60.00	3226	94.00	44776	137.00	679		
61.00	17704	95.00	399104	139.00	58		
62.00	17976	96.00	27680	140.00	295		

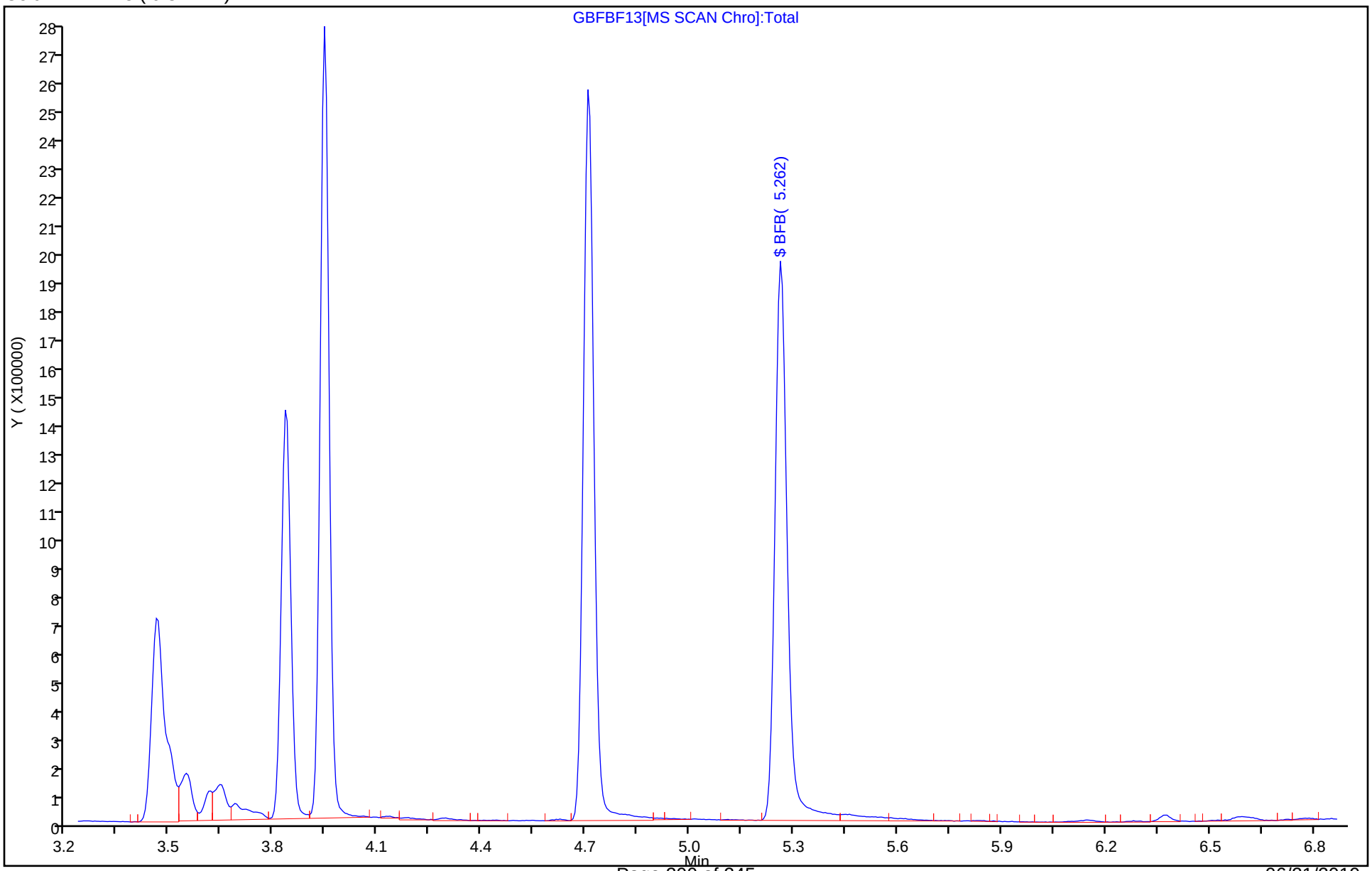
Report Date: 14-Jun-2019 13:41:18 Chrom Revision: 2.3 02-Jun-2019 10:27:32

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GBFBF13.D

Injection Date:	13-Jun-2019 09:20:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30705/4

Matrix: Air Lab File ID: G500BF12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/12/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30705/4

Matrix: Air Lab File ID: G500BF12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/12/2019 11:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\G500BF12.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 12-Jun-2019 11:30:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 12:22:43 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:22:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.001	98	310292	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.346	11.346	0.000	95	1821837	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.026	0.000	90	1599367	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	81	1114582	4.00	4.53	
7 Propene	41	3.840	3.834	0.006	98	22680		0.2264	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

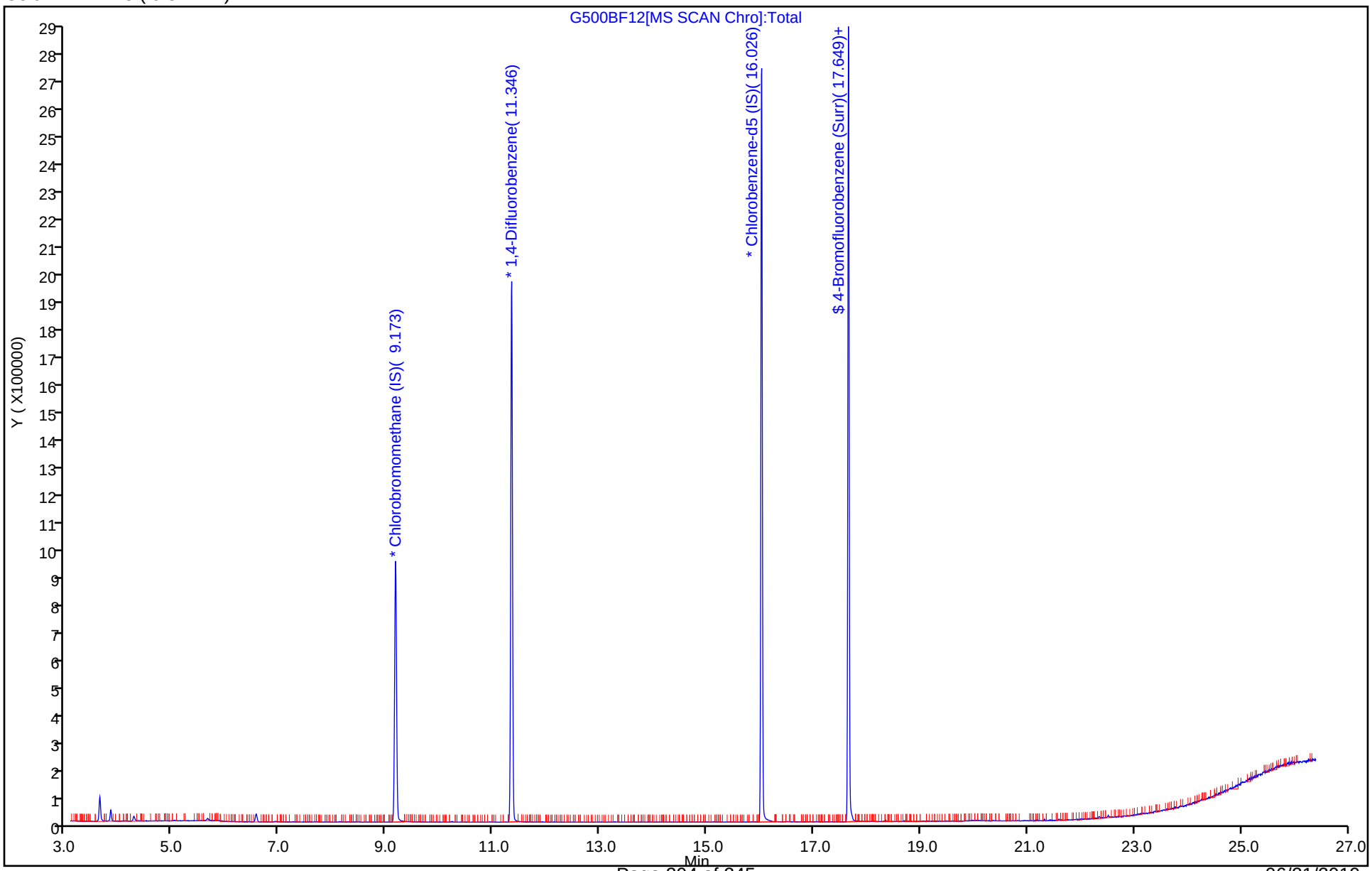
Report Date: 13-Jun-2019 12:22:43 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\G500BF12.D

Injection Date:	12-Jun-2019 11:30:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\G500BF12.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Jun-2019 11:30:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 12:22:43	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:22:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.53	113.14

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30706/8

Matrix: Air Lab File ID: G500BF13.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/13/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30706 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	112		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-30706/8

Matrix: Air Lab File ID: G500BF13.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/13/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30706 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	112		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\G500BF13.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Jun-2019 12:47:30 ALS Bottle#: 16 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011988-008
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Jun-2019 13:46:29 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 14-Jun-2019 13:47:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.173	-0.011	98	314594	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	96	1778278	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	91	1606016	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	86	1108737	4.00	4.48	
7 Propene	41	3.834	3.834	0.000	98	22605		0.2225	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

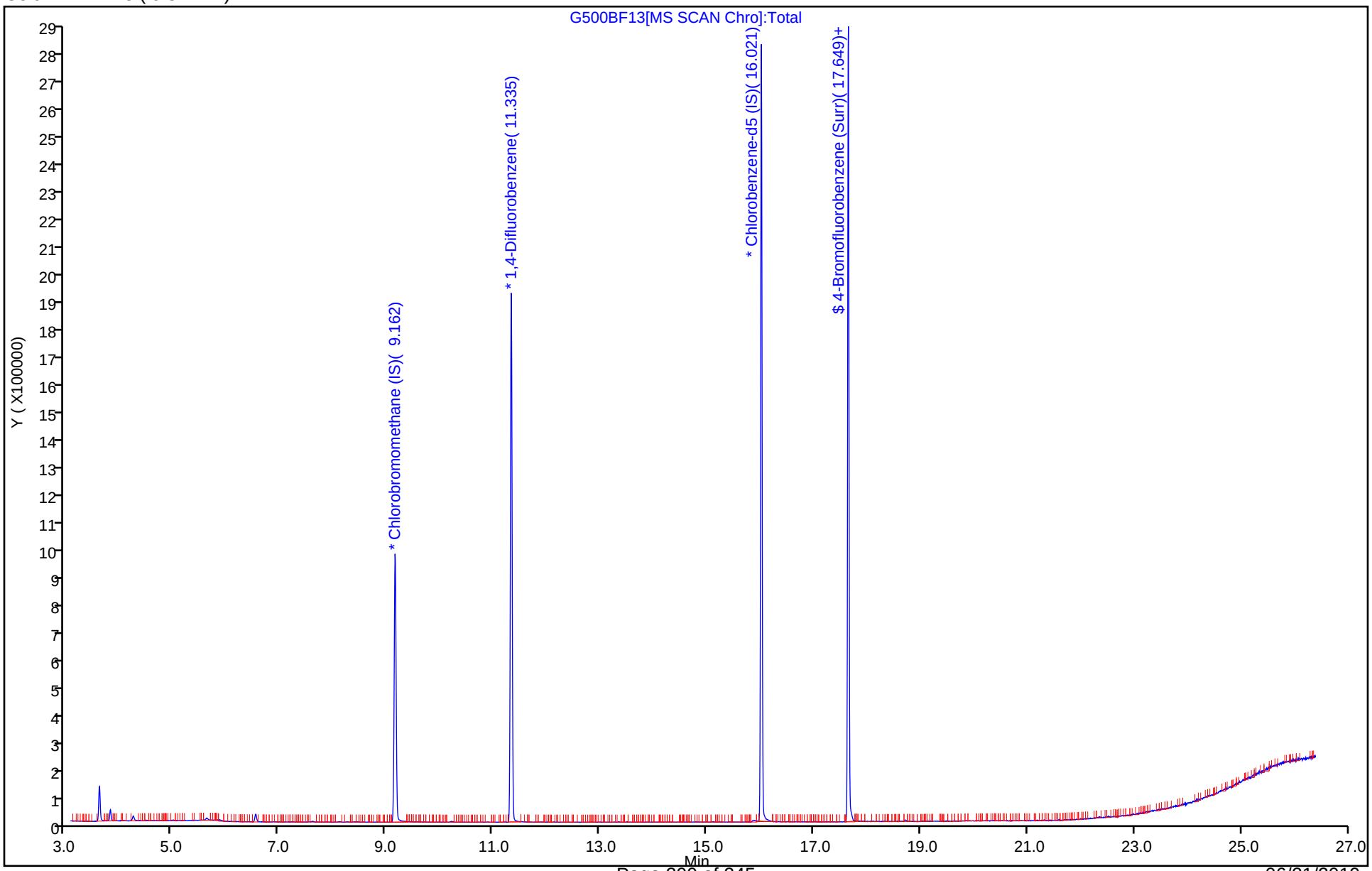
Report Date: 14-Jun-2019 13:47:03 Chrom Revision: 2.3 02-Jun-2019 10:27:32

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\G500BF13.D

Injection Date:	13-Jun-2019 12:47:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\G500BF13.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	13-Jun-2019 12:47:30	ALS Bottle#:	16	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011988-008				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Jun-2019 13:46:29	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				

First Level Reviewer: khachitpongpanits Date: 14-Jun-2019 13:47:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.48	112.08

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-30705/1002

Matrix: Air Lab File ID: GCCVF12-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/12/2019 09:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30705 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.14		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	2.39		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.01		0.080	0.022
67-66-3	Chloroform	119.38	2.05		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.90		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.99		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.98		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	2.26		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.82		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.98		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.68		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.93		0.40	0.052
91-20-3	Naphthalene	128.17	1.86		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.88		0.080	0.0070
108-88-3	Toluene	92.14	1.86		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.86		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.33		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	2.06		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.86		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.02		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.54		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	2.11		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.23		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.88		0.040	0.026
1330-20-7	Xylenes, Total	106.17	6.06		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	118		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GCCVF12-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Jun-2019 09:59:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011987-002
Misc. Info.: S94
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Jun-2019 12:21:47 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0336

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:21:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.000	97	326752	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.346	11.346	0.000	95	1941487	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.026	0.000	90	1794749	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	82	1305446	4.00	4.72	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	382330	2.00	2.01	
7 Propene	41	3.834	3.834	0.000	99	222628	2.00	2.11	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	609375	2.00	1.99	
9 Chloromethane	52	4.082	4.082	0.000	98	67471	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.087	0.000	94	351388	2.00	1.82	
11 Acetaldehyde	44	4.249	4.249	0.000	99	342179	10.0	8.61	
12 Vinyl chloride	62	4.265	4.265	0.000	99	235996	2.00	1.88	
14 Butadiene	54	4.357	4.357	0.000	65	183383	2.00	1.94	
13 Butane	43	4.357	4.357	0.000	85	370987	2.00	2.06	
15 Bromomethane	94	4.702	4.702	0.000	99	189622	2.00	1.77	
16 Chloroethane	64	4.848	4.848	0.000	98	110004	2.00	1.82	
17 Ethanol	31	4.966	4.966	0.000	95	258636	10.0	6.55	
18 Vinyl bromide	106	5.171	5.171	0.000	99	194803	2.00	1.87	
19 2-Methylbutane	43	5.225	5.225	0.000	91	260810	2.00	2.01	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	99	584215	2.00	1.97	
21 Acrolein	56	5.473	5.473	0.000	94	50781	2.00	2.23	
22 Acetonitrile	40	5.538	5.538	0.000	99	62379	2.00	2.04	
23 Acetone	58	5.597	5.597	0.000	98	72724	2.00	1.74	
24 Pentane	72	5.689	5.689	0.000	98	41040	2.00	2.00	
25 Isopropyl alcohol	45	5.705	5.705	0.000	93	216369	2.00	2.08	
26 Ethyl ether	31	5.872	5.872	0.000	94	160397	2.00	2.04	
27 1,1-Dichloroethene	96	6.196	6.196	0.000	95	215576	2.00	1.82	
28 Acrylonitrile	53	6.309	6.309	0.000	96	141912	2.00	2.09	
30 2-Methyl-2-propanol	59	6.347	6.347	0.000	95	262597	2.00	1.67	
29 1,1,2-Trichloro-1,2,2-trif	101	6.379	6.379	0.000	93	471585	2.00	1.88	
31 Methylene Chloride	84	6.557	6.557	0.000	98	220702	2.00	1.68	
32 3-Chloro-1-propene	39	6.573	6.573	0.000	95	210221	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.730	6.730	0.000	99	658778	2.00	1.91	
34 trans-1,2-Dichloroethene	96	7.393	7.393	0.000	96	217437	2.00	1.86	
35 2-Methylpentane	43	7.409	7.409	0.000	95	545992	2.00	1.89	
36 Methyl tert-butyl ether	73	7.528	7.528	0.000	97	547578	2.00	1.93	
37 1,1-Dichloroethane	63	7.830	7.830	0.000	100	456047	2.00	1.98	
38 Vinyl acetate	43	7.932	7.932	0.000	100	527656	2.00	2.16	
39 2-Butanone (MEK)	72	8.391	8.391	0.000	96	86266	2.00	1.71	
40 Hexane	56	8.418	8.418	0.000	90	213889	2.00	1.98	
41 Isopropyl ether	45	8.579	8.579	0.000	97	708755	2.00	2.02	
42 cis-1,2-Dichloroethene	96	8.833	8.833	0.000	97	231983	2.00	1.90	
43 Ethyl acetate	43	9.022	9.022	0.000	99	413405	2.00	1.93	
44 Chloroform	83	9.183	9.183	0.000	97	501062	2.00	2.05	
45 Tert-butyl ethyl ether	59	9.270	9.270	0.000	95	612426	2.00	1.83	
46 Tetrahydrofuran	42	9.604	9.604	0.000	96	236613	2.00	2.03	
47 1,1,1-Trichloroethane	97	10.229	10.229	0.000	96	542027	2.00	2.06	
48 1,2-Dichloroethane	62	10.337	10.337	0.000	98	351157	2.00	2.26	
49 Cyclohexane	69	10.817	10.817	0.000	75	124401	2.00	2.08	
50 Benzene	78	10.817	10.817	0.000	97	728825	2.00	2.14	
51 n-Butanol	31	10.828	10.828	0.000	66	52246	2.00	1.97	
52 Carbon tetrachloride	117	10.839	10.839	0.000	97	540042	2.00	2.39	
53 2,3-Dimethylpentane	71	10.925	10.925	0.000	91	179393	2.00	2.01	
54 Thiophene	84	11.087	11.087	0.000	97	391859	2.00	1.99	
55 Isooctane	57	11.556	11.556	0.000	99	1297982	2.00	2.11	
56 n-Heptane	71	11.923	11.923	0.000	92	265822	2.00	2.02	
57 1,2-Dichloropropane	63	12.020	12.020	0.000	89	253747	2.00	2.07	
58 Trichloroethene	130	12.052	12.052	0.000	95	302759	2.00	2.02	
59 Dibromomethane	93	12.138	12.138	0.000	90	266408	2.00	2.13	
60 Dichlorobromomethane	83	12.279	12.279	0.000	98	507373	2.00	2.27	
61 1,4-Dioxane	88	12.305	12.305	0.000	93	63812	2.00	1.52	
62 Methyl methacrylate	41	12.365	12.365	0.000	93	266920	2.00	2.26	
63 Methylcyclohexane	83	12.807	12.807	0.000	94	570896	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.217	0.000	98	326607	2.00	1.56	
65 cis-1,3-Dichloropropene	75	13.260	13.260	0.000	95	404511	2.00	2.24	
66 trans-1,3-Dichloropropene	75	13.945	13.945	0.000	98	354711	2.00	2.07	
67 Toluene	91	14.074	14.074	0.000	94	728784	2.00	1.86	
68 1,1,2-Trichloroethane	83	14.144	14.144	0.000	99	219089	2.00	1.86	
69 2-Hexanone	58	14.533	14.533	0.000	93	152219	2.00	1.35	
70 n-Octane	85	14.737	14.737	0.000	94	288217	2.00	1.95	
71 Chlorodibromomethane	129	14.845	14.845	0.000	97	456868	2.00	2.12	
72 Ethylene Dibromide	107	15.136	15.136	0.000	98	403506	2.00	2.02	
73 Tetrachloroethene	129	15.201	15.201	0.000	92	280149	2.00	1.88	
74 2,3-Dimethylheptane	43	16.075	16.075	0.000	96	797871	2.00	1.88	
75 Chlorobenzene	112	16.075	16.075	0.000	91	609716	2.00	1.89	
78 Ethylbenzene	91	16.355	16.355	0.000	98	965611	2.00	1.98	
79 m-Xylene & p-Xylene	91	16.512	16.512	0.000	98	1532191	4.00	4.08	
80 n-Nonane	57	16.916	16.916	0.000	93	582029	2.00	2.05	
81 Bromoform	173	16.970	16.970	0.000	91	355656	2.00	2.34	
82 Styrene	104	16.975	16.975	0.000	99	566683	2.00	2.35	
83 o-Xylene	91	17.040	17.040	0.000	99	789400	2.00	1.98	
84 1,1,2,2-Tetrachloroethane	83	17.358	17.358	0.000	99	530389	2.00	2.04	
85 1,2,3-Trichloropropane	110	17.514	17.514	0.000	98	167129	2.00	2.01	
86 Isopropylbenzene	105	17.617	17.617	0.000	97	1086095	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.140	0.000	99	297831	2.00	2.05	
88 2-Chlorotoluene	126	18.189	18.189	0.000	97	275084	2.00	1.96	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	1043244	2.00	1.96	
90 1,3,5-Trimethylbenzene	120	18.356	18.356	0.000	92	489276	2.00	2.23	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	88	428671	2.00	2.37	
93 n-Decane	57	18.625	18.625	0.000	90	710557	2.00	2.05	
94 tert-Butylbenzene	119	18.771	18.771	0.000	92	952407	2.00	1.99	
95 1,2,4-Trimethylbenzene	105	18.787	18.787	0.000	96	941361	2.00	2.11	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1355763	2.00	1.99	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	98	585574	2.00	2.01	
98 Benzyl chloride	91	19.127	19.127	0.000	97	816255	2.00	2.70	
99 1,4-Dichlorobenzene	146	19.138	19.138	0.000	91	590625	2.00	2.00	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	1078129	2.00	2.01	
101 1,2,3-Trimethylbenzene	105	19.251	19.251	0.000	99	699676	2.00	1.54	
102 Butylcyclohexane	83	19.294	19.294	0.000	92	793669	2.00	1.80	
103 2,3-Dihydroindene	117	19.488	19.488	0.000	93	814111	2.00	2.00	
104 1,2-Dichlorobenzene	146	19.493	19.493	0.000	95	561775	2.00	2.01	
106 Indene	116	19.618	19.618	0.000	91	628600	2.00	2.09	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	1106594	2.00	2.22	
107 Undecane	57	19.909	19.909	0.000	97	711751	2.00	1.98	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	94	188241	2.00	1.74	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	791752	2.00	1.58	
110 Dodecane	57	20.960	20.960	0.000	96	435429	2.00	1.61	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	93	412189	2.00	2.33	
112 Naphthalene	128	21.316	21.316	0.000	99	915233	2.00	1.86	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	90	337679	2.00	1.79	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	333811	2.00	1.76	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	355516	2.00	2.17	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	100	345591	2.00	1.64	
A 122 C8 Range	1	14.733	(14.679-14.816)		0	2632417	2.00	1.97	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.76	
S 124 Xylenes, Total	100				0		6.00	6.06	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

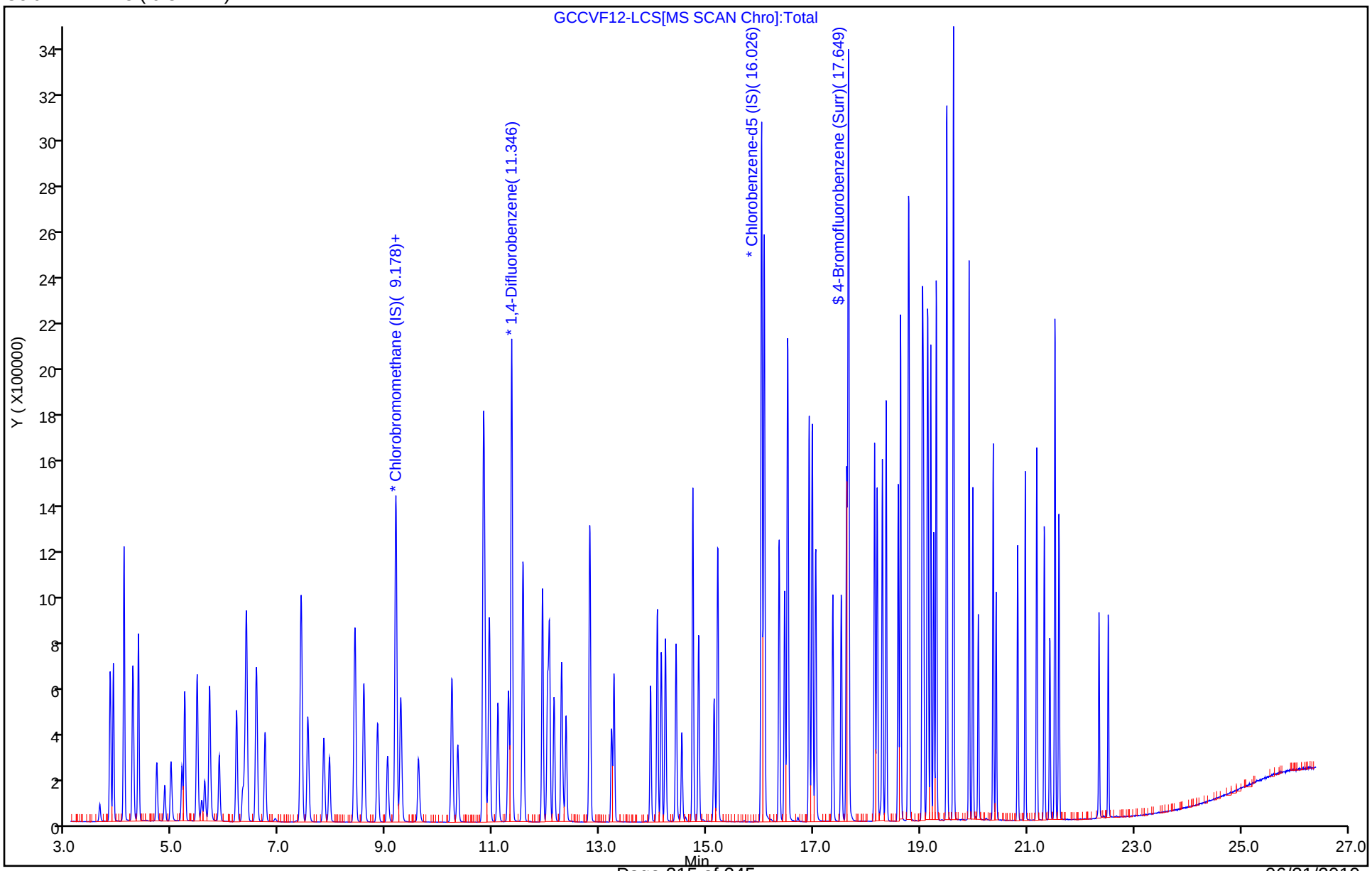
Report Date: 13-Jun-2019 12:21:59 Chrom Revision: 2.3 03-May-2019 15:52:00

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11987.b\GCCVF12-LCS.d

Injection Date:	12-Jun-2019 09:59:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\GCCVF12-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	12-Jun-2019 09:59:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011987-002				
Misc. Info.:	S94				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190611-11987.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Jun-2019 12:21:47	Calib Date:	17-May-2019 04:45:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0336				

First Level Reviewer: khachitpongpanits Date: 13-Jun-2019 12:21:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.72	118.09

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-30706/1002

Matrix: Air Lab File ID: GCCVF13-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 06/13/2019 09:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30706 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.10		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	2.41		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.05		0.080	0.022
67-66-3	Chloroform	119.38	2.07		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.92		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.04		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.98		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	2.24		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.83		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.88		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.67		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.87		0.40	0.052
91-20-3	Naphthalene	128.17	1.72		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.91		0.080	0.0070
108-88-3	Toluene	92.14	1.79		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	1.83		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.97		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	2.07		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.83		0.080	0.0070
79-01-6	Trichloroethene	131.39	2.09		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.44		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.96		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	2.05		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.92		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.79		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	119		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GCCVF13-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Jun-2019 09:57:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011988-002
Misc. Info.: S94
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Jun-2019 13:43:08 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: tajh Date: 13-Jun-2019 11:11:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.173	0.000	98	309361	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.346	11.346	0.000	96	1804549	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.026	16.026	0.000	90	1685979	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	81	1234924	4.00	4.76	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	368770	2.00	2.05	
7 Propene	41	3.834	3.834	0.000	99	214989	2.00	2.15	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	589620	2.00	2.04	
9 Chloromethane	52	4.082	4.082	0.000	98	63789	2.00	1.92	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	94	340699	2.00	1.87	
11 Acetaldehyde	44	4.255	4.255	0.000	100	316711	10.0	8.42	
12 Vinyl chloride	62	4.266	4.266	0.000	99	227919	2.00	1.92	
14 Butadiene	54	4.357	4.357	0.000	65	173966	2.00	1.94	
13 Butane	43	4.357	4.357	0.000	85	354859	2.00	2.08	
15 Bromomethane	94	4.697	4.697	0.000	99	182333	2.00	1.79	
16 Chloroethane	64	4.853	4.853	0.000	99	104225	2.00	1.82	
17 Ethanol	31	4.977	4.977	0.000	95	260317	10.0	6.96	
18 Vinyl bromide	106	5.172	5.172	0.000	98	184480	2.00	1.87	
19 2-Methylbutane	43	5.225	5.225	0.000	90	246833	2.00	2.01	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	99	559771	2.00	2.00	
21 Acrolein	56	5.479	5.479	0.000	92	46491	2.00	2.16	
22 Acetonitrile	40	5.549	5.549	0.000	99	55966	2.00	1.93	
23 Acetone	58	5.608	5.608	0.000	98	64778	2.00	1.64	
24 Pentane	72	5.689	5.689	0.000	99	38803	2.00	2.00	
25 Isopropyl alcohol	45	5.722	5.722	0.000	92	217889	2.00	2.21	
26 Ethyl ether	31	5.873	5.873	0.000	93	147446	2.00	1.98	
27 1,1-Dichloroethene	96	6.196	6.196	0.000	96	204823	2.00	1.83	
28 Acrylonitrile	53	6.315	6.315	0.000	97	125883	2.00	1.96	
30 2-Methyl-2-propanol	59	6.369	6.369	0.000	95	251161	2.00	1.69	
29 1,1,2-Trichloro-1,2,2-trif	101	6.379	6.379	0.000	93	451144	2.00	1.90	
31 Methylene Chloride	84	6.557	6.557	0.000	98	207544	2.00	1.67	
32 3-Chloro-1-propene	39	6.574	6.574	0.000	96	200023	2.00	2.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.725	6.725	0.000	99	614073	2.00	1.88	
34 trans-1,2-Dichloroethene	96	7.393	7.393	0.000	97	202530	2.00	1.83	
35 2-Methylpentane	43	7.409	7.409	0.000	94	520299	2.00	1.90	
36 Methyl tert-butyl ether	73	7.533	7.533	0.000	96	501488	2.00	1.87	
37 1,1-Dichloroethane	63	7.830	7.830	0.000	100	431451	2.00	1.98	
38 Vinyl acetate	43	7.938	7.938	0.000	100	475093	2.00	2.05	
39 2-Butanone (MEK)	72	8.402	8.402	0.000	95	78654	2.00	1.65	
40 Hexane	56	8.412	8.412	0.000	89	202104	2.00	1.98	
41 Isopropyl ether	45	8.580	8.580	0.000	97	637041	2.00	1.92	
42 cis-1,2-Dichloroethene	96	8.833	8.833	0.000	97	221122	2.00	1.92	
43 Ethyl acetate	43	9.027	9.027	0.000	99	366314	2.00	1.81	
44 Chloroform	83	9.183	9.183	0.000	96	479710	2.00	2.07	
45 Tert-butyl ethyl ether	59	9.270	9.270	0.000	95	557233	2.00	1.76	
46 Tetrahydrofuran	42	9.604	9.604	0.000	95	210211	2.00	1.90	
47 1,1,1-Trichloroethane	97	10.224	10.224	0.000	96	513944	2.00	2.07	
48 1,2-Dichloroethane	62	10.337	10.337	0.000	98	322865	2.00	2.24	
49 Cyclohexane	69	10.817	10.817	0.000	75	116634	2.00	2.10	
50 Benzene	78	10.817	10.817	0.000	97	664082	2.00	2.10	
51 n-Butanol	31	10.839	10.839	0.000	66	48859	2.00	1.98	
52 Carbon tetrachloride	117	10.839	10.839	0.000	96	506749	2.00	2.41	
53 2,3-Dimethylpentane	71	10.925	10.925	0.000	91	165019	2.00	1.99	
54 Thiophene	84	11.087	11.087	0.000	97	368460	2.00	2.01	
55 Isooctane	57	11.556	11.556	0.000	99	1206353	2.00	2.11	
56 n-Heptane	71	11.923	11.923	0.000	92	254571	2.00	2.08	
57 1,2-Dichloropropane	63	12.014	12.014	0.000	88	231807	2.00	2.03	
58 Trichloroethene	130	12.052	12.052	0.000	95	291385	2.00	2.09	
59 Dibromomethane	93	12.138	12.138	0.000	90	253582	2.00	2.19	
60 Dichlorobromomethane	83	12.279	12.279	0.000	98	487813	2.00	2.35	
61 1,4-Dioxane	88	12.306	12.306	0.000	93	66064	2.00	1.69	
62 Methyl methacrylate	41	12.365	12.365	0.000	92	235444	2.00	2.14	
63 Methylcyclohexane	83	12.807	12.807	0.000	94	537745	2.00	2.50	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.217	0.000	98	306464	2.00	1.57	
65 cis-1,3-Dichloropropene	75	13.260	13.260	0.000	95	366737	2.00	2.19	
66 trans-1,3-Dichloropropene	75	13.945	13.945	0.000	98	319913	2.00	1.99	
67 Toluene	91	14.074	14.074	0.000	94	660268	2.00	1.79	
68 1,1,2-Trichloroethane	83	14.144	14.144	0.000	99	202422	2.00	1.83	
69 2-Hexanone	58	14.533	14.533	0.000	93	141923	2.00	1.34	
70 n-Octane	85	14.738	14.738	0.000	94	268527	2.00	1.93	
71 Chlorodibromomethane	129	14.845	14.845	0.000	98	420821	2.00	2.08	
72 Ethylene Dibromide	107	15.137	15.137	0.000	98	368352	2.00	1.97	
73 Tetrachloroethene	129	15.207	15.207	0.000	92	266290	2.00	1.91	
74 2,3-Dimethylheptane	43	16.075	16.075	0.000	96	730029	2.00	1.83	
75 Chlorobenzene	112	16.075	16.075	0.000	91	561721	2.00	1.86	
78 Ethylbenzene	91	16.355	16.355	0.000	98	862331	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.512	16.512	0.000	98	1374174	4.00	3.89	
80 n-Nonane	57	16.916	16.916	0.000	93	527384	2.00	1.98	
81 Bromoform	173	16.970	16.970	0.000	91	316166	2.00	2.21	
82 Styrene	104	16.975	16.975	0.000	99	498017	2.00	2.20	
83 o-Xylene	91	17.035	17.035	0.000	99	710861	2.00	1.90	
84 1,1,2,2-Tetrachloroethane	83	17.358	17.358	0.000	99	473301	2.00	1.94	
85 1,2,3-Trichloropropane	110	17.515	17.515	0.000	98	148549	2.00	1.90	
86 Isopropylbenzene	105	17.617	17.617	0.000	97	973764	2.00	1.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.140	18.140	0.000	98	260517	2.00	1.91	
88 2-Chlorotoluene	126	18.189	18.189	0.000	97	240683	2.00	1.83	
89 4-Ethyltoluene	105	18.286	18.286	0.000	99	913796	2.00	1.83	
90 1,3,5-Trimethylbenzene	120	18.356	18.356	0.000	92	423885	2.00	2.05	
92 Alpha Methyl Styrene	118	18.582	18.582	0.000	88	371691	2.00	2.19	
93 n-Decane	57	18.625	18.625	0.000	90	636334	2.00	1.96	
94 tert-Butylbenzene	119	18.771	18.771	0.000	92	833614	2.00	1.86	
95 1,2,4-Trimethylbenzene	105	18.782	18.782	0.000	96	822469	2.00	1.96	
96 sec-Butylbenzene	105	19.035	19.035	0.000	98	1189142	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.057	19.057	0.000	98	517229	2.00	1.89	
98 Benzyl chloride	91	19.127	19.127	0.000	97	695817	2.00	2.45	
99 1,4-Dichlorobenzene	146	19.138	19.138	0.000	91	517259	2.00	1.86	
100 4-Isopropyltoluene	119	19.192	19.192	0.000	97	935522	2.00	1.85	
101 1,2,3-Trimethylbenzene	105	19.246	19.246	0.000	99	615862	2.00	1.44	
102 Butylcyclohexane	83	19.294	19.294	0.000	92	707676	2.00	1.71	
103 2,3-Dihydroindene	117	19.488	19.488	0.000	94	730882	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.494	19.494	0.000	95	505395	2.00	1.92	
105 n-Butylbenzene	91	19.618	19.618	0.000	98	962196	2.00	2.05	
106 Indene	116	19.618	19.618	0.000	90	546428	2.00	1.93	
107 Undecane	57	19.909	19.909	0.000	97	622785	2.00	1.85	
108 1,2-Dibromo-3-Chloropropan	157	20.081	20.081	0.000	89	163253	2.00	1.61	
109 1,2,4,5-Tetramethylbenzene	119	20.362	20.362	0.000	97	734911	2.00	1.56	
110 Dodecane	57	20.960	20.960	0.000	96	373164	2.00	1.47	
111 1,2,4-Trichlorobenzene	180	21.176	21.176	0.000	93	328147	2.00	1.97	
112 Naphthalene	128	21.316	21.316	0.000	99	791577	2.00	1.72	
113 Hexachlorobutadiene	225	21.521	21.521	0.000	88	285569	2.00	1.61	
114 1,2,3-Trichlorobenzene	180	21.591	21.591	0.000	94	269564	2.00	1.51	
115 2-Methylnaphthalene	142	22.341	22.341	0.000	100	254358	2.00	1.65	
116 1-Methylnaphthalene	142	22.513	22.513	0.000	100	238924	2.00	1.21	
A 122 C8 Range	1	14.743	(14.679-14.816)		0	2472109	2.00	1.97	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.75	
S 124 Xylenes, Total	100				0		6.00	5.79	

Reagents:

40CV101S_00094	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

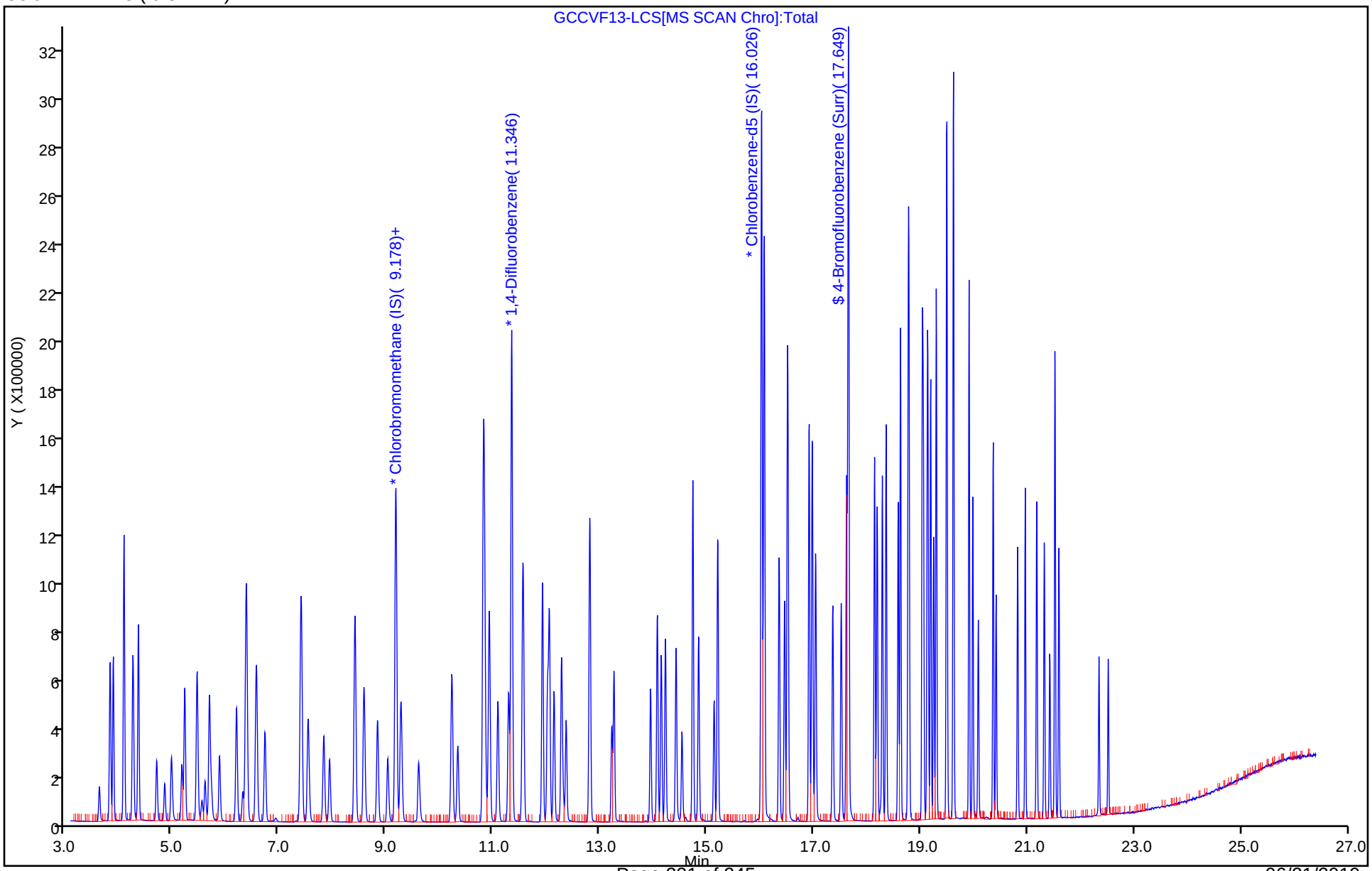
Report Date: 14-Jun-2019 13:43:13 Chrom Revision: 2.3 02-Jun-2019 10:27:32

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GCCVF13-LCS.d

Injection Date:	13-Jun-2019 09:57:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\GCCVF13-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Jun-2019 09:57:30 ALS Bottle#: 1 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011988-002
Misc. Info.: S94
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190611-11988.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Jun-2019 13:43:08 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: tajh Date: 13-Jun-2019 11:11:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.76	118.91

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Instrument ID: MG Start Date: 05/16/2019 18:49

Analysis Batch Number: 30104 End Date: 05/17/2019 10:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30104/1		05/16/2019 18:49	1	GE16BFB.D	RTX-5 0.32(mm)
IC 140-30104/3		05/16/2019 20:05	1	GE16IC09.D	RTX-5 0.32(mm)
IC 140-30104/5		05/16/2019 21:32	1	GE16IC10.D	RTX-5 0.32(mm)
IC 140-30104/8		05/16/2019 23:40	1	GE16IC01.D	RTX-5 0.32(mm)
IC 140-30104/9		05/17/2019 00:23	1	GE16IC02.D	RTX-5 0.32(mm)
140-14761-A-1 MDLV		05/17/2019 00:23	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 00:23	1		RTX-5 0.32(mm)
IC 140-30104/10		05/17/2019 01:06	1	GE16IC03.D	RTX-5 0.32(mm)
140-14761-A-2 MDLV		05/17/2019 01:06	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 01:06	1		RTX-5 0.32(mm)
IC 140-30104/11		05/17/2019 01:49	1	GE16IC04.D	RTX-5 0.32(mm)
140-14761-A-3 MDLV		05/17/2019 01:49	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 01:49	1		RTX-5 0.32(mm)
IC 140-30104/12		05/17/2019 02:34	1	GE16IC05.D	RTX-5 0.32(mm)
140-14761-A-4 MDLV		05/17/2019 02:34	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 02:34	1		RTX-5 0.32(mm)
IC 140-30104/13		05/17/2019 03:19	1	GE16IC06.D	RTX-5 0.32(mm)
ICIS 140-30104/14		05/17/2019 04:03	1	GE16IC07.D	RTX-5 0.32(mm)
IC 140-30104/15		05/17/2019 04:45	1	GE16IC08.D	RTX-5 0.32(mm)
ICV 140-30104/17		05/17/2019 06:12	1	GE16ICV.D	RTX-5 0.32(mm)
ZZZZZ		05/17/2019 08:27	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 09:13	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 09:59	1		RTX-5 0.32(mm)
ZZZZZ		05/17/2019 10:46	1		RTX-5 0.32(mm)

190516.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	27.8	5/16/2019	6:49:30 PM
CLEAN	16 - 101 mL	27.7	5/16/2019	7:22:28 PM
ICAL9	15 - 101 mL	19.4	5/16/2019	8:05:44 PM
BLK	16 - 202 mL	27.5	5/16/2019	8:48:54 PM
ICAL10	15 - 200 mL	18.7	5/16/2019	9:32:03 PM
BLK	16 - 201 mL	27.2	5/16/2019	10:14:20 PM
BLK	16 - 201 mL	27.1	5/16/2019	10:58:05 PM
ICAL01	1 - 52 mL	34.9	5/16/2019	11:40:36 PM
ICAL02	1 - 100 mL	34.1	5/17/2019	12:23:10 AM
ICAL03	2 - 101 mL	21.6	5/17/2019	1:06:44 AM
ICAL04	2 - 200 mL	21	5/17/2019	1:49:30 AM
ICAL05	3 - 201 mL	21.3	5/17/2019	2:34:47 AM
ICAL06	4 - 201 mL	21	5/17/2019	3:19:08 AM
ICAL07	5 - 201 mL	21.1	5/17/2019	4:03:17 AM
ICAL08	6 - 200 mL	18.1	5/17/2019	4:45:57 AM
BLK	16 - 201 mL	26.8	5/17/2019	5:28:25 AM
ICV	7 - 100 mL	29.7	5/17/2019	6:12:09 AM
LCS	8 - 101 mL	23.1	5/17/2019	6:54:48 AM
BLK	16 - 501 mL	26.5	5/17/2019	7:41:57 AM
BLK	16 - 502 mL	26.2	5/17/2019	8:27:22 AM
LOT15273	9 - 501 mL	19.3	5/17/2019	9:13:30 AM
LOT15289	10 - 500 mL	23.8	5/17/2019	9:59:38 AM
LOT15290	11 - 501 mL	21.1	5/17/2019	10:46:35 AM

MJ WL 11759 ical

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 19 & KNOX-MS-0023, Rev 4

Analysis Date:	5/16/19	Instrument:	MB	Chrom WL #:	11759	TALS Batch & Event #	TO14/15: 1954 / 30104	0005 - 1957 30107
							DOD: 1955 / 30105	OHIO: 1956 / 30106

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	✓		✓
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	M ICV	✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	-	DOD5 ✓	✓	-	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓	-	✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓	-	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	ne ✓	→	→	✓	ns	→	→
18. If curves were used, is correlation coefficient ≥0.990? [F6]	ne	→	→		ns	→	→
19. Is the intercept less than the RL for each curve? [F6]	ne	→	→		ns	→	→
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	ne →	na	ne		ns	ns	na
21. Is low point RSE ≤ 50 %? [F6]	✓	✓	✓	✓	✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓	✓	✓	✓	✓

Mech

Analyst/Date: 5/17/19

2nd Level Reviewer/Date: 05/2019

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓			5	na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓	✓	✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓	✓	✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓	✓	✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓	✓	✓	✓	✓
28. If criteria not met, was a NCM generated?	✓	✓	✓	-	ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 5/20/19

2nd Level Reviewer/date: 05/2019

Comments: Bromo for VR 4.2 Styrene, α methyl styrene VR 8, Benzyl chloride 123 TMB2, Indene, #108, 124 TMB2.

Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Instrument ID: MG Start Date: 06/12/2019 09:27

Analysis Batch Number: 30705 End Date: 06/13/2019 06:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30705/1		06/12/2019 09:27	1	GBFBF12.D	RTX-5 0.32(mm)
CCVIS 140-30705/2		06/12/2019 09:59	1	GCCVF12.D	RTX-5 0.32(mm)
LCS 140-30705/1002		06/12/2019 09:59	1	GCCVF12-LCS.d	RTX-5 0.32(mm)
MB 140-30705/4		06/12/2019 11:30	1	G500BF12.D	RTX-5 0.32(mm)
ZZZZZ		06/12/2019 12:13	1		RTX-5 0.32(mm)
ZZZZZ		06/12/2019 20:28	2.53		RTX-5 0.32(mm)
ZZZZZ		06/12/2019 21:11	85.77		RTX-5 0.32(mm)
ZZZZZ		06/12/2019 21:55	3.47		RTX-5 0.32(mm)
ZZZZZ		06/12/2019 22:40	3.43		RTX-5 0.32(mm)
ZZZZZ		06/12/2019 23:24	4.39		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 00:12	4.84		RTX-5 0.32(mm)
140-15566-1		06/13/2019 00:58	1	GF12P110.D	RTX-5 0.32(mm)
140-15566-2		06/13/2019 01:44	1	GF12P111.D	RTX-5 0.32(mm)
140-15566-3		06/13/2019 02:29	1	GF12P112.D	RTX-5 0.32(mm)
ZZZZZ		06/13/2019 03:14	1		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 05:36	1		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 06:28	1		RTX-5 0.32(mm)

190612.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	18.3	6/12/2019	9:27:16 AM
CCV	1 - 101 mL	31.4	6/12/2019	9:59:40 AM
DNU	16 - 21 mL	18.3	6/12/2019	10:52:14 AM
BLK	16 - 500 mL	17.9	6/12/2019	11:30:30 AM
BLK	16 - 201 mL	17.3	6/12/2019	12:13:15 PM
15562-02	15 - 11 mL	12.7	6/12/2019	1:24:33 PM
BLK	15 - 501 mL	21.6	6/12/2019	2:34:02 PM
DNU	16 - 21 mL	22.9	6/12/2019	5:43:20 PM
15563-01	1 - 21 mL	14	6/12/2019	6:19:18 PM
15563-02	2 - 16 mL	13.1	6/12/2019	7:01:44 PM
15565-01	3 - 11 mL	8.9	6/12/2019	7:44:14 PM
15562-01	4 - 52 mL	12.5	6/12/2019	8:28:10 PM
15562-02	5 - 11 mL	11.6	6/12/2019	9:11:12 PM
15562-03	6 - 71 mL	10.2	6/12/2019	9:55:24 PM
15562-04	7 - 70 mL	10.2	6/12/2019	10:40:13 PM
15562-05	8 - 89 mL	10.1	6/12/2019	11:24:45 PM
15562-06	9 - 98 mL	11.1	6/13/2019	12:12:38 AM
15566-01	10 - 21 mL	10.5	6/13/2019	12:58:45 AM
15566-02	11 - 100 mL	6.9	6/13/2019	1:44:56 AM
15566-03	12 - 100 mL	6.4	6/13/2019	2:29:13 AM
15566-03	12 - 101 mL	4.6	6/13/2019	3:14:19 AM
15576-01	13 - 51 mL	7.8	6/13/2019	3:58:34 AM
15576-02	14 - 11 mL	7.8	6/13/2019	4:44:55 AM
LOT	15 - 500 mL	19.5	6/13/2019	5:36:26 AM
LOT	16 - 501 mL	19.8	6/13/2019	6:28:37 AM
LOT	15 - 501 mL	18.1	6/13/2019	7:21:10 AM
15566-03	12 - 101 mL	1	6/13/2019	8:10:13 AM
15576-02	14 - 51 mL	6.8	6/13/2019	8:38:46 AM

MG WL 11987

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MS 06/12/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11987	CCAL Batch #	30705	30789	30788
ICAL Chrom WL #	11759	ICAL Batch # / Event #	30704 / 1954	30105 / 1955	30106 / 1956

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: 2-Hexanone, Benzyl Chloride	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawana Kh. 06/13/2019		**2nd Level Reviewer/date** 06/13/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	✓		
18. Individual TPH peak area < octane high point area?	✓		✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	/		/
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	NJ
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	☑ CCV - %D - LCS criteria met (NCM# 18127) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	/
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	/		na
23. Project & sample special instructions verified?	/		/
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	NJ
25. Sample analyses done within analytical holding time?	/	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	/
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	/	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) ☑ LCS/LCSD - %R High (NCM# 18129)	/
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		NJ
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	/		/
29. Analytes over calibration range set to secondary [Conditions Review Tab]	/		/
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	/		/
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	/		/
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	/	**500 mL blank ID:** 140-30705/4, 140-30788/4 **200 mL blank ID:** 140-30705/5, 140-30789/5	/
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	/		/
34. Correct ICV linked to each MB? [QC Links]	/		/
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	/		/
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	/		/
37. Run Checklist and acknowledge findings [F8]	/		/
38. Runs set to 1st level review?	/	Runs set to 2nd level review?	/
39. QC checker run and items addressed?	-na-		/
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		/

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawan Kh. **Date:** 06/13/2019	**2nd Level Reviewer :** [signature] **Date:** 06/17/19
Comments:	**Comments:**
CI line 16	
1st level line 29 6/13/19	
Example Calculation: 140-15563-1 TCE	
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF	
8.013179 x 500/20 x 45.0 = 9014.83	

MS017r46, 2/22/2019

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15566-1

SDG No.:

Instrument ID: MG Start Date: 06/13/2019 09:20

Analysis Batch Number: 30706 End Date: 06/14/2019 05:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-30706/1		06/13/2019 09:20	1	GBFBF13.D	RTX-5 0.32(mm)
CCVIS 140-30706/2		06/13/2019 09:57	1	GCCVF13.D	RTX-5 0.32(mm)
LCS 140-30706/1002		06/13/2019 09:57	1	GCCVF13-LCS.d	RTX-5 0.32(mm)
ZZZZZ		06/13/2019 10:41	1		RTX-5 0.32(mm)
MB 140-30706/8		06/13/2019 12:47	1	G500BF13.D	RTX-5 0.32(mm)
ZZZZZ		06/13/2019 13:41	1.6		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 14:32	1.49		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 15:21	1.6		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 16:10	1.51		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 17:02	1.56		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 17:52	1.56		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 18:45	1.51		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 19:41	2.9		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 20:33	2.03		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 21:21	1.5		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 22:10	1.5		RTX-5 0.32(mm)
ZZZZZ		06/13/2019 22:59	1.56		RTX-5 0.32(mm)
140-15566-2 DL		06/13/2019 23:41	1	GF13P113D.D	RTX-5 0.32(mm)
ZZZZZ		06/14/2019 00:24	1		RTX-5 0.32(mm)
ZZZZZ		06/14/2019 01:10	1		RTX-5 0.32(mm)
ZZZZZ		06/14/2019 02:35	1.6		RTX-5 0.32(mm)
ZZZZZ		06/14/2019 04:00	1.6		RTX-5 0.32(mm)
ZZZZZ		06/14/2019 05:25	1.56		RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MG 06/13/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	11988	CCAL Batch #	30706		
ICAL Chrom WL #	11759	ICAL Batch # / Event #	30704 / 1954	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	□ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: 2-Hexanone	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MB
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MB
6. Has the RT been updated to the method?	✓		✓
Analyst/date Stephanie Kh 06/14/2019		**2nd Level Reviewer/date** 061719	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	□ Method Blank – Report, ND (NCM#_____) □ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	□ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MB
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	MB
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 18164) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MB
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#____) □ Holding Time – Receipt (NCM#____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	☑ Marginal Exceedances - Within ME Limits and Random; Report (NCM# 18165) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-70706/8 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawana Kh.	Date: 06/14/2019	2nd Level Reviewer:	Date: 06/17/19
Comments:		**Comments:**	
CI lines 9, 10, 12, 14-20			

Example Calculation: 140-15566-2 1,1,1-Trichloroethane

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$$8.929748 \times \frac{500}{50} \times 1.0 = 89.29$$

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15566-1

SDG No.:

Batch Number: 30705 Batch Start Date: 06/12/19 09:27 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00094	40MXISSURP 00004
BFB 140-30705/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-30705/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-30705/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-15566-A-1	BLDG A-INFLUENT	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
140-15566-A-2	BLDG A-MIDGAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15566-A-3	BLDG A-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-30705/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003
BFB 140-30705/1		TO 15 LL		40 mL
CCVIS 140-30705/2		TO 15 LL		
MB 140-30705/4		TO 15 LL		
140-15566-A-1	BLDG A-INFLUENT	TO 15 LL	T	
140-15566-A-2	BLDG A-MIDGAC	TO 15 LL	T	
140-15566-A-3	BLDG A-EFFLUENT	TO 15 LL	T	
LCS 140-30705/1002		TO 15 LL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15566-1

SDG No.:

Batch Number: 30706 Batch Start Date: 06/13/19 09:20 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00094	40MXISSURP 00004
BFB 140-30706/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-30706/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-30706/8		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-15566-A-2	BLDG A-MIDGAC	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
LCS 140-30706/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-30706/1		TO 15 LL		40 mL					
CCVIS 140-30706/2		TO 15 LL							
MB 140-30706/8		TO 15 LL							
140-15566-A-2	BLDG A-MIDGAC	TO 15 LL	T						
LCS 140-30706/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15157-1

SDG No.:

Client Sample ID: 09886 Lab Sample ID: 140-15157-10

Matrix: Air Lab File ID: E03L15157.D

Analysis Method: TO-15 Date Collected: 05/02/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 05/03/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29745 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.20		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND	*	0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15157-1

SDG No.:

Client Sample ID: 09886 Lab Sample ID: 140-15157-10

Matrix: Air Lab File ID: E03L15157.D

Analysis Method: TO-15 Date Collected: 05/02/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 05/03/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29745 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15157-1

SDG No.:

Client Sample ID: 09886 Lab Sample ID: 140-15157-10

Matrix: Air Lab File ID: E03L15157.D

Analysis Method: TO-15 Date Collected: 05/02/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 05/03/2019 23:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 29745 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190502-11631.b\E03L15157.D				
Lims ID:	140-15157-A-10				
Client ID:	09886				
Sample Type:	Client				
Inject. Date:	03-May-2019 23:32:30	ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0011631-019				
Misc. Info.:	09886				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190502-11631.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	06-May-2019 13:02:31	Calib Date:	11-Jan-2019 21:51:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190109-10492.b\GA11IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0314				
First Level Reviewer: khachitpongpanits		Date:	06-May-2019 13:02:31		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.199	9.189	0.010	97	148010	4.00	
* 2 1,4-Difluorobenzene	114	11.373	11.362	0.011	96	965911	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.048	16.048	0.000	90	883285	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.676	17.676	0.000	92	687261	3.80	
47 1,1,1-Trichloroethane	97	10.262	10.240	0.022	94	10455	0.0780	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

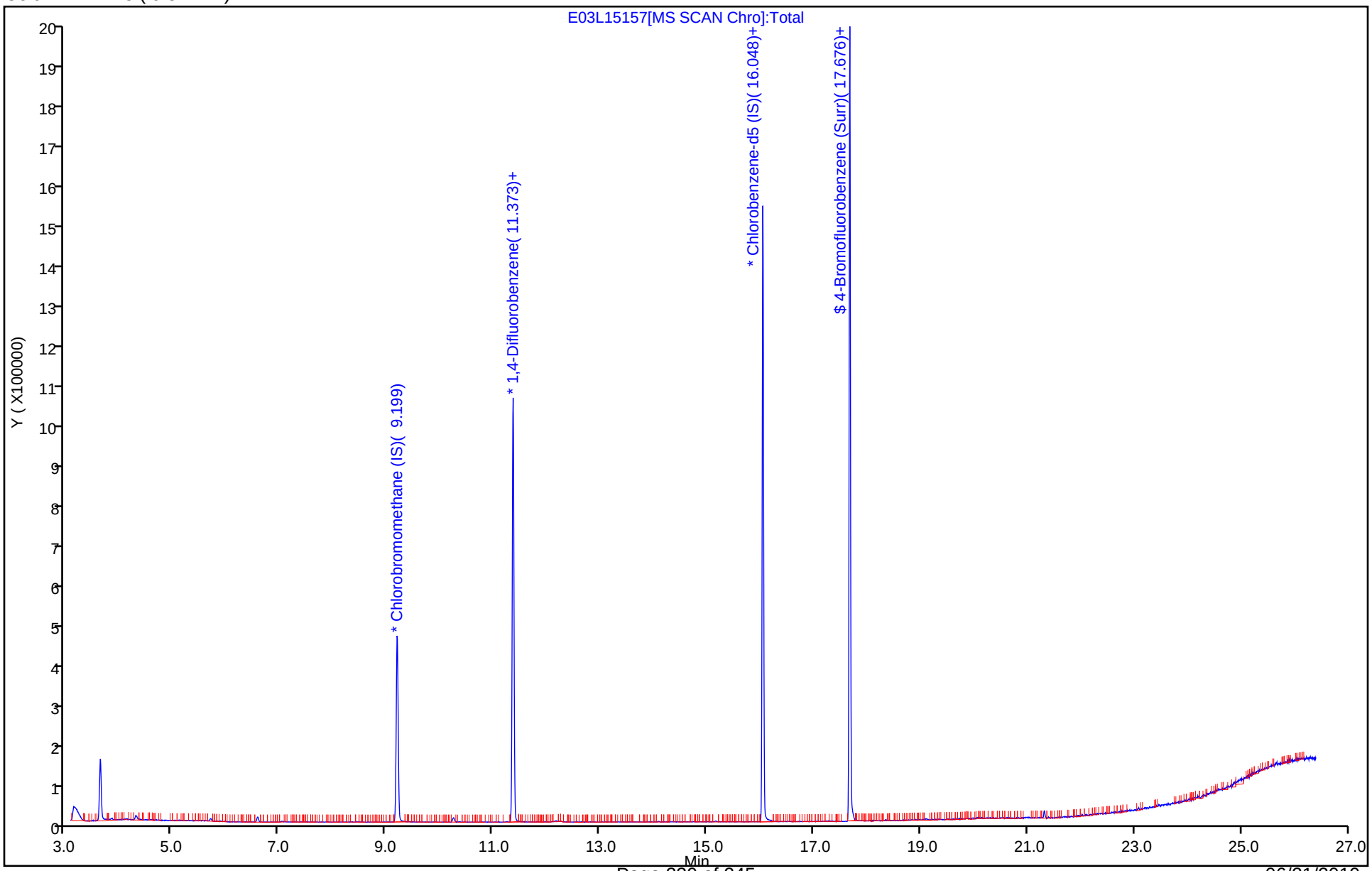
Report Date: 06-May-2019 13:02:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190502-11631.b\E03L15157.D

Injection Date:	03-May-2019 23:32:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15157-A-10	Lab Sample ID:	140-15157-10	Worklist Smp#:	19
Client ID:	09886				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

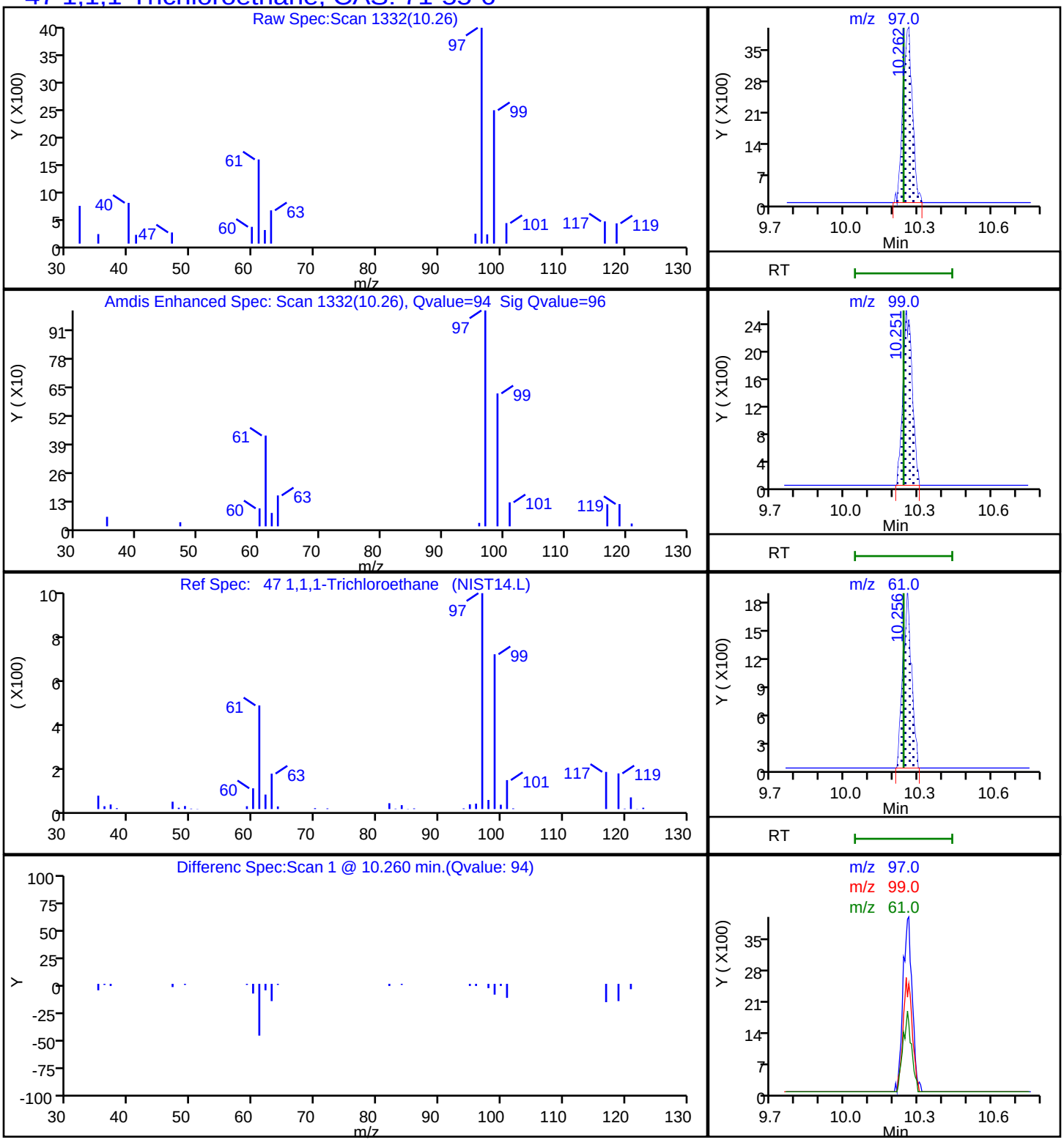
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190502-11631.b\E03L15157.D				
Injection Date:	03-May-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-15157-A-10	Lab Sample ID:	140-15157-10		
Client ID:	09886				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



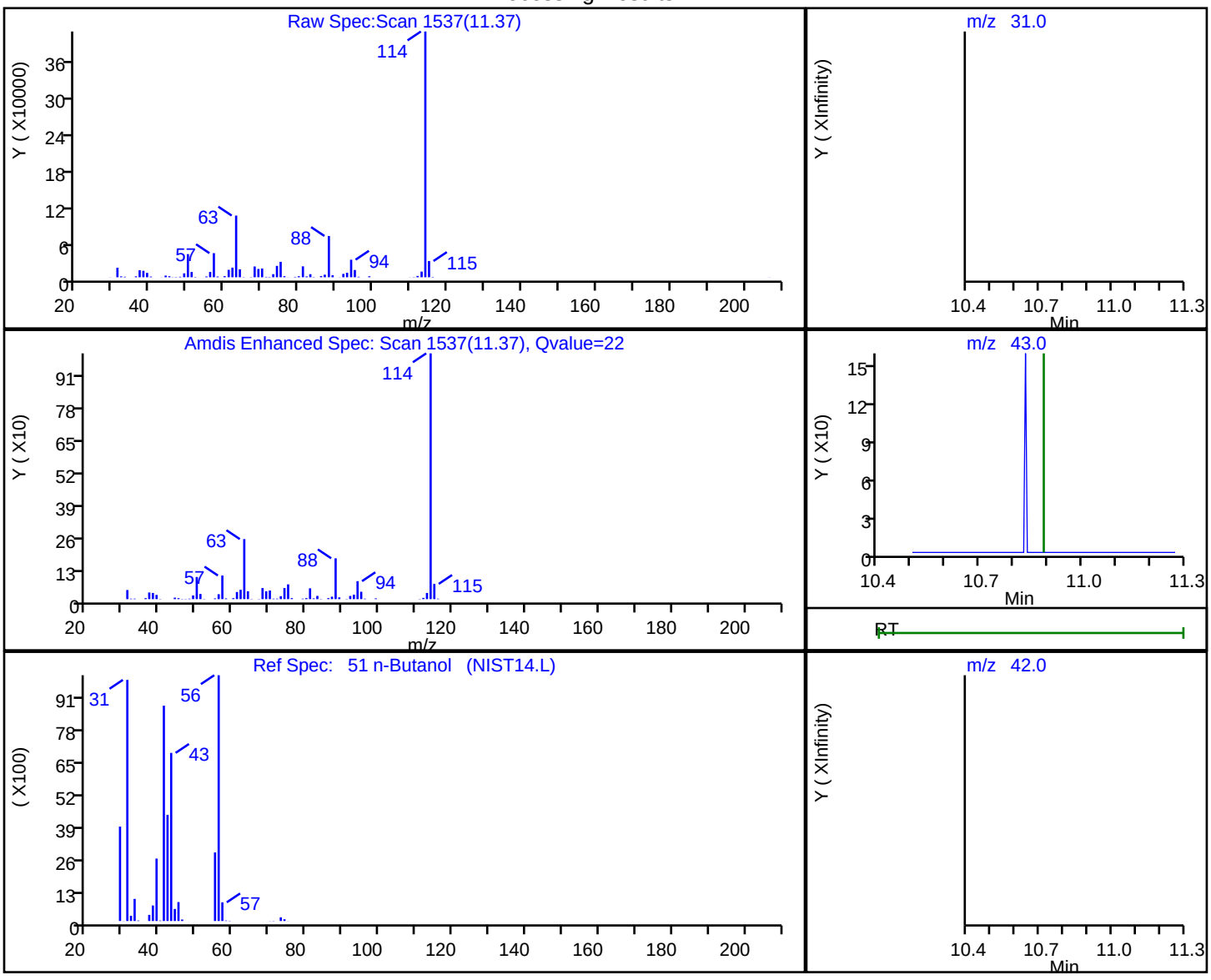
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190502-11631.b\E03L15157.D				
Injection Date:	03-May-2019 23:32:30	Instrument ID:	MG		
Lims ID:	140-15157-A-10	Lab Sample ID:	140-15157-10		
Client ID:	09886				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

51 n-Butanol, CAS: 71-36-3

Processing Results



RT	Mass	Response	Amount
11.37	31.00	36341	1.680329
11.36	43.00	230	
10.89	42.00	0	

Reviewer: khachitpongpanits, 06-May-2019 13:01:56

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Canister Samples Chain of Custody Record

140-15566 Chain of Custody

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Peter Rich	**Samples Collected By:** Andrew Smith	COC No: 1
Company Name: Tetra Tech	Phone: 410-990-4607		1 of 1 COCs
Address: 980 Awald Rd, Suite 307	Email:		
City/State/Zip Annapolis / MD / 21043			**For Lab Use Only:**
Phone: 410-990-4607	Site Contact:		Walk-in Client:
FAX:	Tel/Fax		Lab Sampling:
Project Name: LockHeed Martin MRC	**Analysis Turnaround Time**		Job / SDG No.:
Site/Location: Middle River	Standard (Specific): ✓		(See below for Add'l Items)
P O # 117-0518140	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
Bldg A - Influent	6/10/19	11:41	6/10/19	11:42	-30	-4	10104	11572	X								X	M					
Bldg A - MIDGAC	6/10/19	11:35	6/10/19	11:36	-30	-4	B 11594	09634	X								X						
Bldg A - Effluent	6/10/19	11:29	6/10/19	11:30	-30	-5	10797	09886	X								X						

Temperature (Fahrenheit)				
Start	Interior	70	Ambient	70
Stop		70		70

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

REC. @ AMBIENT
CUSTODY SEAL INTACT
1 COOLER RH 6-11-19

Special Instructions/QC Requirements & Comments:

FED EX# 775433082191
3 CANS/3 FLOWS (R)

Samples Shipped by:		**Date / Time:**	**Samples Received by:**
Samples Relinquished by:		**Date / Time:** 6/10/19 -	**Received by:** 6/10/19 1532
Relinquished by:		**Date / Time:** 6/10/19 1700	**Received by:** Ryan Henry 6/11/19 0840 TAKNX
Lab Use Only:	**Shipper Name:**	**Opened by:**	**Condition:**

Loc: 140
15566

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400292(PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 6/11/19

QA026R31.doc, 112618

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 6/12/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT	140-15566-a-1	11572	15157	B	1	0.0	10:46	
HMT	140-15566-a-2	09634	15157	B	1	-5.9	10:47	
HMT	140-15566-a-3	09886	15157	B	1	-3.3	10:48	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

eurofins | Environment Testing TestAmerica

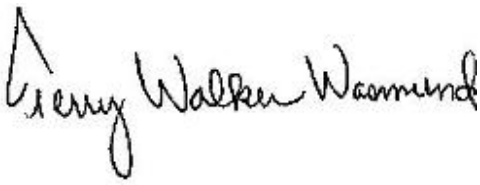
ANALYTICAL REPORT

Job Number: 140-15980-1

Job Description: Lockheed Martin MRC - Middle River, MD

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Terry Walker Wasmund
Project Manager II
7/24/2019 2:40 PM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
07/24/2019

cc: Belssi Chang
Amy Thomson

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Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-15980-1

Receipt
The samples were received on 7/12/2019 at 9:45 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Client Sample ID: A-EFFLUENT
Lab Sample ID: 140-15980-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.55		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.96		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	30		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.61		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	4.9		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.082	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	25		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.16	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.0		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.040	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.4		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.64		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	21		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	9.6		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.23	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	1.2		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.3		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.9		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	4.7		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	120		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	20		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.33	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	99		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.71	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	10		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.27	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	5.2		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.5		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	110		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	51		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	5.0		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: A-MIDGAC
Lab Sample ID: 140-15980-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	17		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.069	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.50		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.53		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	17		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.61		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.19	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	17		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.9	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.33	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: A-MIDGAC (Continued)
Lab Sample ID: 140-15980-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.9		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.38	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	77		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.74		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.52	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	55		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.6		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	67		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	13		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.77	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	65		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.54	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.5	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	2.3	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	7.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.5	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	420		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	3.9		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.3	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: A-INFLUENT
Lab Sample ID: 140-15980-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	18		2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.32	J	2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	14		2.0	0.25	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.58	J	2.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.7		2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	17		2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.1	J	10	4.0	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.35	J	2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	81		2.0	0.93	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	140		1.0	0.15	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	58		6.4	0.64	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.6	J	9.8	0.85	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	57		7.9	0.99	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.9	J	9.9	1.7	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	11		8.1	0.71	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	65		7.9	0.79	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	14	J	35	14	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.4	J	7.9	0.69	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	440		11	5.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	760		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Client Sample ID: C-EFFLUENT
Lab Sample ID: 140-15980-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.2		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.6		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.50		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.20	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.51		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.2	J	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	2.0		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.33	J	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	0.28	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.6		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.76		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.51	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	17		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.4		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.81	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.5		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.51	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.0	J	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	7.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	1.8	J	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
1,2,3-Trimethylbenzene	1.4	J	2.0	0.88	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	7.9		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	3.7		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.2	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: C-MIDGAC
Lab Sample ID: 140-15980-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.8		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.045	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.9		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.19	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.4		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.56		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.084	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.0		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.83		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.66		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.037	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.26	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.57	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	19		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.29	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	6.6		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.92	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	5.6		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: C-MIDGAC (Continued)
Lab Sample ID: 140-15980-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.8		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.36	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.9		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.1		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.42	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.6		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.20	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.3	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: C-INFLUENT
Lab Sample ID: 140-15980-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.1		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.097	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.5		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.21	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.81		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.54		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.15	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.8		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.15	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.6		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.090	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	6.8		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.90		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.39	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.68	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	10		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.61	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.3		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.0	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.2		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.66	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	9.9		6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	1.0	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	6.1		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.36	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	36		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	4.4		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.9	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: A-EFFLUENT
Lab Sample ID: 140-15980-1

Date Collected: 07/11/19 11:10
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.3**		0.40	0.040	ppb v/v			07/12/19 22:37	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			07/12/19 22:37	1
Chlorodifluoromethane	**0.55**		0.40	0.11	ppb v/v			07/12/19 22:37	1
Chloroform	**0.96**		0.40	0.035	ppb v/v			07/12/19 22:37	1
cis-1,2-Dichloroethene	**30**		0.40	0.050	ppb v/v			07/12/19 22:37	1
Dichlorodifluoromethane	**0.61**		0.40	0.070	ppb v/v			07/12/19 22:37	1
1,1-Dichloroethane	**4.9**		0.40	0.035	ppb v/v			07/12/19 22:37	1
1,2-Dichloroethane	**0.082**	**J**	0.40	0.050	ppb v/v			07/12/19 22:37	1
1,1-Dichloroethene	**25**		0.40	0.040	ppb v/v			07/12/19 22:37	1
Ethylbenzene	**0.16**	**J**	0.40	0.065	ppb v/v			07/12/19 22:37	1
Methylene Chloride	**3.0**		2.0	0.80	ppb v/v			07/12/19 22:37	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			07/12/19 22:37	1
Naphthalene	ND		0.20	0.38	ppb v/v			07/12/19 22:37	1
Tetrachloroethene	**0.040**	**J**	0.40	0.035	ppb v/v			07/12/19 22:37	1
Toluene	**1.4**		0.60	0.39	ppb v/v			07/12/19 22:37	1
trans-1,2-Dichloroethene	**0.64**		0.40	0.035	ppb v/v			07/12/19 22:37	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			07/12/19 22:37	1
1,1,1-Trichloroethane	**21**		0.40	0.19	ppb v/v			07/12/19 22:37	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			07/12/19 22:37	1
Trichloroethene	**9.6**		0.20	0.030	ppb v/v			07/12/19 22:37	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			07/12/19 22:37	1
1,2,4-Trimethylbenzene	**0.23**	**J**	0.40	0.10	ppb v/v			07/12/19 22:37	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			07/12/19 22:37	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			07/12/19 22:37	1
Xylenes, Total	**1.2**		0.80	0.12	ppb v/v			07/12/19 22:37	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.3**		1.3	0.13	ug/m3			07/12/19 22:37	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			07/12/19 22:37	1
Chlorodifluoromethane	**1.9**		1.4	0.39	ug/m3			07/12/19 22:37	1
Chloroform	**4.7**		2.0	0.17	ug/m3			07/12/19 22:37	1
cis-1,2-Dichloroethene	**120**		1.6	0.20	ug/m3			07/12/19 22:37	1
Dichlorodifluoromethane	**3.0**		2.0	0.35	ug/m3			07/12/19 22:37	1
1,1-Dichloroethane	**20**		1.6	0.14	ug/m3			07/12/19 22:37	1
1,2-Dichloroethane	**0.33**	**J**	1.6	0.20	ug/m3			07/12/19 22:37	1
1,1-Dichloroethene	**99**		1.6	0.16	ug/m3			07/12/19 22:37	1
Ethylbenzene	**0.71**	**J**	1.7	0.28	ug/m3			07/12/19 22:37	1
Methylene Chloride	**10**		6.9	2.8	ug/m3			07/12/19 22:37	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			07/12/19 22:37	1
Naphthalene	ND		1.0	2.0	ug/m3			07/12/19 22:37	1
Tetrachloroethene	**0.27**	**J**	2.7	0.24	ug/m3			07/12/19 22:37	1
Toluene	**5.2**		2.3	1.5	ug/m3			07/12/19 22:37	1
trans-1,2-Dichloroethene	**2.5**		1.6	0.14	ug/m3			07/12/19 22:37	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			07/12/19 22:37	1
1,1,1-Trichloroethane	**110**		2.2	1.0	ug/m3			07/12/19 22:37	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			07/12/19 22:37	1
Trichloroethene	**51**		1.1	0.16	ug/m3			07/12/19 22:37	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			07/12/19 22:37	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			07/12/19 22:37	1

Client Sample ID: A-EFFLUENT
Lab Sample ID: 140-15980-1

Date Collected: 07/11/19 11:10
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			07/12/19 22:37	1
Vinyl chloride	ND		0.51	0.33	ug/m3			07/12/19 22:37	1
Xylenes, Total	**5.0**		3.5	0.52	ug/m3			07/12/19 22:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*07/12/19 22:37*	*1*

Client Sample ID: A-MIDGAC
Lab Sample ID: 140-15980-2

Date Collected: 07/11/19 11:14
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**17**		0.40	0.040	ppb v/v			07/12/19 23:21	1
Carbon tetrachloride	**0.069**	**J**	0.40	0.035	ppb v/v			07/12/19 23:21	1
Chlorodifluoromethane	**0.50**		0.40	0.11	ppb v/v			07/12/19 23:21	1
Chloroform	**0.53**		0.40	0.035	ppb v/v			07/12/19 23:21	1
cis-1,2-Dichloroethene	**17**		0.40	0.050	ppb v/v			07/12/19 23:21	1
Dichlorodifluoromethane	**0.61**		0.40	0.070	ppb v/v			07/12/19 23:21	1
1,1-Dichloroethane	**3.3**		0.40	0.035	ppb v/v			07/12/19 23:21	1
1,2-Dichloroethane	**0.19**	**J**	0.40	0.050	ppb v/v			07/12/19 23:21	1
1,1-Dichloroethene	**17**		0.40	0.040	ppb v/v			07/12/19 23:21	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			07/12/19 23:21	1
Methylene Chloride	**1.9**	**J**	2.0	0.80	ppb v/v			07/12/19 23:21	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			07/12/19 23:21	1
Naphthalene	ND		0.20	0.38	ppb v/v			07/12/19 23:21	1
Tetrachloroethene	**0.33**	**J**	0.40	0.035	ppb v/v			07/12/19 23:21	1
Toluene	**1.9**		0.60	0.39	ppb v/v			07/12/19 23:21	1
trans-1,2-Dichloroethene	**0.38**	**J**	0.40	0.035	ppb v/v			07/12/19 23:21	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			07/12/19 23:21	1
1,1,1-Trichloroethane	**77**		0.40	0.19	ppb v/v			07/12/19 23:21	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			07/12/19 23:21	1
Trichloroethene	**0.74**		0.20	0.030	ppb v/v			07/12/19 23:21	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			07/12/19 23:21	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			07/12/19 23:21	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			07/12/19 23:21	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			07/12/19 23:21	1
Xylenes, Total	**0.52**	**J**	0.80	0.12	ppb v/v			07/12/19 23:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**55**		1.3	0.13	ug/m3			07/12/19 23:21	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			07/12/19 23:21	1
Chlorodifluoromethane	**1.8**		1.4	0.39	ug/m3			07/12/19 23:21	1
Chloroform	**2.6**		2.0	0.17	ug/m3			07/12/19 23:21	1
cis-1,2-Dichloroethene	**67**		1.6	0.20	ug/m3			07/12/19 23:21	1
Dichlorodifluoromethane	**3.0**		2.0	0.35	ug/m3			07/12/19 23:21	1
1,1-Dichloroethane	**13**		1.6	0.14	ug/m3			07/12/19 23:21	1
1,2-Dichloroethane	**0.77**	**J**	1.6	0.20	ug/m3			07/12/19 23:21	1
1,1-Dichloroethene	**65**		1.6	0.16	ug/m3			07/12/19 23:21	1
Ethylbenzene	**0.54**	**J**	1.7	0.28	ug/m3			07/12/19 23:21	1
Methylene Chloride	**6.5**	**J**	6.9	2.8	ug/m3			07/12/19 23:21	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			07/12/19 23:21	1
Naphthalene	ND		1.0	2.0	ug/m3			07/12/19 23:21	1
Tetrachloroethene	**2.3**	**J**	2.7	0.24	ug/m3			07/12/19 23:21	1
Toluene	**7.3**		2.3	1.5	ug/m3			07/12/19 23:21	1
trans-1,2-Dichloroethene	**1.5**	**J**	1.6	0.14	ug/m3			07/12/19 23:21	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			07/12/19 23:21	1
1,1,1-Trichloroethane	**420**		2.2	1.0	ug/m3			07/12/19 23:21	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			07/12/19 23:21	1
Trichloroethene	**3.9**		1.1	0.16	ug/m3			07/12/19 23:21	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			07/12/19 23:21	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			07/12/19 23:21	1

Client Sample ID: A-MIDGAC
Lab Sample ID: 140-15980-2
Date Collected: 07/11/19 11:14
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			07/12/19 23:21	1
Vinyl chloride	ND		0.51	0.33	ug/m3			07/12/19 23:21	1
Xylenes, Total	**2.3**	**J**	3.5	0.52	ug/m3			07/12/19 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*07/12/19 23:21*	*1*

Client Sample ID: A-INFLUENT
Lab Sample ID: 140-15980-3

Date Collected: 07/11/19 11:17
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**18**		2.0	0.20	ppb v/v			07/13/19 00:06	1
Carbon tetrachloride	ND		2.0	0.18	ppb v/v			07/13/19 00:06	1
Chlorodifluoromethane	ND		2.0	0.55	ppb v/v			07/13/19 00:06	1
Chloroform	**0.32**	**J**	2.0	0.18	ppb v/v			07/13/19 00:06	1
cis-1,2-Dichloroethene	**14**		2.0	0.25	ppb v/v			07/13/19 00:06	1
Dichlorodifluoromethane	**0.58**	**J**	2.0	0.35	ppb v/v			07/13/19 00:06	1
1,1-Dichloroethane	**2.7**		2.0	0.18	ppb v/v			07/13/19 00:06	1
1,2-Dichloroethane	ND		2.0	0.25	ppb v/v			07/13/19 00:06	1
1,1-Dichloroethene	**17**		2.0	0.20	ppb v/v			07/13/19 00:06	1
Ethylbenzene	ND		2.0	0.33	ppb v/v			07/13/19 00:06	1
Methylene Chloride	**4.1**	**J**	10	4.0	ppb v/v			07/13/19 00:06	1
Methyl tert-butyl ether	ND		10	1.3	ppb v/v			07/13/19 00:06	1
Naphthalene	ND		1.0	1.9	ppb v/v			07/13/19 00:06	1
Tetrachloroethene	ND		2.0	0.18	ppb v/v			07/13/19 00:06	1
Toluene	ND		3.0	2.0	ppb v/v			07/13/19 00:06	1
trans-1,2-Dichloroethene	**0.35**	**J**	2.0	0.18	ppb v/v			07/13/19 00:06	1
1,2,4-Trichlorobenzene	ND		2.0	1.6	ppb v/v			07/13/19 00:06	1
1,1,1-Trichloroethane	**81**		2.0	0.93	ppb v/v			07/13/19 00:06	1
1,1,2-Trichloroethane	ND		2.0	0.18	ppb v/v			07/13/19 00:06	1
Trichloroethene	**140**		1.0	0.15	ppb v/v			07/13/19 00:06	1
1,2,3-Trimethylbenzene	ND		2.0	0.90	ppb v/v			07/13/19 00:06	1
1,2,4-Trimethylbenzene	ND		2.0	0.50	ppb v/v			07/13/19 00:06	1
1,3,5-Trimethylbenzene	ND		2.0	0.55	ppb v/v			07/13/19 00:06	1
Vinyl chloride	ND		1.0	0.65	ppb v/v			07/13/19 00:06	1
Xylenes, Total	ND		4.0	0.60	ppb v/v			07/13/19 00:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**58**		6.4	0.64	ug/m3			07/13/19 00:06	1
Carbon tetrachloride	ND		13	1.1	ug/m3			07/13/19 00:06	1
Chlorodifluoromethane	ND		7.1	1.9	ug/m3			07/13/19 00:06	1
Chloroform	**1.6**	**J**	9.8	0.85	ug/m3			07/13/19 00:06	1
cis-1,2-Dichloroethene	**57**		7.9	0.99	ug/m3			07/13/19 00:06	1
Dichlorodifluoromethane	**2.9**	**J**	9.9	1.7	ug/m3			07/13/19 00:06	1
1,1-Dichloroethane	**11**		8.1	0.71	ug/m3			07/13/19 00:06	1
1,2-Dichloroethane	ND		8.1	1.0	ug/m3			07/13/19 00:06	1
1,1-Dichloroethene	**65**		7.9	0.79	ug/m3			07/13/19 00:06	1
Ethylbenzene	ND		8.7	1.4	ug/m3			07/13/19 00:06	1
Methylene Chloride	**14**	**J**	35	14	ug/m3			07/13/19 00:06	1
Methyl tert-butyl ether	ND		36	4.7	ug/m3			07/13/19 00:06	1
Naphthalene	ND		5.2	10	ug/m3			07/13/19 00:06	1
Tetrachloroethene	ND		14	1.2	ug/m3			07/13/19 00:06	1
Toluene	ND		11	7.3	ug/m3			07/13/19 00:06	1
trans-1,2-Dichloroethene	**1.4**	**J**	7.9	0.69	ug/m3			07/13/19 00:06	1
1,2,4-Trichlorobenzene	ND		15	12	ug/m3			07/13/19 00:06	1
1,1,1-Trichloroethane	**440**		11	5.0	ug/m3			07/13/19 00:06	1
1,1,2-Trichloroethane	ND		11	0.95	ug/m3			07/13/19 00:06	1
Trichloroethene	**760**		5.4	0.81	ug/m3			07/13/19 00:06	1
1,2,3-Trimethylbenzene	ND		9.8	4.4	ug/m3			07/13/19 00:06	1
1,2,4-Trimethylbenzene	ND		9.8	2.5	ug/m3			07/13/19 00:06	1

Client Sample ID: A-INFLUENT
Lab Sample ID: 140-15980-3

Date Collected: 07/11/19 11:17
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		9.8	2.7	ug/m3			07/13/19 00:06	1
Vinyl chloride	ND		2.6	1.7	ug/m3			07/13/19 00:06	1
Xylenes, Total	ND		17	2.6	ug/m3			07/13/19 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*07/13/19 00:06*	*1*

Client Sample ID: C-EFFLUENT
Lab Sample ID: 140-15980-4

Date Collected: 07/11/19 13:22
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5.2**		0.40	0.040	ppb v/v			07/13/19 00:51	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			07/13/19 00:51	1
Chlorodifluoromethane	**1.6**		0.40	0.11	ppb v/v			07/13/19 00:51	1
Chloroform	**0.50**		0.40	0.035	ppb v/v			07/13/19 00:51	1
cis-1,2-Dichloroethene	**0.20**	**J**	0.40	0.050	ppb v/v			07/13/19 00:51	1
Dichlorodifluoromethane	**0.51**		0.40	0.070	ppb v/v			07/13/19 00:51	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 00:51	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			07/13/19 00:51	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			07/13/19 00:51	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			07/13/19 00:51	1
Methylene Chloride	**1.2**	**J**	2.0	0.80	ppb v/v			07/13/19 00:51	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			07/13/19 00:51	1
Naphthalene	ND		0.20	0.38	ppb v/v			07/13/19 00:51	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			07/13/19 00:51	1
Toluene	**2.0**		0.60	0.39	ppb v/v			07/13/19 00:51	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			07/13/19 00:51	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			07/13/19 00:51	1
1,1,1-Trichloroethane	**0.33**	**J**	0.40	0.19	ppb v/v			07/13/19 00:51	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 00:51	1
Trichloroethene	ND		0.20	0.030	ppb v/v			07/13/19 00:51	1
1,2,3-Trimethylbenzene	**0.28**	**J**	0.40	0.18	ppb v/v			07/13/19 00:51	1
1,2,4-Trimethylbenzene	**1.6**		0.40	0.10	ppb v/v			07/13/19 00:51	1
1,3,5-Trimethylbenzene	**0.76**		0.40	0.11	ppb v/v			07/13/19 00:51	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			07/13/19 00:51	1
Xylenes, Total	**0.51**	**J**	0.80	0.12	ppb v/v			07/13/19 00:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**17**		1.3	0.13	ug/m3			07/13/19 00:51	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			07/13/19 00:51	1
Chlorodifluoromethane	**5.6**		1.4	0.39	ug/m3			07/13/19 00:51	1
Chloroform	**2.4**		2.0	0.17	ug/m3			07/13/19 00:51	1
cis-1,2-Dichloroethene	**0.81**	**J**	1.6	0.20	ug/m3			07/13/19 00:51	1
Dichlorodifluoromethane	**2.5**		2.0	0.35	ug/m3			07/13/19 00:51	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			07/13/19 00:51	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			07/13/19 00:51	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			07/13/19 00:51	1
Ethylbenzene	**0.51**	**J**	1.7	0.28	ug/m3			07/13/19 00:51	1
Methylene Chloride	**4.0**	**J**	6.9	2.8	ug/m3			07/13/19 00:51	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			07/13/19 00:51	1
Naphthalene	ND		1.0	2.0	ug/m3			07/13/19 00:51	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			07/13/19 00:51	1
Toluene	**7.6**		2.3	1.5	ug/m3			07/13/19 00:51	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			07/13/19 00:51	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			07/13/19 00:51	1
1,1,1-Trichloroethane	**1.8**	**J**	2.2	1.0	ug/m3			07/13/19 00:51	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			07/13/19 00:51	1
Trichloroethene	ND		1.1	0.16	ug/m3			07/13/19 00:51	1
1,2,3-Trimethylbenzene	**1.4**	**J**	2.0	0.88	ug/m3			07/13/19 00:51	1
1,2,4-Trimethylbenzene	**7.9**		2.0	0.49	ug/m3			07/13/19 00:51	1

Client Sample ID: C-EFFLUENT
Lab Sample ID: 140-15980-4
Date Collected: 07/11/19 13:22
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**3.7**		2.0	0.54	ug/m3			07/13/19 00:51	1
Vinyl chloride	ND		0.51	0.33	ug/m3			07/13/19 00:51	1
Xylenes, Total	**2.2**	**J**	3.5	0.52	ug/m3			07/13/19 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*07/13/19 00:51*	*1*

Client Sample ID: C-MIDGAC
Lab Sample ID: 140-15980-5

Date Collected: 07/11/19 13:28
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5.8**		0.40	0.040	ppb v/v			07/13/19 01:34	1
Carbon tetrachloride	**0.045**	**J**	0.40	0.035	ppb v/v			07/13/19 01:34	1
Chlorodifluoromethane	**1.9**		0.40	0.11	ppb v/v			07/13/19 01:34	1
Chloroform	**0.19**	**J**	0.40	0.035	ppb v/v			07/13/19 01:34	1
cis-1,2-Dichloroethene	**1.4**		0.40	0.050	ppb v/v			07/13/19 01:34	1
Dichlorodifluoromethane	**0.56**		0.40	0.070	ppb v/v			07/13/19 01:34	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 01:34	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			07/13/19 01:34	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			07/13/19 01:34	1
Ethylbenzene	**0.084**	**J**	0.40	0.065	ppb v/v			07/13/19 01:34	1
Methylene Chloride	**2.0**		2.0	0.80	ppb v/v			07/13/19 01:34	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			07/13/19 01:34	1
Naphthalene	ND		0.20	0.38	ppb v/v			07/13/19 01:34	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			07/13/19 01:34	1
Toluene	**0.83**		0.60	0.39	ppb v/v			07/13/19 01:34	1
trans-1,2-Dichloroethene	**0.11**	**J**	0.40	0.035	ppb v/v			07/13/19 01:34	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			07/13/19 01:34	1
1,1,1-Trichloroethane	**0.66**		0.40	0.19	ppb v/v			07/13/19 01:34	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 01:34	1
Trichloroethene	**0.037**	**J**	0.20	0.030	ppb v/v			07/13/19 01:34	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			07/13/19 01:34	1
1,2,4-Trimethylbenzene	**0.26**	**J**	0.40	0.10	ppb v/v			07/13/19 01:34	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			07/13/19 01:34	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			07/13/19 01:34	1
Xylenes, Total	**0.57**	**J**	0.80	0.12	ppb v/v			07/13/19 01:34	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**19**		1.3	0.13	ug/m3			07/13/19 01:34	1
Carbon tetrachloride	**0.29**	**J**	2.5	0.22	ug/m3			07/13/19 01:34	1
Chlorodifluoromethane	**6.6**		1.4	0.39	ug/m3			07/13/19 01:34	1
Chloroform	**0.92**	**J**	2.0	0.17	ug/m3			07/13/19 01:34	1
cis-1,2-Dichloroethene	**5.6**		1.6	0.20	ug/m3			07/13/19 01:34	1
Dichlorodifluoromethane	**2.8**		2.0	0.35	ug/m3			07/13/19 01:34	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			07/13/19 01:34	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			07/13/19 01:34	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			07/13/19 01:34	1
Ethylbenzene	**0.36**	**J**	1.7	0.28	ug/m3			07/13/19 01:34	1
Methylene Chloride	**6.9**		6.9	2.8	ug/m3			07/13/19 01:34	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			07/13/19 01:34	1
Naphthalene	ND		1.0	2.0	ug/m3			07/13/19 01:34	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			07/13/19 01:34	1
Toluene	**3.1**		2.3	1.5	ug/m3			07/13/19 01:34	1
trans-1,2-Dichloroethene	**0.42**	**J**	1.6	0.14	ug/m3			07/13/19 01:34	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			07/13/19 01:34	1
1,1,1-Trichloroethane	**3.6**		2.2	1.0	ug/m3			07/13/19 01:34	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			07/13/19 01:34	1
Trichloroethene	**0.20**	**J**	1.1	0.16	ug/m3			07/13/19 01:34	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			07/13/19 01:34	1
1,2,4-Trimethylbenzene	**1.3**	**J**	2.0	0.49	ug/m3			07/13/19 01:34	1

Client Sample ID: C-MIDGAC
Lab Sample ID: 140-15980-5
Date Collected: 07/11/19 13:28
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			07/13/19 01:34	1
Vinyl chloride	ND		0.51	0.33	ug/m3			07/13/19 01:34	1
Xylenes, Total	**2.5**	**J**	3.5	0.52	ug/m3			07/13/19 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*07/13/19 01:34*	*1*

Client Sample ID: C-INFLUENT
Lab Sample ID: 140-15980-6

Date Collected: 07/11/19 13:34
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.1**		0.40	0.040	ppb v/v			07/13/19 02:19	1
Carbon tetrachloride	**0.097**	**J**	0.40	0.035	ppb v/v			07/13/19 02:19	1
Chlorodifluoromethane	**1.5**		0.40	0.11	ppb v/v			07/13/19 02:19	1
Chloroform	**0.21**	**J**	0.40	0.035	ppb v/v			07/13/19 02:19	1
cis-1,2-Dichloroethene	**0.81**		0.40	0.050	ppb v/v			07/13/19 02:19	1
Dichlorodifluoromethane	**0.54**		0.40	0.070	ppb v/v			07/13/19 02:19	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 02:19	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			07/13/19 02:19	1
1,1-Dichloroethene	ND		0.40	0.040	ppb v/v			07/13/19 02:19	1
Ethylbenzene	**0.15**	**J**	0.40	0.065	ppb v/v			07/13/19 02:19	1
Methylene Chloride	**2.8**		2.0	0.80	ppb v/v			07/13/19 02:19	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			07/13/19 02:19	1
Naphthalene	ND		0.20	0.38	ppb v/v			07/13/19 02:19	1
Tetrachloroethene	**0.15**	**J**	0.40	0.035	ppb v/v			07/13/19 02:19	1
Toluene	**1.6**		0.60	0.39	ppb v/v			07/13/19 02:19	1
trans-1,2-Dichloroethene	**0.090**	**J**	0.40	0.035	ppb v/v			07/13/19 02:19	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			07/13/19 02:19	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			07/13/19 02:19	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			07/13/19 02:19	1
Trichloroethene	**6.8**		0.20	0.030	ppb v/v			07/13/19 02:19	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			07/13/19 02:19	1
1,2,4-Trimethylbenzene	**0.90**		0.40	0.10	ppb v/v			07/13/19 02:19	1
1,3,5-Trimethylbenzene	**0.39**	**J**	0.40	0.11	ppb v/v			07/13/19 02:19	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			07/13/19 02:19	1
Xylenes, Total	**0.68**	**J**	0.80	0.12	ppb v/v			07/13/19 02:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**10**		1.3	0.13	ug/m3			07/13/19 02:19	1
Carbon tetrachloride	**0.61**	**J**	2.5	0.22	ug/m3			07/13/19 02:19	1
Chlorodifluoromethane	**5.3**		1.4	0.39	ug/m3			07/13/19 02:19	1
Chloroform	**1.0**	**J**	2.0	0.17	ug/m3			07/13/19 02:19	1
cis-1,2-Dichloroethene	**3.2**		1.6	0.20	ug/m3			07/13/19 02:19	1
Dichlorodifluoromethane	**2.7**		2.0	0.35	ug/m3			07/13/19 02:19	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			07/13/19 02:19	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			07/13/19 02:19	1
1,1-Dichloroethene	ND		1.6	0.16	ug/m3			07/13/19 02:19	1
Ethylbenzene	**0.66**	**J**	1.7	0.28	ug/m3			07/13/19 02:19	1
Methylene Chloride	**9.9**		6.9	2.8	ug/m3			07/13/19 02:19	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			07/13/19 02:19	1
Naphthalene	ND		1.0	2.0	ug/m3			07/13/19 02:19	1
Tetrachloroethene	**1.0**	**J**	2.7	0.24	ug/m3			07/13/19 02:19	1
Toluene	**6.1**		2.3	1.5	ug/m3			07/13/19 02:19	1
trans-1,2-Dichloroethene	**0.36**	**J**	1.6	0.14	ug/m3			07/13/19 02:19	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			07/13/19 02:19	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			07/13/19 02:19	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			07/13/19 02:19	1
Trichloroethene	**36**		1.1	0.16	ug/m3			07/13/19 02:19	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			07/13/19 02:19	1
1,2,4-Trimethylbenzene	**4.4**		2.0	0.49	ug/m3			07/13/19 02:19	1

Client Sample ID: C-INFLUENT
Lab Sample ID: 140-15980-6
Date Collected: 07/11/19 13:34
Matrix: Air
Date Received: 07/12/19 09:45
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**1.9**	**J**	2.0	0.54	ug/m3			07/13/19 02:19	1
Vinyl chloride	ND		0.51	0.33	ug/m3			07/13/19 02:19	1
Xylenes, Total	**3.0**	**J**	3.5	0.52	ug/m3			07/13/19 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*07/13/19 02:19*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB (60-140)
140-15980-1	A-EFFLUENT	101
140-15980-2	A-MIDGAC	103
140-15980-3	A-INFLUENT	100
140-15980-4	C-EFFLUENT	98
140-15980-5	C-MIDGAC	107
140-15980-6	C-INFLUENT	98
LCS 140-31549/1002	Lab Control Sample	114
MB 140-31549/4	Method Blank	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-31549/4
Matrix: Air
Analysis Batch: 31549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			07/12/19 12:12	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			07/12/19 12:12	1
Chloroform	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			07/12/19 12:12	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			07/12/19 12:12	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			07/12/19 12:12	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			07/12/19 12:12	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			07/12/19 12:12	1
Methylene Chloride	ND		0.40	0.16	ppb v/v			07/12/19 12:12	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			07/12/19 12:12	1
Naphthalene	ND		0.040	0.076	ppb v/v			07/12/19 12:12	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
Toluene	ND		0.12	0.078	ppb v/v			07/12/19 12:12	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			07/12/19 12:12	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			07/12/19 12:12	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			07/12/19 12:12	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			07/12/19 12:12	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			07/12/19 12:12	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			07/12/19 12:12	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			07/12/19 12:12	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			07/12/19 12:12	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			07/12/19 12:12	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			07/12/19 12:12	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			07/12/19 12:12	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			07/12/19 12:12	1
Chloroform	ND		0.39	0.034	ug/m3			07/12/19 12:12	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			07/12/19 12:12	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			07/12/19 12:12	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			07/12/19 12:12	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			07/12/19 12:12	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			07/12/19 12:12	1
Ethylbenzene	ND		0.35	0.056	ug/m3			07/12/19 12:12	1
Methylene Chloride	ND		1.4	0.56	ug/m3			07/12/19 12:12	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			07/12/19 12:12	1
Naphthalene	ND		0.21	0.40	ug/m3			07/12/19 12:12	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			07/12/19 12:12	1
Toluene	ND		0.45	0.29	ug/m3			07/12/19 12:12	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			07/12/19 12:12	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			07/12/19 12:12	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			07/12/19 12:12	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			07/12/19 12:12	1
Trichloroethene	ND		0.21	0.032	ug/m3			07/12/19 12:12	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			07/12/19 12:12	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-31549/4
Matrix: Air
Analysis Batch: 31549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			07/12/19 12:12	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			07/12/19 12:12	1
Vinyl chloride	ND		0.10	0.066	ug/m3			07/12/19 12:12	1
Xylenes, Total	ND		0.69	0.10	ug/m3			07/12/19 12:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*07/12/19 12:12*	*1*

Lab Sample ID: LCS 140-31549/1002
Matrix: Air
Analysis Batch: 31549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.00		ppb v/v		100	70 - 130
Carbon tetrachloride	2.00	2.50		ppb v/v		125	70 - 130
Chlorodifluoromethane	2.00	2.48		ppb v/v		124	60 - 140
Chloroform	2.00	2.21		ppb v/v		110	70 - 130
cis-1,2-Dichloroethene	2.00	1.98		ppb v/v		99	70 - 130
Dichlorodifluoromethane	2.00	2.43		ppb v/v		122	60 - 140
1,1-Dichloroethane	2.00	2.18		ppb v/v		109	70 - 130
1,2-Dichloroethane	2.00	2.23		ppb v/v		112	70 - 130
1,1-Dichloroethene	2.00	1.92		ppb v/v		96	70 - 130
Ethylbenzene	2.00	1.88		ppb v/v		94	70 - 130
Methylene Chloride	2.00	1.82		ppb v/v		91	70 - 130
Methyl tert-butyl ether	2.00	2.05		ppb v/v		103	60 - 140
Naphthalene	2.00	2.06		ppb v/v		103	60 - 140
Tetrachloroethene	2.00	1.86		ppb v/v		93	70 - 130
Toluene	2.00	1.86		ppb v/v		93	70 - 130
trans-1,2-Dichloroethene	2.00	2.09		ppb v/v		105	70 - 130
1,2,4-Trichlorobenzene	2.00	2.14		ppb v/v		107	60 - 140
1,1,1-Trichloroethane	2.00	2.23		ppb v/v		111	70 - 130
1,1,2-Trichloroethane	2.00	2.00		ppb v/v		100	70 - 130
Trichloroethene	2.00	1.81		ppb v/v		91	70 - 130
1,2,3-Trimethylbenzene	2.00	1.89		ppb v/v		94	70 - 130
1,2,4-Trimethylbenzene	2.00	1.93		ppb v/v		97	70 - 130
1,3,5-Trimethylbenzene	2.00	1.75		ppb v/v		88	70 - 130
Vinyl chloride	2.00	2.25		ppb v/v		113	70 - 130
Xylenes, Total	6.00	5.78		ppb v/v		96	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.39		ug/m3		100	70 - 130
Carbon tetrachloride	13	15.7		ug/m3		125	70 - 130
Chlorodifluoromethane	7.1	8.78		ug/m3		124	60 - 140
Chloroform	9.8	10.8		ug/m3		110	70 - 130
cis-1,2-Dichloroethene	7.9	7.83		ug/m3		99	70 - 130
Dichlorodifluoromethane	9.9	12.0		ug/m3		122	60 - 140
1,1-Dichloroethane	8.1	8.84		ug/m3		109	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-31549/1002
Matrix: Air
Analysis Batch: 31549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dichloroethane			8.1	9.04		ug/m3		112	70 - 130		
1,1-Dichloroethene			7.9	7.60		ug/m3		96	70 - 130		
Ethylbenzene			8.7	8.18		ug/m3		94	70 - 130		
Methylene Chloride			6.9	6.32		ug/m3		91	70 - 130		
Methyl tert-butyl ether			7.2	7.41		ug/m3		103	60 - 140		
Naphthalene			10	10.8		ug/m3		103	60 - 140		
Tetrachloroethene			14	12.6		ug/m3		93	70 - 130		
Toluene			7.5	7.01		ug/m3		93	70 - 130		
trans-1,2-Dichloroethene			7.9	8.29		ug/m3		105	70 - 130		
1,2,4-Trichlorobenzene			15	15.9		ug/m3		107	60 - 140		
1,1,1-Trichloroethane			11	12.2		ug/m3		111	70 - 130		
1,1,2-Trichloroethane			11	10.9		ug/m3		100	70 - 130		
Trichloroethene			11	9.73		ug/m3		91	70 - 130		
1,2,3-Trimethylbenzene			9.8	9.29		ug/m3		94	70 - 130		
1,2,4-Trimethylbenzene			9.8	9.50		ug/m3		97	70 - 130		
1,3,5-Trimethylbenzene			9.8	8.61		ug/m3		88	70 - 130		
Vinyl chloride			5.1	5.76		ug/m3		113	70 - 130		
Xylenes, Total			26	25.1		ug/m3		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Air - GC/MS VOA

Analysis Batch: 31549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-15980-1	A-EFFLUENT	Total/NA	Air	TO 15 LL	
140-15980-2	A-MIDGAC	Total/NA	Air	TO 15 LL	
140-15980-3	A-INFLUENT	Total/NA	Air	TO 15 LL	
140-15980-4	C-EFFLUENT	Total/NA	Air	TO 15 LL	
140-15980-5	C-MIDGAC	Total/NA	Air	TO 15 LL	
140-15980-6	C-INFLUENT	Total/NA	Air	TO 15 LL	
MB 140-31549/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-31549/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Client Sample ID: A-EFFLUENT
Lab Sample ID: 140-15980-1
Date Collected: 07/11/19 11:10
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	31549	07/12/19 22:37	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: A-MIDGAC
Lab Sample ID: 140-15980-2
Date Collected: 07/11/19 11:14
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	31549	07/12/19 23:21	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: A-INFLUENT
Lab Sample ID: 140-15980-3
Date Collected: 07/11/19 11:17
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	20 mL	500 mL	31549	07/13/19 00:06	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: C-EFFLUENT
Lab Sample ID: 140-15980-4
Date Collected: 07/11/19 13:22
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	31549	07/13/19 00:51	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: C-MIDGAC
Lab Sample ID: 140-15980-5
Date Collected: 07/11/19 13:28
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	31549	07/13/19 01:34	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: C-INFLUENT
Lab Sample ID: 140-15980-6
Date Collected: 07/11/19 13:34
Matrix: Air
Date Received: 07/12/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	31549	07/13/19 02:19	S1K	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Client Sample ID: Method Blank
Lab Sample ID: MB 140-31549/4

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	31549	07/12/19 12:12	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-31549/1002

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	31549	07/12/19 10:38	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-15980-1
Project/Site: Lockheed Martin MRC - Middle River, MD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-15980-1	A-EFFLUENT	Air	07/11/19 11:10	07/12/19 09:45	Air Canister (1-Liter) #11846
140-15980-2	A-MIDGAC	Air	07/11/19 11:14	07/12/19 09:45	Air Canister (1-Liter) #11573
140-15980-3	A-INFLUENT	Air	07/11/19 11:17	07/12/19 09:45	Air Canister (1-Liter) #10736
140-15980-4	C-EFFLUENT	Air	07/11/19 13:22	07/12/19 09:45	Air Canister (1-Liter) #09668
140-15980-5	C-MIDGAC	Air	07/11/19 13:28	07/12/19 09:45	Air Canister (1-Liter) #11745
140-15980-6	C-INFLUENT	Air	07/11/19 13:34	07/12/19 09:45	Air Canister (1-Liter) #10751

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
A-EFFLUENT	140-15980-1	101
A-MIDGAC	140-15980-2	103
A-INFLUENT	140-15980-3	100
C-EFFLUENT	140-15980-4	98
C-MIDGAC	140-15980-5	107
C-INFLUENT	140-15980-6	98
	MB 140-31549/4	107
	LCS 140-31549/1002	114

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVG12A-LCS.d

Lab ID: LCS 140-31549/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.00	100	70-130	
Carbon tetrachloride	2.00	2.50	125	70-130	
Chlorodifluoromethane	2.00	2.48	124	60-140	
Chloroform	2.00	2.21	110	70-130	
cis-1,2-Dichloroethene	2.00	1.98	99	70-130	
Dichlorodifluoromethane	2.00	2.43	122	60-140	
1,1-Dichloroethane	2.00	2.18	109	70-130	
1,2-Dichloroethane	2.00	2.23	112	70-130	
1,1-Dichloroethene	2.00	1.92	96	70-130	
Ethylbenzene	2.00	1.88	94	70-130	
Methylene Chloride	2.00	1.82	91	70-130	
Methyl tert-butyl ether	2.00	2.05	103	60-140	
Naphthalene	2.00	2.06	103	60-140	
Tetrachloroethene	2.00	1.86	93	70-130	
Toluene	2.00	1.86	93	70-130	
trans-1,2-Dichloroethene	2.00	2.09	105	70-130	
1,2,4-Trichlorobenzene	2.00	2.14	107	60-140	
1,1,1-Trichloroethane	2.00	2.23	111	70-130	
1,1,2-Trichloroethane	2.00	2.00	100	70-130	
Trichloroethene	2.00	1.81	91	70-130	
1,2,3-Trimethylbenzene	2.00	1.89	94	70-130	
1,2,4-Trimethylbenzene	2.00	1.93	97	70-130	
1,3,5-Trimethylbenzene	2.00	1.75	88	70-130	
Vinyl chloride	2.00	2.25	113	70-130	
Xylenes, Total	6.00	5.78	96	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab File ID: G500BG12.D Lab Sample ID: MB 140-31549/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 07/12/2019 12:12

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-31549/1002	GCCVG12A-LCS.d	07/12/2019 10:38
A-EFFLUENT	140-15980-1	GG12P111.D	07/12/2019 22:37
A-MIDGAC	140-15980-2	GG12P112.D	07/12/2019 23:21
A-INFLUENT	140-15980-3	GG12P113.D	07/13/2019 00:06
C-EFFLUENT	140-15980-4	GG12P114.D	07/13/2019 00:51
C-MIDGAC	140-15980-5	GG12P115.D	07/13/2019 01:34
C-INFLUENT	140-15980-6	GG12P116D.D	07/13/2019 02:19

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab File ID: GBFBG08IC.D BFB Injection Date: 07/08/2019

Instrument ID: MG BFB Injection Time: 14:13

Analysis Batch No.: 31457

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	50.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	66.4	
175	5.0 - 9.0 % of mass 174	4.4	(6.7) 1
176	95.0 - 101.0 % of mass 174	63.5	(95.6) 1
177	5.0 - 9.0 % of mass 176	4.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-31457/2	GG08BLK1.D	07/08/2019	15:34
	IC 140-31457/4	GG08IC10.D	07/08/2019	17:08
	IC 140-31457/7	GG08IC01.D	07/08/2019	19:20
	IC 140-31457/8	GG08IC02.D	07/08/2019	20:05
	IC 140-31457/9	GG08IC03.D	07/08/2019	20:54
	IC 140-31457/10	GG08IC04.D	07/08/2019	21:38
	IC 140-31457/11	GG08IC05.D	07/08/2019	22:21
	IC 140-31457/12	GG08IC06.D	07/08/2019	23:04
	ICIS 140-31457/13	GG08IC07.D	07/08/2019	23:50
	IC 140-31457/14	GG08IC08.D	07/09/2019	00:37
	ICV 140-31457/17	GG08LCS.D	07/09/2019	02:45

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab File ID: GBFBG12A.D BFB Injection Date: 07/12/2019

Instrument ID: MG BFB Injection Time: 10:03

Analysis Batch No.: 31549

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.1	
75	30.0 - 60.0 % of mass 95	58.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.3	(0.5) 1
174	50.0 - 120.00 % of mass 95	53.5	
175	5.0 - 9.0 % of mass 174	3.8	(7.1) 1
176	95.0 - 101.0 % of mass 174	50.9	(95.2) 1
177	5.0 - 9.0 % of mass 176	3.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-31549/2	GCCVG12A.D	07/12/2019	10:38
	LCS 140-31549/1002	GCCVG12A-LCS .d	07/12/2019	10:38
	MB 140-31549/4	G500BG12.D	07/12/2019	12:12
A-EFFLUENT	140-15980-1	GG12P111.D	07/12/2019	22:37
A-MIDGAC	140-15980-2	GG12P112.D	07/12/2019	23:21
A-INFLUENT	140-15980-3	GG12P113.D	07/13/2019	00:06
C-EFFLUENT	140-15980-4	GG12P114.D	07/13/2019	00:51
C-MIDGAC	140-15980-5	GG12P115.D	07/13/2019	01:34
C-INFLUENT	140-15980-6	GG12P116D.D	07/13/2019	02:19

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Sample No.: ICIS 140-31457/13 Date Analyzed: 07/08/2019 23:50

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GG08IC07.D Heated Purge: (Y/N) N

Calibration ID: 2017

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		285204	9.16	1675610	11.33	1447120	16.01
UPPER LIMIT		399286	9.49	2345854	11.66	2025968	16.34
LOWER LIMIT		171122	8.83	1005366	11.00	868272	15.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-31457/17		295834	9.16	1677973	11.33	1436310	16.01

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Sample No.: CCVIS 140-31549/2 Date Analyzed: 07/12/2019 10:38

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVG12A.D Heated Purge: (Y/N) N

Calibration ID: 2017

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		214475	9.16	1296540	11.33	1106157	16.01
UPPER LIMIT		300265	9.49	1815156	11.66	1548620	16.34
LOWER LIMIT		128685	8.83	777924	11.00	663694	15.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-31549/1002		214475	9.16	1296540	11.33	1106157	16.01
MB 140-31549/4		219736	9.16	1285292	11.32	1127303	16.01
140-15980-1	A-EFFLUENT	202062	9.15	1208284	11.32	1056421	16.00
140-15980-2	A-MIDGAC	211760	9.16	1187831	11.33	1038839	16.00
140-15980-3	A-INFLUENT	224190	9.16	1299646	11.32	1108600	16.00
140-15980-4	C-EFFLUENT	252890	9.16	1488486	11.32	1295095	16.00
140-15980-5	C-MIDGAC	223062	9.16	1244452	11.32	1024278	16.00
140-15980-6	C-INFLUENT	241511	9.16	1411391	11.32	1285895	16.00

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-EFFLUENT Lab Sample ID: 140-15980-1

Matrix: Air Lab File ID: GG12P111.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 07/12/2019 22:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.3		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.55		0.40	0.11
67-66-3	Chloroform	119.38	0.96		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	30		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.61		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	4.9		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.082	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	25		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.16	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	3.0		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.040	J	0.40	0.035
108-88-3	Toluene	92.14	1.4		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.64		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	21		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	9.6		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.23	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	1.2		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-EFFLUENT Lab Sample ID: 140-15980-1

Matrix: Air Lab File ID: GG12P111.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:10

Sample wt/vol: 100(mL) Date Analyzed: 07/12/2019 22:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.3		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.9		1.4	0.39
67-66-3	Chloroform	119.38	4.7		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	120		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	20		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.33	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	99		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.71	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	10		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.27	J	2.7	0.24
108-88-3	Toluene	92.14	5.2		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.5		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	110		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	51		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	5.0		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D
Lims ID: 140-15980-A-1
Client ID: A-EFFLUENT
Sample Type: Client
Inject. Date: 12-Jul-2019 22:37:30 ALS Bottle#: 11 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-017
Misc. Info.: 140-15980-a-1
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 14:07:59 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:07:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.162	-0.011	92	202062	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	98	1208284	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	96	1056421	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	73	801391	4.04	
6 Chlorodifluoromethane	51	3.812	3.829	-0.017	97	13656	0.1100	
8 Dichlorodifluoromethane	85	3.883	3.891	-0.010	100	24848	0.1225	
27 1,1-Dichloroethene	96	6.180	6.187	-0.010	90	345692	4.99	
31 Methylene Chloride	84	6.541	6.552	-0.011	94	47386	0.5912	
34 trans-1,2-Dichloroethene	96	7.377	7.383	-0.011	87	8469	0.1279	
37 1,1-Dichloroethane	63	7.814	7.814	-0.005	99	146115	0.9766	
42 cis-1,2-Dichloroethene	96	8.811	8.817	-0.011	96	418093	5.98	
44 Chloroform	83	9.167	9.167	-0.005	29	30222	0.1926	
47 1,1,1-Trichloroethane	97	10.202	10.202	-0.006	96	721145	4.17	
48 1,2-Dichloroethane	62	10.310	10.316	-0.011	57	1959	0.0164	
50 Benzene	78	10.790	10.801	-0.011	98	57974	0.2664	
58 Trichloroethene	130	12.030	12.030	-0.006	89	170447	1.91	
67 Toluene	91	14.053	14.053	0.000	93	63747	0.2733	
73 Tetrachloroethene	129	15.180	15.185	-0.005	75	689	0.008027	
78 Ethylbenzene	91	16.328	16.334	-0.006	98	9525	0.0325	
79 m-Xylene & p-Xylene	91	16.485	16.490	-0.005	99	32112	0.1436	
83 o-Xylene	91	17.013	17.013	0.000	96	20215	0.0850	
95 1,2,4-Trimethylbenzene	105	18.760	18.766	-0.005	96	11398	0.0453	
S 124 Xylenes, Total	100				0		0.2286	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

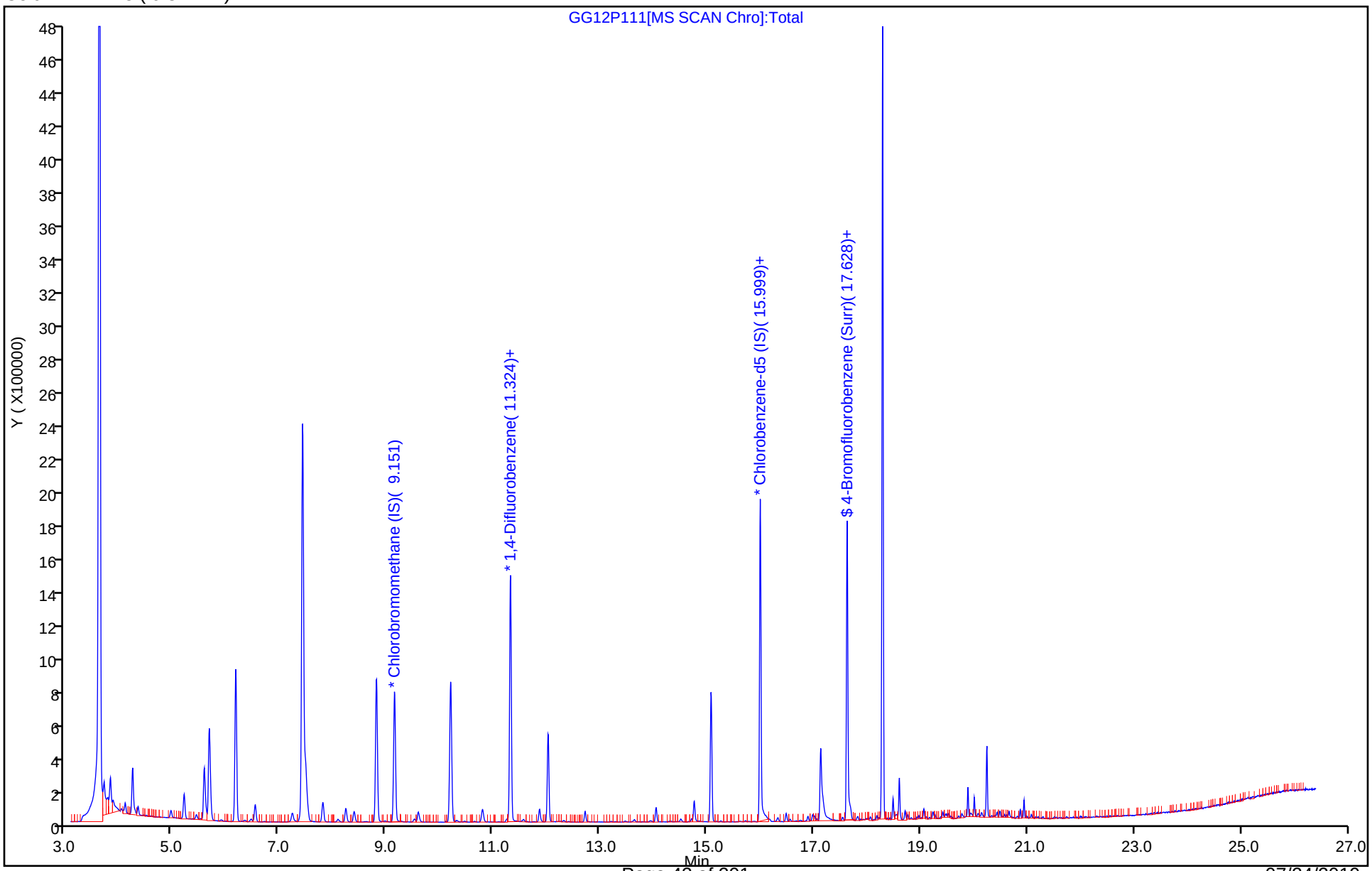
Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D

Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1	Worklist Smp#:	17
Client ID:	A-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

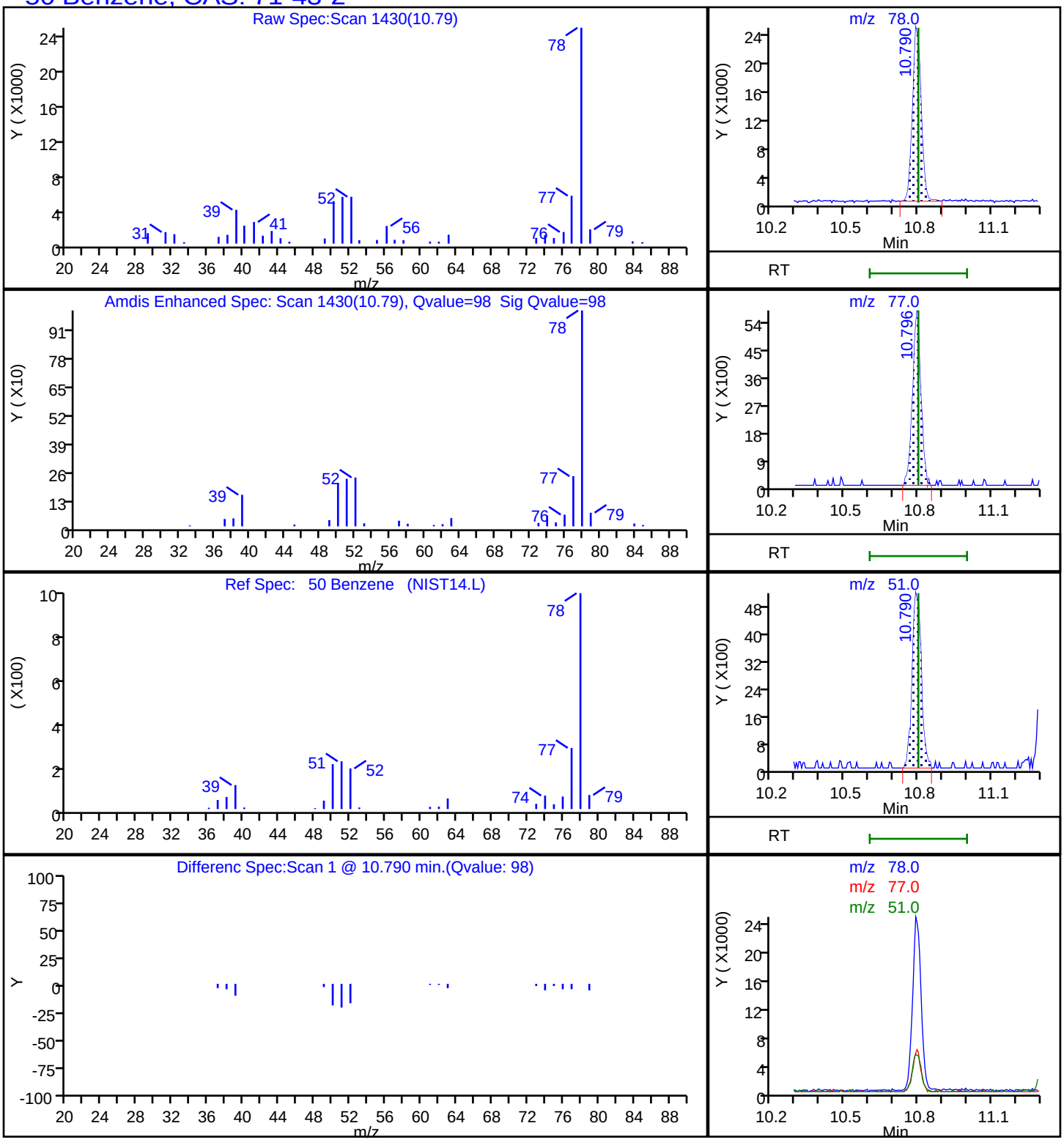
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Lims ID:	140-15980-A-1				
Client ID:	A-EFFLUENT				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 22:37:30	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-017				
Misc. Info.:	140-15980-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 14:07:59	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				
First Level Reviewer: khachitpongpanits		Date:	15-Jul-2019 14:07:59		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.04	101.08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D		
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

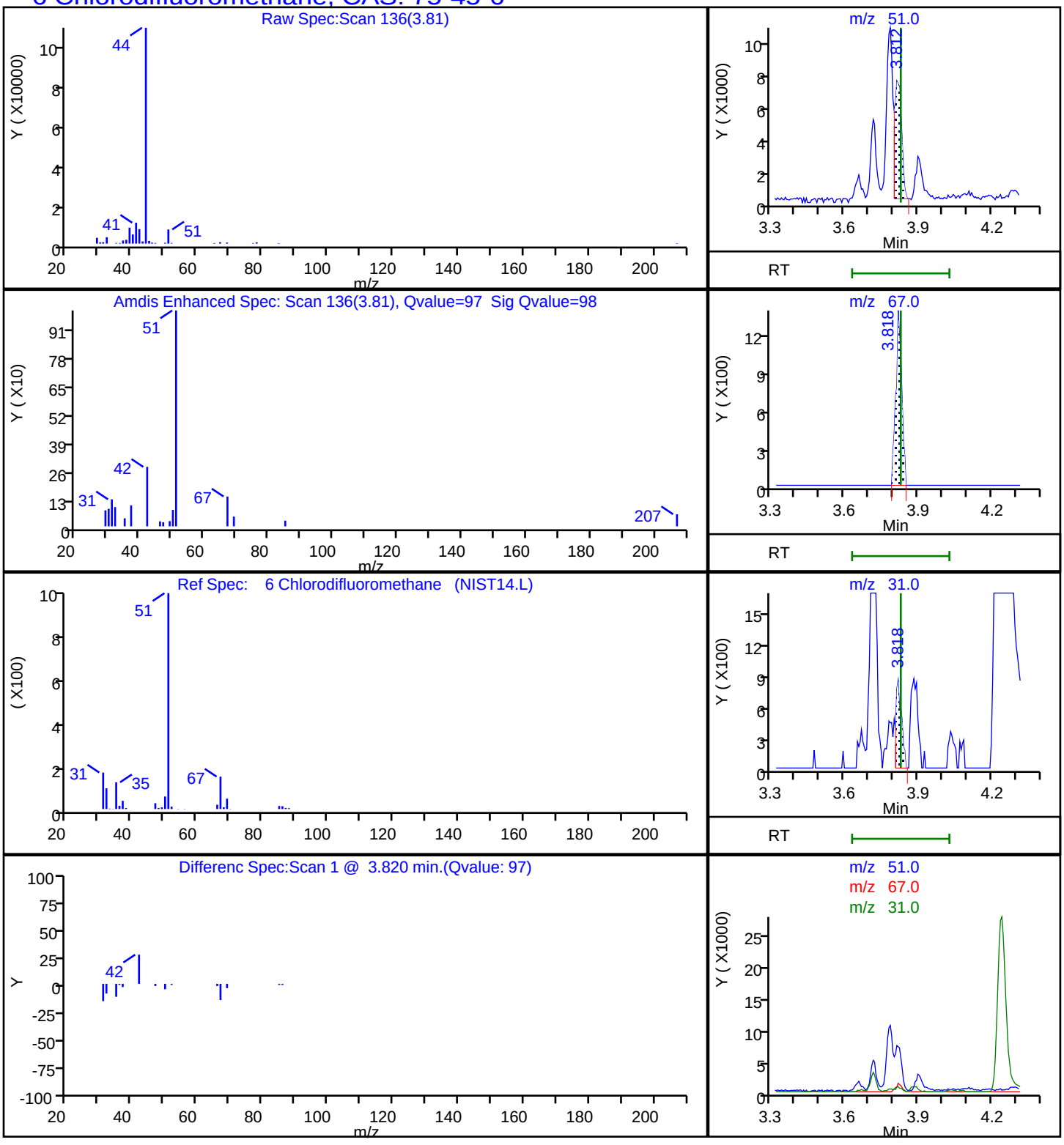


Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

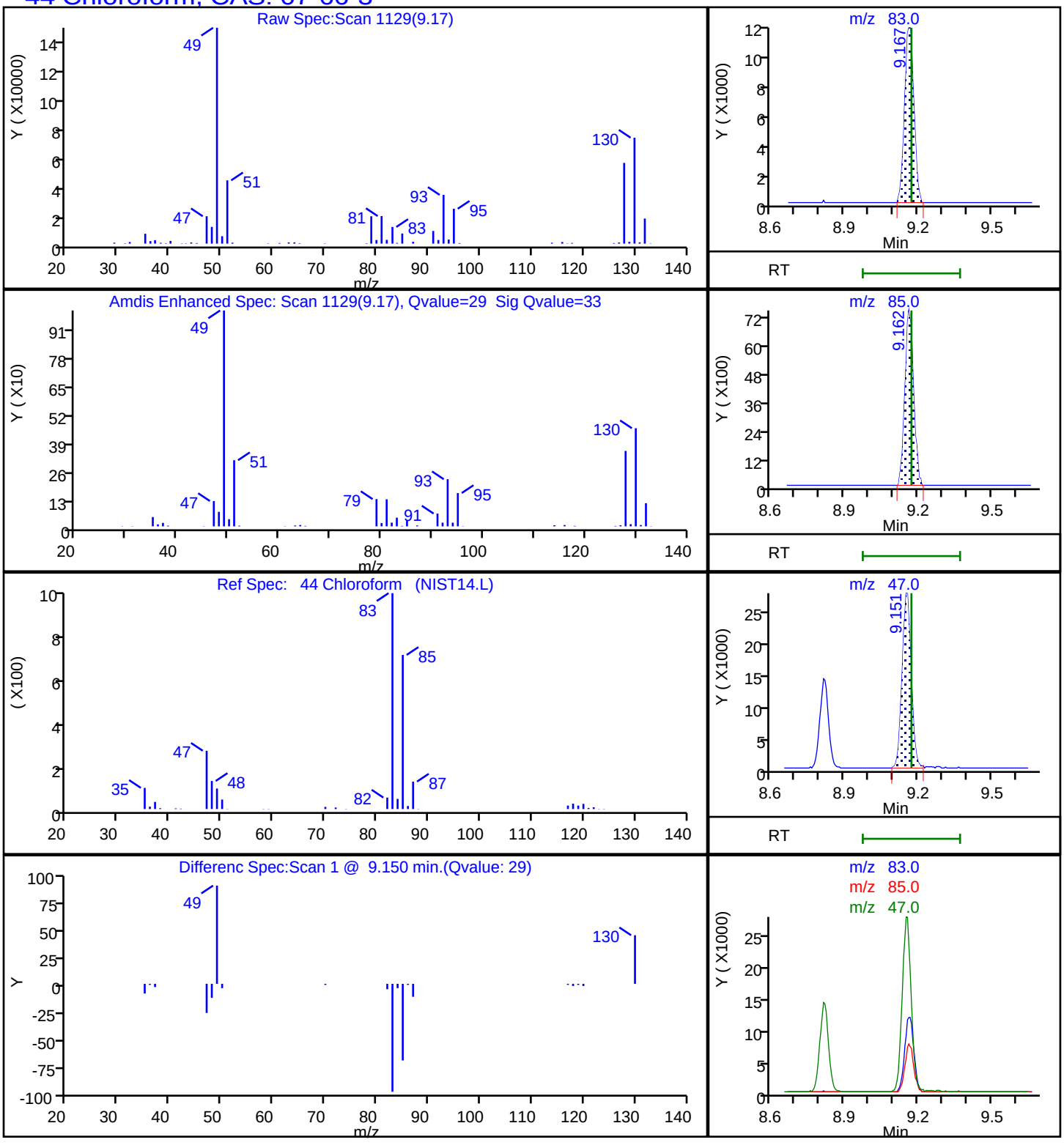
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D		
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

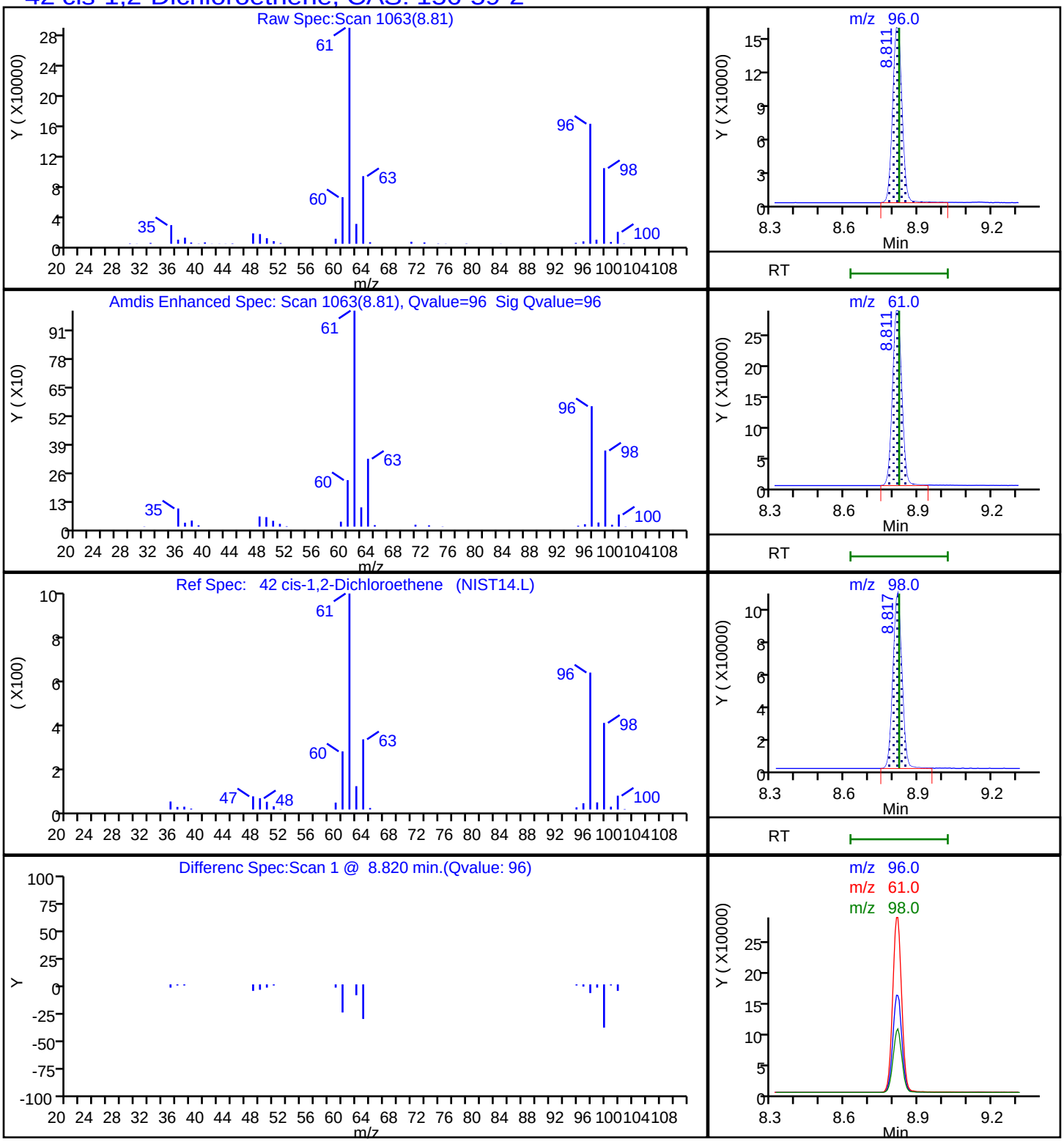


Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2

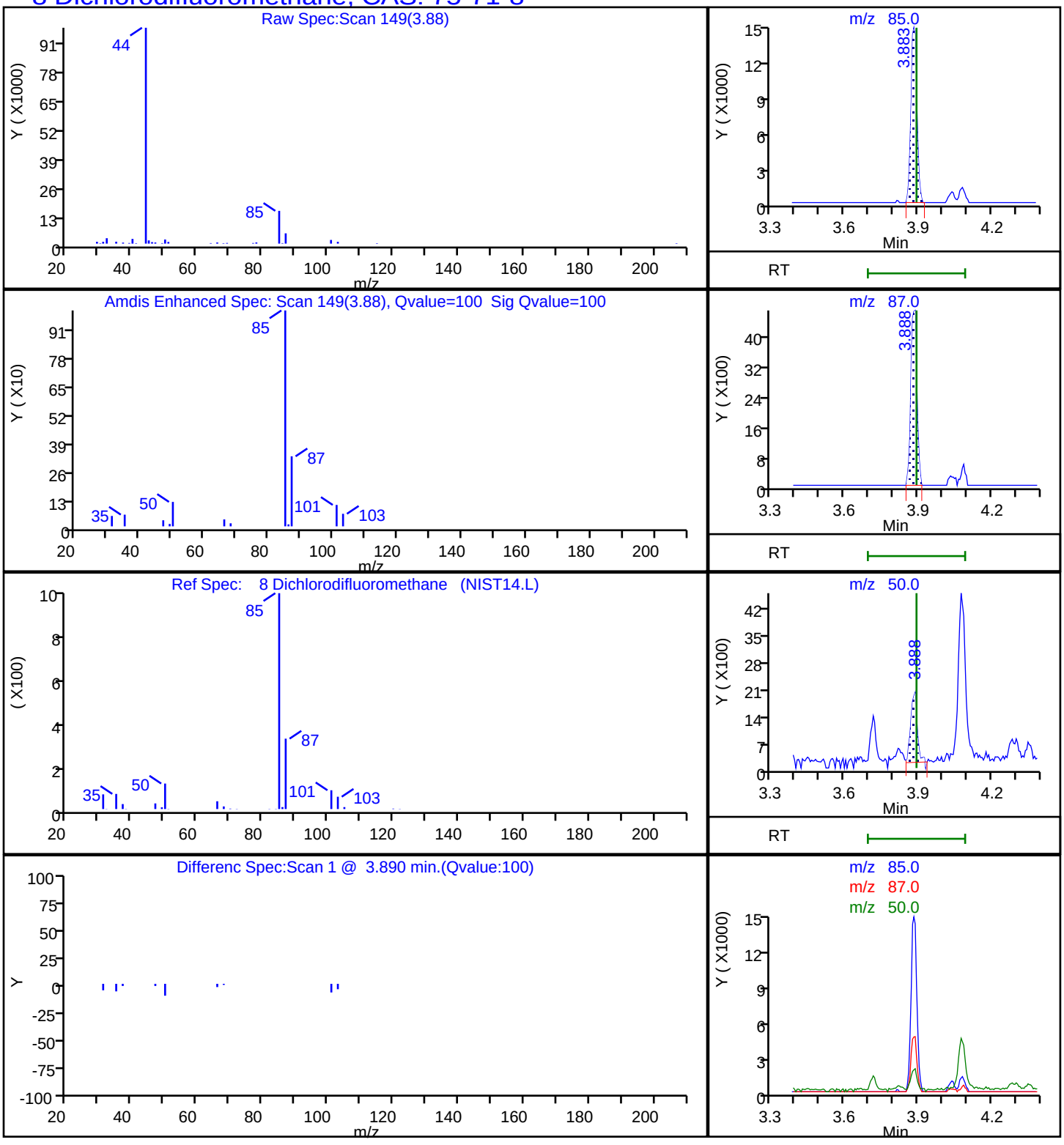


Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

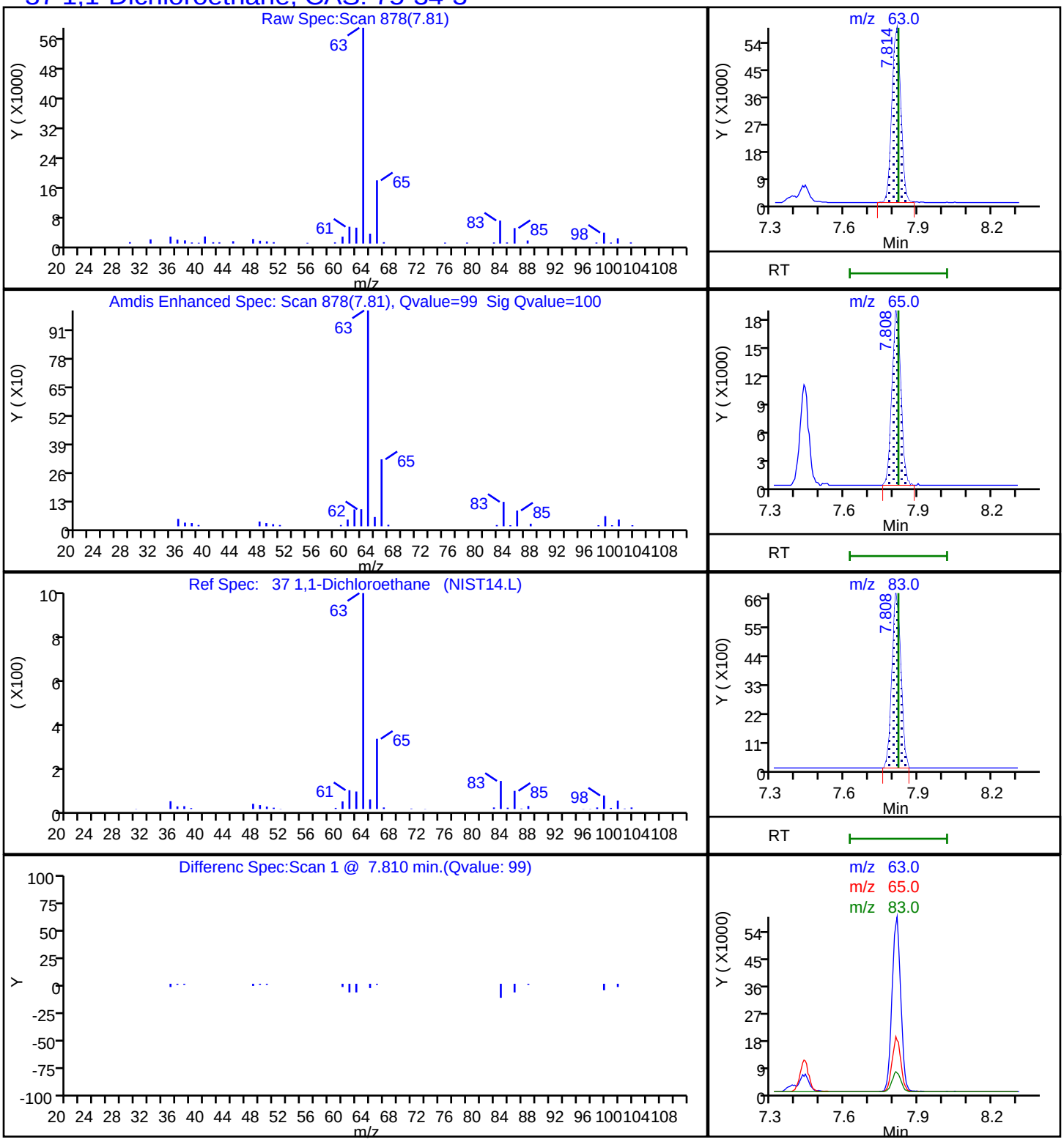
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

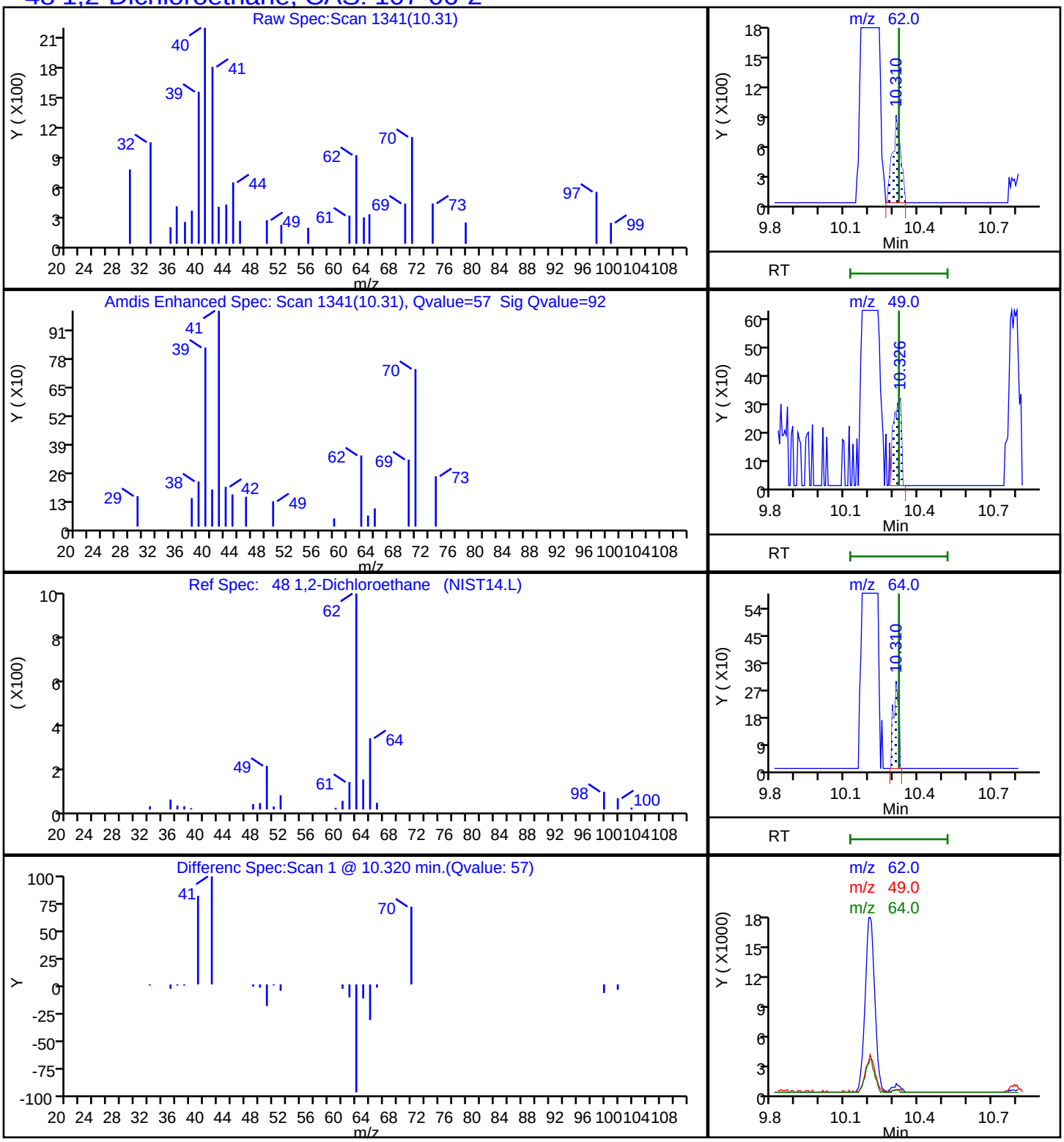
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

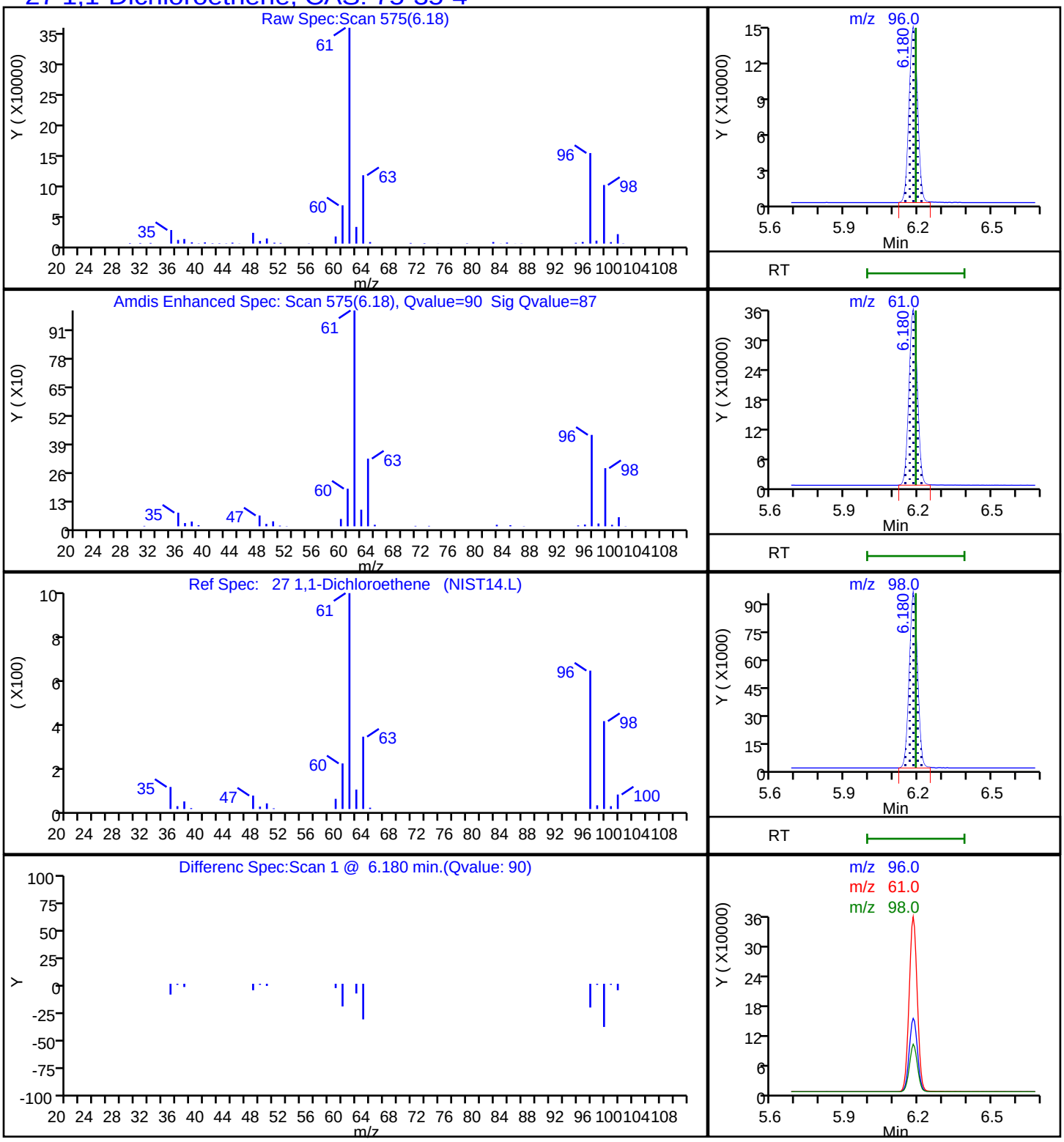
48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

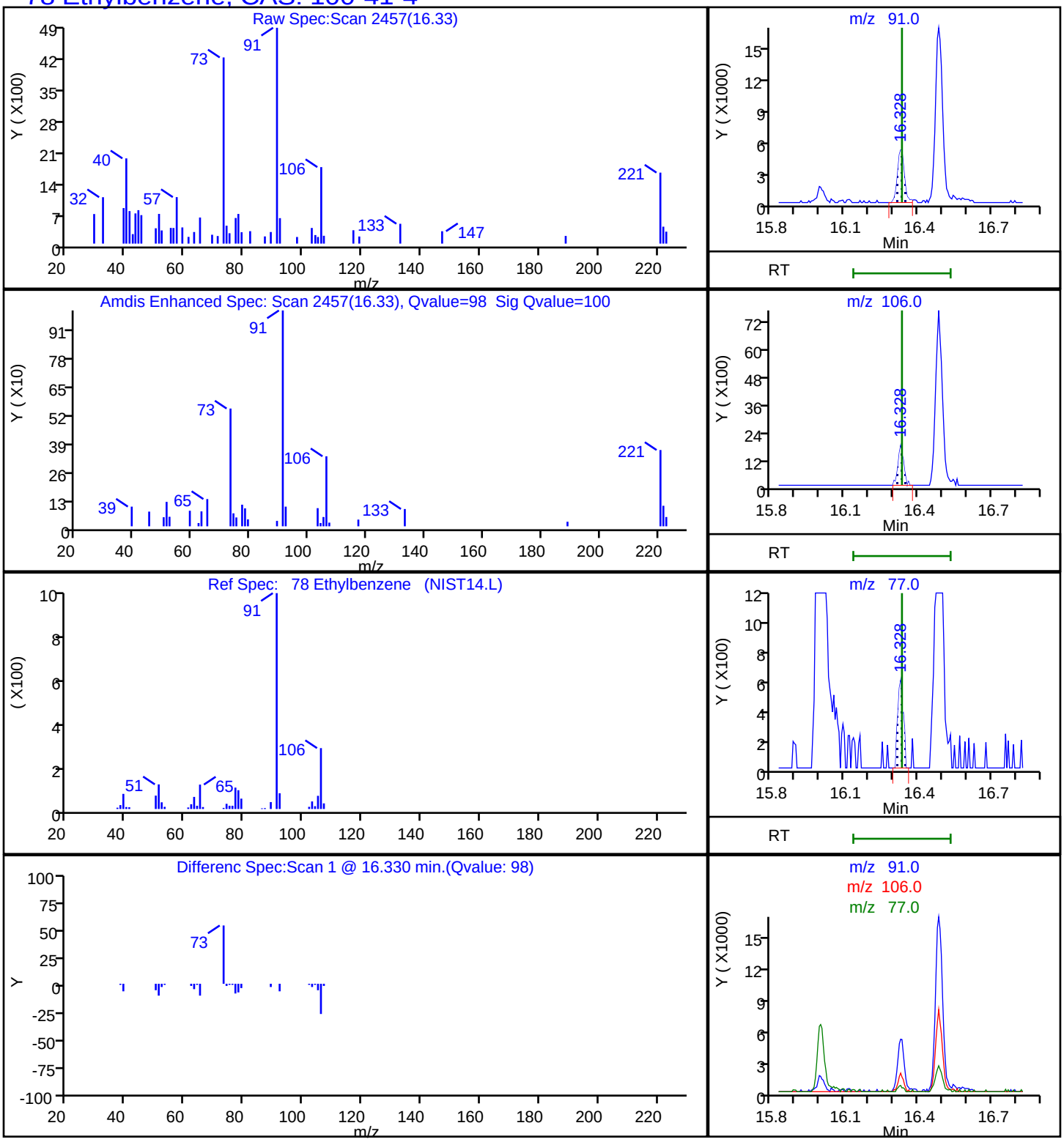
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 Ethylbenzene, CAS: 100-41-4



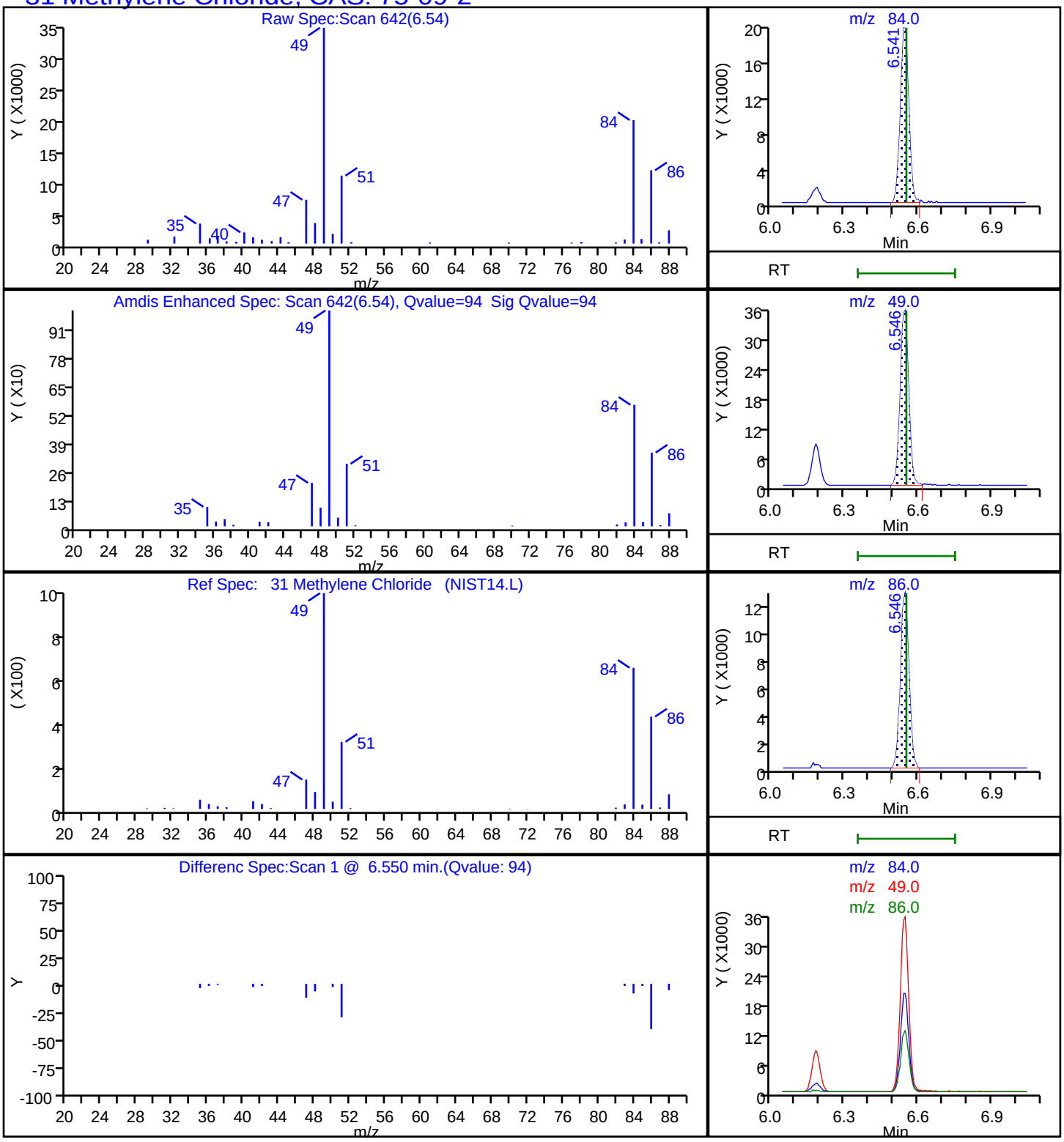
Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D

Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

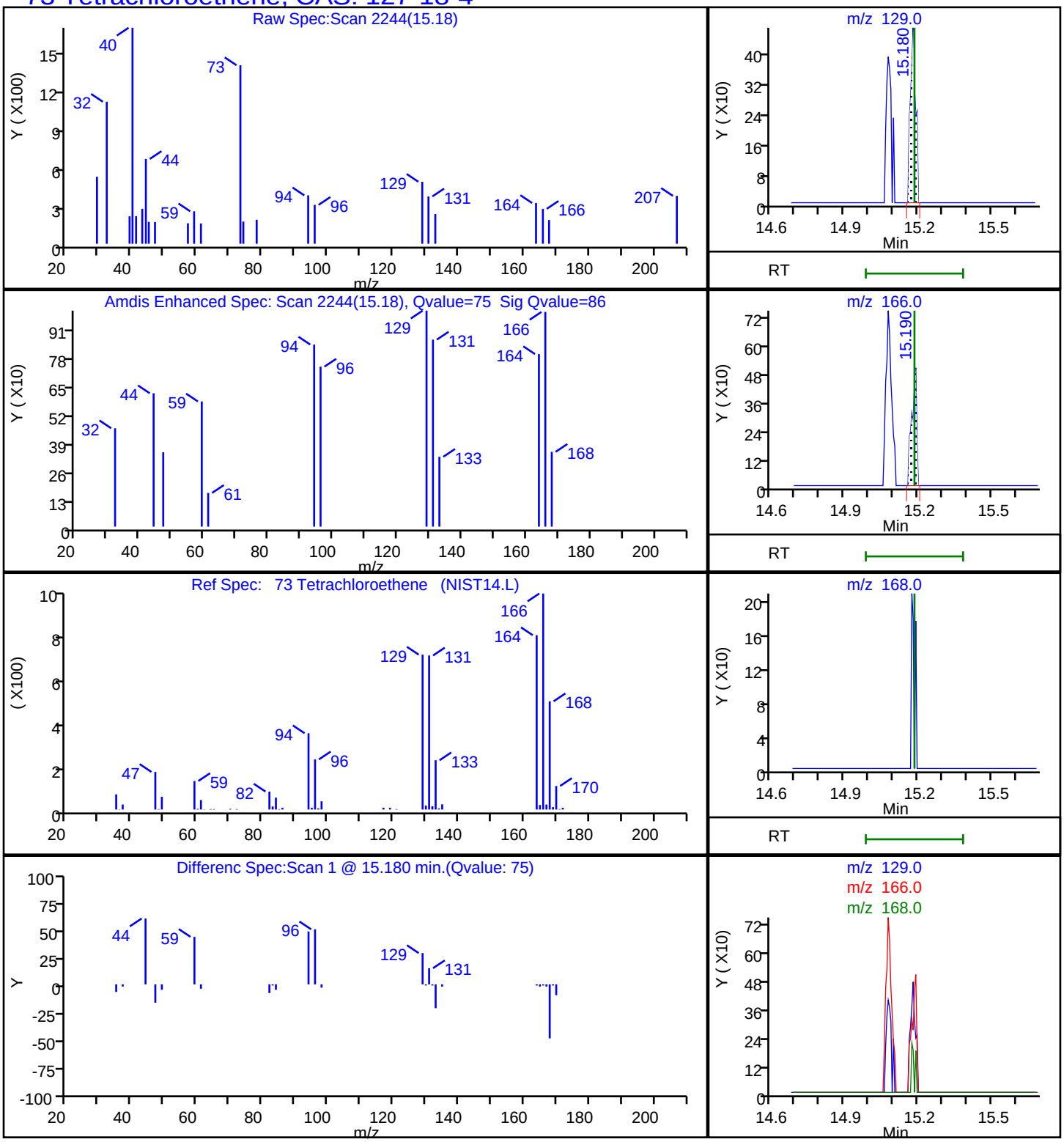
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D		
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

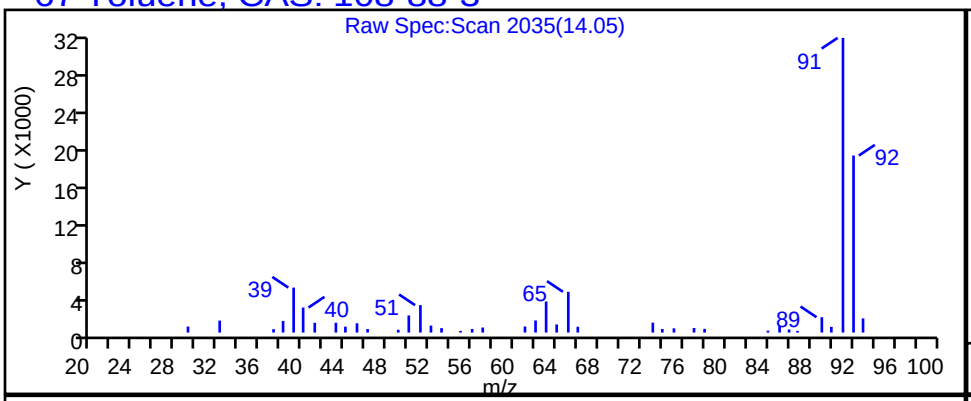
73 Tetrachloroethene, CAS: 127-18-4

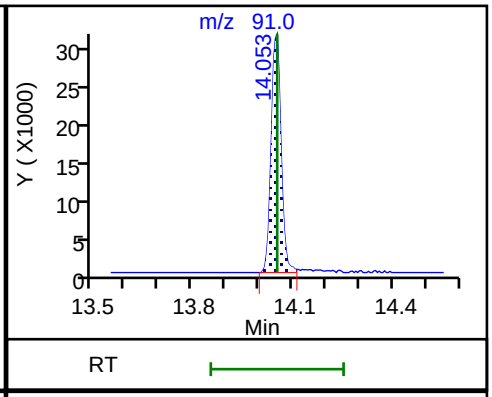


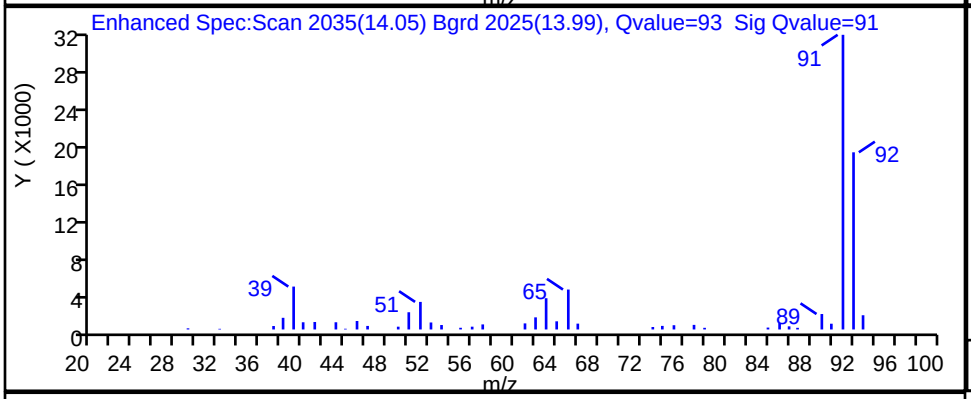
Eurofins TestAmerica, Knoxville

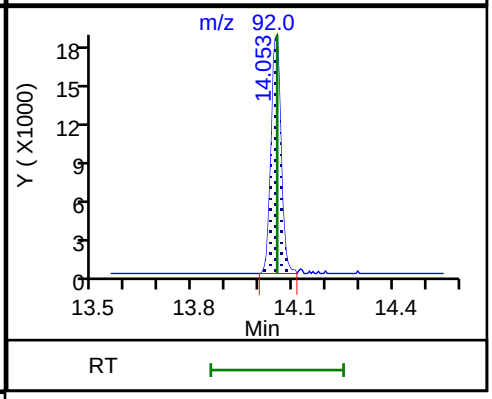
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D		
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

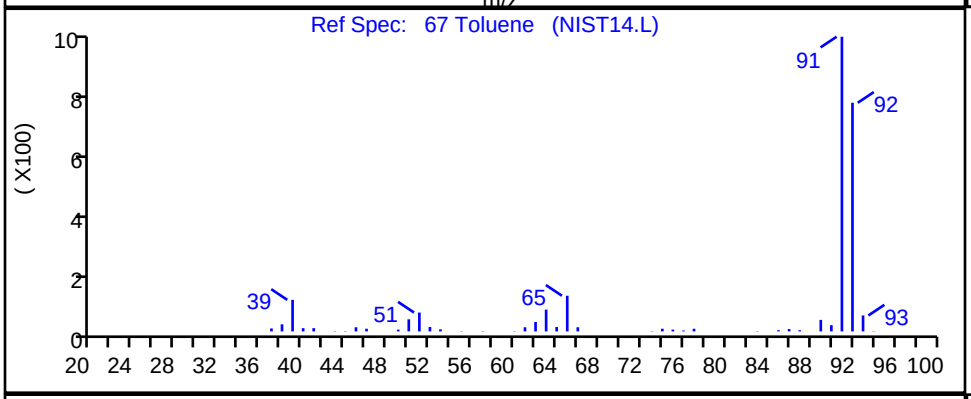
67 Toluene, CAS: 108-88-3

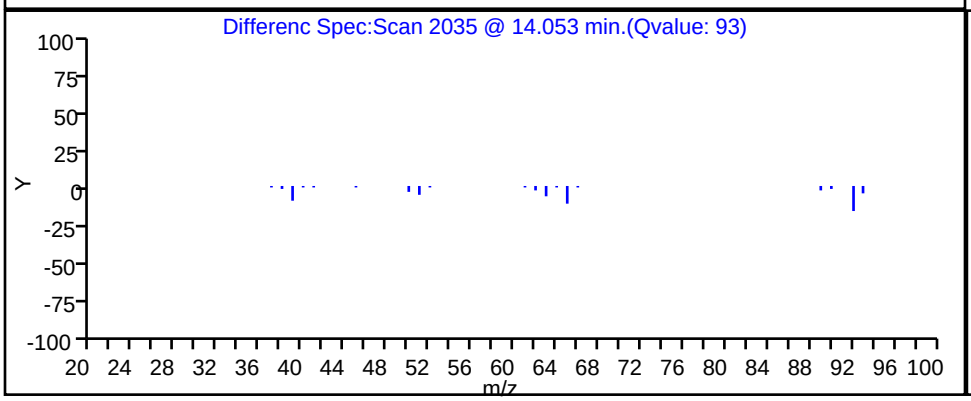


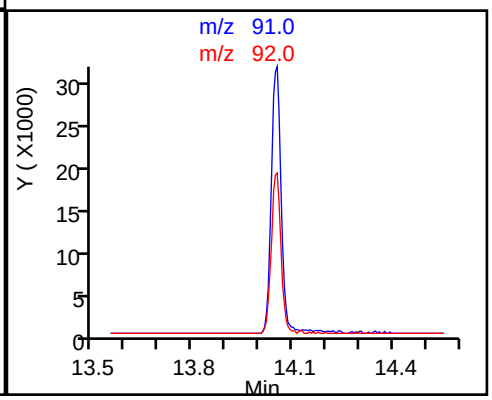








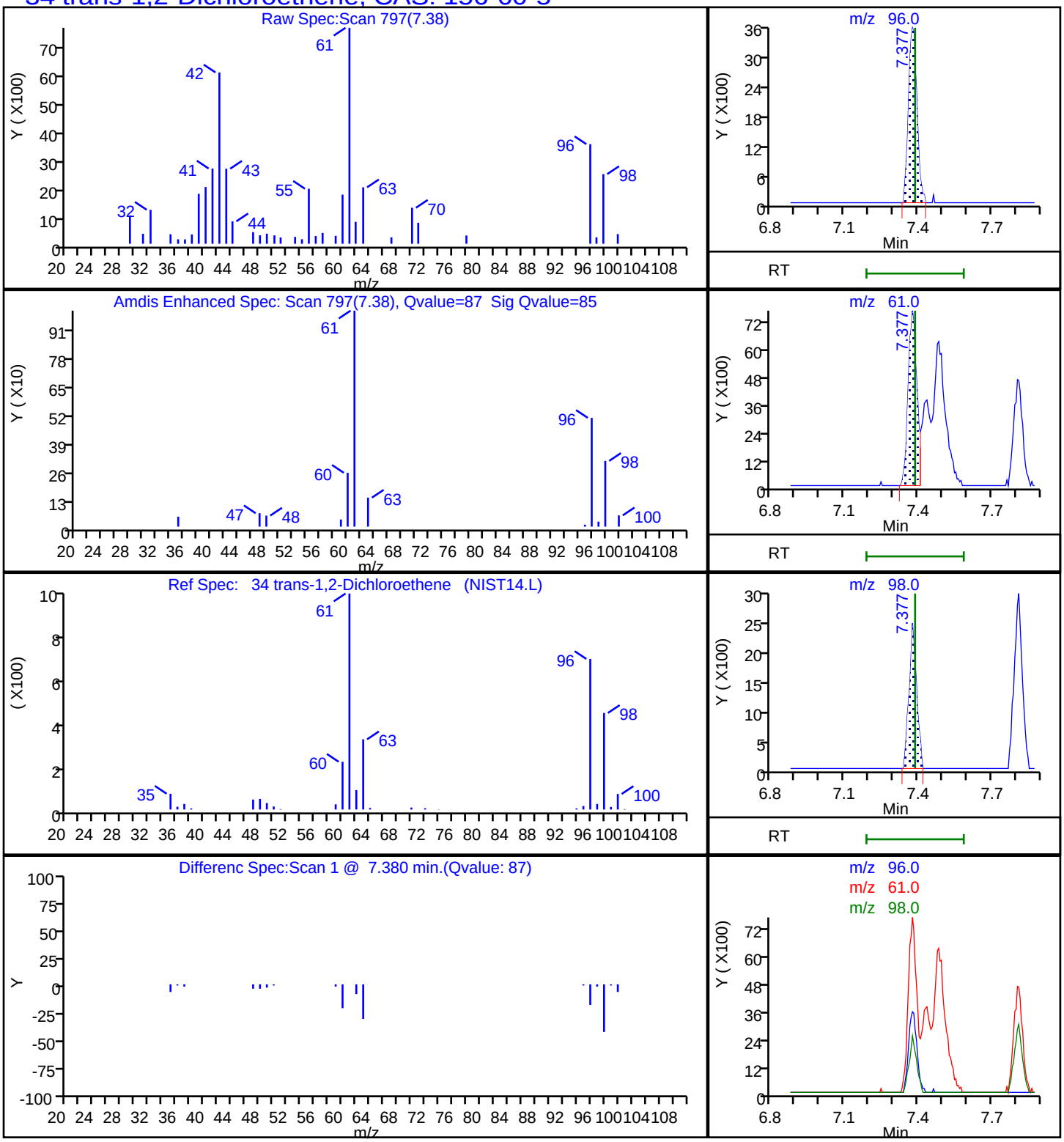




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

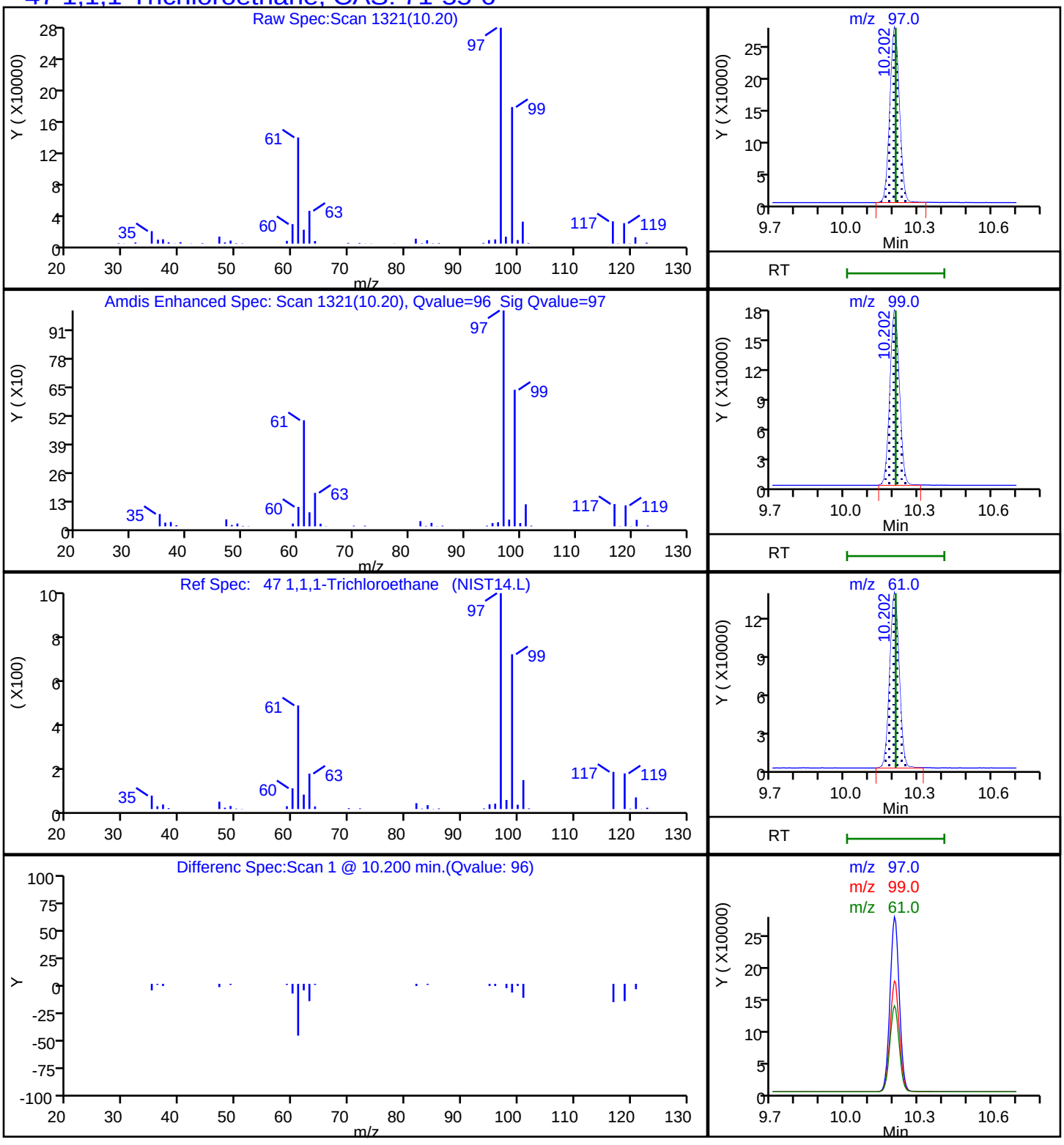
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

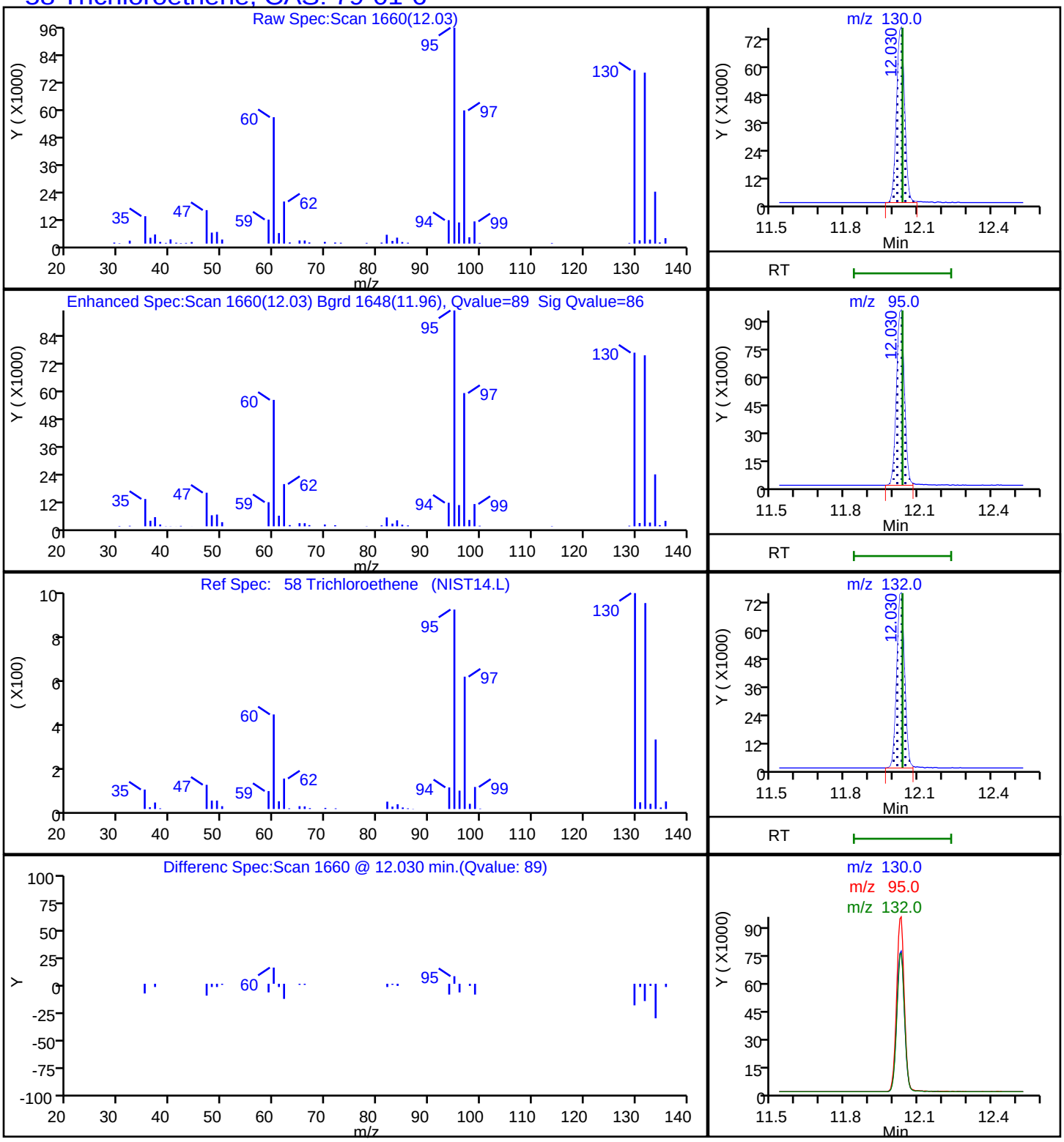
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D		
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

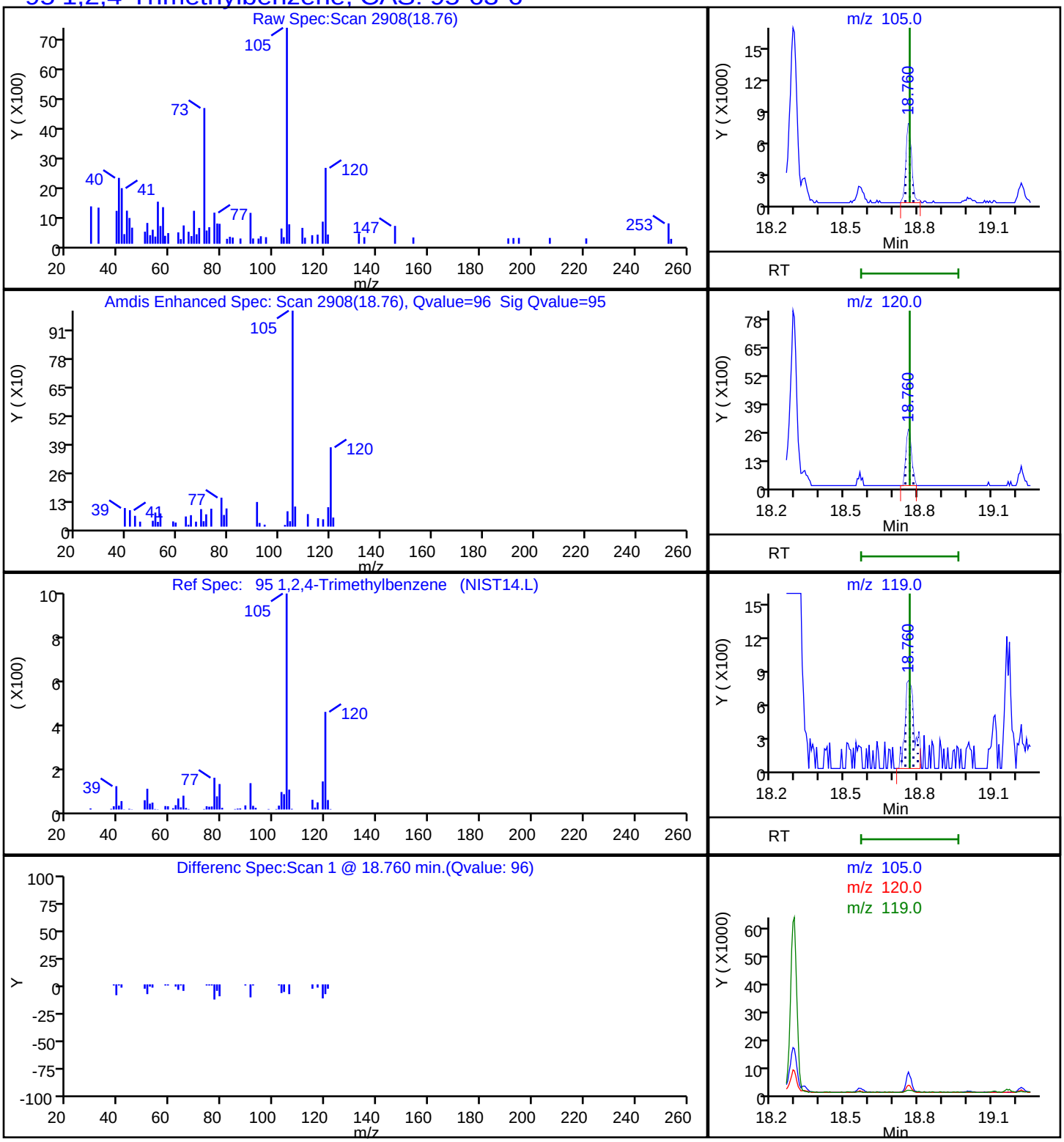
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

95 1,2,4-Trimethylbenzene, CAS: 95-63-6



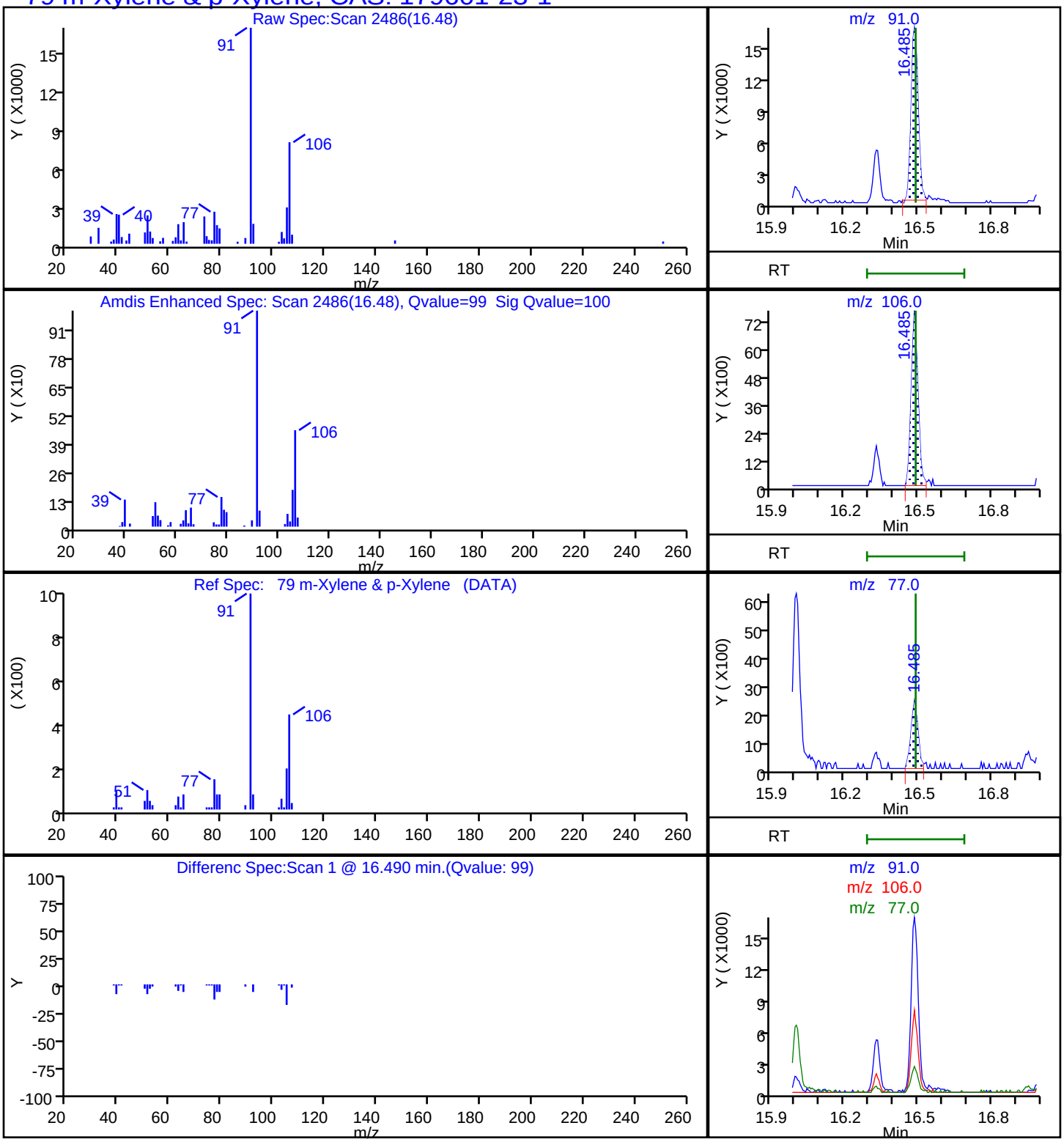
Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D

Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1
Client ID:	A-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	11 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 15-Jul-2019 14:08:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D

Injection Date: 12-Jul-2019 22:37:30 Instrument ID: MG

Lims ID: 140-15980-A-1 Lab Sample ID: 140-15980-1

Client ID: A-EFFLUENT

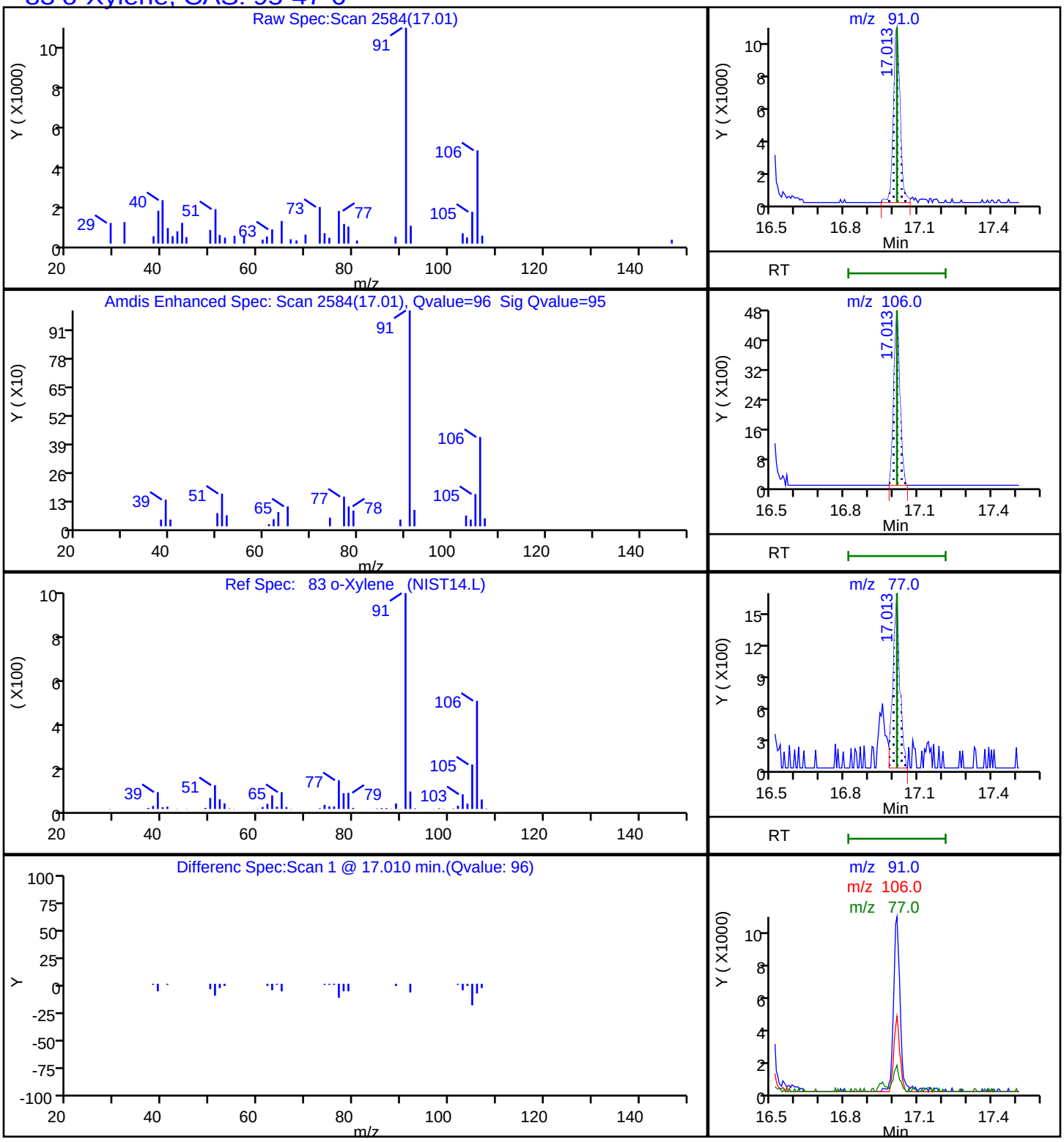
Operator ID: 7126 ALS Bottle#: 11 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

83 o-Xylene, CAS: 95-47-6



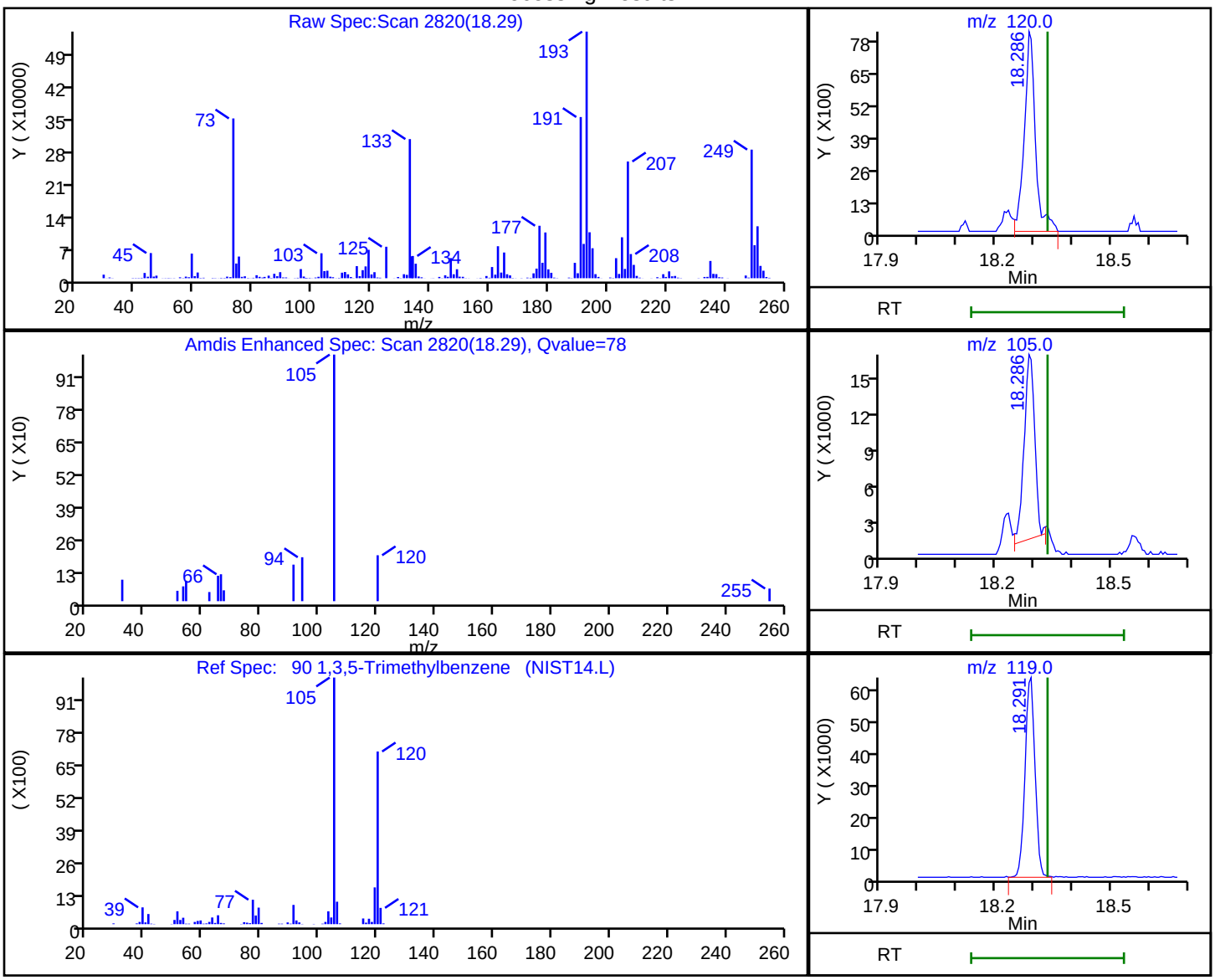
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P111.D				
Injection Date:	12-Jul-2019 22:37:30	Instrument ID:	MG		
Lims ID:	140-15980-A-1	Lab Sample ID:	140-15980-1		
Client ID:	A-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.29	120.00	16429	0.137616
18.29	105.00	28971	
18.29	119.00	114717	

Reviewer: khachitpongpanits, 15-Jul-2019 14:07:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-MIDGAC Lab Sample ID: 140-15980-2

Matrix: Air Lab File ID: GG12P112.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:14

Sample wt/vol: 100(mL) Date Analyzed: 07/12/2019 23:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	17		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.069	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.50		0.40	0.11
67-66-3	Chloroform	119.38	0.53		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	17		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.61		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	3.3		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.19	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	17		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.33	J	0.40	0.035
108-88-3	Toluene	92.14	1.9		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.38	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	77		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.74		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.52	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-MIDGAC Lab Sample ID: 140-15980-2

Matrix: Air Lab File ID: GG12P112.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:14

Sample wt/vol: 100(mL) Date Analyzed: 07/12/2019 23:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	55		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.8		1.4	0.39
67-66-3	Chloroform	119.38	2.6		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	67		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	13		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.77	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	65		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.54	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.5	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.3	J	2.7	0.24
108-88-3	Toluene	92.14	7.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.5	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	420		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	3.9		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.3	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D
Lims ID: 140-15980-A-2
Client ID: A-MIDGAC
Sample Type: Client
Inject. Date: 12-Jul-2019 23:21:30 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-018
Misc. Info.: 140-15980-a-2
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 14:08:57 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:08:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	93	211760	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.329	0.001	97	1187831	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	95	1038839	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	74	806552	4.14	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	95	12897	0.0991	
8 Dichlorodifluoromethane	85	3.894	3.891	0.001	100	25896	0.1218	
27 1,1-Dichloroethene	96	6.191	6.187	0.001	90	239718	3.30	
31 Methylene Chloride	84	6.552	6.552	0.000	96	31614	0.3763	
34 trans-1,2-Dichloroethene	96	7.388	7.383	0.000	91	5326	0.0768	
37 1,1-Dichloroethane	63	7.819	7.814	0.000	100	103993	0.6633	
42 cis-1,2-Dichloroethene	96	8.822	8.817	0.000	96	248982	3.40	
44 Chloroform	83	9.173	9.167	0.001	28	17513	0.1065	
47 1,1,1-Trichloroethane	97	10.208	10.202	0.000	96	2776960	15.3	
48 1,2-Dichloroethane	62	10.316	10.316	-0.005	92	4493	0.0382	
50 Benzene	78	10.801	10.801	0.000	98	742961	3.47	
52 Carbon tetrachloride	117	10.823	10.817	0.000	25	2059	0.0139	
58 Trichloroethene	130	12.031	12.030	-0.005	87	12890	0.1470	
67 Toluene	91	14.053	14.053	0.000	93	88578	0.3862	
73 Tetrachloroethene	129	15.185	15.185	0.000	82	5622	0.0666	
78 Ethylbenzene	91	16.328	16.334	-0.006	96	7111	0.0247	
79 m-Xylene & p-Xylene	91	16.490	16.490	0.000	98	15863	0.0721	
83 o-Xylene	91	17.013	17.013	0.000	95	7528	0.0322	
S 124 Xylenes, Total	100				0		0.1043	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

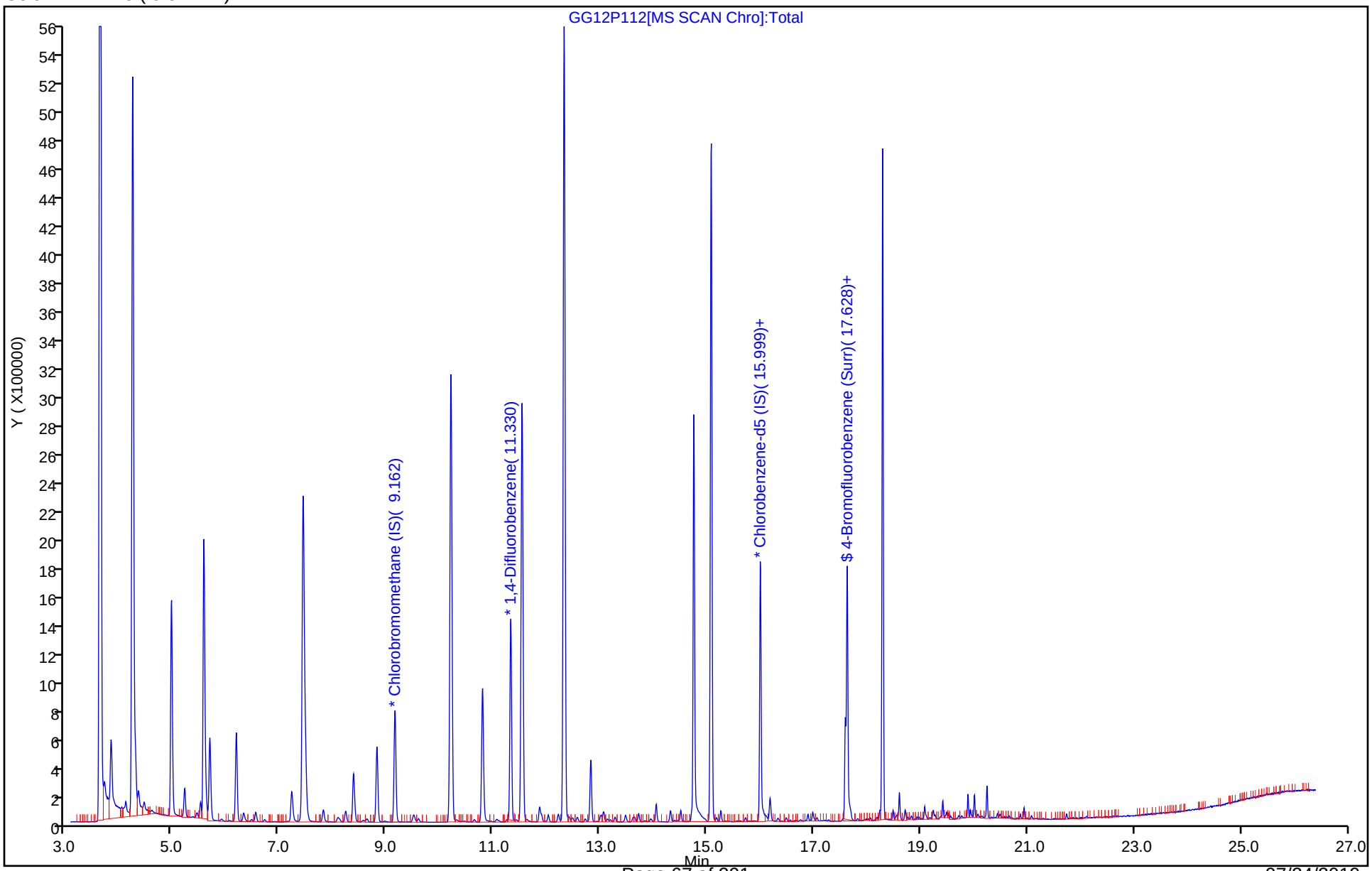
Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D

Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2	Worklist Smp#:	18
Client ID:	A-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Lims ID:	140-15980-A-2				
Client ID:	A-MIDGAC				
Sample Type:	Client				
Inject. Date:	12-Jul-2019 23:21:30	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-018				
Misc. Info.:	140-15980-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 14:08:57	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				

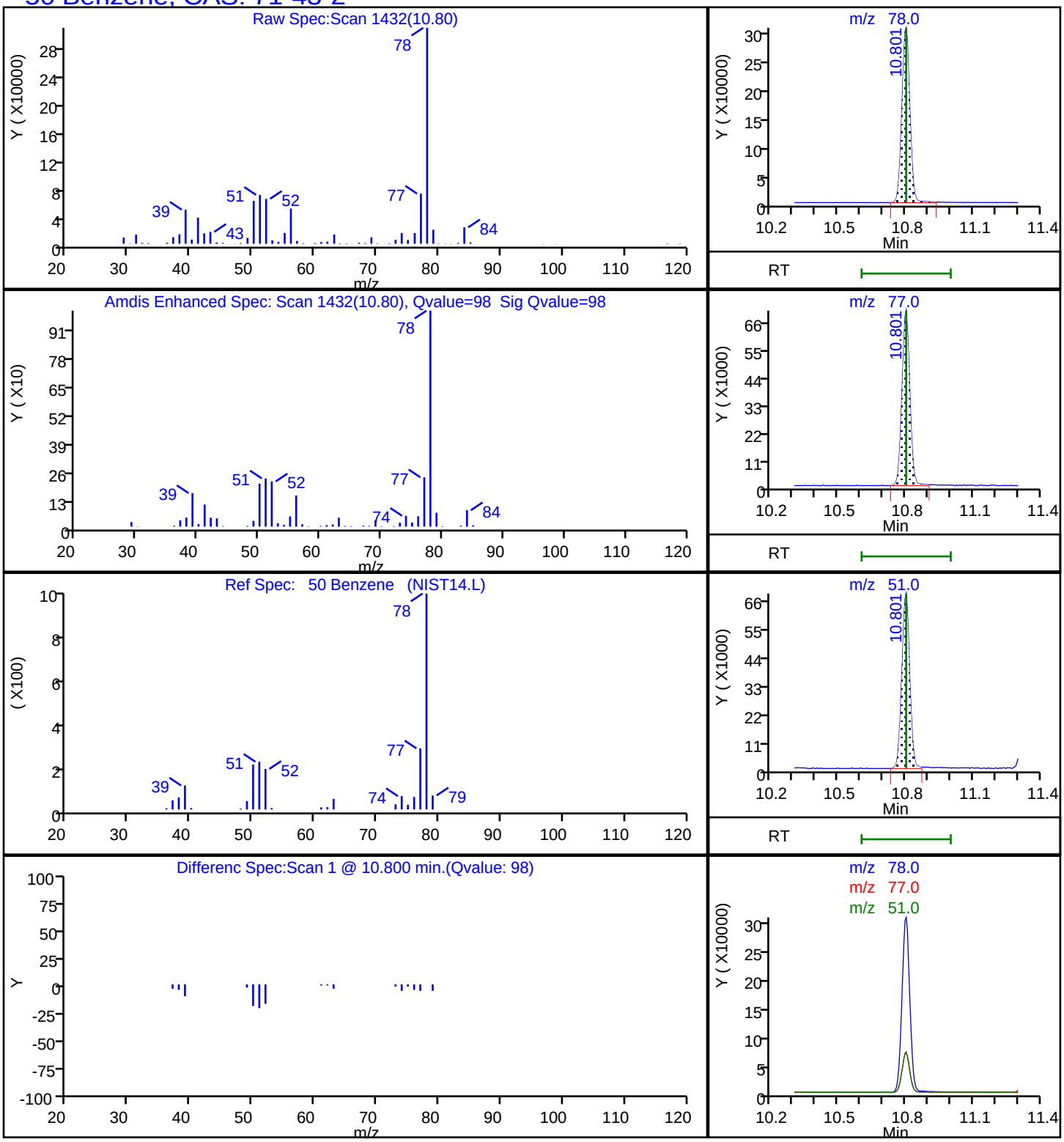
First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:08:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.14	103.45

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D		
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2
Client ID:	A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2



Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D

Injection Date: 12-Jul-2019 23:21:30 Instrument ID: MG

Lims ID: 140-15980-A-2 Lab Sample ID: 140-15980-2

Client ID: A-MIDGAC

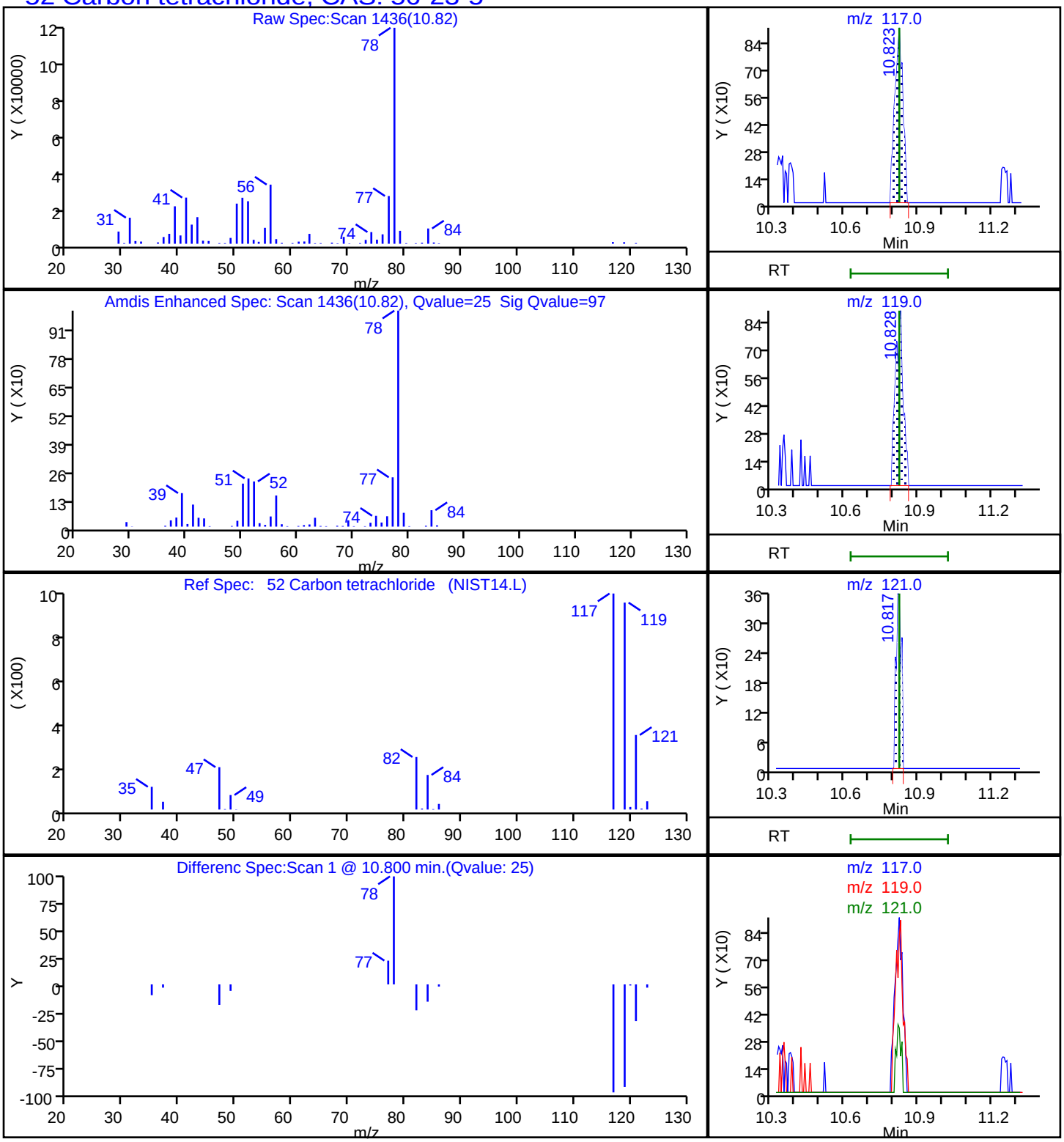
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

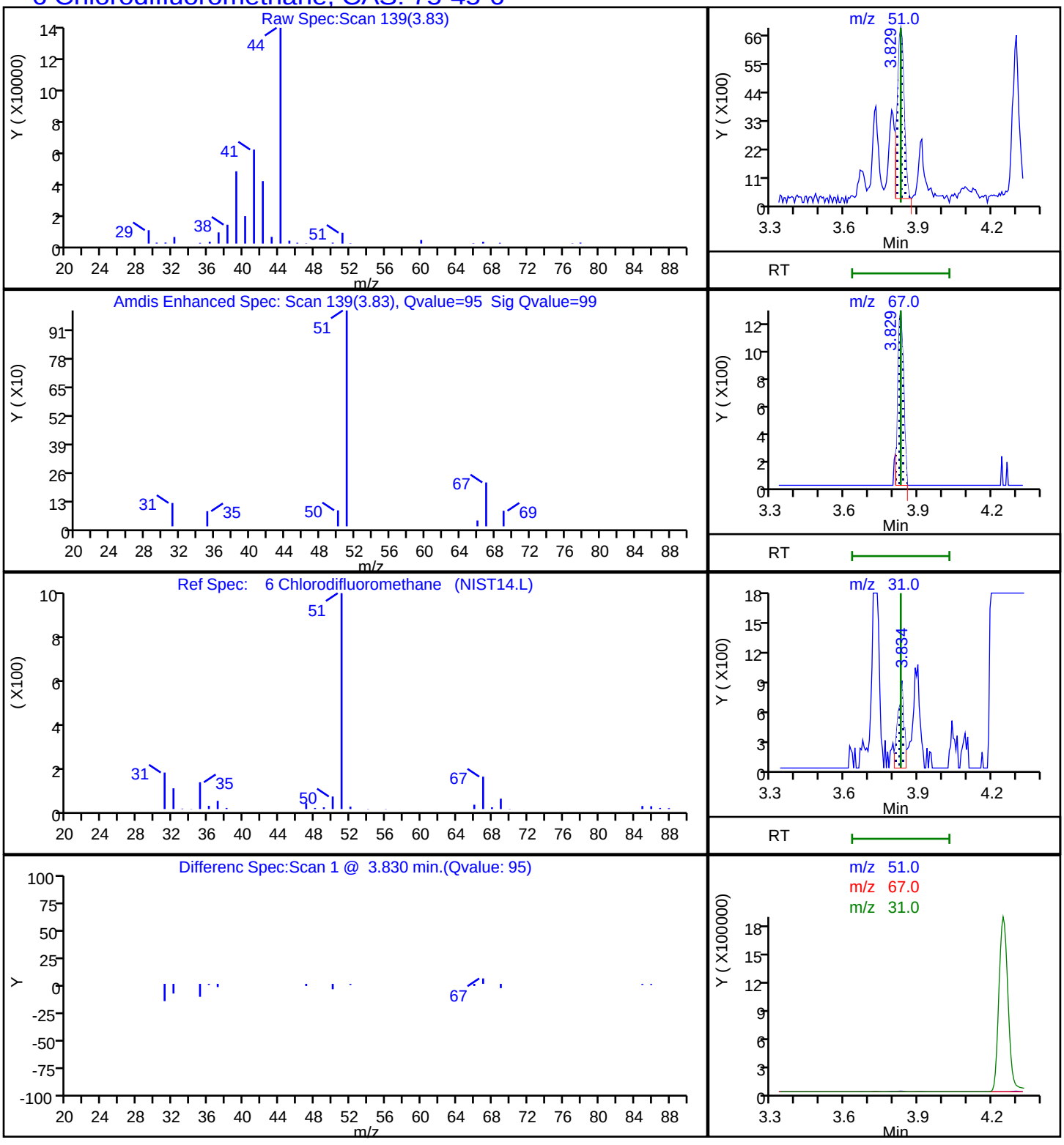
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

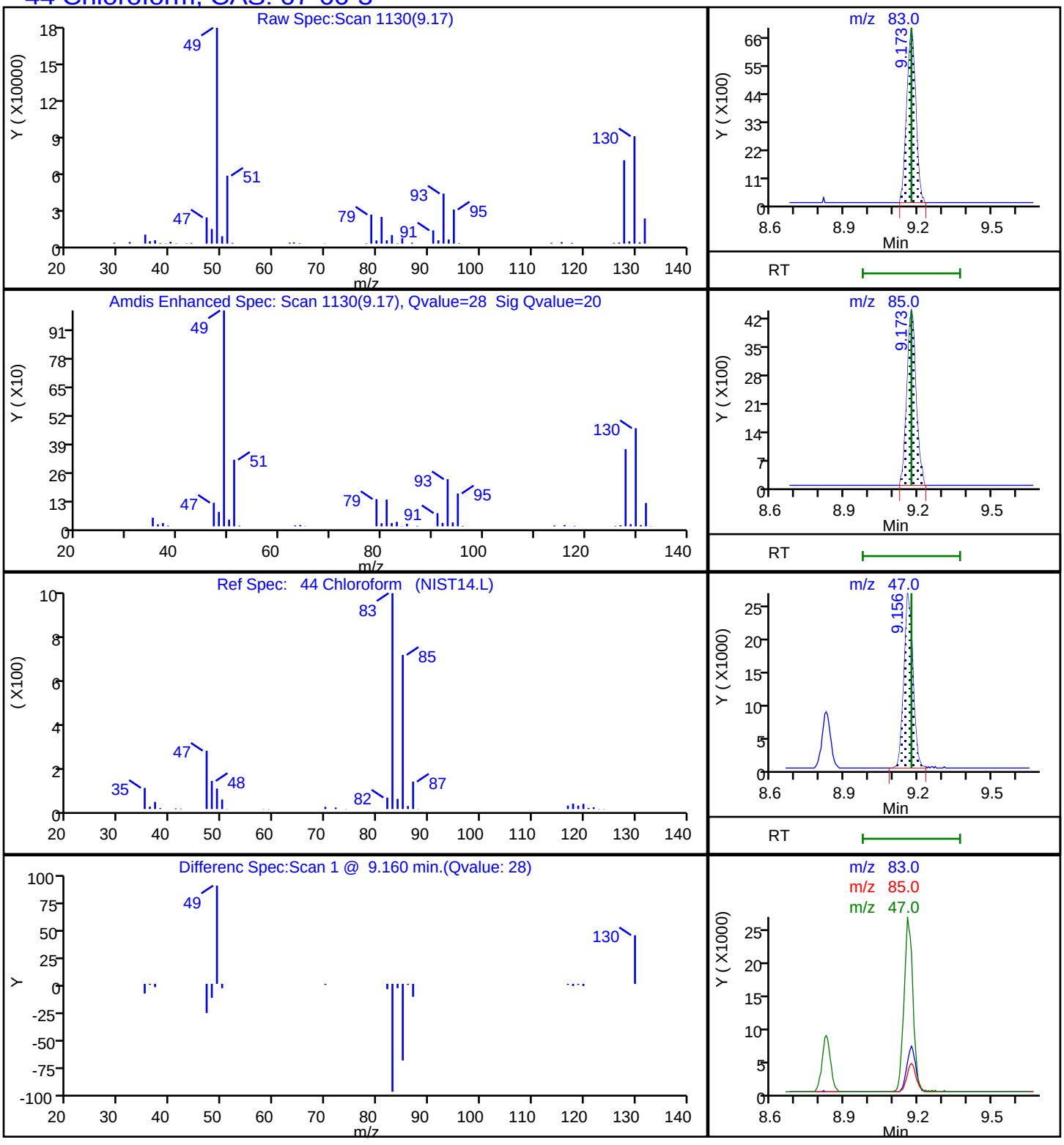
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D
Injection Date: 12-Jul-2019 23:21:30 Instrument ID: MG
Lims ID: 140-15980-A-2 Lab Sample ID: 140-15980-2
Client ID: A-MIDGAC
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3



Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
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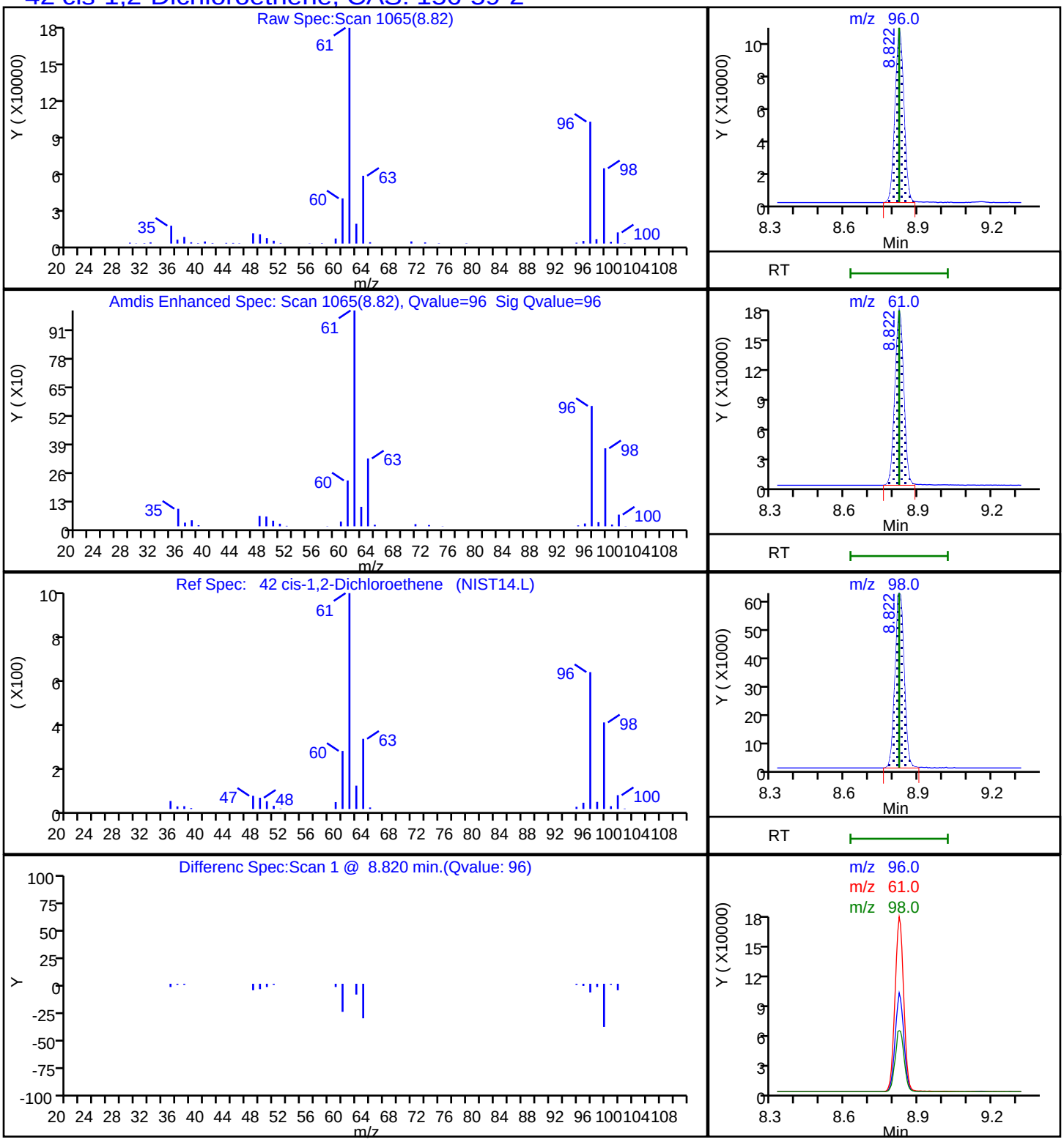
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

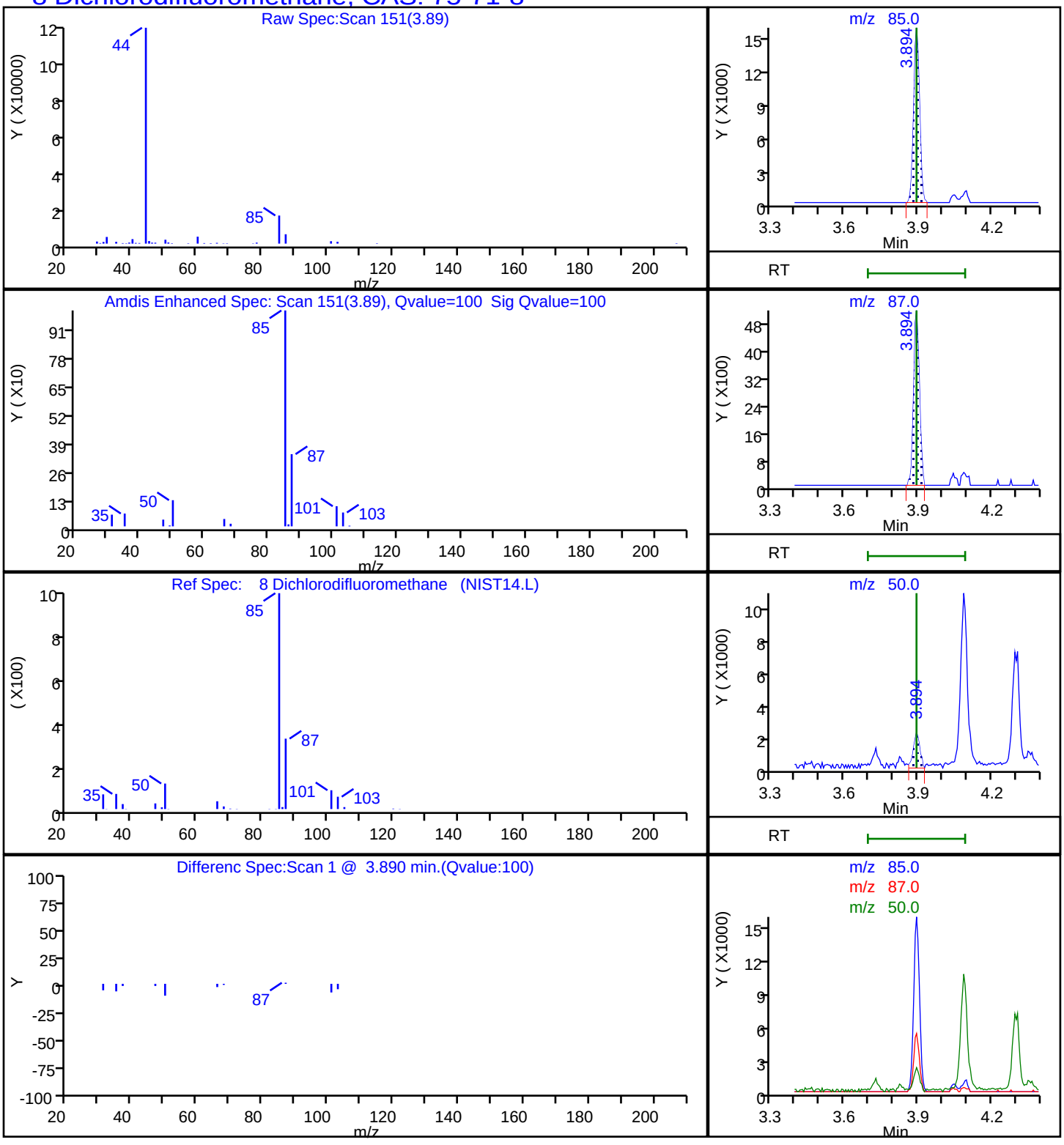
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

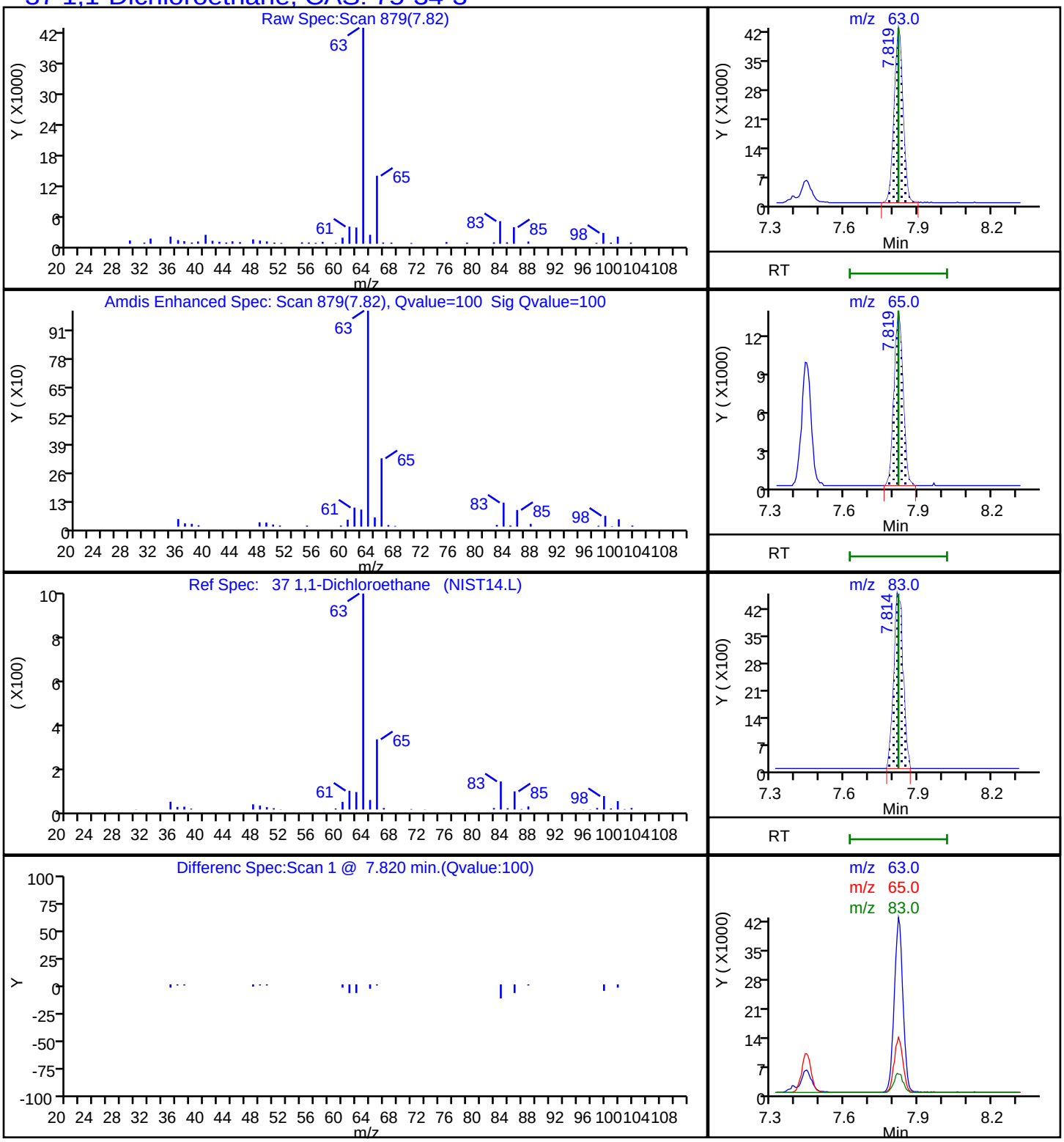
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

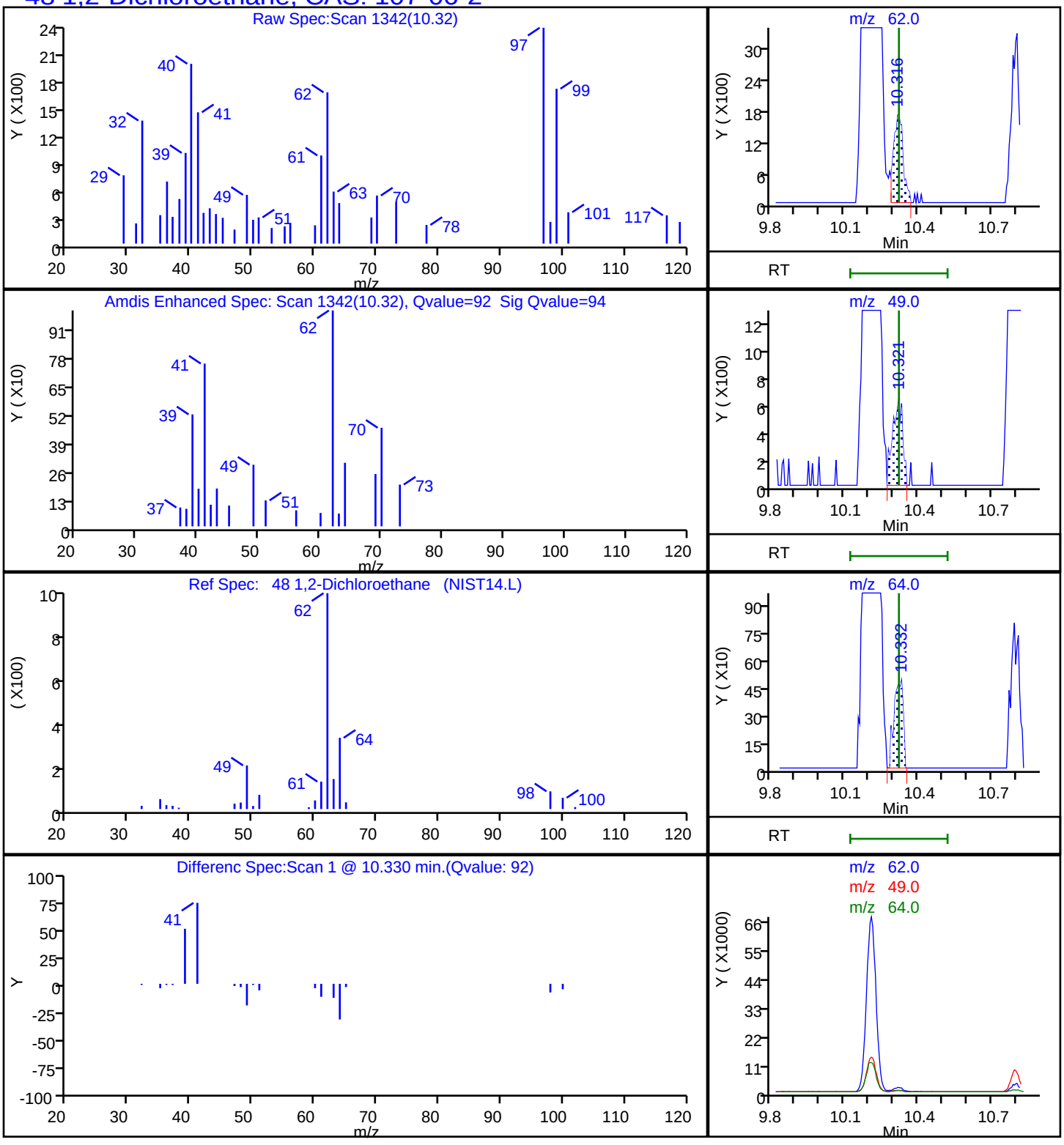
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D
Injection Date: 12-Jul-2019 23:21:30 Instrument ID: MG
Lims ID: 140-15980-A-2 Lab Sample ID: 140-15980-2
Client ID: A-MIDGAC
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

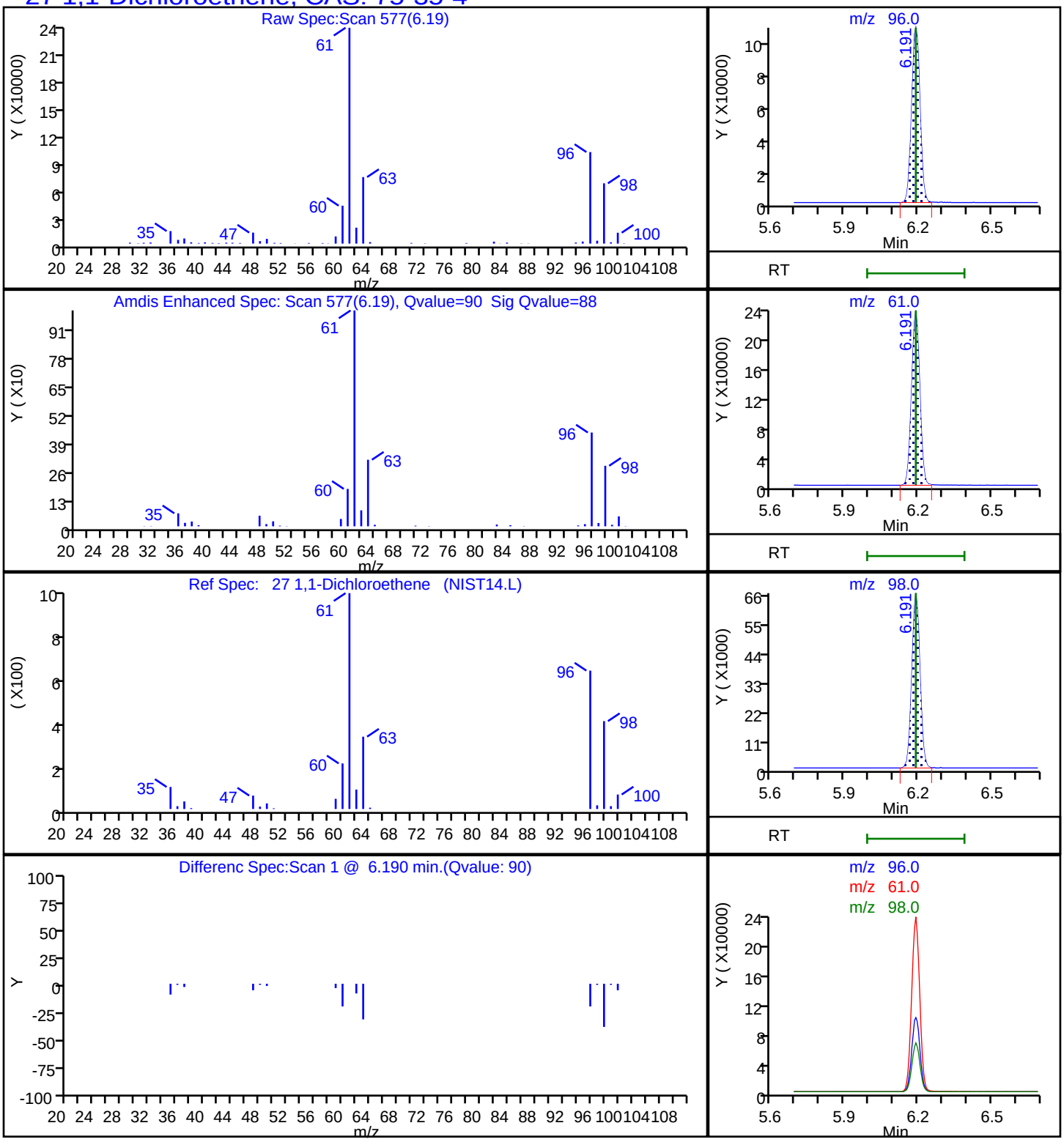
48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D		
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2
Client ID:	A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

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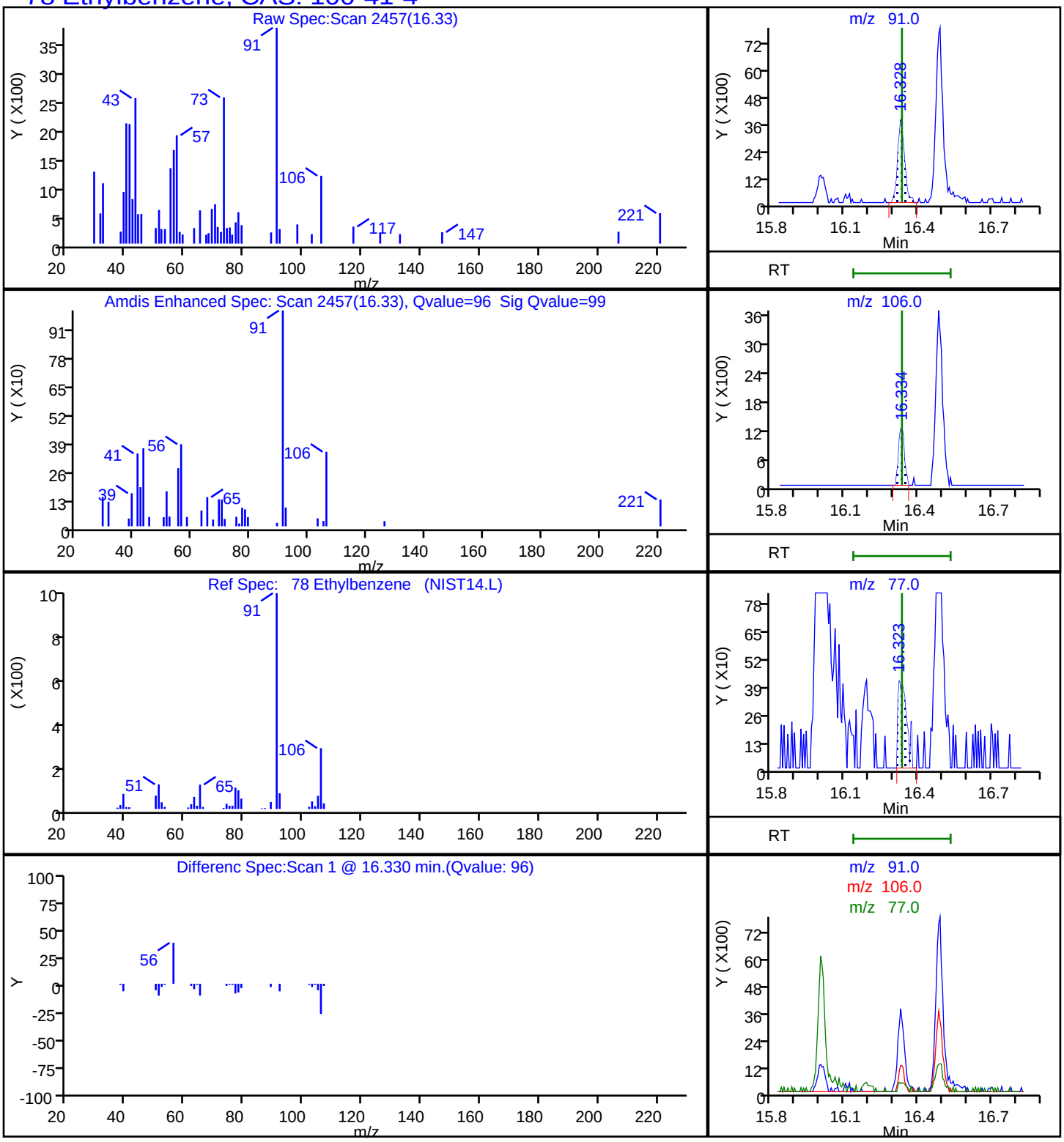
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
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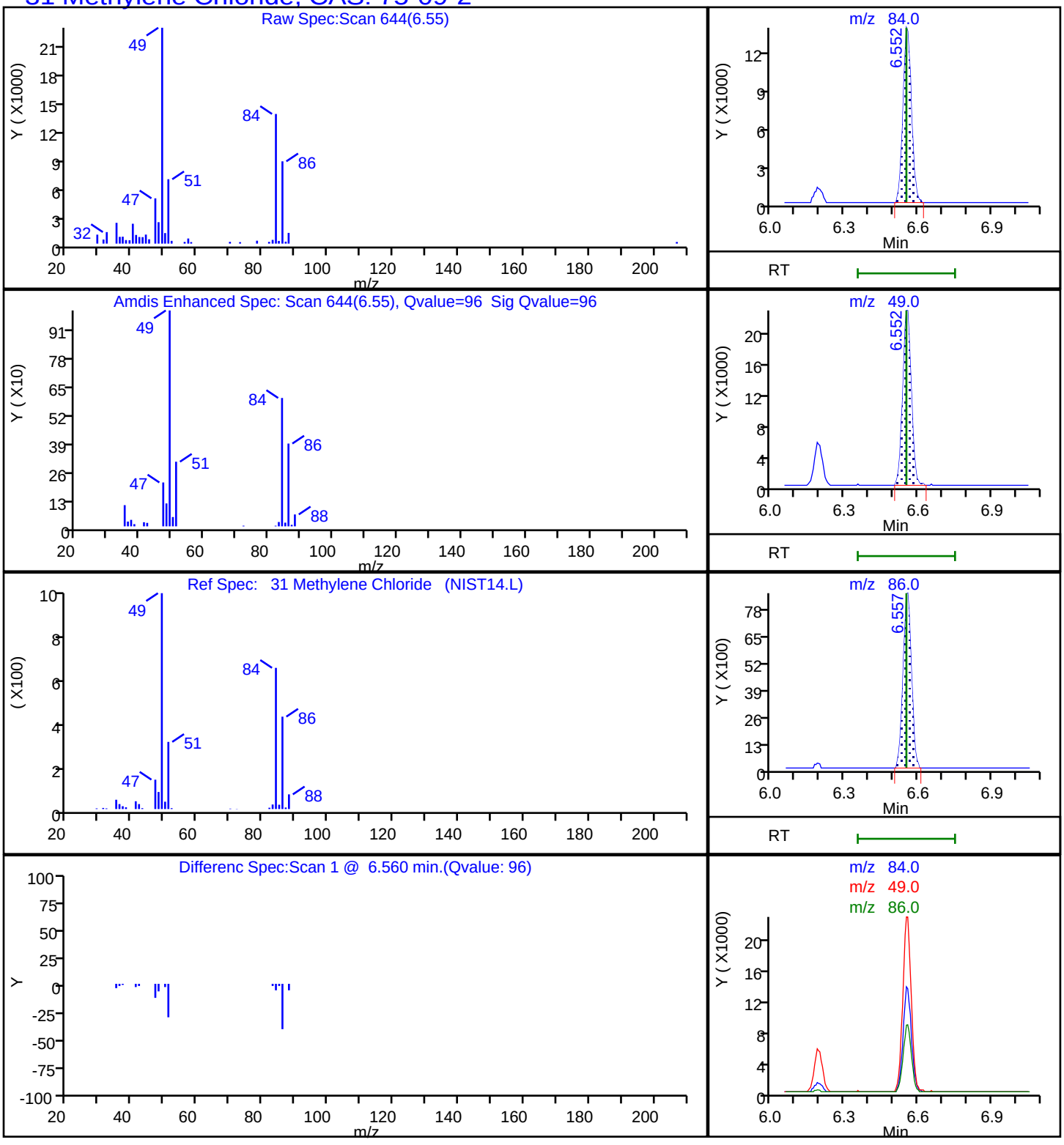
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

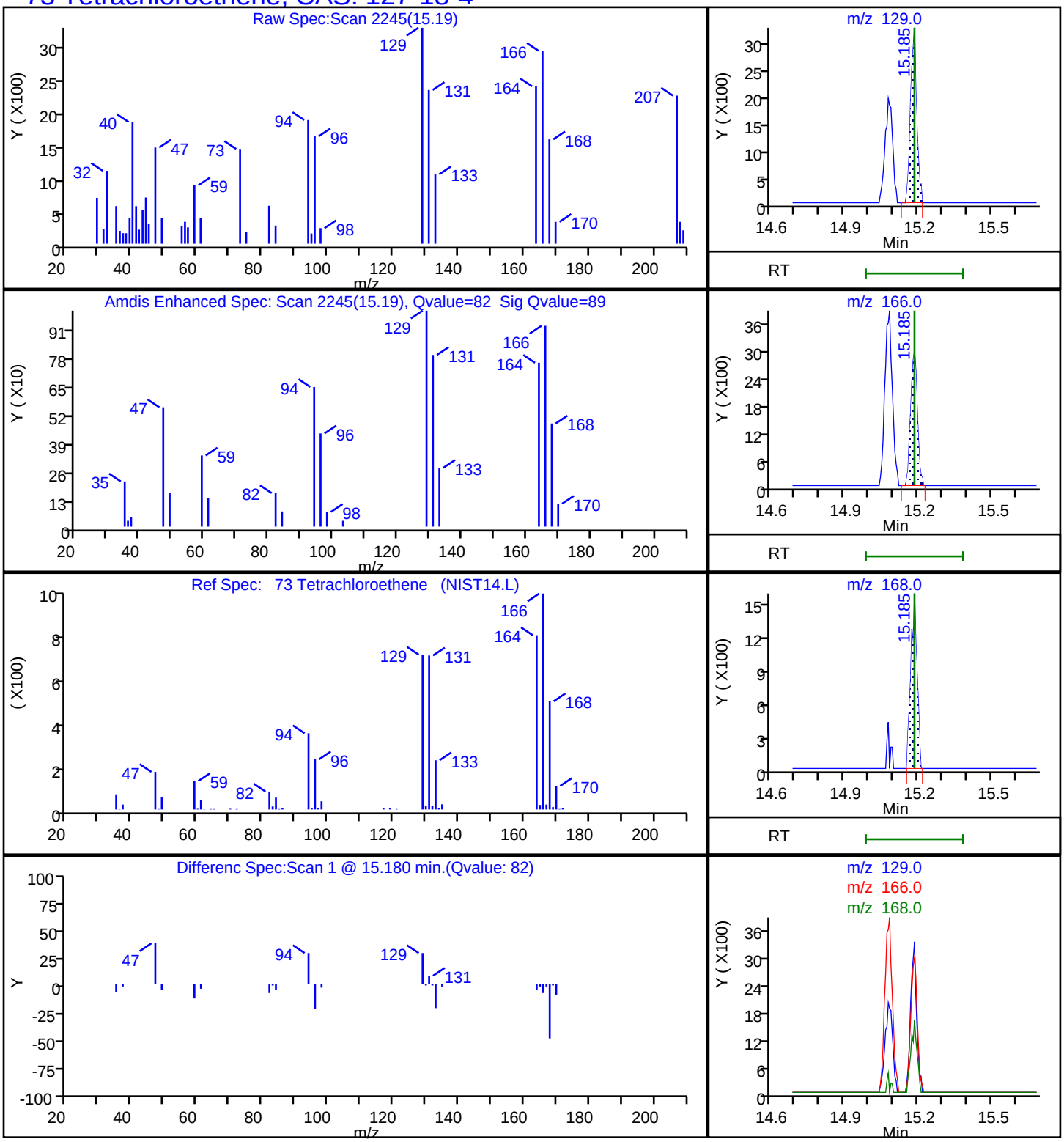
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D
Injection Date: 12-Jul-2019 23:21:30 Instrument ID: MG
Lims ID: 140-15980-A-2 Lab Sample ID: 140-15980-2
Client ID: A-MIDGAC
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

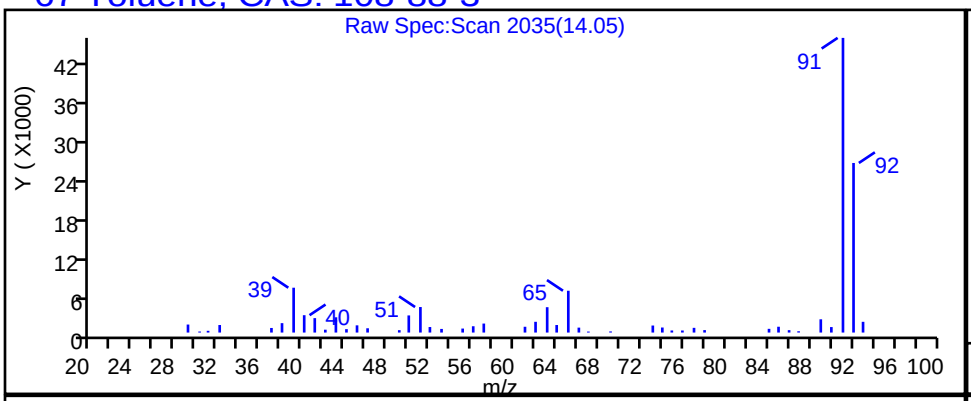
73 Tetrachloroethene, CAS: 127-18-4

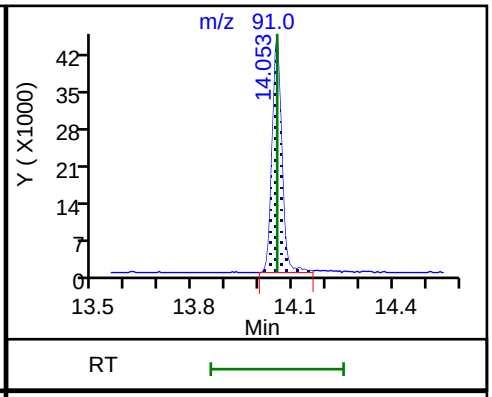


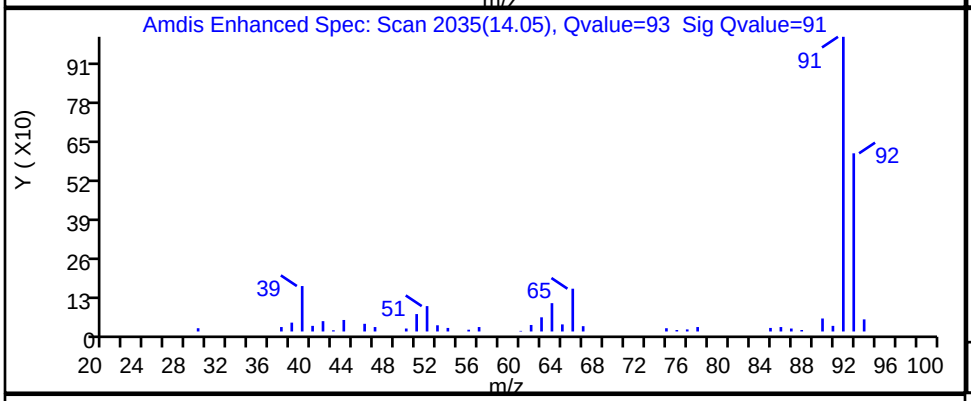
Eurofins TestAmerica, Knoxville

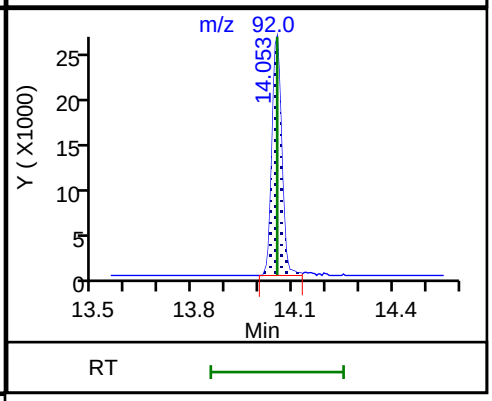
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D		
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2
Client ID:	A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

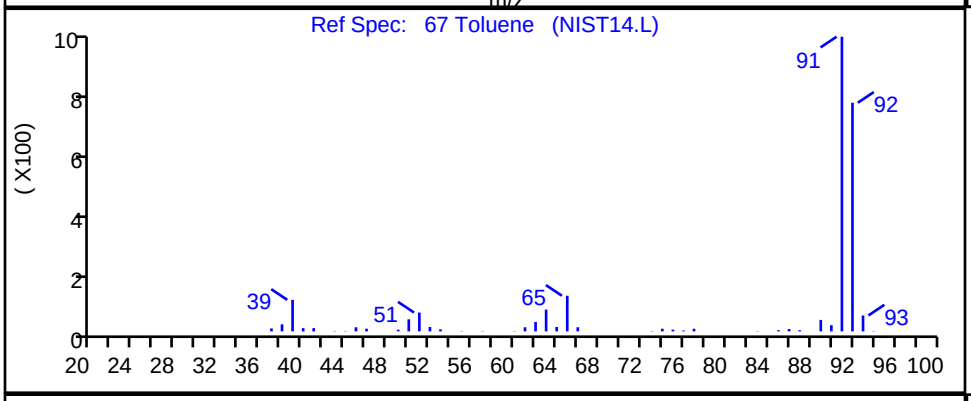
67 Toluene, CAS: 108-88-3

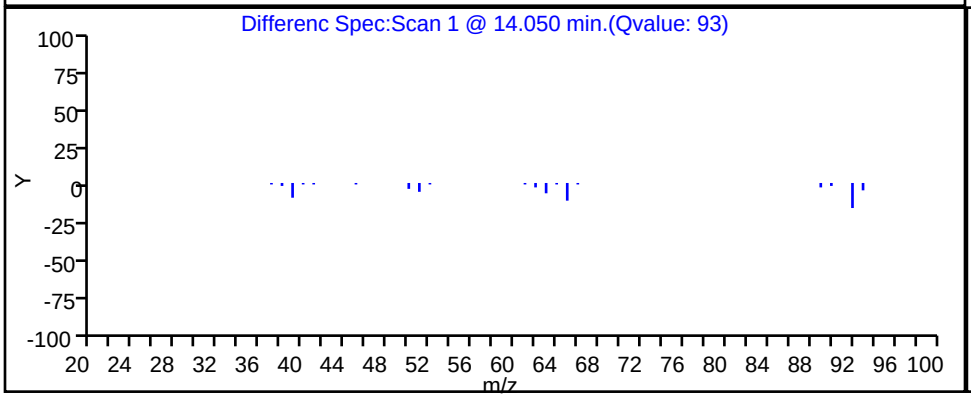


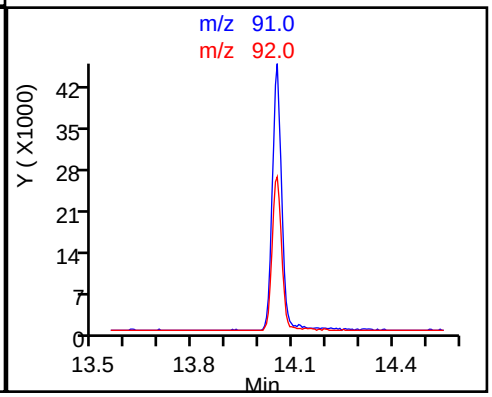








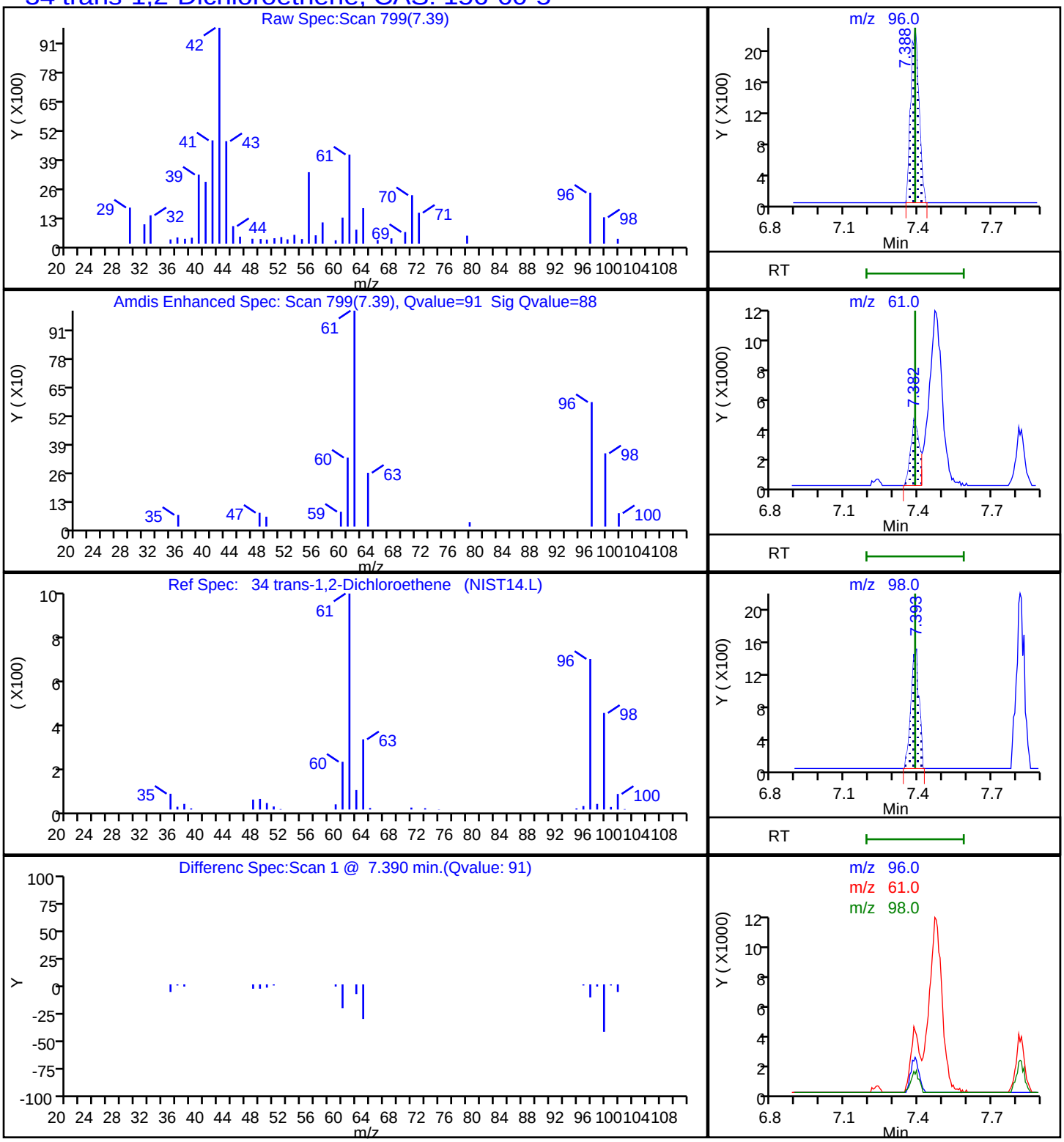




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D		
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2
Client ID:	A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

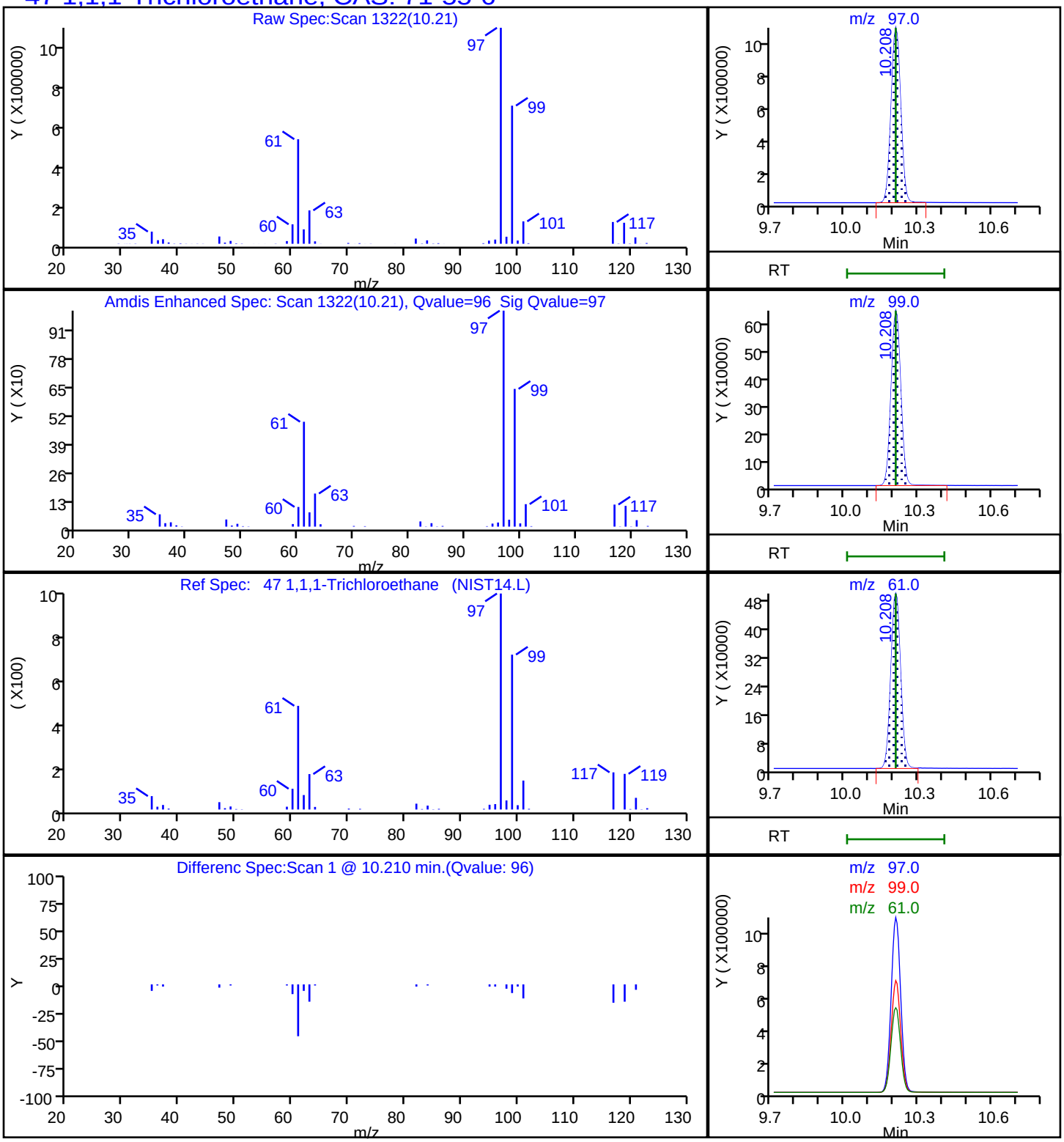


Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



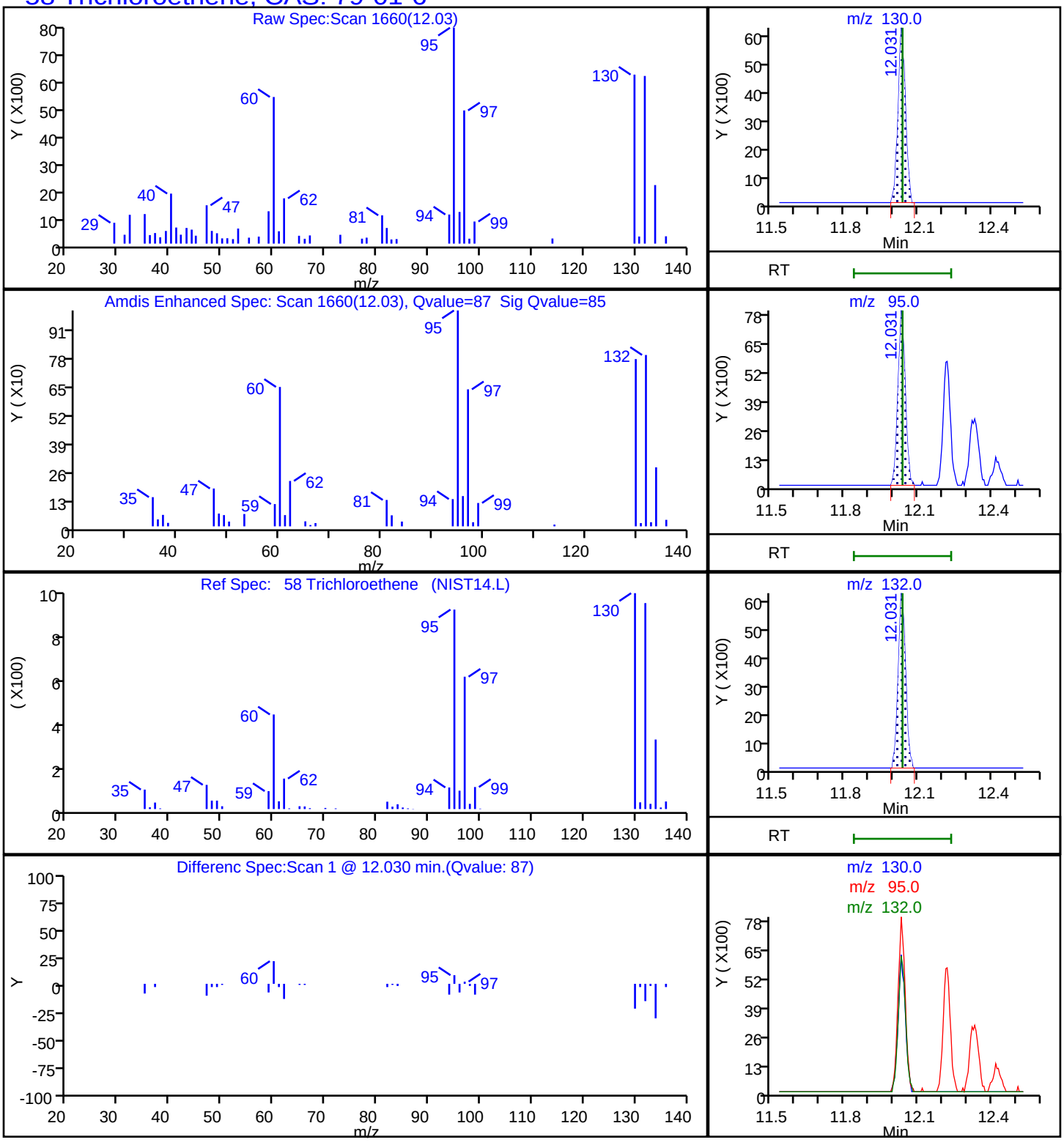
Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D

Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

58 Trichloroethene, CAS: 79-01-6

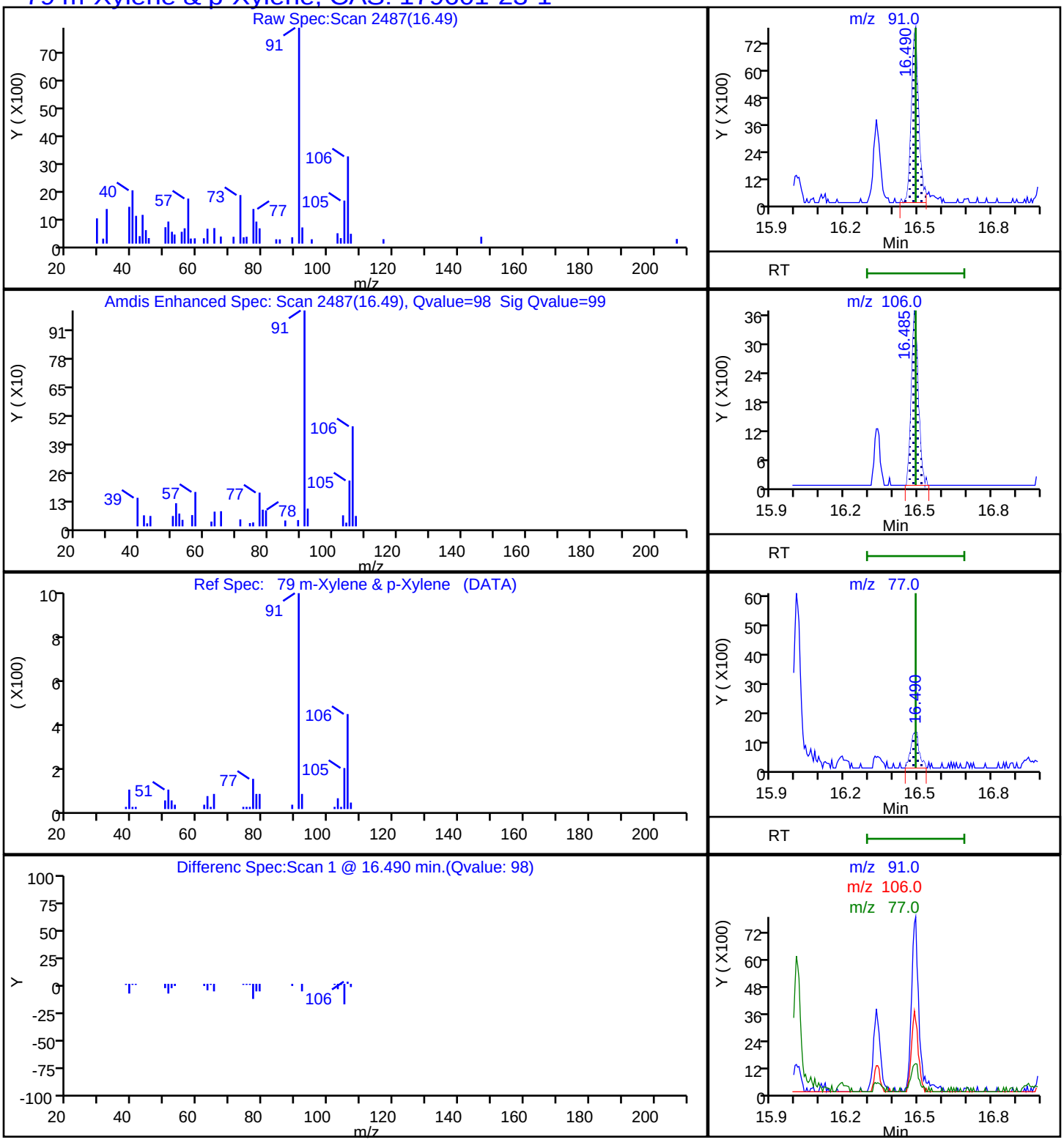


Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D		
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2
Client ID:	A-MIDGAC		
Operator ID:	7126	ALS Bottle#:	12 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 15-Jul-2019 14:08:58 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D

Injection Date: 12-Jul-2019 23:21:30 Instrument ID: MG

Lims ID: 140-15980-A-2 Lab Sample ID: 140-15980-2

Client ID: A-MIDGAC

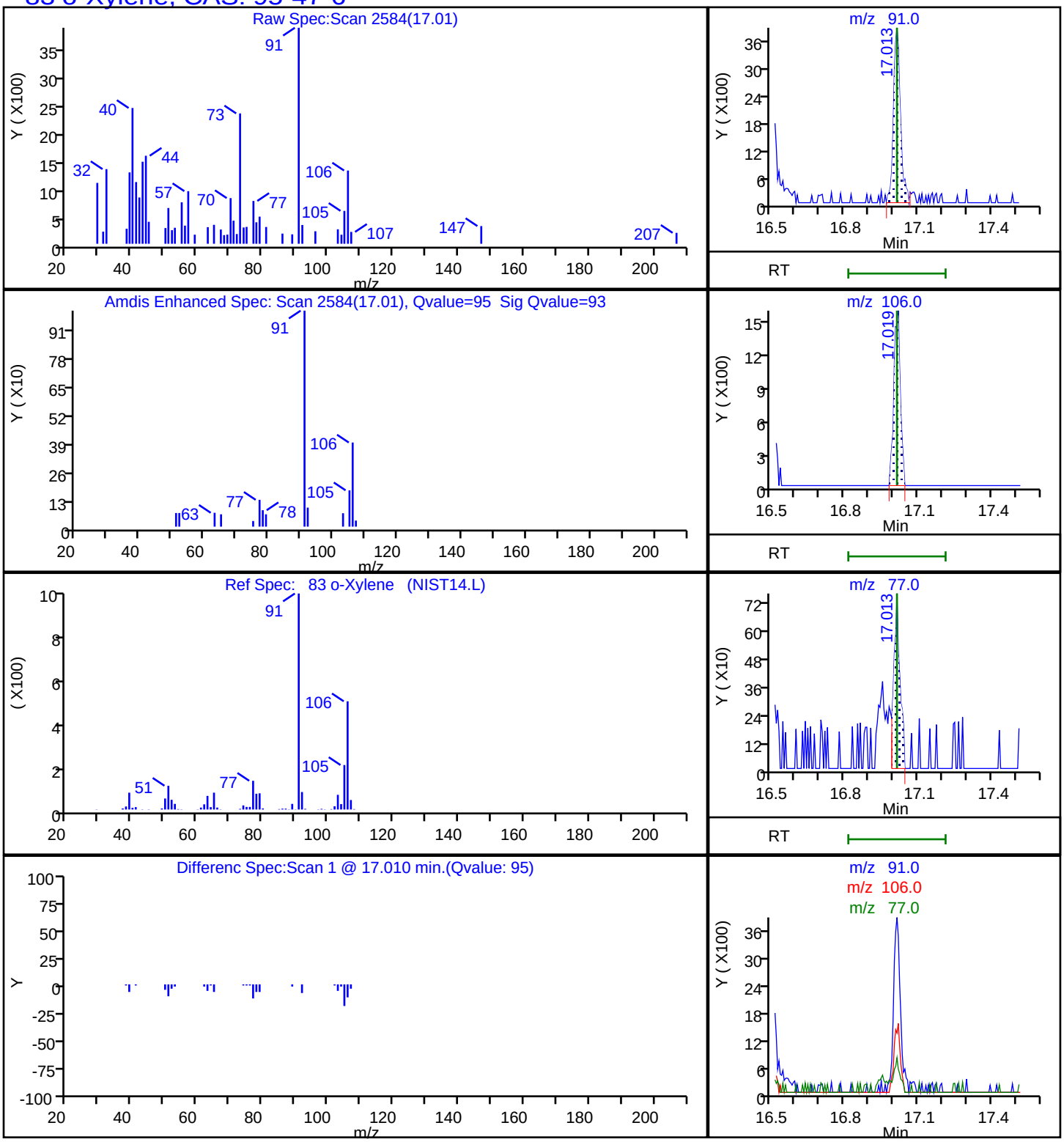
Operator ID: 7126 ALS Bottle#: 12 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

83 o-Xylene, CAS: 95-47-6



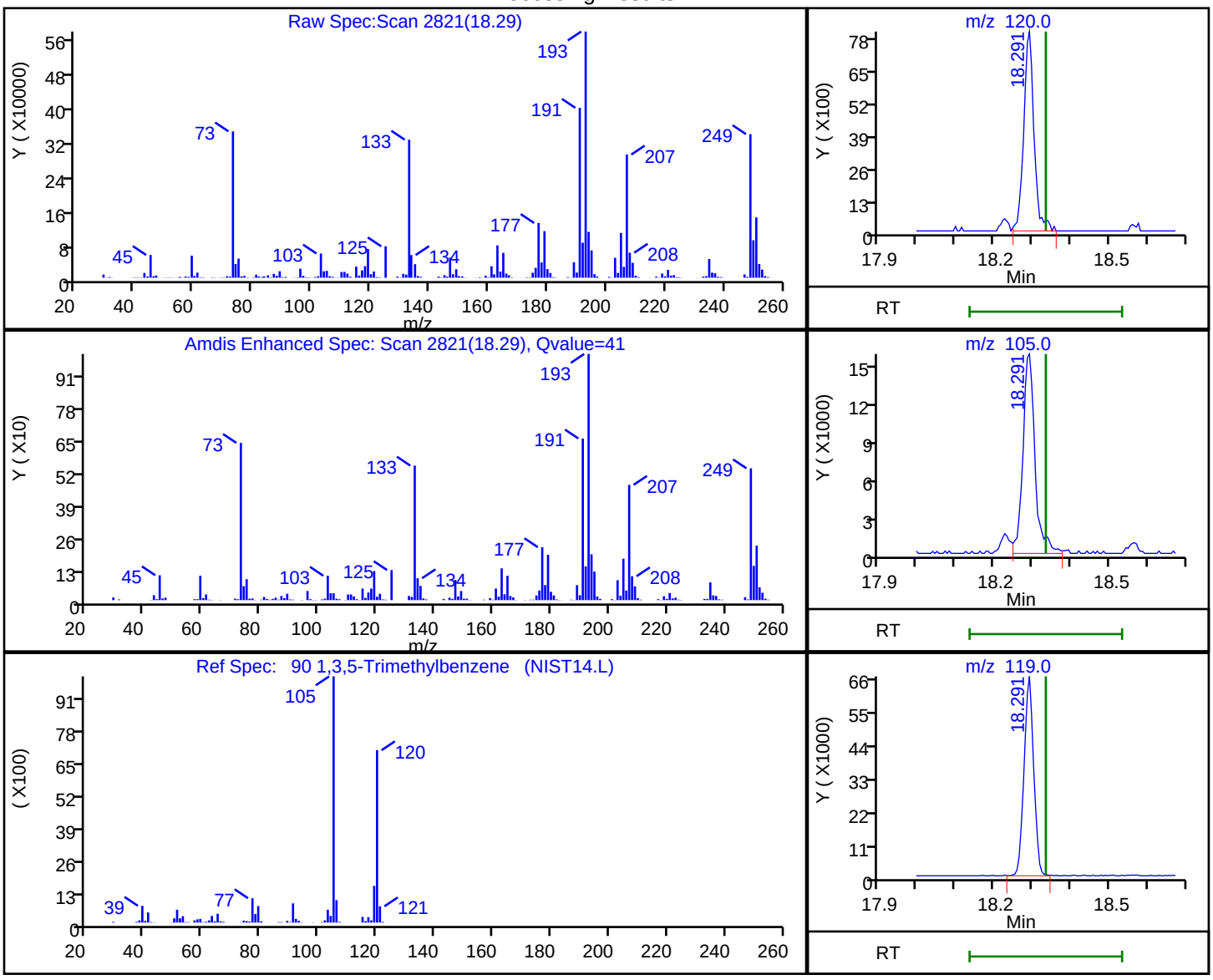
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P112.D				
Injection Date:	12-Jul-2019 23:21:30	Instrument ID:	MG		
Lims ID:	140-15980-A-2	Lab Sample ID:	140-15980-2		
Client ID:	A-MIDGAC				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.29	120.00	15167	0.129195
18.29	105.00	35095	
18.29	119.00	116849	

Reviewer: khachitpongpanits, 15-Jul-2019 14:08:49

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-INFLUENT Lab Sample ID: 140-15980-3

Matrix: Air Lab File ID: GG12P113.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:17

Sample wt/vol: 20(mL) Date Analyzed: 07/13/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	18		2.0	0.20
56-23-5	Carbon tetrachloride	153.81	ND		2.0	0.18
75-45-6	Chlorodifluoromethane	86.47	ND		2.0	0.55
67-66-3	Chloroform	119.38	0.32	J	2.0	0.18
156-59-2	cis-1,2-Dichloroethene	96.94	14		2.0	0.25
75-71-8	Dichlorodifluoromethane	120.91	0.58	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	2.7		2.0	0.18
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	0.25
75-35-4	1,1-Dichloroethene	96.94	17		2.0	0.20
100-41-4	Ethylbenzene	106.17	ND		2.0	0.33
75-09-2	Methylene Chloride	84.93	4.1	J	10	4.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		10	1.3
91-20-3	Naphthalene	128.17	ND		1.0	1.9
127-18-4	Tetrachloroethene	165.83	ND		2.0	0.18
108-88-3	Toluene	92.14	ND		3.0	2.0
156-60-5	trans-1,2-Dichloroethene	96.94	0.35	J	2.0	0.18
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.0	1.6
71-55-6	1,1,1-Trichloroethane	133.41	81		2.0	0.93
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	0.18
79-01-6	Trichloroethene	131.39	140		1.0	0.15
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.90
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.50
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.55
75-01-4	Vinyl chloride	62.50	ND		1.0	0.65
1330-20-7	Xylenes, Total	106.17	ND		4.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: A-INFLUENT Lab Sample ID: 140-15980-3

Matrix: Air Lab File ID: GG12P113.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 11:17

Sample wt/vol: 20(mL) Date Analyzed: 07/13/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	58		6.4	0.64
56-23-5	Carbon tetrachloride	153.81	ND		13	1.1
75-45-6	Chlorodifluoromethane	86.47	ND		7.1	1.9
67-66-3	Chloroform	119.38	1.6	J	9.8	0.85
156-59-2	cis-1,2-Dichloroethene	96.94	57		7.9	0.99
75-71-8	Dichlorodifluoromethane	120.91	2.9	J	9.9	1.7
75-34-3	1,1-Dichloroethane	98.96	11		8.1	0.71
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	1.0
75-35-4	1,1-Dichloroethene	96.94	65		7.9	0.79
100-41-4	Ethylbenzene	106.17	ND		8.7	1.4
75-09-2	Methylene Chloride	84.93	14	J	35	14
1634-04-4	Methyl tert-butyl ether	88.15	ND		36	4.7
91-20-3	Naphthalene	128.17	ND		5.2	10
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		11	7.3
156-60-5	trans-1,2-Dichloroethene	96.94	1.4	J	7.9	0.69
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		15	12
71-55-6	1,1,1-Trichloroethane	133.41	440		11	5.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	0.95
79-01-6	Trichloroethene	131.39	760		5.4	0.81
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		9.8	4.4
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	2.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	2.7
75-01-4	Vinyl chloride	62.50	ND		2.6	1.7
1330-20-7	Xylenes, Total	106.17	ND		17	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D
Lims ID: 140-15980-A-3
Client ID: A-INFLUENT
Sample Type: Client
Inject. Date: 13-Jul-2019 00:06:30 ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-019
Misc. Info.: 140-15980-a-3
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 14:10:39 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:11:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.162	-0.006	94	224190	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	97	1299646	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	95	1108600	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	74	831993	4.00	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	36	2597	0.0189	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.005	98	5208	0.0231	
27 1,1-Dichloroethene	96	6.185	6.187	-0.005	92	50816	0.6608	
31 Methylene Chloride	84	6.552	6.552	0.000	96	14418	0.1621	
34 trans-1,2-Dichloroethene	96	7.382	7.383	-0.006	89	1035	0.0141	
37 1,1-Dichloroethane	63	7.819	7.814	0.000	100	18181	0.1095	
42 cis-1,2-Dichloroethene	96	8.817	8.817	-0.005	97	44539	0.5744	
44 Chloroform	83	9.167	9.167	-0.005	65	2232	0.0128	
47 1,1,1-Trichloroethane	97	10.208	10.202	0.000	96	619117	3.22	
50 Benzene	78	10.796	10.801	-0.005	98	170456	0.7282	
58 Trichloroethene	130	12.031	12.030	-0.005	90	540150	5.63	
67 Toluene	91	14.053	14.053	0.000	93	18164	0.0742	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

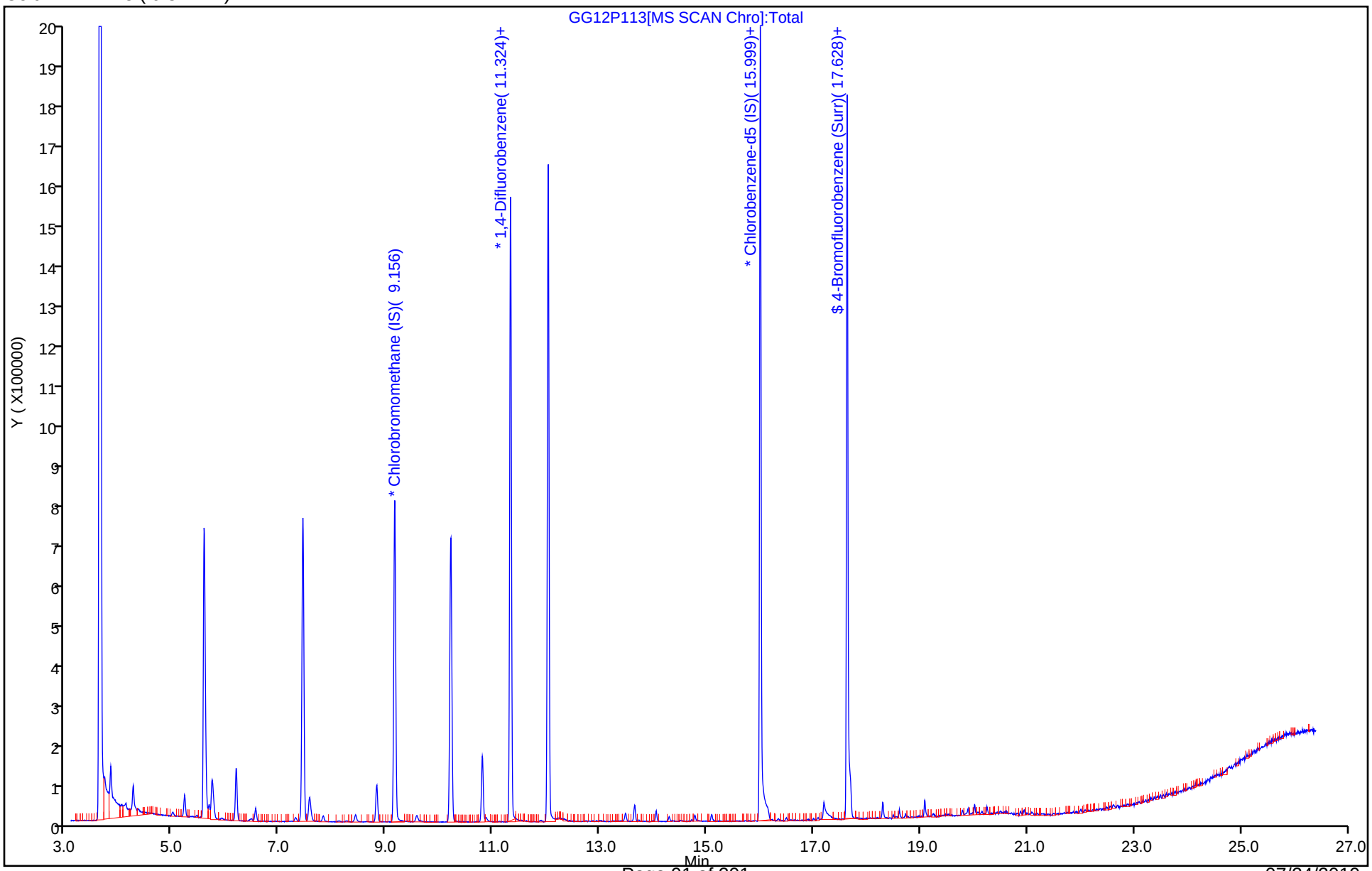
Report Date: 15-Jul-2019 14:11:17 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D

Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3	Worklist Smp#:	19
Client ID:	A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

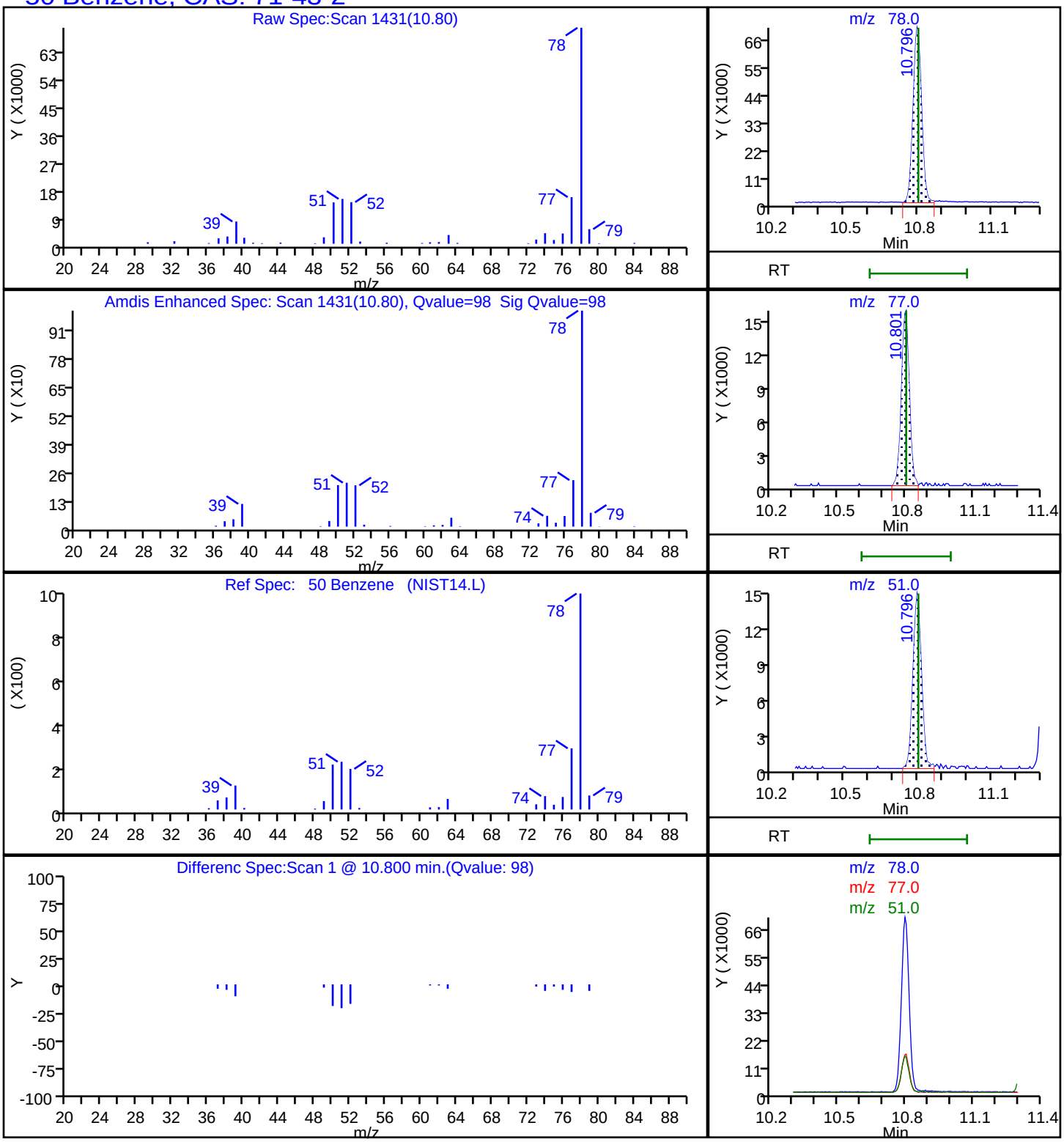
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Lims ID:	140-15980-A-3				
Client ID:	A-INFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jul-2019 00:06:30	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-019				
Misc. Info.:	140-15980-a-3				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 14:10:39	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				
First Level Reviewer: khachitpongpanits		Date:	15-Jul-2019 14:11:17		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.00	100.00

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D		
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3
Client ID:	A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

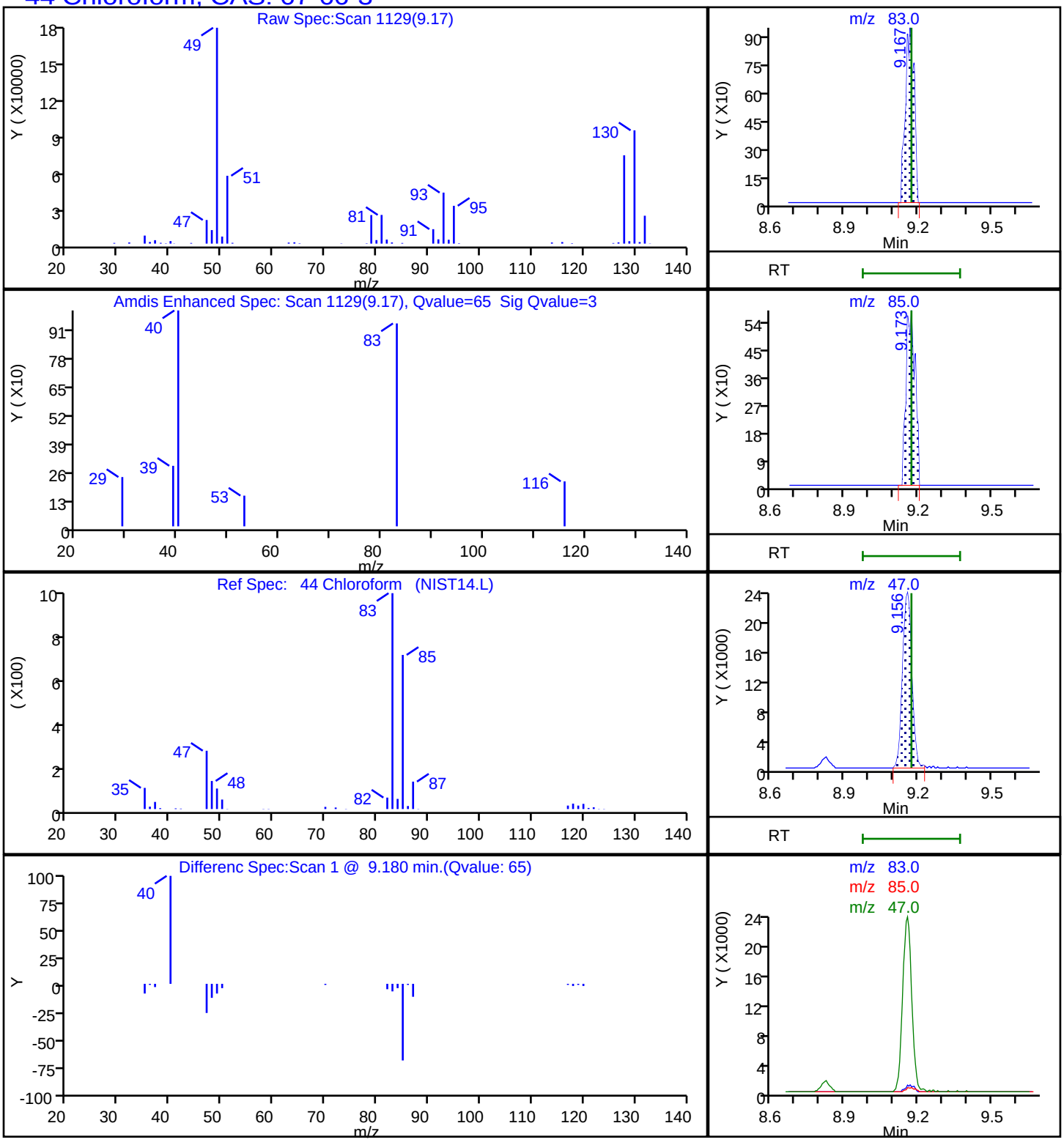
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D
Injection Date: 13-Jul-2019 00:06:30 Instrument ID: MG
Lims ID: 140-15980-A-3 Lab Sample ID: 140-15980-3
Client ID: A-INFLUENT
Operator ID: 7126 ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

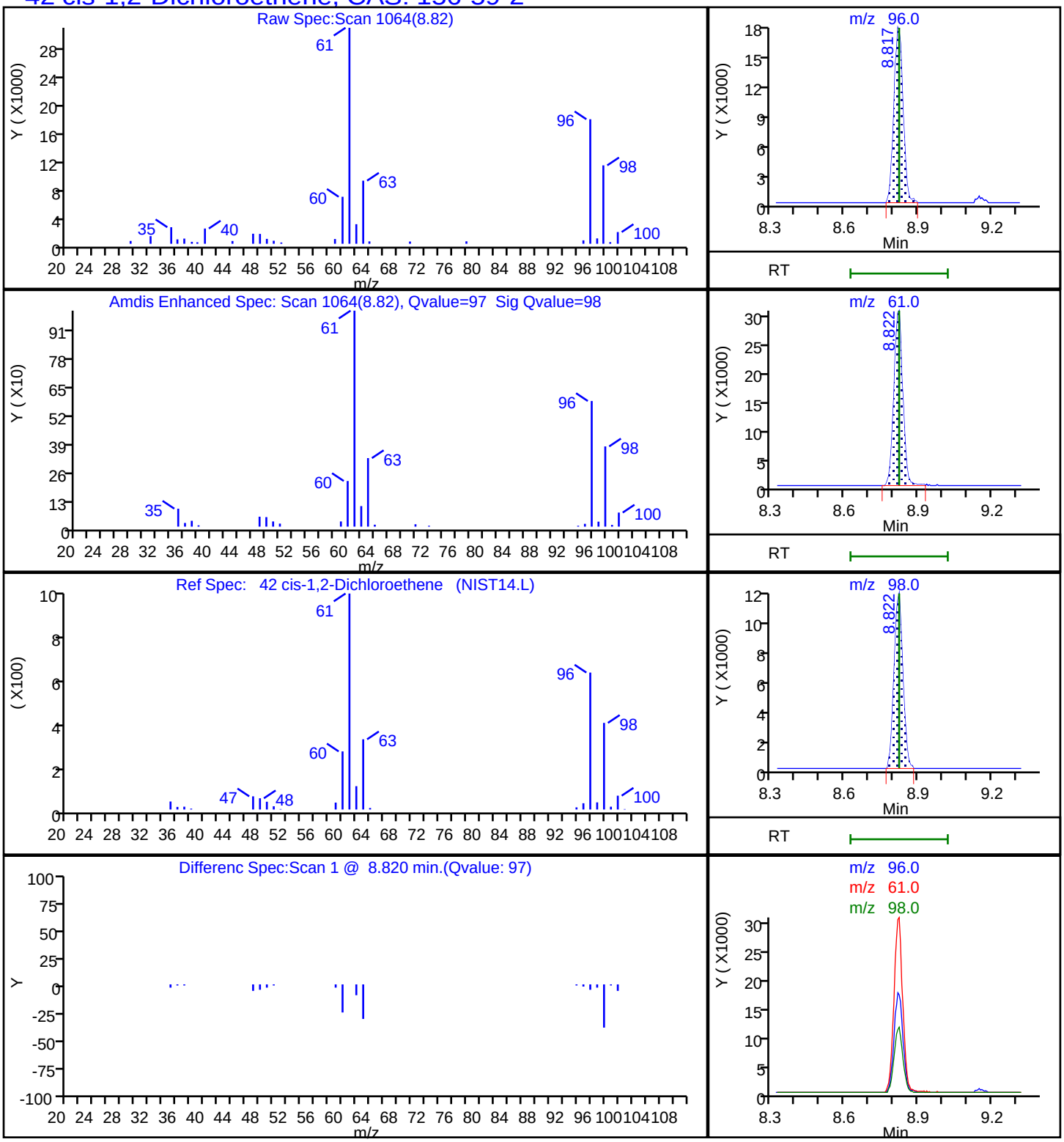
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D		
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3
Client ID:	A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

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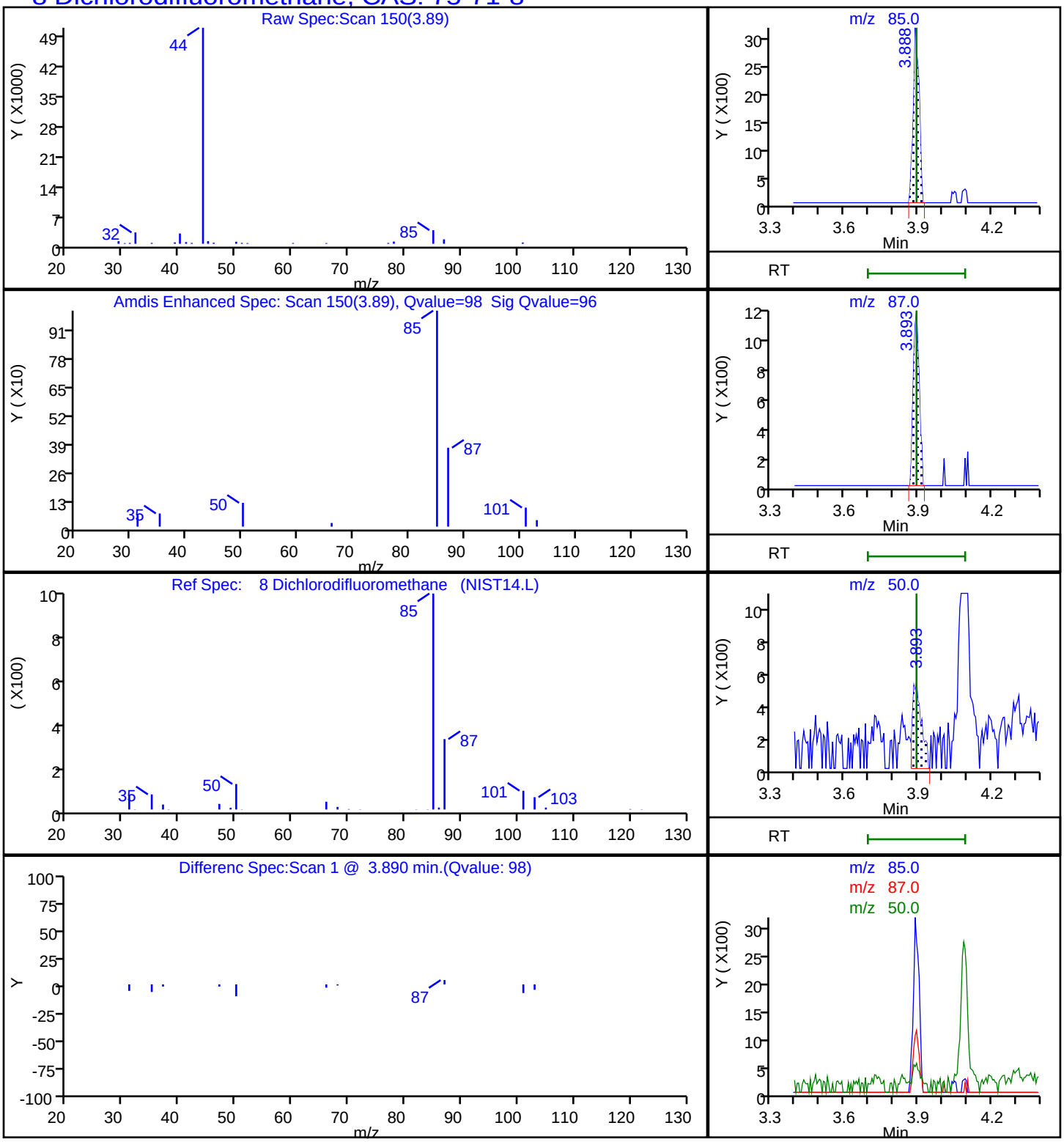
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3
Client ID:	A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

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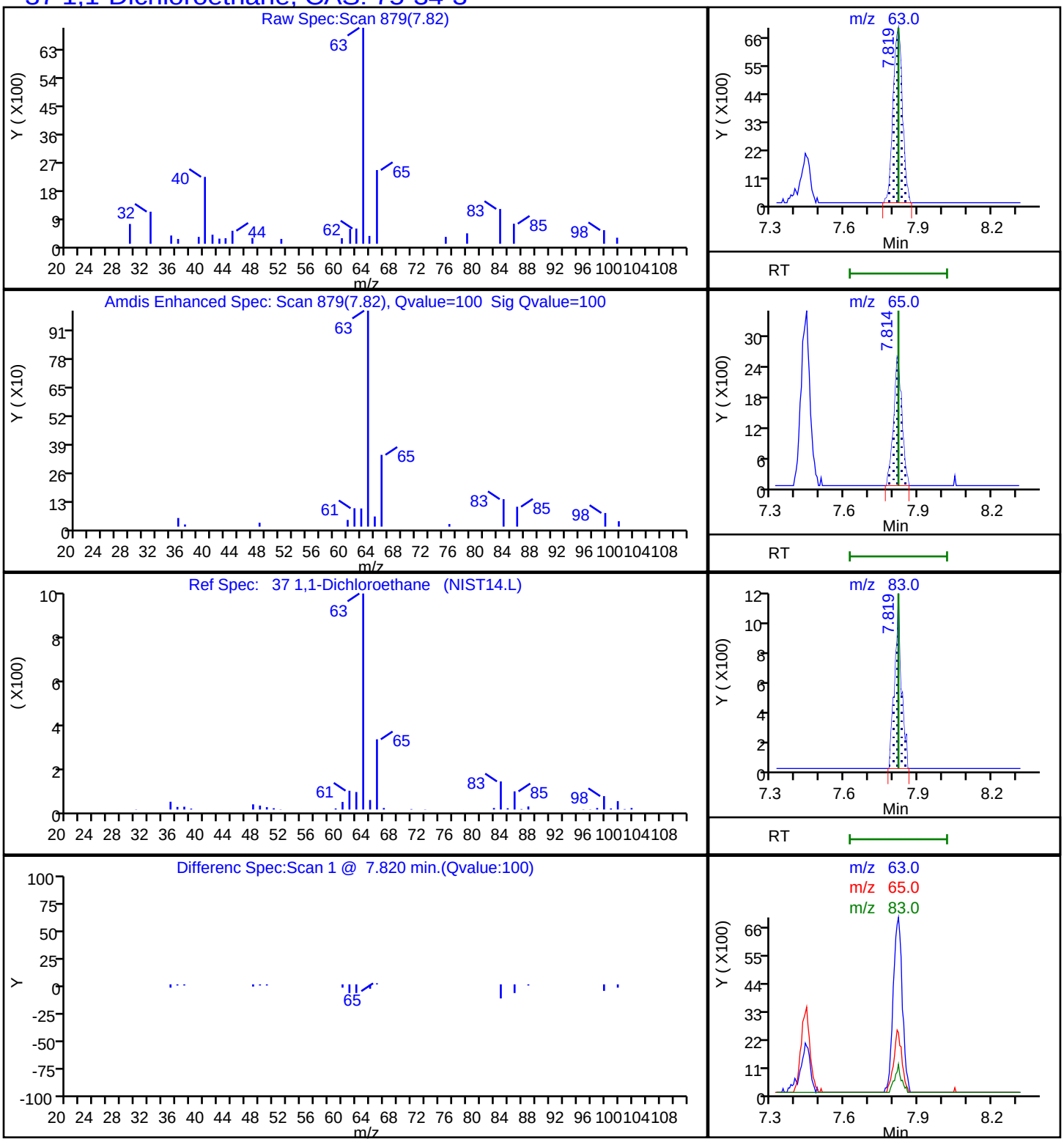
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3

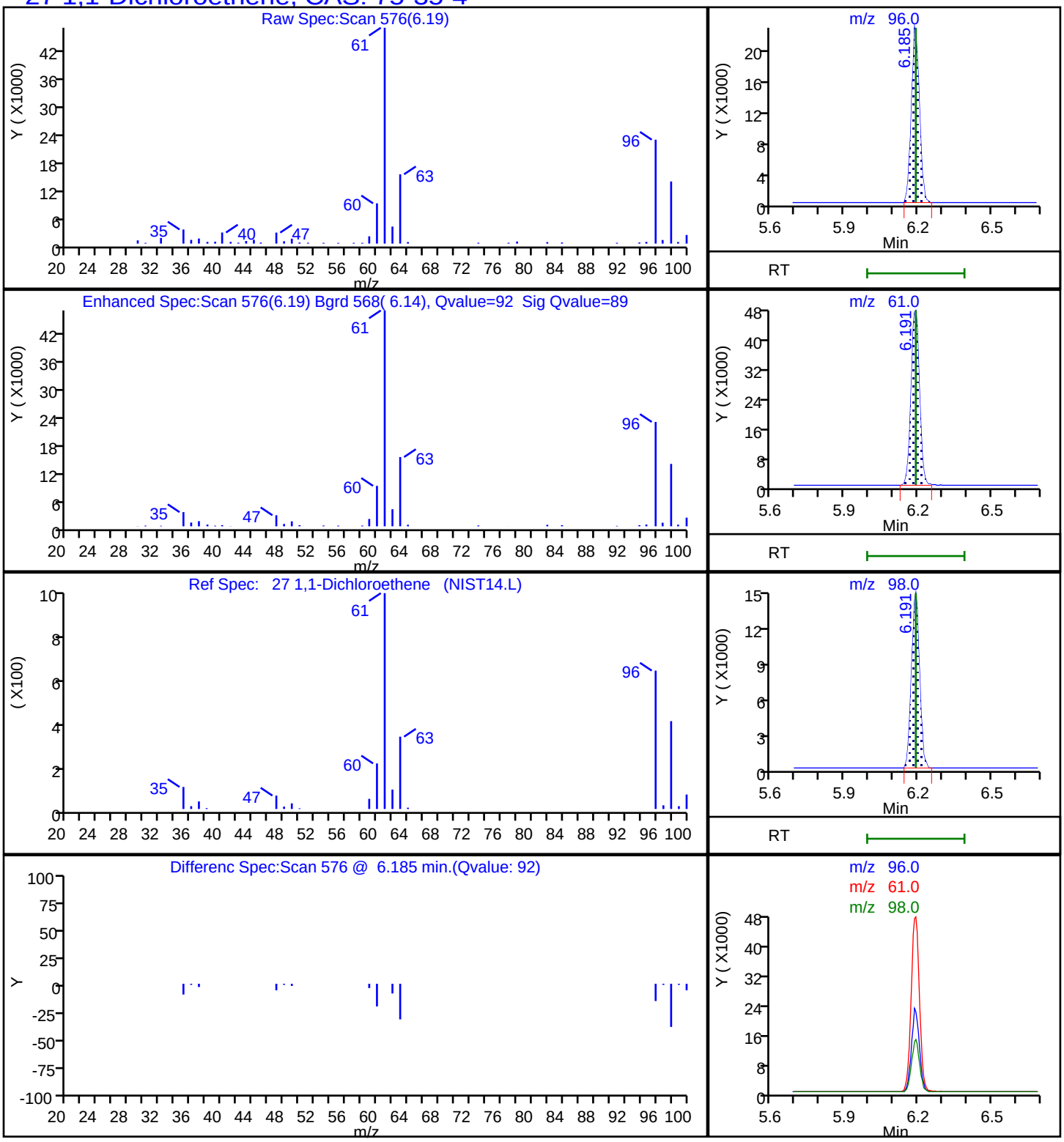


Report Date: 15-Jul-2019 14:11:17 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D		
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3
Client ID:	A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

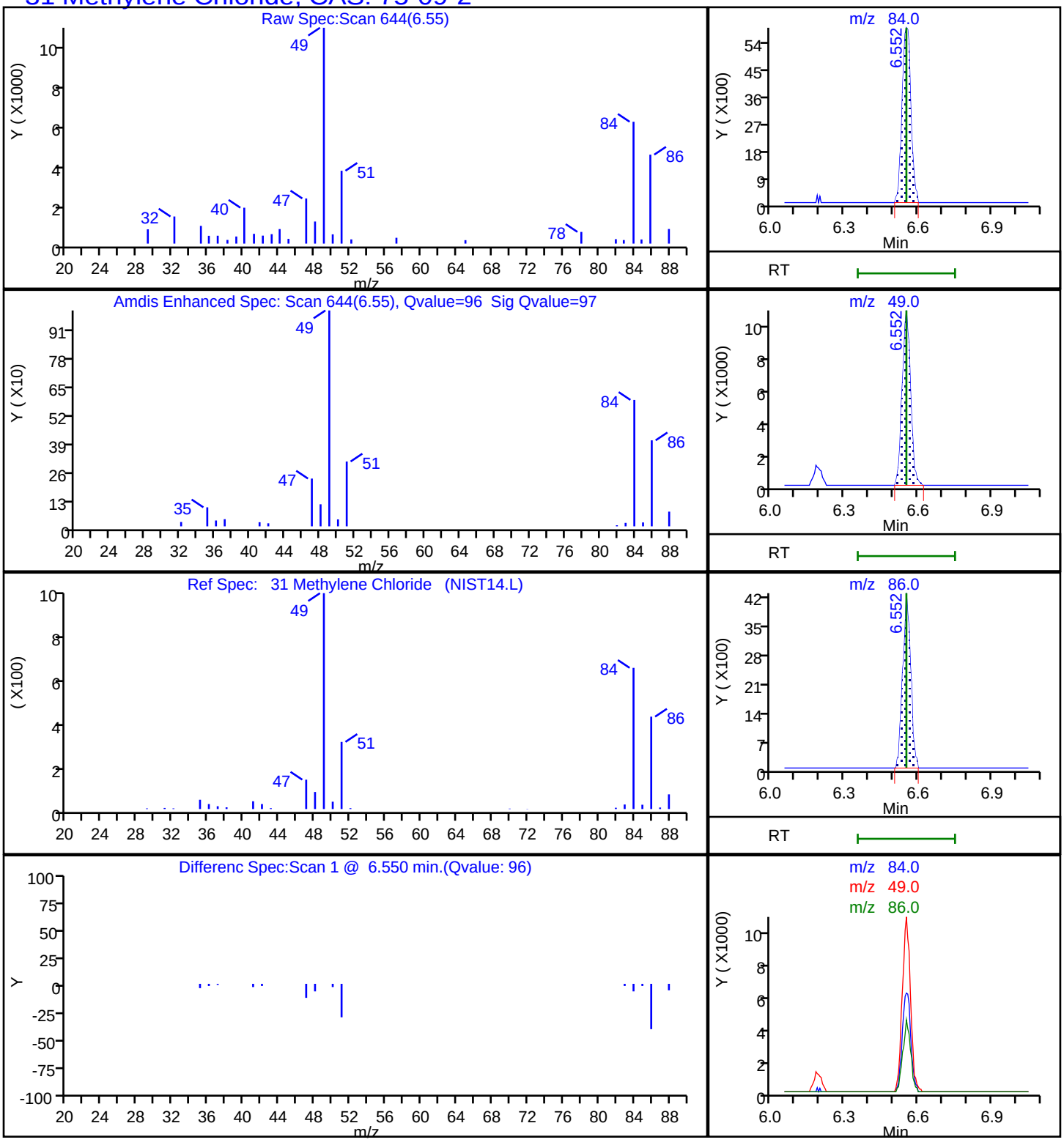
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

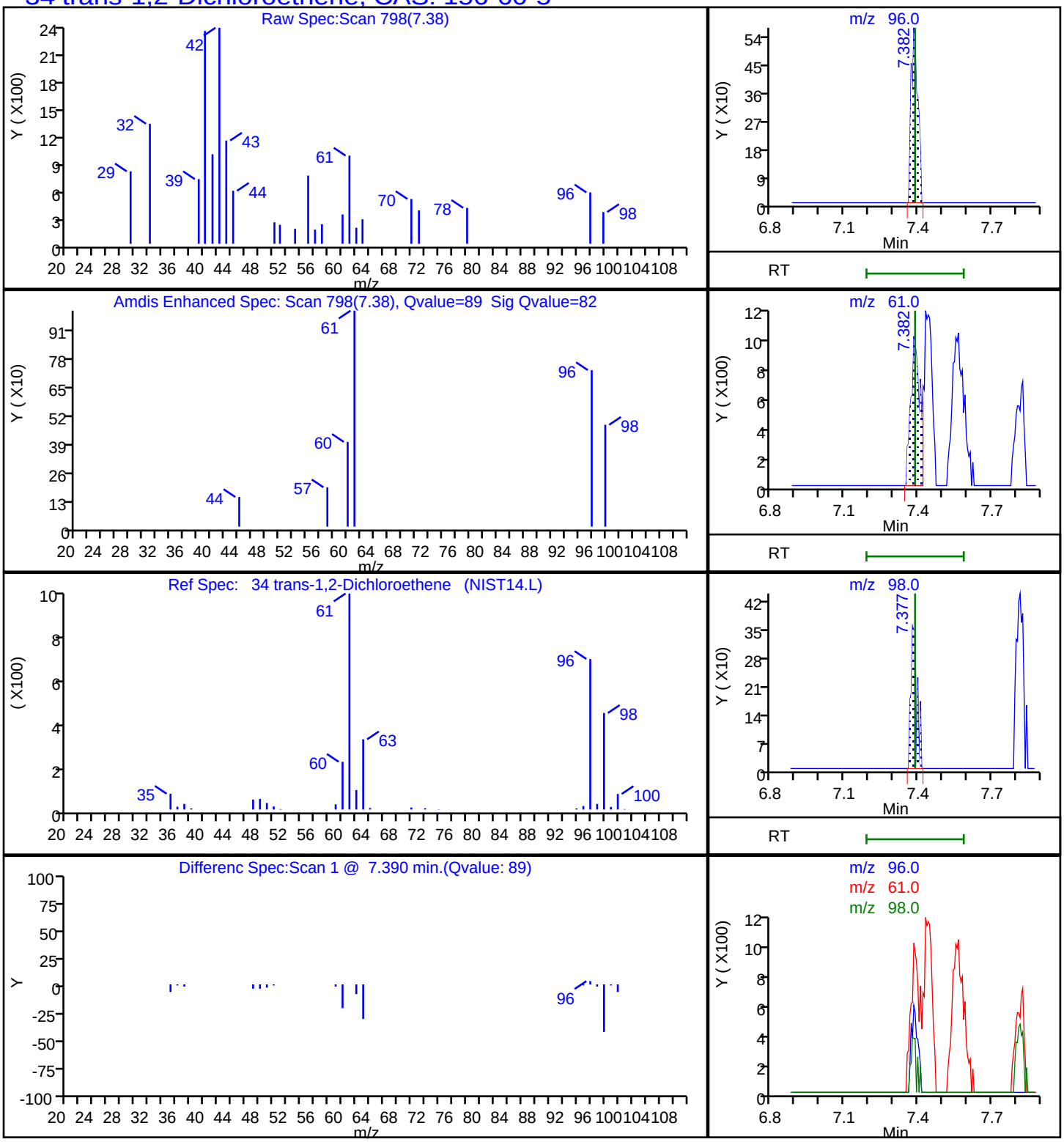


Report Date: 15-Jul-2019 14:11:17 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

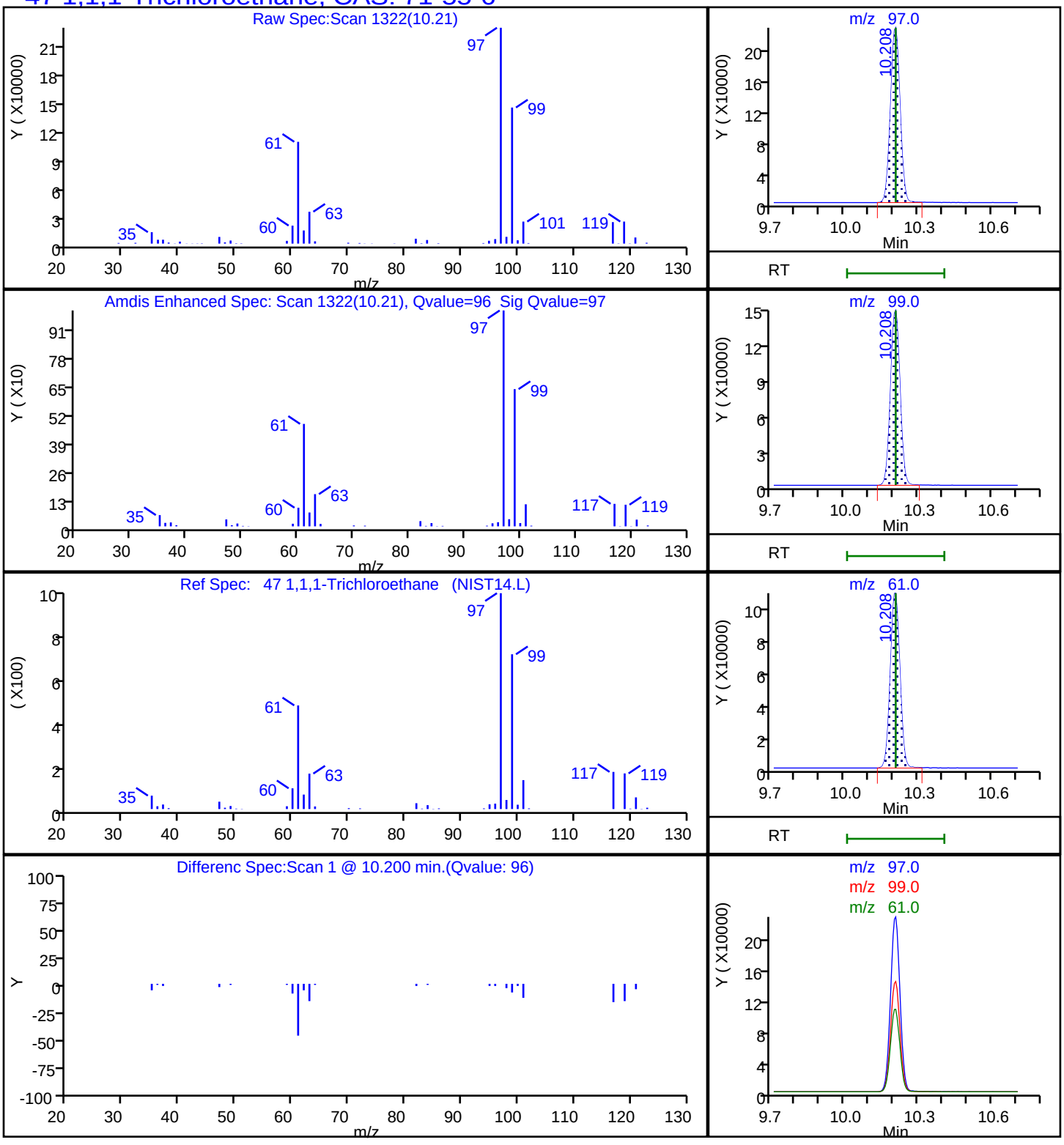


Report Date: 15-Jul-2019 14:11:18 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

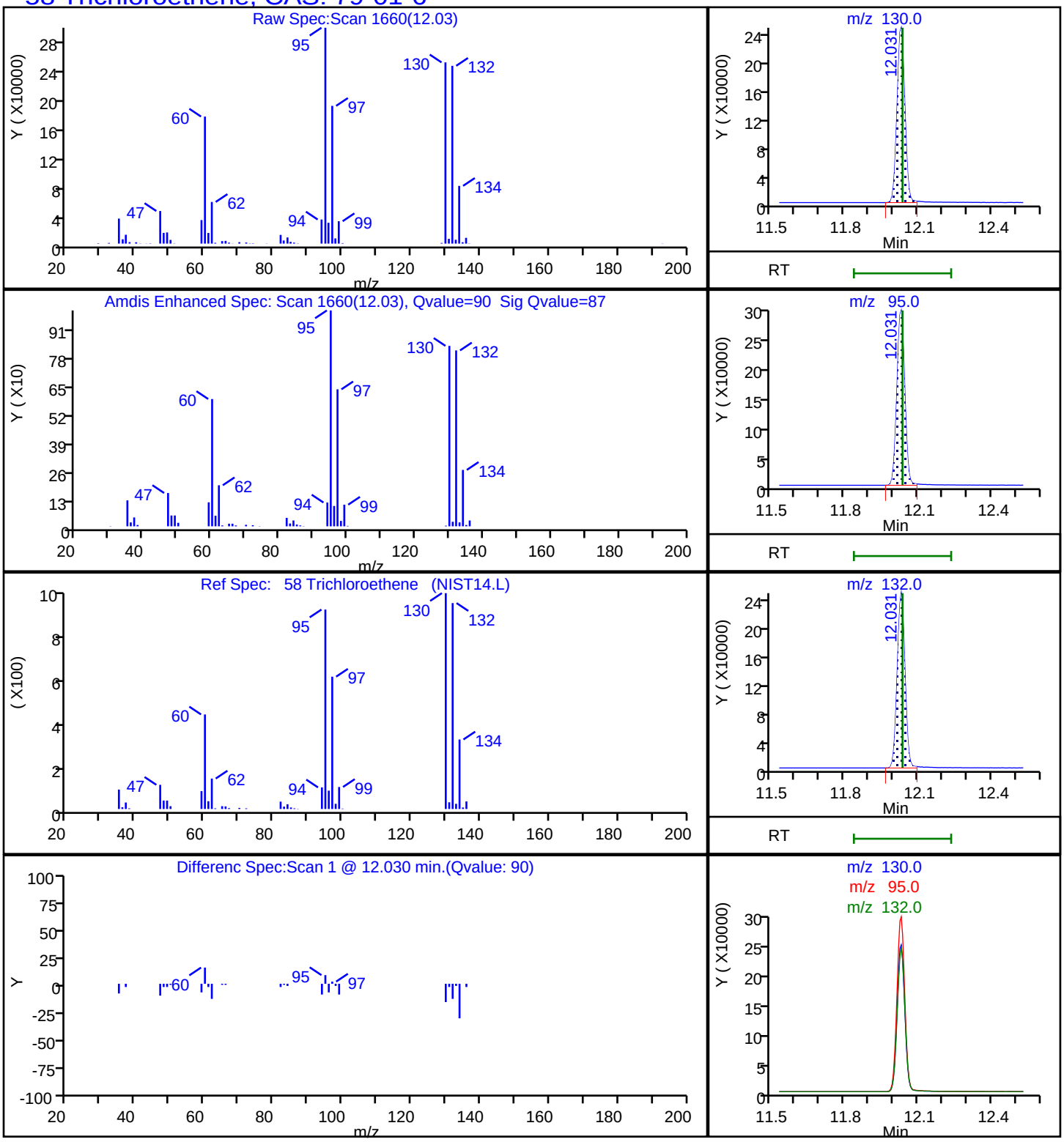
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D		
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3
Client ID:	A-INFLUENT		
Operator ID:	7126	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



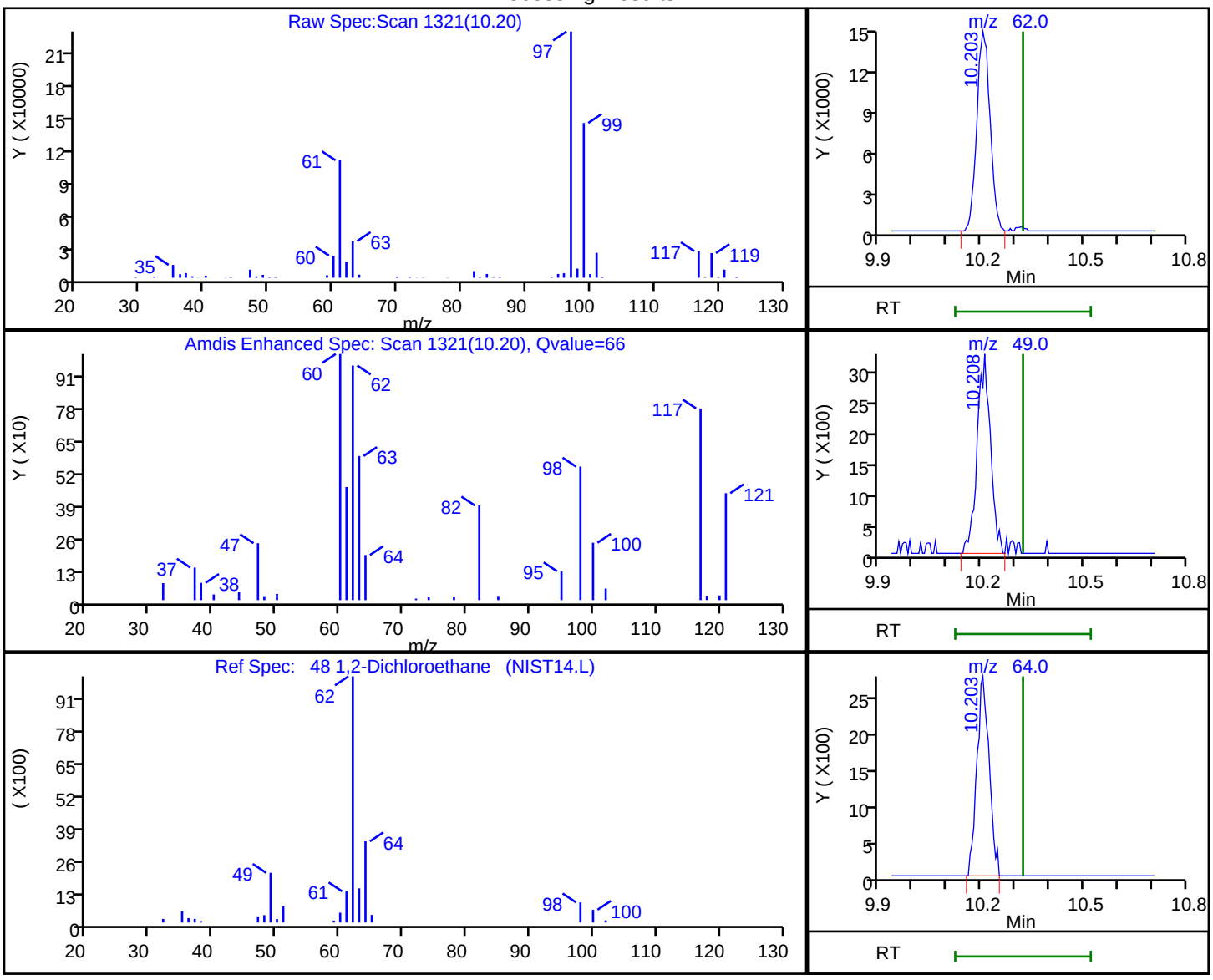
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.20	62.00	39999	0.310995
10.21	49.00	8808	
10.20	64.00	6976	

Reviewer: khachitpongpanits, 15-Jul-2019 14:09:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

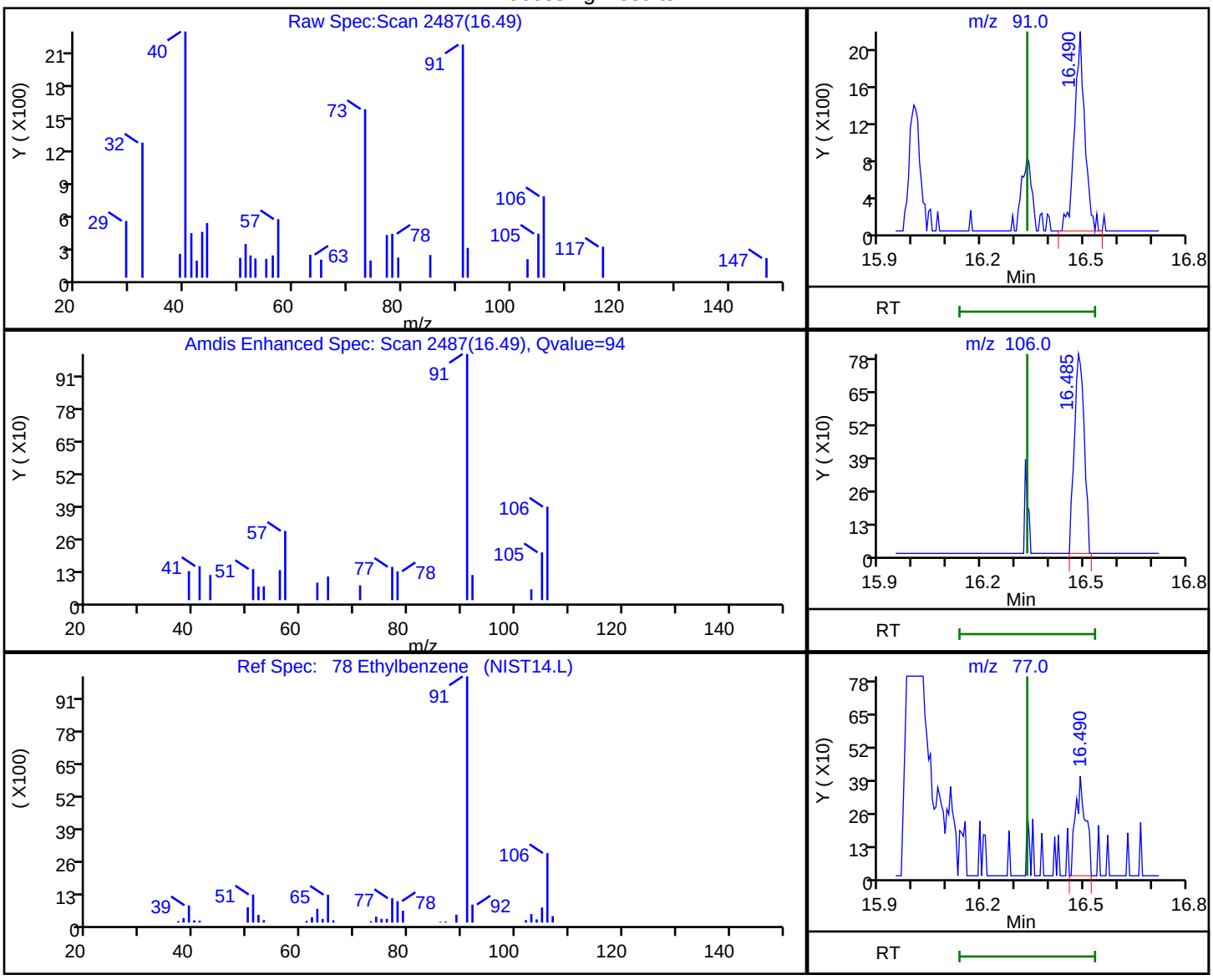
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P113.D				
Injection Date:	13-Jul-2019 00:06:30	Instrument ID:	MG		
Lims ID:	140-15980-A-3	Lab Sample ID:	140-15980-3		
Client ID:	A-INFLUENT				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 Ethylbenzene, CAS: 100-41-4

Processing Results



RT	Mass	Response	Amount
16.49	91.00	4563	0.014837
16.48	106.00	1610	
16.49	77.00	806	

Reviewer: khachitpongpanits, 15-Jul-2019 14:10:38

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-EFFLUENT Lab Sample ID: 140-15980-4

Matrix: Air Lab File ID: GG12P114.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:22

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	5.2		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.6		0.40	0.11
67-66-3	Chloroform	119.38	0.50		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	J	0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.51		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.2	J	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	2.0		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.33	J	0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	ND		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	0.28	J	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	1.6		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.76		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.51	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-EFFLUENT Lab Sample ID: 140-15980-4

Matrix: Air Lab File ID: GG12P114.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:22

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 00:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	17		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.6		1.4	0.39
67-66-3	Chloroform	119.38	2.4		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	0.81	J	1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.5		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.51	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.0	J	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	7.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	1.8	J	2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	ND		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	1.4	J	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	7.9		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	3.7		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.2	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D
Lims ID: 140-15980-A-4
Client ID: C-EFFLUENT
Sample Type: Client
Inject. Date: 13-Jul-2019 00:51:30 ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-020
Misc. Info.: 140-15980-a-4
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Jul-2019 09:55:26 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:12:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	94	252890	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	97	1488486	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	95	1295095	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	952861	3.92	
6 Chlorodifluoromethane	51	3.818	3.818	-0.011	38	49158	0.3164	M
8 Dichlorodifluoromethane	85	3.894	3.891	0.001	99	25971	0.1023	
31 Methylene Chloride	84	6.557	6.552	0.005	96	23297	0.2322	
42 cis-1,2-Dichloroethene	96	8.822	8.817	0.000	97	3561	0.0407	
44 Chloroform	83	9.167	9.167	-0.005	28	19452	0.0990	
47 1,1,1-Trichloroethane	97	10.203	10.202	-0.005	95	14262	0.0658	
50 Benzene	78	10.796	10.801	-0.005	97	278509	1.04	
67 Toluene	91	14.047	14.053	-0.006	93	114774	0.4014	
78 Ethylbenzene	91	16.328	16.334	-0.006	96	8507	0.0237	
79 m-Xylene & p-Xylene	91	16.485	16.490	-0.005	99	18245	0.0666	
83 o-Xylene	91	17.013	17.013	0.000	98	10239	0.0351	
90 1,3,5-Trimethylbenzene	120	18.334	18.334	0.000	90	22305	0.1524	
95 1,2,4-Trimethylbenzene	105	18.760	18.766	-0.005	98	98486	0.3194	
101 1,2,3-Trimethylbenzene	105	19.224	19.229	-0.005	98	18056	0.0566	
S 124 Xylenes, Total	100				0		0.1017	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

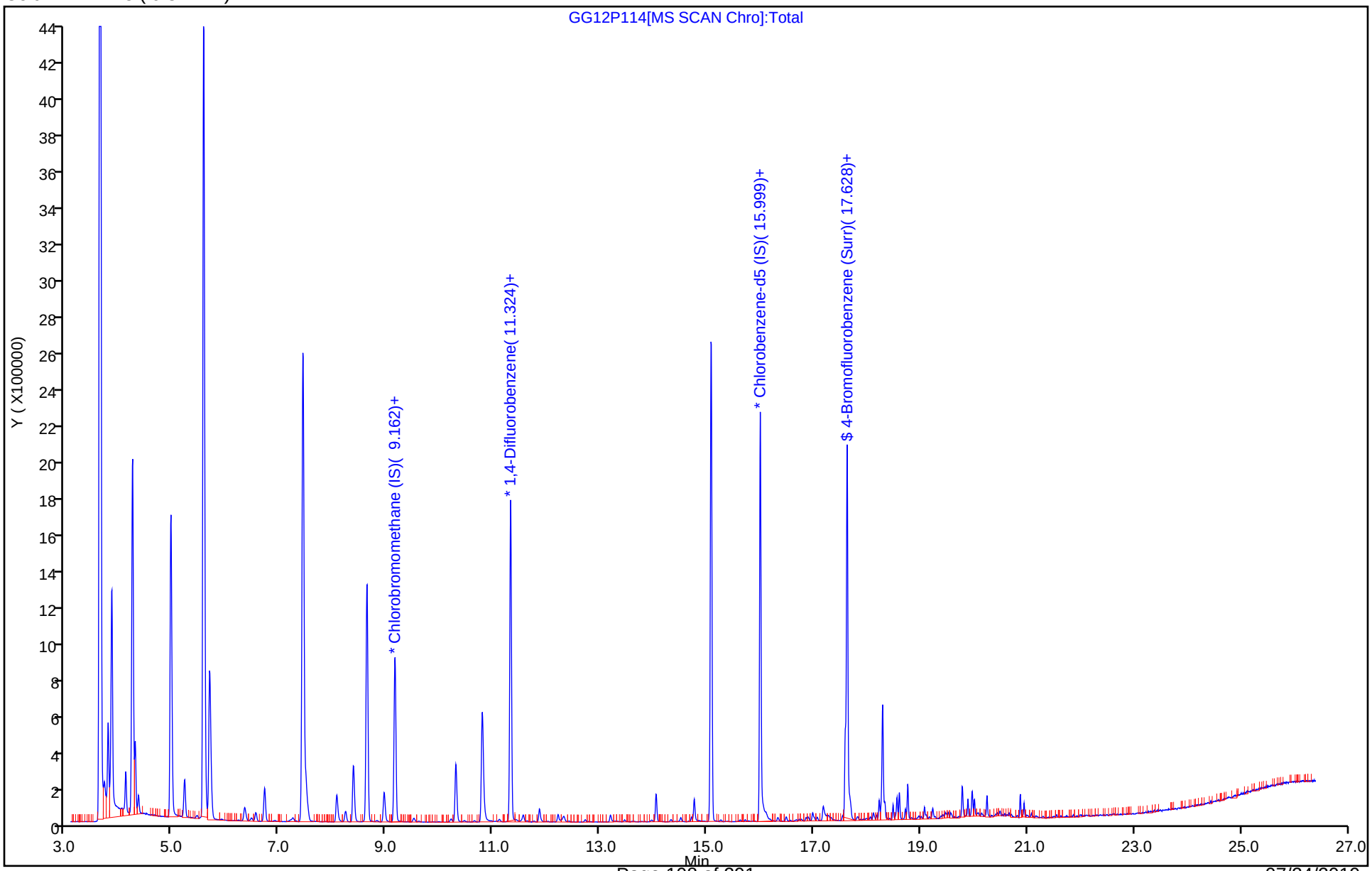
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 16-Jul-2019 09:55:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4	Worklist Smp#:	20
Client ID:	C-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

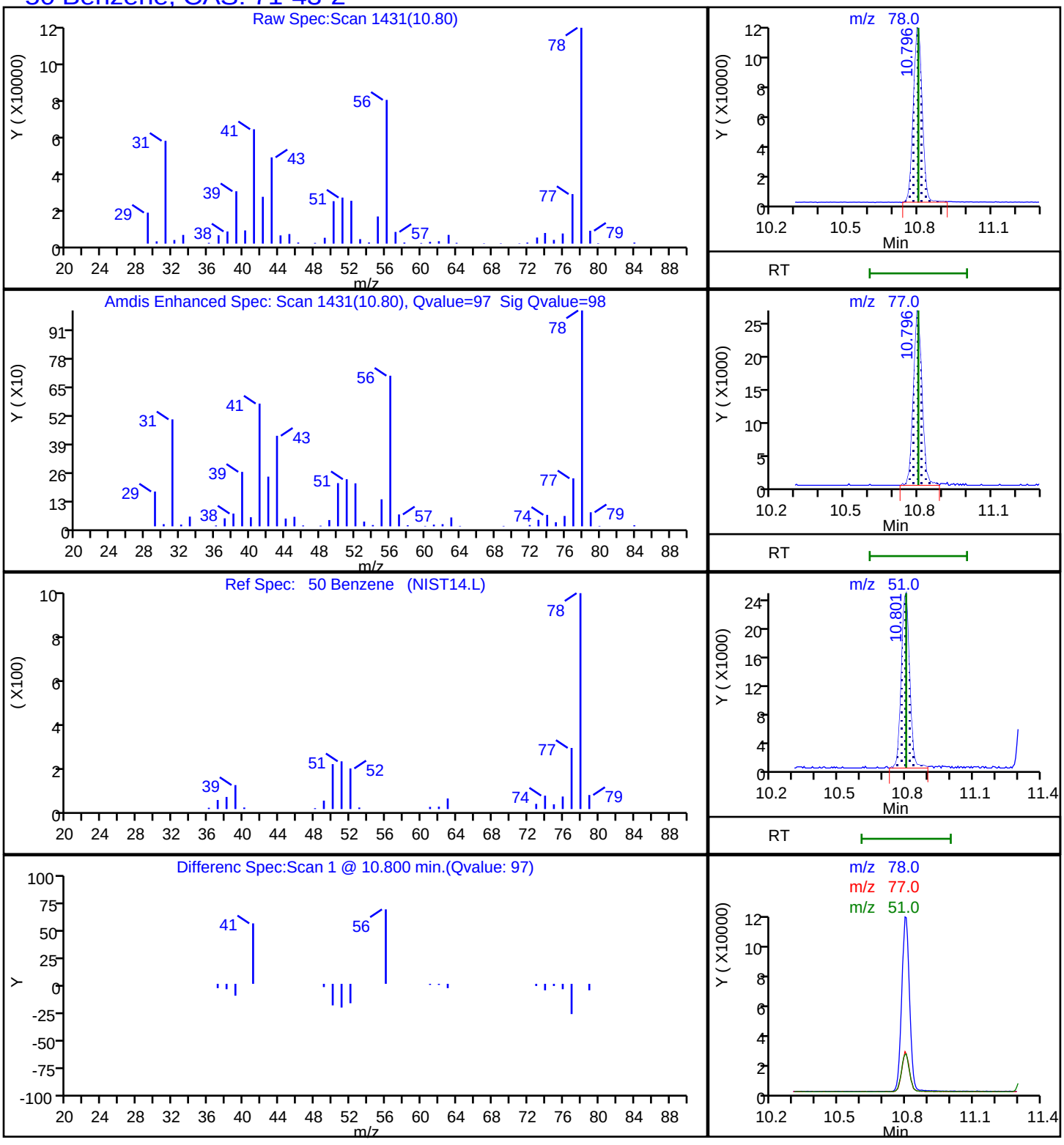
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Lims ID:	140-15980-A-4				
Client ID:	C-EFFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jul-2019 00:51:30	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-020				
Misc. Info.:	140-15980-a-4				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	16-Jul-2019 09:55:26	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	15-Jul-2019 14:12:57		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.92	98.03

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

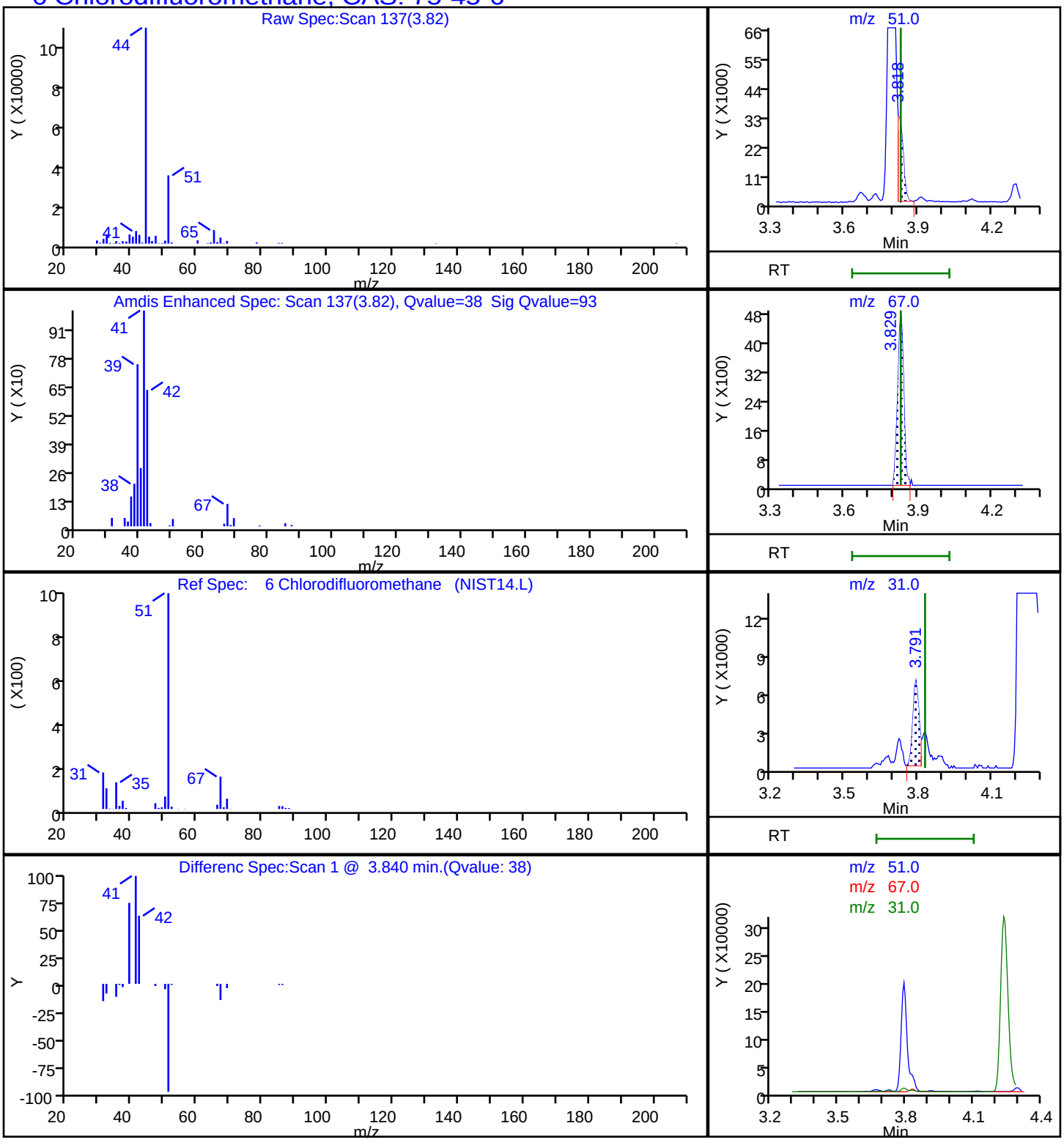


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D

Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

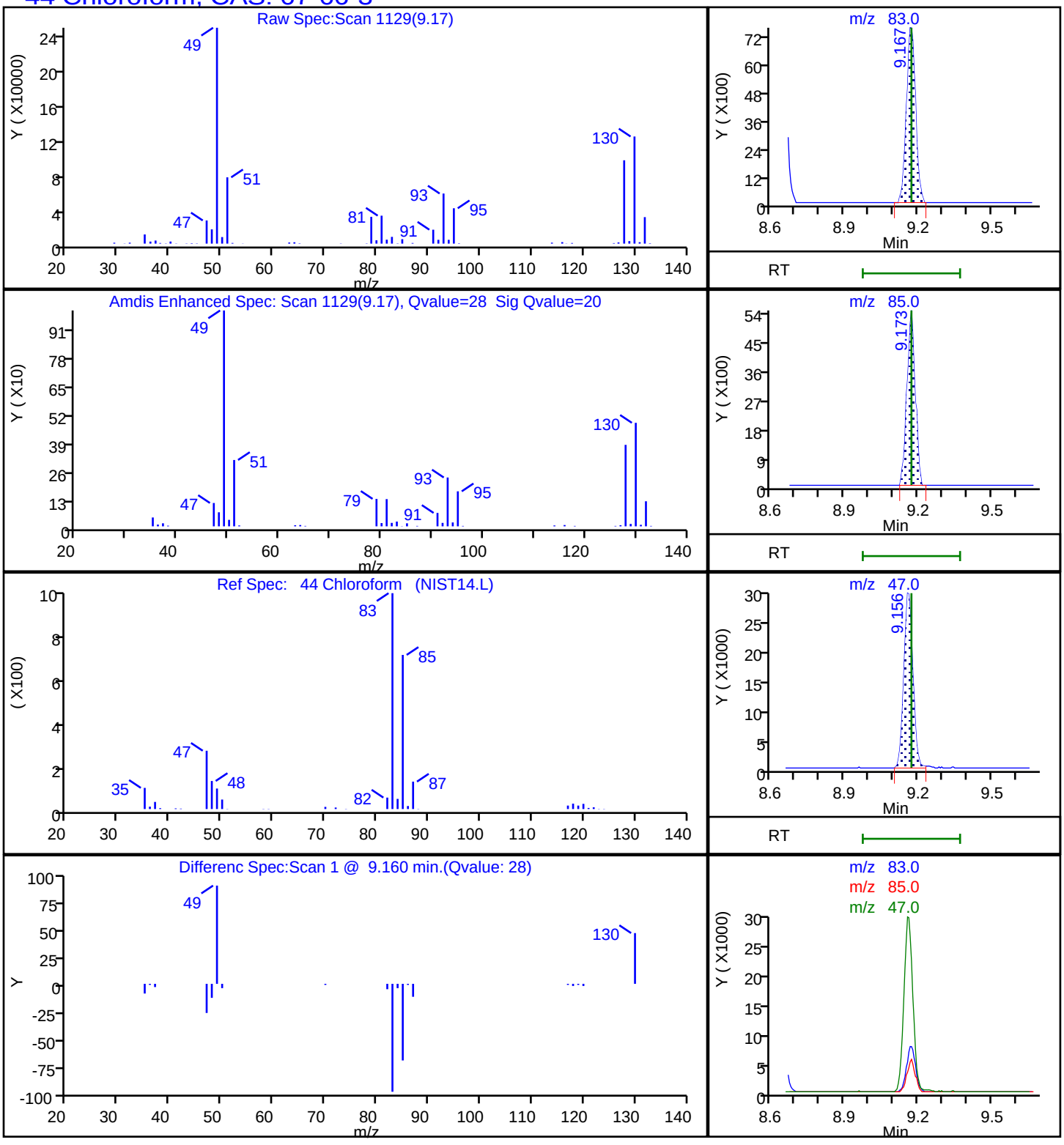
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

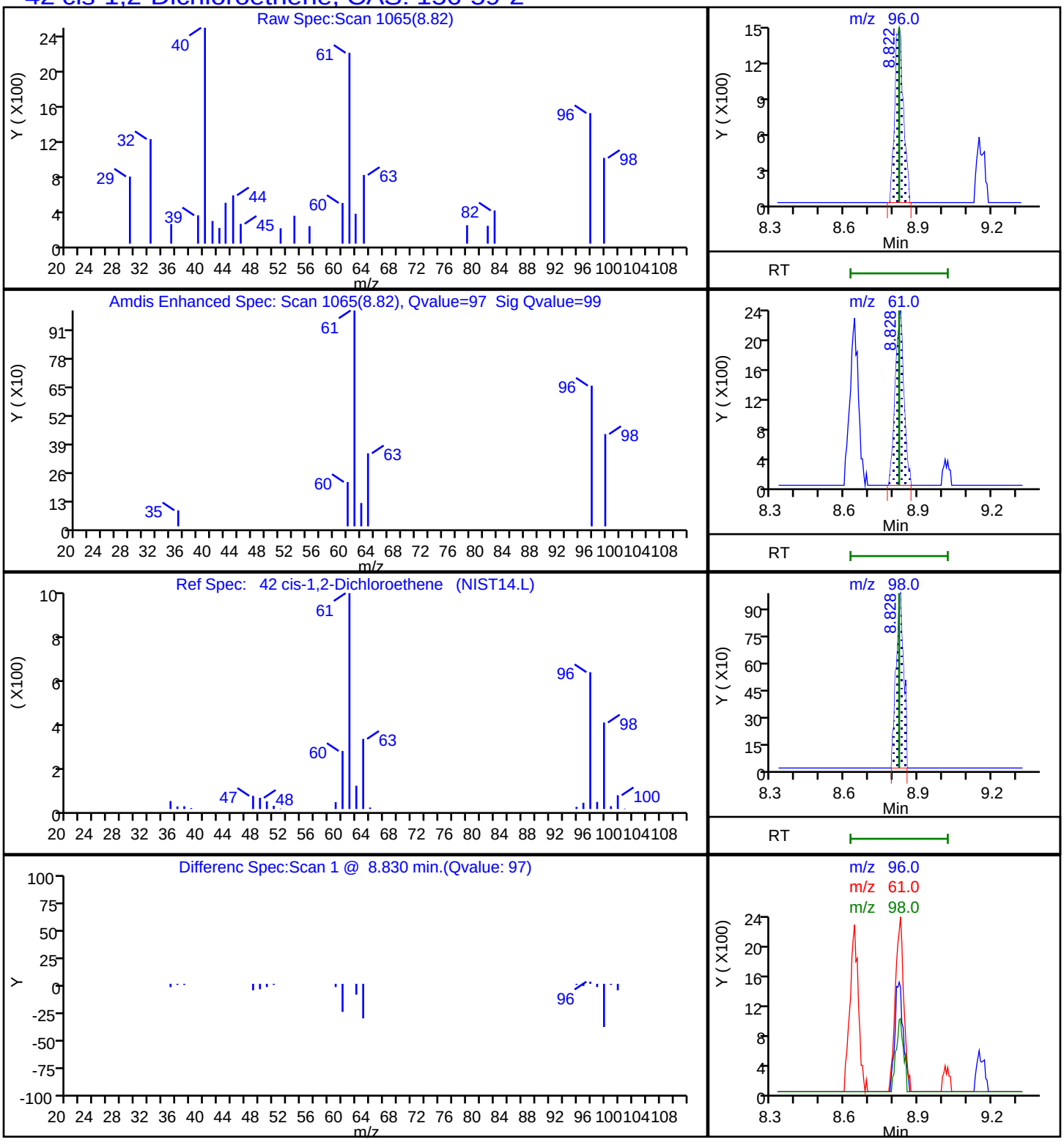
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

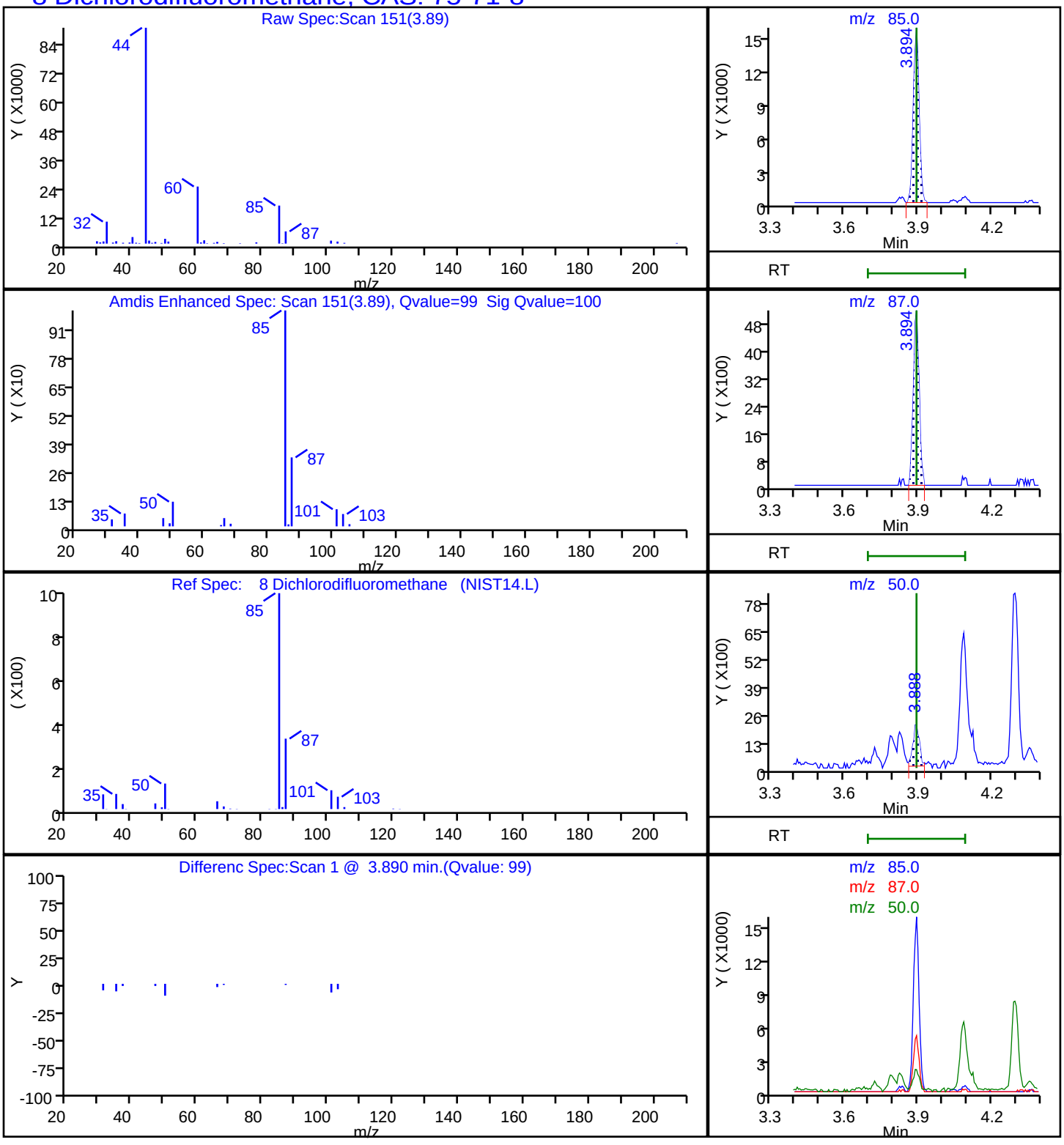
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

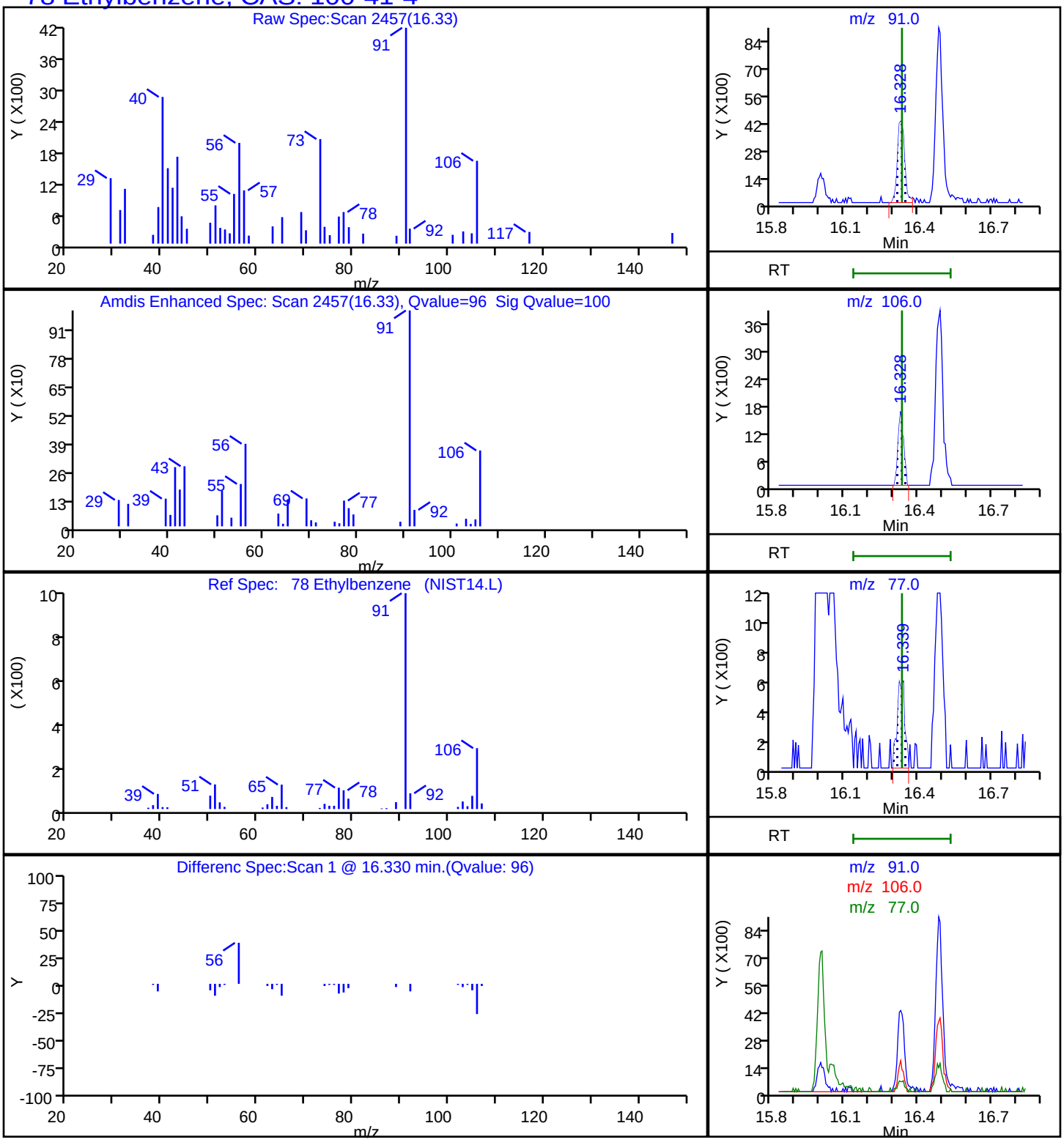
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

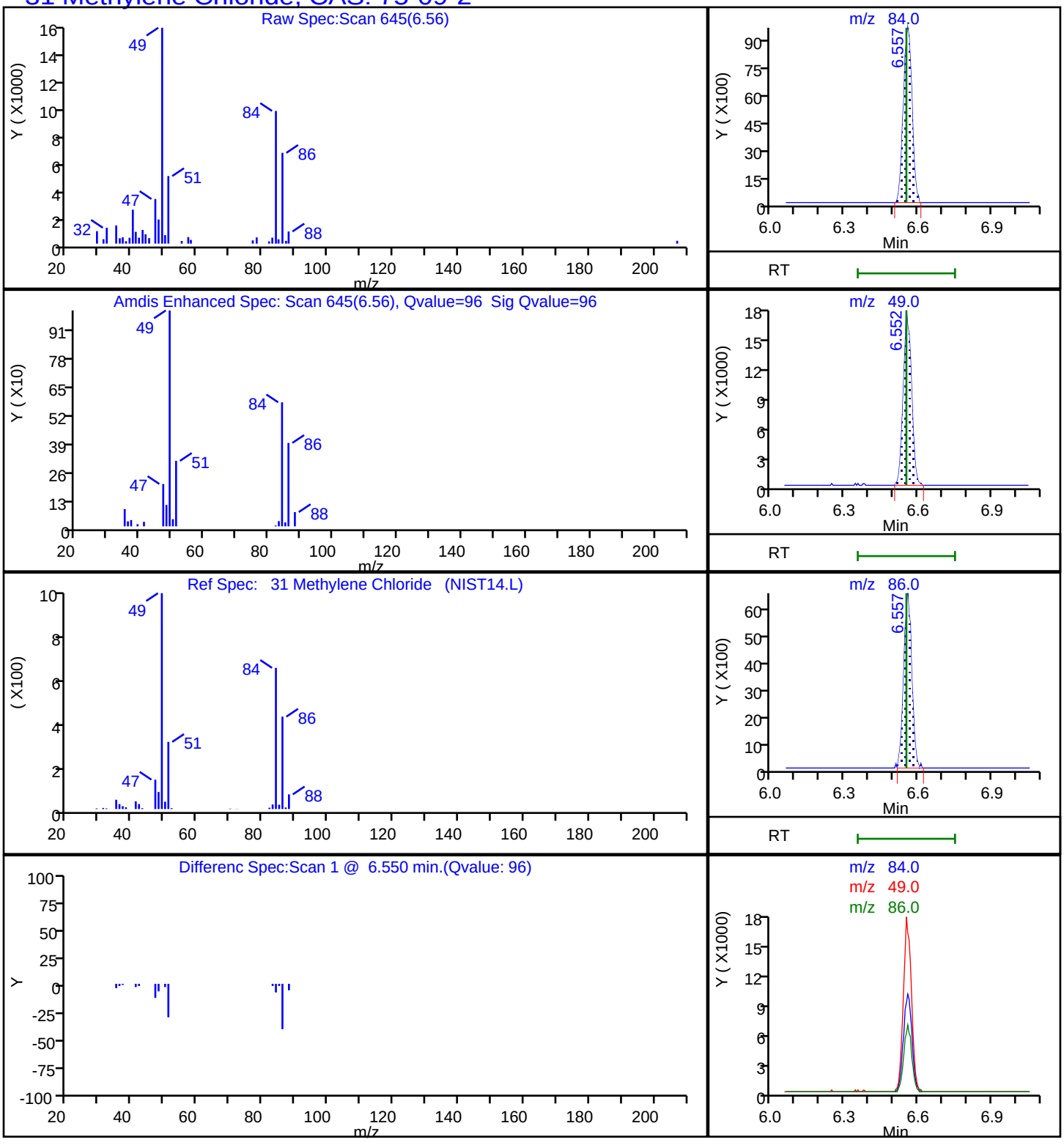
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2

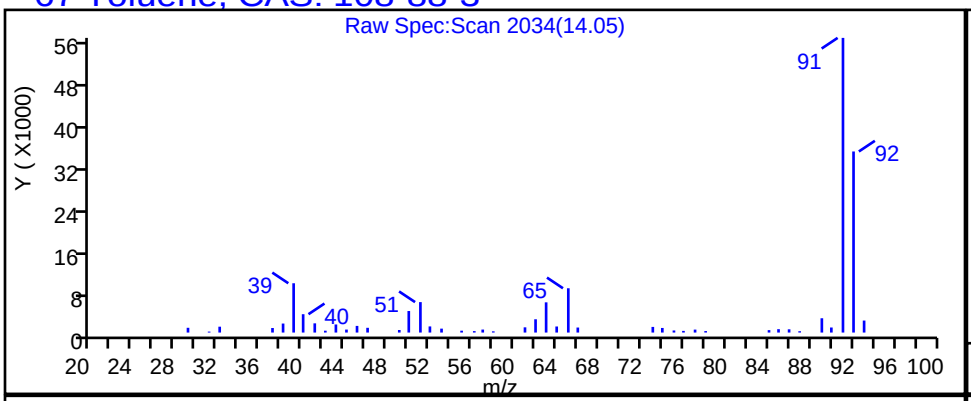


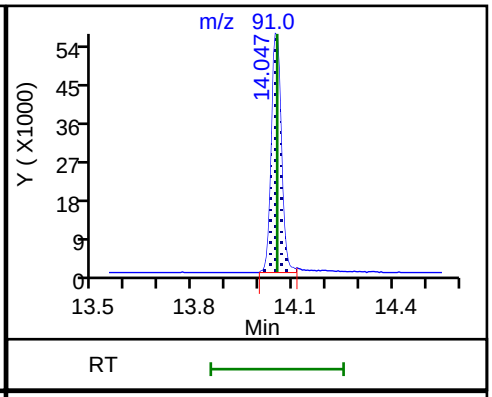
Report Date: 16-Jul-2019 09:55:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

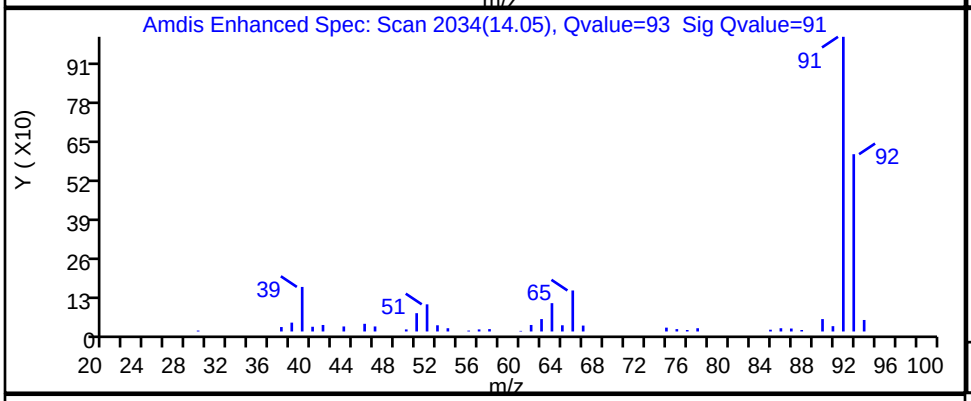
Eurofins TestAmerica, Knoxville

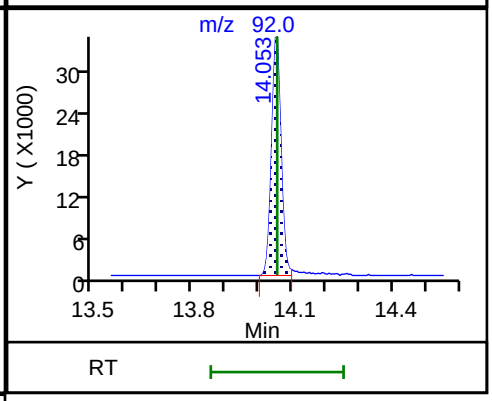
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

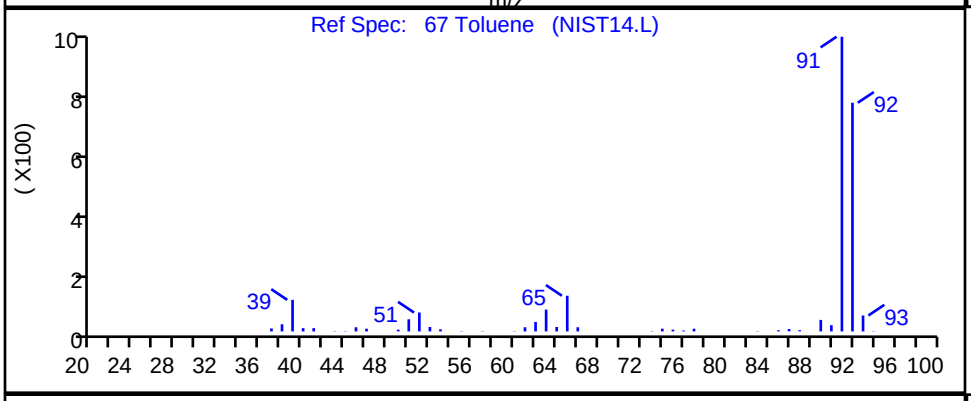
67 Toluene, CAS: 108-88-3

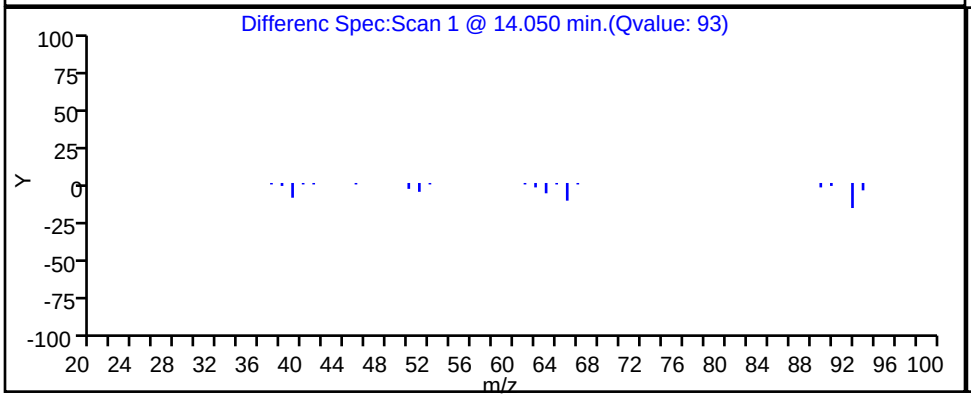


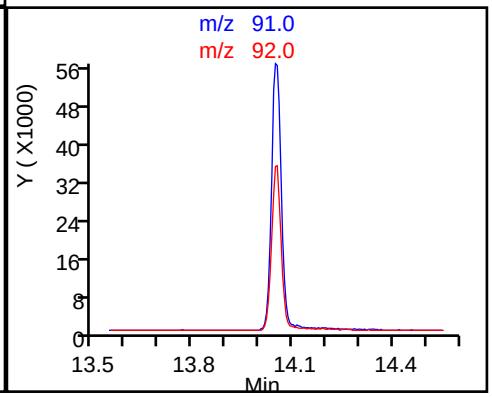










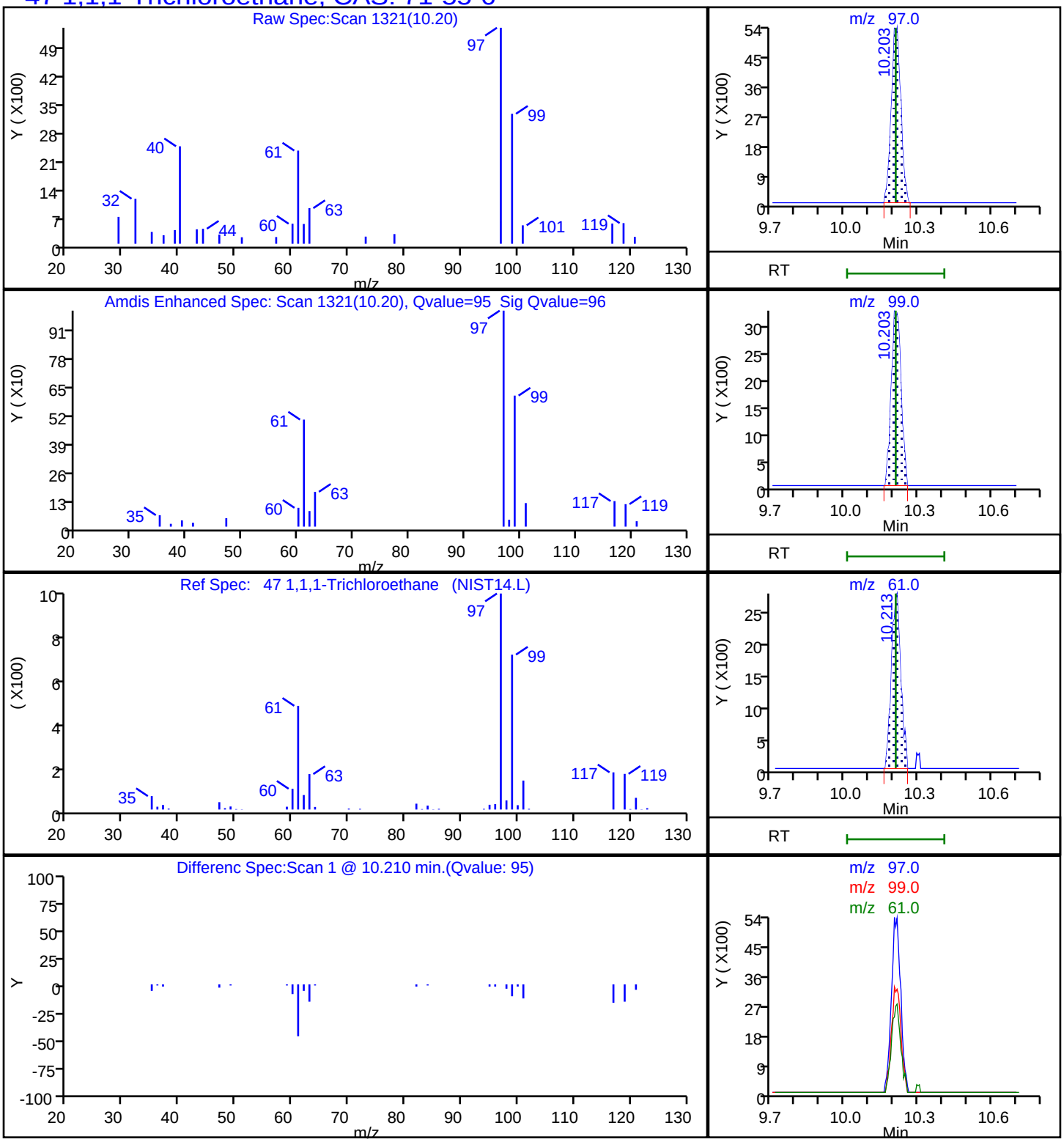


Report Date: 16-Jul-2019 09:55:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

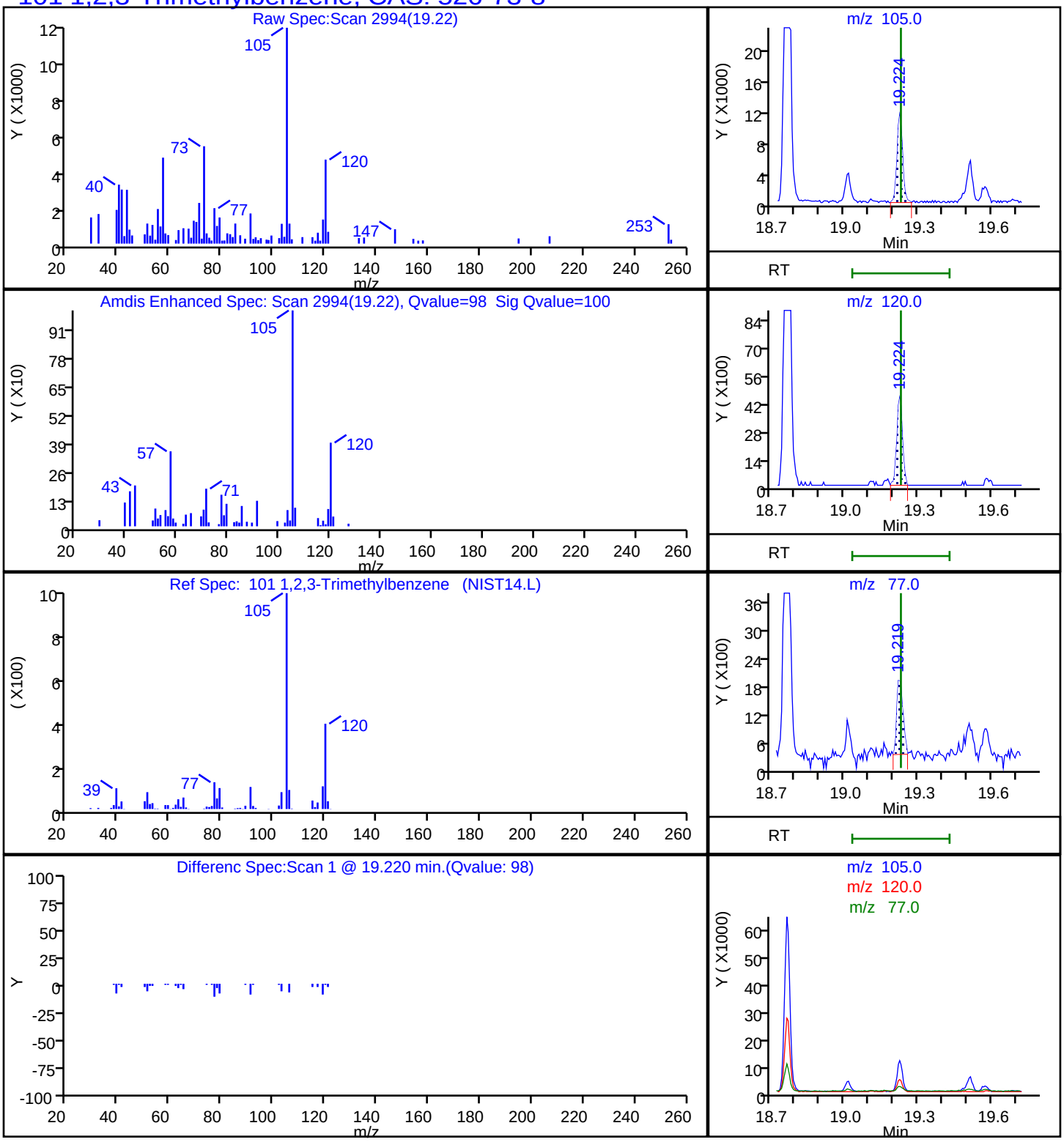
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

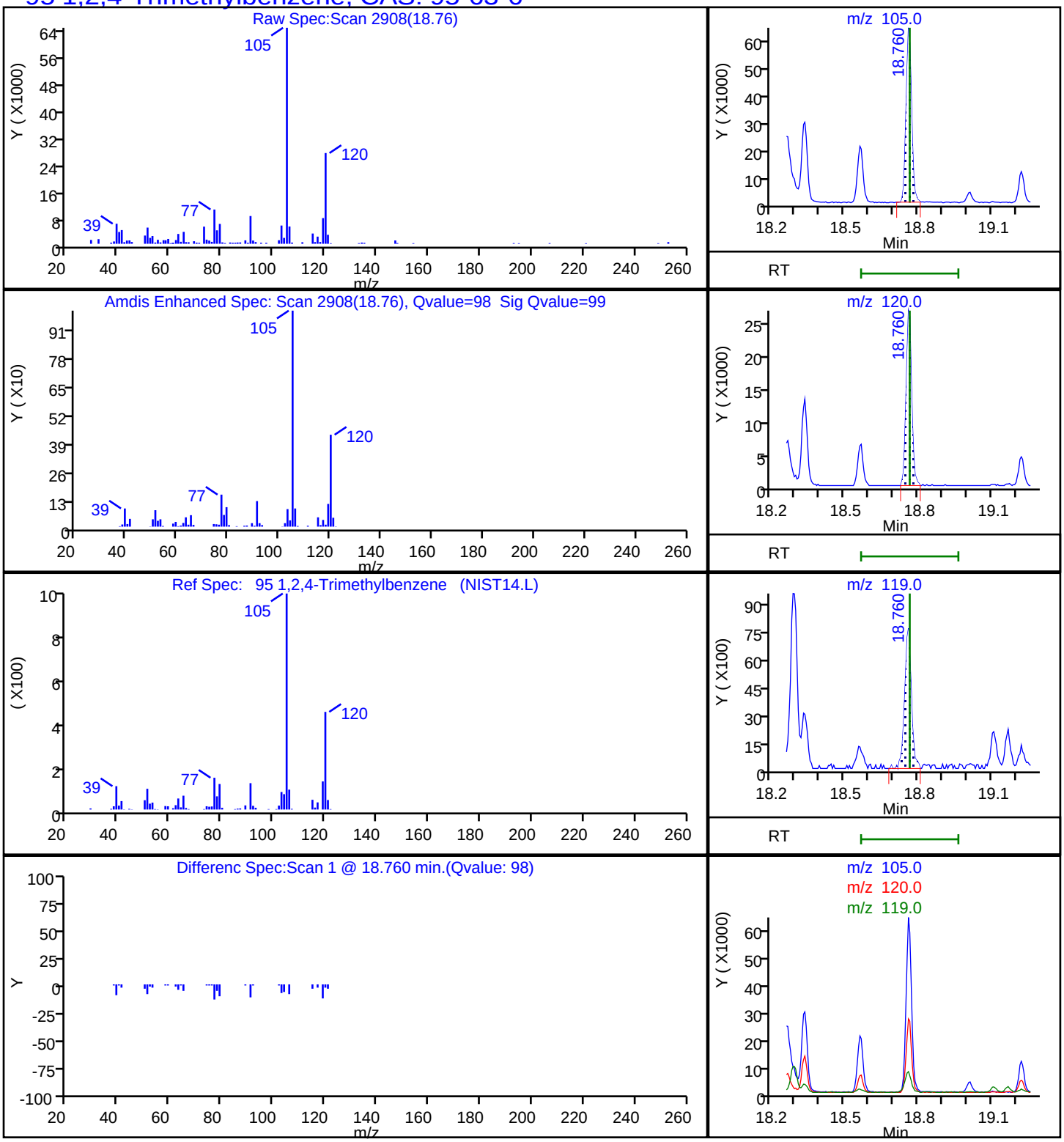
101 1,2,3-Trimethylbenzene, CAS: 526-73-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D		
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4
Client ID:	C-EFFLUENT		
Operator ID:	7126	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

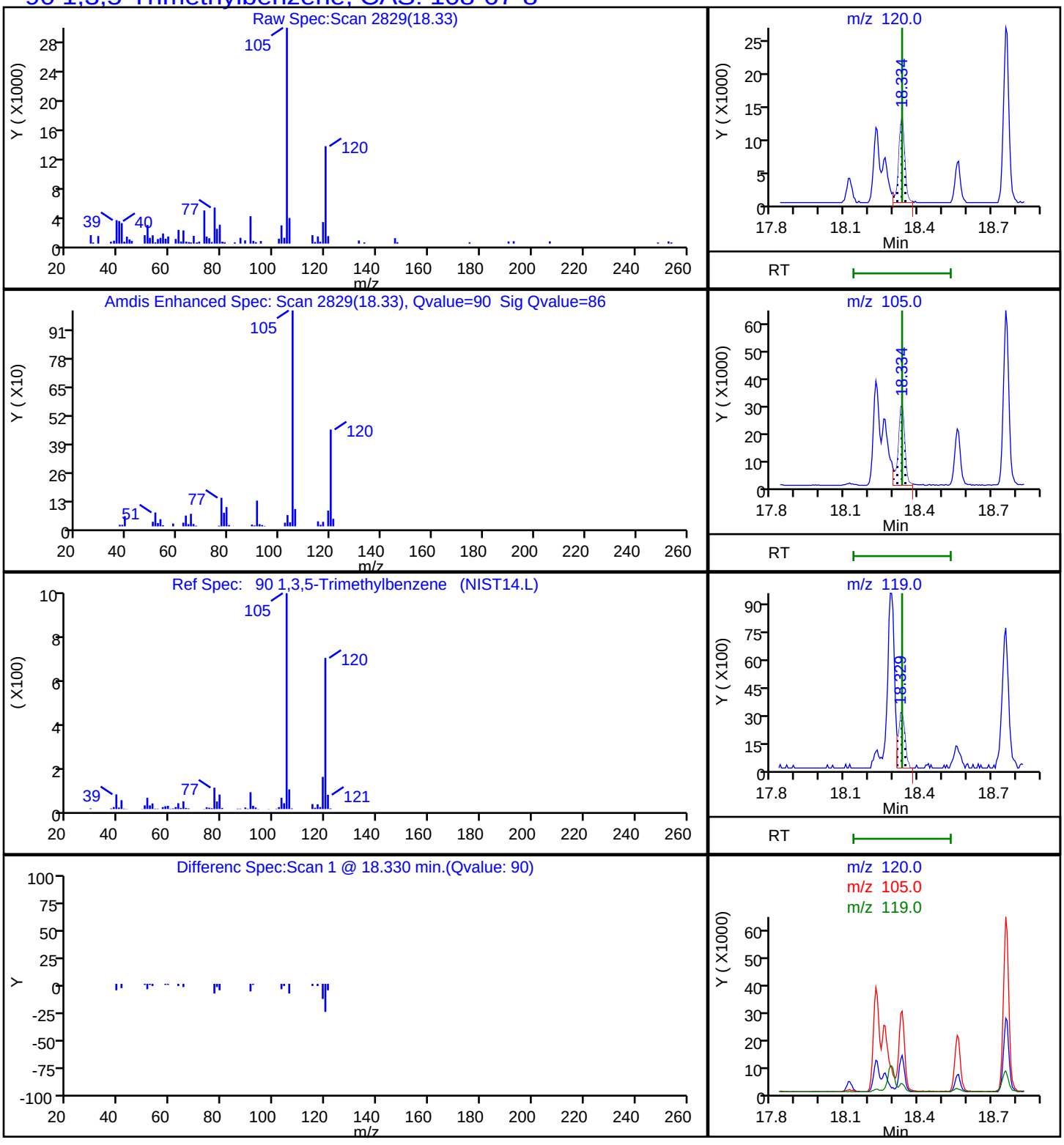
95 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

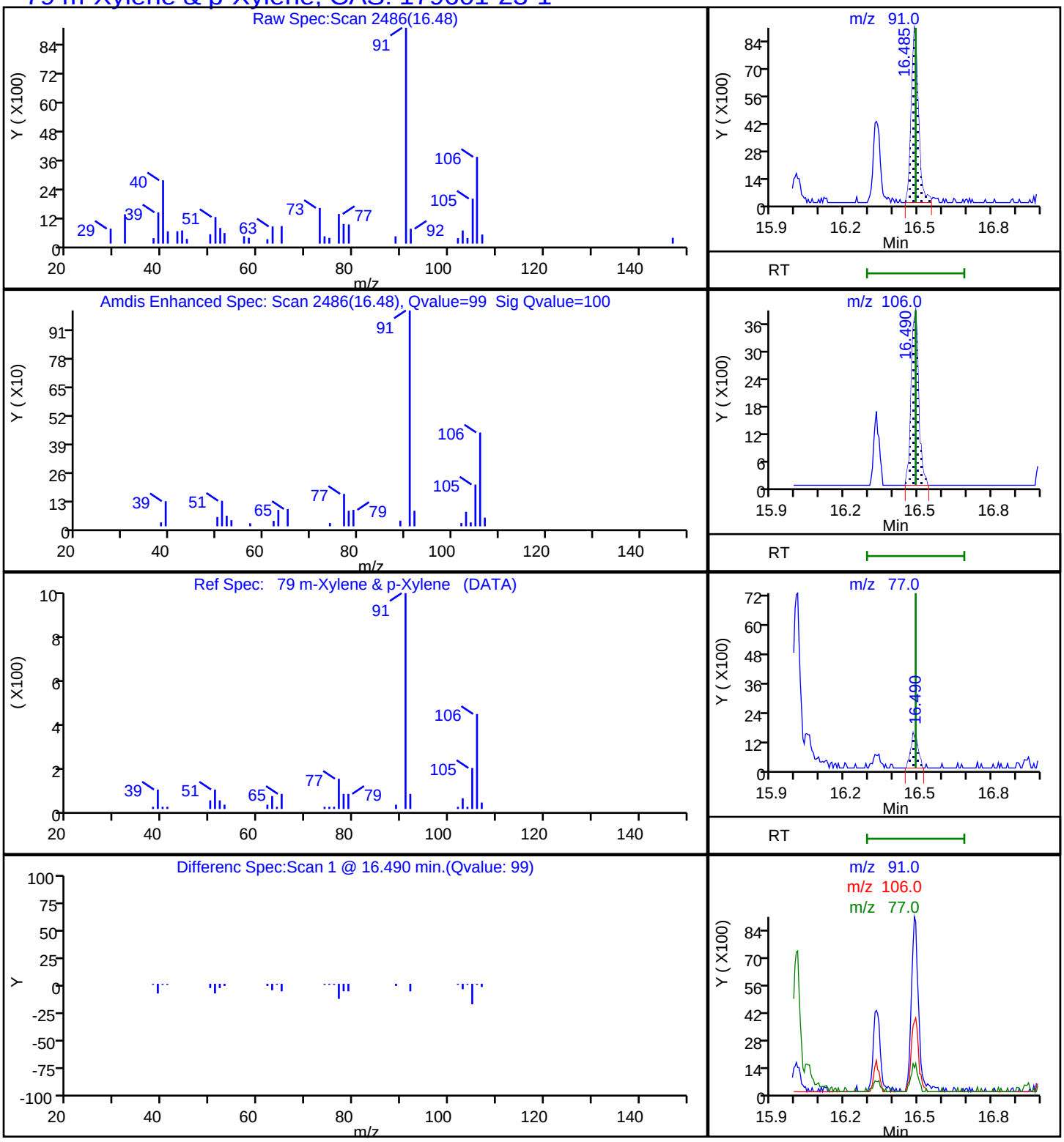


Report Date: 16-Jul-2019 09:55:29 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 16-Jul-2019 09:55:29 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D

Injection Date: 13-Jul-2019 00:51:30 Instrument ID: MG

Lims ID: 140-15980-A-4 Lab Sample ID: 140-15980-4

Client ID: C-EFFLUENT

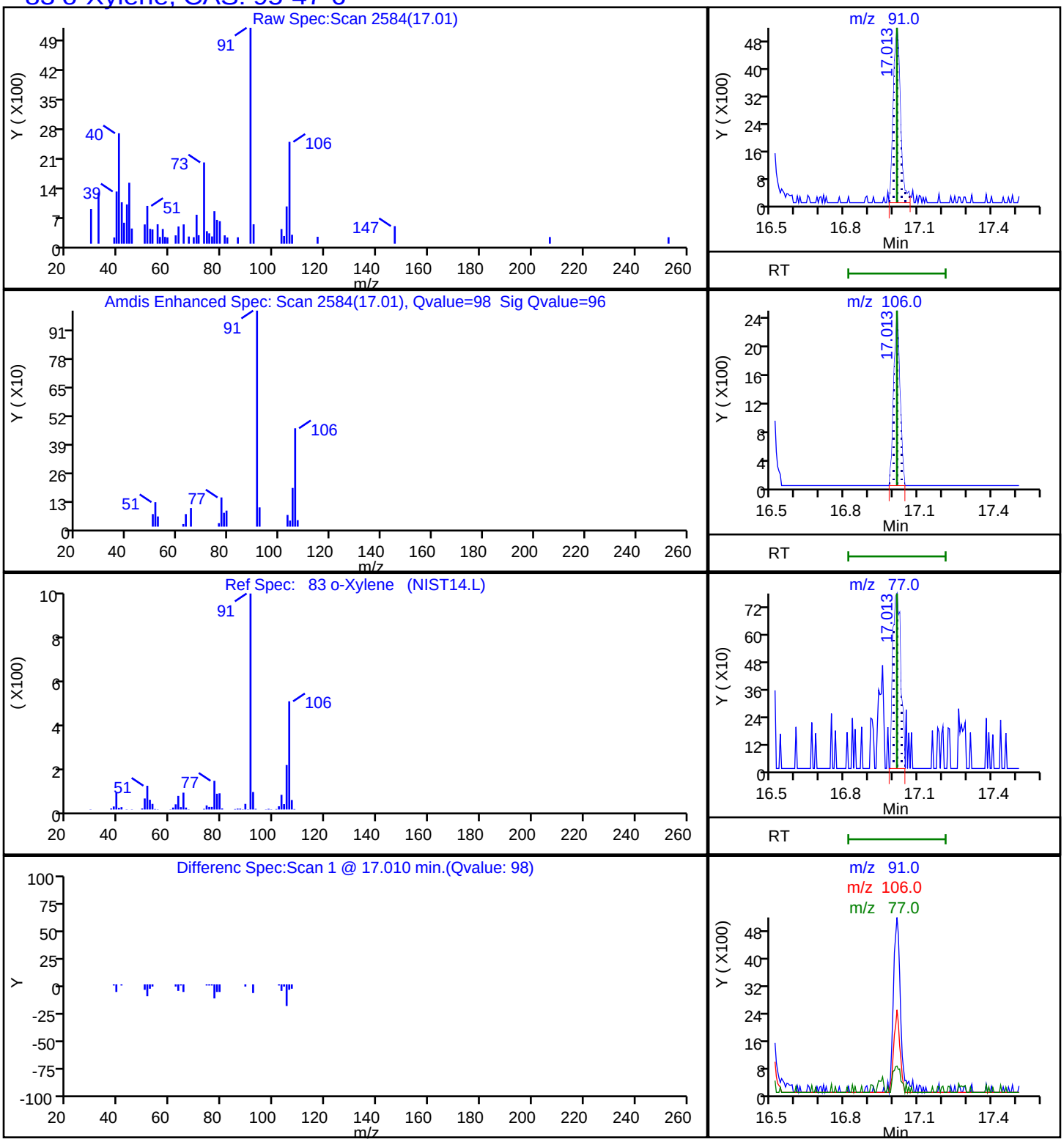
Operator ID: 7126 ALS Bottle#: 14 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

83 o-Xylene, CAS: 95-47-6



Eurofins TestAmerica, Knoxville

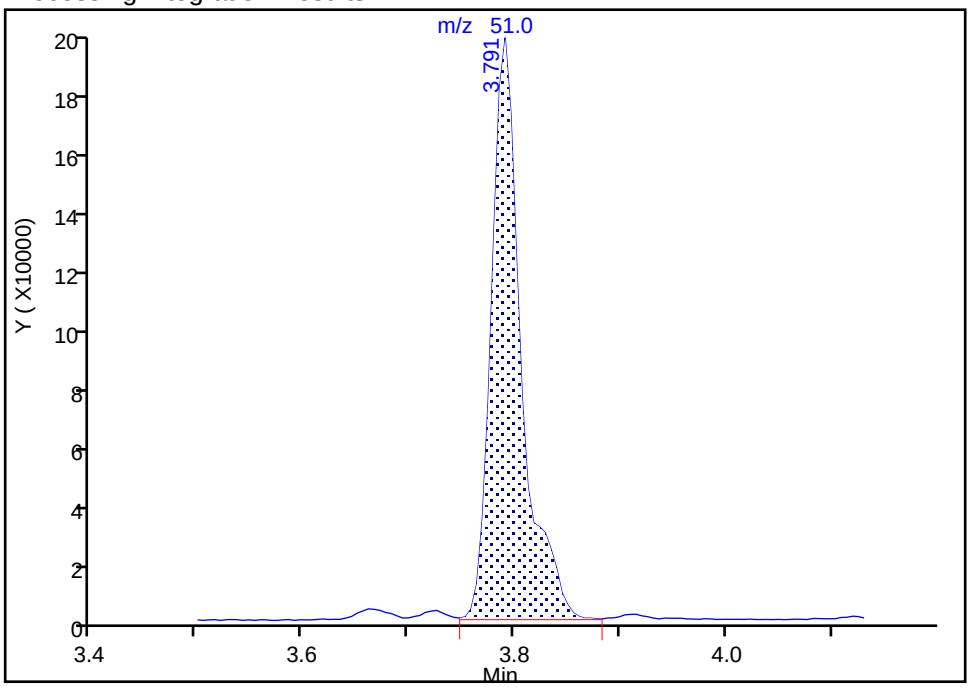
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

6 Chlorodifluoromethane, CAS: 75-45-6

Signal: 1

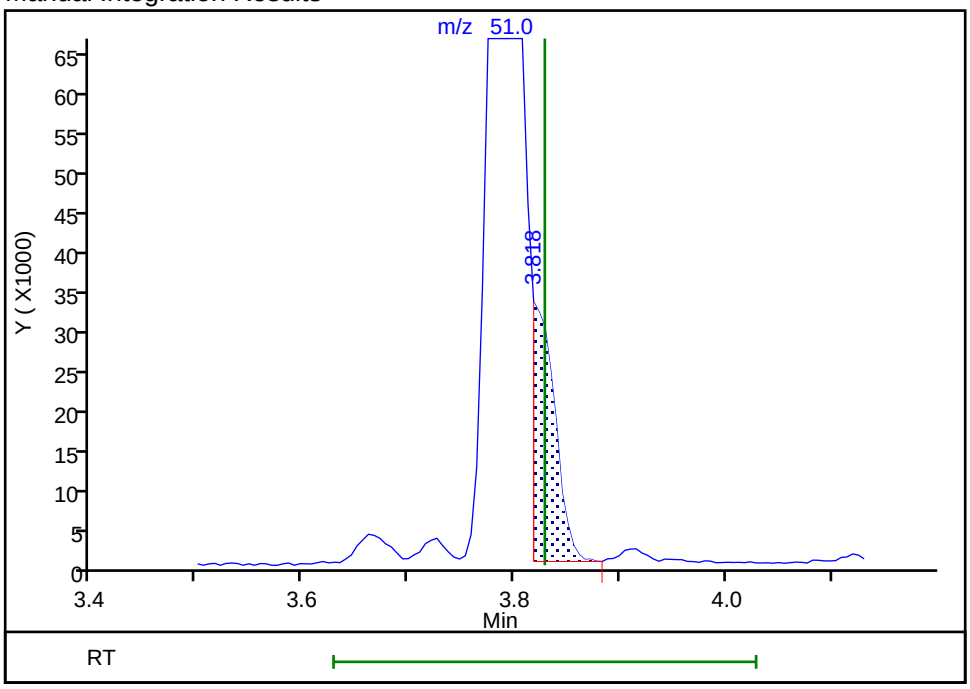
Processing Integration Results

RT: 3.79
Area: 389941
Amount: 2.510113
Amount Units: ppb v/v



Manual Integration Results

RT: 3.82
Area: 49158
Amount: 0.316438
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 16-Jul-2019 09:54:02
Audit Action: Split an Integrated Peak Audit Reason: Shouldering

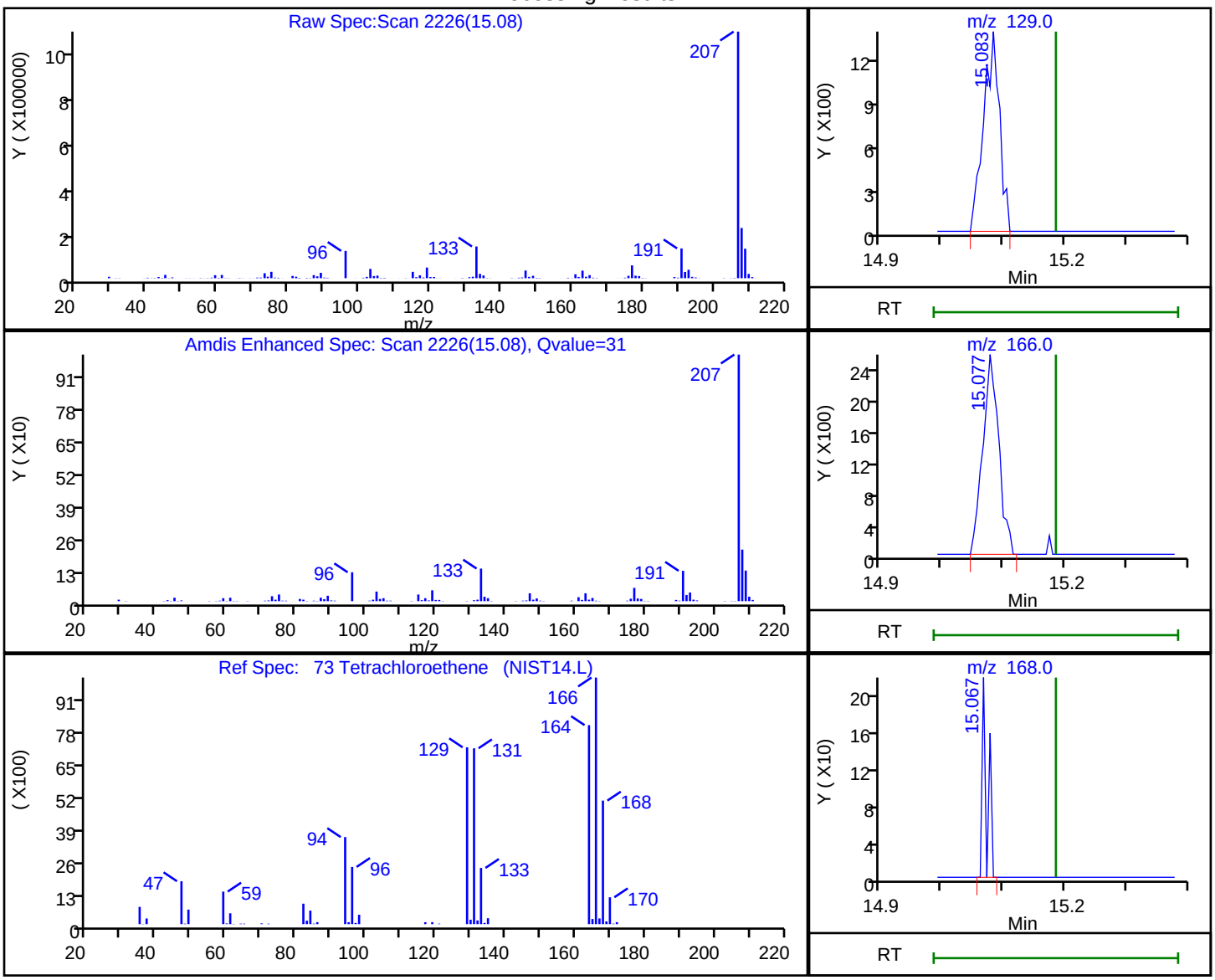
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P114.D				
Injection Date:	13-Jul-2019 00:51:30	Instrument ID:	MG		
Lims ID:	140-15980-A-4	Lab Sample ID:	140-15980-4		
Client ID:	C-EFFLUENT				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4

Processing Results



RT	Mass	Response	Amount
15.08	129.00	2390	0.022711
15.08	166.00	4648	
15.07	168.00	118	

Reviewer: khachitpongpanits, 15-Jul-2019 14:12:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-MIDGAC Lab Sample ID: 140-15980-5

Matrix: Air Lab File ID: GG12P115.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:28

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 01:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	5.8		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.045	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.9		0.40	0.11
67-66-3	Chloroform	119.38	0.19	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.4		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.56		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.084	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.0		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.83		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.11	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.66		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.037	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.26	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.57	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-MIDGAC Lab Sample ID: 140-15980-5

Matrix: Air Lab File ID: GG12P115.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:28

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 01:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	19		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.29	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	6.6		1.4	0.39
67-66-3	Chloroform	119.38	0.92	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	5.6		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.8		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.36	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.9		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.42	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.6		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.20	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.3	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D
Lims ID: 140-15980-A-5
Client ID: C-MIDGAC
Sample Type: Client
Inject. Date: 13-Jul-2019 01:34:30 ALS Bottle#: 15 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-021
Misc. Info.: 140-15980-a-5
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Jul-2019 09:51:42 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0338

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:13:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.162	-0.006	94	223062	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	97	1244452	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	94	1024278	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	824564	4.29	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	97	50846	0.3711	
8 Dichlorodifluoromethane	85	3.893	3.891	0.000	99	25260	0.1128	
31 Methylene Chloride	84	6.557	6.552	0.005	96	35320	0.3991	
34 trans-1,2-Dichloroethene	96	7.388	7.388	0.000	91	1560	0.0213	
42 cis-1,2-Dichloroethene	96	8.817	8.817	-0.005	97	21837	0.2830	
44 Chloroform	83	9.167	9.167	-0.005	86	6555	0.0378	
47 1,1,1-Trichloroethane	97	10.208	10.202	0.000	96	25356	0.1327	
50 Benzene	78	10.796	10.801	-0.005	98	261916	1.17	
52 Carbon tetrachloride	117	10.828	10.817	0.005	26	1411	0.009065	
58 Trichloroethene	130	12.025	12.030	-0.011	29	674	0.007337	
67 Toluene	91	14.053	14.053	0.000	93	37674	0.1666	
78 Ethylbenzene	91	16.334	16.334	0.000	81	4769	0.0168	
79 m-Xylene & p-Xylene	91	16.484	16.490	-0.006	98	15420	0.0711	
83 o-Xylene	91	17.008	17.013	-0.005	96	9503	0.0412	
95 1,2,4-Trimethylbenzene	105	18.765	18.766	0.000	98	12653	0.0519	
S 124 Xylenes, Total	100				0		0.1123	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

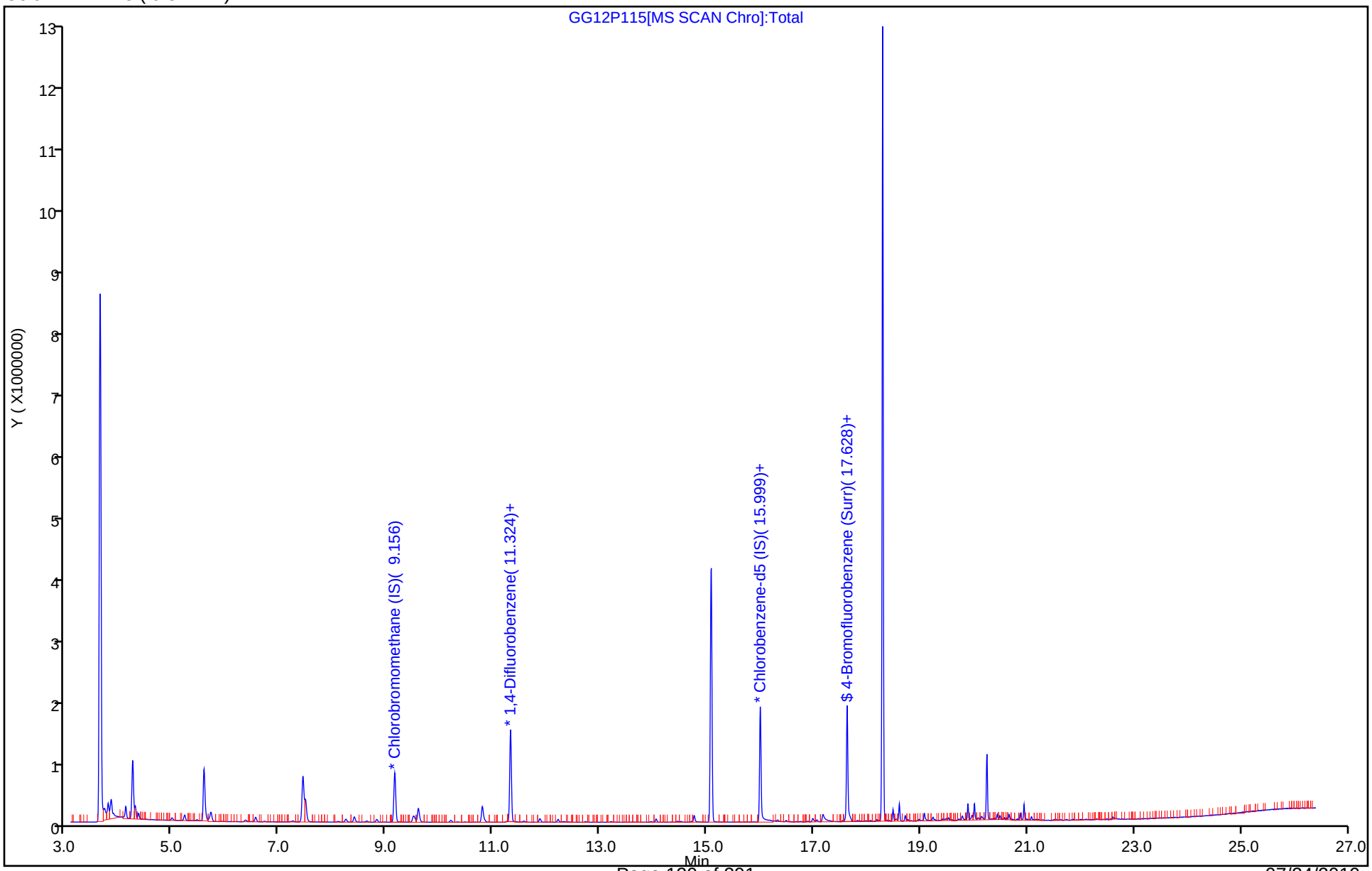
Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5	Worklist Smp#:	21
Client ID:	C-MIDGAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D				
Lims ID:	140-15980-A-5				
Client ID:	C-MIDGAC				
Sample Type:	Client				
Inject. Date:	13-Jul-2019 01:34:30	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-021				
Misc. Info.:	140-15980-a-5				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	16-Jul-2019 09:51:42	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0338				
First Level Reviewer: khachitpongpanits		Date:	15-Jul-2019 14:13:32		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.29	107.27

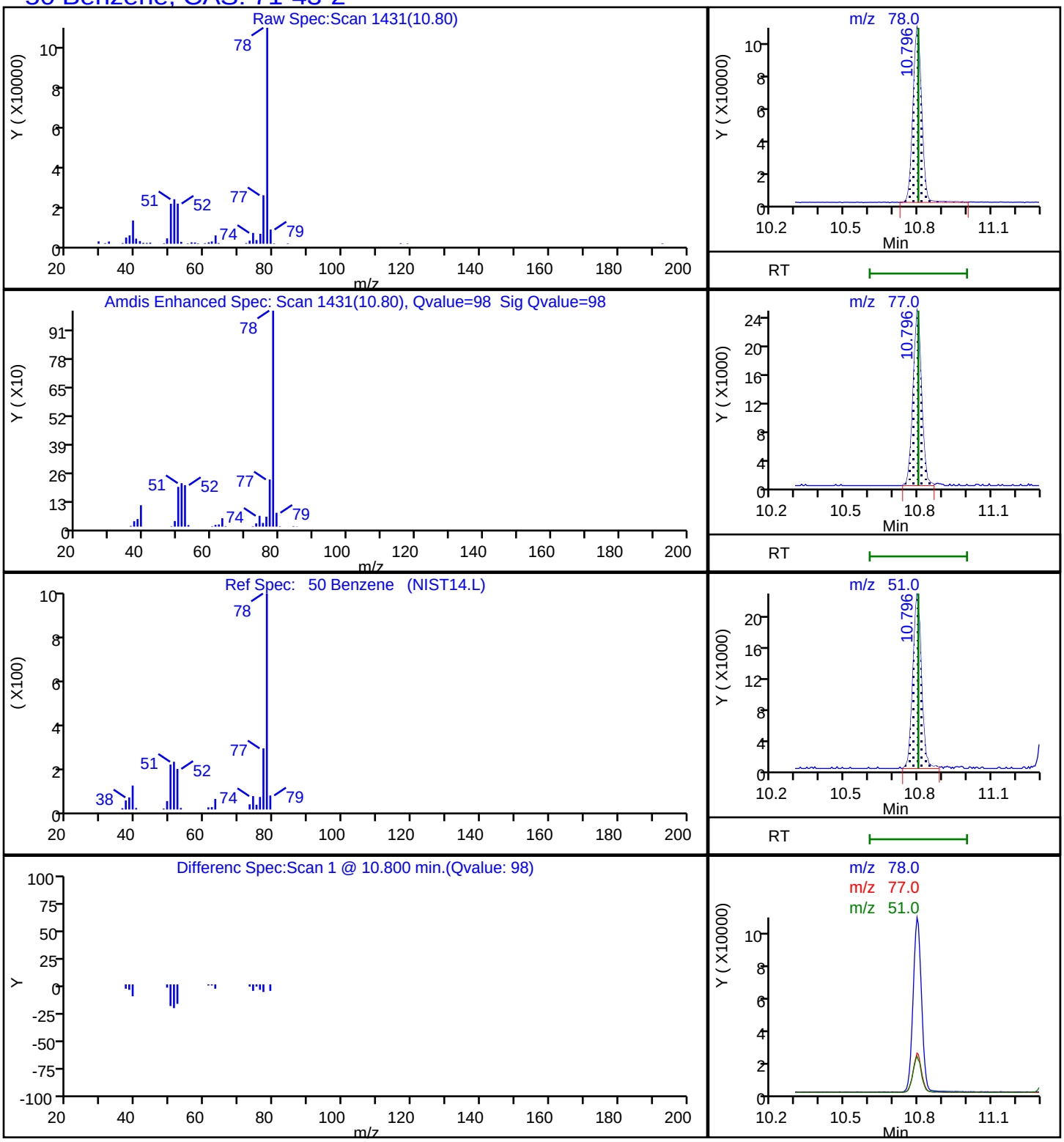
Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

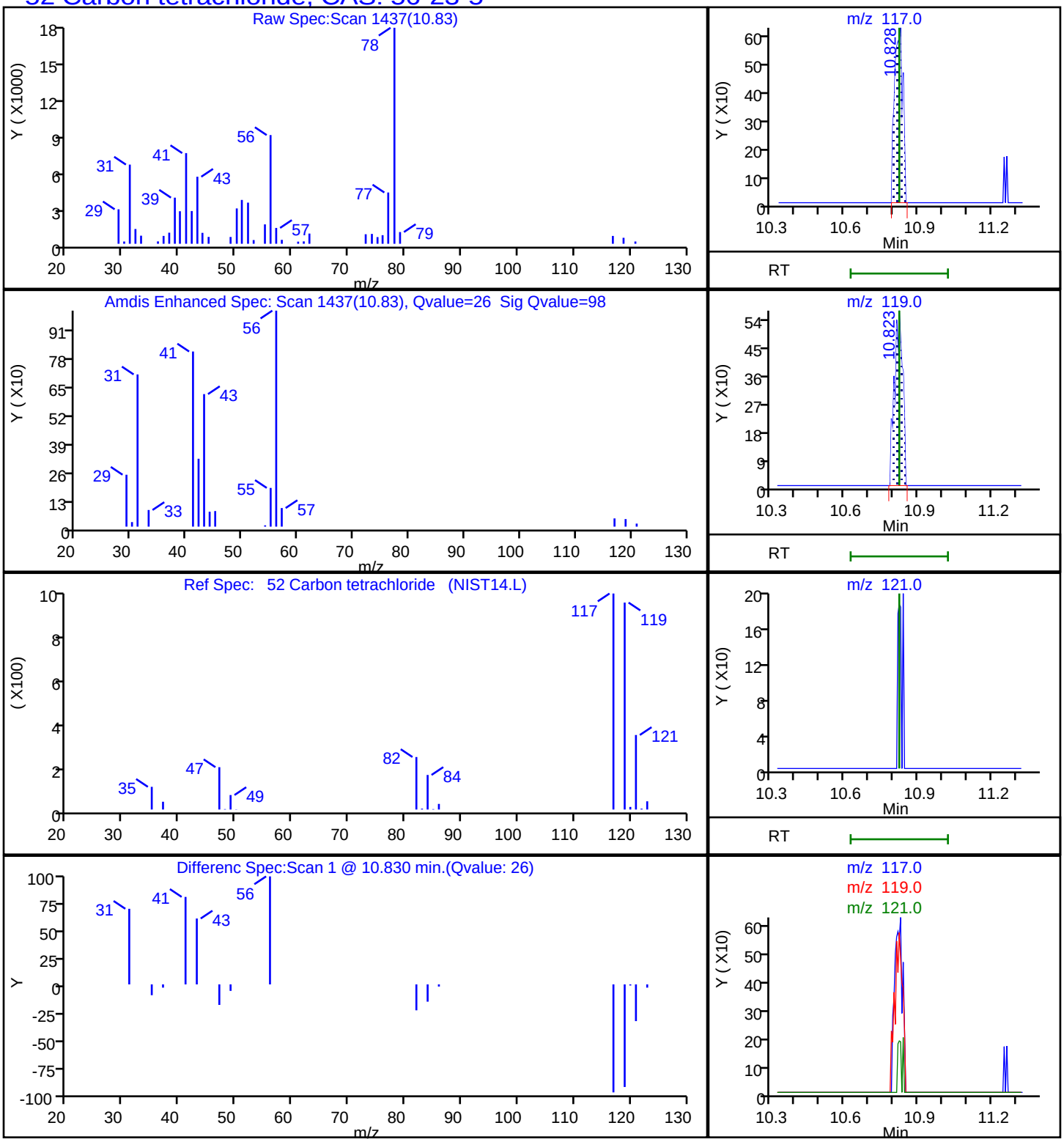
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D
Injection Date: 13-Jul-2019 01:34:30 Instrument ID: MG
Lims ID: 140-15980-A-5 Lab Sample ID: 140-15980-5
Client ID: C-MIDGAC
Operator ID: 7126 ALS Bottle#: 15 Worklist Smp#: 21
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5



Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date: 13-Jul-2019 01:34:30 Instrument ID: MG

Lims ID: 140-15980-A-5 Lab Sample ID: 140-15980-5

Client ID: C-MIDGAC

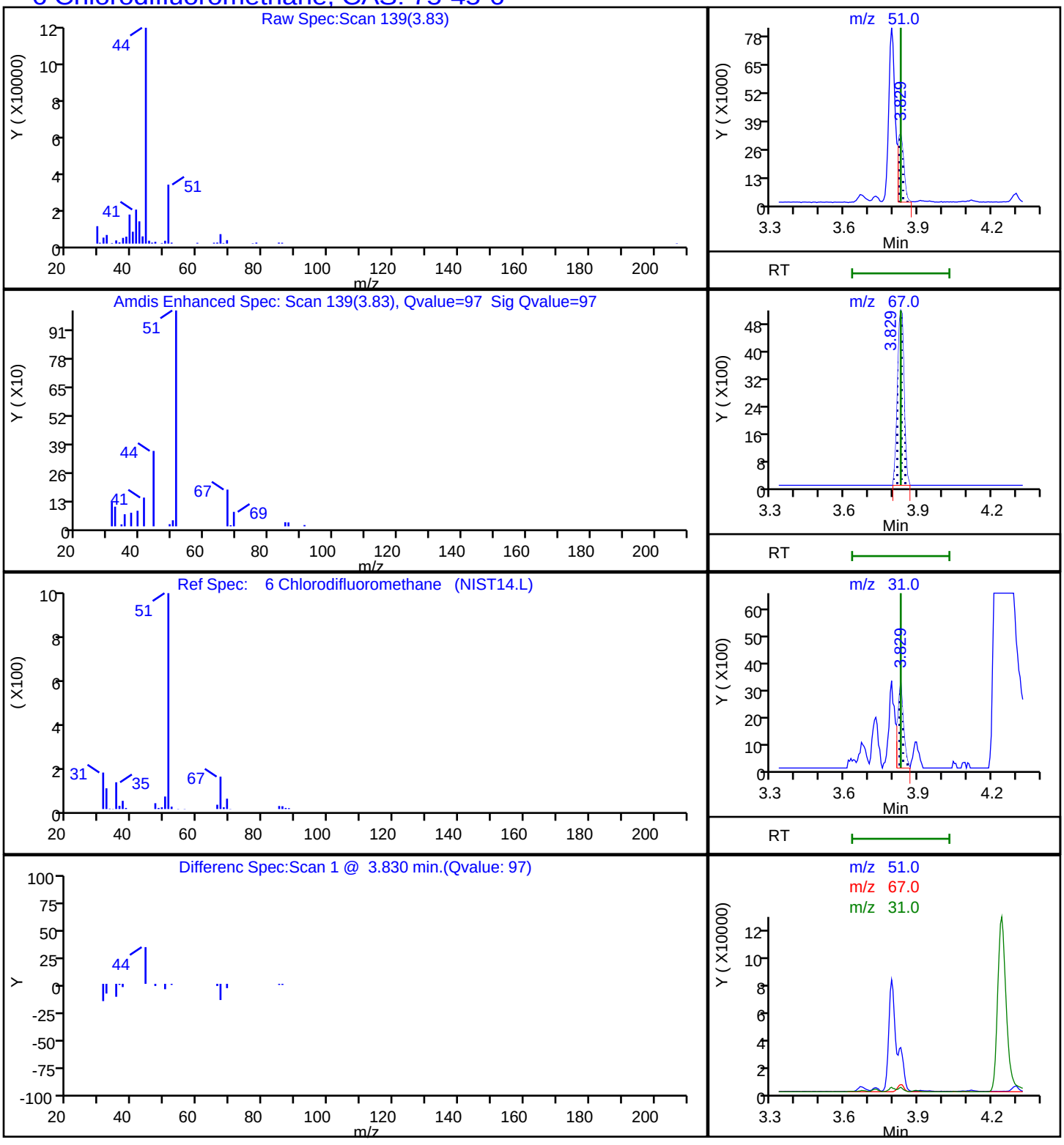
Operator ID: 7126 ALS Bottle#: 15 Worklist Smp#: 21

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

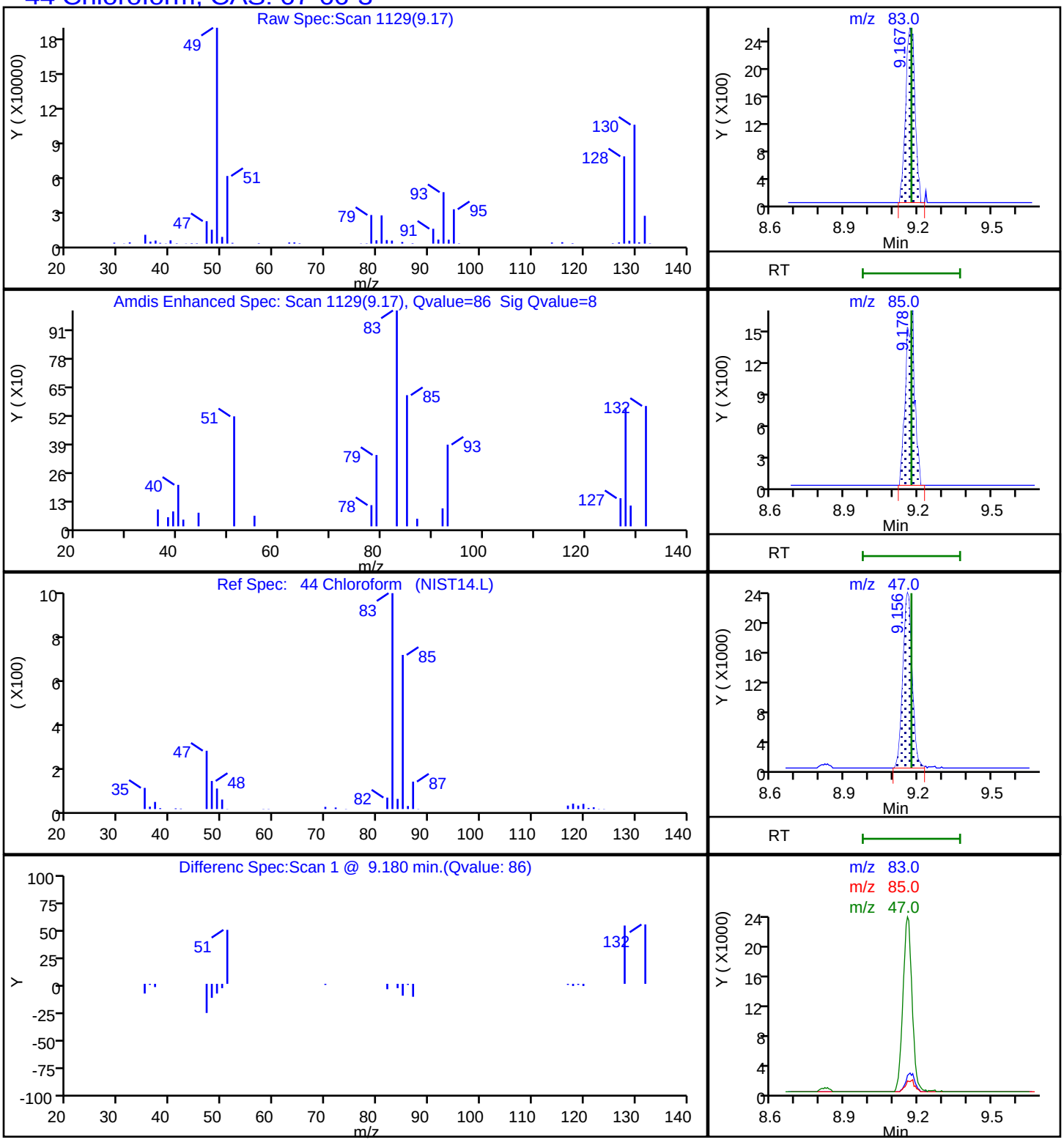
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D		
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

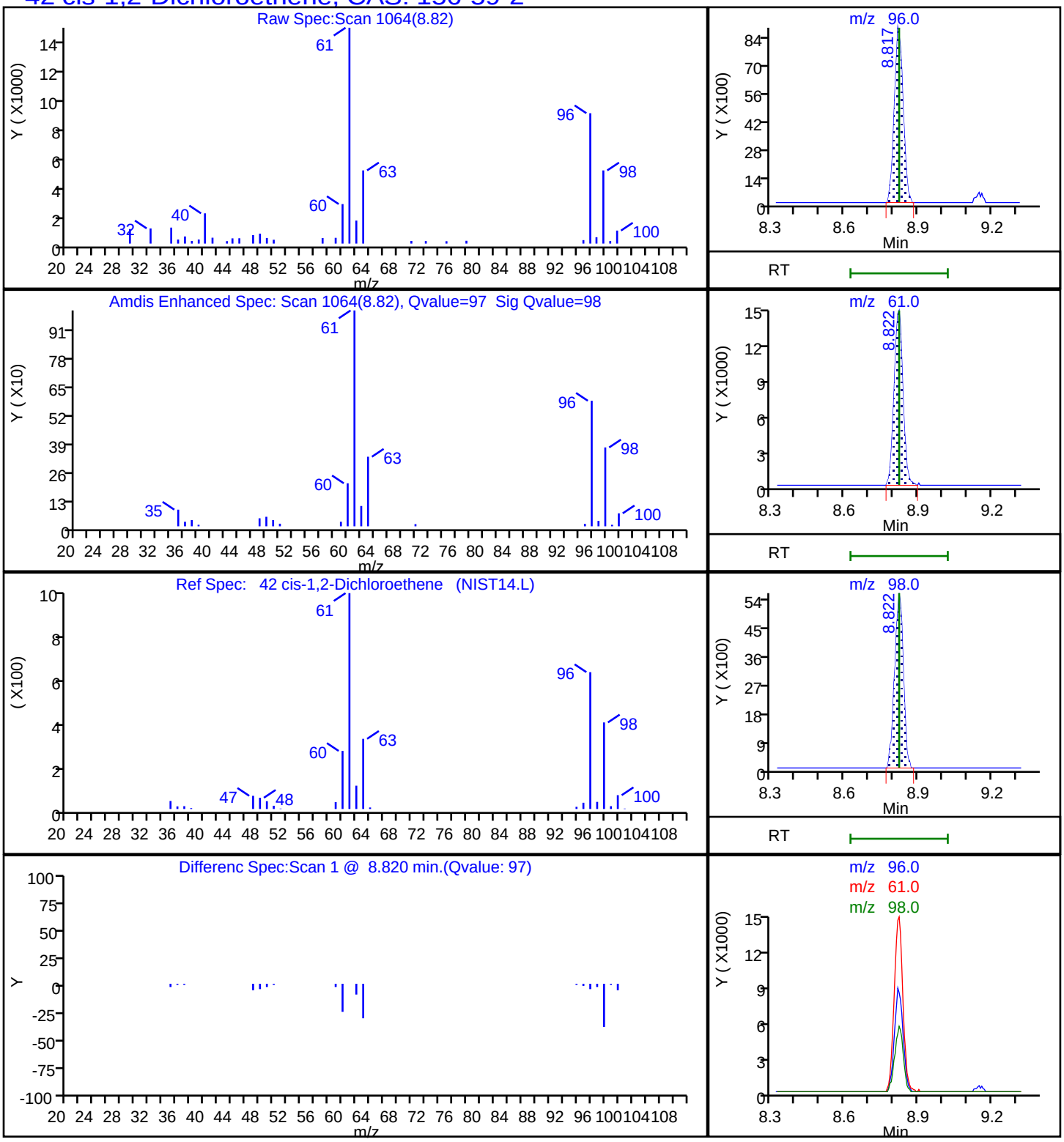
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D		
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

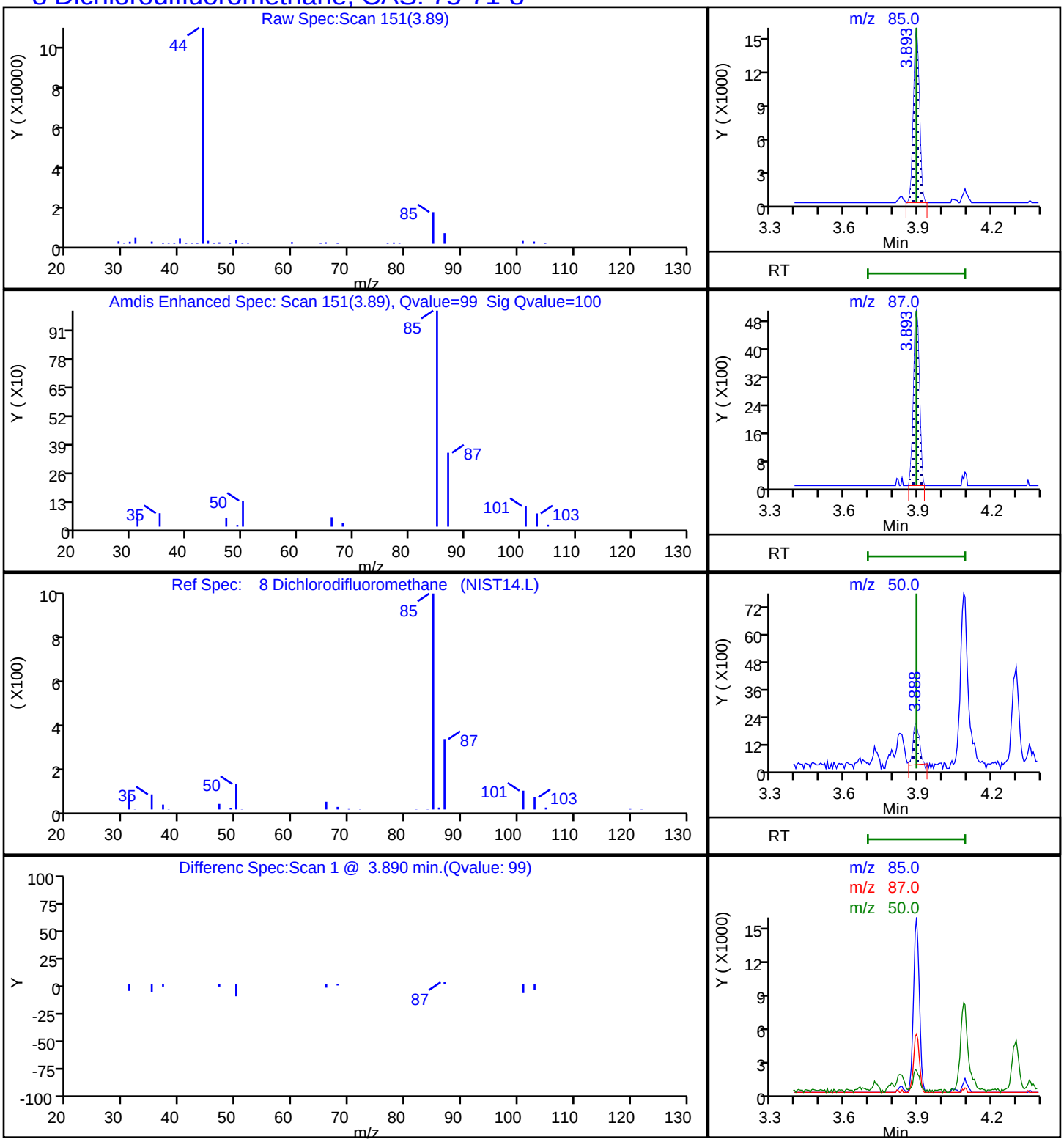
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D				
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

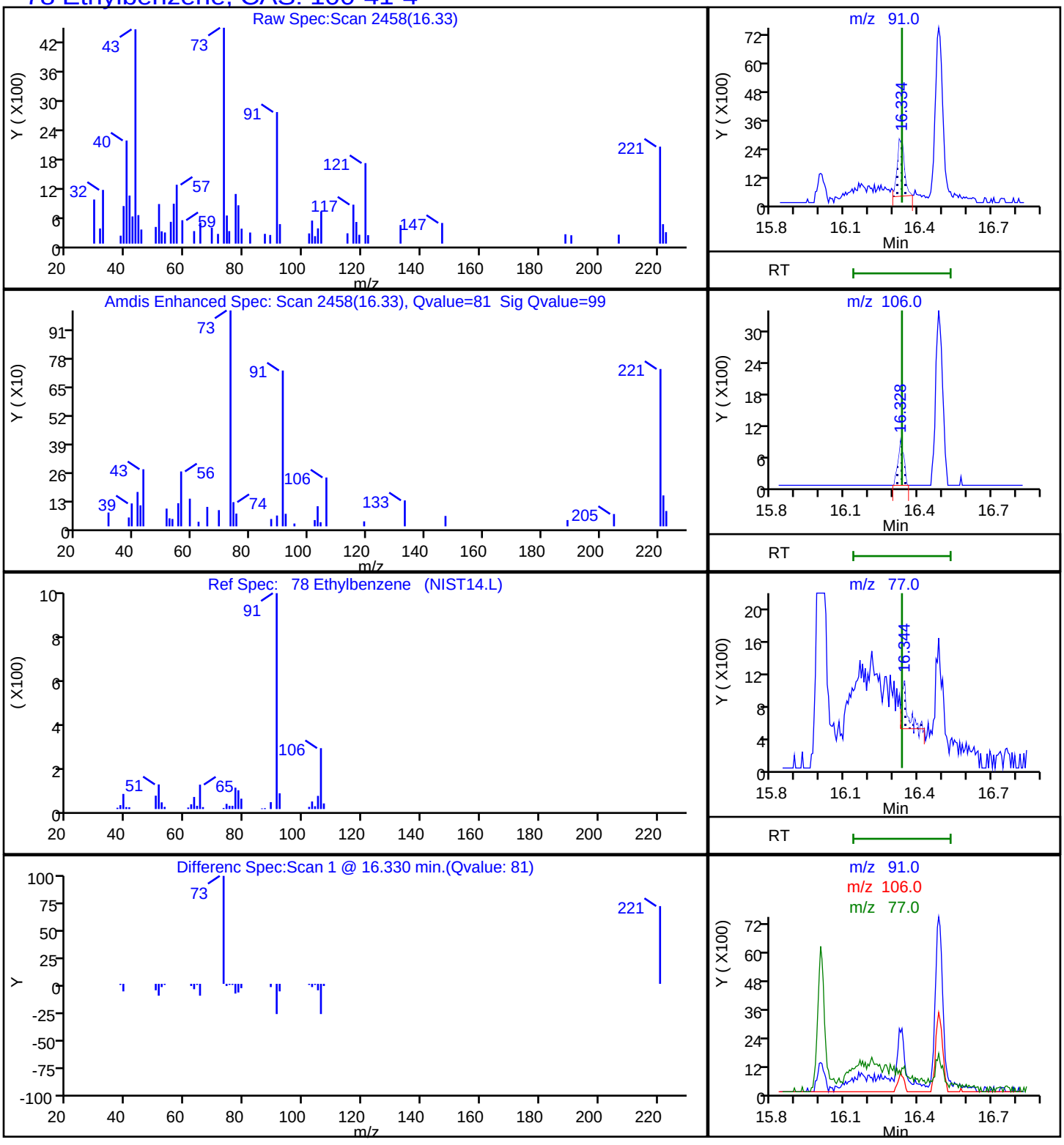
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D		
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



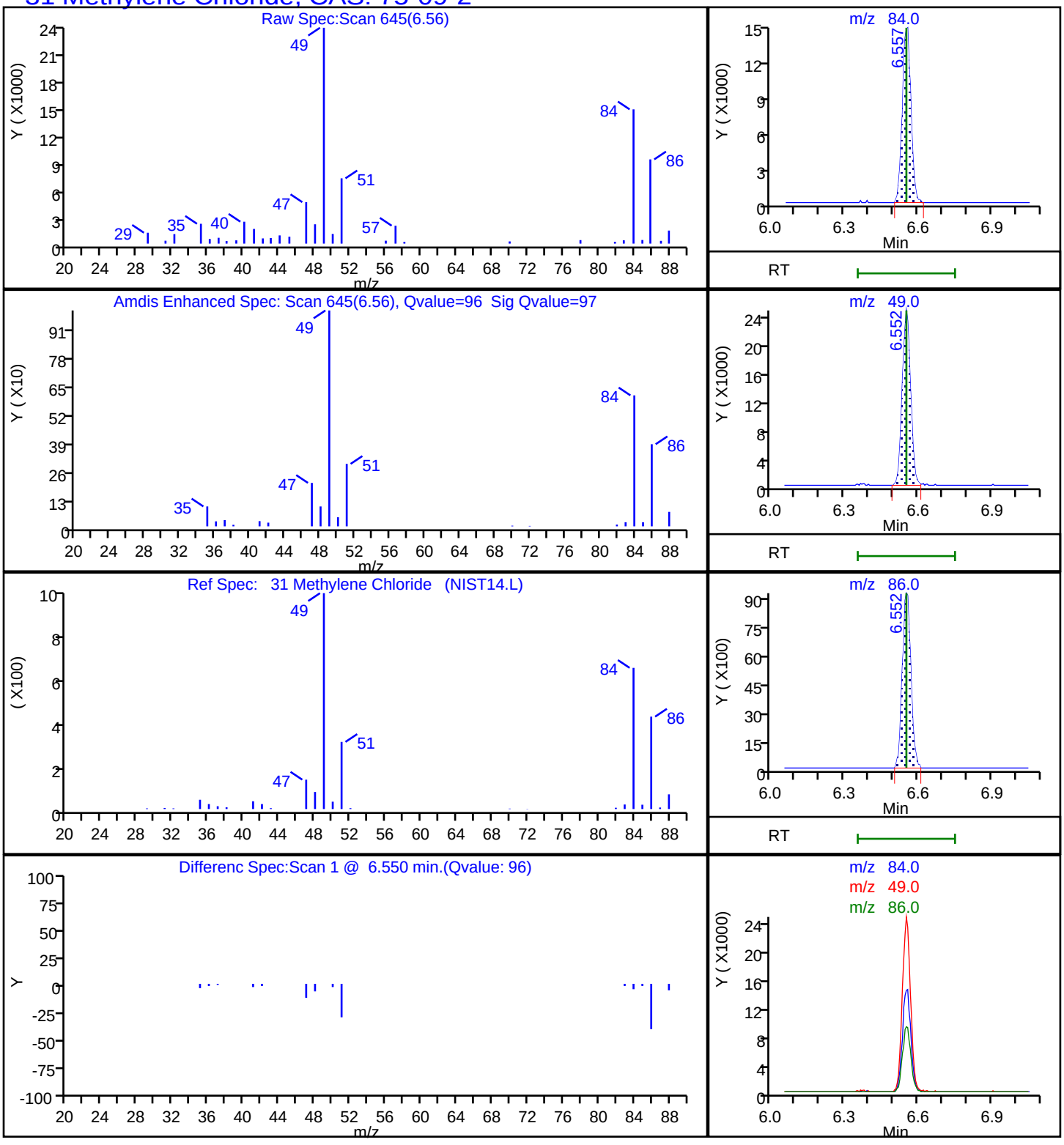
Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



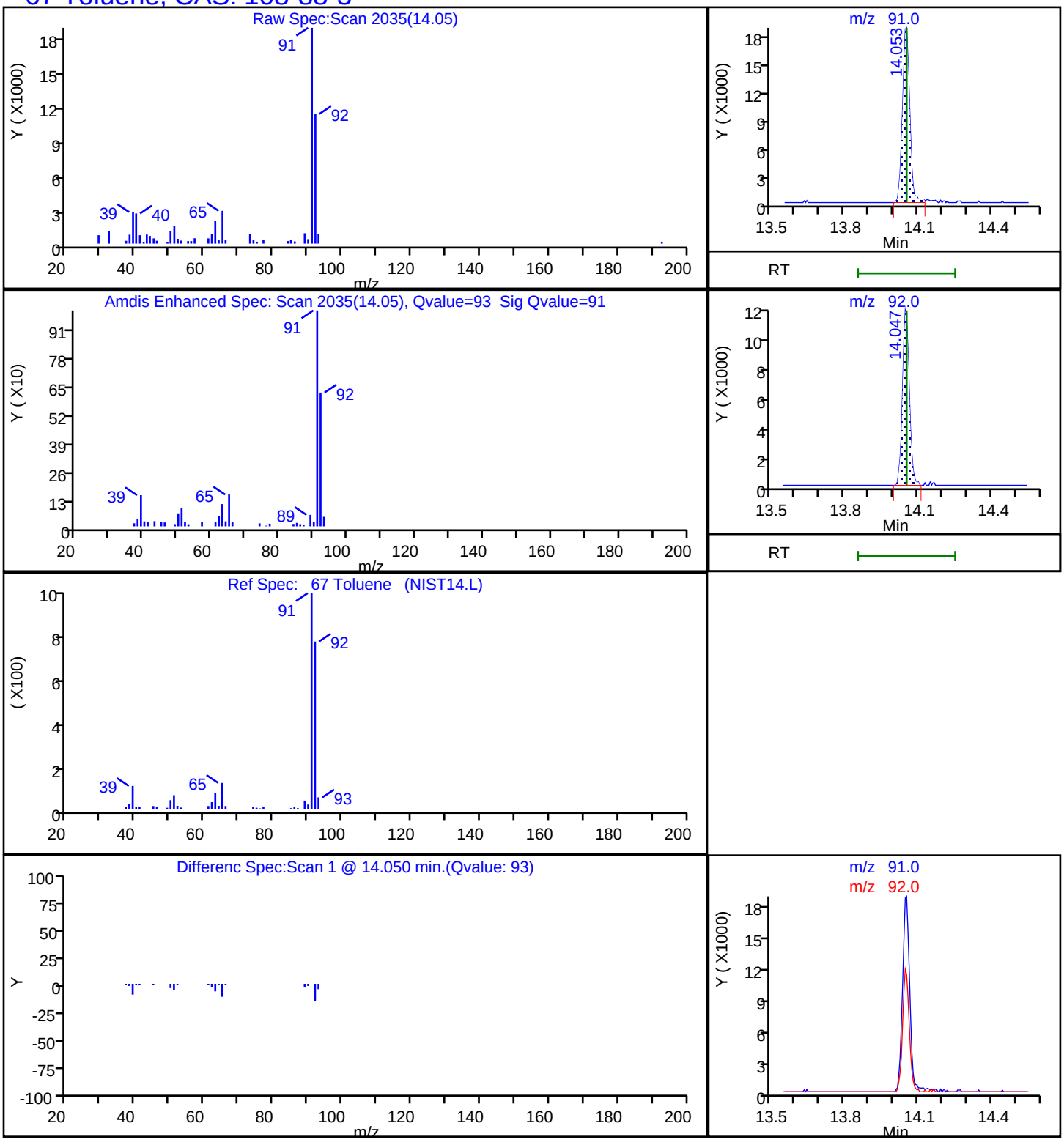
Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

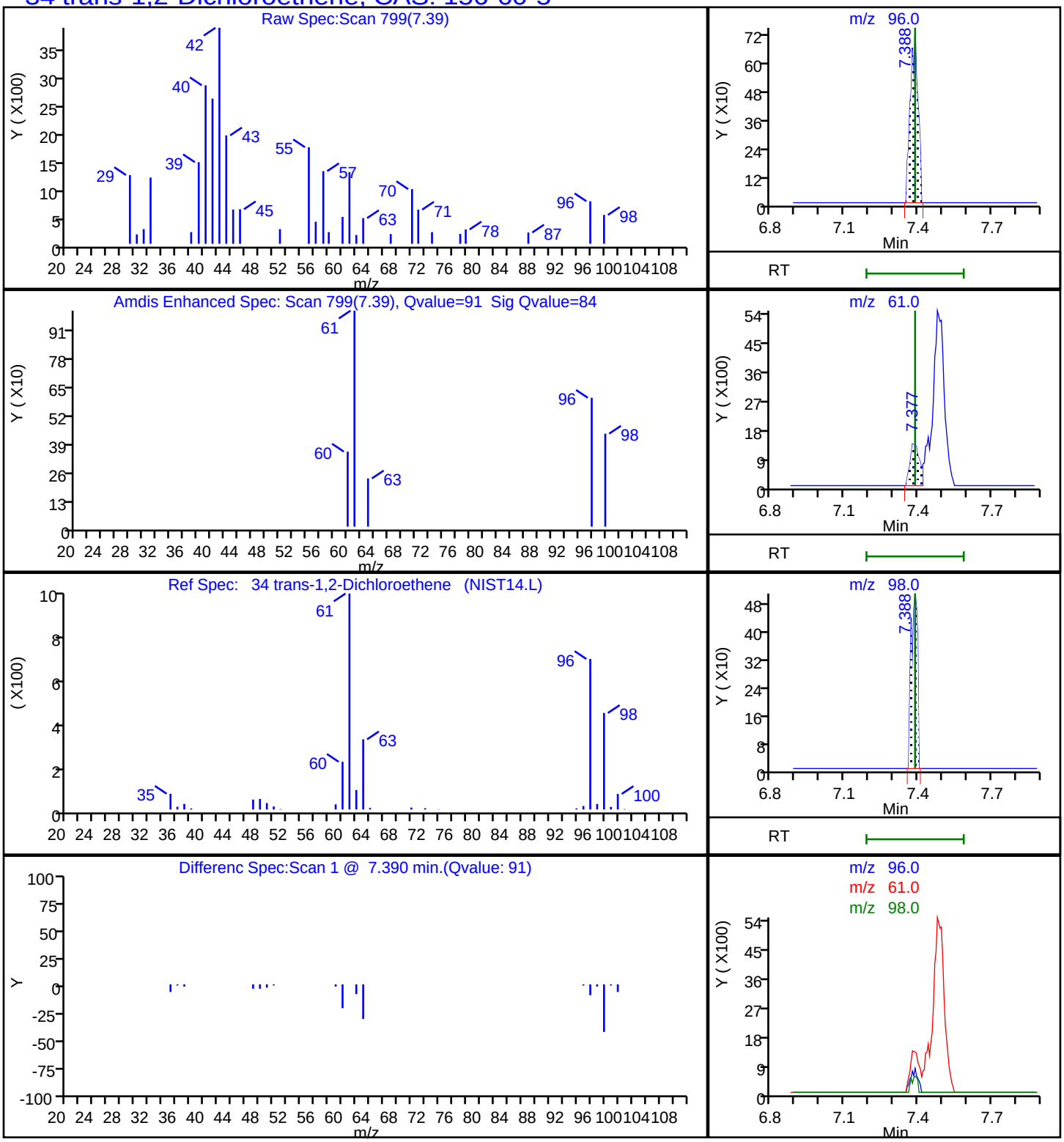
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D				
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date: 13-Jul-2019 01:34:30 Instrument ID: MG

Lims ID: 140-15980-A-5 Lab Sample ID: 140-15980-5

Client ID: C-MIDGAC

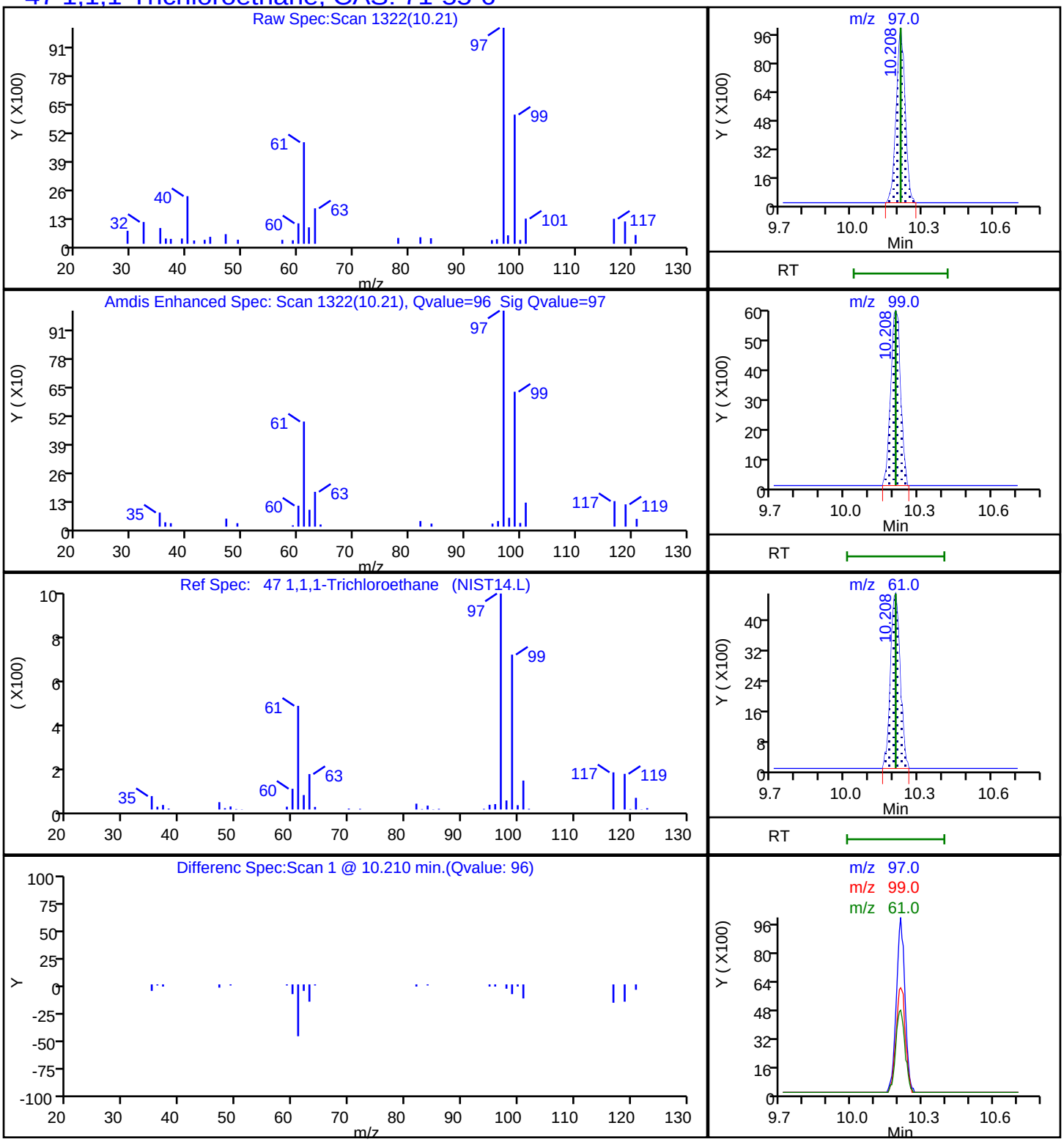
Operator ID: 7126 ALS Bottle#: 15 Worklist Smp#: 21

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date: 13-Jul-2019 01:34:30 Instrument ID: MG

Lims ID: 140-15980-A-5 Lab Sample ID: 140-15980-5

Client ID: C-MIDGAC

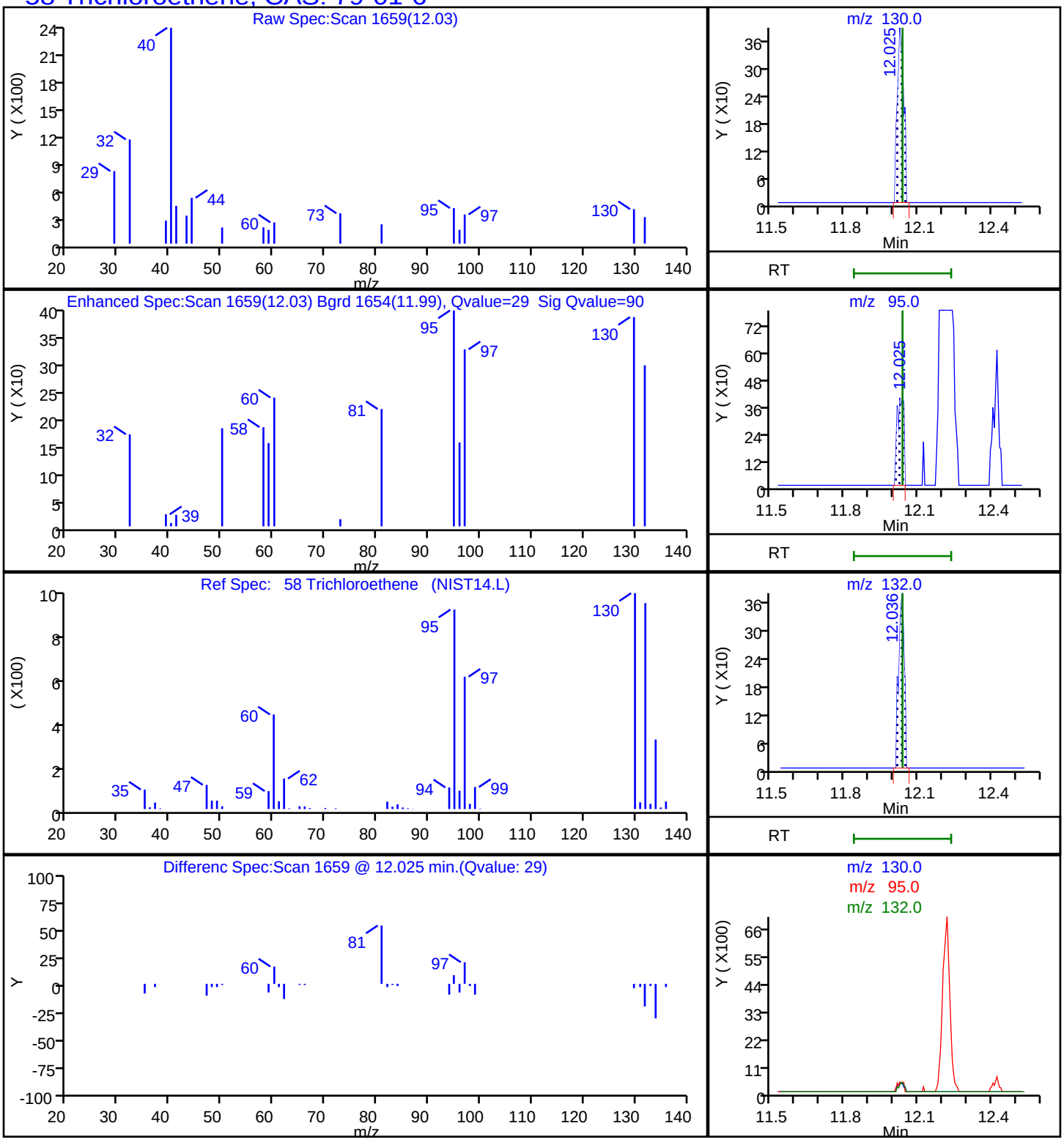
Operator ID: 7126 ALS Bottle#: 15 Worklist Smp#: 21

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

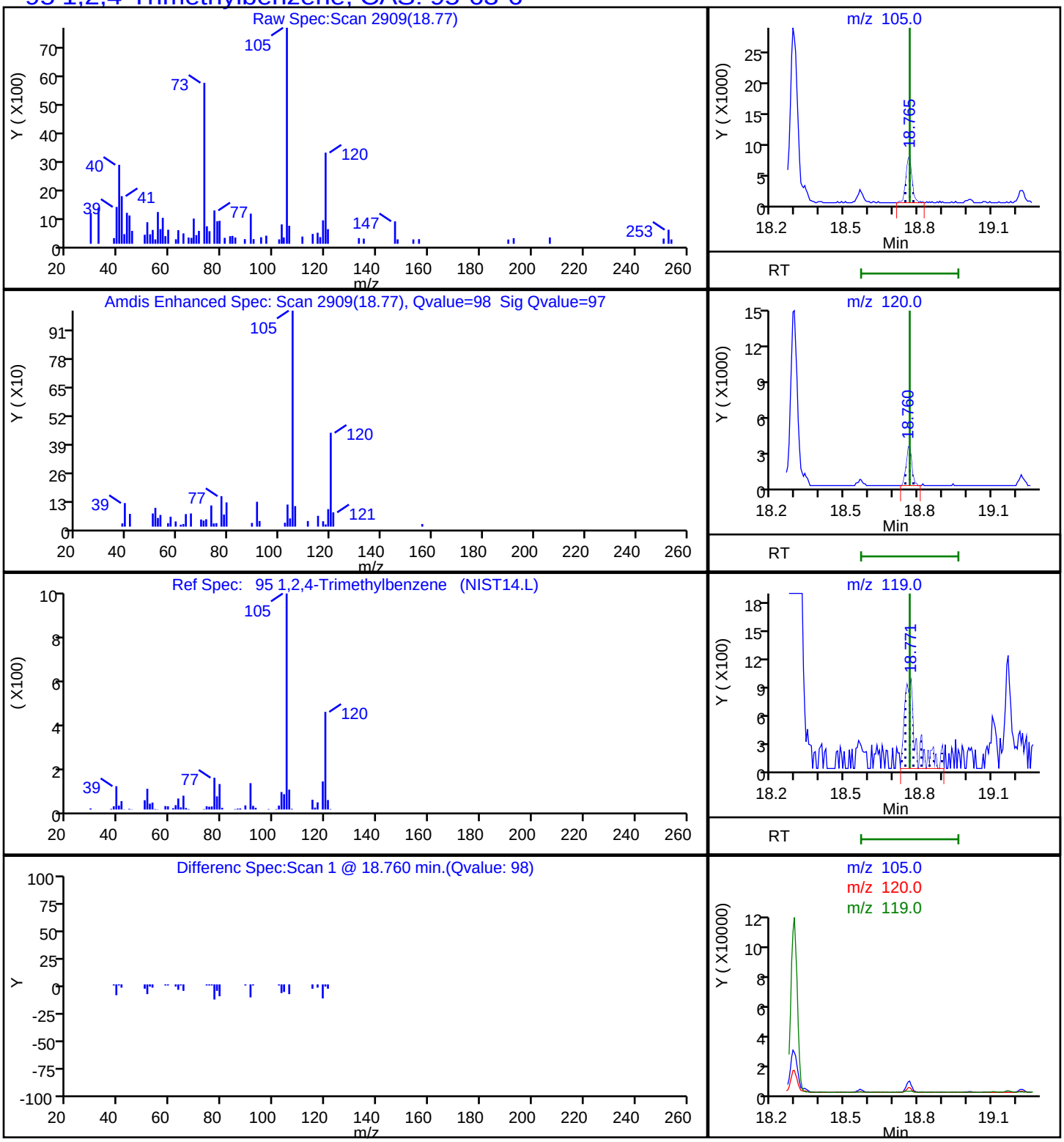
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D		
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

95 1,2,4-Trimethylbenzene, CAS: 95-63-6

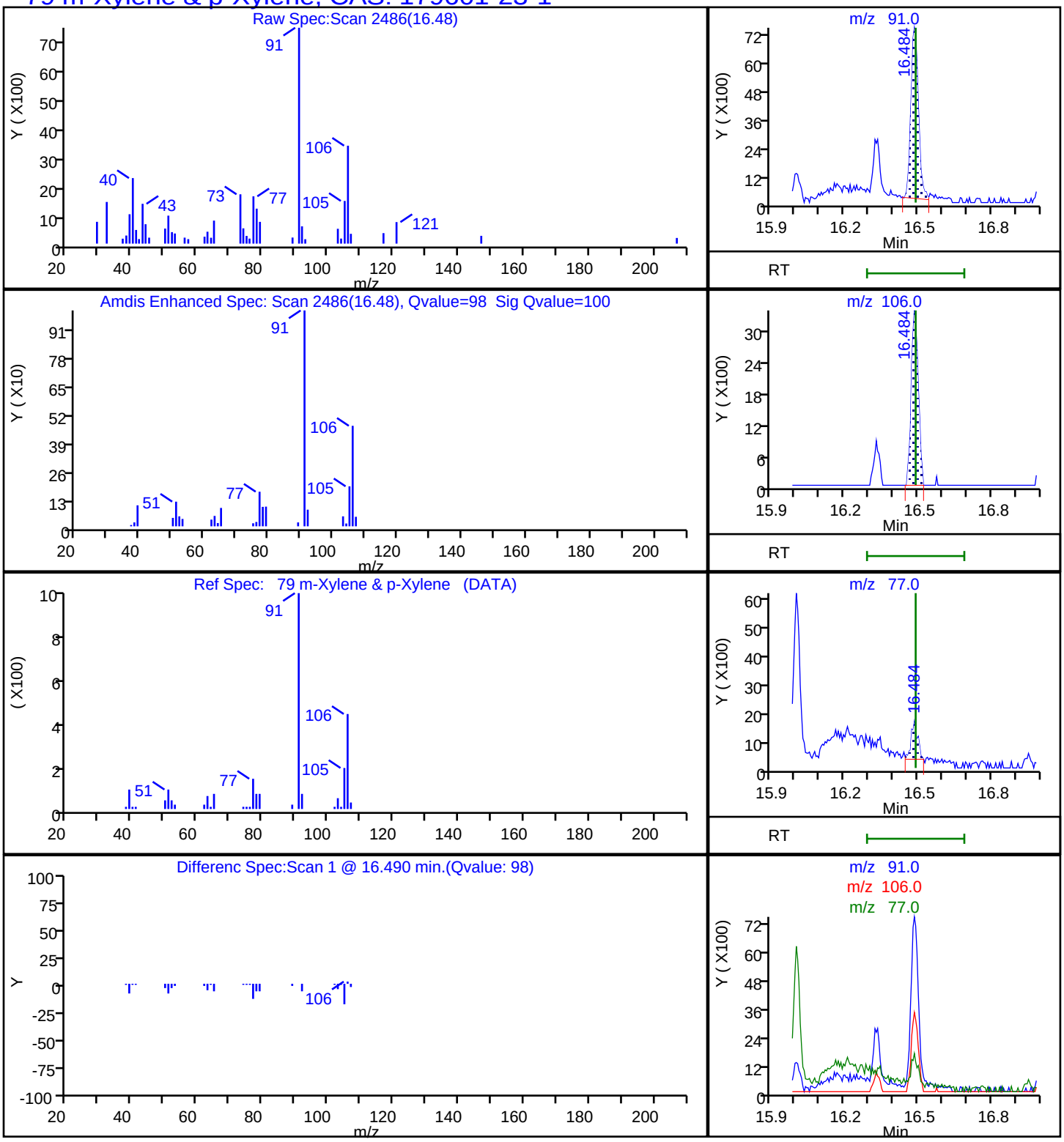


Report Date: 16-Jul-2019 09:51:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D				
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D

Injection Date: 13-Jul-2019 01:34:30 Instrument ID: MG

Lims ID: 140-15980-A-5 Lab Sample ID: 140-15980-5

Client ID: C-MIDGAC

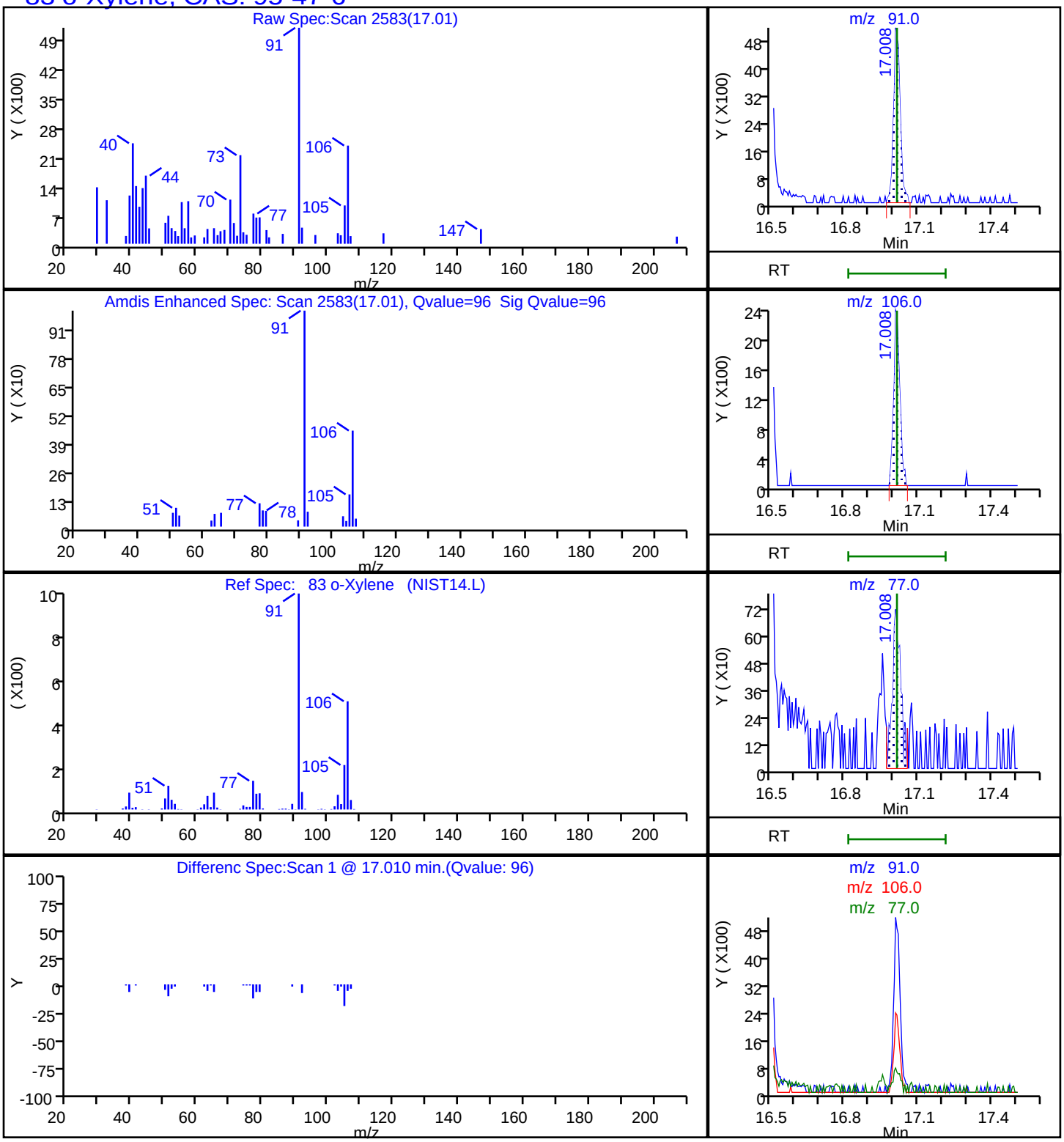
Operator ID: 7126 ALS Bottle#: 15 Worklist Smp#: 21

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

83 o-Xylene, CAS: 95-47-6



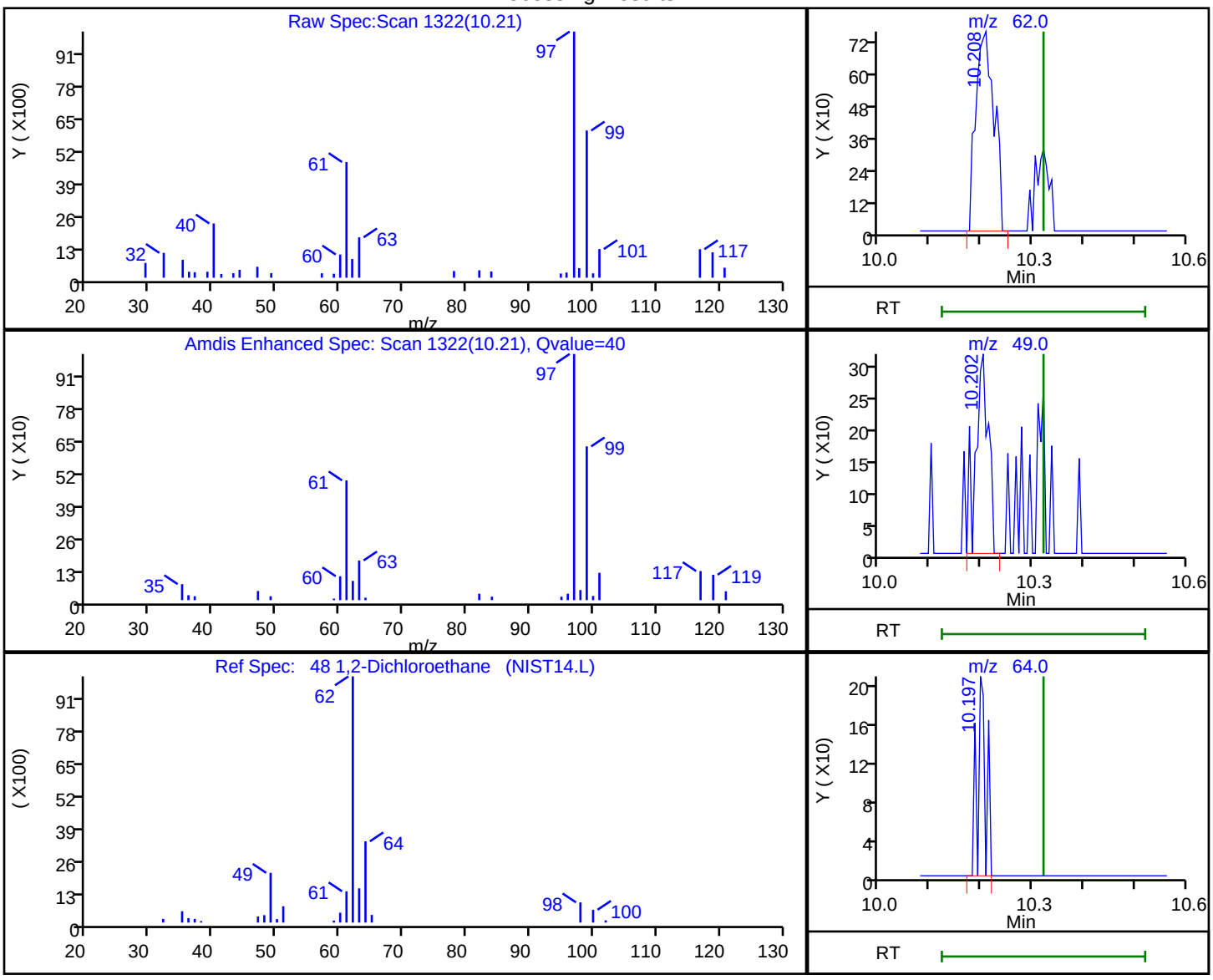
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D				
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG		
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5		
Client ID:	C-MIDGAC				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
10.21	62.00	1887	0.015322
10.20	49.00	543	
10.20	64.00	225	

Reviewer: khachitpongpanits, 16-Jul-2019 09:51:35

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

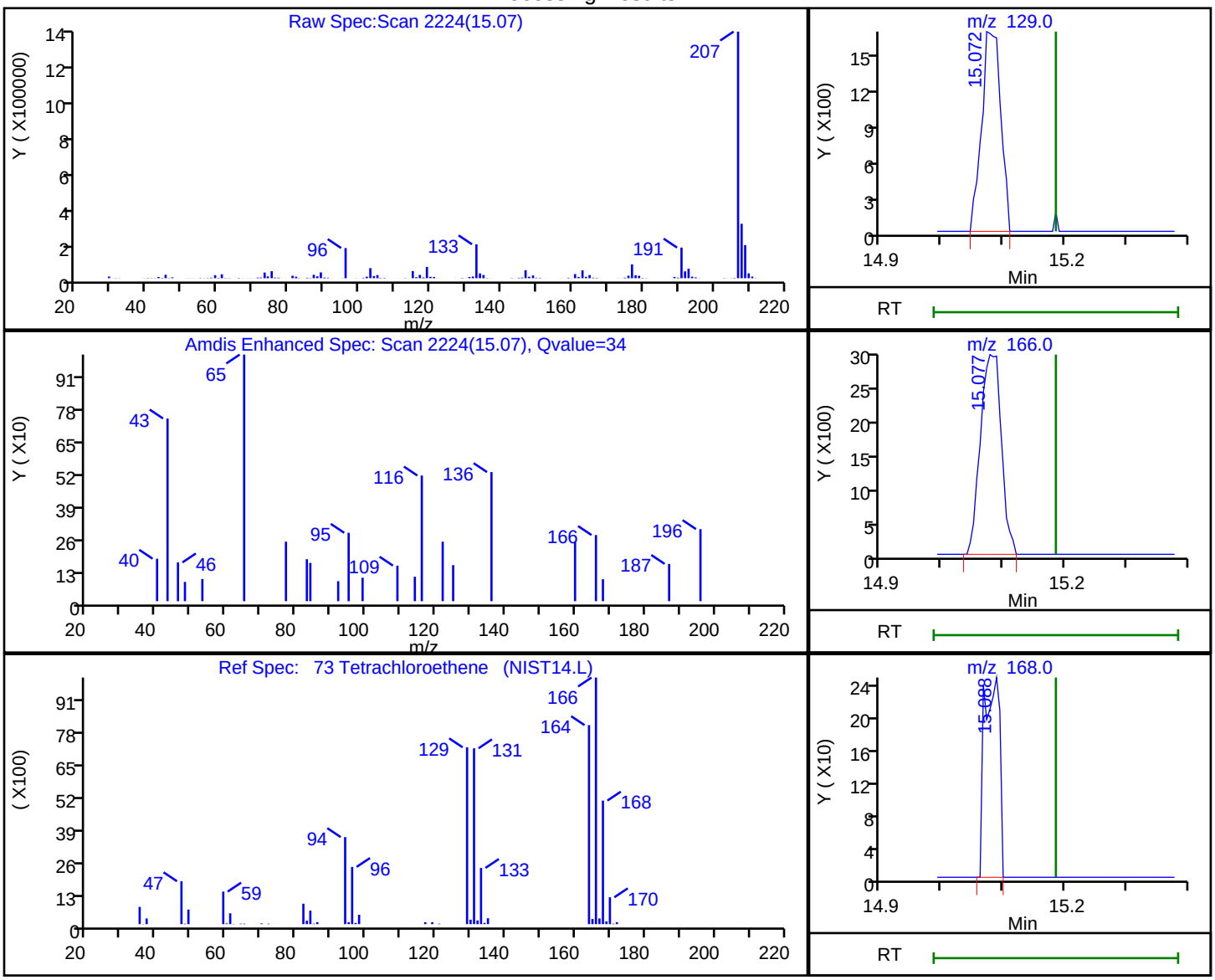
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P115.D		
Injection Date:	13-Jul-2019 01:34:30	Instrument ID:	MG
Lims ID:	140-15980-A-5	Lab Sample ID:	140-15980-5
Client ID:	C-MIDGAC		
Operator ID:	7126	ALS Bottle#:	15 Worklist Smp#: 21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

Processing Results



RT	Mass	Response	Amount
15.07	129.00	3537	0.042498
15.08	166.00	7095	
15.09	168.00	426	

Reviewer: khachitpongpanits, 16-Jul-2019 09:51:13

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-INFLUENT Lab Sample ID: 140-15980-6

Matrix: Air Lab File ID: GG12P116D.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:34

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	3.1		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.097	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.5		0.40	0.11
67-66-3	Chloroform	119.38	0.21	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.81		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.54		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.15	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.8		2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.15	J	0.40	0.035
108-88-3	Toluene	92.14	1.6		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.090	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	6.8		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.90		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.39	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.68	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: C-INFLUENT Lab Sample ID: 140-15980-6

Matrix: Air Lab File ID: GG12P116D.D

Analysis Method: TO 15 LL Date Collected: 07/11/2019 13:34

Sample wt/vol: 100(mL) Date Analyzed: 07/13/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	10		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.61	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.3		1.4	0.39
67-66-3	Chloroform	119.38	1.0	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	3.2		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.66	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	9.9		6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	1.0	J	2.7	0.24
108-88-3	Toluene	92.14	6.1		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.36	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	36		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	4.4		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	1.9	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D
Lims ID: 140-15980-A-6
Client ID: C-INFLUENT
Sample Type: Client
Inject. Date: 13-Jul-2019 02:19:30 ALS Bottle#: 16 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-022
Misc. Info.: 140-15980-a-6
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 14:12:57 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 14:14:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	95	241511	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	97	1411391	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	16.005	-0.006	95	1285895	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	75	944986	3.92	
6 Chlorodifluoromethane	51	3.823	3.829	-0.006	96	44555	0.3003	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.005	100	26023	0.1073	
31 Methylene Chloride	84	6.557	6.552	0.005	97	54554	0.5694	
34 trans-1,2-Dichloroethene	96	7.377	7.388	-0.011	13	1423	0.0180	
42 cis-1,2-Dichloroethene	96	8.822	8.817	0.000	98	13488	0.1615	
44 Chloroform	83	9.167	9.167	-0.005	72	7765	0.0414	
50 Benzene	78	10.796	10.801	-0.005	97	159719	0.6283	
52 Carbon tetrachloride	117	10.822	10.817	-0.001	96	3413	0.0193	
58 Trichloroethene	130	12.030	12.030	-0.006	91	140766	1.35	
67 Toluene	91	14.053	14.053	-0.001	93	91748	0.3232	
73 Tetrachloroethene	129	15.180	15.180	-0.005	84	3125	0.0299	
78 Ethylbenzene	91	16.328	16.334	-0.006	98	10766	0.0302	
79 m-Xylene & p-Xylene	91	16.490	16.490	0.000	99	23797	0.0874	
83 o-Xylene	91	17.013	17.013	0.000	96	14116	0.0488	
90 1,3,5-Trimethylbenzene	120	18.334	18.334	0.000	91	11318	0.0779	
95 1,2,4-Trimethylbenzene	105	18.760	18.766	-0.005	99	54809	0.1790	
S 124 Xylenes, Total	100				0		0.1362	

Reagents:

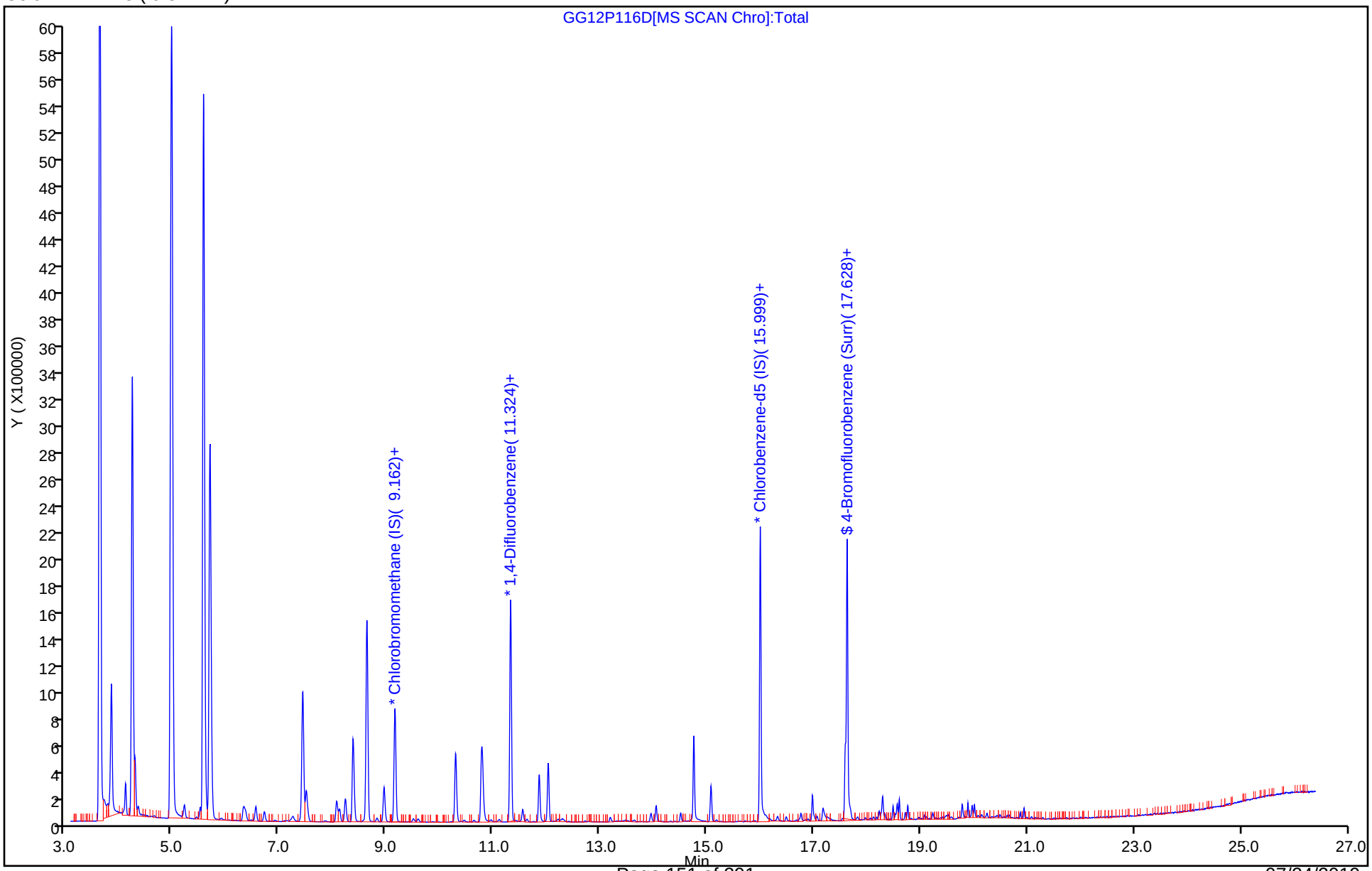
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 15-Jul-2019 14:16:13 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6	Worklist Smp#:	22
Client ID:	C-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

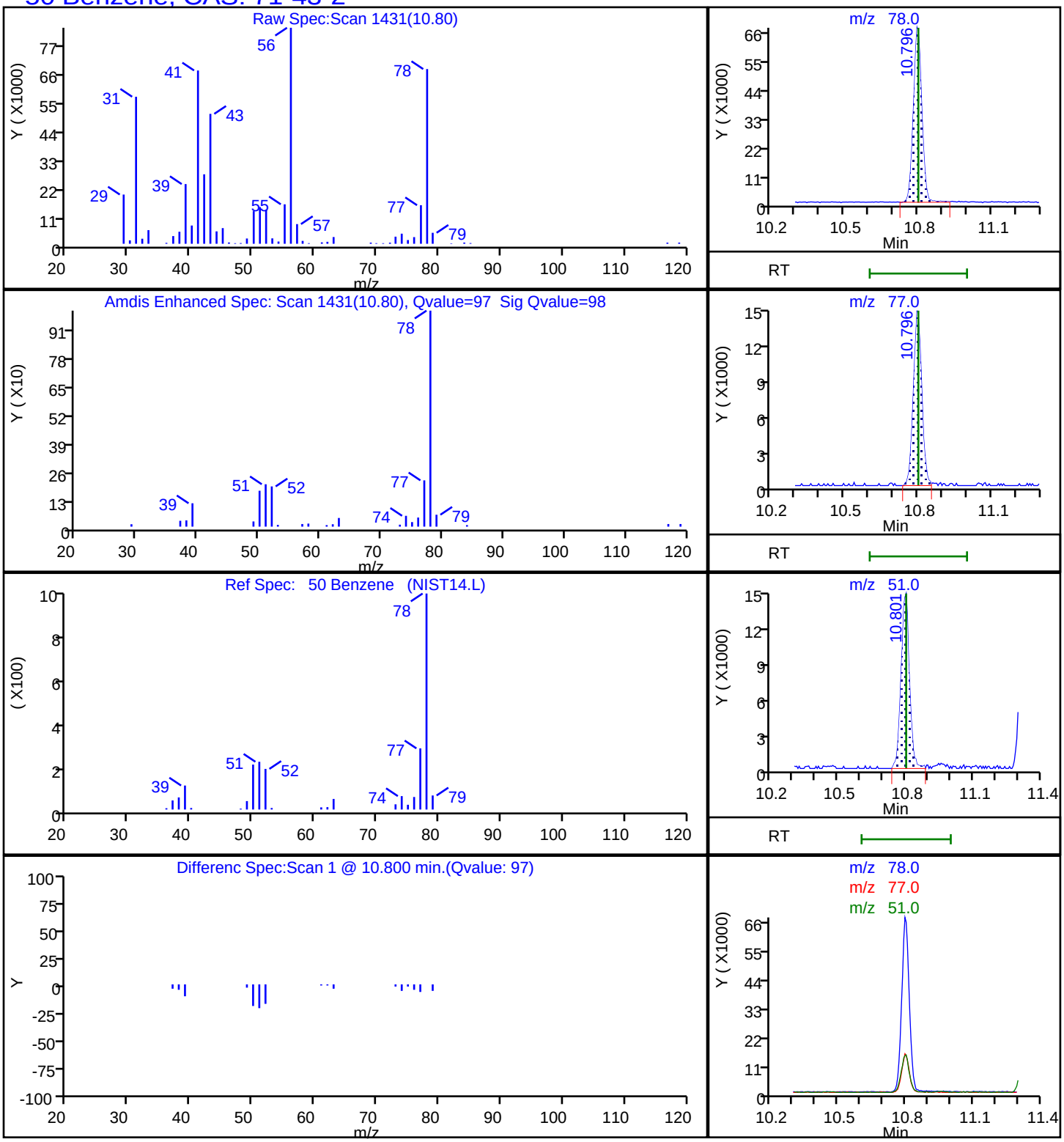
Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
Lims ID:	140-15980-A-6				
Client ID:	C-INFLUENT				
Sample Type:	Client				
Inject. Date:	13-Jul-2019 02:19:30	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-022				
Misc. Info.:	140-15980-a-6				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 14:12:57	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				
First Level Reviewer: khachitpongpanits		Date:	15-Jul-2019 14:14:02		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.92	97.92

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG		
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
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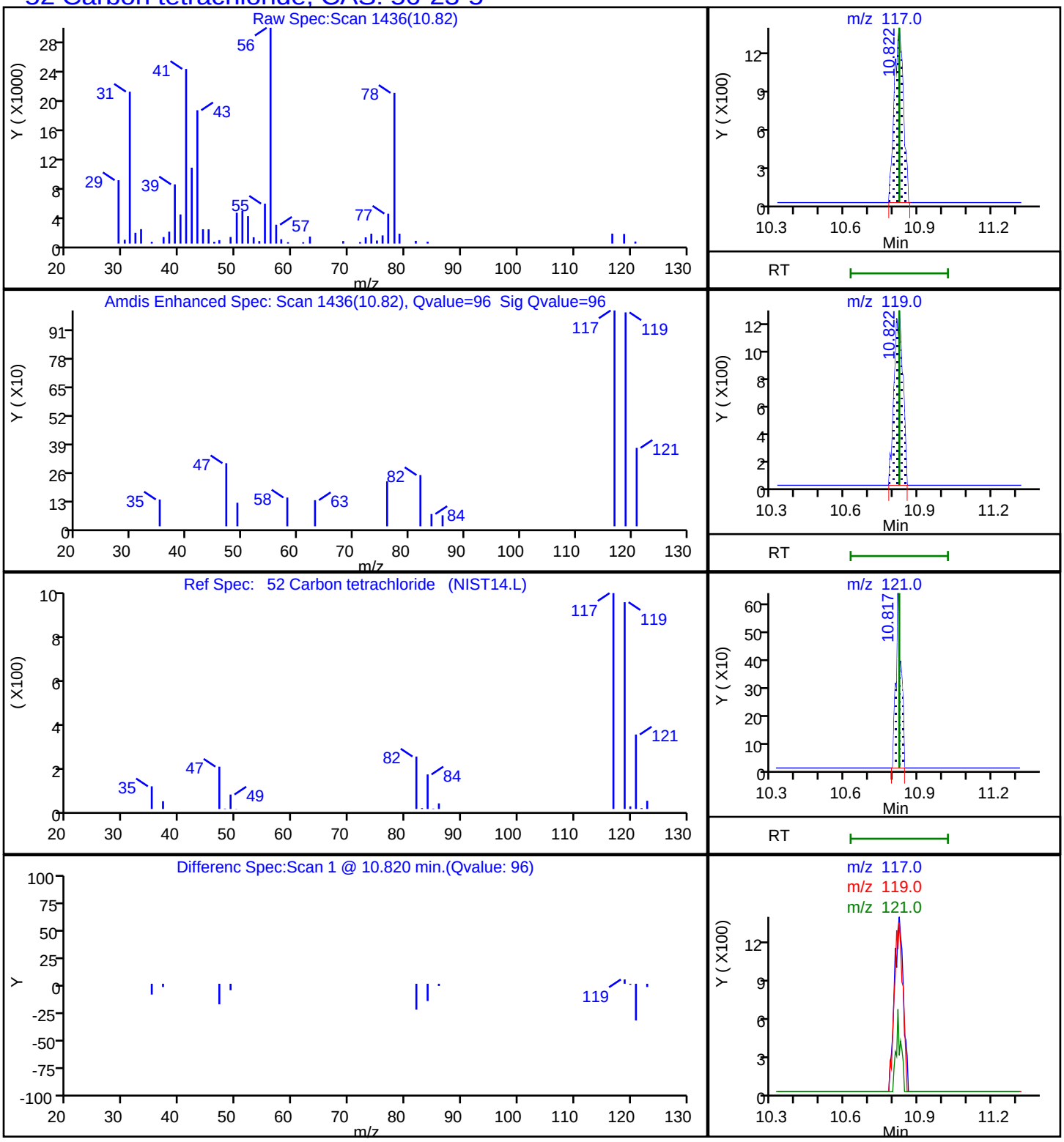
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
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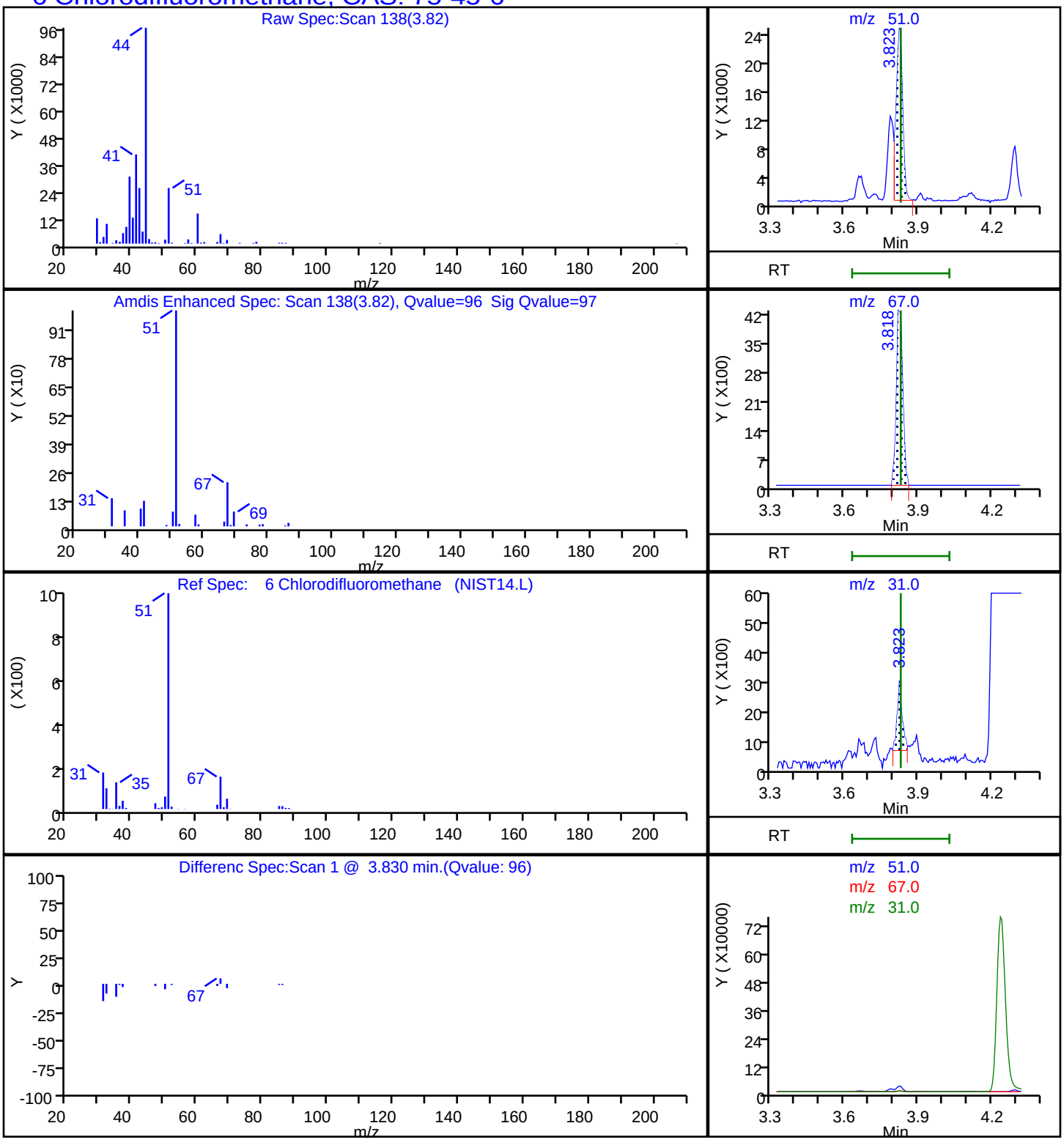
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

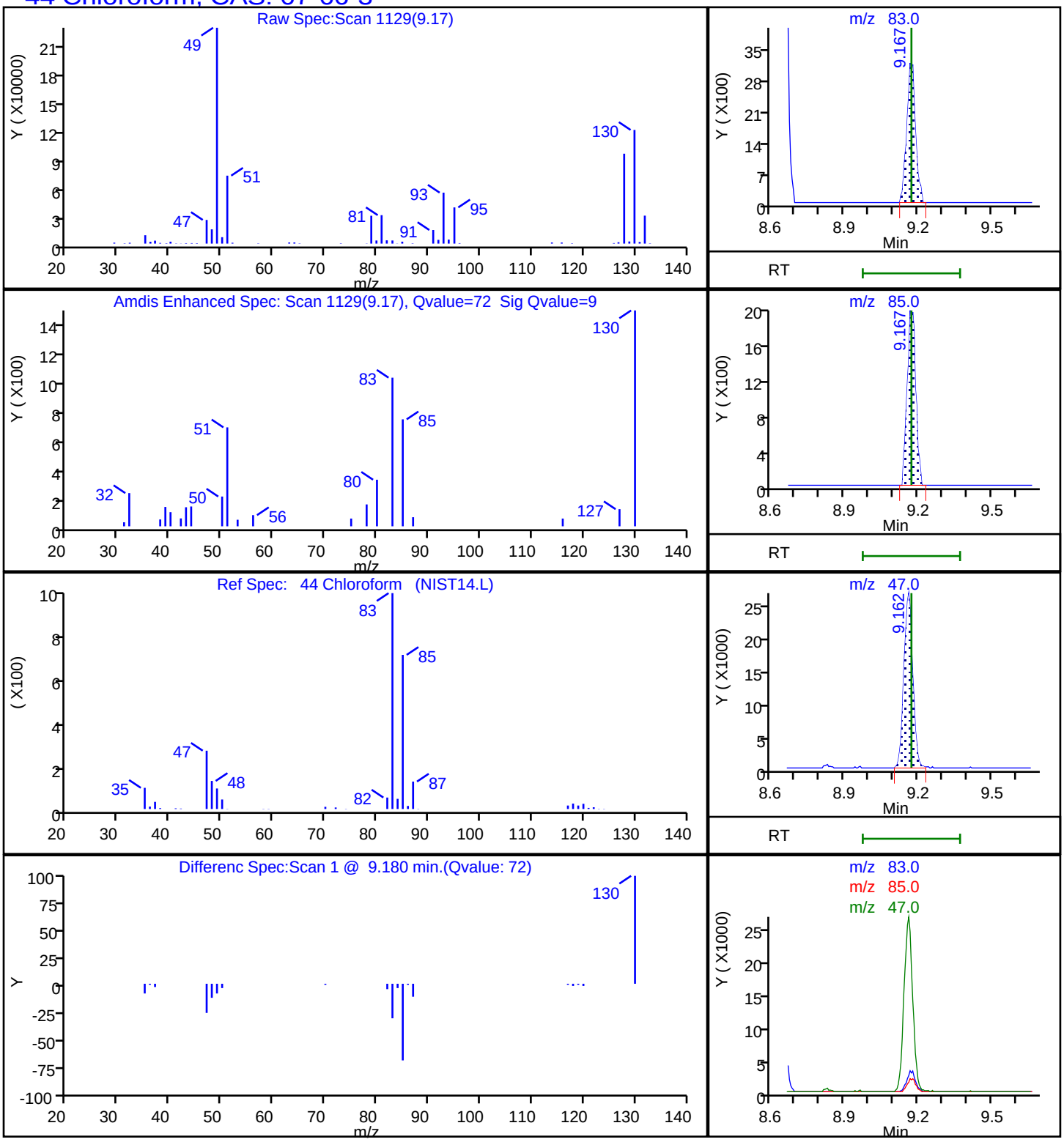
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D
Injection Date: 13-Jul-2019 02:19:30 Instrument ID: MG
Lims ID: 140-15980-A-6 Lab Sample ID: 140-15980-6
Client ID: C-INFLUENT
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
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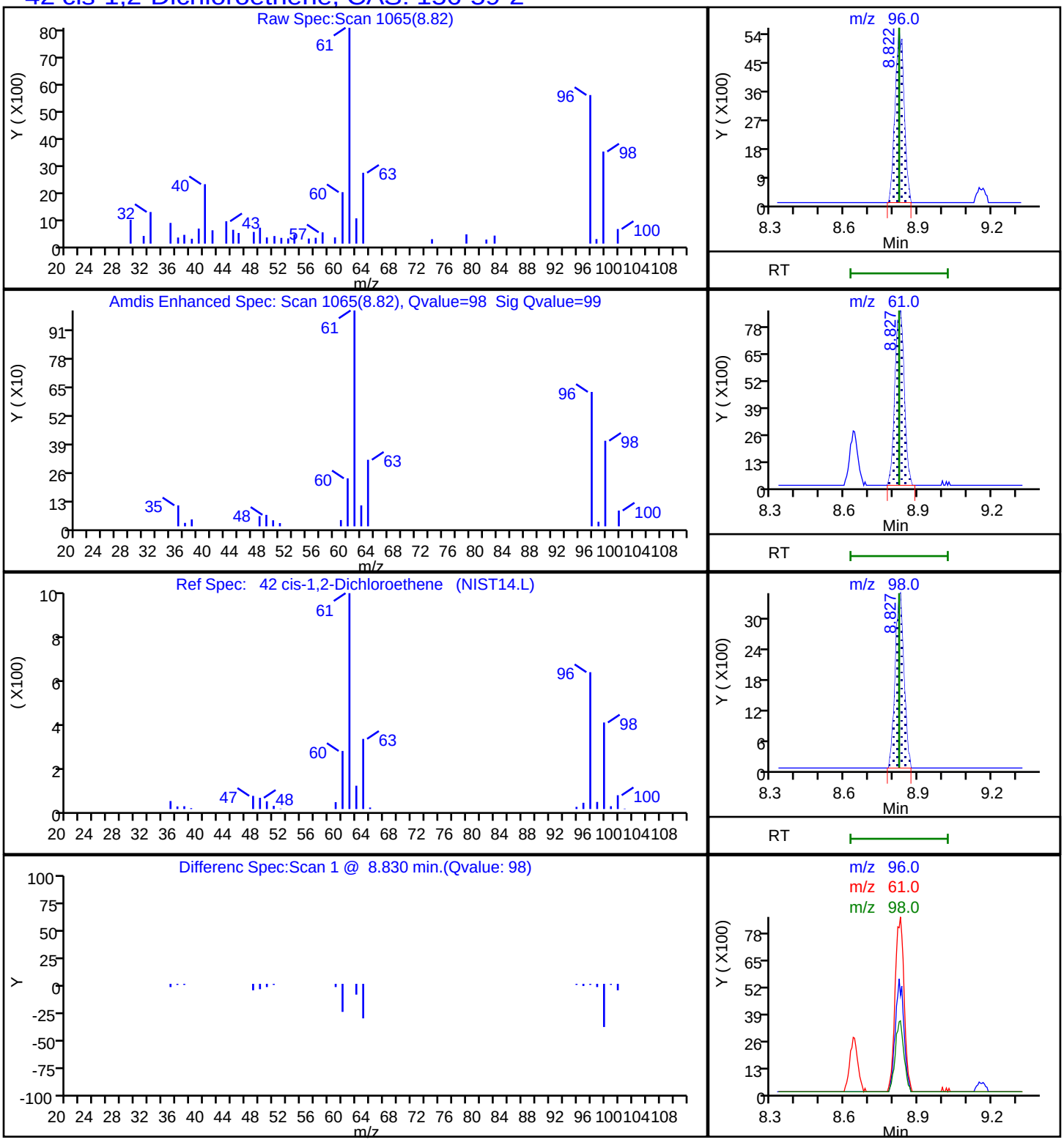
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
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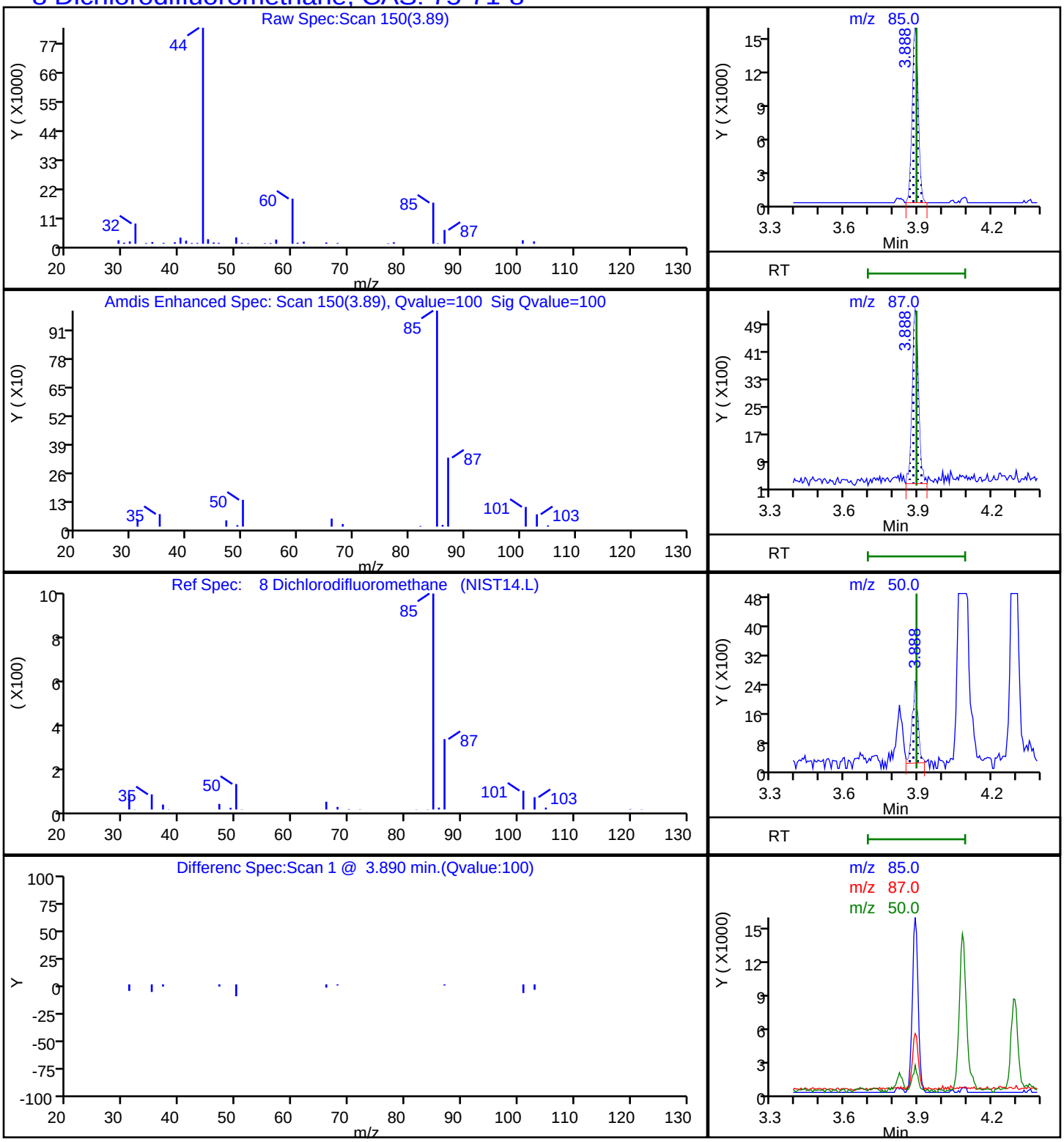
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

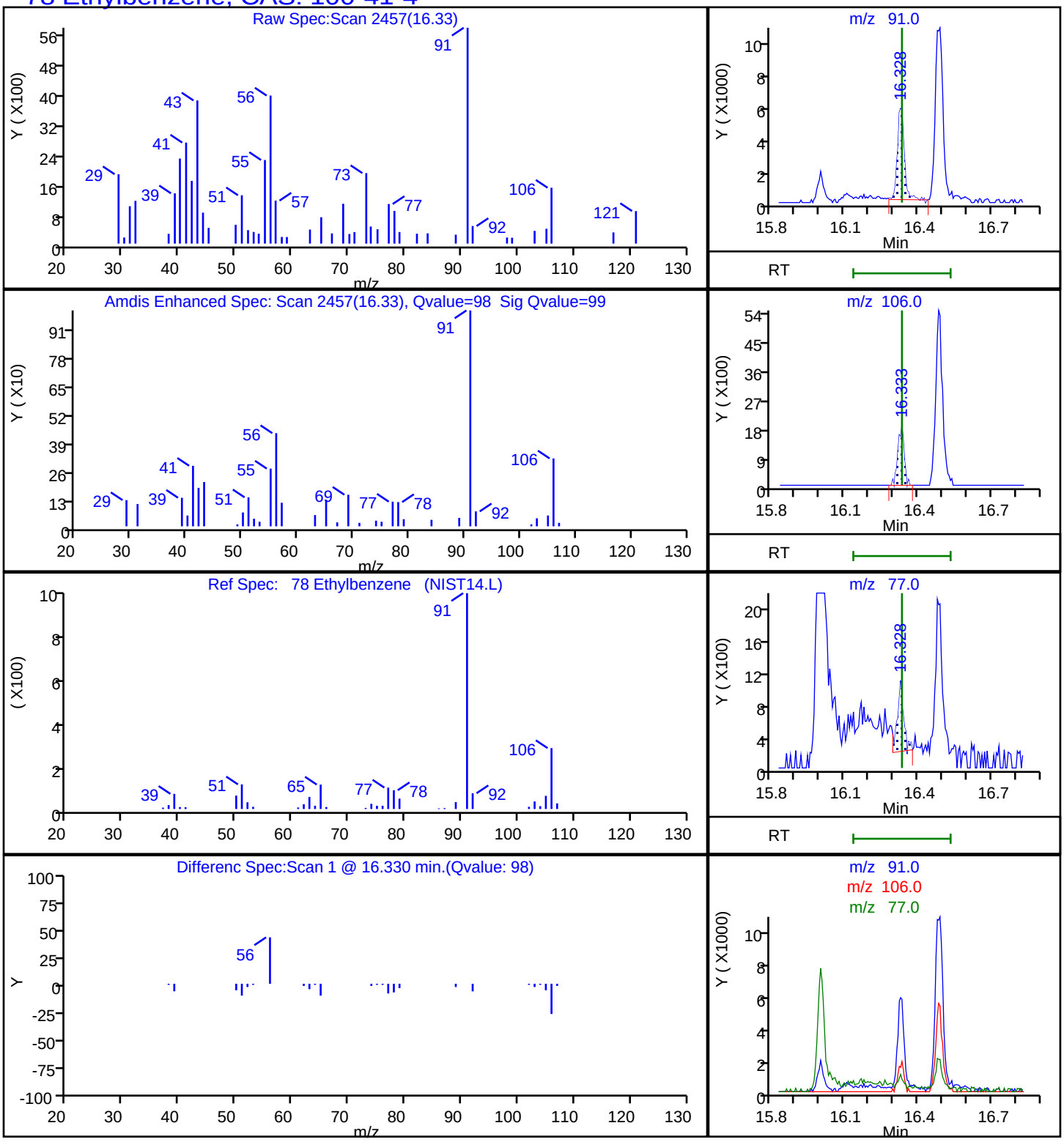
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D		
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6
Client ID:	C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	16 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



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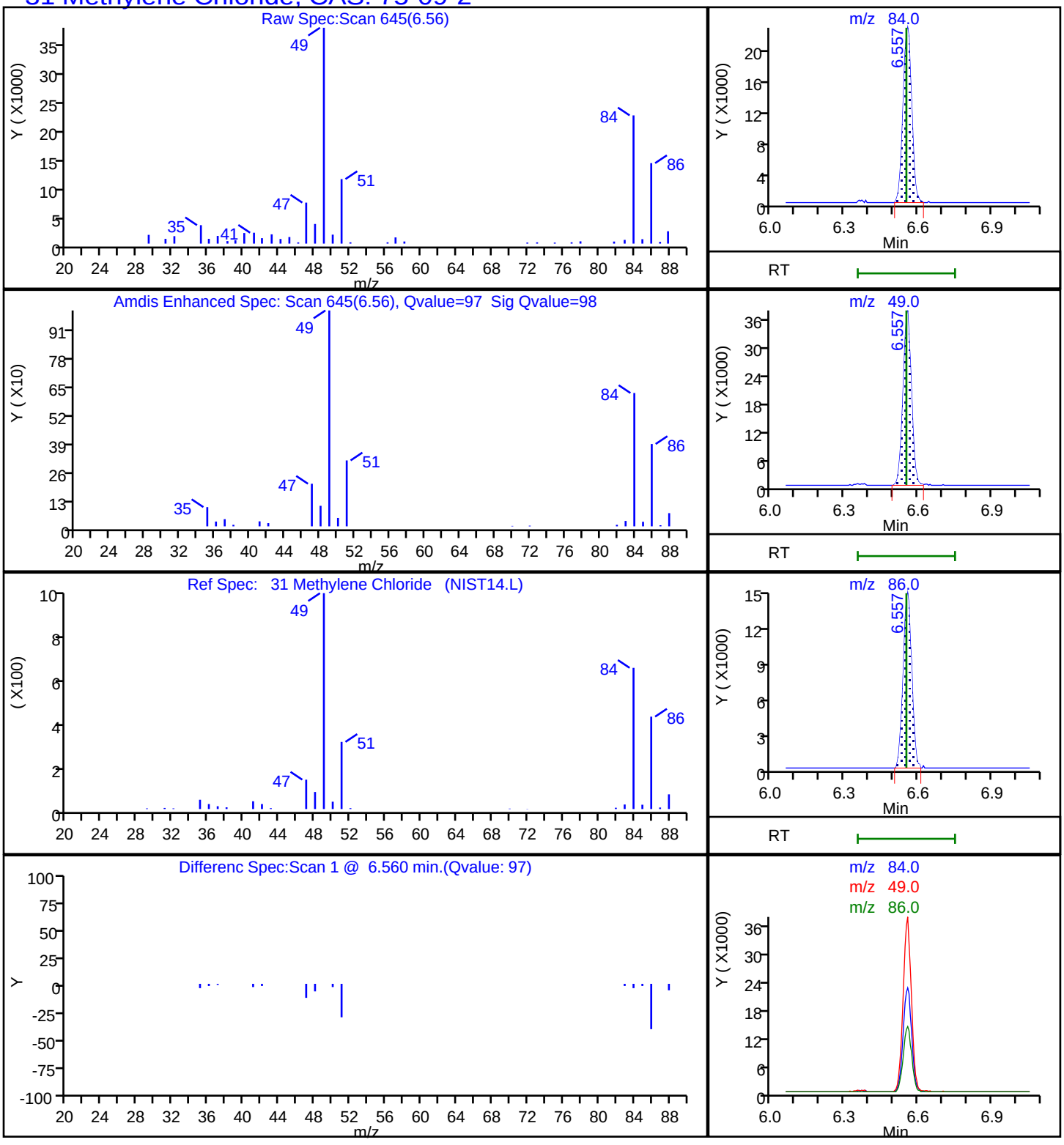
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6
Client ID:	C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	16 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



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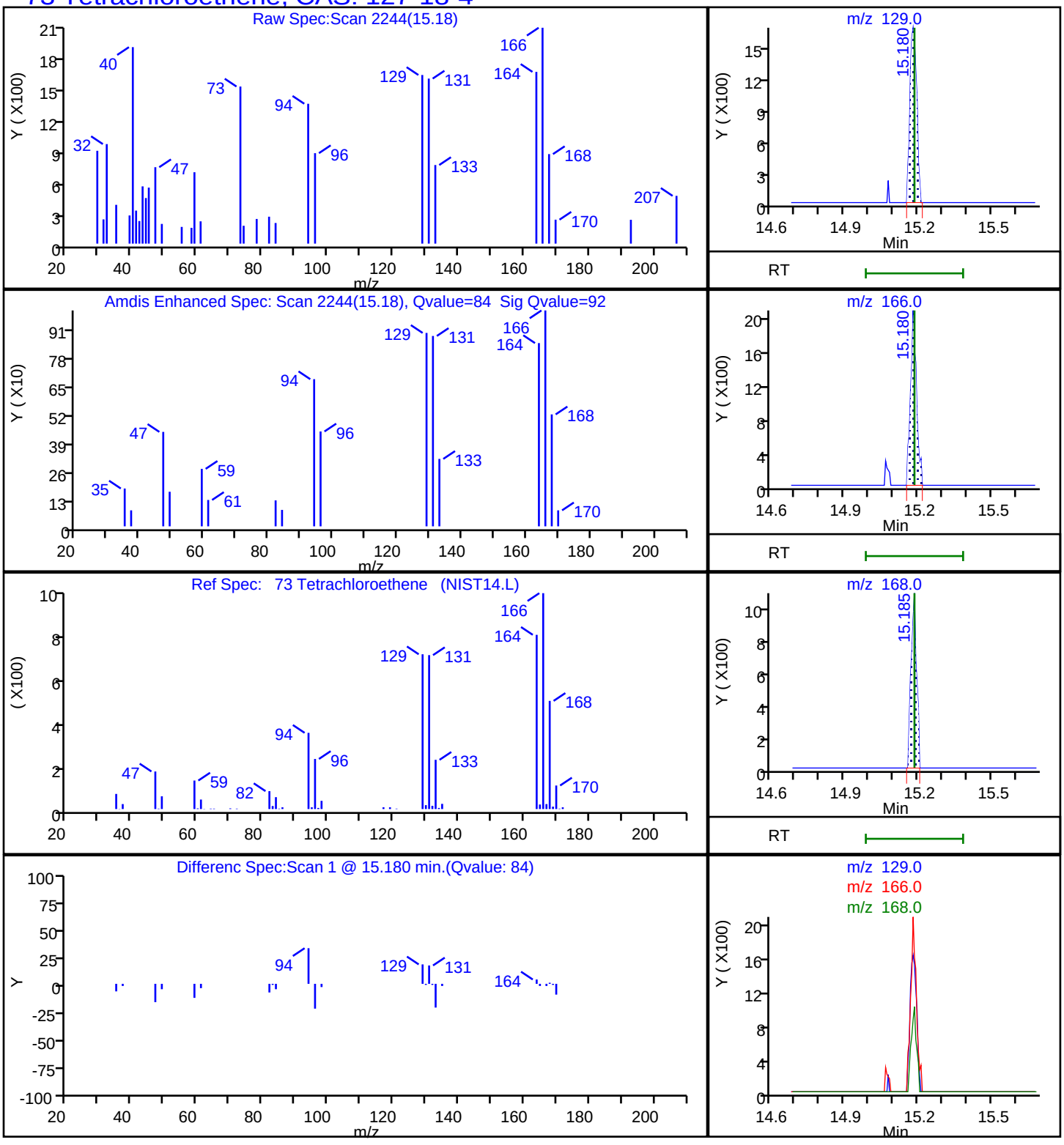
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6
Client ID:	C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	16 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4



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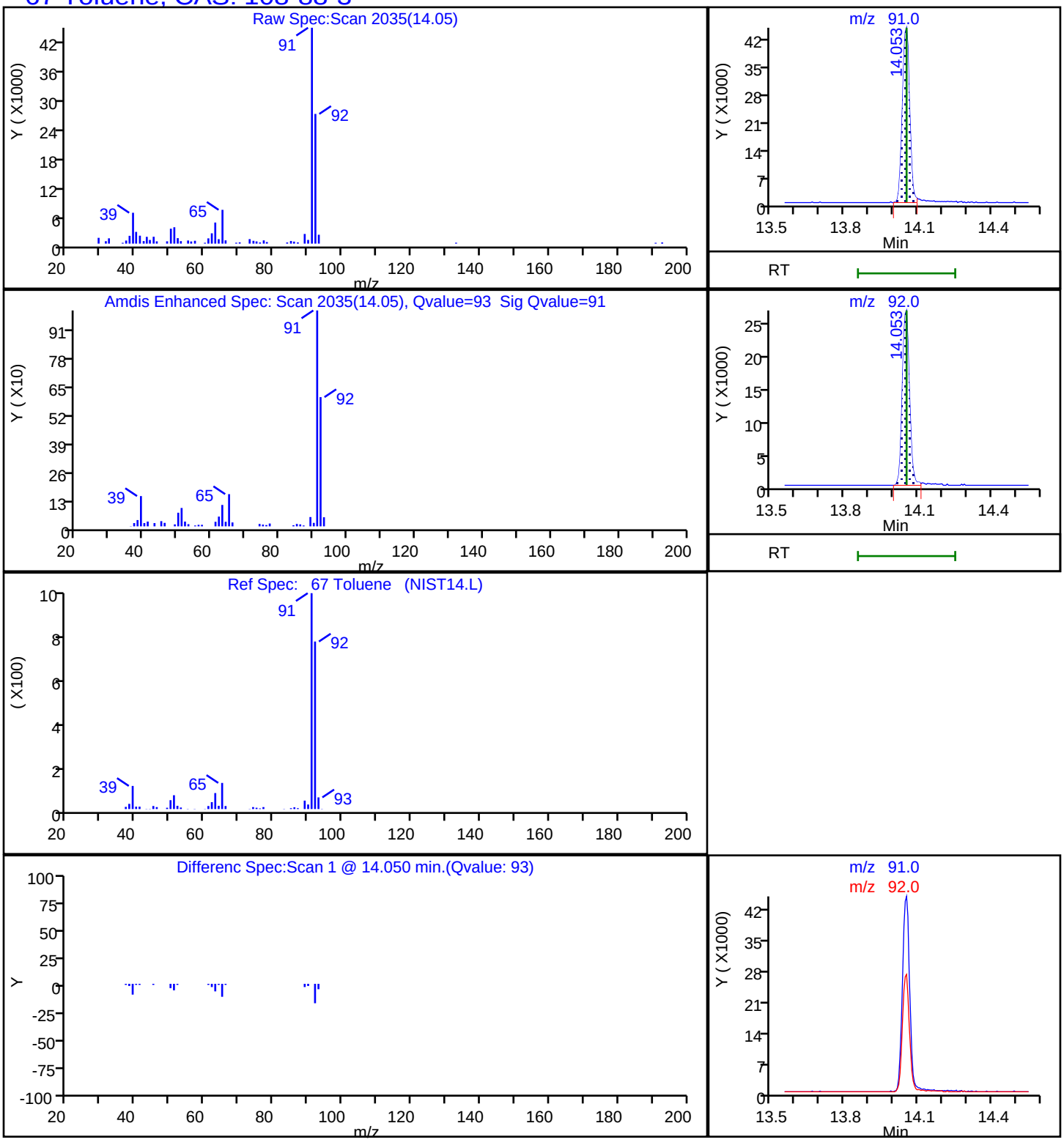
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG		
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

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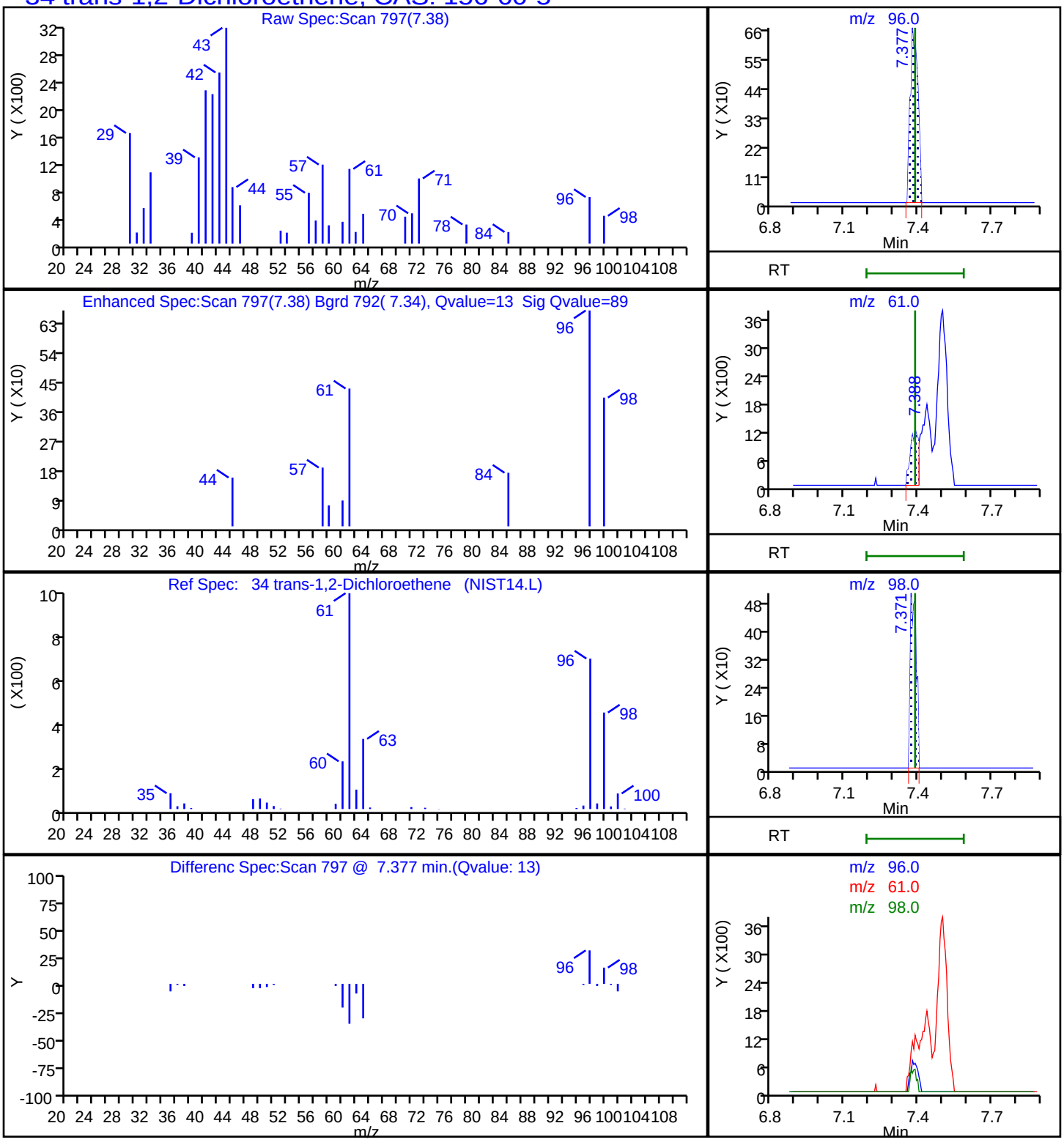
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG		
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



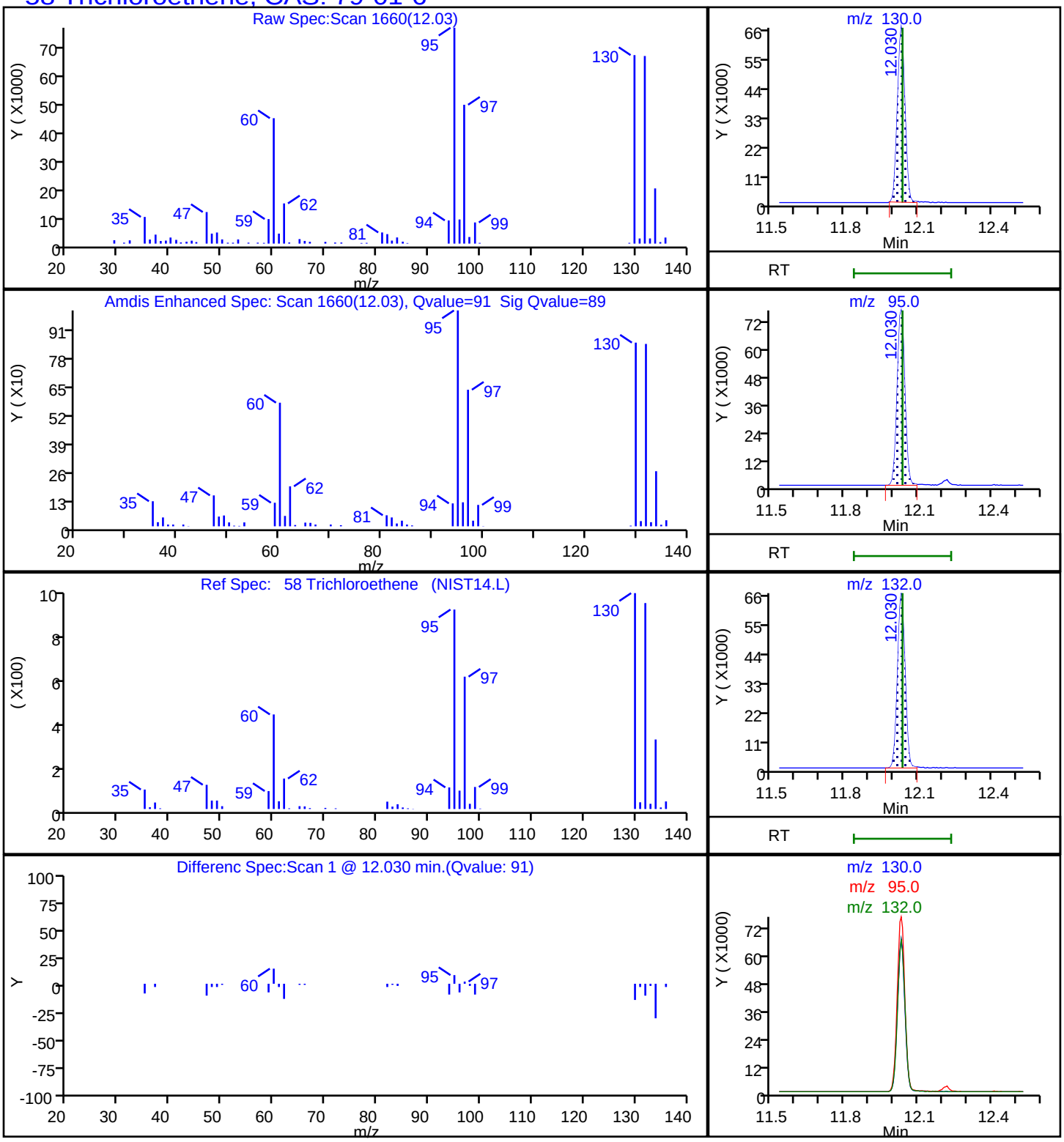
Report Date: 15-Jul-2019 14:16:13 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D

Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6
Client ID:	C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	16 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



Report Date: 15-Jul-2019 14:16:14 Chrom Revision: 2.3 20-Jun-2019 20:50:56

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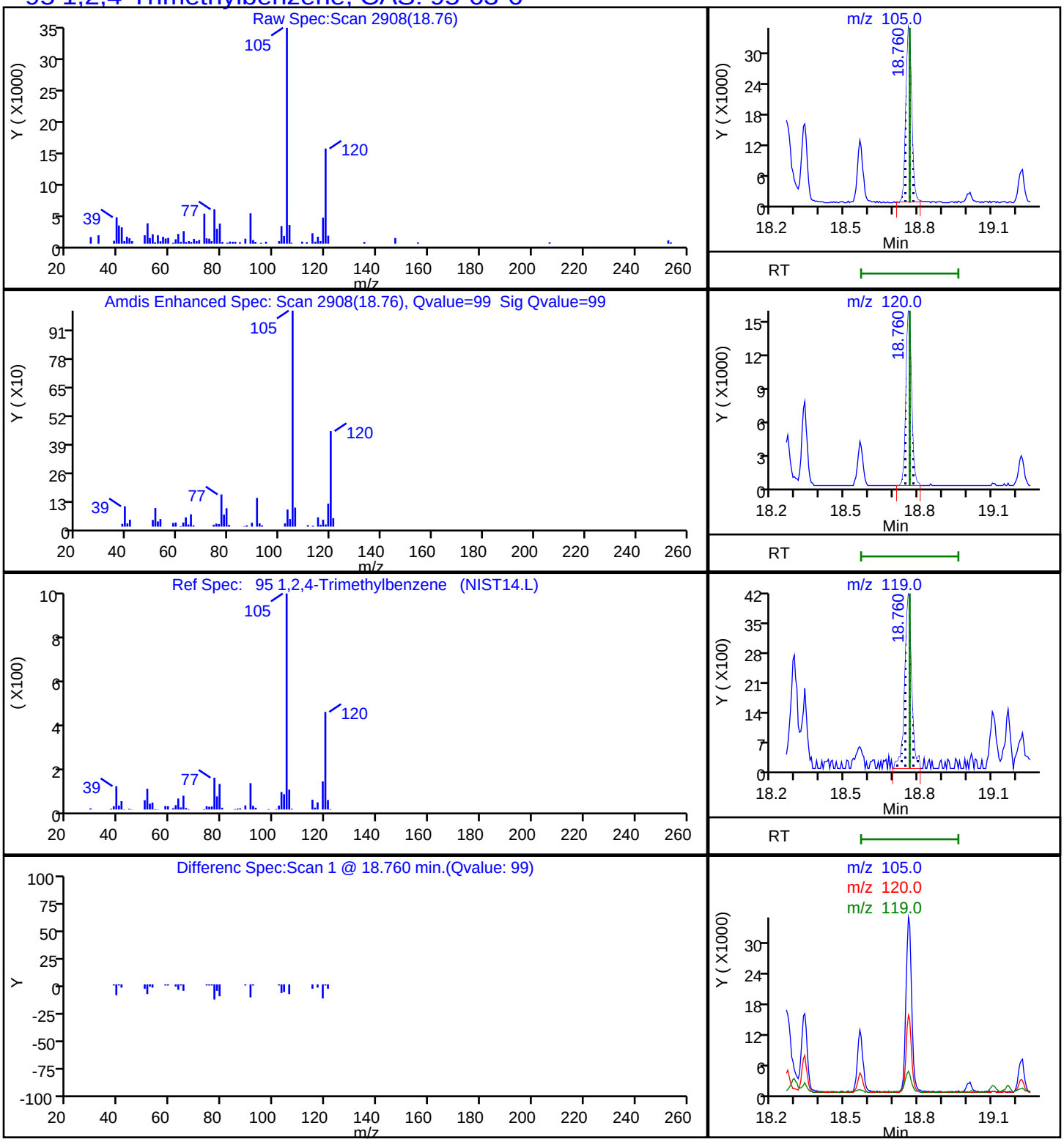
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

95 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
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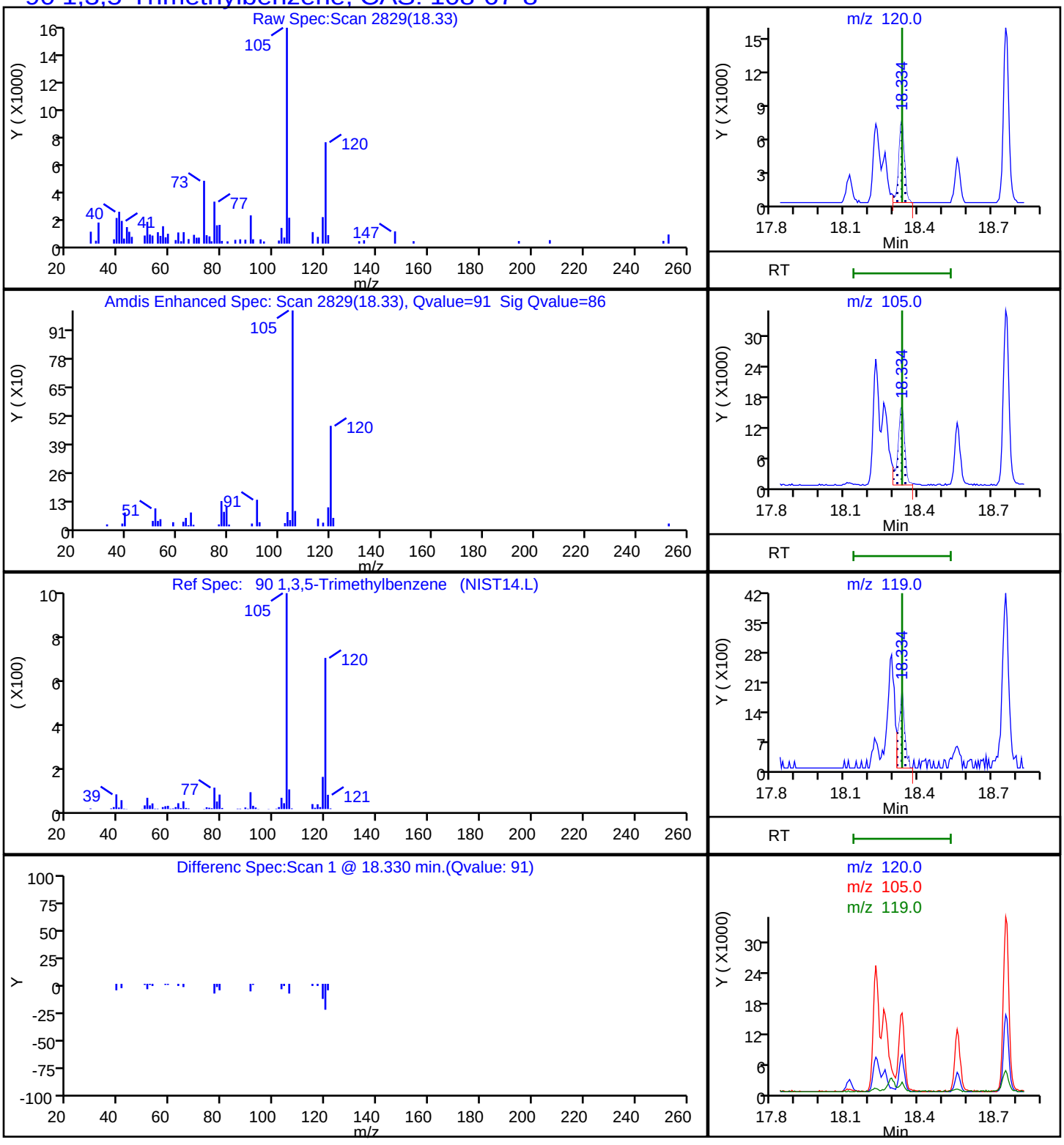
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

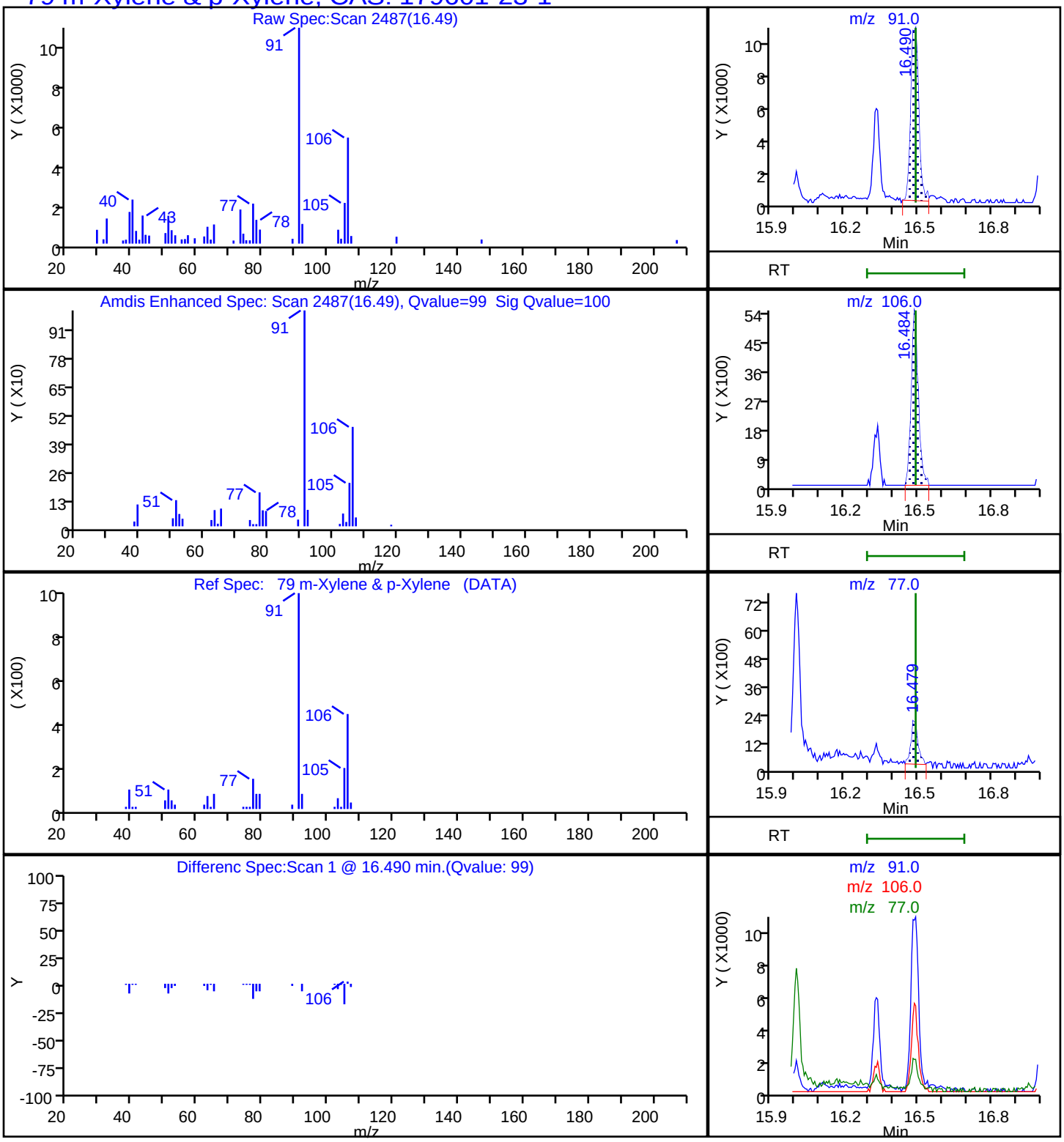
90 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D				
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG		
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6		
Client ID:	C-INFLUENT				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

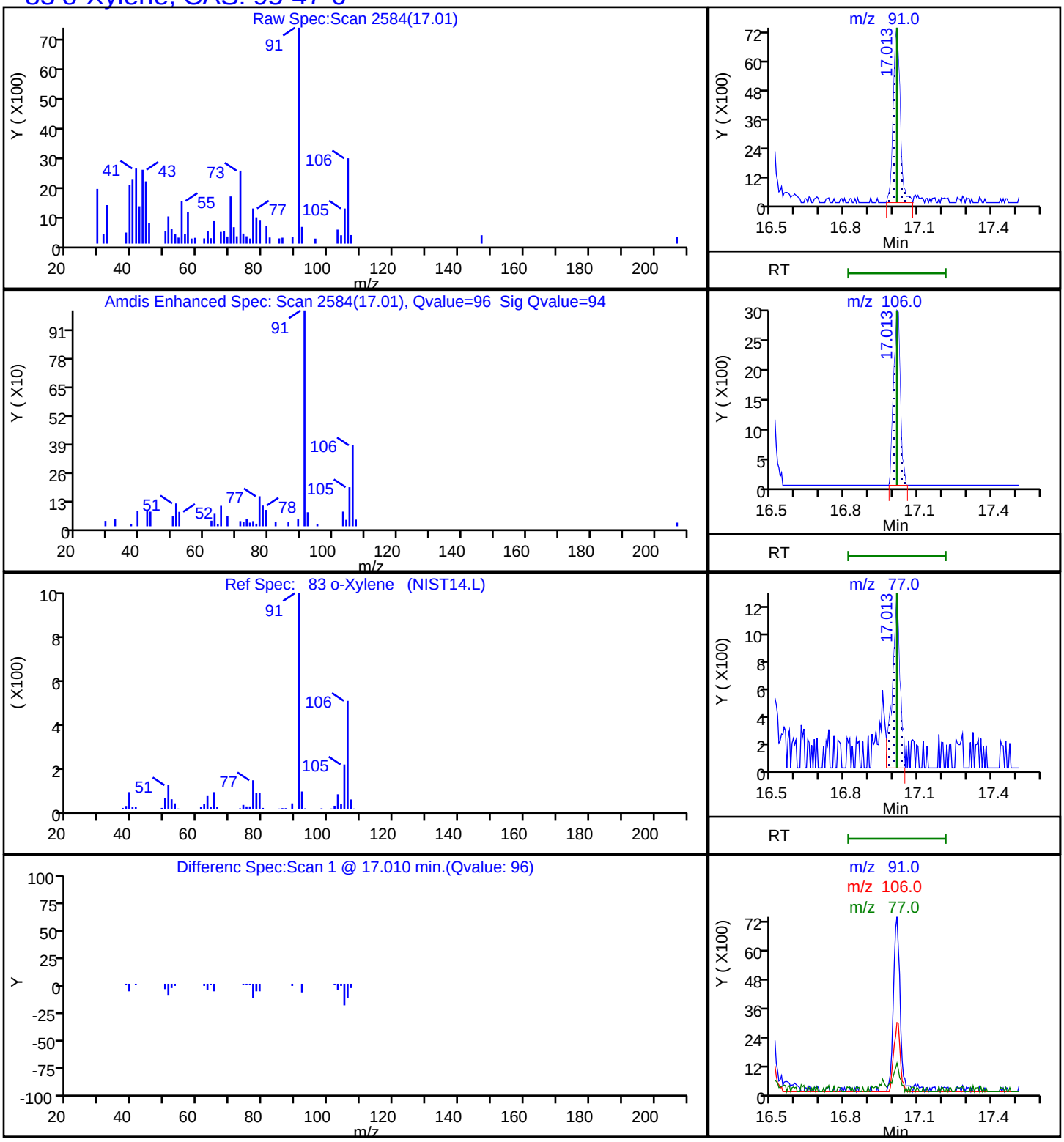
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GG12P116D.D		
Injection Date:	13-Jul-2019 02:19:30	Instrument ID:	MG
Lims ID:	140-15980-A-6	Lab Sample ID:	140-15980-6
Client ID:	C-INFLUENT		
Operator ID:	7126	ALS Bottle#:	16 Worklist Smp#: 22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31457/7	GG08IC01.D
Level 2	IC 140-31457/8	GG08IC02.D
Level 3	IC 140-31457/9	GG08IC03.D
Level 4	IC 140-31457/10	GG08IC04.D
Level 5	IC 140-31457/11	GG08IC05.D
Level 6	IC 140-31457/12	GG08IC06.D
Level 7	ICIS 140-31457/13	GG08IC07.D
Level 8	IC 140-31457/14	GG08IC08.D
Level 9	IC 140-31457/2	GG08BLK1.D
Level 10	IC 140-31457/4	GG08IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.4295	2.5479 2.5369	2.7193 2.5227	2.4317 2.2386	2.4101 2.2778	Ave		2.4572				6.0		30.0			
Propene	+++++ 1.8834	+++++ 1.6618	+++++ 1.5091	+++++ 1.2944	+++++ 1.2478	Ave		1.5193				17.3		30.0			
Dichlorodifluoromethane	4.3056 3.9989	4.1078 4.1340	4.1345 4.1172	3.9839 3.6505	3.9815 3.7435	Ave		4.0157				4.8		30.0			
Chloromethane	+++++ 0.4371	+++++ 0.4418	+++++ 0.4152	0.5204 0.3850	0.4156 0.3874	Ave		0.4289				10.7		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.0458	2.2309 2.1436	2.2560 2.0966	2.0363 1.9014	2.0272 2.0129	Ave		2.0834				5.4		30.0			
Vinyl chloride	1.7850 1.4550	1.5162 1.5184	1.5169 1.4392	1.4186 1.3515	1.4348 1.3575	Ave		1.4793				8.3		30.0			
Butane	+++++ 2.4387	+++++ 2.4632	+++++ 2.3060	2.3636 2.1827	2.4111 2.1646	Ave		2.3329				5.2		30.0			
1,3-Butadiene	+++++ 1.1877	1.2184 1.2299	1.2575 1.1665	1.1123 1.1108	1.1568 1.1307	Ave		1.1745				4.5		30.0			
Bromomethane	+++++ 1.1406	+++++ 1.1876	1.3171 1.1463	1.1437 1.1085	1.0977 1.1690	Ave		1.1638				5.9		30.0			
Chloroethane	+++++ 0.6788	+++++ 0.7080	0.8138 0.6657	0.6775 0.6495	0.6533 0.6976	Ave		0.6930				7.6		30.0			
Ethanol	+++++ 0.4850	+++++ 0.5243	+++++ 0.4786	0.4921 0.4821	0.4861 0.4006	Ave		0.4784				7.9		30.0			
Vinyl bromide	+++++ 1.0464	+++++ 1.1084	1.2119 1.0688	1.0750 1.0295	1.0449 1.1174	Ave		1.0878				5.4		30.0			
2-Methylbutane	+++++ 1.6443	+++++ 1.6908	+++++ 1.5652	1.6544 1.5315	1.6045 1.5901	Ave		1.6115				3.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.6523	3.6779 3.8511	3.8482 3.7234	3.5010 3.3533	3.5370 3.6131	Ave		3.6397				4.4		30.0			
Acrolein	+++++ 0.2522	+++++ 0.2024	+++++ 0.2247	+++++ 0.2206	0.2647 0.2433	Ave		0.2347				9.8		30.0			
Acetonitrile	+++++ 0.4179	+++++ 0.3674	+++++ 0.3630	+++++ 0.3784	0.3688 0.4000	Ave		0.3826				5.7		30.0			
Acetone	+++++ 0.4995	+++++ 0.4568	+++++ 0.3790	+++++ 0.4023	0.5762 0.3674	Ave		0.4469				18.0		30.0			
Pentane	+++++ 0.2314	+++++ 0.2394	+++++ 0.2165	0.2149 0.2125	0.2274 0.2370	Ave		0.2256				4.9		30.0			
Isopropyl alcohol	+++++ 1.2600	+++++ 1.2939	+++++ 1.2331	1.1893 1.2091	1.1999 1.0454	Ave		1.2044				6.6		30.0			
Ethyl ether	+++++ 1.1009	+++++ 1.1036	+++++ 0.9064	1.1543 0.9771	1.0972 1.1313	Ave		1.0673				8.5		30.0			
1,1-Dichloroethene	1.5548 1.3276	1.3722 1.4127	1.3996 1.3838	1.3261 1.3100	1.2943 1.3404	Ave		1.3721				5.5		30.0			
Acrylonitrile	+++++ 0.8911	+++++ 0.8958	0.8695 0.8353	0.8381 0.8179	0.8708 0.8555	Ave		0.8593				3.2		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.8651	3.0569 2.9532	3.1299 2.9024	2.9316 2.6499	2.8201 2.6454	Ave		2.8838				5.7		30.0			
tert-Butyl alcohol	+++++ 2.0419	+++++ 2.0169	1.7095 2.2397	1.7871 1.9511	1.7910 1.6056	Ave		1.8928				10.9		30.0			
Methylene Chloride	+++++ 1.5026	+++++ 1.4199	+++++ 1.3263	2.6437 1.2282	1.7592 1.2278	Ave		1.5868				31.6	*	30.0			
3-Chloropropene	+++++ 1.5490	+++++ 1.5169	0.9653 1.5671	1.4265 1.3881	1.4066 1.4450	Ave		1.4081				13.6		30.0			
Carbon disulfide	+++++ 4.2642	4.1950 4.4204	4.3019 4.2806	4.3212 4.0265	4.0726 4.1294	Ave		4.2235				3.0		30.0			
trans-1,2-Dichloroethene	+++++ 1.3081	1.2873 1.4030	1.3292 1.3605	1.2890 1.2906	1.2832 1.2444	Ave		1.3106				3.6		30.0			
2-Methylpentane	+++++ 4.0768	+++++ 4.1717	4.4636 3.9764	3.9757 3.6225	3.9077 3.4003	Ave		3.9493				8.2		30.0			
Methyl tert-butyl ether	+++++ 3.3591	3.3843 3.5684	3.5187 3.4233	3.4047 3.3196	3.4963 2.9540	Ave		3.3809				5.3		30.0			
1,1-Dichloroethane	3.4750 2.9305	3.0259 2.9451	2.9714 2.8829	2.9332 2.7890	2.9144 2.7493	Ave		2.9617				6.7		30.0			
Vinyl acetate	3.0125 3.3656	3.2182 3.3884	3.3637 3.2001	3.3238 3.1595	3.2585 3.0108	Ave		3.2301				4.3		30.0			
2-Butanone (MEK)	+++++ 0.5581	+++++ 0.5388	+++++ 0.5313	0.6603 0.5557	0.5972 0.4341	Ave		0.5536				12.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.3776	1.4627 1.4275	1.3881 1.3813	1.4324 1.2958	1.3407 1.2614	Ave		1.3742				4.8		30.0			
cis-1,2-Dichloroethene	+++++ 1.3606	1.4829 1.3663	1.4370 1.3505	1.4136 1.3538	1.3449 1.3420	Ave		1.3835				3.6		30.0			
Ethyl acetate	+++++ 2.6595	2.7555 2.7370	2.6290 2.6572	2.6330 2.7990	2.8787 2.2378	Ave		2.6652				6.8		30.0			
Chloroform	+++++ 3.1490	+++++ 3.1461	3.2286 3.0970	3.1641 2.9675	3.1164 2.9869	Ave		3.1069				2.9		30.0			
Tetrahydrofuran	+++++ 1.3900	+++++ 1.4950	1.5136 1.4377	1.4321 1.4800	1.5032 1.2636	Ave		1.4394				5.7		30.0			
1,1,1-Trichloroethane	+++++ 3.5143	3.4614 3.5248	3.5759 3.4226	3.4173 3.2417	3.4157 3.2590	Ave		3.4259				3.3		30.0			
1,2-Dichloroethane	0.4225 0.3851	0.4341 0.3862	0.4009 0.3923	0.3978 0.3884	0.3929 0.3584	Ave		0.3959				5.2		30.0			
Cyclohexane	+++++ 0.1362	+++++ 0.1357	+++++ 0.1329	0.1400 0.1283	0.1356 0.1027	Ave		0.1302				9.7		30.0			
Benzene	+++++ 0.7554	+++++ 0.7241	0.7973 0.7096	0.7797 0.6946	0.7453 0.5574	Ave		0.7204				10.3		30.0			
1-Butanol	+++++ 0.0745	+++++ 0.0699	+++++ 0.0820	0.0623 0.0764	0.0612 0.0501	Ave		0.0681				16.0		30.0			
Carbon tetrachloride	0.4099 0.5752	0.4192 0.5848	0.4426 0.5956	0.5365 0.4447	0.5001 0.4946	Ave		0.5003				14.0		30.0			
2,3-Dimethylpentane	0.2159 0.1979	0.2048 0.1918	0.2208 0.1945	0.1980 0.1935	0.1934 0.1644	Ave		0.1975				7.7		30.0			
Thiophene	0.4497 0.4137	0.4680 0.4205	0.4376 0.4227	0.4251 0.4289	0.4141 0.3781	Ave		0.4258				5.6		30.0			
2,2,4-Trimethylpentane	+++++ 1.4362	+++++ 1.4031	+++++ 1.3810	1.4576 1.3378	1.4274 1.1189	Ave		1.3660				8.5		30.0			
Heptane	+++++ 0.2899	0.3038 0.2920	0.3170 0.2910	0.2964 0.2877	0.2844 0.2402	Ave		0.2892				7.2		30.0			
1,2-Dichloropropane	+++++ 0.2867	+++++ 0.2806	0.2812 0.2715	0.2882 0.2809	0.2818 0.2391	Ave		0.2763				5.7		30.0			
Trichloroethene	0.3248 0.2852	0.3204 0.2864	0.3069 0.2923	0.2951 0.3010	0.2877 0.2529	Ave		0.2953				6.9		30.0			
Dibromomethane	+++++ 0.2660	+++++ 0.2657	0.2898 0.2687	0.2830 0.2681	0.2726 0.2408	Ave		0.2693				5.4		30.0			
Bromodichloromethane	0.5490 0.5508	0.5347 0.5580	0.5057 0.5756	0.5242 0.5555	0.5332 0.5004	Ave		0.5387				4.4		30.0			
1,4-Dioxane	+++++ 0.0717	0.0713 0.0718	0.0665 0.0800	0.0711 0.0854	0.0774 0.0523	Ave		0.0719				13.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2868	0.2953 0.2903	0.2966 0.2994	0.2827 0.3283	0.2852 0.2347	Ave		0.2888				8.4		30.0			
Methylcyclohexane	+++++ 0.5024	0.5487 0.4899	0.5587 0.4888	0.4968 0.4785	0.4910 0.4065	Ave		0.4957				8.8		30.0			
4-Methyl-2-pentanone (MIBK)	0.4570 0.4329	0.4781 0.4171	0.5247 0.5169	0.3876 0.5443	0.4174 0.3101	Ave		0.4486				15.9		30.0			
cis-1,3-Dichloropropene	0.4172 0.4292	0.4016 0.4242	0.3956 0.4322	0.3925 0.4281	0.4092 0.3984	Ave		0.4128				3.7		30.0			
trans-1,3-Dichloropropene	+++++ 0.4233	0.3743 0.4215	0.3503 0.4421	0.3849 0.4515	0.4009 0.4160	Ave		0.4072				8.0		30.0			
Toluene	0.9210 0.8772	0.8849 0.8778	0.9843 0.8611	0.9005 0.8846	0.8615 0.7780	Ave		0.8831				5.9		30.0			
1,1,2-Trichloroethane	0.2521 0.2664	0.2430 0.2672	0.2800 0.2645	0.2574 0.2760	0.2531 0.2394	Ave		0.2599				5.1		30.0			
2-Hexanone	+++++ 0.2279	+++++ 0.2170	+++++ 0.2881	0.1752 0.3044	0.1979 0.1776	Ave		0.2269				22.6		30.0			
Octane	+++++ 0.3440	0.3417 0.3505	0.3670 0.3468	0.3458 0.3399	0.3339 0.2812	Ave		0.3390				6.9		30.0			
C8 Range	+++++ 3.3452	+++++ 3.3495	+++++ 3.3123	3.3717 3.2074	3.1811 2.5679	Ave		3.1907				8.9		30.0			
Dibromochloromethane	+++++ 0.4997	0.4455 0.5505	0.4393 0.5800	0.4567 0.5681	0.4709 0.5046	Ave		0.5017				10.7		30.0			
1,2-Dibromoethane (EDB)	0.4531 0.4770	0.4453 0.4731	0.4249 0.4707	0.4740 0.4825	0.4489 0.4375	Ave		0.4587				4.2		30.0			
Tetrachloroethene	0.3888 0.3123	0.3233 0.3184	0.3550 0.3216	0.3278 0.3209	0.3084 0.2737	Ave		0.3250				9.2		30.0			
Chlorobenzene	0.6816 0.6852	0.6839 0.6613	0.6850 0.6579	0.6867 0.6509	0.6557 0.5683	Ave		0.6616				5.4		30.0			
Ethylbenzene	1.0688 1.1446	1.1005 1.1181	1.2515 1.0802	1.1417 1.1297	1.0869 0.9746	Ave		1.1097				6.3		30.0			
m-Xylene & p-Xylene	0.8264 0.8993	0.7960 0.8720	0.9646 0.8373	0.8513 0.8497	0.8618 0.7089	Ave		0.8467				7.8		30.0			
Nonane	0.7160 0.7377	0.6930 0.7460	0.8176 0.7042	0.7174 0.6905	0.7027 0.5451	Ave		0.7070				9.6		30.0			
Bromoform	+++++ 0.3714	+++++ 0.4159	0.2827 0.4302	0.2871 0.4240	0.3262 0.3867	Ave		0.3655				16.4		30.0			
Styrene	+++++ 0.5899	0.4672 0.5834	0.5453 0.5818	0.5068 0.6109	0.5239 0.5156	Ave		0.5472				8.7		30.0			
o-Xylene	0.8348 0.9270	0.8993 0.9215	1.0363 0.8843	0.8963 0.9329	0.8959 0.7739	Ave		0.9002				7.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.5790	0.5464 0.5903	0.6208 0.5704	0.5561 0.5860	0.5661 0.4540	Ave		0.5632				8.2		30.0			
1,2,3-Trichloropropane	+++++ 0.1775	+++++ 0.1854	0.1867 0.1822	0.1695 0.1977	0.1728 0.1511	Ave		0.1779				7.8		30.0			
Isopropylbenzene	+++++ 1.1709	1.1792 1.1883	1.3524 1.1385	1.1982 1.2050	1.1442 0.9524	Ave		1.1699				8.8		30.0			
Propylbenzene	+++++ 0.3011	0.2631 0.3090	0.3394 0.2975	0.3017 0.3223	0.2981 0.2469	Ave		0.2977				9.4		30.0			
2-Chlorotoluene	+++++ 0.2969	0.2825 0.2913	0.3226 0.2798	0.2820 0.2951	0.2754 0.2500	Ave		0.2862				6.8		30.0			
4-Ethyltoluene	+++++ 1.1237	1.0595 1.1291	1.2155 1.1082	1.0569 1.1919	1.1052 0.9038	Ave		1.0993				8.2		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4472	0.4448 0.4562	0.5312 0.4365	0.4558 0.4814	0.4546 0.3606	Ave		0.4520				9.8		30.0			
Alpha Methyl Styrene	+++++ 0.4273	+++++ 0.4492	0.4067 0.4508	0.3707 0.5032	0.3917 0.3873	Ave		0.4233				10.2		30.0			
Decane	+++++ 0.8578	+++++ 0.8567	+++++ 0.7906	0.8685 0.7729	0.8494 +++++	Ave		0.8327				4.8		30.0			
tert-Butylbenzene	+++++ 0.9988	+++++ 1.0037	+++++ 0.9426	1.0267 0.9965	1.0168 0.7348	Ave		0.9600				10.7		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9669	0.9396 0.9726	1.0965 0.9252	0.9850 0.9837	0.9801 0.7204	Ave		0.9522				10.4		30.0			
sec-Butylbenzene	+++++ 1.4207	1.4085 1.4319	1.6483 1.3447	1.4616 1.4074	1.4297 1.0150	Ave		1.3964				11.9		30.0			
1,3-Dichlorobenzene	0.5744 0.5663	0.5364 0.5548	0.5628 0.5536	0.5475 0.5861	0.5339 0.4935	Ave		0.5509				4.7		30.0			
Benzyl chloride	+++++ 0.6787	+++++ 0.6973	0.5714 0.7805	0.4883 0.8652	0.6138 0.6157	Ave		0.6639				18.0		30.0			
1,4-Dichlorobenzene	0.6059 0.5601	0.5407 0.5506	0.5766 0.5585	0.5463 0.5870	0.5282 0.4986	Ave		0.5552				5.5		30.0			
4-Isopropyltoluene	1.0441 1.1104	1.1197 1.1332	1.2638 1.0967	1.1228 1.1885	1.1432 0.8276	Ave		1.1050				10.3		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9940	0.9780 0.9929	1.1492 0.9671	0.9863 1.0397	1.0069 0.7557	Ave		0.9855				10.4		30.0			
Indane	0.7942 0.8420	0.8342 0.8394	0.9124 0.8017	0.8474 0.8396	0.8376 0.6297	Ave		0.8178				9.0		30.0			
1,2-Dichlorobenzene	0.5295 0.5378	0.5180 0.5268	0.5968 0.5192	0.5334 0.5450	0.5111 0.4442	Ave		0.5262				7.1		30.0			
Butylbenzene	1.0823 1.1003	1.0567 1.0938	1.1745 1.0649	1.1252 1.1140	1.1336 +++++	Ave		1.1050				3.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7023	0.6506 0.6988	0.7124 0.6993	0.6436 0.7415	0.6787 0.5519	Ave		0.6755				8.2		30.0			
Undecane	0.7659 0.8351	0.7451 0.8014	0.9171 0.7801	0.8351 0.8141	0.8488 +++++	Ave		0.8159				6.3		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2158	+++++ 0.2353	0.2122 0.2577	0.1966 0.2889	0.2056 0.1767	Ave		0.2236				16.0		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 0.9835	+++++ 0.9340	1.0037 1.0554	0.9557 1.1320	0.9981 0.7028	Ave		0.9706				12.8		30.0			
Dodecane	+++++ 0.6456	0.5712 0.5340	0.6455 0.6364	0.5948 0.6655	0.5490 +++++	Ave		0.6052				8.2		30.0			
1,2,4-Trichlorobenzene	+++++ 0.2993	0.3158 0.2775	0.2896 0.3378	0.2675 0.3850	0.2746 0.2630	Ave		0.3011				13.2		30.0			
Naphthalene	+++++ 0.8039	0.9375 0.6649	0.7843 0.9426	0.7410 1.0011	0.7119 0.6422	Ave		0.8033				16.1		30.0			
Hexachlorobutadiene	0.3559 0.3357	0.3333 0.3450	0.3835 0.3437	0.3433 0.4017	0.3136 0.2980	Ave		0.3454				8.8		30.0			
1,2,3-Trichlorobenzene	+++++ 0.2716	+++++ 0.2435	0.2619 0.3254	0.2542 0.3531	0.2313 0.2161	Ave		0.2696				17.4		30.0			
2-Methylnaphthalene	+++++ 0.2934	+++++ 0.1378	0.2391 0.3574	0.2519 0.3208	0.1767 0.1974	Ave		0.2468				30.3		50.0			
1-Methylnaphthalene	+++++ 0.4120	+++++ 0.2079	0.3714 0.4537	0.3461 0.4104	0.2364 0.2414	Ave		0.3349				28.1		50.0			
4-Bromofluorobenzene (Surr)	0.7446 0.7624	0.7293 0.7473	0.7682 0.7689	0.7362 0.7693	0.7352 0.7436	Ave		0.7505				2.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31457/7	GG08IC01.D
Level 2	IC 140-31457/8	GG08IC02.D
Level 3	IC 140-31457/9	GG08IC03.D
Level 4	IC 140-31457/10	GG08IC04.D
Level 5	IC 140-31457/11	GG08IC05.D
Level 6	IC 140-31457/12	GG08IC06.D
Level 7	ICIS 140-31457/13	GG08IC07.D
Level 8	IC 140-31457/14	GG08IC08.D
Level 9	IC 140-31457/2	GG08BLK1.D
Level 10	IC 140-31457/4	GG08IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 174833	7804 361764	15559 721944	29187 1392756	71809 2721986	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 135538	+++++ 236974	+++++ 431867	+++++ 805325	+++++ 1491192	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	6433 287773	12582 589517	23656 1178274	47817 2271154	118628 4473521	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 31452	+++++ 63003	+++++ 118834	6246 239543	12384 462962	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 147223	6833 305678	12908 599999	24441 1182963	60400 2405456	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	2667 104705	4644 216532	8679 411877	17027 840858	42749 1622193	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 175499	+++++ 351262	+++++ 659928	28370 1357961	71839 2586708	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 85472	3732 175391	7195 333835	13350 691064	34466 1351211	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 82079	+++++ 169349	7536 328038	13728 689650	32707 1396945	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 48845	+++++ 100959	4656 190505	8132 404104	19466 833678	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 174500	+++++ 373860	+++++ 684814	29533 1499611	72414 2393523	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 75305	+++++ 158059	6934 305863	12903 640484	31133 1335317	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 118328	+++++ 241113	+++++ 447936	19857 952811	47806 1900190	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 262827	11265 549170	22018 1065558	42021 2086240	105385 4317686	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 18152	+++++ 28862	+++++ 64298	+++++ 137263	7888 290749	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 30070	+++++ 52394	+++++ 103887	+++++ 235402	10987 478015	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 107829	+++++ 195417	+++++ 325389	+++++ 750950	51507 1317227	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 16650	+++++ 34139	+++++ 61963	2579 132232	6776 283232	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 272018	+++++ 553532	+++++ 1058633	42825 2256707	107252 3747668	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 79225	+++++ 157377	+++++ 259397	13855 607910	32690 1351904	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2323 95538	4203 201449	8008 396008	15917 814991	38563 1601773	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 64129	+++++ 127737	4975 239060	10060 508843	25944 1022334	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 206178	9363 421128	17908 830610	35187 1648607	84026 3161258	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 146941	+++++ 287618	9781 640953	21450 1213891	53362 1918699	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 108135	+++++ 202487	+++++ 379569	31731 764111	52414 1467200	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 111471	+++++ 216320	5523 448459	17122 863577	41911 1726857	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 306862	12849 630356	24614 1225010	51866 2505103	121342 4934689	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 94133	3943 200066	7605 389349	15472 802920	38234 1487135	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 293380	+++++ 594886	25539 1137966	47719 2253714	116431 4063369	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 241732	10366 508860	20133 979687	40866 2065305	104172 3530052	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5192 210890	9268 419984	17001 825022	35206 1735155	86835 3285512	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	4501 242197	9857 483187	19246 915807	39894 1965685	97086 3597995	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 40161	+++++ 76828	+++++ 152039	7925 345717	17794 518764	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 99133	4480 203560	7942 395313	17193 806167	39946 1507380	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 97914	4542 194838	8222 386487	16967 842292	40070 1603670	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 191383	8440 390303	15042 760437	31603 1741396	85772 2674199	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 226610	+++++ 448637	18473 886307	37978 1846214	92853 3569390	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 100025	+++++ 213195	8660 411450	17189 920776	44789 1509980	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	+++++ 252901	10602 502638	20460 979470	41017 2016839	101772 3894524	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3608 159144	7481 323544	12518 639218	27075 1332433	66652 2630357	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 56285	+++++ 113718	+++++ 216516	9531 440049	22999 753870	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	+++++ 312208	+++++ 606613	24897 1156157	53062 2382678	126451 4090857	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 30778	+++++ 58581	+++++ 133565	4240 262071	10387 367643	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	3501 237722	7225 489911	13822 970373	36510 1525308	84844 3629832	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	1844 81792	3530 160667	6895 316948	13477 663788	32816 1206738	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	3841 170995	8065 352293	13665 688653	28932 1471085	70261 2774727	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 593576	+++++ 1175545	+++++ 2250027	99199 4589111	242166 8211993	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 119809	5236 244674	9899 474089	20175 987034	48257 1762974	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 118472	+++++ 235122	8781 442344	19617 963618	47806 1754566	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2774 117853	5522 239961	9585 476190	20087 1032596	48812 1855913	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 109933	+++++ 222594	9051 437830	19260 919524	46244 1767039	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	4689 227633	9215 467492	15791 937809	35676 1905512	90456 3672476	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 29628	1228 60116	2077 130352	4837 293087	13131 383493	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 118511	5089 243241	9262 487826	19239 1126257	48380 1722831	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 207627	9457 410470	17448 796358	33810 1641344	83302 2983394	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	3903 178920	8240 349426	16384 842197	26376 1867116	70820 2276190	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	3563 177369	6922 355365	12355 704112	26712 1468607	69422 2923917	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 153455	5815 305013	9166 625349	22879 1321652	60171 2678542	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	6869 318038	13748 635162	25754 1218142	53532 2589278	129324 5010011	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	1880 96582	3776 193362	7325 374119	15300 807971	37991 1541455	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 82617	+++++ 157030	+++++ 407509	10414 890976	29707 1143891	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 124730	5308 253606	9603 490610	20556 994956	50125 1811005	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1212815	+++++ 2423571	+++++ 4685560	200432 9388521	477510 16535709	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 181167	6921 398352	11493 820501	27148 1662873	70682 3249579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	3379 172936	6919 342309	11117 665783	28174 1412268	67378 2817449	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2900 113216	5023 230408	9289 454880	19486 939293	46289 1762494	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	5083 248423	10625 478498	17923 930645	40821 1905350	98421 3659300	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	7971 414987	17097 809018	32744 1528035	67866 3306796	163155 6275916	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	12327 652087	24735 1261848	50475 2368848	101205 4974408	258719 9130501	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	5340 267443	10766 539805	21392 996132	42646 2021211	105483 3510128	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 134659	+++++ 300906	7396 608542	17065 1241051	48963 2490303	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 213858	7259 422160	14268 822981	30125 1788177	78646 3319966	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	6226 336101	13971 666784	27115 1250848	53279 2730769	134485 4983468	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 209924	8489 427123	16242 806907	33060 1715334	84982 2923778	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 64341	+++++ 134184	4886 257692	10073 578619	25933 973037	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 424534	18320 859816	35385 1610557	71228 3527200	171751 6132872	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 109149	4088 223592	8880 420803	17933 943473	44740 1589651	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 107661	4389 210749	8440 395851	16765 863894	41340 1609680	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 407415	16460 816975	31802 1567632	62825 3489019	165895 5819678	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 162127	6911 330121	13898 617472	27093 1409038	68232 2322204	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 154913	+++++ 325034	10641 637649	22034 1473003	58794 2493836	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 311008	+++++ 619896	+++++ 1118422	51627 2262326	127501 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 362107	+++++ 726254	+++++ 1333352	61030 2916915	152630 4731778	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 350571	14598 703731	28690 1308786	58554 2879549	147113 4638732	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	+++++ 515075	21883 1036034	43127 1902162	86882 4119827	214602 6536050	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	4284 205333	8333 401462	14724 783063	32546 1715537	80136 3178053	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 246082	+++++ 504540	14951 1104088	29024 2532567	92132 3965037	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	4519 203086	8401 398394	15086 789984	32473 1718120	79280 3210626	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	7787 402579	17396 819945	33066 1551400	66745 3479023	171601 5329427	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	+++++ 360396	15195 718452	30067 1368028	58628 3043280	151149 4866433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	5923 305259	12961 607343	23872 1134038	50375 2457587	125732 4054641	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	3949 194966	8047 381180	15616 734420	31709 1595180	76724 2860387	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	8072 398934	16417 791463	30729 1506335	66887 3260855	170153 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 254608	10108 505658	18639 989194	38257 2170363	101879 3554139	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	5712 302765	11576 579850	23996 1103450	49643 2383105	127414 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 78246	+++++ 170238	5551 364505	11688 845762	30863 1138068	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 356588	+++++ 675819	26260 1492917	56812 3313518	149816 4525591	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Ave	+++++ 234074	8875 386358	16888 900235	35355 1947919	82404 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 108526	4907 200798	7578 477828	15902 1126938	41221 1693527	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 291471	14565 481102	20521 1333328	44051 2930282	106861 4135338	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	2654 121695	5178 249643	10033 486237	20409 1175810	47078 1918806	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 98474	+++++ 176167	6852 460339	15113 1033591	34714 1391545	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 106371	+++++ 99684	6255 505574	14974 939179	26532 1271520	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 149365	+++++ 150436	9719 641839	20577 1201268	35492 1554412	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1110592 1105705	1133089 1081444	1004916 1087615	1094105 1125938	1103580 1197050	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-31457/7	GG08IC01.D
Level 2	IC 140-31457/8	GG08IC02.D
Level 3	IC 140-31457/9	GG08IC03.D
Level 4	IC 140-31457/10	GG08IC04.D
Level 5	IC 140-31457/11	GG08IC05.D
Level 6	IC 140-31457/12	GG08IC06.D
Level 7	ICIS 140-31457/13	GG08IC07.D
Level 8	IC 140-31457/14	GG08IC08.D
Level 9	IC 140-31457/2	GG08BLK1.D
Level 10	IC 140-31457/4	GG08IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	3.7						50				
Propene	+++++	+++++	+++++	+++++	+++++	24.0						50
Dichlorodifluoromethane	7.2						50					
Chloromethane	+++++	+++++	+++++	21.3						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	7.1						50				
Vinyl chloride	20.7						50					
Butane	+++++	+++++	+++++	1.3						50		
1,3-Butadiene	+++++	3.7						50				
Bromomethane	+++++	+++++	13.2						50			
Chloroethane	+++++	+++++	17.4						50			
Ethanol	+++++	+++++	+++++	2.9						50		
Vinyl bromide	+++++	+++++	11.4						50			
2-Methylbutane	+++++	+++++	+++++	2.7						50		
Trichlorofluoromethane	+++++	1.0						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	12.8						50	
Acetonitrile	+++++	+++++	+++++	+++++	-3.6						50	
Acetone	+++++	+++++	+++++	+++++	28.9						80	
Pentane	+++++	+++++	+++++	-4.8						50		
Isopropyl alcohol	+++++	+++++	+++++	-1.2						50		
Ethyl ether	+++++	+++++	+++++	8.2						50		
1,1-Dichloroethene	13.3						50					
Acrylonitrile	+++++	+++++	1.2						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	6.0						50				
tert-Butyl alcohol	+++++	+++++	-9.7						50			
Methylene Chloride	+++++	+++++	+++++	66.6						80		
3-Chloropropene	+++++	+++++	-31.4						50			
Carbon disulfide	+++++	-0.7						50				
trans-1,2-Dichloroethene	+++++	-1.8						50				
2-Methylpentane	+++++	+++++	13.0						50			
Methyl tert-butyl ether	+++++	0.1						50				
1,1-Dichloroethane	17.3						50					
Vinyl acetate	-6.7						50					
2-Butanone (MEK)	+++++	+++++	+++++	19.3						50		
Hexane	+++++	6.4						50				
cis-1,2-Dichloroethene	+++++	7.2						50				

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Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1 Analy Batch No.: 31457

SDG No.:

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Calibration Start Date: 07/08/2019 15:34 Calibration End Date: 07/09/2019 00:37 Calibration ID: 2017

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	3.4						50				
Chloroform	+++++	+++++	3.9						50			
Tetrahydrofuran	+++++	+++++	5.2						50			
1,1,1-Trichloroethane	+++++	1.0						50				
1,2-Dichloroethane	6.7						50					
Cyclohexane	+++++	+++++	+++++	7.6						50		
Benzene	+++++	+++++	10.7						50			
1-Butanol	+++++	+++++	+++++	-8.5						50		
Carbon tetrachloride	-18.1						50					
2,3-Dimethylpentane	9.3						50					
Thiophene	5.6						50					
2,2,4-Trimethylpentane	+++++	+++++	+++++	6.7						50		
Heptane	+++++	5.1						50				
1,2-Dichloropropane	+++++	+++++	1.8						50			
Trichloroethene	10.0						50					
Dibromomethane	+++++	+++++	7.6						50			
Bromodichloromethane	1.9						50					
1,4-Dioxane	+++++	-0.9						50				
Methyl methacrylate	+++++	2.2						50				
Methylcyclohexane	+++++	10.7						50				
4-Methyl-2-pentanone (MIBK)	1.9						50					

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	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	1.1						50					
trans-1,3-Dichloropropene	+++++	-8.1						50				
Toluene	4.3						50					
1,1,2-Trichloroethane	-3.0						50					
2-Hexanone	+++++	+++++	+++++	-22.8						50		
Octane	+++++	0.8						50				
Dibromochloromethane	+++++	-11.2						50				
1,2-Dibromoethane (EDB)	-1.2						50					
Tetrachloroethene	19.6						50					
Chlorobenzene	3.0						50					
Ethylbenzene	-3.7						50					
m-Xylene & p-Xylene	-2.4						50					
Nonane	1.3						50					
Bromoform	+++++	+++++	-22.7						50			
Styrene	+++++	-14.6						50				
o-Xylene	-7.3						50					
1,1,2,2-Tetrachloroethane	+++++	-3.0						50				
1,2,3-Trichloropropane	+++++	+++++	5.0						50			
Isopropylbenzene	+++++	0.8						50				
Propylbenzene	+++++	-11.6						50				
2-Chlorotoluene	+++++	-1.3						50				

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4-Ethyltoluene	+++++	-3.6						50				
1,3,5-Trimethylbenzene	+++++	-1.6						50				
Alpha Methyl Styrene	+++++	+++++	-3.9						50			
Decane	+++++	+++++	+++++	4.3 +++++						50		
tert-Butylbenzene	+++++	+++++	+++++	6.9						50		
1,2,4-Trimethylbenzene	+++++	-1.3						50				
sec-Butylbenzene	+++++	0.9						50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	+++++	-13.9						50			
1,4-Dichlorobenzene	9.1						50					
4-Isopropyltoluene	-5.5						50					
1,2,3-Trimethylbenzene	+++++	-0.8						50				
Indane	-2.9						50					
1,2-Dichlorobenzene	0.6						50					
Butylbenzene	-2.1			+++++			50					
Indene	+++++	-3.7						50				
Undecane	-6.1			+++++			50					
1,2-Dibromo-3-Chloropropane	+++++	+++++	-5.1						50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	3.4						50			
Dodecane	+++++	-5.6		+++++				50				
1,2,4-Trichlorobenzene	+++++	4.9						50				

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Naphthalene	+++++	16.7						80				
Hexachlorobutadiene	3.0						50					
1,2,3-Trichlorobenzene	+++++	+++++	-2.9						50			
2-Methylnaphthalene	+++++	+++++	-3.1						80			
1-Methylnaphthalene	+++++	+++++	10.9						80			

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08BLK1.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 08-Jul-2019 15:34:30 ALS Bottle#: 16 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-002
Misc. Info.: 231544
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:10:33 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 09:38:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.166	0.001	96	311075	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.333	0.002	96	1715121	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.010	16.006	0.004	91	1463589	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.630	0.003	80	1125938	4.00	4.10	
6 Chlorodifluoromethane	51	3.823	3.829	-0.006	96	1392756	8.00	7.29	
7 Propene	41	3.834	3.840	-0.006	99	805325	8.00	6.82	
8 Dichlorodifluoromethane	85	3.888	3.893	-0.005	100	2271154	8.00	7.27	
9 Chloromethane	52	4.082	4.090	-0.008	98	239543	8.00	7.18	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.095	-0.008	97	1182963	8.00	7.30	
11 Acetaldehyde	44	4.249	4.264	-0.015	99	1422434	40.0	34.9	
12 Vinyl chloride	62	4.265	4.269	-0.004	99	840858	8.00	7.31	
13 Butane	43	4.357	4.362	-0.005	85	1357961	8.00	7.49	
14 Butadiene	54	4.357	4.363	-0.006	67	691064	8.00	7.57	
15 Bromomethane	94	4.702	4.707	-0.005	99	689650	8.00	7.62	
16 Chloroethane	64	4.853	4.856	-0.003	95	404104	8.00	7.50	
17 Ethanol	31	4.966	5.002	-0.036	97	1499611	40.0	40.3	
18 Vinyl bromide	106	5.171	5.176	-0.005	98	640484	8.00	7.57	
19 2-Methylbutane	43	5.220	5.227	-0.007	92	952811	8.00	7.60	
20 Trichlorofluoromethane	101	5.457	5.458	-0.001	100	2086240	8.00	7.37	
21 Acrolein	56	5.468	5.488	-0.020	95	137263	8.00	7.52	
22 Acetonitrile	40	5.538	5.555	-0.017	98	235402	8.00	7.91	
23 Acetone	58	5.587	5.618	-0.032	99	750950	24.0	21.6	
24 Pentane	72	5.689	5.691	-0.002	97	132232	8.00	7.54	
25 Isopropyl alcohol	45	5.689	5.755	-0.066	93	2256707	24.0	24.1	
26 Ethyl ether	31	5.856	5.889	-0.033	95	607910	8.00	7.32	
27 1,1-Dichloroethene	96	6.196	6.195	0.001	94	814991	8.00	7.64	
28 Acrylonitrile	53	6.309	6.317	-0.008	94	508843	8.00	7.61	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	92	1648607	8.00	7.35	
30 2-Methyl-2-propanol	59	6.320	6.424	-0.104	95	1213891	8.00	8.25	
31 Methylene Chloride	84	6.557	6.560	-0.003	99	764111	8.00	6.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.573	6.575	-0.002	95	863577	8.00	7.89	
33 Carbon disulfide	76	6.724	6.728	-0.004	99	2505103	8.00	7.63	
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	95	802920	8.00	7.88	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	2253714	8.00	7.34	
36 Methyl tert-butyl ether	73	7.517	7.561	-0.044	97	2065305	8.00	7.85	
37 1,1-Dichloroethane	63	7.824	7.823	0.001	100	1735155	8.00	7.53	
38 Vinyl acetate	43	7.927	7.938	-0.011	100	1965685	8.00	7.83	
40 Hexane	56	8.407	8.410	-0.003	92	806167	8.00	7.54	
39 2-Butanone (MEK)	72	8.385	8.414	-0.029	97	345717	8.00	8.03	
41 Isopropyl ether	45	8.568	8.600	-0.032	99	2732219	8.00	8.04	
42 cis-1,2-Dichloroethene	96	8.827	8.827	0.000	98	842292	8.00	7.83	
43 Ethyl acetate	43	9.011	9.034	-0.023	98	1741396	8.00	8.40	
44 Chloroform	83	9.183	9.177	0.006	96	1846214	8.00	7.64	
45 Tert-butyl ethyl ether	59	9.253	9.295	-0.042	96	2520107	8.00	8.22	
46 Tetrahydrofuran	42	9.582	9.628	-0.046	95	920776	8.00	8.23	
47 1,1,1-Trichloroethane	97	10.219	10.218	0.001	96	2016839	8.00	7.57	
48 1,2-Dichloroethane	62	10.326	10.324	0.002	98	1332433	8.00	7.85	
50 Benzene	78	10.806	10.804	0.002	98	2382678	8.00	7.71	
49 Cyclohexane	69	10.801	10.805	-0.004	91	440049	8.00	7.88	
52 Carbon tetrachloride	117	10.828	10.827	0.001	97	1525308	8.00	7.11	
51 n-Butanol	31	10.779	10.859	-0.080	76	262071	8.00	8.98	
53 2,3-Dimethylpentane	71	10.914	10.915	-0.001	91	663788	8.00	7.84	
54 Thiophene	84	11.081	11.077	0.004	98	1471085	8.00	8.06	
55 Isooctane	57	11.545	11.546	-0.001	98	4589111	8.00	7.83	
56 n-Heptane	71	11.912	11.911	0.001	92	987034	8.00	7.96	
57 1,2-Dichloropropane	63	12.003	12.005	-0.002	88	963618	8.00	8.14	
58 Trichloroethene	130	12.041	12.038	0.003	94	1032596	8.00	8.16	
59 Dibromomethane	93	12.127	12.125	0.002	88	919524	8.00	7.96	
60 Dichlorobromomethane	83	12.268	12.264	0.004	99	1905512	8.00	8.25	
61 1,4-Dioxane	88	12.284	12.331	-0.047	94	293087	8.00	9.50	
62 Methyl methacrylate	41	12.349	12.361	-0.012	92	1126257	8.00	9.09	
63 Methylcyclohexane	83	12.796	12.794	0.002	94	1641344	8.00	7.72	
64 4-Methyl-2-pentanone (MIBK	43	13.190	13.222	-0.032	98	1867116	8.00	9.71	
65 cis-1,3-Dichloropropene	75	13.249	13.248	0.001	96	1468607	8.00	8.30	
66 trans-1,3-Dichloropropene	75	13.934	13.932	0.002	98	1321652	8.00	8.87	
67 Toluene	91	14.058	14.056	0.002	94	2589278	8.00	8.01	
68 1,1,2-Trichloroethane	83	14.133	14.131	0.002	98	807971	8.00	8.50	
69 2-Hexanone	58	14.511	14.534	-0.023	92	890976	8.00	10.7	
70 n-Octane	85	14.721	14.722	-0.001	94	994956	8.00	8.02	
71 Chlorodibromomethane	129	14.829	14.829	0.000	98	1662873	8.00	9.06	
72 Ethylene Dibromide	107	15.120	15.118	0.002	98	1412268	8.00	8.41	
73 Tetrachloroethene	129	15.185	15.186	-0.001	89	939293	8.00	7.90	
75 Chlorobenzene	112	16.053	16.054	-0.001	89	1905350	8.00	7.87	
74 2,3-Dimethylheptane	43	16.058	16.056	0.002	96	2923814	8.00	6.86	
78 Ethylbenzene	91	16.339	16.336	0.003	99	3306796	8.00	8.14	
79 m-Xylene & p-Xylene	91	16.495	16.494	0.001	99	4974408	16.0	16.1	
80 n-Nonane	57	16.900	16.897	0.003	93	2021211	8.00	7.81	
81 Bromoform	173	16.954	16.951	0.003	92	1241051	8.00	9.28	
82 Styrene	104	16.959	16.956	0.003	98	1788177	8.00	8.93	
83 o-Xylene	91	17.018	17.018	0.000	98	2730769	8.00	8.29	
84 1,1,2,2-Tetrachloroethane	83	17.336	17.338	-0.002	99	1715334	8.00	8.32	
85 1,2,3-Trichloropropane	110	17.498	17.497	0.001	98	578619	8.00	8.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.601	17.597	0.004	97	3527200	8.00	8.24	
87 N-Propylbenzene	120	18.124	18.121	0.003	98	943473	8.00	8.66	
88 2-Chlorotoluene	126	18.172	18.169	0.003	97	863894	8.00	8.25	
89 4-Ethyltoluene	105	18.269	18.267	0.002	98	3489019	8.00	8.67	
90 1,3,5-Trimethylbenzene	120	18.339	18.337	0.002	91	1409038	8.00	8.52	
92 Alpha Methyl Styrene	118	18.566	18.563	0.003	87	1473003	8.00	9.51	
93 n-Decane	57	18.609	18.607	0.002	90	2262326	8.00	7.43	
94 tert-Butylbenzene	119	18.755	18.752	0.003	91	2916915	8.00	8.30	
95 1,2,4-Trimethylbenzene	105	18.771	18.766	0.005	96	2879549	8.00	8.26	
96 sec-Butylbenzene	105	19.019	19.015	0.004	98	4119827	8.00	8.06	
97 1,3-Dichlorobenzene	146	19.040	19.037	0.003	97	1715537	8.00	8.51	
98 Benzyl chloride	91	19.111	19.106	0.005	97	2532567	8.00	10.4	
99 1,4-Dichlorobenzene	146	19.121	19.120	0.001	92	1718120	8.00	8.46	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	96	3479023	8.00	8.60	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	99	3043280	8.00	8.44	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	2553160	8.00	7.09	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	94	2457587	8.00	8.21	
104 1,2-Dichlorobenzene	146	19.477	19.475	0.002	93	1595180	8.00	8.29	
105 n-Butylbenzene	91	19.596	19.597	-0.001	98	3260855	8.00	8.06	
106 Indene	116	19.601	19.598	0.003	92	2170363	8.00	8.78	
107 Undecane	57	19.892	19.889	0.003	96	2383105	8.00	7.98	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	91	845762	8.00	10.3	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	3313518	8.00	9.33	
110 Dodecane	57	20.939	20.939	0.000	96	1947919	8.00	8.80	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	92	1126938	8.00	10.2	
112 Naphthalene	128	21.294	21.296	-0.002	99	2930282	8.00	9.97	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	92	1175810	8.00	9.30	
114 1,2,3-Trichlorobenzene	180	21.569	21.571	-0.002	93	1033591	8.00	10.5	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	939179	8.00	10.4	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	1201268	8.00	9.80	
A 122 C8 Range	1	14.732	(14.668-14.775)		0	9388521	8.00	8.04	
S 123 1,2-Dichloroethene, Total	1				0		16.0	15.7	
S 124 Xylenes, Total	100				0		24.0	24.3	

Reagents:

40L9DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

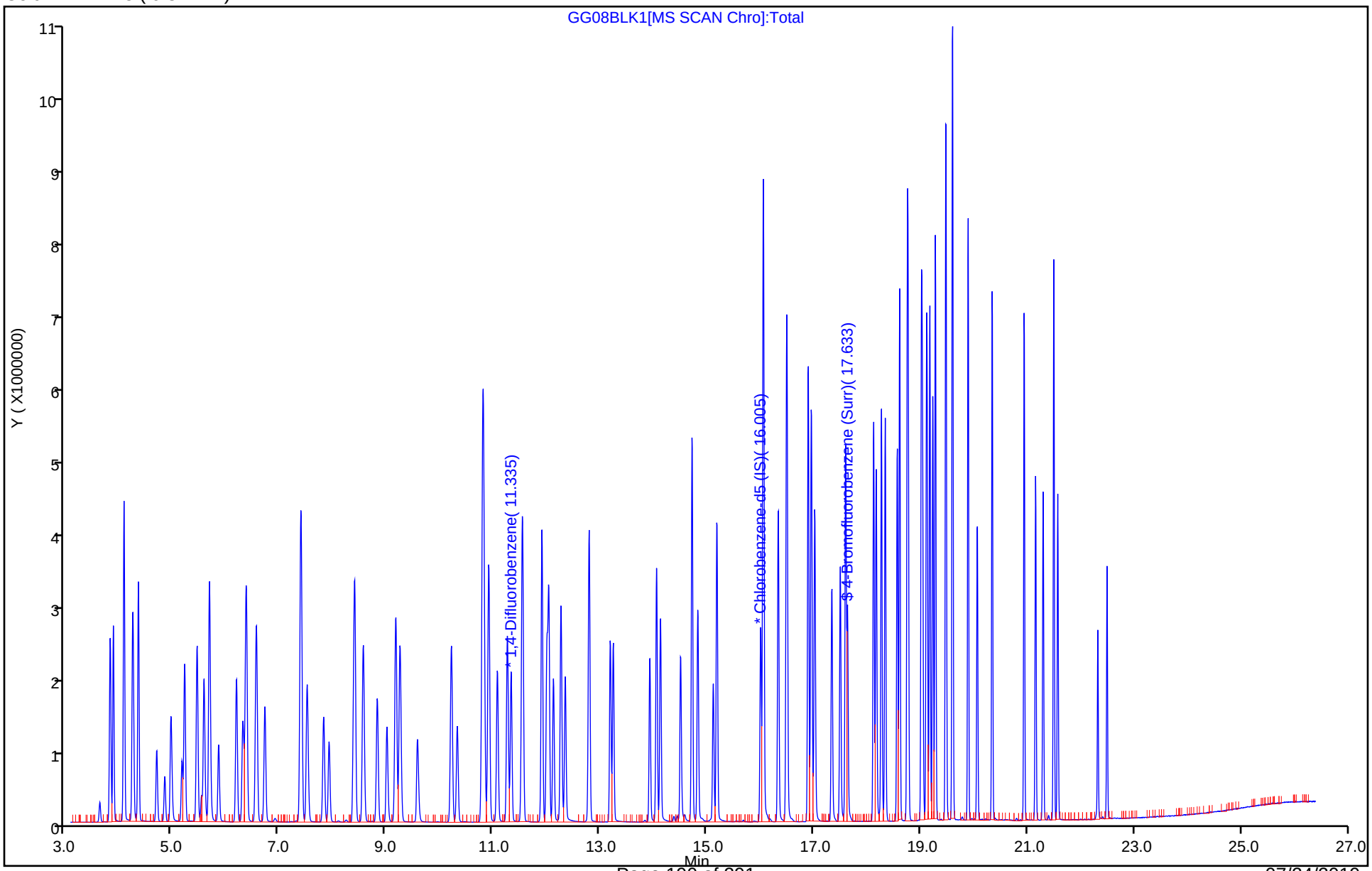
Report Date: 10-Jul-2019 10:10:34 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08BLK1.D

Injection Date:	08-Jul-2019 15:34:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

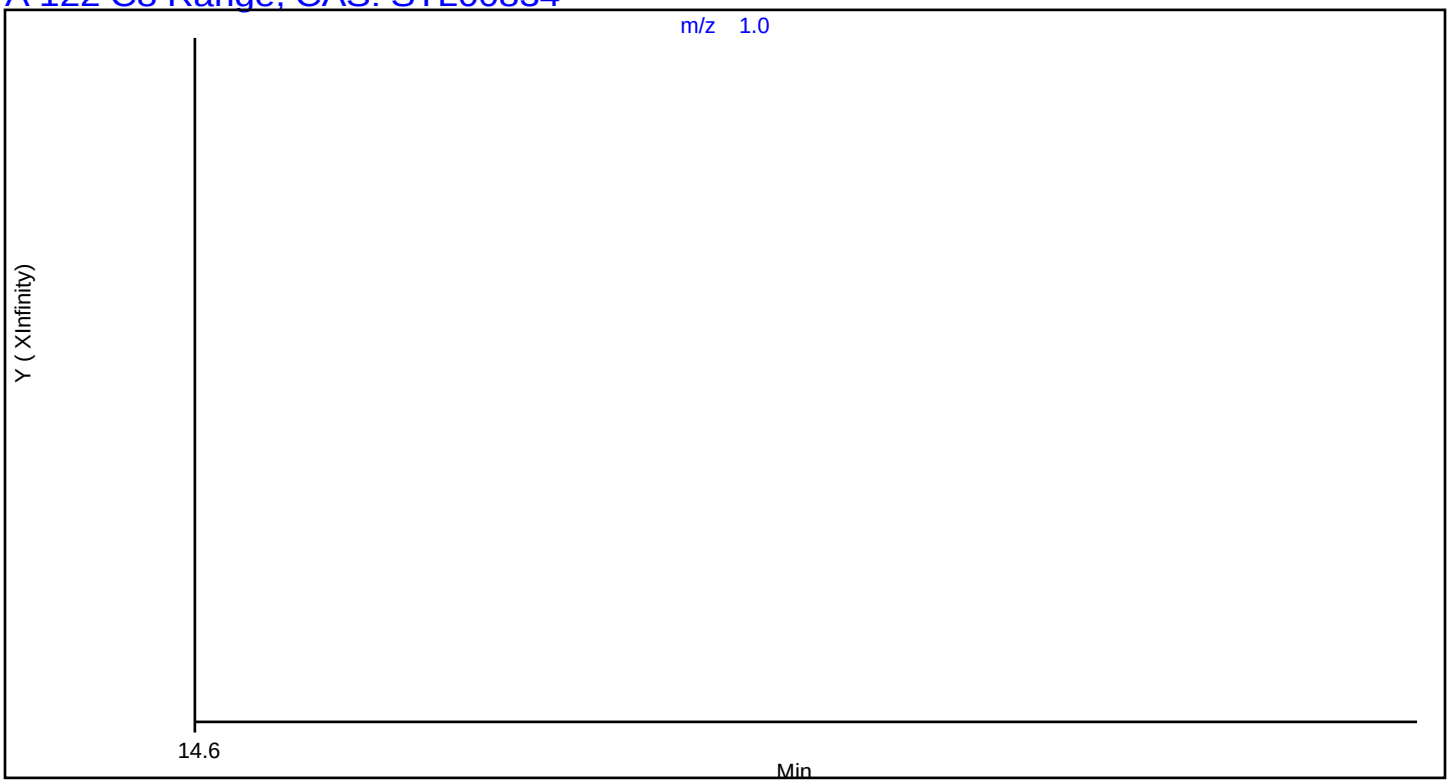


Report Date: 10-Jul-2019 10:10:34 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08BLK1.D				
Injection Date:	08-Jul-2019 15:34:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	007126	ALS Bottle#:	16	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 08-Jul-2019 17:08:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-004
Misc. Info.: 231543
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:10:40 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 09:29:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.189	9.166	0.023	97	298755	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.351	11.333	0.018	96	1834780	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.015	16.006	0.009	92	1609864	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.639	17.630	0.009	80	1197050	4.00	3.96	
6 Chlorodifluoromethane	51	3.834	3.829	0.005	96	2721986	16.0	14.8	
7 Propene	41	3.845	3.840	0.005	99	1491192	16.0	13.1	
8 Dichlorodifluoromethane	85	3.899	3.893	0.006	100	4473521	16.0	14.9	
9 Chloromethane	52	4.093	4.090	0.003	98	462962	16.0	14.5	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.104	4.095	0.009	98	2405456	16.0	15.5	
11 Acetaldehyde	44	4.265	4.264	0.001	99	2706028	80.0	69.1	
12 Vinyl chloride	62	4.276	4.269	0.007	99	1622193	16.0	14.7	
13 Butane	43	4.373	4.362	0.011	84	2586708	16.0	14.8	
14 Butadiene	54	4.373	4.363	0.010	70	1351211	16.0	15.4	
15 Bromomethane	94	4.718	4.707	0.011	98	1396945	16.0	16.1	
16 Chloroethane	64	4.869	4.856	0.013	98	833678	16.0	16.1	
17 Ethanol	31	5.010	5.002	0.008	96	2393523	80.0	67.0	
18 Vinyl bromide	106	5.193	5.176	0.017	98	1335317	16.0	16.4	
19 2-Methylbutane	43	5.241	5.227	0.014	90	1900190	16.0	15.8	
20 Trichlorofluoromethane	101	5.473	5.458	0.015	100	4317686	16.0	15.9	
21 Acrolein	56	5.495	5.488	0.007	94	290749	16.0	16.6	
22 Acetonitrile	40	5.570	5.555	0.015	98	478015	16.0	16.7	
23 Acetone	58	5.614	5.618	-0.004	99	1317227	48.0	39.5	
24 Pentane	72	5.705	5.691	0.014	99	283232	16.0	16.8	
25 Isopropyl alcohol	45	5.738	5.755	-0.017	98	3747668	48.0	41.7	
26 Ethyl ether	31	5.883	5.889	-0.006	96	1351904	16.0	17.0	
27 1,1-Dichloroethene	96	6.212	6.195	0.017	94	1601773	16.0	15.6	
28 Acrylonitrile	53	6.336	6.317	0.019	95	1022334	16.0	15.9	
29 1,1,2-Trichloro-1,2,2-trif	101	6.395	6.378	0.017	92	3161258	16.0	14.7	
30 2-Methyl-2-propanol	59	6.363	6.424	-0.061	96	1918699	16.0	13.6	
31 Methylene Chloride	84	6.579	6.560	0.019	99	1467200	16.0	12.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.595	6.575	0.020	96	1726857	16.0	16.4	
33 Carbon disulfide	76	6.746	6.728	0.018	99	4934689	16.0	15.6	
34 trans-1,2-Dichloroethene	96	7.409	7.391	0.018	95	1487135	16.0	15.2	
35 2-Methylpentane	43	7.425	7.407	0.018	94	4063369	16.0	13.8	
36 Methyl tert-butyl ether	73	7.539	7.561	-0.022	97	3530052	16.0	14.0	
37 1,1-Dichloroethane	63	7.846	7.823	0.023	100	3285512	16.0	14.9	
38 Vinyl acetate	43	7.954	7.938	0.016	100	3597995	16.0	14.9	
40 Hexane	56	8.428	8.410	0.018	88	1507380	16.0	14.7	
39 2-Butanone (MEK)	72	8.412	8.414	-0.002	96	518764	16.0	12.5	
41 Isopropyl ether	45	8.590	8.600	-0.010	98	4424934	16.0	13.6	
42 cis-1,2-Dichloroethene	96	8.849	8.827	0.022	98	1603670	16.0	15.5	
43 Ethyl acetate	43	9.038	9.034	0.004	99	2674199	16.0	13.4	
44 Chloroform	83	9.199	9.177	0.022	97	3569390	16.0	15.4	
45 Tert-butyl ethyl ether	59	9.280	9.295	-0.015	96	4083477	16.0	13.9	
46 Tetrahydrofuran	42	9.604	9.628	-0.024	95	1509980	16.0	14.0	
47 1,1,1-Trichloroethane	97	10.235	10.218	0.017	96	3894524	16.0	15.2	
48 1,2-Dichloroethane	62	10.348	10.324	0.024	98	2630357	16.0	14.5	
50 Benzene	78	10.823	10.804	0.019	98	4090857	16.0	12.4	
49 Cyclohexane	69	10.817	10.805	0.012	92	753870	16.0	12.6	
52 Carbon tetrachloride	117	10.844	10.827	0.017	99	3629832	16.0	15.8	
51 n-Butanol	31	10.806	10.859	-0.053	67	367643	16.0	11.8	
53 2,3-Dimethylpentane	71	10.930	10.915	0.015	90	1206738	16.0	13.3	
54 Thiophene	84	11.098	11.077	0.021	98	2774727	16.0	14.2	
55 Isooctane	57	11.561	11.546	0.015	98	8211993	16.0	13.1	
56 n-Heptane	71	11.928	11.911	0.017	92	1762974	16.0	13.3	
57 1,2-Dichloropropane	63	12.020	12.005	0.015	87	1754566	16.0	13.8	
58 Trichloroethene	130	12.057	12.038	0.019	94	1855913	16.0	13.7	
59 Dibromomethane	93	12.144	12.125	0.019	89	1767039	16.0	14.3	
60 Dichlorobromomethane	83	12.284	12.264	0.020	99	3672476	16.0	14.9	
61 1,4-Dioxane	88	12.300	12.331	-0.031	93	383493	16.0	11.6	
62 Methyl methacrylate	41	12.365	12.361	0.004	92	1722831	16.0	13.0	
63 Methylcyclohexane	83	12.807	12.794	0.013	93	2983394	16.0	13.1	
64 4-Methyl-2-pentanone (MIBK	43	13.206	13.222	-0.016	98	2276190	16.0	11.1	
65 cis-1,3-Dichloropropene	75	13.260	13.248	0.012	96	2923917	16.0	15.4	
66 trans-1,3-Dichloropropene	75	13.945	13.932	0.013	98	2678542	16.0	16.3	
67 Toluene	91	14.069	14.056	0.013	94	5010011	16.0	14.1	
68 1,1,2-Trichloroethane	83	14.139	14.131	0.008	98	1541455	16.0	14.7	
69 2-Hexanone	58	14.522	14.534	-0.012	93	1143891	16.0	12.5	
70 n-Octane	85	14.732	14.722	0.010	93	1811005	16.0	13.3	
71 Chlorodibromomethane	129	14.840	14.829	0.011	98	3249579	16.0	16.1	
72 Ethylene Dibromide	107	15.131	15.118	0.013	98	2817449	16.0	15.3	
73 Tetrachloroethene	129	15.196	15.186	0.010	95	1762494	16.0	13.5	
75 Chlorobenzene	112	16.064	16.054	0.010	90	3659300	16.0	13.7	
74 2,3-Dimethylheptane	43	16.064	16.056	0.008	93	4745911	16.0	10.1	
78 Ethylbenzene	91	16.344	16.336	0.008	99	6275916	16.0	14.1	
79 m-Xylene & p-Xylene	91	16.506	16.494	0.012	98	9130501	32.0	26.8	
80 n-Nonane	57	16.905	16.897	0.008	91	3510128	16.0	12.3	
81 Bromoform	173	16.959	16.951	0.008	93	2490303	16.0	16.9	
82 Styrene	104	16.964	16.956	0.008	98	3319966	16.0	15.1	
83 o-Xylene	91	17.024	17.018	0.006	98	4983468	16.0	13.8	
84 1,1,2,2-Tetrachloroethane	83	17.347	17.338	0.009	99	2923778	16.0	12.9	
85 1,2,3-Trichloropropane	110	17.504	17.497	0.007	97	973037	16.0	13.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.606	17.597	0.009	97	6132872	16.0	13.0	
87 N-Propylbenzene	120	18.129	18.121	0.008	98	1589651	16.0	13.3	
88 2-Chlorotoluene	126	18.178	18.169	0.009	97	1609680	16.0	14.0	
89 4-Ethyltoluene	105	18.275	18.267	0.008	98	5819678	16.0	13.2	
90 1,3,5-Trimethylbenzene	120	18.345	18.337	0.008	91	2322204	16.0	12.8	
92 Alpha Methyl Styrene	118	18.571	18.563	0.008	87	2493836	16.0	14.6	
93 n-Decane	57	18.615	18.607	0.008	91	3687451	16.0	11.0	
94 tert-Butylbenzene	119	18.760	18.752	0.008	92	4731778	16.0	12.2	
95 1,2,4-Trimethylbenzene	105	18.776	18.766	0.010	96	4638732	16.0	12.1	
96 sec-Butylbenzene	105	19.024	19.015	0.009	98	6536050	16.0	11.6	
97 1,3-Dichlorobenzene	146	19.041	19.037	0.004	98	3178053	16.0	14.3	
98 Benzyl chloride	91	19.111	19.106	0.005	97	3965037	16.0	14.8	
99 1,4-Dichlorobenzene	146	19.127	19.120	0.007	91	3210626	16.0	14.4	
100 4-Isopropyltoluene	119	19.181	19.172	0.009	96	5329427	16.0	12.0	
101 1,2,3-Trimethylbenzene	105	19.235	19.228	0.007	99	4866433	16.0	12.3	
102 Butylcyclohexane	83	19.283	19.276	0.007	91	4365670	16.0	11.0	
103 2,3-Dihydroindene	117	19.477	19.472	0.005	94	4054641	16.0	12.3	
104 1,2-Dichlorobenzene	146	19.483	19.475	0.008	94	2860387	16.0	13.5	
105 n-Butylbenzene	91	19.601	19.597	0.004	98	4819289	16.0	10.8	
106 Indene	116	19.607	19.598	0.009	91	3554139	16.0	13.1	
107 Undecane	57	19.893	19.889	0.004	95	3330244	16.0	10.1	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	90	1138068	16.0	12.6	
109 1,2,4,5-Tetramethylbenzene	119	20.346	20.341	0.005	96	4525591	16.0	11.6	
110 Dodecane	57	20.944	20.939	0.005	97	2339398	16.0	9.60	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	93	1693527	16.0	14.0	
112 Naphthalene	128	21.300	21.296	0.004	99	4135338	16.0	12.8	
113 Hexachlorobutadiene	225	21.499	21.496	0.003	94	1918806	16.0	13.8	
114 1,2,3-Trichlorobenzene	180	21.575	21.571	0.004	95	1391545	16.0	12.8	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	1271520	16.0	12.8	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	1554412	16.0	11.5	
A 122 C8 Range	1	14.734	(14.674-14.781)		0	16535709	16.0	12.9	
S 123 1,2-Dichloroethene, Total	1				0		32.0	30.7	
S 124 Xylenes, Total	100				0		48.0	40.5	

Reagents:

40L10DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

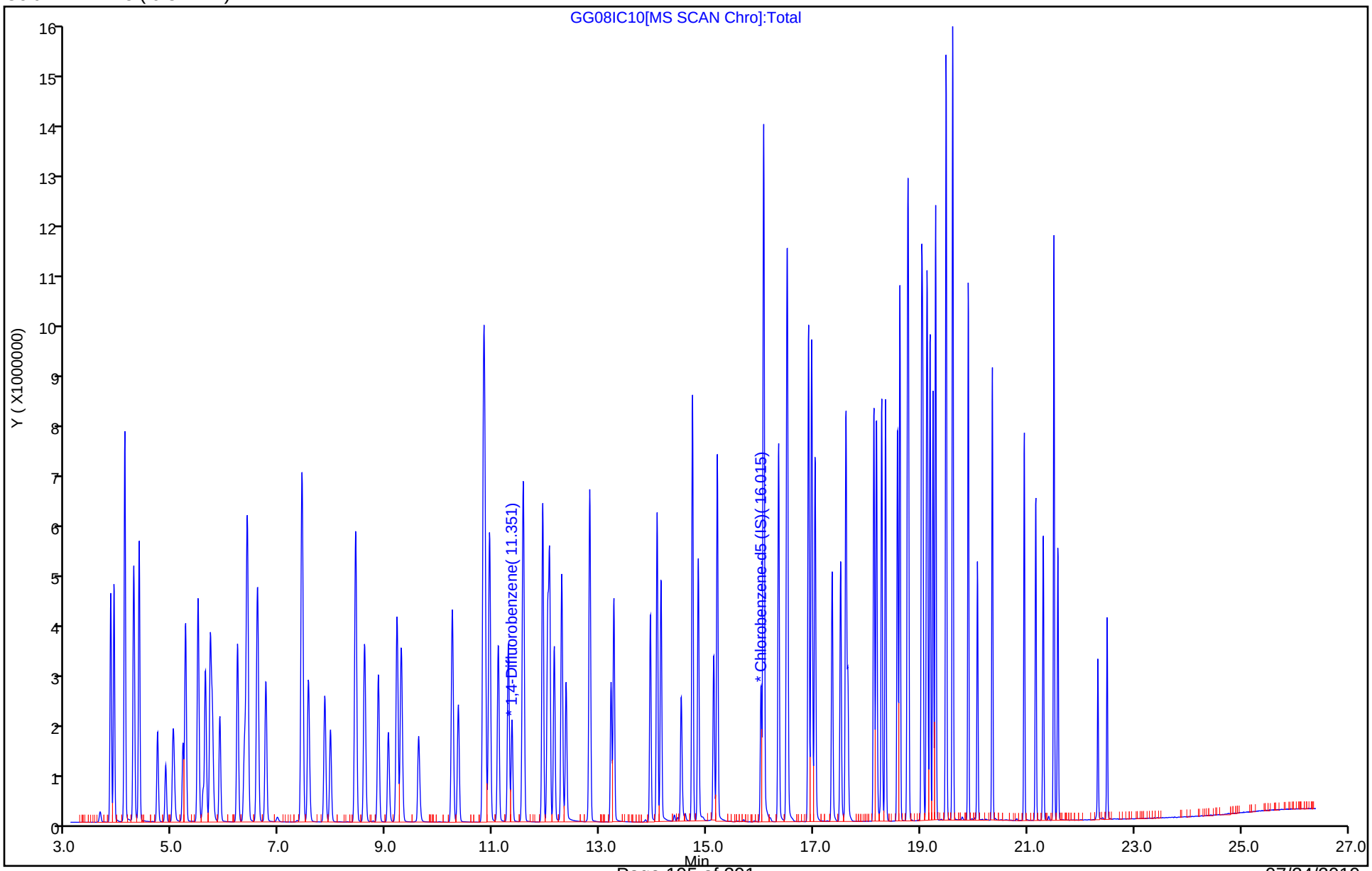
Report Date: 10-Jul-2019 10:10:41 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC10.D

Injection Date:	08-Jul-2019 17:08:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

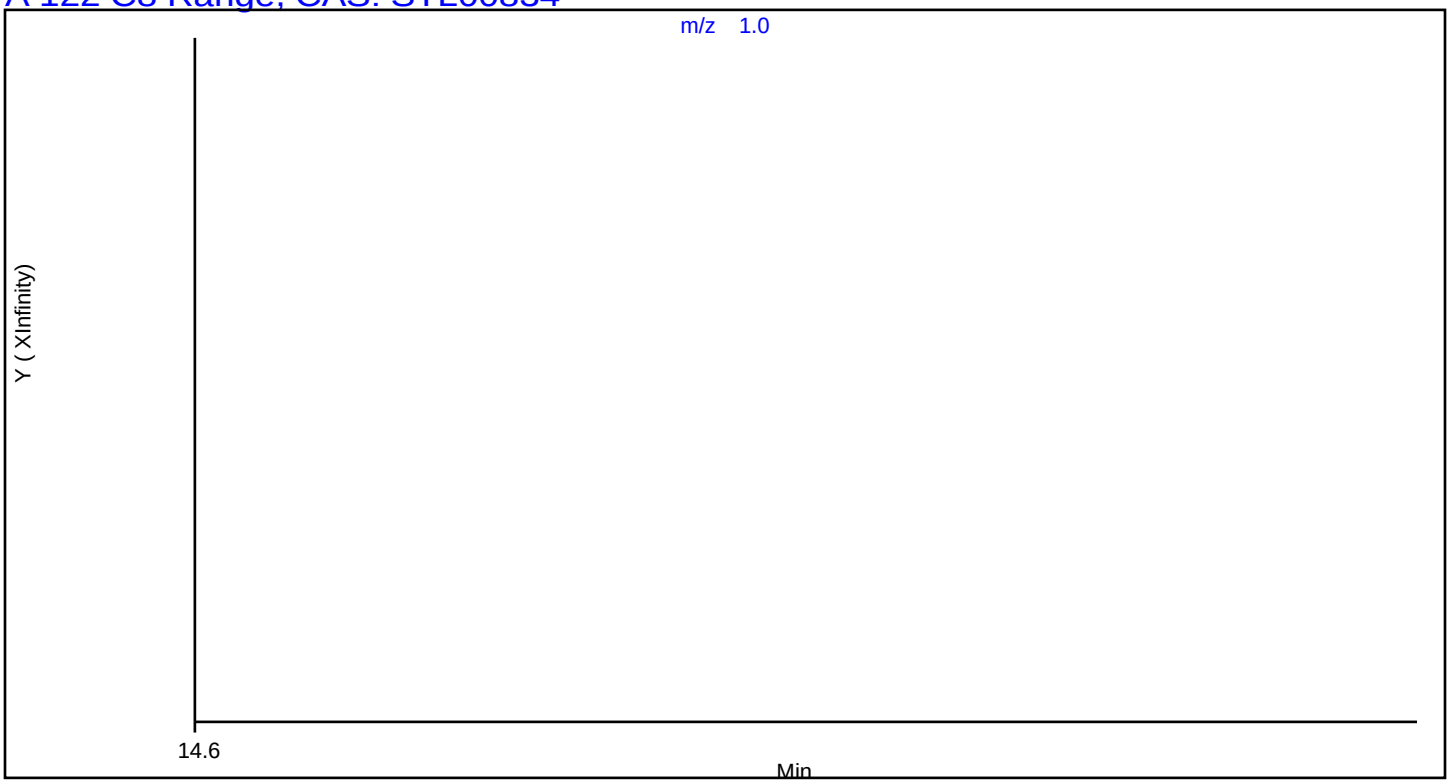


Report Date: 10-Jul-2019 10:10:41 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC10.D				
Injection Date:	08-Jul-2019 17:08:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	007126	ALS Bottle#:	15	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-Jul-2019 19:20:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-007
Misc. Info.: 231550
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:10:46 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:48:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	96	298818	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1708118	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1491599	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1110592	4.00	3.97	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	38	4730	0.0200	0.0258	
7 Propene	41	3.840	3.840	0.000	99	41050	0.0200	0.3617	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	99	6433	0.0200	0.0214	
9 Chloromethane	52	4.093	4.090	0.003	59	1505	0.0200	0.0470	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.095	-0.007	94	3535	0.0200	0.0227	
11 Acetaldehyde	44	4.276	4.264	0.012	88	9638	0.1000	0.2461	
12 Vinyl chloride	62	4.266	4.269	-0.003	43	2667	0.0200	0.0241	
13 Butane	43	4.357	4.362	-0.005	85	5680	0.0200	0.0326	
14 Butadiene	54	4.363	4.363	0.000	59	2206	0.0200	0.0251	
15 Bromomethane	94	4.702	4.707	-0.005	93	2212	0.0200	0.0254	
16 Chloroethane	64	4.848	4.856	-0.008	82	1143	0.0200	0.0221	
17 Ethanol	31	5.031	5.002	0.029	94	5122	0.1000	0.1433	
18 Vinyl bromide	106	5.171	5.176	-0.005	89	1989	0.0200	0.0245	
19 2-Methylbutane	43	5.231	5.227	0.004	93	3119	0.0200	0.0259	
20 Trichlorofluoromethane	101	5.457	5.458	-0.001	98	5933	0.0200	0.0218	
21 Acrolein	56	5.500	5.488	0.012	29	2005	0.0200	0.1144	
23 Acetone	58	5.657	5.618	0.039	96	3509	0.0600	0.1051	
24 Pentane	72	5.695	5.691	0.003	57	260	0.0200	0.0154	
25 Isopropyl alcohol	45	5.824	5.755	0.069	95	6988	0.0600	0.0777	
26 Ethyl ether	31	5.916	5.889	0.027	79	1977	0.0200	0.0248	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	94	2323	0.0200	0.0227	
28 Acrylonitrile	53	6.320	6.317	0.003	68	1177	0.0200	0.0183	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	89	4865	0.0200	0.0226	
30 2-Methyl-2-propanol	59	6.525	6.424	0.101	58	3006	0.0200	0.0213	
31 Methylene Chloride	84	6.557	6.560	-0.003	99	19523	0.0200	0.1647	
33 Carbon disulfide	76	6.724	6.728	-0.004	96	7514	0.0200	0.0238	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	94	2296	0.0200	0.0235	
35 2-Methylpentane	43	7.404	7.407	-0.003	93	7789	0.0200	0.0264	
36 Methyl tert-butyl ether	73	7.625	7.561	0.064	95	3922	0.0200	0.0155	
37 1,1-Dichloroethane	63	7.814	7.823	-0.009	98	5192	0.0200	0.0235	
38 Vinyl acetate	43	7.949	7.938	0.010	99	4501	0.0200	0.0187	
40 Hexane	56	8.407	8.410	-0.003	80	2819	0.0200	0.0275	
39 2-Butanone (MEK)	72	8.450	8.414	0.036	46	224	0.0200	0.005416	
41 Isopropyl ether	45	8.650	8.600	0.050	95	5163	0.0200	0.0158	
42 cis-1,2-Dichloroethene	96	8.827	8.827	0.000	96	2475	0.0200	0.0239	
44 Chloroform	83	9.173	9.177	-0.004	27	5680	0.0200	0.0245	
45 Tert-butyl ethyl ether	59	9.345	9.295	0.050	94	3852	0.0200	0.0131	
46 Tetrahydrofuran	42	9.685	9.628	0.057	73	2269	0.0200	0.0211	
47 1,1,1-Trichloroethane	97	10.219	10.218	0.001	95	5718	0.0200	0.0223	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	96	3608	0.0200	0.0213	
50 Benzene	78	10.796	10.804	-0.008	95	7698	0.0200	0.0250	
49 Cyclohexane	69	10.806	10.805	0.001	71	1401	0.0200	0.0252	
52 Carbon tetrachloride	117	10.823	10.827	-0.004	93	3501	0.0200	0.0164	
51 n-Butanol	31	10.925	10.859	0.066	74	1969	0.0200	0.0678	
53 2,3-Dimethylpentane	71	10.909	10.915	-0.006	83	1844	0.0200	0.0219	
54 Thiophene	84	11.071	11.077	-0.006	95	3841	0.0200	0.0211	
55 Isooctane	57	11.540	11.546	-0.006	98	15772	0.0200	0.0270	
56 n-Heptane	71	11.912	11.911	0.001	93	2856	0.0200	0.0231	
57 1,2-Dichloropropane	63	12.004	12.005	-0.001	83	2806	0.0200	0.0238	
58 Trichloroethene	130	12.031	12.038	-0.007	91	2774	0.0200	0.0220	
59 Dibromomethane	93	12.128	12.125	0.003	85	3132	0.0200	0.0272	
60 Dichlorobromomethane	83	12.257	12.264	-0.007	97	4689	0.0200	0.0204	
61 1,4-Dioxane	88	12.397	12.331	0.066	16	589	0.0200	0.0192	
62 Methyl methacrylate	41	12.381	12.361	0.020	28	2124	0.0200	0.0172	
63 Methylcyclohexane	83	12.791	12.794	-0.003	91	4917	0.0200	0.0232	
64 4-Methyl-2-pentanone (MIBK	43	13.249	13.222	0.027	81	3903	0.0200	0.0204	
65 cis-1,3-Dichloropropene	75	13.249	13.248	0.001	95	3563	0.0200	0.0202	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	92	2643	0.0200	0.0174	
67 Toluene	91	14.053	14.056	-0.003	92	6869	0.0200	0.0209	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	93	1880	0.0200	0.0194	
69 2-Hexanone	58	14.565	14.534	0.031	90	1306	0.0200	0.0154	
70 n-Octane	85	14.721	14.722	-0.001	95	3060	0.0200	0.0242	
71 Chlorodibromomethane	129	14.824	14.829	-0.005	95	3112	0.0200	0.0166	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	98	3379	0.0200	0.0198	
73 Tetrachloroethene	129	15.185	15.186	-0.001	90	2900	0.0200	0.0239	
75 Chlorobenzene	112	16.053	16.054	-0.001	66	5083	0.0200	0.0206	
74 2,3-Dimethylheptane	43	16.059	16.056	0.003	96	10288	0.0200	0.0237	
78 Ethylbenzene	91	16.334	16.336	-0.002	97	7971	0.0200	0.0193	
79 m-Xylene & p-Xylene	91	16.490	16.494	-0.004	98	12327	0.0400	0.0390	
80 n-Nonane	57	16.900	16.897	0.003	94	5340	0.0200	0.0203	
81 Bromoform	173	16.948	16.951	-0.003	90	1915	0.0200	0.0140	
82 Styrene	104	16.959	16.956	0.003	92	3386	0.0200	0.0166	
83 o-Xylene	91	17.018	17.018	0.000	96	6226	0.0200	0.0185	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	91	3283	0.0200	0.0156	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	94	905	0.0200	0.0136	
86 Isopropylbenzene	105	17.595	17.597	-0.002	87	7566	0.0200	0.0173	
87 N-Propylbenzene	120	18.119	18.121	-0.002	97	1556	0.0200	0.0140	
88 2-Chlorotoluene	126	18.172	18.169	0.003	95	1816	0.0200	0.0170	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
89 4-Ethyltoluene	105	18.270	18.267	0.003	97	6596	0.0200	0.0161	
90 1,3,5-Trimethylbenzene	120	18.340	18.337	0.003	91	2933	0.0200	0.0174	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	91	2131	0.0200	0.0135	
93 n-Decane	57	18.604	18.607	-0.003	90	5747	0.0200	0.0185	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	87	6504	0.0200	0.0182	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	95	6010	0.0200	0.0169	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	9575	0.0200	0.0184	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	88	4284	0.0200	0.0209	
98 Benzyl chloride	91	19.105	19.106	-0.001	95	3479	0.0200	0.0141	
99 1,4-Dichlorobenzene	146	19.122	19.120	0.002	89	4519	0.0200	0.0218	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	95	7787	0.0200	0.0189	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	98	6509	0.0200	0.0177	
102 Butylcyclohexane	83	19.272	19.276	-0.004	93	7349	0.0200	0.0200	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	5923	0.0200	0.0194	
104 1,2-Dichlorobenzene	146	19.477	19.475	0.002	78	3949	0.0200	0.0201	
105 n-Butylbenzene	91	19.596	19.597	-0.001	95	8072	0.0200	0.0196	
106 Indene	116	19.596	19.598	-0.002	74	4248	0.0200	0.0169	
107 Undecane	57	19.887	19.889	-0.002	93	5712	0.0200	0.0188	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.063	-0.003	85	1987	0.0200	0.0238	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	95	7247	0.0200	0.0200	
110 Dodecane	57	20.939	20.939	0.000	92	5788	0.0200	0.0256	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	91	3748	0.0200	0.0334	
112 Naphthalene	128	21.295	21.296	-0.001	98	11219	0.0200	0.0375	
113 Hexachlorobutadiene	225	21.500	21.496	0.004	83	2654	0.0200	0.0206	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	89	4839	0.0200	0.0481	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	97	9764	0.0200	0.1061	
116 1-Methylnaphthalene	142	22.497	22.492	0.005	98	12720	0.0200	0.1018	
A 122 C8 Range	1	14.722	(14.684-14.759)		0	31075	0.0200	0.0261	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0474	
S 124 Xylenes, Total	100				0		0.0600	0.0576	

Reagents:

40L1-3DQP_00015	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

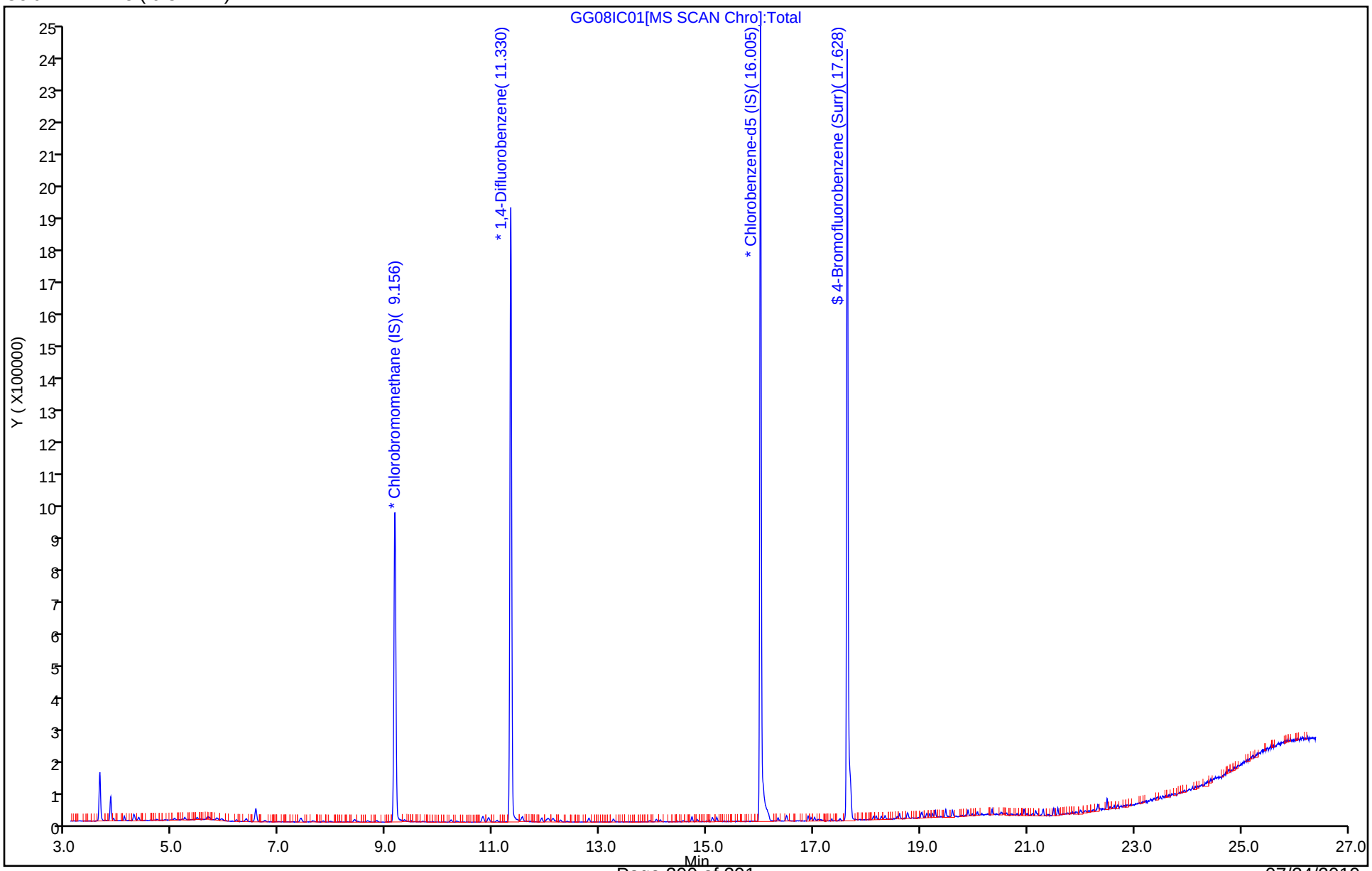
Report Date: 10-Jul-2019 10:10:47 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC01.D

Injection Date:	08-Jul-2019 19:20:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

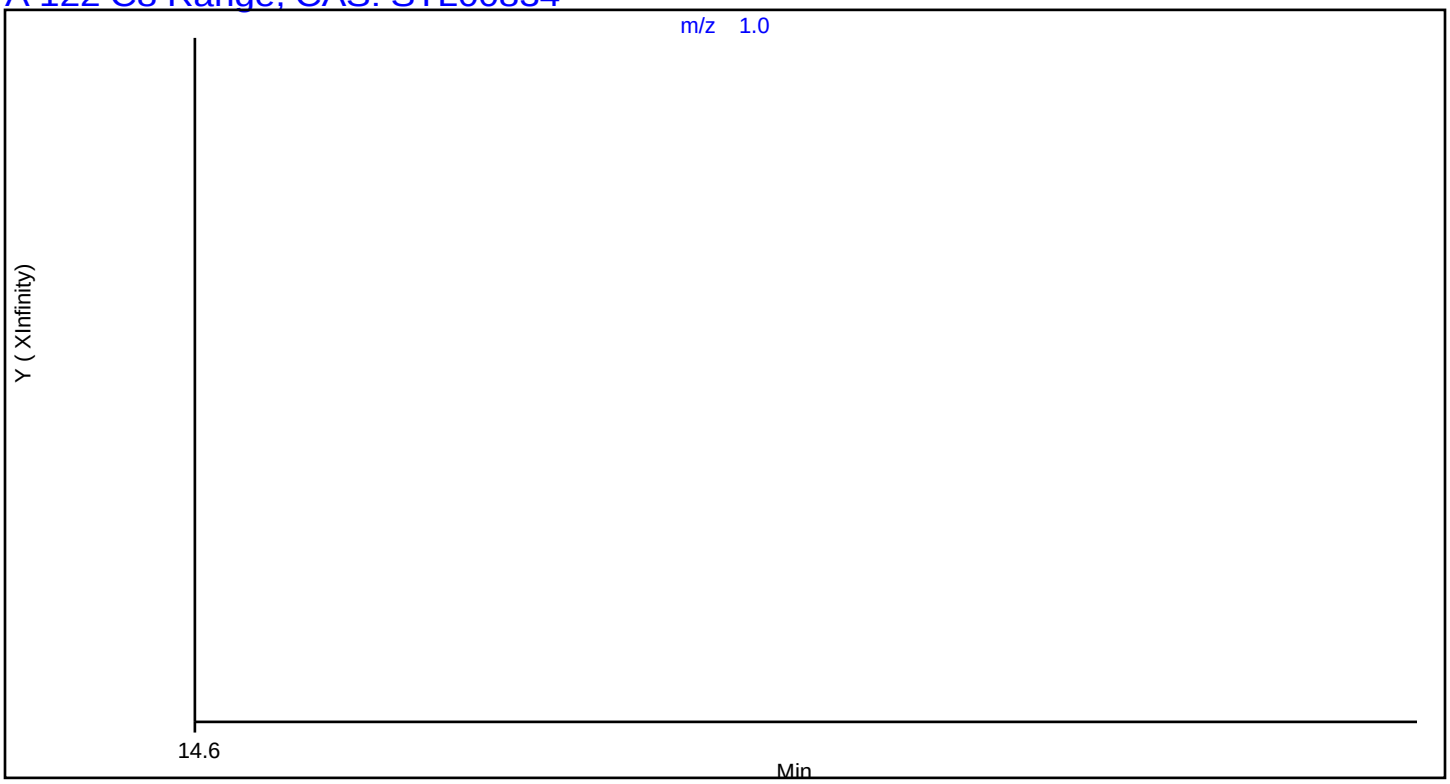


Report Date: 10-Jul-2019 10:10:47 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC01.D				
Injection Date:	08-Jul-2019 19:20:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



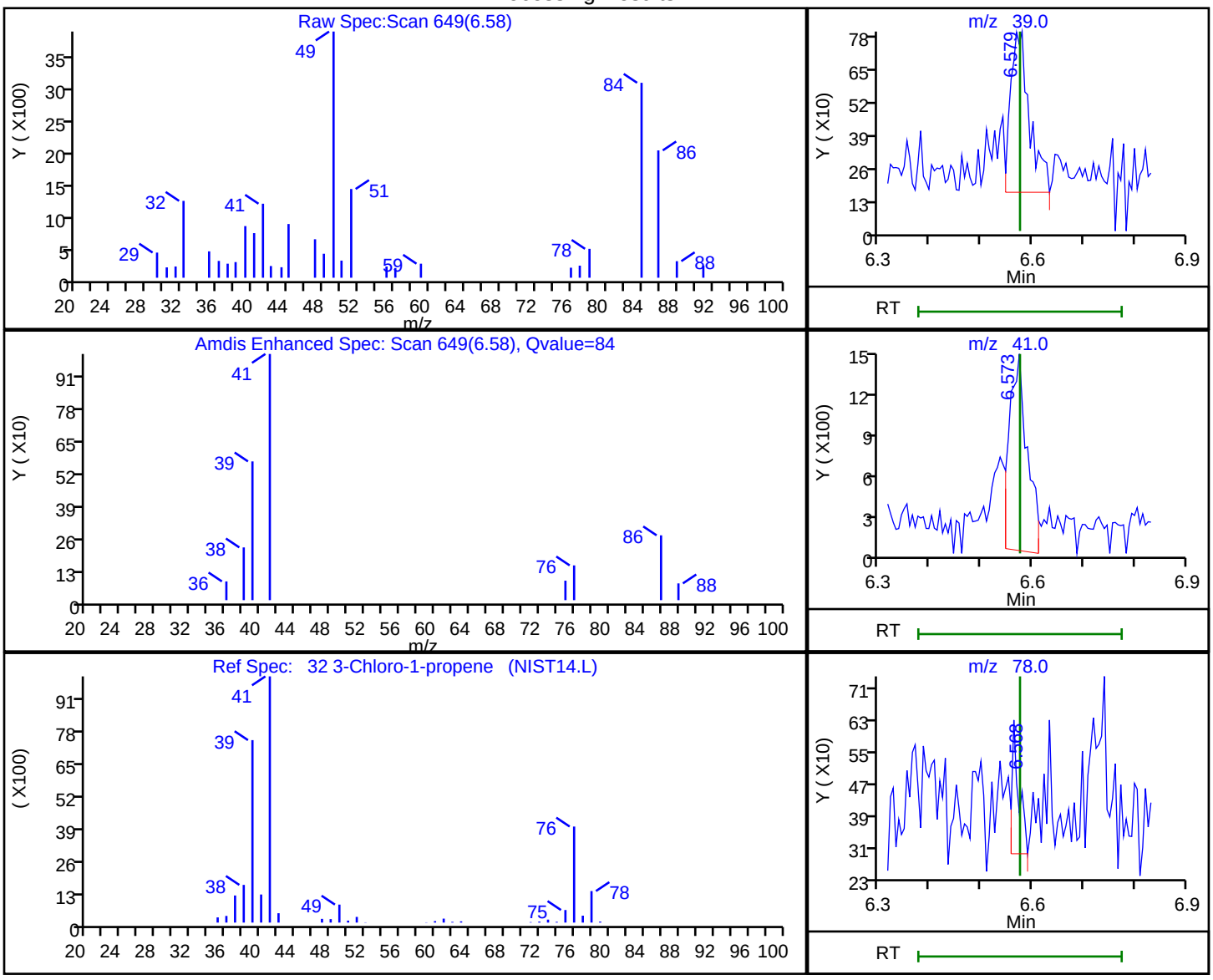
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC01.D				
Injection Date:	08-Jul-2019 19:20:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

32 3-Chloro-1-propene, CAS: 107-05-1

Processing Results



RT	Mass	Response	Amount
6.58	39.00	1659	0.015772
6.57	41.00	3577	
6.57	78.00	317	

Reviewer: tajh, 10-Jul-2019 10:02:43

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

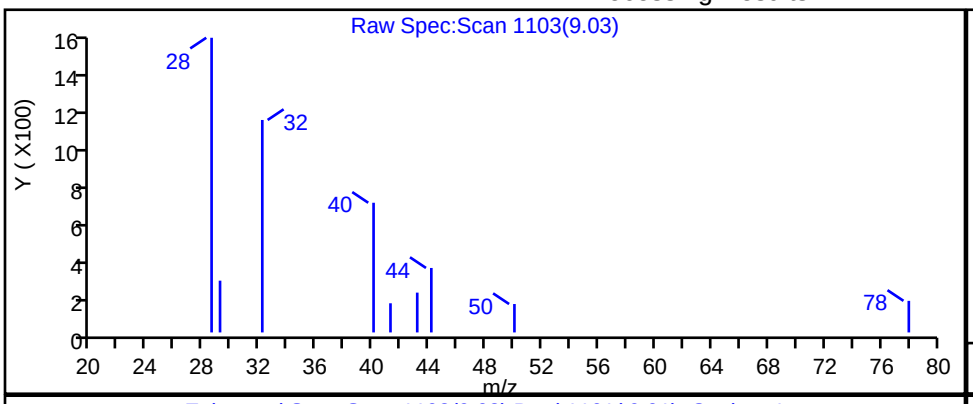
User Disabled Compound Report

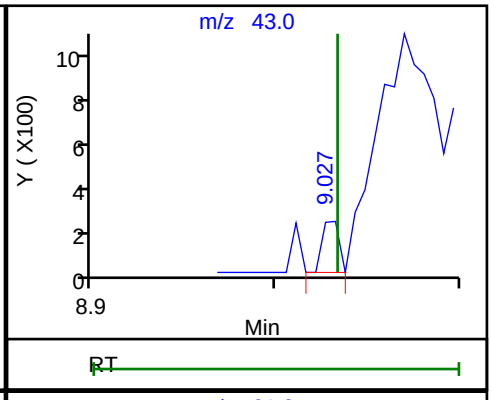
Eurofins TestAmerica, Knoxville

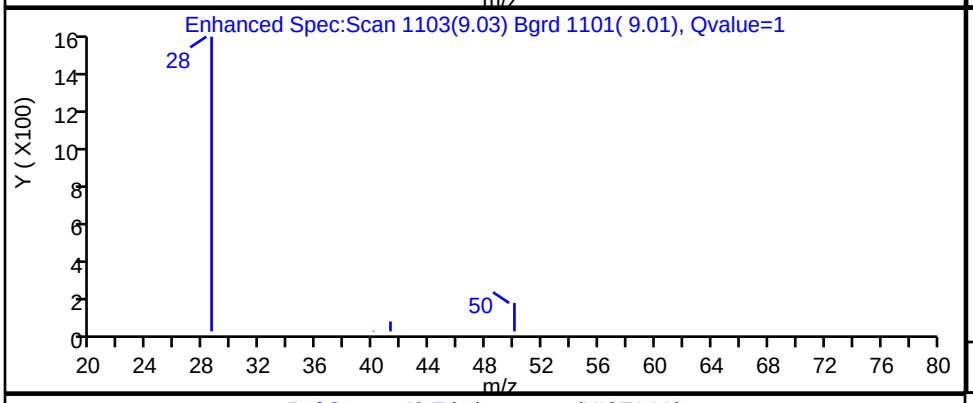
Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC01.D				
Injection Date:	08-Jul-2019 19:20:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

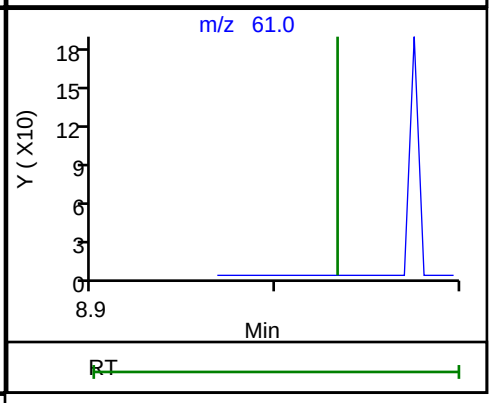
43 Ethyl acetate, CAS: 141-78-6

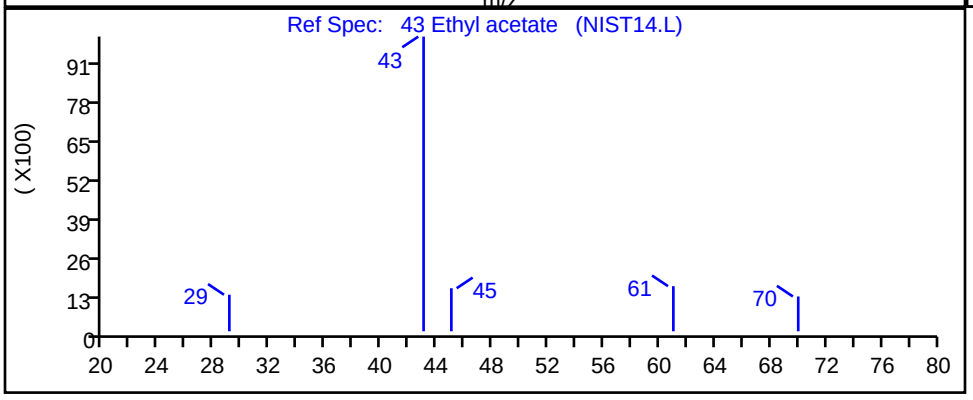
Processing Results











RT	Mass	Response	Amount
9.03	43.00	139	0.000698
9.03	61.00	0	

Reviewer: barlozhetskayaa, 09-Jul-2019 17:47:40

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-Jul-2019 20:05:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-008
Misc. Info.: 231550
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:10:52 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:49:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	97	306293	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1723429	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1553620	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	77	1133089	4.00	3.89	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	42	7804	0.0400	0.0415	
7 Propene	41	3.840	3.840	0.000	98	42247	0.0400	0.3631	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	100	12582	0.0400	0.0409	
9 Chloromethane	52	4.093	4.090	0.003	57	2540	0.0400	0.0773	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	92	6833	0.0400	0.0428	
11 Acetaldehyde	44	4.271	4.264	0.007	93	17483	0.2000	0.4355	
12 Vinyl chloride	62	4.266	4.269	-0.003	44	4644	0.0400	0.0410	
13 Butane	43	4.363	4.362	0.001	85	9108	0.0400	0.0510	
14 Butadiene	54	4.363	4.363	0.000	62	3732	0.0400	0.0415	
15 Bromomethane	94	4.702	4.707	-0.005	96	4076	0.0400	0.0457	
16 Chloroethane	64	4.853	4.856	-0.003	92	2503	0.0400	0.0472	
17 Ethanol	31	5.020	5.002	0.018	96	10082	0.2000	0.2752	
18 Vinyl bromide	106	5.171	5.176	-0.005	91	3451	0.0400	0.0414	
19 2-Methylbutane	43	5.225	5.227	-0.002	89	5860	0.0400	0.0475	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	98	11265	0.0400	0.0404	
21 Acrolein	56	5.506	5.488	0.018	36	1808	0.0400	0.1006	
23 Acetone	58	5.641	5.618	0.023	97	7706	0.1200	0.2252	
24 Pentane	72	5.689	5.691	-0.002	82	689	0.0400	0.0399	
25 Isopropyl alcohol	45	5.792	5.755	0.037	99	12874	0.1200	0.1396	
26 Ethyl ether	31	5.905	5.889	0.016	93	4320	0.0400	0.0529	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	95	4203	0.0400	0.0400	
28 Acrylonitrile	53	6.320	6.317	0.003	75	2840	0.0400	0.0432	
29 1,1,2-Trichloro-1,2,2-trif	101	6.379	6.378	0.001	92	9363	0.0400	0.0424	
30 2-Methyl-2-propanol	59	6.493	6.424	0.069	86	5403	0.0400	0.0373	
31 Methylene Chloride	84	6.557	6.560	-0.003	97	21038	0.0400	0.1731	
33 Carbon disulfide	76	6.724	6.728	-0.004	100	12849	0.0400	0.0397	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	95	3943	0.0400	0.0393	
35 2-Methylpentane	43	7.404	7.407	-0.003	93	13658	0.0400	0.0452	
36 Methyl tert-butyl ether	73	7.593	7.561	0.032	96	10366	0.0400	0.0400	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	99	9268	0.0400	0.0409	
38 Vinyl acetate	43	7.943	7.938	0.005	100	9857	0.0400	0.0399	
40 Hexane	56	8.412	8.410	0.002	90	4480	0.0400	0.0426	
39 2-Butanone (MEK)	72	8.439	8.414	0.025	97	1744	0.0400	0.0411	
41 Isopropyl ether	45	8.623	8.600	0.023	98	13409	0.0400	0.0401	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	96	4542	0.0400	0.0429	
43 Ethyl acetate	43	9.059	9.034	0.025	98	8440	0.0400	0.0414	
44 Chloroform	83	9.173	9.177	-0.004	27	10940	0.0400	0.0460	
45 Tert-butyl ethyl ether	59	9.329	9.295	0.034	98	11572	0.0400	0.0383	
46 Tetrahydrofuran	42	9.663	9.628	0.035	94	5344	0.0400	0.0485	
47 1,1,1-Trichloroethane	97	10.219	10.218	0.001	98	10602	0.0400	0.0404	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	96	7481	0.0400	0.0439	
50 Benzene	78	10.796	10.804	-0.008	97	14620	0.0400	0.0471	
49 Cyclohexane	69	10.806	10.805	0.001	71	2547	0.0400	0.0454	
52 Carbon tetrachloride	117	10.823	10.827	-0.004	96	7225	0.0400	0.0335	
51 n-Butanol	31	10.898	10.859	0.039	70	2043	0.0400	0.0697	
53 2,3-Dimethylpentane	71	10.909	10.915	-0.006	89	3530	0.0400	0.0415	
54 Thiophene	84	11.071	11.077	-0.006	97	8065	0.0400	0.0440	
55 Isooctane	57	11.545	11.546	-0.001	98	27527	0.0400	0.0468	
56 n-Heptane	71	11.907	11.911	-0.004	94	5236	0.0400	0.0420	
57 1,2-Dichloropropane	63	12.004	12.005	-0.001	88	5451	0.0400	0.0458	
58 Trichloroethene	130	12.036	12.038	-0.002	89	5522	0.0400	0.0434	
59 Dibromomethane	93	12.117	12.125	-0.008	83	5514	0.0400	0.0475	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	98	9215	0.0400	0.0397	
61 1,4-Dioxane	88	12.376	12.331	0.045	44	1228	0.0400	0.0396	
62 Methyl methacrylate	41	12.365	12.361	0.004	85	5089	0.0400	0.0409	
63 Methylcyclohexane	83	12.791	12.794	-0.003	92	9457	0.0400	0.0443	
64 4-Methyl-2-pentanone (MIBK	43	13.244	13.222	0.022	91	8240	0.0400	0.0426	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	96	6922	0.0400	0.0389	
66 trans-1,3-Dichloropropene	75	13.934	13.932	0.002	97	5815	0.0400	0.0368	
67 Toluene	91	14.053	14.056	-0.003	94	13748	0.0400	0.0401	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	96	3776	0.0400	0.0374	
69 2-Hexanone	58	14.543	14.534	0.009	94	2393	0.0400	0.0272	
70 n-Octane	85	14.716	14.722	-0.006	95	5308	0.0400	0.0403	
71 Chlorodibromomethane	129	14.824	14.829	-0.005	95	6921	0.0400	0.0355	
72 Ethylene Dibromide	107	15.120	15.118	0.002	98	6919	0.0400	0.0388	
73 Tetrachloroethene	129	15.180	15.186	-0.006	90	5023	0.0400	0.0398	
75 Chlorobenzene	112	16.053	16.054	-0.001	64	10625	0.0400	0.0413	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	94	19715	0.0400	0.0436	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	17097	0.0400	0.0397	
79 m-Xylene & p-Xylene	91	16.495	16.494	0.001	99	24735	0.0800	0.0752	
80 n-Nonane	57	16.894	16.897	-0.003	92	10766	0.0400	0.0392	
81 Bromoform	173	16.948	16.951	-0.003	69	4006	0.0400	0.0282	
82 Styrene	104	16.954	16.956	-0.002	95	7259	0.0400	0.0342	
83 o-Xylene	91	17.018	17.018	0.000	97	13971	0.0400	0.0400	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	98	8489	0.0400	0.0388	
85 1,2,3-Trichloropropane	110	17.498	17.497	0.001	94	2370	0.0400	0.0343	
86 Isopropylbenzene	105	17.595	17.597	-0.002	88	18320	0.0400	0.0403	
87 N-Propylbenzene	120	18.124	18.121	0.003	98	4088	0.0400	0.0354	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
88 2-Chlorotoluene	126	18.167	18.169	-0.002	96	4389	0.0400	0.0395	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	97	16460	0.0400	0.0386	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	92	6911	0.0400	0.0394	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	80	5481	0.0400	0.0333	
93 n-Decane	57	18.609	18.607	0.002	90	12354	0.0400	0.0382	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	87	15495	0.0400	0.0416	
95 1,2,4-Trimethylbenzene	105	18.760	18.766	-0.006	95	14598	0.0400	0.0395	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	21883	0.0400	0.0403	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	95	8333	0.0400	0.0389	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	7780	0.0400	0.0302	
99 1,4-Dichlorobenzene	146	19.116	19.120	-0.004	88	8401	0.0400	0.0390	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	17396	0.0400	0.0405	
101 1,2,3-Trimethylbenzene	105	19.224	19.228	-0.004	98	15195	0.0400	0.0397	
102 Butylcyclohexane	83	19.273	19.276	-0.004	90	15185	0.0400	0.0397	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	12961	0.0400	0.0408	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	77	8047	0.0400	0.0394	
105 n-Butylbenzene	91	19.596	19.597	-0.001	96	16417	0.0400	0.0383	
106 Indene	116	19.596	19.598	-0.002	71	10108	0.0400	0.0385	
107 Undecane	57	19.887	19.889	-0.002	95	11576	0.0400	0.0365	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.063	-0.003	80	2957	0.0400	0.0340	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	13710	0.0400	0.0364	
110 Dodecane	57	20.939	20.939	0.000	95	8875	0.0400	0.0378	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	88	4907	0.0400	0.0420	
112 Naphthalene	128	21.295	21.296	-0.001	99	14565	0.0400	0.0467	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	83	5178	0.0400	0.0386	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	92	5235	0.0400	0.0500	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	97	8311	0.0400	0.0867	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	97	10865	0.0400	0.0835	
A 122 C8 Range	1	14.724	(14.674-14.759)		0	51020	0.0400	0.0412	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0822	
S 124 Xylenes, Total	100				0		0.1200	0.1152	

Reagents:

40L1-3DQP_00015	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

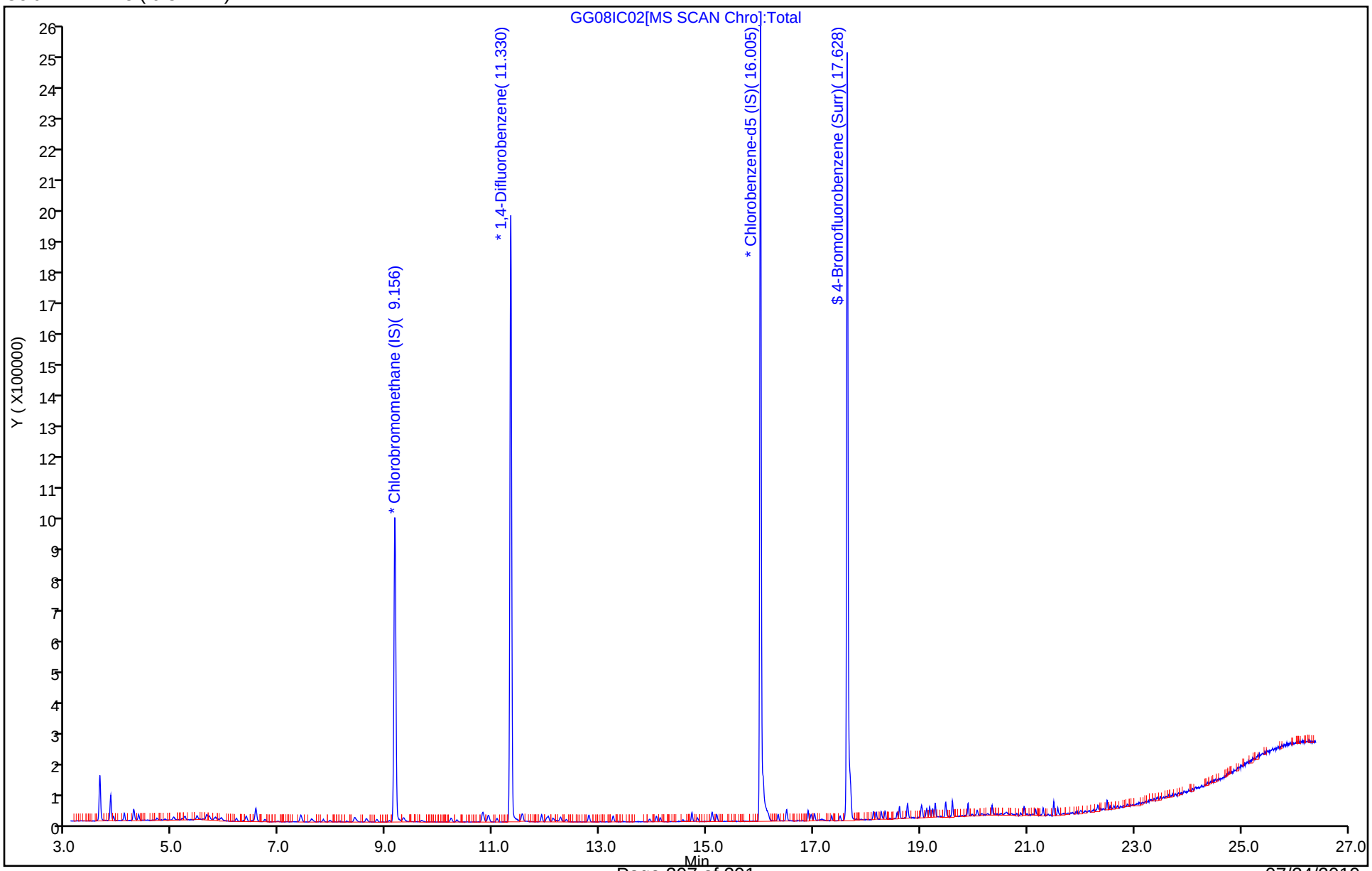
Report Date: 10-Jul-2019 10:10:53 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC02.D

Injection Date:	08-Jul-2019 20:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

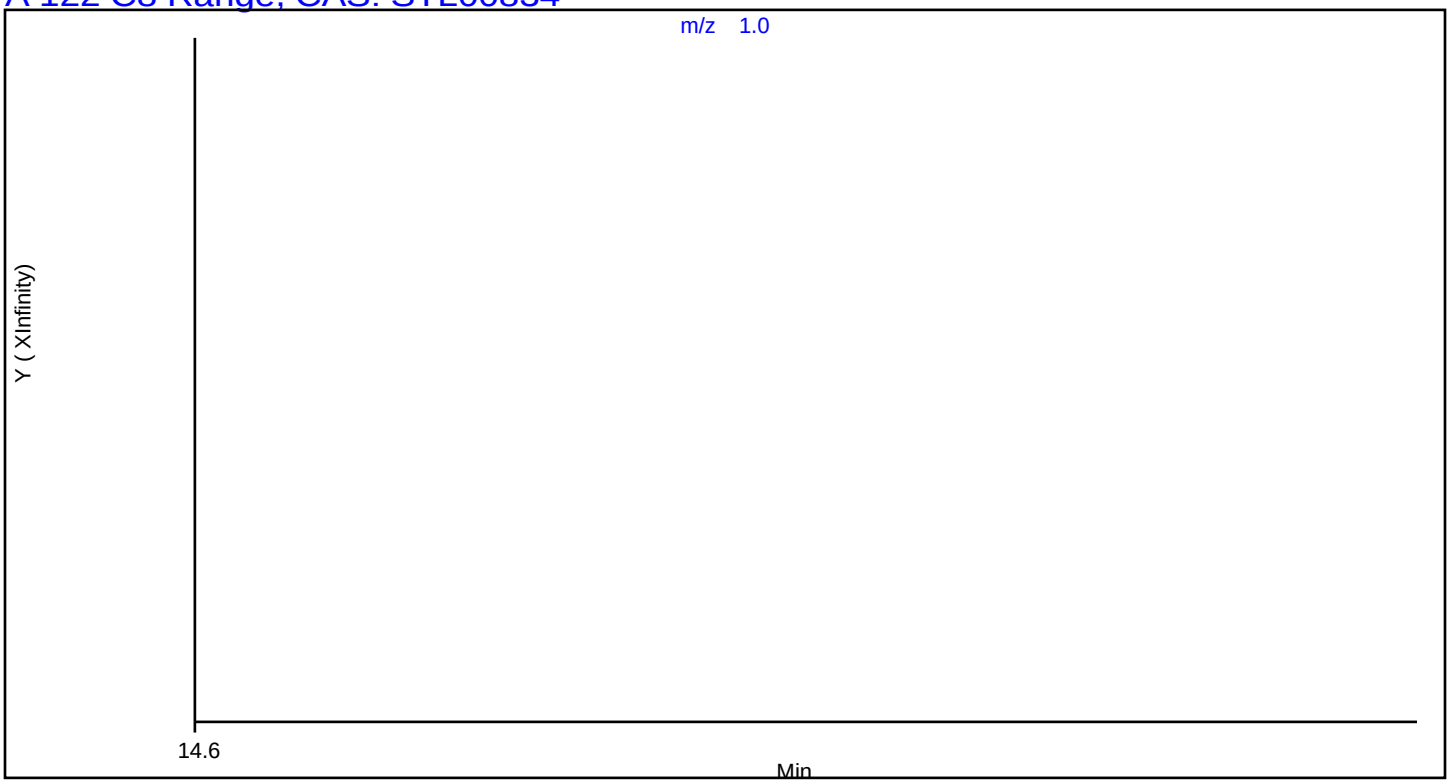


Report Date: 10-Jul-2019 10:10:53 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC02.D				
Injection Date:	08-Jul-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



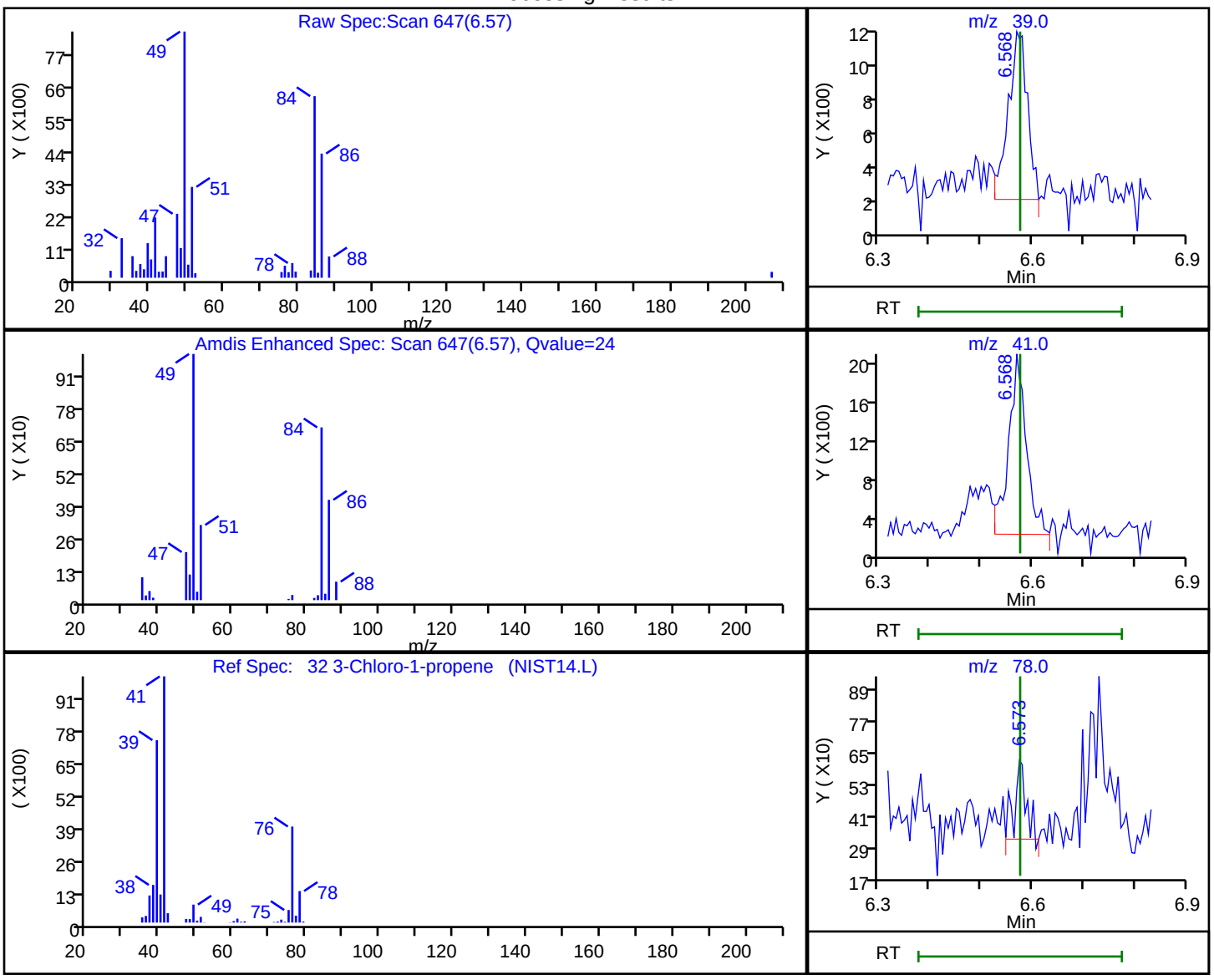
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC02.D
Injection Date: 08-Jul-2019 20:05:30 Instrument ID: MG
Lims ID: IC L2
Client ID:
Operator ID: 007126 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

32 3-Chloro-1-propene, CAS: 107-05-1

Processing Results



RT	Mass	Response	Amount
6.57	39.00	2616	0.024263
6.57	41.00	4493	
6.57	78.00	470	

Reviewer: tajh, 10-Jul-2019 10:02:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 08-Jul-2019 20:54:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-009
Misc. Info.: 231550
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:10:59 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:52:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.173	9.166	0.007	97	286082	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.333	0.007	96	1561397	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1308211	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.633	17.630	0.003	78	1004916	4.00	4.09	
6 Chlorodifluoromethane	51	3.850	3.829	0.021	96	15559	0.0800	0.0885	
7 Propene	41	3.856	3.840	0.016	99	46078	0.0800	0.4240	
8 Dichlorodifluoromethane	85	3.910	3.893	0.017	100	23656	0.0800	0.0824	
9 Chloromethane	52	4.115	4.090	0.025	55	3362	0.0800	0.1096	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.120	4.095	0.025	94	12908	0.0800	0.0866	
11 Acetaldehyde	44	4.298	4.264	0.034	100	34601	0.4000	0.9229	
12 Vinyl chloride	62	4.292	4.269	0.023	46	8679	0.0800	0.0820	
13 Butane	43	4.384	4.362	0.022	84	15240	0.0800	0.0913	
14 Butadiene	54	4.379	4.363	0.016	66	7195	0.0800	0.0857	
15 Bromomethane	94	4.729	4.707	0.022	96	7536	0.0800	0.0905	
16 Chloroethane	64	4.880	4.856	0.024	98	4656	0.0800	0.0939	
17 Ethanol	31	5.096	5.002	0.094	95	17538	0.4000	0.5126	
18 Vinyl bromide	106	5.198	5.176	0.022	97	6934	0.0800	0.0891	
19 2-Methylbutane	43	5.247	5.227	0.020	90	10425	0.0800	0.0904	
20 Trichlorofluoromethane	101	5.479	5.458	0.021	99	22018	0.0800	0.0846	
21 Acrolein	56	5.538	5.488	0.050	73	2275	0.0800	0.1356	
22 Acetonitrile	40	5.608	5.555	0.053	96	2357	0.0800	0.0861	
23 Acetone	58	5.684	5.618	0.066	98	16044	0.2400	0.5020	
24 Pentane	72	5.705	5.691	0.014	96	1531	0.0800	0.0949	
25 Isopropyl alcohol	45	5.899	5.755	0.144	94	13140	0.2400	0.1525	
26 Ethyl ether	31	5.959	5.889	0.070	84	9832	0.0800	0.1288	
27 1,1-Dichloroethene	96	6.207	6.195	0.012	94	8008	0.0800	0.0816	
28 Acrylonitrile	53	6.352	6.317	0.035	96	4975	0.0800	0.0810	
29 1,1,2-Trichloro-1,2,2-trif	101	6.395	6.378	0.017	91	17908	0.0800	0.0868	
30 2-Methyl-2-propanol	59	6.649	6.424	0.225	88	9781	0.0800	0.0722	
31 Methylene Chloride	84	6.579	6.560	0.019	99	23709	0.0800	0.2089	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.590	6.575	0.015	36	5523	0.0800	0.0548	
33 Carbon disulfide	76	6.746	6.728	0.018	98	24614	0.0800	0.0815	
34 trans-1,2-Dichloroethene	96	7.404	7.391	0.013	94	7605	0.0800	0.0811	
35 2-Methylpentane	43	7.420	7.407	0.013	95	25539	0.0800	0.0904	
36 Methyl tert-butyl ether	73	7.652	7.561	0.091	96	20133	0.0800	0.0833	
37 1,1-Dichloroethane	63	7.835	7.823	0.012	100	17001	0.0800	0.0803	
38 Vinyl acetate	43	7.970	7.938	0.032	100	19246	0.0800	0.0833	
40 Hexane	56	8.423	8.410	0.013	85	7942	0.0800	0.0808	
39 2-Butanone (MEK)	72	8.477	8.414	0.063	98	3589	0.0800	0.0906	
41 Isopropyl ether	45	8.671	8.600	0.071	96	25908	0.0800	0.0829	
42 cis-1,2-Dichloroethene	96	8.844	8.827	0.017	97	8222	0.0800	0.0831	
43 Ethyl acetate	43	9.092	9.034	0.058	98	15042	0.0800	0.0789	
44 Chloroform	83	9.189	9.177	0.012	28	18473	0.0800	0.0831	
45 Tert-butyl ethyl ether	59	9.377	9.295	0.082	96	22632	0.0800	0.0802	
46 Tetrahydrofuran	42	9.712	9.628	0.084	95	8660	0.0800	0.0841	
47 1,1,1-Trichloroethane	97	10.229	10.218	0.011	96	20460	0.0800	0.0835	
48 1,2-Dichloroethane	62	10.332	10.324	0.008	98	12518	0.0800	0.0810	
50 Benzene	78	10.817	10.804	0.013	97	24897	0.0800	0.0885	
49 Cyclohexane	69	10.812	10.805	0.007	74	5066	0.0800	0.0997	
52 Carbon tetrachloride	117	10.839	10.827	0.012	94	13822	0.0800	0.0708	
51 n-Butanol	31	11.001	10.859	0.142	75	3220	0.0800	0.1212	
53 2,3-Dimethylpentane	71	10.930	10.915	0.015	91	6895	0.0800	0.0894	
54 Thiophene	84	11.087	11.077	0.010	98	13665	0.0800	0.0822	
55 Isooctane	57	11.561	11.546	0.015	98	54911	0.0800	0.1030	
56 n-Heptane	71	11.923	11.911	0.012	93	9899	0.0800	0.0877	
57 1,2-Dichloropropane	63	12.014	12.005	0.009	84	8781	0.0800	0.0814	
58 Trichloroethene	130	12.041	12.038	0.003	92	9585	0.0800	0.0832	
59 Dibromomethane	93	12.133	12.125	0.008	86	9051	0.0800	0.0861	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	98	15791	0.0800	0.0751	
61 1,4-Dioxane	88	12.413	12.331	0.082	73	2077	0.0800	0.0740	
62 Methyl methacrylate	41	12.386	12.361	0.025	92	9262	0.0800	0.0822	
63 Methylcyclohexane	83	12.796	12.794	0.002	93	17448	0.0800	0.0902	
64 4-Methyl-2-pentanone (MIBK	43	13.276	13.222	0.054	96	16384	0.0800	0.0936	
65 cis-1,3-Dichloropropene	75	13.255	13.248	0.007	97	12355	0.0800	0.0767	
66 trans-1,3-Dichloropropene	75	13.939	13.932	0.007	97	9166	0.0800	0.0688	
67 Toluene	91	14.063	14.056	0.007	94	25754	0.0800	0.0892	
68 1,1,2-Trichloroethane	83	14.139	14.131	0.008	96	7325	0.0800	0.0862	
69 2-Hexanone	58	14.581	14.534	0.047	90	4789	0.0800	0.0645	
70 n-Octane	85	14.727	14.722	0.005	95	9603	0.0800	0.0866	
71 Chlorodibromomethane	129	14.835	14.829	0.006	96	11493	0.0800	0.0700	
72 Ethylene Dibromide	107	15.120	15.118	0.002	97	11117	0.0800	0.0741	
73 Tetrachloroethene	129	15.190	15.186	0.004	90	9289	0.0800	0.0874	
75 Chlorobenzene	112	16.053	16.054	-0.001	69	17923	0.0800	0.0828	
74 2,3-Dimethylheptane	43	16.059	16.056	0.003	95	36379	0.0800	0.0955	
78 Ethylbenzene	91	16.339	16.336	0.003	99	32744	0.0800	0.0902	
79 m-Xylene & p-Xylene	91	16.495	16.494	0.001	99	50475	0.1600	0.1823	
80 n-Nonane	57	16.900	16.897	0.003	93	21392	0.0800	0.0925	
81 Bromoform	173	16.954	16.951	0.003	65	7396	0.0800	0.0619	
82 Styrene	104	16.954	16.956	-0.002	96	14268	0.0800	0.0797	
83 o-Xylene	91	17.018	17.018	0.000	98	27115	0.0800	0.0921	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	98	16242	0.0800	0.0882	
85 1,2,3-Trichloropropane	110	17.504	17.497	0.007	98	4886	0.0800	0.0840	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.597	-0.002	94	35385	0.0800	0.0925	
87 N-Propylbenzene	120	18.124	18.121	0.003	98	8880	0.0800	0.0912	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	96	8440	0.0800	0.0902	
89 4-Ethyltoluene	105	18.269	18.267	0.002	98	31802	0.0800	0.0885	
90 1,3,5-Trimethylbenzene	120	18.340	18.337	0.003	92	13898	0.0800	0.0940	
92 Alpha Methyl Styrene	118	18.566	18.563	0.003	84	10641	0.0800	0.0769	
93 n-Decane	57	18.609	18.607	0.002	90	25207	0.0800	0.0926	
94 tert-Butylbenzene	119	18.755	18.752	0.003	91	31124	0.0800	0.0991	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	96	28690	0.0800	0.0921	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	43127	0.0800	0.0944	
97 1,3-Dichlorobenzene	146	19.041	19.037	0.004	95	14724	0.0800	0.0817	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	14951	0.0800	0.0689	
99 1,4-Dichlorobenzene	146	19.121	19.120	0.001	90	15086	0.0800	0.0831	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	96	33066	0.0800	0.0915	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	98	30067	0.0800	0.0933	
102 Butylcyclohexane	83	19.278	19.276	0.002	90	30597	0.0800	0.0951	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	23872	0.0800	0.0893	
104 1,2-Dichlorobenzene	146	19.477	19.475	0.002	79	15616	0.0800	0.0907	
105 n-Butylbenzene	91	19.596	19.597	-0.001	98	30729	0.0800	0.0850	
106 Indene	116	19.601	19.598	0.003	88	18639	0.0800	0.0844	
107 Undecane	57	19.893	19.889	0.004	96	23996	0.0800	0.0899	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	85	5551	0.0800	0.0759	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	26260	0.0800	0.0827	
110 Dodecane	57	20.939	20.939	0.000	96	16888	0.0800	0.0853	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	90	7578	0.0800	0.0769	
112 Naphthalene	128	21.300	21.296	0.004	98	20521	0.0800	0.0781	
113 Hexachlorobutadiene	225	21.500	21.496	0.004	83	10033	0.0800	0.0888	
114 1,2,3-Trichlorobenzene	180	21.575	21.571	0.004	93	6852	0.0800	0.0777	
115 2-Methylnaphthalene	142	22.325	22.320	0.005	97	6255	0.0800	0.0775	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	97	9719	0.0800	0.0887	
A 122 C8 Range	1	14.727	(14.684-14.770)		0	99269	0.0800	0.0951	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1642	
S 124 Xylenes, Total	100				0		0.2400	0.2744	

Reagents:

40L1-3DQP_00015	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

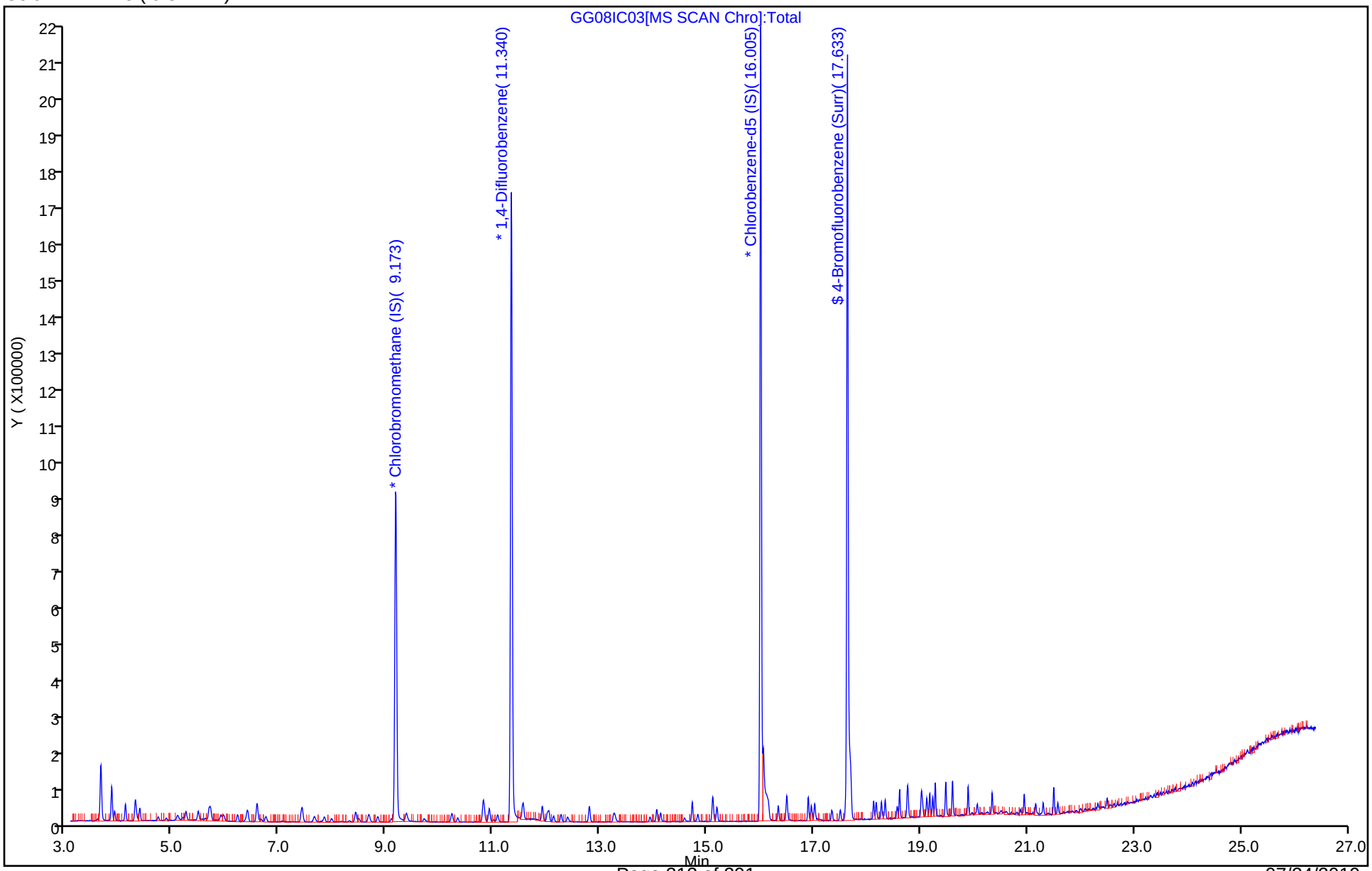
Report Date: 10-Jul-2019 10:11:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC03.D

Injection Date:	08-Jul-2019 20:54:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

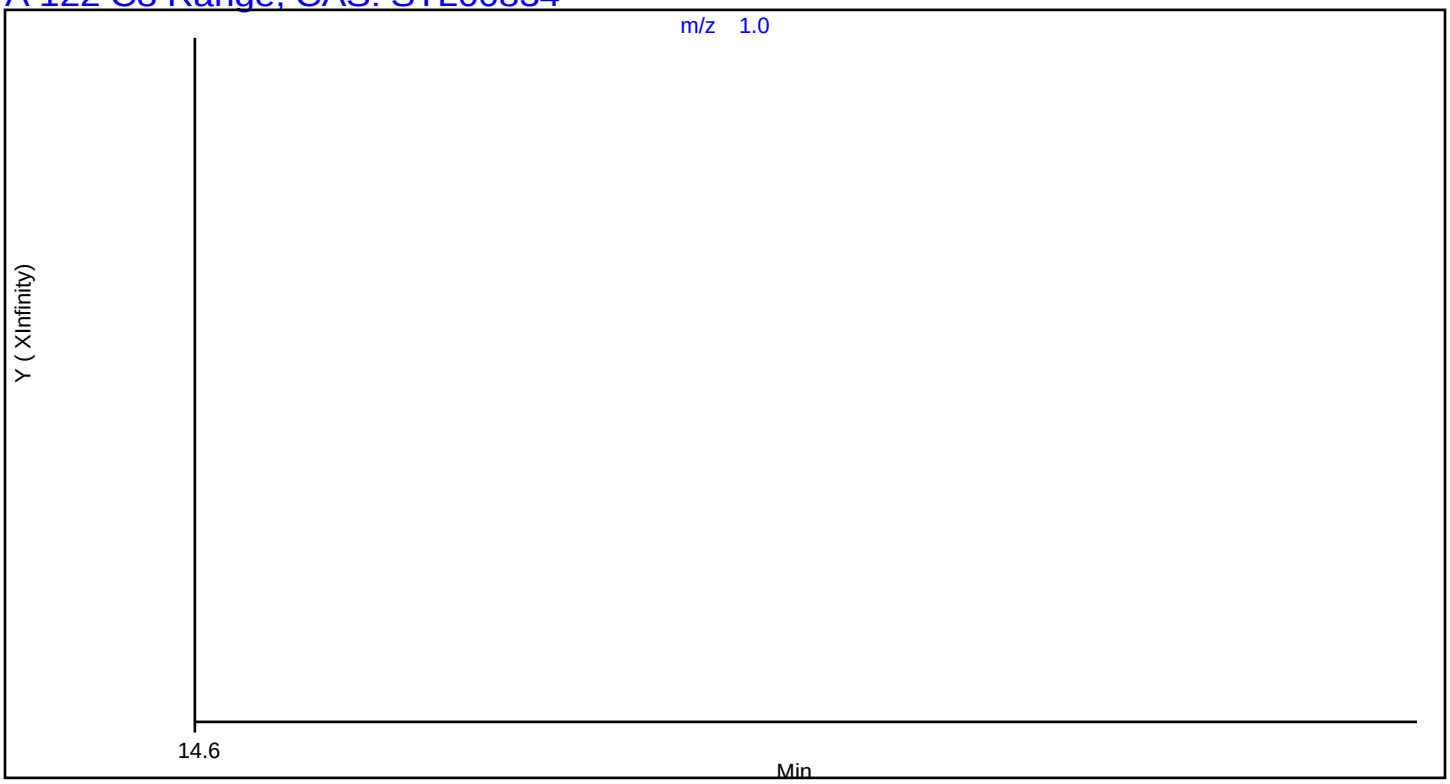


Report Date: 10-Jul-2019 10:11:00 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC03.D				
Injection Date:	08-Jul-2019 20:54:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	007126	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 08-Jul-2019 21:38:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-010
Misc. Info.: 231549
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:08 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:52:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	97	300067	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1701428	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1486119	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1094105	4.00	3.92	
6 Chlorodifluoromethane	51	3.823	3.829	-0.006	96	29187	0.1600	0.1583	
7 Propene	41	3.834	3.840	-0.006	99	55511	0.1600	0.4871	
8 Dichlorodifluoromethane	85	3.888	3.893	-0.005	100	47817	0.1600	0.1587	
9 Chloromethane	52	4.082	4.090	-0.008	66	6246	0.1600	0.1941	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	95	24441	0.1600	0.1564	
11 Acetaldehyde	44	4.260	4.264	-0.004	97	56475	0.8000	1.44	
12 Vinyl chloride	62	4.271	4.269	0.002	49	17027	0.1600	0.1534	
13 Butane	43	4.357	4.362	-0.005	85	28370	0.1600	0.1621	
14 Butadiene	54	4.357	4.363	-0.006	64	13350	0.1600	0.1515	
15 Bromomethane	94	4.708	4.707	0.001	97	13728	0.1600	0.1572	
16 Chloroethane	64	4.853	4.856	-0.003	95	8132	0.1600	0.1564	
17 Ethanol	31	5.004	5.002	0.002	96	29533	0.8000	0.8229	
18 Vinyl bromide	106	5.171	5.176	-0.005	97	12903	0.1600	0.1581	
19 2-Methylbutane	43	5.225	5.227	-0.002	90	19857	0.1600	0.1643	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	99	42021	0.1600	0.1539	
21 Acrolein	56	5.484	5.488	-0.004	88	4126	0.1600	0.2344	
22 Acetonitrile	40	5.560	5.555	0.005	99	3845	0.1600	0.1340	
23 Acetone	58	5.619	5.618	0.001	99	29296	0.4800	0.8739	
24 Pentane	72	5.694	5.691	0.003	95	2579	0.1600	0.1524	
25 Isopropyl alcohol	45	5.765	5.755	0.010	98	42825	0.4800	0.4740	
26 Ethyl ether	31	5.894	5.889	0.005	94	13855	0.1600	0.1731	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	93	15917	0.1600	0.1546	
28 Acrylonitrile	53	6.315	6.317	-0.002	97	10060	0.1600	0.1561	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	91	35187	0.1600	0.1627	
30 2-Methyl-2-propanol	59	6.444	6.424	0.020	96	21450	0.1600	0.1511	
31 Methylene Chloride	84	6.557	6.560	-0.003	98	31731	0.1600	0.2666	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	94	17122	0.1600	0.1621	
33 Carbon disulfide	76	6.724	6.728	-0.004	99	51866	0.1600	0.1637	
34 trans-1,2-Dichloroethene	96	7.393	7.391	0.002	94	15472	0.1600	0.1574	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	47719	0.1600	0.1611	
36 Methyl tert-butyl ether	73	7.571	7.561	0.010	97	40866	0.1600	0.1611	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	99	35206	0.1600	0.1585	
38 Vinyl acetate	43	7.938	7.938	0.000	100	39894	0.1600	0.1646	
40 Hexane	56	8.401	8.410	-0.009	87	17193	0.1600	0.1668	
39 2-Butanone (MEK)	72	8.418	8.414	0.004	87	7925	0.1600	0.1908	
41 Isopropyl ether	45	8.601	8.600	0.001	96	51188	0.1600	0.1562	
42 cis-1,2-Dichloroethene	96	8.817	8.827	-0.010	98	16967	0.1600	0.1635	
43 Ethyl acetate	43	9.038	9.034	0.004	99	31603	0.1600	0.1581	
44 Chloroform	83	9.167	9.177	-0.010	96	37978	0.1600	0.1629	
45 Tert-butyl ethyl ether	59	9.302	9.295	0.007	96	46303	0.1600	0.1565	
46 Tetrahydrofuran	42	9.642	9.628	0.014	95	17189	0.1600	0.1592	
47 1,1,1-Trichloroethane	97	10.213	10.218	-0.005	97	41017	0.1600	0.1596	
48 1,2-Dichloroethane	62	10.316	10.324	-0.008	98	27075	0.1600	0.1608	
50 Benzene	78	10.801	10.804	-0.003	97	53062	0.1600	0.1732	
49 Cyclohexane	69	10.806	10.805	0.001	74	9531	0.1600	0.1721	
52 Carbon tetrachloride	117	10.817	10.827	-0.010	96	36510	0.1600	0.1716	
51 n-Butanol	31	10.877	10.859	0.018	86	4240	0.1600	0.1465	
53 2,3-Dimethylpentane	71	10.914	10.915	-0.001	90	13477	0.1600	0.1604	
54 Thiophene	84	11.076	11.077	-0.001	99	28932	0.1600	0.1597	
55 Isooctane	57	11.540	11.546	-0.006	98	99199	0.1600	0.1707	
56 n-Heptane	71	11.907	11.911	-0.005	92	20175	0.1600	0.1640	
57 1,2-Dichloropropane	63	11.998	12.005	-0.007	88	19617	0.1600	0.1669	
58 Trichloroethene	130	12.036	12.038	-0.002	94	20087	0.1600	0.1599	
59 Dibromomethane	93	12.117	12.125	-0.008	87	19260	0.1600	0.1681	
60 Dichlorobromomethane	83	12.257	12.264	-0.007	98	35676	0.1600	0.1557	
61 1,4-Dioxane	88	12.338	12.331	0.007	89	4837	0.1600	0.1581	
62 Methyl methacrylate	41	12.359	12.361	-0.002	91	19239	0.1600	0.1566	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	33810	0.1600	0.1603	
64 4-Methyl-2-pentanone (MIBK	43	13.228	13.222	0.006	98	26376	0.1600	0.1382	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	98	26712	0.1600	0.1521	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	97	22879	0.1600	0.1512	
67 Toluene	91	14.053	14.056	-0.003	94	53532	0.1600	0.1632	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	15300	0.1600	0.1584	
69 2-Hexanone	58	14.538	14.534	0.004	92	10414	0.1600	0.1236	
70 n-Octane	85	14.716	14.722	-0.006	95	20556	0.1600	0.1632	
71 Chlorodibromomethane	129	14.829	14.829	0.000	96	27148	0.1600	0.1456	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	97	28174	0.1600	0.1653	
73 Tetrachloroethene	129	15.185	15.186	-0.001	89	19486	0.1600	0.1614	
75 Chlorobenzene	112	16.053	16.054	-0.001	73	40821	0.1600	0.1661	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	96	71034	0.1600	0.1641	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	67866	0.1600	0.1646	
79 m-Xylene & p-Xylene	91	16.490	16.494	-0.004	99	101205	0.3200	0.3217	
80 n-Nonane	57	16.894	16.897	-0.003	94	42646	0.1600	0.1624	
81 Bromoform	173	16.948	16.951	-0.003	89	17065	0.1600	0.1257	
82 Styrene	104	16.954	16.956	-0.002	98	30125	0.1600	0.1482	
83 o-Xylene	91	17.013	17.018	-0.005	97	53279	0.1600	0.1593	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	98	33060	0.1600	0.1580	
85 1,2,3-Trichloropropane	110	17.498	17.497	0.001	98	10073	0.1600	0.1524	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.597	-0.002	92	71228	0.1600	0.1639	
87 N-Propylbenzene	120	18.119	18.121	-0.003	98	17933	0.1600	0.1622	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	96	16765	0.1600	0.1577	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	98	62825	0.1600	0.1538	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	27093	0.1600	0.1613	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	86	22034	0.1600	0.1401	
93 n-Decane	57	18.604	18.607	-0.003	89	51627	0.1600	0.1669	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	90	61030	0.1600	0.1711	
95 1,2,4-Trimethylbenzene	105	18.760	18.766	-0.006	96	58554	0.1600	0.1655	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	86882	0.1600	0.1675	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	96	32546	0.1600	0.1590	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	29024	0.1600	0.1177	
99 1,4-Dichlorobenzene	146	19.116	19.120	-0.004	89	32473	0.1600	0.1574	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	66745	0.1600	0.1626	
101 1,2,3-Trimethylbenzene	105	19.224	19.228	-0.004	99	58628	0.1600	0.1601	
102 Butylcyclohexane	83	19.272	19.276	-0.004	91	59602	0.1600	0.1630	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	50375	0.1600	0.1658	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	94	31709	0.1600	0.1622	
105 n-Butylbenzene	91	19.596	19.597	-0.001	96	66887	0.1600	0.1629	
106 Indene	116	19.596	19.598	-0.002	71	38257	0.1600	0.1524	
107 Undecane	57	19.887	19.889	-0.002	96	49643	0.1600	0.1638	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	85	11688	0.1600	0.1407	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	56812	0.1600	0.1575	
110 Dodecane	57	20.939	20.939	0.000	96	35355	0.1600	0.1572	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	92	15902	0.1600	0.1421	
112 Naphthalene	128	21.295	21.296	-0.001	98	44051	0.1600	0.1476	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	86	20409	0.1600	0.1591	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	92	15113	0.1600	0.1509	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	14974	0.1600	0.1633	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	97	20577	0.1600	0.1654	
A 122 C8 Range	1	14.716	(14.663-14.770)		0	200432	0.1600	0.1691	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3208	
S 124 Xylenes, Total	100				0		0.4800	0.4810	

Reagents:

40L4DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

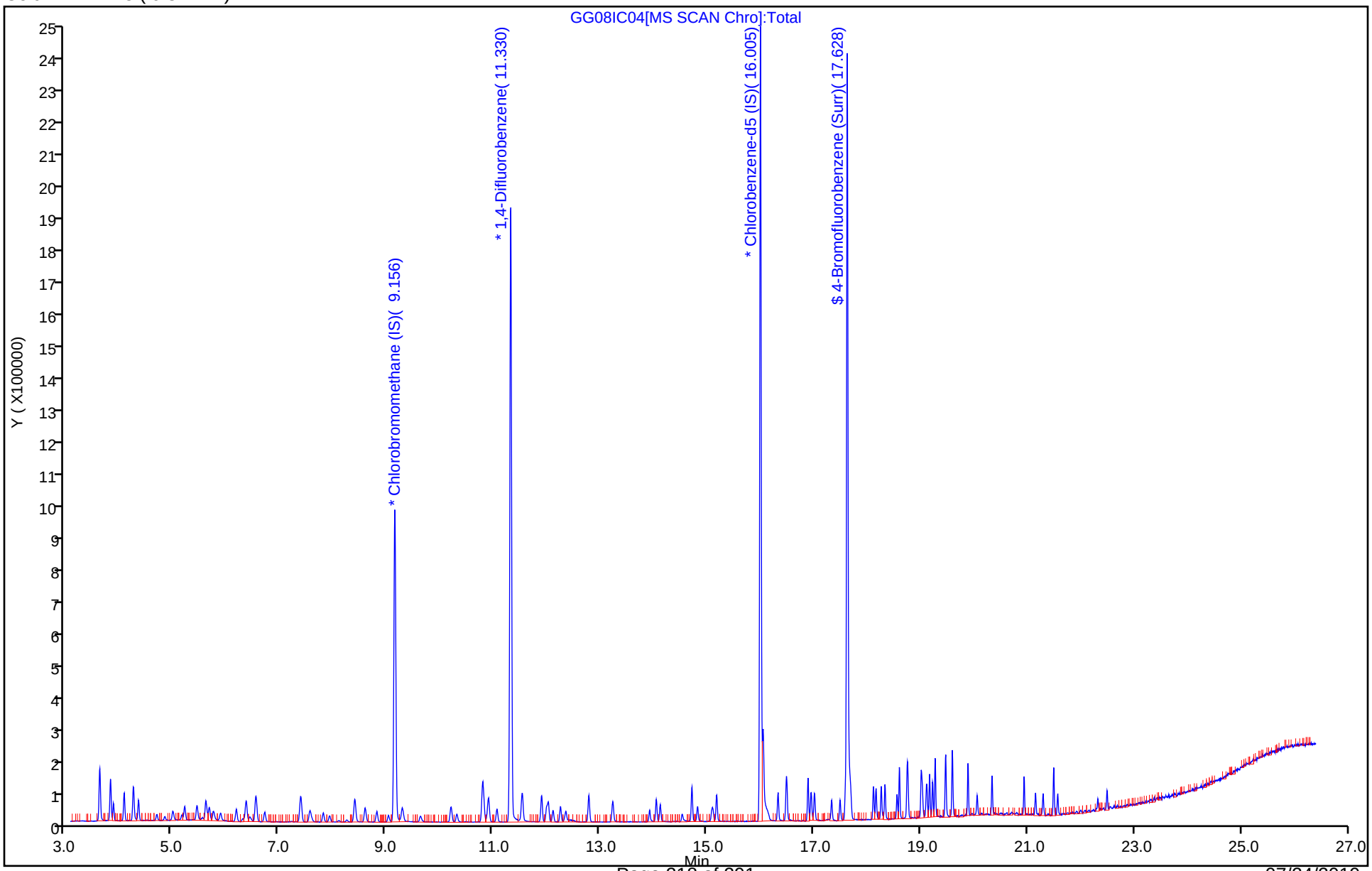
Report Date: 10-Jul-2019 10:11:09 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC04.D

Injection Date:	08-Jul-2019 21:38:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

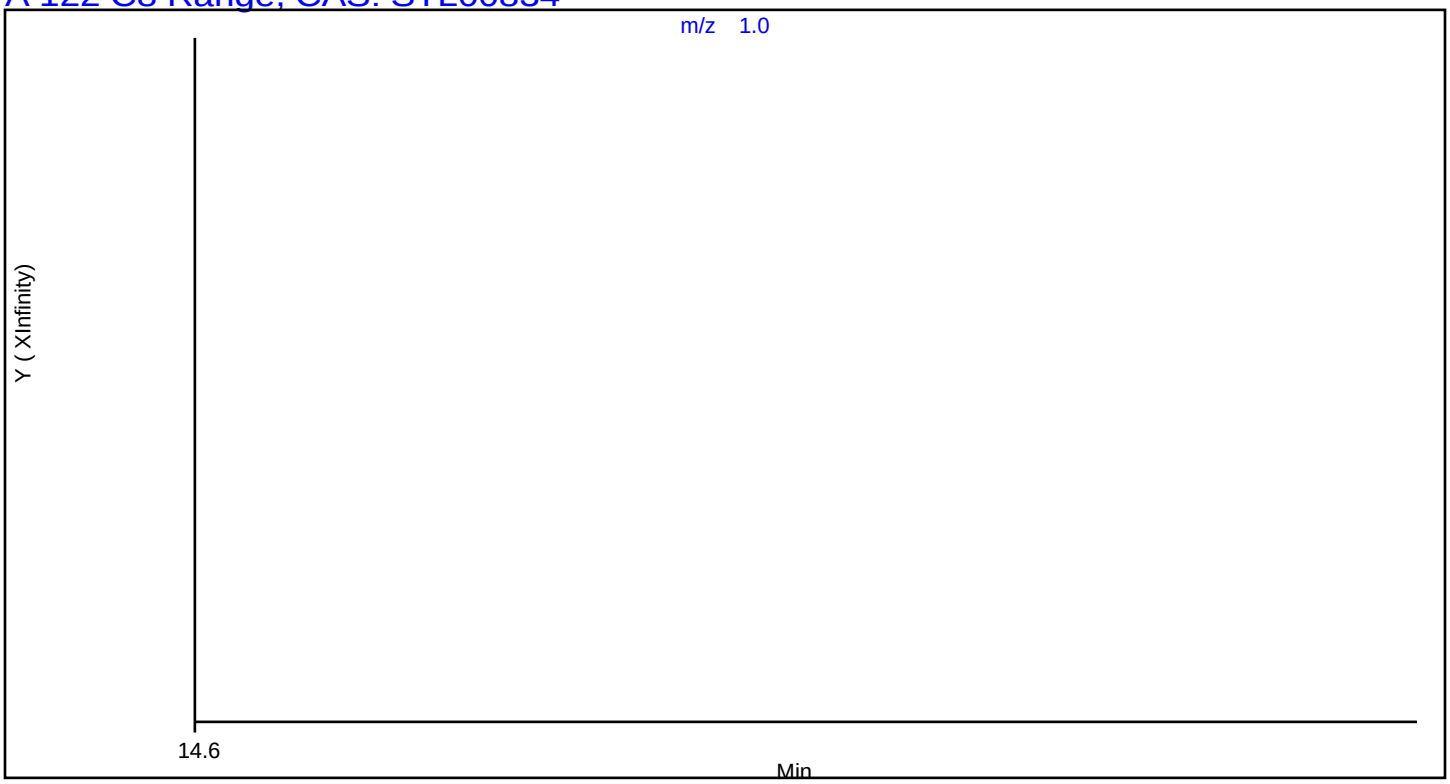


Report Date: 10-Jul-2019 10:11:09 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC04.D				
Injection Date:	08-Jul-2019 21:38:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-Jul-2019 22:21:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-011
Misc. Info.: 231548
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:15 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:53:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.166	-0.010	96	297950	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1696596	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	93	1501063	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1103580	4.00	3.92	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	96	71809	0.4000	0.3923	
7 Propene	41	3.840	3.840	0.000	99	77305	0.4000	0.6831	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	100	118628	0.4000	0.3966	
9 Chloromethane	52	4.082	4.090	-0.008	97	12384	0.4000	0.3876	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	94	60400	0.4000	0.3892	
11 Acetaldehyde	44	4.266	4.264	0.002	98	96189	2.00	2.46	
12 Vinyl chloride	62	4.266	4.269	-0.003	59	42749	0.4000	0.3880	
13 Butane	43	4.357	4.362	-0.005	85	71839	0.4000	0.4134	
14 Butadiene	54	4.363	4.363	0.000	69	34466	0.4000	0.3940	
15 Bromomethane	94	4.702	4.707	-0.005	98	32707	0.4000	0.3773	
16 Chloroethane	64	4.853	4.856	-0.003	93	19466	0.4000	0.3771	
17 Ethanol	31	4.988	5.002	-0.014	97	72414	2.00	2.03	
18 Vinyl bromide	106	5.171	5.176	-0.005	97	31133	0.4000	0.3842	
19 2-Methylbutane	43	5.220	5.227	-0.007	90	47806	0.4000	0.3983	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	99	105385	0.4000	0.3887	
21 Acrolein	56	5.473	5.488	-0.015	91	7888	0.4000	0.4513	
22 Acetonitrile	40	5.544	5.555	-0.011	96	10987	0.4000	0.3856	
23 Acetone	58	5.603	5.618	-0.015	99	51507	1.20	1.55	
24 Pentane	72	5.684	5.691	-0.007	99	6776	0.4000	0.4032	
25 Isopropyl alcohol	45	5.738	5.755	-0.017	96	107252	1.20	1.20	
26 Ethyl ether	31	5.878	5.889	-0.011	96	32690	0.4000	0.4112	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	94	38563	0.4000	0.3773	
28 Acrylonitrile	53	6.309	6.317	-0.008	95	25944	0.4000	0.4054	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	91	84026	0.4000	0.3912	
30 2-Methyl-2-propanol	59	6.396	6.424	-0.028	91	53362	0.4000	0.3785	
31 Methylene Chloride	84	6.552	6.560	-0.008	98	52414	0.4000	0.4434	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	93	41911	0.4000	0.3996	
33 Carbon disulfide	76	6.724	6.728	-0.004	98	121342	0.4000	0.3857	
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	95	38234	0.4000	0.3917	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	116431	0.4000	0.3958	
36 Methyl tert-butyl ether	73	7.544	7.561	-0.017	97	104172	0.4000	0.4136	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	99	86835	0.4000	0.3936	
38 Vinyl acetate	43	7.927	7.938	-0.011	100	97086	0.4000	0.4035	
40 Hexane	56	8.401	8.410	-0.009	74	39946	0.4000	0.3903	
39 2-Butanone (MEK)	72	8.401	8.414	-0.013	89	17794	0.4000	0.4315	
41 Isopropyl ether	45	8.585	8.600	-0.015	98	136653	0.4000	0.4199	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	99	40070	0.4000	0.3888	
43 Ethyl acetate	43	9.027	9.034	-0.007	98	85772	0.4000	0.4321	
44 Chloroform	83	9.167	9.177	-0.010	35	92853	0.4000	0.4012	
45 Tert-butyl ethyl ether	59	9.280	9.295	-0.015	96	122525	0.4000	0.4171	
46 Tetrahydrofuran	42	9.620	9.628	-0.008	94	44789	0.4000	0.4177	
47 1,1,1-Trichloroethane	97	10.208	10.218	-0.010	96	101772	0.4000	0.3988	
48 1,2-Dichloroethane	62	10.316	10.324	-0.008	98	66652	0.4000	0.3970	
50 Benzene	78	10.801	10.804	-0.003	97	126451	0.4000	0.4138	
49 Cyclohexane	69	10.801	10.805	-0.004	73	22999	0.4000	0.4165	
52 Carbon tetrachloride	117	10.823	10.827	-0.004	96	84844	0.4000	0.3998	
51 n-Butanol	31	10.855	10.859	-0.004	66	10387	0.4000	0.3598	
53 2,3-Dimethylpentane	71	10.909	10.915	-0.006	91	32816	0.4000	0.3917	
54 Thiophene	84	11.076	11.077	-0.001	98	70261	0.4000	0.3890	
55 Isooctane	57	11.540	11.546	-0.006	98	242166	0.4000	0.4180	
56 n-Heptane	71	11.907	11.911	-0.005	93	48257	0.4000	0.3934	
57 1,2-Dichloropropane	63	12.004	12.005	-0.001	87	47806	0.4000	0.4080	
58 Trichloroethene	130	12.031	12.038	-0.007	94	48812	0.4000	0.3897	
59 Dibromomethane	93	12.122	12.125	-0.003	85	46244	0.4000	0.4048	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	98	90456	0.4000	0.3959	
61 1,4-Dioxane	88	12.322	12.331	-0.009	93	13131	0.4000	0.4304	
62 Methyl methacrylate	41	12.354	12.361	-0.007	91	48380	0.4000	0.3949	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	83302	0.4000	0.3962	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.222	-0.005	97	70820	0.4000	0.3722	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	97	69422	0.4000	0.3965	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	98	60171	0.4000	0.3938	
67 Toluene	91	14.053	14.056	-0.003	93	129324	0.4000	0.3902	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	37991	0.4000	0.3895	
69 2-Hexanone	58	14.533	14.534	-0.001	93	29707	0.4000	0.3489	
70 n-Octane	85	14.721	14.722	-0.001	96	50125	0.4000	0.3940	
71 Chlorodibromomethane	129	14.824	14.829	-0.005	97	70682	0.4000	0.3754	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	98	67378	0.4000	0.3914	
73 Tetrachloroethene	129	15.185	15.186	-0.001	89	46289	0.4000	0.3795	
75 Chlorobenzene	112	16.048	16.054	-0.006	88	98421	0.4000	0.3964	
74 2,3-Dimethylheptane	43	16.059	16.056	0.003	96	170384	0.4000	0.3897	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	163155	0.4000	0.3918	
79 m-Xylene & p-Xylene	91	16.490	16.494	-0.004	99	258719	0.8000	0.8142	
80 n-Nonane	57	16.894	16.897	-0.003	94	105483	0.4000	0.3976	
81 Bromoform	173	16.948	16.951	-0.003	89	48963	0.4000	0.3570	
82 Styrene	104	16.954	16.956	-0.002	98	78646	0.4000	0.3830	
83 o-Xylene	91	17.013	17.018	-0.005	98	134485	0.4000	0.3981	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	99	84982	0.4000	0.4021	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	98	25933	0.4000	0.3886	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.597	-0.002	95	171751	0.4000	0.3912	
87 N-Propylbenzene	120	18.119	18.121	-0.002	98	44740	0.4000	0.4005	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	96	41340	0.4000	0.3849	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	98	165895	0.4000	0.4021	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	68232	0.4000	0.4022	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	86	58794	0.4000	0.3701	
93 n-Decane	57	18.604	18.607	-0.003	89	127501	0.4000	0.4080	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	89	152630	0.4000	0.4237	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	96	147113	0.4000	0.4117	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	214602	0.4000	0.4095	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	97	80136	0.4000	0.3876	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	92132	0.4000	0.3698	
99 1,4-Dichlorobenzene	146	19.116	19.120	-0.004	89	79280	0.4000	0.3805	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	171601	0.4000	0.4138	
101 1,2,3-Trimethylbenzene	105	19.224	19.228	-0.004	99	151149	0.4000	0.4087	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	146554	0.4000	0.3968	
103 2,3-Dihydroindene	117	19.467	19.472	-0.005	93	125732	0.4000	0.4097	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	78	76724	0.4000	0.3886	
105 n-Butylbenzene	91	19.596	19.597	-0.001	97	170153	0.4000	0.4103	
106 Indene	116	19.596	19.598	-0.002	91	101879	0.4000	0.4019	
107 Undecane	57	19.887	19.889	-0.002	97	127414	0.4000	0.4162	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	87	30863	0.4000	0.3678	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	149816	0.4000	0.4113	
110 Dodecane	57	20.939	20.939	0.000	95	82404	0.4000	0.3628	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	92	41221	0.4000	0.3648	
112 Naphthalene	128	21.295	21.296	-0.001	98	106861	0.4000	0.3545	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	90	47078	0.4000	0.3632	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	92	34714	0.4000	0.3431	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	98	26532	0.4000	0.2865	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	35492	0.4000	0.2824	
A 122 C8 Range	1	14.716	(14.663-14.770)		0	477510	0.4000	0.3988	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.7805	
S 124 Xylenes, Total	100				0		1.20	1.21	

Reagents:

40L5DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

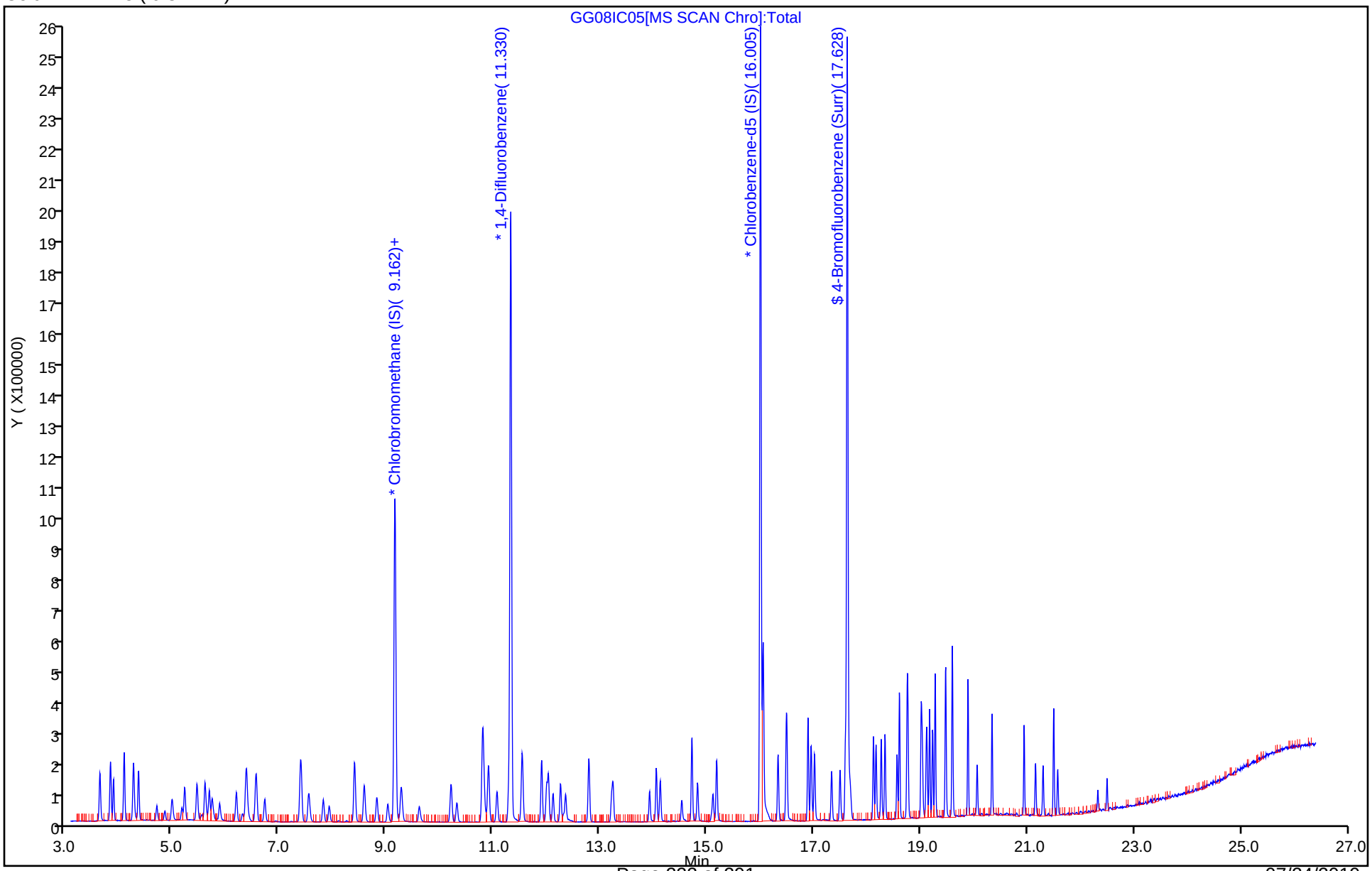
Report Date: 10-Jul-2019 10:11:16 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC05.D

Injection Date:	08-Jul-2019 22:21:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

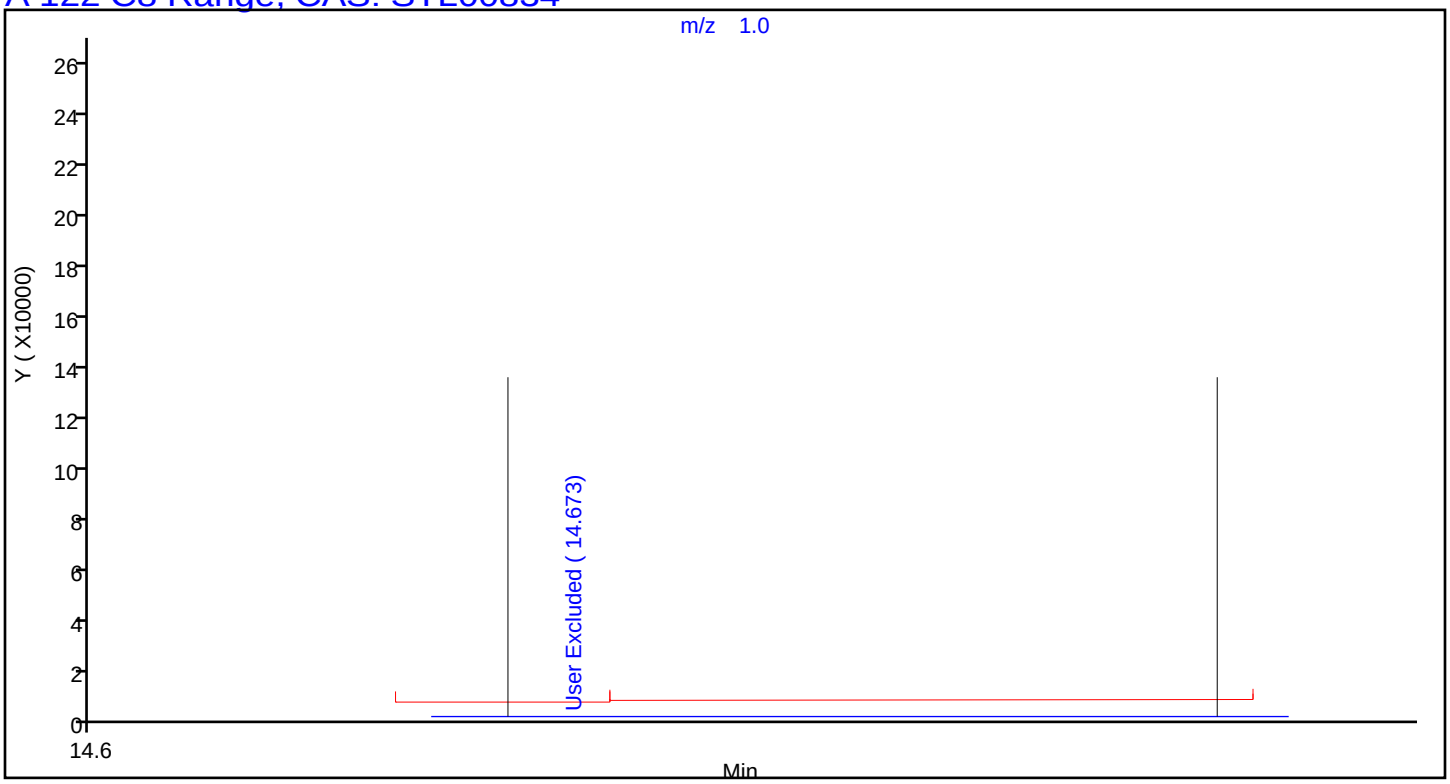


Report Date: 10-Jul-2019 10:11:16 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC05.D				
Injection Date:	08-Jul-2019 22:21:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 08-Jul-2019 23:04:30 ALS Bottle#: 4 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-012
Misc. Info.: 231547
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:22 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 17:56:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	95	287852	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1653160	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	93	1450235	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1105705	4.00	4.06	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	96	174833	1.00	0.9887	
7 Propene	41	3.840	3.840	0.000	99	135538	1.00	1.24	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	100	287773	1.00	1.00	
9 Chloromethane	52	4.088	4.090	-0.002	98	31452	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	95	147223	1.00	0.9820	
11 Acetaldehyde	44	4.260	4.264	-0.004	99	212722	5.00	5.64	
12 Vinyl chloride	62	4.266	4.269	-0.003	98	104705	1.00	0.9836	
13 Butane	43	4.363	4.362	0.001	85	175499	1.00	1.05	
14 Butadiene	54	4.363	4.363	0.000	67	85472	1.00	1.01	
15 Bromomethane	94	4.702	4.707	-0.005	98	82079	1.00	0.9800	
16 Chloroethane	64	4.853	4.856	-0.003	95	48845	1.00	0.9794	
17 Ethanol	31	4.977	5.002	-0.025	97	174500	5.00	5.07	
18 Vinyl bromide	106	5.171	5.176	-0.005	97	75305	1.00	0.9620	
19 2-Methylbutane	43	5.225	5.227	-0.002	91	118328	1.00	1.02	
20 Trichlorofluoromethane	101	5.457	5.458	-0.001	99	262827	1.00	1.00	
21 Acrolein	56	5.479	5.488	-0.009	94	18152	1.00	1.07	
22 Acetonitrile	40	5.544	5.555	-0.011	99	30070	1.00	1.09	
23 Acetone	58	5.603	5.618	-0.015	99	107829	3.00	3.35	
24 Pentane	72	5.684	5.691	-0.007	99	16650	1.00	1.03	
25 Isopropyl alcohol	45	5.722	5.755	-0.033	99	272018	3.00	3.14	
26 Ethyl ether	31	5.872	5.889	-0.017	95	79225	1.00	1.03	
27 1,1-Dichloroethene	96	6.196	6.195	0.001	92	95538	1.00	0.9675	
28 Acrylonitrile	53	6.309	6.317	-0.008	95	64129	1.00	1.04	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	91	206178	1.00	0.99	
30 2-Methyl-2-propanol	59	6.379	6.424	-0.045	97	146941	1.00	1.08	
31 Methylene Chloride	84	6.557	6.560	-0.003	98	108135	1.00	0.9470	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	94	111471	1.00	1.10	
33 Carbon disulfide	76	6.724	6.728	-0.004	99	306862	1.00	1.01	
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	94	94133	1.00	1.00	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	293380	1.00	1.03	
36 Methyl tert-butyl ether	73	7.533	7.561	-0.028	97	241732	1.00	0.99	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	100	210890	1.00	0.9895	
38 Vinyl acetate	43	7.927	7.938	-0.011	100	242197	1.00	1.04	
40 Hexane	56	8.407	8.410	-0.003	82	99133	1.00	1.00	
39 2-Butanone (MEK)	72	8.396	8.414	-0.018	96	40161	1.00	1.01	
41 Isopropyl ether	45	8.579	8.600	-0.021	98	320050	1.00	1.02	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	98	97914	1.00	0.9835	
43 Ethyl acetate	43	9.022	9.034	-0.012	98	191383	1.00	1.00	
44 Chloroform	83	9.173	9.177	-0.004	96	226610	1.00	1.01	
45 Tert-butyl ethyl ether	59	9.270	9.295	-0.025	96	288688	1.00	1.02	
46 Tetrahydrofuran	42	9.604	9.628	-0.024	96	100025	1.00	0.9656	
47 1,1,1-Trichloroethane	97	10.213	10.218	-0.005	95	252901	1.00	1.03	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	98	159144	1.00	0.9728	
50 Benzene	78	10.801	10.804	-0.003	97	312208	1.00	1.05	
49 Cyclohexane	69	10.801	10.805	-0.004	74	56285	1.00	1.05	
52 Carbon tetrachloride	117	10.828	10.827	0.001	97	237722	1.00	1.15	
51 n-Butanol	31	10.844	10.859	-0.015	80	30778	1.00	1.09	
53 2,3-Dimethylpentane	71	10.914	10.915	-0.001	92	81792	1.00	1.00	
54 Thiophene	84	11.071	11.077	-0.006	98	170995	1.00	0.9716	
55 Isooctane	57	11.545	11.546	-0.001	98	593576	1.00	1.05	
56 n-Heptane	71	11.907	11.911	-0.004	93	119809	1.00	1.00	
57 1,2-Dichloropropane	63	12.004	12.005	-0.001	88	118472	1.00	1.04	
58 Trichloroethene	130	12.036	12.038	-0.002	95	117853	1.00	0.9657	
59 Dibromomethane	93	12.122	12.125	-0.003	86	109933	1.00	0.9876	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	98	227633	1.00	1.02	
61 1,4-Dioxane	88	12.311	12.331	-0.020	96	29628	1.00	1.00	
62 Methyl methacrylate	41	12.354	12.361	-0.007	91	118511	1.00	0.99	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	207627	1.00	1.01	
64 4-Methyl-2-pentanone (MIBK	43	13.212	13.222	-0.010	99	178920	1.00	0.9650	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	97	177369	1.00	1.04	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	97	153455	1.00	1.04	
67 Toluene	91	14.053	14.056	-0.003	94	318038	1.00	0.99	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	96582	1.00	1.02	
69 2-Hexanone	58	14.522	14.534	-0.012	92	82617	1.00	1.00	
70 n-Octane	85	14.721	14.722	-0.001	95	124730	1.00	1.01	
71 Chlorodibromomethane	129	14.829	14.829	0.000	97	181167	1.00	1.00	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	98	172936	1.00	1.04	
73 Tetrachloroethene	129	15.185	15.186	-0.001	88	113216	1.00	0.9608	
75 Chlorobenzene	112	16.053	16.054	-0.001	90	248423	1.00	1.04	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	96	416991	1.00	0.9872	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	414987	1.00	1.03	
79 m-Xylene & p-Xylene	91	16.495	16.494	0.001	99	652087	2.00	2.12	
80 n-Nonane	57	16.895	16.897	-0.003	94	267443	1.00	1.04	
81 Bromoform	173	16.948	16.951	-0.003	90	134659	1.00	1.02	
82 Styrene	104	16.954	16.956	-0.002	99	213858	1.00	1.08	
83 o-Xylene	91	17.019	17.018	0.001	98	336101	1.00	1.03	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	99	209924	1.00	1.03	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	98	64341	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.596	17.597	-0.001	97	424534	1.00	1.00	
87 N-Propylbenzene	120	18.119	18.121	-0.002	98	109149	1.00	1.01	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	96	107661	1.00	1.04	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	98	407415	1.00	1.02	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	162127	1.00	0.9893	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	87	154913	1.00	1.01	
93 n-Decane	57	18.604	18.607	-0.003	89	311008	1.00	1.03	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	90	362107	1.00	1.04	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	97	350571	1.00	1.02	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	515075	1.00	1.02	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	97	205333	1.00	1.03	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	246082	1.00	1.02	
99 1,4-Dichlorobenzene	146	19.122	19.120	0.002	91	203086	1.00	1.01	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	402579	1.00	1.00	
101 1,2,3-Trimethylbenzene	105	19.224	19.228	-0.004	99	360396	1.00	1.01	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	362929	1.00	1.02	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	93	305259	1.00	1.03	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	93	194966	1.00	1.02	
105 n-Butylbenzene	91	19.596	19.597	-0.001	96	398934	1.00	1.00	
106 Indene	116	19.596	19.598	-0.002	75	254608	1.00	1.04	
107 Undecane	57	19.887	19.889	-0.002	97	302765	1.00	1.02	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.063	0.002	90	78246	1.00	0.9652	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	356588	1.00	1.01	
110 Dodecane	57	20.939	20.939	0.000	96	234074	1.00	1.07	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	95	108526	1.00	0.99	
112 Naphthalene	128	21.295	21.296	-0.001	99	291471	1.00	1.00	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	87	121695	1.00	0.9719	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	93	98474	1.00	1.01	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	106371	1.00	1.19	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	149365	1.00	1.23	
A 122 C8 Range	1	14.724	(14.663-14.770)		0	1212815	1.00	1.05	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.98	
S 124 Xylenes, Total	100				0		3.00	3.15	

Reagents:

40L6DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

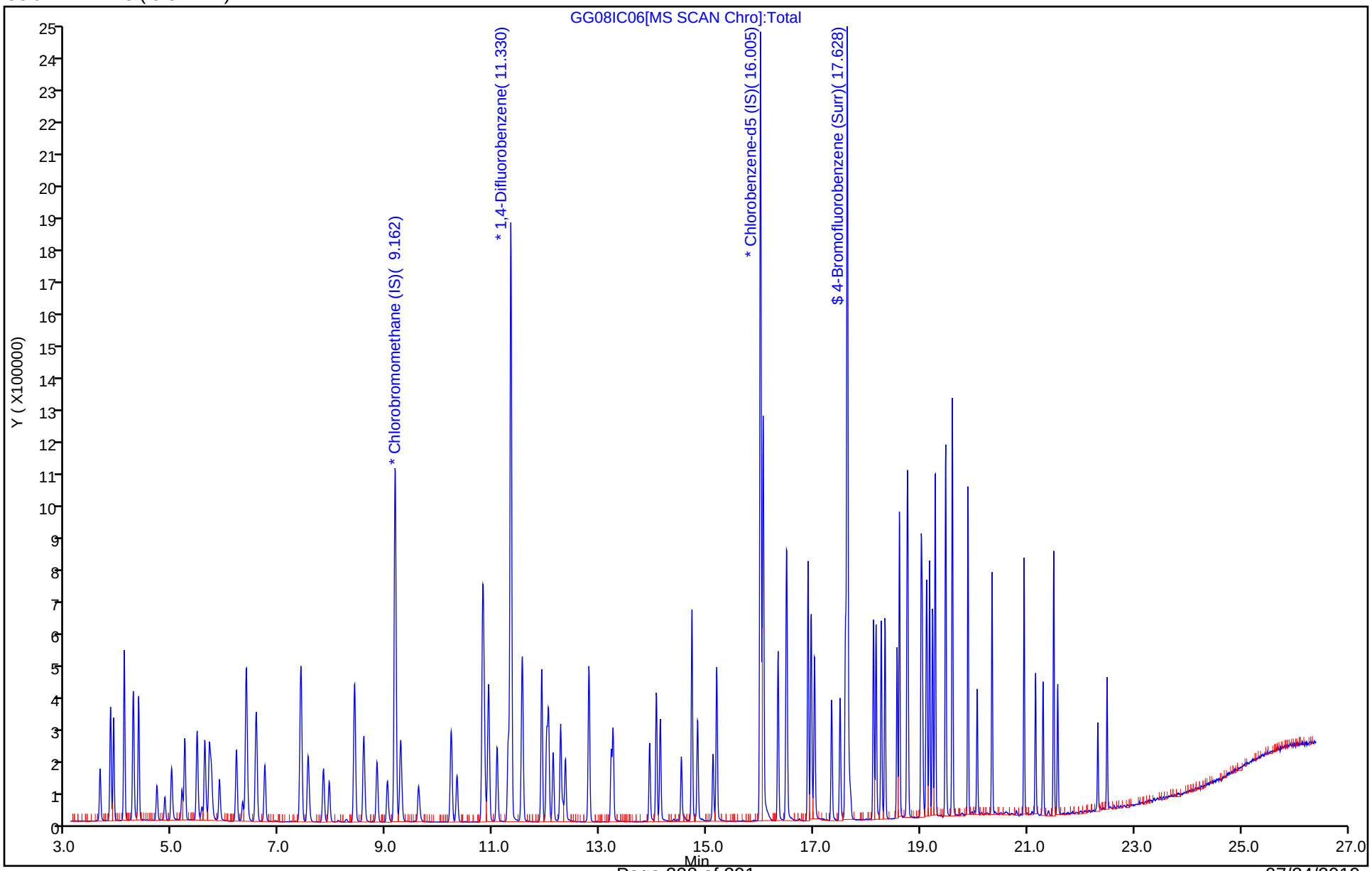
Report Date: 10-Jul-2019 10:11:24 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC06.D

Injection Date:	08-Jul-2019 23:04:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

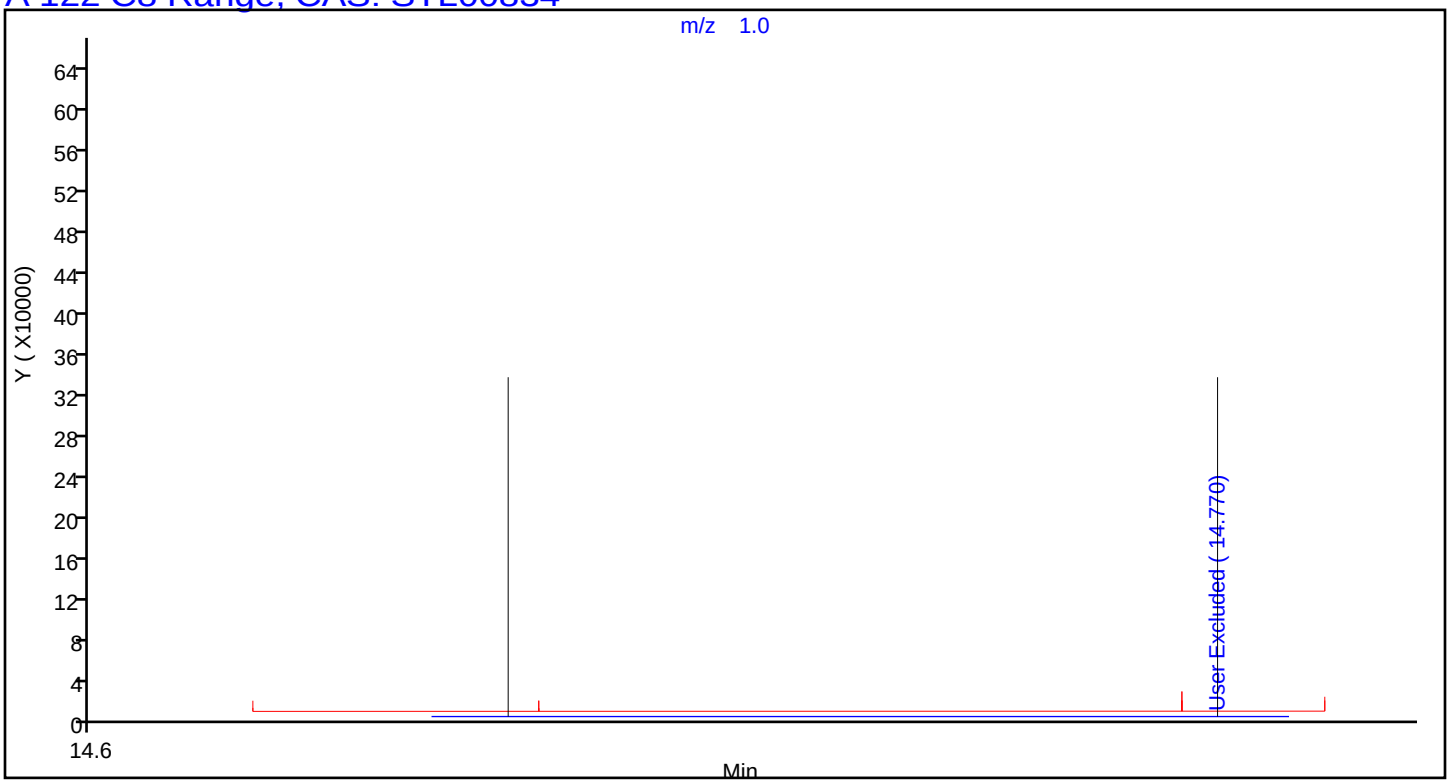


Report Date: 10-Jul-2019 10:11:24 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC06.D				
Injection Date:	08-Jul-2019 23:04:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	007126	ALS Bottle#:	4	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 08-Jul-2019 23:50:30 ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-013
Misc. Info.: 231546
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:30 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 09:26:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	95	285204	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.329	11.333	-0.004	96	1675610	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1447120	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1081444	4.00	3.98	
6 Chlorodifluoromethane	51	3.823	3.829	-0.006	96	361764	2.00	2.06	
7 Propene	41	3.839	3.840	-0.001	98	236974	2.00	2.19	
8 Dichlorodifluoromethane	85	3.888	3.893	-0.005	100	589517	2.00	2.06	
9 Chloromethane	52	4.087	4.090	-0.003	99	63003	2.00	2.06	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	95	305678	2.00	2.06	
11 Acetaldehyde	44	4.255	4.264	-0.009	98	383382	10.0	10.3	
12 Vinyl chloride	62	4.265	4.269	-0.004	99	216532	2.00	2.05	
13 Butane	43	4.357	4.362	-0.005	85	351262	2.00	2.11	
14 Butadiene	54	4.357	4.363	-0.006	67	175391	2.00	2.09	
15 Bromomethane	94	4.702	4.707	-0.005	98	169349	2.00	2.04	
16 Chloroethane	64	4.853	4.856	-0.003	96	100959	2.00	2.04	
17 Ethanol	31	4.972	5.002	-0.030	97	373860	10.0	11.0	
18 Vinyl bromide	106	5.171	5.176	-0.005	98	158059	2.00	2.04	
19 2-Methylbutane	43	5.220	5.227	-0.007	92	241113	2.00	2.10	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	99	549170	2.00	2.12	
21 Acrolein	56	5.473	5.488	-0.015	94	28862	2.00	1.72	
22 Acetonitrile	40	5.538	5.555	-0.017	99	52394	2.00	1.92	
23 Acetone	58	5.592	5.618	-0.026	99	195417	6.00	6.13	
24 Pentane	72	5.684	5.691	-0.007	98	34139	2.00	2.12	
25 Isopropyl alcohol	45	5.705	5.755	-0.050	97	553532	6.00	6.45	
26 Ethyl ether	31	5.867	5.889	-0.022	95	157377	2.00	2.07	
27 1,1-Dichloroethene	96	6.191	6.195	-0.005	93	201449	2.00	2.06	
28 Acrylonitrile	53	6.304	6.317	-0.013	95	127737	2.00	2.08	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	91	421128	2.00	2.05	
30 2-Methyl-2-propanol	59	6.358	6.424	-0.066	95	287618	2.00	2.13	
31 Methylene Chloride	84	6.552	6.560	-0.008	98	202487	2.00	1.79	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	95	216320	2.00	2.15	
33 Carbon disulfide	76	6.724	6.728	-0.004	99	630356	2.00	2.09	
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	95	200066	2.00	2.14	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	594886	2.00	2.11	
36 Methyl tert-butyl ether	73	7.522	7.561	-0.039	97	508860	2.00	2.11	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	100	419984	2.00	1.99	
38 Vinyl acetate	43	7.927	7.938	-0.011	100	483187	2.00	2.10	
40 Hexane	56	8.407	8.410	-0.003	89	203560	2.00	2.08	
39 2-Butanone (MEK)	72	8.385	8.414	-0.029	96	76828	2.00	1.95	
41 Isopropyl ether	45	8.569	8.600	-0.031	98	654163	2.00	2.10	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	98	194838	2.00	1.98	
43 Ethyl acetate	43	9.011	9.034	-0.023	98	390303	2.00	2.05	
44 Chloroform	83	9.172	9.177	-0.005	97	448637	2.00	2.03	
45 Tert-butyl ethyl ether	59	9.259	9.295	-0.036	96	598723	2.00	2.13	
46 Tetrahydrofuran	42	9.588	9.628	-0.040	95	213195	2.00	2.08	
47 1,1,1-Trichloroethane	97	10.213	10.218	-0.005	96	502638	2.00	2.06	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	98	323544	2.00	1.95	
50 Benzene	78	10.801	10.804	-0.003	97	606613	2.00	2.01	
49 Cyclohexane	69	10.801	10.805	-0.004	93	113718	2.00	2.08	
52 Carbon tetrachloride	117	10.823	10.827	-0.004	97	489911	2.00	2.34	
51 n-Butanol	31	10.828	10.859	-0.031	66	58581	2.00	2.05	
53 2,3-Dimethylpentane	71	10.914	10.915	-0.001	92	160667	2.00	1.94	
54 Thiophene	84	11.071	11.077	-0.006	98	352293	2.00	1.97	
55 Isooctane	57	11.540	11.546	-0.006	98	1175545	2.00	2.05	
56 n-Heptane	71	11.906	11.911	-0.005	93	244674	2.00	2.02	
57 1,2-Dichloropropane	63	11.998	12.005	-0.007	88	235122	2.00	2.03	
58 Trichloroethene	130	12.036	12.038	-0.002	95	239961	2.00	1.94	
59 Dibromomethane	93	12.122	12.125	-0.003	87	222594	2.00	1.97	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	98	467492	2.00	2.07	
61 1,4-Dioxane	88	12.295	12.331	-0.036	95	60116	2.00	2.00	
62 Methyl methacrylate	41	12.349	12.361	-0.012	91	243241	2.00	2.01	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	410470	2.00	1.98	
64 4-Methyl-2-pentanone (MIBK	43	13.206	13.222	-0.016	98	349426	2.00	1.86	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	95	355365	2.00	2.05	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	97	305013	2.00	2.07	
67 Toluene	91	14.053	14.056	-0.003	94	635162	2.00	1.99	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	193362	2.00	2.06	
69 2-Hexanone	58	14.516	14.534	-0.018	92	157030	2.00	1.91	
70 n-Octane	85	14.721	14.722	-0.001	95	253606	2.00	2.07	
71 Chlorodibromomethane	129	14.829	14.829	0.000	98	398352	2.00	2.19	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	99	342309	2.00	2.06	
73 Tetrachloroethene	129	15.185	15.186	-0.001	88	230408	2.00	1.96	
75 Chlorobenzene	112	16.053	16.054	-0.001	88	478498	2.00	2.00	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	96	855055	2.00	2.03	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	809018	2.00	2.02	
79 m-Xylene & p-Xylene	91	16.490	16.494	-0.004	99	1261848	4.00	4.12	
80 n-Nonane	57	16.894	16.897	-0.003	94	539805	2.00	2.11	
81 Bromoform	173	16.948	16.951	-0.003	90	300906	2.00	2.28	
82 Styrene	104	16.954	16.956	-0.002	99	422160	2.00	2.13	
83 o-Xylene	91	17.018	17.018	0.000	98	666784	2.00	2.05	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	99	427123	2.00	2.10	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	98	134184	2.00	2.09	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.597	-0.002	97	859816	2.00	2.03	
87 N-Propylbenzene	120	18.118	18.121	-0.003	98	223592	2.00	2.08	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	97	210749	2.00	2.04	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	98	816975	2.00	2.05	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	330121	2.00	2.02	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	87	325034	2.00	2.12	
93 n-Decane	57	18.604	18.607	-0.003	90	619896	2.00	2.06	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	89	726254	2.00	2.09	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	96	703731	2.00	2.04	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	1036034	2.00	2.05	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	97	401462	2.00	2.01	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	504540	2.00	2.10	
99 1,4-Dichlorobenzene	146	19.121	19.120	0.001	92	398394	2.00	1.98	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	819945	2.00	2.05	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	99	718452	2.00	2.02	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	703120	2.00	1.97	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	93	607343	2.00	2.05	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	77	381180	2.00	2.00	
105 n-Butylbenzene	91	19.596	19.597	-0.001	98	791463	2.00	1.98	
106 Indene	116	19.596	19.598	-0.002	90	505658	2.00	2.07	
107 Undecane	57	19.887	19.889	-0.002	97	579850	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.063	-0.003	88	170238	2.00	2.10	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	675819	2.00	1.92	
110 Dodecane	57	20.939	20.939	0.000	96	386358	2.00	1.76	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	92	200798	2.00	1.84	
112 Naphthalene	128	21.295	21.296	-0.001	99	481102	2.00	1.66	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	88	249643	2.00	2.00	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	93	176167	2.00	1.81	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	99684	2.00	1.12	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	150436	2.00	1.24	
A 122 C8 Range	1	14.721	(14.663-14.813)		0	2423571	2.00	2.10	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.12	
S 124 Xylenes, Total	100				0		6.00	6.17	

Reagents:

40L7DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

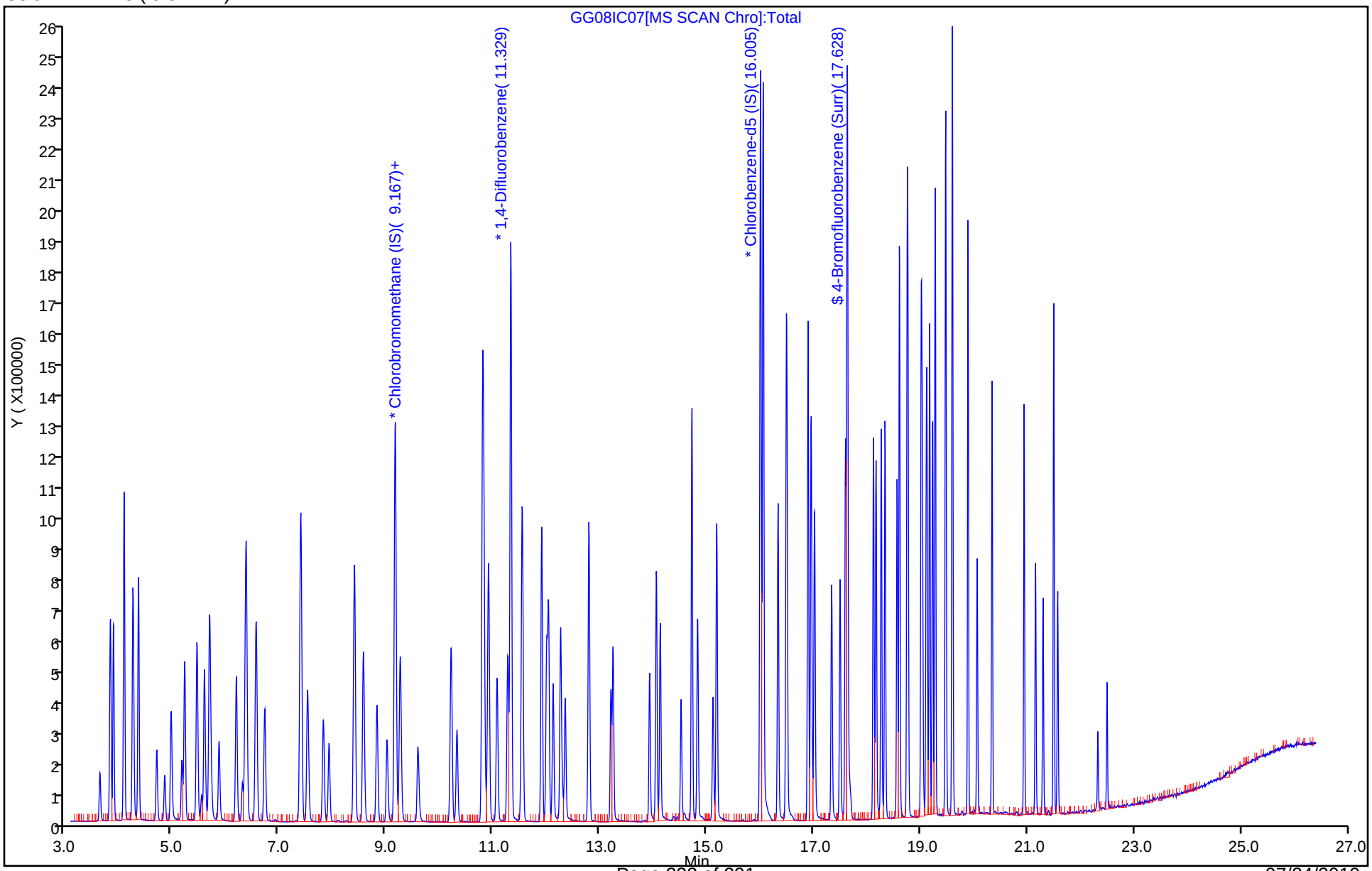
Report Date: 10-Jul-2019 10:11:32 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC07.D

Injection Date:	08-Jul-2019 23:50:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

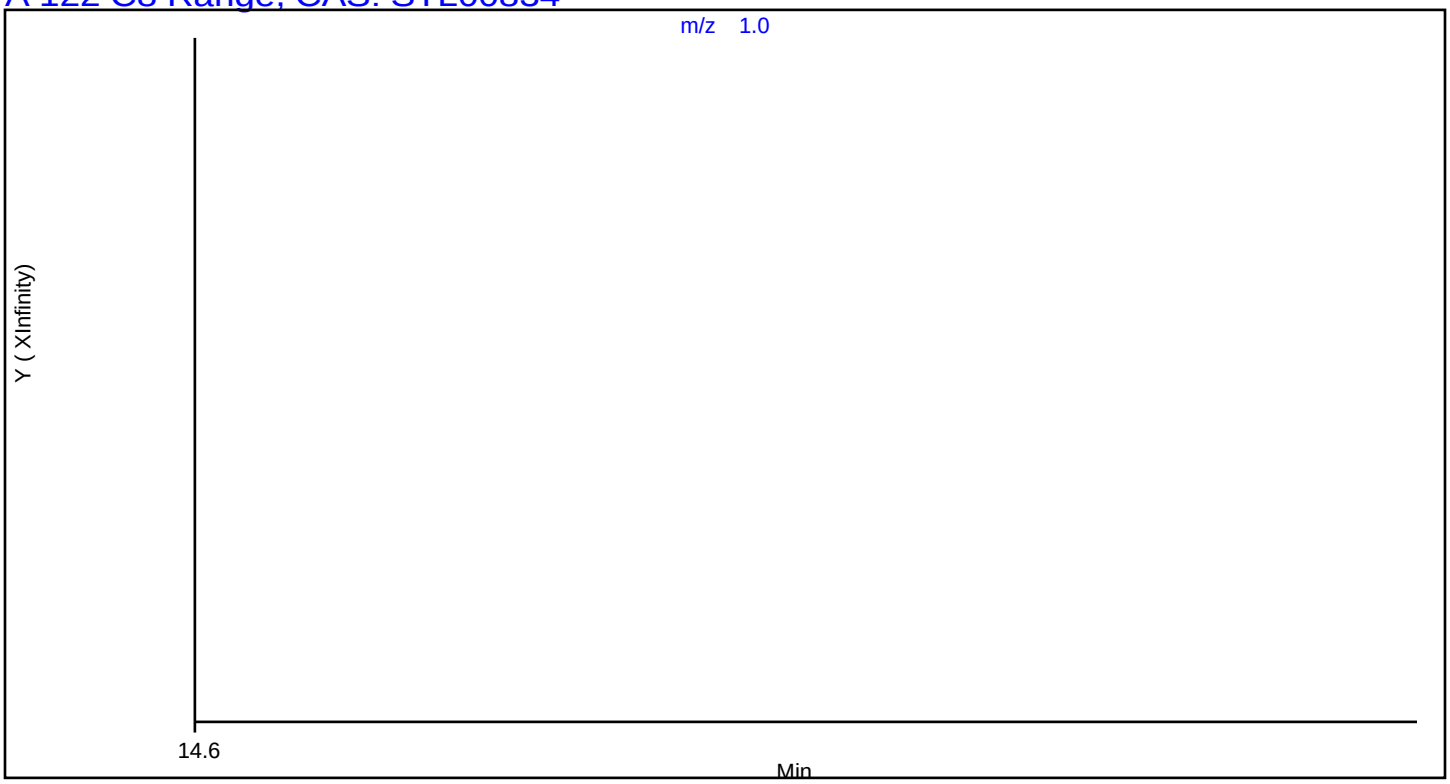


Report Date: 10-Jul-2019 10:11:32 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC07.D				
Injection Date:	08-Jul-2019 23:50:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	007126	ALS Bottle#:	5	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 09-Jul-2019 00:37:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-014
Misc. Info.: 231545
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:39 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 09:28:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	95	286180	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1629217	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1414575	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	78	1087615	4.00	4.10	
6 Chlorodifluoromethane	51	3.823	3.829	-0.006	96	721944	4.00	4.11	
7 Propene	41	3.834	3.840	-0.006	98	431867	4.00	3.97	
8 Dichlorodifluoromethane	85	3.888	3.893	-0.005	100	1178274	4.00	4.10	
9 Chloromethane	52	4.082	4.090	-0.008	98	118834	4.00	3.87	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.095	-0.007	94	599999	4.00	4.03	
11 Acetaldehyde	44	4.244	4.264	-0.020	99	659189	20.0	17.6	
12 Vinyl chloride	62	4.260	4.269	-0.009	99	411877	4.00	3.89	
13 Butane	43	4.352	4.362	-0.010	85	659928	4.00	3.95	
14 Butadiene	54	4.357	4.363	-0.006	68	333835	4.00	3.97	
15 Bromomethane	94	4.697	4.707	-0.010	98	328038	4.00	3.94	
16 Chloroethane	64	4.843	4.856	-0.013	98	190505	4.00	3.84	
17 Ethanol	31	4.956	5.002	-0.046	97	684814	20.0	20.0	
18 Vinyl bromide	106	5.166	5.176	-0.010	98	305863	4.00	3.93	
19 2-Methylbutane	43	5.220	5.227	-0.007	91	447936	4.00	3.89	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	99	1065558	4.00	4.09	
21 Acrolein	56	5.463	5.488	-0.025	95	64298	4.00	3.83	
22 Acetonitrile	40	5.538	5.555	-0.017	99	103887	4.00	3.80	
23 Acetone	58	5.581	5.618	-0.037	99	325389	12.0	10.2	
24 Pentane	72	5.684	5.691	-0.007	87	61963	4.00	3.84	
25 Isopropyl alcohol	45	5.684	5.755	-0.071	76	1058633	12.0	12.3	
26 Ethyl ether	31	5.856	5.889	-0.033	95	259397	4.00	3.40	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	93	396008	4.00	4.03	
28 Acrylonitrile	53	6.299	6.317	-0.019	95	239060	4.00	3.89	
29 1,1,2-Trichloro-1,2,2-trif	101	6.369	6.378	-0.009	92	830610	4.00	4.03	
30 2-Methyl-2-propanol	59	6.315	6.424	-0.109	95	640953	4.00	4.73	
31 Methylene Chloride	84	6.552	6.560	-0.008	99	379569	4.00	3.34	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	95	448459	4.00	4.45	
33 Carbon disulfide	76	6.719	6.728	-0.009	99	1225010	4.00	4.05	
34 trans-1,2-Dichloroethene	96	7.382	7.391	-0.009	94	389349	4.00	4.15	
35 2-Methylpentane	43	7.399	7.407	-0.008	95	1137966	4.00	4.03	
36 Methyl tert-butyl ether	73	7.517	7.561	-0.044	97	979687	4.00	4.05	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	100	825022	4.00	3.89	
38 Vinyl acetate	43	7.922	7.938	-0.016	100	915807	4.00	3.96	
40 Hexane	56	8.402	8.410	-0.008	90	395313	4.00	4.02	
39 2-Butanone (MEK)	72	8.380	8.414	-0.034	98	152039	4.00	3.84	
41 Isopropyl ether	45	8.563	8.600	-0.037	98	1269530	4.00	4.06	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	98	386487	4.00	3.90	
43 Ethyl acetate	43	9.005	9.034	-0.029	98	760437	4.00	3.99	
44 Chloroform	83	9.173	9.177	-0.004	97	886307	4.00	3.99	
45 Tert-butyl ethyl ether	59	9.254	9.295	-0.041	96	1175667	4.00	4.17	
46 Tetrahydrofuran	42	9.577	9.628	-0.051	95	411450	4.00	4.00	
47 1,1,1-Trichloroethane	97	10.208	10.218	-0.010	96	979470	4.00	4.00	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	98	639218	4.00	3.96	
50 Benzene	78	10.801	10.804	-0.003	98	1156157	4.00	3.94	
49 Cyclohexane	69	10.801	10.805	-0.004	80	216516	4.00	4.08	
52 Carbon tetrachloride	117	10.823	10.827	-0.004	97	970373	4.00	4.76	
51 n-Butanol	31	10.780	10.859	-0.079	79	133565	4.00	4.82	
53 2,3-Dimethylpentane	71	10.909	10.915	-0.006	91	316948	4.00	3.94	
54 Thiophene	84	11.071	11.077	-0.006	98	688653	4.00	3.97	
55 Isooctane	57	11.540	11.546	-0.006	98	2250027	4.00	4.04	
56 n-Heptane	71	11.907	11.911	-0.004	93	474089	4.00	4.03	
57 1,2-Dichloropropane	63	11.998	12.005	-0.007	88	442344	4.00	3.93	
58 Trichloroethene	130	12.036	12.038	-0.002	94	476190	4.00	3.96	
59 Dibromomethane	93	12.122	12.125	-0.003	88	437830	4.00	3.99	
60 Dichlorobromomethane	83	12.262	12.264	-0.002	99	937809	4.00	4.27	
61 1,4-Dioxane	88	12.279	12.331	-0.052	95	130352	4.00	4.45	
62 Methyl methacrylate	41	12.343	12.361	-0.018	91	487826	4.00	4.15	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	796358	4.00	3.94	
64 4-Methyl-2-pentanone (MIBK	43	13.190	13.222	-0.032	98	842197	4.00	4.61	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	96	704112	4.00	4.19	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	98	625349	4.00	4.34	
67 Toluene	91	14.053	14.056	-0.003	93	1218142	4.00	3.90	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	374119	4.00	4.07	
69 2-Hexanone	58	14.506	14.534	-0.028	92	407509	4.00	5.08	
70 n-Octane	85	14.721	14.722	-0.001	95	490610	4.00	4.09	
71 Chlorodibromomethane	129	14.824	14.829	-0.005	97	820501	4.00	4.62	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	98	665783	4.00	4.10	
73 Tetrachloroethene	129	15.185	15.186	-0.001	89	454880	4.00	3.96	
75 Chlorobenzene	112	16.053	16.054	-0.001	88	930645	4.00	3.98	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	96	1562234	4.00	3.79	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	1528035	4.00	3.89	
79 m-Xylene & p-Xylene	91	16.495	16.494	0.001	99	2368848	8.00	7.91	
80 n-Nonane	57	16.895	16.897	-0.003	94	996132	4.00	3.98	
81 Bromoform	173	16.948	16.951	-0.003	91	608542	4.00	4.71	
82 Styrene	104	16.954	16.956	-0.002	98	822981	4.00	4.25	
83 o-Xylene	91	17.019	17.018	0.001	98	1250848	4.00	3.93	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	99	806907	4.00	4.05	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	98	257692	4.00	4.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.596	17.597	-0.001	97	1610557	4.00	3.89	
87 N-Propylbenzene	120	18.119	18.121	-0.002	98	420803	4.00	4.00	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	97	395851	4.00	3.91	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	98	1567632	4.00	4.03	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	617472	4.00	3.86	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	87	637649	4.00	4.26	
93 n-Decane	57	18.604	18.607	-0.003	90	1118422	4.00	3.80	
94 tert-Butylbenzene	119	18.749	18.752	-0.003	90	1333352	4.00	3.93	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	97	1308786	4.00	3.89	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	1902162	4.00	3.85	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	97	783063	4.00	4.02	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	1104088	4.00	4.70	
99 1,4-Dichlorobenzene	146	19.122	19.120	0.002	90	789984	4.00	4.02	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	1551400	4.00	3.97	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	99	1368028	4.00	3.93	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	1274392	4.00	3.66	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	1134038	4.00	3.92	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	97	734420	4.00	3.95	
105 n-Butylbenzene	91	19.596	19.597	-0.001	98	1506335	4.00	3.85	
106 Indene	116	19.596	19.598	-0.002	91	989194	4.00	4.14	
107 Undecane	57	19.887	19.889	-0.002	97	1103450	4.00	3.82	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.063	-0.003	88	364505	4.00	4.61	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	1492917	4.00	4.35	
110 Dodecane	57	20.939	20.939	0.000	96	900235	4.00	4.21	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	92	477828	4.00	4.49	
112 Naphthalene	128	21.295	21.296	-0.001	99	1333328	4.00	4.69	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	89	486237	4.00	3.98	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	93	460339	4.00	4.83	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	505574	4.00	5.79	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	99	641839	4.00	5.42	
A 122 C8 Range	1	14.724	(14.663-14.770)		0	4685560	4.00	4.15	
S 123 1,2-Dichloroethene, Total	1				0		8.00	8.06	
S 124 Xylenes, Total	100				0		12.0	11.8	

Reagents:

40L8DQP_00011	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

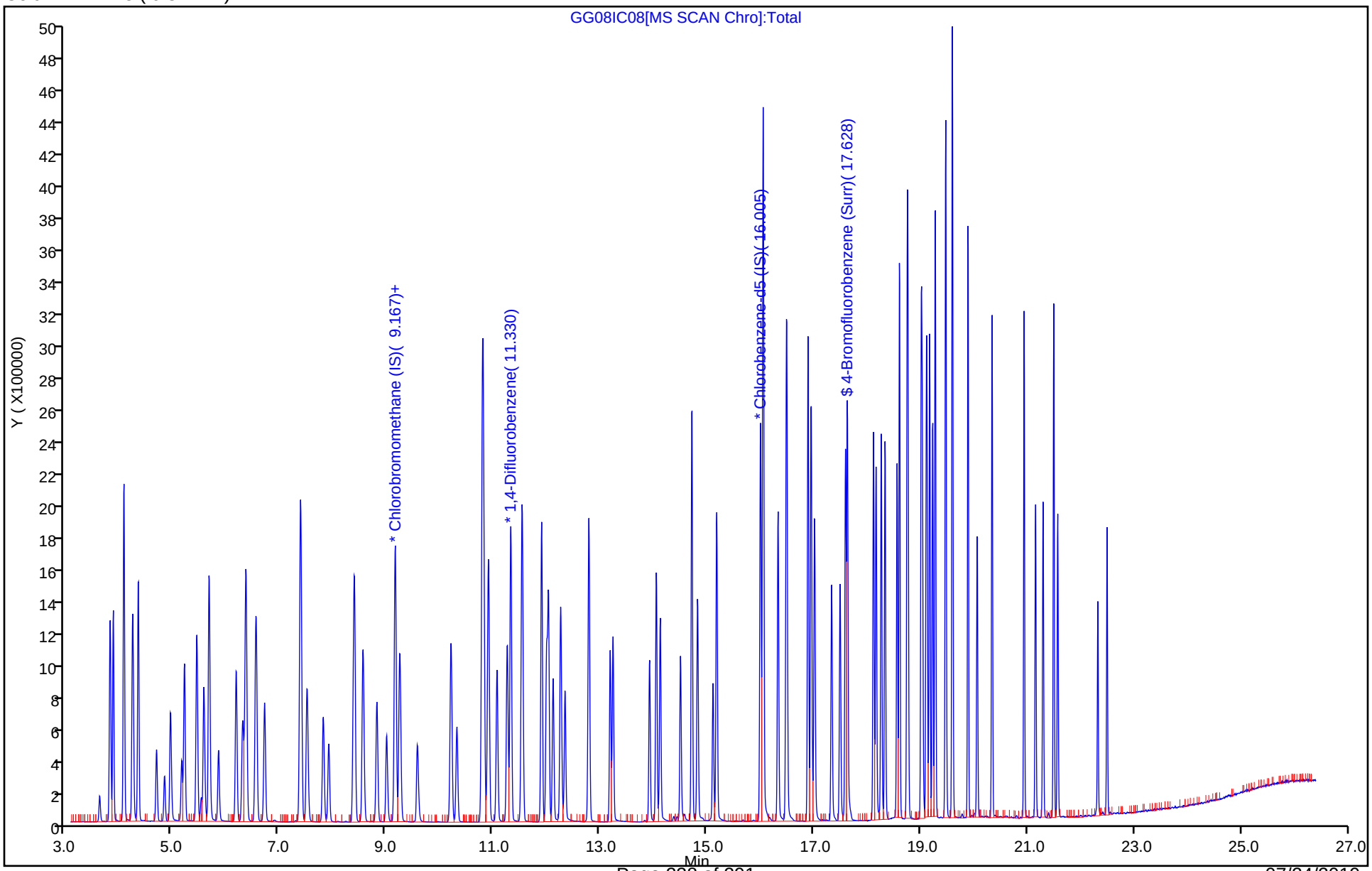
Report Date: 10-Jul-2019 10:11:40 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Injection Date:	09-Jul-2019 00:37:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

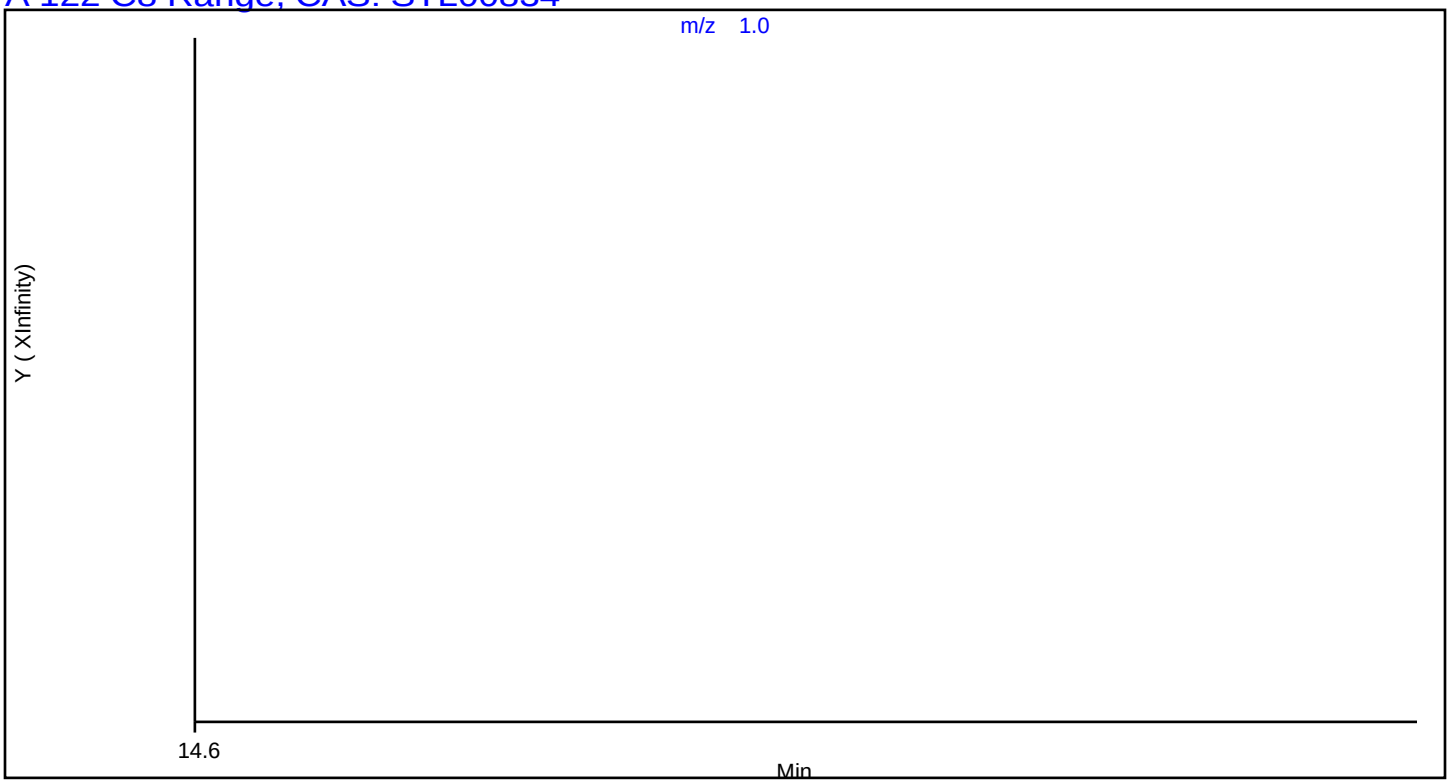


Report Date: 10-Jul-2019 10:11:40 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Injection Date:	09-Jul-2019 00:37:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: ICV 140-31457/17 Calibration Date: 07/09/2019 02:45

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GG08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.457	2.569		2.09	2.00	4.5	35.0
Propene	Ave	1.519	1.623		2.14	2.00	6.8	35.0
Dichlorodifluoromethane	Ave	4.016	4.183		2.08	2.00	4.2	35.0
Chloromethane	Ave	0.4289	0.4265		1.99	2.00	-0.6	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.083	2.150		2.06	2.00	3.2	35.0
Acetaldehyde	Ave	0.5242	0.4109		7.84	10.0	-21.6	35.0
Vinyl chloride	Ave	1.479	1.505		2.03	2.00	1.7	35.0
1,3-Butadiene	Ave	1.175	1.181		2.01	2.00	0.6	35.0
Butane	Ave	2.333	2.476		2.12	2.00	6.1	35.0
Bromomethane	Ave	1.164	1.150		1.98	2.00	-1.2	35.0
Chloroethane	Ave	0.6930	0.7030		2.03	2.00	1.4	35.0
Ethanol	Ave	0.4784	0.3624		7.58	10.0	-24.2	35.0
Vinyl bromide	Ave	1.088	1.153		2.12	2.00	6.0	35.0
2-Methylbutane	Ave	1.612	1.695		2.10	2.00	5.2	35.0
Trichlorofluoromethane	Ave	3.640	3.833		2.11	2.00	5.3	35.0
Acrolein	Ave	0.2347	0.2572		2.19	2.00	9.6	35.0
Acetonitrile	Ave	0.3826	0.3519		1.84	2.00	-8.0	35.0
Acetone	Ave	0.4469	0.4022		1.80	2.00	-10.0	35.0
Pentane	Ave	0.2256	0.2372		2.10	2.00	5.2	35.0
Isopropyl alcohol	Ave	1.204	1.476		2.45	2.00	22.5	35.0
Ethyl ether	Ave	1.067	1.046		1.96	2.00	-2.0	35.0
1,1-Dichloroethene	Ave	1.372	1.414		2.06	2.00	3.0	35.0
Acrylonitrile	Ave	0.8593	0.8216		1.91	2.00	-4.4	35.0
tert-Butyl alcohol	Ave	1.893	1.956		2.07	2.00	3.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.884	3.011		2.09	2.00	4.4	35.0
Methylene Chloride	Ave	1.587	1.448		1.82	2.00	-8.8	35.0
3-Chloropropene	Ave	1.408	1.552		2.20	2.00	10.2	35.0
Carbon disulfide	Ave	4.224	4.364		2.07	2.00	3.3	35.0
trans-1,2-Dichloroethene	Ave	1.311	1.416		2.16	2.00	8.0	35.0
2-Methylpentane	Ave	3.949	3.845		1.95	2.00	-2.7	35.0
Methyl tert-butyl ether	Ave	3.381	3.184		1.88	2.00	-5.8	35.0
1,1-Dichloroethane	Ave	2.962	3.003		2.03	2.00	1.4	35.0
Vinyl acetate	Ave	3.230	3.046		1.89	2.00	-5.7	35.0
2-Butanone (MEK)	Ave	0.5536	0.4769		1.72	2.00	-13.9	35.0
Hexane	Ave	1.374	1.442		2.10	2.00	4.9	35.0
Isopropyl ether	Ave	4.369	4.236		1.94	2.00	-3.1	35.0
cis-1,2-Dichloroethene	Ave	1.384	1.435		2.07	2.00	3.7	35.0
Ethyl acetate	Ave	2.665	2.293		1.72	2.00	-14.0	35.0
Chloroform	Ave	3.107	3.202		2.06	2.00	3.1	35.0
Tert-butyl ethyl ether	Ave	3.943	3.545		1.80	2.00	-10.1	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: ICV 140-31457/17 Calibration Date: 07/09/2019 02:45

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GG08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.439	1.379		1.92	2.00	-4.2	35.0
1,1,1-Trichloroethane	Ave	3.426	3.552		2.07	2.00	3.7	35.0
1,2-Dichloroethane	Ave	0.3959	0.4022		2.03	2.00	1.6	35.0
Benzene	Ave	0.7204	0.7620		2.12	2.00	5.8	35.0
Cyclohexane	Ave	0.1302	0.1417		2.18	2.00	8.8	35.0
1-Butanol	Ave	0.0681	0.0756		2.22	2.00	11.1	35.0
Carbon tetrachloride	Ave	0.5003	0.6259		2.50	2.00	25.1	35.0
2,3-Dimethylpentane	Ave	0.1975	0.1936		1.96	2.00	-2.0	35.0
Thiophene	Ave	0.4258	0.4191		1.97	2.00	-1.6	35.0
2,2,4-Trimethylpentane	Ave	1.366	1.438		2.11	2.00	5.3	35.0
Heptane	Ave	0.2892	0.2907		2.01	2.00	0.5	35.0
1,2-Dichloropropane	Ave	0.2763	0.2649		1.92	2.00	-4.1	35.0
Trichloroethene	Ave	0.2953	0.3084		2.09	2.00	4.4	35.0
Dibromomethane	Ave	0.2693	0.2861		2.12	2.00	6.2	35.0
Bromodichloromethane	Ave	0.5387	0.5706		2.12	2.00	5.9	35.0
1,4-Dioxane	Ave	0.0719	0.0704		1.96	2.00	-2.1	35.0
Methyl methacrylate	Ave	0.2888	0.2578		1.79	2.00	-10.7	35.0
Methylcyclohexane	Ave	0.4957	0.6071		2.45	2.00	22.5	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4486	0.3939		1.76	2.00	-12.2	35.0
cis-1,3-Dichloropropene	Ave	0.4128	0.4298		2.08	2.00	4.1	35.0
trans-1,3-Dichloropropene	Ave	0.4072	0.4288		2.11	2.00	5.3	35.0
Toluene	Ave	0.8831	0.8406		1.90	2.00	-4.8	35.0
1,1,2-Trichloroethane	Ave	0.2599	0.2524		1.94	2.00	-2.9	35.0
2-Hexanone	Ave	0.2269	0.2185		1.93	2.00	-3.7	35.0
Octane	Ave	0.3390	0.3597		2.12	2.00	6.1	35.0
Dibromochloromethane	Ave	0.5017	0.5611		2.24	2.00	11.8	35.0
1,2-Dibromoethane (EDB)	Ave	0.4587	0.4704		2.05	2.00	2.5	35.0
Tetrachloroethene	Ave	0.3250	0.3321		2.04	2.00	2.2	35.0
2,3-Dimethylheptane	Ave	1.165	1.042		1.79	2.00	-10.5	35.0
Chlorobenzene	Ave	0.6616	0.6742		2.04	2.00	1.9	35.0
Ethylbenzene	Ave	1.110	1.053		1.90	2.00	-5.1	35.0
m-Xylene & p-Xylene	Ave	0.8467	0.8374		3.96	4.00	-1.1	35.0
Nonane	Ave	0.7070	0.7309		2.07	2.00	3.4	35.0
Bromoform	Ave	0.3655	0.3918		2.14	2.00	7.2	35.0
Styrene	Ave	0.5472	0.5636		2.06	2.00	3.0	35.0
o-Xylene	Ave	0.9002	0.8654		1.92	2.00	-3.9	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5632	0.5527		1.96	2.00	-1.9	35.0
1,2,3-Trichloropropane	Ave	0.1779	0.1759		1.98	2.00	-1.1	35.0
Isopropylbenzene	Ave	1.170	1.151		1.97	2.00	-1.7	35.0
Propylbenzene	Ave	0.2977	0.2993		2.01	2.00	0.6	35.0
2-Chlorotoluene	Ave	0.2862	0.2833		1.98	2.00	-1.0	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: ICV 140-31457/17 Calibration Date: 07/09/2019 02:45

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GG08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.099	1.044		1.90	2.00	-5.0	35.0
1,3,5-Trimethylbenzene	Ave	0.4520	0.4846		2.14	2.00	7.2	35.0
Alpha Methyl Styrene	Ave	0.4233	0.4233		2.00	2.00	-0.0	35.0
Decane	Ave	0.8327	0.8424		2.02	2.00	1.2	35.0
tert-Butylbenzene	Ave	0.9600	0.9568		1.99	2.00	-0.3	35.0
1,2,4-Trimethylbenzene	Ave	0.9522	0.9284		1.95	2.00	-2.5	35.0
sec-Butylbenzene	Ave	1.396	1.370		1.96	2.00	-1.9	35.0
1,3-Dichlorobenzene	Ave	0.5509	0.5316		1.93	2.00	-3.5	35.0
Benzyl chloride	Ave	0.6639	0.7021		2.12	2.00	5.8	35.0
1,4-Dichlorobenzene	Ave	0.5552	0.5269		1.90	2.00	-5.1	35.0
4-Isopropyltoluene	Ave	1.105	1.054		1.91	2.00	-4.7	35.0
1,2,3-Trimethylbenzene	Ave	0.9855	0.6969		1.41	2.00	-29.3	35.0
Butylcyclohexane	Ave	0.9841	0.8746		1.78	2.00	-11.1	35.0
1,2-Dichlorobenzene	Ave	0.5262	0.5042		1.92	2.00	-4.2	35.0
Indane	Ave	0.8178	0.7799		1.91	2.00	-4.6	35.0
Butylbenzene	Ave	1.105	1.051		1.90	2.00	-4.9	35.0
Indene	Ave	0.6755	0.5699		1.69	2.00	-15.6	35.0
Undecane	Ave	0.8159	0.7660		1.88	2.00	-6.1	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2236	0.1695		1.52	2.00	-24.2	35.0
1,2,4,5-Tetramethylbenzene	Ave	0.9706	0.8165		1.68	2.00	-15.9	35.0
Dodecane	Ave	0.6052	0.5538		1.83	2.00	-8.5	35.0
1,2,4-Trichlorobenzene	Ave	0.3011	0.2729		1.81	2.00	-9.4	35.0
Naphthalene	Ave	0.8033	0.6981		1.74	2.00	-13.1	35.0
Hexachlorobutadiene	Ave	0.3454	0.3203		1.86	2.00	-7.2	35.0
1,2,3-Trichlorobenzene	Ave	0.2696	0.2493		1.85	2.00	-7.6	35.0
2-Methylnaphthalene	Ave	0.2468	0.2267		1.84	2.00	-8.1	50.0
1-Methylnaphthalene	Ave	0.3349	0.2505		1.50	2.00	-25.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7505	0.7691		4.10	4.00	2.5	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08LCS.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 09-Jul-2019 02:45:30 ALS Bottle#: 7 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012267-017
Misc. Info.: S95
Operator ID: 007126 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jul-2019 10:11:39 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: barlozhetskayaa Date: 09-Jul-2019 09:46:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.166	-0.004	95	295834	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.330	11.333	-0.003	96	1677973	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.006	-0.001	92	1436310	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.630	-0.002	88	1104646	4.00	4.10	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	96	379953	2.00	2.09	
7 Propene	41	3.840	3.840	0.000	98	240064	2.00	2.14	
8 Dichlorodifluoromethane	85	3.894	3.893	0.001	100	618753	2.00	2.08	
9 Chloromethane	52	4.088	4.090	-0.002	98	63091	2.00	1.99	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.095	-0.002	94	318093	2.00	2.06	
11 Acetaldehyde	44	4.255	4.264	-0.009	99	303885	10.0	7.84	
12 Vinyl chloride	62	4.266	4.269	-0.003	99	222644	2.00	2.03	
13 Butane	43	4.363	4.362	0.001	85	366231	2.00	2.12	
14 Butadiene	54	4.363	4.363	0.000	65	174714	2.00	2.01	
15 Bromomethane	94	4.702	4.707	-0.005	98	170128	2.00	1.98	
16 Chloroethane	64	4.853	4.856	-0.003	96	103991	2.00	2.03	
17 Ethanol	31	4.972	5.002	-0.030	97	268038	10.0	7.58	
18 Vinyl bromide	106	5.172	5.176	-0.004	98	170490	2.00	2.12	
19 2-Methylbutane	43	5.225	5.227	-0.002	91	250667	2.00	2.10	
20 Trichlorofluoromethane	101	5.452	5.458	-0.006	99	566969	2.00	2.11	
21 Acrolein	56	5.474	5.488	-0.014	97	38037	2.00	2.19	
22 Acetonitrile	40	5.544	5.555	-0.011	98	52046	2.00	1.84	
23 Acetone	58	5.603	5.618	-0.015	99	59487	2.00	1.80	
24 Pentane	72	5.689	5.691	-0.002	98	35092	2.00	2.10	
25 Isopropyl alcohol	45	5.711	5.755	-0.044	93	218263	2.00	2.45	
26 Ethyl ether	31	5.873	5.889	-0.016	95	154733	2.00	1.96	
27 1,1-Dichloroethene	96	6.191	6.195	-0.004	93	209104	2.00	2.06	
28 Acrylonitrile	53	6.309	6.317	-0.008	95	121526	2.00	1.91	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.378	-0.004	91	445399	2.00	2.09	
30 2-Methyl-2-propanol	59	6.352	6.424	-0.072	96	289324	2.00	2.07	
31 Methylene Chloride	84	6.552	6.560	-0.008	99	214171	2.00	1.82	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.575	-0.007	94	229498	2.00	2.20	
33 Carbon disulfide	76	6.725	6.728	-0.003	99	645495	2.00	2.07	
34 trans-1,2-Dichloroethene	96	7.388	7.391	-0.003	95	209420	2.00	2.16	
35 2-Methylpentane	43	7.404	7.407	-0.003	95	568679	2.00	1.95	
36 Methyl tert-butyl ether	73	7.528	7.561	-0.033	97	471032	2.00	1.88	
37 1,1-Dichloroethane	63	7.819	7.823	-0.004	100	444168	2.00	2.03	
38 Vinyl acetate	43	7.927	7.938	-0.011	100	450593	2.00	1.89	
40 Hexane	56	8.407	8.410	-0.003	89	213287	2.00	2.10	
39 2-Butanone (MEK)	72	8.391	8.414	-0.023	96	70537	2.00	1.72	
41 Isopropyl ether	45	8.569	8.600	-0.031	98	626553	2.00	1.94	
42 cis-1,2-Dichloroethene	96	8.822	8.827	-0.005	99	212232	2.00	2.07	
43 Ethyl acetate	43	9.011	9.034	-0.023	98	339154	2.00	1.72	
44 Chloroform	83	9.173	9.177	-0.004	97	473641	2.00	2.06	
45 Tert-butyl ethyl ether	59	9.259	9.295	-0.036	95	524431	2.00	1.80	
46 Tetrahydrofuran	42	9.593	9.628	-0.035	95	203928	2.00	1.92	
47 1,1,1-Trichloroethane	97	10.213	10.218	-0.005	95	525383	2.00	2.07	
48 1,2-Dichloroethane	62	10.321	10.324	-0.003	98	337425	2.00	2.03	
50 Benzene	78	10.801	10.804	-0.003	97	639272	2.00	2.12	
49 Cyclohexane	69	10.801	10.805	-0.004	92	118873	2.00	2.18	
52 Carbon tetrachloride	117	10.828	10.827	0.001	97	525127	2.00	2.50	
51 n-Butanol	31	10.823	10.859	-0.036	66	63420	2.00	2.22	
53 2,3-Dimethylpentane	71	10.914	10.915	-0.001	92	162437	2.00	1.96	
54 Thiophene	84	11.076	11.077	-0.001	98	351579	2.00	1.97	
55 Isooctane	57	11.545	11.546	-0.001	98	1206386	2.00	2.11	
56 n-Heptane	71	11.912	11.911	0.001	93	243919	2.00	2.01	
57 1,2-Dichloropropane	63	11.998	12.005	-0.007	88	222242	2.00	1.92	
58 Trichloroethene	130	12.036	12.038	-0.002	94	258712	2.00	2.09	
59 Dibromomethane	93	12.122	12.125	-0.003	87	240022	2.00	2.12	
60 Dichlorobromomethane	83	12.263	12.264	-0.002	98	478727	2.00	2.12	
61 1,4-Dioxane	88	12.295	12.331	-0.036	94	59074	2.00	1.96	
62 Methyl methacrylate	41	12.349	12.361	-0.012	91	216307	2.00	1.79	
63 Methylcyclohexane	83	12.791	12.794	-0.003	93	509374	2.00	2.45	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.222	-0.021	98	330464	2.00	1.76	
65 cis-1,3-Dichloropropene	75	13.244	13.248	-0.004	96	360580	2.00	2.08	
66 trans-1,3-Dichloropropene	75	13.929	13.932	-0.003	98	307930	2.00	2.11	
67 Toluene	91	14.053	14.056	-0.003	94	603711	2.00	1.90	
68 1,1,2-Trichloroethane	83	14.128	14.131	-0.003	98	181265	2.00	1.94	
69 2-Hexanone	58	14.517	14.534	-0.018	92	156890	2.00	1.93	
70 n-Octane	85	14.721	14.722	-0.001	95	258281	2.00	2.12	
71 Chlorodibromomethane	129	14.824	14.829	-0.005	98	402958	2.00	2.24	
72 Ethylene Dibromide	107	15.115	15.118	-0.003	97	337794	2.00	2.05	
73 Tetrachloroethene	129	15.185	15.186	-0.001	91	238487	2.00	2.04	
75 Chlorobenzene	112	16.053	16.054	-0.001	88	484177	2.00	2.04	
74 2,3-Dimethylheptane	43	16.053	16.056	-0.003	96	748477	2.00	1.79	
78 Ethylbenzene	91	16.334	16.336	-0.002	99	756161	2.00	1.90	
79 m-Xylene & p-Xylene	91	16.490	16.494	-0.004	99	1202758	4.00	3.96	
80 n-Nonane	57	16.895	16.897	-0.002	94	524931	2.00	2.07	
81 Bromoform	173	16.948	16.951	-0.003	91	281346	2.00	2.14	
82 Styrene	104	16.954	16.956	-0.002	98	404726	2.00	2.06	
83 o-Xylene	91	17.019	17.018	0.001	98	621460	2.00	1.92	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.338	-0.001	99	396886	2.00	1.96	
85 1,2,3-Trichloropropane	110	17.493	17.497	-0.004	98	126339	2.00	1.98	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.596	17.597	-0.001	97	826310	2.00	1.97	
87 N-Propylbenzene	120	18.119	18.121	-0.002	98	214976	2.00	2.01	
88 2-Chlorotoluene	126	18.167	18.169	-0.002	97	203440	2.00	1.98	
89 4-Ethyltoluene	105	18.264	18.267	-0.003	99	749702	2.00	1.90	
90 1,3,5-Trimethylbenzene	120	18.334	18.337	-0.003	91	347992	2.00	2.14	
92 Alpha Methyl Styrene	118	18.561	18.563	-0.002	86	303997	2.00	2.00	
93 n-Decane	57	18.604	18.607	-0.003	89	604977	2.00	2.02	
94 tert-Butylbenzene	119	18.750	18.752	-0.002	90	687123	2.00	1.99	
95 1,2,4-Trimethylbenzene	105	18.766	18.766	0.000	97	666706	2.00	1.95	
96 sec-Butylbenzene	105	19.014	19.015	-0.001	98	983670	2.00	1.96	
97 1,3-Dichlorobenzene	146	19.035	19.037	-0.002	97	381734	2.00	1.93	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	504203	2.00	2.12	
99 1,4-Dichlorobenzene	146	19.122	19.120	0.002	92	378362	2.00	1.90	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	756577	2.00	1.91	
101 1,2,3-Trimethylbenzene	105	19.229	19.228	0.001	99	500470	2.00	1.41	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	628087	2.00	1.78	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	93	560072	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.472	19.475	-0.003	78	362081	2.00	1.92	
105 n-Butylbenzene	91	19.596	19.597	-0.001	98	754435	2.00	1.90	
106 Indene	116	19.596	19.598	-0.002	90	409302	2.00	1.69	
107 Undecane	57	19.887	19.889	-0.002	96	550100	2.00	1.88	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.063	-0.003	88	121754	2.00	1.52	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	586399	2.00	1.68	
110 Dodecane	57	20.939	20.939	0.000	96	397682	2.00	1.83	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	92	195969	2.00	1.81	
112 Naphthalene	128	21.295	21.296	-0.001	99	501365	2.00	1.74	
113 Hexachlorobutadiene	225	21.494	21.496	-0.002	87	230048	2.00	1.86	
114 1,2,3-Trichlorobenzene	180	21.570	21.571	-0.001	93	179007	2.00	1.85	
115 2-Methylnaphthalene	142	22.319	22.320	-0.001	99	162817	2.00	1.84	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	98	179879	2.00	1.50	
A 122 C8 Range	1	14.724	(14.663-14.770)		0	2464959	2.00	2.15	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.23	
S 124 Xylenes, Total	100				0		6.00	5.88	

Reagents:

40CV101S_00095	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

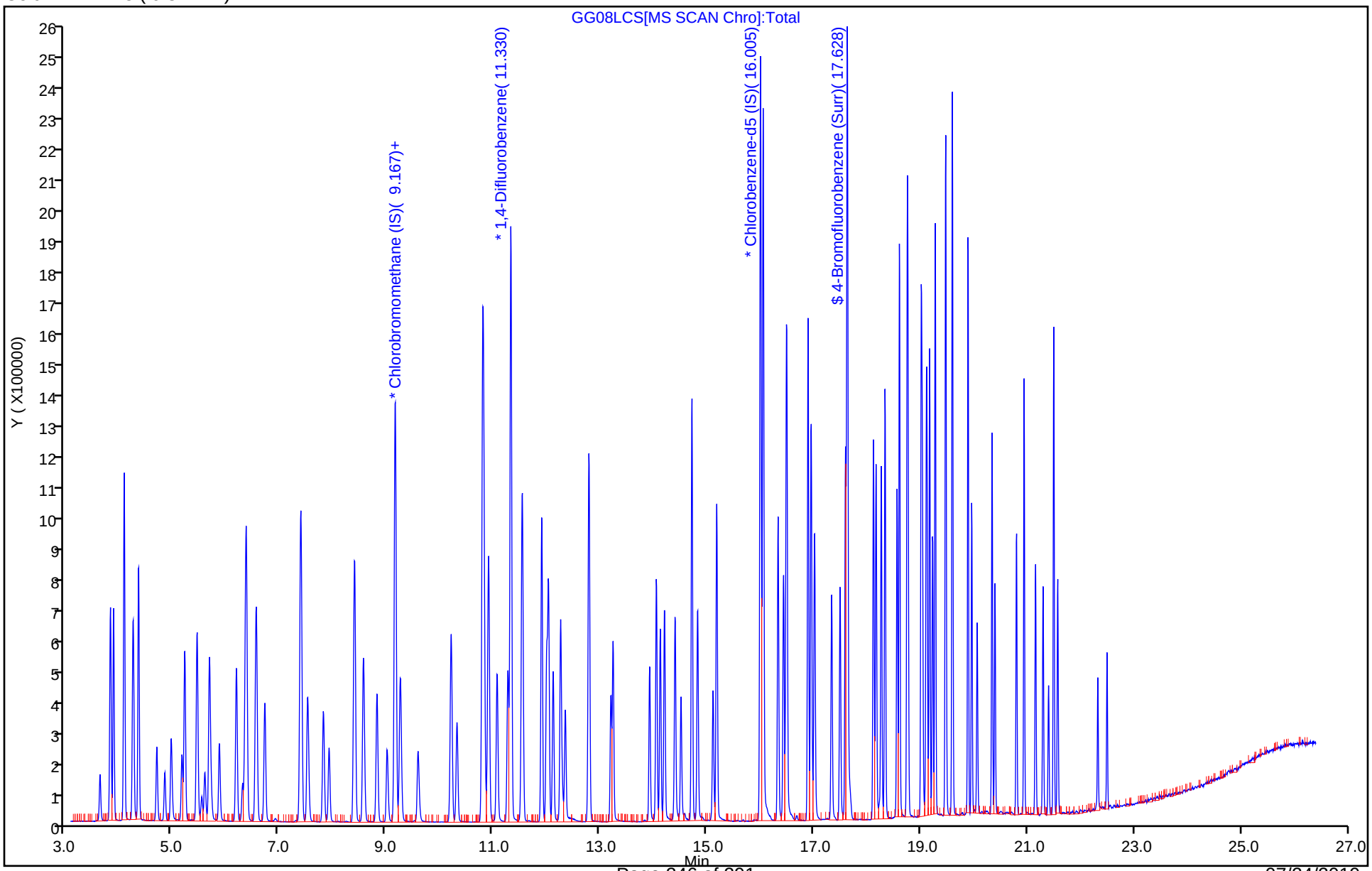
Report Date: 10-Jul-2019 12:47:57 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08LCS.D

Injection Date:	09-Jul-2019 02:45:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: CCVIS 140-31549/2 Calibration Date: 07/12/2019 10:38

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GCCVG12A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.457	3.050		2.48	2.00	24.1	30.0
Propene	Ave	1.519	1.980		2.61	2.00	30.3*	30.0
Dichlorodifluoromethane	Ave	4.016	4.879		2.43	2.00	21.5	30.0
Chloromethane	Ave	0.4289	0.5023		2.34	2.00	17.1	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.083	2.152		2.07	2.00	3.3	30.0
Acetaldehyde	Ave	0.5242	0.5421		10.3	10.0	3.4	30.0
Vinyl chloride	Ave	1.479	1.666		2.25	2.00	12.6	30.0
1,3-Butadiene	Ave	1.175	1.362		2.32	2.00	16.0	30.0
Butane	Ave	2.333	2.920		2.50	2.00	25.2	30.0
Bromomethane	Ave	1.164	1.203		2.07	2.00	3.4	30.0
Chloroethane	Ave	0.6930	0.7402		2.14	2.00	6.8	30.0
Ethanol	Ave	0.4784	0.5880		12.3	10.0	22.9	30.0
Vinyl bromide	Ave	1.088	1.045		1.92	2.00	-3.9	30.0
2-Methylbutane	Ave	1.612	1.966		2.44	2.00	22.0	30.0
Trichlorofluoromethane	Ave	3.640	4.130		2.27	2.00	13.5	30.0
Acrolein	Ave	0.2347	0.0968		0.825	2.00	-58.7*	30.0
Acetonitrile	Ave	0.3826	0.4359		2.28	2.00	14.0	30.0
Acetone	Ave	0.4469	0.3934		5.28	6.00	-12.0	30.0
Pentane	Ave	0.2256	0.2215		1.96	2.00	-1.8	30.0
Isopropyl alcohol	Ave	1.204	1.305		6.50	6.00	8.3	30.0
Ethyl ether	Ave	1.067	1.198		2.25	2.00	12.3	30.0
1,1-Dichloroethene	Ave	1.372	1.314		1.92	2.00	-4.2	30.0
Acrylonitrile	Ave	0.8593	0.8607		2.00	2.00	0.2	30.0
tert-Butyl alcohol	Ave	1.893	2.050		2.17	2.00	8.3	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.884	2.980		2.07	2.00	3.3	30.0
Methylene Chloride	Ave	1.587	1.444		1.82	2.00	-9.0	30.0
3-Chloropropene	Ave	1.408	1.770		2.51	2.00	25.7	30.0
Carbon disulfide	Ave	4.224	4.477		2.12	2.00	6.0	30.0
trans-1,2-Dichloroethene	Ave	1.311	1.371		2.09	2.00	4.6	30.0
2-Methylpentane	Ave	3.949	4.850		2.46	2.00	22.8	30.0
Methyl tert-butyl ether	Ave	3.381	3.474		2.05	2.00	2.7	30.0
1,1-Dichloroethane	Ave	2.962	3.233		2.18	2.00	9.2	30.0
Vinyl acetate	Ave	3.230	3.614		2.24	2.00	11.9	30.0
2-Butanone (MEK)	Ave	0.5536	0.5074		1.83	2.00	-8.4	30.0
Hexane	Ave	1.374	1.571		2.29	2.00	14.3	30.0
Isopropyl ether	Ave	4.369	4.872		2.23	2.00	11.5	30.0
cis-1,2-Dichloroethene	Ave	1.384	1.366		1.98	2.00	-1.2	30.0
Ethyl acetate	Ave	2.665	2.942		2.21	2.00	10.4	30.0
Chloroform	Ave	3.107	3.429		2.21	2.00	10.4	30.0
Tert-butyl ethyl ether	Ave	3.943	4.313		2.19	2.00	9.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: CCVIS 140-31549/2 Calibration Date: 07/12/2019 10:38

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GCCVG12A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.439	1.609		2.24	2.00	11.8	30.0
1,1,1-Trichloroethane	Ave	3.426	3.815		2.23	2.00	11.4	30.0
1,2-Dichloroethane	Ave	0.3959	0.4420		2.23	2.00	11.6	30.0
Cyclohexane	Ave	0.1302	0.1390		2.14	2.00	6.8	30.0
Benzene	Ave	0.7204	0.7204		2.00	2.00	-0.0	30.0
1-Butanol	Ave	0.0681	0.0779		2.29	2.00	14.4	30.0
Carbon tetrachloride	Ave	0.5003	0.6260		2.50	2.00	25.1	30.0
2,3-Dimethylpentane	Ave	0.1975	0.1970		1.99	2.00	-0.3	30.0
Thiophene	Ave	0.4258	0.4145		1.95	2.00	-2.7	30.0
2,2,4-Trimethylpentane	Ave	1.366	1.480		2.17	2.00	8.4	30.0
Heptane	Ave	0.2892	0.2897		2.00	2.00	0.2	30.0
1,2-Dichloropropane	Ave	0.2763	0.2844		2.06	2.00	2.9	30.0
Trichloroethene	Ave	0.2953	0.2674		1.81	2.00	-9.4	30.0
Dibromomethane	Ave	0.2693	0.2755		2.05	2.00	2.3	30.0
Bromodichloromethane	Ave	0.5387	0.5834		2.17	2.00	8.3	30.0
1,4-Dioxane	Ave	0.0719	0.0670		1.86	2.00	-6.8	30.0
Methyl methacrylate	Ave	0.2888	0.3137		2.17	2.00	8.6	30.0
Methylcyclohexane	Ave	0.4957	0.4803		1.94	2.00	-3.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4486	0.4371		1.95	2.00	-2.6	30.0
cis-1,3-Dichloropropene	Ave	0.4128	0.4352		2.11	2.00	5.4	30.0
trans-1,3-Dichloropropene	Ave	0.4072	0.4404		2.16	2.00	8.2	30.0
Toluene	Ave	0.8831	0.8208		1.86	2.00	-7.1	30.0
1,1,2-Trichloroethane	Ave	0.2599	0.2605		2.00	2.00	0.2	30.0
2-Hexanone	Ave	0.2269	0.2144		1.89	2.00	-5.5	30.0
Octane	Ave	0.3390	0.3375		1.99	2.00	-0.4	30.0
Dibromochloromethane	Ave	0.5017	0.5152		2.05	2.00	2.7	30.0
1,2-Dibromoethane (EDB)	Ave	0.4587	0.4459		1.94	2.00	-2.8	30.0
Tetrachloroethene	Ave	0.3250	0.3020		1.86	2.00	-7.1	30.0
2,3-Dimethylheptane	Ave	1.165	1.296		2.22	2.00	11.2	30.0
Chlorobenzene	Ave	0.6616	0.6306		1.91	2.00	-4.7	30.0
Ethylbenzene	Ave	1.110	1.045		1.88	2.00	-5.8	30.0
m-Xylene & p-Xylene	Ave	0.8467	0.8163		3.86	4.00	-3.6	30.0
Nonane	Ave	0.7070	0.7652		2.16	2.00	8.2	30.0
Bromoform	Ave	0.3655	0.3414		1.87	2.00	-6.6	30.0
Styrene	Ave	0.5472	0.5303		1.94	2.00	-3.1	30.0
o-Xylene	Ave	0.9002	0.8631		1.92	2.00	-4.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5632	0.5670		2.01	2.00	0.7	30.0
1,2,3-Trichloropropane	Ave	0.1779	0.1761		1.98	2.00	-1.0	30.0
Isopropylbenzene	Ave	1.170	1.077		1.84	2.00	-7.9	30.0
Propylbenzene	Ave	0.2977	0.2728		1.83	2.00	-8.4	30.0
2-Chlorotoluene	Ave	0.2862	0.2602		1.82	2.00	-9.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Lab Sample ID: CCVIS 140-31549/2 Calibration Date: 07/12/2019 10:38

Instrument ID: MG Calib Start Date: 07/08/2019 15:34

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 07/09/2019 00:37

Lab File ID: GCCVG12A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.099	1.067		1.94	2.00	-2.9	30.0
1,3,5-Trimethylbenzene	Ave	0.4520	0.3957		1.75	2.00	-12.5	30.0
Alpha Methyl Styrene	Ave	0.4233	0.4008		1.89	2.00	-5.3	30.0
Decane	Ave	0.8327	0.8474		2.04	2.00	1.8	30.0
tert-Butylbenzene	Ave	0.9600	0.9007		1.88	2.00	-6.2	30.0
1,2,4-Trimethylbenzene	Ave	0.9522	0.9201		1.93	2.00	-3.4	30.0
sec-Butylbenzene	Ave	1.396	1.297		1.86	2.00	-7.2	30.0
1,3-Dichlorobenzene	Ave	0.5509	0.5199		1.89	2.00	-5.6	30.0
Benzyl chloride	Ave	0.6639	0.8448		2.55	2.00	27.3	30.0
1,4-Dichlorobenzene	Ave	0.5552	0.5252		1.89	2.00	-5.4	30.0
4-Isopropyltoluene	Ave	1.105	1.031		1.87	2.00	-6.7	30.0
1,2,3-Trimethylbenzene	Ave	0.9855	0.9312		1.89	2.00	-5.5	30.0
Butylcyclohexane	Ave	0.9841	0.9167		1.86	2.00	-6.9	30.0
1,2-Dichlorobenzene	Ave	0.5262	0.5056		1.92	2.00	-3.9	30.0
Indane	Ave	0.8178	0.7792		1.91	2.00	-4.7	30.0
Butylbenzene	Ave	1.105	1.090		1.97	2.00	-1.4	30.0
Indene	Ave	0.6755	0.6749		2.00	2.00	-0.0	30.0
Undecane	Ave	0.8159	0.8271		2.03	2.00	1.4	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2236	0.2125		1.90	2.00	-5.0	30.0
1,2,4,5-Tetramethylbenzene	Ave	0.9706	0.9273		1.91	2.00	-4.5	30.0
Dodecane	Ave	0.6052	0.5709		1.89	2.00	-5.7	30.0
1,2,4-Trichlorobenzene	Ave	0.3011	0.3222		2.14	2.00	7.0	30.0
Naphthalene	Ave	0.8033	0.8280		2.06	2.00	3.1	30.0
Hexachlorobutadiene	Ave	0.3454	0.3052		1.77	2.00	-11.6	30.0
1,2,3-Trichlorobenzene	Ave	0.2696	0.2697		2.00	2.00	0.0	30.0
2-Methylnaphthalene	Ave	0.2468	0.2833		2.30	2.00	14.8	50.0
1-Methylnaphthalene	Ave	0.3349	0.3517		2.10	2.00	5.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7505	0.8564		4.56	4.00	14.1	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GCCVG12A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Jul-2019 10:38:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-002
Misc. Info.: S94
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 13:46:43 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:46:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	91	214475	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.329	11.329	0.000	98	1296540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.005	0.000	96	1106157	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	73	947340	4.00	4.56	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	96	327027	2.00	2.48	
7 Propene	41	3.839	3.839	0.000	98	212334	2.00	2.61	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	100	523256	2.00	2.43	
9 Chloromethane	52	4.087	4.087	0.000	98	53867	2.00	2.34	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.093	0.000	95	230755	2.00	2.07	
11 Acetaldehyde	44	4.255	4.255	0.000	96	290679	10.0	10.3	
12 Vinyl chloride	62	4.265	4.265	0.000	99	178705	2.00	2.25	
13 Butane	43	4.362	4.362	0.000	85	313182	2.00	2.50	
14 Butadiene	54	4.362	4.362	0.000	66	146061	2.00	2.32	
15 Bromomethane	94	4.702	4.702	0.000	98	129013	2.00	2.07	
16 Chloroethane	64	4.853	4.853	0.000	88	79380	2.00	2.14	
17 Ethanol	31	4.966	4.966	0.000	98	315272	10.0	12.3	
18 Vinyl bromide	106	5.171	5.171	0.000	97	112075	2.00	1.92	
19 2-Methylbutane	43	5.225	5.225	0.000	91	210804	2.00	2.44	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	100	442867	2.00	2.27	
21 Acrolein	56	5.473	5.473	0.000	94	10384	2.00	0.8253	
22 Acetonitrile	40	5.538	5.538	0.000	97	46749	2.00	2.28	
23 Acetone	58	5.597	5.597	0.000	99	126546	6.00	5.28	
24 Pentane	72	5.684	5.684	0.000	96	23754	2.00	1.96	
25 Isopropyl alcohol	45	5.700	5.700	0.000	96	419745	6.00	6.50	
26 Ethyl ether	31	5.867	5.867	0.000	90	128471	2.00	2.25	
27 1,1-Dichloroethene	96	6.190	6.190	0.000	90	140935	2.00	1.92	
28 Acrylonitrile	53	6.304	6.304	0.000	94	92297	2.00	2.00	
30 2-Methyl-2-propanol	59	6.347	6.347	0.000	95	219825	2.00	2.17	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.374	0.000	88	319588	2.00	2.07	
31 Methylene Chloride	84	6.552	6.552	0.000	94	154808	2.00	1.82	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.568	6.568	0.000	94	189761	2.00	2.51	
33 Carbon disulfide	76	6.724	6.724	0.000	100	480097	2.00	2.12	
34 trans-1,2-Dichloroethene	96	7.388	7.388	0.000	91	146989	2.00	2.09	
35 2-Methylpentane	43	7.404	7.404	0.000	96	520135	2.00	2.46	
36 Methyl tert-butyl ether	73	7.528	7.528	0.000	97	372516	2.00	2.05	
37 1,1-Dichloroethane	63	7.819	7.819	0.000	100	346670	2.00	2.18	
38 Vinyl acetate	43	7.927	7.927	0.000	100	387530	2.00	2.24	
39 2-Butanone (MEK)	72	8.385	8.385	0.000	95	54410	2.00	1.83	
40 Hexane	56	8.401	8.401	0.000	89	168479	2.00	2.29	
41 Isopropyl ether	45	8.569	8.569	0.000	97	522446	2.00	2.23	
42 cis-1,2-Dichloroethene	96	8.822	8.822	0.000	95	146528	2.00	1.98	
43 Ethyl acetate	43	9.011	9.011	0.000	98	315444	2.00	2.21	
44 Chloroform	83	9.172	9.172	0.000	97	367681	2.00	2.21	
45 Tert-butyl ethyl ether	59	9.259	9.259	0.000	97	462509	2.00	2.19	
46 Tetrahydrofuran	42	9.593	9.593	0.000	93	172596	2.00	2.24	
47 1,1,1-Trichloroethane	97	10.208	10.208	0.000	96	409097	2.00	2.23	
48 1,2-Dichloroethane	62	10.321	10.321	0.000	98	286508	2.00	2.23	
49 Cyclohexane	69	10.796	10.796	0.000	81	90111	2.00	2.14	
50 Benzene	78	10.801	10.801	0.000	96	466994	2.00	2.00	
51 n-Butanol	31	10.812	10.812	0.000	67	50473	2.00	2.29	
52 Carbon tetrachloride	117	10.823	10.823	0.000	96	405837	2.00	2.50	
53 2,3-Dimethylpentane	71	10.914	10.914	0.000	93	127693	2.00	1.99	
54 Thiophene	84	11.071	11.071	0.000	98	268706	2.00	1.95	
55 Isooctane	57	11.540	11.540	0.000	97	959652	2.00	2.17	
56 n-Heptane	71	11.906	11.906	0.000	94	187828	2.00	2.00	
57 1,2-Dichloropropane	63	11.998	11.998	0.000	87	184344	2.00	2.06	
58 Trichloroethene	130	12.036	12.036	0.000	91	173335	2.00	1.81	
59 Dibromomethane	93	12.122	12.122	0.000	82	178590	2.00	2.05	
60 Dichlorobromomethane	83	12.262	12.262	0.000	98	378189	2.00	2.17	
61 1,4-Dioxane	88	12.295	12.295	0.000	95	43447	2.00	1.86	
62 Methyl methacrylate	41	12.349	12.349	0.000	88	203336	2.00	2.17	
63 Methylcyclohexane	83	12.791	12.791	0.000	89	311335	2.00	1.94	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.201	0.000	99	283372	2.00	1.95	
65 cis-1,3-Dichloropropene	75	13.244	13.244	0.000	98	282136	2.00	2.11	
66 trans-1,3-Dichloropropene	75	13.929	13.929	0.000	96	243580	2.00	2.16	
67 Toluene	91	14.053	14.053	0.000	92	453991	2.00	1.86	
68 1,1,2-Trichloroethane	83	14.128	14.128	0.000	94	144098	2.00	2.00	
69 2-Hexanone	58	14.511	14.511	0.000	91	118588	2.00	1.89	
70 n-Octane	85	14.721	14.721	0.000	97	186676	2.00	1.99	
71 Chlorodibromomethane	129	14.824	14.824	0.000	96	284961	2.00	2.05	
72 Ethylene Dibromide	107	15.115	15.115	0.000	98	246610	2.00	1.94	
73 Tetrachloroethene	129	15.185	15.185	0.000	81	167030	2.00	1.86	
75 Chlorobenzene	112	16.053	16.053	0.000	85	348781	2.00	1.91	
74 2,3-Dimethylheptane	43	16.053	16.053	0.000	95	716763	2.00	2.22	
78 Ethylbenzene	91	16.334	16.334	0.000	100	578172	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.490	16.490	0.000	99	902979	4.00	3.86	
80 n-Nonane	57	16.894	16.894	0.000	95	423228	2.00	2.16	
81 Bromoform	173	16.948	16.948	0.000	88	188794	2.00	1.87	
82 Styrene	104	16.954	16.954	0.000	95	293306	2.00	1.94	
83 o-Xylene	91	17.013	17.013	0.000	97	477344	2.00	1.92	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.337	0.000	98	313602	2.00	2.01	
85 1,2,3-Trichloropropane	110	17.493	17.493	0.000	97	97399	2.00	1.98	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.595	0.000	98	595829	2.00	1.84	
87 N-Propylbenzene	120	18.118	18.118	0.000	98	150874	2.00	1.83	
88 2-Chlorotoluene	126	18.167	18.167	0.000	97	143893	2.00	1.82	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	590350	2.00	1.94	
90 1,3,5-Trimethylbenzene	120	18.334	18.334	0.000	90	218840	2.00	1.75	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	83	221674	2.00	1.89	
93 n-Decane	57	18.604	18.604	0.000	89	468684	2.00	2.04	
94 tert-Butylbenzene	119	18.749	18.749	0.000	87	498166	2.00	1.88	
95 1,2,4-Trimethylbenzene	105	18.765	18.765	0.000	96	508886	2.00	1.93	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	717102	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.035	19.035	0.000	93	287564	2.00	1.89	
98 Benzyl chloride	91	19.105	19.105	0.000	96	467264	2.00	2.55	
99 1,4-Dichlorobenzene	146	19.116	19.116	0.000	92	290467	2.00	1.89	
100 4-Isopropyltoluene	119	19.170	19.170	0.000	96	570102	2.00	1.87	
101 1,2,3-Trimethylbenzene	105	19.229	19.229	0.000	99	515033	2.00	1.89	
102 Butylcyclohexane	83	19.278	19.278	0.000	88	507001	2.00	1.86	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	430946	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	90	279613	2.00	1.92	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	602845	2.00	1.97	
106 Indene	116	19.596	19.596	0.000	90	373291	2.00	2.00	
107 Undecane	57	19.887	19.887	0.000	96	457473	2.00	2.03	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.065	0.000	86	117526	2.00	1.90	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.340	0.000	95	512842	2.00	1.91	
110 Dodecane	57	20.939	20.939	0.000	94	315741	2.00	1.89	
111 1,2,4-Trichlorobenzene	180	21.154	21.154	0.000	90	178182	2.00	2.14	
112 Naphthalene	128	21.294	21.294	0.000	98	457933	2.00	2.06	
113 Hexachlorobutadiene	225	21.494	21.494	0.000	84	168802	2.00	1.77	
114 1,2,3-Trichlorobenzene	180	21.570	21.570	0.000	91	149136	2.00	2.00	
115 2-Methylnaphthalene	142	22.319	22.319	0.000	98	156712	2.00	2.30	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	97	194523	2.00	2.10	
A 122 C8 Range	1	14.714	(14.663-14.791)		0	2002248	2.00	2.27	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.07	
S 124 Xylenes, Total	100				0		6.00	5.77	

Reagents:

40CV101P_00089	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

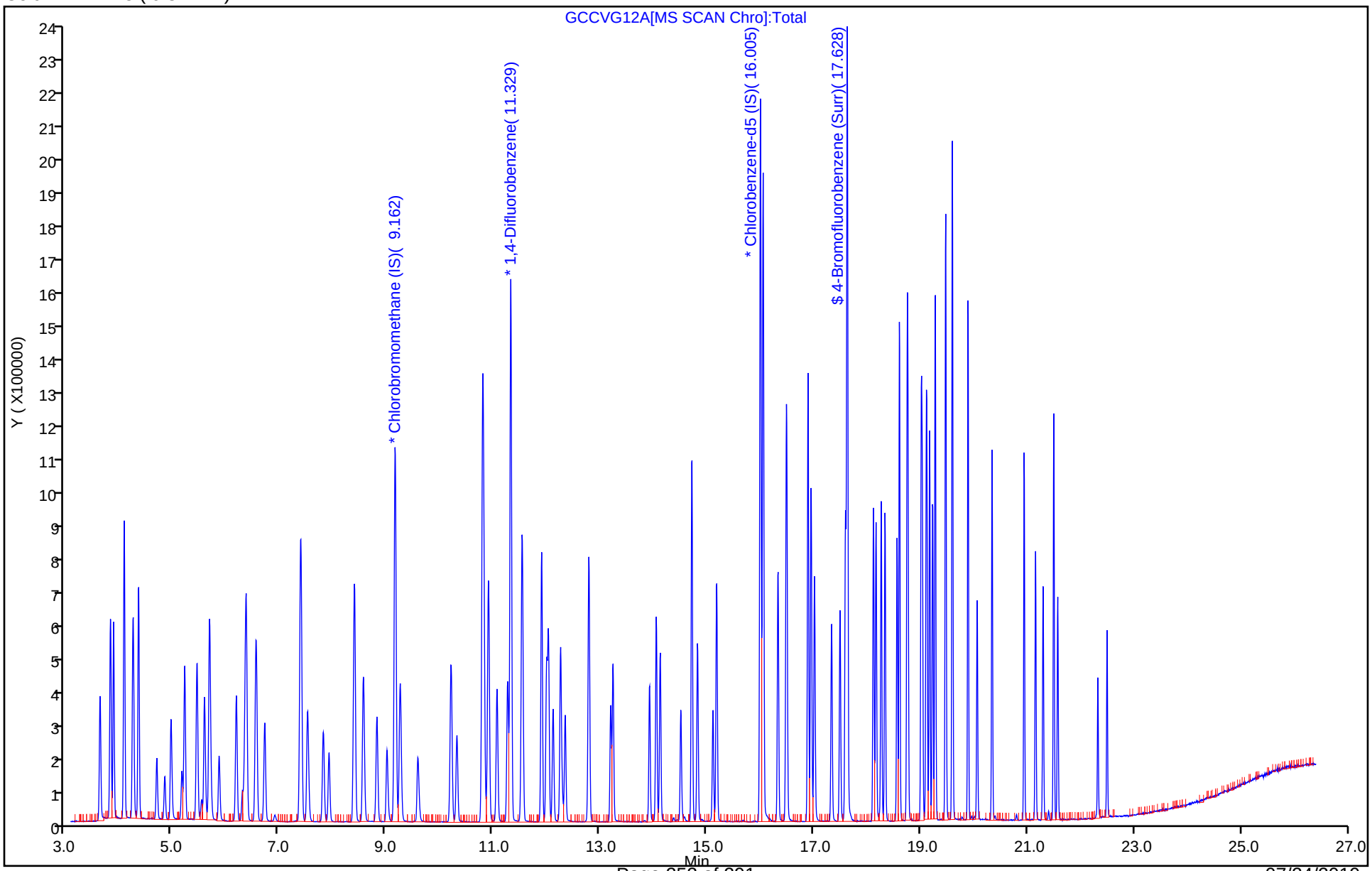
Report Date: 15-Jul-2019 13:46:45 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GCCVG12A.D

Injection Date:	12-Jul-2019 10:38:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GBFBG08IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Jul-2019 14:13:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012267-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	10-Jul-2019 10:10:31	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0323				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.267	5.267	0.000	0	914673	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

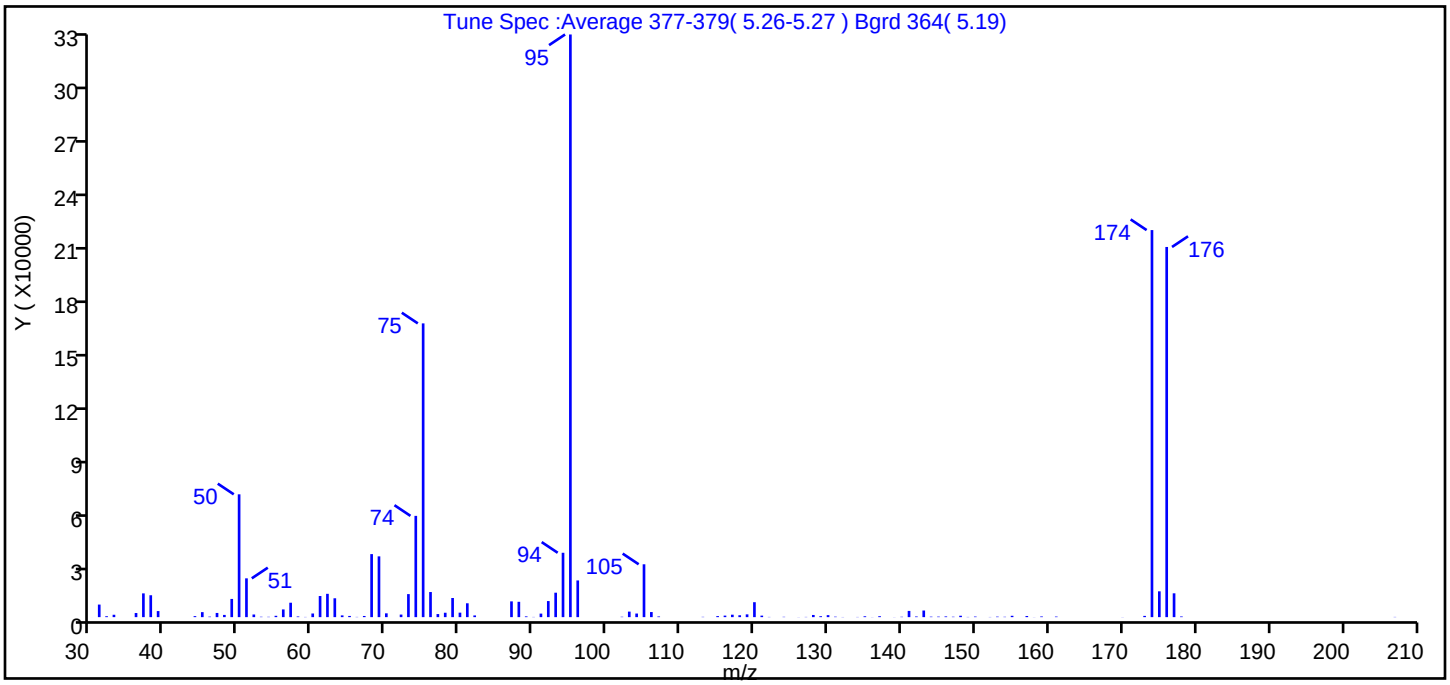
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GBFBG08IC.D
Injection Date: 08-Jul-2019 14:13:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.1
75	30 to 60% of m/z 95	50.4
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	66.4
175	5 to 9% of m/z 174	4.4 (6.7)
176	Greater than 95% but less than 101% of m/z 174	63.5 (95.6)
177	5 to 9% of m/z 176	4.1 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GBFBG08IC.D\MG_TO15.rslt\spectra.d
Injection Date: 08-Jul-2019 14:13:30
Spectrum: Tune Spec :Average 377-379(5.26-5.27) Bgrd 364(5.19)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	9	64.00	966	102.00	213	140.00	201
31.00	6961	65.00	666	103.00	3065	141.00	3449
32.00	510	66.00	125	104.00	1995	142.00	367
33.00	1321	67.00	644	105.00	29264	143.00	3669
36.00	2286	68.00	34896	106.00	2821	144.00	266
37.00	13158	69.00	33648	107.00	364	145.00	288
38.00	12119	70.00	2112	113.00	165	146.00	398
39.00	3362	72.00	1425	115.00	580	147.00	229
44.00	564	73.00	12753	116.00	848	148.00	777
45.00	2768	74.00	56064	117.00	1356	149.00	112
46.00	277	75.00	162624	118.00	1048	150.00	316
47.00	2316	76.00	13899	119.00	1538	152.00	99
48.00	1232	77.00	1703	120.00	8270	153.00	279
49.00	10080	78.00	2436	121.00	841	154.00	191
50.00	67992	79.00	10597	122.00	116	155.00	749
51.00	21480	80.00	2486	124.00	177	157.00	625
52.00	1467	81.00	7674	126.00	55	158.00	50
53.00	213	82.00	943	127.00	128	159.00	373
54.00	177	87.00	8729	128.00	1203	161.00	317
55.00	744	88.00	8491	129.00	507	170.00	59
56.00	4274	89.00	420	130.00	1106	173.00	694
57.00	7982	90.00	113	131.00	258	174.00	214272
58.00	372	91.00	1958	132.00	87	175.00	14291
59.00	114	92.00	8900	134.00	108	176.00	204928
60.00	2018	93.00	13531	135.00	474	177.00	13190
61.00	11693	94.00	35640	136.00	58	178.00	368
62.00	12909	95.00	322560	137.00	515	207.00	121
63.00	10447	96.00	20320	139.00	54		

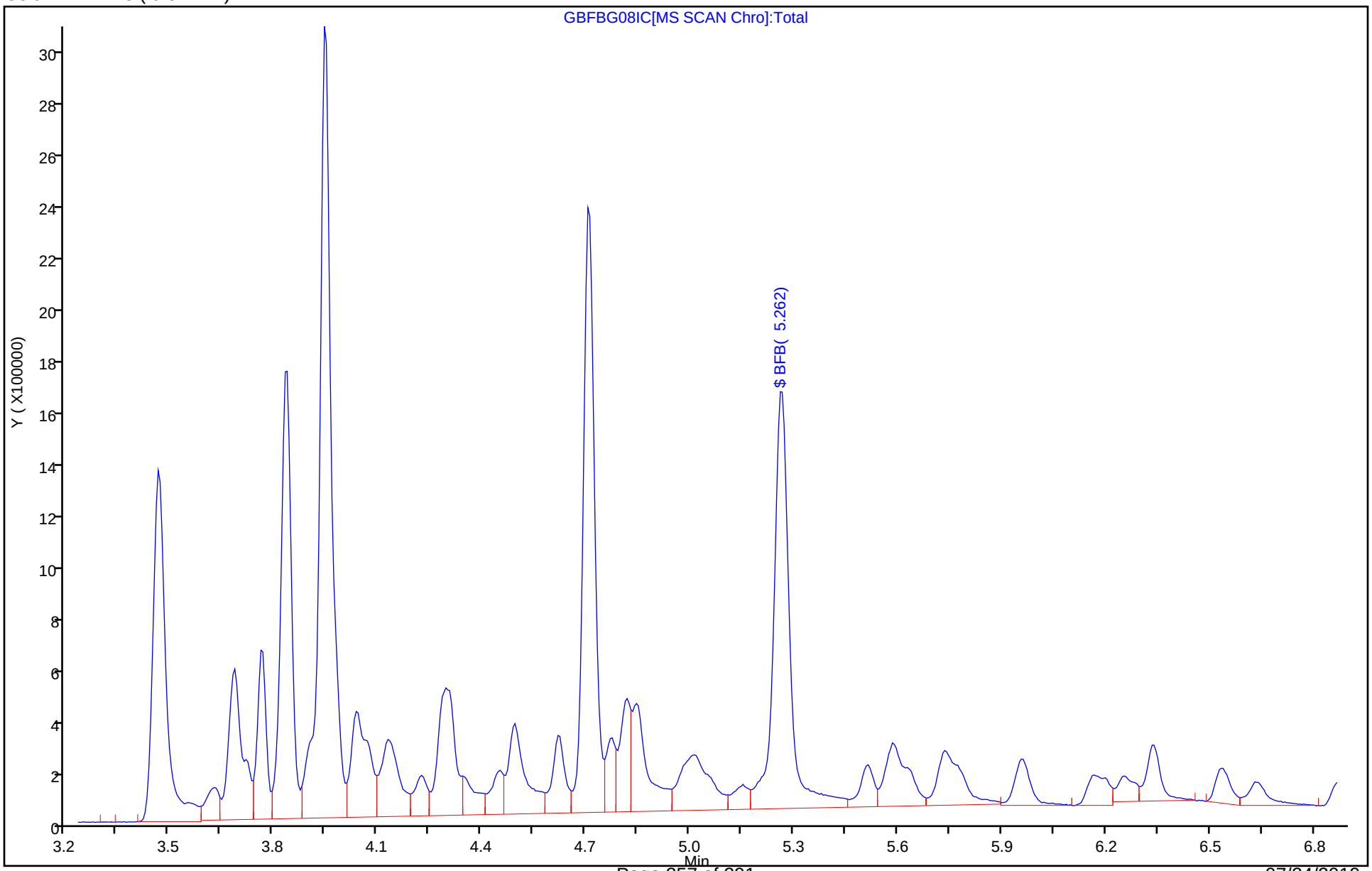
Report Date: 10-Jul-2019 10:10:31 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GBFBG08IC.D

Injection Date:	08-Jul-2019 14:13:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GBFBG12A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Jul-2019 10:03:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-001
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 13:44:28 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:44:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.311	5.311	0.000	0	785870	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

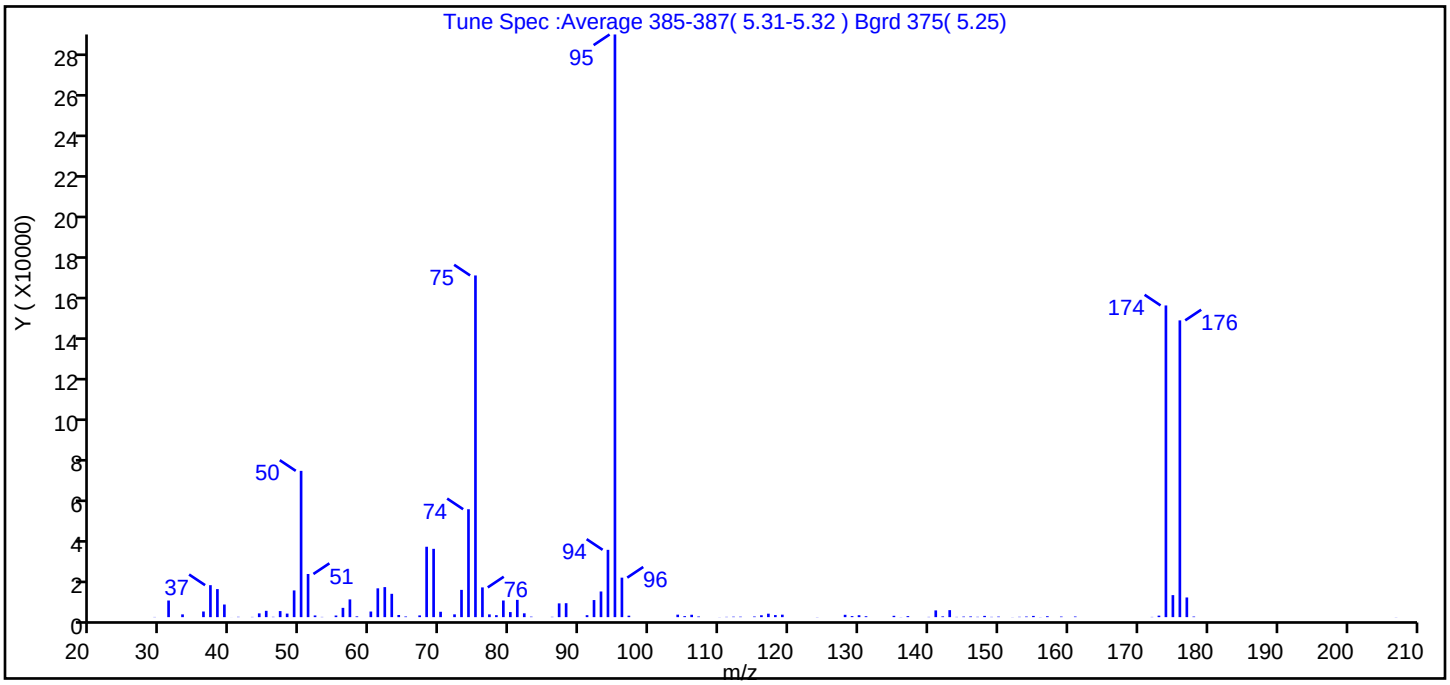
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GBFBG12A.D
Injection Date: 12-Jul-2019 10:03:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	25.1
75	30 to 60% of m/z 95	58.6
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.3 (0.5)
174	50 to 120% of m/z 95	53.5
175	5 to 9% of m/z 174	3.8 (7.1)
176	Greater than 95% but less than 101% of m/z 174	50.9 (95.2)
177	5 to 9% of m/z 176	3.4 (6.6)

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GBFBG12A.D\MG_TO15.rslt\spectra.d
Injection Date: 12-Jul-2019 10:03:30
Spectrum: Tune Spec :Average 385-387(5.31-5.32) Bgrd 375(5.25)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	93	62.00	14676	94.00	32896	141.00	3292
31.00	8122	63.00	11400	95.00	284736	142.00	374
33.00	1353	64.00	1051	96.00	19304	143.00	3416
36.00	2761	65.00	322	97.00	721	144.00	123
37.00	15625	67.00	847	104.00	1217	145.00	274
38.00	13710	68.00	34400	105.00	495	146.00	348
39.00	6175	69.00	33384	106.00	1166	147.00	161
40.00	19	70.00	2628	107.00	304	148.00	616
41.00	156	72.00	1363	110.00	51	149.00	136
43.00	112	73.00	13330	111.00	138	150.00	266
44.00	1840	74.00	52736	112.00	228	152.00	57
45.00	3093	75.00	166976	113.00	223	153.00	166
46.00	156	76.00	14533	115.00	316	154.00	297
47.00	2953	77.00	1352	116.00	926	155.00	601
48.00	1736	78.00	961	117.00	1690	156.00	64
49.00	13061	79.00	8133	118.00	1007	157.00	448
50.00	71488	80.00	2477	119.00	1207	159.00	282
51.00	21088	81.00	8449	124.00	70	161.00	311
52.00	822	82.00	1870	128.00	1148	172.00	111
53.00	116	83.00	235	129.00	507	173.00	731
55.00	793	86.00	148	130.00	942	174.00	152320
56.00	4540	87.00	6729	131.00	450	175.00	10762
57.00	8667	88.00	6818	135.00	656	176.00	145024
58.00	380	91.00	959	136.00	60	177.00	9615
60.00	2742	92.00	8352	137.00	498	178.00	286
61.00	14084	93.00	12540	140.00	125	207.00	56

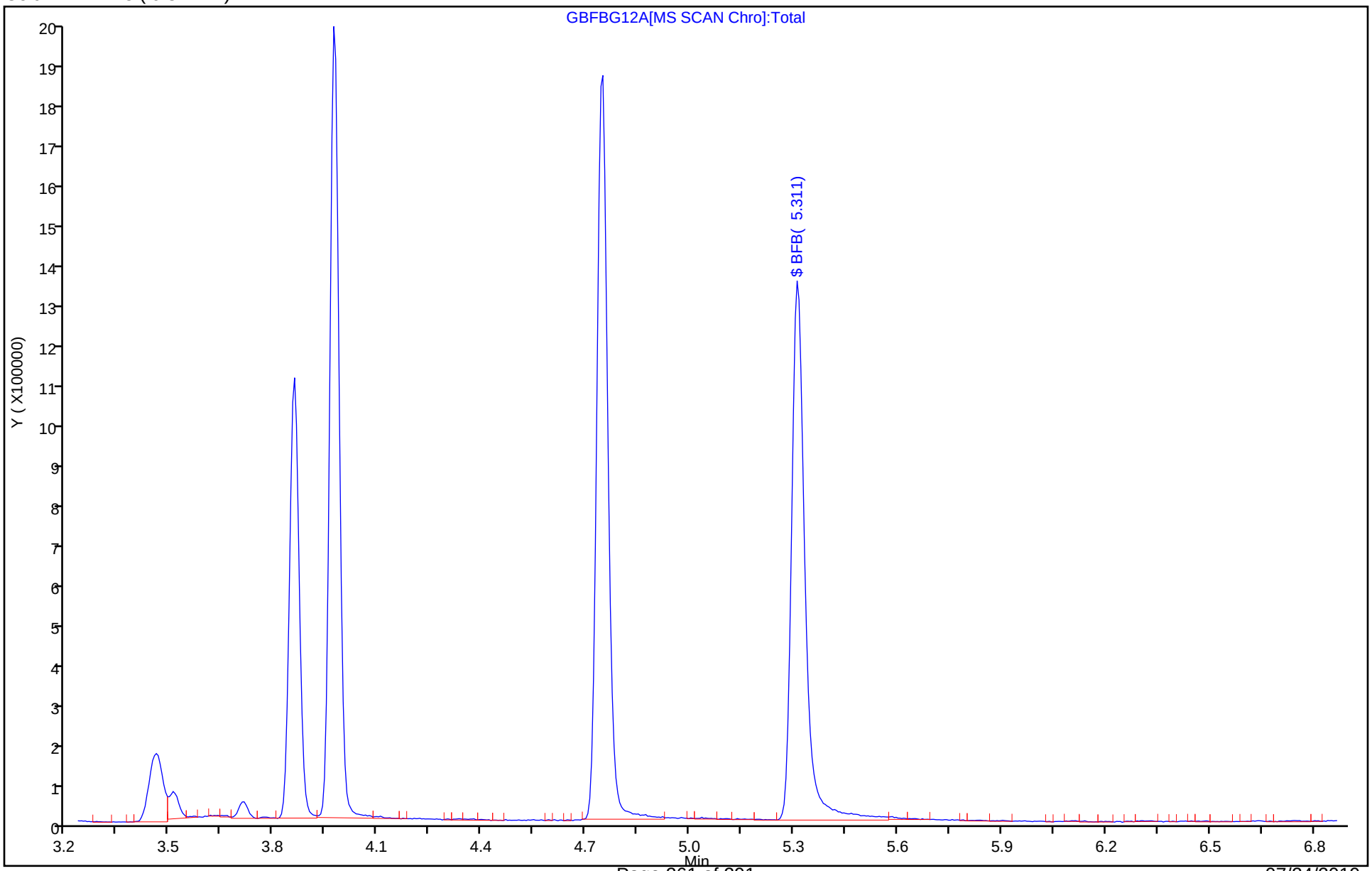
Report Date: 15-Jul-2019 13:44:28 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GBFBG12A.D

Injection Date:	12-Jul-2019 10:03:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-31549/4

Matrix: Air Lab File ID: G500BG12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 07/12/2019 12:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	ND		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-31549/4

Matrix: Air Lab File ID: G500BG12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 07/12/2019 12:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	ND		1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\G500BG12.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 12-Jul-2019 12:12:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 13:47:43 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:47:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.162	-0.006	92	219736	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.329	-0.005	98	1285292	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.005	0.000	97	1127303	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	73	903341	4.00	4.27	
7 Propene	41	3.840	3.839	0.001	98	35525		0.4256	
31 Methylene Chloride	84	6.557	6.552	0.005	95	13198		0.1514	
47 1,1,1-Trichloroethane	97	10.208	10.208	0.000	91	3441		0.0183	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

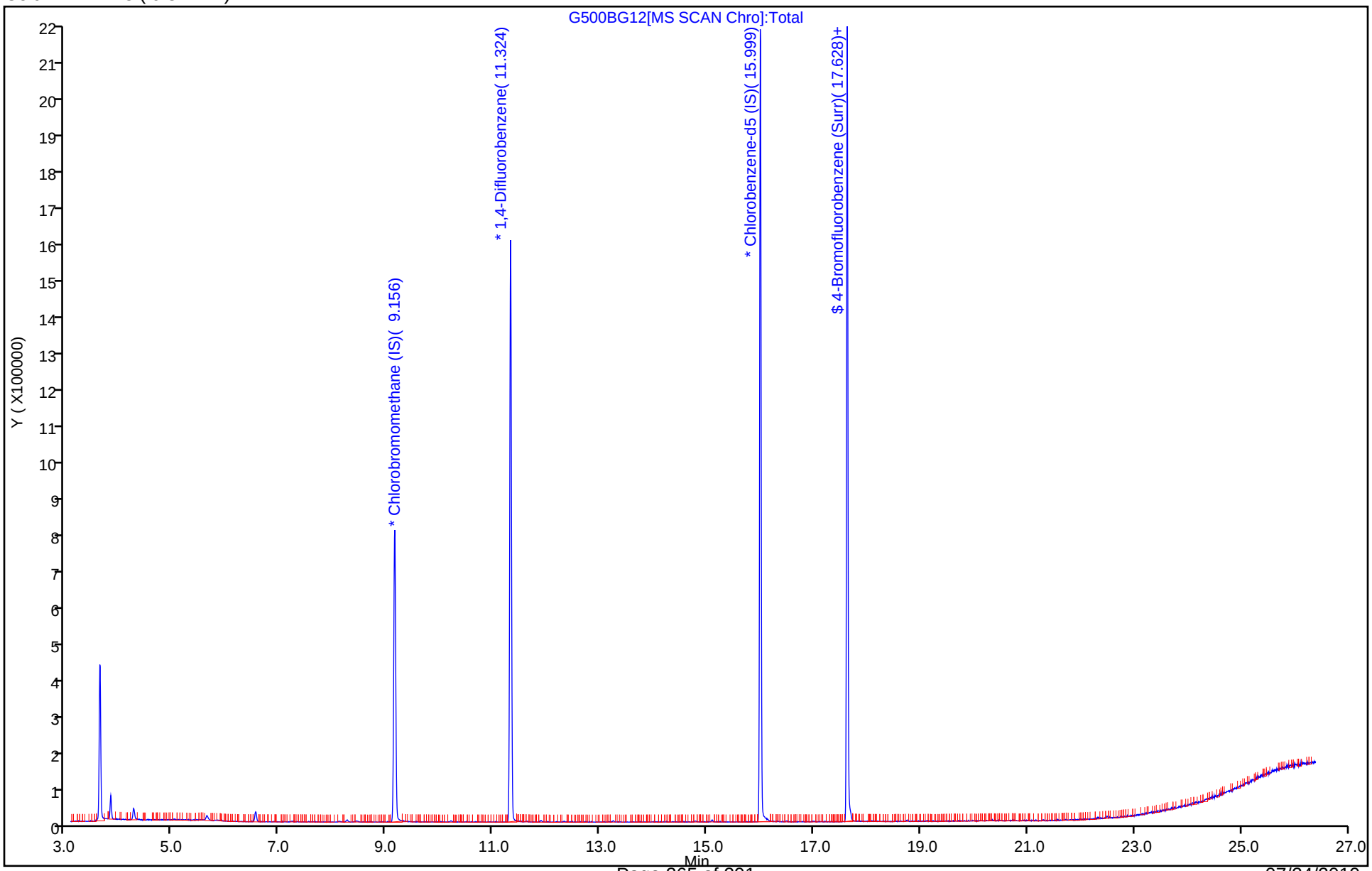
Report Date: 15-Jul-2019 13:47:43 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\G500BG12.D

Injection Date:	12-Jul-2019 12:12:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\G500BG12.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Jul-2019 12:12:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 13:47:43	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:47:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.27	106.77

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-31549/1002

Matrix: Air Lab File ID: GCCVG12A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 07/12/2019 10:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31549 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.00		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	2.50		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.48		0.080	0.022
67-66-3	Chloroform	119.38	2.21		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	1.98		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.43		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	2.18		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	2.23		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.92		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.88		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.82		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	2.05		0.40	0.052
91-20-3	Naphthalene	128.17	2.06		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.86		0.080	0.0070
108-88-3	Toluene	92.14	1.86		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.09		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.14		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	2.23		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	2.00		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.81		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.89		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.93		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.75		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.25		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.78		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	114		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GCCVG12A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Jul-2019 10:38:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012303-002
Misc. Info.: S94
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 15-Jul-2019 13:46:43 Calib Date: 09-Jul-2019 00:37:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:46:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.162	9.162	0.000	91	214475	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.329	11.329	0.000	98	1296540	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.005	16.005	0.000	96	1106157	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.628	0.000	73	947340	4.00	4.56	
6 Chlorodifluoromethane	51	3.829	3.829	0.000	96	327027	2.00	2.48	
7 Propene	41	3.839	3.839	0.000	98	212334	2.00	2.61	
8 Dichlorodifluoromethane	85	3.893	3.893	0.000	100	523256	2.00	2.43	
9 Chloromethane	52	4.087	4.087	0.000	98	53867	2.00	2.34	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.093	0.000	95	230755	2.00	2.07	
11 Acetaldehyde	44	4.255	4.255	0.000	96	290679	10.0	10.3	
12 Vinyl chloride	62	4.265	4.265	0.000	99	178705	2.00	2.25	
13 Butane	43	4.362	4.362	0.000	85	313182	2.00	2.50	
14 Butadiene	54	4.362	4.362	0.000	66	146061	2.00	2.32	
15 Bromomethane	94	4.702	4.702	0.000	98	129013	2.00	2.07	
16 Chloroethane	64	4.853	4.853	0.000	88	79380	2.00	2.14	
17 Ethanol	31	4.966	4.966	0.000	98	315272	10.0	12.3	
18 Vinyl bromide	106	5.171	5.171	0.000	97	112075	2.00	1.92	
19 2-Methylbutane	43	5.225	5.225	0.000	91	210804	2.00	2.44	
20 Trichlorofluoromethane	101	5.457	5.457	0.000	100	442867	2.00	2.27	
21 Acrolein	56	5.473	5.473	0.000	94	10384	2.00	0.8253	
22 Acetonitrile	40	5.538	5.538	0.000	97	46749	2.00	2.28	
23 Acetone	58	5.597	5.597	0.000	99	126546	6.00	5.28	
24 Pentane	72	5.684	5.684	0.000	96	23754	2.00	1.96	
25 Isopropyl alcohol	45	5.700	5.700	0.000	96	419745	6.00	6.50	
26 Ethyl ether	31	5.867	5.867	0.000	90	128471	2.00	2.25	
27 1,1-Dichloroethene	96	6.190	6.190	0.000	90	140935	2.00	1.92	
28 Acrylonitrile	53	6.304	6.304	0.000	94	92297	2.00	2.00	
30 2-Methyl-2-propanol	59	6.347	6.347	0.000	95	219825	2.00	2.17	
29 1,1,2-Trichloro-1,2,2-trif	101	6.374	6.374	0.000	88	319588	2.00	2.07	
31 Methylene Chloride	84	6.552	6.552	0.000	94	154808	2.00	1.82	
32 3-Chloro-1-propene	39	6.568	6.568	0.000	94	189761	2.00	2.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.724	6.724	0.000	100	480097	2.00	2.12	
34 trans-1,2-Dichloroethene	96	7.388	7.388	0.000	91	146989	2.00	2.09	
35 2-Methylpentane	43	7.404	7.404	0.000	96	520135	2.00	2.46	
36 Methyl tert-butyl ether	73	7.528	7.528	0.000	97	372516	2.00	2.05	
37 1,1-Dichloroethane	63	7.819	7.819	0.000	100	346670	2.00	2.18	
38 Vinyl acetate	43	7.927	7.927	0.000	100	387530	2.00	2.24	
39 2-Butanone (MEK)	72	8.385	8.385	0.000	95	54410	2.00	1.83	
40 Hexane	56	8.401	8.401	0.000	89	168479	2.00	2.29	
41 Isopropyl ether	45	8.569	8.569	0.000	97	522446	2.00	2.23	
42 cis-1,2-Dichloroethene	96	8.822	8.822	0.000	95	146528	2.00	1.98	
43 Ethyl acetate	43	9.011	9.011	0.000	98	315444	2.00	2.21	
44 Chloroform	83	9.172	9.172	0.000	97	367681	2.00	2.21	
45 Tert-butyl ethyl ether	59	9.259	9.259	0.000	97	462509	2.00	2.19	
46 Tetrahydrofuran	42	9.593	9.593	0.000	93	172596	2.00	2.24	
47 1,1,1-Trichloroethane	97	10.208	10.208	0.000	96	409097	2.00	2.23	
48 1,2-Dichloroethane	62	10.321	10.321	0.000	98	286508	2.00	2.23	
49 Cyclohexane	69	10.796	10.796	0.000	81	90111	2.00	2.14	
50 Benzene	78	10.801	10.801	0.000	96	466994	2.00	2.00	
51 n-Butanol	31	10.812	10.812	0.000	67	50473	2.00	2.29	
52 Carbon tetrachloride	117	10.823	10.823	0.000	96	405837	2.00	2.50	
53 2,3-Dimethylpentane	71	10.914	10.914	0.000	93	127693	2.00	1.99	
54 Thiophene	84	11.071	11.071	0.000	98	268706	2.00	1.95	
55 Isooctane	57	11.540	11.540	0.000	97	959652	2.00	2.17	
56 n-Heptane	71	11.906	11.906	0.000	94	187828	2.00	2.00	
57 1,2-Dichloropropane	63	11.998	11.998	0.000	87	184344	2.00	2.06	
58 Trichloroethene	130	12.036	12.036	0.000	91	173335	2.00	1.81	
59 Dibromomethane	93	12.122	12.122	0.000	82	178590	2.00	2.05	
60 Dichlorobromomethane	83	12.262	12.262	0.000	98	378189	2.00	2.17	
61 1,4-Dioxane	88	12.295	12.295	0.000	95	43447	2.00	1.86	
62 Methyl methacrylate	41	12.349	12.349	0.000	88	203336	2.00	2.17	
63 Methylcyclohexane	83	12.791	12.791	0.000	89	311335	2.00	1.94	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.201	0.000	99	283372	2.00	1.95	
65 cis-1,3-Dichloropropene	75	13.244	13.244	0.000	98	282136	2.00	2.11	
66 trans-1,3-Dichloropropene	75	13.929	13.929	0.000	96	243580	2.00	2.16	
67 Toluene	91	14.053	14.053	0.000	92	453991	2.00	1.86	
68 1,1,2-Trichloroethane	83	14.128	14.128	0.000	94	144098	2.00	2.00	
69 2-Hexanone	58	14.511	14.511	0.000	91	118588	2.00	1.89	
70 n-Octane	85	14.721	14.721	0.000	97	186676	2.00	1.99	
71 Chlorodibromomethane	129	14.824	14.824	0.000	96	284961	2.00	2.05	
72 Ethylene Dibromide	107	15.115	15.115	0.000	98	246610	2.00	1.94	
73 Tetrachloroethene	129	15.185	15.185	0.000	81	167030	2.00	1.86	
75 Chlorobenzene	112	16.053	16.053	0.000	85	348781	2.00	1.91	
74 2,3-Dimethylheptane	43	16.053	16.053	0.000	95	716763	2.00	2.22	
78 Ethylbenzene	91	16.334	16.334	0.000	100	578172	2.00	1.88	
79 m-Xylene & p-Xylene	91	16.490	16.490	0.000	99	902979	4.00	3.86	
80 n-Nonane	57	16.894	16.894	0.000	95	423228	2.00	2.16	
81 Bromoform	173	16.948	16.948	0.000	88	188794	2.00	1.87	
82 Styrene	104	16.954	16.954	0.000	95	293306	2.00	1.94	
83 o-Xylene	91	17.013	17.013	0.000	97	477344	2.00	1.92	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.337	0.000	98	313602	2.00	2.01	
85 1,2,3-Trichloropropane	110	17.493	17.493	0.000	97	97399	2.00	1.98	
86 Isopropylbenzene	105	17.595	17.595	0.000	98	595829	2.00	1.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.118	18.118	0.000	98	150874	2.00	1.83	
88 2-Chlorotoluene	126	18.167	18.167	0.000	97	143893	2.00	1.82	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	590350	2.00	1.94	
90 1,3,5-Trimethylbenzene	120	18.334	18.334	0.000	90	218840	2.00	1.75	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	83	221674	2.00	1.89	
93 n-Decane	57	18.604	18.604	0.000	89	468684	2.00	2.04	
94 tert-Butylbenzene	119	18.749	18.749	0.000	87	498166	2.00	1.88	
95 1,2,4-Trimethylbenzene	105	18.765	18.765	0.000	96	508886	2.00	1.93	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	717102	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.035	19.035	0.000	93	287564	2.00	1.89	
98 Benzyl chloride	91	19.105	19.105	0.000	96	467264	2.00	2.55	
99 1,4-Dichlorobenzene	146	19.116	19.116	0.000	92	290467	2.00	1.89	
100 4-Isopropyltoluene	119	19.170	19.170	0.000	96	570102	2.00	1.87	
101 1,2,3-Trimethylbenzene	105	19.229	19.229	0.000	99	515033	2.00	1.89	
102 Butylcyclohexane	83	19.278	19.278	0.000	88	507001	2.00	1.86	
103 2,3-Dihydroindene	117	19.472	19.472	0.000	92	430946	2.00	1.91	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	90	279613	2.00	1.92	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	602845	2.00	1.97	
106 Indene	116	19.596	19.596	0.000	90	373291	2.00	2.00	
107 Undecane	57	19.887	19.887	0.000	96	457473	2.00	2.03	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.065	0.000	86	117526	2.00	1.90	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.340	0.000	95	512842	2.00	1.91	
110 Dodecane	57	20.939	20.939	0.000	94	315741	2.00	1.89	
111 1,2,4-Trichlorobenzene	180	21.154	21.154	0.000	90	178182	2.00	2.14	
112 Naphthalene	128	21.294	21.294	0.000	98	457933	2.00	2.06	
113 Hexachlorobutadiene	225	21.494	21.494	0.000	84	168802	2.00	1.77	
114 1,2,3-Trichlorobenzene	180	21.570	21.570	0.000	91	149136	2.00	2.00	
115 2-Methylnaphthalene	142	22.319	22.319	0.000	98	156712	2.00	2.30	
116 1-Methylnaphthalene	142	22.492	22.492	0.000	97	194523	2.00	2.10	
A 122 C8 Range	1	14.714	(14.663-14.791)		0	2002248	2.00	2.27	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.07	
S 124 Xylenes, Total	100				0		6.00	5.77	

Reagents:

40CV101P_00089	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

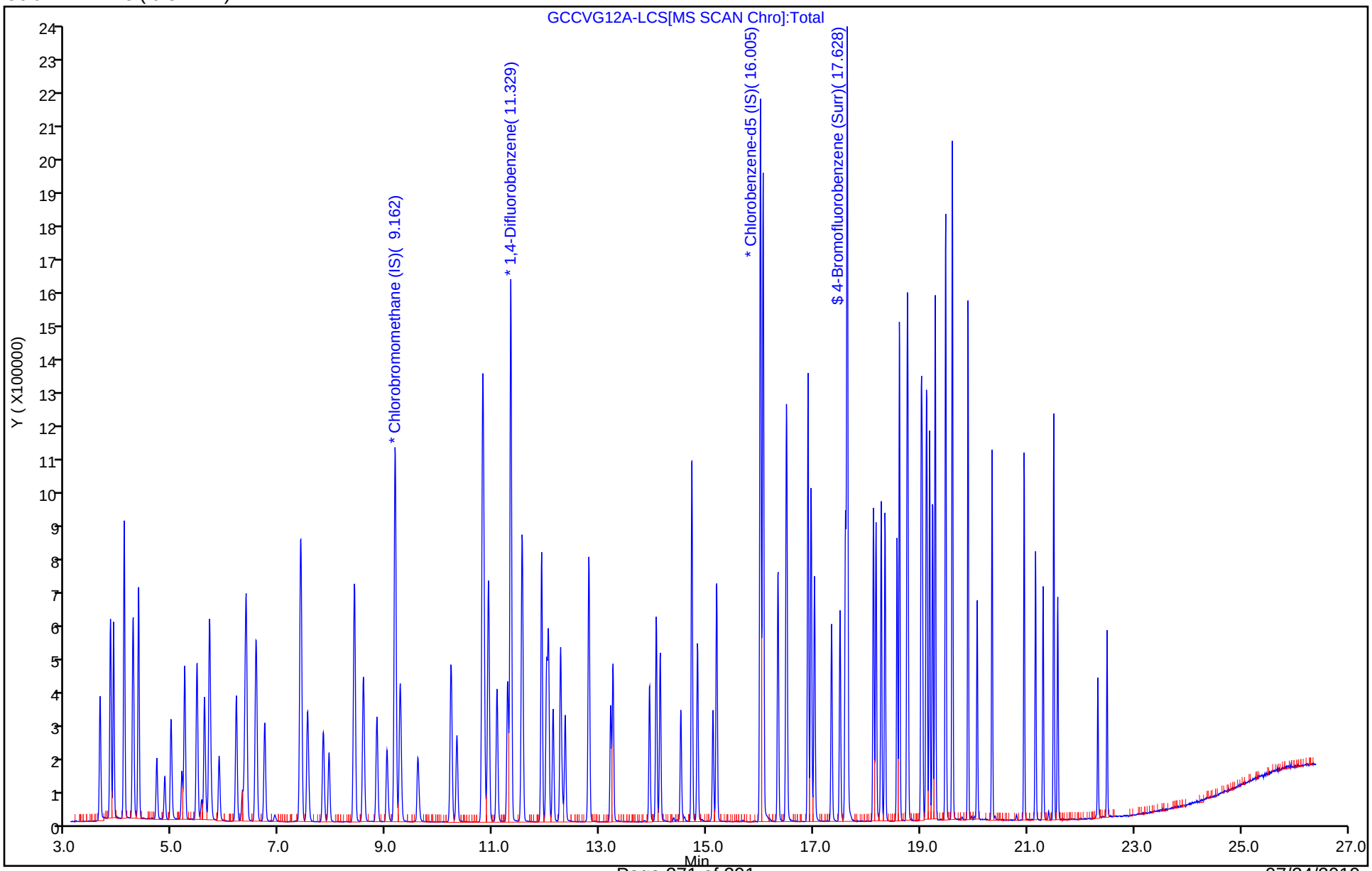
Report Date: 15-Jul-2019 13:46:50 Chrom Revision: 2.3 20-Jun-2019 20:50:56

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190710-12303.b\GCCVG12A-LCS.d

Injection Date:	12-Jul-2019 10:38:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\GCCVG12A-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	12-Jul-2019 10:38:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012303-002				
Misc. Info.:	S94				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190710-12303.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	15-Jul-2019 13:46:43	Calib Date:	09-Jul-2019 00:37:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190708-12267.b\GG08IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				

First Level Reviewer: khachitpongpanits Date: 15-Jul-2019 13:46:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.56	114.11

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Instrument ID: MG Start Date: 07/08/2019 14:13

Analysis Batch Number: 31457 End Date: 07/09/2019 04:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31457/1		07/08/2019 14:13	1	GBFBG08IC.D	RTX-5 0.32(mm)
IC 140-31457/2		07/08/2019 15:34	1	GG08BLK1.D	RTX-5 0.32(mm)
IC 140-31457/4		07/08/2019 17:08	1	GG08IC10.D	RTX-5 0.32(mm)
IC 140-31457/7		07/08/2019 19:20	1	GG08IC01.D	RTX-5 0.32(mm)
IC 140-31457/8		07/08/2019 20:05	1	GG08IC02.D	RTX-5 0.32(mm)
140-15871-A-1 MDLV		07/08/2019 20:05	1		RTX-5 0.32(mm)
ZZZZZ		07/08/2019 20:05	1		RTX-5 0.32(mm)
IC 140-31457/9		07/08/2019 20:54	1	GG08IC03.D	RTX-5 0.32(mm)
140-15871-A-2 MDLV		07/08/2019 20:54	1		RTX-5 0.32(mm)
ZZZZZ		07/08/2019 20:54	1		RTX-5 0.32(mm)
IC 140-31457/10		07/08/2019 21:38	1	GG08IC04.D	RTX-5 0.32(mm)
140-15871-A-3 MDLV		07/08/2019 21:38	1		RTX-5 0.32(mm)
ZZZZZ		07/08/2019 21:38	1		RTX-5 0.32(mm)
IC 140-31457/11		07/08/2019 22:21	1	GG08IC05.D	RTX-5 0.32(mm)
140-15871-A-4 MDLV		07/08/2019 22:21	1		RTX-5 0.32(mm)
ZZZZZ		07/08/2019 22:21	1		RTX-5 0.32(mm)
IC 140-31457/12		07/08/2019 23:04	1	GG08IC06.D	RTX-5 0.32(mm)
ICIS 140-31457/13		07/08/2019 23:50	1	GG08IC07.D	RTX-5 0.32(mm)
IC 140-31457/14		07/09/2019 00:37	1	GG08IC08.D	RTX-5 0.32(mm)
ICV 140-31457/17		07/09/2019 02:45	1	GG08LCS.D	RTX-5 0.32(mm)
ZZZZZ		07/09/2019 04:21	1		RTX-5 0.32(mm)

190708.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 102 mL	25.5	7/8/2019	2:13:20 PM
CLEAN	16 - 100 mL	26.3	7/8/2019	2:51:14 PM
ICAL9	13 - 200 mL	21.8	7/8/2019	3:34:21 PM
BLK	16 - 101 mL	26.2	7/8/2019	4:21:30 PM
ICAL10	15 - 202 mL	33	7/8/2019	5:08:38 PM
BLK	16 - 100 mL	25.8	7/8/2019	5:51:36 PM
BLK	16 - 101 mL	26	7/8/2019	6:35:54 PM
ICAL01	1 - 51 mL	34.2	7/8/2019	7:20:44 PM
ICAL02	1 - 101 mL	34	7/8/2019	8:05:24 PM
ICAL03	1 - 200 mL	33.7	7/8/2019	8:54:06 PM
ICAL04	2 - 202 mL	28.4	7/8/2019	9:38:05 PM
ICAL05	3 - 201 mL	31.6	7/8/2019	10:21:05 PM
ICAL06	4 - 201 mL	33.8	7/8/2019	11:04:56 PM
ICAL07	5 - 200 mL	34.4	7/8/2019	11:50:52 PM
ICAL08	6 - 201 mL	30.5	7/9/2019	12:37:28 AM
BLK	16 - 100 mL	25.4	7/9/2019	1:20:05 AM
ICV	7 - 101 mL	33.4	7/9/2019	2:02:32 AM
LCS	8 - 101 mL	29.6	7/9/2019	2:45:15 AM
BLK	16 - 501 mL	25.2	7/9/2019	3:32:33 AM
BLK	16 - 501 mL	24.8	7/9/2019	4:21:17 AM
STDCAN	9 - 500 mL	21.5	7/9/2019	5:10:54 AM
STDCAN	10 - 501 mL	24.3	7/9/2019	5:57:35 AM

MG WL 12267

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	7/8/19	Instrument:	MG	Chrom WL #:	12267	TALS Batch & Event #	TO14/15: 2017 / 31457	DOD05-2020 31460
							DOD: 2018 / 31458	OHIO: 2019 / 31459 7/10/19

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	NA		na
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	in ICV	✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% mcl @ 32% for all but DoD5 [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	NA →				na →		
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA →				na →		
19. Is the intercept less than the RL for each curve? [F6]	NA →				na →		
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA →		na		na →		na
21. Is low point RSE ≤ 50 %? mcl [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓

Analyst/Date: fb 7/9/19 **2nd Level Reviewer/Date:** [illegible] 7/10/19

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings DNU 1,2 Methylnaph. [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	NA →				NA →		
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: [illegible] 7/10/19 **2nd Level Reviewer/date:** fb 7/10/19

Comments: DNU 1,2 Methylnaph.

Comments: VR 8 - Cmpds - 74, 93, 102, 105, 104, 110

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15980-1

SDG No.:

Instrument ID: MG Start Date: 07/12/2019 10:03

Analysis Batch Number: 31549 End Date: 07/13/2019 03:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-31549/1		07/12/2019 10:03	1	GBFBG12A.D	RTX-5 0.32(mm)
CCVIS 140-31549/2		07/12/2019 10:38	1	GCCVG12A.D	RTX-5 0.32(mm)
LCS 140-31549/1002		07/12/2019 10:38	1	GCCVG12A-LCS.d	RTX-5 0.32(mm)
MB 140-31549/4		07/12/2019 12:12	1	G500BG12.D	RTX-5 0.32(mm)
ZZZZZ		07/12/2019 18:09	1		RTX-5 0.32(mm)
ZZZZZ		07/12/2019 18:53	1		RTX-5 0.32(mm)
ZZZZZ		07/12/2019 19:40	1		RTX-5 0.32(mm)
ZZZZZ		07/12/2019 20:24	1		RTX-5 0.32(mm)
ZZZZZ		07/12/2019 21:10	1		RTX-5 0.32(mm)
ZZZZZ		07/12/2019 21:53	1		RTX-5 0.32(mm)
140-15980-1		07/12/2019 22:37	1	GG12P111.D	RTX-5 0.32(mm)
140-15980-2		07/12/2019 23:21	1	GG12P112.D	RTX-5 0.32(mm)
140-15980-3		07/13/2019 00:06	1	GG12P113.D	RTX-5 0.32(mm)
140-15980-4		07/13/2019 00:51	1	GG12P114.D	RTX-5 0.32(mm)
140-15980-5		07/13/2019 01:34	1	GG12P115.D	RTX-5 0.32(mm)
140-15980-6		07/13/2019 02:19	1	GG12P116D.D	RTX-5 0.32(mm)
ZZZZZ		07/13/2019 03:03	1		RTX-5 0.32(mm)

190712.zzz

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	22.6	7/12/2019	10:03:38 AM
CCV	9 - 101 mL	18.7	7/12/2019	10:38:29 AM
DNU	16 - 21 mL	22.4	7/12/2019	11:36:38 AM
BLK	16 - 501 mL	21.5	7/12/2019	12:12:10 PM
BLK	16 - 201 mL	21.6	7/12/2019	1:00:33 PM
DNU	1 - 11 mL	8.9	7/12/2019	2:22:11 PM
15963-01	1 - 21 mL	8.7	7/12/2019	2:56:41 PM
15963-02	2 - 501 mL	5.2	7/12/2019	3:47:34 PM
15963-03	3 - 502 mL	2.8	7/12/2019	4:34:33 PM
15963-04	4 - 500 mL	3.7	7/12/2019	5:25:27 PM
15961-01	5 - 52 mL	5.7	7/12/2019	6:09:04 PM
15961-02	6 - 52 mL	4.4	7/12/2019	6:53:30 PM
15961-03	7 - 51 mL	4	7/12/2019	7:40:39 PM
15961-04	8 - 51 mL	5.4	7/12/2019	8:24:37 PM
15961-05	9 - 52 mL	6.1	7/12/2019	9:10:20 PM
15961-06	10 - 51 mL	4.6	7/12/2019	9:53:24 PM
15980-01	11 - 101 mL	5.8	7/12/2019	10:37:22 PM
15980-02	12 - 101 mL	5.5	7/12/2019	11:21:36 PM
15980-03	13 - 21 mL	7.6	7/13/2019	12:06:47 AM
15980-04	14 - 101 mL	5.9	7/13/2019	12:51:08 AM
15980-05	15 - 101 mL	6.8	7/13/2019	1:33:59 AM
15980-06	16 - 100 mL	5.8	7/13/2019	2:19:18 AM
15980-06	16 - 100 mL	1.6	7/13/2019	3:03:37 AM
15980-06	16 - 100 mL	1.4	7/13/2019	3:51:42 AM

MG WL 12303

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MG 07/12/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12303	CCAL Batch #	31549		31638
ICAL Chrom WL #	12267	ICAL Batch # / Event #	31457 / 2017	/	31459 / 2019

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		MS
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		MS
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawana Kh. 07/15/2019		**2nd Level Reviewer/date** 07/15/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓		✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	☐ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason / Sample / Reason	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		MS
17. Obvious non-TPH peaks excluded?	↓		↓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	□ CCV - %D - LCS criteria met (NCM#) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	□ Air Analysis - Air Sample Transfer to Canister (NCM#)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#) □ LCS/LCSD - %R High (NCM#)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-31549/4, 140-31638/4 **200 mL blank ID:** —	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-BR-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-BR-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawan Kh.	Date: 07/15/2019	2nd Level Reviewer:	Date: 07/16/19
Comments:		**Comments:**	
CF lines 7-9			

Example Calculation: 140-15963-1 Naphthalene

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

$4.825756 \times \frac{500}{20} \times 1.0 = 120.64$

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15980-1

SDG No.:

Batch Number: 31549 Batch Start Date: 07/12/19 10:03 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00089	40MXISSURP 00004
BFB 140-31549/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-31549/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-31549/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-15980-A-1	A-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15980-A-2	A-MIDGAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15980-A-3	A-INFLUENT	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
140-15980-A-4	C-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15980-A-5	C-MIDGAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-15980-A-6	C-INFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
LCS 140-31549/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-31549/1		TO 15 LL		40 mL					
CCVIS 140-31549/2		TO 15 LL							
MB 140-31549/4		TO 15 LL							
140-15980-A-1	A-EFFLUENT	TO 15 LL	T						
140-15980-A-2	A-MIDGAC	TO 15 LL	T						
140-15980-A-3	A-INFLUENT	TO 15 LL	T						
140-15980-A-4	C-EFFLUENT	TO 15 LL	T						
140-15980-A-5	C-MIDGAC	TO 15 LL	T						
140-15980-A-6	C-INFLUENT	TO 15 LL	T						
LCS 140-31549/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-15980-1

SDG No.:

Batch Number: 31549 Batch Start Date: 07/12/19 10:03 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15519-1

SDG No.:

Client Sample ID: 11753 Lab Sample ID: 140-15519-15

Matrix: Air Lab File ID: F11L15519.D

Analysis Method: TO-15 Date Collected: 06/08/2019 08:55

Sample wt/vol: 200(mL) Date Analyzed: 06/11/2019 14:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30640 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

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SDG No.:

Client Sample ID: 11753 Lab Sample ID: 140-15519-15

Matrix: Air Lab File ID: F11L15519.D

Analysis Method: TO-15 Date Collected: 06/08/2019 08:55

Sample wt/vol: 200(mL) Date Analyzed: 06/11/2019 14:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30640 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND	*	0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15519-1

SDG No.:

Client Sample ID: 11753 Lab Sample ID: 140-15519-15

Matrix: Air Lab File ID: F11L15519.D

Analysis Method: TO-15 Date Collected: 06/08/2019 08:55

Sample wt/vol: 200(mL) Date Analyzed: 06/11/2019 14:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 30640 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190609-11960.b\F11L15519.D
Lims ID: 140-15519-A-15
Client ID: 11753
Sample Type: Client
Inject. Date: 11-Jun-2019 14:36:30 ALS Bottle#: 16 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0011960-005
Misc. Info.: 11753
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190609-11960.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 12-Jun-2019 10:26:55 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: khachitpongpanits Date: 12-Jun-2019 10:29:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.173	-0.006	98	308013	4.00	
* 2 1,4-Difluorobenzene	114	11.340	11.346	-0.006	96	1835963	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.021	16.026	-0.005	90	1649615	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.649	17.649	0.000	83	1157758	4.56	
7 Propene	41	3.829	3.834	-0.005	99	16246	0.1634	
33 Carbon disulfide	76	6.730	6.730	0.000	99	37481	0.1150	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

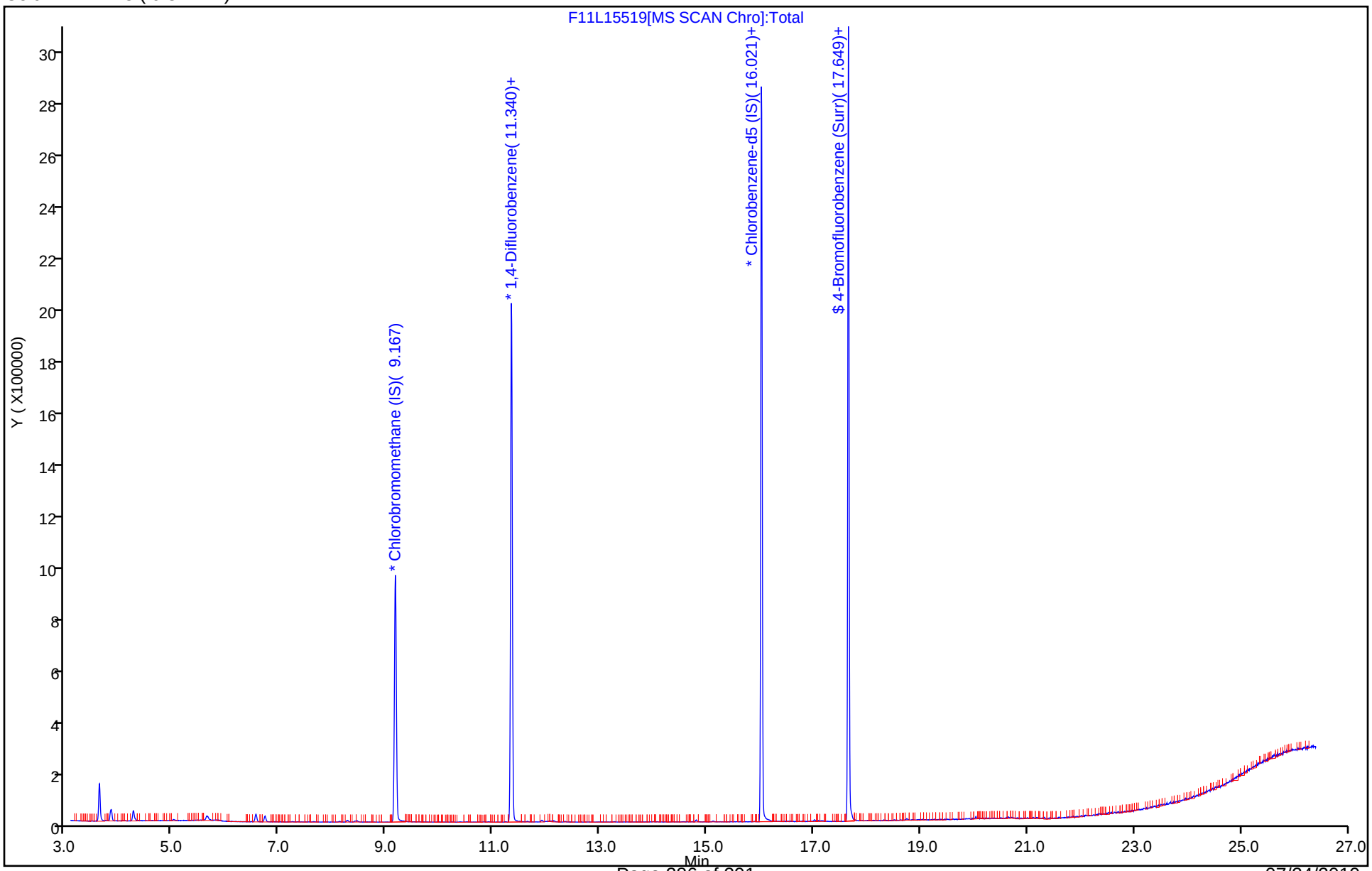
Report Date: 12-Jun-2019 10:29:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190609-11960.b\F11L15519.D

Injection Date:	11-Jun-2019 14:36:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-15519-A-15	Lab Sample ID:	140-15519-15	Worklist Smp#:	5
Client ID:	11753				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



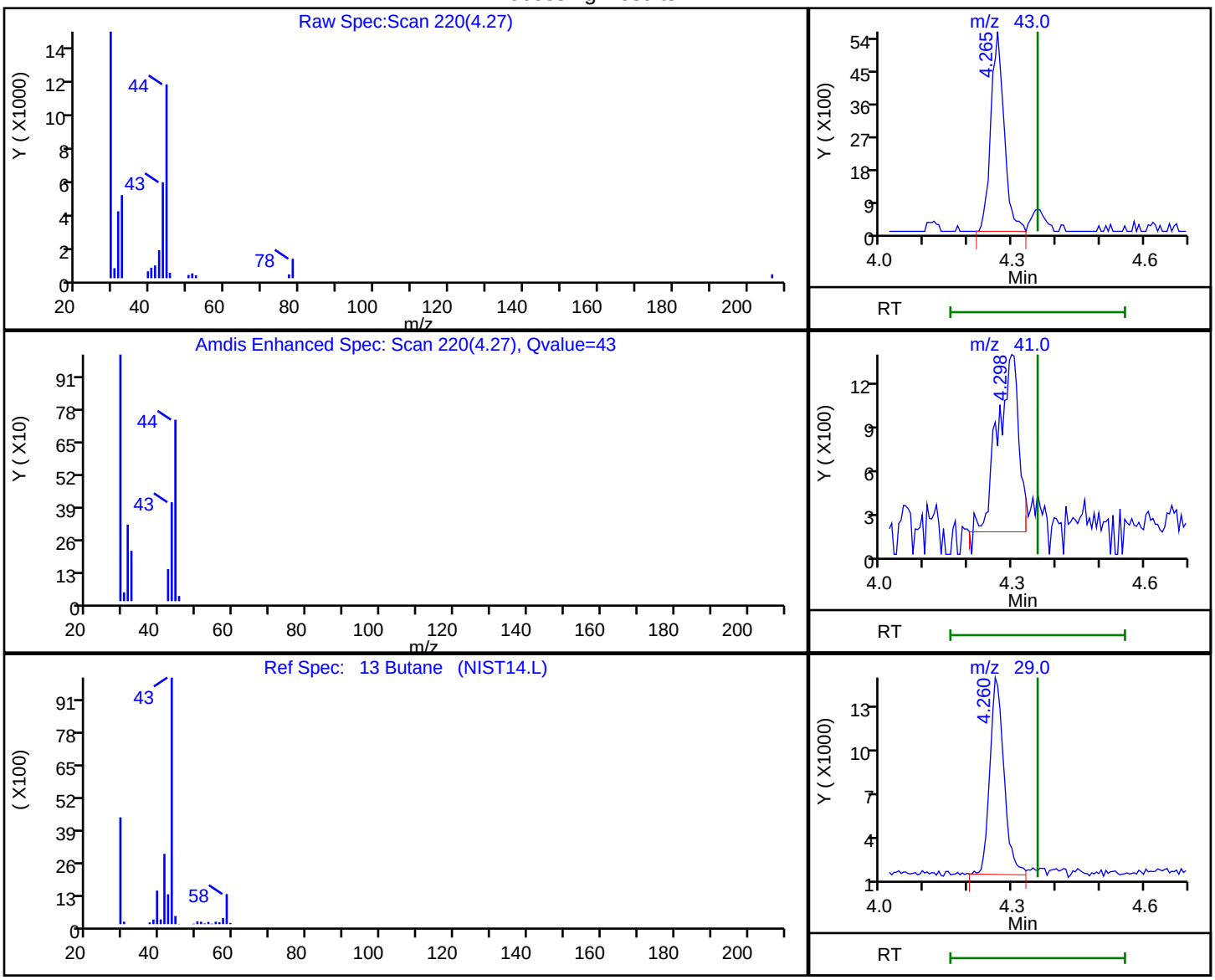
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190609-11960.b\F11L15519.D				
Injection Date:	11-Jun-2019 14:36:30	Instrument ID:	MG		
Lims ID:	140-15519-A-15	Lab Sample ID:	140-15519-15		
Client ID:	11753				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

13 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.27	43.00	11707	0.068849
4.30	41.00	3976	
4.26	29.00	30299	

Reviewer: tajh, 11-Jun-2019 15:07:11

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore #201

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Canister Samples Chain of Custody Record

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Peter Rich	Samples Collected By: L. Lucas	COC No: 1
Company Name: TetraTech	Phone: 4103506491		1 of 1 COCs
Address: 980 Awalt Rd. Suite 302	Email: Peter.Rich@TetraTech.com		
City/State/Zip Annapolis / MD / 21403			For Lab Use Only:
Phone: 410-990-4607	Site Contact: Lee Lucas		Walk-in Client:
FAX:	Tel/Fax 301-529-5073		Lab Sampling:
Project Name: Lockheed Martin MRC	Analysis Turnaround Time		Job / SDG No.:
Site/Location: Middle River / MD	Standard (Specific): ✓		(See below for Add'l Items)
PO# 117-051240	Rush (Specify):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
A-Effluent	7/11/19	11:09	7/11/19	11:10	-29	-4	10614	11846	X														
A-MIDGAC	7/11/19	11:13	7/11/19	11:14	-30	-4	10797	11573	X														
A-Influent	7/11/19	11:16	7/11/19	11:17	-30	-4	10104	10736	X														
C-Effluent	7/11/19	13:21	7/11/19	13:22	-30	-4	09899	09668	X														
C-MIDGAC	7/11/19	13:27	7/11/19	13:28	-30	-4	10930	11745	X														
C-Influent	7/11/19	13:33	7/11/19	13:34	-29	-4	11594	10751	X														

140-15980 Chain of Custody

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Received @ 9 ambient, Lb = X
Fedex for Custody seal intact
TR# 7756 9772 7360
KW 7/12/19

Special Instructions/QC Requirements & Comments:

Samples Shipped by: L. Lucas	Date / Time: 7/11/19 - 16:45	Samples Received by:	6 cans
Samples Relinquished by:	Date / Time:	Received by:	6 KR
Relinquished by:	Date / Time: 7/11/19 1700	Received by: LA ETA 7/12/19 0945	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

07/24/2019

Loc: 140
15980

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400292 1 PM Instructions: _____

Sample Receiving Associate: _____ Date: 7/12/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 7/12/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT	140-15980-a-1	11846	15519	B	1	-4.3	13:04	
HMT	140-15980-a-2	11573	15519	B	1	-4.3	13:05	
HMT	140-15980-a-3	10736	15519	B	1	-4.3	13:06	
HMT	140-15980-a-4	09668	15519	B	1	-3.6	13:07	
HMT	140-15980-a-5	11745	15519	B	1	-2.2	13:08	
HMT	140-15980-a-6	10751	15519	B	1	-3.2	13:09	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

eurofins | Environment Testing TestAmerica

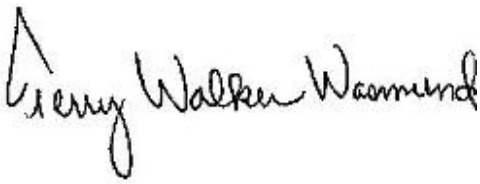
ANALYTICAL REPORT

Job Number: 140-16285-1

Job Description: Lockheed Martin MRC, Middle River

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Terry Walker Wasmund
Project Manager II
8/21/2019 10:42 AM

Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
08/21/2019

cc: Belssi Chang
Amy Thomson

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16285-1

Receipt
The samples were received on 8/9/2019 at 9:15 AM. The samples arrived in good condition and properly preserved.

Air - GC/MS VOA - Method TO-15 LL
EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

The continuing calibration verification (CCV) associated with batch 140-32521 exhibited % difference of > 30% for 1,2,3-Trimethylbenzene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Analyte 1,2,3-Trimethylbenzene recovered outside control limits for the LCS associated with analytical batch 140-32521. This is not indicative of a systematic control problem because this was random marginal exceedances. Qualified results have been reported.

Can Certification Comments
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Comments
No additional comments.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: BLDG A EFFLUENT
Lab Sample ID: 140-16285-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.0		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.71		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.98		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	35		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.60		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	5.3		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.098	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	26		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.091	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.9	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.74		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	21		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	8.1		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.42	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.5		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	2.5		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	4.8		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	140		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.0		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	22		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.40	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	100		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.40	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.6	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	2.9		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	120		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	44		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	1.8	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A MID GAC
Lab Sample ID: 140-16285-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8.5		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.053	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.54		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.53		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	20		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.55		0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.8		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.18	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	18		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.13	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.3	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.69		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.43		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	88	E	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.081	J	0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.55	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	79		0.80	0.37	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A MID GAC (Continued)
Lab Sample ID: 140-16285-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	27		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.33	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.9		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.6		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	80		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.7		2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	15		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.71	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	70		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.54	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	4.4	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.6		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.7		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	480	E	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.44	J	1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.4	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	430		4.4	2.0	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A INFLUENT
Lab Sample ID: 140-16285-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.90	J	2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.31	J	2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	17		2.0	0.25	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.57	J	2.0	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.3		2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	18		2.0	0.20	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	6.2	J B	10	4.0	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.41	J	2.0	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	85		2.0	0.93	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	150		1.0	0.15	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.9	J	6.4	0.64	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.5	J	9.8	0.85	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	66		7.9	0.99	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8	J	9.9	1.7	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	13		8.1	0.71	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	71		7.9	0.79	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	21	J B	35	14	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.6	J	7.9	0.69	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	460		11	5.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	830		5.4	0.81	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A EFFLUENT
Lab Sample ID: 140-16285-1

Date Collected: 08/08/19 12:31
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.0**		0.40	0.040	ppb v/v			08/12/19 14:37	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			08/12/19 14:37	1
Chlorodifluoromethane	**0.71**		0.40	0.11	ppb v/v			08/12/19 14:37	1
Chloroform	**0.98**		0.40	0.035	ppb v/v			08/12/19 14:37	1
cis-1,2-Dichloroethene	**35**		0.40	0.050	ppb v/v			08/12/19 14:37	1
Dichlorodifluoromethane	**0.60**		0.40	0.070	ppb v/v			08/12/19 14:37	1
1,1-Dichloroethane	**5.3**		0.40	0.035	ppb v/v			08/12/19 14:37	1
1,2-Dichloroethane	**0.098**	**J**	0.40	0.050	ppb v/v			08/12/19 14:37	1
1,1-Dichloroethene	**26**		0.40	0.040	ppb v/v			08/12/19 14:37	1
Ethylbenzene	**0.091**	**J**	0.40	0.065	ppb v/v			08/12/19 14:37	1
Methylene Chloride	**1.9**	**J B**	2.0	0.80	ppb v/v			08/12/19 14:37	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/12/19 14:37	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/12/19 14:37	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/12/19 14:37	1
Toluene	ND		0.60	0.39	ppb v/v			08/12/19 14:37	1
trans-1,2-Dichloroethene	**0.74**		0.40	0.035	ppb v/v			08/12/19 14:37	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/12/19 14:37	1
1,1,1-Trichloroethane	**21**		0.40	0.19	ppb v/v			08/12/19 14:37	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/12/19 14:37	1
Trichloroethene	**8.1**		0.20	0.030	ppb v/v			08/12/19 14:37	1
1,2,3-Trimethylbenzene	ND	*	0.40	0.18	ppb v/v			08/12/19 14:37	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/12/19 14:37	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/12/19 14:37	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/12/19 14:37	1
Xylenes, Total	**0.42**	**J**	0.80	0.12	ppb v/v			08/12/19 14:37	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6.5**		1.3	0.13	ug/m3			08/12/19 14:37	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			08/12/19 14:37	1
Chlorodifluoromethane	**2.5**		1.4	0.39	ug/m3			08/12/19 14:37	1
Chloroform	**4.8**		2.0	0.17	ug/m3			08/12/19 14:37	1
cis-1,2-Dichloroethene	**140**		1.6	0.20	ug/m3			08/12/19 14:37	1
Dichlorodifluoromethane	**3.0**		2.0	0.35	ug/m3			08/12/19 14:37	1
1,1-Dichloroethane	**22**		1.6	0.14	ug/m3			08/12/19 14:37	1
1,2-Dichloroethane	**0.40**	**J**	1.6	0.20	ug/m3			08/12/19 14:37	1
1,1-Dichloroethene	**100**		1.6	0.16	ug/m3			08/12/19 14:37	1
Ethylbenzene	**0.40**	**J**	1.7	0.28	ug/m3			08/12/19 14:37	1
Methylene Chloride	**6.6**	**J B**	6.9	2.8	ug/m3			08/12/19 14:37	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/12/19 14:37	1
Naphthalene	ND		1.0	2.0	ug/m3			08/12/19 14:37	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/12/19 14:37	1
Toluene	ND		2.3	1.5	ug/m3			08/12/19 14:37	1
trans-1,2-Dichloroethene	**2.9**		1.6	0.14	ug/m3			08/12/19 14:37	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/12/19 14:37	1
1,1,1-Trichloroethane	**120**		2.2	1.0	ug/m3			08/12/19 14:37	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/12/19 14:37	1
Trichloroethene	**44**		1.1	0.16	ug/m3			08/12/19 14:37	1
1,2,3-Trimethylbenzene	ND	*	2.0	0.88	ug/m3			08/12/19 14:37	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/12/19 14:37	1

Client Sample ID: BLDG A EFFLUENT
Lab Sample ID: 140-16285-1

Date Collected: 08/08/19 12:31
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/12/19 14:37	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/12/19 14:37	1
Xylenes, Total	**1.8**	**J**	3.5	0.52	ug/m3			08/12/19 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*		*08/12/19 14:37*	*1*

Client Sample ID: BLDG A MID GAC
Lab Sample ID: 140-16285-2

Date Collected: 08/08/19 12:36
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8.5**		0.40	0.040	ppb v/v			08/12/19 15:21	1
Carbon tetrachloride	**0.053**	**J**	0.40	0.035	ppb v/v			08/12/19 15:21	1
Chlorodifluoromethane	**0.54**		0.40	0.11	ppb v/v			08/12/19 15:21	1
Chloroform	**0.53**		0.40	0.035	ppb v/v			08/12/19 15:21	1
cis-1,2-Dichloroethene	**20**		0.40	0.050	ppb v/v			08/12/19 15:21	1
Dichlorodifluoromethane	**0.55**		0.40	0.070	ppb v/v			08/12/19 15:21	1
1,1-Dichloroethane	**3.8**		0.40	0.035	ppb v/v			08/12/19 15:21	1
1,2-Dichloroethane	**0.18**	**J**	0.40	0.050	ppb v/v			08/12/19 15:21	1
1,1-Dichloroethene	**18**		0.40	0.040	ppb v/v			08/12/19 15:21	1
Ethylbenzene	**0.13**	**J**	0.40	0.065	ppb v/v			08/12/19 15:21	1
Methylene Chloride	**1.3**	**J B**	2.0	0.80	ppb v/v			08/12/19 15:21	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			08/12/19 15:21	1
Naphthalene	ND		0.20	0.38	ppb v/v			08/12/19 15:21	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			08/12/19 15:21	1
Toluene	**0.69**		0.60	0.39	ppb v/v			08/12/19 15:21	1
trans-1,2-Dichloroethene	**0.43**		0.40	0.035	ppb v/v			08/12/19 15:21	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			08/12/19 15:21	1
1,1,1-Trichloroethane	**88**	**E**	0.40	0.19	ppb v/v			08/12/19 15:21	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			08/12/19 15:21	1
Trichloroethene	**0.081**	**J**	0.20	0.030	ppb v/v			08/12/19 15:21	1
1,2,3-Trimethylbenzene	ND	*	0.40	0.18	ppb v/v			08/12/19 15:21	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			08/12/19 15:21	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			08/12/19 15:21	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			08/12/19 15:21	1
Xylenes, Total	**0.55**	**J**	0.80	0.12	ppb v/v			08/12/19 15:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**27**		1.3	0.13	ug/m3			08/12/19 15:21	1
Carbon tetrachloride	**0.33**	**J**	2.5	0.22	ug/m3			08/12/19 15:21	1
Chlorodifluoromethane	**1.9**		1.4	0.39	ug/m3			08/12/19 15:21	1
Chloroform	**2.6**		2.0	0.17	ug/m3			08/12/19 15:21	1
cis-1,2-Dichloroethene	**80**		1.6	0.20	ug/m3			08/12/19 15:21	1
Dichlorodifluoromethane	**2.7**		2.0	0.35	ug/m3			08/12/19 15:21	1
1,1-Dichloroethane	**15**		1.6	0.14	ug/m3			08/12/19 15:21	1
1,2-Dichloroethane	**0.71**	**J**	1.6	0.20	ug/m3			08/12/19 15:21	1
1,1-Dichloroethene	**70**		1.6	0.16	ug/m3			08/12/19 15:21	1
Ethylbenzene	**0.54**	**J**	1.7	0.28	ug/m3			08/12/19 15:21	1
Methylene Chloride	**4.4**	**J B**	6.9	2.8	ug/m3			08/12/19 15:21	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			08/12/19 15:21	1
Naphthalene	ND		1.0	2.0	ug/m3			08/12/19 15:21	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			08/12/19 15:21	1
Toluene	**2.6**		2.3	1.5	ug/m3			08/12/19 15:21	1
trans-1,2-Dichloroethene	**1.7**		1.6	0.14	ug/m3			08/12/19 15:21	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			08/12/19 15:21	1
1,1,1-Trichloroethane	**480**	**E**	2.2	1.0	ug/m3			08/12/19 15:21	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			08/12/19 15:21	1
Trichloroethene	**0.44**	**J**	1.1	0.16	ug/m3			08/12/19 15:21	1
1,2,3-Trimethylbenzene	ND	*	2.0	0.88	ug/m3			08/12/19 15:21	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			08/12/19 15:21	1

Client Sample ID: BLDG A MID GAC
Lab Sample ID: 140-16285-2

Date Collected: 08/08/19 12:36
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			08/12/19 15:21	1
Vinyl chloride	ND		0.51	0.33	ug/m3			08/12/19 15:21	1
Xylenes, Total	**2.4**	**J**	3.5	0.52	ug/m3			08/12/19 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*08/12/19 15:21*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**79**		0.80	0.37	ppb v/v			08/13/19 16:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**430**		4.4	2.0	ug/m3			08/13/19 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*08/13/19 16:47*	*1*

Client Sample ID: BLDG A INFLUENT
Lab Sample ID: 140-16285-3

Date Collected: 08/08/19 12:41
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.90**	**J**	2.0	0.20	ppb v/v			08/12/19 16:03	1
Carbon tetrachloride	ND		2.0	0.18	ppb v/v			08/12/19 16:03	1
Chlorodifluoromethane	ND		2.0	0.55	ppb v/v			08/12/19 16:03	1
Chloroform	**0.31**	**J**	2.0	0.18	ppb v/v			08/12/19 16:03	1
cis-1,2-Dichloroethene	**17**		2.0	0.25	ppb v/v			08/12/19 16:03	1
Dichlorodifluoromethane	**0.57**	**J**	2.0	0.35	ppb v/v			08/12/19 16:03	1
1,1-Dichloroethane	**3.3**		2.0	0.18	ppb v/v			08/12/19 16:03	1
1,2-Dichloroethane	ND		2.0	0.25	ppb v/v			08/12/19 16:03	1
1,1-Dichloroethene	**18**		2.0	0.20	ppb v/v			08/12/19 16:03	1
Ethylbenzene	ND		2.0	0.33	ppb v/v			08/12/19 16:03	1
Methylene Chloride	**6.2**	**J B**	10	4.0	ppb v/v			08/12/19 16:03	1
Methyl tert-butyl ether	ND		10	1.3	ppb v/v			08/12/19 16:03	1
Naphthalene	ND		1.0	1.9	ppb v/v			08/12/19 16:03	1
Tetrachloroethene	ND		2.0	0.18	ppb v/v			08/12/19 16:03	1
Toluene	ND		3.0	2.0	ppb v/v			08/12/19 16:03	1
trans-1,2-Dichloroethene	**0.41**	**J**	2.0	0.18	ppb v/v			08/12/19 16:03	1
1,2,4-Trichlorobenzene	ND		2.0	1.6	ppb v/v			08/12/19 16:03	1
1,1,1-Trichloroethane	**85**		2.0	0.93	ppb v/v			08/12/19 16:03	1
1,1,2-Trichloroethane	ND		2.0	0.18	ppb v/v			08/12/19 16:03	1
Trichloroethene	**150**		1.0	0.15	ppb v/v			08/12/19 16:03	1
1,2,3-Trimethylbenzene	ND	*	2.0	0.90	ppb v/v			08/12/19 16:03	1
1,2,4-Trimethylbenzene	ND		2.0	0.50	ppb v/v			08/12/19 16:03	1
1,3,5-Trimethylbenzene	ND		2.0	0.55	ppb v/v			08/12/19 16:03	1
Vinyl chloride	ND		1.0	0.65	ppb v/v			08/12/19 16:03	1
Xylenes, Total	ND		4.0	0.60	ppb v/v			08/12/19 16:03	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.9**	**J**	6.4	0.64	ug/m3			08/12/19 16:03	1
Carbon tetrachloride	ND		13	1.1	ug/m3			08/12/19 16:03	1
Chlorodifluoromethane	ND		7.1	1.9	ug/m3			08/12/19 16:03	1
Chloroform	**1.5**	**J**	9.8	0.85	ug/m3			08/12/19 16:03	1
cis-1,2-Dichloroethene	**66**		7.9	0.99	ug/m3			08/12/19 16:03	1
Dichlorodifluoromethane	**2.8**	**J**	9.9	1.7	ug/m3			08/12/19 16:03	1
1,1-Dichloroethane	**13**		8.1	0.71	ug/m3			08/12/19 16:03	1
1,2-Dichloroethane	ND		8.1	1.0	ug/m3			08/12/19 16:03	1
1,1-Dichloroethene	**71**		7.9	0.79	ug/m3			08/12/19 16:03	1
Ethylbenzene	ND		8.7	1.4	ug/m3			08/12/19 16:03	1
Methylene Chloride	**21**	**J B**	35	14	ug/m3			08/12/19 16:03	1
Methyl tert-butyl ether	ND		36	4.7	ug/m3			08/12/19 16:03	1
Naphthalene	ND		5.2	10	ug/m3			08/12/19 16:03	1
Tetrachloroethene	ND		14	1.2	ug/m3			08/12/19 16:03	1
Toluene	ND		11	7.3	ug/m3			08/12/19 16:03	1
trans-1,2-Dichloroethene	**1.6**	**J**	7.9	0.69	ug/m3			08/12/19 16:03	1
1,2,4-Trichlorobenzene	ND		15	12	ug/m3			08/12/19 16:03	1
1,1,1-Trichloroethane	**460**		11	5.0	ug/m3			08/12/19 16:03	1
1,1,2-Trichloroethane	ND		11	0.95	ug/m3			08/12/19 16:03	1
Trichloroethene	**830**		5.4	0.81	ug/m3			08/12/19 16:03	1
1,2,3-Trimethylbenzene	ND	*	9.8	4.4	ug/m3			08/12/19 16:03	1
1,2,4-Trimethylbenzene	ND		9.8	2.5	ug/m3			08/12/19 16:03	1

Client Sample ID: BLDG A INFLUENT
Lab Sample ID: 140-16285-3

Date Collected: 08/08/19 12:41
Matrix: Air
Date Received: 08/09/19 09:15
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		9.8	2.7	ug/m3			08/12/19 16:03	1
Vinyl chloride	ND		2.6	1.7	ug/m3			08/12/19 16:03	1
Xylenes, Total	ND		17	2.6	ug/m3			08/12/19 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*08/12/19 16:03*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (60-140)							
140-16285-1	BLDG A EFFLUENT	111							
140-16285-2	BLDG A MID GAC	107							
140-16285-2 - DL	BLDG A MID GAC	105							
140-16285-3	BLDG A INFLUENT	103							
LCS 140-32521/1002	Lab Control Sample	107							
LCS 140-32522/1002	Lab Control Sample	107							
MB 140-32521/4	Method Blank	104							
MB 140-32522/4	Method Blank	101							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-32521/4
Matrix: Air
Analysis Batch: 32521

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/12/19 11:05	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/12/19 11:05	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/12/19 11:05	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/12/19 11:05	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/12/19 11:05	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/12/19 11:05	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/12/19 11:05	1
Methylene Chloride	0.207	J	0.40	0.16	ppb v/v			08/12/19 11:05	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/12/19 11:05	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/12/19 11:05	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
Toluene	ND		0.12	0.078	ppb v/v			08/12/19 11:05	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/12/19 11:05	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/12/19 11:05	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/12/19 11:05	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/12/19 11:05	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/12/19 11:05	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/12/19 11:05	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/12/19 11:05	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/12/19 11:05	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/12/19 11:05	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/12/19 11:05	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/12/19 11:05	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/12/19 11:05	1
Chloroform	ND		0.39	0.034	ug/m3			08/12/19 11:05	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/12/19 11:05	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/12/19 11:05	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/12/19 11:05	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/12/19 11:05	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/12/19 11:05	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/12/19 11:05	1
Methylene Chloride	0.718	J	1.4	0.56	ug/m3			08/12/19 11:05	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/12/19 11:05	1
Naphthalene	ND		0.21	0.40	ug/m3			08/12/19 11:05	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/12/19 11:05	1
Toluene	ND		0.45	0.29	ug/m3			08/12/19 11:05	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/12/19 11:05	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/12/19 11:05	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/12/19 11:05	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/12/19 11:05	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/12/19 11:05	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/12/19 11:05	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32521/4
Matrix: Air
Analysis Batch: 32521

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/12/19 11:05	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/12/19 11:05	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/12/19 11:05	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/12/19 11:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*08/12/19 11:05*	*1*

Lab Sample ID: LCS 140-32521/1002
Matrix: Air
Analysis Batch: 32521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.05		ppb v/v		102	70 - 130
Carbon tetrachloride	2.00	1.91		ppb v/v		96	70 - 130
Chlorodifluoromethane	2.00	2.17		ppb v/v		109	60 - 140
Chloroform	2.00	1.97		ppb v/v		98	70 - 130
cis-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.02		ppb v/v		101	60 - 140
1,1-Dichloroethane	2.00	2.10		ppb v/v		105	70 - 130
1,2-Dichloroethane	2.00	1.91		ppb v/v		95	70 - 130
1,1-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
Ethylbenzene	2.00	1.81		ppb v/v		91	70 - 130
Methylene Chloride	2.00	2.10		ppb v/v		105	70 - 130
Methyl tert-butyl ether	2.00	1.68		ppb v/v		84	60 - 140
Naphthalene	2.00	1.63		ppb v/v		82	60 - 140
Tetrachloroethene	2.00	1.83		ppb v/v		91	70 - 130
Toluene	2.00	1.91		ppb v/v		95	70 - 130
trans-1,2-Dichloroethene	2.00	2.08		ppb v/v		104	70 - 130
1,2,4-Trichlorobenzene	2.00	1.62		ppb v/v		81	60 - 140
1,1,1-Trichloroethane	2.00	1.92		ppb v/v		96	70 - 130
1,1,2-Trichloroethane	2.00	1.88		ppb v/v		94	70 - 130
Trichloroethene	2.00	1.77		ppb v/v		88	70 - 130
1,2,3-Trimethylbenzene	2.00	1.32	*	ppb v/v		66	70 - 130
1,2,4-Trimethylbenzene	2.00	1.59		ppb v/v		79	70 - 130
1,3,5-Trimethylbenzene	2.00	1.81		ppb v/v		90	70 - 130
Vinyl chloride	2.00	2.10		ppb v/v		105	70 - 130
Xylenes, Total	6.00	5.43		ppb v/v		91	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.55		ug/m3		102	70 - 130
Carbon tetrachloride	13	12.0		ug/m3		96	70 - 130
Chlorodifluoromethane	7.1	7.68		ug/m3		109	60 - 140
Chloroform	9.8	9.61		ug/m3		98	70 - 130
cis-1,2-Dichloroethene	7.9	8.09		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	9.98		ug/m3		101	60 - 140
1,1-Dichloroethane	8.1	8.51		ug/m3		105	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32521/1002
Matrix: Air
Analysis Batch: 32521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	8.1	7.73		ug/m3		95	70 - 130
1,1-Dichloroethene	7.9	8.11		ug/m3		102	70 - 130
Ethylbenzene	8.7	7.87		ug/m3		91	70 - 130
Methylene Chloride	6.9	7.28		ug/m3		105	70 - 130
Methyl tert-butyl ether	7.2	6.05		ug/m3		84	60 - 140
Naphthalene	10	8.55		ug/m3		82	60 - 140
Tetrachloroethene	14	12.4		ug/m3		91	70 - 130
Toluene	7.5	7.20		ug/m3		95	70 - 130
trans-1,2-Dichloroethene	7.9	8.25		ug/m3		104	70 - 130
1,2,4-Trichlorobenzene	15	12.0		ug/m3		81	60 - 140
1,1,1-Trichloroethane	11	10.5		ug/m3		96	70 - 130
1,1,2-Trichloroethane	11	10.3		ug/m3		94	70 - 130
Trichloroethene	11	9.49		ug/m3		88	70 - 130
1,2,3-Trimethylbenzene	9.8	6.49	*	ug/m3		66	70 - 130
1,2,4-Trimethylbenzene	9.8	7.80		ug/m3		79	70 - 130
1,3,5-Trimethylbenzene	9.8	8.89		ug/m3		90	70 - 130
Vinyl chloride	5.1	5.36		ug/m3		105	70 - 130
Xylenes, Total	26	23.6		ug/m3		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 140-32522/4
Matrix: Air
Analysis Batch: 32522

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			08/13/19 13:05	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			08/13/19 13:05	1
Chloroform	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			08/13/19 13:05	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			08/13/19 13:05	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			08/13/19 13:05	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			08/13/19 13:05	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			08/13/19 13:05	1
Methylene Chloride	0.194	J	0.40	0.16	ppb v/v			08/13/19 13:05	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			08/13/19 13:05	1
Naphthalene	ND		0.040	0.076	ppb v/v			08/13/19 13:05	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
Toluene	ND		0.12	0.078	ppb v/v			08/13/19 13:05	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			08/13/19 13:05	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			08/13/19 13:05	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			08/13/19 13:05	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			08/13/19 13:05	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-32522/4
Matrix: Air
Analysis Batch: 32522

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			08/13/19 13:05	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			08/13/19 13:05	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			08/13/19 13:05	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			08/13/19 13:05	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			08/13/19 13:05	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			08/13/19 13:05	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			08/13/19 13:05	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			08/13/19 13:05	1
Chloroform	ND		0.39	0.034	ug/m3			08/13/19 13:05	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			08/13/19 13:05	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			08/13/19 13:05	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			08/13/19 13:05	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			08/13/19 13:05	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			08/13/19 13:05	1
Ethylbenzene	ND		0.35	0.056	ug/m3			08/13/19 13:05	1
Methylene Chloride	0.673	J	1.4	0.56	ug/m3			08/13/19 13:05	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			08/13/19 13:05	1
Naphthalene	ND		0.21	0.40	ug/m3			08/13/19 13:05	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			08/13/19 13:05	1
Toluene	ND		0.45	0.29	ug/m3			08/13/19 13:05	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			08/13/19 13:05	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			08/13/19 13:05	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			08/13/19 13:05	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			08/13/19 13:05	1
Trichloroethene	ND		0.21	0.032	ug/m3			08/13/19 13:05	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			08/13/19 13:05	1
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			08/13/19 13:05	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			08/13/19 13:05	1
Vinyl chloride	ND		0.10	0.066	ug/m3			08/13/19 13:05	1
Xylenes, Total	ND		0.69	0.10	ug/m3			08/13/19 13:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*08/13/19 13:05*	*1*

Lab Sample ID: LCS 140-32522/1002
Matrix: Air
Analysis Batch: 32522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.13		ppb v/v		106	70 - 130
Carbon tetrachloride	2.00	2.05		ppb v/v		102	70 - 130
Chlorodifluoromethane	2.00	2.05		ppb v/v		103	60 - 140
Chloroform	2.00	2.02		ppb v/v		101	70 - 130
cis-1,2-Dichloroethene	2.00	2.07		ppb v/v		104	70 - 130
Dichlorodifluoromethane	2.00	1.99		ppb v/v		100	60 - 140

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32522/1002
Matrix: Air
Analysis Batch: 32522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2.00	2.08		ppb v/v		104	70 - 130
1,2-Dichloroethane	2.00	1.93		ppb v/v		96	70 - 130
1,1-Dichloroethene	2.00	2.01		ppb v/v		101	70 - 130
Ethylbenzene	2.00	1.86		ppb v/v		93	70 - 130
Methylene Chloride	2.00	2.03		ppb v/v		102	70 - 130
Methyl tert-butyl ether	2.00	1.65		ppb v/v		82	60 - 140
Naphthalene	2.00	1.49		ppb v/v		75	60 - 140
Tetrachloroethene	2.00	1.91		ppb v/v		95	70 - 130
Toluene	2.00	1.93		ppb v/v		97	70 - 130
trans-1,2-Dichloroethene	2.00	2.00		ppb v/v		100	70 - 130
1,2,4-Trichlorobenzene	2.00	1.53		ppb v/v		76	60 - 140
1,1,1-Trichloroethane	2.00	1.96		ppb v/v		98	70 - 130
1,1,2-Trichloroethane	2.00	1.92		ppb v/v		96	70 - 130
Trichloroethene	2.00	1.99		ppb v/v		99	70 - 130
1,2,3-Trimethylbenzene	2.00	1.39	*	ppb v/v		69	70 - 130
1,2,4-Trimethylbenzene	2.00	1.70		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.97		ppb v/v		99	70 - 130
Vinyl chloride	2.00	2.02		ppb v/v		101	70 - 130
Xylenes, Total	6.00	5.58		ppb v/v		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.80		ug/m3		106	70 - 130
Carbon tetrachloride	13	12.9		ug/m3		102	70 - 130
Chlorodifluoromethane	7.1	7.27		ug/m3		103	60 - 140
Chloroform	9.8	9.88		ug/m3		101	70 - 130
cis-1,2-Dichloroethene	7.9	8.21		ug/m3		104	70 - 130
Dichlorodifluoromethane	9.9	9.86		ug/m3		100	60 - 140
1,1-Dichloroethane	8.1	8.42		ug/m3		104	70 - 130
1,2-Dichloroethane	8.1	7.81		ug/m3		96	70 - 130
1,1-Dichloroethene	7.9	7.98		ug/m3		101	70 - 130
Ethylbenzene	8.7	8.09		ug/m3		93	70 - 130
Methylene Chloride	6.9	7.07		ug/m3		102	70 - 130
Methyl tert-butyl ether	7.2	5.95		ug/m3		82	60 - 140
Naphthalene	10	7.82		ug/m3		75	60 - 140
Tetrachloroethene	14	12.9		ug/m3		95	70 - 130
Toluene	7.5	7.28		ug/m3		97	70 - 130
trans-1,2-Dichloroethene	7.9	7.91		ug/m3		100	70 - 130
1,2,4-Trichlorobenzene	15	11.3		ug/m3		76	60 - 140
1,1,1-Trichloroethane	11	10.7		ug/m3		98	70 - 130
1,1,2-Trichloroethane	11	10.5		ug/m3		96	70 - 130
Trichloroethene	11	10.7		ug/m3		99	70 - 130
1,2,3-Trimethylbenzene	9.8	6.83	*	ug/m3		69	70 - 130
1,2,4-Trimethylbenzene	9.8	8.35		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	9.70		ug/m3		99	70 - 130
Vinyl chloride	5.1	5.17		ug/m3		101	70 - 130
Xylenes, Total	26	24.2		ug/m3		93	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-32522/1002
Matrix: Air
Analysis Batch: 32522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Air - GC/MS VOA

Analysis Batch: 32521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16285-1	BLDG A EFFLUENT	Total/NA	Air	TO 15 LL	
140-16285-2	BLDG A MID GAC	Total/NA	Air	TO 15 LL	
140-16285-3	BLDG A INFLUENT	Total/NA	Air	TO 15 LL	
MB 140-32521/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32521/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Analysis Batch: 32522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16285-2 - DL	BLDG A MID GAC	Total/NA	Air	TO 15 LL	
MB 140-32522/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-32522/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: BLDG A EFFLUENT
Lab Sample ID: 140-16285-1
Date Collected: 08/08/19 12:31
Matrix: Air
Date Received: 08/09/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32521	08/12/19 14:37	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG A MID GAC
Lab Sample ID: 140-16285-2
Date Collected: 08/08/19 12:36
Matrix: Air
Date Received: 08/09/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	32521	08/12/19 15:21	S1K	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO 15 LL	DL	1	50 mL	500 mL	32522	08/13/19 16:47	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: BLDG A INFLUENT
Lab Sample ID: 140-16285-3
Date Collected: 08/08/19 12:41
Matrix: Air
Date Received: 08/09/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	20 mL	500 mL	32521	08/12/19 16:03	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-32521/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32521	08/12/19 11:05	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-32522/4
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32522	08/13/19 13:05	S1K	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-32521/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32521	08/12/19 09:07	S1K	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-32522/1002

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	32522	08/13/19 10:50	S1K	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-16285-1
Project/Site: Lockheed Martin MRC, Middle River

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16285-1	BLDG A EFFLUENT	Air	08/08/19 12:31	08/09/19 09:15	Air Canister (1-Liter) #11777
140-16285-2	BLDG A MID GAC	Air	08/08/19 12:36	08/09/19 09:15	Air Canister (1-Liter) #09886
140-16285-3	BLDG A INFLUENT	Air	08/08/19 12:41	08/09/19 09:15	Air Canister (1-Liter) #10924

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
BLDG A EFFLUENT	140-16285-1	111
BLDG A MID GAC	140-16285-2	107
BLDG A MID GAC DL	140-16285-2 DL	105
BLDG A INFLUENT	140-16285-3	103
	MB 140-32521/4	104
	MB 140-32522/4	101
	LCS 140-32521/1002	107
	LCS 140-32522/1002	107

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH12-LCS.d

Lab ID: LCS 140-32521/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.05	102	70-130	
Carbon tetrachloride	2.00	1.91	96	70-130	
Chlorodifluoromethane	2.00	2.17	109	60-140	
Chloroform	2.00	1.97	98	70-130	
cis-1,2-Dichloroethene	2.00	2.04	102	70-130	
Dichlorodifluoromethane	2.00	2.02	101	60-140	
1,1-Dichloroethane	2.00	2.10	105	70-130	
1,2-Dichloroethane	2.00	1.91	95	70-130	
1,1-Dichloroethene	2.00	2.04	102	70-130	
Ethylbenzene	2.00	1.81	91	70-130	
Methylene Chloride	2.00	2.10	105	70-130	
Methyl tert-butyl ether	2.00	1.68	84	60-140	
Naphthalene	2.00	1.63	82	60-140	
Tetrachloroethene	2.00	1.83	91	70-130	
Toluene	2.00	1.91	95	70-130	
trans-1,2-Dichloroethene	2.00	2.08	104	70-130	
1,2,4-Trichlorobenzene	2.00	1.62	81	60-140	
1,1,1-Trichloroethane	2.00	1.92	96	70-130	
1,1,2-Trichloroethane	2.00	1.88	94	70-130	
Trichloroethene	2.00	1.77	88	70-130	
1,2,3-Trimethylbenzene	2.00	1.32	66	70-130	*
1,2,4-Trimethylbenzene	2.00	1.59	79	70-130	
1,3,5-Trimethylbenzene	2.00	1.81	90	70-130	
Vinyl chloride	2.00	2.10	105	70-130	
Xylenes, Total	6.00	5.43	91	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Matrix: Air Level: Low Lab File ID: GCCVH13A-LCS.d

Lab ID: LCS 140-32522/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	2.13	106	70-130	
Carbon tetrachloride	2.00	2.05	102	70-130	
Chlorodifluoromethane	2.00	2.05	103	60-140	
Chloroform	2.00	2.02	101	70-130	
cis-1,2-Dichloroethene	2.00	2.07	104	70-130	
Dichlorodifluoromethane	2.00	1.99	100	60-140	
1,1-Dichloroethane	2.00	2.08	104	70-130	
1,2-Dichloroethane	2.00	1.93	96	70-130	
1,1-Dichloroethene	2.00	2.01	101	70-130	
Ethylbenzene	2.00	1.86	93	70-130	
Methylene Chloride	2.00	2.03	102	70-130	
Methyl tert-butyl ether	2.00	1.65	82	60-140	
Naphthalene	2.00	1.49	75	60-140	
Tetrachloroethene	2.00	1.91	95	70-130	
Toluene	2.00	1.93	97	70-130	
trans-1,2-Dichloroethene	2.00	2.00	100	70-130	
1,2,4-Trichlorobenzene	2.00	1.53	76	60-140	
1,1,1-Trichloroethane	2.00	1.96	98	70-130	
1,1,2-Trichloroethane	2.00	1.92	96	70-130	
Trichloroethene	2.00	1.99	99	70-130	
1,2,3-Trimethylbenzene	2.00	1.39	69	70-130	*
1,2,4-Trimethylbenzene	2.00	1.70	85	70-130	
1,3,5-Trimethylbenzene	2.00	1.97	99	70-130	
Vinyl chloride	2.00	2.02	101	70-130	
Xylenes, Total	6.00	5.58	93	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab File ID: G500BH12.D Lab Sample ID: MB 140-32521/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/12/2019 11:05

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32521/1002	GCCVH12-LCS.d	08/12/2019 09:07
BLDG A EFFLUENT	140-16285-1	GH12P102.D	08/12/2019 14:37
BLDG A MID GAC	140-16285-2	GH12P103.D	08/12/2019 15:21
BLDG A INFLUENT	140-16285-3	GH12P104.D	08/12/2019 16:03

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab File ID: G500BH13.D Lab Sample ID: MB 140-32522/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MG Date Analyzed: 08/13/2019 13:05

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-32522/1002	GCCVH13A-LCS.d	08/13/2019 10:50
BLDG A MID GAC DL	140-16285-2 DL	GH13P104.D	08/13/2019 16:47

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab File ID: GBFBH05IC.D BFB Injection Date: 08/05/2019

Instrument ID: MG BFB Injection Time: 14:36

Analysis Batch No.: 32317

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	56.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	85.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-32317/2	GH05ICLVL9.D	08/05/2019	15:09
	IC 140-32317/4	GH05ICLVL10.D	08/05/2019	16:33
	IC 140-32317/7	GH05ICLVL01.D	08/05/2019	18:41
	IC 140-32317/8	GH05ICLVL02.D	08/05/2019	19:23
	IC 140-32317/9	GH05ICLVL03.D	08/05/2019	20:05
	IC 140-32317/10	GH05ICLVL04.D	08/05/2019	20:47
	IC 140-32317/11	GH05ICLVL05.D	08/05/2019	21:30
	IC 140-32317/12	GH05ICLVL06.D	08/05/2019	22:16
	ICIS 140-32317/13	GH05ICLVL07.D	08/05/2019	22:58
	IC 140-32317/14	GH05ICLVL8.D	08/05/2019	23:41
	ICV 140-32317/17	GH05LCS.D	08/06/2019	01:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab File ID: GBFBH12.D BFB Injection Date: 08/12/2019

Instrument ID: MG BFB Injection Time: 08:33

Analysis Batch No.: 32521

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	55.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	82.5	
175	5.0 - 9.0 % of mass 174	6.1	(7.4) 1
176	95.0 - 101.0 % of mass 174	81.2	(98.4) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32521/2	GCCVH12.D	08/12/2019	09:07
	LCS 140-32521/1002	GCCVH12-LCS.d	08/12/2019	09:07
	MB 140-32521/4	G500BH12.D	08/12/2019	11:05
BLDG A EFFLUENT	140-16285-1	GH12P102.D	08/12/2019	14:37
BLDG A MID GAC	140-16285-2	GH12P103.D	08/12/2019	15:21
BLDG A INFLUENT	140-16285-3	GH12P104.D	08/12/2019	16:03

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab File ID: GBFBH13A.D BFB Injection Date: 08/13/2019

Instrument ID: MG BFB Injection Time: 10:14

Analysis Batch No.: 32522

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.6	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	89.7	
175	5.0 - 9.0 % of mass 174	6.3	(7.0) 1
176	95.0 - 101.0 % of mass 174	88.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-32522/2	GCCVH13A.D	08/13/2019	10:50
	LCS 140-32522/1002	GCCVH13A-LCS .d	08/13/2019	10:50
	MB 140-32522/4	G500BH13.D	08/13/2019	13:05
BLDG A MID GAC DL	140-16285-2 DL	GH13P104.D	08/13/2019	16:47

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Sample No.: ICIS 140-32317/13 Date Analyzed: 08/05/2019 22:58

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GH05ICLVL07.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		498889	9.15	2835428	11.31	2531405	16.00
UPPER LIMIT		698445	9.48	3969599	11.64	3543967	16.33
LOWER LIMIT		299333	8.82	1701257	10.98	1518843	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-32317/17		489315	9.15	2460270	11.31	2289950	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Sample No.: CCVIS 140-32521/2 Date Analyzed: 08/12/2019 09:07

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH12.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		524110	9.14	2888947	11.31	2523321	15.99
UPPER LIMIT		733754	9.47	4044526	11.64	3532649	16.32
LOWER LIMIT		314466	8.81	1733368	10.98	1513993	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32521/1002		524110	9.14	2888947	11.31	2523321	15.99
MB 140-32521/4		534158	9.14	2918820	11.31	2553201	15.99
140-16285-1	BLDG A EFFLUENT	458260	9.15	2366547	11.31	2259847	15.99
140-16285-2	BLDG A MID GAC	494817	9.15	2781513	11.31	2614806	15.99
140-16285-3	BLDG A INFLUENT	529530	9.15	2933167	11.31	2689523	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Sample No.: CCVIS 140-32522/2 Date Analyzed: 08/13/2019 10:50

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): GCCVH13A.D Heated Purge: (Y/N) N

Calibration ID: 2077

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		531032	9.14	2848377	11.31	2572358	15.99
UPPER LIMIT		743445	9.47	3987728	11.64	3601301	16.32
LOWER LIMIT		318619	8.81	1709026	10.98	1543415	15.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-32522/1002		531032	9.14	2848377	11.31	2572358	15.99
MB 140-32522/4		536627	9.14	2918504	11.31	2676176	15.99
140-16285-2 DL	BLDG A MID GAC DL	544335	9.15	3043751	11.31	2751550	15.99

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A EFFLUENT Lab Sample ID: 140-16285-1

Matrix: Air Lab File ID: GH12P102.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:31

Sample wt/vol: 100(mL) Date Analyzed: 08/12/2019 14:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.0		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.71		0.40	0.11
67-66-3	Chloroform	119.38	0.98		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	35		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.60		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	5.3		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.098	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	26		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.091	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.9	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.74		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	21		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	8.1		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.42	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A EFFLUENT Lab Sample ID: 140-16285-1

Matrix: Air Lab File ID: GH12P102.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:31

Sample wt/vol: 100(mL) Date Analyzed: 08/12/2019 14:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	6.5		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	2.5		1.4	0.39
67-66-3	Chloroform	119.38	4.8		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	140		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	3.0		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	22		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.40	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	100		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.40	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.6	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	2.9		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	120		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	44		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	1.8	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D
Lims ID: 140-16285-A-1
Client ID: BLDG A EFFLUENT
Sample Type: Client
Inject. Date: 12-Aug-2019 14:37:30 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-008
Misc. Info.: 140-16285-a-1
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:45:56 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:46:32

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.146	9.140	0.006	90	458260	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2366547	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.999	-0.010	90	2259847	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.616	-0.016	86	1739668	4.43	
	6 Chlorodifluoromethane	51	3.823	3.823	0.000	95	33081	0.1421	
	8 Dichlorodifluoromethane	85	3.883	3.888	-0.005	100	54606	0.1208	
	27 1,1-Dichloroethene	96	6.174	6.174	0.000	94	678629	5.20	
	31 Methylene Chloride	84	6.536	6.541	-0.005	96	48230	0.3798	
	34 trans-1,2-Dichloroethene	96	7.366	7.372	-0.006	95	19442	0.1487	
	37 1,1-Dichloroethane	63	7.798	7.803	-0.005	100	266319	1.06	
	42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	97	936539	6.98	
	44 Chloroform	83	9.151	9.151	0.000	31	61242	0.1969	
	47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	97	1588917	4.26	
	48 1,2-Dichloroethane	62	10.305	10.305	0.000	72	4277	0.0196	
	50 Benzene	78	10.780	10.785	-0.005	98	144447	0.4084	
	58 Trichloroethene	130	12.014	12.020	-0.006	96	320225	1.62	
	67 Toluene	91	14.037	14.032	-0.005	92	30282	0.0682	
	78 Ethylbenzene	91	16.312	16.317	-0.016	97	10741	0.0183	
	79 m-Xylene & p-Xylene	91	16.479	16.479	-0.011	99	26315	0.0571	
	83 o-Xylene	91	17.002	17.002	-0.011	95	12648	0.0253	
S	124 Xylenes, Total	100				0		0.0825	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

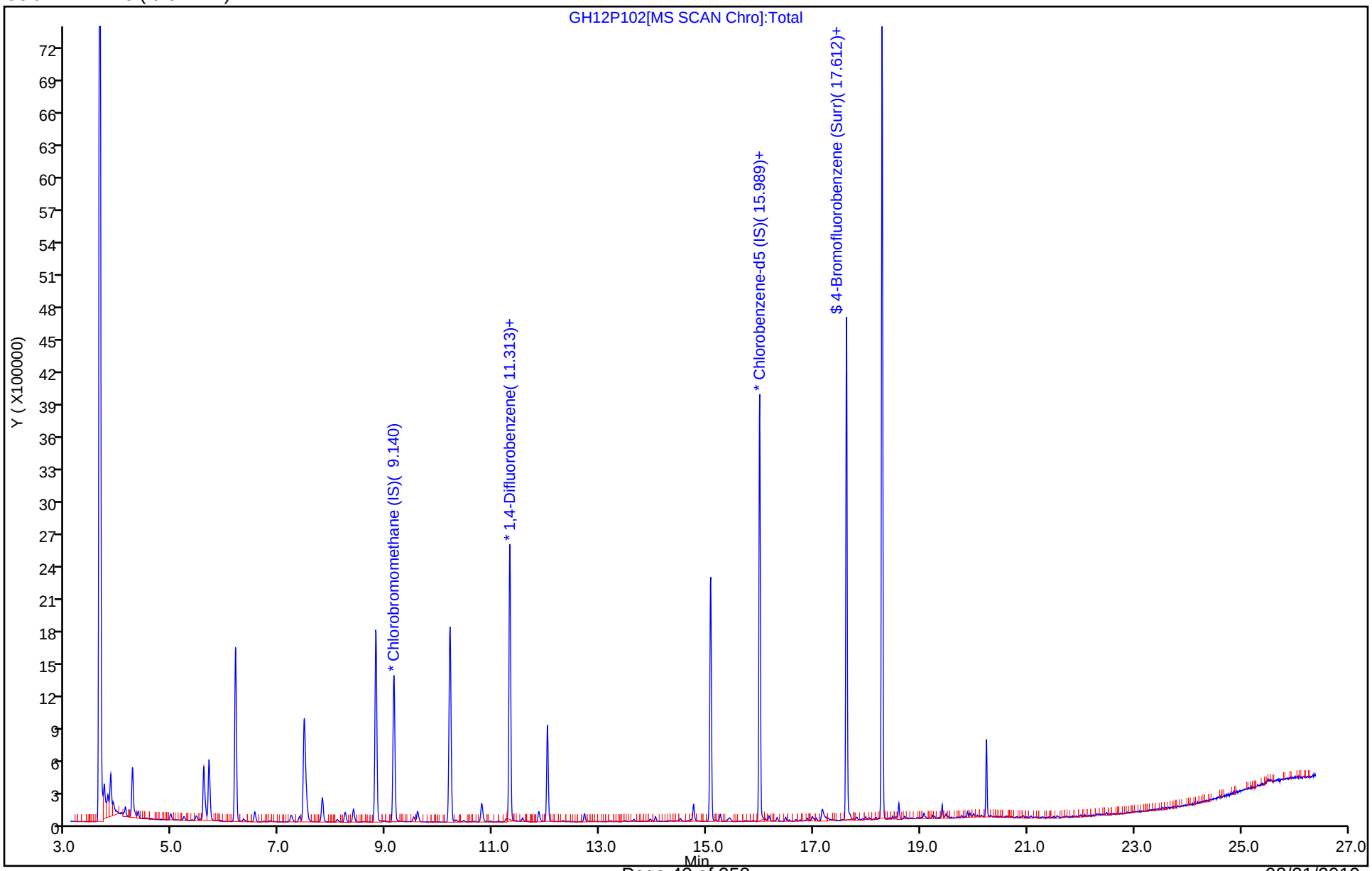
Report Date: 13-Aug-2019 12:46:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D

Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1	Worklist Smp#:	8
Client ID:	BLDG A EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

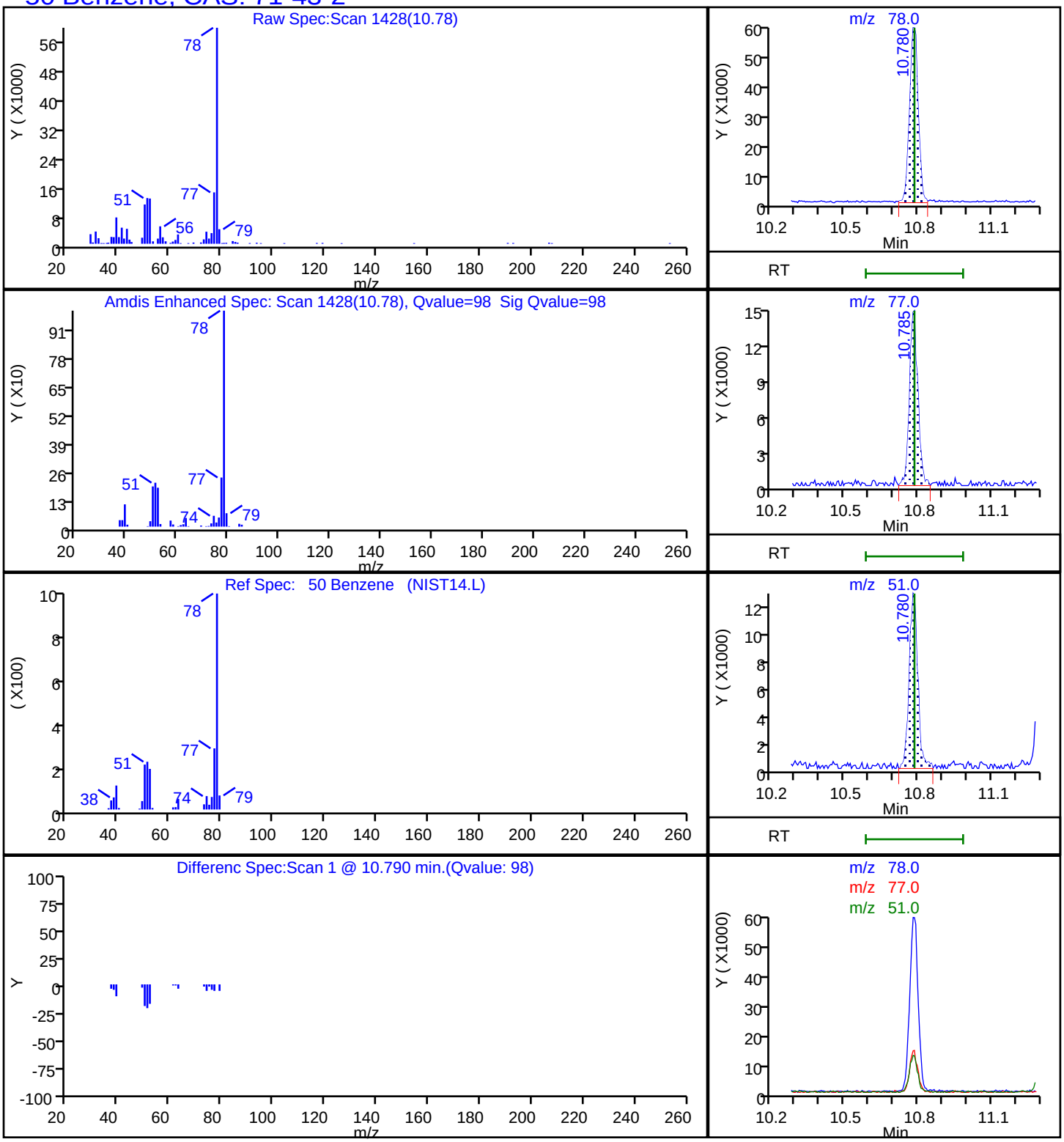
Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D				
Lims ID:	140-16285-A-1				
Client ID:	BLDG A EFFLUENT				
Sample Type:	Client				
Inject. Date:	12-Aug-2019 14:37:30	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012675-008				
Misc. Info.:	140-16285-a-1				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Aug-2019 12:45:56	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0330				
First Level Reviewer: khachitpongpanits		Date:	13-Aug-2019 12:46:32		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.43	110.78

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

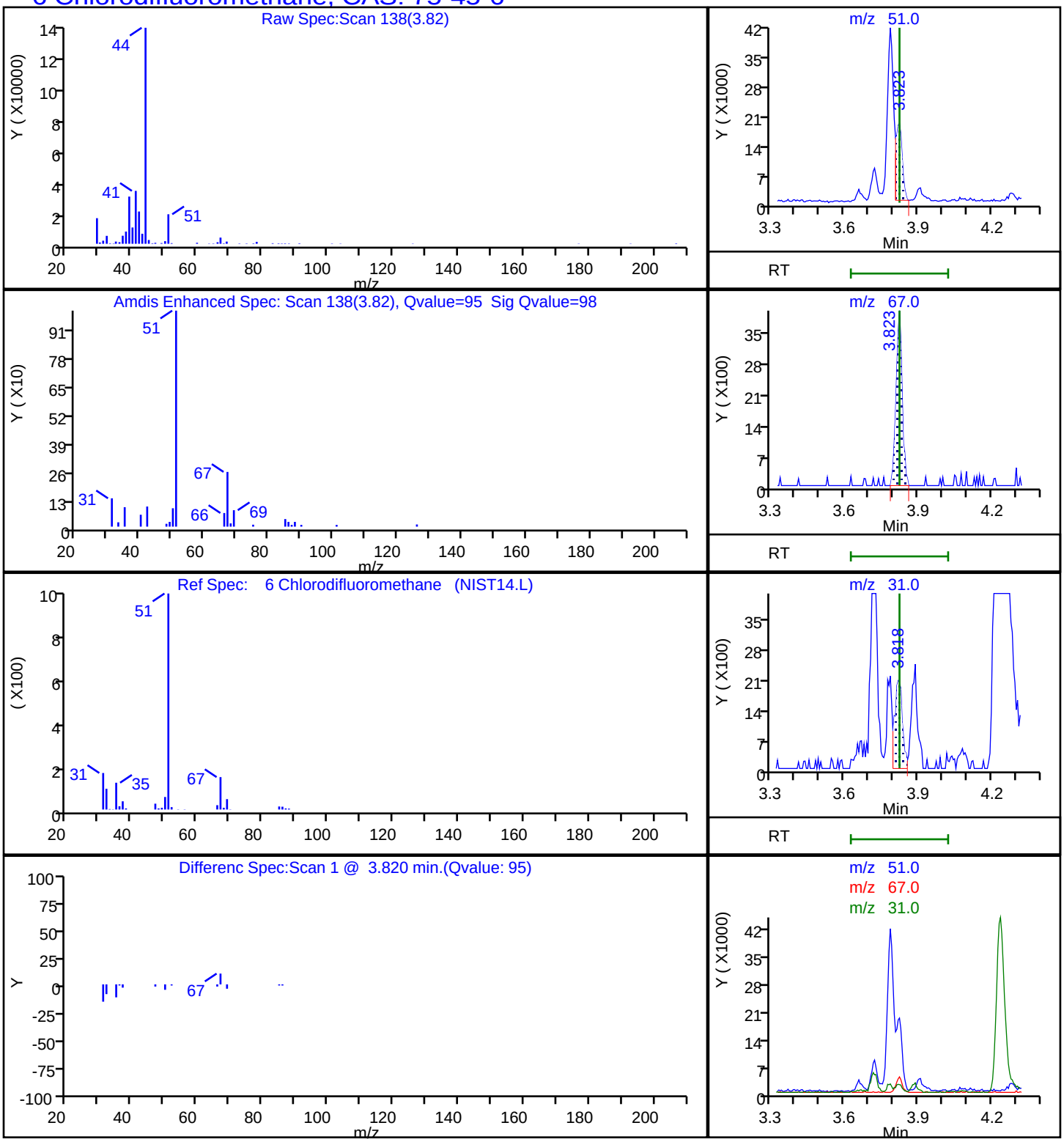
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
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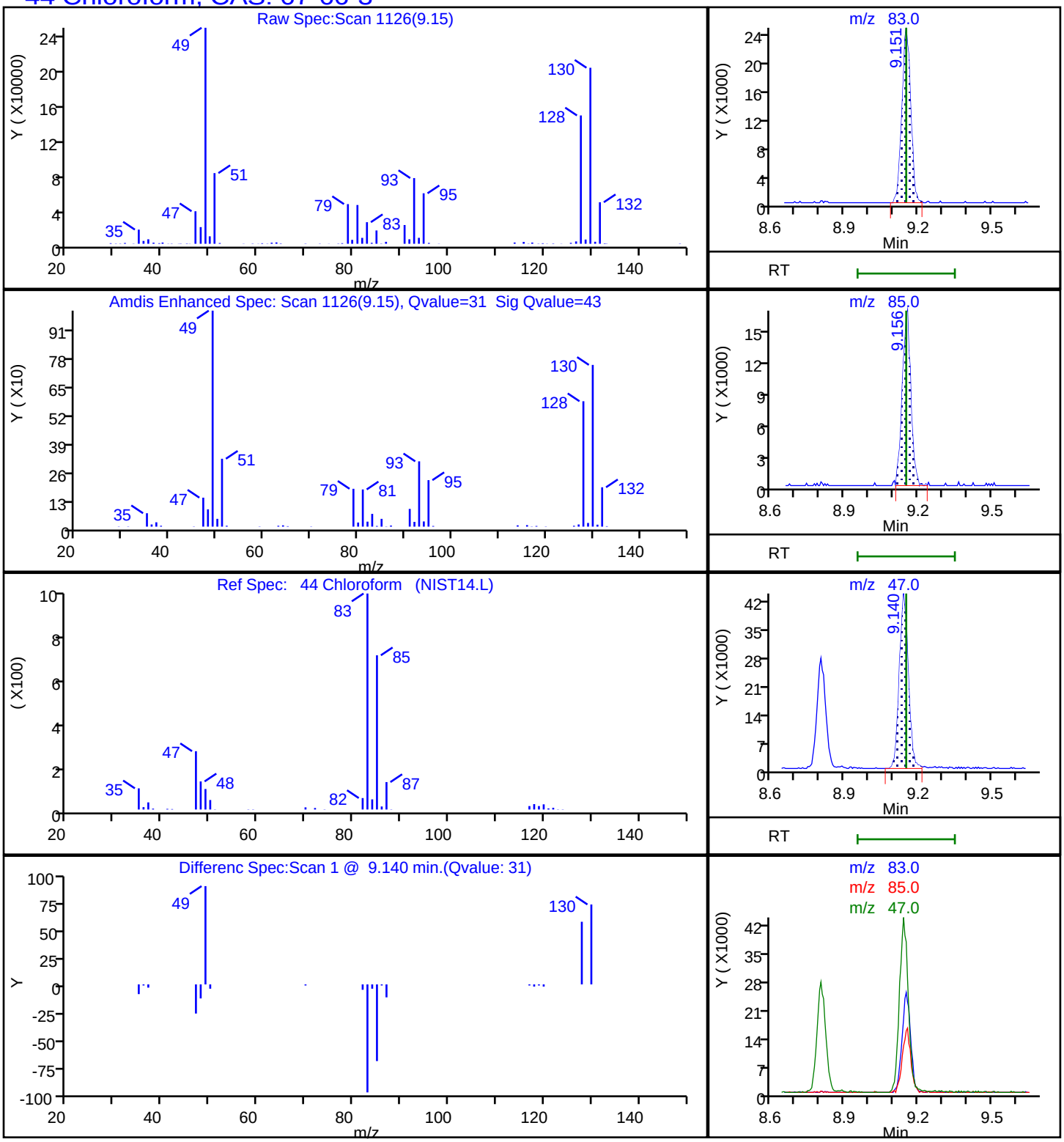
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

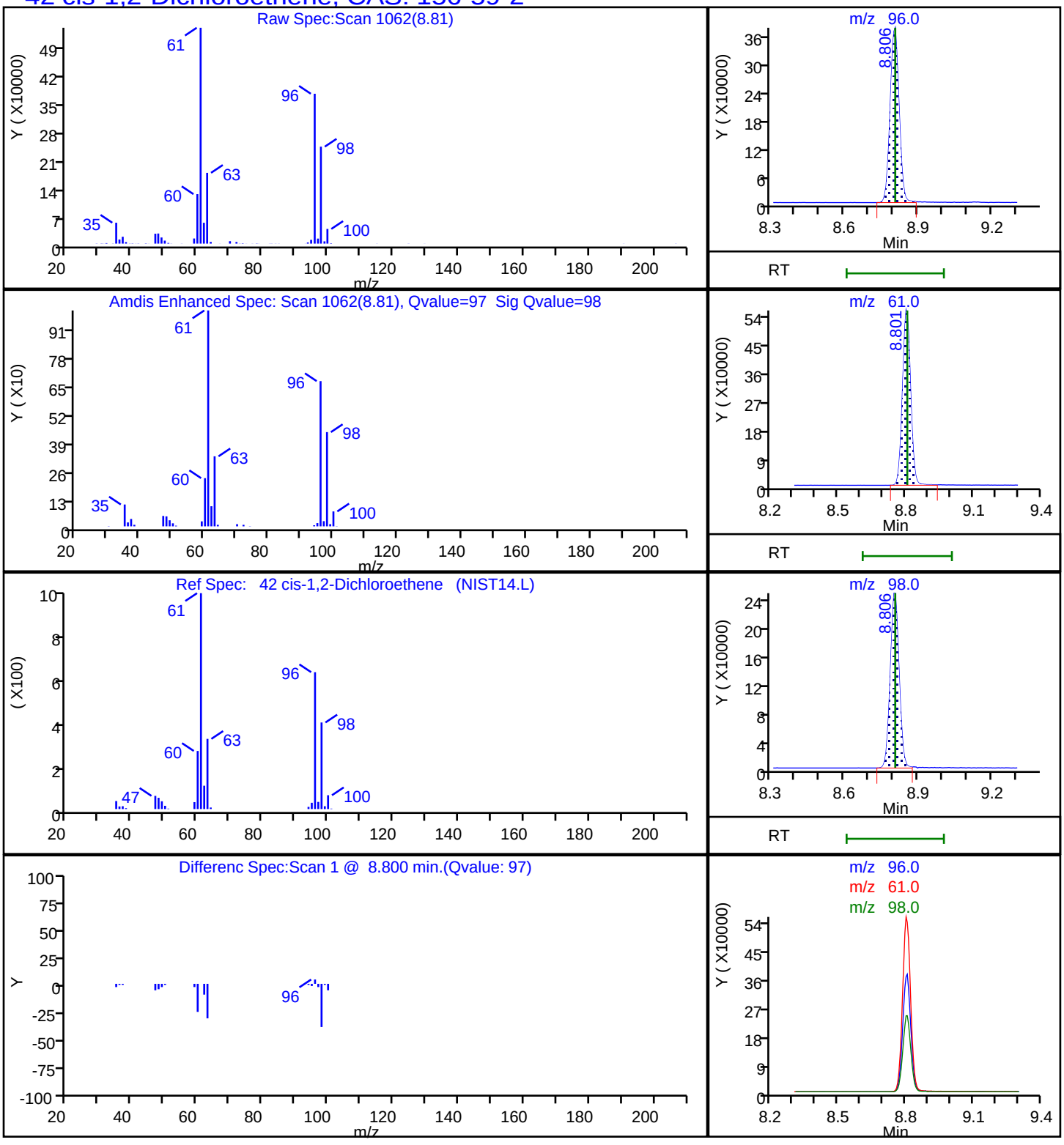
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

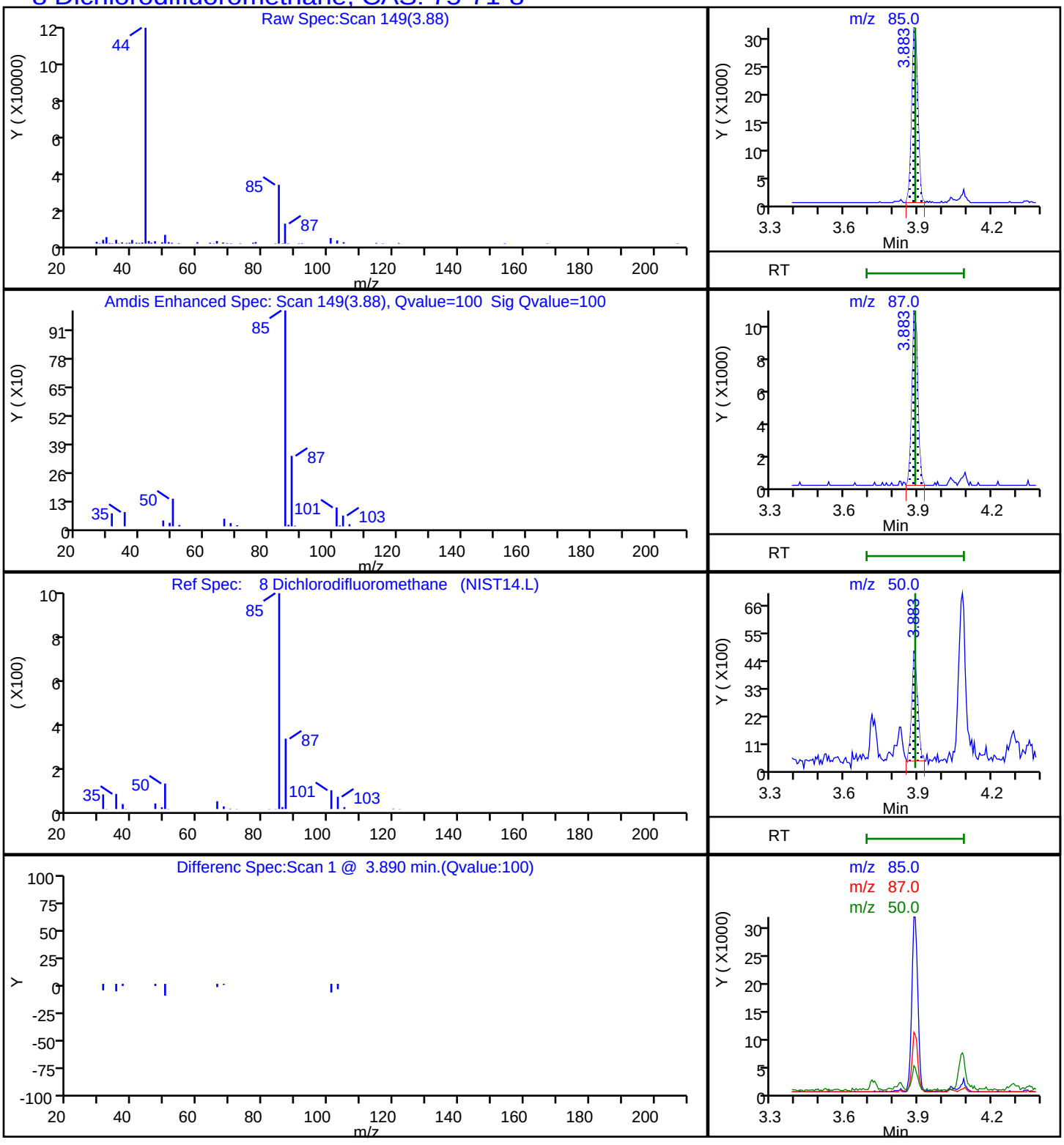
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

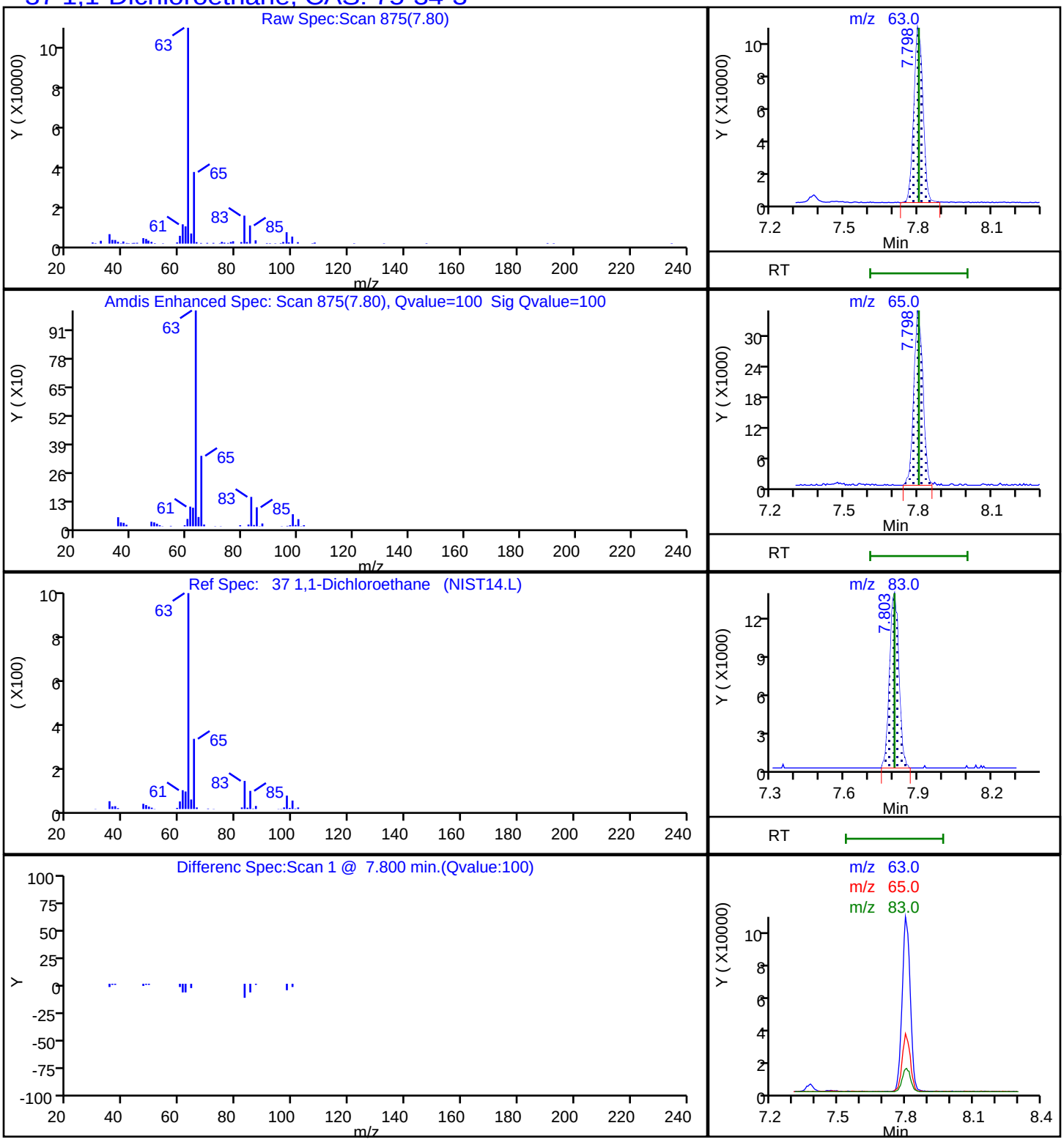
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

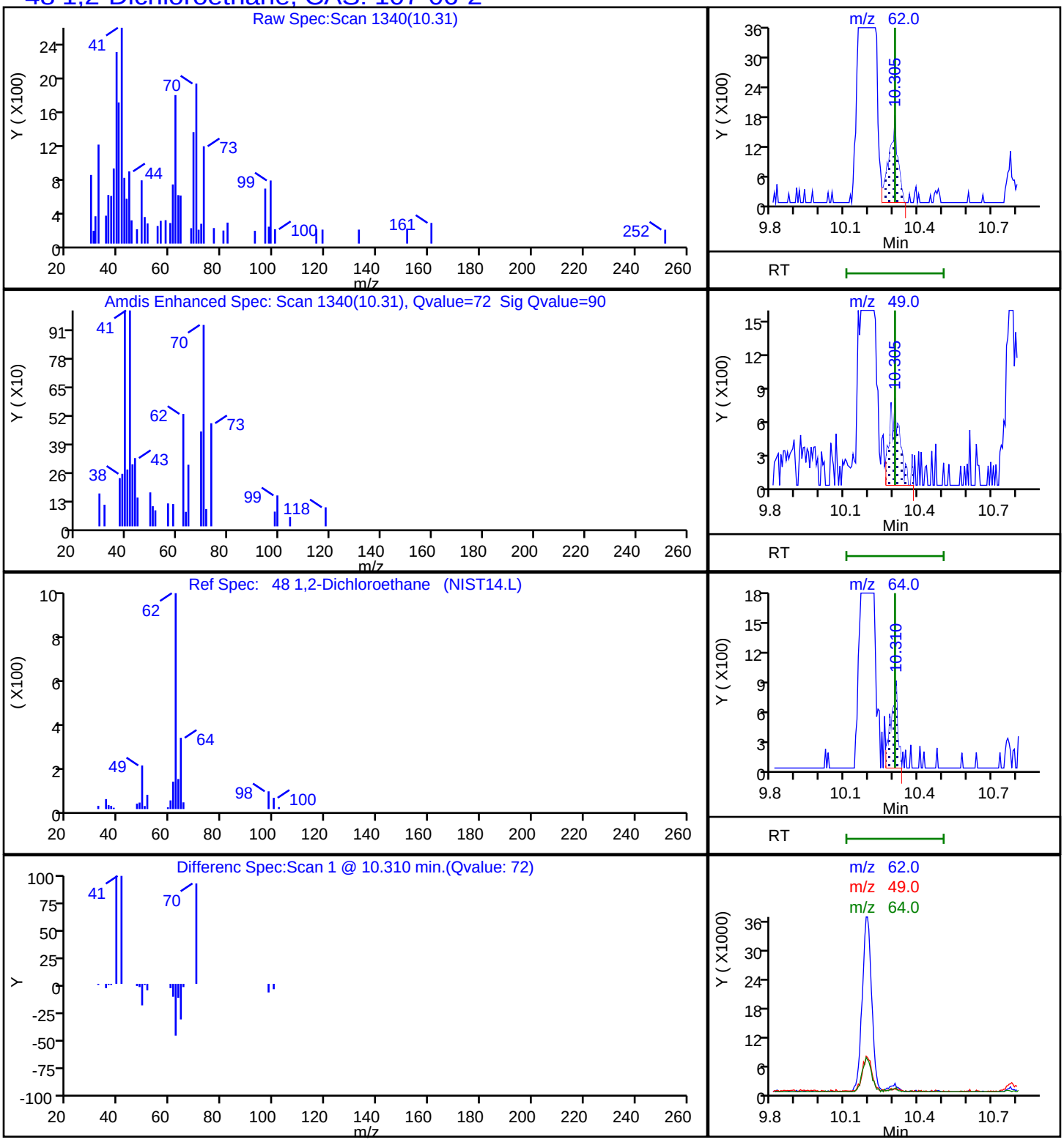
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2

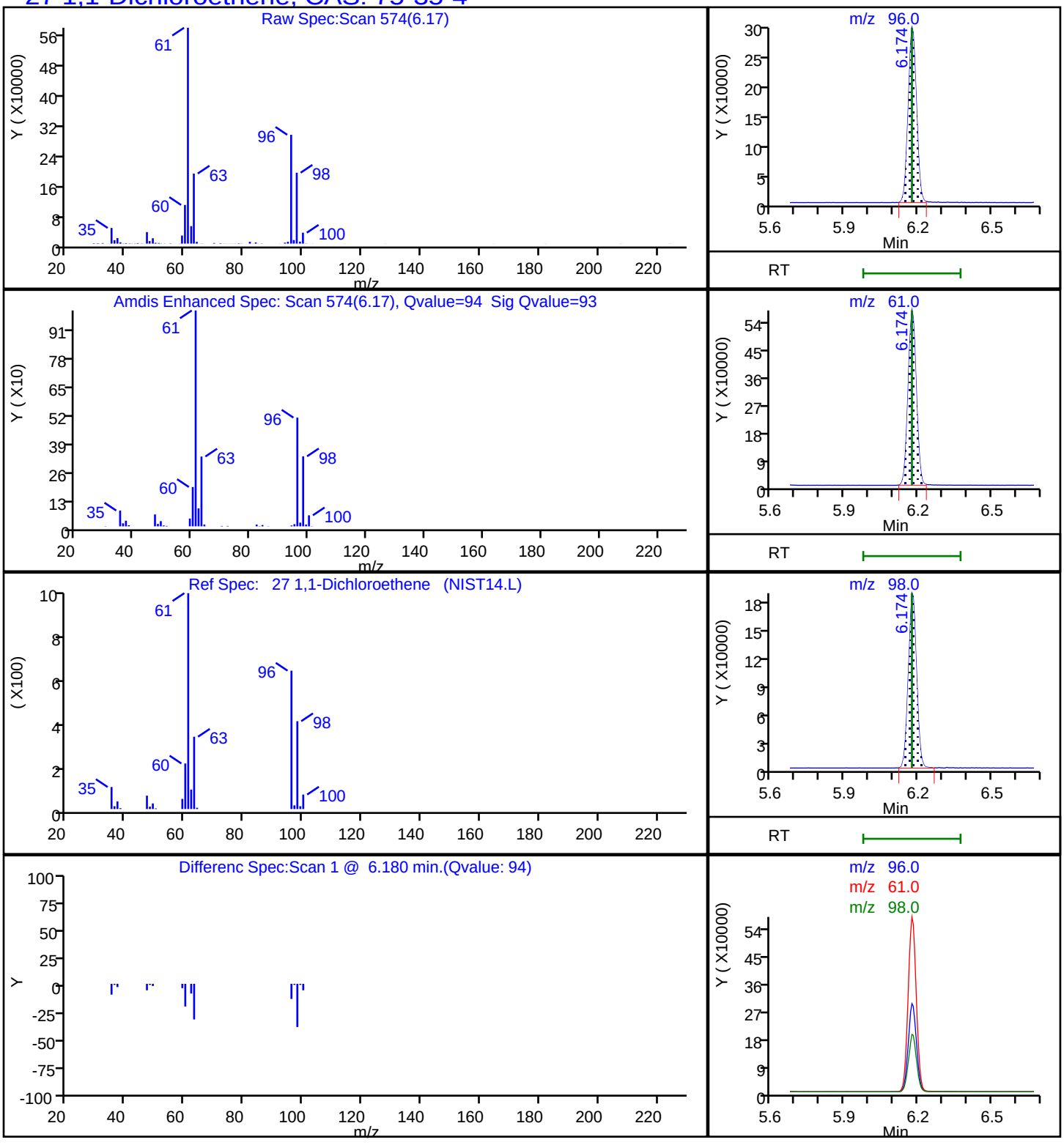


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D

Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



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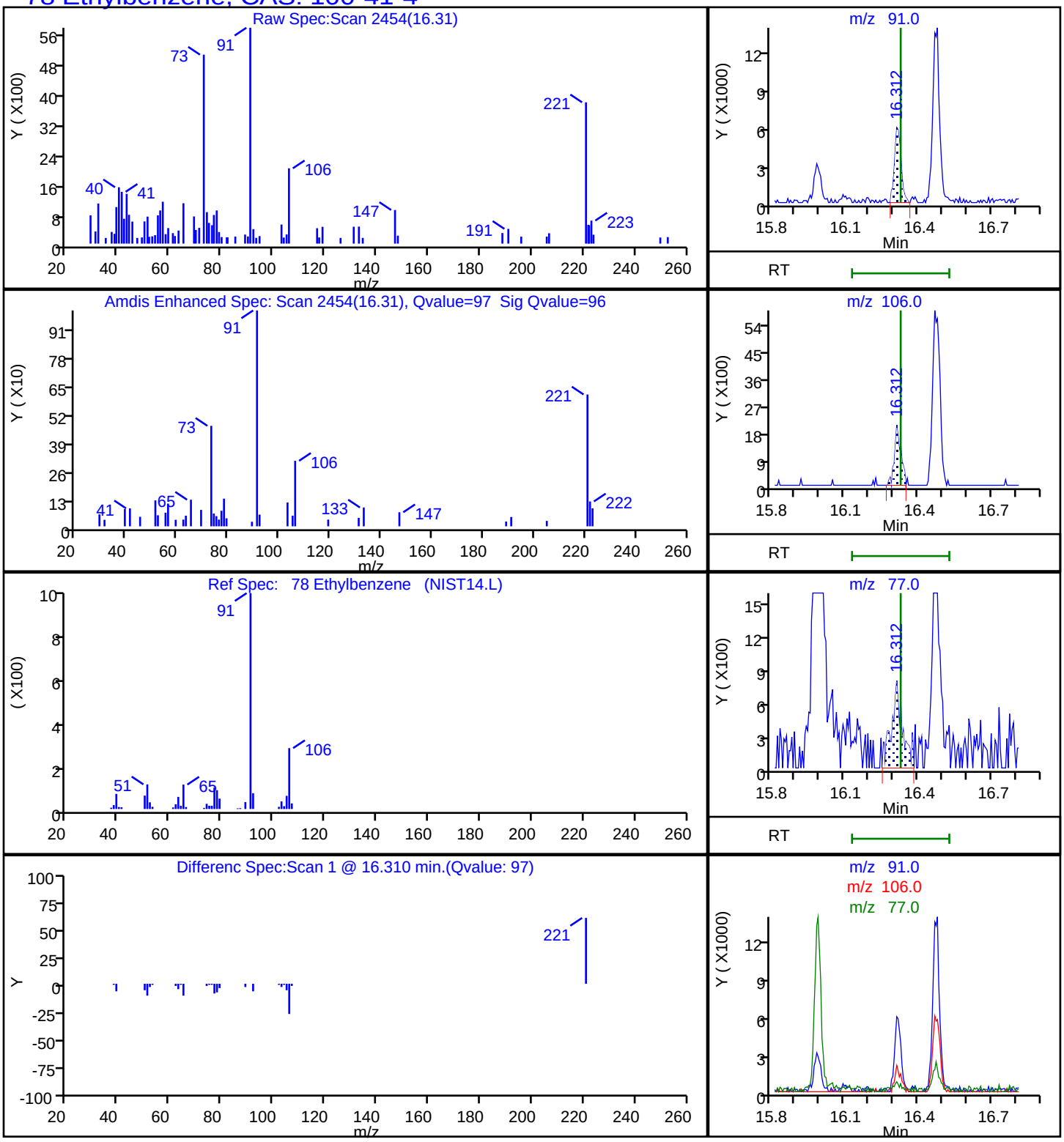
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
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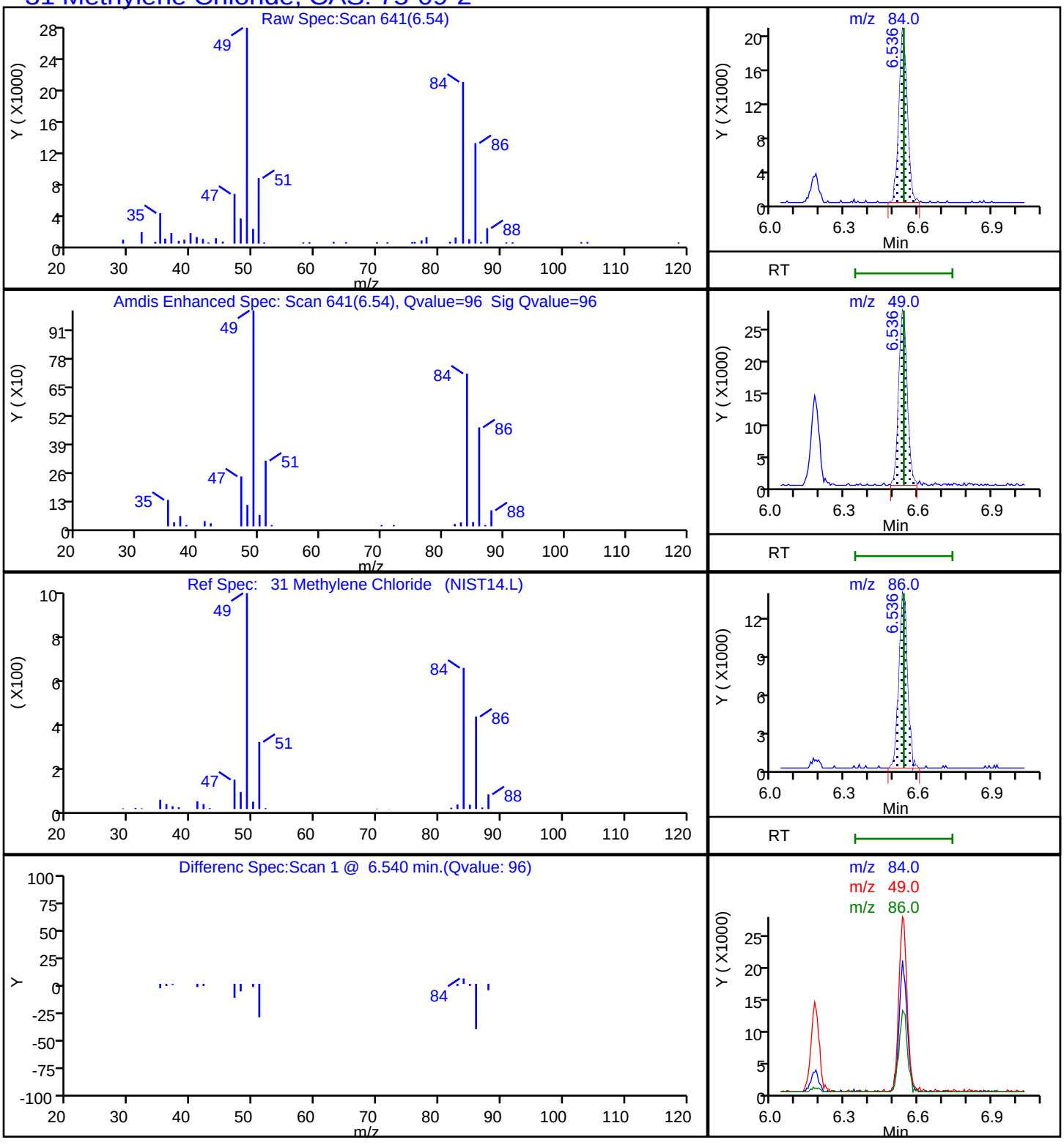
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



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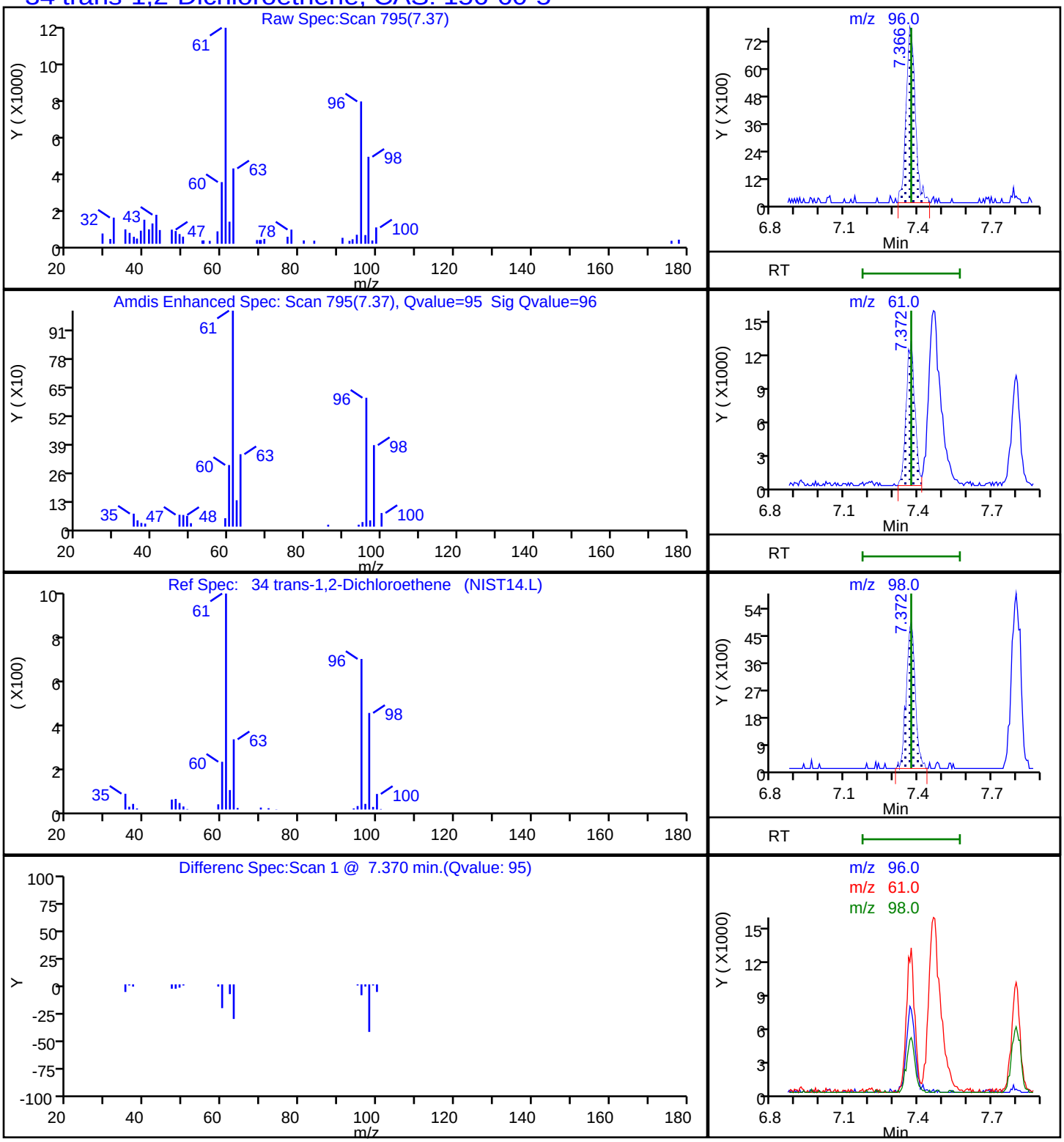
Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D				
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG		
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1		
Client ID:	BLDG A EFFLUENT				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



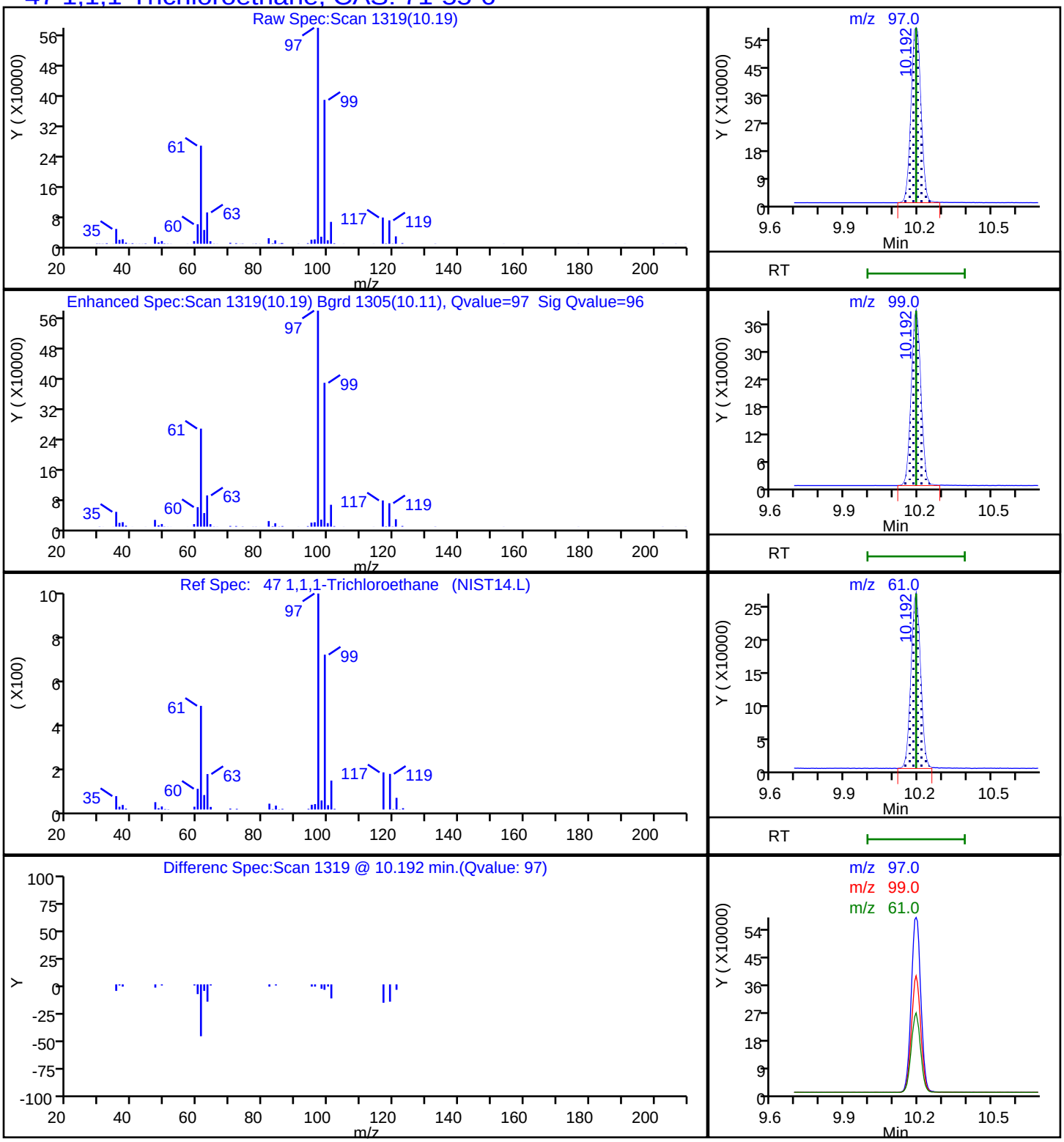
Report Date: 13-Aug-2019 12:46:34 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D

Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG		
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1		
Client ID:	BLDG A EFFLUENT				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 13-Aug-2019 12:46:34 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D

Injection Date: 12-Aug-2019 14:37:30 Instrument ID: MG

Lims ID: 140-16285-A-1 Lab Sample ID: 140-16285-1

Client ID: BLDG A EFFLUENT

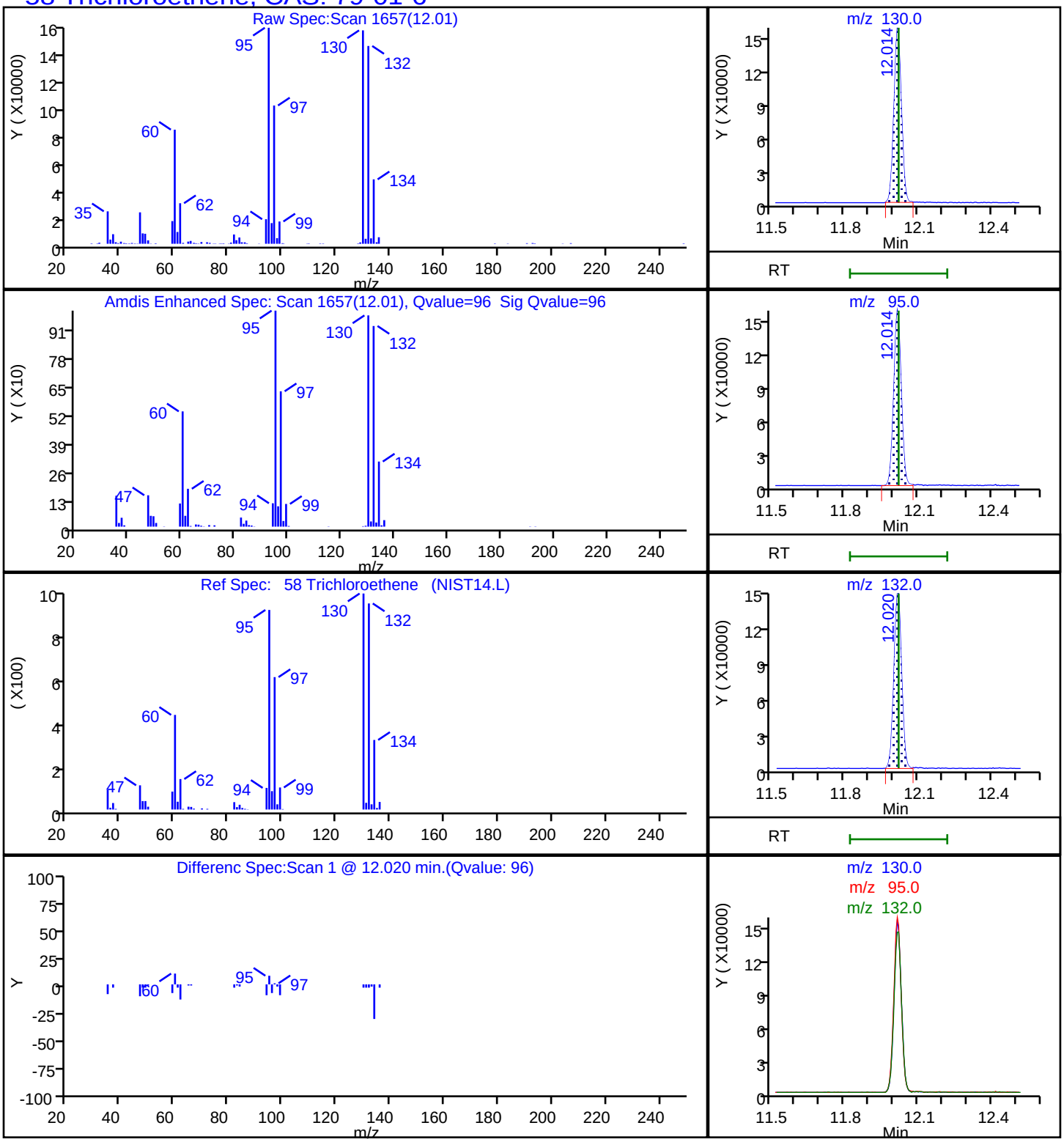
Operator ID: 7126 ALS Bottle#: 2 Worklist Smp#: 8

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

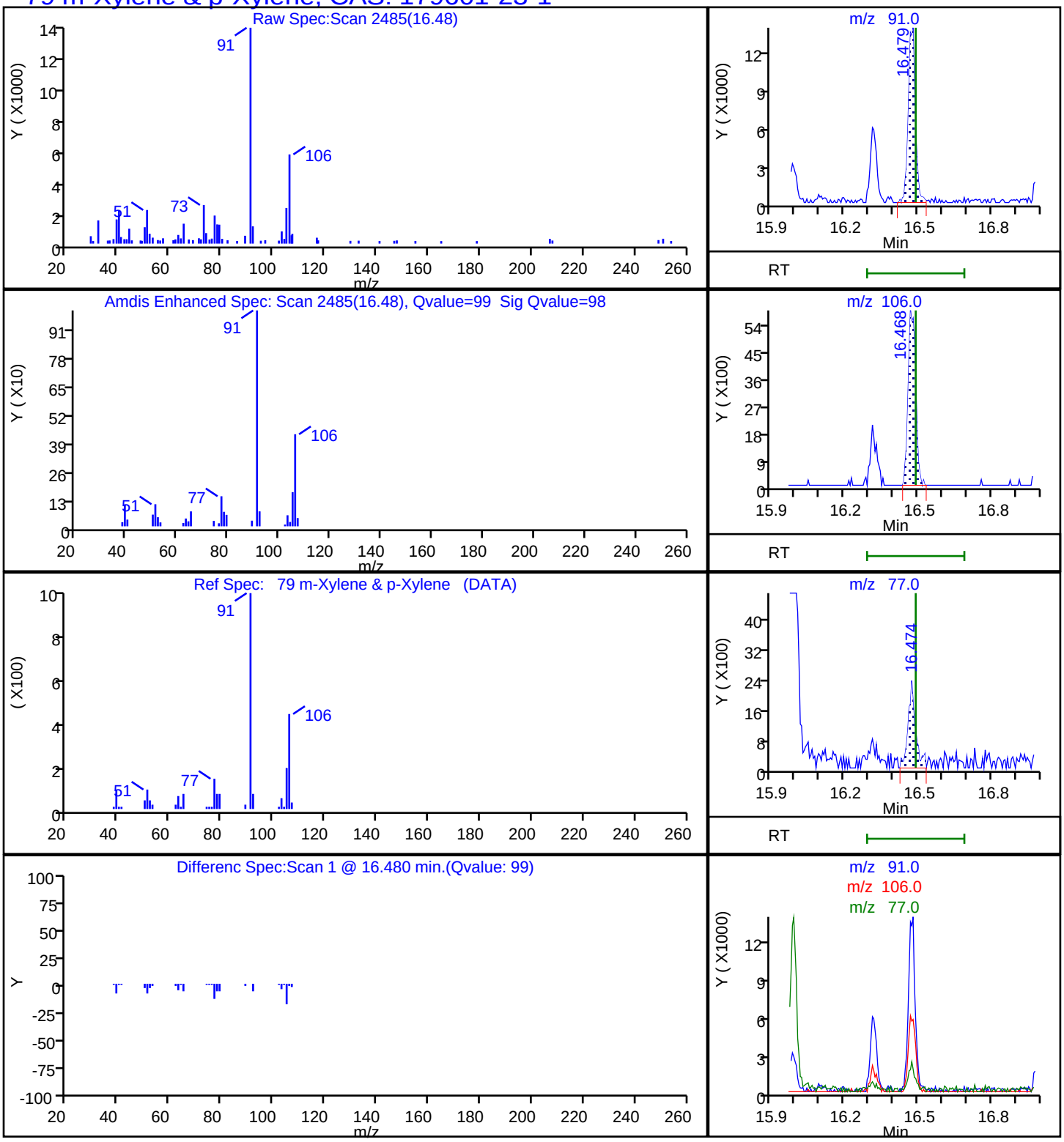
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D		
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1
Client ID:	BLDG A EFFLUENT		
Operator ID:	7126	ALS Bottle#:	2 Worklist Smp#: 8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

79 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 13-Aug-2019 12:46:34 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

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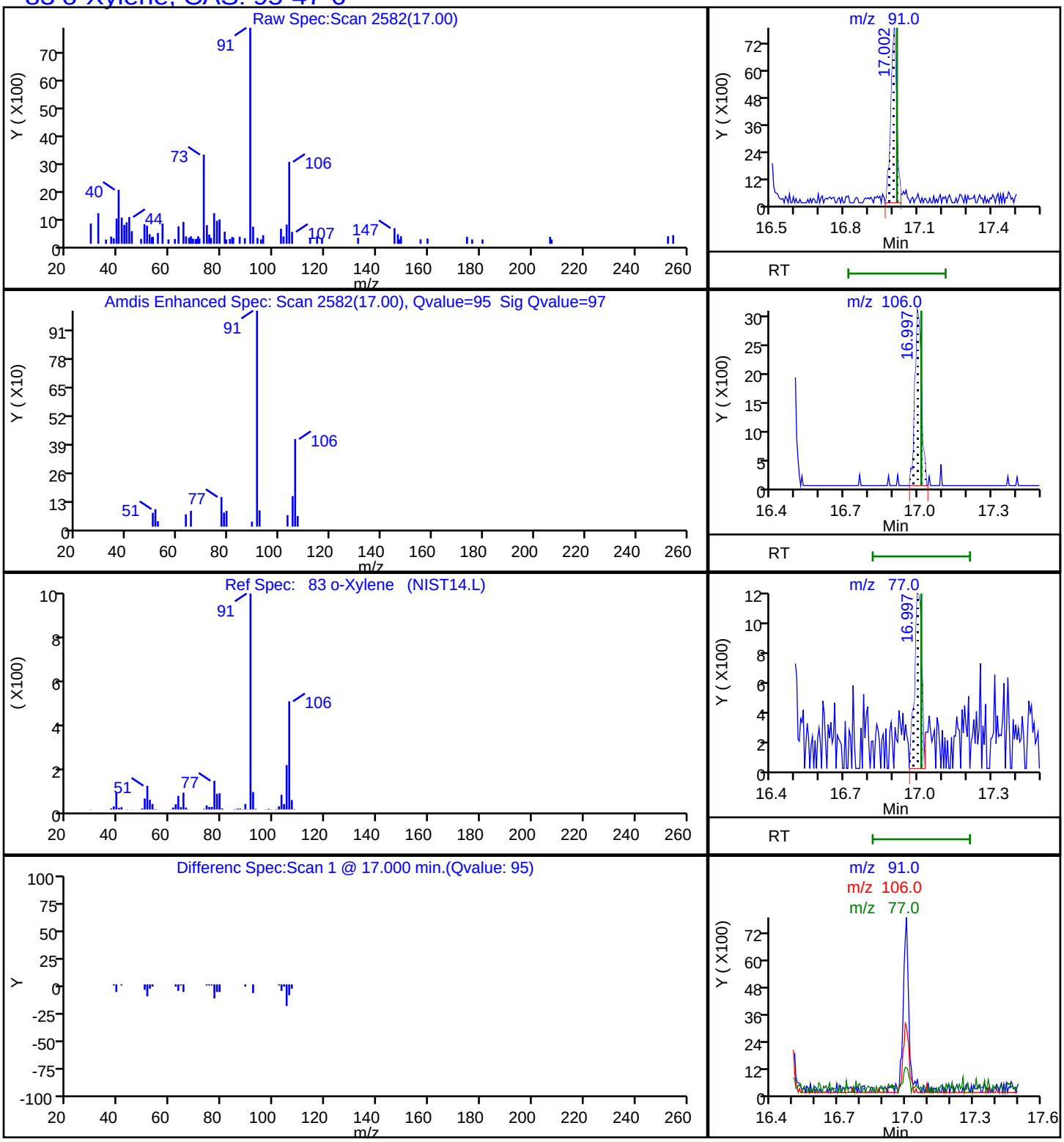
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG		
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1		
Client ID:	BLDG A EFFLUENT				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

83 o-Xylene, CAS: 95-47-6



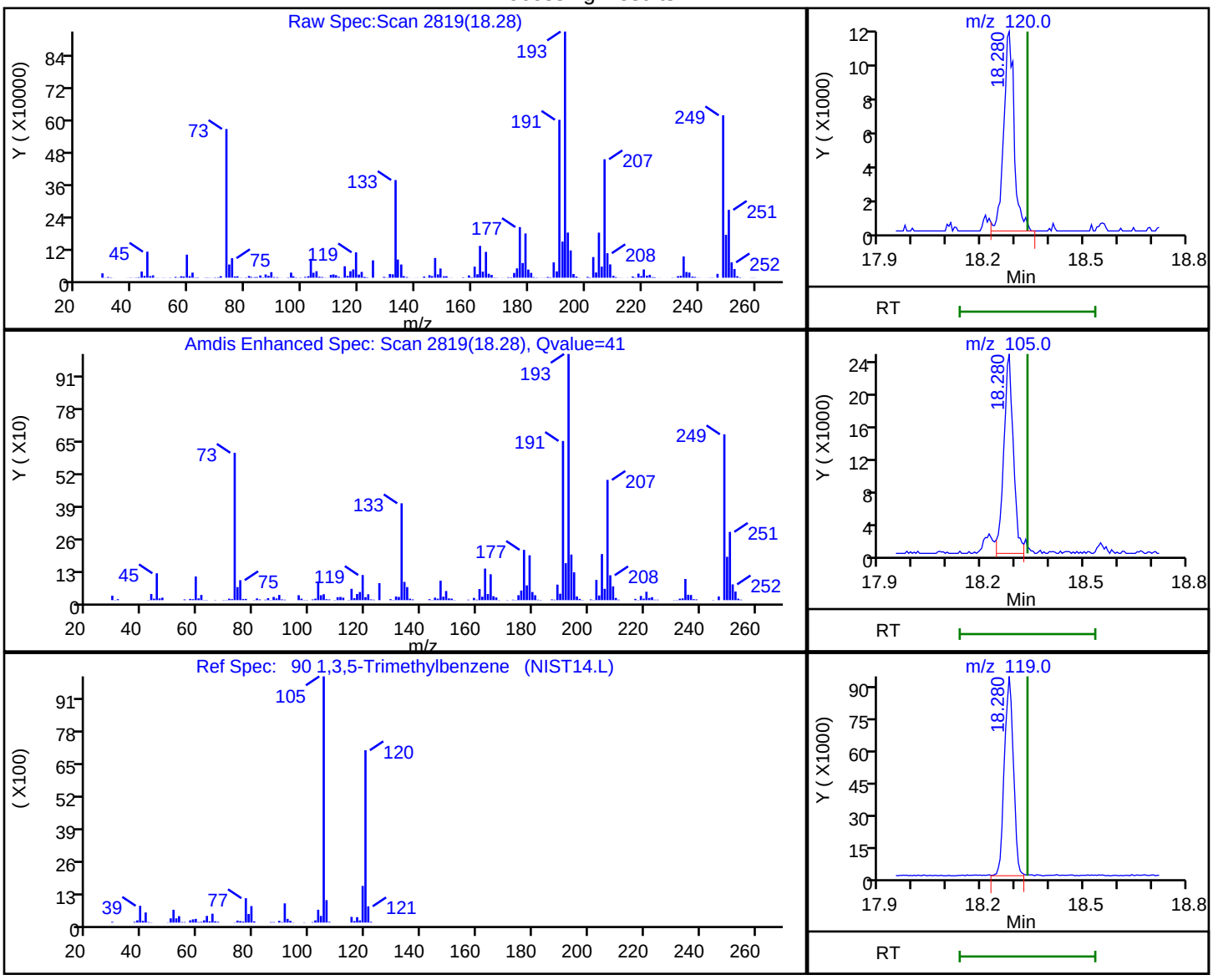
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P102.D				
Injection Date:	12-Aug-2019 14:37:30	Instrument ID:	MG		
Lims ID:	140-16285-A-1	Lab Sample ID:	140-16285-1		
Client ID:	BLDG A EFFLUENT				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.28	120.00	25461	0.091204
18.28	105.00	47288	
18.28	119.00	174827	

Reviewer: khachitpongpanits, 13-Aug-2019 12:45:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A MID GAC Lab Sample ID: 140-16285-2

Matrix: Air Lab File ID: GH12P103.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:36

Sample wt/vol: 100(mL) Date Analyzed: 08/12/2019 15:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	8.5		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.053	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.54		0.40	0.11
67-66-3	Chloroform	119.38	0.53		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	20		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.55		0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	3.8		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.18	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	18		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.13	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.3	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.69		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.43		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*88*	*E*	*0.40*	*0.19*
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	0.081	J	0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.55	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A MID GAC Lab Sample ID: 140-16285-2

Matrix: Air Lab File ID: GH12P103.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:36

Sample wt/vol: 100(mL) Date Analyzed: 08/12/2019 15:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	27		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.33	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.9		1.4	0.39
67-66-3	Chloroform	119.38	2.6		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	80		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	2.7		2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	15		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.71	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	70		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.54	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	4.4	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	2.6		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.7		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*480*	*E*	*2.2*	*1.0*
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	0.44	J	1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.4	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D
Lims ID: 140-16285-A-2
Client ID: BLDG A MID GAC
Sample Type: Client
Inject. Date: 12-Aug-2019 15:21:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-009
Misc. Info.: 140-16285-a-2
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:48:39 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:48:39

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.146	9.140	0.006	89	494817	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2781513	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.988	15.999	-0.011	89	2614806	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.616	-0.016	88	1946788	4.29	
	6 Chlorodifluoromethane	51	3.823	3.823	0.000	95	27186	0.1082	
	8 Dichlorodifluoromethane	85	3.893	3.888	0.005	99	53504	0.1096	
	27 1,1-Dichloroethene	96	6.180	6.174	0.006	96	499094	3.54	
	31 Methylene Chloride	84	6.541	6.541	0.000	95	34668	0.2528	
	34 trans-1,2-Dichloroethene	96	7.371	7.372	-0.001	95	12201	0.0864	
	37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	203957	0.7538	
	42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	96	580976	4.01	
	44 Chloroform	83	9.162	9.151	0.011	30	35372	0.1053	
	47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	95	7076048	17.6	E
	48 1,2-Dichloroethane	62	10.305	10.305	0.000	92	9038	0.0353	
	50 Benzene	78	10.785	10.785	0.000	98	703639	1.69	
	52 Carbon tetrachloride	117	10.806	10.807	0.000	24	4458	0.0105	
	58 Trichloroethene	130	12.014	12.020	-0.006	79	3771	0.0163	
	67 Toluene	91	14.036	14.032	-0.006	94	71174	0.1384	
	78 Ethylbenzene	91	16.317	16.317	-0.011	98	17063	0.0251	
	79 m-Xylene & p-Xylene	91	16.468	16.479	-0.022	98	41046	0.0770	
	83 o-Xylene	91	17.002	17.002	-0.011	97	18747	0.0325	
S	124 Xylenes, Total	100				0		0.1095	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

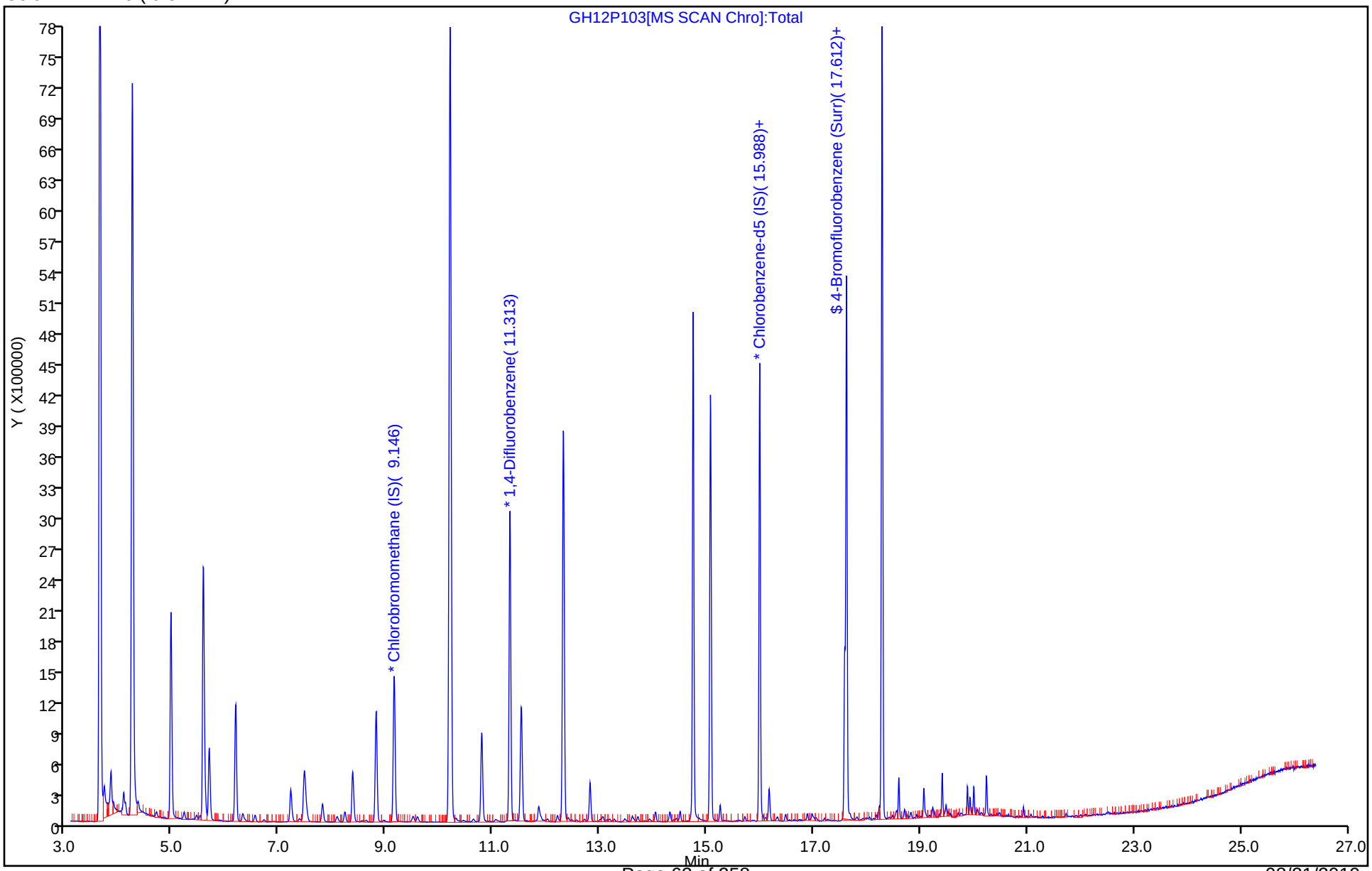
Report Date: 13-Aug-2019 12:48:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D

Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2	Worklist Smp#:	9
Client ID:	BLDG A MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D				
Lims ID:	140-16285-A-2				
Client ID:	BLDG A MID GAC				
Sample Type:	Client				
Inject. Date:	12-Aug-2019 15:21:30	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012675-009				
Misc. Info.:	140-16285-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Aug-2019 12:48:39	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0330				

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:48:39

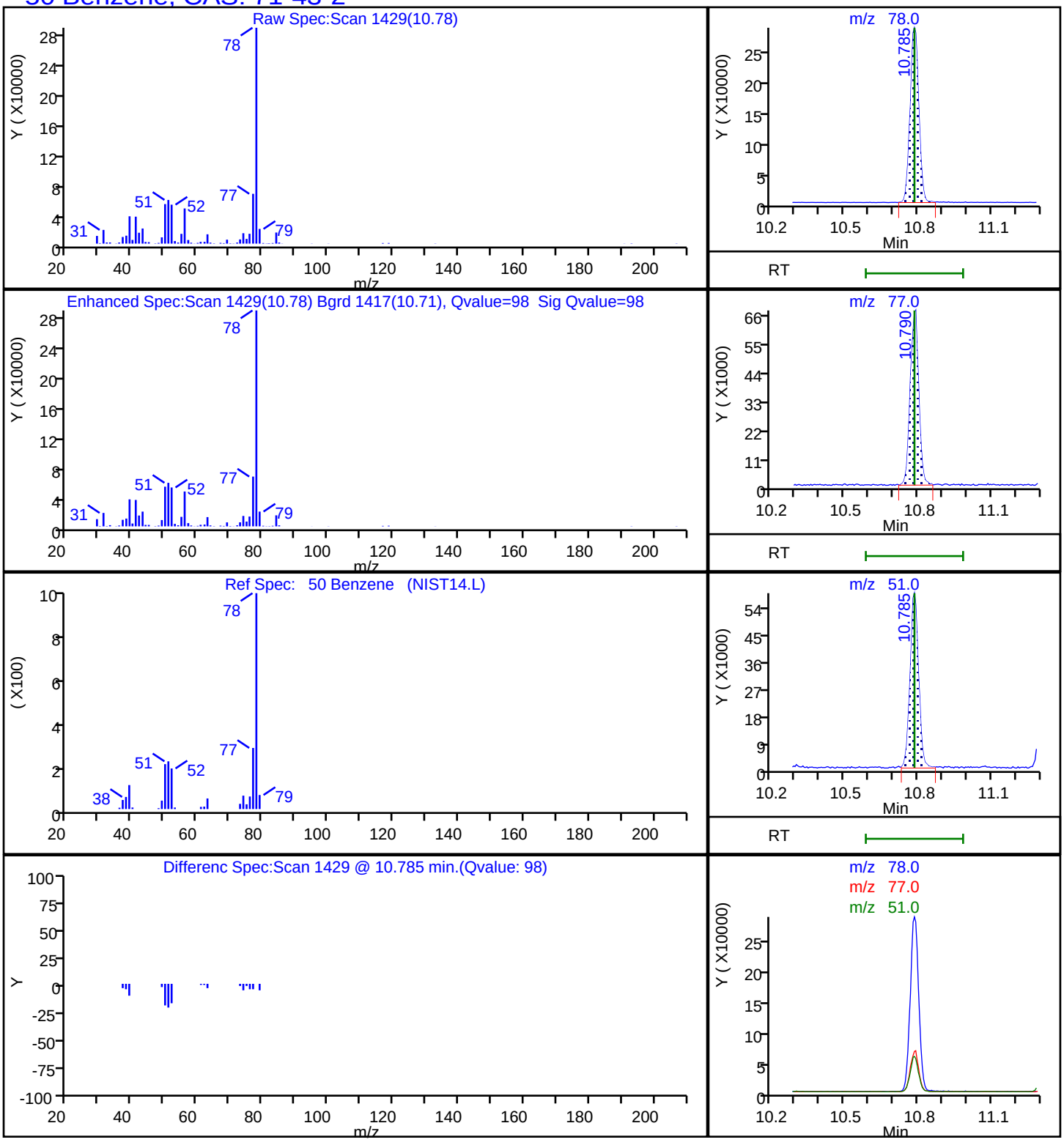
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.29	107.14

Report Date: 13-Aug-2019 12:48:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

50 Benzene, CAS: 71-43-2

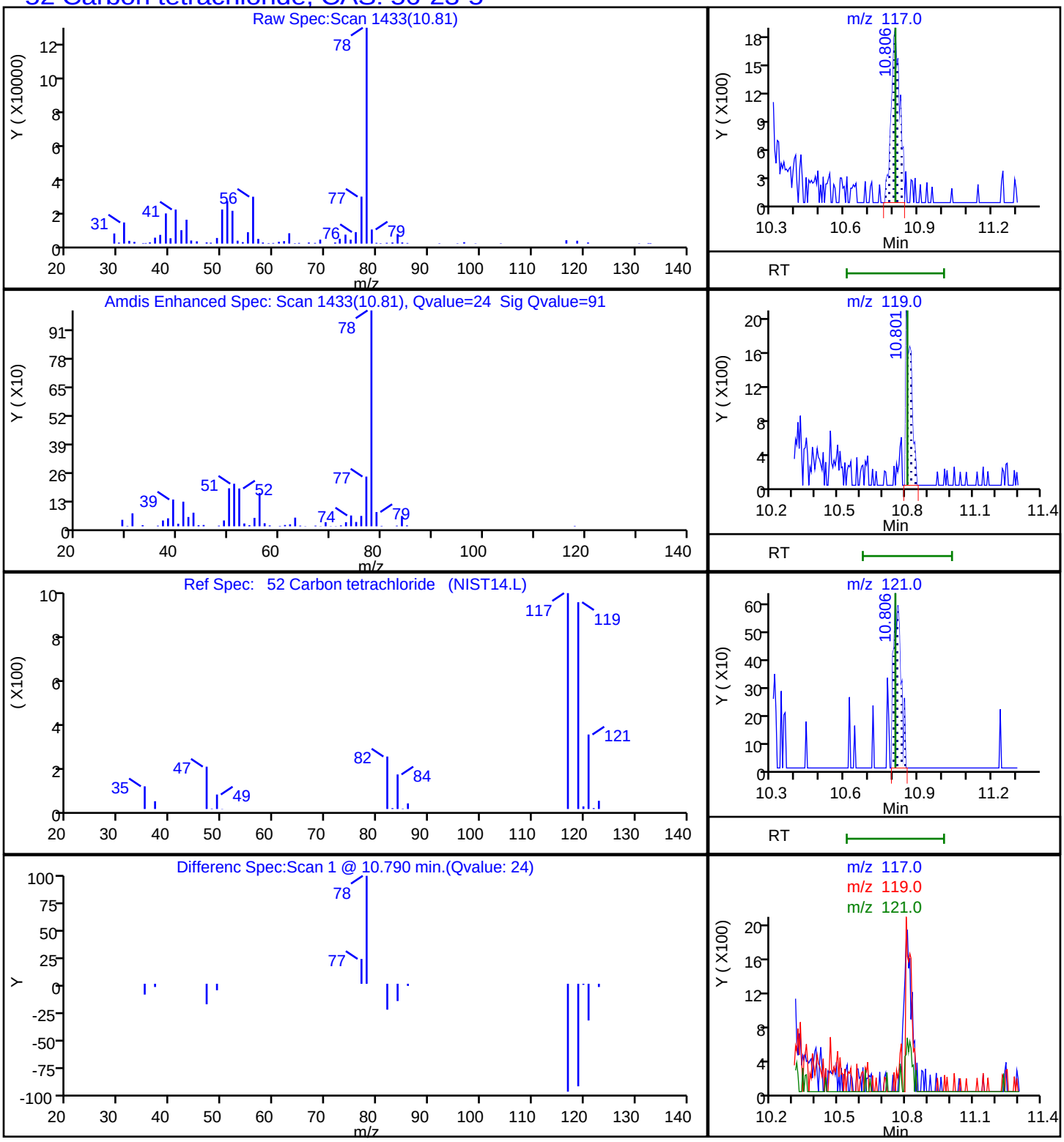


Report Date: 13-Aug-2019 12:48:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D				
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG		
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2		
Client ID:	BLDG A MID GAC				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

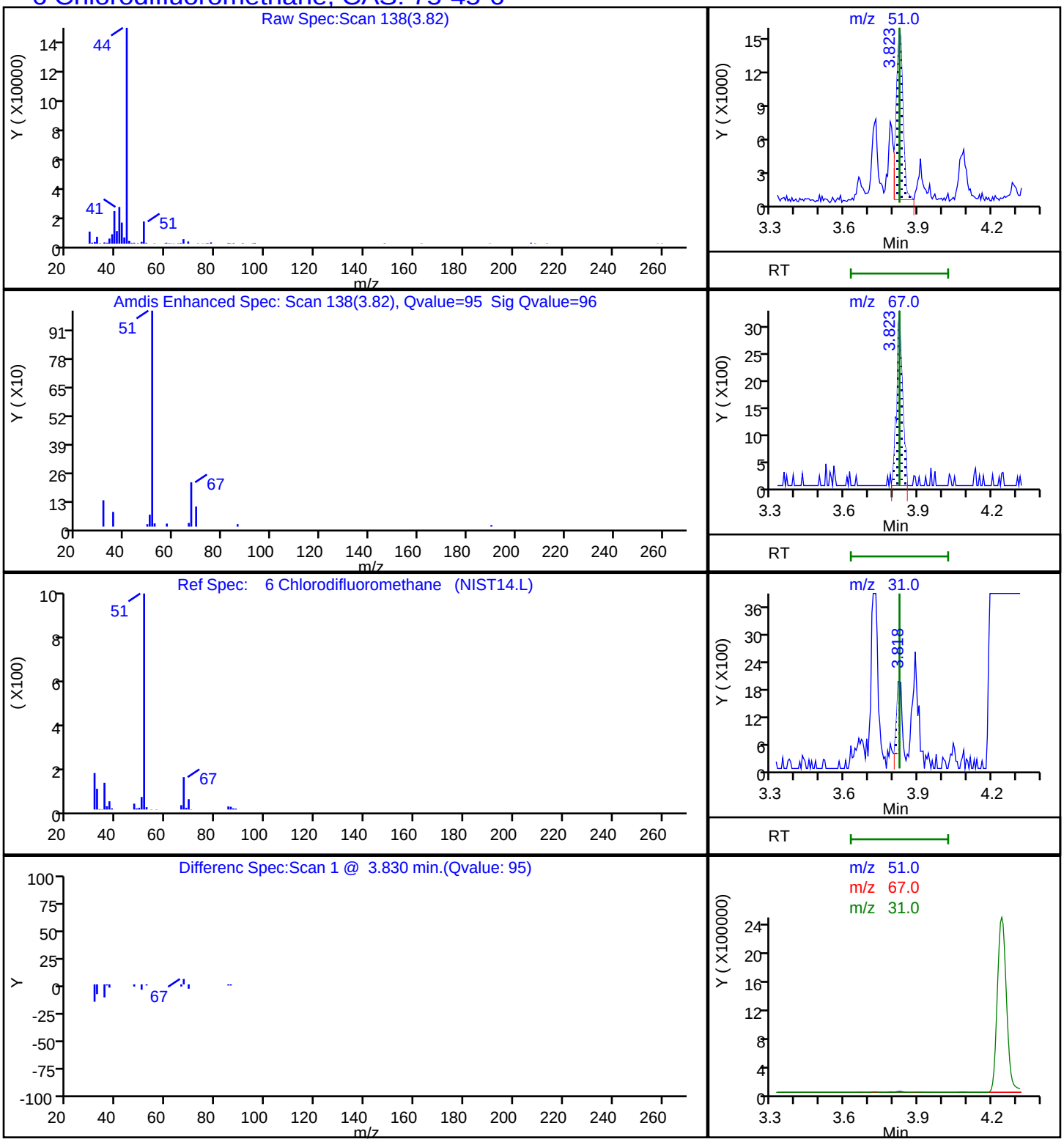
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

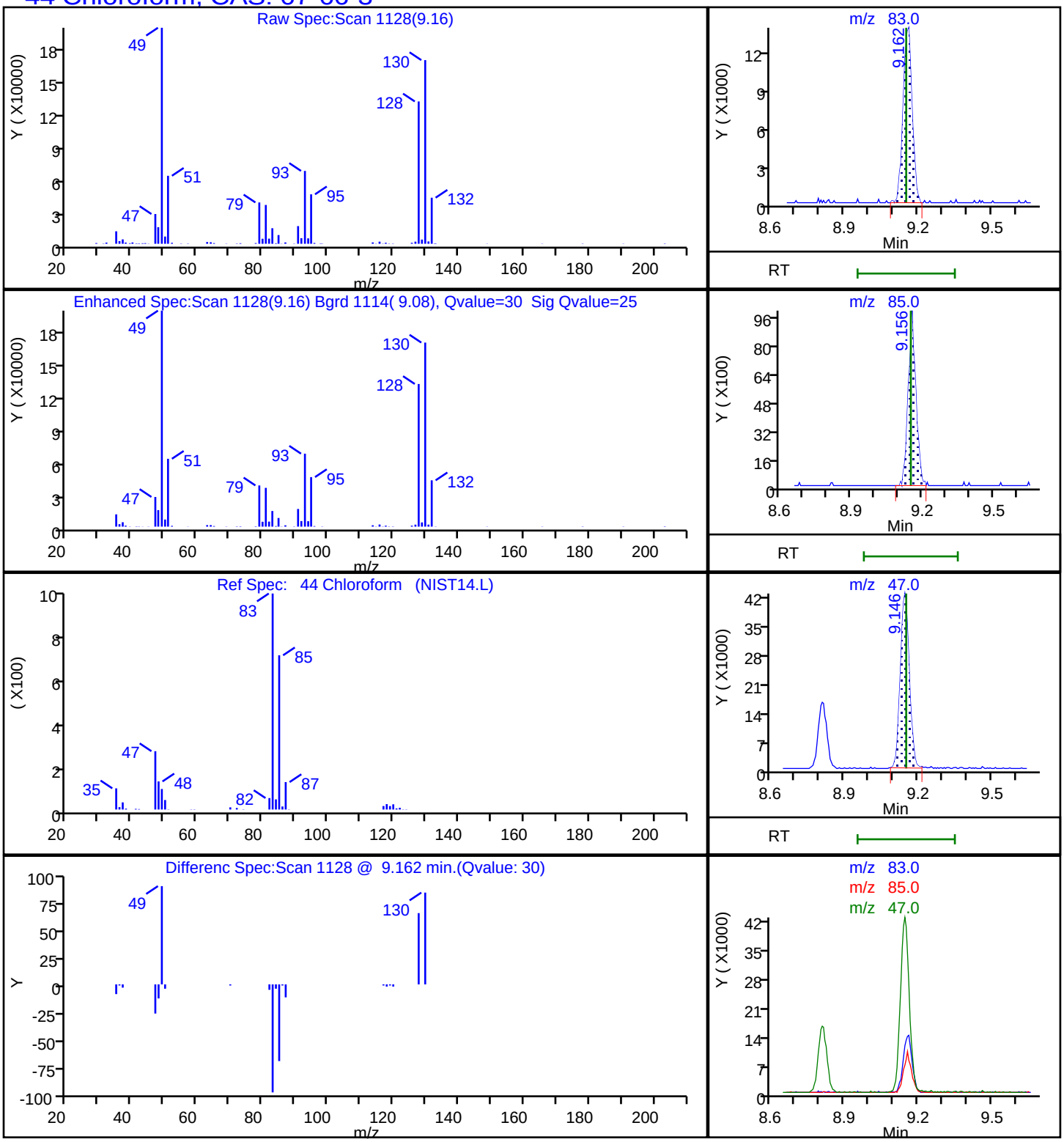
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

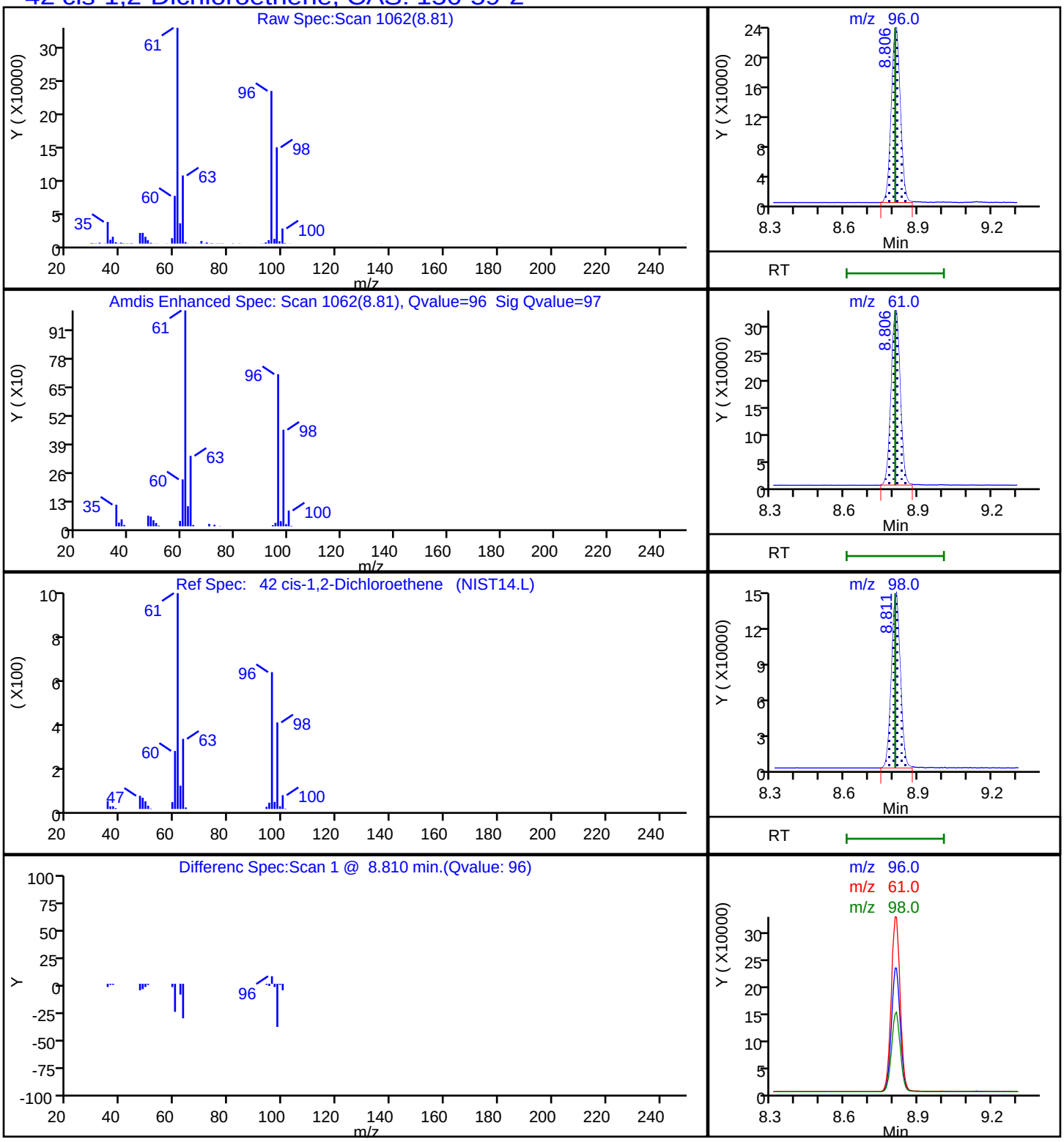
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

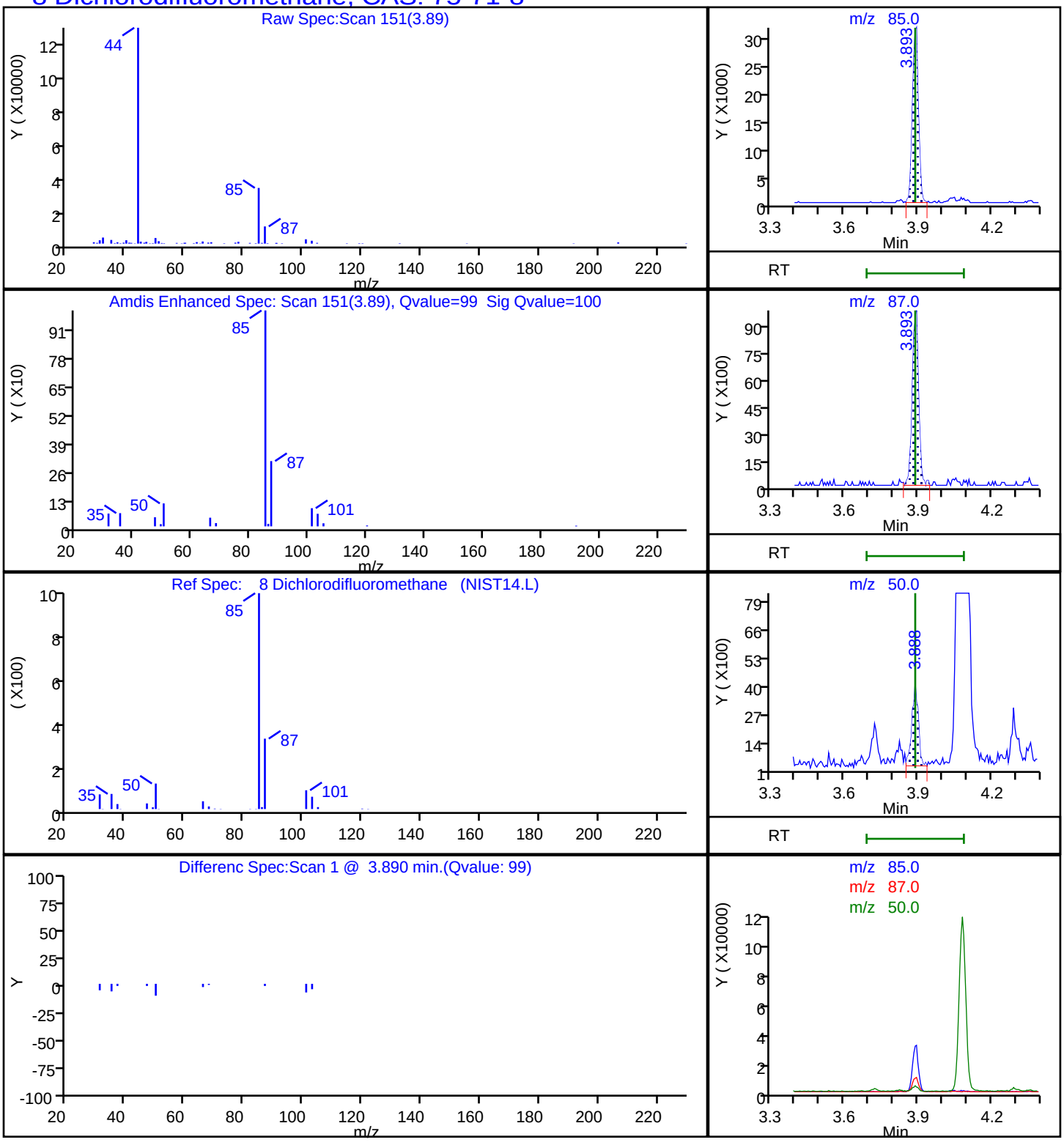
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

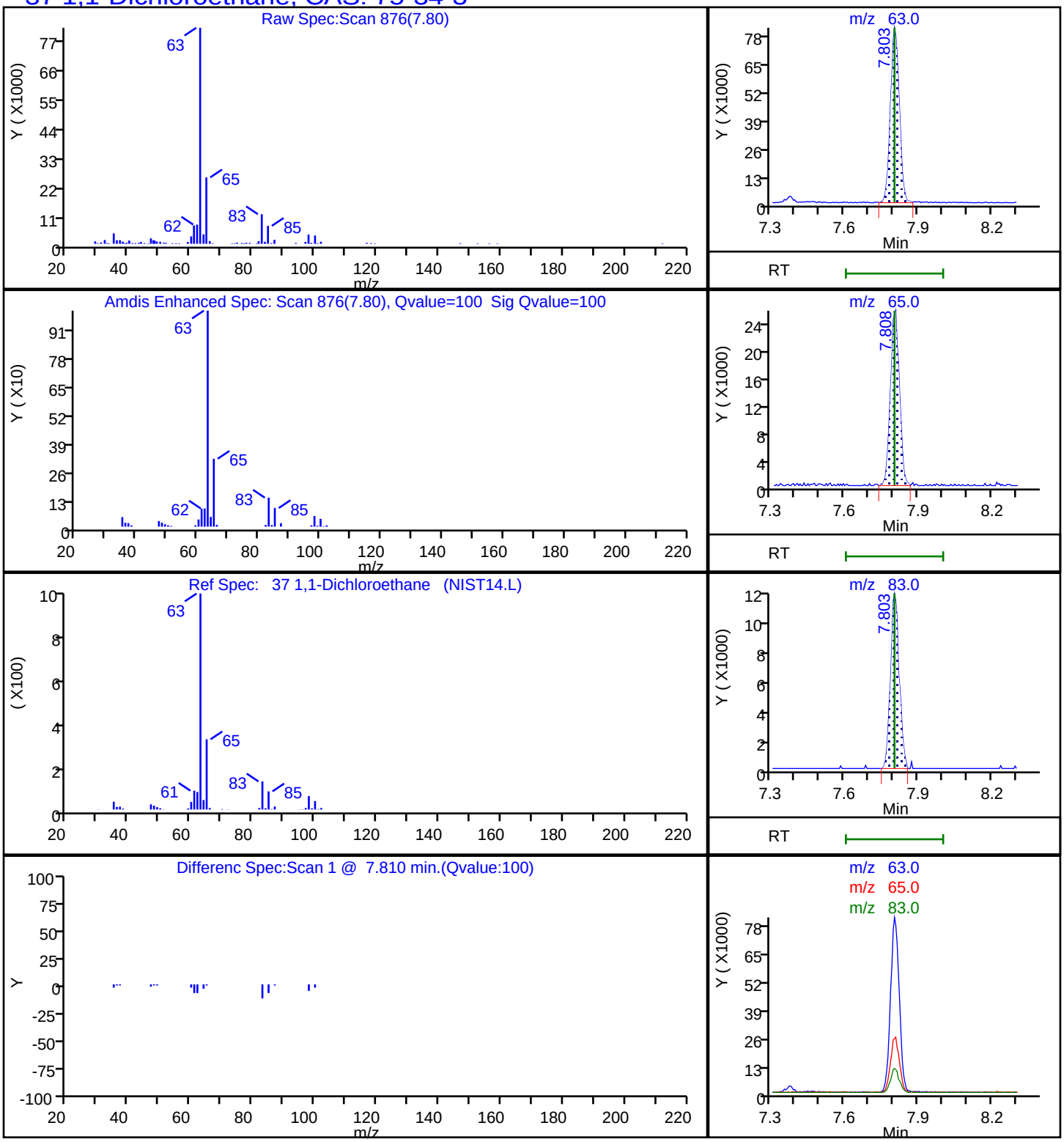
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

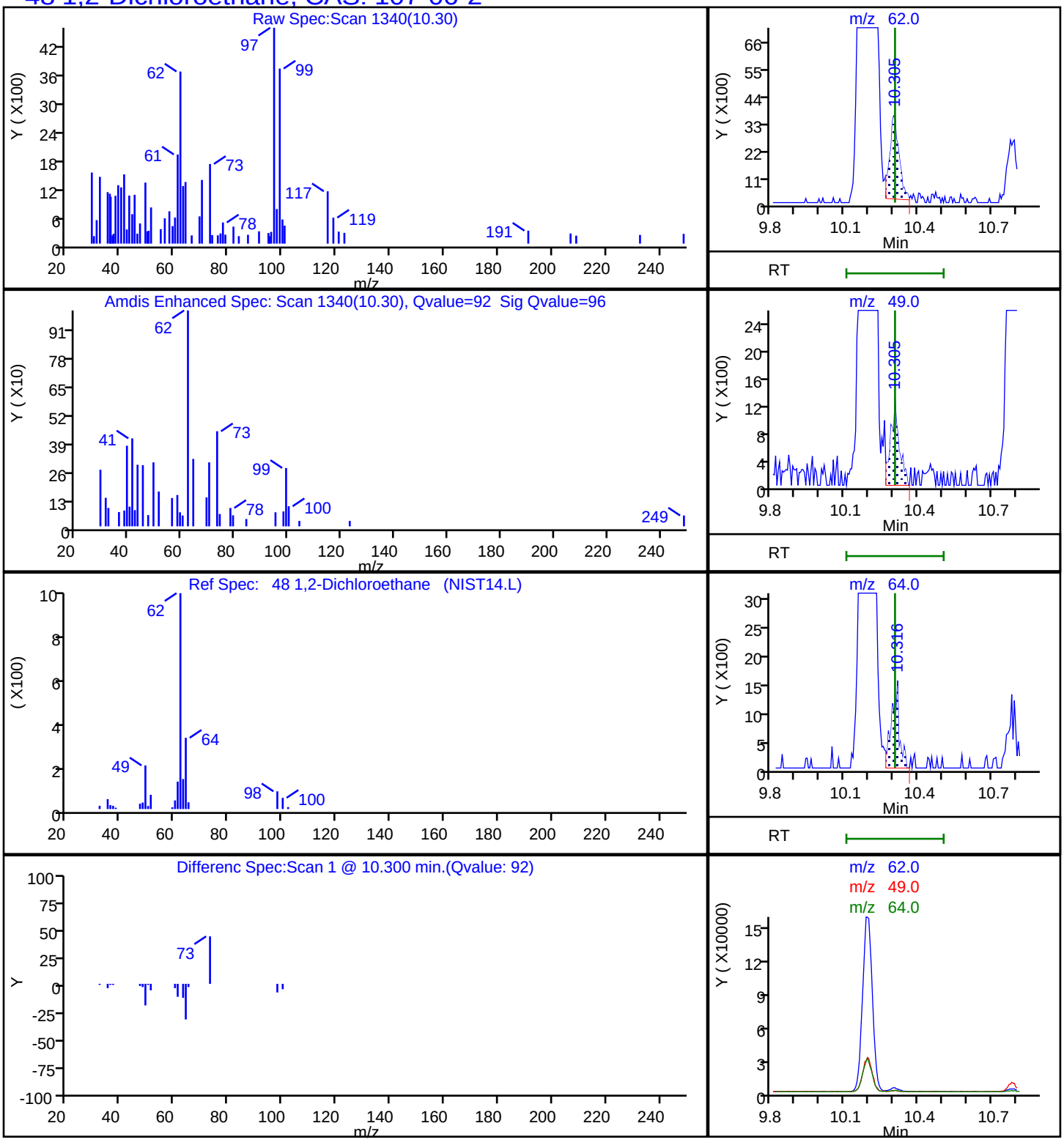
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

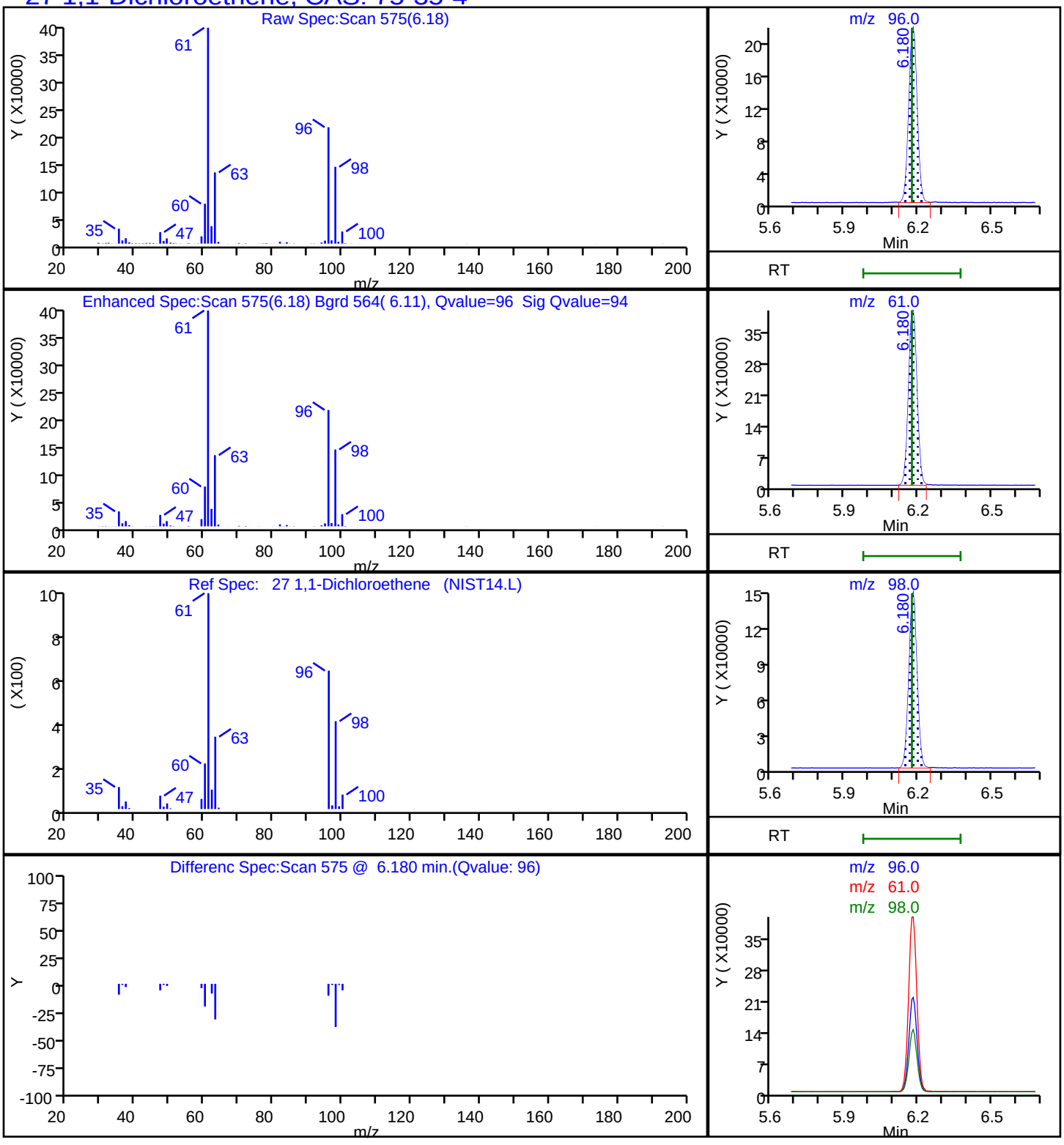
48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

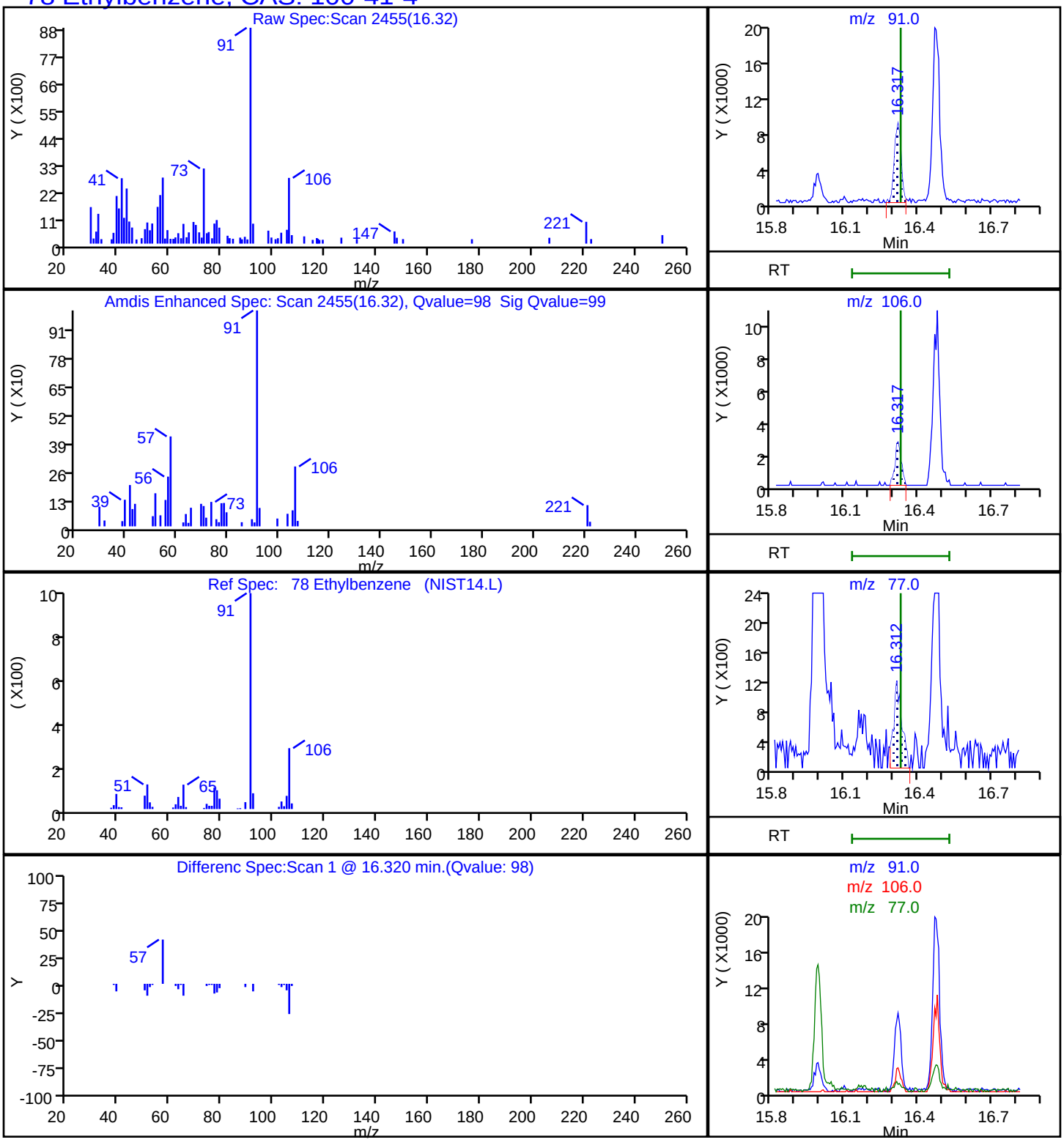
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

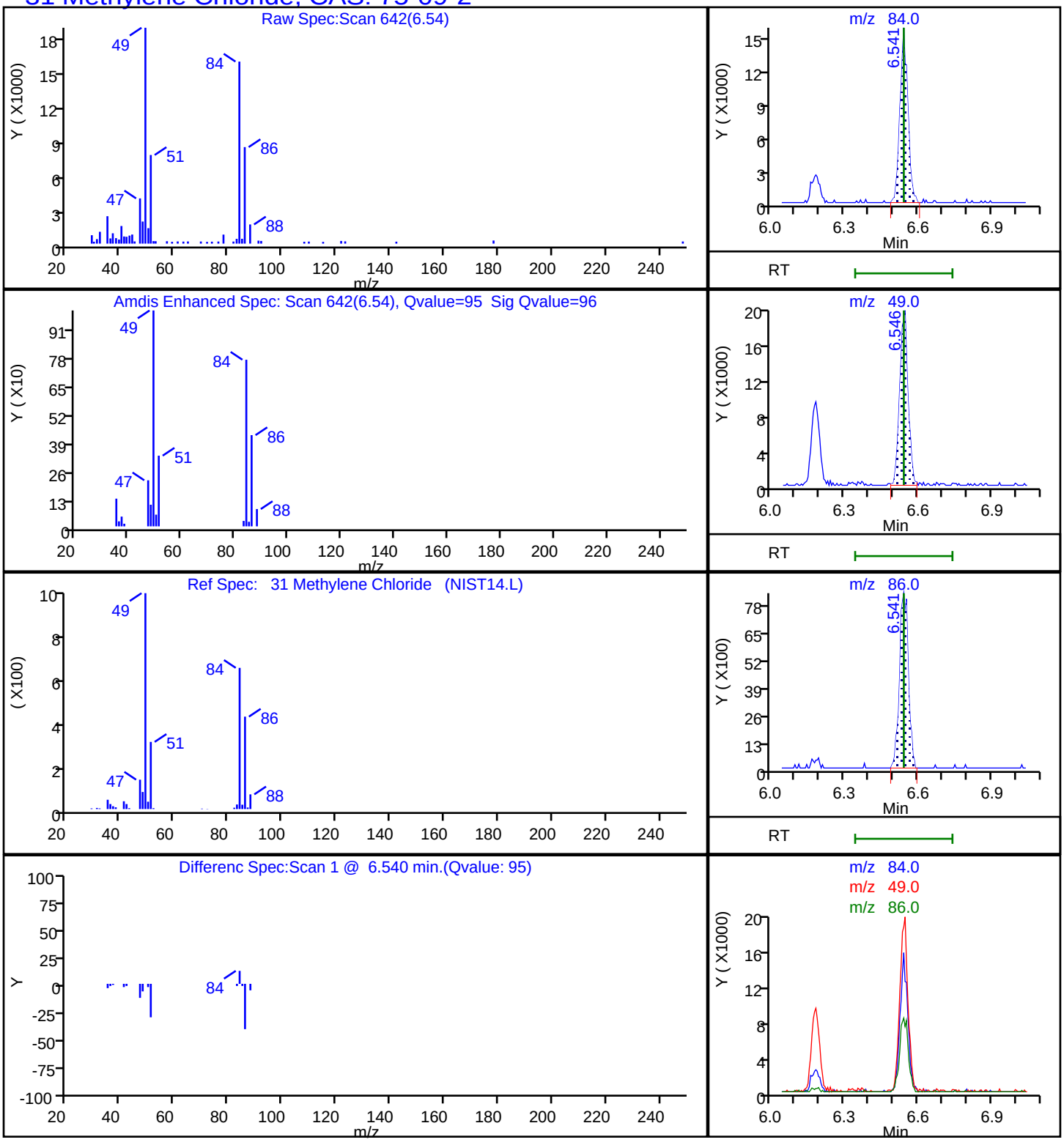
78 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

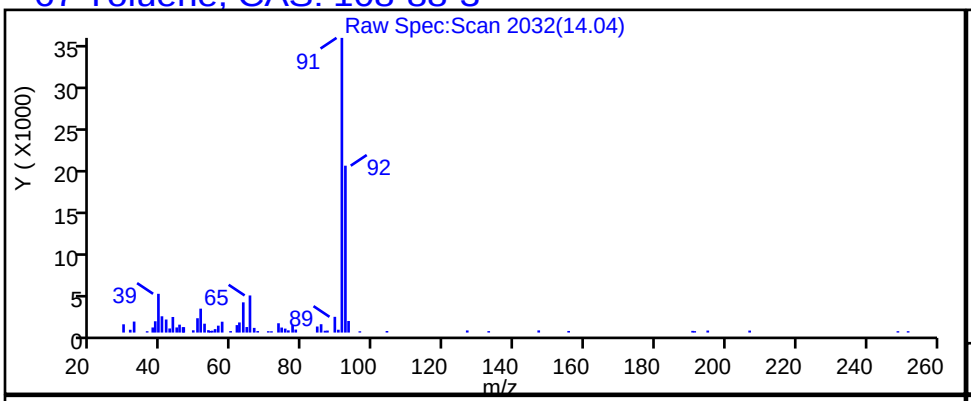
31 Methylene Chloride, CAS: 75-09-2

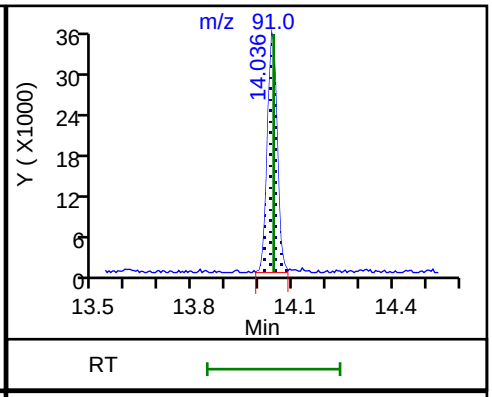


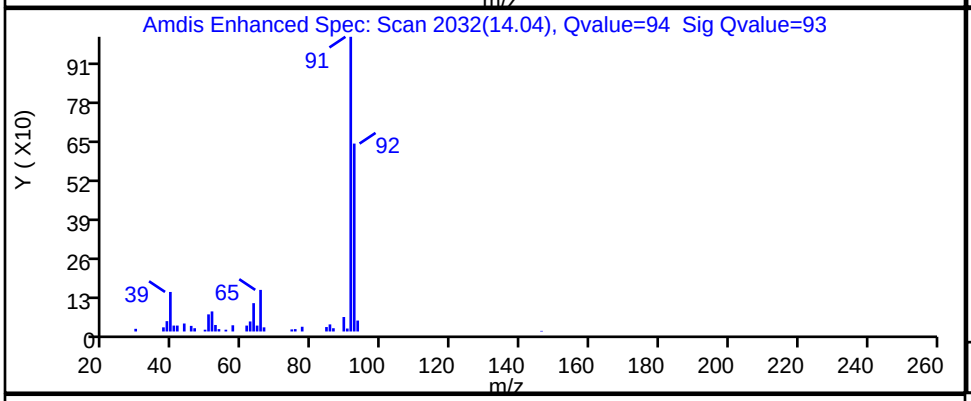
Eurofins TestAmerica, Knoxville

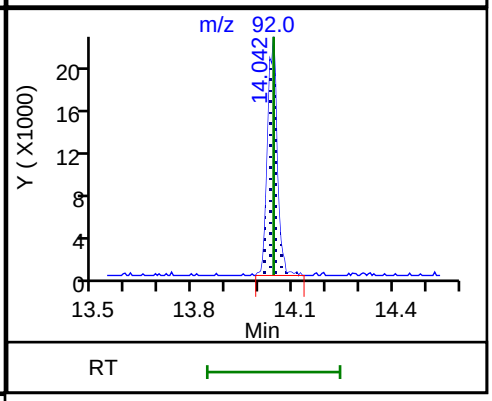
Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

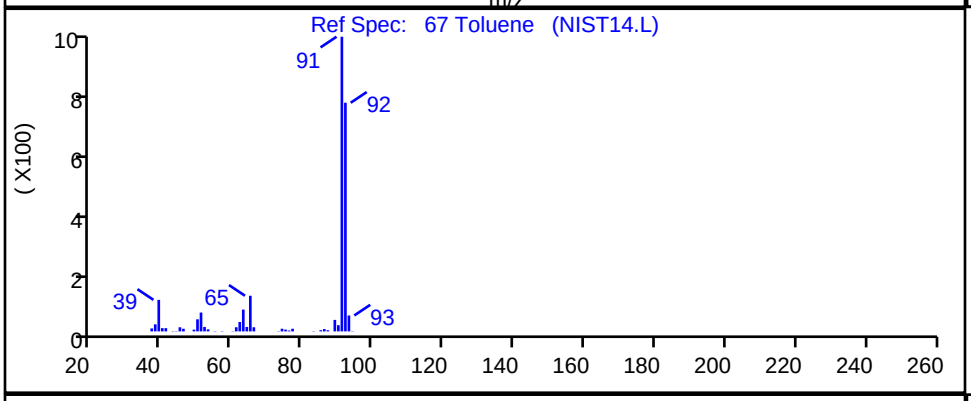
67 Toluene, CAS: 108-88-3

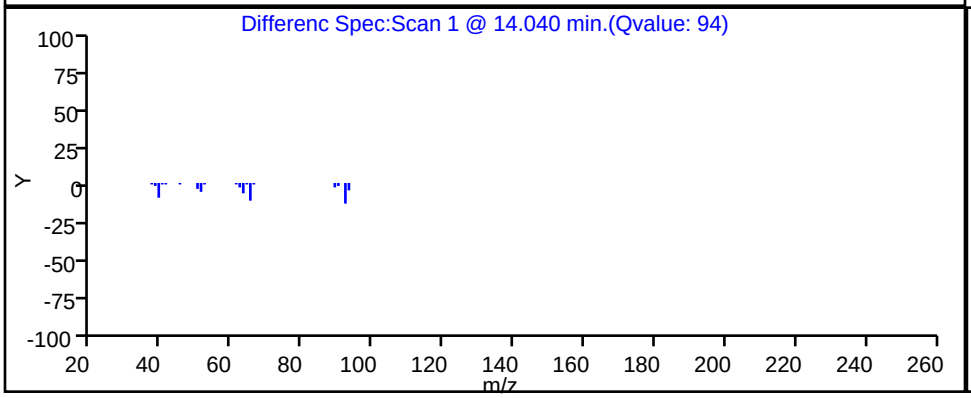


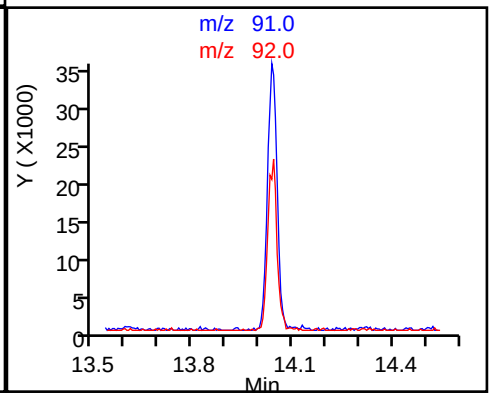










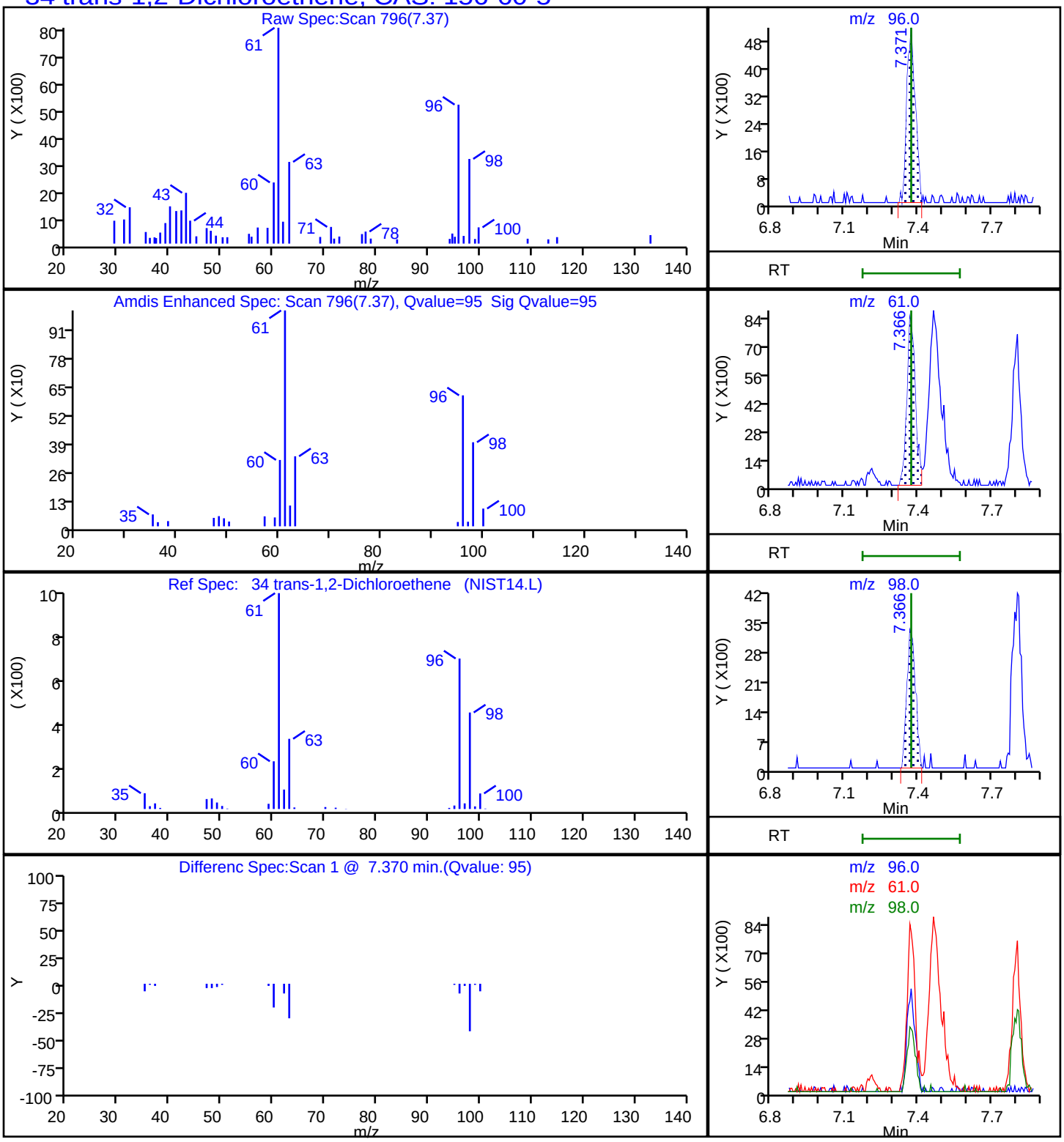


Report Date: 13-Aug-2019 12:48:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D				
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG		
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2		
Client ID:	BLDG A MID GAC				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

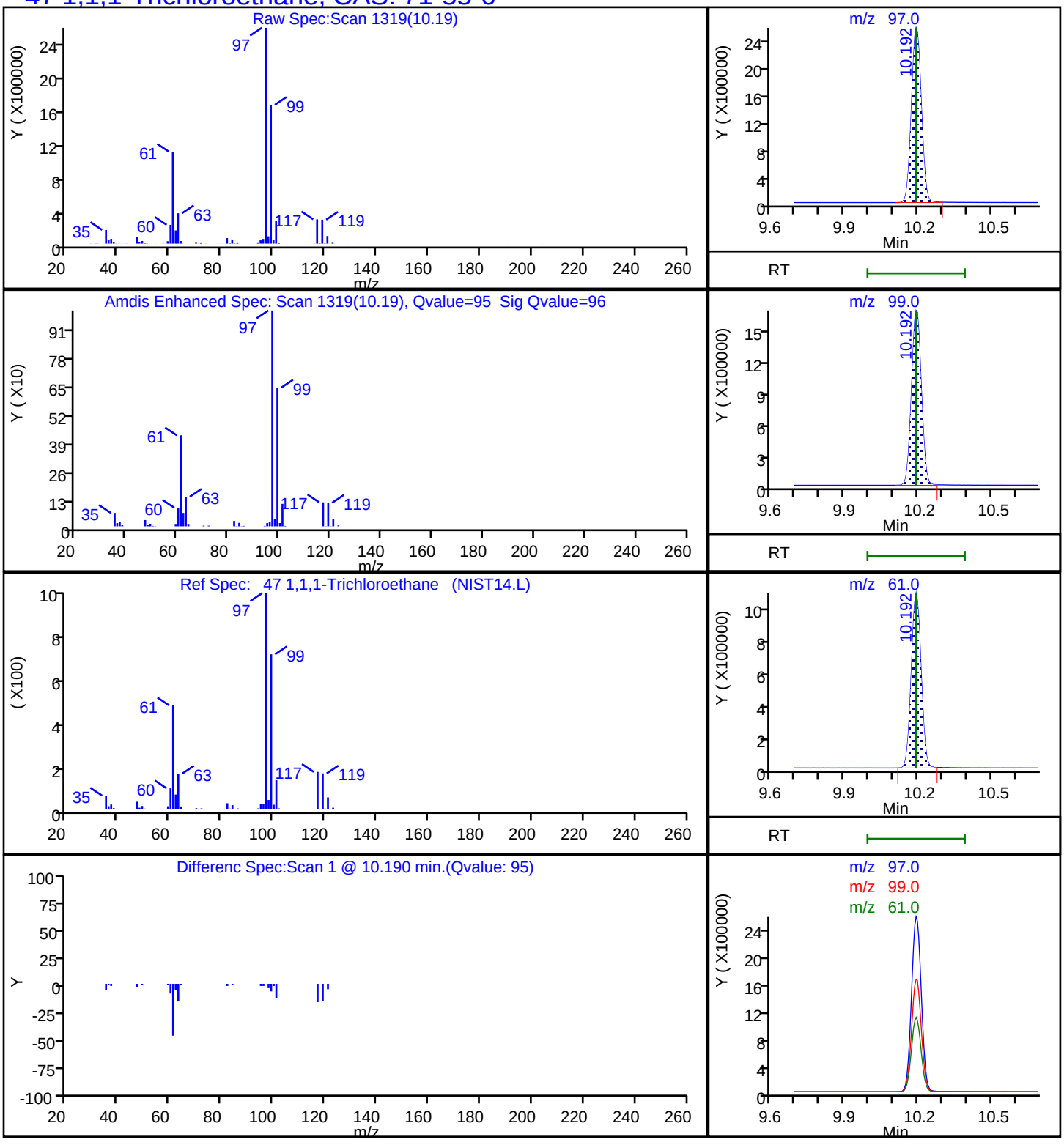
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

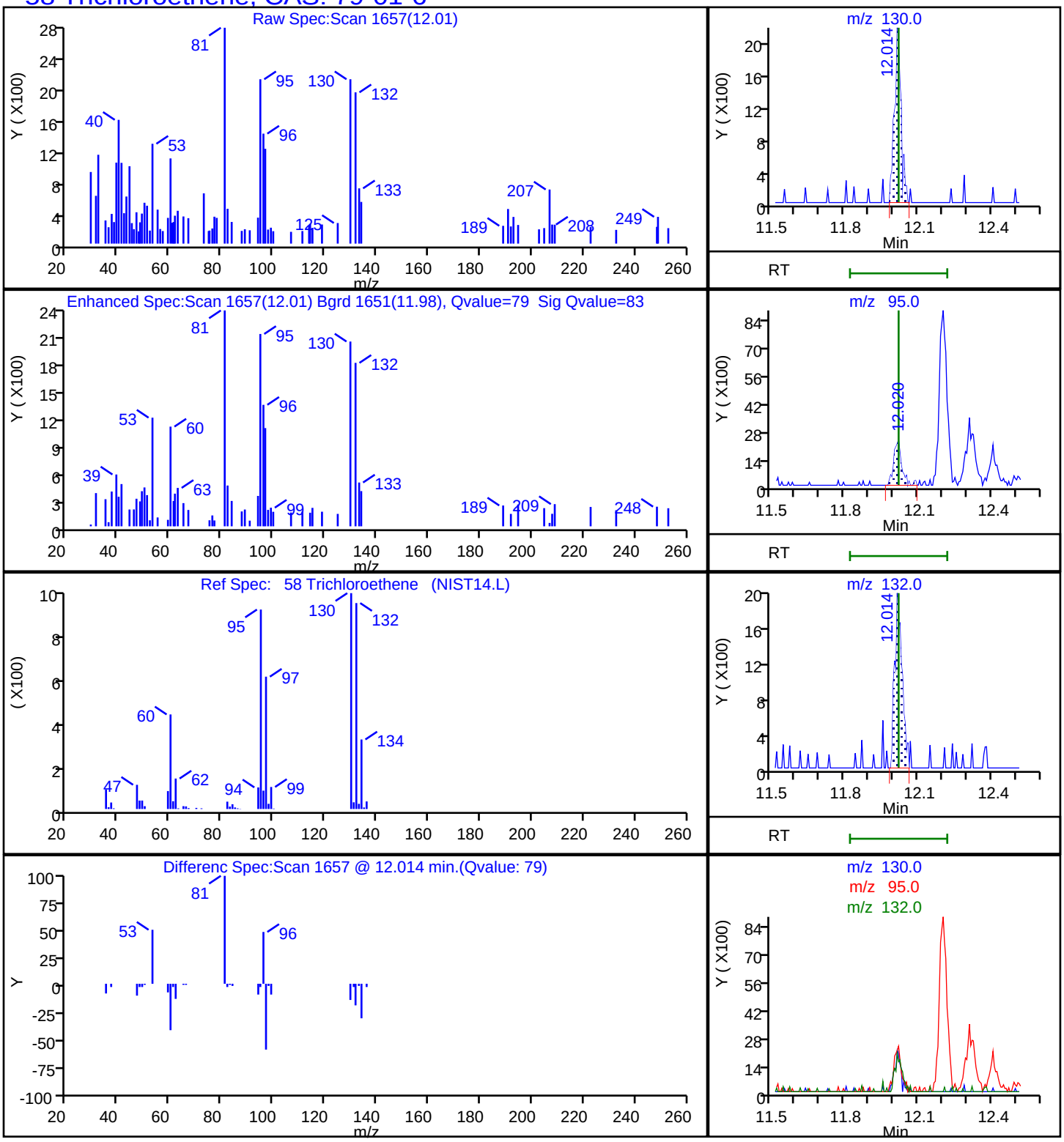
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6

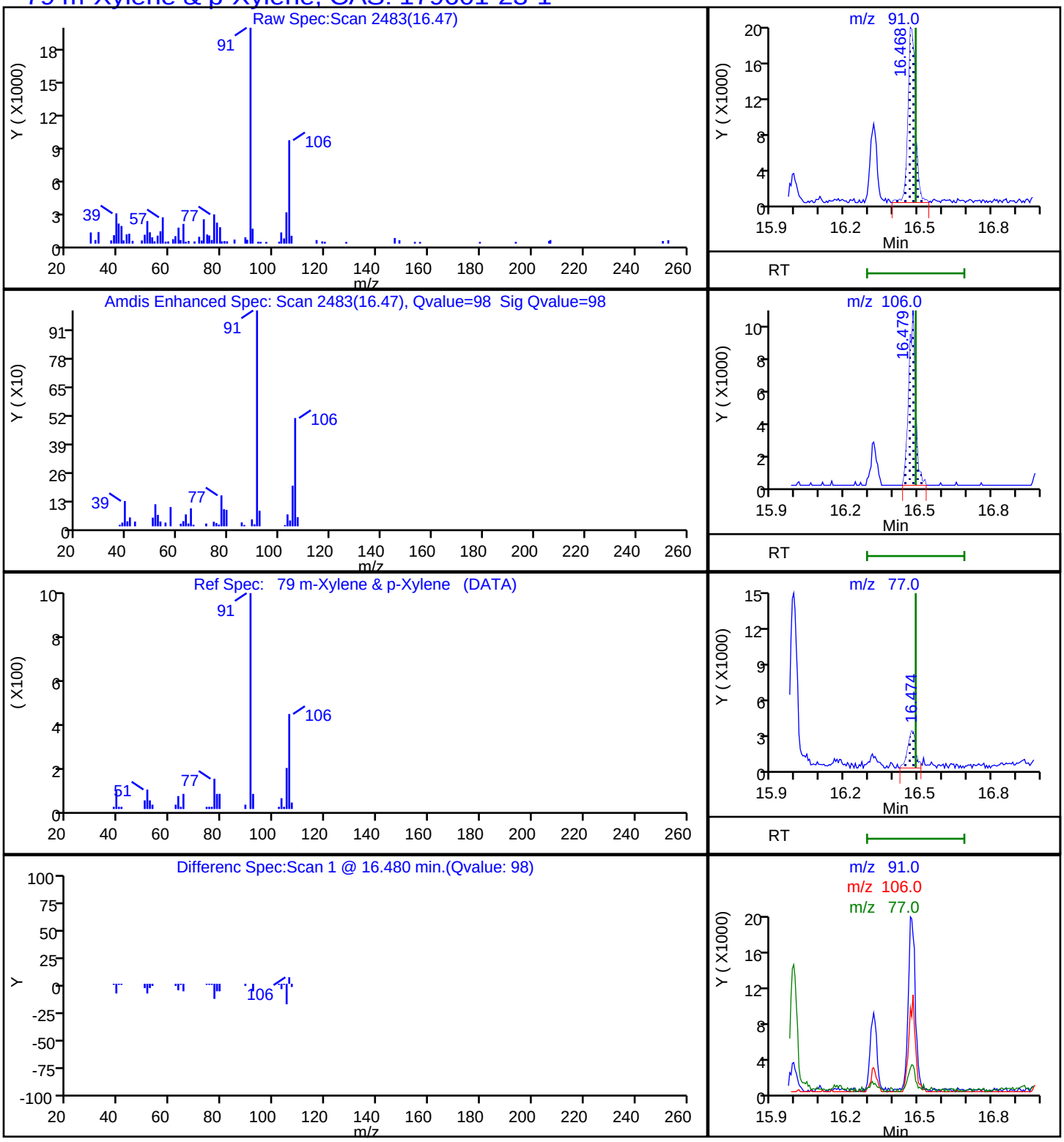


Report Date: 13-Aug-2019 12:48:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D				
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG		
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2		
Client ID:	BLDG A MID GAC				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

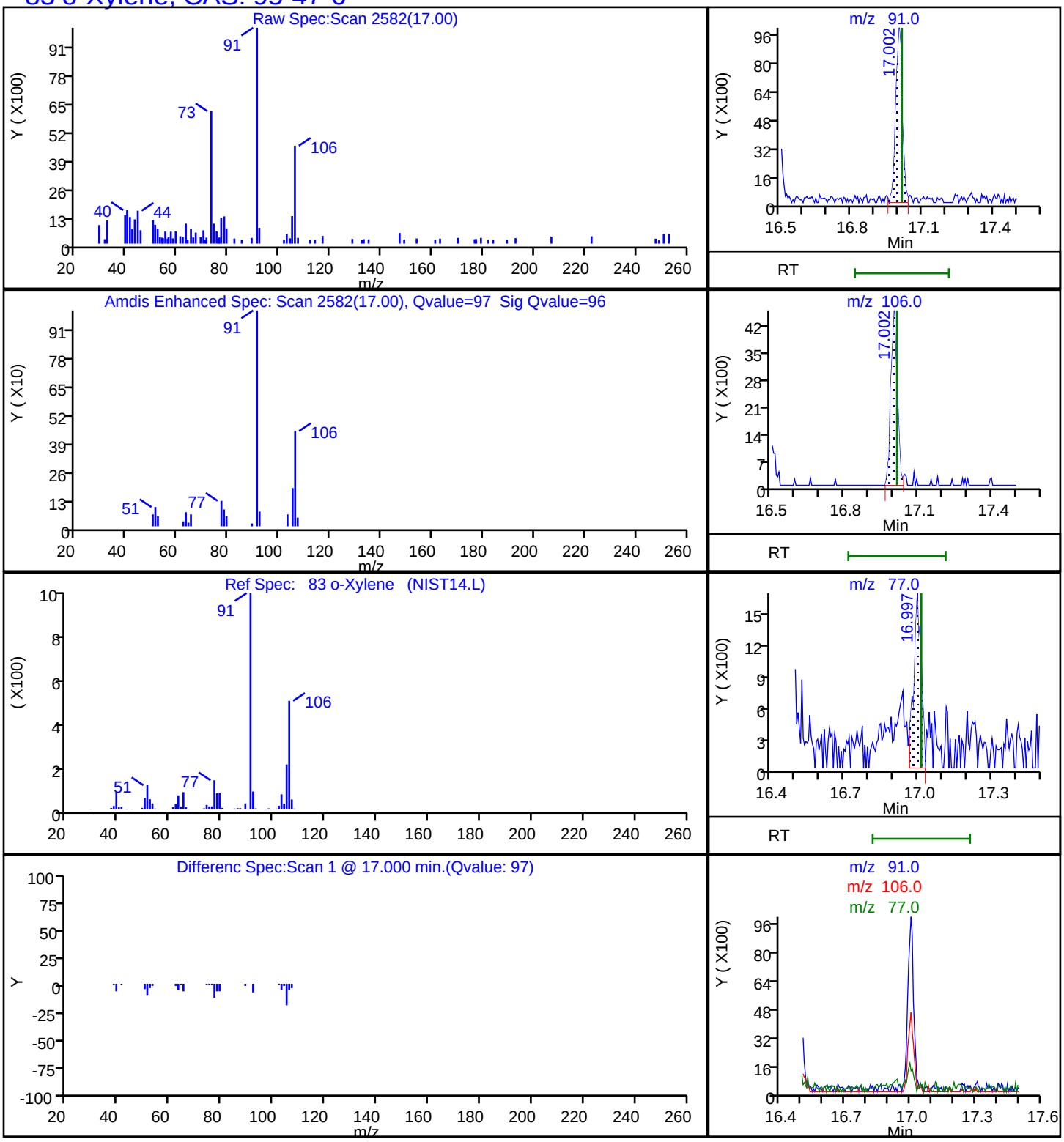
79 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D		
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2
Client ID:	BLDG A MID GAC		
Operator ID:	7126	ALS Bottle#:	3 Worklist Smp#: 9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

83 o-Xylene, CAS: 95-47-6



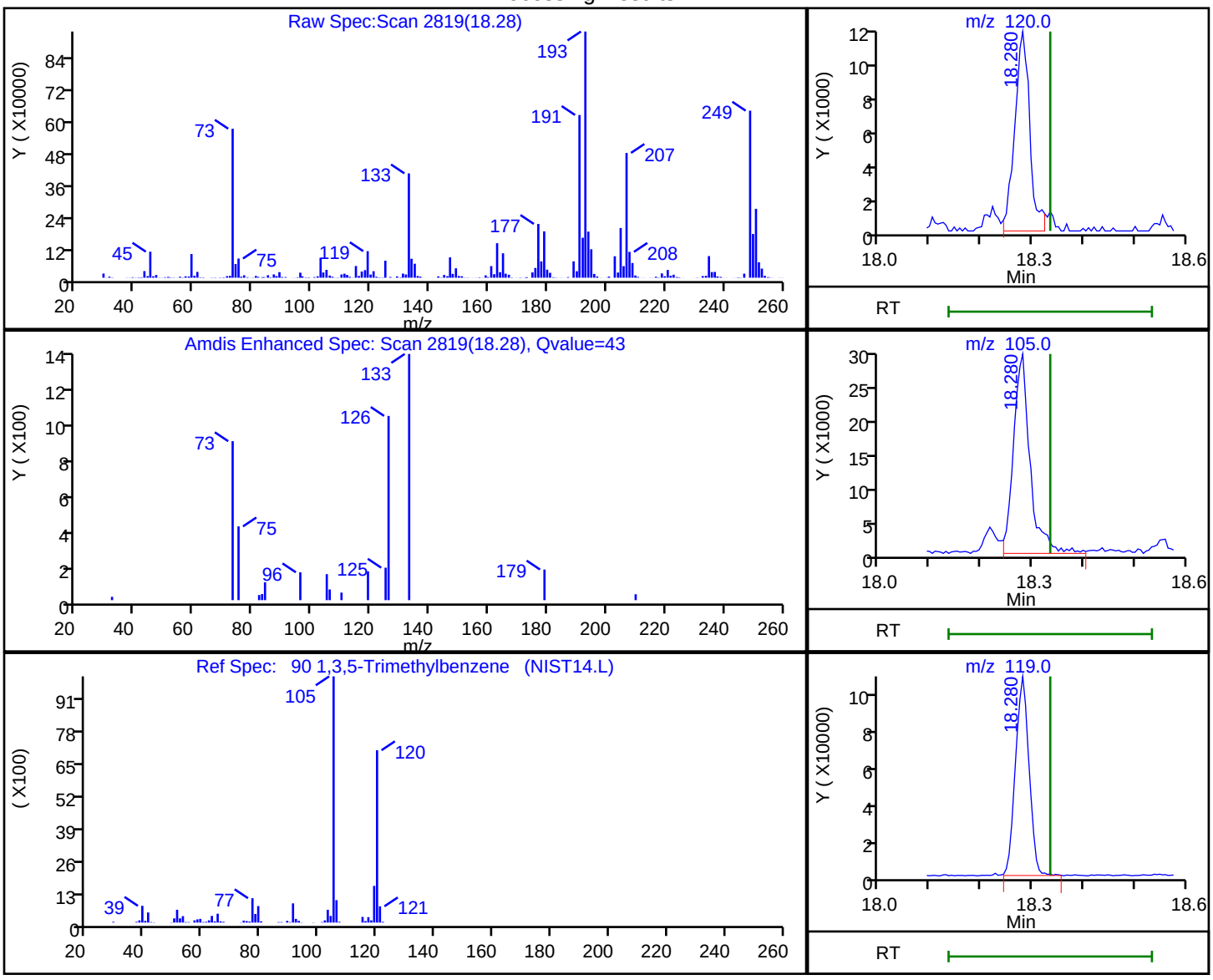
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P103.D				
Injection Date:	12-Aug-2019 15:21:30	Instrument ID:	MG		
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2		
Client ID:	BLDG A MID GAC				
Operator ID:	7126	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
18.28	120.00	24589	0.076124
18.28	105.00	67751	
18.28	119.00	186387	

Reviewer: khachitpongpanits, 13-Aug-2019 12:47:42

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A MID GAC DL Lab Sample ID: 140-16285-2 DL

Matrix: Air Lab File ID: GH13P104.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:36

Sample wt/vol: 50(mL) Date Analyzed: 08/13/2019 16:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32522 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	79		0.80	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A MID GAC DL Lab Sample ID: 140-16285-2 DL

Matrix: Air Lab File ID: GH13P104.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:36

Sample wt/vol: 50(mL) Date Analyzed: 08/13/2019 16:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32522 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	430		4.4	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GH13P104.D
Lims ID: 140-16285-A-2
Client ID: BLDG A MID GAC
Sample Type: Client
Inject. Date: 13-Aug-2019 16:47:30 ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012676-009
Misc. Info.: 140-16285-a-2
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Aug-2019 12:53:46 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 12:53:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.140	0.006	85	544335	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	3043751	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	88	2751550	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	90	1999929	4.18	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	37	15237	0.0551	M
8 Dichlorodifluoromethane	85	3.888	3.893	0.000	99	31618	0.0589	
27 1,1-Dichloroethene	96	6.180	6.187	0.000	97	261176	1.68	
31 Methylene Chloride	84	6.541	6.541	0.000	92	231416	1.53	
34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	98	5882	0.0379	
37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	98159	0.3298	
42 cis-1,2-Dichloroethene	96	8.811	8.806	0.005	94	287095	1.80	
44 Chloroform	83	9.151	9.151	0.000	28	17454	0.0472	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	96	3510174	7.93	
48 1,2-Dichloroethane	62	10.305	10.304	0.005	25	4925	0.0176	
50 Benzene	78	10.785	10.780	0.000	97	346023	0.7606	
58 Trichloroethene	130	12.014	12.020	0.000	90	2703	0.0107	
67 Toluene	91	14.042	14.036	0.006	96	37886	0.0700	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	98	20835	0.0372	
S 124 Xylenes, Total	100				0		0.0372	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

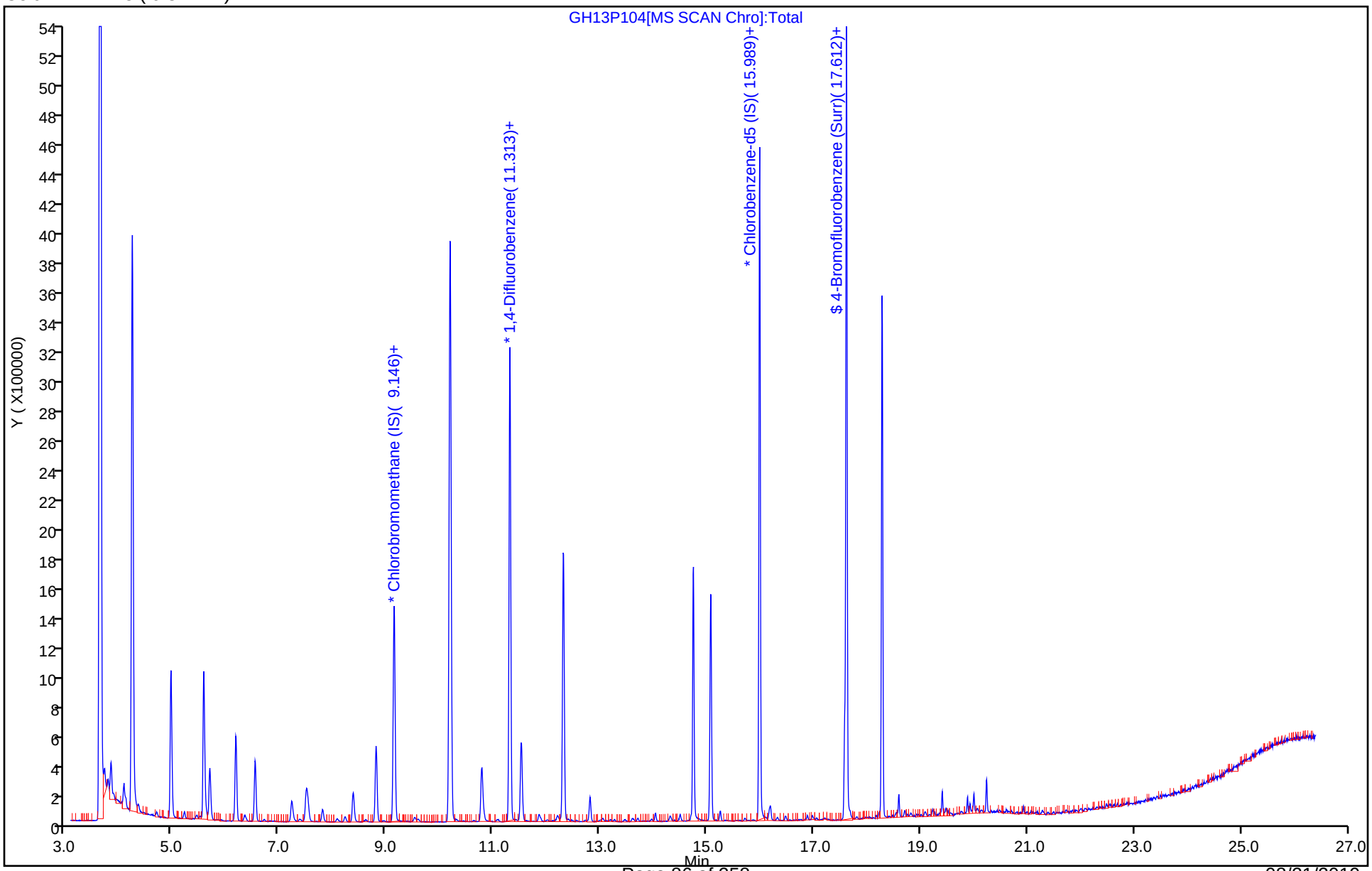
Report Date: 14-Aug-2019 12:53:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GH13P104.D

Injection Date:	13-Aug-2019 16:47:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16285-A-2	Lab Sample ID:	140-16285-2	Worklist Smp#:	9
Client ID:	BLDG A MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\GH13P104.D				
Lims ID:	140-16285-A-2				
Client ID:	BLDG A MID GAC				
Sample Type:	Client				
Inject. Date:	13-Aug-2019 16:47:30	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012676-009				
Misc. Info.:	140-16285-a-2				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Aug-2019 12:53:46	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0326				
First Level Reviewer: khachitpongpanits		Date:	14-Aug-2019 12:53:46		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.18	104.59

Report Date: 14-Aug-2019 12:53:47 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GH13P104.D

Injection Date: 13-Aug-2019 16:47:30 Instrument ID: MG

Lims ID: 140-16285-A-2 Lab Sample ID: 140-16285-2

Client ID: BLDG A MID GAC

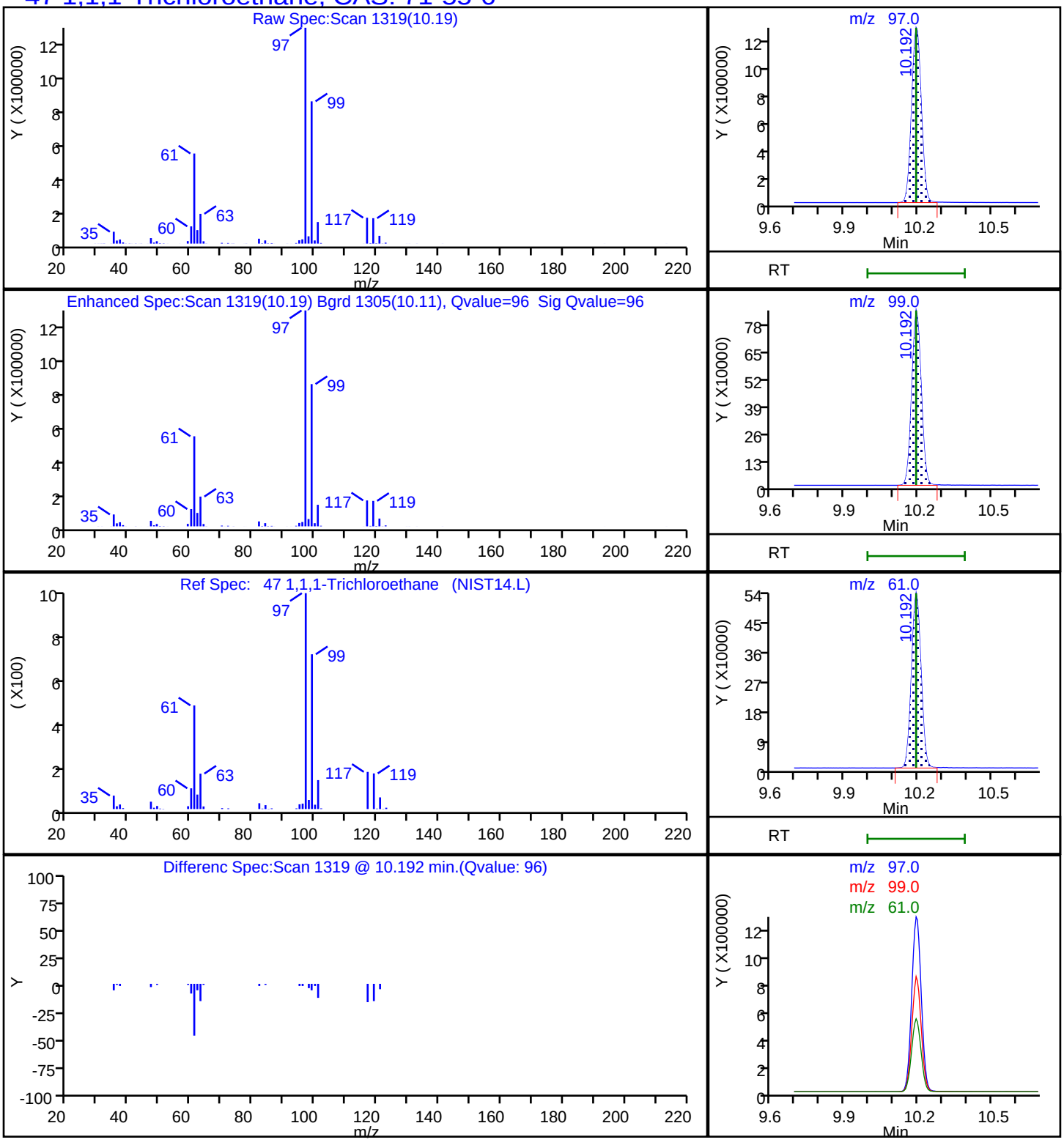
Operator ID: 7126 ALS Bottle#: 4 Worklist Smp#: 9

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A INFLUENT Lab Sample ID: 140-16285-3

Matrix: Air Lab File ID: GH12P104.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:41

Sample wt/vol: 20(mL) Date Analyzed: 08/12/2019 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.90	J	2.0	0.20
56-23-5	Carbon tetrachloride	153.81	ND		2.0	0.18
75-45-6	Chlorodifluoromethane	86.47	ND		2.0	0.55
67-66-3	Chloroform	119.38	0.31	J	2.0	0.18
156-59-2	cis-1,2-Dichloroethene	96.94	17		2.0	0.25
75-71-8	Dichlorodifluoromethane	120.91	0.57	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	3.3		2.0	0.18
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	0.25
75-35-4	1,1-Dichloroethene	96.94	18		2.0	0.20
100-41-4	Ethylbenzene	106.17	ND		2.0	0.33
75-09-2	Methylene Chloride	84.93	6.2	J B	10	4.0
1634-04-4	Methyl tert-butyl ether	88.15	ND		10	1.3
91-20-3	Naphthalene	128.17	ND		1.0	1.9
127-18-4	Tetrachloroethene	165.83	ND		2.0	0.18
108-88-3	Toluene	92.14	ND		3.0	2.0
156-60-5	trans-1,2-Dichloroethene	96.94	0.41	J	2.0	0.18
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.0	1.6
71-55-6	1,1,1-Trichloroethane	133.41	85		2.0	0.93
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	0.18
79-01-6	Trichloroethene	131.39	150		1.0	0.15
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	2.0	0.90
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.50
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.55
75-01-4	Vinyl chloride	62.50	ND		1.0	0.65
1330-20-7	Xylenes, Total	106.17	ND		4.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: BLDG A INFLUENT Lab Sample ID: 140-16285-3

Matrix: Air Lab File ID: GH12P104.D

Analysis Method: TO 15 LL Date Collected: 08/08/2019 12:41

Sample wt/vol: 20(mL) Date Analyzed: 08/12/2019 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.9	J	6.4	0.64
56-23-5	Carbon tetrachloride	153.81	ND		13	1.1
75-45-6	Chlorodifluoromethane	86.47	ND		7.1	1.9
67-66-3	Chloroform	119.38	1.5	J	9.8	0.85
156-59-2	cis-1,2-Dichloroethene	96.94	66		7.9	0.99
75-71-8	Dichlorodifluoromethane	120.91	2.8	J	9.9	1.7
75-34-3	1,1-Dichloroethane	98.96	13		8.1	0.71
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	1.0
75-35-4	1,1-Dichloroethene	96.94	71		7.9	0.79
100-41-4	Ethylbenzene	106.17	ND		8.7	1.4
75-09-2	Methylene Chloride	84.93	21	J B	35	14
1634-04-4	Methyl tert-butyl ether	88.15	ND		36	4.7
91-20-3	Naphthalene	128.17	ND		5.2	10
127-18-4	Tetrachloroethene	165.83	ND		14	1.2
108-88-3	Toluene	92.14	ND		11	7.3
156-60-5	trans-1,2-Dichloroethene	96.94	1.6	J	7.9	0.69
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		15	12
71-55-6	1,1,1-Trichloroethane	133.41	460		11	5.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	0.95
79-01-6	Trichloroethene	131.39	830		5.4	0.81
526-73-8	1,2,3-Trimethylbenzene	120.19	ND	*	9.8	4.4
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	2.5
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	2.7
75-01-4	Vinyl chloride	62.50	ND		2.6	1.7
1330-20-7	Xylenes, Total	106.17	ND		17	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D
Lims ID: 140-16285-A-3
Client ID: BLDG A INFLUENT
Sample Type: Client
Inject. Date: 12-Aug-2019 16:03:30 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-010
Misc. Info.: 140-16285-a-3
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:48:39 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:49:48

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.146	9.140	0.006	87	529530	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2933167	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.999	-0.010	89	2689523	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.616	-0.016	89	1927470	4.13	
	6 Chlorodifluoromethane	51	3.829	3.823	0.006	35	5786	0.0215	
	8 Dichlorodifluoromethane	85	3.893	3.888	0.005	99	11832	0.0226	
	27 1,1-Dichloroethene	96	6.185	6.174	0.011	96	107503	0.7122	
	31 Methylene Chloride	84	6.547	6.541	0.006	93	36246	0.2470	
	34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	70	2505	0.0166	
	37 1,1-Dichloroethane	63	7.808	7.803	0.005	98	37957	0.1311	
	42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	96	102639	0.6623	
	44 Chloroform	83	9.151	9.151	0.000	32	4394	0.0122	
	47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	95	1456884	3.38	
	50 Benzene	78	10.785	10.785	0.000	98	15789	0.0360	
	58 Trichloroethene	130	12.014	12.020	-0.006	97	1508057	6.17	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

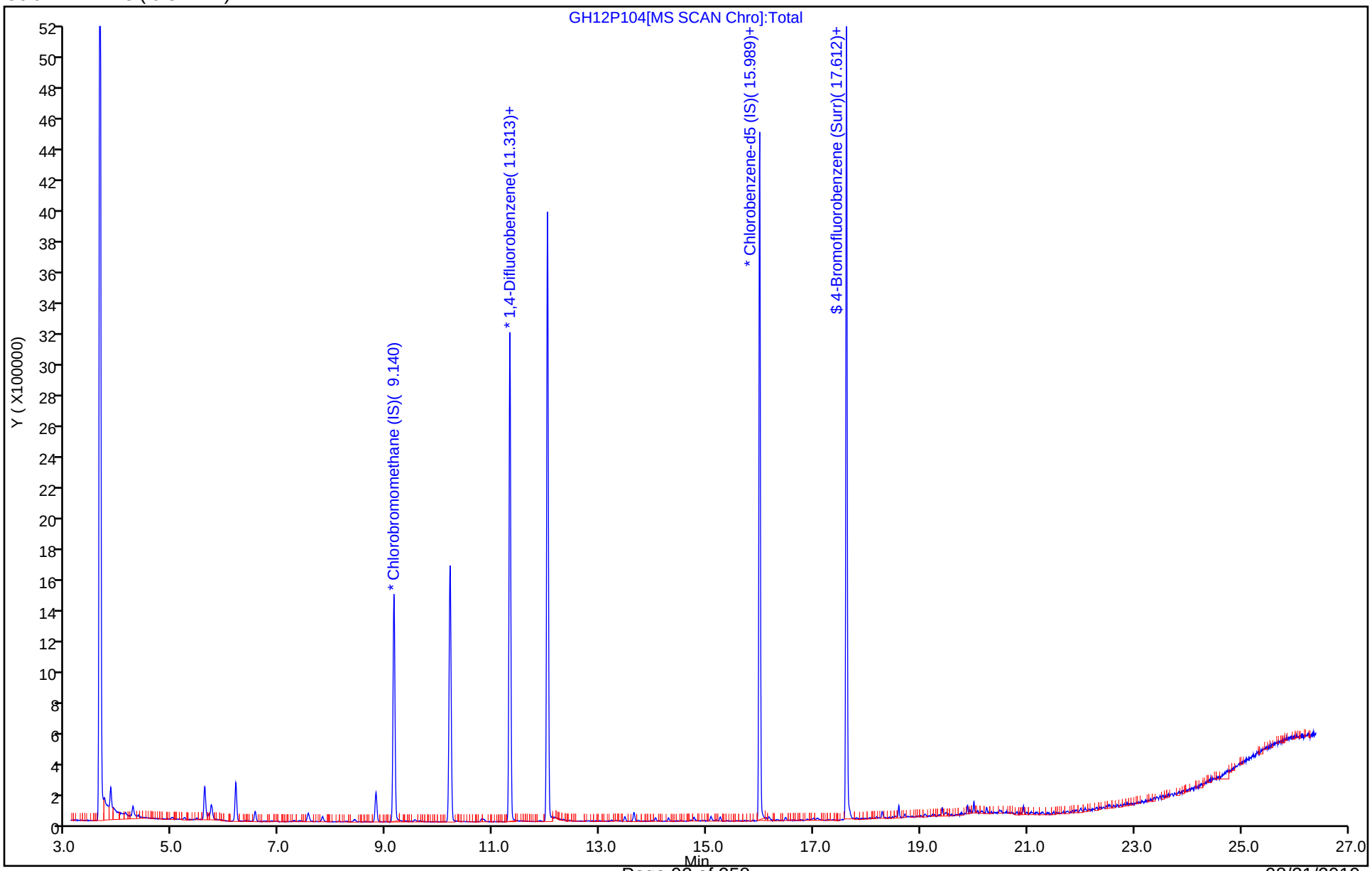
Report Date: 13-Aug-2019 12:49:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D

Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3	Worklist Smp#:	10
Client ID:	BLDG A INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D				
Lims ID:	140-16285-A-3				
Client ID:	BLDG A INFLUENT				
Sample Type:	Client				
Inject. Date:	12-Aug-2019 16:03:30	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012675-010				
Misc. Info.:	140-16285-a-3				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Aug-2019 12:48:39	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0330				

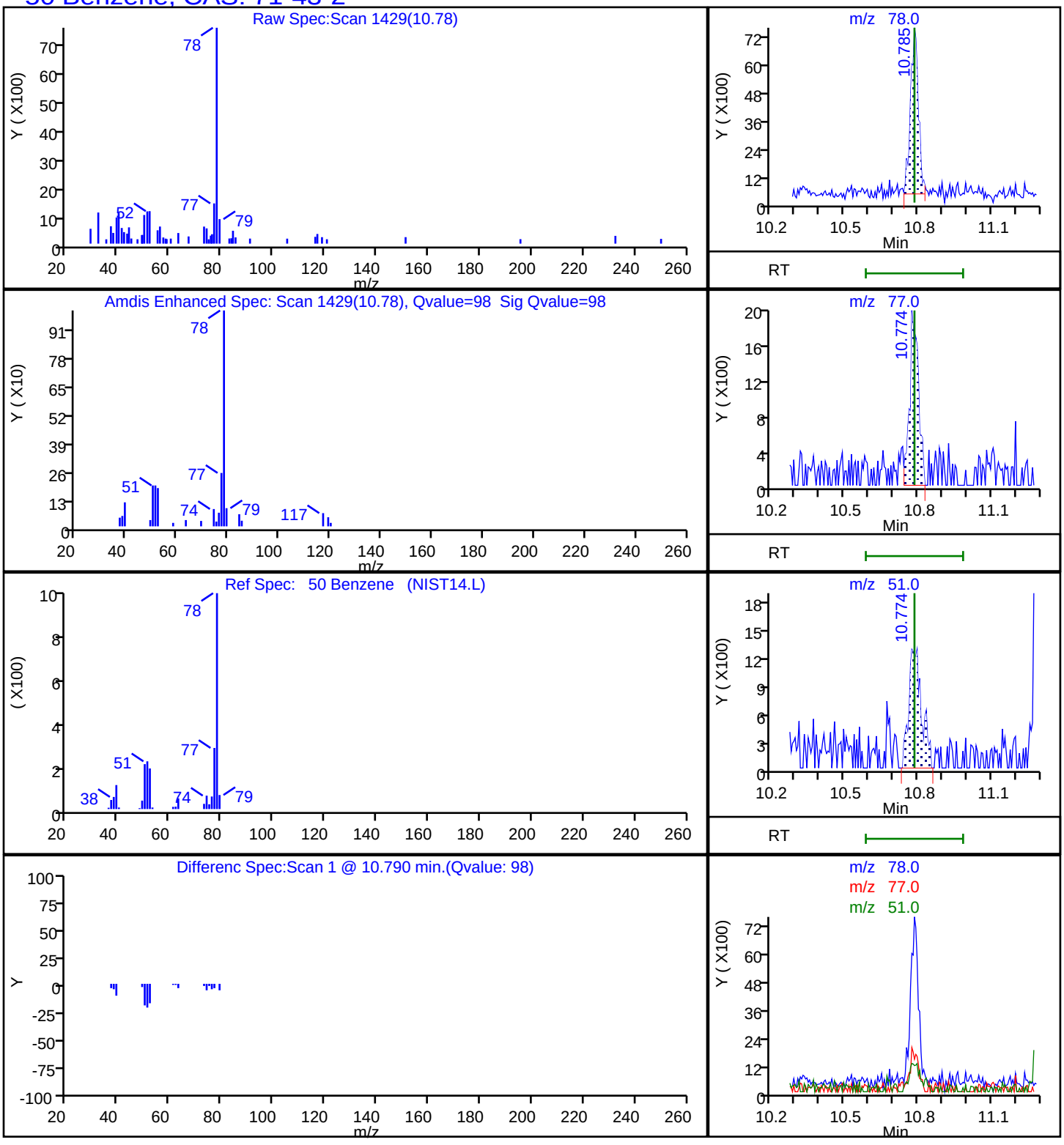
First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:49:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.13	103.13

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

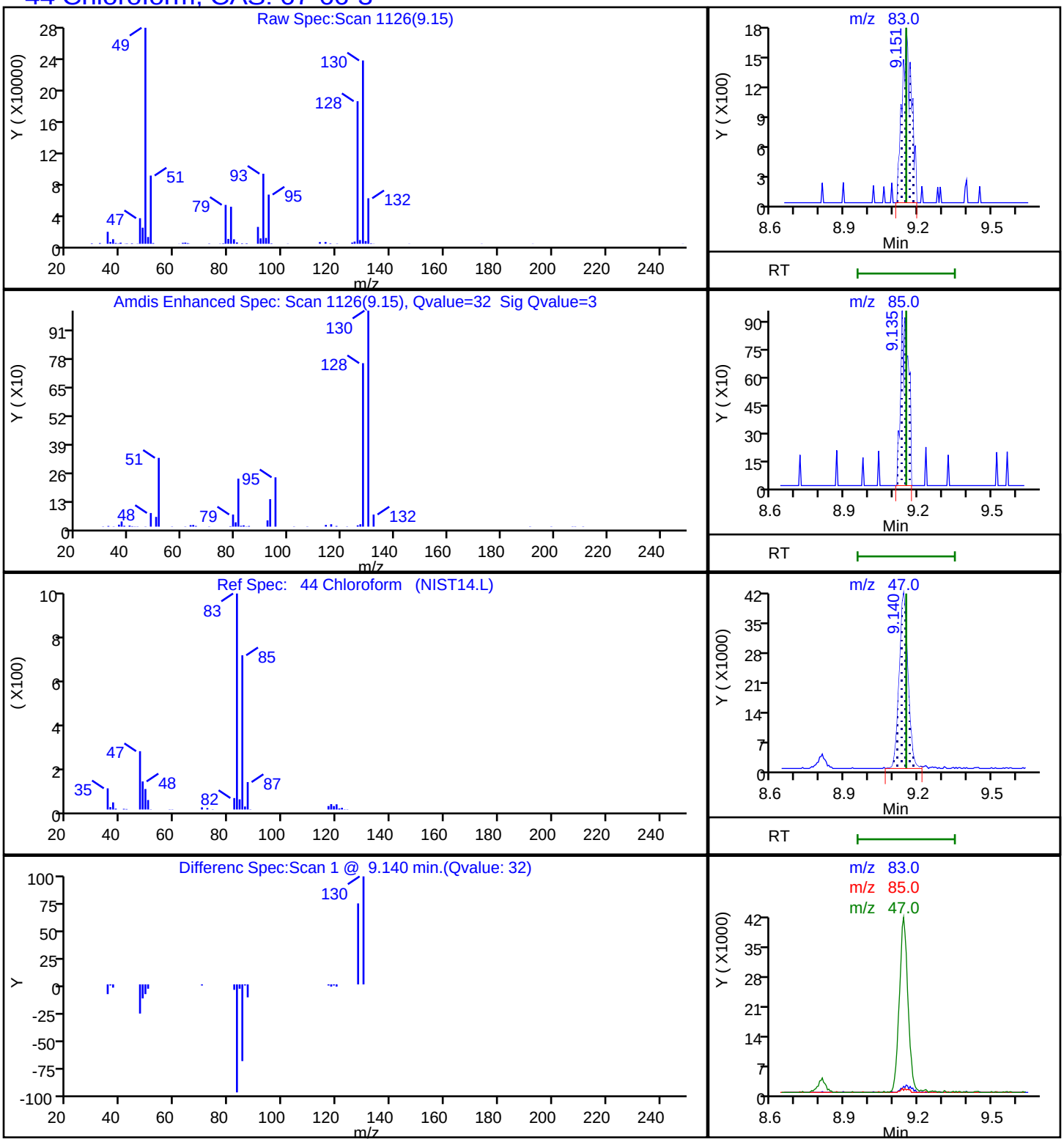
50 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

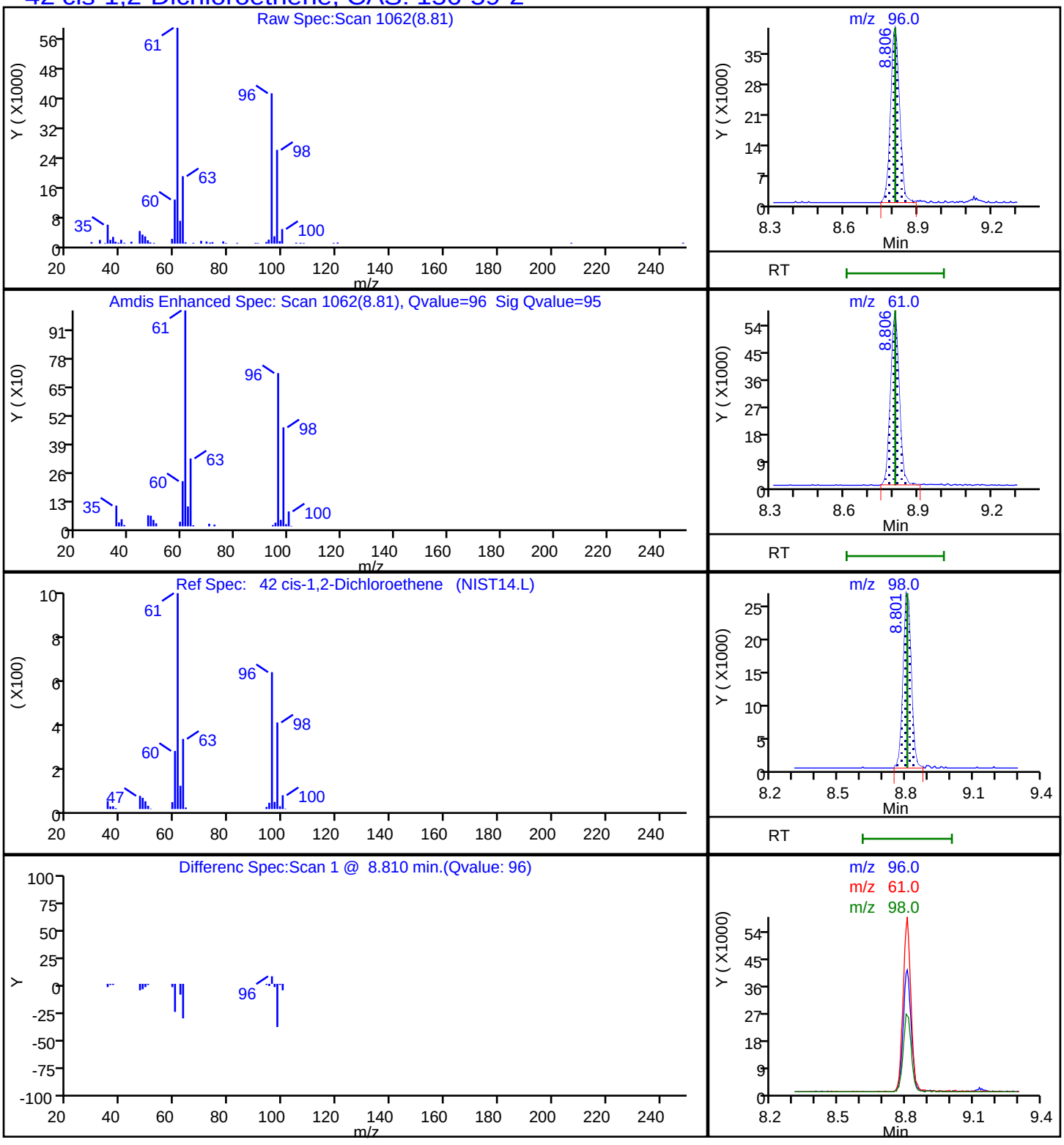
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

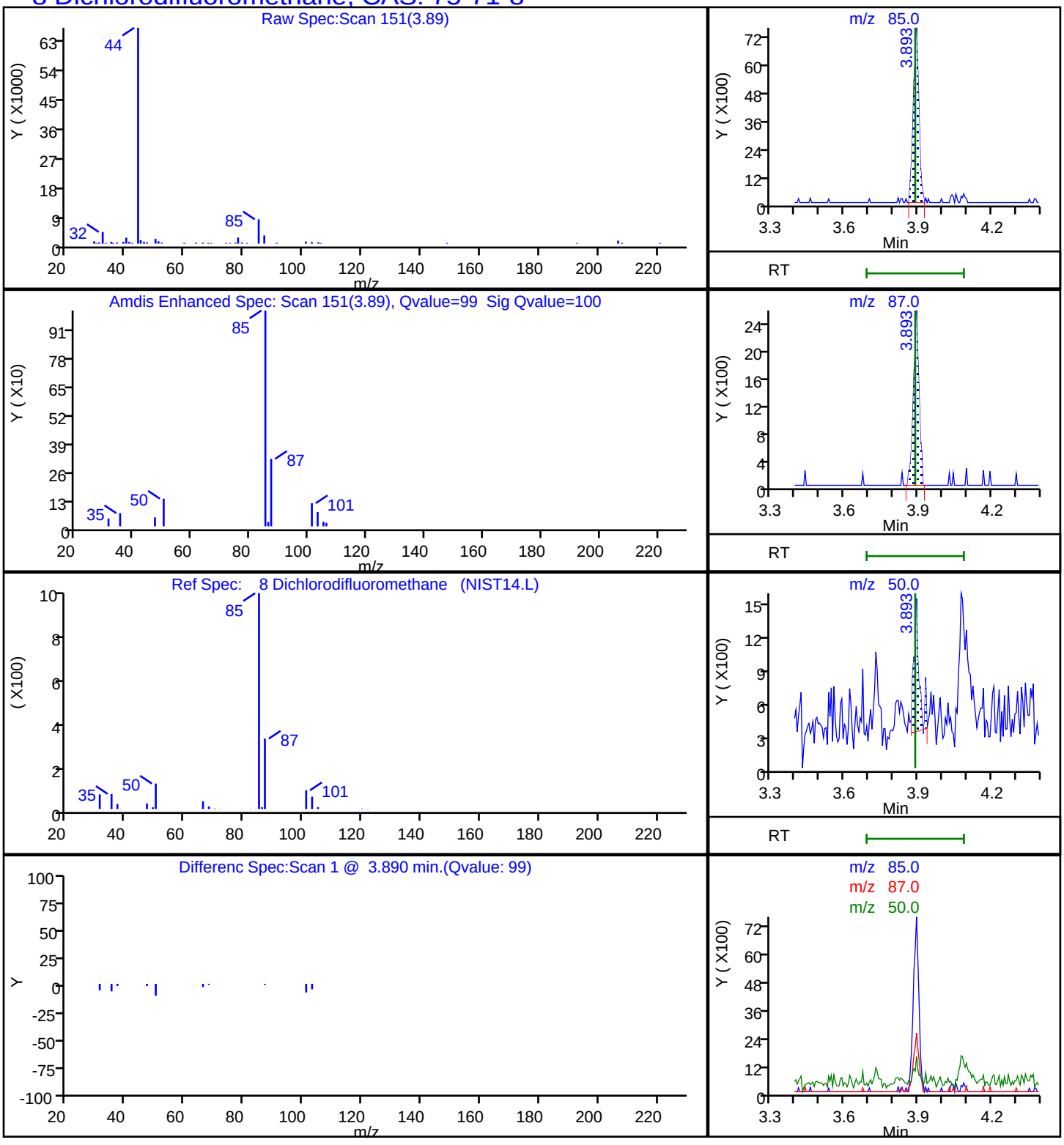
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

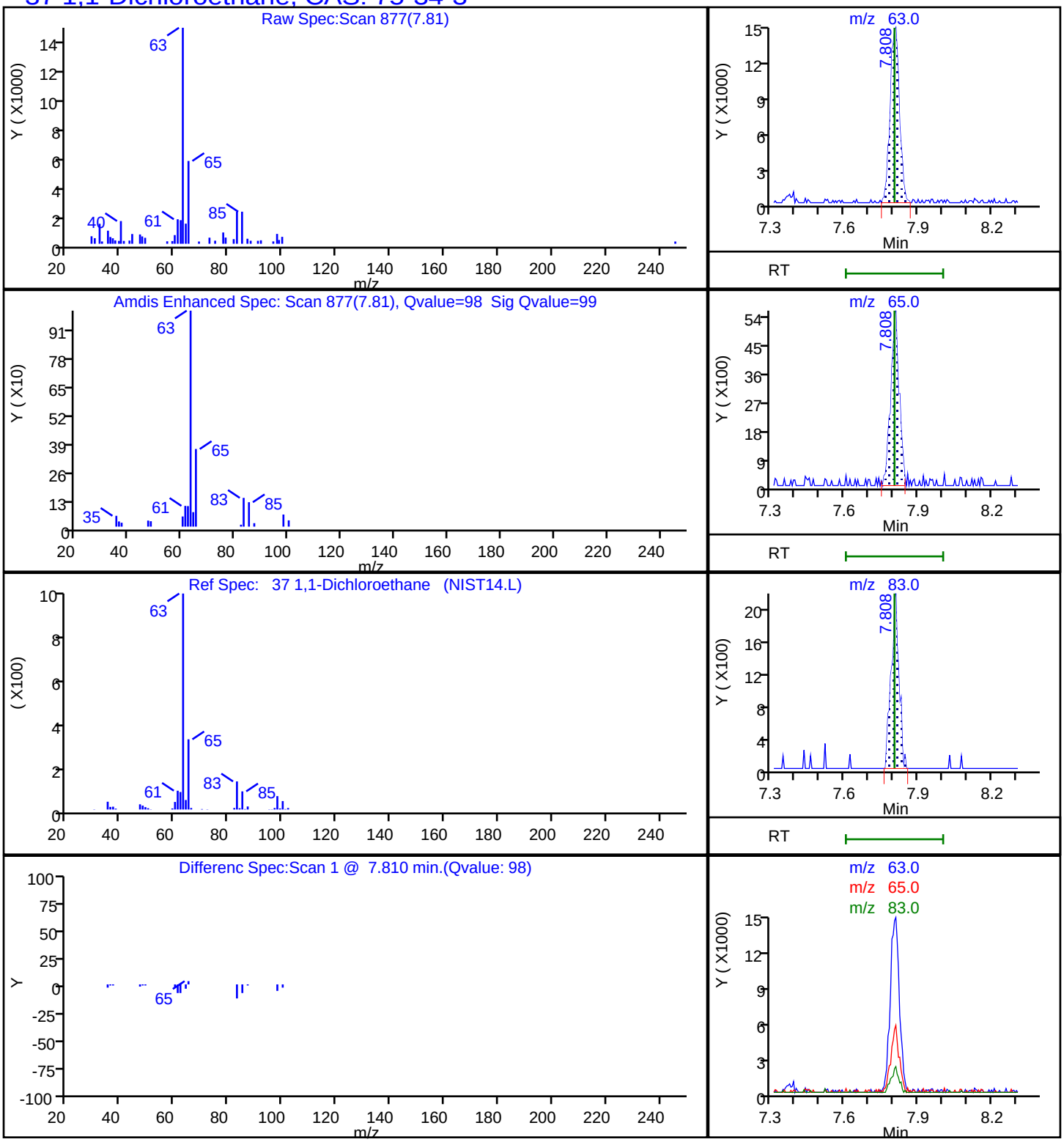


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D

Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

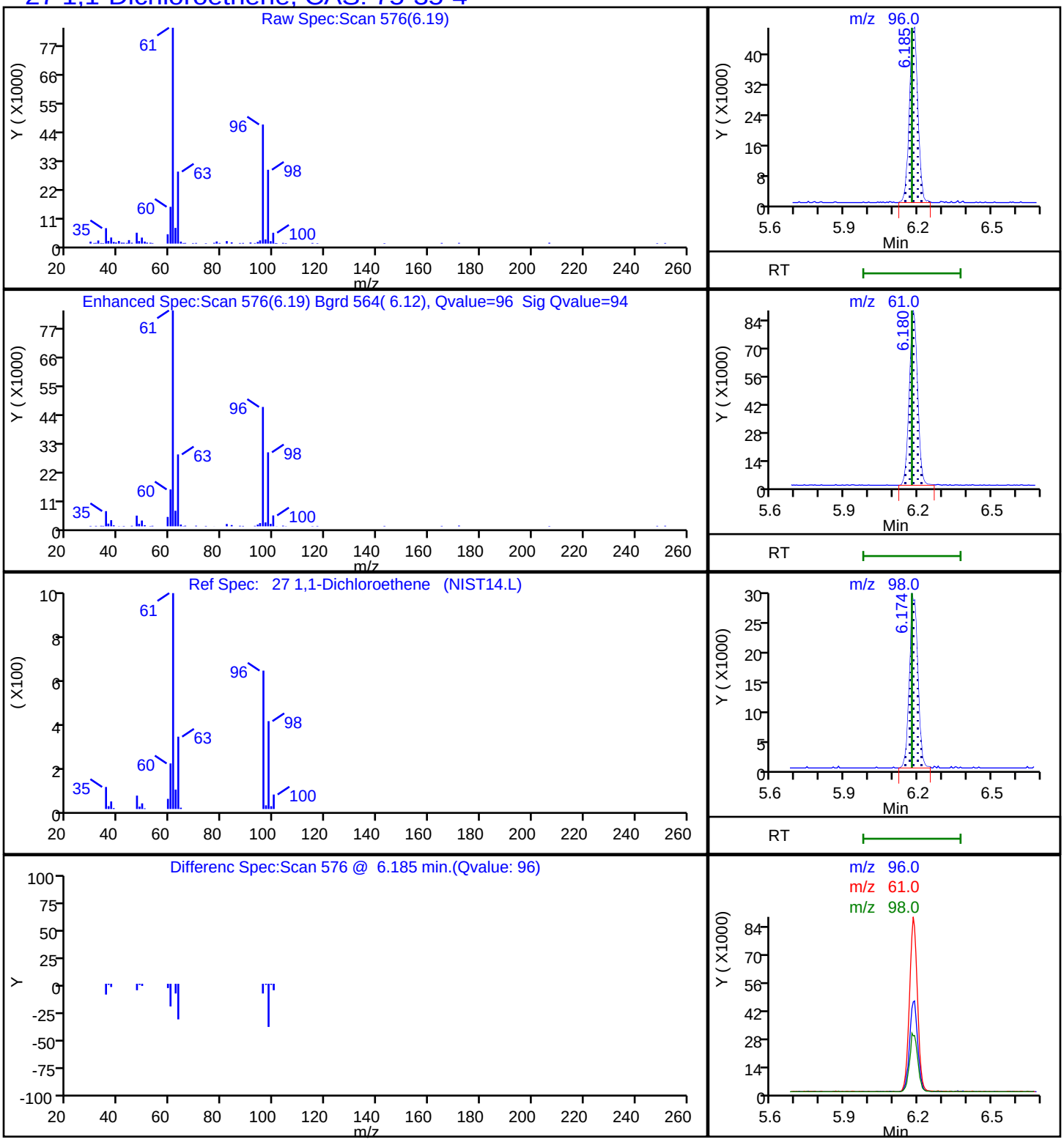
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

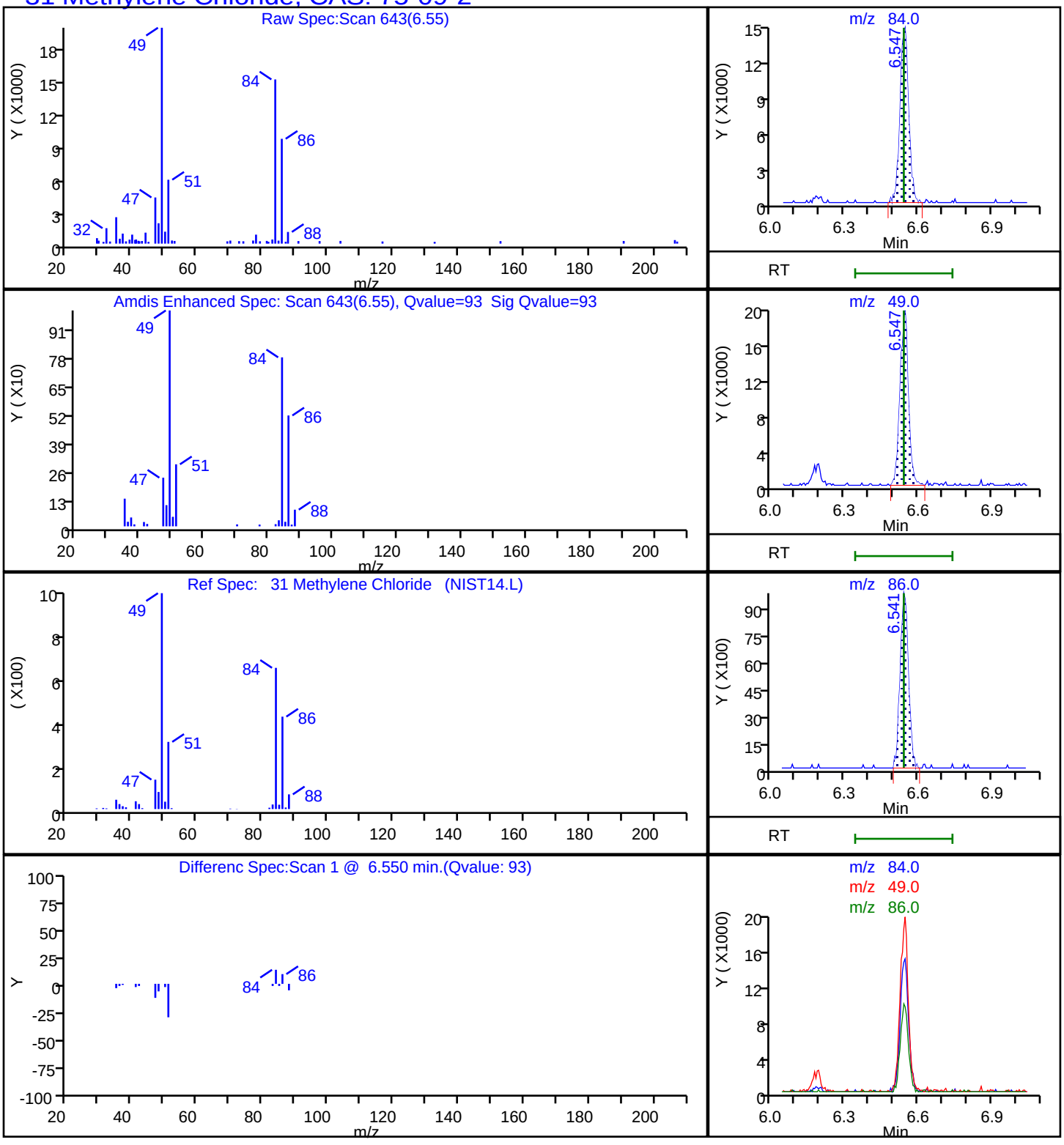
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

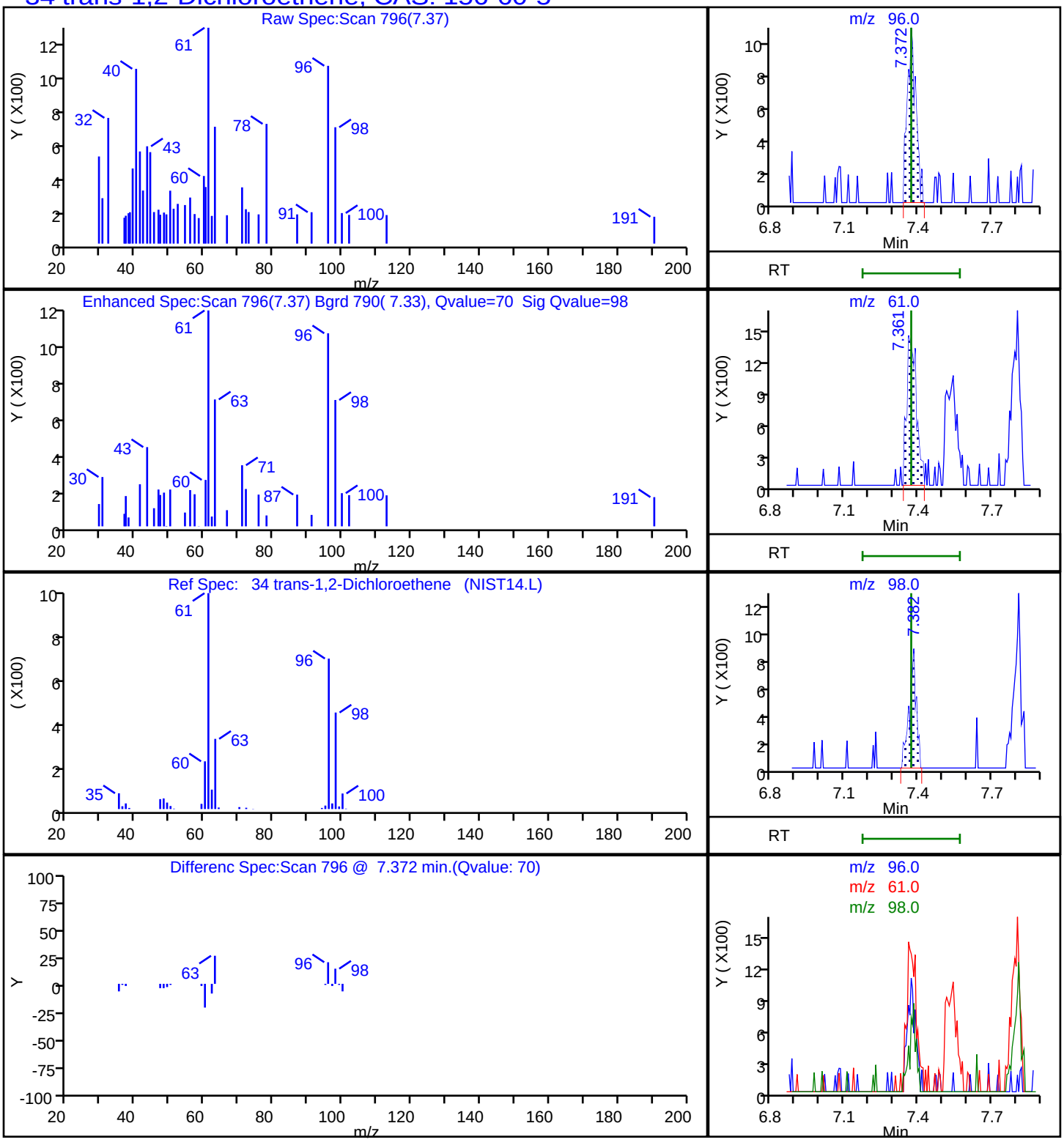
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

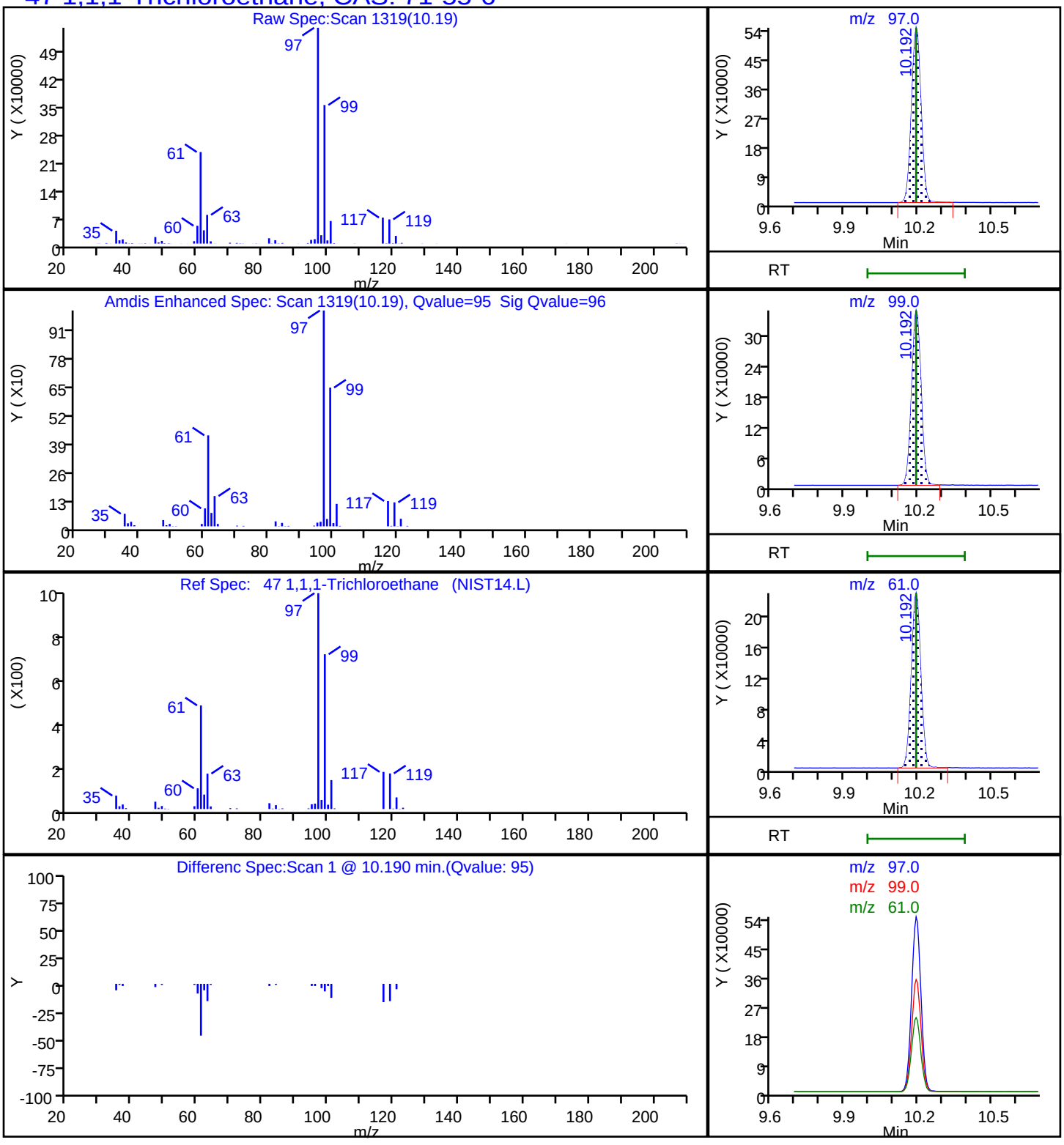
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D		
Injection Date:	12-Aug-2019 16:03:30	Instrument ID:	MG
Lims ID:	140-16285-A-3	Lab Sample ID:	140-16285-3
Client ID:	BLDG A INFLUENT		
Operator ID:	7126	ALS Bottle#:	4 Worklist Smp#: 10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 13-Aug-2019 12:49:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GH12P104.D

Injection Date: 12-Aug-2019 16:03:30 Instrument ID: MG

Lims ID: 140-16285-A-3 Lab Sample ID: 140-16285-3

Client ID: BLDG A INFLUENT

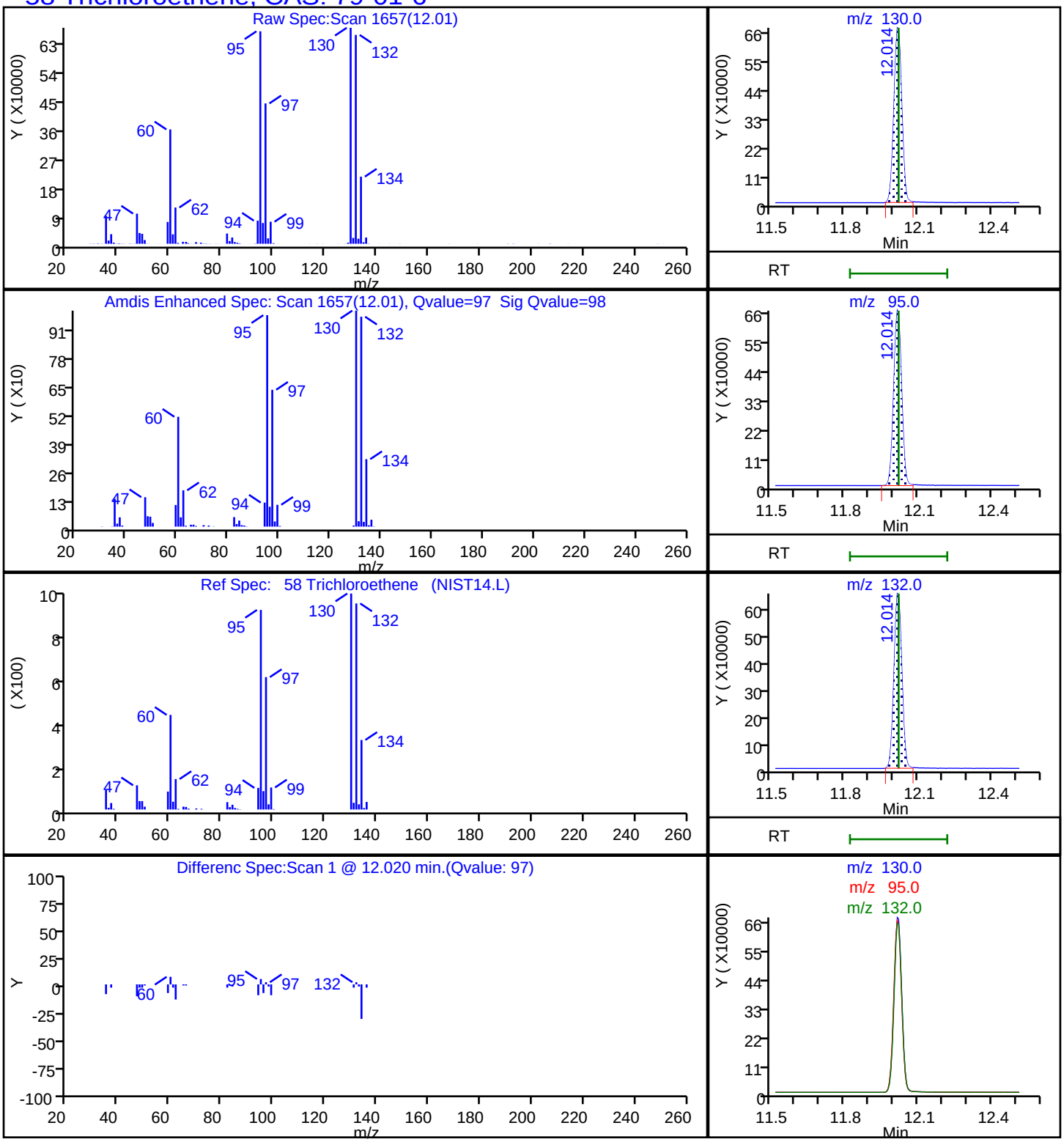
Operator ID: 7126 ALS Bottle#: 4 Worklist Smp#: 10

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

58 Trichloroethene, CAS: 79-01-6



FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.0232	+++++ 2.0260	2.0775 1.8803	2.3532 1.8936	2.0468 1.9536	Ave		2.0318				7.3		30.0			
Propene	+++++ 1.3012	+++++ 1.0805	+++++ 0.9022	+++++ 0.8532	+++++ 0.8416	Ave		0.9957				19.7		30.0			
Dichlorodifluoromethane	+++++ 3.9691	+++++ 4.0271	3.9429 3.7955	4.4535 3.6600	3.9340 3.7934	Ave		3.9469				6.0		30.0			
Chloromethane	+++++ 0.2913	+++++ 0.2781	+++++ 0.2495	0.3696 0.2462	0.3389 0.2314	Ave		0.2864				17.9		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.3669	+++++ 2.3522	2.2718 2.2208	2.4759 1.9851	2.2671 2.0239	Ave		2.2455				7.5		30.0			
Vinyl chloride	1.2932 1.0051	1.1535 1.0006	1.0426 0.9218	1.1482 0.9357	1.0300 0.9140	Ave		1.0445				11.6		30.0			
Butane	+++++ 1.4835	1.7400 1.4512	1.6006 1.3213	1.6536 1.3843	1.4691 1.3234	Ave		1.4919				9.8		30.0			
1,3-Butadiene	+++++ 0.7613	0.7788 0.7631	0.7932 0.6987	0.8174 0.7312	0.7835 0.7098	Ave		0.7597				5.2		30.0			
Bromomethane	+++++ 0.9494	+++++ 0.9482	0.9799 0.8966	1.0769 0.8787	0.9609 0.9117	Ave		0.9503				6.5		30.0			
Chloroethane	+++++ 0.4611	+++++ 0.4687	0.4770 0.4254	0.5150 0.4440	0.4791 0.4437	Ave		0.4643				5.9		30.0			
Ethanol	+++++ 0.2930	+++++ 0.3251	+++++ 0.2966	0.3745 0.3330	0.3131 0.3165	Ave		0.3217				8.5		30.0			
Vinyl bromide	+++++ 0.8328	0.6939 0.8469	0.8969 0.8129	0.9358 0.8163	0.8232 0.8409	Ave		0.8333				7.9		30.0			
2-Methylbutane	+++++ 0.9353	+++++ 0.9099	1.1307 0.8215	1.0977 0.9104	0.9010 0.8638	Ave		0.9463				11.6		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.2025	3.2104 3.1812	3.0180 3.0550	3.4569 3.1331	3.1748 3.2347	Ave		3.1852				3.9		30.0			
Acrolein	+++++ 0.1272	+++++ 0.1330	+++++ 0.1327	+++++ 0.1562	0.1441 0.1354	Ave		0.1381				7.6		30.0			
Acetonitrile	+++++ 0.2238	+++++ 0.2454	+++++ 0.2132	+++++ 0.2700	0.2147 0.2175	Ave		0.2308				9.8		30.0			
Acetone	+++++ 0.2506	+++++ 0.2537	+++++ 0.2231	0.3403 0.2836	0.3151 0.2274	Ave		0.2705				16.4		30.0			
Pentane	+++++ 0.1484	+++++ 0.1336	+++++ 0.1234	+++++ 0.1328	0.1489 0.1209	Ave		0.1347				8.9		30.0			
Isopropyl alcohol	+++++ 0.7017	+++++ 0.7639	+++++ 0.7266	0.9542 0.7938	0.7303 0.7356	Ave		0.7723				11.1		30.0			
Ethyl ether	+++++ 0.5335	+++++ 0.5571	0.6050 0.5132	0.5969 0.6106	0.6349 0.5003	Ave		0.5689				8.8		30.0			
1,1-Dichloroethene	1.1295 1.1087	1.4127 1.0925	1.1292 1.0703	1.2421 1.0646	1.0719 1.0799	Ave		1.1401				9.6		30.0			
Acrylonitrile	+++++ 0.5200	+++++ 0.5641	0.6355 0.5215	0.5391 0.6148	0.5471 0.5229	Ave		0.5581				7.9		30.0			
tert-Butyl alcohol	+++++ 1.4663	+++++ 1.6200	+++++ 1.6826	2.2003 1.7707	1.5549 1.7104	Ave		1.7150				13.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.6246 2.5129	2.7019 2.5089	2.4827 2.3308	2.7185 2.3388	2.5139 2.2287	Ave		2.4962				6.4		30.0			
Methylene Chloride	+++++ 1.1989	+++++ 1.0760	+++++ 0.9462	+++++ 0.9402	1.5997 0.8897	Ave		1.1085				24.0		30.0			
3-Chloropropene	+++++ 1.0821	+++++ 1.0587	1.1371 0.9909	1.2234 1.1178	1.1183 1.0307	Ave		1.0949				6.5		30.0			
Carbon disulfide	+++++ 3.1089	+++++ 3.0569	2.9733 2.9199	3.3862 3.0167	3.0723 2.9837	Ave		3.0647				4.7		30.0			
trans-1,2-Dichloroethene	1.2650 1.1127	1.3149 1.1094	1.0805 1.0787	1.2316 1.0839	1.1129 1.0228	Ave		1.1412				8.3		30.0			
2-Methylpentane	+++++ 2.4185	2.5035 2.3352	2.5437 2.1206	2.7553 2.2004	2.4621 1.8813	Ave		2.3578				11.0		30.0			
Methyl tert-butyl ether	+++++ 2.8392	+++++ 2.9900	3.3404 2.7108	3.5250 3.2633	3.0443 2.8597	Ave		3.0716				9.1		30.0			
1,1-Dichloroethane	2.3739 2.1636	2.3148 2.1579	2.2506 1.9833	2.2393 2.1309	2.2663 1.9926	Ave		2.1873				5.9		30.0			
Vinyl acetate	+++++ 1.9970	+++++ 2.1255	2.0167 1.9229	2.0967 2.4827	2.1832 2.0284	Ave		2.1066				8.2		30.0			
2-Butanone (MEK)	+++++ 0.3897	+++++ 0.4246	+++++ 0.3724	0.5480 0.4563	0.4510 0.3941	Ave		0.4337				13.7		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 0.9374	+++++ 0.9104	0.9291 0.8284	1.1090 0.8860	0.9352 0.7744	Ave		0.9137				10.7		30.0			
cis-1,2-Dichloroethene	1.1891 1.1095	1.2741 1.1525	1.1538 1.1082	1.2358 1.1630	1.2006 1.1202	Ave		1.1707				4.7		30.0			
Ethyl acetate	+++++ 1.6331	+++++ 1.8252	2.1388 1.5793	2.1299 2.0856	1.9072 1.7062	Ave		1.8757				12.0		30.0			
Chloroform	+++++ 2.6624	2.9016 2.7071	2.6080 2.5523	2.9004 2.7372	2.8073 2.5575	Ave		2.7149				4.9		30.0			
Tetrahydrofuran	+++++ 0.8518	+++++ 0.9241	1.1115 0.8162	1.1834 1.0130	1.0065 0.8465	Ave		0.9691				13.7		30.0			
1,1,1-Trichloroethane	3.2467 3.1872	3.2301 3.3068	3.3617 3.0737	3.4323 3.2384	3.3543 3.1054	Ave		3.2537				3.5		30.0			
1,2-Dichloroethane	0.4211 0.3546	0.3890 0.3370	0.3523 0.3375	0.4119 0.3666	0.3552 0.3568	Ave		0.3682				8.0		30.0			
1-Butanol	+++++ 0.0489	+++++ 0.0469	+++++ 0.0533	+++++ 0.0526	0.0495 0.0491	Ave		0.0501				4.9		30.0			
Cyclohexane	+++++ 0.1125	+++++ 0.1007	+++++ 0.0965	0.1590 0.0927	0.1028 +++++	Ave		0.1107				22.2		30.0			
Benzene	+++++ 0.6310	+++++ 0.5792	0.6968 0.5457	0.7392 0.5260	0.6307 0.4340	Ave		0.5978				16.4		30.0			
Carbon tetrachloride	0.5153 0.6189	0.6412 0.5919	0.6224 0.5932	0.7213 0.6154	0.5752 0.5844	Ave		0.6079				8.7		30.0			
2,3-Dimethylpentane	+++++ 0.1528	+++++ 0.1453	0.1743 0.1374	0.1949 0.1388	0.1511 0.1229	Ave		0.1522				14.9		30.0			
Thiophene	+++++ 0.3573	+++++ 0.3380	0.3649 0.3371	0.4126 0.3432	0.3499 0.3238	Ave		0.3534				7.7		30.0			
2,2,4-Trimethylpentane	1.1240 1.0488	1.1852 0.9468	1.1930 0.8973	1.3542 0.9114	1.0576 0.7730	Ave		1.0491				16.4		30.0			
Heptane	+++++ 0.2349	0.2485 0.2152	0.2539 0.2089	0.3011 0.2139	0.2349 0.1848	Ave		0.2329				14.3		30.0			
1,2-Dichloropropane	+++++ 0.2119	+++++ 0.1999	0.2500 0.1962	0.2512 0.2004	0.2139 0.1649	Ave		0.2110				13.6		30.0			
Trichloroethene	0.3382 0.3222	0.3638 0.3116	0.3609 0.3140	0.4259 0.3047	0.3067 0.2873	Ave		0.3335				12.2		30.0			
Dibromomethane	+++++ 0.2511	0.2698 0.2372	0.2606 0.2360	0.2954 0.2423	0.2415 0.2263	Ave		0.2511				8.5		30.0			
Bromodichloromethane	0.4575 0.5231	0.4767 0.5033	0.5137 0.5086	0.5657 0.5254	0.4932 0.4818	Ave		0.5049				6.0		30.0			
1,4-Dioxane	+++++ 0.0714	0.0999 0.0710	0.0999 0.0719	0.1205 +++++	0.0739 +++++	Ave		0.0869				22.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.1995	+++++ 0.2127	0.2560 0.1926	0.2863 0.2419	0.2075 0.2006	Ave		0.2246				14.8		30.0			
Methylcyclohexane	+++++ 0.4249	+++++ 0.3943	0.4945 0.3820	0.5539 0.3758	0.4199 0.3281	Ave		0.4217				17.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3026	+++++ 0.2907	0.4883 0.3110	0.5169 0.3358	0.2737 0.3154	Lin1	0.0134	0.3156							0.9960		0.9900
cis-1,3-Dichloropropene	0.3682 0.3595	0.3495 0.3486	0.3349 0.3487	0.3955 0.3538	0.3522 0.3199	Ave		0.3531				5.6		30.0			
trans-1,3-Dichloropropene	0.3312 0.3519	0.3545 0.3738	0.3745 0.3646	0.4058 0.4097	0.3560 0.3699	Ave		0.3692				6.5		30.0			
Toluene	+++++ 0.7593	+++++ 0.7697	0.8425 0.7677	0.8829 0.7954	0.7939 0.6805	Ave		0.7865				7.6		30.0			
1,1,2-Trichloroethane	+++++ 0.2191	0.2498 0.2190	0.2530 0.2149	0.2777 0.2253	0.2241 0.1904	Ave		0.2304				11.2		30.0			
2-Hexanone	+++++ 0.1577	+++++ 0.1617	0.2640 0.1845	0.2542 0.1907	0.1380 0.1791	Ave		0.1912				23.6		30.0			
C8 Range	+++++ 2.4253	+++++ 2.3215	+++++ 2.2275	2.9746 2.3140	2.4706 1.8714	Ave		2.3721				13.9		30.0			
Octane	+++++ 0.2894	+++++ 0.2803	0.3236 0.2788	0.3317 0.2772	0.2768 0.2307	Ave		0.2861				10.9		30.0			
Dibromochloromethane	+++++ 0.5442	+++++ 0.5760	0.4744 0.5963	0.5556 0.6338	0.4965 0.5890	Ave		0.5582				9.4		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4255	0.3991 0.4395	0.4136 0.4341	0.4693 0.4508	0.4109 0.4058	Ave		0.4276				5.4		30.0			
Tetrachloroethene	0.4068 0.3392	0.3956 0.3359	0.4011 0.3408	0.4484 0.3360	0.3409 0.2967	Ave		0.3641				12.7		30.0			
Chlorobenzene	0.6645 0.6535	0.6936 0.6537	0.7479 0.6179	0.7886 0.5928	0.6738 0.4770	Ave		0.6563				13.0		30.0			
Ethylbenzene	0.8402 1.0051	1.0080 1.0536	1.1912 1.0100	1.2765 1.0654	1.0852 0.8794	Ave		1.0415				12.4		30.0			
m-Xylene & p-Xylene	0.6815 0.8100	0.7950 0.8217	0.9452 0.7810	1.0339 0.7975	0.8647 0.6204	Ave		0.8151				14.5		30.0			
Nonane	+++++ 0.5032	+++++ 0.4983	0.5686 0.4592	0.6510 0.4582	0.5232 0.3392	Ave		0.5001				18.1		30.0			
Bromoform	+++++ 0.5085	+++++ 0.5610	0.3304 0.5690	0.4962 0.6004	0.4501 0.5380	Ave		0.5067				16.8		30.0			
Styrene	+++++ 0.5462	0.4709 0.5838	0.5375 0.5567	0.6040 0.5368	0.5521 0.4091	Ave		0.5330				11.1		30.0			
o-Xylene	+++++ 0.8485	0.8522 0.8627	0.9942 0.8265	1.1327 0.8774	0.8543 0.7006	Ave		0.8833				13.5		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	+++++ 0.4963	0.5056 0.5037	0.6032 0.4562	0.6752 0.5047	0.5106 0.3916	Ave		0.5164				15.7		30.0			
1,2,3-Trichloropropane	+++++ 0.1880	0.1793 0.1914	0.2451 0.1813	0.2510 0.2063	0.1869 0.1742	Ave		0.2004				14.2		30.0			
Isopropylbenzene	+++++ 1.1424	1.1489 1.1531	1.4301 1.1031	1.5486 1.1727	1.1904 0.9316	Ave		1.2023				15.1		30.0			
Propylbenzene	+++++ 0.3192	0.3078 0.3248	0.3918 0.3120	0.4360 0.3384	0.3275 0.2732	Ave		0.3368				14.4		30.0			
2-Chlorotoluene	+++++ 0.3085	0.3304 0.3211	0.3677 0.3075	0.4003 0.3131	0.3193 0.2556	Ave		0.3248				12.5		30.0			
4-Ethyltoluene	+++++ 1.1386	1.0322 1.1476	1.4445 1.0556	1.5441 1.1738	1.1629 0.9122	Ave		1.1790				16.8		30.0			
1,3,5-Trimethylbenzene	+++++ 0.4754	0.4531 0.4735	0.6248 0.4372	0.6438 0.4877	0.4768 0.3750	Ave		0.4941				17.5		30.0			
Alpha Methyl Styrene	+++++ 0.4388	+++++ 0.4763	0.4602 0.4592	0.4907 0.5132	0.4131 0.4074	Ave		0.4574				8.0		30.0			
Decane	+++++ 0.6236	+++++ 0.5860	0.7808 0.5067	0.8425 0.4961	0.6341 +++++	Ave		0.6385				20.5		30.0			
tert-Butylbenzene	+++++ 1.0494	0.9800 1.0542	1.3683 0.9527	1.4513 1.0006	1.1107 +++++	Ave		1.1209				16.6		30.0			
1,2,4-Trimethylbenzene	+++++ 0.9771	0.9848 0.9685	1.2880 0.8697	1.3889 0.9208	1.0019 +++++	Ave		1.0500				17.6		30.0			
sec-Butylbenzene	+++++ 1.4029	1.3802 1.3639	1.8266 1.2216	1.8797 1.2419	1.4469 +++++	Ave		1.4705				16.9		30.0			
1,3-Dichlorobenzene	0.7710 0.7298	0.8140 0.7257	0.8169 0.6853	0.9268 0.6737	0.7288 0.5213	Ave		0.7393				14.5		30.0			
Benzyl chloride	+++++ 0.7844	0.7383 0.8183	0.9556 0.7342	1.0616 0.8263	0.8076 0.6040	Ave		0.8145				16.2		30.0			
1,4-Dichlorobenzene	0.7965 0.7408	0.7504 0.7337	0.9087 0.6858	0.9369 0.6736	0.7235 0.5109	Ave		0.7461				16.1		30.0			
4-Isopropyltoluene	+++++ 1.1773	1.1515 1.2165	1.6289 1.0938	1.7351 1.1770	1.2536 +++++	Ave		1.3042				18.4		30.0			
1,2,3-Trimethylbenzene	+++++ 0.9811	+++++ 0.9846	1.2586 0.8838	1.4320 0.9723	1.0266 +++++	Lin1	0.0412	0.9409							0.9970		0.9900
Indane	+++++ 0.9187	0.9329 0.8799	1.1766 0.7774	1.2657 0.7598	0.9496 +++++	Ave		0.9576				18.6		30.0			
1,2-Dichlorobenzene	0.6499 0.7033	0.6654 0.6836	0.9021 0.6185	0.9532 0.6075	0.7064 0.4645	Ave		0.6954				20.3		30.0			
Butylbenzene	+++++ 1.0645	1.1332 1.0540	1.5251 0.8949	1.6298 0.8865	1.1444 +++++	Ave		1.1666				23.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Indene	+++++ 0.7718	0.7253 0.7644	0.9552 0.6727	1.0373 0.6776	0.7856 +++++	Ave		0.7987				16.4		30.0			
Undecane	+++++ 0.5914	+++++ 0.5768	+++++ 0.4904	+++++ 0.4837	0.6478 0.3183	Ave		0.5181				22.4		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3184	+++++ 0.3409	0.4384 0.3369	0.4121 0.3866	0.3026 0.2984	Ave		0.3543				14.7		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.0403	1.2434 1.0774	1.6599 1.0077	1.6673 1.0972	1.0675 +++++	Ave		1.2326				22.3		30.0			
Dodecane	+++++ 0.4288	+++++ 0.4218	+++++ 0.4562	+++++ 0.4106	0.4439 0.2872	Ave		0.4081				15.0		30.0			
1,2,4-Trichlorobenzene	+++++ 0.5059	0.7985 0.5307	0.8314 0.5249	0.7491 0.6053	0.5245 0.4982	Ave		0.6187				21.9		30.0			
Naphthalene	+++++ 1.0385	1.6511 1.0573	1.9391 1.0070	1.6431 1.1570	1.0178 0.9614	Ave		1.2747				28.7		30.0			
Hexachlorobutadiene	0.5915 0.5364	0.6968 0.5726	0.5389 0.5529	0.8227 0.6028	0.5767 0.5140	Ave		0.6005				15.5		30.0			
1,2,3-Trichlorobenzene	+++++ 0.4280	0.8258 0.4458	0.8379 0.4623	0.7488 0.5180	0.4332 0.4411	Ave		0.5712				31.2	*	30.0			
2-Methylnaphthalene	+++++ 0.3298	+++++ 0.4400	+++++ 0.4083	+++++ 0.6405	0.3649 0.5005	Ave		0.4473				25.0		50.0			
1-Methylnaphthalene	+++++ 0.3256	+++++ 0.4223	+++++ 0.4106	+++++ 0.5902	0.3712 0.4410	Ave		0.4268				21.1		50.0			
4-Bromofluorobenzene (Surr)	0.7070 0.7097	0.7171 0.7014	0.7010 0.6691	0.7145 0.6781	0.7169 0.6342	Ave		0.6949				3.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 246667	+++++ 505376	20155 965849	43674 1710736	98658 3413750	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 158639	+++++ 269532	+++++ 463444	+++++ 770844	+++++ 1470598	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 483918	+++++ 1004548	38252 1949658	82655 3306512	189623 6628673	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 35516	+++++ 69360	+++++ 128137	6860 222416	16334 404402	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 288577	+++++ 586746	22040 1140759	45952 1793395	109276 3536586	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	3255 122540	5569 249592	10115 473502	21311 845319	49646 1597085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 180868	8400 361983	15528 678714	30690 1250581	70814 2312485	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 92822	3760 190360	7695 358899	15170 660584	37768 1240321	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 115754	+++++ 236529	9506 460553	19987 793864	46317 1593069	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 56216	+++++ 116908	4628 218525	9559 401160	23095 775358	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	+++++ 178614	+++++ 405411	+++++ 761701	34755 1504209	75469 2765105	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 101538	3350 211252	8701 417570	17369 737450	39681 1469342	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 114036	+++++ 226978	10969 421997	20372 822472	43427 1509461	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 390456	15499 793533	29279 1569298	64158 2830484	153029 5652401	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 15503	+++++ 33184	+++++ 68152	+++++ 141090	6947 236667	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 27290	+++++ 61225	+++++ 109495	+++++ 243930	10348 380086	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 91668	+++++ 189815	+++++ 343813	18945 768726	45565 1191830	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 18090	+++++ 33318	+++++ 63374	+++++ 120009	7179 211194	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	+++++ 256655	+++++ 571687	+++++ 1119666	53127 2151424	105605 3856427	+++++ 3.00	+++++ 6.00	+++++ 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 65045	+++++ 138967	5869 263626	11079 551656	30603 874287	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	2843 135168	6820 272518	10955 549765	23053 961786	51669 1887057	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 63395	+++++ 140721	6165 267903	10005 555382	26372 913756	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 178772	+++++ 404096	+++++ 864303	40836 1599691	74946 2988690	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	6606 306378	13044 625843	24086 1197286	50455 2112949	121174 3894500	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 146176	+++++ 268413	+++++ 486021	+++++ 849405	77107 1554645	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
3-Chloropropene	CBM	Ave	+++++ 131925	+++++ 264084	11032 509026	22705 1009854	53903 1801075	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 379039	+++++ 762533	28845 1499860	62846 2725404	148089 5213697	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	3184 135666	6348 276739	10482 554110	22858 979238	53641 1787324	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 294862	12086 582509	24678 1089314	51137 1987860	118675 3287427	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 346158	+++++ 745830	32407 1392455	65422 2948147	146739 4997147	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	5975 263784	11175 538283	21834 1018782	41560 1925083	109237 3481885	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 243472	+++++ 530203	19565 987752	38914 2242940	105231 3544424	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 47510	+++++ 105914	+++++ 191292	10171 412248	21738 688610	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 114287	+++++ 227104	9014 425515	20583 800390	45077 1353149	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	2993 135269	6151 287485	11194 569244	22936 1050648	57870 1957380	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 199113	+++++ 455292	20750 811274	39531 1884143	91929 2981386	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 324608	14008 675276	25301 1311051	53830 2472840	135314 4468981	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 103852	+++++ 230500	10783 419284	21964 915126	48513 1479241	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	8172 388592	15594 824853	32613 1578895	63703 2925648	161683 5426403	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	5677 226363	9325 477830	16034 926487	33979 1813560	95386 3322146	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 31242	+++++ 66485	+++++ 146442	+++++ 260359	13289 457330	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 71834	+++++ 142693	+++++ 265054	13114 458824	27598 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
Benzene	DFBZ	Ave	+++++ 402752	+++++ 821203	31709 1498256	60976 2602460	169359 4041029	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	6946 395039	15371 839197	28324 1628520	59505 3044571	154448 5441196	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 97512	+++++ 206018	7931 377248	16080 686659	40576 1144193	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 228095	+++++ 479200	16607 925464	34034 1698039	93958 3015307	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	15152 669441	28411 1342251	54294 2463502	111708 4508895	283998 7197999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 149939	5956 305057	11553 573413	24842 1058004	63065 1720461	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 135272	+++++ 283363	11379 538612	20718 991233	57441 1535077	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	4559 205666	8720 441732	16423 862077	35132 1507633	82347 2675360	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 160258	6468 336220	11862 648015	24369 1198582	64841 2107056	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	6167 333891	11428 713523	23380 1396397	46669 2599570	132443 4486346	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 45605	2396 100718	4545 197428	9942 +++++	19834 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Methyl methacrylate	DFBZ	Ave	+++++ 127335	+++++ 301502	11652 528755	23616 1196941	55721 1868074	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 271241	+++++ 558969	22506 1048798	45690 1859316	112759 3054841	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Lin1	+++++ 193142	+++++ 412149	22222 853850	42641 1661149	73496 2937214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	4963 229501	8379 494209	15241 957323	32629 1750155	94583 2978739	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	3925 209941	7827 473163	14929 899946	30260 1765828	86203 3066168	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 453010	+++++ 974154	33590 1894853	65839 3427935	192263 5640299	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	+++++ 130717	5515 277228	10086 530558	20707 971053	54263 1577758	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 94111	+++++ 204660	10527 455335	18953 821892	33428 1484205	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 1446999	+++++ 2938358	+++++ 5498095	221820 9972663	598323 15510497	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 172691	+++++ 354754	12903 688088	24732 1194484	67037 1912459	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 324681	+++++ 729086	18912 1471952	41432 2731534	120240 4881466	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 253874	8811 556280	16489 1071436	34998 1942792	99501 3363399	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	4821 202403	8734 425087	15990 841268	33441 1448244	82558 2458714	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7876 389910	15314 827346	29816 1525179	58808 2554935	163168 3953266	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	9958 599681	22256 1333571	47492 2492968	95193 4591648	262802 7288603	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16155 966570	35105 2080126	75367 3855580	154203 6873741	418810 10283215	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	+++++ 300204	+++++ 630721	22670 1133522	48543 1974700	126710 2811123	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 303372	+++++ 710116	13171 1404549	37003 2587360	109007 4458642	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 325846	10396 738865	21427 1374089	45045 2313599	133694 3390433	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 506239	18816 1091980	39635 2040159	84470 3781529	206900 5806893	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 296089	11164 637564	24048 1126153	50351 2175269	123660 3245579	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 112173	3959 242207	9770 447403	18714 889000	45252 1444098	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 681562	25366 1459434	57014 2722769	115484 5054165	288284 7721441	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 190451	6796 411131	15620 770068	32515 1458598	79322 2263933	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 184067	7294 406356	14661 759079	29848 1349589	77331 2118839	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	+++++ 679340	22791 1452472	57587 2605654	115144 5058724	281615 7560446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 283628	10004 599259	24908 1079158	48012 2101833	115462 3107751	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 261798	+++++ 602874	18349 1133355	36594 2211925	100044 3376616	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 372039	+++++ 741699	31130 1250578	62826 2137953	153552 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
tert-Butylbenzene	CBZd 5	Ave	+++++ 626116	21637 1334314	54550 2351607	108229 4312361	268979 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,4-Trimethylbenzene	CBZd 5	Ave	+++++ 582954	21744 1225884	51351 2146687	103573 3968365	242624 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 836987	30473 1726234	72823 3015388	140174 5352154	350396 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	9138 435441	17973 918520	32567 1691446	69116 2903324	176506 4320607	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 468018	16301 1035763	38098 1812134	79164 3561090	195591 5005951	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	9440 441981	16568 928649	36226 1692663	69868 2902889	175218 4234206	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	+++++ 702381	25424 1539685	64942 2699782	129393 5072526	303580 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Lin1	+++++ 585330	+++++ 1246166	50176 2181596	106789 4190174	248613 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 548117	20597 1113701	46910 1918858	94383 3274469	229968 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2-Dichlorobenzene	CBZd 5	Ave	7703 419606	14692 865203	35966 1526639	71080 2618202	171061 3849848	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	+++++ 635099	25020 1334040	60804 2208828	121537 3820712	277154 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indene	CBZd 5	Ave	+++++ 460501	16014 967517	38081 1660484	77351 2920360	190258 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 352838	+++++ 730107	+++++ 1210490	+++++ 2084469	156878 2637759	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 189969	+++++ 431473	17478 831656	30729 1666153	73294 2473525	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 620680	27454 1363668	66175 2487349	124331 4728508	258532 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 255850	+++++ 533935	+++++ 1126091	+++++ 1769673	107502 2379982	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	+++++ 301840	17630 671652	33145 1295535	55860 2608671	127013 4129061	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	+++++ 619621	36456 1338267	77307 2485523	122533 4986554	246489 7968446	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd5	Ave	7011 320011	15384 724710	21486 1364630	61353 2597769	139670 4260397	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	+++++ 255330	18232 564307	33405 1141200	55841 2232436	104909 3656173	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 196801	+++++ 556936	+++++ 1007749	+++++ 2760596	88366 4148243	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 194294	+++++ 534510	+++++ 1013536	+++++ 2543638	89896 3655105	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1675889 1693688	1583394 1775500	1397416 1651663	1332067 1461274	1736106 1314099	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-32317/7	GH05ICLVL01.D
Level 2	IC 140-32317/8	GH05ICLVL02.D
Level 3	IC 140-32317/9	GH05ICLVL03.D
Level 4	IC 140-32317/10	GH05ICLVL04.D
Level 5	IC 140-32317/11	GH05ICLVL05.D
Level 6	IC 140-32317/12	GH05ICLVL06.D
Level 7	ICIS 140-32317/13	GH05ICLVL07.D
Level 8	IC 140-32317/14	GH05ICLVL8.D
Level 9	IC 140-32317/2	GH05ICLVL9.D
Level 10	IC 140-32317/4	GH05ICLVL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	2.3						50			
Propene	+++++	+++++	+++++	+++++	+++++	30.7						50
Dichlorodifluoromethane	+++++	+++++	-0.1						50			
Chloromethane	+++++	+++++	+++++	29.0						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	1.2						50			
Vinyl chloride	23.8						50					
Butane	+++++	16.6						50				
1,3-Butadiene	+++++	2.5						50				
Bromomethane	+++++	+++++	3.1						50			
Chloroethane	+++++	+++++	2.8						50			
Ethanol	+++++	+++++	+++++	16.4						50		
Vinyl bromide	+++++	-16.7						50				
2-Methylbutane	+++++	+++++	19.5						50			
Trichlorofluoromethane	+++++	0.8						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	4.4						50	
Acetonitrile	+++++	+++++	+++++	+++++	-7.0						50	
Acetone	+++++	+++++	+++++	25.8						80		
Pentane	+++++	+++++	+++++	+++++	10.6						50	
Isopropyl alcohol	+++++	+++++	+++++	23.5						50		
Ethyl ether	+++++	+++++	6.3						50			
1,1-Dichloroethene	-0.9						50					
Acrylonitrile	+++++	+++++	13.9						50			
tert-Butyl alcohol	+++++	+++++	+++++	28.3						50		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1						50					
Methylene Chloride	+++++	+++++	+++++	+++++	44.3						80	
3-Chloropropene	+++++	+++++	3.9						50			
Carbon disulfide	+++++	+++++	-3.0						50			
trans-1,2-Dichloroethene	10.8						50					
2-Methylpentane	+++++	6.2						50				
Methyl tert-butyl ether	+++++	+++++	8.8						50			
1,1-Dichloroethane	8.5						50					
Vinyl acetate	+++++	+++++	-4.3						50			
2-Butanone (MEK)	+++++	+++++	+++++	26.4						50		
Hexane	+++++	+++++	1.7						50			
cis-1,2-Dichloroethene	1.6						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	+++++	14.0						50			
Chloroform	+++++	6.9						50				
Tetrahydrofuran	+++++	+++++	14.7						50			
1,1,1-Trichloroethane	-0.2						50					
1,2-Dichloroethane	14.4						50					
1-Butanol	+++++	+++++	+++++	+++++	-1.2						50	
Cyclohexane	+++++	+++++	+++++	43.6 +++++						50		
Benzene	+++++	+++++	16.5						50			
Carbon tetrachloride	-15.2						50					
2,3-Dimethylpentane	+++++	+++++	14.5						50			
Thiophene	+++++	+++++	3.3						50			
2,2,4-Trimethylpentane	7.1						50					
Heptane	+++++	6.7						50				
1,2-Dichloropropane	+++++	+++++	18.5						50			
Trichloroethene	1.4						50					
Dibromomethane	+++++	7.4						50				
Bromodichloromethane	-9.4						50					
1,4-Dioxane	+++++	15.0	+++++	+++++				50				
Methyl methacrylate	+++++	+++++	14.0						50			
Methylcyclohexane	+++++	+++++	17.3						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	1.8						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	4.3						50					
trans-1,3-Dichloropropene	-10.3						50					
Toluene	+++++	+++++	7.1						50			
1,1,2-Trichloroethane	+++++	8.4						50				
2-Hexanone	+++++	+++++	38.1						50			
Octane	+++++	+++++	13.1						50			
Dibromochloromethane	+++++	+++++	-15.0						50			
1,2-Dibromoethane (EDB)	+++++	-6.7						50				
Tetrachloroethene	11.7						50					
Chlorobenzene	1.2						50					
Ethylbenzene	-19.3						50					
m-Xylene & p-Xylene	-16.4						50					
Nonane	+++++	+++++	13.7						50			
Bromoform	+++++	+++++	-34.8						50			
Styrene	+++++	-11.7						50				
o-Xylene	+++++	-3.5						50				
1,1,2,2-Tetrachloroethane	+++++	-2.1						50				
1,2,3-Trichloropropane	+++++	-10.5						50				
Isopropylbenzene	+++++	-4.4						50				
Propylbenzene	+++++	-8.6						50				
2-Chlorotoluene	+++++	1.7						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	-12.5						50				
1,3,5-Trimethylbenzene	+++++	-8.3						50				
Alpha Methyl Styrene	+++++	+++++	0.6						50			
Decane	+++++	+++++	22.3	+++++					50			
tert-Butylbenzene	+++++	-12.6		+++++				50				
1,2,4-Trimethylbenzene	+++++	-6.2		+++++				50				
sec-Butylbenzene	+++++	-6.1		+++++				50				
1,3-Dichlorobenzene	4.3						50					
Benzyl chloride	+++++	-9.4						50				
1,4-Dichlorobenzene	6.8						50					
4-Isopropyltoluene	+++++	-11.7		+++++				50				
1,2,3-Trimethylbenzene	+++++	+++++	-21.0	+++++					50			
Indane	+++++	-2.6		+++++				50				
1,2-Dichlorobenzene	-6.5						50					
Butylbenzene	+++++	-2.9		+++++				50				
Indene	+++++	-9.2		+++++				50				
Undecane	+++++	+++++	+++++	+++++	25.0						50	
1,2-Dibromo-3-Chloropropane	+++++	+++++	23.7						50			
1,2,4,5-Tetramethylbenzene	+++++	0.9		+++++				50				
Dodecane	+++++	+++++	+++++	+++++	8.8						50	
1,2,4-Trichlorobenzene	+++++	29.1						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1 Analy Batch No.: 32317

SDG No.:

Instrument ID: MG GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/05/2019 15:09 Calibration End Date: 08/05/2019 23:41 Calibration ID: 2077

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	+++++	29.5						80				
Hexachlorobutadiene	-1.5						50					
1,2,3-Trichlorobenzene	+++++	44.6						50				
2-Methylnaphthalene	+++++	+++++	+++++	+++++	-18.4						80	
1-Methylnaphthalene	+++++	+++++	+++++	+++++	-13.0						80	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 05-Aug-2019 15:09:30 ALS Bottle#: 3 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-002
Misc. Info.: 245075
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:28 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	87	451712	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2473673	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2154864	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	93	1461274	4.00	3.90	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	1710736	8.00	7.46	
7 Propene	41	3.834	3.839	-0.005	95	770844	8.00	6.86	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	3306512	8.00	7.42	
9 Chloromethane	52	4.082	4.085	-0.003	97	222416	8.00	6.88	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	90	1793395	8.00	7.07	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	1374626	40.0	38.5	
12 Vinyl chloride	62	4.266	4.266	0.000	99	845319	8.00	7.17	
13 Butane	43	4.357	4.360	-0.003	82	1250581	8.00	7.42	
14 Butadiene	54	4.357	4.360	-0.003	72	660584	8.00	7.70	
15 Bromomethane	94	4.697	4.699	-0.002	97	793864	8.00	7.40	
16 Chloroethane	64	4.848	4.849	-0.001	92	401160	8.00	7.65	
17 Ethanol	31	4.961	4.983	-0.022	99	1504209	40.0	41.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	737450	8.00	7.84	
19 2-Methylbutane	43	5.220	5.219	0.001	89	822472	8.00	7.70	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	100	2830484	8.00	7.87	
21 Acrolein	56	5.463	5.472	-0.009	97	141090	8.00	9.05	
22 Acetonitrile	40	5.533	5.537	-0.004	97	243930	8.00	9.36	
23 Acetone	58	5.576	5.604	-0.028	100	768726	24.0	25.2	
24 Pentane	72	5.678	5.682	-0.004	94	120009	8.00	7.89	
25 Isopropyl alcohol	45	5.678	5.726	-0.048	93	2151424	24.0	24.7	
26 Ethyl ether	31	5.851	5.869	-0.018	93	551656	8.00	8.59	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	96	961786	8.00	7.47	
28 Acrylonitrile	53	6.293	6.304	-0.011	91	555382	8.00	8.81	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	2112949	8.00	7.50	
30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	1599691	8.00	8.26	
31 Methylene Chloride	84	6.546	6.545	0.001	95	849405	8.00	6.79	
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1009854	8.00	8.17	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.714	6.713	0.001	100	2725404	8.00	7.87	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	97	979238	8.00	7.60	
35 2-Methylpentane	43	7.393	7.393	0.000	91	1987860	8.00	7.47	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	2948147	8.00	8.50	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1925083	8.00	7.79	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	2242940	8.00	9.43	
40 Hexane	56	8.391	8.392	-0.001	90	800390	8.00	7.76	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	412248	8.00	8.42	
41 Isopropyl ether	45	8.552	8.569	-0.017	94	2770096	8.00	8.42	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	96	1050648	8.00	7.95	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	1884143	8.00	8.90	
44 Chloroform	83	9.162	9.157	0.005	97	2472840	8.00	8.07	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	3154212	8.00	8.48	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	915126	8.00	8.36	
47 1,1,1-Trichloroethane	97	10.203	10.198	0.004	95	2925648	8.00	7.96	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	99	1813560	8.00	7.96	
49 Cyclohexane	69	10.790	10.788	0.002	76	458824	8.00	6.70	
50 Benzene	78	10.790	10.788	0.002	98	2602460	8.00	7.04	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	3044571	8.00	8.10	
51 n-Butanol	31	10.758	10.822	-0.064	77	260359	8.00	8.41	
53 2,3-Dimethylpentane	71	10.904	10.900	0.004	88	686659	8.00	7.30	
54 Thiophene	84	11.065	11.057	0.008	97	1698039	8.00	7.77	
55 Isooctane	57	11.534	11.531	0.003	97	4508895	8.00	6.95	
56 n-Heptane	71	11.901	11.898	0.003	88	1058004	8.00	7.35	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	991233	8.00	7.60	
58 Trichloroethene	130	12.025	12.022	0.003	98	1507633	8.00	7.31	
59 Dibromomethane	93	12.111	12.108	0.003	92	1198582	8.00	7.72	
60 Dichlorobromomethane	83	12.252	12.249	0.003	99	2599570	8.00	8.33	
61 1,4-Dioxane	88	12.268	12.304	-0.036	89	355892	8.00	6.62	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1196941	8.00	8.62	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	1859316	8.00	7.13	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	1661149	8.00	8.47	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	1750155	8.00	8.02	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	1765828	8.00	8.88	
67 Toluene	91	14.047	14.046	0.001	94	3427935	8.00	8.09	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	98	971053	8.00	7.82	
69 2-Hexanone	58	14.500	14.514	-0.014	95	821892	8.00	7.98	
70 n-Octane	85	14.716	14.714	0.002	88	1194484	8.00	7.75	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	2731534	8.00	9.08	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1942792	8.00	8.43	
73 Tetrachloroethene	129	15.180	15.176	0.004	95	1448244	8.00	7.38	
75 Chlorobenzene	112	16.048	16.044	0.004	91	2554935	8.00	7.23	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	89	2603666	8.00	6.41	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	4591648	8.00	8.18	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	6873741	16.0	15.7	
80 n-Nonane	57	16.894	16.891	0.003	85	1974700	8.00	7.33	
81 Bromoform	173	16.943	16.943	0.000	94	2587360	8.00	9.48	
82 Styrene	104	16.954	16.951	0.003	97	2313599	8.00	8.06	
83 o-Xylene	91	17.013	17.012	0.001	98	3781529	8.00	7.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	2175269	8.00	7.82	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	96	889000	8.00	8.24	
86 Isopropylbenzene	105	17.595	17.592	0.003	97	5054165	8.00	7.80	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.000	99	1458598	8.00	8.04	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	1349589	8.00	7.71	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	5058724	8.00	7.96	
90 1,3,5-Trimethylbenzene	120	18.340	18.335	0.005	92	2101833	8.00	7.90	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	2211925	8.00	8.98	
93 n-Decane	57	18.609	18.606	0.003	95	2137953	8.00	6.22	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	4312361	8.00	7.14	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	3968365	8.00	7.02	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	5352154	8.00	6.76	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	2903324	8.00	7.29	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	3561090	8.00	8.12	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	2902889	8.00	7.22	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	96	5072526	8.00	7.22	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	4190174	8.00	8.22	
102 Butylcyclohexane	83	19.278	19.276	0.002	91	2648672	8.00	5.95	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	3274469	8.00	6.35	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	96	2618202	8.00	6.99	
105 n-Butylbenzene	91	19.596	19.596	0.000	94	3820712	8.00	6.08	
106 Indene	116	19.601	19.598	0.003	84	2920360	8.00	6.79	
107 Undecane	57	19.893	19.893	0.000	91	2084469	8.00	7.47	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	1666153	8.00	8.73	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	4728508	8.00	7.12	
110 Dodecane	57	20.944	20.944	0.000	94	1769673	8.00	8.05	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	2608671	8.00	7.83	
112 Naphthalene	128	21.300	21.297	0.003	98	4986554	8.00	7.26	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	2597769	8.00	8.03	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	2232436	8.00	7.25	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	2760596	8.00	11.5	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	2543638	8.00	11.1	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	9972663	8.00	7.80	
S 123 1,2-Dichloroethene, Total	1				0		16.0	15.5	
S 124 Xylenes, Total	100				0		24.0	23.6	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

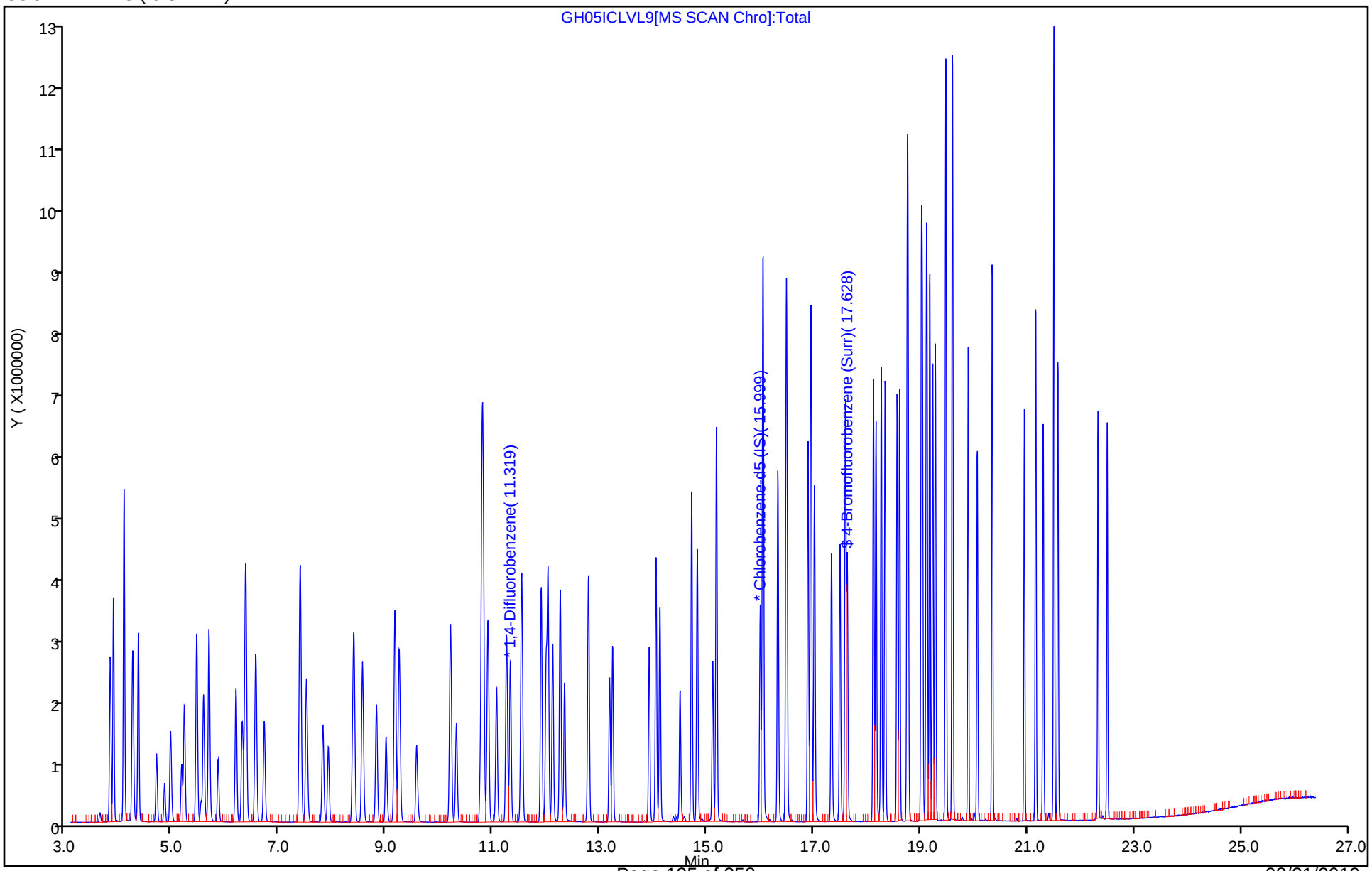
Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D

Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

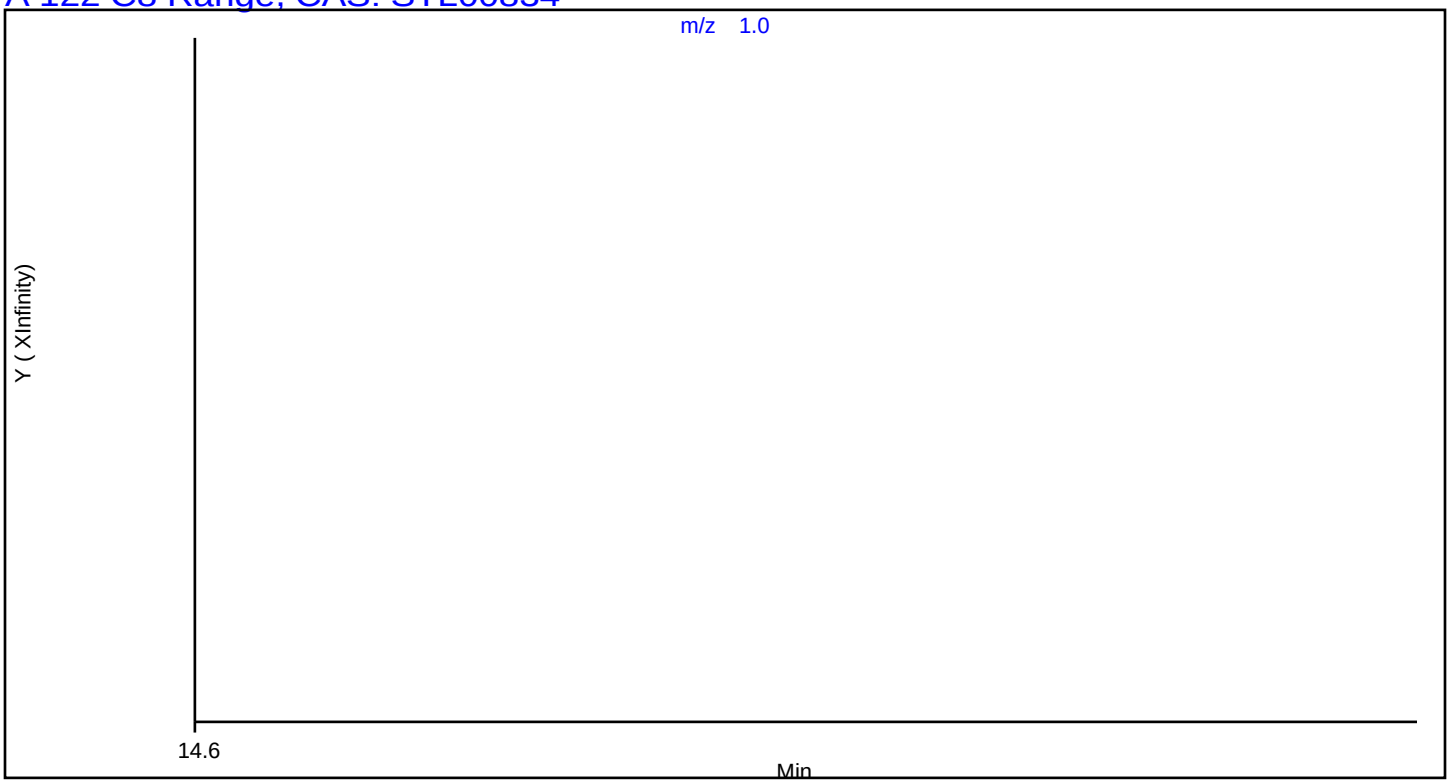


Report Date: 08-Aug-2019 11:04:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL9.D				
Injection Date:	05-Aug-2019 15:09:30	Instrument ID:	MG		
Lims ID:	IC L9				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D
Lims ID: IC L10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 05-Aug-2019 16:33:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-004
Misc. Info.: 245074
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:44 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 05-Aug-2019 17:21:25

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.151	9.147	0.004	84	436852	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.324	11.317	0.007	94	2327802	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2072045	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.633	17.625	0.008	94	1314099	4.00	3.65	
	6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	3413750	16.0	15.4	
	7 Propene	41	3.839	3.839	0.000	96	1470598	16.0	13.5	
	8 Dichlorodifluoromethane	85	3.893	3.891	0.002	100	6628673	16.0	15.4	
	9 Chloromethane	52	4.082	4.085	-0.003	96	404402	16.0	12.9	
	10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	96	3536586	16.0	14.4	
	11 Acetaldehyde	44	4.249	4.261	-0.012	94	2344274	80.0	68.0	
	12 Vinyl chloride	62	4.265	4.266	-0.001	100	1597085	16.0	14.0	
	13 Butane	43	4.357	4.360	-0.003	82	2312485	16.0	14.2	
	14 Butadiene	54	4.357	4.360	-0.003	72	1240321	16.0	14.9	
	15 Bromomethane	94	4.697	4.699	-0.002	97	1593069	16.0	15.3	
	16 Chloroethane	64	4.848	4.849	-0.001	92	775358	16.0	15.3	
	17 Ethanol	31	4.966	4.983	-0.017	99	2765105	80.0	78.7	
	18 Vinyl bromide	106	5.171	5.168	0.003	97	1469342	16.0	16.1	
	19 2-Methylbutane	43	5.220	5.219	0.001	87	1509461	16.0	14.6	
	20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	5652401	16.0	16.2	
	21 Acrolein	56	5.468	5.472	-0.004	97	236667	16.0	15.7	
	22 Acetonitrile	40	5.538	5.537	0.001	94	380086	16.0	15.1	
	23 Acetone	58	5.581	5.604	-0.023	100	1191830	48.0	40.3	
	24 Pentane	72	5.684	5.682	0.002	94	211194	16.0	14.4	
	25 Isopropyl alcohol	45	5.689	5.726	-0.037	96	3856427	48.0	45.7	
	26 Ethyl ether	31	5.851	5.869	-0.018	90	874287	16.0	14.1	
	27 1,1-Dichloroethene	96	6.190	6.185	0.005	97	1887057	16.0	15.2	
	28 Acrylonitrile	53	6.304	6.304	0.000	93	913756	16.0	15.0	
	29 1,1,2-Trichloro-1,2,2-trif	101	6.368	6.365	0.003	93	3894500	16.0	14.3	
	30 2-Methyl-2-propanol	59	6.304	6.376	-0.072	94	2988690	16.0	16.0	
	31 Methylene Chloride	84	6.552	6.545	0.007	93	1554645	16.0	12.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	95	1801075	16.0	15.1	
33 Carbon disulfide	76	6.719	6.713	0.006	99	5213697	16.0	15.6	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	98	1787324	16.0	14.3	
35 2-Methylpentane	43	7.393	7.393	0.000	91	3287427	16.0	12.8	
36 Methyl tert-butyl ether	73	7.501	7.541	-0.040	95	4997147	16.0	14.9	
37 1,1-Dichloroethane	63	7.814	7.808	0.006	100	3481885	16.0	14.6	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	3544424	16.0	15.4	
40 Hexane	56	8.396	8.392	0.004	88	1353149	16.0	13.6	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	688610	16.0	14.5	
41 Isopropyl ether	45	8.558	8.569	-0.011	92	4448498	16.0	14.0	
42 cis-1,2-Dichloroethene	96	8.817	8.812	0.005	95	1957380	16.0	15.3	
43 Ethyl acetate	43	8.995	9.002	-0.008	99	2981386	16.0	14.6	
44 Chloroform	83	9.167	9.157	0.010	97	4468981	16.0	15.1	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	5188982	16.0	14.4	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	87	1479241	16.0	14.0	
47 1,1,1-Trichloroethane	97	10.202	10.198	0.004	94	5426403	16.0	15.3	
48 1,2-Dichloroethane	62	10.316	10.305	0.011	99	3322146	16.0	15.5	
49 Cyclohexane	69	10.790	10.788	0.002	80	708818	16.0	11.0	
50 Benzene	78	10.796	10.788	0.008	98	4041029	16.0	11.6	
52 Carbon tetrachloride	117	10.817	10.811	0.006	98	5441196	16.0	15.4	
51 n-Butanol	31	10.752	10.822	-0.070	79	457330	16.0	15.7	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	1144193	16.0	12.9	
54 Thiophene	84	11.065	11.057	0.008	96	3015307	16.0	14.7	
55 Isooctane	57	11.534	11.531	0.003	97	7197999	16.0	11.8	
56 n-Heptane	71	11.901	11.898	0.003	87	1720461	16.0	12.7	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	88	1535077	16.0	12.5	
58 Trichloroethene	130	12.030	12.022	0.008	97	2675360	16.0	13.8	
59 Dibromomethane	93	12.117	12.108	0.009	90	2107056	16.0	14.4	
60 Dichlorobromomethane	83	12.257	12.249	0.008	99	4486346	16.0	15.3	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	602252	16.0	11.9	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	1868074	16.0	14.3	
63 Methylcyclohexane	83	12.785	12.781	0.004	94	3054841	16.0	12.4	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	95	2937214	16.0	15.9	
65 cis-1,3-Dichloropropene	75	13.238	13.234	0.004	96	2978739	16.0	14.5	
66 trans-1,3-Dichloropropene	75	13.923	13.919	0.004	98	3066168	16.0	16.0	
67 Toluene	91	14.053	14.046	0.007	94	5640299	16.0	13.8	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	96	1577758	16.0	13.2	
69 2-Hexanone	58	14.500	14.514	-0.014	96	1484205	16.0	15.0	
70 n-Octane	85	14.716	14.714	0.002	86	1912459	16.0	12.9	
71 Chlorodibromomethane	129	14.824	14.818	0.006	97	4881466	16.0	16.9	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	3363399	16.0	15.2	
73 Tetrachloroethene	129	15.180	15.176	0.004	94	2458714	16.0	13.0	
75 Chlorobenzene	112	16.048	16.044	0.004	92	3953266	16.0	11.6	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	3521924	16.0	9.02	
78 Ethylbenzene	91	16.334	16.329	0.005	98	7288603	16.0	13.5	
79 m-Xylene & p-Xylene	91	16.495	16.488	0.007	99	10283215	32.0	24.4	
80 n-Nonane	57	16.894	16.891	0.003	82	2811123	16.0	10.9	
81 Bromoform	173	16.948	16.943	0.005	97	4458642	16.0	17.0	
82 Styrene	104	16.959	16.951	0.008	96	3390433	16.0	12.3	
83 o-Xylene	91	17.018	17.012	0.006	98	5806893	16.0	12.7	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.002	95	3245579	16.0	12.1	
85 1,2,3-Trichloropropane	110	17.498	17.489	0.009	94	1444098	16.0	13.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	97	7721441	16.0	12.4	
87 N-Propylbenzene	120	18.124	18.118	0.006	99	2263933	16.0	13.0	
88 2-Chlorotoluene	126	18.172	18.166	0.006	96	2118839	16.0	12.6	
89 4-Ethyltoluene	105	18.269	18.264	0.005	97	7560446	16.0	12.4	
90 1,3,5-Trimethylbenzene	120	18.339	18.335	0.004	92	3107751	16.0	12.1	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	89	3376616	16.0	14.3	
93 n-Decane	57	18.609	18.606	0.003	96	2784766	16.0	8.42	
94 tert-Butylbenzene	119	18.755	18.750	0.005	90	6236972	16.0	10.7	
95 1,2,4-Trimethylbenzene	105	18.771	18.763	0.008	96	5565578	16.0	10.2	
96 sec-Butylbenzene	105	19.019	19.014	0.005	96	7461784	16.0	9.80	
97 1,3-Dichlorobenzene	146	19.040	19.034	0.006	98	4320607	16.0	11.3	
98 Benzyl chloride	91	19.111	19.106	0.005	98	5005951	16.0	11.9	
99 1,4-Dichlorobenzene	146	19.127	19.119	0.008	95	4234206	16.0	11.0	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	95	7166043	16.0	10.6	
101 1,2,3-Trimethylbenzene	105	19.229	19.225	0.004	98	5940721	16.0	12.1	
102 Butylcyclohexane	83	19.283	19.276	0.007	89	3436205	16.0	8.03	
103 2,3-Dihydroindene	117	19.477	19.470	0.007	93	4483614	16.0	9.04	
104 1,2-Dichlorobenzene	146	19.477	19.472	0.005	95	3849848	16.0	10.7	
105 n-Butylbenzene	91	19.601	19.596	0.005	97	5132732	16.0	8.49	
106 Indene	116	19.601	19.598	0.003	90	4001471	16.0	9.67	
107 Undecane	57	19.892	19.893	-0.001	91	2637759	16.0	9.83	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	99	2473525	16.0	13.5	
109 1,2,4,5-Tetramethylbenzene	119	20.345	20.341	0.004	96	7095902	16.0	11.1	
110 Dodecane	57	20.944	20.944	0.000	89	2379982	16.0	11.3	
111 1,2,4-Trichlorobenzene	180	21.160	21.155	0.005	94	4129061	16.0	12.9	
112 Naphthalene	128	21.300	21.297	0.003	98	7968446	16.0	12.1	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	4260397	16.0	13.7	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	95	3656173	16.0	12.4	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	4148243	16.0	17.9	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	3655105	16.0	16.5	
A 122 C8 Range	1	14.721	(14.657-14.764)		0	15510497	16.0	12.6	
S 123 1,2-Dichloroethene, Total	1				0		32.0	29.6	
S 124 Xylenes, Total	100				0		48.0	37.0	

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

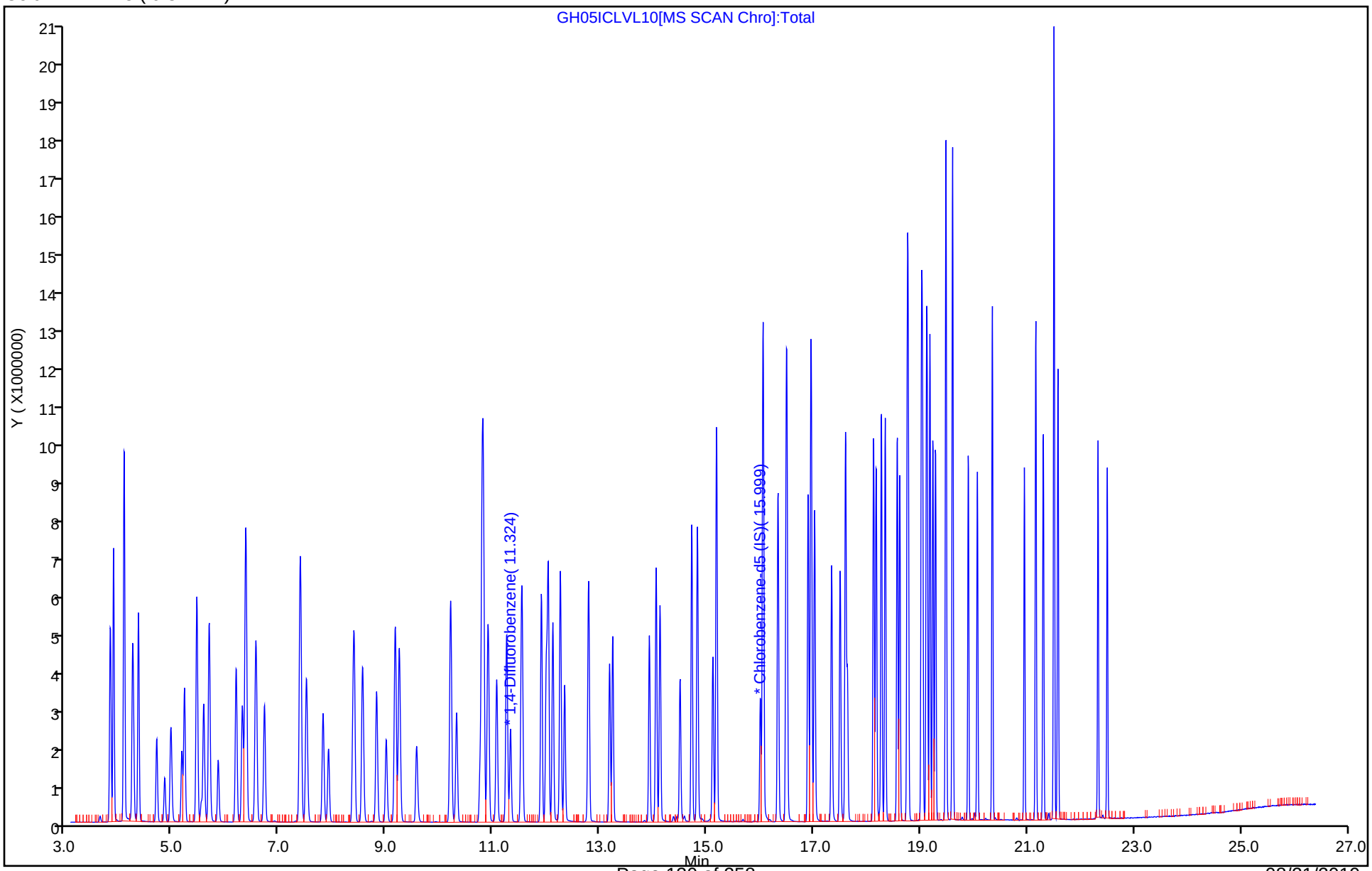
Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D

Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

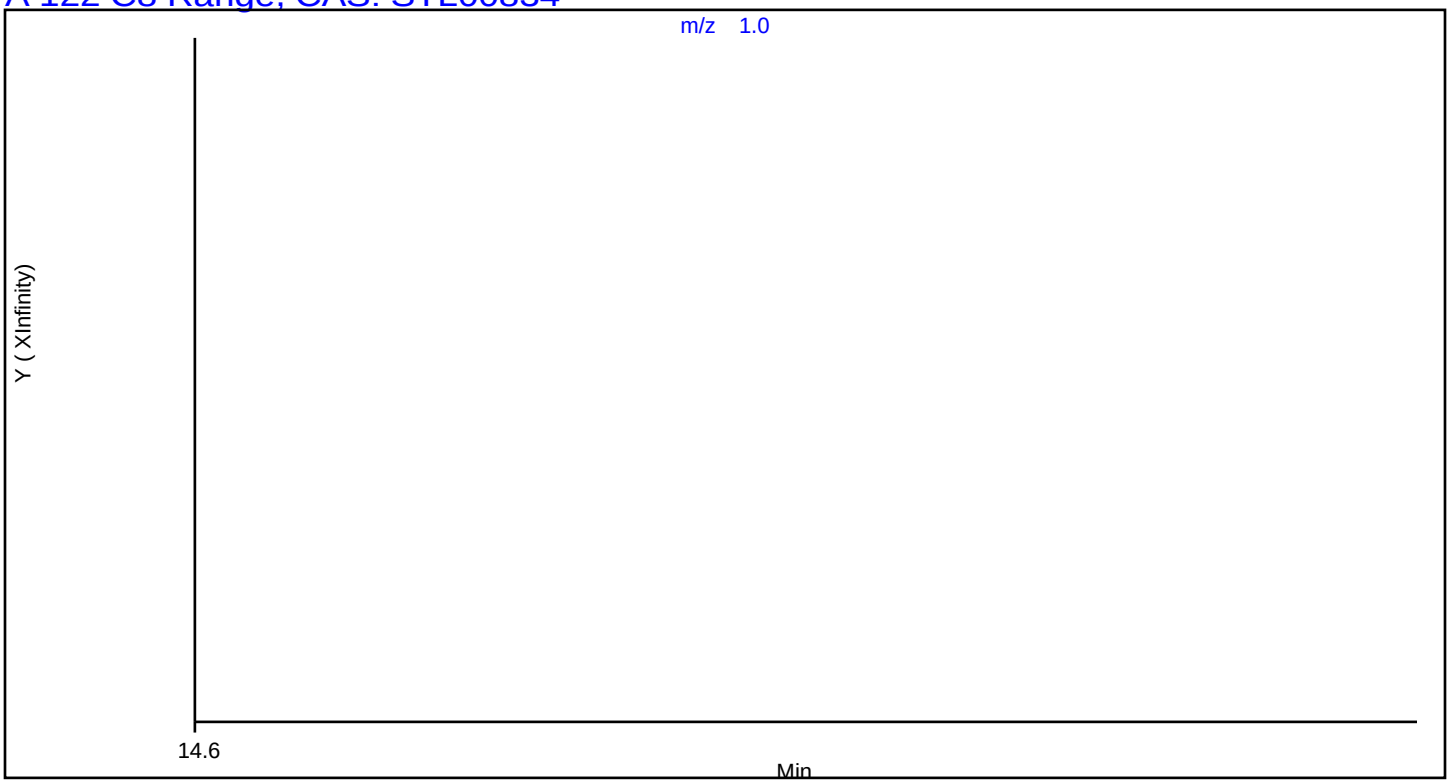


Report Date: 08-Aug-2019 11:04:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL10.D				
Injection Date:	05-Aug-2019 16:33:30	Instrument ID:	MG		
Lims ID:	IC L10				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Aug-2019 18:41:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-007
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:04:58 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:16:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.156	9.147	0.009	84	503396	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.324	11.317	0.007	95	2696093	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	2370413	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	90	1675889	4.00	4.07	
6 Chlorodifluoromethane	51	3.845	3.826	0.019	39	4639	0.0200	0.0181	
7 Propene	41	3.856	3.839	0.017	96	47744	0.0200	0.3810	
8 Dichlorodifluoromethane	85	3.910	3.891	0.019	98	10373	0.0200	0.0209	
9 Chloromethane	52	4.104	4.085	0.019	55	1125	0.0200	0.0312	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.109	4.091	0.018	91	5686	0.0200	0.0201	
11 Acetaldehyde	44	4.303	4.261	0.042	91	8557	0.1000	0.2153	
12 Vinyl chloride	62	4.282	4.266	0.016	86	3255	0.0200	0.0248	
13 Butane	43	4.379	4.360	0.019	77	4892	0.0200	0.0261	
14 Butadiene	54	4.384	4.360	0.024	75	2010	0.0200	0.0210	
15 Bromomethane	94	4.724	4.699	0.025	64	2647	0.0200	0.0221	
16 Chloroethane	64	4.870	4.849	0.021	58	1559	0.0200	0.0267	
17 Ethanol	31	5.085	4.983	0.102	75	1843	0.1000	0.0455	
18 Vinyl bromide	106	5.182	5.168	0.014	57	2676	0.0200	0.0255	
19 2-Methylbutane	43	5.231	5.219	0.012	77	3108	0.0200	0.0261	
20 Trichlorofluoromethane	101	5.473	5.449	0.024	97	8334	0.0200	0.0208	
21 Acrolein	56	5.484	5.472	0.012	26	49	0.0200	0.002819	
23 Acetone	58	5.668	5.604	0.064	96	3377	0.0600	0.0992	
24 Pentane	72	5.711	5.682	0.029	77	494	0.0200	0.0292	
25 Isopropyl alcohol	45	5.867	5.726	0.141	94	5865	0.0600	0.0603	
26 Ethyl ether	31	5.878	5.869	0.009	27	248	0.0200	0.003464	
27 1,1-Dichloroethene	96	6.201	6.185	0.016	96	2843	0.0200	0.0198	
28 Acrylonitrile	53	6.358	6.304	0.054	64	1473	0.0200	0.0210	
29 1,1,2-Trichloro-1,2,2-trif	101	6.385	6.365	0.020	95	6606	0.0200	0.0210	
30 2-Methyl-2-propanol	59	6.568	6.376	0.192	42	3751	0.0200	0.0174	
31 Methylene Chloride	84	6.557	6.545	0.012	93	28622	0.0200	0.2052	
32 3-Chloro-1-propene	39	6.579	6.562	0.017	30	3937	0.0200	0.0286	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.719	6.713	0.006	78	8449	0.0200	0.0219	
34 trans-1,2-Dichloroethene	96	7.388	7.375	0.013	83	3184	0.0200	0.0222	
35 2-Methylpentane	43	7.420	7.393	0.027	84	6353	0.0200	0.0214	
36 Methyl tert-butyl ether	73	7.652	7.541	0.111	62	5429	0.0200	0.0140	
37 1,1-Dichloroethane	63	7.825	7.808	0.017	97	5975	0.0200	0.0217	
38 Vinyl acetate	43	7.965	7.921	0.044	93	3225	0.0200	0.0122	
40 Hexane	56	8.407	8.392	0.015	84	2589	0.0200	0.0225	
39 2-Butanone (MEK)	72	8.472	8.393	0.079	50	917	0.0200	0.0168	
42 cis-1,2-Dichloroethene	96	8.833	8.812	0.021	84	2993	0.0200	0.0203	
43 Ethyl acetate	43	8.952	9.002	-0.050	1	203	0.0200	0.000860	
44 Chloroform	83	9.167	9.157	0.010	28	7588	0.0200	0.0222	
45 Tert-butyl ethyl ether	59	9.351	9.270	0.081	85	4998	0.0200	0.0121	
46 Tetrahydrofuran	42	9.701	9.605	0.096	50	2156	0.0200	0.0177	
47 1,1,1-Trichloroethane	97	10.213	10.198	0.015	93	8172	0.0200	0.0200	
48 1,2-Dichloroethane	62	10.310	10.305	0.005	77	5677	0.0200	0.0229	
49 Cyclohexane	69	10.807	10.788	0.018	65	2027	0.0200	0.0272	
50 Benzene	78	10.801	10.788	0.013	94	9905	0.0200	0.0246	
52 Carbon tetrachloride	117	10.828	10.811	0.017	76	6946	0.0200	0.0170	
51 n-Butanol	31	10.925	10.822	0.103	70	1648	0.0200	0.0488	
53 2,3-Dimethylpentane	71	10.914	10.900	0.014	85	2427	0.0200	0.0237	
54 Thiophene	84	11.055	11.057	-0.002	95	4301	0.0200	0.0181	
55 Isooctane	57	11.540	11.531	0.009	97	15152	0.0200	0.0214	
56 n-Heptane	71	11.912	11.898	0.014	81	3918	0.0200	0.0250	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	75	3728	0.0200	0.0262	
58 Trichloroethene	130	12.036	12.022	0.014	87	4559	0.0200	0.0203	
59 Dibromomethane	93	12.117	12.108	0.009	91	4130	0.0200	0.0244	
60 Dichlorobromomethane	83	12.262	12.249	0.013	95	6167	0.0200	0.0181	
61 1,4-Dioxane	88	12.397	12.304	0.093	1	636	0.0200	0.0109	
62 Methyl methacrylate	41	12.370	12.343	0.027	27	2350	0.0200	0.0155	
63 Methylcyclohexane	83	12.780	12.781	-0.001	91	6395	0.0200	0.0225	
64 4-Methyl-2-pentanone (MIBK	43	13.260	13.202	0.058	79	3756	0.0200	-0.0246	
65 cis-1,3-Dichloropropene	75	13.244	13.234	0.010	96	4963	0.0200	0.0209	
66 trans-1,3-Dichloropropene	75	13.929	13.919	0.010	95	3925	0.0200	0.0179	
67 Toluene	91	14.053	14.046	0.007	91	8854	0.0200	0.0190	
68 1,1,2-Trichloroethane	83	14.123	14.118	0.005	92	2306	0.0200	0.0169	
69 2-Hexanone	58	14.554	14.514	0.040	90	1676	0.0200	0.0148	
70 n-Octane	85	14.716	14.714	0.002	85	3469	0.0200	0.0205	
71 Chlorodibromomethane	129	14.818	14.818	0.000	96	5178	0.0200	0.0157	
72 Ethylene Dibromide	107	15.115	15.107	0.008	98	4351	0.0200	0.0172	
73 Tetrachloroethene	129	15.180	15.176	0.004	90	4821	0.0200	0.0223	
75 Chlorobenzene	112	16.048	16.044	0.004	94	7876	0.0200	0.0202	
74 2,3-Dimethylheptane	43	16.059	16.052	0.007	86	8752	0.0200	0.0196	
78 Ethylbenzene	91	16.339	16.329	0.010	97	9958	0.0200	0.0161	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	98	16155	0.0400	0.0334	
80 n-Nonane	57	16.894	16.891	0.003	90	5240	0.0200	0.0177	
82 Styrene	104	16.954	16.951	0.003	94	3945	0.0200	0.0125	
83 o-Xylene	91	17.008	17.012	-0.004	96	7264	0.0200	0.0139	
84 1,1,2,2-Tetrachloroethane	83	17.342	17.334	0.008	91	4379	0.0200	0.0143	
85 1,2,3-Trichloropropane	110	17.482	17.489	-0.007	89	1821	0.0200	0.0153	
86 Isopropylbenzene	105	17.596	17.592	0.004	87	9713	0.0200	0.0136	
87 N-Propylbenzene	120	18.113	18.118	-0.005	99	3060	0.0200	0.0153	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	94	3403	0.0200	0.0177	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
89 4-Ethyltoluene	105	18.270	18.264	0.006	98	11438	0.0200	0.0164	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	91	4046	0.0200	0.0138	
92 Alpha Methyl Styrene	118	18.566	18.561	0.005	78	3169	0.0200	0.0117	
93 n-Decane	57	18.609	18.606	0.003	94	6429	0.0200	0.0170	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	9325	0.0200	0.0140	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	9370	0.0200	0.0151	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	13227	0.0200	0.0152	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	93	9138	0.0200	0.0209	
98 Benzyl chloride	91	19.111	19.106	0.005	96	7709	0.0200	0.0160	
99 1,4-Dichlorobenzene	146	19.122	19.119	0.003	93	9440	0.0200	0.0214	
100 4-Isopropyltoluene	119	19.175	19.172	0.003	93	9956	0.0200	0.0129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	96	9424	0.0200	-0.0269	
102 Butylcyclohexane	83	19.278	19.276	0.002	89	8516	0.0200	0.0174	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	92	10739	0.0200	0.0189	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	7703	0.0200	0.0187	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	9276	0.0200	0.0134	
106 Indene	116	19.601	19.598	0.003	83	7955	0.0200	0.0168	
107 Undecane	57	19.893	19.893	0.000	90	6993	0.0200	0.0228	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	78	2463	0.0200	0.0117	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	94	11610	0.0200	0.0159	
110 Dodecane	57	20.944	20.944	0.000	96	7087	0.0200	0.0293	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	11162	0.0200	0.0304	
112 Naphthalene	128	21.300	21.297	0.003	98	23386	0.0200	0.0310	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	86	7011	0.0200	0.0197	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	92	12351	0.0200	0.0365	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	22376	0.0200	0.0844	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	97	28876	0.0200	0.1142	
A 122 C8 Range	1	14.711	(14.668-14.754)		0	35633	0.0200	0.0253	
S 123 1,2-Dichloroethene, Total	1				0		0.0400	0.0425	
S 124 Xylenes, Total	100				0		0.0600	0.0473	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

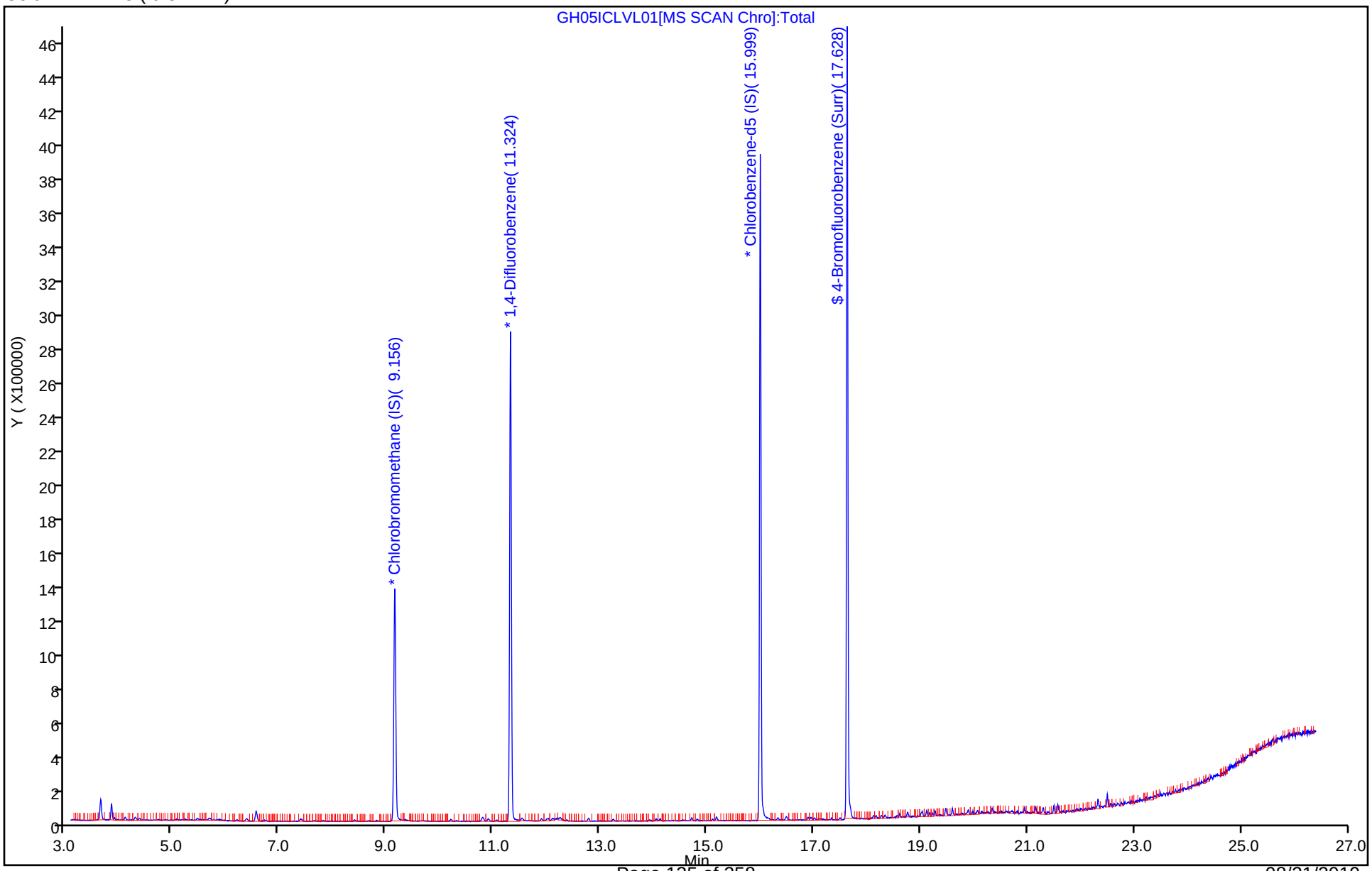
Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D

Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

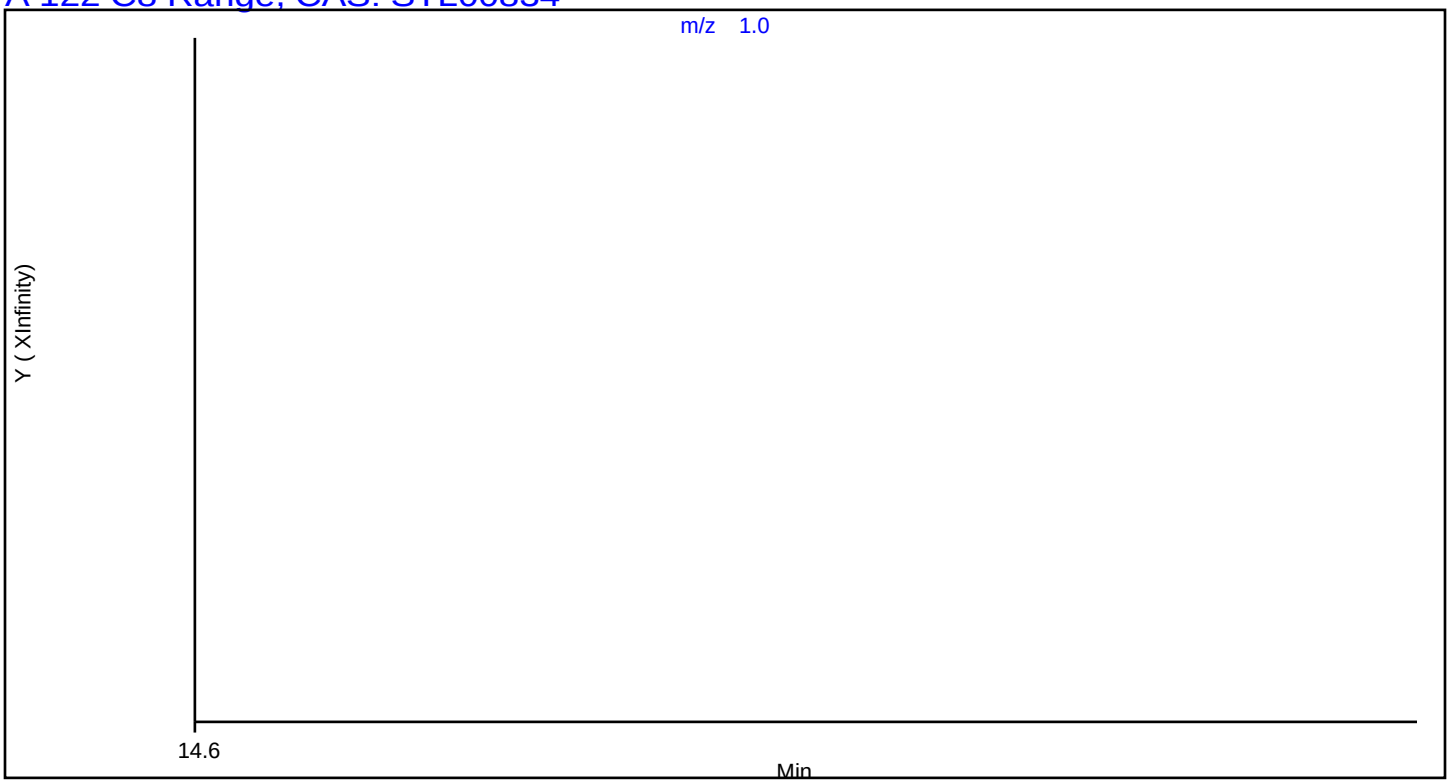


Report Date: 08-Aug-2019 11:05:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL01.D				
Injection Date:	05-Aug-2019 18:41:30	Instrument ID:	MG		
Lims ID:	IC L1				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Aug-2019 19:23:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-008
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:09 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 13:18:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	482772	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2397205	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2207916	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.628	17.625	0.003	91	1583394	4.00	4.13	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	44	11229	0.0400	0.0458	
7 Propene	41	3.839	3.839	0.000	97	54550	0.0400	0.4539	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	98	20271	0.0400	0.0426	
9 Chloromethane	52	4.088	4.085	0.003	60	2094	0.0400	0.0606	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	88	12377	0.0400	0.0457	
11 Acetaldehyde	44	4.271	4.261	0.010	94	16177	0.2000	0.4244	
12 Vinyl chloride	62	4.260	4.266	-0.006	49	5569	0.0400	0.0442	
13 Butane	43	4.357	4.360	-0.003	82	8400	0.0400	0.0467	
14 Butadiene	54	4.363	4.360	0.003	77	3760	0.0400	0.0410	
15 Bromomethane	94	4.691	4.699	-0.008	95	5860	0.0400	0.0511	
16 Chloroethane	64	4.842	4.849	-0.007	92	2583	0.0400	0.0461	
17 Ethanol	31	4.999	4.983	0.016	98	8546	0.2000	0.2201	
18 Vinyl bromide	106	5.166	5.168	-0.002	85	3350	0.0400	0.0333	
19 2-Methylbutane	43	5.220	5.219	0.001	88	6528	0.0400	0.0572	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	15499	0.0400	0.0403	
21 Acrolein	56	5.495	5.472	0.023	50	2102	0.0400	0.1261	
22 Acetonitrile	40	5.538	5.537	0.001	7	1959	0.0400	0.0703	
23 Acetone	58	5.635	5.604	0.031	98	5697	0.1200	0.1745	
24 Pentane	72	5.667	5.682	-0.015	88	716	0.0400	0.0441	
25 Isopropyl alcohol	45	5.765	5.726	0.039	86	5933	0.1200	0.0637	
26 Ethyl ether	31	5.899	5.869	0.030	84	3373	0.0400	0.0491	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	99	6820	0.0400	0.0496	
28 Acrylonitrile	53	6.298	6.304	-0.006	71	2836	0.0400	0.0421	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	13044	0.0400	0.0433	
30 2-Methyl-2-propanol	59	6.455	6.376	0.079	93	9562	0.0400	0.0462	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	31135	0.0400	0.2327	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	41	5777	0.0400	0.0437	
33 Carbon disulfide	76	6.719	6.713	0.006	99	15924	0.0400	0.0431	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	92	6348	0.0400	0.0461	
35 2-Methylpentane	43	7.393	7.393	0.000	90	12086	0.0400	0.0425	
36 Methyl tert-butyl ether	73	7.582	7.541	0.041	94	13012	0.0400	0.0351	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	99	11175	0.0400	0.0423	
38 Vinyl acetate	43	7.932	7.921	0.011	100	8908	0.0400	0.0350	
40 Hexane	56	8.391	8.392	-0.001	88	4994	0.0400	0.0453	
39 2-Butanone (MEK)	72	8.423	8.393	0.030	63	2836	0.0400	0.0542	
41 Isopropyl ether	45	8.606	8.569	0.037	97	13349	0.0400	0.0380	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	6151	0.0400	0.0435	
43 Ethyl acetate	43	9.038	9.002	0.036	99	8456	0.0400	0.0374	
44 Chloroform	83	9.151	9.157	-0.006	28	14008	0.0400	0.0428	
45 Tert-butyl ethyl ether	59	9.307	9.270	0.037	96	14864	0.0400	0.0374	
46 Tetrahydrofuran	42	9.652	9.605	0.047	90	4833	0.0400	0.0413	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	94	15594	0.0400	0.0397	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	98	9325	0.0400	0.0423	
49 Cyclohexane	69	10.790	10.788	0.002	73	2652	0.0400	0.0400	
50 Benzene	78	10.779	10.788	-0.009	98	18589	0.0400	0.0519	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	90	15371	0.0400	0.0422	
51 n-Butanol	31	10.925	10.822	0.103	69	337	0.0400	0.0112	
53 2,3-Dimethylpentane	71	10.903	10.900	0.003	87	5253	0.0400	0.0576	
54 Thiophene	84	11.054	11.057	-0.003	92	10109	0.0400	0.0477	
55 Isooctane	57	11.534	11.531	0.003	97	28411	0.0400	0.0452	
56 n-Heptane	71	11.896	11.898	-0.002	86	5956	0.0400	0.0427	
57 1,2-Dichloropropane	63	11.993	11.986	0.007	84	6335	0.0400	0.0501	
58 Trichloroethene	130	12.014	12.022	-0.008	94	8720	0.0400	0.0436	
59 Dibromomethane	93	12.101	12.108	-0.007	88	6468	0.0400	0.0430	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	92	11428	0.0400	0.0378	
61 1,4-Dioxane	88	12.349	12.304	0.045	61	2396	0.0400	0.0460	
62 Methyl methacrylate	41	12.354	12.343	0.011	94	3820	0.0400	0.0284	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	11761	0.0400	0.0465	
64 4-Methyl-2-pentanone (MIBK	43	13.222	13.202	0.020	90	9462	0.0400	0.007723	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	92	8379	0.0400	0.0396	
66 trans-1,3-Dichloropropene	75	13.912	13.919	-0.007	96	7827	0.0400	0.0384	
67 Toluene	91	14.053	14.046	0.007	95	16916	0.0400	0.0390	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	93	5515	0.0400	0.0434	
69 2-Hexanone	58	14.538	14.514	0.024	93	4506	0.0400	0.0427	
70 n-Octane	85	14.716	14.714	0.002	89	7087	0.0400	0.0449	
71 Chlorodibromomethane	129	14.813	14.818	-0.005	95	9163	0.0400	0.0297	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	94	8811	0.0400	0.0373	
73 Tetrachloroethene	129	15.174	15.176	-0.002	93	8734	0.0400	0.0435	
75 Chlorobenzene	112	16.042	16.044	-0.002	90	15314	0.0400	0.0423	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	87	17137	0.0400	0.0412	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	22256	0.0400	0.0387	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	35105	0.0800	0.0780	
80 n-Nonane	57	16.889	16.891	-0.002	87	11562	0.0400	0.0419	
81 Bromoform	173	16.943	16.943	0.000	72	7804	0.0400	0.0279	
82 Styrene	104	16.948	16.951	-0.003	92	10396	0.0400	0.0353	
83 o-Xylene	91	17.008	17.012	-0.004	98	18816	0.0400	0.0386	
84 1,1,2,2-Tetrachloroethane	83	17.337	17.334	0.003	95	11164	0.0400	0.0392	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	3959	0.0400	0.0358	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.595	17.592	0.003	94	25366	0.0400	0.0382	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	6796	0.0400	0.0366	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	7294	0.0400	0.0407	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	97	22791	0.0400	0.0350	
90 1,3,5-Trimethylbenzene	120	18.329	18.335	-0.006	92	10004	0.0400	0.0367	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	88	7865	0.0400	0.0312	
93 n-Decane	57	18.604	18.606	-0.002	93	14677	0.0400	0.0416	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	93	21637	0.0400	0.0350	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	93	21744	0.0400	0.0375	
96 sec-Butylbenzene	105	19.014	19.014	0.000	99	30473	0.0400	0.0375	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	97	17973	0.0400	0.0440	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	16301	0.0400	0.0363	
99 1,4-Dichlorobenzene	146	19.121	19.119	0.002	94	16568	0.0400	0.0402	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	96	25424	0.0400	0.0353	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	21872	0.0400	-0.001666	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	18898	0.0400	0.0414	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	20597	0.0400	0.0390	
104 1,2-Dichlorobenzene	146	19.467	19.472	-0.005	84	14692	0.0400	0.0383	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	25020	0.0400	0.0389	
106 Indene	116	19.596	19.598	-0.002	81	16014	0.0400	0.0363	
107 Undecane	57	19.893	19.893	0.000	95	15784	0.0400	0.0552	
108 1,2-Dibromo-3-Chloropropan	157	20.065	20.062	0.003	88	5408	0.0400	0.0277	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	95	27454	0.0400	0.0404	
110 Dodecane	57	20.944	20.944	0.000	95	15672	0.0400	0.0696	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	17630	0.0400	0.0516	
112 Naphthalene	128	21.300	21.297	0.003	98	36456	0.0400	0.0518	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	15384	0.0400	0.0464	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	18232	0.0400	0.0578	
115 2-Methylnaphthalene	142	22.325	22.325	-0.001	97	27146	0.0400	0.1099	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	32737	0.0400	0.1390	
A 122 C8 Range	1	14.705	(14.657-14.754)		0	60839	0.0400	0.0465	
S 123 1,2-Dichloroethene, Total	1				0		0.0800	0.0896	
S 124 Xylenes, Total	100				0		0.1200	0.1166	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

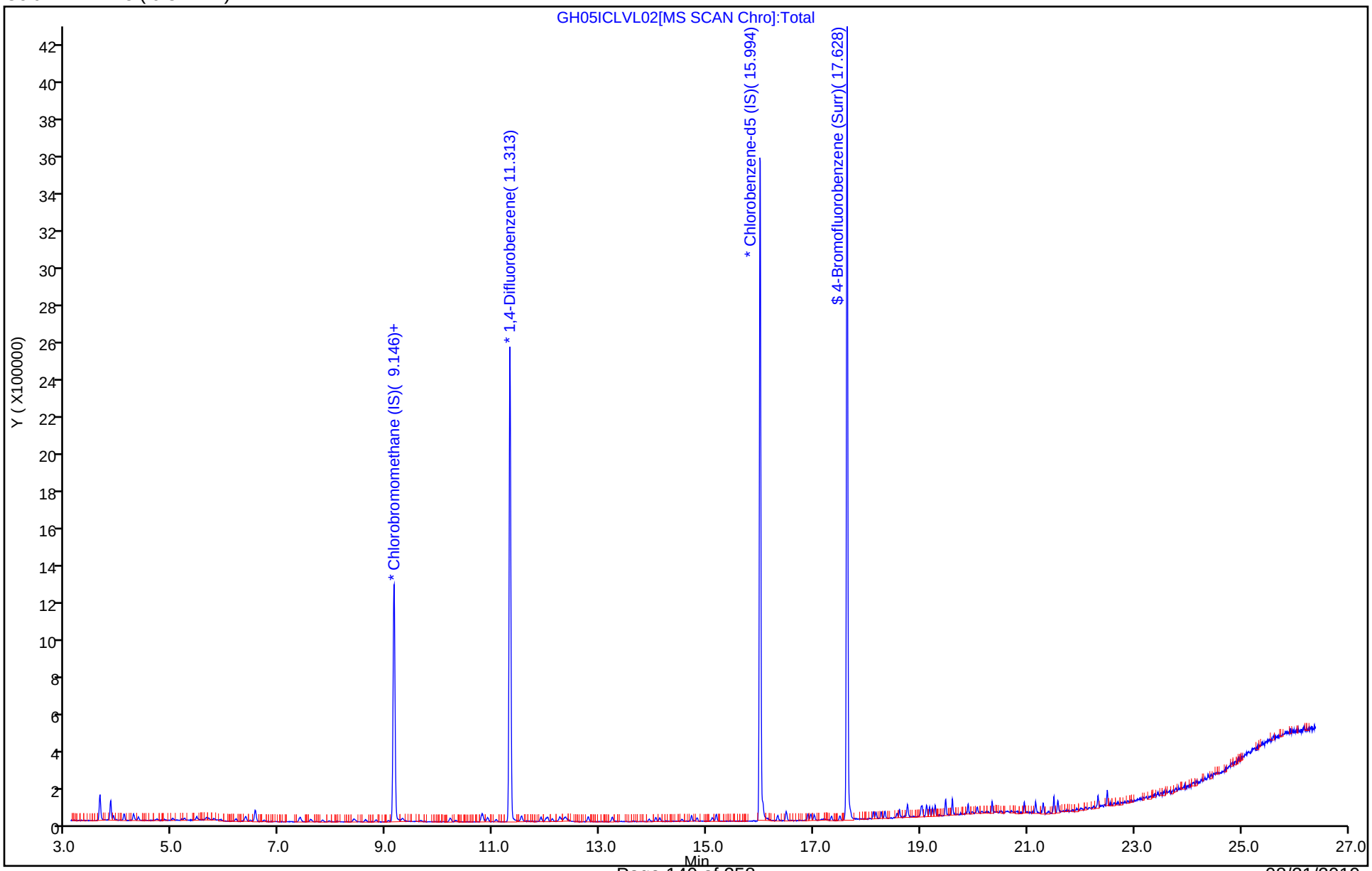
Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D

Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

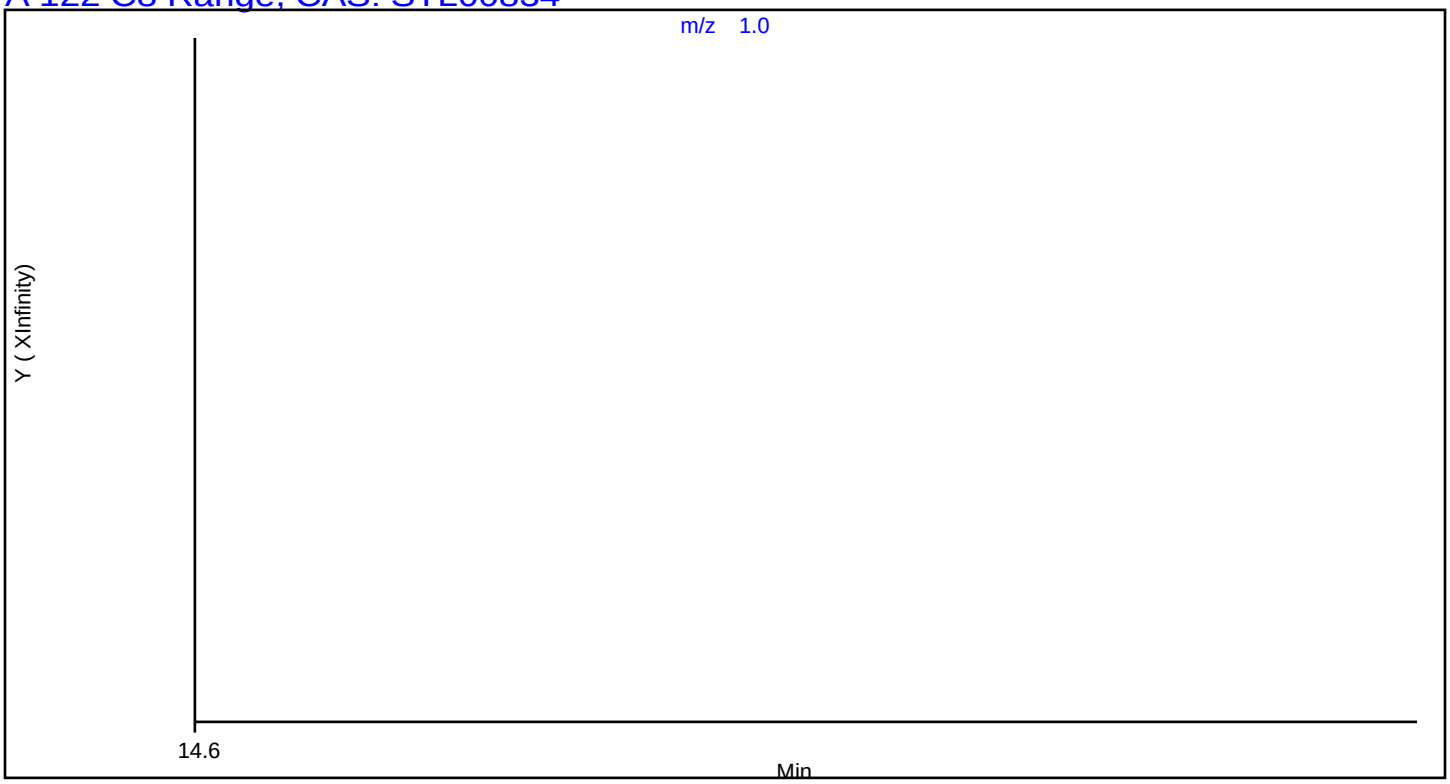


Report Date: 08-Aug-2019 11:05:11 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL02.D				
Injection Date:	05-Aug-2019 19:23:30	Instrument ID:	MG		
Lims ID:	IC L2				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Aug-2019 20:05:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-009
Misc. Info.: 245276
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:22 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:10:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	485074	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2275482	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	89	1993384	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1397416	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	77	20155	0.0800	0.0818	
7 Propene	41	3.839	3.839	0.000	96	56169	0.0800	0.4652	
8 Dichlorodifluoromethane	85	3.893	3.891	0.002	99	38252	0.0800	0.0799	
9 Chloromethane	52	4.087	4.085	0.002	53	4268	0.0800	0.1229	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	90	22040	0.0800	0.0809	
11 Acetaldehyde	44	4.271	4.261	0.010	94	28184	0.4000	0.7359	
12 Vinyl chloride	62	4.265	4.266	-0.001	51	10115	0.0800	0.0799	
13 Butane	43	4.362	4.360	0.002	81	15528	0.0800	0.0858	
14 Butadiene	54	4.357	4.360	-0.003	76	7695	0.0800	0.0835	
15 Bromomethane	94	4.702	4.699	0.003	94	9506	0.0800	0.0825	
16 Chloroethane	64	4.853	4.849	0.004	89	4628	0.0800	0.0822	
17 Ethanol	31	4.988	4.983	0.005	92	8178	0.4000	0.2096	
18 Vinyl bromide	106	5.171	5.168	0.003	90	8701	0.0800	0.0861	
19 2-Methylbutane	43	5.220	5.219	0.001	87	10969	0.0800	0.0956	
20 Trichlorofluoromethane	101	5.452	5.449	0.003	99	29279	0.0800	0.0758	
21 Acrolein	56	5.473	5.472	0.001	53	3448	0.0800	0.2059	
22 Acetonitrile	40	5.538	5.537	0.001	80	2293	0.0800	0.0819	
23 Acetone	58	5.619	5.604	0.015	99	13952	0.2400	0.4253	
24 Pentane	72	5.700	5.682	0.018	86	1424	0.0800	0.0872	
25 Isopropyl alcohol	45	5.748	5.726	0.022	98	25117	0.2400	0.2682	
26 Ethyl ether	31	5.888	5.869	0.019	87	5869	0.0800	0.0851	
27 1,1-Dichloroethene	96	6.185	6.185	0.000	95	10955	0.0800	0.0792	
28 Acrylonitrile	53	6.314	6.304	0.010	80	6165	0.0800	0.0911	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	24086	0.0800	0.0796	
30 2-Methyl-2-propanol	59	6.368	6.376	-0.008	39	279	0.0800	0.001342	
31 Methylene Chloride	84	6.546	6.545	0.001	95	35982	0.0800	0.2677	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	11032	0.0800	0.0831	
33 Carbon disulfide	76	6.714	6.713	0.001	98	28845	0.0800	0.0776	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	96	10482	0.0800	0.0757	
35 2-Methylpentane	43	7.388	7.393	-0.005	93	24678	0.0800	0.0863	
36 Methyl tert-butyl ether	73	7.566	7.541	0.025	94	32407	0.0800	0.0870	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	21834	0.0800	0.0823	
38 Vinyl acetate	43	7.921	7.921	0.000	99	19565	0.0800	0.0766	
40 Hexane	56	8.391	8.392	-0.001	89	9014	0.0800	0.0813	
39 2-Butanone (MEK)	72	8.401	8.393	0.008	98	6125	0.0800	0.1165	
41 Isopropyl ether	45	8.590	8.569	0.021	96	32748	0.0800	0.0927	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	92	11194	0.0800	0.0788	
43 Ethyl acetate	43	9.027	9.002	0.025	98	20750	0.0800	0.0912	
44 Chloroform	83	9.156	9.157	-0.001	92	25301	0.0800	0.0768	
45 Tert-butyl ethyl ether	59	9.291	9.270	0.021	94	34262	0.0800	0.0858	
46 Tetrahydrofuran	42	9.631	9.605	0.026	84	10783	0.0800	0.0918	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	93	32613	0.0800	0.0827	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	98	16034	0.0800	0.0765	
49 Cyclohexane	69	10.774	10.788	-0.014	70	5664	0.0800	0.0899	
50 Benzene	78	10.785	10.788	-0.003	97	31709	0.0800	0.0932	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	96	28324	0.0800	0.0819	
51 n-Butanol	31	10.855	10.822	0.033	69	3348	0.0800	0.1175	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	87	7931	0.0800	0.0916	
54 Thiophene	84	11.054	11.057	-0.003	95	16607	0.0800	0.0826	
55 Isooctane	57	11.529	11.531	-0.002	96	54294	0.0800	0.0910	
56 n-Heptane	71	11.901	11.898	0.003	87	11553	0.0800	0.0872	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	11379	0.0800	0.0948	
58 Trichloroethene	130	12.020	12.022	-0.002	95	16423	0.0800	0.0866	
59 Dibromomethane	93	12.106	12.108	-0.002	87	11862	0.0800	0.0830	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	23380	0.0800	0.0814	
61 1,4-Dioxane	88	12.327	12.304	0.023	74	4545	0.0800	0.0919	
62 Methyl methacrylate	41	12.349	12.343	0.006	94	11652	0.0800	0.0912	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	22506	0.0800	0.0938	
64 4-Methyl-2-pentanone (MIBK	43	13.217	13.202	0.015	95	22222	0.0800	0.0815	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	96	15241	0.0800	0.0759	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	14929	0.0800	0.0811	
67 Toluene	91	14.042	14.046	-0.004	95	33590	0.0800	0.0857	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	10086	0.0800	0.0879	
69 2-Hexanone	58	14.527	14.514	0.013	95	10527	0.0800	0.1105	
70 n-Octane	85	14.710	14.714	-0.004	88	12903	0.0800	0.0905	
71 Chlorodibromomethane	129	14.818	14.818	0.000	94	18912	0.0800	0.0680	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	16489	0.0800	0.0774	
73 Tetrachloroethene	129	15.174	15.176	-0.002	91	15990	0.0800	0.0881	
75 Chlorobenzene	112	16.042	16.044	-0.002	82	29816	0.0800	0.0912	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	93	35633	0.0800	0.0948	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	47492	0.0800	0.0915	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	100	75367	0.1600	0.1855	
80 n-Nonane	57	16.889	16.891	-0.002	87	22670	0.0800	0.0910	
81 Bromoform	173	16.943	16.943	0.000	53	13171	0.0800	0.0522	
82 Styrene	104	16.948	16.951	-0.003	98	21427	0.0800	0.0807	
83 o-Xylene	91	17.008	17.012	-0.004	97	39635	0.0800	0.0900	
84 1,1,2,2-Tetrachloroethane	83	17.336	17.334	0.002	98	24048	0.0800	0.0935	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	95	9770	0.0800	0.0978	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	96	57014	0.0800	0.0952	
87 N-Propylbenzene	120	18.113	18.118	-0.005	98	15620	0.0800	0.0931	
88 2-Chlorotoluene	126	18.167	18.166	0.001	96	14661	0.0800	0.0906	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	57587	0.0800	0.0980	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	24908	0.0800	0.1012	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	18349	0.0800	0.0805	
93 n-Decane	57	18.609	18.606	0.003	93	31130	0.0800	0.0978	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	54550	0.0800	0.0977	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	51351	0.0800	0.0981	
96 sec-Butylbenzene	105	19.014	19.014	0.000	97	72823	0.0800	0.0994	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	32567	0.0800	0.0884	
98 Benzyl chloride	91	19.105	19.106	-0.001	96	38098	0.0800	0.0939	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	36226	0.0800	0.0974	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	64942	0.0800	0.0999	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	50176	0.0800	0.0632	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	39366	0.0800	0.0956	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	46910	0.0800	0.0983	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	35966	0.0800	0.1038	
105 n-Butylbenzene	91	19.590	19.596	-0.006	97	60804	0.0800	0.1046	
106 Indene	116	19.601	19.598	0.003	84	38081	0.0800	0.0957	
107 Undecane	57	19.892	19.893	-0.001	93	37946	0.0800	0.1470	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	17478	0.0800	0.0990	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	66175	0.0800	0.1077	
110 Dodecane	57	20.944	20.944	0.000	96	34163	0.0800	0.1680	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	93	33145	0.0800	0.1075	
112 Naphthalene	128	21.294	21.297	-0.003	99	77307	0.0800	0.1217	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	93	21486	0.0800	0.0718	
114 1,2,3-Trichlorobenzene	180	21.575	21.572	0.003	93	33405	0.0800	0.1173	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	98	45882	0.0800	0.2058	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	50300	0.0800	0.2365	
A 122 C8 Range	1	14.716	(14.668-14.764)		0	130441	0.0800	0.1103	
S 123 1,2-Dichloroethene, Total	1				0		0.1600	0.1546	
S 124 Xylenes, Total	100				0		0.2400	0.2756	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

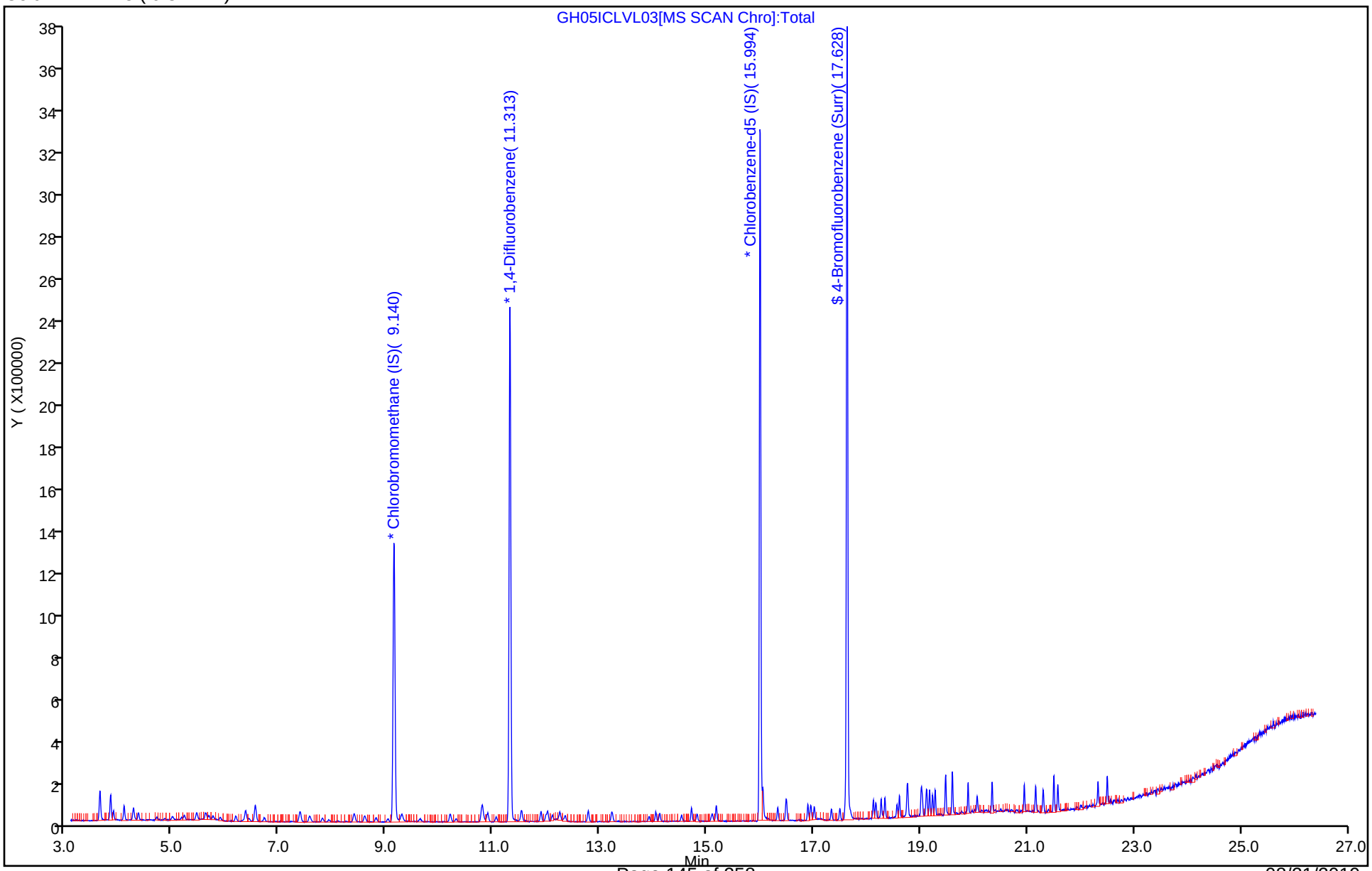
Report Date: 08-Aug-2019 11:05:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D

Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

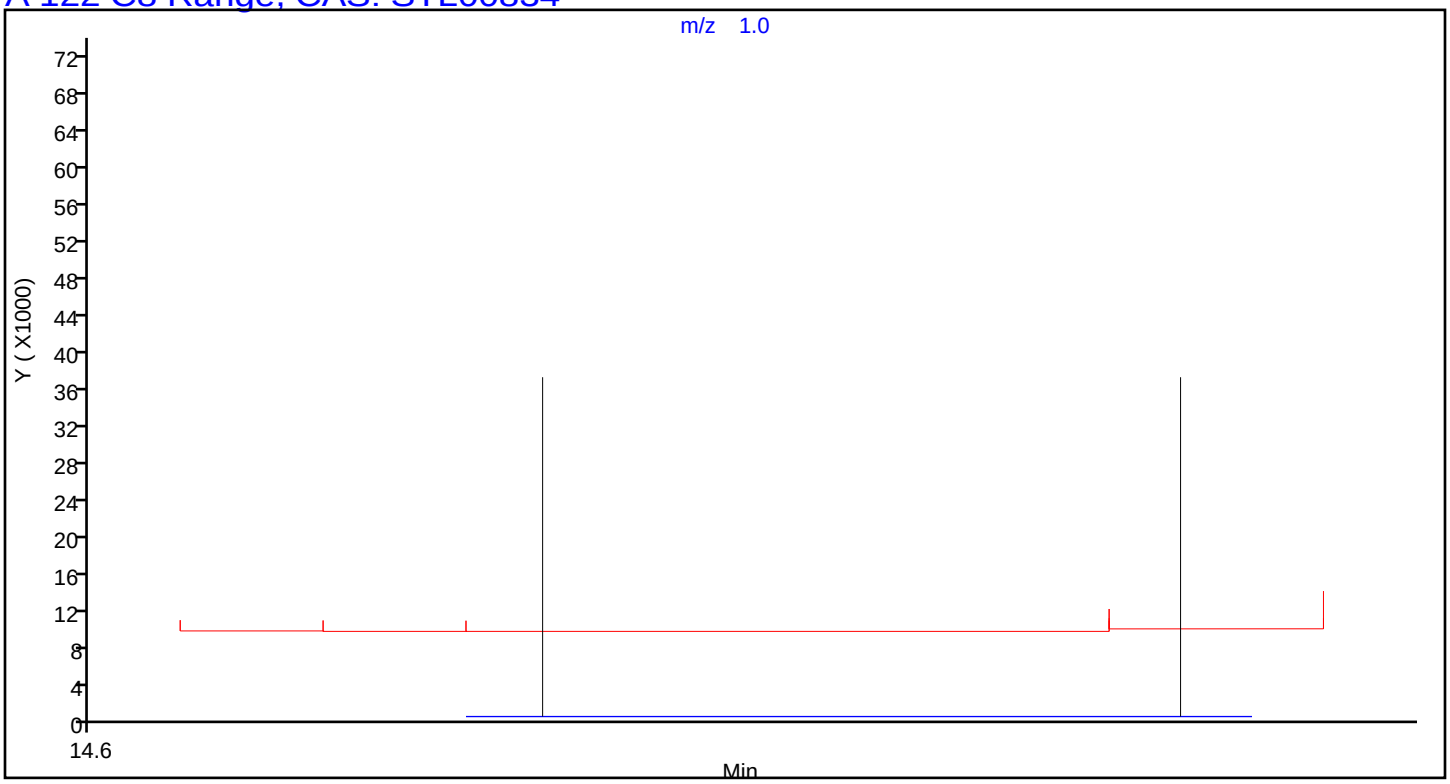
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL03.D				
Injection Date:	05-Aug-2019 20:05:30	Instrument ID:	MG		
Lims ID:	IC L3				
Client ID:					
Operator ID:	007126	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Aug-2019 20:47:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-010
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:33 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:17:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.147	-0.007	86	463991	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2062287	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	1864303	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1332067	4.00	4.11	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	95	43674	0.1600	0.1853	
7 Propene	41	3.839	3.839	0.000	96	66692	0.1600	0.5774	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	82655	0.1600	0.1805	
9 Chloromethane	52	4.077	4.085	-0.008	52	6860	0.1600	0.2065	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	92	45952	0.1600	0.1764	
11 Acetaldehyde	44	4.260	4.261	-0.001	95	32700	0.8000	0.8926	
12 Vinyl chloride	62	4.265	4.266	-0.001	74	21311	0.1600	0.1759	
13 Butane	43	4.357	4.360	-0.003	83	30690	0.1600	0.1773	
14 Butadiene	54	4.357	4.360	-0.003	70	15170	0.1600	0.1722	
15 Bromomethane	94	4.691	4.699	-0.008	94	19987	0.1600	0.1813	
16 Chloroethane	64	4.848	4.849	-0.001	93	9559	0.1600	0.1775	
17 Ethanol	31	4.983	4.983	0.000	98	34755	0.8000	0.9314	
18 Vinyl bromide	106	5.155	5.168	-0.013	97	17369	0.1600	0.1797	
19 2-Methylbutane	43	5.214	5.219	-0.005	90	20372	0.1600	0.1856	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	99	64158	0.1600	0.1736	
21 Acrolein	56	5.473	5.472	0.001	38	3102	0.1600	0.1936	
22 Acetonitrile	40	5.543	5.537	0.006	78	5733	0.1600	0.2142	
23 Acetone	58	5.608	5.604	0.004	100	18945	0.4800	0.6037	
24 Pentane	72	5.673	5.682	-0.009	96	3439	0.1600	0.2202	
25 Isopropyl alcohol	45	5.732	5.726	0.006	98	53127	0.4800	0.5930	
26 Ethyl ether	31	5.878	5.869	0.009	93	11079	0.1600	0.1679	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	23053	0.1600	0.1743	
28 Acrylonitrile	53	6.304	6.304	0.000	86	10005	0.1600	0.1545	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.365	-0.007	95	50455	0.1600	0.1743	
30 2-Methyl-2-propanol	59	6.390	6.376	0.014	95	40836	0.1600	0.2053	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	44923	0.1600	0.3494	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.552	6.562	-0.010	94	22705	0.1600	0.1788	
33 Carbon disulfide	76	6.703	6.713	-0.010	99	62846	0.1600	0.1768	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	96	22858	0.1600	0.1727	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	51137	0.1600	0.1870	
36 Methyl tert-butyl ether	73	7.544	7.541	0.003	95	65422	0.1600	0.1836	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	99	41560	0.1600	0.1638	
38 Vinyl acetate	43	7.916	7.921	-0.005	99	38914	0.1600	0.1592	
40 Hexane	56	8.380	8.392	-0.012	85	20583	0.1600	0.1942	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	85	10171	0.1600	0.2022	
41 Isopropyl ether	45	8.579	8.569	0.010	94	60985	0.1600	0.1804	
42 cis-1,2-Dichloroethene	96	8.811	8.812	-0.001	94	22936	0.1600	0.1689	
43 Ethyl acetate	43	9.016	9.002	0.014	98	39531	0.1600	0.1817	
44 Chloroform	83	9.151	9.157	-0.006	33	53830	0.1600	0.1709	
45 Tert-butyl ethyl ether	59	9.275	9.270	0.005	94	70720	0.1600	0.1852	
46 Tetrahydrofuran	42	9.609	9.605	0.004	93	21964	0.1600	0.1954	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	63703	0.1600	0.1688	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	33979	0.1600	0.1790	
49 Cyclohexane	69	10.779	10.788	-0.009	77	13114	0.1600	0.2298	
50 Benzene	78	10.785	10.788	-0.003	97	60976	0.1600	0.1978	
52 Carbon tetrachloride	117	10.801	10.811	-0.010	94	59505	0.1600	0.1899	
51 n-Butanol	31	10.828	10.822	0.006	45	6821	0.1600	0.2642	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	16080	0.1600	0.2049	
54 Thiophene	84	11.054	11.057	-0.003	95	34034	0.1600	0.1868	
55 Isooctane	57	11.529	11.531	-0.002	97	111708	0.1600	0.2065	
56 n-Heptane	71	11.890	11.898	-0.008	91	24842	0.1600	0.2069	
57 1,2-Dichloropropane	63	11.977	11.986	-0.009	79	20718	0.1600	0.1904	
58 Trichloroethene	130	12.020	12.022	-0.002	96	35132	0.1600	0.2043	
59 Dibromomethane	93	12.106	12.108	-0.002	90	24369	0.1600	0.1882	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	46669	0.1600	0.1793	
61 1,4-Dioxane	88	12.311	12.304	0.007	88	9942	0.1600	0.2218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	23616	0.1600	0.2039	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	45690	0.1600	0.2102	
64 4-Methyl-2-pentanone (MIBK	43	13.206	13.202	0.004	97	42641	0.1600	0.2198	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	96	32629	0.1600	0.1792	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	97	30260	0.1600	0.1759	
67 Toluene	91	14.042	14.046	-0.004	94	65839	0.1600	0.1796	
68 1,1,2-Trichloroethane	83	14.112	14.118	-0.006	97	20707	0.1600	0.1929	
69 2-Hexanone	58	14.511	14.514	-0.003	94	18953	0.1600	0.2126	
70 n-Octane	85	14.710	14.714	-0.004	90	24732	0.1600	0.1855	
71 Chlorodibromomethane	129	14.818	14.818	0.000	95	41432	0.1600	0.1592	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	34998	0.1600	0.1756	
73 Tetrachloroethene	129	15.174	15.176	-0.002	95	33441	0.1600	0.1970	
75 Chlorobenzene	112	16.042	16.044	-0.002	91	58808	0.1600	0.1922	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	70725	0.1600	0.2013	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	95193	0.1600	0.1961	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	154203	0.3200	0.4059	
80 n-Nonane	57	16.889	16.891	-0.002	90	48543	0.1600	0.2083	
81 Bromoform	173	16.938	16.943	-0.005	94	37003	0.1600	0.1567	
82 Styrene	104	16.948	16.951	-0.003	97	45045	0.1600	0.1813	
83 o-Xylene	91	17.013	17.012	0.001	97	84470	0.1600	0.2052	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	98	50351	0.1600	0.2092	
85 1,2,3-Trichloropropane	110	17.493	17.489	0.004	97	18714	0.1600	0.2004	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	92	115484	0.1600	0.2061	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	32515	0.1600	0.2072	
88 2-Chlorotoluene	126	18.162	18.166	-0.004	97	29848	0.1600	0.1971	
89 4-Ethyltoluene	105	18.259	18.264	-0.005	98	115144	0.1600	0.2095	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	48012	0.1600	0.2085	
92 Alpha Methyl Styrene	118	18.555	18.561	-0.006	82	36594	0.1600	0.1717	
93 n-Decane	57	18.604	18.606	-0.002	92	62826	0.1600	0.2111	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	91	108229	0.1600	0.2072	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	103573	0.1600	0.2116	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	140174	0.1600	0.2045	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	98	69116	0.1600	0.2006	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	79164	0.1600	0.2085	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	69868	0.1600	0.2009	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	129393	0.1600	0.2129	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	99	106789	0.1600	0.1997	
102 Butylcyclohexane	83	19.272	19.276	-0.004	94	80763	0.1600	0.2097	
103 2,3-Dihydroindene	117	19.467	19.470	-0.003	93	94383	0.1600	0.2115	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	94	71080	0.1600	0.2193	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	121537	0.1600	0.2235	
106 Indene	116	19.596	19.598	-0.002	78	77351	0.1600	0.2078	
107 Undecane	57	19.893	19.893	0.000	93	70210	0.1600	0.2908	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	91	30729	0.1600	0.1861	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	124331	0.1600	0.2164	
110 Dodecane	57	20.944	20.944	0.000	95	64002	0.1600	0.3365	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	55860	0.1600	0.1937	
112 Naphthalene	128	21.295	21.297	-0.002	99	122533	0.1600	0.2062	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	61353	0.1600	0.2192	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	55841	0.1600	0.2097	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	97	58455	0.1600	0.2804	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	63205	0.1600	0.3177	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	221820	0.1600	0.2006	
S 123 1,2-Dichloroethene, Total	1				0		0.3200	0.3416	
S 124 Xylenes, Total	100				0		0.4800	0.6111	

Reagents:

40L5DQP_00012	Amount Added: 80.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

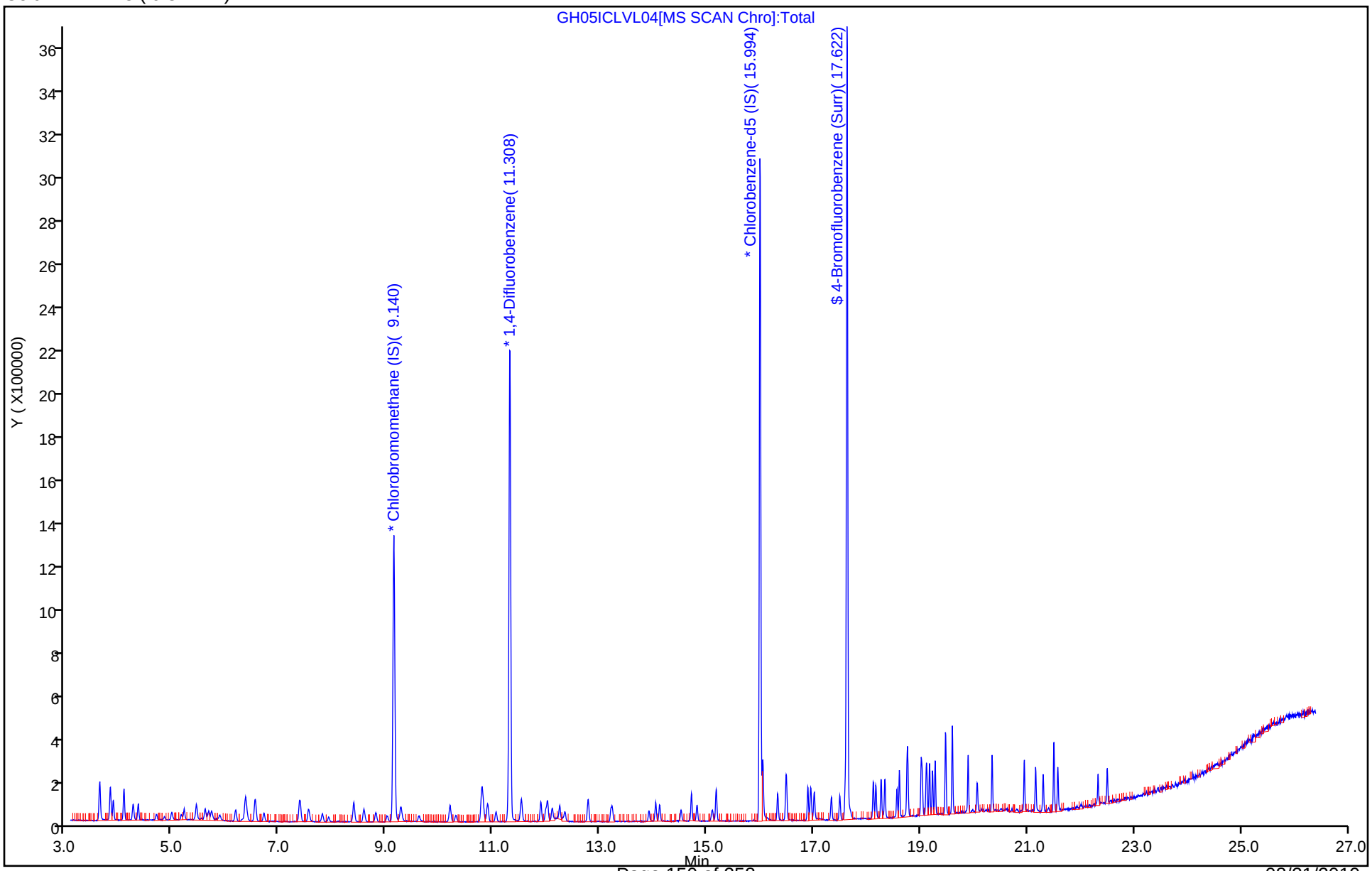
Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D

Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

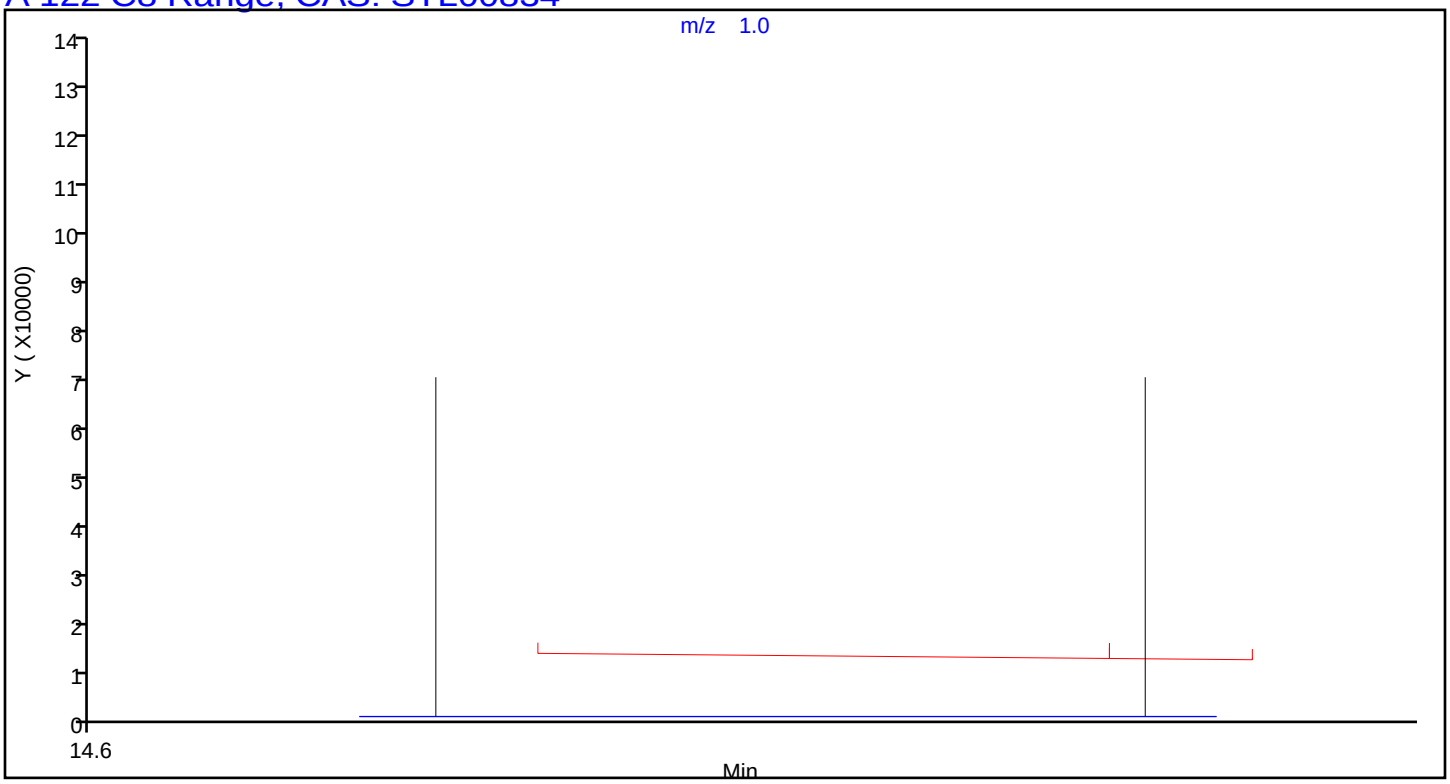


Report Date: 08-Aug-2019 11:05:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL04.D				
Injection Date:	05-Aug-2019 20:47:30	Instrument ID:	MG		
Lims ID:	IC L4				
Client ID:					
Operator ID:	007126	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Aug-2019 21:30:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-011
Misc. Info.: 245274
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:05:49 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 12:16:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.145	9.147	-0.002	86	482012	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2685242	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	89	2421756	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	89	1736106	4.00	4.13	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	98658	0.4000	0.4030	
7 Propene	41	3.834	3.839	-0.005	96	93102	0.4000	0.7759	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	189623	0.4000	0.3987	
9 Chloromethane	52	4.087	4.085	0.002	53	16334	0.4000	0.4733	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	109276	0.4000	0.4039	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	92892	2.00	2.44	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	49646	0.4000	0.3944	
13 Butane	43	4.357	4.360	-0.003	83	70814	0.4000	0.3939	
14 Butadiene	54	4.357	4.360	-0.003	71	37768	0.4000	0.4126	
15 Bromomethane	94	4.702	4.699	0.003	96	46317	0.4000	0.4045	
16 Chloroethane	64	4.842	4.849	-0.007	93	23095	0.4000	0.4128	
17 Ethanol	31	4.977	4.983	-0.006	99	75469	2.00	1.95	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	39681	0.4000	0.3952	
19 2-Methylbutane	43	5.220	5.219	0.001	92	43427	0.4000	0.3808	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	99	153029	0.4000	0.3987	
21 Acrolein	56	5.479	5.472	0.007	69	6947	0.4000	0.4175	
22 Acetonitrile	40	5.549	5.537	0.012	98	10348	0.4000	0.3721	
23 Acetone	58	5.603	5.604	-0.001	100	45565	1.20	1.40	
24 Pentane	72	5.678	5.682	-0.004	99	7179	0.4000	0.4424	
25 Isopropyl alcohol	45	5.721	5.726	-0.005	97	105605	1.20	1.13	
26 Ethyl ether	31	5.872	5.869	0.003	92	30603	0.4000	0.4464	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	95	51669	0.4000	0.3761	
28 Acrylonitrile	53	6.298	6.304	-0.006	94	26372	0.4000	0.3921	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	121174	0.4000	0.4028	
30 2-Methyl-2-propanol	59	6.379	6.376	0.003	96	74946	0.4000	0.3626	
31 Methylene Chloride	84	6.541	6.545	-0.004	92	77107	0.4000	0.5773	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.563	6.562	0.001	96	53903	0.4000	0.4086	
33 Carbon disulfide	76	6.714	6.713	0.001	99	148089	0.4000	0.4010	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	53641	0.4000	0.3900	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	118675	0.4000	0.4177	
36 Methyl tert-butyl ether	73	7.533	7.541	-0.008	95	146739	0.4000	0.3964	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	109237	0.4000	0.4144	
38 Vinyl acetate	43	7.921	7.921	0.000	99	105231	0.4000	0.4145	
40 Hexane	56	8.391	8.392	-0.001	76	45077	0.4000	0.4094	
39 2-Butanone (MEK)	72	8.391	8.393	-0.002	84	21738	0.4000	0.4159	
41 Isopropyl ether	45	8.568	8.569	-0.001	94	143561	0.4000	0.4088	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	57870	0.4000	0.4102	
43 Ethyl acetate	43	9.011	9.002	0.009	98	91929	0.4000	0.4067	
44 Chloroform	83	9.151	9.157	-0.006	51	135314	0.4000	0.4136	
45 Tert-butyl ethyl ether	59	9.264	9.270	-0.006	94	162243	0.4000	0.4089	
46 Tetrahydrofuran	42	9.604	9.605	-0.001	90	48513	0.4000	0.4154	
47 1,1,1-Trichloroethane	97	10.192	10.198	-0.006	95	161683	0.4000	0.4124	
48 1,2-Dichloroethane	62	10.299	10.305	-0.006	99	95386	0.4000	0.3859	
49 Cyclohexane	69	10.785	10.788	-0.003	71	27598	0.4000	0.3714	
50 Benzene	78	10.785	10.788	-0.003	96	169359	0.4000	0.4220	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	154448	0.4000	0.3785	
51 n-Butanol	31	10.817	10.822	-0.005	69	13289	0.4000	0.3954	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	88	40576	0.4000	0.3972	
54 Thiophene	84	11.054	11.057	-0.003	98	93958	0.4000	0.3961	
55 Isooctane	57	11.529	11.531	-0.002	97	283998	0.4000	0.4032	
56 n-Heptane	71	11.890	11.898	-0.008	89	63065	0.4000	0.4034	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	57441	0.4000	0.4055	
58 Trichloroethene	130	12.014	12.022	-0.008	96	82347	0.4000	0.3678	
59 Dibromomethane	93	12.106	12.108	-0.002	91	64841	0.4000	0.3846	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	97	132443	0.4000	0.3907	
61 1,4-Dioxane	88	12.300	12.304	-0.004	79	19834	0.4000	0.3398	
62 Methyl methacrylate	41	12.338	12.343	-0.005	92	55721	0.4000	0.3695	
63 Methylcyclohexane	83	12.775	12.781	-0.006	94	112759	0.4000	0.3983	
64 4-Methyl-2-pentanone (MIBK	43	13.201	13.202	-0.001	95	73496	0.4000	0.3046	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	97	94583	0.4000	0.3990	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	86203	0.4000	0.3857	
67 Toluene	91	14.042	14.046	-0.004	93	192263	0.4000	0.4038	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	54263	0.4000	0.3891	
69 2-Hexanone	58	14.511	14.514	-0.003	94	33428	0.4000	0.2887	
70 n-Octane	85	14.710	14.714	-0.004	90	67037	0.4000	0.3871	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	120240	0.4000	0.3558	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	100	99501	0.4000	0.3843	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	82558	0.4000	0.3745	
75 Chlorobenzene	112	16.042	16.044	-0.002	93	163168	0.4000	0.4106	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	92	183187	0.4000	0.4014	
78 Ethylbenzene	91	16.323	16.329	-0.006	99	262802	0.4000	0.4168	
79 m-Xylene & p-Xylene	91	16.484	16.488	-0.004	99	418810	0.8000	0.8487	
80 n-Nonane	57	16.889	16.891	-0.002	90	126710	0.4000	0.4185	
81 Bromoform	173	16.943	16.943	0.000	94	109007	0.4000	0.3553	
82 Styrene	104	16.948	16.951	-0.003	98	133694	0.4000	0.4143	
83 o-Xylene	91	17.013	17.012	0.001	98	206900	0.4000	0.3869	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	123660	0.4000	0.3956	
85 1,2,3-Trichloropropane	110	17.487	17.489	-0.002	97	45252	0.4000	0.3730	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	93	288284	0.4000	0.3960	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	79322	0.4000	0.3891	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	77331	0.4000	0.3932	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	281615	0.4000	0.3945	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	115462	0.4000	0.3859	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	87	100044	0.4000	0.3613	
93 n-Decane	57	18.604	18.606	-0.002	93	153552	0.4000	0.3972	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	95	268979	0.4000	0.3964	
95 1,2,4-Trimethylbenzene	105	18.765	18.763	0.002	96	242624	0.4000	0.3817	
96 sec-Butylbenzene	105	19.013	19.014	-0.001	98	350396	0.4000	0.3936	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	176506	0.4000	0.3943	
98 Benzyl chloride	91	19.105	19.106	-0.001	97	195591	0.4000	0.3966	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	93	175218	0.4000	0.3879	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	303580	0.4000	0.3845	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	248613	0.4000	0.3926	
102 Butylcyclohexane	83	19.272	19.276	-0.004	92	202219	0.4000	0.4042	
103 2,3-Dihydroindene	117	19.466	19.470	-0.004	93	229968	0.4000	0.3967	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	171061	0.4000	0.4063	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	277154	0.4000	0.3924	
106 Indene	116	19.596	19.598	-0.002	94	190258	0.4000	0.3934	
107 Undecane	57	19.892	19.893	-0.001	93	156878	0.4000	0.5002	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	95	73294	0.4000	0.3417	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	96	258532	0.4000	0.3464	
110 Dodecane	57	20.944	20.944	0.000	96	107502	0.4000	0.4351	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	127013	0.4000	0.3391	
112 Naphthalene	128	21.294	21.297	-0.003	99	246489	0.4000	0.3194	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	95	139670	0.4000	0.3841	
114 1,2,3-Trichlorobenzene	180	21.569	21.572	-0.003	94	104909	0.4000	0.3033	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	99	88366	0.4000	0.3263	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	98	89896	0.4000	0.3479	
A 122 C8 Range	1	14.705	(14.652-14.759)		0	598323	0.4000	0.4166	
S 123 1,2-Dichloroethene, Total	1				0		0.8000	0.8003	
S 124 Xylenes, Total	100				0		1.20	1.24	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

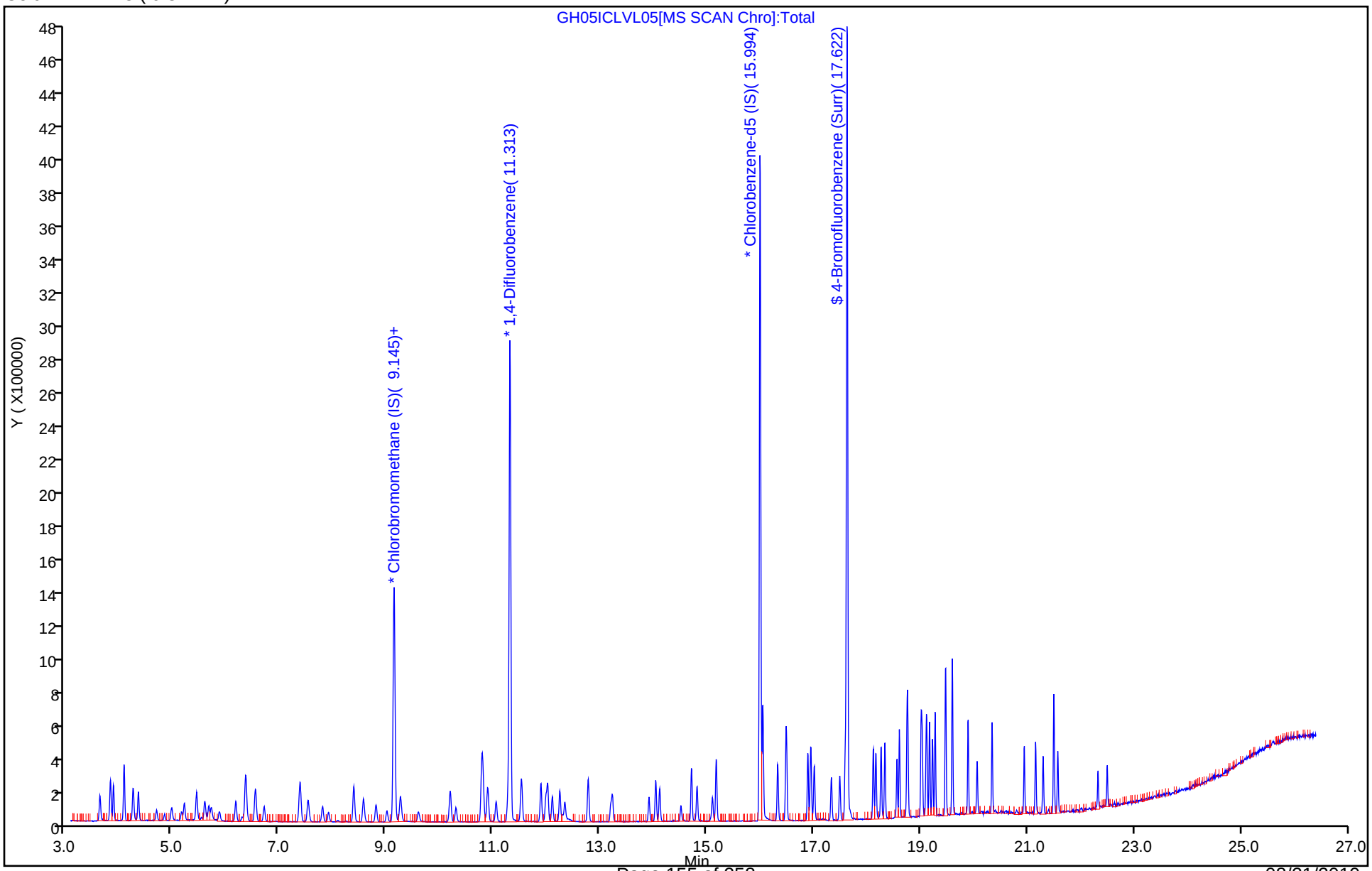
Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D

Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

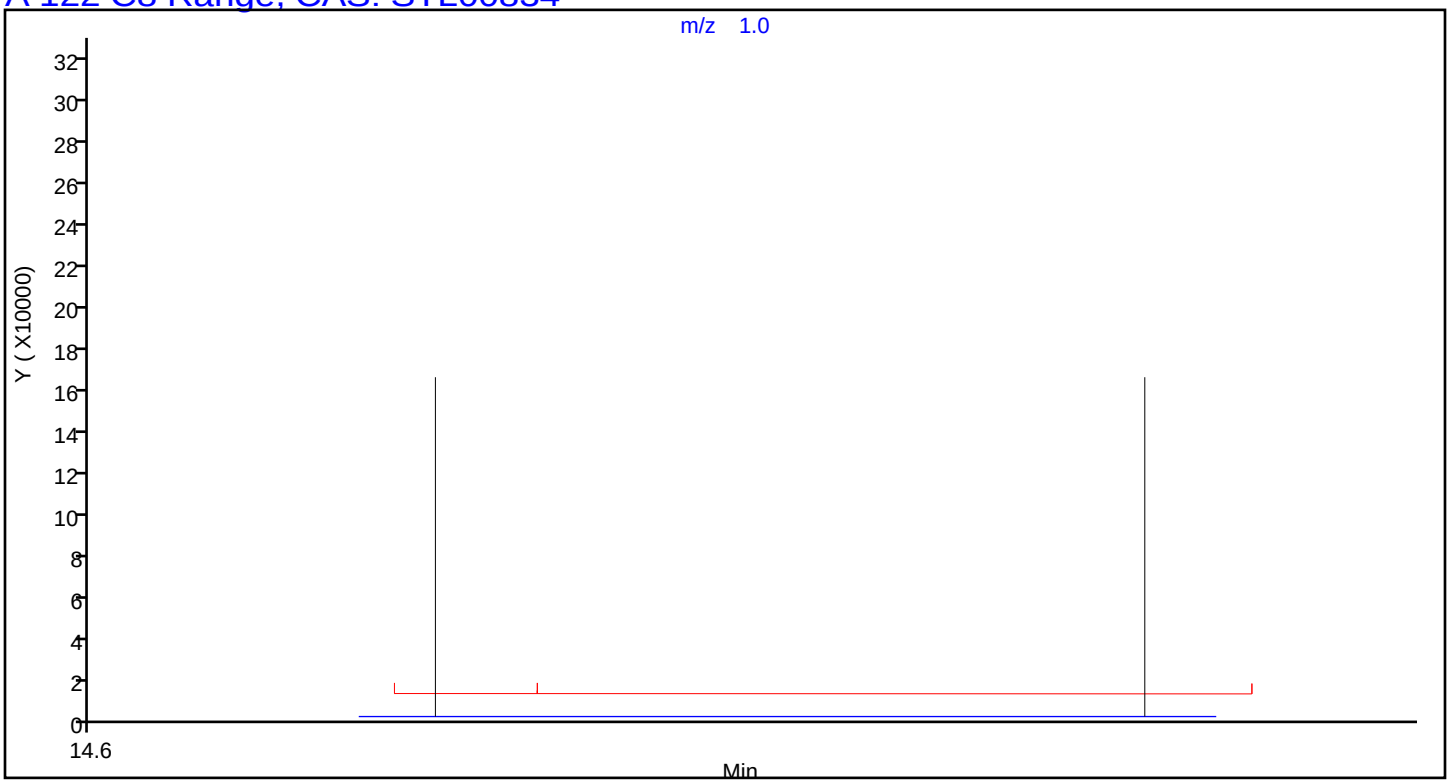


Report Date: 08-Aug-2019 11:05:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL05.D				
Injection Date:	05-Aug-2019 21:30:30	Instrument ID:	MG		
Lims ID:	IC L5				
Client ID:					
Operator ID:	007126	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Aug-2019 22:16:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-012
Misc. Info.: 245273
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:02 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 06-Aug-2019 11:13:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	86	487685	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2553258	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2386492	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.622	17.625	-0.003	93	1693688	4.00	4.09	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	246667	1.00	1.00	
7 Propene	41	3.839	3.839	0.000	96	158639	1.00	1.31	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	483918	1.00	1.01	
9 Chloromethane	52	4.082	4.085	-0.003	57	35516	1.00	1.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.087	4.091	-0.004	89	288577	1.00	1.05	
11 Acetaldehyde	44	4.255	4.261	-0.006	94	190926	5.00	4.96	
12 Vinyl chloride	62	4.265	4.266	-0.001	99	122540	1.00	0.9623	
13 Butane	43	4.357	4.360	-0.003	83	180868	1.00	0.99	
14 Butadiene	54	4.357	4.360	-0.003	71	92822	1.00	1.00	
15 Bromomethane	94	4.697	4.699	-0.002	97	115754	1.00	1.00	
16 Chloroethane	64	4.848	4.849	-0.001	95	56216	1.00	0.99	
17 Ethanol	31	4.961	4.983	-0.022	99	178614	5.00	4.55	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	101538	1.00	1.00	
19 2-Methylbutane	43	5.220	5.219	0.001	88	114036	1.00	0.9884	
20 Trichlorofluoromethane	101	5.446	5.449	-0.003	98	390456	1.00	1.01	
21 Acrolein	56	5.463	5.472	-0.009	98	15503	1.00	0.9208	
22 Acetonitrile	40	5.533	5.537	-0.004	98	27290	1.00	0.9699	
23 Acetone	58	5.587	5.604	-0.017	100	91668	3.00	2.78	
24 Pentane	72	5.678	5.682	-0.004	96	18090	1.00	1.10	
25 Isopropyl alcohol	45	5.694	5.726	-0.032	93	256655	3.00	2.73	
26 Ethyl ether	31	5.862	5.869	-0.007	90	65045	1.00	0.9377	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	96	135168	1.00	0.9724	
28 Acrylonitrile	53	6.293	6.304	-0.011	93	63395	1.00	0.9316	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	96	306378	1.00	1.01	
30 2-Methyl-2-propanol	59	6.352	6.376	-0.024	95	178772	1.00	0.8550	
31 Methylene Chloride	84	6.541	6.545	-0.004	94	146176	1.00	1.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	95	131925	1.00	0.9883	
33 Carbon disulfide	76	6.714	6.713	0.001	99	379039	1.00	1.01	
34 trans-1,2-Dichloroethene	96	7.371	7.375	-0.004	98	135666	1.00	0.9750	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	294862	1.00	1.03	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	346158	1.00	0.9243	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	263784	1.00	0.9891	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	243472	1.00	0.9479	
40 Hexane	56	8.396	8.392	0.004	88	114287	1.00	1.03	
39 2-Butanone (MEK)	72	8.380	8.393	-0.013	96	47510	1.00	0.8984	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	331939	1.00	0.9343	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	96	135269	1.00	0.9477	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	199113	1.00	0.8707	
44 Chloroform	83	9.156	9.157	-0.001	96	324608	1.00	0.9807	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	95	370752	1.00	0.9235	
46 Tetrahydrofuran	42	9.582	9.605	-0.023	88	103852	1.00	0.8789	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	96	388592	1.00	0.9796	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	226363	1.00	0.9631	
49 Cyclohexane	69	10.790	10.788	0.002	77	71834	1.00	1.02	
50 Benzene	78	10.785	10.788	-0.003	97	402752	1.00	1.06	
52 Carbon tetrachloride	117	10.806	10.811	-0.005	97	395039	1.00	1.02	
51 n-Butanol	31	10.806	10.822	-0.016	48	31242	1.00	0.9775	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	90	97512	1.00	1.00	
54 Thiophene	84	11.054	11.057	-0.003	96	228095	1.00	1.01	
55 Isooctane	57	11.524	11.531	-0.007	98	669441	1.00	1.00	
56 n-Heptane	71	11.896	11.898	-0.002	88	149939	1.00	1.01	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	83	135272	1.00	1.00	
58 Trichloroethene	130	12.020	12.022	-0.002	96	205666	1.00	0.9661	
59 Dibromomethane	93	12.106	12.108	-0.002	95	160258	1.00	1.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	333891	1.00	1.04	
61 1,4-Dioxane	88	12.278	12.304	-0.026	91	45605	1.00	0.8218	
62 Methyl methacrylate	41	12.338	12.343	-0.005	94	127335	1.00	0.8880	
63 Methylcyclohexane	83	12.780	12.781	-0.001	93	271241	1.00	1.01	
64 4-Methyl-2-pentanone (MIBK	43	13.190	13.202	-0.012	96	193142	1.00	0.9164	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	229501	1.00	1.02	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	209941	1.00	0.9531	
67 Toluene	91	14.042	14.046	-0.004	94	453010	1.00	0.9654	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	99	130717	1.00	0.9511	
69 2-Hexanone	58	14.506	14.514	-0.008	93	94111	1.00	0.8248	
70 n-Octane	85	14.716	14.714	0.002	89	172691	1.00	1.01	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	324681	1.00	0.9749	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	253874	1.00	1.00	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	202403	1.00	0.9316	
75 Chlorobenzene	112	16.042	16.044	-0.002	92	389910	1.00	1.00	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	91	435613	1.00	0.9685	
78 Ethylbenzene	91	16.328	16.329	-0.001	99	599681	1.00	0.9651	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	966570	2.00	1.99	
80 n-Nonane	57	16.889	16.891	-0.002	91	300204	1.00	1.01	
81 Bromoform	173	16.943	16.943	0.000	95	303372	1.00	1.00	
82 Styrene	104	16.948	16.951	-0.003	98	325846	1.00	1.02	
83 o-Xylene	91	17.013	17.012	0.001	98	506239	1.00	0.9607	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	296089	1.00	0.9611	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	112173	1.00	0.9383	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	681562	1.00	0.9501	
87 N-Propylbenzene	120	18.118	18.118	0.000	99	190451	1.00	0.9479	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	184067	1.00	0.9497	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	679340	1.00	0.9657	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	283628	1.00	0.9621	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	261798	1.00	0.9594	
93 n-Decane	57	18.604	18.606	-0.002	93	372039	1.00	0.9766	
94 tert-Butylbenzene	119	18.749	18.750	-0.001	92	626116	1.00	0.9362	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	582954	1.00	0.9306	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	836987	1.00	0.9540	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	99	435441	1.00	0.9872	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	468018	1.00	0.9631	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	441981	1.00	0.99	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	702381	1.00	0.9027	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	585330	1.00	1.00	
102 Butylcyclohexane	83	19.272	19.276	-0.004	93	484667	1.00	0.9831	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	548117	1.00	0.9594	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	85	419606	1.00	1.01	
105 n-Butylbenzene	91	19.596	19.596	0.000	96	635099	1.00	0.9125	
106 Indene	116	19.596	19.598	-0.002	82	460501	1.00	0.9663	
107 Undecane	57	19.893	19.893	-0.001	94	352838	1.00	1.14	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	98	189969	1.00	0.8987	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	620680	1.00	0.8440	
110 Dodecane	57	20.944	20.944	0.000	96	255850	1.00	1.05	
111 1,2,4-Trichlorobenzene	180	21.154	21.155	-0.001	94	301840	1.00	0.8177	
112 Naphthalene	128	21.295	21.297	-0.002	99	619621	1.00	0.8147	
113 Hexachlorobutadiene	225	21.499	21.499	0.000	96	320011	1.00	0.8932	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	255330	1.00	0.7492	
115 2-Methylnaphthalene	142	22.324	22.325	-0.001	100	196801	1.00	0.7374	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	194294	1.00	0.7630	
A 122 C8 Range	1	14.705	(14.647-14.764)		0	1446999	1.00	1.02	
S 123 1,2-Dichloroethene, Total	1				0		2.00	1.92	
S 124 Xylenes, Total	100				0		3.00	2.95	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

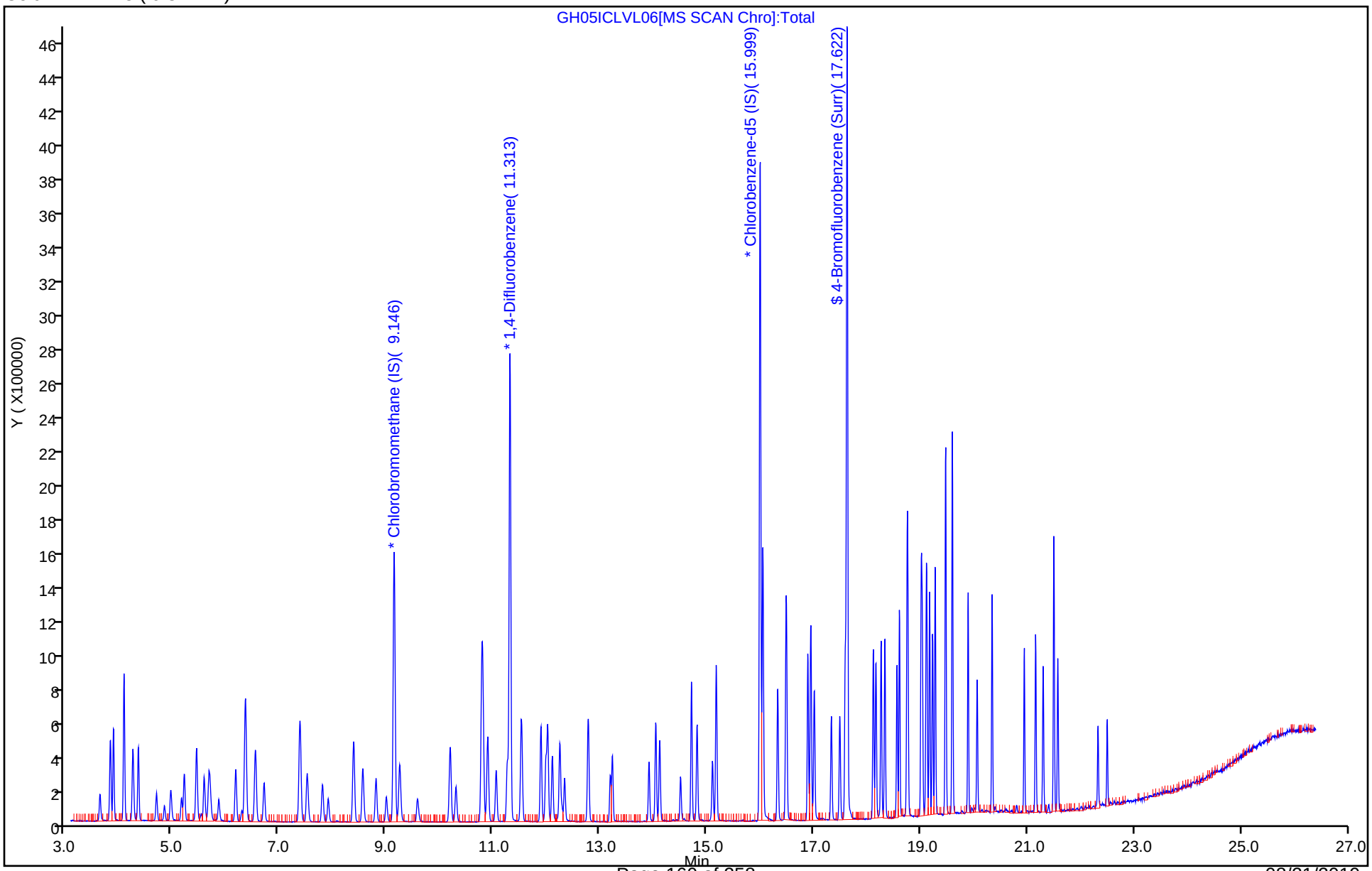
Report Date: 08-Aug-2019 11:06:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D

Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

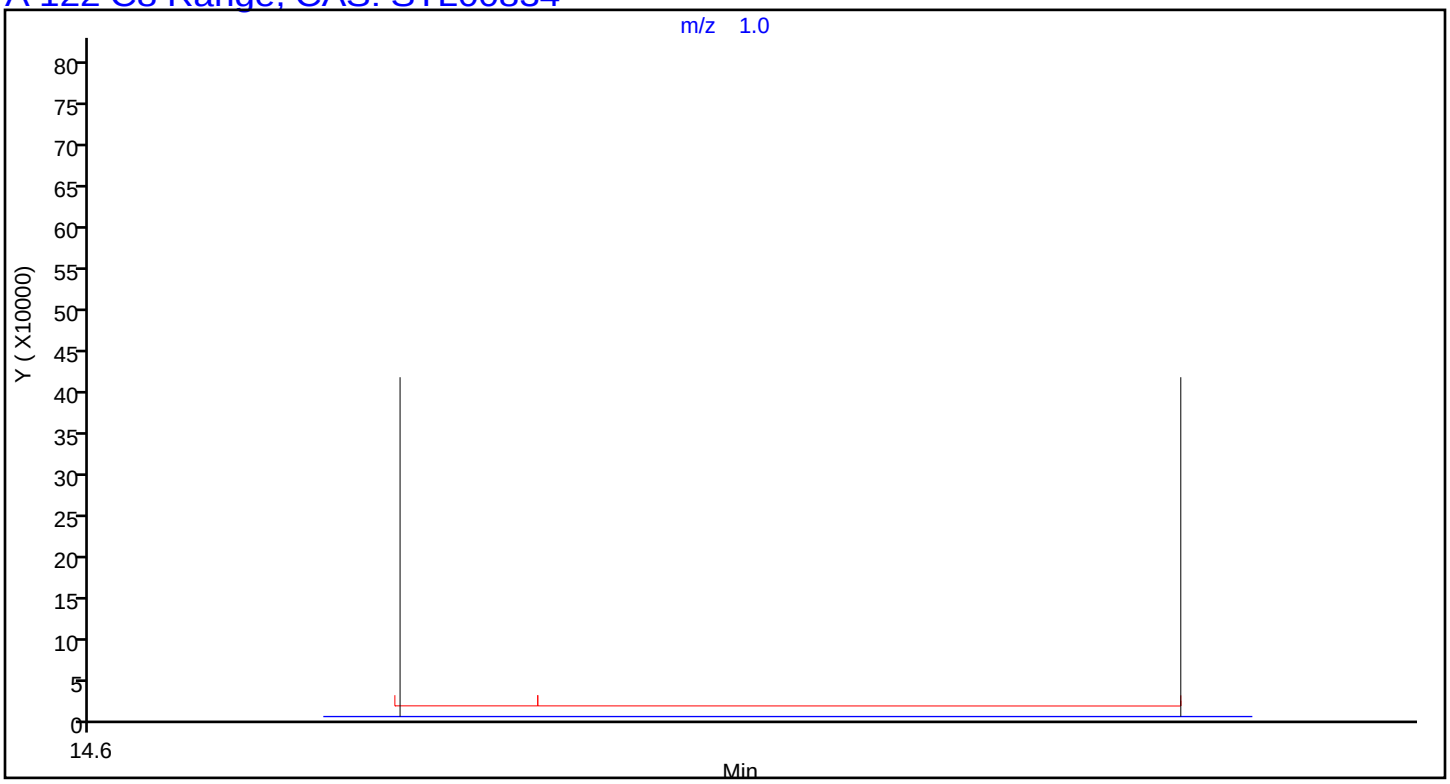
Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL06.D				
Injection Date:	05-Aug-2019 22:16:30	Instrument ID:	MG		
Lims ID:	IC L6				
Client ID:					
Operator ID:	007126	ALS Bottle#:	9	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 05-Aug-2019 22:58:30 ALS Bottle#: 10 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-013
Misc. Info.: 245077
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:16 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

First Level Reviewer: tajh Date: 08-Aug-2019 09:54:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	85	498889	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	95	2835428	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.999	15.998	0.001	88	2531405	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1775500	4.00	4.04	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	505376	2.00	1.99	
7 Propene	41	3.834	3.839	-0.005	96	269532	2.00	2.17	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1004548	2.00	2.04	
9 Chloromethane	52	4.082	4.085	-0.003	97	69360	2.00	1.94	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	89	586746	2.00	2.10	
11 Acetaldehyde	44	4.249	4.261	-0.012	95	394630	10.0	10.0	
12 Vinyl chloride	62	4.260	4.266	-0.006	99	249592	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	361983	2.00	1.95	
14 Butadiene	54	4.357	4.360	-0.003	71	190360	2.00	2.01	
15 Bromomethane	94	4.692	4.699	-0.007	98	236529	2.00	2.00	
16 Chloroethane	64	4.843	4.849	-0.006	94	116908	2.00	2.02	
17 Ethanol	31	4.956	4.983	-0.027	98	405411	10.0	10.1	
18 Vinyl bromide	106	5.166	5.168	-0.002	98	211252	2.00	2.03	
19 2-Methylbutane	43	5.215	5.219	-0.004	89	226978	2.00	1.92	
20 Trichlorofluoromethane	101	5.441	5.449	-0.008	100	793533	2.00	2.00	
21 Acrolein	56	5.463	5.472	-0.009	95	33184	2.00	1.93	
22 Acetonitrile	40	5.527	5.537	-0.010	98	61225	2.00	2.13	
23 Acetone	58	5.581	5.604	-0.023	100	189815	6.00	5.63	
24 Pentane	72	5.678	5.682	-0.004	95	33318	2.00	1.98	
25 Isopropyl alcohol	45	5.689	5.726	-0.037	92	571687	6.00	5.94	
26 Ethyl ether	31	5.856	5.869	-0.013	92	138967	2.00	1.96	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	272518	2.00	1.92	
28 Acrylonitrile	53	6.288	6.304	-0.016	94	140721	2.00	2.02	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	625843	2.00	2.01	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	94	404096	2.00	1.89	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	268413	2.00	1.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	264084	2.00	1.93	
33 Carbon disulfide	76	6.708	6.713	-0.005	99	762533	2.00	1.99	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	98	276739	2.00	1.94	
35 2-Methylpentane	43	7.388	7.393	-0.005	92	582509	2.00	1.98	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	745830	2.00	1.95	
37 1,1-Dichloroethane	63	7.803	7.808	-0.005	100	538283	2.00	1.97	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	530203	2.00	2.02	
40 Hexane	56	8.391	8.392	-0.001	90	227104	2.00	1.99	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	98	105914	2.00	1.96	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	705829	2.00	1.94	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	95	287485	2.00	1.97	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	455292	2.00	1.95	
44 Chloroform	83	9.157	9.157	-0.001	96	675276	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.243	9.270	-0.027	94	808985	2.00	1.97	
46 Tetrahydrofuran	42	9.572	9.605	-0.033	89	230500	2.00	1.91	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	824853	2.00	2.03	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	477830	2.00	1.83	
49 Cyclohexane	69	10.785	10.788	-0.003	81	142693	2.00	1.82	
50 Benzene	78	10.785	10.788	-0.003	97	821203	2.00	1.94	
52 Carbon tetrachloride	117	10.807	10.811	-0.004	97	839197	2.00	1.95	
51 n-Butanol	31	10.790	10.822	-0.032	68	66485	2.00	1.87	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	206018	2.00	1.91	
54 Thiophene	84	11.055	11.057	-0.002	95	479200	2.00	1.91	
55 Isooctane	57	11.529	11.531	-0.002	97	1342251	2.00	1.80	
56 n-Heptane	71	11.896	11.898	-0.002	88	305057	2.00	1.85	
57 1,2-Dichloropropane	63	11.982	11.986	-0.004	85	283363	2.00	1.89	
58 Trichloroethene	130	12.020	12.022	-0.002	98	441732	2.00	1.87	
59 Dibromomethane	93	12.106	12.108	-0.002	92	336220	2.00	1.89	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	713523	2.00	1.99	
61 1,4-Dioxane	88	12.273	12.304	-0.031	92	100718	2.00	1.63	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	301502	2.00	1.89	
63 Methylcyclohexane	83	12.780	12.781	-0.001	95	558969	2.00	1.87	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	412149	2.00	1.80	
65 cis-1,3-Dichloropropene	75	13.228	13.234	-0.006	95	494209	2.00	1.97	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	473163	2.00	2.03	
67 Toluene	91	14.042	14.046	-0.004	92	974154	2.00	1.96	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	277228	2.00	1.90	
69 2-Hexanone	58	14.500	14.514	-0.014	94	204660	2.00	1.69	
70 n-Octane	85	14.711	14.714	-0.003	88	354754	2.00	1.96	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	729086	2.00	2.06	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	98	556280	2.00	2.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	425087	2.00	1.84	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	827346	2.00	1.99	
74 2,3-Dimethylheptane	43	16.053	16.052	0.001	90	884406	2.00	1.85	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1333571	2.00	2.02	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	99	2080126	4.00	4.03	
80 n-Nonane	57	16.889	16.891	-0.002	87	630721	2.00	1.99	
81 Bromoform	173	16.943	16.943	0.000	94	710116	2.00	2.21	
82 Styrene	104	16.948	16.951	-0.003	98	738865	2.00	2.19	
83 o-Xylene	91	17.013	17.012	0.001	98	1091980	2.00	1.95	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	637564	2.00	1.95	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	97	242207	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1459434	2.00	1.92	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	411131	2.00	1.93	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	406356	2.00	1.98	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1452472	2.00	1.95	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	92	599259	2.00	1.92	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	602874	2.00	2.08	
93 n-Decane	57	18.604	18.606	-0.002	93	741699	2.00	1.84	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1334314	2.00	1.88	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	1225884	2.00	1.84	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1726234	2.00	1.86	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	918520	2.00	1.96	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1035763	2.00	2.01	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	95	928649	2.00	1.97	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1539685	2.00	1.87	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	1246166	2.00	2.05	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	956144	2.00	1.83	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1113701	2.00	1.84	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	91	865203	2.00	1.97	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1334040	2.00	1.81	
106 Indene	116	19.596	19.598	-0.002	90	967517	2.00	1.91	
107 Undecane	57	19.893	19.893	0.000	93	730107	2.00	2.23	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	431473	2.00	1.92	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1363668	2.00	1.75	
110 Dodecane	57	20.944	20.944	0.000	96	533935	2.00	2.07	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	94	671652	2.00	1.72	
112 Naphthalene	128	21.295	21.297	-0.002	99	1338267	2.00	1.66	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	724710	2.00	1.91	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	564307	2.00	1.56	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	556936	2.00	1.97	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	534510	2.00	1.98	
A 122 C8 Range	1	14.716	(14.658-14.775)		0	2938358	2.00	1.96	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.91	
S 124 Xylenes, Total	100				0		6.00	5.99	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

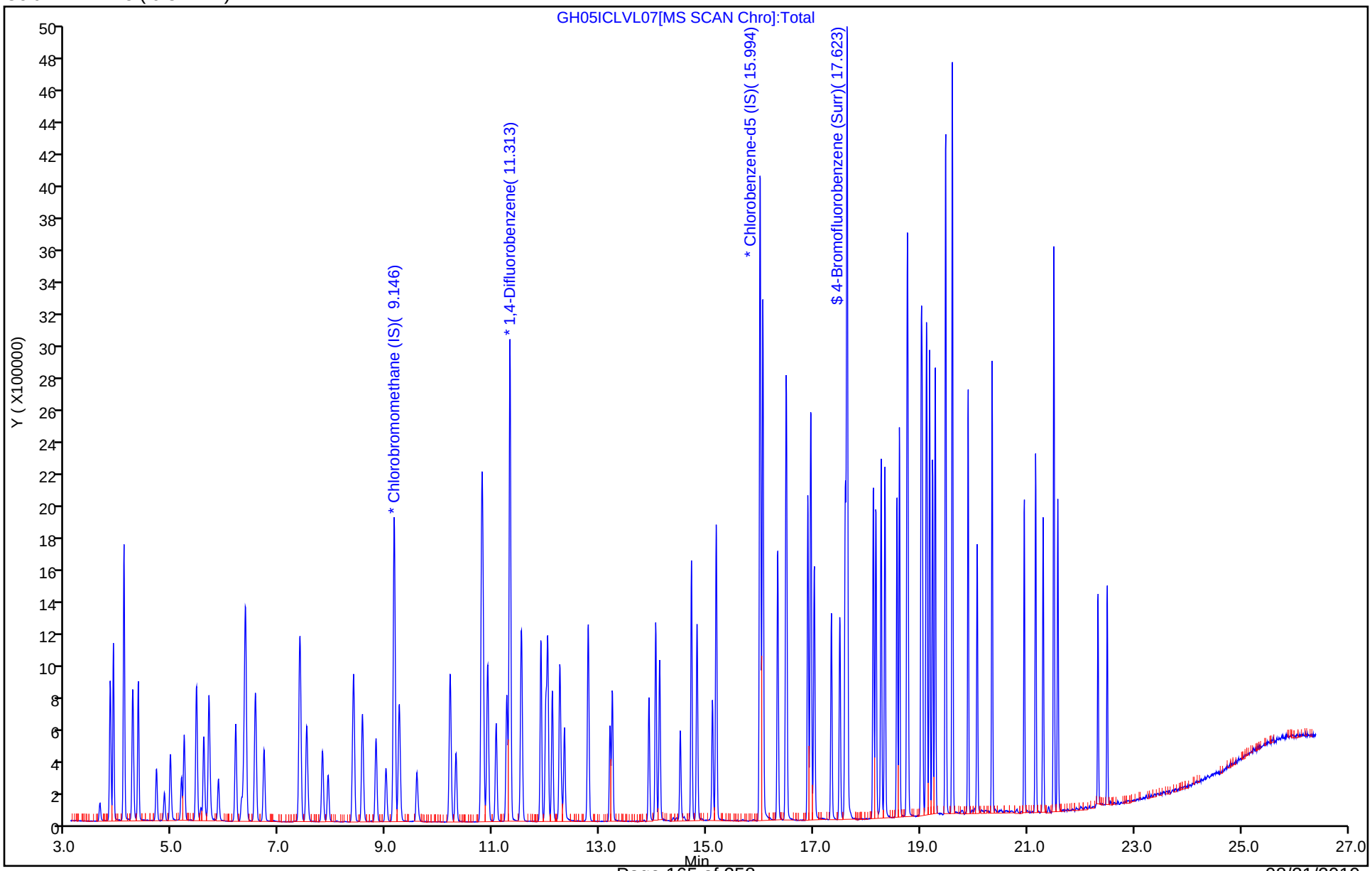
Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D

Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICIS L7			Worklist Smp#:	13
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

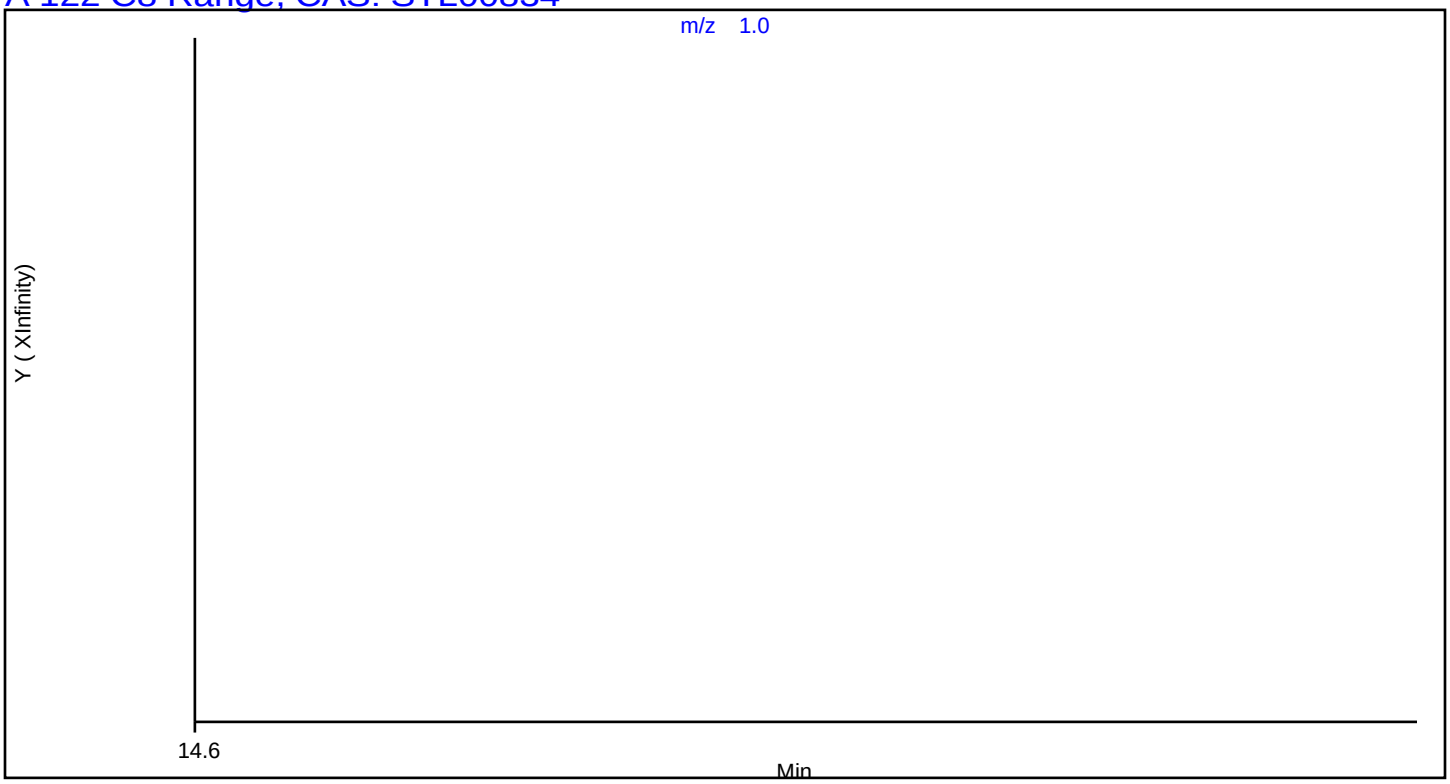


Report Date: 08-Aug-2019 11:06:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL07.D				
Injection Date:	05-Aug-2019 22:58:30	Instrument ID:	MG		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	007126	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 05-Aug-2019 23:41:30 ALS Bottle#: 3 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-014
Misc. Info.: 245076
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub17

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 11:06:30 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0305

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	90	513676	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.319	11.317	0.002	95	2745418	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	87	2468315	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.003	93	1651663	4.00	3.85	
6 Chlorodifluoromethane	51	3.823	3.826	-0.003	96	965849	4.00	3.70	
7 Propene	41	3.840	3.839	0.001	96	463444	4.00	3.62	
8 Dichlorodifluoromethane	85	3.888	3.891	-0.003	100	1949658	4.00	3.85	
9 Chloromethane	52	4.082	4.085	-0.003	96	128137	4.00	3.48	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.091	-0.003	95	1140759	4.00	3.96	
11 Acetaldehyde	44	4.244	4.261	-0.017	95	695166	20.0	17.1	
12 Vinyl chloride	62	4.266	4.266	0.000	99	473502	4.00	3.53	
13 Butane	43	4.357	4.360	-0.003	82	678714	4.00	3.54	
14 Butadiene	54	4.357	4.360	-0.003	72	358899	4.00	3.68	
15 Bromomethane	94	4.697	4.699	-0.002	98	460553	4.00	3.77	
16 Chloroethane	64	4.848	4.849	-0.001	94	218525	4.00	3.67	
17 Ethanol	31	4.956	4.983	-0.027	99	761701	20.0	18.4	
18 Vinyl bromide	106	5.166	5.168	-0.002	97	417570	4.00	3.90	
19 2-Methylbutane	43	5.215	5.219	-0.004	88	421997	4.00	3.47	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	1569298	4.00	3.84	
21 Acrolein	56	5.457	5.472	-0.015	96	68152	4.00	3.84	
22 Acetonitrile	40	5.533	5.537	-0.004	95	109495	4.00	3.69	
23 Acetone	58	5.581	5.604	-0.023	100	343813	12.0	9.90	
24 Pentane	72	5.673	5.682	-0.009	81	63374	4.00	3.66	
25 Isopropyl alcohol	45	5.673	5.726	-0.053	77	1119666	12.0	11.3	
26 Ethyl ether	31	5.851	5.869	-0.018	90	263626	4.00	3.61	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	98	549765	4.00	3.75	
28 Acrylonitrile	53	6.288	6.304	-0.016	93	267903	4.00	3.74	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	94	1197286	4.00	3.74	
30 2-Methyl-2-propanol	59	6.309	6.376	-0.067	94	864303	4.00	3.92	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	486021	4.00	3.41	
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	96	509026	4.00	3.62	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.713	-0.005	99	1499860	4.00	3.81	
34 trans-1,2-Dichloroethene	96	7.372	7.375	-0.003	99	554110	4.00	3.78	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	1089314	4.00	3.60	
36 Methyl tert-butyl ether	73	7.506	7.541	-0.035	95	1392455	4.00	3.53	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	1018782	4.00	3.63	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	987752	4.00	3.65	
40 Hexane	56	8.391	8.392	-0.001	91	425515	4.00	3.63	
39 2-Butanone (MEK)	72	8.369	8.393	-0.024	97	191292	4.00	3.43	
41 Isopropyl ether	45	8.553	8.569	-0.016	94	1288871	4.00	3.44	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	569244	4.00	3.79	
43 Ethyl acetate	43	8.995	9.002	-0.007	99	811274	4.00	3.37	
44 Chloroform	83	9.156	9.157	-0.001	96	1311051	4.00	3.76	
45 Tert-butyl ethyl ether	59	9.237	9.270	-0.033	94	1484302	4.00	3.51	
46 Tetrahydrofuran	42	9.566	9.605	-0.039	88	419284	4.00	3.37	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	94	1578895	4.00	3.78	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	926487	4.00	3.67	
49 Cyclohexane	69	10.785	10.788	-0.003	75	265054	4.00	3.49	
50 Benzene	78	10.785	10.788	-0.003	98	1498256	4.00	3.65	
52 Carbon tetrachloride	117	10.812	10.811	0.001	98	1628520	4.00	3.90	
51 n-Butanol	31	10.763	10.822	-0.059	79	146442	4.00	4.26	
53 2,3-Dimethylpentane	71	10.898	10.900	-0.002	88	377248	4.00	3.61	
54 Thiophene	84	11.060	11.057	0.003	96	925464	4.00	3.82	
55 Isooctane	57	11.529	11.531	-0.002	97	2463502	4.00	3.42	
56 n-Heptane	71	11.896	11.898	-0.002	89	573413	4.00	3.59	
57 1,2-Dichloropropane	63	11.987	11.986	0.001	85	538612	4.00	3.72	
58 Trichloroethene	130	12.020	12.022	-0.002	98	862077	4.00	3.77	
59 Dibromomethane	93	12.106	12.108	-0.002	92	648015	4.00	3.76	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	98	1396397	4.00	4.03	
61 1,4-Dioxane	88	12.268	12.304	-0.036	88	197428	4.00	3.31	
62 Methyl methacrylate	41	12.333	12.343	-0.010	94	528755	4.00	3.43	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	1048798	4.00	3.62	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.202	-0.023	96	853850	4.00	3.90	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	957323	4.00	3.95	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	899946	4.00	3.95	
67 Toluene	91	14.042	14.046	-0.004	94	1894853	4.00	3.90	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	97	530558	4.00	3.73	
69 2-Hexanone	58	14.495	14.514	-0.019	96	455335	4.00	3.86	
70 n-Octane	85	14.716	14.714	0.002	88	688088	4.00	3.90	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	1471952	4.00	4.27	
72 Ethylene Dibromide	107	15.110	15.107	0.003	99	1071436	4.00	4.06	
73 Tetrachloroethene	129	15.174	15.176	-0.002	96	841268	4.00	3.74	
75 Chlorobenzene	112	16.043	16.044	-0.001	92	1525179	4.00	3.77	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	89	1537758	4.00	3.31	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	2492968	4.00	3.88	
79 m-Xylene & p-Xylene	91	16.490	16.488	0.002	99	3855580	8.00	7.67	
80 n-Nonane	57	16.889	16.891	-0.002	85	1133522	4.00	3.67	
81 Bromoform	173	16.943	16.943	0.000	96	1404549	4.00	4.49	
82 Styrene	104	16.954	16.951	0.003	98	1374089	4.00	4.18	
83 o-Xylene	91	17.013	17.012	0.001	98	2040159	4.00	3.74	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	1126153	4.00	3.53	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	447403	4.00	3.62	
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	2722769	4.00	3.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.119	18.118	0.001	99	770068	4.00	3.71	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	759079	4.00	3.79	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	2605654	4.00	3.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	1079158	4.00	3.54	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	1133355	4.00	4.02	
93 n-Decane	57	18.604	18.606	-0.002	94	1250578	4.00	3.17	
94 tert-Butylbenzene	119	18.750	18.750	0.000	91	2351607	4.00	3.40	
95 1,2,4-Trimethylbenzene	105	18.766	18.763	0.003	96	2146687	4.00	3.31	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	3015388	4.00	3.32	
97 1,3-Dichlorobenzene	146	19.035	19.034	0.001	98	1691446	4.00	3.71	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	1812134	4.00	3.61	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	1692663	4.00	3.68	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	2699782	4.00	3.35	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	2181596	4.00	3.71	
102 Butylcyclohexane	83	19.278	19.276	0.002	92	1645586	4.00	3.23	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	1918858	4.00	3.25	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	87	1526639	4.00	3.56	
105 n-Butylbenzene	91	19.596	19.596	0.000	97	2208828	4.00	3.07	
106 Indene	116	19.596	19.598	-0.002	91	1660484	4.00	3.37	
107 Undecane	57	19.893	19.893	0.000	92	1210490	4.00	3.79	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	831656	4.00	3.80	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	2487349	4.00	3.27	
110 Dodecane	57	20.944	20.944	0.000	95	1126091	4.00	4.47	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	-0.001	95	1295535	4.00	3.39	
112 Naphthalene	128	21.295	21.297	-0.002	99	2485523	4.00	3.16	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	1364630	4.00	3.68	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	1141200	4.00	3.24	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	99	1007749	4.00	3.65	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	1013536	4.00	3.85	
A 122 C8 Range	1	14.716	(14.652-14.792)		0	5498095	4.00	3.76	
S 123 1,2-Dichloroethene, Total	1				0		8.00	7.57	
S 124 Xylenes, Total	100				0		12.0	11.4	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

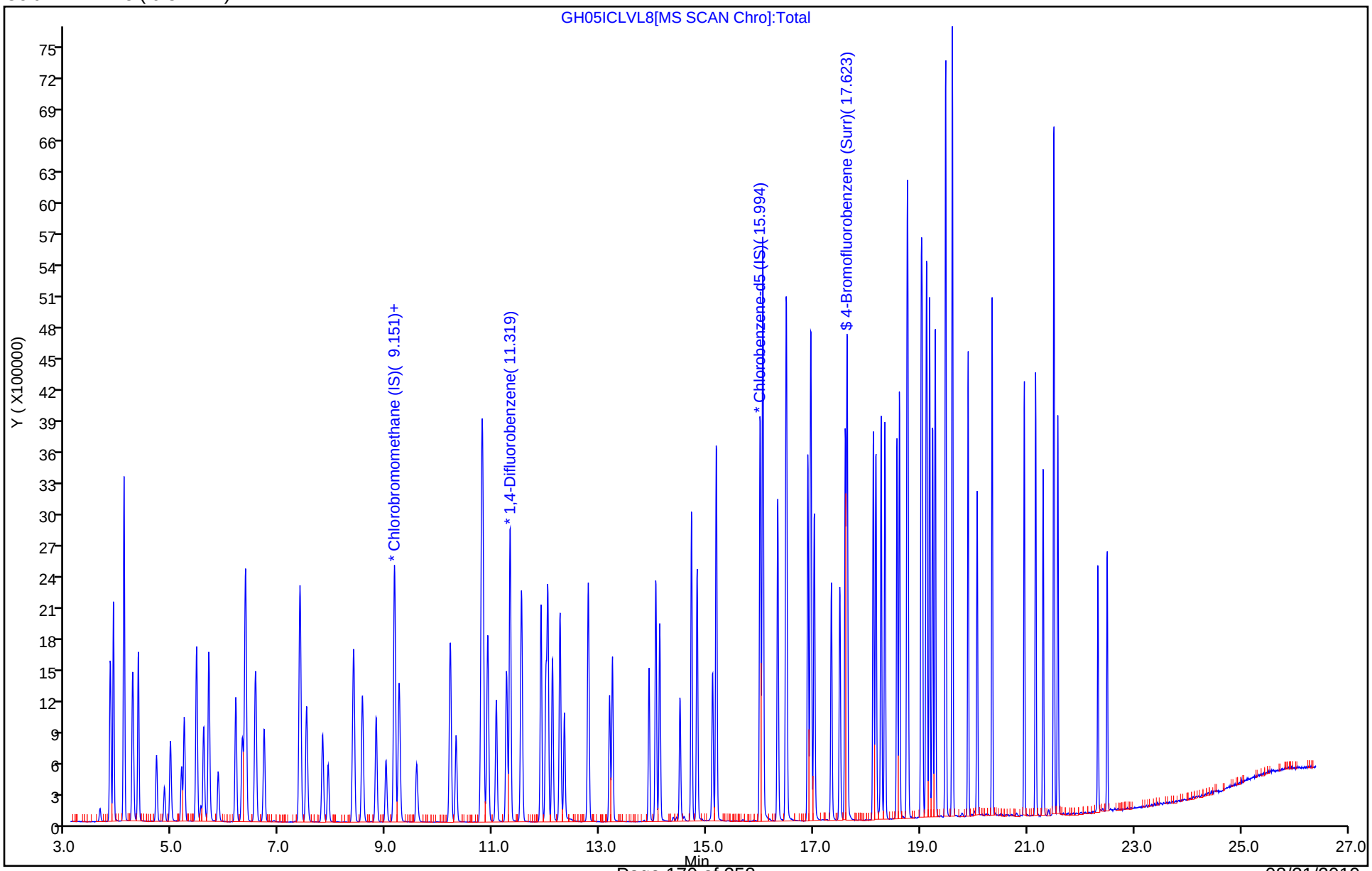
Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

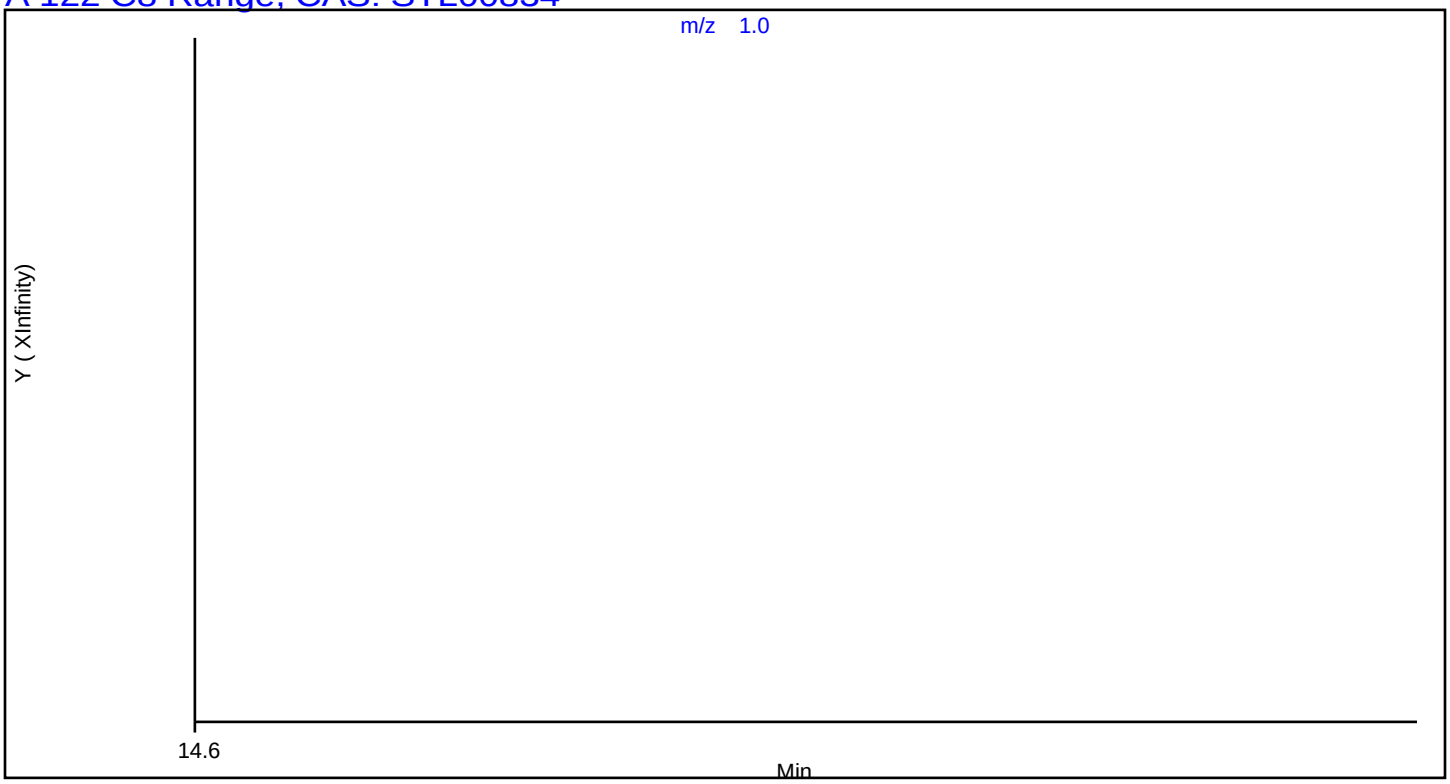


Report Date: 08-Aug-2019 11:06:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Injection Date:	05-Aug-2019 23:41:30	Instrument ID:	MG		
Lims ID:	IC L8				
Client ID:					
Operator ID:	007126	ALS Bottle#:	3	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 122 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	1.997		4.91	5.00	-1.7	35.0
Propene	Ave	0.996	1.027		5.16	5.00	3.1	35.0
Dichlorodifluoromethane	Ave	3.947	4.067		5.15	5.00	3.1	35.0
Chloromethane	Ave	0.2864	0.2725		4.76	5.00	-4.9	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.407		5.36	5.00	7.2	35.0
Acetaldehyde	Ave	0.3158	0.2178		17.2	25.0	-31.0	35.0
Vinyl chloride	Ave	1.044	1.002		4.80	5.00	-4.0	35.0
1,3-Butadiene	Ave	0.7597	0.7106		4.68	5.00	-6.5	35.0
Butane	Ave	1.492	1.441		4.83	5.00	-3.4	35.0
Bromomethane	Ave	0.9503	0.9264		4.87	5.00	-2.5	35.0
Chloroethane	Ave	0.4643	0.4442		4.78	5.00	-4.3	35.0
Ethanol	Ave	0.3217	0.2159		16.8	25.0	-32.9	35.0
Vinyl bromide	Ave	0.8333	0.8939		5.36	5.00	7.3	35.0
2-Methylbutane	Ave	0.9463	0.9089		4.80	5.00	-3.9	35.0
Trichlorofluoromethane	Ave	3.185	3.278		5.15	5.00	2.9	35.0
Acrolein	Ave	0.1381	0.1255		4.54	5.00	-9.1	35.0
Acetonitrile	Ave	0.2308	0.1605		3.48	5.00	-30.5	35.0
Acetone	Ave	0.2705	0.1978		3.66	5.00	-26.9	35.0
Pentane	Ave	0.1347	0.1413		5.24	5.00	4.9	35.0
Isopropyl alcohol	Ave	0.7723	0.8883		5.75	5.00	15.0	35.0
Ethyl ether	Ave	0.5689	0.4450		3.91	5.00	-21.8	35.0
1,1-Dichloroethene	Ave	1.140	1.120		4.91	5.00	-1.8	35.0
Acrylonitrile	Ave	0.5581	0.4380		3.92	5.00	-21.5	35.0
tert-Butyl alcohol	Ave	1.715	1.693		4.93	5.00	-1.3	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.459		4.93	5.00	-1.5	35.0
Methylene Chloride	Ave	1.108	1.041		4.69	5.00	-6.1	35.0
3-Chloropropene	Ave	1.095	1.010		4.61	5.00	-7.7	35.0
Carbon disulfide	Ave	3.065	3.069		5.01	5.00	0.1	35.0
trans-1,2-Dichloroethene	Ave	1.141	1.122		4.92	5.00	-1.7	35.0
2-Methylpentane	Ave	2.358	2.048		4.34	5.00	-13.1	35.0
Methyl tert-butyl ether	Ave	3.072	2.403		3.91	5.00	-21.8	35.0
1,1-Dichloroethane	Ave	2.187	1.966		4.49	5.00	-10.1	35.0
Vinyl acetate	Ave	2.107	1.538		3.65	5.00	-27.0	35.0
2-Butanone (MEK)	Ave	0.4337	0.3204		3.69	5.00	-26.1	35.0
Hexane	Ave	0.9137	0.8503		4.65	5.00	-6.9	35.0
Isopropyl ether	Ave	2.914	2.296		3.94	5.00	-21.2	35.0
cis-1,2-Dichloroethene	Ave	1.171	1.129		4.82	5.00	-3.5	35.0
Ethyl acetate	Ave	1.876	1.288		3.43	5.00	-31.4	35.0
Chloroform	Ave	2.715	2.539		4.68	5.00	-6.5	35.0
Tert-butyl ethyl ether	Ave	3.293	2.428		3.69	5.00	-26.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.6980		3.60	5.00	-28.0	35.0
1,1,1-Trichloroethane	Ave	3.254	3.027		4.65	5.00	-7.0	35.0
1,2-Dichloroethane	Ave	0.3682	0.3489		4.74	5.00	-5.2	35.0
1-Butanol	Ave	0.0501	0.0548		5.47	5.00	9.4	35.0
Benzene	Ave	0.5978	0.6051		5.06	5.00	1.2	35.0
Cyclohexane	Ave	0.1107	0.1099		4.96	5.00	-0.7	35.0
Carbon tetrachloride	Ave	0.6079	0.6440		5.30	5.00	5.9	35.0
2,3-Dimethylpentane	Ave	0.1522	0.1466		4.82	5.00	-3.7	35.0
Thiophene	Ave	0.3534	0.3500		4.95	5.00	-1.0	35.0
2,2,4-Trimethylpentane	Ave	1.049	0.9936		4.74	5.00	-5.3	35.0
Heptane	Ave	0.2329	0.2308		4.96	5.00	-0.9	35.0
1,2-Dichloropropane	Ave	0.2110	0.1936		4.59	5.00	-8.2	35.0
Trichloroethene	Ave	0.3335	0.3419		5.13	5.00	2.5	35.0
Dibromomethane	Ave	0.2511	0.2514		5.01	5.00	0.1	35.0
Bromodichloromethane	Ave	0.5049	0.5249		5.20	5.00	4.0	35.0
1,4-Dioxane	Ave	0.0869	0.0750		4.31	5.00	-13.7	35.0
Methyl methacrylate	Ave	0.2246	0.1724		3.84	5.00	-23.3	35.0
Methylcyclohexane	Ave	0.4217	0.5059		6.00	5.00	20.0	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3281		5.09	5.00	1.9	35.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3300		4.67	5.00	-6.5	35.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3202		4.34	5.00	-13.3	35.0
Toluene	Ave	0.7865	0.7125		4.53	5.00	-9.4	35.0
1,1,2-Trichloroethane	Ave	0.2304	0.1976		4.29	5.00	-14.2	35.0
2-Hexanone	Ave	0.1912	0.1831		4.79	5.00	-4.3	35.0
Octane	Ave	0.2861	0.3045		5.32	5.00	6.4	35.0
Dibromochloromethane	Ave	0.5582	0.5784		5.18	5.00	3.6	35.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4016		4.70	5.00	-6.1	35.0
Tetrachloroethene	Ave	0.3641	0.3600		4.94	5.00	-1.1	35.0
2,3-Dimethylheptane	Ave	0.7538	0.6253		4.15	5.00	-17.1	35.0
Chlorobenzene	Ave	0.6563	0.6275		4.78	5.00	-4.4	35.0
Ethylbenzene	Ave	1.041	0.8964		4.30	5.00	-13.9	35.0
m-Xylene & p-Xylene	Ave	0.8151	0.7195		8.83	10.0	-11.7	35.0
Nonane	Ave	0.5001	0.4769		4.77	5.00	-4.7	35.0
Bromoform	Ave	0.5067	0.5170		5.10	5.00	2.0	35.0
Styrene	Ave	0.5330	0.4849		4.55	5.00	-9.0	35.0
o-Xylene	Ave	0.8833	0.7356		4.16	5.00	-16.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4241		4.11	5.00	-17.9	35.0
1,2,3-Trichloropropane	Ave	0.2004	0.1644		4.10	5.00	-17.9	35.0
Isopropylbenzene	Ave	1.202	1.041		4.33	5.00	-13.4	35.0
Propylbenzene	Ave	0.3368	0.2839		4.21	5.00	-15.7	35.0
2-Chlorotoluene	Ave	0.3248	0.2976		4.58	5.00	-8.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: ICV 140-32317/17 Calibration Date: 08/06/2019 01:46

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GH05LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9301		3.94	5.00	-21.1	35.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4596		4.65	5.00	-7.0	35.0
Alpha Methyl Styrene	Ave	0.4574	0.3985		4.36	5.00	-12.9	35.0
Decane	Ave	0.6385	0.5260		4.12	5.00	-17.6	35.0
tert-Butylbenzene	Ave	1.121	0.9142		4.08	5.00	-18.4	35.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8374		3.99	5.00	-20.2	35.0
sec-Butylbenzene	Ave	1.470	1.189		4.04	5.00	-19.1	35.0
1,3-Dichlorobenzene	Ave	0.7393	0.6575		4.45	5.00	-11.1	35.0
Benzyl chloride	Ave	0.8145	0.7166		4.40	5.00	-12.0	35.0
1,4-Dichlorobenzene	Ave	0.7461	0.6580		4.41	5.00	-11.8	35.0
4-Isopropyltoluene	Ave	1.304	1.040		3.99	5.00	-20.3	35.0
1,2,3-Trimethylbenzene	Lin1		0.6437		3.31	5.00	-33.8	35.0
Butylcyclohexane	Ave	0.8263	0.6823		4.13	5.00	-17.4	35.0
1,2-Dichlorobenzene	Ave	0.6954	0.6154		4.42	5.00	-11.5	35.0
Indane	Ave	0.9576	0.7682		4.01	5.00	-19.8	35.0
Butylbenzene	Ave	1.167	0.9327		4.00	5.00	-20.0	35.0
Indene	Ave	0.7987	0.5758		3.60	5.00	-27.9	35.0
Undecane	Ave	0.5181	0.5069		4.89	5.00	-2.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2642		3.73	5.00	-25.4	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9814		3.98	5.00	-20.4	35.0
Dodecane	Ave	0.4081	0.4318		5.29	5.00	5.8	35.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5342		4.32	5.00	-13.7	35.0
Naphthalene	Ave	1.275	1.094		4.29	5.00	-14.2	35.0
Hexachlorobutadiene	Ave	0.6005	0.4893		4.07	5.00	-18.5	35.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4911		4.30	5.00	-14.0	35.0
2-Methylnaphthalene	Ave	0.4473	0.6563		7.34	5.00	46.7	50.0
1-Methylnaphthalene	Ave	0.4268	0.6127		7.18	5.00	43.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.6881		9.90	10.0	-1.0	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Aug-2019 01:46:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012602-017
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist:

Method: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Aug-2019 14:01:26 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0310

First Level Reviewer: liul Date: 08-Aug-2019 14:01:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.146	9.147	-0.001	84	489315	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.317	-0.004	94	2460270	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.994	15.998	-0.004	88	2289950	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.623	17.625	-0.002	92	1575637	4.00	3.96	
6 Chlorodifluoromethane	51	3.829	3.826	0.003	96	488556	2.00	1.97	
7 Propene	41	3.840	3.839	0.001	96	251206	2.00	2.06	
8 Dichlorodifluoromethane	85	3.894	3.891	0.003	100	995132	2.00	2.06	
9 Chloromethane	52	4.082	4.085	-0.003	97	66671	2.00	1.90	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.093	4.091	0.002	89	588824	2.00	2.14	
11 Acetaldehyde	44	4.255	4.261	-0.006	91	266464	10.0	6.90	
12 Vinyl chloride	62	4.266	4.266	0.000	99	245218	2.00	1.92	
13 Butane	43	4.357	4.360	-0.003	83	352535	2.00	1.93	
14 Butadiene	54	4.357	4.360	-0.003	69	173846	2.00	1.87	
15 Bromomethane	94	4.697	4.699	-0.002	98	226647	2.00	1.95	
16 Chloroethane	64	4.848	4.849	-0.001	95	108684	2.00	1.91	
17 Ethanol	31	4.967	4.983	-0.016	98	264160	10.0	6.71	
18 Vinyl bromide	106	5.166	5.168	-0.002	96	218694	2.00	2.15	
19 2-Methylbutane	43	5.220	5.219	0.001	89	222377	2.00	1.92	
20 Trichlorofluoromethane	101	5.447	5.449	-0.002	99	802062	2.00	2.06	
21 Acrolein	56	5.468	5.472	-0.004	97	30703	2.00	1.82	
22 Acetonitrile	40	5.533	5.537	-0.004	98	39256	2.00	1.39	
23 Acetone	58	5.587	5.604	-0.017	100	48389	2.00	1.46	
24 Pentane	72	5.678	5.682	-0.004	96	34558	2.00	2.10	
25 Isopropyl alcohol	45	5.695	5.726	-0.031	94	217323	2.00	2.30	
26 Ethyl ether	31	5.862	5.869	-0.007	90	108869	2.00	1.56	
27 1,1-Dichloroethene	96	6.180	6.185	-0.005	97	273951	2.00	1.96	
28 Acrylonitrile	53	6.299	6.304	-0.005	94	107166	2.00	1.57	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.365	-0.002	95	601551	2.00	1.97	
30 2-Methyl-2-propanol	59	6.331	6.376	-0.045	95	414115	2.00	1.97	
31 Methylene Chloride	84	6.541	6.545	-0.004	93	254639	2.00	1.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.562	-0.005	97	247156	2.00	1.85	
33 Carbon disulfide	76	6.714	6.713	0.001	99	750779	2.00	2.00	
34 trans-1,2-Dichloroethene	96	7.377	7.375	0.002	99	274522	2.00	1.97	
35 2-Methylpentane	43	7.388	7.393	-0.005	91	501052	2.00	1.74	
36 Methyl tert-butyl ether	73	7.517	7.541	-0.024	95	587885	2.00	1.56	
37 1,1-Dichloroethane	63	7.808	7.808	0.000	100	481046	2.00	1.80	
38 Vinyl acetate	43	7.911	7.921	-0.010	99	376362	2.00	1.46	
40 Hexane	56	8.396	8.392	0.004	90	208038	2.00	1.86	
39 2-Butanone (MEK)	72	8.375	8.393	-0.018	98	78398	2.00	1.48	
41 Isopropyl ether	45	8.558	8.569	-0.011	94	561675	2.00	1.58	
42 cis-1,2-Dichloroethene	96	8.806	8.812	-0.006	94	276247	2.00	1.93	
43 Ethyl acetate	43	9.000	9.002	-0.002	99	315013	2.00	1.37	
44 Chloroform	83	9.157	9.157	-0.001	96	621081	2.00	1.87	
45 Tert-butyl ethyl ether	59	9.248	9.270	-0.022	93	594016	2.00	1.47	
46 Tetrahydrofuran	42	9.577	9.605	-0.028	88	170766	2.00	1.44	
47 1,1,1-Trichloroethane	97	10.197	10.198	-0.001	95	740690	2.00	1.86	
48 1,2-Dichloroethane	62	10.305	10.305	0.000	99	429233	2.00	1.90	
49 Cyclohexane	69	10.785	10.788	-0.003	79	135174	2.00	1.99	
50 Benzene	78	10.785	10.788	-0.003	97	744293	2.00	2.02	
52 Carbon tetrachloride	117	10.812	10.811	0.001	97	792237	2.00	2.12	
51 n-Butanol	31	10.785	10.822	-0.037	51	67370	2.00	2.19	
53 2,3-Dimethylpentane	71	10.893	10.900	-0.007	89	180321	2.00	1.93	
54 Thiophene	84	11.055	11.057	-0.002	95	430542	2.00	1.98	
55 Isooctane	57	11.529	11.531	-0.002	97	1222219	2.00	1.89	
56 n-Heptane	71	11.890	11.898	-0.008	89	283963	2.00	1.98	
57 1,2-Dichloropropane	63	11.988	11.986	0.002	84	238206	2.00	1.84	
58 Trichloroethene	130	12.020	12.022	-0.002	98	420601	2.00	2.05	
59 Dibromomethane	93	12.106	12.108	-0.002	92	309292	2.00	2.00	
60 Dichlorobromomethane	83	12.246	12.249	-0.003	99	645655	2.00	2.08	
61 1,4-Dioxane	88	12.279	12.304	-0.025	90	92281	2.00	1.73	
62 Methyl methacrylate	41	12.338	12.343	-0.005	93	212031	2.00	1.53	
63 Methylcyclohexane	83	12.780	12.781	-0.001	94	622284	2.00	2.40	
64 4-Methyl-2-pentanone (MIBK	43	13.185	13.202	-0.017	96	403647	2.00	2.04	
65 cis-1,3-Dichloropropene	75	13.233	13.234	-0.001	95	405924	2.00	1.87	
66 trans-1,3-Dichloropropene	75	13.918	13.919	-0.001	98	366604	2.00	1.73	
67 Toluene	91	14.042	14.046	-0.004	94	815778	2.00	1.81	
68 1,1,2-Trichloroethane	83	14.117	14.118	-0.001	98	226200	2.00	1.72	
69 2-Hexanone	58	14.506	14.514	-0.008	95	209595	2.00	1.91	
70 n-Octane	85	14.711	14.714	-0.003	90	348608	2.00	2.13	
71 Chlorodibromomethane	129	14.818	14.818	0.000	98	662242	2.00	2.07	
72 Ethylene Dibromide	107	15.104	15.107	-0.003	99	459872	2.00	1.88	
73 Tetrachloroethene	129	15.174	15.176	-0.002	97	412171	2.00	1.98	
75 Chlorobenzene	112	16.048	16.044	0.004	94	718490	2.00	1.91	
74 2,3-Dimethylheptane	43	16.048	16.052	-0.004	90	715895	2.00	1.66	
78 Ethylbenzene	91	16.328	16.329	-0.001	98	1026339	2.00	1.72	
79 m-Xylene & p-Xylene	91	16.485	16.488	-0.003	98	1647623	4.00	3.53	
80 n-Nonane	57	16.889	16.891	-0.002	86	545977	2.00	1.91	
81 Bromoform	173	16.943	16.943	0.000	96	591919	2.00	2.04	
82 Styrene	104	16.948	16.951	-0.003	98	555145	2.00	1.82	
83 o-Xylene	91	17.008	17.012	-0.004	99	842230	2.00	1.67	
84 1,1,2,2-Tetrachloroethane	83	17.331	17.334	-0.003	99	485625	2.00	1.64	
85 1,2,3-Trichloropropane	110	17.488	17.489	-0.001	96	188272	2.00	1.64	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.590	17.592	-0.002	97	1192211	2.00	1.73	
87 N-Propylbenzene	120	18.119	18.118	0.001	99	325016	2.00	1.69	
88 2-Chlorotoluene	126	18.167	18.166	0.001	97	340708	2.00	1.83	
89 4-Ethyltoluene	105	18.264	18.264	0.000	98	1064941	2.00	1.58	
90 1,3,5-Trimethylbenzene	120	18.334	18.335	-0.001	93	526211	2.00	1.86	
92 Alpha Methyl Styrene	118	18.561	18.561	0.000	89	456216	2.00	1.74	
93 n-Decane	57	18.604	18.606	-0.002	94	602277	2.00	1.65	
94 tert-Butylbenzene	119	18.750	18.750	0.000	92	1046750	2.00	1.63	
95 1,2,4-Trimethylbenzene	105	18.760	18.763	-0.003	96	958801	2.00	1.60	
96 sec-Butylbenzene	105	19.014	19.014	0.000	98	1361439	2.00	1.62	
97 1,3-Dichlorobenzene	146	19.030	19.034	-0.004	99	752858	2.00	1.78	
98 Benzyl chloride	91	19.105	19.106	-0.001	98	820460	2.00	1.76	
99 1,4-Dichlorobenzene	146	19.116	19.119	-0.003	94	753358	2.00	1.76	
100 4-Isopropyltoluene	119	19.170	19.172	-0.002	97	1190444	2.00	1.59	
101 1,2,3-Trimethylbenzene	105	19.224	19.225	-0.001	98	737047	2.00	1.32	
102 Butylcyclohexane	83	19.278	19.276	0.002	93	781266	2.00	1.65	
103 2,3-Dihydroindene	117	19.472	19.470	0.002	93	879547	2.00	1.60	
104 1,2-Dichlorobenzene	146	19.472	19.472	0.000	88	704588	2.00	1.77	
105 n-Butylbenzene	91	19.596	19.596	0.000	98	1067884	2.00	1.60	
106 Indene	116	19.596	19.598	-0.002	90	659271	2.00	1.44	
107 Undecane	57	19.893	19.893	0.000	93	580386	2.00	1.96	
108 1,2-Dibromo-3-Chloropropan	157	20.060	20.062	-0.002	99	302450	2.00	1.49	
109 1,2,4,5-Tetramethylbenzene	119	20.340	20.341	-0.001	97	1123670	2.00	1.59	
110 Dodecane	57	20.944	20.944	0.000	96	494419	2.00	2.12	
111 1,2,4-Trichlorobenzene	180	21.155	21.155	0.000	95	611666	2.00	1.73	
112 Naphthalene	128	21.295	21.297	-0.002	99	1252073	2.00	1.72	
113 Hexachlorobutadiene	225	21.500	21.499	0.001	96	560237	2.00	1.63	
114 1,2,3-Trichlorobenzene	180	21.570	21.572	-0.002	95	562298	2.00	1.72	
115 2-Methylnaphthalene	142	22.325	22.325	0.000	100	751467	2.00	2.93	
116 1-Methylnaphthalene	142	22.497	22.497	0.000	99	701583	2.00	2.87	
A 122 C8 Range	1	14.721	(14.652-14.792)		0	2770126	2.00	2.04	
S 123 1,2-Dichloroethene, Total	1				0		4.00	3.90	
S 124 Xylenes, Total	100				0		6.00	5.20	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

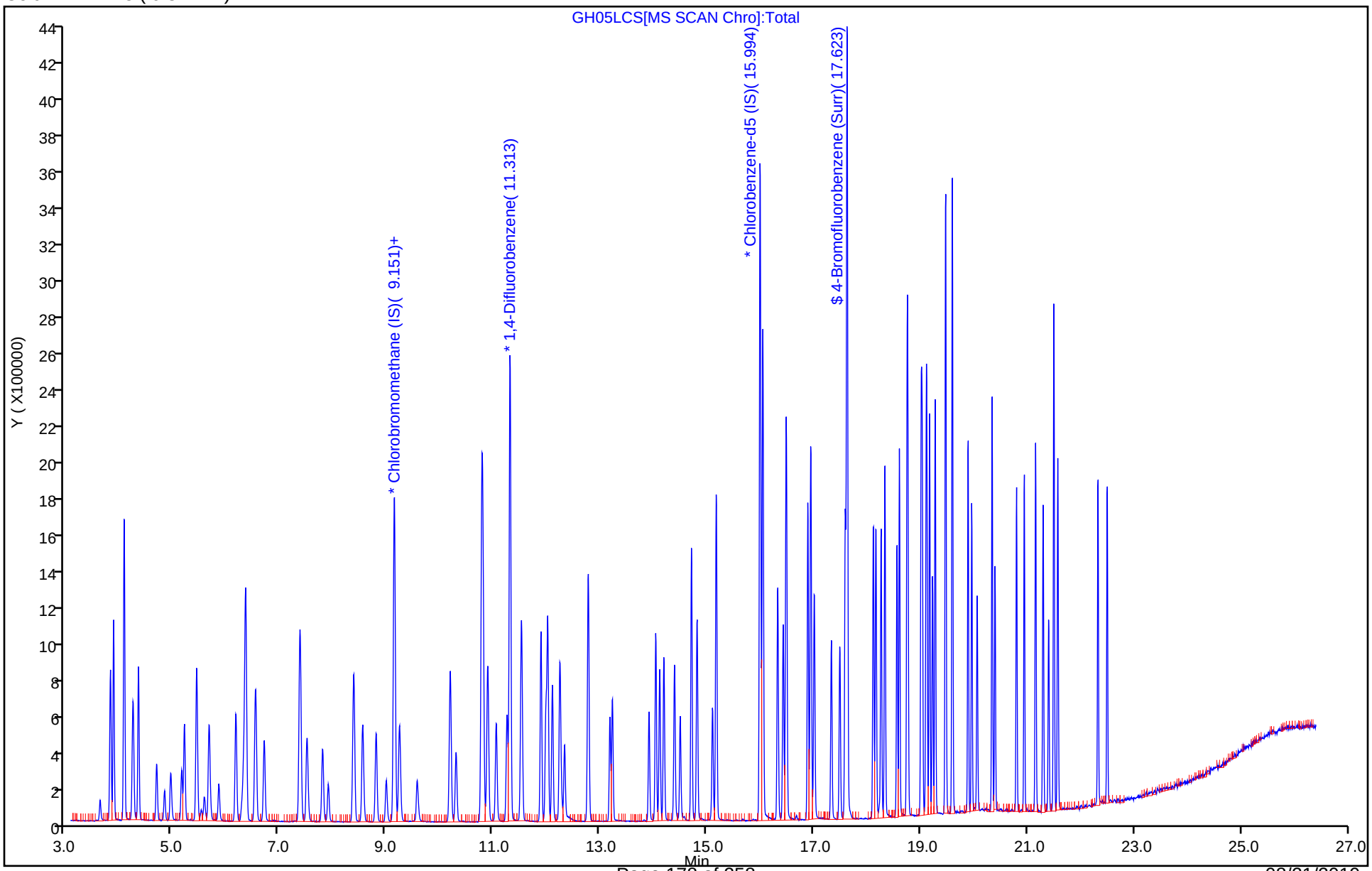
Report Date: 08-Aug-2019 14:01:32 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05LCS.D

Injection Date:	06-Aug-2019 01:46:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	ICV			Worklist Smp#:	17
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32521/2 Calibration Date: 08/12/2019 09:07

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	2.205		2.17	2.00	8.5	30.0
Propene	Ave	0.996	1.186		2.38	2.00	19.1	30.0
Dichlorodifluoromethane	Ave	3.947	3.983		2.02	2.00	0.9	30.0
Chloromethane	Ave	0.2864	0.2976		2.08	2.00	3.9	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.174		1.94	2.00	-3.2	30.0
Acetaldehyde	Ave	0.3158	0.2747		8.70	10.0	-13.0	30.0
Vinyl chloride	Ave	1.044	1.095		2.10	2.00	4.8	30.0
1,3-Butadiene	Ave	0.7597	0.8155		2.15	2.00	7.3	30.0
Butane	Ave	1.492	1.631		2.19	2.00	9.3	30.0
Bromomethane	Ave	0.9503	0.9029		1.90	2.00	-5.0	30.0
Chloroethane	Ave	0.4643	0.4941		2.13	2.00	6.4	30.0
Ethanol	Ave	0.3217	0.2568		7.98	10.0	-20.2	30.0
Vinyl bromide	Ave	0.8333	0.8708		2.09	2.00	4.5	30.0
2-Methylbutane	Ave	0.9463	1.041		2.20	2.00	10.0	30.0
Trichlorofluoromethane	Ave	3.185	3.097		1.94	2.00	-2.8	30.0
Acrolein	Ave	0.1381	0.1409		2.04	2.00	2.0	30.0
Acetonitrile	Ave	0.2308	0.1700		1.47	2.00	-26.3	30.0
Acetone	Ave	0.2705	0.2238		1.65	2.00	-17.3	30.0
Pentane	Ave	0.1347	0.1507		2.24	2.00	11.9	30.0
Isopropyl alcohol	Ave	0.7723	0.9768		2.53	2.00	26.5	30.0
Ethyl ether	Ave	0.5689	0.5286		1.86	2.00	-7.1	30.0
1,1-Dichloroethene	Ave	1.140	1.165		2.04	2.00	2.2	30.0
Acrylonitrile	Ave	0.5581	0.5167		1.85	2.00	-7.4	30.0
tert-Butyl alcohol	Ave	1.715	1.834		2.14	2.00	7.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.572		2.06	2.00	3.0	30.0
Methylene Chloride	Ave	1.108	1.162		2.10	2.00	4.9	30.0
3-Chloropropene	Ave	1.095	1.201		2.19	2.00	9.7	30.0
Carbon disulfide	Ave	3.065	3.370		2.20	2.00	10.0	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.187		2.08	2.00	4.0	30.0
2-Methylpentane	Ave	2.358	2.405		2.04	2.00	2.0	30.0
Methyl tert-butyl ether	Ave	3.072	2.579		1.68	2.00	-16.0	30.0
1,1-Dichloroethane	Ave	2.187	2.300		2.10	2.00	5.2	30.0
Vinyl acetate	Ave	2.107	1.934		1.84	2.00	-8.2	30.0
2-Butanone (MEK)	Ave	0.4337	0.3554		1.64	2.00	-18.1	30.0
Hexane	Ave	0.9137	1.001		2.19	2.00	9.6	30.0
Isopropyl ether	Ave	2.914	2.722		1.87	2.00	-6.6	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.194		2.04	2.00	2.0	30.0
Ethyl acetate	Ave	1.876	1.569		1.67	2.00	-16.3	30.0
Chloroform	Ave	2.715	2.670		1.97	2.00	-1.6	30.0
Tert-butyl ethyl ether	Ave	3.293	2.700		1.64	2.00	-18.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32521/2 Calibration Date: 08/12/2019 09:07

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.8382		1.73	2.00	-13.5	30.0
1,1,1-Trichloroethane	Ave	3.254	3.121		1.92	2.00	-4.1	30.0
1,2-Dichloroethane	Ave	0.3682	0.3515		1.91	2.00	-4.5	30.0
1-Butanol	Ave	0.0501	0.0575		2.30	2.00	14.9	30.0
Benzene	Ave	0.5978	0.6128		2.05	2.00	2.5	30.0
Cyclohexane	Ave	0.1107	0.1112		2.01	2.00	0.5	30.0
Carbon tetrachloride	Ave	0.6079	0.5815		1.91	2.00	-4.3	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1504		1.98	2.00	-1.2	30.0
Thiophene	Ave	0.3534	0.3384		1.92	2.00	-4.2	30.0
2,2,4-Trimethylpentane	Ave	1.049	1.048		2.00	2.00	-0.1	30.0
Heptane	Ave	0.2329	0.2271		1.95	2.00	-2.5	30.0
1,2-Dichloropropane	Ave	0.2110	0.2068		1.96	2.00	-2.0	30.0
Trichloroethene	Ave	0.3335	0.2946		1.77	2.00	-11.7	30.0
Dibromomethane	Ave	0.2511	0.2384		1.90	2.00	-5.1	30.0
Bromodichloromethane	Ave	0.5049	0.5051		2.00	2.00	0.0	30.0
1,4-Dioxane	Ave	0.0869	0.0702		1.62	2.00	-19.2	30.0
Methyl methacrylate	Ave	0.2246	0.1836		1.63	2.00	-18.3	30.0
Methylcyclohexane	Ave	0.4217	0.4911		2.33	2.00	16.5	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3135		1.94	2.00	-2.8	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3478		1.97	2.00	-1.5	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3670		1.99	2.00	-0.6	30.0
Toluene	Ave	0.7865	0.7510		1.91	2.00	-4.5	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2170		1.88	2.00	-5.8	30.0
2-Hexanone	Ave	0.1912	0.1820		1.90	2.00	-4.8	30.0
Octane	Ave	0.2861	0.3030		2.12	2.00	5.9	30.0
Dibromochloromethane	Ave	0.5582	0.5570		2.00	2.00	-0.2	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4057		1.90	2.00	-5.1	30.0
Tetrachloroethene	Ave	0.3641	0.3325		1.83	2.00	-8.7	30.0
Chlorobenzene	Ave	0.6563	0.6457		1.97	2.00	-1.6	30.0
2,3-Dimethylheptane	Ave	0.7538	0.7201		1.91	2.00	-4.5	30.0
Ethylbenzene	Ave	1.041	0.9439		1.81	2.00	-9.4	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7525		3.69	4.00	-7.7	30.0
Nonane	Ave	0.5001	0.5349		2.14	2.00	7.0	30.0
Bromoform	Ave	0.5067	0.5199		2.05	2.00	2.6	30.0
Styrene	Ave	0.5330	0.5141		1.93	2.00	-3.5	30.0
o-Xylene	Ave	0.8833	0.7667		1.74	2.00	-13.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4543		1.76	2.00	-12.0	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1588		1.58	2.00	-20.8	30.0
Isopropylbenzene	Ave	1.202	1.026		1.71	2.00	-14.7	30.0
Propylbenzene	Ave	0.3368	0.2762		1.64	2.00	-18.0	30.0
2-Chlorotoluene	Ave	0.3248	0.2994		1.84	2.00	-7.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32521/2 Calibration Date: 08/12/2019 09:07

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH12.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	0.9364		1.59	2.00	-20.6	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4469		1.81	2.00	-9.6	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4009		1.75	2.00	-12.3	30.0
Decane	Ave	0.6385	0.6073		1.90	2.00	-4.9	30.0
tert-Butylbenzene	Ave	1.121	0.9100		1.62	2.00	-18.8	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8334		1.59	2.00	-20.6	30.0
sec-Butylbenzene	Ave	1.470	1.202		1.63	2.00	-18.3	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.6772		1.83	2.00	-8.4	30.0
Benzyl chloride	Ave	0.8145	0.7321		1.80	2.00	-10.1	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.6779		1.82	2.00	-9.1	30.0
4-Isopropyltoluene	Ave	1.304	1.018		1.56	2.00	-22.0	30.0
1,2,3-Trimethylbenzene	Lin1		0.6417		1.32	2.00	-34.0*	30.0
Butylcyclohexane	Ave	0.8263	0.7688		1.86	2.00	-7.0	30.0
Indane	Ave	0.9576	0.7764		1.62	2.00	-18.9	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.6246		1.80	2.00	-10.2	30.0
Butylbenzene	Ave	1.167	0.9600		1.65	2.00	-17.7	30.0
Indene	Ave	0.7987	0.5908		1.48	2.00	-26.0	30.0
Undecane	Ave	0.5181	0.5792		2.24	2.00	11.8	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2509		1.42	2.00	-29.2	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.9320		1.51	2.00	-24.4	30.0
Dodecane	Ave	0.4081	0.4852		2.38	2.00	18.9	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.5017		1.62	2.00	-18.9	30.0
Naphthalene	Ave	1.275	1.039		1.63	2.00	-18.5	30.0
Hexachlorobutadiene	Ave	0.6005	0.4680		1.56	2.00	-22.1	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4488		1.57	2.00	-21.4	30.0
2-Methylnaphthalene	Ave	0.4473	0.5883		2.63	2.00	31.5	50.0
1-Methylnaphthalene	Ave	0.4268	0.5519		2.59	2.00	29.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.7465		4.30	4.00	7.4	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GCCVH12.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Aug-2019 09:07:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:25:20 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:25:20

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	90	524110	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2888947	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.999	-0.010	89	2523321	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.628	-0.016	94	1883558	4.00	4.30	
	6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	577924	2.00	2.17	
	7 Propene	41	3.834	3.834	0.000	97	310793	2.00	2.38	
	8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1043677	2.00	2.02	
	9 Chloromethane	52	4.082	4.082	0.000	58	77996	2.00	2.08	
	10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	94	569746	2.00	1.94	
	11 Acetaldehyde	44	4.249	4.249	0.000	94	359898	10.0	8.70	
	12 Vinyl chloride	62	4.266	4.260	0.006	99	286847	2.00	2.10	
	13 Butane	43	4.357	4.352	0.005	83	427319	2.00	2.19	
	14 Butadiene	54	4.357	4.357	0.000	70	213701	2.00	2.15	
	15 Bromomethane	94	4.697	4.692	0.005	98	236612	2.00	1.90	
	16 Chloroethane	64	4.843	4.843	0.000	92	129475	2.00	2.13	
	17 Ethanol	31	4.956	4.956	0.000	99	336524	10.0	7.98	
	18 Vinyl bromide	106	5.166	5.166	0.000	97	228184	2.00	2.09	
	19 2-Methylbutane	43	5.220	5.215	0.005	89	272810	2.00	2.20	
	20 Trichlorofluoromethane	101	5.447	5.446	0.001	99	811489	2.00	1.94	
	21 Acrolein	56	5.463	5.457	0.006	95	36926	2.00	2.04	
	22 Acetonitrile	40	5.533	5.533	0.000	97	44555	2.00	1.47	
	23 Acetone	58	5.587	5.587	0.000	99	58642	2.00	1.65	
	24 Pentane	72	5.673	5.673	0.000	97	39481	2.00	2.24	
	25 Isopropyl alcohol	45	5.689	5.700	-0.011	93	255976	2.00	2.53	
	26 Ethyl ether	31	5.862	5.856	0.006	94	138528	2.00	1.86	
	27 1,1-Dichloroethene	96	6.180	6.174	0.006	95	305392	2.00	2.04	
	28 Acrylonitrile	53	6.293	6.293	0.000	93	135398	2.00	1.85	
	30 2-Methyl-2-propanol	59	6.320	6.336	-0.016	94	480696	2.00	2.14	
	29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.358	0.005	97	674076	2.00	2.06	
	31 Methylene Chloride	84	6.541	6.541	0.000	95	304588	2.00	2.10	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.552	0.005	96	314768	2.00	2.19	
33 Carbon disulfide	76	6.708	6.708	0.000	100	883243	2.00	2.20	
34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	97	311038	2.00	2.08	
35 2-Methylpentane	43	7.388	7.382	0.006	92	630346	2.00	2.04	
36 Methyl tert-butyl ether	73	7.506	7.512	-0.006	95	675888	2.00	1.68	
37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	602816	2.00	2.10	
38 Vinyl acetate	43	7.911	7.911	0.000	99	506848	2.00	1.84	
39 2-Butanone (MEK)	72	8.369	8.375	-0.006	96	93128	2.00	1.64	
40 Hexane	56	8.385	8.385	0.000	90	262393	2.00	2.19	
41 Isopropyl ether	45	8.553	8.558	-0.005	95	713434	2.00	1.87	
42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	97	312859	2.00	2.04	
43 Ethyl acetate	43	8.995	8.995	0.000	98	411266	2.00	1.67	
44 Chloroform	83	9.151	9.151	0.000	97	699777	2.00	1.97	
45 Tert-butyl ethyl ether	59	9.243	9.243	0.000	95	707557	2.00	1.64	
46 Tetrahydrofuran	42	9.572	9.572	0.000	89	219657	2.00	1.73	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	95	817817	2.00	1.92	
48 1,2-Dichloroethane	62	10.300	10.305	-0.005	99	507684	2.00	1.91	
49 Cyclohexane	69	10.785	10.785	0.000	79	160668	2.00	2.01	
50 Benzene	78	10.780	10.785	-0.005	97	885094	2.00	2.05	
51 n-Butanol	31	10.780	10.790	-0.010	69	83102	2.00	2.30	
52 Carbon tetrachloride	117	10.807	10.807	0.001	97	839918	2.00	1.91	
53 2,3-Dimethylpentane	71	10.898	10.893	0.005	90	217210	2.00	1.98	
54 Thiophene	84	11.049	11.055	-0.006	97	488753	2.00	1.92	
55 Isooctane	57	11.524	11.529	-0.005	97	1513515	2.00	2.00	
56 n-Heptane	71	11.890	11.896	-0.006	90	328076	2.00	1.95	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	86	298682	2.00	1.96	
58 Trichloroethene	130	12.014	12.020	-0.006	96	425545	2.00	1.77	
59 Dibromomethane	93	12.101	12.106	-0.005	95	344298	2.00	1.90	
60 Dichlorobromomethane	83	12.241	12.246	-0.005	98	729537	2.00	2.00	
61 1,4-Dioxane	88	12.268	12.279	-0.011	92	101456	2.00	1.62	
62 Methyl methacrylate	41	12.327	12.338	-0.011	92	265221	2.00	1.63	
63 Methylcyclohexane	83	12.775	12.780	-0.005	94	709391	2.00	2.33	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.190	-0.011	98	452788	2.00	1.94	
65 cis-1,3-Dichloropropene	75	13.228	13.233	-0.005	96	502338	2.00	1.97	
66 trans-1,3-Dichloropropene	75	13.907	13.918	-0.011	98	462977	2.00	1.99	
67 Toluene	91	14.037	14.042	-0.005	93	947556	2.00	1.91	
68 1,1,2-Trichloroethane	83	14.107	14.117	-0.010	99	273837	2.00	1.88	
69 2-Hexanone	58	14.495	14.506	-0.011	94	229584	2.00	1.90	
70 n-Octane	85	14.705	14.711	-0.006	90	382216	2.00	2.12	
71 Chlorodibromomethane	129	14.808	14.818	-0.010	98	702789	2.00	2.00	
72 Ethylene Dibromide	107	15.099	15.110	-0.011	99	511908	2.00	1.90	
73 Tetrachloroethene	129	15.169	15.180	-0.011	95	419516	2.00	1.83	
75 Chlorobenzene	112	16.037	16.048	-0.011	91	814707	2.00	1.97	
74 2,3-Dimethylheptane	43	16.043	16.053	-0.010	92	908461	2.00	1.91	
78 Ethylbenzene	91	16.318	16.328	-0.010	99	1190822	2.00	1.81	
79 m-Xylene & p-Xylene	91	16.474	16.490	-0.016	99	1898683	4.00	3.69	
80 n-Nonane	57	16.878	16.894	-0.016	87	674824	2.00	2.14	
81 Bromoform	173	16.932	16.943	-0.011	94	655958	2.00	2.05	
82 Styrene	104	16.938	16.954	-0.016	98	648589	2.00	1.93	
83 o-Xylene	91	17.002	17.013	-0.011	98	967319	2.00	1.74	
84 1,1,2,2-Tetrachloroethane	83	17.321	17.331	-0.010	99	573111	2.00	1.76	
85 1,2,3-Trichloropropane	110	17.477	17.493	-0.016	97	200342	2.00	1.58	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.579	17.595	-0.016	97	1294556	2.00	1.71	
87 N-Propylbenzene	120	18.102	18.119	-0.017	99	348514	2.00	1.64	
88 2-Chlorotoluene	126	18.151	18.167	-0.016	97	377749	2.00	1.84	
89 4-Ethyltoluene	105	18.248	18.264	-0.016	98	1181380	2.00	1.59	
90 1,3,5-Trimethylbenzene	120	18.324	18.334	-0.010	92	563865	2.00	1.81	
92 Alpha Methyl Styrene	118	18.545	18.561	-0.016	88	505829	2.00	1.75	
93 n-Decane	57	18.593	18.609	-0.016	93	766262	2.00	1.90	
94 tert-Butylbenzene	119	18.739	18.749	-0.010	92	1148133	2.00	1.62	
95 1,2,4-Trimethylbenzene	105	18.750	18.766	-0.016	96	1051411	2.00	1.59	
96 sec-Butylbenzene	105	18.998	19.014	-0.016	98	1516095	2.00	1.63	
97 1,3-Dichlorobenzene	146	19.019	19.035	-0.016	99	854446	2.00	1.83	
98 Benzyl chloride	91	19.089	19.105	-0.016	98	923644	2.00	1.80	
99 1,4-Dichlorobenzene	146	19.105	19.122	-0.017	93	855273	2.00	1.82	
100 4-Isopropyltoluene	119	19.154	19.170	-0.016	97	1284173	2.00	1.56	
101 1,2,3-Trimethylbenzene	105	19.213	19.229	-0.016	99	809620	2.00	1.32	
102 Butylcyclohexane	83	19.262	19.278	-0.016	92	969919	2.00	1.86	
103 2,3-Dihydroindene	117	19.456	19.472	-0.016	93	979574	2.00	1.62	
104 1,2-Dichlorobenzene	146	19.461	19.472	-0.011	90	788025	2.00	1.80	
105 n-Butylbenzene	91	19.580	19.596	-0.016	98	1211246	2.00	1.65	
106 Indene	116	19.585	19.601	-0.016	90	745396	2.00	1.48	
107 Undecane	57	19.877	19.893	-0.016	94	730725	2.00	2.24	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.065	-0.016	98	316509	2.00	1.42	
109 1,2,4,5-Tetramethylbenzene	119	20.324	20.346	-0.022	97	1175837	2.00	1.51	
110 Dodecane	57	20.928	20.944	-0.016	96	612120	2.00	2.38	
111 1,2,4-Trichlorobenzene	180	21.138	21.160	-0.022	94	632942	2.00	1.62	
112 Naphthalene	128	21.279	21.300	-0.021	99	1310930	2.00	1.63	
113 Hexachlorobutadiene	225	21.483	21.500	-0.017	96	590481	2.00	1.56	
114 1,2,3-Trichlorobenzene	180	21.554	21.575	-0.021	94	566283	2.00	1.57	
115 2-Methylnaphthalene	142	22.308	22.325	-0.017	99	742210	2.00	2.63	
116 1-Methylnaphthalene	142	22.481	22.497	-0.016	100	696353	2.00	2.59	
A 122 C8 Range	1	14.701	(14.647-14.775)		0	3303392	2.00	2.21	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.12	
S 124 Xylenes, Total	100				0		6.00	5.43	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

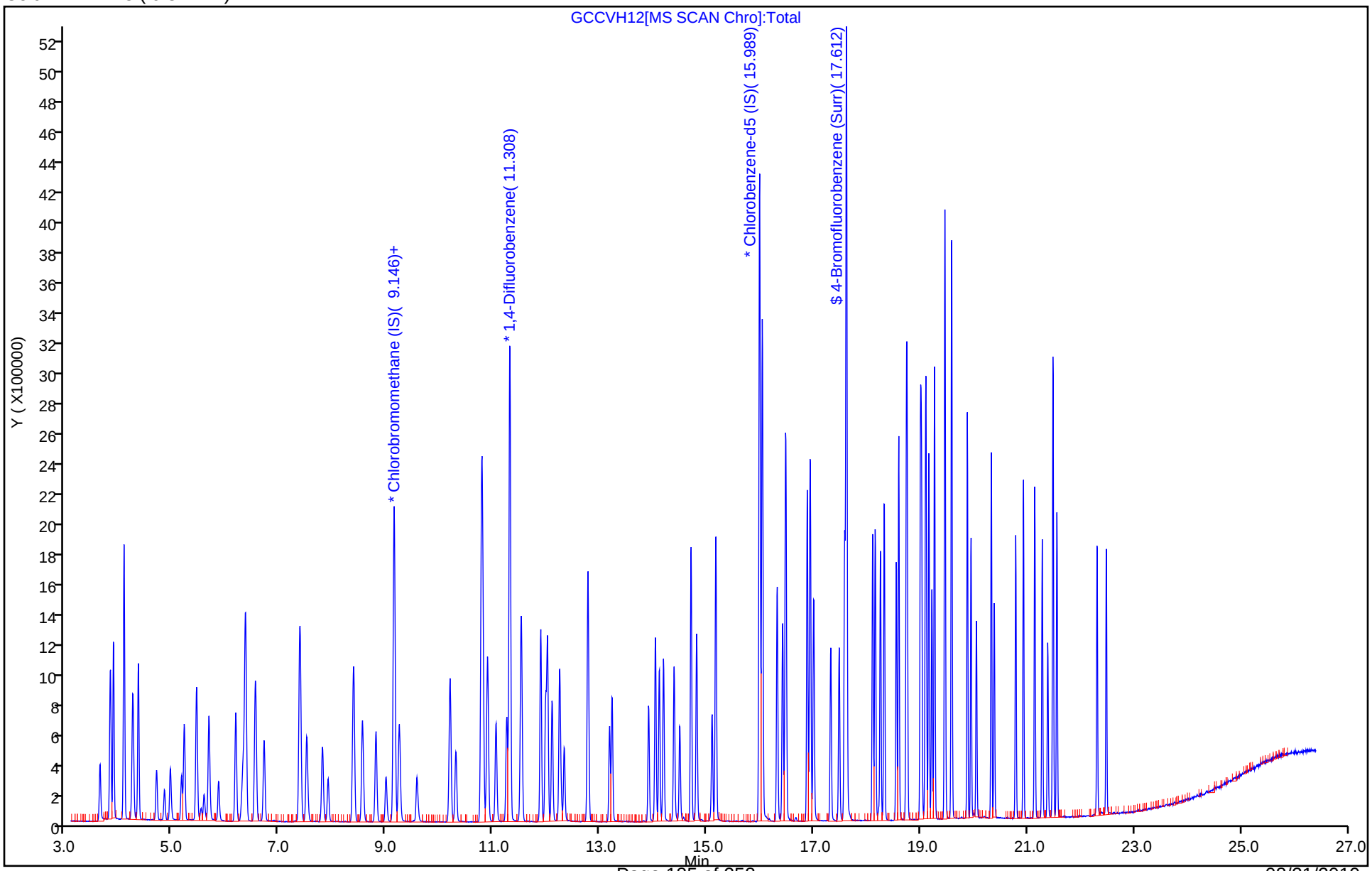
Report Date: 13-Aug-2019 12:25:22 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GCCVH12.D

Injection Date:	12-Aug-2019 09:07:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32522/2 Calibration Date: 08/13/2019 10:50

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH13A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.032	2.088		2.05	2.00	2.7	30.0
Propene	Ave	0.996	1.103		2.22	2.00	10.8	30.0
Dichlorodifluoromethane	Ave	3.947	3.935		1.99	2.00	-0.3	30.0
Chloromethane	Ave	0.2864	0.2882		2.01	2.00	0.6	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.245	2.299		2.05	2.00	2.4	30.0
Acetaldehyde	Ave	0.3158	0.2547		8.07	10.0	-19.3	30.0
Vinyl chloride	Ave	1.044	1.056		2.02	2.00	1.2	30.0
Butane	Ave	1.492	1.467		1.97	2.00	-1.7	30.0
1,3-Butadiene	Ave	0.7597	0.7613		2.00	2.00	0.2	30.0
Bromomethane	Ave	0.9503	0.9148		1.93	2.00	-3.7	30.0
Chloroethane	Ave	0.4643	0.4651		2.00	2.00	0.2	30.0
Ethanol	Ave	0.3217	0.2226		6.92	10.0	-30.8*	30.0
Vinyl bromide	Ave	0.8333	0.8666		2.08	2.00	4.0	30.0
2-Methylbutane	Ave	0.9463	0.9209		1.95	2.00	-2.7	30.0
Trichlorofluoromethane	Ave	3.185	3.018		1.89	2.00	-5.3	30.0
Acrolein	Ave	0.1381	0.1389		2.01	2.00	0.6	30.0
Acetonitrile	Ave	0.2308	0.1931		1.67	2.00	-16.3	30.0
Acetone	Ave	0.2705	0.2150		1.59	2.00	-20.5	30.0
Pentane	Ave	0.1347	0.1402		2.08	2.00	4.1	30.0
Isopropyl alcohol	Ave	0.7723	0.8151		2.11	2.00	5.5	30.0
Ethyl ether	Ave	0.5689	0.4909		1.73	2.00	-13.7	30.0
1,1-Dichloroethene	Ave	1.140	1.147		2.01	2.00	0.6	30.0
Acrylonitrile	Ave	0.5581	0.5186		1.86	2.00	-7.1	30.0
tert-Butyl alcohol	Ave	1.715	1.512		1.76	2.00	-11.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.496	2.591		2.08	2.00	3.8	30.0
Methylene Chloride	Ave	1.108	1.128		2.03	2.00	1.7	30.0
3-Chloropropene	Ave	1.095	1.116		2.04	2.00	1.9	30.0
Carbon disulfide	Ave	3.065	3.200		2.09	2.00	4.4	30.0
trans-1,2-Dichloroethene	Ave	1.141	1.139		2.00	2.00	-0.2	30.0
2-Methylpentane	Ave	2.358	2.277		1.93	2.00	-3.4	30.0
Methyl tert-butyl ether	Ave	3.072	2.534		1.65	2.00	-17.5	30.0
1,1-Dichloroethane	Ave	2.187	2.275		2.08	2.00	4.0	30.0
Vinyl acetate	Ave	2.107	1.987		1.89	2.00	-5.7	30.0
2-Butanone (MEK)	Ave	0.4337	0.3598		1.66	2.00	-17.0	30.0
Hexane	Ave	0.9137	0.9676		2.12	2.00	5.9	30.0
Isopropyl ether	Ave	2.914	2.576		1.77	2.00	-11.6	30.0
cis-1,2-Dichloroethene	Ave	1.171	1.213		2.07	2.00	3.6	30.0
Ethyl acetate	Ave	1.876	1.447		1.54	2.00	-22.9	30.0
Chloroform	Ave	2.715	2.746		2.02	2.00	1.1	30.0
Tert-butyl ethyl ether	Ave	3.293	2.633		1.60	2.00	-20.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32522/2 Calibration Date: 08/13/2019 10:50

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH13A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.9691	0.8141		1.68	2.00	-16.0	30.0
1,1,1-Trichloroethane	Ave	3.254	3.182		1.96	2.00	-2.2	30.0
1,2-Dichloroethane	Ave	0.3682	0.3551		1.93	2.00	-3.6	30.0
1-Butanol	Ave	0.0501	0.0500		2.00	2.00	-0.1	30.0
Benzene	Ave	0.5978	0.6360		2.13	2.00	6.4	30.0
Cyclohexane	Ave	0.1107	0.1156		2.09	2.00	4.4	30.0
Carbon tetrachloride	Ave	0.6079	0.6217		2.05	2.00	2.3	30.0
2,3-Dimethylpentane	Ave	0.1522	0.1568		2.06	2.00	3.0	30.0
Thiophene	Ave	0.3534	0.3612		2.04	2.00	2.2	30.0
2,2,4-Trimethylpentane	Ave	1.049	1.053		2.01	2.00	0.3	30.0
Heptane	Ave	0.2329	0.2365		2.03	2.00	1.6	30.0
1,2-Dichloropropane	Ave	0.2110	0.2056		1.95	2.00	-2.6	30.0
Trichloroethene	Ave	0.3335	0.3312		1.99	2.00	-0.7	30.0
Dibromomethane	Ave	0.2511	0.2627		2.09	2.00	4.6	30.0
Bromodichloromethane	Ave	0.5049	0.5227		2.07	2.00	3.5	30.0
1,4-Dioxane	Ave	0.0869	0.0680		1.56	2.00	-21.8	30.0
Methyl methacrylate	Ave	0.2246	0.1766		1.57	2.00	-21.4	30.0
Methylcyclohexane	Ave	0.4217	0.5220		2.48	2.00	23.8	30.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2834		1.75	2.00	-12.3	30.0
cis-1,3-Dichloropropene	Ave	0.3531	0.3711		2.10	2.00	5.1	30.0
trans-1,3-Dichloropropene	Ave	0.3692	0.3782		2.05	2.00	2.4	30.0
Toluene	Ave	0.7865	0.7594		1.93	2.00	-3.4	30.0
1,1,2-Trichloroethane	Ave	0.2304	0.2212		1.92	2.00	-4.0	30.0
2-Hexanone	Ave	0.1912	0.1644		1.72	2.00	-14.0	30.0
Octane	Ave	0.2861	0.2966		2.07	2.00	3.7	30.0
Dibromochloromethane	Ave	0.5582	0.5865		2.10	2.00	5.1	30.0
1,2-Dibromoethane (EDB)	Ave	0.4276	0.4477		2.09	2.00	4.7	30.0
Tetrachloroethene	Ave	0.3641	0.3473		1.91	2.00	-4.6	30.0
Chlorobenzene	Ave	0.6563	0.6772		2.06	2.00	3.2	30.0
2,3-Dimethylheptane	Ave	0.7538	0.6460		1.71	2.00	-14.3	30.0
Ethylbenzene	Ave	1.041	0.9700		1.86	2.00	-6.9	30.0
m-Xylene & p-Xylene	Ave	0.8151	0.7709		3.78	4.00	-5.4	30.0
Nonane	Ave	0.5001	0.5010		2.00	2.00	0.2	30.0
Bromoform	Ave	0.5067	0.5336		2.11	2.00	5.3	30.0
Styrene	Ave	0.5330	0.5573		2.09	2.00	4.6	30.0
o-Xylene	Ave	0.8833	0.7955		1.80	2.00	-9.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5164	0.4698		1.82	2.00	-9.0	30.0
1,2,3-Trichloropropane	Ave	0.2004	0.1743		1.74	2.00	-13.0	30.0
Isopropylbenzene	Ave	1.202	1.070		1.78	2.00	-11.0	30.0
Propylbenzene	Ave	0.3368	0.2959		1.76	2.00	-12.1	30.0
2-Chlorotoluene	Ave	0.3248	0.3087		1.90	2.00	-5.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Lab Sample ID: CCVIS 140-32522/2 Calibration Date: 08/13/2019 10:50

Instrument ID: MG Calib Start Date: 08/05/2019 15:09

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 08/05/2019 23:41

Lab File ID: GCCVH13A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.179	1.009		1.71	2.00	-14.5	30.0
1,3,5-Trimethylbenzene	Ave	0.4941	0.4875		1.97	2.00	-1.3	30.0
Alpha Methyl Styrene	Ave	0.4574	0.4300		1.88	2.00	-6.0	30.0
Decane	Ave	0.6385	0.5865		1.84	2.00	-8.1	30.0
tert-Butylbenzene	Ave	1.121	0.9659		1.72	2.00	-13.8	30.0
1,2,4-Trimethylbenzene	Ave	1.050	0.8912		1.70	2.00	-15.1	30.0
sec-Butylbenzene	Ave	1.470	1.274		1.73	2.00	-13.4	30.0
1,3-Dichlorobenzene	Ave	0.7393	0.6954		1.88	2.00	-5.9	30.0
Benzyl chloride	Ave	0.8145	0.7564		1.86	2.00	-7.1	30.0
1,4-Dichlorobenzene	Ave	0.7461	0.7009		1.88	2.00	-6.1	30.0
4-Isopropyltoluene	Ave	1.304	1.071		1.64	2.00	-17.9	30.0
1,2,3-Trimethylbenzene	Lin1		0.6744		1.39	2.00	-30.5*	30.0
Butylcyclohexane	Ave	0.8263	0.7495		1.81	2.00	-9.3	30.0
1,2-Dichlorobenzene	Ave	0.6954	0.6552		1.88	2.00	-5.8	30.0
Indane	Ave	0.9576	0.8326		1.74	2.00	-13.0	30.0
Butylbenzene	Ave	1.167	0.9748		1.67	2.00	-16.4	30.0
Indene	Ave	0.7987	0.6190		1.55	2.00	-22.5	30.0
Undecane	Ave	0.5181	0.5415		2.09	2.00	4.5	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3543	0.2456		1.39	2.00	-30.7*	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.233	0.8964		1.45	2.00	-27.3	30.0
Dodecane	Ave	0.4081	0.4155		2.04	2.00	1.8	30.0
1,2,4-Trichlorobenzene	Ave	0.6187	0.4720		1.53	2.00	-23.7	30.0
Naphthalene	Ave	1.275	0.9514		1.49	2.00	-25.4	30.0
Hexachlorobutadiene	Ave	0.6005	0.4591		1.53	2.00	-23.5	30.0
1,2,3-Trichlorobenzene	Ave	0.5712	0.4083		1.43	2.00	-28.5	30.0
2-Methylnaphthalene	Ave	0.4473	0.4943		2.21	2.00	10.5	50.0
1-Methylnaphthalene	Ave	0.4268	0.4691		2.20	2.00	9.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6949	0.7468		4.30	4.00	7.5	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GCCVH13A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-Aug-2019 10:50:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012676-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG
Sublist: chrom-MG_TO15*sub19

Method: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Aug-2019 11:30:34 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 11:30:34

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	87	531032	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2848377	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	88	2572358	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	91	1921072	4.00	4.30	
	6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	554289	2.00	2.05	
	7 Propene	41	3.834	3.834	0.000	97	292850	2.00	2.22	
	8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1044880	2.00	1.99	
	9 Chloromethane	52	4.082	4.082	0.000	55	76512	2.00	2.01	
	10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	95	610422	2.00	2.05	
	11 Acetaldehyde	44	4.249	4.249	0.000	97	338173	10.0	8.07	
	12 Vinyl chloride	62	4.266	4.266	0.000	99	280516	2.00	2.02	
	13 Butane	43	4.352	4.352	0.000	83	389478	2.00	1.97	
	14 Butadiene	54	4.357	4.357	0.000	72	202131	2.00	2.00	
	15 Bromomethane	94	4.692	4.692	0.000	98	242880	2.00	1.93	
	16 Chloroethane	64	4.843	4.843	0.000	94	123479	2.00	2.00	
	17 Ethanol	31	4.956	4.956	0.000	98	295483	10.0	6.92	
	18 Vinyl bromide	106	5.166	5.166	0.000	97	230106	2.00	2.08	
	19 2-Methylbutane	43	5.215	5.215	0.000	87	244521	2.00	1.95	
	20 Trichlorofluoromethane	101	5.441	5.441	0.000	99	801256	2.00	1.89	
	21 Acrolein	56	5.463	5.463	0.000	96	36881	2.00	2.01	
	22 Acetonitrile	40	5.527	5.527	0.000	99	51272	2.00	1.67	
	23 Acetone	58	5.581	5.581	0.000	99	57084	2.00	1.59	
	24 Pentane	72	5.673	5.673	0.000	97	37235	2.00	2.08	
	25 Isopropyl alcohol	45	5.689	5.689	0.000	94	216426	2.00	2.11	
	26 Ethyl ether	31	5.856	5.856	0.000	93	130328	2.00	1.73	
	27 1,1-Dichloroethene	96	6.180	6.180	0.000	96	304667	2.00	2.01	
	28 Acrylonitrile	53	6.288	6.288	0.000	93	137682	2.00	1.86	
	30 2-Methyl-2-propanol	59	6.320	6.320	0.000	95	401433	2.00	1.76	
	29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.358	0.000	97	688014	2.00	2.08	
	31 Methylene Chloride	84	6.541	6.541	0.000	94	299458	2.00	2.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.557	6.557	0.000	97	296207	2.00	2.04	
33 Carbon disulfide	76	6.708	6.708	0.000	99	849575	2.00	2.09	
34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	98	302332	2.00	2.00	
35 2-Methylpentane	43	7.388	7.388	0.000	91	604664	2.00	1.93	
36 Methyl tert-butyl ether	73	7.512	7.512	0.000	95	672738	2.00	1.65	
37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	604073	2.00	2.08	
38 Vinyl acetate	43	7.911	7.911	0.000	99	527479	2.00	1.89	
39 2-Butanone (MEK)	72	8.369	8.369	0.000	96	95528	2.00	1.66	
40 Hexane	56	8.391	8.391	0.000	90	256904	2.00	2.12	
41 Isopropyl ether	45	8.552	8.552	0.000	95	683955	2.00	1.77	
42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	95	321965	2.00	2.07	
43 Ethyl acetate	43	8.989	8.989	0.000	99	384150	2.00	1.54	
44 Chloroform	83	9.151	9.151	0.000	96	729058	2.00	2.02	
45 Tert-butyl ethyl ether	59	9.243	9.243	0.000	93	699140	2.00	1.60	
46 Tetrahydrofuran	42	9.572	9.572	0.000	90	216157	2.00	1.68	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	96	844920	2.00	1.96	
48 1,2-Dichloroethane	62	10.300	10.300	0.000	99	505691	2.00	1.93	
51 n-Butanol	31	10.774	10.774	0.000	68	71224	2.00	2.00	
50 Benzene	78	10.785	10.785	0.000	97	905826	2.00	2.13	
49 Cyclohexane	69	10.785	10.785	0.000	77	164669	2.00	2.09	
52 Carbon tetrachloride	117	10.806	10.806	0.000	97	885399	2.00	2.05	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	90	223332	2.00	2.06	
54 Thiophene	84	11.055	11.055	0.000	95	514446	2.00	2.04	
55 Isooctane	57	11.524	11.524	0.000	98	1498996	2.00	2.01	
56 n-Heptane	71	11.890	11.890	0.000	89	336884	2.00	2.03	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	84	292752	2.00	1.95	
58 Trichloroethene	130	12.014	12.014	0.000	98	471721	2.00	1.99	
59 Dibromomethane	93	12.101	12.101	0.000	94	374185	2.00	2.09	
60 Dichlorobromomethane	83	12.241	12.241	0.000	99	744377	2.00	2.07	
61 1,4-Dioxane	88	12.268	12.268	0.000	89	96891	2.00	1.56	
62 Methyl methacrylate	41	12.327	12.327	0.000	94	251543	2.00	1.57	
63 Methylcyclohexane	83	12.775	12.775	0.000	96	743399	2.00	2.48	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.179	0.000	96	403633	2.00	1.75	
65 cis-1,3-Dichloropropene	75	13.228	13.228	0.000	95	528509	2.00	2.10	
66 trans-1,3-Dichloropropene	75	13.912	13.912	0.000	98	486406	2.00	2.05	
67 Toluene	91	14.037	14.037	0.000	94	976771	2.00	1.93	
68 1,1,2-Trichloroethane	83	14.112	14.112	0.000	99	284540	2.00	1.92	
69 2-Hexanone	58	14.495	14.495	0.000	95	211449	2.00	1.72	
70 n-Octane	85	14.705	14.705	0.000	89	381472	2.00	2.07	
71 Chlorodibromomethane	129	14.813	14.813	0.000	98	754337	2.00	2.10	
72 Ethylene Dibromide	107	15.099	15.099	0.000	99	575796	2.00	2.09	
73 Tetrachloroethene	129	15.169	15.169	0.000	97	446693	2.00	1.91	
75 Chlorobenzene	112	16.032	16.032	0.000	93	871035	2.00	2.06	
74 2,3-Dimethylheptane	43	16.042	16.042	0.000	90	830829	2.00	1.71	
78 Ethylbenzene	91	16.317	16.317	0.000	99	1247546	2.00	1.86	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	99	1982908	4.00	3.78	
80 n-Nonane	57	16.878	16.878	0.000	86	644414	2.00	2.00	
81 Bromoform	173	16.932	16.932	0.000	94	686245	2.00	2.11	
82 Styrene	104	16.938	16.938	0.000	98	716799	2.00	2.09	
83 o-Xylene	91	17.002	17.002	0.000	98	1023103	2.00	1.80	
84 1,1,2,2-Tetrachloroethane	83	17.320	17.320	0.000	99	604216	2.00	1.82	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	97	224191	2.00	1.74	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 Isopropylbenzene	105	17.579	17.579	0.000	96	1376310	2.00	1.78	
87 N-Propylbenzene	120	18.102	18.102	0.000	99	380535	2.00	1.76	
88 2-Chlorotoluene	126	18.151	18.151	0.000	97	396988	2.00	1.90	
89 4-Ethyltoluene	105	18.248	18.248	0.000	98	1297190	2.00	1.71	
90 1,3,5-Trimethylbenzene	120	18.323	18.323	0.000	93	626988	2.00	1.97	
92 Alpha Methyl Styrene	118	18.550	18.550	0.000	89	553109	2.00	1.88	
93 n-Decane	57	18.593	18.593	0.000	93	754383	2.00	1.84	
94 tert-Butylbenzene	119	18.739	18.739	0.000	94	1242354	2.00	1.72	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	96	1146200	2.00	1.70	
96 sec-Butylbenzene	105	18.997	18.997	0.000	98	1638622	2.00	1.73	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	99	894425	2.00	1.88	
98 Benzyl chloride	91	19.089	19.089	0.000	98	972919	2.00	1.86	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	95	901420	2.00	1.88	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1377297	2.00	1.64	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	99	867445	2.00	1.39	
102 Butylcyclohexane	83	19.262	19.262	0.000	94	964017	2.00	1.81	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1070905	2.00	1.74	
104 1,2-Dichlorobenzene	146	19.456	19.456	0.000	98	842712	2.00	1.88	
105 n-Butylbenzene	91	19.580	19.580	0.000	98	1253733	2.00	1.67	
106 Indene	116	19.585	19.585	0.000	91	796107	2.00	1.55	
107 Undecane	57	19.876	19.876	0.000	93	696480	2.00	2.09	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	99	315907	2.00	1.39	
109 1,2,4,5-Tetramethylbenzene	119	20.324	20.324	0.000	97	1152878	2.00	1.45	
110 Dodecane	57	20.928	20.928	0.000	96	534445	2.00	2.04	
111 1,2,4-Trichlorobenzene	180	21.138	21.138	0.000	94	607102	2.00	1.53	
112 Naphthalene	128	21.278	21.278	0.000	99	1223622	2.00	1.49	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	590511	2.00	1.53	
114 1,2,3-Trichlorobenzene	180	21.553	21.553	0.000	96	525136	2.00	1.43	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	100	635829	2.00	2.21	
116 1-Methylnaphthalene	142	22.481	22.481	0.000	100	603418	2.00	2.20	
A 122 C8 Range	1	14.710	(14.647-14.754)		0	3175778	2.00	2.08	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.07	
S 124 Xylenes, Total	100				0		6.00	5.58	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

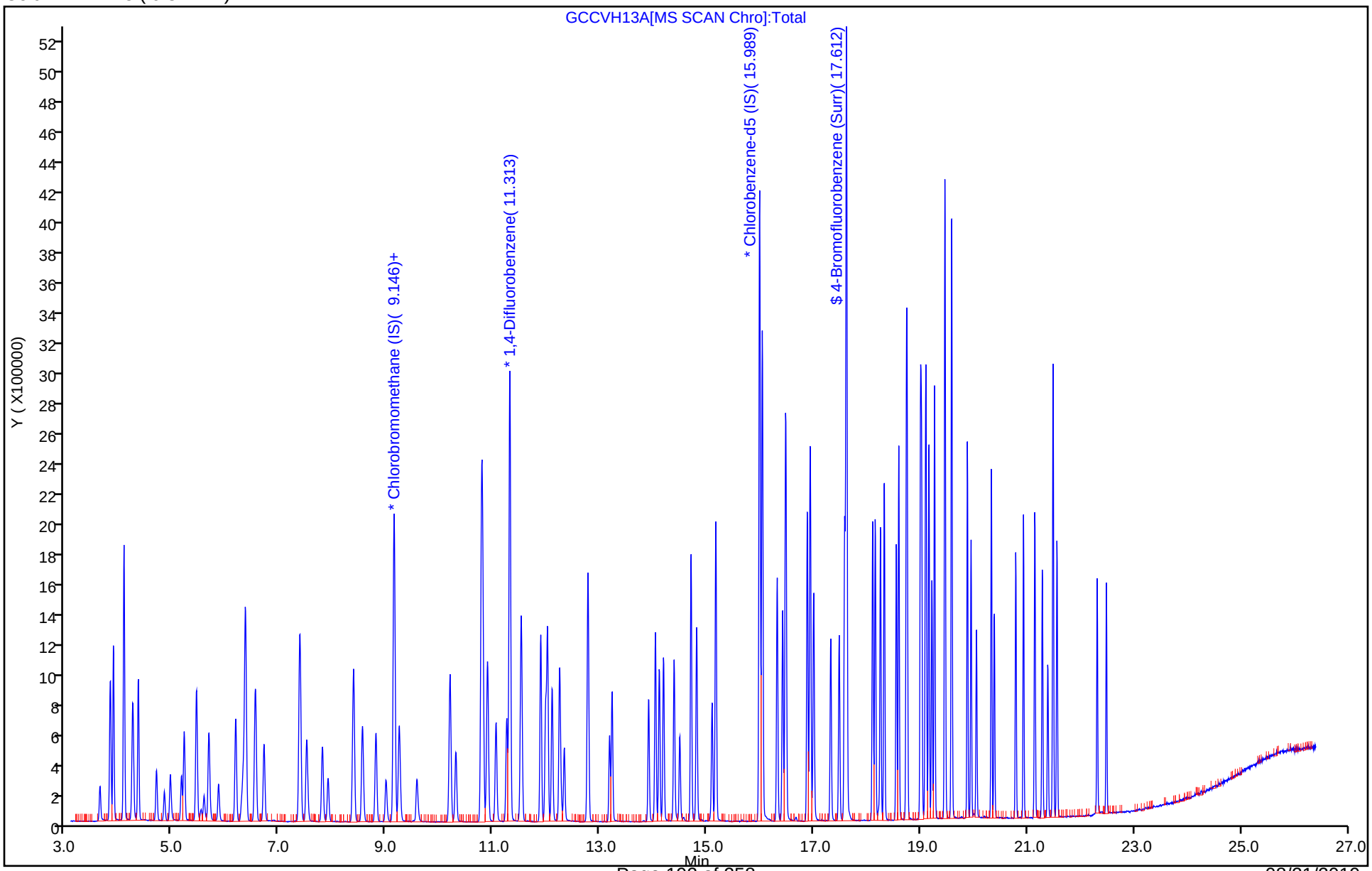
Report Date: 14-Aug-2019 11:30:35 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GCCVH13A.D

Injection Date:	13-Aug-2019 10:50:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	05-Aug-2019 14:36:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012602-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	08-Aug-2019 11:04:18	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0305				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.235	5.235	0.000	0	1223297	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

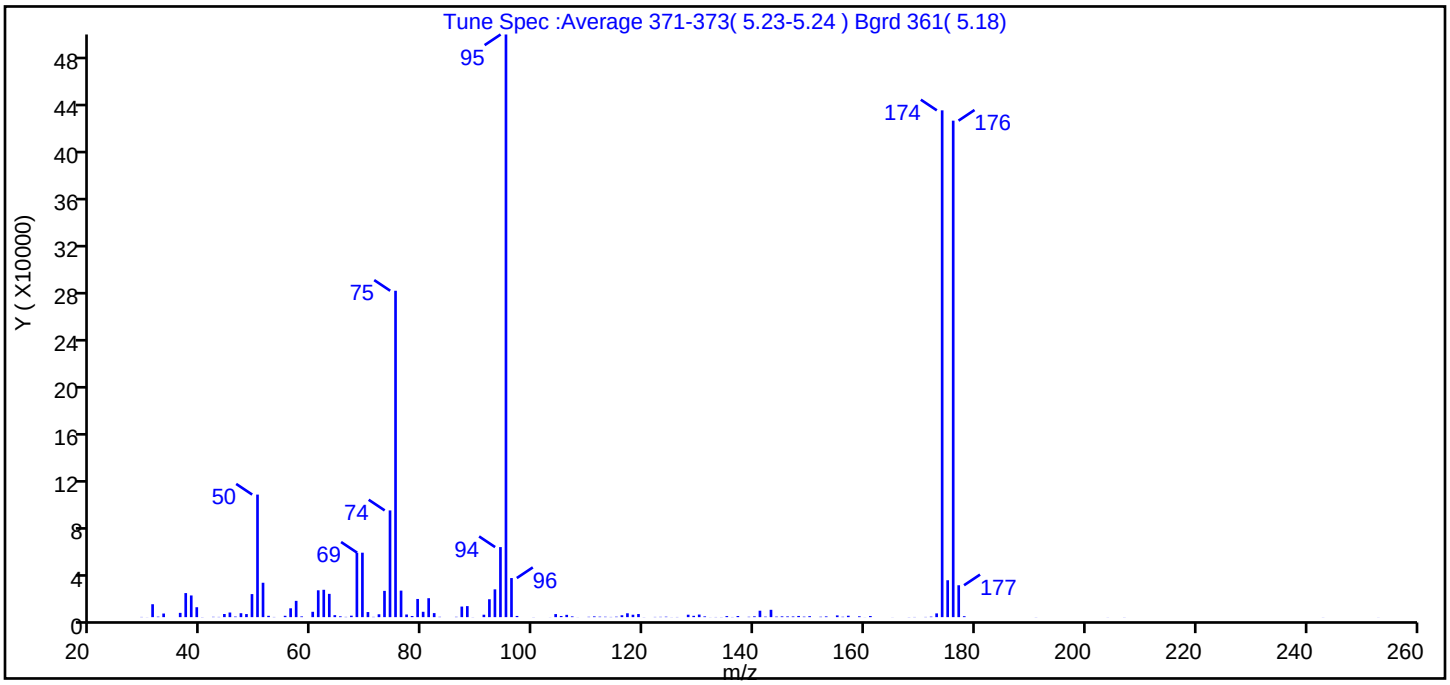
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D
Injection Date: 05-Aug-2019 14:36:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	56.0
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	87.0
175	5 to 9% of m/z 174	6.3 (7.3)
176	Greater than 95% but less than 101% of m/z 174	85.2 (98.0)
177	5 to 9% of m/z 176	5.5 (6.4)

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D\MG_TO15.rslt\spectra.d
Injection Date: 05-Aug-2019 14:36:30
Spectrum: Tune Spec :Average 371-373(5.23-5.24) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	173	67.00	1231	107.00	640	144.00	457
30.00	72	68.00	54384	108.00	62	145.00	660
31.00	10907	69.00	54424	110.00	284	146.00	617
32.00	400	70.00	4295	111.00	633	147.00	581
33.00	3054	71.00	238	112.00	409	148.00	1004
36.00	3611	72.00	2411	113.00	338	149.00	426
37.00	20312	73.00	22184	114.00	179	150.00	814
38.00	18312	74.00	90120	115.00	385	152.00	350
39.00	8376	75.00	275584	116.00	1587	153.00	632
40.00	119	76.00	22400	117.00	3271	155.00	1466
42.00	267	77.00	2234	118.00	2048	156.00	323
43.00	191	78.00	919	119.00	2629	157.00	1196
44.00	2659	79.00	15350	120.00	95	159.00	703
45.00	3894	80.00	4523	122.00	196	160.00	62
46.00	490	81.00	15989	123.00	253	161.00	934
47.00	3330	82.00	3414	124.00	381	165.00	63
48.00	2596	83.00	278	125.00	83	168.00	110
49.00	19464	86.00	279	126.00	149	169.00	150
50.00	103480	87.00	8935	128.00	2056	171.00	185
51.00	29040	88.00	9314	129.00	1111	172.00	427
52.00	1124	89.00	92	130.00	2178	173.00	3175
53.00	162	91.00	2054	131.00	647	174.00	427904
55.00	1149	92.00	15113	132.00	71	175.00	31160
56.00	7472	93.00	23464	133.00	143	176.00	419200
57.00	13756	94.00	59144	134.00	111	177.00	26928
58.00	604	95.00	491968	135.00	901	178.00	787
60.00	4525	96.00	33008	136.00	145	191.00	88
61.00	22672	97.00	1009	137.00	958	204.00	67
62.00	23104	100.00	93	139.00	306	207.00	87
63.00	19664	103.00	64	140.00	689	243.00	70
64.00	1673	104.00	2581	141.00	5432	253.00	59
65.00	691	105.00	975	142.00	453		
66.00	219	106.00	1950	143.00	6199		

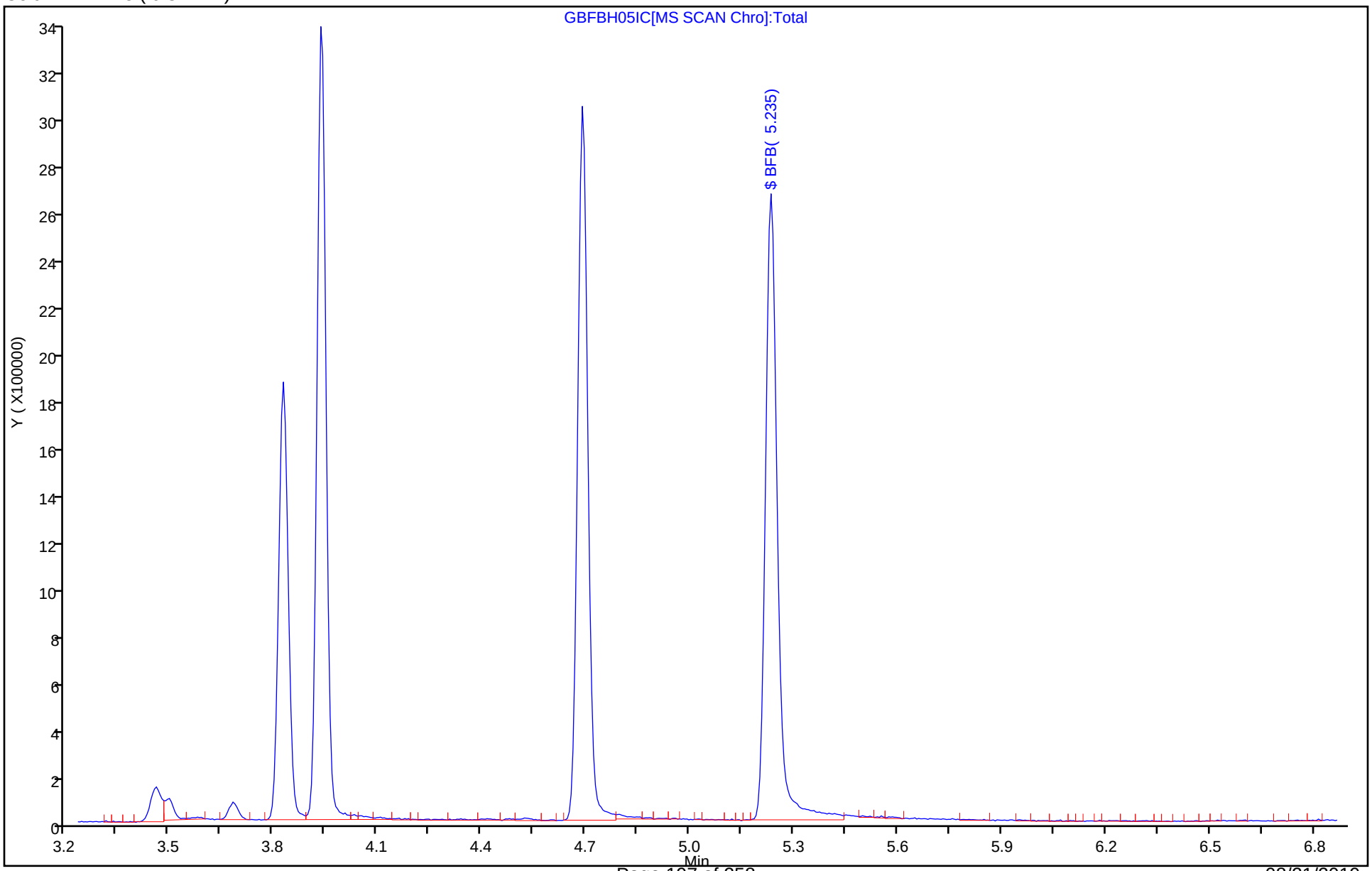
Report Date: 08-Aug-2019 11:04:22 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GBFBH05IC.D

Injection Date:	05-Aug-2019 14:36:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\GBFBH12.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	12-Aug-2019 08:33:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012675-001				
Misc. Info.:	TUNE				
Operator ID:	007126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Aug-2019 11:30:04	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0330				
First Level Reviewer: khachitpongpanits		Date:	13-Aug-2019 11:30:04		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.224	5.235	-0.011	0	1683963	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

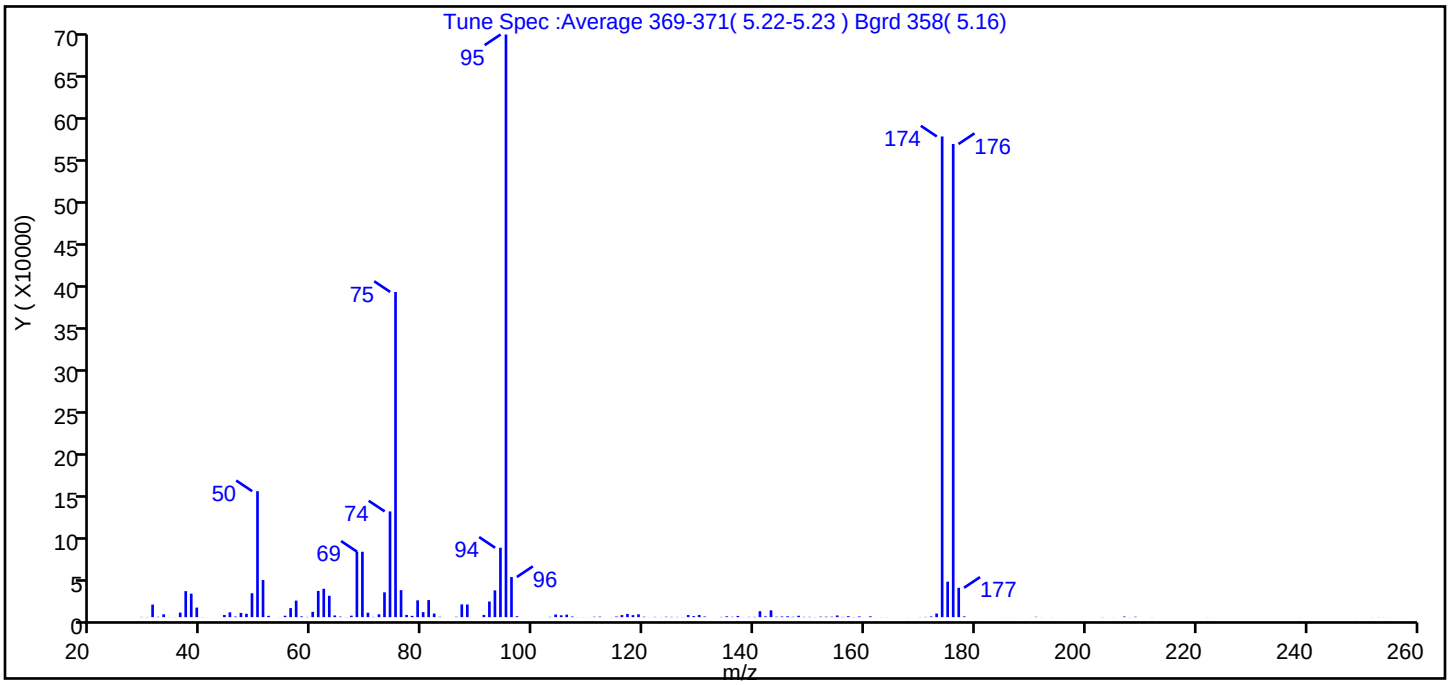
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GBFBH12.D
Injection Date: 12-Aug-2019 08:33:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	55.8
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	82.5
175	5 to 9% of m/z 174	6.1 (7.4)
176	Greater than 95% but less than 101% of m/z 174	81.2 (98.4)
177	5 to 9% of m/z 176	5.0 (6.2)

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GBFBH12.D\MG_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 08:33:30
Spectrum: Tune Spec :Average 369-371(5.22-5.23) Bgrd 358(5.16)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 156

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	264	71.00	306	117.00	3808	158.00	158
30.00	235	72.00	3413	118.00	2386	159.00	832
31.00	14930	73.00	29496	119.00	3377	161.00	953
32.00	423	74.00	125592	120.00	541	162.00	50
33.00	3354	75.00	386304	121.00	103	163.00	125
34.00	72	76.00	32088	122.00	327	164.00	86
35.00	117	77.00	2641	123.00	121	168.00	78
36.00	5402	78.00	1528	124.00	469	170.00	182
37.00	30896	79.00	19968	125.00	332	171.00	311
38.00	27888	80.00	5947	126.00	301	172.00	829
39.00	11345	81.00	20296	127.00	191	173.00	4314
40.00	141	82.00	4252	128.00	2527	174.00	571008
41.00	76	83.00	427	129.00	1204	175.00	42128
44.00	2529	84.00	57	130.00	2513	176.00	562048
45.00	5701	86.00	419	131.00	740	177.00	34904
46.00	707	87.00	15172	134.00	290	178.00	897
47.00	5035	88.00	15001	135.00	1002	181.00	56
48.00	3964	91.00	2628	136.00	383	185.00	51
49.00	28384	92.00	18592	137.00	1441	186.00	57
50.00	149632	93.00	31816	138.00	67	187.00	58
51.00	44072	94.00	82448	139.00	319	190.00	57
52.00	1557	95.00	692160	140.00	327	191.00	418
54.00	105	96.00	47664	141.00	7082	192.00	61
55.00	1678	97.00	1069	142.00	931	194.00	88
56.00	10750	101.00	59	143.00	8094	196.00	67
57.00	19624	103.00	338	144.00	536	203.00	195
58.00	899	104.00	3096	145.00	769	205.00	61
59.00	266	105.00	2221	146.00	1025	207.00	739
60.00	6325	106.00	2941	147.00	408	208.00	128
61.00	31088	107.00	735	148.00	1663	209.00	479
62.00	33672	108.00	120	149.00	331	212.00	108
63.00	25416	109.00	116	150.00	358	222.00	98
64.00	2038	110.00	94	151.00	145	223.00	62

Report Date: 13-Aug-2019 11:30:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GBFBH12.D\MG_TO15.rslt\spectra.d
Injection Date: 12-Aug-2019 08:33:30
Spectrum: Tune Spec :Average 369-371(5.22-5.23) Bgrd 358(5.16)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 156

m/z	Y	m/z	Y	m/z	Y	m/z	Y
65.00	617	111.00	457	152.00	579	239.00	78
66.00	146	112.00	569	153.00	549	249.00	58
67.00	1756	113.00	17	154.00	514	252.00	115
68.00	77696	114.00	92	155.00	2008	253.00	131
69.00	77696	115.00	733	156.00	268	254.00	87
70.00	5297	116.00	2435	157.00	1131	255.00	61

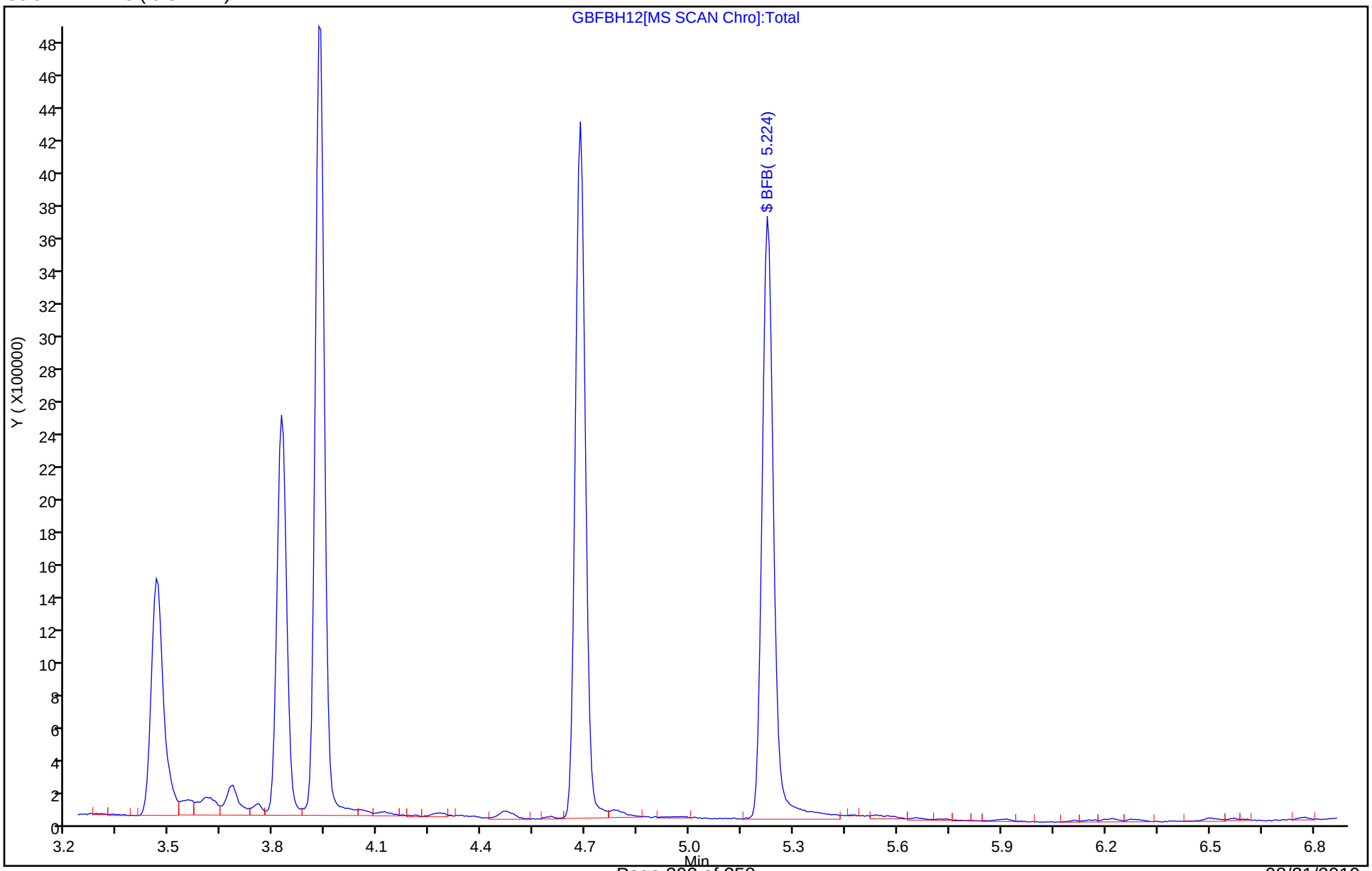
Report Date: 13-Aug-2019 11:30:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GBFBH12.D

Injection Date:	12-Aug-2019 08:33:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GBFBH13A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 13-Aug-2019 10:14:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0012676-001
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Aug-2019 11:29:31 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 11:29:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	5.240	5.240	0.000	0	1797576	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

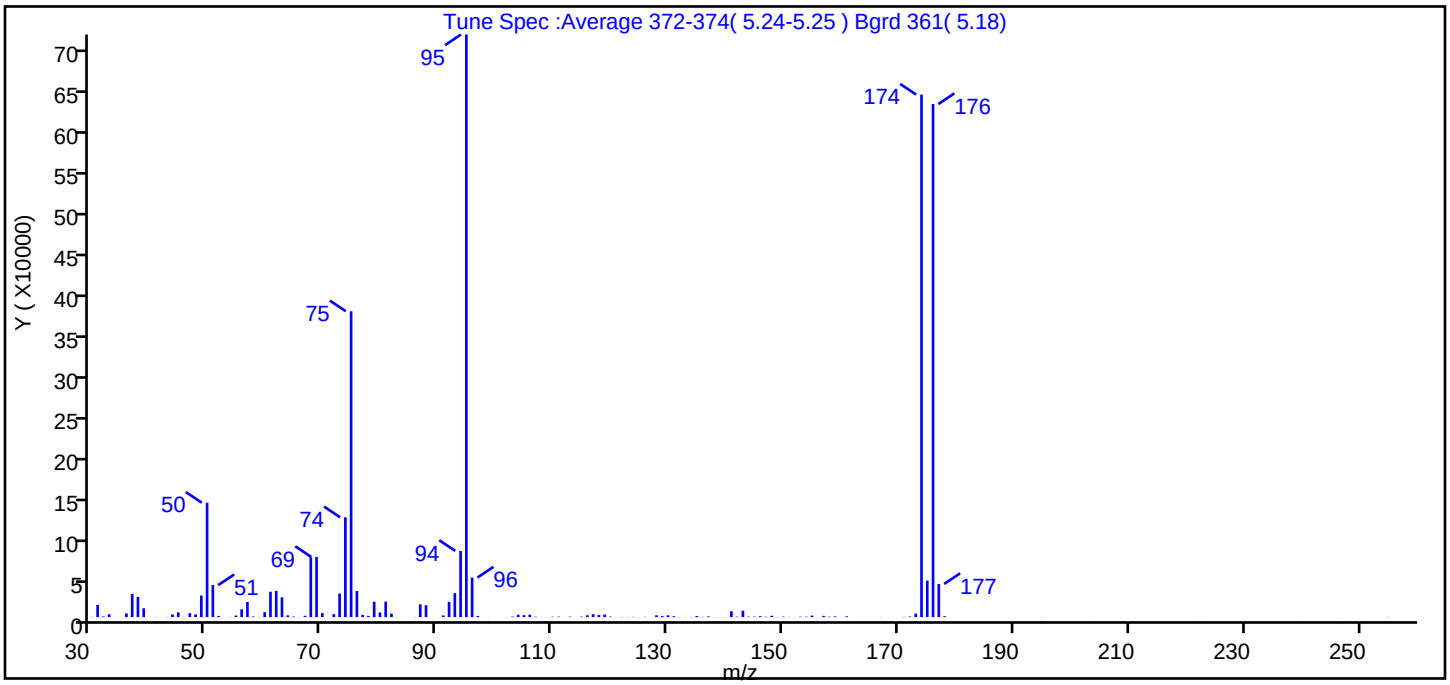
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GBFBH13A.D
Injection Date: 13-Aug-2019 10:14:30 Instrument ID: MG
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.6
75	30 to 60% of m/z 95	52.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	89.7
175	5 to 9% of m/z 174	6.3 (7.0)
176	Greater than 95% but less than 101% of m/z 174	88.1 (98.2)
177	5 to 9% of m/z 176	5.7 (6.5)

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GBFBH13A.D\MG_TO15.rslt\spectra.d
Injection Date: 13-Aug-2019 10:14:30
Spectrum: Tune Spec :Average 372-374(5.24-5.25) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	265	68.00	73440	110.00	487	148.00	1740
31.00	15023	69.00	73752	111.00	594	149.00	219
32.00	851	70.00	4939	113.00	622	150.00	615
33.00	3557	72.00	3651	115.00	580	151.00	262
36.00	4556	73.00	28896	116.00	2326	152.00	84
37.00	28512	74.00	122392	117.00	3670	153.00	519
38.00	24776	75.00	374784	118.00	2712	154.00	550
39.00	10939	76.00	31984	119.00	3196	155.00	1927
40.00	5	77.00	2824	120.00	679	156.00	56
41.00	205	78.00	1469	121.00	170	157.00	1549
43.00	239	79.00	18944	122.00	255	158.00	506
44.00	3338	80.00	5729	123.00	175	159.00	923
45.00	5896	81.00	19016	124.00	312	161.00	983
46.00	316	82.00	4269	125.00	157	164.00	55
47.00	4899	83.00	178	126.00	357	166.00	94
48.00	3336	84.00	63	128.00	2287	167.00	146
49.00	26456	86.00	226	129.00	1333	169.00	59
50.00	140224	87.00	15686	130.00	2268	171.00	335
51.00	39256	88.00	14633	131.00	1137	172.00	768
52.00	1527	91.00	2069	132.00	222	173.00	4299
53.00	77	92.00	18808	133.00	88	174.00	640192
54.00	201	93.00	29432	134.00	261	175.00	44800
55.00	1961	94.00	81160	135.00	1411	176.00	628608
56.00	9616	95.00	713856	136.00	318	177.00	40616
57.00	18576	96.00	48536	137.00	967	178.00	1142
58.00	784	97.00	1469	138.00	165	195.00	163
59.00	209	99.00	72	139.00	174	203.00	61
60.00	6067	102.00	113	140.00	168	221.00	54
61.00	31104	103.00	698	141.00	7234	222.00	51
62.00	32152	104.00	2922	142.00	588	223.00	68
63.00	24344	105.00	2447	143.00	7909	240.00	80
64.00	2193	106.00	3070	144.00	610	246.00	53
65.00	733	107.00	587	145.00	657	255.00	204

Report Date: 14-Aug-2019 11:29:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GBFBH13A.D\MG_TO15.rslt\spectra.d
Injection Date: 13-Aug-2019 10:14:30
Spectrum: Tune Spec :Average 372-374(5.24-5.25) Bgrd 361(5.18)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	105	108.00	77	146.00	1217		
67.00	1674	109.00	110	147.00	530		

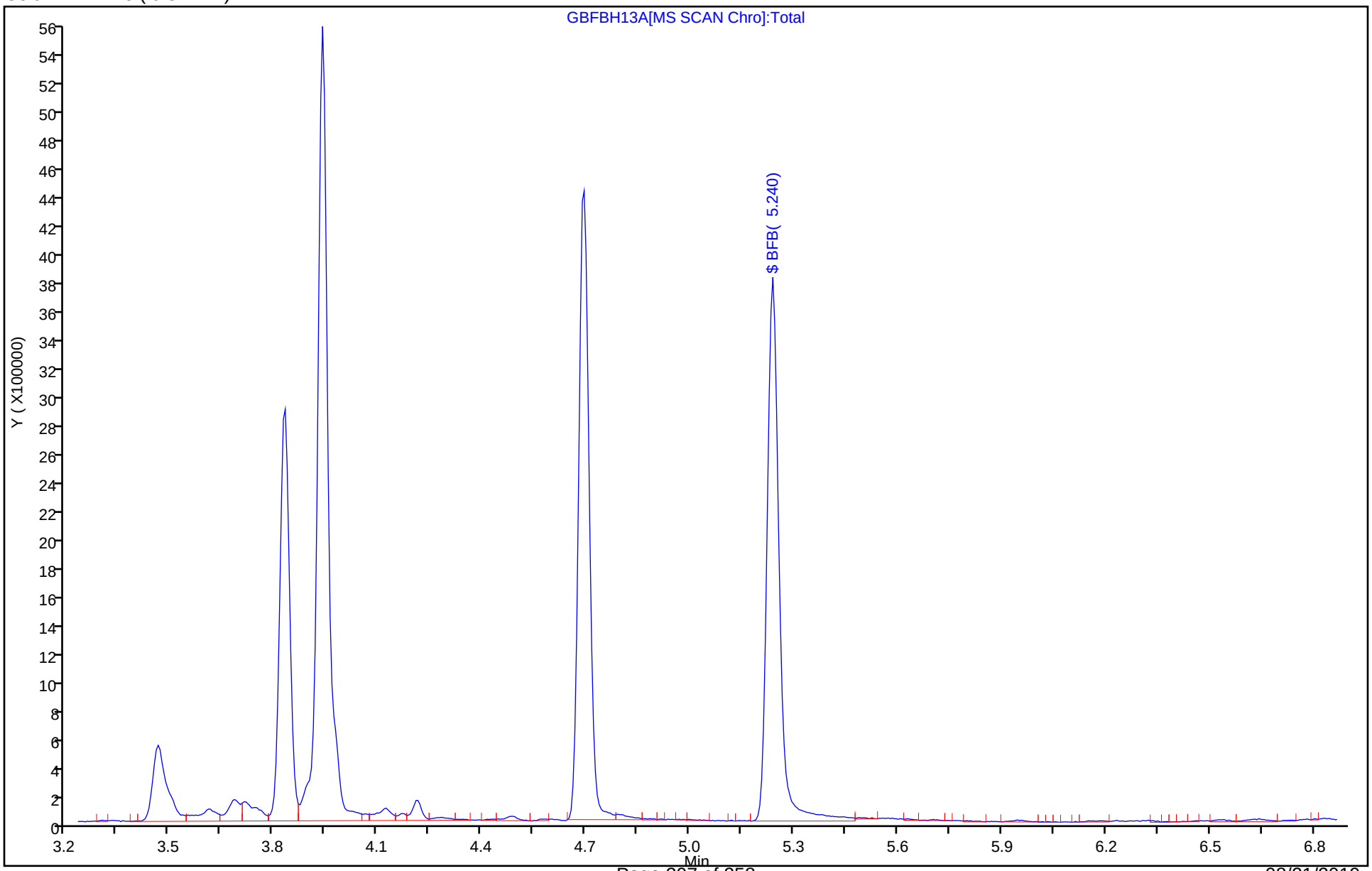
Report Date: 14-Aug-2019 11:29:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GBFBH13A.D

Injection Date:	13-Aug-2019 10:14:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32521/4

Matrix: Air Lab File ID: G500BH12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/12/2019 11:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.207	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32521/4

Matrix: Air Lab File ID: G500BH12.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/12/2019 11:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.718	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\G500BH12.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2019 11:05:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-004
Misc. Info.: 500ML BLK
Operator ID: 7126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:26:57 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:26:57

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	87	534158	4.00	4.00	
*	2 1,4-Difluorobenzene	114	11.308	11.313	-0.005	95	2918820	4.00	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.988	15.999	-0.011	89	2553201	4.00	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.612	17.628	-0.016	88	1847155	4.00	4.16	
	31 Methylene Chloride	84	6.541	6.541	0.000	92	30581		0.2066	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

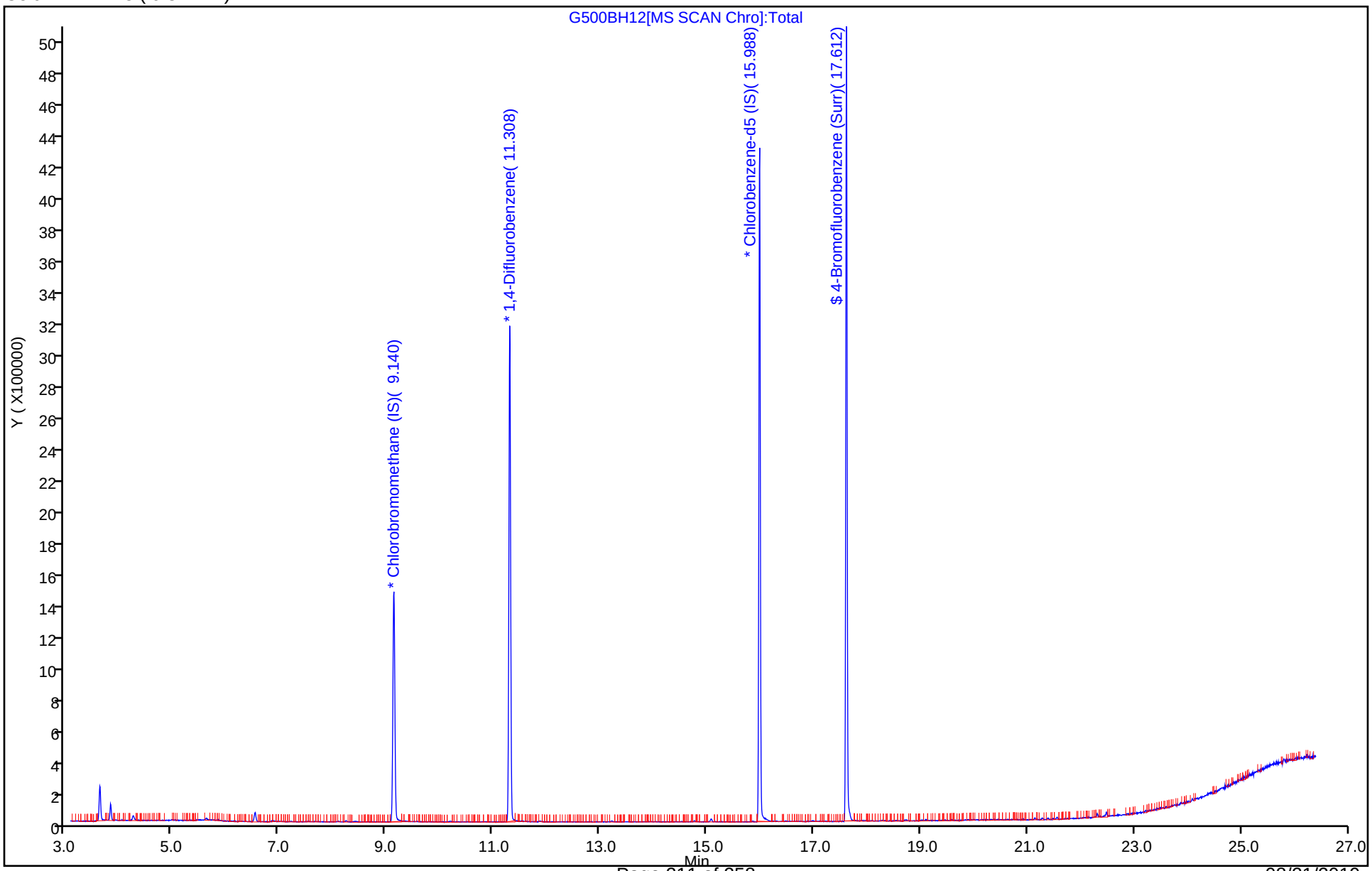
Report Date: 13-Aug-2019 12:26:57 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\G500BH12.D

Injection Date:	12-Aug-2019 11:05:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\G500BH12.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Aug-2019 11:05:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012675-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	13-Aug-2019 12:26:57	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0330				

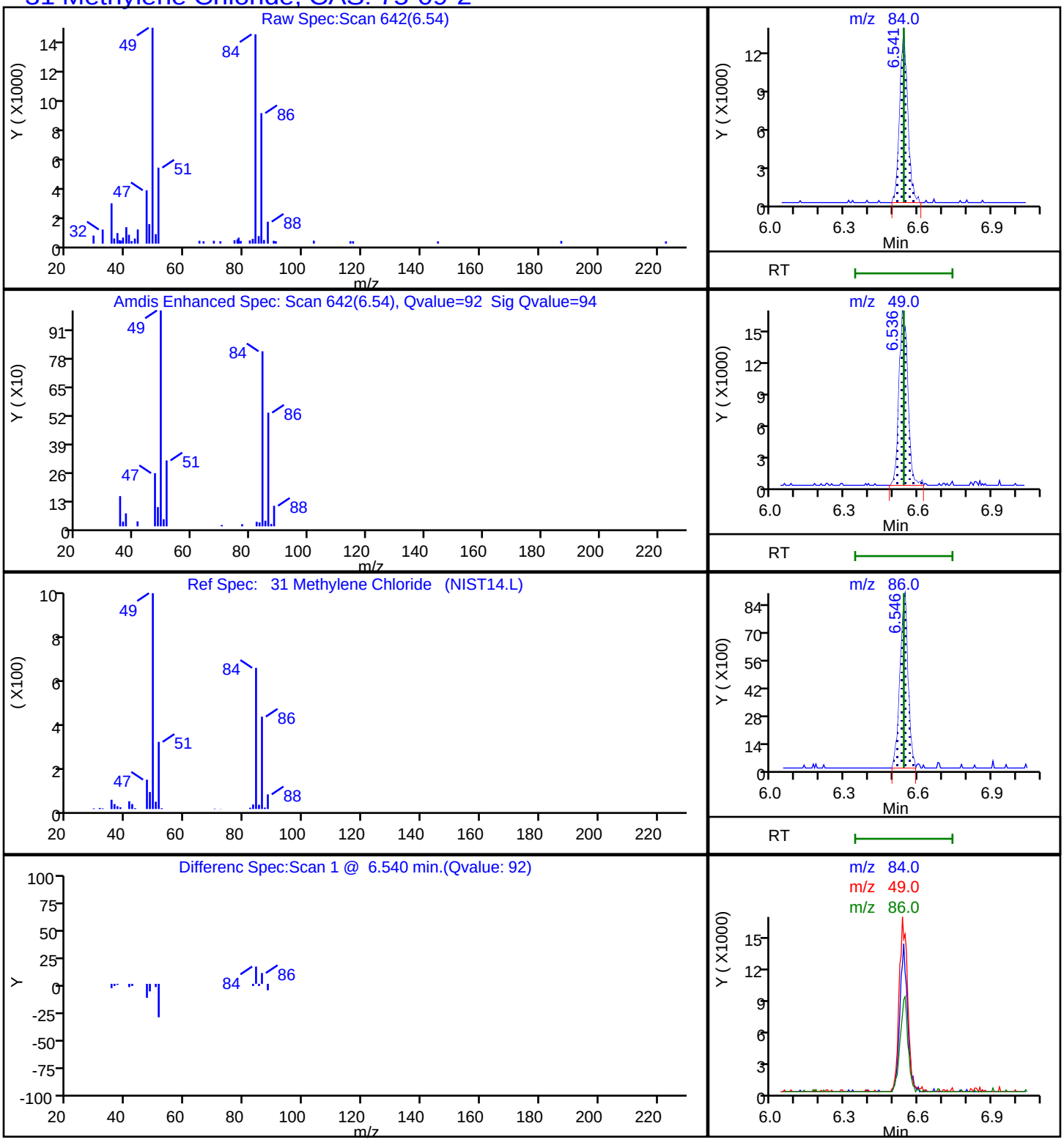
First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:26:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.16	104.11

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\G500BH12.D
Injection Date: 12-Aug-2019 11:05:30 Instrument ID: MG
Lims ID: mb
Client ID:
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32522/4

Matrix: Air Lab File ID: G500BH13.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/13/2019 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32522 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.194	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-32522/4

Matrix: Air Lab File ID: G500BH13.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/13/2019 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32522 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.673	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\G500BH13.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	13-Aug-2019 13:05:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012676-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Aug-2019 12:44:54	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0326				
First Level Reviewer: khachitpongpanits		Date:	14-Aug-2019 12:44:54		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	86	536627	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2918504	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	88	2676176	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	90	1870562	4.00	4.02	
31 Methylene Chloride	84	6.541	6.541	0.000	94	28822		0.1938	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

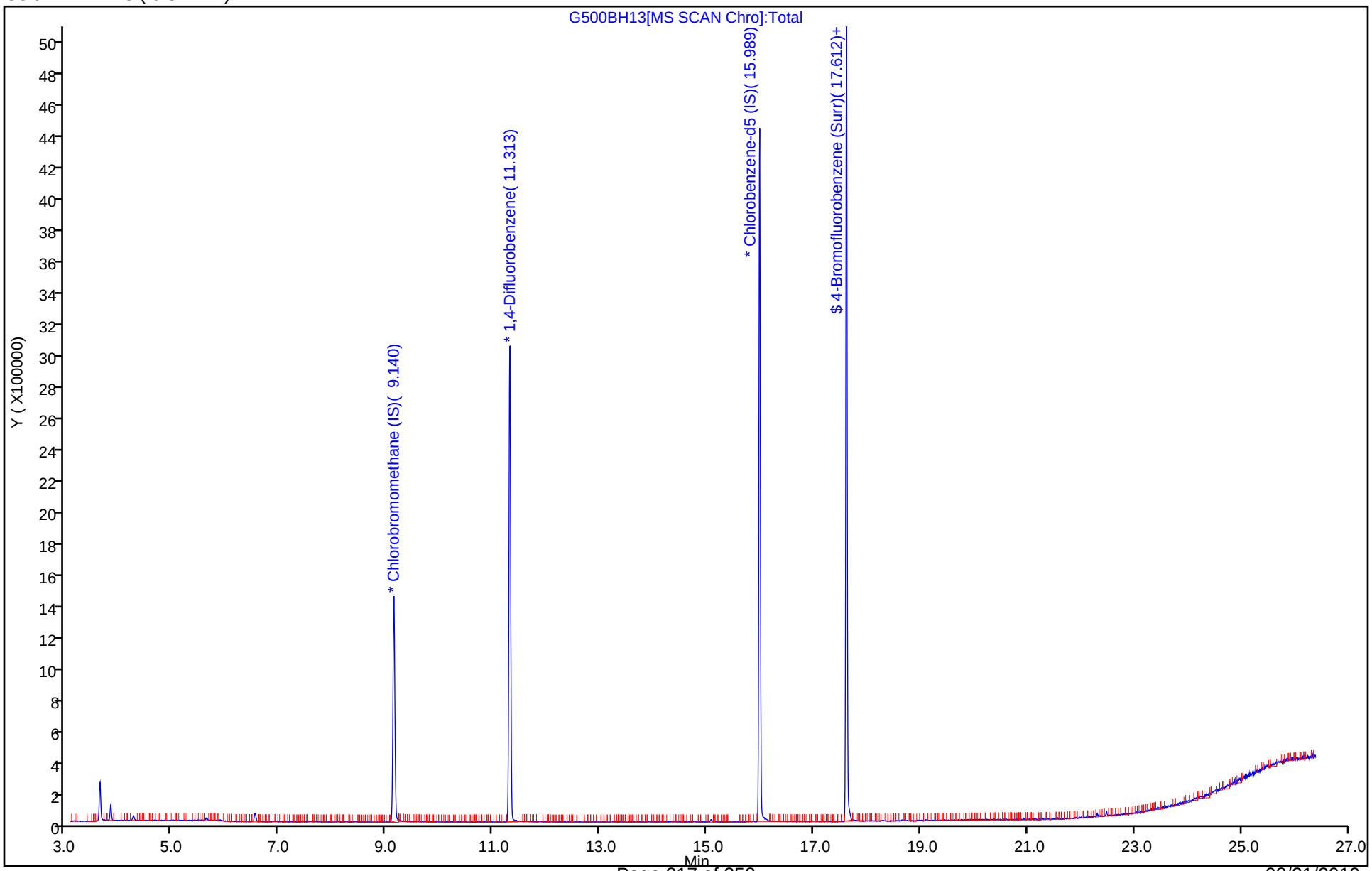
Report Date: 14-Aug-2019 12:44:54 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\G500BH13.D

Injection Date:	13-Aug-2019 13:05:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\G500BH13.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	13-Aug-2019 13:05:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012676-004				
Misc. Info.:	500ML BLK				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	14-Aug-2019 12:44:54	Calib Date:	05-Aug-2019 23:41:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0326				

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 12:44:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.02	100.58

Report Date: 14-Aug-2019 12:44:54 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\G500BH13.D

Injection Date: 13-Aug-2019 13:05:30 Instrument ID: MG

Lims ID: mb

Client ID:

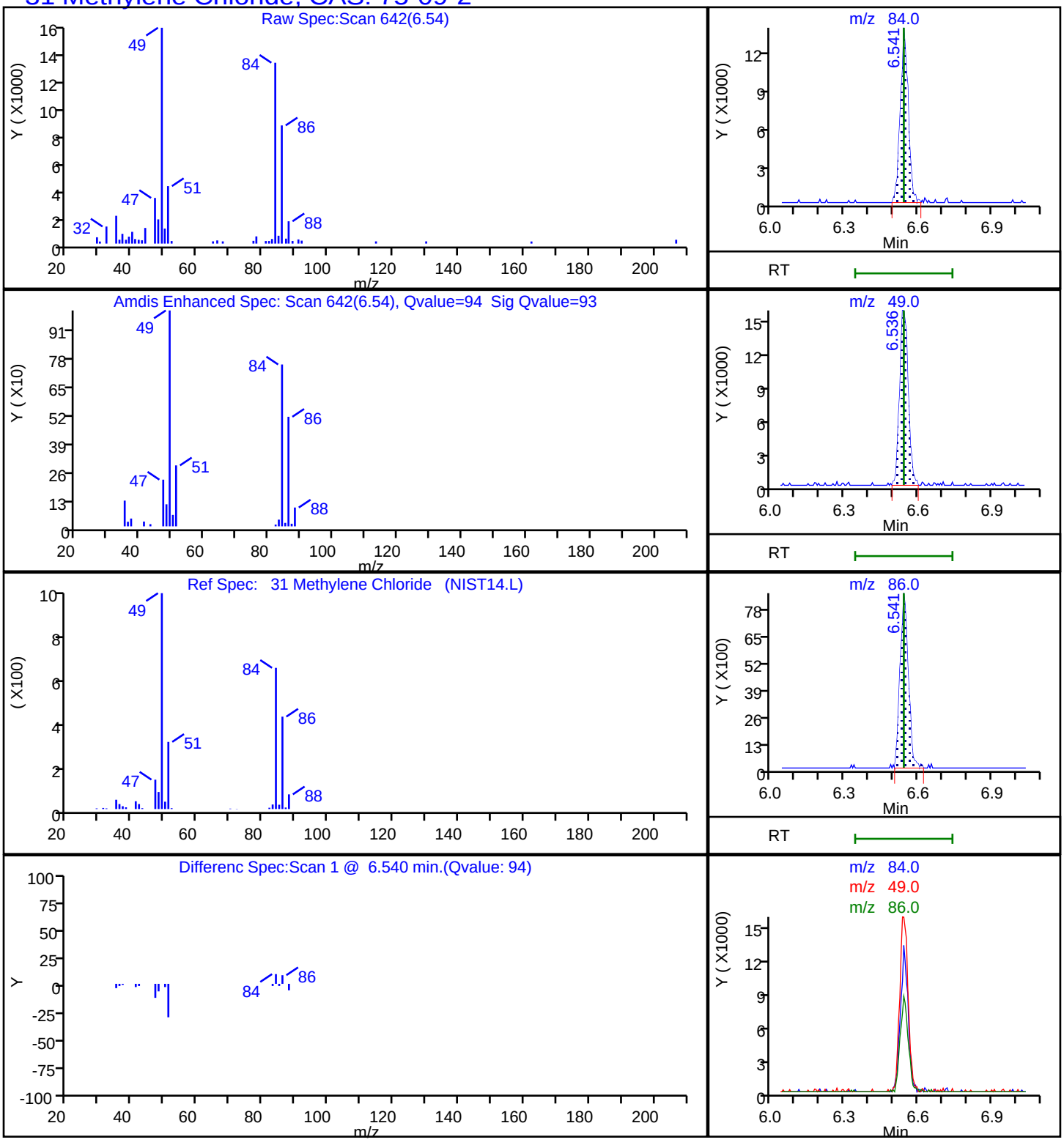
Operator ID: 7126 ALS Bottle#: 16 Worklist Smp#: 4

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MG_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32521/1002

Matrix: Air Lab File ID: GCCVH12-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/12/2019 09:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32521 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.05		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.91		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.17		0.080	0.022
67-66-3	Chloroform	119.38	1.97		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.04		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.02		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	2.10		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.91		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.04		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.81		0.080	0.013
75-09-2	Methylene Chloride	84.93	2.10		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.68		0.40	0.052
91-20-3	Naphthalene	128.17	1.63		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.83		0.080	0.0070
108-88-3	Toluene	92.14	1.91		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.08		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.62		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.92		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.88		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.77		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.32		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.59		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.81		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.10		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.43		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GCCVH12-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2019 09:07:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:25:20 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:25:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	90	524110	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2888947	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	89	2523321	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	94	1883558	4.00	4.30	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	577924	2.00	2.17	
7 Propene	41	3.834	3.834	0.000	97	310793	2.00	2.38	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1043677	2.00	2.02	
9 Chloromethane	52	4.082	4.082	0.000	58	77996	2.00	2.08	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	94	569746	2.00	1.94	
11 Acetaldehyde	44	4.249	4.249	0.000	94	359898	10.0	8.70	
12 Vinyl chloride	62	4.266	4.266	0.000	99	286847	2.00	2.10	
13 Butane	43	4.357	4.357	0.000	83	427319	2.00	2.19	
14 Butadiene	54	4.357	4.357	0.000	70	213701	2.00	2.15	
15 Bromomethane	94	4.697	4.697	0.000	98	236612	2.00	1.90	
16 Chloroethane	64	4.843	4.843	0.000	92	129475	2.00	2.13	
17 Ethanol	31	4.956	4.956	0.000	99	336524	10.0	7.98	
18 Vinyl bromide	106	5.166	5.166	0.000	97	228184	2.00	2.09	
19 2-Methylbutane	43	5.220	5.220	0.000	89	272810	2.00	2.20	
20 Trichlorofluoromethane	101	5.447	5.447	0.000	99	811489	2.00	1.94	
21 Acrolein	56	5.463	5.463	0.000	95	36926	2.00	2.04	
22 Acetonitrile	40	5.533	5.533	0.000	97	44555	2.00	1.47	
23 Acetone	58	5.587	5.587	0.000	99	58642	2.00	1.65	
24 Pentane	72	5.673	5.673	0.000	97	39481	2.00	2.24	
25 Isopropyl alcohol	45	5.689	5.689	0.000	93	255976	2.00	2.53	
26 Ethyl ether	31	5.862	5.862	0.000	94	138528	2.00	1.86	
27 1,1-Dichloroethene	96	6.180	6.180	0.000	95	305392	2.00	2.04	
28 Acrylonitrile	53	6.293	6.293	0.000	93	135398	2.00	1.85	
30 2-Methyl-2-propanol	59	6.320	6.320	0.000	94	480696	2.00	2.14	
29 1,1,2-Trichloro-1,2,2-trif	101	6.363	6.363	0.000	97	674076	2.00	2.06	
31 Methylene Chloride	84	6.541	6.541	0.000	95	304588	2.00	2.10	
32 3-Chloro-1-propene	39	6.557	6.557	0.000	96	314768	2.00	2.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.708	0.000	100	883243	2.00	2.20	
34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	97	311038	2.00	2.08	
35 2-Methylpentane	43	7.388	7.388	0.000	92	630346	2.00	2.04	
36 Methyl tert-butyl ether	73	7.506	7.506	0.000	95	675888	2.00	1.68	
37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	602816	2.00	2.10	
38 Vinyl acetate	43	7.911	7.911	0.000	99	506848	2.00	1.84	
39 2-Butanone (MEK)	72	8.369	8.369	0.000	96	93128	2.00	1.64	
40 Hexane	56	8.385	8.385	0.000	90	262393	2.00	2.19	
41 Isopropyl ether	45	8.553	8.553	0.000	95	713434	2.00	1.87	
42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	97	312859	2.00	2.04	
43 Ethyl acetate	43	8.995	8.995	0.000	98	411266	2.00	1.67	
44 Chloroform	83	9.151	9.151	0.000	97	699777	2.00	1.97	
45 Tert-butyl ethyl ether	59	9.243	9.243	0.000	95	707557	2.00	1.64	
46 Tetrahydrofuran	42	9.572	9.572	0.000	89	219657	2.00	1.73	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	95	817817	2.00	1.92	
48 1,2-Dichloroethane	62	10.300	10.300	0.000	99	507684	2.00	1.91	
49 Cyclohexane	69	10.785	10.785	0.000	79	160668	2.00	2.01	
50 Benzene	78	10.780	10.780	0.000	97	885094	2.00	2.05	
51 n-Butanol	31	10.780	10.780	0.000	69	83102	2.00	2.30	
52 Carbon tetrachloride	117	10.807	10.807	0.000	97	839918	2.00	1.91	
53 2,3-Dimethylpentane	71	10.898	10.898	0.000	90	217210	2.00	1.98	
54 Thiophene	84	11.049	11.049	0.000	97	488753	2.00	1.92	
55 Isooctane	57	11.524	11.524	0.000	97	1513515	2.00	2.00	
56 n-Heptane	71	11.890	11.890	0.000	90	328076	2.00	1.95	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	86	298682	2.00	1.96	
58 Trichloroethene	130	12.014	12.014	0.000	96	425545	2.00	1.77	
59 Dibromomethane	93	12.101	12.101	0.000	95	344298	2.00	1.90	
60 Dichlorobromomethane	83	12.241	12.241	0.000	98	729537	2.00	2.00	
61 1,4-Dioxane	88	12.268	12.268	0.000	92	101456	2.00	1.62	
62 Methyl methacrylate	41	12.327	12.327	0.000	92	265221	2.00	1.63	
63 Methylcyclohexane	83	12.775	12.775	0.000	94	709391	2.00	2.33	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.179	0.000	98	452788	2.00	1.94	
65 cis-1,3-Dichloropropene	75	13.228	13.228	0.000	96	502338	2.00	1.97	
66 trans-1,3-Dichloropropene	75	13.907	13.907	0.000	98	462977	2.00	1.99	
67 Toluene	91	14.037	14.037	0.000	93	947556	2.00	1.91	
68 1,1,2-Trichloroethane	83	14.107	14.107	0.000	99	273837	2.00	1.88	
69 2-Hexanone	58	14.495	14.495	0.000	94	229584	2.00	1.90	
70 n-Octane	85	14.705	14.705	0.000	90	382216	2.00	2.12	
71 Chlorodibromomethane	129	14.808	14.808	0.000	98	702789	2.00	2.00	
72 Ethylene Dibromide	107	15.099	15.099	0.000	99	511908	2.00	1.90	
73 Tetrachloroethene	129	15.169	15.169	0.000	95	419516	2.00	1.83	
75 Chlorobenzene	112	16.037	16.037	0.000	91	814707	2.00	1.97	
74 2,3-Dimethylheptane	43	16.043	16.043	0.000	92	908461	2.00	1.91	
78 Ethylbenzene	91	16.318	16.318	0.000	99	1190822	2.00	1.81	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	99	1898683	4.00	3.69	
80 n-Nonane	57	16.878	16.878	0.000	87	674824	2.00	2.14	
81 Bromoform	173	16.932	16.932	0.000	94	655958	2.00	2.05	
82 Styrene	104	16.938	16.938	0.000	98	648589	2.00	1.93	
83 o-Xylene	91	17.002	17.002	0.000	98	967319	2.00	1.74	
84 1,1,2,2-Tetrachloroethane	83	17.321	17.321	0.000	99	573111	2.00	1.76	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	97	200342	2.00	1.58	
86 Isopropylbenzene	105	17.579	17.579	0.000	97	1294556	2.00	1.71	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.102	18.102	0.000	99	348514	2.00	1.64	
88 2-Chlorotoluene	126	18.151	18.151	0.000	97	377749	2.00	1.84	
89 4-Ethyltoluene	105	18.248	18.248	0.000	98	1181380	2.00	1.59	
90 1,3,5-Trimethylbenzene	120	18.324	18.324	0.000	92	563865	2.00	1.81	
92 Alpha Methyl Styrene	118	18.545	18.545	0.000	88	505829	2.00	1.75	
93 n-Decane	57	18.593	18.593	0.000	93	766262	2.00	1.90	
94 tert-Butylbenzene	119	18.739	18.739	0.000	92	1148133	2.00	1.62	
95 1,2,4-Trimethylbenzene	105	18.750	18.750	0.000	96	1051411	2.00	1.59	
96 sec-Butylbenzene	105	18.998	18.998	0.000	98	1516095	2.00	1.63	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	99	854446	2.00	1.83	
98 Benzyl chloride	91	19.089	19.089	0.000	98	923644	2.00	1.80	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	93	855273	2.00	1.82	
100 4-Isopropyltoluene	119	19.154	19.154	0.000	97	1284173	2.00	1.56	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	99	809620	2.00	1.32	
102 Butylcyclohexane	83	19.262	19.262	0.000	92	969919	2.00	1.86	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	979574	2.00	1.62	
104 1,2-Dichlorobenzene	146	19.461	19.461	0.000	90	788025	2.00	1.80	
105 n-Butylbenzene	91	19.580	19.580	0.000	98	1211246	2.00	1.65	
106 Indene	116	19.585	19.585	0.000	90	745396	2.00	1.48	
107 Undecane	57	19.877	19.877	0.000	94	730725	2.00	2.24	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	98	316509	2.00	1.42	
109 1,2,4,5-Tetramethylbenzene	119	20.324	20.324	0.000	97	1175837	2.00	1.51	
110 Dodecane	57	20.928	20.928	0.000	96	612120	2.00	2.38	
111 1,2,4-Trichlorobenzene	180	21.138	21.138	0.000	94	632942	2.00	1.62	
112 Naphthalene	128	21.279	21.279	0.000	99	1310930	2.00	1.63	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	590481	2.00	1.56	
114 1,2,3-Trichlorobenzene	180	21.554	21.554	0.000	94	566283	2.00	1.57	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	99	742210	2.00	2.63	
116 1-Methylnaphthalene	142	22.481	22.481	0.000	100	696353	2.00	2.59	
A 122 C8 Range	1	14.701	(14.647-14.775)		0	3303392	2.00	2.21	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.12	
S 124 Xylenes, Total	100				0		6.00	5.43	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

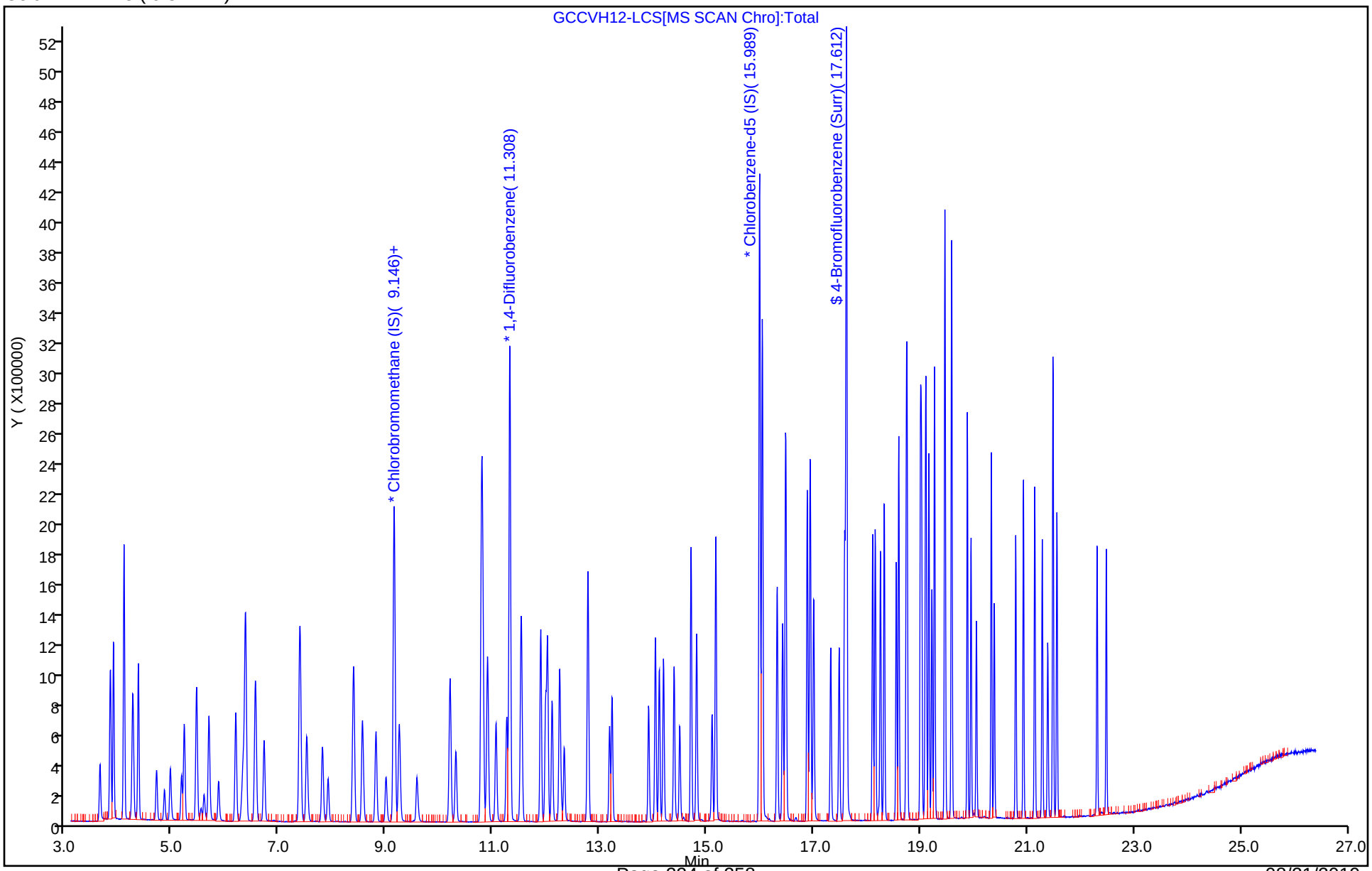
Report Date: 13-Aug-2019 12:25:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GCCVH12-LCS.d

Injection Date:	12-Aug-2019 09:07:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\GCCVH12-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2019 09:07:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012675-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12675.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 13-Aug-2019 12:25:20 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: khachitpongpanits Date: 13-Aug-2019 12:25:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.30	107.42

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-32522/1002

Matrix: Air Lab File ID: GCCVH13A-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 08/13/2019 10:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 32522 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.13		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	2.05		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	2.05		0.080	0.022
67-66-3	Chloroform	119.38	2.02		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.07		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	1.99		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	2.08		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.93		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.01		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.86		0.080	0.013
75-09-2	Methylene Chloride	84.93	2.03		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.65		0.40	0.052
91-20-3	Naphthalene	128.17	1.49		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.91		0.080	0.0070
108-88-3	Toluene	92.14	1.93		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.00		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	1.53		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.96		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.92		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.99		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	1.39		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.70		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.97		0.080	0.022
75-01-4	Vinyl chloride	62.50	2.02		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.58		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GCCVH13A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2019 10:50:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012676-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Aug-2019 11:30:34 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 11:30:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.140	9.140	0.000	87	531032	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.313	11.313	0.000	95	2848377	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.989	15.989	0.000	88	2572358	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.612	17.612	0.000	91	1921072	4.00	4.30	
6 Chlorodifluoromethane	51	3.823	3.823	0.000	96	554289	2.00	2.05	
7 Propene	41	3.834	3.834	0.000	97	292850	2.00	2.22	
8 Dichlorodifluoromethane	85	3.888	3.888	0.000	100	1044880	2.00	1.99	
9 Chloromethane	52	4.082	4.082	0.000	55	76512	2.00	2.01	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.088	4.088	0.000	95	610422	2.00	2.05	
11 Acetaldehyde	44	4.249	4.249	0.000	97	338173	10.0	8.07	
12 Vinyl chloride	62	4.266	4.266	0.000	99	280516	2.00	2.02	
13 Butane	43	4.352	4.352	0.000	83	389478	2.00	1.97	
14 Butadiene	54	4.357	4.357	0.000	72	202131	2.00	2.00	
15 Bromomethane	94	4.692	4.692	0.000	98	242880	2.00	1.93	
16 Chloroethane	64	4.843	4.843	0.000	94	123479	2.00	2.00	
17 Ethanol	31	4.956	4.956	0.000	98	295483	10.0	6.92	
18 Vinyl bromide	106	5.166	5.166	0.000	97	230106	2.00	2.08	
19 2-Methylbutane	43	5.215	5.215	0.000	87	244521	2.00	1.95	
20 Trichlorofluoromethane	101	5.441	5.441	0.000	99	801256	2.00	1.89	
21 Acrolein	56	5.463	5.463	0.000	96	36881	2.00	2.01	
22 Acetonitrile	40	5.527	5.527	0.000	99	51272	2.00	1.67	
23 Acetone	58	5.581	5.581	0.000	99	57084	2.00	1.59	
24 Pentane	72	5.673	5.673	0.000	97	37235	2.00	2.08	
25 Isopropyl alcohol	45	5.689	5.689	0.000	94	216426	2.00	2.11	
26 Ethyl ether	31	5.856	5.856	0.000	93	130328	2.00	1.73	
27 1,1-Dichloroethene	96	6.180	6.180	0.000	96	304667	2.00	2.01	
28 Acrylonitrile	53	6.288	6.288	0.000	93	137682	2.00	1.86	
30 2-Methyl-2-propanol	59	6.320	6.320	0.000	95	401433	2.00	1.76	
29 1,1,2-Trichloro-1,2,2-trif	101	6.358	6.358	0.000	97	688014	2.00	2.08	
31 Methylene Chloride	84	6.541	6.541	0.000	94	299458	2.00	2.03	
32 3-Chloro-1-propene	39	6.557	6.557	0.000	97	296207	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.708	6.708	0.000	99	849575	2.00	2.09	
34 trans-1,2-Dichloroethene	96	7.372	7.372	0.000	98	302332	2.00	2.00	
35 2-Methylpentane	43	7.388	7.388	0.000	91	604664	2.00	1.93	
36 Methyl tert-butyl ether	73	7.512	7.512	0.000	95	672738	2.00	1.65	
37 1,1-Dichloroethane	63	7.803	7.803	0.000	100	604073	2.00	2.08	
38 Vinyl acetate	43	7.911	7.911	0.000	99	527479	2.00	1.89	
39 2-Butanone (MEK)	72	8.369	8.369	0.000	96	95528	2.00	1.66	
40 Hexane	56	8.391	8.391	0.000	90	256904	2.00	2.12	
41 Isopropyl ether	45	8.552	8.552	0.000	95	683955	2.00	1.77	
42 cis-1,2-Dichloroethene	96	8.806	8.806	0.000	95	321965	2.00	2.07	
43 Ethyl acetate	43	8.989	8.989	0.000	99	384150	2.00	1.54	
44 Chloroform	83	9.151	9.151	0.000	96	729058	2.00	2.02	
45 Tert-butyl ethyl ether	59	9.243	9.243	0.000	93	699140	2.00	1.60	
46 Tetrahydrofuran	42	9.572	9.572	0.000	90	216157	2.00	1.68	
47 1,1,1-Trichloroethane	97	10.192	10.192	0.000	96	844920	2.00	1.96	
48 1,2-Dichloroethane	62	10.300	10.300	0.000	99	505691	2.00	1.93	
51 n-Butanol	31	10.774	10.774	0.000	68	71224	2.00	2.00	
50 Benzene	78	10.785	10.785	0.000	97	905826	2.00	2.13	
49 Cyclohexane	69	10.785	10.785	0.000	77	164669	2.00	2.09	
52 Carbon tetrachloride	117	10.806	10.806	0.000	97	885399	2.00	2.05	
53 2,3-Dimethylpentane	71	10.893	10.893	0.000	90	223332	2.00	2.06	
54 Thiophene	84	11.055	11.055	0.000	95	514446	2.00	2.04	
55 Isooctane	57	11.524	11.524	0.000	98	1498996	2.00	2.01	
56 n-Heptane	71	11.890	11.890	0.000	89	336884	2.00	2.03	
57 1,2-Dichloropropane	63	11.982	11.982	0.000	84	292752	2.00	1.95	
58 Trichloroethene	130	12.014	12.014	0.000	98	471721	2.00	1.99	
59 Dibromomethane	93	12.101	12.101	0.000	94	374185	2.00	2.09	
60 Dichlorobromomethane	83	12.241	12.241	0.000	99	744377	2.00	2.07	
61 1,4-Dioxane	88	12.268	12.268	0.000	89	96891	2.00	1.56	
62 Methyl methacrylate	41	12.327	12.327	0.000	94	251543	2.00	1.57	
63 Methylcyclohexane	83	12.775	12.775	0.000	96	743399	2.00	2.48	
64 4-Methyl-2-pentanone (MIBK	43	13.179	13.179	0.000	96	403633	2.00	1.75	
65 cis-1,3-Dichloropropene	75	13.228	13.228	0.000	95	528509	2.00	2.10	
66 trans-1,3-Dichloropropene	75	13.912	13.912	0.000	98	486406	2.00	2.05	
67 Toluene	91	14.037	14.037	0.000	94	976771	2.00	1.93	
68 1,1,2-Trichloroethane	83	14.112	14.112	0.000	99	284540	2.00	1.92	
69 2-Hexanone	58	14.495	14.495	0.000	95	211449	2.00	1.72	
70 n-Octane	85	14.705	14.705	0.000	89	381472	2.00	2.07	
71 Chlorodibromomethane	129	14.813	14.813	0.000	98	754337	2.00	2.10	
72 Ethylene Dibromide	107	15.099	15.099	0.000	99	575796	2.00	2.09	
73 Tetrachloroethene	129	15.169	15.169	0.000	97	446693	2.00	1.91	
75 Chlorobenzene	112	16.032	16.032	0.000	93	871035	2.00	2.06	
74 2,3-Dimethylheptane	43	16.042	16.042	0.000	90	830829	2.00	1.71	
78 Ethylbenzene	91	16.317	16.317	0.000	99	1247546	2.00	1.86	
79 m-Xylene & p-Xylene	91	16.474	16.474	0.000	99	1982908	4.00	3.78	
80 n-Nonane	57	16.878	16.878	0.000	86	644414	2.00	2.00	
81 Bromoform	173	16.932	16.932	0.000	94	686245	2.00	2.11	
82 Styrene	104	16.938	16.938	0.000	98	716799	2.00	2.09	
83 o-Xylene	91	17.002	17.002	0.000	98	1023103	2.00	1.80	
84 1,1,2,2-Tetrachloroethane	83	17.320	17.320	0.000	99	604216	2.00	1.82	
85 1,2,3-Trichloropropane	110	17.477	17.477	0.000	97	224191	2.00	1.74	
86 Isopropylbenzene	105	17.579	17.579	0.000	96	1376310	2.00	1.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 N-Propylbenzene	120	18.102	18.102	0.000	99	380535	2.00	1.76	
88 2-Chlorotoluene	126	18.151	18.151	0.000	97	396988	2.00	1.90	
89 4-Ethyltoluene	105	18.248	18.248	0.000	98	1297190	2.00	1.71	
90 1,3,5-Trimethylbenzene	120	18.323	18.323	0.000	93	626988	2.00	1.97	
92 Alpha Methyl Styrene	118	18.550	18.550	0.000	89	553109	2.00	1.88	
93 n-Decane	57	18.593	18.593	0.000	93	754383	2.00	1.84	
94 tert-Butylbenzene	119	18.739	18.739	0.000	94	1242354	2.00	1.72	
95 1,2,4-Trimethylbenzene	105	18.749	18.749	0.000	96	1146200	2.00	1.70	
96 sec-Butylbenzene	105	18.997	18.997	0.000	98	1638622	2.00	1.73	
97 1,3-Dichlorobenzene	146	19.019	19.019	0.000	99	894425	2.00	1.88	
98 Benzyl chloride	91	19.089	19.089	0.000	98	972919	2.00	1.86	
99 1,4-Dichlorobenzene	146	19.105	19.105	0.000	95	901420	2.00	1.88	
100 4-Isopropyltoluene	119	19.159	19.159	0.000	97	1377297	2.00	1.64	
101 1,2,3-Trimethylbenzene	105	19.213	19.213	0.000	99	867445	2.00	1.39	
102 Butylcyclohexane	83	19.262	19.262	0.000	94	964017	2.00	1.81	
103 2,3-Dihydroindene	117	19.456	19.456	0.000	93	1070905	2.00	1.74	
104 1,2-Dichlorobenzene	146	19.456	19.456	0.000	98	842712	2.00	1.88	
105 n-Butylbenzene	91	19.580	19.580	0.000	98	1253733	2.00	1.67	
106 Indene	116	19.585	19.585	0.000	91	796107	2.00	1.55	
107 Undecane	57	19.876	19.876	0.000	93	696480	2.00	2.09	
108 1,2-Dibromo-3-Chloropropan	157	20.049	20.049	0.000	99	315907	2.00	1.39	
109 1,2,4,5-Tetramethylbenzene	119	20.324	20.324	0.000	97	1152878	2.00	1.45	
110 Dodecane	57	20.928	20.928	0.000	96	534445	2.00	2.04	
111 1,2,4-Trichlorobenzene	180	21.138	21.138	0.000	94	607102	2.00	1.53	
112 Naphthalene	128	21.278	21.278	0.000	99	1223622	2.00	1.49	
113 Hexachlorobutadiene	225	21.483	21.483	0.000	96	590511	2.00	1.53	
114 1,2,3-Trichlorobenzene	180	21.553	21.553	0.000	96	525136	2.00	1.43	
115 2-Methylnaphthalene	142	22.308	22.308	0.000	100	635829	2.00	2.21	
116 1-Methylnaphthalene	142	22.481	22.481	0.000	100	603418	2.00	2.20	
A 122 C8 Range	1	14.710	(14.647-14.754)		0	3175778	2.00	2.08	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.07	
S 124 Xylenes, Total	100				0		6.00	5.58	

Reagents:

40CV101S_00097	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

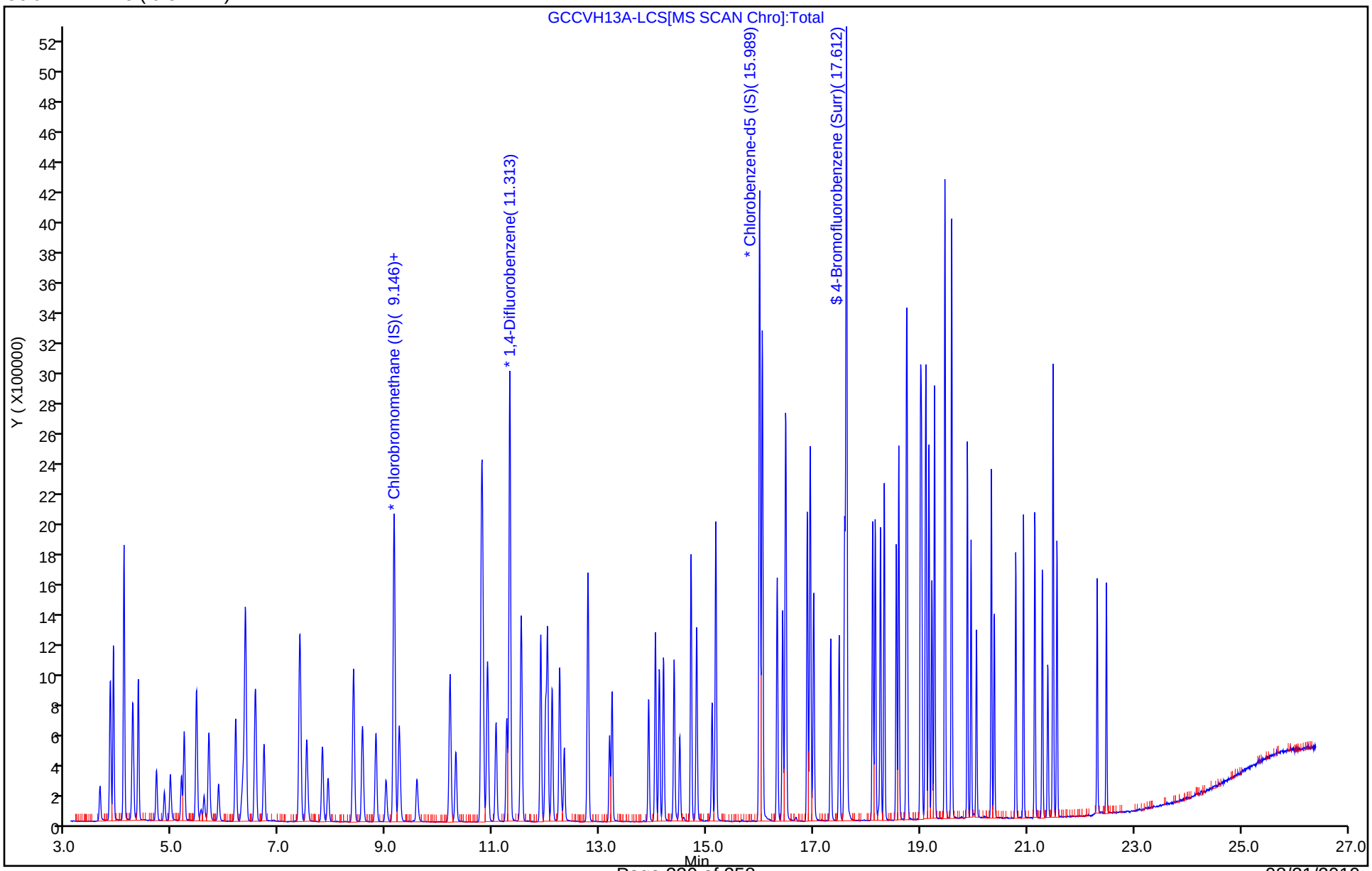
Report Date: 14-Aug-2019 11:30:38 Chrom Revision: 2.3 15-Jul-2019 06:58:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GCCVH13A-LCS.d

Injection Date:	13-Aug-2019 10:50:30	Instrument ID:	MG	Operator ID:	007126
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\GCCVH13A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2019 10:50:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012676-002
Misc. Info.: S97
Operator ID: 007126 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190809-12676.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 14-Aug-2019 11:30:34 Calib Date: 05-Aug-2019 23:41:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190802-12602.b\GH05ICLVL8.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0326

First Level Reviewer: khachitpongpanits Date: 14-Aug-2019 11:30:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	4.30	107.47

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Instrument ID: MG Start Date: 08/05/2019 14:36

Analysis Batch Number: 32317 End Date: 08/06/2019 01:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32317/1		08/05/2019 14:36	1	GBFBH05IC.D	RTX-5 0.32(mm)
IC 140-32317/2		08/05/2019 15:09	1	GH05ICLVL9.D	RTX-5 0.32(mm)
IC 140-32317/4		08/05/2019 16:33	1	GH05ICLVL10.D	RTX-5 0.32(mm)
IC 140-32317/7		08/05/2019 18:41	1	GH05ICLVL01.D	RTX-5 0.32(mm)
IC 140-32317/8		08/05/2019 19:23	1	GH05ICLVL02.D	RTX-5 0.32(mm)
IC 140-32317/9		08/05/2019 20:05	1	GH05ICLVL03.D	RTX-5 0.32(mm)
IC 140-32317/10		08/05/2019 20:47	1	GH05ICLVL04.D	RTX-5 0.32(mm)
IC 140-32317/11		08/05/2019 21:30	1	GH05ICLVL05.D	RTX-5 0.32(mm)
IC 140-32317/12		08/05/2019 22:16	1	GH05ICLVL06.D	RTX-5 0.32(mm)
ICIS 140-32317/13		08/05/2019 22:58	1	GH05ICLVL07.D	RTX-5 0.32(mm)
IC 140-32317/14		08/05/2019 23:41	1	GH05ICLVL8.D	RTX-5 0.32(mm)
ICV 140-32317/17		08/06/2019 01:46	1	GH05LCS.D	RTX-5 0.32(mm)

190805.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	19.4	8/5/2019	2:36:00 PM
LVL9	6 - 201 mL	32	8/5/2019	3:09:17 PM
BLK	16 - 101 mL	19.3	8/5/2019	3:51:18 PM
LVL10	7 - 201 mL	28.7	8/5/2019	4:33:52 PM
BLK	16 - 101 mL	18.7	8/5/2019	5:15:59 PM
BLK	16 - 101 mL	18.4	8/5/2019	5:58:39 PM
LVL01	1 - 51 mL	33.2	8/5/2019	6:41:08 PM
LVL02	1 - 101 mL	33	8/5/2019	7:23:13 PM
LVL03	1 - 201 mL	32.9	8/5/2019	8:05:19 PM
LVL04	2 - 80 mL	31.9	8/5/2019	8:47:48 PM
LVL05	2 - 200 mL	30.9	8/5/2019	9:30:55 PM
LVL06	3 - 200 mL	32.9	8/5/2019	10:16:08 PM
LVL07	4 - 200 mL	32.5	8/5/2019	10:58:44 PM
LVL08	5 - 200 mL	33.2	8/5/2019	11:41:12 PM
BLK	16 - 101 mL	18.6	8/6/2019	12:23:05 AM
ICV	14 - 100 mL	32.7	8/6/2019	1:05:01 AM
LCS	15 - 100 mL	32.4	8/6/2019	1:46:49 AM
BLK	16 - 501 mL	18.3	8/6/2019	2:32:16 AM
BLK	16 - 501 mL	18.2	8/6/2019	3:17:47 AM

MG WL ICAL 12602

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	8/5/19	Instrument:	MG	Chrom WL #:	12602	TALS Batch & Event #	TO14/15: 2077 / 32317	DOD5: 2078 / 32365
							DOD: 2080 / 32367	OHIO: 2079 / 32366

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓	IN ICV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% 123 TMBz 31% [F6 Σ]	✓	✓	✓		✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓	123TMBz Quad fit low. fit OH + MIBK.	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	na	✓		✓	ns	ns
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	✓	✓	and MIBK	✓	ns	✓
19. Is the intercept less than the RL for each curve? [F6]	✓	✓	✓		✓	ns	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	na	na		✓	ns	na
21. Is low point RSE ≤ 50 %? MeCl2 0.4 [F6]	✓	✓	✓		✓	✓	✓
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	✓
Analyst/Date: 8/6/19	linear MIBK, 123TMBz,			2nd Level Reviewer/Date: 8/8/19			

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ne				ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date: 8/6/19 8/8/19	2nd Level Reviewer/date: 8/8/19
Comments: MeCl2 @ 0.4 RL	Comments:

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Instrument ID: MG Start Date: 08/12/2019 08:33

Analysis Batch Number: 32521 End Date: 08/13/2019 02:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32521/1		08/12/2019 08:33	1	GBFBH12.D	RTX-5 0.32(mm)
CCVIS 140-32521/2		08/12/2019 09:07	1	GCCVH12.D	RTX-5 0.32(mm)
LCS 140-32521/1002		08/12/2019 09:07	1	GCCVH12-LCS.d	RTX-5 0.32(mm)
MB 140-32521/4		08/12/2019 11:05	1	G500BH12.D	RTX-5 0.32(mm)
ZZZZZ		08/12/2019 11:48	1		RTX-5 0.32(mm)
140-16285-1		08/12/2019 14:37	1	GH12P102.D	RTX-5 0.32(mm)
140-16285-2		08/12/2019 15:21	1	GH12P103.D	RTX-5 0.32(mm)
140-16285-3		08/12/2019 16:03	1	GH12P104.D	RTX-5 0.32(mm)
ZZZZZ		08/12/2019 17:31	109.45		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 18:16	110.81		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 19:48	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 20:33	1		RTX-5 0.32(mm)
ZZZZZ		08/12/2019 23:31	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 00:15	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 00:57	6.08		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 02:23	33.07		RTX-5 0.32(mm)

190812.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	27.6	8/12/2019	8:33:31 AM
CCV	6 - 100 mL	29.9	8/12/2019	9:07:28 AM
DNU	16 - 20 mL	27.8	8/12/2019	10:29:05 AM
BLK	16 - 501 mL	27.1	8/12/2019	11:05:13 AM
BLK	16 - 201 mL	27.4	8/12/2019	11:48:56 AM
DNU	1 - 11 mL	12.9	8/12/2019	1:18:31 PM
16296-06	1 - 26 mL	11.5	8/12/2019	1:53:05 PM
16285-01	2 - 100 mL	4.3	8/12/2019	2:37:46 PM
16285-02	3 - 101 mL	5.6	8/12/2019	3:21:23 PM
16285-03	4 - 21 mL	7.5	8/12/2019	4:03:50 PM
116841-02	5 - 195 mL	1	8/12/2019	4:47:26 PM
16296-04	6 - 21 mL	11.1	8/12/2019	5:31:32 PM
16296-05	7 - 26 mL	11.2	8/12/2019	6:16:05 PM
16295-01	8 - 11 mL	13.1	8/12/2019	7:01:36 PM
16287-01	9 - 201 mL	7.2	8/12/2019	7:48:06 PM
16287-01	9 - 201 mL	6.2	8/12/2019	8:33:57 PM
16287-02	10 - 201 mL	4.5	8/12/2019	9:17:39 PM
16287-03	11 - 201 mL	6.6	8/12/2019	10:02:26 PM
16287-04	12 - 201 mL	4.1	8/12/2019	10:46:27 PM
16287-05	13 - 201 mL	6.2	8/12/2019	11:31:01 PM
16287-06	14 - 201 mL	3.9	8/13/2019	12:15:36 AM
16294-01	15 - 26 mL	10.5	8/13/2019	12:57:49 AM
16294-02	16 - 41 mL	11.7	8/13/2019	1:40:30 AM
16296-06	1 - 80 mL	8.1	8/13/2019	2:23:44 AM

MG WL 12675

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MS 8/12/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12675	CCAL Batch #	32529		32576
ICAL Chrom WL #	12602	ICAL Batch # / Event #	32317 / 2077	/	32366 / 2079

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits: 1,2,3-trimethylbenzene	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		✓
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphanom Ph. 8/13/2019		**2nd Level Reviewer/date** 08/13/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	Corrected Vol to 70mL Line 12 and 75mL Line 13 8/13/19	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) NCM 19098 ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample Reason Sample Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	☐ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample Reason Sample Reason	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC.	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		
18. Individual TPH peak area < octane high point area?	↓		✓

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#)	
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☒ CCV - %D - LCS criteria met (NCM# 19097) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	✓	☒ Air Analysis - Air Sample Transfer to Canister (NCM# 19084)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	☒ Marginal Exceedances - Within ME Limits and Random; Report (NCM# 19099) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32521/4, 140-32576/4 **200 mL blank ID:** 140-32521/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphavara Kh.	**Date:** 8/13/2019	**2nd Level Reviewer :**	**Date:** 08/13/19
Comments:		**Comments:**	
CI line 11			
C line 21			

Example Calculation: 140-16294-1 1,1,1-TCA

On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF

4.990095 x 500/25 x 6.08 = 606.80

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16285-1

SDG No.:

Instrument ID: MG Start Date: 08/13/2019 10:14

Analysis Batch Number: 32522 End Date: 08/14/2019 01:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-32522/1		08/13/2019 10:14	1	GBFBH13A.D	RTX-5 0.32(mm)
CCVIS 140-32522/2		08/13/2019 10:50	1	GCCVH13A.D	RTX-5 0.32(mm)
LCS 140-32522/1002		08/13/2019 10:50	1	GCCVH13A-LCS.d	RTX-5 0.32(mm)
MB 140-32522/4		08/13/2019 13:05	1	G500BH13.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 13:49	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 14:31	3.88		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 15:17	45.63		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 16:03	1		RTX-5 0.32(mm)
140-16285-2 DL		08/13/2019 16:47	1	GH13P104.D	RTX-5 0.32(mm)
ZZZZZ		08/13/2019 17:31	10.39		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 18:18	648.98		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 19:52	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 20:39	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 21:28	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 22:16	1		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 23:08	2.47		RTX-5 0.32(mm)
ZZZZZ		08/13/2019 23:55	1		RTX-5 0.32(mm)
ZZZZZ		08/14/2019 00:43	1		RTX-5 0.32(mm)
ZZZZZ		08/14/2019 01:29	3443.59		RTX-5 0.32(mm)

100813.ZZZ

EUROFINS TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	27	8/13/2019	10:14:55 AM
CCV	1 - 100 mL	29.4	8/13/2019	10:49:58 AM
DNU	16 - 20 mL	27.4	8/13/2019	12:24:03 PM
BLK	16 - 501 mL	25.5	8/13/2019	1:05:02 PM
BLK	16 - 201 mL	26.6	8/13/2019	1:49:20 PM
16303-01	1 - 22 mL	13.4	8/13/2019	2:31:50 PM
16303-02	2 - 20 mL	13.3	8/13/2019	3:17:52 PM
16303-03	3 - 11 mL	8.4	8/13/2019	4:03:11 PM
16285-02	4 - 51 mL	1.8	8/13/2019	4:47:55 PM
16295-01	5 - 52 mL	11.7	8/13/2019	5:31:17 PM
16294-01	6 - 101 mL	11.1	8/13/2019	6:18:20 PM
16287-02	7 - 80 mL	4.4	8/13/2019	7:05:22 PM
16287-03	8 - 80 mL	6.6	8/13/2019	7:52:52 PM
16287-04	9 - 80 mL	2.6	8/13/2019	8:39:39 PM
16312-01	10 - 201 mL	1.1	8/13/2019	9:28:15 PM
16312-02	11 - 200 mL	1.1	8/13/2019	10:16:43 PM
16312-03	12 - 495 mL	6.5	8/13/2019	11:08:11 PM
16312-04	13 - 201 mL	5.3	8/13/2019	11:55:55 PM
16312-04	13 - 201 mL	1.2	8/14/2019	12:43:35 AM
16311-01	14 - 26 mL	10.1	8/14/2019	1:29:27 AM

MG WL 12676

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MB 8/13/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	12676	CCAL Batch #	32522		
ICAL Chrom WL #	12602	ICAL Batch # / Event #	32317 / 2077	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	/		na
2. Did BFB meet tune criteria? [F8]	/	□ [Failed TO-14A, but passes TO-15]	/
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	/	List Target analytes outside CCV limits: Ethanol	/
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	/		/
• 2-methyl butane / acrolein	/		/
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	/		/
• vinyl acetate / hexane	/		/
• cis- and trans- isomers	/		/
• ethyl benzene / m/p-xylene / o-xylene	/		/
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3- , 1,4- , and 1,2-dichlorobenzene	/		/
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	/		/
• 2-, and 1-methylnaphthalene	/		/
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	/		/
Analyst/date Suphanana Kn 8/14/2019		**2nd Level Reviewer/date** 081419	
7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	/	Corrected vol line 6 to 22mm 8/14/19	/
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	/		✓
9. Can dilution history verified? [Mgmt Report]	/		/
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	/	□ Method Blank – Report, ND (NCM#_____) NCM 19147 □ Method Blank – Report, 10X (NCM#_____)	/
11. All runs - peaks ID'd correctly and false positives removed?	/		/
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	/		/
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample ____ Reason ____ Sample ____ Reason ____	/	□ (1) Surrogate – Matrix (NCM#_____) □ (2) Surrogate – High, ND (NCM#_____) □ (3) ISTD – RA/RA Concurs (NCM#_____) □ (4) Surrogate –RX concur, Report both (NCM#_____) □ (5) ISTD – Matrix, DL required (NCM#_____)	/
14. Samples outside calibration range scheduled for dilution?	NA	□ ICAL – Range Exceeded; Minimum Dilution	NA
Chrom Review	**1st**	**If No, why is data reportable?**	**2nd**
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample ____ Reason ____ Sample ____ Reason ____	/	□ (1) Reporting Limit – Dilution, Matrix (NCM#_____) □ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) □ (3) Issues with initial collection volume; see DRC.	/
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		
18. Individual TPH peak area < octane high point area?	↓		

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	NA	□ [Failed TO-14A, but passes TO-15] (NCM#_____)	NA
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☑ CCV - %D - LCS criteria met (NCM# 19146) □ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	✓	☑ Air Analysis - Air Sample Transfer to Canister (NCM# 19084)	✓
25. Sample analyses done within analytical holding time?	✓	□ Holding Time – Received w/Insufficient Time (NCM#_____) □ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	□ Marginal Exceedances - Within ME Limits and Random; Report (NCM#___) □ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	✓		✓
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	NA		NA
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-32522/4 **200 mL blank ID:** 140-32522/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Stephanie Kn.	**Date:** 8/14/2019	**2nd Level Reviewer :**	**Date:** 8/15/19
Comments:		**Comments:**	
C line 10			
Line 11 is really 140-16294-A-2-A - MISTyped due to barcode not scanning 1st Level Line 20 4h 8/14/19			
Example Calculation: 140-16303-1 Ethylbenzene			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
$4.250379 \times \frac{500}{20} \times 3.88 = 412.29$			

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16285-1

SDG No.:

Batch Number: 32521 Batch Start Date: 08/12/19 08:33 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00097	40MXISSURP 00004
BFB 140-32521/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32521/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32521/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16285-A-1	BLDG A EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16285-A-2	BLDG A MID GAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16285-A-3	BLDG A INFLUENT	TO 15 LL	T	20 mL	500 mL	1	1		40 mL
LCS 140-32521/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32521/1		TO 15 LL		40 mL					
CCVIS 140-32521/2		TO 15 LL							
MB 140-32521/4		TO 15 LL							
140-16285-A-1	BLDG A EFFLUENT	TO 15 LL	T						
140-16285-A-2	BLDG A MID GAC	TO 15 LL	T						
140-16285-A-3	BLDG A INFLUENT	TO 15 LL	T						
LCS 140-32521/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16285-1

SDG No.:

Batch Number: 32522 Batch Start Date: 08/13/19 10:14 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101S 00097	40MXISSURP 00004
BFB 140-32522/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-32522/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-32522/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16285-A-2	BLDG A MID GAC	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
LCS 140-32522/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-32522/1		TO 15 LL		40 mL					
CCVIS 140-32522/2		TO 15 LL							
MB 140-32522/4		TO 15 LL							
140-16285-A-2	BLDG A MID GAC	TO 15 LL	T						
LCS 140-32522/1002		TO 15 LL							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15698-1

SDG No.:

Client Sample ID: 09669 Lab Sample ID: 140-15698-7

Matrix: Air Lab File ID: GF22lot15698.D

Analysis Method: TO-15 Date Collected: 06/20/2019 13:30

Sample wt/vol: 200(mL) Date Analyzed: 06/22/2019 20:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31016 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND	*	2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15698-1

SDG No.:

Client Sample ID: 09669 Lab Sample ID: 140-15698-7

Matrix: Air Lab File ID: GF22lot15698.D

Analysis Method: TO-15 Date Collected: 06/20/2019 13:30

Sample wt/vol: 200(mL) Date Analyzed: 06/22/2019 20:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31016 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND	*	0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15698-1

SDG No.:

Client Sample ID: 09669 Lab Sample ID: 140-15698-7

Matrix: Air Lab File ID: GF22lot15698.D

Analysis Method: TO-15 Date Collected: 06/20/2019 13:30

Sample wt/vol: 200(mL) Date Analyzed: 06/22/2019 20:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31016 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MG\20190621-12111.b\GF22lot15698.D
Lims ID: 140-15698-A-7
Client ID: 09669
Sample Type: Client
Inject. Date: 22-Jun-2019 20:15:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012111-008
Misc. Info.: 09669
Operator ID: 403648 Instrument ID: MG

Method: \\chromna\Knoxville\ChromData\MG\20190621-12111.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jun-2019 09:56:29 Calib Date: 17-May-2019 04:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MG\20190516-11759.b\GE16IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 24-Jun-2019 10:01:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.167	9.183	-0.016	97	279179	4.00	
* 2 1,4-Difluorobenzene	114	11.335	11.351	-0.016	96	1583700	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.016	16.021	-0.005	92	1394522	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.644	17.649	-0.005	80	939890	4.38	
7 Propene	41	3.840	3.840	0.000	99	28968	0.3214	
31 Methylene Chloride	84	6.557	6.568	-0.011	97	15356	0.1371	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

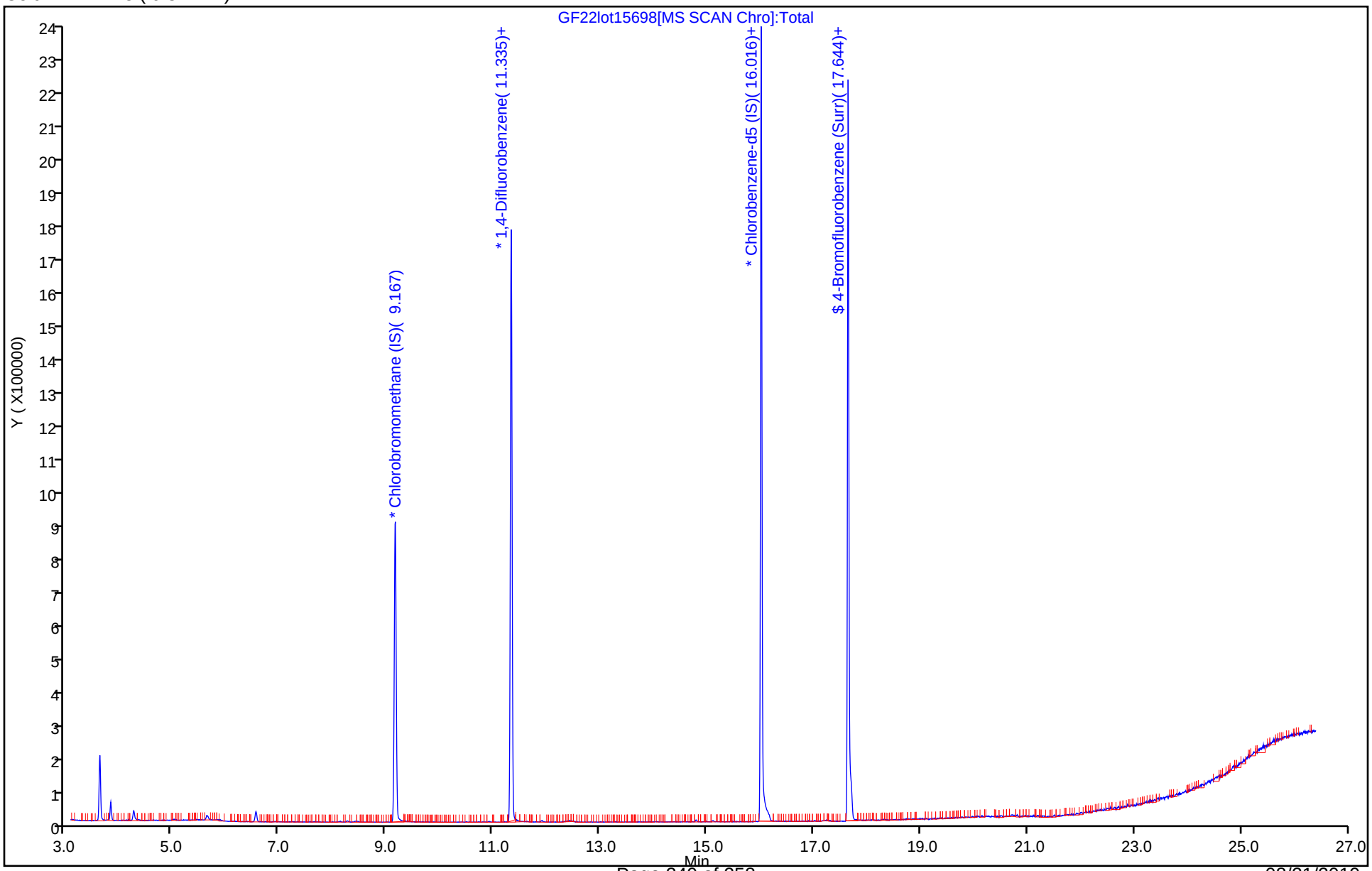
Report Date: 24-Jun-2019 10:01:39 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MG\20190621-12111.b\GF22lot15698.D

Injection Date:	22-Jun-2019 20:15:30	Instrument ID:	MG	Operator ID:	403648
Lims ID:	140-15698-A-7	Lab Sample ID:	140-15698-7	Worklist Smp#:	8
Client ID:	09669				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15772-1

SDG No.:

Client Sample ID: 11813 Lab Sample ID: 140-15772-1

Matrix: Air Lab File ID: F27L15772.D

Analysis Method: TO-15 Date Collected: 06/26/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 06/28/2019 06:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31061 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15772-1

SDG No.:

Client Sample ID: 11813 Lab Sample ID: 140-15772-1

Matrix: Air Lab File ID: F27L15772.D

Analysis Method: TO-15 Date Collected: 06/26/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 06/28/2019 06:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31061 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-15772-1

SDG No.:

Client Sample ID: 11813 Lab Sample ID: 140-15772-1

Matrix: Air Lab File ID: F27L15772.D

Analysis Method: TO-15 Date Collected: 06/26/2019 16:00

Sample wt/vol: 200(mL) Date Analyzed: 06/28/2019 06:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 31061 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MH\20190624-12128.b\F27L15772.D
Lims ID: 140-15772-A-1
Client ID: 11813
Sample Type: Client
Inject. Date: 28-Jun-2019 06:45:30 ALS Bottle#: 2 Worklist Smp#: 24
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012128-024
Misc. Info.: 11813
Operator ID: HMT Instrument ID: MH

Method: \\chromna\Knoxville\ChromData\MH\20190624-12128.b\MH_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-Jun-2019 05:29:54 Calib Date: 14-May-2019 01:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MH\20190513-11710.b\HE13IC08.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: khachitpongpanits Date: 28-Jun-2019 18:38:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.624	8.619	0.005	86	331456	4.00	
* 2 1,4-Difluorobenzene	114	10.831	10.831	0.000	93	1593884	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.607	15.607	0.000	86	1243748	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.281	17.256	0.026	97	742480	3.50	
7 Propene	41	3.549	3.546	0.005	99	18855	0.2069	
33 Carbon disulfide	76	6.242	6.240	0.006	98	29456	0.0806	
45 1,1,1-Trichloroethane	97	9.668	9.664	0.010	98	3195	0.0112	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

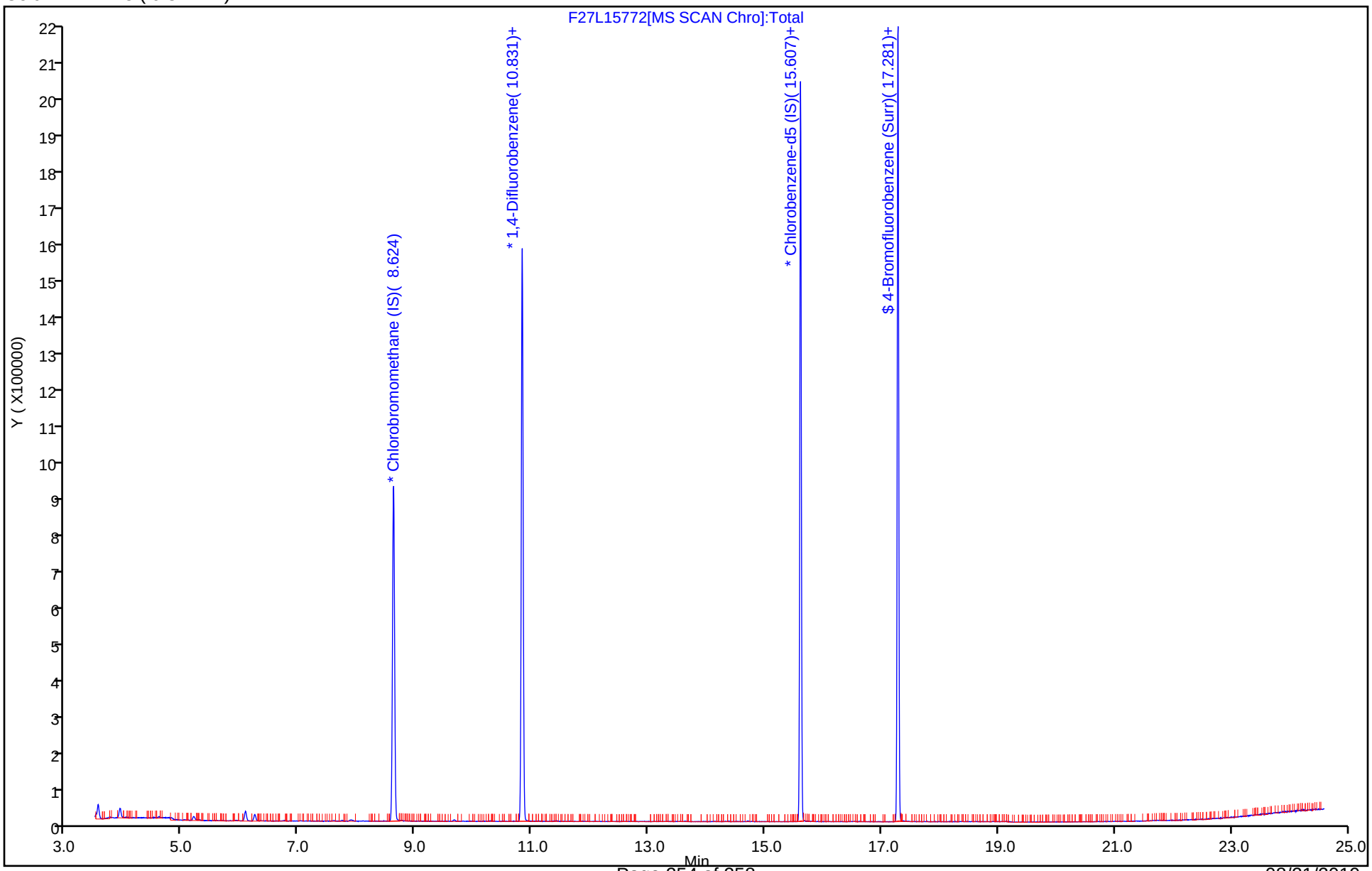
Report Date: 28-Jun-2019 18:38:13 Chrom Revision: 2.3 20-Jun-2019 20:50:56

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MH\20190624-12128.b\F27L15772.D

Injection Date:	28-Jun-2019 06:45:30	Instrument ID:	MH	Operator ID:	HMT
Lims ID:	140-15772-A-1	Lab Sample ID:	140-15772-1	Worklist Smp#:	24
Client ID:	11813				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MH_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Canister Samples Chain of Custody Record

Baltimore #201

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

140-16285 Chain of Custody

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	Client Project Manager: Peter Rich	Samples Collected By: Andrew Smith	COC No: 1 of 1 COCs
Company Name: Tetra Tech	Phone: 410-990-4607		
Address: 661 Awald Rd. Suite 302	Email:		For Lab Use Only:
City/State/Zip Annapolis MD 21403			Walk-in Client:
Phone: 410-990-4607	Site Contact:		Lab Sampling:
FAX:	Tel/Fax		Job / SDG No.:
Project Name: LockLeed Martin MRC	Analysis Turnaround Time		(See below for Add'l Items)
Site/Location: Middle River	Standard (Specific): ✓		
P O # 117-0512140	Rush (Specifiy):		

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
Bldg A Effluent	8/8/19	12:30	8/8	12:31	-30	-4	09899	11777	X								X						
Bldg A Mid Gac	8/8/19	12:35	8/8	12:36	-30	-5	10797	09886	X								X						
Bldg A Influent	8/8/19	12:40	8/8	12:41	-30	-4	10614	10924	X								X						

Temperature (Fahrenheit)			
Start	Interior ~86	Ambient	
Stop	~85		

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

Received @ ambient, 1 box, Fedex Packaged, seal intact trk# 7759 4215 4858 KW 8/9/19

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	Date / Time:	Samples Received by:	
Samples Relinquished by: S. Sob	Date / Time: 8/8/19 14:15	Received by:	
Relinquished by:	Date / Time: 8/8/19 1700	Received by: ETA 8/9/19 0915	3 Coolers, 3 KR
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

08/21/2019

Loc: 140
16285

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 1400292I PM Instructions: _____

Sample Receiving Associate: Ken Wil Date: 8/9/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 8/9/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT	140-16285-a-1	11777	15698	B	1	-4.4	14:07	
HMT	140-16285-a-2	09886	15772	B	1	-3.2	14:08	
HMT	140-16285-a-3	10924	15772	B	1	-4.4	14:09	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 140-16735-1

Job Description: LMMRC SSDS - Middle River

For:
Tetra Tech GEO
980 Awald Road
Suite 302
Annapolis, MD 21403

Attention: Peter Rich



Approved for release.
Diana L Lange
Project Management Assistant II
9/30/2019 4:05 PM

Designee for
Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
09/30/2019

cc: Belssi Chang
Amy Thomson

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-16735-1

Comments
No additional comments.

Receipt
The samples were received on 9/24/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

Method(s) TO 15 LL, TO-15: Although the BFB is flagged as outside control limits for TO-14 on batch 140-33870, the results are within limits for TO-15, which is required for this project.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-16735-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.37	J	1.6	0.16	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.18	J	1.6	0.14	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	10		1.6	0.20	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.48	J	1.6	0.28	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	2.1		1.6	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	10		1.6	0.16	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	4.6	J B	8.0	3.2	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.29	J	1.6	0.14	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	41		1.6	0.74	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	94		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2	J	5.1	0.51	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.87	J	7.8	0.68	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	42		6.3	0.79	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4	J	7.9	1.4	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	8.5		6.5	0.57	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	42		6.3	0.63	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	16	J B	28	11	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.2	J	6.3	0.56	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	220		8.7	4.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	510		4.3	0.64	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A-MID GAC
Lab Sample ID: 140-16735-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.049	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.48		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.41		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	32		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.36	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	3.6		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.14	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	22		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.40		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	84	E	0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	1.9		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	89		0.80	0.37	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.9		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.31	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.7		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	2.0		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	130		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.8	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	15		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.56	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	86		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.5	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	1.6		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A-MID GAC (Continued)
Lab Sample ID: 140-16735-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	460	E	2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	10		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane - DL	480		4.4	2.0	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-16735-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	0.37	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.87		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	41		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.27	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethane	5.2		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.099	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	30		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	2.4	B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.060	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.55	J	0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.76		0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	26		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	12		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.23	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Vinyl chloride	0.15	J	0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.95		0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.7		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.3	J	1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	4.2		2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	160		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.3	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethane	21		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloroethane	0.40	J	1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	120		1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.53	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	8.3	B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.41	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.1	J	2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	3.0		1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	140		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	65		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Vinyl chloride	0.37	J	0.51	0.33	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	4.1		3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG C-INFLUENT
Lab Sample ID: 140-16735-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.2		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.070	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.1		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.20	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG C-INFLUENT (Continued)
Lab Sample ID: 140-16735-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.82		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.28	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.071	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.11	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.085	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.74		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.095	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	5.2		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.76		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.33	J	0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.59	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.2		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.44	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	4.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.95	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.2		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.4	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.28	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.49	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.3	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.58	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
Toluene	2.8		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.38	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	28		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	3.7		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.6	J	2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.6	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG C-MID GAC
Lab Sample ID: 140-16735-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.5		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.042	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.11	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.2		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.31	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.054	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.077	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.8	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.35	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.12	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.61		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	2.7		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.22	J	0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.58	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.27	J	2.5	0.22	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG C-MID GAC (Continued)
Lab Sample ID: 140-16735-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorodifluoromethane	4.8		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.56	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	4.6		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.6	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.21	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.33	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.2	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	2.4	J	2.7	0.24	ug/m3	1		TO 15 LL	Total/NA
trans-1,2-Dichloroethene	0.46	J	1.6	0.14	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.3		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	15		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	1.1	J	2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	2.5	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: BLDG C-EFFLUENT
Lab Sample ID: 140-16735-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.0		0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Chlorodifluoromethane	1.4		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.25	J	0.40	0.035	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.49		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.30	J	0.40	0.070	ppb v/v	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.054	J	0.40	0.040	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.12	J	0.40	0.065	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.6	J B	2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.87		0.60	0.39	ppb v/v	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	0.58		0.40	0.19	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	2.5		0.20	0.030	ppb v/v	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.92		0.40	0.10	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.54		0.40	0.11	ppb v/v	1		TO 15 LL	Total/NA
Xylenes, Total	0.70	J	0.80	0.12	ppb v/v	1		TO 15 LL	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.7		1.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Chlorodifluoromethane	5.0		1.4	0.39	ug/m3	1		TO 15 LL	Total/NA
Chloroform	1.2	J	2.0	0.17	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	1.9		1.6	0.20	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.5	J	2.0	0.35	ug/m3	1		TO 15 LL	Total/NA
1,1-Dichloroethene	0.21	J	1.6	0.16	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.52	J	1.7	0.28	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.4	J B	6.9	2.8	ug/m3	1		TO 15 LL	Total/NA
Toluene	3.3		2.3	1.5	ug/m3	1		TO 15 LL	Total/NA
1,1,1-Trichloroethane	3.1		2.2	1.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	13		1.1	0.16	ug/m3	1		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	4.5		2.0	0.49	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	2.7		2.0	0.54	ug/m3	1		TO 15 LL	Total/NA
Xylenes, Total	3.0	J	3.5	0.52	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-16735-1

Date Collected: 09/23/19 14:04
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.37**	**J**	1.6	0.16	ppb v/v			09/25/19 20:41	1
Carbon tetrachloride	ND		1.6	0.14	ppb v/v			09/25/19 20:41	1
Chlorodifluoromethane	ND		1.6	0.44	ppb v/v			09/25/19 20:41	1
Chloroform	**0.18**	**J**	1.6	0.14	ppb v/v			09/25/19 20:41	1
cis-1,2-Dichloroethene	**10**		1.6	0.20	ppb v/v			09/25/19 20:41	1
Dichlorodifluoromethane	**0.48**	**J**	1.6	0.28	ppb v/v			09/25/19 20:41	1
1,1-Dichloroethane	**2.1**		1.6	0.14	ppb v/v			09/25/19 20:41	1
1,2-Dichloroethane	ND		1.6	0.20	ppb v/v			09/25/19 20:41	1
1,1-Dichloroethene	**10**		1.6	0.16	ppb v/v			09/25/19 20:41	1
Ethylbenzene	ND		1.6	0.26	ppb v/v			09/25/19 20:41	1
Methylene Chloride	**4.6**	**J B**	8.0	3.2	ppb v/v			09/25/19 20:41	1
Methyl tert-butyl ether	ND		8.0	1.0	ppb v/v			09/25/19 20:41	1
Naphthalene	ND		0.80	1.5	ppb v/v			09/25/19 20:41	1
Tetrachloroethene	ND		1.6	0.14	ppb v/v			09/25/19 20:41	1
Toluene	ND		2.4	1.6	ppb v/v			09/25/19 20:41	1
trans-1,2-Dichloroethene	**0.29**	**J**	1.6	0.14	ppb v/v			09/25/19 20:41	1
1,2,4-Trichlorobenzene	ND		1.6	1.3	ppb v/v			09/25/19 20:41	1
1,1,1-Trichloroethane	**41**		1.6	0.74	ppb v/v			09/25/19 20:41	1
1,1,2-Trichloroethane	ND		1.6	0.14	ppb v/v			09/25/19 20:41	1
Trichloroethene	**94**		0.80	0.12	ppb v/v			09/25/19 20:41	1
1,2,3-Trimethylbenzene	ND		1.6	0.72	ppb v/v			09/25/19 20:41	1
1,2,4-Trimethylbenzene	ND		1.6	0.40	ppb v/v			09/25/19 20:41	1
1,3,5-Trimethylbenzene	ND		1.6	0.44	ppb v/v			09/25/19 20:41	1
Vinyl chloride	ND		0.80	0.52	ppb v/v			09/25/19 20:41	1
Xylenes, Total	ND		3.2	0.48	ppb v/v			09/25/19 20:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.2**	**J**	5.1	0.51	ug/m3			09/25/19 20:41	1
Carbon tetrachloride	ND		10	0.88	ug/m3			09/25/19 20:41	1
Chlorodifluoromethane	ND		5.7	1.6	ug/m3			09/25/19 20:41	1
Chloroform	**0.87**	**J**	7.8	0.68	ug/m3			09/25/19 20:41	1
cis-1,2-Dichloroethene	**42**		6.3	0.79	ug/m3			09/25/19 20:41	1
Dichlorodifluoromethane	**2.4**	**J**	7.9	1.4	ug/m3			09/25/19 20:41	1
1,1-Dichloroethane	**8.5**		6.5	0.57	ug/m3			09/25/19 20:41	1
1,2-Dichloroethane	ND		6.5	0.81	ug/m3			09/25/19 20:41	1
1,1-Dichloroethene	**42**		6.3	0.63	ug/m3			09/25/19 20:41	1
Ethylbenzene	ND		6.9	1.1	ug/m3			09/25/19 20:41	1
Methylene Chloride	**16**	**J B**	28	11	ug/m3			09/25/19 20:41	1
Methyl tert-butyl ether	ND		29	3.7	ug/m3			09/25/19 20:41	1
Naphthalene	ND		4.2	8.0	ug/m3			09/25/19 20:41	1
Tetrachloroethene	ND		11	0.95	ug/m3			09/25/19 20:41	1
Toluene	ND		9.0	5.9	ug/m3			09/25/19 20:41	1
trans-1,2-Dichloroethene	**1.2**	**J**	6.3	0.56	ug/m3			09/25/19 20:41	1
1,2,4-Trichlorobenzene	ND		12	9.5	ug/m3			09/25/19 20:41	1
1,1,1-Trichloroethane	**220**		8.7	4.0	ug/m3			09/25/19 20:41	1
1,1,2-Trichloroethane	ND		8.7	0.76	ug/m3			09/25/19 20:41	1
Trichloroethene	**510**		4.3	0.64	ug/m3			09/25/19 20:41	1
1,2,3-Trimethylbenzene	ND		7.9	3.5	ug/m3			09/25/19 20:41	1
1,2,4-Trimethylbenzene	ND		7.9	2.0	ug/m3			09/25/19 20:41	1

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-16735-1

Date Collected: 09/23/19 14:04
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		7.9	2.2	ug/m3			09/25/19 20:41	1
Vinyl chloride	ND		2.0	1.3	ug/m3			09/25/19 20:41	1
Xylenes, Total	ND		14	2.1	ug/m3			09/25/19 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*09/25/19 20:41*	*1*

Client Sample ID: BLDG A-MID GAC
Lab Sample ID: 140-16735-2

Date Collected: 09/23/19 13:58
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.58**		0.40	0.040	ppb v/v			09/25/19 21:29	1
Carbon tetrachloride	**0.049**	**J**	0.40	0.035	ppb v/v			09/25/19 21:29	1
Chlorodifluoromethane	**0.48**		0.40	0.11	ppb v/v			09/25/19 21:29	1
Chloroform	**0.41**		0.40	0.035	ppb v/v			09/25/19 21:29	1
cis-1,2-Dichloroethene	**32**		0.40	0.050	ppb v/v			09/25/19 21:29	1
Dichlorodifluoromethane	**0.36**	**J**	0.40	0.070	ppb v/v			09/25/19 21:29	1
1,1-Dichloroethane	**3.6**		0.40	0.035	ppb v/v			09/25/19 21:29	1
1,2-Dichloroethane	**0.14**	**J**	0.40	0.050	ppb v/v			09/25/19 21:29	1
1,1-Dichloroethene	**22**		0.40	0.040	ppb v/v			09/25/19 21:29	1
Ethylbenzene	ND		0.40	0.065	ppb v/v			09/25/19 21:29	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			09/25/19 21:29	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			09/25/19 21:29	1
Naphthalene	ND		0.20	0.38	ppb v/v			09/25/19 21:29	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			09/25/19 21:29	1
Toluene	ND		0.60	0.39	ppb v/v			09/25/19 21:29	1
trans-1,2-Dichloroethene	**0.40**		0.40	0.035	ppb v/v			09/25/19 21:29	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			09/25/19 21:29	1
1,1,1-Trichloroethane	**84**	**E**	0.40	0.19	ppb v/v			09/25/19 21:29	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 21:29	1
Trichloroethene	**1.9**		0.20	0.030	ppb v/v			09/25/19 21:29	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			09/25/19 21:29	1
1,2,4-Trimethylbenzene	ND		0.40	0.10	ppb v/v			09/25/19 21:29	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			09/25/19 21:29	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			09/25/19 21:29	1
Xylenes, Total	ND		0.80	0.12	ppb v/v			09/25/19 21:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.9**		1.3	0.13	ug/m3			09/25/19 21:29	1
Carbon tetrachloride	**0.31**	**J**	2.5	0.22	ug/m3			09/25/19 21:29	1
Chlorodifluoromethane	**1.7**		1.4	0.39	ug/m3			09/25/19 21:29	1
Chloroform	**2.0**		2.0	0.17	ug/m3			09/25/19 21:29	1
cis-1,2-Dichloroethene	**130**		1.6	0.20	ug/m3			09/25/19 21:29	1
Dichlorodifluoromethane	**1.8**	**J**	2.0	0.35	ug/m3			09/25/19 21:29	1
1,1-Dichloroethane	**15**		1.6	0.14	ug/m3			09/25/19 21:29	1
1,2-Dichloroethane	**0.56**	**J**	1.6	0.20	ug/m3			09/25/19 21:29	1
1,1-Dichloroethene	**86**		1.6	0.16	ug/m3			09/25/19 21:29	1
Ethylbenzene	ND		1.7	0.28	ug/m3			09/25/19 21:29	1
Methylene Chloride	**5.5**	**J B**	6.9	2.8	ug/m3			09/25/19 21:29	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			09/25/19 21:29	1
Naphthalene	ND		1.0	2.0	ug/m3			09/25/19 21:29	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			09/25/19 21:29	1
Toluene	ND		2.3	1.5	ug/m3			09/25/19 21:29	1
trans-1,2-Dichloroethene	**1.6**		1.6	0.14	ug/m3			09/25/19 21:29	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			09/25/19 21:29	1
1,1,1-Trichloroethane	**460**	**E**	2.2	1.0	ug/m3			09/25/19 21:29	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			09/25/19 21:29	1
Trichloroethene	**10**		1.1	0.16	ug/m3			09/25/19 21:29	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			09/25/19 21:29	1
1,2,4-Trimethylbenzene	ND		2.0	0.49	ug/m3			09/25/19 21:29	1

Client Sample ID: BLDG A-MID GAC
Lab Sample ID: 140-16735-2

Date Collected: 09/23/19 13:58
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			09/25/19 21:29	1
Vinyl chloride	ND		0.51	0.33	ug/m3			09/25/19 21:29	1
Xylenes, Total	ND		3.5	0.52	ug/m3			09/25/19 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*09/25/19 21:29*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**89**		0.80	0.37	ppb v/v			09/26/19 08:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**480**		4.4	2.0	ug/m3			09/26/19 08:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*09/26/19 08:21*	*1*

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-16735-3

Date Collected: 09/23/19 13:52
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**		0.40	0.040	ppb v/v			09/25/19 22:18	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			09/25/19 22:18	1
Chlorodifluoromethane	**0.37**	**J**	0.40	0.11	ppb v/v			09/25/19 22:18	1
Chloroform	**0.87**		0.40	0.035	ppb v/v			09/25/19 22:18	1
cis-1,2-Dichloroethene	**41**		0.40	0.050	ppb v/v			09/25/19 22:18	1
Dichlorodifluoromethane	**0.27**	**J**	0.40	0.070	ppb v/v			09/25/19 22:18	1
1,1-Dichloroethane	**5.2**		0.40	0.035	ppb v/v			09/25/19 22:18	1
1,2-Dichloroethane	**0.099**	**J**	0.40	0.050	ppb v/v			09/25/19 22:18	1
1,1-Dichloroethene	**30**		0.40	0.040	ppb v/v			09/25/19 22:18	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			09/25/19 22:18	1
Methylene Chloride	**2.4**	**B**	2.0	0.80	ppb v/v			09/25/19 22:18	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			09/25/19 22:18	1
Naphthalene	ND		0.20	0.38	ppb v/v			09/25/19 22:18	1
Tetrachloroethene	**0.060**	**J**	0.40	0.035	ppb v/v			09/25/19 22:18	1
Toluene	**0.55**	**J**	0.60	0.39	ppb v/v			09/25/19 22:18	1
trans-1,2-Dichloroethene	**0.76**		0.40	0.035	ppb v/v			09/25/19 22:18	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			09/25/19 22:18	1
1,1,1-Trichloroethane	**26**		0.40	0.19	ppb v/v			09/25/19 22:18	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 22:18	1
Trichloroethene	**12**		0.20	0.030	ppb v/v			09/25/19 22:18	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			09/25/19 22:18	1
1,2,4-Trimethylbenzene	**0.23**	**J**	0.40	0.10	ppb v/v			09/25/19 22:18	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			09/25/19 22:18	1
Vinyl chloride	**0.15**	**J**	0.20	0.13	ppb v/v			09/25/19 22:18	1
Xylenes, Total	**0.95**		0.80	0.12	ppb v/v			09/25/19 22:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.7**		1.3	0.13	ug/m3			09/25/19 22:18	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			09/25/19 22:18	1
Chlorodifluoromethane	**1.3**	**J**	1.4	0.39	ug/m3			09/25/19 22:18	1
Chloroform	**4.2**		2.0	0.17	ug/m3			09/25/19 22:18	1
cis-1,2-Dichloroethene	**160**		1.6	0.20	ug/m3			09/25/19 22:18	1
Dichlorodifluoromethane	**1.3**	**J**	2.0	0.35	ug/m3			09/25/19 22:18	1
1,1-Dichloroethane	**21**		1.6	0.14	ug/m3			09/25/19 22:18	1
1,2-Dichloroethane	**0.40**	**J**	1.6	0.20	ug/m3			09/25/19 22:18	1
1,1-Dichloroethene	**120**		1.6	0.16	ug/m3			09/25/19 22:18	1
Ethylbenzene	**0.53**	**J**	1.7	0.28	ug/m3			09/25/19 22:18	1
Methylene Chloride	**8.3**	**B**	6.9	2.8	ug/m3			09/25/19 22:18	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			09/25/19 22:18	1
Naphthalene	ND		1.0	2.0	ug/m3			09/25/19 22:18	1
Tetrachloroethene	**0.41**	**J**	2.7	0.24	ug/m3			09/25/19 22:18	1
Toluene	**2.1**	**J**	2.3	1.5	ug/m3			09/25/19 22:18	1
trans-1,2-Dichloroethene	**3.0**		1.6	0.14	ug/m3			09/25/19 22:18	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			09/25/19 22:18	1
1,1,1-Trichloroethane	**140**		2.2	1.0	ug/m3			09/25/19 22:18	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			09/25/19 22:18	1
Trichloroethene	**65**		1.1	0.16	ug/m3			09/25/19 22:18	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			09/25/19 22:18	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			09/25/19 22:18	1

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-16735-3

Date Collected: 09/23/19 13:52
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			09/25/19 22:18	1
Vinyl chloride	**0.37**	**J**	0.51	0.33	ug/m3			09/25/19 22:18	1
Xylenes, Total	**4.1**		3.5	0.52	ug/m3			09/25/19 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*09/25/19 22:18*	*1*

Client Sample ID: BLDG C-INFLUENT
Lab Sample ID: 140-16735-4

Date Collected: 09/23/19 14:30
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.2**		0.40	0.040	ppb v/v			09/25/19 23:07	1
Carbon tetrachloride	**0.070**	**J**	0.40	0.035	ppb v/v			09/25/19 23:07	1
Chlorodifluoromethane	**1.1**		0.40	0.11	ppb v/v			09/25/19 23:07	1
Chloroform	**0.20**	**J**	0.40	0.035	ppb v/v			09/25/19 23:07	1
cis-1,2-Dichloroethene	**0.82**		0.40	0.050	ppb v/v			09/25/19 23:07	1
Dichlorodifluoromethane	**0.28**	**J**	0.40	0.070	ppb v/v			09/25/19 23:07	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 23:07	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			09/25/19 23:07	1
1,1-Dichloroethene	**0.071**	**J**	0.40	0.040	ppb v/v			09/25/19 23:07	1
Ethylbenzene	**0.11**	**J**	0.40	0.065	ppb v/v			09/25/19 23:07	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			09/25/19 23:07	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			09/25/19 23:07	1
Naphthalene	ND		0.20	0.38	ppb v/v			09/25/19 23:07	1
Tetrachloroethene	**0.085**	**J**	0.40	0.035	ppb v/v			09/25/19 23:07	1
Toluene	**0.74**		0.60	0.39	ppb v/v			09/25/19 23:07	1
trans-1,2-Dichloroethene	**0.095**	**J**	0.40	0.035	ppb v/v			09/25/19 23:07	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			09/25/19 23:07	1
1,1,1-Trichloroethane	ND		0.40	0.19	ppb v/v			09/25/19 23:07	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 23:07	1
Trichloroethene	**5.2**		0.20	0.030	ppb v/v			09/25/19 23:07	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			09/25/19 23:07	1
1,2,4-Trimethylbenzene	**0.76**		0.40	0.10	ppb v/v			09/25/19 23:07	1
1,3,5-Trimethylbenzene	**0.33**	**J**	0.40	0.11	ppb v/v			09/25/19 23:07	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			09/25/19 23:07	1
Xylenes, Total	**0.59**	**J**	0.80	0.12	ppb v/v			09/25/19 23:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.2**		1.3	0.13	ug/m3			09/25/19 23:07	1
Carbon tetrachloride	**0.44**	**J**	2.5	0.22	ug/m3			09/25/19 23:07	1
Chlorodifluoromethane	**4.0**		1.4	0.39	ug/m3			09/25/19 23:07	1
Chloroform	**0.95**	**J**	2.0	0.17	ug/m3			09/25/19 23:07	1
cis-1,2-Dichloroethene	**3.2**		1.6	0.20	ug/m3			09/25/19 23:07	1
Dichlorodifluoromethane	**1.4**	**J**	2.0	0.35	ug/m3			09/25/19 23:07	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			09/25/19 23:07	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			09/25/19 23:07	1
1,1-Dichloroethene	**0.28**	**J**	1.6	0.16	ug/m3			09/25/19 23:07	1
Ethylbenzene	**0.49**	**J**	1.7	0.28	ug/m3			09/25/19 23:07	1
Methylene Chloride	**6.3**	**J B**	6.9	2.8	ug/m3			09/25/19 23:07	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			09/25/19 23:07	1
Naphthalene	ND		1.0	2.0	ug/m3			09/25/19 23:07	1
Tetrachloroethene	**0.58**	**J**	2.7	0.24	ug/m3			09/25/19 23:07	1
Toluene	**2.8**		2.3	1.5	ug/m3			09/25/19 23:07	1
trans-1,2-Dichloroethene	**0.38**	**J**	1.6	0.14	ug/m3			09/25/19 23:07	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			09/25/19 23:07	1
1,1,1-Trichloroethane	ND		2.2	1.0	ug/m3			09/25/19 23:07	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			09/25/19 23:07	1
Trichloroethene	**28**		1.1	0.16	ug/m3			09/25/19 23:07	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			09/25/19 23:07	1
1,2,4-Trimethylbenzene	**3.7**		2.0	0.49	ug/m3			09/25/19 23:07	1

Client Sample ID: BLDG C-INFLUENT
Lab Sample ID: 140-16735-4

Date Collected: 09/23/19 14:30
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**1.6**	**J**	2.0	0.54	ug/m3			09/25/19 23:07	1
Vinyl chloride	ND		0.51	0.33	ug/m3			09/25/19 23:07	1
Xylenes, Total	**2.6**	**J**	3.5	0.52	ug/m3			09/25/19 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*09/25/19 23:07*	*1*

Client Sample ID: BLDG C-MID GAC
Lab Sample ID: 140-16735-5

Date Collected: 09/23/19 14:25
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.5**		0.40	0.040	ppb v/v			09/25/19 23:55	1
Carbon tetrachloride	**0.042**	**J**	0.40	0.035	ppb v/v			09/25/19 23:55	1
Chlorodifluoromethane	**1.4**		0.40	0.11	ppb v/v			09/25/19 23:55	1
Chloroform	**0.11**	**J**	0.40	0.035	ppb v/v			09/25/19 23:55	1
cis-1,2-Dichloroethene	**1.2**		0.40	0.050	ppb v/v			09/25/19 23:55	1
Dichlorodifluoromethane	**0.31**	**J**	0.40	0.070	ppb v/v			09/25/19 23:55	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 23:55	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			09/25/19 23:55	1
1,1-Dichloroethene	**0.054**	**J**	0.40	0.040	ppb v/v			09/25/19 23:55	1
Ethylbenzene	**0.077**	**J**	0.40	0.065	ppb v/v			09/25/19 23:55	1
Methylene Chloride	**1.8**	**J B**	2.0	0.80	ppb v/v			09/25/19 23:55	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			09/25/19 23:55	1
Naphthalene	ND		0.20	0.38	ppb v/v			09/25/19 23:55	1
Tetrachloroethene	**0.35**	**J**	0.40	0.035	ppb v/v			09/25/19 23:55	1
Toluene	ND		0.60	0.39	ppb v/v			09/25/19 23:55	1
trans-1,2-Dichloroethene	**0.12**	**J**	0.40	0.035	ppb v/v			09/25/19 23:55	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			09/25/19 23:55	1
1,1,1-Trichloroethane	**0.61**		0.40	0.19	ppb v/v			09/25/19 23:55	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			09/25/19 23:55	1
Trichloroethene	**2.7**		0.20	0.030	ppb v/v			09/25/19 23:55	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			09/25/19 23:55	1
1,2,4-Trimethylbenzene	**0.22**	**J**	0.40	0.10	ppb v/v			09/25/19 23:55	1
1,3,5-Trimethylbenzene	ND		0.40	0.11	ppb v/v			09/25/19 23:55	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			09/25/19 23:55	1
Xylenes, Total	**0.58**	**J**	0.80	0.12	ppb v/v			09/25/19 23:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**14**		1.3	0.13	ug/m3			09/25/19 23:55	1
Carbon tetrachloride	**0.27**	**J**	2.5	0.22	ug/m3			09/25/19 23:55	1
Chlorodifluoromethane	**4.8**		1.4	0.39	ug/m3			09/25/19 23:55	1
Chloroform	**0.56**	**J**	2.0	0.17	ug/m3			09/25/19 23:55	1
cis-1,2-Dichloroethene	**4.6**		1.6	0.20	ug/m3			09/25/19 23:55	1
Dichlorodifluoromethane	**1.6**	**J**	2.0	0.35	ug/m3			09/25/19 23:55	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			09/25/19 23:55	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			09/25/19 23:55	1
1,1-Dichloroethene	**0.21**	**J**	1.6	0.16	ug/m3			09/25/19 23:55	1
Ethylbenzene	**0.33**	**J**	1.7	0.28	ug/m3			09/25/19 23:55	1
Methylene Chloride	**6.2**	**J B**	6.9	2.8	ug/m3			09/25/19 23:55	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			09/25/19 23:55	1
Naphthalene	ND		1.0	2.0	ug/m3			09/25/19 23:55	1
Tetrachloroethene	**2.4**	**J**	2.7	0.24	ug/m3			09/25/19 23:55	1
Toluene	ND		2.3	1.5	ug/m3			09/25/19 23:55	1
trans-1,2-Dichloroethene	**0.46**	**J**	1.6	0.14	ug/m3			09/25/19 23:55	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			09/25/19 23:55	1
1,1,1-Trichloroethane	**3.3**		2.2	1.0	ug/m3			09/25/19 23:55	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			09/25/19 23:55	1
Trichloroethene	**15**		1.1	0.16	ug/m3			09/25/19 23:55	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			09/25/19 23:55	1
1,2,4-Trimethylbenzene	**1.1**	**J**	2.0	0.49	ug/m3			09/25/19 23:55	1

Client Sample ID: BLDG C-MID GAC
Lab Sample ID: 140-16735-5

Date Collected: 09/23/19 14:25
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0	0.54	ug/m3			09/25/19 23:55	1
Vinyl chloride	ND		0.51	0.33	ug/m3			09/25/19 23:55	1
Xylenes, Total	**2.5**	**J**	3.5	0.52	ug/m3			09/25/19 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*09/25/19 23:55*	*1*

Client Sample ID: BLDG C-EFFLUENT
Lab Sample ID: 140-16735-6

Date Collected: 09/23/19 14:19
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.0**		0.40	0.040	ppb v/v			09/26/19 00:43	1
Carbon tetrachloride	ND		0.40	0.035	ppb v/v			09/26/19 00:43	1
Chlorodifluoromethane	**1.4**		0.40	0.11	ppb v/v			09/26/19 00:43	1
Chloroform	**0.25**	**J**	0.40	0.035	ppb v/v			09/26/19 00:43	1
cis-1,2-Dichloroethene	**0.49**		0.40	0.050	ppb v/v			09/26/19 00:43	1
Dichlorodifluoromethane	**0.30**	**J**	0.40	0.070	ppb v/v			09/26/19 00:43	1
1,1-Dichloroethane	ND		0.40	0.035	ppb v/v			09/26/19 00:43	1
1,2-Dichloroethane	ND		0.40	0.050	ppb v/v			09/26/19 00:43	1
1,1-Dichloroethene	**0.054**	**J**	0.40	0.040	ppb v/v			09/26/19 00:43	1
Ethylbenzene	**0.12**	**J**	0.40	0.065	ppb v/v			09/26/19 00:43	1
Methylene Chloride	**1.6**	**J B**	2.0	0.80	ppb v/v			09/26/19 00:43	1
Methyl tert-butyl ether	ND		2.0	0.26	ppb v/v			09/26/19 00:43	1
Naphthalene	ND		0.20	0.38	ppb v/v			09/26/19 00:43	1
Tetrachloroethene	ND		0.40	0.035	ppb v/v			09/26/19 00:43	1
Toluene	**0.87**		0.60	0.39	ppb v/v			09/26/19 00:43	1
trans-1,2-Dichloroethene	ND		0.40	0.035	ppb v/v			09/26/19 00:43	1
1,2,4-Trichlorobenzene	ND		0.40	0.32	ppb v/v			09/26/19 00:43	1
1,1,1-Trichloroethane	**0.58**		0.40	0.19	ppb v/v			09/26/19 00:43	1
1,1,2-Trichloroethane	ND		0.40	0.035	ppb v/v			09/26/19 00:43	1
Trichloroethene	**2.5**		0.20	0.030	ppb v/v			09/26/19 00:43	1
1,2,3-Trimethylbenzene	ND		0.40	0.18	ppb v/v			09/26/19 00:43	1
1,2,4-Trimethylbenzene	**0.92**		0.40	0.10	ppb v/v			09/26/19 00:43	1
1,3,5-Trimethylbenzene	**0.54**		0.40	0.11	ppb v/v			09/26/19 00:43	1
Vinyl chloride	ND		0.20	0.13	ppb v/v			09/26/19 00:43	1
Xylenes, Total	**0.70**	**J**	0.80	0.12	ppb v/v			09/26/19 00:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.7**		1.3	0.13	ug/m3			09/26/19 00:43	1
Carbon tetrachloride	ND		2.5	0.22	ug/m3			09/26/19 00:43	1
Chlorodifluoromethane	**5.0**		1.4	0.39	ug/m3			09/26/19 00:43	1
Chloroform	**1.2**	**J**	2.0	0.17	ug/m3			09/26/19 00:43	1
cis-1,2-Dichloroethene	**1.9**		1.6	0.20	ug/m3			09/26/19 00:43	1
Dichlorodifluoromethane	**1.5**	**J**	2.0	0.35	ug/m3			09/26/19 00:43	1
1,1-Dichloroethane	ND		1.6	0.14	ug/m3			09/26/19 00:43	1
1,2-Dichloroethane	ND		1.6	0.20	ug/m3			09/26/19 00:43	1
1,1-Dichloroethene	**0.21**	**J**	1.6	0.16	ug/m3			09/26/19 00:43	1
Ethylbenzene	**0.52**	**J**	1.7	0.28	ug/m3			09/26/19 00:43	1
Methylene Chloride	**5.4**	**J B**	6.9	2.8	ug/m3			09/26/19 00:43	1
Methyl tert-butyl ether	ND		7.2	0.94	ug/m3			09/26/19 00:43	1
Naphthalene	ND		1.0	2.0	ug/m3			09/26/19 00:43	1
Tetrachloroethene	ND		2.7	0.24	ug/m3			09/26/19 00:43	1
Toluene	**3.3**		2.3	1.5	ug/m3			09/26/19 00:43	1
trans-1,2-Dichloroethene	ND		1.6	0.14	ug/m3			09/26/19 00:43	1
1,2,4-Trichlorobenzene	ND		3.0	2.4	ug/m3			09/26/19 00:43	1
1,1,1-Trichloroethane	**3.1**		2.2	1.0	ug/m3			09/26/19 00:43	1
1,1,2-Trichloroethane	ND		2.2	0.19	ug/m3			09/26/19 00:43	1
Trichloroethene	**13**		1.1	0.16	ug/m3			09/26/19 00:43	1
1,2,3-Trimethylbenzene	ND		2.0	0.88	ug/m3			09/26/19 00:43	1
1,2,4-Trimethylbenzene	**4.5**		2.0	0.49	ug/m3			09/26/19 00:43	1

Client Sample ID: BLDG C-EFFLUENT
Lab Sample ID: 140-16735-6

Date Collected: 09/23/19 14:19
Matrix: Air
Date Received: 09/24/19 10:00
Sample Container: Summa Canister 1L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**2.7**		2.0	0.54	ug/m3			09/26/19 00:43	1
Vinyl chloride	ND		0.51	0.33	ug/m3			09/26/19 00:43	1
Xylenes, Total	**3.0**	**J**	3.5	0.52	ug/m3			09/26/19 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*09/26/19 00:43*	*1*

Default Detection Limits

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.080	0.037	ppb v/v
1,1,1-Trichloroethane	0.44	0.20	ug/m3
1,1,2-Trichloroethane	0.080	0.0070	ppb v/v
1,1,2-Trichloroethane	0.44	0.038	ug/m3
1,1-Dichloroethane	0.080	0.0070	ppb v/v
1,1-Dichloroethane	0.32	0.028	ug/m3
1,1-Dichloroethene	0.080	0.0080	ppb v/v
1,1-Dichloroethene	0.32	0.032	ug/m3
1,2,3-Trimethylbenzene	0.080	0.036	ppb v/v
1,2,3-Trimethylbenzene	0.39	0.18	ug/m3
1,2,4-Trichlorobenzene	0.080	0.064	ppb v/v
1,2,4-Trichlorobenzene	0.59	0.47	ug/m3
1,2,4-Trimethylbenzene	0.080	0.020	ppb v/v
1,2,4-Trimethylbenzene	0.39	0.098	ug/m3
1,2-Dichloroethane	0.080	0.010	ppb v/v
1,2-Dichloroethane	0.32	0.040	ug/m3
1,3,5-Trimethylbenzene	0.080	0.022	ppb v/v
1,3,5-Trimethylbenzene	0.39	0.11	ug/m3
Benzene	0.080	0.0080	ppb v/v
Benzene	0.26	0.026	ug/m3
Carbon tetrachloride	0.080	0.0070	ppb v/v
Carbon tetrachloride	0.50	0.044	ug/m3
Chlorodifluoromethane	0.080	0.022	ppb v/v
Chlorodifluoromethane	0.28	0.078	ug/m3
Chloroform	0.080	0.0070	ppb v/v
Chloroform	0.39	0.034	ug/m3
cis-1,2-Dichloroethene	0.080	0.010	ppb v/v
cis-1,2-Dichloroethene	0.32	0.040	ug/m3
Dichlorodifluoromethane	0.080	0.014	ppb v/v
Dichlorodifluoromethane	0.40	0.069	ug/m3
Ethylbenzene	0.080	0.013	ppb v/v
Ethylbenzene	0.35	0.056	ug/m3
Methyl tert-butyl ether	0.40	0.052	ppb v/v
Methyl tert-butyl ether	1.4	0.19	ug/m3
Methylene Chloride	0.40	0.16	ppb v/v
Methylene Chloride	1.4	0.56	ug/m3
Naphthalene	0.040	0.076	ppb v/v
Naphthalene	0.21	0.40	ug/m3
Tetrachloroethene	0.080	0.0070	ppb v/v
Tetrachloroethene	0.54	0.047	ug/m3
Toluene	0.12	0.078	ppb v/v
Toluene	0.45	0.29	ug/m3
trans-1,2-Dichloroethene	0.080	0.0070	ppb v/v
trans-1,2-Dichloroethene	0.32	0.028	ug/m3
Trichloroethene	0.040	0.0060	ppb v/v
Trichloroethene	0.21	0.032	ug/m3
Vinyl chloride	0.040	0.026	ppb v/v
Vinyl chloride	0.10	0.066	ug/m3
Xylenes, Total	0.16	0.024	ppb v/v
Xylenes, Total	0.69	0.10	ug/m3

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: LMMRC SSDS - Middle River

Job ID: 140-16735-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16735-1	BLDG A-INFLUENT	92								
140-16735-2	BLDG A-MID GAC	92								
140-16735-2 - DL	BLDG A-MID GAC	90								
140-16735-3	BLDG A-EFFLUENT	95								
140-16735-4	BLDG C-INFLUENT	94								
140-16735-5	BLDG C-MID GAC	94								
140-16735-6	BLDG C-EFFLUENT	95								
LCS 140-33870/1002	Lab Control Sample	94								
MB 140-33870/4	Method Blank	91								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-33870/4
Matrix: Air
Analysis Batch: 33870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.080	0.0080	ppb v/v			09/25/19 12:02	1
Carbon tetrachloride	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
Chlorodifluoromethane	ND		0.080	0.022	ppb v/v			09/25/19 12:02	1
Chloroform	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
cis-1,2-Dichloroethene	ND		0.080	0.010	ppb v/v			09/25/19 12:02	1
Dichlorodifluoromethane	ND		0.080	0.014	ppb v/v			09/25/19 12:02	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
1,2-Dichloroethane	ND		0.080	0.010	ppb v/v			09/25/19 12:02	1
1,1-Dichloroethene	ND		0.080	0.0080	ppb v/v			09/25/19 12:02	1
Ethylbenzene	ND		0.080	0.013	ppb v/v			09/25/19 12:02	1
Methylene Chloride	0.233	J	0.40	0.16	ppb v/v			09/25/19 12:02	1
Methyl tert-butyl ether	ND		0.40	0.052	ppb v/v			09/25/19 12:02	1
Naphthalene	ND		0.040	0.076	ppb v/v			09/25/19 12:02	1
Tetrachloroethene	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
Toluene	ND		0.12	0.078	ppb v/v			09/25/19 12:02	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			09/25/19 12:02	1
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			09/25/19 12:02	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			09/25/19 12:02	1
Trichloroethene	ND		0.040	0.0060	ppb v/v			09/25/19 12:02	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			09/25/19 12:02	1
1,2,4-Trimethylbenzene	ND		0.080	0.020	ppb v/v			09/25/19 12:02	1
1,3,5-Trimethylbenzene	ND		0.080	0.022	ppb v/v			09/25/19 12:02	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			09/25/19 12:02	1
Xylenes, Total	ND		0.16	0.024	ppb v/v			09/25/19 12:02	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.026	ug/m3			09/25/19 12:02	1
Carbon tetrachloride	ND		0.50	0.044	ug/m3			09/25/19 12:02	1
Chlorodifluoromethane	ND		0.28	0.078	ug/m3			09/25/19 12:02	1
Chloroform	ND		0.39	0.034	ug/m3			09/25/19 12:02	1
cis-1,2-Dichloroethene	ND		0.32	0.040	ug/m3			09/25/19 12:02	1
Dichlorodifluoromethane	ND		0.40	0.069	ug/m3			09/25/19 12:02	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			09/25/19 12:02	1
1,2-Dichloroethane	ND		0.32	0.040	ug/m3			09/25/19 12:02	1
1,1-Dichloroethene	ND		0.32	0.032	ug/m3			09/25/19 12:02	1
Ethylbenzene	ND		0.35	0.056	ug/m3			09/25/19 12:02	1
Methylene Chloride	0.811	J	1.4	0.56	ug/m3			09/25/19 12:02	1
Methyl tert-butyl ether	ND		1.4	0.19	ug/m3			09/25/19 12:02	1
Naphthalene	ND		0.21	0.40	ug/m3			09/25/19 12:02	1
Tetrachloroethene	ND		0.54	0.047	ug/m3			09/25/19 12:02	1
Toluene	ND		0.45	0.29	ug/m3			09/25/19 12:02	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			09/25/19 12:02	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			09/25/19 12:02	1
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			09/25/19 12:02	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			09/25/19 12:02	1
Trichloroethene	ND		0.21	0.032	ug/m3			09/25/19 12:02	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			09/25/19 12:02	1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-33870/4
Matrix: Air
Analysis Batch: 33870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39	0.098	ug/m3			09/25/19 12:02	1
1,3,5-Trimethylbenzene	ND		0.39	0.11	ug/m3			09/25/19 12:02	1
Vinyl chloride	ND		0.10	0.066	ug/m3			09/25/19 12:02	1
Xylenes, Total	ND		0.69	0.10	ug/m3			09/25/19 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*09/25/19 12:02*	*1*

Lab Sample ID: LCS 140-33870/1002
Matrix: Air
Analysis Batch: 33870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.80		ppb v/v		90	70 - 130
Carbon tetrachloride	2.00	1.71		ppb v/v		85	70 - 130
Chlorodifluoromethane	2.00	1.65		ppb v/v		83	60 - 140
Chloroform	2.00	1.72		ppb v/v		86	70 - 130
cis-1,2-Dichloroethene	2.00	2.03		ppb v/v		102	70 - 130
Dichlorodifluoromethane	2.00	2.28		ppb v/v		114	60 - 140
1,1-Dichloroethane	2.00	1.67		ppb v/v		84	70 - 130
1,2-Dichloroethane	2.00	1.43		ppb v/v		72	70 - 130
1,1-Dichloroethene	2.00	1.92		ppb v/v		96	70 - 130
Ethylbenzene	2.00	1.87		ppb v/v		93	70 - 130
Methylene Chloride	2.00	1.64		ppb v/v		82	70 - 130
Methyl tert-butyl ether	2.00	1.73		ppb v/v		87	60 - 140
Naphthalene	2.00	2.00		ppb v/v		100	60 - 140
Tetrachloroethene	2.00	1.89		ppb v/v		94	70 - 130
Toluene	2.00	2.01		ppb v/v		101	70 - 130
trans-1,2-Dichloroethene	2.00	2.04		ppb v/v		102	70 - 130
1,2,4-Trichlorobenzene	2.00	2.02		ppb v/v		101	60 - 140
1,1,1-Trichloroethane	2.00	1.65		ppb v/v		83	70 - 130
1,1,2-Trichloroethane	2.00	1.96		ppb v/v		98	70 - 130
Trichloroethene	2.00	1.95		ppb v/v		97	70 - 130
1,2,3-Trimethylbenzene	2.00	2.03		ppb v/v		102	70 - 130
1,2,4-Trimethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
1,3,5-Trimethylbenzene	2.00	1.96		ppb v/v		98	70 - 130
Vinyl chloride	2.00	1.78		ppb v/v		89	70 - 130
Xylenes, Total	6.00	5.75		ppb v/v		96	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.76		ug/m3		90	70 - 130
Carbon tetrachloride	13	10.7		ug/m3		85	70 - 130
Chlorodifluoromethane	7.1	5.85		ug/m3		83	60 - 140
Chloroform	9.8	8.38		ug/m3		86	70 - 130
cis-1,2-Dichloroethene	7.9	8.05		ug/m3		102	70 - 130
Dichlorodifluoromethane	9.9	11.3		ug/m3		114	60 - 140
1,1-Dichloroethane	8.1	6.77		ug/m3		84	70 - 130

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-33870/1002
Matrix: Air
Analysis Batch: 33870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dichloroethane			8.1	5.81		ug/m3		72	70 - 130		
1,1-Dichloroethene			7.9	7.63		ug/m3		96	70 - 130		
Ethylbenzene			8.7	8.11		ug/m3		93	70 - 130		
Methylene Chloride			6.9	5.71		ug/m3		82	70 - 130		
Methyl tert-butyl ether			7.2	6.24		ug/m3		87	60 - 140		
Naphthalene			10	10.5		ug/m3		100	60 - 140		
Tetrachloroethene			14	12.8		ug/m3		94	70 - 130		
Toluene			7.5	7.58		ug/m3		101	70 - 130		
trans-1,2-Dichloroethene			7.9	8.09		ug/m3		102	70 - 130		
1,2,4-Trichlorobenzene			15	15.0		ug/m3		101	60 - 140		
1,1,1-Trichloroethane			11	9.01		ug/m3		83	70 - 130		
1,1,2-Trichloroethane			11	10.7		ug/m3		98	70 - 130		
Trichloroethene			11	10.5		ug/m3		97	70 - 130		
1,2,3-Trimethylbenzene			9.8	10.0		ug/m3		102	70 - 130		
1,2,4-Trimethylbenzene			9.8	9.62		ug/m3		98	70 - 130		
1,3,5-Trimethylbenzene			9.8	9.65		ug/m3		98	70 - 130		
Vinyl chloride			5.1	4.56		ug/m3		89	70 - 130		
Xylenes, Total			26	25.0		ug/m3		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

QC Association Summary

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Air - GC/MS VOA

Analysis Batch: 33870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16735-1	BLDG A-INFLUENT	Total/NA	Air	TO 15 LL	
140-16735-2	BLDG A-MID GAC	Total/NA	Air	TO 15 LL	
140-16735-2 - DL	BLDG A-MID GAC	Total/NA	Air	TO 15 LL	
140-16735-3	BLDG A-EFFLUENT	Total/NA	Air	TO 15 LL	
140-16735-4	BLDG C-INFLUENT	Total/NA	Air	TO 15 LL	
140-16735-5	BLDG C-MID GAC	Total/NA	Air	TO 15 LL	
140-16735-6	BLDG C-EFFLUENT	Total/NA	Air	TO 15 LL	
MB 140-33870/4	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-33870/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	

Client Sample ID: BLDG A-INFLUENT
Lab Sample ID: 140-16735-1
Date Collected: 09/23/19 14:04
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	25 mL	500 mL	33870	09/25/19 20:41	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG A-MID GAC
Lab Sample ID: 140-16735-2
Date Collected: 09/23/19 13:58
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	33870	09/25/19 21:29	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO 15 LL	DL	1	50 mL	500 mL	33870	09/26/19 08:21	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG A-EFFLUENT
Lab Sample ID: 140-16735-3
Date Collected: 09/23/19 13:52
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	33870	09/25/19 22:18	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG C-INFLUENT
Lab Sample ID: 140-16735-4
Date Collected: 09/23/19 14:30
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	33870	09/25/19 23:07	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG C-MID GAC
Lab Sample ID: 140-16735-5
Date Collected: 09/23/19 14:25
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	33870	09/25/19 23:55	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: BLDG C-EFFLUENT
Lab Sample ID: 140-16735-6
Date Collected: 09/23/19 14:19
Matrix: Air
Date Received: 09/24/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	100 mL	500 mL	33870	09/26/19 00:43	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Client Sample ID: Method Blank
Lab Sample ID: MB 140-33870/4

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	33870	09/25/19 12:02	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-33870/1002

Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	33870	09/25/19 08:56	S1K	TAL KNX
	Instrument ID: MR									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Tetra Tech GEO
Job ID: 140-16735-1
Project/Site: LMMRC SSDS - Middle River

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16735-1	BLDG A-INFLUENT	Air	09/23/19 14:04	09/24/19 10:00	Air Canister (1-Liter) #11703
140-16735-2	BLDG A-MID GAC	Air	09/23/19 13:58	09/24/19 10:00	Air Canister (1-Liter) #11857
140-16735-3	BLDG A-EFFLUENT	Air	09/23/19 13:52	09/24/19 10:00	Air Canister (1-Liter) #10966
140-16735-4	BLDG C-INFLUENT	Air	09/23/19 14:30	09/24/19 10:00	Air Canister (1-Liter) #11615
140-16735-5	BLDG C-MID GAC	Air	09/23/19 14:25	09/24/19 10:00	Air Canister (1-Liter) #09745
140-16735-6	BLDG C-EFFLUENT	Air	09/23/19 14:19	09/24/19 10:00	Air Canister (1-Liter) #09589

Method TO15 Low Level

Volatile Organic Compounds - Low level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	BFB #
BLDG A-INFLUENT	140-16735-1	92
BLDG A-MID GAC	140-16735-2	92
BLDG A-MID GAC DL	140-16735-2 DL	90
BLDG A-EFFLUENT	140-16735-3	95
BLDG C-INFLUENT	140-16735-4	94
BLDG C-MID GAC	140-16735-5	94
BLDG C-EFFLUENT	140-16735-6	95
	MB 140-33870/4	91
	LCS 140-33870/1002	94

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVI25-LCS.d

Lab ID: LCS 140-33870/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	2.00	1.80	90	70-130	
Carbon tetrachloride	2.00	1.71	85	70-130	
Chlorodifluoromethane	2.00	1.65	83	60-140	
Chloroform	2.00	1.72	86	70-130	
cis-1,2-Dichloroethene	2.00	2.03	102	70-130	
Dichlorodifluoromethane	2.00	2.28	114	60-140	
1,1-Dichloroethane	2.00	1.67	84	70-130	
1,2-Dichloroethane	2.00	1.43	72	70-130	
1,1-Dichloroethene	2.00	1.92	96	70-130	
Ethylbenzene	2.00	1.87	93	70-130	
Methylene Chloride	2.00	1.64	82	70-130	
Methyl tert-butyl ether	2.00	1.73	87	60-140	
Naphthalene	2.00	2.00	100	60-140	
Tetrachloroethene	2.00	1.89	94	70-130	
Toluene	2.00	2.01	101	70-130	
trans-1,2-Dichloroethene	2.00	2.04	102	70-130	
1,2,4-Trichlorobenzene	2.00	2.02	101	60-140	
1,1,1-Trichloroethane	2.00	1.65	83	70-130	
1,1,2-Trichloroethane	2.00	1.96	98	70-130	
Trichloroethene	2.00	1.95	97	70-130	
1,2,3-Trimethylbenzene	2.00	2.03	102	70-130	
1,2,4-Trimethylbenzene	2.00	1.96	98	70-130	
1,3,5-Trimethylbenzene	2.00	1.96	98	70-130	
Vinyl chloride	2.00	1.78	89	70-130	
Xylenes, Total	6.00	5.75	96	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab File ID: R500BI25.D Lab Sample ID: MB 140-33870/4

Matrix: Air Heated Purge:(Y/N) N

Instrument ID: MR Date Analyzed: 09/25/2019 12:02

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-33870/1002	RCCVI25-LCS.d	09/25/2019 08:56
BLDG A-INFLUENT	140-16735-1	RI25P107.D	09/25/2019 20:41
BLDG A-MID GAC	140-16735-2	RI25P108.D	09/25/2019 21:29
BLDG A-EFFLUENT	140-16735-3	RI25P109.D	09/25/2019 22:18
BLDG C-INFLUENT	140-16735-4	RI25P110.D	09/25/2019 23:07
BLDG C-MID GAC	140-16735-5	RI25P111.D	09/25/2019 23:55
BLDG C-EFFLUENT	140-16735-6	RI25P112.D	09/26/2019 00:43
BLDG A-MID GAC DL	140-16735-2 DL	RI25P108DL.D	09/26/2019 08:21

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab File ID: RBFBI03IC.D BFB Injection Date: 09/03/2019

Instrument ID: MR BFB Injection Time: 09:57

Analysis Batch No.: 33257

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	92.7	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	88.9	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-33257/2	RI03IC09.D	09/03/2019	10:26
	IC 140-33257/4	RI03IC10.D	09/03/2019	12:02
	IC 140-33257/7	RI03IC01.D	09/03/2019	14:26
	IC 140-33257/8	RI03IC02.D	09/03/2019	15:13
	IC 140-33257/9	RI03IC03.D	09/03/2019	16:02
	IC 140-33257/10	RI03IC04.D	09/03/2019	16:51
	IC 140-33257/11	RI03IC05.D	09/03/2019	17:39
	IC 140-33257/12	RI03IC06.D	09/03/2019	18:27
	IC 140-33257/14	RI03IC08.D	09/03/2019	20:02
	ICV 140-33257/18	RI03ICV.D	09/03/2019	23:14
	ICIS 140-33257/23	RI03IC07R.D	09/04/2019	09:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab File ID: RBFBI25.D BFB Injection Date: 09/25/2019

Instrument ID: MR BFB Injection Time: 08:29

Analysis Batch No.: 33870

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
50	15.0 - 40.0 % of mass 95	18.2		
75	30.0 - 60.0 % of mass 95	45.0		
95	Base Peak, 100% relative abundance	100.0		
96	5.0 - 9.0 % of mass 95	7.4		
173	Less than 2.0 % of mass 174	0.6	(0.7) 1	
174	50.0 - 120.00 % of mass 95	97.6		
175	5.0 - 9.0 % of mass 174	7.4	(7.6) 1	
176	95.0 - 101.0 % of mass 174	90.8	(93.0) 1	*
177	5.0 - 9.0 % of mass 176	5.9	(6.5) 2	

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-33870/2	RCCVI25.D	09/25/2019	08:56
	LCS 140-33870/1002	RCCVI25-LCS.d	09/25/2019	08:56
	MB 140-33870/4	R500BI25.D	09/25/2019	12:02
BLDG A-INFLUENT	140-16735-1	RI25P107.D	09/25/2019	20:41
BLDG A-MID GAC	140-16735-2	RI25P108.D	09/25/2019	21:29
BLDG A-EFFLUENT	140-16735-3	RI25P109.D	09/25/2019	22:18
BLDG C-INFLUENT	140-16735-4	RI25P110.D	09/25/2019	23:07
BLDG C-MID GAC	140-16735-5	RI25P111.D	09/25/2019	23:55
BLDG C-EFFLUENT	140-16735-6	RI25P112.D	09/26/2019	00:43
BLDG A-MID GAC DL	140-16735-2 DL	RI25P108DL.D	09/26/2019	08:21

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Sample No.: ICIS 140-33257/23 Date Analyzed: 09/04/2019 09:04

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RI03IC07R.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		371029	8.53	2202831	10.77	1824871	15.57
UPPER LIMIT		519441	8.86	3083963	11.10	2554819	15.90
LOWER LIMIT		222617	8.20	1321699	10.44	1094923	15.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-33257/18		487104	8.53	2786219	10.77	2417964	15.57

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Sample No.: CCVIS 140-33870/2 Date Analyzed: 09/25/2019 08:56

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVI25.D Heated Purge: (Y/N) N

Calibration ID: 2118

		CBM		DFBZ		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		474813	8.53	2785583	10.76	2306065	15.56
UPPER LIMIT		664738	8.86	3899816	11.09	3228491	15.89
LOWER LIMIT		284888	8.20	1671350	10.43	1383639	15.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-33870/1002		474813	8.53	2785583	10.76	2306065	15.56
MB 140-33870/4		543919	8.53	3028745	10.76	2286308	15.56
140-16735-1	BLDG A-INFLUENT	593051	8.53	3238692	10.76	2432998	15.56
140-16735-2	BLDG A-MID GAC	508698	8.52	2761253	10.76	2140603	15.56
140-16735-3	BLDG A-EFFLUENT	458636	8.54	2607249	10.77	2122252	15.56
140-16735-4	BLDG C-INFLUENT	453683	8.53	2685684	10.76	2121936	15.55
140-16735-5	BLDG C-MID GAC	468094	8.52	2634977	10.76	2113366	15.56
140-16735-6	BLDG C-EFFLUENT	475476	8.53	2668426	10.76	2122016	15.56
140-16735-2 DL	BLDG A-MID GAC DL	389148	8.52	2213459	10.75	1691950	15.55

CBM = Chlorobromomethane (IS)
DFBZ = 1,4-Difluorobenzene
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO 15 LL

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-INFLUENT Lab Sample ID: 140-16735-1

Matrix: Air Lab File ID: RI25P107.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:04

Sample wt/vol: 25(mL) Date Analyzed: 09/25/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.37	J	1.6	0.16
56-23-5	Carbon tetrachloride	153.81	ND		1.6	0.14
75-45-6	Chlorodifluoromethane	86.47	ND		1.6	0.44
67-66-3	Chloroform	119.38	0.18	J	1.6	0.14
156-59-2	cis-1,2-Dichloroethene	96.94	10		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	0.48	J	1.6	0.28
75-34-3	1,1-Dichloroethane	98.96	2.1		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	10		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.6	0.26
75-09-2	Methylene Chloride	84.93	4.6	J B	8.0	3.2
1634-04-4	Methyl tert-butyl ether	88.15	ND		8.0	1.0
91-20-3	Naphthalene	128.17	ND		0.80	1.5
127-18-4	Tetrachloroethene	165.83	ND		1.6	0.14
108-88-3	Toluene	92.14	ND		2.4	1.6
156-60-5	trans-1,2-Dichloroethene	96.94	0.29	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.6	1.3
71-55-6	1,1,1-Trichloroethane	133.41	41		1.6	0.74
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.6	0.14
79-01-6	Trichloroethene	131.39	94		0.80	0.12
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		1.6	0.72
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.6	0.40
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.6	0.44
75-01-4	Vinyl chloride	62.50	ND		0.80	0.52
1330-20-7	Xylenes, Total	106.17	ND		3.2	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-INFLUENT Lab Sample ID: 140-16735-1

Matrix: Air Lab File ID: RI25P107.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:04

Sample wt/vol: 25(mL) Date Analyzed: 09/25/2019 20:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.2	J	5.1	0.51
56-23-5	Carbon tetrachloride	153.81	ND		10	0.88
75-45-6	Chlorodifluoromethane	86.47	ND		5.7	1.6
67-66-3	Chloroform	119.38	0.87	J	7.8	0.68
156-59-2	cis-1,2-Dichloroethene	96.94	42		6.3	0.79
75-71-8	Dichlorodifluoromethane	120.91	2.4	J	7.9	1.4
75-34-3	1,1-Dichloroethane	98.96	8.5		6.5	0.57
107-06-2	1,2-Dichloroethane	98.96	ND		6.5	0.81
75-35-4	1,1-Dichloroethene	96.94	42		6.3	0.63
100-41-4	Ethylbenzene	106.17	ND		6.9	1.1
75-09-2	Methylene Chloride	84.93	16	J B	28	11
1634-04-4	Methyl tert-butyl ether	88.15	ND		29	3.7
91-20-3	Naphthalene	128.17	ND		4.2	8.0
127-18-4	Tetrachloroethene	165.83	ND		11	0.95
108-88-3	Toluene	92.14	ND		9.0	5.9
156-60-5	trans-1,2-Dichloroethene	96.94	1.2	J	6.3	0.56
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		12	9.5
71-55-6	1,1,1-Trichloroethane	133.41	220		8.7	4.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.7	0.76
79-01-6	Trichloroethene	131.39	510		4.3	0.64
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		7.9	3.5
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		7.9	2.0
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		7.9	2.2
75-01-4	Vinyl chloride	62.50	ND		2.0	1.3
1330-20-7	Xylenes, Total	106.17	ND		14	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D				
Lims ID:	140-16735-A-1				
Client ID:	BLDG A-INFLUENT				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 20:41:30	ALS Bottle#:	7	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-015				
Misc. Info.:	140-16735-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 11:14:37	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 11:14:37		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.528	0.000	85	593051	4.00	
* 2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	3238692	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2432998	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1323776	3.68	
8 Dichlorodifluoromethane	85	3.491	3.484	0.005	93	8066	0.0241	
27 1,1-Dichloroethene	96	5.610	5.607	-0.001	90	101201	0.5248	
31 Methylene Chloride	84	5.966	5.961	0.005	89	52321	0.2287	
34 trans-1,2-Dichloroethene	96	6.759	6.760	-0.006	16	3021	0.0145	
37 1,1-Dichloroethane	63	7.201	7.200	0.005	99	37333	0.1047	
42 cis-1,2-Dichloroethene	96	8.193	8.193	-0.001	85	112865	0.5236	
44 Chloroform	83	8.522	8.533	-0.017	27	3821	0.008894	
47 1,1,1-Trichloroethane	97	9.574	9.574	0.000	94	904157	2.06	
49 Benzene	78	10.194	10.189	0.005	94	11425	0.0183	
58 Trichloroethene	130	11.483	11.483	0.000	94	1265132	4.71	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

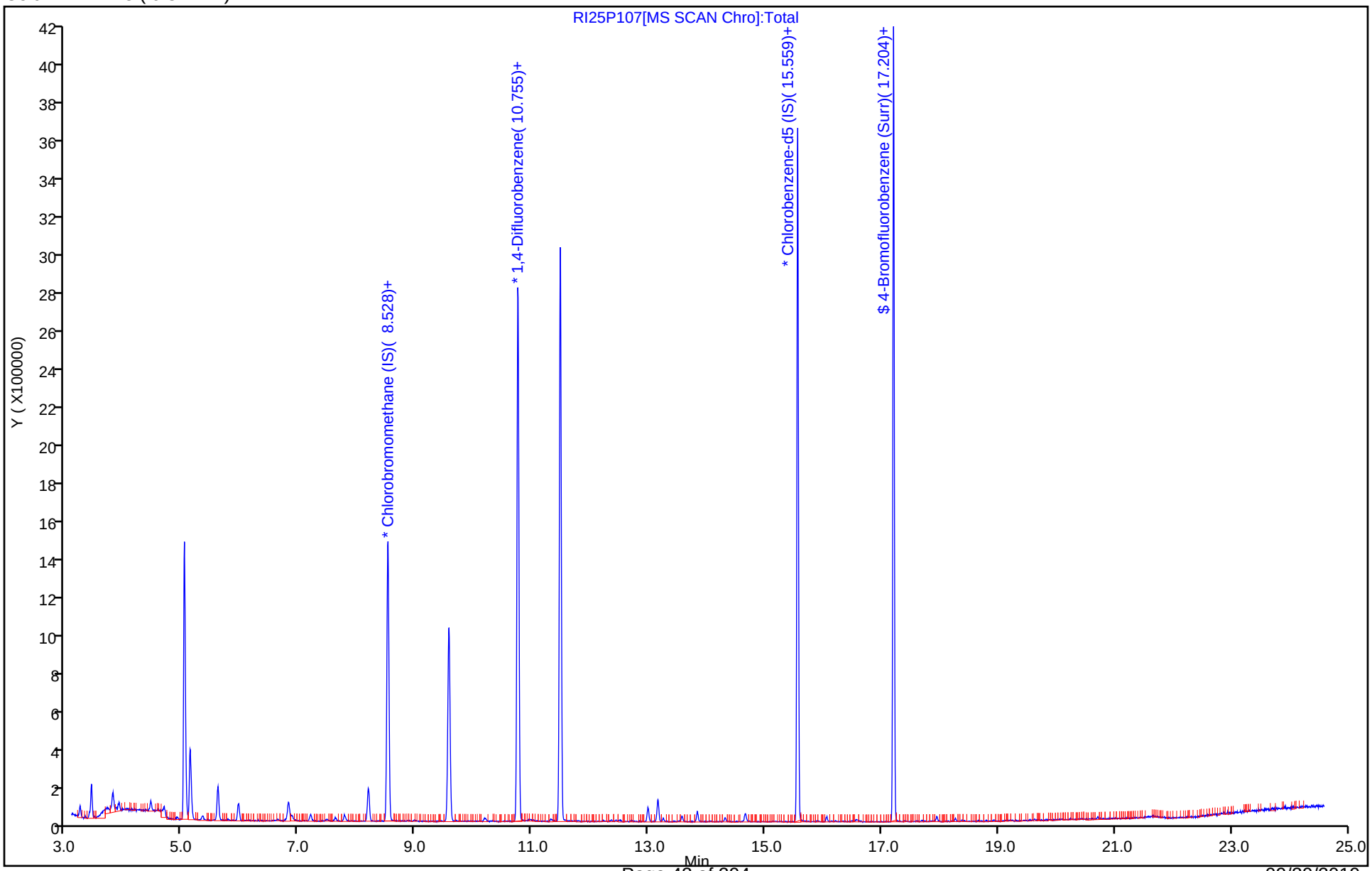
Report Date: 26-Sep-2019 11:14:38 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D

Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1	Worklist Smp#:	15
Client ID:	BLDG A-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

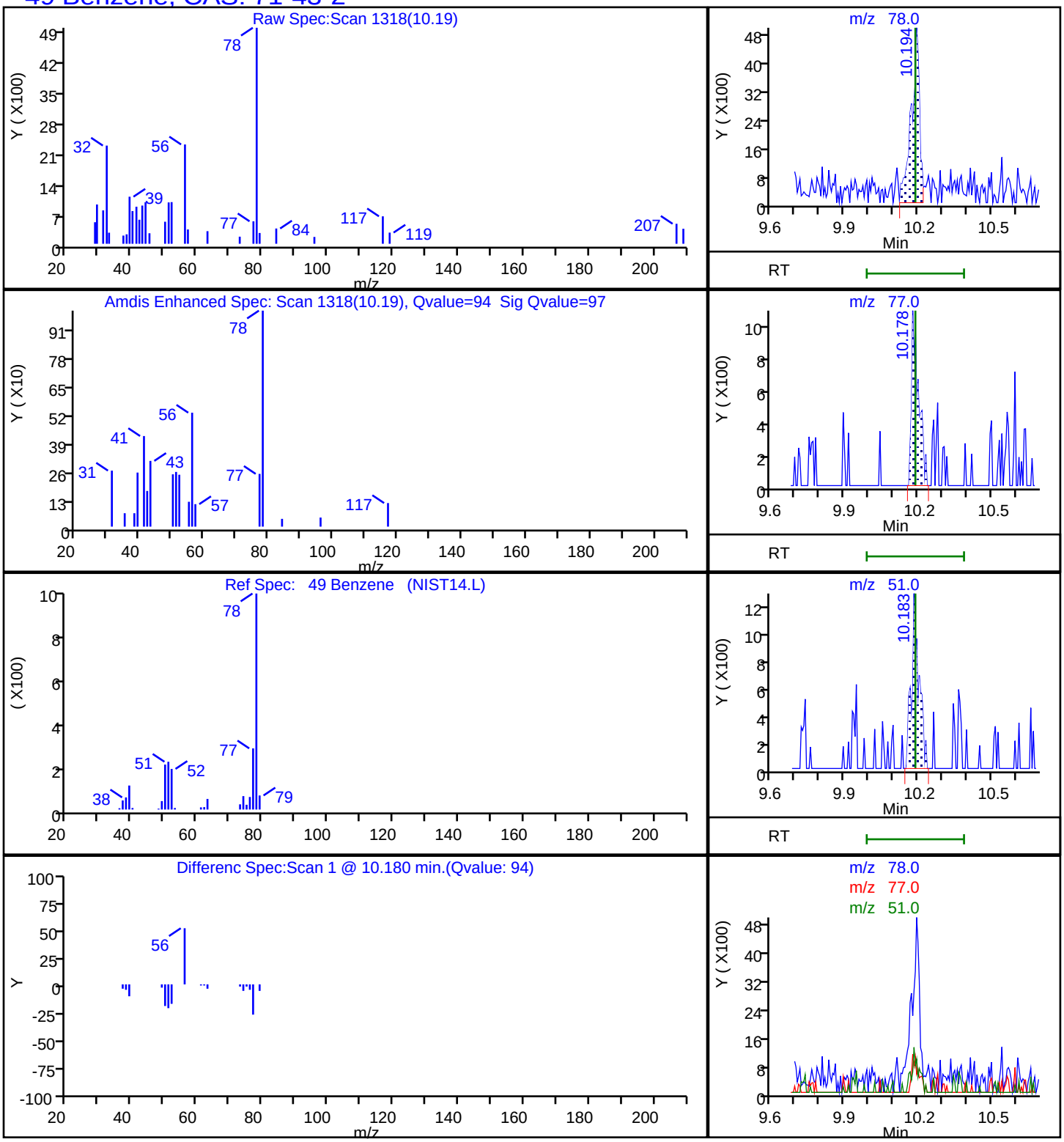
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D				
Lims ID:	140-16735-A-1				
Client ID:	BLDG A-INFLUENT				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 20:41:30	ALS Bottle#:	7	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-015				
Misc. Info.:	140-16735-a-1				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 11:14:37	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 11:14:37		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.68	92.06

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D
Injection Date: 25-Sep-2019 20:41:30 Instrument ID: MR
Lims ID: 140-16735-A-1 Lab Sample ID: 140-16735-1
Client ID: BLDG A-INFLUENT
Operator ID: ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

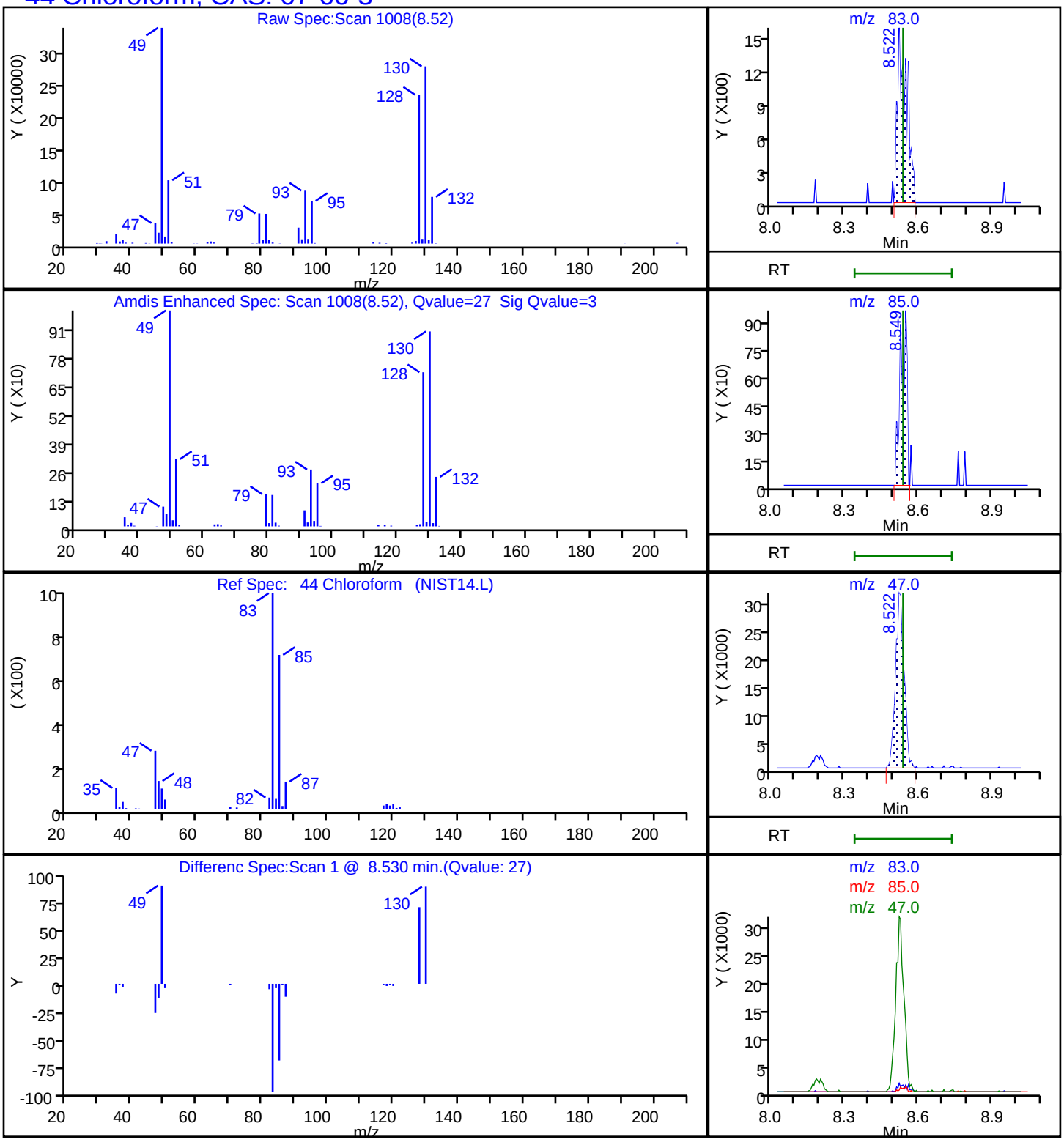
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D
Injection Date: 25-Sep-2019 20:41:30 Instrument ID: MR
Lims ID: 140-16735-A-1 Lab Sample ID: 140-16735-1
Client ID: BLDG A-INFLUENT
Operator ID: ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
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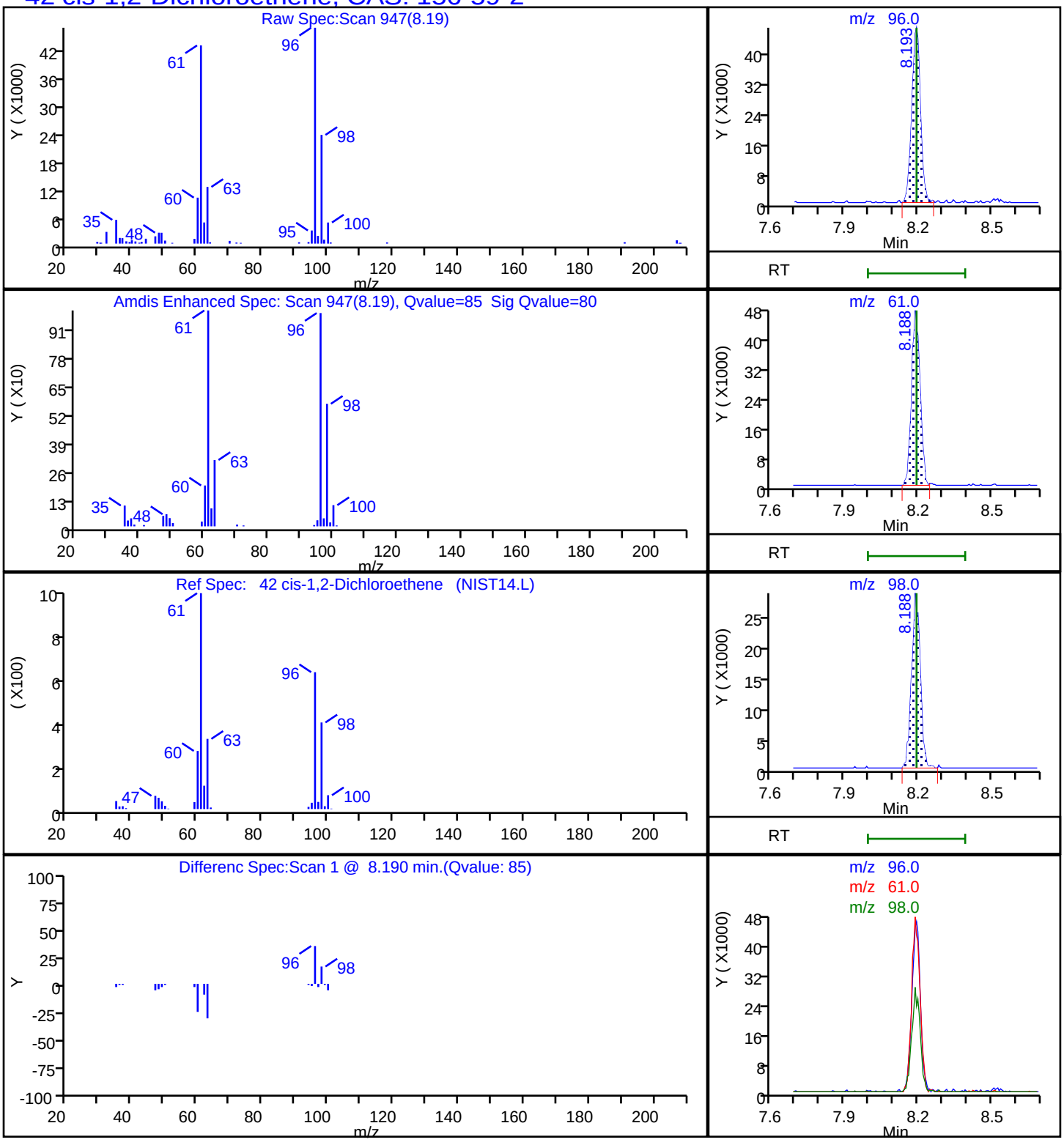
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

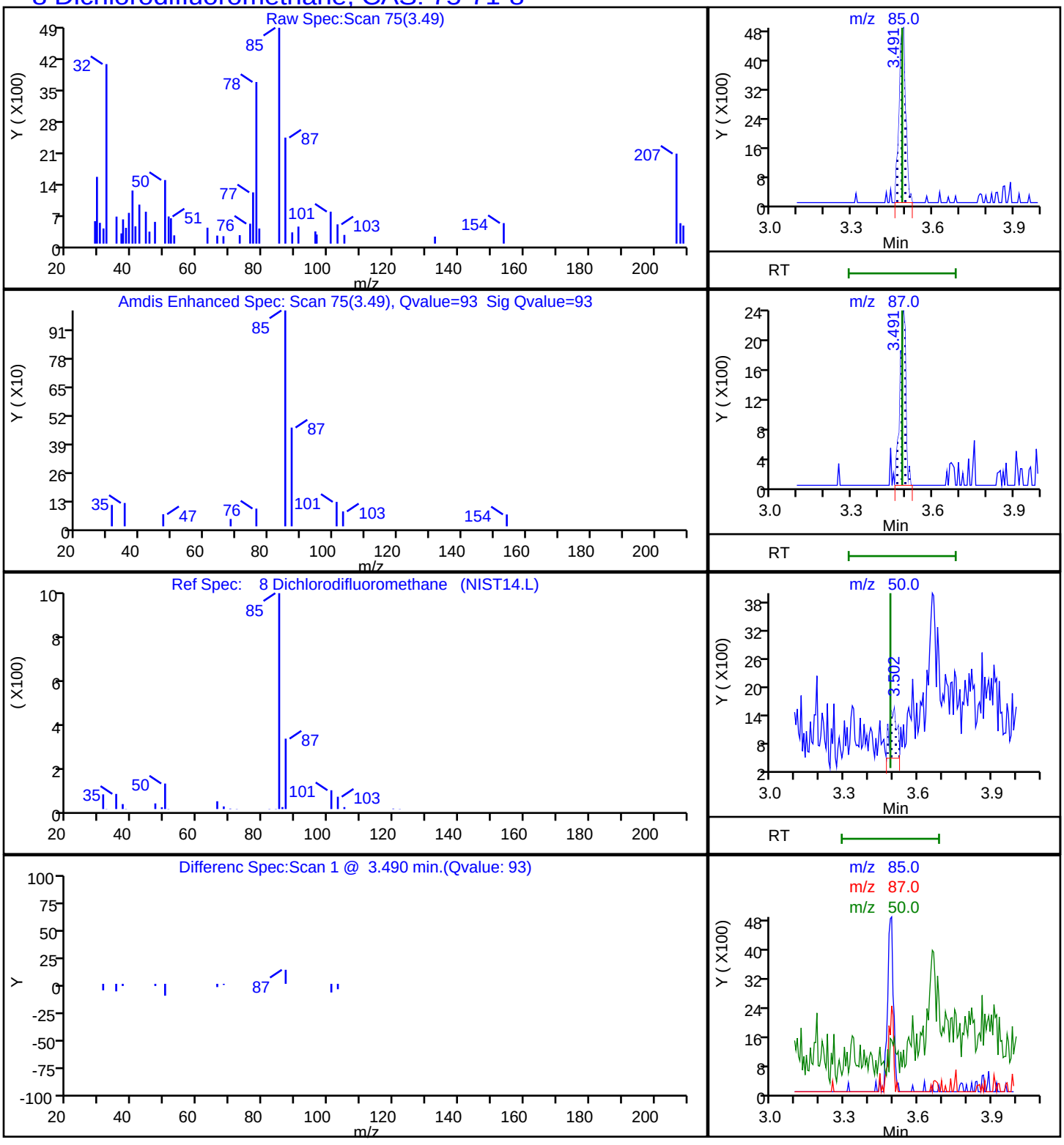


Report Date: 26-Sep-2019 11:14:38 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

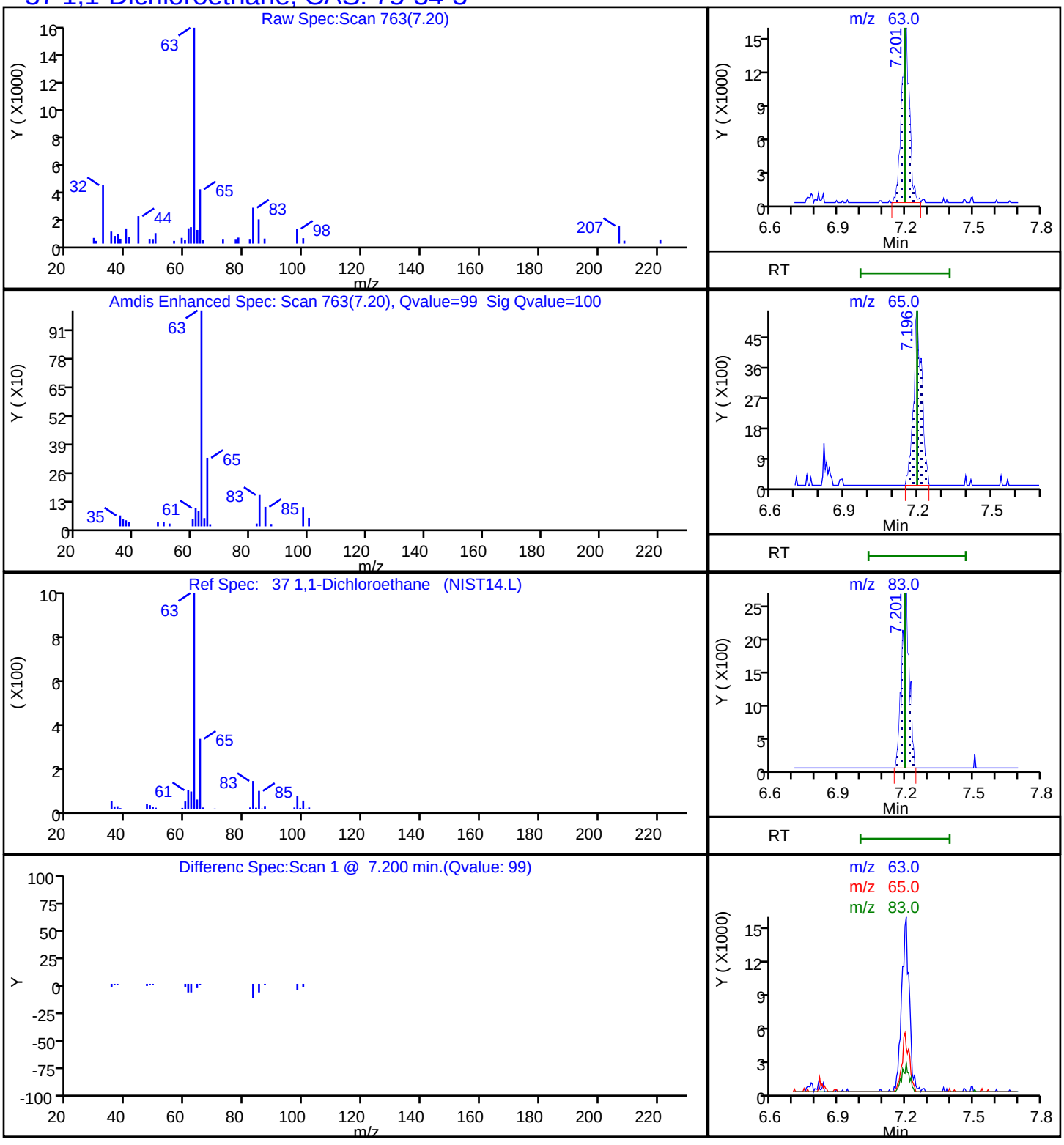
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

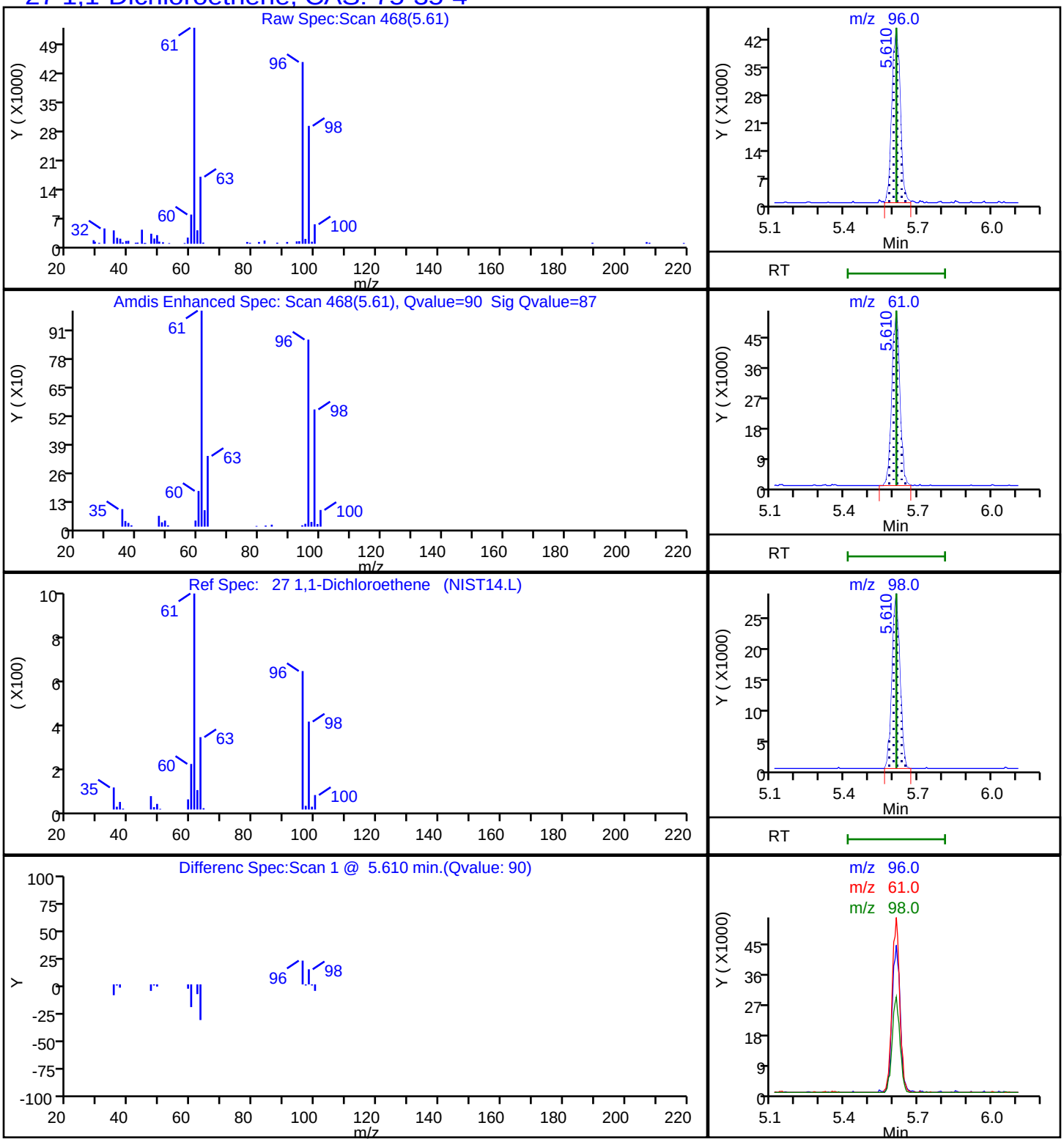
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

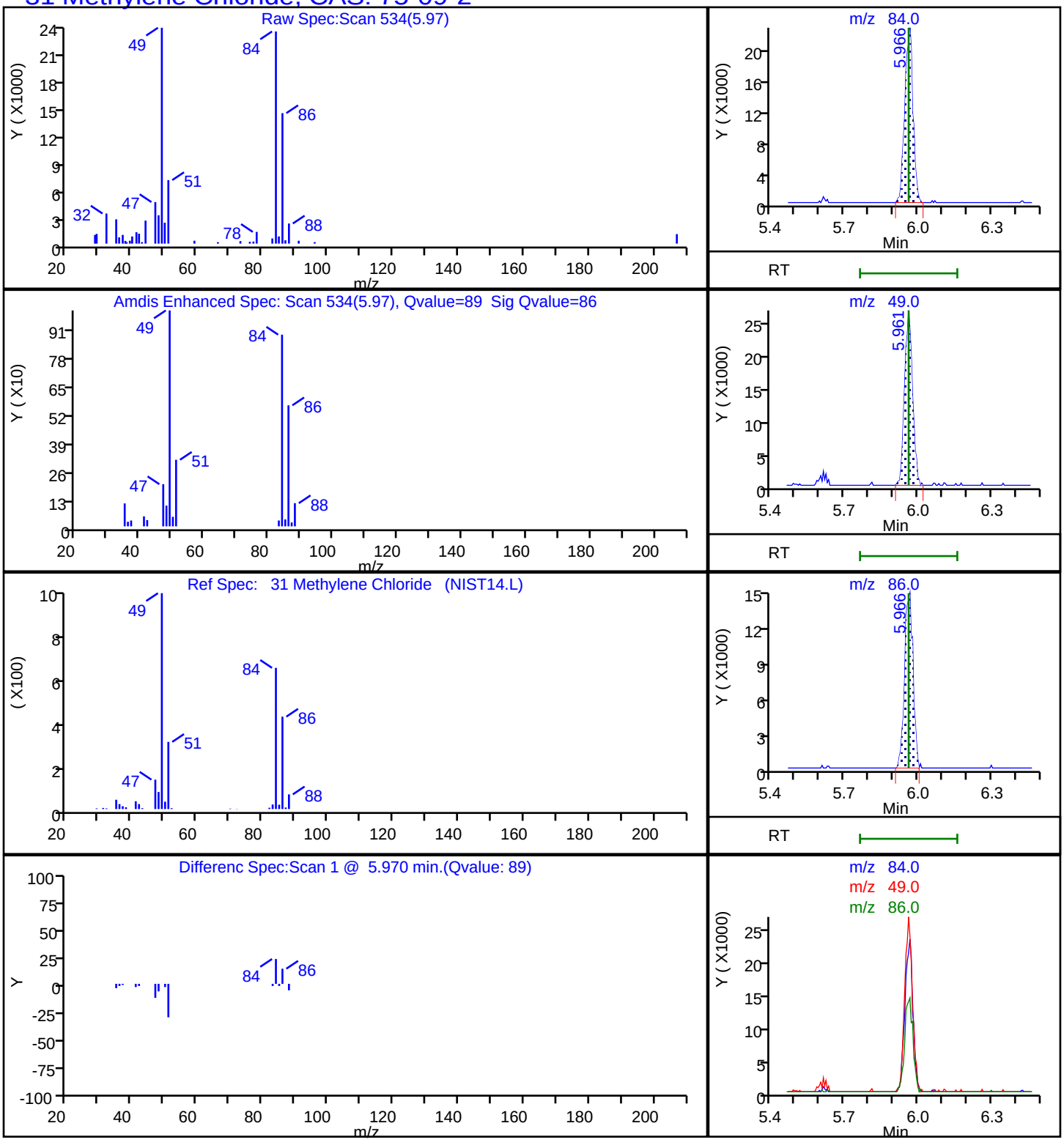
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D
Injection Date: 25-Sep-2019 20:41:30 Instrument ID: MR
Lims ID: 140-16735-A-1 Lab Sample ID: 140-16735-1
Client ID: BLDG A-INFLUENT
Operator ID: ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

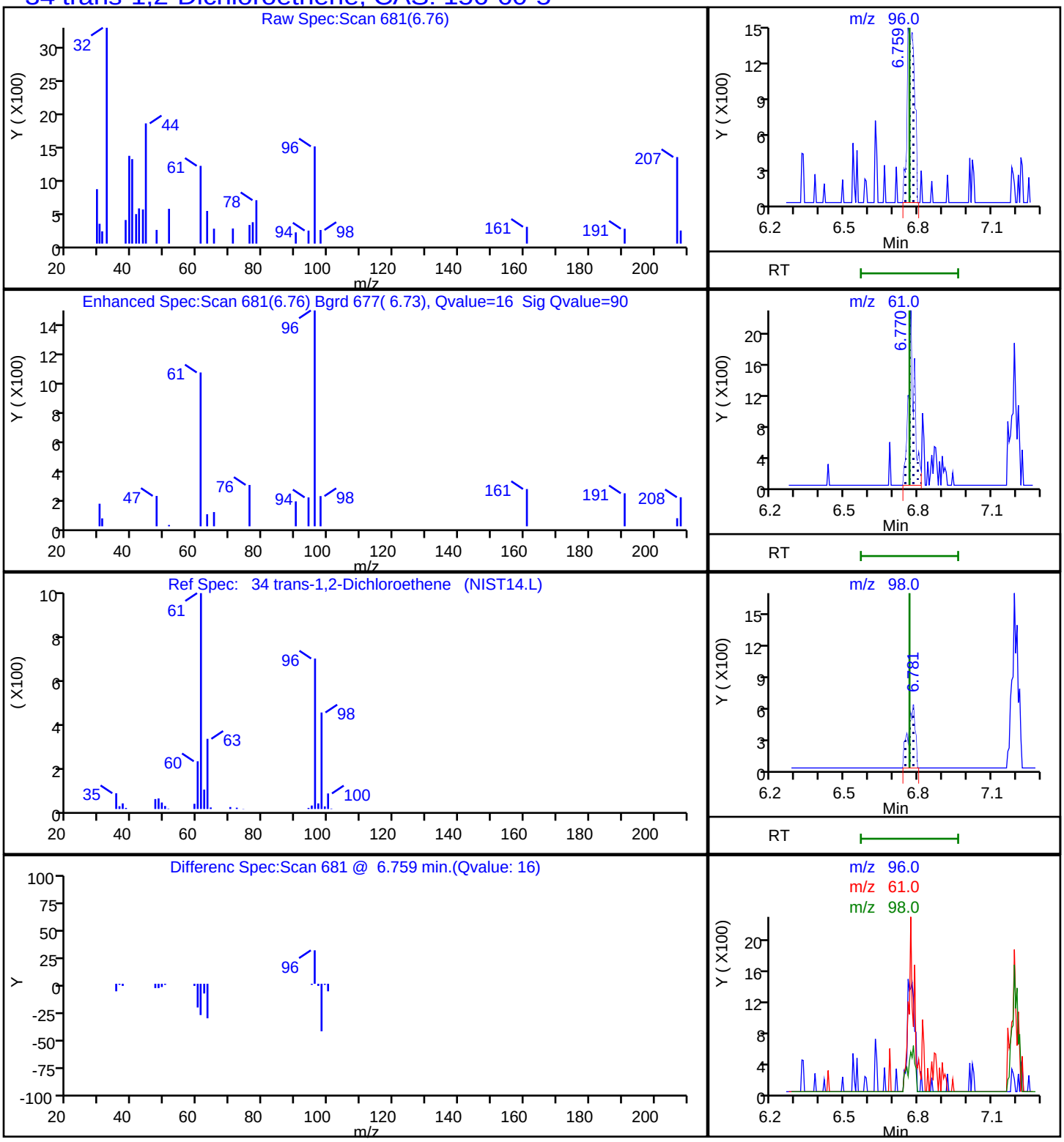
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

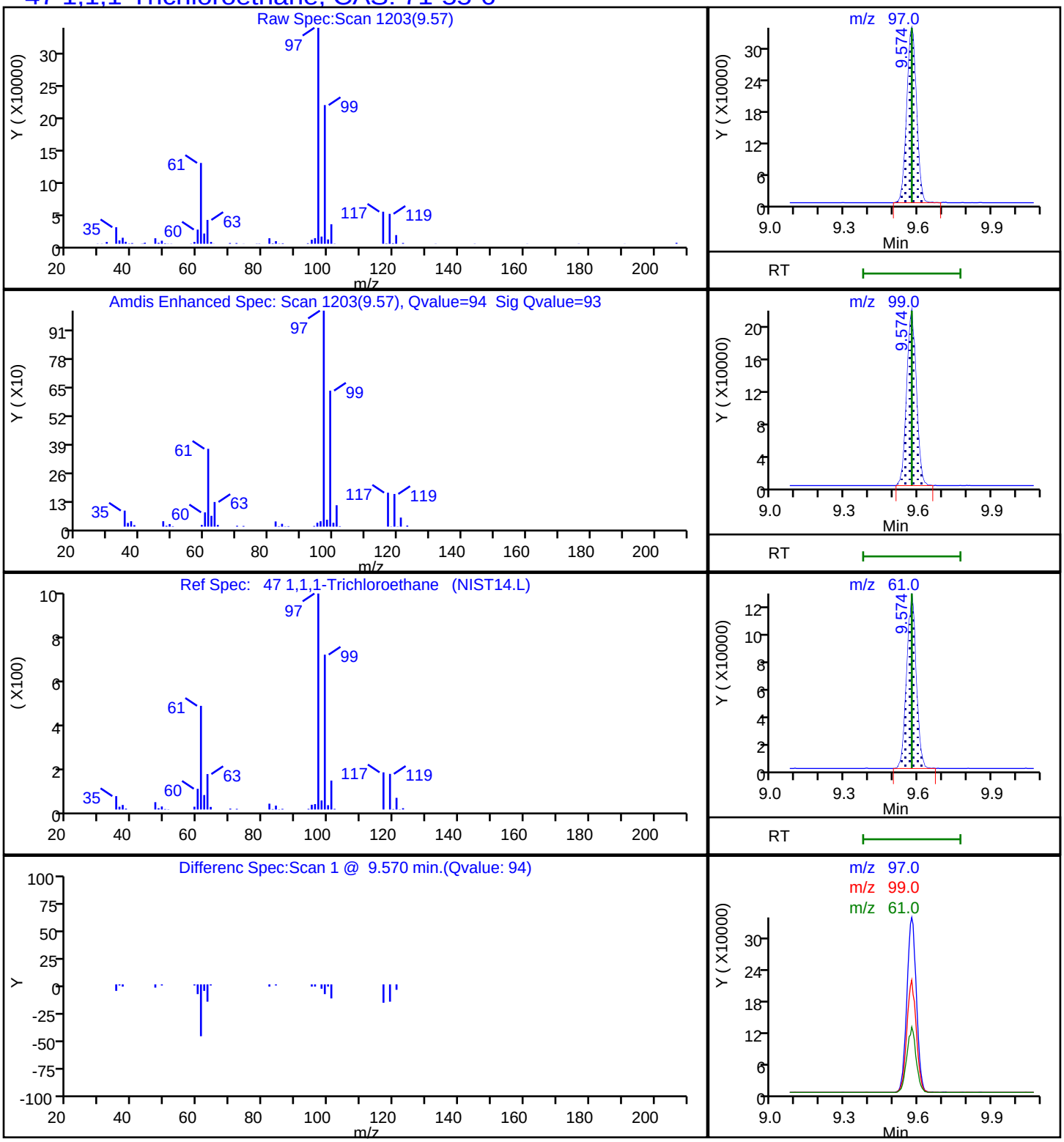
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

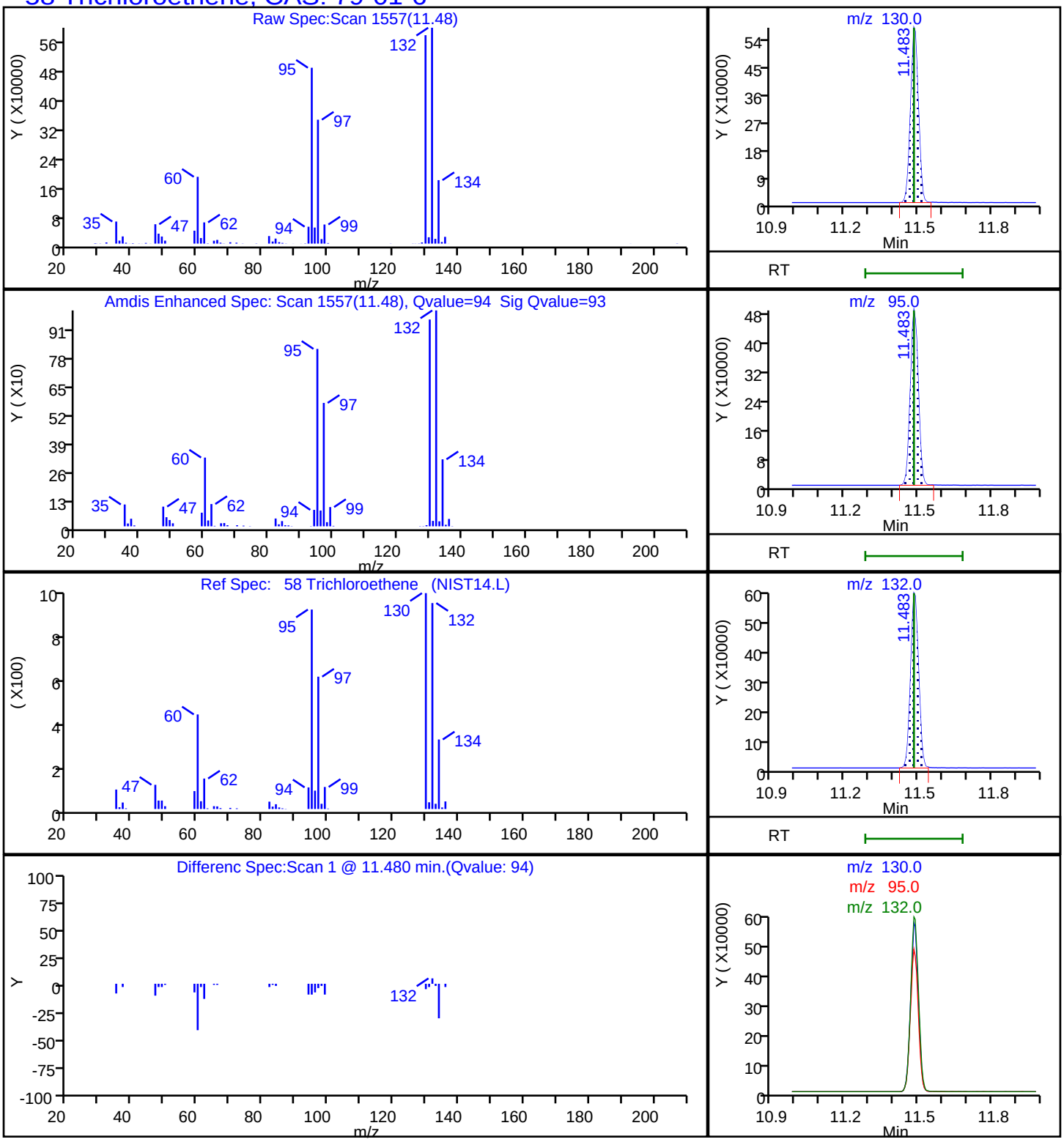
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D		
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1
Client ID:	BLDG A-INFLUENT		
Operator ID:		ALS Bottle#:	7 Worklist Smp#: 15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



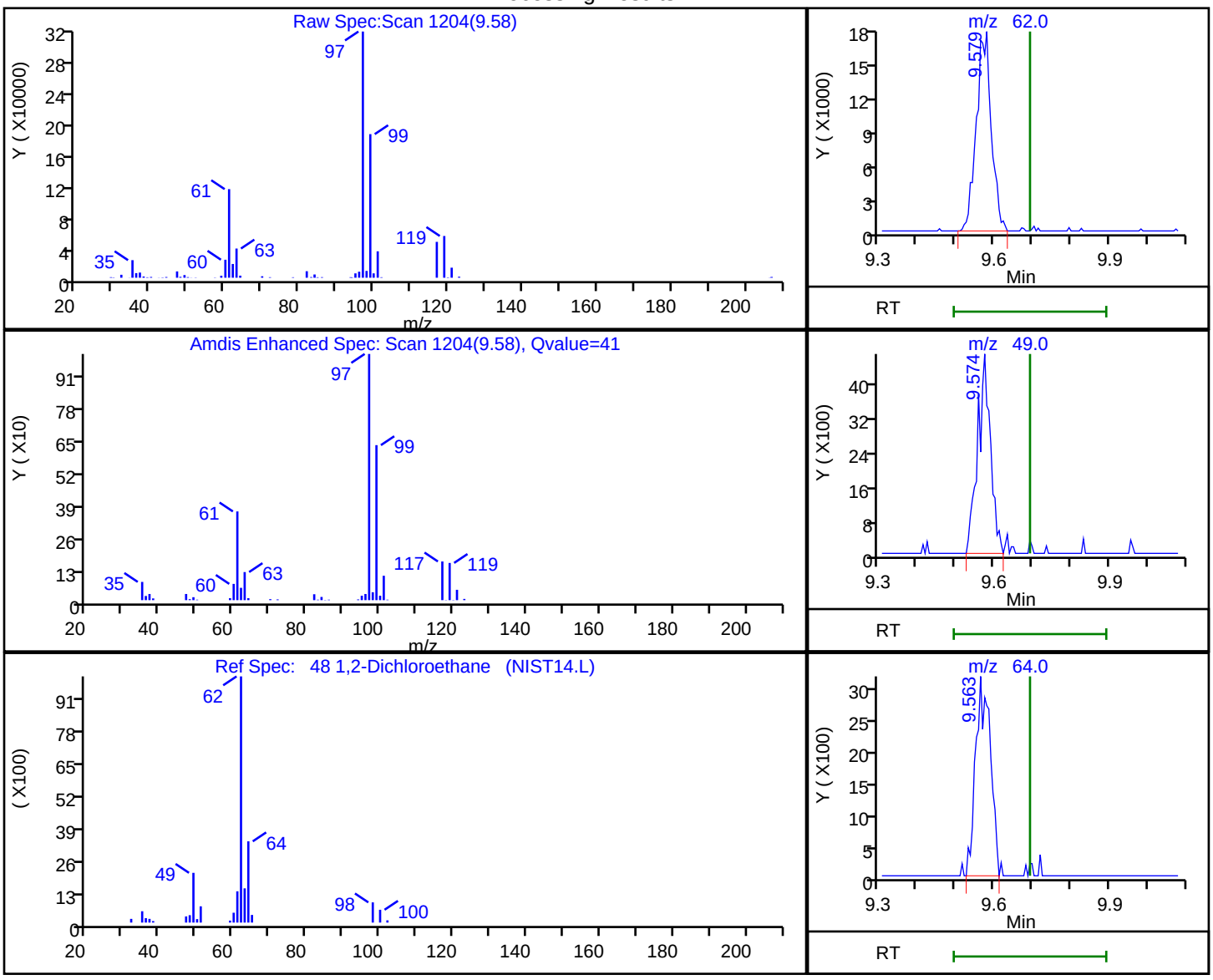
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P107.D				
Injection Date:	25-Sep-2019 20:41:30	Instrument ID:	MR		
Lims ID:	140-16735-A-1	Lab Sample ID:	140-16735-1		
Client ID:	BLDG A-INFLUENT				
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
9.58	62.00	48481	0.190027
9.57	49.00	10858	
9.56	64.00	8448	

Reviewer: khachitpongpanits, 26-Sep-2019 11:14:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-MID GAC Lab Sample ID: 140-16735-2

Matrix: Air Lab File ID: RI25P108.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:58

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 21:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	0.58		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.049	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.48		0.40	0.11
67-66-3	Chloroform	119.38	0.41		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	32		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.36	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	3.6		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.14	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	22		0.40	0.040
100-41-4	Ethylbenzene	106.17	ND		0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.40		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*84*	*E*	*0.40*	*0.19*
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	1.9		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	ND		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-MID GAC Lab Sample ID: 140-16735-2

Matrix: Air Lab File ID: RI25P108.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:58

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 21:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.9		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.31	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.7		1.4	0.39
67-66-3	Chloroform	119.38	2.0		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	130		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.8	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	15		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.56	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	86		1.6	0.16
100-41-4	Ethylbenzene	106.17	ND		1.7	0.28
75-09-2	Methylene Chloride	84.93	5.5	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	1.6		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	*1,1,1-Trichloroethane*	*133.41*	*460*	*E*	*2.2*	*1.0*
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	10		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	ND		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D
Lims ID: 140-16735-A-2
Client ID: BLDG A-MID GAC
Sample Type: Client
Inject. Date: 25-Sep-2019 21:29:30 ALS Bottle#: 8 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-016
Misc. Info.: 140-16735-a-2
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 11:15:22 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 11:15:22

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.517	8.528	-0.011	84	508698	4.00	
*	2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2761253	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.560	15.559	0.001	83	2140603	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	97	1162523	3.68	
	6 Chlorodifluoromethane	51	3.421	3.427	-0.006	76	32278	0.0956	
	8 Dichlorodifluoromethane	85	3.475	3.484	-0.011	97	20462	0.0713	
	27 1,1-Dichloroethene	96	5.600	5.607	-0.011	93	720752	4.36	
	31 Methylene Chloride	84	5.950	5.961	-0.011	90	61676	0.3142	
	34 trans-1,2-Dichloroethene	96	6.765	6.760	0.000	86	14154	0.0795	
	37 1,1-Dichloroethane	63	7.191	7.200	-0.005	100	219636	0.7178	
	42 cis-1,2-Dichloroethene	96	8.183	8.193	-0.011	84	1167169	6.31	
	44 Chloroform	83	8.533	8.533	-0.006	81	30125	0.0817	
	47 1,1,1-Trichloroethane	97	9.563	9.574	-0.011	95	6327322	16.8	E
	48 1,2-Dichloroethane	62	9.687	9.687	-0.006	31	6019	0.0277	a
	49 Benzene	78	10.183	10.189	-0.006	94	62150	0.1167	
	52 Carbon tetrachloride	117	10.194	10.210	-0.016	26	3472	0.009860	
	58 Trichloroethene	130	11.483	11.483	0.000	96	87360	0.3812	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

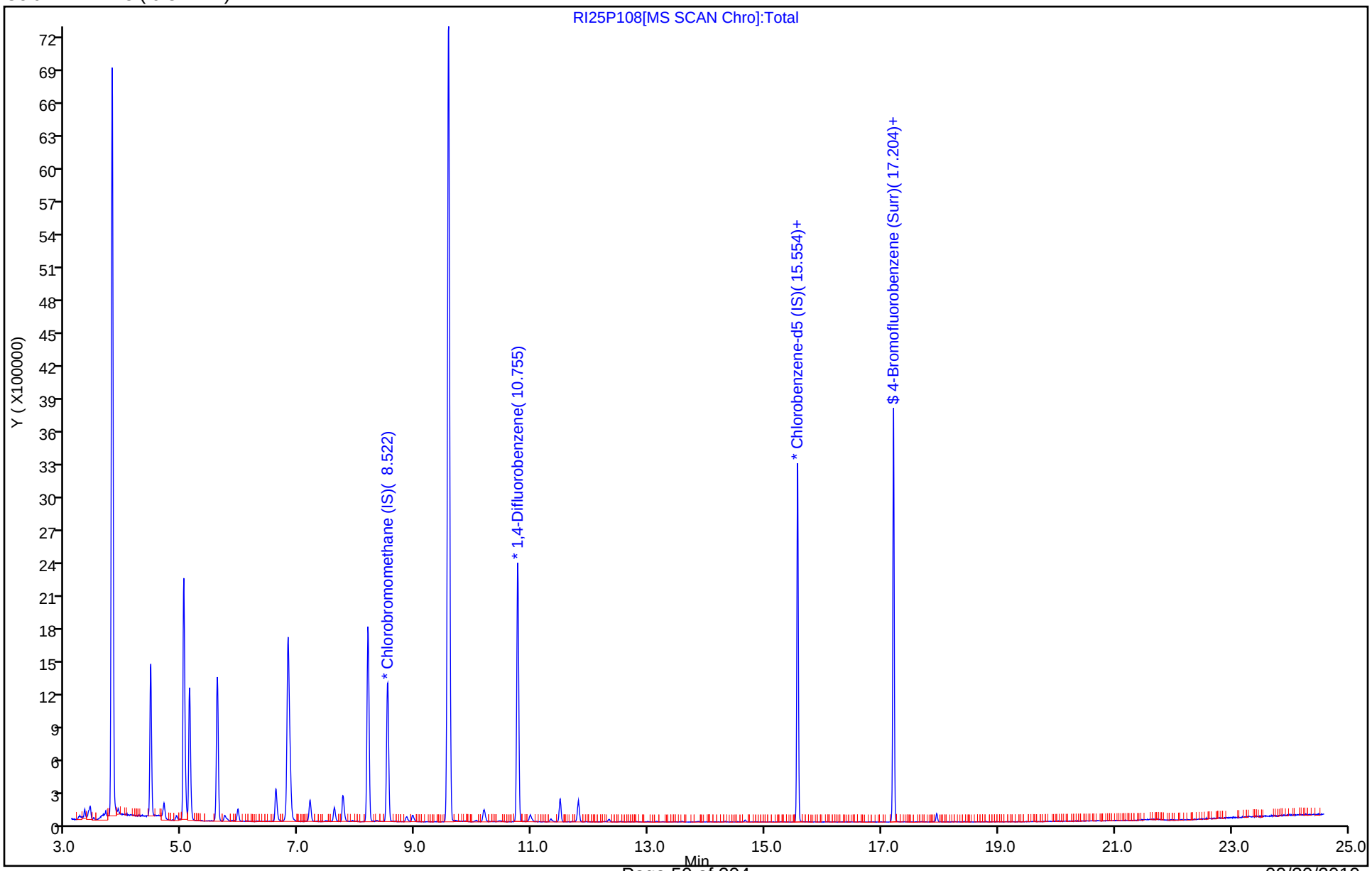
Report Date: 26-Sep-2019 11:15:24 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D

Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2	Worklist Smp#:	16
Client ID:	BLDG A-MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D				
Lims ID:	140-16735-A-2				
Client ID:	BLDG A-MID GAC				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 21:29:30	ALS Bottle#:	8	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-016				
Misc. Info.:	140-16735-a-2				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 11:15:22	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 11:15:22		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.68	91.88

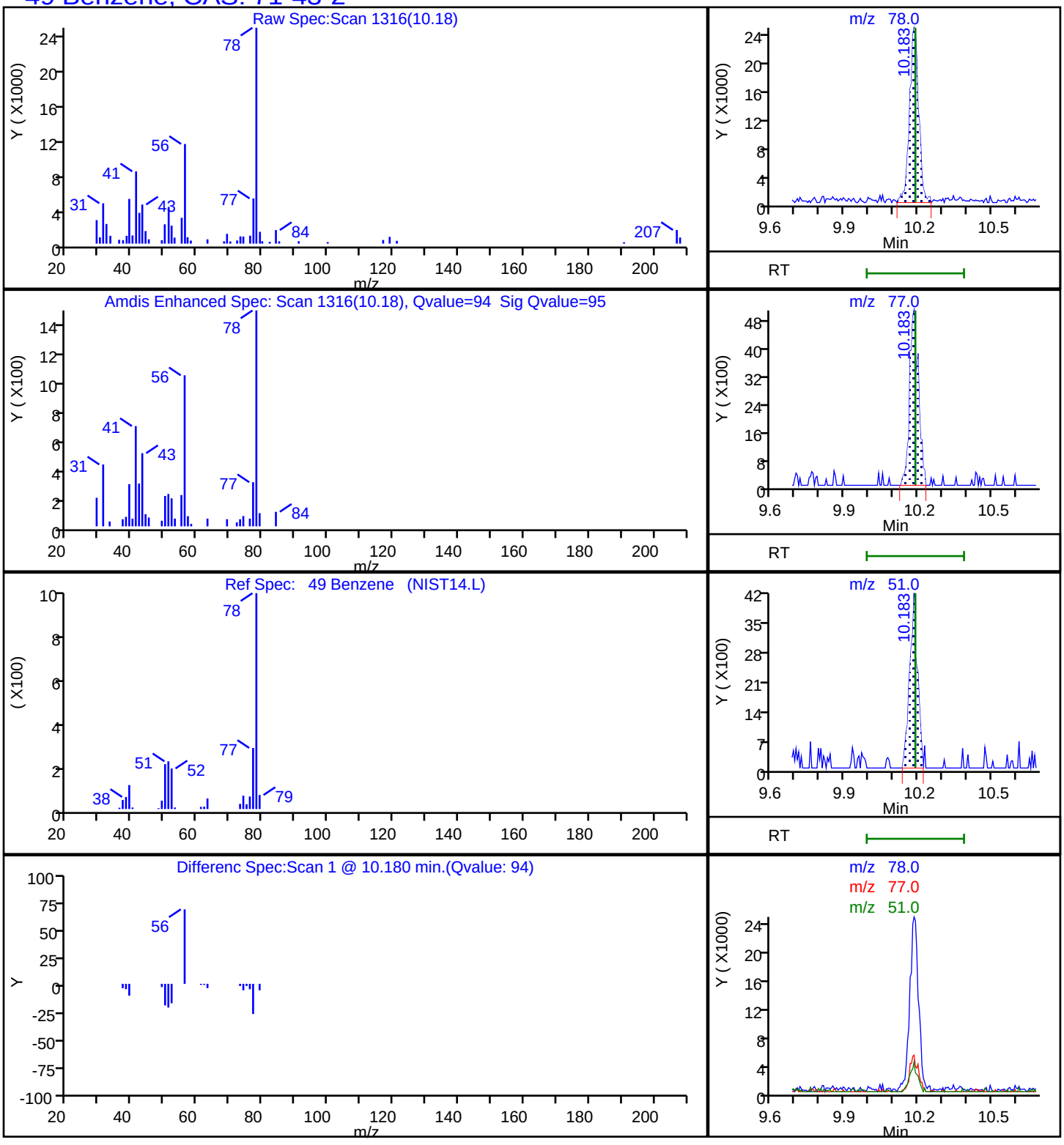
Report Date: 26-Sep-2019 11:15:24 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D

Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

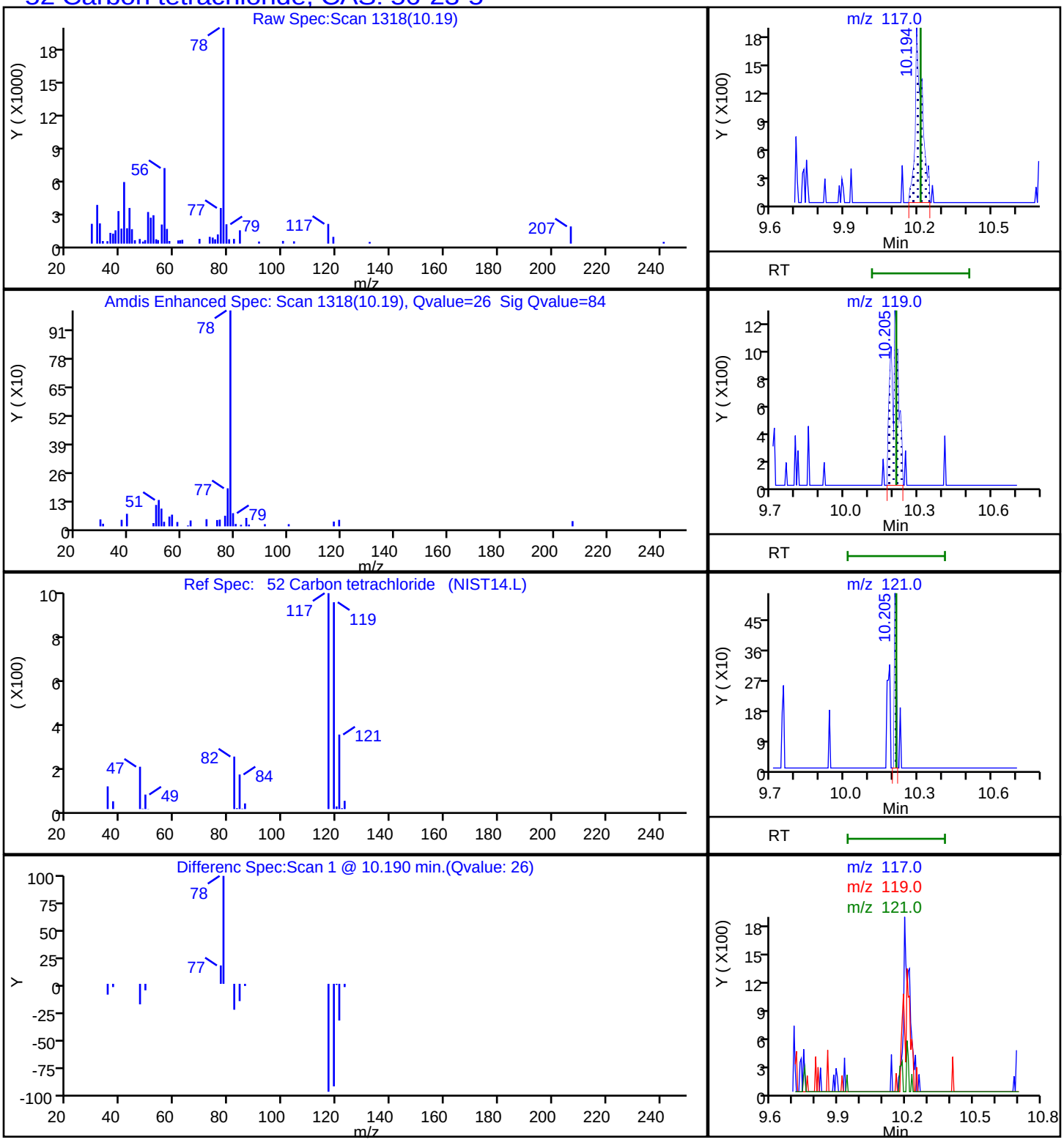
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

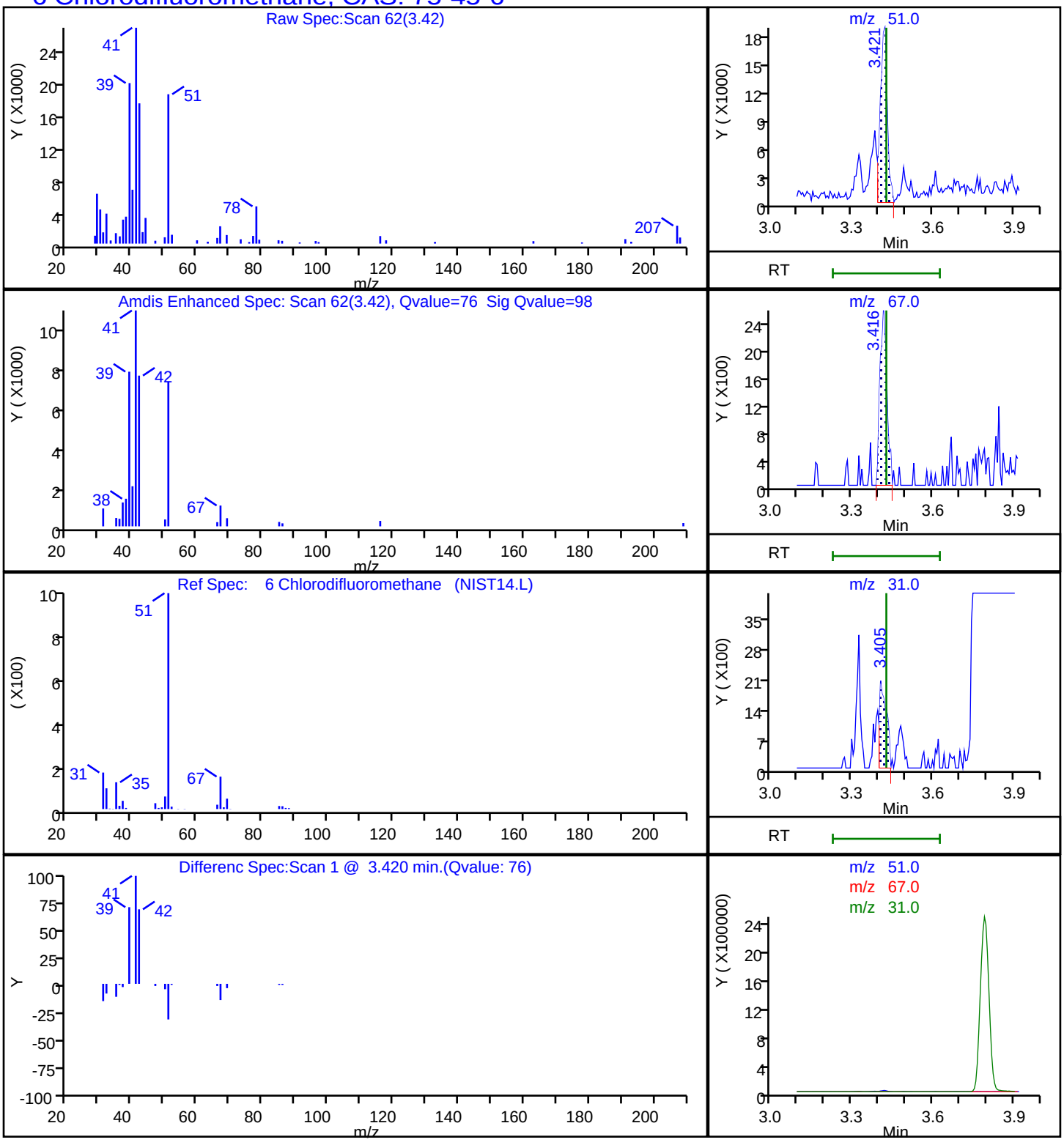
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D				
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR		
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2		
Client ID:	BLDG A-MID GAC				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

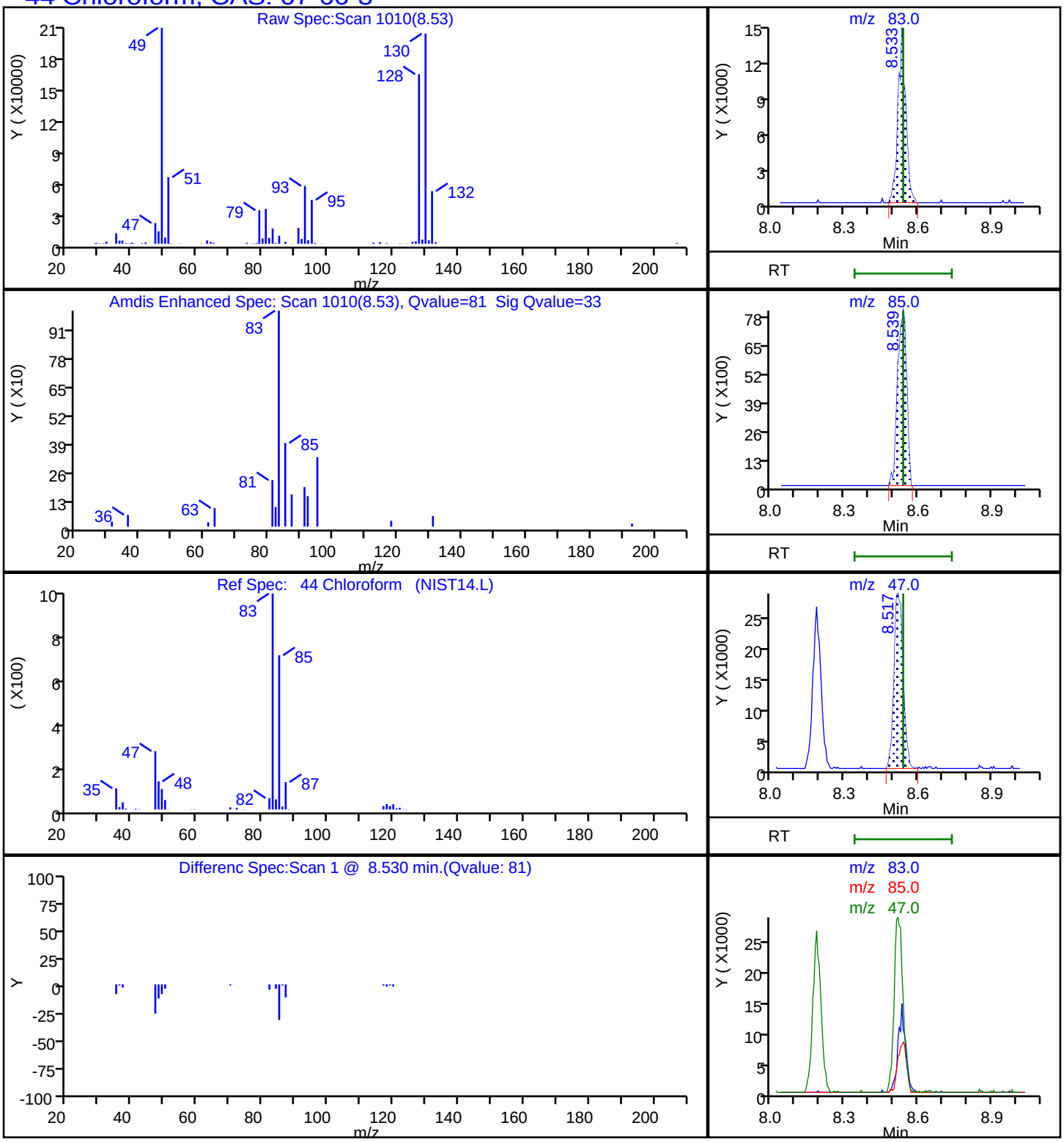
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

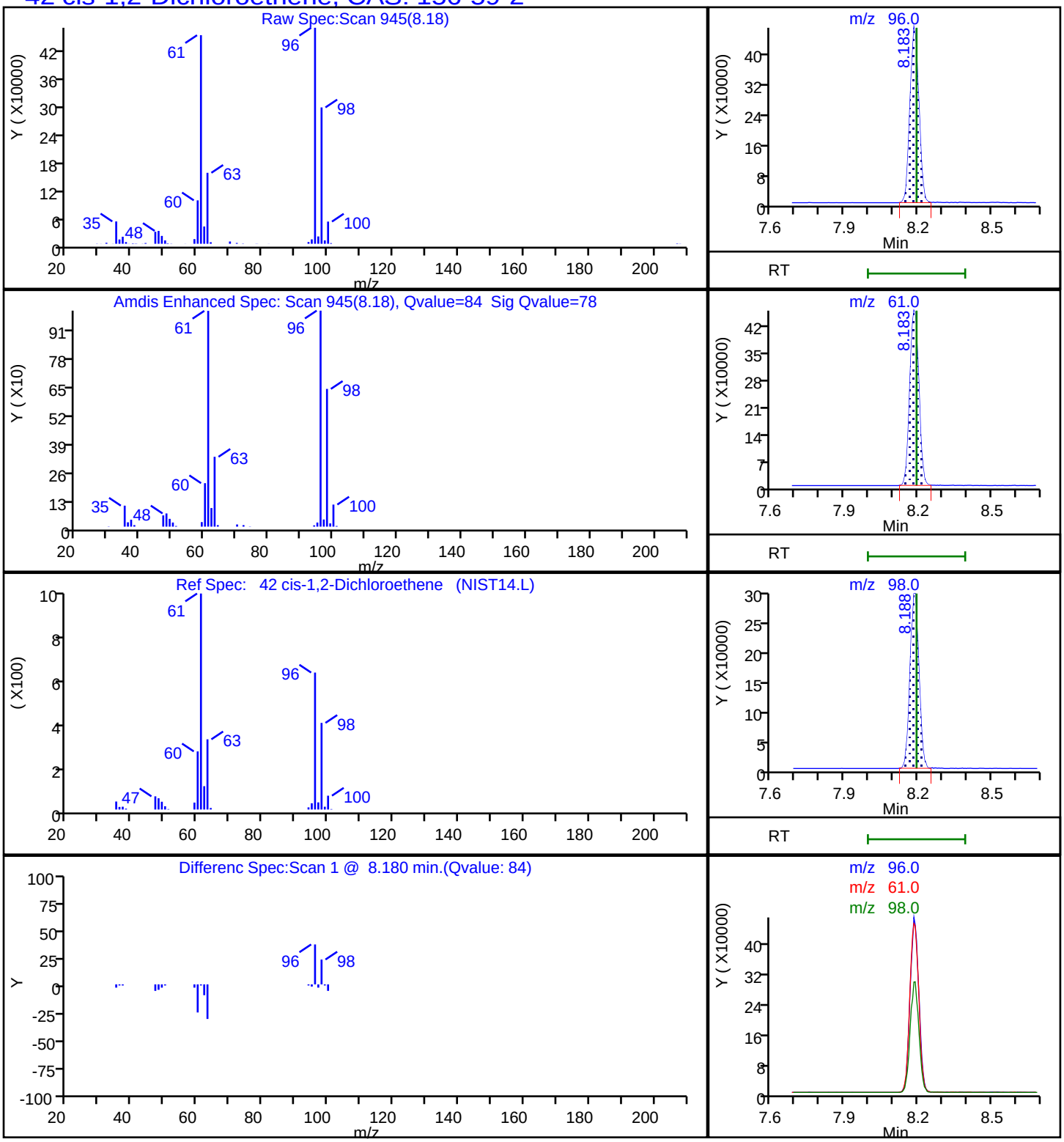
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

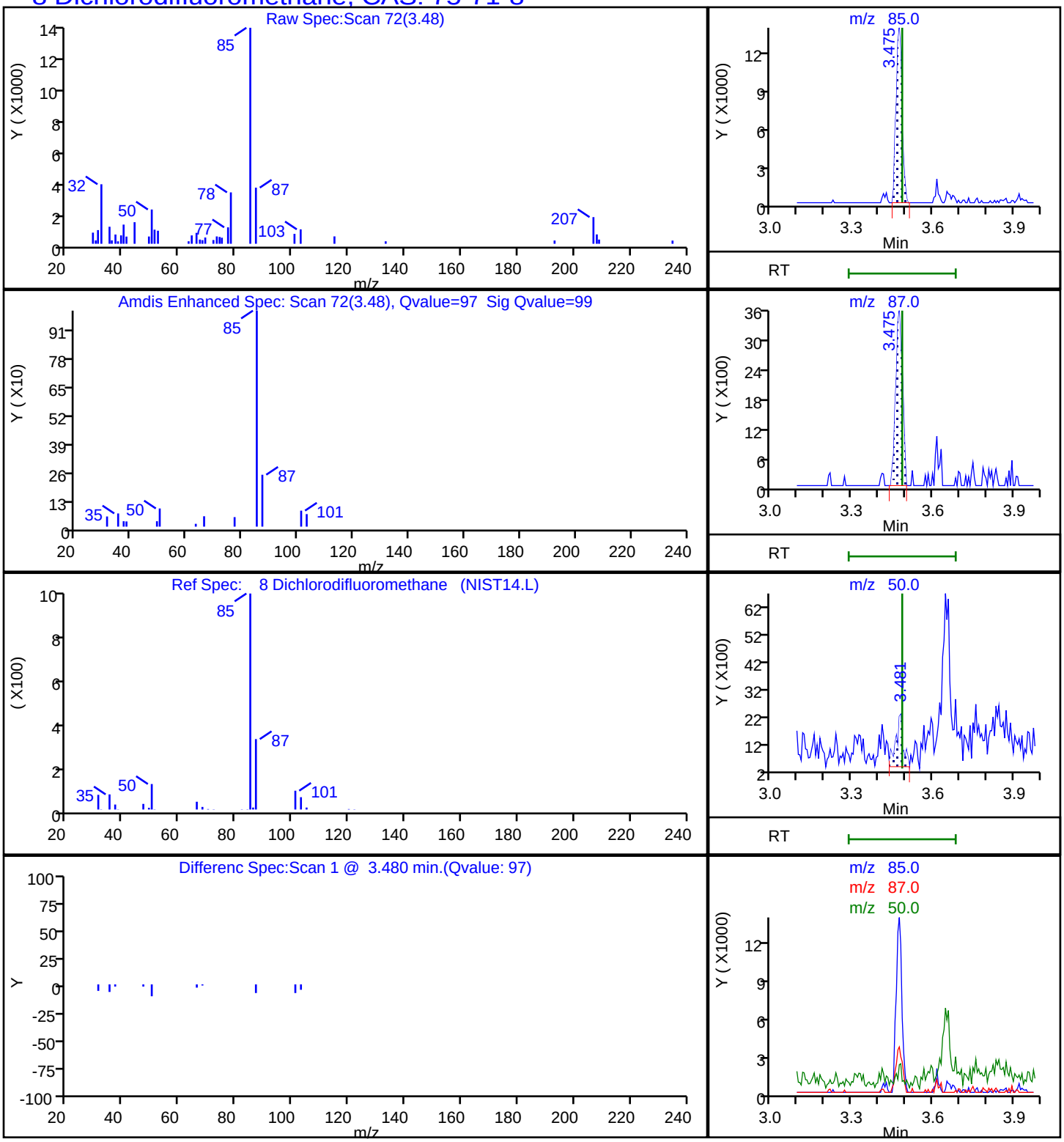
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

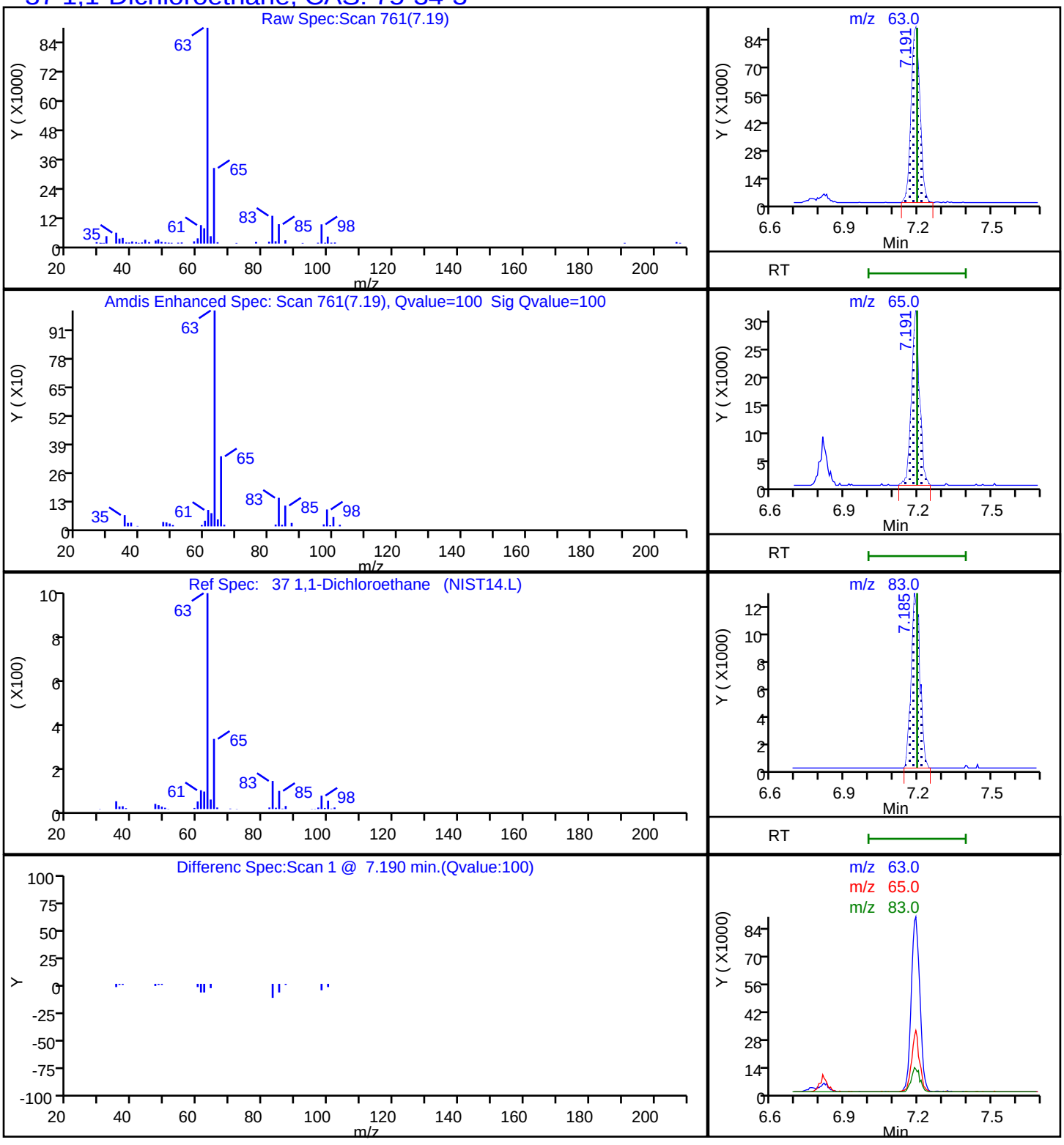
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

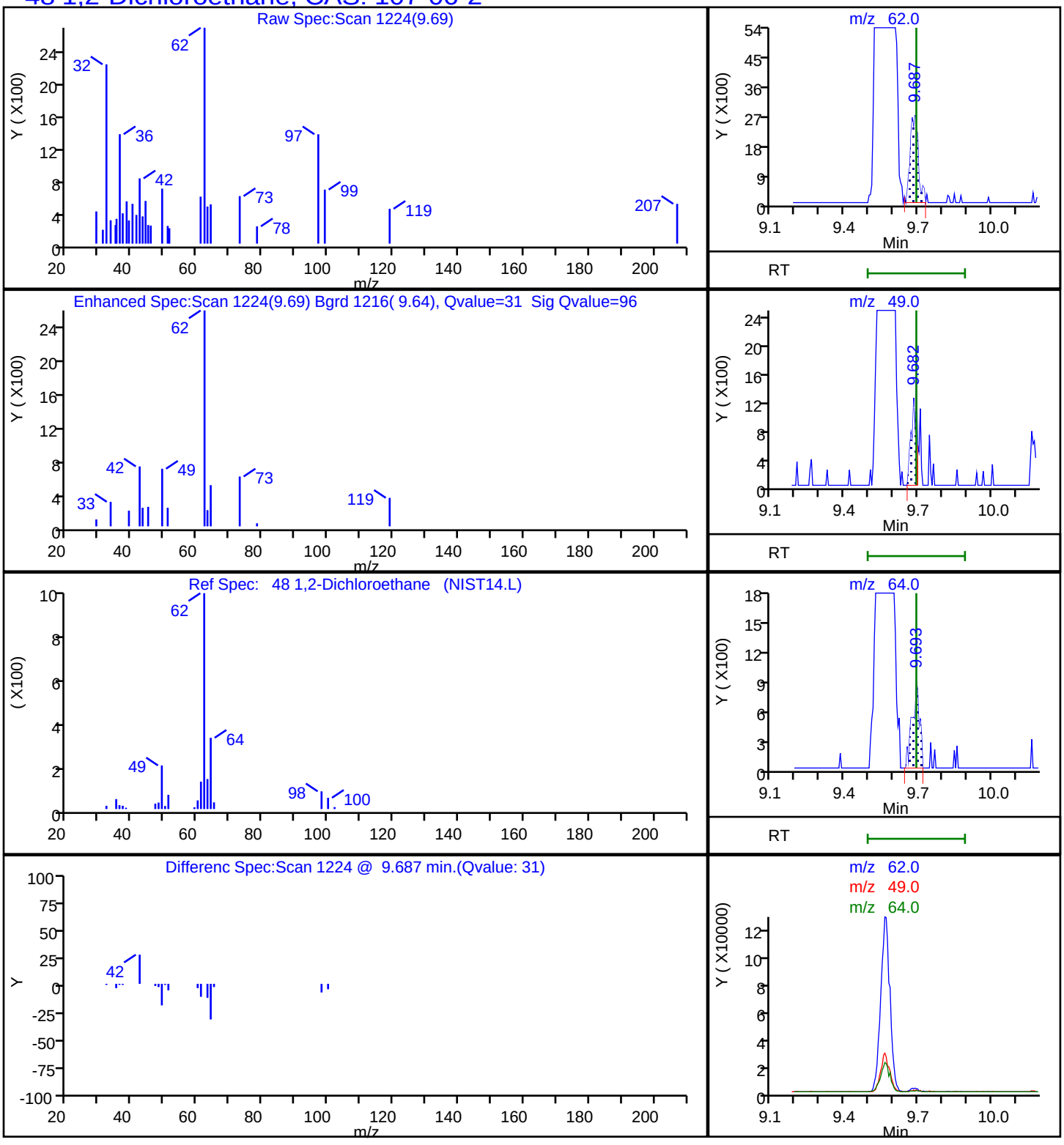
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D
Injection Date: 25-Sep-2019 21:29:30 Instrument ID: MR
Lims ID: 140-16735-A-2 Lab Sample ID: 140-16735-2
Client ID: BLDG A-MID GAC
Operator ID: ALS Bottle#: 8 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

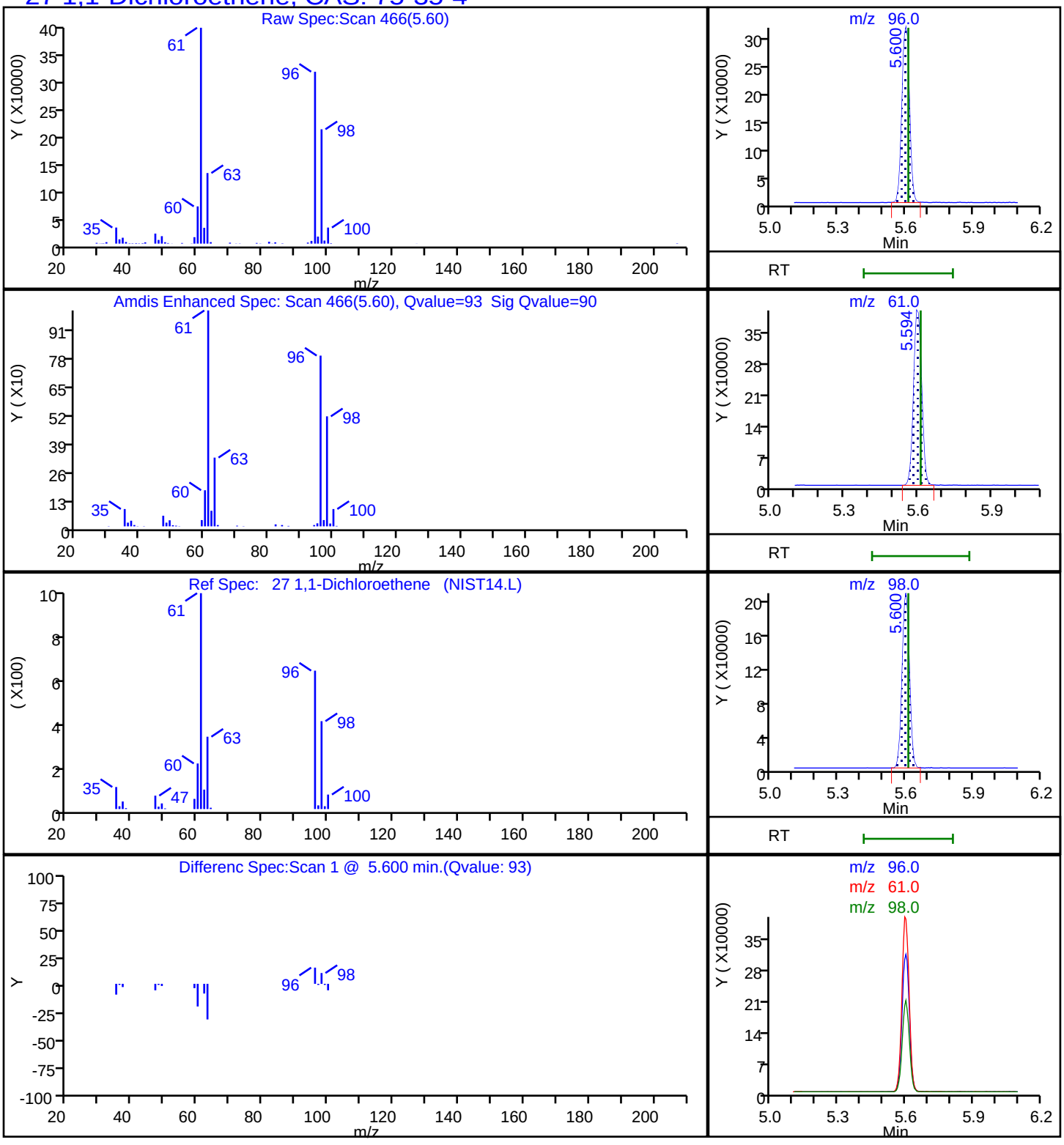
48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

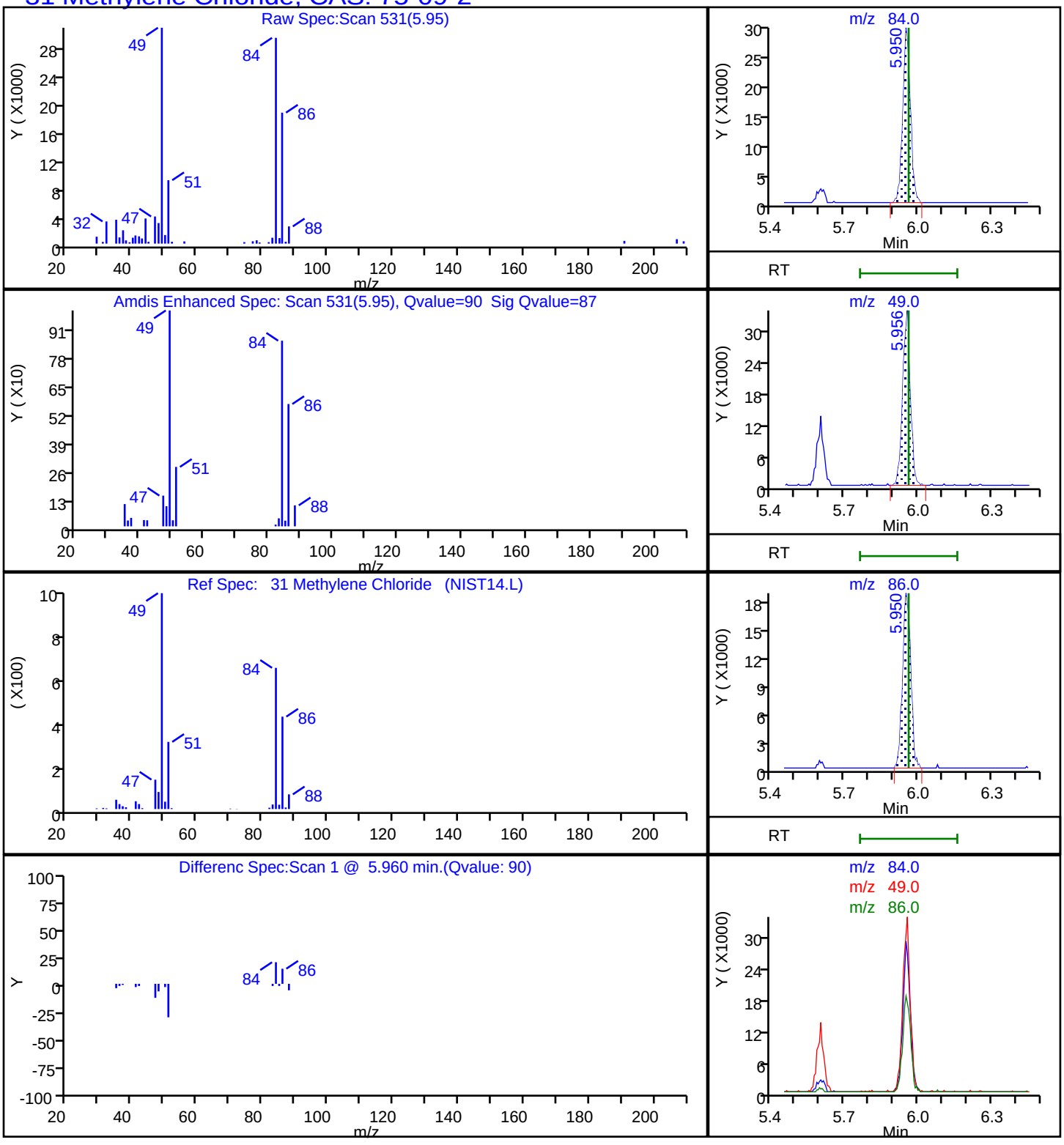
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

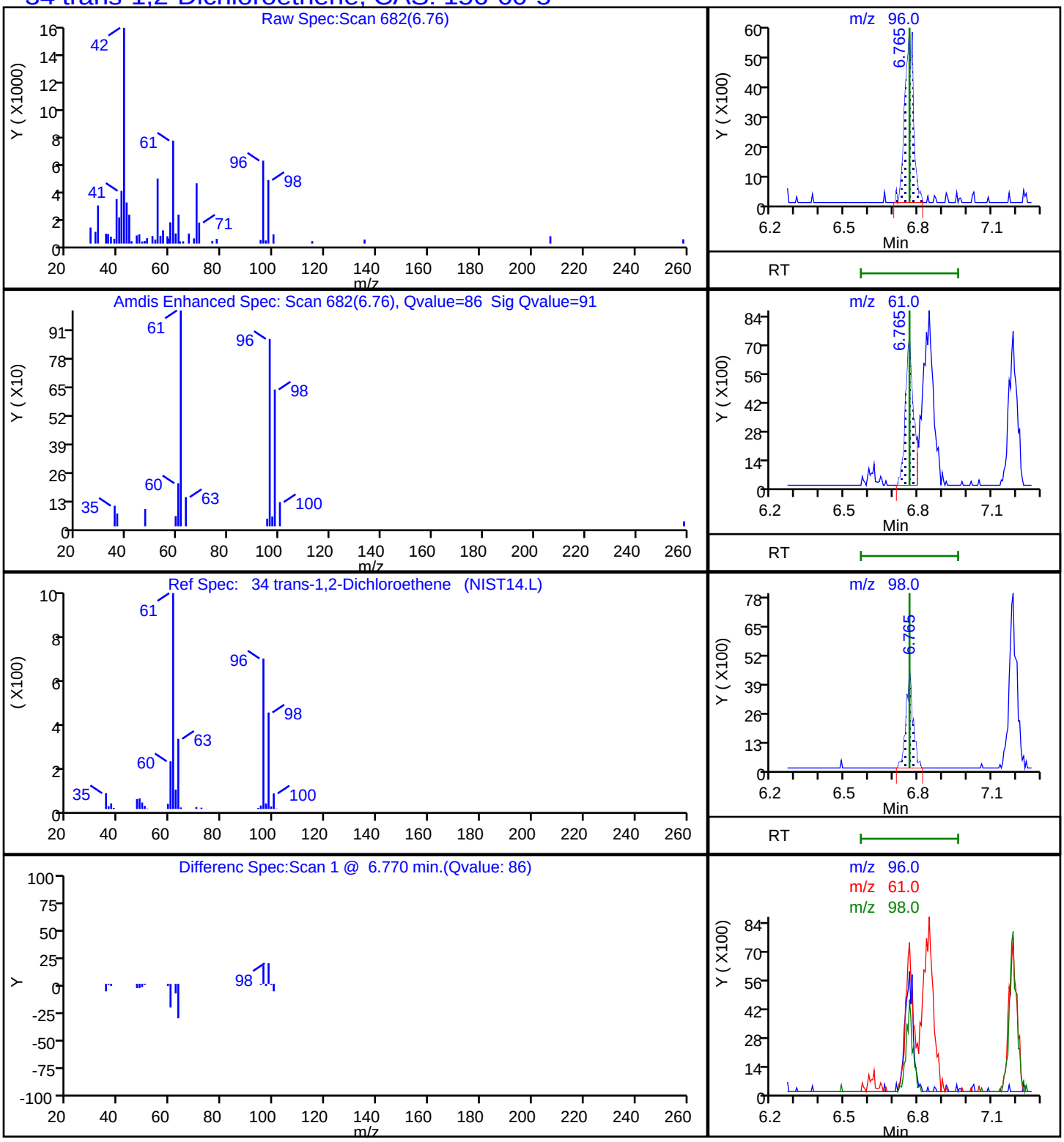
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

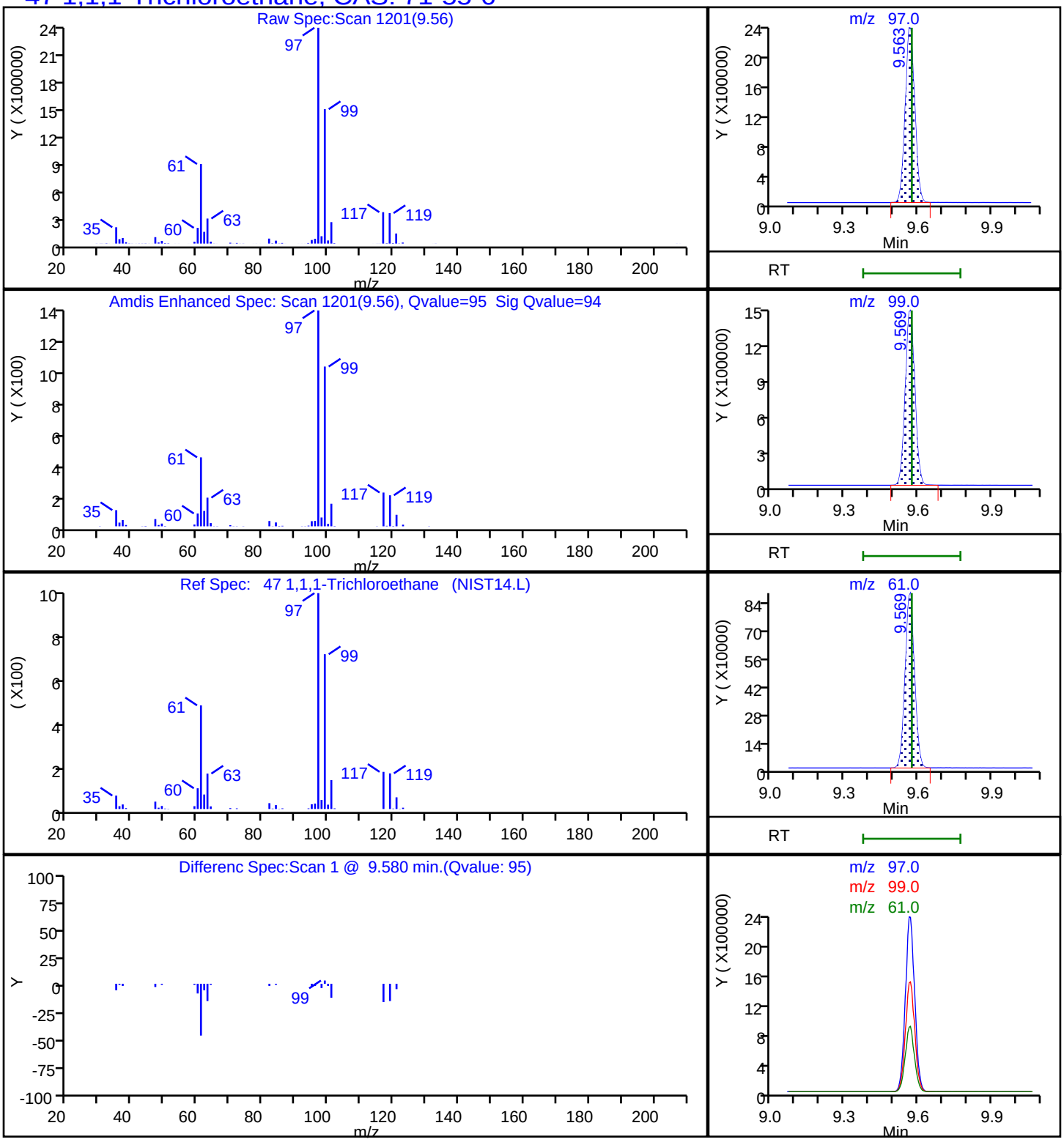
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D				
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR		
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2		
Client ID:	BLDG A-MID GAC				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 1,1,1-Trichloroethane, CAS: 71-55-6



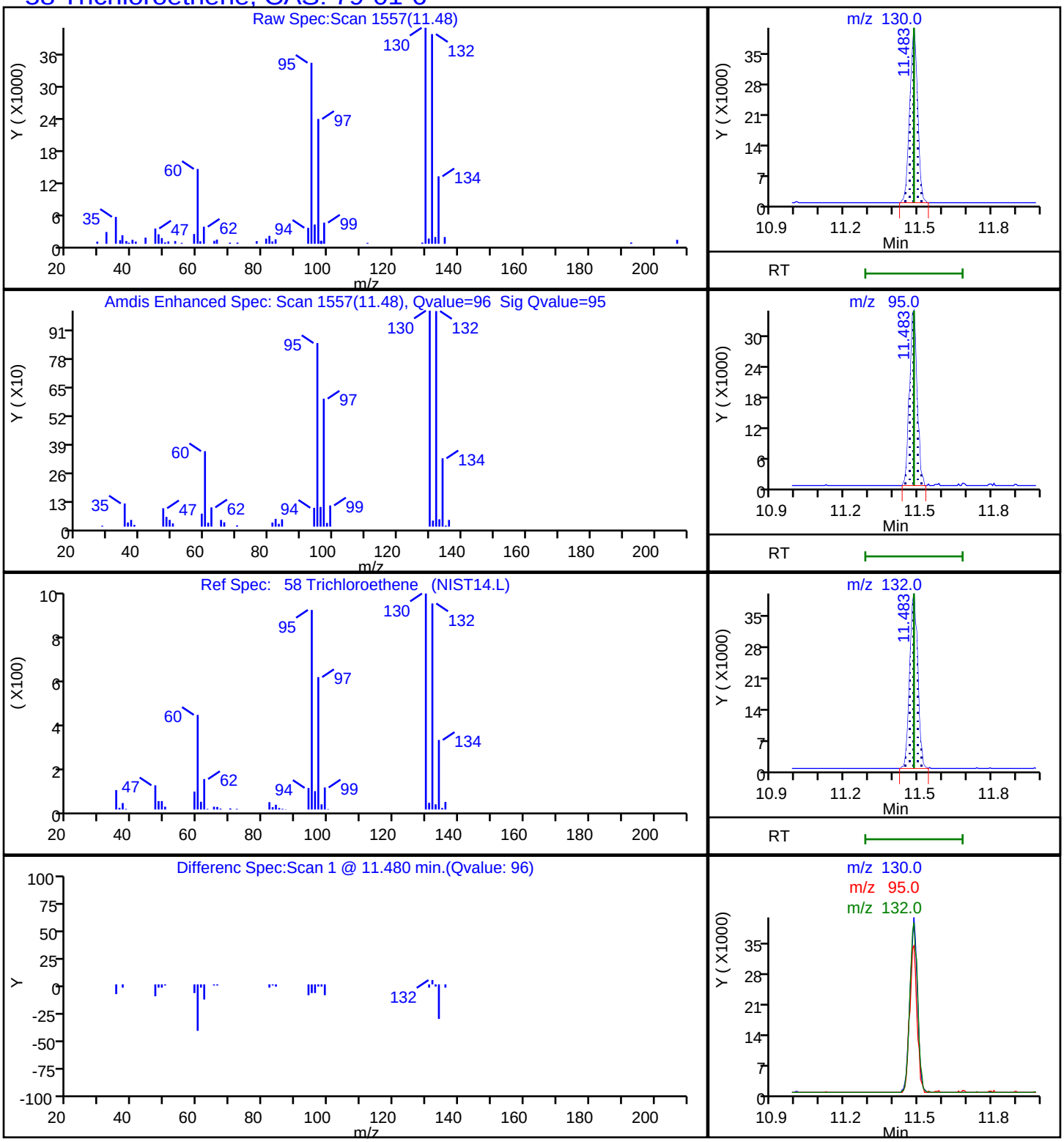
Report Date: 26-Sep-2019 11:15:24 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D

Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

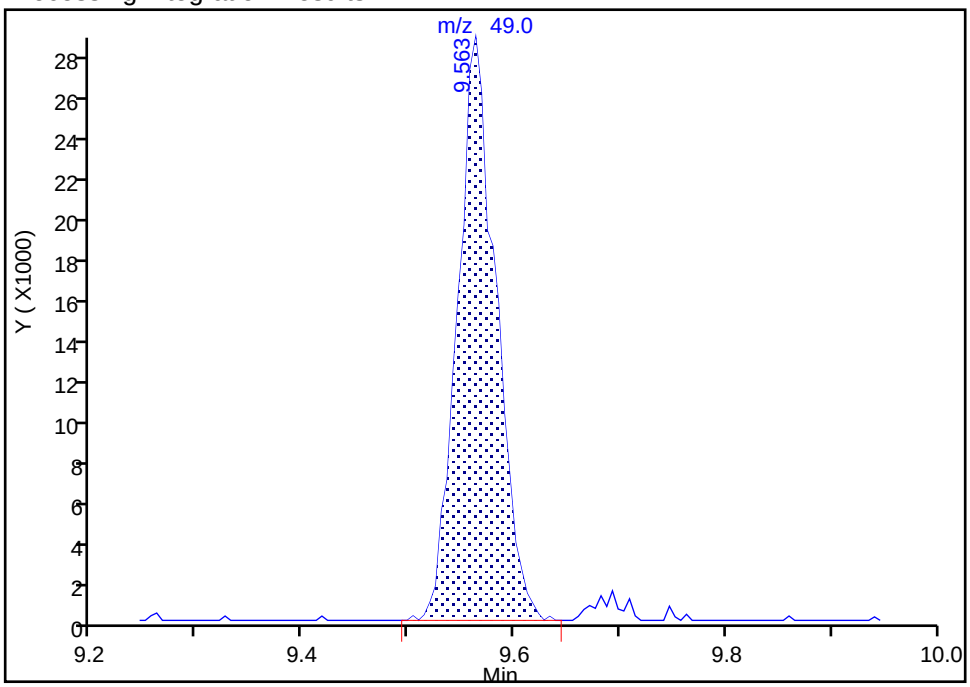
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D		
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

48 1,2-Dichloroethane, CAS: 107-06-2

Signal: 2

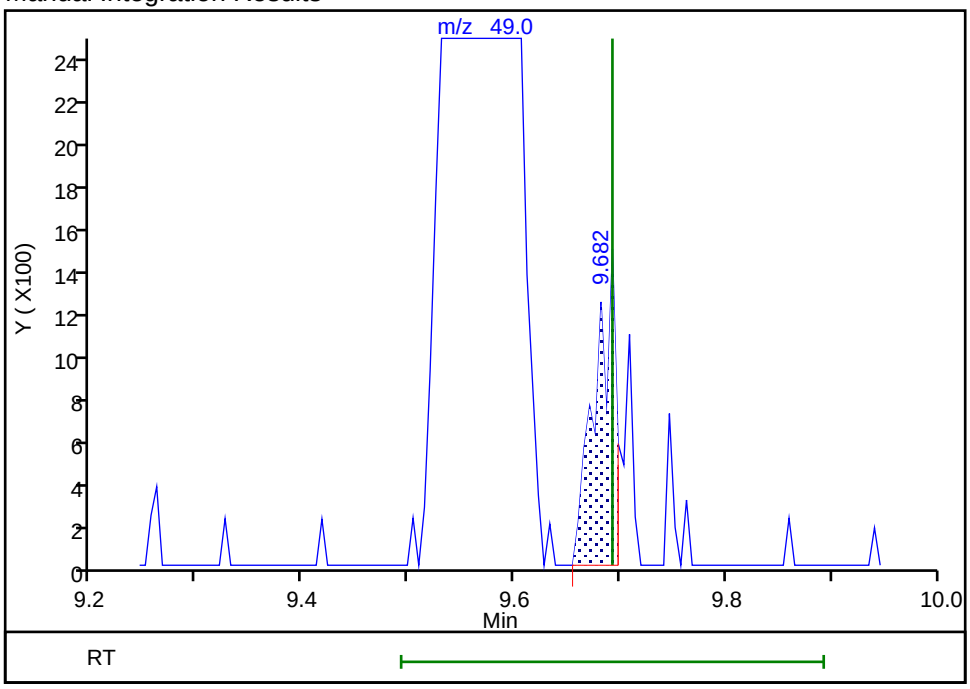
Processing Integration Results

RT: 9.56
Area: 72122
Amount: 1.560479
Amount Units: ppb v/v



Manual Integration Results

RT: 9.68
Area: 1918
Amount: 0.027671
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Sep-2019 11:15:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

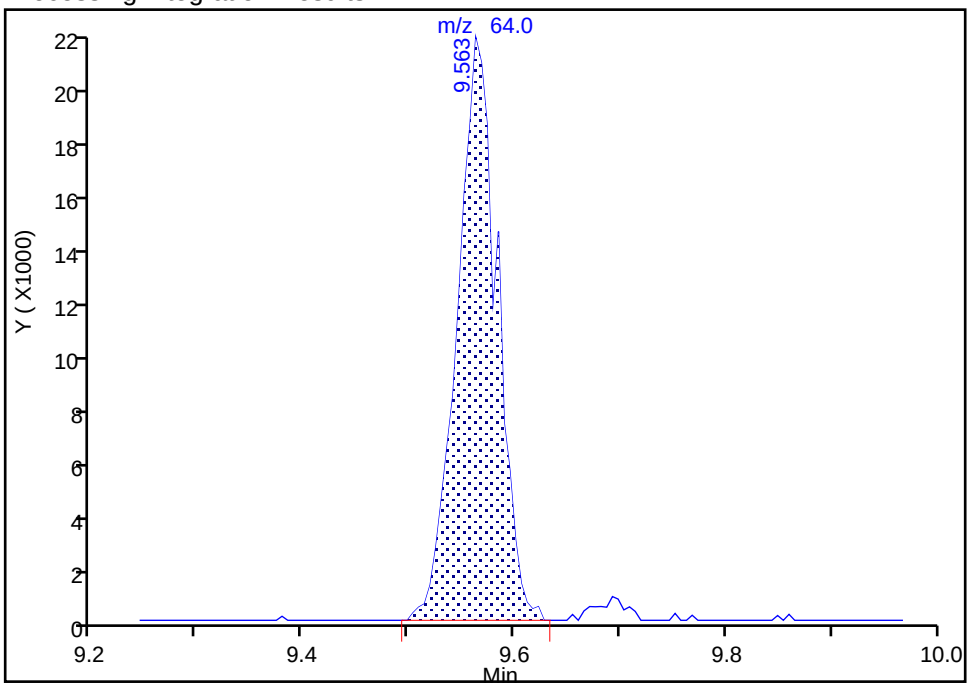
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D				
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR		
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2		
Client ID:	BLDG A-MID GAC				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Signal: 3

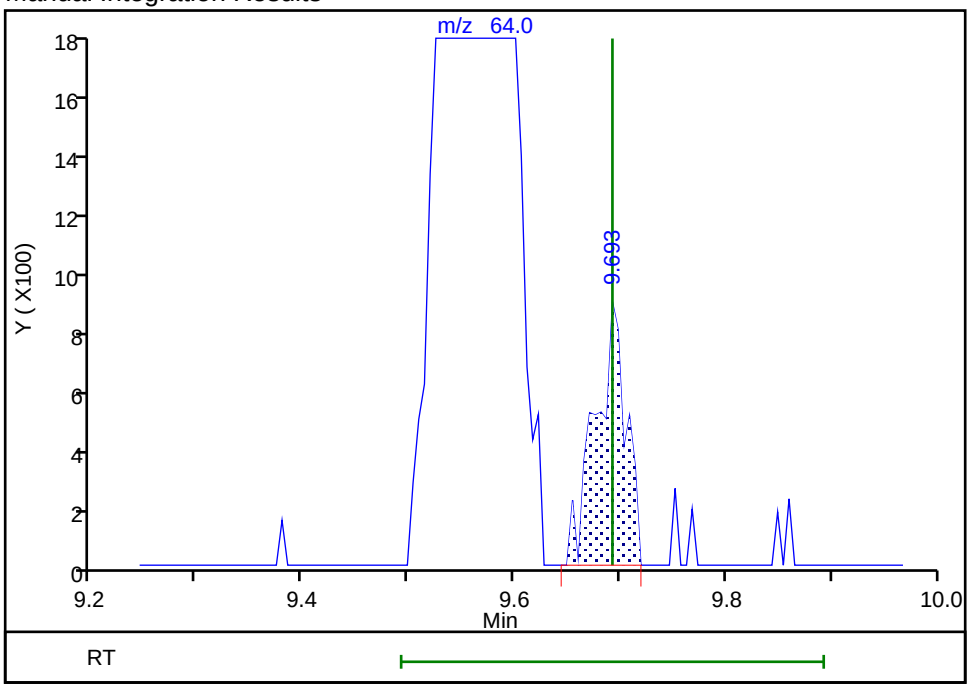
Processing Integration Results

RT: 9.56
Area: 56985
Amount: 1.560479
Amount Units: ppb v/v



Manual Integration Results

RT: 9.69
Area: 1766
Amount: 0.027671
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Sep-2019 11:15:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

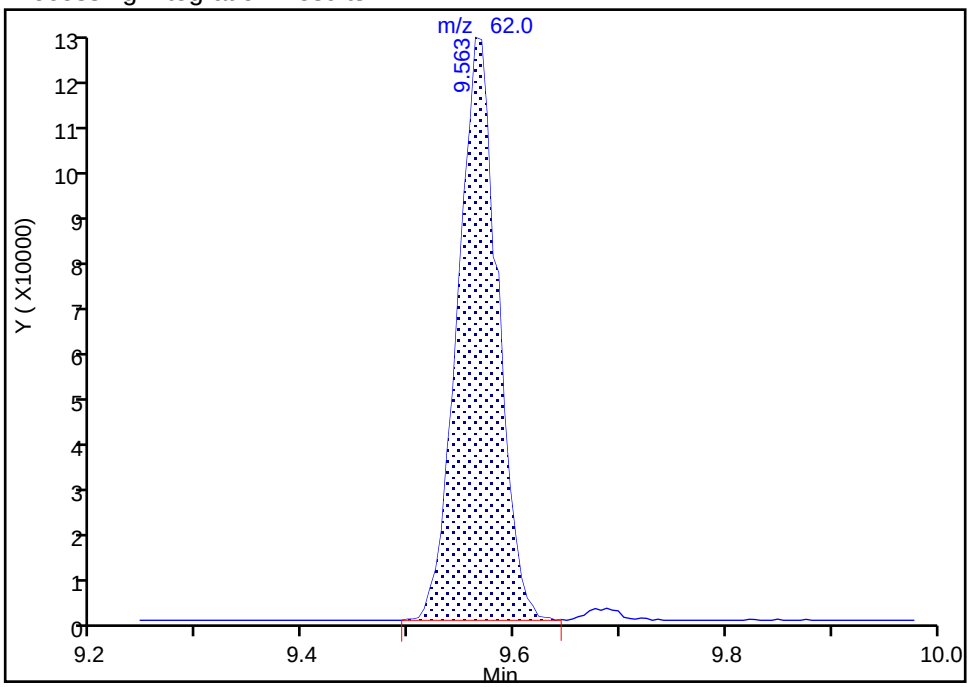
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108.D				
Injection Date:	25-Sep-2019 21:29:30	Instrument ID:	MR		
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2		
Client ID:	BLDG A-MID GAC				
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

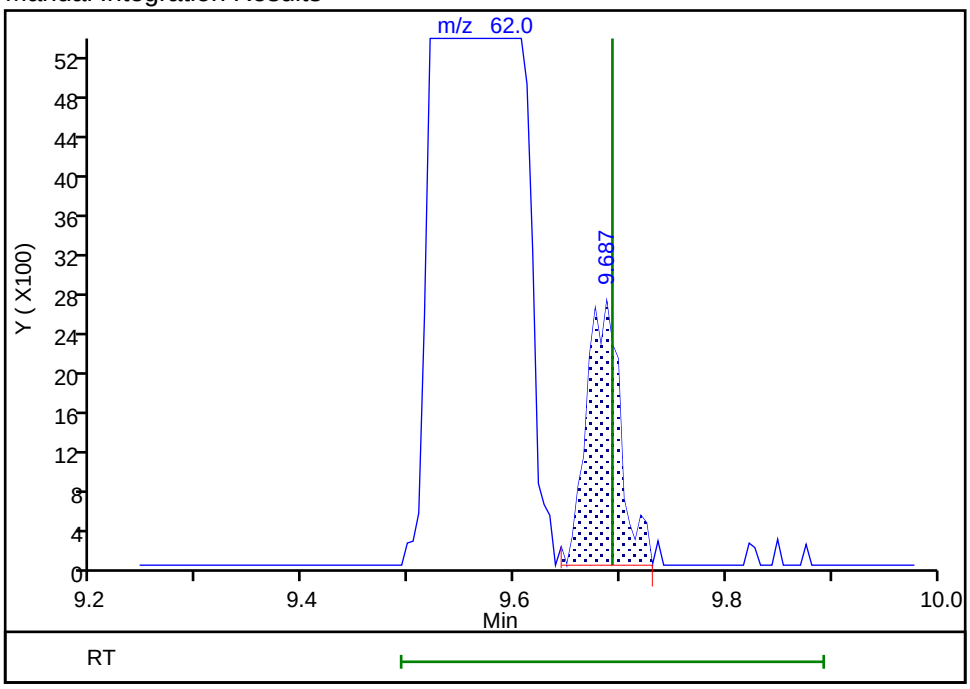
Processing Integration Results

RT: 9.56
Area: 339431
Amount: 1.560479
Amount Units: ppb v/v



Manual Integration Results

RT: 9.69
Area: 6019
Amount: 0.027671
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Sep-2019 11:15:05

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-MID GAC DL Lab Sample ID: 140-16735-2 DL

Matrix: Air Lab File ID: RI25P108DL.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:58

Sample wt/vol: 50(mL) Date Analyzed: 09/26/2019 08:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	89		0.80	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-MID GAC DL Lab Sample ID: 140-16735-2 DL

Matrix: Air Lab File ID: RI25P108DL.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:58

Sample wt/vol: 50(mL) Date Analyzed: 09/26/2019 08:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	480		4.4	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	90		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108DL.D
Lims ID: 140-16735-A-2
Client ID: BLDG A-MID GAC
Sample Type: Client
Inject. Date: 26-Sep-2019 08:21:30 ALS Bottle#: 8 Worklist Smp#: 28
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-028
Misc. Info.: 140-16735-a-2
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 06:47:44 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0329

First Level Reviewer: tajh Date: 26-Sep-2019 08:57:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.517	8.528	-0.011	89	389148	4.00	
* 2 1,4-Difluorobenzene	114	10.749	10.755	-0.006	93	2213459	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.559	-0.005	85	1691950	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.214	-0.005	96	900912	3.60	
6 Chlorodifluoromethane	51	3.427	3.422	0.000	36	14100	0.0546	
8 Dichlorodifluoromethane	85	3.481	3.482	-0.005	84	9775	0.0445	
27 1,1-Dichloroethene	96	5.600	5.603	-0.011	95	283198	2.24	
31 Methylene Chloride	84	5.956	5.954	-0.005	92	44886	0.2990	
34 trans-1,2-Dichloroethene	96	6.764	6.756	-0.001	49	5857	0.0430	
37 1,1-Dichloroethane	63	7.190	7.187	-0.006	100	96215	0.4111	
42 cis-1,2-Dichloroethene	96	8.183	8.183	-0.011	88	447555	3.16	
44 Chloroform	83	8.533	8.528	-0.006	75	12248	0.0434	
47 1,1,1-Trichloroethane	97	9.563	9.562	-0.011	94	2550447	8.85	
48 1,2-Dichloroethane	62	9.693	9.688	0.000	1	2650	0.0152	
49 Benzene	78	10.183	10.184	-0.006	94	28402	0.0665	
58 Trichloroethene	130	11.477	11.477	-0.006	94	32411	0.1764	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

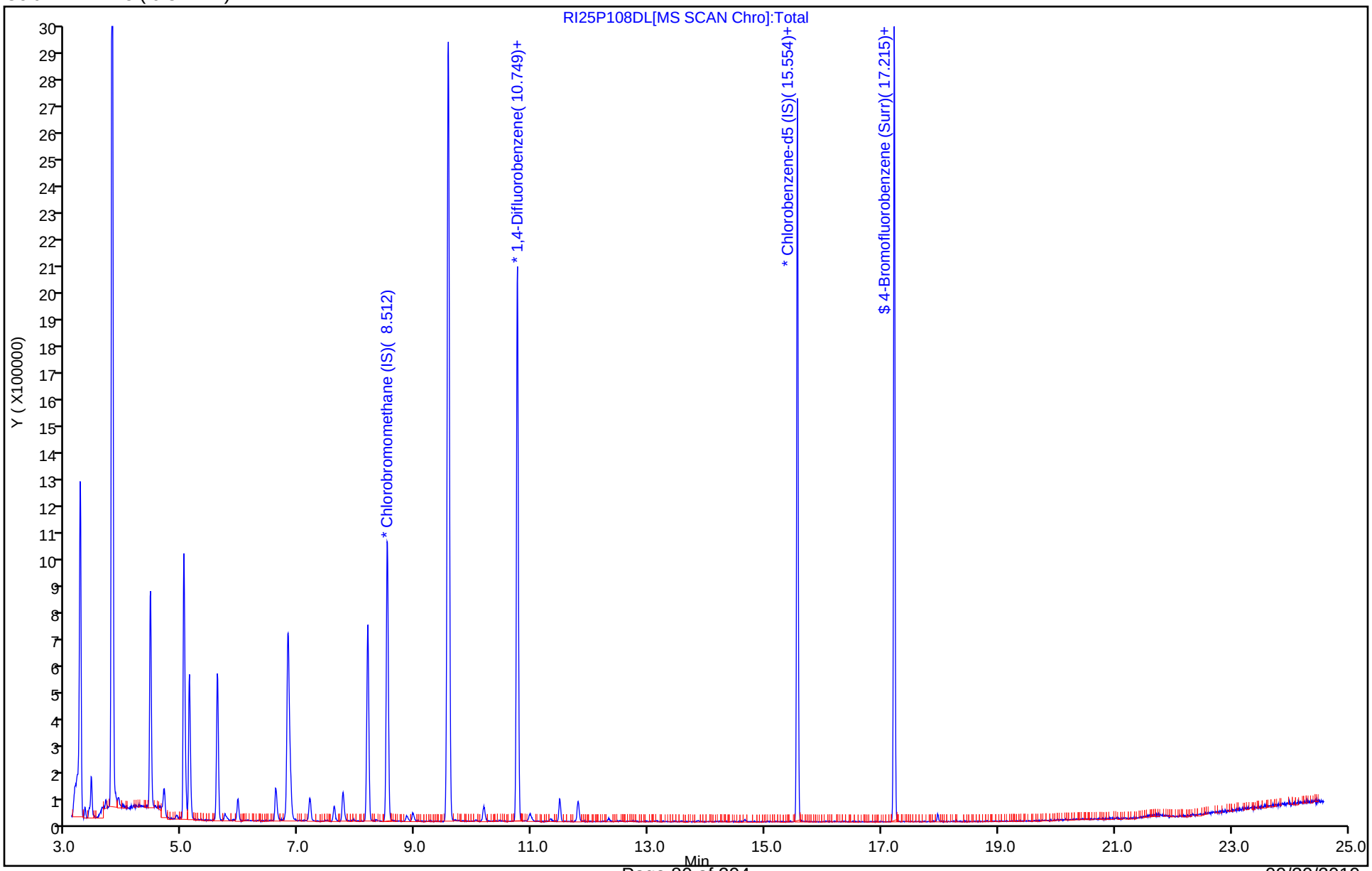
Report Date: 26-Sep-2019 08:57:22 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108DL.D

Injection Date:	26-Sep-2019 08:21:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2	Worklist Smp#:	28
Client ID:	BLDG A-MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

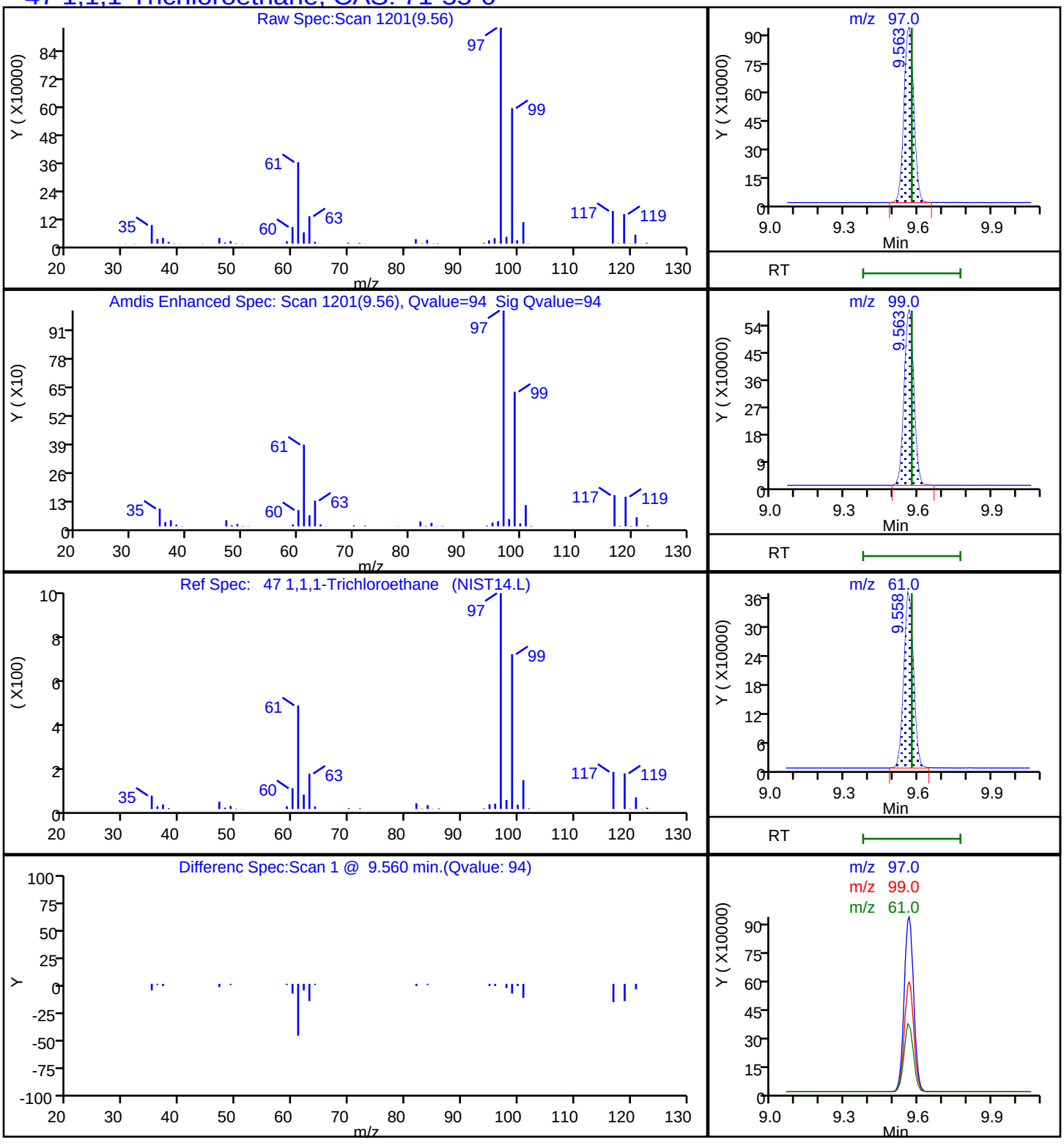
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108DL.D				
Lims ID:	140-16735-A-2				
Client ID:	BLDG A-MID GAC				
Sample Type:	Client				
Inject. Date:	26-Sep-2019 08:21:30	ALS Bottle#:	8	Worklist Smp#:	28
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-028				
Misc. Info.:	140-16735-a-2				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 06:47:44	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0329				
First Level Reviewer: tajh		Date:	26-Sep-2019 08:57:21		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.60	90.09

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P108DL.D		
Injection Date:	26-Sep-2019 08:21:30	Instrument ID:	MR
Lims ID:	140-16735-A-2	Lab Sample ID:	140-16735-2
Client ID:	BLDG A-MID GAC		
Operator ID:		ALS Bottle#:	8 Worklist Smp#: 28
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-EFFLUENT Lab Sample ID: 140-16735-3

Matrix: Air Lab File ID: RI25P109.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:52

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 22:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.5		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	0.37	J	0.40	0.11
67-66-3	Chloroform	119.38	0.87		0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	41		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.27	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	5.2		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	0.099	J	0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	30		0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	2.4	B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.060	J	0.40	0.035
108-88-3	Toluene	92.14	0.55	J	0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.76		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	26		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	12		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.23	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	0.15	J	0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.95		0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG A-EFFLUENT Lab Sample ID: 140-16735-3

Matrix: Air Lab File ID: RI25P109.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 13:52

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 22:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.7		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	1.3	J	1.4	0.39
67-66-3	Chloroform	119.38	4.2		2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	160		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.3	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	21		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	0.40	J	1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	120		1.6	0.16
100-41-4	Ethylbenzene	106.17	0.53	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	8.3	B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.41	J	2.7	0.24
108-88-3	Toluene	92.14	2.1	J	2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	3.0		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	140		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	65		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	0.37	J	0.51	0.33
1330-20-7	Xylenes, Total	106.17	4.1		3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D
Lims ID: 140-16735-A-3
Client ID: BLDG A-EFFLUENT
Sample Type: Client
Inject. Date: 25-Sep-2019 22:18:30 ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-017
Misc. Info.: 140-16735-a-3
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 11:16:09 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 11:16:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.528	0.016	86	458636	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.755	0.011	92	2607249	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	84	2122252	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1193724	3.81	
6 Chlorodifluoromethane	51	3.443	3.427	0.016	44	22489	0.0739	
8 Dichlorodifluoromethane	85	3.502	3.484	0.016	99	13717	0.0530	
12 Vinyl chloride	62	3.836	3.826	0.010	31	4518	0.0290	
27 1,1-Dichloroethene	96	5.627	5.607	0.016	95	885060	5.94	
31 Methylene Chloride	84	5.977	5.961	0.016	93	84507	0.4776	
34 trans-1,2-Dichloroethene	96	6.786	6.760	0.021	85	24481	0.1524	
37 1,1-Dichloroethane	63	7.212	7.200	0.016	99	286611	1.04	
42 cis-1,2-Dichloroethene	96	8.204	8.193	0.010	85	1364620	8.19	
44 Chloroform	83	8.549	8.533	0.010	30	57730	0.1738	
47 1,1,1-Trichloroethane	97	9.585	9.574	0.011	95	1747658	5.15	
48 1,2-Dichloroethane	62	9.692	9.687	-0.001	78	4064	0.0198	
49 Benzene	78	10.199	10.189	0.010	94	149227	0.2968	
58 Trichloroethene	130	11.493	11.483	0.010	96	524780	2.43	
67 Toluene	91	13.575	13.575	0.000	94	56650	0.1092	
73 Tetrachloroethene	129	14.745	14.724	0.021	13	2502	0.0120	
76 Ethylbenzene	91	15.904	15.894	0.010	96	17230	0.0245	
77 m-Xylene & p-Xylene	91	16.061	16.056	0.005	95	64750	0.1197	
80 o-Xylene	91	16.589	16.584	0.005	98	38826	0.0707	
92 1,2,4-Trimethylbenzene	105	18.423	18.439	-0.016	95	31630	0.0455	
S 116 Xylenes, Total	100				0		0.1905	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

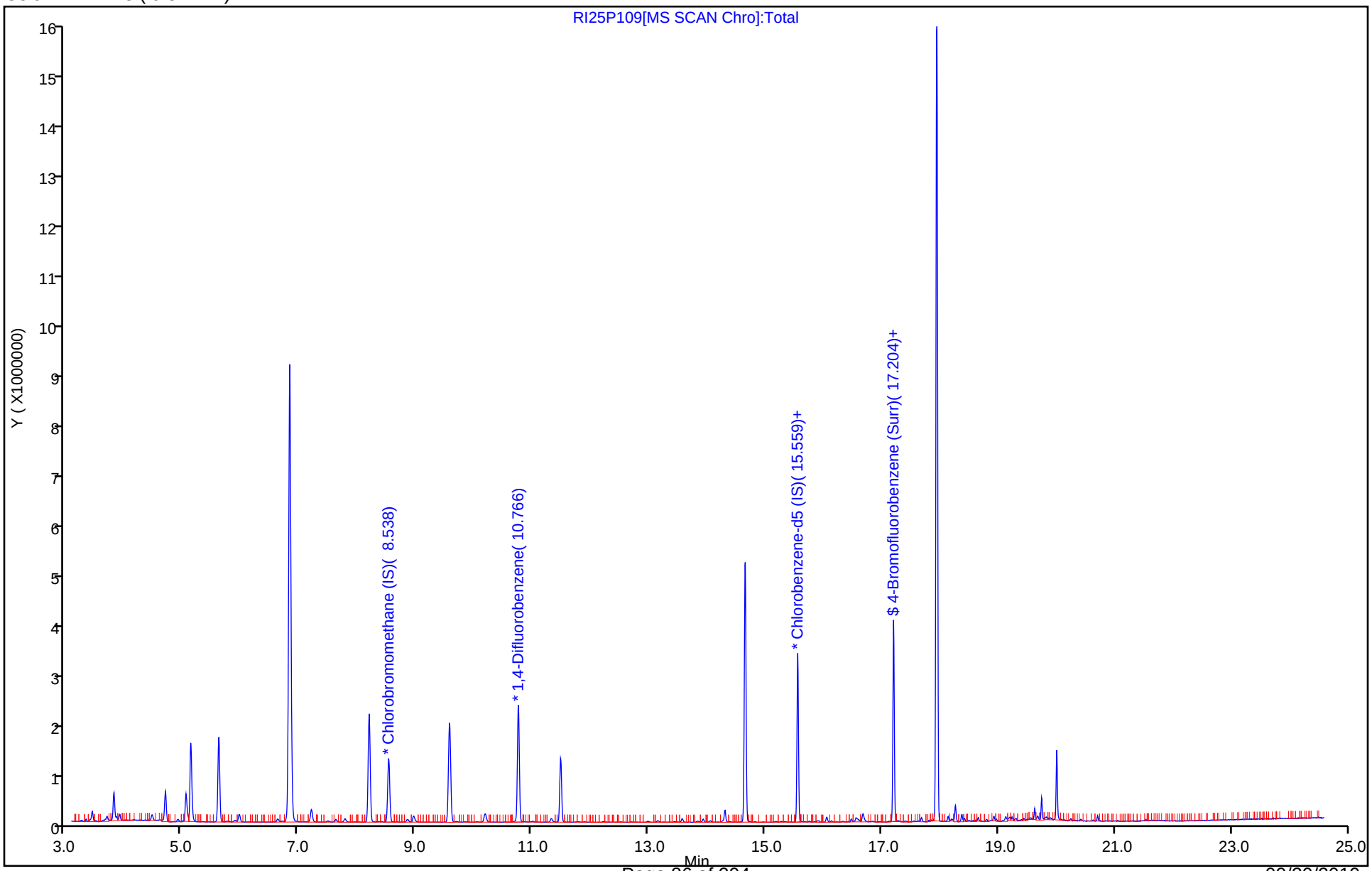
Report Date: 26-Sep-2019 11:16:24 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3	Worklist Smp#:	17
Client ID:	BLDG A-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D				
Lims ID:	140-16735-A-3				
Client ID:	BLDG A-EFFLUENT				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 22:18:30	ALS Bottle#:	9	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-017				
Misc. Info.:	140-16735-a-3				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 11:16:09	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 11:16:23		

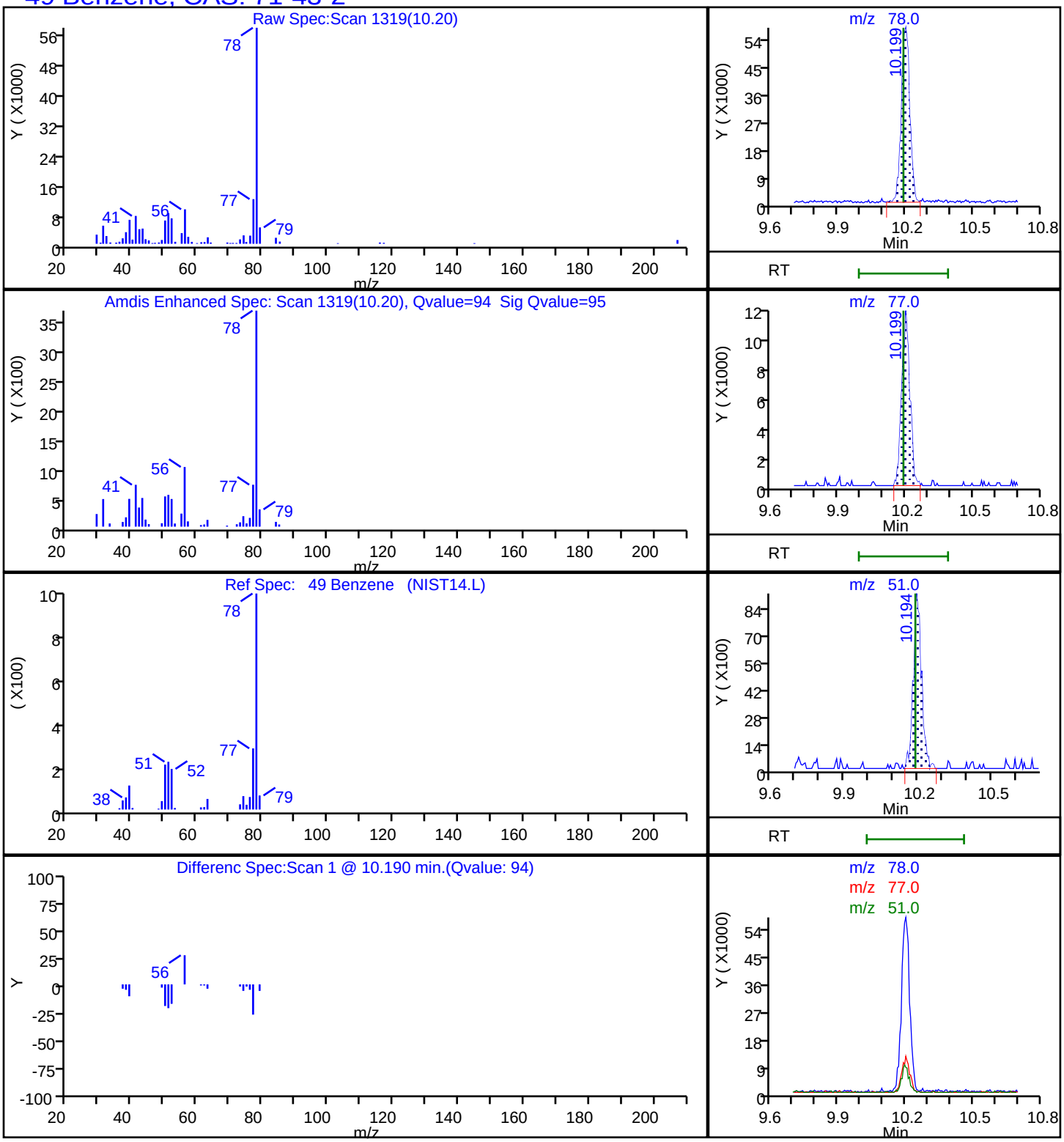
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.81	95.17

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

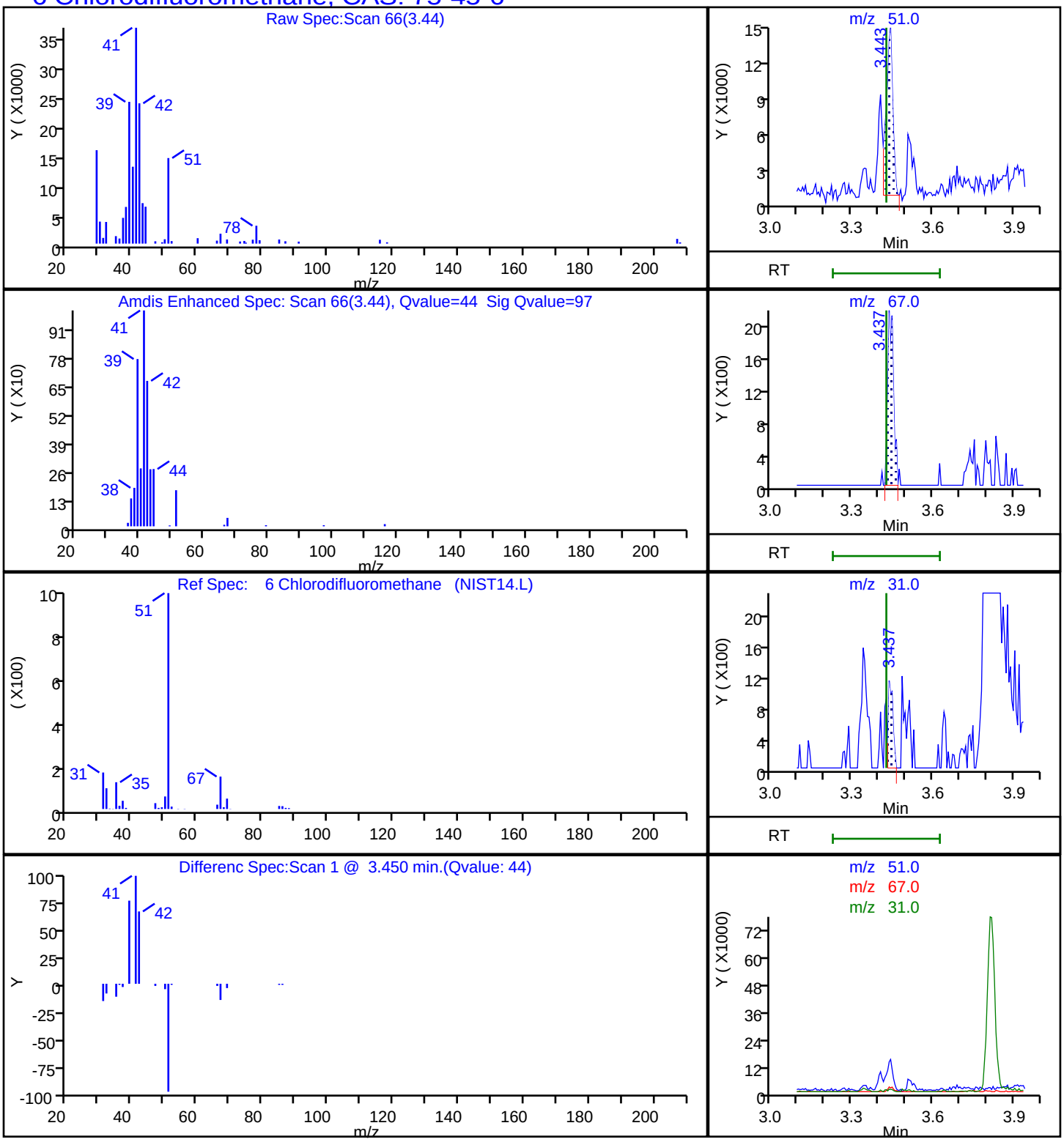
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

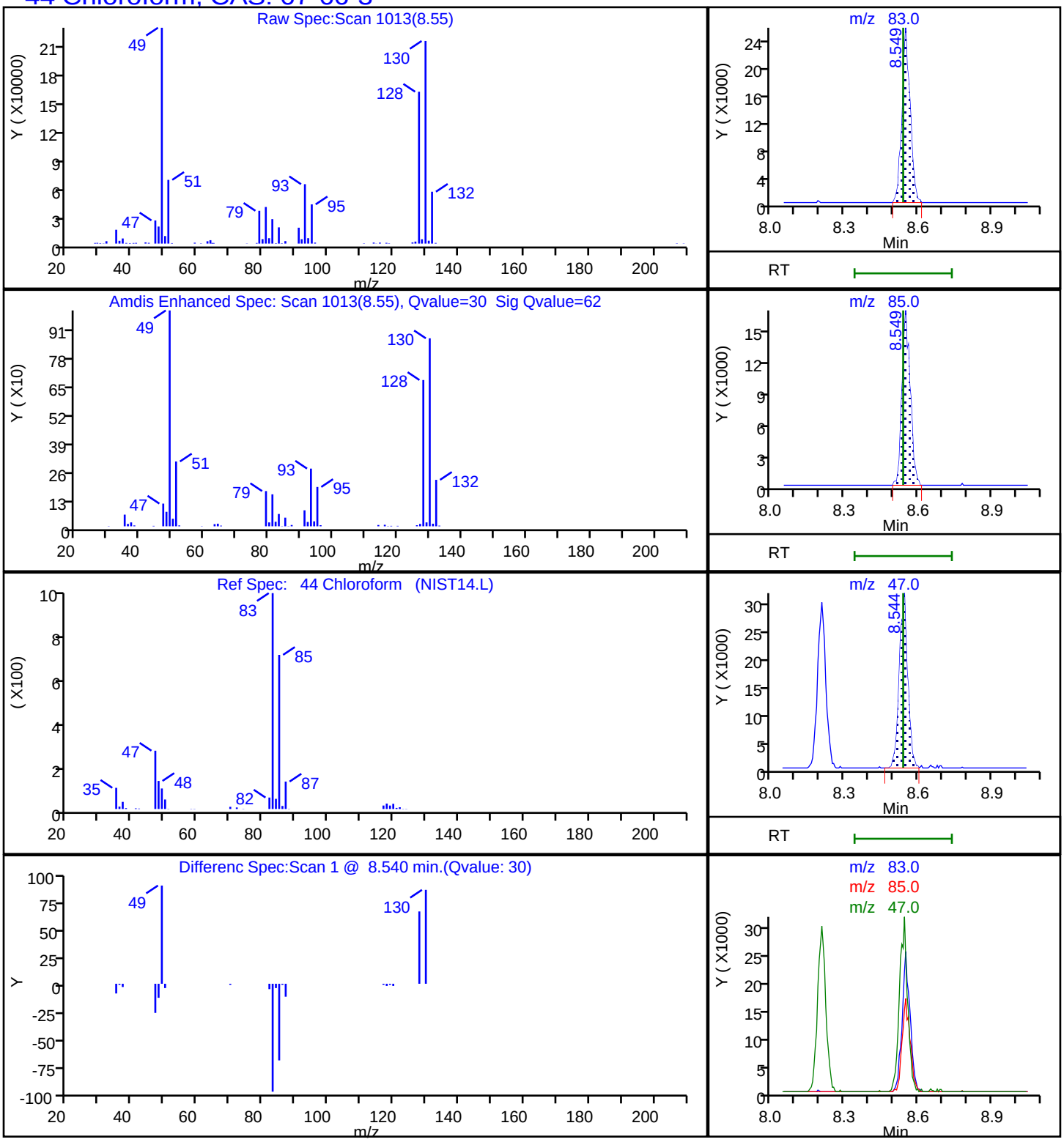


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

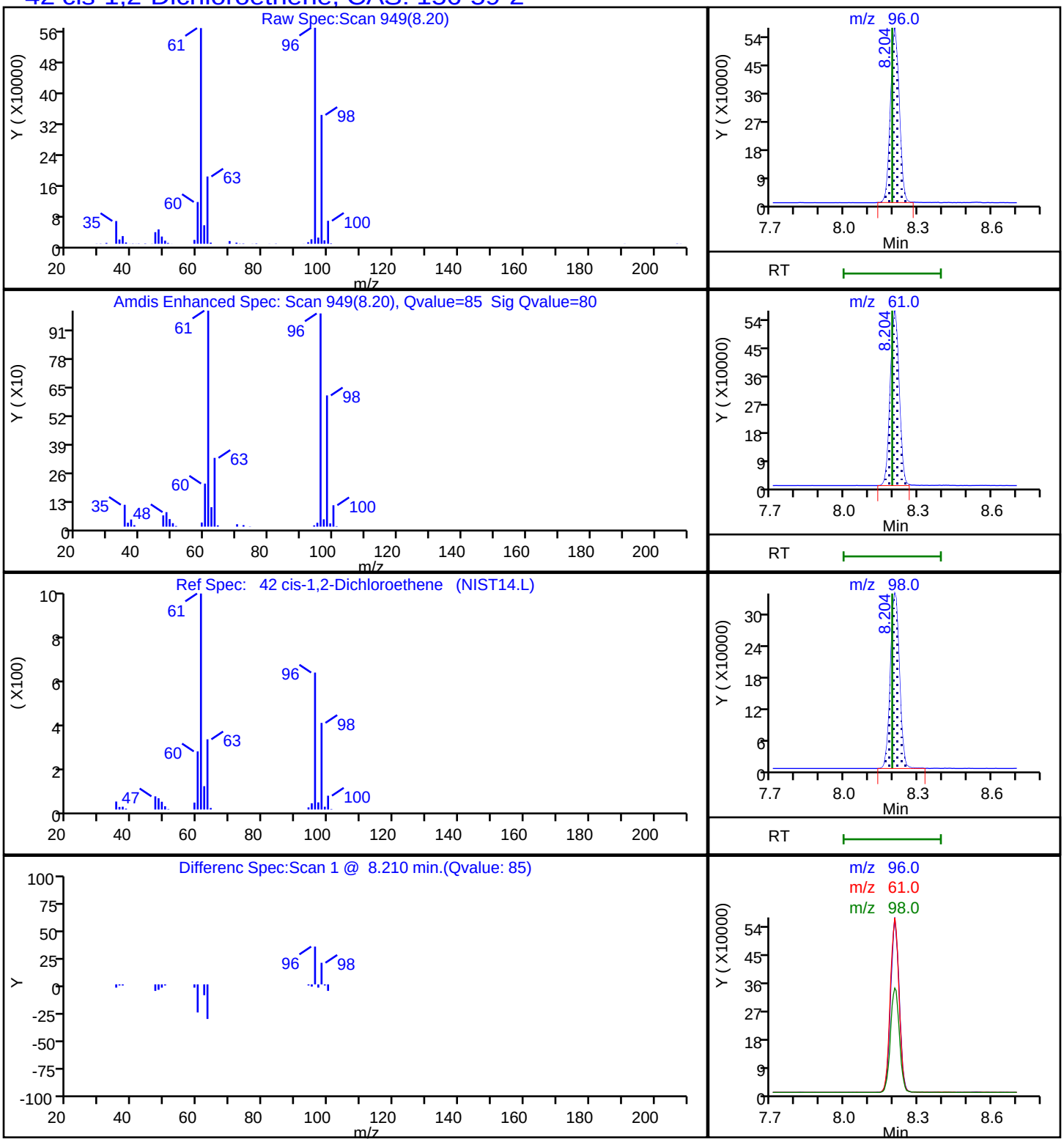


Report Date: 26-Sep-2019 11:16:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

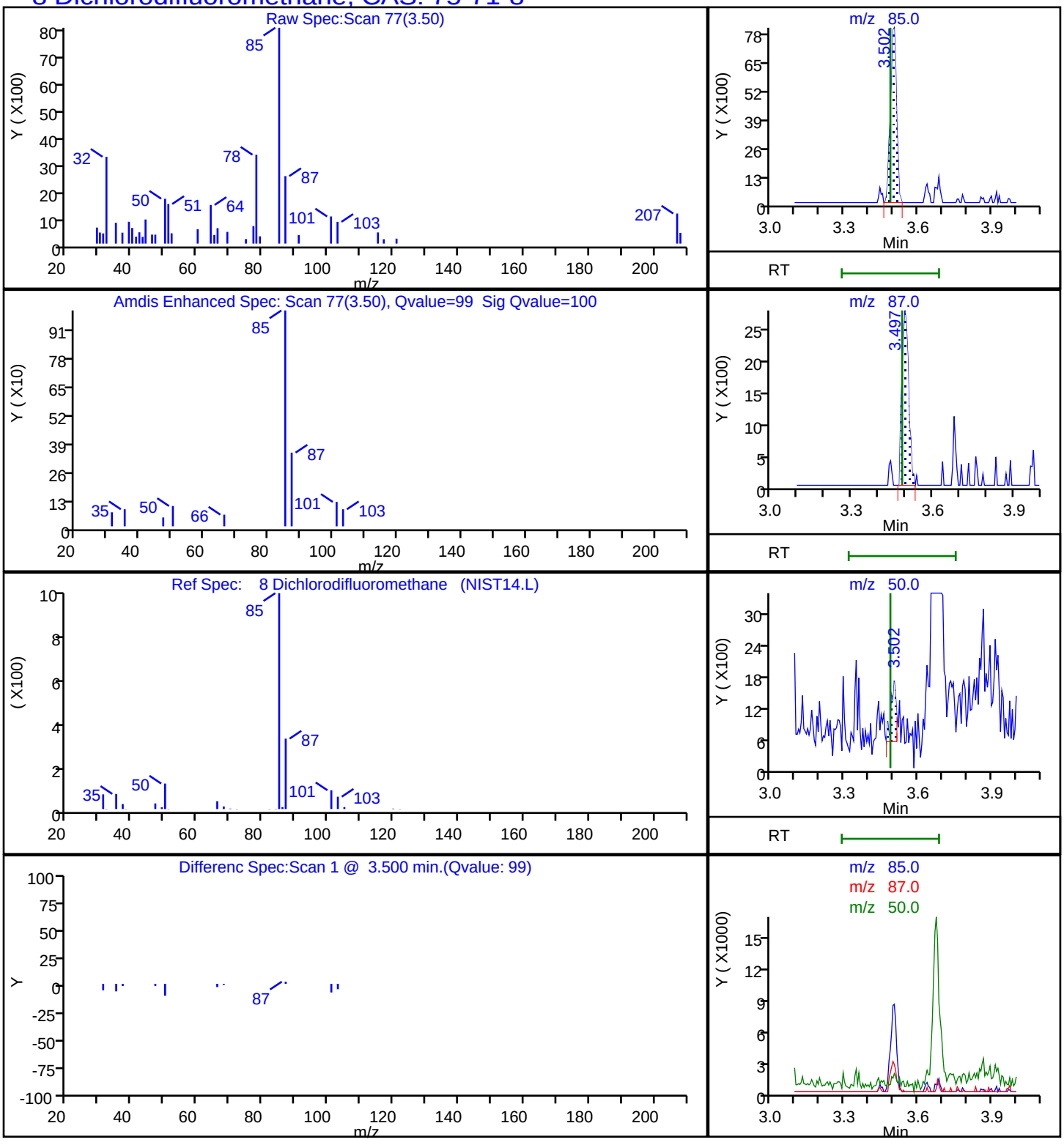
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

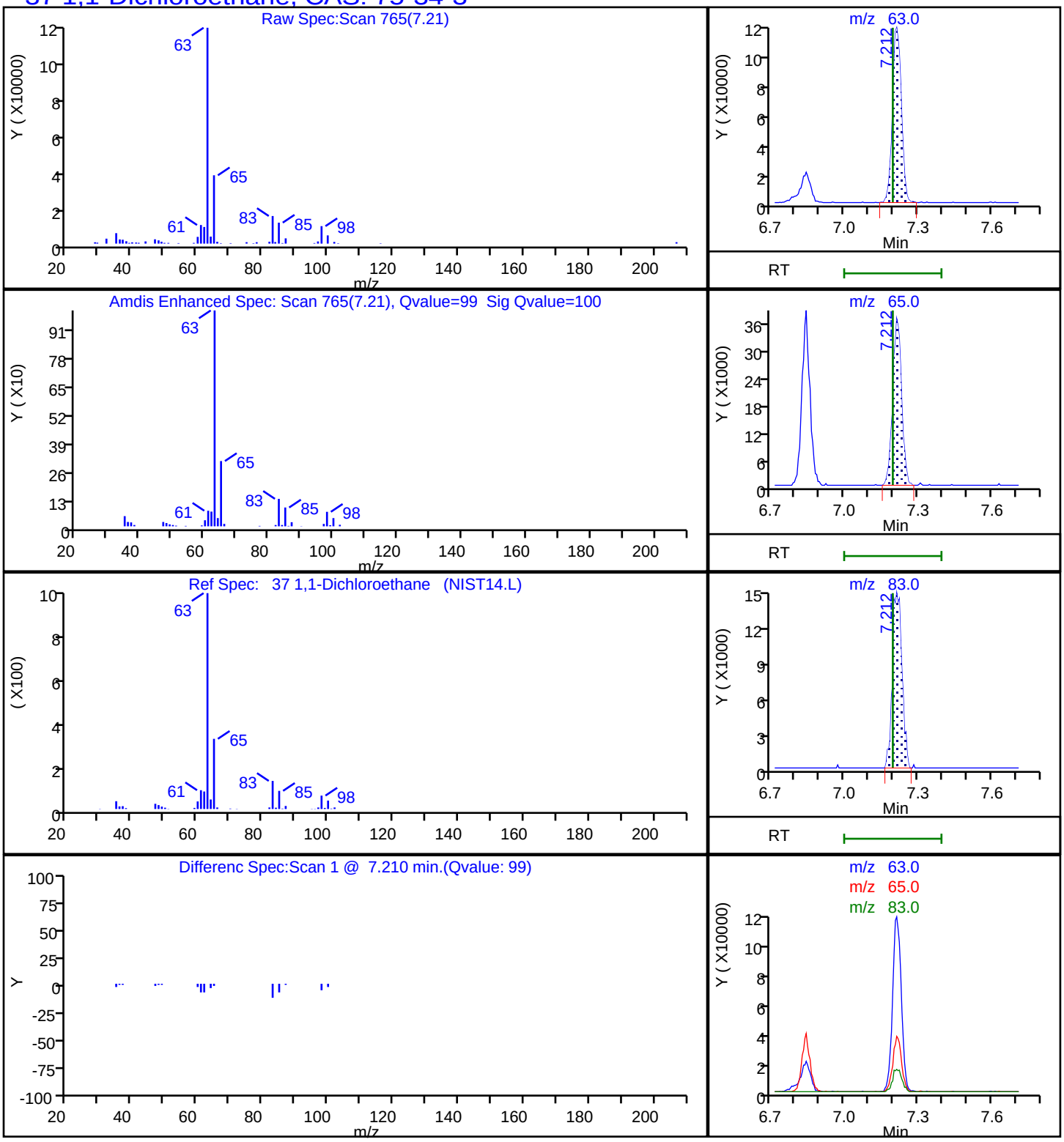
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 26-Sep-2019 11:16:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date: 25-Sep-2019 22:18:30 Instrument ID: MR

Lims ID: 140-16735-A-3 Lab Sample ID: 140-16735-3

Client ID: BLDG A-EFFLUENT

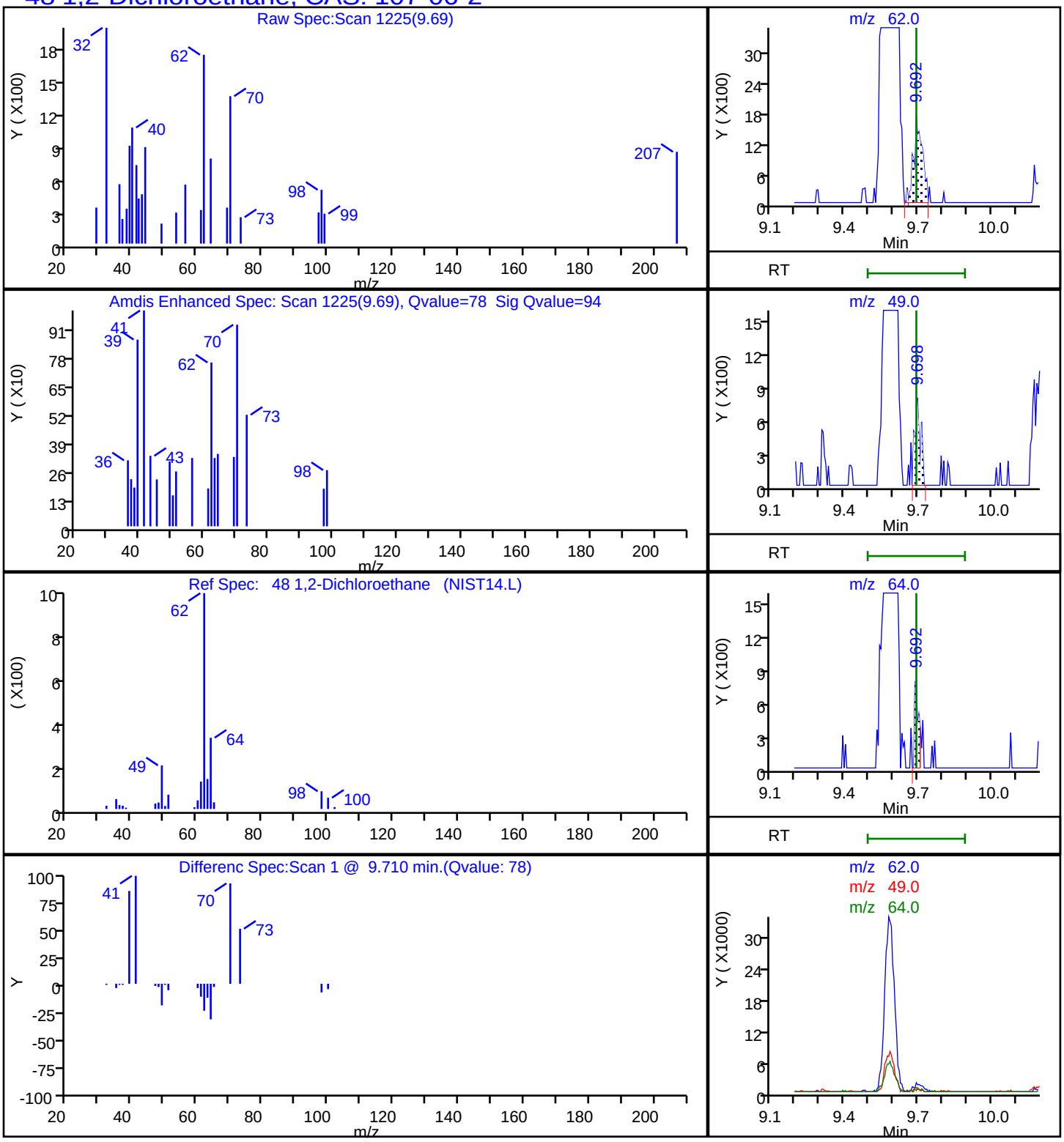
Operator ID: ALS Bottle#: 9 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

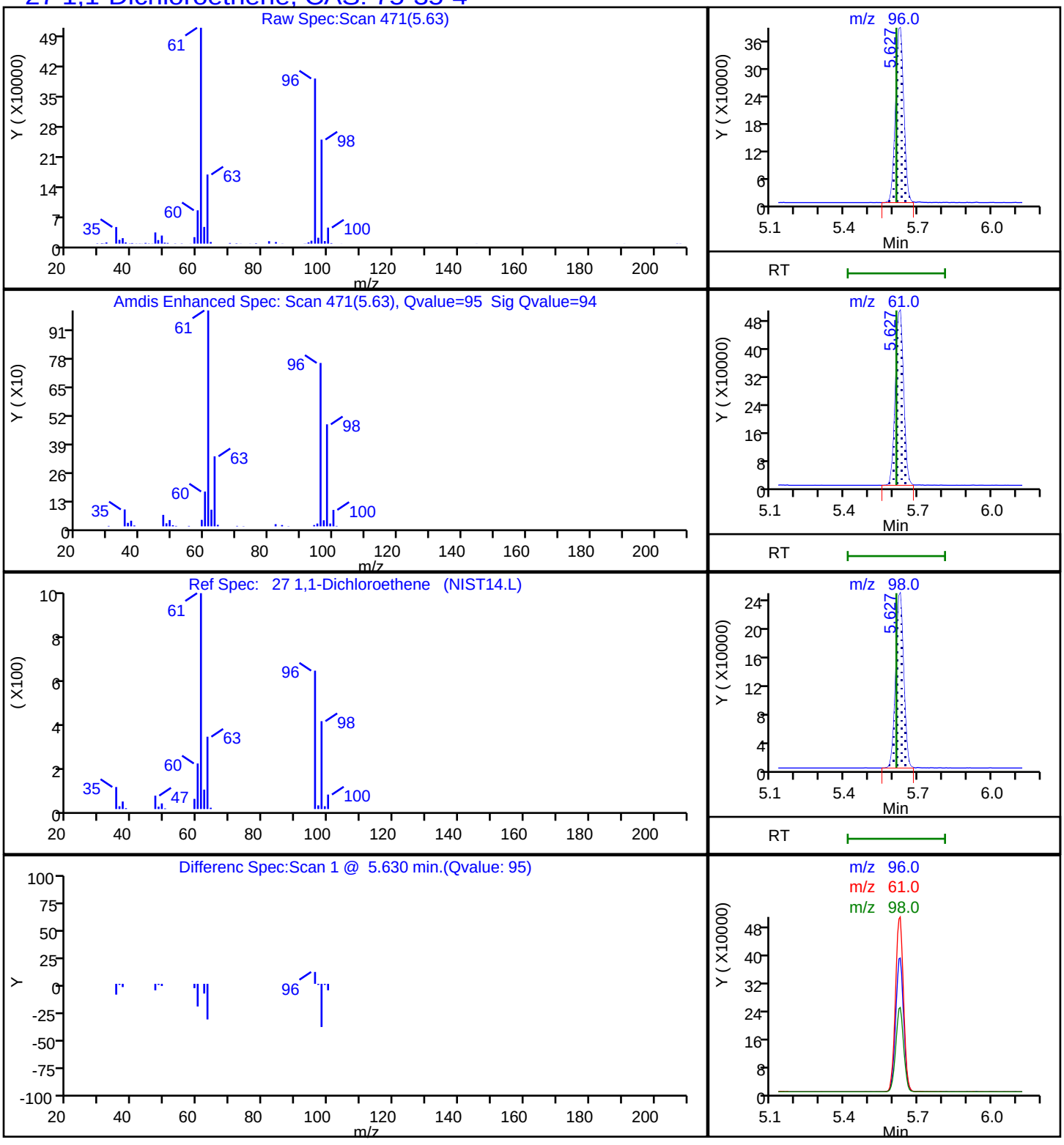
48 1,2-Dichloroethane, CAS: 107-06-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D
Injection Date: 25-Sep-2019 22:18:30 Instrument ID: MR
Lims ID: 140-16735-A-3 Lab Sample ID: 140-16735-3
Client ID: BLDG A-EFFLUENT
Operator ID: ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 26-Sep-2019 11:16:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date: 25-Sep-2019 22:18:30 Instrument ID: MR

Lims ID: 140-16735-A-3 Lab Sample ID: 140-16735-3

Client ID: BLDG A-EFFLUENT

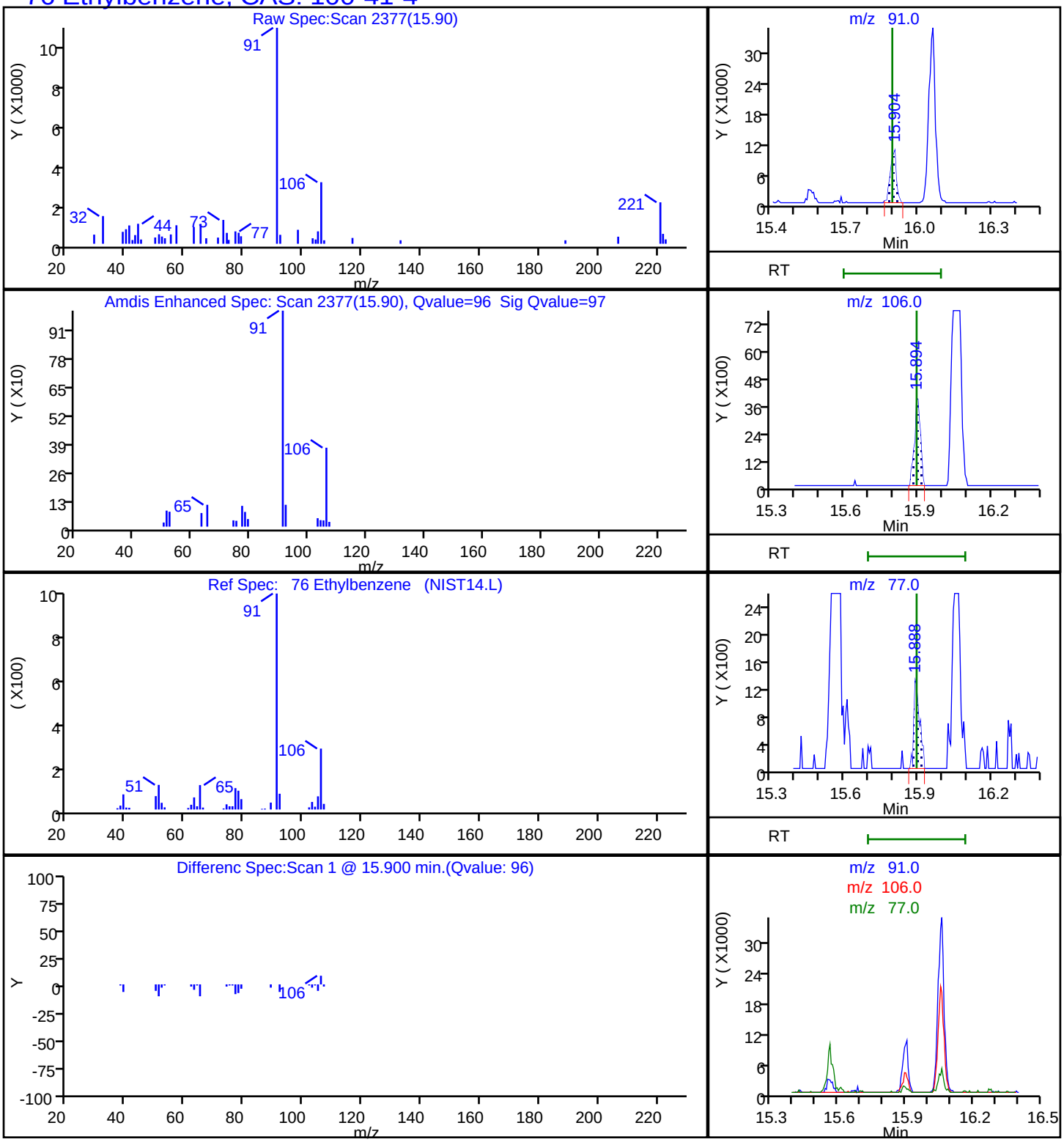
Operator ID: ALS Bottle#: 9 Worklist Smp#: 17

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

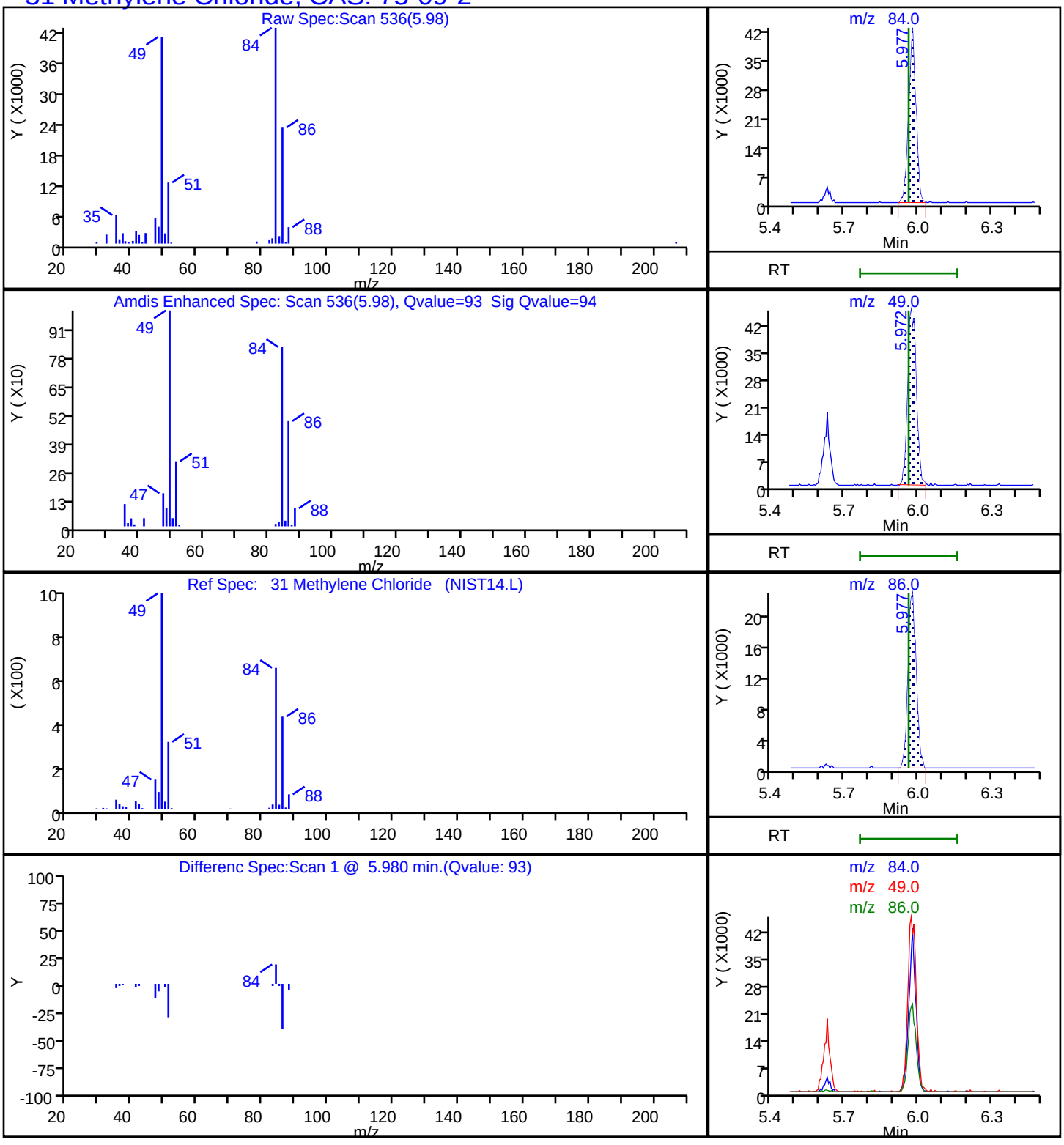
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D
Injection Date: 25-Sep-2019 22:18:30 Instrument ID: MR
Lims ID: 140-16735-A-3 Lab Sample ID: 140-16735-3
Client ID: BLDG A-EFFLUENT
Operator ID: ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

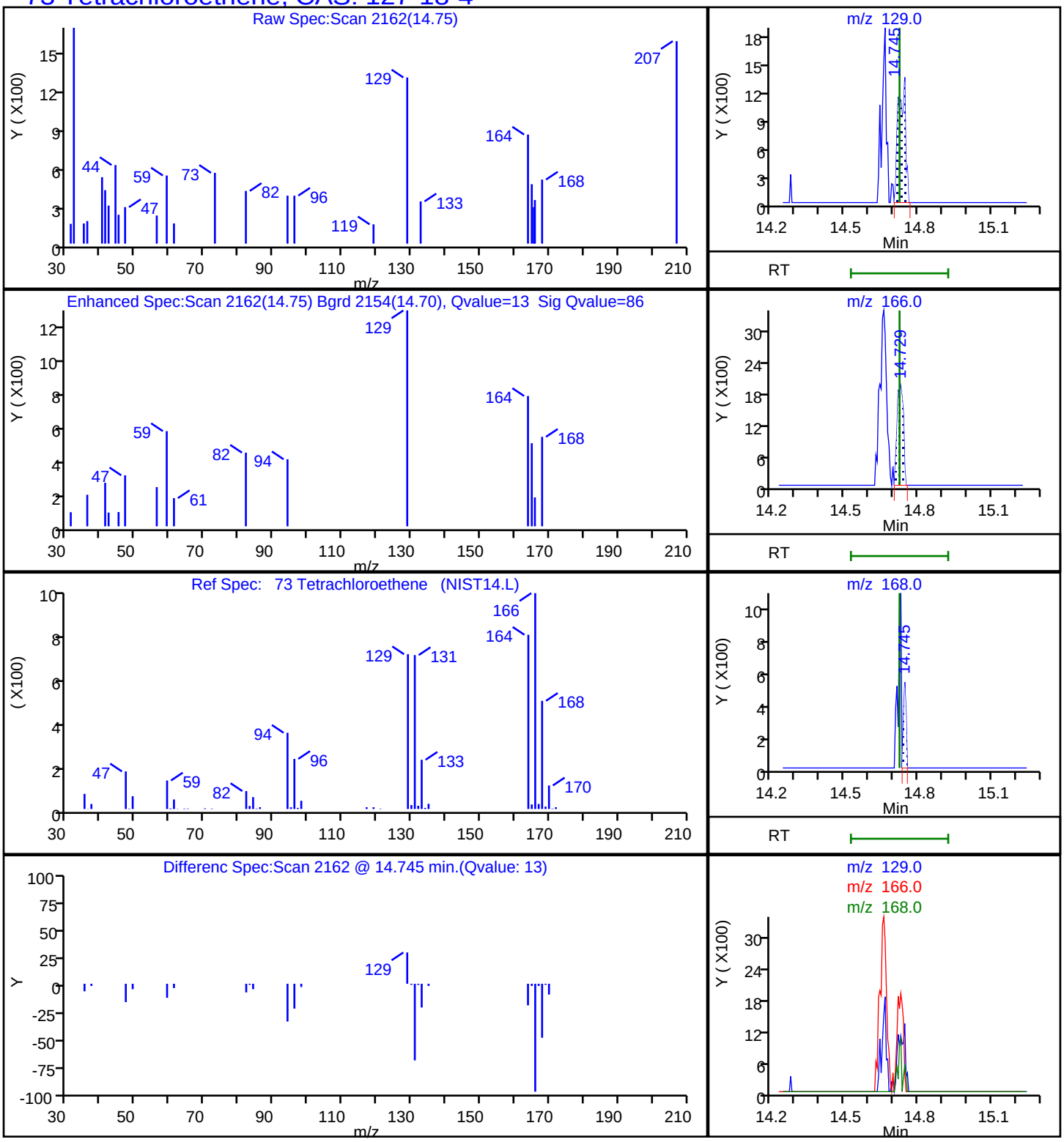
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

73 Tetrachloroethene, CAS: 127-18-4

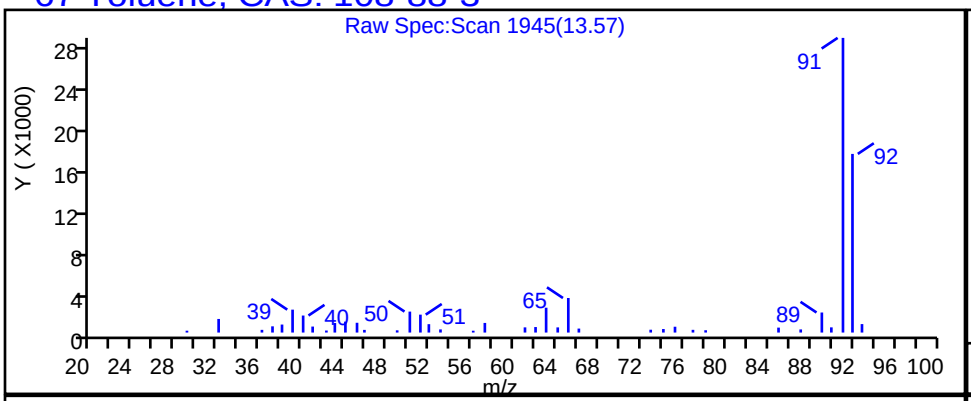


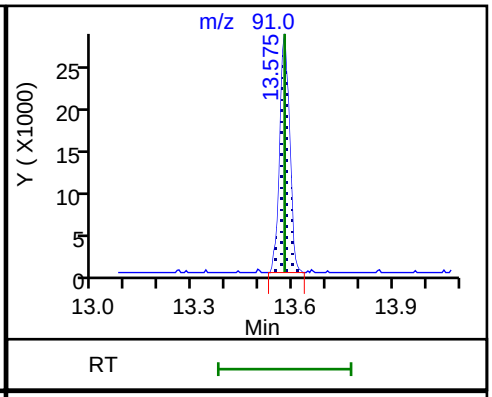
Report Date: 26-Sep-2019 11:16:25 Chrom Revision: 2.3 17-Sep-2019 16:19:08

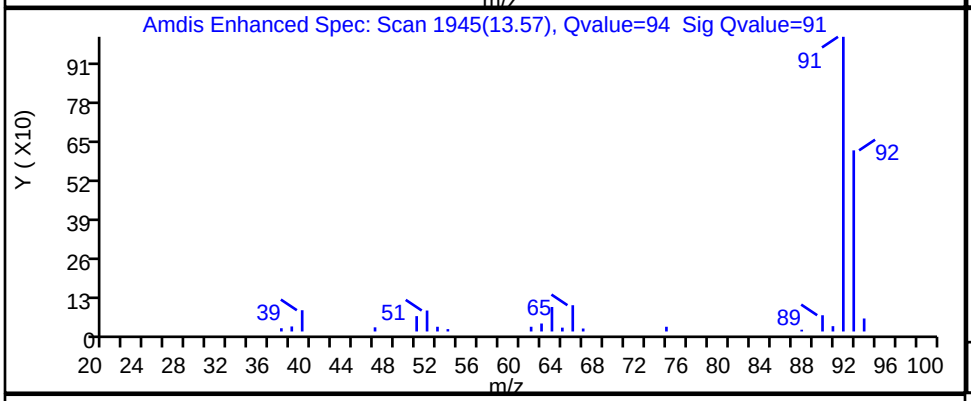
Eurofins TestAmerica, Knoxville

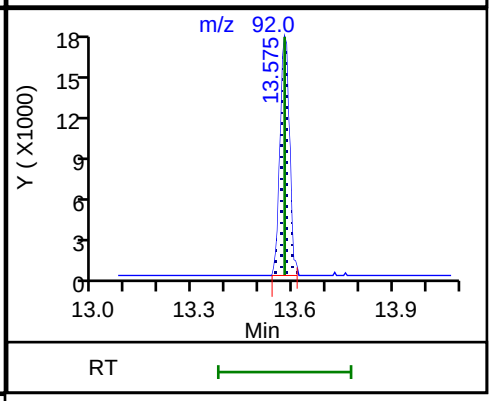
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D				
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR		
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

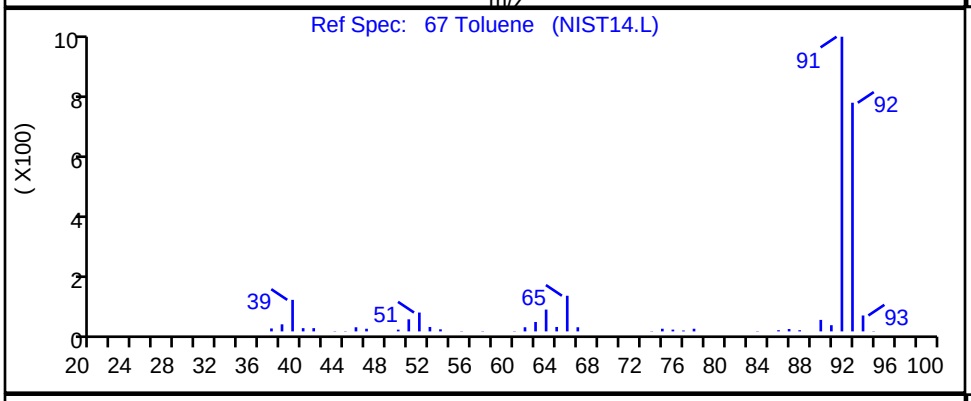
67 Toluene, CAS: 108-88-3

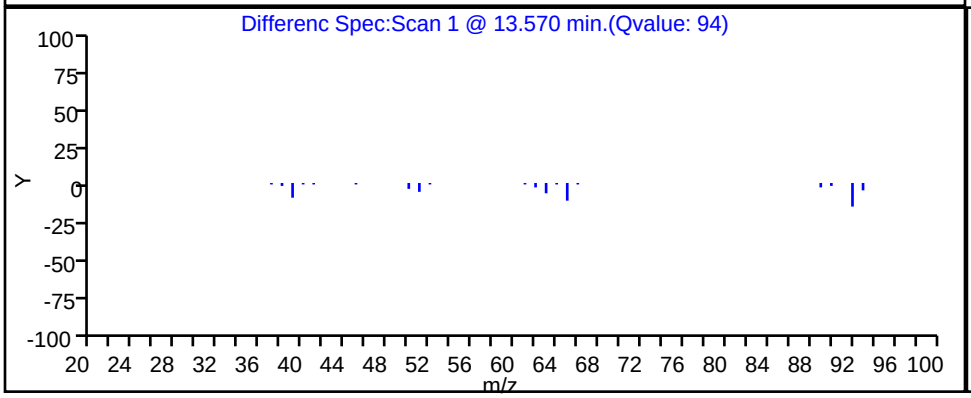


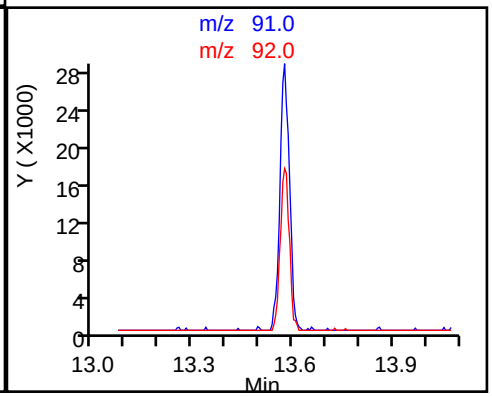








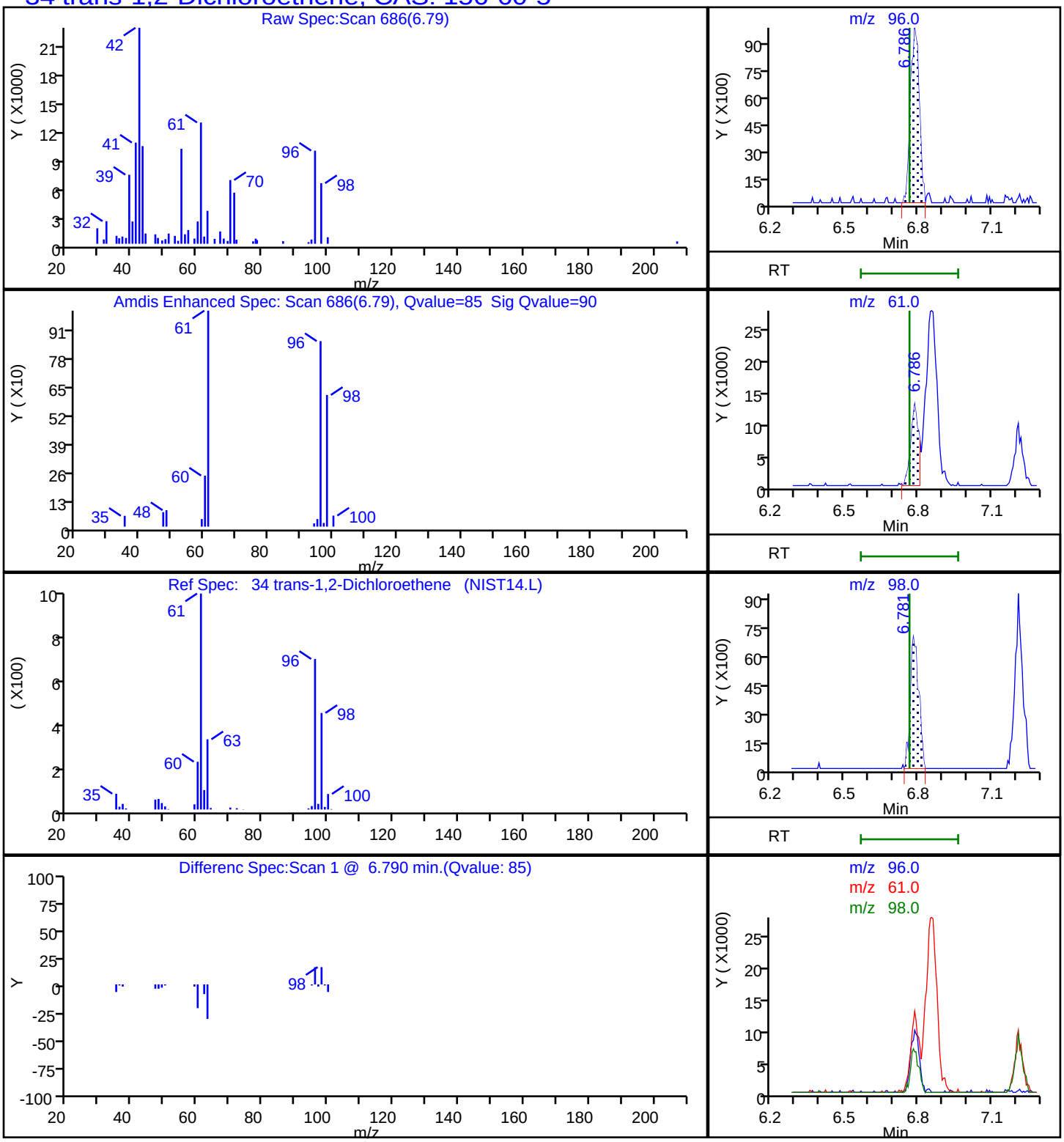




Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

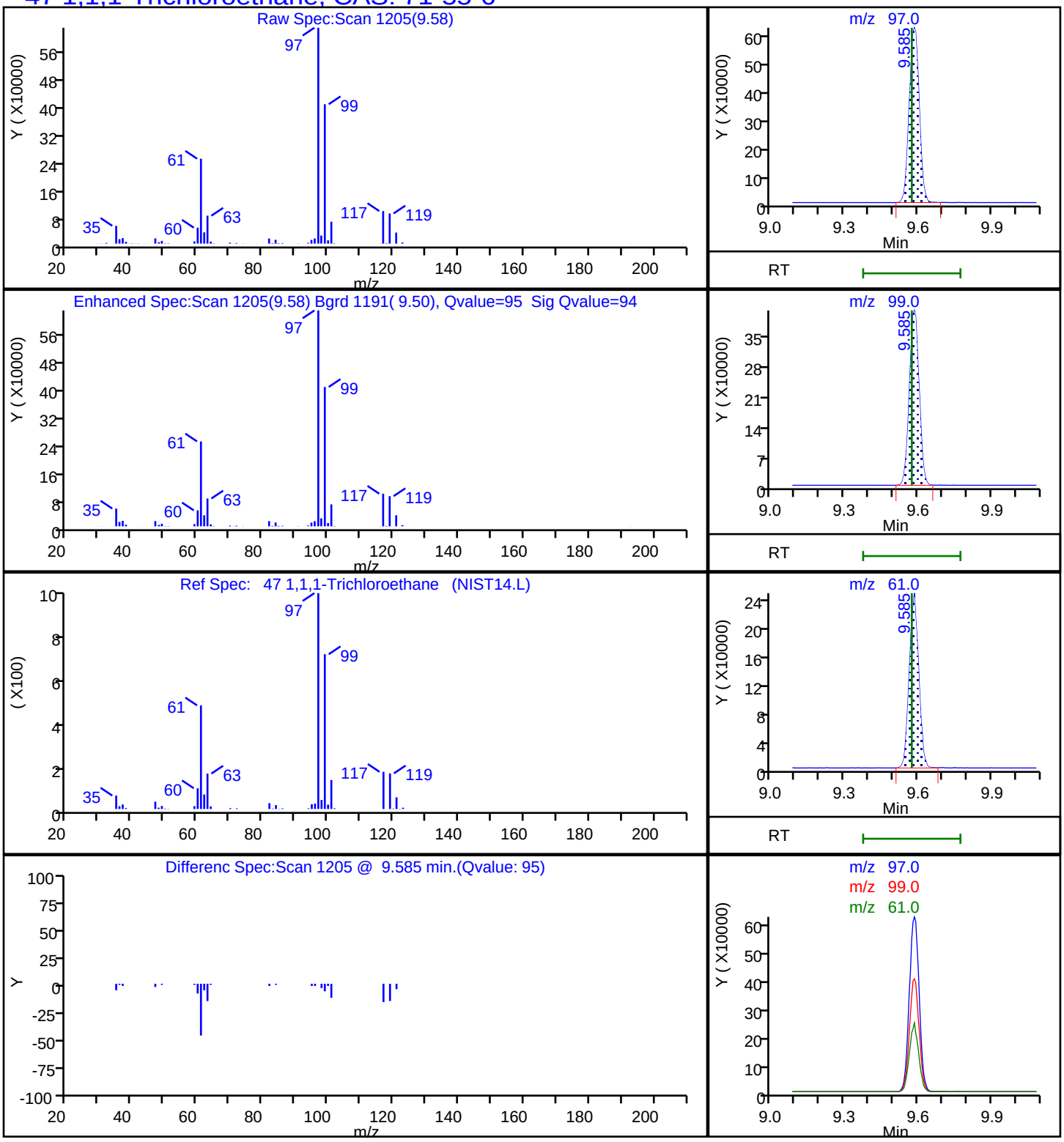


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

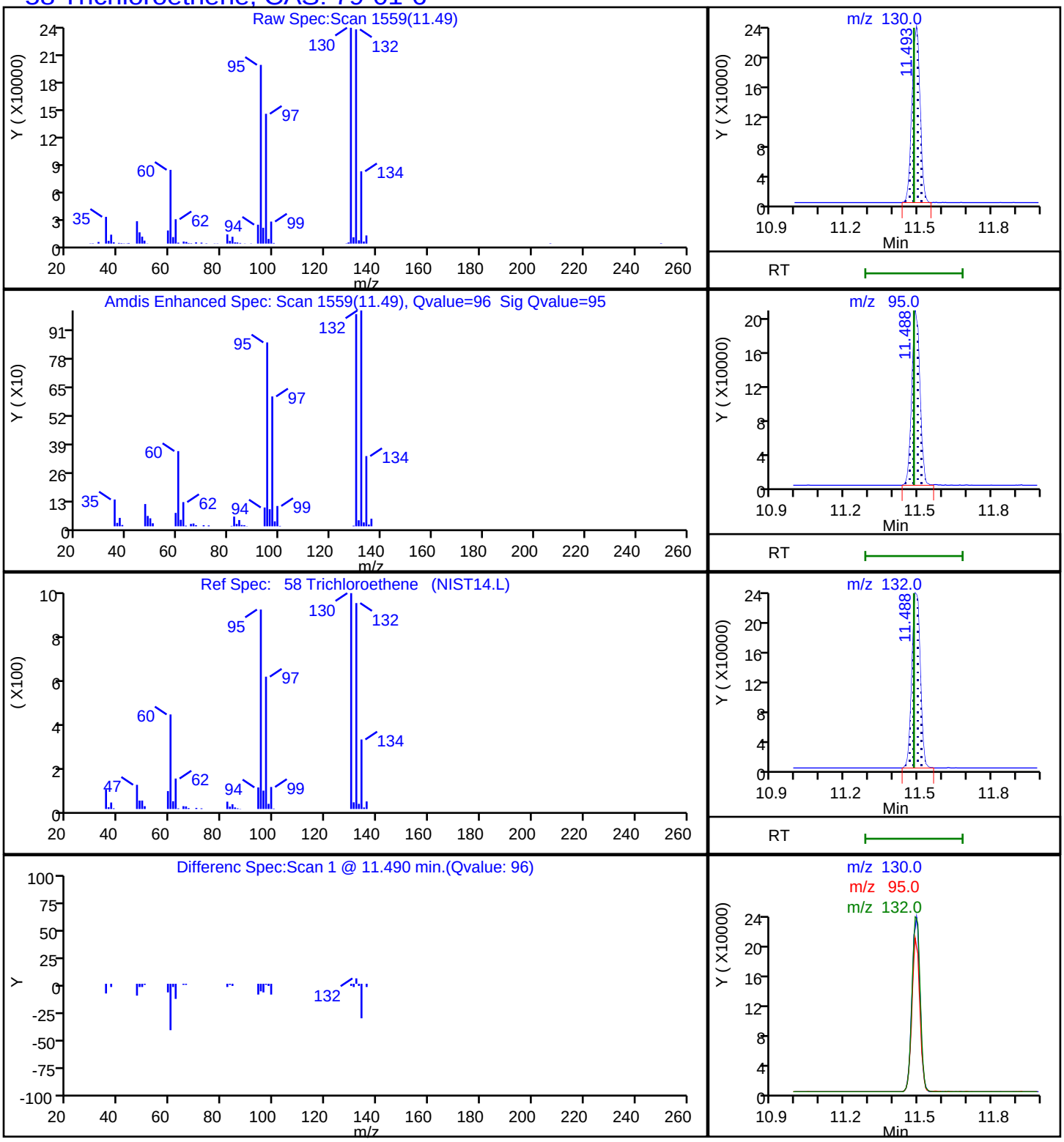
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

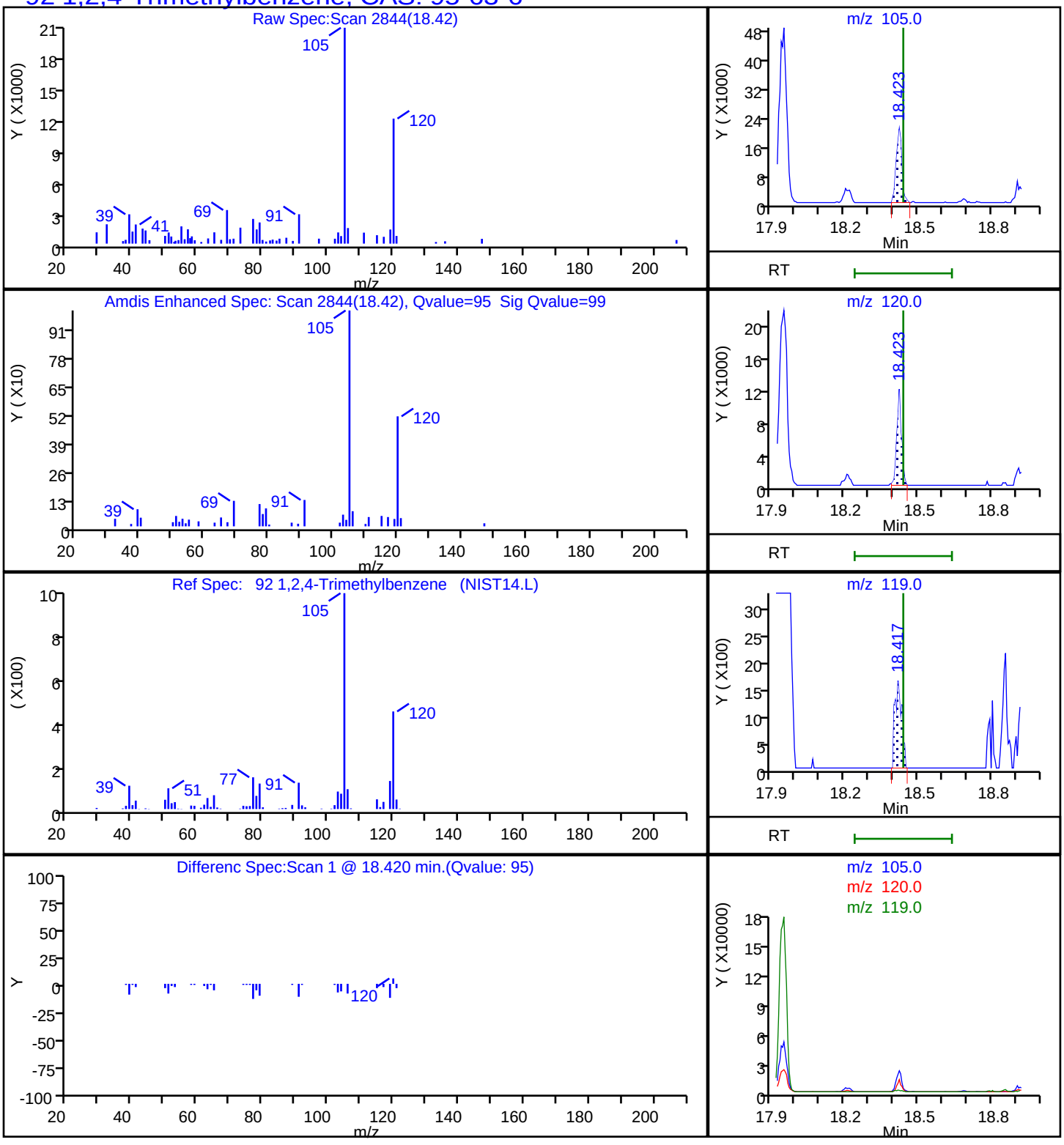
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

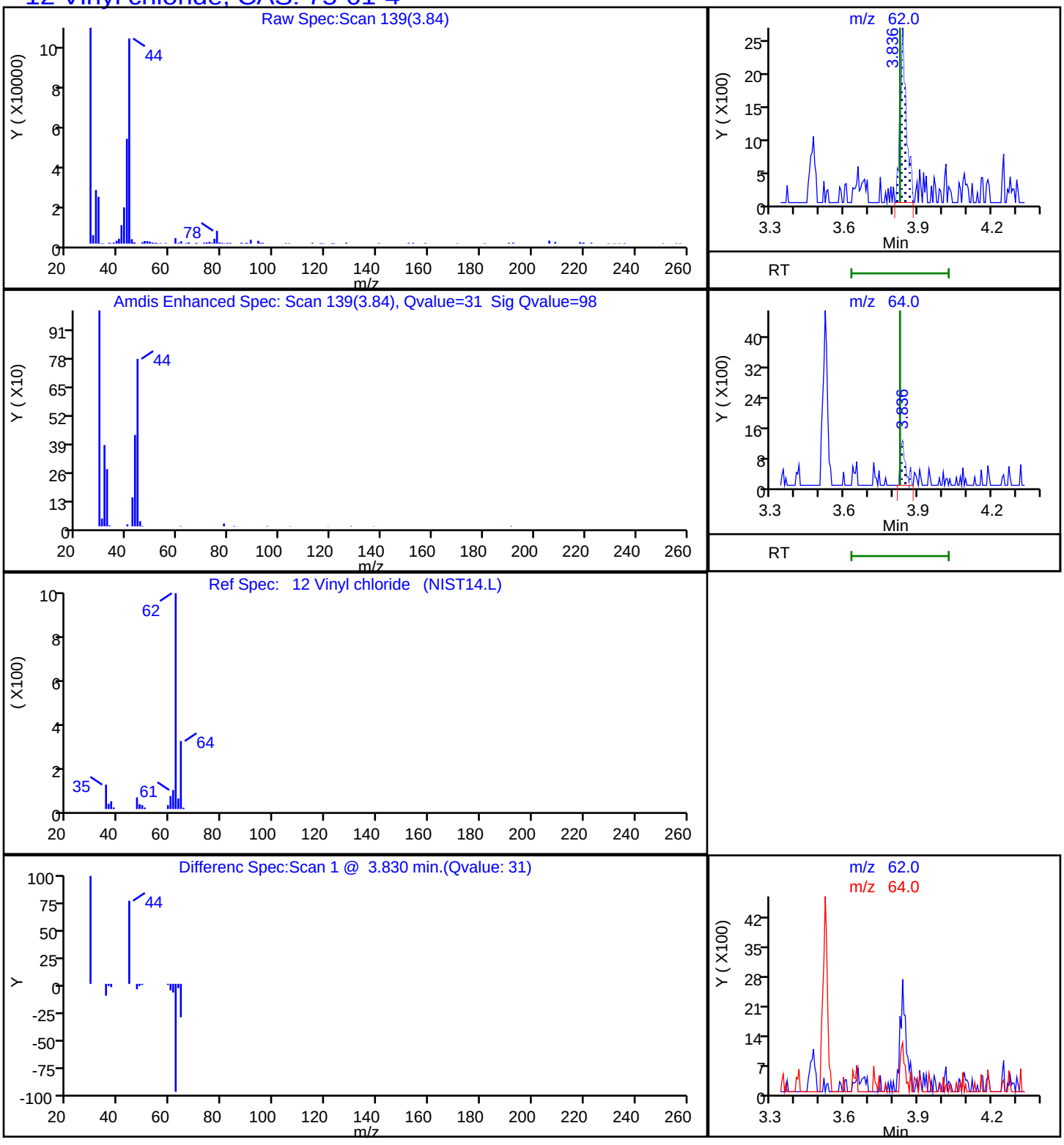
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D
Injection Date: 25-Sep-2019 22:18:30 Instrument ID: MR
Lims ID: 140-16735-A-3 Lab Sample ID: 140-16735-3
Client ID: BLDG A-EFFLUENT
Operator ID: ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

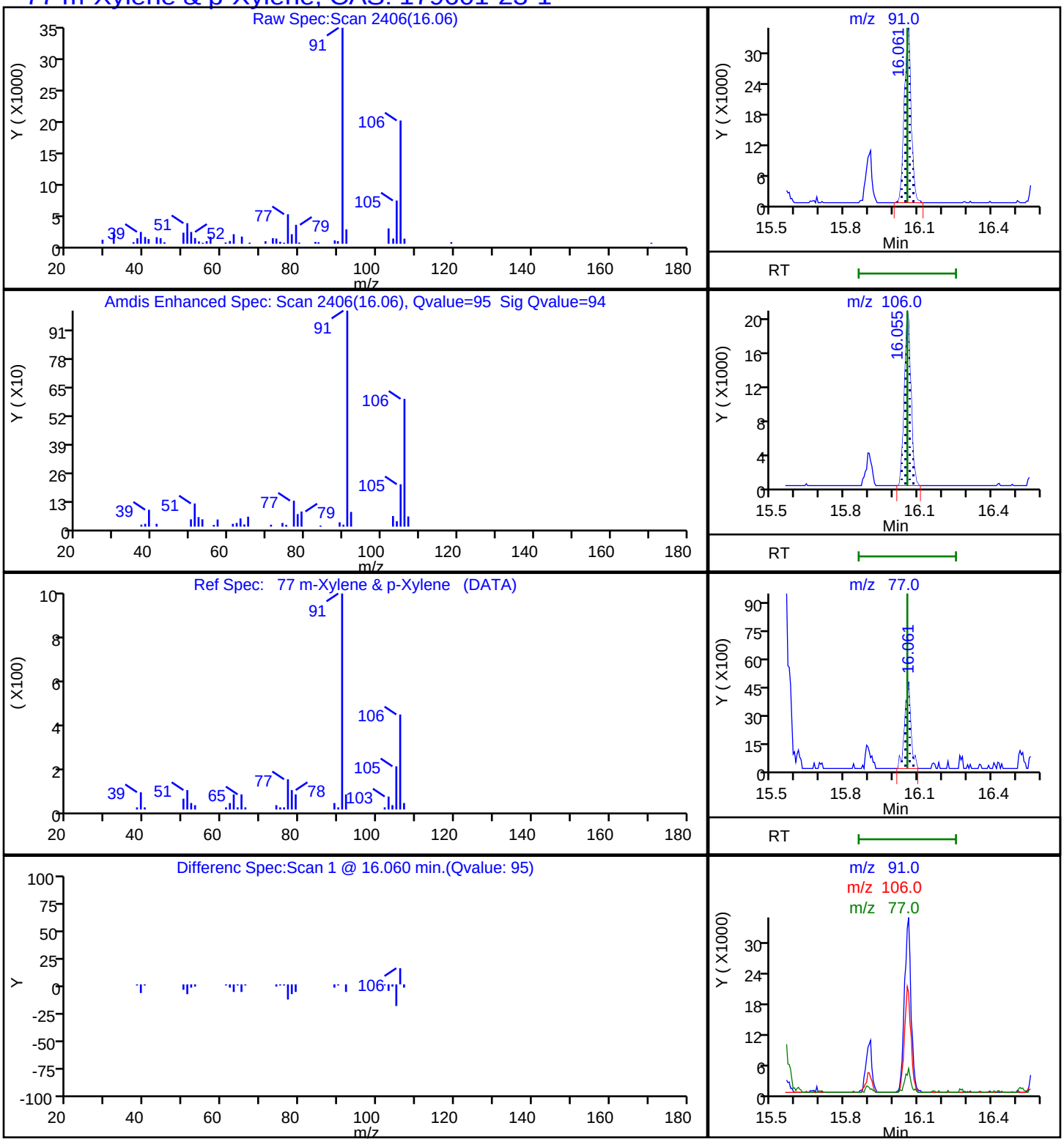
12 Vinyl chloride, CAS: 75-01-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D		
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

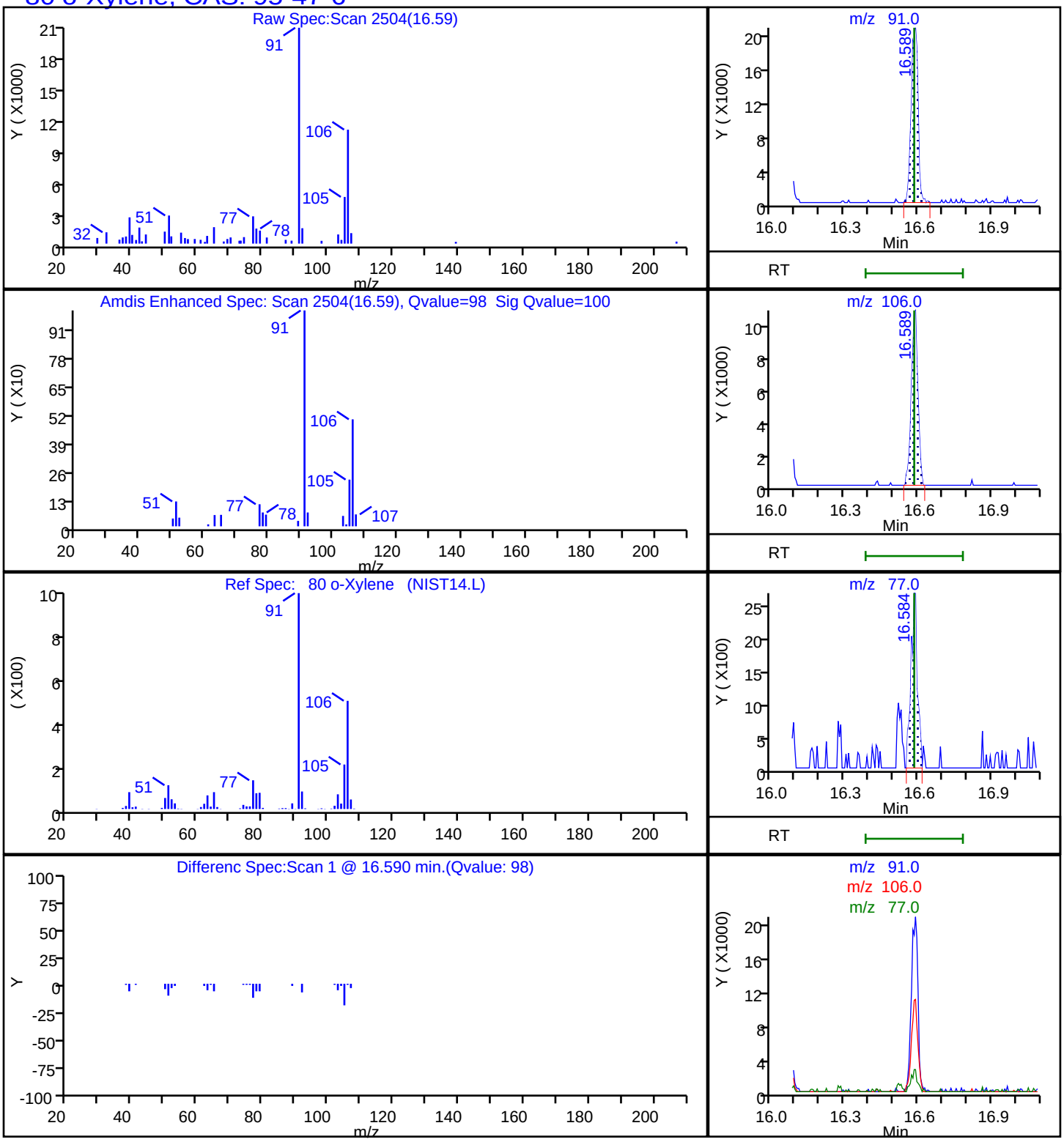


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D

Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3
Client ID:	BLDG A-EFFLUENT		
Operator ID:		ALS Bottle#:	9 Worklist Smp#: 17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



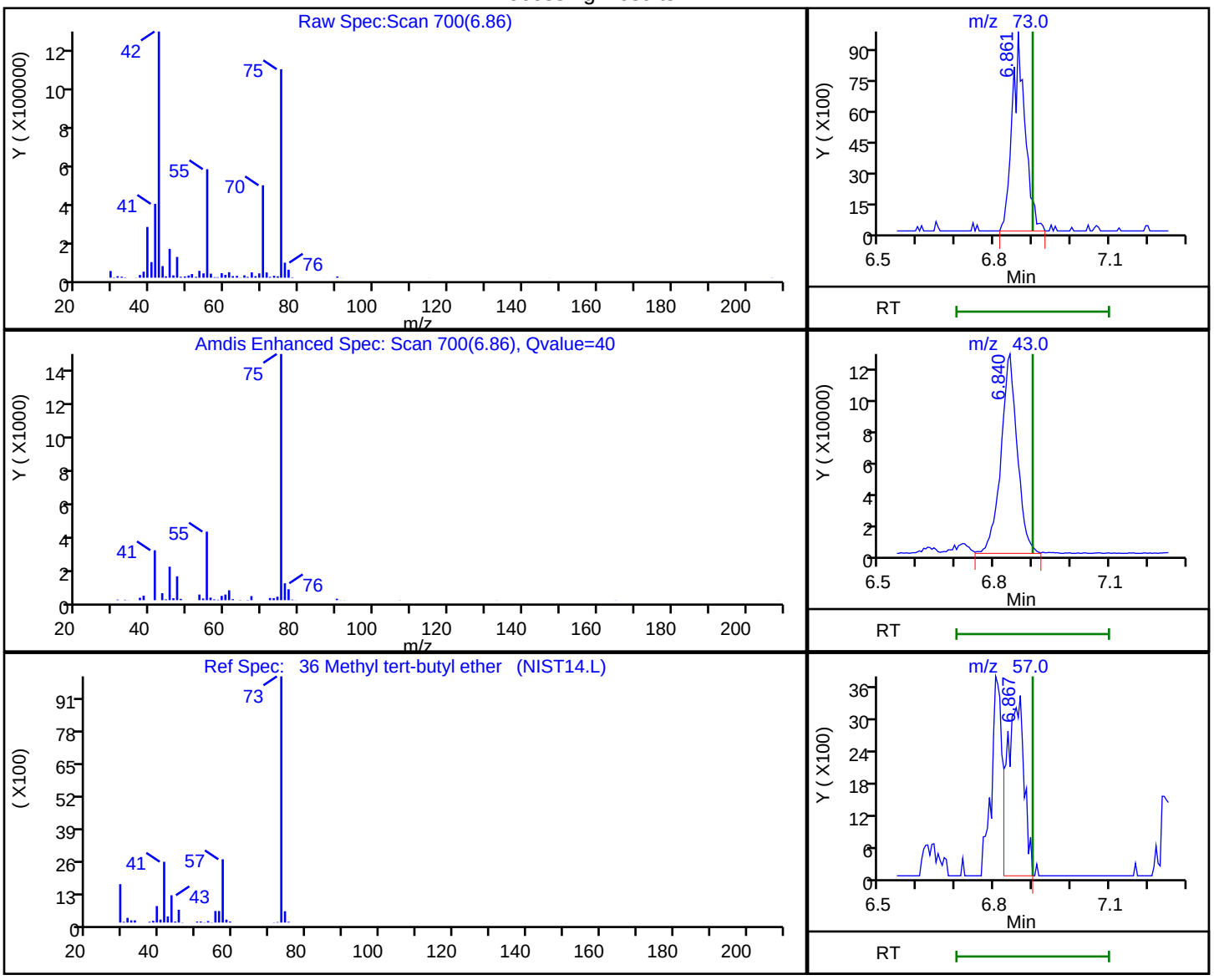
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P109.D				
Injection Date:	25-Sep-2019 22:18:30	Instrument ID:	MR		
Lims ID:	140-16735-A-3	Lab Sample ID:	140-16735-3		
Client ID:	BLDG A-EFFLUENT				
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

36 Methyl tert-butyl ether, CAS: 1634-04-4

Processing Results



RT	Mass	Response	Amount
6.86	73.00	23083	0.059746
6.84	43.00	379464	
6.87	57.00	9966	

Reviewer: khachitpongpanits, 26-Sep-2019 11:15:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-INFLUENT Lab Sample ID: 140-16735-4

Matrix: Air Lab File ID: RI25P110.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:30

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	2.2		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.070	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.1		0.40	0.11
67-66-3	Chloroform	119.38	0.20	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.82		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.28	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.071	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.11	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.085	J	0.40	0.035
108-88-3	Toluene	92.14	0.74		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.095	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	5.2		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.76		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.33	J	0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.59	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-INFLUENT Lab Sample ID: 140-16735-4

Matrix: Air Lab File ID: RI25P110.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:30

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 23:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	7.2		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.44	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.0		1.4	0.39
67-66-3	Chloroform	119.38	0.95	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	3.2		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.4	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.28	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.49	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.3	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	0.58	J	2.7	0.24
108-88-3	Toluene	92.14	2.8		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.38	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	28		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	3.7		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	1.6	J	2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.6	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D
Lims ID: 140-16735-A-4
Client ID: BLDG C-INFLUENT
Sample Type: Client
Inject. Date: 25-Sep-2019 23:07:30 ALS Bottle#: 10 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-018
Misc. Info.: 140-16735-a-4
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 11:21:03 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 11:17:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.528	0.000	86	453683	4.00	
* 2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2685684	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.554	15.559	-0.005	83	2121936	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1184035	3.78	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	91	67972	0.2258	
8 Dichlorodifluoromethane	85	3.491	3.484	0.005	92	14415	0.0563	
27 1,1-Dichloroethene	96	5.605	5.607	-0.006	55	2103	0.0143	
31 Methylene Chloride	84	5.956	5.961	-0.005	96	63372	0.3620	
34 trans-1,2-Dichloroethene	96	6.764	6.752	-0.001	1	3031	0.0191	
42 cis-1,2-Dichloroethene	96	8.193	8.193	-0.001	87	27018	0.1639	
44 Chloroform	83	8.539	8.533	0.000	35	12849	0.0391	
47 1,1,1-Trichloroethane	97	9.569	9.574	-0.006	93	5909	0.0176	
49 Benzene	78	10.189	10.189	0.000	94	232841	0.4495	
52 Carbon tetrachloride	117	10.216	10.210	0.006	39	4790	0.0140	
58 Trichloroethene	130	11.483	11.483	0.000	97	230535	1.03	
67 Toluene	91	13.570	13.575	-0.005	91	77051	0.1486	
73 Tetrachloroethene	129	14.724	14.724	0.000	89	3568	0.0171	
76 Ethylbenzene	91	15.894	15.894	0.000	96	15827	0.0225	
77 m-Xylene & p-Xylene	91	16.061	16.056	0.005	96	40740	0.0753	
80 o-Xylene	91	16.579	16.584	-0.005	96	22901	0.0417	
87 1,3,5-Trimethylbenzene	120	17.964	17.980	-0.017	93	21680	0.0661	
92 1,2,4-Trimethylbenzene	105	18.417	18.439	-0.022	95	105070	0.1512	
109 Naphthalene	128	21.054	21.060	-0.006	99	34940	0.0368	
S 116 Xylenes, Total	100				0		0.1171	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

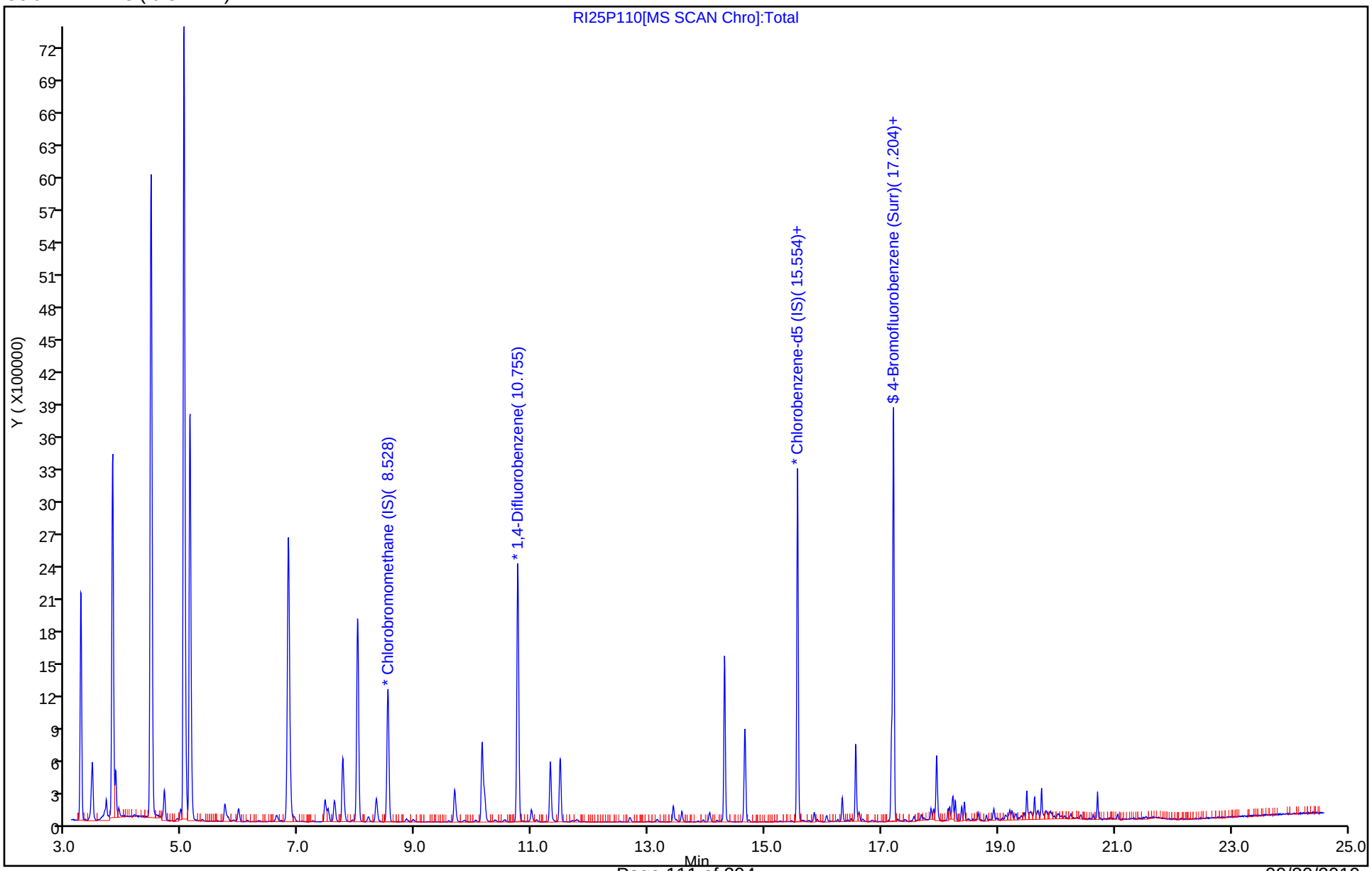
Report Date: 26-Sep-2019 11:27:44 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D

Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4	Worklist Smp#:	18
Client ID:	BLDG C-INFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

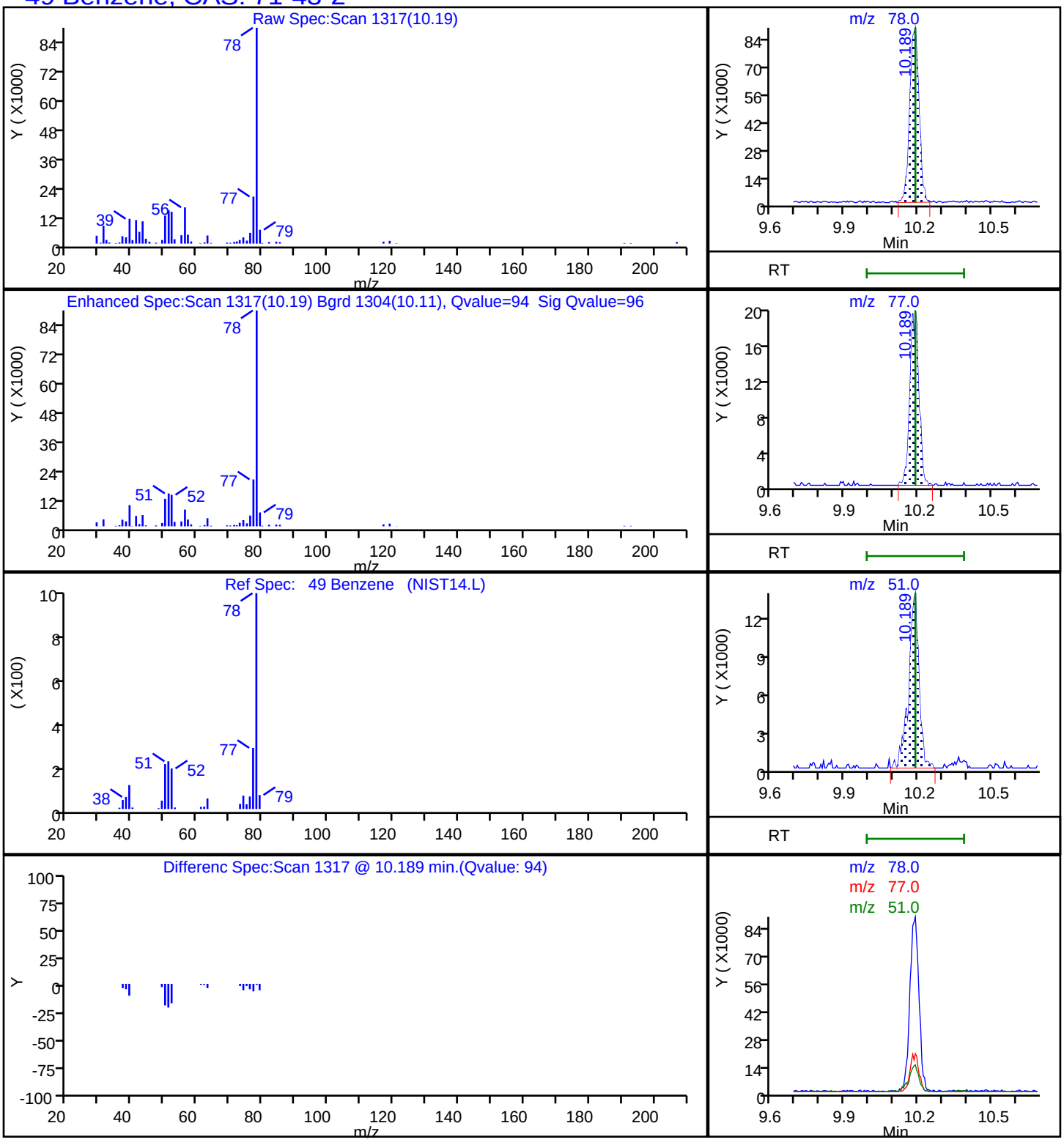
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D				
Lims ID:	140-16735-A-4				
Client ID:	BLDG C-INFLUENT				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 23:07:30	ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-018				
Misc. Info.:	140-16735-a-4				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 11:21:03	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 11:17:03		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.78	94.41

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D
Injection Date: 25-Sep-2019 23:07:30 Instrument ID: MR
Lims ID: 140-16735-A-4 Lab Sample ID: 140-16735-4
Client ID: BLDG C-INFLUENT
Operator ID: ALS Bottle#: 10 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

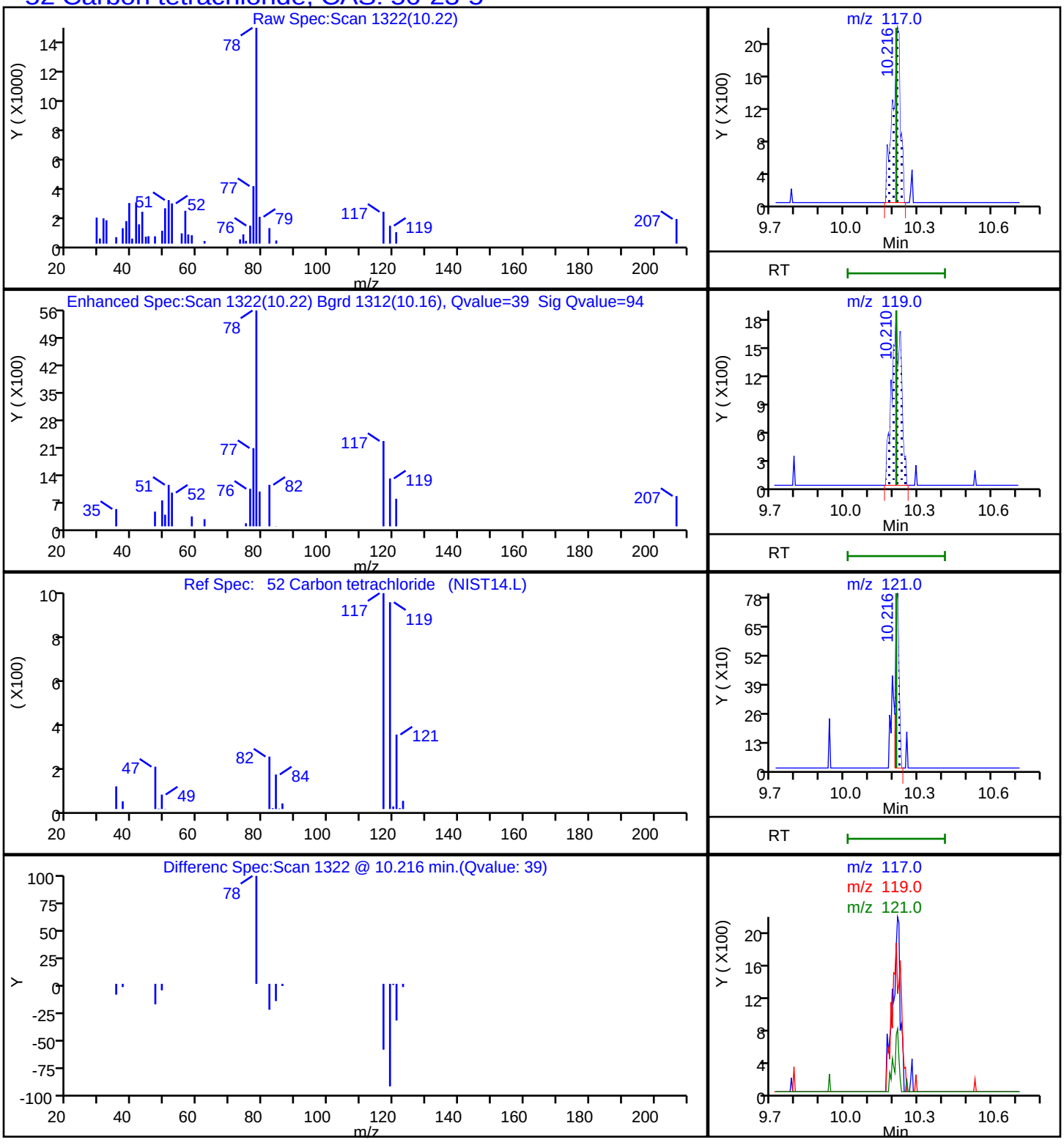
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

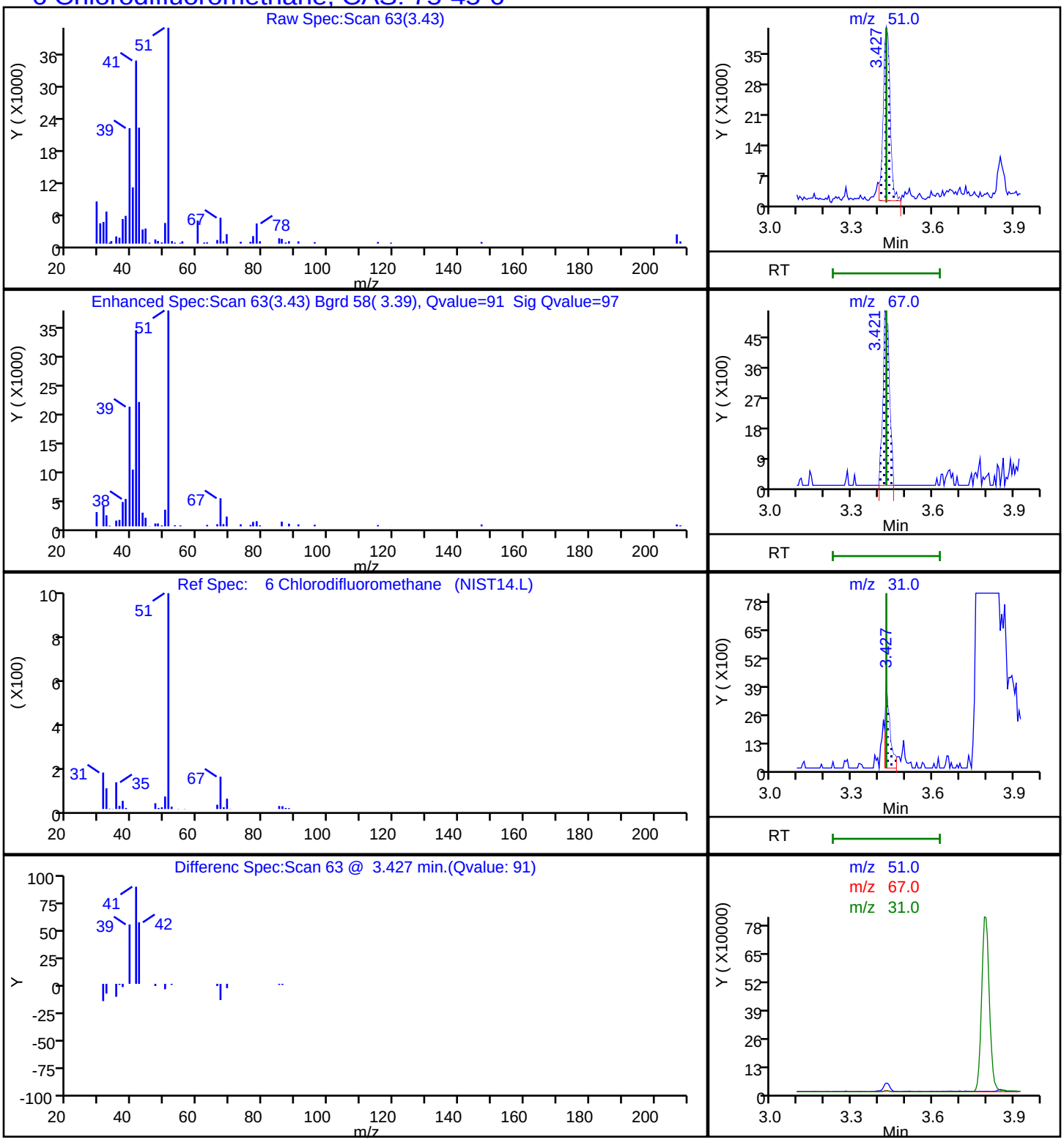
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

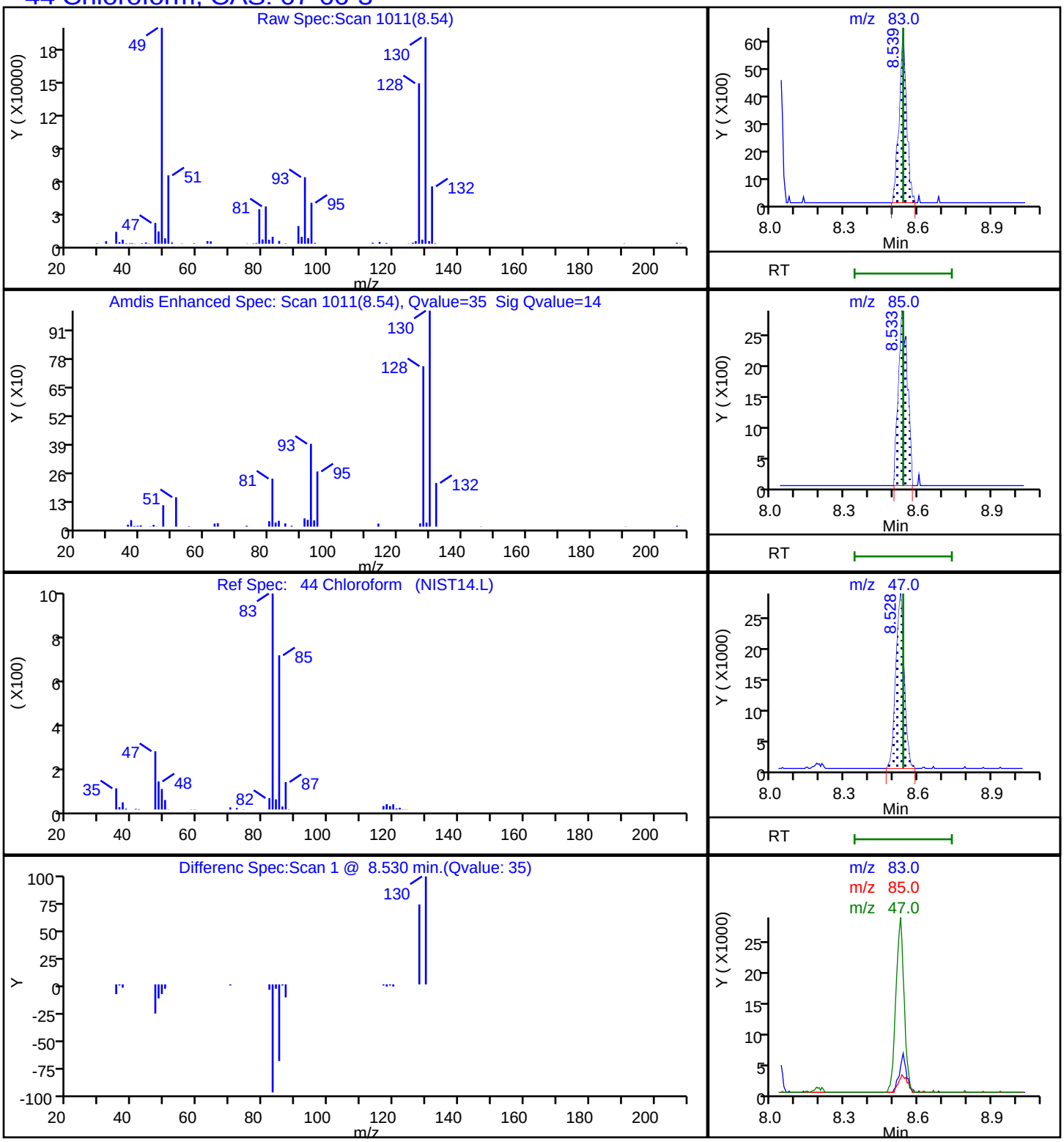
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

44 Chloroform, CAS: 67-66-3

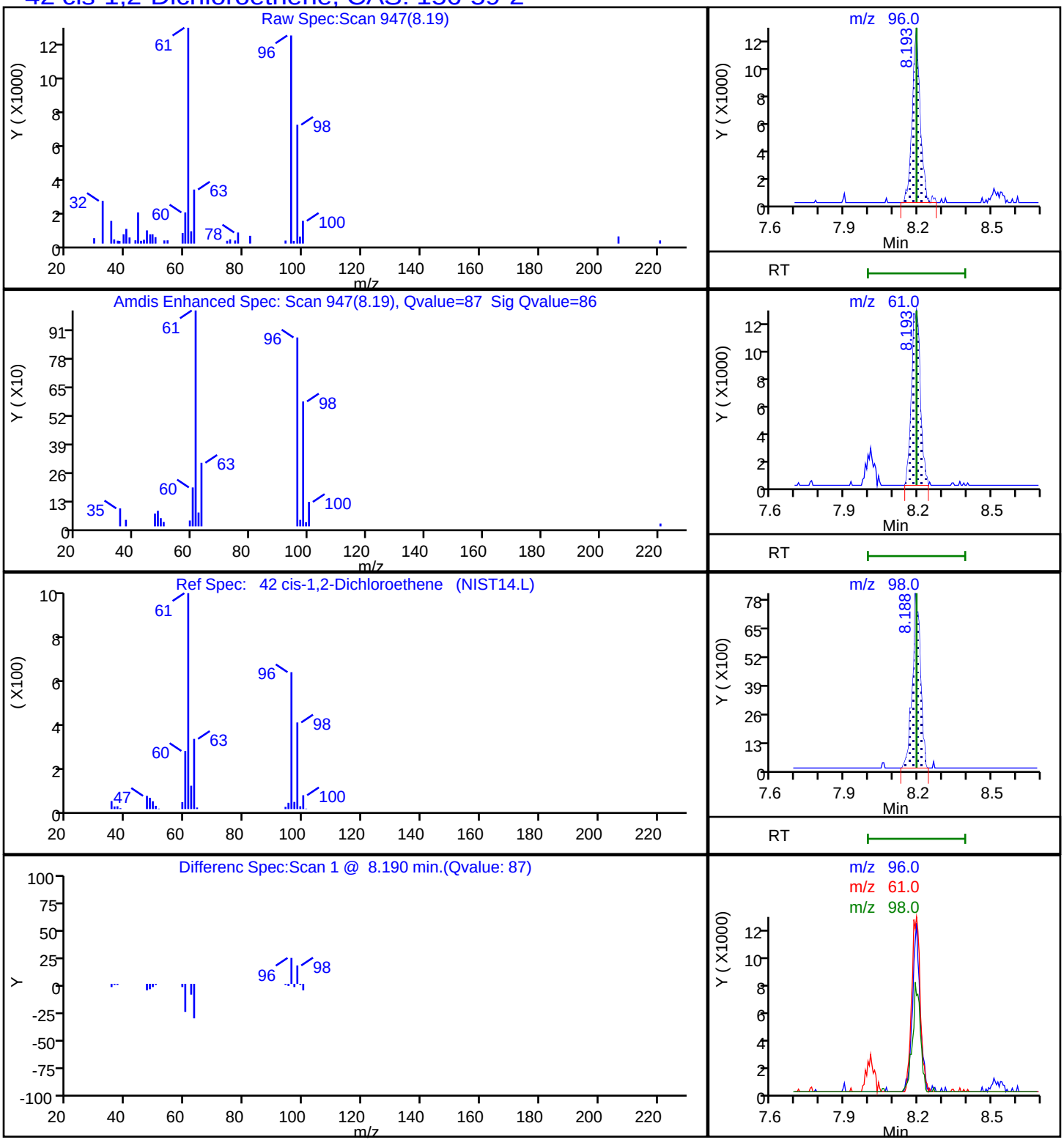


Report Date: 26-Sep-2019 11:27:45 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D				
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR		
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4		
Client ID:	BLDG C-INFLUENT				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

42 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 26-Sep-2019 11:27:44 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D

Injection Date: 25-Sep-2019 23:07:30 Instrument ID: MR

Lims ID: 140-16735-A-4 Lab Sample ID: 140-16735-4

Client ID: BLDG C-INFLUENT

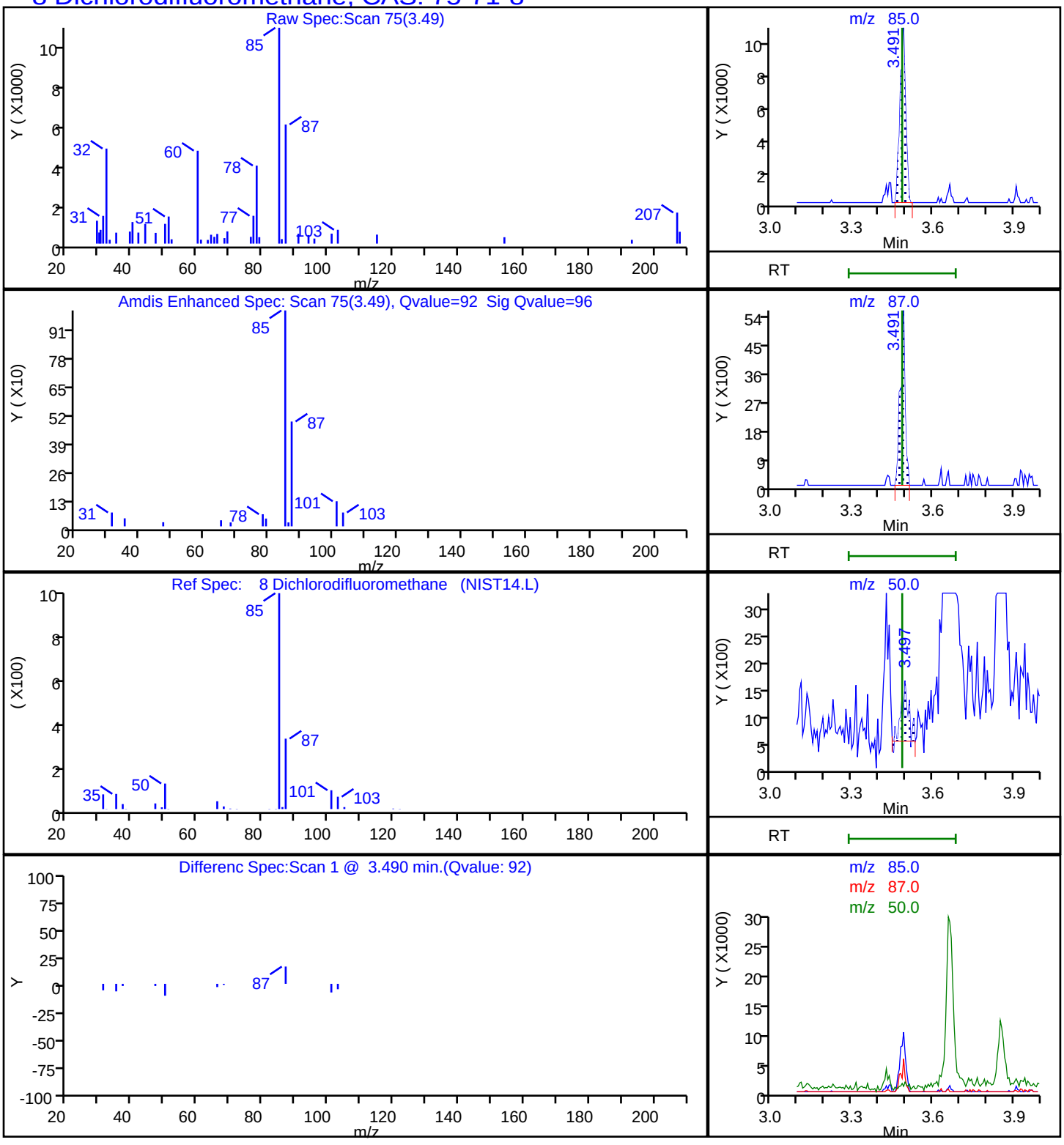
Operator ID: ALS Bottle#: 10 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D

Injection Date: 25-Sep-2019 23:07:30 Instrument ID: MR

Lims ID: 140-16735-A-4 Lab Sample ID: 140-16735-4

Client ID: BLDG C-INFLUENT

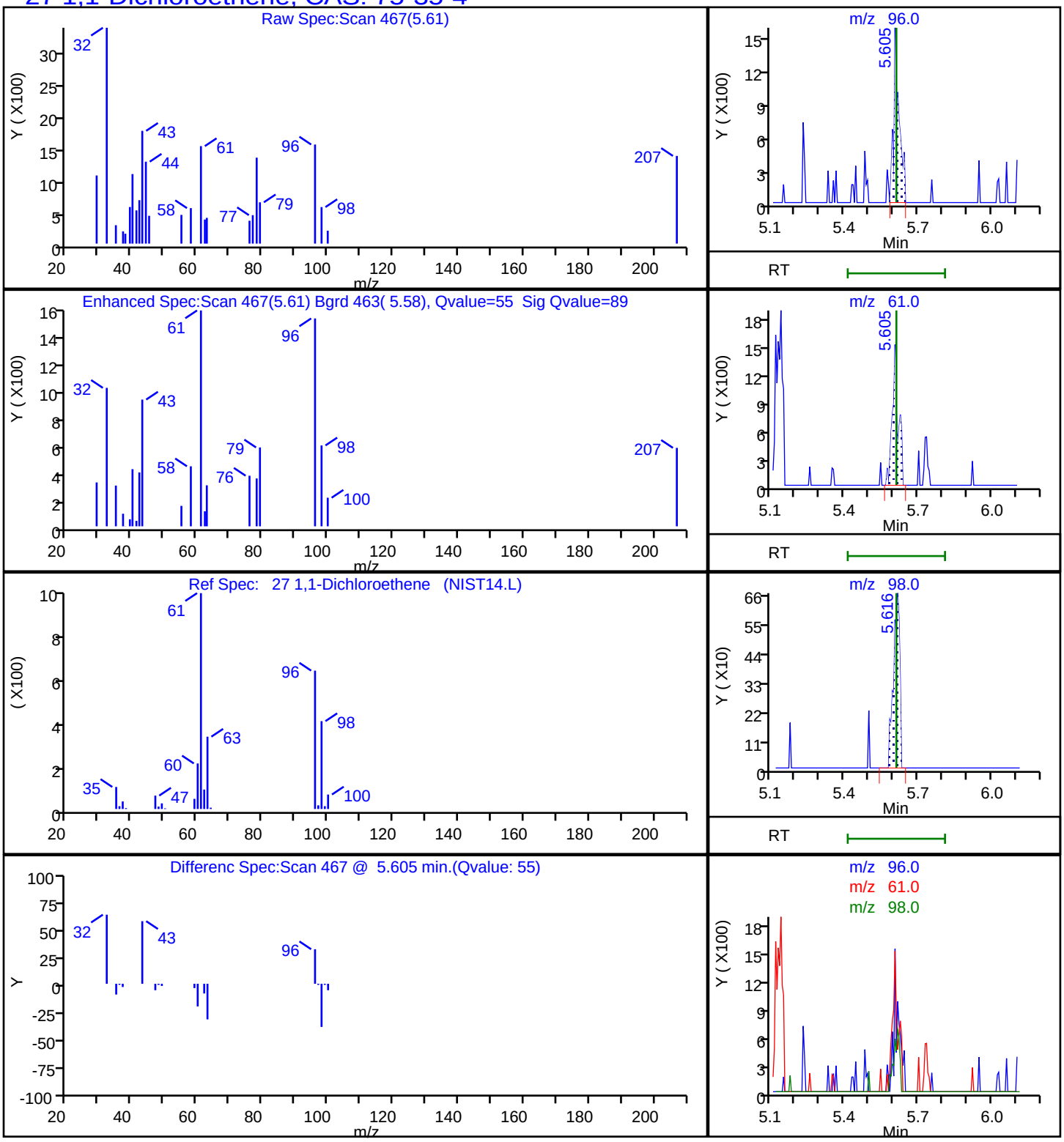
Operator ID: ALS Bottle#: 10 Worklist Smp#: 18

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

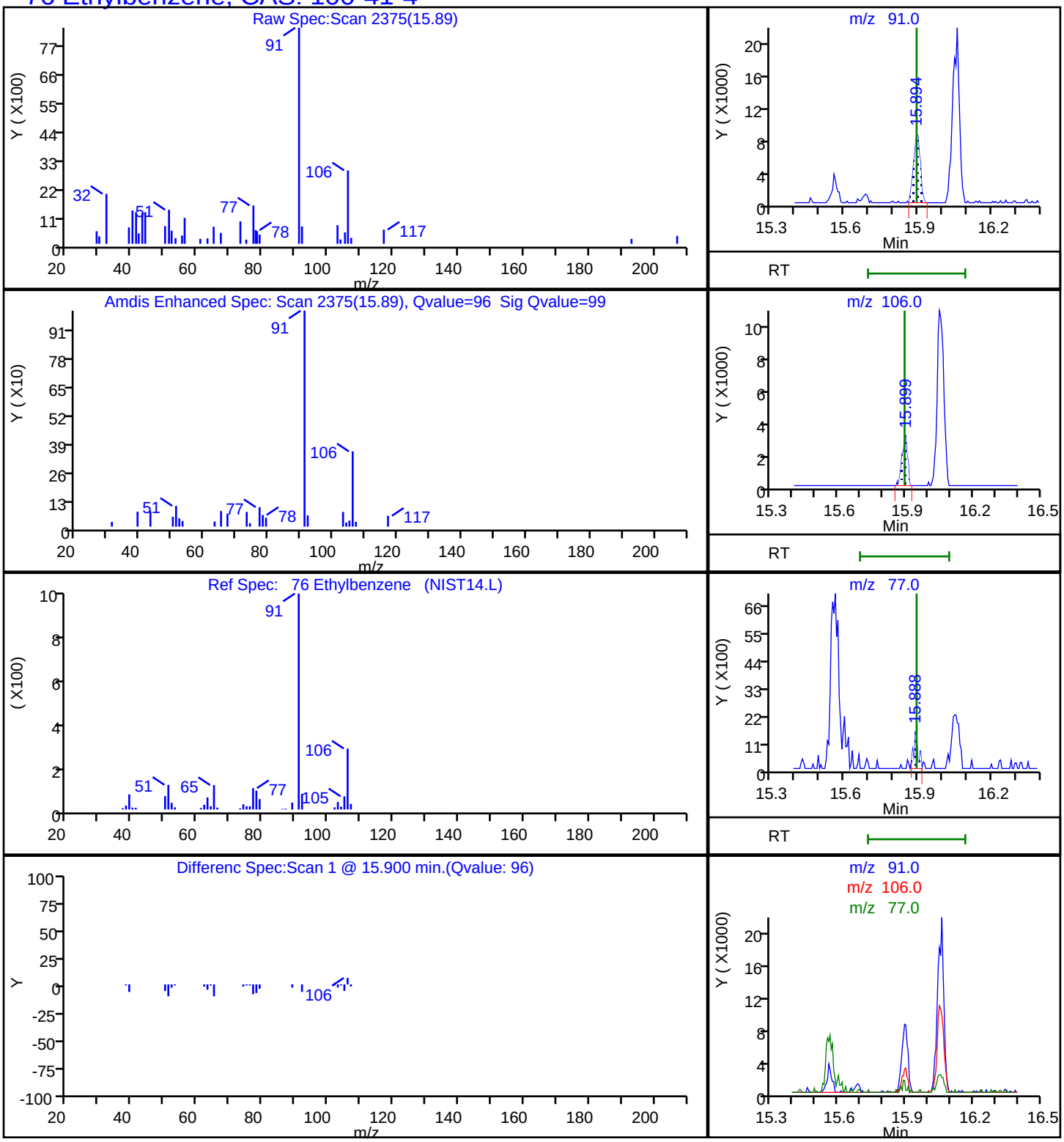
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

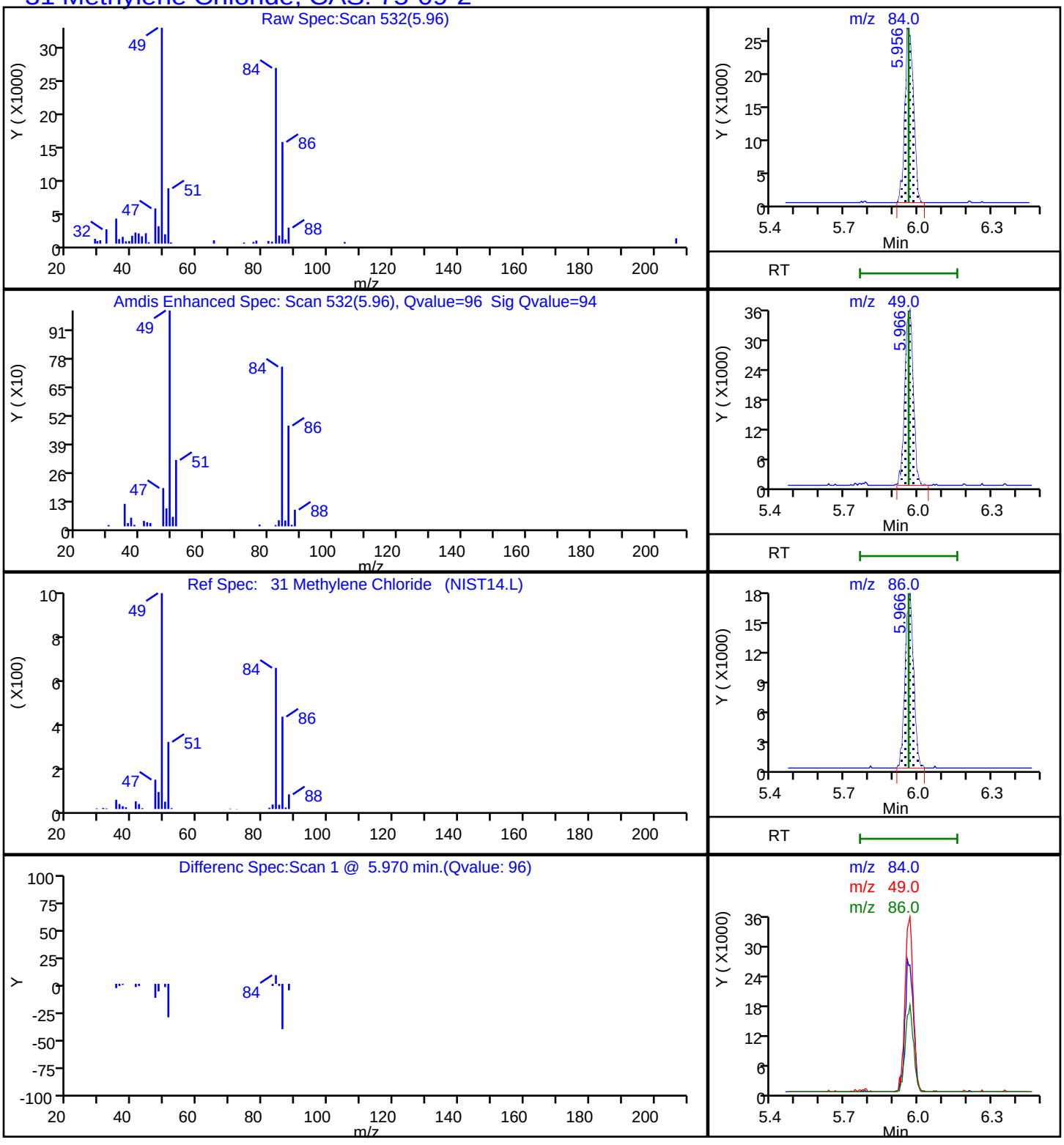
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

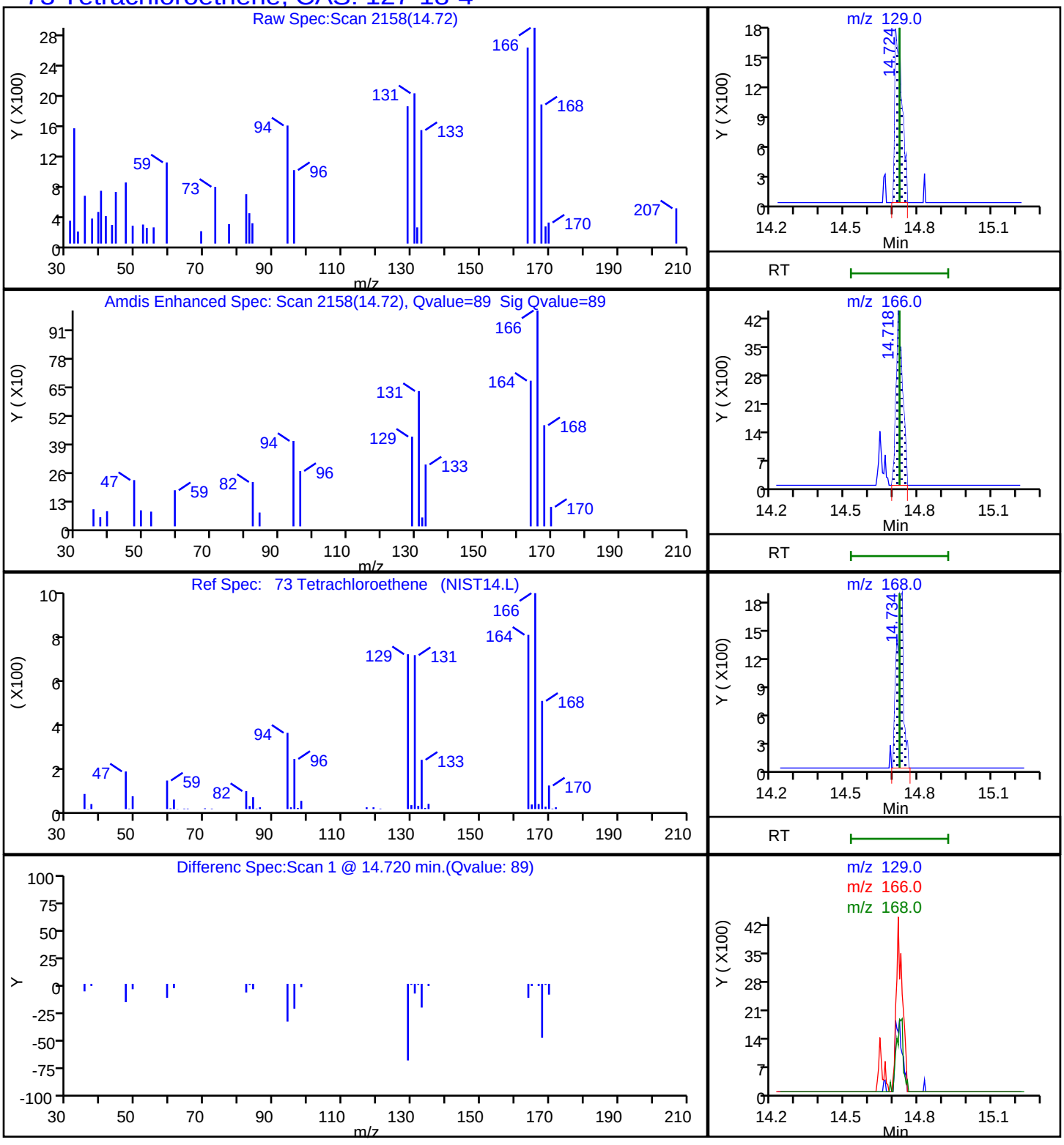
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

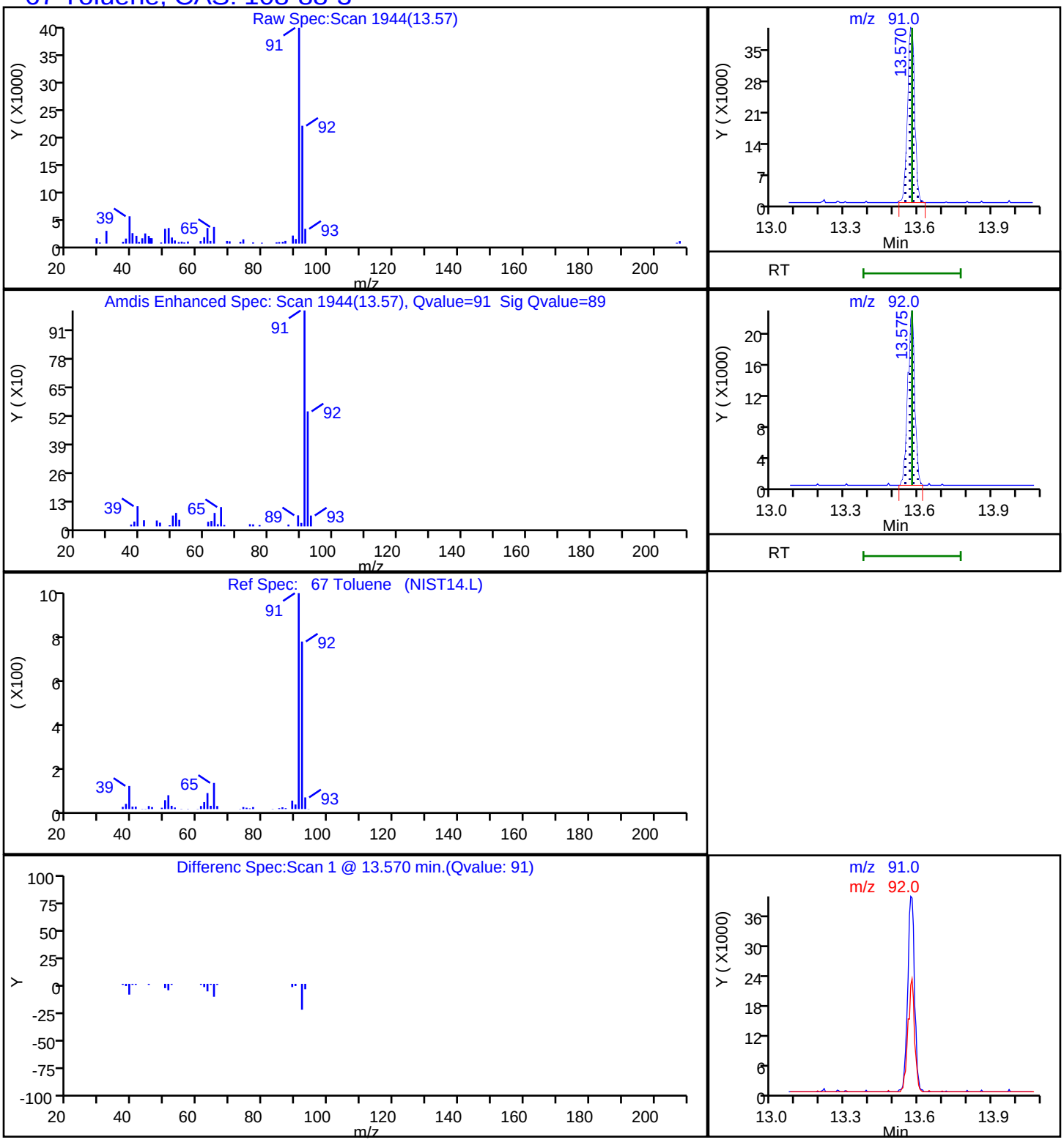
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

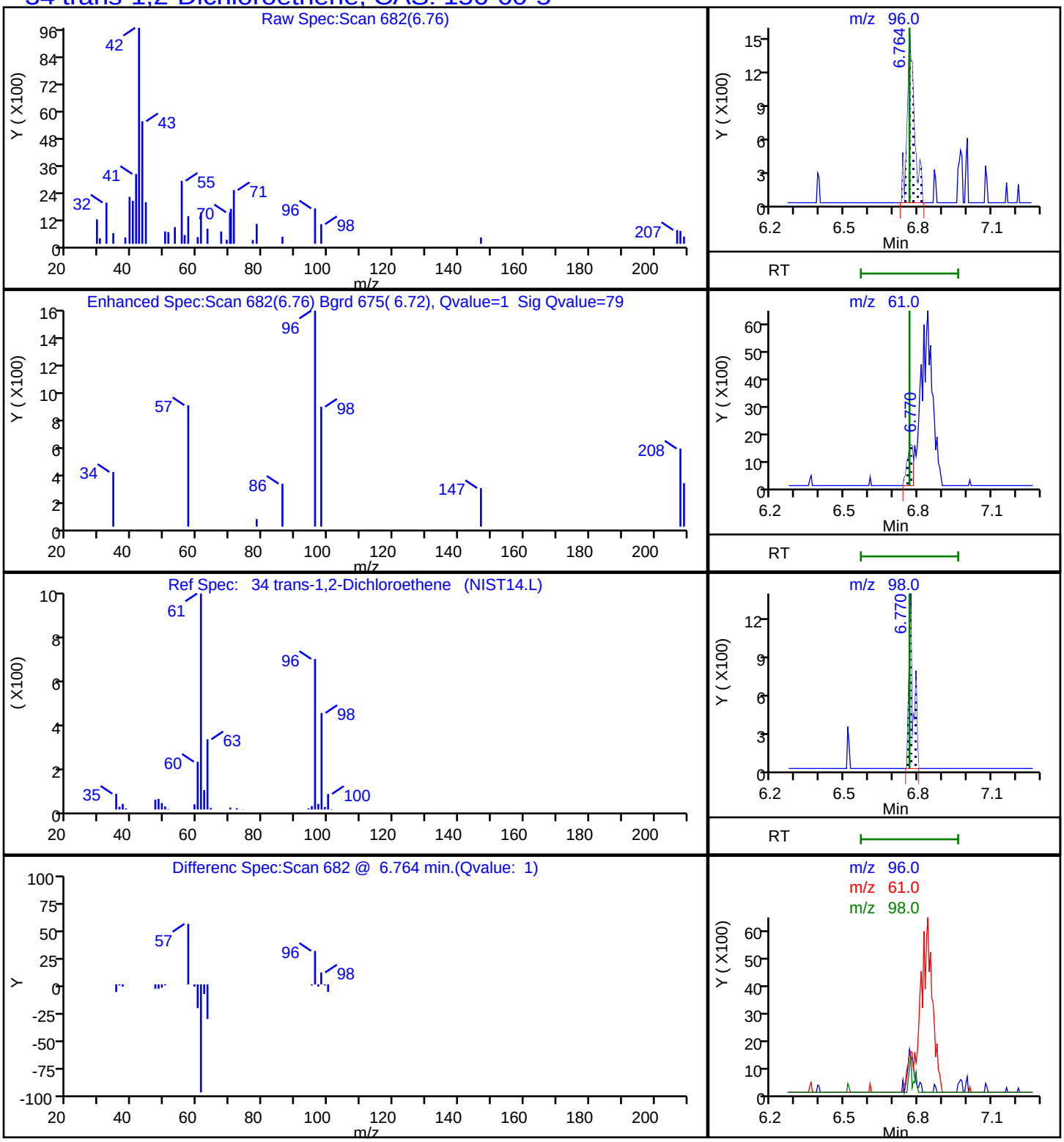
67 Toluene, CAS: 108-88-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D				
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR		
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4		
Client ID:	BLDG C-INFLUENT				
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

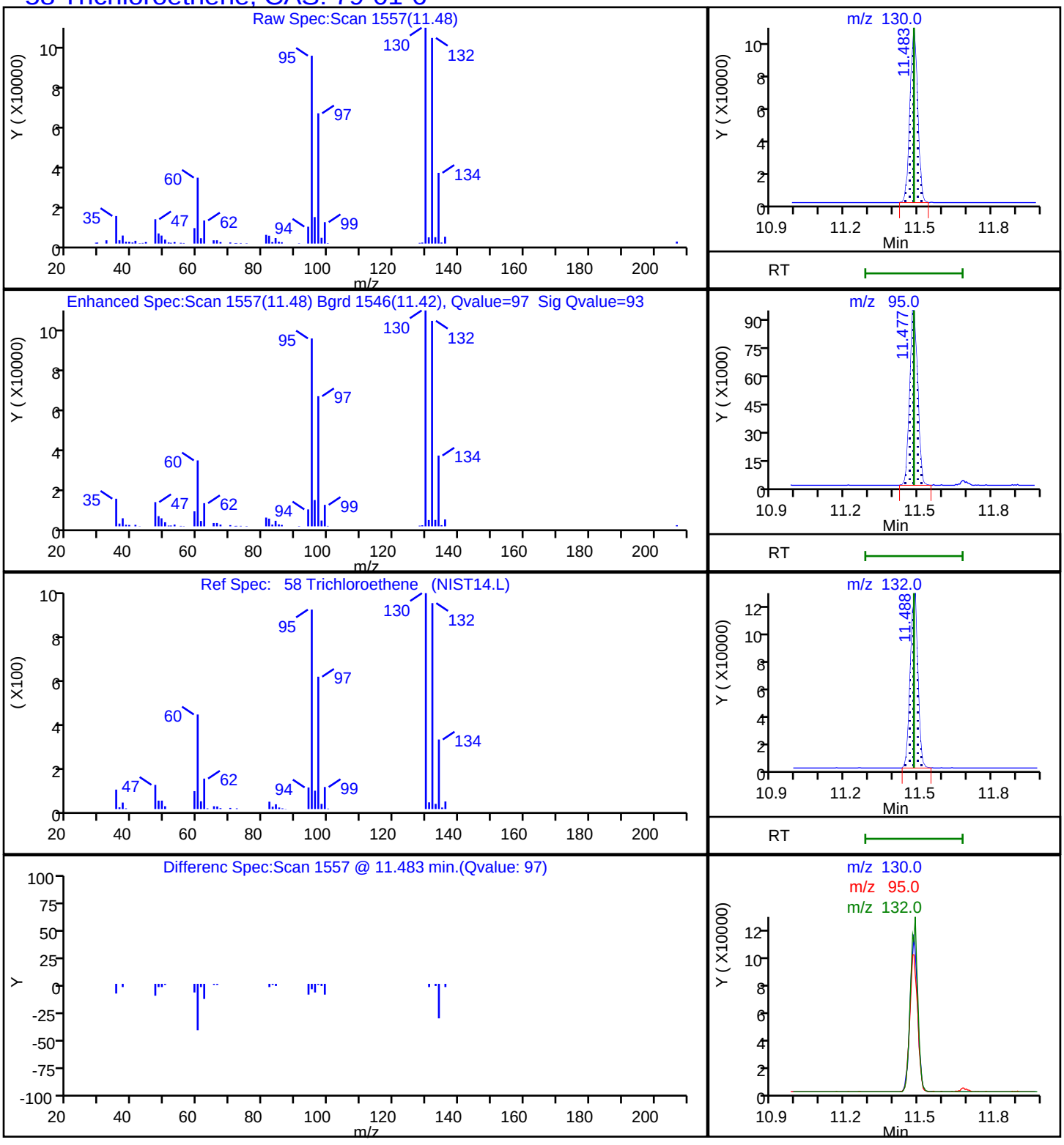
34 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

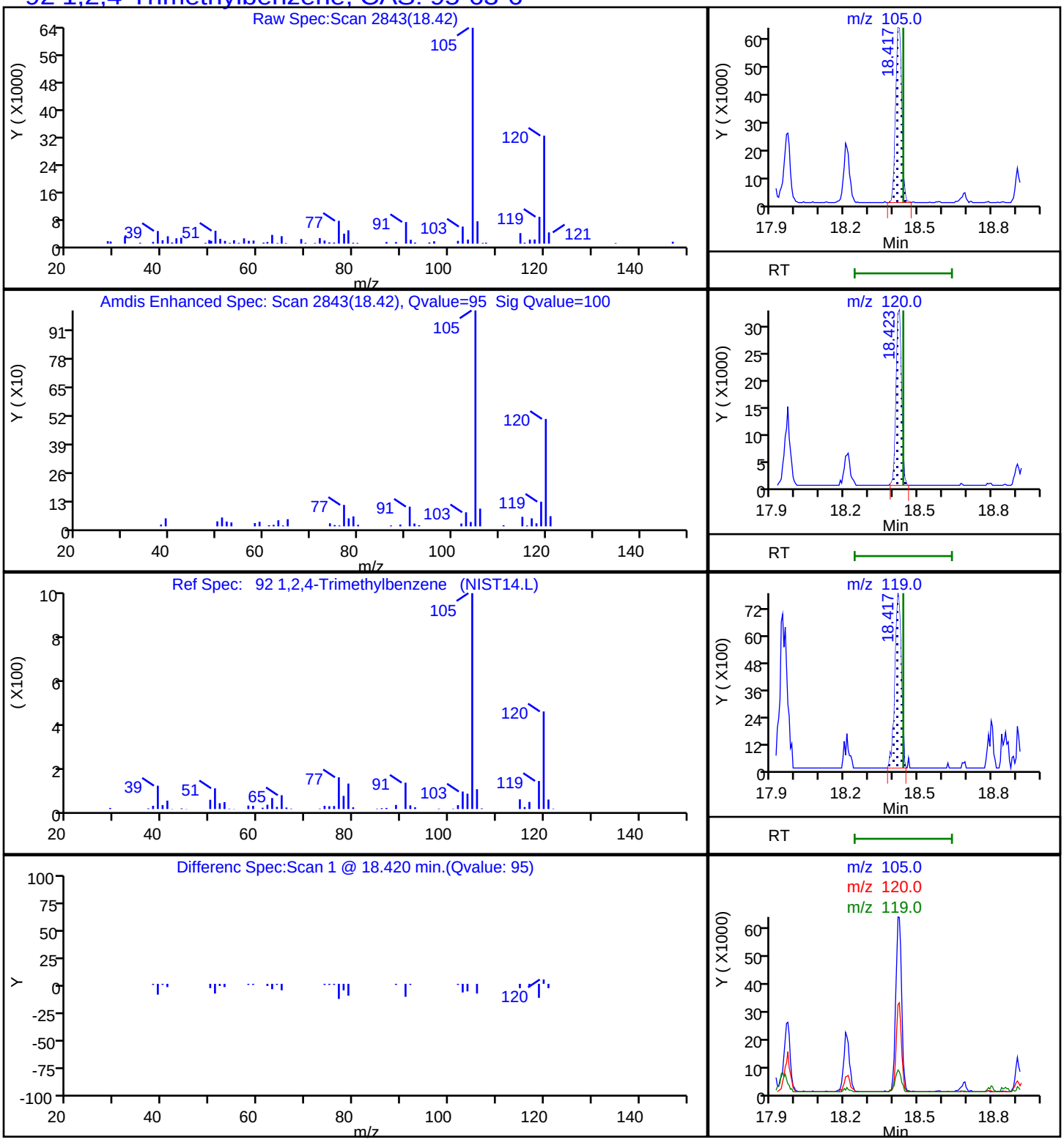
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

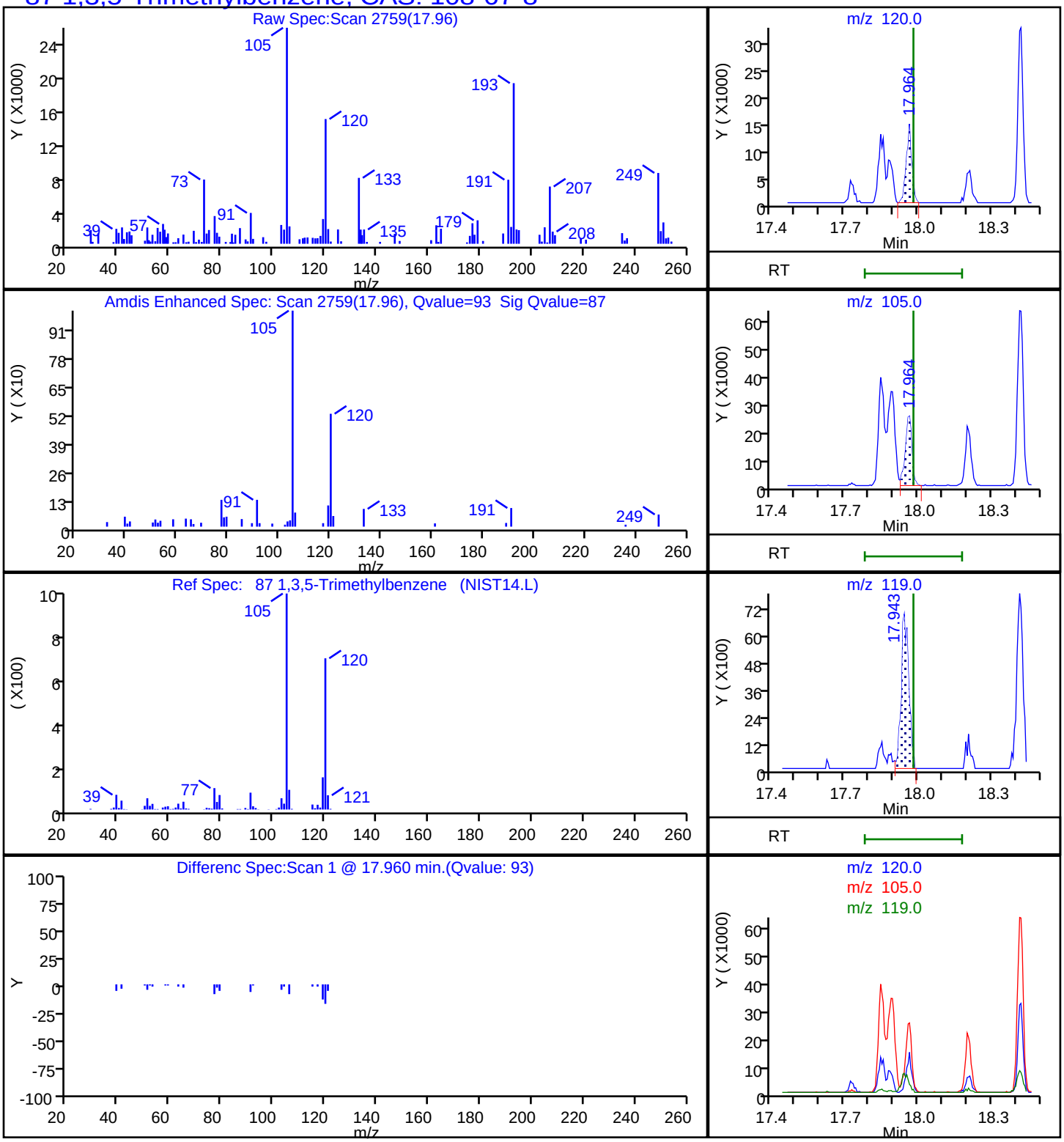
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

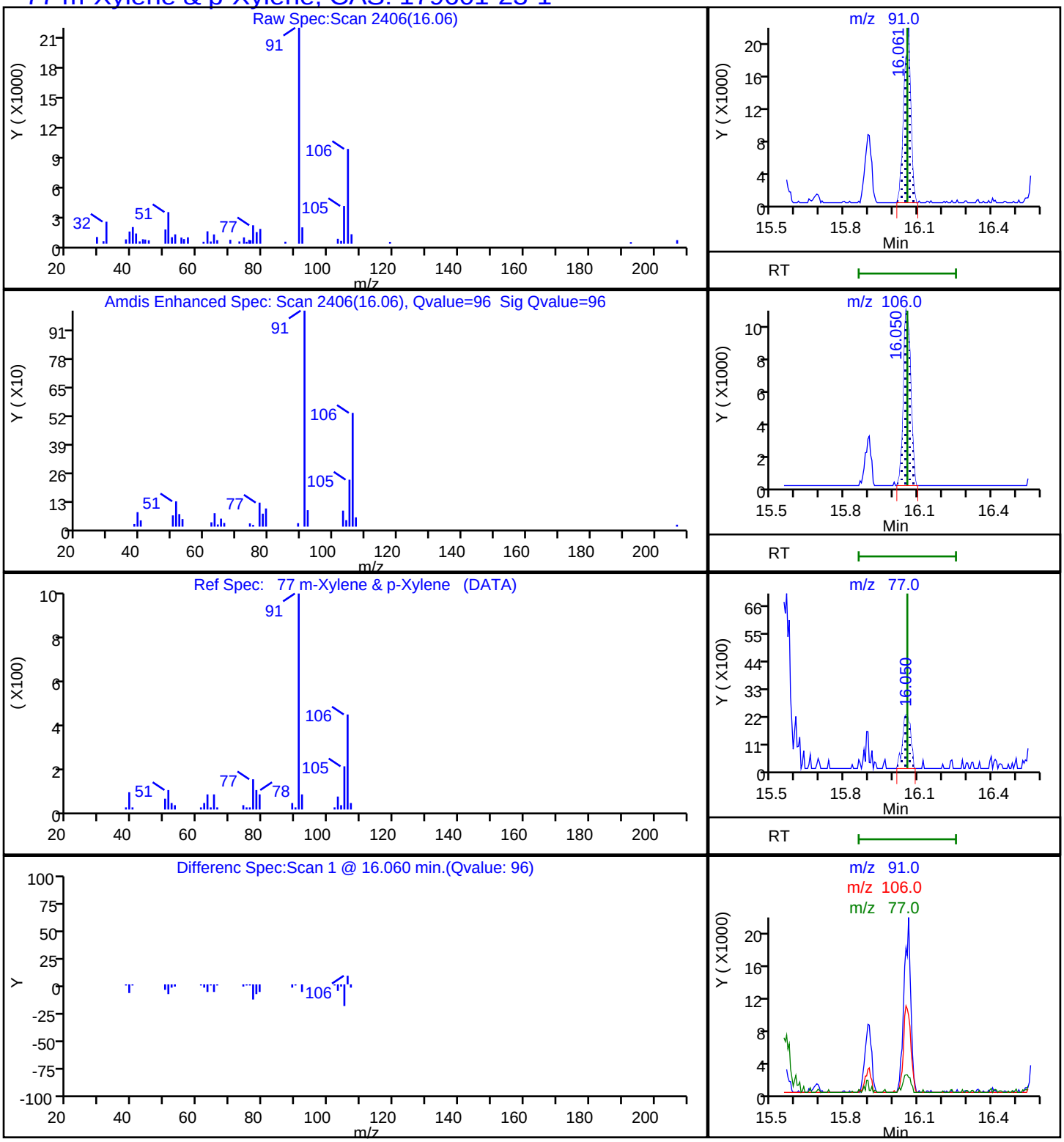
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1

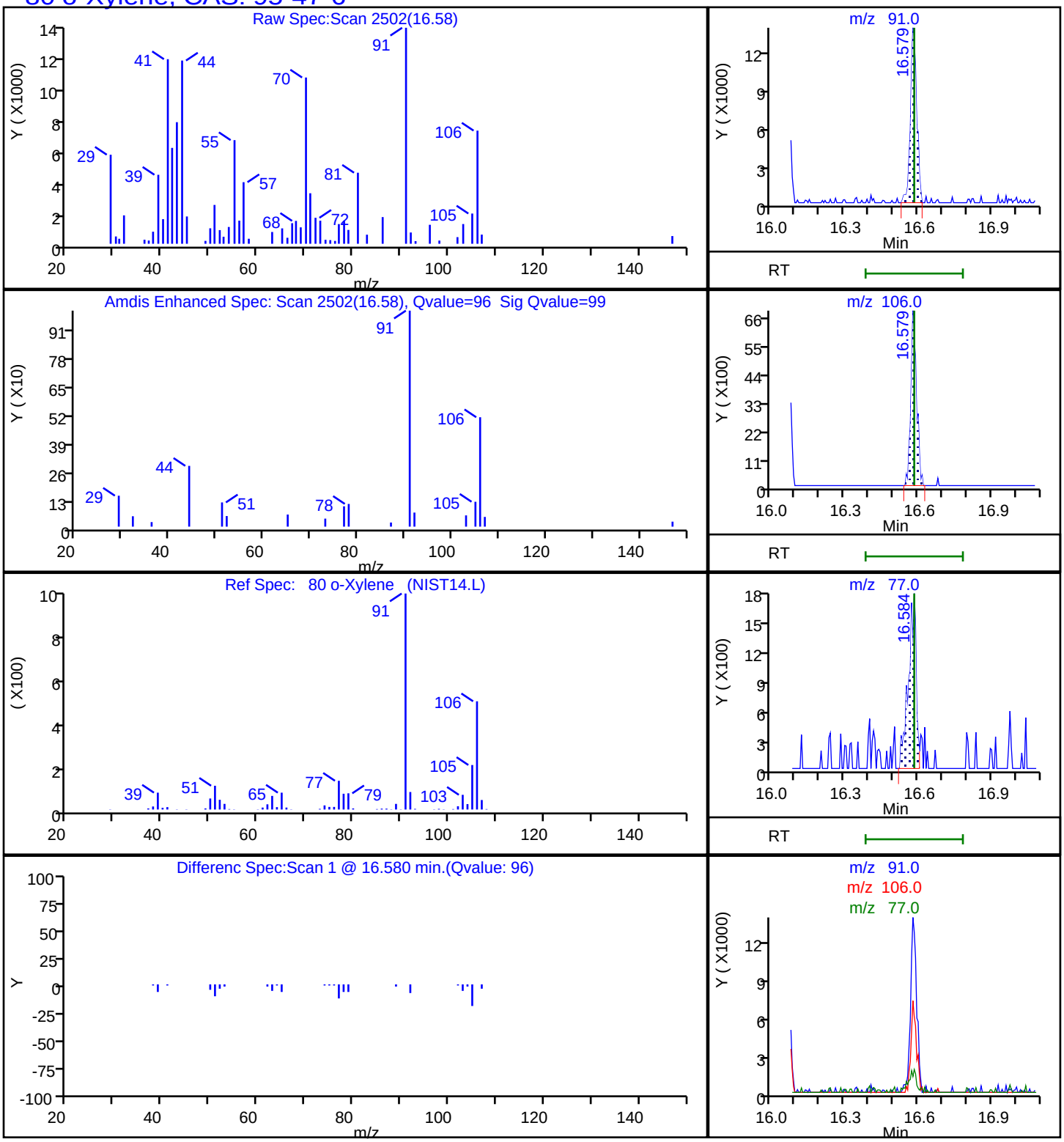


Report Date: 26-Sep-2019 11:27:45 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P110.D		
Injection Date:	25-Sep-2019 23:07:30	Instrument ID:	MR
Lims ID:	140-16735-A-4	Lab Sample ID:	140-16735-4
Client ID:	BLDG C-INFLUENT		
Operator ID:		ALS Bottle#:	10 Worklist Smp#: 18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

80 o-Xylene, CAS: 95-47-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-MID GAC Lab Sample ID: 140-16735-5

Matrix: Air Lab File ID: RI25P111.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:25

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 23:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	4.5		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	0.042	J	0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.4		0.40	0.11
67-66-3	Chloroform	119.38	0.11	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	1.2		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.31	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.054	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.077	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.8	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	0.35	J	0.40	0.035
108-88-3	Toluene	92.14	ND		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	0.12	J	0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.61		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	2.7		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.22	J	0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.58	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-MID GAC Lab Sample ID: 140-16735-5

Matrix: Air Lab File ID: RI25P111.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:25

Sample wt/vol: 100(mL) Date Analyzed: 09/25/2019 23:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	14		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	0.27	J	2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	4.8		1.4	0.39
67-66-3	Chloroform	119.38	0.56	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	4.6		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.6	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.21	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.33	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	6.2	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	2.4	J	2.7	0.24
108-88-3	Toluene	92.14	ND		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	0.46	J	1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.3		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	15		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	1.1	J	2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	2.5	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D
Lims ID: 140-16735-A-5
Client ID: BLDG C-MID GAC
Sample Type: Client
Inject. Date: 25-Sep-2019 23:55:30 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-019
Misc. Info.: 140-16735-a-5
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 12:27:35 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 12:27:35

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	128	8.522	8.528	-0.006	87	468094	4.00	
*	2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2634977	4.00	
*	3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2113366	4.00	
$	4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1174020	3.76	
	6 Chlorodifluoromethane	51	3.427	3.427	0.000	96	85160	0.2742	
	8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	16556	0.0627	
	27 1,1-Dichloroethene	96	5.594	5.611	-0.017	1	1641	0.0108	
	31 Methylene Chloride	84	5.966	5.961	0.005	93	64451	0.3569	
	34 trans-1,2-Dichloroethene	96	6.770	6.764	0.005	1	3779	0.0231	
	42 cis-1,2-Dichloroethene	96	8.188	8.193	-0.006	85	39752	0.2337	
	44 Chloroform	83	8.533	8.539	-0.006	27	7799	0.0230	
	47 1,1,1-Trichloroethane	97	9.579	9.574	0.005	93	42025	0.1212	
	49 Benzene	78	10.189	10.189	0.000	94	458399	0.9021	
	52 Carbon tetrachloride	117	10.205	10.210	-0.005	24	2852	0.008487	
	58 Trichloroethene	130	11.488	11.483	0.005	94	118226	0.5406	
	73 Tetrachloroethene	129	14.729	14.724	0.005	95	14434	0.0694	
	76 Ethylbenzene	91	15.888	15.894	-0.006	56	10787	0.0154	
	77 m-Xylene & p-Xylene	91	16.056	16.055	-0.001	94	40833	0.0758	
	80 o-Xylene	91	16.589	16.584	0.005	96	22125	0.0405	
	92 1,2,4-Trimethylbenzene	105	18.423	18.439	-0.016	95	30776	0.0445	
S	116 Xylenes, Total	100				0		0.1163	

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

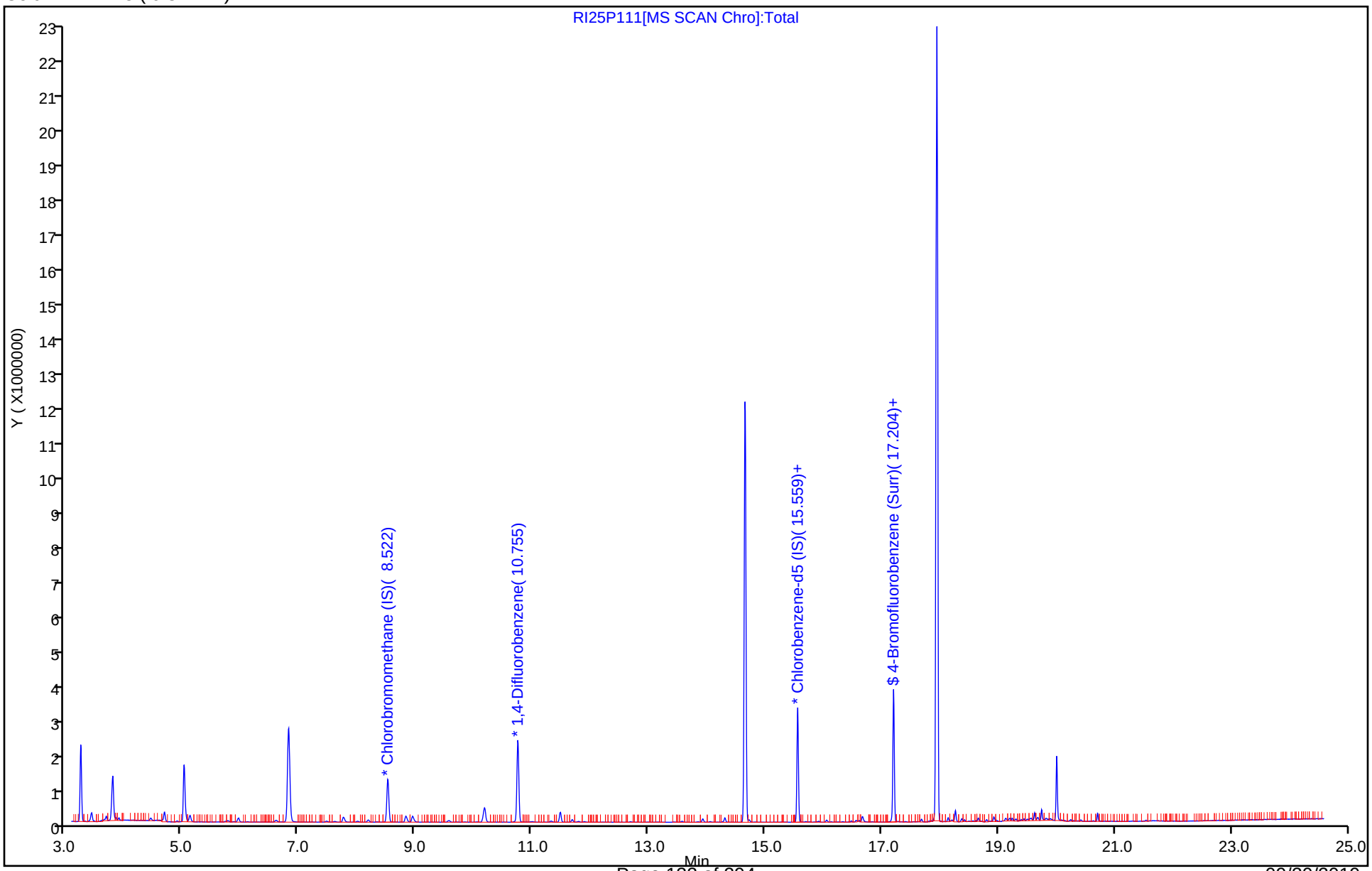
Report Date: 26-Sep-2019 12:27:36 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5	Worklist Smp#:	19
Client ID:	BLDG C-MID GAC				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Lims ID:	140-16735-A-5				
Client ID:	BLDG C-MID GAC				
Sample Type:	Client				
Inject. Date:	25-Sep-2019 23:55:30	ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-019				
Misc. Info.:	140-16735-a-5				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 12:27:35	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				

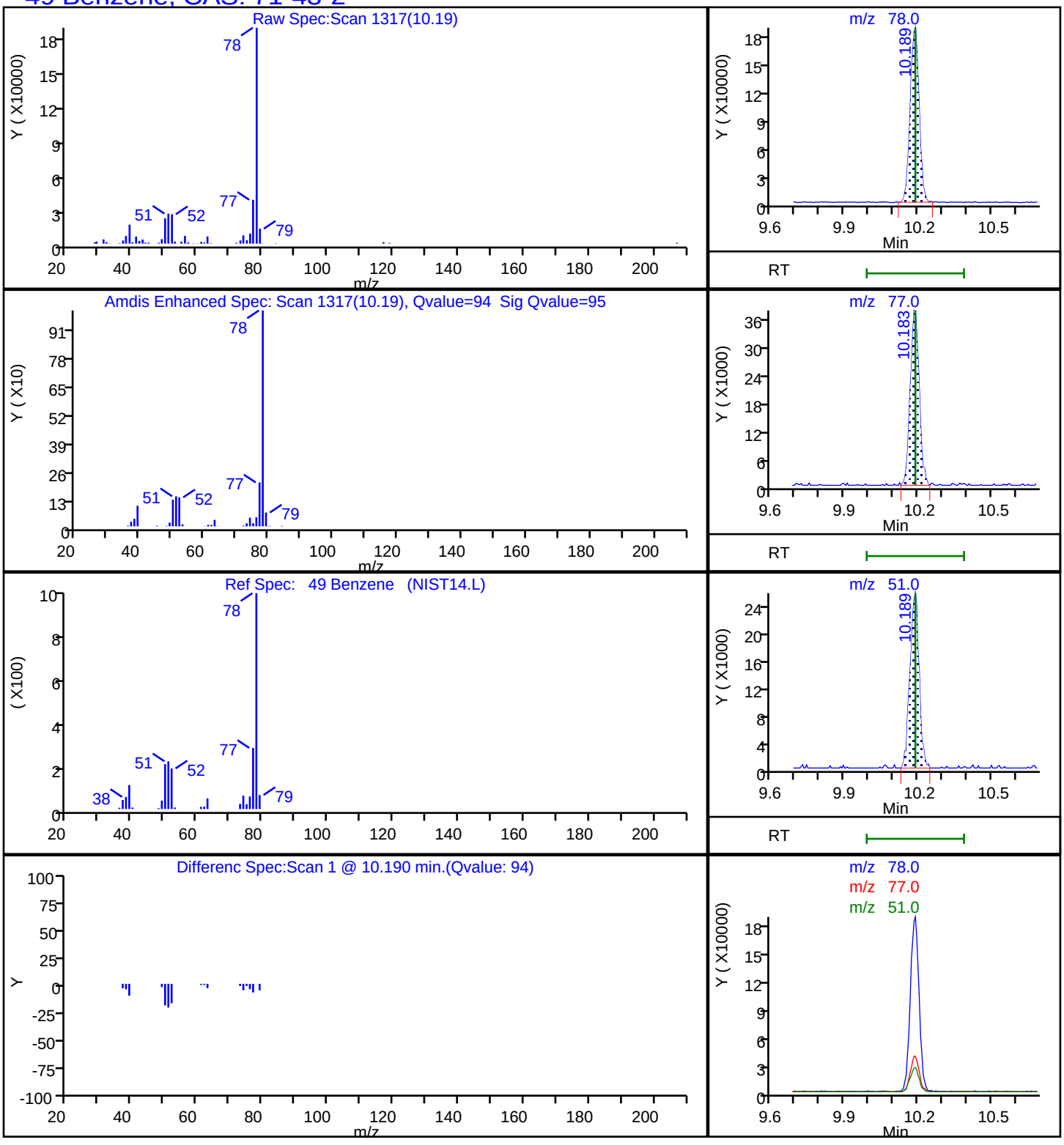
First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 12:27:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.76	93.99

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

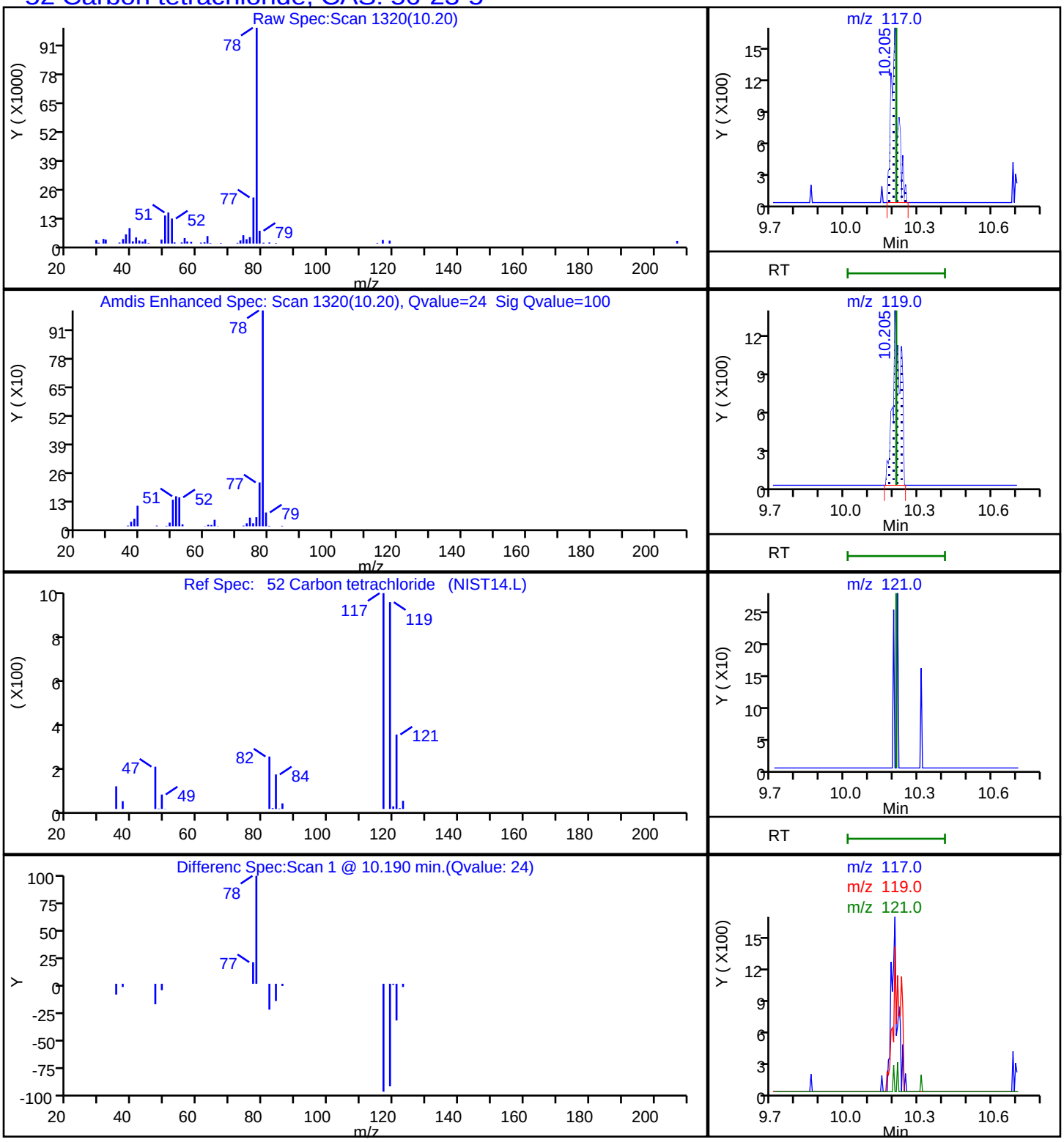
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

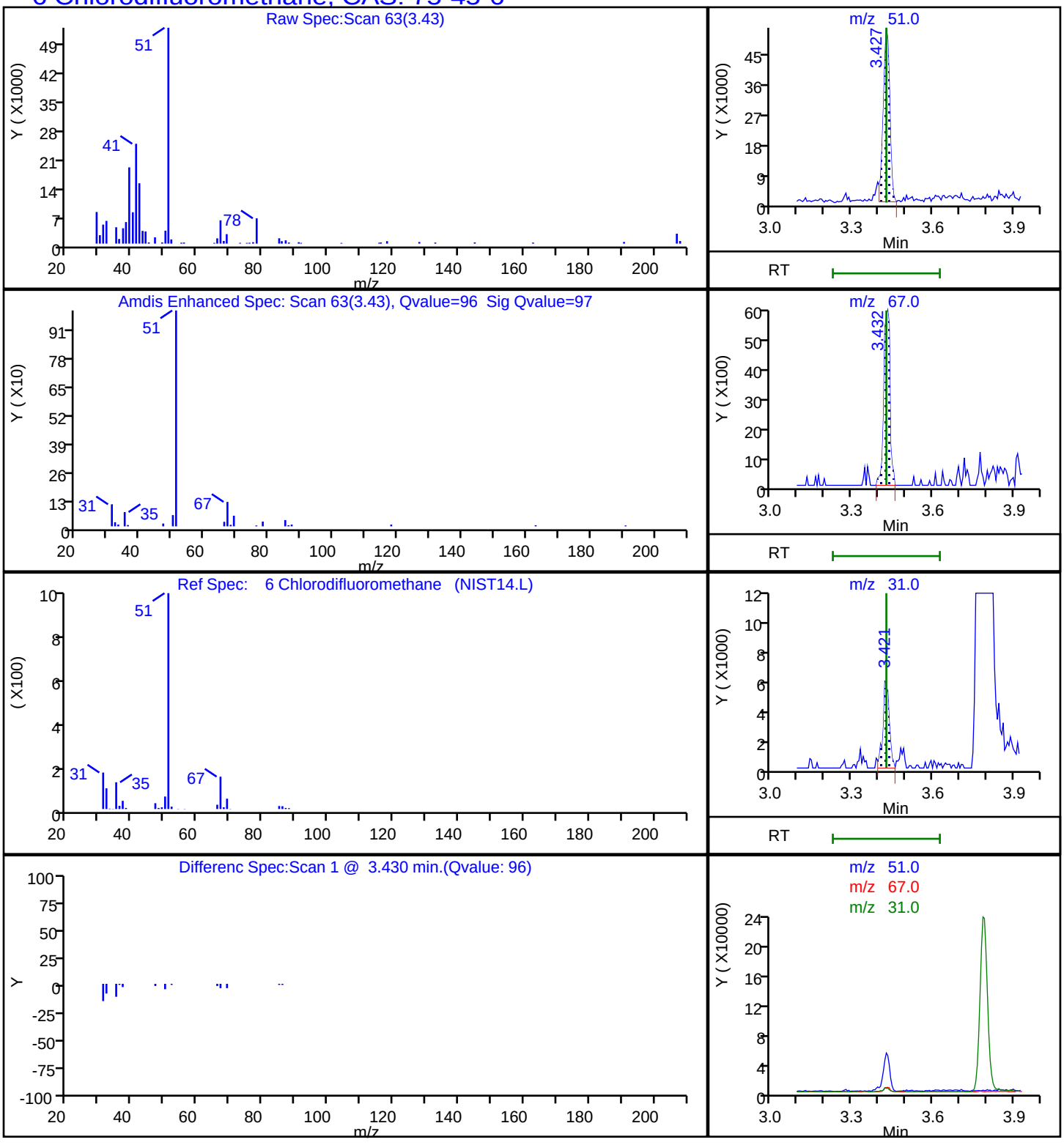
52 Carbon tetrachloride, CAS: 56-23-5



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR		
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5		
Client ID:	BLDG C-MID GAC				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

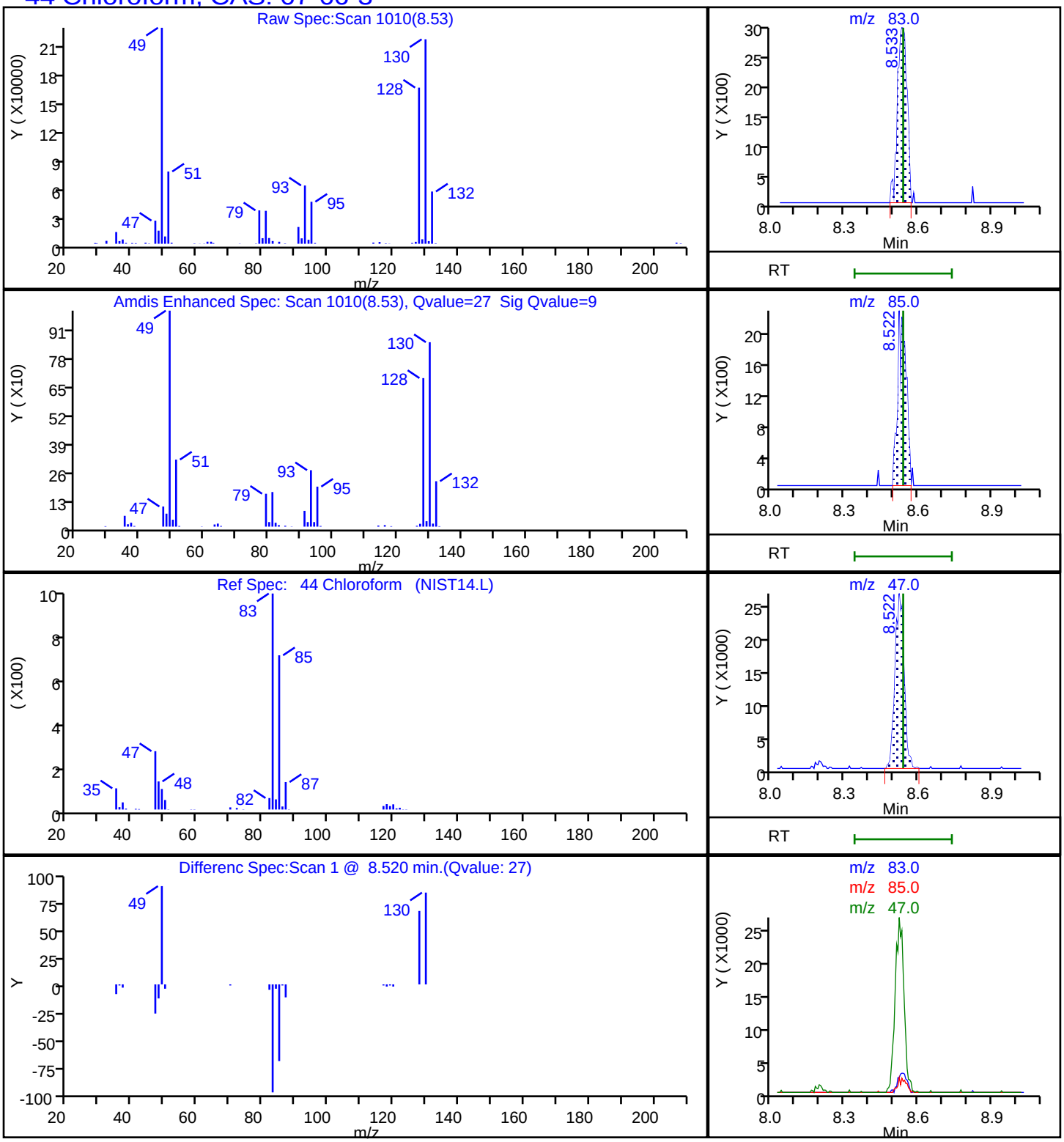
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

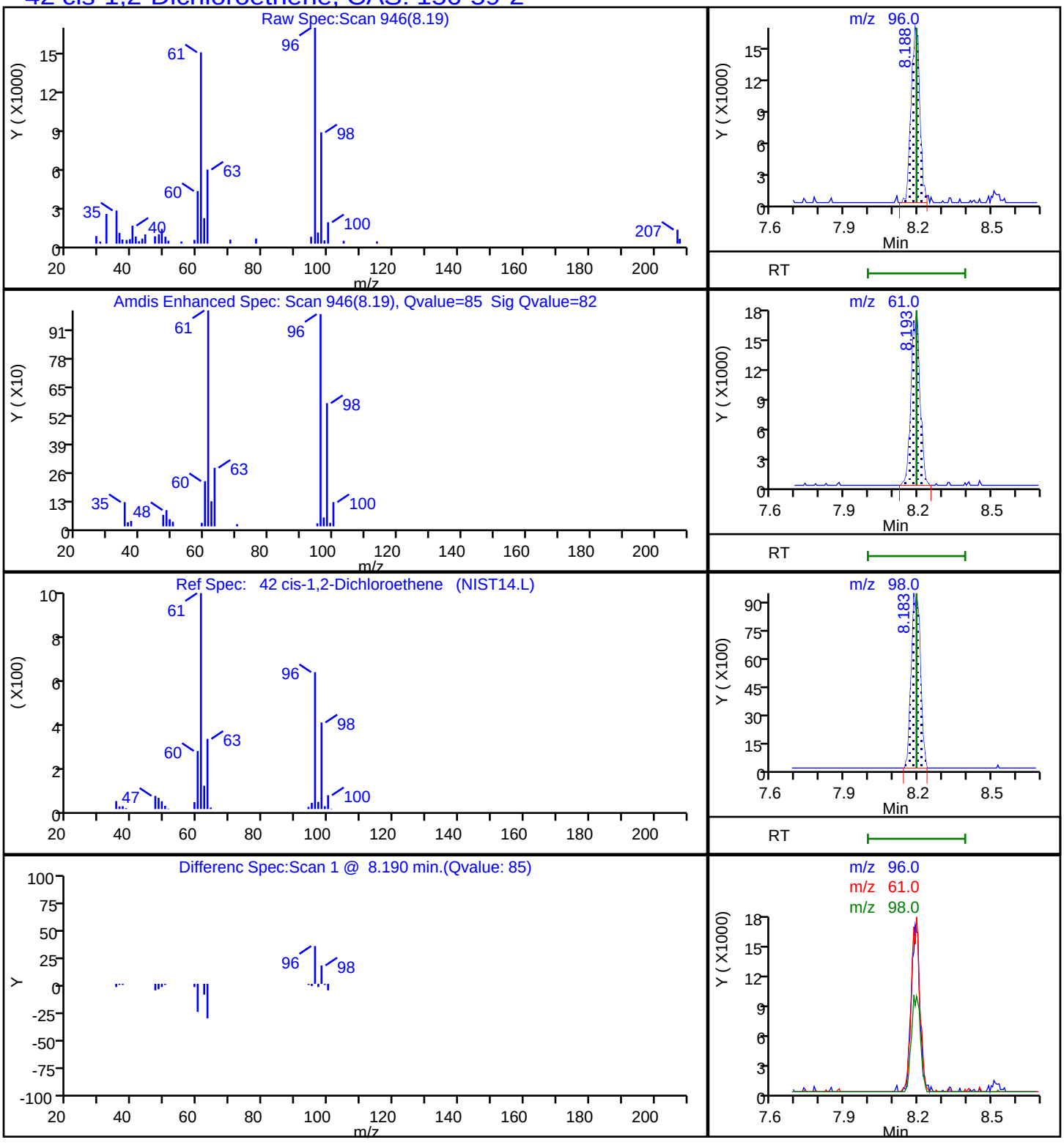
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR		
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5		
Client ID:	BLDG C-MID GAC				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

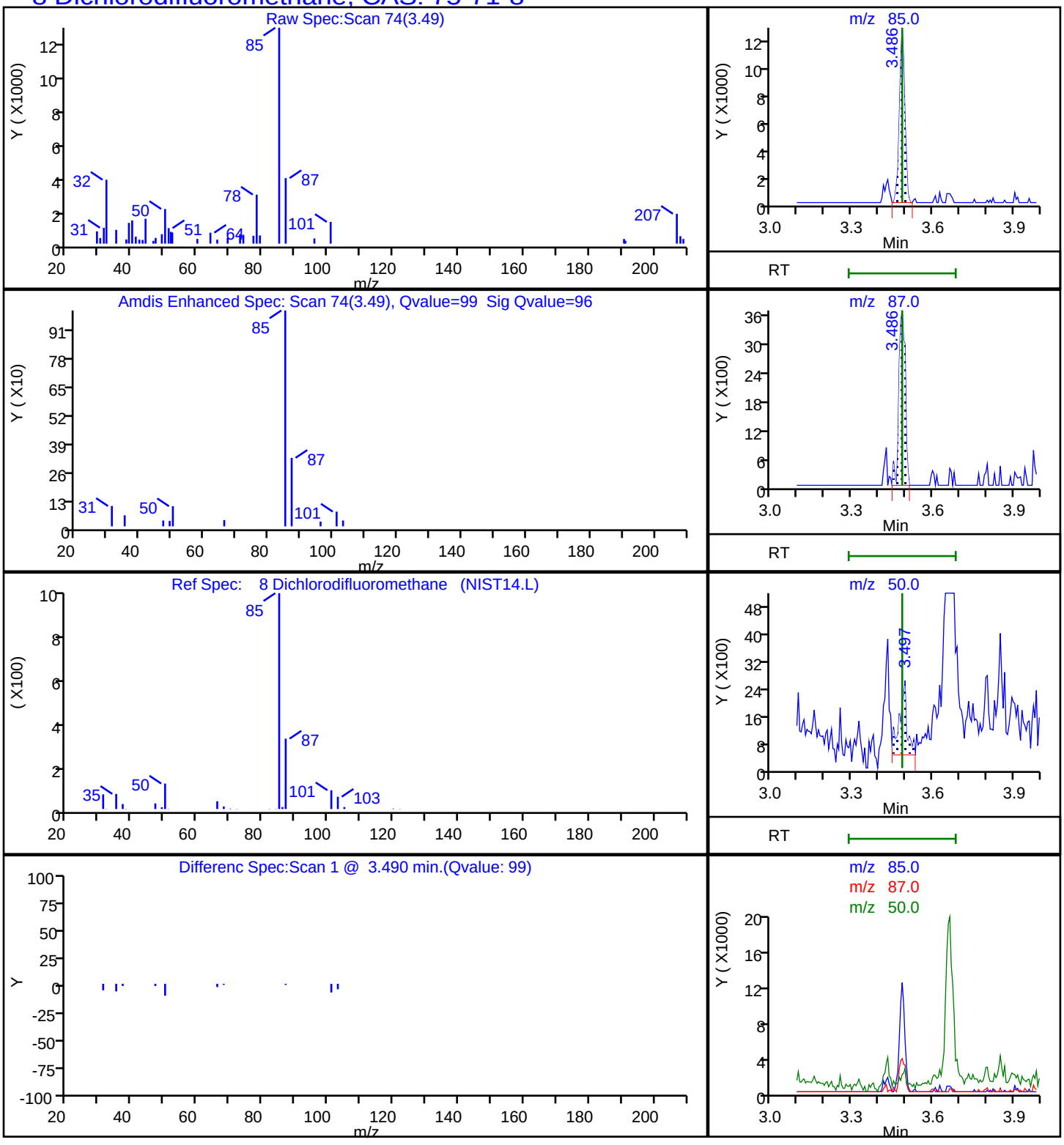
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

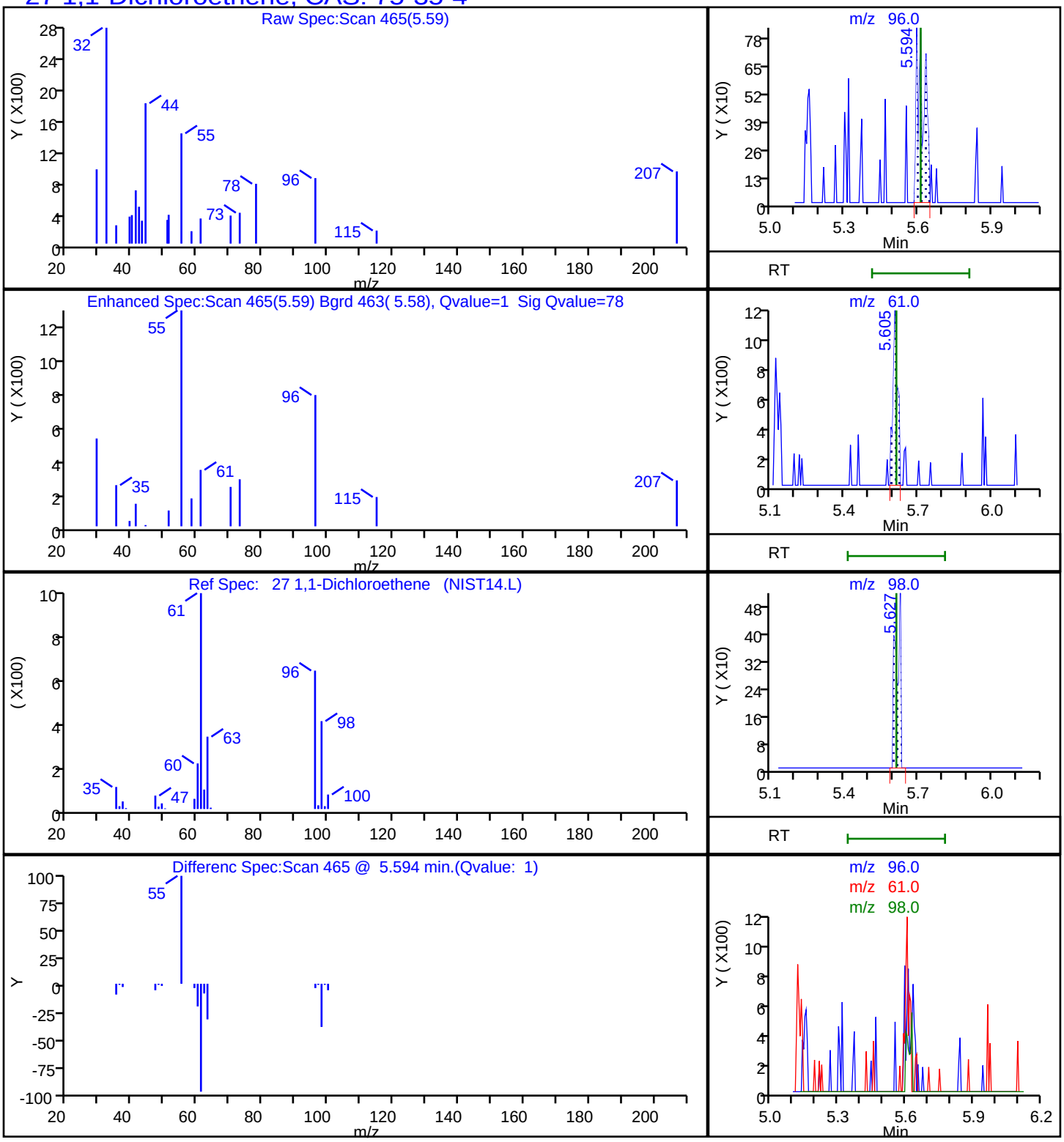


Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

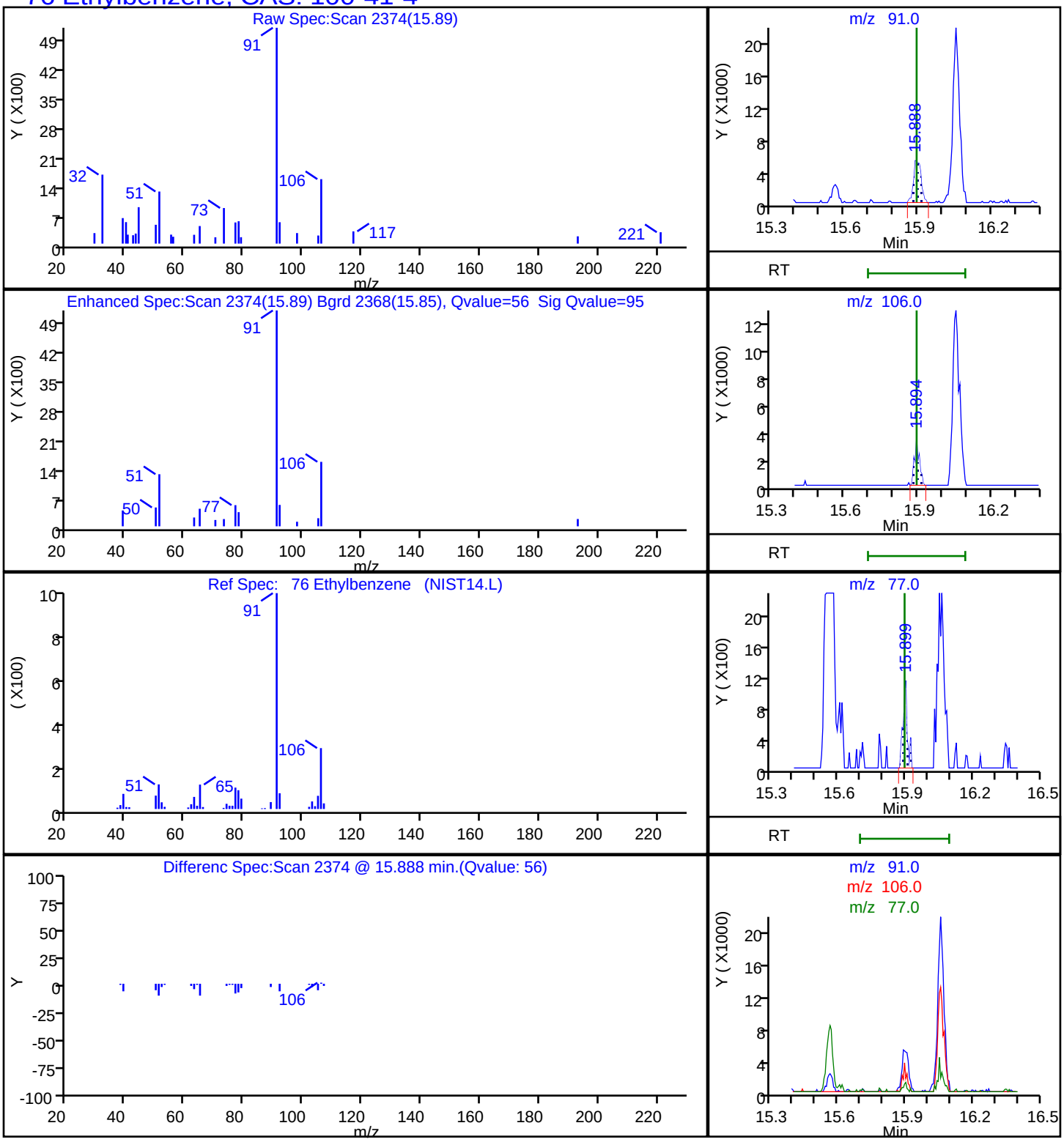
27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

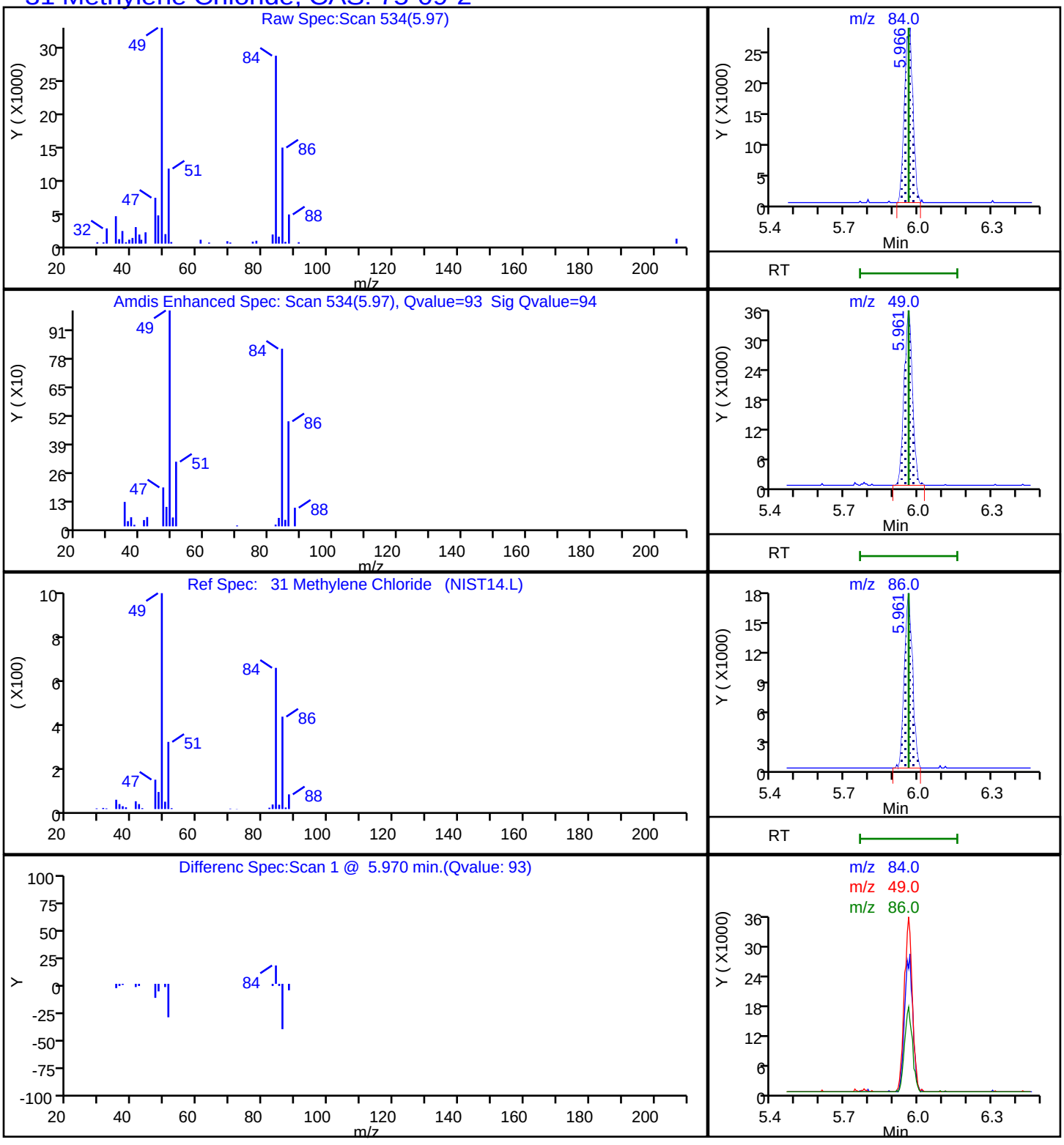
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date: 25-Sep-2019 23:55:30 Instrument ID: MR

Lims ID: 140-16735-A-5 Lab Sample ID: 140-16735-5

Client ID: BLDG C-MID GAC

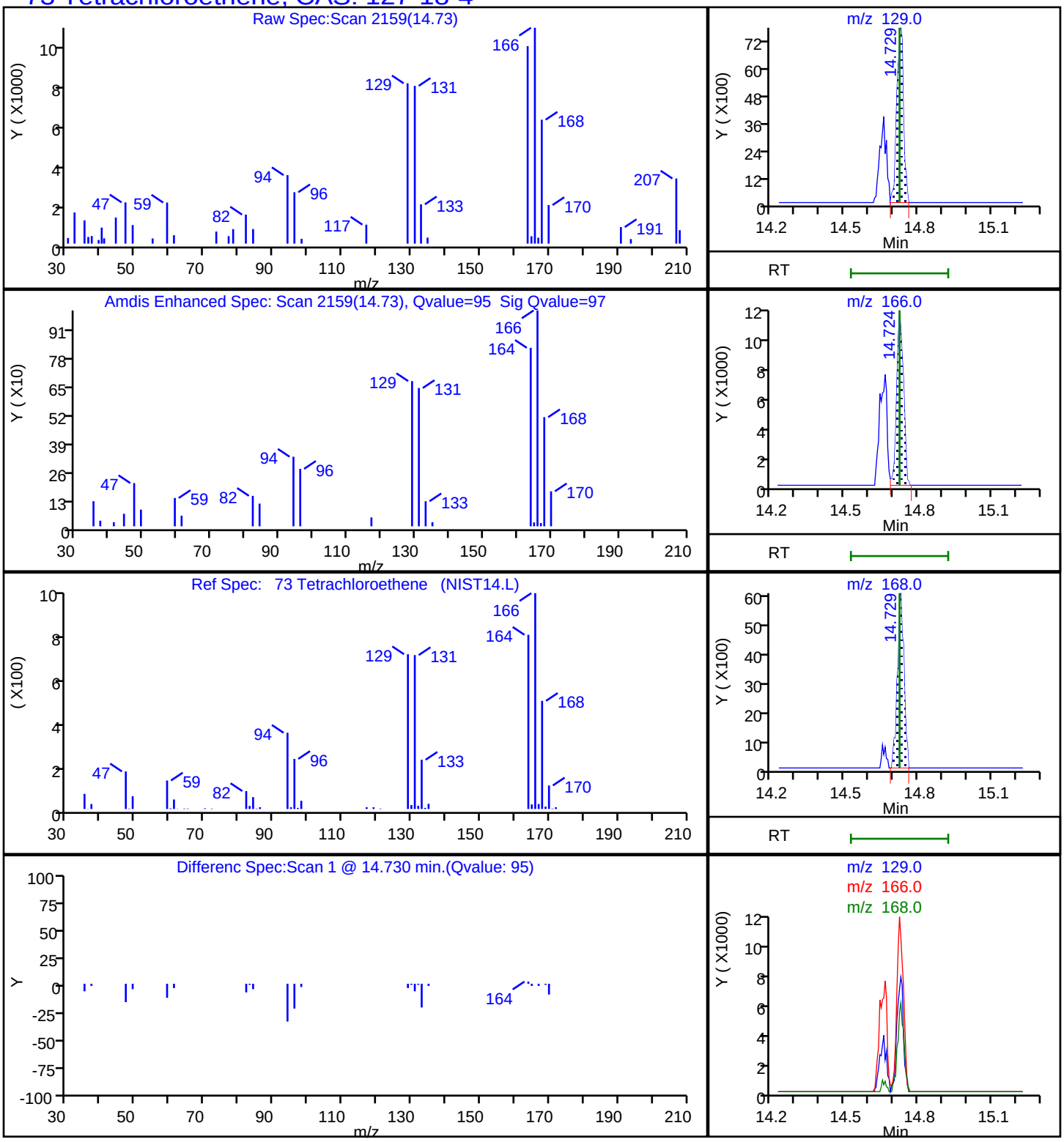
Operator ID: ALS Bottle#: 11 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

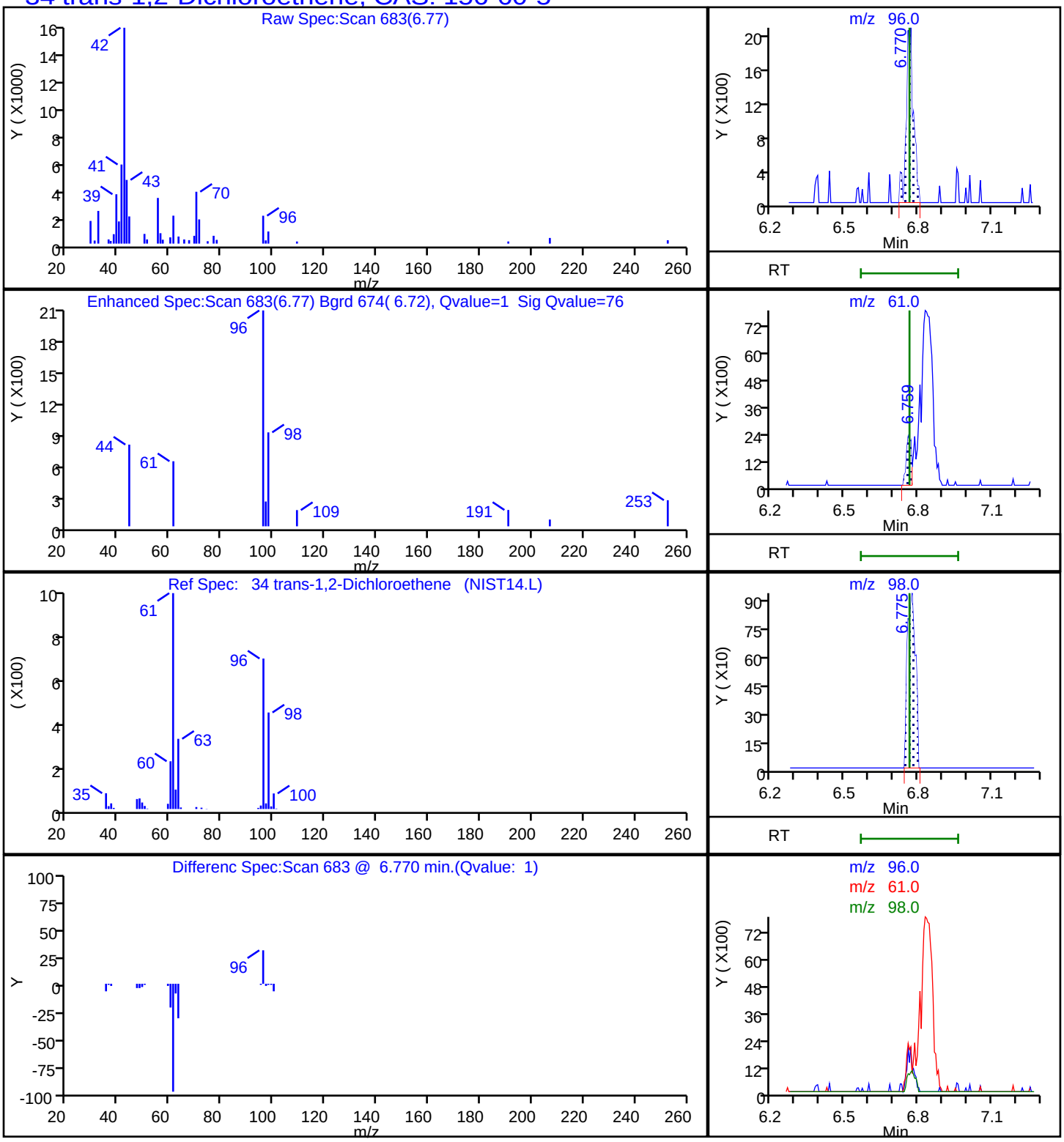
73 Tetrachloroethene, CAS: 127-18-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR		
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5		
Client ID:	BLDG C-MID GAC				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



Report Date: 26-Sep-2019 12:27:36 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date: 25-Sep-2019 23:55:30 Instrument ID: MR

Lims ID: 140-16735-A-5 Lab Sample ID: 140-16735-5

Client ID: BLDG C-MID GAC

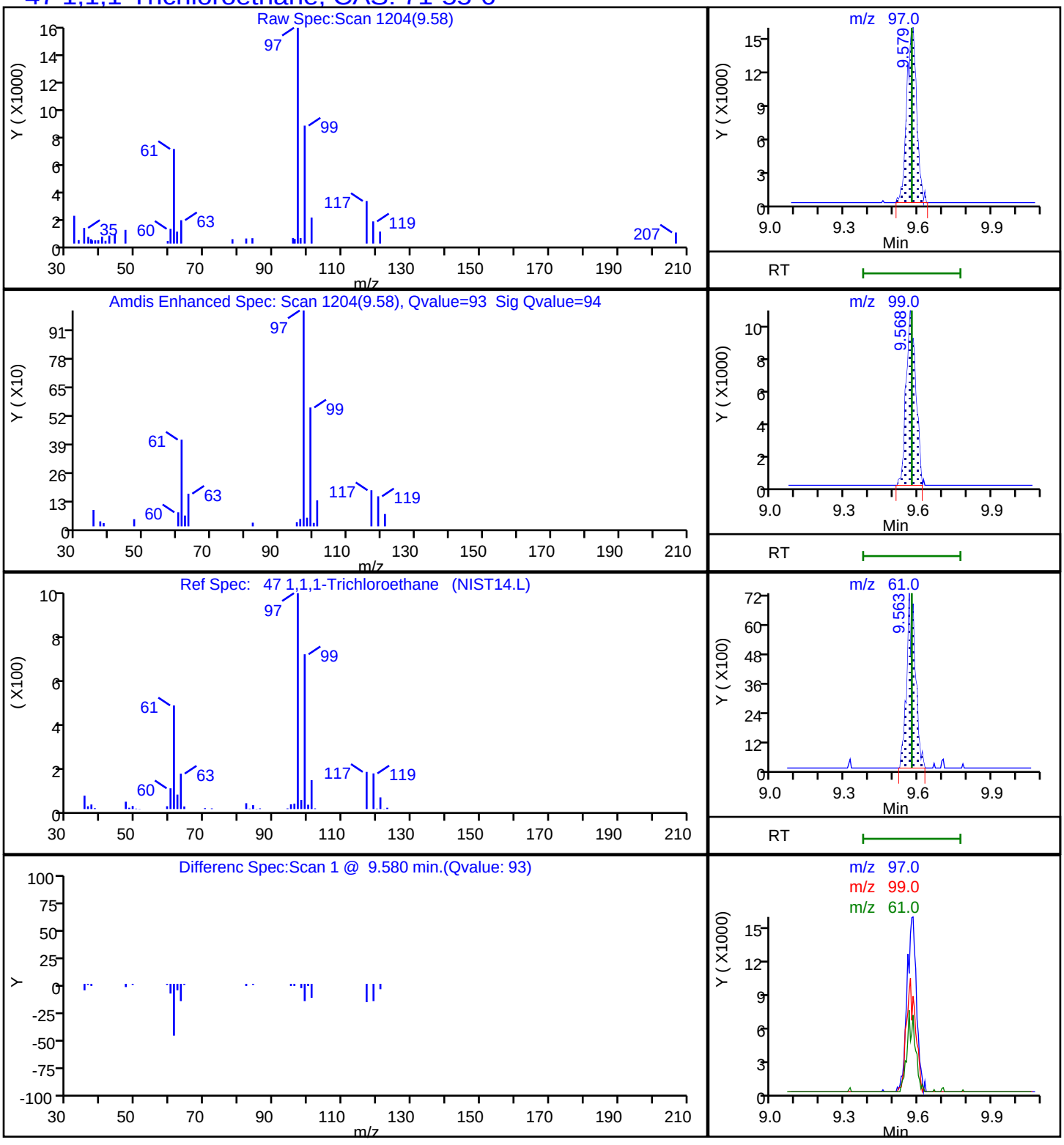
Operator ID: ALS Bottle#: 11 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

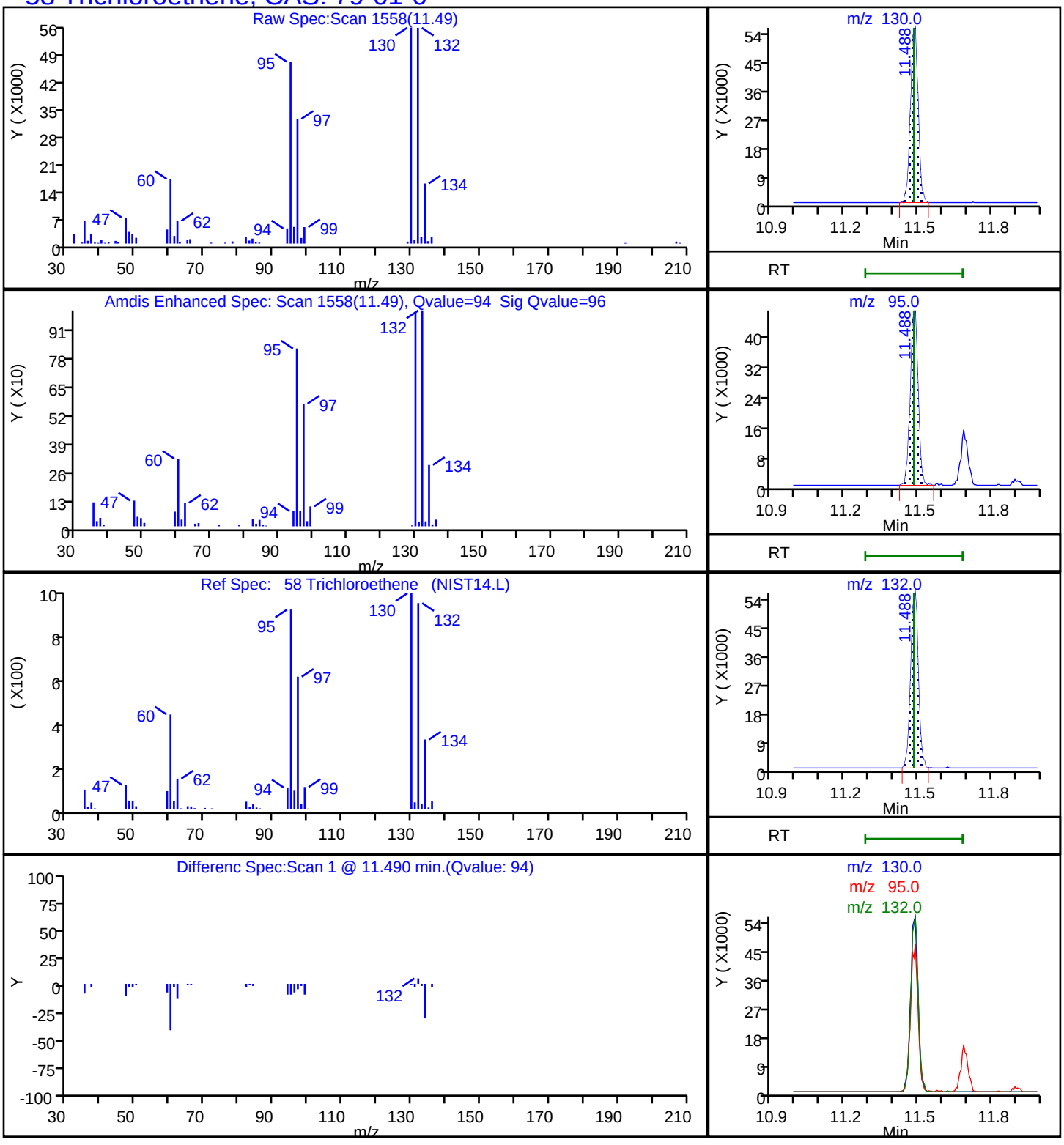
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D		
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5
Client ID:	BLDG C-MID GAC		
Operator ID:		ALS Bottle#:	11 Worklist Smp#: 19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

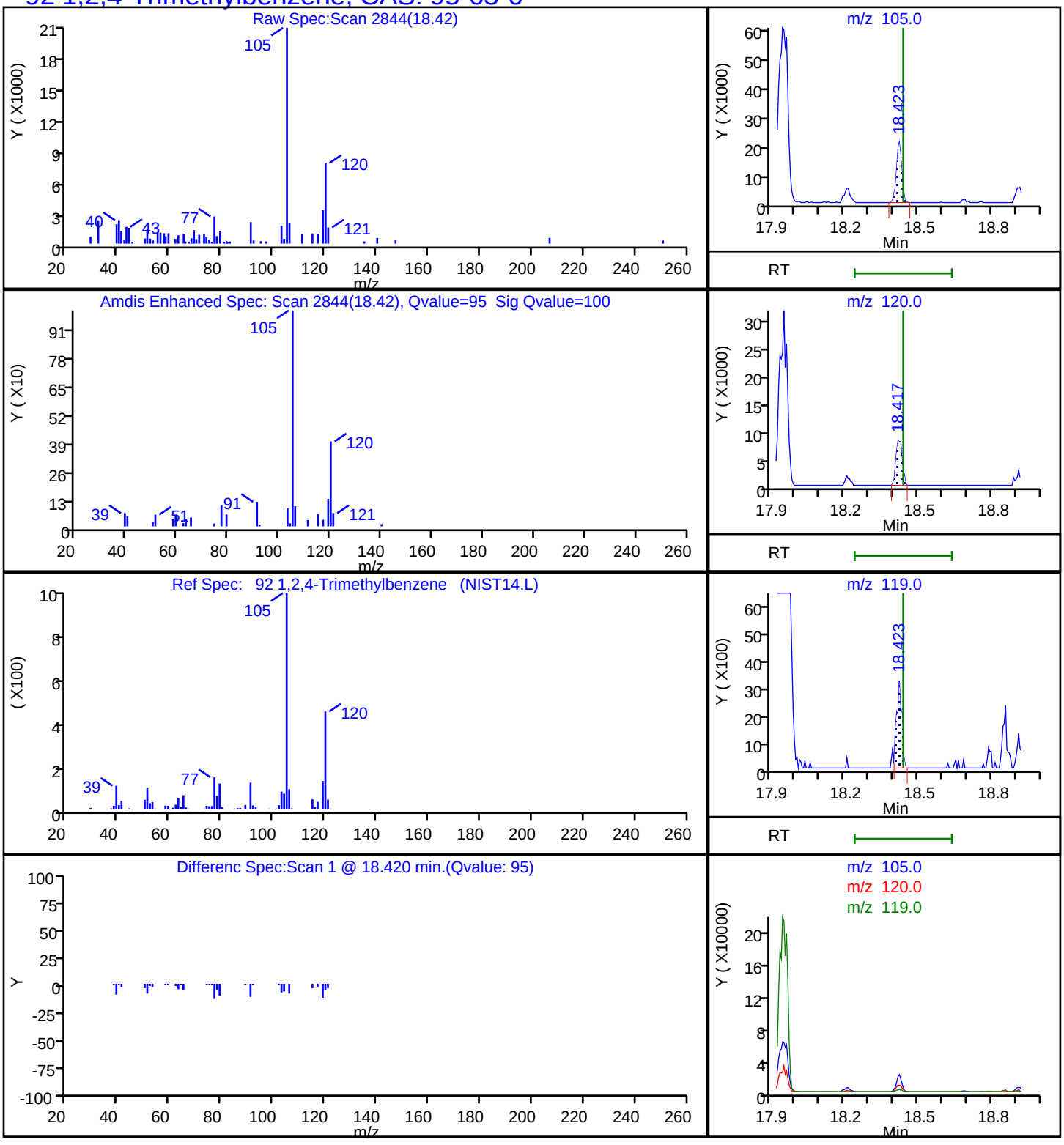
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR		
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5		
Client ID:	BLDG C-MID GAC				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Report Date: 26-Sep-2019 12:27:36 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date: 25-Sep-2019 23:55:30 Instrument ID: MR

Lims ID: 140-16735-A-5 Lab Sample ID: 140-16735-5

Client ID: BLDG C-MID GAC

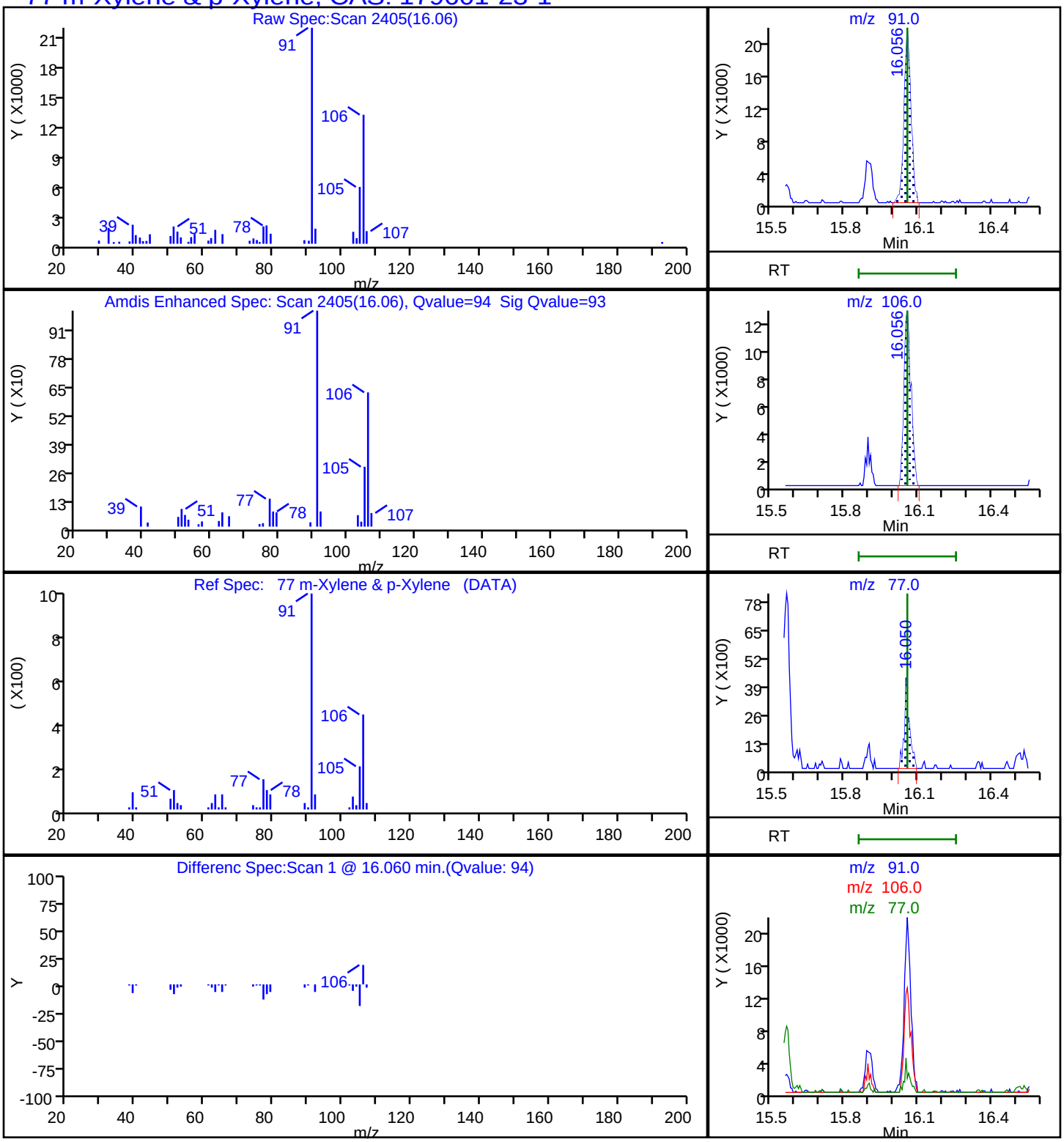
Operator ID: ALS Bottle#: 11 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D

Injection Date: 25-Sep-2019 23:55:30 Instrument ID: MR

Lims ID: 140-16735-A-5 Lab Sample ID: 140-16735-5

Client ID: BLDG C-MID GAC

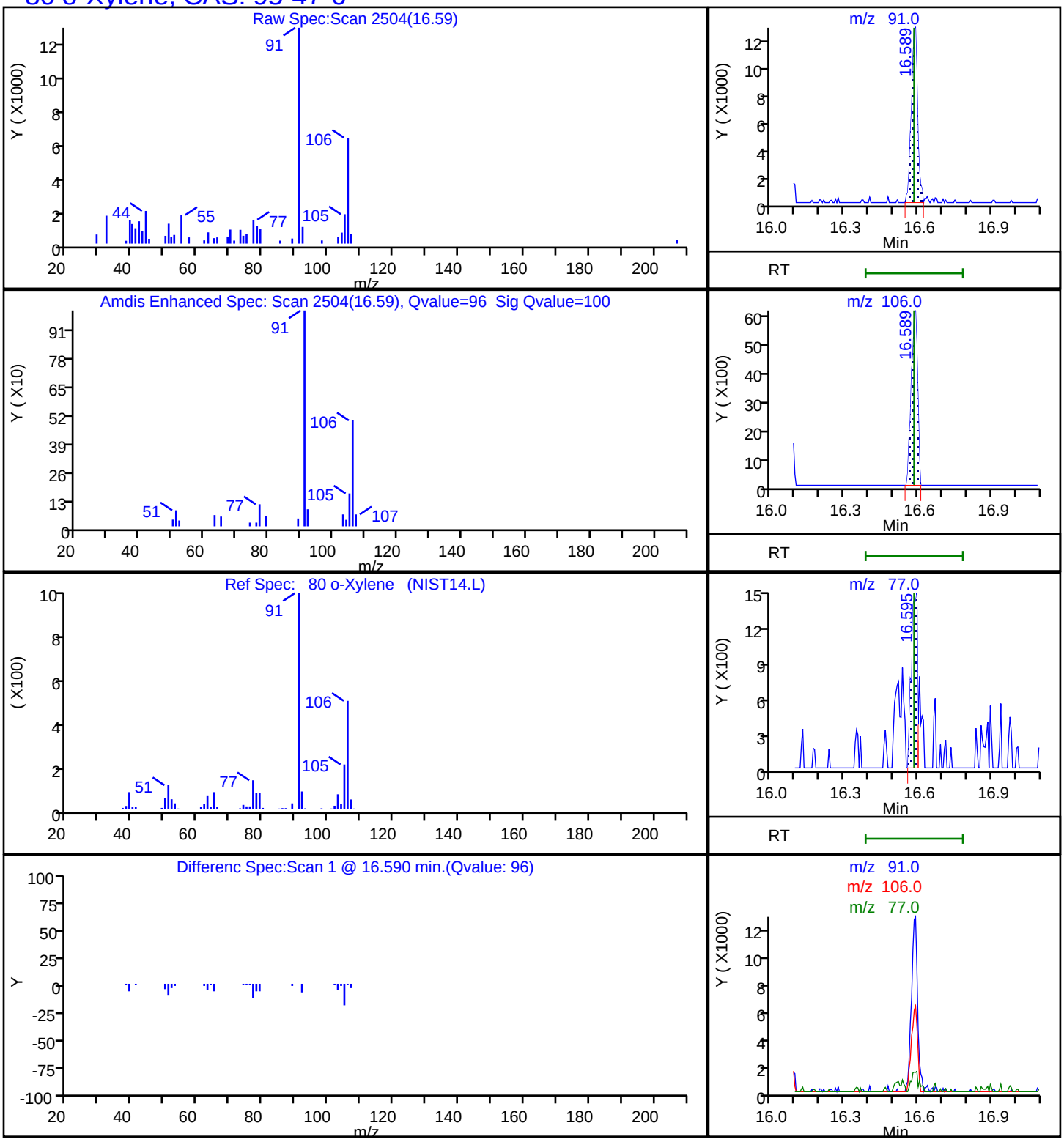
Operator ID: ALS Bottle#: 11 Worklist Smp#: 19

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



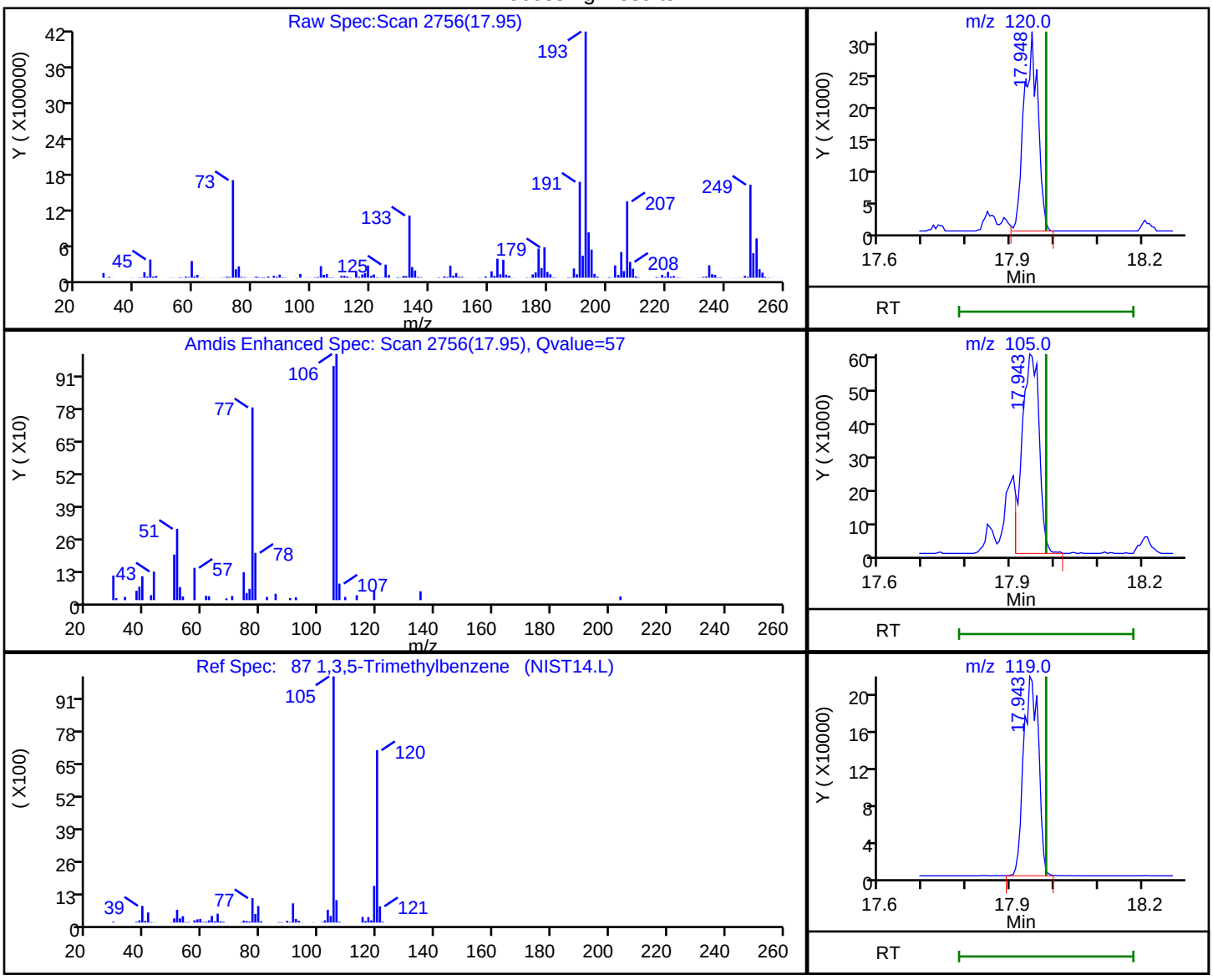
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P111.D				
Injection Date:	25-Sep-2019 23:55:30	Instrument ID:	MR		
Lims ID:	140-16735-A-5	Lab Sample ID:	140-16735-5		
Client ID:	BLDG C-MID GAC				
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
17.95	120.00	67716	0.207413
17.94	105.00	163578	
17.94	119.00	498328	

Reviewer: khachitpongpanits, 26-Sep-2019 12:27:25

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-EFFLUENT Lab Sample ID: 140-16735-6

Matrix: Air Lab File ID: RI25P112.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:19

Sample wt/vol: 100(mL) Date Analyzed: 09/26/2019 00:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	3.0		0.40	0.040
56-23-5	Carbon tetrachloride	153.81	ND		0.40	0.035
75-45-6	Chlorodifluoromethane	86.47	1.4		0.40	0.11
67-66-3	Chloroform	119.38	0.25	J	0.40	0.035
156-59-2	cis-1,2-Dichloroethene	96.94	0.49		0.40	0.050
75-71-8	Dichlorodifluoromethane	120.91	0.30	J	0.40	0.070
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.035
107-06-2	1,2-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	0.054	J	0.40	0.040
100-41-4	Ethylbenzene	106.17	0.12	J	0.40	0.065
75-09-2	Methylene Chloride	84.93	1.6	J B	2.0	0.80
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.0	0.26
91-20-3	Naphthalene	128.17	ND		0.20	0.38
127-18-4	Tetrachloroethene	165.83	ND		0.40	0.035
108-88-3	Toluene	92.14	0.87		0.60	0.39
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.32
71-55-6	1,1,1-Trichloroethane	133.41	0.58		0.40	0.19
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.035
79-01-6	Trichloroethene	131.39	2.5		0.20	0.030
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.40	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	0.92		0.40	0.10
108-67-8	1,3,5-Trimethylbenzene	120.20	0.54		0.40	0.11
75-01-4	Vinyl chloride	62.50	ND		0.20	0.13
1330-20-7	Xylenes, Total	106.17	0.70	J	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: BLDG C-EFFLUENT Lab Sample ID: 140-16735-6

Matrix: Air Lab File ID: RI25P112.D

Analysis Method: TO 15 LL Date Collected: 09/23/2019 14:19

Sample wt/vol: 100(mL) Date Analyzed: 09/26/2019 00:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	9.7		1.3	0.13
56-23-5	Carbon tetrachloride	153.81	ND		2.5	0.22
75-45-6	Chlorodifluoromethane	86.47	5.0		1.4	0.39
67-66-3	Chloroform	119.38	1.2	J	2.0	0.17
156-59-2	cis-1,2-Dichloroethene	96.94	1.9		1.6	0.20
75-71-8	Dichlorodifluoromethane	120.91	1.5	J	2.0	0.35
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.14
107-06-2	1,2-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	0.21	J	1.6	0.16
100-41-4	Ethylbenzene	106.17	0.52	J	1.7	0.28
75-09-2	Methylene Chloride	84.93	5.4	J B	6.9	2.8
1634-04-4	Methyl tert-butyl ether	88.15	ND		7.2	0.94
91-20-3	Naphthalene	128.17	ND		1.0	2.0
127-18-4	Tetrachloroethene	165.83	ND		2.7	0.24
108-88-3	Toluene	92.14	3.3		2.3	1.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.14
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	2.4
71-55-6	1,1,1-Trichloroethane	133.41	3.1		2.2	1.0
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.19
79-01-6	Trichloroethene	131.39	13		1.1	0.16
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		2.0	0.88
95-63-6	1,2,4-Trimethylbenzene	120.20	4.5		2.0	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	2.7		2.0	0.54
75-01-4	Vinyl chloride	62.50	ND		0.51	0.33
1330-20-7	Xylenes, Total	106.17	3.0	J	3.5	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D
Lims ID: 140-16735-A-6
Client ID: BLDG C-EFFLUENT
Sample Type: Client
Inject. Date: 26-Sep-2019 00:43:30 ALS Bottle#: 12 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-020
Misc. Info.: 140-16735-a-6
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 12:28:06 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 12:28:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.528	0.000	87	475476	4.00	
* 2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2668426	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2122016	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1188108	3.79	
6 Chlorodifluoromethane	51	3.421	3.427	-0.006	96	89447	0.2835	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	16049	0.0598	
27 1,1-Dichloroethene	96	5.605	5.611	-0.006	33	1665	0.0108	
31 Methylene Chloride	84	5.966	5.961	0.005	93	57328	0.3125	
42 cis-1,2-Dichloroethene	96	8.188	8.193	-0.006	90	16795	0.0972	
44 Chloroform	83	8.539	8.539	0.000	28	17040	0.0495	
47 1,1,1-Trichloroethane	97	9.574	9.574	0.000	95	40491	0.1150	
49 Benzene	78	10.183	10.189	-0.006	93	311306	0.6049	
58 Trichloroethene	130	11.477	11.483	-0.006	96	111143	0.5018	
67 Toluene	91	13.575	13.575	0.000	91	90242	0.1740	
76 Ethylbenzene	91	15.894	15.894	0.000	93	16721	0.0238	
77 m-Xylene & p-Xylene	91	16.056	16.055	-0.001	94	47410	0.0877	
80 o-Xylene	91	16.589	16.584	0.005	98	28204	0.0514	
87 1,3,5-Trimethylbenzene	120	17.959	17.959	-0.022	39	35352	0.1078	a
92 1,2,4-Trimethylbenzene	105	18.423	18.439	-0.016	97	127236	0.1831	
98 1,2,3-Trimethylbenzene	105	18.913	18.924	-0.011	97	23545	0.0346	
S 116 Xylenes, Total	100				0		0.1391	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

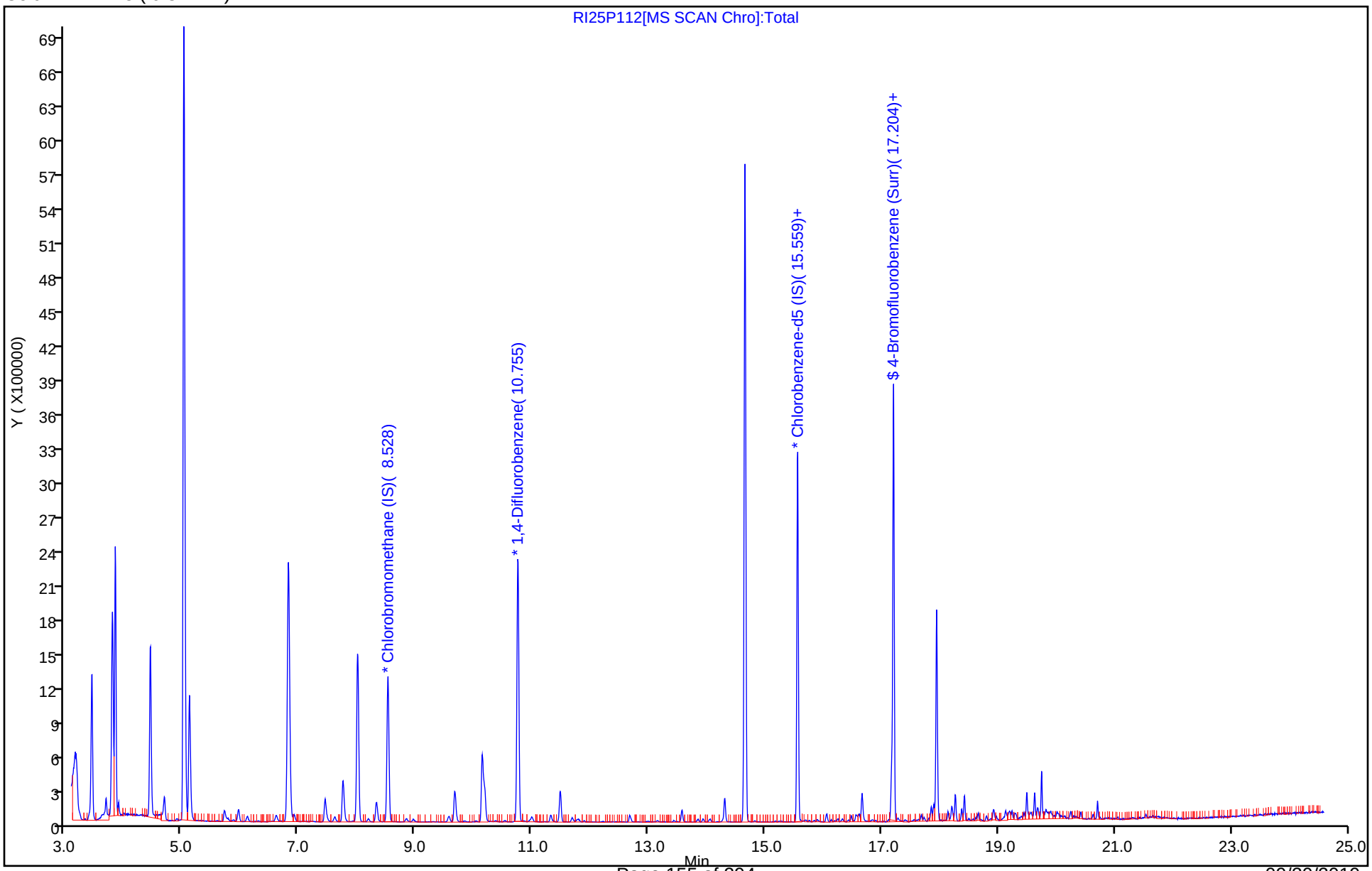
Report Date: 26-Sep-2019 12:28:19 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D

Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6	Worklist Smp#:	20
Client ID:	BLDG C-EFFLUENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

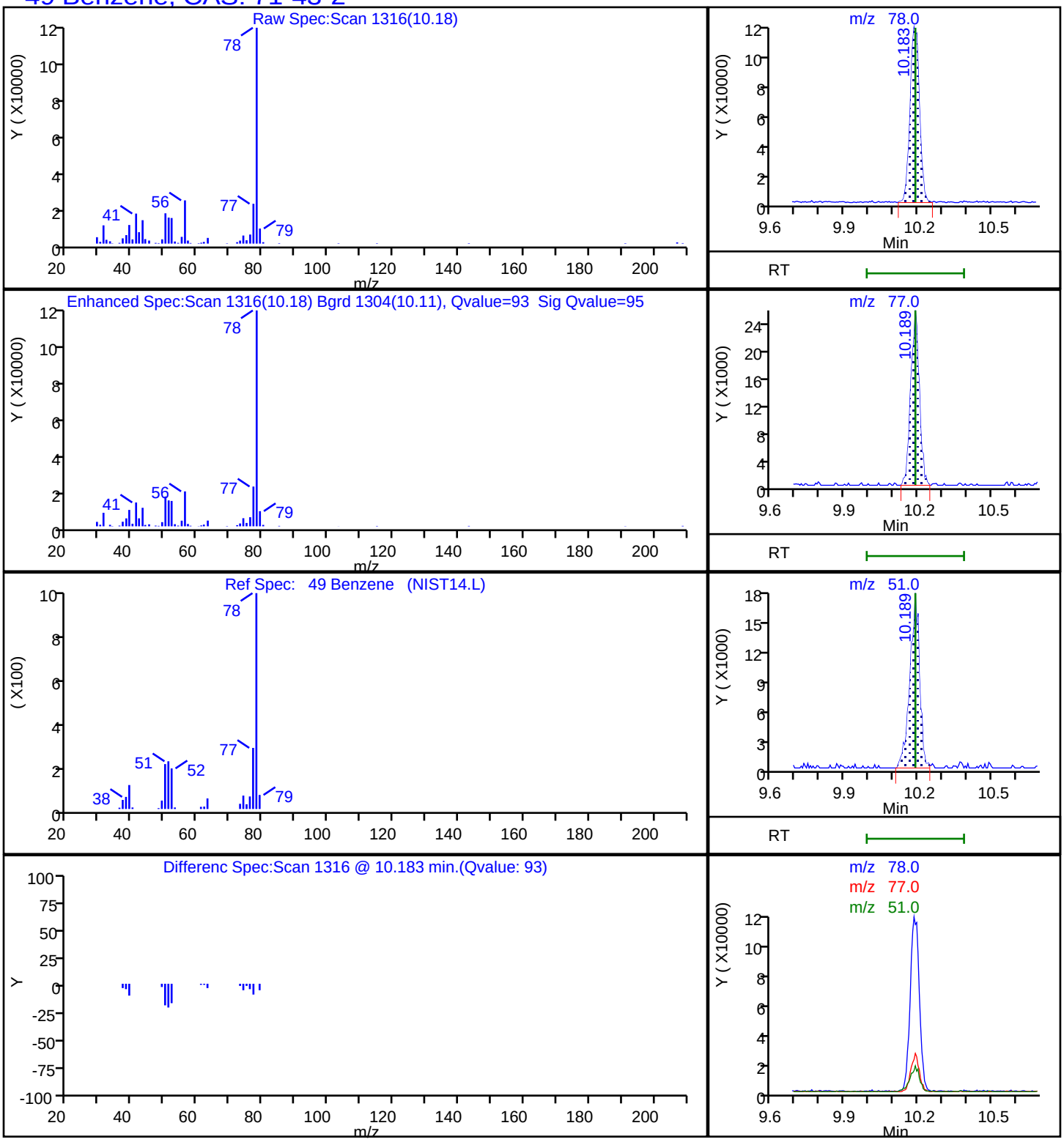
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D				
Lims ID:	140-16735-A-6				
Client ID:	BLDG C-EFFLUENT				
Sample Type:	Client				
Inject. Date:	26-Sep-2019 00:43:30	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-020				
Misc. Info.:	140-16735-a-6				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 12:28:06	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				
First Level Reviewer: khachitpongpanits		Date:	26-Sep-2019 12:28:18		

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.79	94.73

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D
Injection Date: 26-Sep-2019 00:43:30 Instrument ID: MR
Lims ID: 140-16735-A-6 Lab Sample ID: 140-16735-6
Client ID: BLDG C-EFFLUENT
Operator ID: ALS Bottle#: 12 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

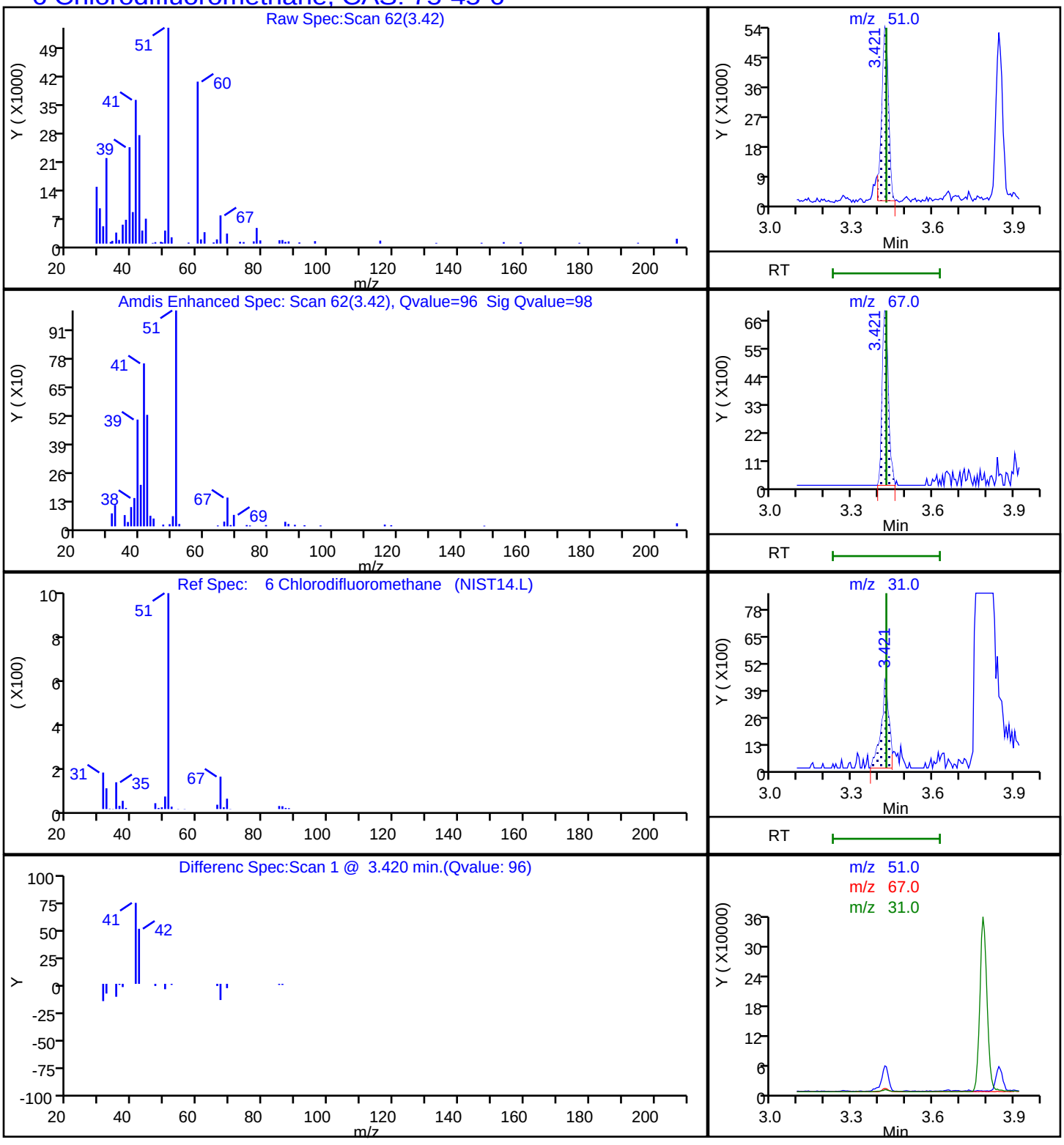
49 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

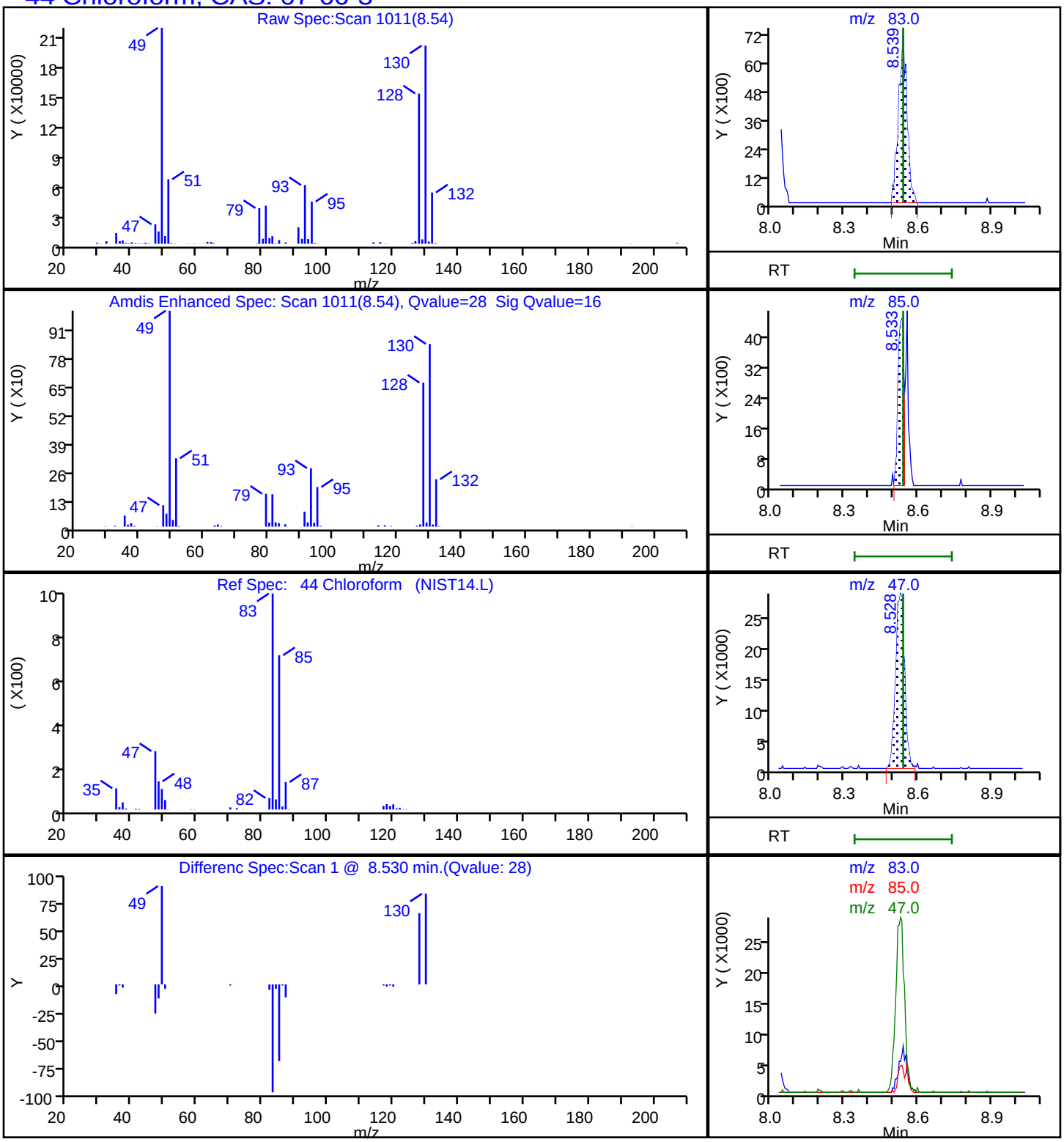
6 Chlorodifluoromethane, CAS: 75-45-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

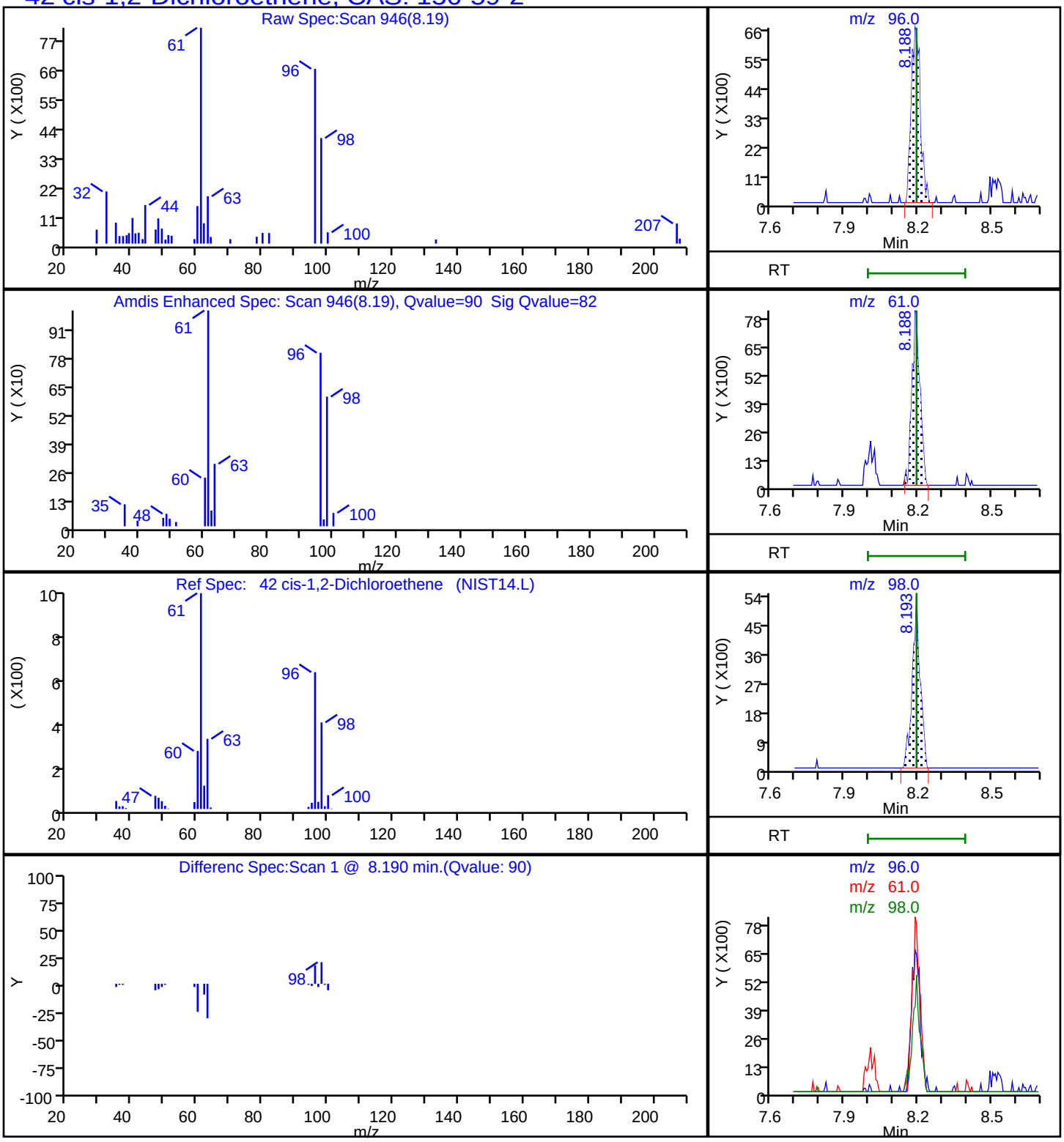
44 Chloroform, CAS: 67-66-3



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

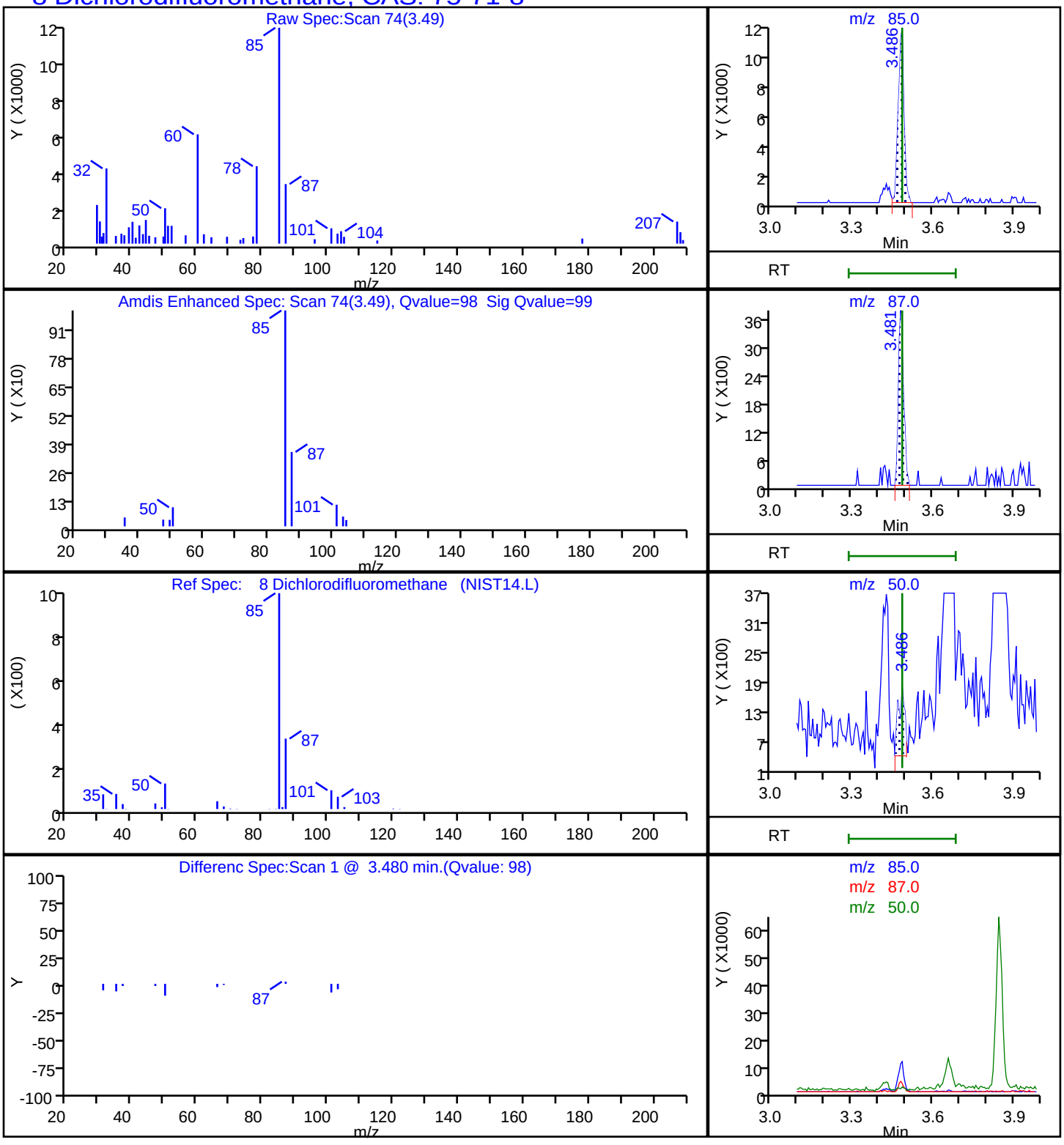
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D				
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR		
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6		
Client ID:	BLDG C-EFFLUENT				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

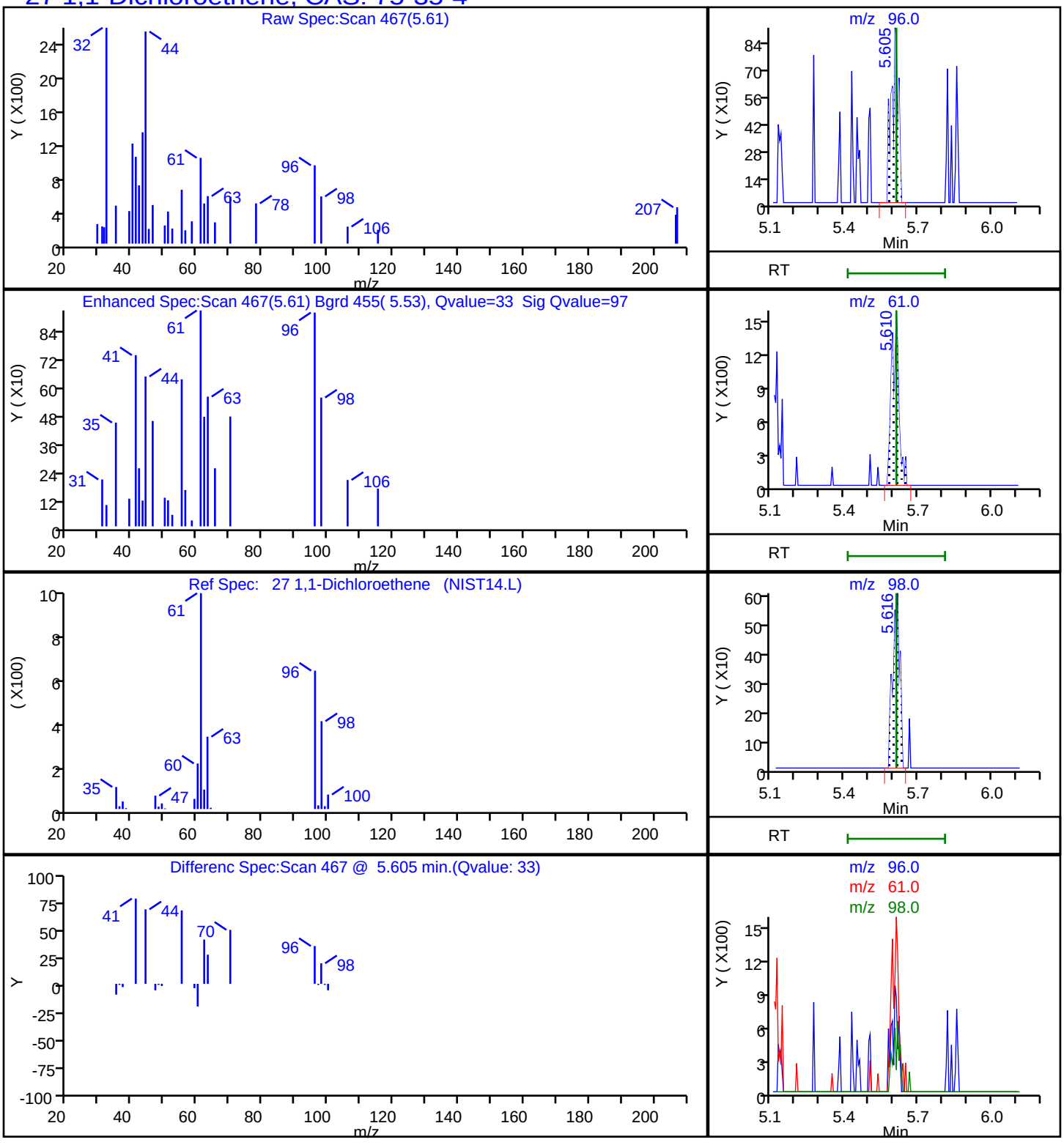
8 Dichlorodifluoromethane, CAS: 75-71-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

27 1,1-Dichloroethene, CAS: 75-35-4



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D

Injection Date: 26-Sep-2019 00:43:30 Instrument ID: MR

Lims ID: 140-16735-A-6 Lab Sample ID: 140-16735-6

Client ID: BLDG C-EFFLUENT

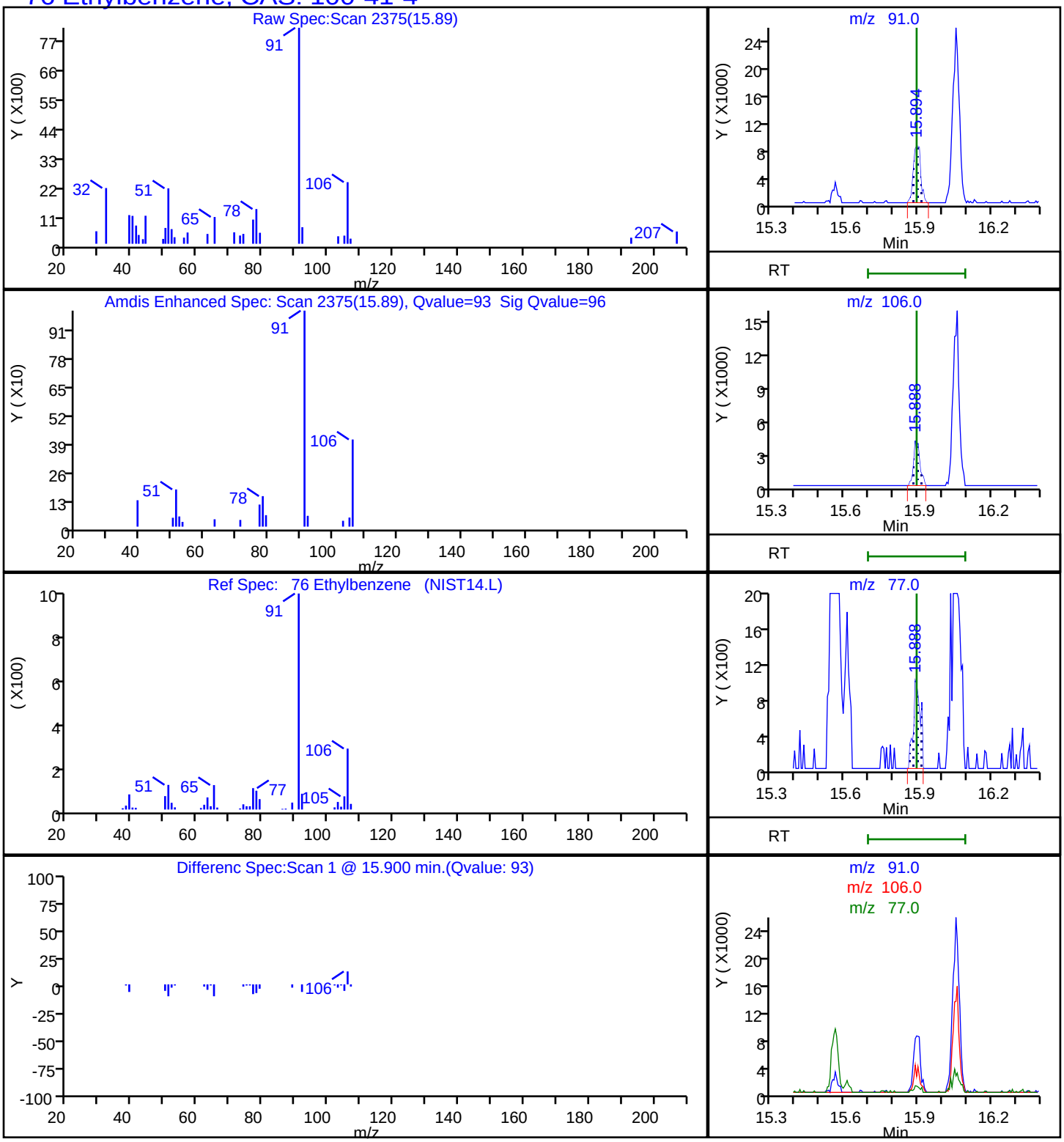
Operator ID: ALS Bottle#: 12 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

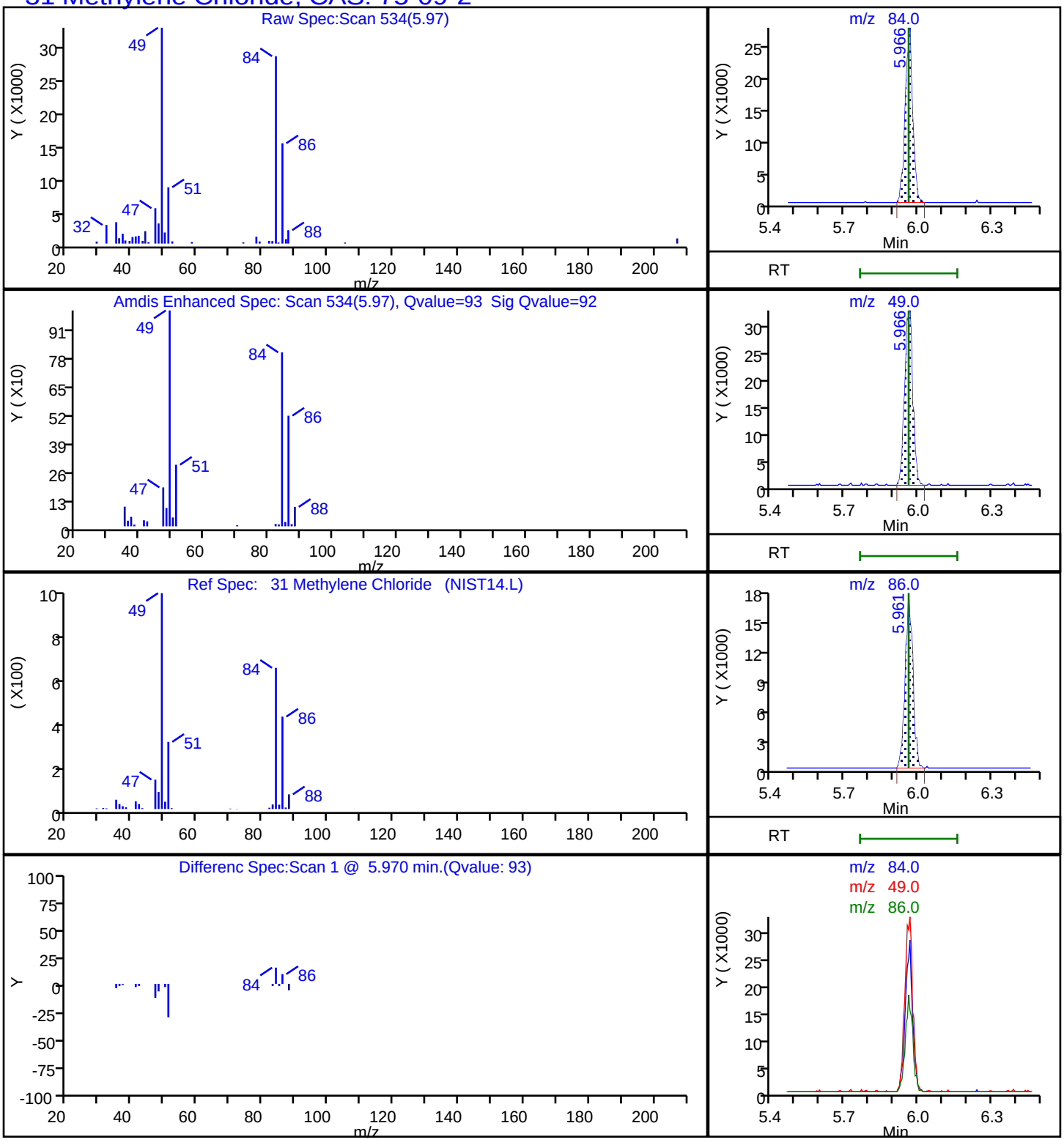
76 Ethylbenzene, CAS: 100-41-4



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

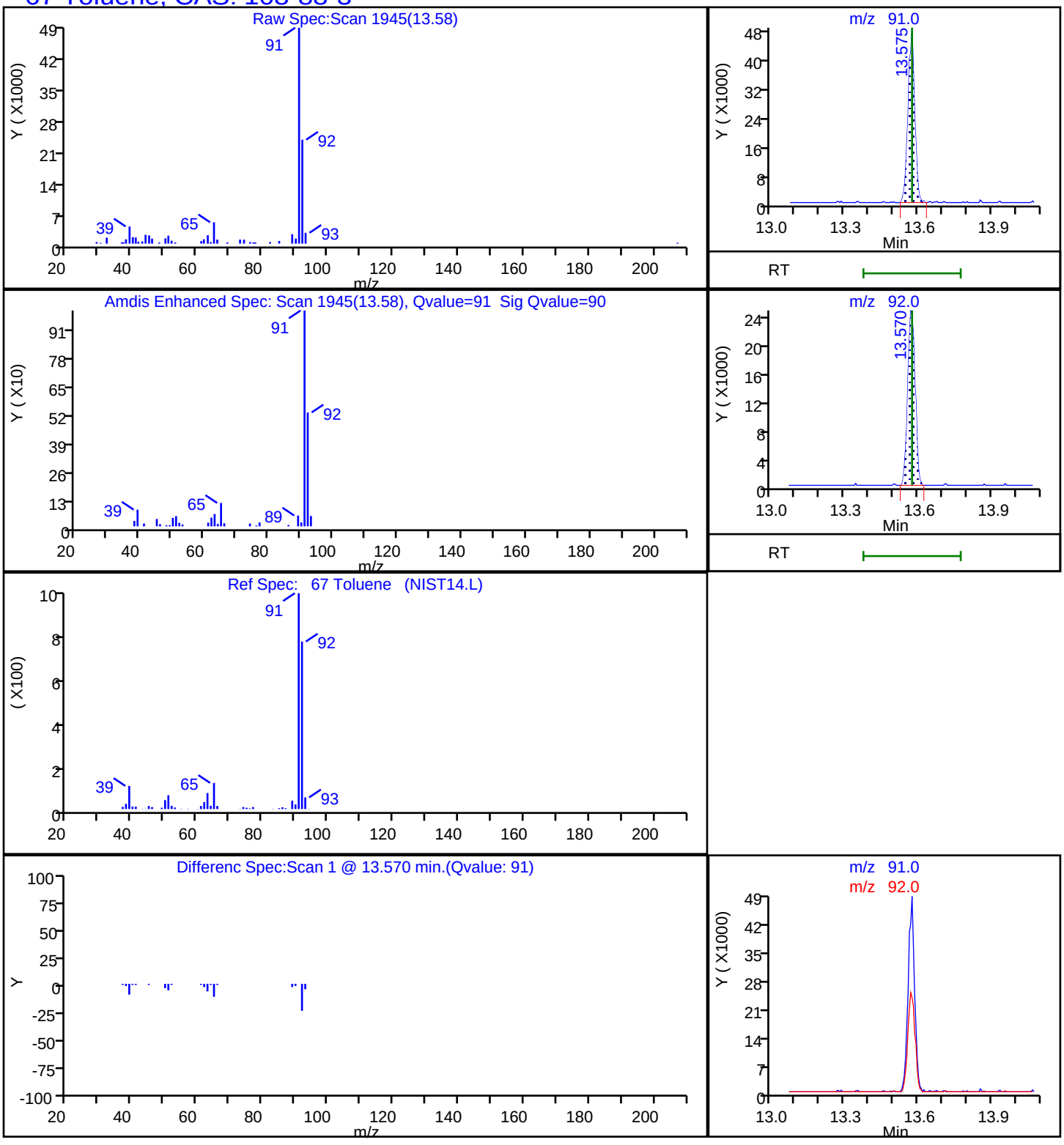
31 Methylene Chloride, CAS: 75-09-2



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

67 Toluene, CAS: 108-88-3

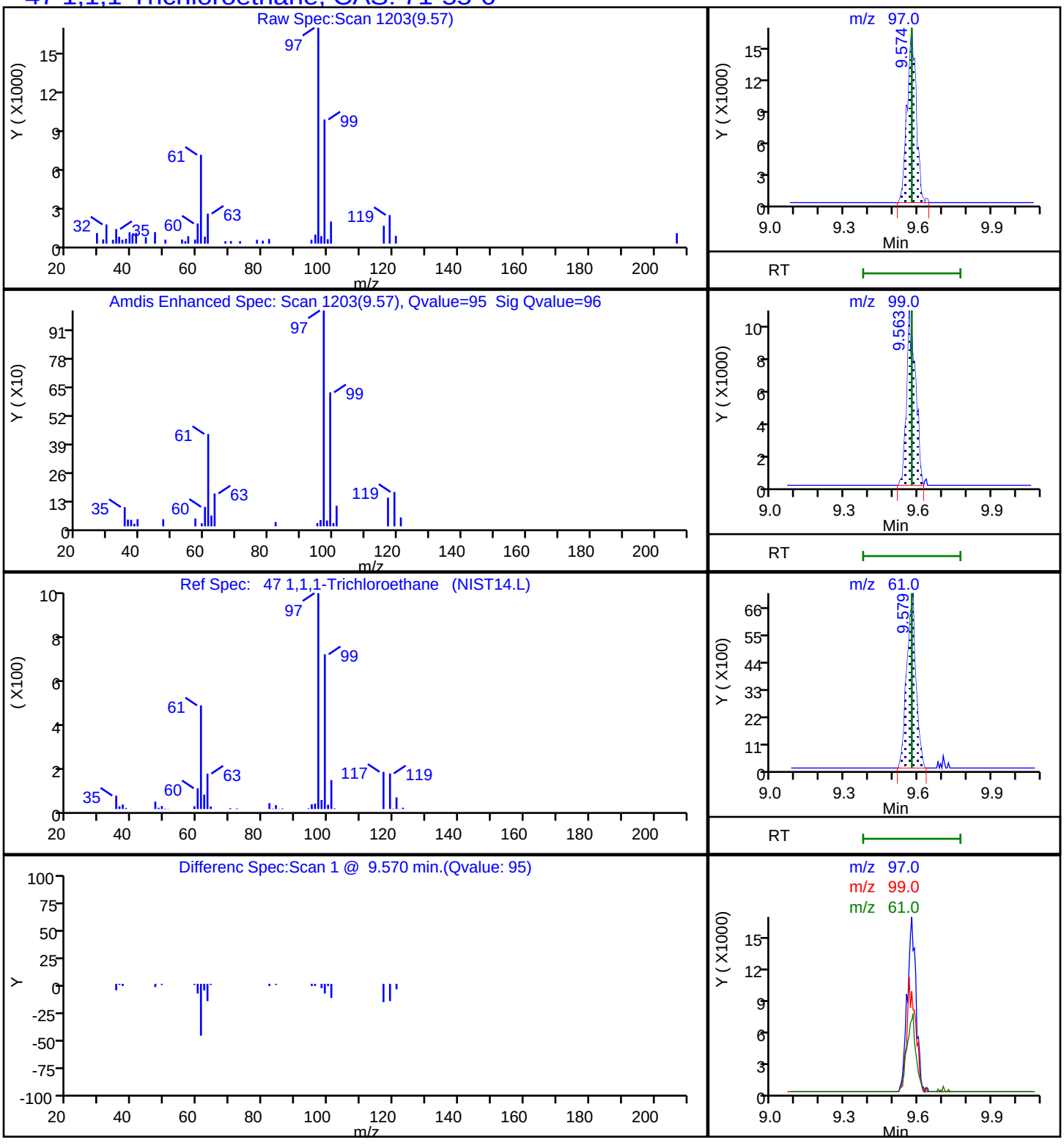


Report Date: 26-Sep-2019 12:28:19 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

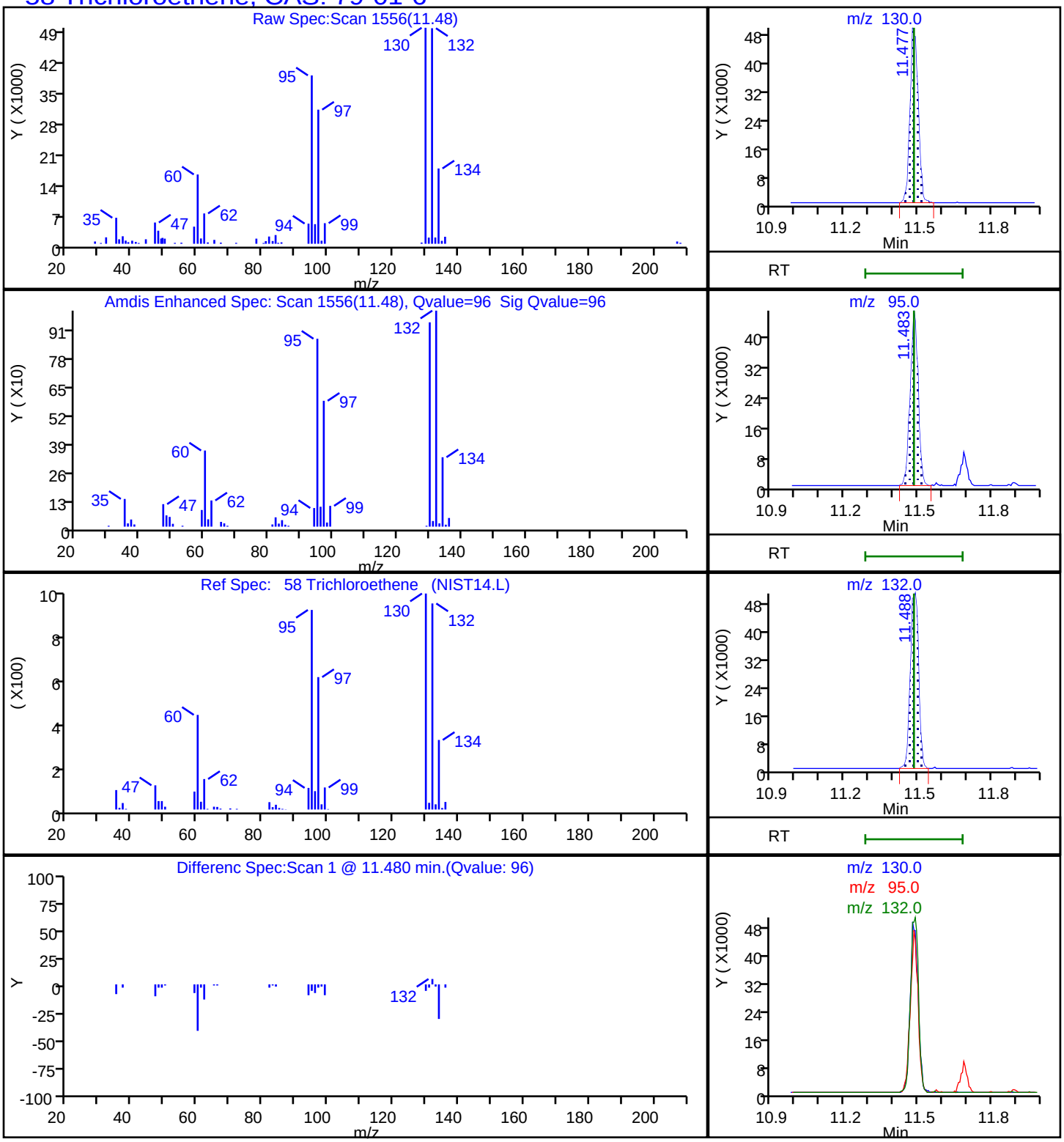


Report Date: 26-Sep-2019 12:28:19 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

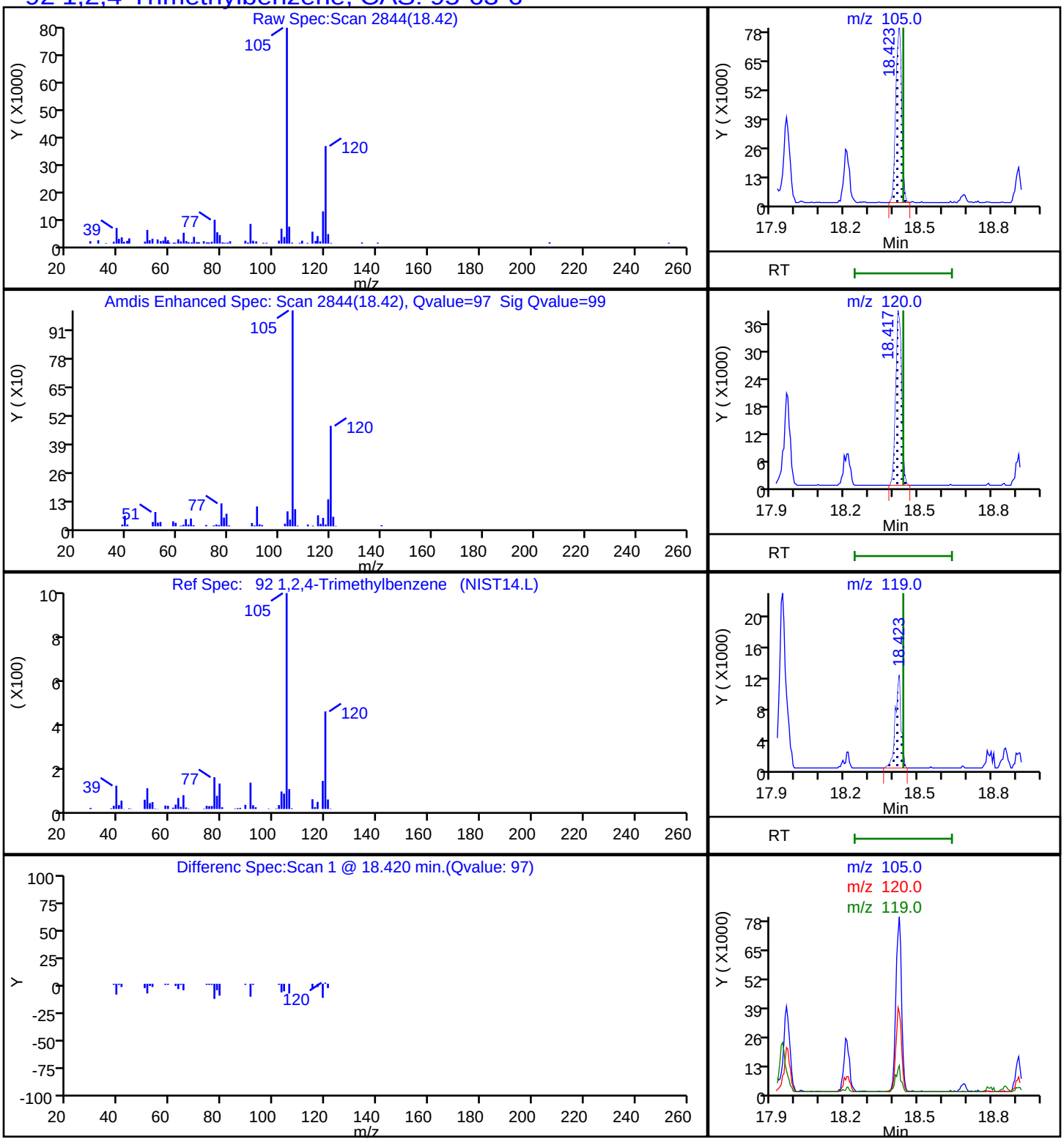
58 Trichloroethene, CAS: 79-01-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D				
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR		
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6		
Client ID:	BLDG C-EFFLUENT				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

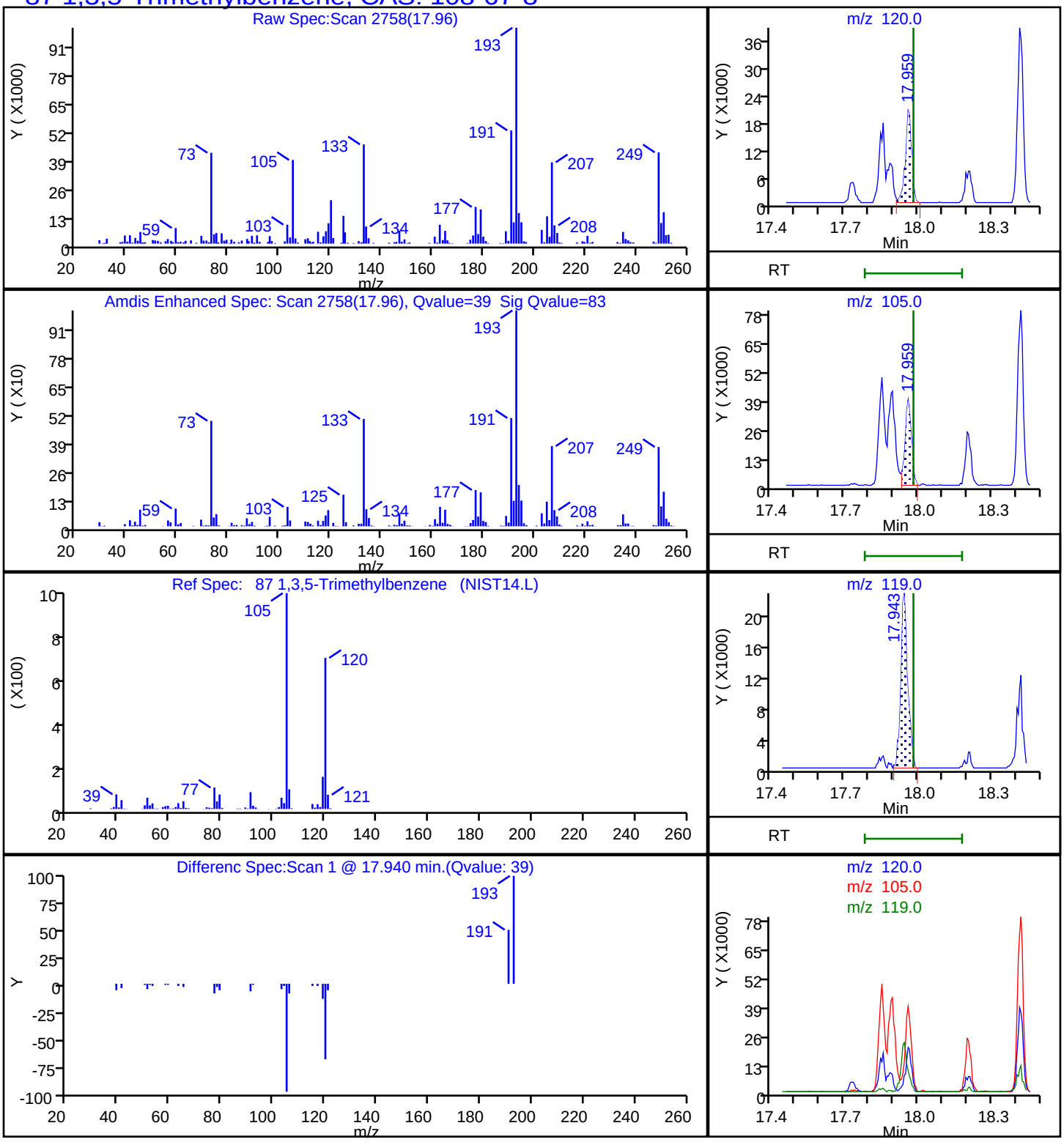
92 1,2,4-Trimethylbenzene, CAS: 95-63-6



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

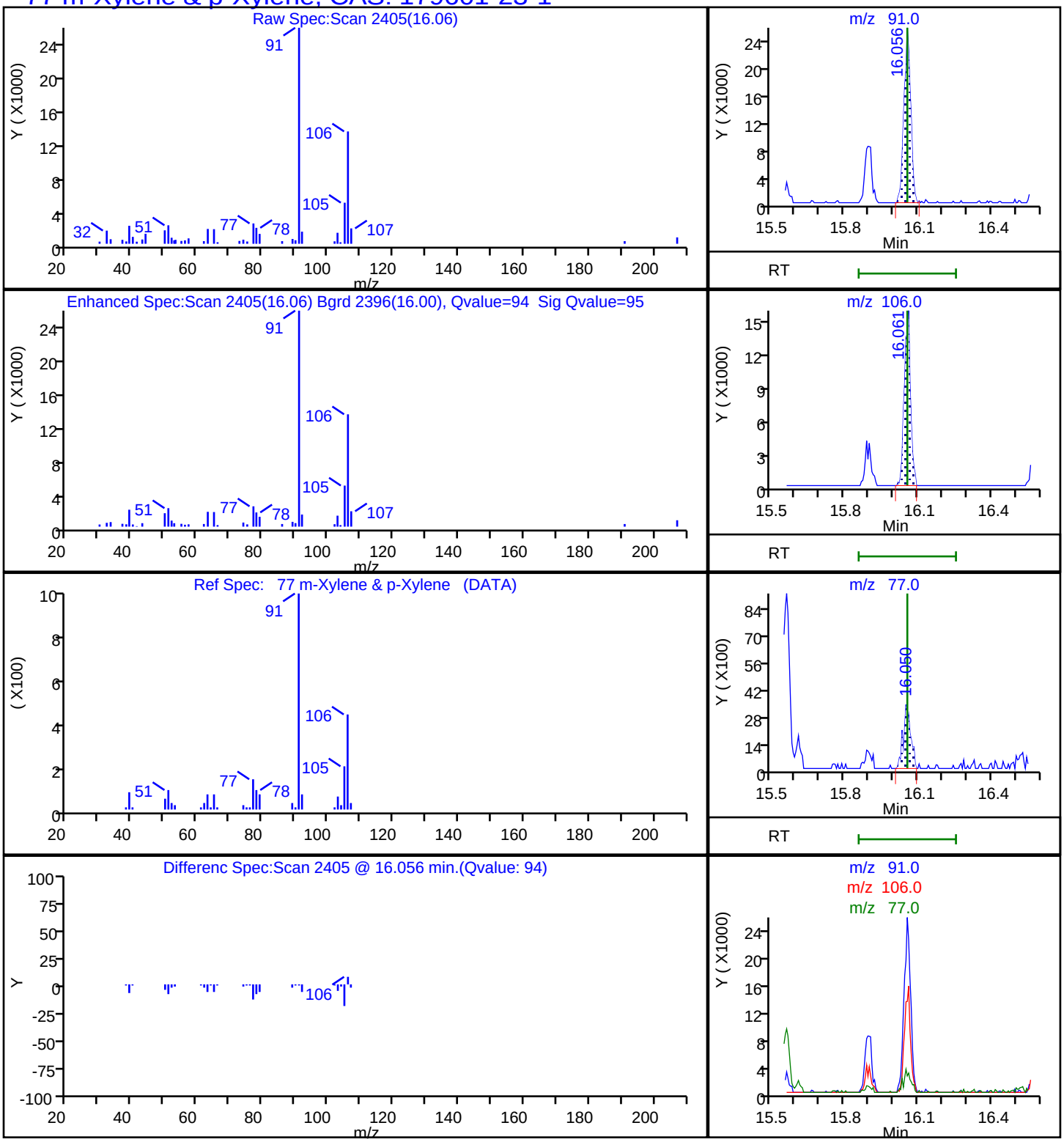
87 1,3,5-Trimethylbenzene, CAS: 108-67-8



Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D		
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6
Client ID:	BLDG C-EFFLUENT		
Operator ID:		ALS Bottle#:	12 Worklist Smp#: 20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN

77 m-Xylene & p-Xylene, CAS: 179601-23-1



Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D

Injection Date: 26-Sep-2019 00:43:30 Instrument ID: MR

Lims ID: 140-16735-A-6 Lab Sample ID: 140-16735-6

Client ID: BLDG C-EFFLUENT

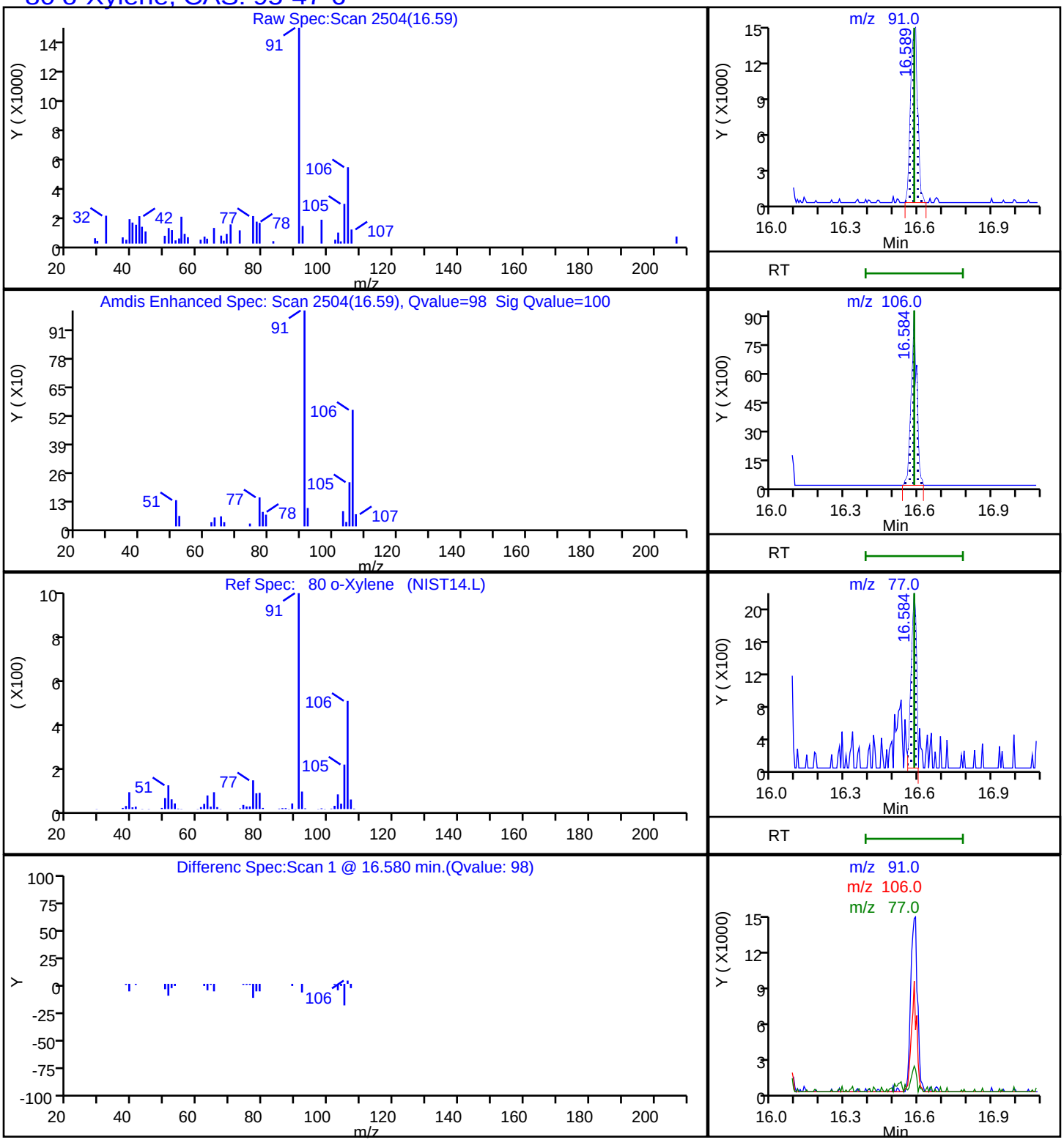
Operator ID: ALS Bottle#: 12 Worklist Smp#: 20

Purge Vol: 500.000 mL Dil. Factor: 1.0000

Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm) Detector MS SCAN

80 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Knoxville

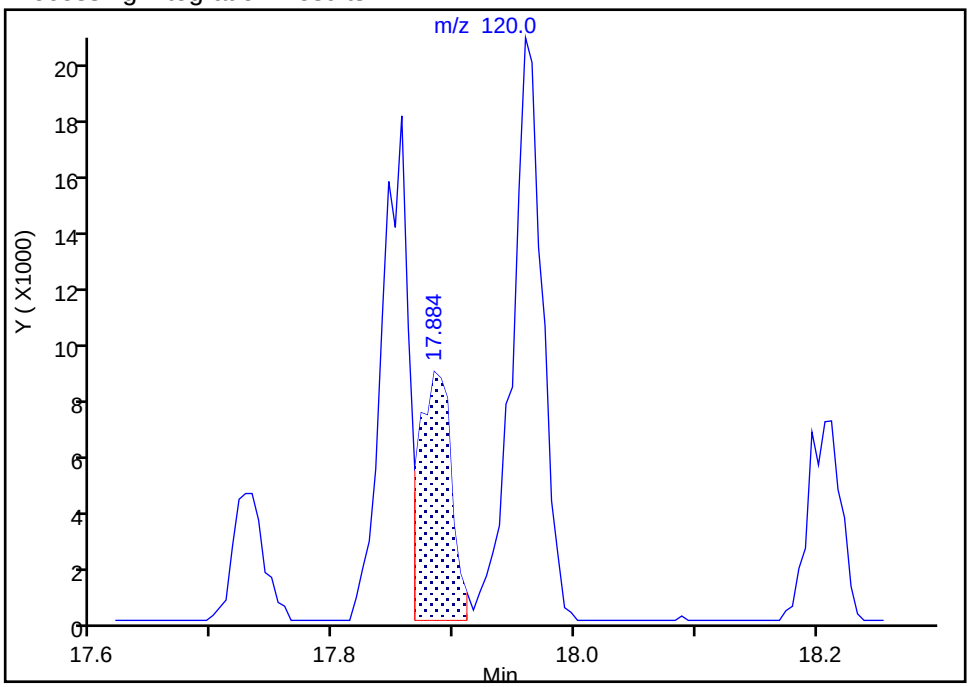
Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RI25P112.D				
Injection Date:	26-Sep-2019 00:43:30	Instrument ID:	MR		
Lims ID:	140-16735-A-6	Lab Sample ID:	140-16735-6		
Client ID:	BLDG C-EFFLUENT				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

87 1,3,5-Trimethylbenzene, CAS: 108-67-8

Signal: 1

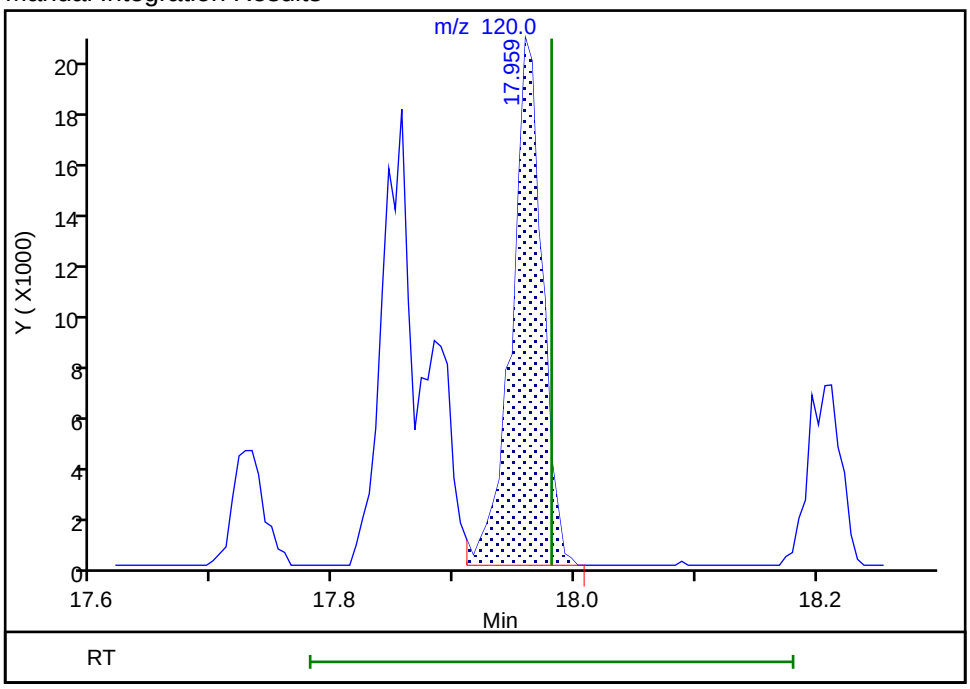
Processing Integration Results

RT: 17.88
Area: 16159
Amount: 0.049293
Amount Units: ppb v/v



Manual Integration Results

RT: 17.96
Area: 35352
Amount: 0.107841
Amount Units: ppb v/v



Reviewer: khachitpongpanits, 26-Sep-2019 12:28:03

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 2.7260	+++++ 2.6680	2.5843 2.5009	3.1164 2.3259	3.0059 2.3069	Ave		2.6543				11.0		30.0			
Propene	+++++ 1.9442	+++++ 1.6367	+++++ 1.4437	+++++ 1.2575	+++++ 1.2209	Ave		1.5006				19.9		30.0			
Dichlorodifluoromethane	+++++ 2.2785	+++++ 2.1933	2.4600 2.0613	2.5803 2.0814	2.5119 1.8830	Ave		2.2562				10.9		30.0			
Chloromethane	+++++ 0.5554	+++++ 0.4767	+++++ 0.4326	0.3883 0.3434	0.4816 0.3386	Ave		0.4310				18.5		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++ 2.0704	+++++ 1.6453	2.1437 1.5512	2.1811 1.3073	2.1242 +++++	Ave		1.8605				18.9		30.0			
Vinyl chloride	1.7291 1.2883	1.6251 1.5737	1.6212 1.1646	1.3532 1.0197	1.3998 0.8114	Ave		1.3586				21.7		30.0			
1,3-Butadiene	+++++ 1.0156	+++++ 1.1823	+++++ 1.0162	1.2794 0.7642	1.2388 0.6544	Ave		1.0216				23.3		30.0			
Butane	+++++ 1.8934	+++++ 2.2335	2.4101 1.8806	2.5004 1.4508	2.2121 1.2365	Ave		1.9772				22.8		30.0			
Bromomethane	+++++ 1.2859	+++++ 1.4808	1.9045 1.1757	1.5746 1.0547	1.4408 0.8315	Ave		1.3436				24.7		30.0			
Chloroethane	+++++ 0.5130	+++++ 0.6525	0.7561 0.4710	0.5613 0.4310	0.5850 +++++	Ave		0.5671				19.6		30.0			
Ethanol	+++++ 0.6058	+++++ 0.6726	+++++ 0.5847	0.6715 0.5590	0.6550 0.5356	Ave		0.6120				9.1		30.0			
Vinyl bromide	+++++ 1.1611	1.2192 1.1781	1.0641 1.1689	1.1263 1.1369	1.1332 1.0430	Ave		1.1368				4.9		30.0			
2-Methylbutane	+++++ 1.5253	+++++ 1.6120	1.7274 1.5439	1.5192 1.4120	1.6922 1.3512	Ave		1.5479				8.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Trichlorofluoromethane	+++++ 3.3282	3.3774 3.3203	3.0491 3.2570	3.3050 3.1386	3.4667 3.0258	Ave		3.2520				4.6		30.0			
Acrolein	+++++ 0.3645	+++++ 0.3873	+++++ 0.4333	+++++ 0.3449	0.4416 0.3410	Ave		0.3855				11.3		30.0			
Acetonitrile	+++++ 0.6425	+++++ 0.6542	+++++ 0.6025	0.4649 0.5769	0.5491 0.5355	Ave		0.5751				11.4		30.0			
Acetone	+++++ 0.6576	+++++ 0.6345	+++++ 0.5939	+++++ 0.5462	0.8838 0.5119	Ave		0.6380				20.7		30.0			
Pentane	+++++ 0.2223	+++++ 0.2394	+++++ 0.2318	0.2204 0.2239	0.2420 0.2223	Ave		0.2289				3.9		30.0			
Isopropyl alcohol	2.0445 1.8052	1.9846 1.9795	1.9329 1.7719	1.8817 1.7209	1.8939 1.6692	Ave		1.8684				6.6		30.0			
Ethyl ether	+++++ 1.5177	+++++ 1.6254	1.6032 1.5133	1.7440 1.4199	1.6884 1.3733	Ave		1.5607				8.2		30.0			
1,1-Dichloroethene	+++++ 1.2768	1.3859 1.2885	1.2342 1.3283	1.3969 1.2458	1.3854 1.1635	Ave		1.3006				6.2		30.0			
Acrylonitrile	+++++ 0.9656	+++++ 1.0127	+++++ 0.9799	0.9002 0.9252	1.0388 0.8895	Ave		0.9589				5.9		30.0			
tert-Butyl alcohol	+++++ 2.2589	+++++ 2.4248	2.6173 2.2857	2.3278 2.1550	2.3602 2.1201	Ave		2.3187				6.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 2.6175	+++++ 2.7892	2.7427 2.6846	3.0147 2.6294	2.9235 2.5912	Ave		2.7491				5.6		30.0			
Methylene Chloride	+++++ 1.3354	+++++ 1.2126	+++++ 1.1602	2.6564 1.1104	1.7848 +++++	Ave		1.5433				38.7	*	30.0			
3-Chloropropene	+++++ 1.2873	+++++ 1.3056	1.3978 1.1673	1.3442 1.1350	1.4259 1.1393	Ave		1.2753				9.1		30.0			
Carbon disulfide	+++++ 3.4529	+++++ 3.5063	3.4533 3.4547	3.3067 3.3496	3.6966 3.1287	Ave		3.4186				4.8		30.0			
trans-1,2-Dichloroethene	+++++ 1.3377	1.4290 1.4552	1.3966 1.4046	1.4119 1.3783	1.4326 1.3593	Ave		1.4006				2.7		30.0			
2-Methylpentane	+++++ 3.2013	3.5636 3.4610	3.3036 3.3080	3.3865 2.9713	3.5514 3.0086	Ave		3.3061				6.5		30.0			
Methyl tert-butyl ether	+++++ 3.3757	+++++ 3.4980	3.2509 3.4526	3.3858 3.2852	3.6039 3.1045	Ave		3.3696				4.6		30.0			
1,1-Dichloroethane	+++++ 2.3751	2.5086 2.4366	2.3878 2.3574	2.6268 2.2552	2.5766 2.1291	Ave		2.4059				6.4		30.0			
Vinyl acetate	+++++ 3.8272	+++++ 4.0947	3.6725 3.8070	3.4480 3.7636	3.9587 3.7530	Ave		3.7906				5.0		30.0			
2-Butanone (MEK)	+++++ 0.6406	+++++ 0.6920	+++++ 0.6145	0.8285 0.6299	0.6904 0.6279	Ave		0.6748				11.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Hexane	+++++ 1.0578	+++++ 1.1373	1.1561 1.0624	1.0809 1.0023	1.2326 1.0306	Ave		1.0950				6.9		30.0			
cis-1,2-Dichloroethene	+++++ 1.3435	1.2993 1.5183	1.4238 1.4577	1.6617 1.4469	1.5505 1.3823	Ave		1.4538				7.6		30.0			
Ethyl acetate	+++++ 3.4335	3.6328 3.6172	3.4839 3.4462	3.6366 3.2360	3.6466 3.1830	Ave		3.4795				5.0		30.0			
Chloroform	+++++ 2.8766	3.3067 2.9575	2.8469 2.8373	2.8829 2.6787	3.0078 2.6848	Ave		2.8977				6.5		30.0			
Tetrahydrofuran	+++++ 1.6509	+++++ 1.7784	1.8287 1.7135	1.8905 1.5948	1.7994 1.5531	Ave		1.7262				6.9		30.0			
1,1,1-Trichloroethane	3.1493 2.9120	2.7773 3.0058	3.1579 2.8040	2.9223 2.9352	3.0377 2.9169	Ave		2.9618				4.3		30.0			
1,2-Dichloroethane	0.2772 0.3249	0.3255 0.3104	0.3283 0.3135	0.3510 0.2972	0.3094 0.3136	Ave		0.3151				6.2		30.0			
1-Butanol	+++++ 0.1107	+++++ 0.1129	+++++ 0.1075	+++++ 0.1038	0.1111 0.1181	Ave		0.1107				4.4		30.0			
Cyclohexane	+++++ 0.1108	+++++ 0.1126	+++++ 0.1137	0.1250 0.1081	0.1068 0.1228	Ave		0.1143				6.2		30.0			
Benzene	0.8148 0.7633	0.7768 0.7472	0.8289 0.7582	0.7659 0.7154	0.7351 0.8087	Ave		0.7714				4.7		30.0			
Carbon tetrachloride	0.4284 0.5464	0.4512 0.5598	0.4562 0.5438	0.4715 0.5486	0.4674 0.6278	Ave		0.5101				12.5		30.0			
2,3-Dimethylpentane	+++++ 0.1674	+++++ 0.1604	0.1567 0.1638	0.1353 0.1587	0.1485 0.1690	Ave		0.1575				7.0		30.0			
Thiophene	+++++ 0.4125	+++++ 0.4015	0.3879 0.3931	0.3945 0.4035	0.3859 0.4239	Ave		0.4003				3.2		30.0			
2,2,4-Trimethylpentane	+++++ 1.2152	+++++ 1.2029	1.2047 1.2281	1.2110 1.1081	1.1994 1.2202	Ave		1.1987				3.2		30.0			
Heptane	+++++ 0.2567	+++++ 0.2633	0.2564 0.2627	0.2576 0.2467	0.2297 0.2668	Ave		0.2550				4.7		30.0			
1,2-Dichloropropane	+++++ 0.2875	+++++ 0.2853	0.2886 0.2742	0.2668 0.2610	0.2744 0.2861	Ave		0.2780				3.8		30.0			
Trichloroethene	0.3443 0.3307	0.3294 0.3414	0.3054 0.3496	0.2980 0.3375	0.3176 0.3660	Ave		0.3320				6.2		30.0			
Dibromomethane	+++++ 0.2929	0.3072 0.3004	0.2903 0.3027	0.2794 0.2903	0.2834 0.3143	Ave		0.2957				3.8		30.0			
Bromodichloromethane	+++++ 0.5006	+++++ 0.5142	0.4580 0.5123	0.4424 0.5019	0.4411 0.5546	Ave		0.4906				8.1		30.0			
1,4-Dioxane	+++++ 0.1152	+++++ 0.1173	+++++ 0.1199	0.0955 0.1120	0.1043 0.1186	Ave		0.1118				8.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.3384	+++++ 0.3460	+++++ 0.3548	0.3136 0.3373	0.3141 0.3787	Ave		0.3404				6.7		30.0			
Methylcyclohexane	+++++ 0.4108	+++++ 0.4335	0.4149 0.4351	0.4105 0.4196	0.4068 0.4495	Ave		0.4226				3.6		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.6415	+++++ 0.6570	0.5895 0.6473	0.5935 0.6201	0.6100 0.6877	Ave		0.6308				5.3		30.0			
cis-1,3-Dichloropropene	+++++ 0.3946	0.3260 0.4246	0.3207 0.3972	0.3823 0.4089	0.3656 0.4479	Ave		0.3853				11.0		30.0			
trans-1,3-Dichloropropene	+++++ 0.4033	0.3798 0.4680	0.3772 0.4433	0.3949 0.4700	0.3892 0.4703	Ave		0.4218				9.6		30.0			
Toluene	0.9562 0.9189	0.9026 1.0574	0.9539 1.0300	0.9146 1.0514	0.9898 1.0020	Ave		0.9777				5.8		30.0			
1,1,2-Trichloroethane	0.3388 0.2793	0.3166 0.3263	0.2823 0.3184	0.2886 0.3143	0.2927 0.3012	Ave		0.3059				6.5		30.0			
2-Hexanone	+++++ 0.3140	+++++ 0.3662	0.2945 0.3604	0.3113 0.3634	0.3152 0.3599	Ave		0.3356				8.8		30.0			
C8 Range	+++++ 2.6253	+++++ 2.7699	+++++ 2.6896	2.7491 2.5049	2.6475 2.7844	Ave		2.6815				3.7		30.0			
Octane	+++++ 0.2855	+++++ 0.3380	0.2430 0.3146	0.2799 0.3324	0.2893 0.3385	Ave		0.3027				11.3		30.0			
Dibromochloromethane	+++++ 0.5738	+++++ 0.6863	0.4237 0.6666	0.4750 0.7579	0.5177 0.7947	Ave		0.6120				22.1		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.5404	0.4995 0.6364	0.4875 0.6071	0.5154 0.6400	0.5458 0.6582	Ave		0.5700				11.6		30.0			
Tetrachloroethene	0.4005 0.3534	0.3815 0.4068	0.3673 0.3984	0.3877 0.4361	0.3741 0.4304	Ave		0.3936				6.7		30.0			
Chlorobenzene	0.8304 0.7683	0.7277 0.8883	0.7903 0.8599	0.7645 0.9287	0.8042 0.9197	Ave		0.8282				8.3		30.0			
Ethylbenzene	1.2805 1.2363	1.2724 1.4718	1.1953 1.3918	1.2874 1.4464	1.2489 1.4273	Ave		1.3258				7.5		30.0			
m-Xylene & p-Xylene	0.9455 0.9833	0.9495 1.1219	0.9686 1.1134	0.9707 1.1476	0.9742 +++++	Ave		1.0194				8.1		30.0			
Nonane	0.5919 0.6341	0.6105 0.7288	0.5577 0.7162	0.6265 0.7258	0.6303 0.6954	Ave		0.6517				9.3		30.0			
Bromoform	+++++ 0.5845	+++++ 0.7183	0.4066 0.7053	0.4255 +++++	0.5158 +++++	Ave		0.5593				24.0		30.0			
Styrene	+++++ 0.6801	+++++ 0.7967	0.5210 0.8121	0.5315 0.8848	0.6132 0.8801	Ave		0.7149				20.8		30.0			
o-Xylene	1.0478 0.9975	0.9320 1.0711	0.9431 1.0951	1.0039 1.1021	1.0321 1.1197	Ave		1.0345				6.3		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.6895 0.7678	0.6522 0.7971	0.6792 0.8315	0.7130 0.8513	0.7531 0.8668	Ave		0.7601				10.0		30.0			
1,2,3-Trichloropropane	+++++ 0.2154	0.2596 0.2394	0.2135 0.2552	0.2351 0.2558	0.2255 0.2547	Ave		0.2394				7.6		30.0			
Isopropylbenzene	1.5102 1.5033	1.4056 1.6590	1.4118 1.6352	1.4167 1.6748	1.5710 +++++	Ave		1.5319				7.1		30.0			
Propylbenzene	+++++ 0.3955	0.3562 0.4385	0.3841 0.4413	0.3703 0.4723	0.4092 +++++	Ave		0.4084				9.7		30.0			
2-Chlorotoluene	+++++ 0.3661	0.3747 0.4076	0.3340 0.4108	0.3773 0.4367	0.3875 +++++	Ave		0.3869				8.1		30.0			
4-Ethyltoluene	+++++ 1.4994	+++++ 1.6944	1.3559 1.7289	1.3397 1.7395	1.5426 +++++	Ave		1.5572				10.9		30.0			
1,3,5-Trimethylbenzene	+++++ 0.5864	+++++ 0.6547	0.5372 0.6390	0.5500 0.6738	0.5916 0.7107	Ave		0.6179				9.9		30.0			
Alpha Methyl Styrene	+++++ 0.5224	+++++ 0.6349	+++++ 0.6612	0.4050 0.7336	0.4511 0.7891	Ave		0.5996				24.1		30.0			
Decane	+++++ 0.8374	+++++ 0.9465	+++++ 0.9426	0.8014 0.9125	0.8459 0.9096	Ave		0.8851				6.4		30.0			
tert-Butylbenzene	+++++ 1.2746	+++++ 1.4997	1.2146 1.4649	1.2480 1.6001	1.3155 1.5569	Ave		1.3968				10.8		30.0			
1,2,4-Trimethylbenzene	1.2028 1.2553	1.1447 1.4812	1.1638 1.4659	1.2236 1.5654	1.2861 +++++	Ave		1.3099				11.8		30.0			
sec-Butylbenzene	+++++ 1.8690	+++++ 2.2054	1.7755 2.2283	1.8000 2.3529	1.9751 +++++	Ave		2.0295				11.4		30.0			
1,3-Dichlorobenzene	+++++ 0.8984	+++++ 1.0244	0.9172 1.0444	0.9105 1.1397	0.9240 1.0821	Ave		0.9926				9.3		30.0			
Benzyl chloride	+++++ 0.8980	+++++ 1.1805	0.7853 1.0109	0.7742 +++++	0.8369 +++++	Ave		0.9143				17.1		30.0			
1,4-Dichlorobenzene	0.9320 0.9020	0.8097 1.0419	0.9008 0.9990	0.8499 1.1436	0.9042 1.1157	Ave		0.9599				11.6		30.0			
4-Isopropyltoluene	1.2738 1.5148	1.2821 1.7152	1.3632 1.6510	1.4649 1.7846	1.5176 +++++	Ave		1.5075				12.2		30.0			
1,2,3-Trimethylbenzene	1.1397 1.2760	1.1040 1.4204	1.2047 1.4129	1.2732 1.4633	1.2567 +++++	Ave		1.2834				9.8		30.0			
Indane	+++++ 1.1644	+++++ 1.3331	1.1191 1.3630	1.1504 1.5135	1.1552 1.3466	Ave		1.2682				11.1		30.0			
1,2-Dichlorobenzene	0.9716 0.8829	0.8386 0.9926	0.8219 0.9879	0.8992 1.1198	0.8924 0.9970	Ave		0.9404				9.6		30.0			
Indene	+++++ 0.9756	+++++ 1.1838	+++++ 1.1752	0.8020 1.3866	0.9174 1.2488	Ave		1.0985				18.8		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Butylbenzene	1.5405 1.5136	1.4542 1.7535	1.5116 1.7283	1.5236 1.8209	1.5176 +++++	Ave		1.5960				8.3		30.0			
Undecane	+++++ 0.9944	+++++ 1.1367	+++++ 1.1008	0.9856 1.1400	0.9832 1.1336	Ave		1.0677				7.1		30.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.4053	+++++ 0.4840	0.2499 0.4850	0.3113 +++++	0.3288 +++++	Ave		0.3774				25.6		30.0			
1,2,4,5-Tetramethylbenzene	+++++ 1.4176	+++++ 1.6182	1.2965 1.4778	1.3345 1.7614	1.3349 +++++	Ave		1.4630				11.7		30.0			
Dodecane	+++++ 0.9887	+++++ 1.1112	+++++ 1.1554	+++++ 1.1970	0.9210 1.1713	Ave		1.0908				10.2		30.0			
1,2,4-Trichlorobenzene	0.8334 0.8256	0.7767 0.9382	0.7824 0.8703	0.8445 1.1053	0.7977 1.1092	Ave		0.8883				14.0		30.0			
Naphthalene	2.0153 1.7387	1.6688 1.9345	1.6648 1.7128	1.6791 2.1275	1.5832 +++++	Ave		1.7916				10.4		30.0			
Hexachlorobutadiene	0.6778 0.7081	0.7782 0.8206	0.7176 0.8078	0.7780 0.9153	0.7040 0.8414	Ave		0.7749				9.6		30.0			
1,2,3-Trichlorobenzene	1.0622 0.7905	0.7736 0.9168	0.8319 0.8354	0.8725 1.0918	0.7797 1.0720	Ave		0.9026				14.1		30.0			
2-Methylnaphthalene	+++++ 0.7436	+++++ 0.8342	+++++ 0.4785	+++++ 0.8163	+++++ 0.8021	Ave		0.7349				20.0		50.0			
1-Methylnaphthalene	+++++ 0.7392	+++++ 0.7597	+++++ 0.4609	+++++ 0.7235	+++++ 0.6914	Ave		0.6749				18.1		50.0			
4-Bromofluorobenzene (Surr)	0.5765 0.5768	0.5739 0.6155	0.5703 0.6054	0.5863 0.6287	0.5784 0.5987	Ave		0.5911				3.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	+++++ 219441	+++++ 494961	16054 1018776	37407 2348774	88870 4724731	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	+++++ 156506	+++++ 303639	+++++ 588113	+++++ 1269857	+++++ 2500503	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dichlorodifluoromethane	CBM	Ave	+++++ 183416	+++++ 406890	15282 839671	30972 2101908	74265 3856645	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	+++++ 44708	+++++ 88443	+++++ 176223	4661 346832	14239 693560	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	+++++ 166670	+++++ 305222	13317 631884	26181 1320196	62802 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Vinyl chloride	CBM	Ave	3313 103708	5237 291942	10071 474399	16243 1029765	41385 1661803	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	+++++ 81755	+++++ 219332	+++++ 413950	15357 771748	36625 1340227	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	+++++ 152419	+++++ 414338	14972 766058	30013 1465050	65401 2532410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	+++++ 103516	+++++ 274719	11831 478925	18901 1065063	42598 1702886	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	+++++ 41293	+++++ 121039	4697 191853	6737 435262	17294 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Ethanol	CBM	Ave	+++++ 243829	+++++ 623885	+++++ 1190978	40300 2822321	96824 5484760	+++++ 5.00	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	+++++ 93465	3929 218556	6610 476165	13519 1148135	33504 2136147	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	+++++ 122786	+++++ 299043	10731 628901	18236 1425882	50031 2767410	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	+++++ 267920	10884 615965	18941 1326757	39671 3169467	102492 6197158	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	+++++ 29346	+++++ 71857	+++++ 176527	+++++ 348337	13055 698308	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	+++++ 51720	+++++ 121363	+++++ 245426	5580 582616	16233 1096753	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Acetone	CBM	Ave	+++++ 158806	+++++ 353148	+++++ 725820	+++++ 1654698	78390 3145268	+++++ 3.00	+++++ 6.00	+++++ 12.0	+++++ 24.0	1.20 48.0
Pentane	CBM	Ave	+++++ 17893	+++++ 44407	+++++ 94410	2645 226085	7156 455388	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	11752 435961	19186 1101651	36022 2165369	67760 5213569	167975 10255859	0.0600 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	+++++ 122175	+++++ 301541	9959 616460	20934 1433907	49916 2812660	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	+++++ 102785	4466 239031	7667 541093	16768 1258021	40958 2383041	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	+++++ 77731	+++++ 187864	+++++ 399181	10806 934361	30713 1821857	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Ave	+++++ 181842	+++++ 449829	16259 931101	27942 2176270	69778 4342222	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	+++++ 210707	+++++ 517442	17038 1093608	36187 2655319	86433 5307039	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	+++++ 107501	+++++ 224958	+++++ 472620	31886 1121306	52768 +++++	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 +++++
3-Chloropropene	CBM	Ave	+++++ 103629	+++++ 242216	8683 475507	16135 1146190	42156 2333432	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	+++++ 277961	+++++ 650466	21452 1407313	39691 3382615	109289 6407900	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	+++++ 107685	4605 269961	8676 572169	16947 1391908	42354 2783877	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	+++++ 257703	11484 642069	20522 1347528	40649 3000565	104996 6161875	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	+++++ 271742	+++++ 648935	20195 1406422	40641 3317514	106549 6358374	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	+++++ 191196	8084 452018	14833 960313	31531 2277375	76177 4360528	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	+++++ 308087	+++++ 759618	22814 1550812	41387 3800716	117037 7686543	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	+++++ 51572	+++++ 128379	+++++ 250304	9945 636144	20411 1285975	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	+++++ 85156	+++++ 210994	7182 432765	12975 1012153	36443 2110781	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	+++++ 108153	4187 281658	8845 593822	19946 1461188	45839 2831075	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 276396	11707 671035	21642 1403825	43652 3267852	107812 6519087	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 231564	10656 548666	17685 1155781	34605 2705091	88925 5498611	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 132901	+++++ 329928	11360 698015	22692 1610482	53198 3180934	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	6034 234415	8950 557623	19617 1142217	35077 2964078	89808 5973969	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	3073 146276	5862 341855	11614 716206	24357 1682455	54501 3298299	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 49826	+++++ 124400	+++++ 245687	+++++ 587477	19570 1242418	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 49894	+++++ 124018	+++++ 259810	8676 611764	18817 1291544	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	9034 343664	13990 822928	29324 1732232	53145 4049317	129476 8504918	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	4750 246027	8126 616542	16140 1242435	32718 3105309	82320 6601975	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 75390	+++++ 176630	5543 374263	9391 898330	26163 1777213	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 185736	+++++ 442182	13723 898134	27373 2283966	67963 4458082	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 547133	+++++ 1324872	42620 2805646	84031 6272565	211257 12833072	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 115588	+++++ 290028	9072 600275	17873 1396634	40457 2805393	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 129462	+++++ 314183	10210 626326	18516 1477336	48324 3008646	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	3817 148885	5933 376006	10806 798633	20676 1910661	55942 3849636	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 131893	5532 330920	10271 691506	19384 1643327	49916 3305615	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	+++++ 225379	+++++ 566326	16203 1170432	30697 2840812	77686 5832457	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 51868	+++++ 129226	+++++ 273917	6626 633790	18371 1247808	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 152368	+++++ 381120	+++++ 810493	21764 1909381	55330 3983049	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 184946	+++++ 477484	14678 993926	28483 2375366	71644 4727152	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 288813	+++++ 723671	20857 1478879	41180 3510335	107444 7232492	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 177650	5872 467682	11346 907449	26525 2314593	64389 4710253	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 159588	5834 426975	11139 838028	22630 2144122	56564 4441543	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	8499 363606	13865 964843	28166 1947337	52417 4796384	143846 9463414	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	3011 110540	4864 297744	8335 602007	16538 1433844	42543 2844825	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 124236	+++++ 334091	8696 681395	17840 1657957	45806 3399102	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	DFBZ	Ave	+++++ 1182032	+++++ 3050806	+++++ 6144751	190756 14179004	466318 29283193	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	+++++ 112993	+++++ 308402	7174 594761	16040 1516549	42048 3196625	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromochloromethane	CBZd 5	Ave	+++++ 227075	+++++ 626193	12512 1260220	27226 3457683	75235 7505025	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 213842	7673 580652	14394 1147731	29539 2919521	79328 6216264	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	3560 139836	5861 371188	10846 753130	22221 1989330	54373 4065061	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	7381 304012	11179 810531	23336 1625792	43813 4236877	116875 8686236	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	11381 489233	19545 1342943	35296 2631374	73785 6598286	181497 13479819	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	16808 778233	29171 2047299	57204 4209823	111265 10470526	283166 +++++	0.0400 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 +++++
Nonane	CBZd 5	Ave	5261 250934	9378 664979	16468 1353990	35904 3311198	91602 6567091	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 231275	+++++ 655431	12006 1333496	24384 +++++	74964 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
Styrene	CBZd 5	Ave	+++++ 269110	+++++ 726918	15385 1535403	30460 4036484	89120 8312171	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	9313 394718	14317 977284	27849 2070387	57536 5027892	149999 10574999	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	6128 303835	10018 727258	20054 1572025	40863 3883559	109448 8186594	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 85244	3987 218447	6305 482487	13476 1166777	32774 2405567	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	13423 594874	21592 1513692	41687 3091481	81194 7640100	228313 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Propylbenzene	CBZd 5	Ave	+++++ 156505	5471 400140	11343 834225	21220 2154443	59470 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	+++++ 144883	5756 371923	9862 776733	21624 1992363	56318 +++++	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
4-Ethyltoluene	CBZd 5	Ave	+++++ 593308	+++++ 1546060	40037 3268553	76782 7935354	224183 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3,5-Trimethylbenzene	CBZd 5	Ave	+++++ 232045	+++++ 597390	15863 1208158	31521 3073985	85979 6711519	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	+++++ 206714	+++++ 579320	+++++ 1249980	23210 3346770	65556 7451929	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	+++++ 331365	+++++ 863597	+++++ 1782051	45930 4162906	122940 8590182	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	+++++ 504364	+++++ 1368395	35865 2769458	71523 7299538	191186 14703312	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	10691 496740	17584 1351477	34364 2771424	70127 7141354	186908 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
sec-Butylbenzene	CBZd 5	Ave	+++++ 739600	+++++ 2012250	52428 4212854	103163 10733538	287037 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,3-Dichlorobenzene	CBZd 5	Ave	+++++ 355492	+++++ 934677	27082 1974523	52180 5199306	134286 10219340	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	+++++ 355341	+++++ 1077107	23187 1911127	44372 +++++	121625 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,4-Dichlorobenzene	CBZd 5	Ave	8284 356925	12438 950700	26600 1888678	48709 5217028	131413 10536468	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	11322 599428	19695 1565012	40253 3121329	83958 8141205	220551 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
1,2,3-Trimethylbenzene	CBZd 5	Ave	10130 504915	16958 1296053	35572 2671168	72971 6675523	182641 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Indane	CBZd 5	Ave	+++++ 460776	+++++ 1216324	33045 2576919	65933 6904704	167879 12717942	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	8636 349367	12882 905677	24269 1867790	51537 5108636	129699 9415816	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	+++++ 386043	+++++ 1080114	+++++ 2221880	45967 6325607	133321 11794325	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	13692 598930	22338 1599950	44636 3267502	87320 8307001	220549 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Undecane	CBZd 5	Ave	+++++ 393485	+++++ 1037149	+++++ 2081162	56488 5200472	142886 10705948	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	+++++ 160389	+++++ 441614	7380 916988	17844 +++++	47784 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 +++++	0.400 +++++
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	+++++ 560939	+++++ 1476473	38284 2793851	76485 8035274	194002 +++++	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Dodecane	CBZd 5	Ave	+++++ 391221	+++++ 1013886	+++++ 2184461	+++++ 5460527	133853 11061506	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd5	Ave	7407 326688	11931 856029	23104 1645400	48402 5042191	115933 10475148	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd5	Ave	17912 688030	25635 1765089	49158 3238137	96234 9705570	230088 +++++	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++
Hexachlorobutadiene	CBZd5	Ave	6024 280210	11954 748771	21188 1527206	44590 4175503	102309 7946181	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd5	Ave	9441 312804	11884 836533	24564 1579413	50004 4980903	113317 10123830	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd5	Ave	+++++ 294266	+++++ 761167	+++++ 904624	+++++ 3724073	+++++ 7575277	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
1-Methylnaphthalene	CBZd5	Ave	+++++ 292533	+++++ 693175	+++++ 871340	+++++ 3300680	+++++ 6530127	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	1024776 912943	881623 1123246	841925 1144637	840097 1433981	840618 1413499	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:
Ave = Average ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-33257/7	RI03IC01.D
Level 2	IC 140-33257/8	RI03IC02.D
Level 3	IC 140-33257/9	RI03IC03.D
Level 4	IC 140-33257/10	RI03IC04.D
Level 5	IC 140-33257/11	RI03IC05.D
Level 6	IC 140-33257/12	RI03IC06.D
Level 7	ICIS 140-33257/23	RI03IC07R.D
Level 8	IC 140-33257/14	RI03IC08.D
Level 9	IC 140-33257/2	RI03IC09.D
Level 10	IC 140-33257/4	RI03IC10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	-2.6						50			
Propene	+++++	+++++	+++++	+++++	+++++	29.6						50
Dichlorodifluoromethane	+++++	+++++	9.0						50			
Chloromethane	+++++	+++++	+++++	-9.9						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	+++++	+++++	15.2	+++++					50			
Vinyl chloride	27.3						50					
1,3-Butadiene	+++++	+++++	+++++	25.2						50		
Butane	+++++	+++++	21.9						50			
Bromomethane	+++++	+++++	41.8						50			
Chloroethane	+++++	+++++	33.3	+++++					50			
Ethanol	+++++	+++++	+++++	9.7						50		
Vinyl bromide	+++++	7.3						50				
2-Methylbutane	+++++	+++++	11.6						50			
Trichlorofluoromethane	+++++	3.9						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Acrolein	+++++	+++++	+++++	+++++	14.6						50	
Acetonitrile	+++++	+++++	+++++	-19.2						50		
Acetone	+++++	+++++	+++++	+++++	38.5						80	
Pentane	+++++	+++++	+++++	-3.7						50		
Isopropyl alcohol	9.4						50					
Ethyl ether	+++++	+++++	2.7						50			
1,1-Dichloroethene	+++++	6.6						50				
Acrylonitrile	+++++	+++++	+++++	-6.1						50		
tert-Butyl alcohol	+++++	+++++	12.9						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++	+++++	-0.2						50			
Methylene Chloride	+++++	+++++	+++++	72.1 +++++						80		
3-Chloropropene	+++++	+++++	9.6						50			
Carbon disulfide	+++++	+++++	1.0						50			
trans-1,2-Dichloroethene	+++++	2.0						50				
2-Methylpentane	+++++	7.8						50				
Methyl tert-butyl ether	+++++	+++++	-3.5						50			
1,1-Dichloroethane	+++++	4.3						50				
Vinyl acetate	+++++	+++++	-3.1						50			
2-Butanone (MEK)	+++++	+++++	+++++	22.8						50		
Hexane	+++++	+++++	5.6						50			
cis-1,2-Dichloroethene	+++++	-10.6						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Ethyl acetate	+++++	4.4						50				
Chloroform	+++++	14.1						50				
Tetrahydrofuran	+++++	+++++	5.9						50			
1,1,1-Trichloroethane	6.3						50					
1,2-Dichloroethane	-12.0						50					
1-Butanol	+++++	+++++	+++++	+++++	0.4						50	
Cyclohexane	+++++	+++++	+++++	9.4						50		
Benzene	5.6						50					
Carbon tetrachloride	-16.0						50					
2,3-Dimethylpentane	+++++	+++++	-0.5						50			
Thiophene	+++++	+++++	-3.1						50			
2,2,4-Trimethylpentane	+++++	+++++	0.5						50			
Heptane	+++++	+++++	0.6						50			
1,2-Dichloropropane	+++++	+++++	3.8						50			
Trichloroethene	3.7						50					
Dibromomethane	+++++	3.9						50				
Bromodichloromethane	+++++	+++++	-6.6						50			
1,4-Dioxane	+++++	+++++	+++++	-14.6						50		
Methyl methacrylate	+++++	+++++	+++++	-7.9						50		
Methylcyclohexane	+++++	+++++	-1.8						50			
4-Methyl-2-pentanone (MIBK)	+++++	+++++	-6.5						50			

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
cis-1,3-Dichloropropene	+++++	-15.4						50				
trans-1,3-Dichloropropene	+++++	-10.0						50				
Toluene	-2.2						50					
1,1,2-Trichloroethane	10.8						50					
2-Hexanone	+++++	+++++	-12.2						50			
Octane	+++++	+++++	-19.7						50			
Dibromochloromethane	+++++	+++++	-30.8						50			
1,2-Dibromoethane (EDB)	+++++	-12.4						50				
Tetrachloroethene	1.8						50					
Chlorobenzene	0.3						50					
Ethylbenzene	-3.4						50					
m-Xylene & p-Xylene	-7.2			+++++			50					
Nonane	-9.2						50					
Bromoform	+++++	+++++	-27.3 +++++	+++++					50			
Styrene	+++++	+++++	-27.1						50			
o-Xylene	1.3						50					
1,1,2,2-Tetrachloroethane	-9.3						50					
1,2,3-Trichloropropane	+++++	8.4						50				
Isopropylbenzene	-1.4			+++++			50					
Propylbenzene	+++++	-12.8		+++++				50				
2-Chlorotoluene	+++++	-3.1		+++++				50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
4-Ethyltoluene	+++++	+++++	-12.9	+++++					50			
1,3,5-Trimethylbenzene	+++++	+++++	-13.1						50			
Alpha Methyl Styrene	+++++	+++++	+++++	-32.5						50		
Decane	+++++	+++++	+++++	-9.5						50		
tert-Butylbenzene	+++++	+++++	-13.0						50			
1,2,4-Trimethylbenzene	-8.2			+++++			50					
sec-Butylbenzene	+++++	+++++	-12.5	+++++					50			
1,3-Dichlorobenzene	+++++	+++++	-7.6						50			
Benzyl chloride	+++++	+++++	-14.1 +++++	+++++					50			
1,4-Dichlorobenzene	-2.9						50					
4-Isopropyltoluene	-15.5			+++++			50					
1,2,3-Trimethylbenzene	-11.2			+++++			50					
Indane	+++++	+++++	-11.8						50			
1,2-Dichlorobenzene	3.3						50					
Indene	+++++	+++++	+++++	-27.0						50		
Butylbenzene	-3.5			+++++			50					
Undecane	+++++	+++++	+++++	-7.7						50		
1,2-Dibromo-3-Chloropropane	+++++	+++++	-33.8 +++++	+++++					50			
1,2,4,5-Tetramethylbenzene	+++++	+++++	-11.4	+++++					50			
Dodecane	+++++	+++++	+++++	+++++	-15.6						50	
1,2,4-Trichlorobenzene	-6.2						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1 Analy Batch No.: 33257

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/03/2019 10:26 Calibration End Date: 09/04/2019 09:04 Calibration ID: 2118

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Naphthalene	12.5			+++++			80					
Hexachlorobutadiene	-12.5						50					
1,2,3-Trichlorobenzene	17.7						50					
2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	1.2						80
1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	9.5						80

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 03-Sep-2019 10:26:30 ALS Bottle#: 8 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-002
Misc. Info.: 245075
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:33:43 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:51:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.537	0.002	92	504925	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	93	2830280	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	85	2280964	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	98	1433981	4.00	4.25	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	97	2348774	8.00	7.01	
7 Propene	41	3.437	3.433	0.004	99	1269857	8.00	6.70	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	2101908	8.00	7.38	
9 Chloromethane	52	3.664	3.661	0.003	100	346832	8.00	6.38	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	85	1320196	8.00	5.62	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	1942954	40.0	29.3	
12 Vinyl chloride	62	3.826	3.823	0.003	99	1029765	8.00	6.00	
13 Butadiene	54	3.912	3.909	0.003	70	771748	8.00	5.98	
14 Butane	43	3.912	3.909	0.003	84	1465050	8.00	5.87	
15 Bromomethane	94	4.225	4.221	0.004	96	1065063	8.00	6.28	
16 Chloroethane	64	4.359	4.357	0.002	95	435262	8.00	6.08	
17 Ethanol	31	4.462	4.461	0.001	96	2822321	40.0	36.5	
18 Vinyl bromide	106	4.651	4.649	0.002	98	1148135	8.00	8.00	
19 2-Methylbutane	43	4.694	4.695	-0.001	94	1425882	8.00	7.30	
21 Trichlorofluoromethane	101	4.910	4.911	-0.001	99	3169467	8.00	7.72	
20 Acrolein	56	4.926	4.929	-0.003	95	348337	8.00	7.16	
24 Acetonitrile	40	4.996	5.002	-0.006	99	582616	8.00	8.03	
22 Acetone	58	5.039	5.050	-0.011	98	1654698	24.0	20.5	
25 Pentane	72	5.131	5.133	-0.002	71	226085	8.00	7.83	
23 Isopropyl alcohol	45	5.131	5.142	-0.011	83	5213569	24.0	22.1	
26 Ethyl ether	31	5.298	5.312	-0.014	94	1433907	8.00	7.28	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	99	1258021	8.00	7.66	
28 Acrylonitrile	53	5.729	5.728	0.001	95	934361	8.00	7.72	
29 2-Methyl-2-propanol	59	5.718	5.745	-0.027	96	2176270	8.00	7.44	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	95	2655319	8.00	7.65	
32 3-Chloro-1-propene	39	5.983	5.964	0.019	96	1146190	8.00	7.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	98	1121306	8.00	5.76	
33 Carbon disulfide	76	6.128	6.125	0.003	99	3382615	8.00	7.84	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	97	1391908	8.00	7.87	
35 2-Methylpentane	43	6.797	6.795	0.002	95	3000565	8.00	7.19	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	97	3317514	8.00	7.80	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	99	2277375	8.00	7.50	
38 Vinyl acetate	43	7.315	7.318	-0.003	100	3800716	8.00	7.94	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	96	636144	8.00	7.47	
40 Hexane	56	7.784	7.785	-0.001	84	1012153	8.00	7.32	
41 Isopropyl ether	45	7.945	7.963	-0.018	98	4678822	8.00	7.39	
42 cis-1,2-Dichloroethene	96	8.204	8.203	0.001	91	1461188	8.00	7.96	
43 Ethyl acetate	43	8.393	8.402	-0.009	99	3267852	8.00	7.44	
44 Chloroform	83	8.555	8.549	0.006	96	2705091	8.00	7.40	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	95	4012888	8.00	7.78	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	96	1610482	8.00	7.39	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	94	2964078	8.00	7.93	
48 1,2-Dichloroethane	62	9.709	9.701	0.008	96	1682455	8.00	7.55	
50 n-Butanol	31	10.151	10.176	-0.025	82	587477	8.00	7.50	
49 Benzene	78	10.205	10.199	0.006	96	4049317	8.00	7.42	
51 Cyclohexane	69	10.199	10.200	-0.001	95	611764	8.00	7.57	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	96	3105309	8.00	8.60	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	92	898330	8.00	8.06	
54 Thiophene	84	10.485	10.482	0.003	96	2283966	8.00	8.06	
55 Isooctane	57	10.987	10.986	0.001	99	6272565	8.00	7.40	
57 n-Heptane	71	11.375	11.378	-0.003	93	1396634	8.00	7.74	
56 1,2-Dichloropropane	63	11.467	11.464	0.003	90	1477336	8.00	7.51	
58 Trichloroethene	130	11.499	11.496	0.003	95	1910661	8.00	8.13	
59 Dibromomethane	93	11.591	11.587	0.004	92	1643327	8.00	7.86	
60 Dichlorobromomethane	83	11.736	11.735	0.001	98	2840812	8.00	8.18	
61 1,4-Dioxane	88	11.742	11.759	-0.017	87	633790	8.00	8.01	
62 Methyl methacrylate	41	11.833	11.836	-0.003	94	1909381	8.00	7.93	
63 Methylcyclohexane	83	12.281	12.276	0.005	96	2375366	8.00	7.94	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	3510335	8.00	7.86	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	95	2314593	8.00	8.49	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	99	2144122	8.00	8.91	
67 Toluene	91	13.586	13.584	0.002	93	4796384	8.00	8.60	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	96	1433844	8.00	8.22	
69 2-Hexanone	58	14.044	14.055	-0.011	91	1657957	8.00	8.66	
71 n-Octane	85	14.281	14.283	-0.002	95	1516549	8.00	8.79	
70 Chlorodibromomethane	129	14.373	14.370	0.003	97	3457683	8.00	9.91	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	2919521	8.00	8.98	
73 Tetrachloroethene	129	14.734	14.736	-0.002	98	1989330	8.00	8.86	
74 Chlorobenzene	112	15.619	15.615	0.004	96	4236877	8.00	8.97	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	97	5019244	8.00	7.86	
76 Ethylbenzene	91	15.905	15.904	0.001	97	6598286	8.00	8.73	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	10470526	16.0	18.0	
81 n-Nonane	57	16.487	16.488	-0.001	94	3311198	8.00	8.91	
78 Bromoform	173	16.519	16.519	0.000	98	4142191	8.00	13.0	
79 Styrene	104	16.535	16.535	0.000	98	4036484	8.00	9.90	
80 o-Xylene	91	16.595	16.595	0.000	99	5027892	8.00	8.52	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	99	3883559	8.00	8.96	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	1166777	8.00	8.55	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	95	7640100	8.00	8.75	
85 N-Propylbenzene	120	17.749	17.749	0.000	100	2154443	8.00	9.25	
86 2-Chlorotoluene	126	17.792	17.789	0.003	96	1992363	8.00	9.03	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	7935354	8.00	8.94	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	3073985	8.00	8.72	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	3346770	8.00	9.79	
90 n-Decane	57	18.283	18.286	-0.003	90	4162906	8.00	8.25	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	95	7299538	8.00	9.16	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	7141354	8.00	9.56	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	10733538	8.00	9.27	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	5199306	8.00	9.19	
96 Benzyl chloride	91	18.800	18.798	0.002	99	6053316	8.00	11.6	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	97	5217028	8.00	9.53	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	8141205	8.00	9.47	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	6675523	8.00	9.12	
99 Butylcyclohexane	83	18.984	18.983	0.001	95	4967219	8.00	8.53	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	6904704	8.00	9.55	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	5108636	8.00	9.53	
102 Indene	116	19.313	19.315	-0.002	91	6325607	8.00	10.1	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	8307001	8.00	9.13	
104 Undecane	57	19.636	19.638	-0.002	96	5200472	8.00	8.54	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	2765964	8.00	12.9	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	8035274	8.00	9.63	
107 Dodecane	57	20.715	20.713	0.002	95	5460527	8.00	8.78	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	5042191	8.00	9.95	
109 Naphthalene	128	21.060	21.060	0.000	99	9705570	8.00	9.50	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	4175503	8.00	9.45	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	4980903	8.00	9.68	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	3724073	8.00	8.89	
113 1-Methylnaphthalene	142	22.144	22.143	0.001	97	3300680	8.00	8.58	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	14179004	8.00	7.47	
S 116 Xylenes, Total	100				0		24.0	26.5	
S 117 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L9DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

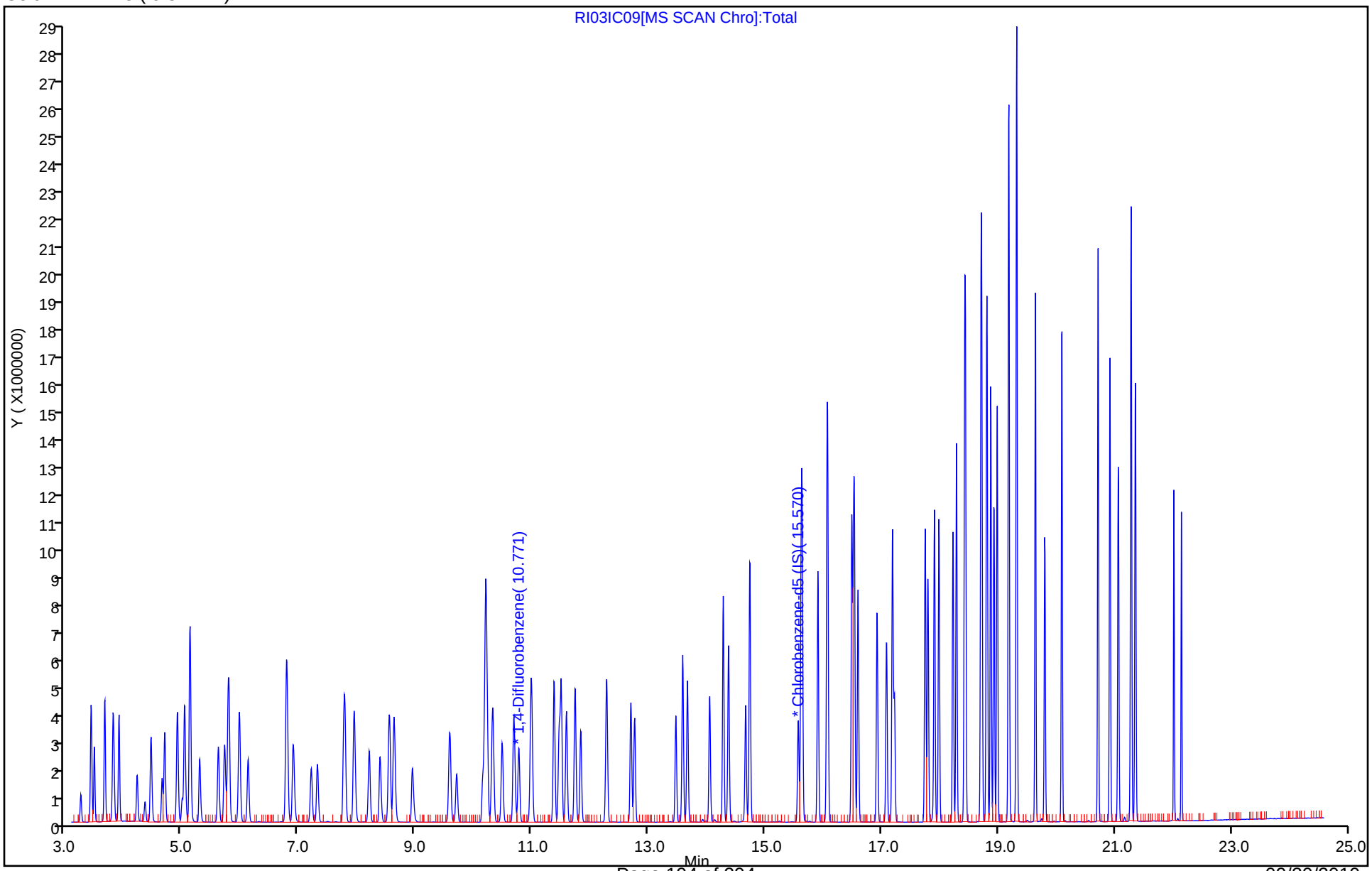
Report Date: 04-Sep-2019 17:33:46 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D

Injection Date:	03-Sep-2019 10:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L9			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

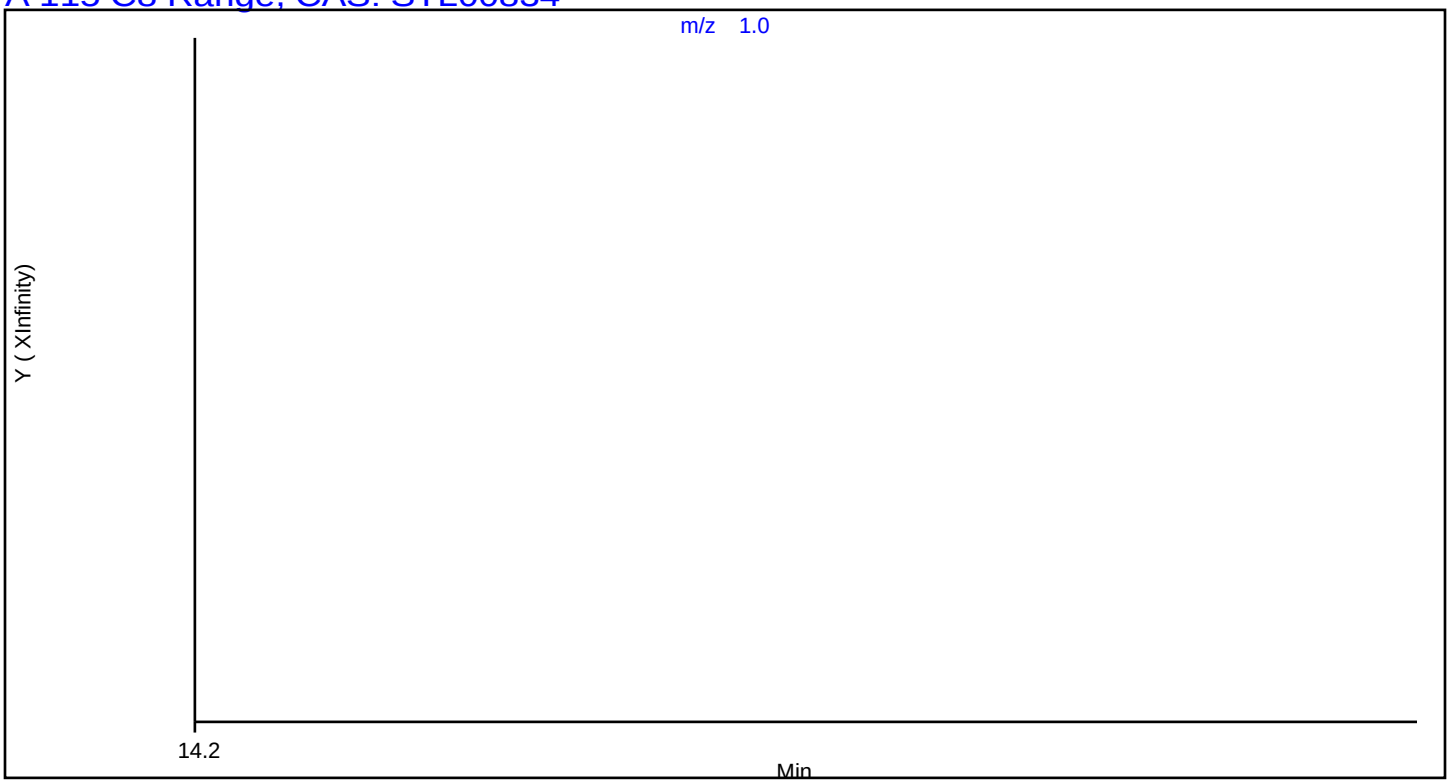


Report Date: 04-Sep-2019 17:33:46 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC09.D				
Injection Date:	03-Sep-2019 10:26:30	Instrument ID:	MR		
Lims ID:	IC L9				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	8	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D
Lims ID: IC 10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 03-Sep-2019 12:02:30 ALS Bottle#: 9 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-004
Misc. Info.: 245074
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:33:54 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 17:20:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.549	8.537	0.012	95	512022	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.782	10.770	0.012	94	2629211	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	85	2361044	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1413499	4.00	4.05	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	97	4724731	16.0	13.9	
7 Propene	41	3.432	3.433	-0.001	99	2500503	16.0	13.0	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	3856645	16.0	13.4	
9 Chloromethane	52	3.658	3.661	-0.003	100	693560	16.0	12.6	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	92	2492992	16.0	10.5	
11 Acetaldehyde	44	3.809	3.811	-0.002	100	3138649	80.0	46.7	
12 Vinyl chloride	62	3.825	3.823	0.002	99	1661803	16.0	9.56	
13 Butadiene	54	3.906	3.909	-0.003	70	1340227	16.0	10.2	
14 Butane	43	3.906	3.909	-0.003	84	2532410	16.0	10.0	
15 Bromomethane	94	4.219	4.221	-0.002	95	1702886	16.0	9.90	
16 Chloroethane	64	4.359	4.357	0.002	90	729119	16.0	10.0	
17 Ethanol	31	4.473	4.461	0.012	97	5484760	80.0	70.0	
18 Vinyl bromide	106	4.650	4.649	0.001	99	2136147	16.0	14.7	
19 2-Methylbutane	43	4.694	4.695	-0.001	93	2767410	16.0	14.0	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	99	6197158	16.0	14.9	
20 Acrolein	56	4.931	4.929	0.002	95	698308	16.0	14.2	
24 Acetonitrile	40	5.006	5.002	0.004	98	1096753	16.0	14.9	
22 Acetone	58	5.044	5.050	-0.006	98	3145268	48.0	38.5	
25 Pentane	72	5.130	5.133	-0.003	97	455388	16.0	15.5	
23 Isopropyl alcohol	45	5.141	5.142	-0.001	98	10255859	48.0	42.9	
26 Ethyl ether	31	5.298	5.312	-0.014	93	2812660	16.0	14.1	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	99	2383041	16.0	14.3	
28 Acrylonitrile	53	5.740	5.728	0.012	94	1821857	16.0	14.8	
29 2-Methyl-2-propanol	59	5.729	5.745	-0.016	96	4342222	16.0	14.6	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	96	5307039	16.0	15.1	
32 3-Chloro-1-propene	39	5.988	5.964	0.024	95	2333432	16.0	14.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.977	5.969	0.008	98	2166319	16.0	11.0	
33 Carbon disulfide	76	6.128	6.125	0.003	100	6407900	16.0	14.6	
34 trans-1,2-Dichloroethene	96	6.786	6.779	0.007	98	2783877	16.0	15.5	
35 2-Methylpentane	43	6.797	6.795	0.002	95	6161875	16.0	14.6	
36 Methyl tert-butyl ether	73	6.904	6.927	-0.023	97	6358374	16.0	14.7	
37 1,1-Dichloroethane	63	7.217	7.208	0.009	100	4360528	16.0	14.2	
38 Vinyl acetate	43	7.325	7.318	0.007	100	7686543	16.0	15.8	
39 2-Butanone (MEK)	72	7.773	7.782	-0.009	96	1285975	16.0	14.9	
40 Hexane	56	7.794	7.785	0.009	84	2110781	16.0	15.1	
41 Isopropyl ether	45	7.951	7.963	-0.012	98	9477981	16.0	14.8	
42 cis-1,2-Dichloroethene	96	8.215	8.203	0.012	91	2831075	16.0	15.2	
43 Ethyl acetate	43	8.398	8.402	-0.004	98	6519087	16.0	14.6	
44 Chloroform	83	8.565	8.549	0.016	97	5498611	16.0	14.8	
45 Tert-butyl ethyl ether	59	8.641	8.649	-0.008	95	8124559	16.0	15.5	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	95	3180934	16.0	14.4	
47 1,1,1-Trichloroethane	97	9.595	9.586	0.009	95	5973969	16.0	15.8	
48 1,2-Dichloroethane	62	9.714	9.701	0.013	96	3298299	16.0	15.9	
50 n-Butanol	31	10.156	10.176	-0.020	86	1242418	16.0	17.1	
49 Benzene	78	10.210	10.199	0.011	96	8504918	16.0	16.8	
51 Cyclohexane	69	10.205	10.200	0.005	93	1291544	16.0	17.2	
52 Carbon tetrachloride	117	10.232	10.222	0.010	97	6601975	16.0	19.7	
53 2,3-Dimethylpentane	71	10.334	10.324	0.010	92	1777213	16.0	17.2	
54 Thiophene	84	10.496	10.482	0.014	96	4458082	16.0	16.9	
55 Isooctane	57	10.997	10.986	0.011	99	12833072	16.0	16.3	
57 n-Heptane	71	11.386	11.378	0.008	93	2805393	16.0	16.7	
56 1,2-Dichloropropane	63	11.472	11.464	0.008	90	3008646	16.0	16.5	
58 Trichloroethene	130	11.504	11.496	0.008	96	3849636	16.0	17.6	
59 Dibromomethane	93	11.596	11.587	0.009	92	3305615	16.0	17.0	
60 Dichlorobromomethane	83	11.741	11.735	0.006	99	5832457	16.0	18.1	
61 1,4-Dioxane	88	11.747	11.759	-0.012	87	1247808	16.0	17.0	
62 Methyl methacrylate	41	11.838	11.836	0.002	93	3983049	16.0	17.8	
63 Methylcyclohexane	83	12.286	12.276	0.010	95	4727152	16.0	17.0	
64 4-Methyl-2-pentanone (MIBK	43	12.701	12.705	-0.004	98	7232492	16.0	17.4	
65 cis-1,3-Dichloropropene	75	12.766	12.759	0.007	95	4710253	16.0	18.6	
66 trans-1,3-Dichloropropene	75	13.472	13.467	0.005	99	4441543	16.0	17.8	
67 Toluene	91	13.591	13.584	0.007	94	9463414	16.0	16.4	
68 1,1,2-Trichloroethane	83	13.672	13.665	0.007	95	2844825	16.0	15.8	
69 2-Hexanone	58	14.049	14.055	-0.006	91	3399102	16.0	17.2	
71 n-Octane	85	14.287	14.283	0.004	95	3196625	16.0	17.9	
70 Chlorodibromomethane	129	14.378	14.370	0.008	97	7505025	16.0	20.8	
72 Ethylene Dibromide	107	14.669	14.664	0.005	98	6216264	16.0	18.5	
73 Tetrachloroethene	129	14.740	14.736	0.004	98	4065061	16.0	17.5	
74 Chlorobenzene	112	15.619	15.615	0.004	96	8686236	16.0	17.8	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	96	10019065	16.0	15.1	
76 Ethylbenzene	91	15.910	15.904	0.006	97	13479819	16.0	17.2	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	93	19401940	32.0	32.2	e
81 n-Nonane	57	16.492	16.488	0.004	92	6567091	16.0	17.1	
78 Bromoform	173	16.519	16.519	0.000	97	8457732	16.0	25.6	
79 Styrene	104	16.535	16.535	0.000	98	8312171	16.0	19.7	
80 o-Xylene	91	16.600	16.595	0.005	99	10574999	16.0	17.3	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	99	8186594	16.0	18.2	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	2405567	16.0	17.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	15600596	16.0	17.3	e
85 N-Propylbenzene	120	17.743	17.749	-0.006	97	4706259	16.0	19.5	e
86 2-Chlorotoluene	126	17.743	17.789	-0.046	96	3057385	16.0	13.4	e
88 4-Ethyltoluene	105	17.905	17.907	-0.002	97	15674889	16.0	17.1	e
87 1,3,5-Trimethylbenzene	120	17.986	17.983	0.003	94	6711519	16.0	18.4	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	7451929	16.0	21.1	
90 n-Decane	57	18.288	18.286	0.002	91	8590182	16.0	16.4	
91 tert-Butylbenzene	119	18.428	18.425	0.003	94	14703312	16.0	17.8	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	13988235	16.0	18.1	e
94 sec-Butylbenzene	105	18.698	18.703	-0.005	97	16935248	16.0	14.1	e
93 1,3-Dichlorobenzene	146	18.725	18.720	0.005	98	10219340	16.0	17.4	
96 Benzyl chloride	91	18.800	18.798	0.002	99	12638085	16.0	23.4	
95 1,4-Dichlorobenzene	146	18.816	18.811	0.005	96	10536468	16.0	18.6	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	89	14552055	16.0	16.4	e
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	97	13486782	16.0	17.8	e
99 Butylcyclohexane	83	18.983	18.983	0.000	94	10280341	16.0	17.0	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	94	12717942	16.0	17.0	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	83	9415816	16.0	17.0	
102 Indene	116	19.312	19.315	-0.003	91	11794325	16.0	18.2	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	14429567	16.0	15.3	e
104 Undecane	57	19.641	19.638	0.003	96	10705948	16.0	17.0	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	94	6313108	16.0	28.3	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	96	13934904	16.0	16.1	e
107 Dodecane	57	20.714	20.713	0.001	95	11061506	16.0	17.2	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	10475148	16.0	20.0	
109 Naphthalene	128	21.054	21.060	-0.006	99	16171061	16.0	15.3	e
110 Hexachlorobutadiene	225	21.286	21.283	0.003	92	7946181	16.0	17.4	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	10123830	16.0	19.0	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	7575277	16.0	17.5	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	6530127	16.0	16.4	
A 115 C8 Range	1	14.279	(14.238-14.335)		0	29283193	16.0	16.6	
S 116 Xylenes, Total	100				0		48.0	49.6	
S 117 1,2-Dichloroethene, Total	1				0		32.0	30.7	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

40L10DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

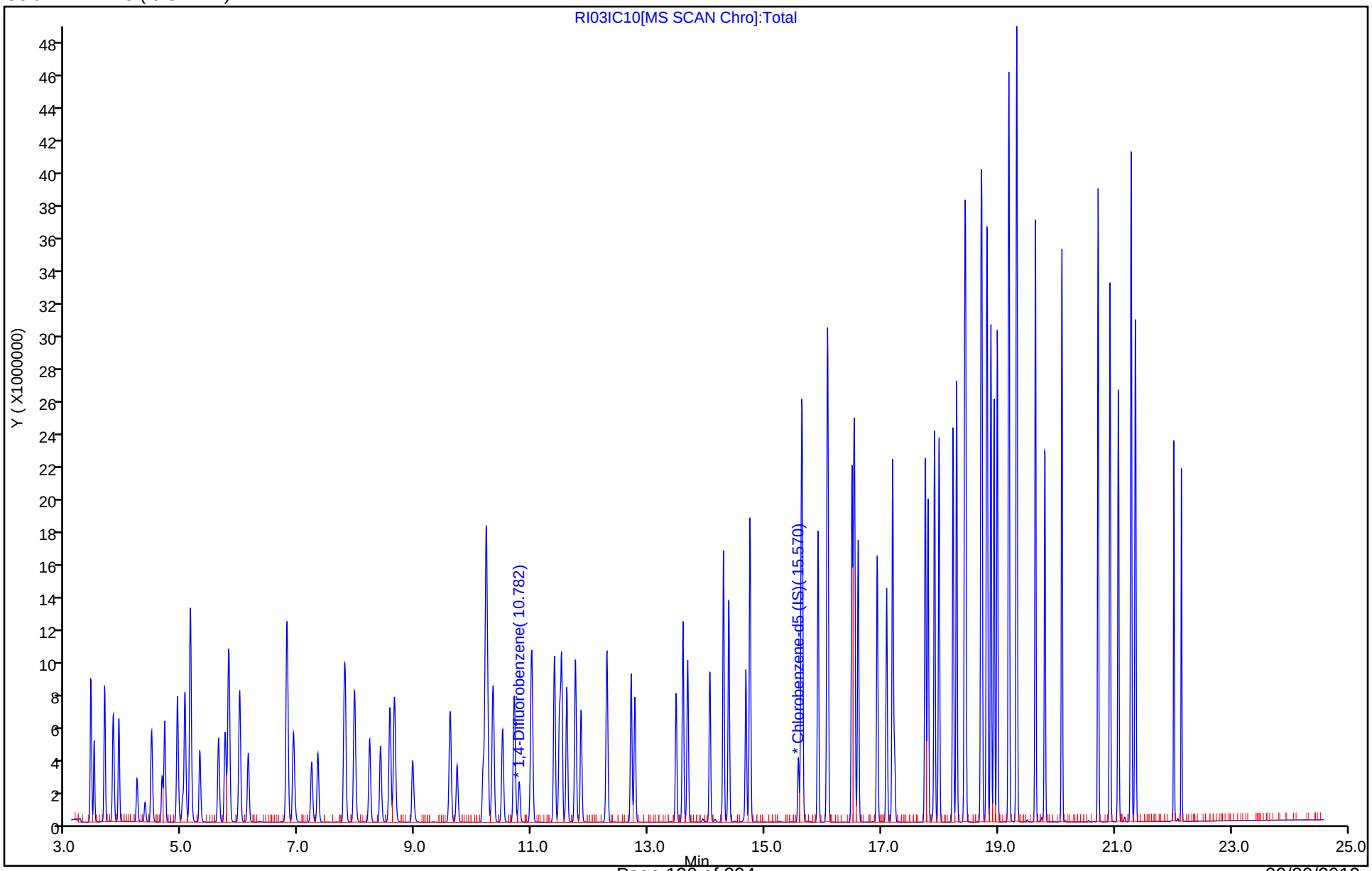
Report Date: 04-Sep-2019 17:33:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D

Injection Date:	03-Sep-2019 12:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC 10			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

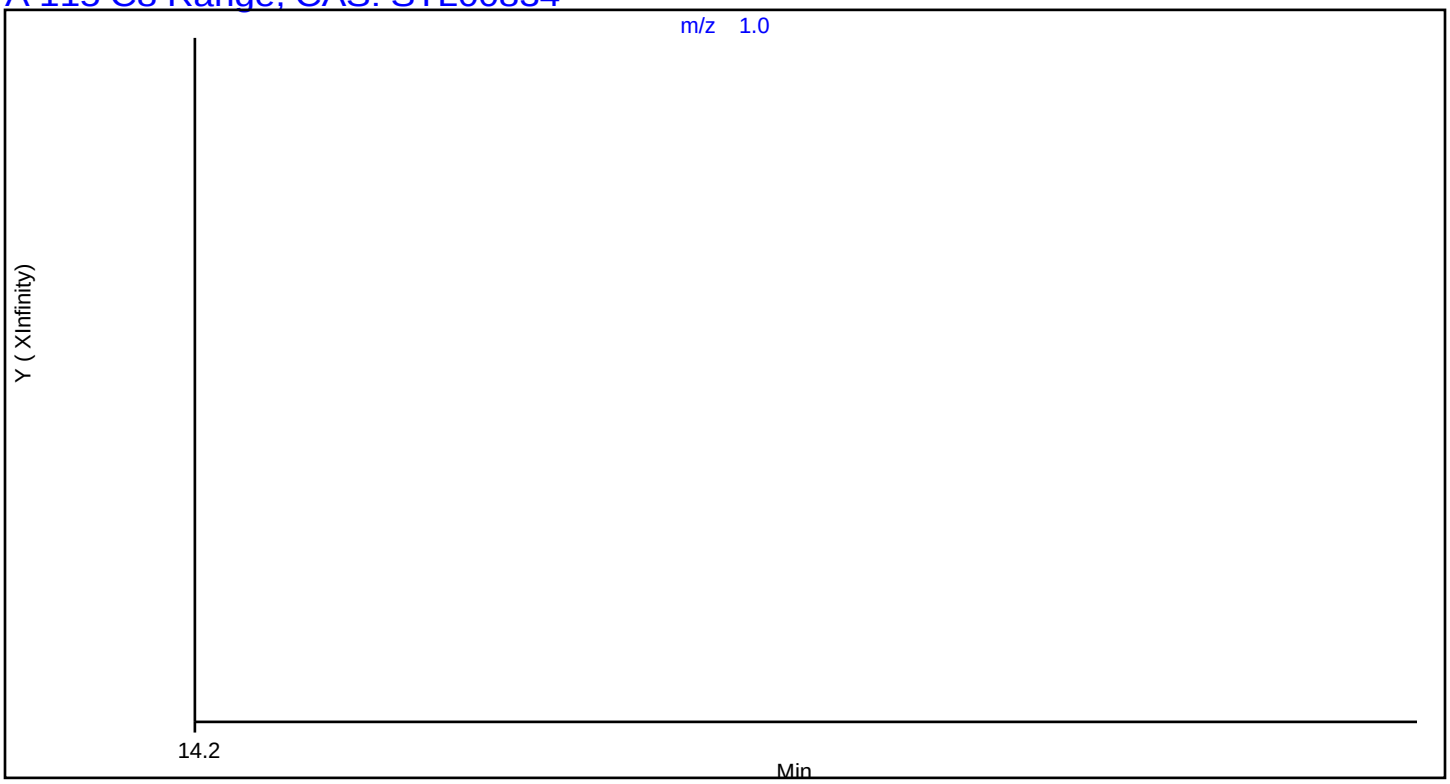


Report Date: 04-Sep-2019 17:33:56 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC10.D				
Injection Date:	03-Sep-2019 12:02:30	Instrument ID:	MR		
Lims ID:	IC 10				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	9	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Sep-2019 14:26:30 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-007
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:04 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	94	383199	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	2217357	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1777627	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1024776	4.00	3.90	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	40	6123	0.0200	0.0241	
7 Propene	41	3.432	3.433	-0.001	99	49459	0.0200	0.3440	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	73	6535	0.0200	0.0302	
9 Chloromethane	52	3.658	3.661	-0.003	28	366	0.0200	0.008865	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	88	7333	0.0200	0.0411	
11 Acetaldehyde	44	3.804	3.811	-0.007	96	17172	0.1000	0.3416	
12 Vinyl chloride	62	3.815	3.823	-0.008	36	3313	0.0200	0.0255	
13 Butadiene	54	3.906	3.909	-0.003	58	3104	0.0200	0.0317	
14 Butane	43	3.901	3.909	-0.008	73	6848	0.0200	0.0362	
15 Bromomethane	94	4.219	4.221	-0.002	71	5052	0.0200	0.0392	
16 Chloroethane	64	4.370	4.357	0.013	44	1617	0.0200	0.0298	
17 Ethanol	31	4.467	4.461	0.006	96	8207	0.1000	0.1400	
18 Vinyl bromide	106	4.645	4.649	-0.004	55	2289	0.0200	0.0210	
19 2-Methylbutane	43	4.704	4.695	0.009	53	3866	0.0200	0.0261	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	95	7793	0.0200	0.0250	
20 Acrolein	56	4.926	4.929	-0.003	45	2951	0.0200	0.0799	
24 Acetonitrile	40	5.060	5.002	0.058	22	1057	0.0200	0.0192	
22 Acetone	58	5.060	5.050	0.010	99	9882	0.0600	0.1617	
25 Pentane	72	5.136	5.133	0.003	60	89	0.0200	0.004059	
23 Isopropyl alcohol	45	5.157	5.142	0.015	90	11752	0.0600	0.0657	
26 Ethyl ether	31	5.330	5.312	0.018	78	3599	0.0200	0.0241	
27 1,1-Dichloroethene	96	5.610	5.615	-0.005	45	3361	0.0200	0.0270	
28 Acrylonitrile	53	5.729	5.728	0.001	1	1010	0.0200	0.0110	
29 2-Methyl-2-propanol	59	5.794	5.745	0.049	87	5915	0.0200	0.0266	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	91	4891	0.0200	0.0186	
32 3-Chloro-1-propene	39	5.788	5.964	-0.176	44	1699	0.0200	0.0139	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	98	23402	0.0200	0.1583	
33 Carbon disulfide	76	6.123	6.125	-0.002	81	6047	0.0200	0.0185	
34 trans-1,2-Dichloroethene	96	6.780	6.779	0.001	93	2990	0.0200	0.0223	
35 2-Methylpentane	43	6.797	6.795	0.002	80	6401	0.0200	0.0202	
36 Methyl tert-butyl ether	73	6.980	6.927	0.053	48	5269	0.0200	0.0163	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	5	2998	0.0200	0.0130	
38 Vinyl acetate	43	7.331	7.318	0.013	86	6805	0.0200	0.0187	
39 2-Butanone (MEK)	72	7.805	7.782	0.023	86	1214	0.0200	0.0188	
40 Hexane	56	7.789	7.785	0.004	76	1509	0.0200	0.0144	
41 Isopropyl ether	45	7.994	7.963	0.031	87	8113	0.0200	0.0169	
42 cis-1,2-Dichloroethene	96	8.209	8.203	0.006	35	2870	0.0200	0.0206	
43 Ethyl acetate	43	8.420	8.402	0.018	67	4019	0.0200	0.0121	
44 Chloroform	83	8.555	8.549	0.006	27	6419	0.0200	0.0231	
45 Tert-butyl ethyl ether	59	8.684	8.649	0.035	92	8242	0.0200	0.0211	
46 Tetrahydrofuran	42	8.959	8.968	-0.009	1	52	0.0200	0.000314	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	55	6034	0.0200	0.0213	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	28	3073	0.0200	0.0176	
50 n-Butanol	31	10.199	10.176	0.023	57	1655	0.0200	0.0270	
49 Benzene	78	10.194	10.199	-0.005	92	9034	0.0200	0.0211	
51 Cyclohexane	69	10.205	10.200	0.005	50	1112	0.0200	0.0176	
52 Carbon tetrachloride	117	10.226	10.222	0.004	60	4750	0.0200	0.0168	
53 2,3-Dimethylpentane	71	10.334	10.324	0.010	74	1829	0.0200	0.0210	
54 Thiophene	84	10.490	10.482	0.008	33	4671	0.0200	0.0210	
55 Isooctane	57	10.987	10.986	0.001	93	13486	0.0200	0.0203	
57 n-Heptane	71	11.375	11.378	-0.003	93	3097	0.0200	0.0219	
56 1,2-Dichloropropane	63	11.466	11.464	0.002	38	3104	0.0200	0.0201	
58 Trichloroethene	130	11.493	11.496	-0.003	47	3817	0.0200	0.0207	
59 Dibromomethane	93	11.590	11.587	0.003	83	4028	0.0200	0.0246	
60 Dichlorobromomethane	83	11.736	11.735	0.001	60	4749	0.0200	0.0175	
61 1,4-Dioxane	88	11.785	11.759	0.026	40	1347	0.0200	0.0217	
62 Methyl methacrylate	41	11.844	11.836	0.008	22	4352	0.0200	0.0231	
63 Methylcyclohexane	83	12.275	12.276	-0.001	90	4250	0.0200	0.0181	
64 4-Methyl-2-pentanone (MIBK	43	12.728	12.705	0.023	69	5760	0.0200	0.0165	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	85	4546	0.0200	0.0213	
66 trans-1,3-Dichloropropene	75	13.472	13.467	0.005	64	3523	0.0200	0.0188	
67 Toluene	91	13.586	13.584	0.002	96	8499	0.0200	0.0196	
68 1,1,2-Trichloroethane	83	13.672	13.665	0.007	87	3011	0.0200	0.0222	
69 2-Hexanone	58	14.076	14.055	0.021	85	2966	0.0200	0.0199	
71 n-Octane	85	14.292	14.283	0.009	95	2562	0.0200	0.0190	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	92	3574	0.0200	0.0131	
72 Ethylene Dibromide	107	14.670	14.664	0.006	49	4375	0.0200	0.0173	
73 Tetrachloroethene	129	14.745	14.736	0.009	87	3560	0.0200	0.0204	
74 Chlorobenzene	112	15.613	15.615	-0.002	89	7381	0.0200	0.0201	
75 2,3-Dimethylheptane	43	15.629	15.634	-0.005	95	10890	0.0200	0.0219	
76 Ethylbenzene	91	15.899	15.904	-0.005	97	11381	0.0200	0.0193	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	16808	0.0400	0.0371	
81 n-Nonane	57	16.492	16.488	0.004	95	5261	0.0200	0.0182	
78 Bromoform	173	16.514	16.519	-0.005	85	3714	0.0200	0.0149	
79 Styrene	104	16.535	16.535	0.000	51	4313	0.0200	0.0136	
80 o-Xylene	91	16.595	16.595	0.000	96	9313	0.0200	0.0203	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	96	6128	0.0200	0.0181	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	85	2596	0.0200	0.0244	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	46	13423	0.0200	0.0197	
85 N-Propylbenzene	120	17.754	17.749	0.005	98	3141	0.0200	0.0173	
86 2-Chlorotoluene	126	17.792	17.789	0.003	94	3567	0.0200	0.0207	
88 4-Ethyltoluene	105	17.910	17.907	0.003	97	11987	0.0200	0.0173	
87 1,3,5-Trimethylbenzene	120	17.980	17.983	-0.003	94	4837	0.0200	0.0176	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	3539	0.0200	0.0133	
90 n-Decane	57	18.288	18.286	0.002	91	5892	0.0200	0.0150	
91 tert-Butylbenzene	119	18.417	18.425	-0.008	83	10010	0.0200	0.0161	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	94	10691	0.0200	0.0184	
94 sec-Butylbenzene	105	18.698	18.703	-0.005	96	14564	0.0200	0.0161	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	92	7543	0.0200	0.0171	
96 Benzyl chloride	91	18.800	18.798	0.002	80	6940	0.0200	0.0171	
95 1,4-Dichlorobenzene	146	18.805	18.811	-0.006	93	8284	0.0200	0.0194	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	95	11322	0.0200	0.0169	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	97	10130	0.0200	0.0178	
99 Butylcyclohexane	83	18.983	18.983	0.000	91	7654	0.0200	0.0169	
101 2,3-Dihydroindene	117	19.183	19.180	0.003	90	8965	0.0200	0.0159	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	84	8636	0.0200	0.0207	
102 Indene	116	19.318	19.315	0.003	87	7668	0.0200	0.0157	
103 n-Butylbenzene	91	19.323	19.320	0.003	97	13692	0.0200	0.0193	
104 Undecane	57	19.641	19.638	0.003	88	6270	0.0200	0.0132	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	81	2639	0.0200	0.0157	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	99	10743	0.0200	0.0165	
107 Dodecane	57	20.709	20.713	-0.004	89	5914	0.0200	0.0122	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	85	7407	0.0200	0.0188	
109 Naphthalene	128	21.059	21.060	-0.001	98	17912	0.0200	0.0225	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	81	6024	0.0200	0.0175	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	90	9441	0.0200	0.0235	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	93	13005	0.0200	0.0398	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	96	15695	0.0200	0.0523	
A 115 C8 Range	1	14.274	(14.249-14.314)		0	30047	0.0200	0.0202	
S 116 Xylenes, Total	100				0		0.0600	0.0574	
S 117 1,2-Dichloroethene, Total	1				0		0.0400	0.0429	

Reagents:

40L1-3DQP_00016	Amount Added: 50.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

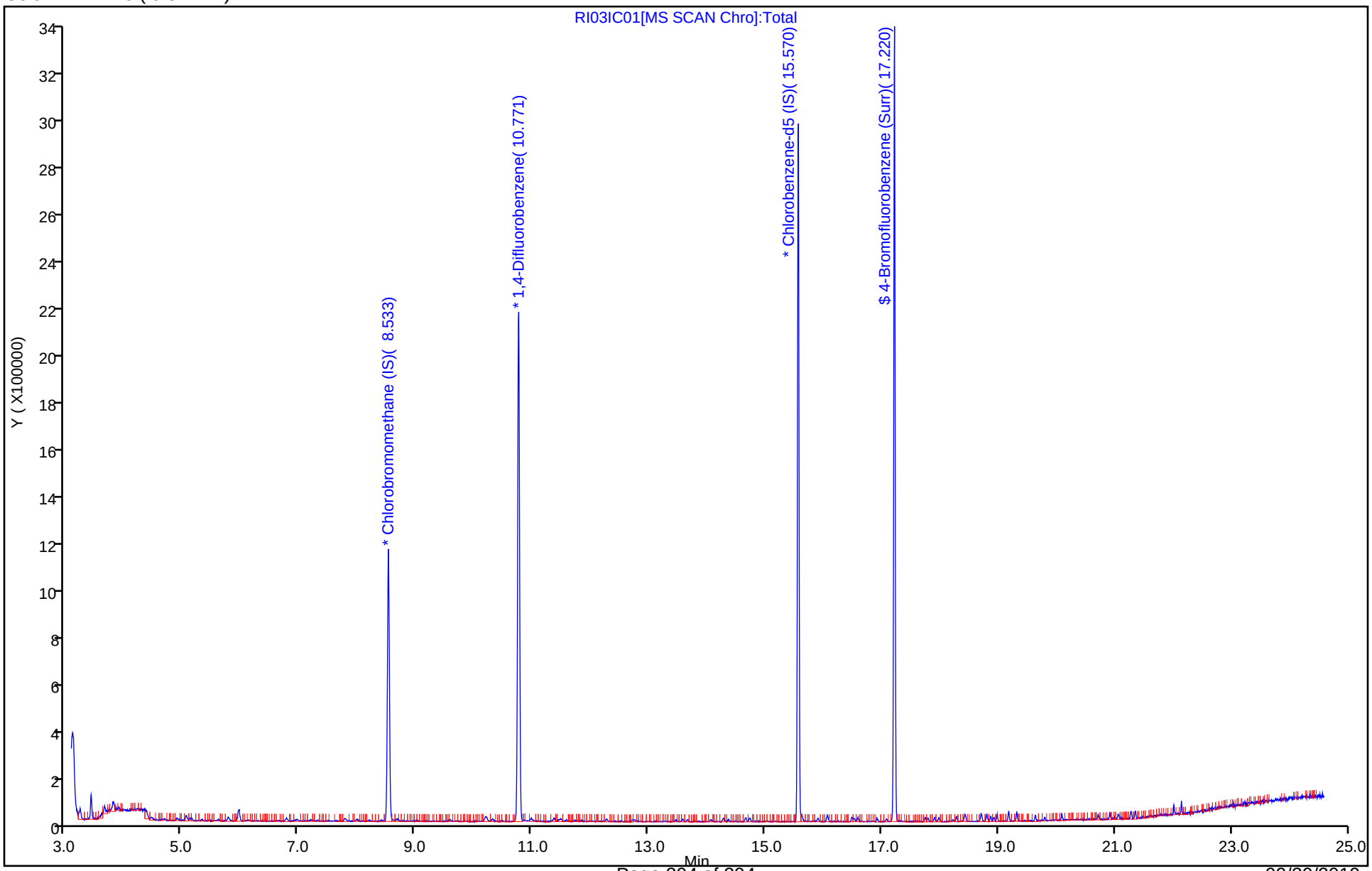
Report Date: 04-Sep-2019 17:34:06 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D

Injection Date:	03-Sep-2019 14:26:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

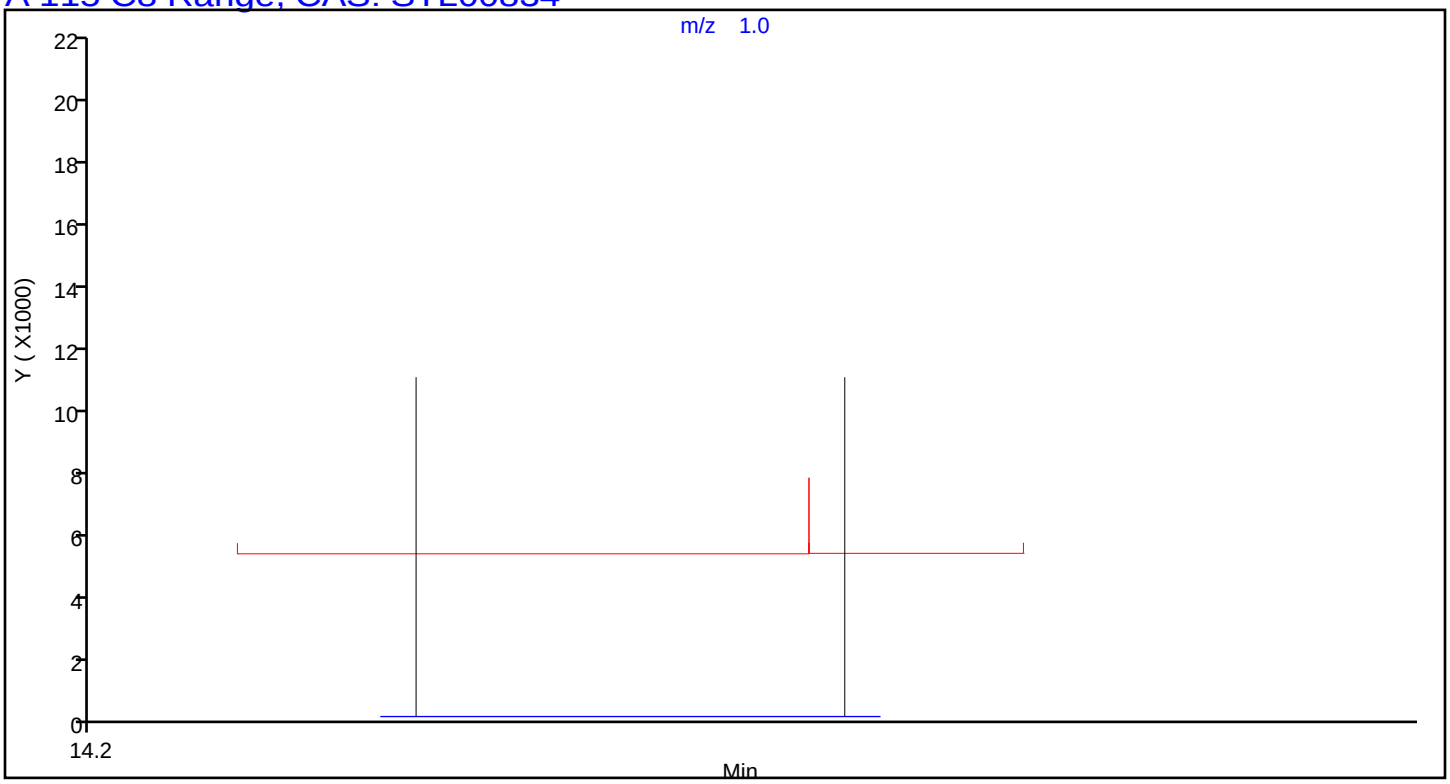


Report Date: 04-Sep-2019 17:34:06 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC01.D				
Injection Date:	03-Sep-2019 14:26:30	Instrument ID:	MR		
Lims ID:	IC L1				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Sep-2019 15:13:30 ALS Bottle#: 1 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-008
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:12 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	95	322255	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1800958	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1536108	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	881623	4.00	3.88	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	47	10237	0.0400	0.0479	
7 Propene	41	3.427	3.433	-0.006	99	49766	0.0400	0.4116	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	96	8523	0.0400	0.0469	
9 Chloromethane	52	3.664	3.661	0.003	81	3197	0.0400	0.0921	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	89	10647	0.0400	0.0710	
11 Acetaldehyde	44	3.809	3.811	-0.002	98	31541	0.2000	0.7462	
12 Vinyl chloride	62	3.820	3.823	-0.003	39	5237	0.0400	0.0478	
13 Butadiene	54	3.906	3.909	-0.003	57	3417	0.0400	0.0415	
14 Butane	43	3.912	3.909	0.003	76	6359	0.0400	0.0399	
15 Bromomethane	94	4.225	4.221	0.004	79	6593	0.0400	0.0609	
16 Chloroethane	64	4.349	4.357	-0.008	16	1348	0.0400	0.0295	
17 Ethanol	31	4.467	4.461	0.006	96	12783	0.2000	0.2593	
18 Vinyl bromide	106	4.651	4.649	0.002	76	3929	0.0400	0.0429	
19 2-Methylbutane	43	4.694	4.695	-0.001	90	7344	0.0400	0.0589	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	97	10884	0.0400	0.0415	
20 Acrolein	56	4.931	4.929	0.002	39	3432	0.0400	0.1105	
24 Acetonitrile	40	4.990	5.002	-0.012	83	3811	0.0400	0.0823	
22 Acetone	58	5.071	5.050	0.021	97	17079	0.1200	0.3323	
25 Pentane	72	5.131	5.133	-0.002	45	747	0.0400	0.0405	
23 Isopropyl alcohol	45	5.163	5.142	0.021	97	19186	0.1200	0.1275	
26 Ethyl ether	31	5.335	5.312	0.023	77	5336	0.0400	0.0424	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	92	4466	0.0400	0.0426	
28 Acrylonitrile	53	5.729	5.728	0.001	54	2352	0.0400	0.0304	
29 2-Methyl-2-propanol	59	5.772	5.745	0.027	92	9651	0.0400	0.0517	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	90	8314	0.0400	0.0375	
32 3-Chloro-1-propene	39	5.993	5.964	0.029	48	6738	0.0400	0.0656	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	96	21473	0.0400	0.1727	
33 Carbon disulfide	76	6.128	6.125	0.003	72	11605	0.0400	0.0421	
34 trans-1,2-Dichloroethene	96	6.786	6.779	0.007	67	4605	0.0400	0.0408	
35 2-Methylpentane	43	6.797	6.795	0.002	95	11484	0.0400	0.0431	
36 Methyl tert-butyl ether	73	6.953	6.927	0.026	73	10797	0.0400	0.0398	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	95	8084	0.0400	0.0417	
38 Vinyl acetate	43	7.314	7.318	-0.004	94	9791	0.0400	0.0321	
39 2-Butanone (MEK)	72	7.811	7.782	0.029	92	2931	0.0400	0.0539	
40 Hexane	56	7.794	7.785	0.009	64	3675	0.0400	0.0417	
41 Isopropyl ether	45	7.988	7.963	0.025	97	17054	0.0400	0.0422	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	57	4187	0.0400	0.0357	
43 Ethyl acetate	43	8.420	8.402	0.018	97	11707	0.0400	0.0418	
44 Chloroform	83	8.549	8.549	0.000	28	10656	0.0400	0.0456	
45 Tert-butyl ethyl ether	59	8.668	8.649	0.019	93	12204	0.0400	0.0371	
46 Tetrahydrofuran	42	9.008	8.968	0.040	76	6384	0.0400	0.0459	
47 1,1,1-Trichloroethane	97	9.585	9.586	-0.001	95	8950	0.0400	0.0375	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	91	5862	0.0400	0.0413	
50 n-Butanol	31	10.199	10.176	0.023	60	3164	0.0400	0.0635	
49 Benzene	78	10.194	10.199	-0.005	94	13990	0.0400	0.0403	
51 Cyclohexane	69	10.205	10.200	0.005	76	1898	0.0400	0.0369	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	73	8126	0.0400	0.0354	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	90	2943	0.0400	0.0415	
54 Thiophene	84	10.474	10.482	-0.008	88	6228	0.0400	0.0346	
55 Isooctane	57	10.992	10.986	0.006	95	20863	0.0400	0.0387	
57 n-Heptane	71	11.391	11.378	0.013	91	4989	0.0400	0.0435	
56 1,2-Dichloropropane	63	11.472	11.464	0.008	63	4881	0.0400	0.0390	
58 Trichloroethene	130	11.488	11.496	-0.008	87	5933	0.0400	0.0397	
59 Dibromomethane	93	11.596	11.587	0.009	91	5532	0.0400	0.0416	
60 Dichlorobromomethane	83	11.742	11.735	0.007	94	7632	0.0400	0.0346	
61 1,4-Dioxane	88	11.779	11.759	0.020	10	1634	0.0400	0.0325	
62 Methyl methacrylate	41	11.849	11.836	0.013	86	5569	0.0400	0.0363	
63 Methylcyclohexane	83	12.265	12.276	-0.011	87	7957	0.0400	0.0418	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.705	0.007	96	9739	0.0400	0.0343	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	69	5872	0.0400	0.0338	
66 trans-1,3-Dichloropropene	75	13.473	13.467	0.006	93	5834	0.0400	0.0360	
67 Toluene	91	13.586	13.584	0.002	90	13865	0.0400	0.0369	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	85	4864	0.0400	0.0414	
69 2-Hexanone	58	14.066	14.055	0.011	90	4578	0.0400	0.0355	
71 n-Octane	85	14.287	14.283	0.004	92	5174	0.0400	0.0445	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	92	6152	0.0400	0.0262	
72 Ethylene Dibromide	107	14.664	14.664	0.000	56	7673	0.0400	0.0351	
73 Tetrachloroethene	129	14.740	14.736	0.004	92	5861	0.0400	0.0388	
74 Chlorobenzene	112	15.613	15.615	-0.002	92	11179	0.0400	0.0351	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	91	15671	0.0400	0.0364	
76 Ethylbenzene	91	15.904	15.904	0.000	97	19545	0.0400	0.0384	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	98	29171	0.0800	0.0745	
81 n-Nonane	57	16.487	16.488	-0.001	91	9378	0.0400	0.0375	
78 Bromoform	173	16.519	16.519	0.000	70	5964	0.0400	0.0278	
79 Styrene	104	16.541	16.535	0.006	88	6981	0.0400	0.0254	
80 o-Xylene	91	16.595	16.595	0.000	98	14317	0.0400	0.0360	
82 1,1,2,2-Tetrachloroethane	83	16.929	16.923	0.006	95	10018	0.0400	0.0343	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	93	3987	0.0400	0.0434	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	93	21592	0.0400	0.0367	
85 N-Propylbenzene	120	17.743	17.749	-0.006	98	5471	0.0400	0.0349	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	5756	0.0400	0.0387	
88 4-Ethyltoluene	105	17.900	17.907	-0.007	98	19621	0.0400	0.0328	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	97	7721	0.0400	0.0325	
89 Alpha Methyl Styrene	118	18.218	18.225	-0.007	87	4965	0.0400	0.0216	
90 n-Decane	57	18.288	18.286	0.002	89	10205	0.0400	0.0300	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	17123	0.0400	0.0319	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	17584	0.0400	0.0350	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	24562	0.0400	0.0315	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	95	13285	0.0400	0.0349	
96 Benzyl chloride	91	18.795	18.798	-0.003	89	10770	0.0400	0.0307	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	92	12438	0.0400	0.0337	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	98	19695	0.0400	0.0340	
98 1,2,3-Trimethylbenzene	105	18.930	18.926	0.004	97	16958	0.0400	0.0344	
99 Butylcyclohexane	83	18.984	18.983	0.001	91	13824	0.0400	0.0352	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	89	14958	0.0400	0.0307	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	87	12882	0.0400	0.0357	
102 Indene	116	19.312	19.315	-0.003	76	12109	0.0400	0.0287	
103 n-Butylbenzene	91	19.323	19.320	0.003	98	22338	0.0400	0.0364	
104 Undecane	57	19.636	19.638	-0.002	92	12555	0.0400	0.0306	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	84	4430	0.0400	0.0306	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	95	19336	0.0400	0.0344	
107 Dodecane	57	20.709	20.713	-0.004	88	9377	0.0400	0.0224	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	91	11931	0.0400	0.0350	
109 Naphthalene	128	21.060	21.060	0.000	98	25635	0.0400	0.0373	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	91	11954	0.0400	0.0402	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	92	11884	0.0400	0.0343	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	97	11611	0.0400	0.0411	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	97	13945	0.0400	0.0538	
A 115 C8 Range	1	14.274	(14.249-14.314)		0	51184	0.0400	0.0424	
S 116 Xylenes, Total	100				0		0.1200	0.1106	
S 117 1,2-Dichloroethene, Total	1				0		0.0800	0.0766	

Reagents:

40L1-3DQP_00016	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

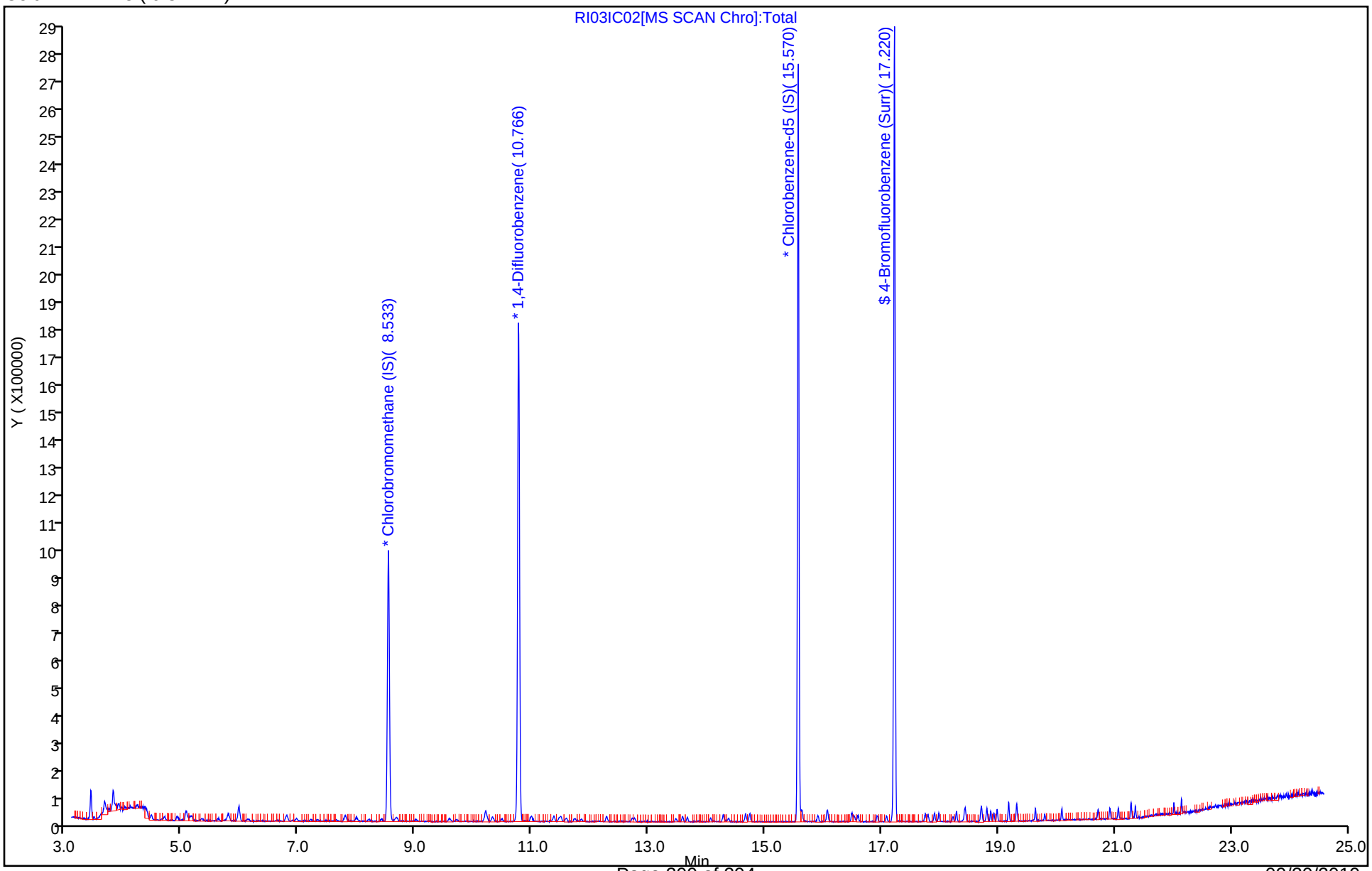
Report Date: 04-Sep-2019 17:34:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D

Injection Date:	03-Sep-2019 15:13:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L2			Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

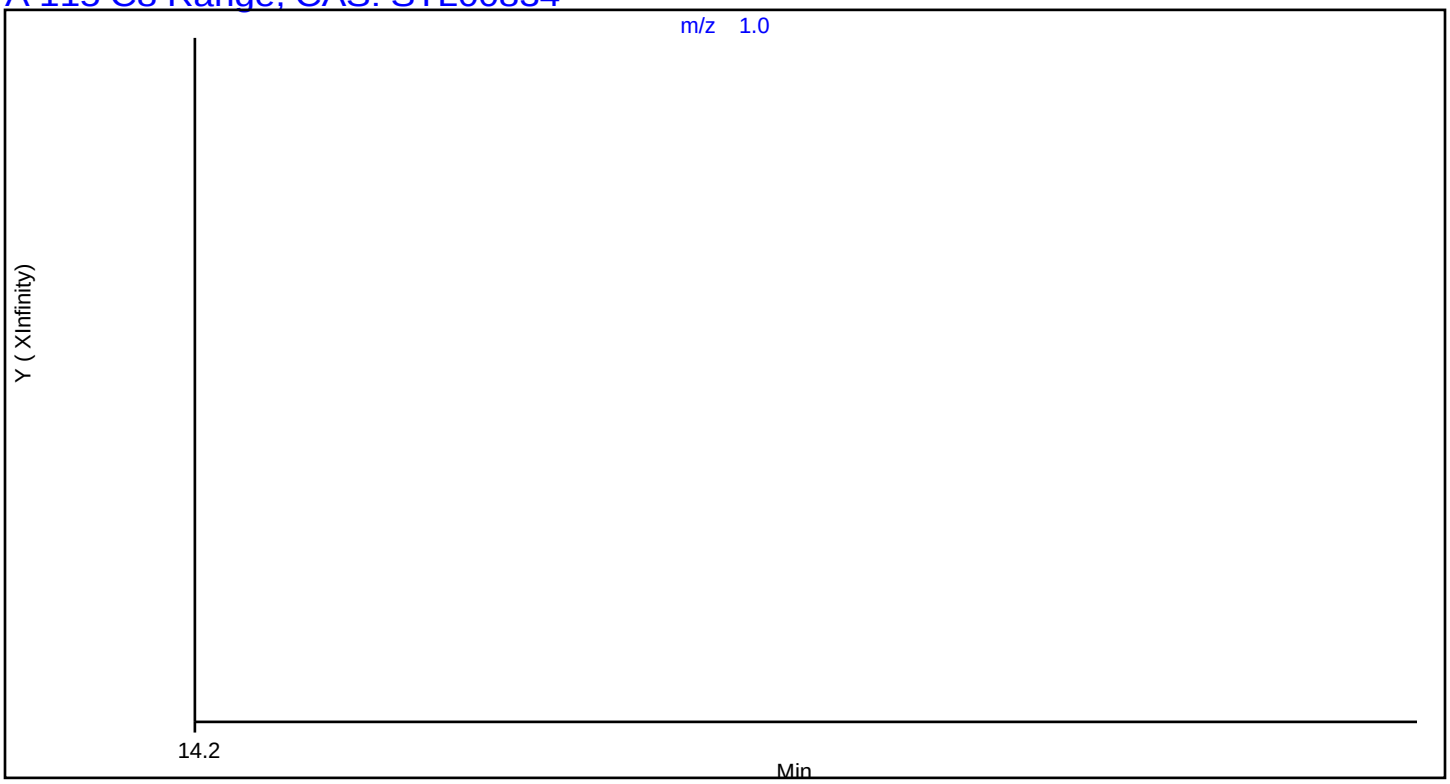


Report Date: 04-Sep-2019 17:34:14 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC02.D				
Injection Date:	03-Sep-2019 15:13:30	Instrument ID:	MR		
Lims ID:	IC L2				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Sep-2019 16:02:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-009
Misc. Info.: 245276
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:20 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.537	0.001	95	310604	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	1768898	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1476402	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	841925	4.00	3.86	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	83	16054	0.0800	0.0779	
7 Propene	41	3.437	3.433	0.004	96	49558	0.0800	0.4253	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	97	15282	0.0800	0.0872	
9 Chloromethane	52	3.658	3.661	-0.003	89	5315	0.0800	0.1588	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	82	13317	0.0800	0.0922	
11 Acetaldehyde	44	3.815	3.811	0.004	98	59817	0.4000	1.47	
12 Vinyl chloride	62	3.826	3.823	0.003	99	10071	0.0800	0.0955	
13 Butadiene	54	3.912	3.909	0.003	61	7411	0.0800	0.0934	
14 Butane	43	3.917	3.909	0.008	87	14972	0.0800	0.0975	
15 Bromomethane	94	4.225	4.221	0.004	93	11831	0.0800	0.1134	
16 Chloroethane	64	4.365	4.357	0.008	83	4697	0.0800	0.1067	
17 Ethanol	31	4.467	4.461	0.006	96	24741	0.4000	0.5206	
18 Vinyl bromide	106	4.656	4.649	0.007	95	6610	0.0800	0.0749	
19 2-Methylbutane	43	4.699	4.695	0.004	94	10731	0.0800	0.0893	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	96	18941	0.0800	0.0750	
20 Acrolein	56	4.942	4.929	0.013	58	6559	0.0800	0.2191	
24 Acetonitrile	40	5.001	5.002	-0.001	41	7033	0.0800	0.1575	
22 Acetone	58	5.060	5.050	0.010	98	29377	0.2400	0.5930	
25 Pentane	72	5.130	5.133	-0.003	85	904	0.0800	0.0509	
23 Isopropyl alcohol	45	5.157	5.142	0.015	95	36022	0.2400	0.2483	
26 Ethyl ether	31	5.330	5.312	0.018	91	9959	0.0800	0.0822	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	96	7667	0.0800	0.0759	
28 Acrylonitrile	53	5.729	5.728	0.001	50	4051	0.0800	0.0544	
29 2-Methyl-2-propanol	59	5.761	5.745	0.016	95	16259	0.0800	0.0903	
30 1,1,2-Trichloro-1,2,2-trif	101	5.799	5.792	0.007	87	17038	0.0800	0.0798	
32 3-Chloro-1-propene	39	5.988	5.964	0.024	88	8683	0.0800	0.0877	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.961	5.969	-0.008	96	23197	0.0800	0.1936	
33 Carbon disulfide	76	6.128	6.125	0.003	98	21452	0.0800	0.0808	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	97	8676	0.0800	0.0798	
35 2-Methylpentane	43	6.802	6.795	0.007	93	20522	0.0800	0.0799	
36 Methyl tert-butyl ether	73	6.948	6.927	0.021	95	20195	0.0800	0.0772	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	98	14833	0.0800	0.0794	
38 Vinyl acetate	43	7.320	7.318	0.002	99	22814	0.0800	0.0775	
39 2-Butanone (MEK)	72	7.794	7.782	0.012	92	6508	0.0800	0.1242	
40 Hexane	56	7.778	7.785	-0.007	63	7182	0.0800	0.0845	
41 Isopropyl ether	45	7.978	7.963	0.015	97	30227	0.0800	0.0776	
42 cis-1,2-Dichloroethene	96	8.193	8.203	-0.010	95	8845	0.0800	0.0784	
43 Ethyl acetate	43	8.409	8.402	0.007	99	21642	0.0800	0.0801	
44 Chloroform	83	8.544	8.549	-0.005	29	17685	0.0800	0.0786	
45 Tert-butyl ethyl ether	59	8.673	8.649	0.024	95	25668	0.0800	0.0809	
46 Tetrahydrofuran	42	8.997	8.968	0.029	92	11360	0.0800	0.0848	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	91	19617	0.0800	0.0853	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	96	11614	0.0800	0.0833	
50 n-Butanol	31	10.194	10.176	0.018	67	3934	0.0800	0.0804	
49 Benzene	78	10.194	10.199	-0.005	95	29324	0.0800	0.0860	
51 Cyclohexane	69	10.210	10.200	0.010	74	4317	0.0800	0.0854	
52 Carbon tetrachloride	117	10.215	10.222	-0.007	82	16140	0.0800	0.0715	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	88	5543	0.0800	0.0796	
54 Thiophene	84	10.469	10.482	-0.013	95	13723	0.0800	0.0775	
55 Isooctane	57	10.981	10.986	-0.005	98	42620	0.0800	0.0804	
57 n-Heptane	71	11.386	11.378	0.008	94	9072	0.0800	0.0804	
56 1,2-Dichloropropane	63	11.467	11.464	0.002	78	10210	0.0800	0.0831	
58 Trichloroethene	130	11.499	11.496	0.003	89	10806	0.0800	0.0736	
59 Dibromomethane	93	11.580	11.587	-0.007	95	10271	0.0800	0.0786	
60 Dichlorobromomethane	83	11.742	11.735	0.007	94	16203	0.0800	0.0747	
61 1,4-Dioxane	88	11.774	11.759	0.015	51	3216	0.0800	0.0650	
62 Methyl methacrylate	41	11.844	11.836	0.008	91	10330	0.0800	0.0686	
63 Methylcyclohexane	83	12.270	12.276	-0.006	87	14678	0.0800	0.0785	
64 4-Methyl-2-pentanone (MIBK	43	12.712	12.705	0.007	96	20857	0.0800	0.0748	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	95	11346	0.0800	0.0666	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	97	11139	0.0800	0.0716	
67 Toluene	91	13.580	13.584	-0.004	89	28166	0.0800	0.0781	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	95	8335	0.0800	0.0738	
69 2-Hexanone	58	14.066	14.055	0.011	90	8696	0.0800	0.0702	
71 n-Octane	85	14.281	14.283	-0.002	94	7174	0.0800	0.0642	
70 Chlorodibromomethane	129	14.373	14.370	0.003	96	12512	0.0800	0.0554	
72 Ethylene Dibromide	107	14.664	14.664	0.000	57	14394	0.0800	0.0684	
73 Tetrachloroethene	129	14.740	14.736	0.004	96	10846	0.0800	0.0747	
74 Chlorobenzene	112	15.613	15.615	-0.002	97	23336	0.0800	0.0763	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	33015	0.0800	0.0798	
76 Ethylbenzene	91	15.910	15.904	0.006	98	35296	0.0800	0.0721	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	97	57204	0.1600	0.1520	
81 n-Nonane	57	16.487	16.488	-0.001	93	16468	0.0800	0.0685	
78 Bromoform	173	16.525	16.519	0.006	93	12006	0.0800	0.0582	
79 Styrene	104	16.535	16.535	0.000	95	15385	0.0800	0.0583	
80 o-Xylene	91	16.595	16.595	0.000	97	27849	0.0800	0.0729	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	97	20054	0.0800	0.0715	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	90	6305	0.0800	0.0714	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	89	41687	0.0800	0.0737	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	11343	0.0800	0.0752	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	9862	0.0800	0.0691	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	99	40037	0.0800	0.0697	
87 1,3,5-Trimethylbenzene	120	17.980	17.983	-0.003	92	15863	0.0800	0.0696	
89 Alpha Methyl Styrene	118	18.229	18.225	0.004	83	9778	0.0800	0.0442	
90 n-Decane	57	18.288	18.286	0.002	88	22136	0.0800	0.0678	
91 tert-Butylbenzene	119	18.428	18.425	0.003	94	35865	0.0800	0.0696	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	95	34364	0.0800	0.0711	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	52428	0.0800	0.0700	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	95	27082	0.0800	0.0739	
96 Benzyl chloride	91	18.800	18.798	0.002	90	23187	0.0800	0.0687	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	92	26600	0.0800	0.0751	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	40253	0.0800	0.0723	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	35572	0.0800	0.0751	
99 Butylcyclohexane	83	18.983	18.983	0.000	94	28053	0.0800	0.0744	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	33045	0.0800	0.0706	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	24269	0.0800	0.0699	
102 Indene	116	19.312	19.315	-0.003	73	23565	0.0800	0.0581	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	44636	0.0800	0.0758	
104 Undecane	57	19.636	19.638	-0.002	95	27334	0.0800	0.0694	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	83	7380	0.0800	0.0530	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	97	38284	0.0800	0.0709	
107 Dodecane	57	20.714	20.713	0.001	91	21867	0.0800	0.0543	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	23104	0.0800	0.0705	
109 Naphthalene	128	21.060	21.060	0.000	99	49158	0.0800	0.0743	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	92	21188	0.0800	0.0741	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	93	24564	0.0800	0.0737	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	20349	0.0800	0.0750	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	26341	0.0800	0.1057	
A 115 C8 Range	1	14.281	(14.249-14.314)		0	92513	0.0800	0.0780	
S 116 Xylenes, Total	100				0		0.2400	0.2250	
S 117 1,2-Dichloroethene, Total	1				0		0.1600	0.1581	

Reagents:

40L1-3DQP_00016	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

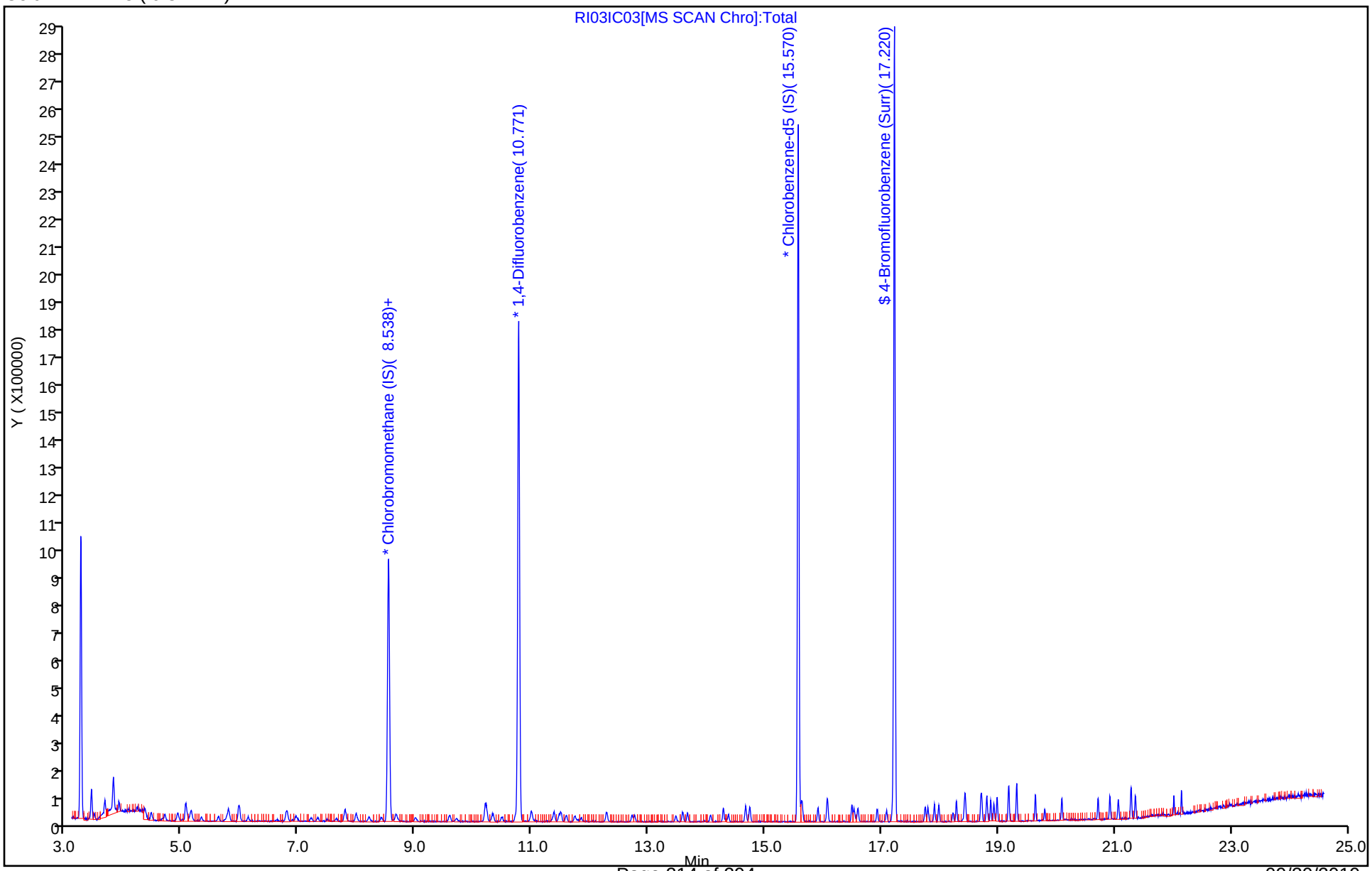
Report Date: 04-Sep-2019 17:34:22 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D

Injection Date:	03-Sep-2019 16:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L3			Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

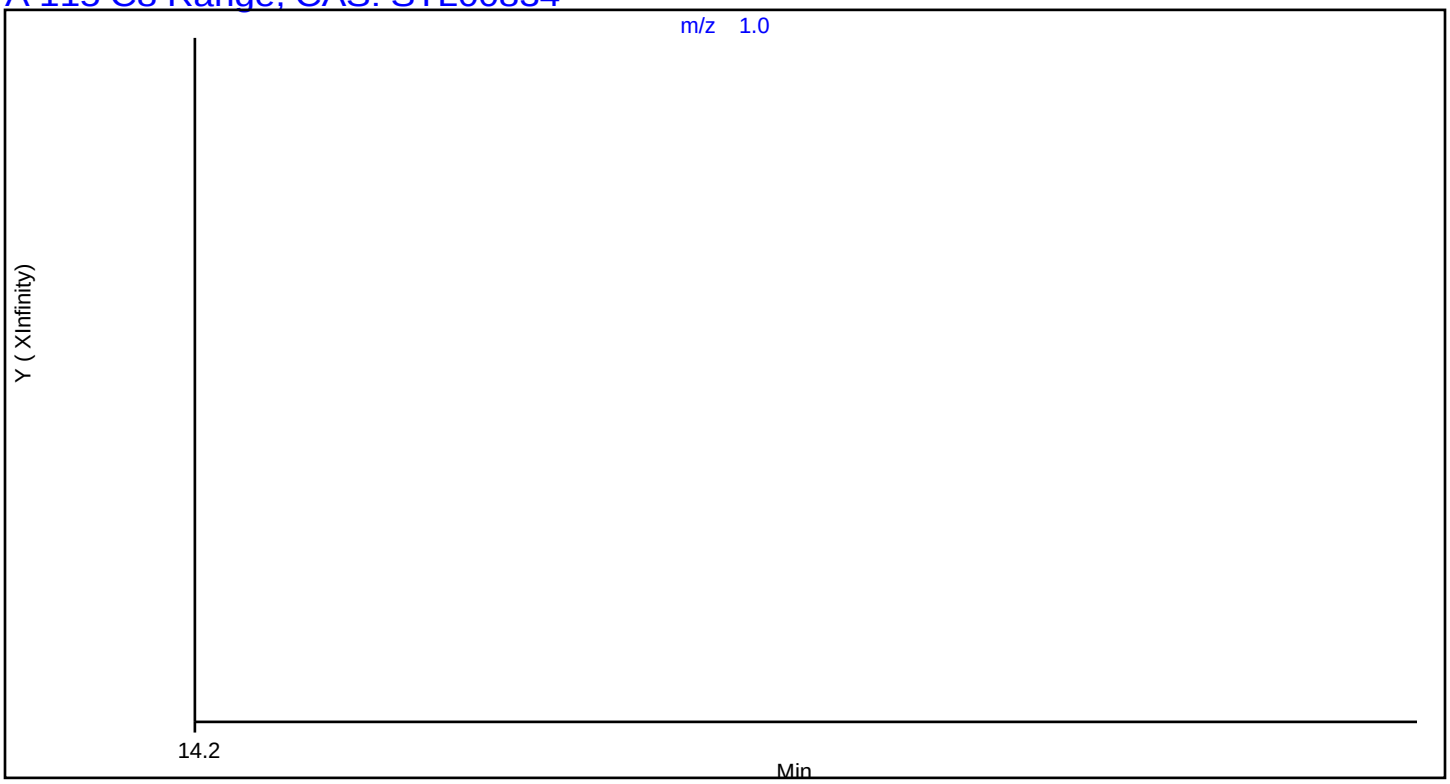


Report Date: 04-Sep-2019 17:34:22 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC03.D				
Injection Date:	03-Sep-2019 16:02:30	Instrument ID:	MR		
Lims ID:	IC L3				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	1	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Sep-2019 16:51:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-010
Misc. Info.: 245275
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:28 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:52:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.538	8.537	0.001	96	300084	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1734738	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1432801	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	96	840097	4.00	3.97	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	67	37407	0.1600	0.1879	
7 Propene	41	3.432	3.433	-0.001	98	62431	0.1600	0.5546	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	97	30972	0.1600	0.1830	
9 Chloromethane	52	3.664	3.661	0.003	77	4661	0.1600	0.1442	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	85	26181	0.1600	0.1876	
11 Acetaldehyde	44	3.815	3.811	0.004	99	64870	0.8000	1.65	
12 Vinyl chloride	62	3.826	3.823	0.003	53	16243	0.1600	0.1594	
13 Butadiene	54	3.912	3.909	0.003	69	15357	0.1600	0.2004	
14 Butane	43	3.912	3.909	0.003	83	30013	0.1600	0.2023	
15 Bromomethane	94	4.225	4.221	0.004	97	18901	0.1600	0.1875	
16 Chloroethane	64	4.349	4.357	-0.008	77	6737	0.1600	0.1584	
17 Ethanol	31	4.456	4.461	-0.005	97	40300	0.8000	0.8777	
18 Vinyl bromide	106	4.651	4.649	0.002	92	13519	0.1600	0.1585	
19 2-Methylbutane	43	4.699	4.695	0.004	86	18236	0.1600	0.1570	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	97	39671	0.1600	0.1626	
20 Acrolein	56	4.931	4.929	0.002	94	6278	0.1600	0.2171	
24 Acetonitrile	40	4.996	5.002	-0.006	71	5580	0.1600	0.1293	
22 Acetone	58	5.055	5.050	0.005	100	42477	0.4800	0.8875	
25 Pentane	72	5.141	5.133	0.008	95	2645	0.1600	0.1541	
23 Isopropyl alcohol	45	5.147	5.142	0.005	93	67760	0.4800	0.4834	
26 Ethyl ether	31	5.319	5.312	0.007	89	20934	0.1600	0.1788	
27 1,1-Dichloroethene	96	5.610	5.615	-0.005	99	16768	0.1600	0.1719	
28 Acrylonitrile	53	5.729	5.728	0.001	89	10806	0.1600	0.1502	
29 2-Methyl-2-propanol	59	5.756	5.745	0.011	97	27942	0.1600	0.1606	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	95	36187	0.1600	0.1755	
32 3-Chloro-1-propene	39	5.982	5.964	0.018	78	16135	0.1600	0.1686	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	31886	0.1600	0.2754	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	39691	0.1600	0.1548	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	96	16947	0.1600	0.1613	
35 2-Methylpentane	43	6.797	6.795	0.002	95	40649	0.1600	0.1639	
36 Methyl tert-butyl ether	73	6.937	6.927	0.010	95	40641	0.1600	0.1608	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	99	31531	0.1600	0.1747	
38 Vinyl acetate	43	7.320	7.318	0.002	99	41387	0.1600	0.1455	
39 2-Butanone (MEK)	72	7.789	7.782	0.007	89	9945	0.1600	0.1964	
40 Hexane	56	7.773	7.785	-0.012	66	12975	0.1600	0.1579	
41 Isopropyl ether	45	7.972	7.963	0.009	97	63993	0.1600	0.1700	
42 cis-1,2-Dichloroethene	96	8.210	8.203	0.007	85	19946	0.1600	0.1829	
43 Ethyl acetate	43	8.409	8.402	0.007	97	43652	0.1600	0.1672	
44 Chloroform	83	8.538	8.549	-0.011	30	34605	0.1600	0.1592	
45 Tert-butyl ethyl ether	59	8.652	8.649	0.003	96	49243	0.1600	0.1607	
46 Tetrahydrofuran	42	8.991	8.968	0.023	96	22692	0.1600	0.1752	
47 1,1,1-Trichloroethane	97	9.585	9.586	-0.001	93	35077	0.1600	0.1579	
48 1,2-Dichloroethane	62	9.698	9.701	-0.003	95	24357	0.1600	0.1782	
50 n-Butanol	31	10.189	10.176	0.013	56	6856	0.1600	0.1428	
49 Benzene	78	10.205	10.199	0.006	95	53145	0.1600	0.1589	
51 Cyclohexane	69	10.199	10.200	-0.001	72	8676	0.1600	0.1751	
52 Carbon tetrachloride	117	10.226	10.222	0.004	95	32718	0.1600	0.1479	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	90	9391	0.1600	0.1375	
54 Thiophene	84	10.485	10.482	0.003	96	27373	0.1600	0.1577	
55 Isooctane	57	10.987	10.986	0.001	97	84031	0.1600	0.1616	
57 n-Heptane	71	11.380	11.378	0.002	93	17873	0.1600	0.1616	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	85	18516	0.1600	0.1536	
58 Trichloroethene	130	11.499	11.496	0.003	91	20676	0.1600	0.1436	
59 Dibromomethane	93	11.580	11.587	-0.007	91	19384	0.1600	0.1512	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	96	30697	0.1600	0.1443	
61 1,4-Dioxane	88	11.768	11.759	0.009	90	6626	0.1600	0.1366	
62 Methyl methacrylate	41	11.833	11.836	-0.003	88	21764	0.1600	0.1474	
63 Methylcyclohexane	83	12.275	12.276	-0.001	94	28483	0.1600	0.1554	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.705	0.002	96	41180	0.1600	0.1505	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	98	26525	0.1600	0.1587	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	96	22630	0.1600	0.1498	
67 Toluene	91	13.586	13.584	0.002	93	52417	0.1600	0.1497	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	95	16538	0.1600	0.1510	
69 2-Hexanone	58	14.055	14.055	0.000	92	17840	0.1600	0.1484	
71 n-Octane	85	14.281	14.283	-0.002	96	16040	0.1600	0.1480	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	96	27226	0.1600	0.1242	
72 Ethylene Dibromide	107	14.664	14.664	0.000	26	29539	0.1600	0.1447	
73 Tetrachloroethene	129	14.734	14.736	-0.002	92	22221	0.1600	0.1576	
74 Chlorobenzene	112	15.619	15.615	0.004	95	43813	0.1600	0.1477	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	94	63126	0.1600	0.1573	
76 Ethylbenzene	91	15.904	15.904	0.000	97	73785	0.1600	0.1554	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	111265	0.3200	0.3047	
81 n-Nonane	57	16.487	16.488	-0.001	88	35904	0.1600	0.1538	
78 Bromoform	173	16.519	16.519	0.000	92	24384	0.1600	0.1217	
79 Styrene	104	16.530	16.535	-0.005	98	30460	0.1600	0.1189	
80 o-Xylene	91	16.595	16.595	0.000	97	57536	0.1600	0.1553	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	97	40863	0.1600	0.1501	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	94	13476	0.1600	0.1572	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	95	81194	0.1600	0.1480	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	21220	0.1600	0.1450	
86 2-Chlorotoluene	126	17.797	17.789	0.008	96	21624	0.1600	0.1560	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	99	76782	0.1600	0.1377	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.003	91	31521	0.1600	0.1424	
89 Alpha Methyl Styrene	118	18.229	18.225	0.004	93	23210	0.1600	0.1081	
90 n-Decane	57	18.282	18.286	-0.004	85	45930	0.1600	0.1449	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	71523	0.1600	0.1430	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	70127	0.1600	0.1495	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	103163	0.1600	0.1419	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	96	52180	0.1600	0.1468	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	44372	0.1600	0.1355	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	94	48709	0.1600	0.1417	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	83958	0.1600	0.1555	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	72971	0.1600	0.1587	
99 Butylcyclohexane	83	18.983	18.983	0.000	94	57227	0.1600	0.1564	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	91	65933	0.1600	0.1451	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	87	51537	0.1600	0.1530	
102 Indene	116	19.318	19.315	0.003	66	45967	0.1600	0.1168	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	87320	0.1600	0.1527	
104 Undecane	57	19.636	19.638	-0.002	90	56488	0.1600	0.1477	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	88	17844	0.1600	0.1320	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	98	76485	0.1600	0.1460	
107 Dodecane	57	20.714	20.713	0.001	90	49510	0.1600	0.1267	
108 1,2,4-Trichlorobenzene	180	20.914	20.919	-0.005	93	48402	0.1600	0.1521	
109 Naphthalene	128	21.060	21.060	0.000	99	96234	0.1600	0.1500	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	93	44590	0.1600	0.1607	
111 1,2,3-Trichlorobenzene	180	21.351	21.355	-0.004	95	50004	0.1600	0.1547	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	96	26264	0.1600	0.0998	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	97	35910	0.1600	0.1485	
A 115 C8 Range	1	14.287	(14.249-14.324)		0	190756	0.1600	0.1640	
S 116 Xylenes, Total	100				0		0.4800	0.4600	
S 117 1,2-Dichloroethene, Total	1				0		0.3200	0.3442	

Reagents:

40L4DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

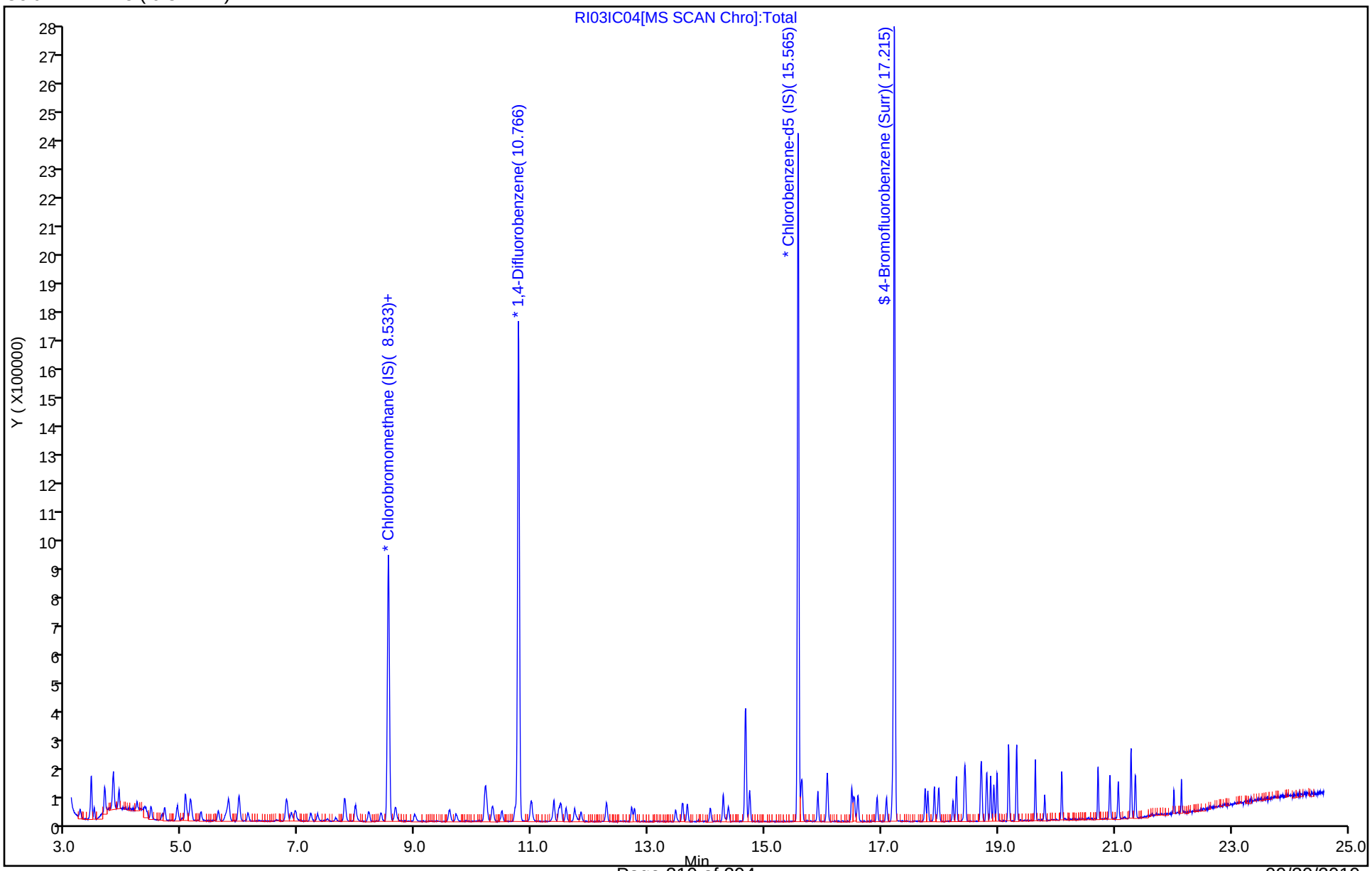
Report Date: 04-Sep-2019 17:34:30 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D

Injection Date:	03-Sep-2019 16:51:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L4			Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

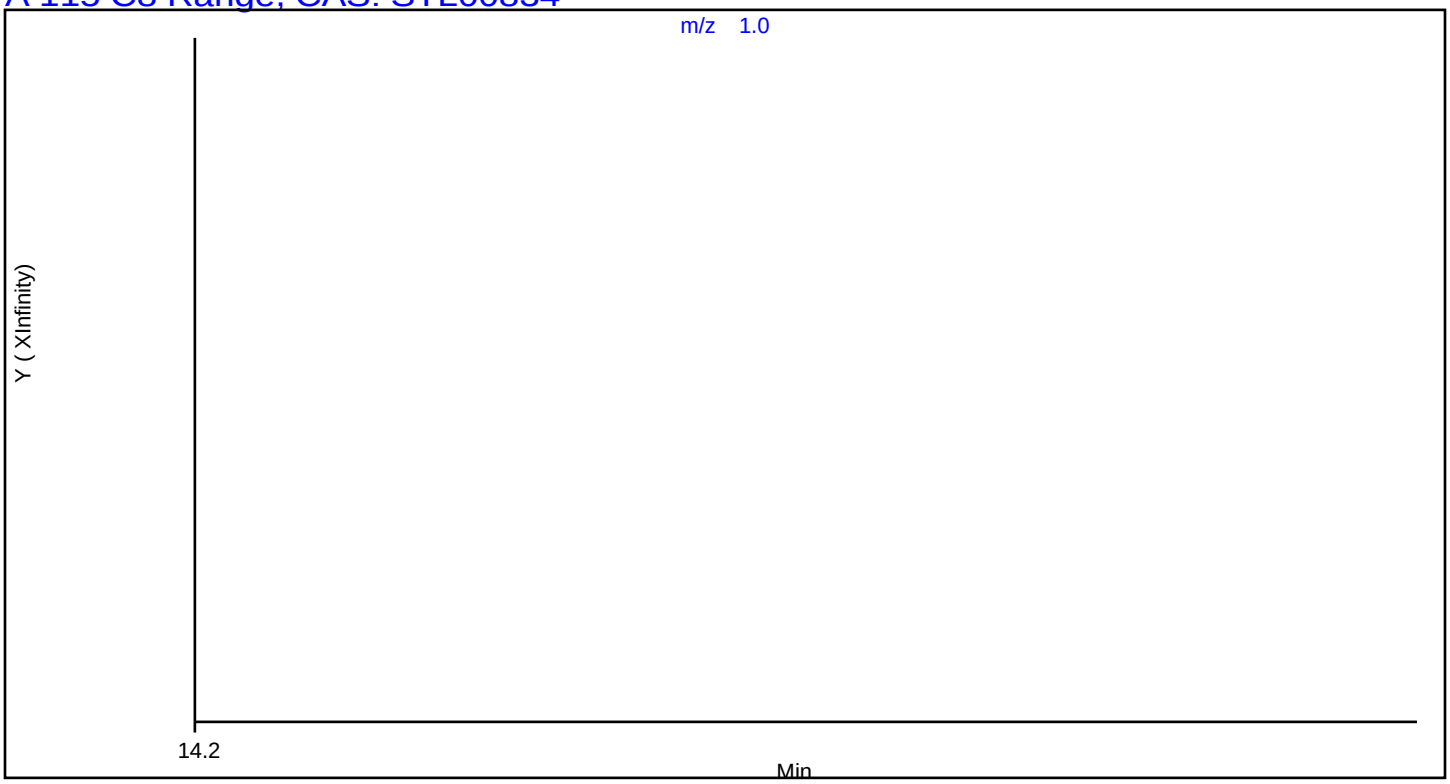


Report Date: 04-Sep-2019 17:34:30 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC04.D				
Injection Date:	03-Sep-2019 16:51:30	Instrument ID:	MR		
Lims ID:	IC L4				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	2	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Sep-2019 17:39:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-011
Misc. Info.: 245274
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:37 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:01:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	98	295648	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.771	10.770	0.001	94	1761355	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1453308	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	95	840618	4.00	3.91	
6 Chlorodifluoromethane	51	3.426	3.428	-0.002	96	88870	0.4000	0.4530	
7 Propene	41	3.437	3.433	0.004	99	87404	0.4000	0.7880	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	98	74265	0.4000	0.4453	
9 Chloromethane	52	3.658	3.661	-0.003	84	14239	0.4000	0.4470	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	87	62802	0.4000	0.4567	
11 Acetaldehyde	44	3.815	3.811	0.004	99	114953	2.00	2.96	
12 Vinyl chloride	62	3.820	3.823	-0.003	98	41385	0.4000	0.4121	
13 Butadiene	54	3.906	3.909	-0.003	70	36625	0.4000	0.4851	
14 Butane	43	3.906	3.909	-0.003	83	65401	0.4000	0.4475	
15 Bromomethane	94	4.219	4.221	-0.002	94	42598	0.4000	0.4290	
16 Chloroethane	64	4.354	4.357	-0.003	89	17294	0.4000	0.4126	
17 Ethanol	31	4.456	4.461	-0.005	97	96824	2.00	2.14	
18 Vinyl bromide	106	4.645	4.649	-0.004	97	33504	0.4000	0.3988	
19 2-Methylbutane	43	4.694	4.695	-0.001	94	50031	0.4000	0.4373	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	97	102492	0.4000	0.4264	
20 Acrolein	56	4.926	4.929	-0.003	93	13055	0.4000	0.4582	
24 Acetonitrile	40	4.990	5.002	-0.012	96	16233	0.4000	0.3819	
22 Acetone	58	5.044	5.050	-0.006	99	78390	1.20	1.66	
25 Pentane	72	5.130	5.133	-0.003	73	7156	0.4000	0.4230	
23 Isopropyl alcohol	45	5.141	5.142	-0.001	89	167975	1.20	1.22	
26 Ethyl ether	31	5.308	5.312	-0.004	92	49916	0.4000	0.4327	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	99	40958	0.4000	0.4261	
28 Acrylonitrile	53	5.729	5.728	0.001	95	30713	0.4000	0.4334	
29 2-Methyl-2-propanol	59	5.745	5.745	0.000	95	69778	0.4000	0.4071	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	93	86433	0.4000	0.4254	
32 3-Chloro-1-propene	39	5.982	5.964	0.018	97	42156	0.4000	0.4472	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	52768	0.4000	0.4626	
33 Carbon disulfide	76	6.128	6.125	0.003	99	109289	0.4000	0.4325	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	97	42354	0.4000	0.4091	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	104996	0.4000	0.4297	
36 Methyl tert-butyl ether	73	6.921	6.927	-0.006	97	106549	0.4000	0.4278	
37 1,1-Dichloroethane	63	7.207	7.208	-0.001	98	76177	0.4000	0.4284	
38 Vinyl acetate	43	7.314	7.318	-0.004	100	117037	0.4000	0.4177	
39 2-Butanone (MEK)	72	7.789	7.782	0.007	88	20411	0.4000	0.4092	
40 Hexane	56	7.784	7.785	-0.001	67	36443	0.4000	0.4503	
41 Isopropyl ether	45	7.961	7.963	-0.002	98	155958	0.4000	0.4205	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	92	45839	0.4000	0.4266	
43 Ethyl acetate	43	8.398	8.402	-0.004	97	107812	0.4000	0.4192	
44 Chloroform	83	8.538	8.549	-0.011	36	88925	0.4000	0.4152	
45 Tert-butyl ethyl ether	59	8.641	8.649	-0.008	95	126910	0.4000	0.4204	
46 Tetrahydrofuran	42	8.970	8.968	0.002	93	53198	0.4000	0.4170	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	97	89808	0.4000	0.4102	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	96	54501	0.4000	0.3928	
50 n-Butanol	31	10.183	10.176	0.007	82	19570	0.4000	0.4015	
49 Benzene	78	10.199	10.199	0.000	95	129476	0.4000	0.3812	
51 Cyclohexane	69	10.189	10.200	-0.012	77	18817	0.4000	0.3740	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	96	82320	0.4000	0.3665	
53 2,3-Dimethylpentane	71	10.329	10.324	0.005	89	26163	0.4000	0.3773	
54 Thiophene	84	10.480	10.482	-0.002	93	67963	0.4000	0.3855	
55 Isooctane	57	10.981	10.986	-0.005	97	211257	0.4000	0.4002	
57 n-Heptane	71	11.364	11.378	-0.014	94	40457	0.4000	0.3603	
56 1,2-Dichloropropane	63	11.461	11.464	-0.003	87	48324	0.4000	0.3948	
58 Trichloroethene	130	11.493	11.496	-0.003	95	55942	0.4000	0.3827	
59 Dibromomethane	93	11.585	11.587	-0.002	96	49916	0.4000	0.3834	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	97	77686	0.4000	0.3596	
61 1,4-Dioxane	88	11.763	11.759	0.004	77	18371	0.4000	0.3731	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	55330	0.4000	0.3691	
63 Methylcyclohexane	83	12.281	12.276	0.005	92	71644	0.4000	0.3850	
64 4-Methyl-2-pentanone (MIBK	43	12.707	12.705	0.002	98	107444	0.4000	0.3868	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	99	64389	0.4000	0.3795	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	97	56564	0.4000	0.3691	
67 Toluene	91	13.586	13.584	0.002	92	143846	0.4000	0.4050	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	42543	0.4000	0.3828	
69 2-Hexanone	58	14.055	14.055	0.000	91	45806	0.4000	0.3757	
71 n-Octane	85	14.276	14.283	-0.007	96	42048	0.4000	0.3824	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	97	75235	0.4000	0.3384	
72 Ethylene Dibromide	107	14.664	14.664	0.000	96	79328	0.4000	0.3830	
73 Tetrachloroethene	129	14.734	14.736	-0.002	94	54373	0.4000	0.3802	
74 Chlorobenzene	112	15.613	15.615	-0.002	95	116875	0.4000	0.3884	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	160394	0.4000	0.3940	
76 Ethylbenzene	91	15.904	15.904	0.000	98	181497	0.4000	0.3768	
77 m-Xylene & p-Xylene	91	16.072	16.067	0.005	97	283166	0.8000	0.7645	
81 n-Nonane	57	16.487	16.488	-0.001	93	91602	0.4000	0.3869	
78 Bromoform	173	16.519	16.519	0.000	95	74964	0.4000	0.3689	
79 Styrene	104	16.535	16.535	0.000	99	89120	0.4000	0.3431	
80 o-Xylene	91	16.595	16.595	0.000	99	149999	0.4000	0.3991	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	98	109448	0.4000	0.3963	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	94	32774	0.4000	0.3769	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	95	228313	0.4000	0.4102	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	59470	0.4000	0.4008	
86 2-Chlorotoluene	126	17.792	17.789	0.003	98	56318	0.4000	0.4007	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	224183	0.4000	0.3962	
87 1,3,5-Trimethylbenzene	120	17.975	17.983	-0.008	92	85979	0.4000	0.3830	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	91	65556	0.4000	0.3009	
90 n-Decane	57	18.282	18.286	-0.004	87	122940	0.4000	0.3823	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	93	191186	0.4000	0.3767	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	186908	0.4000	0.3927	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	287037	0.4000	0.3893	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	96	134286	0.4000	0.3724	
96 Benzyl chloride	91	18.795	18.798	-0.003	97	121625	0.4000	0.3661	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	95	131413	0.4000	0.3768	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	220551	0.4000	0.4027	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	182641	0.4000	0.3917	
99 Butylcyclohexane	83	18.983	18.983	0.000	92	144694	0.4000	0.3898	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	167879	0.4000	0.3644	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	129699	0.4000	0.3796	
102 Indene	116	19.312	19.315	-0.003	91	133321	0.4000	0.3340	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	220549	0.4000	0.3803	
104 Undecane	57	19.636	19.638	-0.002	93	142886	0.4000	0.3683	
105 1,2-Dibromo-3-Chloropropan	157	19.803	19.801	0.002	91	47784	0.4000	0.3485	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	194002	0.4000	0.3650	
107 Dodecane	57	20.714	20.713	0.001	92	133853	0.4000	0.3378	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	92	115933	0.4000	0.3592	
109 Naphthalene	128	21.060	21.060	0.000	99	230088	0.4000	0.3535	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	102309	0.4000	0.3634	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	113317	0.4000	0.3455	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	73998	0.4000	0.2771	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	99	78290	0.4000	0.3193	
A 115 C8 Range	1	14.281	(14.244-14.319)		0	466318	0.4000	0.3949	
S 116 Xylenes, Total	100				0		1.20	1.16	
S 117 1,2-Dichloroethene, Total	1				0		0.8000	0.8357	

Reagents:

40L5DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

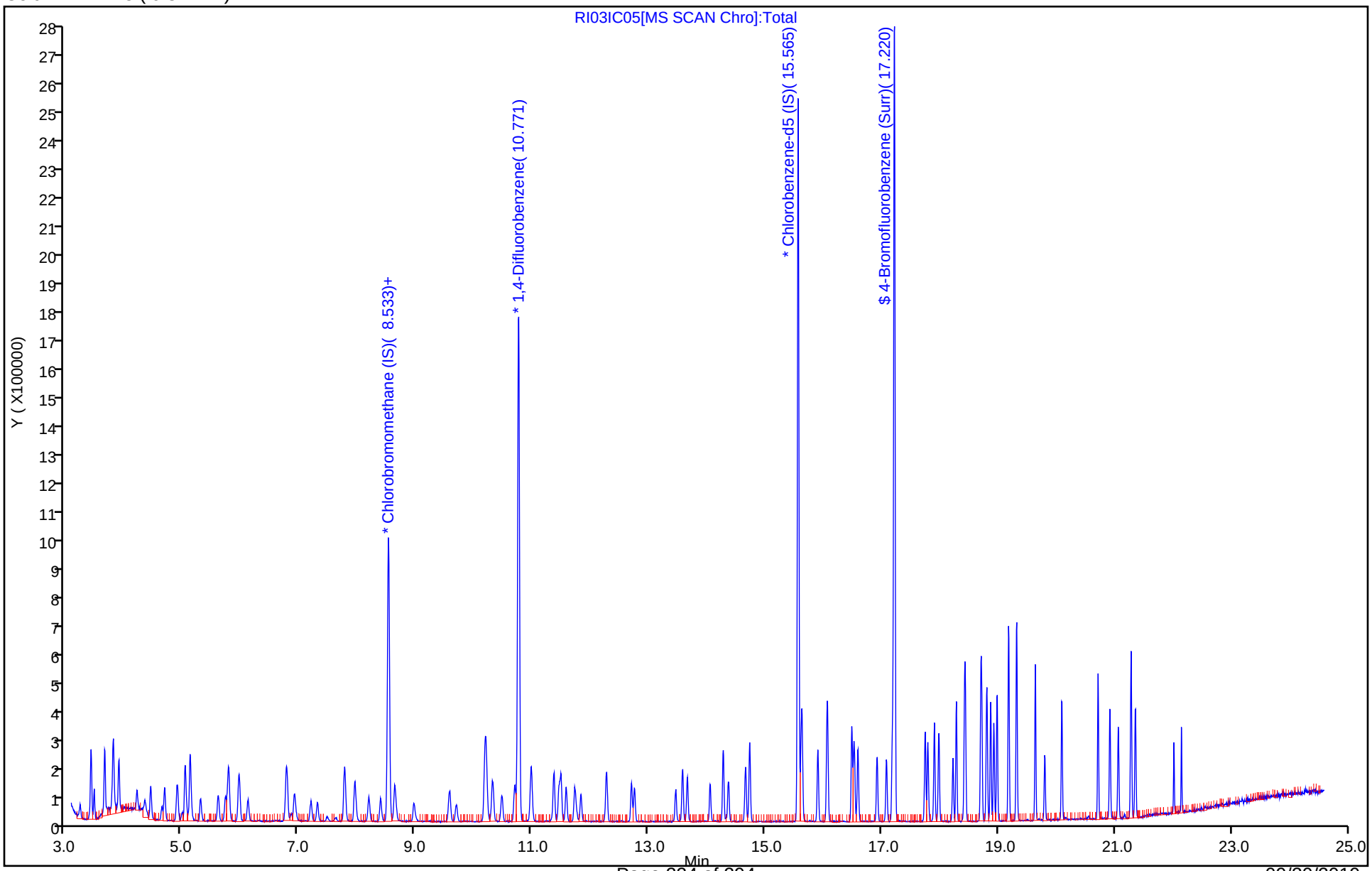
Report Date: 04-Sep-2019 17:34:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D

Injection Date:	03-Sep-2019 17:39:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L5			Worklist Smp#:	11
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

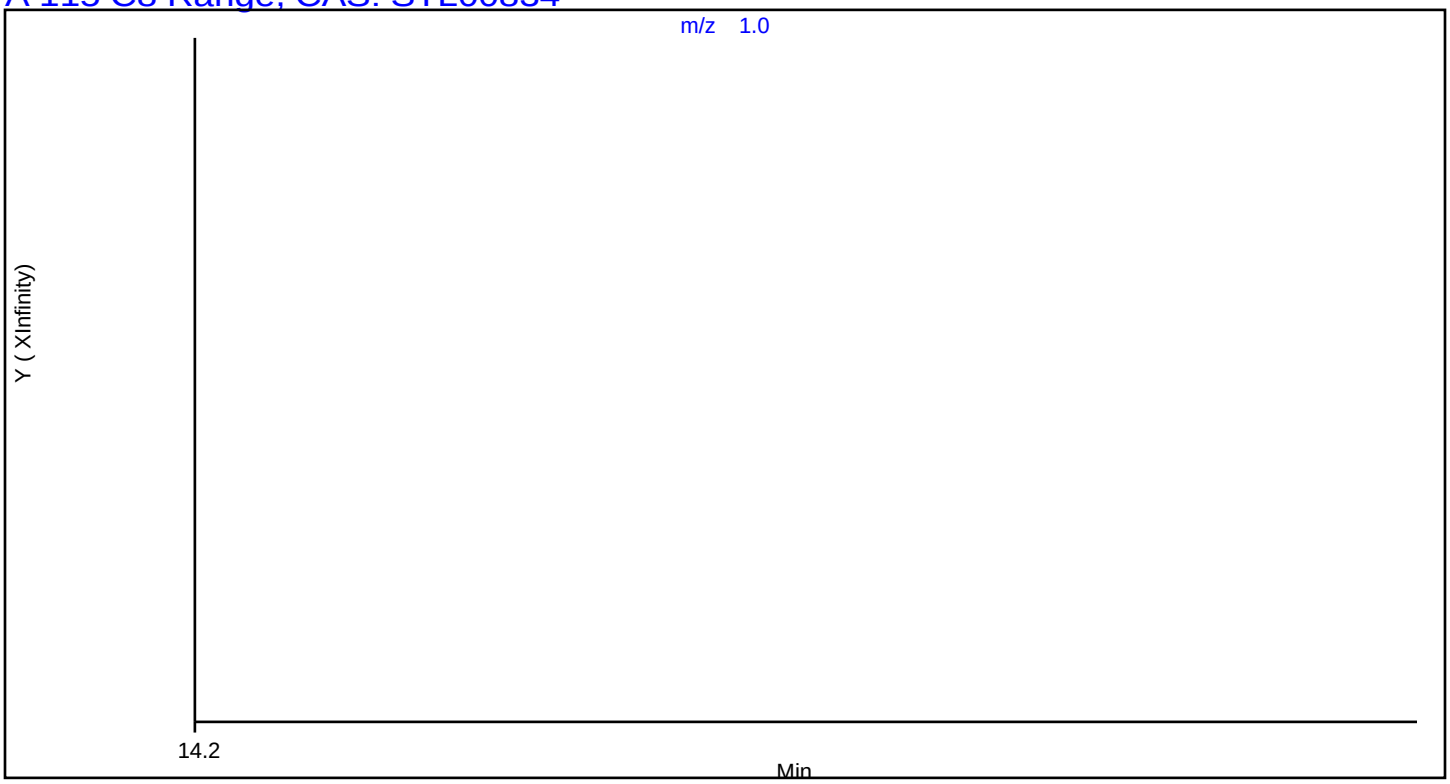


Report Date: 04-Sep-2019 17:34:39 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC05.D				
Injection Date:	03-Sep-2019 17:39:30	Instrument ID:	MR		
Lims ID:	IC L5				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	3	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Sep-2019 18:27:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-012
Misc. Info.: 245273
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:45 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 17:32:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.537	-0.009	97	322001	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	94	1800992	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1582837	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	95	912943	4.00	3.90	
6 Chlorodifluoromethane	51	3.421	3.428	-0.007	97	219441	1.00	1.03	
7 Propene	41	3.427	3.433	-0.006	98	156506	1.00	1.30	
8 Dichlorodifluoromethane	85	3.480	3.486	-0.006	99	183416	1.00	1.01	
9 Chloromethane	52	3.653	3.661	-0.008	90	44708	1.00	1.29	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.669	-0.005	87	166670	1.00	1.11	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	239506	5.00	5.67	
12 Vinyl chloride	62	3.820	3.823	-0.003	99	103708	1.00	0.9482	
13 Butadiene	54	3.901	3.909	-0.008	69	81755	1.00	0.99	
14 Butane	43	3.901	3.909	-0.008	84	152419	1.00	0.9576	
15 Bromomethane	94	4.214	4.221	-0.007	97	103516	1.00	0.9571	
16 Chloroethane	64	4.343	4.357	-0.014	94	41293	1.00	0.9045	
17 Ethanol	31	4.446	4.461	-0.015	98	243829	5.00	4.95	
18 Vinyl bromide	106	4.640	4.649	-0.009	98	93465	1.00	1.02	
19 2-Methylbutane	43	4.683	4.695	-0.012	94	122786	1.00	0.9854	
21 Trichlorofluoromethane	101	4.904	4.911	-0.007	98	267920	1.00	1.02	
20 Acrolein	56	4.926	4.929	-0.003	93	29346	1.00	0.9458	
24 Acetonitrile	40	4.985	5.002	-0.017	97	51720	1.00	1.12	
22 Acetone	58	5.039	5.050	-0.011	99	158806	3.00	3.09	
25 Pentane	72	5.125	5.133	-0.008	72	17893	1.00	0.9712	
23 Isopropyl alcohol	45	5.120	5.142	-0.022	84	435961	3.00	2.90	
26 Ethyl ether	31	5.298	5.312	-0.014	91	122175	1.00	0.9725	
27 1,1-Dichloroethene	96	5.605	5.615	-0.010	98	102785	1.00	0.9817	
28 Acrylonitrile	53	5.718	5.728	-0.010	62	77731	1.00	1.01	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	181842	1.00	0.9742	
30 1,1,2-Trichloro-1,2,2-trif	101	5.783	5.792	-0.009	95	210707	1.00	0.9521	
32 3-Chloro-1-propene	39	5.977	5.964	0.013	95	103629	1.00	1.01	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	97	107501	1.00	0.8653	
33 Carbon disulfide	76	6.117	6.125	-0.008	99	277961	1.00	1.01	
34 trans-1,2-Dichloroethene	96	6.770	6.779	-0.009	98	107685	1.00	0.9551	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	257703	1.00	0.9683	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	96	271742	1.00	1.00	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	191196	1.00	0.9872	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	308087	1.00	1.01	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	88	51572	1.00	0.9493	
40 Hexane	56	7.784	7.785	-0.001	78	85156	1.00	0.9660	
41 Isopropyl ether	45	7.945	7.963	-0.018	97	395302	1.00	0.9787	
42 cis-1,2-Dichloroethene	96	8.193	8.203	-0.010	93	108153	1.00	0.9241	
43 Ethyl acetate	43	8.393	8.402	-0.009	98	276396	1.00	0.9868	
44 Chloroform	83	8.544	8.549	-0.005	97	231564	1.00	0.99	
45 Tert-butyl ethyl ether	59	8.636	8.649	-0.013	96	326220	1.00	0.99	
46 Tetrahydrofuran	42	8.954	8.968	-0.014	96	132901	1.00	0.9564	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	234415	1.00	0.9832	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	96	146276	1.00	1.03	
50 n-Butanol	31	10.167	10.176	-0.009	83	49826	1.00	1.00	
49 Benzene	78	10.194	10.199	-0.005	96	343664	1.00	0.9894	
51 Cyclohexane	69	10.199	10.200	-0.001	68	49894	1.00	0.9698	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	95	246027	1.00	1.07	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	91	75390	1.00	1.06	
54 Thiophene	84	10.474	10.482	-0.008	96	185736	1.00	1.03	
55 Isooctane	57	10.981	10.986	-0.005	98	547133	1.00	1.01	
57 n-Heptane	71	11.370	11.378	-0.008	93	115588	1.00	1.01	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	89	129462	1.00	1.03	
58 Trichloroethene	130	11.494	11.496	-0.002	95	148885	1.00	1.00	
59 Dibromomethane	93	11.585	11.587	-0.002	92	131893	1.00	0.99	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	97	225379	1.00	1.02	
61 1,4-Dioxane	88	11.752	11.759	-0.007	92	51868	1.00	1.03	
62 Methyl methacrylate	41	11.828	11.836	-0.008	93	152368	1.00	0.99	
63 Methylcyclohexane	83	12.275	12.276	-0.001	93	184946	1.00	0.9721	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	288813	1.00	1.02	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	97	177650	1.00	1.02	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	97	159588	1.00	0.9562	
67 Toluene	91	13.580	13.584	-0.004	94	363606	1.00	0.9398	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	94	110540	1.00	0.9133	
69 2-Hexanone	58	14.050	14.055	-0.005	91	124236	1.00	0.9355	
71 n-Octane	85	14.281	14.283	-0.002	96	112993	1.00	0.9435	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	98	227075	1.00	0.9377	
72 Ethylene Dibromide	107	14.659	14.664	-0.005	98	213842	1.00	0.9480	
73 Tetrachloroethene	129	14.734	14.736	-0.002	95	139836	1.00	0.8977	
74 Chlorobenzene	112	15.613	15.615	-0.002	94	304012	1.00	0.9276	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	95	423354	1.00	0.9548	
76 Ethylbenzene	91	15.905	15.904	0.000	98	489233	1.00	0.9325	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	778233	2.00	1.93	
81 n-Nonane	57	16.487	16.488	-0.001	96	250934	1.00	0.9730	
78 Bromoform	173	16.519	16.519	0.000	95	231275	1.00	1.04	
79 Styrene	104	16.530	16.535	-0.005	99	269110	1.00	0.9512	
80 o-Xylene	91	16.595	16.595	0.000	98	394718	1.00	0.9643	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	98	303835	1.00	1.01	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	94	85244	1.00	0.9000	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	93	594874	1.00	0.9813	
85 N-Propylbenzene	120	17.743	17.749	-0.006	99	156505	1.00	0.9684	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	144883	1.00	0.9464	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	593308	1.00	0.9629	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	232045	1.00	0.9490	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	206714	1.00	0.8712	
90 n-Decane	57	18.283	18.286	-0.003	88	331365	1.00	0.9461	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	94	504364	1.00	0.9125	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	496740	1.00	0.9584	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	739600	1.00	0.9210	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	355492	1.00	0.9051	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	355341	1.00	0.9822	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	95	356925	1.00	0.9397	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	599428	1.00	1.00	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	504915	1.00	0.99	
99 Butylcyclohexane	83	18.978	18.983	-0.005	94	395896	1.00	0.9793	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	460776	1.00	0.9182	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	349367	1.00	0.9388	
102 Indene	116	19.312	19.315	-0.003	90	386043	1.00	0.8881	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	598930	1.00	0.9484	
104 Undecane	57	19.636	19.638	-0.002	93	393485	1.00	0.9313	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	92	160389	1.00	1.07	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	560939	1.00	0.9690	
107 Dodecane	57	20.715	20.713	0.001	93	391221	1.00	0.9064	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	326688	1.00	0.9294	
109 Naphthalene	128	21.060	21.060	0.000	99	688030	1.00	0.9705	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	94	280210	1.00	0.9139	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	312804	1.00	0.8757	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	294266	1.00	1.01	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	292533	1.00	1.10	
A 115 C8 Range	1	14.281	(14.233-14.319)		0	1182032	1.00	0.9790	
S 116 Xylenes, Total	100				0		3.00	2.89	
S 117 1,2-Dichloroethene, Total	1				0		2.00	1.88	

Reagents:

40L6DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

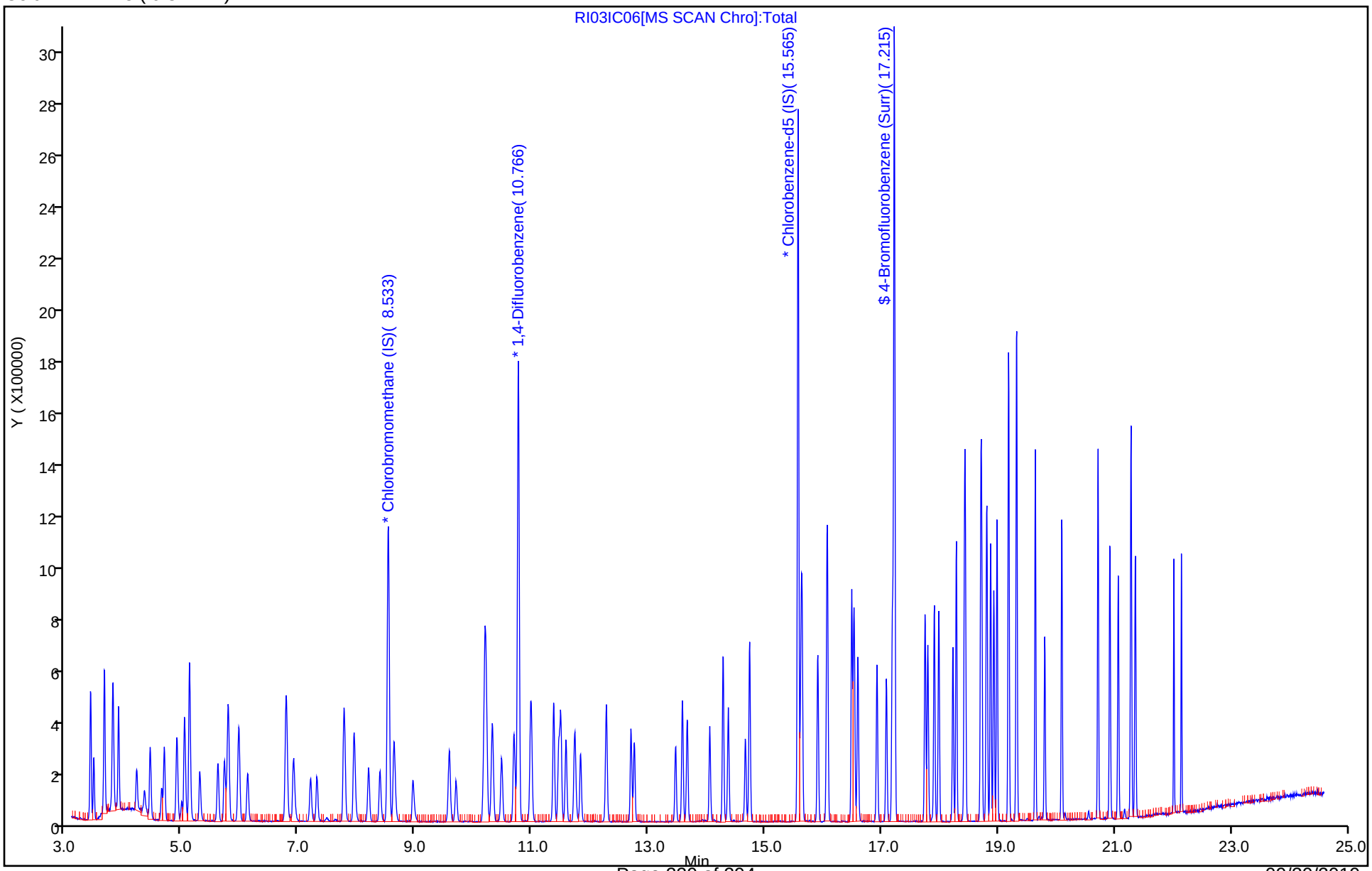
Report Date: 04-Sep-2019 17:34:47 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D

Injection Date:	03-Sep-2019 18:27:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L6			Worklist Smp#:	12
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

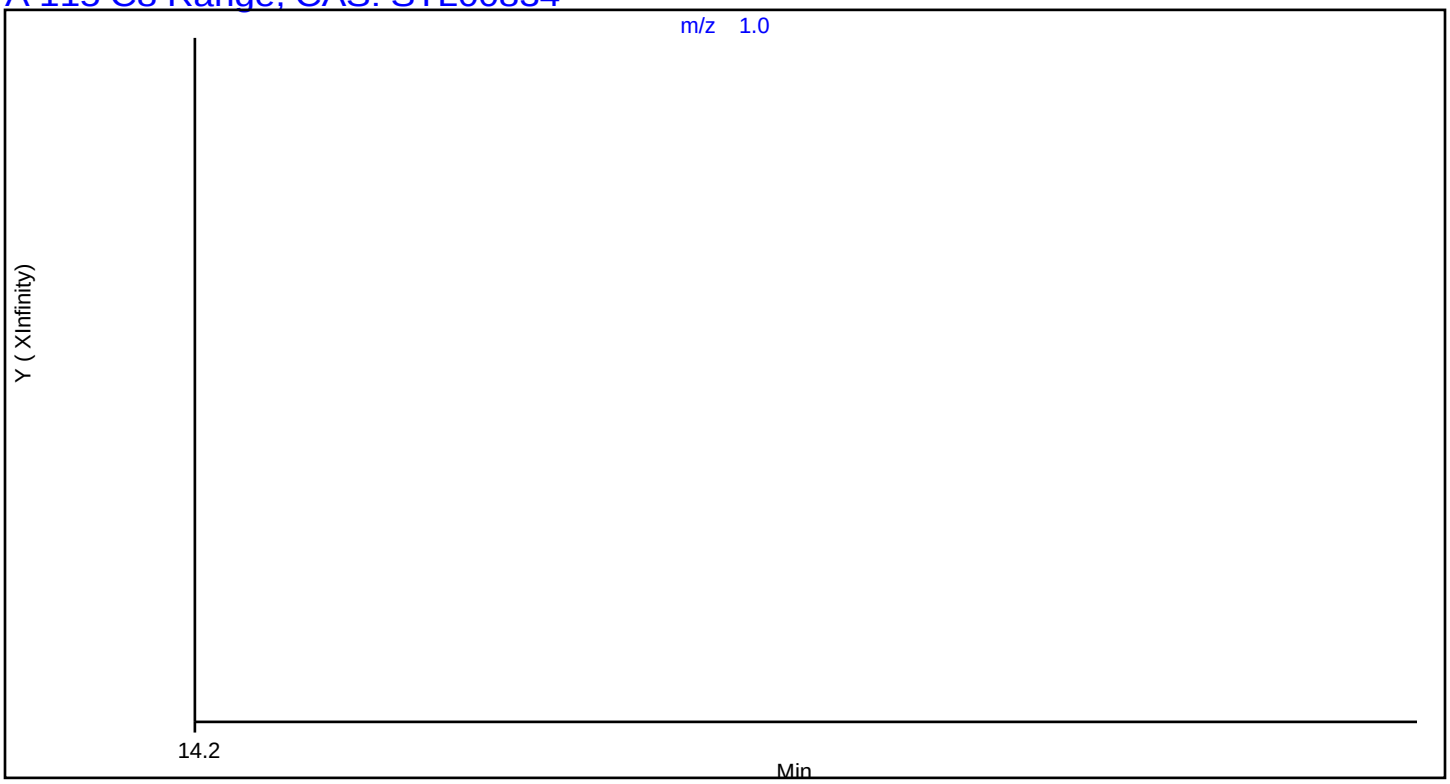


Report Date: 04-Sep-2019 17:34:47 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC06.D				
Injection Date:	03-Sep-2019 18:27:30	Instrument ID:	MR		
Lims ID:	IC L6				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	5	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 03-Sep-2019 20:02:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-014
Misc. Info.: 245076
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:34:55 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 14:54:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.537	0.007	96	407356	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.776	10.770	0.006	94	2284606	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.570	15.568	0.002	87	1890582	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	95	1144637	4.00	4.10	
6 Chlorodifluoromethane	51	3.427	3.428	-0.001	97	1018776	4.00	3.77	
7 Propene	41	3.432	3.433	-0.001	99	588113	4.00	3.85	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	839671	4.00	3.65	
9 Chloromethane	52	3.664	3.661	0.003	100	176223	4.00	4.02	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.669	3.669	0.000	86	631884	4.00	3.34	
11 Acetaldehyde	44	3.809	3.811	-0.002	99	913585	20.0	17.1	
12 Vinyl chloride	62	3.826	3.823	0.003	99	474399	4.00	3.43	
13 Butadiene	54	3.912	3.909	0.003	68	413950	4.00	3.98	
14 Butane	43	3.912	3.909	0.003	85	766058	4.00	3.80	
15 Bromomethane	94	4.219	4.221	-0.002	96	478925	4.00	3.50	
16 Chloroethane	64	4.359	4.357	0.002	95	191853	4.00	3.32	
17 Ethanol	31	4.456	4.461	-0.005	98	1190978	20.0	19.1	
18 Vinyl bromide	106	4.651	4.649	0.002	98	476165	4.00	4.11	
19 2-Methylbutane	43	4.694	4.695	-0.001	95	628901	4.00	3.99	
21 Trichlorofluoromethane	101	4.909	4.911	-0.002	99	1326757	4.00	4.01	
20 Acrolein	56	4.926	4.929	-0.003	96	176527	4.00	4.50	
24 Acetonitrile	40	4.996	5.002	-0.006	98	245426	4.00	4.19	
22 Acetone	58	5.039	5.050	-0.011	98	725820	12.0	11.2	
25 Pentane	72	5.136	5.133	0.003	72	94410	4.00	4.05	
23 Isopropyl alcohol	45	5.131	5.142	-0.011	82	2165369	12.0	11.4	
26 Ethyl ether	31	5.298	5.312	-0.014	94	616460	4.00	3.88	
27 1,1-Dichloroethene	96	5.621	5.615	0.006	99	541093	4.00	4.09	
28 Acrylonitrile	53	5.729	5.728	0.001	95	399181	4.00	4.09	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	931101	4.00	3.94	
30 1,1,2-Trichloro-1,2,2-trif	101	5.794	5.792	0.002	95	1093608	4.00	3.91	
32 3-Chloro-1-propene	39	5.983	5.964	0.018	96	475507	4.00	3.66	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.972	5.969	0.003	97	472620	4.00	3.01	
33 Carbon disulfide	76	6.128	6.125	0.003	100	1407313	4.00	4.04	
34 trans-1,2-Dichloroethene	96	6.781	6.779	0.002	98	572169	4.00	4.01	
35 2-Methylpentane	43	6.791	6.795	-0.004	95	1347528	4.00	4.00	
36 Methyl tert-butyl ether	73	6.910	6.927	-0.017	97	1406422	4.00	4.10	
37 1,1-Dichloroethane	63	7.212	7.208	0.004	100	960313	4.00	3.92	
38 Vinyl acetate	43	7.320	7.318	0.002	100	1550812	4.00	4.02	
39 2-Butanone (MEK)	72	7.767	7.782	-0.015	96	250304	4.00	3.64	
40 Hexane	56	7.789	7.785	0.004	81	432765	4.00	3.88	
41 Isopropyl ether	45	7.951	7.963	-0.012	97	2023462	4.00	3.96	
42 cis-1,2-Dichloroethene	96	8.210	8.203	0.007	93	593822	4.00	4.01	
43 Ethyl acetate	43	8.393	8.402	-0.009	98	1403825	4.00	3.96	
44 Chloroform	83	8.555	8.549	0.006	97	1155781	4.00	3.92	
45 Tert-butyl ethyl ether	59	8.636	8.649	-0.013	96	1648802	4.00	3.96	
46 Tetrahydrofuran	42	8.959	8.968	-0.009	95	698015	4.00	3.97	
47 1,1,1-Trichloroethane	97	9.590	9.586	0.004	94	1142217	4.00	3.79	
48 1,2-Dichloroethane	62	9.703	9.701	0.002	96	716206	4.00	3.98	
50 n-Butanol	31	10.156	10.176	-0.020	85	245687	4.00	3.89	
49 Benzene	78	10.205	10.199	0.006	96	1732232	4.00	3.93	
51 Cyclohexane	69	10.205	10.200	0.005	83	259810	4.00	3.98	
52 Carbon tetrachloride	117	10.226	10.222	0.004	95	1242435	4.00	4.26	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	93	374263	4.00	4.16	
54 Thiophene	84	10.485	10.482	0.003	96	898134	4.00	3.93	
55 Isooctane	57	10.987	10.986	0.001	98	2805646	4.00	4.10	
57 n-Heptane	71	11.380	11.378	0.002	94	600275	4.00	4.12	
56 1,2-Dichloropropane	63	11.467	11.464	0.003	89	626326	4.00	3.94	
58 Trichloroethene	130	11.499	11.496	0.003	96	798633	4.00	4.21	
59 Dibromomethane	93	11.591	11.587	0.004	93	691506	4.00	4.09	
60 Dichlorobromomethane	83	11.736	11.735	0.001	98	1170432	4.00	4.18	
61 1,4-Dioxane	88	11.747	11.759	-0.012	89	273917	4.00	4.29	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	810493	4.00	4.17	
63 Methylcyclohexane	83	12.281	12.276	0.005	93	993926	4.00	4.12	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	1478879	4.00	4.10	
65 cis-1,3-Dichloropropene	75	12.761	12.759	0.002	96	907449	4.00	4.12	
66 trans-1,3-Dichloropropene	75	13.467	13.467	0.000	99	838028	4.00	4.20	
67 Toluene	91	13.586	13.584	0.002	93	1947337	4.00	4.21	
68 1,1,2-Trichloroethane	83	13.667	13.665	0.002	96	602007	4.00	4.16	
69 2-Hexanone	58	14.050	14.055	-0.005	91	681395	4.00	4.30	
71 n-Octane	85	14.281	14.283	-0.002	97	594761	4.00	4.16	
70 Chlorodibromomethane	129	14.373	14.370	0.003	98	1260220	4.00	4.36	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	1147731	4.00	4.26	
73 Tetrachloroethene	129	14.734	14.736	-0.002	97	753130	4.00	4.05	
74 Chlorobenzene	112	15.619	15.615	0.004	95	1625792	4.00	4.15	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	96	2253286	4.00	4.25	
76 Ethylbenzene	91	15.904	15.904	0.000	98	2631374	4.00	4.20	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	97	4209823	8.00	8.74	
81 n-Nonane	57	16.487	16.488	-0.001	95	1353990	4.00	4.40	
78 Bromoform	173	16.514	16.519	-0.005	96	1333496	4.00	5.04	
79 Styrene	104	16.535	16.535	0.000	99	1535403	4.00	4.54	
80 o-Xylene	91	16.595	16.595	0.000	99	2070387	4.00	4.23	
82 1,1,2,2-Tetrachloroethane	83	16.924	16.923	0.001	99	1572025	4.00	4.38	
83 1,2,3-Trichloropropane	110	17.085	17.085	0.000	96	482487	4.00	4.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.187	0.001	96	3091481	4.00	4.27	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	834225	4.00	4.32	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	776733	4.00	4.25	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	3268553	4.00	4.44	
87 1,3,5-Trimethylbenzene	120	17.986	17.983	0.003	92	1208158	4.00	4.14	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	1249980	4.00	4.41	
90 n-Decane	57	18.283	18.286	-0.004	89	1782051	4.00	4.26	
91 tert-Butylbenzene	119	18.428	18.425	0.003	93	2769458	4.00	4.19	
92 1,2,4-Trimethylbenzene	105	18.439	18.440	-0.001	96	2771424	4.00	4.48	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	4212854	4.00	4.39	
93 1,3-Dichlorobenzene	146	18.719	18.720	-0.001	97	1974523	4.00	4.21	
96 Benzyl chloride	91	18.795	18.798	-0.003	98	1911127	4.00	4.42	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	96	1888678	4.00	4.16	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	3121329	4.00	4.38	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	99	2671168	4.00	4.40	
99 Butylcyclohexane	83	18.984	18.983	0.001	93	2007247	4.00	4.16	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	93	2576919	4.00	4.30	
100 1,2-Dichlorobenzene	146	19.183	19.182	0.001	85	1867790	4.00	4.20	
102 Indene	116	19.312	19.315	-0.003	92	2221880	4.00	4.28	
103 n-Butylbenzene	91	19.318	19.320	-0.002	98	3267502	4.00	4.33	
104 Undecane	57	19.636	19.638	-0.002	95	2081162	4.00	4.12	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	916988	4.00	5.14	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	2793851	4.00	4.04	
107 Dodecane	57	20.714	20.713	0.001	94	2184461	4.00	4.24	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	93	1645400	4.00	3.92	
109 Naphthalene	128	21.060	21.060	0.000	99	3238137	4.00	3.82	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	95	1527206	4.00	4.17	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	1579413	4.00	3.70	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	99	904624	4.00	2.60	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	871340	4.00	2.73	
A 115 C8 Range	1	14.281	(14.227-14.335)		0	6144751	4.00	4.01	
S 116 Xylenes, Total	100				0		12.0	13.0	
S 117 1,2-Dichloroethene, Total	1				0		8.00	8.02	

Reagents:

40L8DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

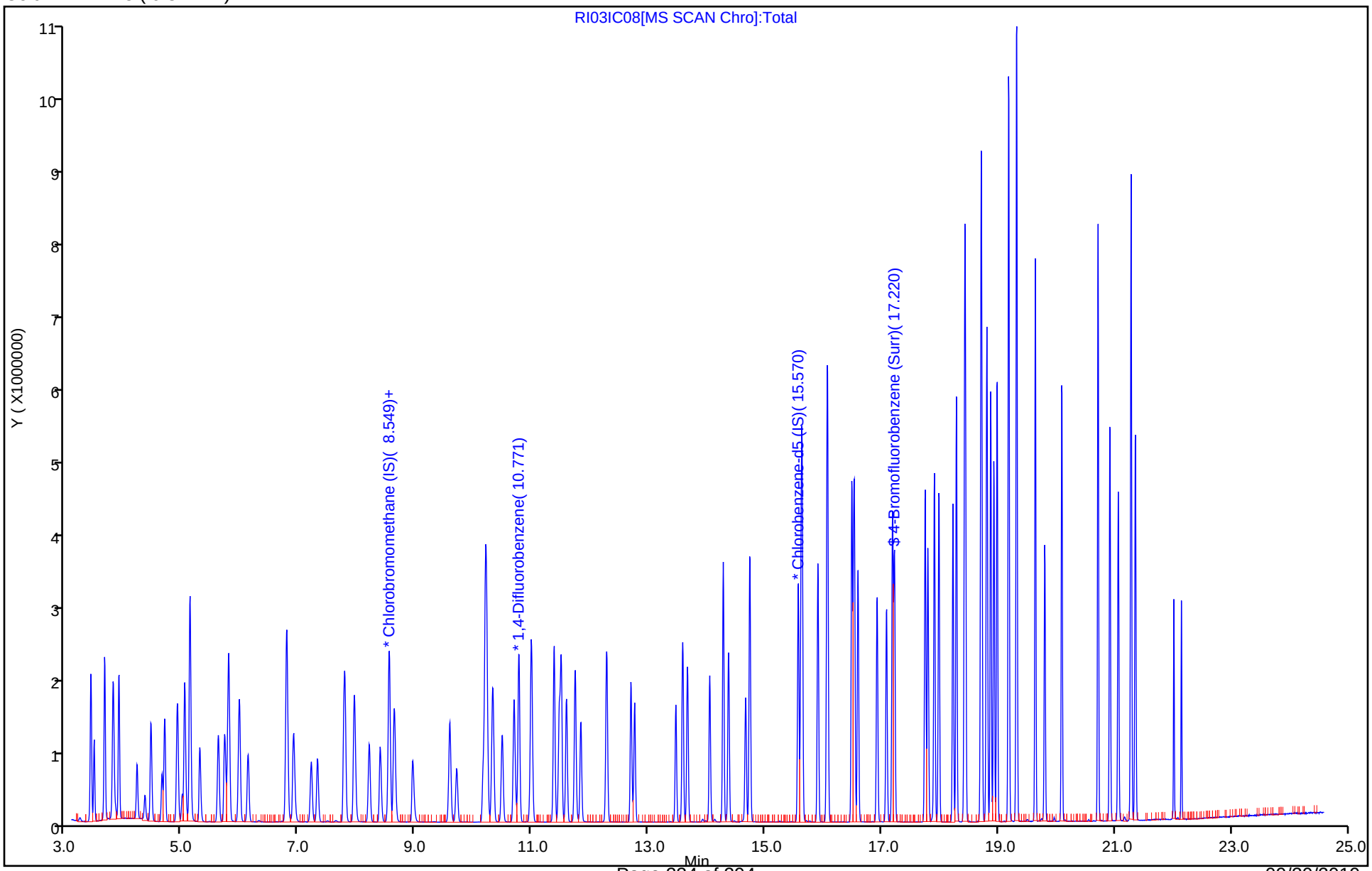
Report Date: 04-Sep-2019 17:34:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D

Injection Date:	03-Sep-2019 20:02:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	IC L8			Worklist Smp#:	14
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

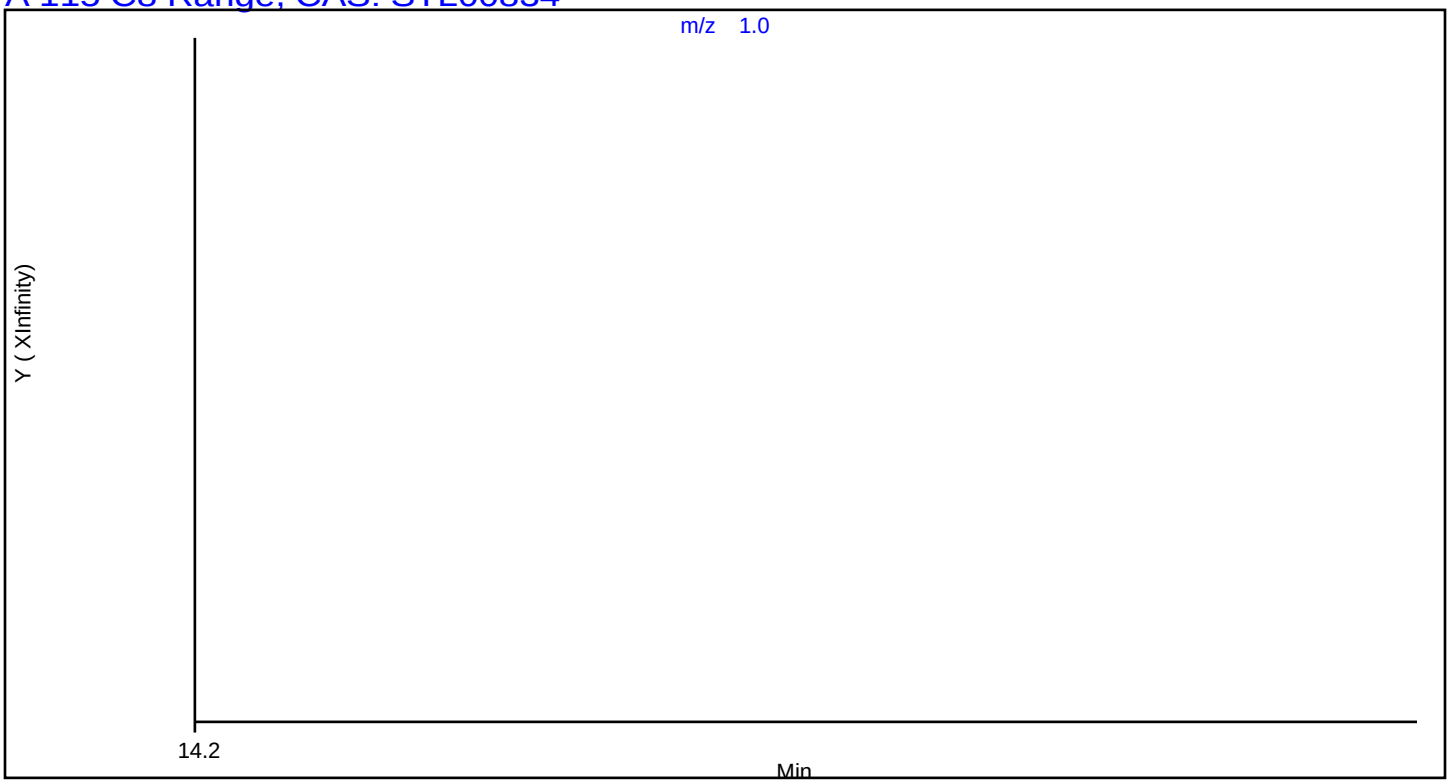


Report Date: 04-Sep-2019 17:34:57 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC08.D				
Injection Date:	03-Sep-2019 20:02:30	Instrument ID:	MR		
Lims ID:	IC L8				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	7	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D
Lims ID: ICIS L7
Client ID:
Sample Type: ICIS Calib Level: 7
Inject. Date: 04-Sep-2019 09:04:30 ALS Bottle#: 6 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 245077
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:35:03 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: tajh Date: 04-Sep-2019 13:49:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	97	371029	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.765	10.770	-0.005	94	2202831	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	87	1824871	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.231	17.220	0.011	96	1123246	4.00	4.17	
6 Chlorodifluoromethane	51	3.432	3.428	0.004	97	494961	2.00	2.01	
7 Propene	41	3.437	3.433	0.004	99	303639	2.00	2.18	
8 Dichlorodifluoromethane	85	3.491	3.486	0.005	99	406890	2.00	1.94	
9 Chloromethane	52	3.664	3.661	0.003	95	88443	2.00	2.21	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.674	3.669	0.005	84	305222	2.00	1.77	
11 Acetaldehyde	44	3.815	3.811	0.004	98	589441	10.0	12.1	
12 Vinyl chloride	62	3.831	3.823	0.008	99	291942	2.00	2.32	
13 Butadiene	54	3.917	3.909	0.008	68	219332	2.00	2.31	
14 Butane	43	3.912	3.909	0.003	85	414338	2.00	2.26	
15 Bromomethane	94	4.224	4.221	0.003	94	274719	2.00	2.20	
16 Chloroethane	64	4.359	4.357	0.002	98	121039	2.00	2.30	
17 Ethanol	31	4.462	4.461	0.001	97	623885	10.0	11.0	
18 Vinyl bromide	106	4.650	4.649	0.001	97	218556	2.00	2.07	
19 2-Methylbutane	43	4.699	4.695	0.004	94	299043	2.00	2.08	
21 Trichlorofluoromethane	101	4.915	4.911	0.004	99	615965	2.00	2.04	
20 Acrolein	56	4.925	4.929	-0.004	96	71857	2.00	2.01	
24 Acetonitrile	40	4.996	5.002	-0.006	99	121363	2.00	2.28	
22 Acetone	58	5.044	5.050	-0.006	99	353148	6.00	5.97	
25 Pentane	72	5.136	5.133	0.003	74	44407	2.00	2.09	
23 Isopropyl alcohol	45	5.130	5.142	-0.012	89	1101651	6.00	6.36	
26 Ethyl ether	31	5.303	5.312	-0.009	93	301541	2.00	2.08	
27 1,1-Dichloroethene	96	5.616	5.615	0.001	98	239031	2.00	1.98	
28 Acrylonitrile	53	5.724	5.728	-0.004	60	187864	2.00	2.11	
29 2-Methyl-2-propanol	59	5.724	5.745	-0.021	95	449829	2.00	2.09	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	97	517442	2.00	2.03	
32 3-Chloro-1-propene	39	5.977	5.964	0.013	94	242216	2.00	2.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.966	5.969	-0.003	97	224958	2.00	1.57	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	650466	2.00	2.05	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	97	269961	2.00	2.08	
35 2-Methylpentane	43	6.791	6.795	-0.004	96	642069	2.00	2.09	
36 Methyl tert-butyl ether	73	6.904	6.927	-0.023	97	648935	2.00	2.08	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	452018	2.00	2.03	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	759618	2.00	2.16	
39 2-Butanone (MEK)	72	7.762	7.782	-0.020	95	128379	2.00	2.05	
40 Hexane	56	7.778	7.785	-0.007	77	210994	2.00	2.08	
41 Isopropyl ether	45	7.945	7.963	-0.018	98	974715	2.00	2.09	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	93	281658	2.00	2.09	
43 Ethyl acetate	43	8.387	8.402	-0.015	98	671035	2.00	2.08	
44 Chloroform	83	8.544	8.549	-0.005	96	548666	2.00	2.04	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	96	816412	2.00	2.16	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	95	329928	2.00	2.06	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	557623	2.00	2.03	
48 1,2-Dichloroethane	62	9.692	9.701	-0.009	95	341855	2.00	1.97	
50 n-Butanol	31	10.161	10.176	-0.015	85	124400	2.00	2.04	
49 Benzene	78	10.194	10.199	-0.005	96	822928	2.00	1.94	
51 Cyclohexane	69	10.188	10.200	-0.012	72	124018	2.00	1.97	
52 Carbon tetrachloride	117	10.215	10.222	-0.007	96	616542	2.00	2.19	
53 2,3-Dimethylpentane	71	10.318	10.324	-0.006	92	176630	2.00	2.04	
54 Thiophene	84	10.480	10.482	-0.002	95	442182	2.00	2.01	
55 Isooctane	57	10.981	10.986	-0.005	98	1324872	2.00	2.01	
57 n-Heptane	71	11.369	11.378	-0.009	94	290028	2.00	2.07	
56 1,2-Dichloropropane	63	11.456	11.464	-0.008	88	314183	2.00	2.05	
58 Trichloroethene	130	11.493	11.496	-0.003	95	376006	2.00	2.06	
59 Dibromomethane	93	11.580	11.587	-0.007	94	330920	2.00	2.03	
60 Dichlorobromomethane	83	11.725	11.735	-0.010	98	566326	2.00	2.10	
61 1,4-Dioxane	88	11.736	11.759	-0.023	92	129226	2.00	2.10	
62 Methyl methacrylate	41	11.828	11.836	-0.008	93	381120	2.00	2.03	
63 Methylcyclohexane	83	12.270	12.276	-0.006	95	477484	2.00	2.05	
64 4-Methyl-2-pentanone (MIBK	43	12.691	12.705	-0.015	98	723671	2.00	2.08	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	96	467682	2.00	2.20	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	98	426975	2.00	2.22	
67 Toluene	91	13.575	13.584	-0.009	93	964843	2.00	2.16	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	297744	2.00	2.13	
69 2-Hexanone	58	14.044	14.055	-0.011	91	334091	2.00	2.18	
71 n-Octane	85	14.281	14.283	-0.002	96	308402	2.00	2.23	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	96	626193	2.00	2.24	
72 Ethylene Dibromide	107	14.659	14.664	-0.005	97	580652	2.00	2.23	
73 Tetrachloroethene	129	14.729	14.736	-0.007	96	371188	2.00	2.07	
74 Chlorobenzene	112	15.613	15.615	-0.002	94	810531	2.00	2.15	
75 2,3-Dimethylheptane	43	15.629	15.634	-0.005	96	1107768	2.00	2.17	
76 Ethylbenzene	91	15.899	15.904	-0.005	98	1342943	2.00	2.22	
77 m-Xylene & p-Xylene	91	16.061	16.067	-0.006	97	2047299	4.00	4.40	
81 n-Nonane	57	16.487	16.488	-0.001	95	664979	2.00	2.24	
78 Bromoform	173	16.519	16.519	0.000	97	655431	2.00	2.57	
79 Styrene	104	16.535	16.535	0.000	99	726918	2.00	2.23	
80 o-Xylene	91	16.595	16.595	0.000	99	977284	2.00	2.07	
82 1,1,2,2-Tetrachloroethane	83	16.934	16.923	0.011	99	727258	2.00	2.10	
83 1,2,3-Trichloropropane	110	17.101	17.085	0.016	96	218447	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.204	17.187	0.017	95	1513692	2.00	2.17	
85 N-Propylbenzene	120	17.765	17.749	0.016	99	400140	2.00	2.15	
86 2-Chlorotoluene	126	17.808	17.789	0.019	97	371923	2.00	2.11	
88 4-Ethyltoluene	105	17.921	17.907	0.014	100	1546060	2.00	2.18	
87 1,3,5-Trimethylbenzene	120	17.997	17.983	0.014	93	597390	2.00	2.12	
89 Alpha Methyl Styrene	118	18.239	18.225	0.014	90	579320	2.00	2.12	
90 n-Decane	57	18.293	18.286	0.007	89	863597	2.00	2.14	
91 tert-Butylbenzene	119	18.439	18.425	0.014	92	1368395	2.00	2.15	
92 1,2,4-Trimethylbenzene	105	18.450	18.440	0.010	96	1351477	2.00	2.26	
94 sec-Butylbenzene	105	18.714	18.703	0.011	99	2012250	2.00	2.17	
93 1,3-Dichlorobenzene	146	18.730	18.720	0.010	98	934677	2.00	2.06	
96 Benzyl chloride	91	18.805	18.798	0.007	99	1077107	2.00	2.58	
95 1,4-Dichlorobenzene	146	18.822	18.811	0.011	96	950700	2.00	2.17	
97 4-Isopropyltoluene	119	18.881	18.871	0.010	97	1565012	2.00	2.28	
98 1,2,3-Trimethylbenzene	105	18.935	18.926	0.009	98	1296053	2.00	2.21	
99 Butylcyclohexane	83	18.989	18.983	0.006	94	1013362	2.00	2.17	
101 2,3-Dihydroindene	117	19.188	19.180	0.008	94	1216324	2.00	2.10	
100 1,2-Dichlorobenzene	146	19.188	19.182	0.006	87	905677	2.00	2.11	
102 Indene	116	19.323	19.315	0.008	90	1080114	2.00	2.16	
103 n-Butylbenzene	91	19.329	19.320	0.008	98	1599950	2.00	2.20	
104 Undecane	57	19.641	19.638	0.003	95	1037149	2.00	2.13	
105 1,2-Dibromo-3-Chloropropan	157	19.808	19.801	0.007	94	441614	2.00	2.56	
106 1,2,4,5-Tetramethylbenzene	119	20.094	20.093	0.001	98	1476473	2.00	2.21	
107 Dodecane	57	20.714	20.713	0.001	94	1013886	2.00	2.04	
108 1,2,4-Trichlorobenzene	180	20.919	20.919	0.000	94	856029	2.00	2.11	
109 Naphthalene	128	21.065	21.060	0.005	99	1765089	2.00	2.16	
110 Hexachlorobutadiene	225	21.286	21.283	0.003	95	748771	2.00	2.12	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	95	836533	2.00	2.03	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	761167	2.00	2.27	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	693175	2.00	2.25	
A 115 C8 Range	1	14.276	(14.233-14.319)		0	3050806	2.00	2.07	
S 116 Xylenes, Total	100				0		6.00	6.47	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.17	

Reagents:

40L7DQP_00012	Amount Added: 200.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

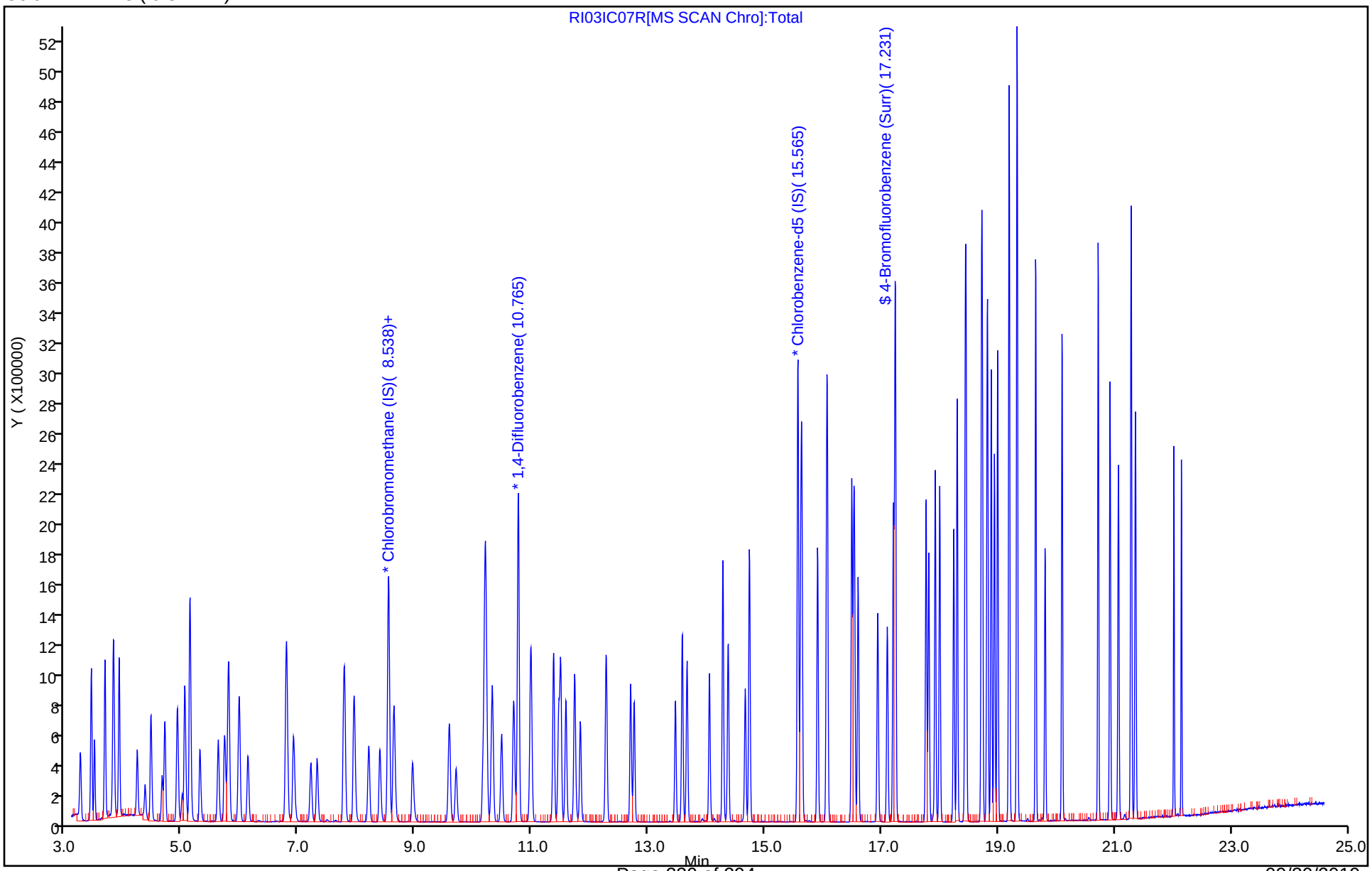
Report Date: 04-Sep-2019 17:35:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Injection Date:	04-Sep-2019 09:04:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICIS L7			Worklist Smp#:	23
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

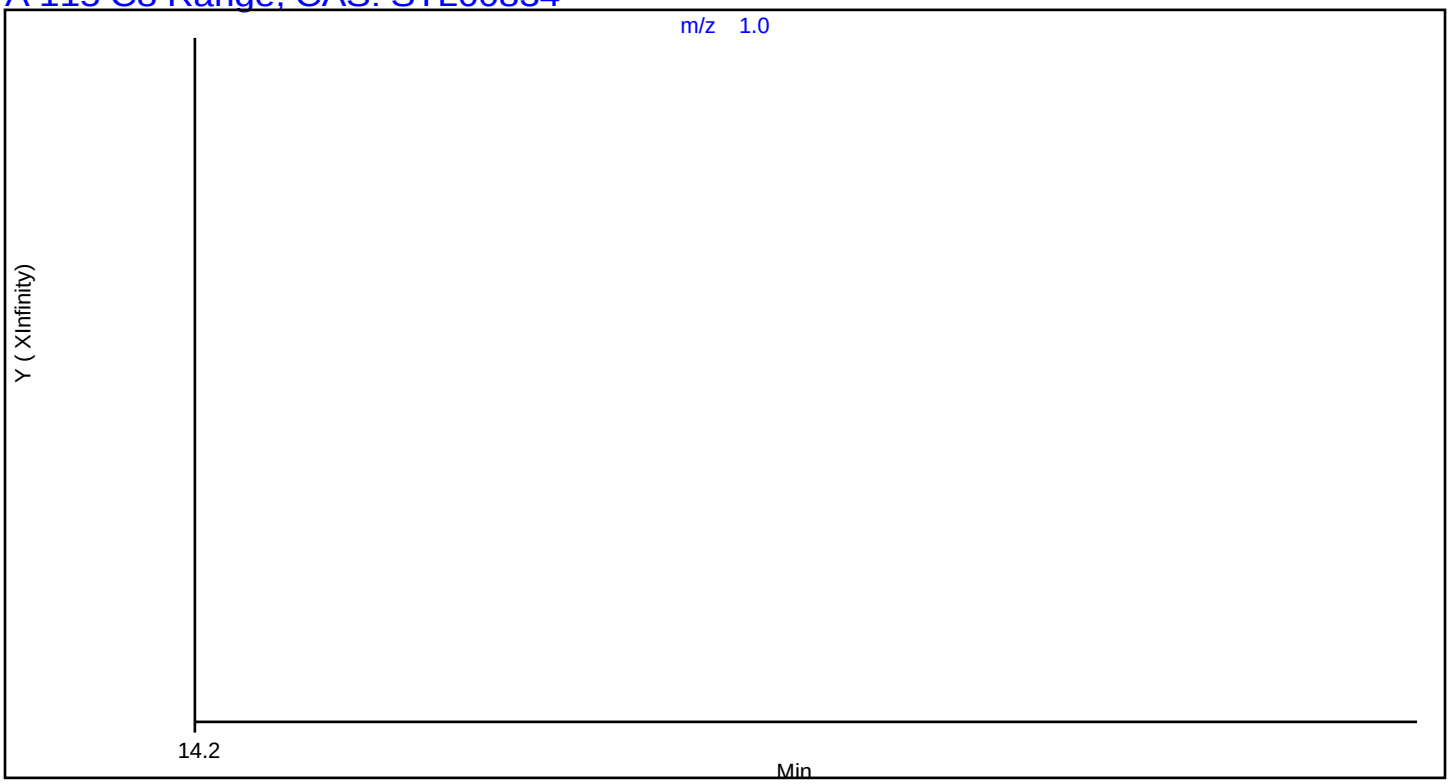


Report Date: 04-Sep-2019 17:35:05 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Injection Date:	04-Sep-2019 09:04:30	Instrument ID:	MR		
Lims ID:	ICIS L7				
Client ID:					
Operator ID:	HMT	ALS Bottle#:	6	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 115 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.732		2.06	2.00	2.9	35.0
Propene	Ave	1.501	1.699		2.26	2.00	13.2	35.0
Dichlorodifluoromethane	Ave	2.256	2.760		2.45	2.00	22.3	35.0
Chloromethane	Ave	0.4310	0.3773		1.75	2.00	-12.4	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.270		2.44	2.00	22.0	35.0
Acetaldehyde	Ave	0.5247	0.3531		6.73	10.0	-32.7	35.0
Vinyl chloride	Ave	1.359	0.9812		1.44	2.00	-27.8	35.0
1,3-Butadiene	Ave	1.022	0.7543		1.48	2.00	-26.2	35.0
Butane	Ave	1.977	1.415		1.43	2.00	-28.4	35.0
Bromomethane	Ave	1.344	0.9665		1.44	2.00	-28.1	35.0
Chloroethane	Ave	0.5671	0.4065		1.43	2.00	-28.3	35.0
Ethanol	Ave	0.6120	0.4984		8.14	10.0	-18.6	35.0
Vinyl bromide	Ave	1.137	1.219		2.15	2.00	7.3	35.0
2-Methylbutane	Ave	1.548	1.534		1.98	2.00	-0.9	35.0
Trichlorofluoromethane	Ave	3.252	3.201		1.97	2.00	-1.6	35.0
Acrolein	Ave	0.3855	0.4188		2.17	2.00	8.6	35.0
Acetonitrile	Ave	0.5751	0.5773		2.01	2.00	0.4	35.0
Acetone	Ave	0.6380	0.7053		2.21	2.00	10.6	35.0
Isopropyl alcohol	Ave	1.868	2.287		2.45	2.00	22.4	35.0
Pentane	Ave	0.2289	0.2400		2.10	2.00	4.9	35.0
Ethyl ether	Ave	1.561	1.593		2.04	2.00	2.1	35.0
1,1-Dichloroethene	Ave	1.301	1.293		1.99	2.00	-0.6	35.0
tert-Butyl alcohol	Ave	2.319	2.427		2.09	2.00	4.6	35.0
Acrylonitrile	Ave	0.9589	1.005		2.10	2.00	4.8	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.703		1.97	2.00	-1.7	35.0
Methylene Chloride	Ave	1.543	1.252		1.62	2.00	-18.9	35.0
3-Chloropropene	Ave	1.275	1.271		1.99	2.00	-0.4	35.0
Carbon disulfide	Ave	3.419	3.454		2.02	2.00	1.0	35.0
trans-1,2-Dichloroethene	Ave	1.401	1.393		1.99	2.00	-0.5	35.0
2-Methylpentane	Ave	3.306	3.047		1.84	2.00	-7.9	35.0
Methyl tert-butyl ether	Ave	3.370	3.639		2.16	2.00	8.0	35.0
1,1-Dichloroethane	Ave	2.406	2.463		2.05	2.00	2.4	35.0
Vinyl acetate	Ave	3.791	4.194		2.21	2.00	10.6	35.0
2-Butanone (MEK)	Ave	0.6748	0.6866		2.03	2.00	1.7	35.0
Hexane	Ave	1.095	1.086		1.98	2.00	-0.8	35.0
Isopropyl ether	Ave	5.017	5.309		2.12	2.00	5.8	35.0
cis-1,2-Dichloroethene	Ave	1.454	1.556		2.14	2.00	7.1	35.0
Ethyl acetate	Ave	3.480	3.357		1.93	2.00	-3.5	35.0
Chloroform	Ave	2.898	2.853		1.97	2.00	-1.6	35.0
Tert-butyl ethyl ether	Ave	4.084	4.068		1.99	2.00	-0.4	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.770		2.05	2.00	2.6	35.0
1,1,1-Trichloroethane	Ave	2.962	2.890		1.95	2.00	-2.4	35.0
1,2-Dichloroethane	Ave	0.3151	0.2985		1.89	2.00	-5.3	35.0
1-Butanol	Ave	0.1107	0.1186		2.14	2.00	7.1	35.0
Benzene	Ave	0.7714	0.7541		1.96	2.00	-2.2	35.0
Cyclohexane	Ave	0.1143	0.1058		1.85	2.00	-7.5	35.0
Carbon tetrachloride	Ave	0.5101	0.5533		2.17	2.00	8.5	35.0
2,3-Dimethylpentane	Ave	0.1575	0.1596		2.03	2.00	1.3	35.0
Thiophene	Ave	0.4003	0.3973		1.98	2.00	-0.8	35.0
2,2,4-Trimethylpentane	Ave	1.199	1.190		1.99	2.00	-0.7	35.0
Heptane	Ave	0.2550	0.2538		1.99	2.00	-0.5	35.0
1,2-Dichloropropane	Ave	0.2780	0.2746		1.98	2.00	-1.2	35.0
Trichloroethene	Ave	0.3320	0.3339		2.01	2.00	0.6	35.0
Dibromomethane	Ave	0.2957	0.2899		1.96	2.00	-1.9	35.0
Bromodichloromethane	Ave	0.4906	0.4819		1.96	2.00	-1.8	35.0
1,4-Dioxane	Ave	0.1118	0.1164		2.08	2.00	4.1	35.0
Methyl methacrylate	Ave	0.3404	0.3414		2.01	2.00	0.3	35.0
Methylcyclohexane	Ave	0.4226	0.5207		2.46	2.00	23.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.6336		2.01	2.00	0.4	35.0
cis-1,3-Dichloropropene	Ave	0.3853	0.4115		2.14	2.00	6.8	35.0
trans-1,3-Dichloropropene	Ave	0.4218	0.4365		2.07	2.00	3.5	35.0
Toluene	Ave	0.9777	0.9801		2.01	2.00	0.3	35.0
1,1,2-Trichloroethane	Ave	0.3059	0.2919		1.91	2.00	-4.6	35.0
2-Hexanone	Ave	0.3356	0.3387		2.02	2.00	0.9	35.0
Octane	Ave	0.3027	0.3198		2.11	2.00	5.7	35.0
Dibromochloromethane	Ave	0.6120	0.6302		2.06	2.00	3.0	35.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5866		2.06	2.00	2.9	35.0
Tetrachloroethene	Ave	0.3936	0.3980		2.02	2.00	1.1	35.0
Chlorobenzene	Ave	0.8282	0.8745		2.11	2.00	5.6	35.0
2,3-Dimethylheptane	Ave	1.121	0.9897		1.77	2.00	-11.7	35.0
Ethylbenzene	Ave	1.326	1.366		2.06	2.00	3.0	35.0
m-Xylene & p-Xylene	Ave	1.019	1.100		4.31	4.00	7.9	35.0
Nonane	Ave	0.6517	0.7107		2.18	2.00	9.0	35.0
Bromoform	Ave	0.5593	0.6738		2.41	2.00	20.5	35.0
Styrene	Ave	0.7149	0.7951		2.22	2.00	11.2	35.0
o-Xylene	Ave	1.034	1.046		2.02	2.00	1.1	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.7895		2.08	2.00	3.9	35.0
1,2,3-Trichloropropane	Ave	0.2394	0.2468		2.06	2.00	3.1	35.0
Isopropylbenzene	Ave	1.532	1.677		2.19	2.00	9.5	35.0
Propylbenzene	Ave	0.4084	0.4371		2.14	2.00	7.0	35.0
2-Chlorotoluene	Ave	0.3869	0.4052		2.10	2.00	4.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: ICV 140-33257/18 Calibration Date: 09/03/2019 23:14

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RI03ICV.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.535		1.97	2.00	-1.4	35.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.7185		2.33	2.00	16.3	35.0
Alpha Methyl Styrene	Ave	0.5996	0.5702		1.90	2.00	-4.9	35.0
Decane	Ave	0.8851	0.8755		1.98	2.00	-1.1	35.0
tert-Butylbenzene	Ave	1.397	1.438		2.06	2.00	3.0	35.0
1,2,4-Trimethylbenzene	Ave	1.310	1.413		2.16	2.00	7.9	35.0
sec-Butylbenzene	Ave	2.029	2.108		2.08	2.00	3.9	35.0
1,3-Dichlorobenzene	Ave	0.9926	0.9918		2.00	2.00	-0.0	35.0
Benzyl chloride	Ave	0.9143	1.133		2.48	2.00	23.9	35.0
1,4-Dichlorobenzene	Ave	0.9599	0.9877		2.06	2.00	2.9	35.0
4-Isopropyltoluene	Ave	1.507	1.570		2.08	2.00	4.1	35.0
1,2,3-Trimethylbenzene	Ave	1.283	0.9702		1.51	2.00	-24.4	35.0
Butylcyclohexane	Ave	1.022	0.9653		1.89	2.00	-5.5	35.0
1,2-Dichlorobenzene	Ave	0.9404	0.9869		2.10	2.00	4.9	35.0
Indane	Ave	1.268	1.314		2.07	2.00	3.6	35.0
Indene	Ave	1.098	0.9838		1.79	2.00	-10.4	35.0
Butylbenzene	Ave	1.596	1.641		2.06	2.00	2.8	35.0
Undecane	Ave	1.068	0.9949		1.86	2.00	-6.8	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.3741		1.98	2.00	-0.9	35.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.380		1.89	2.00	-5.7	35.0
Dodecane	Ave	1.091	0.9112		1.67	2.00	-16.5	35.0
1,2,4-Trichlorobenzene	Ave	0.8883	0.8582		1.93	2.00	-3.4	35.0
Naphthalene	Ave	1.792	1.752		1.96	2.00	-2.2	35.0
Hexachlorobutadiene	Ave	0.7749	0.7587		1.96	2.00	-2.1	35.0
1,2,3-Trichlorobenzene	Ave	0.9026	0.8675		1.92	2.00	-3.9	35.0
2-Methylnaphthalene	Ave	0.7349	0.6386		1.74	2.00	-13.1	50.0
1-Methylnaphthalene	Ave	0.6749	0.5762		1.71	2.00	-14.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.5775		3.91	4.00	-2.3	35.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03ICV.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 03-Sep-2019 23:14:30 ALS Bottle#: 14 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0012931-016
Misc. Info.: S98
Operator ID: HMT Instrument ID: MR
Sublist:

Method: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 04-Sep-2019 17:40:33 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0302

First Level Reviewer: wilesd Date: 04-Sep-2019 14:13:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.537	-0.004	95	487104	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.766	10.770	-0.004	93	2786219	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.565	15.568	-0.003	85	2417964	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.215	17.220	-0.005	96	1396394	4.00	3.91	
6 Chlorodifluoromethane	51	3.416	3.428	-0.012	97	665323	2.00	2.06	
7 Propene	41	3.421	3.433	-0.012	97	413807	2.00	2.26	
8 Dichlorodifluoromethane	85	3.475	3.486	-0.011	99	672148	2.00	2.45	
9 Chloromethane	52	3.653	3.661	-0.008	100	91896	2.00	1.75	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.658	3.669	-0.011	92	552858	2.00	2.44	
11 Acetaldehyde	44	3.804	3.811	-0.007	99	429996	10.0	6.73	
12 Vinyl chloride	62	3.815	3.823	-0.008	99	238960	2.00	1.44	
13 Butadiene	54	3.901	3.909	-0.008	70	183715	2.00	1.48	
14 Butane	43	3.901	3.909	-0.008	84	344684	2.00	1.43	
15 Bromomethane	94	4.214	4.221	-0.007	95	235399	2.00	1.44	
16 Chloroethane	64	4.343	4.357	-0.014	97	99012	2.00	1.43	
17 Ethanol	31	4.446	4.461	-0.015	96	606976	10.0	8.14	
18 Vinyl bromide	106	4.640	4.649	-0.009	98	296995	2.00	2.15	
19 2-Methylbutane	43	4.688	4.695	-0.007	92	373695	2.00	1.98	
21 Trichlorofluoromethane	101	4.904	4.911	-0.007	99	779708	2.00	1.97	
20 Acrolein	56	4.915	4.929	-0.014	96	101991	2.00	2.17	
24 Acetonitrile	40	4.985	5.002	-0.017	99	140600	2.00	2.01	
22 Acetone	58	5.039	5.050	-0.011	98	171786	2.00	2.21	
25 Pentane	72	5.125	5.133	-0.008	96	58449	2.00	2.10	
23 Isopropyl alcohol	45	5.120	5.142	-0.022	57	556913	2.00	2.45	
26 Ethyl ether	31	5.292	5.312	-0.020	94	387936	2.00	2.04	
27 1,1-Dichloroethene	96	5.605	5.615	-0.010	99	314926	2.00	1.99	
28 Acrylonitrile	53	5.718	5.728	-0.010	98	244845	2.00	2.10	
29 2-Methyl-2-propanol	59	5.713	5.745	-0.032	95	590985	2.00	2.09	
30 1,1,2-Trichloro-1,2,2-trif	101	5.788	5.792	-0.004	95	658349	2.00	1.97	
32 3-Chloro-1-propene	39	5.972	5.964	0.008	94	309446	2.00	1.99	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 Methylene Chloride	84	5.961	5.969	-0.008	98	305021	2.00	1.62	
33 Carbon disulfide	76	6.123	6.125	-0.002	99	841334	2.00	2.02	
34 trans-1,2-Dichloroethene	96	6.775	6.779	-0.004	98	339348	2.00	1.99	
35 2-Methylpentane	43	6.786	6.795	-0.009	95	741984	2.00	1.84	
36 Methyl tert-butyl ether	73	6.905	6.927	-0.022	97	886199	2.00	2.16	
37 1,1-Dichloroethane	63	7.201	7.208	-0.007	99	599900	2.00	2.05	
38 Vinyl acetate	43	7.309	7.318	-0.009	100	1021435	2.00	2.21	
39 2-Butanone (MEK)	72	7.762	7.782	-0.020	97	167215	2.00	2.03	
40 Hexane	56	7.784	7.785	-0.001	81	264570	2.00	1.98	
41 Isopropyl ether	45	7.945	7.963	-0.018	99	1292979	2.00	2.12	
42 cis-1,2-Dichloroethene	96	8.199	8.203	-0.004	92	379084	2.00	2.14	
43 Ethyl acetate	43	8.387	8.402	-0.015	98	817609	2.00	1.93	
44 Chloroform	83	8.544	8.549	-0.005	94	694731	2.00	1.97	
45 Tert-butyl ethyl ether	59	8.630	8.649	-0.019	95	990828	2.00	1.99	
46 Tetrahydrofuran	42	8.948	8.968	-0.020	96	431175	2.00	2.05	
47 1,1,1-Trichloroethane	97	9.579	9.586	-0.007	95	703869	2.00	1.95	
48 1,2-Dichloroethane	62	9.698	9.701	-0.003	95	415771	2.00	1.89	
50 n-Butanol	31	10.156	10.176	-0.020	85	165163	2.00	2.14	
49 Benzene	78	10.199	10.199	0.000	96	1050500	2.00	1.96	
51 Cyclohexane	69	10.199	10.200	-0.001	78	147325	2.00	1.85	
52 Carbon tetrachloride	117	10.221	10.222	-0.001	95	770798	2.00	2.17	
53 2,3-Dimethylpentane	71	10.323	10.324	-0.001	93	222336	2.00	2.03	
54 Thiophene	84	10.480	10.482	-0.002	96	553518	2.00	1.98	
55 Isooctane	57	10.981	10.986	-0.005	98	1657413	2.00	1.99	
57 n-Heptane	71	11.375	11.378	-0.003	94	353567	2.00	1.99	
56 1,2-Dichloropropane	63	11.461	11.464	-0.003	91	382586	2.00	1.98	
58 Trichloroethene	130	11.499	11.496	0.003	97	465209	2.00	2.01	
59 Dibromomethane	93	11.580	11.587	-0.007	92	403892	2.00	1.96	
60 Dichlorobromomethane	83	11.731	11.735	-0.004	98	671356	2.00	1.96	
61 1,4-Dioxane	88	11.747	11.759	-0.012	91	162220	2.00	2.08	
62 Methyl methacrylate	41	11.833	11.836	-0.003	92	475620	2.00	2.01	
63 Methylcyclohexane	83	12.275	12.276	-0.001	94	725366	2.00	2.46	
64 4-Methyl-2-pentanone (MIBK	43	12.696	12.705	-0.009	98	882651	2.00	2.01	
65 cis-1,3-Dichloropropene	75	12.755	12.759	-0.004	96	573285	2.00	2.14	
66 trans-1,3-Dichloropropene	75	13.462	13.467	-0.005	99	527739	2.00	2.07	
67 Toluene	91	13.580	13.584	-0.004	94	1184965	2.00	2.01	
68 1,1,2-Trichloroethane	83	13.661	13.665	-0.004	96	352895	2.00	1.91	
69 2-Hexanone	58	14.049	14.055	-0.006	90	409519	2.00	2.02	
71 n-Octane	85	14.281	14.283	-0.002	95	386605	2.00	2.11	
70 Chlorodibromomethane	129	14.368	14.370	-0.002	98	761861	2.00	2.06	
72 Ethylene Dibromide	107	14.664	14.664	0.000	98	709124	2.00	2.06	
73 Tetrachloroethene	129	14.734	14.736	-0.002	97	481215	2.00	2.02	
74 Chlorobenzene	112	15.613	15.615	-0.002	97	1057290	2.00	2.11	
75 2,3-Dimethylheptane	43	15.635	15.634	0.001	97	1196491	2.00	1.77	
76 Ethylbenzene	91	15.904	15.904	0.000	98	1651398	2.00	2.06	
77 m-Xylene & p-Xylene	91	16.066	16.067	-0.001	96	2658947	4.00	4.31	
81 n-Nonane	57	16.487	16.488	-0.001	94	859191	2.00	2.18	
78 Bromoform	173	16.514	16.519	-0.005	97	814612	2.00	2.41	
79 Styrene	104	16.530	16.535	-0.005	100	961242	2.00	2.22	
80 o-Xylene	91	16.589	16.595	-0.006	99	1264728	2.00	2.02	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.923	-0.005	99	954479	2.00	2.08	
83 1,2,3-Trichloropropane	110	17.080	17.085	-0.005	96	298332	2.00	2.06	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.182	17.187	-0.005	94	2027212	2.00	2.19	
85 N-Propylbenzene	120	17.749	17.749	0.000	99	528427	2.00	2.14	
86 2-Chlorotoluene	126	17.792	17.789	0.003	97	489927	2.00	2.10	
88 4-Ethyltoluene	105	17.905	17.907	-0.002	100	1855796	2.00	1.97	
87 1,3,5-Trimethylbenzene	120	17.981	17.983	-0.002	93	868605	2.00	2.33	
89 Alpha Methyl Styrene	118	18.223	18.225	-0.002	90	689322	2.00	1.90	
90 n-Decane	57	18.282	18.286	-0.004	88	1058480	2.00	1.98	
91 tert-Butylbenzene	119	18.423	18.425	-0.002	95	1738756	2.00	2.06	
92 1,2,4-Trimethylbenzene	105	18.433	18.440	-0.007	97	1708749	2.00	2.16	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	2548640	2.00	2.08	
93 1,3-Dichlorobenzene	146	18.714	18.720	-0.006	97	1199012	2.00	2.00	
96 Benzyl chloride	91	18.795	18.798	-0.003	99	1369312	2.00	2.48	
95 1,4-Dichlorobenzene	146	18.806	18.811	-0.005	96	1194099	2.00	2.06	
97 4-Isopropyltoluene	119	18.870	18.871	-0.001	97	1897958	2.00	2.08	
98 1,2,3-Trimethylbenzene	105	18.924	18.926	-0.002	98	1172985	2.00	1.51	
99 Butylcyclohexane	83	18.978	18.983	-0.005	94	1166971	2.00	1.89	
101 2,3-Dihydroindene	117	19.178	19.180	-0.002	94	1589081	2.00	2.07	
100 1,2-Dichlorobenzene	146	19.178	19.182	-0.004	84	1193116	2.00	2.10	
102 Indene	116	19.312	19.315	-0.003	90	1189391	2.00	1.79	
103 n-Butylbenzene	91	19.318	19.320	-0.002	97	1984272	2.00	2.06	
104 Undecane	57	19.636	19.638	-0.002	96	1202812	2.00	1.86	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.801	-0.003	95	452311	2.00	1.98	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.093	-0.004	98	1668110	2.00	1.89	
107 Dodecane	57	20.714	20.713	0.001	94	1101670	2.00	1.67	
108 1,2,4-Trichlorobenzene	180	20.914	20.919	-0.005	93	1037594	2.00	1.93	
109 Naphthalene	128	21.060	21.060	0.000	99	2118031	2.00	1.96	
110 Hexachlorobutadiene	225	21.281	21.283	-0.002	96	917213	2.00	1.96	
111 1,2,3-Trichlorobenzene	180	21.356	21.355	0.001	96	1048759	2.00	1.92	
112 2-Methylnaphthalene	142	22.014	22.014	0.000	98	772072	2.00	1.74	
113 1-Methylnaphthalene	142	22.143	22.143	0.000	98	696658	2.00	1.71	
A 115 C8 Range	1	14.281	(14.233-14.319)		0	3787954	2.00	2.03	
S 116 Xylenes, Total	100				0		6.00	6.34	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.13	

Reagents:

40CV101S_00098	Amount Added: 100.00	Units: mL	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

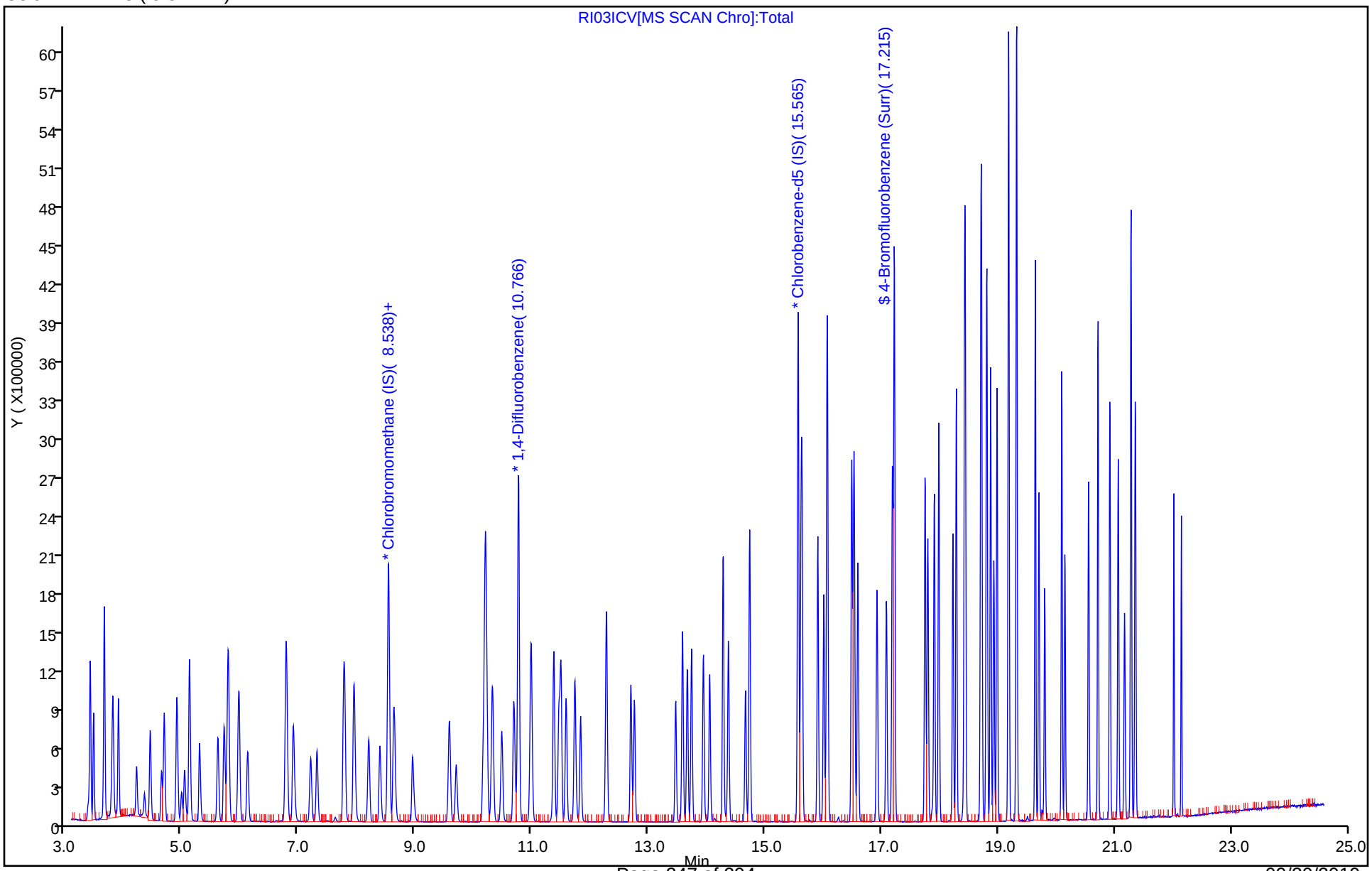
Report Date: 04-Sep-2019 17:40:38 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03ICV.D

Injection Date:	03-Sep-2019 23:14:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	ICV			Worklist Smp#:	18
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: CCVIS 140-33870/2 Calibration Date: 09/25/2019 08:56

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVI25.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	2.654	2.196		1.65	2.00	-17.3	30.0
Propene	Ave	1.501	1.313		1.75	2.00	-12.5	30.0
Dichlorodifluoromethane	Ave	2.256	2.568		2.28	2.00	13.8	30.0
Chloromethane	Ave	0.4310	0.4019		1.86	2.00	-6.8	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	1.860	2.377		2.55	2.00	27.7	30.0
Acetaldehyde	Ave	0.5247	0.4164		7.94	10.0	-20.6	30.0
Vinyl chloride	Ave	1.359	1.212		1.78	2.00	-10.8	30.0
Butane	Ave	1.977	1.512		1.53	2.00	-23.5	30.0
1,3-Butadiene	Ave	1.022	0.8867		1.74	2.00	-13.2	30.0
Bromomethane	Ave	1.344	1.046		1.56	2.00	-22.1	30.0
Chloroethane	Ave	0.5671	0.4479		1.58	2.00	-21.0	30.0
Ethanol	Ave	0.6120	0.3830		6.26	10.0	-37.4*	30.0
Vinyl bromide	Ave	1.137	1.080		1.90	2.00	-5.0	30.0
2-Methylbutane	Ave	1.548	1.118		1.44	2.00	-27.8	30.0
Trichlorofluoromethane	Ave	3.252	2.529		1.56	2.00	-22.2	30.0
Acrolein	Ave	0.3855	0.4118		2.14	2.00	6.8	30.0
Acetonitrile	Ave	0.5751	0.4797		1.67	2.00	-16.6	30.0
Acetone	Ave	0.6380	0.5213		4.90	6.00	-18.3	30.0
Isopropyl alcohol	Ave	1.868	1.491		4.79	6.00	-20.2	30.0
Pentane	Ave	0.2289	0.2265		1.98	2.00	-1.0	30.0
Ethyl ether	Ave	1.561	0.9397		1.20	2.00	-39.8*	30.0
1,1-Dichloroethene	Ave	1.301	1.251		1.92	2.00	-3.8	30.0
tert-Butyl alcohol	Ave	2.319	1.870		1.61	2.00	-19.3	30.0
Acrylonitrile	Ave	0.9589	0.8674		1.81	2.00	-9.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.749	2.595		1.89	2.00	-5.6	30.0
Methylene Chloride	Ave	1.543	1.268		1.64	2.00	-17.9	30.0
3-Chloropropene	Ave	1.275	0.8392		1.32	2.00	-34.2*	30.0
Carbon disulfide	Ave	3.419	3.364		1.97	2.00	-1.6	30.0
trans-1,2-Dichloroethene	Ave	1.401	1.428		2.04	2.00	2.0	30.0
2-Methylpentane	Ave	3.306	2.507		1.52	2.00	-24.2	30.0
Methyl tert-butyl ether	Ave	3.370	2.917		1.73	2.00	-13.4	30.0
1,1-Dichloroethane	Ave	2.406	2.011		1.67	2.00	-16.4	30.0
Vinyl acetate	Ave	3.791	2.817		1.49	2.00	-25.7	30.0
2-Butanone (MEK)	Ave	0.6748	0.6183		1.83	2.00	-8.4	30.0
Hexane	Ave	1.095	0.9353		1.71	2.00	-14.6	30.0
Isopropyl ether	Ave	5.017	3.793		1.51	2.00	-24.4	30.0
cis-1,2-Dichloroethene	Ave	1.454	1.476		2.03	2.00	1.5	30.0
Ethyl acetate	Ave	3.480	2.414		1.39	2.00	-30.6*	30.0
Chloroform	Ave	2.898	2.485		1.72	2.00	-14.2	30.0
Tert-butyl ethyl ether	Ave	4.084	3.342		1.64	2.00	-18.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: CCVIS 140-33870/2 Calibration Date: 09/25/2019 08:56

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVI25.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.726	1.226		1.42	2.00	-29.0	30.0
1,1,1-Trichloroethane	Ave	2.962	2.446		1.65	2.00	-17.4	30.0
1,2-Dichloroethane	Ave	0.3151	0.2260		1.43	2.00	-28.3	30.0
1-Butanol	Ave	0.1107	0.0635		1.15	2.00	-42.7*	30.0
Cyclohexane	Ave	0.1143	0.0971		1.70	2.00	-15.0	30.0
Benzene	Ave	0.7714	0.6956		1.80	2.00	-9.8	30.0
Carbon tetrachloride	Ave	0.5101	0.4358		1.71	2.00	-14.6	30.0
2,3-Dimethylpentane	Ave	0.1575	0.1543		1.96	2.00	-2.0	30.0
Thiophene	Ave	0.4003	0.3985		1.99	2.00	-0.5	30.0
2,2,4-Trimethylpentane	Ave	1.199	1.002		1.67	2.00	-16.4	30.0
Heptane	Ave	0.2550	0.2354		1.85	2.00	-7.7	30.0
1,2-Dichloropropane	Ave	0.2780	0.2504		1.80	2.00	-9.9	30.0
Trichloroethene	Ave	0.3320	0.3236		1.95	2.00	-2.5	30.0
Dibromomethane	Ave	0.2957	0.2798		1.89	2.00	-5.4	30.0
Bromodichloromethane	Ave	0.4906	0.4247		1.73	2.00	-13.4	30.0
1,4-Dioxane	Ave	0.1118	0.1198		2.14	2.00	7.2	30.0
Methyl methacrylate	Ave	0.3404	0.2318		1.36	2.00	-31.9*	30.0
Methylcyclohexane	Ave	0.4226	0.4020		1.90	2.00	-4.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.6308	0.4518		1.43	2.00	-28.4	30.0
cis-1,3-Dichloropropene	Ave	0.3853	0.3647		1.89	2.00	-5.4	30.0
trans-1,3-Dichloropropene	Ave	0.4218	0.3722		1.77	2.00	-11.7	30.0
Toluene	Ave	0.9777	0.9838		2.01	2.00	0.6	30.0
1,1,2-Trichloroethane	Ave	0.3059	0.2991		1.96	2.00	-2.2	30.0
2-Hexanone	Ave	0.3356	0.2934		1.75	2.00	-12.6	30.0
Octane	Ave	0.3027	0.2962		1.96	2.00	-2.1	30.0
Dibromochloromethane	Ave	0.6120	0.5600		1.83	2.00	-8.5	30.0
1,2-Dibromoethane (EDB)	Ave	0.5700	0.5697		2.00	2.00	-0.0	30.0
Tetrachloroethene	Ave	0.3936	0.3712		1.89	2.00	-5.7	30.0
Chlorobenzene	Ave	0.8282	0.8259		1.99	2.00	-0.3	30.0
2,3-Dimethylheptane	Ave	1.121	0.7888		1.41	2.00	-29.6	30.0
Ethylbenzene	Ave	1.326	1.239		1.87	2.00	-6.6	30.0
m-Xylene & p-Xylene	Ave	1.019	0.9802		3.85	4.00	-3.8	30.0
Nonane	Ave	0.6517	0.5358		1.64	2.00	-17.8	30.0
Bromoform	Ave	0.5593	0.5472		1.96	2.00	-2.2	30.0
Styrene	Ave	0.7149	0.7305		2.04	2.00	2.2	30.0
o-Xylene	Ave	1.034	0.9823		1.90	2.00	-5.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7601	0.7861		2.07	2.00	3.4	30.0
1,2,3-Trichloropropane	Ave	0.2394	0.2066		1.73	2.00	-13.7	30.0
Isopropylbenzene	Ave	1.532	1.479		1.93	2.00	-3.5	30.0
Propylbenzene	Ave	0.4084	0.4003		1.96	2.00	-2.0	30.0
2-Chlorotoluene	Ave	0.3869	0.3771		1.95	2.00	-2.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Lab Sample ID: CCVIS 140-33870/2 Calibration Date: 09/25/2019 08:56

Instrument ID: MR Calib Start Date: 09/03/2019 10:26

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 09/04/2019 09:04

Lab File ID: RCCVI25.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Ethyltoluene	Ave	1.557	1.474		1.89	2.00	-5.4	30.0
1,3,5-Trimethylbenzene	Ave	0.6179	0.6062		1.96	2.00	-1.9	30.0
Alpha Methyl Styrene	Ave	0.5996	0.5812		1.94	2.00	-3.1	30.0
Decane	Ave	0.8851	0.7590		1.71	2.00	-14.3	30.0
tert-Butylbenzene	Ave	1.397	1.343		1.92	2.00	-3.9	30.0
1,2,4-Trimethylbenzene	Ave	1.310	1.282		1.96	2.00	-2.2	30.0
sec-Butylbenzene	Ave	2.029	2.023		1.99	2.00	-0.3	30.0
1,3-Dichlorobenzene	Ave	0.9926	1.032		2.08	2.00	3.9	30.0
Benzyl chloride	Ave	0.9143	1.003		2.19	2.00	9.7	30.0
1,4-Dichlorobenzene	Ave	0.9599	1.047		2.18	2.00	9.1	30.0
4-Isopropyltoluene	Ave	1.507	1.561		2.07	2.00	3.6	30.0
1,2,3-Trimethylbenzene	Ave	1.283	1.306		2.03	2.00	1.7	30.0
Butylcyclohexane	Ave	1.022	1.016		1.99	2.00	-0.5	30.0
1,2-Dichlorobenzene	Ave	0.9404	1.039		2.21	2.00	10.5	30.0
Indane	Ave	1.268	1.300		2.05	2.00	2.5	30.0
Indene	Ave	1.098	1.139		2.07	2.00	3.7	30.0
Butylbenzene	Ave	1.596	1.580		1.98	2.00	-1.0	30.0
Undecane	Ave	1.068	0.9056		1.70	2.00	-15.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3774	0.4091		2.17	2.00	8.4	30.0
1,2,4,5-Tetramethylbenzene	Ave	1.463	1.475		2.02	2.00	0.8	30.0
Dodecane	Ave	1.091	0.8375		1.54	2.00	-23.2	30.0
1,2,4-Trichlorobenzene	Ave	0.8883	0.8994		2.02	2.00	1.2	30.0
Naphthalene	Ave	1.792	1.794		2.00	2.00	0.1	30.0
Hexachlorobutadiene	Ave	0.7749	0.8000		2.06	2.00	3.2	30.0
1,2,3-Trichlorobenzene	Ave	0.9026	0.8908		1.97	2.00	-1.3	30.0
2-Methylnaphthalene	Ave	0.7349	0.2155		0.586	2.00	-70.7*	50.0
1-Methylnaphthalene	Ave	0.6749	0.1913		0.567	2.00	-71.7*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5911	0.5567		3.77	4.00	-5.8	30.0

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RCCVI25.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 25-Sep-2019 08:56:30 ALS Bottle#: 15 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-002
Misc. Info.: P96
Operator ID: HMT Instrument ID: MR
Sublist: chrom-MR_TO15*sub16

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 10:41:13 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:41:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.528	0.000	88	474813	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2785583	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2306065	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1283666	4.00	3.77	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	96	521236	2.00	1.65	
7 Propene	41	3.437	3.437	0.000	96	311677	2.00	1.75	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	609724	2.00	2.28	
9 Chloromethane	52	3.659	3.659	0.000	65	95402	2.00	1.86	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.664	0.000	88	564232	2.00	2.55	
11 Acetaldehyde	44	3.804	3.804	0.000	98	494223	10.0	7.94	
12 Vinyl chloride	62	3.826	3.826	0.000	99	287688	2.00	1.78	
13 Butadiene	54	3.912	3.912	0.000	73	210509	2.00	1.74	
14 Butane	43	3.907	3.907	0.000	84	358969	2.00	1.53	
15 Bromomethane	94	4.219	4.219	0.000	98	248388	2.00	1.56	
16 Chloroethane	64	4.354	4.354	0.000	99	106345	2.00	1.58	
17 Ethanol	31	4.446	4.446	0.000	97	454685	10.0	6.26	
18 Vinyl bromide	106	4.645	4.645	0.000	98	256365	2.00	1.90	
19 2-Methylbutane	43	4.694	4.694	0.000	93	265448	2.00	1.44	
21 Trichlorofluoromethane	101	4.904	4.904	0.000	99	600371	2.00	1.56	
20 Acrolein	56	4.915	4.915	0.000	92	97757	2.00	2.14	
24 Acetonitrile	40	4.980	4.980	0.000	99	113883	2.00	1.67	
22 Acetone	58	5.034	5.034	0.000	95	371305	6.00	4.90	
25 Pentane	72	5.120	5.120	0.000	94	53768	2.00	1.98	
23 Isopropyl alcohol	45	5.114	5.114	0.000	91	1061850	6.00	4.79	
26 Ethyl ether	31	5.292	5.292	0.000	91	223088	2.00	1.20	
27 1,1-Dichloroethene	96	5.611	5.611	0.000	95	297043	2.00	1.92	
28 Acrylonitrile	53	5.718	5.718	0.000	69	205920	2.00	1.81	
29 2-Methyl-2-propanol	59	5.708	5.708	0.000	93	444022	2.00	1.61	
30 1,1,2-Trichloro-1,2,2-trif	101	5.778	5.778	0.000	96	616067	2.00	1.89	
31 Methylene Chloride	84	5.961	5.961	0.000	92	300943	2.00	1.64	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.977	0.000	94	199229	2.00	1.32	
33 Carbon disulfide	76	6.117	6.117	0.000	98	798573	2.00	1.97	
34 trans-1,2-Dichloroethene	96	6.765	6.765	0.000	92	339103	2.00	2.04	
35 2-Methylpentane	43	6.786	6.786	0.000	94	595201	2.00	1.52	
36 Methyl tert-butyl ether	73	6.899	6.899	0.000	97	692631	2.00	1.73	
37 1,1-Dichloroethane	63	7.196	7.196	0.000	99	477417	2.00	1.67	
38 Vinyl acetate	43	7.304	7.304	0.000	100	668691	2.00	1.49	
39 2-Butanone (MEK)	72	7.757	7.757	0.000	96	146789	2.00	1.83	
40 Hexane	56	7.778	7.778	0.000	81	222042	2.00	1.71	
41 Isopropyl ether	45	7.940	7.940	0.000	97	900458	2.00	1.51	
42 cis-1,2-Dichloroethene	96	8.194	8.194	0.000	88	350319	2.00	2.03	
43 Ethyl acetate	43	8.377	8.377	0.000	100	573189	2.00	1.39	
44 Chloroform	83	8.539	8.539	0.000	95	589997	2.00	1.72	
45 Tert-butyl ethyl ether	59	8.625	8.625	0.000	93	793341	2.00	1.64	
46 Tetrahydrofuran	42	8.938	8.938	0.000	93	290953	2.00	1.42	
47 1,1,1-Trichloroethane	97	9.574	9.574	0.000	94	580660	2.00	1.65	
48 1,2-Dichloroethane	62	9.693	9.693	0.000	95	314726	2.00	1.43	
50 n-Butanol	31	10.146	10.146	0.000	72	88404	2.00	1.15	
51 Cyclohexane	69	10.183	10.183	0.000	65	135265	2.00	1.70	
49 Benzene	78	10.189	10.189	0.000	95	968880	2.00	1.80	
52 Carbon tetrachloride	117	10.210	10.210	0.000	97	606947	2.00	1.71	
53 2,3-Dimethylpentane	71	10.313	10.313	0.000	90	214894	2.00	1.96	
54 Thiophene	84	10.474	10.474	0.000	92	555058	2.00	1.99	
55 Isooctane	57	10.971	10.971	0.000	99	1396086	2.00	1.67	
57 n-Heptane	71	11.370	11.370	0.000	88	327814	2.00	1.85	
56 1,2-Dichloropropane	63	11.450	11.450	0.000	94	348754	2.00	1.80	
58 Trichloroethene	130	11.483	11.483	0.000	95	450662	2.00	1.95	
59 Dibromomethane	93	11.575	11.575	0.000	91	389760	2.00	1.89	
60 Dichlorobromomethane	83	11.726	11.726	0.000	98	591533	2.00	1.73	
61 1,4-Dioxane	88	11.731	11.731	0.000	80	166901	2.00	2.14	
62 Methyl methacrylate	41	11.823	11.823	0.000	97	322790	2.00	1.36	
63 Methylcyclohexane	83	12.270	12.270	0.000	94	559884	2.00	1.90	
64 4-Methyl-2-pentanone (MIBK	43	12.685	12.685	0.000	95	629209	2.00	1.43	
65 cis-1,3-Dichloropropene	75	12.750	12.750	0.000	90	507917	2.00	1.89	
66 trans-1,3-Dichloropropene	75	13.456	13.456	0.000	96	429184	2.00	1.77	
67 Toluene	91	13.575	13.575	0.000	93	1134356	2.00	2.01	
68 1,1,2-Trichloroethane	83	13.656	13.656	0.000	93	344853	2.00	1.96	
69 2-Hexanone	58	14.039	14.039	0.000	95	338350	2.00	1.75	
71 n-Octane	85	14.271	14.271	0.000	91	341570	2.00	1.96	
70 Chlorodibromomethane	129	14.362	14.362	0.000	96	645661	2.00	1.83	
72 Ethylene Dibromide	107	14.654	14.654	0.000	98	656926	2.00	2.00	
73 Tetrachloroethene	129	14.724	14.724	0.000	96	427993	2.00	1.89	
74 Chlorobenzene	112	15.608	15.608	0.000	99	952289	2.00	1.99	
75 2,3-Dimethylheptane	43	15.624	15.624	0.000	93	909523	2.00	1.41	
76 Ethylbenzene	91	15.894	15.894	0.000	97	1428309	2.00	1.87	
77 m-Xylene & p-Xylene	91	16.056	16.056	0.000	95	2260415	4.00	3.85	
81 n-Nonane	57	16.482	16.482	0.000	91	617820	2.00	1.64	
78 Bromoform	173	16.509	16.509	0.000	96	630953	2.00	1.96	
79 Styrene	104	16.525	16.525	0.000	96	842289	2.00	2.04	
80 o-Xylene	91	16.584	16.584	0.000	98	1132651	2.00	1.90	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.918	0.000	98	906431	2.00	2.07	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	97	238265	2.00	1.73	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Isopropylbenzene	105	17.188	17.188	0.000	94	1704949	2.00	1.93	
85 N-Propylbenzene	120	17.749	17.749	0.000	100	461609	2.00	1.96	
86 2-Chlorotoluene	126	17.797	17.797	0.000	96	434814	2.00	1.95	
88 4-Ethyltoluene	105	17.905	17.905	0.000	100	1699159	2.00	1.89	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	94	698956	2.00	1.96	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	92	670194	2.00	1.94	
90 n-Decane	57	18.283	18.283	0.000	90	875093	2.00	1.71	
91 tert-Butylbenzene	119	18.423	18.423	0.000	95	1547985	2.00	1.92	
92 1,2,4-Trimethylbenzene	105	18.439	18.439	0.000	96	1477811	2.00	1.96	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	2332129	2.00	1.99	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	94	1189417	2.00	2.08	
96 Benzyl chloride	91	18.795	18.795	0.000	99	1155981	2.00	2.19	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	98	1207396	2.00	2.18	
97 4-Isopropyltoluene	119	18.870	18.870	0.000	98	1800031	2.00	2.07	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	97	1505344	2.00	2.03	
99 Butylcyclohexane	83	18.978	18.978	0.000	98	1171540	2.00	1.99	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	86	1198339	2.00	2.21	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	94	1498871	2.00	2.05	
102 Indene	116	19.313	19.313	0.000	92	1313606	2.00	2.07	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1822331	2.00	1.98	
104 Undecane	57	19.636	19.636	0.000	96	1044185	2.00	1.70	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	471657	2.00	2.17	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	98	1700832	2.00	2.02	
107 Dodecane	57	20.709	20.709	0.000	96	965647	2.00	1.54	
108 1,2,4-Trichlorobenzene	180	20.914	20.914	0.000	93	1037031	2.00	2.02	
109 Naphthalene	128	21.060	21.060	0.000	100	2067966	2.00	2.00	
110 Hexachlorobutadiene	225	21.275	21.275	0.000	95	922401	2.00	2.06	
111 1,2,3-Trichlorobenzene	180	21.351	21.351	0.000	96	1027082	2.00	1.97	
112 2-Methylnaphthalene	142	22.009	22.009	0.000	98	248447	2.00	0.5864	
113 1-Methylnaphthalene	142	22.138	22.138	0.000	97	220630	2.00	0.5670	
A 115 C8 Range	1	14.271	(14.228-14.314)		0	2730797	2.00	1.46	
S 116 Xylenes, Total	100				0		6.00	5.75	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.07	

Reagents:

40CV101P_00096	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

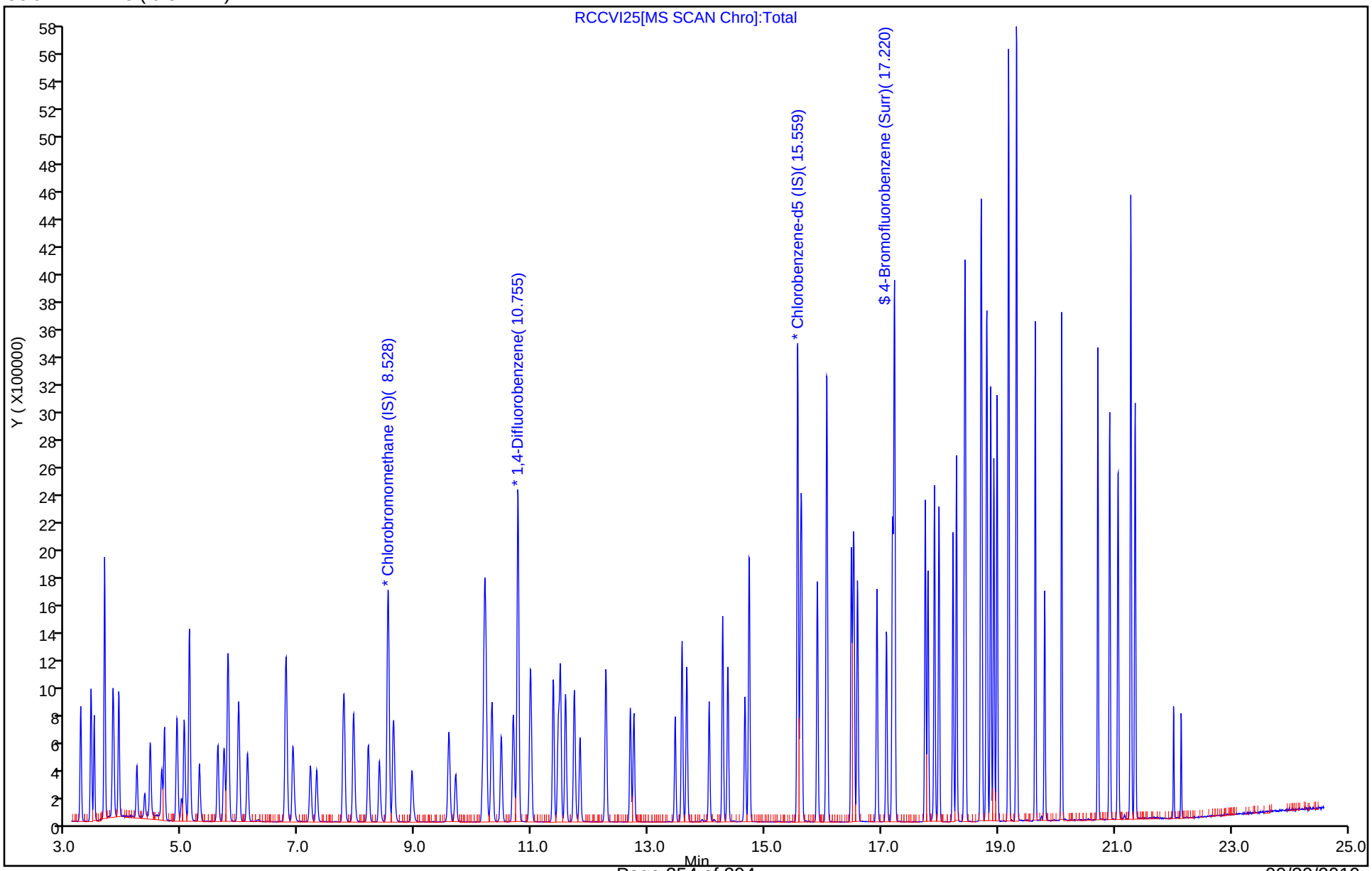
Report Date: 26-Sep-2019 10:41:14 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RCCVI25.D

Injection Date:	25-Sep-2019 08:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Sep-2019 09:57:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	500.0 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012931-001				
Misc. Info.:	BFB				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Sep-2019 17:33:36	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0302				

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.118	6.118	0.000	0	1258439	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

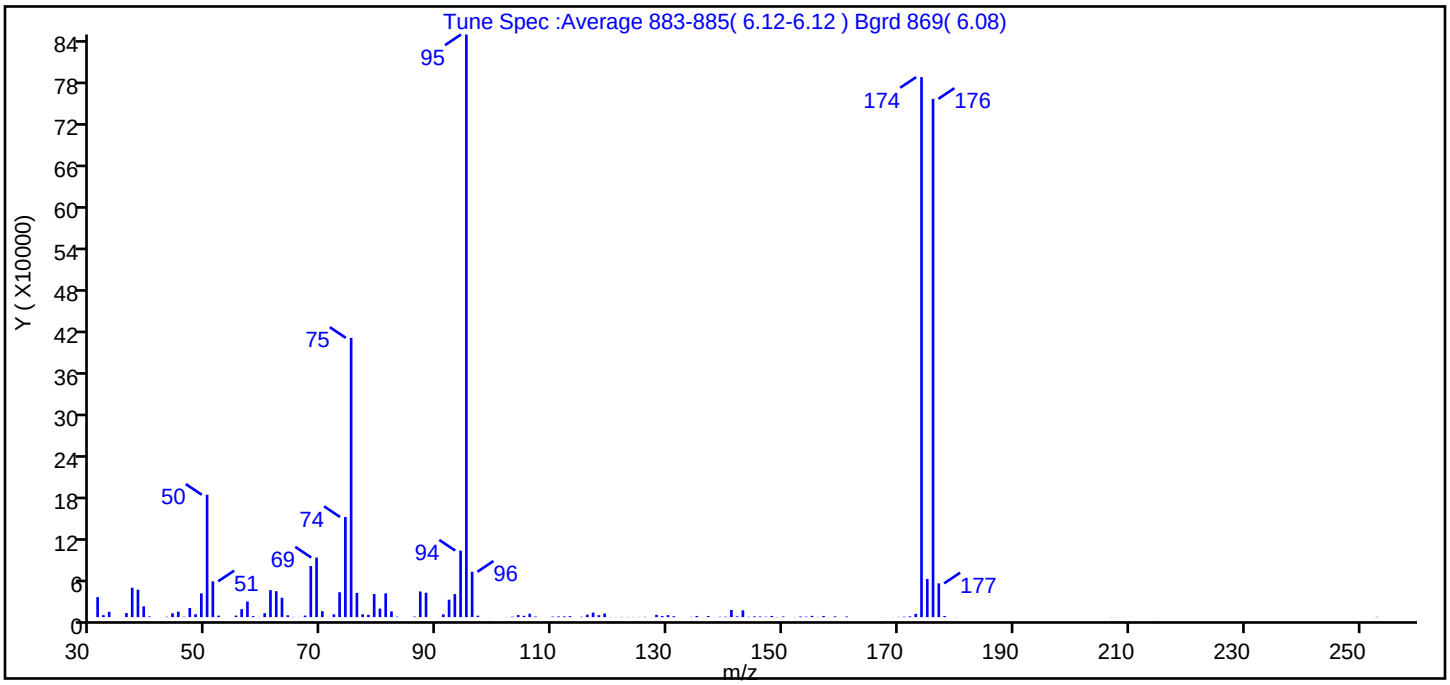
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D
Injection Date: 03-Sep-2019 09:57:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.0
75	30 to 60% of m/z 95	47.9
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.6 (0.6)
174	50 to 120% of m/z 95	92.7
175	5 to 9% of m/z 174	6.5 (7.1)
176	Greater than 95% but less than 101% of m/z 174	88.9 (96.0)
177	5 to 9% of m/z 176	5.8 (6.5)

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D\MR_TO15.rslt\spectra.d
Injection Date: 03-Sep-2019 09:57:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 869(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
30.00	12	69.00	86720	111.00	1055	147.00	627
31.00	29176	70.00	8634	112.00	1128	148.00	1759
32.00	2911	71.00	261	113.00	1439	149.00	272
33.00	7757	72.00	4132	115.00	654	150.00	1009
34.00	98	73.00	36256	116.00	3621	151.00	60
36.00	6050	74.00	145728	117.00	6599	152.00	281
37.00	42800	75.00	406400	118.00	2850	153.00	990
38.00	39880	76.00	35384	119.00	5234	154.00	697
39.00	15650	77.00	4139	120.00	198	155.00	1872
40.00	951	78.00	3378	121.00	235	156.00	379
42.00	145	79.00	33600	122.00	351	157.00	1712
43.00	608	80.00	12462	123.00	323	158.00	211
44.00	5623	81.00	34584	124.00	336	159.00	1215
45.00	7855	82.00	8300	125.00	258	161.00	1029
46.00	684	83.00	703	126.00	447	167.00	169
47.00	13270	86.00	825	127.00	34	168.00	45
48.00	4173	87.00	37312	128.00	3278	169.00	113
49.00	34592	88.00	35496	129.00	1588	170.00	345
50.00	178112	91.00	4102	130.00	2953	171.00	690
51.00	52136	92.00	25424	131.00	1379	172.00	1203
52.00	2230	93.00	33552	132.00	42	173.00	4795
55.00	2263	94.00	96832	133.00	30	174.00	785792
56.00	11626	95.00	847808	134.00	451	175.00	55528
57.00	22760	96.00	66064	135.00	1715	176.00	754112
58.00	1519	97.00	2092	136.00	177	177.00	49112
59.00	247	99.00	113	137.00	1562	178.00	1653
60.00	5743	102.00	224	138.00	149	180.00	165
61.00	39264	103.00	729	139.00	562	207.00	247
62.00	37784	104.00	3019	140.00	728	208.00	126
63.00	28200	105.00	1957	141.00	10450	209.00	128
64.00	2715	106.00	4977	142.00	1123	215.00	97
65.00	374	107.00	912	143.00	9826	253.00	446
66.00	189	108.00	64	144.00	529		

Report Date: 04-Sep-2019 17:33:37 Chrom Revision: 2.3 22-Aug-2019 12:55:36
Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D\MR_TO15.rslt\spectra.d
Injection Date: 03-Sep-2019 09:57:30
Spectrum: Tune Spec :Average 883-885(6.12-6.12) Bgrd 869(6.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
67.00	2315	109.00	64	145.00	1144		
68.00	74432	110.00	747	146.00	946		

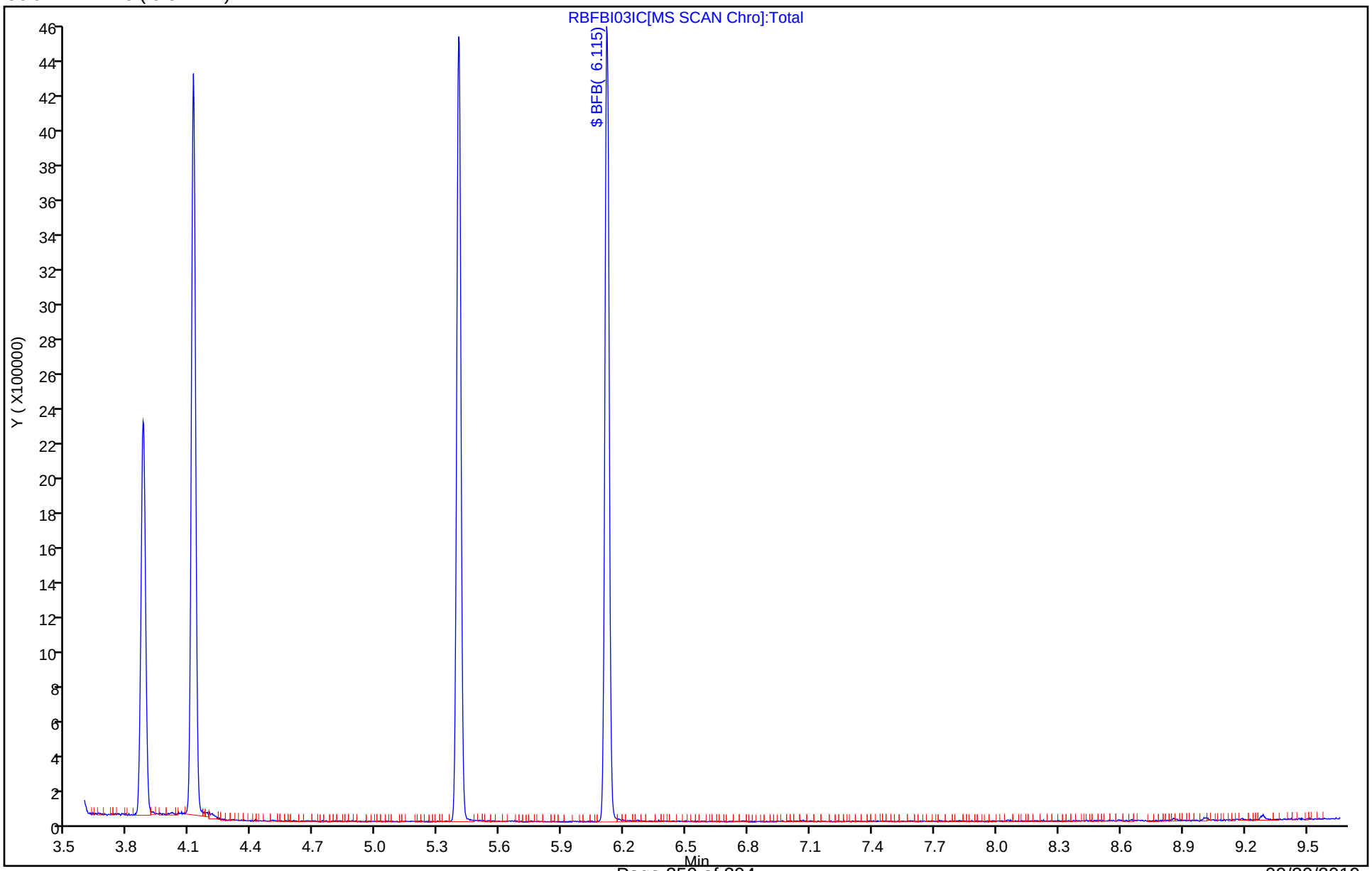
Report Date: 04-Sep-2019 17:33:38 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RBFBI03IC.D

Injection Date:	03-Sep-2019 09:57:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RBFBI25.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 25-Sep-2019 08:29:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-001
Misc. Info.: BFB
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 10:39:11 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:39:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 5 BFB	95	6.112	6.112	0.000	0	1103675	NR	NR	8

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
8 - Failed MS Tune Ratio Test

Reagents:

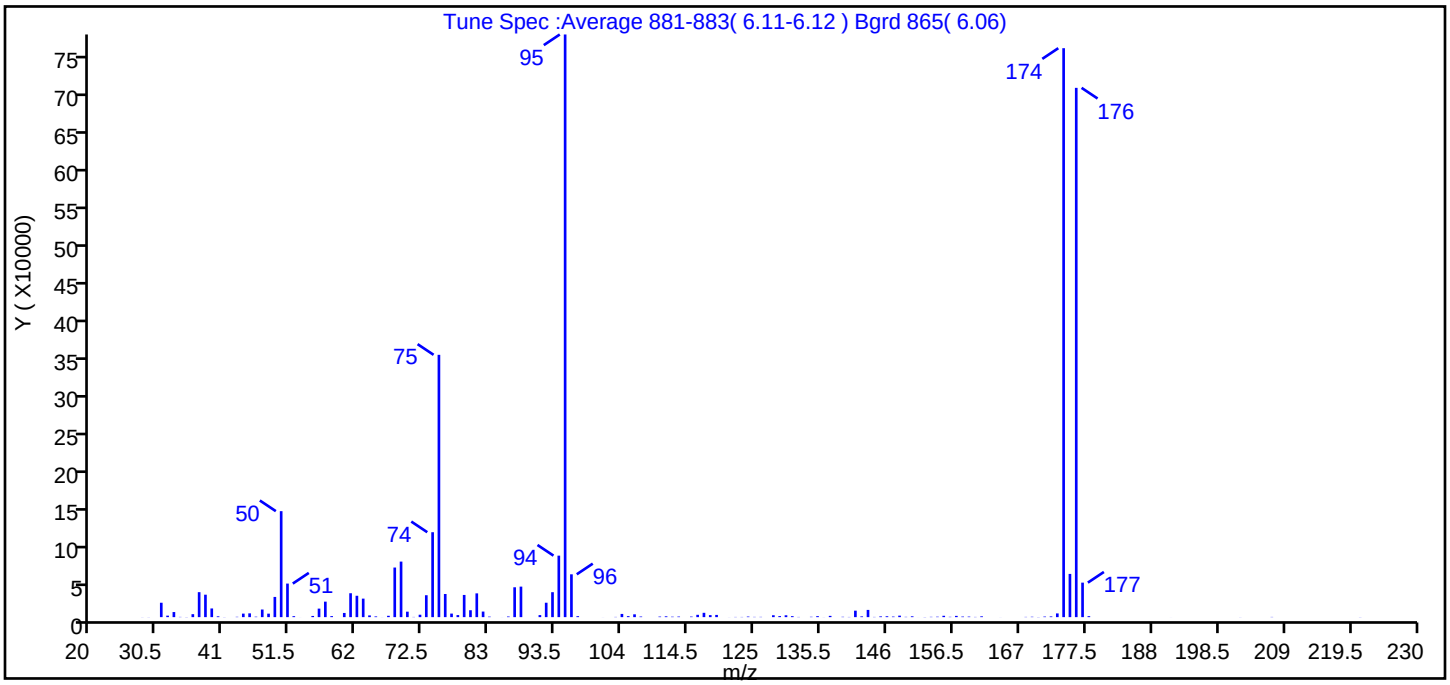
40MXSUR_00003 Amount Added: 40.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RBFBI25.D
Injection Date: 25-Sep-2019 08:29:30 Instrument ID: MR
Lims ID: BFB
Client ID:
Operator ID: HMT ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.2
75	30 to 60% of m/z 95	45.0
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	97.6
175	5 to 9% of m/z 174	7.4 (7.6)
176	Greater than 95% but less than 101% of m/z 174	90.8 (93.0)*
177	5 to 9% of m/z 176	5.9 (6.5)

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RBFBI25.D\MR_TO15.rslt\spectra.d
Injection Date: 25-Sep-2019 08:29:30
Spectrum: Tune Spec :Average 881-883(6.11-6.12) Bgrd 865(6.06)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	101	65.00	972	105.00	1325	145.00	1004
29.00	118	66.00	61	106.00	3770	146.00	1193
31.00	19224	67.00	1804	107.00	812	147.00	764
32.00	1988	68.00	66200	110.00	759	148.00	1997
33.00	6796	69.00	74136	111.00	1090	149.00	388
34.00	314	70.00	7305	112.00	592	150.00	1099
35.00	186	71.00	273	113.00	772	151.00	33
36.00	3977	72.00	3224	115.00	746	152.00	194
37.00	33328	73.00	29256	116.00	3113	153.00	410
38.00	29960	74.00	113336	117.00	5779	154.00	584
39.00	11595	75.00	350080	118.00	2697	155.00	1808
40.00	1065	76.00	30896	119.00	2967	156.00	434
41.00	148	77.00	4745	121.00	64	157.00	1688
43.00	443	78.00	2743	122.00	275	158.00	771
44.00	4718	79.00	29624	123.00	266	159.00	738
45.00	5060	80.00	9219	124.00	780	160.00	295
46.00	602	81.00	31728	125.00	338	161.00	1078
47.00	10173	82.00	7450	126.00	352	164.00	55
48.00	4655	83.00	678	128.00	2531	168.00	328
49.00	26976	85.00	41	129.00	1377	169.00	518
50.00	141440	86.00	826	130.00	2477	170.00	192
51.00	44800	87.00	39856	131.00	1300	171.00	763
52.00	1276	88.00	40736	132.00	267	172.00	953
53.00	41	91.00	2719	134.00	488	173.00	4968
55.00	1595	92.00	19232	135.00	1329	174.00	759296
56.00	11384	93.00	33296	136.00	83	175.00	57688
57.00	20680	94.00	82072	137.00	1695	176.00	706368
58.00	1353	95.00	777600	139.00	455	177.00	46064
60.00	5583	96.00	57168	140.00	256	178.00	1280
61.00	31904	97.00	1281	141.00	8630	191.00	36
62.00	28520	101.00	49	142.00	1000	202.00	96
63.00	24712	103.00	302	143.00	9646	207.00	293
64.00	2310	104.00	4292	144.00	290	221.00	144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	101	65.00	972	105.00	1325	145.00	1004
29.00	118	66.00	61	106.00	3770	146.00	1193
31.00	19224	67.00	1804	107.00	812	147.00	764
32.00	1988	68.00	66200	110.00	759	148.00	1997
33.00	6796	69.00	74136	111.00	1090	149.00	388
34.00	314	70.00	7305	112.00	592	150.00	1099
35.00	186	71.00	273	113.00	772	151.00	33
36.00	3977	72.00	3224	115.00	746	152.00	194
37.00	33328	73.00	29256	116.00	3113	153.00	410
38.00	29960	74.00	113336	117.00	5779	154.00	584
39.00	11595	75.00	350080	118.00	2697	155.00	1808
40.00	1065	76.00	30896	119.00	2967	156.00	434
41.00	148	77.00	4745	121.00	64	157.00	1688
43.00	443	78.00	2743	122.00	275	158.00	771
44.00	4718	79.00	29624	123.00	266	159.00	738
45.00	5060	80.00	9219	124.00	780	160.00	295
46.00	602	81.00	31728	125.00	338	161.00	1078
47.00	10173	82.00	7450	126.00	352	164.00	55
48.00	4655	83.00	678	128.00	2531	168.00	328
49.00	26976	85.00	41	129.00	1377	169.00	518
50.00	141440	86.00	826	130.00	2477	170.00	192
51.00	44800	87.00	39856	131.00	1300	171.00	763
52.00	1276	88.00	40736	132.00	267	172.00	953
53.00	41	91.00	2719	134.00	488	173.00	4968
55.00	1595	92.00	19232	135.00	1329	174.00	759296
56.00	11384	93.00	33296	136.00	83	175.00	57688
57.00	20680	94.00	82072	137.00	1695	176.00	706368
58.00	1353	95.00	777600	139.00	455	177.00	46064
60.00	5583	96.00	57168	140.00	256	178.00	1280
61.00	31904	97.00	1281	141.00	8630	191.00	36
62.00	28520	101.00	49	142.00	1000	202.00	96
63.00	24712	103.00	302	143.00	9646	207.00	293
64.00	2310	104.00	4292	144.00	290	221.00	144

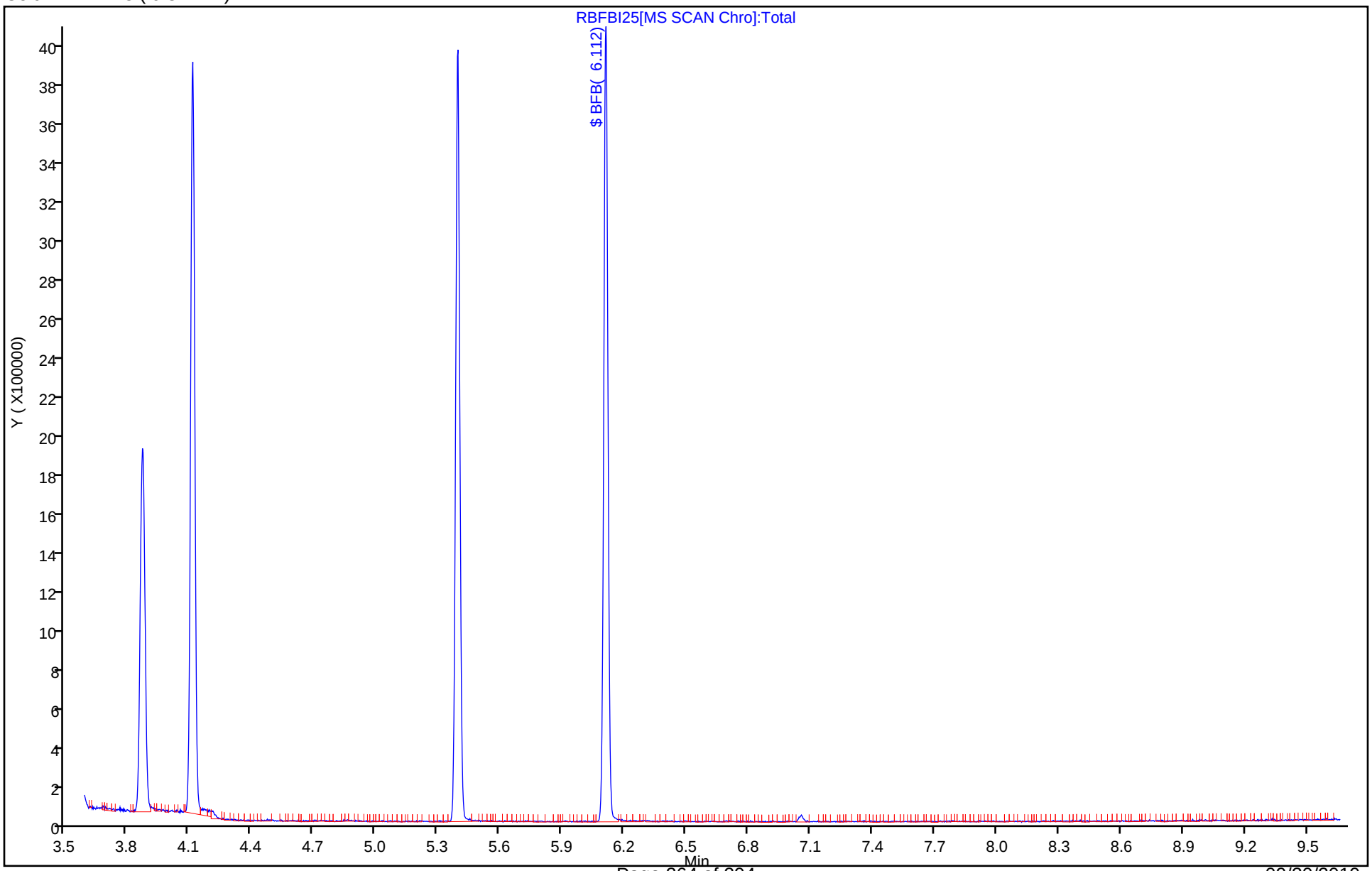
Report Date: 26-Sep-2019 10:39:11 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RBFBI25.D

Injection Date:	25-Sep-2019 08:29:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	500.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-33870/4

Matrix: Air Lab File ID: R500BI25.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 09/25/2019 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	ND		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	ND		0.080	0.022
67-66-3	Chloroform	119.38	ND		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	0.0080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.013
75-09-2	Methylene Chloride	84.93	0.233	J	0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.40	0.052
91-20-3	Naphthalene	128.17	ND		0.040	0.076
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.0070
108-88-3	Toluene	92.14	ND		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.0070
79-01-6	Trichloroethene	131.39	ND		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.022
75-01-4	Vinyl chloride	62.50	ND		0.040	0.026
1330-20-7	Xylenes, Total	106.17	ND		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 140-33870/4

Matrix: Air Lab File ID: R500BI25.D

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 09/25/2019 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	ND		0.26	0.026
56-23-5	Carbon tetrachloride	153.81	ND		0.50	0.044
75-45-6	Chlorodifluoromethane	86.47	ND		0.28	0.078
67-66-3	Chloroform	119.38	ND		0.39	0.034
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	0.040
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.069
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.028
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	0.032
100-41-4	Ethylbenzene	106.17	ND		0.35	0.056
75-09-2	Methylene Chloride	84.93	0.811	J	1.4	0.56
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	0.19
91-20-3	Naphthalene	128.17	ND		0.21	0.40
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.047
108-88-3	Toluene	92.14	ND		0.45	0.29
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.028
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.47
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.20
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.038
79-01-6	Trichloroethene	131.39	ND		0.21	0.032
526-73-8	1,2,3-Trimethylbenzene	120.19	ND		0.39	0.18
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	0.098
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.11
75-01-4	Vinyl chloride	62.50	ND		0.10	0.066
1330-20-7	Xylenes, Total	106.17	ND		0.69	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		60-140

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\R500BI25.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 25-Sep-2019 12:02:30 ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-004
Misc. Info.: 500ML BLK
Operator ID: Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 10:42:57 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:42:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.528	0.005	83	543919	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.760	10.755	0.005	92	3028745	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2286308	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.204	17.220	-0.016	96	1225133	4.00	3.63	
7 Propene	41	3.454	3.437	0.017	99	41695		0.2043	7
31 Methylene Chloride	84	5.972	5.961	0.011	90	48971		0.2334	
47 1,1,1-Trichloroethane	97	9.568	9.574	-0.006	27	5503		0.0137	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

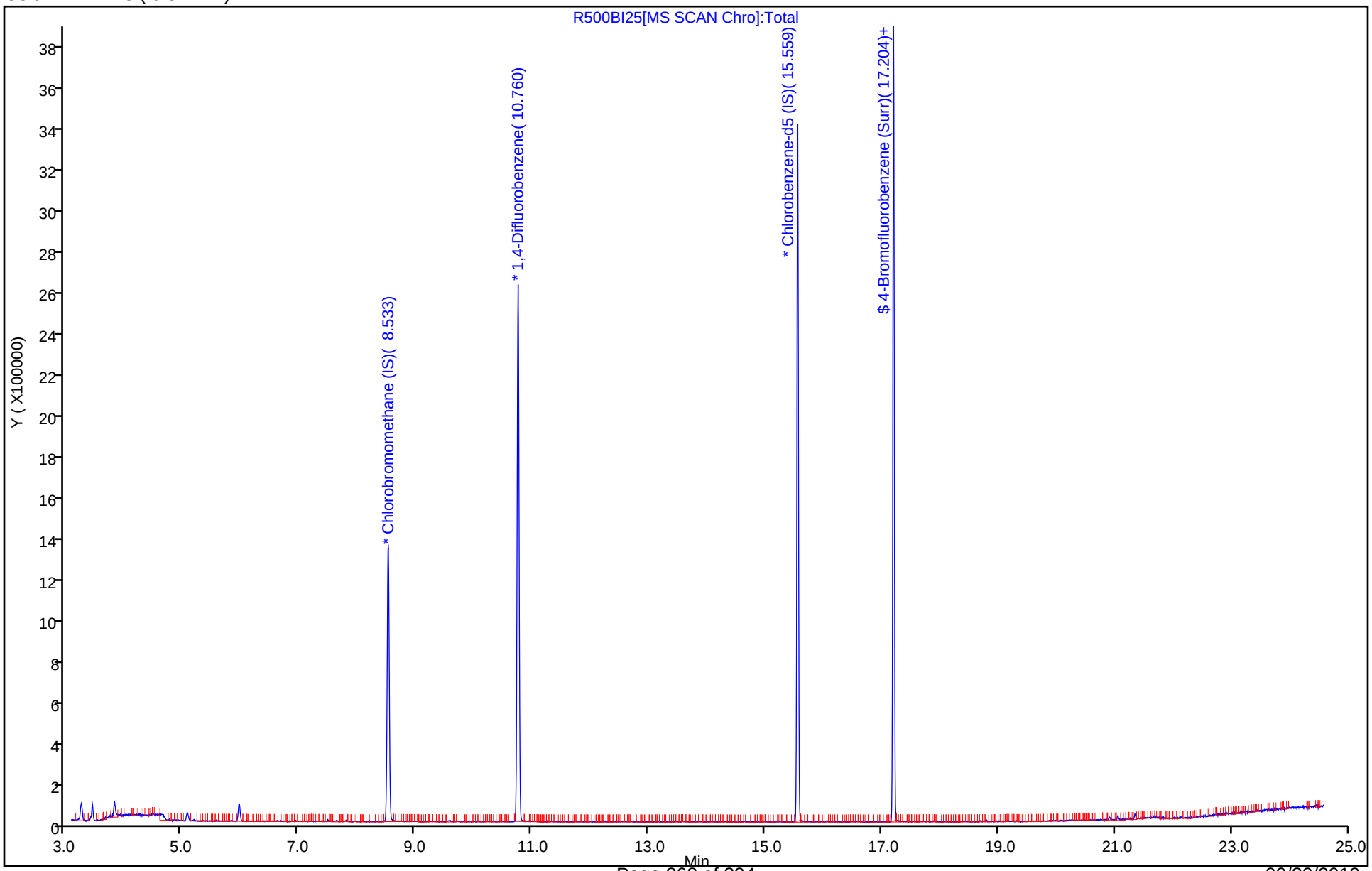
Report Date: 26-Sep-2019 10:42:59 Chrom Revision: 2.3 17-Sep-2019 16:19:08

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\R500BI25.D

Injection Date:	25-Sep-2019 12:02:30	Instrument ID:	MR	Operator ID:	
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Eurofins TestAmerica, Knoxville
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\R500BI25.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	25-Sep-2019 12:02:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-004				
Misc. Info.:	500ML BLK				
Operator ID:		Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 10:42:57	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				

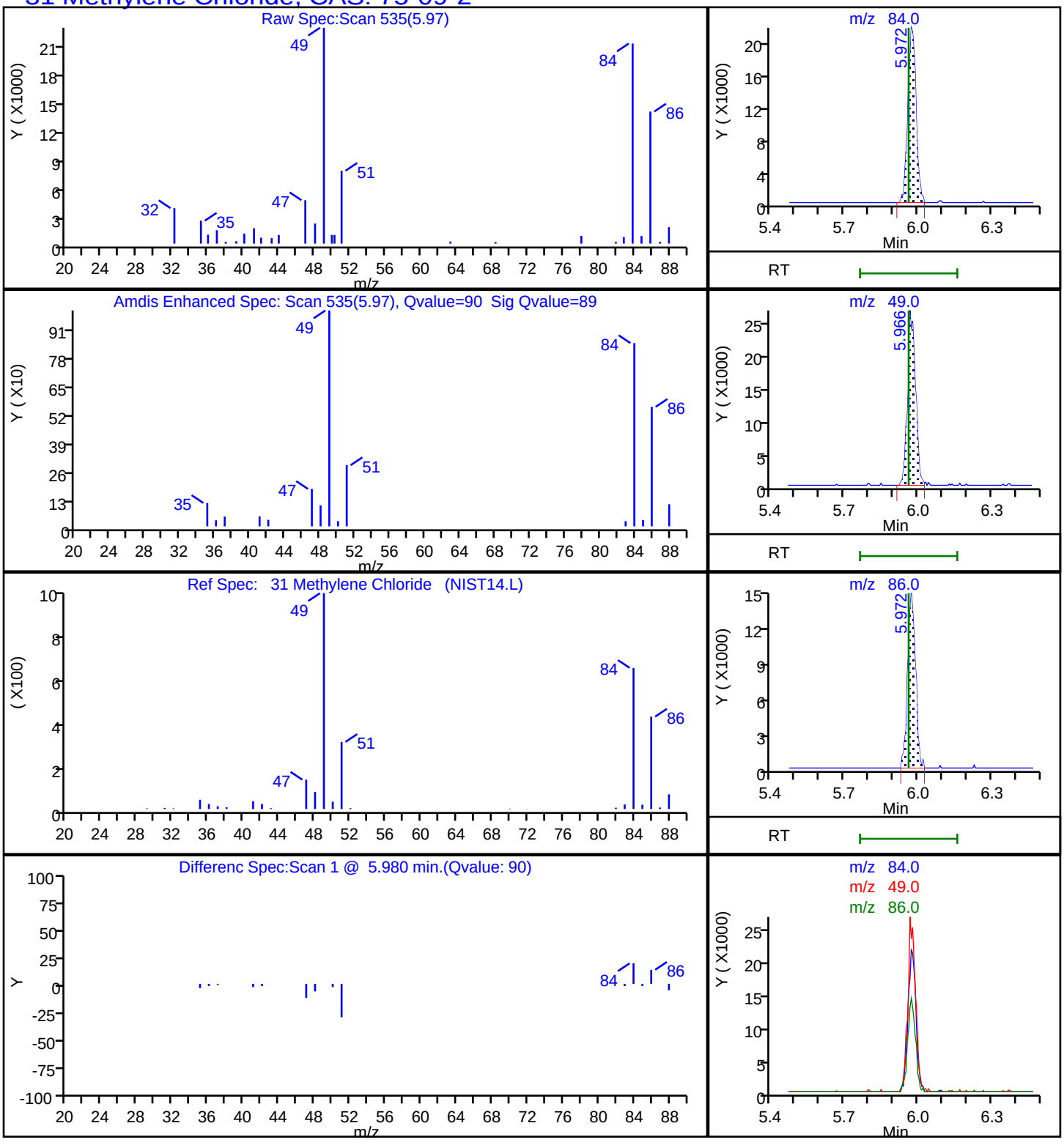
First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:42:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.63	90.66

Eurofins TestAmerica, Knoxville

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\R500BI25.D
Injection Date: 25-Sep-2019 12:02:30 Instrument ID: MR
Lims ID: mb
Client ID:
Operator ID: ALS Bottle#: 16 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MR_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 140-33870/1002

Matrix: Air Lab File ID: RCCVI25-LCS.d

Analysis Method: TO 15 LL Date Collected:

Sample wt/vol: 500(mL) Date Analyzed: 09/25/2019 08:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33870 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-43-2	Benzene	78.11	1.80		0.080	0.0080
56-23-5	Carbon tetrachloride	153.81	1.71		0.080	0.0070
75-45-6	Chlorodifluoromethane	86.47	1.65		0.080	0.022
67-66-3	Chloroform	119.38	1.72		0.080	0.0070
156-59-2	cis-1,2-Dichloroethene	96.94	2.03		0.080	0.010
75-71-8	Dichlorodifluoromethane	120.91	2.28		0.080	0.014
75-34-3	1,1-Dichloroethane	98.96	1.67		0.080	0.0070
107-06-2	1,2-Dichloroethane	98.96	1.43		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	1.92		0.080	0.0080
100-41-4	Ethylbenzene	106.17	1.87		0.080	0.013
75-09-2	Methylene Chloride	84.93	1.64		0.40	0.16
1634-04-4	Methyl tert-butyl ether	88.15	1.73		0.40	0.052
91-20-3	Naphthalene	128.17	2.00		0.040	0.076
127-18-4	Tetrachloroethene	165.83	1.89		0.080	0.0070
108-88-3	Toluene	92.14	2.01		0.12	0.078
156-60-5	trans-1,2-Dichloroethene	96.94	2.04		0.080	0.0070
120-82-1	1,2,4-Trichlorobenzene	181.45	2.02		0.080	0.064
71-55-6	1,1,1-Trichloroethane	133.41	1.65		0.080	0.037
79-00-5	1,1,2-Trichloroethane	133.41	1.96		0.080	0.0070
79-01-6	Trichloroethene	131.39	1.95		0.040	0.0060
526-73-8	1,2,3-Trimethylbenzene	120.19	2.03		0.080	0.036
95-63-6	1,2,4-Trimethylbenzene	120.20	1.96		0.080	0.020
108-67-8	1,3,5-Trimethylbenzene	120.20	1.96		0.080	0.022
75-01-4	Vinyl chloride	62.50	1.78		0.040	0.026
1330-20-7	Xylenes, Total	106.17	5.75		0.16	0.024

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RCCVI25-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 25-Sep-2019 08:56:30 ALS Bottle#: 15 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0013161-002
Misc. Info.: P96
Operator ID: HMT Instrument ID: MR

Method: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 26-Sep-2019 10:41:13 Calib Date: 04-Sep-2019 09:04:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX0317

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:41:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.528	0.000	88	474813	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.755	10.755	0.000	92	2785583	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.559	15.559	0.000	83	2306065	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.220	17.220	0.000	96	1283666	4.00	3.77	
6 Chlorodifluoromethane	51	3.427	3.427	0.000	96	521236	2.00	1.65	
7 Propene	41	3.437	3.437	0.000	96	311677	2.00	1.75	
8 Dichlorodifluoromethane	85	3.486	3.486	0.000	99	609724	2.00	2.28	
9 Chloromethane	52	3.659	3.659	0.000	65	95402	2.00	1.86	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.664	3.664	0.000	88	564232	2.00	2.55	
11 Acetaldehyde	44	3.804	3.804	0.000	98	494223	10.0	7.94	
12 Vinyl chloride	62	3.826	3.826	0.000	99	287688	2.00	1.78	
14 Butane	43	3.907	3.907	0.000	84	358969	2.00	1.53	
13 Butadiene	54	3.912	3.912	0.000	73	210509	2.00	1.74	
15 Bromomethane	94	4.219	4.219	0.000	98	248388	2.00	1.56	
16 Chloroethane	64	4.354	4.354	0.000	99	106345	2.00	1.58	
17 Ethanol	31	4.446	4.446	0.000	97	454685	10.0	6.26	
18 Vinyl bromide	106	4.645	4.645	0.000	98	256365	2.00	1.90	
19 2-Methylbutane	43	4.694	4.694	0.000	93	265448	2.00	1.44	
21 Trichlorofluoromethane	101	4.904	4.904	0.000	99	600371	2.00	1.56	
20 Acrolein	56	4.915	4.915	0.000	92	97757	2.00	2.14	
24 Acetonitrile	40	4.980	4.980	0.000	99	113883	2.00	1.67	
22 Acetone	58	5.034	5.034	0.000	95	371305	6.00	4.90	
23 Isopropyl alcohol	45	5.114	5.114	0.000	91	1061850	6.00	4.79	
25 Pentane	72	5.120	5.120	0.000	94	53768	2.00	1.98	
26 Ethyl ether	31	5.292	5.292	0.000	91	223088	2.00	1.20	
27 1,1-Dichloroethene	96	5.611	5.611	0.000	95	297043	2.00	1.92	
29 2-Methyl-2-propanol	59	5.708	5.708	0.000	93	444022	2.00	1.61	
28 Acrylonitrile	53	5.718	5.718	0.000	69	205920	2.00	1.81	
30 1,1,2-Trichloro-1,2,2-trif	101	5.778	5.778	0.000	96	616067	2.00	1.89	
31 Methylene Chloride	84	5.961	5.961	0.000	92	300943	2.00	1.64	
32 3-Chloro-1-propene	39	5.977	5.977	0.000	94	199229	2.00	1.32	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.117	6.117	0.000	98	798573	2.00	1.97	
34 trans-1,2-Dichloroethene	96	6.765	6.765	0.000	92	339103	2.00	2.04	
35 2-Methylpentane	43	6.786	6.786	0.000	94	595201	2.00	1.52	
36 Methyl tert-butyl ether	73	6.899	6.899	0.000	97	692631	2.00	1.73	
37 1,1-Dichloroethane	63	7.196	7.196	0.000	99	477417	2.00	1.67	
38 Vinyl acetate	43	7.304	7.304	0.000	100	668691	2.00	1.49	
39 2-Butanone (MEK)	72	7.757	7.757	0.000	96	146789	2.00	1.83	
40 Hexane	56	7.778	7.778	0.000	81	222042	2.00	1.71	
41 Isopropyl ether	45	7.940	7.940	0.000	97	900458	2.00	1.51	
42 cis-1,2-Dichloroethene	96	8.194	8.194	0.000	88	350319	2.00	2.03	
43 Ethyl acetate	43	8.377	8.377	0.000	100	573189	2.00	1.39	
44 Chloroform	83	8.539	8.539	0.000	95	589997	2.00	1.72	
45 Tert-butyl ethyl ether	59	8.625	8.625	0.000	93	793341	2.00	1.64	
46 Tetrahydrofuran	42	8.938	8.938	0.000	93	290953	2.00	1.42	
47 1,1,1-Trichloroethane	97	9.574	9.574	0.000	94	580660	2.00	1.65	
48 1,2-Dichloroethane	62	9.693	9.693	0.000	95	314726	2.00	1.43	
50 n-Butanol	31	10.146	10.146	0.000	72	88404	2.00	1.15	
51 Cyclohexane	69	10.183	10.183	0.000	65	135265	2.00	1.70	
49 Benzene	78	10.189	10.189	0.000	95	968880	2.00	1.80	
52 Carbon tetrachloride	117	10.210	10.210	0.000	97	606947	2.00	1.71	
53 2,3-Dimethylpentane	71	10.313	10.313	0.000	90	214894	2.00	1.96	
54 Thiophene	84	10.474	10.474	0.000	92	555058	2.00	1.99	
55 Isooctane	57	10.971	10.971	0.000	99	1396086	2.00	1.67	
57 n-Heptane	71	11.370	11.370	0.000	88	327814	2.00	1.85	
56 1,2-Dichloropropane	63	11.450	11.450	0.000	94	348754	2.00	1.80	
58 Trichloroethene	130	11.483	11.483	0.000	95	450662	2.00	1.95	
59 Dibromomethane	93	11.575	11.575	0.000	91	389760	2.00	1.89	
60 Dichlorobromomethane	83	11.726	11.726	0.000	98	591533	2.00	1.73	
61 1,4-Dioxane	88	11.731	11.731	0.000	80	166901	2.00	2.14	
62 Methyl methacrylate	41	11.823	11.823	0.000	97	322790	2.00	1.36	
63 Methylcyclohexane	83	12.270	12.270	0.000	94	559884	2.00	1.90	
64 4-Methyl-2-pentanone (MIBK	43	12.685	12.685	0.000	95	629209	2.00	1.43	
65 cis-1,3-Dichloropropene	75	12.750	12.750	0.000	90	507917	2.00	1.89	
66 trans-1,3-Dichloropropene	75	13.456	13.456	0.000	96	429184	2.00	1.77	
67 Toluene	91	13.575	13.575	0.000	93	1134356	2.00	2.01	
68 1,1,2-Trichloroethane	83	13.656	13.656	0.000	93	344853	2.00	1.96	
69 2-Hexanone	58	14.039	14.039	0.000	95	338350	2.00	1.75	
71 n-Octane	85	14.271	14.271	0.000	91	341570	2.00	1.96	
70 Chlorodibromomethane	129	14.362	14.362	0.000	96	645661	2.00	1.83	
72 Ethylene Dibromide	107	14.654	14.654	0.000	98	656926	2.00	2.00	
73 Tetrachloroethene	129	14.724	14.724	0.000	96	427993	2.00	1.89	
74 Chlorobenzene	112	15.608	15.608	0.000	99	952289	2.00	1.99	
75 2,3-Dimethylheptane	43	15.624	15.624	0.000	93	909523	2.00	1.41	
76 Ethylbenzene	91	15.894	15.894	0.000	97	1428309	2.00	1.87	
77 m-Xylene & p-Xylene	91	16.056	16.056	0.000	95	2260415	4.00	3.85	
81 n-Nonane	57	16.482	16.482	0.000	91	617820	2.00	1.64	
78 Bromoform	173	16.509	16.509	0.000	96	630953	2.00	1.96	
79 Styrene	104	16.525	16.525	0.000	96	842289	2.00	2.04	
80 o-Xylene	91	16.584	16.584	0.000	98	1132651	2.00	1.90	
82 1,1,2,2-Tetrachloroethane	83	16.918	16.918	0.000	98	906431	2.00	2.07	
83 1,2,3-Trichloropropane	110	17.086	17.086	0.000	97	238265	2.00	1.73	
84 Isopropylbenzene	105	17.188	17.188	0.000	94	1704949	2.00	1.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 N-Propylbenzene	120	17.749	17.749	0.000	100	461609	2.00	1.96	
86 2-Chlorotoluene	126	17.797	17.797	0.000	96	434814	2.00	1.95	
88 4-Ethyltoluene	105	17.905	17.905	0.000	100	1699159	2.00	1.89	
87 1,3,5-Trimethylbenzene	120	17.981	17.981	0.000	94	698956	2.00	1.96	
89 Alpha Methyl Styrene	118	18.223	18.223	0.000	92	670194	2.00	1.94	
90 n-Decane	57	18.283	18.283	0.000	90	875093	2.00	1.71	
91 tert-Butylbenzene	119	18.423	18.423	0.000	95	1547985	2.00	1.92	
92 1,2,4-Trimethylbenzene	105	18.439	18.439	0.000	96	1477811	2.00	1.96	
94 sec-Butylbenzene	105	18.703	18.703	0.000	99	2332129	2.00	1.99	
93 1,3-Dichlorobenzene	146	18.719	18.719	0.000	94	1189417	2.00	2.08	
96 Benzyl chloride	91	18.795	18.795	0.000	99	1155981	2.00	2.19	
95 1,4-Dichlorobenzene	146	18.811	18.811	0.000	98	1207396	2.00	2.18	
97 4-Isopropyltoluene	119	18.870	18.870	0.000	98	1800031	2.00	2.07	
98 1,2,3-Trimethylbenzene	105	18.924	18.924	0.000	97	1505344	2.00	2.03	
99 Butylcyclohexane	83	18.978	18.978	0.000	98	1171540	2.00	1.99	
100 1,2-Dichlorobenzene	146	19.178	19.178	0.000	86	1198339	2.00	2.21	
101 2,3-Dihydroindene	117	19.178	19.178	0.000	94	1498871	2.00	2.05	
102 Indene	116	19.313	19.313	0.000	92	1313606	2.00	2.07	
103 n-Butylbenzene	91	19.318	19.318	0.000	97	1822331	2.00	1.98	
104 Undecane	57	19.636	19.636	0.000	96	1044185	2.00	1.70	
105 1,2-Dibromo-3-Chloropropan	157	19.798	19.798	0.000	92	471657	2.00	2.17	
106 1,2,4,5-Tetramethylbenzene	119	20.089	20.089	0.000	98	1700832	2.00	2.02	
107 Dodecane	57	20.709	20.709	0.000	96	965647	2.00	1.54	
108 1,2,4-Trichlorobenzene	180	20.914	20.914	0.000	93	1037031	2.00	2.02	
109 Naphthalene	128	21.060	21.060	0.000	100	2067966	2.00	2.00	
110 Hexachlorobutadiene	225	21.275	21.275	0.000	95	922401	2.00	2.06	
111 1,2,3-Trichlorobenzene	180	21.351	21.351	0.000	96	1027082	2.00	1.97	
112 2-Methylnaphthalene	142	22.009	22.009	0.000	98	248447	2.00	0.5864	
113 1-Methylnaphthalene	142	22.138	22.138	0.000	97	220630	2.00	0.5670	
A 115 C8 Range	1	14.271	(14.228-14.314)		0	2730797	2.00	1.46	
S 116 Xylenes, Total	100				0		6.00	5.75	
S 117 1,2-Dichloroethene, Total	1				0		4.00	4.07	

Reagents:

40CV101P_00096	Amount Added: 100.00	Units: ml	
40MXISSURP_00004	Amount Added: 40.00	Units: mL	Run Reagent

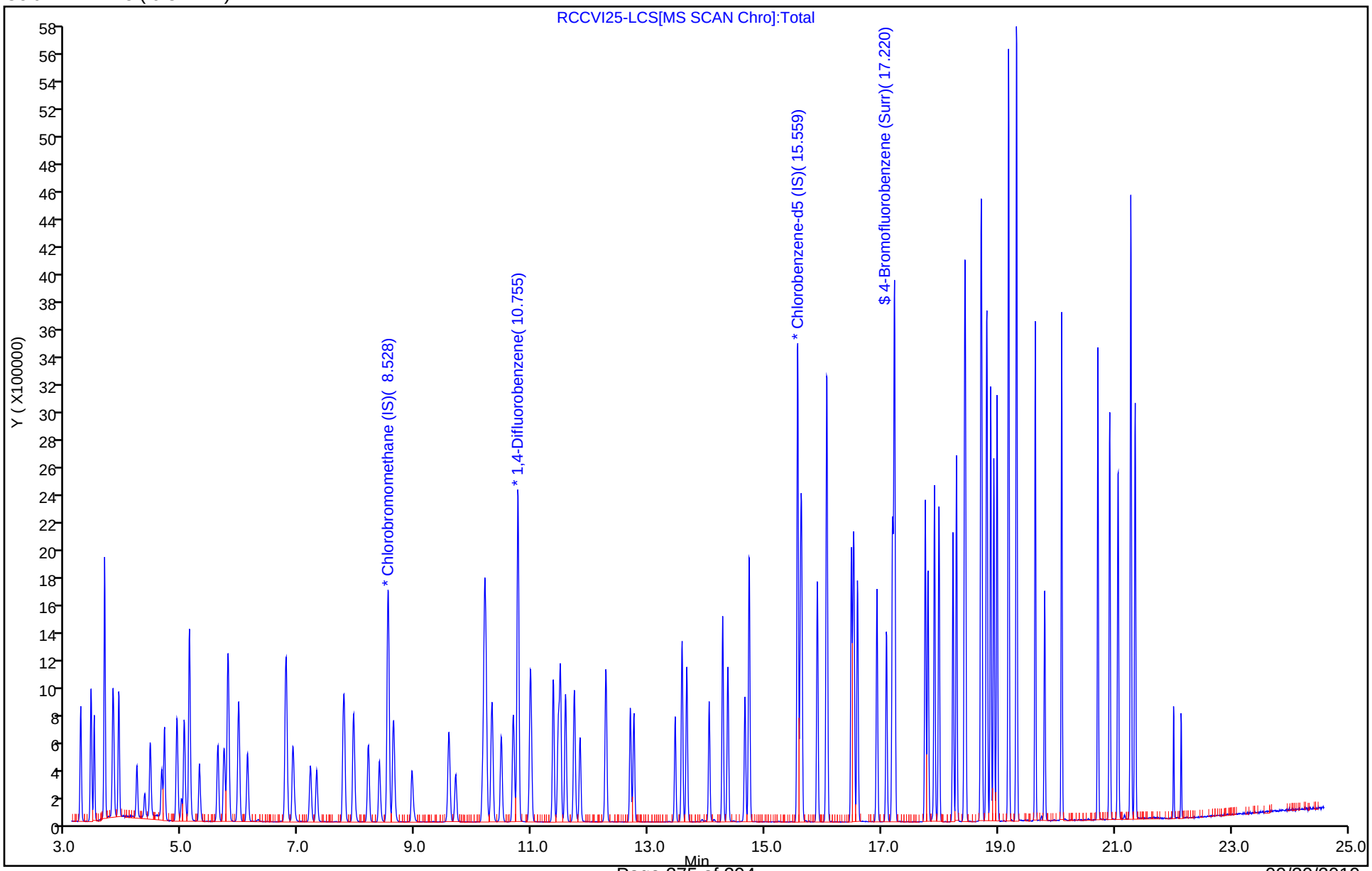
Report Date: 26-Sep-2019 10:41:17 Chrom Revision: 2.3 17-Sep-2019 16:19:08

TestAmerica Laboratories

Data File: \\chromna\Knoxville\ChromData\MR\20190924-13161.b\RCCVI25-LCS.d

Injection Date:	25-Sep-2019 08:56:30	Instrument ID:	MR	Operator ID:	HMT
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\RCCVI25-LCS.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	25-Sep-2019 08:56:30	ALS Bottle#:	15	Worklist Smp#:	1002
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0013161-002				
Misc. Info.:	P96				
Operator ID:	HMT	Instrument ID:	MR		
Method:	\\chromna\Knoxville\ChromData\MR\20190924-13161.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	26-Sep-2019 10:41:13	Calib Date:	04-Sep-2019 09:04:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MR\20190904-12950.b\RI03IC07R.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0317				

First Level Reviewer: khachitpongpanits Date: 26-Sep-2019 10:41:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 4-Bromofluorobenzene (Surr)	4.00	3.77	94.18

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Instrument ID: MR Start Date: 09/03/2019 09:57

Analysis Batch Number: 33257 End Date: 09/04/2019 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33257/1		09/03/2019 09:57	1	RBFBI03IC.D	RTX-5 0.32(mm)
IC 140-33257/2		09/03/2019 10:26	1	RI03IC09.D	RTX-5 0.32(mm)
IC 140-33257/4		09/03/2019 12:02	1	RI03IC10.D	RTX-5 0.32(mm)
IC 140-33257/7		09/03/2019 14:26	1	RI03IC01.D	RTX-5 0.32(mm)
IC 140-33257/8		09/03/2019 15:13	1	RI03IC02.D	RTX-5 0.32(mm)
140-15873-A-5 MDLV		09/03/2019 15:13	1		RTX-5 0.32(mm)
IC 140-33257/9		09/03/2019 16:02	1	RI03IC03.D	RTX-5 0.32(mm)
140-15873-A-6 MDLV		09/03/2019 16:02	1		RTX-5 0.32(mm)
IC 140-33257/10		09/03/2019 16:51	1	RI03IC04.D	RTX-5 0.32(mm)
140-15873-A-7 MDLV		09/03/2019 16:51	1		RTX-5 0.32(mm)
IC 140-33257/11		09/03/2019 17:39	1	RI03IC05.D	RTX-5 0.32(mm)
140-15873-A-8 MDLV		09/03/2019 17:39	1		RTX-5 0.32(mm)
IC 140-33257/12		09/03/2019 18:27	1	RI03IC06.D	RTX-5 0.32(mm)
IC 140-33257/14		09/03/2019 20:02	1	RI03IC08.D	RTX-5 0.32(mm)
ICV 140-33257/18		09/03/2019 23:14	1	RI03ICV.D	RTX-5 0.32(mm)
ZZZZZ		09/04/2019 01:44	1		RTX-5 0.32(mm)
ICIS 140-33257/23		09/04/2019 09:04	1	RI03IC07R.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Analysis Date:	9/3/19	Instrument:	MH	Chrom WL #:	12950	TALS Batch & Event #	TO14/15: 2118 33257	DOD5: 2119 / 33258
							DOD: 2121 / 33260	OHIO: 2120 / 33259

Chrom/Worklist Review	1st	Comments	2nd
1. Re-read each Limit Group [method editor-limit groups]	✓		na
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		na
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓	Reverse removed.	✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	na		ns
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• tric' orofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/ sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	na	MCV	ns
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓		✓

MLG Review	TO	DOD	OH	Comments	TO-	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1& 2 methylnaphthalene ≤ 50% Acetaldehyd + MeCl2 (routine) [F6 Σ]	✓	✓	✓	MeCl2 (routine)	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓		✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓		✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? (Note: Ohio does not allow quad) [F6]	✓	✓	✓		ns	ns	ns
18. If curves were used, is correlation coefficient ≥0.990? [F6]	✓	✓	✓		ns	ns	ns
19. Is the intercept less than the RL for each curve? [F6]	✓	✓	✓		ns	ns	ns
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	✓	✓	na		ns	ns	na
21. Is low point RSE ≤ 50 %? MeCl2 [F6]	✓	✓	✓		✓		
22. Is the second source analysis within limits? [F8 - icv]	✓	✓	✓		✓	✓	
Analyst/Date:				**2nd Level Reviewer/Date:**			

TALS Review	TO	DOD	OH	Comments	TO	DOD	OH
23. Upload ICAL	✓				na	na	na
24. Graphics uploaded? [paperclip]	✓	✓	✓		✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events – 'Fix ICAL linkage' if needed]	✓	✓	✓		✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓		✓	✓	✓
27. Run Checklist and acknowledge findings [F8]	✓	✓	✓		✓	✓	✓
28. If criteria not met, was a NCM generated?	ns	—			ns	ns	ns
29. After review in TALS, approve the method in TALS.	na	na	na		✓	✓	✓
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>	na	na	na		✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?	na	na	na		✓	✓	✓

Analyst/date:	2nd Level Reviewer/date:
Comments: OK 8. MeCl2 (routine) Bromofm OK 4 Bz Chloride OK 4	Comments:

9/4/19 MeCl2 OK DOD + Ohio

09/05/19

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16735-1

SDG No.:

Instrument ID: MR Start Date: 09/25/2019 08:29

Analysis Batch Number: 33870 End Date: 09/26/2019 08:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-33870/1		09/25/2019 08:29	1	RBFBI25.D	RTX-5 0.32(mm)
CCVIS 140-33870/2		09/25/2019 08:56	1	RCCVI25.D	RTX-5 0.32(mm)
LCS 140-33870/1002		09/25/2019 08:56	1	RCCVI25-LCS.d	RTX-5 0.32(mm)
MB 140-33870/4		09/25/2019 12:02	1	R500BI25.D	RTX-5 0.32(mm)
ZZZZZ		09/25/2019 12:52	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 14:57	6228.92		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 15:47	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 16:35	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 17:25	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 18:15	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 19:05	1		RTX-5 0.32(mm)
ZZZZZ		09/25/2019 19:53	1		RTX-5 0.32(mm)
140-16735-1		09/25/2019 20:41	1	RI25P107.D	RTX-5 0.32(mm)
140-16735-2		09/25/2019 21:29	1	RI25P108.D	RTX-5 0.32(mm)
140-16735-3		09/25/2019 22:18	1	RI25P109.D	RTX-5 0.32(mm)
140-16735-4		09/25/2019 23:07	1	RI25P110.D	RTX-5 0.32(mm)
140-16735-5		09/25/2019 23:55	1	RI25P111.D	RTX-5 0.32(mm)
140-16735-6		09/26/2019 00:43	1	RI25P112.D	RTX-5 0.32(mm)
ZZZZZ		09/26/2019 01:39	2.03		RTX-5 0.32(mm)
ZZZZZ		09/26/2019 02:33	1		RTX-5 0.32(mm)
ZZZZZ		09/26/2019 03:29	1.85		RTX-5 0.32(mm)
ZZZZZ		09/26/2019 04:27	1.44		RTX-5 0.32(mm)
ZZZZZ		09/26/2019 05:26	1.88		RTX-5 0.32(mm)
ZZZZZ		09/26/2019 06:18	1		RTX-5 0.32(mm)
140-16735-2 DL		09/26/2019 08:21	1	RI25P108DL.D	RTX-5 0.32(mm)

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

Instrument/Date	MR 9/25/2019		Routine	DOD	OHIO VAP
CCAL Chrom WL #	13161	CCAL Batch #	33870		
ICAL Chrom WL #	12950	ICAL Batch # / Event #	33257 / 2118	/	/

Chrom Review	1st	If No, why is data reportable?	2nd
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]	✓		na
2. Did BFB meet tune criteria? [F8]	✓	☐ [Failed TO-14A, but passes TO-15]	✓
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICal File batch #/start/end Cal date/time)? [F8]	✓	List Target analytes outside CCV limits:	✓
4. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane	✓		✓
• vinyl acetate / hexane	✓		✓
• cis- and trans- isomers	✓		✓
• ethyl benzene / m/p-xylene / o-xylene	✓		✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene/sec-butylbenzene/1,2,3-trimethylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene	✓		✓
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NA		NA
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
5. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	NA		NA
6. Has the RT been updated to the method?	✓		✓
Analyst/date Suphawan Kh 9/26/2019		**2nd Level Reviewer/date** 9/26/19	

7. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]	✓	✓ m sue	✓
8. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]	✓		✓
9. Can dilution history verified? [Mgmt Report]	✓		✓
10. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). *If no, list blank ID:*	✓	☐ Method Blank – Report, ND (NCM#_____) ☐ Method Blank – Report, 10X (NCM#_____)	✓
11. All runs - peaks ID'd correctly and false positives removed?	✓		✓
12. If manual integrations performed, are they properly performed, baseline clearly identified, and correct reason given?	✓		✓
13. IS/Surr within limits? *List samples and reason (e.g., 1 thru 5):* [Batch Results IS & SUR Tab] Sample / Reason / Sample / Reason	✓	☐ (1) Surrogate – Matrix (NCM#_____) ☐ (2) Surrogate – High, ND (NCM#_____) ☐ (3) ISTD – RA/RA Concurs (NCM#_____) ☐ (4) Surrogate –RX concur, Report both (NCM#_____) ☐ (5) ISTD – Matrix, DL required (NCM#_____)	✓
14. Samples outside calibration range scheduled for dilution?	✓	☐ ICAL – Range Exceeded; Minimum Dilution	✓

Chrom Review	1st	If No, why is data reportable?	2nd
15. For first analysis that is at a dilution, is highest target analyte >20% cal range? *List samples and reason:* Sample / Reason: 140-16717-6 limited vol., 140-16717-10 limited vol. / Sample / Reason: 140-16717-8 limited vol.	✓	☐ (1) Reporting Limit – Dilution, Matrix (NCM#_____) ☐ (2) Reporting Limit – Dilution, Non-Target (NCM#_____) ☐ (3) Issues with initial collection volume; see DRC. NCM 19815	✓
16. RIC inspected for proper integration for TPH?	NA		NA
17. Obvious non-TPH peaks excluded?	↓		✓
18. Individual TPH peak area < octane high point area?			

Eurofins/TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 20 & KNOX-MS-0023, Rev 4

TALS Review	1st	If No, why is data reportable?	2nd
19. Graphics uploaded? [open one paperclip]	✓		✓
20. NCM generated if BFB failed TO-14A criteria, but passes TO-15?	✓	☐ [Failed TO-14A, but passes TO-15] (NCM# 9811)	✓
21. Is the %D ≤ 30% for all target analytes? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	✓	☐ CCV - %D - LCS criteria met (NCM#_____) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#_____)	✓
22. Undiluted volume analyzed meets the method requirement (200 mL vs. 500 mL)?	✓		na
23. Project & sample special instructions verified?	✓		✓
24. If samples were Tedlar bags, was the 72 hr HT met? ** Narrate transfer to can.	NA	☐ Air Analysis - Air Sample Transfer to Canister (NCM#____)	MS
25. Sample analyses done within analytical holding time?	✓	☐ Holding Time – Received w/Insufficient Time (NCM#____) ☐ Holding Time – Receipt (NCM#_____)	✓
26. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). [Sample Results Tab] Note: No LCS required for OH VAP.	✓	☐ Marginal Exceedances - Within ME Limits and Random; Report (NCM# ___) ☐ LCS/LCSD - %R High (NCM#_____)	✓
27. Suffixes assigned properly (DL/RE)? [Sample List Tab]	NA		MS
28. Each job has QC created (BFB, CCV, LCS, MB)? [Sample List Tab]	✓		✓
29. Analytes over calibration range set to secondary [Conditions Review Tab]	✓		✓
30. Samples not reported set to 'Acceptable' or 'Rejected'? [Sample Results Tab]	✓		✓
31. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for n-butanol) *(If DUP not reported - set to 'Acceptable' for each job)*	✓		✓
32. Samples linked to proper blank (200 mL or 500 mL)? [QC links]	✓	**500 mL blank ID:** 140-33870/4 **200 mL blank ID:** 140-33870/5	✓
33. Samples linked to job's BFB/CCV/LCS/MB? [QC Links]	✓		✓
34. Correct ICV linked to each MB? [QC Links]	✓		✓
35. Were all samples/QC analyzed within 24 hr of BFB? [F7]	✓		✓
36. If criteria were not met, was a NCM generated, and assigned to proper QC & samples? [Also see Conditions Review Tab]	✓		✓
37. Run Checklist and acknowledge findings [F8]	✓		✓
38. Runs set to 1st level review?	✓	Runs set to 2nd level review?	✓
39. QC checker run and items addressed?	-na-		✓
40. Checklist & Entech report scanned, attached & assigned properly?	-na-		✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: Suphawan Kh.	Date: 9/26/2019	2nd Level Reviewer :	Date: 9/26/19
Comments:		**Comments:**	
CI lines 9-13			
1st level 4w28 9/26/19			
Example Calculation: 140-16735-1 TCE			
On-column ppbv x Final Vol (mL)/Entech Initial Vol (mL) x Canister Dilution Log DF			
4.706456 x 500 x 1.0 = 94.13 / 25			

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16735-1

SDG No.:

Batch Number: 33870 Batch Start Date: 09/25/19 08:29 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	InitialPressure	FinalPressure	40CV101P 00096	40MXISSURP 00004
BFB 140-33870/1		TO 15 LL		500 mL	500 mL	1	1		
CCVIS 140-33870/2		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL
MB 140-33870/4		TO 15 LL		500 mL	500 mL	1	1		40 mL
140-16735-A-1	BLDG A-INFLUENT	TO 15 LL	T	25 mL	500 mL	1	1		40 mL
140-16735-A-2	BLDG A-MID GAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16735-A-3	BLDG A-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16735-A-4	BLDG C-INFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16735-A-5	BLDG C-MID GAC	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16735-A-6	BLDG C-EFFLUENT	TO 15 LL	T	100 mL	500 mL	1	1		40 mL
140-16735-A-2	BLDG A-MID GAC	TO 15 LL	T	50 mL	500 mL	1	1		40 mL
LCS 140-33870/1002		TO 15 LL		500 mL	500 mL	1	1	100 mL	40 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	40MXSUR 00003					
BFB 140-33870/1		TO 15 LL		40 mL					
CCVIS 140-33870/2		TO 15 LL							
MB 140-33870/4		TO 15 LL							
140-16735-A-1	BLDG A-INFLUENT	TO 15 LL	T						
140-16735-A-2	BLDG A-MID GAC	TO 15 LL	T						
140-16735-A-3	BLDG A-EFFLUENT	TO 15 LL	T						
140-16735-A-4	BLDG C-INFLUENT	TO 15 LL	T						
140-16735-A-5	BLDG C-MID GAC	TO 15 LL	T						
140-16735-A-6	BLDG C-EFFLUENT	TO 15 LL	T						
140-16735-A-2	BLDG A-MID GAC	TO 15 LL	T						
LCS 140-33870/1002		TO 15 LL							

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Knoxvill Job No.: 140-16735-1

SDG No.:

Batch Number: 33870 Batch Start Date: 09/25/19 08:29 Batch Analyst: Khachitpongpanit, Suphawa

Batch Method: TO 15 LL Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16491-1

SDG No.:

Client Sample ID: 11657 Lab Sample ID: 140-16491-3

Matrix: Air Lab File ID: I03L16491.D

Analysis Method: TO-15 Date Collected: 08/30/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 09/03/2019 12:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33154 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.40	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.40	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.40	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.40	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
591-78-6	2-Hexanone	ND		0.40	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	
107-83-5	2-Methylpentane	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16491-1

SDG No.:

Client Sample ID: 11657 Lab Sample ID: 140-16491-3

Matrix: Air Lab File ID: I03L16491.D

Analysis Method: TO-15 Date Collected: 08/30/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 09/03/2019 12:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33154 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
67-64-1	Acetone	ND		7.5	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		1.0	
75-15-0	Carbon disulfide	ND		0.40	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		5.0	
141-78-6	Ethyl acetate	ND		2.0	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.40	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		1.2	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Knoxville Job No.: 140-16491-1

SDG No.:

Client Sample ID: 11657 Lab Sample ID: 140-16491-3

Matrix: Air Lab File ID: I03L16491.D

Analysis Method: TO-15 Date Collected: 08/30/2019 16:15

Sample wt/vol: 200(mL) Date Analyzed: 09/03/2019 12:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 33154 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		1.0	
91-20-3	Naphthalene	ND		0.40	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.40	
111-84-2	n-Nonane	ND		0.40	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		2.5	
115-07-1	Propene	ND		2.5	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		1.0	
98-06-6	tert-Butylbenzene	ND		0.40	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.40	

Eurofins TestAmerica, Knoxville
Target Compound Quantitation Report

Data File:	\\chromna\Knoxville\ChromData\MJ\20190830-12909.b\I03L16491.D				
Lims ID:	140-16491-A-3				
Client ID:	11657				
Sample Type:	Client				
Inject. Date:	03-Sep-2019 12:25:30	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-0012909-005				
Misc. Info.:	11657				
Operator ID:	007126	Instrument ID:	MJ		
Method:	\\chromna\Knoxville\ChromData\MJ\20190830-12909.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	04-Sep-2019 10:59:36	Calib Date:	20-Jul-2019 06:27:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Knoxville\ChromData\MJ\20190719-12415.b\JG19IC08.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	CTX0339				
First Level Reviewer: khachitpongpanits		Date:	04-Sep-2019 11:00:54		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.723	9.715	0.008	93	290715	4.00	
* 2 1,4-Difluorobenzene	114	11.832	11.829	0.003	95	1510725	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.442	16.445	-0.003	89	1311075	4.00	
$ 8 4-Bromofluorobenzene (Surr	95	18.045	18.043	0.002	96	880345	3.65	
20 Propene	41	4.182	4.164	0.018	96	17527	0.3046	
44 Methylene Chloride	84	7.060	7.058	0.002	98	20910	0.1912	

Reagents:

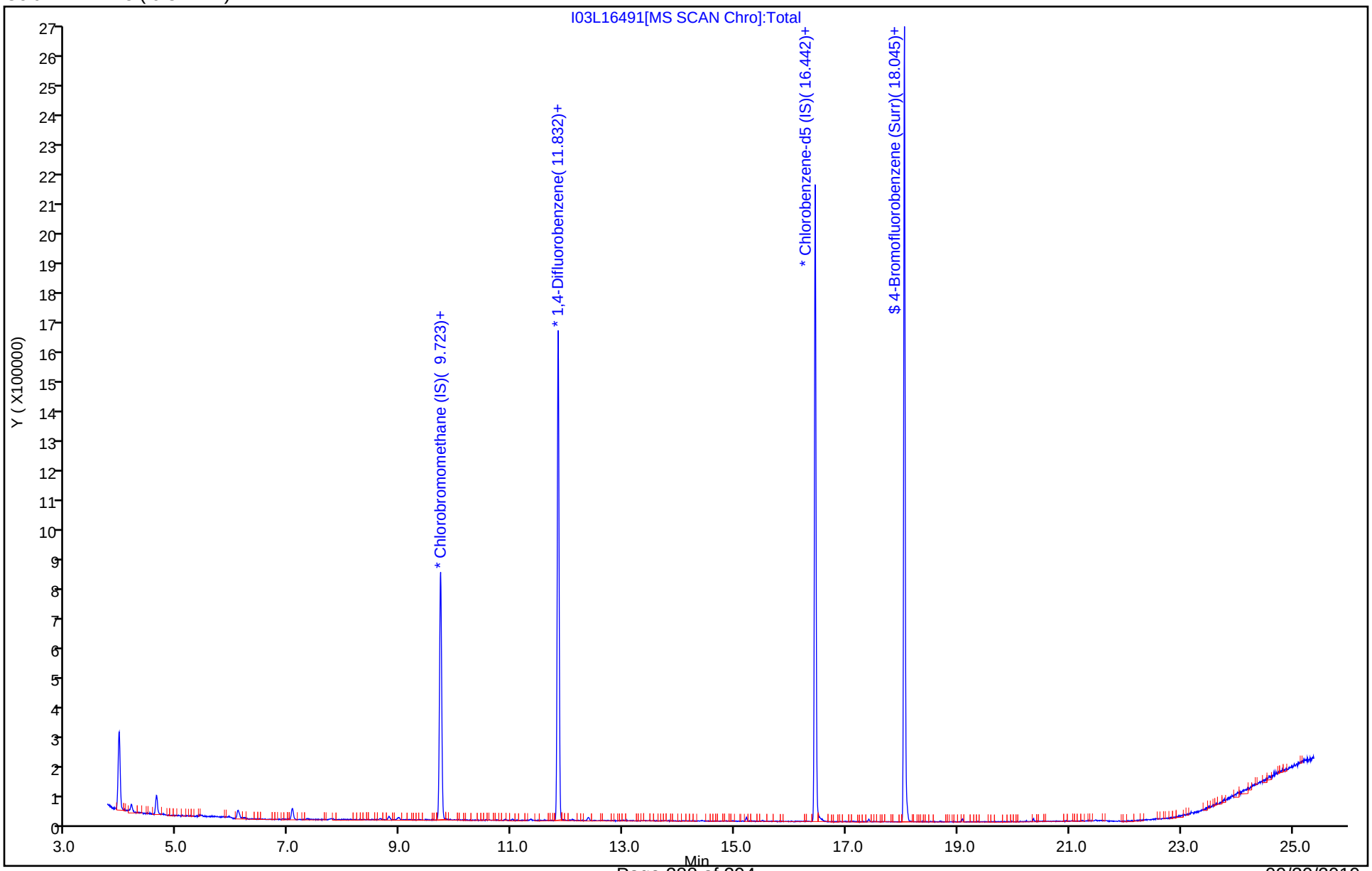
40MXISSURP_00004 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 04-Sep-2019 11:00:55 Chrom Revision: 2.3 22-Aug-2019 12:55:36

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190830-12909.b\I03L16491.D				
Injection Date:	03-Sep-2019 12:25:30	Instrument ID:	MJ	Operator ID:	007126
Lims ID:	140-16491-A-3	Lab Sample ID:	140-16491-3	Worklist Smp#:	5
Client ID:	11657				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



09/30/2019

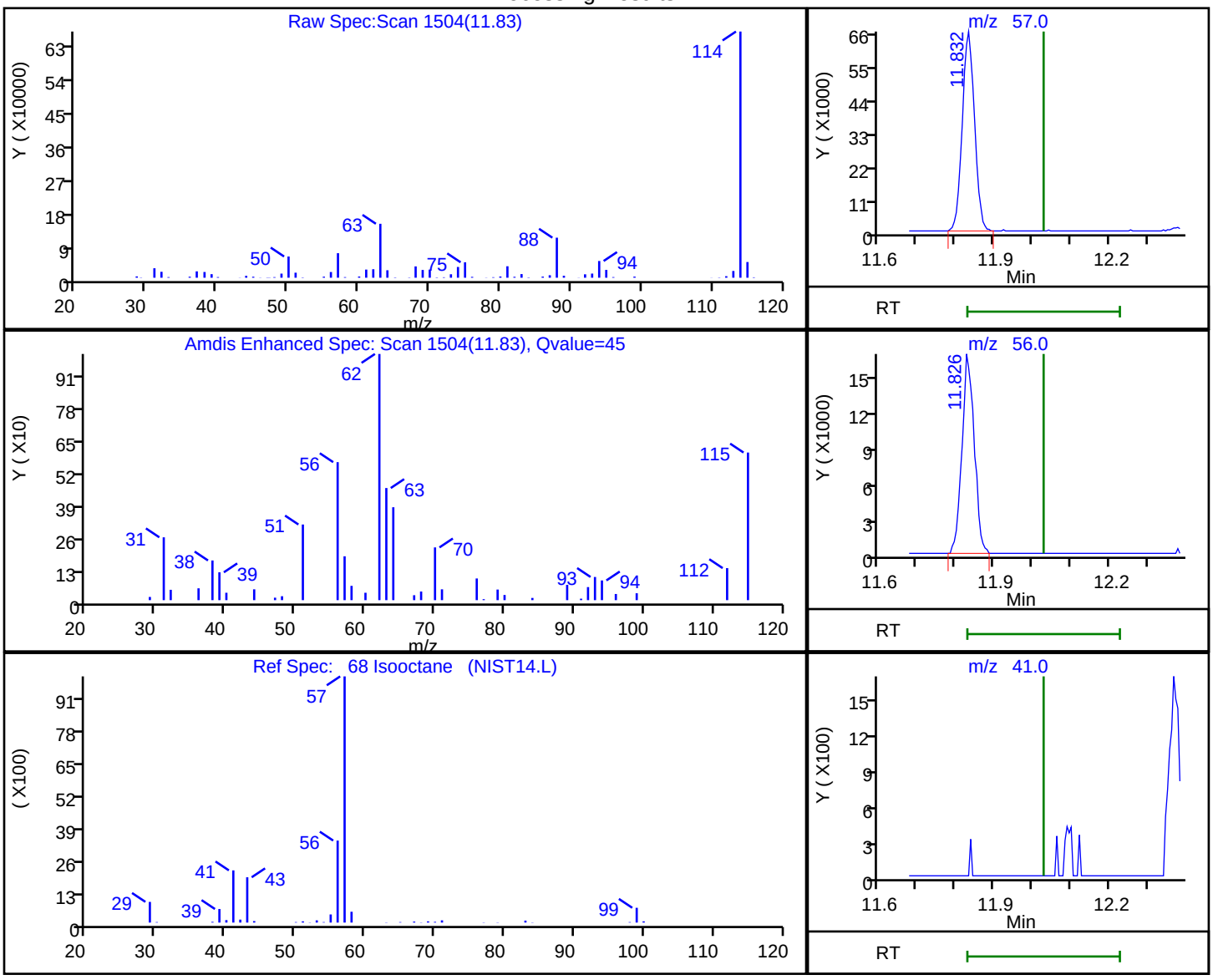
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190830-12909.b\I03L16491.D				
Injection Date:	03-Sep-2019 12:25:30	Instrument ID:	MJ		
Lims ID:	140-16491-A-3	Lab Sample ID:	140-16491-3		
Client ID:	11657				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

68 Isooctane, CAS: 540-84-1

Processing Results



RT	Mass	Response	Amount
11.83	57.00	147773	0.299427
11.83	56.00	36978	
12.03	41.00	0	

Reviewer: tajh, 03-Sep-2019 13:54:49

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

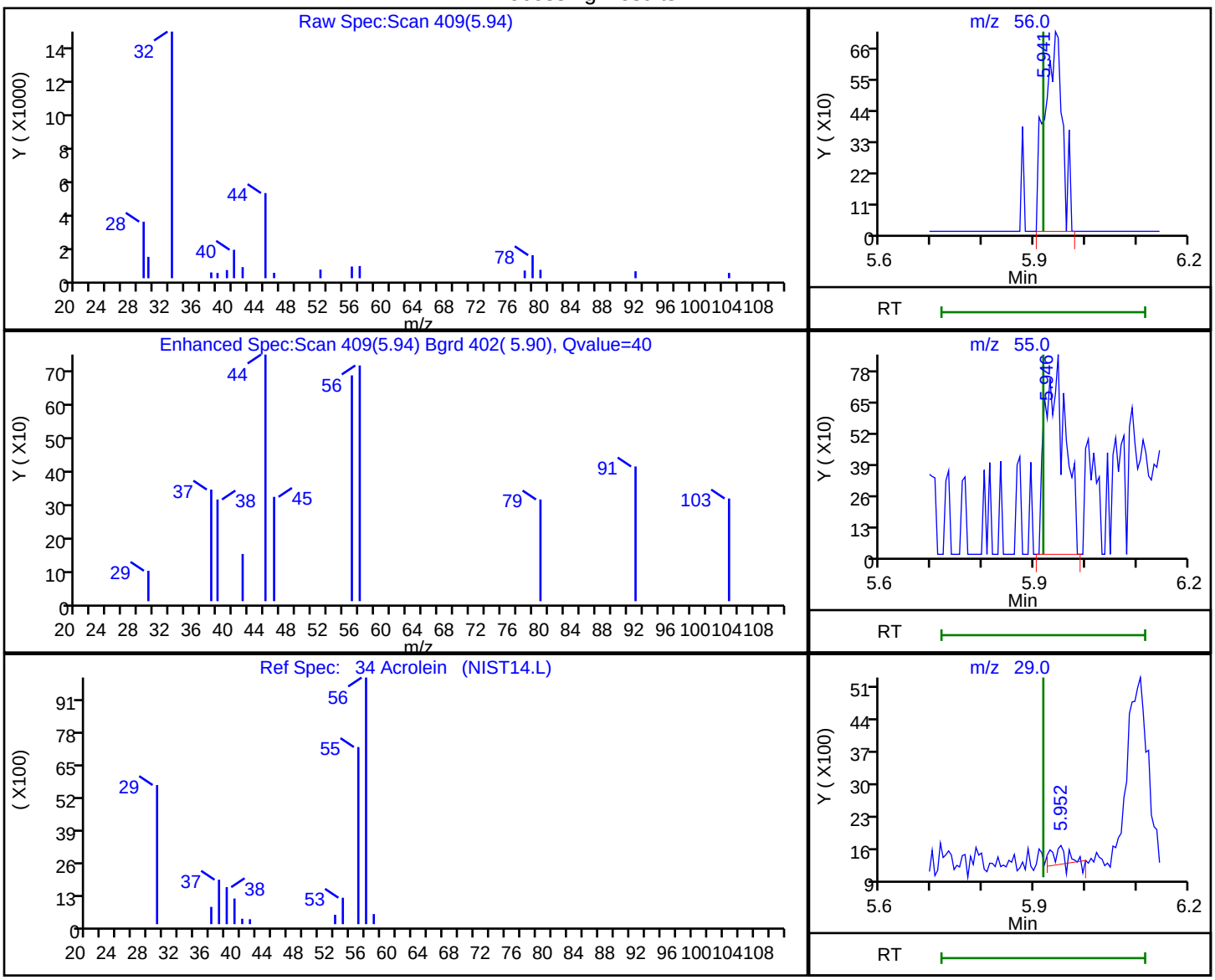
User Disabled Compound Report

Eurofins TestAmerica, Knoxville

Data File:	\\chromna\Knoxville\ChromData\MJ\20190830-12909.b\I03L16491.D				
Injection Date:	03-Sep-2019 12:25:30	Instrument ID:	MJ		
Lims ID:	140-16491-A-3	Lab Sample ID:	140-16491-3		
Client ID:	11657				
Operator ID:	007126	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

34 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
5.94	56.00	1738	0.091123
5.95	55.00	2299	
5.95	29.00	630	

Reviewer: tajh, 03-Sep-2019 13:54:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

Baltimore
#201

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone 865-291-3000
Fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

eurofins | Environment Testing TestAmerica

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	**Client Project Manager:** Peter Rich	**Samples Collected By:** Andrew Smith
Company Name: TetraTech	Phone: 410-990-4607	
Address: 980 Awalt Road Suite 307	Email:	
City/State/Zip Annapolis/MD/21403		
Phone: 410-990-4607	Site Contact:	
FAX:	Tel/Fax	
Project Name: Lockheed Martin MRC	Analysis Turnaround Time	
Site/Location: Middle River	Standard (Specific): ✓	
PO# 117-05121140	Rush (Specifiy):	

COC No: 1 of 1 COCs

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:
(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
Bldg A-Influent	9/23	14:03	9/23	14:04	-25	-4	09899	10703	X								X						
A-Mid GAC	9/23	13:57	9/23	13:58	-30	-4	10830	11852	X								X						
A-Effluent		13:52		13:52	-27	-4	10797	10966	X								X						
C-Influent		14:29		14:30	-30	-4	11594	11615	X								X						
C-Mid GAC		14:24		14:25	-29	-4	10614	09745	X								X						
C-Effluent	V	14:18	↓	14:19	-30	-4	10104	09589	X								X						CUSTODY SEALS INTACT
																							RECEIVED AMBIENT AT 19.3/CT 19.2
																							BKD 9-24-19
																							1 COOLER FEDX #
																							7763 1367 7146 PO

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop	~70		

Pressure (inches of Hg)			
Start	Interior	Ambient	
Stop			

6 CANS / 6 FLOWS (A)

140-16735 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:**	**Samples Received by:**
Samples Relinquished by:	**Date / Time:** 9/23/19 14:05	**Received by:**
Relinquished by:	**Date / Time:** 9/23/19 17:40	**Received by:** ETA KNT 9-24-19 10:07
Lab Use Only:	**Shipper Name:**	**Opened by:** **Condition:**

Form No. CA-C-WI-003, Rev. 2.13, dated 4/10/2019

Loc: 140
16735

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓		✓	☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?	✓			☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			//	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

Project #: 14002921 PM Instructions: _____

Sample Receiving Associate: Amy D Cannon Date: 9-24-19

QA026R32.doc, 062719

09/30/2019

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 9/24/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
afb	140-16735-A-1	11703	16491	b	1	-3.1	1500	
afb	140-16735-A-2	11857	16491	b	1	-4.0	1501	
afb	140-16735-A-3	10966	16491	b	1	-3.6	1502	
afb	140-16735-A-4	11615	16491	b	1	-3.6	1503	
afb	140-16735-A-5	09745	16491	b	1	-4.0	1504	
afb	140-16735-A-6	09589	16491	b	1	-3.6	1505	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)